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Experimental Stress Analysis and Fatigue Tests of Five 24-in. NPS ANSI Standard B16.9 Tees

S. E. Moore
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Engineering Technology Division

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FIVE 24-IN. NPS ANSI STANDARD B16.9 TEES

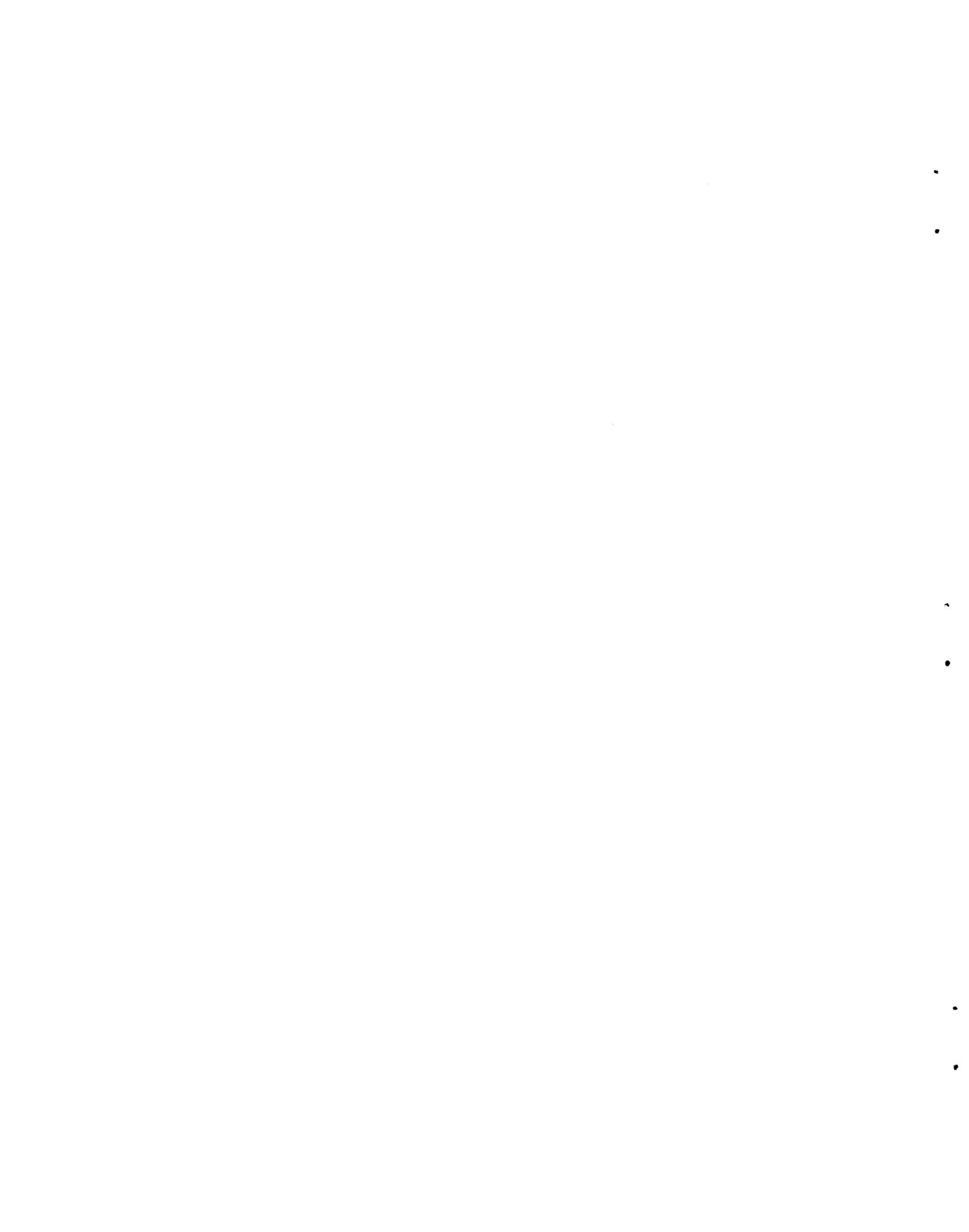
S. E. Moore J. K. Hayes
 R. A. Weed

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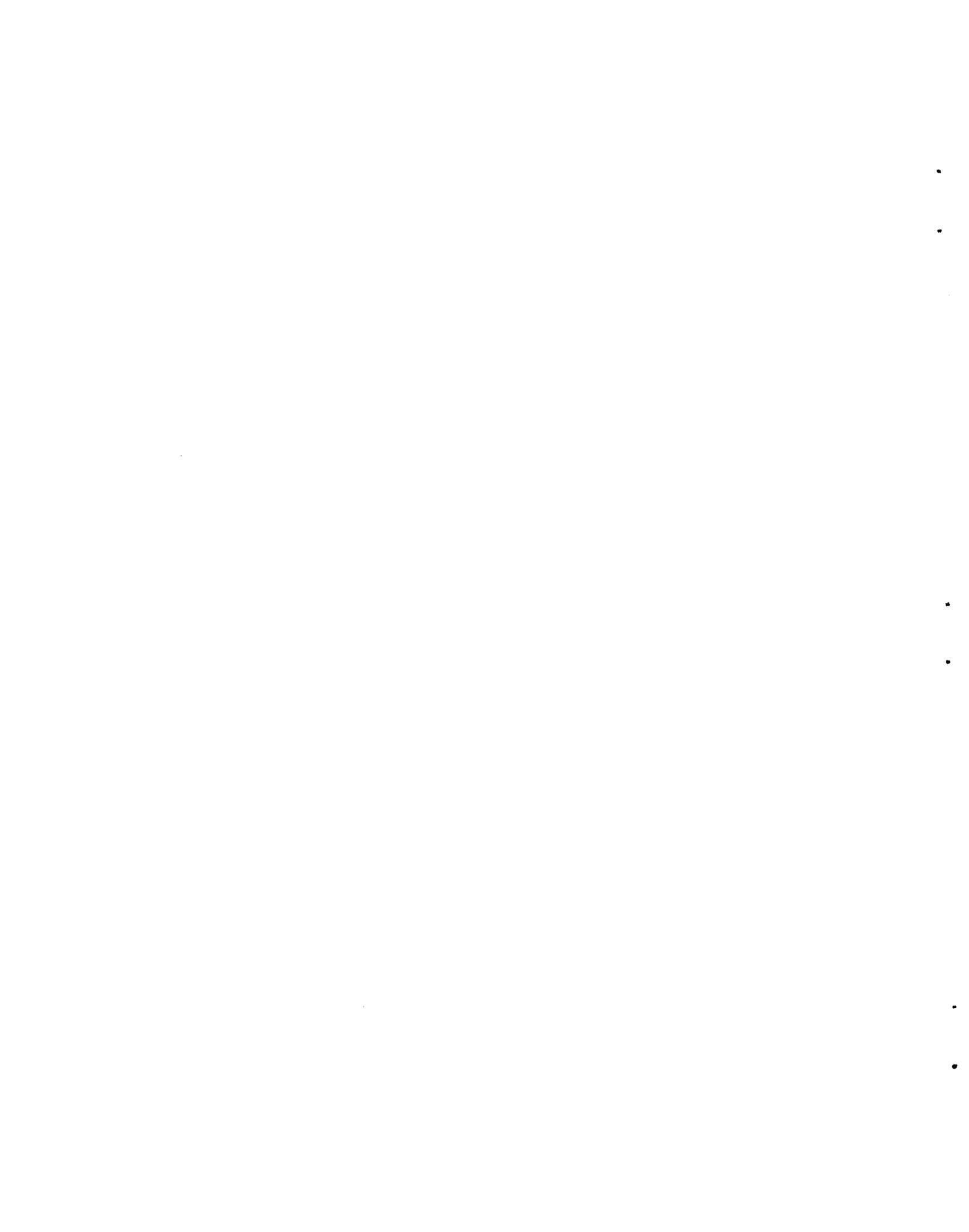
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FOREWORD

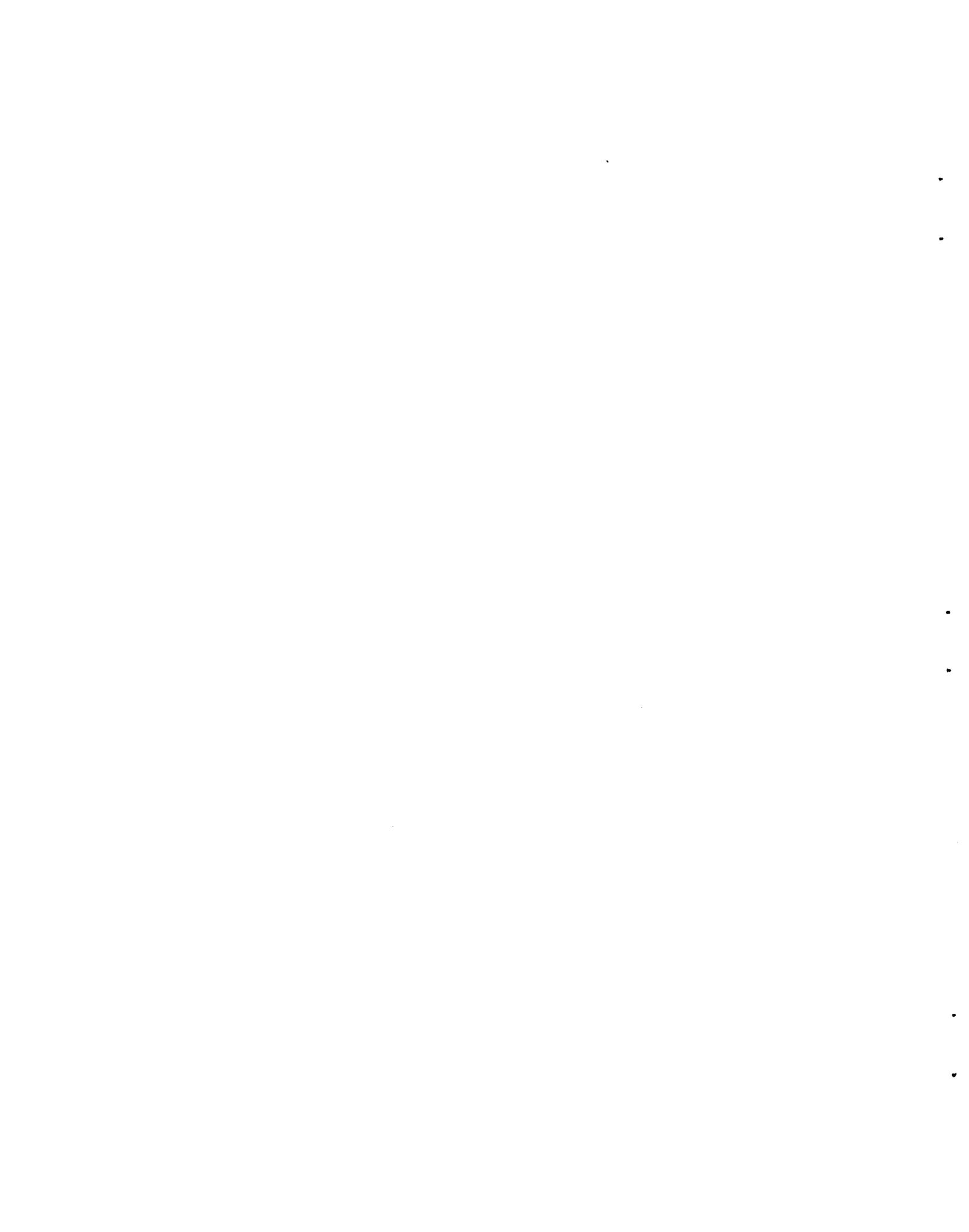
The work reported here was performed under the direction of the Oak Ridge National Laboratory (ORNL) in support of the ORNL Piping Program for the U.S. Atomic Energy Commission prior to formation of the U.S. Department of Energy. The experimental work was done in the Nuclear Components Testing Laboratory, Combustion Engineering, Inc., in Chattanooga, Tennessee, and the data were analyzed and tabulated at ORNL. The material presented in this report was collected and summarized at Mechanics Research Institute (MRI) under subcontract to ORNL. Publication of the report was funded by the David W. Taylor Naval Ship Research and Development Center (DTNSRDC), Annapolis, Maryland, under contract No. 61533-80-GO-0016. L. M. Kaldor, Code 2724, DTNSRDC, is the project engineer. S. E. Moore, Engineering Technology Division, ORNL, is the program manager.



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EXPERIMENTAL STRESS ANALYSIS AND FATIGUE TESTS OF
FIVE 24-IN. NPS ANSI STANDARD B16.9 TEES

S. E. Moore J. K. Hayes*
R. A. Weed†

ABSTRACT

Experimental stress analyses and low-cycle fatigue tests of five 24-in. nominal pipe size American National Standards Institute (ANSI) Standard B16.9 forged tees are documented in this report. The tees, designated as Oak Ridge National Laboratory tees T-10, T-11, T-12, T-13, and T-16, were tested under subcontract at Combustion Engineering, Inc. in Chattanooga, Tennessee.

Experimental stress analyses were conducted for 12 individual loadings on each tee. Each test model was instrumented with ~225, 1/8-in. three-gage, 45° strain rosettes on the inside and outside surfaces; and 6 linear variable differential transformers mounted on special nonflexible holding frames for measuring deflections and rotations of the pipe extensions. Normalized maximum stress intensities for each loading condition on each tee are summarized in the text. Complete sets of strain-gage data and normalized stresses for each tee are given on microfiche in the appendixes.

Following completion of the strain-gage tests, each tee was fatigue tested to failure with either a fully reversed displacement controlled in-plane bending moment on the branch or a cyclic internal pressure that ranged from a value slightly above zero to about 90% of the nominal yield pressure of the pipe extensions. A constant internal pressure equal to the nominal design pressure was maintained during the in-plane bending fatigue tests. Failure data from the fatigue tests are summarized in the text.

Keywords: experimental stress analysis, fatigue, nuclear piping, piping design, ANSI B16.9 tees.

1. INTRODUCTION

This report documents a series of experimental elastic-response stress analyses and subsequent low-cycle fatigue-to-failure tests of five 24-in. nominal pipe size (NPS) American National Standards Institute

* Combustion Engineering, Inc.

† Mechanics Research Institute.

(ANSI)* Standard B16.9 forged piping tees performed in support of the Oak Ridge National Laboratory (ORNL) Design Criteria for Piping and Nozzles Program.¹ The tests were conducted at Combustion Engineering, Inc. (CE) in Chattanooga, Tennessee, and the data were analyzed at ORNL. The material presented in this report was collected and summarized at Mechanics Research, Inc. (MRI).

ANSI B16.9 tees are a class of commercially available, butt-welding piping products fabricated in accordance with either the ANSI B16.9 or the MSS-SP48 manufacturing standard.^{2,3} These standards include dimensional and basic strength requirements for the fittings (piping products) as well as controls for certain other manufacturing variables. Fabricated fittings employing intersection welds, however, are considered as "pipe fabrication" and, as such, are specifically excluded.

In the design rules for nuclear piping systems, ANSI B16.9 tees are recognized as a class of piping products distinct from other types of tee joints. They are characterized by a smooth transition region[†] between the branch and run outlet and are normally formed from a segment of straight pipe using an external-surface die and some means for extruding the branch outlet. Ratios of the outside diameter of the branch to the outside diameter (OD) of the run (d_o/D_o) lie within the range of $\sim 1/3$ to 1, because the manufacturing standards do not include dimensions for smaller reductions.

The objective of our investigations on ANSI B16.9 tees was essentially to provide sufficient baseline structural response-to-load information to evaluate and/or improve the adequacy of current design rules and criteria for nuclear power plant piping systems as defined in Sect. III, Div. 1, of the *ASME Boiler and Pressure Vessel Code* (hereinafter referred to as the Code).⁴ However, because of the fundamental nature of the investigations, the information obtained will be useful in a much broader range of piping system design applications.

*The American National Standards Institute (ANSI) was formerly the American Standards Association (ASA).

[†]Dimensional details describing the geometry of the transition region are not included in the standard, and it is only because of established practice of the major suppliers that we may claim that a smooth transition is characteristic of B16.9 tees.

Specifically, the objectives of the tests described in this report were to obtain sufficient experimental elastic stress-strain-deflection data and fatigue-to-failure results from each tee to enable us to

1. experimentally describe the elastic stress distributions over the body of each tee for internal pressure and for a complete set of direct force and moment loading conditions;
2. locate the maximum stresses and determine their magnitudes for each loading condition;
3. determine the relative importance of transverse shear force and bending moment loads on tees in a piping system;
4. provide experimental benchmark data for comparison with analytical solutions and photoelastic model studies;
5. determine experimental values for the stress indices and flexibility factors for individual and combined loading conditions for comparison with Code values; and
6. provide component fatigue-to-failure data for comparison with Code design criteria and analysis procedures.

The five 24-in. NPS ANSI B16.9 tees used in the experimental stress analysis and low-cycle fatigue tests performed at CE are described in Table 1.1. The tees were off-the-shelf products that would normally be supplied to the builder of a nuclear power plant. All five tees were fabricated by the same manufacturer (designated as Manufacturer No. III in a similar study of 12-in. ANSI B16.9 tees).⁵

Table 1.1 lists the nominal size and material for each tee. Three of the tees were full-outlet (T-10, T-11, and T-16) and two were reduced-outlet tees (T-12 and T-13). The nominal wall thickness ranged from sched. 10 (T-16) to sched. 160 (T-11 and T-13); T-16, however, was forged as a sched. 20 tee and through-bored on both the branch and the run to conform with the standard sched. 10 dimensions at the welding ends. Standard nominal dimensions^{6,7} of the "equivalent" size pipe are given in Table 1.2.

Four of the tees were made from carbon steel, and one (T-16) was made from type 304L stainless steel. Material properties, obtained from the manufacturer, are listed in Table 1.3. Included in Table 1.3 are the

Table 1.1. ORNL tee designations

Tee	Nominal size (in. NPS)	Nominal thickness ^a (sched.)	Material ASTM designation	Manufacturer
T-10	24 × 24 × 24	40	A 212-61T Grade B	III
T-11	24 × 24 × 24	160	A 105 Grade 2	III
T-12	24 × 24 × 10	40	A 515 Grade 70	III
T-13	24 × 24 × 10	160	A 105 Grade 2	III
T-16	24 × 24 × 24	10	SA 312 Type 304 L	III

^aFor nominal dimensions of "equivalent" size pipe see Table 1.2.

Table 1.2. Nominal dimensions^a of
equivalent size pipe for ORNL
24-in. NPS B16.9 tees

Tee	Outside diameter (in.)		Wall thickness (in.)	
	Run (D _o)	Branch (d _o)	Run (T _r)	Branch (T _b)
T-10	24.000	24.000	0.687	0.687
T-11	24.000	24.000	2.343	2.343
T-12	24.000	10.750	0.687	0.365
T-13	24.000	10.750	2.343	1.125
T-16	24.000	24.000	0.250	0.250

Tee	Section modulus (in. ³)		Cross-sectional area (in. ²)	
	Run (Z _r)	Branch (Z _b)	Run (A _r)	Branch (A _b)
T-10	285.0	285.0	50.3	50.3
T-11	788.0	788.0	159.4	159.4
T-12	285.0	29.91	50.3	11.91
T-13	788.0	74.3	159.4	34.02
T-16	109.6	109.6	18.7	18.7

^aNominal pipe dimensions taken from
Ref. 7.

Table 1.3. Material properties^a of tees

Tee	Lot No.	Mill heat No.	From mill test report			From forging end-clippings		
			S _y (psi)	S _u (psi)	Percent elongation	S _y (psi)	S _u (psi)	Percent elongation
T-10			45,600	75,600	27.8			
T-11	S-3585	6021800	41,000	70,000	31.5	44,100	74,100	36.0
T-12	P-4195	516W0765	50,600	78,000	23.0	49,800	78,400	30.0
T-13	S-3586	6021800	49,000	71,000	33.0	44,100	74,100	36.0
T-16	P-6453	500281-1A	38,000	83,000	53.0	42,400	80,900	67.5

^aS_y = Yield strength.

S_u = Ultimate tensile strength.

manufacturer's lot number and mill heat number for the steel, and yield strength (S_y), ultimate strength (S_u), and percent elongation from both the mill test reports and from specimens made from the forging end-clippings.

The tests were conducted at CE in accordance with Union Carbide Job Specification JS-115-231 included in Appendix I. When the tees, along with their quality control documentation, were received from the manufacturer, they were inspected and measured in the Oak Ridge Gaseous Diffusion Plant Dimensional Inspection Department to ensure conformance with the purchase specification and the ANSI B16.9 standard. Crotch radii, wall thicknesses, and outside diameters at various positions on the body of the tees were also measured and recorded. These "as-built" dimensions are given in Appendix II. Figures 1.1-1.3 are photographs of T-11, T-12, and T-13, respectively, undergoing dimensional inspection.

All the design, fabrication, and test work was conducted at CE in accordance with rather detailed instructions and guidelines specified by ORNL. Prior approval was required for all critical operations, including items such as welding procedures and welder qualifications for the pipe-to-tee joints, strain-gage and linear variable differential transformer (LVDT) layout and placement, loading fixtures and application, strain-gage readings and data reduction, and loading conditions and operation of the fatigue tests. CE was responsible for the load frame, fabrication of the test assemblies, instrumentation and operation of the tests, reduction of the raw data to engineering strains and stresses, and transmittal of the data to ORNL for further evaluation and analysis. Strain-gage and LVDT location data are given in Appendix III. Test model fabrication and assembly drawings are given in Appendix IV.

Chapter 2 of this report includes a detailed description of the test setup and test procedures. The tests performed on each tee included a series of elastic-response strain-gage tests and a low-cycle fatigue-to-failure test. The bulk of the content of Chap. 2 was abstracted from CE test reports.⁸⁻¹²

Chapter 3 contains a complete discussion of the results from the elastic-response and flexibility tests. The elastic strain-gage evaluation and reduction to normalized stresses is discussed in Sect. 3.1.

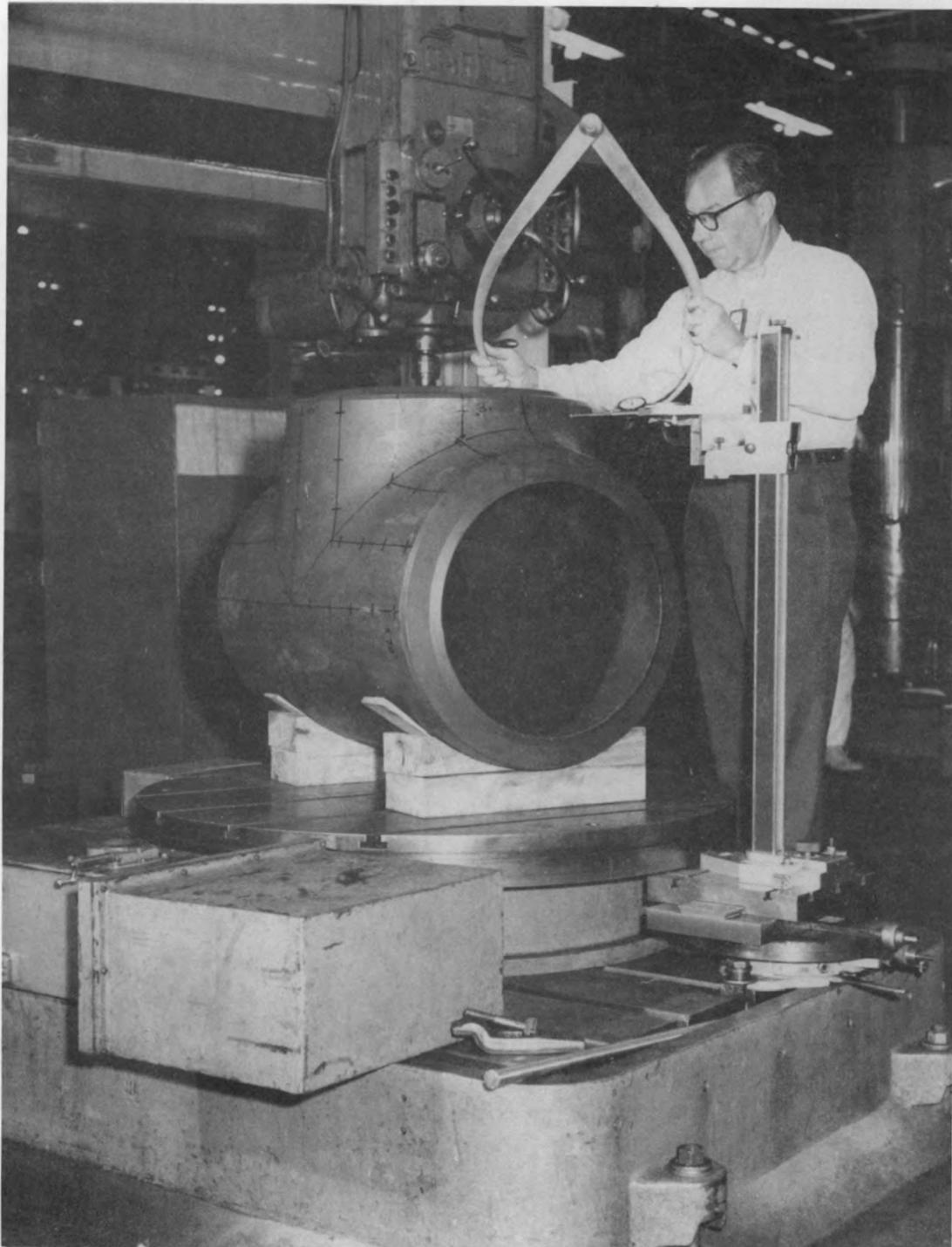


Fig. 1.1. Dimensional inspection of 24 × 24-in. NPS sched. 160 ANSI B16.9 tee — ORNL T-11.



Fig. 1.2. Dimensional inspection of 24 x 10-in. NPS sched. 40 ANSI B16.9 tee — ORNL T-12.

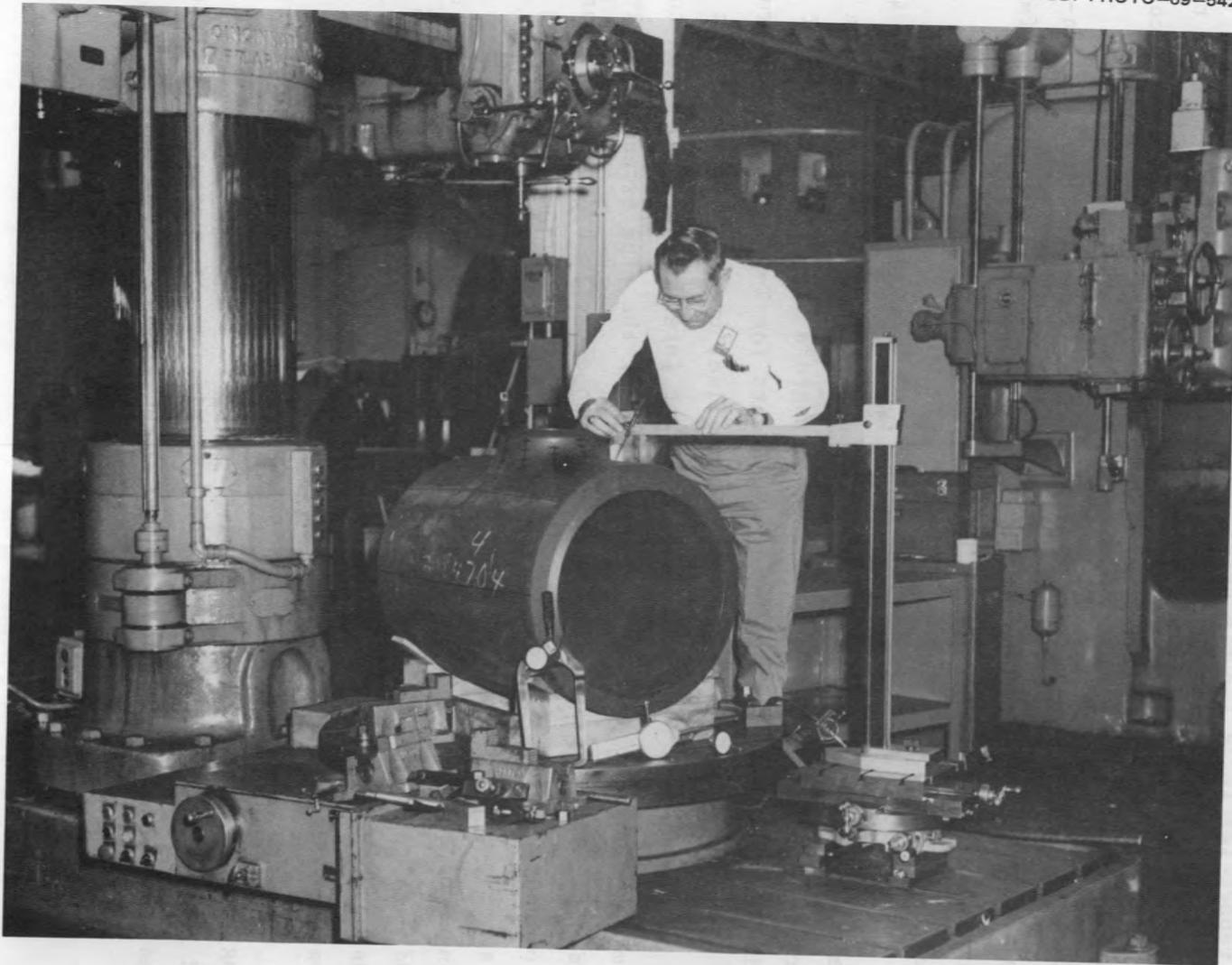


Fig. 1.3. Dimensional inspection of 24 x 10-in. NPS sched. 160
ANSI B16.9 tee - ORNL T-13.

Experimental values for the individual load stress indices (maximum normalized principal stress differences) are discussed in Sect. 3.2. Most of the data are presented on microfiche in the appendixes at the end of this report for those readers needing benchmark information. Results from the initial data reduction are given in Appendix V. Listings of the final normalized stress intensities for each gage site and each load condition are given in Appendix VI. Comparable information is presented graphically in Appendix VII. A representative set of the data (for internal pressure) is included in Sect. 3.3. Experimental flexibility factors obtained from measured rotations of the pipe extensions are discussed in Sect. 3.4.

Results from the fatigue-to-failure tests are discussed in Chap. 4. These tests were intended to provide component failure data within the low-cycle range of 500 to 100,000 cycles where a significant amount of cyclic plastic strain is expected. The tests for T-10 and T-16 were run with a fully reversed, displacement-controlled, cyclic in-plane moment load on the branch, superposed on a constant internal pressure equal to the maximum Code-allowable design pressure for the pipe extensions. The tests for T-11, T-12, and T-13 were run with a cyclic hydrostatic internal pressure that ranged between a minimum near zero (100 psi or less) and a maximum value corresponding to about 90% of the nominal yield strength of the pipe extensions. Failure for both types of tests was defined as a through-the-wall crack in the tee or one of the pipe-to-tee welds as evidenced by a pressure leak. Postfailure test results for three of the tees are given in Appendix VIII.

Results from both the elastic-response and fatigue-to-failure tests, along with similar results from 12-in. ANSI B16.9 tee tests,⁵ will be used in a separate report to discuss the adequacy of current Code procedures for the design of nuclear power plant piping systems.

2. TEST DESCRIPTION

The test work description given in this chapter is divided into three general categories: preparation of the test assemblies (models), performance of the static elastic-response tests, and performance of the fatigue-to-failure tests. Results are discussed in Chaps. 3 and 4.

2.1 Preparation of the Test Assemblies

General preparations for conducting the tests consisted primarily of constructing and instrumenting the five test models. The instrumentation consisted basically of 1/8-in. foil, three-gage strain rosettes for measuring strains and LVDTs for measuring relative displacements and rotations. The loading facility and data logging equipment already existed at CE where they had been used in previous studies of large piping components.¹³ The only additional equipment needed for the ORNL tests were hydraulic pressure intensifiers and related controls for the pressure fatigue tests.

Prior to constructing the test assemblies, the weld preps at each end of the tee and branch were remachined perpendicular to the axes of the tee for later use as reference surfaces in positioning the strain gages. The inside and outside surfaces that were to be strain gaged were ground and polished. For all the tees except T-16, "as-built" dimensions had been carefully determined when the tees were received at ORNL from the manufacturer. These included outside surface radii and wall thickness measurements at selected positions on the body of each tee. These data are given in Appendix II. In addition, plaster-of-paris moldings of the inside and outside surfaces were made as semipermanent records of the tee geometry. Some of the figures in Appendix II include drawings of the crotch regions that were traced from the plaster-of-paris moldings.

2.1.1 Strain-gage layout

Each tee was instrumented with between 210 and 240, 1/8-in. three-gage foil-type strain rosettes located in two diagonally opposite quadrants on the inside and outside surfaces. Quadrant 1 is defined as the

shaded region in Fig. 2.1 with coordinate positions $(+X, +Y, +Z)$. Quadrant 2 is the diagonally opposite region with coordinate positions $(-X, +Y, -Z)$. When the test models were mounted in the loading frame, these two quadrants were located on the top and bottom of the model, respectively.

Two different schemes were used for laying out the strain-gage locations. For the full outlet tees (T-10, T-11, and T-16), the gages in each quadrant were arranged in five rows as shown in Fig. 2.2. Rows 1 and 5 are located in the transverse Y-Z plane and the longitudinal X-Y plane as indicated in Fig. 2.1. Rows 2, 3, and 4 are located in planes radial to the branch and the run centerlines at $22\text{-}1/2^\circ$ increments from

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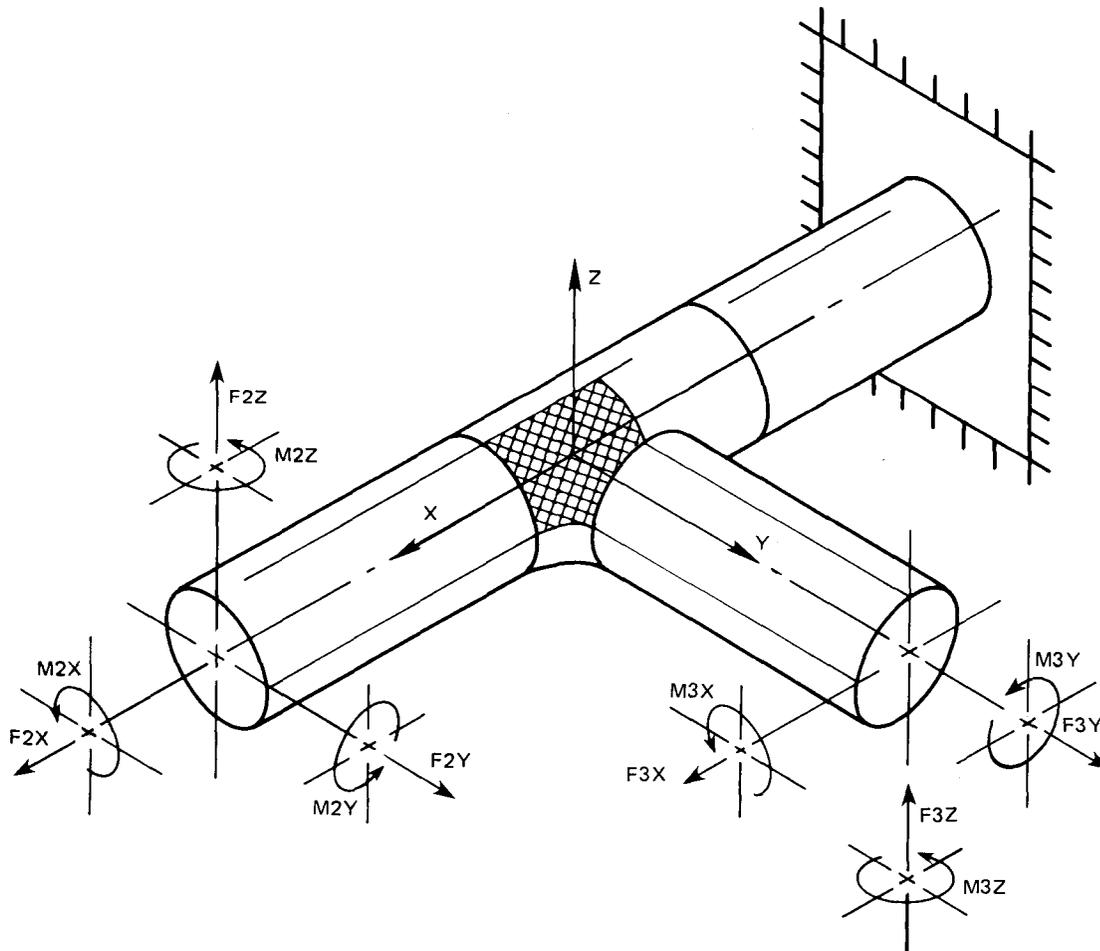


Fig. 2.1. Coordinate system and test loading sign convention.

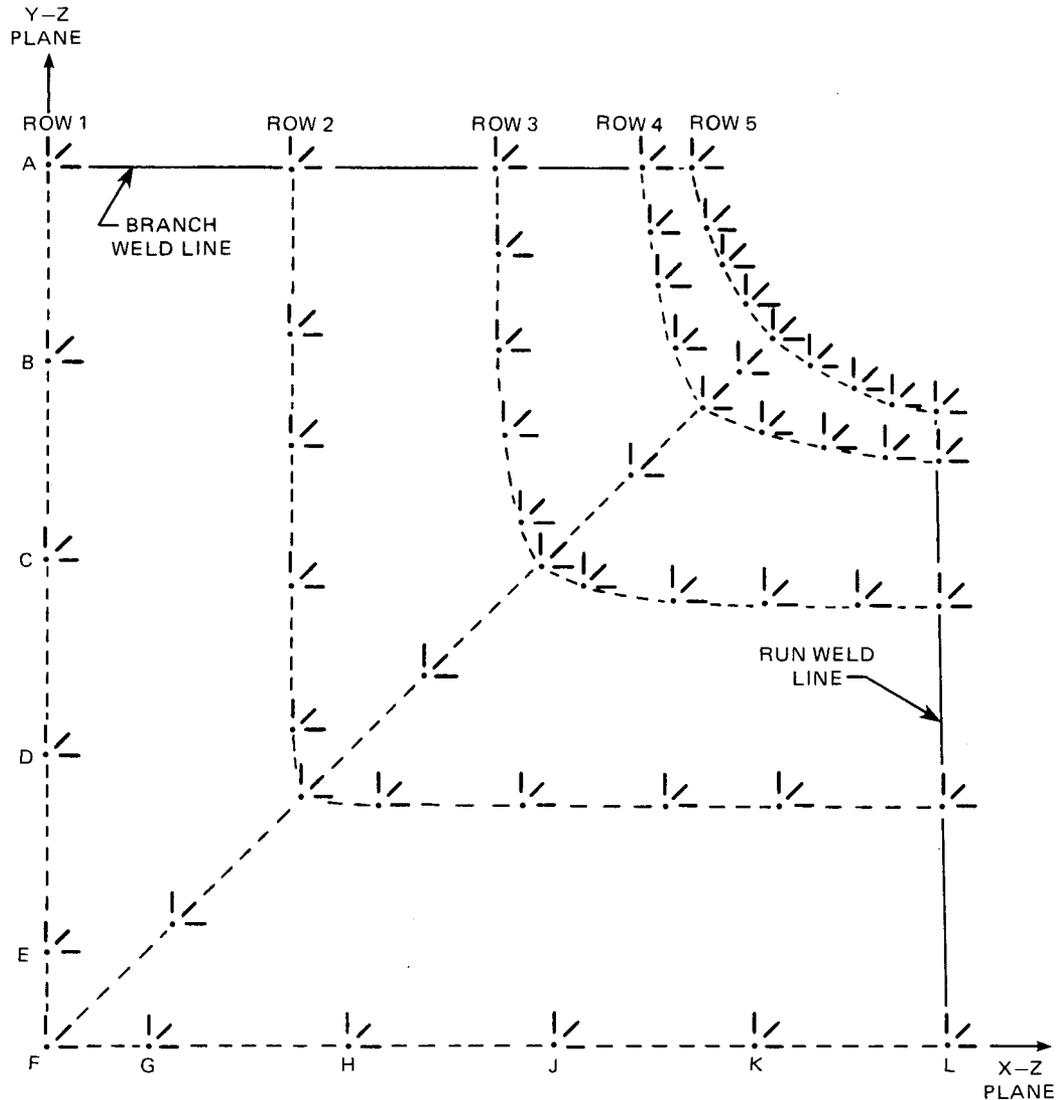


Fig. 2.2. Typical strain-gage layout for full-outlet tees (T-10, T-11, and T-16).

the X-Y and Y-Z planes. The crotch line is the line joining the intersections of the two sets of radial planes. The weld preps at each of the three ends of the tees, which had previously been machined perpendicular to the tee axes, were used as reference planes in laying out the row lines while the tees were resting on a flat surface marble table.

Gage positions for both the inside and outside surfaces were marked off on the row lines with dividers. Eleven gage sites were positioned on

each row line with extra gages on the crotch line (T-16 only) midway between the row lines as shown in Fig. 2.2. An additional row of gages was also placed on the "back" of the tees in the longitudinal X-Y plane.

For the two reducing outlet tees (T-12 and T-13) the gages in each quadrant were arranged in six rows as shown in Fig. 2.3. Rows 1 and 6 are located in the transverse Y-Z and longitudinal X-Y planes, respectively. The intermediate rows, however, are located entirely in planes

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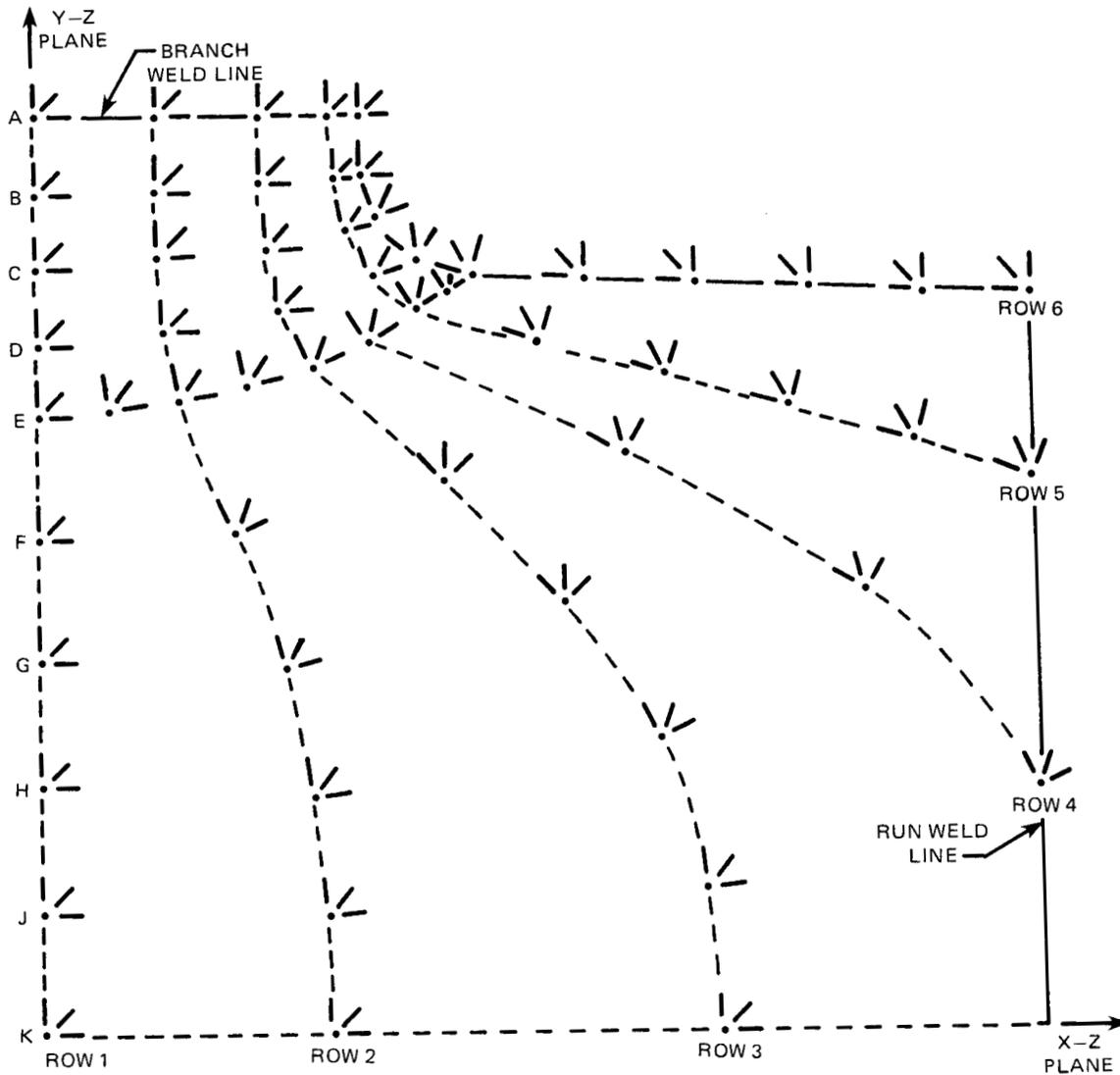


Fig. 2.3. Typical strain-gage layout for reducing-outlet tees (T-12 and T-13).

radial to the axis of the branch. Rows 2, 3, and 5 are in radial planes at $22\ 1/2^\circ$ increments around the branch. Row 4 is in a radial plane midway between rows 3 and 5, that is, at $56-1/4^\circ$ from the Y-Z plane, but only on the run side of the crotch line. For the reducing tees, the crotch line is defined as the outside surface junction between the cylindrical body of the run and the transition to the branch. The inside surface gage lines were on radial planes at the nozzle end and in the run portion of the tees "below" the crotch line. In the transition region, the inside gages are located "through-the-wall" perpendicular to the outside surface gage sites.

As shown in Fig. 2.3, row lines 1, 2, and 3 extend from the branch end to the midplane of the run (the X-Z plane), whereas rows 5 and 6 extend from the branch end to the run end. Row 4 extends only over the run portion of the tee from the crotch line to the run end. Ten gages were located on each row line, except row 4, with four positions "above" and five positions "below" the crotch line. Gage positions were also located at the intersections of the crotch line and row lines. For T-12 additional gages were also located on the crotch line midway between the row lines.

The gage sites for all five tees were located using dividers, which give chord distances rather than true surface distances. The only disadvantage to this scheme is that through-the-wall positions may not always be perpendicular to the midsurface and may therefore make it more difficult to determine the membrane and shell bending stresses.

After the gage locations were marked, the tees were repositioned on the marble table so that the X, Y, or Z coordinates could be measured with a vernier height gage. These coordinate dimensions are listed in Appendix III. Figures in Appendix III also show the gage layouts for each tee and the equations used to convert vernier height measurements to XYZ coordinates. Dimensions not shown on the data sheets correspond to gage positions at the pipe-to-tee welds, which could not be accurately measured until after the test models had been assembled.

The following scheme was used for identifying gage positions. Each position was assigned a five-character label ($P_1-P_2-P_3-P_4-P_5$), with the first character $P_1 = I, O$ indicating either the inside surface (I) or the

outside surface (0). The second character $P_2 = 1, 2$ indicates the quadrant number. The next two, P_3 and P_4 , identify the row line, that is, $P_3 P_4 = R_1, R_2, \dots, R_6$; and the last character $P_5 = A, B, \dots, K$ identifies the position number along the row line, as shown in Figs. 2.2 and 2.3. These positions are lettered consecutively from the branch weld end with the letter "I" omitted from the sequence. The crotch line is identified as row 7 ($P_3 P_4 = R_7$), except for T-16 where $P_3 P_4 = CR$. Rosette No. 0-2R3-G, for example, is located on the outside surface in quadrant 2 on row 3 in the G position (seventh gage).

After the test assemblies were partially fabricated they were instrumented with 45° , three-gage, constantan-foil strain rosettes with 1/8-in. grid lengths. The four carbon steel tees were instrumented with Micro-Measurement brand Type EA-06-126-120 strain rosettes. Type EA-09-126-120 rosettes were used for the stainless steel tee T-16. In general, the rosettes were oriented with either the No. 1 or No. 3 leg lying along the row line, although a few exceptions may be noted in the detailed gage layout figures of Appendix III. The directions of the principal stresses presented later in this report are given relative to the row line, with a positive angle being counterclockwise.

The gages were bonded to the surfaces with Eastman brand 910 cement and were moisture proofed with Micro-Measurement brand M coat-A sealant. The gages were connected to the data acquisition equipment using a standard three-lead-wire system to prevent temperature changes in the lead wires from affecting the data.

Each test model was also instrumented with LVDTs to measure relative displacements and rotations of the pipe legs for later use in determining flexibility factors. Six LVDTs, accurate to 0.0001 in., were mounted on special nonflexible holding frames attached to the pipe legs as shown in Figs. 2.4 and 2.5. The arrangement shown in Fig. 2.4 was used to measure rotations of the branch with respect to the fixed end of the run. The arrangement shown in Fig. 2.5 was used to measure rotations of one end of the run with respect to the other end. Specific hardware dimensions at assembly, LVDT numbers, and LVDT support arrangements and locations used in the test program are given in Appendix III.

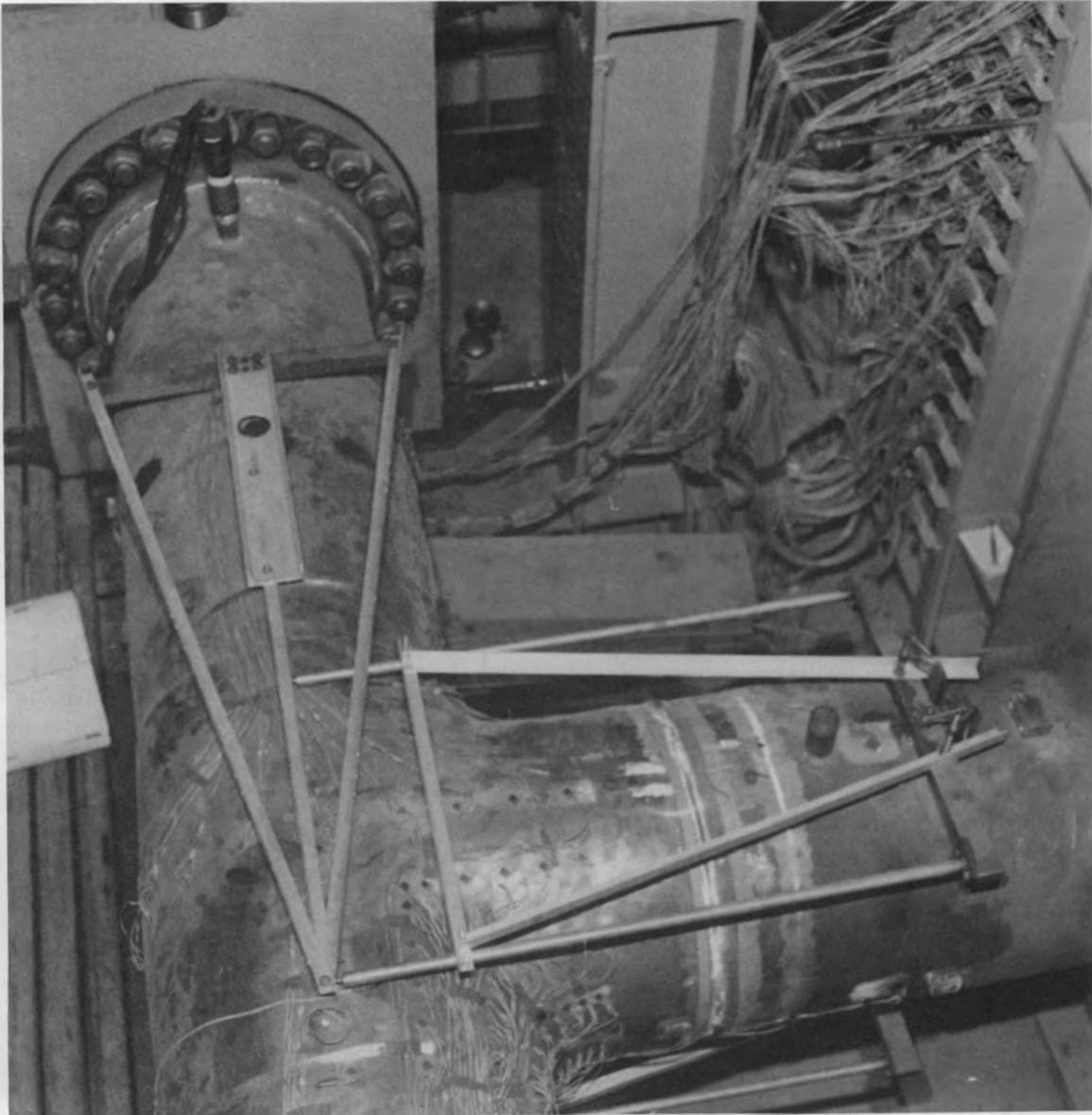


Fig. 2.4. Test model T-10 with LVDT instrumentation for measuring in-plane rotations of branch with respect to fixed end of run.

2.1.2 Test model fabrication

Each test model assembly consisted of a 24-in. NPS ANSI Standard B16.9 forged piping tee; three straight pipe extensions, ~70 in. long, welded to the tee outlets; three welding pipe caps to close the ends of the pipe; three ANSI standard pipe flanges for application of the test

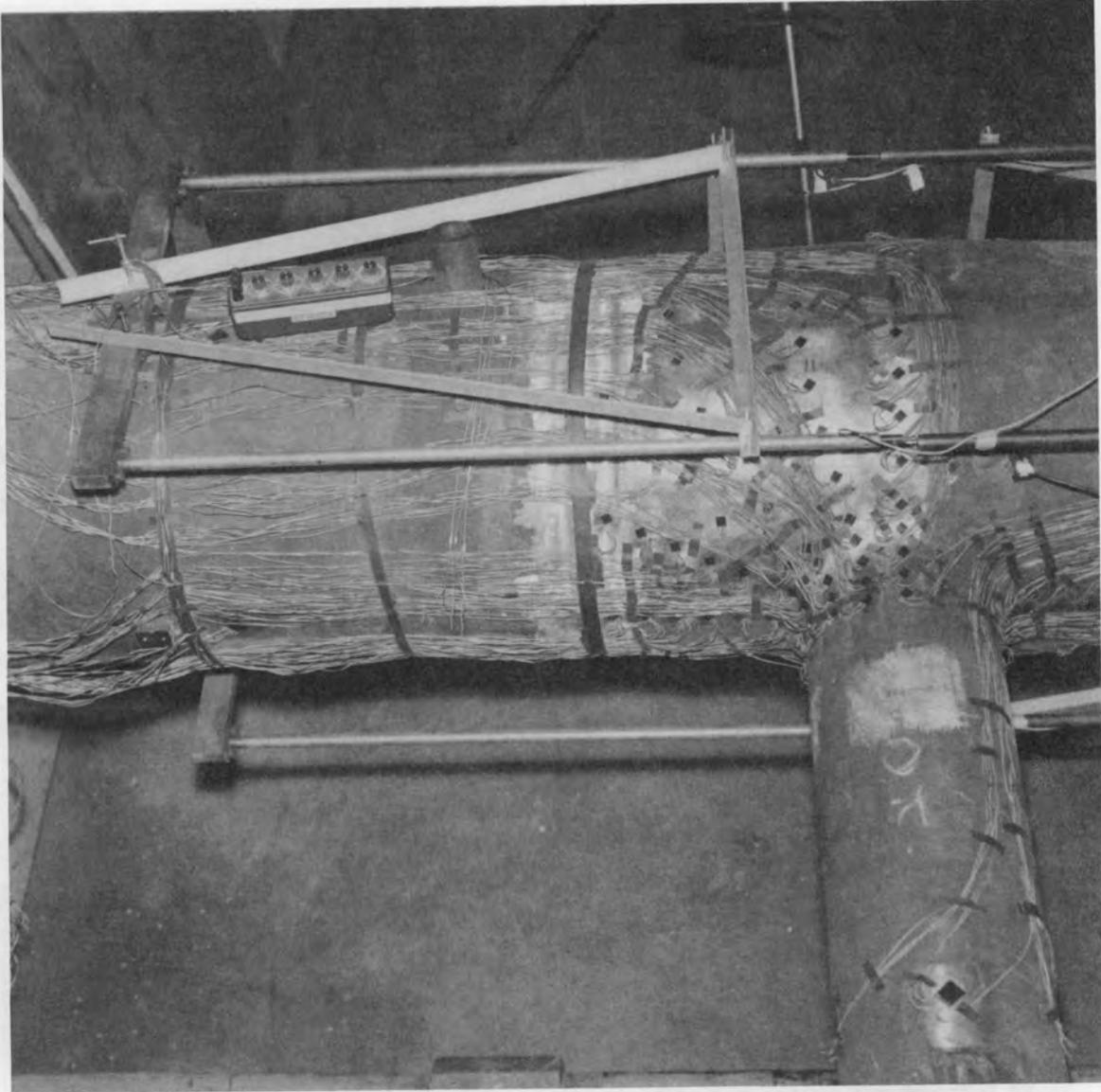


Fig. 2.5. Test model T-13 with LVDT instrumentation for measuring in-plane rotations of free end of run with respect to fixed end.

loads; and various nozzles and fittings for access to the inside of the model. Figure 2.6 shows the test assembly for T-10. A complete set of assembly and subassembly drawings for all five test models is given in Appendix IV.

The pipe extensions for the four carbon steel tees were made from SA-106 grade B carbon steel. The pipe extensions for T-16 were SA-312

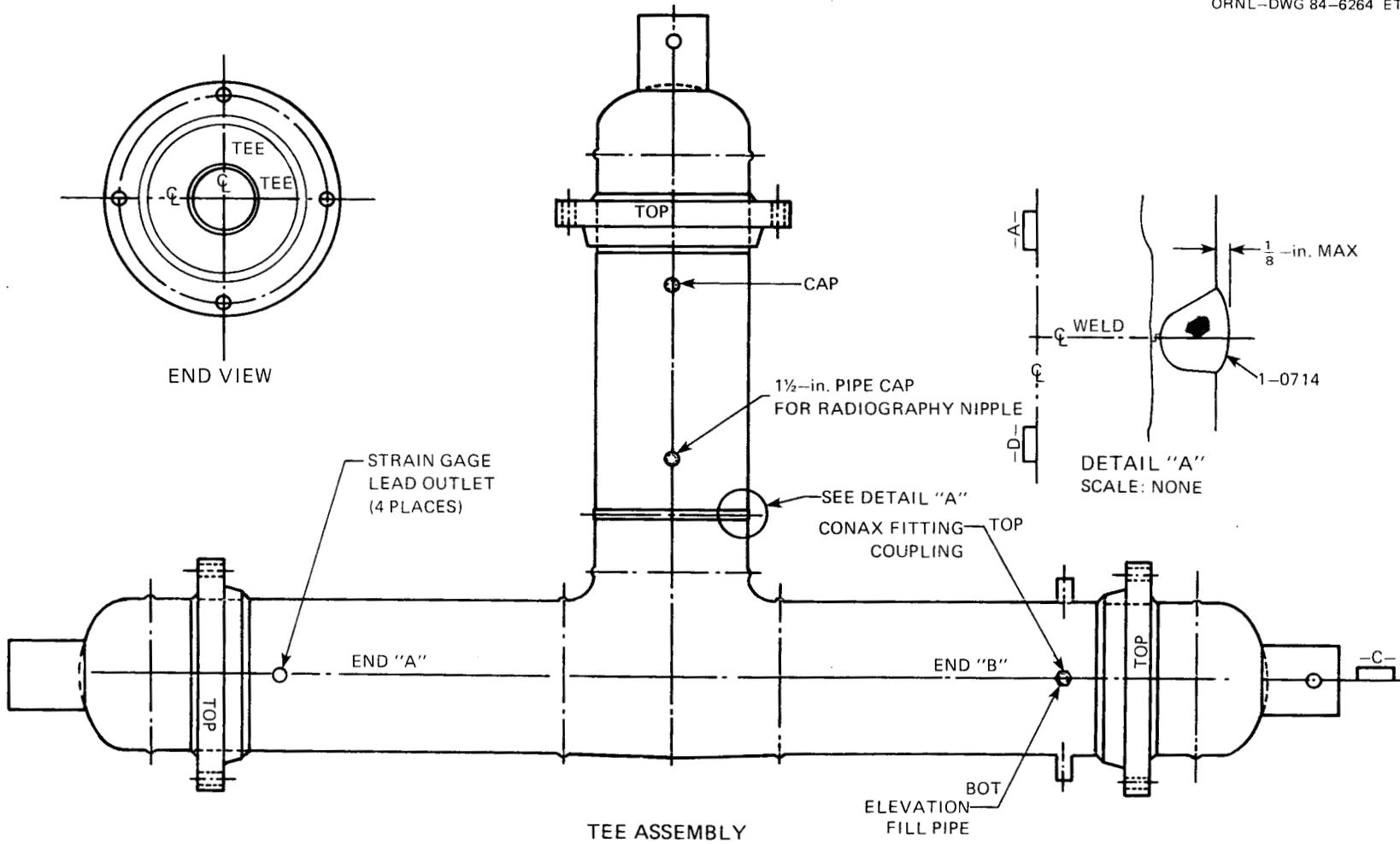


Fig. 2.6. Assembly drawing for T-10 test model.

Type 304 stainless steel. As shown in Fig. 2.6 short pipe stubs, 9-1/2 in. long, were welded to the branch outlet for the three full-outlet tees T-10, T-11, and T-16, to allow strain gaging the inside surface before final assembly. Pipe stubs were not used for the reduced outlet tees (T-12 and T-13) because of the smaller access to the inside surface. For these models the branch pipe was welded directly to the tee after the inside surface instrumentation was completed.

Except for T-16, test loadings were applied to the models through specially ordered 600 class lap-joint flanges welded to the run pipes and 300 class lap-joint flanges welded to the branch pipe. Welding neck flanges were used for T-16 because of the smaller wall thickness (0.250 in. for sched. 10). The mating surfaces of the loading flanges on all five models were positioned 75-1/2 in. from the center of the tee in order to fit properly into the loading frame.

Small 1-1/2-in.- to 2-1/2-in.-diam nozzles placed near the ends of the pipe extensions were used to fill, vent, and pressurize the model and to provide access for radiography. Small nozzles were also provided for special pressure glands used to seal the ~1000 lead wires connected to the inside surface strain gages. These pressure glands were made by installing polythermalene-coated, 26-gage copper wire in special pipe fittings and potting the glands with an epoxy material. The glands were hydrostatically tested to 8350 psi in a special test fixture before being installed in the test model. Special anchor pads were also provided for attaching the LVDT displacement measuring hardware to the test models.

Because of the need to instrument the inside surface of the tees, the test assemblies were fabricated in stages. For the full-outlet tees, the two run-pipe subassemblies and the branch-pipe stub were first welded to the tees with nuclear quality welds, which were then ground flush on both the inside and outside surfaces. This was done so that strain gages could be placed on the pipe-to-tee weld connections and so that stress concentrations that might initiate a failure during the fatigue tests would be avoided. All the welding procedures were qualified to Sect. IX of the *ASME Code* (Ref. 14) as required by the job specification (Appendix I). Both the qualification welds and the test assembly welds were examined by magnetic-particle tests (magnafluxed) and by radiography. In

addition, the qualification welds were subjected to tensile tests, bend tests, and Charpy impact tests. Following acceptance of the pipe-to-tee welds the tee subassembly and the branch-pipe subassembly were stress relieved at 1150°F. The loading flanges were then positioned and welded onto the pipe legs so that their mating surfaces would be 75-1/2 in. from the center of the tee.

For the two reduced outlet models, T-12 and T-13, which were fabricated without branch pipe-stubs, it was necessary to weld the branch pipe directly to the tee after all the internal instrumentation had been completed. To avoid damaging the inside gages during the welding process Chromel-Alumel thermocouples were placed adjacent to the strain gages nearest the weld, and the temperatures were never allowed to exceed 150°F. To ensure a high-quality joint, the weld preps on both the branch outlet of the tee and the branch-pipe subassembly were clad with INCO 182 weld deposit during initial fabrication. This procedure had been successfully used in the earlier tests of large piping tees¹³ conducted at CE. Models T-12 and T-13 were tested with the branch pipe-to-tee closure weld in the non-stress-relieved and as-welded condition.

2.2 Test Facility

Both the elastic-response tests and the fatigue-to-failure tests were conducted in CE's Nuclear Components Stress Analysis Laboratory in Chattanooga, Tennessee. The mechanical-load test-frame and the strain-gage data acquisition system had been designed and constructed earlier for the specific purpose of testing large heavy-walled piping tees up to 26-in.-diam NPS. To conduct the ORNL tests on 24-in. NPS tees, it was only necessary to add equipment to pressurize the test models for the static strain-gage tests and for the cyclic-fatigue tests.

2.2.1 Mechanical-load test frame

The test frame consists of an assembly of wide flanged beams bolted to foundation anchor points at eight places (Ref. 13). The test frame was designed to accommodate the following maximum loads on either the

branch or the run:

Bending moment	9,600,000 in.-lb,
Torsional moment	9,600,000 in.-lb,
Axial force	800,000 lb.

The test frame could also accommodate the ORNL transverse-force loads on the run (F2Y and F2Z), and the out-of-plane transverse-force load, F3Y, on the branch. It could not, however, accommodate the in-plane transverse-force load F3X on the branch. The ORNL 24-in. tee tests were therefore conducted for only 11 of the originally planned 12 mechanical loading conditions.

The load-frame foundation consists of four large rectangular beams of steel-reinforced concrete arranged in a rectangular donut configuration. Approximately 126 yd³ of concrete and 7300 lb of reinforcing steel were used in building the foundation. Each of the eight anchor points was designed to resist a load combination of 57,100 lb upward or downward and 50,000 lb in perpendicular horizontal directions.

The test loads were transmitted from the load frame to the test model through three "load cylinders" that were slipped over the ends of the test assembly and bolted to the pipe extension loading flanges. The inboard or "B" end of the load cylinder consists of a 3-in.-thick by 48-in.-square plate with 24 bolt holes drilled to mate with the bolt holes of the test-assembly loading flanges. Each of the 11 mechanical test loads was obtained by applying various combinations of point loads on the inboard and outboard ends of the load cylinders. Figure 2.7 shows the T-10 test model mounted in the loading frame. The load cylinders with end-plates bolted to the loading flanges are clearly visible in this photograph. Figure 2.8 shows the loading configurations and reaction forces for each of 11 mechanical test loads. The distances L_b and L_r from the center of the tee to the point of transverse load application on the branch or the run, respectively, are given in Table 2.1.

Hydraulic jack assemblies, with ball bearing swivels at each end (Fig. 2.9), were used to apply the loads to the load cylinders. Pressure to the jacks was supplied by a hydraulic system with an accurate loading capacity of 10,000 psi. The jack assemblies were calibrated before each

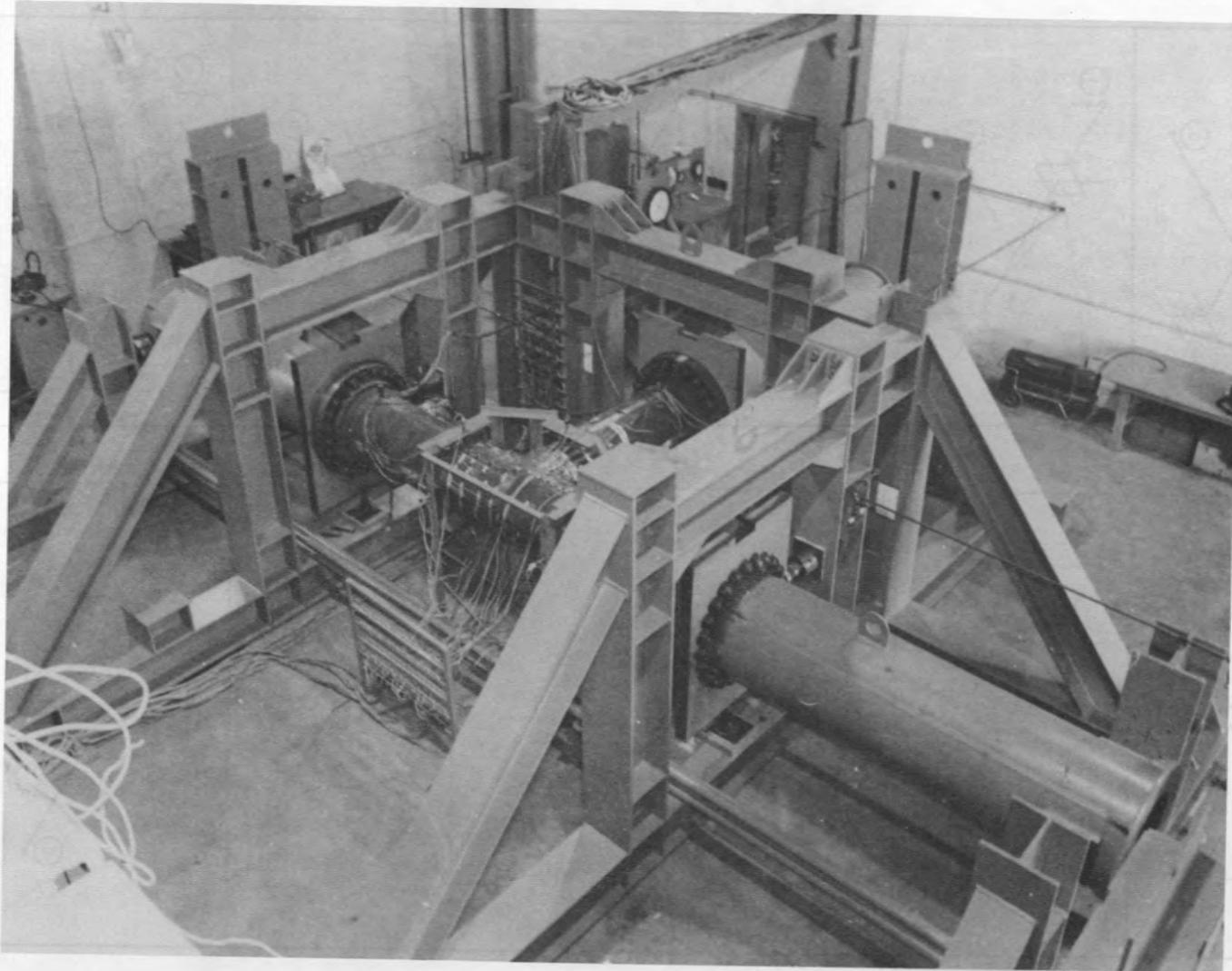


Fig. 2.7. Loading frame with T-10 test model and slip-on load cylinders prior to elastic-response tests.

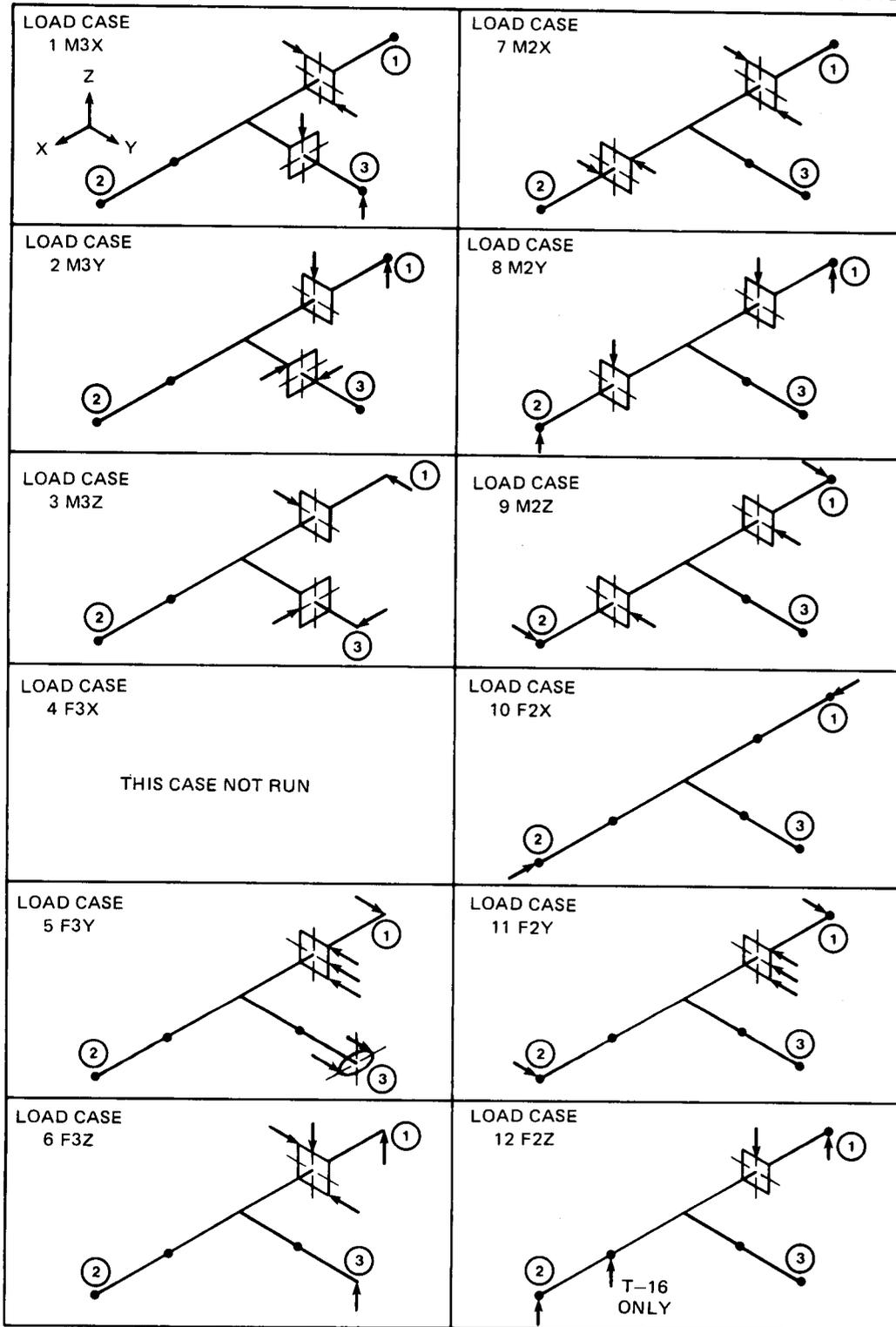


Fig. 2.8. Loading configurations and reaction forces.

Table 2.1. Transverse-force
lever arms^a

Tee	L _b on branch		L _r on run	
	F3X	F3Z	F2Y	F2Z
T-10	173.0	173.0	173.0	173.0
T-11	173.0	173.0	173.0	173.0
T-12	77.0	77.0	173.0	173.0
T-13	77.0	77.0	173.0	173.0
T-16	77.0	77.0	173.0	77.0

^aDistances are in inches from the center of the tee to the point of load application.

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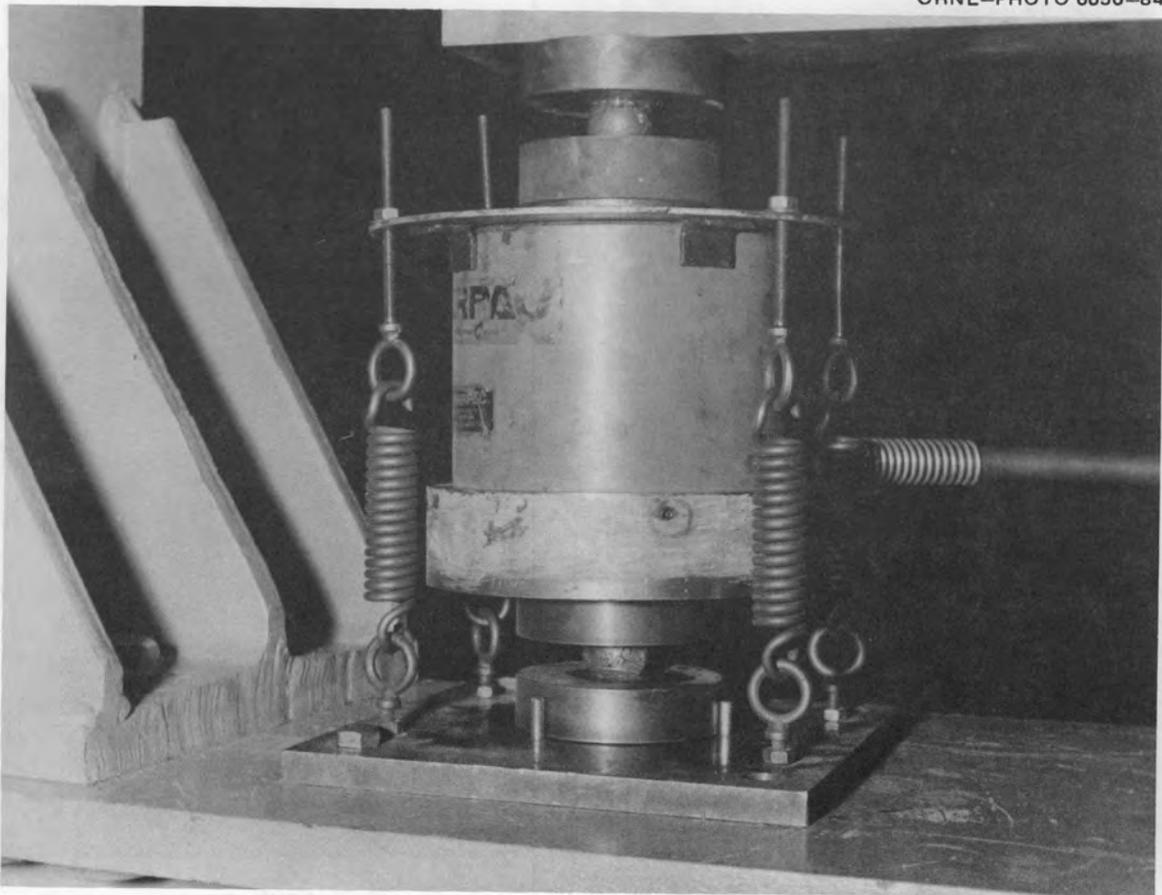


Fig. 2.9. Hydraulic jack assembly (100 ton) with ball bearing swivels.

test in a hydraulic universal testing machine. The test models were supported in the load frame by specially designed ball bearing and roller bearing supports (Fig. 2.10), located at the load-cylinder end-plates. The supports at the "constrained" end of the test assembly also carried the reaction forces from the test loads.

ORNL-PHOTO 6051-84

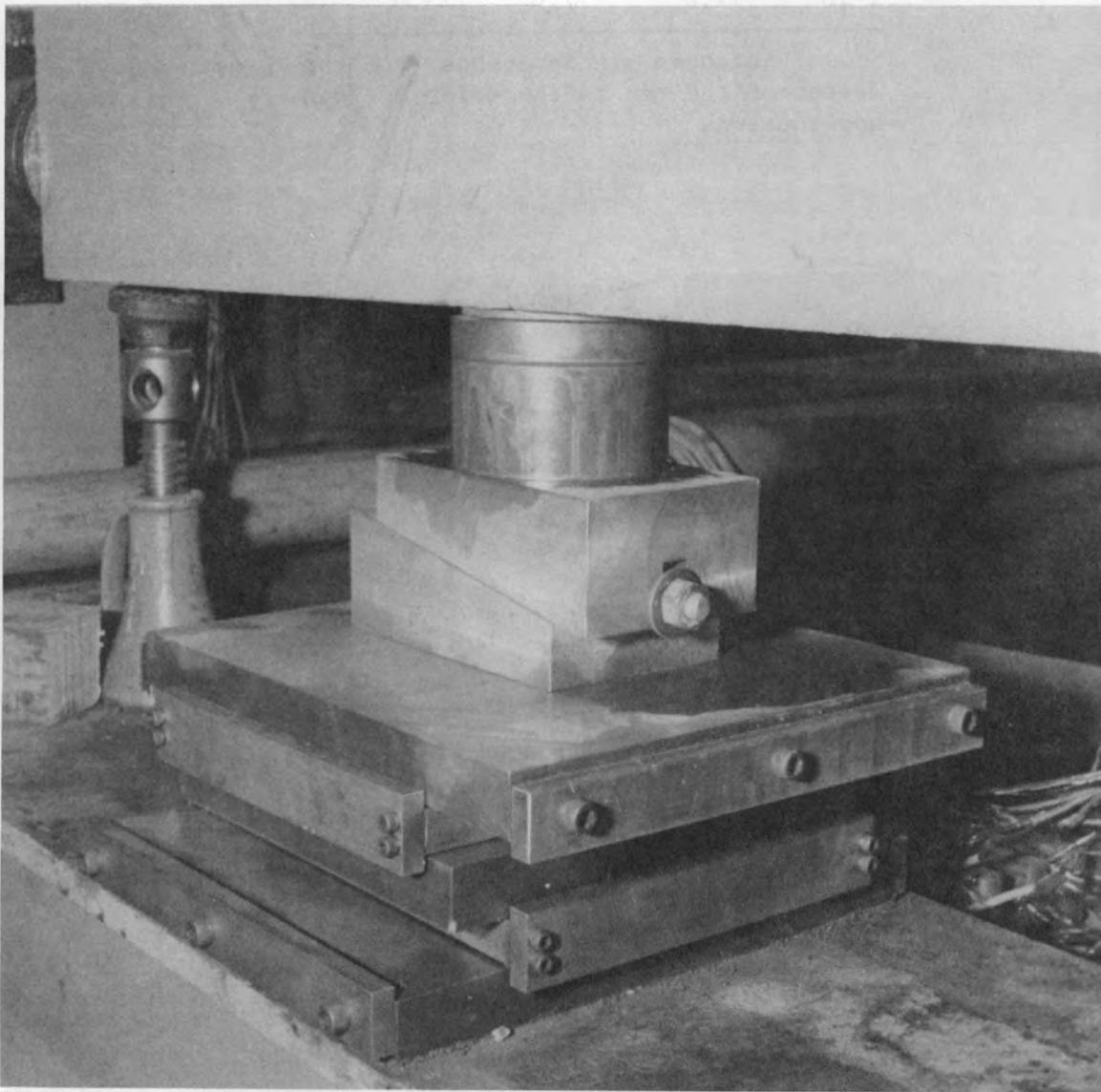


Fig. 2.10. Special roller bearing support for ORNL 24-in. tee tests.

2.2.2 Pressurizing system

The test equipment used for pressurizing the models consisted of an MTS* closed-loop servo control system, a hydraulic power supply, five pressure intensifiers, a Heise pressure gage, and a pressure transducer. The hydraulic fluid used for all pressure loadings was a high-grade Texaco brand transformer fluid.

The MTS closed-loop servo control system was designed primarily for structures and materials testing. It is a single-channel system that uses one Servo Controller (SERVAC). The system employs a "closed loop," that is, a continuous path of interacting elements. The basic components in the system are a Servo Controller, Servo Valve, command input module, function generator, counter, hydraulic power supply, and pressure transducer.

With this system it was possible to pressurize the test models at either a constant pressure or at various cyclic rates using different cyclic shape functions. An "inverted haversine" function is generally used for pressure cyclic tests. The MTS system also has various interlocks to ensure proper test program operation including a limit detector to prevent excess pressure rise, low-amplitude measurement capability to prevent undershoot during a pressure cycle, and a pressure relief valve on the hydraulic power supply that can be adjusted to limit the maximum pressure output.

The hydraulic power supply consisted of a variable volume pump capable of delivering up to 35 gal/min of hydraulic oil. It is a self-contained unit with an oil reservoir, an oil-to-water heat exchanger, a safety relief valve, a pressure regulator, and various indicators and filters. It was designed to provide a maximum hydraulic pressure of 3000 psi.

From one to five oil-to-oil intensifiers manufactured by Ortman-Miller were used with the MTS system to provide a sufficient volume of oil to achieve the desired pressure in one stroke of the intensifiers. The intensifiers have an intensification ratio of 3.31.

* MTS Systems Corp.

A BLH* general purpose pressure cell type GP pressure transducer with a maximum pressure rating of 20,000 psi was used for the cyclic pressure fatigue tests.

2.2.3 Data acquisition system

A computer-controlled data acquisition system (Fig. 2.11) was used to collect data from the strain gages, thermocouples, and LVDT instrumentation. This system consists of an Astrodata Model 2000 analog-to-digital converter and an IBM 1620 data processing system. The Astrodata Model 2000 unit is a special-purpose, random access, multiplexer and data measuring instrument that is automatically controlled by the IBM computer or manually controlled by its own front panel switches. The system is designed to measure the output signal for any of 2000 channels.

During a typical test, all test results were punched on cards with a limited number of the more important test results displayed on the IBM 1620 typewriter for test control. At the conclusion of a test, the punched card data were transmitted to the CE Corporate Computer Center via an IBM 7711 tape receiver and telephone link. The complete sets of test data were then processed on an IBM 370/165 computer. When specific data plots were desired a Benson Lehner LTE magnetic tape X-Y drum plotting system was used. This permitted completely automatic plotting for all the desired information.

2.3 Elastic-Response Test Procedures

The elastic load tests performed on each tee consisted of internal pressure and the series of 11 mechanical load conditions illustrated earlier in Fig. 2.8. Prior to any of the tests, a loading schedule was established to limit the nominal stress in the pipe to 15,000 psi. The maximum load that was actually applied, however, was limited by the capabilities of the test frame and hydraulic actuators and the yield strength of the test models. During the tests, the most highly strained rosettes were monitored to ensure that the yield strength of the test model was

* Trade name.

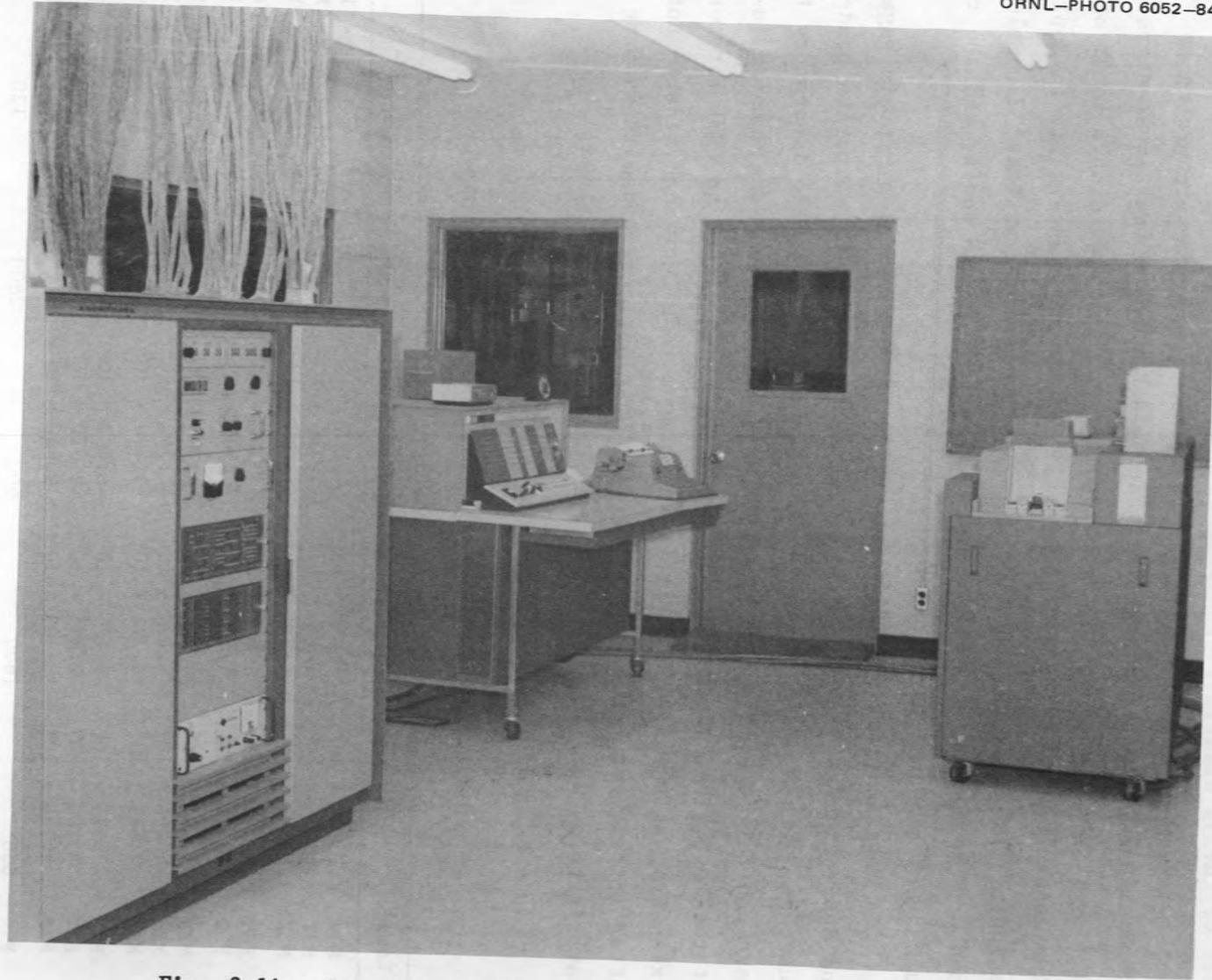


Fig. 2.11. Computer-controlled strain-gage and LVDT data acquisition system.

not exceeded at any location. Table 2.2 provides a summary of the maximum applied loads.

Initially, a sufficient number of load-unload cycles were run for each of the 12 elastic-response tests to ensure "shakedown" to linear elastic behavior as evidenced by 98% of the strain gages returning to within ± 20 $\mu\text{in./in.}$ of zero. The model was loaded in four equal steps, which were then repeated in the unloading process, providing a total of nine sets of data for each load cycle. To ensure repeatability in application of the loads and measurement of the test data, at least 2 complete load sets were run for each of the 12 elastic-response tests, and the results were compared for consistency.

As noted earlier, the raw data from the thermocouples, strain gages, and deflection LVDTs were recorded for processing at CE corporate headquarters, with a small amount of the data processed in the laboratory for test control purposes. The complete sets of processed data were reviewed at the test site, punched on IBM cards, and transmitted to ORNL for more extensive analysis. The destructive fatigue tests were not started until after it had been established that (1) the elastic-response tests were satisfactory and (2) all the required data had been obtained.

Table 2.2. Maximum loads^a for elastic-response tests

Load	T-10	T-11	T-12	T-13	T-16
M3X	2.270×10^6	9.797×10^6	4.290×10^5	1.290×10^6	5.190×10^5
M3Y	-2.261×10^6	-9.005×10^6	-6.030×10^5	-1.210×10^6	-7.720×10^5
M3Z	2.072×10^6	9.350×10^6	5.980×10^5	9.350×10^5	7.480×10^5
F3Y	5.000×10^4	6.400×10^4	4.000×10^4	4.000×10^4	2.400×10^4
F3Z	1.385×10^4	5.495×10^4	5.580×10^3	2.010×10^4	7.720×10^3
M2X	2.261×10^6	9.420×10^6	4.900×10^6	9.420×10^6	4.450×10^5
M2Y	-4.898×10^6	-1.130×10^7	-7.540×10^6	-9.800×10^6	-1.200×10^6
M2Z	2.562×10^6	9.797×10^6	3.400×10^6	10.550×10^6	5.190×10^4
F2X	-3.376×10^5	-7.473×10^5	-6.280×10^5	-6.280×10^5	-6.430×10^4
F2Y	1.483×10^4	2.835×10^4	2.010×10^4	2.840×10^4	3.090×10^3
F2Z	2.355×10^4	3.308×10^4	2.460×10^4	2.840×10^4	1.070×10^4
P	600	1600	600	2800	120

^aMoments in in.-lb, forces in lb, and pressure in psi. For sign convention, see Fig. 2.1.

2.4 Cyclic Fatigue Tests Procedures

Two different types of fatigue loadings were investigated in this program. For models T-10 and T-16 a completely reversed, deflection-controlled, in-plane moment loading on the branch (M3Z), similar to the fatigue tests of 12-in. tees conducted earlier,⁵ was used. For these tests a constant internal pressure equal to the nominal design pressure of the run pipe was maintained throughout the test. The other three models T-11, T-12, and T-13 were fatigue tested with a cyclic internal pressure that ranged from near zero to about 90% of the nominal yield pressure of the run pipe.

For all five models the probable location of fatigue crack initiation and failure was assumed to be in the vicinity of the strain rosette that gave the highest stress index in the elastic-response test. Preliminary stress index values determined at the test site were used to calculate the equivalent elastic stress ranges and to estimate the number of cycles to failure using empirical fatigue-life relations. Fatigue failure was defined as a through-the-wall crack either in the body of the tee or in one of the pipe-to-tee welds, as evidenced by a leak of the pressurizing fluid.

Fatigue-crack initiation and crack growth was monitored by means of ultrasonic (UT) inspection techniques. Before each fatigue test the model was inspected to obtain a baseline set of UT indications for comparison with later inspections. The model was then inspected periodically during the test to identify crack initiation and monitor crack growth. These inspections were not completely reliable, however, because of the complex geometry of the test models where the reflected wave patterns were affected by variations in the curvature and wall thickness. The procedure appeared to be successful for models T-10 and T-12, but not for models T-11, T-13, or T-16 where failure occurred without prior UT indication.

The UT inspections were conducted with a standard pulse-echo 45° shear wave at 2.25 MHz using a 1.4- by 1.2-in. finger tip PZT crystal detector. For T-10 the equipment was calibrated against a 1/16-in.-diam hole in a piece of straight pipe whose wall thickness was approximately

the same as that of T-10. For the other tees, calibration of the equipment was obtained from the reflection of the corner of a 1-in.-thick plate with the amplitude set at 80% of screen height.

The fatigue test of T-10 was also monitored by acoustic emission and fatigue gages, neither of which gave useful results. Six Micro-Measurement brand 1/8-in. fatigue gages had been installed in the crotch region of the tee at the same time that the model was instrumented for the elastic-response tests. Unfortunately, however, they were not located in the region of highest stress for the in-plane branch-moment loading and were therefore of little value in predicting fatigue failure.

The acoustic emission monitoring was conducted using four piezoelectric transducers attached to the test model. The acoustic signals were monitored during the test with an oscilloscope and recorded periodically on videotape. However, the available equipment was only capable of monitoring one channel at a time, and it was not possible to establish either the total number of acoustic emissions from each transducer or the emission rates as the test progressed. Thus, very little useful information was obtained.

2.4.1 In-plane moment tests

The in-plane moment fatigue tests of T-10 and T-16 were accomplished by applying a cyclic force-couple to the outboard end of the modified branch-pipe load cylinder shown in Fig. 2.12. Two hydraulically coupled actuators located 187 in. apart, applied equal and opposite forces to the horizontal I-beam shown in the figure. One of the actuators was equipped with a load cell to measure the applied force and an LVDT to measure the hydraulic ram displacement. Loading was controlled through a servo hydraulic valve and electronic feedback system that permit fatigue testing under either controlled cyclic load or controlled cyclic displacement conditions. These tests were controlled by the hydraulic actuator ram displacement as measured by the LVDT. The ram displacement was periodically checked during the test using the MTS amplitude measurement panel. Figure 2.13 is a schematic diagram of the in-plane-moment fatigue-test loading and control system.

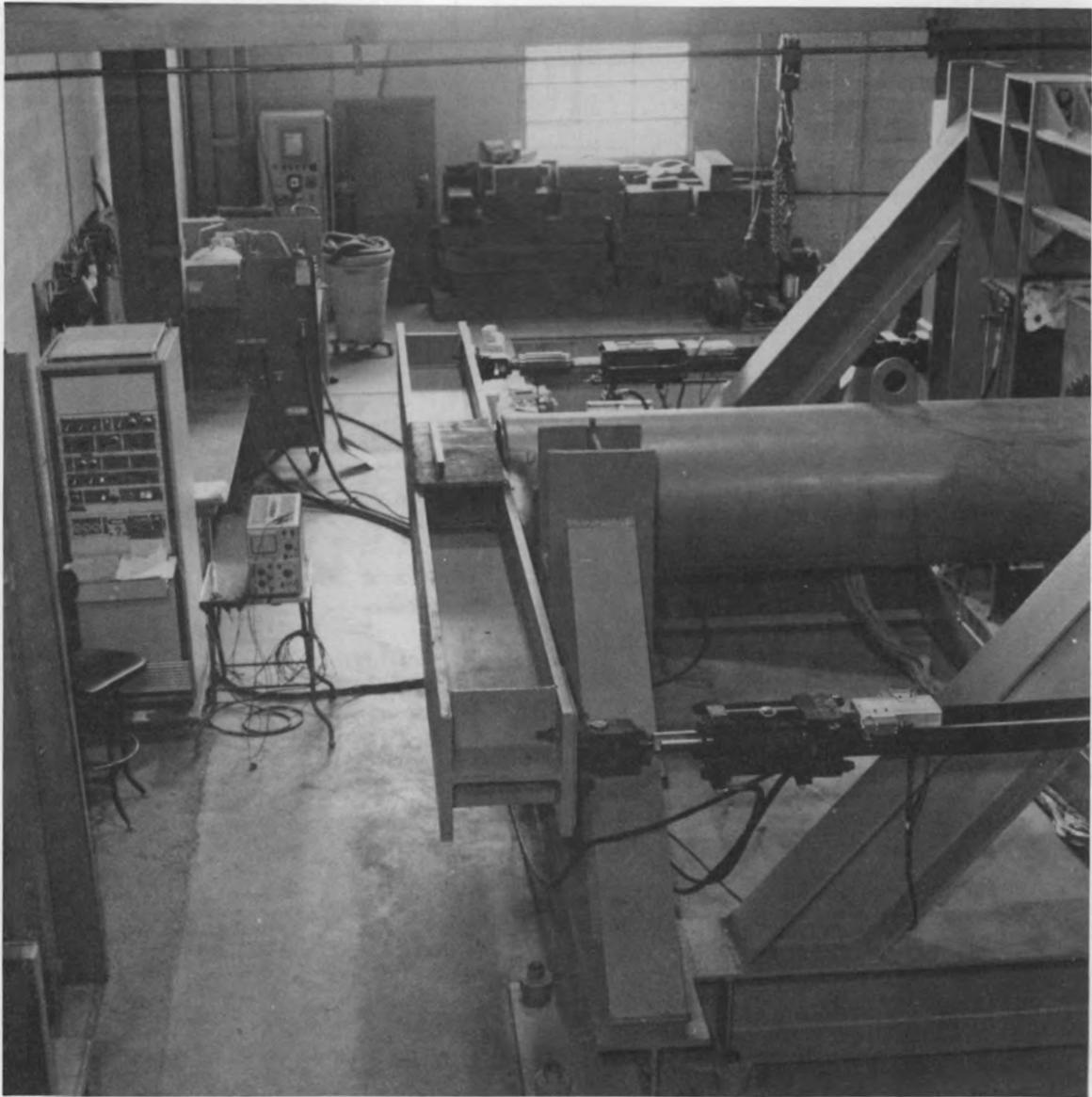


Fig. 2.12. Structural loading system for in-plane moment-fatigue tests.

The magnitude of the cyclic moment loading was selected by use of Markl's relation to cause failure in ~ 7000 cycles of completely reversed displacement of the branch pipe loading mechanism. Markl's empirical relation for moment loading fatigue failure is^{15,16}

$$S_a = A N_f^{-0.2} , \quad (2.1)$$

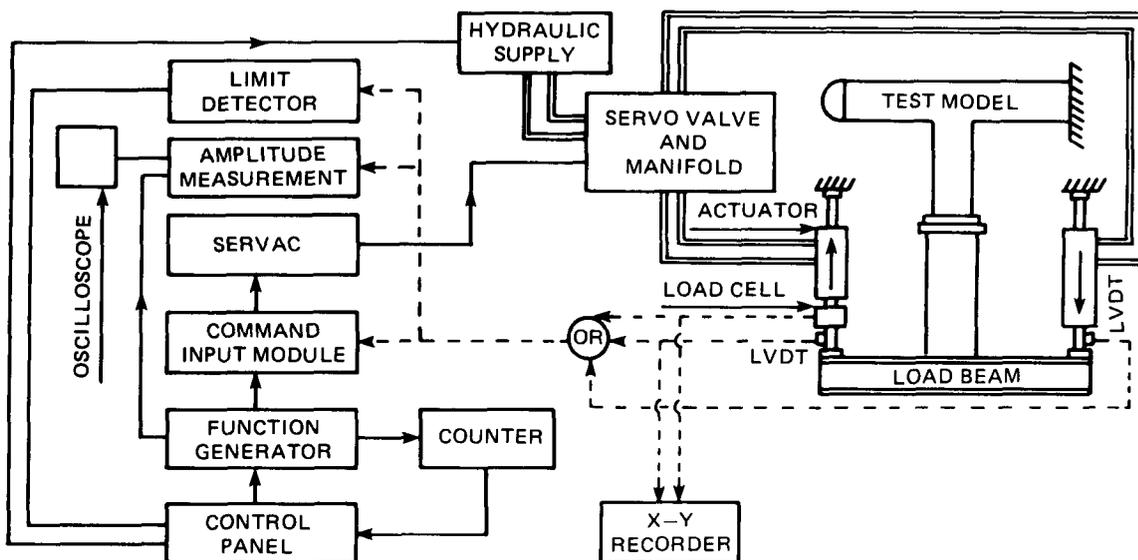


Fig. 2.13. Functional diagram of in-plane moment-fatigue test loading and control system.

where

S_a = equivalent elastic-stress amplitude,

N_f = number of cycles to failure,

A = an empirical constant equal to 490,000 for carbon steel,
562,000 for stainless steel.

Equation 2.1 gives $S_a \cong 83,400$ psi for the carbon steel tee T-10; and $S_a \cong 95,700$ psi for the stainless steel tee T-16.

To determine the actuator displacement required to produce the desired value of S_a , each test model was loaded with an in-plane branch moment in small loading increments well within the elastic response range. The maximum stresses in this phase of the test were limited to 30,000 psi for T-10, and 20,000 psi for T-16 to ensure linear elastic behavior. A linear stress-displacement relation was then established between the actuator displacement measured by the moment-couple LVDT and the maximum principal stress obtained from the strain rosette at the position of maximum stress intensity. This relation was then extrapolated to the desired value for S_a to obtain the maximum actuator displacements for the

fatigue tests. The test controls were then set to maintain constant positive and negative displacements throughout the tests.

The constant internal pressure was set equal to the maximum Code allowable working pressure of the run pipe obtained from Code Eq. (3), NB-3641.1, using 87.5% of the nominal wall thickness and zero corrosion allowance, that is,

$$P_a = \frac{2 S_m t}{D_o - 0.8 t}, \quad (2.2)$$

where

S_m = room-temperature design stress intensity,

S_m = 20 ksi for carbon steel,

S_m = 16.7 ksi for stainless steel,

t = (0.875) (0.688 in.) for T-10,

t = (0.875) (0.250 in.) for T-16,

D_o = 24.0 in. is the nominal outside diameter of the run pipes.

For T-10, Eq. 2.2 gives $P_a \cong 1025$ psi, whereas for T-16 $P_a \cong 300$ psi.

The first 22 cycles of the fatigue test for T-16 were performed with the structural loading system in the manual mode. During this portion of the test ~35 strain rosettes in the most highly stressed regions of the test model were monitored. The same rosettes were monitored again after 435, 602, and 1201 fatigue cycles to ensure that the test was proceeding as planned.

The fatigue test of T-10 was also initiated with the structural system in manual mode. Complete sets of strain-gage data were obtained at different actuator displacements to monitor the plastic deformations (hysteresis effects). About once each day during the early portion of the test, one fatigue cycle was performed slowly in manual mode and a complete set of strain-gage and load-cell data were obtained at the maximum moment loads to monitor any long-term ratchetting effects.

2.4.2 Cyclic pressure tests

Test models T-11, T-12, and T-13 were fatigue tested with a cyclic internal pressure that ranged from near zero to a value corresponding to ~90% of the nominal yield strength of the run pipe. Although test pressures this high are well above any value that would be permitted by the Code for design, the highest pressures possible for the tests were considered necessary to achieve fatigue failures in a reasonable length of time. The test pressures were set low enough to ensure against plastic ratchetting in the pipe legs while still permitting the maximum stresses in the body of the tees to be well into the plastic "low-cycle" fatigue range. The maximum pressures for T-11 and T-13 were set at 7000 psi and at 1800 psi for T-12. At these pressures the maximum apparent elastic stresses in the tees, calculated using the preliminary stress indices obtained at the test site during the elastic-response tests, ranged from ~75,000 psi for T-12 to ~132,000 psi for T-11.

Estimating the expected fatigue life for the cyclic pressure tests was not as straightforward as for the cyclic moment tests. Because Markl's fatigue relation, Eq. (2.1), was developed using only bending moment fatigue data, it may not be valid for cyclic pressure loads. Nevertheless, fatigue-life estimates obtained by solving Eq. (2.1) for N_f were made for each of the three cyclic pressure tests. For T-11, the result indicated a fatigue life of about 23,000 cycles, but for T-12 and T-13 the results seemed excessively high: ~370,000 cycles for T-12 and ~206,000 cycles for T-13. If the tests should have lasted that long, we were concerned that the test models might outlast the test equipment.

Fatigue-life estimates were, therefore, also made based on the design analysis procedure introduced as subsubparagraph NB-3653.6 in the 1971 edition of the Code for the design of piping systems with apparent elastic stresses larger than $3 S_m$. According to this procedure the maximum stresses S_n are to be multiplied by an "elastic-plastic" factor K_e given by the following:

$$K_e = 1.0 ; \quad \text{for } S_n \leq 3 S_m , \quad (2.3)$$

$$K_e = 1.0 + \frac{(1-n)}{n(m-1)} \left(\frac{S_n}{3 S_m} - 1 \right); \quad \text{for } 3 S_m < S_n < 3 m S_m,$$

$$K_e = \frac{1}{n}; \quad \text{for } S_n > 3 m S_m;$$

where values of the material constants n , m , and S_m for our test models are

Material	S_m	m	n
Carbon steel	20,000	3.0	0.2

The number of cycles to failure can then be estimated from the fatigue failure curve given in the Criteria¹⁷ document upon which the design procedures of the Code are based. The number of cycles to failure can be obtained from the relation:¹⁸

$$N_f = \left[\frac{E}{4 (S_f - B)} \ln \left(\frac{100}{100 - A} \right) \right]^2, \quad (2.4)$$

where

$E = 30 \times 10^6$ is Young's modulus for carbon steel,

$A = 68.5$ is an empirical constant,

$B = 21,654$ is an empirical constant,

$S_f = K_e (S_p/2)$ is the alternating stress amplitude.

Using this procedure the estimated fatigue life for models T-11, T-12, and T-13 was calculated to be 1,900, 60,900, and 24,075 cycles, respectively.

Because neither of the above methods have been checked against cyclic-pressure fatigue test data, the fatigue life estimates were only used in a supporting role to help plan the operation of the tests. Table 2.3 gives a summary of the fatigue-test loadings and expected fatigue life for each of the five test models. Note that the moment loading tests for T-10 and T-16 are also included.

Table 2.3. Summary of fatigue-test loadings and expected life cycles

Test model	Constant internal pressure (psi)	Fatigue-test loading ^a	Maximum stress location (gage No.)	Preliminary stress index ^b	Apparent load range ^c	Shakedown load range ^d	Apparent stress amplitude (psi) ^e	Expected test life (cycles) ^f
T-10	1025	M3Z	I-2R2-E	3.8	±6,270	±6,150	83,600	5,900 (575)
T-11	100	P	I-2R5-E	3.7	100 to 7,000	100 to 7,000	65,375	23,650 (1,900)
T-12	5	P	I-2R6-C	2.4	5 to 1,800	5 to 1,800	37,625	369,475 (60,900)
T-13	100	P	I-2R6-C	2.4	100 to 7,000	100 to 7,000	42,400	205,960 (24,075)
T-16	300	M3Z	I-2R2-E	2.9	±3,620	±3,085	95,700	6,985 (850)

^aM3Z is fully reversed displacement controlled in-plane moment on branch; P is controlled cyclic internal pressure.

^bDetermined at test site and used to establish apparent load range.

^cBased on preliminary stress index and extrapolated elastic load-stress relation; units for M3Z = 10³ in.-lb; for P = psi.

^dMeasured with load cell for M3Z (10³ in.-lb); cyclic pressure (psi) controlled by test equipment.

^eEquivalent linear elastic stress amplitude based on preliminary stress index and apparent load range.

^fFirst number obtained from Markl's relation, second number, in parentheses, based on NB-3653.6, using apparent stress range (i.e., twice amplitude) to compute K_e, and the ASME fatigue failure curves.

The first few pressure cycles of the fatigue tests were conducted with the test models still in the loading frame and with all the strain-gage instrumentation connected to the data acquisition system. The most highly strained gages were closely monitored with readings taken at several of the loading steps up to the maximum loads. A high-pressure interlock and a low-amplitude interlock on the MTS structural loading system were used to ensure that both the high- and low-pressure limits were reached but not exceeded. The low end of the T-12 pressure range was set slightly above zero at 5 psi to activate the low-pressure interlock system. After the first few pressure cycles the test models were removed from the loading frame, placed in a test pit, and covered with a 2-in.-thick steel plate where the fatigue tests were completed. Figure 2.14 is a schematic diagram of the cyclic-pressure fatigue-test loading and control system.

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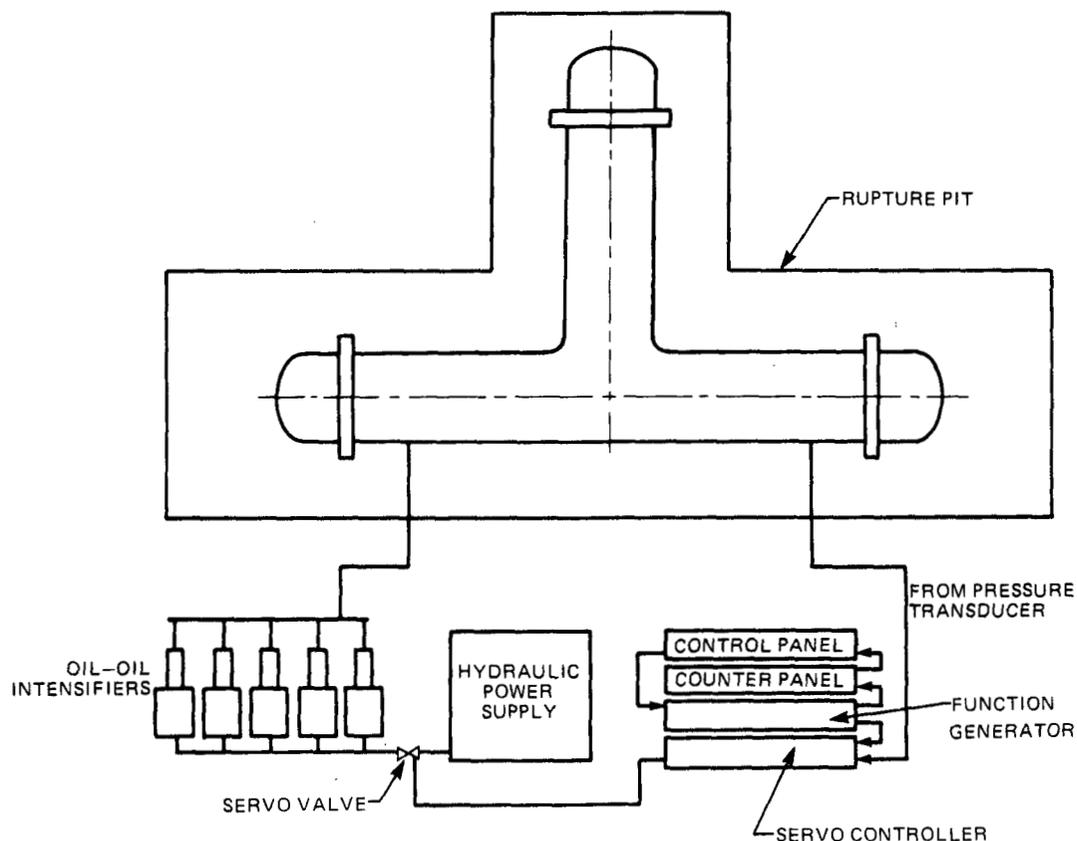


Fig. 2.14. Functional diagram of cyclic-pressure fatigue test loading and control system.

3. DISCUSSION OF ELASTIC-RESPONSE TEST RESULTS

In addition to the initial examinations conducted at the test site, the strain-gage data were screened by two processes prior to final acceptance. The first was a computerized check based on the assumption of linear elastic response. The second was more subjective, involving visual comparisons and the judgment of an analyst. After the data analysis was completed, principal stresses and stress intensities (according to the Code definition) were computed, tabulated, and plotted in two different graphical forms for further analysis. Complete sets of these data are given in the appendixes.

3.1 Reduction of Strain-Gage Data

As part of the experimental stress analysis, a concurrent reduction of data was performed at the test site using a CE program for calculating engineering stresses and strains. This initial reduction was done to monitor the data acquisition process so that faulty strain gages could be pinpointed and corrected if possible. A subsequent phase of the data reduction used another CE program which computes, sorts, and lists all of the results for all transducers. For strain gages, data corrections were made for desensitization of the Wheatstone bridge due to lead wire length and for transverse sensitivity. A listing was provided for uncorrected strain, corrected strain, maximum and minimum strain, principal stress, angle of principal stress, directed stresses parallel and perpendicular to the gage line, and shear stress. The strain gage data, as corrected by this program, were then sent to ORNL where they were reduced to strains and stresses using the computer program LINDA. The diagnostic procedure implemented by LINDA is summarized below in Sect. 3.1.1. A detailed description of the program appears in Ref. 19. The output from the LINDA runs was plotted on graphs of stress vs strain-gage location. These plots were then checked for anomalous data points and adjusted when necessary. This final adjustment of data is discussed in detail in Sect. 3.1.2.

3.1.1 Evaluation of strain-gage data

The computer code LINDA implements a diagnostic procedure (sub-routine NOSEY) for identifying and separating errors in strain measurement and load application. The procedure depends on the hypothesis that the strains obtained from the tests are proportional to the loads. In this analysis, the data are subjected to three separate tests: the linearity test, the variability test, and the load-adjustment test.

In the linearity test, the nine data points acquired for each gage under each loading condition are fitted to a straight line by the method of least squares. The program identifies and eliminates data that deviate excessively from linear behavior, leaving only data lying within a specified tolerance band. Since the procedure depends on the assumption of linear behavior, any nonlinearity identified in this test must be due either to an error in the strain data acquisition or to the recorded value of the applied loads.

The width of the tolerance band is dictated by the accuracy required, but it is also limited by the resolution of the strain-data-acquisition system. For these tests, the larger of two values — 8 μ in./in. or 15% of the maximum strain at a given gage — was used as the tolerance limit. Any gage for which more than 30% of the data were lost was flagged in the computer output with an asterisk. A double asterisk was used to indicate that no strain readings were recorded for that loading. This usually indicates an open circuit in the data acquisition system. It is possible, however, that the correct reading was equal to zero within the accuracy limits of the system (e.g., for a gage on a neutral plane).

The variability test compares the response of all the strain gages on the structure. This is done by normalizing the data from each gage to the maximum load and the maximum strain recorded for that gage. After normalizing, all the data for a given loading condition vary between a minimum of 0 and a maximum of 1. In the ideal case, the normalized data will all lie on the line passing through the origin and the point (1, 1). If there is a large amount of scatter in the strain data for a given load case, but the mean values lie on the ideal response line, then the variations are due to inaccuracies in the strain data acquisition (i.e.,

strain gages, wiring, and/or data-acquisition system). If, however, there is little variation in the values of the normalized strain but the mean for a given load case is not on the ideal response line, then an error in the recorded loading is indicated.

The load-adjustment test selects the most consistent set of normalized strains and uses these data to mathematically adjust the value of the applied loads. If the adjustments are large, all three of the tests are performed again using the new values of the loads.

Computer program LINDA, which uses NOSEY as a subroutine, was used to reduce the strain data to calculated stresses in both local and principal coordinates. A complete tabulation of these data is presented in Appendix V. There is a separate table for each load condition on each model. Each table presents measured strains, maximum and minimum principal surface stresses, shear stresses, stresses along and normal to the gage lines, and the angle in the counterclockwise direction from the gage line to the maximum principal stress.

The value of the load for which LINDA computes and prints the strains and stresses is controlled by the user. In the tabulations of Appendix V, the indicated pressures and moments correspond to those loads that will give a maximum principal stress of 1000 psi using the nominal dimensions of the piping. The nominal force loads in the transverse shear directions are equal to the value that will produce a bending stress of 1000 psi for the nominal dimensions. Specifically, the nominal stresses are defined by the following relations for the different loadings:

$$\begin{aligned}
 \sigma_{\text{nom}} &= 1000 \text{ psi,} \\
 &= pD_o/2T_r \text{ (internal pressure),} \\
 &= M/Z_r \text{ (moment on run),} \\
 &= M/Z_b \text{ (moment on branch),} \\
 &= FL_r/Z_r \text{ (transverse force on run),} \\
 &= FL_b/Z_b \text{ (transverse force on branch),} \\
 &= F/A_r \text{ (axial force on run),} \\
 &= F/A_b \text{ (axial force on branch).}
 \end{aligned}$$

The nominal values for the geometric parameters D_o , T_r , Z_r , Z_b , A_r , and A_b were given earlier in Table 1.2. For the full-outlet tees T-10, T-11, and T-16, the branch pipe and the run pipes have the same nominal dimensions, and thus the values for the nominal stresses are independent of whether the moment loadings were applied on the branch or the run. However, for the reducing tees T-12 and T-13 the nominal dimensions of the branch and run are different. For these the nominal stresses were calculated using the dimensional properties of the pipe on which the loading was applied. For internal pressure the section properties of the run pipe were used for all the tees. An elastic modulus of $E = 30 \times 10^6$ psi and Poisson's ratio of $\nu = 0.3$ were used to calculate the stresses given in Appendix V. The results should, therefore, be adjusted by scaling to the appropriate value of E for different materials or operating temperatures.

There are two advantages to this normalizing scheme. First, it provides an easy means for comparing the stress intensification effect of different loads on the same tee and for identical loads on different tees. Second, by scanning the tabulations for maxima, one can obtain specialized stress indices. Comparing these values would be a first step toward the development of generalized stress indices for use in design codes and standards.

3.1.2 Final screening and reduction

The data reduction performed by NOSEY is geared toward establishing a constant strain-to-load ratio for each gage and hence for each rosette. If some of the data for one of the gages do not pass all the tests, the confidence in the value of the calculated stress for that rosette is diminished. Therefore, the data were also subjected to a final screening in which the response of each rosette (for which part of the data had been rejected by the linearity test) was compared with the behavior of adjacent rosettes. This was done by studying computer graphs of the maximum and minimum principal stresses vs gage location. If an excessively steep gradient was found to occur at a gage where part of the data had been rejected, the plot was compared with those of other cases for which similar stresses could be expected. The curve was then adjusted

if necessary. These comparisons were based on certain similarities in loading and symmetries in the test setup, which could be exploited in predicting trends of the stress plots and identifying questionable data points.

In this series of tests the transverse forces were applied to the branch and the run at distances of either 77.0 in. or 173.0 in. (see Table 2.1) from the center of the tee. If it is conservatively assumed that the maximum nominal shear stress is equal to twice the applied shear force divided by the cross-sectional area, then the ratio of the maximum nominal bending stress to the maximum nominal shear stress will range from about 6.5 on the T-16 run or branch to about 34.0 on the branch of T-12. The factor of 2 comes from thin shell theory and represents the highest shear stress solution for a beam with a circular cross section. Furthermore, according to the usual assumptions of beam theory the shear stress will be zero at the point of maximum bending stress. Therefore, the stresses due to F2Y and M2Z should be very similar, and the maximum principal stress in each case should be due primarily to bending. The same holds for F2Z and M2Y, and for F3Z and M3X. (Recall that M3Z does not have an equivalent transverse load since F3X was not run.)

The test models were symmetric about the plane formed by the intersection of the axes of the run and the branch (the longitudinal plane). There was also geometric symmetry about the plane perpendicular to the run containing the branch axis (the transverse plane). Since the -X end of the run was fixed while the +X end was free, the boundary conditions are not symmetric about this plane. However, these ends were sufficiently removed from the tee that the effect of end constraint can be expected to be negligible in the region of the tee. Thus, the elastic response of each model to internal pressure and to loads applied at the free end of the run should be similar for the two opposing quadrants on which the strain gages were placed. Loads on the branch end, however, cannot be expected to give similar responses in opposing quadrants because there was no reaction at the free end and the symmetry breaks down.

The results of the final strain gage data screening are given in Appendix VI, Table VI.1 in terms of principal stress for the maximum loads given in Table 2.2. A total of 317 stress values was adjusted, or

about 2.5% of the 12,864 solutions which were obtained. Of the stresses that were adjusted, 283 (89%) were on the inside surface, reflecting the greater difficulty of installing strain gages on the inside of the tee. Rosettes located on the welds accounted for 106 adjusted values or 33% of the total. Since only about 17% of the gages were located on welds, this indicates the difficulty involved in instrumenting the welds.

For T-13 all three of the gages in the rosette located on the inside of the run pipe-to-tee weld for rows 5 and 6 failed to give readings. For some of the load cases the analysts felt that it was possible to assign a plausible value to the stresses which would occur at those points. However, for the M3Y, M3Z, and M2Y loadings the recorded values were simply left at zero. On T-12, gage line 6 on the outside surface of the top quadrant (+X, +Y, +Z) had so many faulty data points for the F2Z loading that no basis for comparison or adjustment could be established, and the stresses were simply reported as they were recorded. None of the intermediate crotch line gages on T-12 or T-16 required adjustment.

3.2 Presentation and Discussion of Strain-Gage Data

The strain-gage data are presented in Appendixes V-VII for two different stages of reduction. Appendix V gives tabulations of the LINDA output. The data in that appendix have not been screened by the procedure of Sect. 3.1.2. Appendixes VI and VII contain computer plots and tabulations, respectively, of the screened and adjusted data. The LINDA output in Appendix V is based on calculations using $E = 30.0 \times 10^6$ psi. In Appendix VI the normalized stress intensities for T-16 have been scaled by the factor 28.3/30.0 to correct for the lower Young's modulus of stainless steel.

During the course of this test series the data reduction subroutine NOSEY was updated several times. The data in Appendixes V-VII and Table 2.3 of Sect. 2.3 represent the output from several different revisions. Therefore, there are some minor inconsistencies due to small variations in the diagnostic parameters used in NOSEY at different stages of the program's development.

The tabulations given in Appendix V also include stress and strain results for the seven rosettes located on each model on the side opposite the branch. These gages are not located in regions of high stress concentration, and the data they supplied were considered of less importance than that obtained from the other gages. These additional data points were not screened in the manner described in Sect. 3.1.2 and, therefore, are not included in Appendixes VI and VII.

The data given in Appendixes VI and VII have been checked and adjusted. These appendixes include a summary of the adjustments, tabulations of normalized stress intensities for each loading, and contour plots of the stress intensities for each quadrant of each of the tees. The adjusted data points are flagged in the tabulations, and the maximum value for each load case has been circled. In general, it may be observed that none of the stress patterns are exactly symmetrical, due in large part to small variations in the tee geometry. The stainless steel tee T-16 was perhaps more symmetric than the carbon steel tees, although it had a significant amount of draw-down at the pipe-to-tee welds. For T-16 we have therefore identified two maximum stress values, one for the body and one for the welds.

It may also be observed that the maximum stress from internal pressure occurred on the inside surface at the crotch in the longitudinal plane (gage row 1) for all five tees. For the three full outlet tees the maximum stresses from the bending loads generally occurred in the crotch region near, but not always in the transverse plane, although there were several loading cases where the maximum stress occurred at the run pipe-to-tee weld. For the two reducing tees, the maximum stresses from the bending loads tended to occur in the branch near the crotch in either the longitudinal or transverse planes, although again there were several loading cases where the maximum stress occurred at the welds. The maximum stress from torsion on the run for the two reduced outlet tees occurred on the inside surface at about 45° on the branch.

Table 3.1 gives a summary of the locations (by gage number) and magnitudes of the maximum normalized stress intensities (i.e., experimental stress indices) for each of the 12 loadings on all 5 tees. The same information is shown schematically in Figs. 3.1-3.5 for each of the five

Table 3.1. Location and value of maximum experimental stress indices

Tee	Gage ^b SI ^d	Internal pressure load p	Branch ^a					
			In-plane moment M3Z	Out-of-plane moment M3X	Out-of-plane force F3Z	Torsion M3Y	Axial force F3Y	
T-10	Gage ^b SI ^d	I-1R5-E 2.908	I-2R2-E 3.796	O-2R2-F 3.661	O-2R2-F 3.493	O-2R2-F 3.599	O-2R3-L ^c 6.576	
T-11	Gage SI	I-2R5-E 3.694	O-2R5-G 2.130	O-2R3-E 2.255	O-2R2-E 2.240	O-2R2-E 2.116	I-2R1-L ^c 6.404	
T-12	Gage SI	I-2R6-C 2.390	O-2R6-B 1.272	O-1R1-D 2.017	O-1R1-D 1.811	O-1R5-A 1.144	O-2R1-D 3.720	
T-13	Gage SI	I-2R6-C 2.425	O-1R6-B 1.594	O-2R1-C 1.355	O-2R1-C 1.163	O-1R6-B 1.131	O-1R6-C 2.338	
T-16 (on tee)	Gage SI	I-1R6-D 2.212	I-2R2-E 3.043	I-2CR-23 ^e 3.211	I-CR2-23 ^e 3.298	O-CR2-12 ^e 3.239	I-2CR-23 ^e 3.067	
T-16 (on weld)	Gage SI	I-2R5-A 1.985	O-2R3-L 3.158	O-1R1-A 5.100	O-1R1-A 4.198	O-2R1-L 2.859	O-1R1-A 7.400	
Run ^a								
			In-plane moment M2Z	In-plane force F2Y	Out-of-plane moment M2Y	Out-of-plane force F2Z	Torsion M2X	Axial force F2X
T-10	Gage SI	I-1R1-D 3.102	I-2R1-C 3.074	O-2R1-L ^c 1.604	O-2R1-L ^c 1.955	I-2R2-D 3.573	I-2R1-C 4.389	
T-11	Gage SI	I-2R1-C 1.809	I-1R1-C 1.814	O-2R2-L ^c 1.190	O-2R2-L ^c 1.319	O-2R5-G 1.860	O-2R2-L 1.699	
T-12	Gage SI	I-2R1-D 2.350	I-2R1-D 2.290	O-2R4-D ^c 1.051	O-2R4-D ^c 1.179	I-1R3-C 1.688	I-2R1-D 2.277	
T-13	Gage SI	I-2R1-C 2.051	I-1R1-C 2.137	O-1R4-D ^c 1.221	O-1R4-D ^c 1.236	I-1R3-C 1.584	I-1R1-D 2.381	
T-16 (on tee)	Gage SI	I-2R1-D 2.516	I-2R1-D 2.536	I-2R1-D 1.078	O-2R2-F 1.320	I-2R2-D 3.424	I-2R1-D 3.631	
T-16 (on weld)	Gage SI	O-2R2-L 3.011	O-2R2-L 3.174	O-2R2-L 1.927	O-2R1-L 2.379	O-2R3-L 2.562	O-2R2-L 4.794	

^aSee Fig. 2.1 for load direction convention.

^bGage = location of rosette where maximum stress intensity occurred.

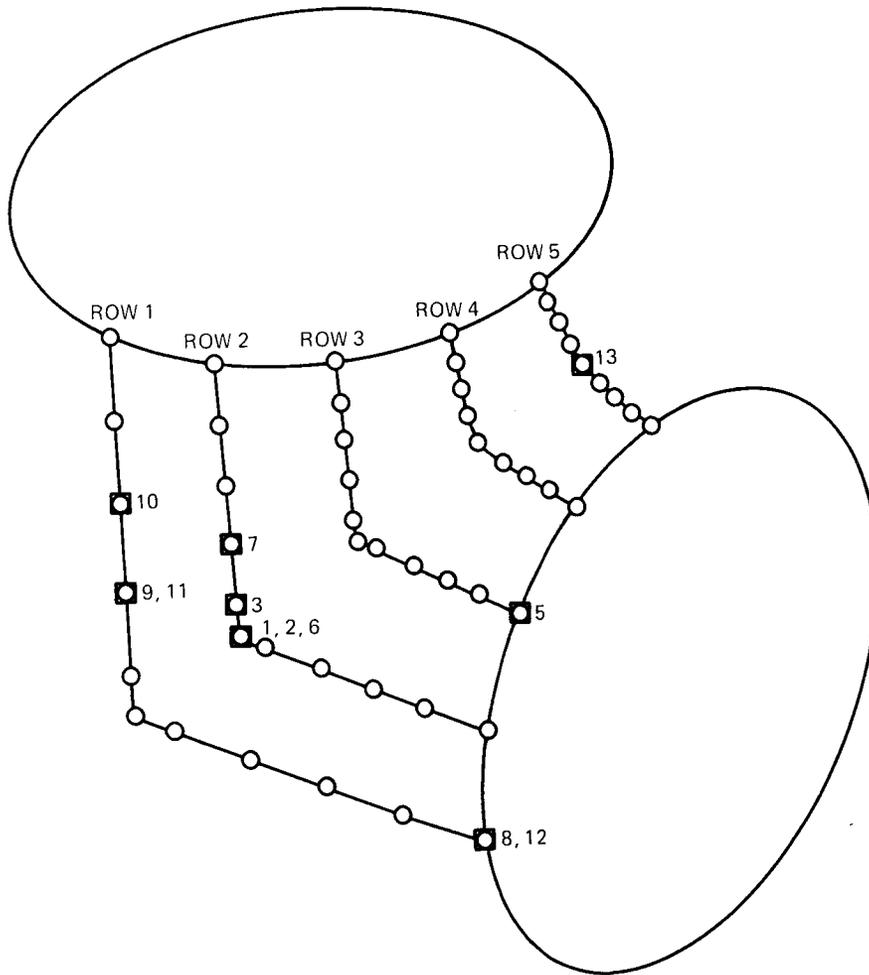
^cLocated on pipe-to-tee weld.

^dSI = maximum normalized stress intensity, that is, experimental stress index.

^eLocated at intermediate crotch line position.

tees. The normalizing loads are given in Table 3.2. The figures show that the maximum stresses from the different loadings do not generally occur at the same locations. For some loadings (e.g., internal pressure and out-of-plane bending) the maximum stress locations were widely separated.

Table 3.1 is arranged so that results from the bending moment and corresponding transverse force loadings (e.g., M3Z and F3X) can be easily



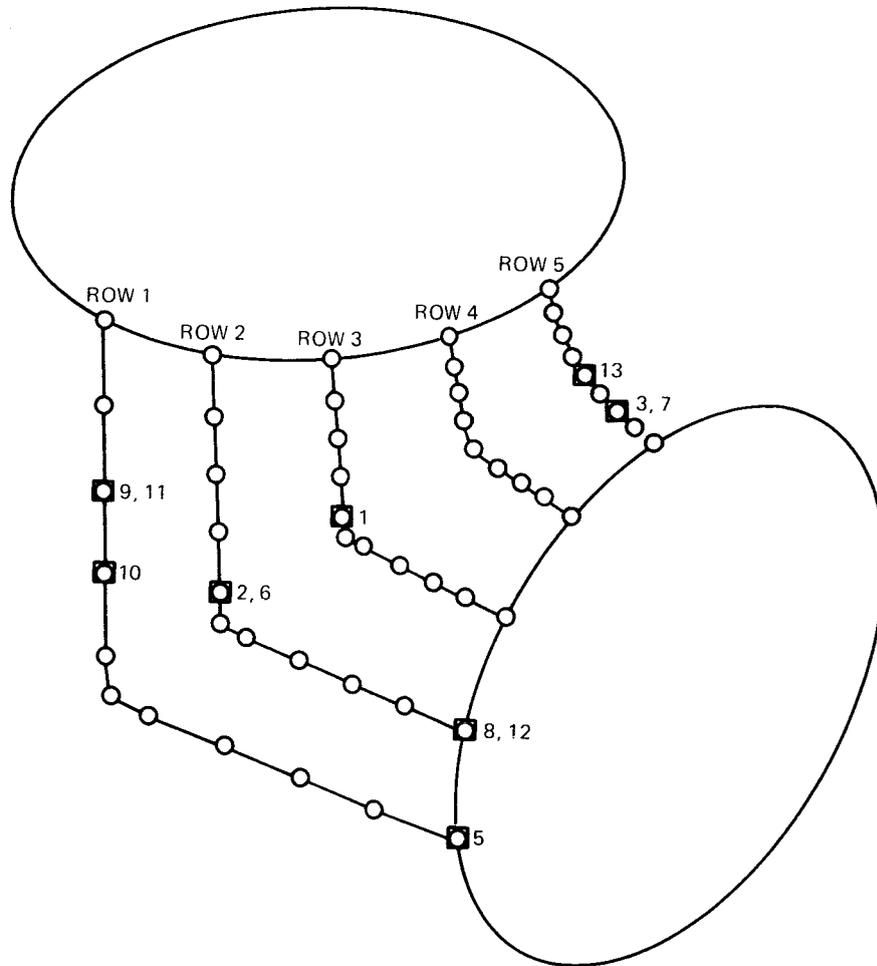
○ GAGE LOCATION

□ n MAXIMUM FOR LOAD CASE n

LOAD NO.	LOAD NAME	QUADRANT*	STRESS INDEX
1	M3X	2	3.66
2	M3Y	2	3.60
3	M3Z	4	3.80
5	F3Y	2	6.58
6	F3Z	2	3.49
7	M2X	4	3.57
8	M2Y	2	1.60
9	M2Z	4	3.10
10	F2X	4	4.39
11	F2Y	4	3.07
12	F2Z	2	1.96
13	PRES	3	2.91

*1 = TOP OUTSIDE
 *2 = BOTTOM OUTSIDE
 *3 = TOP INSIDE
 *4 = BOTTOM INSIDE

Fig. 3.1. Location and magnitude of experimental stress indices for T-10.

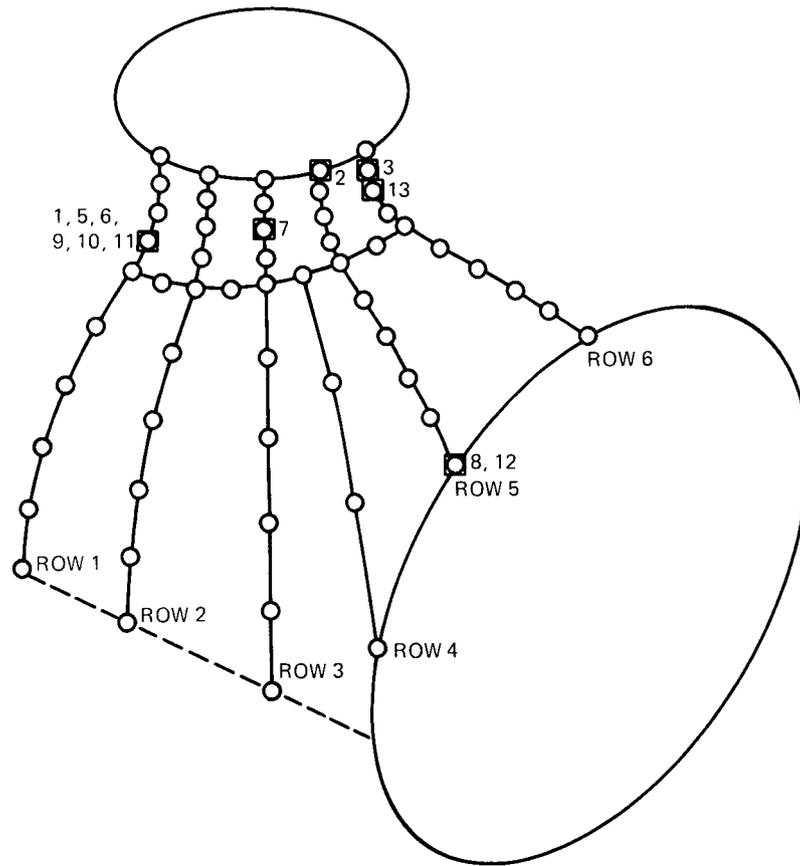


○ GAGE LOCATION
 □ n MAXIMUM FOR LOAD CASE n

LOAD NO.	LOAD NAME	QUADRANT*	STRESS INDEX
1	M3X	2	2.26
2	M3Y	2	2.12
3	M3Z	2	2.13
5	F3Y	4	6.40
6	F3Z	2	2.24
7	M2X	2	1.86
8	M2Y	2	1.19
9	M2Z	4	1.81
10	F2X	4	2.78
11	F2Y	3	1.81
12	F2Z	2	1.32
13	PRES	4	3.69

*1 = TOP OUTSIDE
 2 = BOTTOM OUTSIDE
 3 = TOP INSIDE
 4 = BOTTOM INSIDE

Fig. 3.2. Location and magnitude of experimental stress indices for T-11.



○ GAGE LOCATION
 □_n MAXIMUM FOR LOAD CASE n

LOAD NO.	LOAD NAME	QUADRANT*	STRESS INDEX
1	M3X	1	2.02
2	M3Y	1	1.14
3	M3Z	2	1.27
5	F3Y	2	3.72
6	F3Z	1	1.81
7	M2X	3	1.69
8	M2Y	2	1.05
9	M2Z	4	2.35
10	F2X	4	2.28
11	F2Y	4	2.29
12	F2Z	2	1.18
13	PRES	4	2.39

*1 = TOP OUTSIDE
 2 = BOTTOM OUTSIDE
 3 = TOP INSIDE
 4 = BOTTOM INSIDE

Fig. 3.3. Location and magnitude of experimental stress indices for T-12.

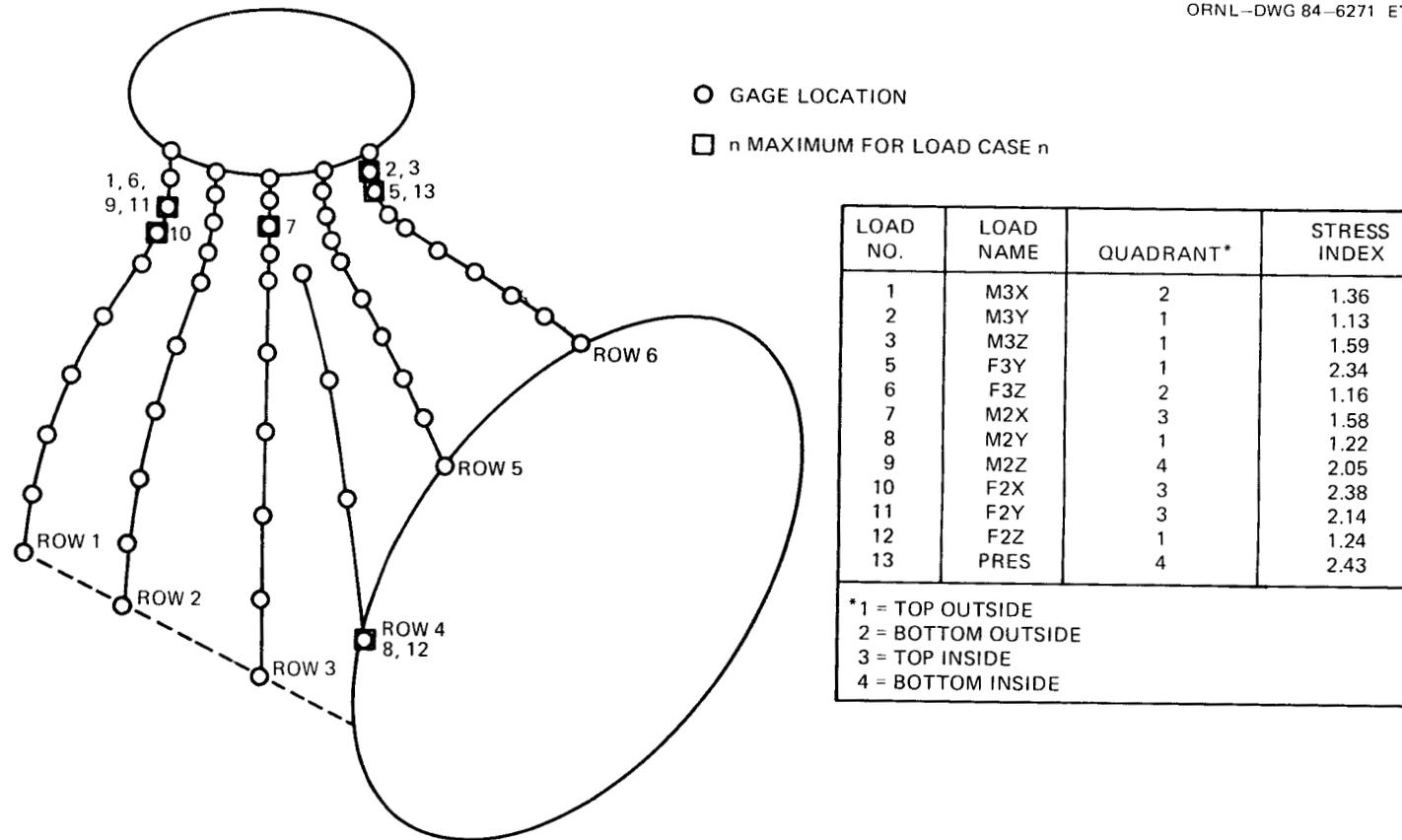
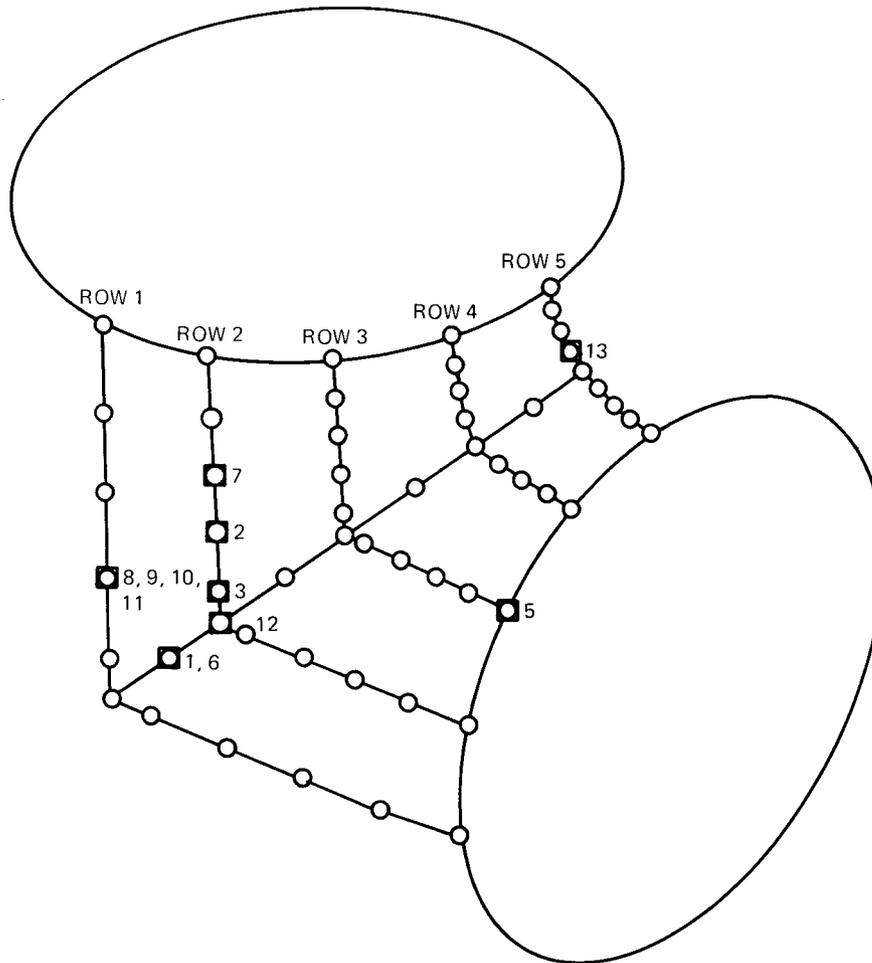


Fig. 3.4. Location and magnitude of experimental stress indices for T-13.



- GAGE LOCATION
- n MAXIMUM FOR LOAD CASE n

LOAD NO.	LOAD NAME	QUADRANT*	STRESS INDEX
1	M3X	4	3.40
2	M3Y	4	3.43
3	M3Z	4	3.23
5	F3Y	4	3.25
6	F3Z	4	3.50
7	M2X	4	3.63
8	M2Y	4	1.14
9	M2Z	4	2.67
10	F2X	4	3.85
11	F2Y	4	2.69
12	F2Z	2	1.40
13	PRES	3	2.35

*1 = TOP OUTSIDE
 2 = BOTTOM OUTSIDE
 3 = TOP INSIDE
 4 = BOTTOM INSIDE

Fig. 3.5. Location and magnitude of experimental stress indices for T-16.

Table 3.2. Normalizing loads for elastic-response data^a

Tee	Moment on branch (in.-lb)	Transverse force on branch (lb)	Axial force on branch (lb)	Moment on run (in.-lb)	Transverse force on run (lb)	Axial force on run (lb)	Pressure (psi)
T-10	285,000	1,647	50,300	285,000	1,647	50,300	57.25
T-11	788,300	4,557	159,400	788,300	4,557	159,400	195.25
T-12	29,900	389	11,910	285,000	1,647	50,300	57.25
T-13	74,200	964	34,000	788,300	4,557	159,400	195.25
T-16	109,700	1,424	18,650	109,700	634 ^b 1,424	18,650	28.83

^aSee Sect. 3.1.1 for nominal stress relations.

^bF2Y (nom) = 634 lb F2Z (nom) = 1424 lb.

compared to verify that the maximum stresses for each pair are approximately equal for all five tees. The largest difference in such a pair was for the in-plane bending on the run (M2X and F2Y) of T-16. In this case the maximum stress intensities differed by about 18% on the body of the tee and did not occur at the same location. The maximum stresses at the weld differed by about 19%. As pointed out earlier, the ratio of the bending stress to the shear stress is smaller for T-16 than for the other models and thus results from pure bending and transverse force loadings for T-16 should differ more than for other tees. Of the remaining 19 pairs of pure moment and transverse force loadings, 13 gave maximum stresses within 15% of each other.

The above differences are due to at least three factors. First, even though the effect of transverse shear is small, it is not negligible and an influence of a few percent may be expected. Second, the nominal bending stress for the applied transverse force was calculated using a moment arm equal in length to the distance from the intersection of the pipe and run axes to the point of load application. This will introduce some errors, since the maximum bending will not always occur at this point. Third, errors may be caused by faulty data that survived all the screening procedures.

Because the maximum stress intensities given in this section are normalized in the same fashion as the stress indices given in Table NB-3681(a)-1 of the *ASME Code*, a direct comparison of the two can be made. It must be emphasized, however, that the Code indices are intended to represent maximum stress intensities resulting from any admissible combination of loadings. Thus, firm conclusions regarding the adequacy of the Code stress indices cannot be made until the experimental data are studied in the proper context. A separate report on that subject is being prepared.

3.3 Representative Data for Pressure Loads

For those readers who may not have ready access to a microfiche reader or who may not be interested in all the strain-gage data given in the appendixes, a portion of the data for the internal pressure loading

case has been abstracted for full-size presentation and further discussions. Normalized values for the stress intensity determined for each gage site in each of the two quadrants for both inside and outside surfaces are listed in Tables 3.3–3.7. Computer generated contour plots for one surface of each tee are shown in Figs. 3.6–3.10.

The data in Tables 3.3–3.7 are arranged in four sets, one set for each quadrant surface, and the maximum value in each set is circled. The largest of those, along with the identifying gage number, was given earlier in Table 3.1. A few of the values given in the tables have been adjusted, as discussed in Sect. 3.1, and are identified by a solid triangle (\blacktriangle). Values for the stress intensities for all the gage sites, together with the XYZ coordinate location data given in Appendix III, should provide valuable sets of experimental benchmark data for comparison with analytical solutions and/or photoelastic model studies.

3.4 Flexibility Factors

Flexibility factors are numbers used to modify the force-displacement and/or moment-rotation relationships of the idealized "stiff line" strength-of-materials analytical models used in piping system design to calculate the force and moment distributions. In general, different flexibility factors will be used for each type of piping system component, just as different stress indices are used for the different components. Whether or not a specific flexibility factor is actually defined depends, however, on whether the component deforms substantially more or less than predicted by the piping system design model. Elbows, for example, might be modeled as a right-angle intersection of two straight beams, or as a single curved beam. In either case the displacements and rotations of one end of the elbow with respect to the other end will be substantially greater than predicted. Flexibility factors are therefore used to correct for the deficiencies of the design model.

In present-day piping system analyses, flexibility factors are only used to modify the moment-rotation relationships, and it is usually assumed that the force-displacement relationships of the strength-of-

Table 3.3. Normalized stress intensities for T-10 with internal pressure

Gage	Stress intensity on top outside surface					Gage	Stress intensity on top inside surface				
	Row 1	Row 2	Row 3	Row 4	Row 5		Row 1	Row 2	Row 3	Row 4	Row 5
A	1.5021	1.0386	0.5836	0.6694	0.7934	A	0.1707	0.6496	1.3198	1.5105	1.7775
B	1.4868	1.0249	0.7005	0.6667	0.6333	B	0.4351	0.5619	1.5190	1.8494	2.0851
C	1.4252	1.2307	0.8485	0.8059	0.7208	C	0.2981	0.4755	1.7112	2.2138	2.4320
D	1.7193	1.4539	0.7907	0.7797	0.8904	D	0.1097	0.4331	1.6978	2.4735	2.7899
E	1.6314	1.6367	0.8056	0.8881	1.0692	E	0.1424	0.5713	1.4864	2.4850	2.9075
F	1.1375	1.7185	0.8899	0.7688	0.8667	F	0.4318	0.6415	1.2575	2.4409	2.5917
G	1.1383	1.5976	0.9174	0.7636	0.8185	G	0.4919	0.5025	1.3853	2.1900	2.4521
H	1.2487	1.2655	0.9113	0.6881	1.0141	H	0.6448	0.1777	1.4500	1.7089	2.0034
J	1.2610	1.2167	0.8934	0.9757	1.2069	J	0.6196	0.4141	1.4224	1.5172	1.6445
K	1.1519	1.1599	0.8200	0.0	0.0	K	0.4806	0.5753	1.3942	0.0	0.0
L	1.2622	0.9879	0.7968	0.0	0.0	L	0.3912▲	0.9376	1.3390	0.0	0.0
Gage	Stress intensity on bottom outside surface					Gage	Stress intensity on bottom inside surface				
	Row 1	Row 2	Row 3	Row 4	Row 5		Row 1	Row 2	Row 3	Row 4	Row 5
A	1.6382	1.1196	0.6777	0.7287	0.8295	A	0.2172	0.8074	1.9879	1.5899	1.8702▲
B	1.7451	1.0466	0.6174	0.6523	0.8094	B	0.2835	0.8183	1.6478	1.8690	2.1564▲
C	1.7486	1.2369	0.7114	0.7156	0.9275	C	0.4020	0.8394	1.8559	2.2504	2.2554
D	1.7839	1.5115	0.7269	0.8059	0.9702	D	0.4194	0.6491	1.7270▲	2.4829	2.5381▲
E	1.5690	1.7295	0.8788	0.8599	1.1714	E	0.0421	0.4823	1.6793▲	2.6130	2.6335▲
F	1.1509	1.8141	0.9185	0.8706	1.0290	F	0.4750	0.5686	1.5298	2.5088	2.4366
G	1.1111	1.6415	0.9027	0.8876	1.0707	G	0.4929	0.4529	1.6120	2.0753	2.2518▲
H	1.2081	1.4235	0.9267	0.7806	1.1510	H	0.5763	0.2202	1.5853	1.4971▲	1.7247
J	1.1267	1.3352	0.9170	1.1214	1.2566	J	0.5602	0.3467	1.4360	1.2223▲	1.4885▲
K	1.0393	1.1895	0.8431	0.0	0.0	K	0.3700	0.6847	1.3690	0.0	0.0
L	1.1547	0.9950	0.8672	0.0	0.0	L	0.6020	0.9293	1.2589	0.0	0.0

Table 3.4. Normalized stress intensities for T-11 with internal pressure

Gage	Stress intensity on top outside surface					Gage	Stress intensity on top inside surface				
	Row 1	Row 2	Row 3	Row 4	Row 5		Row 1	Row 2	Row 3	Row 4	Row 5
A	1.0120	0.9494	0.7414	0.5971	0.5214	A	0.6915	0.9661	1.4421	1.8272	2.2698▲
B	1.0753	1.0114	0.8079	0.5918	0.4853	B	0.6075	0.6964	1.5648	2.0405	2.3596
C	1.1068	1.2335	0.9006	0.5825	0.4717	C	0.5130	0.5822	1.5910	2.4295	2.7876
D	1.4204	1.3410	0.9965	0.5534	0.4961	D	0.4198	0.5044	1.3544	2.6130	3.1747
E	1.3064	1.5550	1.0186	0.5421	0.4659	E	0.3674	0.2736	0.9842	2.5947	3.2460▲
F	1.1098	1.4297	1.0785	0.5825	0.5254	F	0.4393▲	0.1862	0.7865	2.6037	2.9555
G	1.0152	1.4207	1.0444	0.6068	0.6076	G	0.5003▲	0.1995	0.9018	2.3741	2.6871
H	0.9698	1.3675	1.0309	0.6081	0.5060	H	0.5485	0.1824	1.1283	1.9948	2.1654
J	0.9483	1.1914	0.9527	0.6476	0.5295	J	0.5817	0.5264	1.4191	1.7719	1.8750
K	0.8619	1.0393	0.8373	0.0	0.0	K	0.8158	0.8085	1.4262	0.0	0.0
L	1.0176	0.9572	0.7575	0.0	0.0	L	0.8516	0.9100	1.4433	0.0	0.0

Gage	Stress intensity on bottom outside surface					Gage	Stress intensity on bottom inside surface				
	Row 1	Row 2	Row 3	Row 4	Row 5		Row 1	Row 2	Row 3	Row 4	Row 5
A	1.0777	0.9300	0.6868	0.5528	0.5038	A	0.6834▲	0.9574	1.5001	1.8991	2.1011
B	1.0604	1.0203	0.7727	0.5692	0.4826	B	0.6224▲	0.9371	1.5759	2.2167	2.2902
C	1.1134	1.1259	0.8795	0.6157	0.4290	C	0.5128	0.8116	1.6071	2.4436	2.7579▲
D	1.4294	1.3114	0.9727	0.5415	0.3814	D	0.3963	0.5085	1.4298	2.6306	3.2237
E	1.2876	1.4761	1.1711	0.5768	0.3840	E	0.3661▲	0.3120	1.0754	2.5412	3.6944
F	1.0606	1.5463	1.1026	0.6088	0.4240	F	0.3316	0.2188	0.7681	2.5547	3.6121▲
G	1.0156	1.4428	1.0830	0.6260	0.5439	G	0.3051▲	0.2600	0.8678	2.3905	2.7117
H	1.0156	1.3340	1.0537	0.5680	0.4551	H	0.3173▲	0.2070	1.0432	2.0591	2.1696
J	0.9476	1.1447	1.0037	0.5738	0.4897	J	0.4393▲	0.4778	1.3994	1.8556	1.9034
K	0.8459	1.0243	0.8558	0.0	0.0	K	0.5613▲	0.7113	1.4162	0.0	0.0
L	0.9982	0.9929	0.7921	0.0	0.0	L	0.6834▲	0.8041	1.5099	0.0	0.0

Table 3.5. Normalized stress intensities for T-12 with internal pressure

Gage	Stress intensity on top outside surface						Gage	Stress intensity on top inside surface									
	Row 1	Row 2	Row 3	Row 4	Row 5	Row 6		Row 1	Row 2	Row 3	Row 4	Row 5	Row 6				
A	1.1703	0.7997	0.8555	1.1175	1.0012	0.9485	A	0.7172	0.8771	0.9939	1.3529	1.0508	0.9951				
B	1.1570	0.9045	0.7143	0.6974	0.6987	0.7834	B	0.4843	0.8562	1.1923	0.6945	1.4651	2.0142▲				
C	1.0032	0.9602	0.8497	0.7740	0.9285	1.0335	C	0.5482	0.8105	1.5631	0.7439	2.1386	(2.2611)				
D	1.1244	1.2365	1.1405	1.0315	1.0772	1.0977	D	0.5035	0.7915	1.3785	0.9028	1.9819	2.0905				
E	1.3546	(1.4861)	1.3231	0.0	1.0551	1.0144	E	0.5541	0.7400	1.0807	0.0	1.5697	1.6008				
F	1.0077	1.2853	0.9227	0.0	0.6835	0.5773	F	0.4213	0.3417	0.7174	0.0	1.0189	1.1246				
G	0.8178	1.0157	0.8640	0.0	0.5862	0.4641	G	0.6554	0.5920	0.5265	0.0	0.8618	0.8909				
H	0.6414	0.8298	0.8323	0.0	0.6466	0.4841	H	0.8314	0.6940	0.6390	0.0	0.7879	0.7883				
J	0.3888	0.5817	0.7191	0.0	0.7128	0.6494	J	1.0589	0.9439	0.7681	0.0	0.8723	0.8229				
K	0.2649	0.4201	0.5277	0.0	0.9172	0.9482	K	1.1771	1.1417	0.9534	0.0	1.0476	0.9693				
<u>Intensities at crotch line gages</u>						<u>Intensities at crotch line gages</u>											
<u>Gage 12</u>			<u>Gage 23</u>			<u>Gage 56</u>			<u>Gage 12</u>			<u>Gage 23</u>			<u>Gage 56</u>		
1.4632			1.4073			0.9704			0.5563			0.8797			1.7464		
Gage	Stress intensity on bottom outside surface						Gage	Stress intensity on bottom inside surface									
	Row 1	Row 2	Row 3	Row 4	Row 5	Row 6		Row 1	Row 2	Row 3	Row 4	Row 5	Row 6				
A	1.2163	0.8451	0.8037	1.2272	0.9889	0.7976	A	0.6822	0.9587	1.0614	1.2819	1.0164	0.9947				
B	1.1571	0.9335	0.7174	0.6588	0.7575	0.7616	B	0.6168	0.8876	1.2757	0.7885	1.5156	1.6279				
C	1.0893	1.0279	0.8580	0.6749	1.0088	0.9452	C	0.6088	0.9443	1.5691	0.7711	2.1032	(2.3902)				
D	1.2196	1.3609	1.2909	0.9621	1.0812	0.9931	D	0.5547	0.8553	1.4049	1.0662	1.9931	2.2907				
E	1.3630	(1.5362)	1.2314	0.0	1.0815	0.9554	E	0.5564	0.7535	1.0432	0.0	1.5243	1.6305				
F	0.9481	1.2007	0.8377	0.0	0.6998	0.5905	F	0.4056	0.4928	0.7869	0.0	1.0358	1.1331				
G	0.6853	0.8696	0.7576	0.0	0.5803	0.4842	G	0.7830	0.7699	0.6736	0.0	0.8445	0.9347				
H	0.5011	0.7177	0.6980	0.0	0.5657	0.5149	H	0.9517	0.8624	0.7224	0.0	0.7521	0.8273				
J	0.3126	0.4462	0.5757	0.0	0.6858	0.6663	J	1.1545▲	1.1366	0.8951	0.0	0.8730	0.8144				
K	0.1861	0.2387	0.3711	0.0	0.8322	0.8282	K	1.2977	1.3413	1.1604	0.0	0.9629	0.9209				
<u>Intensities at crotch line gages</u>						<u>Intensities at crotch line gages</u>											
<u>Gage 12</u>			<u>Gage 23</u>			<u>Gage 56</u>			<u>Gage 12</u>			<u>Gage 23</u>			<u>Gage 56</u>		
1.4808			1.4078			1.0344			0.5330			0.9474			1.5098		

Table 3.6. Normalized stress intensities for T-13 with internal pressure

Gage	Stress intensity on top outside surface						Gage	Stress intensity on top inside surface					
	Row 1	Row 2	Row 3	Row 4	Row 5	Row 6		Row 1	Row 2	Row 3	Row 4	Row 5	Row 6
A	0.9159	0.9381	0.6822	0.9332	0.5709	0.5836	A	1.0326	1.1228	1.3807▲	1.3982	1.9550	1.5899▲
B	1.0146	1.1091	0.7479	0.6608	0.6789	0.7109	B	0.8769	1.0978	1.5927	1.0447	1.9091	1.9854
C	1.1194	1.1472	0.8167	0.6618	0.6763	0.7316	C	0.6314	0.8228▲	1.6261	1.1483	2.2279	(2.3947)
D	1.1255	(1.1493)	1.0001	0.7303	0.8246	0.7748	D	0.3241	0.6938	1.4455	1.1715▲	1.7801	1.9813
E	0.9650	1.1374	0.9641	0.0	0.8231	0.7684	E	0.3377	0.6647	1.2366	0.0	1.3022	1.3394
F	0.7166	0.9092	0.7466	0.0	0.6853	0.6381	F	0.5602	0.6244	1.0552	0.0	1.1337	1.2426
G	0.6003	0.7179	0.6693	0.0	0.6407	0.6333	G	0.9502	0.9685	0.9873	0.0	1.1638	1.1567
H	0.4601	0.5551	0.6479	0.0	0.6338	0.6165	H	1.1696	1.1795	1.1543	0.0	1.1366▲	1.1394
J	0.3584	0.4495	0.5587	0.0	0.6667	0.6151	J	1.2698	1.2135	1.2127	0.0	1.1582	1.1237
K	0.2972	0.3724	0.4996	0.0	0.6716	0.7398	K	1.3926	1.4051	1.2986	0.0	1.1366▲	1.1715▲

Gage	Stress intensity on bottom outside surface						Gage	Stress intensity on bottom inside surface					
	Row 1	Row 2	Row 3	Row 4	Row 5	Row 6		Row 1	Row 2	Row 3	Row 4	Row 5	Row 6
A	0.8817	0.8353	0.6695	0.9185	0.6798	0.5940	A	1.3110▲	1.3110▲	1.3601	1.4125	1.7991▲	1.6374
B	0.9941	0.9135	0.7239	0.7016	0.6704	0.6896	B	0.9637	1.1023	1.5258	1.1061	1.9100	1.9842
C	1.0783	0.9916	0.8129	0.6266	0.6978	0.6826	C	0.6317	0.9434	1.6412	1.1503	2.2153	(2.4253)
D	1.0706	(1.0923)	0.9273	0.6752	0.8261	0.7484	D	0.4860▲	0.6420	1.4296	1.1848	1.9161	1.6917
E	0.9543	1.0801	1.0054	0.0	0.8289	0.7467	E	0.3724	0.7355	1.1640	0.0	1.2795	1.3807▲
F	0.6655	0.8547	0.7684	0.0	0.7077	0.6448	F	0.5175	0.6863	1.0481	0.0	1.2288	1.2782
G	0.5566	0.6910	0.6892	0.0	0.6316	0.6042	G	0.9585	0.9420	0.9795	0.0	1.1385	1.1994
H	0.4303	0.5475	0.5955	0.0	0.6206	0.6374	H	1.2486	1.1258	1.0919	0.0	1.1154	1.1314
J	0.3056	0.4321	0.5317	0.0	0.6695	0.7320	J	1.3508	1.2914	1.2055	0.0	1.1080	1.1715▲
K	0.3023	0.3238	0.4422	0.0	0.6768	0.6697	K	1.3431	1.2694	1.1589	0.0	1.1440	1.1307

Table 3.7. Normalized stress intensities for T-16 with internal pressure

Gage	Stress intensity on top outside surface					Gage	Stress intensity on top inside surface				
	Row 1	Row 2	Row 3	Row 4	Row 5		Row 1	Row 2	Row 3	Row 4	Row 5
A	1.4150	0.8194	0.5664	0.5980	0.5406	A	1.2713	1.1285 [▲]	1.1647	1.0821	1.6409
B	(1.4428)	0.8610	0.4076	0.3891	0.3911	B	0.5521 [▲]	0.8571	1.1677	1.1891	1.7856
C	1.2458	1.0206	0.4347	0.4137	0.5606	C	0.8458	0.5303	1.2432	1.5511	2.0200
D	1.1461	0.9984	0.4142	0.6814	0.8540	D	0.4361	0.2379	1.4309	1.6998	(2.3454)
E	1.3994	1.0563	0.5183	0.9576	0.9780	E	0.2349	0.4380	1.2568	1.7068	2.2834
F	0.7021	1.2565	0.5320	0.6939	0.7473	F	0.3598	0.7734	1.0956	1.6197	1.8926
G	0.9169	1.1162	0.5648	0.6315	0.6261	G	0.3612	0.5048	1.2129	1.3788	1.5933
H	1.1903	1.0634	0.6100	0.5888	0.6888	H	0.6403	0.0466	1.1825	1.1771	1.1546 [▲]
J	1.1405	0.7989	0.6595	1.1011	1.7601	J	0.8028	0.4951	1.0345	0.9355	0.8872 [▲]
K	0.9941	0.6610	0.6847	0.0	0.0	K	0.3848	0.8008	0.8991	0.0	0.0
L	1.1363	0.9490	0.6199	0.0	0.0	L	0.7333	1.2138	0.8027	0.0	0.0
<u>Intensities at crotch line gages</u>					<u>Intensities at crotch line gages</u>						
<u>Gage 12</u>		<u>Gage 23</u>	<u>Gage 34</u>	<u>Gage 45</u>		<u>Gage 12</u>		<u>Gage 23</u>	<u>Gage 34</u>	<u>Gage 45</u>	
1.3869		0.8836	0.7136	0.6582		0.8928		0.2477	1.4856	1.8460	
Gage	Stress intensity on bottom outside surface					Gage	Stress intensity on bottom inside surface				
	Row 1	Row 2	Row 3	Row 4	Row 5		Row 1	Row 2	Row 3	Row 4	Row 5
A	(1.7798)	1.0677	0.9121	0.8542	0.5919	A	0.6942	1.0147	1.1947	1.1486	(2.1042 [▲])
B	1.6503	0.7353	0.3780	0.4992	0.4092	B	0.1072	0.9795	1.1033	1.1869	1.7648
C	1.4651	0.8184	0.4143	0.5831	0.6401	C	0.6173	0.9953	1.1721	1.5483	1.7474
D	1.3833	0.8986	0.4791	0.7350	0.9631	D	0.5875	0.6544	1.5355	1.8623	1.9545
E	1.3683	0.9715	0.5746	0.7180	0.9735	E	0.1517	0.2758	1.3265	1.8526	2.0477
F	0.8565	1.0980	0.5698	0.7273	0.7455	F	0.4913 [▲]	0.3970	1.2590	1.8551	2.0205
G	0.9455	0.9999	0.5470	0.5351	0.5323	G	0.5903 [▲]	0.2799	1.1667 [▲]	1.5671	1.7106
H	1.1079	0.9166	0.5174	0.4262	0.4895	H	0.6890	0.2410	1.0761	1.1800	1.4435
J	1.0041	0.7338	0.5398	1.4519	1.9352	J	0.5825	0.5386	0.8860	1.1310	1.3483
K	0.7808	0.6876	0.6617	0.0	0.0	K	0.3474	0.7153 [▲]	0.8902	0.0	0.0
L	0.8417	1.1222	0.8175	0.0	0.0	L	0.6920	0.9915	0.8829	0.0	0.0
<u>Intensities at crotch line gages</u>					<u>Intensities at crotch line gages</u>						
<u>Gage 12</u>		<u>Gage 23</u>	<u>Gage 34</u>	<u>Gage 45</u>		<u>Gage 12</u>		<u>Gage 23</u>	<u>Gage 34</u>	<u>Gage 45</u>	
0.3423		0.2006	0.1738	0.5427		0.5978		0.7125	1.3248	0.8392	

ORNL-DWG 84-6273 ETD

CONTOUR VALUES

□	0.0
○	4.0000E-01
△	8.0000E-01
+	1.2000E 00
×	1.6000E 00
◇	2.0000E 00
⋈	2.4000E 00
⊗	2.8000E 00

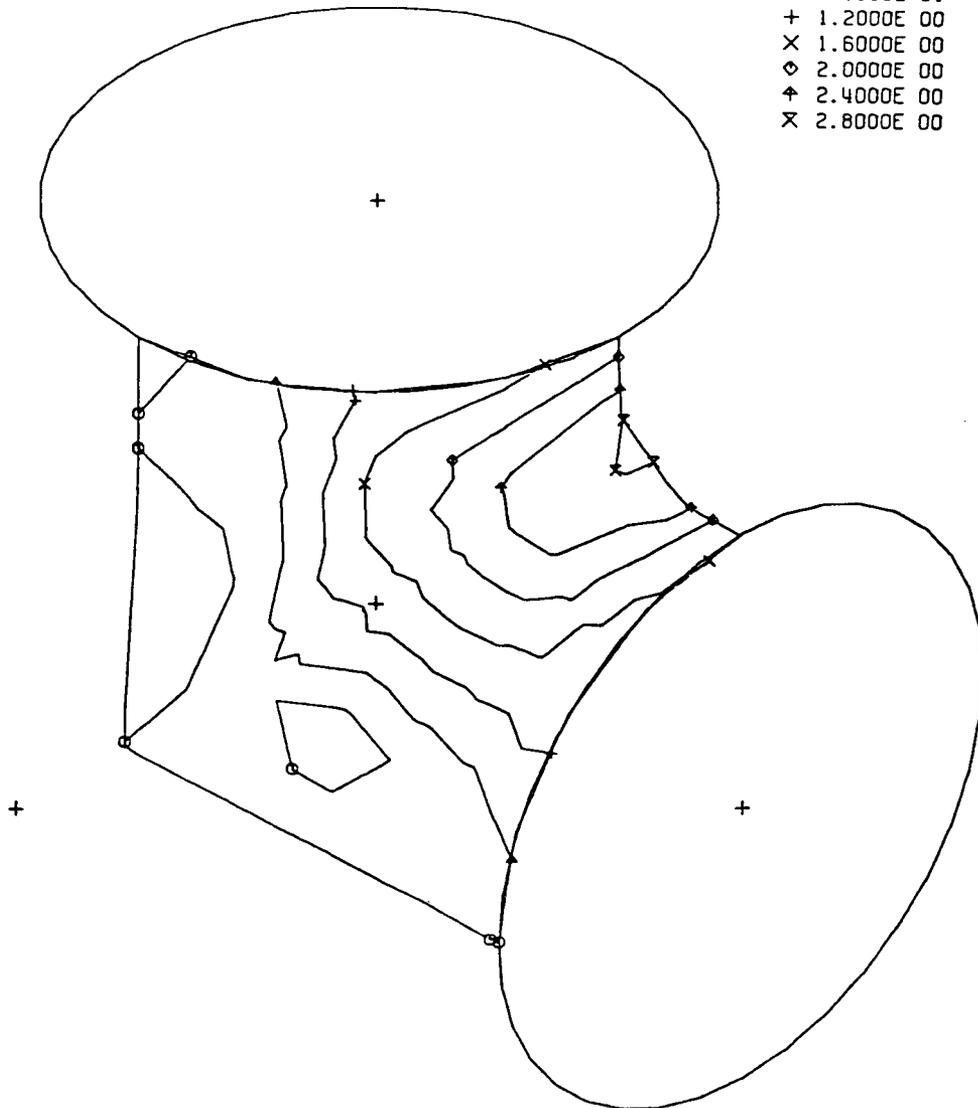


Fig. 3.6. Internal pressure stress index contour plot for quadrant 1 inside surface of T-10.

ORNL--DWG 84-6274 ETD

CONTOUR VALUES

□	0.0
○	4.0000E-01
△	8.0000E-01
+	1.2000E 00
×	1.6000E 00
◇	2.0000E 00
†	2.4000E 00
×	2.8000E 00
⊗	3.2000E 00

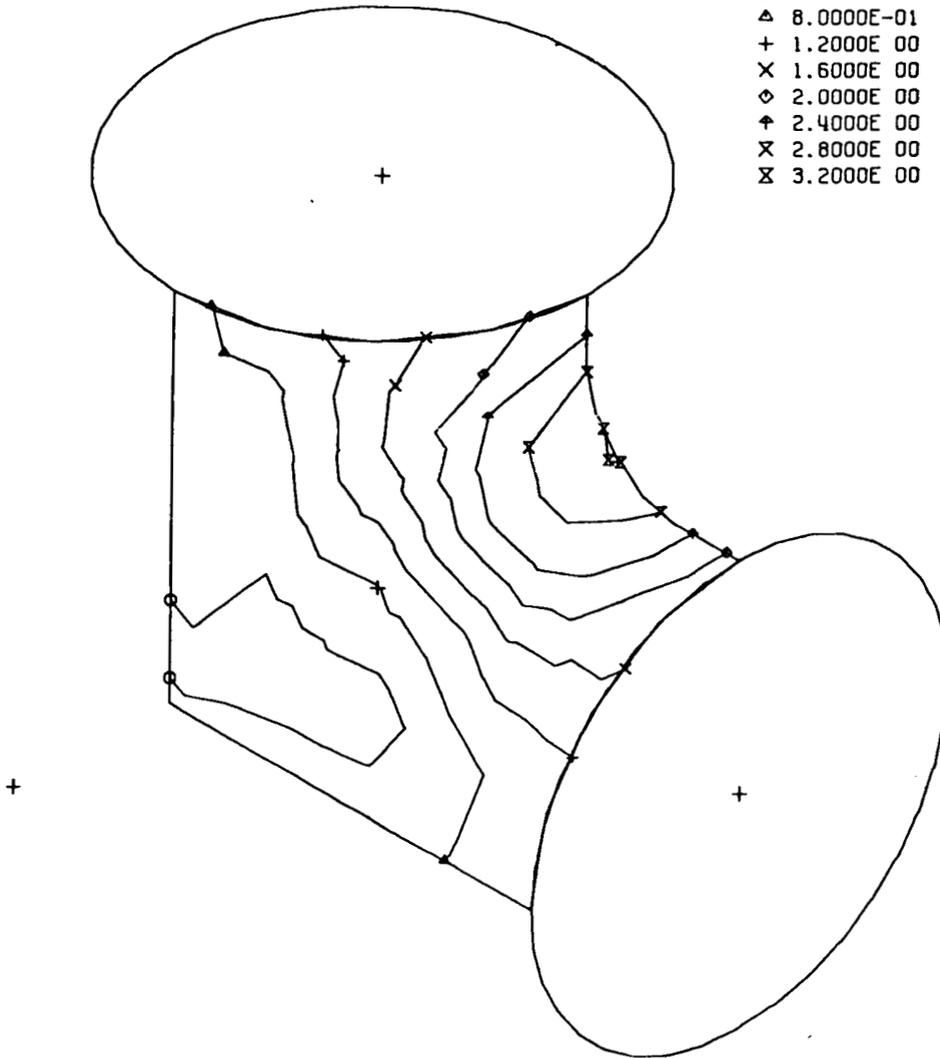


Fig. 3.7. Internal pressure stress index contour plot for quadrant 1 inside surface of T-11.

ORNL-DWG 84-6275 ETD

CONTOUR VALUES

□	0.0
○	2.5000E-01
△	5.0000E-01
+	7.5000E-01
×	1.0000E 00
◇	1.2500E 00
⊕	1.5000E 00
⊗	1.7500E 00
⊠	2.0000E 00
☆	2.2500E 00

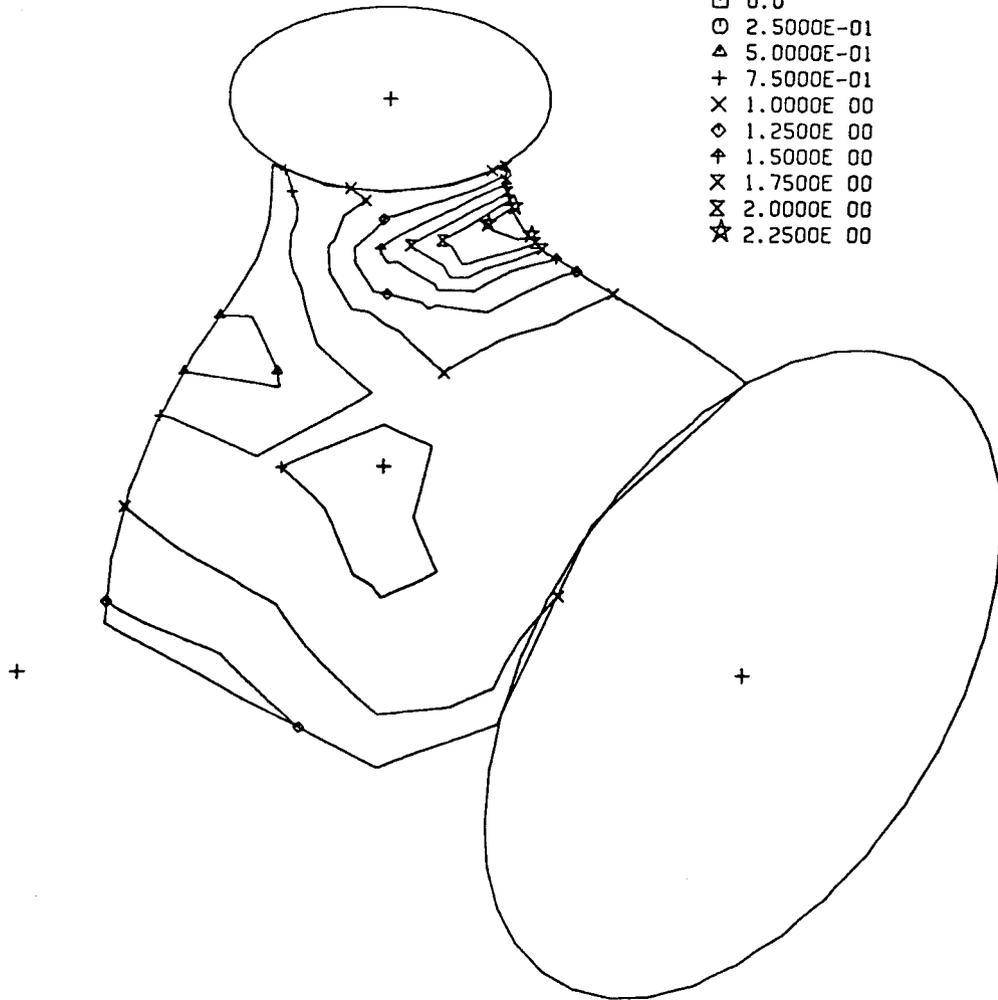


Fig. 3.8. Internal pressure stress index contour plot for quadrant 1 inside surface of T-12.

ORNL-DWG 84-6276 ETD

CONTOUR VALUES

□	0.0
○	2.5000E-01
△	5.0000E-01
+	7.5000E-01
×	1.0000E 00
◇	1.2500E 00
⋈	1.5000E 00
⊗	1.7500E 00
⊗	2.0000E 00
☆	2.2500E 00

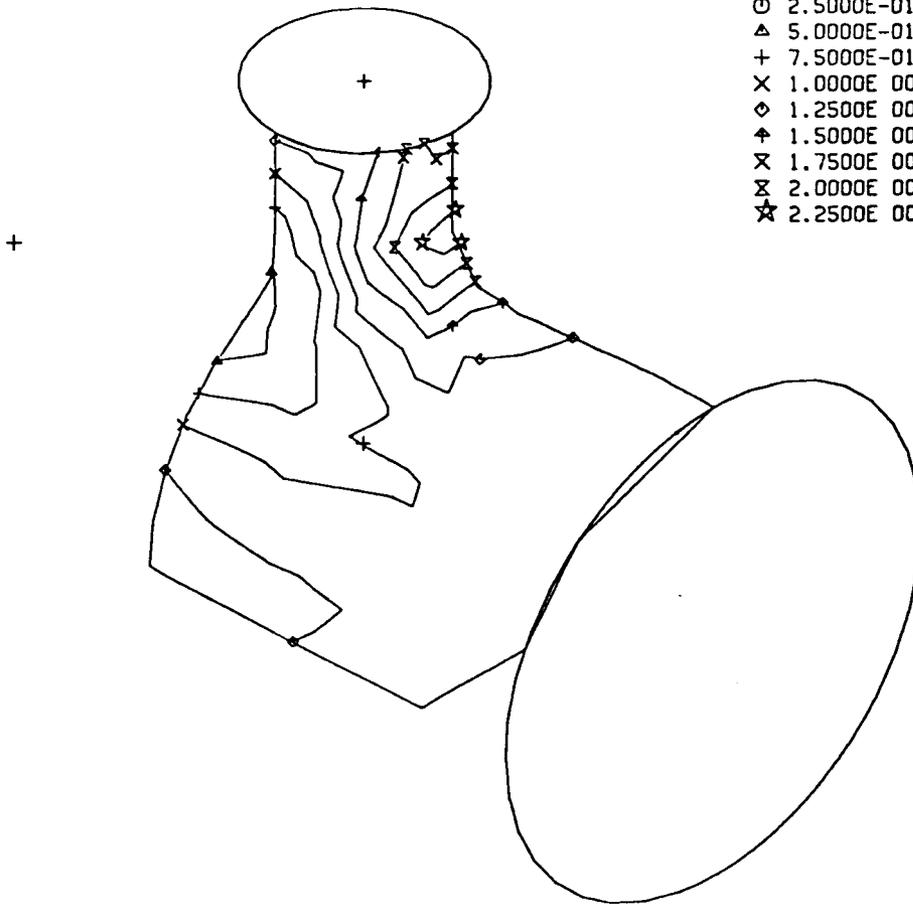


Fig. 3.9. Internal pressure stress index contour plot for quadrant 1 inside surface of T-13.

ORNL-DWG 84-6277 ETD

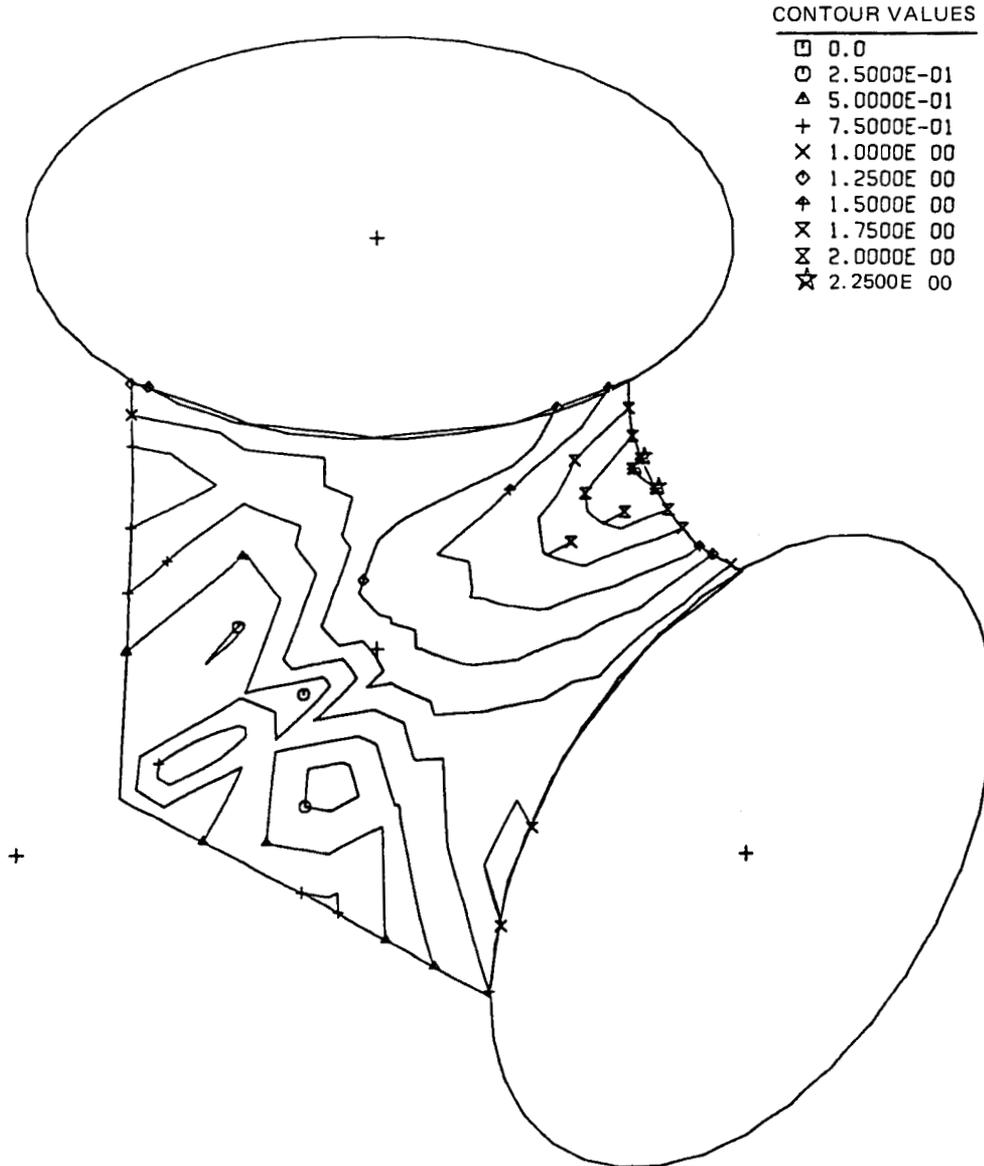


Fig. 3.10. Internal pressure stress index contour plot for quadrant 1 inside surface of T-16.

materials model are sufficiently accurate for design purposes. Flexibility factors are also defined *only* for the *average* rotation of one end of the component with respect to the other end. Information about warping of planes perpendicular to the centerline(s) of the component or the rotations of planes between the component ends are therefore *not* given by flexibility factors.

Flexibility factors are defined in terms of the three orthogonal components of the end-plane rotations (relative to a reference end) that might be caused by any one of the orthogonal set of equilibrium moment loads that might be applied. For two-ended components such as elbows, reducers, and segments of straight pipe, one can therefore define as many as nine flexibility factors — one for each of the three components of the end-plane rotation that might be caused by each of the three end-plane moment components, for example, in-plane, out-of-plane, and torsion. For three-ended components, such as tees and branch connections, one can define 36 flexibility factors; there are 6 sets of static equilibrium moments and 3 orthogonal rotations for each of 2 end-planes relative to the reference end.

These potential flexibility factors are defined as the ratio of the rotation θ of the i end-plane about the j axis due to the end-plane moment $M_{\ell m}$ acting on the ℓ end in the m direction to the corresponding nominal rotation θ_{nom} , by the relatively simple expression

$$k_{ij\ell m} = \frac{\theta_{ij\ell m}}{(\theta_{\text{nom}})_{ij\ell m}} ; \quad \begin{array}{ll} i = 2, 3, \dots, n & j = x, y, z \\ \ell = 2, 3, \dots, n & m = x, y, z \end{array} , \quad (3.1)$$

where n is the number of component ends with $i, \ell = 1$ representing the reference end. In this form the flexibility factors are nondimensional scalars in the same sense that stress indices are nondimensional. In the same manner it is also important to explicitly define the normalizing term $(\theta_{\text{nom}})_{ij\ell m}$ from a strength-of-materials analysis of the component model that will be used in the piping system analysis.

Fortunately, many of the flexibility factors defined by Eq. (3.1) are so close to 0.0 or 1.0 that they can be ignored in design.

Generally, if the component is symmetric, then

$$\begin{aligned}
 k_{ij\ell m} &= 0 ; j \neq m , \\
 &\neq 0 ; j = m ,
 \end{aligned}
 \tag{3.2}$$

because one would not expect a given moment component $M_{\ell m}$ to produce end-plane rotations in directions perpendicular to the direction of the moment. The flexibility factors $k_{ij\ell m}$; $j = m$ are called primary, and the others are called secondary.

For two-ended symmetric piping components, Eqs. (3.1) and (3.2) with $n = 2 = i = \ell$ give nine flexibility factors, six of which are zero, that is,

$$k_{2j2m} = \begin{bmatrix} k_{2x2x} & 0 & 0 \\ 0 & k_{2y2y} & 0 \\ 0 & 0 & k_{2z2z} \end{bmatrix}
 \tag{3.3}$$

for the three moment components $M_{\ell m} = M_{2x}, M_{2y}, M_{2z}$, and the associated rotations θ_{2j2m} .

One or more of the flexibility factors given by Eq. (3.3) will equal 1.0, if the end-planes of the piping component actually rotate as predicted by the strength-of-materials model. All three equal 1.0 for a span of straight pipe that is longer than ~ 3 pipe diameters when the pipe is modeled as a cylindrical beam. For a 90° elbow that is modeled as a curved beam, the flexibility factor for the torsional rotation of the end caused by the torsional component of the end-moment is usually taken as 1.0. The other two, for in-plane and out-of-plane moments, are different from 1.0 and have been determined experimentally and/or analytically by a number of authors.

For three-ended components, such as ANSI B16.9 tees, Eq. (3.1) with $n = 3$ gives 36 flexibility factors, 24 of which are probably zero [Eq. (3.2)]. The 12 primary flexibility factors with $i, \ell = 2, 3$ and $j = m = 2, 3$ are listed in Table 3.8 along with the associated end-plane rotations and moment loads shown schematically in Fig. 3.11.

Table 3.8. Flexibility factors for three-ended piping components

End-plane rotations	End moment loads $M_{\ell m}$					
	M_{2x}	M_{2y}	M_{2z}	M_{3x}	M_{3y}	M_{3z}
$\theta_{2x\ell m}$	k_{2x2x}	0	0	k_{2x3x}	0	0
$\theta_{2y\ell m}$	0	k_{2y2y}	0	0	k_{2y3y}	0
$\theta_{2z\ell m}$	0	0	k_{2z2z}	0	0	k_{2z3z}
$\theta_{3x\ell m}$	k_{3x2x}	0	0	k_{3x3x}	0	0
$\theta_{3y\ell m}$	0	k_{3y2y}	0	0	k_{3y3y}	0
$\theta_{3z\ell m}$	0	0	k_{3z2z}	0	0	k_{3z3z}

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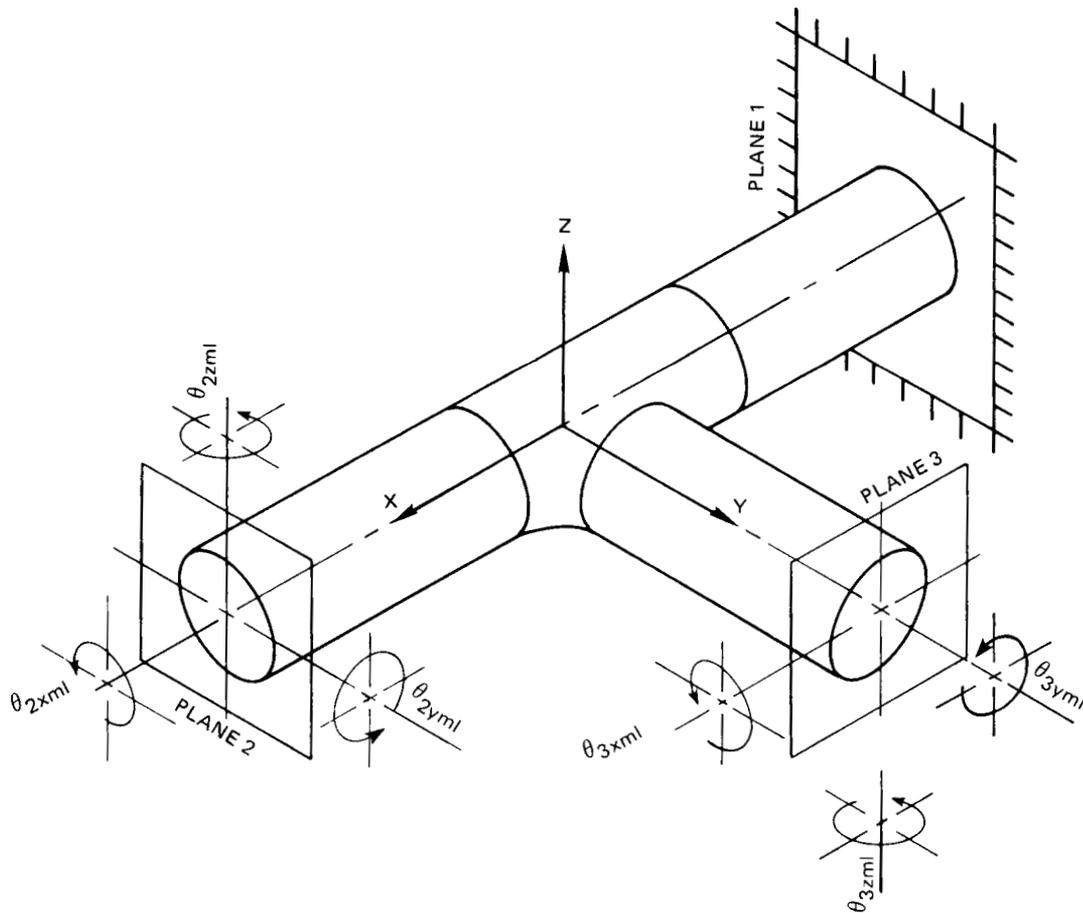


Fig. 3.11. End-plane rotations for moment loading flexibility factors.

As noted earlier, the determination and use of flexibility factors for piping system design requires a commonly accepted strength-of-materials flexibility analysis model. Prior to about 1975 the *ASME Code* defined the flexibility model for ANSI B16.9 tees in Class 1 piping as follows [NB-3687.4]:

... the load displacement relationships shall be obtained by assuming that the run pipe and branch pipe extend to the intersection of the run pipe center line with the branch pipe center line. The imaginary junction is to be assumed to be rigid.

NB-3687.4 was subsequently revised by changing the last sentence to read:

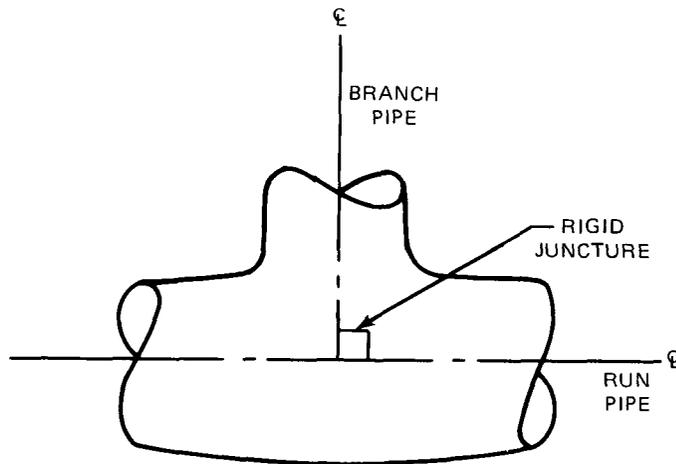
The imaginary junction is to be assumed rigid, and the imaginary length of branch pipe from the juncture to the run pipe surface is also to be assumed as rigid.

Changing that sentence changes the flexibility model from the one shown in Fig. 3.12(a) to the one shown in Fig. 3.12(b). Because the Code does not specify the associated flexibility factors, we may assume that all 12 of the primary flexibility factors are to be taken equal to 1.0 and the others equal to 0.0.

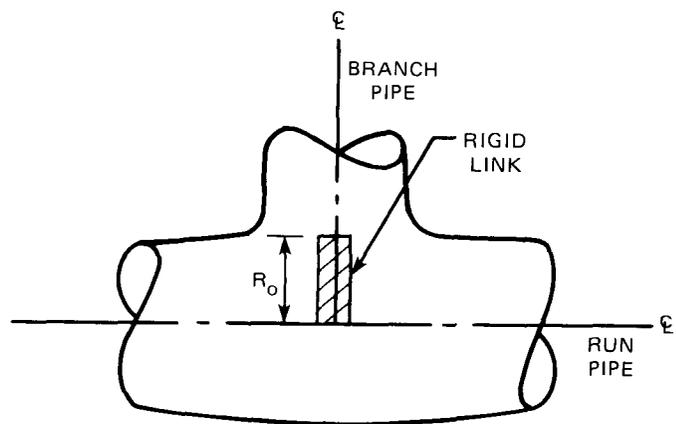
The *ASME Code* does not give an explicit definition of the flexibility model for Class 2 or 3 piping tees, but from the wording in footnote 2 of Fig. NC/ND-3673.2(b)-1 it can be inferred that the model shown in Fig. 3.12(a) is intended. For Class 2 or 3 piping tees, the Code simply says that the flexibility factor equals 1. From that we infer that all 12 of the primary flexibility factors are assumed equal to 1.0 and the secondary flexibility factors equal 0.0. This means, of course, that the flexibility factors are ignored in conducting the piping system design analyses.

The experimental determination of flexibility factors for ANSI B16.9 tees requires the measurement of each of the six end-plane rotations listed in Table 3.8 for each of the six moment loads. Ideally, these rotations should be measured between the pipe-to-tee welds. However, because those end-planes can be expected to warp slightly as the test model is loaded, the reference planes for the LVDT hardware (discussed earlier in Sect. 2.1.1) were placed about halfway between the pipe-to-tee welds

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(a) PRE-1975 CLASS 1 MODEL



(b) POST-1975 CLASS 1 MODEL

Fig. 3.12. Flexibility analysis models for ANSI B16.9 tees in ASME Class 1 piping systems.

and the loading flanges where distortion of the planes perpendicular to the pipe axes would be minimal. The measured rotations were then "corrected" by subtracting the rotations of the length of pipe between the LVDT hardware attachment points and the pipe-to-tee welds calculated using simple beam theory and the actual (measured average) pipe dimensions. This is consistent with both of the flexibility models shown in Fig. 3.12.

The primary pipe-to-tee weld-plane rotations for the maximum moment loads given earlier in Table 2.2 are listed in Table 3.9. Comparable rotations for the transverse force loads (plus the axial load F_{3y} on the branch) are listed in Table 3.10. Measured secondary rotations were generally one or two orders of magnitude smaller than the primary rotations. The associated flexibility factors would therefore be essentially zero as expected. The original data are given in Refs. 8-13.

Primary flexibility factors based on the data in Tables 3.9 and 3.10 for the pre-1975 Class 1 flexibility model [Fig. 3.12(a)] are given in

Table 3.9. Primary end-plane rotations^a
for moment loadings

Load ^b	Rotation	T-10	T-11	T-12	T-13	T-16
M_{2x}	θ_{2x2x}	1.271	0.295	0.847 ^c	0.589 ^c	0.343
	θ_{3x2x}	0.440	0.221	0.529 ^c	0.221 ^c	0.145
M_{2y}	θ_{2y2y}	1.140	1.088	1.755	0.943	0.405
	θ_{3y2y}	0.651	0.544	0.752	0.471	0.230
M_{2z}	θ_{2z2z}	2.300	1.532	1.017	1.142	0.118
	θ_{3z2z}	1.150	0.707	0.452	0.571	0.059
M_{3x}	θ_{2x3x}	0.785	0.536	0.046 ^c	0.003 ^c	<i>d</i>
	θ_{3x3x}	1.302	0.677	2.576	0.861	6.538
M_{3y}	θ_{2y3y}	0.338	0.381	0.050	0.044	0.130
	θ_{3y3y}	1.383	0.375	0.763 ^c	0.615 ^c	0.809
M_{3z}	θ_{2z3z}	0.930	0.674	0.078	0.051	0.819
	θ_{3z3z}	2.136	1.349	1.742	0.492	2.254

^aAngular rotations in rad $\times 10^{-3}$.

^bMoment load magnitudes given earlier in Table 2.2.

^cInaccuracies in data measurement make this number suspect.

^dMeasured value too small to be reliable.

Table 3.10. Primary end-plane rotations^a
for force loadings

Load ^b	Rotation ^c	T-10	T-11	T-12	T-13	T-16
F_{2x}	This case not run					
F_{2x} (M_{2y})	θ_{2y2x}	1.219	0.551	0.991	0.473	0.259
	θ_{3y3x}	0.853	0.289	0.519	0.217	0.526
F_{2y} (M_{2z})	θ_{2z2y}	2.133	0.767	0.925	0.591	1.220
	θ_{3z2y}	1.119	0.340	0.485	0.310	0.512
F_{3z} (M_{3x})	θ_{2x3z}	0.777	0.520	<i>d</i>	0.048 ^e	0.529
	θ_{3x3z}	1.255	0.514	2.345	1.125	0.733
F_{3y}	θ_{2z3y}	0.113	0.019	<i>d</i>	<i>d</i>	<i>d</i>
	θ_{3z3y}	0.212	0.033	<i>d</i>	<i>d</i>	0.139
F_{3x} (M_{3z})	This case not run					

^aAngular rotation in rad $\times 10^{-3}$.

^bForce load magnitudes given earlier in Table 2.2.

^cSubscripts on θ_{ijlm} : rotation of *i* plane about *j* axis from force load on *l* plane in *m* direction.

^dMeasured value too small to be reliable.

^eInaccuracies in data measurement make this number suspect.

Table 3.11. Table 3.12 contains the corresponding flexibility factors for the post-1975 Class 1 model [Fig. 3.12(b)]. The only differences are for the branch-end rotations caused by loadings on the branch, for example, k_{3x3x} for the out-of-plane moment on the branch M_{3x} . The numbers in Tables 3.11 and 3.12 are also arranged for easy comparison of the flexibility factors obtained from the transverse force loadings with those obtained from the corresponding moment loads, for example, k_{2y2y} from F_{2z} with k_{2y2y} from M_{2y} . In most cases these numbers are essentially equal. The largest difference was for the out-of-plane moment on the run of T-16 where k_{3y2y} (for F_{2z}) = 1.2, whereas k_{3y2y} (for M_{2y}) = 0.4.

Table 3.11. Primary flexibility factors
for pre-1975 tee model

Type of load ^a		Flexibility factor	ANSI B16.9 tee				
			T-10	T-11	T-12	T-13	T-16
Torsion on run	M_{2x}	k_{2x2x}	1.3	0.2	<0.4	<0.4	0.7
		k_{3x2x}	0.9	0.3	<0.5	<0.3	0.6
Out-of-plane moment on run	M_{2y}	k_{2y2y}	0.7	0.8	0.7	0.8	0.4
		k_{3y2y}	0.8	0.8	0.6	0.8	0.4
	F_{2z} (M_{2y})	k_{2y2y}	0.9	0.8	0.7	0.8	0.3
		k_{3y2y}	1.2	0.8	0.7	0.7	1.2
In-plane moment on run	M_{2z}	k_{2z2z}	2.7	1.3	0.9	0.9	2.5
		k_{3z2z}	2.7	1.2	0.8	0.9	2.5
	F_{2y} (M_{2z})	k_{2z2z}	2.5	1.3	0.8	1.0	2.5
		k_{3z2z}	2.5	1.1	0.8	1.0	2.0
Out-of-plane moment on branch	M_{3x}	k_{2x3x}	1.6	0.7	<0.5	<0.3	<i>b</i>
		k_{3x3x}	1.5	0.5	1.8	0.5	1.2
	F_{3y} (M_{3x})	k_{2x3x}	1.5	0.7	<i>b</i>	<0.4	1.5
		k_{3x3x}	1.4	0.4	1.8	0.6	1.2
Torsion on branch	M_{3y}	k_{2y3y}	0.9	0.7	0.5	0.6	0.4
		k_{3y3y}	1.6	0.3	<0.3	<0.3	1.0
In-plane moment on branch	M_{3z}	k_{2z3z}	2.7	1.2	0.8	0.9	2.4
		k_{3z3z}	3.1	1.2	0.9	0.4	3.3
	F_{3x} (M_{3z})	k_{2z3z}	This case not run				
		k_{3z3z}	This case not run				
Axial force on branch	F_{3y}	k_{2z3y}	1.6	0.6	<i>b</i>	<i>b</i>	<i>b</i>
		k_{3z3y}	3.0	1.0	<i>b</i>	<i>b</i>	1.5

^aMoment load corresponding to indicated force load in parentheses.

^bData measurements too small to determine flexibility factors.

Table 3.12. Primary flexibility factors
for post-1975 tee model

Type of load ^a		Flexibility factor	ANSI B16.9 tee				
			T-10	T-11	T-12	T-13	T-16
Torsion on run	M_{2x}	k_{2x2x}	1.3	0.2	<0.4	<0.4	0.7
		k_{3x2x}	0.9	0.3	<0.5	<0.3	0.6
Out-of-plane moment on run	M_{2y}	k_{2y2y}	0.7	0.8	0.7	0.8	0.4
		k_{3y2y}	0.8	0.8	0.6	0.8	0.4
	F_{2z} (M_{2y})	k_{2y2y}	0.9	0.8	0.7	0.8	0.3
		k_{3y2y}	1.2	0.8	0.7	0.7	1.2
In-plane moment on run	M_{2z}	k_{2z2z}	2.7	1.3	0.9	0.9	2.5
		k_{3z2z}	2.7	1.2	0.8	0.9	2.5
	F_{2y} (M_{2z})	k_{2z2z}	2.5	1.3	0.8	1.0	2.5
		k_{3z2z}	2.5	1.1	0.8	1.0	2.0
Out-of-plane moment on branch	M_{3x}	k_{2x3x}	1.6	0.7	<0.5	<0.3	<i>b</i>
		k_{3x3x}	2.2	0.7	7.1	2.0	1.7
	F_{3z} (M_{3x})	k_{2x3x}	1.5	0.7	<i>b</i>	<0.4	1.5
		k_{3x3x}	2.0	0.6	6.6	2.2	1.7
Torsion on branch	M_{3y}	k_{2y3y}	0.9	0.7	0.5	0.6	0.4
		k_{3y3y}	2.7	0.5	<1.3	<1.3	1.7
In-plane moment on branch	M_{3z}	k_{2z3z}	2.7	1.2	0.8	0.9	2.4
		k_{3z3z}	4.8	1.9	3.7	1.7	5.1
	F_{3x} (M_{3z})	k_{2z3z}	This case not run				
Axial force on branch	F_{3y}	k_{2z3y}	1.6	0.6	<i>b</i>	<i>b</i>	<i>b</i>
		k_{3z3y}	3.0	1.0	<i>b</i>	<i>b</i>	1.5

^aMoment load corresponding to indicated force load in parentheses.

^bData measurements too small to determine flexibility factors.

Our guess is that k_{3y2y} (for F_{2z}) for both T-10 and T-16 are probably too high because all the other numbers for the out-of-plane moment on the run are less than 1.0.

It may be noted that of the 93 flexibility factors listed in Table 3.11 slightly more than half (58) are less than 1.0 and the rest (35) are equal to or greater than 1.0, with an overall average of 1.1. This indicates that the general practice of ignoring flexibility factors for ANSI B16.9 tees in piping system design is essentially correct. The data also show that the two reducing tees T-12 and T-13 as well as the sched. 160 tee T-11 were somewhat more rigid than the flexibility model ($k_{ave} \cong 0.75$). The lighter schedule full-outlet tees T-10 and T-16 were somewhat more flexible ($k_{ave} \cong 1.6$). These differences are not large enough, however, to be significant in most design situations.

Changing the flexibility model from the pre-1975 model [Fig. 3.12(a)] to the post-1975 model [Fig. 3.12(b)] essentially doubled the affected flexibility factors (k_{3x3x} , k_{3y3y} , and k_{3z3z}) from an average value of ~ 1.2 to about 2.5. This indicates that the pre-1975 model is more correct for this particular set of 24-in. tees. A much larger study would be needed to support a general conclusion. However, in neither case are the flexibility factors different enough from 1.0 to make much difference in design.

4. DISCUSSION OF FATIGUE TESTS

As discussed in Chap. 2, each tee was fatigue tested to failure following the 12 elastic response tests and verification of data. Two of the tees, T-10 and T-16, were tested with a fully reversed displacement controlled in-plane bending moment on the branch superposed on a constant internal pressure. Fatigue failure for these tees was expected in about 7000 cycles. The other three, T-11, T-12, and T-13, were tested with a cyclic internal pressure that ranged from near zero to about 90% of the nominal yield pressure of the pipe legs. Various failure estimates ranged between 1,900 cycles for T-11 and 370,000 cycles for T-12 as discussed earlier in Sect. 2.4. Fatigue failure for all five tees was defined as a through-the-wall crack in the body of the tee or in one of the pipe-to-tee welds as evidenced by a loss of pressurizing fluid.

The fatigue failures for four of the tees occurred, as expected, in the vicinity of the highest stresses; T-16 failed at one of the pipe-to-tee welds. Table 4.1 gives a summary of the number of test cycles to failure and the predicted cycles. These data will be used in a later study of general design rules.

At the conclusion of each test the B16.9 tee was cut out of the test model and examined metallographically. The tee was then returned to ORNL

Table 4.1. Summary of predicted and experimental fatigue-life cycles

Tee	Loading ^a	Predictor ^b		Experimental results
		Mark1	Sect. 2.4.2	
T-10	M3Z	5,900	575	18,532
T-11	P	23,650	1,900	2,875
T-12	P	369,475	60,900	76,620
T-13	P	205,960	24,075	15,084
T-16	M3Z	6,985	850	2,344

^aSee also Table 2.3.

^bSee Sect. 2.4 for prediction method details.

for ultimate disposal. The fatigue test of each tee is discussed individually below.

4.1 Cyclic Moment Test of T-10

The T-10 model was fatigue tested with an in-plane cyclic moment on the branch of approximately $\pm 6.2 \times 10^6$ in.-lb and a constant internal pressure of 1025 psi. Loading conditions were given earlier in Table 2.3. For the first few cycles the model was tested with the structural loading system in the manual mode and with all the strain gages connected to the data acquisition system. Pseudostresses, calculated directly from the strain-gage data using elastic reduction formulas, indicated maximum principal values of 83,600 and -83,500 psi for the positive and negative displacements of the branch pipe, respectively. These values are in excellent agreement with the extrapolated values used to establish the test conditions (Sect. 2.4.1).

Figure 4.1 shows the maximum pseudostress as a function of actuator displacement. From this figure and a similar curve of load vs actuator displacement (not shown), it was evident that some hysteresis occurred during each cycle. A small amount of plastic deformation occurred during each loading cycle that required a small amount of force to return the branch pipe to the initial neutral position before starting the next cycle.

The initial baseline UT inspection of T-10 gave five indications from the body of the tee and the pipe-to-tee welds. One of these showed appreciable growth during the fatigue test, although it did not produce the final failure. Several new UT indications also occurred during the test. Of chief interest was one located at the position of strain-gage rosette I-2R2-E. This was the position of the highest principal stress on the inside surface measured during the elastic response tests. The UT indication first appeared at 3,700 cycles and continued to grow until a through-the-wall crack occurred at 18,532 cycles. Crack growth is shown in Table 4.2. The location and orientation of the fatigue crack is shown in Fig. 4.2. This crack was centered at the intersection of the XZ and YZ planes and oriented at about 45° from the branch and run axes. It was

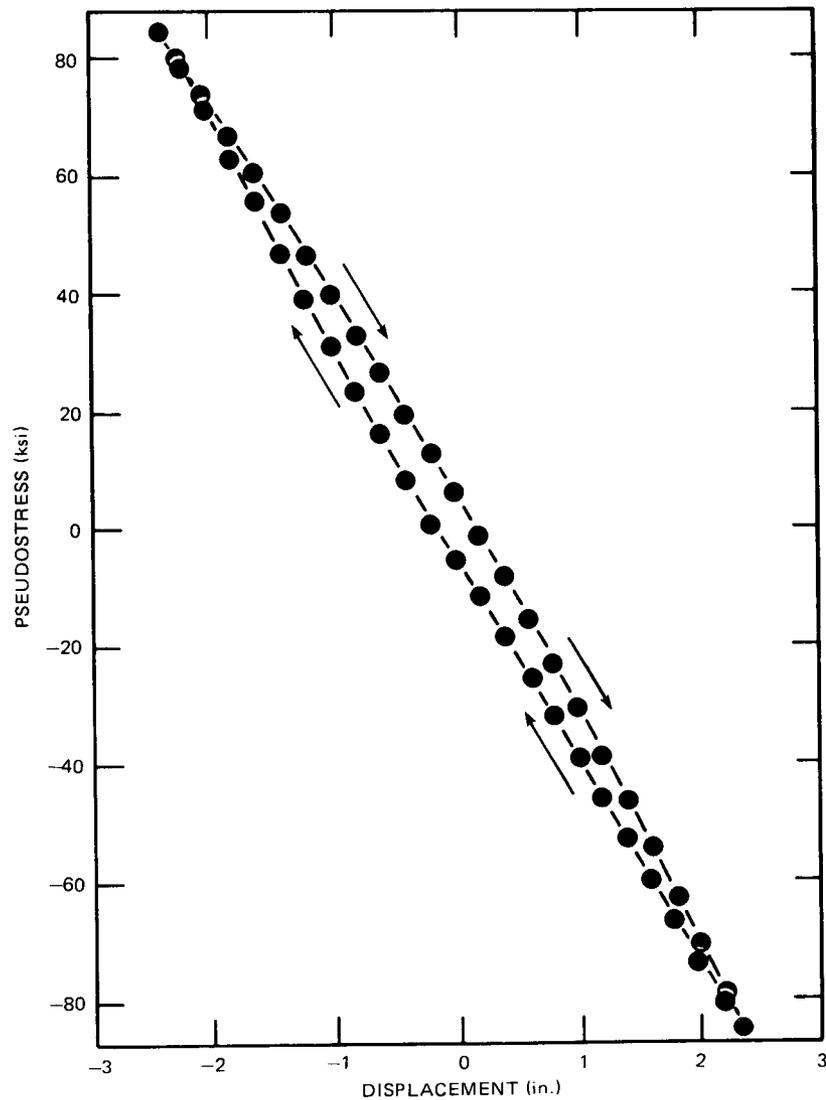


Fig. 4.1. Maximum principal pseudostress as function of actuator displacement for T-10 in-plane moment-fatigue test.

about 6 in. long at the inside surface and about 1-1/2 in. long at the outside surface. The as-measured surface finish in the region of the crack ranged from about 60 to 250 $\mu\text{in./in.}$

Approximately once each day during the early part of the test, one fatigue cycle was performed slowly in manual mode and a complete set of strain-gage and load-cell data were recorded at maximum load. The data given in Table 4.3 indicate that essentially constant test parameters existed throughout the test.

Table 4.2. Ultrasonic examination
indicated fatigue-crack
growth for T-10^a

Cycle No.	Indicated crack length (in.)
12,250	1
12,500	2-3/8
12,790	3
13,212	3-1/4
13,464	3-1/2
13,664	4-1/8
13,856	4-1/4
14,118	4-1/4
14,350	4-1/2
14,541	4-3/4
15,129	5
15,435	5-1/8
15,748	5-1/4
16,009	5-1/2
16,359	6
16,640	6-3/4
16,959	7-1/8
17,276	8
17,587	8
17,900	8
18,532	8-1/2 (failure)

^aCrack initiation and growth
at rosette position I-2R2-E.

Table 4.3. Pseudostress range
for T-10 fatigue test

Cycle No.	Maximum pseudostress range ^a (ksi)	Average load cell reading (lb)	Calculated moment (in.-lb)
1	±83.6	32,900	6,150,000
700	±85.9	32,800	6,130,000
1,300	±86.5	31,700	5,930,000
2,500	±86.3	32,000	5,980,000
3,717	±85.3	32,300	6,040,000
5,300	±85.8		
6,500	±86.7		
8,000	±86.3		
10,500		33,000	6,170,000
12,587		31,700	5,930,000

^aCalculated directly from strain-gage readings
using elastic stress-reduction formulas.

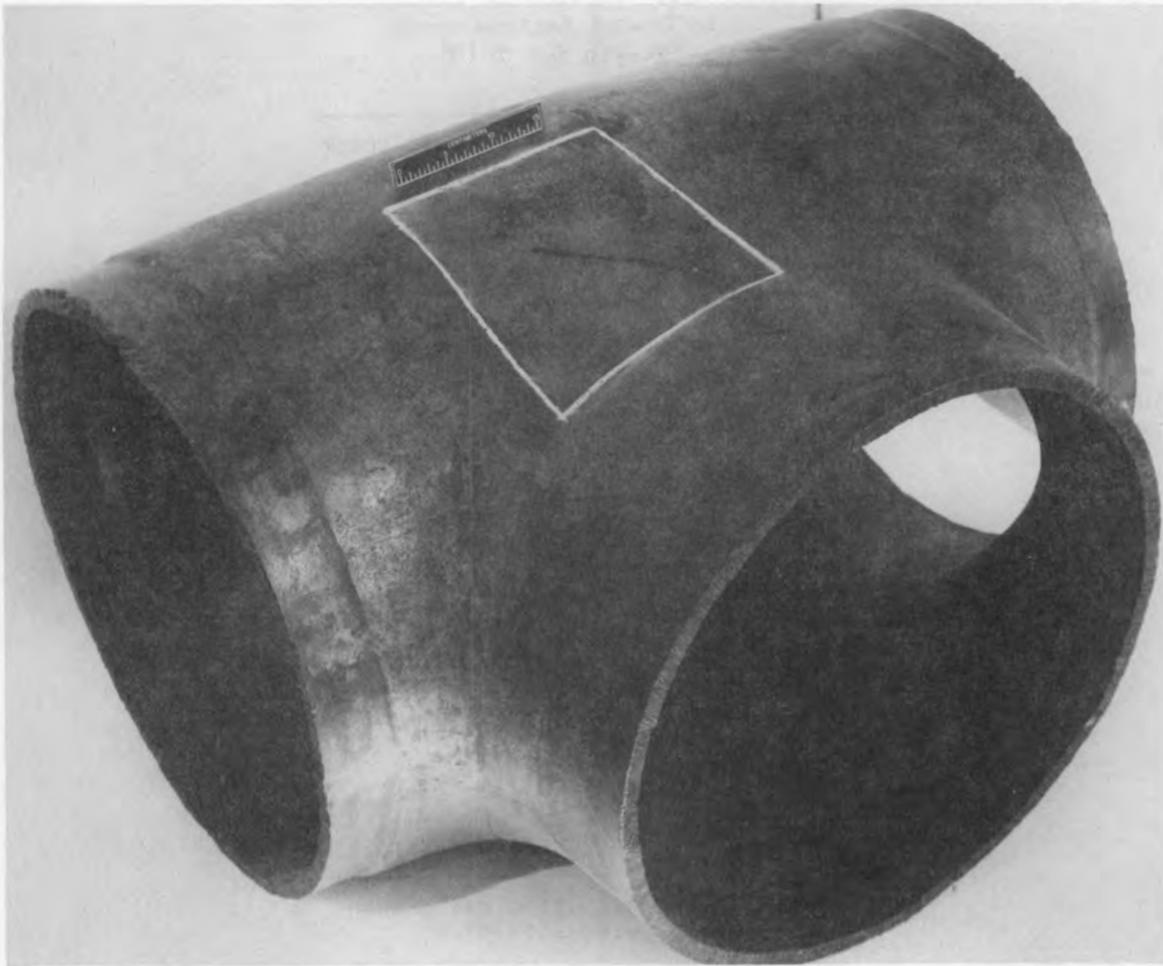


Fig. 4.2. Post-failure-fatigue crack on outside surface of T-10 after 18,532 cycles.

4.2 Cyclic Pressure Test of T-11

The T-11 model was fatigue tested with a cyclic internal pressure from 100 to 7000 psi. At the start of the test ~40 strain gages, located in regions of high stress, were connected to the data acquisition system. These were monitored for several cycles before the tee was removed from the loading frame and placed in the test pit. The strain-gage data indicated a considerable amount of plastic yielding in the crotch region during the first pressure cycle, but not enough gages had been left attached to the data acquisition system to map the extent of the plastic zone.

The first UT inspection, after the initial baseline inspection, was made at 2000 cycles. There was no indication of fatigue-crack initiation. However, at 2875 cycles a through-the-wall crack about 3-1/2 in. long developed in the crotch, resulting in a loss of transformer oil. Figures 4.3 and 4.4 show close-up views of the crack on the outside and inside surfaces, respectively.

A metallurgical examination of sections of the tee from the fracture region revealed low ductility and the presence of sulfide stringers perpendicular to the fracture surface. Specimens cut perpendicular to the

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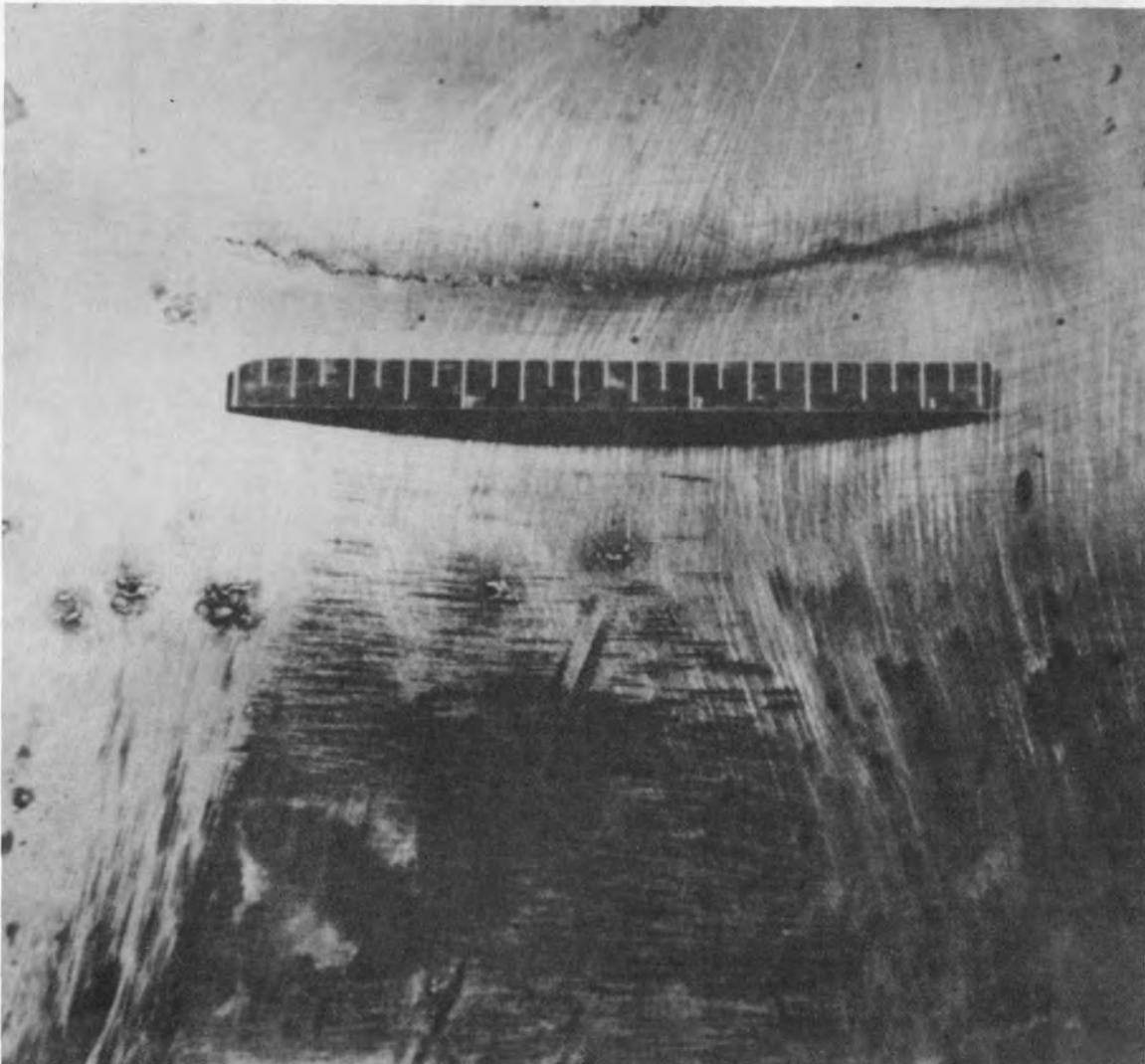


Fig. 4.3. Close-up view of fatigue-failure crack on outside surface of T-11 (2875 cycles).

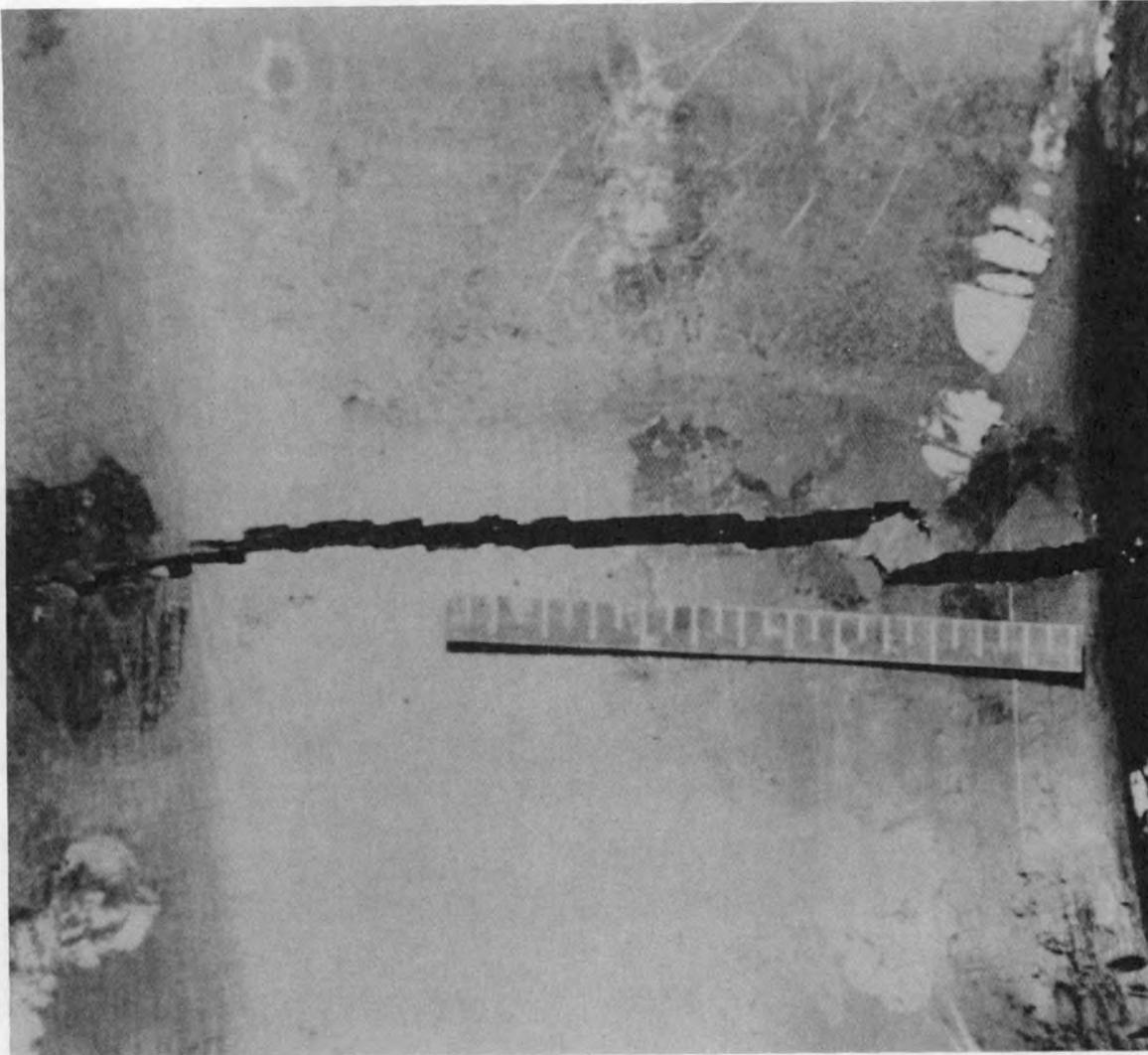


Fig. 4.4. Close-up view of fatigue-failure crack on inside surface of T-11 (2875 cycles).

fracture surface and tested in a tensile machine failed in a "brittle" manner. Specimens taken parallel to the fracture surface had about twice the reduction in area at failure and much better ductility. There was nothing, however, to indicate that the material did not meet the requirements of the Code for carbon steel piping products. The metallurgical laboratory report is contained in Appendix VIII.

4.3 Cyclic Pressure Test of T-12

The T-12 model was fatigue tested with a cyclic internal pressure from 5 to 1800 psi. (A minimum pressure of 5 psi was needed to activate the low-pressure controls.) For this test all the strain gages remained connected to the data acquisition system for the first 21 pressure cycles after which the test model was removed from the loading frame and placed in the test pit. Table 4.4 gives a summary of the cumulative strains recorded for two of the gages in the highest stressed regions of the tee: gage No. 477 at rosette I-1R6-C and gage No. 648 at rosette I-2R6-C. Figure 4.5 shows the elastically calculated stress for rosette I-2R6-C as a function of internal pressure for cycle 21. The maximum value of ~86,500 psi is somewhat greater than the maximum equivalent elastic value

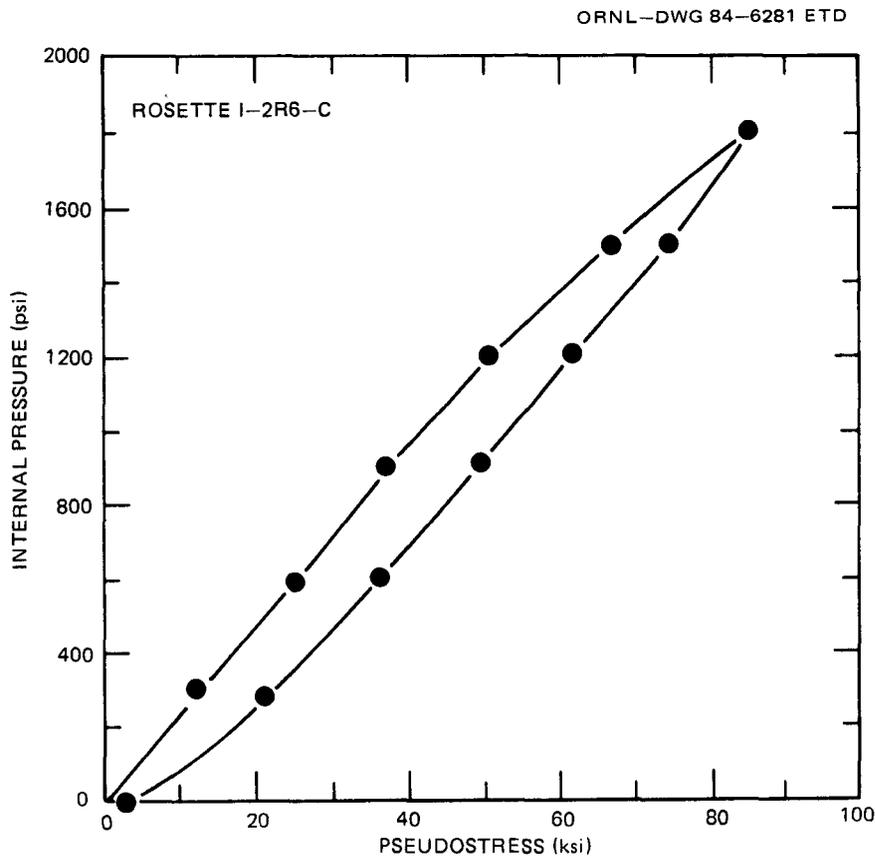


Fig. 4.5. Maximum principal pseudostress as function of internal pressure for cycle 21 of T-12 fatigue test.

Table 4.4. Cumulative strains for
T-12 pressure fatigue test

Cycle No.	Pressure (psi)	Gage 477 (μ in./in.)	Gage 648 (μ in./in.)
	0	0	0
1	1800	1462	4277
	0	-425	1546
2	1800	7600	4338
	0	-306	1724
3	1800	1698	4397
	0	-228	1763
4	1800	1817	4457
	0	-91	1803
5	1800	2013	4515
	0	184	1882
6	1800	2268	4536
	0	224	1921
7	1800	2288	4594
	0	244	1980
8	1800	2346	4751
	0	283	2119
9	1800	2386	4869
	0	322	2197
10	1800	2445	4948
	0	381	2256
11	1800	2563	5027
12 ^a			
	0	519	2354
13	1800	2656	5114
	0	529	2398
14	1800	2671	5124
	0	544	2418
15	1800	2681	5144
	0	544	2438
16	1800	2685	5163
	0	549	2452
17	1800	2700	5178
	0	568	2482
18	1800	2700	5198
	0	563	2487
19	1800	2735	5242
	0	588	2521
20	1800	2749	5267
	0	593	2521
21	1800	2752	5355
	0	657	2619

^aData not taken for cycle 12.

of ~75,000 psi calculated using the elastic-response data, indicating a substantial amount of plastic deformation. The figure also shows that shakedown had not occurred after 21 cycles.

This tee was originally scheduled for fatigue testing with a cyclic moment on the branch pipe. For that type of loading there would be essentially no stresses in the pipe extensions beyond the loading flanges. Therefore, no special care was taken in the design or fabrication of the end closures. However, after the elastic-response tests were completed it was decided to fatigue test T-12 with a cyclic internal pressure. For this loading, stress concentrations at the end closures caused several premature failures. Although these premature failures were annoying and prolonged the test, they apparently did not affect the primary results. They did, however, graphically illustrate the reduction in fatigue life of a structural component that is not properly designed or fabricated.

The first premature failure occurred at 22,357 cycles when a through-the-wall crack developed in the weld that attached the hemispherical cap to the A end (end "A" corresponds to the fixed end in the static load tests, while end "B" is the free end) of the tee. This crack developed because the backing rings (see Appendix IV) were not removed after welding the end caps on. The cracked area was ground out and re-welded. In an effort to decrease the stress in the weld area, weld material was built up ~1/2 in. beyond the OD of the pipe in the area of the crack. The corresponding weld on the B end of the tee assembly was magnafluxed to a depth of ~3/16 in., and no indication of cracking was found.

At 24,250 cycles a similar through-the-wall crack developed in the B end of the tee assembly. The crack was ground out and rewelded. Additional weld buildup was added in the area around the crack as was done on the A end.

At 27,883 cycles another through-the-wall crack developed at the B end of the tee. The crack propagated completely through both the original weld and the weld buildup. At this time all of the extension pipes were cut off to remove the flanges and excess nozzles, and the caps were welded back on with full penetration welds. These welds were not stress relieved.

At 47,890 cycles a crack occurred at the weld joining the cap to the run piping (see Appendix IV). New heads were welded on both ends of the run pipe at this time. After replacing the end caps, the assembly was successfully loaded until a through-the-wall crack developed in the tee at cycle number 76,620 in the vicinity of rosette I-2R6-C. The crack (Fig. 4.6) was about 3/8 in. long and required almost 600 psi internal pressure before leakage could be observed.

The tee was initially given a baseline UT examination to ensure that it was free of imperfections. After initiation of the test, the tee was UT inspected periodically every 400 to 500 cycles until at 63,851 cycles when the first indication was located; UT inspection was then adjusted to every 100 to 200 cycles. Appendix VIII shows the location of the UT indications and their respective lengths and amplitudes as a function of the number of cycles.

Of special interest is the fact that ~9000 cycles prior to failure, UT examination showed indications of crack initiation. Appendix VIII contains copies of the log sheets from this test. These log sheets clearly show the way in which the UT indications grew and coalesced until a crack finally propagated through the tee.

4.4 Cyclic Pressure Test of T-13

The T-13 model was fatigue tested with a cyclic internal pressure from 100 to 7000 psi. For this test, as well as for some of the others, all of the strain gages remained connected to the data acquisition system during the first 18 cycles, with the model resting in the loading frame. Complete sets of data were recorded at several pressure steps up to the maximum of 7000 psi for the first 13 cycles. A considerable amount of plastic yielding occurred in the crotch region during the first cycle, but subsequent cycles indicated shakedown to a consistent cyclic behavior. After 13 cycles, all but the 6 most highly strained gages were disconnected, and 4 more pressure cycles were run. At that time it appeared that there was no significant increase in the cumulative strains for any of the gages from one cycle to the next. Table 4.5 shows the

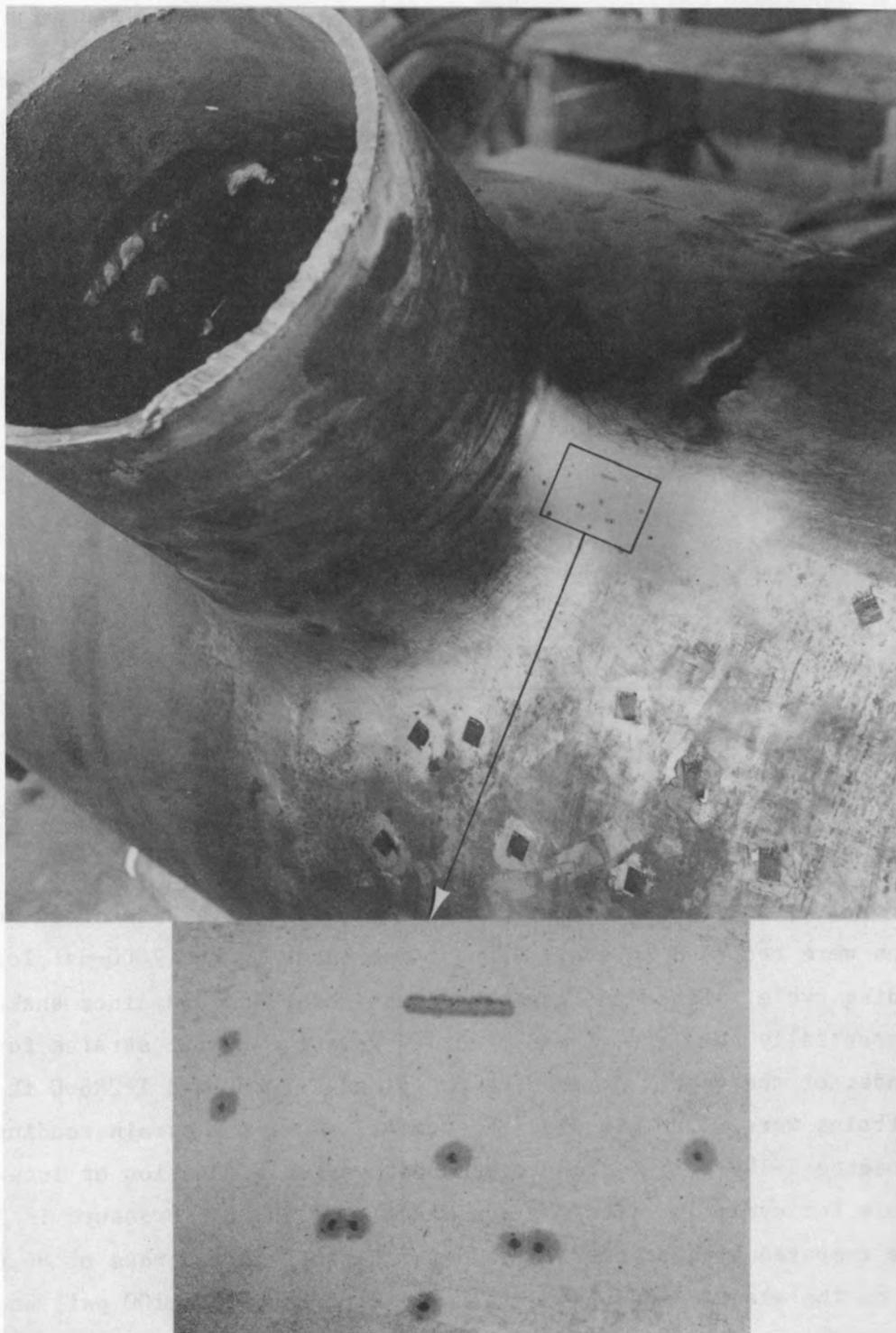


Fig. 4.6. Post-failure-fatigue crack on outside surface of T-12 after 76,620 pressure cycles.

Table 4.5. Cumulative strains for
T-13 pressure fatigue test

Cycle No.	Gage 477 (Rosette I-1R6-C)	Gage 648 (Rosette I-2R6-C)
1	13057	13729
2	13393	13869
3	13626	14044
4	13806	14166
5	14020	14360
6	14045	14347
7	14063	14364
8	Deleted	Deleted
9	14142	14404
10	14203	14446
11	14260	14483
12	Deleted	Deleted
13	14341	14565
14	14319	14545
15	14378	14563
16	14378	14563
17	14418	14583

maximum cumulative strains for the 2 most highly strained gages for each of the first 17 pressure cycles.

For pressure cycle 18, the six strain rosettes were rezeroed and the strains were recorded at every 100-psi increment in the 7000-psi loading-unloading cycle. Since the gages had been rezeroed, and since shakedown was essentially complete, these readings gave the cyclic strains for the remainder of the test. At rosette positions I-1R6-C and I-2R6-C the maximum strains were $\sim 3580 \mu\text{in./in.}$ Figure 4.7 shows the strain readings for rosette I-1R6-C converted to pseudostress as a function of internal pressure for cycle 18. The maximum value at 7,000 psi pressure is 107,100 psi as compared with an extrapolated apparent elastic stress of 86,000 psi based on the elastic-response data. The difference (21,100 psi) as well as the hysteresis in the curve of Fig. 4.7 shows that a considerable amount of plastic strain occurred during each cycle, although no apparent plastic distortion of the tee occurred after the first cycle.

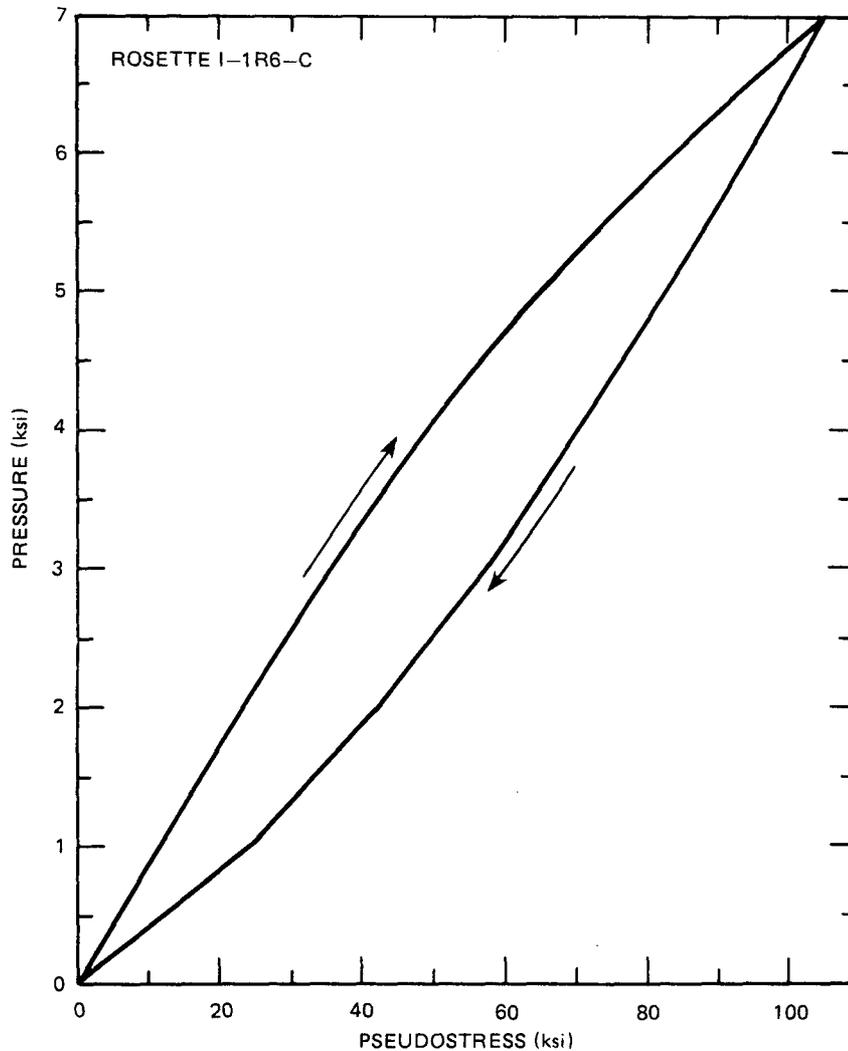


Fig. 4.7. Maximum principal pseudostress as function of internal pressure for cycle 18 of T-13 fatigue test.

After cycle 18, the test model was moved to the test pit. The six rosettes were reconnected to the data acquisition system and monitored periodically during the remainder of the test. There was no significant increase in the cumulative strains during this portion of the test.

In addition to the initial baseline UT inspection, 16 UT inspections were made between cycles 500 and 14,000 with no indication of fatigue-crack initiation. At 15,084 cycles, however, a through-the-wall crack developed at the crotch in the longitudinal plane of the tee, near rosette I-2R6-C as shown schematically in Fig. 4.8. The crack was about

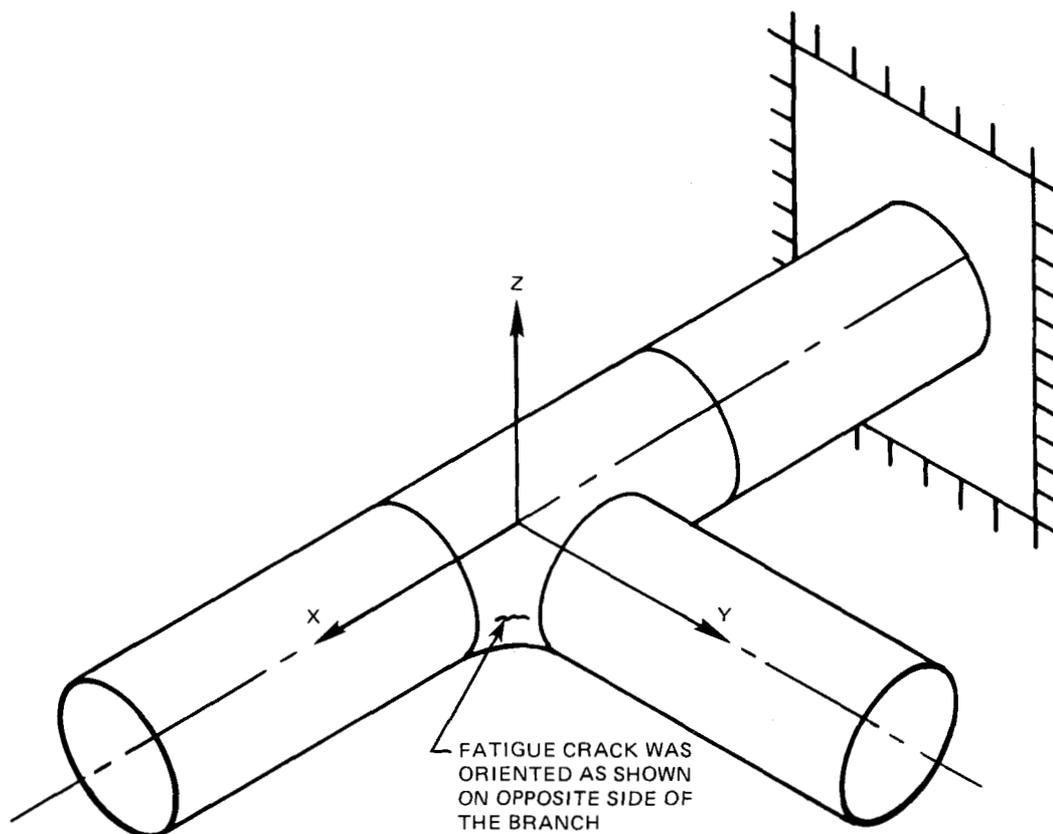


Fig. 4.8. Fatigue-failure crack location on T-13 after 15,084 pressure cycles.

5-1/2 in. long on the inside surface (Fig. 4.9), but only about 5/8 in. long on the outside surface and required over 1400 psi internal pressure to produce visible leakage. Results of the posttest metallurgical examination are given in Appendix VIII.

4.5 Cyclic Moment Test of T-16

The T-16 model was fatigue tested with an in-plane cyclic moment on the branch of approximately $\pm 3.6 \times 10^6$ in.-lb and a constant internal pressure of 300 psi. Loading conditions were given earlier in Table 2.3. For the first 22 cycles, the model was tested with the structural loading system in the manual mode with all the strain gages attached to the data acquisition system. Approximately 35 of the most highly strained rosettes

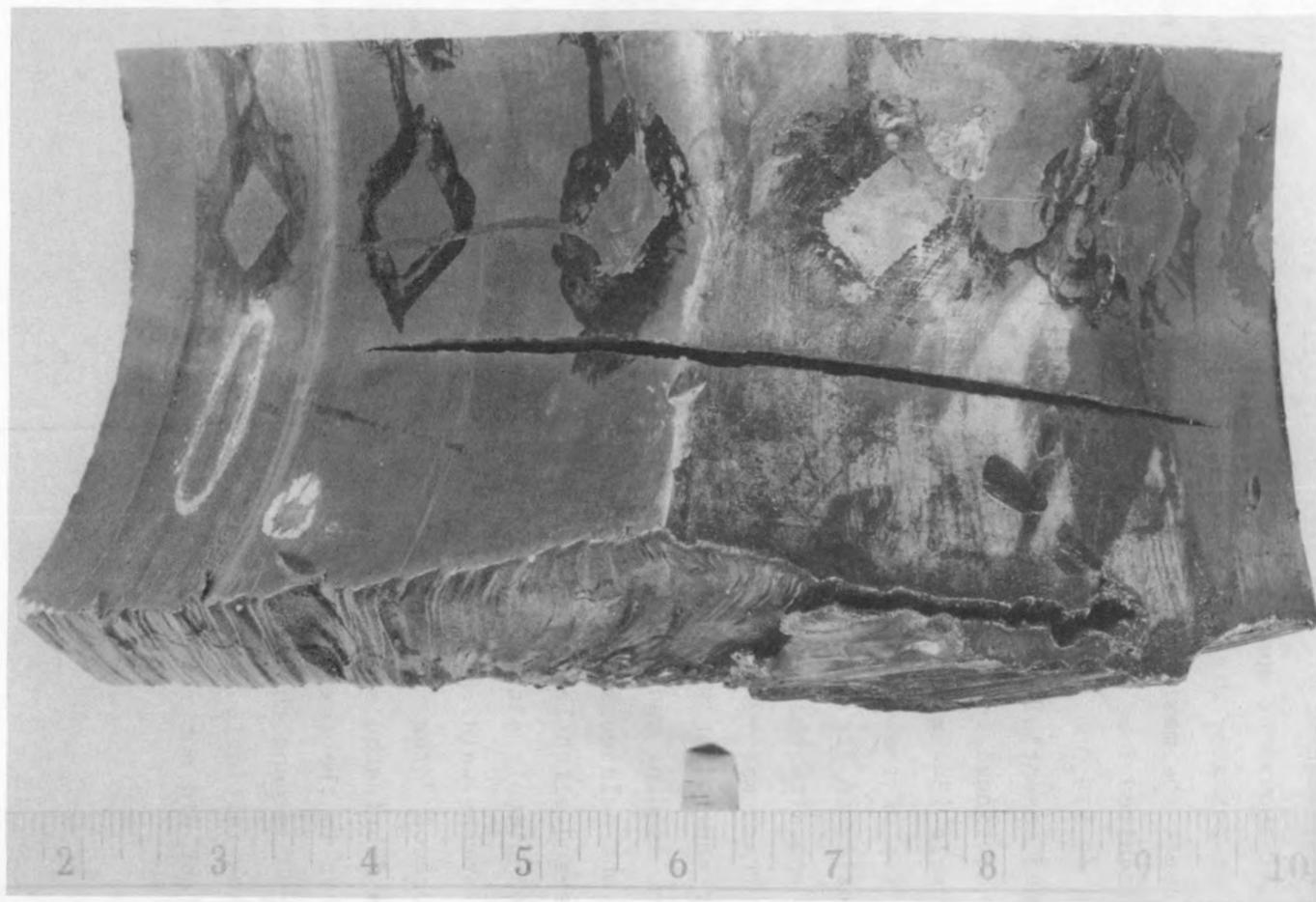


Fig. 4.9. View of inside surface fatigue-failure crack for T-13 after removal for posttest examination.

were monitored continuously. The same rosettes were monitored again at cycles 435, 602, and 1201. Figure 4.10 shows the maximum pseudostress measured at rosette position I-2R2-F (see Fig. 2.2) as a function of actuator displacement for the first four cycles and again for cycle 22. Figure 4.11 shows the applied load L_b in pounds ($M3Z = L_b \times 187$) as a function of actuator displacement for cycles 1, 4, and 435. Note that for this test the maximum actuator displacement was constant at ± 2.5 in., but the required load increased from 13,650 lb (2,552,550 in.-lb) to 17,000 lb (3,179,000 in.-lb) within the first four cycles. Thereafter, it remained essentially constant, although some work hardening of the material continued for several hundred cycles.

At cycle 2344 a through-the-wall crack developed in the branch weld near the top of the tee in the vicinity of rosette O-1R2-A, as shown schematically in Fig. 4.12. This is near the neutral axis of the branch pipe and opposite the fixed end of the test model.

The crack was $\sim 2\text{-}1/2$ in. long on the outside surface. It was obviously very tight because there was no transformer oil leakage when the moment loading was removed (equal to zero) even though the internal pressure was held constant at 300 psi. However, as soon as the moment was increased slightly, transformer oil leakage was evident.

No completely satisfactory reason for the fatigue failure having occurred at the weld could be developed, although there was a considerable amount of "draw down" in the model. X rays taken at the time the model was fabricated showed a small area of porosity less than $1/32$ in. in diameter in the region of the failure. However, a similar area was located $\sim 90^\circ$ around the branch, in a region of higher stress, with no fatigue-crack initiation. UT examinations conducted periodically throughout the test did not reveal any fatigue crack initiation.

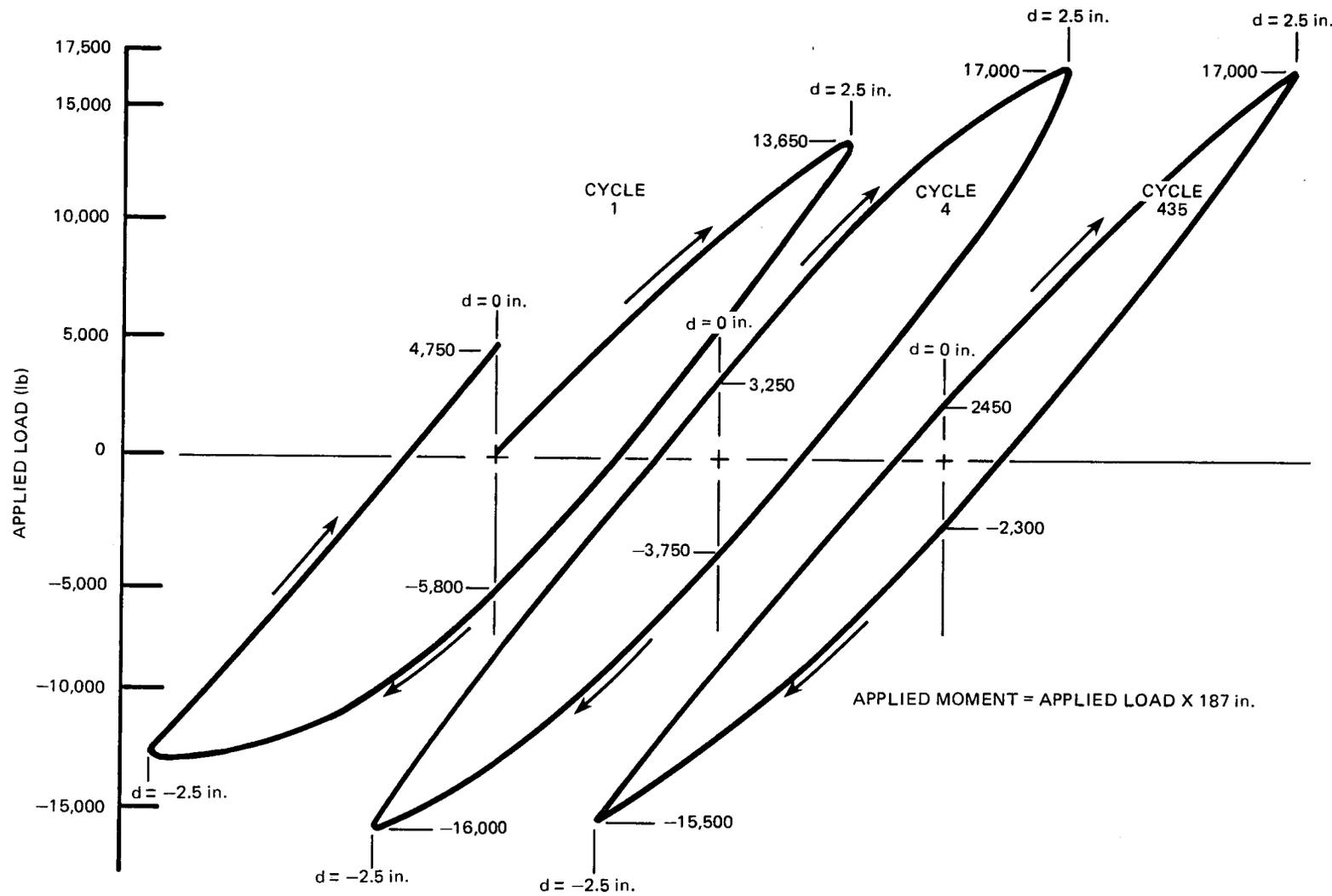


Fig. 4.11. Branch pipe displacement as function of applied load for T-16 fatigue test.

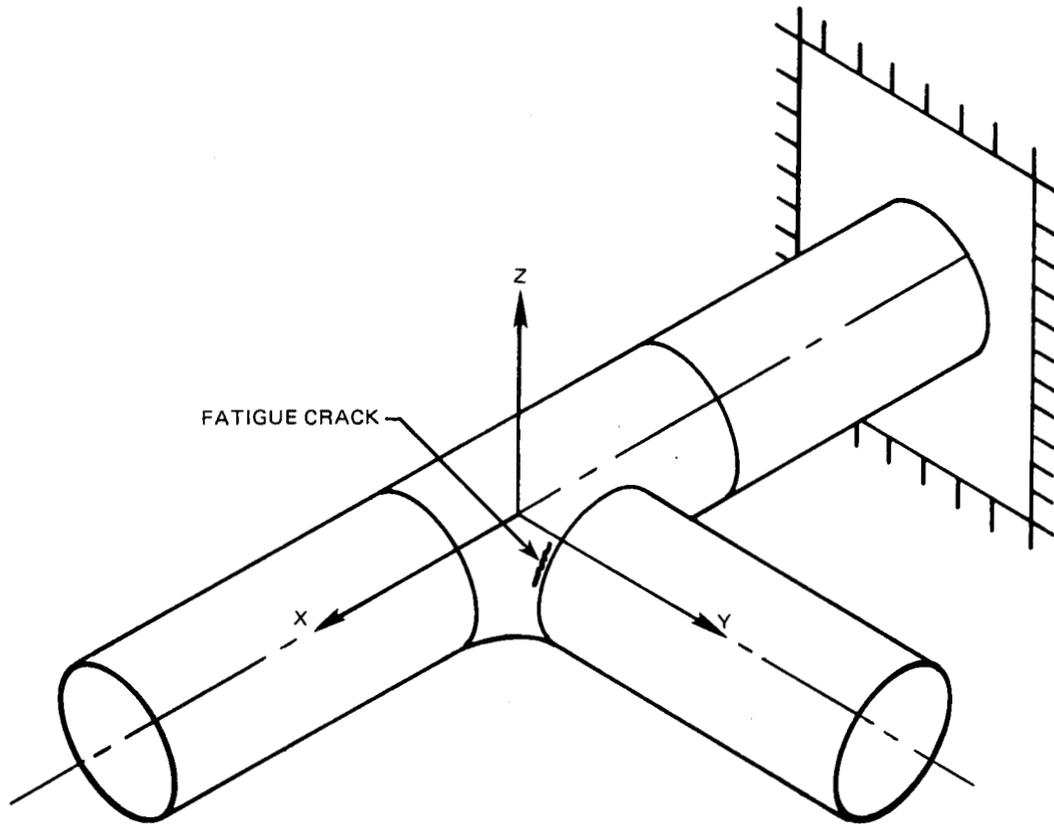


Fig. 4.12. Fatigue-failure crack location on T-16 after 2344 cycles of in-plane moment on the branch.

5. SUMMARY AND CONCLUSIONS

This report, along with the materials contained in the appendixes, is a complete documentation of a series of experimental elastic-response stress analyses and low-cycle fatigue-to-failure tests of five 24-in. NPS ANSI Standard B16.9 forged piping tees made by one of the major suppliers of piping products to the nuclear power industry. The objectives of the study were to provide sufficient baseline structural response-to-load information to enable us to evaluate and/or propose improvements to the current *ASME Code* design rules and criteria.

The test assemblies for each of the five tees were constructed by attaching, with nuclear quality welds, subassemblies made of standard size 24-in. pipe, end-closures, loading flanges, and various nozzles for filling and venting the model and for instrumentation wire access to the inside surface of the tees. Each test model was instrumented with about 225 three-gage strain rosettes and 6 LVDTs and loaded with 12 different loadings in the elastic response range, including internal pressure and direct force and bending moment loads applied to the pipe extension subassemblies. We have attempted to present the experimental results in a manner that will serve the needs of research workers with various interests. For those interested primarily in experimental techniques, we have included complete sets of specifications for constructing and testing the models as well as complete documentation of the materials and procedures used in the tests.

For those readers needing experimental benchmark data for comparisons with either theoretical or other experimental stress-analysis studies, we have included detailed listings of the measured strains and calculated principal stresses, directed stress components, and stress intensities, as well as precise strain-gage location data in the appendixes. The strain-gage location data may also be used to provide a rather detailed description of the model geometry. For those readers concerned primarily with Code-related design calculations, we have normalized and summarized the results for direct comparison with Code values.

Results from the elastic-response tests are also presented graphically in the form of normalized stress-intensity contour plots. These

figures give a detailed description of the elastic-stress distributions over the body of each tee as well as showing the locations and magnitudes of the maximum stresses for each of the 12 different loadings.

Results from the elastic-response tests of these particular five 24-in. ANSI B16.9 tees support the following observations. In general, the stress distributions for all the loadings were smooth and without steep gradients or sharp discontinuities. Thus, the maximum stresses were located either at or very near one of the strain gages. This, in addition to the detailed analyses and numerous tests of the data, justify a very high confidence in the accuracy of the reported results.

As expected, the elastic response to internal pressure was essentially symmetric with respect to the transverse plane, with the maximum value located in the crotch on the inside surface at the longitudinal plane for all five tees. Minor differences between the stresses in the different quadrants may be ascribed to small nonsymmetries in the tee geometries. Also as expected, the maximum stresses from the different moment loadings tended to occur in the crotch but at different locations around the tee. Exceptions, however, make it impossible to state a general rule.

The highest experimental stress indices for all the tees resulted from axial loads on the branch. A direct comparison between the numbers from axial loads and bending loads is misleading, however, because of the different normalizing factors. Transverse-force loads and bending-moment loads gave comparable results for both the branch and run loadings* to within 10 to 15% except for out-of-plane loadings on T-10 and T-16, for which the difference was ~22%. These results support the current practices of ignoring transverse shear in the stress-index method of the Code for qualifying piping system designs, but suggest that axial thrust loads should be considered. Firm conclusions regarding the adequacy of the stress indices given in the Code for piping system tees cannot be made until the experimental data are studied further and data from other tests are included. This will be done in a separate report.

*Note, however, that in-plane force loadings on the branch were not run because of loading-frame limitations.

After the elastic-response tests were completed and the data were reduced and examined for acceptability, each tee was fatigue tested to failure with either a displacement controlled in-plane moment load on the branch or a cyclic internal pressure. Models T-10 and T-16 were tested with a cyclic in-plane moment load with a constant internal pressure equal to the nominal design pressure. Models T-11, T-12, and T-13 were tested with a cyclic internal pressure up to about 90% of the nominal yield pressure of the attached pipe subassemblies.

Before each fatigue test, the test models were UT inspected to obtain a base line set of indications for comparison with later inspections. The model was then periodically inspected throughout the test to identify fatigue-crack initiation and monitor crack growth. This procedure appeared to be successful for models T-10 and T-12, but not for models T-11, T-13, or T-16 where fatigue failure occurred without prior UT indication.

During the first few loading cycles the maximum strain ranges were measured for all five tees. Shakedown to essentially elastic behavior occurred for the two cyclic-moment tests within the first four or five cycles. A small amount of plastic ratchetting at the location of maximum stress was observed for the 3 cyclic pressure tests after 20 cycles. However, none of the test models were visibly distorted even after failure.

The sizes of the fatigue-failure cracks were small for all five tees, and usually a considerable amount of load was required to produce leakage. Three of the tees were also given a posttest metallurgical examination. Results, including photographs of the failure surfaces, are included in Appendix VIII.

For all of the test models except T-16 the fatigue-failure crack was located in the region of the tee with the highest maximum stresses determined during the elastic-response tests. For T-16, the fatigue crack was located in one of the pipe-to-tee welds in a region of apparent low stress. For this stainless steel model, however, there was an appreciable amount of draw down at the welds; it is postulated that this may have been a contributing factor.

For the two in-plane moment tests (T-10 and T-16) the number of loading cycles to failure agreed reasonably well with life-cycle predictions based on Markl's empirical correlation, even though the failure location for T-16 was anomalous. The life prediction for T-10 was conservative by a factor of 3, whereas for T-16 it was unconservative by a factor of 3. For both tees the experimental result is well within the *ASME Code* design margin of 20.

For the three cyclic pressure tests, Markl's correlation (based on moment loading fatigue data) did not provide good life-cycle predictions. Those predictions were unconservative (high) by factors ranging from about 5 to 14. Better life-cycle predictions were obtained with a procedure based on the 1971 Code Class 1 design method for low-cycle fatigue. These predictions were within a factor of ± 1.6 .

In addition to the fatigue failure data, some information was obtained on crack initiation, plastic deformation, and shakedown strain range that may be of value for further study. The fatigue test results as well as the elastic-response test results will be used in a separate study to assess the current *ASME Code* design procedures for nuclear power plant piping systems.

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APPENDIX I

UNION CARBIDE SPECIFICATION JS-115-231

JOB SPECIFICATION

Number: JS-115-231

Date: Feb. 10, 1969

Revised:

Page 1 of 8

UNION CARBIDE NUCLEAR COMPANY
DIVISION OF UNION CARBIDE CORPORATION

ORNL, Oak Ridge, Tennessee

Subject: Experimental Stress Analysis of ASA Standard B16.9 Tees
Project: Design Criteria for Nuclear Service Piping, Pumps, and Valves
(AEC Activity No. 04 60 80 03 1)

1. SCOPE:

This specification covers the experimental stress analysis (strain-gage tests and brittle lacquer tests) and fatigue-to-failure tests that are to be conducted on four ASA standard B16.9 tees. The tees, fabricated from ASTM 106 Grade B carbon steel, will be supplied by the Company for testing. They are:

Item 10, Task 1, 24 x 24 x 24-in. Sch. 40
Item 11, Task 1, 24 x 24 x 24-in. Sch. 160
Item 12, Task 1, 24 x 24 x 10-in. Sch. 40
Item 13, Task 1, 24 x 24 x 10-in. Sch. 160

The required tests are a portion of the joint AEC (ORNL) - PVRC program to develop stress indices and flexibility factors for piping components. Task No. 1 of the PVRC report, "Program and Request for Proposals for Development of Stress Indices and Methods for Analysis for Piping, Valves, and Pumps," dated July 1, 1967, is included for reference and information.

Two quadrants of the 24 x 24 x 24-in. Sch. 40 (Item 10) tee shall be extensively strain gaged on both inside and outside surfaces to obtain the surface strain data necessary for the analysis. The remaining three tees are to have a minimum instrumentation, the extent of which is to be determined by the Company from the results of the elastic loading of the first or heavily instrumented tee. The Seller is also to weld pipe stubs on each of the three connections to transmit force and moment loadings to each tee and to provide end closures for each of the three pipe stubs. Deflection or angular rotation measuring devices are to be installed in sufficient quantity and positions to determine the flexibility of each tee relative to a pipe of the same schedule and length as the tee. The brittle lacquer tests will be conducted prior to the strain-gage tests. Strain measurements will be taken with internal pressure loading and with 12 different moment and force loadings for the first tee test, as shown in Fig. 1 of the PVRC task description. The three remaining tees may or may not be subjected to transverse shear loads at the discretion of the Company. The results of the strain-gage tests will be the basis of selection of the loading to produce fatigue failure in the low-cycle range (500 to 100,000 cycles).

All strain-gage readings, deflection measurements, load or force measurements, and an analysis of the data shall be submitted to the Company.

2. APPLICABLE SPECIFICATIONS, STANDARDS, AND OTHER PUBLICATIONS:

2-1. General

The latest revision of the following documents shall form a part of this specification to the extent stated in subsequent sections.

2-1-1. Unnumbered PVRC report, "Program and Request for Proposals for the Development of Stress Indices and Methods for Analysis for Piping, Valves, and Pumps," dated July 1, 1967.

2-1-2. USAS B31.7, "Nuclear Power Piping," dated February 1968.

2-1-3. "Section IX, ASME Boiler and Pressure Vessel Code."

3. REQUIREMENTS:

3-1. It is the intent of this specification to describe work to be done to achieve the objectives of Phase B, Task No. 1, outlined in the reference under Section 2-1-1. A copy of Task No. 1 is included in Section 6-2 for reference information only. Where specific differences and requirements exist between this specification and those indicated in Task No. 1, considerations shall be given to this specification only.

3-2. Specimen and Test Assembly

3-2-1. Materials. Four tees, as indicated in Section 1, will be supplied by the Company. Pipe extensions of the same materials and of sufficient length to meet loading requirements shall be welded to the tees and the ends shall be closed for pressure containment. All end closures may be of carbon steel. Pipe legs shall be purchased to A106 Grade B with a certified mill test report. The minimum and maximum inside diameter, outside diameter, and wall thickness at both ends of each leg and the weight of each leg shall be measured, recorded, and submitted as part of the data.

3-2-2. Alignment. Proper alignment limited only by irregularities in the geometry of the tee and pipe legs shall be maintained during welding of test assembly.

3-2-3. Welded Joints. The gas tungsten arc welding method shall be used in making the root passes for all welds in the fabrication and assembly of the test piece; that is, the tee-to-pipe stub welds and the attachment of the end closures. The remaining filler passes of the welds may be made by the submerged arc welding method provided that the root passes made by the gas tungsten arc method shall be a minimum of 1/4 in. in thickness or greater as necessary to prevent any burn-through of the root passes during the submerged arc welding. Materials shall comply with Chapter 1-III of USAS B31.7, "Nuclear

Power Piping," dated February 1968. The requirements of Chapter 1-V, USAS B31.7 for Class I Piping Systems, shall apply in the fabrication and assembly of the test piece.

Qualification of the welding procedures to be used and of the performance of the welders and welding operators shall comply with the requirements of Section 9 of the ASME Boiler and Pressure Vessel Code. These procedures are to be inspected and approved by qualified representatives of the Company. Radiographic, dyepenetrant, ultrasonic, and metallographic examination of welds shall be performed in addition to the requirements of Section 9 of the ASME Boiler and Pressure Vessel Code, in the qualification of the weld procedures and in the qualification of the welders. The type and extent of the weld examination and the test of the welds in the test assembly shall conform to Table A.7 (a), A.7 (b), and A.7 (c) of Appendix A of USAS B31.7. The inclusions and porosity allowed shall not be greater than one-half in size and one-half in number of those amounts listed in Appendix B, Paragraph B-1-140, USAS B31.7. The three pipe-to-tee welds of the test assembly shall be ground smooth with the walls on the inside of the assembly and also on the outside so as to produce no surface discontinuities. Undercutting resulting from these welds will not be permitted.

3-3. Loadings and Loading Fixtures

3-3-1. Fixtures and Frame. It shall be the responsibility of the Seller to design and provide adequate loading facilities to properly apply loads as specified herein.

3-3-2. Loadings. Thirteen different loadings shall be applied to each test assembly as indicated in Fig. 1 of Task No. 1 (Section 6-2). All forces to accomplish these loadings (except internal pressure) shall be applied at a distance of four pipe diameters from the pipe-to-tee weld. The magnitude of the loadings shall be proposed by the Seller and approved by the Company. Strain shall be limited to 1000 μ in./in. at any gage point. The order of the loadings is discussed under Test Procedures (Section 3-10).

3-4. Instrumentation

Two full quadrants of the first tee (Item 10) plus other discrete points on the assembly shall be instrumented, inside and outside, with a total of 225 three-gage strain rosettes. Two quadrants of each subsequent tee shall be instrumented with fewer rosettes, the exact number to be determined by the Company from a study of the results of the first test. The Company will provide the guidelines to be used by the Seller in making the gage layouts based upon the objectives of the program and the requirements dictated by other analyses with which the data will be compared. Gage positions shall be approved by the Company prior to installation. The type of gage may be chosen by the Seller with approval of the Company.

Since gages may be required on or very close to the welds at the ends of the tee, the Seller shall be prepared to weld short stubs to one or more of the tee outlets if necessary, prior to final placement of these inside gages.

3-5. Dial Gage Locations

Minimum requirements for dial gage locations are shown schematically in Section 6-3. Eight deflection measurements at each of two ends (Nos. 2 and 3) of the assembly shall be measured for each loading with respect to the fixed end (No. 1).

3-5-1. The lever arm, length L, should be such that with expected dial gage accuracy, the expected rotation can be measured with reasonable accuracy ($\pm 10\%$).

3-5-2. The reference frame to which the gages shall be attached should be connected to the pipe near end No. 1. The frame should be sufficiently rigid so that changes in dial and gage forces do not significantly affect the readings. While this force change may be only a few ounces, the frame will necessarily be quite long and, unless sufficiently rigid, may deflect significantly.

3-5-3. The measurement cross bars should be attached to the pipe at locations where local deformations of the pipe cross section are negligible. These attachments to the pipe should be as short as feasible (distance A, Fig. 6-3) because in evaluating the tee flexibility it will be necessary to subtract out the displacements due to the pipe; therefore it is necessary to know the pipe lengths accurately.

3-6. Plaster Molds

Plaster of paris molds replicating the inner and outer surfaces of each tee shall be made. The molds may be used by the Seller in making detailed strain-gage layouts. A complete set of castings will also be preserved for use by the Company as dimensional references.

3-7. Brittle Coating Tests

After installation of inside gages and completion of the test assembly, a brittle coating test may be performed at the discretion of the Company to determine the location and orientation of outside principal stresses. The location and number of the outside gages will then be subject to review and possible adjustment. The procedure for the brittle coating tests shall generally conform to the following outline.

3-7-1. Each loading shall be applied successively to one-third the maximum scheduled loading to minimize the effects of residual stresses.

3-7-2. Brittle lacquer with a sensitivity of approximately 500 $\mu\text{in./in.}$ shall be applied to at least one-half of the tee.

3-7-3. Branch moments and branch forces shall be applied in succession beginning with M_{3x} . Each load shall be applied in increments until cracks occur in the brittle coating or until a previous crack pattern is intensified. Under no circumstances shall the load exceed one-half of the maximum scheduled loading level.

3-7-4. The second half of the tee shall then be coated and the run moments and run forces applied in the same manner beginning with M_{2x} .

3-7-5. The above procedure may be adjusted during testing if mutually agreed on by the Seller and Company representative.

3-8. Data Requirements

The following data and data analysis shall be submitted as indicated in Section 5.

3-8-1. The linear response of each gage in units of inches per inch per unit load determined by least squares fitting the data from each of the loading increments.

3-8-2. Elastically-calculated stresses and strains in the direction, and transverse to the direction, of a row of gages.

3-8-3. Elastically-calculated principal stresses and strains and their directions, ϕ_p , relative to a row of gages.

3-8-4. Graphical plots of the above quantities as a function of gage position.

3-8-5. The data analyses required in Sections 3-8-1, 3-8-2, and 3-8-3 shall be made available to the Company in machine readable form, either punched cards or magnetic tape, in addition to the submissions required in Section 5.

3-9. Data Acquisition

3-9-1. Strain readings shall be taken from all gages and dial indicators at the beginning of each run and after each loading and unloading increment.

3-9-2. Strain readings at successive zero loads shall not differ from each other by more than $\pm 15 \mu\text{in./in.}$ or $\pm 5\%$ of the maximum strain reading for that gage during that loading, whichever is smaller. In the event this requirement is not met for specific gages during the required number of loadings, additional loadings shall be run for these gages until compliance is met. If internal

unrepairable gages persist in erratic or unsatisfactory behavior, a Company representative will determine when a maximum effort has been made to obtain data from these gages.

3-10. Test Procedures

Following the brittle coating tests and the attachment of external instrumentation, the first tee (Item 10) shall be tested with the prescribed loadings. The first load to be applied shall be M_{3x} followed by the remaining branch moments and branch forces. The same order shall apply for the run moments and run forces, beginning with M_{2x} . The internal pressure test may be interjected into the above order at any convenient time. The testing of the subsequent three tees will be similar but the order of the various loadings may be varied for convenience in planning the fatigue tests. For each loading the procedure used shall be as follows.

3-10-1. Each loading shall be applied to one-half of the programmed maximum load and a set of data taken. This data shall be scanned for points of maximum strain. In the event any strains indicate that, on maximum loading, the value of strain at that point will exceed the 1000 μ in./in. limit, the programmed maximum load shall be adjusted accordingly.

3-10-2. After confirming the adequacy of the maximum load, the test piece shall be loaded and unloaded until linear elastic behavior is achieved. Complete data need not be taken during this shakedown process; however, it provides ample opportunity to evaluate the stability of instrumentation.

3-10-3. The test piece shall then be loaded to the maximum load in four incremental steps. These steps shall be repeated on the unloading process making a total of nine sets of data for each loading, taken as indicated in Section 3-9.

3-10-4. The above test (3-10-3) shall be repeated and data for the two runs examined for compliance with requirements described in this specification.

3-11. Fatigue Tests

Each tee shall finally be tested to failure by fatigue loading. The Company will select the loading to be used in the fatigue test upon completion of the elastic testing of each tee. For Items 10 and 12 of Task No. 1 the loading will probably be a moment applied to the branch; however, a decision on the direction, M_{3x} or M_{3z} , will not be made until sufficient data are received from the elastic tests. In any event, the loading shall be made in a fully reversed cycle, maintaining a constant maximum displacement in each direction. The tee shall be hydraulically pressurized to 1175 psi internal pressure. This pressure shall be held constant during the entire fatigue test.

The fatigue test loading of Items 11 and 13 shall be internal pressure. The Company will confirm the loading after reviewing the results of the elastic tests of the tees. The tees will be hydraulically pressurized to a predetermined value and then the pressure released to complete one cycle.

The magnitude of the loading shall be proposed by the Seller and approved by the Company, and should be sufficient to cause a fatigue failure in the range between 500 and 100,000 cycles. Failure in this instance is defined as the first indication of a leak and shall cause the test to be terminated.

The test shall be interrupted at frequent intervals and inspected for signs of a developing fatigue crack. Dyepenetrant or fluorescent-magnetic particle inspections as applicable will be made to detect cracks on the outside surface. Suspected areas are to be photographed during each inspection and these photographs are to be considered a portion of the records of the test.

4. INSPECTIONS:

4-1. The Company shall have access to the test site as necessary for observation of test preparations and tests.

4-2. The Company shall be advised of the schedule of preparations and tests in sufficient time to allow an observer to be present for activities of interest.

5. REPORTING OF RESULTS AND RETURN OF SPECIMENS:

5-1. The following reports shall be submitted covering the work described herein.

5-1-1. Monthly Status Reports. These reports are due at the Company on the first day of each month. They should cover the month's activities in sufficient detail so that portions can be abstracted by the Company for inclusion in a program report to the AEC. Three copies of 8 1/2 x 11-in. glossy print photographs should be included as appropriate. A projection of the planned activities for the next month is to be included. The format for the report may be a letter or memorandum.

5-1-2. Quarterly Progress Reports. These reports are due at the Company on the 10th day of each quarter, that is, January 10, April 10, July 10, and October 10. Fifteen copies are required. They are to be a general summary report covering the preceding three-month period; the first report may necessarily cover a shorter period. They need not contain all the specific details contained in the monthly reports but should present a clear description of

the work, since these reports will be passed on unedited to AEC Headquarters and others on a limited, official use only, distribution. The format of the report is left to the discretion of the Seller, but should contain an introduction and conclusions.

5-1-3. Final Topical Reports. Formal summary reports shall be submitted upon completing the elastic strain-gage analysis of each tee and upon completing each fatigue test. Data shall be included as both tabulated summaries and graphical plots. Fifty (50) copies of each are required. Drafts of the final reports shall be submitted to the Company for approval and comment. The work shall be deemed completed upon receipt by the Company of the final reports.

5-1-4. Informal Submission of Data. Data for each of the described loadings, including data obtained during test setup, shall be made available to the Company immediately upon completion of acquisition and processing. The Company is to be notified, in writing, that such data are available. However, transmittal to the Company shall be made only upon request.

5-2. Following the completion of the fatigue tests, the extensions of the tees shall be cut and removed approximately 3 in. from the weld leaving the weld and tee intact. Gages and a portion of the lead wires shall be left on the specimen. The tees shall then be returned to the Company for final disposition.

6. NOTES AND REFERENCES:

6-1. Suggested Contractual Features

6-1-1. Revised Loadings. It is anticipated that certain loadings may be repeated with combinations of moments and forces, for example, $F_{2y} \pm M_{2y}$; $F_{2z} \pm M_{2z}$; $F_{3z} \pm M_{3z}$; and $F_{3x} \pm M_{3x}$. The Seller shall be prepared to perform these additional tasks if required.

6-1-2. Addition or Deletion of Gages. The Seller shall be prepared to add or delete three-gage rosettes from the number indicated in this specification.

6-2. Reference

Task No. 1 from reference listed in Section 2-1-1 (attachment).

6-3. Reference

Schematic sketch of dial indicator requirements (attachment).

TASK NO. 1

MEASUREMENTS OF SURFACE STRAINS AND
FATIGUE TESTS OF ASA B16.9 TEES

Scope

Table 1 lists the specific tee test specimens and fatigue test loading conditions.

Phase A consists of a thorough investigation of Items 4, 6, 8, and 15 of table. Phase B includes the remainder of the items of Table 1. Detailed test procedures for Phase B will be guided by the results of Phase A tests and possibly by the results of the theoretical analysis of tees performed under Task 4.

Table 1. ASA B16.9 Tee Test Specimens and
Fatigue Test Loadings

Item No.	Nominal Size	Nominal Wall	Material	Fatigue Test Loading	Manufacturer	Phase
1	6x6x6	Sch 40	TP 304 or 304L	Moment	I	B
2	6x6x6	Sch 160	A-106-B	Pressure	I	B
3	6x6x6	Sch 40	TP 304 or 304L	Moment	I	B
4	12x12x12	Sch 80	A-106-B	Moment	I	A
5	12x12x12	Sch 80	A-106-B	Pressure	II	B
6	12x12x12	Sch 80	A-106-B	Moment	III	A
7	12x12x12	Sch 160	TP 304 or 304L	Moment	II	B
8	12x12x6	Sch 40	TP 304 or 304L	Moment	II	A
9	12x12x6	Sch 160	TP 304 or 304L	Pressure	II	B
10	24x24x24	Sch 40	A-106-B	Moment	III	B
11	24x24x24	Sch 160	A-106-B	Pressure	III	B
12	24x24x10	Sch 40	A-106-B	Moment	III	B
13	24x24x10	Sch 160	A-106-B	Pressure	III	B
14	12x12x6	Sch 40	TP 304 or 304L	Undecided	I	B
15	12x12x6	Sch 40	TP 304 or 304L	Moment	III	A

Part of the objective of this program is to determine the extent of the differences in stresses in tees of different manufacturers. Tees from three different manufacturers are to be included, indicated by I, II, and III of Table 1. The bidder shall specify the specific manufacturers. The tees purchased for the program should be typical of the manufacturers' products.

Strain measurements are to be taken with internal pressure and with the moment and force* loadings shown in Fig. 1.

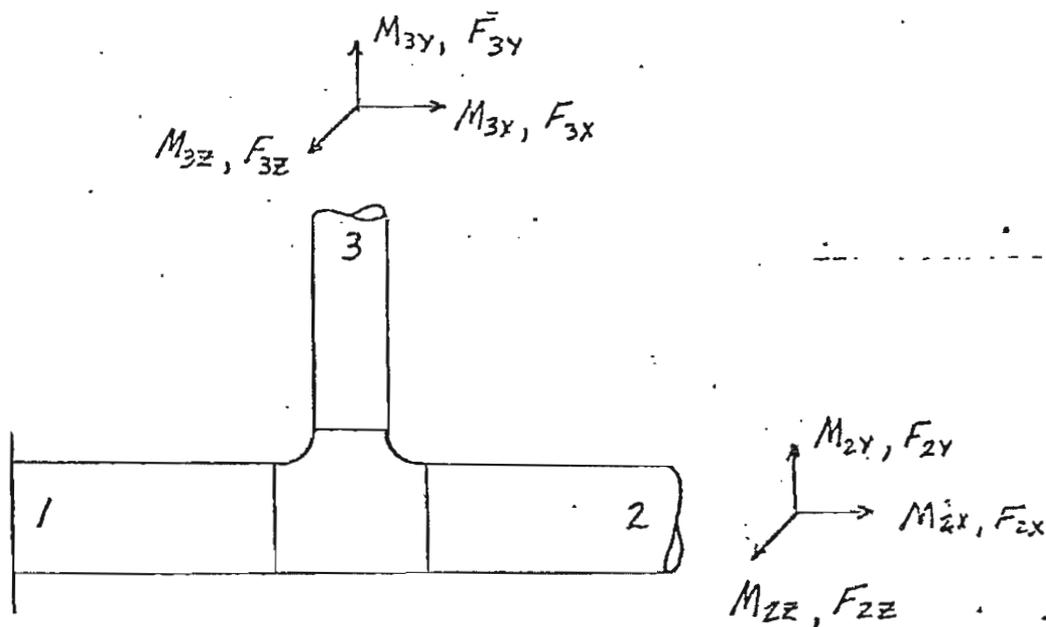


Fig. 1. Test Loadings for Strain-Gage Tests

Pressure and each of the six indicated moments are to be applied separately (seven separate loadings). Each test shall include strain-gage readings at a minimum of three load increments up and down through at least three cycles to insure that elastic states of strain are obtained. The bidder shall indicate what maximum loads he proposed to apply. Items 4 and 8 of Table 1 (Phase A) shall be thoroughly strain-gage instrumented and subjected to all indicated test loads to determine the critical areas where stresses due to the possible independent loadings

* Force loadings are to be applied to Items 4 and 8 of Table 1. If stresses due to force loads are small compared to those due to moment loads, subsequent test models do not need to include force loads.

can combine. It is expected that several hundred strain-gage elements will be required on each model, but the specific number and location of gages are to be specified by the bidder. The results of this investigation shall be used to locate critical regions on the other 11 models so that a smaller number of strain gages may be used.

For pressure fatigue tests, the pressure range will be determined on the basis of the strain-gage results. For moment-loading fatigue tests, both the moment (whether M_x , M_y , M_z , or some combination thereof and whether applied to branch or run) and its magnitude will also be determined from the strain-gage results. The aim point will be between 500 to 100,000 cycles to failure. The fatigue tests shall be interrupted periodically for visual inspection to attempt to identify any crack initiation on the outside surface. All moment-loading fatigue tests shall be pressurized to the nominal design pressure, except Item 3 which shall be pressurized about 2 to 5 psig. All fatigue tests shall terminate upon the beginning of leakage.

All tests shall be run at room temperature.

DESIRED RESULTS

- (1) Inspection data on test specimens.
- (2) Strain-gage data converted to principal stresses, tabulated against load steps.
- (3) Fatigue test loadings and cycles-to-failure.
- (4) Description of the fatigue failure and crack initiation, if the crack initiation is detected on the outside surface.
- (5) Description of test procedures and discussion of accuracy of the test results.

APPENDIX II

"AS-BUILT" DIMENSIONS FOR T-10, T-11, T-12 and T-13

This appendix contains the "as-built" dimensions calculated by ORNL for T-10, T-11, T-12 and T-13 and a set of pertinent drawings. These are placed in sub-appendices II.1 thru II.4 respectively. The following C.E. drawings are included in the sub-appendices.

<u>Sub-Appendix</u>	<u>CE Drawing No.</u>	<u>Drawing Name</u>
II.1	SA-10704-00	ORNL As Fabricated Dimensions. 24" x 24" x 24" Sch. 40 Tee
II.1	SE-10706-0	As-Built Dimensions of ORNL Tube Turn 24 x 24 x 24 Sch. 40 Tee
II.2	SA-10704-1	ORNL As Fabricated Dimensions 24" x 24" x 24" Tee
II.2	SD-10963-1	As-Built Dimensions of "T-11"
II.3	A-62872-040-1	ORNL As Fabricated Dimensions. 24" x 24" x 10" "T-12" & "T-13"
II.3	E-62675-036-0	As-Built Dimensions of "T-12"
II.4	D-62872-039-0	As-Built Dimensions of "T-13"

APPENDIX II.1

"AS BUILT" DIMENSION FOR T-10 TEE

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24Y24124 SCH 40 TUBE TURN
 (2) ORNL Serial No. 4061
 (3) Reference Dwg. for Co-ordinate Locations SA-10704
 (4) Reference Diameter 26.203 Reference Radius 13.1015"

Plane No. <u>A</u>			Plane No. <u>B</u>		
Circumf. Location	Radius Variation	Wall Thickness	Circumf. Location	Radius Variation	Wall Thickness
1	-.550	1.208	1		
2	-.685	1.092	2	+ .760	1.398
3	-.710	1.062	3	-.390	1.383
4	-.665	1.105	4	-.455	1.280
5	-.613	1.165	5	-.450	1.283
6			6		
7	-.770	1.010	7	-.647	1.180
8			8		
9	-.865	0.940	9	-.755	1.050
10			10		
11	-.790	0.992	11	-.665	1.115
12			12		
13	-.745	1.018	13	-.580	1.182
14	-.805	1.068	14	-.585	1.180
15	-.835	0.943	15	-.453	1.360
16	-.715	1.065	16	+ .895	1.402

NOTES (1) Tee aligned vertically based on ID centerline
 (2) Increase in radius is +, decrease -

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24x24x24 SCH 40 TUBE TURN
 (2) ORNL Serial No. 5041
 (3) Reference Dwg. for Co-ordinate Locations 519-10704
 (4) Reference Diameter 26.203 Reference Radius 13.1015"

Plane No. <u>C</u>			Plane No. <u>D</u>		
Circumf. Location	Radius Variation	Wall Thickness	Circumf. Location	Radius Variation	Wall Thickness
1			1		
2			2		
3	+ .557	1.359	3		
4	- .255	1.275	4	+ .025	1.282
5	- .295	1.270	5	- .140	1.262
6			6		
7	- .530	1.110	7	- .372	1.274
8			8		
9	- .662	1.198	9	- .554	1.208
10			10		
11	- .558	1.210	11	- .435	1.221
12			12		
13	- .475	1.255	13	- .262	1.254
14	- .383	1.244	14	- .076	1.256
15	+ .395	1.322	15		
16			16		

- NOTES (1) Tee aligned vertically based on ID centerline
 (2) Increase in radius is +, decrease -

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24x24x24 SCH 40 TUBE TURN
 (2) ORNL Serial No. 6041
 (3) Reference Dwg. for Co-ordinate Locations 51 10704
 (4) Reference Diameter 20.203 Reference Radius 13.125"

Plane No. <u>E</u>			Plane No. <u>F</u>		
Circumf. Location	Radius Variation	Wall Thickness	Circumf. Location	Radius Variation	Wall Thickness
1			1		
2			2		
3			3		
4			4		
5	+0.005	1.240	5	+0.100	1.240
6			6		
7	-0.288	1.150	7	-0.258	1.144
8			8		
9	-0.476	1.208	9	-0.460	1.207
10			10		
11	-0.338	1.218	11	-0.300	1.215
12			12		
13	-0.102	1.239	13	0.000	1.234
14			14		
15			15		
16			16		

NOTES (1) Tee aligned vertically based on ID centerline
 (2) Increase in radius is +, decrease -

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24x24x24 SCH 40 TUBE TURN
 (2) ORNL Serial No. 4051
 (3) Reference Dwg. for Co-ordinate Locations SA-10704
 (4) Reference Diameter 26.203 Reference Radius 13.1015"

Plane No. <u>G</u>			Plane No. <u>H</u>		
Circumf. Location	Radius Variation	Wall Thickness	Circumf. Location	Radius Variation	Wall Thickness
1			1		
2			2		
3			3		
4			4	+ .030	1.274
5	.000	1.255	5	- .168	1.256
6			6		
7	- .285	1.180	7	- .387	1.154
8			8		
9	- .476	1.210	9	- .540	1.215
10			10		
11	- .330	1.213	11	- .425	1.226
12			12		
13	- .084	1.237	13	- .245	1.264
14			14	- .076	1.251
15			15		
16			16		

NOTES (1) Tee aligned vertically based on ID centerline
 (2) Increase in radius is +, decrease -

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24x24x24 SCH 40 TUBE TURN
 (2) ORNL Serial No. 4041
 (3) Reference Dwg. for Co-ordinate Locations SA-10704
 (4) Reference Diameter 26.203 Reference Radius 13.1015"

Plane No. <u>I</u>			Plane No. <u>J</u>		
Circumf. Location	Radius Variation	Wall Thickness	Circumf. Location	Radius Variation	Wall Thickness
1			1		
2			2	+ .985	1.392
3	+ .500	1.360	3	- .350	1.380
4	- .241	1.290	4	- .435	1.282
5	- .325	1.272	5	- .490	1.265
6			6		
7	- .500	1.198	7	- .618	1.260
8			8		
9	- .625	1.175	9	- .700	1.080
10			10		
11	- .540	1.215	11	- .645	1.130
12			12		
13	- .406	1.263	13	- .570	1.190
14	- .385	1.244	14	- .580	1.182
15	+ .480	1.300	15	- .460	1.330
16			16	+ .855	1.418

NOTES (1) Tee aligned vertically based on ID centerline
 (2) Increase in radius is +, decrease -

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24x24x24 SCH 40 TUBE TURN
 (2) ORNL Serial No. 0061
 (3) Reference Dwg. for Co-ordinate Locations SA-10704
 (4) Reference Diameter 26.203 Reference Radius 13.1015"

Plane No. <u>K</u>			Plane No. <u>L</u>		
Circumf. Location	Radius Variation	Wall Thickness	Circumf. Location	Radius Variation	Wall Thickness
1	-0.390	1.402	1		
2	-0.573	1.220	2		
3	-0.645	1.128	3		
4	-0.643	1.105	4		
5	-0.662	1.102	5	-0.068	1.252
6			6		
7	-0.758	1.015	7		
8			8		
9	-0.814	0.994	9		
10			10		
11	-0.775	0.994	11		
12			12		
13	-0.740	1.026	13	-0.225	1.245
14	-0.790	0.984	14		
15	-0.775	1.004	15		
16	-0.664	1.145	16		

NOTES (1) Tee aligned vertically based on ID centerline
 (2) Increase in radius is +, decrease -

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 2.2x2.2x2.0 SCH40 TUBE TURN
 (2) ORNL Serial No. 4061
 (3) Reference Dwg. for Co-ordinate Locations 5A-10704
 (4) Reference Diameter 26.203 Reference Radius 13.1015"

Plane No. <u>M</u>			Plane No. <u>N</u>		
Circumf. Location	Radius Variation	Wall Thickness	Circumf. Location	Radius Variation	Wall Thickness
1			1		
2			2		
3			3	-0.338	1.333
4	-0.367	1.280	4	-0.636	1.182
5	-0.361	1.270	5	-0.633	1.200
6	-0.390	1.268	6	-0.606	1.192
7			7	-0.384	1.300
8			8		
9			9		
10			10		
11			11	-0.300	1.297
12	-0.440	1.240	12	-0.860	1.005
13	-0.615	1.192	13	-0.865	0.948
14	-0.485	1.250	14	-0.805	0.940
15			15	-0.450	1.335
16			16		

NOTES (1) Tee aligned vertically based on ID centerline
 (2) Increase in radius is +, decrease -

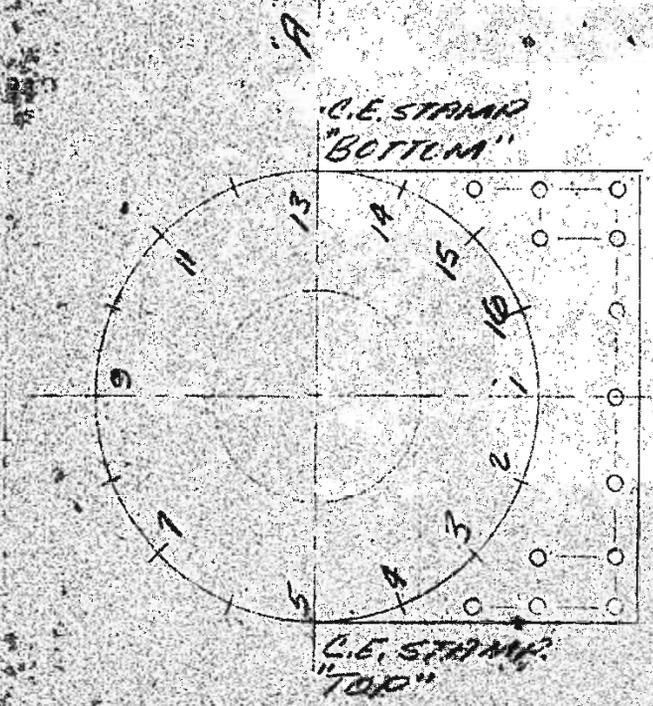
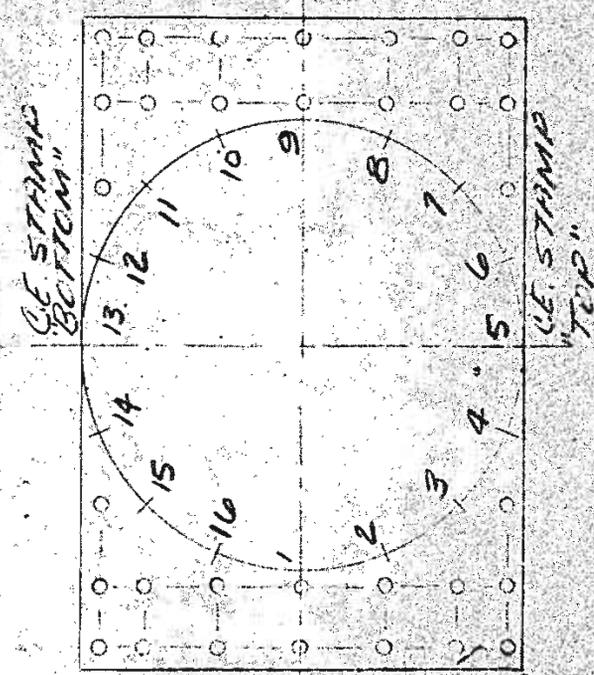
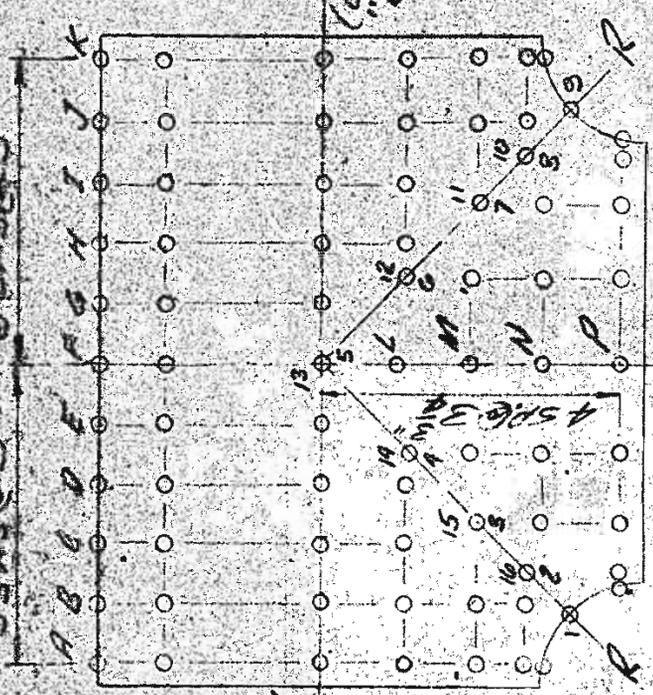
DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24X24X24 SCH 40 TUBE TURN
 (2) ORNL Serial No. 4061
 (3) Reference Dwg. for Co-ordinate Locations SA-10704
 (4) Reference Diameter 26.203 Reference Radius 13.1015"

Plane No. <u>P</u>			Plane No. <u>R</u>		
Circumf. Location	Radius Variation	Wall Thickness	Circumf. Location	Radius Variation	Wall Thickness
1	-.515	1.435	1	+.570	1.492
2	-.722	1.082	2	+.480	1.436
3	-.850	1.016	3	+.300	1.360
4	-.935	0.987	4	+.050	1.274
5	-.970	0.990	5	.000	1.240
6	-.910	1.004	6	-.030	1.242
7	-.810	1.060	7	+.025	1.328
8	-.722	1.100	8	+.267	1.418
9	-.470	1.383	9	+.614	1.480
10	-.725	1.108	10	+.408	1.440
11	-.794	1.016	11	+.243	1.341
12	-.834	0.908	12	+.113	1.268
13	-.851	0.837	13	+.048	1.234
14	-.850	0.878	14	+.136	1.387
15	-.815	0.979	15	+.300	1.337
16	-.758	1.107	16	+.446	1.425

NOTES (1) Tee aligned vertically based on ID centerline
 (2) Increase in radius is +, decrease -

5 STAYS @ 3" SPACING



CONTRACT NO.

DRNL AS FABRICATED DIMENSIONS. 24" X 24" X 24" SCH 40 TEE FOR

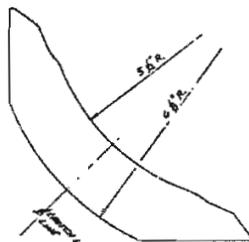
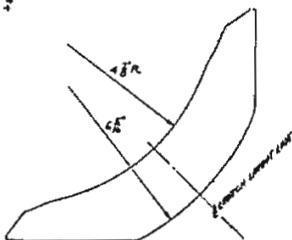
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DRAWN BY LRMAVES
CHECKED BY

DATE 8-26-69
DESIGNED BY

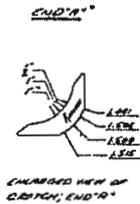


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DRAWING NO. 5A-10704-0



IF THESE SECTION DIMENSIONS ARE TAKEN DIRECTLY FROM DRAWING OF PADDLE END AND FORMED IN SHAPING, THE DIMENSIONS CAN BE CONSIDERED TO BE QUALITY INDICATORS OF THE PADDLE ENDING. BUT THE FIRST SECTIONS OF A SMALL NUMBER OF DIMENSIONS AT THE PADDLE END ARE NOT TO BE USED.



APPENDIX II.2

"AS BUILT" DIMENSIONS FOR T-11 TEE

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24 x 24 x 24 SCH 160
 (2) ORNL Serial No. 4062
 (3) Reference Dwg. for Co-ordinate Locations SA-10704
 (4) Reference Diameter 26.240 Reference Radius 13.120

Plane No. <u>A</u>			Plane No. <u>B</u>		
Circumf. Location	Radius Variation	Wall Thickness	Circumf. Location	Radius Variation	Wall Thickness
1	-.600	2.925	1	—	—
2	-.742	2.755	2	+.680	3.400
3	-.782	2.720	3	-.480	3.300
4	-.762	2.730	4	-.568	3.050
5	-.735	2.770	5	-.568	3.050
6	—	—	6	—	—
7	-.942	2.570	7	-.825	2.785
8	—	—	8	—	—
9	-.900	2.540	9	-.880	2.740
10	—	—	10	—	—
11	-.905	2.630	11	-.775	2.830
12	—	—	12	—	—
13	-.728	2.800	13	-.583	2.980
14	-.792	2.740	14	-.600	3.050
15	-.787	2.720	15	-.500	3.100
16	-.760	2.750	16	+.700	3.550

- NOTES (1) Tee aligned vertically based on ID centerline
 (2) Increase in radius is +, decrease -

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24x24x24 SCH 160
 (2) ORNL Serial No. 4062
 (3) Reference Dwg. for Co-ordinate Locations SA-10704
 (4) Reference Diameter 26.240 Reference Radius 13.120

Plane No. <u>C</u>			Plane No. <u>D</u>		
Circumf. Location	Radius Variation	Wall Thickness	Circumf. Location	Radius Variation	Wall Thickness
1	—	—	1	—	—
2	—	—	2	—	—
3	+ .360	3.380	3	—	—
4	- .360	3.510	4	- .057	3.425
5	- .410	3.470	5	- .253	3.500
6	—	—	6	—	—
7	- .682	3.225	7	- .570	3.300
8	—	—	8	—	—
9	- .780	3.150	9	- .687	3.380
10	—	—	10	—	—
11	- .660	3.260	11	- .550	3.310
12	—	—	12	—	—
13	- .424	3.480	13	- .260	3.510
14	- .380	3.565	14	- .071	3.445
15	+ .356	3.400	15	—	—
16	—	—	16	—	—

- NOTES (1) Tee aligned vertically based on ID centerline
 (2) Increase in radius is +, decrease -

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24x24x24 SCH 160
 (2) ORNL Serial No. 4062
 (3) Reference Dwg. for Co-ordinate Locations SA-10704
 (4) Reference Diameter 26.240 Reference Radius 13.120

Plane No. <u>E</u>			Plane No. <u>F</u>		
Circumf. Location	Radius Variation	Wall Thickness	Circumf. Location	Radius Variation	Wall Thickness
1	-	-	1	-	-
2	-	-	2	-	-
3	-	-	3	-	-
4	-	-	4	-	-
5	-.083	3.500	5	.000	3.450
6	-	-	6	-	-
7	-.455	3.300	7	-.390	3.310
8	-	-	8	-	-
9	-.582	3.250	9	-.516	3.270
10	-	-	10	-	-
11	-.432	3.310	11	-.361	3.320
12	-	-	12	-	-
13	-.097	3.470	13	.000	3.450
14	-	-	14	-	-
15	-	-	15	-	-
16	-	-	16	-	-

NOTES (1) Tee aligned vertically based on ID centerline
 (2) Increase in radius is +, decrease -

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24x24x24 SCH 160
 (2) ORNL Serial No. 4062
 (3) Reference Dwg. for Co-ordinate Locations SA-1070A
 (4) Reference Diameter 26.240 Reference Radius 13.120

Plane No. <u>G</u>			Plane No. <u>H</u>		
Circumf. Location	Radius Variation	Wall Thickness	Circumf. Location	Radius Variation	Wall Thickness
1	-	-	1	-	-
2	-	-	2	-	-
3	-	-	3	-	-
4	-	-	4	-.063	3.410
5	.104	3.500	5	-.274	3.510
6	-	-	6	-	-
7	-.462	3.300	7	-.571	3.290
8	-	-	8	-	-
9	-.584	3.250	9	-.678	3.270
10	-	-	10	-	-
11	-.434	3.300	11	-.542	3.300
12	-	-	12	-	-
13	-.094	3.475	13	-.260	3.520
14	-	-	14	-.052	3.420
15	-	-	15	-	-
16	-	-	16	-	-

- NOTES (1) Tee aligned vertically based on ID centerline
 (2) Increase in radius is +, decrease -

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24x24x24 SCH 160
 (2) ORNL Serial No. 4062
 (3) Reference Dwg. for Co-ordinate Locations SA-10704
 (4) Reference Diameter 26.240 Reference Radius 13.120

Plane No. <u>I</u>			Plane No. <u>J</u>		
Circumf. Location	Radius Variation	Wall Thickness	Circumf. Location	Radius Variation	Wall Thickness
1	-	-	1	-	-
2	-	-	2	+ .845	3.470
3	+ .430	3.380	3	- .428	3.470
4	- .363	3.600	4	- .570	3.075
5	- .430	3.535	5	- .585	3.015
6	-	-	6	-	-
7	- .687	3.255	7	- .800	2.820
8	-	-	8	-	-
9	- .780	3.170	9	- .832	2.725
10	-	-	10	-	-
11	- .652	3.230	11	- .769	2.830
12	-	-	12	-	-
13	- .420	3.450	13	- .568	3.040
14	- .353	3.540	14	- .568	3.050
15	+ .410	3.370	15	- .462	3.360
16	-	-	16	- .735	3.380

- NOTES (1) Tee aligned vertically based on ID centerline
 (2) Increase in radius is +, decrease -

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- 1) Tee Size 24x24x 24 SCH 160
 2) ORNL Serial No. 4062
 3) Reference Dwg. for Co-ordinate Locations SA-10704
 4) Reference Diameter 26.240 Reference Radius 13.120

Plane No. <u>K</u>			Plane No. <u>L</u>		
Circumf. Location	Radius Variation	Wall Thickness	Circumf. Location	Radius Variation	Wall Thickness
1	-.607	2.900	1	-	-
2	-.785	2.730	2	-	-
3	-.825	2.710	3	-	-
4	-.800	2.710	4	-	-
5	-.750	2.780	5	+ .058	3.430
6	-	-	6	-	-
7	-.928	3.000	7	-	-
8	-	-	8	-	-
9	.985	2.540	9	-	-
10	-	-	10	-	-
11	-.880	2.630	11	-	-
12	-	-	12	-	-
13	.730	2.800	13	- .130	3.420
14	-.770	2.750	14	-	-
15	-.800	2.720	15	-	-
16	-.775	2.740	16	-	-

NOTES (1) Tee aligned vertically based on ID centerline
 (2) Increase in radius is +, decrease -

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24x24x24 SCH 160
 (2) ORNL Serial No. 4062
 (3) Reference Dwg. for Co-ordinate Locations SA-10704
 (4) Reference Diameter 26.240 Reference Radius 13.120

Plane No. <u>M</u>			Plane No. <u>N</u>		
Circumf. Location	Radius Variation	Wall Thickness	Circumf. Location	Radius Variation	Wall Thickness
1	-	-	1	-	-
2	-	-	2	-	-
3	-	-	3	-.300	3.270
4	-.187	3.220	4	-.450	3.000
5	-.195	3.225	5	-.440	2.980
6	-.158	3.275	6	-.458	2.955
7	-	-	7	-.220	3.290
8	-	-	8	-	-
9	-	-	9	-	-
10	-	-	10	-	-
11	-	-	11	-.290	3.360
12	-.300	3.260	12	-.525	3.015
13	-.205	3.260	13	-.492	3.030
14	-.295	3.245	14	-.515	3.050
15	-	-	15	-.312	3.300
16	-	-	16	-	-

NOTES (1) Tee aligned vertically based on ID centerline
 (2) Increase in radius is +, decrease -

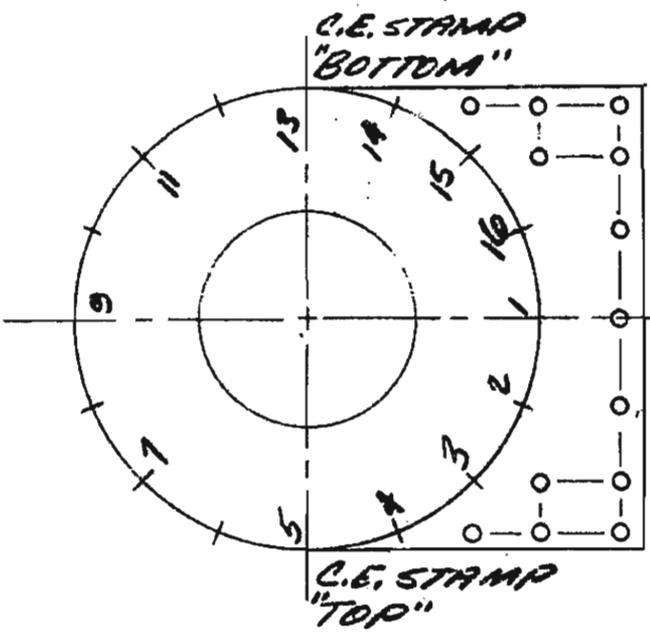
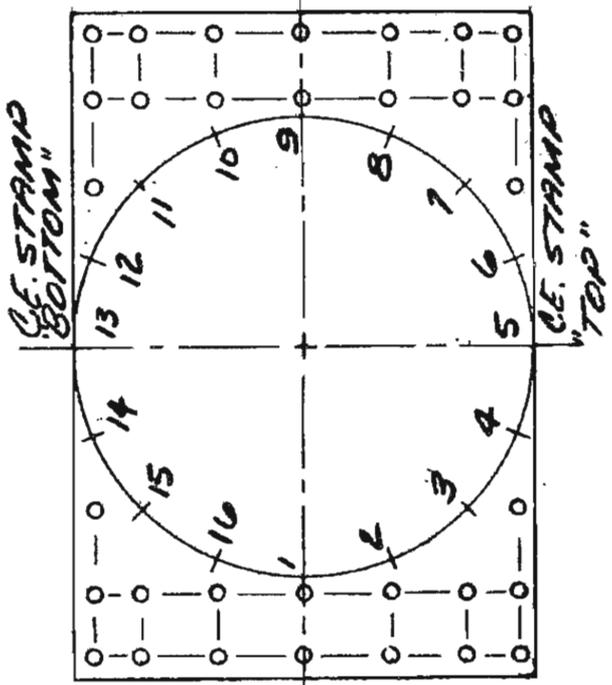
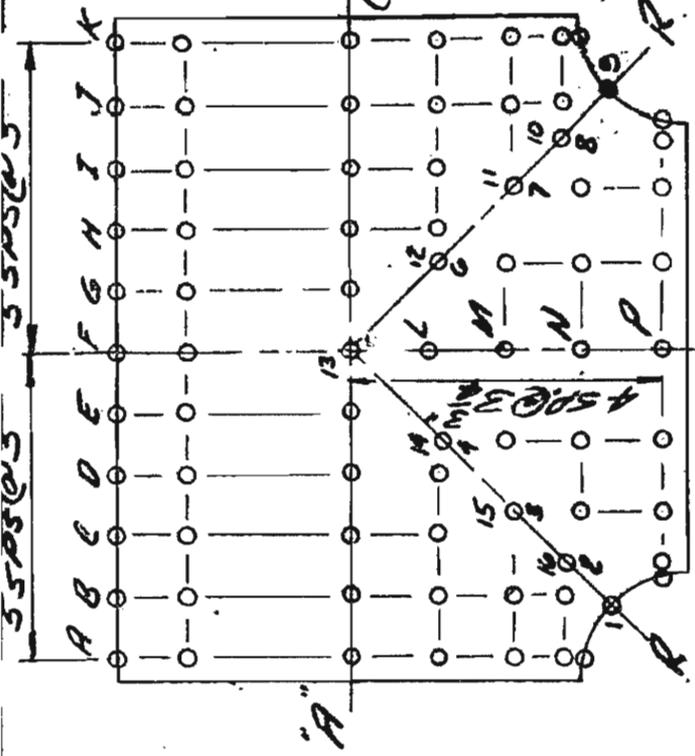
DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24x24x24 SCH 160
 (2) ORNL Serial No. 4062
 (3) Reference Dwg. for Co-ordinate Locations SA-10704
 (4) Reference Diameter 26.240 Reference Radius 13.120

Plane No. <u>P</u>			Plane No. <u>R</u>		
Circumf. Location	Radius Variation	Wall Thickness	Circumf. Location	Radius Variation	Wall Thickness
1	-.410	2.985	1	+.460	3.590
2	-.657	2.720	2	+.300	3.400
3	-.695	2.690	3	+.260	3.380
4	-.685	2.685	4	+.215	3.390
5	-.643	2.750	5	-	-
6	-.685	2.700	6	+.245	3.370
7	-.697	2.700	7	+.360	3.375
8	-.675	2.710	8	+.320	3.410
9	-.450	2.950	9	+.440	3.630
10	-.680	2.700	10	+.320	3.460
11	-.726	2.650	11	+.180	3.340
12	-.734	2.640	12	+.010	3.350
13	-.690	2.690	13	-	-
14	-.628	2.670	14	+.115	3.370
15	-.720	2.675	15	+.320	3.385
16	-.668	2.730	16	+.307	3.475

NOTES (1) Tee aligned vertically based on ID centerline
 (2) Increase in radius is +, decrease -

REMOVED "SEN 40" FROM TITLE. LRN 10709-1



CONTRACT NO.
DRNL AS FABRICATED DIMENSIONS. 24"X24"X24" TEE

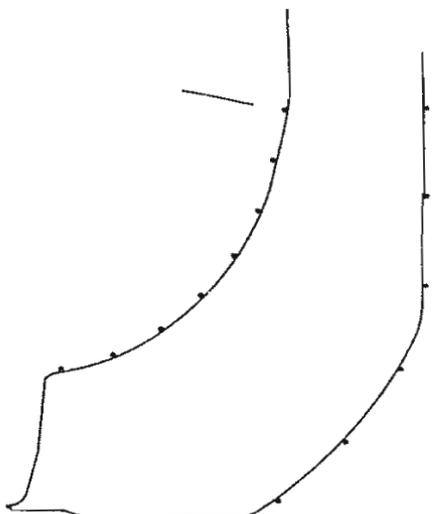
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CHECKED BY _____ APPROVED _____



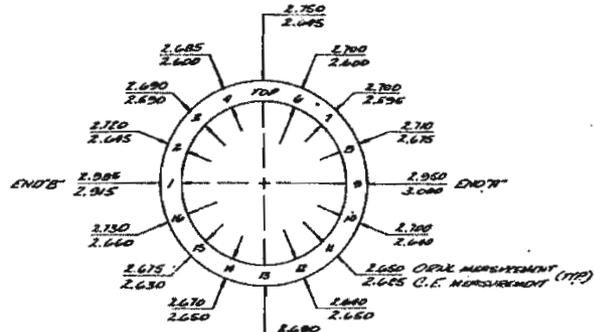
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DRAWING NO. **5A-10709-1**

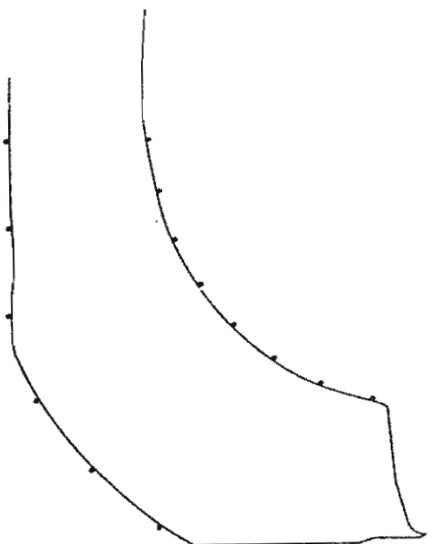
REVISED 1/10/68 AND 1/12/68
 50-10963-1 (52-2243-1077)



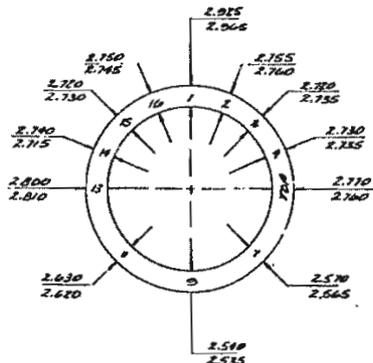
CERTAIN SECTION, END "A"



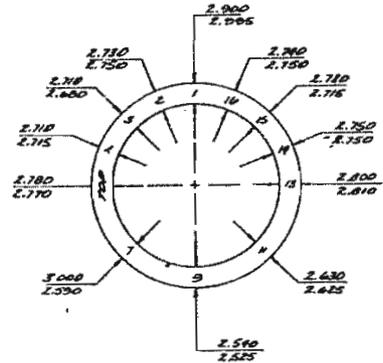
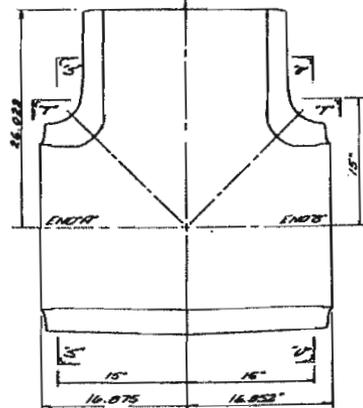
SECTION "T-T" PLANE II



CERTAIN SECTION, END "B"



SECTION "S-S" PLANE I



SECTION "U-U" PLANE II

GENERAL NOTES:
 CERTAIN SECTIONS TAKEN FROM
 HOLDING PARTS IN MOLD.
 *INDICATE EXACT LOCATION FOR
 SYSTEM WARE.
 C.E. MEASUREMENTS AT SECT. "T-T" WERE
 TAKEN AFTER ATTACHMENT OF THE
 STUDY PIPE. DIMENSIONS IN THIS AREA
 DECREASED THE WALL THICKNESS.

THIS DRAWING MADE BY CHATTANOOGA SYSTEM

RESULT DIMENSIONS OF "T-T"	
DATE: 1/10/68	SCALE: 3/4"=1"
DESIGNED BY: L.R. HARRIS	DRAWN BY: [blank]
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DRAWING NO. 50-10963-11	



APPENDIX II.3

"AS BUILT" DIMENSIONS FOR T-12 TEE

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24 X 24 X 10 Sch 40
 (2) ORNL Serial No. 5063
 (3) Reference Dwg. for Co-ordinate Locations A-62872-040
 (4) Reference Diameter 25.984 Reference Radius 12.992

Plane No. <u>A</u>			Plane No. <u>B</u>		
Circumf. Location	Radius Variation	Wall Thickness	Circumf. Location	Radius Variation	Wall Thickness
1 (0°)	-.661	1.037	1 (0°)	-.554	1.108
3 (45°)	-.718	.984	3 (45°)	-.604	1.086
5 (90°)	-.712	.992	5 (90°)	-.550	1.015
7 (135°)	-.719	.992	7 (135°)	-.596	1.003
9 (180°)	-.782	.933	9 (180°)	-.680	.984
11 (225°)	-.812	.904	11 (225°)	-.703	.978
13 (270°)	-.729	.981	13 (270°)	-.555	1.003
15 (315°)	-.682	1.017	15 (315°)	-.544	1.100

- NOTES (1) Tee aligned vertically based on ID centerline
 (2) Increase in radius is +, decrease -

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24 X 24 X 10 Sch 40
 (2) ORNL Serial No. 5063
 (3) Reference Dwg. for Co-ordinate Locations A-62872-040
 (4) Reference Diameter 25.984 Reference Radius 12.992

Plane No. <u>C</u>			Plane No. <u>D</u>		
Circumf. Location	Radius Variation	Wall Thickness	Circumf. Location	Radius Variation	Wall Thickness
1(0°)	-.476	1.182	1(0°)	—	—
3(45°)	-.507	1.095	3(45°)	-.379	1.064
5(90°)	-.395	1.002	5(90°)	-.227	1.001
7(135°)	-.480	1.000	7(135°)	-.364	.989
9(180°)	-.585	.972	9(180°)	-.482	.981
11(225°)	-.610	.973	11(225°)	-.495	.955
13(270°)	-.483	.985	13(270°)	-.220	.981
15(315°)	-.444	.959	15(315°)	-.314	1.032

NOTES (1) Tee aligned vertically based on ID centerline
 (2) Increase in radius is +, decrease -

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24 X 24 X 10 Sch 40
 (2) ORNL Serial No. 5063
 (3) Reference Dwg. for Co-ordinate Locations A-62872-040
 (4) Reference Diameter 25.984 Reference Radius 12.992

Plane No. <u>E</u>			Plane No. <u>F</u>		
Circumf. Location	Radius Variation	Wall Thickness	Circumf. Location	Radius Variation	Wall Thickness
1(0°)	—	—	1(0°)	—	—
3(45°)	-.268	1.025	3(45°)	-.153	1.020
5(90°)	-.068	.995	5(90°)	+0.003	.993
7(135°)	-.291	.985	7(135°)	-.284	.983
9(180°)	-.402	.977	9(180°)	-.383	.970
11(225°)	-.410	.972	11(225°)	-.400	.980
13(270°)	-.057	.978	13(270°)	-.000	.974
15(315°)	-.190	1.005	15(315°)	-.082	1.000

NOTES (1) Tee aligned vertically based on ID centerline
 (2) Increase in radius is - decrease -

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24 X 24 X 10 Sch 40
 (2) ORNL Serial No. 5063
 (3) Reference Dwg. for Co-ordinate Locations A-62872-040
 (4) Reference Diameter 25.984 Reference Radius 12.992

Plane No. <u>G</u>			Plane No. <u>H</u>		
Circumf. Location	Radius Variation	Wall Thickness	Circumf. Location	Radius Variation	Wall Thickness
1 (0°)	—	—	1 (0°)	—	—
3 (45°)	-.266	1.028	3 (45°)	-.374	1.057
5 (90°)	-.074	1.002	5 (90°)	-.238	1.007
7 (135°)	-.300	.998	7 (135°)	-.370	.990
9 (180°)	-.410	.978	9 (180°)	-.482	1.004
11 (225°)	-.408	.986	11 (225°)	-.483	.994
13 (270°)	-.055	.987	13 (270°)	-.210	.993
15 (315°)	-.203	1.032	15 (315°)	-.316	1.058

NOTES (1) Tee aligned vertically based on ID centerline
 (2) Increase in radius is + decrease -

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24 X 24 X 10 Sch 40
 (2) ORNL Serial No. 5063
 (3) Reference Dwg. for Co-ordinate Locations A-62872-040
 (4) Reference Diameter 25.984 Reference Radius 12.992

Plane No. <u>I</u>			Plane No. <u>J</u>		
Circumf. Location	Radius Variation	Wall Thickness	Circumf. Location	Radius Variation	Wall Thickness
1 (0°)	-.478	1.171	1 (0°)	-.570	1.122
3 (45°)	-.501	1.091	3 (45°)	-.617	1.1100
5 (90°)	-.400	.998	5 (90°)	-.563	1.000
7 (135°)	-.478	.979	7 (135°)	-.590	.985
9 (180°)	-.568	.977	9 (180°)	-.660	.979
11 (225°)	-.589	.994	11 (225°)	-.692	.982
13 (270°)	-.368	.995	13 (270°)	-.540	.995
15 (315°)	-.428	1.060	15 (315°)	-.537	.992

NOTES (1) Tee aligned vertically based on ID centerline
 (2) Increase in radius is +, decrease -

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24 X 24 X 10 Sch 40
 (2) ORNL Ser'al No. 5063
 (3) Reference Dwg. for Co-ordinate Locations A-62872-040
 (4) Reference Diameter 25.984 Reference Radius 12.992

Plane No. <u>K</u>			Plane No. _____		
Circumf. Location	Radius Variation	Wall Thickness	Circumf. Location	Radius Variation	Wall Thickness
1 (0°)	-.685	1.015			
3 (45°)	-.740	.973			
5 (90°)	-.728	.985			
7 (135°)	-.720	.984			
9 (180°)	-.763	.976			
11 (225°)	-.793	.916			
13 (270°)	-.713	.993			
15 (315°)	-.668	.036			

NOTES (1) Tee aligned vertically based on ID centerline
 (2) Increase in radius is +, decrease -

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24 X 24 X 10 Sch 40
- (2) ORNL Serial No. 5063
- (3) Reference Dwg. for Co-ordinate Locations A-62872-040

Circumf. Location	Radius	Z Coordinate	Wall Thickness
1 (0°)	5.556	1.000	.600
2 (30°)	5.500	1.000	.585
3 (60°)	5.515	1.000	.596
4 (90°)	5.505	1.000	.587
5 (120°)	5.500	1.000	.578
6 (150°)	5.505	1.000	.580
7 (180°)	5.510	1.000	.586
8 (210°)	5.500	1.000	.585
9 (240°)	5.492	1.000	.585
10 (270°)	5.485	1.000	.580
11 (300°)	5.490	1.000	.584
12 (330°)	5.480	1.000	.586

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24 X 24 X 10 Sch 40
(2) ORNL Serial No. 5063
(3) Reference Dwg. for Co-ordinate Locations A-62872-040

Circumf. Location	Radius	Z Coordinate	Wall Thickness
1 (0°)	5.769	1.668	.800
2 (30°)	5.685	1.783	.833
3 (60°)	5.600	1.993	.684
4 (90°)	5.600	2.138	.689
5 (120°)	5.592	2.003	.665
6 (150°)	5.665	1.713	.752
7 (180°)	5.735	1.663	.820
8 (210°)	5.650	1.703	.737
9 (240°)	5.600	2.008	.677
10 (270°)	5.585	2.073	.673
11 (300°)	5.582	2.013	.682
12 (330°)	5.650	1.743	.780

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24 X 24 X 10 Sch 40
(2) ORNL Serial No. 5063
(3) Reference Dwg. for Co-ordinate Locations A-62072-040

Circumf. Location	Radius	Z Coordinate	Wall Thickness
1 (0°)	6.170	2.183	1.089
2 (30°)	6.100	2.413	1.076
3 (60°)	5.876	2.918	1.005
4 (90°)	5.830	3.113	1.024
5 (120°)	5.865	2.923	1.000
6 (150°)	6.050	2.578	1.067
7 (180°)	6.135	2.173	1.095
8 (210°)	6.025	2.368	1.076
9 (240°)	5.875	2.868	1.027
10 (270°)	5.850	3.133	1.010
11 (300°)	5.885	2.963	1.052
12 (330°)	6.040	2.383	1.100

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

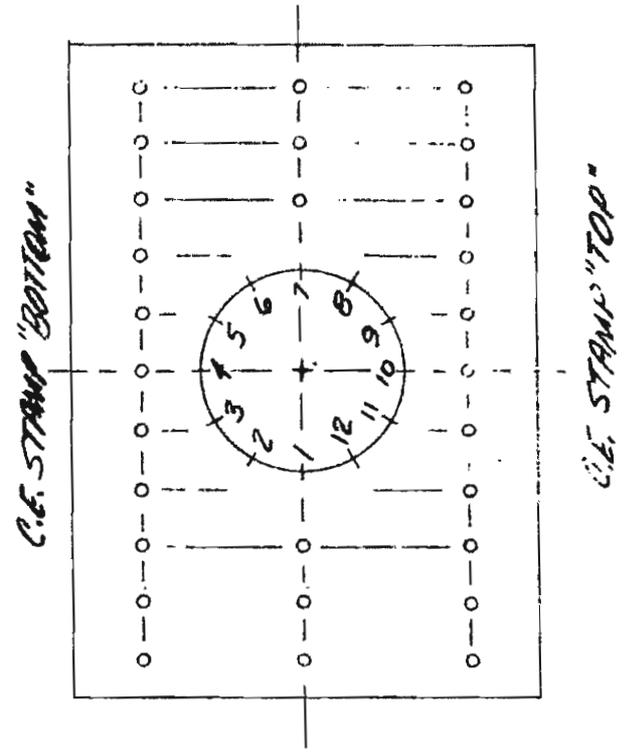
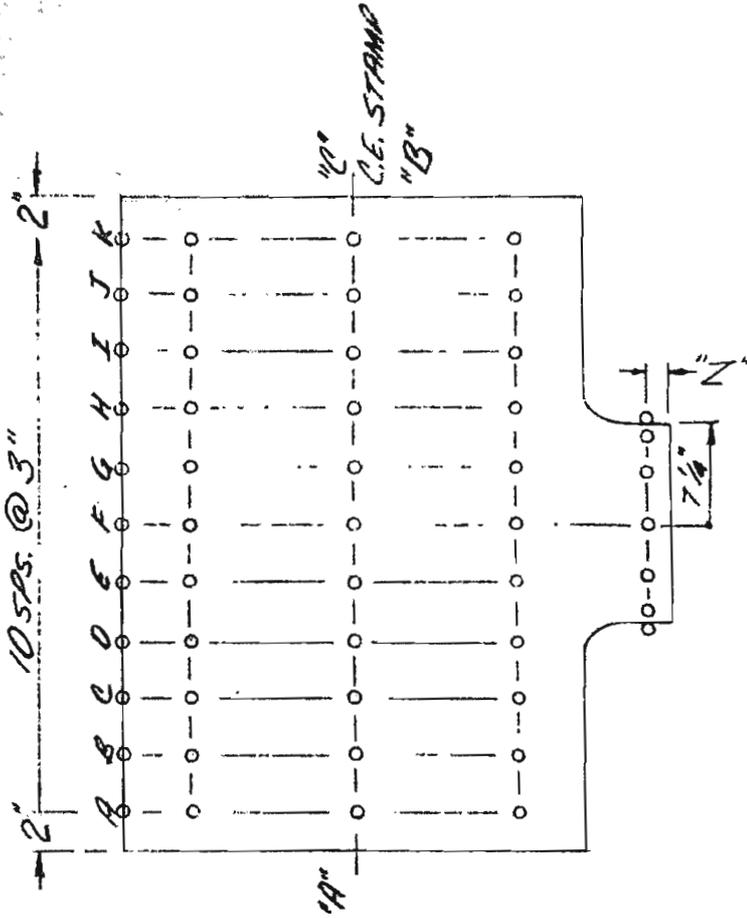
- (1) Tee Size 24 X 24 X 10 Sch 40
(2) ORNL Serial No. 5063
(3) Reference Dwg. for Co-ordinate Locations A-62872-040

Circumf. Location	Radius	Z Coordinate	Wall Thickness
1 (0°)	6.740	2.523	1.111
2 (30°)	6.600	2.868	1.104
3 (60°)	6.450	3.638	1.038
4 (90°)	6.478	4.018	1.014
5 (120°)	6.514	3.688	1.038
6 (150°)	6.600	2.843	1.110
7 (180°)	6.645	2.503	1.114
8 (210°)	6.640	2.893	1.103
9 (240°)	6.450	3.638	1.055
10 (270°)	6.465	4.028	1.034
11 (300°)	6.500	3.713	1.057
12 (330°)	6.630	2.888	1.118

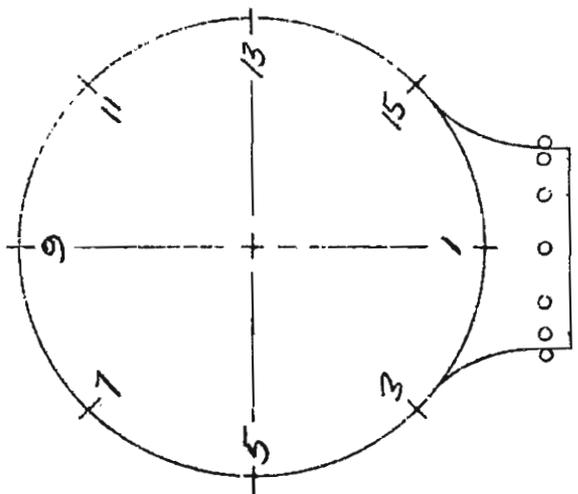
DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24 X 24 X 10 Sch 40
- (2) ORNL Serial No. 5063
- (3) Reference Dwg. for Co-ordinate Locations A-62872-040

Circumf. Location	Radius	Z Coordinate	Wall Thickness
1 (0°)	7.25	2.663	1.138
2 (30°)	7.25	3.160	1.136
3 (60°)	7.25	4.203	1.010
4 (90°)	7.25	4.663	0.985
5 (120°)	7.25	4.178	1.010
6 (150°)	7.25	3.128	1.120
7 (180°)	7.25	2.653	1.134
8 (210°)	7.25	3.163	1.128
9 (240°)	7.25	4.213	1.048
10 (270°)	7.25	4.703	1.015
11 (300°)	7.25	4.218	1.063
12 (330°)	7.25	3.173	1.130



C.E. STAMP "BOTTOM"



C.E. STAMP "TOP"

CONTRACT NO.
 DRAWN AS FABRICATED
 DIMENSIONS: 20" x 24" x 10"
 "T-12" & "T-13"

SCALE: N
 DRAWN BY: L.R. HAYES
 DATE: 12-19-72
 CHECKED BY:
 APPROVED:



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DRAWING NO. A-62872-040-1

APPENDIX II.4

"AS BUILT" DIMENSIONS FOR T-13 TEE

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24X24X10 SCH 160
 (2) ORNL Serial No. 5064
 (3) Reference Dwg. for Co-ordinate Locations A-62872-040-0
 (4) Reference Diameter 26.164 Reference Radius 13.082

Plane No. <u>A</u>			Plane No. <u>B</u>		
Circumf. Location	Radius Variation	Wall Thickness	Circumf. Location	Radius Variation	Wall Thickness
1	-.985	2.493	1	-.904	2.750
3	-.932	2.552	3	-.795	2.830
5	-.777	2.690	5	-.601	3.025
7	-.865	2.610	7	-.730	2.787
9	-.910	2.595	9	-.789	2.785
11	-.873	2.605	11	-.744	2.801
13	-.784	2.705	13	-.604	3.095
15	-.925	2.563	15	-.797	2.890

NOTES (1) Tee aligned vertically based on ID centerline
 (2) Increase in radius is +, decrease -

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24 X 24 X 10 SCH 160
 (2) ORNL Serial No. 5064
 (3) Reference Dwg. For Co-ordinate Locations A-62872-040-0
 (4) Reference Diameter 26.164 Reference Radius 13.082

Plane No. <u>C</u>			Plane No. <u>D</u>		
Circumf. Location	Radius Variation	Wall Thickness	Circumf. Location	Radius Variation	Wall Thickness
1	-.782	3.153	1	—	—
3	-.691	3.140	3	-.566	3.060
5	-.435	2.950	5	-.267	2.910
7	-.608	2.780	7	-.487	2.785
9	-.682	2.797	9	-.580	2.790
11	-.623	2.800	11	-.506	2.800
13	-.446	3.040	13	-.277	3.030
15	-.670	3.303	15	-.544	3.232

- NOTES (1) Tee aligned vertically based on ID centerline
 (2) Increase in radius is +, decrease -

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24 X 24 X 10 SCH 160
 (2) ORNL Serial No. 5064
 (3) Reference Dwg. for Co-ordinate Locations A-62872-040-0
 (4) Reference Diameter 26.164 Reference Radius 13.082

Plane No. <u>E</u>			Plane No. <u>F</u>		
Circumf. Location	Radius Variation	Wall Thickness	Circumf. Location	Radius Variation	Wall Thickness
1	—	—	1	—	—
3	-.450	2.970	3	-.303	2.990
5	-.106	2.900	5	-.017	2.880
7	-.372	2.775	7	-.314	2.798
9	-.487	2.760	9	-.426	2.766
11	-.398	2.805	11	-.335	2.808
13	-.108	3.010	13	-.000	2.980
15	-.411	3.140	15	-.285	3.150

NOTES (1) Tee aligned vertically based on ID centerline
 (2) Increase in radius is +, decrease -

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24 X 24 X 10 SCH 160
 (2) ORNL Serial No. 5064
 (3) Reference Dwg. for Co-ordinate Locations A-62872-040-0
 (4) Reference Diameter 26.164 Reference Radius 13.082

Plane No. <u>G</u>			Plane No. <u>H</u>		
Circumf. Location	Radius Variation	Wall Thickness	Circumf. Location	Radius Variation	Wall Thickness
1	—	—	1	—	—
3	-.405	3.020	3	-.514	3.100
5	-.093	2.908	5	-.267	2.890
7	-.370	2.785	7	-.486	2.784
9	-.482	2.764	9	-.583	2.775
11	-.382	2.792	11	-.494	2.790
13	-.077	3.025	13	-.259	3.040
15	-.403	3.100	15	-.507	3.150

NOTES (1) Tee aligned vertically based on ID centerline
 (2) Increase in radius is +, decrease -

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24 X 24 X 10 SCH 160
 (2) ORNL Serial No. 5064
 (3) Reference Dwg. for Co-ordinate Locations A-62872-040-0
 (4) Reference Diameter 26.164 Reference Radius 13.082

Plane No. <u>I</u>			Plane No. <u>J</u>		
Circumf. Location	Radius Variation	Wall Thickness	Circumf. Location	Radius Variation	Wall Thickness
1	-.731	3.530	1	-.818	2.865
3	-.637	3.125	3	-.753	2.967
5	-.435	2.938	5	-.608	2.942
7	-.598	2.786	7	-.733	2.796
9	-.680	2.775	9	-.791	2.784
11	-.606	2.795	11	-.733	2.806
13	-.413	3.027	13	-.587	3.070
15	-.620	3.180	15	-.728	3.001

NOTES (1) Tee aligned vertically based on ID centerline
 (2) Increase in radius is +, decrease -

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24X24X10 SCH 160
 (2) ORNL Serial No. 5064
 (3) Reference Dwg. for Co-ordinate Locations A-62872-040-0
 (4) Reference Diameter 26.164 Reference Radius 13.082

Plane No. <u>K</u>			Plane No. _____		
Circumf. Location	Radius Variation	Wall Thickness	Circumf. Location	Radius Variation	Wall Thickness
1	-.936	2.548			
3	-.873	2.613			
5	-.766	2.720			
7	-.859	2.612			
9	-.906	2.580			
11	-.860	2.614			
13	-.747	2.747			
15	-.851	2.628			

NOTES (1) Tee aligned vertically based on ID centerline
 (2) Increase in radius is +, decrease -

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24 X 24 X 10 SCH 160
(2) ORNL Serial No. 5064
(3) Reference Dwg. for Co-ordinate Locations A-62872-040-0

Circumf. Location	Radius	Z Coordinate	Wall Thickness
1	5.505	1.000	1.278
2	5.530	1.000	1.302
3	5.493	1.000	1.278
4	5.496	1.000	1.284
5	5.468	1.000	1.262
6	5.467	1.000	1.260
7	5.447	1.000	1.250
8	5.439	1.000	1.230
9	5.455	1.000	1.238
10	5.490	1.000	1.252
11	5.468	1.000	1.260
12	5.515	1.000	1.305

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- 1) Tee Size 24 X 24 X 10 SCH 160
2) ORNL Serial No. 5064
3) Reference Dwg. for Co-ordinate Locations A-62872-04D-0

Circumf. Location	Radius	Z Coordinate	Wall Thickness
1	5,663	1,575	—
2	5,673	1,700	—
3	5,665	2,000	—
4	5,630	2,100	—
5	5,593	1,975	—
6	5,660	1,800	—
7	5,688	1,675	—
8	5,616	1,765	—
9	5,578	1,970	—
10	5,660	2,125	—
11	5,600	2,050	—
12	5,660	1,700	—

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24 X 24 X 10 SCH 160
(2) ORNL Serial No. 5064
(3) Reference Dwg. for Co-ordinate Locations A-62872-040-0

Circumf. Location	Radius	Z Coordinate	Wall Thickness
1	6.054	2.150	—
2	6.025	2.330	—
3	5.987	2.920	—
4	5.945	3.100	—
5	5.935	2.965	—
6	6.030	2.400	—
7	6.125	2.200	—
8	5.987	2.415	—
9	5.930	2.935	—
10	5.920	3.120	—
11	5.950	3.015	—
12	6.052	2.435	—

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

- (1) Tee Size 24 X 24 X 10 SCH 160
(2) OPHL Serial No. 5064
(3) Reference Dwg. for Co-ordinate Locations A-62872-040-0

Circumf. Location	Radius	Z Coordinate	Wall Thickness
1	6.600	2.540	—
2	6.588	2.850	—
3	6.550	3.635	—
4	6.494	3.955	—
5	6.570	3.735	—
6	6.668	2.920	—
7	6.678	2.570	—
8	6.555	2.915	—
9	6.546	3.710	—
10	6.430	3.935	—
11	6.590	3.800	—
12	6.595	2.900	—

DATA SHEET FOR RECORDING "AS BUILT" DIMENSIONS

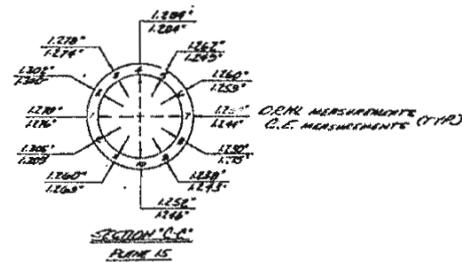
- (1) Tee Size 24 X 24 X 10 SCH 160
(2) ORNL Serial No. 5064
(3) Reference Dwg. for Co-ordinate Locations A-62872-040-0

Circumf. Location	Radius	Z Coordinate	Wall Thickness
1	7.250	2.730	3.500
2	7.250	3.210	3.270
3	7.250	4.135	3.250
4	7.250	4.625	3.218
5	7.250	4.200	3.090
6	7.250	3.185	3.290
7	7.250	2.720	3.565
8	7.250	3.225	3.254
9	7.250	4.250	3.220
10	7.250	4.735	3.140
11	7.250	4.265	3.030
12	7.250	3.235	3.260

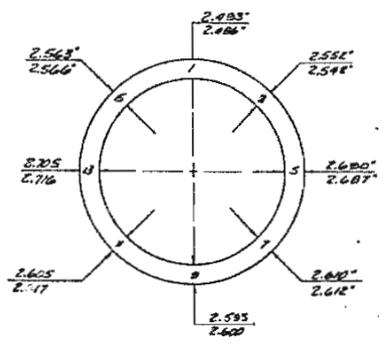
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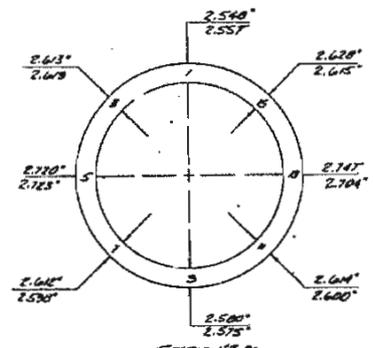
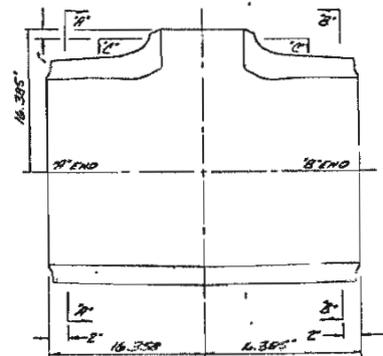
TYPICAL SECTION THROUGH
PLANE 1 DRAWN REDUCED SCALE



SECTION 14-A
PLANE 15



SECTION 14-B
PLANE 1



SECTION 15-B
PLANE 11

THIS DRAWING MADE BY CHATTAHOOCHEE

CONTRACT NO.	
FOR <i>RS BUILT DIMENSIONS OF THIS</i>	
SCALE ~	DATE 7/11/72
DRAWN BY L. R. WINKS	CHECKED BY
TRACED BY	APPROVED
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DRAWING NO. D-62872-039-0	



APPENDIX III

LOCATIONS OF STRAIN GAGES
AND LVDT INSTRUMENTATION

Strain gage and LVDT locations are presented in tables and drawings. Coordinates of gages on weld lines could not be measured and are not included in the tabulations (see Section 2.1.1). The appendix is subdivided into subappendices III.1 thru III.5 to present the data for T-10, T-11, T-12, T-13 and T-16 respectively. The following CE drawings have been included.

<u>Subappendix</u>	<u>CE Drawing No.</u>	<u>CE Drawing Name</u>
III.1	SB-10711-0	XYZ Coordinate Measurements.
III.1	SE-10752-1	External Instrumentation of "T-10." View of Top.
III.1	SE-10753-1	External Instrumentation of "T-10." View of Bottom.
III.1	SE-10754-1	Internal Instrumentation of "T-10." View of Top.
III.1	SE-10755-1	Internal Instrumentation of "T-10." View of Bottom.
III.1	SC-10756-1	S/G Location on Extension Piping for T-10.
III.1	D-62872-011-0	L.V.D.T. Support Condition for T-10 and T-11 ORNL Tee Test.
III.2	B-62871-022-0	XYZ Coordinate Measurements ORNL T-11 Tee.
III.2	SE-11135-0	External Instrumentation of "T-11." View of Top.
III.2	SE-11136-1	External Instrumentation of "T-11." View of Bottom.
III.2	SE-11137-0	Internal Instrumentation of "T-11." View of Top.
III.2	SE-11138-1	Internal Instrumentation of "T-11." View of Bottom.
III.2	SC-11556-0	S/G Location on Extension Piping for T-11.
III.3	B-62675-038-0	XYZ Coordinate Measurements, ORNL T-12 Tee.

<u>Subappendix</u>	<u>CE Drawing No.</u>	<u>CE Drawing Name</u>
III.3	SE-10965-2	External Instrumentation of "T-12." View of Top.
III.3	SE-10966-2	External Instrumentation of "T-12." View of Bottom.
III.3	SE-10967-3	Internal Instrumentation of "T-12." View of Top.
III.3	SE-10968-2	Internal Instrumentation of "T-12." View of Bottom.
III.3	D-62872-012-0	L.V.D.T. Support Condition for T-12 and T-13 ORNL Tee Test.
III.4	B-62872-041-0	XYZ Coordinate Measurements, ORNL T-13 Tee.
III.4	E-62871-001-1	External Instrumentation of "T-13." View of Top.
III.4	E-62871-002-1	External Instrumentation of "T-13." View of Bottom.
III.4	E-62871-003-1	Internal Instrumentation of "T-13." View of Top.
III.4	E-62871-004-1	Internal Instrumentation of "T-13." View of Bottom.
III.4	C-62871-021-0	S/G Location on Extension PPG. ORNL Tee Test "T-13."
III.5	B-62675-041-0	XYZ Coordinate Measurements ORNL T-16 Tee.
III.5	E-62872-018-1	External Instrumentation of "T-16." View of Top.
III.5	E-62872-019-1	External Instrumentation of "T-16." View of Bottom.
III.5	E-62872-020-0	Internal Instrumentation of "T-16." View of Top.
III.5	E-62872-021-0	Internal Instrumentation of "T-16." View of Bottom.
III.5	D-62874-027-0	L.V.D.T. Support Condition for T-16 ORNL Tee Test.

APPENDIX III.1

LOCATIONS OF STRAIN GAGES AND LVDT
INSTRUMENTATION ON T-10

Table III.1. X-Y-Z Coordinate Locations Tee No. 10

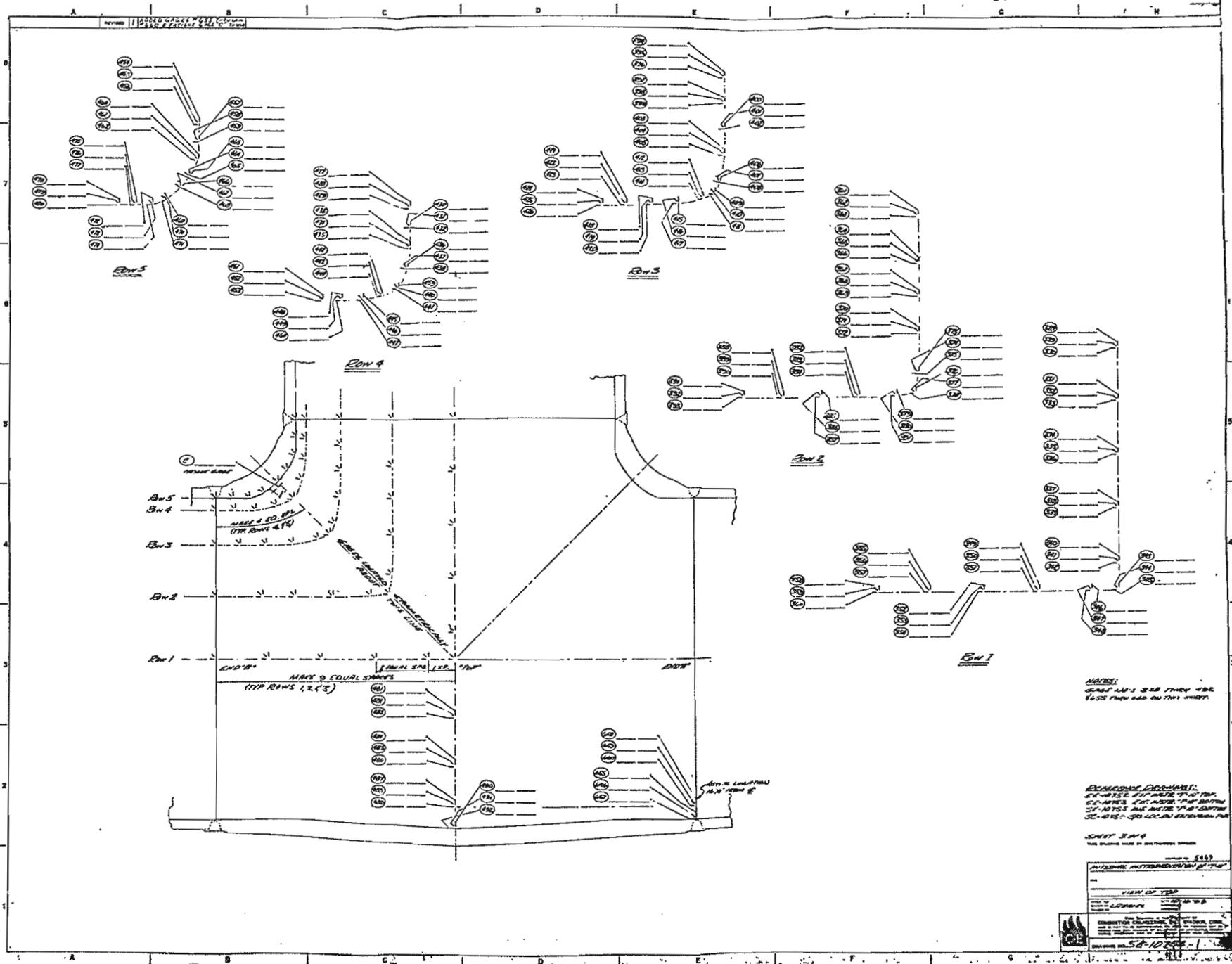
S/G No.	"X"	"Y"	"Z"	S/G No.	"X"	"Y"	"Z"
1	0.000	16.759		118	14.548	11.601	4.801
4	0.000	13.035	12.352	121	15.658	11.363	4.713
7	0.000	9.311	12.594	124	16.821		
10	0.000	5.586	12.897	127		16.759	0.000
13	0.000	1.862	13.148	130	12.113	15.858	0.000
16	0.000	0.000	13.157	133	12.577	15.059	0.000
19	1.869	0.000	13.111	136	13.021	14.265	0.000
22	5.607	0.000	12.903	139	13.591	13.572	0.000
25	9.345	0.000	12.707	142	15.291	13.006	0.000
28	13.083	0.000	12.499	145	15.074	12.572	0.000
31	16.821	0.000		148	15.906	12.166	0.000
34		16.759		151	16.821		0.000
37	4.718	14.148	11.378	154	0.000	- 4.860	12.029
40	4.782	11.546	11.517	157	0.000	- 8.945	9.150
43	4.831	8.929	11.626	160	0.000	-11.632	4.946
46	4.966	6.342	11.951	163	0.000	-12.597	0.000
49	5.071	5.064	12.225	166	0.000	16.750	
52	6.361	4.996	12.064	169	0.000	13.035	-12.140
55	8.973	4.892	11.838	172	0.000	9.311	-12.302
58	11.594	4.827	11.677	175	0.000	5.586	-12.641
61	14.203	4.759	11.512	178	0.000	1.682	-12.995
64	16.821			181	0.000	0.000	-13.038
67		16.759		184	- 1.889	0.000	-12.988
70	8.696	15.128	8.686	187	- 5.666	0.000	-12.793
73	8.771	13.473	8.749	190	- 9.443	0.000	-12.603
76	8.913	11.828	8.922	193	-13.220	0.000	-12.392
79	9.234	10.235	9.238	196	-16.997	0.000	
82	9.470	9.491	9.465	199		16.759	
85	10.241	9.323	9.257	202	- 4.661	14.138	-11.237
88	11.871	8.993	8.991	205	- 4.666	11.509	-11.282
91	13.519	8.850	8.857	208	- 4.736	8.904	-11.460
94	15.183	8.753	8.761	211	- 4.908	6.316	-11.837
97	16.821			214	- 5.027	5.034	-12.098
100		16.759		217	- 6.363	4.969	-11.923
103	11.324	15.640	-4.697	220	- 7.697	4.851	-11.681
106	11.533	14.523	4.784	223	-11.690	4.778	-11.511
109	11.921	13.469	4.947	226	-14.353	4.704	-11.341
112	12.504	12.521	5.180	229	-16.997		
115	13.480	11.964	4.948	232		16.759	

Table III.1 -- Continued

S/G No.	"X"	"Y"	"Z"	S/G No.	"X"	"Y"	"Z"
235	- 8.647	15.106	- 8.648	352	5.607	0.000	11.457
238	- 8.697	13.438	- 8.709	355	13.083	0.000	11.302
241	- 8.875	11.788	- 8.862	358	16.821	0.000	11.315
244	- 9.141	10.193	- 9.185	361	4.331	16.759	10.454
247	- 9.001	9.441	- 9.416	364	4.319	14.033	10.420
250	-10.236	9.219	- 9.201	367	4.332	11.320	10.432
253	-11.897	8.913	- 8.884	370	4.374	8.608	10.516
256	-13.584	8.731	- 8.708	373	4.511	5.926	10.847
259	-15.297	8.614	- 8.599	376	4.605	4.596	11.007
262	-16.997			379	4.954	4.529	10.930
265		16.759		382	8.661	4.424	10.684
268	-11.307	15.257	- 4.678	385	11.376	4.351	10.514
271	-11.524	14.488	- 4.772	388	14.099	4.322	10.454
274	-11.894	13.427	- 4.924	391	16.821	4.322	10.463
277	-12.453	12.470	- 5.156	394	8.015	16.759	7.990
280	-13.474	11.894	- 4.918	397	7.994	14.899	7.969
283	-14.597	11.479	- 4.751	400	7.994	13.055	7.969
286	-15.772	11.236	- 4.651	403	8.092	11.242	8.057
289	-16.997			406	8.421	9.467	8.404
292		16.759	0.000	409	8.661	8.617	8.655
295	-12.182	15.821	0.000	412	9.530	8.408	8.427
298	-12.565	14.974	0.000	415	11.304	8.073	8.091
301	-13.022	14.139	0.000	418	13.128	7.971	7.999
304	-13.618	13.362	0.000	421	14.971	7.984	7.999
307	-14.363	12.836	0.000	424	16.821	7.988	8.013
310	-15.204	12.407	0.000	427	10.466	16.759	4.319
313	-16.091	12.142	0.000	430	10.432	15.342	4.307
316	-16.997		0.000	433	10.432	13.961	4.307
319	0.000	- 4.867	-11.942	436	10.876	12.664	4.489
322	0.000	- 8.946	- 9.071	439	11.569	11.478	4.780
325	0.000	-11.671	- 4.872	442	12.737	10.812	4.485
328	0.000	16.759	11.310	445	4.046	10.429	4.328
331	0.000	13.035	11.284	448	15.425	10.434	4.328
334	0.000	9.311	11.382	451	16.821	10.453	4.334
337	0.000	5.586	11.657	454	11.373	16.759	0.000
340	0.000	1.862	11.911	457	11.286	15.601	0.000
343	0.000	0.000	11.935	460	11.353	14.451	0.000
346	1.869	0.000	11.882	463	11.391	13.432	0.000
349	5.607	0.000	11.670	466	12.591	12.572	0.000

Table III.1 -- Continued

S/G No.	"X"	"Y"	"Z"	S/G No.	"X"	"Y"	"Z"
469	13.479	11.820	0.000	586	-15.094	7.946	- 7.971
472	14.512	11.287	0.000	589	-16.997	7.992	- 8.004
475	15.660	11.287	0.000	592	-10.467	16.759	- 4.327
478	16.821	11.310	0.000	595	-10.441	15.349	- 4.319
481	0.000	- 4.399	10.907	598	-10.441	13.930	- 4.319
484	0.000	- 8.141	8.339	601	-10.853	12.586	- 4.485
487	0.000	-10.529	4.457	604	-11.561	11.391	- 4.755
490	0.000	-11.404	0.000	607	-12.763	10.698	- 4.462
493	0.000	16.759	-11.322	610	-14.140	10.400	- 4.327
496	0.000	13.035	-11.292	613	-15.570	10.400	- 4.327
499	0.000	9.311	-11.292	616	-16.997	10.453	- 4.343
502	0.000	5.586	-11.410	619	-11.327	16.759	0.000
505	0.000	1.862	-11.772	622	-11.295	15.572	0.000
508	0.000	0.000	-11.812	625	-11.295	14.399	0.000
511	- 1.489	0.000	-11.765	628	-11.827	13.328	0.000
514	- 5.666	0.000	-11.557	631	-12.574	12.435	0.000
517	- 9.443	0.000	-11.350	634	-13.475	11.622	0.000
520	-13.220	0.000	-11.277	637	-14.611	11.257	0.000
523	-16.997	0.000	-11.322	640	-15.797	11.281	0.000
526	- 4.338	16.759	-10.458	643	-16.997	11.312	0.000
529	- 4.328	14.014	-10.433	646	0.000	- 4.398	-10.843
532	- 4.328	11.290	-10.433	649	0.000	- 8.098	- 8.227
535	- 4.328	8.570	-10.433	652	0.000	-10.573	- 4.427
538	- 4.477	5.868	-10.747				
541	- 4.567	4.535	-11.019				
544	- 5.937	4.465	-10.829				
547	- 8.692	4.359	-10.535				
550	-11.447	4.284	-10.387				
553	-14.266	4.304	-10.417				
556	-16.997	4.320	-10.461				
559	- 8.017	16.759	- 8.001				
562	- 7.994	14.896	- 8.004				
565	- 7.994	13.053	- 7.987				
568	- 8.029	11.186	- 8.018				
571	- 8.385	9.399	- 8.358				
574	- 8.621	8.573	- 8.618				
577	- 9.510	8.350	- 8.383				
580	-11.322	8.011	- 8.032				
583	-13.197	7.946	- 7.971				



NOTES:
 SEAT NUMS ARE THEY ARE
 TO BE PLACED ON THIS UNIT.

REVISIONS:
 1. CHANGE FROM 12' TO 11'
 2. CHANGE FROM 12' TO 11'
 3. CHANGE FROM 12' TO 11'
 4. CHANGE FROM 12' TO 11'

SHEET 3 OF 4
 THIS SHEET MADE BY THE ARCHITECT

PROJECT NO. 58-10-1

DATE: 10/1/58

BY: [Signature]

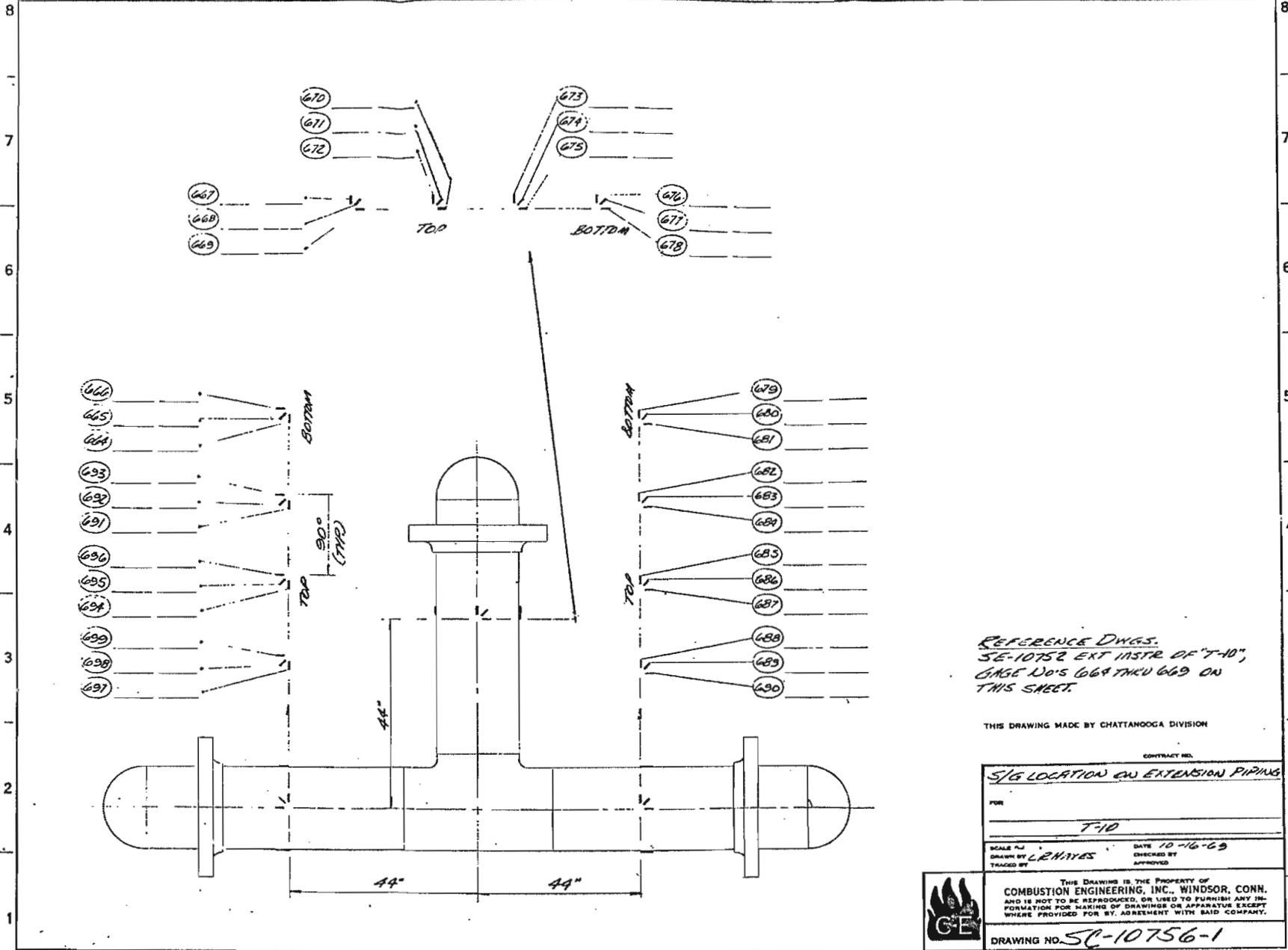
CHECKED BY: [Signature]

APPROVED BY: [Signature]

SCALE: 1/8" = 1'-0"

A B C D E F G H

REVISION 11 REVISED AS GAGES LHM INSTALLED 7-6-70



REFERENCE DWGS.
SE-10752 EXT INSTR OF T-10,
GAGE NO'S 664 THRU 669 ON
THIS SHEET.

THIS DRAWING MADE BY CHATTAHOOGA DIVISION

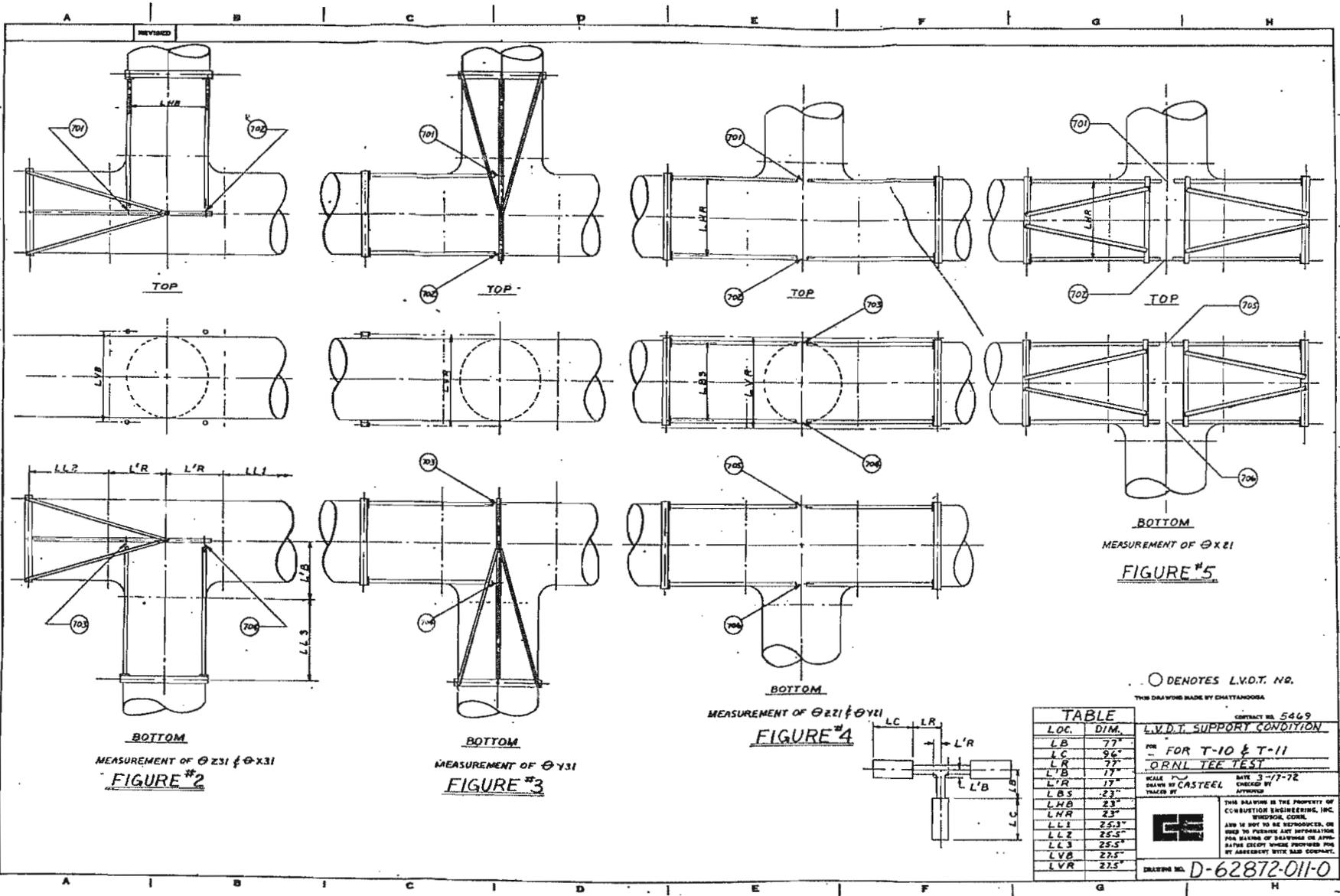
CONTRACT NO.	
S/G LOCATION ON EXTENSION PIPING	
FOR	
T-10	
SCALE AS	DATE 10-16-69
DRAWN BY L.E.HAYES	CHECKED BY
TRACED BY	APPROVED



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DRAWING NO. SC-10756-1

A B C D E F G H



MEASUREMENT OF $\emptyset 231$ & $\emptyset 231$
FIGURE #2

MEASUREMENT OF $\emptyset 231$
FIGURE #3

MEASUREMENT OF $\emptyset 221$ & $\emptyset 221$
FIGURE #4

MEASUREMENT OF $\emptyset 221$
FIGURE #5

○ DENOTES L.V.D.T. NO.

THIS DRAWING MADE BY CHATTANOOGA

CONTRACT NO. 5469

L.V.D.T. SUPPORT CONDITION

FOR T-10 & T-11
ORNL TEE TEST

SCALE DATE 3-7-72
 DRAWN BY CASTEEL CHECKED BY

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DRAWING NO. **D-62872-011-0**

LOC.	DIM.
LB	27"
LC	24"
LR	27"
L'B	17"
L'R	17"
LBS	23"
LHB	23"
LNR	23"
LL1	25.3"
LL2	25.5"
LL3	25.5"
LVB	27.5"
LVR	27.5"

APPENDIX III.2

LOCATIONS OF STRAIN GAGES AND LVDT
INSTRUMENTATION ON T-11

Table III.2. X-Y-Z Coordinate Locations Tee No. 11

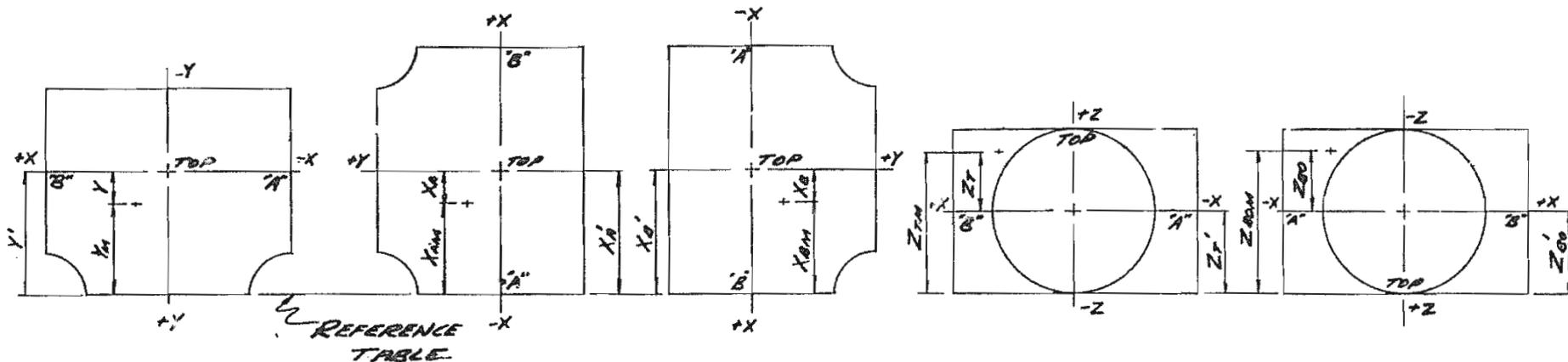
S/G No.	"X"	"Y"	"Z"	S/G No.	"X"	"Y"	"Z"
1	0.000	16.864	12.004	118	14.557	11.494	4.748
4	0.000	13.117	12.396	121	15.689	11.264	4.638
7	0.000	9.369	12.621	124	16.852		
10	0.000	5.621	12.723	127	11.997	16.864	0.000
13	0.000	1.874	13.071	130	12.184	15.958	0.000
16	0.000	0.000	13.115	133	12.439	15.056	0.000
19	1.872	0.000	13.041	136	12.899	14.232	0.000
22	5.617	0.000	12.846	139	13.489	13.509	0.000
25	9.362	0.000	12.646	142	14.209	12.901	0.000
28	13.107	0.000	12.441	145	15.045	12.455	0.000
31	16.852	0.000		148	15.946	12.177	0.000
34	4.604	16.864	11.114	151	16.852		
37	4.705	14.272	11.363	154	0.000	- 4.836	11.951
40	4.748	11.684	11.507	157	0.000	- 8.913	9.053
43	4.819	8.989	11.683	160	0.000	-11.626	4.873
46	4.914	6.370	11.918	163	0.000	-12.594	0.000
49	4.995	5.072	12.166	166	0.000	16.864	-11.999
52	6.290	4.999	11.991	169	0.000	13.117	-12.388
55	8.939	4.907	11.698	172	0.000	9.369	-12.594
58	11.586	4.830	11.583	175	0.000	5.621	-12.823
61	14.211	4.753	11.411	178	0.000	1.874	-13.078
64	16.852			181	0.000	0.000	-13.125
67	8.478	16.864	8.528	184	- 1.895	0.000	-13.076
70	8.610	15.214	8.643	187	- 5.640	0.000	-12.863
73	8.718	13.559	8.731	190	- 9.385	0.000	-12.668
76	8.869	11.892	8.906	193	-13.130	0.000	-12.483
79	9.189	10.278	9.242	196	-16.852	0.000	
82	9.447	9.491	9.456	199	- 4.560	16.864	-11.094
85	10.215	9.284	9.240	202	- 4.663	14.246	-11.363
88	11.842	8.983	8.943	205	- 4.738	11.597	-11.543
91	13.514	8.796	8.773	208	- 4.791	8.940	-11.672
94	15.176	8.672	8.656	211	- 4.879	6.307	-11.921
97	16.852			214	- 4.960	5.026	-12.170
100	11.120	16.864	4.593	217	- 6.271	4.955	-12.020
103	11.250	15.701	4.645	220	- 8.906	4.868	-11.716
106	11.458	14.538	4.733	223	-11.551	4.802	-11.595
109	11.882	13.424	4.823	226	-14.174	4.732	-11.428
112	12.494	12.472	5.156	229	-16.852		
115	13.497	11.917	4.914	232	- 8.439	16.864	- 8.493

Table III.2 -- Continued

S/G No.	"X"	"Y"	"Z"	S/G No.	"X"	"Y"	"Z"
235	- 8.594	15.204	- 8.653	352	9.362	0.000	9.229
238	- 8.705	13.497	- 8.755	355	13.107	0.000	9.596
241	- 8.837	11.816	- 8.791	358	16.852	0.000	9.711
244	- 9.128	10.194	- 9.203	361	3.712	16.864	8.380
247	- 9.365	9.405	- 9.448	364	3.717	13.942	8.905
250	-10.150	9.192	- 9.223	367	3.693	11.022	8.805
253	-11.765	8.900	- 8.960	370	3.697	8.122	8.805
256	-13.466	8.762	- 8.792	373	3.730	6.213	8.980
259	-15.173	8.665	- 8.705	376	3.827	4.812	9.184
262	-16.852			379	5.260	4.717	8.970
265	-11.111	16.864	- 4.586	382	8.152	4.547	8.590
268	-11.248	15.690	- 4.652	385	11.087	3.595	8.712
271	-11.408	14.522	- 4.736	388	13.942	3.670	8.733
274	-11.798	13.412	- 4.913	391	16.852	3.730	8.976
277	-12.363	12.404	- 5.160	394	6.778	16.864	6.259
280	-13.398	11.820	- 4.926	397	6.809	14.716	6.334
283	-14.514	11.436	- 4.772	400	6.809	12.542	6.835
286	-15.673	11.265	- 4.686	403	6.748	10.447	6.767
289	-16.852			406	7.092	8.353	7.114
292	-11.986	16.864	0.000	409	7.318	8.327	7.359
295	-12.177	15.852	0.000	412	8.340	7.092	7.096
298	-12.443	15.035	0.000	415	10.404	6.677	6.683
301	-12.877	14.240	0.000	418	12.558	6.779	6.775
304	-13.478	13.524	0.000	421	14.719	6.779	6.796
307	-14.188	12.908	0.000	424	16.852	6.859	6.875
310	-15.023	12.449	0.000	427	8.854	16.864	3.187
313	-15.923	12.177	0.000	430	8.892	15.102	3.197
316	-16.852			433	8.897	13.360	3.695
319	0.000	- 4.855	-11.997	436	9.194	11.619	3.824
322	0.000	- 8.933	- 9.113	439	10.043	10.102	4.175
325	0.000	-11.655	- 4.934	442	11.536	9.202	3.789
328	0.000	16.864	9.605	445	13.282	8.882	3.678
331	0.000	13.117	9.655	448	15.072	8.882	3.678
334	0.000	9.369	9.529	451	16.852	8.972	3.722
337	0.000	5.621	9.577	454	9.626	16.864	0.000
340	0.000	1.874	9.675	457	9.626	15.319	0.000
343	0.000	0.000	9.693	460	9.626	13.739	0.000
346	1.872	0.000	9.535	463	10.091	12.237	0.000
349	5.617	0.000	9.378	466	11.033	11.002	0.000

Table III.2 -- Continued

S/G No.	"x"	"y"	"z"	S/G No.	"x"	"y"	"z"
469	12.310	9.958	0.000	586	-14.705	6.779	- 6.803
472	13.724	9.612	0.000	589	-16.852	6.859	- 6.889
475	15.333	9.612	0.000	592	- 8.869	16.864	- 3.633
478	16.852	9.709	0.000	595	- 8.892	15.054	- 3.633
481	0.000	- 3.671	8.899	598	- 8.897	13.247	- 3.633
484	0.000	- 6.676	6.741	601	- 9.206	11.465	- 3.772
487	0.000	- 8.655	3.624	604	-10.088	9.933	- 4.143
490	0.000	- 9.379	0.000	607	-11.564	9.065	- 3.789
493	0.000	16.864	- 9.587	610	-13.334	8.861	- 3.704
496	0.000	13.117	- 9.587	613	-15.086	8.861	- 3.704
499	0.000	9.369	- 9.537	616	-16.852	8.972	- 3.750
502	0.000	5.621	- 9.569	619	- 9.566	16.864	0.000
505	0.000	1.874	- 9.685	622	- 9.585	15.312	0.000
508	0.000	0.000	- 9.727	625	- 9.603	13.730	0.000
511	- 1.895	0.000	- 9.657	628	-10.069	12.229	0.000
514	- 5.640	0.000	- 9.407	631	-11.033	10.957	0.000
517	- 9.385	0.000	- 9.279	634	-12.184	9.97	0.000
520	-13.130	0.000	- 9.616	637	-13.728	9.559	0.000
523	-16.852	0.000	- 9.775	640	-15.298	9.559	0.000
526	- 3.680	16.864	- 8.875	643	-16.852	9.714	0.000
529	- 3.680	13.969	- 8.854	646	0.000	- 3.671	- 8.837
532	- 3.658	11.037	- 8.807	649	0.000	- 6.676	- 6.767
535	- 3.648	8.122	- 8.807	652	0.000	- 8.655	- 3.650
538	- 3.728	5.250	- 8.952				
541	- 3.813	.812	- 9.177				
544	- 5.253	3.722	- 8.962				
547	- 8.156	3.542	- 8.568				
550	-11.066	3.615	- 8.747				
553	-13.968	3.672	- 8.887				
556	-16.852	3.699	- 8.991				
559	- 6.812	16.864	- 6.812				
562	- 6.802	14.709	- 6.775				
565	- 6.798	12.550	- 6.765				
568	- 6.759	10.396	- 6.525				
571	- 7.071	8.299	- 7.068				
574	- 7.324	7.302	- 7.302				
577	- 8.345	7.037	- 7.037				
580	-10.404	6.637	- 6.653				
583	-12.542	6.779	- 6.803				



$$\underline{Y = Y' - Y_M}$$

(1)

$$\underline{X = -(X_A' - X_{AM})}$$

(2)

$$\underline{X = X_B' - X_{BM}}$$

(3)

$$\underline{Z = Z_{TM} - Z_T'}$$

(4)

$$\underline{Z = -(Z_{BM} - Z_B')}$$

(5)

NOMENCLATURE

M MEASUREMENTS AS RECORDED FROM REFERENCE TABLE

A "A" END

B "B" END

T TOP & DIMS ASSOCIATED WITH THE TOP

BD BOTTOM & DIMS ASSOCIATED WITH THE BOTTOM.

Y DISTANCE FROM PLANE INCLUDING RUN & ⊥ TO BRANCH &

X DISTANCE FROM PLANE INCLUDING BRANCH & ⊥ TO RUN &

Z DISTANCE FROM PLANE INCLUDING RUN & BRANCH &

RECORDED DIMENSIONS

Y' 26.022" X_B' 16.852" Z_{BO}' 13.197"

X_A 16.875" Z_T' 13.197"

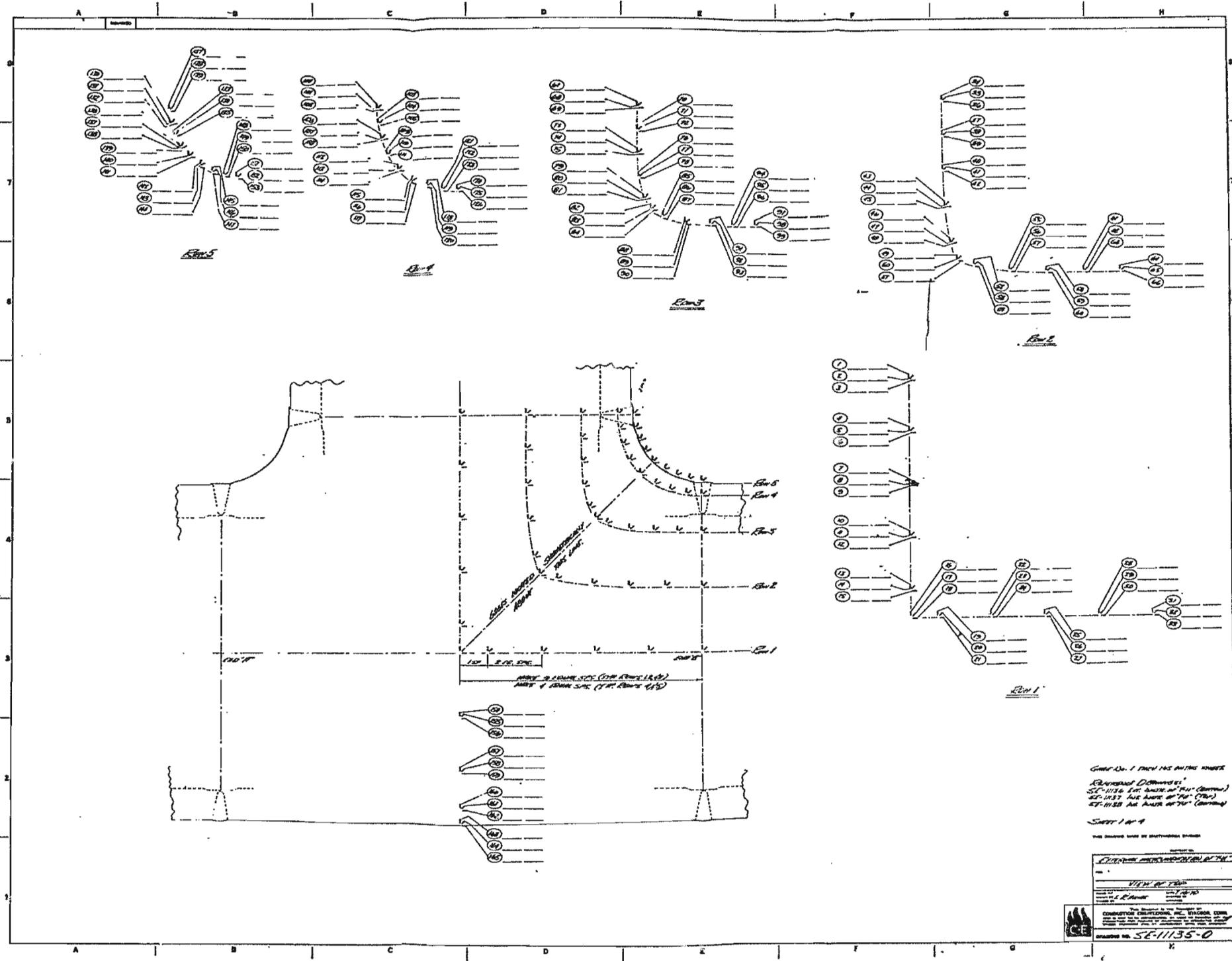
ORIGINATED BY: CHATTANOOGA CONTRACT NO.

FOR	XYZ COORDINATE MEASUREMENTS
	ORNL T-11 TEE
SCALE: AS SHOWN	DATE: 11-18-68
DRAWN BY: LR NAYES	CHECKED BY:
TRACED BY:	APPROVED:



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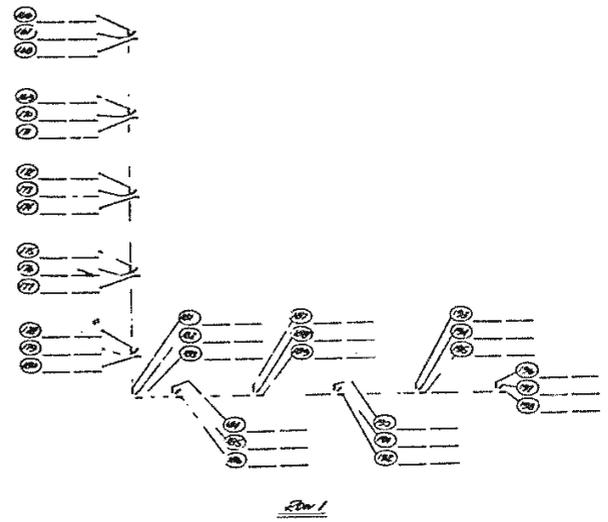
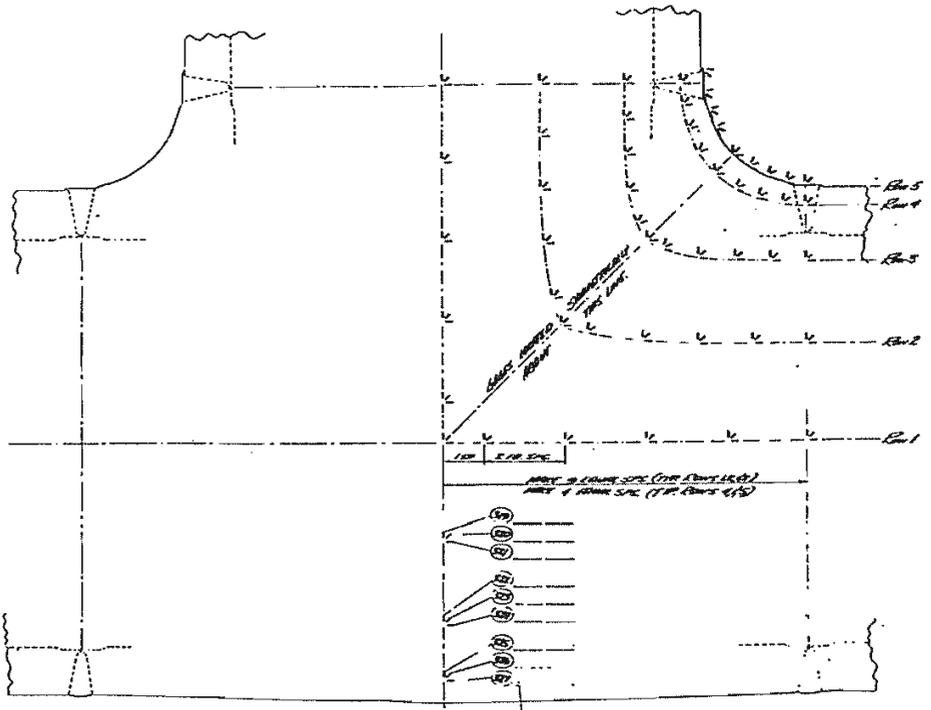
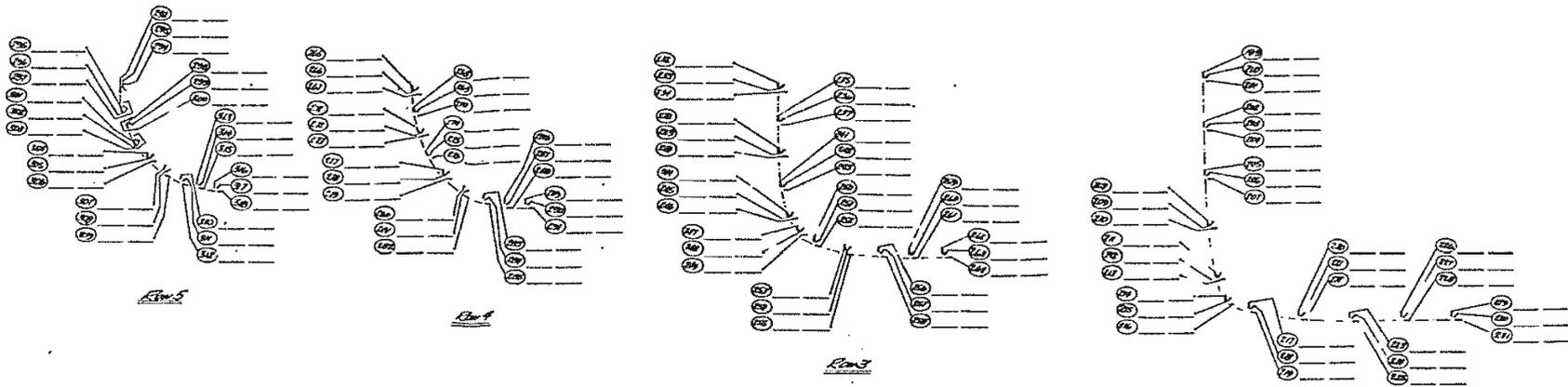
DRAWING NO. B-62871-022-0



SHEET NO. 1 FROM THE ENTIRE SHIPSET
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 SE-1136 AND SE-1137 AND SE-1138 AND SE-1139
 SE-1136 AND SE-1137 AND SE-1138 AND SE-1139
 SHEET 1 OF 4

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DATE: 1/15/50	
BY: J. E. HARRIS	
CHECKED BY: J. E. HARRIS	
APPROVED BY: J. E. HARRIS	



CONF. MAY '16 THROUGH 2015 ON THIS ENERGY.

REFERENCE DRAWINGS:
 10' DIA. FOR ASBESTOS (10' DIA.)
 10' DIA. FOR ASBESTOS (10' DIA.)
 10' DIA. FOR ASBESTOS (10' DIA.)

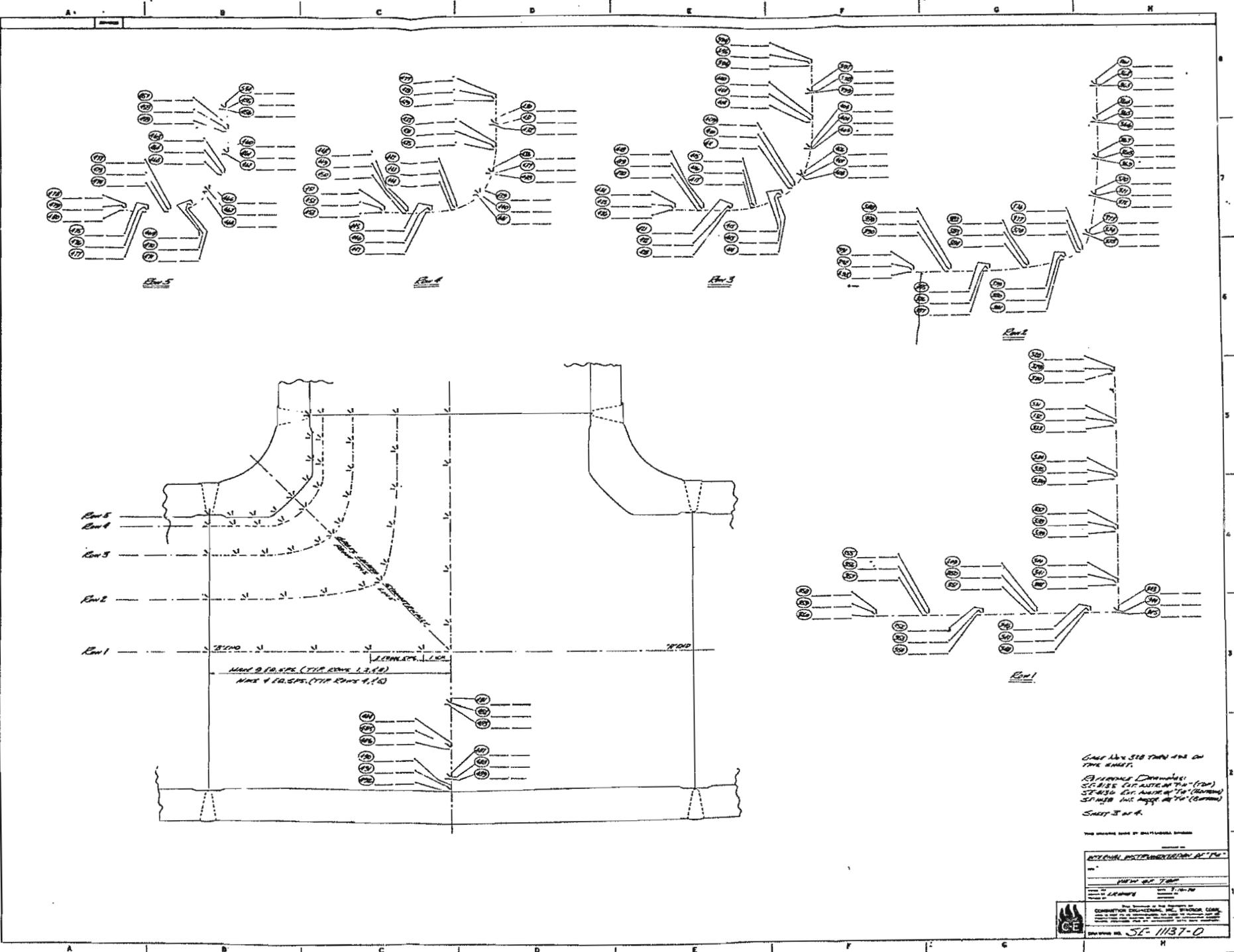
SHEET 2 OF 4.

THE DRAWING MADE BY SOUTHWESTERN SYSTEM

OUTLINE AND DIMENSIONS OF THE

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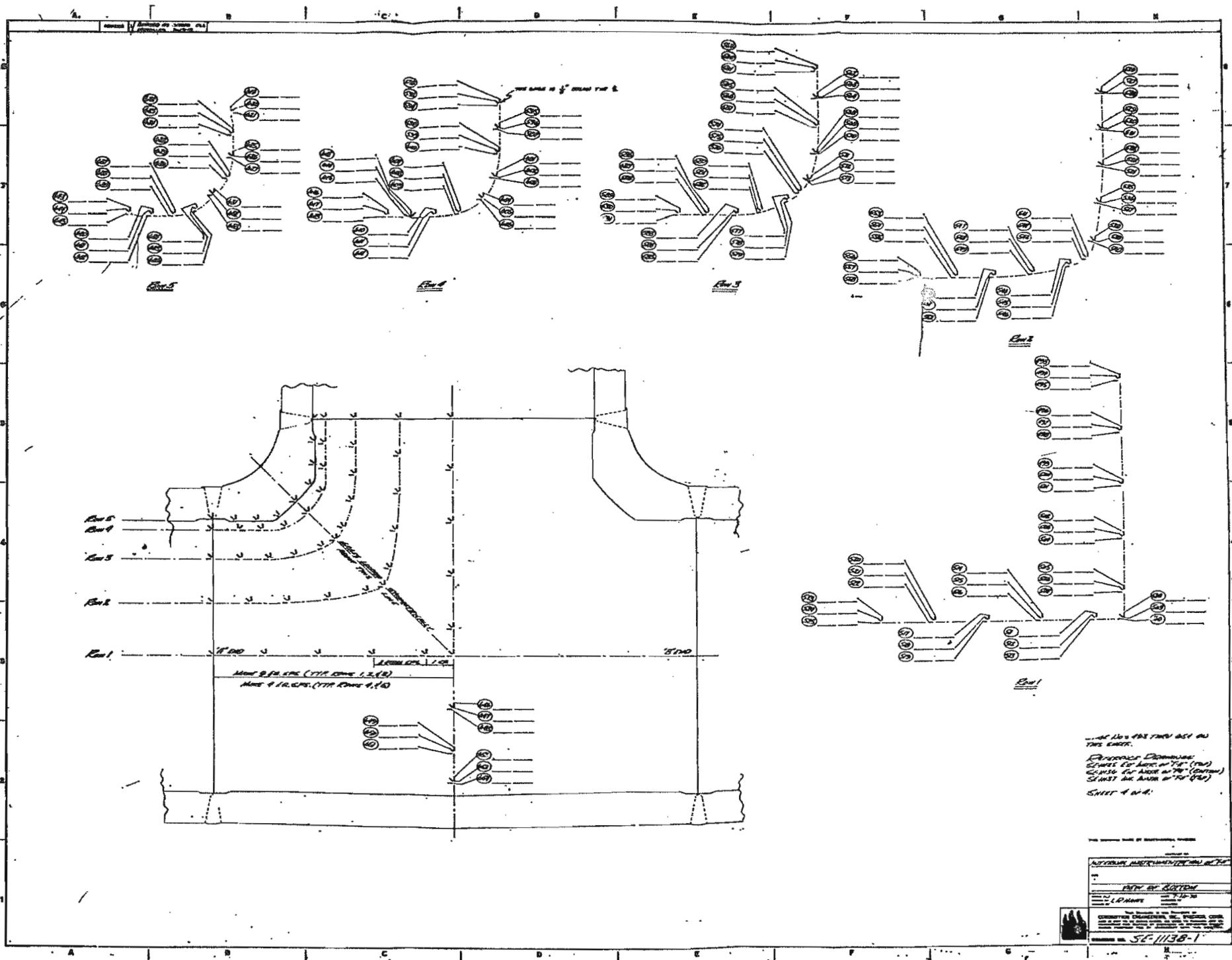
DESIGNED BY: SE-1113 6-1



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 SHEET 3 OF 4.

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NATIONAL ARCHIVES IDENTIFICATION NUMBER: 100-361607-1000
 DATE: 11/14/2014
 BY: 100-361607-1000
 FOR: 100-361607-1000
 PROJECT: 100-361607-1000
 DRAWING NO. SE-1187-D



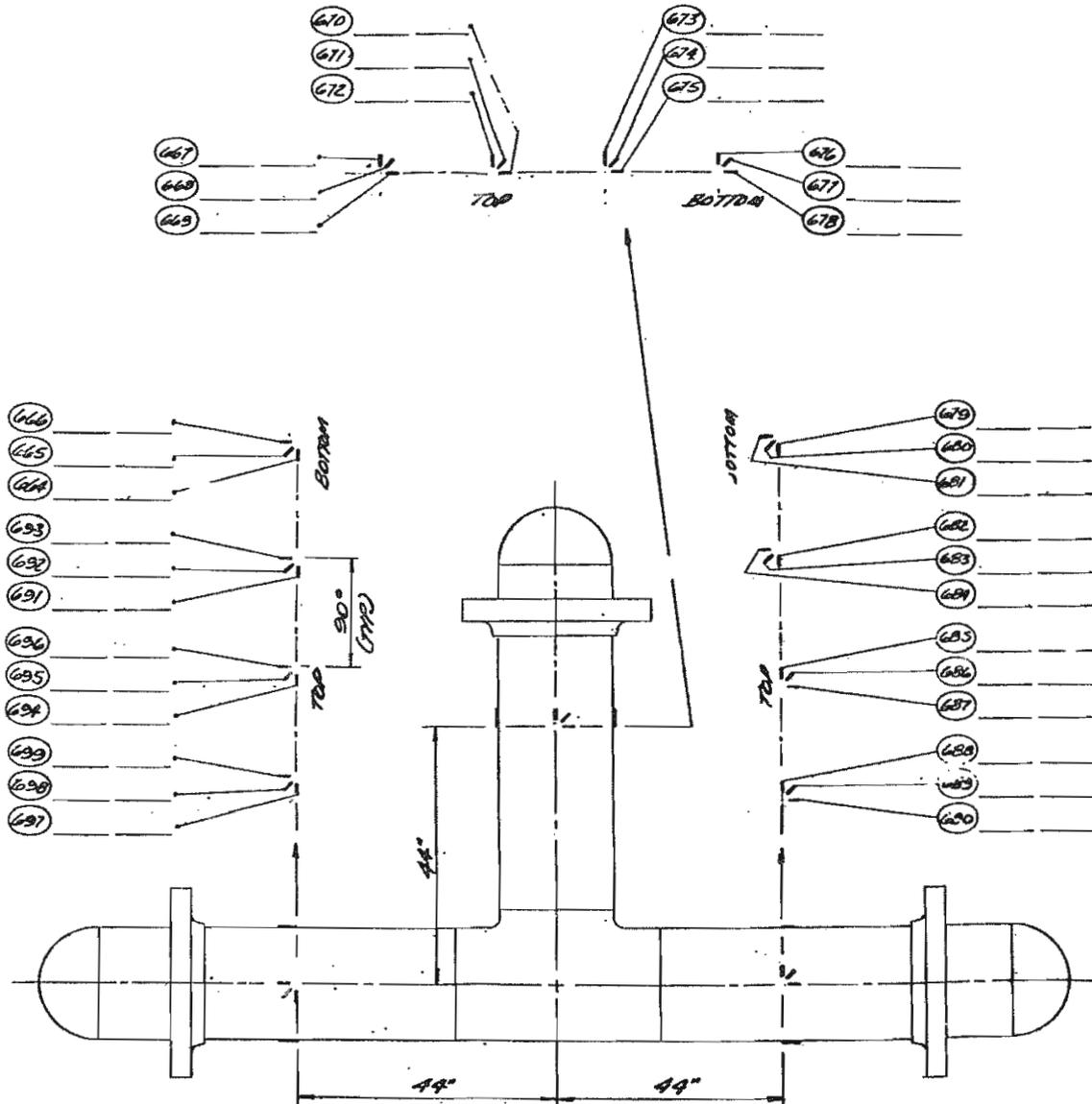
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CITY OF BOSTON
 DEPARTMENT OF PUBLIC WORKS
 ENGINEER IN CHARGE
 ARCHITECT IN CHARGE
 DRAWING NO. 52-1138-1

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REFERENCE DWGS.
 SE-11136 EXT INSTR OF T-N,
 CASE NO'S 664 THRU 699 ON
 THIS SHEET

THIS DRAWING MADE BY CHATTANOOGA DIVISION

CONTRACT NO.

S/S LOCATION ON EXTENSION DRAWINGS

FOR

T-11

SCALE AS DRAWN BY LENNY'S TRACED BY

DATE 3-25-71

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DRAWING NO. **SC-11556-0.**

APPENDIX III.3

LOCATIONS OF STRAIN GAGES AND LVDT
INSTRUMENTATION ON T-12

Table III.3. X-Y-Z Coordinate Locations Tee No. T-12

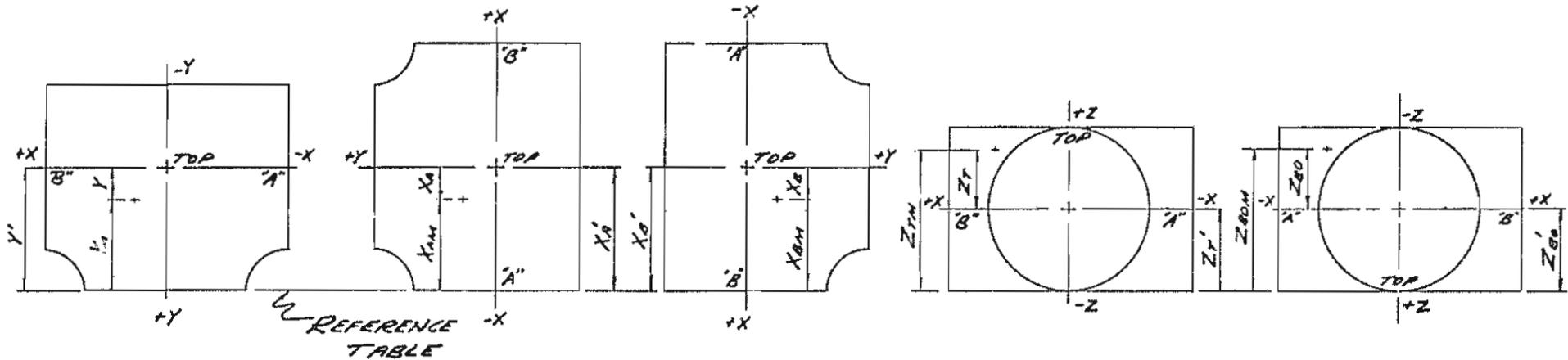
S/G No.	"X"	"Y"	"Z"	S/G No.	"X"	"Y"	"Z"
1	0.000	15.138	5.519	118	10.995	11.542	4.612
4	0.000	13.897	5.556	121	13.020	11.050	5.469
7	0.000	12.661	5.713	124	15.010	10.481	6.304
10	0.000	11.530	6.211	127	17.005	9.710	7.114
13	0.000	10.668	7.098	130	5.485	15.138	0.000
16	0.000	9.066	9.076	133	5.540	14.233	0.000
19	0.000	7.126	10.710	136	5.880	13.391	0.000
22	0.000	4.911	11.945	139	6.550	12.798	0.000
25	0.000	2.503	12.733	142	7.455	12.571	0.000
28	0.000	0.000	13.005	145	9.365	12.498	0.000
31	2.090	15.138	5.086	148	11.275	12.440	0.000
34	2.117	13.943	5.128	151	13.185	12.361	0.000
37	2.175	12.773	5.283	154	15.095	12.273	0.000
40	2.355	11.714	5.771	157	17.005		0.000
43	862	10.928	6.574	160	0.000	- 4.862	11.919
46	50	9.343	8.585	163	0.000	- 8.943	19.066
49	2.235	7.393	10.315	169	0.000	-12.652	0.000
52	4.757	5.141	11.611	172	0.000	15.138	-15.490
55	5.100	2.641	12.491	175	0.000	13.897	- 5.524
58	5.220	0.000	12.809	178	0.000	12.661	- 5.655
61	3.875	15.138	3.903	181	0.000	11.530	- 6.200
64	3.915	14.061	3.917	184	0.000	10.668	- 7.117
67	4.095	13.014	4.101	187	0.000	9.066	- 9.112
70	4.524	12.123	4.531	190	0.000	7.126	-10.739
73	5.175	11.533	5.185	193	0.000	4.911	-11.929
76	7.282	10.223	7.276	196	0.000	2.503	-12.704
79	9.205	8.401	9.203	199	0.000	0.000	-12.943
82	10.810	6.053	10.839	202	- 2.088	15.138	- 5.074
85	11.880	3.188	11.981	205	- 2.097	13.943	- 5.134
88	12.327	0.000	12.420	208	- 2.160	12.773	- 5.272
91	10.390	10.330	6.975	211	- 2.360	11.714	- 5.762
94	14.175	7.865	9.548	214	- 2.735	10.928	- 6.602
97	17.005	3.718	11.458	217	- 3.625	9.343	- 8.555
100	5.060	15.138	2.108	220	- 4.264	7.393	-10.464
103	3.123	14.150	2.121	223	- 4.795	5.141	-11.634
106	5.425	13.230	2.251	226	- 5.152	2.641	-12.473
109	6.072	12.568	2.533	229	- 5.322	0.000	-12.770
112	6.923	12.183	2.890	232	- 3.880	15.138	- 3.892
115	8.970	11.933	3.734	235	- 3.925	14.061	- 3.930

Table III.3 -- Continued

S/G No.	"X"	"Y"	"Z"	S/G No.	"X"	"Y"	"Z"
238	- 4.115	13.013	- 4.112	355	0.000	7.893	8.368
241	- 4.537	12.123	- 4.552	358	0.000	6.076	10.008
244	- 5.182	11.533	- 5.217	361	0.000	4.078	11.045
247	- 7.307	10.223	- 7.346	364	0.000	1.914	11.791
250	- 9.249	8.401	- 9.286	367	0.000	0.000	12.035
253	-10.875	6.053	-10.897	370	1.918	15.138	4.667
256	-12.005	3.188	-11.965	373	.895	13.704	4.597
259	-12.418	0.000	-12.362	376	.895	12.272	4.597
262	-10.265	9.413	- 6.890	379	2.145	10.965	5.127
265	-14.027	7.956	- 9.426	382	2.862	9.538	6.101
268	-17.005	3.838	0.000	385	3.560	8.080	7.953
271	- 5.055	15.138	- 2.142	388	4.235	6.335	9.511
274	- 5.111	14.150	- 2.142	391	4.757	4.216	10.730
277	- 5.426	13.233	- 2.272	394	5.100	1.881	11.566
280	- 6.097	12.558	- 2.565	397	5.220	0.000	11.829
283	- 6.040	12.235	- 2.905	400	3.565	15.138	3.579
286	- 8.992	11.938	- 3.757	403	3.515	13.748	3.523
289	-11.033	11.568	- 4.635	406	3.515	12.333	3.523
292	-13.046	11.123	- 5.469	409	4.200	11.208	4.101
295	-15.067	10.600	- 6.270	412	5.075	10.034	4.791
298	-17.005	0.000	0.000	415	7.282	9.900	6.607
301	- 5.490	15.138	0.000	418	9.205	9.205	8.441
304	- 5.550	14.218	0.000	421	10.810	5.066	9.976
307	- 5.895	13.363	0.000	424	11.880	2.386	11.044
310	- 6.589	12.790	0.000	427	12.327	0.000	11.428
313	- 7.455	12.563	0.000	430	10.390	9.445	6.283
316	- 9.365	12.490	0.000	433	14.175	9.281	8.557
319	-11.275	12.438	0.000	436	17.005	3.825	10.615
322	-13.185	12.388	0.000	439	4.655	15.138	1.956
325	-15.095	12.331	0.000	442	4.595	13.798	1.920
328	-17.005	0.000	0.000	445	4.770	12.458	1.943
331	0.000	- 4.780	-11.810	448	5.755	11.548	1.771
334	0.000	- 8.842	- 8.965	451	6.923	10.658	2.594
337	0.000	-11.492	- 4.793	454	8.970	10.363	3.383
340	0.000	15.138	5.059	457	10.995	10.030	4.174
343	0.000	13.680	5.124	460	13.017	9.638	4.986
346	0.000	12.223	5.124	463	15.010	9.188	5.788
349	0.000	10.870	5.470	466	17.005	8.588	6.681
352	0.000	5.368	6.546	469	5.045	15.138	0.000

Table III.3 -- Continued

S/G No.	"X"	"Y"	"Z"	S/G No.	"X"	"Y"	"Z"
472	4.975	13.826	0.000	589	- 9.249	7.205	- 8.560
475	5.177	12.833	0.000	592	-10.869	5.066	-10.043
478	6.215	11.738	0.000	595	-12.005	2.386	-11.074
481	7.455	10.916	0.000	598	-12.418	0.000	-11.444
484	9.365	10.843	0.000	601	-10.265	9.546	- 6.253
487	11.275	10.817	0.000	604	-14.027	7.414	- 8.537
490	13.185	10.794	0.000	607	-17.005	3.583	-10.762
493	15.095	10.781	0.000	610	- 3.663	15.138	- 1.934
496	17.005	10.773	0.000	613	- 4.605	13.798	- 1.897
499	0.000	- 4.479	11.068	616	- 4.765	12.458	- 1.963
502	0.000	- 8.276	8.407	619	- 5.762	11.603	- 2.222
505	0.000	-10.761	4.534	622	- 6.940	10.665	- 2.628
508	0.000	-11.674	0.000	625	- 8.992	10.326	- 3.447
511	0.000	15.138	- 5.045	628	-11.032	10.116	- 4.242
514	0.000	13.680	- 4.977	631	-13.046	9.638	- 5.035
517	0.000	12.223	- 4.977	634	-15.067	9.213	- 5.814
520	0.000	10.870	- 5.552	637	-17.005	8.788	- 6.525
523	0.000	9.388	- 6.597	640	- 5.048	15.138	0.000
526	0.000	7.893	- 8.465	643	- 4.077	13.826	0.000
529	0.000	6.076	- 9.992	646	- 5.203	12.533	0.000
532	0.000	4.078	-11.097	649	- 6.220	11.755	0.000
535	0.000	1.914	-11.822	652	- 7.455	10.888	0.000
538	0.000	0.000	-12.029	655	- 9.365	10.855	0.000
541	- 1.993	15.138	- 4.607	658	-11.275	10.843	0.000
544	- 1.915	13.704	- 4.597	661	-13.185	10.818	0.000
547	- 1.915	12.272	- 4.597	664	-15.095	10.802	0.000
550	- 2.190	10.965	- 5.161	667	-17.005	11.342	0.000
553	- 2.725	9.593	- 6.123	670	0.000	- 4.462	-10.965
556	- 3.625	8.127	- 8.022	673	0.000	- 8.169	- 8.329
559	- 4.265	6.395	- 9.557	676	0.000	-10.625	- 4.475
562	- 4.795	4.235	-10.785	679		11.893	4.162
565	- 5.152	1.848	-11.601	682		11.930	- 4.157
568	- 5.322	0.000	-11.852	685		10.864	3.776
571	- 3.581	15.138	- 3.562	688		10.888	- 3.827
574	- 3.540	13.748	- 3.562				
577	- 3.540	12.333	- 3.562				
580	- 4.247	11.274	- 4.020				
583	- 5.182	10.081	- 4.827				
586	- 7.307	8.875	- 6.809				



$$\frac{Y = Y' - Y_M}{(1)}$$

$$\frac{X = -(X'_A - X_{AM})}{(2)}$$

$$\frac{X = X'_B - X_{BM}}{(3)}$$

$$\frac{Z = Z'_{TM} - Z'_T}{(4)}$$

$$\frac{Z = -(Z'_{BOM} - Z'_{BO})}{(5)}$$

NOMENCLATURE

M MEASUREMENTS AS RECORDED FROM REFERENCE TABLE

A "A" END

B "B" END

T TOP & DIMS ASSOCIATED WITH THE TOP

BO BOTTOM & DIMS ASSOCIATED WITH THE BOTTOM.

Y DISTANCE FROM PLANE INCLUDING RUN & ⊥ TO BRANCH &

X DISTANCE FROM PLANE INCLUDING BRANCH & ⊥ TO RUN &

Z DISTANCE FROM PLANE INCLUDING RUN & BRANCH &.

RECORDED DIMENSIONS

Y' 15.138" X'_B 20.461"* Z'_BO 13.183"

X'_A 17.005" Z'_T 13.097"

* DIM. INCLUDES STUB PIPE.

OPERATOR BY: CHATTANOOGA CONTRACT NO.

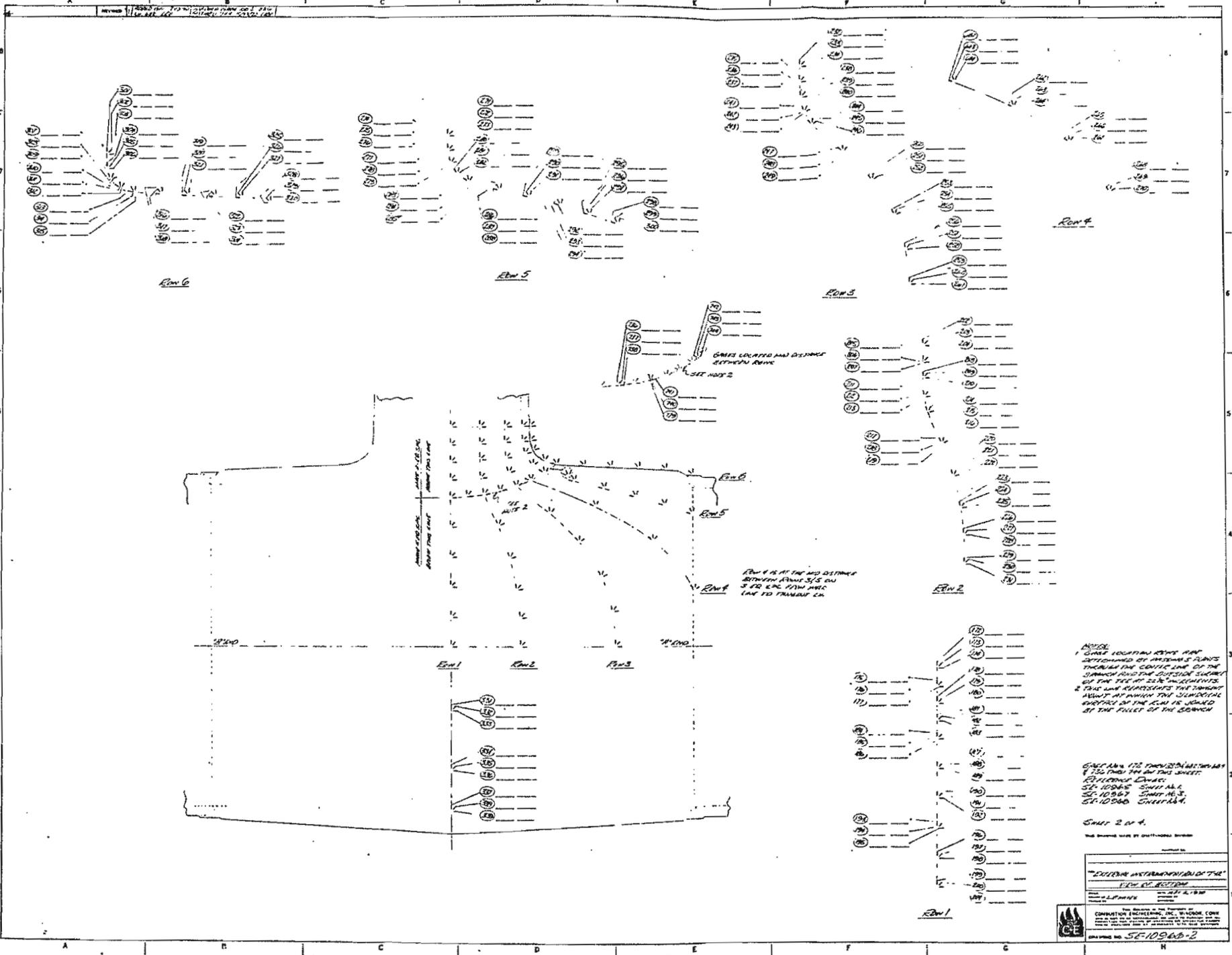
XYZ COORDINATE MEASUREMENTS
ORNL T-12 TEE

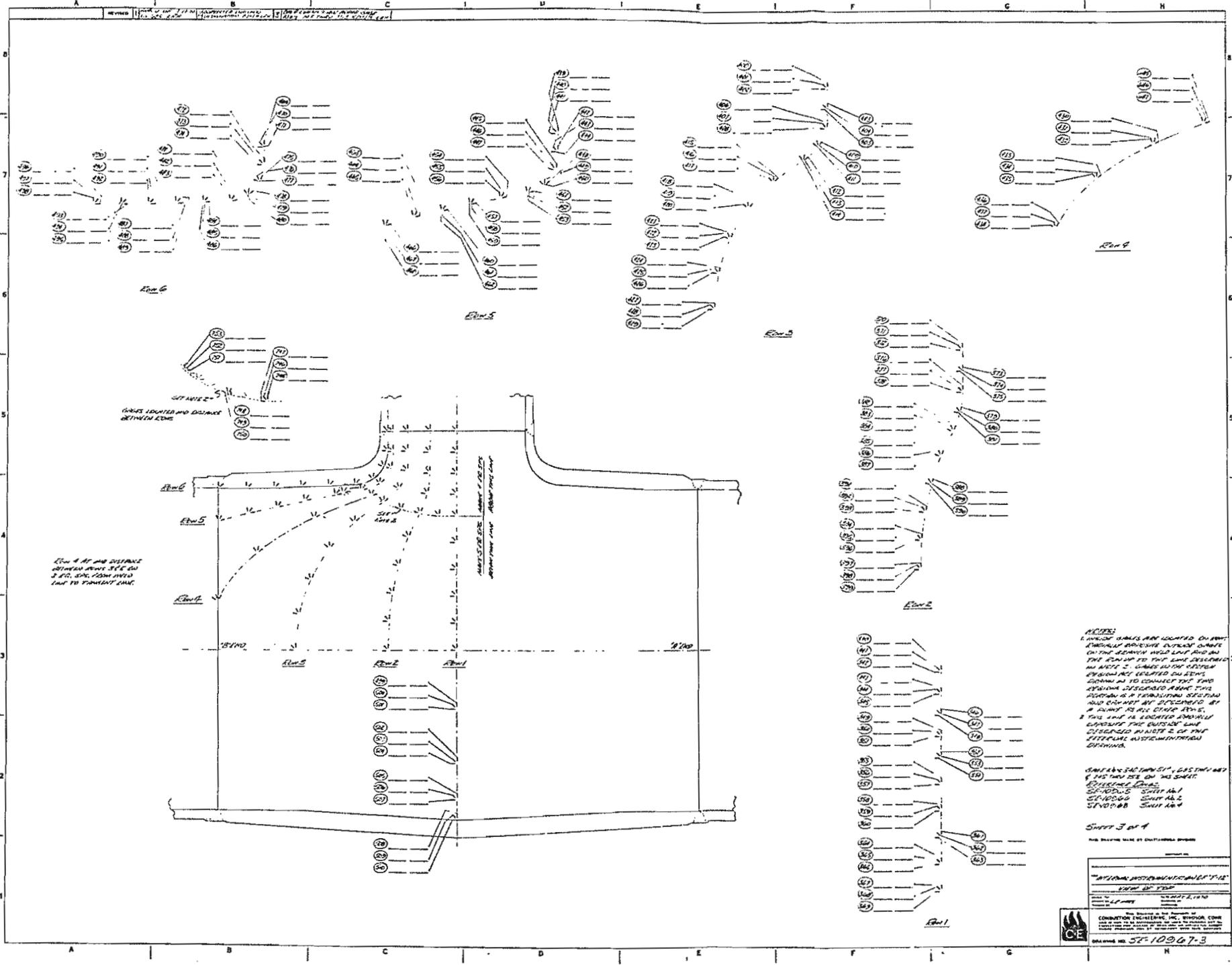
SCALE BY: L.R. HAYS DATE: DRAWN BY: CHECKED BY:



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DRAWING NO. B-62675-038-0





NOTES:

1. LOCATIONS SHOWN ARE LOCATIONS OF MANHOLES AND NOT THE LOCATION OF THE UTILITY LINE AND ON THE PLAN IS TO THE LINE DESCRIBED IN NOTE 2. UNDER NO CIRCUMSTANCES SHOULD ANY UTILITY BE INSTALLED IN ANY OF THE LOCATIONS SHOWN AS TO CONNECT THE TWO UTILITY LINES DESCRIBED ABOVE THIS POSITION IS A PROHIBITION SIGN AND SHOULD BE DISCLOSED BY A SIGN AS ALL OTHER SIGNS.
2. THE LINE IS LOCATED EXACTLY BETWEEN THE OUTSIDE LINE DESCRIBED IN NOTE 1 OF THE UTILITY AND THE INSIDE LINE DESCRIBED.

SCALE: 1" = 100'

DATE: 10/10/00

PROJECT: 57-10967-3

SHEET 3 OF 4

CONTRACTOR ENGINEERING, INC. ENGINEERS

57-10967-3

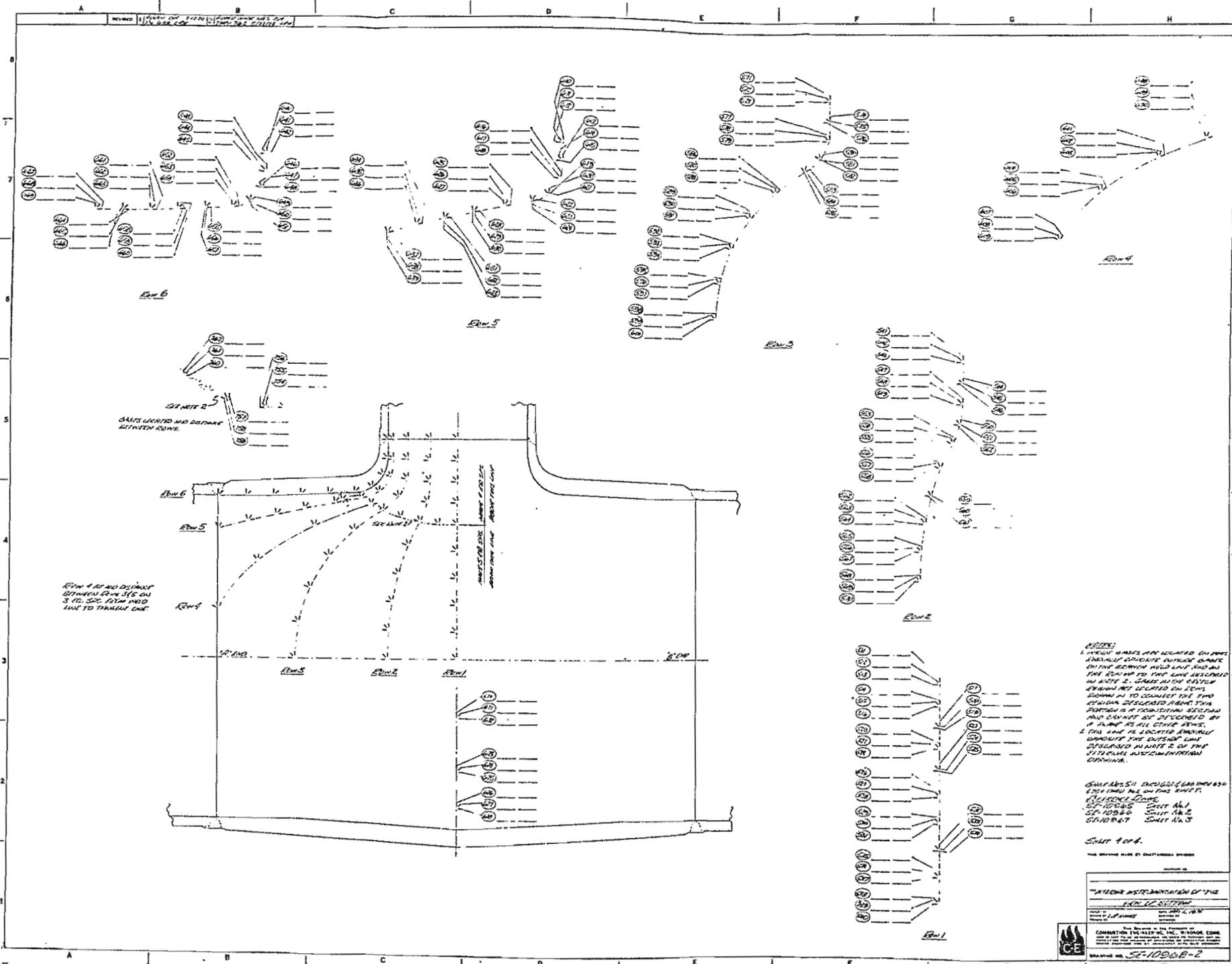
DATE: 10/10/00

PROJECT: 57-10967-3

SCALE: 1" = 100'

DATE: 10/10/00

PROJECT: 57-10967-3



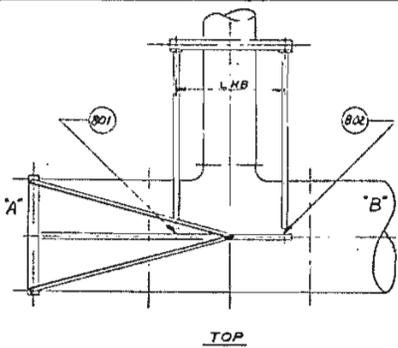
NOTES:
 1. TREE MARKS ARE LOCATED ON THIS SHEET IN ACCORDANCE WITH THE GENERAL SERVICE FIELD LOG AND AS THE RESULT OF THE WORK DESCRIBED IN NOTE 2. DASHES IN THE CENTER ARE LOCATED ON ROWS DOWN IN TO CORRECT THE TWO SECTION DESCRIBED ABOVE THE PORTION IS A SECTIONAL SECTION AND CANNOT BE IDENTIFIED BY A PLANT AS ALL OTHER ROWS.
 2. THIS LINE IS LOCATED EXACTLY UNDER THE OUTSIDE LINE DESCRIBED ABOVE IS ON THE SITE PLAN ASSOCIATION DRAWING.

DASHES 5/11' ENCLOSURE AREA 830' FROM PROJ. LINE ON THIS SHEET.
 DASHES 5/11' ENCLOSURE AREA 830' FROM PROJ. LINE ON THIS SHEET.
 DASHES 5/11' ENCLOSURE AREA 830' FROM PROJ. LINE ON THIS SHEET.

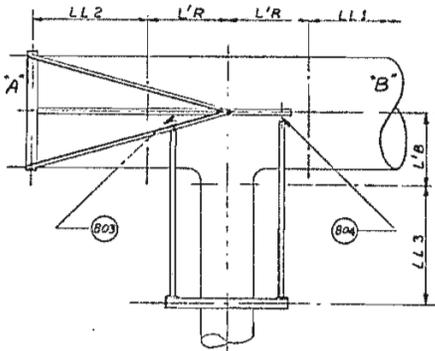
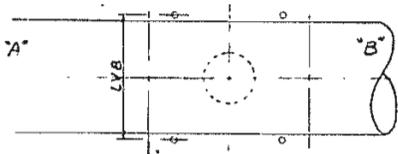
SHEET 4 OF 4.
 THE SHEET SIZE IS 24" X 36" UNLESS OTHERWISE NOTED.

"LATEST DETERMINATION OF THE LOCATION OF THE SITE"
 PREPARED BY
 CONSULTING ENGINEER, INC., WISCONSIN, CONN.
 1000 W. WISCONSIN AVENUE, MILWAUKEE, WIS.
 PHONE 442-1100
 FAX 442-1101
 DATE: 10/1/88
 DRAWN BY: J. J. HANCOCK
 CHECKED BY: J. J. HANCOCK
 SCALE: AS SHOWN
 SHEET NO. SF-100068-B-2

REVISED

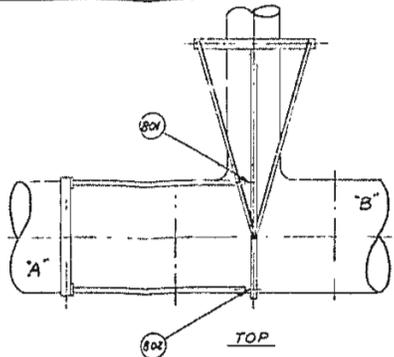


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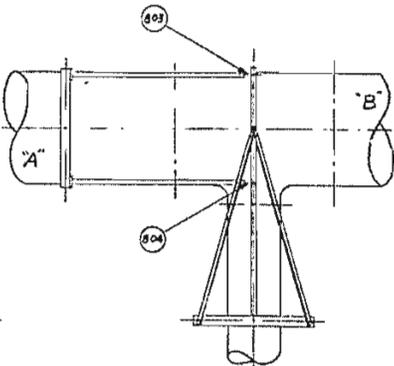


BOTTOM

MEASUREMENT OF $\Theta 231$ & $\Theta 231$
FIGURE #2

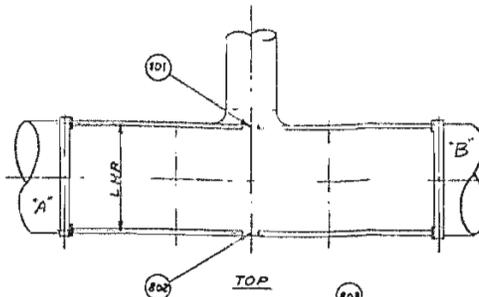


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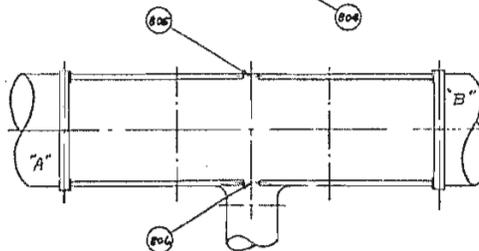


BOTTOM

MEASUREMENT OF $\Theta 231$
FIGURE #3



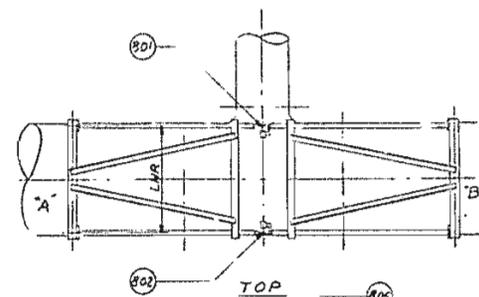
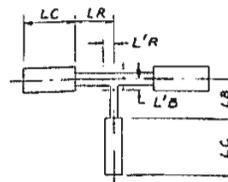
TOP



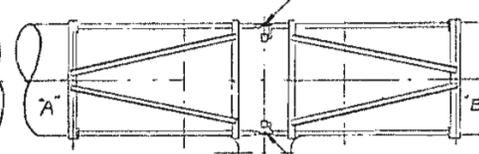
BOTTOM

MEASUREMENT OF $\Theta 221$ & $\Theta 221$

FIGURE #4



TOP



BOTTOM

MEASUREMENT OF $\Theta 221$

FIGURE #5

○ DENOTES L.V.D.T. NO.

LOC.	DIMENSION		
	NOM.	T-12	T-13
LB	77"	77"	77"
LC	96"	96"	96"
LR	77"	77"	77"
L'LB	15"	15"	15"
L'LR	17"	17"	17"
L'BS	23"	23"	23"
L'VB	23"	23"	23"
L'VR	23"	23"	23"
LL1	25.5"	25.75"	25"
LL2	25.5"	25"	26"
LL3	27.5"	27.5"	28.4"
LVB	27.5"	27.5"	27.5"
LVR	27.5"	27.5"	27.5"

THIS DRAWING MADE BY CHATTANOOGA

CONTRACT NO. 5469

L.V.D.T. SUPPORT CONDITION

FOR T-12 & T-13
ORNL TEE TEST

SCALE DRAWN BY CASTLE DATE 4-7-72
CHECKED BY [Signature]

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DRAWING NO. D-62872-012-0

APPENDIX III.4

LOCATIONS OF STRAIN GAGES AND LVDT
INSTRUMENTATION ON T-13

Table III.4. X-Y-Z Coordinate Locations Tee No. 13

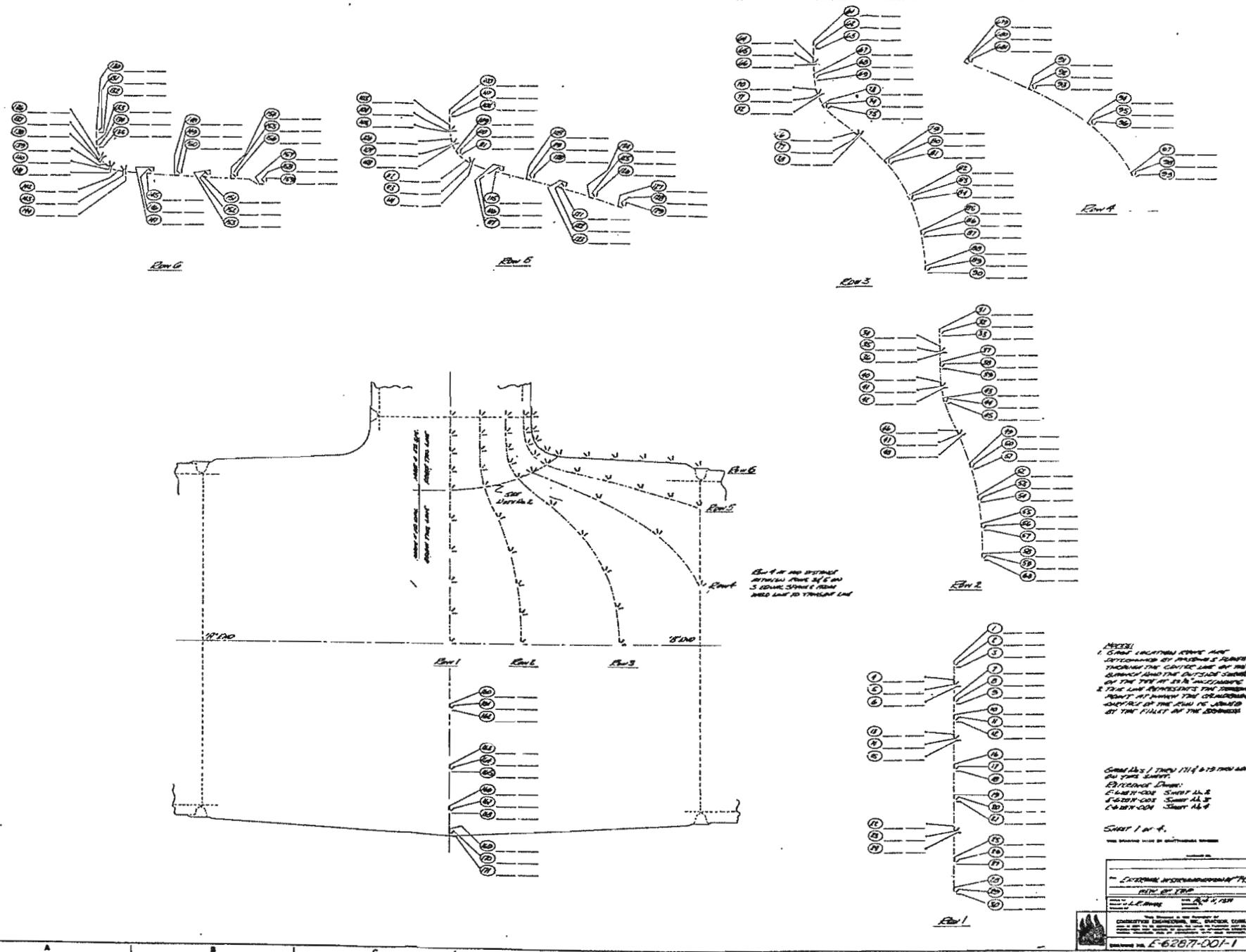
S/G No.	"X"	"Y"	"Z"	S/G No.	"X"	"Y"	"Z"
1	0.000	14.873	5.462	118	10.680	11.483	4.431
4	0.000	13.558	5.541	121	12.565	11.073	5.208
7	0.000	12.300	5.217	124	14.440	10.592	5.990
10	0.000	11.168	6.460	127	16.358		0.000
13	0.000	10.296	7.417	130	5.403	14.783	0.000
16	0.000	8.748	9.297	133	5.463	14.003	0.000
19	0.000	6.857	10.844	136	5.840	13.214	0.000
22	0.000	4.718	12.019	139	6.502	12.656	0.000
25	0.000	2.418	12.781	142	7.335	12.409	0.000
28	0.000	0.000	14.052	145	0.125	12.332	0.000
31	2.063	14.873	5.032	148	10.884	12.284	0.000
34	2.093	13.663	5.080	151	12.683	12.226	0.000
37	2.201	12.476	5.322	154	14.483	12.145	0.000
40	2.446	11.453	5.899	157	16.358		0.000
43	2.796	10.685	6.751	160	0.000	- 4.834	11.940
46	3.592	9.155	8.681	163	0.000	- 8.950	9.075
49	4.275	7.249	10.365	166	0.000	-11.680	4.898
52	4.822	5.023	11.665	169	0.000	-13.160	0.000
55	5.178	2.577	12.524	172	0.000	14.873	- 4.980
58	5.292	0.000	12.836	175	0.000	13.566	- 5.049
61	3.840	14.873	3.833	178	0.000	12.300	- 5.299
64	3.886	13.783	3.892	181	0.000	11.181	- 5.940
67	4.107	12.745	4.133	184	0.000	10.323	- 6.927
70	4.595	11.910	4.591	187	0.000	8.772	- 8.835
73	5.242	11.368	5.259	190	0.000	6.867	-10.347
76	7.310	10.978	7.313	193	0.000	4.734	-11.542
79	9.246	8.308	9.217	196	0.000	2.420	-12.304
82	10.840	5.991	10.849	199	0.000	0.000	-12.595
85	12.015	3.181	11.992	202	- 2.095	14.873	- 4.569
88	12.395	0.000	12.445	205	- 2.103	13.673	- 4.619
91	9.948	10.429	6.645	208	- 2.206	12.497	- 4.846
94	13.405	8.373	8.952	211	- 2.431	11.449	- 5.397
97	16.358		0.000	214	- 2.794	10.667	- 6.861
100	5.010	14.873	0.000	217	- 3.567	9.157	- 8.816
103	5.058	13.928	2.099	220	- 4.297	7.252	- 9.881
106	5.423	13.040	2.253	223	- 4.819	5.029	-11.166
109	6.062	12.382	2.527	226	- 5.165	2.586	-12.031
112	6.903	12.089	2.867	229	- 5.289	0.000	-12.869
115	8.800	11.813	3.655	232	- 3.894	14.873	- 3.405

Table III.4 -- Continued

S/G No.	"X"	"Y"	"Z"	S/G No.	"X"	"Y"	"Z"
235	- 3.927	13.753	- 3.442	352	0.000	7.989	6.171
238	- 4.135	12.736	- 3.686	355	0.000	6.699	7.691
241	- 4.617	11.866	- 4.156	358	0.000	5.261	8.958
244	- 5.296	11.313	- 4.814	361	0.000	3.602	9.898
247	- 7.352	10.011	- 6.880	364	0.000	1.765	10.458
250	- 9.242	8.241	- 8.796	367	0.000	0.000	10.665
253	-10.853	5.958	-10.385	370	1.650	14.873	4.480
256	-11.982	3.160	-11.517	373	1.599	12.928	4.411
259	-12.344	0.000	-11.989	376	1.599	11.045	4.411
262	- 9.910	10.391	- 6.187	379	1.688	9.163	4.618
265	-13.382	8.368	- 8.447	382	2.796	8.183	5.671
268	-16.385		0.000	385	3.592	6.953	7.132
271	- 5.077	14.873	0.000	388	4.275	5.523	8.540
274	- 5.122	13.901	- 1.612	391	4.822	3.805	9.596
277	- 5.458	13.018	- 1.780	394	5.178	1.846	10.210
280	- 6.189	12.355	- 2.057	397	5.292	0.000	10.486
283	- 6.966	12.043	- 2.395	400	3.062	14.873	3.527
286	- 8.858	11.755	- 3.181	403	3.001	12.928	3.489
289	-10.781	11.434	- 3.980	406	3.001	10.978	3.489
292	-12.667	11.037	- 4.746	409	3.616	9.383	3.692
295	-14.535	10.564	- 5.527	412	5.242	8.541	4.558
298	-16.385		0.000	415	7.310	7.552	5.922
301	- 5.462	14.873	0.000	418	9.246	6.211	7.445
304	- 5.528	13.993	0.000	421	10.840	4.537	8.738
307	- 5.868	13.194	0.000	424	12.015	2.386	9.601
310	- 6.502	12.623	0.000	427	12.395	0.000	9.032
313	- 7.312	12.392	0.000	430	9.948	7.695	4.518
316	- 9.145	12.309	0.000	433	13.405	6.515	7.448
319	-10.969	12.253	0.000	436	16.358		0.000
322	-12.777	12.180	0.000	439	3.996	14.873	2.128
325	-14.583	12.113	0.000	442	3.915	12.845	2.111
328	-16.385		0.000	445	3.915	10.804	2.111
331	0.000	- 4.866	-11.439	448	5.031	9.422	2.200
334	0.000	- 8.942	- 8.572	451	6.903	8.784	2.602
337	0.000	-11.674	- 4.381	454	8.800	8.590	3.232
340	0.000	14.873	4.806	457	10.680	8.593	3.834
343	0.000	12.968	4.730	460	12.565	8.532	4.508
346	0.000	11.082	4.730	463	14.440	8.359	5.283
349	0.000	8.993	4.955	466	16.358		

Table III.4 -- Continued

S/G No.	"x"	"y"	"z"	S/G No.	"x"	"y"	"z"
469	4.312	14.873	0.000	586	- 7.352	7.455	- 5.523
472	4.232	12.845	0.000	589	- 9.242	6.116	- 6.990
475	4.232	10.804	0.000	592	-10.853	4.445	- 8.236
478	5.392	9.463	0.000	595	-11.982	2.333	- 9.142
481	7.335	8.859	0.000	598	-12.344	0.000	- 9.472
484	9.125	9.037	0.000	601	- 9.910	7.782	- 4.374
487	10.884	9.233	0.000	604	-13.382	6.521	- 7.048
490	12.683	9.438	0.000	607	-16.385		- 0.000
493	14.483	9.596	0.000	610	- 3.993	14.873	- 1.629
496	16.358	9.687	0.000	613	- 3.927	12.845	- 1.583
499	0.000	- 3.817	9.881	616	- 3.927	10.804	- 1.583
502	0.000	- 7.017	7.631	619	- 5.031	9.357	- 1.895
505	0.000	- 9.145	4.358	622	- 6.966	8.761	- 2.131
508	0.000	- 9.901	0.000	625	- 8.858	8.709	- 2.783
511	0.000	14.873	- 4.309	628	-10.781	8.676	- 3.443
514	0.000	12.968	- 4.233	631	-12.667	8.573	- 4.144
517	0.000	11.082	- 4.233	634	-14.535	8.373	- 4.687
520	0.000	8.993	- 4.412	637	-16.385		0.000
523	0.000	7.828	- 5.744	640	- 4.307	14.873	0.000
526	0.000	6.675	- 7.133	643	- 4.228	12.845	0.000
529	0.000	5.853	- 8.414	646	- 4.228	10.804	0.000
532	0.000	3.573	- 9.368	649	- 5.392	9.133	0.000
535	0.000	1.765	- 9.958	652	- 7.312	8.973	0.000
538	0.000	0.000	-10.125	655	- 9.145	9.159	0.000
541	- 1.670	14.873	- 3.979	658	-10.969	9.343	0.000
544	- 1.636	12.928	- 3.909	661	-12.777	9.535	0.000
547	- 1.636	11.045	- 3.909	664	-14.583	9.628	0.000
550	- 1.688	9.163	- 4.104	667	-16.385	9.751	0.000
553	- 2.794	- 8.101	- 5.210	670	0.000	- 3.817	- 9.358
556	- 3.567	6.859	- 6.681	673	0.000	- 7.017	- 7.111
559	- 4.297	5.493	- 7.965	676	0.000	- 9.145	- 3.810
562	- 4.819	3.802	- 9.005	679	6.249	11.736	4.694
565	- 5.165	1.869	- 9.674	682	- 6.232	11.698	- 3.675
568	- 5.289	0.000	- 9.893	685	- 6.249	8.673	3.640
571	- 3.049	14.873	- 3.046	688	- 6.232	8.686	- 3.129
574	- 3.010	12.928	- 2.973				
577	- 3.010	10.978	- 2.973				
580	- 3.616	9.290	- 3.275				
583	- 5.296	8.458	- 4.069				

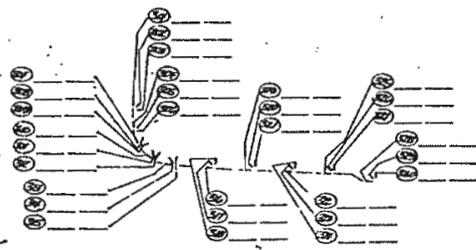


NOTES:
 1. GARD LOCATION SHALL BE DETERMINED BY PASSING A PLUMB THROUGH THE CENTER LINE OF THE CURVE AND THE OUTSIDE SURFACE OF THE TREE AT THE INTERSECTION.
 2. THE LINE REPRESENTS THE CENTER POINT AT WHICH THE CURVE IS CENTERED BY THE FILET OF THE BORDERS.

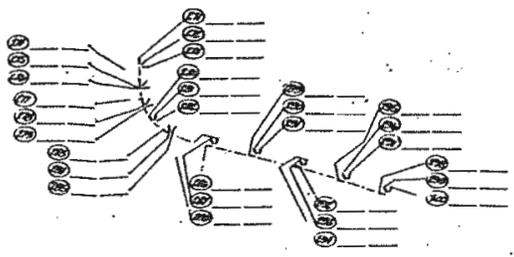
SCALE: 1" = 10'-0" (SEE PLAN)
 ELEVATION: 100'-0"
 E-6287-001-SHEET 4A-B
 E-6287-001-SHEET 4A-C
 E-6287-001-SHEET 4A-D

SHEET 1 OF 4

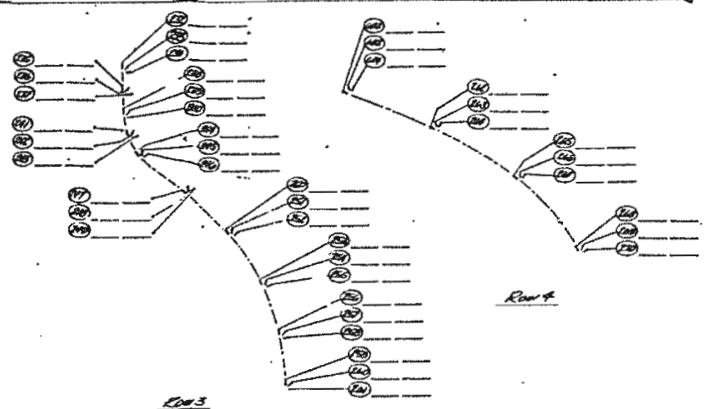
THE ENGINEERING COMPANY OF TEXAS INCORPORATED 1111 WEST 17TH STREET DALLAS, TEXAS 75210 PHONE 754-1111 TELETYPE 754-1111 CABLE "ENGTEN"	
PROJECT NO. E-6287-001 SHEET NO. 4A-B	DATE: 11/19/68 DRAWN BY: J. L. BROWN CHECKED BY: J. L. BROWN



Row 6

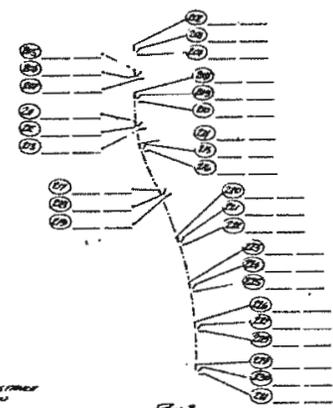


Row 5

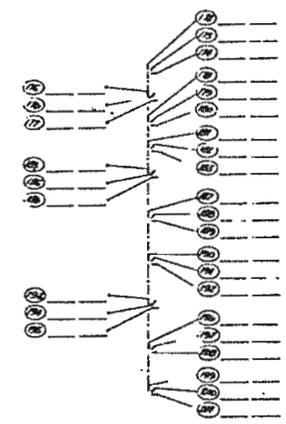


Row 4

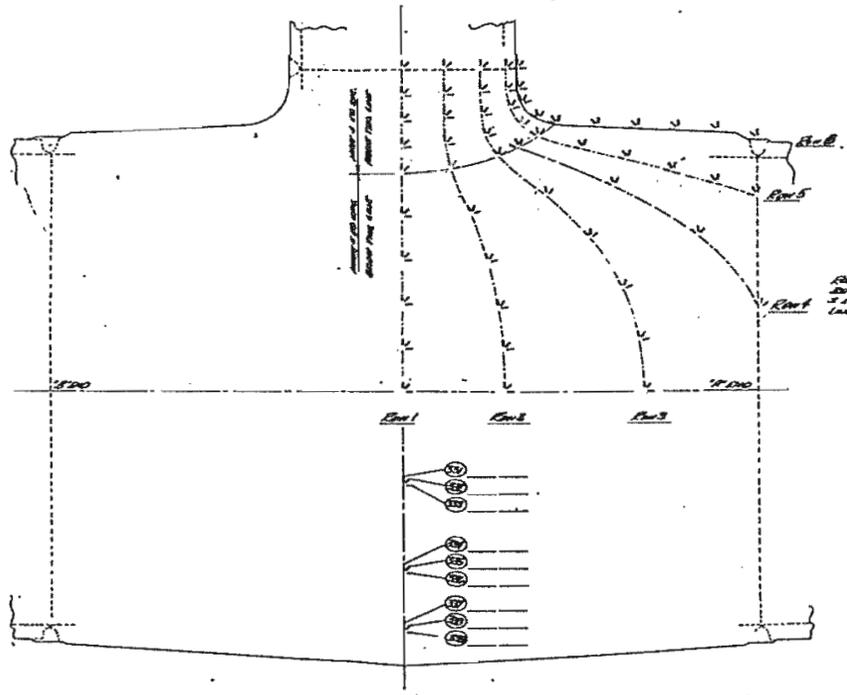
Row 3



Row 2



Row 1



Row 4 is the mid distance
 between Row 3's and
 Row 5's from the
 left to the right line.

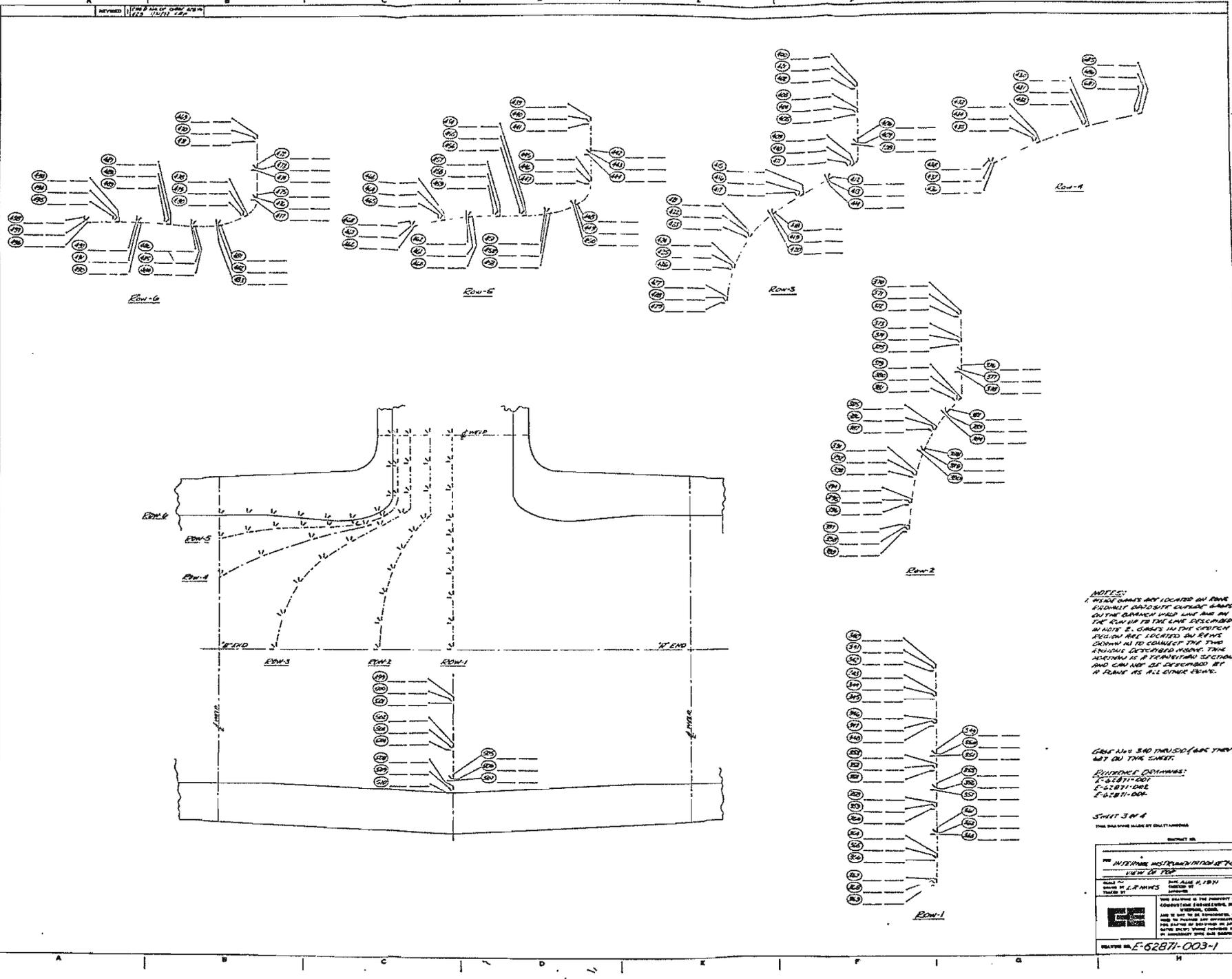
NOTE:
 1. GRADE LOCATION CURVE WAS
 DETERMINED BY PROFILES ALONG
 THROUGH THE CENTER LINE OF THE
 DAM AND THE OUTSIDE CURVE OF
 THE TIE UP IS IN ACCORDANCE
 WITH THE LINE REPRESENTING THE
 CENTER LINE OF THE DAM. THE
 GRADE AT THE END OF THE
 DAM IS SHOWN BY THE
 DOTTED LINE AT THE END OF THE
 DAM.

SCALE: 1/4" = 10'-0"
 PLAN VIEW
 E-62871-002-1

Sheet 2 of 4

THE ENGINEER HAS REVIEWED THESE

THE ENGINEER HAS REVIEWED THESE	
DRAWING AND SPECIFICATIONS OF THE	
WORK AS SHOWN	
DATE	2007-11-14
BY	LEAHY
CHECKED BY	LEAHY
DESIGNED BY	LEAHY
PROJECT NO.	E-62871-002-1
CONSTRUCTION OF DAM AND OTHER WORK SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND DRAWINGS REFERENCED HEREON.	
DRAWING NO. E-62871-002-1	

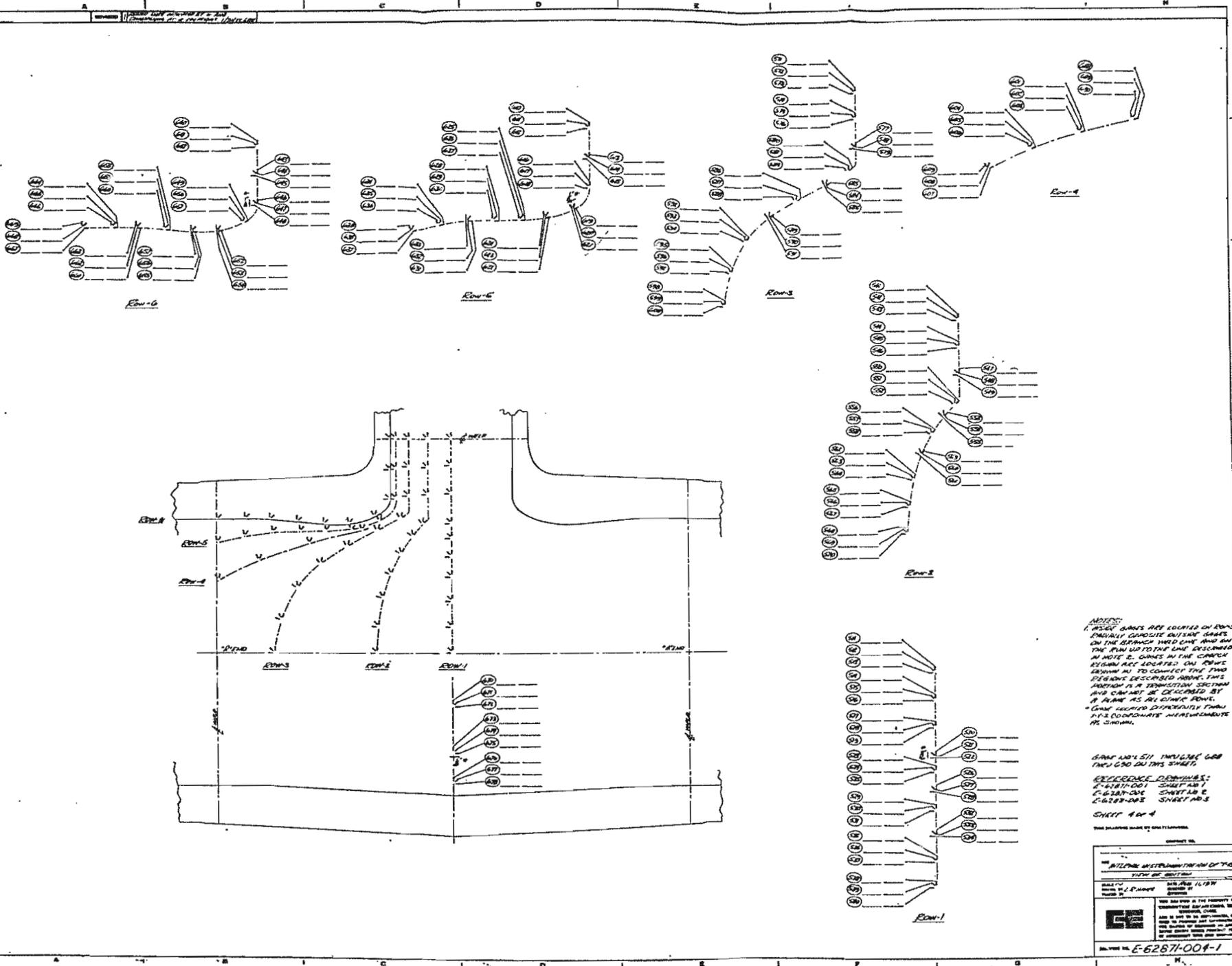


NOTES:
 1. WASTE MANHOLE ARE LOCATED ON ROWS EXCEPT WHERE SHOWN OTHERWISE ON THE DRAWING WITH LINE AND AN "X" FOR UP TO THE LINE DESCRIBED IN NOTE 2. CATCH BASIN LOCATED BELOW ARE LOCATED ON ROWS EXCEPT WHERE SHOWN OTHERWISE. THE SECTION IS A PRELIMINARY SECTION AND CAN BE SUBJECT TO CHANGE BY A CHANGE IN ALL OTHER PLANS.

DATE WAS 3RD THROUGH ARE THEY NOT ON THE CENTER
 DISTANCE DRAINAGE:
 E-62871-001
 E-62871-002
 E-62871-004

SHEET 3 OF 4
 THIS DRAWING MADE BY GUYTON ENGINEERS

INTERIOR INSTRUMENTATION OF THE VIEW OF THE	
DATE: 1/28/54 DRAWN BY: J.P. HINES TITLE:	DATE: 1/28/54 CHECKED BY: J.P. HINES TITLE:
THIS DRAWING IS THE PROPERTY OF GUYTON ENGINEERS, INC. 1000000, COOK AND IS NOT TO BE REPRODUCED, COPIED, OR OTHERWISE USED FOR ANY PURPOSES WITHOUT THE WRITTEN CONSENT OF GUYTON ENGINEERS, INC.	
DRAWING NO. E-62871-003-1	



NOTES:
 1. GUNNER GAMES ARE LOCATED ON ROWS
 INDICALLY OPPOSITE BATTERY GAMES
 ON THE SPANCH WARD LINE AND ON
 THE MAIN DECK TO THE LINE DESCRIBED
 IN NOTE 2. GAMES IN THE CANTON
 REGION ARE LOCATED ON ROWS
 INDICALLY TO CORRECT THE TWO
 DECKING DESCRIBED ABOVE. THIS
 POSITION IS A TRANSVERSE SECTION
 AND CANNOT BE DESCRIBED BY
 A PLANE AS ARE OTHER ROWS.
 * GAMES LOCATED ON TRANSVERSE SECTION
 ARE COORDINATE MEASUREMENTS
 AS SHOWN.

SHIP NO. 571 THIS LINE GUN
 THIS GUN ON THIS SHEET

REFERENCE DRAWINGS:
 E-6287-001 SHEET A
 E-6287-002 SHEET B
 E-6287-003 SHEET C

SHEET 4 OF 4

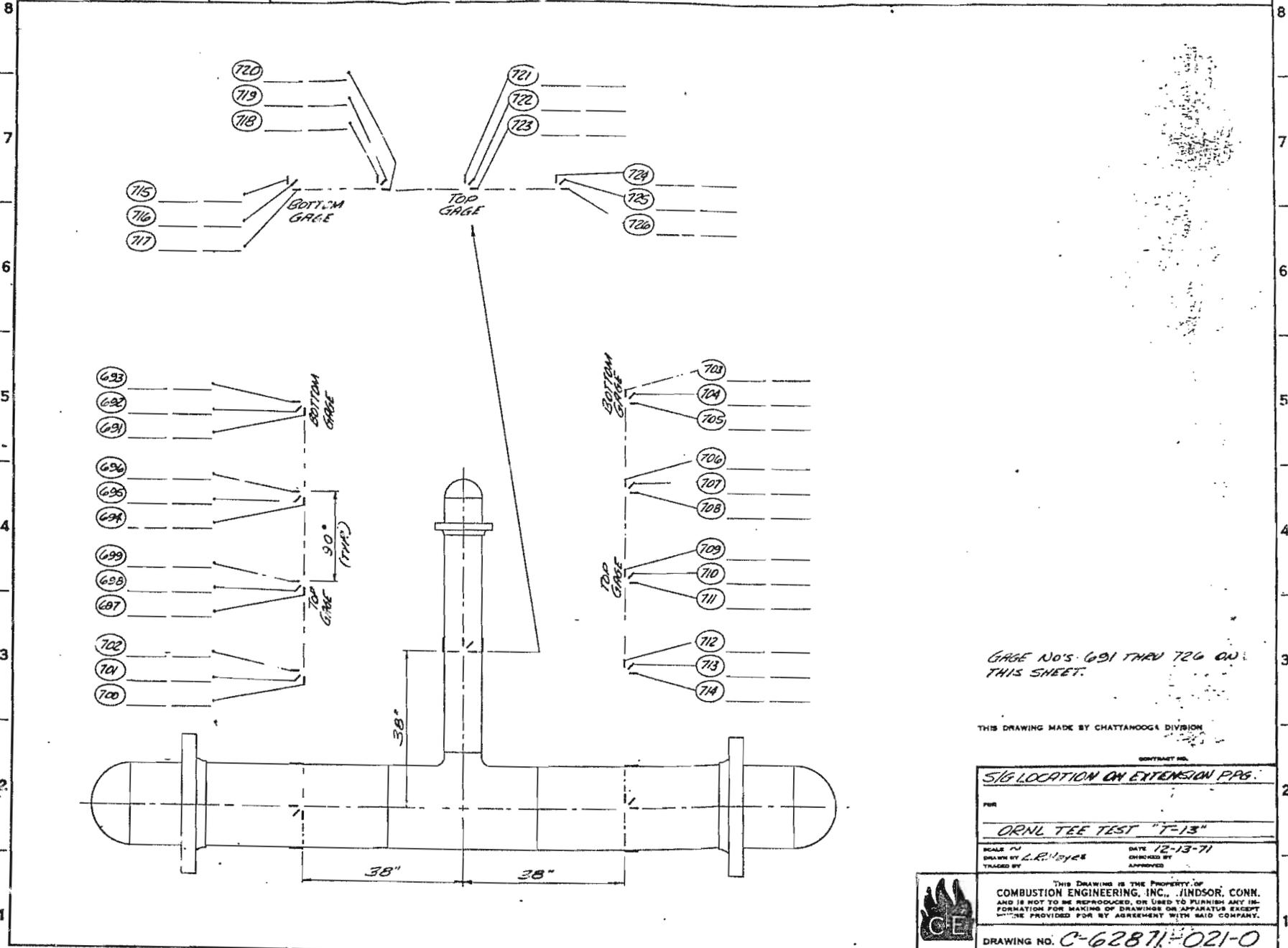
THIS DRAWING MADE BY GUN PLANNERS

TITLE: WILLIAM WASHINGTON (PART OF THE) TITLE OF THE SHIP	
DATE OF DRAWING: 11/2/47	DATE AND TITLE OF SHEET: 11/2/47 SHEET NO. 4 OF 4
THIS SHEET IS THE PROPERTY OF THE UNITED STATES GOVERNMENT AND IS LOANED TO YOU BY THE NATIONAL ARCHIVES. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT THE WRITTEN PERMISSION OF THE NATIONAL ARCHIVES.	

NAVY NO. E-6287-004-1

A | B | C | D | E | F | G | H

REVISION

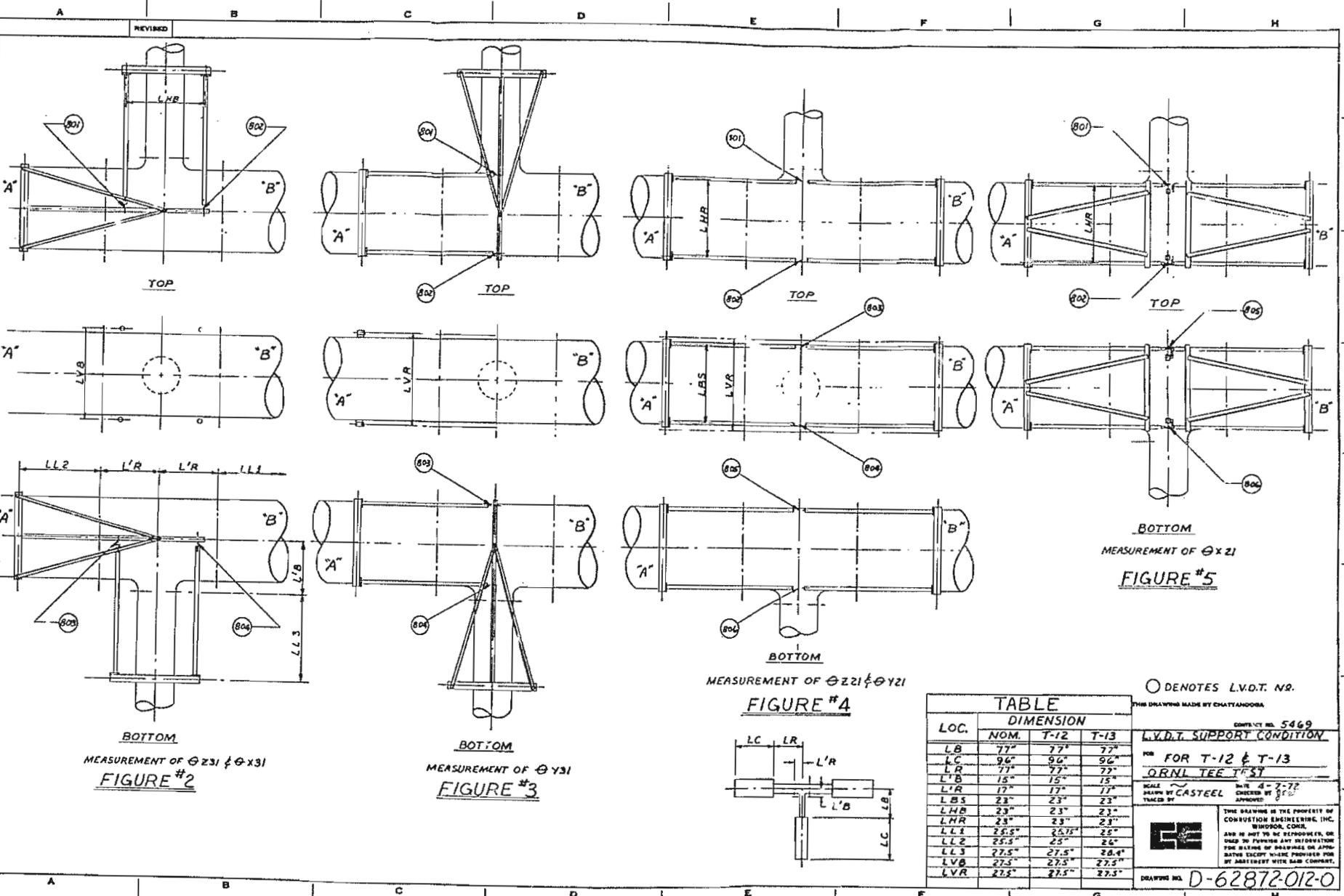


GAGE NO'S 691 THRU 726 ON THIS SHEET.

THIS DRAWING MADE BY CHATTANOOGA DIVISION

CONTRACT NO.	
516 LOCATION ON EXTENSION PPG.	
FOR	
ORNL TEE TEST "T-13"	
SCALE 1/2"	DATE 12-13-71
DRAWN BY L.R. Meyer	CHECKED BY
TRACED BY	APPROVED
 THIS DRAWING IS THE PROPERTY OF COMBUSTION ENGINEERING, INC., JINDSOR, CONN. AND IS NOT TO BE REPRODUCED, OR USED TO FURNISH ANY INFORMATION FOR MAKING OF DRAWINGS OR APPARATUS EXCEPT AS PROVIDED FOR BY AGREEMENT WITH SAID COMPANY.	
DRAWING NO. C-62871-021-0	

A | B | C | D | E | F | G | H



MEASUREMENT OF $\varnothing 231 \frac{1}{2} \varnothing X31$
FIGURE #2

MEASUREMENT OF $\varnothing Y31$
FIGURE #3

MEASUREMENT OF $\varnothing 221 \frac{1}{2} \varnothing Y21$
FIGURE #4

MEASUREMENT OF $\varnothing X21$
FIGURE #5

TABLE

LOC.	DIMENSION		
	NOM.	T-12	T-13
LB	77"	77"	77"
LC	96"	96"	96"
LR	77"	77"	77"
L'R	15"	15"	15"
L'R	17"	17"	17"
LBS	23"	23"	23"
L'BS	23"	23"	23"
LHR	23"	23"	23"
LL1	25.5"	25.75"	25"
LL2	25.5"	25"	26"
LL3	27.5"	27.5"	28.4"
LVB	27.5"	27.5"	27.5"
LVR	27.5"	27.5"	27.5"

○ DENOTES L.V.D.T. N°.

THIS DRAWING MADE BY CHATTANOOGA

CONTRACT NO. 5469

L.V.D.T. SUPPORT CONDITION
FOR FOR T-12 & T-13
ORNL TEE TEST

SCALE: 1" = 2'-0" WITH 4" = 2'-0"
DRAWN BY CASTEEL CHECKED BY JPH/SD



THIS DRAWING IS THE PROPERTY OF CONSTRUCTION ENGINEERING, INC. WINDSOR, CONN. AND IS NOT TO BE REPRODUCED, OR USED TO FURNISH ANY INFORMATION FOR THE BUILDING OF STRUCTURES OR APPURTENANCES EXCEPT AS SPECIFICALLY PROVIDED FOR BY AGREEMENT WITH SAID COMPANY.

DRAWING NO. **D-62872-012-0**

APPENDIX III.5

LOCATIONS OF STRAIN GAGES AND LVDT
INSTRUMENTATION ON T-16

Table III.5. X-Y-Z Coordinate Locations Tee No. 16

S/G No.	"X"	"Y"	"Z"	S/G No.	"X"	"Y"	"Z"
1	0.000	16.969	11.761	118	14.643	11.575	4.814
4	0.000	13.198	12.031	121	15.788	11.330	4.725
7	0.000	9.427	12.443	124	16.985		
10	0.000	5.656	12.743	127	12.087	16.969	0.000
13	0.000	1.885	12.961	130	12.279	16.022	0.000
16	0.000	0.000	13.038	133	12.585	15.125	0.000
19	1.889	0.000	12.959	136	13.032	14.728	0.000
22	5.663	0.000	12.755	139	13.641	13.528	0.000
25	9.437	0.000	12.577	142	14.385	14.415	0.000
28	13.211	0.000	12.385	145	15.228	13.997	0.000
31	16.985	0.000		148	16.139	13.885	0.000
34	4.582	16.969	10.909	151	16.985		0.000
37	4.668	14.300	11.120	154	0.000	- 4.891	11.924
40	4.752	11.628	11.324	157	0.000	- 9.040	9.129
43	4.864	8.935	11.594	160	0.000	-11.794	4.946
46	4.985	6.245	11.857	163	0.000	-12.700	0.000
49	5.077	4.932	12.098	166	0.000	+16.969	-11.802
52	6.387	4.877	12.958	169	0.000	13.198	-12.037
55	9.005	4.805	12.753	172	0.000	9.427	-12.302
58	11.644	4.735	11.573	175	0.000	5.636	-12.625
61	14.285	4.670	11.428	178	0.000	1.885	-12.874
64	16.985			181	0.000	0.000	-12.927
67	8.543	16.969	8.424	184	- 1.885	0.000	-12.826
70	8.640	15.250	8.510	187	- 5.664	0.000	-12.686
73	8.773	13.525	8.630	190	- 9.425	0.000	-12.525
76	9.023	11.829	8.861	193	-13.202	0.000	-12.306
79	9.400	10.180	9.200	196	-16.974	0.000	-12.183
82	9.641	9.373	9.451	199	- 4.573	10.969	-10.909
85	10.415	9.174	9.248	202	- 4.683	14.294	-11.115
88	12.017	8.892	8.968	205	- 4.733	11.595	-11.171
91	13.655	8.748	8.818	208	- 4.845	8.920	-11.374
94	15.303	8.643	8.726	211	- 5.017	6.250	-11.692
97	16.985			214	- 5.127	4.925	-11.956
100	11.190	16.969	4.633	217	- 6.438	4.867	-11.842
103	11.324	15.795	4.695	220	- 9.056	4.785	-11.641
106	11.569	14.635	4.793	223	-11.698	4.724	-11.499
109	11.970	13.520	4.950	226	-14.335	4.670	-11.361
113	12.563	13.520	5.208	229	-16.974		-11.231
115	13.557	11.965	4.973	232	- 8.515	16.969	- 8.414

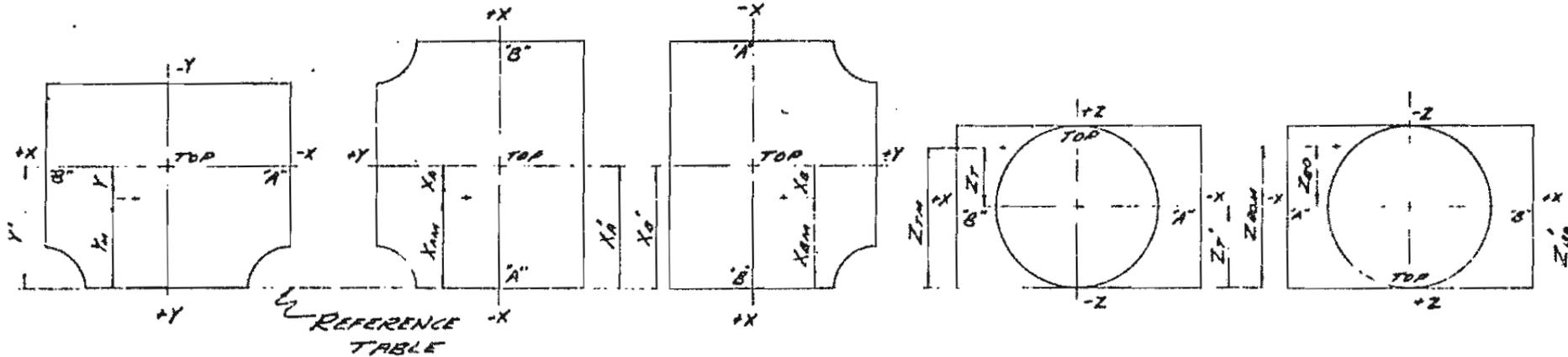
Table III.5 -- Continued

S/G No.	"X"	"Y"	"Z"	S/G No.	"X"	"Y"	"Z"
235	- 8.626	15.230	- 8.506	352	9.437	0.000	11.793
238	- 8.705	13.490	- 8.546	355	13.211	0.000	11.808
241	- 8.917	11.750	- 8.724	358	16.985	0.000	11.824
244	- 9.277	10.078	- 9.072	361	4.443	16.969	10.523
247	- 9.523	9.273	- 9.326	364	4.485	14.240	10.814
250	-10.335	9.089	- 9.133	367	4.518	11.490	10.770
253	-11.962	8.865	- 8.902	370	4.580	8.740	10.936
256	-13.621	8.753	- 8.790	373	4.685	6.007	11.153
259	-15.285	8.657	- 8.702	376	4.785	4.640	11.385
262	-16.974		- 8.596	379	6.135	4.600	11.233
265	-11.125	16.969	- 4.579	382	8.837	4.506	10.999
268	-11.266	15.743	- 4.630	385	11.556	4.441	10.876
271	-11.474	14.520	- 4.711	388	14.268	4.441	10.874
274	-11.907	13.365	- 4.881	391	16.985	4.441	10.896
277	-12.553	12.345	- 5.165	394	8.250	16.969	8.159
280	-13.522	11.827	- 4.948	397	8.290	15.130	8.189
283	-14.633	11.505	- 4.806	400	8.324	13.305	8.200
286	-15.811	11.333	- 4.717	403	8.474	11.490	8.329
289	-16.974		- 4.610	406	8.844	9.723	8.694
292	-12.052	16.969	0.000	409	9.076	8.853	8.929
295	-12.253	16.030	0.000	412	9.911	8.644	8.724
298	-12.546	15.126	0.000	415	11.649	8.335	8.418
301	-12.982	14.255	0.000	418	13.416	8.225	8.299
304	-13.597	13.522	0.000	421	15.187	8.225	8.299
307	-14.365	14.415	0.000	424	16.985	8.236	8.311
310	-15.205	13.991	0.000	427	10.860	16.969	4.485
313	-16.115	13.763	0.000	430	10.847	15.615	4.485
316	-16.974		0.000	433	10.870	14.271	4.460
319	0.000	- 4.856	-11.807	436	11.317	13.000	4.628
322	0.000	- 8.977	- 9.001	439	11.953	11.850	4.940
325	0.000	-11.850	- 4.872	442	13.104	11.195	4.687
328	0.000	+16.969	+11.359	445	14.335	10.744	4.493
331	0.000	13.198	11.651	448	15.655	10.744	4.493
334	0.000	9.427	7.996	451	16.985	10.760	4.493
337	0.000	5.656	11.990	454	11.696	16.969	0.000
340	0.000	- 1.885	12.202	457	11.668	15.797	0.000
343	0.000	0.000	12.297	460	11.815	14.784	0.000
346	1.889	0.000	12.192	463	12.305	13.805	0.000
349	5.663	0.000	11.974	466	12.974	12.915	0.000

Table III.5 -- Continued

S/G No.	"X"	"Y"	"Z"	S/G No.	"X"	"Y"	"Z"
469	13.799	12.209	0.000	586	-15.184	8.238	- 8.287
472	14.785	11.623	0.000	589	-16.974	8.269	- 8.319
475	15.883	11.611	0.000	592	-10.852	16.969	- 4.435
478	16.985	11.640	0.000	595	-10.769	15.592	- 4.427
481	0.000	- 4.590	11.358	598	-10.789	14.207	- 4.459
484	0.000	- 8.475	8.743	601	-11.193	12.895	- 4.632
487	0.000	-10.550	4.829	604	-11.881	11.721	- 4.912
490	0.000	-11.440	0.000	607	-13.021	11.100	- 4.666
493	0.000	+16.969	-11.383	610	-14.305	10.750	- 4.494
496	0.000	13.198	-11.674	613	-15.639	10.750	- 4.494
499	0.000	9.427	-11.682	616	-16.974	10.818	- 4.523
502	0.000	5.656	-11.802	619	-11.696	16.969	0.000
505	0.000	1.885	-12.054	622	-11.674	15.862	0.000
508	0.000	0.000	-12.090	625	-11.734	14.769	0.000
511	- 1.886	0.000	-12.025	628	-12.243	13.783	0.000
514	- 5.658	0.000	-11.820	631	-12.940	12.914	0.000
517	- 9.430	0.000	-11.732	634	-13.774	12.192	0.000
520	-13.202	0.000	-11.735	637	-14.752	11.660	0.000
523	-16.974	0.000	-11.751	640	-15.863	11.622	0.000
526	- 4.434	16.969	-10.642	643	-16.974	7.690	0.000
529	- 4.499	14.240	-10.759	646	0.000	- 4.590	11.071
532	- 4.524	11.490	-10.765	649	0.000	- 8.455	8.457
535	- 4.541	8.722	-10.772	652	0.000	-10.550	4.517
538	- 4.656	5.975	-10.990	655	2.557	+ 2.478	12.773
541	- 4.774	4.634	-11.259	658	7.395	7.235	11.005
544	- 6.119	4.575	-11.110	661	11.234	11.134	7.563
547	- 8.836	4.492	-10.902	664	13.394	13.339	2.701
550	-11.548	4.455	-10.827	667	- 2.592	2.509	-12.689
553	-14.256	4.455	-10.827	670	- 7.401	7.167	-10.876
556	-16.974	4.462	-10.864	673	-11.174	10.966	- 7.464
559	- 8.274	16.969	- 8.226	676	-13.323	13.202	- 2.697
562	- 8.274	15.120	- 8.196	679	+ 2.409	2.338	+12.118
565	- 8.317	13.256	- 8.199	682	6.976	5.850	10.479
568	- 8.350	11.430	- 8.239	685	10.643	10.589	7.192
571	- 8.694	9.610	- 8.567	688	12.811	12.709	2.564
574	- 8.964	8.755	- 8.852	691	- 2.407	2.300	-11.905
577	- 9.834	8.525	- 8.636	694	- 6.916	5.780	-10.247
580	-11.581	8.290	- 8.334	697	-10.552	10.380	- 7.073
583	-13.386	8.238	- 8.287	700	-12.674	12.582	- 2.557

REVISIONS



$$Y = Y' - Y_M \quad (1)$$

$$X = -(X_a' - X_{AM}) \quad (2)$$

$$X = X_B' - X_{BM} \quad (3)$$

$$Z = Z_{TM} - Z_r' \quad (4)$$

$$Z = -(Z_{CM} - Z'_{80}) \quad (5)$$

NOMENCLATURE

M MEASUREMENTS AS RECORDED FROM REFERENCE TABLE

A "A" END

B "B" END

T TOP & DIMS ASSOCIATED WITH THE TOP

BD BOTTOM & DIMS ASSOCIATED WITH THE BOTTOM.

Y DISTANCE FROM PLANE INCLUDING RUN & ⊥ TO BRANCH &

X DISTANCE FROM PLANE INCLUDING BRANCH & ⊥ TO RUN &

Z DISTANCE FROM A PLANE INCLUDING RUN & & BRANCH & .

RECORDED DIMENSIONS

$Y' \underline{21.300"} \quad X_B' \underline{16.974"} \quad Z'_{80} \underline{15.329"} \quad (1)$

$X_a' \underline{16.985"} \quad Z_r' \underline{15.307"} \quad (2)$

DESIGNED BY CHATTANOOGA DRAWING NO.

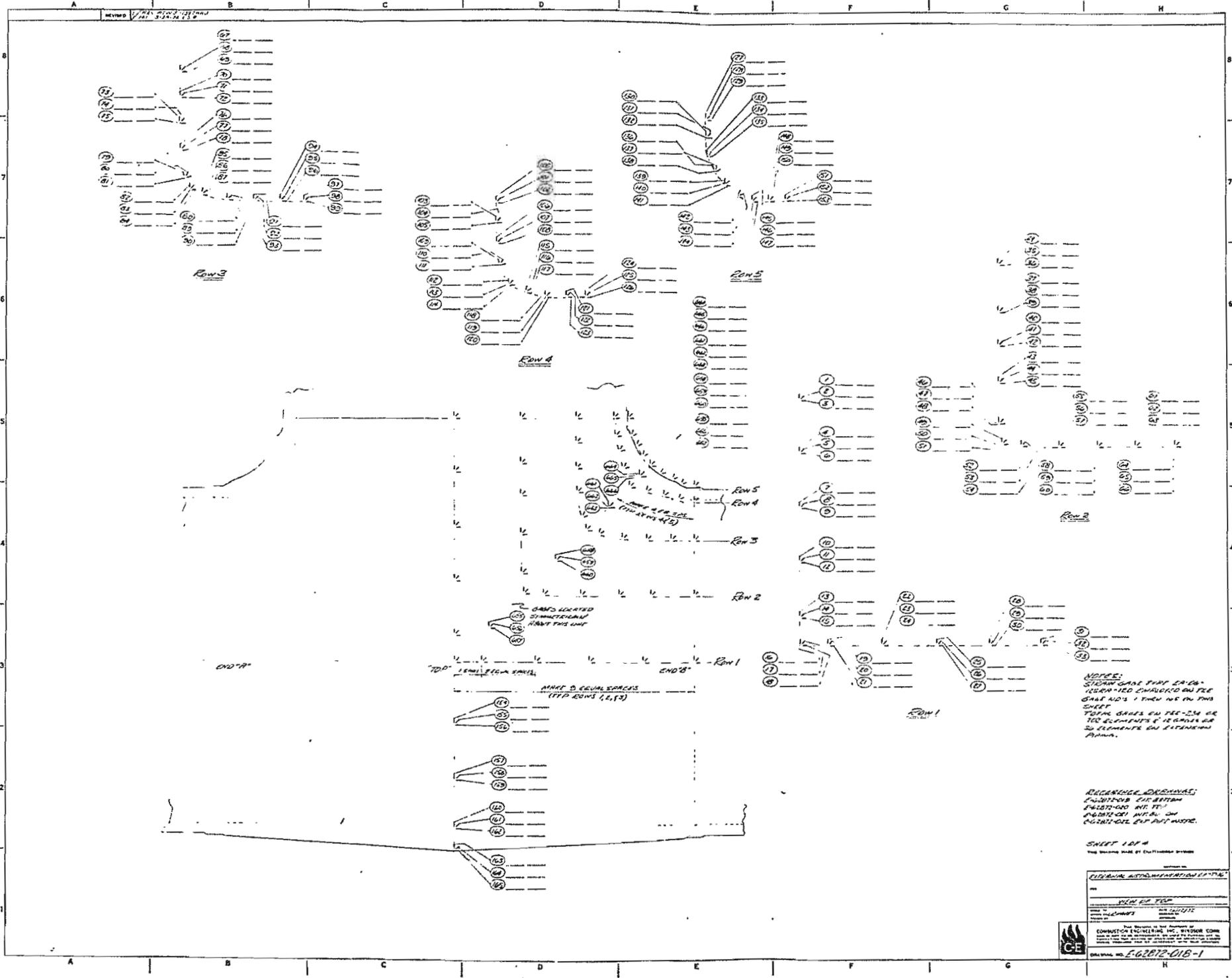
XYZ COORDINATE
MEASUREMENTS
ORNL T-15, TEE

SCALE FOR
DRAWN BY L.R. HAYES DATE
CHECKED BY APPROVED BY



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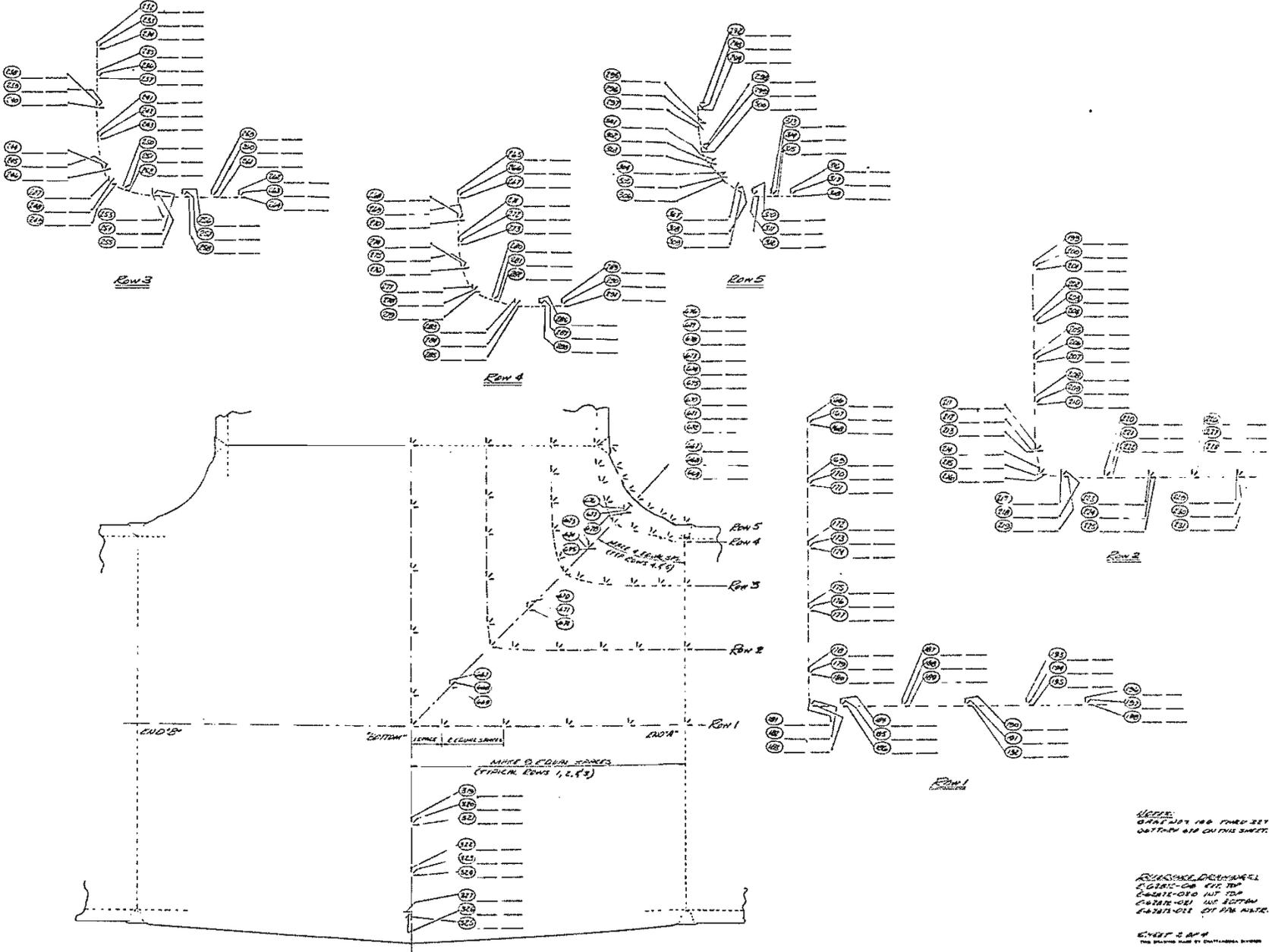
NOTES:
 STORM GAGE THAT IS CA-1500A-120 CHANGED ON THE GAGE AID'S 1 THEN WAS ON THIS SHEET
 FORM GAGES ON TEE-254 OR TEE-254 ELEMENTS & 12 GAGES OR 20 ELEMENTS ON EXTENSION BARR.

RECORDED DRAWINGS:
 1-10-1948 FOR BOSTON
 1-10-1948 FOR NY
 1-10-1948 FOR WASH DC
 1-10-1948 FOR WASH DC

SHEET 1 OF 4
 THE SECOND SIDE OF DUCTHOLE SYSTEM

FEDERAL BUREAU OF INVESTIGATION	
NO.	
NEW YORK	
DATE	1-10-1948
BY	W. J. ...
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DRAWING NO. E-62812-018-1	





NOTE:
 DIMENSIONS ARE TO CENTER LINE UNLESS OTHERWISE NOTED.

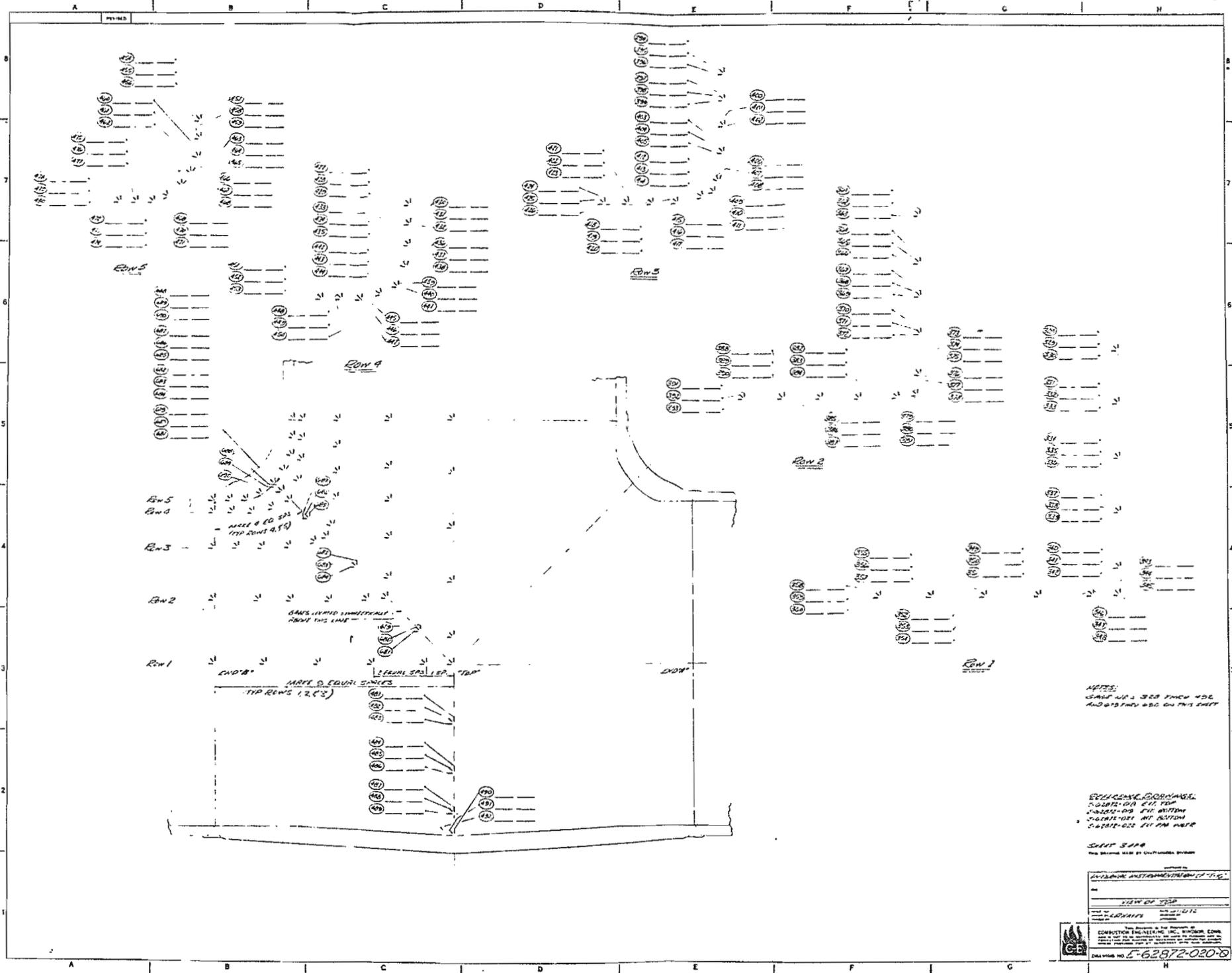
REVISIONS:
 1. CORRECTED DIMENSIONS FOR THE VIEW OF BOTTOM
 2. CORRECTED THE VIEW OF BOTTOM DIMENSIONS FOR THE CENTER LINE

SHEET 2 OF 4
 THE DESIGN IS BY CONSULTING ENGINEER

CONSULTING ENGINEER

VIEW OF BOTTOM
 DATE: 12/12/13
 DRAWN BY: [Name]

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NOTES:
 BANK NO. 3 SEE OTHER SHEET
 AND OTHER SHEETS ON THIS SHEET

SYLVESTER, DOBRYNSKI,
 & ASSOCIATES, INC.
 1-2021-09 PIV. 011170
 1-2021-09 PIV. 011170
 1-2021-09 PIV. 011170

SHEET 3018
 THE SECOND SHEET OF QUINCY PARK

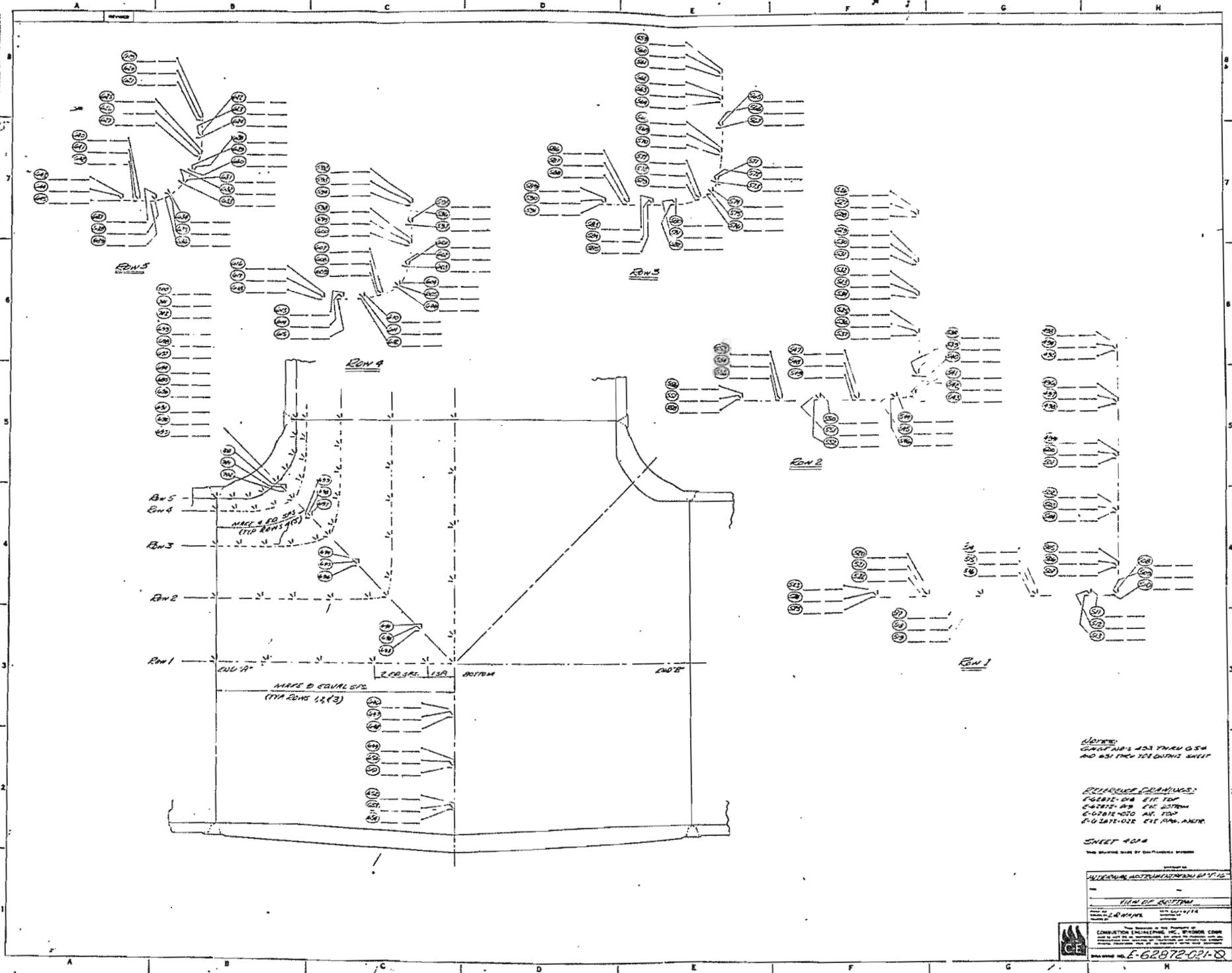
DATE: 11/11/12	
DRAWN BY: CARROLL	
CHECKED BY: J. L. ...	
PROJECT: QUINCY PARK	
SHEET NO. 3018	
TOTAL SHEETS: 3018	
DATE: 11/11/12	
DRAWN BY: CARROLL	
CHECKED BY: J. L. ...	
PROJECT: QUINCY PARK	
SHEET NO. 3018	
TOTAL SHEETS: 3018	

COMPASSION ENGINEERING, INC. - PROFESSIONAL ENGINEERS
 1-2021-09 PIV. 011170
 1-2021-09 PIV. 011170
 1-2021-09 PIV. 011170

DATE: 11/11/12
 DRAWN BY: CARROLL
 CHECKED BY: J. L. ...
 PROJECT: QUINCY PARK
 SHEET NO. 3018
 TOTAL SHEETS: 3018



DATE: 11/11/12
 DRAWN BY: CARROLL
 CHECKED BY: J. L. ...
 PROJECT: QUINCY PARK
 SHEET NO. 3018
 TOTAL SHEETS: 3018



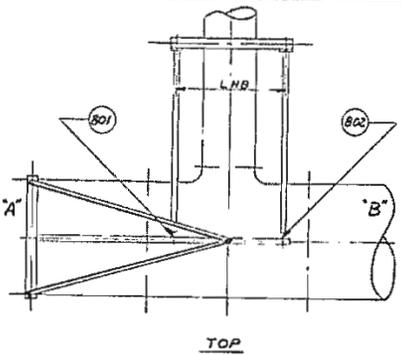
NOTE:
CONSULT SHEETS 403 THROUGH 404
AND 405 THROUGH 406 ON THIS SHEET

REVISIONS:
 0-0212-000 011 TOP
 0-0212-000 010 BOTTOM
 0-0212-000 010 TOP
 0-0212-000 010 BOTTOM

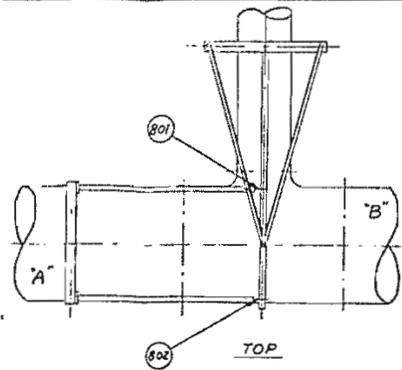
SHEET 404
 THIS SHEET IS ONE OF SEVERAL SHEETS

PROJECT INFORMATION PROJECT NO. E-62872-021-0	
DRAWN BY DATE	CHECKED BY DATE
CONSULTATION ENGINEERING, INC. - WASHINGTON, D.C. 1111 14TH STREET, N.W. WASHINGTON, D.C. 20005 TEL: 202-331-1111 FAX: 202-331-1112	

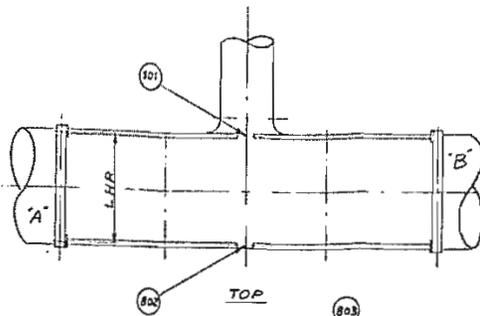
REVISED



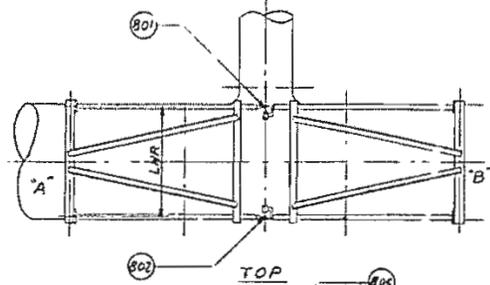
TOP



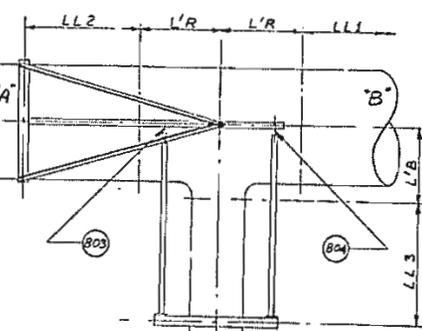
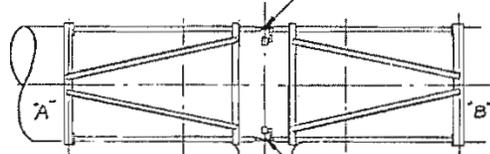
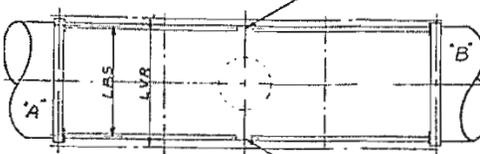
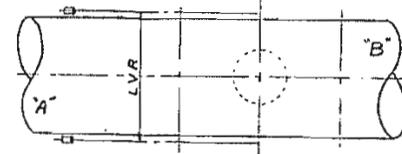
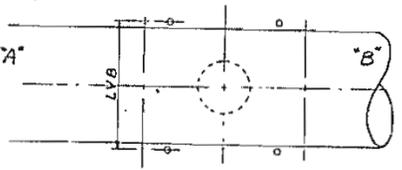
TOP



TOP

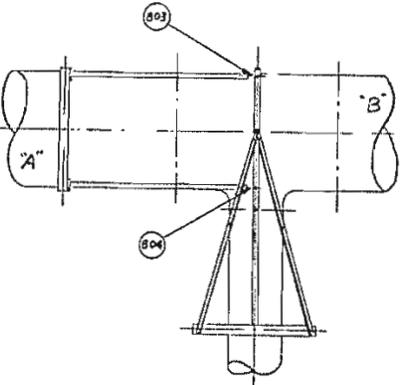


TOP



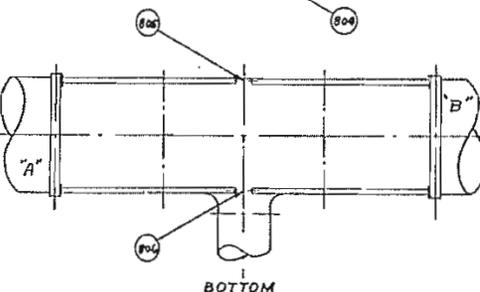
BOTTOM

MEASUREMENT OF $\varnothing 231 \pm \varnothing X31$
FIGURE #2



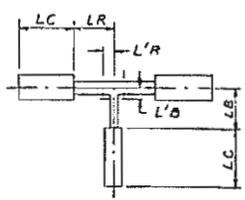
BOTTOM

MEASUREMENT OF $\varnothing Y31$
FIGURE #3



BOTTOM

MEASUREMENT OF $\varnothing Z21 \pm \varnothing Y21$
FIGURE #4



BOTTOM
MEASUREMENT OF $\varnothing X21$

FIGURE #5

○ DENOTES L.V.D.T. NR.

THIS DRAWING MADE BY CHATTAHOOCHEE

CONTRACT NO. 5469

L.V.D.T. SUPPORT CONDITION

FOR T-16
ORNL TEE TEST

SCALE: DRAWN BY CASTEEL
CHECKED BY JIMMIE
DATE: 2-17-74

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DRAWING NO. D-62874-027-0

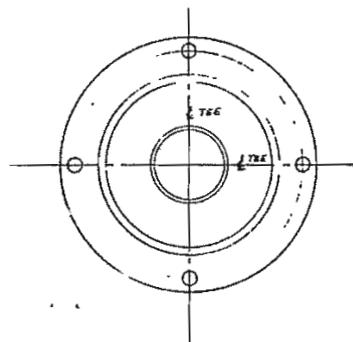
LOC.	DIMENSION	
	NOM.	T-16
LB	77"	77"
LC	96"	96"
LR	77"	77"
L'B	15"	15"
L'R	17"	17"
L'BS	23"	23"
L'HS	23"	23"
LHR	23"	23"
LL1	25.5"	25.5"
LL2	25.5"	25.5"
LL3	27.5"	27.5"
LVB	27.5"	27.5"
LVR	27.5"	27.5"

APPENDIX IV
FABRICATION AND ASSEMBLY DRAWINGS
FOR TEE MODELS

The following CE Fabrication and Assembly drawings comprise this appendix.

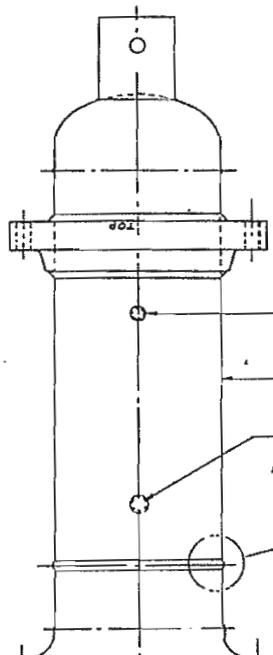
<u>CE Drawing No.</u>	<u>Drawing Name</u>
SD-10714-2	Tee Assembly for Mark No. T-10 24" x 24" x 24" Sch. #40 ORNL Tee Test
SD-10715-3	Tee Sub-Assembly and Details, Mark No. T-10 24" x 24" x 24" Sch. #40 ORNL Tee Test
SD-10718-0	Tee Assembly Mark No. T-11 24" x 24" x 24" Sch. #160 ORNL Tee Test
SE-10719-4	Tee Sub-Assembly and Details, Mark No. T-11 24" x 24" x 24" Sch. #160 ORNL Tee Test
SD-10716-2	Tee Assembly Mark No. T-12, 24" x 24" x 10" Sch. #40 ORNL Tee Test
SE-10717-5	Tee Sub-Assembly and Details Mark No. T-12 24" x 24" x 10" Sch. #40 ORNL Tee Test
SD-10720-1	Tee Assembly Mark No. T-13 24" x 24" x 10" Sch. #160 ORNL Tee Test
SE-10721-2	Tee Sub-Assembly and Details Mark No. T-13 24" x 24" x 10" Sch. #160 ORNL Tee Test
SD-11558-1	Tee Assembly Mark No. T-16 24" x 24" x 24" Sch. #10 ORNL Tee Test
SE-11559-4	Tee Sub-Assembly and Details Mark No. T-16 24" x 24" x 24" Sch. #10 ORNL Tee Test

REVISED 1/12



END VIEW

STRAIN GAGE LEAD OUTLET (4 PLACES)



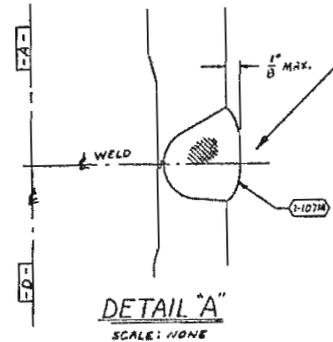
(108) CAP

(101)

(109) 1 1/2\"/>

SEE DETAIL 'A'

COHAX FITTING (104) TOP
COUPLING (105)



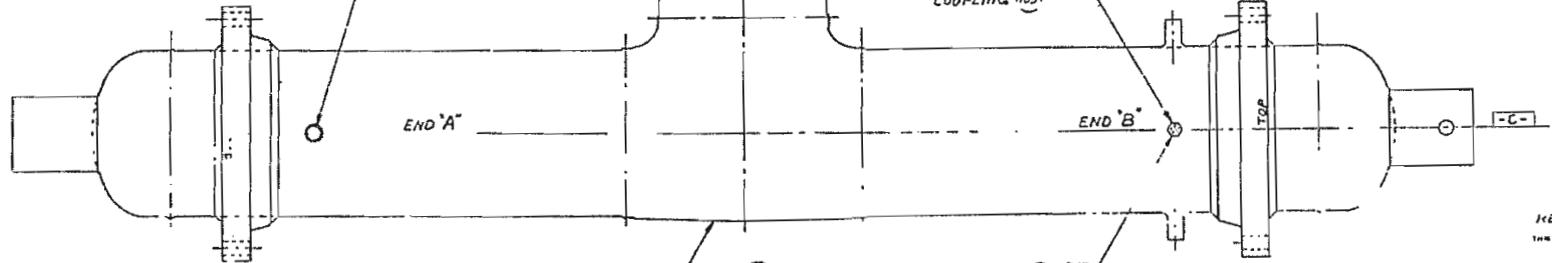
DETAIL "A"
SCALE: NONE

CLOSING WELD PROCEDURE
WELD CLOSING JOINT ACCORDING TO D.W.R. WA-10714

PREHEAT INTERPASS } 60°F. MIN.
MONITORED & CONTROLLED }
TEMPERATURE } TO AVOID OVERHEATING
OF STRAIN GAGES }
POST HEAT } NONE
FILLER METAL FOR }
INITIAL PASSES USING } SA-539 E-705-4
GAS TUNGSTEN ARC }
ELECTRODE FOR SUB- }
SEQUENT PASSES } 7018
USING METAL ARC. }

NOTES:

DATUM 'A' TO BE COINCIDENT WITH DATUM 'D' WITHIN .015"
2 APPLIC INTERSECTING THE CENTERS OF THE TWO LATERAL ALIGNMENT HOLES IN BRANCH PIPING FLANGES MUST BE 11 TO DATUM 'C' WITHIN .015"



(100) TEE ASSY

REF. D.W.G. SE-10715
THIS DRAWING MADE BY CHATTANOOGA DIVISION

5489

TEE ASSY

MARK NO. T-10

24" x 24" x 24" SCH. 40

ORNL TEE TEST

DATE 12/2/50 BY 8/23/50

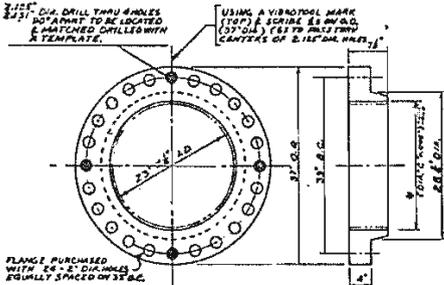
DESIGNED BY CASTELL CHECKED BY LINDHOLM

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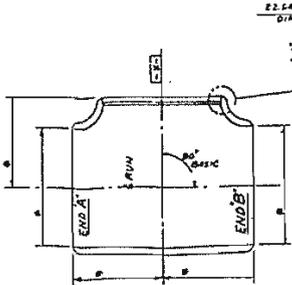
DRAWING NO. SD-10714-X



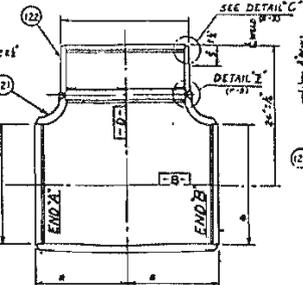
G X-3638



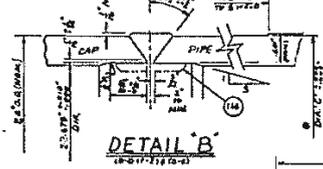
⑩ LAP JOINT FLANGE



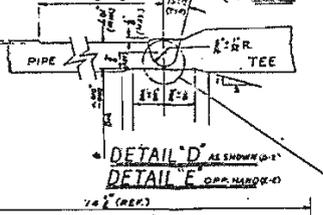
⑪ TEE



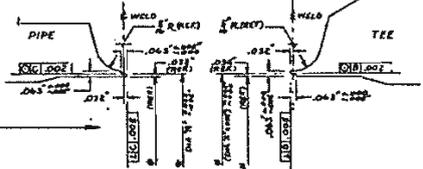
⑫ TEE SUB ASS'Y



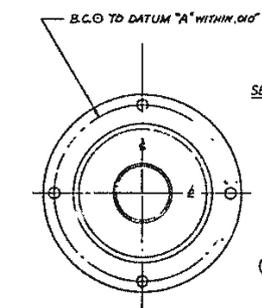
DETAIL B
(18-211-216 (18-2))



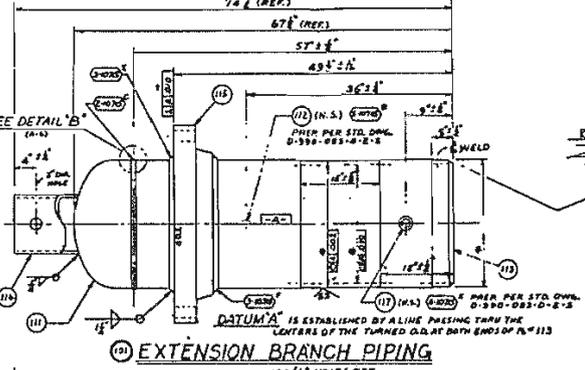
DETAIL D AS SHOWN (18-2)
DETAIL E O.P. HARDWARE (18-2)



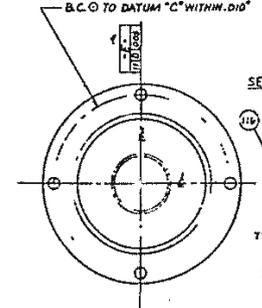
STEP 2
MACHINING
DETAIL Z (18-2)



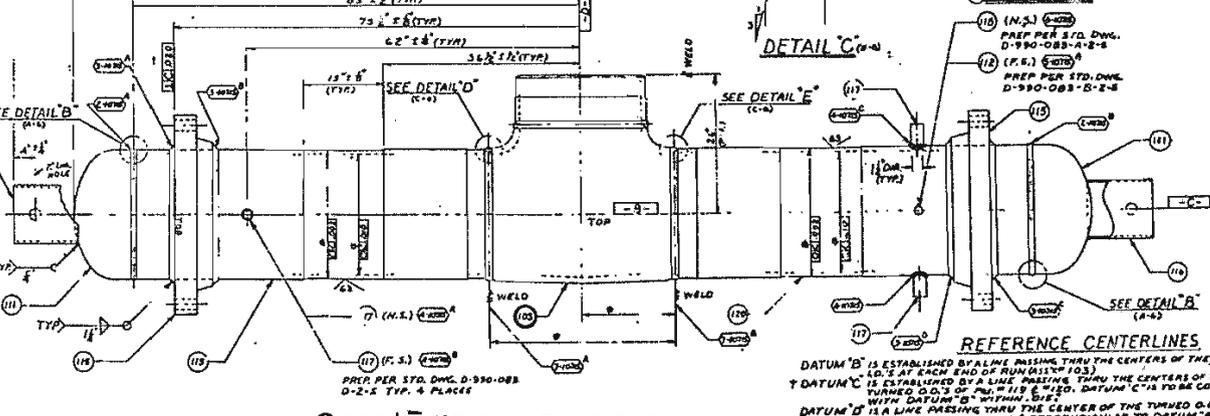
END VIEW



⑬ EXTENSION BRANCH PIPING
100.5\"/>



END VIEW



⑭ TEE & EXTENSION RUN PIPING

NOTE:
"OUT OF ROUNDNESS" OF PIPE TO BE MEASURED.
I.D. DIMENSIONS REQUIRED FOR MACHINING TO
REMOVE MINIMUM OF MATERIAL SHALL BE DETER-
MINED. DIA. "B" & DIA. "D" MUST BE DETERMINED
FOR EACH WELD JOINT.

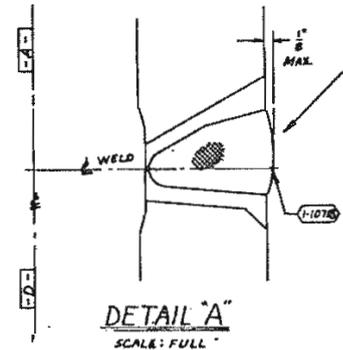
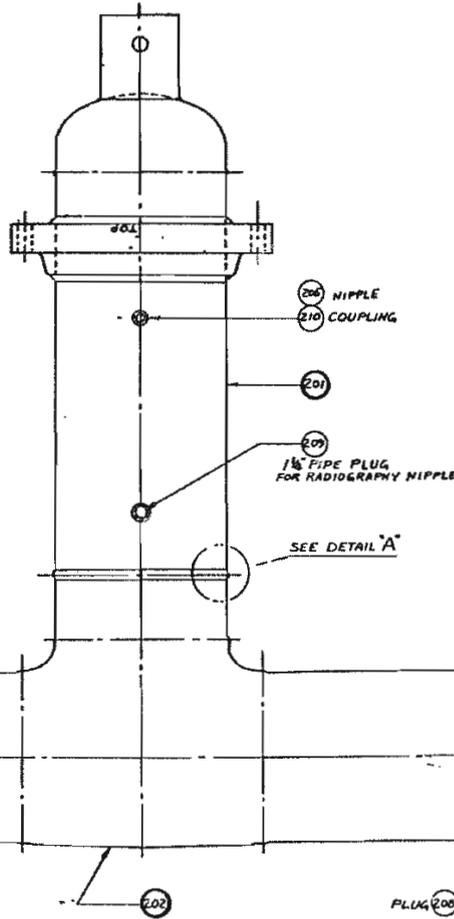
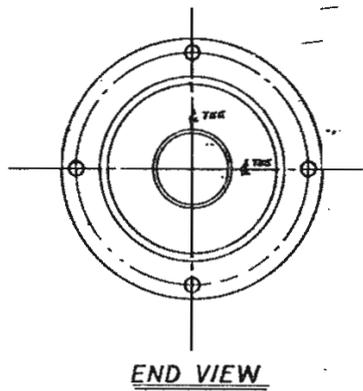
SHOP NOTES:
* DENOTES AS-BUILT DIMENSIONS TO BE
RECORDED AT FINAL MACHINING.
† DENOTES TOLERANCES TO MINIMIZE MIS-
ALIGNMENT OF COMPONENTS DURING TEST
PROGRAM. THESE TOLERANCES ARE
OBJECTIVES ONLY. RECORD DEVIATIONS.

LIST OF MATERIAL					
QTY	ITEM NO.	DESCRIPTION	MATERIAL	UNIT	REMARKS
100	1	TEE ASS'Y	CONSISTING OF:		
	101	CONV. FITTING	MISC. FITTING	QTY.	COMPL.
	102	CONV. FLANGE	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	103	PIPE	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	104	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	105	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	106	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	107	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	108	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	109	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	110	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	111	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	112	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	113	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	114	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	115	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	116	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	117	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	118	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	119	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	120	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	121	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	122	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	123	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	124	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	125	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	126	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	127	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	128	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	129	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	130	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	131	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	132	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	133	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	134	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	135	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	136	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	137	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	138	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	139	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.
	140	PIPE CAP	1" 1/2" DIA. SCH. 40	QTY.	COMPL.

WELD TABLE		REF. DWG. 10-10716
WELD MET.	WELD PIP.	
1-10716	10716	
1-10717	10717	
1-10718	10718	
1-10719	10719	
1-10720	10720	
1-10721	10721	
1-10722	10722	
1-10723	10723	
1-10724	10724	
1-10725	10725	
1-10726	10726	
1-10727	10727	
1-10728	10728	
1-10729	10729	
1-10730	10730	
1-10731	10731	
1-10732	10732	
1-10733	10733	
1-10734	10734	
1-10735	10735	
1-10736	10736	
1-10737	10737	
1-10738	10738	
1-10739	10739	
1-10740	10740	
1-10741	10741	
1-10742	10742	
1-10743	10743	
1-10744	10744	
1-10745	10745	
1-10746	10746	
1-10747	10747	
1-10748	10748	
1-10749	10749	
1-10750	10750	
1-10751	10751	
1-10752	10752	
1-10753	10753	
1-10754	10754	
1-10755	10755	
1-10756	10756	
1-10757	10757	
1-10758	10758	
1-10759	10759	
1-10760	10760	
1-10761	10761	
1-10762	10762	
1-10763	10763	
1-10764	10764	
1-10765	10765	
1-10766	10766	
1-10767	10767	
1-10768	10768	
1-10769	10769	
1-10770	10770	
1-10771	10771	
1-10772	10772	
1-10773	10773	
1-10774	10774	
1-10775	10775	
1-10776	10776	
1-10777	10777	
1-10778	10778	
1-10779	10779	
1-10780	10780	
1-10781	10781	
1-10782	10782	
1-10783	10783	
1-10784	10784	
1-10785	10785	
1-10786	10786	
1-10787	10787	
1-10788	10788	
1-10789	10789	
1-10790	10790	
1-10791	10791	
1-10792	10792	
1-10793	10793	
1-10794	10794	
1-10795	10795	
1-10796	10796	
1-10797	10797	
1-10798	10798	
1-10799	10799	
1-10800	10800	

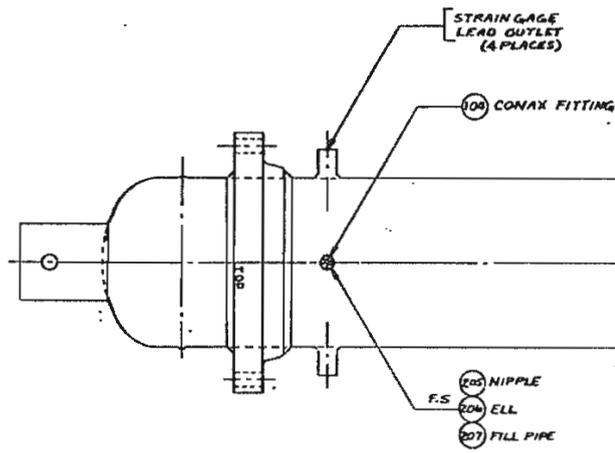
REFERENCE CENTERLINES
DATUM "B" IS ESTABLISHED BY A LINE PASSING THRU THE CENTERS OF THE TURNED I.D.'S AT EACH END OF RUN (117 & 118)
DATUM "C" IS ESTABLISHED BY A LINE PASSING THRU THE CENTERS OF THE OUTER TURNED O.D.'S OF 117 & 118
DATUM "D" IS ESTABLISHED BY A LINE PASSING THRU THE CENTER OF THE TURNED O.D. OF STUB PIPE ON BRANCH & PERPENDICULAR TO DATUM "C"
DATUM "E" IS A PLANE PASSING THRU THE CENTER OF TWO ALIGNMENT HOLES IN THE LAP JOINT FLANGES (116 & 118) SEE DETAIL.

SEE DETAIL B (18-2)
SEE DETAIL C (18-2)
SEE DETAIL D (18-2)
SEE DETAIL E (18-2)
SEE DETAIL Z (18-2)



CLOSING WELD PROCEDURE
 WELD CLOSING JOINT ACCORDING TO D.W.R WA-10718
 PREHEAT INTERPASS TEMPERATURES } 60°F. MIN. MONITORED & CONTROLLED TO AVOID OVERHEATING OF STRAIN GAGES
 POST HEAT } NONE
 FILLER METAL FOR INITIAL PASSES USING GAS TUNGSTEN ARC. } INCO 82
 ELECTRODE FOR SUBSEQUENT PASSES USING METAL ARC. } INCO 182

NOTES:
 1. DATUM "R" TO BE COINCIDENT WITH DATUM "D" WITHIN .015"
 2. A PLANE INTERSECTING THE CENTERS OF THE TWO LATERAL ALIGNMENT HOLES IN BRANCH PIPING PLANGE MUST BE 11 TO DATUM "C" WITHIN .015"



200 TEE ASSY

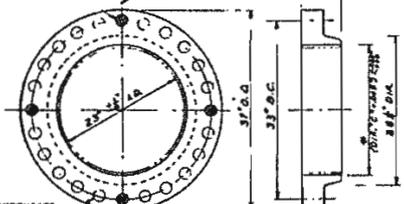
REF. DWG. SE-10719
 THIS DRAWING MADE BY CHATTANOOGA DIVISION

5469

TEE ASSY.	
MARK NO. T-11	
24" x 24" x 24" SCH. #160	
ORNL TEE TEST	
Size: 1 1/2" - 1" O	Date: 8/23/63
Material: CAST IRON	By: J.L. HARRIS
<small>This Drawing is the Property of COMBUSTION ENGINEERING, INC., WINDSOR, CONN. and is made to the requirements, but subject to the terms and conditions of the contract under which it was prepared. It is not to be used for any other purpose without the written consent of COMBUSTION ENGINEERING, INC.</small>	
DRAWING NO. SD-10718-2	

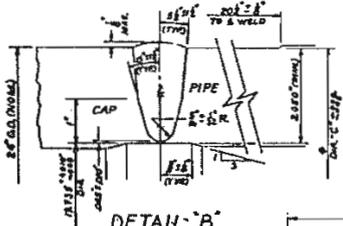
DRILL THRU BRANCHES
TO BE LOCATED
& HANGERS DRAINED WITH
A TYPICALITY

USING A VIBRATORY MARKER
(TOP) & SCRIBE BE ON O.D.
(1.5" DIA.) & TO PASS THRU
CENTERS OF LINES ON HANGERS

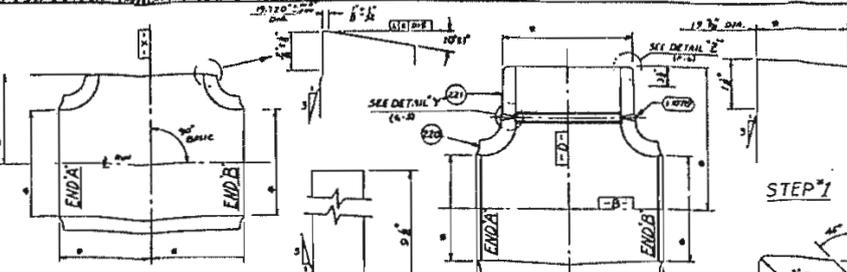


① LAP JOINT FLANGE

FLANGE PURCHASED
WITH 24" O.D. HOLES
EQUALLY SPACED ON 27" C.



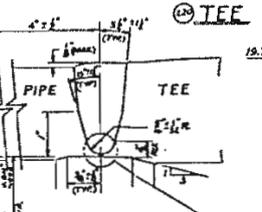
DETAIL B



STEP 1

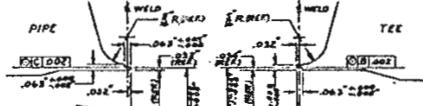
② TEE SUB ASSY

STEP 2
DETAIL Z



DETAIL D
DETAIL E

③ STUB PIPE



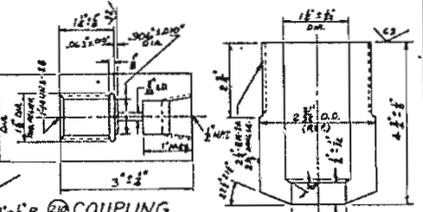
STEP 1

STEP 2

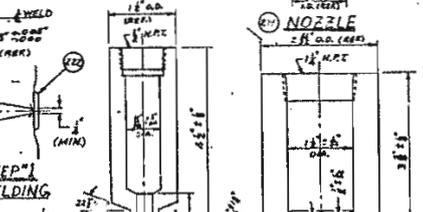
DETAIL A

LIST OF MATERIAL				QTY	UNIT	NOTE
ITEM NO.	QTY	UNIT	NOMENCLATURE			
100	1	TEE ASSY	CONSISTING OF:			
101	1	FLANGE FITTING	CONSISTING OF:			
102	2	PIPE NIPPLE	1/2" DIA. 1/2" L.			
103	1	FLANGE	1/2" DIA. 1/2" L.			
104	1	PIPE PLUG	1/2" DIA. 1/2" L.			
105	1	COUPLING	1/2" DIA. 1/2" L.			
106	1	EXTENSION BRANCH PIPING	CONSISTING OF:			
107	1	PIPE CAP	1/2" DIA. 1/2" L.			
108	1	NOZZLE	1/2" DIA. 1/2" L.			
109	1	NOZZLE	1/2" DIA. 1/2" L.			
110	1	PIPE EXTENSION	1/2" DIA. 1/2" L.			
111	1	PIPE EXTENSION	1/2" DIA. 1/2" L.			
112	1	PIPE EXTENSION	1/2" DIA. 1/2" L.			
113	1	TEE SUB ASSY	CONSISTING OF:			
114	1	TEE	1/2" DIA. 1/2" L.			
115	1	STUB PIPE	1/2" DIA. 1/2" L.			
116	1	BACKING RING	1/2" DIA. 1/2" L.			

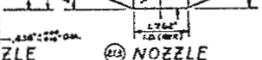
NOTE:
"OUT OF ROUNDNESS" OF PIPE TO BE
REQUIRED. LEADERS ARE REQUIRED
FOR MACHINING TO REMOVE MINIMUM
OF MATERIAL SHALL BE DETERMINED.
DIA. "A" MUST BE DETERMINED FOR EACH
WELD JOINT. DETERMINED ON OUTSIDE
OF PIPE TO REMOVE MIN. OF MATERIAL
TO CLEAN UP ONLY. 0.005" MIN. WALL
THICKNESS MUST BE MAINTAINED.



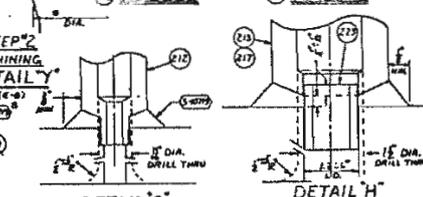
④ COUPLING



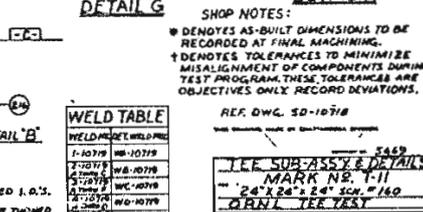
⑤ NOZZLE



⑥ NOZZLE



⑦ BACKING RING



⑧ TEE & EXTENSION RUN PIPING

SHOP NOTES:
* DENOTES AS-BUILT DIMENSIONS TO BE
RECORDED AT FINAL MACHINING.
† DENOTES TOLERANCES TO MINIMIZE
MISALIGNMENT OF COMPONENTS DURING
TEST PROGRAM. THESE TOLERANCES ARE
OBJECTIVES ONLY. RECORD DEVIATIONS.

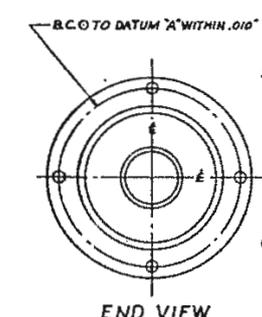
REF. DWG. 50-10718

WELD	WELD	WELD
1-10718	WB-10719	WF-10719

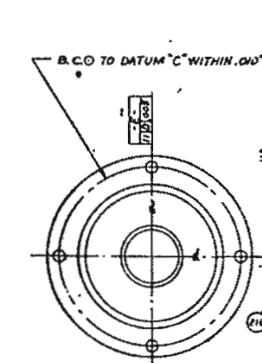
REF. DWG. 50-10718

TEE SUB ASSY & DETAILS
MARK NO. 1-11
24" X 24" X 24" 304" X 160"
DRILL TEE TEE
DATE: 1/19/50
BY: J.E. BROWN
CHECKED: J.E. BROWN
APPROVED: J.E. BROWN

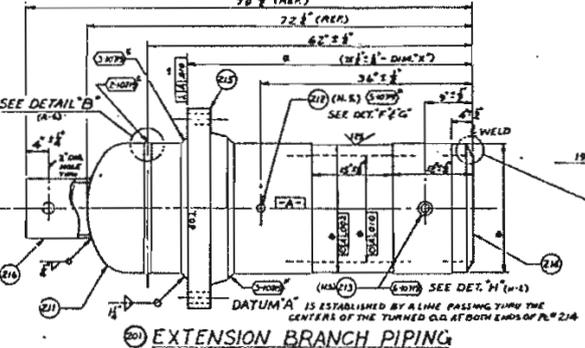
REFERENCE CENTERLINES
DATUM "B" IS ESTABLISHED BY A LINE PASSING THRU THE CENTERS OF THE TURNED I.O.S.
† DATUM "C" IS ESTABLISHED BY A LINE PASSING THRU THE CENTERS OF THE OUTER TURNED
O.D. ON THE BRANCH & PERPENDICULAR TO DATUM "B".
† DATUM "D" IS A LINE PASSING THRU THE CENTER OF THE TURNED O.D. ON THE STUB PIPE ON
THE BRANCH & PERPENDICULAR TO DATUM "B".
† DATUM "E" IS A LINE PASSING THRU THE CENTERS OF TWO ALIGNMENT HOLES IN THE LAP
JOINT FLANGES (P. 215) SEE DETAIL.



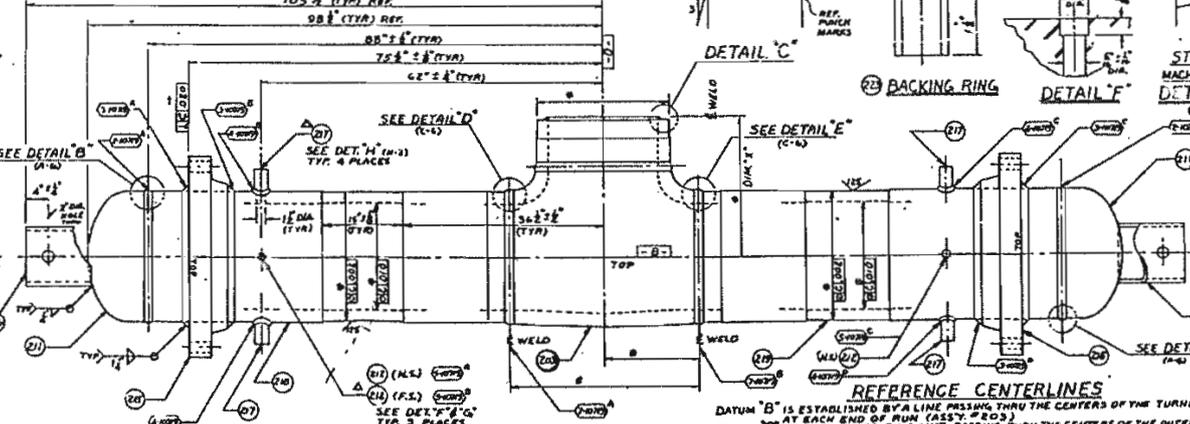
END VIEW



END VIEW



⑨ EXTENSION BRANCH PIPING



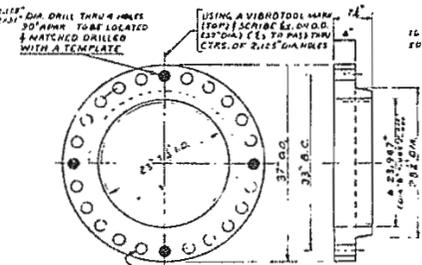
⑩ TEE & EXTENSION RUN PIPING

Δ REF. #17 POINTED 45° APPROX

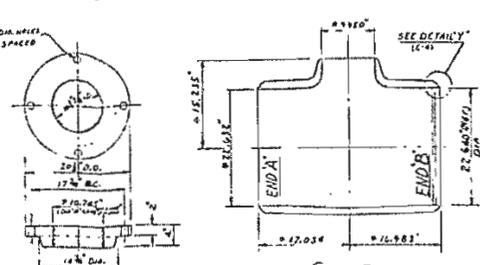
LIST OF MATERIAL

Table with columns: QTY, PART NO., DIMS, DESCRIPTION, MATERIAL, FINISH, and NOTES. Lists various components like TEE ASSY, COUPLER, PIPE CAP, and PIPE EXTENSION ASSY.

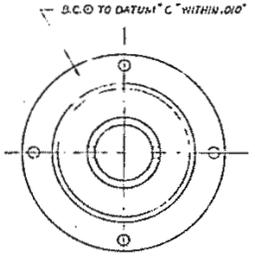
NOTE "A" MAKE FROM END "B" OF ASSY. #100 MODIFIED AS SHOWN SEE DWG. SD-10714



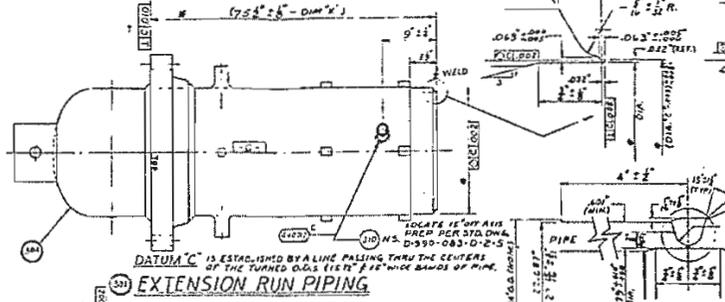
LAP JOINT FLANGE



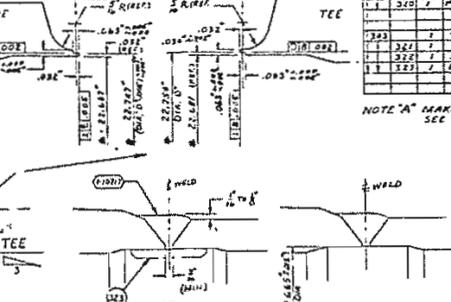
TEE SUB ASSY



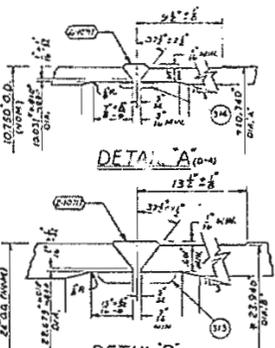
END VIEW



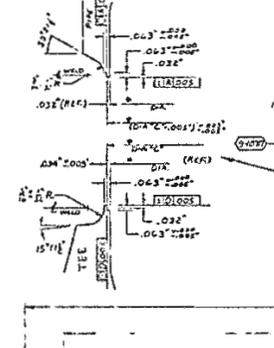
EXTENSION RUN PIPING



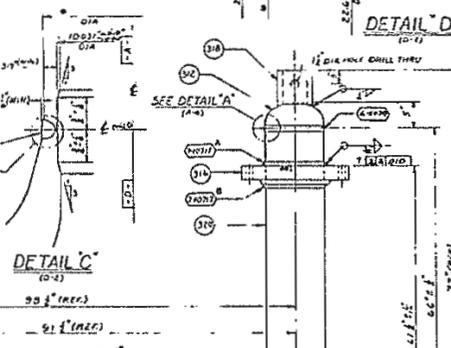
STUB PIPE



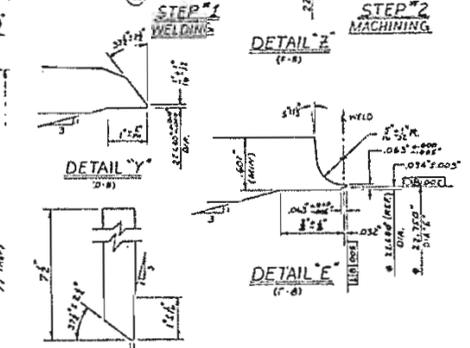
DETAIL A



DETAIL B



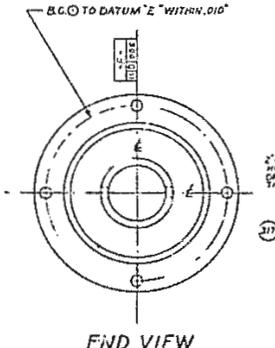
DETAIL C



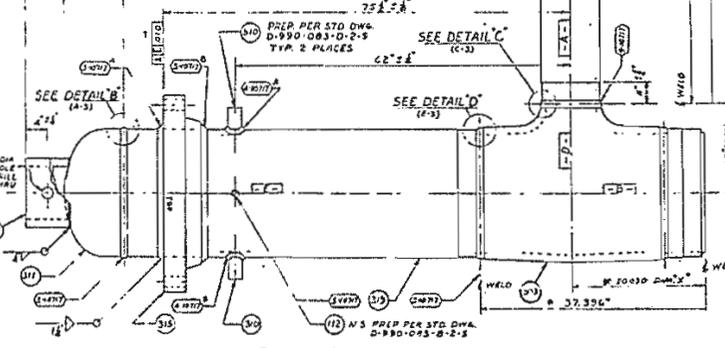
DETAIL D



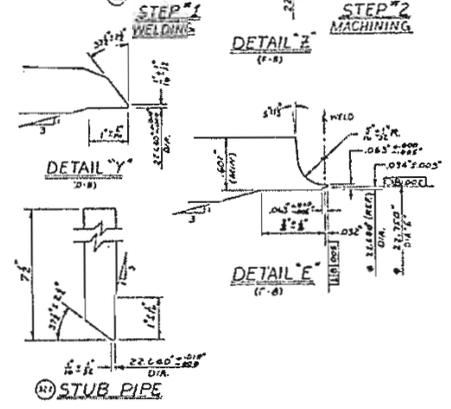
DETAIL E



END VIEW



TEE & PIPE EXTENSION ASSY



DETAIL F



DETAIL G

REFERENCE CENTERLINES DATUM 'A' IS ESTABLISHED BY A LINE PASSING THROUGH THE CENTERS OF THE TURNED O.D. AT BOTH ENDS OF R. # 303... DATUM 'D' IS ESTABLISHED BY A LINE PASSING THROUGH THE CENTERS OF THE TURNED I.D. OF THE BRANCH...

WELD TABLE

Table with columns: WELD TYPE, WELD PACE, and other specifications for different weld types.

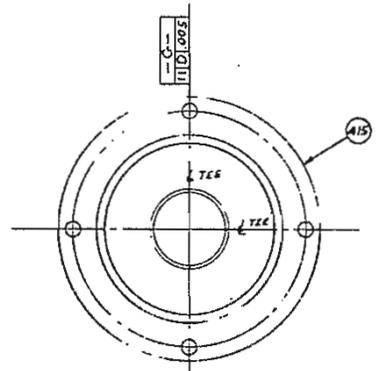
NOTE: "OUT OF ROUNDNESS" OF PIPE TO BE MEASURED I.D. DIMENSIONS REQUIRED FOR MACHINING TO REMOVE MINIMUM OF MATERIAL...

SHOP NOTES: DENOTES AS-BUILT DIMENSIONS TO BE RECORDED AT FINAL MACHINING. 1 DENOTES TOLERANCES TO MINIMIZE MISALIGNMENT OF COMPONENTS DURING TEST PROGRAM...

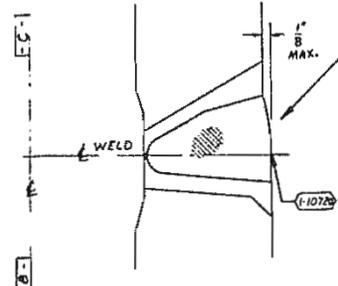
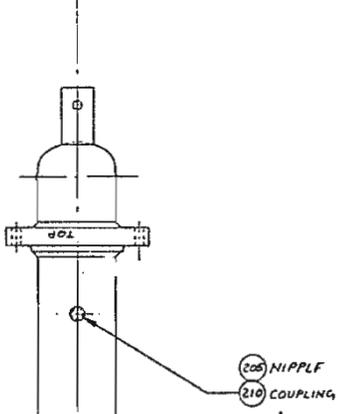
REF. DWG. SD-10714

Block containing a logo, company name 'CONVENTION ENGINEERING, INC.', and drawing number 'SE-10717-5'.

REVISED 11 REVERSE LEFT HAND THREAD PER MIL STD 618-70



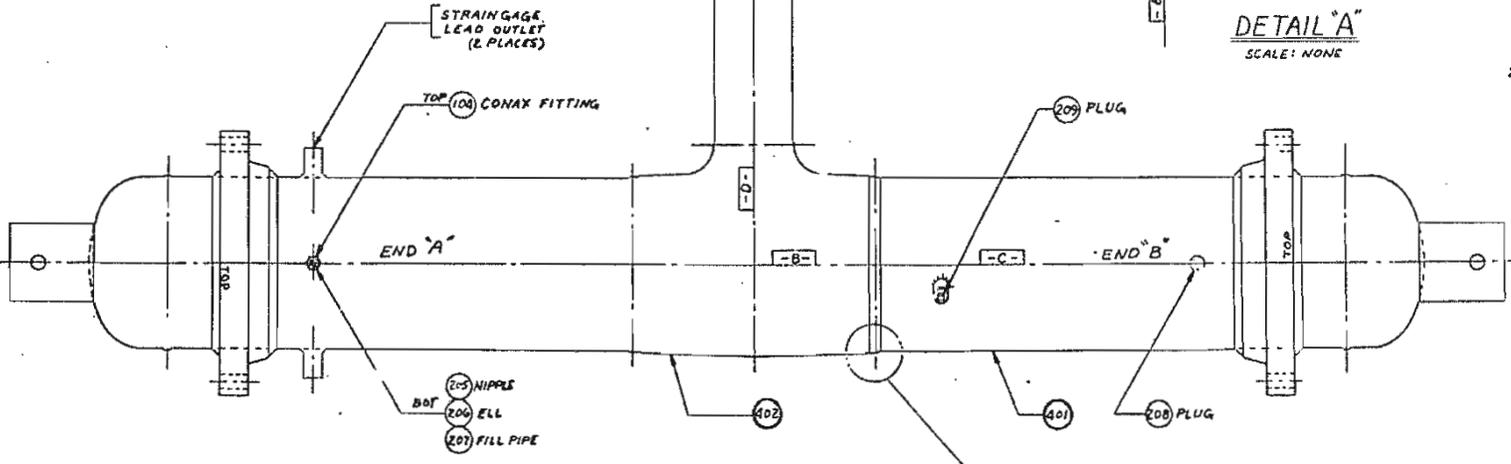
END VIEW
END "B"



DETAIL "A"
SCALE: NONE

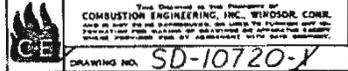
CLOSING WELD PROCEDURE
 WELD CLOSING JOINT ACCORDING TO DWR WA-10720
 PREHEAT INTERPASS TEMPERATURE } 60°F. MIN. MONITORED & CONTROLLED TO AVOID OVERHEATING OF STRAIN GAGES
 POST HEAT } NONE
 FILLER METAL FOR INITIAL PASSES USING GAS TUNGSTEN ARC ELECTRODE FOR SUBSEQUENT PASSES USING METAL ARC } INCO 82 INCO 182

NOTES:
 1. DATUM "C" TO BE COINCIDENT WITH DATUM "B" WITHIN .015"
 2. DATUM "G" IS A PLANE PASSING THRU THE CENTERS OF THE TWO ALIGNMENT HOLES IN THE LAP JOINT PLANES (Pc. # 415) SEE END VIEW

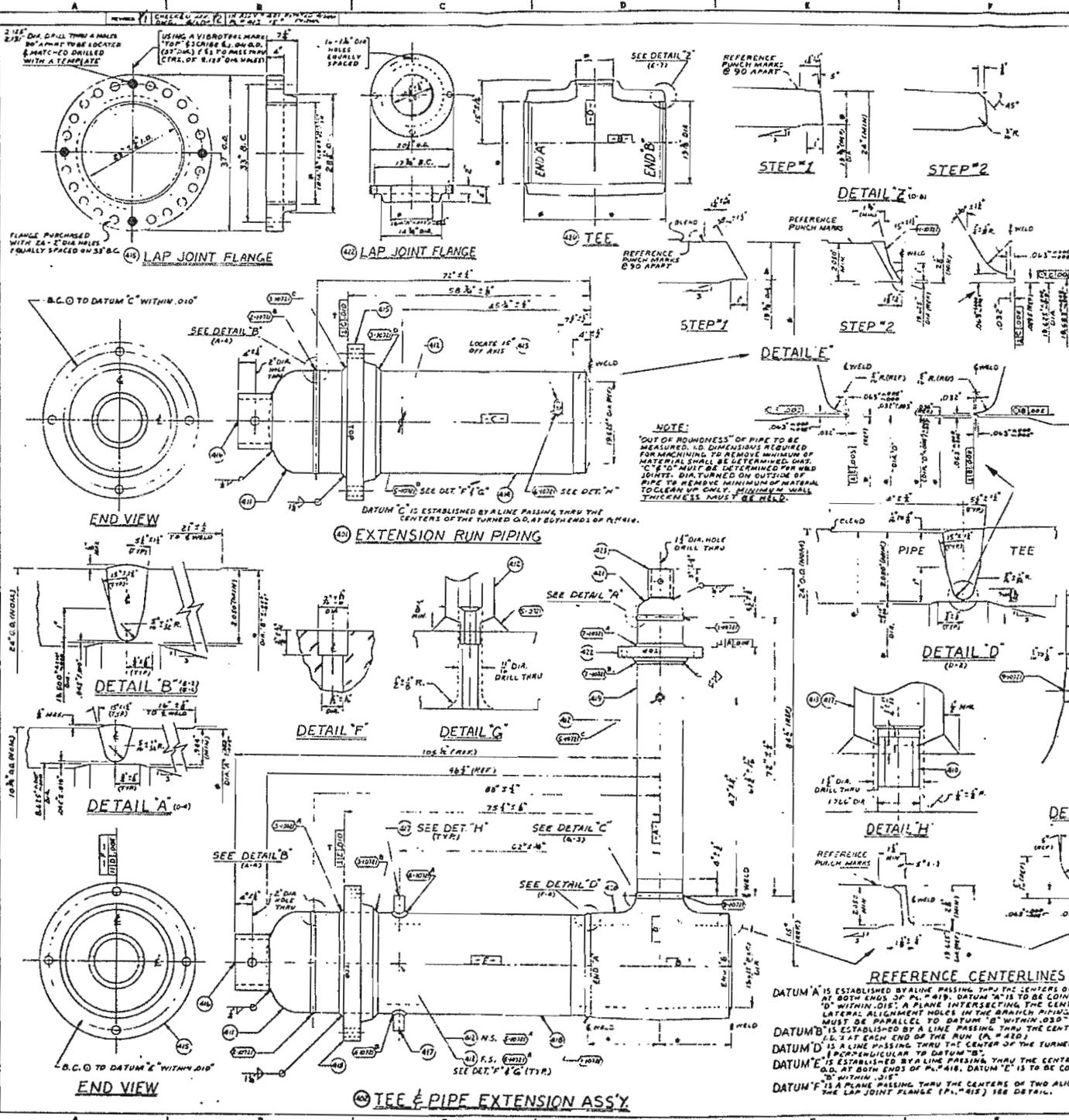


REF. DWG. SE-10721
 THIS DRAWING MADE BY CHATTWOOD DIVISION

DRAWING NO. 5469 TEE ASSY. MARK NO. T-13 24" x 24" x 10" SCH. # 160 ORNL TEE TEST	
DATE 11/17/55 DRAWN BY EASTREL	DATE 11/17/55 CHECKED BY



DRAWING NO. SD-10720-Y
 6 X-96341



LIST OF MATERIAL				
QTY	ITEM NO.	DESCRIPTION	UNIT	REMARKS
1	400	TEE	1	
1	401	EXTENSION RUN PIPING	1	
1	402	LAP JOINT FLANGE	1	
1	403	NOZZLE	1	
1	404	PIPE FLANGE	1	
1	405	PIPE FLANGE	1	
1	406	COUPLING	1	
1	407	TEE PIPE EXTENSION ASSY	1	
1	408	BRANCH PIPE	1	
1	409	NOZZLE CAP	1	
1	410	NOZZLE	1	
1	411	NOZZLE	1	
1	412	PIPE EXTENSION	1	
1	413	LAP JOINT FLANGE	1	
1	414	LAP JOINT FLANGE	1	
1	415	CRACK PIPE	1	
1	416	TEE PIPE EXTENSION ASSY	1	
1	417	BRANCH PIPE	1	
1	418	NOZZLE	1	
1	419	PIPE EXTENSION	1	
1	420	EXTENSION RUN PIPING	1	
1	421	TEE	1	
1	422	LAP JOINT FLANGE	1	
1	423	PIPE FLANGE	1	

SHOP NOTES:

- DENOTES AS-BUILT DIMENSIONS TO BE RECORD AT FINAL MACHINING.
- † DENOTES TOLERANCES TO MINIMIZE MISALIGNMENT OF COMPONENTS DURING TEST PROGRAM. THESE TOLERANCES ARE OBJECTIVES ONLY. RECORD DEVIATIONS.

WELD TABLE

WELD NO.	DESCRIPTION	WELD TYPE
1	WELDED	WELDED
2	WELDED	WELDED
3	WELDED	WELDED
4	WELDED	WELDED
5	WELDED	WELDED
6	WELDED	WELDED
7	WELDED	WELDED
8	WELDED	WELDED
9	WELDED	WELDED
10	WELDED	WELDED
11	WELDED	WELDED
12	WELDED	WELDED
13	WELDED	WELDED
14	WELDED	WELDED
15	WELDED	WELDED
16	WELDED	WELDED
17	WELDED	WELDED
18	WELDED	WELDED
19	WELDED	WELDED
20	WELDED	WELDED

REFERENCE CENTERLINES

REF. DWG. SD-10720

TEE SUB-ASSY & DETAILS

MARK NO. T-13

24" x 24" TOP COR. 160

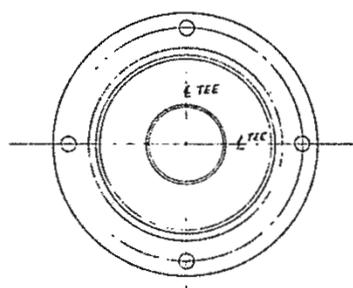
DATE: 11/27/72

BY: [Signature]

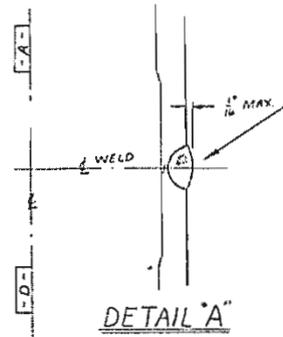
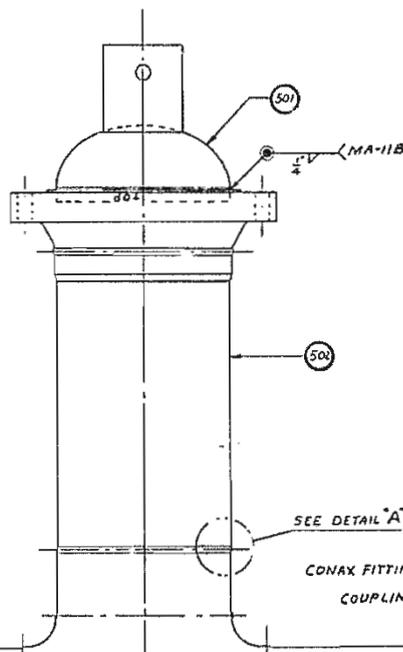
CHECKED: [Signature]

SE-10721-Z

REVISED



END VIEW



DETAIL "A"

CLOSING WELD PROCEDURE
 WELD CLOSING JOINT ACCORDING TO D.W.R. WA-1155 B

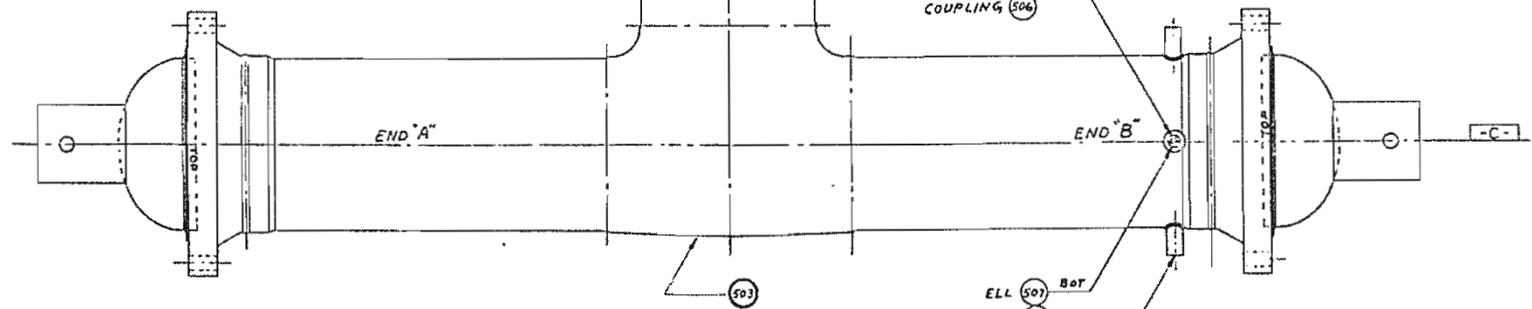
PREHEAT INTERPASS TEMPERATURE } 60°F. MIN. MONITORED & CONTROLLED TO AVOID OVERHEATING OF STRAIN GAGES

POST HEAT FILLER METAL FOR INITIAL PASSES USING GAS TUNGSTEN ARC. ELECTRODE FOR SUBSEQUENT PASSES USING METAL ARC. } NONE

30B
 30B-15

NOTES:

- DATUM "A" TO BE COINCIDENT WITH DATUM "D" WITHIN .015"
- PLANE INTERSECTING THE CENTERS OF THE TWO LATERAL ALIGNMENT HOLES IN BRANCH PIPING FLANGE MUST BE 11 TO DATUM "C" WITHIN .015"



500 TEE ASS'Y

ELL 501 BOT
 FILL PIPE 508

STRAIN GAGE LEAD OUTLET (2 PLACES)

REF. DWG. SE-11559
 THIS DRAWING MADE BY CHATTANOOGA

CONTRACT NO. 5469

TEE ASSEMBLY
 MARK NO. T-16
 FOR 24" x 24" x 24" SCH. #10
 ORNL TEE TEST

SCALE: DRAWN BY CASTEEL DATE: 4/22/71
 CHECKED BY G. HAYES APPROVED

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DRAWING NO. SD-11558-X

2.516" DIA. DRILL THRU ANGLES
TO DATUM 'A' TO BE LOCATED
& MOUNTED ON A TEMPLAT.

USING A VERTICAL MARK
STOP & SCRIBE & WELD
STOPS TO TEST INDICATING
CENTERS OF 2.516 DIA. HOLE



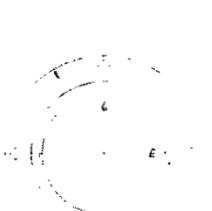
WELD NECK FLANGE



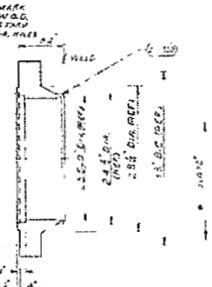
DETAIL B

SEE ENLARGED DET
FIG. 2

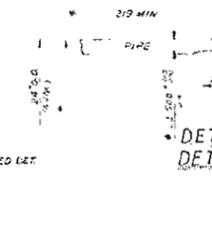
5/16" TO DATUM 'A' WITHIN .010"



END VIEW



TEE



DETAIL D

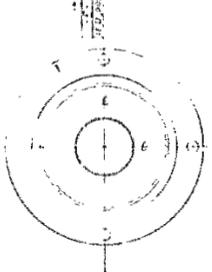


DETAIL E

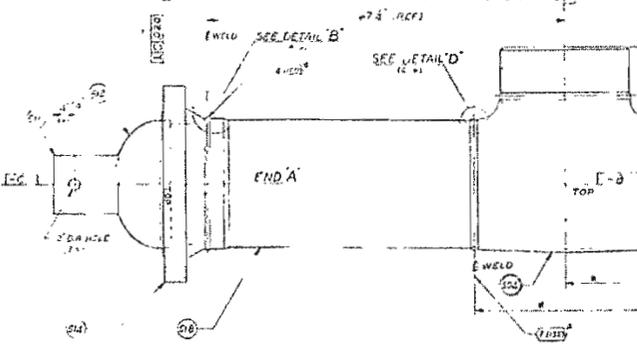
EXTENSION BRANCH PIPING

DATUM 'A' IS ESTABLISHED BY A LINE PASSING THRU THE
CENTERS OF THE TURNED END AT BOTH ENDS OF PIPE

5/16" TO DATUM 'C' WITHIN .010"



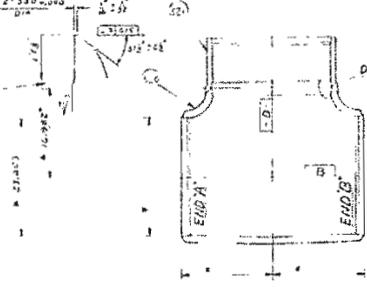
END VIEW



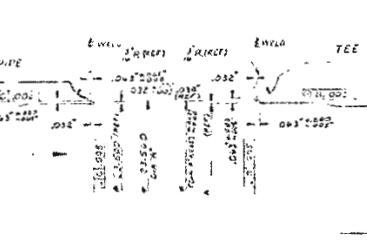
TEE & EXTENSION RUN PIPING

SEE DETAIL B (14)
REFERENCE CENTERLINES

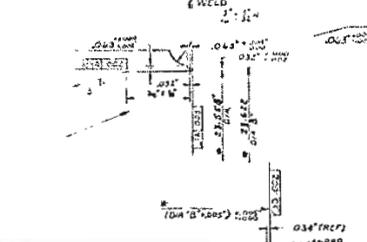
DATUM 'B' IS ESTABLISHED BY A LINE PASSING THRU THE CENTERS OF THE TURNED
ENDS AT EACH END OF PIPE (AS SHOWN)
↑ DATUM 'C' IS ESTABLISHED BY A LINE PASSING THRU THE CENTERS OF THE OUTER
TURNED ENDS OF PIPE (AS SHOWN). DATUM 'C' IS TO BE COINCIDENT
WITH DATUM 'B' WITHIN .015"
↑ DATUM 'D' IS A LINE PASSING THRU THE CENTER OF THE TURNED END OF THE
STUB PIPE ON BRANCH & PERPENDICULAR TO DATUM 'B'.
↑ DATUM 'E' IS A PLANE PASSING THRU THE CENTERS OF TWO ALIGNMENT HOLES
IN THE LAP JOINT FLANGES (FIG. 516). SEE DETAIL.



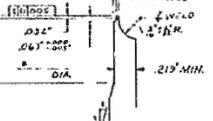
TEE SUB ASSY



STEP 2
FINISHING
DETAIL A



ENLARGED DETAIL A



DETAIL C

STUB PIPE

SEE DETAIL FIG. 2
(15) (16)

LIST OF MATERIAL

QTY	DESCRIPTION	UNIT	NOTE
1	TEE SUB ASSY	1	
1	EXTENSION BRANCH PIPING	1	
1	WELD NECK FLANGE	1	
1	STUB PIPE	1	
1	TEE	1	



DETAIL F

NOTE: DIMENSIONS OF BUILT DIMENSIONS TO BE
APPROVED AT FINAL MACHINING.
DIMENSIONS TO BE WITHIN .010" MIN.
ALIGNMENT OF COMPONENTS TO BE AS TEST
PROGRAM THESE TOLERANCES ARE
OBJECTIVES ONLY. REQUIRED DIMENSIONS
IF NOT INDICATED TO BE MEASURED
OR DIMENSIONS REQUIRED FOR MACHINING TO
NEED MINIMUM OF MATERIAL SHALL BE
DETERMINED. DIM. AT 90° MUST BE
OBTAINED FOR EACH WELD JOINT.

WELD TABLE

REF. QTC. 50-11559

MATERIAL	PREP	WELD
SAE 1045	FLAME CUT	E7018
SAE 1020	FLAME CUT	E7018
SAE 1018	FLAME CUT	E7018
SAE 1015	FLAME CUT	E7018
SAE 1010	FLAME CUT	E7018
SAE 1008	FLAME CUT	E7018
SAE 1005	FLAME CUT	E7018
SAE 1003	FLAME CUT	E7018
SAE 1001	FLAME CUT	E7018

APPENDIX V

TABULATION OF STRAINS AND STRESSES AFTER BEING
SUBJECTED TO THE DIAGNOSTIC TESTS
OF COMPUTER CODE NOSEY

COMBUSTION T-10, LOAD CASE 1, MAX

NOMINAL LOAD = 2.850E 05

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
0-1K1-A	3	2	1	9.7	-33.8	-75.1	9.7	-75.1	-0.42	-2.38	89.2	-2.38	-0.42	0.03	0.06
0-1K1-B	6	5	4	24.9	-17.4	-56.8	25.1	-56.9	0.33	-1.43	86.6	-1.42	0.32	0.10	0.03
0-1K1-C	9	8	7	34.1	-33.4	-67.8	36.7	-70.4	0.51	-1.96	81.0	-1.90	0.45	0.38	0.04
0-1K1-D	11	11	10	46.3	-41.8	-77.3	45.0	-81.2	0.67	-2.23	79.2	-2.15	0.57	0.54	0.06
0-1K1-E	13	14	13	30.2	-34.6	-38.6	41.7	-50.1	0.88	-1.24	69.3	-0.98	0.61	0.70	0.03
0-1K1-F	16	17	16	26.3	-17.4	-12.5	38.0	-24.2	1.01	-0.42	70.7	-0.26	0.86	-0.45	0.04
0-1K1-G	21	20	19	26.3	0.6	-16.4	30.1	-12.1	0.87	-0.10	-11.7	0.83	-0.06	-0.19	0.03
0-1K1-H	24	23	22	15.8	15.1	-6.3	19.9	-16.5	0.55	-0.15	21.6	0.46	-0.05	0.24	0.02
0-1K1-I	27	26	25	1.5	8.9	-4.5	9.3	-12.3	0.19	-0.31	37.0	0.01	-0.13	0.24	0.02
0-1K1-J	30	29	28	-1.8	1.1	-4.5	1.3	-7.4	-0.03	-0.23	38.5	-0.16	-0.16	0.10	0.04
0-1K1-K	33	32	31	-1.0	2.1	-3.7	2.2	-7.9	-0.01	-0.24	40.2	-0.10	-0.14	0.12	0.03
1-1K1-A	328	329	330	-32.5	-14.2	14.9	15.5	-33.1	0.18	-0.94	-83.6	-0.92	0.17	-0.12	0.03
1-1K1-B	331	332	333	-36.3	-27.7	-9.9	-9.5	-38.8	-0.70	-1.37	-82.9	-1.36	-0.71	-0.08	0.04
1-1K1-C	334	335	336	-15.2	-32.0	-48.2	-15.2	-48.2	-0.98	-1.74	-0.4	-0.98	-1.74	-0.01	0.04
1-1K1-D	337	338	339	5.8	-20.2	-55.7	6.1	-56.1	-0.35	-1.79	4.4	-0.36	-1.78	0.11	0.05
1-1K1-E	340	341	342	-3.7	3.2	-22.1	5.6	-31.3	-0.12	-0.98	50.1	-0.34	-0.76	0.37	0.03
1-1K1-F	343	344	345	-20.0	7.2	-9.7	8.5	-34.2	-0.06	-1.04	9.8	-0.09	-1.02	0.16	0.04
1-1K1-G	346	347	348	-13.4	6.1	-4.3	8.7	-26.4	0.03	-0.76	-37.5	-0.27	-0.48	-0.39	0.03
1-1K1-H	349	350	351	0.8	10.4	-0.8	10.4	-10.4	0.24	-0.24	-47.2	-0.02	0.02	-0.24	0.04
1-1K1-I	352	353	354	2.6	8.0	2.7	8.0	-2.7	0.24	-0.01	-44.8	0.12	0.11	-0.12	0.03
1-1K1-J	355	356	357	2.6	3.6	2.0	3.6	0.9	0.13	0.07	-51.1	0.09	0.10	-0.03	0.03
1-1K1-L	358	359**	360**	0.8	0.0	0.0	0.9	-0.2	0.03	0.00	67.5	0.01	0.02	0.01	0.03
0-1K2-A	36	35	34	19.7	-34.2	-41.7	27.6	-49.5	0.42	-1.36	71.4	-1.18	0.24	0.54	0.04
0-1K2-B	39	38	37	26.6	-22.4	-23.1	37.4	-34.0	0.90	-0.75	67.0	-0.50	0.65	0.59	0.03
0-1K2-C	42	41	40	25.4	-27.7	-28.1	36.3	-38.9	0.81	-0.92	67.7	-0.67	0.56	0.61	0.02
0-1K2-D	45	44	43	16.0	-32.0	-38.9	25.2	-46.1	0.37	-1.27	71.4	-1.10	0.21	0.50	0.03
0-1K2-E	48	47	46	15.1	-24.1	-49.5	15.8	-50.2	0.02	-1.50	84.0	-1.48	0.01	0.16	0.05
0-1K2-F	51	50	49	14.5	-8.7	-44.2	15.2	-44.9	0.06	-1.33	-39.1	-0.50	-0.78	-0.68	0.05
0-1K2-G	54	53	52	5.3	-5.4	-6.7	10.5	-6.0	0.29	-0.09	-34.4	0.17	0.02	-0.18	0.01
0-1K2-H	57	56	55	-5.4	-7.5	-36.1	-0.4	-31.1	-0.42	-1.36	20.5	-0.54	-1.24	0.31	0.04
0-1K2-I	60	59	58	-9.6	-13.2	-33.5	-7.0	-36.1	-0.59	-1.26	17.4	-0.65	-1.20	0.19	0.04
0-1K2-K	65	62	61	-4.6	-12.6	-30.8	-3.6	-21.8	-0.43	-1.08	10.6	-0.46	-1.06	0.12	0.05
0-1K2-L	66	65	64	-20.3	-15.0	-13.7	-14.9	-24.1	-0.73	-0.94	50.0	-0.86	-0.82	0.10	0.06
1-1K2-A	361	362	363	-26.0	-20.4	-17.7	-17.4	-26.9	-0.84	-1.06	79.6	-1.05	-0.85	0.04	0.05
1-1K2-B	364	365	366	-26.5	-21.3	-31.6	-20.9	-37.2	-1.06	-1.43	35.9	-1.18	-1.30	0.18	0.04
1-1K2-C	367	368	369	-11.5	-18.0	-45.1	-8.5	-48.0	-0.75	-1.67	15.5	-0.82	-1.60	0.23	0.04
1-1K2-D	370	371	372	16.4	-4.9	-45.0	17.8	-46.4	0.13	-1.35	8.5	0.10	-1.32	0.22	0.03
1-1K2-E	373	374	375	34.9	17.0	-30.7	38.1	-33.9	0.92	-0.74	12.2	0.85	-0.67	0.34	0.03
1-1K2-F	376	277	378	34.5	21.1	-24.2	38.6	-28.3	0.99	-0.55	-30.7	0.59	-0.15	-0.68	0.02
1-1K2-G	379	380	381	44.0	22.8	-18.4	45.5	-20.0	1.30	-0.21	-81.1	-0.17	1.27	-0.23	0.04
1-1K2-H	382	383	384	49.4	32.7	-5.9	51.5	-7.9	1.62	0.25	-79.2	0.30	1.57	-0.25	0.03
1-1K2-J	385	386**	387	50.5	0.0	-3.5	59.2	-12.3	1.83	0.18	69.5	0.38	1.63	0.54	0.03
1-1K2-K	388	389	390	39.7	14.7	-4.0	39.9	-4.2	1.27	0.26	85.9	0.26	1.27	0.07	0.03
1-1K2-L	391*	392	393	38.1	16.4	5.5	38.9	4.6	1.33	0.54	80.9	0.56	1.31	0.12	0.04
0-1K3-A	69	68	67	15.6	-2.3	3.0	22.5	-4.0	0.70	0.09	59.3	0.25	0.54	0.27	0.02
0-1K3-B	72	71	70	12.9	-3.8	4.9	22.3	-4.4	0.69	0.07	53.7	0.29	0.47	0.29	0.03
0-1K3-C	75	74	73	6.8	-8.7	4.6	20.1	-8.7	0.58	-0.09	47.3	0.22	0.27	0.33	0.03
0-1K3-D	78	77	76	3.7	-11.2	-7.1	9.8	-13.2	0.19	-0.34	59.0	-0.20	0.05	0.23	0.03
0-1K3-E	81	80	79	0.3	-15.5	-21.4	0.7	-22.4	-0.20	-0.73	77.8	-0.71	-0.22	0.11	0.05
0-1K3-F	84	83	82	-0.6	-13.5	-29.0	-0.5	-29.1	-0.30	-0.96	-42.4	-0.60	-0.66	-0.33	0.04

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAUGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
0-1R3-G	87	86	85	-7.5	-6.3	-27.3	-2.6	-32.3	-0.40	-1.09	24.2	-0.52	-0.97	0.26	0.03
0-1R3-H	90	89	88	-11.9	-7.7	-20.7	-5.2	-35.5	-0.52	-1.22	28.2	-0.68	-1.07	0.29	0.05
0-1R3-J	93	92	91	-10.5	-14.2	-31.3	-8.5	-33.3	-0.61	-1.16	16.4	-0.66	-1.14	0.16	0.05
0-1R3-K	96	95	94	-2.1	-14.5	-35.3	-4.1	-35.4	-0.48	-1.21	2.2	-0.49	-1.20	0.03	0.05
0-1R3-L	99	98	97	-31.0	-25.9	-21.0	-21.6	-31.0	-1.02	-1.24	87.3	-1.24	-1.02	0.01	0.09
1-1R3-A	394	395	396	-12.0	-15.6	-26.1	-11.2	-26.9	-0.63	.00	13.1	-0.65	-0.98	0.08	0.04
1-1R3-B	397	398	399	-5.1	-8.4	-26.0	-2.5	-30.6	-0.39	-0.03	17.7	-0.45	-0.97	0.19	0.04
1-1R3-C	400	401	402	6.3	-5.3	-27.6	7.1	-21.5	-0.05	-0.87	8.7	-0.07	-0.85	0.12	0.04
1-1R3-D	403	404	405	16.1	14.1	-16.9	21.6	-22.3	0.49	-0.52	20.7	0.36	-0.40	0.33	0.03
1-1R3-E	406	407	408	-32.5	28.3	-10.5	38.6	-16.6	1.11	-0.16	19.4	0.97	-0.02	0.40	0.02
1-1R3-F	409	410	411	46.9	24.1	-13.0	47.7	-13.8	1.44	0.02	-38.3	0.89	0.56	-0.69	0.03
1-1R3-G	412	413	414	51.0	22.3	-9.7	51.6	-9.7	1.61	0.19	-88.7	0.19	1.60	-0.03	0.04
1-1R3-H	415	416	417	57.9	17.9	-3.3	59.3	-4.7	1.91	0.43	81.5	0.47	1.86	0.22	0.03
1-1R3-J	418	419	420	55.2	29.0	-3.0	55.9	-3.6	1.81	0.43	87.1	0.45	1.79	0.14	0.04
1-1R3-K	421	422	423	41.0	14.3	-3.7	41.4	-4.1	1.32	0.27	84.5	0.28	1.31	0.10	0.03
1-1R3-L	424	425	426	24.6	14.9	13.0	25.0	12.2	0.98	0.66	71.4	0.69	0.95	0.10	0.04
0-1R4-A	102	101	100	5.4	19.1	15.7	20.5	0.6	0.68	0.22	-29.3	0.57	0.33	-0.20	0.03
0-1R4-B	105	104	103	-0.8	17.0	12.8	19.0	-0.9	0.56	-0.04	-29.1	0.42	0.10	-0.25	0.02
0-1R4-C	108	107	106	-5.1	17.0	10.6	19.0	-13.5	0.49	-0.26	30.6	0.30	-0.06	-0.33	0.03
0-1R4-D	111	110	109	-12.3	11.0	10.3	15.5	-17.5	0.34	-0.42	-23.5	0.22	-0.30	-0.28	0.03
0-1R4-E	114	113	112	-17.0	-1.8	8.0	8.3	-17.3	0.10	-0.49	38.8	-0.13	-0.26	0.29	0.03
0-1R4-F	117	116	115	-15.5	-13.5	0.1	2.0	-17.4	-0.11	-0.55	-71.6	-0.51	-0.15	-0.13	0.04
0-1R4-G	120	119	118	-12.1	-14.5	-7.4	-4.5	-15.0	-0.30	-0.54	-58.3	-0.47	-0.36	-0.11	0.02
0-1R4-H	123	122	121	-12.6	-13.9	-12.4	-10.4	-14.0	-0.48	-0.56	-41.5	-0.52	-0.53	-0.04	0.04
0-1R4-J	126	125	124	-19.7	-17.7	-12.3	-11.9	-20.1	-0.59	-0.76	-77.5	-0.77	-0.60	-0.04	0.03
1-1R4-A	427	428	429	-0.9	-4.9	-13.0	-0.6	-13.4	-0.15	-0.45	9.4	-0.16	-0.44	0.05	0.03
1-1R4-B	430	431	432	4.4	-6.7	-15.2	4.5	-15.3	-0.00	-0.46	-3.9	-0.01	-0.46	-0.03	0.03
1-1R4-C	433	434	435	5.3	-5.6	-8.4	6.4	-9.5	0.12	-0.25	-15.2	0.09	-0.22	-0.09	0.02
1-1R4-D	436	437	438	6.9	6.0	0.7	7.6	0.0	0.25	0.08	17.6	0.23	0.09	0.05	0.03
1-1R4-E	439	440	441	16.5	-16.0	5.8	18.3	4.0	0.64	0.31	-23.9	0.59	0.37	-0.12	0.03
1-1R4-F	442	443	444	25.6	17.1	2.6	26.0	2.2	0.88	0.33	-82.8	0.34	0.87	-0.07	0.03
1-1R4-G	445	446	447	25.2	-20.5	3.2	26.9	1.5	0.90	0.32	-75.1	0.36	0.86	-0.15	0.02
1-1R4-H	448	449	450	19.3	13.5	4.4	18.6	4.1	0.65	0.32	-81.5	0.33	0.65	-0.05	0.04
1-1R4-J	451	452	453	10.8	10.1	14.5	15.8	9.5	0.61	0.47	27.1	0.58	0.50	0.06	0.06
0-1R5-A	129	128	127	2.5	22.1	4.8	22.1	-14.8	0.58	-0.27	-43.2	0.18	0.13	-0.43	0.02
0-1R5-B	132	131	130	-0.2	23.8	5.4	23.9	-18.7	0.60	-0.38	-41.2	0.18	0.05	-0.49	0.02
0-1R5-C	135	134	133	1.0	24.3	3.0	24.3	-25.2	0.72	-0.54	-44.0	0.11	0.06	-0.63	0.02
0-1R5-D	138	137	136	9.9	29.8	-6.3	30.9	-27.3	0.75	-0.59	-53.1	-0.11	0.26	-0.65	0.02
0-1R5-E	141	140	139	2.5	29.1	1.1	29.1	-25.6	0.71	-0.55	44.2	0.09	0.06	0.63	0.02
0-1R5-F	144	143	142	-3.1	-24.3	1.5	22.8	-24.4	0.51	-0.58	-47.8	-0.09	0.02	-0.54	0.03
0-1R5-G	147	146	145	-2.2	-17.0	1.0	15.9	-17.1	0.35	-0.41	-47.8	-0.06	0.01	-0.38	0.02
0-1R5-H	150	149	148	-0.5	-8.0	-0.2	8.0	-8.6	0.18	-0.20	-45.2	-0.01	-0.01	-0.19	0.01
0-1R5-J	153	152	151	-2.3	-4.1	0.5	2.5	-4.4	0.04	-0.12	-57.2	-0.07	-0.01	-0.07	0.03
1-1R5-A	454	455	456	-0.8	-1.1	1.1	1.7	-1.5	0.04	-0.03	-63.4	-0.02	0.03	-0.03	0.02
1-1R5-B	457	458	459	-2.4	-9.8	1.4	8.9	-10.0	0.20	-0.24	-50.8	-0.07	0.02	-0.21	0.01
1-1R5-C	460	461	462	0.3	-12.0	-1.2	11.1	-12.1	0.25	-0.29	-43.1	-0.00	-0.04	-0.27	0.02
1-1R5-D	463	464	465	-0.9	-13.7	-1.4	11.3	-13.7	0.24	-0.34	-44.4	-0.04	-0.06	-0.29	0.02
1-1R5-E	466	467	468	-1.4	-14.9	-1.2	12.3	-14.9	0.26	-0.37	44.7	-0.05	-0.06	0.31	0.02
1-1R5-F	469	470	471	0.4	13.3	-2.6	13.3	-15.5	0.29	-0.38	-48.0	-0.06	-0.01	-0.33	0.02
1-1R5-G	472	473	474	-1.1	13.5	-3.3	13.6	-18.0	0.27	-0.46	-47.0	-0.12	-0.07	-0.36	0.02
1-1R5-H	475	476	477	-0.0	9.7	2.5	9.8	-7.3	0.25	-0.14	-40.7	0.05	0.03	-0.19	0.04
1-1R5-J	478	479	480	1.9	1.8	0.9	2.1	0.8	0.08	0.05	-71.6	0.05	0.07	-0.01	0.05
0-2R1-A	168	167	166	-15.8	29.4	64.3	64.7	-16.2	1.97	0.11	-4.0	1.96	0.11	-0.13	0.05
0-2R1-B	171	170	169	-22.9	22.5	61.5	61.6	-23.0	1.80	-0.15	-2.2	1.80	-0.15	-0.07	0.05
0-2R1-C	174	173	172	-27.7	11.3	74.5	75.9	-29.1	2.21	-0.21	6.7	2.18	-0.18	0.28	0.06
0-2R1-D	177	176	175	-29.2	-21.4	88.7	83.6	-44.2	2.32	-0.63	20.0	1.97	-0.28	0.95	0.06

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(I)	SIG(T)	TAU	CONF
0-2R1-E	180	179	178	-31.8	-35.4	30.3	45.7	-47.3	1.04	-1.11	24.1	0.68	-0.75	0.80	0.03
0-2R1-F	183	182	181	-30.8	-42.3	6.1	22.9	-47.5	0.28	-1.34	74.2	-1.22	0.16	0.43	0.04
0-2R1-G	186	185	184	-17.3	-51.3	-2.6	32.1	-52.0	0.54	-1.40	-50.0	-0.60	-0.26	-0.93	0.04
0-2R1-H	189	188	187	11.0	-44.4	-12.7	44.2	-46.0	1.00	-1.06	-37.4	0.24	-0.31	-1.00	0.03
0-2R1-J	192	191	190	20.0	-23.3	-9.1	37.6	-26.8	0.97	-0.51	-31.6	0.57	-0.10	-0.66	0.02
0-2R1-K	195	194	193	19.1	-7.4	-5.5	25.6	-12.0	0.73	-0.14	-24.6	0.58	0.01	-0.33	0.03
0-2R1-L	196	197	196	25.8	-12.7	1.6	42.7	-15.3	1.26	-0.08	-32.7	0.87	0.31	-0.61	0.02
1-2R1-A	493	494	495	40.8	8.3	-19.9	49.2	-20.2	1.42	-0.18	-4.3	1.41	-0.17	-0.12	0.04
1-2R1-B	496	497	498	47.3	18.8	3.3	48.3	2.4	1.62	0.56	-8.3	1.54	0.58	-0.15	0.04
1-2R1-C	500	500	501	20.1	31.3	41.6	41.6	20.1	1.57	1.07	88.7	1.07	1.57	0.01	0.04
1-2R1-U	502	503	504	-9.1	28.2	51.7	52.4	-9.9	1.63	0.19	83.6	0.21	1.61	0.16	0.03
1-2R1-E	505	506	507	7.9	31.0	21.5	32.4	-3.0	1.04	0.22	56.3	0.47	0.79	0.38	0.04
1-2R1-F	508	509	510	22.7	32.5	7.5	34.1	-3.8	1.09	0.21	-11.8	1.05	0.25	-0.18	0.03
1-2R1-G	511	512	513	30.2	30.4	2.0	36.1	-4.0	1.15	0.23	-57.3	0.36	1.01	-0.33	0.03
1-2R1-H	514	515	516	31.0	8.9	-3.4	31.4	-5.8	0.98	0.12	83.9	0.13	0.97	0.09	0.04
1-2R1-J	517	518	519	12.0	-15.8	-0.4	26.4	-14.8	0.72	-0.23	53.8	0.11	0.34	0.45	0.03
1-2R1-K	520	521	522	-0.4	-19.6	5.6	25.0	-19.8	0.63	-0.41	41.2	0.18	0.04	0.51	0.02
1-2R1-L	523	524	525	-12.4	-36.6	4.4	29.7	-37.7	0.61	-0.95	37.8	0.02	-0.37	0.75	0.03
0-2R2-A	201	200	199	13.5	50.9	51.0	58.7	5.8	1.99	0.77	-22.4	1.81	0.95	-0.43	0.05
0-2R2-B	204	203	202	24.2	56.1	41.5	57.6	8.0	1.98	0.83	-34.8	1.61	1.21	-0.54	0.04
0-2R2-C	207	206	205	31.3	62.6	68.7	72.6	27.4	2.66	1.62	-17.0	2.57	1.71	-0.29	0.06
0-2R2-U	210	209	208	36.0	53.4	84.5	85.5	35.0	3.16	2.00	7.9	3.14	2.02	0.16	0.06
0-2R2-E	213	212	211	37.9	19.6	82.4	106.5	13.9	3.65	1.51	30.6	3.04	2.06	0.94	0.07
0-2R2-F	216	215	214	40.5	0.9	69.9	111.4	-1.0	3.66	1.07	82.4	1.11	3.62	0.34	0.05
0-2R2-G	219	218	217	47.4	14.2	64.5	98.5	13.3	3.38	1.41	-50.8	2.20	2.59	-0.96	0.07
0-2R2-H	222	221	220	42.8	29.3	58.4	71.1	28.1	2.62	1.63	-54.3	1.97	2.28	-0.47	0.07
0-2R2-J	225	224	223	30.5	38.2	54.8	55.6	29.7	2.13	1.53	-89.0	1.55	2.11	-0.10	0.07
0-2R2-K	228	227	226	15.2	33.1	49.2	49.2	15.1	1.77	0.99	88.4	0.99	1.77	0.02	0.04
0-2R2-L	231	230	229	20.3	14.9	30.6	37.2	13.7	1.36	0.62	-58.0	0.97	1.21	-0.24	0.04
1-2R2-A	526	527	528	27.6	-8.6	-32.3	28.2	-33.9	0.54	-0.64	-5.4	0.58	-0.83	-0.13	0.05
1-2R2-B	529	530	531	30.6	-8.9	-40.0	30.9	-40.3	0.62	-1.02	-3.4	0.61	-1.02	-0.10	0.05
1-2R2-C	532	533	534	5.4	-22.8	-49.1	5.4	-49.1	-0.31	-1.57	-1.0	-0.31	-1.56	-0.02	0.04
1-2R2-D	535	536	537	-24.0	-52.6	-59.3	-30.8	-62.4	-1.30	-2.26	-15.9	-1.30	-2.19	-0.25	0.07
1-2R2-E	538	539	540	-44.3	-62.1	-68.8	-18.7	-62.5	-1.23	-2.24	-49.9	-1.83	-1.65	-0.50	0.06
1-2R2-F	541	542	543	-41.5	-51.6	-24.8	-12.8	-53.4	-0.95	-1.89	77.8	-1.85	-0.99	0.19	0.04
1-2R2-G	544	545	546	-58.0	-71.4	-30.9	-14.4	-74.6	-1.21	-2.60	31.6	-1.54	-2.22	0.62	0.05
1-2R2-H	547	548	549	-46.5	-74.4	-15.7	-8.7	-93.5	-1.21	-3.17	16.7	-1.37	-3.01	0.54	0.05
1-2R2-J	550	551	552	-84.2	-57.3	-3.2	-1.8	-90.6	-0.96	-3.01	7.3	-0.99	-2.97	0.26	0.05
1-2R2-K	553	554	555	-62.1	-43.8	0.7	3.4	-64.7	-0.53	-2.10	11.4	-0.59	-2.04	0.30	0.04
1-2R2-L	556	557	558	-44.6	-43.2	-6.1	4.5	-55.2	-0.40	-1.78	24.9	-0.64	-1.53	0.53	0.04
0-2R3-A	234	233	232	20.2	23.8	3.4	26.5	-2.9	0.84	0.17	-62.4	0.31	0.70	-0.28	0.04
0-2R3-B	237	236	235	28.1	25.3	3.4	31.4	0.1	1.04	0.32	-71.1	0.39	0.96	-0.22	0.04
0-2R3-C	240	239	238	26.5	27.4	14.9	29.5	11.9	1.09	0.68	-65.5	0.75	1.02	-0.15	0.04
0-2R3-U	243	242	241	21.5	30.3	25.2	35.5	16.1	1.17	0.63	-37.7	1.04	0.96	-0.16	0.03
0-2R3-E	246	245	244	16.0	28.8	44.4	44.5	15.9	1.62	0.90	2.7	1.62	0.97	0.02	0.04
0-2R3-F	249	248	247	12.1	30.8	54.0	54.1	12.0	1.90	0.93	48.0	1.36	1.47	0.48	0.04
0-2R3-G	252	251	250	14.9	20.5	49.8	53.4	11.2	1.87	0.90	-72.9	0.98	1.79	-0.27	0.07
0-2R3-H	255	254	253	2.9	14.7	50.4	53.2	0.0	1.75	0.53	-76.7	0.59	1.69	-0.28	0.04
0-2R3-J	258	257	256	0.2	18.2	53.2	54.5	-1.1	1.79	0.50	-81.1	0.53	1.76	-0.20	0.03
0-2R3-K	261*	260	259	-10.9	15.9	54.2	54.7	-11.4	1.69	0.17	-85.0	0.16	1.68	-0.13	0.05
0-2R3-L	264	263	262	-18.4	-5.8	36.7	40.4	-22.5	1.11	-0.34	-76.1	-0.26	1.02	-0.34	0.03
1-2R3-A	559	560	561	-3.6	-3.3	-9.4	-2.1	-10.9	-0.18	-0.38	23.9	-0.21	-0.35	0.07	0.04
1-2R3-B	562	563	564	-11.9	-5.9	-14.4	-5.8	-20.5	-0.39	-0.73	40.3	-0.54	-0.59	0.17	0.05
1-2R3-C	565	566	567	-27.8	-22.3	-26.0	-22.2	-31.6	-1.05	-1.26	50.6	-1.17	-1.13	0.11	0.04
1-2R3-D	568	569	570**	-36.7	-60.4	0.0	27.6	-64.3	0.27	-1.85	-56.8	-1.21	-0.36	-0.97	0.03
1-2R3-E	571	572**	573**	-56.9	0.0	0.0	11.8	-68.6	-0.29	-2.15	-67.5	-1.87	-0.56	0.66	0.05

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

FORM 1-65-10000 BY THE AIR FORCE ENGINEERING CENTER, WRIGHT-PATTERSON AIR FORCE BASE, OHIO

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-2R3-F	574	575	576	-76.9	-97.8	-54.9	-32.2	-99.6	-2.05	-3.60	80.5	-3.56	-2.09	0.25	0.07
I-2R3-G	577	578	579	-92.2	-87.9	-35.4	-27.4	-102.2	-1.91	-3.64	19.0	-2.10	-3.46	0.53	0.07
I-2R3-H	580	581	582	-95.6	-82.8	-24.3	-17.6	-102.3	-1.59	-3.55	16.3	-1.75	-3.39	0.53	0.07
I-2R3-J	583	584	585	-67.7	-55.2	-32.8	-32.1	-68.4	-1.74	-2.57	7.9	-1.75	-2.56	0.11	0.22
I-2R3-K	586	587	588	-39.6	-42.8	-27.9	-23.0	-44.5	-1.20	-1.69	28.5	-1.31	-1.58	0.21	0.05
I-2R3-L	589	590	591	-20.3	-37.6	-25.5	-8.1	-37.8	-0.64	-1.33	50.0	-1.04	-0.92	0.34	0.05
O-2R4-A	267	268	269	10.3	-15.4	-16.0	15.0	-20.7	0.29	-0.53	68.6	-0.42	0.18	0.28	0.03
O-2R4-B	270	269	268	14.4	-8.6	-6.1	20.5	-12.2	0.56	-0.20	64.4	-0.06	0.41	0.29	0.03
O-2R4-C	273	272	271	12.7	-7.3	-1.8	20.1	-9.2	0.57	-0.10	59.8	0.07	0.40	0.29	0.06
O-2R4-D	276	275	274	9.1	-3.0	5.7	17.9	-3.1	0.56	0.07	49.7	0.28	0.36	0.24	0.04
O-2R4-E	279	278	277	5.5	1.2	12.4	17.4	0.5	0.58	0.19	78.0	0.20	0.56	0.08	0.04
O-2R4-F	282	281	280	4.0	-7.1	11.9	23.5	-7.6	0.70	-0.02	-52.3	0.25	0.43	-0.35	0.03
O-2R4-G	285	284	283	-5.2	-14.8	18.7	31.4	-17.9	0.86	-0.28	-59.6	0.01	0.57	-0.50	0.04
O-2R4-H	288	287	286	-6.2	-19.7	20.0	36.7	-22.8	0.98	-0.39	-38.1	-0.00	0.60	-0.62	0.03
O-2R4-J	291	290	289	-24.3	-35.7	17.7	35.3	-41.9	0.75	-1.03	-61.5	-0.63	0.34	-0.75	0.03
I-2R4-A	592	593	594	-11.9	-1.4	7.5	7.5	-12.0	0.13	-0.32	87.4	-0.32	6.13	0.02	0.03
I-2R4-B	595	596	597	-20.0	-6.6	2.5	2.7	-20.2	-0.11	-0.64	84.6	-0.64	-0.12	0.05	0.03
I-2R4-C	598	599	600	-17.3	-14.8	-13.4	-13.3	-17.4	-0.61	-0.71	82.1	-0.70	-0.61	0.01	0.05
I-2R4-D	601	602	603	-18.3	-27.8	-27.8	-16.4	-29.8	-0.83	-1.14	-22.5	-0.88	-1.10	-0.11	0.04
I-2R4-E	604	605	606	-32.9	-43.9	-24.1	-18.5	-43.5	-1.04	-1.62	85.7	-1.61	-1.04	0.04	0.06
I-2R4-F	607	608	609	-33.7	-42.7	-18.7	-11.5	-45.9	-0.83	-1.63	27.2	-1.00	-1.46	0.32	0.05
I-2R4-G	610	611	612	-24.5	-37.2	-26.5	-13.8	-37.3	-0.82	-1.37	47.4	-1.12	-1.07	0.27	0.05
I-2R4-H	613	614	615**	-9.4	-33.4	0.0	24.4	-33.8	0.47	-0.87	40.4	-0.09	-0.31	-0.66	0.04
I-2R4-J	616	617	618**	0.9	-32.6	0.0	34.5	-33.6	0.81	-0.77	45.4	0.01	6.03	0.79	0.03
O-2R5-A	294	293	292	-2.2	-22.8	-0.8	19.9	-22.8	0.43	-0.56	44.0	-0.05	-0.06	0.49	0.03
O-2R5-B	297	296	295	-0.3	-22.8	-4.8	17.8	-22.9	0.36	-0.58	48.2	-0.16	-0.06	0.47	0.02
O-2R5-C	300	299	298	-0.7	-19.6	-2.7	16.3	-19.6	0.34	-0.49	46.6	-0.09	-0.05	0.41	0.02
O-2R5-D	303	302	301	-0.4	-15.0	-5.8	10.9	-15.1	0.21	-0.39	48.7	-0.13	-0.05	0.30	0.02
O-2R5-E	306	305	304	0.2	-2.1	-2.0	0.8	-2.6	0.00	-0.08	-24.1	-0.01	-0.06	-0.03	0.02
O-2R5-F	309	308	307	-2.1	-13.7	-0.2	11.4	-13.7	0.24	-0.34	-47.1	-0.07	-0.03	-0.29	0.02
O-2R5-G	312	311	310	-0.3	-25.2	-4.4	20.6	-25.3	0.43	-0.63	-42.4	-0.05	-0.15	-0.53	0.02
O-2R5-H	315	314	313	-3.0	-39.9	-5.1	31.3	-39.9	0.64	-1.01	-44.4	-0.17	-0.28	-0.82	0.03
O-2R5-J	318	317	316*	0.6	-41.5	-10.8	31.7	-41.9	0.63	-1.07	-40.6	-0.09	-0.35	-0.84	0.04
I-2R5-A	619	620**	621	2.4	0.0	-0.7	2.6	-0.9	0.08	-0.01	-14.1	0.07	-0.00	-0.02	0.05
I-2R5-B	622	623	624**	1.9	3.5	0.0	3.7	-1.4	0.11	-0.02	34.7	0.06	0.02	0.00	0.04
I-2R5-C	625	626	627	3.1	7.6	2.4	7.6	-2.1	0.23	0.01	42.9	0.13	0.11	0.11	0.02
I-2R5-D	628	629	630	0.4	10.0	4.8	10.3	-3.1	0.29	-0.06	53.3	0.06	6.16	0.17	0.03
I-2R5-E	631	632	633	2.7	8.4	4.7	8.9	-1.6	0.28	0.04	-39.5	0.18	0.13	-0.12	0.03
I-2R5-F	634	635	636	5.1	-4.0	-0.3	9.3	-4.5	0.26	-0.06	56.6	0.04	0.17	0.15	0.03
I-2R5-G	637	638	639	5.9	-8.0	-0.1	14.2	-8.4	0.39	-0.14	52.6	0.06	0.19	0.25	0.04
I-2R5-H	640	641	642	4.2	-14.6	-0.2	18.8	-14.7	0.47	-0.30	48.8	0.04	0.14	0.38	0.02
I-2R5-J	643**	644	645	0.0	-21.6	3.1	24.8	-21.7	0.60	-0.47	43.1	0.10	0.03	0.54	0.03
O-2R6-A	156	155	154	20.6	14.0	23.3	30.0	13.9	1.13	0.76	40.0	0.97	0.91	0.16	0.03
O-2R6-B	159	158	157	11.2	18.3	35.3	36.2	10.2	1.30	0.69	11.1	1.27	0.72	0.11	0.04
O-2R6-C	162	161	160	4.2	8.7	22.1	23.1	3.2	0.79	0.33	13.0	0.77	0.36	0.10	0.04
O-2R6-D	165	164	163	0.9	-2.4	1.7	4.6	-2.4	0.13	-0.03	43.8	0.03	0.04	0.08	0.03
I-2R6-A	482	482	482	-30.8	-0.2	11.9	14.9	-39.7	0.10	-1.14	76.6	-1.09	0.03	0.28	0.04
I-2R6-B	485	485	485	-45.4	-17.3	14.8	14.8	-45.5	0.04	-1.35	89.2	-1.35	0.04	0.02	0.05
I-2R6-C	487	488	489	-29.1	-14.1	9.9	10.4	-29.6	0.05	-0.87	-83.5	-0.86	0.04	-0.10	0.03
I-2R6-D	490	491	492	-3.2	-8.2	0.3	5.6	-8.4	0.10	-0.22	-52.2	-0.10	-0.02	-0.16	0.03
O-2R6-A	321	320	319	-21.4	-35.4	-26.5	-12.2	-35.7	-0.76	-1.30	51.4	-1.09	-0.97	0.26	0.04
O-2R6-B	324	323	322	-9.7	-27.3	-33.1	-8.2	-34.5	-0.61	-1.22	76.5	-1.19	-0.65	0.14	0.06
O-2R6-C	327	326	325	-4.3	-17.2	-22.2	-3.5	-23.0	-0.34	-0.79	78.3	-0.78	-0.36	0.09	0.04
I-2R6-A	646	647	646	45.6	25.9	-12.7	47.1	-14.2	1.41	-0.00	8.9	1.38	0.03	0.22	0.06
I-2R6-B	649	650	651	44.1	13.9	-13.9	44.1	-13.9	1.32	-0.02	-1.2	1.32	-0.02	-0.03	0.05
I-2R6-C	652	653	654	27.9	3.8	-7.4	29.0	-8.5	0.87	0.01	-10.1	0.85	0.03	-0.15	0.04

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

FORM 1020 (REVISED BY THE MILITARY AIRCRAFT DIVISION, 1954)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(I)	SIG(T)	TAU	CONF
I-1R7- A	655	656	657	-6.1	-21.2	0.6	16.0	-21.5	0.31	-0.55	-50.2	-0.20	-0.04	-0.43	0.03
I-1R7- B	658	659	660	-32.2	-31.6	5.7	13.2	-39.6	0.04	-1.18	-88.0	-1.01	-0.13	-0.42	0.06
I-2R7- A	661	662	663	24.8	-3.3	1.0	33.0	-7.2	1.02	0.00	-26.9	0.83	0.28	-0.37	0.04
EX- C- A	670	671	672	-0.6	-17.2	-38.5	-0.6	-38.5	-0.37	-1.18	-88.5	-1.18	-0.37	-0.02	0.04
EX- C- B	675	674	673	-2.1	-4.4	1.0	1.9	-3.0	0.03	-0.08	24.9	0.01	-0.04	0.04	0.02
EX- C- C	673	677	676	-2.3	-24.0	35.6	37.0	-5.7	1.18	0.24	-16.6	1.15	0.28	-0.17	0.05
EX- C- D	669	668	667	2.0	-1.5	0.8	4.4	-1.6	0.13	-0.01	50.9	0.05	0.07	0.07	0.03
EX- B- A	687	686*	685	0.3	1.3	-0.1	1.3	-1.2	0.03	-0.03	40.3	0.01	-0.00	0.03	0.03
EX- B- B	690	689	688	-0.4	0.6	-1.5	0.7	-2.6	-0.00	-0.06	35.0	-0.03	-0.05	0.04	0.02
EX- B- C	681	680	679	-1.3	-4.7	1.4	3.0	-4.9	0.12	-0.11	-52.9	-0.03	0.03	-0.11	0.03
EX- B- D	684	683	682	-0.2	1.0	-1.8	1.2	-3.1	0.01	-0.09	34.5	-0.02	-0.00	0.05	0.02
EX- A- A	696	695	694	-1.8	-20.0	-4.1	14.2	-20.1	0.27	-0.52	-43.1	-0.10	-0.15	-0.39	0.02
EX- A- B	693	692	691	-2.2	-26.7	0.9	25.5	-26.7	0.58	-0.63	-46.7	-0.06	0.01	-0.60	0.02
EX- A- C	666	665	664	-1.5	-16.7	0.4	22.0	-17.1	0.56	-0.35	-50.8	0.01	0.20	-0.44	0.03
EX- A- D	694	698	697	-0.4	-27.1	1.1	27.8	-27.1	0.63	-0.62	-45.8	-0.00	0.03	-0.63	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

COMBUSTION T-10, LOAD CASE 2, H3Y

NOMINAL LOAD = 2.850E 05

LOCATION	PAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
0-1R1-A	1	2	1	6.5	-13.5	-5.0	16.1	-14.6	0.39	-0.32	56.0	-0.10	0.17	0.33	0.03
0-1R1-B	6	5	4	11.4	-12.3	-2.9	22.4	-13.8	0.60	-0.23	56.7	0.02	0.35	0.38	0.03
0-1R1-C	9	8	7	11.2	-34.7	-3.2	43.6	-35.6	1.09	-0.74	50.2	0.01	0.34	0.90	0.02
0-1R1-D	12	11	10	17.1	-63.6	-10.3	71.8	-65.0	1.72	-1.43	50.8	-0.17	0.46	1.55	0.03
0-1R1-E	15	14	13	-3.5	-62.6	3.2	62.3	-62.6	1.43	-1.45	43.5	0.07	-0.08	1.44	0.02
0-1R1-F	16	17	16	-9.7	-49.3	6.5	46.9	-50.0	1.05	-1.19	85.2	-1.17	1.03	0.19	0.02
0-1R1-G	21	20	19	-2.1	-40.9	8.9	48.0	-41.3	1.18	-0.89	48.5	0.02	0.27	-1.02	0.02
0-1R1-H	24	23	22	16.7	-25.1	-8.5	33.9	-27.7	0.91	-0.56	-33.3	0.47	-0.11	-0.67	0.02
0-1R1-J	27	26	25	20.8	-5.9	-6.6	26.0	-11.8	0.74	-0.13	-21.8	0.62	-0.01	-0.30	0.02
0-1R1-K	30	29	28	16.2	4.1	-1.0	16.9	-1.7	0.54	0.11	-11.2	0.53	0.13	-0.08	0.02
0-1R1-L	33	32	31	26.8	12.0	2.6	29.3	2.1	0.99	0.36	-7.9	0.98	0.37	-0.09	0.07
1-1R1-A	328	329	330	-7.1	-37.2	-4.0	26.2	-37.2	0.49	-0.97	-46.4	-0.27	-0.20	-0.73	0.01
1-1R1-B	331	332	333	-3.5	-3.5	-14.7	15.0	-33.2	0.17	-0.95	-38.2	-0.26	-0.52	-0.54	0.02
1-1R1-C	334	335	336	-1.7	-26.8	-20.2	7.4	-29.3	-0.05	-0.89	-29.9	-0.26	-0.68	-0.37	0.02
1-1R1-D	337	338	339	1.2	-3.8	-25.0	3.5	-27.4	-0.16	-0.87	16.0	-0.21	-0.81	0.19	0.03
1-1R1-E	340	341	342	6.5	37.4	-16.8	39.2	-31.5	0.76	-1.31	36.9	0.03	-0.55	1.00	0.03
1-1R1-F	343	344	345	5.2	46.3	-12.9	47.1	-54.9	1.01	-1.34	-5.1	0.99	-1.32	-0.21	0.02
1-1R1-G	346	347	348	18.9	48.3	-9.6	50.6	-41.3	1.26	-0.86	-54.0	-0.13	0.53	-1.01	0.02
1-1R1-H	349	350	351	27.8	24.1	-7.1	32.5	-11.9	0.96	-0.07	-70.9	0.04	0.85	-0.32	0.04
1-1R1-J	352	353	354	12.3	4.8	1.1	12.6	0.7	0.42	0.15	80.7	0.16	0.42	0.04	0.02
1-1R1-K	355	356	357	-6.6	-3.3	7.0	7.9	-7.4	0.19	-0.17	13.6	0.17	-0.15	0.08	0.02
1-1R1-L	358**	359**	360**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.0	0.0	0.0	0.0	0.0
0-1R2-A	36	35	34	36.6	0.1	-2.6	42.9	-8.9	1.33	0.13	69.6	0.28	1.18	0.39	0.02
0-1R2-B	39	38	37	53.3	17.2	6.0	56.4	2.9	1.89	0.65	76.1	0.72	1.82	0.29	0.03
0-1R2-C	42	41	40	55.2	21.4	18.6	60.9	12.9	2.14	1.03	69.9	1.16	2.00	0.36	0.04
0-1R2-D	45	44	43	46.9	14.3	39.3	74.3	13.9	2.59	1.19	49.6	1.78	2.00	0.69	0.03
0-1R2-E	48	47	46	46.9	5.2	51.7	93.4	5.2	3.13	1.09	43.4	2.17	2.06	1.02	0.02
0-1R2-F	51	50	49	52.0	-0.5	35.7	88.9	-1.2	2.92	0.84	-64.8	0.86	2.90	-0.19	0.04
0-1R2-G	54	53	52	50.6	11.1	31.0	72.1	9.5	2.47	1.03	-35.9	1.98	1.52	-0.69	0.06
0-1R2-H	57	56	55	31.8	27.6	25.2	38.9	24.1	1.52	1.18	-16.1	1.50	1.21	-0.09	0.03
0-1R2-J	60	59	58	23.5	35.9	27.5	36.1	14.9	1.34	0.85	50.5	1.05	1.14	0.24	0.04
0-1R2-K	63	62	61	6.2	31.0	24.3	34.9	2.6	1.18	0.43	65.4	0.56	1.05	0.28	0.02
0-1R2-L	66	65	64	23.2	31.2	15.5	31.8	6.9	1.12	0.54	36.0	0.92	0.74	0.27	0.05
1-1R2-A	361	362	363	-16.4	-48.5	-43.3	-6.8	-52.9	-0.75	-1.81	-27.1	-0.97	-1.59	-0.43	0.02
1-1R2-B	364	365	366	-12.9	-51.6	-64.7	-9.9	-61.7	-0.99	-2.33	-13.1	-1.06	-2.26	-0.30	0.03
1-1R2-C	367	368	369	-11.9	-56.7	-87.2	-11.2	-87.9	-1.24	-3.01	-5.4	-1.25	-2.99	-0.17	0.04
1-1R2-D	370	371	372	-18.0	-65.6	-95.6	-17.1	-96.6	-1.52	-3.35	-6.4	-1.54	-3.35	-0.20	0.03
1-1R2-E	373	374	375	-24.9	-53.2	-69.6	-24.1	-70.3	-1.49	-2.56	-7.5	-1.51	-2.54	-0.14	0.06
1-1R2-F	376	377	378	-17.6	-33.8	-47.7	-17.6	-47.8	-1.65	-1.75	-47.2	-1.43	-1.37	-0.35	0.03
1-1R2-G	379	380	381	-26.9	-40.6	-40.7	-24.2	-43.5	-1.25	-1.67	67.8	-1.61	-1.29	0.16	0.04
1-1R2-H	382	383	384	-36.7	-40.6	-15.4	-14.0	-44.1	-0.90	-1.59	25.2	-1.02	-1.47	0.27	0.03
1-1R2-J	385	386**	387	-43.9	0.9	-3.8	7.3	-55.1	-0.30	-1.74	-25.0	-0.56	-1.49	-0.55	0.03
1-1R2-K	388	389	390	-37.4	-18.7	4.5	4.7	-37.5	-0.22	-1.19	3.1	-0.22	-1.19	0.05	0.02
1-1R2-L	391	392	393	-24.2	-14.2	-5.6	-5.6	-24.2	-0.42	-0.85	-2.0	-0.42	-0.85	-0.02	0.05
0-1R3-A	69	68	67	33.9	-5.5	-16.4	37.6	-20.2	1.04	-0.29	75.2	-0.21	0.95	0.33	0.03
0-1R3-B	72	71	70	40.3	3.8	-5.6	44.0	-9.3	1.36	0.13	74.7	0.21	1.27	0.31	0.04
0-1R3-C	75	74	73	38.2	4.6	1.8	43.9	-3.8	1.41	0.31	69.9	0.44	1.28	0.36	0.03
0-1R3-D	78	77	76	33.4	6.4	4.4	38.0	-0.2	1.25	0.37	69.6	0.48	1.14	0.29	0.02
0-1R3-E	81	80	79	23.6	8.9	14.6	30.2	8.0	1.08	0.56	56.9	0.71	0.92	0.23	0.02
0-1R3-F	84	83	82	21.4	12.5	17.1	26.3	12.2	0.99	0.66	-81.0	0.67	0.98	-0.05	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH				STRESS - KSI							
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
0-1R3-G	87	86	85	12.7	12.2	15.4	16.3	11.8	0.65	0.55	-62.6	0.57	0.63	-0.04	0.03
0-1R3-F	90	89	88	0.5	13.5	18.7	19.5	-0.3	0.64	0.18	78.5	0.20	0.62	0.09	0.02
0-1R3-J	93	92	91	-2.6	16.6	23.6	25.0	-4.0	0.78	0.12	77.5	0.15	0.75	0.14	0.04
0-1R3-K	96	95	94	-4.3	20.1	26.6	29.0	-6.7	0.89	0.07	74.9	0.12	0.83	0.21	0.05
0-1R3-L	99	98	97	-10.1	11.9	15.3	18.4	-13.1	0.48	-0.25	71.9	-0.18	0.41	0.21	0.05
1-1R3-A	394	395	396	-25.2	-31.3	-22.0	-15.7	-31.5	-0.83	-1.19	-50.9	-1.05	-0.97	-0.18	0.02
1-1R3-B	397	398	399	-26.7	-32.7	-34.1	-26.1	-34.7	-1.20	-1.40	-16.0	-1.24	-1.39	-0.05	0.05
1-1R3-C	400	401	402	-28.8	-35.0	-49.0	-28.0	-49.8	-1.42	-1.92	-11.2	-1.43	-1.90	-0.10	0.03
1-1R3-D	403	404	405	-24.5	-51.2	-66.0	-23.7	-66.8	-1.44	-2.44	-8.0	-1.46	-2.42	-0.14	0.03
1-1R3-E	406	407	408	-30.4	-62.3	-66.4	-25.7	-74.2	-1.55	-2.60	-18.9	-1.66	-2.49	-0.32	0.04
1-1R3-F	409	410	411	-42.2	-69.5	-55.7	-27.3	-70.6	-1.60	-2.60	-80.9	-2.57	-1.62	-0.16	0.02
1-1R3-G	412	413	414	-47.9	-63.3	-41.2	-25.6	-63.6	-1.47	-2.35	39.9	-1.83	-1.99	0.43	0.04
1-1R3-H	415	416	417	-48.6	-42.9	-22.1	-20.1	-50.6	-1.16	-1.87	14.8	-1.21	-1.82	0.17	0.03
1-1R3-J	418	419	420	-32.5	-26.3	-19.3	-10.9	-32.9	-0.95	-1.27	9.8	-0.96	-1.26	0.05	0.03
1-1R3-K	421	422	423	-15.3	-16.9	-19.0	-14.6	-19.7	-0.68	-0.79	68.2	-0.78	-0.69	0.04	0.04
1-1R3-L	424	425	426	-2.9	-9.2	-22.0	-2.4	-22.5	-0.30	-0.76	-80.7	-0.75	-0.31	-0.07	0.05
0-1R4-A	102	101	100	12.1	-26.6	-9.1	31.5	-28.5	0.76	-0.63	55.3	-0.18	0.31	0.05	0.02
0-1R4-B	105	104	103	11.9	-19.8	-5.0	28.2	-21.3	0.72	-0.42	55.0	-0.05	0.34	0.54	0.02
0-1R4-C	108	107	106	7.2	-15.7	1.0	24.2	-16.0	0.64	-0.29	49.4	0.10	0.25	0.46	0.01
0-1R4-D	111	110	109	8.5	-10.0	0.6	19.6	-10.5	0.54	-0.15	52.5	0.11	0.29	0.34	0.02
0-1R4-E	114	113	112	7.3	-2.0	-0.4	10.2	-3.2	0.30	-0.01	-72.5	0.02	0.28	-0.09	0.02
0-1R4-F	117	116	115	1.3	-2.0	1.1	4.4	-2.0	0.13	-0.02	-44.0	0.05	0.05	-0.07	0.02
0-1R4-G	120	119	118	-2.6	-5.5	3.9	7.7	-6.3	0.19	-0.13	-58.9	-0.05	0.10	-0.14	0.02
0-1R4-H	123	122	121	-8.5	-4.3	8.0	9.7	-3.1	0.24	-0.17	-72.4	-0.13	0.20	-0.12	0.02
0-1R4-J	126	125	124	-22.2	-14.3	5.4	6.6	-23.4	-0.01	-0.71	-78.5	-0.68	-0.04	-0.14	0.03
1-1R4-A	427	428	429	-22.9	-28.8	-0.7	8.4	-32.1	-0.04	-0.97	-61.6	-0.76	-0.25	-0.39	0.02
1-1R4-B	430	431	432	-21.8	-23.7	-5.9	-1.1	-26.5	-0.30	-0.89	-64.4	-0.78	-0.41	-0.23	0.02
1-1R4-C	433	434	435	-14.1	-27.5	-19.0	-5.3	-27.8	-0.45	-0.97	-38.7	-0.65	-0.77	-0.25	0.03
1-1R4-D	436	437	438	-14.9	-31.2	-26.0	-8.4	-32.5	-0.60	-1.15	-31.4	-0.75	-1.00	-0.25	0.02
1-1R4-E	439	440	441	-24.9	-31.7	-19.4	-12.2	-32.1	-0.72	-1.18	81.9	-1.17	-0.73	0.06	0.02
1-1R4-F	442	443	444	-25.4	-20.8	-9.3	-8.6	-26.1	-0.54	-0.95	11.8	-0.56	-0.93	0.08	0.05
1-1R4-G	445	446	447	-14.2	-15.9	-13.2	-11.5	-15.9	-0.54	-0.84	38.4	-0.58	-0.60	0.05	0.03
1-1R4-H	448	449	450	-2.6	-10.3	-17.8	-2.6	-17.8	-0.26	-0.61	89.5	-0.61	-0.26	0.00	0.03
1-1R4-J	451	452	453	4.2	-6.8	-19.0	4.1	-19.0	-0.05	-0.59	-88.3	-0.59	-0.05	-0.02	0.02
0-1R5-A	129	128	127	-0.8	-31.8	-0.2	30.8	-31.8	0.70	-0.74	44.7	-0.01	-0.03	0.72	0.01
0-1R5-B	132	131	130	1.5	-24.4	-3.5	22.0	-24.6	0.50	-0.59	48.0	-0.10	0.01	0.54	0.02
0-1R5-C	135	134	133**	-0.5	-21.0	0.0	20.6	-21.0	0.47	-0.49	44.7	-0.00	-0.02	0.49	0.01
0-1R5-D	138	137	136	-4.4	-12.0	3.1	11.3	-12.6	0.25	-0.30	35.8	0.06	-0.11	0.26	0.02
0-1R5-E	141	140	139	-0.4	-5.4	0.7	5.7	-5.4	0.14	-0.12	-7.9	-0.01	0.02	-0.13	0.01
0-1R5-F	144	143	142	-0.3	-4.5	-0.7	3.5	-4.5	0.07	-0.11	-43.6	-0.02	-0.03	-0.09	0.02
0-1R5-G	147	146	145	-1.3	-8.6	-0.9	6.4	-8.6	0.13	-0.22	-45.6	-0.05	-0.04	-0.17	0.01
0-1R5-H	150	149	148	-1.1	-11.7	-1.4	9.2	-11.7	0.19	-0.29	-44.6	-0.05	-0.06	-0.24	0.02
0-1R5-J	153	152	151	-2.5	-12.8	-1.8	8.5	-12.9	0.15	-0.34	-45.9	-0.10	-0.09	-0.25	0.02
1-1R5-A	454	455	456	-4.9	-18.2	1.4	15.0	-18.5	0.31	-0.46	-50.4	-0.15	-0.60	-0.38	0.01
1-1R5-B	457	458	459	-2.4	-13.6	1.8	13.2	-13.8	0.30	-0.32	-49.5	-0.06	0.04	-0.31	0.01
1-1R5-C	460	461	462	-0.1	-8.8	-1.0	7.7	-8.8	0.17	-0.21	-43.4	-0.01	-0.03	-0.19	0.02
1-1R5-D	463	464	465	-0.2	-8.4	-0.7	7.5	-8.4	0.16	-0.20	-44.0	-0.01	-0.03	-0.18	0.01
1-1R5-E	466	467	468	-1.6	-9.0	0.9	8.3	-9.1	0.19	-0.22	45.9	0.01	-0.04	0.20	0.02
1-1R5-F	469	470	471**	3.2	7.9	0.0	8.1	-4.9	0.22	-0.08	-52.0	0.03	0.10	-0.15	0.02
1-1R5-G	472	473	474	1.3	8.2	-0.8	6.3	-3.9	0.15	-0.13	-49.9	-0.01	0.03	-0.14	0.01
1-1R5-H	475	476	477	-0.1	3.1	-0.6	3.1	-3.7	0.06	-0.09	-47.1	-0.02	-0.01	-0.06	0.02
1-1R5-J	478	479	480*	-0.4	0.5	-5.3	1.3	-7.0	-0.03	-0.22	-63.1	-0.18	-0.07	-0.08	0.07
0-2R1-A	166	167	166	-6.5	-12.2	6.6	13.9	-13.8	0.32	-0.32	30.9	0.15	-0.15	0.28	0.02
0-2R1-B	171	170	169	-9.4	-17.3	3.2	12.4	-18.6	0.23	-0.44	33.0	0.01	-0.28	0.33	0.03
0-2R1-C	174	173	172	-13.7	-46.0	2.1	35.2	-46.7	0.70	-1.19	39.4	-0.07	-0.43	0.93	0.02
0-2R1-D	177	176	175	-0.4	-81.4	-12.3	69.0	-81.7	1.47	-2.01	47.3	-0.41	-0.13	1.73	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
0-2R1-E	180	179	170	-0.1	-72.9	-10.0	62.0	-73.1	1.35	-1.79	47.1	-0.33	-0.10	1.57	0.04
0-2R1-F	185	182	181	4.4	-54.8	-11.8	48.1	-35.5	1.04	-1.35	-85.5	-1.34	1.02	-0.19	0.03
0-2R1-G	186	185	184	21.9	-46.9	-16.0	56.4	-50.4	1.36	-1.10	-34.6	0.57	-0.31	-1.15	0.03
0-2R1-H	189	188	187	44.3	-24.7	-20.1	61.0	-30.8	1.65	-0.61	-24.4	1.26	-0.22	-0.85	0.03
0-2R1-J	192	191	190	46.3	-3.4	-16.2	51.4	-21.2	1.48	-0.19	-15.3	1.37	-0.07	-0.42	0.02
0-2R1-K	195	194	193	40.9	15.4	-13.2	47.0	-13.2	1.22	-0.03	1.6	1.22	-0.03	0.00	0.03
0-2R1-L	198	197	196	77.5	32.7	-5.4	77.6	-6.0	2.50	0.57	-2.1	2.50	0.57	-0.07	0.03
1-2R1-A	493	494	495	3.5	-38.2	-1.8	38.0	-36.3	0.89	-0.82	-43.0	0.10	-0.02	-0.86	0.02
1-2R1-B	496	497	498	1.8	-24.5	7.6	34.0	-24.7	0.88	-0.48	-47.9	0.13	0.27	-0.67	0.02
1-2R1-C	499	500**	501	2.2	0.0	14.5	18.5	-2.0	0.59	0.12	-63.1	0.22	0.49	-0.19	0.02
1-2R1-D	502	503	504	-0.6	26.2	23.2	39.4	-7.8	0.92	0.04	64.3	0.21	0.76	0.34	0.03
1-2R1-E	505	506	507	-5.3	50.6	23.6	53.0	-34.7	1.40	-0.62	54.6	0.06	0.73	0.96	0.03
1-2R1-F	508	509	510	-7.9	53.3	21.6	55.6	-41.8	1.42	-0.83	8.8	1.37	-0.78	0.34	0.02
1-2R1-G	511	512	513	10.4	58.4	14.1	55.3	-34.0	1.59	-0.54	-43.9	0.57	0.48	-1.07	0.01
1-2R1-H	514	515	516	23.0	38.3	11.7	39.2	-3.7	1.26	0.27	-53.1	0.62	0.90	-0.48	0.02
1-2R1-J	517	518	519	12.6	15.7	17.8	17.8	12.7	0.71	0.60	-4.7	0.71	0.60	-0.01	0.04
1-2R1-K	520	521	522	-6.7	5.1	31.2	32.6	-8.0	0.99	0.06	10.3	0.96	0.09	0.17	0.04
1-2R1-L	523	524	525	-15.77	0.1	30.6	31.8	-16.8	0.88	-0.24	8.9	0.86	-0.21	0.17	0.02
0-2R2-A	201	200	199	46.0	6.4	-0.4	44.1	-4.5	1.41	0.29	73.2	0.38	1.32	0.31	0.03
0-2R2-B	204	203	202	57.2	27.2	6.9	57.6	6.4	1.96	0.78	84.6	0.79	1.95	0.11	0.04
0-2R2-C	207	206	205	61.3	33.6	33.4	66.9	27.8	2.48	1.58	67.7	1.71	2.35	0.32	0.05
0-2R2-D	210	209	208	61.5	17.2	41.8	87.5	15.8	3.04	1.39	53.0	1.99	2.44	0.79	0.08
0-2R2-E	213	212	211	73.0	-0.1	32.9	109.7	-3.8	3.58	0.96	55.4	1.81	2.73	1.22	0.07
0-2R2-F	216	215	214	77.9	-5.4	23.0	112.7	-11.8	3.60	0.73	-76.9	0.87	3.45	-0.63	0.03
0-2R2-G	219	218	217	81.4	17.3	23.6	98.0	7.0	3.30	1.20	-25.3	2.92	1.58	-0.81	0.06
0-2R2-H	222	221	220	67.6	40.6	24.0	68.2	23.4	2.48	1.45	-6.8	2.47	1.46	-0.12	0.06
0-2R2-I	225	224	223	51.5	51.8	27.5	56.7	22.3	2.09	1.30	22.9	1.97	1.42	0.28	0.05
0-2R2-J	228	227	226	34.7	47.0	26.7	47.5	14.0	1.70	0.93	38.1	1.41	1.22	0.38	0.05
0-2R2-K	231	230	229	67.1	56.8	17.9	71.0	14.0	2.48	1.17	15.1	2.39	1.25	0.33	0.05
1-2R2-A	526	527	528	-10.4	-49.9	-0.1	3.5	-54.0	-0.42	-1.75	-29.5	-0.74	-1.42	-0.57	0.06
1-2R2-B	529	530	531	-6.9	-54.5	-0.0	-1.9	-67.0	-0.73	-2.23	-19.1	-0.89	-2.07	-0.46	0.03
1-2R2-C	532	533	534	-20.6	-64.2	-63.1	-18.2	-85.4	-1.45	-3.00	-10.8	-1.50	-2.94	-0.29	0.03
1-2R2-D	535	536	537	-17.6	-73.5	-101.7	-15.4	-103.9	-1.54	-3.58	-9.1	-1.59	-3.53	-0.32	0.03
1-2R2-E	538	539	540	-23.5	-52.9	-60.4	-20.4	-63.4	-1.30	-2.29	-15.4	-1.37	-2.22	-0.25	0.05
1-2R2-F	541	542	543	-23.6	-26.4	-34.1	-23.0	-34.7	-1.10	-1.37	-32.5	-1.18	-1.29	-0.12	0.03
1-2R2-G	544	545	546	-34.4	-41.4	-34.2	-27.1	-41.4	-1.30	-1.63	44.6	-1.47	-1.47	0.16	0.04
1-2R2-H	547	548	549	-55.3	-41.5	-11.9	-10.5	-56.7	-0.91	-1.97	10.0	-0.94	-1.94	0.18	0.06
1-2R2-I	550	551	552	-58.9	-26.2	5.2	5.2	-58.9	-0.41	-1.89	-0.5	-0.41	-1.89	-0.01	0.04
1-2R2-J	553	554	555	-44.1	-10.1	24.0	24.0	-44.1	0.35	-1.22	-0.0	0.35	-1.22	-0.00	0.03
1-2R2-K	558	557	558	-29.1	-7.7	15.3	15.3	-29.1	0.22	-0.81	1.1	0.22	-0.81	0.02	0.02
0-2R3-A	234	233	232	42.1	-5.3	-14.4	46.3	-23.6	1.29	-0.32	75.8	-0.22	1.20	0.38	0.04
0-2R3-B	237	236	235	48.6	5.4	-6.2	52.8	-10.4	1.64	0.18	75.0	0.27	1.54	0.36	0.03
0-2R3-C	240	239	238	46.2	12.0	1.6	49.2	-1.4	1.61	0.44	75.9	0.51	1.54	0.28	0.03
0-2R3-D	243	242	241	38.1	10.8	9.7	43.2	4.6	1.47	0.55	68.7	0.70	1.35	0.30	0.03
0-2R3-E	246	245	244	38.3	16.1	17.0	41.9	13.4	1.51	0.85	69.1	0.94	1.43	0.22	0.05
0-2R3-F	249	248	247	36.6	22.9	22.9	39.4	20.1	1.55	1.05	-67.5	1.12	1.43	-0.16	0.04
0-2R3-G	252	251	250	30.5	24.9	23.5	31.1	22.9	1.25	1.06	-15.6	1.24	1.08	-0.05	0.05
0-2R3-H	255	254	253	16.6	26.9	26.8	28.9	14.4	1.10	0.76	67.1	0.81	1.05	0.12	0.03
0-2R3-I	258	257	256	12.9	29.3	31.0	33.6	10.4	1.21	0.67	70.5	0.73	1.15	0.17	0.07
0-2R3-J	261	260	259	5.3	29.3	31.5	35.4	1.3	1.18	0.39	70.1	0.49	1.09	0.25	0.03
0-2R3-K	264	263	262	7.6	27.1	21.5	28.9	0.2	0.96	0.29	59.5	0.46	0.78	0.29	0.02
1-2R3-A	559	560	561	-33.7	-23.4	-24.1	-21.7	-36.2	-1.07	-1.41	65.5	-1.35	-1.13	0.13	0.03
1-2R3-B	562	563	564	-31.9	-35.4	-35.5	-31.2	-36.2	-1.39	-1.50	-22.1	-1.40	-1.49	-0.04	0.05
1-2R3-C	565	566	567	-42.0	-48.1	-50.0	-41.5	-50.6	-1.87	-2.08	-13.7	-1.88	-2.06	-0.05	0.04
1-2R3-D	568	569	570**	-34.9	-77.5	0.0	45.0	-79.9	0.69	-2.19	-53.1	-1.15	-0.35	-1.38	0.03
1-2R3-E	571	572**	573**	-45.0	0.0	0.0	9.3	-54.3	-0.23	-1.70	67.5	-1.48	-0.44	0.52	0.04

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-2K3-F	574	575	576	-56.7	-91.3	-66.6	-31.5	-91.7	-1.95	-3.34	-85.2	-3.33	-1.96	-0.11	0.04
I-2K3-G	577	578	579	-68.7	-75.0	-41.0	-30.5	-79.3	-1.79	-2.91	27.8	-2.03	-2.67	0.46	0.06
I-2K3-H	580	581	582	-65.1	-57.9	-23.0	-18.8	-69.3	-1.31	-2.47	16.7	-1.49	-2.37	0.32	0.06
I-2K3-J	583	584	585	-39.6	-30.6	-24.3	-24.2	-39.7	-1.19	-1.55	-4.9	-1.19	-1.55	-0.03	0.05
I-2K3-K	586	587	588	-18.2	-13.9	-13.0	-12.5	-18.7	-0.60	-0.74	-16.5	-0.61	-0.73	-0.04	0.06
I-2K3-L	589	590	591	-5.1	-4.2	-8.3	-3.7	-9.7	-0.22	-0.36	-61.2	-0.33	-0.25	-0.06	0.04
O-2R4-A	267	266	265	16.6	-35.1	-23.9	32.3	-39.4	0.67	-0.98	62.3	-0.62	0.32	0.68	0.02
O-2R4-B	270	269	268	21.4	-21.8	-12.7	35.6	-26.9	0.91	-0.53	61.6	-0.21	0.58	0.60	0.05
O-2R4-C	273	272	271	18.0	-14.8	-7.5	29.0	-18.5	0.77	-0.32	61.3	-0.07	0.52	0.46	0.02
U-2R4-D	276	275	274	11.9	-8.3	2.7	23.6	-8.9	0.69	-0.66	53.2	0.21	0.42	0.36	0.03
O-2R4-E	279	278	277	11.8	0.3	4.8	17.0	-0.4	0.56	0.15	-78.3	0.17	0.54	-0.08	0.03
O-2R4-F	282	281	280	7.7	-1.1	7.8	16.6	-1.1	0.54	0.13	-45.2	0.33	0.33	-0.20	0.04
O-2R4-G	285	284	283	0.7	-4.3	12.0	19.2	-5.9	0.57	-0.00	-59.3	0.15	0.42	-0.25	0.02
O-2R4-H	288	287	286	-1.3	-6.3	14.7	21.9	-8.5	0.64	-0.06	-60.9	0.10	0.47	-0.30	0.02
O-2R4-J	291	290	289	-13.7	-13.3	14.0	19.4	-19.2	0.45	-0.44	-67.9	-0.31	0.32	-0.31	0.02
I-2R4-A	592	593	594	-23.8	-26.3	-3.4	2.7	-29.9	-0.21	-0.96	-64.4	-0.62	-0.35	-0.29	0.04
I-2R4-B	595	596	597	-32.4	-29.5	-10.7	-8.1	-35.0	-0.61	-1.23	-71.9	-1.17	-0.67	-0.18	0.04
I-2R4-C	598	599	600	-22.8	-34.4	-26.4	-13.8	-37.6	-0.80	-1.28	-39.0	-0.99	-1.09	-0.23	0.04
I-2R4-D	601	602	603	-20.6	-40.3	-37.7	-15.2	-43.2	-0.93	-1.57	-26.2	-1.05	-1.45	-0.26	0.03
I-2R4-E	604	605	606	-33.3	-34.0	-26.3	-15.2	-44.4	-0.94	-1.61	83.2	-1.60	-0.95	0.68	0.08
I-2R4-F	607	608	609	-31.7	-30.5	-14.2	-11.4	-34.5	-0.72	-1.25	20.3	-0.78	-1.19	0.17	0.06
I-2R4-G	610	611	612	-17.0	-19.2	-21.9	-14.5	-22.0	-0.70	-0.87	83.2	-0.87	-0.70	0.02	0.03
I-2R4-H	613	614	615**	1.4	-11.5	0.0	12.9	-11.5	0.31	-0.25	46.6	0.01	0.05	0.28	0.02
I-2R4-J	616	617	618**	8.6	-4.0	0.0	14.2	-5.6	0.41	-0.04	57.9	0.09	0.28	0.20	0.02
O-2R5-A	294	293	292	-1.8	-36.9	-1.5	33.6	-36.9	0.74	-0.89	44.9	-0.07	-0.08	0.81	0.02
O-2R5-B	297	296	295	0.7	-31.1	-5.3	26.7	-31.3	0.57	-0.77	47.9	-0.17	-0.03	0.67	0.02
O-2R5-C	300	299	298	-0.4	-23.3	-3.2	19.8	-23.4	0.42	-0.58	46.9	-0.11	-0.04	0.50	0.02
O-2R5-D	303**	302	301	0.9	-10.7	-2.1	8.7	-10.8	0.18	-0.27	48.1	-0.07	-0.02	0.22	0.01
O-2R5-E	306	305	304	0.7	0.9	-0.3	1.1	-0.6	0.03	-0.01	26.9	0.02	-0.00	0.02	0.01
O-2R5-F	309	308	307	-1.8	-11.4	0.7	12.3	-15.4	0.27	-0.32	47.8	-0.05	0.01	-0.30	0.02
O-2R5-G	312	311	310	1.3	-19.2	-1.6	18.9	-19.2	0.43	-0.45	-42.8	0.03	-0.04	-0.44	0.02
O-2R5-H	315	314	313	2.5	-23.0	-1.4	24.2	-23.1	0.57	-0.52	-42.7	0.07	-0.02	-0.54	0.02
O-2R5-J	318	317	316	4.0	-21.7	-2.1	23.7	-21.9	0.57	-0.49	-31.1	0.11	-0.03	-0.52	0.03
I-2R5-A	619	620**	621	2.2	0.0	-2.8	2.2	-2.8	0.05	-0.07	3.2	0.05	-0.07	0.01	0.03
I-2R5-B	622	623	624**	0.7	-12.1	0.0	12.8	-12.1	0.39	-0.27	-44.2	0.02	0.01	-0.29	0.02
I-2R5-C	625	626	627	-0.1	-4.0	4.1	8.2	-4.3	0.23	-0.06	-54.8	0.04	0.13	-0.14	0.03
I-2R5-D	628	629	630	0.2	-2.3	2.5	5.2	-2.5	0.13	-0.03	-53.8	0.03	0.08	-0.08	0.02
I-2R5-E	631	632	633	-0.8	-2.5	4.0	6.3	-3.1	0.18	-0.04	29.6	0.12	0.01	0.09	0.02
I-2R5-F	634	635	636	4.2	8.0	1.1	8.3	-3.0	0.24	-0.02	-53.1	0.08	0.15	-0.12	0.03
I-2R5-G	637	638**	639	1.4	0.0	0.2	1.8	-0.2	0.06	0.01	63.9	0.02	0.05	0.02	0.03
I-2R5-H	640	641	642	-0.0	-0.3	1.4	1.8	-0.5	0.06	0.00	26.9	0.04	0.01	0.02	0.01
I-2R5-J	643**	644**	645	0.0	0.0	1.7	2.1	-0.4	0.06	0.01	22.5	0.06	0.02	0.02	0.01
O-1R6-A	156	155	154	-7.5	-14.3	3.3	11.3	-15.4	0.22	-0.40	33.0	0.04	-0.21	0.28	0.02
O-1R6-B	159	158	157	-4.4	2.0	4.5	5.8	-10.8	0.68	-0.30	-16.5	0.05	-0.27	-0.10	0.02
O-1R6-C	162	161	160	-5.6	9.9	2.2	10.7	-13.2	0.22	-0.33	-34.2	0.05	-0.15	-0.26	0.02
O-1R6-D	165	164	163	-0.7	12.2	0.9	12.2	-11.8	0.28	-0.27	-43.3	0.02	-0.01	-0.28	0.01
I-1R6-A	481	482	483	12.9	30.9	-15.8	33.8	-37.2	0.75	-0.89	33.3	0.25	-0.40	0.75	0.03
I-1R6-B	484	485	486	3.0	8.3	-6.3	9.5	-12.2	0.19	-0.31	31.3	0.06	-0.17	0.22	0.02
I-1R6-C	487	488	489	-0.0	-3.2	-3.2	2.3	-5.7	0.03	-0.16	-33.8	-0.03	-0.10	-0.09	0.02
I-1R6-D	490	491	492	-2.0	-7.7	-0.4	5.4	-7.8	0.10	-0.20	-49.7	-0.07	-0.03	-0.15	0.02
O-2K6-A	321	320	319	4.6	-13.0	-1.6	16.3	-13.3	0.41	-0.28	51.1	-0.01	0.14	0.33	0.02
U-2K6-B	324	323	322	6.6	6.3	-5.7	8.6	-5.7	0.23	-0.10	-68.3	-0.06	0.18	0.11	0.01
O-2R6-C	327	326	325	4.9	11.4	-2.3	12.0	-9.6	0.30	-0.20	-55.0	-0.03	0.14	-0.23	0.01
I-2K6-A	646	647	648	-1.8	37.1	10.5	37.6	-29.0	0.95	-0.58	50.3	0.04	0.33	0.76	0.02
I-2K6-B	649	650	651	-0.7	14.3	7.6	15.0	-8.1	0.42	-0.12	55.6	0.05	0.24	0.25	0.01
I-2K6-C	652	653	654	-1.1	-2.0	2.4	3.9	-2.6	0.10	-0.05	-81.6	-0.01	0.07	-0.06	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

MADE IN U.S.A. BY THE WESTINGHOUSE ELECTRIC COMPANY, P. O. BOX 1088, PITTSBURGH, PA. 15224

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-1R7- A	655	656	657	-1.7	2.6	-0.0	2.6	-5.2	0.04	-0.14	48.3	-0.06	-0.04	0.09	0.02
I-1R7- B	658	659	660	-18.4	-11.7	-10.1	-9.4	-19.2	-5.50	-0.72	74.2	-0.71	-0.52	0.06	0.04
I-2R7- A	661	662	663	15.7	18.1	9.6	18.8	6.5	0.68	0.40	30.4	0.61	0.47	0.12	0.05
EX- C- A	670	671	672	-1.4	-17.9	-0.3	16.0	-17.9	0.35	-0.43	44.3	-0.03	-0.05	0.39	0.01
EX- C- B	675	674	673	-1.8	-28.3	-0.5	26.0	-28.3	0.58	-0.67	44.4	-0.04	-0.06	0.63	0.01
EX- C- C	676	677	676	-2.5	-13.9	4.3	16.1	-14.3	0.39	-0.31	38.5	0.12	-0.04	0.34	0.02
EX- C- D	664**	668	667	0.0	-28.3	-1.0	27.3	-28.3	0.62	-0.66	45.5	-0.03	-0.01	0.64	0.02
EX- B- A	681	686	685	1.1	4.5	3.6	4.8	-0.1	0.16	0.04	60.3	0.07	0.13	0.65	0.03
EX- B- B	690	689	688	0.6	-2.0	0.9	3.4	-2.0	0.09	-0.03	46.5	0.03	0.03	-0.06	0.02
EX- B- C	681	680	679	-0.7	-2.3	-4.3	-0.7	-4.3	-0.06	-0.15	3.0	-0.07	-0.15	0.00	0.04
EX- B- D	684	683	682	-0.5	-2.1	-0.7	0.9	-2.1	0.01	-0.06	-42.6	-0.02	-0.03	-0.03	0.01
EX- A- A	695	695	694	-32.3	-10.8	3.7	4.1	-32.7	-0.19	-1.04	84.5	-1.03	-0.20	0.08	0.03
EX- A- b	693	692	691	1.2	-1.3	1.4	3.8	-1.3	0.11	-0.00	-46.0	0.05	0.06	-0.06	0.02
EX- A- L	680	665	664	34.0	16.6	-4.5	34.1	-4.6	1.08	0.18	2.8	1.08	0.19	0.04	0.02
EX- A- U	694	698	697	-0.4	-3.6	0.7	4.0	-3.7	0.10	-0.08	-49.0	-0.00	0.02	-0.09	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

COMBUSTION 1-10, LOAD CASE 3, MSZ

NOMINAL LOAD = 2.650E 05

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - RSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CUNF
O-1R1-A	3	2	1	-16.3	5.2	-2.4	6.7	-25.4	-0.03	-0.77	-32.2	-0.24	-0.56	-0.33	0.03
O-1R1-B	6	5	4	-23.3	-1.0	-2.7	3.2	-31.3	-0.20	-1.00	-24.6	-0.34	-0.86	-0.30	0.03
O-1R1-C	9	8	7	-22.1	-13.9	-15.5	-12.9	-24.6	-0.67	-0.94	-28.0	-0.73	-0.88	-0.11	0.03
O-1R1-D	12	11	10	-17.0	-33.8	-23.8	-0.9	-34.9	-0.38	-1.16	55.1	-0.90	-0.63	0.37	0.03
O-1R1-E	15	14	13	-7.0	-50.4	-13.3	30.2	-50.5	0.50	-1.37	47.2	-0.51	-0.36	0.93	0.03
O-1R1-F	16	17	16	-10.7	-46.2	-3.7	33.9	-46.3	0.64	-1.26	67.6	-1.25	0.64	0.08	0.03
O-1R1-G	21	20	19	6.3	-35.7	4.3	46.3	-35.7	1.17	-0.72	-44.3	0.25	0.20	-0.95	0.03
O-1R1-H	24	23	22	33.2	-3.9	3.8	45.3	-8.3	1.41	0.17	-28.3	1.13	0.45	-0.52	0.03
O-1R1-J	27	26	25	32.1	15.4	13.1	34.5	10.7	1.24	0.69	-18.6	1.19	0.75	-0.17	0.06
O-1R1-K	30	29	28	21.5	20.6	18.2	21.7	18.0	0.89	0.81	12.6	0.89	0.81	0.02	0.04
O-1R1-L	33	32	31	47.6	28.8	13.2	47.6	13.1	1.70	0.90	-2.6	1.70	0.90	-0.04	0.14
I-1R1-A	328	329	330	3.1	8.9	23.3	24.1	2.3	0.82	0.31	-78.4	0.33	0.80	-0.10	0.03
I-1R1-B	331	332	333	1.2	1.2	32.3	38.8	-5.2	1.23	0.21	-67.5	0.36	1.08	-0.36	0.03
I-1R1-C	334	335	336	0.3	-9.2	42.6	58.7	-15.8	1.78	0.06	-62.3	0.43	1.41	-0.71	0.06
I-1R1-D	337	338	339	-1.9	-22.3	39.4	64.8	-27.2	1.87	-0.26	-58.3	0.33	1.28	-0.95	0.02
I-1R1-E	340	341	342	-4.9	-11.0	24.1	34.7	-15.6	0.99	-0.17	-62.5	0.08	0.74	-0.47	0.03
I-1R1-F	343	344	345	-4.1	-2.4	12.1	14.3	-6.3	0.41	-0.07	64.2	0.02	0.32	0.19	0.01
I-1R1-G	346	347	348	-8.9	-4.6	4.8	5.3	-9.4	0.08	-0.26	10.2	0.07	-0.25	0.06	0.01
I-1R1-H	349	350	351	-17.8	-9.9	2.9	3.2	-18.1	-0.07	-0.56	6.7	-0.08	-0.56	0.06	0.03
I-1R1-J	352	353	354	-27.5	-14.7	7.2	7.8	-28.1	-0.02	-0.85	7.4	-0.04	-0.84	0.11	0.03
I-1R1-K	355	356	357	-36.4	-11.9	16.8	16.9	-36.5	0.20	-1.03	2.2	0.19	-1.03	0.05	0.02
I-1R1-L	358**	359**	360**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.0	0.0	0.0	0.0	0.0
O-1R2-A	36	35	34	5.8	-16.1	-40.0	5.8	-40.0	-0.20	-1.26	-88.8	-1.26	-0.21	-0.02	0.03
O-1R2-B	39	38	37	11.0	-6.3	-23.6	11.0	-23.7	0.11	-0.74	-88.4	-0.74	0.11	-0.02	0.03
O-1R2-C	41	41	40	17.5	-7.8	-28.0	17.5	-28.1	0.30	-0.75	86.9	-0.75	0.29	0.06	0.04
O-1R2-D	43	44	43	24.1	-8.8	-28.1	24.9	-28.9	0.54	-0.71	82.7	-0.69	0.52	0.16	0.03
O-1R2-E	44	47	46	27.7	-6.0	-6.3	34.4	-13.1	1.01	-0.09	67.8	0.07	0.85	0.38	0.11
O-1R2-F	51	50	49	40.9	0.1	0.8	49.6	-8.0	1.56	0.23	-67.9	0.41	1.37	-0.46	0.03
O-1R2-G	54	53	52	40.5	9.9	4.8	44.6	0.8	1.48	0.47	-17.8	1.38	0.56	-0.29	0.04
O-1R2-H	57	56	55	32.1	26.2	13.3	32.7	14.7	1.20	0.74	10.3	1.19	0.76	0.06	0.03
O-1R2-J	60	59	58	18.5	30.0	21.1	30.1	9.5	1.08	0.61	48.6	0.82	0.88	0.24	0.02
O-1R2-K	63	62	61	9.5	27.5	24.6	30.0	4.1	1.03	0.43	62.9	0.56	0.91	0.24	0.03
O-1R2-L	66	65	64	29.3	32.0	12.2	34.9	6.6	1.22	0.56	26.4	1.09	0.69	0.26	0.04
I-1R2-A	361	362	363	-17.4	-6.8	8.0	8.2	-17.6	0.13	-0.50	-85.3	-0.49	0.09	-0.05	0.04
I-1R2-B	364	365	366	-17.9	-20.5	-5.2	-0.6	-22.5	-0.24	-0.75	-62.7	-0.64	-0.35	-0.21	0.03
I-1R2-C	367	368	369	-16.5	-32.1	-22.9	0.1	-33.3	-0.33	-1.10	-33.9	-0.57	-0.80	-0.36	0.03
I-1R2-D	371	371	372	-11.2	-48.4	-33.3	6.1	-50.7	-0.30	-1.61	-33.5	-0.70	-1.21	-0.60	0.03
I-1R2-E	373	374	375	-27.4	-58.0	-28.7	1.9	-58.0	-0.51	-1.89	-44.4	-1.19	-1.22	-0.69	0.04
I-1R2-F	376	377	378	-33.8	-51.2	-19.5	-1.1	-52.2	-0.55	-1.73	81.9	-1.71	-0.56	0.16	0.04
I-1R2-G	379	380	381	-41.2	-48.3	-15.7	-4.8	-52.1	-0.67	-1.76	28.6	-0.92	-1.51	0.46	0.07
I-1R2-H	382	483	384	-41.3	-37.1	-0.2	-4.1	-43.4	-0.59	-1.54	18.4	-0.68	-1.44	0.29	0.04
I-1R2-J	385	386**	387	-39.9	0.0	2.1	9.4	-47.1	-0.16	-1.46	-21.0	-0.32	-1.29	-0.44	0.03
I-1R2-K	388	389	390	-33.8	-14.3	10.5	10.6	-33.9	0.02	-1.01	3.5	0.01	-1.01	0.06	0.03
I-1R2-L	391	392	393	-21.0	-7.1	-0.3	0.3	-21.6	-0.20	-0.71	-9.4	-0.22	-0.69	-0.08	0.04
O-1R3-A	69	66	67	10.3	-27.9	-40.9	13.2	-43.9	0.00	-1.32	76.9	-1.25	-0.07	0.29	0.04
O-1R3-B	72	71	70	12.2	-26.2	-34.1	16.8	-38.7	0.17	-1.11	73.3	-1.00	0.06	0.35	0.03
O-1R3-C	73	74	73	11.5	-24.0	-36.2	16.7	-41.4	0.14	-1.20	72.5	-1.08	0.02	0.38	0.02
O-1R3-D	78	77	76	15.8	-22.5	-44.2	16.9	-45.3	0.11	-1.33	82.3	-1.30	0.08	0.19	0.03
O-1R3-E	81	80	79	14.4	-20.1	-41.0	15.3	-41.8	0.09	-1.23	83.1	-1.21	0.07	0.16	0.03
O-1R3-F	84	83	82	14.6	-11.4	-35.9	14.6	-35.9	0.13	-1.04	-49.8	-0.47	-0.44	-0.58	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CUNF	
0-1R2-G	87	86	85	5.8	1.6	-27.4	9.9	-31.6	0.01	-0.94	18.4	-0.08	-0.85	0.29	0.03	
0-1R3-H	91	89	88	-0.8	5.0	-15.7	6.9	-23.4	-0.00	-0.70	30.3	-0.18	-0.53	0.31	0.02	
0-1R3-J	93	92	91	-2.2	6.8	-6.2	6.8	-18.2	0.04	-0.53	43.9	-0.23	-0.26	0.29	0.03	
0-1R3-K	95	95	94	-2.6	6.1	-3.1	6.1	-11.8	0.09	-0.33	44.2	-0.12	-0.13	0.21	0.03	
0-1R3-L	94	98	97	-11.4	-0.1	-2.2	1.4	-15.4	-0.11	-0.50	62.5	-0.41	-0.19	0.16	0.02	
1-1R3-A	344	345	348	-23.6	-11.8	-5.3	-4.8	-24.1	-0.40	-0.84	81.3	-0.83	-0.41	0.07	0.04	
1-1R3-B	347	348	349	-20.4	-15.5	-11.8	-11.7	-21.0	-0.59	-0.81	84.4	-0.81	-0.60	0.02	0.04	
1-1R3-C	400	401	402	-10.0	-19.0	-19.8	-8.5	-21.3	-0.49	-0.79	-20.1	-0.53	-0.75	-0.09	0.03	
1-1R3-D	403	404	405	2.1	-19.9	-24.6	3.3	-30.8	-0.20	-0.98	-10.6	-0.22	-0.95	-0.14	0.02	
1-1R3-E	406	407	408	1.3	-25.2	-33.1	4.1	-35.9	-0.22	-1.14	-15.5	-0.29	-1.08	-0.24	0.01	
1-1R3-F	409	410	411	-4.1	-33.4	-26.7	-0.1	-35.7	-0.36	-1.18	-75.2	-1.13	-0.41	-0.20	0.03	
1-1R3-G	412	413	414	-10.3	-28.4	-19.0	0.2	-29.5	-0.28	-0.97	53.4	-0.73	-0.53	0.33	0.04	
1-1R3-H	415	416	417	-4.3	-21.1	-10.8	6.4	-21.5	-0.00	-0.64	51.8	-0.40	-0.25	0.31	0.03	
1-1R3-J	418	419	420	4.9	-13.0	-8.8	11.0	-14.9	0.22	-0.38	60.9	-0.24	0.07	0.25	0.01	
1-1R3-K	421	422	423	6.2	-9.4	-7.1	10.7	-11.6	0.24	-0.28	63.5	-0.17	0.13	0.21	0.02	
1-1R3-L	424	425	426	5.3	1.9	-2.1	5.5	-4.3	0.14	-0.09	-82.4	-0.06	0.14	-0.03	0.03	
0-1R4-A	102	101	100	-2.4	-24.0	-18.6	9.1	-30.6	-0.00	-0.92	56.7	-0.64	-0.28	0.42	0.02	
0-1R4-B	103	104	103	-6.6	-30.3	-20.2	5.3	-32.1	-0.14	-1.01	55.6	-0.73	-0.42	0.40	0.03	
0-1R4-C	108	107	106	-8.4	-33.6	-20.9	4.8	-34.5	-0.18	-1.09	53.9	-0.78	-0.50	0.43	0.02	
0-1R4-D	111	110	109	-6.4	-32.3	-28.4	8.3	-37.1	-0.04	-1.14	64.0	-0.04	-0.29	0.41	0.02	
0-1R4-E	114	113	112	4.9	-19.1	-37.6	5.0	-37.7	-0.21	-1.19	-48.6	-0.76	-0.64	-0.49	0.02	
0-1R4-F	117	116	115	-8.0	-3.2	-25.6	-0.6	-33.1	-0.35	-1.10	28.6	-0.52	-0.92	0.32	0.02	
0-1R4-G	120	119	118	-15.4	-7.8	-21.8	-7.3	-29.4	-0.54	-1.06	36.8	-0.72	-0.87	-0.25	0.04	
0-1R4-H	123	122	121	-19.8	-12.7	-20.7	-12.7	-27.8	-0.69	-1.04	43.3	-0.86	-0.88	0.17	0.03	
0-1R4-J	126	125	124	-36.2	-29.7	-16.1	-15.4	-36.8	-0.87	-1.37	-80.1	-1.35	-0.89	-0.08	0.04	
1-1R4-A	427	428	429	-12.0	-13.7	-13.8	-12.5	-14.0	-0.55	-0.59	-18.4	-0.55	-0.58	-0.01	0.03	
1-1R4-B	430	431	432	-0.1	-7.6	-16.2	-0.1	-16.2	-0.16	-0.54	1.8	-0.16	-0.53	0.61	0.02	
1-1R4-C	433	434	435	9.3	0.8	-15.9	9.7	-14.3	0.18	-0.38	7.4	0.17	-0.37	0.67	0.03	
1-1R4-D	436	437	438	12.6	10.3	-10.0	15.8	-13.2	0.39	-0.28	19.3	0.32	-0.21	0.21	0.02	
1-1R4-E	439	440	441	23.6	1.3	-13.3	24.0	-13.6	0.66	-0.21	-50.7	0.14	0.31	-0.43	0.03	
1-1R4-F	442	443	444	21.3	-7.9	-2.8	30.3	-11.7	0.88	-0.09	62.5	0.12	0.68	0.40	0.02	
1-1R4-G	445	446	447	28.4	-3.2	-6.3	34.1	-11.5	1.01	-0.04	70.3	0.08	0.84	0.33	0.02	
1-1R4-H	448	449	450	21.5	-2.4	-1.3	27.1	-6.8	0.82	0.04	66.1	0.17	0.70	0.29	0.02	
1-1R4-J	451	452	453	11.3	6.3	6.5	12.4	5.4	0.46	0.30	68.4	0.33	0.44	0.06	0.03	
0-1R5-A	129	128	127	-7.6	-10.1	-15.4	-7.3	-15.6	-0.40	-0.59	-80.4	-0.58	-0.40	-0.03	0.02	
0-1R5-B	132	131	130	-10.4	-10.1	-11.6	-10.1	-12.5	-0.46	-0.51	-53.7	-0.49	-0.47	-0.03	0.03	
0-1R5-C	135	134	133	-15.8	-11.7	-14.0	-11.7	-16.1	-0.55	-0.65	-46.5	-0.60	-0.54	-0.05	0.04	
0-1R5-D	138	137	136	-13.1	-12.9	-11.2	-11.0	-13.4	-0.49	-0.55	19.3	-0.50	-0.54	0.02	0.03	
0-1R5-E	141	140	139	-14.7	-13.7	-14.9	-13.7	-15.9	-0.61	-0.66	41.3	-0.63	-0.64	0.02	0.05	
0-1R5-F	144	143	142	-15.0	-17.3	-17.1	-15.5	-17.7	-0.69	-0.74	-21.0	-0.69	-0.73	-0.02	0.04	
0-1R5-G	147	146	145	-13.4	-17.8	-21.1	-13.4	-21.1	-0.65	-0.83	-4.5	-0.65	-0.83	-0.01	0.02	
0-1R5-H	150	149	148	-37.6	-22.4	-20.8	-18.7	-39.7	-1.01	-1.49	71.7	-1.45	-1.06	0.14	0.05	
0-1R5-J	153	152	151	-37.3	-29.7	-18.3	-18.1	-37.5	-0.97	-1.42	-84.2	-1.41	-0.97	-0.04	0.04	
1-1R5-A	454	455	456	1.2	-9.2	-18.9	1.2	-18.9	-0.15	-0.61	-0.9	-0.15	-0.61	-0.01	0.05	
1-1R5-B	457	458	459	8.0	-5.0	-16.0	8.0	-16.0	0.11	-0.45	-2.4	0.10	-0.45	-0.02	0.02	
1-1R5-C	460	461	462	8.5	-0.5	-9.3	8.5	-9.3	0.14	-0.22	-0.3	0.19	-0.22	-0.00	0.02	
1-1R5-D	463	464	465	8.3	4.5	1.6	8.3	1.6	0.29	0.13	-3.8	0.29	0.14	-0.01	0.02	
1-1R5-E	466	467	468	7.9	9.7	13.3	13.4	7.8	0.52	0.39	9.1	0.52	0.39	0.02	0.03	
1-1R5-F	469	470	471**	24.4	12.3	0.0	24.9	-0.0	0.82	0.25	89.6	0.25	0.82	0.00	0.02	
1-1R5-G	472	473	474	24.2	11.4	1.1	29.5	0.7	0.98	0.32	83.6	0.32	0.97	0.07	0.04	
1-1R5-H	475	476	477	15.1	15.4	17.2	17.4	14.8	0.72	0.66	17.2	0.72	0.67	0.02	0.04	
1-1R5-J	478	479	480	7.3	11.5	19.0	19.2	7.1	0.70	0.42	8.0	0.70	0.43	0.04	0.10	
0-2R1-A	166	167	166	-19.7	-25.5	-3.7	4.2	-27.6	-0.13	-0.87	30.0	-0.32	-0.69	0.32	0.02	
0-2R1-B	171	170	169	-28.2	-30.0	-8.0	-2.3	-33.7	-0.42	-1.14	24.8	-0.54	-1.01	0.27	0.03	
0-2R1-C	174	173	172	-23.7	-21.3	-19.9	-19.8	-23.7	-0.89	-0.98	-6.6	-0.89	-0.98	-0.01	0.03	
0-2R1-D	177	176	175	-15.0	8.1	-20.5	8.2	-43.8	-0.16	-1.36	-48.1	-0.82	-0.70	-0.60	0.03	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TBU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
0-2R1-E	180	179	178	-6.0	36.7	-10.3	36.8	-53.1	0.59	-1.39	-46.4	-0.40	-0.30	-1.04	0.02
0-2R1-F	183	182	181	-4.6	41.5	-0.4	41.6	-46.5	0.91	-1.12	1.4	-0.51	-1.12	0.05	0.03
0-2R1-G	186	185	184	-25.3	21.8	-2.1	23.7	-51.2	0.27	-1.45	54.0	-0.86	-0.32	0.82	0.02
0-2R1-H	189	188	187	-35.4	-14.5	-14.6	-10.2	-39.7	-0.73	-1.41	67.4	-1.31	-0.83	0.24	0.02
0-2R1-J	192	191	190	-26.2	-35.4	-27.2	-18.0	-35.4	-0.94	-1.35	-43.4	-1.13	-1.16	-0.20	0.03
0-2K1-K	195	194	193	-12.5	-35.7	-35.1	-7.3	-40.2	-0.64	-1.40	-23.3	-0.76	-1.28	-0.28	0.05
0-2K1-L	198	197	196	-21.6	-29.1	-23.5	-16.0	-29.1	-0.81	-1.12	-41.0	-0.95	-0.99	-0.15	0.03
1-2R1-A	493	494	495	0.1	19.1	25.7	27.2	-1.3	0.88	0.23	77.0	0.26	0.85	0.14	0.03
1-2R1-B	496	497	498	0.5	30.8	34.8	39.3	-4.0	1.26	0.26	71.2	0.36	1.15	0.30	0.02
1-2R1-C	499	500	501	2.9	86.4	50.5	92.9	-39.5	2.67	-0.38	55.5	0.59	1.69	1.43	0.36
1-2R1-D	502	503	504	-0.1	66.6	54.4	75.1	-20.9	2.27	0.05	62.3	0.53	1.79	0.91	0.03
1-2R1-E	505	506	507	-5.0	32.3	24.1	36.6	-17.6	1.03	-0.22	61.2	0.07	0.74	0.53	0.09
1-2K1-F	508	509	510	-6.1	10.8	14.9	16.7	-7.8	0.47	-0.09	29.4	0.34	0.04	0.24	0.02
1-2K1-G	511	512	513	3.0	24.3	17.7	26.1	-5.5	0.81	0.08	-31.1	0.61	0.27	-0.32	0.05
1-2R1-H	514	515	516	28.7	46.9	12.9	48.0	-6.4	1.52	0.26	-53.5	0.71	1.08	-0.60	0.03
1-2R1-J	517	518	519	52.2	43.5	-0.7	37.6	-6.1	1.84	0.37	-73.0	0.49	1.71	-0.41	0.13
1-2R1-K	520	521	522	50.6	34.6	-2.5	52.6	-4.5	1.69	0.37	-79.2	0.42	1.65	-0.24	0.03
1-2R1-L	523	524	525	32.4	26.3	7.4	33.9	5.9	1.18	0.53	-76.5	0.56	1.14	-0.15	0.05
0-2R2-A	201	200	199	-23.6	3.7	36.4	36.6	-23.7	0.97	-0.42	2.6	0.97	-0.42	0.06	0.03
0-2R2-B	204	203	202	-34.5	-7.2	26.7	26.9	-34.7	0.54	-0.88	3.1	0.54	-0.87	0.08	0.03
0-2R2-C	207	206	205	-32.4	-11.4	25.4	26.4	-33.5	0.54	-0.84	7.7	0.52	-0.82	0.18	0.03
0-2R2-D	210	209	208	-19.3	-16.8	14.1	19.3	-24.5	0.40	-0.62	20.2	0.27	-0.50	0.33	0.06
0-2R2-E	213	212	211	-19.9	-22.7	-7.3	-2.5	-24.7	-0.33	-0.84	27.8	-0.44	-0.73	0.21	0.04
0-2R2-F	216	215	214	-23.8	-24.4	-19.3	-17.9	-25.2	-0.84	-1.01	71.1	-0.99	-0.86	0.05	0.06
0-2R2-G	219	218	217	-9.4	-28.7	-22.7	-1.7	-30.3	-0.36	-1.02	-31.2	-0.53	-0.84	-0.29	0.02
0-2R2-H	222	221	220	11.5	-25.9	-31.0	17.0	-36.5	0.20	-1.63	-18.6	0.07	-0.91	-0.37	0.03
0-2R2-J	225	224	223	20.6	-23.2	-35.4	24.7	-39.5	0.42	-1.06	-14.7	0.33	-0.96	-0.36	0.03
0-2R2-K	228	227	226	21.5	-13.2	-34.7	22.3	-35.5	0.38	-0.95	-6.6	0.37	-0.93	-0.15	0.03
0-2R2-L	231	230	229	37.8	3.2	-20.4	38.4	-20.9	1.06	-0.31	-5.4	1.05	-0.30	-0.13	0.04
1-2R2-A	526	527	528	22.6	14.7	17.1	25.7	14.0	0.99	0.72	-31.1	0.91	0.79	-0.12	0.05
1-2R2-B	529	530	531	25.6	28.6	30.9	30.9	25.5	1.27	1.15	85.7	1.15	1.27	0.01	0.04
1-2R2-C	532	533	534	24.9	48.3	50.9	54.6	21.3	2.01	1.24	70.7	1.32	1.93	0.24	0.03
1-2R2-D	535	536	537	21.1	85.4	81.6	96.9	5.8	3.25	1.15	65.8	1.50	2.90	0.79	0.07
1-2R2-E	538	539	540	33.4	110.1	81.3	115.3	-0.6	3.79	1.12	57.2	1.91	3.01	1.22	0.06
1-2R2-F	541	542	543	40.7	107.2	69.2	109.1	0.7	3.61	1.10	7.6	3.56	1.15	0.33	0.04
1-2R2-G	544	545	546	51.9	100.5	53.2	100.5	4.7	3.36	1.15	-44.6	2.27	2.24	-1.11	0.05
1-2R2-H	547	548	549	62.3	67.3	22.0	74.4	9.9	2.55	1.06	-64.4	1.34	2.27	-0.58	0.04
1-2R2-J	550	551	552	52.1	41.7	9.9	54.7	7.4	1.86	0.78	-76.6	0.84	1.82	-0.25	0.05
1-2R2-K	553	554	555	30.8	28.4	21.1	31.4	20.5	1.24	0.99	-76.3	1.00	1.22	-0.06	0.04
1-2R2-L	556	557	558	12.1	15.7	22.6	22.9	11.8	0.87	0.62	9.0	0.87	0.62	0.04	0.02
0-2R3-A	234	233	232	1.5	43.4	56.3	59.9	-2.0	1.95	0.52	-13.9	1.87	0.61	-0.33	0.03
0-2R3-B	237	236	235	5.0	37.3	41.5	46.3	0.3	1.53	0.47	-18.0	1.42	0.56	-0.32	0.02
0-2R3-C	240	239	238	7.2	36.7	59.1	55.7	6.5	1.90	0.77	-6.5	1.89	0.78	-0.13	0.04
0-2R3-D	243	242	241	15.9	35.7	51.5	51.6	15.7	1.86	1.05	-3.3	1.85	1.03	-0.05	0.03
0-2R3-E	246	245	244	26.7	25.7	43.6	47.8	22.5	1.80	1.21	24.1	1.70	1.31	0.22	0.04
0-2R3-F	249	248	247	31.7	21.0	35.3	46.2	20.9	1.73	1.14	85.8	1.15	1.72	0.04	0.09
0-2R3-G	252	251	250	42.9	23.2	22.6	46.7	18.8	1.72	1.08	-21.6	1.64	1.17	-0.22	0.03
0-2R3-H	255	254	253	48.0	30.0	15.6	48.1	15.5	1.74	0.99	-3.2	1.74	0.99	-0.04	0.03
0-2R3-J	258	257	256	48.0	32.5	9.3	48.4	8.9	1.68	0.77	5.6	1.67	0.78	0.09	0.05
U-2R3-K	261	260	259	43.8	34.7	6.7	46.0	4.4	1.56	0.60	13.5	1.51	0.65	0.22	0.02
U-2R3-L	264	263	262	70.3	52.9	5.2	73.6	1.9	2.45	0.79	12.5	2.37	0.87	0.35	0.05
1-2R3-A	559	560	561	3.1	20.9	-0.8	20.8	-26.3	0.43	-0.66	37.8	0.02	-0.25	0.53	0.03
1-2R3-B	562	563	564	24.1	10.7	-11.3	24.6	-11.8	0.69	-0.14	6.8	0.68	-0.13	0.10	0.03
1-2R3-C	565	566	567	12.6	12.2	-10.7	17.1	-15.2	0.41	-0.33	22.0	0.31	-0.23	0.26	0.02
1-2R3-D	568	569	570**	2.9	15.5	0.0	15.6	-12.7	0.39	-0.26	42.1	0.10	0.03	0.33	0.02
1-2R3-E	571	572**	573**	-1.4	0.0	0.0	0.3	-1.7	-0.01	-0.05	67.5	-0.05	-0.01	0.02	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(I)	SIG(T)	TAU	CONF
I-2R3-F	574	575	576	7.1	34.4	18.7	35.2	-9.3	1.07	0.04	7.5	1.05	0.06	0.13	0.02
I-2R3-G	577	578	579	2.0	23.4	12.1	24.2	-10.1	0.70	-0.09	-26.5	0.42	0.18	-0.38	0.04
I-2R3-H	580	581	582	-13.1	13.6	9.3	17.4	-21.2	0.36	-0.53	-27.2	0.18	-0.34	-0.36	0.02
I-2R3-J	583	584	585	-17.0	10.7	13.1	22.0	-25.9	0.47	-0.54	-25.5	0.26	-0.43	-0.43	0.02
I-2R3-K	586	587	588	-17.0	11.4	21.6	23.7	-19.0	0.59	-0.39	-12.6	0.55	-0.35	-0.21	0.02
I-2R3-L	589	590	591	-13.5	1.7	18.9	18.9	-13.6	0.49	-0.26	1.8	0.49	-0.26	0.02	0.03
U-2R4-A	267	266	265	23.1	52.4	44.8	55.3	12.6	1.95	0.96	-29.8	1.70	1.21	-0.42	0.03
O-2R4-B	270	269	268	25.0	40.0	40.2	49.7	15.5	1.79	1.00	-31.8	1.57	1.22	-0.35	0.03
O-2R4-C	273	272	271	23.2	40.3	39.2	43.4	19.0	1.62	1.06	-24.3	1.52	1.15	-0.21	0.03
O-2R4-D	276	275	274	24.2	34.9	36.2	37.8	22.6	1.47	1.12	-19.0	1.43	1.16	-0.11	0.04
O-2R4-E	279	278	277	30.2	29.2	35.4	34.9	28.8	1.43	1.29	74.5	1.30	1.42	0.04	0.03
O-2R4-F	282	281	280	33.7	35.5	27.0	36.5	24.2	1.44	1.16	28.5	1.38	1.22	0.12	0.04
U-2R4-G	285	284	283	-2.3	44.2	28.7	46.5	24.5	1.74	1.27	25.9	1.68	1.36	0.20	0.03
U-2R4-H	288	287	286	36.4	47.3	31.1	47.6	19.9	1.77	1.13	39.6	1.51	1.39	0.31	0.04
O-2R4-J	291	290	289	54.8	60.0	28.2	64.3	18.8	2.30	1.25	27.1	2.09	1.47	0.43	0.04
I-2R4-A	592	592	594	-7.5	-0.5	-2.4	0.2	-10.0	-0.09	-0.33	60.0	-0.27	-0.15	0.10	0.04
I-2R4-B	595	596	597	-10.5	-4.5	-10.1	-3.9	-22.7	-0.35	-0.79	55.0	-0.65	-0.50	0.20	0.04
I-2R4-C	598	599	600	-16.6	-17.5	-23.7	-15.7	-24.6	-0.76	-0.97	18.2	-0.78	-0.95	0.06	0.06
I-2R4-D	601	602	603	-22.1	-26.1	-29.2	-21.3	-30.0	-1.00	-1.20	-16.9	-1.02	-1.18	-0.06	0.03
I-2R4-E	604	605	606	-32.5	-29.7	-19.8	-18.9	-33.4	-0.93	-1.29	59.7	-1.20	-1.04	0.15	0.05
I-2R4-F	607	608	609	-39.7	-23.4	-12.9	-12.6	-40.0	-0.81	-1.44	-6.0	-0.82	-1.43	-0.07	0.05
I-2R4-G	610	611	612	-30.8	-11.4	-13.2	-8.2	-35.8	-0.62	-1.26	-25.2	-0.74	-1.15	-0.25	0.03
I-2R4-H	613	614	615**	-8.7	-0.5	0.0	1.4	-10.1	-0.05	-0.32	-20.7	-0.09	-0.29	-0.09	0.02
I-2R4-J	616	617	618**	1.3	3.7	0.0	3.8	-2.4	0.10	-0.64	-51.2	0.01	0.04	-0.07	0.02
U-2R5-A	294	293	292	30.7	30.9	34.7	35.3	30.1	1.46	1.34	21.0	1.45	1.36	0.04	0.03
U-2R5-B	297	296	295	28.4	35.2	36.7	38.9	28.1	1.56	1.31	-9.1	1.56	1.32	-0.04	0.04
U-2R5-C	300	299	298	29.5	33.3	33.3	34.1	28.7	1.41	1.28	-21.8	1.39	1.30	-0.04	0.04
O-2R5-D	303	302	301	23.5	30.3	34.4	34.6	23.3	1.37	1.11	-7.0	1.37	1.11	-0.03	0.03
U-2R5-E	306	305	304	25.1	31.5	40.2	40.3	25.0	1.58	1.22	-65.7	1.23	1.57	-0.02	0.04
U-2R5-F	309	308	307	33.7	31.7	27.6	33.9	27.5	1.39	1.24	9.2	1.39	1.24	0.02	0.05
O-2R5-G	312	311	310	37.3	37.2	32.9	38.1	32.0	1.57	1.43	21.4	1.56	1.45	0.05	0.04
U-2R5-H	315	314	313	65.3	54.3	35.9	65.7	35.4	2.52	1.82	7.1	2.51	1.83	0.09	0.04
U-2R5-J	318	317	316	37.8	33.9	33.6	39.6	31.8	1.62	1.44	28.7	1.58	1.48	0.07	0.05
I-2R5-A	619	620**	621	-27.5	0.0	4.4	8.1	-31.2	-0.04	-0.95	72.0	-0.86	-0.13	0.27	0.04
I-2R5-B	622	623	624**	-40.4	-22.3	0.0	0.1	-40.5	-0.40	-1.34	-87.1	-1.33	-1.40	-0.05	0.02
I-2R5-C	625	626	627	-20.5	-25.0	-31.9	-20.3	-32.0	-0.99	-1.26	5.6	-0.99	-1.26	0.03	0.06
I-2R5-D	628	629	630	-23.1	-32.5	-40.3	-23.0	-40.3	-1.16	-1.56	-2.6	-1.16	-1.56	-0.02	0.03
I-2R5-E	631	632	633	-24.4	-30.8	-46.3	-24.4	-46.4	-1.26	-1.77	86.3	-1.77	-1.26	0.03	0.06
I-2R5-F	634	635	636	-49.5	-34.0	-16.4	-10.3	-49.6	-1.03	-1.80	1.8	-1.03	-1.80	0.02	0.03
I-2R5-G	637	638**	639	-25.9	0.0	-28.1	0.0	-54.1	-0.53	-1.75	-46.1	-1.18	-1.13	-0.62	0.03
I-2R5-H	640	641	642	1.5	-16.6	-44.1	2.1	-44.5	-0.37	-1.45	-84.2	-1.44	-0.38	-0.11	0.02
I-2R5-J	643**	644**	645	0.0	0.0	-20.6	4.3	-24.8	-0.11	-0.78	-67.5	-0.68	-0.20	-0.24	0.02
O-1R6-A	156	155	154	-3.6	-26.0	1.7	24.2	-26.1	0.54	-0.62	42.0	0.02	-0.10	0.58	0.02
O-1R6-B	159	158	157	-5.9	-12.7	4.2	12.0	-13.8	0.26	-0.34	33.5	0.08	-0.15	0.27	0.02
U-1R6-C	162	161	160	-12.1	-8.9	9.1	11.4	-14.4	0.23	-0.36	17.4	0.18	-0.31	0.17	0.02
O-1R6-D	165	164	163	-13.2	-1.7	11.8	11.8	-13.2	0.26	-0.32	2.2	0.26	-0.32	0.02	0.01
I-1R6-A	481	482	483	0.4	12.4	-4.7	12.6	-16.9	0.25	-0.43	40.1	-0.03	-0.15	0.33	0.02
I-1R6-B	484	485	486	0.7	9.2	-8.0	9.9	-17.3	0.16	-0.47	35.7	-0.06	-0.26	0.30	0.03
I-1R6-C	487	488	489	0.4	2.0	-11.2	4.0	-10.7	-0.01	-0.45	25.8	-0.10	-0.36	0.17	0.01
I-1R6-D	490	491	492	-1.5	-0.0	-11.1	-1.5	-11.2	-0.16	-0.38	1.8	-0.16	-0.38	0.01	0.01
O-2R6-A	321	320	319	1.3	27.1	-0.4	27.1	-26.2	0.63	-0.60	-45.9	-0.00	0.04	-0.61	0.01
O-2R6-B	324	323	322	-3.6	12.3	8.3	14.7	-12.0	0.37	-0.25	-29.4	0.22	-0.10	-0.26	0.02
O-2R6-C	327	326	325	-10.0	5.0	9.8	11.0	-11.2	0.25	-0.20	-13.8	0.22	-0.23	-0.12	0.02
I-2R6-A	646	647	648	-7.8	-20.1	-2.2	10.4	-20.4	0.14	-0.57	-50.3	-0.28	-0.15	-0.35	0.02
I-2R6-B	649	650	651	-5.7	-22.0	-7.4	8.9	-22.0	0.08	-0.64	-43.4	-0.26	-0.30	-0.36	0.02
I-2R6-C	652	653	654	-3.5	-14.8	-10.5	1.6	-15.6	-0.10	-0.50	-32.9	-0.22	-0.38	-0.18	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-1N7- A	655	656	657	-14.2	-25.4	-32.7	-14.0	-32.9	-0.79	-1.22	-5.8	-0.79	-1.22	-0.04	0.03
I-1N7- B	653	659	660	-10.5	-20.6	-25.4	-10.5	-29.5	-0.63	-1.04	-3.6	-0.63	-1.04	-0.03	0.04
I-2N7- A	661	662	663	-13.8	-18.6	-20.0	-13.7	-26.1	-0.71	-1.00	5.9	-0.71	-0.99	0.03	0.03
EX- C- A	675	671	672	-6.9	0.1	5.8	5.9	-6.9	0.13	-0.17	-2.8	0.12	-0.17	-0.01	0.02
EX- C- B	675	674	673	20.2	-8.9	-35.8	20.3	-35.8	0.31	-0.98	88.9	-0.98	0.31	0.02	0.04
EX- C- C	678	677	676	-5.3	-0.7	3.4	3.4	-5.3	0.06	-0.14	-1.6	0.06	-0.14	-0.01	0.02
EX- C- D	664	668	667	-9.4	11.5	29.4	29.5	-9.5	0.88	-0.02	-2.3	0.88	-0.02	-0.04	0.03
EX- B- A	687	686	685	5.3	8.1	10.0	10.0	5.5	0.38	0.28	85.8	0.28	0.38	0.01	0.04
EX- B- B	690	689	688	-6.5	-7.6	-10.9	-6.2	-11.1	-0.31	-0.43	12.5	-0.32	-0.42	0.02	0.05
EX- B- C	681	680	679	8.4	8.2	10.5	11.1	7.8	0.44	0.37	-64.7	0.38	0.43	-0.03	0.04
EX- B- D	684	683	682	-5.6	-8.7	-10.0	-5.4	-10.2	-0.28	-0.39	-10.8	-0.28	-0.39	-0.02	0.02
EX- A- A	696	695	694	5.5	-3.4	-4.7	5.5	-9.8	0.09	-0.27	-4.9	0.09	-0.27	-0.03	0.03
EX- A- B	693	692	691	28.6	12.0	-6.1	28.6	-6.1	0.88	0.08	1.3	0.88	0.08	0.02	0.02
EX- A- C	666	665	664	5.7	-1.7	-10.1	5.7	-10.2	0.09	-0.28	1.9	0.09	-0.28	0.01	0.03
EX- A- D	699	698	697	-36.3	-5.9	23.9	23.9	-36.3	0.43	-0.96	89.7	-0.96	0.43	0.01	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

COMBUSTION 7-10, LOAD CASE 5, P3V

NOMINAL LOAD = 5.030E 04

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
0-1R1-A	3	2	1	14.7	34.7	67.5	68.3	13.9	2.39	1.13	6.8	2.37	1.15	0.15	0.25
0-1R1-B	4	5	4	9.6	17.5	40.2	41.9	8.0	1.46	0.60	12.9	1.42	0.72	0.17	0.16
0-1R1-C	9	8	7	10.7	34.4	50.9	51.3	10.3	1.79	0.85	-5.8	1.78	0.86	-0.10	0.13
0-1R1-D	12	11	10	-3.3	50.9	53.6	63.5	-13.2	1.96	0.19	-21.1	1.73	0.42	-0.59	0.22
0-1R1-E	15	14	13	-2.9	38.7	-3.8	38.7	-45.3	0.83	-1.11	-45.3	-0.15	-0.13	-0.97	0.09
0-1R1-F	18	17	16	-1.5	31.2	-29.6	33.3	-64.4	0.46	-1.79	-8.3	0.41	-1.75	-0.32	0.08
0-1R1-G	21	20	19	-11.4	22.3	-44.3	24.9	-80.6	0.02	-2.41	35.9	-0.81	-1.57	1.16	0.18
0-1R1-H	24	23	22	-38.7	-12.9	-43.4	-12.8	-69.2	-1.11	-2.41	42.6	-1.70	-1.81	0.65	0.26
0-1R1-J	27	26	25	-43.4	-28.5	-33.6	-27.4	-49.7	-1.39	-1.91	58.0	-1.76	-1.54	0.23	0.26
0-1R1-K	30	29	28	-21.8	-26.7	-40.2	-20.8	-41.2	-1.69	-1.56	12.4	-1.12	-1.54	0.10	0.24
0-1R1-L	33	32	31	-45.0	-29.2	-22.9	-22.0	-46.0	-1.18	-1.73	78.4	-1.71	-1.20	0.11	0.30
I-1R1-A	326	329	330	23.3	5.6	-31.8	25.0	-33.5	0.49	-0.86	9.9	0.45	-0.82	0.23	0.10
I-1R1-B	331	332	333	24.8	4.9	-32.3	26.2	-34.7	0.52	-0.89	8.7	0.49	-0.85	0.21	0.09
I-1R1-C	334	335	336	14.9	11.4	-29.9	21.8	-36.8	0.35	-1.00	20.1	0.20	-0.84	0.44	0.15
I-1R1-D	337	338	339	28.0	19.2	-34.3	35.2	-41.5	0.75	-1.02	17.8	0.58	-0.85	0.52	0.23
I-1R1-E	341	341	342	56.9	19.9	-46.1	58.9	-42.1	1.47	-1.00	7.9	1.42	-0.96	0.34	0.21
I-1R1-F	343	344	345	62.2	26.5	-23.9	62.9	-24.5	1.83	-0.19	-40.1	0.99	0.65	-0.99	0.11
I-1R1-G	346	347	348	74.3	37.7	-17.8	75.3	-18.7	2.30	0.13	-84.2	0.15	2.27	-0.22	0.15
I-1R1-H	349	350	351	65.1	25.8	-11.4	65.1	-11.4	2.03	0.27	89.2	0.27	2.03	0.02	0.11
I-1R1-J	352	353	354	65.5	25.9	-8.1	65.6	-8.2	2.08	0.38	87.8	0.38	2.08	0.00	0.26
I-1R1-K	355	356	357	62.7	23.2	-23.9	62.8	-24.1	1.83	-0.17	-87.5	-0.17	1.83	-0.09	0.14
I-1R1-L	358**	359**	360**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.0	0.0	0.0	0.0	0.0
0-1R2-A	36	34	34	-2.2	39.1	64.2	65.2	-3.1	2.12	0.54	-6.8	2.10	0.56	-0.19	0.21
0-1R2-B	39	38	37	-25.8	19.2	42.8	44.4	-27.4	1.19	-0.46	-8.7	1.15	-0.43	-0.25	0.22
0-1R2-C	42	41	40	-20.1	15.2	42.8	43.0	-20.4	1.22	-0.25	-3.5	1.21	-0.24	-0.09	0.17
0-1R2-D	45	44	43	-22.3	23.6	47.7	49.4	-23.9	1.39	-0.30	-8.6	1.35	-0.26	-0.25	0.15
0-1R2-E	48	47	46	-32.1	11.1	35.2	36.5	-33.4	0.87	-0.74	-7.9	0.84	-0.71	-0.22	0.15
0-1R2-F	51	50	49	-49.7	0.2	15.5	17.1	-55.3	0.02	-1.65	28.9	-0.37	-1.26	0.71	0.26
0-1R2-G	54	53	52**	-37.4	-9.1	0.0	2.3	-39.7	-0.32	-1.29	76.5	-1.23	-0.37	0.22	0.14
0-1R2-H	57	56	55	-26.7	-35.2	-16.8	-7.4	-36.1	-0.60	-1.26	-55.1	-1.05	-0.82	-0.31	0.25
0-1R2-J	60	59	58	-16.1	-31.3	-16.5	-1.3	-31.3	-0.35	-1.05	-44.6	-0.69	-0.70	-0.35	0.20
0-1R2-K	63	62	61	-5.4	-20.5	-29.9	-5.1	-30.2	-0.47	-1.05	-6.5	-0.47	-1.04	-0.07	0.26
0-1R2-L	66	65	64	-26.4	-23.3	-16.2	-15.8	-26.8	-0.79	-1.04	-79.4	-1.03	-0.80	-0.05	0.22
I-1R2-A	361	362	363	42.8	13.3	-7.7	43.1	-8.0	1.34	0.16	-4.7	1.33	0.17	-0.10	0.20
I-1R2-B	364	365	366	36.2	19.1	9.9	36.7	9.3	1.30	0.67	-8.3	1.29	0.68	-0.09	0.14
I-1R2-C	367	368	369	29.6	33.0	32.1	33.3	28.3	1.38	1.26	59.9	1.29	1.35	0.05	0.38
I-1R2-D	370	371	372	16.2	36.9	32.1	39.2	9.1	1.38	0.69	60.9	0.85	1.22	0.29	0.17
I-1R2-E	373	374	375	25.8	36.3	22.7	36.4	12.0	1.32	0.76	41.4	1.07	1.00	0.28	0.09
I-1R2-F	376	377	378	36.8	42.3	17.2	45.1	8.8	1.57	0.74	-16.4	1.51	0.80	-0.23	0.17
I-1R2-G	379	380	381	41.2	24.7	11.5	41.3	11.4	1.47	0.78	86.9	0.79	1.47	0.04	0.29
I-1R2-H	382	383	384	39.6	22.9	11.9	39.9	11.6	1.43	0.78	84.2	0.78	1.42	0.07	0.17
I-1R2-J	385	386**	387	37.1	0.0	2.6	46.1	-6.5	1.46	0.24	65.5	0.45	1.25	0.46	0.16
I-1R2-K	388	389	390	39.3	15.4	-8.4	39.3	-8.4	1.21	0.11	90.0	0.11	1.21	0.00	0.21
I-1R2-L	391	392	393	28.9	15.2	-0.3	29.0	-0.3	0.95	0.26	-88.2	0.28	0.95	-0.02	0.22
0-1R3-A	69	68	67	-14.9	28.9	41.2	45.3	-19.0	1.31	-0.18	-14.7	1.21	-0.08	-0.36	0.19
0-1R3-B	72	71	70	-25.1	24.7	31.4	38.7	-32.4	0.96	-0.69	-18.7	0.79	-0.52	-0.50	0.21
0-1R3-C	75	74	73	-10.2	42.9	34.6	50.2	-25.8	1.40	-0.35	-27.0	1.04	0.01	-0.71	0.14
0-1R3-D	78	77	76	-8.1	21.6	46.0	46.1	-8.2	1.44	0.18	-2.8	1.44	0.19	-0.06	0.13
0-1R3-E	81	80	79	-6.6	25.1	55.2	55.2	-6.6	1.75	0.33	-0.8	1.75	0.33	-0.02	0.16
0-1R3-F	84	83	82	-8.5	18.8	43.4	43.4	-8.6	1.35	0.15	43.5	0.78	0.72	0.60	0.10

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH								STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF	
0-1R3-G	87	86	85	-5.0	-1.9	35.5	41.8	-11.3	1.27	0.04	-69.9	0.19	1.12	-0.39	0.19	
0-1R3-H	96**	89	88	0.0	-5.9	31.8	41.3	-9.5	1.27	0.09	-64.4	0.31	1.05	-0.46	0.15	
0-1R3-J	93	92	91	1.2	-11.1	14.4	27.8	-12.2	0.80	-0.13	-54.6	0.18	0.49	-0.44	0.30	
0-1R3-K	96	95	94	4.6	-9.1	5.9	19.7	-9.2	0.56	-0.11	-56.3	0.21	0.24	-0.33	0.19	
0-1R3-L	99*	98	97	37.7	0.4	-0.5	45.0	-7.6	1.41	0.19	-21.8	1.24	0.36	-0.42	0.24	
1-1R3-A	39*	395	396	36.5	17.6	7.5	37.1	6.8	1.29	0.59	-8.5	1.28	0.61	-0.10	0.24	
1-1R3-B	397	398	399	24.8	13.1	21.1	32.9	13.0	1.21	0.75	-39.6	1.03	0.94	-0.23	0.30	
1-1R3-C	400	401	402	8.0	16.6	25.1	25.2	8.8	0.92	0.54	-88.7	0.54	0.92	-0.01	0.25	
1-1R3-D	403	404	405	-7.5	5.2	25.8	26.2	-7.9	0.79	-0.00	-83.4	0.01	0.76	-0.09	0.11	
1-1R3-E	406	407	408	-11.0	8.9	21.5	21.9	-11.4	0.61	-0.16	83.6	-0.15	0.60	0.09	0.10	
1-1R3-F	409	410	411	-7.5	2.6	20.1	20.6	-8.0	0.60	-0.06	52.5	0.19	0.36	0.32	0.10	
1-1R3-G	412	413	414	-14.3	13.6	3.0	15.6	-26.9	0.25	-0.73	-33.0	-0.04	-0.44	-0.45	0.21	
1-1R3-H	415	416	417	-3.3	18.6	-2.4	18.8	-29.5	0.33	-0.79	-41.5	-0.16	-0.30	-0.55	0.13	
1-1R3-J	418	419	420	-16.2	10.0	7.2	14.1	-23.1	0.24	-0.62	-25.5	0.08	-0.46	-0.33	0.12	
1-1R3-K	421	422	423	-15.5	4.2	9.1	11.2	-17.6	0.20	-0.47	-15.5	0.15	-0.42	-0.17	0.08	
1-1R3-L	424	425	426**	-8.7	-6.0	0.0	0.3	-9.0	-0.08	-0.29	10.4	-0.09	-0.29	0.04	0.15	
0-1R4-A	102	101	100	2.5	21.9	7.9	22.1	-11.7	0.61	-0.17	-40.4	0.29	0.16	-0.38	0.27	
0-1R4-B	105	104	103	5.2	27.7	-6.7	28.3	-29.7	0.64	-0.70	-50.9	-0.17	0.11	-0.66	0.20	
0-1R4-C	106	107	106	6.2	30.2	16.8	30.9	-8.0	0.94	0.04	-37.0	0.62	0.37	-0.43	0.19	
0-1R4-D	111	110	109	-2.3	28.3	24.5	32.9	-16.6	0.98	-0.02	-26.0	0.79	0.17	-0.40	0.24	
0-1R4-E	114	113	112	-2.9	13.8	35.8	36.0	-3.1	1.16	0.26	49.0	0.64	0.77	0.45	0.11	
0-1R4-F	117	116	115	8.1	0.4	27.7	37.9	-2.1	1.23	0.30	-59.6	0.54	0.99	-0.40	0.15	
0-1R4-G	120	119	118	8.7	1.9	18.2	25.9	1.0	0.86	0.29	-56.2	0.47	0.69	-0.27	0.20	
0-1R4-H	125	122	121	28.3	14.9	21.5	35.4	14.3	1.31	0.82	-55.6	1.15	0.99	-0.23	0.47	
0-1R4-J	126	125	124	35.8	26.4	15.6	36.4	13.7	1.33	0.79	9.2	1.32	0.80	0.08	0.17	
1-1R4-A	427	428	429	19.5	13.1	12.4	20.6	11.4	0.79	0.58	-19.7	0.77	0.60	-0.07	0.15	
1-1R4-B	430	431**	432	-2.5	0.0	14.4	16.3	-4.4	0.49	0.02	-72.4	0.06	0.45	-0.14	0.12	
1-1R4-C	433	435	435	-8.1	-11.1	11.4	17.7	-14.4	0.44	-0.36	-63.7	-0.15	0.30	-0.29	0.19	
1-1R4-D	436	437	436	-19.5	-31.1	8.7	24.0	-34.7	0.45	-0.91	-59.4	-0.56	0.09	-0.59	0.11	
1-1R4-L	439	440	441	-38.7	-2.8	15.2	16.6	-40.1	0.15	-1.16	35.8	-0.30	-0.71	0.62	0.16	
1-1R4-F	442	443	444	-34.3	17.3	5.4	23.0	-51.9	0.25	-1.48	-29.0	-0.16	-1.08	-0.73	0.27	
1-1R4-G	445	446	447	-27.7	12.7	5.9	10.7	-32.5	0.63	-0.96	-19.5	-0.08	-0.85	-0.31	0.19	
1-1R4-H	448	449	450	-22.0	6.4	-3.2	8.6	-33.8	-0.05	-1.03	-31.8	-0.32	-0.76	-0.44	0.25	
1-1R4-J	451	452	453	-15.2	-5.5	-12.4	-4.9	-22.7	-0.39	-0.86	-40.5	-0.56	-0.62	-0.20	0.31	
0-1R5-A	129	128	127	6.5	5.3	-3.0	7.7	-4.2	0.21	-0.06	-71.4	-0.03	0.18	-0.08	0.17	
0-1R5-B	132	131	130	11.3	6.4	3.3	11.4	3.2	0.41	0.22	84.0	0.22	0.41	0.02	0.11	
0-1R5-C	135	134	133	9.2	14.5	2.6	15.1	-3.3	0.47	0.04	-55.6	0.18	0.33	-0.20	0.13	
0-1R5-D	136	137	136	12.4	13.5	5.7	14.6	3.5	0.52	0.26	-63.7	0.31	0.47	-0.10	0.17	
0-1R5-E	141	140	139	13.3	20.7	12.6	20.8	5.2	0.74	0.38	43.7	0.56	0.55	0.18	0.22	
0-1R5-F	144	143	142	21.2	14.3	12.5	22.0	11.8	0.84	0.61	-15.4	0.82	0.62	-0.06	0.14	
0-1R5-G	147	146	145	17.5	18.5	20.1	20.2	17.5	0.84	0.78	-82.4	0.78	0.84	-0.01	0.12	
0-1R5-H	150	149	148	41.1	23.6	22.7	44.3	19.5	1.65	1.08	-21.1	1.58	1.15	-0.19	0.30	
0-1R5-J	153	152	151	39.0	30.2	33.3	42.8	29.5	1.70	1.40	-32.3	1.61	1.48	-0.14	0.19	
1-1R5-A	454	455	456	-3.8	7.2	15.1	15.4	-6.2	0.45	-0.05	83.1	-0.04	0.44	0.06	0.12	
1-1R5-B	457	458	459	-7.9	4.1	12.3	12.5	-8.1	0.33	-0.14	84.7	-0.14	0.33	0.04	0.11	
1-1R5-C	460	461	462	-3.0	-1.2	10.7	12.4	-4.7	0.36	-0.03	-71.7	0.01	0.32	-0.12	0.11	
1-1R5-U	463	464	465	-9.6	-4.5	-2.4	-2.1	-9.9	-0.17	-0.35	78.9	-0.34	-0.17	0.03	0.21	
1-1R5-E	466	467	468	-5.9	-12.9	-14.7	-5.2	-15.4	-0.32	-0.56	74.6	-0.54	-0.34	0.06	0.16	
1-1R5-F	469	470	471**	-29.9	-11.0	0.0	0.5	-30.4	-0.28	-1.00	-7.4	-0.30	-0.98	-0.09	0.22	
1-1R5-G	472	473	474	-23.6	-9.6	-3.2	-4.1	-24.8	-0.38	-0.86	-13.8	-0.41	-0.83	-0.11	0.12	
1-1R5-H	475	476	477	-13.3	-14.2	-19.0	-12.7	-19.6	-0.61	-0.77	-72.3	-0.76	-0.63	-0.05	0.22	
1-1R5-J	478*	479	480*	36.2	-10.4	-46.0	36.7	-44.5	0.77	-1.10	85.4	-1.09	0.76	0.15	0.44	
0-2R1-A	166	167	166	7.5	57.0	78.3	81.0	4.8	2.72	0.96	-10.8	2.66	1.02	-0.32	0.13	
0-2R1-B	171	170	169	11.7	55.0	72.7	75.5	8.9	2.58	1.04	-11.9	2.51	1.11	-0.31	0.13	
0-2R1-C	174	173	172	5.6	46.8	106.1	106.9	4.8	3.57	1.22	5.1	3.55	1.23	0.21	0.19	
0-2R1-D	177	176	175	-9.1	-17.7	75.3	99.1	-32.9	2.94	-0.10	25.1	2.39	0.44	1.17	0.22	

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LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH								STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CUMF	
0-2R1- E	180	179	178	-20.5	-60.9	7.8	57.7	-70.5	1.21	-1.75	38.6	0.05	-0.60	1.44	0.14	
0-2R1- F	183	182	181	-24.5	-83.8	-41.2	19.8	-85.5	-0.19	-2.62	-85.4	-2.81	-0.21	-0.19	0.16	
0-2R1- G	186	185	184	3.3	-79.4	-31.8	53.2	-81.7	0.95	-2.17	-37.5	-0.21	-1.01	-1.50	0.12	
0-2R1- H	189	188	187	11.3	-42.3	-33.6	27.2	-45.6	0.41	-1.36	-27.1	0.04	-1.00	-0.72	0.21	
0-2R1- J	192	191	190	-1.3	-48.8	-21.8	27.0	-50.2	0.40	-1.39	-37.3	-0.26	-0.73	-0.86	0.17	
0-2R1- K	195	194	193	-10.9	-52.4	-18.7	23.0	-52.6	0.24	-1.51	-42.0	-0.54	-0.72	-0.87	0.16	
0-2R1- L	198	197	196	-41.8	-94.9	-4.8	45.2	-96.7	0.53	-2.74	-51.5	-1.47	-0.74	-1.60	0.21	
1-2R1- A	493	494	495	69.7	-2.2	-50.9	70.8	-52.0	1.82	-1.61	-5.4	1.79	-0.99	-0.27	0.19	
1-2R1- B	496	497	498	54.8	-4.9	-30.6	58.0	-34.0	1.57	-0.55	-10.8	1.50	-0.47	-0.39	0.11	
1-2R1- C	499	500**	501	28.9	0.0	-23.3	29.1	-23.4	0.73	-0.48	-3.1	0.72	-0.48	-0.07	0.25	
1-2R1- D	502	503	504	8.3	-38.2	-47.3	14.0	-53.0	-0.06	-1.61	-17.0	-0.19	-1.46	-0.43	0.19	
1-2R1- E	505	506	507	66.5	1.9	-56.0	66.6	-56.1	1.64	-1.19	-1.6	1.64	-1.19	-0.08	0.35	
1-2R1- F	508	509	510	89.7	21.9	-34.0	90.0	-34.2	2.63	-0.24	-47.8	1.06	1.33	-1.43	0.23	
1-2R1- G	511	512	513	83.1	-9.0	-40.9	86.6	-44.5	2.42	-0.61	80.6	-0.53	2.33	-0.49	0.10	
1-2R1- H	514	515	516	76.7	-34.4	-35.5	99.2	-58.0	2.70	-0.93	67.8	-0.41	2.18	1.27	0.10	
1-2R1- J	517	518	519	30.5	-68.6	-12.3	69.7	-71.5	2.25	-1.47	52.7	-0.10	0.88	1.79	0.10	
1-2R1- K	520	521	522	17.2	-75.9	-20.1	75.4	-78.2	1.71	-1.83	52.0	-0.49	0.37	1.72	0.14	
1-2R1- L	523	524	525	-2.9	-122.4	-16.8	102.9	-122.6	2.18	-3.02	46.8	-0.58	-0.26	2.60	0.08	
0-2R2- A	201	200	199	35.5	50.5	51.2	53.9	32.8	2.10	1.61	-21.2	2.04	1.68	-0.16	0.18	
0-2R2- B	204	203*	202	53.5	72.9	34.3	74.4	13.5	2.58	1.17	-54.2	1.66	2.10	-0.67	0.25	
0-2R2- C	207	206	205	62.4	82.7	69.6	83.0	48.9	3.22	2.42	-38.9	2.91	4.74	-0.39	0.32	
0-2R2- D	210	209	208	44.8	71.0	103.6	103.7	44.7	3.86	2.50	2.6	3.86	2.50	0.06	0.26	
0-2R2- E	213	212	211	26.2	45.9	92.2	94.8	25.7	3.36	1.72	11.0	3.30	1.78	0.31	0.29	
0-2R2- F	216	215	214	47.2	9.6	74.9	114.3	7.6	3.85	1.39	82.5	1.43	3.80	0.32	0.29	
0-2R2- G	219	218	217	17.8	9.6	64.7	80.6	1.9	2.68	0.86	-63.3	1.23	2.31	-0.73	0.23	
0-2R2- H	222	221	220	-19.4	5.3	56.8	59.0	-21.7	1.73	-0.13	-80.3	-0.08	1.68	-0.31	0.14	
0-2R2- J	225	224	223	-43.1	-12.0	43.4	45.1	-44.8	1.04	-1.03	-82.1	-0.99	1.00	-0.26	0.08	
0-2R2- K	228	227	226	-53.2	-43.7	42.1	55.5	-66.5	1.17	-1.62	-70.7	-1.34	0.86	-0.88	0.17	
0-2R2- L	231	230	229	-127.6	-136.1	8.7	43.2	-162.0	-0.18	-4.92	-65.8	-4.12	-0.97	-1.77	0.33	
1-2R2- A	526	527	528	28.9	-5.4	-57.1	29.8	-57.9	0.41	-1.62	5.7	0.39	-1.59	0.20	0.24	
1-2R2- B	529	530	531	28.0	-15.3	-65.5	28.1	-65.7	0.28	-1.89	2.1	0.27	-1.88	0.02	0.22	
1-2R2- C	532	533	534	-2.3	-40.1	-64.2	-1.2	-84.5	-0.87	-2.79	1.8	-0.88	-2.79	0.06	0.23	
1-2R2- D	535	536	537	-18.9	-97.8	-125.0	-12.9	-131.0	-1.72	-4.45	-13.0	-1.86	-4.31	-0.60	0.20	
1-2R2- E	538	539	540	-32.4	-131.4	-123.3	-7.7	-148.1	-1.72	-4.96	-24.8	-2.29	-4.39	-1.23	0.28	
1-2R2- F	541	542	543	-27.7	-122.8	-113.0	-2.8	-137.9	-1.46	-4.57	-70.5	-4.22	-1.80	-0.98	0.24	
1-2R2- G	544	545	546	-30.9	-131.9	-104.8	6.1	-141.8	-1.20	-4.61	60.0	-3.76	-2.05	1.48	0.18	
1-2R2- H	547	548	549	-45.0	-127.6	-54.6	28.1	-127.8	-0.34	-3.94	46.8	-2.25	-2.02	1.80	0.26	
1-2R2- J	550	551	552	-34.6	-85.9	-34.5	16.8	-85.9	-0.30	-2.67	45.0	-1.48	-1.48	1.18	0.22	
1-2R2- K	553	554	555	-23.1	-103.2	-58.6	24.0	-105.7	-0.25	-3.25	52.9	-2.16	-1.34	1.44	0.31	
1-2R2- L	556	557	558	-17.6	-131.3	-37.7	76.5	-131.8	1.22	-3.59	47.8	-1.42	-0.95	2.39	0.14	
0-2R3- A	234	233	232	2.4	16.3	1.2	10.3	-6.7	0.27	-0.12	-46.9	0.06	0.09	-0.20	0.17	
0-2R3- B	237	236	235	12.6	12.8	-1.8	16.2	-7.3	0.46	-0.06	-67.2	0.00	0.38	-0.19	0.28	
0-2R3- C	240	239	238	5.4	17.2	10.3	17.5	-1.8	0.56	0.11	-37.8	0.39	0.26	-0.22	0.12	
0-2R3- D	243	242	241	-3.9	37.4	36.8	45.7	-12.8	1.38	0.03	-22.9	1.17	0.24	-0.48	0.19	
0-2R3- E	246	245	244	-44.6	20.8	63.7	64.8	-45.8	1.68	-0.87	-5.9	1.66	-0.84	-0.26	0.12	
0-2R3- F	249	248	247	-42.4	13.9	72.1	72.2	-42.4	1.96	-0.69	45.5	0.62	0.66	1.32	0.16	
0-2R3- G	252	251	250	-51.9	-21.4	70.7	78.0	-59.2	1.99	-1.18	-76.6	-1.01	1.82	-0.71	0.13	
0-2R3- H	255	254	253	-74.4	-64.8	60.9	82.3	-95.9	1.77	-2.35	-69.7	-1.85	1.27	-1.34	0.13	
0-2R3- J	258	257	256	-91.7	-70.6	54.0	70.6	-108.2	1.26	-2.87	-72.3	-2.49	0.87	-1.20	0.13	
0-2R3- K	261	260	259	-85.7	-88.2	32.1	59.2	-710.9	0.85	-3.07	-66.4	-2.44	0.23	-1.44	0.23	
0-2R3- L	264	263	262	-180.1	-171.0	15.3	49.5	-214.3	-0.49	-6.58	-68.9	-5.79	-1.22	-2.04	0.21	
1-2R3- A	559	560	561	11.4	6.3	-3.4	12.9	-7.0	0.36	-0.10	16.1	0.32	-0.07	0.12	0.21	
1-2R3- B	562	563	564	14.1	12.5	6.9	14.6	6.3	0.54	0.35	14.9	0.53	0.37	0.05	0.37	
1-2R3- C	565	566	567	-6.9	0.9	2.0	3.1	-8.0	0.02	-0.23	71.4	-0.21	-0.00	0.08	0.22	
1-2R3- D	568	569	570**	-21.7	-36.5	0.0	17.0	-38.7	0.18	-1.11	-56.4	-0.71	-0.21	-0.59	0.19	
1-2R3- E	571	572**	575**	-28.6	0.0	0.0	5.8	-33.6	-0.14	-1.06	67.5	-0.92	-0.28	0.32	0.28	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH								STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CUNF	
I-2R3-F	574	575	576	-45.8	-83.7	-68.0	-28.0	-85.9	-1.77	-3.11	-78.8	-3.06	-1.82	-0.26	0.17	
I-2R3-G	577	578	579	-42.8	-82.7	-43.1	-3.1	-82.7	-0.92	-2.76	45.1	-1.84	-1.84	0.92	0.19	
I-2R3-H	580	581	582	-33.3	-79.3	-40.6	-3.3	-70.5	-0.81	-2.36	48.1	-1.67	-1.50	0.77	0.10	
I-2R3-J	583	584	585	-17.5	-79.5	-51.9	13.6	-82.7	-0.37	-2.59	55.5	-1.88	-1.08	1.04	0.40	
I-2R3-K	586**	587	588	0.0	-78.5	-78.3	16.4	-94.7	-0.40	-2.96	67.4	-2.58	-0.77	0.91	0.25	
I-2R3-L	589	590	591	1.7	-89.0	-67.7	33.5	-94.4	0.12	-2.95	60.8	-2.21	-0.61	1.31	0.37	
O-2R4-A	267	266	265	-22.7	-21.0	-2.0	1.2	-25.8	-0.22	-0.84	19.9	-0.24	-0.77	0.20	0.19	
O-2R4-B	270	269	268	-13.3	-10.6	-9.8	-9.5	-13.6	-0.45	-0.54	-14.4	-0.45	-0.54	-0.02	0.21	
O-2R4-C	273	272	271	-20.1	-0.6	5.9	7.4	-21.7	0.03	-0.64	-13.3	-0.01	-0.61	-0.15	0.10	
O-2R4-D	276	275	274	-24.5	20.6	17.1	28.3	-35.7	0.58	-0.90	-24.7	0.32	-0.64	-0.56	0.16	
O-2R4-E	279	278	277	-66.4	-15.6	52.5	53.1	-67.0	1.09	-1.66	49.1	-0.50	-0.10	1.37	0.14	
O-2R4-F	282	281	280	-57.5	-73.2	23.9	52.8	-84.4	0.89	-2.32	-62.9	-1.66	0.22	-1.30	0.22	
O-2R4-G	285	284	283	-60.4	-93.9	9.3	51.2	-102.2	0.68	-2.86	-58.5	-1.90	-0.29	-1.58	0.20	
O-2R4-H	288	287	286	-30.0	-95.5	-2.0	47.6	-99.5	0.58	-2.81	-54.5	-1.67	-0.56	-1.60	0.20	
O-2R4-J	291	290	289	-97.0	-133.8	-4.6	44.2	-145.8	0.01	-4.37	-59.6	-3.24	-1.11	-1.92	0.24	
I-2R4-A	592	593	594	34.9	42.6	30.2	42.8	22.2	1.63	1.16	38.4	1.45	1.34	0.23	0.21	
I-2R4-B	595	596	597	36.7	40.9	47.4	47.9	38.2	1.96	1.73	-76.8	1.74	1.95	-0.05	0.19	
I-2R4-C	598	599	600	2.5	64.5	62.7	70.4	-11.2	2.41	0.39	66.7	0.70	2.09	0.74	0.22	
I-2R4-D	601	602	603	5.9	44.0	57.8	60.5	3.1	2.03	0.70	77.4	0.76	1.96	0.28	0.19	
I-2R4-E	604	605	606	33.0	30.8	10.4	36.2	7.2	1.27	0.59	-25.6	1.14	0.72	-0.26	0.23	
I-2R4-F	607	608	609	19.9	7.7	-4.0	19.9	-4.0	0.62	0.06	89.4	0.06	0.62	0.01	0.17	
I-2R4-G	610	611	612	-2.6	-24.6	-8.3	14.0	-24.9	0.21	-0.68	49.3	-0.30	-0.17	0.44	0.13	
I-2R4-H	613	614	615**	-23.6	-52.8	0.0	30.9	-54.5	0.48	-1.49	37.0	-0.23	-0.78	0.95	0.16	
I-2R4-J	616	617	618**	-24.8	-78.3	0.0	54.6	-74.4	1.01	-2.08	39.7	-0.25	-0.82	1.52	0.17	
O-2R5-A	294	293	292	-27.7	-14.6	16.0	17.7	-29.4	0.29	-0.79	10.9	0.25	-0.75	0.20	0.14	
O-2R5-B	297	296	295**	-15.4	-9.1	0.0	0.4	-13.9	-0.12	-0.45	9.9	-0.13	-0.44	0.06	0.19	
O-2R5-C	300	299	298	-5.7	-9.5	2.0	6.6	-10.4	0.12	-0.28	31.6	0.01	-0.17	0.18	0.15	
O-2R5-D	303	302	301	-7.0	-4.8	-12.5	-4.0	-15.8	-0.29	-0.56	-59.9	-0.49	-0.36	-0.12	0.19	
O-2R5-E	306	305	304	-11.0	-16.4	-24.5	-10.9	-24.6	-0.60	-0.92	5.5	-0.60	-0.92	0.03	0.10	
O-2R5-F	309	308	307	-22.7	-23.7	-18.0	-16.2	-24.4	-0.78	-0.97	-62.5	-0.93	-0.82	-0.08	0.19	
O-2R5-G	312	311	310	-40.0	-37.5	-27.7	-26.6	-41.0	-1.28	-1.62	-74.5	-1.59	-1.31	-0.09	0.29	
O-2R5-H	315	314	313	-75.0	-61.3	-32.1	-30.7	-76.4	-1.77	-2.82	-80.1	-2.79	-1.80	-0.18	0.18	
O-2R5-J	318	317	316	-43.4	-39.0	-30.5	-30.2	-43.7	-1.43	-1.74	-81.2	-1.73	-1.43	-0.05	0.27	
I-2R5-A	619	620**	621	65.2	0.0	34.9	102.4	-2.2	3.35	0.94	-36.6	2.50	1.80	-1.16	0.24	
I-2R5-B	622	623	624**	56.2	60.1	0.0	70.7	-14.5	2.19	0.22	24.4	1.85	0.56	0.74	0.23	
I-2R5-C	625	626	627	2.8	62.2	104.5	105.2	2.0	3.49	1.11	85.2	1.12	3.47	0.20	0.20	
I-2R5-D	628	629	630	6.5	54.3	97.7	97.8	8.5	3.31	1.25	68.9	1.25	3.31	0.04	0.08	
I-2R5-E	631	632	632	4.9	54.7	82.6	84.1	3.4	2.81	0.94	-7.8	2.77	0.98	-0.25	0.22	
I-2R5-F	634	635	636	45.3	27.3	12.6	45.3	12.6	1.62	0.86	87.5	0.86	1.62	0.03	0.26	
I-2R5-G	637	638**	639	3.1	0.0	25.5	32.4	-3.9	1.03	0.19	25.9	0.87	0.35	0.33	0.21	
I-2R5-H	640	641	642	-34.9	-7.9	30.5	31.0	-35.4	0.67	-0.86	4.9	0.06	-0.85	0.13	0.22	
I-2R5-J	643**	644**	645	0.0	0.0	-27.7	5.7	-33.4	-0.14	-1.04	-67.5	-0.91	-0.27	-0.32	0.23	
O-1R6-A	156	155	154	-7.5	6.7	-31.8	11.2	-50.5	-0.13	-1.55	-56.6	-1.12	-0.56	-0.65	0.11	
O-1R6-B	159	158	157	2.0	16.0	-5.5	16.4	-19.9	0.34	-0.49	-51.0	-0.15	0.01	-0.41	0.15	
O-1R6-C	162	161	160	20.5	26.4	20.1	26.4	14.2	1.01	0.73	-46.0	0.87	0.86	-0.14	0.18	
O-1R6-D	165	164	163	27.7	24.8	29.6	32.5	24.7	1.32	1.14	38.0	1.25	1.20	0.09	0.10	
I-1R6-A	481	482	483	52.5	19.2	-14.2	52.5	-14.2	1.59	0.05	0.0	1.59	0.05	0.60	0.19	
I-1R6-B	484	485	486	4.7	8.0	8.7	9.1	4.4	0.34	0.23	73.6	0.24	0.33	0.03	0.14	
I-1R6-C	487	488	489	-52.6	0.1	23.3	26.0	-55.4	0.31	-1.57	79.4	-1.50	0.25	0.34	0.20	
I-1R6-D	492	491	492	-66.3	-12.2	26.1	26.8	-66.9	0.22	-1.94	85.2	-1.93	0.20	0.16	0.16	
O-2R6-A	321	320	319	-31.0	-70.4	-49.3	-11.9	-71.4	-1.10	-2.47	52.5	-1.96	-1.61	0.66	0.31	
O-2R6-B	324	323	322	1.0	-33.6	-24.8	13.4	-37.2	0.07	-1.09	60.4	-0.81	-0.21	0.50	0.17	
O-2R6-C	327	326	325	18.0	5.1	12.8	25.3	5.5	0.89	0.43	52.5	0.60	0.72	0.22	0.15	
I-2R6-A	646	647	648	78.5	21.9	-15.5	79.4	-16.5	2.46	0.24	-5.3	2.43	0.26	-0.22	0.13	
I-2R6-B	649	650	651	20.1	6.4	3.8	21.8	2.1	0.74	0.28	-17.2	0.70	0.32	-0.13	0.18	
I-2R6-C	652	653	654	-28.0	-15.7	21.3	24.4	-30.9	0.50	-0.78	-76.6	-0.71	0.43	-0.29	0.10	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
I-1R7- A	655	656	657	-29.8	51.5	137.1	137.1	-29.8	4.23	0.37	-89.3	0.37	4.23	-0.05	0.18
I-1R7- B	658	659	660	-27.0	77.1	111.2	119.6	-35.3	3.59	0.02	76.6	0.21	3.40	0.81	0.15
I-2R7- A	661	662	663	-23.6	5.2	86.5	92.5	-29.6	2.76	-0.06	-77.2	0.08	2.62	-0.61	0.16
EX-C- A	670	671	672	6.6	10.9	28.6	30.5	4.7	1.05	0.46	15.6	1.01	0.50	0.15	0.19
EX-C- B	675	674	675	-30.8	-4.4	28.9	29.1	-31.0	0.65	-0.73	3.3	0.65	-0.73	0.08	0.12
EX-C- C	676	677	676	-2.3	14.2	37.4	37.7	-2.5	1.22	0.29	4.9	1.21	0.30	0.08	0.24
EX-C- D	669	666	667	-14.0	7.8	24.5	24.7	-14.1	0.67	-0.22	-3.8	0.67	-0.22	-0.06	0.13
EX-B- A	687	686	685	-2.0	-7.0	-17.0	-1.5	-17.5	-0.22	-0.59	4.2	-0.23	-0.58	0.06	0.24
EX-B- B	690	689	688	2.6	2.9	26.4	31.1	-2.1	1.00	0.24	-67.9	0.35	0.90	-0.27	0.24
EX-B- C	681	680	679	-11.5	-24.0	-14.8	-2.1	-24.1	-0.31	-0.82	-40.7	-0.52	-0.60	-0.25	0.20
EX-B- D	684	683	682	2.9	6.3	12.8	13.1	2.6	0.46	0.22	-81.1	0.22	0.45	-0.04	0.21
EX-A- A	696	695	694	0.2	64.6	-14.3	64.9	-79.0	1.36	-1.96	42.1	-0.13	-0.47	1.65	0.15
EX-A- B	693	692	691	-218.4	-76.3	73.9	74.0	-218.4	0.28	-6.47	-89.2	-6.47	0.28	-0.09	0.22
EX-A- C	698	695	694	-12.9	-95.5	0.1	82.9	-95.8	1.79	-2.34	-47.1	-0.43	-0.12	-2.06	0.13
EX-A- D	694	698	697	224.2	68.6	-58.6	224.9	-59.3	6.83	0.27	-2.9	6.81	0.29	-0.33	0.20

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

IHC0021 STOP

NOMINAL LOAD = 1.647E 03

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	LO'F
O-1R1-A	3	2	1	6.6	-28.1	-65.9	8.6	-65.9	-0.37	-2.09	-89.6	-2.09	-0.37	-0.01	0.04
U-1R1-B	6	5	4	21.8	-15.3	-43.2	22.2	-43.5	0.30	-1.22	86.0	-1.21	0.29	0.11	0.04
O-1R1-C	4	8	7	29.6	-31.2	-59.2	32.7	-62.2	0.46	-1.73	79.7	-1.66	0.39	0.39	0.01
O-1R1-D	12	11	10	36.9	-41.9	-67.4	43.3	-73.8	0.70	-2.00	76.5	-1.86	0.55	0.61	0.04
O-1R1-E	15	14	13	26.7	-34.6	-32.5	40.5	-46.3	0.88	-1.12	66.5	-0.81	0.56	0.73	0.04
O-1R1-F	18	17	16	21.8	-21.2	-8.1	37.8	-24.1	1.01	-0.42	-75.5	-0.33	0.92	-0.35	0.01
O-1R1-G	21	20	19	22.0	-3.5	-8.6	25.1	-11.7	0.71	-0.15	-16.8	0.64	-0.06	-0.24	0.03
O-1R1-H	24	23	22	14.5	11.0	-5.8	16.5	-7.7	0.47	-0.09	16.6	0.42	-0.05	0.12	0.02
U-1R1-J	27	26	25	3.9	6.2	-2.8	7.3	-6.2	0.13	-0.13	30.3	0.10	-0.05	0.14	0.03
O-1R1-K	30	29	28	0.9	2.1	-2.3	2.5	-3.9	0.04	-0.10	30.3	0.01	-0.07	0.06	0.01
O-1R1-L	33	32	31	1.8	3.2	-1.4	3.6	-3.3	0.09	-0.07	31.1	0.04	-0.03	0.07	0.04
I-1R1-A	328	329	330	-27.9	-14.2	10.6	11.4	-28.7	0.09	-0.63	-82.0	-0.61	0.07	-0.13	0.02
I-1R1-B	331	332	333	-34.3	-25.7	-11.9	-11.6	-34.6	-0.73	-1.26	-83.5	-1.25	-0.73	-0.06	0.04
I-1R1-C	334	335	336	-11.6	-29.1	-44.1	-11.6	-44.1	-0.82	-1.57	-2.1	-0.82	-1.57	-0.03	0.03
I-1R1-D	337	338	339	5.9	-17.1	-50.3	6.4	-50.7	-0.29	-1.61	5.1	-0.30	-1.60	0.12	0.03
I-1R1-E	340	341	342	-4.3	6.1	-21.3	7.9	-35.5	-0.07	-1.03	33.0	-0.35	-0.74	0.44	0.03
I-1R1-F	343	344	345	-15.9	8.7	-5.6	9.4	-30.9	0.00	-0.92	7.4	-0.01	-0.91	0.12	0.01
I-1R1-G	346	347	348	-9.3	11.5	-5.0	11.6	-25.9	0.13	-0.74	-41.7	-0.26	-0.36	-0.43	0.02
I-1R1-H	349	350	351	3.0	10.0	-1.5	10.2	-8.8	0.25	-0.14	-51.8	-0.02	0.08	-0.21	0.04
I-1R1-J	352	353	354	1.6	6.0	2.8	6.1	-1.7	0.18	0.01	-40.2	0.11	0.03	-0.04	0.03
I-1R1-K	355	356	357	1.0	2.0	2.4	2.5	0.9	0.09	0.05	-13.0	0.09	0.06	-0.01	0.01
I-1R1-L	358**	359**	360**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.0	0.0	0.0	0.0	0.0
O-1R2-A	36	35	34	20.5	-27.2	-33.8	27.4	-40.7	0.50	-1.07	71.4	-0.91	0.34	0.47	0.02
O-1R2-B	39	38	37	29.3	-18.0	-18.5	38.8	-23.1	1.00	-0.54	67.8	-0.32	0.78	0.54	0.01
O-1R2-C	42	41	40	26.9	-21.6	-21.0	37.3	-31.4	0.92	-0.67	67.1	-0.43	0.68	0.57	0.04
O-1R2-D	45	44	43	21.1	-25.5	-30.5	28.4	-37.8	0.56	-0.97	70.6	-0.80	0.39	0.46	0.02
O-1R2-E	48	47	46	16.3	-18.6	-38.0	17.4	-39.1	0.19	-1.12	82.1	-1.09	0.16	0.18	0.04
O-1R2-F	51	50	49	16.6	-7.2	-34.4	16.6	-34.4	0.21	-0.97	-43.1	-0.34	-0.42	-0.59	0.02
O-1R2-G	54	53	52	9.2	-6.1	-32.0	10.5	-33.2	0.02	-0.99	9.7	-0.01	-0.96	0.17	0.02
O-1R2-H	57	56	55	-0.7	-7.1	-28.7	2.9	-32.2	-0.22	-1.63	18.6	-0.31	-0.95	0.24	0.03
O-1R2-J	60	59	58	-5.7	-6.9	-24.1	-2.7	-27.1	-0.36	-0.92	20.5	-0.43	-0.85	0.14	0.01
O-1R2-K	63	62	61	-4.6	-9.4	-23.8	-3.6	-23.7	-0.35	-0.82	12.5	-0.38	-0.80	0.10	0.03
U-1R2-L	66	65	64	-15.8	-10.2	-15.6	-10.0	-19.3	-0.52	-0.74	51.7	-0.65	-0.60	0.19	0.04
I-1R2-A	361	362	363	-24.8	-22.0	-19.8	-19.8	-24.9	-0.90	-1.07	87.0	-1.01	-0.90	0.01	0.03
I-1R2-B	367	365	366	-24.6	-23.4	-33.8	-21.8	-36.6	-1.08	-1.42	25.8	-1.14	-1.36	0.13	0.03
I-1R2-C	367	368	369	-10.9	-21.0	-48.6	-9.0	-50.5	-0.80	-1.75	12.4	-0.87	-1.71	0.20	0.04
I-1R2-D	370	371	372	12.8	-9.2	-49.4	14.1	-51.3	-0.04	-1.55	8.3	-0.07	-1.52	0.22	0.02
I-1R2-E	373	374	375	27.8	7.4	-32.7	29.4	-34.3	0.63	-0.84	9.0	0.59	-0.80	0.23	0.02
I-1R2-F	376	377	378	28.0	11.9	-26.1	30.1	-28.5	0.71	-0.63	-33.9	0.24	-0.21	-0.62	0.01
I-1R2-G	379	380	381	33.9	14.3	-19.0	34.8	-20.6	0.94	-0.35	-82.5	-0.32	0.92	-0.17	0.04
I-1R2-H	382	383	384	39.2	22.0	-7.4	40.0	-8.2	1.24	0.13	-82.7	0.14	1.22	-0.14	0.02
I-1R2-J	385	386**	387	37.9	0.0	-5.2	43.4	-10.7	1.32	0.08	71.4	0.20	1.20	0.33	0.04
I-1R2-K	388	389	390	31.5	9.9	-3.8	31.9	-4.3	1.01	0.18	83.7	0.19	1.00	0.04	0.02
I-1R2-L	391	392	393	17.4	13.0	3.9	17.8	3.5	0.62	0.29	-80.4	0.30	0.61	-3.05	0.02
O-1R3-A	69	68	67	16.4	-1.4	1.3	21.6	-3.9	0.67	0.09	63.2	0.20	0.55	0.24	0.02
O-1R3-B	72	71	70	13.6	-2.6	4.9	21.9	-3.4	0.69	0.10	55.1	0.30	0.50	0.27	0.04
O-1R3-C	75	74	73	8.1	-6.8	3.9	19.0	-7.0	0.56	-0.04	49.6	0.21	0.31	0.30	0.01
O-1R3-D	78	77	76	7.3	-9.1	-6.7	12.1	-11.5	0.28	-0.26	63.3	-0.15	0.17	0.22	0.02
O-1R3-E	81	80	79	1.6	-12.3	-17.7	2.5	-18.6	-0.10	-0.59	78.0	-0.57	-1.12	0.10	0.03
O-1R3-F	84	83	82	0.2	-11.5	-24.5	0.2	-24.5	-0.24	-0.81	-43.4	-0.51	-0.54	-0.29	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
0-1R3-G	87	86	85	-0.2	-5.1	-21.8	-2.1	-25.9	-0.33	-0.87	24.3	-0.42	-0.78	0.21	0.02
0-1R3-H	90	89	88	-10.5	-6.4	-24.1	-4.5	-30.1	-0.45	-1.04	28.9	-0.58	-0.90	0.25	0.02
0-1R3-J	93	92	91	-11.9	-13.0	-25.4	-10.0	-26.3	-0.59	-0.96	19.8	-0.63	-0.92	0.12	0.04
0-1R3-K	96	95	94	-4.5	-15.3	-29.9	-4.3	-30.1	-0.44	-1.03	4.3	-0.44	-1.03	0.02	0.04
0-1R3-L	94	98	97	-27.3	-21.5	-18.8	-18.6	-71.5	-0.88	-1.09	80.3	-1.04	-0.89	0.03	0.04
1-1R3-A	394	395	396	-12.1	-15.2	-25.0	-11.3	-25.9	-0.63	-0.96	13.8	-0.65	-0.95	0.04	0.02
1-1R3-B	397	398	399	-6.6	-8.6	-24.0	-3.3	-32.3	-0.43	-1.10	19.7	-0.51	-1.02	0.21	0.04
1-1R3-C	400	401	402	2.4	-9.1	-26.2	2.8	-26.7	-0.19	-0.92	7.0	-0.26	-0.91	0.39	0.52
1-1R3-D	403	404	405	10.3	6.1	-21.6	14.2	-25.4	0.22	-0.70	18.2	0.13	-0.61	0.27	0.02
1-1R3-E	406	407	408	25.1	10.9	-15.7	28.4	-19.1	0.75	-0.35	15.5	0.67	-0.27	0.26	0.02
1-1R3-F	409	410	411	37.1	13.7	-15.9	37.3	-17.1	1.06	-0.20	-41.2	0.52	-0.35	-0.62	0.02
1-1R3-G	412	413	414	41.4	11.3	-11.9	41.6	-12.1	1.25	0.01	86.3	0.02	1.25	0.08	0.02
1-1R3-H	415	416	417	45.4	10.2	-6.3	47.6	-8.0	1.39	0.21	79.9	0.25	1.42	0.24	0.02
1-1R3-J	418	419	420	45.9	14.3	-4.8	47.2	-6.1	1.50	0.27	80.9	0.30	1.47	0.19	0.02
1-1R3-K	421	422	423	33.9	8.6	-5.1	34.8	-6.0	1.09	0.15	81.7	0.17	1.07	0.13	0.02
1-1R3-L	424	425	426	19.8	12.2	7.8	20.0	7.6	0.73	0.45	82.6	0.45	0.73	0.04	0.02
0-1R4-A	102	101	100	4.5	12.8	12.9	12.6	2.8	0.51	0.24	-22.1	0.47	0.27	-0.10	0.04
0-1R4-B	105	104	103	0.0	12.1	9.6	13.5	-3.9	0.41	0.01	-28.2	0.32	0.10	-0.17	0.04
0-1R4-C	108	107	106	-2.3	12.0	7.8	13.4	-8.3	0.36	-0.14	-30.4	0.23	-0.01	-0.22	0.01
0-1R4-D	111	110	109	-10.5	7.7	8.7	12.0	-15.6	0.26	-0.34	-20.9	0.18	-0.25	-0.20	0.02
0-1R4-E	114	113	112	-10.0	-2.0	5.9	6.1	-14.2	0.06	-0.41	39.2	-0.13	-0.22	0.23	0.02
0-1R4-F	117	116	115	-12.9	-12.2	-0.5	1.6	-15.0	-0.10	-0.46	-69.4	-0.43	-0.14	-0.13	0.01
0-1R4-G	120	119	118	-10.5	-12.8	-5.0	-2.0	-13.5	-0.20	-0.47	-59.4	-0.40	-0.27	-0.12	0.02
0-1R4-H	123	122	121	-11.5	-14.4	-8.7	-5.6	-14.6	-0.33	-0.54	-33.8	-0.46	-0.40	-0.10	0.02
0-1R4-J	126	125	124	-21.0	-18.5	-9.0	-8.1	-21.9	-0.48	-0.80	-75.0	-0.78	-0.51	-0.08	0.02
1-1R4-A	427	428	429	-5.2	-7.2	-11.6	-3.2	-11.6	-0.22	-0.41	1.3	-0.22	-0.41	0.09	0.02
1-1R4-B	430	431	432	0.7	-8.6	-11.9	1.3	-12.6	-0.08	-0.40	-12.6	-0.10	-0.39	-0.07	0.02
1-1R4-C	433	434	435	3.7	-8.3	-9.7	5.5	-11.5	0.07	-0.33	-19.3	0.03	-0.28	-0.12	0.02
1-1R4-D	436	437	438	3.6	0.6	-2.4	3.6	-2.4	0.09	-0.04	-0.1	0.09	-0.04	-0.00	0.02
1-1R4-E	439	440	441	11.8	10.1	3.0	12.6	2.2	0.44	0.26	-29.3	0.38	0.25	-0.10	0.02
1-1R4-F	442	443	444	19.5	12.6	1.9	19.8	1.6	0.67	0.25	-83.2	0.25	0.66	-0.05	0.02
1-1R4-G	445	446	447	20.0	14.8	2.9	20.6	2.3	0.70	0.28	-79.3	0.29	0.69	-0.08	0.02
1-1R4-H	448	449	450	14.5	9.2	1.7	14.6	1.6	0.50	0.20	-84.9	0.20	0.50	-0.02	0.02
1-1R4-J	452	451	450	8.2	6.1	7.8	10.0	6.1	0.39	0.30	47.7	0.34	0.35	0.04	0.02
0-1R5-A	129	128	127	1.2	16.1	2.9	16.1	-12.0	0.41	-0.24	-43.2	0.11	-0.07	-0.32	0.01
0-1R5-B	132**	131	130	0.0	16.5	4.3	16.7	-12.4	0.43	-0.24	-40.8	0.14	0.04	-0.33	0.01
0-1R5-C	135	134	133	0.6	22.5	2.2	22.6	-19.8	0.55	-0.43	-43.9	0.08	0.04	-0.49	0.01
0-1R5-D	138	137	136	8.1	24.8	-5.8	25.8	-23.5	0.62	-0.52	-53.2	-0.11	0.21	-0.55	0.02
0-1R5-E	141	140	139	1.7	25.7	0.7	25.7	-25.3	0.62	-0.51	44.7	0.06	0.06	0.57	0.01
0-1R5-F	144	143	142	-1.9	-20.1	1.7	20.0	-20.7	0.46	-0.47	-47.6	-0.05	0.04	-0.46	0.01
0-1R5-G	147	146	145	-1.5	-15.7	-0.0	14.2	-15.7	0.31	-0.38	-46.4	-0.05	-0.01	-0.37	0.01
0-1R5-H	150	149	148**	-1.1	-10.8	0.0	9.8	-10.8	0.21	-0.26	-46.5	-0.03	-0.01	-0.24	0.04
0-1R5-J	153	152	151	-1.6	-5.8	-0.3	4.0	-5.9	0.07	-0.15	-48.8	-0.06	-0.02	-0.11	0.01
1-1R5-A	454	453	452	-2.4	-4.6	0.4	2.8	-4.9	0.04	-0.13	-55.5	-0.06	-0.01	-0.08	0.02
1-1R5-B	457	456	455	-2.6	-9.5	1.2	8.4	-9.7	0.13	-0.24	-51.0	-0.07	-0.01	-0.20	0.02
1-1R5-C	460	461	462	-0.9	-12.6	-1.3	10.4	-12.6	0.22	-0.31	-44.5	-0.04	-0.03	-0.27	0.04
1-1R5-E	463	464	465	-1.0	-13.8	-1.4	11.4	-13.8	0.24	-0.34	-44.5	-0.05	-0.05	-0.29	0.02
1-1R5-U	466	467	468	-1.7	-15.0	-1.8	11.4	-15.0	0.23	-0.38	45.1	-0.08	-0.07	0.30	0.02
1-1R5-F	469	470	471**	1.1	11.5	0.0	11.5	-10.5	0.28	-0.25	-46.4	0.01	0.04	-0.25	0.02
1-1R5-G	472	473	474	0.5	11.8	-1.1	11.8	-12.4	0.27	-0.29	-46.8	-0.03	0.00	-0.28	0.02
1-1R5-H	475	476	477	0.5	8.8	-0.3	8.8	-8.6	0.20	-0.20	-46.5	-0.01	0.01	-0.20	0.01
1-1R5-J	478	479	480**	-0.5	1.4	4.4	4.4	-0.6	0.14	0.02	5.6	0.14	0.03	0.01	0.02
0-2R1-A	168	167	166	-14.0	23.9	56.2	56.3	-14.2	1.72	0.09	-2.3	1.71	0.09	-0.07	0.02
0-2R1-B	171	170	169	-21.0	16.8	53.9	53.9	-21.0	1.57	-0.16	-0.2	1.57	-0.16	-0.01	0.04
0-2R1-C	174	173	172	-25.1	4.8	64.5	67.0	-27.5	1.94	-0.24	9.2	1.88	-0.19	0.39	0.02
0-2R1-D	177	176	175	-26.3	-25.9	57.7	74.8	-43.4	2.04	-0.69	22.4	1.64	-0.30	0.96	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCH/S/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
0-2R1-E	180	179	178	-20.8	-37.0	2.1	42.5	-45.1	0.95	-1.07	27.2	0.53	-6.65	0.82	0.04
U-2R1-F	183	182	181	-25.9	-41.0	3.4	21.9	-44.4	0.28	-1.25	76.9	-1.17	0.20	0.34	0.02
0-2R1-G	186	185	184	-13.3	-48.9	-3.3	32.6	-49.2	0.59	-1.36	-48.5	-0.47	-0.24	-0.94	0.01
0-2R1-H	189	188	187	12.3	-41.6	-12.5	43.3	-43.4	1.00	-1.00	-36.7	0.28	-0.29	-0.96	0.01
U-2R1-J	192	191	190	26.6	-21.2	-9.1	36.8	-25.1	0.96	-0.46	-30.5	0.60	-0.09	-0.62	0.02
U-2R1-K	195	194	193	19.0	-6.0	-7.2	23.6	-11.8	0.66	-0.16	-21.2	0.55	-0.05	-0.28	0.02
0-2R1-L	198	197	196	30.2	-8.0	0.1	42.7	-12.5	1.29	0.01	-28.5	1.00	0.30	-0.53	0.02
1-2R1-A	493	494	495	42.3	6.1	-16.7	43.0	-17.5	1.25	-0.15	-6.4	1.23	-0.13	-0.15	0.01
1-2R1-B	496	497	498	41.3	15.1	5.3	43.0	3.5	1.45	0.54	-12.2	1.41	0.58	-0.19	0.02
1-2R1-C	499	500**	501	16.9	0.0	36.4	57.3	-2.0	1.87	0.50	-55.6	0.94	1.43	-0.64	0.02
1-2R1-D	502	503	504	-7.6	27.5	48.9	49.7	-8.4	1.56	0.22	43.2	0.23	1.54	0.16	0.03
1-2R1-E	505	506	507	5.2	31.7	25.6	34.6	-3.8	1.10	0.22	61.0	0.43	0.90	0.38	0.07
1-2R1-F	508	509	510	18.9	33.3	8.2	34.0	-6.9	1.05	0.11	-7.6	1.04	0.13	-0.12	0.03
1-2R1-G	511	512	513	26.6	26.7	3.8	31.4	-1.0	1.03	0.28	-67.5	0.39	0.92	-0.26	0.10
1-2R1-H	514	515	516	29.9	12.4	-1.6	30.0	-1.7	0.97	0.2	86.8	0.24	0.97	0.04	0.02
1-2R1-J	517	518	519	11.6	-9.2	2.0	23.5	-10.0	0.68	-0.10	53.3	0.18	0.40	0.37	0.04
1-2R1-K	520	521	522*	-0.7	-16.7	7.1	23.5	-17.0	0.61	-0.33	39.5	0.23	0.05	0.46	0.03
1-2R1-L	523	524	525	-11.0	-32.2	7.8	30.4	-33.6	0.67	-0.81	36.5	0.15	-0.29	0.71	0.02
0-2R2-A	201	200	199	15.8	46.4	46.3	52.7	9.4	1.83	0.85	-22.6	1.68	0.96	-0.35	0.03
0-2R2-B	204	203	202	26.2	53.0	37.0	53.7	9.5	1.86	0.84	-37.9	1.48	1.25	-0.49	0.03
0-2R2-C	207	206	205	32.1	59.2	64.8	68.0	28.9	2.53	1.65	-16.7	2.45	1.70	-0.25	0.03
0-2R2-D	210	209	208	35.9	47.1	77.3	79.4	32.6	2.95	1.90	12.3	2.93	1.95	0.22	0.03
0-2R2-E	213	212	211	36.6	17.5	73.9	98.8	13.7	3.39	1.43	32.8	2.87	2.00	0.89	0.03
0-2R2-F	216	215	214	42.9	-1.0	61.7	106.5	-1.0	3.49	0.99	85.0	1.01	3.47	0.22	0.02
0-2R2-G	219	218	217	48.3	13.3	56.3	91.5	13.1	3.15	1.34	-47.9	2.15	2.33	-0.90	0.02
U-2R2-H	222	221	220	42.4	27.6	50.6	65.9	27.2	2.44	1.55	-51.2	1.90	2.09	-0.44	0.04
0-2R2-J	225	224	223	29.5	37.8	48.6	48.7	29.4	1.90	1.45	-86.2	1.45	1.89	-0.03	0.04
0-2R2-K	228	227	226	15.4	29.1	44.6	44.6	15.4	1.62	0.95	-88.3	0.95	1.62	-0.02	0.02
0-2R2-L	231	230	229	22.3	14.2	28.0	36.4	13.8	1.34	0.81	-52.2	1.01	1.1	-0.25	0.04
1-2R2-A	528	527	528	21.1	-7.4	-33.0	24.2	-33.2	0.47	-0.85	-2.9	0.47	-0.85	-0.07	0.02
1-2R2-B	529	530	531	25.8	-19.1	-39.8	23.9	-40.0	0.46	-1.06	-2.7	0.46	-1.06	-0.07	0.02
1-2R2-C	532	533	534	3.1	-23.7	-49.7	3.1	-49.7	-0.39	-1.61	-0.4	-0.39	-1.61	-0.01	0.02
1-2R2-D	535	536	537	-19.8	-50.8	-60.5	-17.1	-63.1	-1.19	-2.25	-13.8	-1.25	-2.19	-0.25	0.03
1-2R2-E	538	539	540	-38.5	-56.3	-36.7	-18.9	-56.3	-1.18	-2.04	-46.3	-1.63	-1.59	-0.43	0.03
1-2R2-F	541	542	543	-36.4	-44.5	-21.5	-14.1	-45.9	-0.92	-1.65	78.0	-1.62	-0.95	0.15	0.03
1-2R2-G	544	545	546	-50.7	-64.2	-29.6	-13.9	-66.4	-1.11	-2.33	33.2	-1.48	-1.96	0.55	0.02
1-2R2-H	547	548	549	-77.6	-68.4	-15.1	-8.1	-84.6	-1.10	-2.87	17.6	-1.26	-2.71	0.51	0.04
1-2R2-J	550	551	552	-74.8	-52.0	-2.3	-0.8	-81.3	-0.83	-2.69	7.9	-0.87	-2.65	0.25	0.03
1-2R2-K	553	554	555	-57.4	-39.9	3.6	6.2	-60.1	-0.39	-1.92	11.5	-0.45	-1.86	0.30	0.03
1-2R2-L	556	557	558	-40.4	-44.7	-1.3	10.0	-51.7	-0.18	-1.61	25.4	-0.44	-1.34	0.55	0.02
0-2R3-A	234	233	232	22.1	24.9	4.7	27.4	-0.6	0.90	0.25	-64.2	0.37	0.77	-0.25	0.02
0-2R3-B	237	236	235	29.5	26.6	5.1	32.6	2.0	1.09	0.39	-71.3	0.46	1.02	-0.21	0.02
0-2R3-C	240	239	238	26.3	28.2	14.4	30.2	10.5	1.10	0.64	-63.5	0.73	1.01	-0.18	0.03
0-2R3-D	243	242	241	21.5	28.4	24.0	28.5	17.0	1.11	0.84	-38.8	1.00	0.95	-0.13	0.02
0-2R3-E	246	245	244	18.3	28.2	40.4	40.4	18.2	1.51	1.00	3.0	1.51	1.00	0.03	0.03
0-2R3-F	249	248	247	16.4	28.7	49.6	50.2	15.6	1.81	1.02	52.3	1.31	1.52	0.30	0.07
0-2R3-G	252	251	250	14.5	16.9	45.7	50.5	9.7	1.76	0.82	-69.9	0.93	1.65	-0.30	0.03
0-2R3-H	255	254	253	4.2	14.7	45.5	47.9	1.8	1.60	0.53	-76.9	0.59	1.54	-0.23	0.02
0-2R3-J	258	257	256	1.1	17.1	48.2	49.3	-0.1	1.63	0.49	-81.1	0.51	1.60	-0.17	0.03
U-2R3-K	261	260	259	-0.3	12.7	48.1	49.3	-7.5	1.55	0.24	-81.6	0.27	1.52	-0.19	0.03
U-2R3-L	264	263	262	-16.2	26.3	32.3	35.6	-21.5	0.56	-0.36	-76.1	-0.28	0.88	-0.31	0.01
1-2R3-A	559	560	561	-1.3	-3.3	-10.5	-0.6	-11.2	-0.13	-0.37	14.8	-0.15	-0.36	0.06	0.03
1-2R3-B	562	563	564	-12.2	-6.5	-18.1	-6.0	-24.3	-0.44	-0.86	35.4	-0.58	-0.72	0.20	0.04
1-2R3-C	565	566	567	-26.5	-22.2	-31.0	-21.9	-35.6	-1.07	-1.39	35.5	-1.28	-1.28	0.15	0.03
1-2R3-D	568	569	570**	-32.9	-58.3	0.0	28.5	-61.4	0.33	-1.74	-55.7	-1.08	-0.33	-0.96	0.03
1-2R3-E	571	572**	573**	-51.9	0.0	0.0	10.7	-62.6	-0.27	-1.96	67.5	-1.71	-0.51	0.60	0.04

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH								STRESS - KSI			
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(I)	SIG(T)	TAU	CCNF
I-2R3-F	574	575	576	-69.7	-93.3	-55.4	-30.7	-94.2	-1.94	-3.41	83.4	-3.39	-1.90	0.17	0.02
I-2R3-G	577	578	579	-86.4	-83.7	-36.1	-27.5	-95.0	-1.85	-3.40	20.9	-2.04	-3.21	0.52	0.04
I-2R3-H	580	581	582	-86.7	-77.2	-24.2	-17.3	-93.5	-1.49	-2.25	17.5	-1.65	-3.10	0.50	0.02
I-2R3-J	583	584	585	-60.7	-31.8	-31.2	-30.1	-61.8	-1.60	-2.34	10.8	-1.63	-2.31	0.13	0.04
I-2R3-K	586	587	588	-34.5	-40.7	-25.2	-17.9	-41.6	-1.00	-1.55	33.7	-1.17	-1.30	0.45	0.04
I-2R3-L	589	590	591	-17.2	-38.0	-23.0	-1.9	-38.3	-0.44	-1.28	49.6	-0.93	-6.79	0.41	0.04
O-2R4-A	267	268	269	11.2	-7.3	-12.3	13.0	-14.1	0.29	-0.34	75.1	-0.29	0.25	0.15	0.03
O-2R4-B	270	269	268	12.8	-4.7	0.1	15.8	-9.1	0.43	-0.14	69.7	-0.07	0.36	0.19	0.05
O-2R4-C	273	272	271	-11.0	-3.7	-0.3	16.0	-5.3	0.47	-0.02	61.1	0.10	0.36	0.41	0.03
O-2R4-D	276	275	274	6.2	-0.2	0.8	13.3	-0.2	0.44	0.12	43.7	0.29	0.27	0.16	0.03
O-2R4-E	279	278	277	3.1	1.5	15.3	19.0	-0.0	0.62	0.17	70.8	0.22	0.57	0.17	0.04
O-2R4-F	282	281	280	2.6	-9.0	12.8	25.3	-9.7	0.74	-0.07	-53.3	0.22	0.45	-0.29	0.02
O-2R4-G	285	284	283	-4.8	-15.8	18.6	32.4	-18.7	0.89	-0.29	-58.6	0.03	0.56	-0.52	0.02
O-2R4-H	288	287	286	-6.3	-21.1	15.6	30.4	-24.1	0.96	-0.43	-57.2	-0.02	0.55	-0.64	0.02
O-2R4-J	291	290	289	-23.2	-37.1	17.3	30.6	-42.7	0.79	-1.04	-60.3	-0.59	0.34	-0.79	0.02
I-2R4-A	592	593	594	-12.1	-0.3	4.0	4.6	-12.9	0.03	-0.38	77.7	-0.36	0.01	0.09	0.03
I-2R4-B	595	596	597	-19.6	-6.5	-2.8	-1.5	-20.6	-0.20	-0.70	75.4	-0.67	-0.29	0.11	0.02
I-2R4-C	598	599	600	-15.4	-16.5	-16.7	-15.2	-16.8	-0.67	-0.71	-18.1	-0.67	-0.70	-0.01	0.03
I-2R4-D	601	602	603	-16.7	-27.5	-30.2	-15.7	-31.2	-0.83	-1.19	-14.8	-0.85	-1.16	-0.04	0.02
I-2R4-E	604	605	606	-29.9	-42.2	-29.5	-17.2	-42.2	-0.98	-1.56	89.5	-1.56	-0.90	0.00	0.04
I-2R4-F	607	608	609	-35.0	-45.9	-18.5	-9.6	-44.0	-0.75	-1.54	30.7	-0.96	-1.34	0.35	0.03
I-2R4-G	610	611	612	-19.7	-34.8	-27.2	-11.5	-35.4	-0.73	-1.28	54.2	-1.04	-0.92	0.26	0.05
I-2R4-H	613	614	615**	-6.0	-32.0	0.0	26.2	-32.2	0.55	-0.80	42.0	-0.02	-0.20	0.67	0.02
I-2R4-J	616	617	618**	2.9	-33.1	0.0	36.0	-33.1	0.26	-0.74	46.2	0.03	0.10	0.80	0.01
O-2R5-A	294	293	292	-0.7	-16.9	-0.2	16.1	-16.9	0.36	-0.40	44.5	-0.01	-0.32	0.38	0.01
O-2R5-B	297	296	295	0.5	-16.3	-1.4	15.4	-16.3	0.35	-0.39	46.7	-0.07	0.00	0.37	0.02
O-2R5-C	300	299	298	0.2	-14.7	-1.2	13.7	-14.7	0.31	-0.35	46.3	-0.04	-0.01	0.33	0.01
O-2R5-D	303	302	301	0.3	-3.9	-1.3	5.0	-6.0	0.11	-0.15	49.3	-0.04	-0.00	0.13	0.01
O-2R5-E	306	305	304	0.0	3.7	0.2	3.7	-3.4	0.09	-0.08	45.9	0.00	0.01	0.08	0.01
O-2R5-F	309	308	307*	-2.4	-17.9	-1.3	13.7	-17.9	0.27	-0.45	-45.5	-0.10	-0.06	-0.30	0.02
O-2R5-G	312	311	310	0.6	-27.3	-3.0	25.0	-27.3	0.55	-0.65	-43.0	-0.01	-0.09	-0.60	0.02
O-2R5-H	315	314	313	-0.3	-41.6	-3.0	38.4	-41.6	0.85	-0.99	-44.0	-0.04	-0.10	-0.92	0.02
O-2R5-J	318	317	316	1.0	-43.2	-4.3	40.1	-43.2	0.89	-1.03	-43.2	-0.01	-0.13	-0.90	0.01
I-2R5-A	619	620**	621	0.7	0.0	-0.1	0.8	-0.2	0.02	0.00	-19.4	0.02	0.00	-0.01	0.04
I-2R5-B	622	623	624**	1.5	4.7	6.0	4.7	-3.2	0.12	-0.06	39.5	0.05	0.02	0.09	0.01
I-2R5-C	625	626	627	1.7	5.5	1.7	5.5	-2.1	0.16	-0.02	44.7	0.07	0.07	0.09	0.02
I-2R5-D	628	629	630	0.2	7.8	3.3	8.0	-4.4	0.22	-0.07	52.3	0.04	0.11	0.19	0.04
I-2R5-E	631	632	633	1.6	6.7	2.7	6.8	-2.5	0.20	-0.02	-41.7	0.10	0.08	-0.11	0.04
I-2R5-F	634	635	636	4.5	-3.0	-0.8	7.4	-3.6	0.21	-0.05	59.3	0.02	0.14	0.11	0.05
I-2R5-G	637	638**	639	2.1	0.0	-1.0	2.2	-1.1	0.06	-0.02	80.5	-0.01	0.05	0.01	0.02
I-2R5-H	640	641	642	1.4	-15.7	-1.0	16.1	-15.7	0.37	-0.30	47.2	-0.02	0.04	0.37	0.01
I-2R5-J	643**	644**	645	0.0	0.0	0.6	0.7	-0.1	0.02	0.00	22.5	0.02	0.01	0.01	0.02
O-1R6-A	150	155	154	16.4	8.9	19.4	27.0	8.8	0.98	0.56	40.2	0.80	0.73	0.21	0.03
O-1R6-B	159	158	157	6.3	14.4	29.2	30.1	7.4	1.06	0.54	11.3	1.04	0.56	0.10	0.02
O-1R6-C	162*	161	160	5.8	7.8	19.1	20.5	4.4	0.72	0.35	17.4	0.69	0.36	0.11	0.09
O-1R6-D	165	164	163	0.2	-0.3	0.7	1.2	-0.3	0.04	0.00	36.3	0.03	0.01	0.02	0.02
I-1R6-A	481	482	483	-30.0	3.4	7.4	-12.5	-35.1	0.05	-1.03	70.9	-0.92	-0.05	0.34	0.02
I-1R6-B	484	485	486	-37.0	-13.0	10.6	-10.6	-37.0	-0.01	-1.11	89.8	-1.11	-0.01	0.00	0.02
I-1R6-C	487	488	489	-25.1	-11.8	6.6	0.8	-25.3	-0.03	-0.77	-85.5	-0.76	-0.03	-3.06	0.01
I-1R6-D	490	491	492**	-3.6	-0.1	0.0	2.8	-0.5	0.03	-0.19	-56.6	-0.12	-0.04	-0.10	0.01
O-2R6-A	321	320	319	-18.8	-30.2	-22.6	-11.1	-30.4	-0.67	-1.11	50.7	-0.93	-0.84	0.22	0.03
O-2R6-B	324	323	322	-6.7	-20.7	-29.5	-6.4	-29.8	-0.51	-1.05	83.1	-1.04	-0.51	0.06	0.02
O-2R6-C	327	326	325	-2.2	-12.7	-19.1	-2.0	-19.2	-0.26	-0.66	84.2	-0.65	-0.26	0.04	0.02
I-2R6-A	646	647	648	38.3	25.0	-8.9	40.5	-11.0	1.23	0.04	11.7	1.18	0.09	0.24	0.02
I-2R6-B	649	650	651	37.2	13.3	-10.4	37.2	-10.4	1.12	0.02	-0.2	1.12	0.02	-0.00	0.02
I-2R6-C	652	653	654	22.4	2.1	-6.5	23.5	-7.7	0.70	-0.02	-11.0	0.67	0.01	-0.13	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

THIS TEST REPORT IS THE PROPERTY OF GEORGE W. COOPER & COMPANY, INC.

LOCATION	GAGE NUMBERS			STRAIN - MICRINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CUNF
I-1R7- A	655	656	657	-4.9	-17.4	-0.7	12.0	-17.5	0.22	-0.40	-49.1	-0.17	-0.07	-0.34	0.02
I-1R7- B	658	659	660	-28.0	-28.9	2.3	9.1	-34.9	-0.01	-1.06	-56.7	-0.90	-0.20	-0.37	0.01
I-2R7- A	661	662	663	21.5	-1.0	1.2	27.4	-4.6	0.86	0.12	-25.3	0.72	0.25	-0.29	0.02
EX- C- A	670	671	672	-0.3	-11.5	-27.1	-0.2	-27.2	-0.27	-0.90	-85.4	-0.90	-0.28	-0.05	0.02
EX- C- B	675	674	673	-1.6	-5.4	0.2	4.1	-5.5	0.08	-0.14	39.7	-0.01	-0.05	0.11	0.02
EX- C- C	678	677	675	0.8	17.4	25.5	26.4	-0.1	0.87	0.26	-14.5	0.85	0.28	-0.11	0.02
EX- C- D	669	668	667	1.1	-0.1	0.5	1.7	-0.1	0.06	0.01	55.3	0.03	0.04	0.02	0.02
EX- B- A	687	686	685	0.3	-0.0	1.0	1.4	-0.1	0.05	0.01	-59.7	0.02	0.04	-0.02	0.01
EX- B- B	690	689	688	0.3	0.1	-0.6	0.4	-0.6	0.01	-0.02	13.4	0.01	-0.01	0.01	0.03
EX- B- C	681	680	679	-0.7	-1.9	0.1	1.4	-2.0	0.03	-0.05	-51.9	-0.02	-0.00	-0.04	0.02
EX- U- D	68-	683	682	-0.4	0.3	-0.5	0.3	-1.2	-0.00	-0.04	43.7	-0.02	-0.02	0.02	0.02
EX- A- A	696	695	694	-7.8	-19.5	-0.6	11.5	-19.9	0.18	-0.54	-21.7	-0.26	-0.10	-0.35	0.02
EX- A- B	693	692	691	-0.4	-25.7	1.2	26.6	-25.7	0.62	-0.59	-45.9	-0.00	0.04	-0.60	0.02
EX- A- L	666	665	664	7.1	-12.3	2.7	22.3	-12.5	0.61	-0.19	-41.4	0.26	0.16	-0.40	0.01
EX- A- L	699	698	697	-1.1	-23.2	0.8	22.9	-23.2	0.53	-0.54	-46.2	-0.03	0.02	-0.53	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

COMBUSTION T-10, LOAD CASE 7, M2X

NOMINAL LOAD = 2.850E 05

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI				TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
0-1K1-A	3	2	1	1.6	2.6	0.0	2.7	-1.1	0.08	-0.01	-56.9	0.02	0.05	-0.05	0.03
0-1K1-B	6	5	4	2.1	-7.6	-0.8	9.1	-7.7	0.22	-0.16	50.0	-0.00	0.06	0.19	0.01
0-1K1-C	9	8	7	1.9	-35.1	-4.1	33.1	-35.2	0.74	-0.83	47.5	-0.12	0.02	0.74	0.03
0-1K1-D	12	11	10	9.6	-61.7	-13.6	61.8	-65.7	1.39	-1.56	50.3	-0.35	0.18	1.45	0.04
0-1K1-E	15	14	13	-2.8	-63.4	-2.3	52.4	-63.4	1.30	-1.51	44.9	-0.10	-0.11	1.41	0.04
0-1K1-F	18	17	16	-7.2	-52.2	2.3	46.5	-51.4	1.02	-1.23	47.2	-1.23	1.02	0.11	0.02
0-1K1-G	21	20	19	0.5	-44.6	4.1	49.2	-44.6	1.18	-0.98	-46.1	0.06	0.14	-1.06	0.02
0-1K1-H	24	23	22	19.6	-24.4	-12.0	40.7	-33.0	1.01	-0.69	-32.3	0.53	-0.20	-0.77	0.02
0-1K1-J	27	26	25	21.4	-12.0	-11.0	28.8	-12.4	0.77	-0.32	-23.3	0.60	-0.15	-0.40	0.02
0-1K1-K	30	29	28	15.5	-4.7	-2.1	21.1	-7.7	0.62	-0.05	-26.1	0.44	0.06	-0.26	0.02
0-1K1-L	33	32	31	26.0	-8.1	3.2	39.9	-10.8	1.21	0.04	-37.6	0.89	0.36	-0.52	0.02
1-1K1-A	324	329	330	-2.3	-15.4	-1.5	-11.6	-15.4	0.23	-0.35	-45.8	-0.09	-0.07	-0.31	0.01
1-1K1-B	331	332	333	-1.0	-9.5	-2.7	-5.9	-9.6	0.10	-0.26	-41.9	-0.06	-0.10	-0.16	0.02
1-1K1-C	334	335	336	-0.6	-3.7	-1.7	-1.3	-3.8	0.01	-0.11	-39.5	-0.04	-0.06	-0.06	0.02
1-1K1-D	337**	338	339	0.0	9.5	-0.4	9.5	-9.9	0.22	-0.23	44.5	-0.00	-0.01	0.22	0.01
1-1K1-E	340	341	342	1.0	34.2	0.1	34.2	-33.1	0.80	-0.75	44.6	0.03	0.01	0.78	0.02
1-1K1-F	343	344	345	0.4	36.0	1.9	36.0	-35.6	0.90	-0.80	0.6	0.90	-0.80	0.32	0.01
1-1K1-G	346	347	348	15.6	40.9	-0.2	41.8	-26.4	1.12	-0.46	-51.7	0.15	0.51	-0.77	0.02
1-1K1-H	349	350	351	27.4	16.6	-3.4	29.5	-4.0	0.90	0.15	-32.3	0.17	0.89	-0.10	0.02
1-1K1-J	352	353	354	15.3	-3.2	1.6	22.1	-5.0	0.68	0.05	60.0	0.21	0.52	0.27	0.04
1-1K1-K	355	356	357	-7.0	-16.2	10.1	24.2	-14.0	0.52	-0.39	32.1	0.26	-0.13	0.41	0.01
1-1K1-L	358**	359**	360**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.0	0.0	0.0	0.0	0.0
0-1K2-A	36	25	34	37.8	25.9	10.8	37.9	10.7	1.36	0.72	-86.7	0.73	1.35	-0.04	0.03
0-1K2-B	39	38	37	52.9	31.1	13.4	53.0	13.3	1.88	0.96	87.1	0.96	1.88	0.05	0.03
0-1K2-C	42	41	40	51.1	28.3	24.8	54.3	21.6	2.00	1.25	71.9	1.32	1.93	0.22	0.06
0-1K2-D	45	44	43	47.6	16.5	39.3	71.1	16.3	2.51	1.24	49.1	1.76	1.96	0.63	0.04
0-1K2-E	48	47	46	47.7	2.4	49.1	94.4	2.4	4.14	1.01	44.6	2.09	2.06	1.06	0.03
0-1K2-F	51	50	49	53.8	-3.3	31.2	89.7	-4.6	2.91	0.73	-83.1	0.77	2.88	-0.26	0.04
0-1K2-G	54	53	52	53.8	7.9	27.4	75.8	5.3	2.55	0.93	-34.0	2.04	1.44	-0.75	0.02
0-1K2-H	57	56	55	38.2	23.0	21.9	40.9	19.3	1.54	1.04	-20.5	1.49	1.10	-0.16	0.02
0-1K2-J	60	59	58	19.9	27.1	22.5	27.3	15.1	1.03	0.77	51.2	0.88	0.94	0.14	0.03
0-1K2-K	63	62	61	4.9	19.8	23.4	25.0	3.2	0.86	0.35	74.3	0.39	0.82	0.13	0.03
0-1K2-L	66	65	64	3.5	1.1	13.2	18.0	3.7	0.63	0.30	-54.7	0.41	0.52	-0.16	0.03
1-1K2-A	361	362	363	-6.6	-31.6	-45.7	-8.1	-46.2	-0.72	-1.60	-6.7	-0.74	-1.59	-0.10	0.03
1-1K2-B	364	365	366	-5.3	-35.6	-66.5	-5.3	-66.5	-0.83	-2.25	0.3	-0.83	-2.25	0.01	0.03
1-1K2-C	367	368	369	-5.4	-43.9	-86.8	-5.3	-88.9	-1.05	-2.98	2.2	-1.06	-2.98	0.07	0.04
1-1K2-D	370	371	372	-4.3	-53.8	-94.9	-9.1	-95.1	-1.24	-3.23	-2.4	-1.25	-3.22	-0.08	0.03
1-1K2-E	373	374	375	-16.5	-44.2	-64.2	-16.2	-64.5	-1.17	-2.29	-4.5	-1.18	-2.26	-0.09	0.03
1-1K2-F	376	377	378	-11.2	-29.5	-45.4	-11.2	-45.5	-0.82	-1.61	-46.9	-1.24	-1.14	-0.39	0.02
1-1K2-G	379	380	381	-18.5	-39.3	-41.1	-14.8	-44.6	-0.93	-1.62	70.0	-1.54	-1.01	0.22	0.02
1-1K2-H	382	383	384	-27.0	-42.3	-23.5	-8.1	-42.4	-0.64	-1.58	42.0	-1.04	-1.12	0.39	0.02
1-1K2-J	385	386**	387	-32.3	0.0	-5.7	4.2	-42.2	-0.23	-1.35	-27.5	-0.51	-1.12	-0.44	0.03
1-1K2-K	388	389	390	-28.7	-30.8	2.0	9.8	-36.5	-0.04	-1.11	24.3	-0.22	-0.93	0.40	0.01
1-1K2-L	391	392	393	-21.6	-33.8	-4.8	9.1	-35.5	-0.05	-1.08	33.9	-0.37	-0.76	0.48	0.03
0-1K3-A	69	68	67	36.2	23.6	8.1	36.3	8.0	1.28	0.62	-86.7	0.63	1.27	-0.04	0.03
0-1K3-B	72	71	70	42.2	28.1	11.0	42.2	11.0	1.50	0.78	-87.3	0.78	1.50	-0.03	0.03
0-1K3-C	75	74	73	39.0	21.9	15.8	39.1	14.7	1.43	0.87	78.0	0.90	1.41	0.11	0.04
0-1K3-D	78	77	76	31.1	15.4	15.2	34.0	12.3	1.24	0.74	63.5	0.81	1.18	0.17	0.03
0-1K3-E	81	80	79	21.5	13.2	22.5	30.8	13.2	1.15	0.74	43.3	0.95	0.93	0.26	0.02
0-1K3-F	84	83	82	19.6	14.2	23.0	28.7	14.0	1.08	0.75	83.3	0.75	1.08	0.04	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICRINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	F(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF.
0-1R3-G	87	86	85	9.6	10.8	19.5	20.7	6.4	0.77	0.48	-71.6	0.51	0.74	-0.09	0.03
0-1R3-H	90	89	88	-5.9	7.6	21.4	21.4	-5.9	0.65	0.02	-89.8	0.02	0.65	-0.00	0.02
0-1R3-J	93	92	91	-11.3	8.1	24.1	25.2	-11.4	0.68	-0.14	87.2	-0.14	0.68	0.04	0.02
0-1R3-K	96	95	94	-9.9	5.6	22.7	22.7	-10.0	0.65	-0.10	-88.6	-0.10	0.65	-0.02	0.03
0-1R3-L	99	98	97	-37.7	-21.0	14.9	16.8	-29.7	0.16	-1.14	-79.3	-1.10	0.12	-0.24	0.02
1-1R3-A	394	395	396	-17.2	-16.5	-33.3	-13.3	-37.1	-0.81	-1.35	23.6	-0.89	-1.27	0.20	0.01
1-1R3-B	397	398	399	-19.4	-22.0	-46.6	-15.9	-50.1	-1.02	-1.81	18.6	-1.10	-1.73	0.24	0.03
1-1R3-C	400	401	402	-19.4	-36.9	-64.7	-18.8	-65.3	-1.27	-2.34	6.4	-1.28	-2.33	0.12	0.02
1-1R3-D	403	404	405	-16.1	-44.5	-77.3	-16.0	-77.4	-1.29	-2.77	2.0	-1.30	-2.71	0.05	0.03
1-1R3-E	406	407	408	-19.4	-50.9	-77.8	-18.2	-79.0	-1.38	-2.78	-8.0	-1.41	-2.76	-0.19	0.05
1-1R3-F	409	410	411	-30.4	-69.9	-66.7	-20.5	-76.5	-2.43	-2.73	-69.8	-2.27	-1.59	-0.42	0.03
1-1R3-G	412	413	414	-35.2	-66.1	-52.1	-19.7	-67.6	-1.32	-2.42	55.4	-2.07	-1.67	0.52	0.03
1-1R3-H	415	416	417	-37.3	-50.2	-27.3	-13.7	-50.9	-0.95	-1.81	37.2	-1.27	-1.50	0.41	0.02
1-1R3-J	418	419	420	-17.6	-37.3	-25.9	-8.5	-35.0	-0.63	-1.24	54.1	-1.03	-0.84	0.29	0.04
1-1R3-K	421	422	423	-2.2	-37.0	-26.9	5.3	-34.3	-0.17	-1.08	64.3	-0.91	-0.34	0.36	0.02
1-1R3-L	424	425	426	1.8	-29.0	-20.7	13.1	-32.0	0.12	-0.92	60.0	-0.66	-0.14	0.45	0.04
0-1R4-A	102	101	100	16.2	5.4	4.5	18.0	2.7	0.62	0.27	69.8	0.31	0.58	0.11	0.03
0-1R4-B	105	104	103	12.0	7.0	6.0	12.8	5.7	0.48	0.32	69.8	0.34	0.40	0.05	0.05
0-1R4-C	108	107	106	5.2	7.5	9.6	9.6	5.2	0.37	0.27	-1.7	0.37	0.27	-0.00	0.03
0-1R4-D	111	110	109	-2.5	6.8	16.6	16.8	-2.7	0.53	0.08	-5.2	0.52	0.08	-0.04	0.02
0-1R4-E	114	112	111	-9.6	0.6	26.9	21.7	-10.7	0.61	-0.13	54.2	0.12	0.36	0.35	0.02
0-1R4-F	117	116	115	-8.3	-17.8	13.5	25.8	-20.6	0.65	-0.42	-59.0	-0.14	0.36	-0.47	0.01
0-1R4-G	120	119	118	-7.9	-27.7	9.8	26.1	-26.2	0.67	-0.59	-34.5	-0.16	0.25	-0.59	0.03
0-1R4-H	123	122	121	-15.4	-26.2	12.7	27.3	-29.9	0.60	-0.72	-59.7	-0.38	0.27	-0.57	0.03
0-1R4-J	126	125	124	-36.6	-52.4	4.1	23.9	-58.4	0.21	-1.64	-60.6	-1.23	-1.25	-0.81	0.02
1-1R4-A	427	428	429	-19.0	-11.0	-7.6	-7.2	-14.5	-0.43	-0.71	79.1	-0.70	-0.44	0.07	0.02
1-1R4-B	430	431	432	-16.8	-17.2	-16.3	-15.8	-17.3	-0.69	-0.73	-55.5	-0.72	-0.70	-0.02	0.03
1-1R4-C	433	434	435	-10.8	-25.7	-27.8	-8.7	-29.9	-0.58	-1.07	-18.5	-0.63	-1.02	-0.15	0.03
1-1R4-D	436	437	438	-11.6	-27.5	-33.6	-10.5	-34.7	-0.68	-1.25	-12.3	-0.71	-1.22	-0.12	0.02
1-1R4-E	439	440	441	-17.8	-33.2	-28.6	-11.9	-34.7	-0.74	-1.26	-75.4	-1.23	-0.77	-0.13	0.02
1-1R4-F	442	443	444	-19.9	-25.8	-17.2	-7.8	-26.2	-0.52	-0.94	36.1	-0.67	-0.80	0.20	0.03
1-1R4-G	445	446	447	-3.6	-19.2	-20.5	-3.4	-22.7	-0.34	-0.78	70.4	-0.73	-0.39	0.14	0.02
1-1R4-H	448	449	450	7.4	-19.7	-26.1	10.3	-29.1	0.05	-0.86	74.1	-0.79	-0.01	0.24	0.02
1-1R4-J	451	452	453	10.0	-20.4	-23.0	20.9	-32.9	0.36	-0.91	63.5	-0.66	0.10	0.51	0.03
0-1R5-A	129	128	127	0.8	-0.8	2.5	4.2	-1.0	0.13	0.01	35.2	0.09	0.05	0.00	0.02
0-1R5-B	132	131	130	1.3	1.9	2.7	2.4	1.3	0.09	0.07	-0.0	0.09	0.07	-0.00	0.02
0-1R5-C	135	134	133	0.8	8.7	2.5	8.8	-5.6	0.23	-0.10	-41.6	0.04	0.05	-0.16	0.01
0-1R5-D	138	137	136	5.9	17.8	-2.5	18.3	-15.0	0.46	-0.31	-52.3	-0.03	0.17	-0.37	0.02
0-1R5-E	141	140	139	1.4	26.6	1.7	26.6	-23.4	0.64	-0.51	45.2	0.06	0.07	0.58	0.02
0-1R5-F	144	143	142	-3.2	-33.5	1.3	31.6	-33.6	0.71	-0.74	-47.0	-0.94	0.01	-0.75	0.02
0-1R5-G	147	146	145	-3.5	-36.6	-0.1	33.1	-36.6	0.73	-0.88	-46.4	-0.12	-0.07	-0.80	0.02
0-1R5-H	150	149	148	0.9	-42.1	-3.1	39.9	-42.1	0.90	-0.99	-43.6	-0.00	-0.04	-0.94	0.02
0-1R5-J	153	152	151	-1.5	-44.0	-4.6	38.6	-44.6	0.83	-1.09	-43.9	-0.09	-0.17	-0.96	0.01
1-1R5-A	454	455	456	-2.4	-2.3	-0.4	-0.1	-2.8	-0.03	-0.04	-64.0	-0.06	-0.04	-0.02	0.03
1-1R5-B	457	458	459	-2.1	-2.7	0.3	4.1	-2.8	0.08	-0.15	-51.9	-0.07	-0.01	-0.11	0.03
1-1R5-C	460	461	462	0.8	-7.9	-1.2	7.6	-8.0	0.17	-0.19	-41.4	0.01	-0.03	-0.18	0.03
1-1R5-D	463	464	465	-1.4	-0.9	-0.3	5.3	-6.9	0.10	-0.16	-47.6	-0.05	-0.02	-0.14	0.02
1-1R5-E	466	467	468	-1.8	-7.2	0.8	6.3	-7.3	0.14	-0.18	39.6	0.01	-0.03	0.15	0.02
1-1R5-F	469	470	471**	2.0	7.0	0.0	7.1	-5.0	0.18	-0.10	-49.8	0.02	0.07	-0.14	0.02
1-1R5-G	472	473	474	-0.4	6.1	-2.2	6.1	-8.7	0.12	-0.23	-48.5	-0.08	-0.03	-0.17	0.02
1-1R5-H	475	476	477	-0.0	-6.9	-1.2	5.7	-7.0	0.12	-0.17	47.7	-0.04	-0.01	0.15	0.03
1-1R5-J	478*	479	480*	-0.2	-21.5	-3.2	19.2	-21.6	0.39	-0.53	47.1	-0.11	-0.04	0.46	0.01
0-2R1-A	168	167	166	-0.5	4.3	0.7	4.3	-4.1	0.10	-0.09	-40.9	0.02	-0.01	-0.10	0.01
0-2R1-B	171	170	169	-0.8	-3.5	-0.4	2.3	-3.5	0.04	-0.09	42.7	-0.02	-0.03	0.07	0.03
0-2R1-C	174	173	172	-4.9	-35.3	1.5	32.0	-35.4	0.71	-0.85	42.3	0.00	-0.15	0.77	0.02
0-2R1-U	177	176	175	4.1	-72.9	-9.1	68.2	-73.2	1.52	-1.74	47.7	-0.26	0.04	1.62	0.04

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-1R7- A	655	656	657	-2.8	-25.9	-2.5	20.5	-25.9	0.42	-0.65	-43.2	-0.12	-0.11	-0.54	0.01
I-1R7- B	658	659	660	-15.0	-27.0	-0.0	13.3	-28.4	0.16	-0.81	-55.5	-0.50	-0.15	-0.45	0.02
I-2R7- A	661	662	663	7.4	-14.2	0.7	22.6	-14.5	0.60	-0.26	-39.8	0.25	0.10	-0.42	0.02
EX- C- A	670	671	672	0.7	-4.4	-0.1	4.4	-3.8	0.11	-0.08	-47.6	0.00	0.02	-0.19	0.02
EX- C- B	675	674	673	-1.1	-5.4	-0.5	3.8	-5.4	0.07	-0.14	43.0	-0.03	-0.04	0.11	0.04
EX- C- C	678	677	676	1.0	4.2	-0.9	4.4	-4.3	0.10	-0.10	-51.6	-0.02	0.02	-0.10	0.04
EX- C- D	669	668	667	-1.9	-3.3	-0.1	1.9	-3.9	0.03	-0.11	36.2	-0.02	-0.00	0.06	0.03
EX- B- A	667	666	665	-1.1	-18.7	3.8	21.6	-18.9	0.52	-0.41	-48.4	0.00	0.11	-0.46	0.04
EX- B- B	690	689	688	-2.3	-27.1	1.5	26.3	-27.2	0.60	-0.64	-47.0	-0.06	0.03	-0.62	0.04
EX- B- C	681	680	679	-0.6	-19.4	-3.8	15.1	-19.5	0.31	-0.49	-42.3	-0.06	-0.13	-0.40	0.02
EX- B- D	664	683	682	-1.5	-27.5	-0.4	25.7	-27.6	0.57	-0.65	-45.6	-0.05	-0.03	-0.61	0.03
EX- A- A	696	695	694	-2.9	-19.6	-3.8	12.8	-19.6	0.23	-0.52	-44.2	-0.13	-0.15	-0.37	0.02
EX- A- B	693	692	691	-1.2	-25.6	0.8	25.3	-25.7	0.58	-0.60	-46.1	-0.03	0.02	-0.59	0.03
EX- A- C	666	665	664	0.3	-15.5	4.1	20.0	-15.6	0.51	-0.32	-48.0	0.05	0.14	-0.41	0.02
EX- A- D	699	698	697	-1.4	-24.4	1.0	24.0	-24.4	0.55	-0.57	-46.4	-0.04	0.02	-0.56	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - K.S.I				TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
I-2R3-F	574	575	576	-29.0	-71.3	-67.0	-18.7	-78.0	-1.39	-2.75	-70.5	-2.60	-1.54	-0.43	0.03
I-2R3-G	577	576	574	-38.8	-64.2	-44.2	-18.6	-64.3	-1.25	-2.30	48.4	-1.84	-1.72	0.52	0.04
I-2R3-H	580	581	582	-34.5	-49.8	-28.8	-11.4	-49.9	-0.87	-1.76	42.3	-1.27	-1.36	0.44	0.03
I-2R3-J	583	584	585	-14.6	-37.0	-31.1	-6.4	-39.2	-0.60	-1.36	60.1	-1.17	-0.79	0.33	0.04
I-2R3-K	586	587	588	-0.3	-28.9	-24.6	8.0	-32.9	-0.06	-1.00	53.2	-0.84	-0.25	0.38	0.04
I-2R3-L	589	590	591	6.4	-24.0	-17.9	16.2	-27.7	0.26	-0.75	61.8	-0.53	0.03	0.42	0.03
O-2R4-A	267	266	265	12.7	3.5	1.6	13.6	0.1	0.65	0.14	75.2	0.16	0.43	0.08	0.03
O-2R4-B	270	269	268	11.6	4.9	4.3	12.7	3.2	0.35	0.23	76.3	0.26	0.43	0.07	0.03
O-2R4-C	273	272	271	5.8	6.4	7.7	7.7	5.7	0.31	0.27	9.5	0.34	0.27	0.01	0.03
O-2R4-D	276	275	274	-2.8	7.8	13.4	13.8	-3.1	0.42	0.03	-8.5	0.41	0.04	-0.03	0.03
O-2R4-E	279	278	277	-16.5	-1.0	21.3	22.6	-11.7	0.63	-0.16	56.1	0.08	0.38	0.37	0.02
O-2R4-F	282	281	280	-9.1	-20.6	13.1	27.3	-23.2	0.67	-0.50	-58.1	-0.17	0.34	-0.52	0.02
O-2R4-G	285	284	283	-16.0	-26.9	13.9	28.8	-30.9	0.64	-0.73	-60.0	-0.39	0.30	-0.60	0.01
O-2R4-H	288	287	286	-15.7	-31.2	9.9	28.1	-34.0	0.59	-0.84	-57.2	-0.42	0.17	-0.65	0.02
O-2R4-J	291	290	289	-27.9	-48.6	8.6	24.1	-55.4	0.25	-1.59	-62.0	-1.15	-0.16	-0.76	0.02
I-2R4-A	592	593	594	-14.4	-6.2	-0.0	-6.8	-13.6	-0.38	-0.58	68.1	-0.55	-0.41	0.07	0.02
I-2R4-B	595	596	597	-18.7	-19.7	-16.0	-13.5	-19.2	-0.63	-0.77	72.3	-0.75	-0.65	0.02	0.03
I-2R4-C	598	599	600	-12.1	-23.4	-23.3	-9.8	-25.7	-0.58	-0.94	-22.7	-0.63	-0.89	-0.13	0.03
I-2R4-D	601	602	603	-12.2	-26.3	-30.1	-10.8	-31.5	-0.67	-1.15	-14.9	-0.70	-1.11	-0.12	0.03
I-2R4-E	604	605	606	-20.5	-29.9	-23.6	-13.6	-30.0	-0.74	-1.12	-85.6	-1.12	-0.75	-0.03	0.03
I-2R4-F	607	608	609	-15.4	-23.3	-13.0	-5.0	-23.4	-0.40	-0.82	41.3	-0.53	-0.64	0.21	0.03
I-2R4-G	610	611	612	-2.2	-17.2	-22.0	-1.1	-23.2	-0.26	-0.77	76.7	-0.75	-0.29	0.11	0.03
I-2R4-H	613	614	615**	0.3	-21.7	0.0	30.3	-22.0	0.78	-0.43	49.5	0.08	0.27	0.60	0.03
I-2R4-J	616	617	618**	11.8	-26.6	0.0	39.0	-27.2	1.02	-0.51	50.1	0.12	0.39	0.75	0.03
O-2R5-A	294	293	292	-0.4	-2.9	-0.5	2.1	-2.9	0.04	-0.07	45.6	-0.02	-0.02	0.06	0.03
O-2R5-B	297	296	295	-0.2	0.6	-0.4	0.6	-1.1	0.01	-0.03	-47.4	-0.01	-0.01	-0.02	0.01
O-2R5-C	300	299	298	0.9	8.7	0.4	8.7	-7.4	0.21	-0.16	-45.9	0.02	0.02	-0.19	0.03
O-2R5-D	303	302	301	0.1	17.4	0.9	17.4	-16.4	0.41	-0.37	-44.3	0.03	0.01	-0.39	0.02
O-2R5-E	306	305	304	-2.5	26.8	5.4	27.1	-24.2	0.65	-0.53	49.4	-0.03	0.15	0.59	0.01
O-2R5-F	309	308	307	-4.6	-35.8	0.9	32.3	-36.0	0.71	-0.87	-47.3	-0.14	-0.01	-0.79	0.01
O-2R5-G	312	311	310	0.8	-37.7	-3.5	35.1	-37.8	0.78	-0.90	-43.3	-0.01	-0.11	-0.84	0.02
O-2R5-H	315	314	313	1.3	-45.0	-3.0	43.4	-45.1	0.99	-1.06	-43.6	0.01	-0.00	-1.02	0.02
O-2R5-J	318	317	316	1.7	-45.1	-3.2	41.7	-43.2	0.95	-1.01	-43.4	0.03	-0.09	-0.93	0.02
I-2R5-A	619	620**	621	1.0	0.0	-0.4	1.1	-0.4	0.03	-0.00	-13.0	0.03	-0.00	-0.01	0.03
I-2R5-B	622	623	624**	0.8	-1.9	0.0	5.8	-4.9	0.14	-0.11	-22.8	0.03	0.01	-0.11	0.02
I-2R5-C	625	626	627	-1.4	-0.1	3.4	8.4	-6.5	0.21	-0.13	-24.3	-0.01	0.10	-0.16	0.02
I-2R5-D	628	629	630	0.3	-6.4	0.7	7.6	-6.4	0.18	-0.14	-45.7	0.02	0.03	-0.16	0.01
I-2R5-E	631	632	633	-1.8	-7.3	3.3	9.2	-7.7	0.23	-0.16	36.2	0.09	-0.03	0.19	0.01
I-2R5-F	634	635	636	2.3	11.6	0.0	11.7	-9.3	0.29	-0.19	-48.1	0.02	0.06	-0.24	0.02
I-2R5-G	637	638**	639	2.0	0.0	0.0	2.4	-0.4	0.08	0.01	67.5	0.02	0.07	0.02	0.02
I-2R5-H	640	641	642	1.1	-7.9	-0.6	8.5	-7.9	0.20	-0.18	48.0	-0.01	0.03	0.19	0.02
I-2R5-J	643**	644**	645	0.0	0.0	1.1	1.4	-0.2	0.04	0.01	22.5	0.04	0.01	0.01	0.02
O-1R6-A	156	155	154	-0.4	-18.5	0.1	18.3	-18.5	0.42	-0.43	44.6	-0.00	-0.01	0.43	0.01
O-1R6-B	159	158	157	0.7	-6.0	-0.9	7.7	-8.0	0.18	-0.19	47.9	-0.02	0.01	0.16	0.01
O-1R6-C	162	161	160	-1.0	-6.3	-1.2	4.1	-6.3	0.07	-0.17	45.3	-0.05	-0.05	0.12	0.02
O-1R6-D	165	164	163	-0.9	-6.4	0.5	6.1	-6.5	0.14	-0.15	41.8	0.01	-0.02	0.14	0.01
I-1R6-A	481	482	483	3.8	18.5	-3.9	18.9	-18.9	0.43	-0.44	39.1	0.09	-0.09	0.43	0.01
I-1R6-B	484**	485	486**	0.0	-3.2	0.0	3.2	-3.2	0.07	-0.07	-45.0	0.00	-0.00	-0.07	0.02
I-1R6-C	487	488	489	-2.1	-14.0	0.7	16.7	-12.1	0.23	-0.24	-48.6	-0.06	0.00	-0.26	0.01
I-1R6-D	490	491	492	-2.8	-15.0	-0.8	11.5	-15.1	0.23	-0.36	-47.2	-0.10	-0.03	-0.31	0.02
O-2R6-A	321	320	319	-2.5	-21.1	2.2	18.2	-21.5	0.39	-0.53	39.4	0.02	-0.16	0.45	0.01
O-2R6-B	324	323	322	-1.8	-7.5	0.2	7.9	-9.5	0.17	-0.24	41.6	-0.01	-0.06	0.20	0.02
O-2R6-C	327	326	325	-1.2	-5.8	0.1	4.7	-5.8	0.10	-0.15	41.6	-0.01	-0.04	0.12	0.02
I-2R6-A	646	647	648	0.7	18.4	0.9	18.4	-16.8	0.44	-0.37	45.1	0.03	0.04	0.41	0.02
I-2R6-B	649	650	651	-0.3	-2.0	-0.0	1.7	-2.0	0.04	-0.05	-46.9	-0.01	-0.00	-0.04	0.02
I-2R6-C	652	653	654	-0.9	-13.0	-0.6	11.5	-13.0	0.25	-0.32	-45.3	-0.04	-0.03	-0.28	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

MANUFACTURED BY THE UNIVERSITY OF MICHIGAN

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CORF
0-2R1-E	180	179	178	-0.6	-0.6	-0.3	61.7	-66.7	1.36	-1.65	46.2	-0.21	-0.08	1.50	0.03
0-2R1-F	182	182	181	-0.2	-5.9	-8.3	46.6	-55.1	0.99	-1.35	-87.7	-1.35	0.09	-0.04	0.02
0-2R1-G	186	185	186	15.1	-46.9	-11.1	52.6	-48.6	1.22	-1.08	-37.5	0.39	-0.22	-1.13	0.02
0-2R1-H	189	188	187	20.1	-23.7	-14.7	45.8	-34.3	1.17	-0.64	-29.7	0.72	-0.23	-0.80	0.02
0-2R1-J	192	191	191	21.9	-13.4	-9.0	31.6	-14.3	0.85	-0.33	-25.9	0.63	-0.10	-0.46	0.01
0-2R1-K	195	194	193	16.4	-3.3	-5.0	19.7	-8.3	0.57	-0.04	-20.1	0.49	-0.00	-0.21	0.03
0-2R1-L	198	197	196	-6.4	-7.2	0.5	37.9	-11.0	1.14	0.01	-29.0	0.88	0.28	-0.48	0.01
1-2R1-A	493	494	495	0.3	-17.3	-3.8	13.9	-17.4	0.29	-0.44	-41.2	-0.03	-0.12	-0.36	0.04
1-2R1-B	496	497	498	-0.2	-12.2	-0.2	11.9	-12.2	0.27	-0.29	-45.0	-0.01	-0.01	-0.20	0.01
1-2R1-C	494	500**	501	-0.3	0.0	-0.8	0.0	-1.2	-0.01	-0.04	33.5	-0.02	-0.03	0.01	0.02
1-2R1-D	502	503	504	-0.4	16.6	1.0	16.6	-16.0	0.39	-0.36	46.2	-0.00	0.03	0.38	0.01
1-2R1-E	505	506	507	-1.8	34.5	4.0	32.6	-32.5	0.82	-0.73	47.5	-0.02	0.11	0.77	0.03
1-2R1-F	506	509	510	-2.5	36.3	5.5	36.9	-33.6	0.87	-0.75	3.3	0.87	-0.74	0.09	0.04
1-2R1-G	511	512	513	14.8	36.6	-3.0	37.9	-26.1	0.99	-0.48	-53.1	0.05	0.46	-0.71	0.01
1-2R1-H	514	515	516	26.1	17.0	-3.1	27.1	-4.1	0.85	0.13	-79.6	0.16	0.83	-0.13	0.02
1-2R1-J	517	518	519	11.2	-5.5	3.2	20.5	-6.2	0.62	0.00	53.8	0.21	0.40	0.29	0.02
1-2R1-K	520	521	522	-3.5	-16.4	8.2	22.0	-17.3	0.55	-0.35	36.3	0.24	-0.03	0.43	0.04
1-2R1-L	523	524	525	-12.9	-30.9	5.4	24.9	-32.4	0.50	-0.82	35.7	0.05	-0.37	0.65	0.01
0-2R2-A	201	200	199	39.0	23.9	7.2	39.0	7.2	1.36	0.62	-88.6	0.62	1.35	-0.02	0.03
0-2R2-B	204	203	202	55.3	36.7	11.8	55.6	11.6	1.95	0.93	-86.0	0.94	1.94	-0.07	0.04
0-2R2-C	207	206	205	56.2	39.3	36.1	58.4	34.0	2.26	1.70	72.7	1.75	2.21	0.16	0.03
0-2R2-D	210	209	208	51.2	17.1	37.9	72.8	16.3	2.56	1.26	51.8	1.76	2.06	0.63	0.03
0-2R2-E	212	212	211	55.5	-0.4	28.5	80.5	-2.5	2.83	0.77	53.8	1.49	2.11	0.98	0.03
0-2R2-F	216	215	214	58.9	-4.4	21.2	88.4	-6.3	2.83	0.60	-78.5	0.69	2.74	-0.44	0.03
0-2R2-G	219	218	217	54.7	9.7	21.7	71.1	5.3	2.40	0.88	-10.0	2.02	1.26	-0.66	0.03
0-2R2-H	222	221	220	36.3	24.9	20.6	37.0	19.8	1.42	1.02	-12.0	1.40	1.04	-0.06	0.04
0-2R2-J	225	224	223	19.0	27.0	23.4	27.4	15.0	1.05	0.77	55.3	0.86	0.96	0.13	0.03
0-2R2-K	228	227	226	5.7	17.2	22.5	23.1	5.1	0.81	0.40	79.9	0.41	0.80	0.07	0.03
0-2R2-L	231	230**	229	6.1	0.0	14.7	20.2	-1.4	0.65	0.15	-54.7	0.28	0.52	-0.22	0.05
1-2R2-A	526	527	528	-5.1	-29.4	-44.9	-4.7	-45.4	-0.60	-1.54	-6.2	-0.61	-1.53	-0.10	0.03
1-2R2-B	529	530	531	-5.9	-34.0	-64.4	-5.9	-64.4	-0.83	-2.18	0.2	-0.83	-2.18	0.00	0.03
1-2R2-C	532	533	534	-14.2	-48.4	-88.9	-14.1	-89.0	-1.34	-3.07	2.4	-1.35	-3.07	0.07	0.03
1-2R2-D	535	536	537	-0.7	-61.2	-106.2	-6.5	-106.4	-1.27	-3.57	-2.7	-1.27	-3.57	-0.11	0.04
1-2R2-E	538	539	540	-10.2	-49.7	-74.4	-9.1	-73.5	-1.03	-2.51	-7.5	-1.05	-2.44	-0.19	0.04
1-2R2-F	541	542	543	-9.5	-29.3	-48.8	-9.5	-48.8	-0.80	-1.70	-45.2	-1.25	-1.25	-0.45	0.04
1-2R2-G	544	545	546	-16.4	-41.1	-46.3	-14.0	-49.1	-0.95	-1.76	73.5	-1.69	-1.01	0.22	0.03
1-2R2-H	547	548	549	-32.9	-45.3	-23.6	-10.6	-45.9	-0.80	-1.62	37.4	-1.10	-1.32	0.39	0.04
1-2R2-J	550	551	552	-34.2	-33.2	-6.0	-0.9	-34.4	-0.42	-1.31	21.5	-0.54	-1.19	0.30	0.04
1-2R2-K	553	554	555	-20.0	-30.7	-0.1	7.3	-35.4	-0.11	-1.09	24.6	-0.28	-0.92	0.37	0.02
1-2R2-L	556	557	558	-21.4	-53.3	-1.1	13.2	-35.6	0.08	-1.05	32.7	-0.25	-0.72	0.51	0.03
0-2R3-A	234	233	232	35.0	19.6	3.8	35.0	3.8	1.19	0.47	-89.7	0.47	1.19	-0.00	0.04
0-2R3-B	237	236	235	40.8	21.2	7.5	41.1	7.3	1.43	0.65	84.9	0.65	1.42	0.07	0.04
0-2R3-C	240	239	238	33.1	19.3	15.3	34.4	11.0	1.27	0.80	75.6	0.83	1.24	0.11	0.03
0-2R3-D	243	242	241	22.2	14.6	17.0	25.3	14.0	0.97	0.71	58.9	0.78	0.90	0.12	0.04
0-2R3-E	246	245	244	18.4	13.7	20.3	25.1	13.6	0.96	0.70	40.2	0.85	0.84	0.13	0.03
0-2R3-F	249	248	247	14.4	15.1	22.6	23.8	13.2	0.92	0.67	64.9	0.71	0.87	0.09	0.02
0-2R3-G	252	251	250	7.1	8.7	22.5	24.7	5.0	0.86	0.41	-70.7	0.46	0.81	-0.14	0.03
0-2R3-H	255	254	253	-7.6	5.2	22.3	22.5	-7.8	0.66	-0.03	-85.8	-0.03	0.66	-0.05	0.03
0-2R3-J	258	257	256	-13.3	2.6	23.7	23.9	-13.4	0.65	-0.21	-86.0	-0.20	0.65	-0.06	0.04
0-2R3-K	261	260	259	-19.6	-3.6	21.7	22.2	-20.1	0.53	-0.44	-83.7	-0.43	0.52	-0.11	0.02
0-2R3-L	264	263	262	-2.0	-27.5	13.3	16.3	-45.0	0.04	-1.32	-77.3	-1.25	0.02	-0.30	0.02
1-2R3-A	559	560	561	-14.5	-14.2	-29.3	-11.2	-32.6	-0.69	-1.19	23.2	-0.77	-1.11	0.16	0.04
1-2R3-B	562	563	564	-19.3	-15.7	-38.7	-12.6	-45.4	-0.87	-1.62	26.8	-1.02	-1.47	0.30	0.04
1-2R3-C	565	566	567	-26.4	-29.4	-49.9	-23.5	-52.9	-1.30	-1.97	18.4	-1.36	-1.91	0.20	0.06
1-2R3-D	568	569	570**	-18.8	-54.1	0.0	36.3	-55.1	0.65	-1.46	-50.9	-0.62	-0.19	-1.03	0.03
1-2R3-E	571	572**	573**	-22.7	0.0	0.0	4.7	-27.4	-0.12	-0.86	67.5	-0.75	-0.22	0.26	0.06

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

SEE LEFT PAGES OF THE REPORT FOR DETAILED DATA.

COMBUSTION 1-10, LOAD CASE 8, MZY

NOMINAL LOAD = 2.850E 05

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CUNF
0-1R1-A	3	2	1	8.3	1.7	-4.5	8.3	-4.5	0.23	-0.06	89.1	-0.06	0.23	0.00	0.01
0-1R1-B	6	5	-	14.7	6.8	-1.9	14.7	-1.9	0.47	0.08	-88.6	0.08	0.47	-0.01	0.01
0-1R1-C	4	8	7	16.3	10.0	3.4	16.3	3.4	0.58	0.29	-87.8	0.29	0.58	-0.01	0.02
0-1R1-U	12	11	10	9.8	11.2	12.9	12.9	9.8	0.52	0.45	2.2	0.52	0.45	0.00	0.02
0-1R1-E	13	14	13	-3.3	4.4	10.7	10.8	-3.3	0.32	-0.00	-2.8	0.32	-0.00	-0.02	0.01
U-1R1-F	14	17	16	-8.2	1.3	6.5	8.6	-8.2	0.20	-0.19	-1.2	0.03	-0.02	0.19	0.01
0-1R1-G	21	20	19	-10.7	7.0	7.7	9.2	-12.2	0.13	-0.31	74.6	-0.28	0.15	0.13	0.02
0-1R1-H	24	23	22	-20.4	-6.4	7.2	8.3	-21.6	0.00	-0.63	78.8	-0.60	0.04	0.13	0.01
0-1R1-J	27	26	25	-22.4	-2.5	6.5	6.6	-22.5	0.06	-0.66	87.2	-0.65	0.06	0.03	0.02
0-1R1-K	30	29	28	-20.3	-5.8	6.7	6.7	-20.2	0.02	-0.60	87.8	-0.60	0.02	0.02	0.01
U-1R1-L	33	32	31	-48.6	-21.1	2.5	2.6	-48.7	-0.40	-1.54	87.8	-1.54	-0.40	0.05	0.03
I-1R1-A	320	329	330	-2.7	-5.9	-9.2	-2.7	-9.2	-0.18	-0.33	0.4	-0.18	-0.33	0.00	0.01
I-1R1-B	331	332	333	-2.3	-10.2	-18.3	-2.3	-18.3	-0.26	-0.63	0.4	-0.26	-0.63	0.00	0.01
I-1R1-C	334	335	336	-1.1	-16.3	-31.3	-1.1	-31.3	-0.35	-1.04	-0.3	-0.35	-1.04	-0.00	0.02
I-1R1-D	337	338	339	2.8	-19.4	-40.5	2.8	-40.5	-0.31	-1.31	-0.8	-0.31	-1.31	-0.01	0.01
I-1R1-E	340	341	342	8.9	-13.5	-35.5	8.9	-35.5	-0.06	-1.08	-0.3	-0.06	-1.08	-0.00	0.02
I-1R1-F	343	344	345	10.9	-9.1	-28.7	10.9	-29.7	0.07	-0.84	-45.2	-0.34	-0.36	-0.46	0.01
I-1R1-G	346	347	348	10.1	-12.0	-25.5	10.6	-26.0	0.09	-0.75	83.2	-0.74	0.08	0.10	0.01
I-1R1-H	349	350	351	1.8	-14.1	-15.8	4.3	-18.3	-0.04	-0.56	70.7	-0.50	-0.10	-0.16	0.01
I-1R1-J	352	353	354	1.2	-9.6	-16.0	1.4	-16.3	-0.11	-0.52	83.0	-0.52	-0.12	0.05	0.02
I-1R1-K	355	356	357	4.7	-9.5	-21.4	4.7	-21.4	-0.06	-0.66	87.4	-0.66	-0.06	0.03	0.01
I-1R1-L	358	359**	360**	5.6	0.0	0.0	6.7	-1.2	0.21	0.03	67.5	0.00	0.18	0.06	0.01
U-1R2-A	36	35	34	0.2	-4.6	-1.7	3.2	-4.7	0.06	-0.12	51.6	-0.05	-0.01	0.09	0.01
0-1R2-B	39	38	37	1.7	-3.1	-1.7	3.6	-3.5	0.08	-0.02	59.4	-0.04	0.04	0.07	0.02
0-1R2-C	42	41	40	0.5	-1.5	-0.8	1.3	-1.7	0.03	-0.04	57.8	-0.02	0.01	0.03	0.01
U-1R2-D	45	44	43	-5.9	1.1	0.1	2.1	-8.0	-0.01	-0.24	-26.7	-0.06	-0.20	-0.04	0.01
0-1R2-E	48	47	46	-16.2	3.0	0.1	5.7	-21.8	-0.03	-0.66	-26.8	-0.16	-0.53	-0.26	0.01
0-1R2-F	51	50	49	-21.3	1.2	3.9	7.3	-24.7	-0.00	-0.74	25.9	-0.14	-0.60	0.24	0.02
0-1R2-G	54	53	52	-26.2	-2.5	2.5	5.3	-28.9	-0.11	-0.90	73.5	-0.84	-0.18	0.21	0.01
0-1R2-H	57	56	55	-28.1	-10.1	2.0	2.2	-28.4	-0.21	-0.91	84.5	-0.91	-0.21	0.07	0.01
0-1R2-J	60	59	58	-25.9	-14.4	1.4	1.9	-24.4	-0.18	-0.74	-82.0	-0.77	-0.14	-0.33	0.01
0-1R2-K	63	62	61	-16.1	-13.8	-0.4	1.3	-17.9	-0.13	-0.58	-72.4	-0.54	-0.17	-0.13	0.01
U-1R2-L	66	65	64	-46.1	-23.9	-0.7	-0.7	-46.1	-0.48	-1.53	-89.4	-1.53	-0.48	-0.01	0.03
I-1R2-A	361	362	363	-0.5	1.4	-1.6	1.5	-3.4	0.01	-0.11	37.8	-0.03	-0.07	0.06	0.02
I-1R2-B	364	365	366	-0.5	2.1	-2.0	2.2	-4.7	0.03	-0.13	38.9	-0.04	-0.07	0.08	0.01
I-1R2-C	367	368	369	-0.7	3.4	-1.6	3.1	-5.4	0.05	-0.15	41.8	-0.04	-0.06	0.10	0.01
I-1R2-D	370	371	372	1.8	2.7	-5.4	4.0	-7.6	0.06	-0.21	25.6	0.01	-0.16	0.00	0.01
I-1R2-E	373	374	375	5.9	-2.7	-11.2	5.9	-11.2	0.08	-0.31	-0.3	0.08	-0.31	-0.00	0.01
I-1R2-F	376	377	378	6.6	-5.6	-11.6	7.1	-14.1	0.09	-0.24	-53.6	-0.22	-0.08	-0.23	0.01
I-1R2-G	379	380	381	6.7	-4.6	-9.5	7.3	-10.1	0.10	-0.26	79.3	-0.25	0.13	0.07	0.01
I-1R2-H	382	383	384	9.1	-0.6	-8.6	9.5	-6.6	0.23	-0.14	86.6	-0.14	0.23	0.02	0.01
I-1R2-J	385	386**	387	9.1	0.0	-11.7	9.2	-11.7	0.14	-0.30	-86.5	-0.29	0.18	-0.03	0.01
I-1R2-K	388	389	390	10.0	-2.2	-21.0	10.0	-21.0	0.12	-0.59	-84.5	-0.54	0.12	-0.01	0.01
I-1R2-L	391	392	393	6.4	-4.5	-17.0	6.4	-17.1	0.04	-0.50	-88.1	-0.50	0.04	-0.02	0.01
0-1R3-A	69	68	67	-7.1	-5.2	1.3	1.4	-7.7	-0.01	-0.23	14.3	-0.03	-0.22	0.05	0.01
0-1R3-B	72	71	70	-8.6	-5.4	0.2	0.6	-8.9	-0.07	-0.24	10.8	-0.08	-0.28	0.04	0.02
0-1R3-C	75	74	73	-10.5	-4.1	-0.3	-0.1	-10.7	-0.11	-0.35	-7.1	-0.11	-0.35	-0.03	0.02
0-1R3-D	78	77	76	-12.3	-3.4	0.2	0.7	-12.9	-0.10	-0.42	-11.6	-0.12	-0.41	-0.06	0.01
0-1R3-E	81	80	79	-15.7	-3.2	-1.2	0.6	-17.4	-0.15	-0.57	-18.0	-0.14	-0.53	-0.12	0.01
0-1R3-F	84	83	82	-18.4	-6.2	-0.8	-0.2	-19.1	-0.20	-0.63	34.3	-0.33	-0.44	0.20	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
0-1R3-G	87	86	85	-19.7	-10.3	-0.7	-0.6	-19.7	-0.22	-0.66	-88.0	-0.66	-0.22	-0.02	0.02
0-1R3-H	90	89	88	-16.4	-12.3	-1.6	-2.1	-17.0	-0.24	-0.58	-78.9	-0.57	-0.25	-0.06	0.01
0-1R3-J	93	92	91	-12.6	-12.0	-4.1	-2.4	-14.4	-0.22	-0.50	-67.6	-0.40	-0.20	-0.10	0.01
0-1R3-K	96	95	94	-7.1	-10.9	-5.1	-1.3	-11.0	-0.15	-0.38	-51.0	-0.29	-0.24	-0.11	0.02
0-1R3-L	99	98	97	-25.0	-16.3	-4.0	-3.9	-25.1	-0.39	-0.87	-85.0	-0.86	-0.38	-0.04	0.02
1-1R3-A	394	395	390	4.4	5.1	5.7	5.7	4.4	0.23	0.25	87.6	0.20	0.23	0.00	0.02
1-1R3-B	397	398	399	4.6	7.1	10.0	10.0	4.6	0.37	0.25	-88.3	0.25	0.37	-0.00	0.02
1-1R3-C	400	401	402	4.3	12.0	15.2	15.7	3.6	0.55	0.28	78.8	0.29	0.54	0.05	0.01
1-1R3-D	403	404	405	3.6	13.1	18.4	18.8	3.3	0.65	0.29	81.5	0.30	0.64	0.05	0.01
1-1R3-E	406	407	408	7.1	14.1	14.1	15.6	5.7	0.57	0.34	67.5	0.37	0.54	0.08	0.01
1-1R3-F	409	410	411	11.2	15.3	9.5	14.4	6.3	0.54	0.35	-6.7	0.53	0.32	-0.02	0.01
1-1R3-G	412	413	414	12.0	12.3	7.5	13.2	6.4	0.50	0.34	-65.8	0.37	0.47	-0.06	0.02
1-1R3-H	415	416	417	11.6	7.2	4.1	12.6	4.0	0.42	0.25	85.6	0.25	0.42	0.01	0.02
1-1R3-J	418	419	420	6.6	1.7	-1.1	6.8	-1.3	0.21	0.03	62.7	0.03	0.21	0.02	0.02
1-1R3-K	421	422	423	1.8	-1.8	-8.3	2.0	-8.5	-0.02	-0.26	-81.8	-0.26	-0.02	-0.03	0.02
1-1R3-L	424	425	426	-1.9	-4.7	-8.5	-1.8	-8.5	-0.14	-0.30	-85.9	-0.30	-0.15	-0.01	0.01
0-1R4-A	102	101	100	-5.6	0.1	1.7	2.3	-6.2	0.01	-0.18	-14.9	0.00	-0.17	-0.05	0.02
0-1R4-B	105	104	103	-5.9	-0.2	-0.1	1.0	-6.9	-0.04	-0.22	-21.7	-0.06	-0.19	-0.06	0.02
0-1R4-C	106	107	106	-4.4	0.2	-0.6	0.8	-2.8	-0.03	-0.18	-27.6	-0.06	-0.15	-0.06	0.02
0-1R4-D	111	110	109	-4.1	-2.2	-2.9	-2.0	-4.9	-0.12	-0.18	-33.0	-0.14	-0.10	-0.03	0.02
0-1R4-E	112	113	112	-4.2	-3.1	-4.2	-3.1	-3.3	-0.15	-0.21	0.5	-0.15	-0.21	0.00	0.02
0-1R4-F	117	116	115	-4.3	-1.2	-4.7	-1.2	-7.9	-0.12	-0.27	43.0	-0.19	-0.20	0.06	0.01
0-1R4-G	120	119	118	-4.7	0.2	-5.0	0.2	-9.9	-0.09	-0.32	44.2	-0.20	-0.21	0.12	0.02
0-1R4-H	123	122	121	-4.3	0.1	-6.2	0.2	-10.7	-0.10	-0.35	39.8	-0.20	-0.25	0.12	0.01
0-1R4-J	126	125	124	-4.7	1.0	-5.7	1.1	-9.5	-0.06	-0.30	47.9	-0.19	-0.17	0.12	0.01
1-1R4-A	427	428	429	7.1	4.6	4.2	7.4	3.9	0.28	0.20	-18.0	0.28	0.21	-0.02	0.02
1-1R4-B	430	431	432	4.7	5.9	8.6	8.8	4.4	0.33	0.24	-79.5	0.24	0.33	-0.02	0.01
1-1R4-C	433	434	435	2.4	8.3	13.2	13.2	2.4	0.46	0.21	87.1	0.21	0.46	0.01	0.02
1-1R4-D	436	437	438	2.2	8.2	14.3	14.3	2.2	0.49	0.21	-89.8	0.21	0.49	-0.00	0.02
1-1R4-E	439	440	441	0.0	12.4	11.1	13.2	4.0	0.47	0.26	10.9	0.46	0.26	0.06	0.02
1-1R4-F	442	443	444	5.4	9.7	5.2	9.7	1.9	0.34	0.16	-49.5	0.23	0.26	-0.09	0.01
1-1R4-G	445	446	447	0.0	4.0	6.0	6.2	-0.1	0.20	0.06	-9.2	0.20	0.06	-0.02	0.02
1-1R4-H	448	449	450	-4.4	1.5	5.0	5.1	-4.5	0.12	-0.10	-7.1	0.12	-0.09	-0.03	0.01
1-1R4-J	451	452	453	-5.5	-0.9	0.2	0.7	-6.0	-0.04	-0.19	-15.6	-0.05	-0.18	-0.04	0.02
0-1R5-A	129	128	127	0.5	3.3	-0.5	3.3	-3.4	0.09	-0.08	-49.2	-0.01	0.01	-0.06	0.01
0-1R5-B	132	131	130	0.2	1.6	-0.2	1.6	-1.7	0.04	-0.04	-48.3	-0.01	0.00	-0.04	0.02
0-1R5-C	135	134	133	0.1	-0.2	-0.2	0.2	-0.3	0.00	-0.01	63.6	-0.01	0.00	0.00	0.00
0-1R5-D	138	137	136	-0.8	-2.6	0.4	2.3	-2.7	0.05	-0.07	37.9	0.00	-0.02	0.06	0.01
0-1R5-E	141	140	139	-0.3	-5.1	0.2	6.1	-6.1	0.14	-0.14	-65.2	-0.01	0.00	-0.14	0.01
0-1R5-F	144	143	142	1.1	9.1	0.1	9.1	-8.0	0.22	-0.17	43.3	0.04	0.01	0.20	0.01
0-1R5-G	147	146	145	1.7	9.7	0.3	9.8	-7.7	0.24	-0.16	62.7	0.06	0.03	0.20	0.01
0-1R5-H	150	149	148	0.8	11.4	1.5	11.4	-9.1	0.29	-0.14	46.1	0.04	0.00	0.24	0.01
0-1R5-J	153	152	151	0.2	11.6	2.0	11.7	-9.4	0.29	-0.20	47.4	0.03	0.07	0.24	0.01
1-1R5-A	454	455	456	-0.2	-0.7	-0.1	0.4	-0.7	0.01	-0.02	-49.0	-0.01	-0.01	-0.01	0.00
1-1R5-B	457	458	459	-0.7	-1.4	-1.2	-0.4	-1.5	-0.03	-0.05	-31.1	-0.03	-0.05	-0.01	0.02
1-1R5-C	460	461	462	0.2	-2.9	-1.5	1.7	-3.0	0.03	-0.08	-14.7	-0.01	-0.05	-0.05	0.01
1-1R5-D	463	464	465	-0.3	-3.7	-1.3	2.1	-3.7	0.03	-0.10	-40.5	-0.02	-0.04	-0.07	0.01
1-1R5-E	466	467	468	-0.5	-4.5	-1.2	2.8	-4.5	0.05	-0.12	47.9	-0.04	-0.03	0.06	0.01
1-1R5-F	469	470	471	-0.7	1.8	-0.7	1.8	-3.1	0.03	-0.08	-44.9	-0.03	-0.03	-0.06	0.02
1-1R5-G	472	473	474	-0.5	1.1	-0.5	1.1	-2.0	0.02	-0.06	-45.0	-0.02	-0.01	-0.04	0.02
1-1R5-H	475	476	477	0.5	3.6	-0.2	3.7	-3.3	0.09	-0.07	-47.8	-0.00	0.01	-0.08	0.01
1-1R5-J	478	479	480	0.3	2.7	0.5	2.7	-1.9	0.07	-0.04	-43.8	0.02	0.02	-0.05	0.02
0-2R1-A	163	167	166	-9.7	-2.6	5.2	5.2	-9.9	0.07	-0.28	0.6	0.07	-0.28	0.00	0.01
0-2R1-B	171	170	169	-16.0	-6.3	2.4	2.4	-16.0	-0.08	-0.50	-1.4	-0.08	-0.50	-0.01	0.03
0-2R1-C	174	173	172	-10.1	-10.5	-5.2	-5.2	-16.1	-0.33	-0.56	-0.9	-0.33	-0.56	-0.00	0.01
0-2R1-D	177	176	175	-8.9	-10.4	-10.8	-8.7	-11.0	-0.40	-0.45	75.5	-0.44	-0.40	0.01	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

DATE 10-21-1968 BY THE INSTRUMENT ENGINEER COMPANY, S. A.

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
0-2R1-E	180	179	178	3.6	-4.5	-10.4	3.7	-10.4	0.02	-0.31	85.4	-0.31	0.02	-0.03	0.01
0-2R1-F	183	182	181	9.3	0.1	-8.9	9.3	-8.9	0.22	-0.20	-45.3	0.01	0.01	-0.21	0.01
0-2R1-G	186	185	184	12.0	-1.3	-8.4	12.4	-8.4	0.32	-0.17	-8.3	0.31	-0.16	-0.07	0.01
0-2R1-H	189	188	187	22.9	-1.4	-8.4	24.0	-9.4	0.70	-0.07	-10.3	0.67	-0.05	-0.14	0.01
0-2R1-J	192	191	190	24.5	-4.0	-7.7	25.2	-8.3	0.75	-0.02	-7.8	0.73	-0.01	-0.10	0.01
0-2R1-K	195	194	193	24.4	-8.2	-8.5	24.4	-8.7	0.72	-0.04	0.6	0.72	-0.04	0.01	0.01
0-2R1-L	198	197	196	50.3	22.6	-5.5	50.3	-5.5	1.60	0.31	0.2	1.60	0.31	0.00	0.01
1-2R1-A	493	494	495	3.3	6.6	8.9	9.0	3.3	0.33	0.20	85.6	0.20	0.33	0.01	0.01
1-2R1-B	496	497	498	3.1	10.7	10.6	19.6	3.1	0.64	0.29	-84.6	0.29	0.64	-0.00	0.01
1-2R1-C	499	500	501	4.1	17.7	32.4	32.4	4.1	1.11	0.45	-88.9	0.45	1.11	-0.01	0.01
1-2R1-D	502	503	504	-1.9	20.0	44.4	44.4	-1.9	1.45	0.38	-88.5	0.38	1.44	-0.03	0.01
1-2R1-E	505	506	507	-8.3	13.1	35.1	35.1	-8.8	1.07	0.06	-90.0	0.06	1.07	-0.00	0.01
1-2R1-F	508	509	510	-10.8	8.1	29.0	29.1	-10.9	0.85	-0.07	46.4	0.37	0.41	0.46	0.01
1-2R1-G	511	512	513	-9.1	13.1	26.3	26.8	-9.7	0.79	-0.05	-7.2	0.78	-0.04	-0.11	0.01
1-2R1-H	514	515	516	-2.2	11.0	17.9	19.6	-3.9	0.61	0.05	-15.7	0.57	0.10	-0.14	0.01
1-2R1-J	517	518	519	0.6	11.0	15.9	16.6	-0.1	0.55	0.16	-11.9	0.53	0.19	-0.06	0.01
1-2R1-K	520	521	522	-3.7	8.4	23.0	23.1	-3.8	0.72	0.10	2.8	0.72	0.11	0.03	0.01
1-2R1-L	523	524	525	-5.7	8.9	25.5	25.6	-5.7	0.79	0.07	1.9	0.79	0.07	0.02	0.01
0-2R2-A	201	200	199	-1.7	4.3	3.1	5.0	-2.7	0.13	-0.07	-28.1	0.09	-0.03	-0.08	0.01
0-2R2-B	204	203	202	-1.2	4.4	3.3	5.1	-3.0	0.14	-0.05	-28.1	0.10	-0.01	-0.08	0.01
0-2R2-C	207	206	205	0.5	2.7	2.7	3.1	0.1	0.10	0.04	-22.0	0.09	0.05	-0.02	0.01
0-2R2-D	210	209	208	7.3	2.0	-0.5	10.0	-3.2	0.30	-0.01	63.1	0.05	0.23	0.12	0.01
0-2R2-E	213	212	211	18.0	-3.6	-3.7	22.4	-8.1	0.66	-0.05	67.7	0.06	0.56	0.25	0.01
0-2R2-F	216	215	214	22.3	-2.4	-5.8	25.9	-9.4	0.76	-0.05	-63.5	0.11	0.60	-0.33	0.01
0-2R2-G	219	218	217	28.6	3.2	-1.0	31.2	-6.4	0.97	0.10	-14.6	0.91	0.15	-0.21	0.01
0-2R2-H	222	221	220	30.7	13.0	-2.7	30.7	-2.7	0.93	0.21	-1.7	0.98	0.21	-0.02	0.01
0-2R2-J	225	224	223	27.8	16.1	-1.0	28.0	-1.3	0.91	0.23	5.3	0.91	0.24	0.06	0.01
0-2R2-K	228	227	226	22.7	15.0	-1.7	23.5	-2.5	0.75	0.15	10.1	0.73	0.17	0.10	0.01
0-2R2-L	231	230	229	48.0	20.0	-0.9	48.2	-1.1	1.58	0.44	3.6	1.57	0.45	0.07	0.01
1-2R2-A	526	527	528	1.2	-2.5	0.8	4.6	-2.5	0.13	-0.04	-43.6	0.05	0.04	-0.08	0.01
1-2R2-B	529	530	531	1.0	-3.1	0.3	4.5	-3.1	0.12	-0.06	-42.4	0.04	0.04	-0.09	0.01
1-2R2-C	532	533	534	1.0	-3.6	0.0	4.7	-3.7	0.12	-0.07	-41.7	0.03	0.01	-0.10	0.01
1-2R2-D	535	536	537	-0.3	-1.0	3.0	4.9	-1.6	0.15	-0.01	-63.1	0.03	0.11	-0.06	0.01
1-2R2-E	538	539	540	-4.5	4.5	13.1	13.1	-4.5	0.39	-0.02	89.5	-0.62	0.39	0.00	0.01
1-2R2-F	541	542	543	-5.6	7.7	10.7	16.9	-6.0	0.50	-0.03	39.3	0.29	0.18	0.20	0.01
1-2R2-G	544	545	546	-6.9	6.2	11.1	11.3	-7.1	0.30	-0.12	-6.5	0.30	-0.12	-0.05	0.01
1-2R2-H	547	548	549	-9.1	2.5	8.7	9.1	-9.5	0.21	-0.22	-8.5	0.20	-0.21	-0.06	0.01
1-2R2-J	550	551	552	-9.4	1.0	9.1	9.3	-9.6	0.21	-0.22	-5.5	0.21	-0.22	-0.04	0.01
1-2R2-K	553	554	555	-9.4	7.3	21.3	21.4	-9.5	0.61	-0.16	-2.5	0.61	-0.10	-0.03	0.01
1-2R2-L	556	557	558	-7.1	6.8	19.5	19.5	-7.1	0.57	-0.04	-1.3	0.57	-0.04	-0.01	0.01
0-2R3-A	234	233	232	7.7	5.3	-1.0	8.1	-1.4	0.25	0.03	-78.1	0.04	0.24	-0.04	0.01
0-2R3-B	237	236	235	10.2	6.7	0.1	10.4	-0.2	0.34	0.10	-81.2	0.10	0.34	-0.04	0.01
0-2R3-C	240	239	238	9.8	5.4	1.4	9.8	1.4	0.34	0.14	88.4	0.14	0.34	0.01	0.01
0-2R3-D	243	242	241	11.0	3.9	0.9	12.3	0.3	0.41	0.13	77.9	0.15	0.40	0.06	0.01
0-2R3-E	246	245	244	16.7	5.9	0.4	17.1	-0.0	0.56	0.17	81.0	0.18	0.55	0.06	0.01
0-2R3-F	249	248	247	19.7	6.9	0.0	20.3	0.0	0.67	0.20	-54.4	0.36	0.51	-0.22	0.01
0-2R3-G	252	251	250	18.9	12.5	1.2	19.3	0.8	0.64	0.22	7.8	0.64	0.23	0.06	0.01
0-2R3-H	255	254	253	16.7	13.7	3.8	17.6	3.0	0.61	0.27	13.9	0.59	0.29	0.08	0.01
0-2R3-J	258	257	256	14.9	13.4	4.8	16.0	3.7	0.57	0.28	17.8	0.54	0.31	0.08	0.01
0-2R3-K	261	260	259	12.6	12.0	3.9	14.1	2.6	0.49	0.23	19.8	0.46	0.26	0.06	0.01
0-2R3-L	264	263	262	23.6	10.6	2.4	24.2	1.8	0.82	0.30	9.3	0.80	0.31	0.08	0.01
1-2R3-A	559	560	561	-5.2	-4.3	-6.1	-4.2	-7.2	-0.21	-0.26	35.1	-0.23	-0.26	0.03	0.01
1-2R3-B	562	563	564	-3.7	-7.1	-10.5	-4.7	-10.4	-0.26	-0.34	2.9	-0.26	-0.34	0.01	0.01
1-2R3-C	565	566	567	-8.3	-11.1	-14.4	-6.2	-14.5	-0.35	-0.54	-5.3	-0.35	-0.54	-0.01	0.01
1-2R3-D	568	569	570**	-4.4	-16.4	0.0	-12.2	-16.6	0.24	-0.43	-49.4	-0.14	-0.04	-0.33	0.01
1-2R3-E	571	572**	573**	-7.4	0.0	0.0	1.5	-9.0	-0.04	-0.26	67.5	-0.24	-0.07	0.04	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CUMF
I-2R3-F	574	575	576	-9.9	-14.4	-10.1	-5.6	-14.4	-0.33	-0.53	-29.3	-0.53	-0.33	-0.00	0.01
I-2R3-G	577	578	579	-12.4	-11.0	-6.6	-6.2	-12.8	-0.33	-0.40	15.8	-0.34	-0.47	0.04	0.05
I-2R3-H	580	581	582	-11.4	-7.5	-2.9	-2.8	-11.4	-0.21	-0.40	2.4	-0.21	-0.40	0.01	0.01
I-2R3-J	583	584	585	-6.0	-0.0	0.7	1.6	-6.8	-0.02	-0.21	-19.0	-0.04	-0.14	-0.06	0.01
I-2R3-K	586	587	588	-1.7	3.0	6.7	6.7	-1.7	0.20	0.01	-3.8	0.20	0.01	-0.01	0.01
I-2R3-L	589	590	591	0.8	0.2	8.8	8.8	0.7	0.30	0.11	5.1	0.30	0.11	0.02	0.02
O-2K4-A	267	266	265	5.3	-0.3	-3.4	5.5	-3.5	0.15	-0.06	81.7	-0.06	0.14	0.05	0.05
U-2K4-B	270	269	268	5.4	0.6	-1.2	6.3	-1.6	0.19	0.01	76.0	0.02	0.18	0.04	0.02
U-2K4-C	273	272	271	4.3	1.0	0.6	4.7	0.1	0.16	0.05	71.5	0.06	0.15	0.03	0.02
O-2K4-D	276	275	274	3.3	2.7	2.4	4.0	1.6	0.15	0.04	55.4	0.11	0.13	0.05	0.02
O-2K4-E	279	278	277	3.5	2.3	0.9	6.2	2.2	0.23	0.13	79.9	0.14	0.22	0.02	0.01
O-2K4-F	282	281	280	3.4	1.9	5.2	7.3	1.8	0.26	0.13	-51.7	0.18	0.21	-0.06	0.02
O-2K4-G	285	284	283	0.0	0.7	0.3	9.7	0.6	0.33	0.12	-52.6	0.19	0.22	-0.12	0.03
U-2K4-H	288	287	286	5.7	-0.0	5.3	9.1	-0.1	0.30	0.09	-50.1	0.17	0.21	-0.10	0.01
U-2K4-J	291	290	289	4.2	-0.4	-0.4	9.0	-0.4	0.29	0.08	-45.7	0.18	0.19	-0.11	0.02
I-2K4-A	592	593	594	-5.0	-3.2	-3.8	-3.1	-5.8	-0.16	-0.22	57.8	-0.20	-0.18	0.03	0.02
I-2K4-B	595	596	597	-5.8	-5.8	-7.2	-2.5	-7.5	-0.26	-0.30	22.0	-0.26	-0.30	0.02	0.01
I-2K4-C	598	599	600	-3.5	-9.0	-12.6	-3.4	-12.7	-0.24	-0.45	-6.1	-0.24	-0.45	-0.02	0.02
I-2K4-L	601	602	603	-2.8	-10.0	-15.2	-2.7	-15.3	-0.24	-0.53	-4.9	-0.24	-0.53	-0.02	0.02
I-2K4-E	604*	605	606	-7.9	-12.6	-10.5	-5.6	-12.8	-0.31	-0.46	-74.4	-0.47	-0.34	-0.03	0.02
I-2K4-F	607	608	609	-5.2	-9.1	-5.5	-2.2	-9.1	-0.16	-0.32	43.8	-0.24	-0.25	0.08	0.01
I-2K4-G	610	611	612	0.0	-3.3	-6.4	0.0	-6.4	-0.06	-0.21	88.8	-0.21	-0.05	0.00	0.01
I-2K4-H	613	614	615**	3.9	-0.8	0.0	5.3	-1.4	0.16	0.01	62.7	0.04	0.13	0.06	0.01
I-2K4-J	616	617	618**	5.1	1.7	0.0	5.3	-0.1	0.17	0.05	80.7	0.05	0.17	0.02	0.02
O-2K5-A	294	293	292	-0.9	-3.4	-0.9	1.6	-3.4	0.02	-0.10	45.1	-0.04	-0.04	0.06	0.01
O-2K5-B	297	296	295	-0.3	-2.6	-0.7	1.1	-2.0	0.02	-0.06	48.4	-0.02	-0.02	0.04	0.01
O-2K5-C	300	299	299	-0.2	0.1	-0.5	0.2	-0.8	-0.00	-0.02	-53.8	-0.02	-0.02	-0.01	0.01
O-2K5-D	303	302	301	-0.2	3.2	-1.0	3.2	-3.3	0.07	-0.08	-4.4	-0.00	-0.02	-0.07	0.02
O-2K5-E	306	305	304	-1.0	6.8	0.8	6.9	-7.1	0.16	-0.16	48.8	-0.03	0.02	0.16	0.01
O-2K5-F	309	308	307	-1.7	-10.1	0.1	8.6	-10.2	0.18	-0.25	-7.7	-0.05	-0.01	-0.22	0.01
O-2K5-G	312	311	310	0.3	-10.3	-1.0	9.6	-10.3	0.21	-0.25	-43.0	0.00	-0.03	-0.23	0.01
O-2K5-H	315	314	313	0.1	-12.2	-6.8	11.4	-12.2	0.26	-0.24	-43.9	-0.01	-0.03	-0.27	0.02
O-2K5-J	318	317	316	0.7	-11.3	-1.1	10.9	-11.3	0.25	-0.27	-42.7	0.01	-0.03	-0.26	0.01
I-2K5-A	619**	620**	621	0.0	0.6	0.3	0.4	-0.1	0.01	0.00	-67.5	0.00	0.01	-0.03	0.01
I-2K5-B	622	623	624**	0.3	0.9	0.0	0.9	-0.6	0.02	-0.01	39.2	0.01	0.00	0.02	0.01
I-2K5-C	625	626	627	0.6	1.6	1.0	1.6	-0.1	0.05	0.01	52.0	0.02	0.04	0.02	0.01
I-2K5-D	628	629	630	0.1	2.8	0.7	2.8	-2.0	0.07	-0.04	48.4	0.01	0.02	0.06	0.01
I-2K5-E	631	632	633	0.5	3.1	0.1	3.1	-2.5	0.08	-0.05	-46.9	0.01	0.02	-0.06	0.01
I-2K5-F	634	635	636	-0.5	-1.5	0.7	1.8	-1.6	0.04	-0.04	35.1	0.02	-0.01	0.04	0.01
I-2K5-G	637	638**	639	-0.1	0.0	0.2	0.2	-0.1	0.01	-0.00	5.5	0.00	-0.00	0.00	0.00
I-2K5-H	640	641	642**	-0.5	-2.4	0.0	1.9	-2.4	0.04	-0.06	41.5	-0.01	-0.02	0.05	0.01
I-2K5-J	643**	644**	645	0.0	0.0	0.0	0.7	-0.1	0.02	0.00	22.5	0.02	0.01	0.01	0.01
O-1K6-A	150	151	152	-15.8	-2.6	6.6	6.6	-15.8	0.06	-0.46	-0.0	0.06	-0.46	-0.00	0.01
O-1K6-B	154	155	157	-15.3	-6.3	5.7	5.8	-15.4	0.04	-0.45	4.1	0.04	-0.45	0.03	0.02
O-1K6-C	162	161	160	-8.9	-3.3	0.2	4.2	-8.9	0.05	-0.25	4.1	0.05	-0.25	0.02	0.01
O-1K6-D	165	164	163	-0.5	0.1	1.1	1.1	-0.5	0.03	-0.01	5.2	0.03	-0.01	0.00	0.01
I-1K6-A	481	482	483	6.9	-7.6	-16.4	9.2	-18.7	0.12	-0.53	-5.9	0.11	-0.52	-0.07	0.01
I-1K6-B	484	485	486	5.4	-5.1	-12.5	5.6	-12.7	0.06	-0.36	-5.1	0.06	-0.36	-0.04	0.01
I-1K6-C	487	488	489	1.7	-3.3	-7.0	1.7	-7.1	-0.01	-0.22	-3.9	-0.01	-0.22	-0.01	0.01
I-1K6-L	490	491	492	-0.3	-0.3	-0.2	-0.1	-0.4	-0.01	-0.02	-65.2	-0.01	-0.02	-0.00	0.00
O-2K6-A	321	320	319	15.4	2.2	-7.7	15.5	-7.6	0.43	-0.10	86.1	-0.10	0.43	0.04	0.01
O-2K6-B	324	323	322	15.0	3.5	-6.8	15.0	-6.8	0.43	-0.08	84.6	-0.08	0.43	0.00	0.01
U-2K6-C	327	326	325	7.9	2.0	-3.8	7.9	-3.8	0.22	-0.05	89.8	-0.05	0.22	0.00	0.01
I-2K6-A	646	647	648	-4.3	5.7	19.6	19.6	-4.3	0.56	-0.11	88.9	-0.11	0.56	0.01	0.01
I-2K6-B	649	650	651	-4.9	4.3	13.0	13.0	-4.9	0.38	-0.03	89.4	-0.03	0.38	0.00	0.00
I-2K6-C	652	653	654	-2.4	2.5	6.4	6.4	-2.4	0.19	-0.02	88.4	-0.01	0.19	0.01	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

FORM 1001 REVISION 10-64

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CUNF
I-127-A	655	656	657	-0.3	-0.2	-3.3	0.4	-4.1	-0.03	-0.13	23.6	-0.04	-0.11	0.04	0.01
I-127-B	658	659	660	-0.3	-6.8	-14.4	-0.3	-14.4	-0.15	-0.48	2.1	-0.15	-0.48	0.01	0.01
I-277-A	661	662	663	-0.0	7.0	9.2	9.8	-0.6	0.32	0.04	76.4	0.04	0.32	0.06	0.01
EX-C-A	670	671	672	-0.5	-0.8	-1.2	-0.5	-7.2	-0.03	-0.04	-89.1	-0.04	-0.04	-0.00	0.01
EX-C-B	673**	674	673	0.0	0.3	-0.4	0.3	-0.7	0.00	-0.02	-57.1	-0.01	-0.00	-0.01	0.01
EX-C-C	676	677	676	0.4	1.5	1.5	1.7	0.2	0.06	0.02	-21.7	0.05	0.03	-0.01	0.01
EX-C-D	684	688	687	0.1	-0.5	-0.1	0.5	-0.5	0.01	-0.01	52.0	-0.00	0.00	0.01	0.00
EX-B-A	687	686	685	-3.9	-13.3	7.5	7.6	-3.9	-0.08	-1.01	-89.1	-1.01	-0.08	-0.01	0.01
EX-B-B	690	689	688	-0.4	0.8	0.1	0.9	-1.1	0.02	-0.03	51.4	-0.01	-0.00	0.02	0.01
EX-B-C	681	680	679	-34.0	11.7	-7.2	34.0	-7.2	1.05	0.10	-2.2	1.05	0.10	-0.04	0.02
EX-B-D	684	683	682	0.8	1.0	0.4	1.0	0.2	0.04	0.02	30.1	0.03	0.02	0.01	0.01
EX-A-A	696	695	694	-30.4	-9.9	6.4	6.5	-30.5	-0.09	-0.94	86.7	-0.94	-0.07	0.05	0.01
EX-A-B	693	692	691	0.7	-0.1	0.5	1.3	-0.1	0.04	0.01	-40.9	0.03	0.02	-0.02	0.01
EX-A-C	666	665	664	33.5	12.4	-8.6	33.5	-8.6	1.02	0.05	-0.0	1.02	0.05	-0.00	0.01
EX-A-D	699	698	697*	-0.3	-0.1	-0.3	-0.1	-0.6	-0.01	-0.02	43.5	-0.01	-0.01	0.01	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

NOMINAL LOAD = 2.850E 05

LOCATION	G/GE NUMBERS			STRAIN - MICRONDINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	UNF
0-1R1-A	3	2	1	36.2	21.4	9.3	36.2	9.3	1.29	0.66	87.1	0.67	1.28	0.01	0.00
0-1R1-B	6	5	4	52.8	34.3	10.4	52.9	10.8	1.85	0.88	-86.6	0.88	1.65	-0.06	0.07
0-1R1-C	9	8	7	46.9	42.1	31.9	47.4	31.9	1.87	1.50	-82.1	1.52	1.86	-0.06	0.08
0-1R1-D	12	11	10	27.3	35.9	46.1	46.1	27.2	1.79	1.35	2.5	1.79	1.35	0.02	0.07
0-1R1-E	15	14	13	17.5	10.4	26.7	26.7	11.3	0.99	0.64	2.5	0.99	0.64	0.02	0.04
0-1R1-F	18	17	16	7.6	10.5	12.6	12.6	7.5	0.44	0.37	40.5	0.44	0.42	0.06	0.03
0-1R1-G	21	20	19	8.9	15.6	12.3	15.9	5.4	0.50	0.33	54.6	0.42	0.50	0.11	0.03
0-1R1-H	24	23	22	0.2	20.3	14.5	22.1	-7.4	0.66	-0.02	59.5	0.15	0.46	0.30	0.03
0-1R1-J	27	26	25	-7.3	20.3	17.2	24.6	-14.8	0.67	-0.24	64.3	-0.07	0.49	0.36	0.03
0-1R1-K	30	29	28	-10.1	16.2	17.8	22.5	-14.9	0.59	-0.27	69.2	-0.16	0.49	0.29	0.03
0-1R1-L	33	32	31	-23.3	-0.2	7.9	9.6	-25.0	0.07	-0.73	77.2	-0.65	0.03	0.17	0.03
I-1R1-A	328	329	330	-4.7	-27.6	-46.9	-4.7	-46.9	-0.62	-1.59	-2.5	-0.62	-1.59	-0.04	0.07
I-1R1-B	331	332	333	-1.0	-34.4	-67.6	-1.0	-67.6	-0.70	-2.24	-0.1	-0.70	-2.24	-0.00	0.09
I-1R1-C	334	335	336	-2.9	-46.4	-87.3	-2.9	-87.4	-0.96	-2.91	-0.9	-0.96	-2.91	-0.03	0.12
I-1R1-D	337	338	339	-0.2	-45.5	-85.2	-0.2	-85.3	-0.85	-2.81	-1.8	-0.85	-2.81	-0.06	0.11
I-1R1-E	340	341	342	5.7	-22.7	-47.7	5.7	-47.8	-0.28	-1.52	-1.8	-0.29	-1.52	-0.04	0.06
I-1R1-F	343	344	345	8.6	-9.8	-24.8	8.7	-24.9	0.04	-0.74	-47.9	-0.39	-1.31	-0.39	0.04
I-1R1-G	346	347	348	7.3	-21.5	-22.7	12.7	-28.1	0.14	-0.80	68.7	-0.68	0.02	0.32	0.03
I-1R1-H	349	350	351	-15.5	-33.1	-10.7	7.0	-33.3	-0.10	-1.03	41.6	-0.51	-0.62	0.46	0.04
I-1R1-J	352	353	354	-21.4	-29.6	-7.9	1.7	-31.0	-0.25	-1.01	32.8	-0.47	-0.78	0.34	0.08
I-1R1-K	355	356	357	-18.6	-22.1	-9.0	-4.2	-23.4	-0.37	-0.81	32.0	-0.48	-0.70	0.19	0.04
I-1R1-L	358	359**	360**	-8.3	0.0	0.0	1.7	-10.0	-0.04	-0.31	-22.5	-0.08	-0.27	-0.10	0.04
0-1R2-A	36	35	34	16.1	7.6	3.7	16.4	3.2	0.57	0.27	81.5	0.27	0.56	0.04	0.03
0-1R2-B	39	38	37	21.0	11.5	0.6	21.0	0.6	0.70	0.25	-88.2	0.23	0.70	-0.02	0.03
0-1R2-C	42	41	40	17.5	18.5	4.8	20.9	1.4	0.70	0.25	-65.4	0.33	0.62	-0.17	0.03
0-1R2-D	45	44	43	3.1	21.8	7.9	22.0	-11.0	0.62	-0.14	-40.9	0.29	0.18	-0.38	0.02
0-1R2-E	48	47	46	-16.3	25.4	9.5	28.2	-34.9	0.58	-0.87	-32.9	0.15	-0.44	-0.66	0.02
0-1R2-F	51	50	49	-21.6	22.8	17.4	29.5	-33.7	0.64	-0.82	19.0	0.49	-0.67	0.45	0.03
0-1R2-G	54	53	52	-30.6	17.6	15.6	26.6	-41.5	0.47	-1.11	66.3	-0.85	0.21	0.56	0.00
0-1R2-H	57	56	55	-38.7	5.0	14.6	19.6	-43.7	0.21	-1.25	73.7	-1.13	0.10	0.39	0.06
0-1R2-J	60	59	58	-35.3	-5.6	13.7	14.2	-35.8	0.11	-1.04	84.0	-1.03	0.10	0.12	0.06
0-1R2-K	63	62	61	-25.3	-10.5	8.9	9.1	-25.5	0.05	-0.75	-86.2	-0.75	0.04	-0.05	0.03
0-1R2-L	66	65	64	-61.0	-27.5	1.8	1.8	-61.0	-0.54	-1.99	88.1	-1.99	-0.55	0.05	0.04
I-1R2-A	361	362	363	-4.5	-4.9	-20.4	-1.4	-23.4	-0.28	-0.79	21.7	-0.35	-0.72	0.17	0.06
I-1R2-B	364	365	366	-2.4	-7.2	-24.4	-1.1	-26.2	-0.30	-0.87	15.4	-0.34	-0.83	0.15	0.03
I-1R2-C	367	366	369	-5.1	-12.6	-28.6	-4.3	-29.5	-0.43	-1.01	9.8	-0.45	-0.99	0.10	0.05
I-1R2-D	370	371	372	-5.0	-25.0	-35.2	-4.2	-35.9	-0.50	-1.23	-8.9	-0.51	-1.21	-0.11	0.05
I-1R2-E	373	374	375	-8.1	-43.6	-60.4	0.9	-49.4	-0.46	-1.62	-25.1	-0.67	-1.41	-0.45	0.07
I-1R2-F	376	377	378	-8.9	-46.7	-36.0	5.4	-50.3	-0.32	-1.60	-75.4	-1.52	-0.40	-0.31	0.06
I-1R2-G	379	380	381	-14.6	-41.1	-22.2	4.6	-41.4	-0.26	-1.32	49.8	-0.83	-0.70	0.52	0.06
I-1R2-H	382	383	384	-9.5	-25.6	-15.1	1.3	-25.9	-0.21	-0.84	50.9	-0.59	-0.46	0.31	0.05
I-1R2-J	385	386**	387	-4.0	0.0	-13.9	1.3	-14.2	-0.15	-0.62	-59.5	-0.50	-0.27	-0.21	0.05
I-1R2-K	388	389	390	5.7	-13.8	-24.9	6.3	-25.5	-0.05	-0.76	82.4	-0.76	-0.06	0.10	0.03
I-1R2-L	391	392	393	-20.2	-6.0	-0.2	0.6	-21.0	-0.19	-0.69	-11.3	-0.21	-0.67	-0.10	0.05
0-1R3-A	69	68	67	-13.0	-11.5	-8.8	-8.7	-13.0	-0.42	-0.52	7.9	-0.42	-0.51	0.01	0.04
0-1R3-B	72	71	70	-15.7	-10.9	-9.7	-9.2	-16.2	-0.46	-0.63	-15.1	-0.47	-0.61	-0.04	0.07
0-1R3-C	75	74	73	-20.1	-7.4	-10.5	-6.1	-24.5	-0.44	-0.87	-29.2	-0.54	-0.77	-0.18	0.04
0-1R3-D	78	77	76	-29.5	-6.1	-6.1	-1.3	-34.3	-0.38	-1.14	-22.5	-0.49	-1.03	-0.27	0.04
0-1R3-E	81	80	79	-37.4	-4.3	-7.6	1.0	-46.1	-0.42	-1.51	-25.4	-0.62	-1.31	-0.42	0.06
0-1R3-F	84	83	82	-44.5	-9.1	-3.1	1.6	-49.2	-0.43	-1.61	27.3	-0.68	-1.36	0.46	0.07

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH								STRESS - KSI			
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
O-1R3-G	87	86	85	-50.5	-23.6	2.7	2.7	-50.5	-0.41	-1.64	89.7	-1.64	-0.41	0.01	0.08
O-1R3-H	97	89	88	-45.2	-31.3	0.9	2.6	-46.9	-0.36	-1.52	-79.2	-1.48	-0.42	-0.21	0.06
O-1R3-J	93	92	91	-35.3	-33.5	-1.8	3.9	-41.0	-0.28	-1.31	-69.2	-1.18	-0.41	-0.3	0.06
O-1R3-K	96	95	94	-20.6	-30.7	-5.9	5.7	-32.2	-0.13	-1.01	-56.4	-0.74	-0.40	-0.40	0.04
O-1R3-L	99	98	97	-61.5	-49.1	-5.5	-1.5	-65.6	-0.70	-2.18	-75.5	-2.06	-0.79	-0.36	0.04
I-1R3-A	354	345*	346	3.9	7.8	13.3	13.3	3.9	0.48	0.26	-85.4	0.26	0.48	-0.02	0.04
I-1R3-B	397	398	399	3.6	7.3	20.2	21.4	2.4	0.73	0.29	-75.6	0.32	0.70	-0.11	0.04
I-1R3-C	400	401	402	0.0	10.5	29.6	30.4	0.0	1.00	0.30	-81.0	0.32	0.98	-0.11	0.04
I-1R3-D	403	404	405	1.1	6.7	27.5	29.6	-1.0	0.97	0.26	-75.1	0.31	0.92	-0.18	0.04
I-1R3-E	406	407	408	5.8	6.6	17.7	19.6	3.9	0.68	0.32	-69.6	0.37	0.64	-0.12	0.04
I-1R3-F	409	410	411	6.2	5.1	12.3	14.4	4.1	0.51	0.28	72.0	0.30	0.49	0.07	0.03
I-1R3-G	412	413	414	8.0	7.1	12.7	14.3	6.4	0.53	0.35	27.0	0.50	0.39	0.07	0.04
I-1R3-H	415	416	417	13.7	7.9	6.7	14.4	6.0	0.53	0.34	73.2	0.36	0.52	0.05	0.04
I-1R3-J	418	419	420	14.7	1.5	-3.4	15.6	-4.3	0.47	0.01	77.5	0.03	0.45	0.10	0.04
I-1R3-K	421	422	423	10.7	-4.0	-19.3	10.7	-19.3	0.16	-0.53	-89.5	-0.53	0.16	-0.01	0.03
I-1R3-L	424	425	426	4.9	-6.4	-13.3	5.1	-13.6	0.03	-0.40	83.2	-0.39	0.03	0.05	0.03
O-1R4-A	102	101	100	-21.0	-15.9	-13.1	-13.0	-21.2	-0.64	-0.83	-8.1	-0.64	-0.82	-0.03	0.05
O-1R4-B	105	104	103	-21.6	-13.6	-15.0	-12.5	-24.2	-0.65	-0.92	-27.7	-0.71	-0.80	-0.11	0.04
O-1R4-C	108	107	106	-18.8	-6.6	-15.6	-6.4	-27.9	-0.49	-0.98	-40.7	-0.70	-0.77	-0.25	0.05
O-1R4-D	111	110	109	-24.5	-2.7	-9.6	-0.9	-33.2	-0.36	-1.10	-31.3	-0.56	-0.90	-0.33	0.04
O-1R4-E	114	113	112	-34.4	-10.8	2.9	3.6	-35.0	-0.23	-1.12	37.5	-0.56	-0.79	0.43	0.05
O-1R4-F	117	116	115	-26.5	-28.4	-2.3	4.1	-33.0	-0.19	-1.05	-65.4	-0.90	-0.34	-0.32	0.04
O-1R4-G	120	119	118	-17.4	-29.9	-7.9	5.2	-30.6	-0.13	-0.96	-52.7	-0.65	-0.43	-0.40	0.04
O-1R4-H	123	122	121	-18.0	-27.7	-12.4	-2.5	-28.0	-0.36	-0.95	-51.4	-0.72	-0.59	-0.29	0.04
O-1R4-J	126	125	124	-22.4	-35.3	-14.1	-0.7	-35.8	-0.38	-1.19	-51.9	-0.88	-0.69	-0.39	0.04
I-1R4-A	427	428	429	21.9	13.2	15.5	25.1	12.3	0.95	0.65	-29.8	0.88	0.73	-0.13	0.04
I-1R4-B	430	431	432	17.1	14.3	28.4	33.0	12.6	1.21	0.74	-61.7	0.85	1.11	-0.20	0.06
I-1R4-C	433	434	435	6.8	19.8	39.8	40.1	6.4	1.39	0.61	-84.0	0.62	1.38	-0.06	0.06
I-1R4-D	436	437	438	9.1	18.4	38.2	39.1	8.2	1.37	0.66	-80.1	0.68	1.35	-0.12	0.04
I-1R4-E	439	440	441	11.3	28.8	32.5	34.6	9.2	1.23	0.65	28.4	1.10	0.76	0.24	0.05
I-1R4-F	442	443	444	17.3	28.1	16.5	28.1	5.6	0.98	0.46	-46.0	0.71	0.73	-0.26	0.04
I-1R4-G	445	446	447	6.2	16.3	15.0	17.8	3.4	0.62	0.29	-26.1	0.56	0.35	-0.13	0.04
I-1R4-H	448	449	450	-9.2	5.1	12.0	12.6	-9.8	0.32	-0.20	-9.7	0.30	-0.18	-0.09	0.02
I-1R4-J	451	452	453	-12.4	-5.8	7.3	7.9	-12.9	0.13	-0.35	9.1	0.12	-0.34	0.06	0.03
O-1R5-A	129	128	127	-20.7	-20.6	-20.9	-20.6	-21.1	-0.89	-0.90	-55.2	-0.89	-0.89	-0.01	0.05
O-1R5-B	132	131	130	-19.1	-20.0	-20.2	-19.0	-20.3	-0.83	-0.86	72.6	-0.85	-0.83	0.01	0.04
O-1R5-C	135	134	133	-13.7	-17.6	-20.9	-13.7	-21.0	-0.66	-0.83	88.1	-0.83	-0.66	0.01	0.04
O-1R5-D	136	137	136	-12.4	-18.8	-21.9	-12.1	-22.2	-0.62	-0.85	80.3	-0.85	-0.63	0.04	0.04
O-1R5-E	141	140	139	-10.2	-18.3	-24.9	-10.2	-24.9	-0.58	-0.92	-3.0	-0.58	-0.92	-0.02	0.04
O-1R5-F	144	143	142	-17.2	-15.5	-11.9	-11.7	-17.4	-0.56	-0.69	-79.5	-0.68	-0.56	-0.02	0.05
O-1R5-G	147	146	145	-10.7	-13.7	-15.3	-10.6	-15.4	-0.50	-0.61	-8.3	-0.50	-0.61	-0.02	0.04
O-1R5-H	150	149	148	-20.3	-16.6	-17.7	-16.3	-21.6	-0.75	-0.87	59.5	-0.84	-0.78	0.05	0.05
O-1R5-J	152*	152	151	-6.6	-11.1	-14.7	-6.6	-14.7	-0.36	-0.55	-3.3	-0.36	-0.55	-0.01	0.04
I-1R5-A	454	455	456	25.8	22.2	15.6	29.9	15.6	1.14	0.82	-2.2	1.14	0.81	-0.01	0.05
I-1R5-B	457	458	459	26.2	26.5	29.2	29.6	25.8	1.23	1.14	-69.7	1.15	1.22	-0.03	0.06
I-1R5-C	460	461	462	7.2	22.2	44.1	44.4	6.9	1.53	0.67	-84.6	0.67	1.52	-0.08	0.06
I-1R5-D	463	464	465	13.8	29.3	40.5	40.7	13.6	1.47	0.85	85.4	0.85	1.47	0.05	0.06
I-1R5-E	466	467	468	16.0	25.8	32.3	32.5	15.8	1.23	0.84	-5.9	1.22	0.85	-0.04	0.05
I-1R5-F	469	470	471	20.8	16.5	13.6	20.9	13.6	0.82	0.65	84.2	0.66	0.82	0.02	0.05
I-1R5-G	472	473	474	7.1	7.4	13.1	14.1	6.1	0.52	0.34	20.9	0.50	0.36	0.06	0.05
I-1R5-H	475	476	477	-11.1	9.7	29.9	29.9	-11.1	0.88	-0.07	-0.5	0.88	-0.07	-0.01	0.06
I-1R5-J	478*	479	480	-14.4	-0.0	18.0	18.2	-14.6	0.46	-0.30	4.3	0.45	-0.30	0.06	0.07
O-2R1-A	168	167	166	36.4	20.0	3.4	36.4	3.4	1.23	0.47	-89.8	0.47	1.23	-0.00	0.05
O-2R1-B	171	170	169	49.4	31.7	12.3	49.4	12.2	1.75	0.89	-88.8	0.89	1.75	-0.02	0.07
O-2R1-C	174	173	172	45.1	39.7	35.5	45.2	35.5	1.84	1.62	86.1	1.62	1.84	0.02	0.10
O-2R1-D	177	176	175	28.2	33.4	38.9	38.9	28.2	1.56	1.32	0.9	1.56	1.32	0.00	0.06

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				TAU	CONF.
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)			
O-2R1-E	180	179	178	12.7	17.0	21.7	21.7	12.7	0.84	0.63	1.1	0.84	0.63	0.00	0.05	
O-2R1-F	183	182	181	9.1	11.2	11.5	11.8	8.8	0.48	0.41	27.3	0.46	0.42	0.03	0.04	
O-2R1-G	186	185	184	7.1	16.0	11.8	16.4	2.5	0.57	0.25	54.8	0.35	0.46	0.15	0.03	
O-2R1-H	189	188	187	-2.9	20.6	13.7	22.7	-11.8	0.63	-0.17	59.4	0.04	0.42	0.35	0.03	
O-2R1-J	192	191	190	-9.0	19.1	15.7	23.4	-16.7	0.61	-0.32	64.0	-0.14	0.43	0.36	0.04	
O-2R1-K	195	194	193	-12.6	12.0	18.2	20.8	-15.1	0.53	-0.29	74.6	-0.24	0.48	0.21	0.04	
O-2R1-L	198	197	196	-25.3	0.6	10.0	11.8	-27.7	0.12	-0.78	77.4	-0.74	0.08	0.19	0.04	
I-2R1-A	493	494	495	-2.8	-21.9	-43.0	-2.8	-43.0	-0.52	-1.45	1.5	-0.52	-1.45	0.02	0.06	
I-2R1-B	496	497	498	-3.4	-34.1	-63.4	-3.4	-63.4	-0.74	-2.12	-0.7	-0.74	-2.12	-0.02	0.10	
I-2R1-C	499	500	501	-9.5	-42.7	-85.4	-9.2	-85.7	-1.15	-2.92	3.5	-1.16	-1.91	0.11	0.12	
I-2R1-D	502	503	504	-2.2	-45.3	-93.4	-2.1	-93.5	-0.99	-3.10	1.5	-0.99	-3.10	0.06	0.13	
I-2R1-E	505	506	507	0.1	-20.1	-48.5	6.1	-48.6	-0.28	-1.54	1.1	-0.28	-1.54	0.02	0.08	
I-2R1-F	508	509	510	8.7	-6.9	-22.2	8.7	-22.2	0.07	-0.65	-45.2	-0.29	-0.29	-0.36	0.07	
I-2R1-G	511	512	513	5.2	-22.4	-22.6	10.7	-22.2	0.07	-0.82	67.8	-0.70	-0.05	0.31	0.05	
I-2R1-H	514	515	516	-11.6	-33.9	-15.0	8.1	-33.9	-0.07	-1.04	46.5	-0.58	-0.53	0.48	0.06	
I-2R1-J	517	518	519	-21.6	-28.1	-7.6	0.6	-29.9	-0.27	-0.98	31.3	-0.46	-0.79	0.31	0.05	
I-2R1-K	520	521	522	-15.4	-19.2	-11.3	-7.1	-19.6	-0.43	-0.72	35.4	-0.52	-0.62	0.14	0.04	
I-2R1-L	523	524	525	-6.7	-10.8	-15.1	-6.7	-15.1	-0.37	-0.56	-89.4	-0.56	-0.37	-0.00	0.03	
O-2R2-A	201	200	199	14.2	4.2	-0.4	14.6	-0.9	0.47	0.11	80.1	0.13	0.46	0.06	0.03	
O-2R2-B	204	203	202	16.4	5.7	-2.3	16.5	-2.4	0.52	0.08	86.0	0.09	0.52	0.03	0.03	
O-2R2-C	207	206	205	11.0	11.4	3.4	12.8	1.6	0.44	0.18	-66.0	0.22	0.40	-0.10	0.02	
O-2R2-D	210	209	208	-2.4	23.1	12.7	24.7	-14.3	0.67	-0.23	-33.6	0.40	0.05	-0.41	0.04	
O-2R2-E	213	212	211	-17.3	25.9	18.0	31.3	-30.7	0.73	-0.70	-27.7	0.42	-0.39	-0.59	0.04	
O-2R2-F	216	215	214	-23.3	26.0	22.2	34.4	-35.5	0.78	-0.83	20.3	0.59	-0.64	0.52	0.03	
O-2R2-G	219	218	217	-35.8	15.4	17.9	27.3	-45.1	0.45	-1.22	68.9	-1.00	0.24	0.56	0.05	
O-2R2-H	222	221	220	-44.0	-1.5	16.1	18.6	-46.5	0.15	-1.36	78.7	-1.29	0.10	0.29	0.05	
O-2R2-J	225	224	223	-40.6	-10.3	12.3	12.6	-40.9	0.01	-1.22	85.9	-1.22	0.01	0.09	0.05	
O-2R2-K	228	227	226	-33.9	-14.4	9.2	9.3	-34.0	-0.03	-1.03	-87.3	-1.03	-0.03	-0.05	0.04	
O-2R2-L	231	230	229	-64.2	-33.2	3.2	3.3	-64.3	-0.53	-2.09	-87.7	-2.09	-0.53	-0.06	0.09	
I-2R2-A	526	527	528	-3.6	0.5	-16.9	2.4	-22.9	-0.15	-0.73	49.1	-0.29	-0.59	0.25	0.06	
I-2R2-B	529	530	531	-2.9	-2.0	-18.1	0.9	-22.0	-0.19	-0.72	24.1	-0.27	-0.63	0.20	0.04	
I-2R2-C	532	533	534	-7.4	-9.7	-20.6	-6.1	-21.9	-0.42	-0.78	16.4	-0.45	-0.75	0.10	0.04	
I-2R2-D	535	536	537	-10.2	-27.7	-30.3	-7.8	-32.8	-0.58	-1.16	-18.2	-0.64	-1.10	-0.17	0.07	
I-2R2-E	538	539	540	-6.7	-44.3	-43.3	1.5	-51.6	-0.46	-1.68	-23.3	-0.65	-1.49	-0.44	0.06	
I-2R2-F	541	542	543	-8.1	-48.3	-41.6	4.0	-53.7	-0.40	-1.73	-72.2	-1.61	-0.52	-0.39	0.07	
I-2R2-G	544	545	546	-9.7	-41.2	-28.2	5.2	-43.1	-0.26	-1.37	56.3	-1.03	-0.60	0.51	0.05	
I-2R2-H	547	548	549	-10.7	-26.0	-13.6	1.8	-26.1	-0.20	-0.84	48.1	-0.56	-0.49	0.32	0.04	
I-2R2-J	550	551	552	-2.8	-13.9	-12.9	0.0	-15.7	-0.15	-0.52	64.8	-0.45	-0.22	0.14	0.04	
I-2R2-K	553	554	555	6.5	-14.0	-25.7	7.1	-26.3	-0.03	-0.80	82.3	-0.78	-0.04	0.10	0.04	
I-2R2-L	556	557	558	10.8	-7.5	-22.5	10.8	-22.6	0.13	-0.64	87.6	-0.64	0.13	0.03	0.03	
O-2R3-A	234	233	232	-13.4	-13.9	-10.9	-10.1	-14.3	-0.47	-0.57	26.6	-0.49	-0.55	0.04	0.05	
O-2R3-B	237	236	235	-18.9	-13.6	-11.0	-10.8	-19.2	-0.55	-0.74	-9.8	-0.55	-0.73	-0.03	0.04	
O-2R3-C	240	239	238	-22.5	-11.8	-14.1	-10.6	-20.0	-0.61	-0.96	-28.6	-0.69	-0.88	-0.15	0.06	
O-2R3-D	243	242	241	-27.2	-7.3	-9.4	-4.1	-32.5	-0.46	-1.11	-25.6	-0.58	-0.94	-0.25	0.04	
O-2R3-E	246	245	244	-40.3	-10.3	-3.5	-0.1	-43.6	-0.44	-1.44	-16.1	-0.51	-1.36	-0.27	0.07	
O-2R3-F	249	248	247	-41.1	-11.7	0.4	2.2	-42.8	-0.35	-1.39	33.7	-0.67	-1.07	0.48	0.14	
O-2R3-G	252	251	250	-46.4	-26.1	3.0	3.4	-46.8	-0.35	-1.51	-85.0	-1.50	-0.36	-0.10	0.08	
O-2R3-H	255	254	253	-42.2	-31.1	0.4	2.8	-44.6	-0.39	-1.44	-77.2	-1.39	-0.40	-0.24	0.06	
O-2R3-J	258	257	256	-38.9	-33.5	-2.3	1.8	-43.0	-0.37	-1.40	-72.4	-1.31	-0.46	-0.30	0.06	
O-2R3-K	261	260	259	-33.4	-35.5	-6.2	0.9	-40.6	-0.37	-1.33	-65.5	-1.16	-0.54	-0.36	0.03	
O-2R3-L	264	263	262	-54.6	-46.7	-6.8	-2.0	-59.4	-0.65	-1.98	-73.1	-1.87	-0.74	-0.37	0.06	
I-2R3-A	559	560	561	8.9	4.0	12.3	17.4	3.6	0.61	0.30	-52.3	0.41	0.49	-0.15	0.04	
I-2R3-B	562	563	564	4.0	7.0	20.6	22.1	2.5	0.75	0.30	-73.7	0.34	0.72	-0.12	0.04	
I-2R3-C	565	566	567	3.7	11.6	31.5	32.8	2.5	1.10	0.41	-78.3	0.44	1.08	-0.14	0.06	
I-2R3-U	568	569	570**	0.4	14.8	0.0	14.8	-14.4	0.35	-0.33	44.6	0.01	0.00	0.34	0.05	
I-2R3-E	571	572**	573**	4.6	0.0	0.0	5.5	-1.0	0.17	0.02	-22.5	0.15	0.05	-0.05	0.07	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH								STRESS - KSI			
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(I)	SIG(T)	TAU	CORF
I-2K3-F	574	575	576	5.3	6.8	14.7	-15.6	4.4	0.56	0.30	62.0	0.36	0.56	0.11	0.04
I-2K3-G	577	578	579	6.5	7.9	10.9	11.9	7.5	0.47	0.37	28.4	0.44	0.39	0.04	0.05
I-2K3-H	580	581	582	15.2	11.0	7.3	15.2	7.3	0.57	0.39	89.3	0.39	0.57	0.01	0.05
I-2K3-J	583	584	585	10.5	7.0	-3.5	-11.3	-4.3	0.33	-0.03	76.6	-0.01	0.31	0.06	0.05
I-2K3-K	586	587	588	9.9	-4.4	-13.8	-10.2	-14.0	0.20	-0.36	84.0	-0.36	0.19	0.06	0.05
I-2K3-L	589	590	591	7.3	7.2	-12.2	-7.4	-12.4	0.12	-0.33	85.0	-0.33	0.12	0.04	0.05
O-2K4-A	267	266	265	-23.3	-18.7	-15.2	-15.2	-23.3	-0.73	-0.92	-4.1	-0.73	-0.92	-0.01	0.05
O-2K4-B	270	269	268	-24.1	-14.4	-16.8	-13.9	-24.0	-0.75	-1.04	-34.6	-0.85	-0.92	-0.16	0.07
O-2K4-C	273	272	271	-21.7	-8.1	-16.0	-7.7	-30.0	-0.55	-1.07	-37.6	-0.74	-0.87	-0.25	0.04
O-2K4-D	276	275*	274	-21.8	-0.3	-7.6	1.3	-30.8	-0.26	-1.06	-31.9	-0.47	-0.74	-0.33	0.04
O-2K4-E	279	278	277	-35.0	-11.1	3.1	3.7	-35.6	-0.23	-1.14	37.8	-0.57	-0.79	0.44	0.05
O-2K4-F	282	281	280	-26.2	-28.8	-3.5	3.1	-32.8	-0.22	-1.05	-64.5	-0.90	-0.38	-0.32	0.04
O-2K4-G	285	284	283	-23.9	-24.6	-8.6	-0.6	-31.8	-0.33	-1.05	-59.7	-0.87	-0.52	-0.31	0.06
O-2K4-H	288	287	286	-15.1	-25.9	-13.0	-2.1	-26.0	-0.33	-0.88	-37.5	-0.63	-0.55	-0.27	0.04
O-2K4-I	291	290	289	-19.0	-30.0	-10.4	1.2	-30.6	-0.26	-1.06	-52.8	-0.73	-0.53	-0.35	0.03
I-2K4-A	592	593	594	19.9	12.5	15.0	23.1	11.9	0.88	0.62	-31.9	0.81	0.69	-0.12	0.04
I-2K4-B	595	596	597	21.5	15.2	28.7	32.2	14.9	1.21	0.81	-52.0	0.96	1.06	-0.19	0.05
I-2K4-C	598	599	600	11.3	21.7	40.8	41.4	10.7	1.47	0.76	-81.9	0.78	1.46	-0.10	0.06
I-2K4-D	601	602	603	11.1	19.9	40.3	41.4	10.0	1.46	0.74	-79.3	0.76	1.44	-0.13	0.05
I-2K4-E	604	605	606	12.0	32.9	34.0	37.8	8.1	1.33	0.64	23.9	1.21	0.75	0.25	0.05
I-2K4-F	607	608	609	15.8	28.5	20.5	28.9	7.4	1.03	0.53	38.6	0.83	0.72	-0.24	0.05
I-2K4-G	610	611	612	3.6	15.4	20.3	21.0	2.9	0.72	0.36	-11.3	0.71	0.32	-0.08	0.05
I-2K4-H	613	614	615**	-8.9	3.7	0.0	4.8	-13.7	0.02	-0.40	-33.7	-0.04	-0.24	-0.19	0.05
I-2K4-I	616	617	618**	-12.2	-4.4	0.0	0.2	-12.5	-0.12	-0.41	-7.8	-0.12	-0.40	-0.04	0.05
O-2K5-A	297	296	295	-19.4	-19.5	-20.2	-19.3	-20.3	-0.84	-0.80	-79.5	-0.86	-0.84	-0.01	0.06
O-2K5-B	297	296	295	-15.7	-18.1	-24.0	-15.4	-24.4	-0.75	-0.96	-78.7	-0.95	-0.75	-0.04	0.06
O-2K5-C	300	299	298	-14.2	-16.5	-20.1	-14.2	-20.1	-0.67	-0.80	-83.9	-0.89	-0.67	-0.61	0.05
O-2K5-D	303	302	301	-9.5	-16.6	-22.0	-9.4	-22.0	-0.53	-0.82	86.0	-0.82	-0.53	0.02	0.05
O-2K5-E	306	305	304	-8.4	-15.9	-23.6	-8.4	-23.6	-0.51	-0.86	0.4	-0.51	-0.86	0.00	0.04
O-2K5-F	309	308	307*	-17.1	-13.3	-10.3	-10.3	-17.1	-0.51	-0.67	86.7	-0.66	-0.51	0.01	0.07
O-2K5-G	312	311	310	-14.5	-14.4	-14.6	-14.3	-14.7	-0.62	-0.63	37.5	-0.62	-0.62	0.00	0.07
O-2K5-H	315	314	313	-19.8	-17.7	-16.7	-16.5	-19.9	-0.74	-0.82	79.8	-0.82	-0.75	0.01	0.07
O-2K5-I	318	317*	316*	0.6	-6.1	-41.0	4.9	-45.9	-0.29	-1.46	16.8	-0.34	-1.37	0.33	0.20
I-2K5-A	619	620**	621	30.3	0.0	15.0	46.5	-1.3	1.52	0.42	-35.7	1.15	0.79	-0.52	0.06
I-2K5-B	622	623**	624**	30.5	25.7	0.0	33.7	-3.2	1.08	0.23	17.2	1.01	0.30	0.24	0.06
I-2K5-C	625	626	627	11.0	28.8	41.5	41.7	10.8	1.48	0.77	85.2	0.77	1.48	0.06	0.06
I-2K5-D	628	629	630	14.9	27.5	38.4	38.5	14.8	1.41	0.87	88.0	0.87	1.41	0.02	0.05
I-2K5-E	631	632	633	15.3	26.3	31.1	31.7	14.7	1.19	0.80	-10.5	1.18	0.81	-0.07	0.04
I-2K5-F	634	635	636	20.2	16.2	10.7	29.3	10.6	0.77	0.55	-85.6	0.55	0.77	-0.02	0.04
I-2K5-G	637	638	639	1.3	9.8	21.3	21.4	1.2	0.72	0.25	4.2	0.71	0.25	0.03	0.04
I-2K5-H	640	641	642	-13.8	-4.7	27.4	27.5	-13.9	0.77	-0.19	2.8	0.77	-0.19	0.05	0.03
I-2K5-I	643**	644	645	0.0	-2.4	12.0	16.3	-4.3	0.50	0.02	27.3	0.40	0.12	0.14	0.03
O-1K6-A	156	155	154	6.3	1.2	-7.7	6.3	-4.7	0.16	-0.09	-87.7	-0.09	0.16	-0.01	0.02
O-1K6-B	159	158	157	13.9	1.7	-13.5	14.0	-13.6	0.33	-0.31	-86.9	-0.31	0.32	-0.03	0.05
O-1K6-C	162	161	160	22.0	4.0	-16.8	22.1	-16.8	0.56	-0.34	-87.9	-0.34	0.56	-0.03	0.05
O-1K6-D	165	164	163	24.8	2.3	-19.4	24.8	-19.4	0.63	-0.39	-89.9	-0.39	0.63	-0.00	0.05
I-1K6-A	481	482	483	9.4	5.7	5.8	10.2	5.0	0.39	0.27	-23.0	0.37	0.28	-0.04	0.04
I-1K6-B	484	485	486	5.8	11.8	14.9	15.1	5.6	0.55	0.33	81.1	0.34	0.55	0.03	0.05
I-1K6-C	487	488	489	5.5	14.4	20.9	21.0	5.4	0.75	0.39	85.8	0.39	0.74	0.03	0.04
I-1K6-D	491	492	493	5.4	15.0	23.0	23.0	5.3	0.81	0.40	87.3	0.40	0.81	0.02	0.04
O-2K6-A	321	320	319	6.9	0.1	-6.6	6.9	-6.6	0.16	-0.15	89.6	-0.15	0.16	0.00	0.02
O-2K6-B	324	323	322	13.0	-0.5	-12.1	13.0	-12.2	0.31	-0.27	87.8	-0.27	0.31	0.02	0.02
O-2K6-C	327	326	325	21.6	0.1	-17.5	21.7	-17.6	0.54	-0.37	87.1	-0.36	0.54	0.05	0.02
I-2K6-A	646	647	648	8.0	5.7	4.8	8.1	4.7	0.31	0.24	-11.6	0.31	0.24	-0.02	0.05
I-2K6-B	649	650	651	4.8	10.1	16.8	16.8	4.8	0.60	0.32	-86.7	0.32	0.60	-0.02	0.04
I-2K6-C	652	653	654	4.1	13.8	21.4	21.5	4.1	0.75	0.35	86.5	0.35	0.75	0.02	0.04

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI				TAU	CONF	
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)			SIG(T)
I-1K7- A	655	658	657	1.9	32.1	58.9	59.0	1.3	1.96	0.64	88.3	0.67	1.96	0.07	0.07
I-1K7- B	656	659	660	-2.2	25.3	43.3	43.8	-2.7	1.42	0.35	84.1	0.36	1.41	0.11	0.05
I-2K7- A	661	662	663	0.7	20.2	38.9	38.9	0.7	1.29	0.41	89.3	0.41	1.29	0.01	0.05
EX- C- A	671	671	672	9.5	1.1	-7.0	9.5	-7.0	0.24	-0.14	69.4	-0.14	0.24	0.00	0.02
EX- C- B	675	675	675	-9.9	-0.9	8.4	8.4	-9.9	0.18	-0.25	9.3	0.18	-0.25	0.00	0.02
EX- C- C	678	677	676	10.0	-0.2	-7.4	10.1	-7.6	0.26	-0.15	85.0	-0.15	0.26	0.04	0.02
EX- C- D	684	684	667	-9.5	-1.0	6.4	6.4	-9.5	0.12	-0.25	0.3	0.12	-0.25	0.00	0.02
EX- B- A	687	686	685	-10.7	-0.0	-1.6	-1.6	-10.7	-0.16	-0.37	88.8	-0.37	-0.16	0.00	0.03
EX- B- B	690	689	688	44.0	15.0	-12.0	44.0	-12.0	1.33	0.02	-0.1	1.33	0.02	-0.00	0.00
EX- B- C	681	680	679	-9.3	-6.0	-0.6	-0.5	-9.9	-0.11	-0.32	-83.2	-0.31	-0.11	-0.02	0.03
EX- B- D	687	683	682	-1.0	-4.1	14.1	14.1	-21.0	0.20	-0.55	-89.0	-0.55	0.26	-0.01	0.02
EX- A- A	696	695	694	-8.7	-3.8	-0.0	0.0	-6.9	-0.09	-0.29	86.2	-0.29	-0.09	0.01	0.04
EX- A- B	693	692	691	-23.0	-3.5	13.6	13.7	-23.1	0.22	-0.62	88.2	-0.62	0.22	0.03	0.04
EX- A- C	666	665	664	-9.8	-5.0	-0.5	-0.4	-9.4	-0.11	-0.33	-85.9	-0.33	-0.11	-0.02	0.02
EX- A- D	699	698	697	42.8	14.3	-13.8	42.8	-13.8	1.27	-0.03	-0.2	1.27	-0.03	-0.01	0.00

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

IMC-021 STOP

COMBUSTION T-10, LOAD CASE 10, F2X

NOMINAL LOAD = 5.030E 04

LOCATION	GAGE NUMBERS			STRAIN - MICRINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
O-1P1-A	3	2	1	43.7	24.7	8.4	43.7	8.4	1.52	0.71	87.8	0.71	1.52	0.03	0.02
O-1P1-B	6	5	4	67.4	40.6	14.8	67.4	10.7	2.33	1.02	-88.5	1.02	2.33	-0.04	0.03
O-1P1-C	9	8	7	61.9	50.8	36.7	62.0	36.6	2.41	1.82	-87.1	1.82	2.40	-0.03	0.04
O-1P1-D	12	11	10	35.4	46.2	60.2	60.3	35.3	2.34	1.76	3.5	2.33	1.76	0.04	0.04
O-1P1-E	15	14	13	6.1	23.9	39.3	39.3	8.1	1.38	0.66	-0.4	1.38	0.66	-0.01	0.03
O-1P1-F	18	17	16	-1.8	11.9	23.3	23.3	-1.8	0.75	0.17	42.4	0.49	0.43	0.29	0.03
O-1P1-G	21	20	19	-5.0	19.0	21.0	25.1	-9.1	0.74	-0.05	69.8	0.04	0.64	0.25	0.02
O-1P1-H	24	23	22	-22.1	18.6	20.9	28.2	-29.4	0.64	-0.69	69.1	-0.52	0.47	0.44	0.02
O-1P1-J	27	26	25	-29.9	16.8	24.5	29.6	-35.0	0.63	-0.86	73.6	-0.74	0.51	0.40	0.02
O-1P1-K	30	29	28	-31.0	12.1	24.5	28.4	-35.0	0.59	-0.87	75.5	-0.78	0.50	0.35	0.03
O-1P1-L	35	32	31	-71.5	-18.5	10.8	12.5	-73.2	-0.31	-2.29	82.0	-2.25	-0.35	0.27	0.04
I-1P1-A	248	329	350	-7.3	-33.9	-55.5	-7.2	-55.6	-0.79	-1.90	-3.0	-0.79	-1.90	-0.06	0.02
I-1P1-B	331	332	333	-1.8	-43.4	-86.1	-1.8	-86.1	-0.91	-2.86	0.4	-0.91	-2.86	0.01	0.05
I-1P1-C	334	335	336	-3.2	-60.8	-114.0	-3.2	-114.0	-1.23	-3.79	-1.1	-1.23	-3.79	-0.05	0.06
I-1P1-D	337	338	339	0.6	-61.8	-121.5	0.6	-121.5	-1.18	-4.00	-0.6	-1.18	-4.00	-0.03	0.03
I-1P1-E	346	341	342	13.8	-36.1	-83.1	13.9	-83.1	-0.36	-2.60	-0.9	-0.37	-2.60	-0.04	0.04
I-1P1-F	343	344	342	19.1	-18.8	-50.4	19.1	-56.3	0.07	-1.67	-45.1	-0.80	-0.80	-0.87	0.01
I-1P1-G	346	347	348	16.9	-34.0	-50.3	21.1	-54.5	0.16	-1.59	76.4	-1.49	0.06	0.40	0.04
I-1P1-H	349	350	351	-12.4	-47.0	-21.1	13.8	-47.3	-0.01	-1.52	49.1	-0.82	-0.62	0.70	0.07
I-1P1-J	352	353	354	-16.7	-39.4	-27.4	-6.1	-39.9	-0.60	-1.38	52.5	-1.09	-0.89	0.38	0.03
I-1P1-K	255	356	357	-13.2	-32.9	-33.7	-9.5	-31.4	-0.68	-1.33	68.7	-1.24	-0.77	0.22	0.03
I-1P1-L	358**	359**	360**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.0	0.0	0.0	0.0	0.0
U-1P2-A	36	35	34	15.8	6.9	4.1	20.1	2.8	0.69	0.29	74.1	0.32	0.66	0.10	0.03
U-1P2-B	39	38	37	23.7	11.3	0.5	23.8	0.5	0.79	0.25	87.9	0.25	0.79	0.02	0.02
U-1P2-C	42	41*	40	19.4	20.2	5.4	22.9	2.0	0.77	0.29	-66.1	0.37	0.69	-0.18	0.06
U-1P2-D	45	44	43	0.5	25.2	10.0	25.8	-15.3	0.70	-0.25	-38.3	0.33	0.11	-0.46	0.03
U-1P2-E	48	47	46	-26.2	28.0	12.5	33.0	-46.7	0.63	-1.21	-30.4	0.15	-0.74	-0.80	0.03
U-1P2-F	51	50	49	-38.4	23.9	21.5	35.6	-52.6	0.65	-1.38	21.4	0.38	-1.11	0.69	0.03
U-1P2-G	54	53	52	-49.7	15.8	18.5	30.8	-62.0	0.40	-1.74	68.7	-1.46	0.12	0.73	0.02
U-1P2-H	57	56	55	-59.5	-1.8	16.0	21.0	-64.5	0.05	-1.92	76.1	-1.80	-0.06	0.46	0.03
U-1P2-J	60	59	58	-52.2	-14.3	15.8	16.0	-52.4	0.01	-1.57	86.8	-1.56	0.00	0.09	0.02
U-1P2-K	63	62	61	-37.0	-19.2	10.0	10.7	-37.7	-0.02	-1.14	-83.2	-1.12	-0.04	-0.13	0.02
U-1P2-L	66	65	64	-96.8	-43.8	2.9	3.0	-96.9	-0.86	-3.16	88.2	-3.16	-0.86	0.07	0.06
I-1K2-A	361	362	363	-5.4	-4.7	-24.5	-1.0	-29.0	-0.32	-0.96	23.5	-0.42	-0.86	0.24	0.03
I-1K2-B	364	365	366	-3.7	-7.8	-27.9	-1.3	-30.3	-0.34	-1.01	16.8	-0.40	-0.96	0.19	0.02
I-1K2-C	367	368	369	-6.7	-10.5	-33.7	-3.5	-36.8	-0.48	-1.25	17.8	-0.55	-1.18	0.22	0.05
I-1K2-D	370	371	372	-8.3	-24.4	-42.6	-8.3	-42.6	-0.69	-1.49	1.7	-0.70	-1.49	0.02	0.05
I-1K2-E	373	374	375	-5.6	-47.7	-50.3	1.8	-57.8	-0.51	-1.89	-20.7	-0.68	-1.71	-0.46	0.05
I-1K2-F	376	377	378	-7.7	-55.1	-30.6	4.5	-62.8	-0.47	-2.03	-70.2	-1.85	-0.65	-0.50	0.04
I-1K2-G	379	380	381	-11.4	-49.2	-32.9	7.0	-51.3	-0.28	-1.62	55.9	-1.20	-0.70	0.62	0.05
I-1K2-H	382	383	384	-4.8	-28.4	-24.4	2.4	-31.6	-0.23	-1.02	62.6	-0.85	-0.40	0.32	0.03
I-1K2-J	385	386**	387	1.0	0.0	-26.0	5.9	-30.9	-0.11	-0.96	-68.6	-0.85	-0.22	-0.29	0.02
I-1K2-K	388	389	390	11.9	-18.4	-43.3	14.0	-43.4	-0.03	-1.31	87.2	-1.31	-0.04	0.06	0.02
I-1P2-L	391	392	393	13.0	-10.5	-36.1	13.0	-36.1	0.07	-1.06	-88.7	1.06	0.07	-0.03	0.06
O-1P3-A	69	68	67	-14.3	-12.3	-6.3	-5.8	-14.8	-0.34	-0.54	13.3	-0.35	-0.53	0.05	0.02
U-1P3-B	72	71	70	-20.1	-12.8	-7.3	-7.2	-20.2	-0.44	-0.74	-4.0	-0.44	-0.74	-0.02	0.03
U-1P3-C	75	74	73	-24.2	-9.0	-10.4	-6.5	-28.2	-0.49	-0.99	-25.2	-0.58	-0.90	-0.19	0.03
U-1P3-D	78	77	76	-37.2	-8.1	-4.8	-0.3	-41.7	-0.42	-1.38	-19.3	-0.53	-1.27	-0.30	0.04
O-1P3-E	81	80	79	-48.0	-17.7	-5.1	2.0	-59.1	-0.48	-1.80	-20.7	-0.64	-1.63	-0.44	0.02
U-1P3-F	84	83	82	-56.0	-14.5	-2.9	11.0	-59.9	-0.56	-1.96	30.3	-0.92	-1.61	0.61	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(1)	SIG(2)	TAU	CONE	
O-1K3-G	87	86	85	-62.5	-30.7	1.5	1.5	-6.5	-0.57	-2.05	-89.9	-2.05	-0.57	-0.00	0.03	
O-1K3-H	91	89	88	-55.0	-38.2	-0.8	1.1	-56.9	-0.53	-1.86	-79.6	-1.82	-0.57	-0.24	0.02	
O-1K3-J	93	92	91	-62.4	-38.5	-5.2	-0.0	-47.5	-0.47	-1.57	-70.8	-1.45	-0.59	-0.34	0.03	
O-1K3-K	96	95	94	-24.3	-36.3	-7.8	6.2	-38.3	-0.17	-1.20	-55.8	-0.88	-0.50	-0.48	0.02	
O-1K3-L	99	98	97	-75.6	-57.1	-6.9	-3.4	-74.1	-0.90	-2.62	-77.6	-2.56	-0.98	-0.37	0.04	
I-1K3-A	394	395	396	5.2	10.8	14.6	14.6	5.1	0.53	0.31	84.6	0.31	0.53	0.02	0.02	
I-1K3-B	397	398	399	4.1	9.7	26.4	26.4	3.0	0.90	0.36	-77.4	0.39	0.88	-0.12	0.04	
I-1K3-C	400	401	402	1.6	16.1	39.7	40.2	1.1	1.34	0.43	-83.3	0.45	1.32	-0.10	0.03	
I-1K3-D	403	404	405	2.2	32.9	38.3	39.7	0.8	1.32	0.42	-78.9	0.45	1.28	-0.17	0.03	
I-1K3-E	406	407	408	7.5	11.5	26.7	28.2	6.0	0.99	0.48	-74.9	0.51	0.95	-0.13	0.03	
I-1K3-F	409	410	411	8.3	12.3	18.5	18.6	8.2	0.69	0.45	51.0	0.55	0.60	0.12	0.03	
I-1K3-G	412	413	414	11.5	14.0	17.2	17.2	11.5	0.68	0.55	4.0	0.68	0.55	0.01	0.04	
I-1K3-H	415	416	417	18.6	12.9	8.7	18.7	8.6	0.70	0.47	85.2	0.47	0.70	0.02	0.03	
I-1K3-J	418	419	420	18.6	2.8	-5.5	19.2	-6.1	0.57	-0.01	81.4	0.00	0.56	0.09	0.03	
I-1K3-K	421	422	423	12.5	-3.0	-25.6	12.9	-26.0	0.17	-0.73	-84.7	-0.72	0.16	-0.08	0.01	
I-1K3-L	424	425	426	4.5	-10.1	-19.6	4.8	-19.9	-0.04	-0.61	84.0	-0.60	-0.05	0.06	0.05	
O-1K4-A	102	101	100	-24.3	-16.5	-14.1	-13.4	-25.0	-0.69	-0.96	-13.8	-0.70	-0.94	-0.06	0.04	
O-1K4-B	105	104	103	-25.3	-13.0	-15.8	-11.7	-29.4	-0.68	-1.08	-28.9	-0.77	-0.99	-0.17	0.04	
O-1K4-C	108	107	106	-20.0	-4.6	-16.0	-4.4	-31.6	-0.46	-1.09	-40.7	-0.73	-0.82	-0.31	0.04	
O-1K4-D	111	110*	109	-28.3	0.0	-9.4	2.2	-39.9	-0.32	-1.29	-31.7	-0.59	-1.03	-0.44	0.03	
O-1K4-E	114	113	112	-37.8	-10.9	0.0	4.8	-38.7	-0.22	-1.23	36.9	-0.59	-0.87	0.48	0.03	
O-1K4-F	117	116	115	-27.7	-30.8	-0.9	7.0	-35.5	-0.12	-1.10	-64.5	-0.92	-0.30	-0.38	0.02	
O-1K4-G	120	119	118	-19.0	-30.3	-9.1	2.9	-31.1	-0.21	-1.00	-34.4	-0.72	-0.49	-0.38	0.03	
O-1K4-H	123	122	121	-17.6	-28.9	-12.2	-0.6	-29.2	-0.31	-0.97	-50.5	-0.70	-0.58	-0.32	0.03	
O-1K4-J	126	125	124	-17.5	-32.3	-13.6	1.4	-32.5	-0.28	-1.06	-48.3	-0.71	-0.62	-0.39	0.04	
I-1K4-A	427	428	429	25.3	15.8	17.2	28.0	14.4	1.07	0.75	-26.7	1.00	0.82	-0.13	0.03	
I-1K4-B	430	431	432	18.8	15.9	33.6	38.9	13.5	1.42	0.82	-62.9	0.95	1.29	-0.24	0.03	
I-1K4-C	433	434	435	8.5	20.2	45.6	46.9	7.3	1.62	0.70	-79.8	0.73	1.59	-0.16	0.03	
I-1K4-D	436	437	438	9.8	17.3	44.9	47.5	7.1	1.64	0.71	-75.1	0.77	1.58	-0.23	0.03	
I-1K4-E	439	440	441	9.7	32.9	40.8	42.6	7.9	1.48	0.64	31.9	1.26	0.91	0.36	0.03	
I-1K4-F	442	443	444	18.0	35.0	19.6	35.0	2.7	1.18	0.43	-34.6	0.82	0.79	-0.37	0.04	
I-1K4-G	445	446	447	1.7	19.0	19.1	22.6	-1.8	0.73	0.16	-22.5	0.65	0.25	-0.20	0.02	
I-1K4-H	448	449	450*	-10.7	6.8	17.1	17.5	-11.2	0.47	-0.20	-7.3	0.46	-0.18	-0.08	0.06	
I-1K4-J	451	452	453	-15.9	-5.6	6.7	6.8	-15.9	0.07	-0.46	2.6	0.07	-0.46	0.02	0.04	
O-1K5-A	129	128	127	-22.2	-22.8	-26.1	-22.1	-26.2	-0.99	-1.08	80.3	-1.08	-0.99	0.02	0.03	
O-1K5-B	132	131	130	-19.9	-21.7	-22.8	-19.8	-22.8	-0.88	-0.95	82.6	-0.95	-0.88	0.01	0.04	
O-1K5-C	135	134	133	-15.0	-12.3	-25.9	-13.9	-26.0	-0.75	-1.00	-44.2	-1.00	-0.75	-0.03	0.03	
O-1K5-D	138	137	136	-11.3	-21.9	-24.6	-10.2	-25.7	-0.59	-0.95	74.6	-0.92	-0.61	0.09	0.03	
O-1K5-E	141	140	139	-10.0	-18.5	-27.5	-10.0	-27.5	-0.60	-1.01	0.7	-0.60	-1.01	0.01	0.02	
O-1K5-F	144	143	142	-15.3	-12.7	-12.0	-11.5	-16.8	-0.55	-0.67	72.7	-0.66	-0.56	0.03	0.03	
O-1K5-G	147	146	145	-9.4	-12.0	-13.0	-9.3	-13.2	-0.44	-0.53	-10.9	-0.44	-0.52	-0.02	0.04	
O-1K5-H	150	149	148	-12.3	-14.5	-16.3	-12.2	-16.3	-0.56	-0.66	-3.2	-0.57	-0.66	-0.01	0.04	
O-1K5-J	153	152	151	4.2	-6.0	-13.5	4.3	-13.6	0.01	-0.41	-4.2	0.00	-0.40	-0.03	0.04	
I-1K5-A	454	455	456	32.2	24.3	17.7	32.3	17.7	1.24	0.90	-2.6	1.24	0.90	-0.02	0.04	
I-1K5-B	457	458	459	27.8	29.1	31.1	31.1	27.8	1.30	1.22	-83.3	1.23	1.30	-0.01	0.04	
I-1K5-C	460	461	462	7.0	23.6	46.8	47.1	6.7	1.62	0.69	-85.3	0.69	1.61	-0.08	0.03	
I-1K5-D	463	464	465	16.0	30.6	40.9	41.1	15.9	1.51	0.93	85.2	0.93	1.51	0.05	0.04	
I-1K5-E	466	467	468	18.1	26.4	31.7	31.9	17.9	1.23	0.91	-6.4	1.22	0.91	-0.04	0.05	
I-1K5-F	469	470	471**	18.6	14.1	0.0	19.8	-1.2	0.64	0.16	-76.2	0.18	0.61	-0.11	0.03	
I-1K5-G	472	473	474	3.4	7.1	15.0	15.3	3.1	0.54	0.25	9.7	0.53	0.26	0.05	0.02	
I-1K5-H	475	476	477	-12.5	8.5	31.3	31.3	-12.5	0.91	-0.10	1.1	0.91	-0.10	0.02	0.02	
I-1K5-J	478*	479	480	-22.3	-2.3	17.3	17.3	-22.3	0.35	-0.56	-0.4	0.35	-0.56	-0.01	0.11	
O-2R1-A	168	167	166	45.3	22.8	1.9	45.3	1.9	1.51	0.51	88.9	0.51	1.51	0.02	0.03	
O-2R1-B	171	170	169	61.5	38.4	12.7	61.5	12.7	2.15	1.03	-88.4	1.03	2.15	-0.03	0.03	
O-2R1-C	174	173	172	60.5	51.0	43.2	60.5	43.2	2.42	2.02	87.1	2.02	2.42	0.02	0.05	
O-2R1-D	177	176	175	35.1	42.6	50.7	50.7	35.0	2.02	1.66	0.9	2.02	1.66	0.01	0.06	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	COORDINATES			STRESS - KSI						STRESS - KSI			PHI	SIG(L)	SIG(T)	TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)					
O-2R1-E	180	179	178	8.0	19.7	32.3	32.3	8.0	1.14	0.58	1.0	1.14	0.58	0.01	0.02		
O-2R1-F	183	182	181	-0.8	9.4	20.5	20.5	-0.8	0.67	0.18	46.0	0.41	0.43	0.25	0.01		
O-2R1-G	186	185	184	-7.4	15.3	19.9	22.6	-10.2	0.64	-0.11	73.2	-0.05	0.58	0.21	0.03		
O-2R1-H	189	188	187	-22.4	19.6	21.7	29.4	-30.0	0.67	-0.70	69.0	-0.52	0.50	0.46	0.02		
O-2R1-J	192	191	190	-28.8	17.0	23.0	24.8	-35.5	0.63	-0.88	71.3	-0.72	0.48	0.46	0.02		
O-2R1-K	195	194	193	-33.8	5.8	25.0	27.3	-35.4	0.55	-0.90	80.8	-0.86	0.51	0.23	0.01		
O-2R1-L	198	197	196	-73.5	-19.3	15.5	16.5	-74.6	-0.19	-2.29	83.9	-2.27	-0.22	0.22	0.01		
I-2R1-A	493	494	495	-3.3	-26.5	-50.8	-3.3	-50.8	-0.61	-1.71	-1.7	-0.61	-1.71	-0.03	0.02		
I-2R1-b	496	497	498	-4.9	-41.2	-77.3	-4.9	-77.3	-0.93	-2.60	-0.1	-0.93	-2.60	-0.00	0.02		
I-2R1-C	499	500**	501	-11.0	0.0	-104.8	17.7	-138.5	-0.79	-4.39	25.3	-1.45	-3.73	1.39	0.02		
I-2R1-U	502	503	504	-1.2	-61.8	-129.5	-1.1	-129.6	-1.32	-4.28	1.6	-1.32	-4.28	0.08	0.04		
I-2R1-E	505	506	507	13.3	-32.8	-80.0	13.3	-80.0	-0.35	-2.51	0.4	-0.35	-2.51	0.01	0.15		
I-2R1-F	508	509	510	21.0	-14.5	-54.7	21.1	-54.8	0.15	-1.60	-53.2	-0.67	-0.77	-0.87	0.03		
I-2R1-G	511	512	513	1.4	-35.6	-44.4	19.6	-53.6	0.12	-1.57	74.6	-1.45	-0.00	0.43	0.02		
I-2R1-H	514	515	516	-9.7	-35.6	-31.9	6.4	-48.0	-0.26	-1.52	57.1	-1.15	-0.63	0.57	0.02		
I-2R1-J	517	518	519	-22.8	-40.0	-24.8	-7.6	-40.0	-0.65	-1.39	46.8	-1.04	-1.00	0.37	0.05		
I-2R1-K	520	521	522	-11.1	-29.3	-37.4	-10.1	-38.4	-0.71	-1.36	79.4	-1.34	-0.73	0.12	0.04		
I-2R1-L	523	524	525	-0.7	-21.3	-41.4	-0.7	-41.4	-0.43	-1.37	89.7	-1.37	-0.43	0.01	0.03		
O-2R2-A	201	200	199	15.9	1.6	-1.7	17.5	-3.2	0.54	0.07	74.3	0.10	0.51	0.12	0.02		
O-2R2-B	204	203	202	19.3	5.4	-4.0	19.5	-4.3	0.60	0.05	84.5	0.06	0.60	0.05	0.01		
O-2R2-C	207	206	205	14.2	13.5	3.7	15.9	2.0	0.54	0.22	-69.6	0.26	0.51	-0.11	0.02		
O-2R2-D	210	209	208	-6.6	25.8	14.5	28.3	-20.3	0.73	-0.39	-32.1	0.41	-0.07	-0.50	0.04		
O-2R2-E	213	212	211	-30.3	30.9	22.2	39.6	-47.7	0.83	-1.18	-26.5	0.43	-0.78	-0.81	0.03		
O-2R2-F	216	215	214	-37.8	29.0	27.6	42.2	-52.4	0.87	-1.31	21.9	0.57	-1.01	0.75	0.02		
O-2R2-G	219	218	217	-54.2	13.6	22.8	32.7	-64.1	0.44	-1.79	71.3	-1.56	0.21	0.68	0.02		
O-2R2-H	222	221	220	-63.9	-7.7	19.0	21.5	-66.5	0.05	-1.98	80.2	-1.92	-0.01	0.34	0.02		
O-2R2-J	225	224	223	-60.0	-17.3	14.2	14.6	-60.4	-0.12	-1.85	85.7	-1.84	-0.13	0.13	0.02		
O-2R2-K	228	227	226	-50.9	-21.4	12.4	12.5	-50.9	-0.09	-1.56	-88.1	-1.55	-0.09	-0.05	0.02		
O-2R2-L	231	230	229	-97.2	-48.6	5.4	5.5	-97.3	-0.78	-3.15	-88.5	-3.15	-0.78	-0.06	0.03		
I-2R2-A	526	527	528	-2.0	0.0	-20.9	3.4	-26.3	-0.15	-0.83	25.3	-0.27	-0.71	0.26	0.04		
I-2R2-B	529	530	531	-3.7	-1.4	-20.6	1.4	-25.1	-0.20	-0.81	24.5	-0.31	-0.71	0.23	0.04		
I-2R2-C	532	533	534	-9.5	7.5	-21.9	-6.9	-24.6	-0.47	-0.88	22.7	-0.53	-0.82	0.15	0.03		
I-2R2-D	535	536	537	-10.4	-30.3	-35.6	-4.0	-37.5	-0.67	-1.33	-14.9	-0.71	-1.28	-0.16	0.06		
I-2R2-E	538	539	540	-5.7	-52.2	-57.4	1.5	-64.6	-0.59	-2.11	-19.3	-0.76	-1.95	-0.48	0.02		
I-2R2-F	541	542	543	-6.3	-58.0	-57.4	4.5	-68.7	-0.53	-2.22	-67.5	-1.97	-0.78	-0.60	0.02		
I-2R2-G	544	545	546	-7.4	-47.9	-38.9	6.2	-52.4	-0.32	-1.67	61.2	-1.35	-0.63	0.57	0.01		
I-2R2-H	547	548	549	-6.5	-30.3	-22.3	2.6	-32.5	-0.24	-1.04	59.3	-0.83	-0.45	0.36	0.02		
I-2R2-J	550	551	552	1.5	-16.2	-19.4	3.7	-21.7	-0.09	-0.68	72.6	-0.62	-0.14	0.17	0.02		
I-2R2-K	553	554	555	13.2	-20.2	-43.5	13.6	-43.9	0.01	-1.31	85.0	-1.30	0.00	0.12	0.02		
I-2R2-L	556	557	558	14.8	-14.5	-37.0	15.0	-37.3	0.13	-1.08	86.3	-1.07	0.12	0.08	0.02		
O-2R3-A	234	233	232	-16.4	-15.4	-8.3	-7.5	-17.8	-0.42	-0.66	16.4	-0.44	-0.64	0.06	0.03		
O-2R3-B	237	236	235	-23.7	-16.0	-11.3	-11.1	-23.4	-0.60	-0.90	-6.9	-0.61	-0.89	-0.04	0.04		
O-2R3-C	240	239	238	-27.3	-14.1	-13.7	-11.2	-29.8	-0.66	-1.09	-21.6	-0.72	-1.09	-0.15	0.04		
O-2R3-D	243	242	241	-33.0	-9.2	-8.5	-3.9	-37.6	-0.50	-1.28	-21.6	-0.61	-1.17	-0.27	0.03		
O-2R3-E	246	245	244	-48.8	-13.4	-1.5	1.4	-52.7	-0.47	-1.72	-13.4	-0.54	-1.66	-0.28	0.03		
O-2R3-F	249	248	247	-55.9	-15.6	0.5	3.0	-58.3	-0.48	-1.89	33.5	-0.91	-1.46	0.65	0.03		
O-2R3-G	252	251	250	-57.3	-34.5	1.7	2.4	-58.0	-0.49	-1.89	-83.6	-1.87	-0.51	-0.15	0.03		
O-2R3-H	255	254	253	-51.4	-39.9	-1.9	1.4	-54.7	-0.49	-1.79	-75.9	-1.71	-0.57	-0.31	0.02		
O-2R3-J	258	257	256	-46.8	-39.6	-5.7	-0.5	-51.0	-0.32	-1.68	-73.3	-1.59	-0.62	-0.32	0.03		
O-2R3-K	261	260	259	-38.2	-40.8	-7.5	0.8	-46.5	-0.43	-1.52	-65.3	-1.33	-0.63	-0.41	0.02		
D-2R3-L	264	263	262	-67.1	-55.0	-7.0	-2.0	-72.1	-0.78	-2.40	-74.5	-2.28	-0.89	-0.42	0.04		
I-2R3-A	559	560	561	10.9	5.3	14.6	20.5	5.0	0.72	0.37	-52.1	0.50	0.59	-0.17	0.04		
I-2R3-B	562	563	564	5.3	9.6	24.6	26.0	7.9	0.89	0.38	-75.5	0.42	0.86	-0.12	0.03		
I-2R3-C	565	566	567	5.7	14.1	38.2	40.0	3.9	1.36	0.53	-77.1	0.57	1.32	-0.28	0.03		
I-2R3-D	568	569	570**	0.5	19.4	0.0	19.4	-18.9	0.45	-0.43	44.6	0.02	0.00	0.44	0.02		
I-2R3-E	571	572**	573**	5.5	0.0	0.0	6.7	-1.1	0.21	0.03	-22.5	0.18	0.05	-0.00	0.03		

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI				TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
I-2R3-F	574	575	576	7.1	12.1	20.8	21.0	6.8	0.76	0.43	52.5	0.55	0.64	0.16	0.03
I-2R3-G	577	578	579	14.0	15.0	16.4	16.5	14.4	0.69	0.64	14.4	0.69	0.64	0.01	0.03
I-2R3-H	580	581	582	18.9	12.4	8.4	19.0	8.3	0.71	0.46	83.5	0.46	0.71	0.03	0.03
I-2R3-J	583	584	585	16.3	0.7	-6.1	17.2	-7.0	0.50	-0.06	79.3	-0.04	0.48	0.10	0.05
I-2R3-K	586	587	588	12.6	-5.8	-18.5	12.9	-18.7	0.24	-0.49	85.8	-0.48	0.23	0.07	0.03
I-2R3-L	589	590	591	9.3	-5.8	-17.5	9.4	-17.6	0.14	-0.44	86.3	-0.48	0.13	0.04	0.06
U-2R4-A	267	268	269	-26.6	-18.9	-15.4	-15.0	-27.0	-0.76	-1.04	-10.3	-0.77	-1.03	-0.05	0.04
U-2R4-B	270	269	268	-25.7	-15.0	-18.8	-14.2	-30.2	-0.77	-1.14	-32.2	-0.87	-1.03	-0.17	0.03
U-2R4-C	272	272	271	-24.2	-8.6	-13.6	-7.3	-36.5	-0.54	-1.08	-31.4	-0.69	-0.93	-0.24	0.04
U-2R4-D	276	275	274	-26.7	-0.4	-9.3	1.6	-37.6	-0.32	-1.22	-31.9	-0.57	-0.97	-0.41	0.03
U-2R4-E	279	278	277	-37.7	-11.0	3.6	4.3	-38.4	-0.24	-1.22	37.9	-0.61	-0.85	0.48	0.04
U-2R4-F	282	281	280	-28.4	-31.1	-3.5	3.6	-35.5	-0.23	-1.13	-64.7	-0.97	-0.40	-0.35	0.03
U-2R4-G	283	284	283	-23.0	-30.7	-7.0	2.7	-32.7	-0.23	-1.05	-58.5	-0.83	-0.46	-0.36	0.04
U-2R4-H	286	287	286	-14.5	-26.7	-13.1	-1.0	-26.7	-0.30	-0.89	-46.5	-0.61	-0.58	-0.30	0.03
U-2R4-I	291	290	289	-14.4	-29.0	-12.6	2.0	-29.0	-0.22	-0.94	-46.7	-0.60	-0.56	-0.36	0.03
I-2R4-A	592	593	594	21.8	14.1	16.6	24.9	13.5	0.95	0.69	-31.5	0.88	0.76	-0.12	0.07
I-2R4-B	595	596	597	23.5	16.1	29.7	37.5	15.7	1.39	0.89	-53.2	1.07	1.21	-0.24	0.04
I-2R4-C	598	599	600	10.6	23.9	46.5	47.1	10.0	1.65	0.80	-82.7	0.81	1.64	-0.11	0.05
I-2R4-D	601	602	603	9.6	19.6	46.1	47.9	7.8	1.66	0.73	-77.8	0.77	1.62	-0.19	0.02
I-2R4-E	604	605	606	9.1	35.5	41.6	44.5	6.2	1.53	0.65	29.1	1.32	0.85	0.38	0.03
I-2R4-F	607	608	609	13.1	32.4	24.0	33.4	3.6	1.14	0.45	-34.2	0.92	0.67	-0.32	0.05
I-2R4-G	610	611	612	-0.4	17.2	24.1	25.2	-1.5	0.82	0.20	-11.9	0.79	0.23	-0.12	0.02
I-2R4-H	613	614	615**	-10.6	5.8	0.0	7.0	-17.6	0.06	-0.51	-32.3	-0.10	-0.35	-0.26	0.03
I-2R4-I	616	617	618**	-14.2	-5.7	0.0	0.1	-14.4	-0.14	-0.47	-5.7	-0.14	-0.47	-0.03	0.01
U-2R5-A	294	293	292	-22.2	-23.5	-23.6	-22.0	-23.9	-0.96	-1.00	69.8	-1.00	-0.97	0.01	1.02
U-2R5-B	297	296	295	-17.1	-22.1	-28.7	-17.0	-28.8	-0.85	-1.12	-66.0	-1.12	-0.85	-0.02	0.04
U-2R5-C	300	299	298	-13.4	-18.7	-22.6	-13.3	-22.7	-0.66	-0.88	85.8	-0.88	-0.66	0.02	0.03
U-2R5-D	303	302	301	-10.5	-17.6	-24.4	-10.5	-24.4	-0.59	-0.91	89.7	-0.91	-0.59	0.00	0.04
U-2R5-E	306	305	304	-9.1	-15.0	-25.6	-8.8	-25.9	-0.55	-0.94	8.1	-0.55	-0.93	0.06	0.03
U-2R5-F	309	308	307	-15.5	-13.7	-10.5	-10.5	-15.5	-0.50	-0.61	-85.8	-0.61	-0.50	-0.01	0.04
U-2R5-G	312	311	310	-13.2	-13.1	-14.3	-12.7	-14.5	-0.57	-0.61	24.9	-0.58	-0.60	0.01	0.06
U-2R5-H	315	314	313	-13.3	-14.9	-14.2	-12.6	-15.0	-0.56	-0.62	-33.8	-0.58	-0.60	-0.03	0.04
U-2R5-I	318	317	316	6.4	-5.9	-12.7	6.6	-14.0	0.08	-0.40	-6.3	0.07	-0.39	-0.05	1.02
I-2R5-A	619	620**	621	33.3	0.0	15.8	50.6	-1.5	1.65	0.45	-35.2	1.25	0.85	-0.57	0.03
I-2R5-B	622	623	624**	32.9	22.4	0.0	37.4	-4.5	1.19	0.22	19.1	1.08	0.31	0.30	0.03
I-2R5-C	625	626	627	13.1	29.2	43.8	43.9	13.1	1.58	0.87	68.7	0.87	1.57	0.02	0.03
I-2R5-D	628	629	630	14.0	28.3	41.5	41.5	14.0	1.51	0.87	88.9	0.87	1.51	0.01	0.02
I-2R5-E	631	632	633	16.2	26.3	30.2	30.9	15.6	1.17	0.82	-11.9	1.16	0.83	-0.07	0.04
I-2R5-F	634	635	636	18.5	15.6	12.9	18.5	12.9	0.74	0.61	88.9	0.61	0.74	0.00	0.03
I-2R5-G	637	638**	639	-0.8	0.0	21.3	25.3	-4.8	0.79	0.09	21.5	0.69	0.19	0.24	0.02
I-2R5-H	640	641	642	-15.0	1.9	27.7	28.1	-15.2	0.77	-0.23	5.8	0.76	-0.22	0.10	0.04
I-2R5-I	643**	644**	645	0.0	0.0	13.6	16.4	-2.8	0.51	0.07	22.5	0.45	0.13	0.16	0.03
U-1R6-A	156	155	154	-16.8	-2.9	7.1	7.3	-16.9	0.07	-0.46	2.6	0.07	-0.48	0.03	0.03
U-1R6-B	159	158	157	-20.2	-12.3	-3.4	-3.3	-20.3	-0.31	-0.70	3.8	-0.31	-0.70	0.03	0.02
U-1R6-C	162	161	160	-16.4	-13.5	-6.9	-6.5	-16.6	-0.30	-0.62	10.8	-0.39	-0.61	0.04	0.03
U-1R6-D	165	164	163	-14.9	-12.5	-10.5	-10.5	-14.9	-0.49	-0.59	-2.6	-0.49	-0.59	-0.00	0.04
I-1R6-A	481	482	483	21.0	-7.1	-24.7	21.6	-25.3	0.46	-0.62	-6.5	0.45	-0.61	-0.12	0.01
I-1R6-B	484	485	486	19.8	-2.5	-17.4	20.1	-17.8	0.49	-0.39	-5.6	0.48	-0.38	-0.08	0.02
I-1R6-C	487	488	489	18.9	-1.6	-16.3	19.1	-16.5	0.47	-0.35	-5.7	0.46	-0.35	-0.07	0.04
I-1R6-D	490	491	492	20.2	0.9	-15.4	20.3	-15.5	0.51	-0.31	-2.3	0.51	-0.31	-0.03	0.02
U-2R6-A	321	320	319	-17.7	-4.7	2.8	3.1	-18.1	-0.07	-0.56	-7.4	-0.08	-0.56	-0.06	0.02
U-2R6-B	324	323	322	-17.3	-10.2	-2.6	-2.6	-17.3	-0.26	-0.60	0.8	-0.26	-0.60	0.00	0.02
U-2R6-C	327	326	325	-14.1	-10.3	-6.4	-6.4	-14.1	-0.35	-0.93	-0.1	-0.35	-0.51	-0.00	0.02
I-2R6-A	646	647	648	21.5	-1.6	-24.5	21.5	-24.5	0.46	-0.60	-0.1	0.46	-0.60	-0.00	0.01
I-2R6-B	649	650**	651	17.9	0.0	-17.1	18.0	-17.1	0.42	-0.38	-0.7	0.42	-0.38	-0.01	0.02
I-2R6-C	652	653	654	18.1	0.2	-15.9	18.1	-15.9	0.44	-0.35	-1.4	0.44	-0.35	-0.02	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-1R7- A	655	626	657	14.6	-6.2	-24.9	14.7	-24.9	0.24	-0.68	-1.6	0.24	-0.67	-0.04	0.03
I-1R7- B	658	659	660	8.9	-6.4	-24.4	9.0	-24.4	0.06	-0.72	2.2	0.05	-0.71	0.03	0.02
I-2R7- A	661	662	663	10.5	-5.8	-18.6	10.7	-18.7	0.17	-0.51	-3.6	0.17	-0.51	-0.04	0.02
EX- C- A	670	671	672	11.1	0.4	-8.0	11.2	-8.0	0.29	-0.15	86.5	-0.15	0.29	0.03	0.01
EX- C- B	673	674	675	-12.3	-2.1	8.2	8.2	-12.3	0.15	-0.33	0.2	0.15	-0.33	0.00	0.04
EX- C- C	676	677	676	9.9	-2.4	-9.7	10.2	-10.0	0.24	-0.23	82.9	-0.22	0.23	0.06	0.02
EX- C- D	669	666	667	-12.6	-3.1	7.4	7.4	-12.6	0.12	-0.34	1.5	0.12	-0.34	0.01	0.02
EX- B- A	687	686	685	-47.8	-23.7	7.4	7.6	-48.1	-0.22	-1.51	-86.2	-1.50	-0.23	-0.09	0.05
EX- B- B	690	689	688	-22.1	-8.4	5.9	5.9	-22.1	-0.03	-0.67	-89.3	-0.67	-0.03	-0.01	0.03
EX- B- C	681	680	679	-46.2	-20.5	6.0	6.0	-46.2	-0.26	-1.46	-89.5	-1.46	-0.26	-0.01	0.04
EX- B- D	684	685	682	-17.2	-5.0	13.2	13.5	-17.5	0.27	-0.44	-84.4	-0.44	0.27	-0.07	0.04
EX- A- A	696	695	694	-42.3	-14.9	7.2	7.4	-42.4	-0.18	-1.33	86.9	-1.32	-0.18	0.00	0.04
EX- A- B	693	692	691	-21.8	-4.0	14.2	14.2	-21.8	0.25	-0.56	-89.6	-0.58	0.25	-0.01	0.02
EX- A- C	662	665	664	-43.3	-18.3	8.5	8.5	-43.4	-0.15	-1.35	-89.0	-1.34	-0.15	-0.02	0.02
EX- A- D	699	698	697	-20.1	-6.9	4.3	4.3	-20.1	-0.06	-0.62	87.8	-0.62	-0.06	0.02	0.05

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

U. S. GOVERNMENT PRINTING OFFICE: 1965 O 481-100

COMBUSTION T-10, LOAD CASE 11, F2Y

NOMINAL LOAD = 1.647E 03

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONE
0-1R1-A	3	2	1	34.1	18.4	7.1	34.3	6.9	1.20	0.57	85.3	0.57	1.20	0.02	0.02
0-1R1-B	6	5	4	50.6	31.8	9.2	50.6	9.2	1.76	0.80	-87.4	0.80	1.76	-0.04	0.05
0-1R1-C	9	8	7	45.2	38.9	27.8	45.5	27.5	1.77	1.36	-82.4	1.36	1.77	-0.05	0.05
0-1R1-D	12	11	10	26.9	35.1	41.6	41.6	26.9	1.64	1.30	-3.5	1.64	1.30	-0.02	0.05
0-1R1-E	15	14	13	12.0	21.7	25.7	25.5	11.1	0.95	0.62	-13.9	0.93	0.62	-0.08	0.04
0-1R1-F	18	17	16	9.0	16.7	10.9	16.8	3.1	0.58	0.27	4.1	0.58	0.27	0.02	0.04
0-1R1-G	21	20	19	9.1	17.4	10.8	17.4	2.5	0.60	0.26	48.4	0.41	0.45	0.17	0.02
0-1R1-H	24	23	22	-0.1	21.0	12.3	22.3	-10.1	0.63	-0.11	56.3	0.12	0.40	0.34	0.02
0-1R1-J	27	26	25	-7.6	19.7	15.8	23.7	-15.4	0.63	-0.28	63.4	-0.09	0.45	0.36	0.02
0-1R1-K	36	29	28	-9.7	14.9	15.2	20.1	-14.7	0.52	-0.29	67.8	-0.17	0.40	0.28	0.03
0-1R1-L	33	32	31	-22.4	4.0	6.6	10.8	-26.6	0.09	-0.77	70.3	-0.67	-0.00	0.27	0.03
1-1R1-A	328	329	330	-7.3	-26.5	-45.6	-7.3	-45.6	-0.69	-1.58	-0.1	-0.69	-1.58	-0.00	0.06
1-1R1-B	331	332	333	-2.1	-33.4	-66.0	-2.1	-66.0	-0.72	-2.20	0.6	-0.72	-2.20	0.04	0.07
1-1R1-C	334	335	336	-3.0	-45.1	-85.3	-3.0	-85.3	-0.94	-2.84	-0.7	-0.94	-2.84	-0.02	0.09
1-1R1-D	337	338	339	-2.2	-42.8	-83.4	-1.2	-83.4	-0.87	-2.76	-0.3	-0.87	-2.76	-0.01	0.10
1-1R1-E	340	341	342	4.7	-22.0	-45.8	4.7	-45.8	-0.30	-1.46	-1.6	-0.30	-1.46	-0.03	0.07
1-1R1-F	343	344	345	7.2	-9.3	-25.0	7.2	-25.0	-0.01	-0.75	-45.8	-0.39	-0.37	-0.37	0.03
1-1R1-G	346	347	348	5.3	-20.9	-21.7	10.3	-26.7	0.08	-0.78	68.3	-0.66	-0.04	0.29	0.03
1-1R1-H	349	350	351	-16.4	-31.4	-9.4	-5.9	-31.6	-0.12	-0.99	39.6	-0.47	-0.64	0.43	0.04
1-1R1-J	352	353	354	-20.5	-26.6	-7.5	-0.2	-28.1	-0.27	-0.93	31.4	-0.45	-0.75	0.29	0.03
1-1R1-K	355	356	357	-16.8	-19.1	-9.9	76.6	-20.1	-0.42	-0.73	29.5	-0.49	-0.65	0.13	0.03
1-1R1-L	358	359**	360**	-0.2	0.0	0.0	1.3	-7.5	-0.03	-0.23	-22.5	-0.06	-0.20	-0.07	0.03
0-1R2-A	36	32	34	14.9	5.3	3.0	16.0	2.0	0.55	0.22	74.3	0.25	0.52	0.08	0.04
0-1R2-B	39	38	37	18.3	9.6	0.5	18.3	0.5	0.61	0.20	-89.5	0.20	0.61	-0.00	0.02
0-1R2-C	42	41	40	14.7	15.7	3.0	17.8	-0.1	0.59	0.17	-65.4	0.24	0.52	-0.16	0.03
0-1R2-D	45	44	43	1.3	18.8	5.9	18.9	-11.7	0.51	-0.20	-40.7	0.21	0.10	-0.35	0.02
0-1R2-E	48	47	46	-15.4	22.2	5.9	24.4	-33.8	0.47	-0.87	-34.3	0.04	-0.45	-0.62	0.02
0-1R2-F	51	50	49	-22.1	20.7	13.8	26.5	-34.8	0.53	-0.88	17.9	0.40	-0.75	0.41	0.02
0-1R2-G	54	53	52	-30.6	14.8	11.4	22.6	-41.7	0.33	-1.15	65.4	-0.89	0.07	0.56	0.02
0-1R2-H	57	56	55	-37.0	4.4	10.7	16.5	-42.8	0.12	-1.25	71.8	-1.12	-0.01	0.41	0.04
0-1R2-J	60	59	58	-34.0	-7.4	9.9	10.4	-34.5	0.00	-1.03	84.0	-1.02	-0.01	0.11	0.04
0-1R2-K	63	62	61	-19.7	-8.5	6.6	6.7	-19.8	0.03	-0.59	-85.7	-0.58	0.02	-0.05	0.04
0-1R2-L	66	65	64	-55.7	-22.8	0.1	0.6	-56.1	-0.54	-1.84	85.0	-1.83	-0.55	0.11	0.02
1-1R2-A	361	362	363	-4.8	-4.3	-18.4	-1.6	-21.6	-0.27	-0.73	23.6	-0.34	-0.66	0.17	0.05
1-1R2-B	364	365	366	-2.8	-6.5	-22.6	-1.0	-24.4	-0.27	-0.81	16.0	-0.32	-0.77	0.14	0.04
1-1R2-C	367	368	369	-5.5	-9.7	-25.3	-4.0	-26.8	-0.40	-0.92	14.9	-0.43	-0.89	0.13	0.04
1-1R2-D	370	371	372	-5.4	-20.4	-30.4	-5.1	-30.7	-0.47	-1.06	-5.8	-0.48	-1.06	-0.06	0.04
1-1R2-E	373	374	375	-6.2	-37.9	-35.6	1.5	-43.4	-0.38	-1.41	-24.5	-0.56	-1.24	-0.39	0.05
1-1R2-F	376	377	378	-7.3	-42.3	-33.4	5.2	-45.9	-0.28	-1.46	-74.7	-1.38	-0.37	-0.30	0.05
1-1R2-G	379	380	381	-12.1	-35.2	-26.1	3.4	-35.6	-0.24	-1.14	50.9	-0.78	-0.60	0.44	0.07
1-1R2-H	382	383	384	-6.6	-20.8	-15.2	1.5	-21.3	-0.16	-0.69	53.5	-0.50	-0.35	0.25	0.03
1-1R2-J	385	386**	387	-2.1	0.0	-13.7	1.9	-17.7	-0.11	-0.56	-63.1	-0.47	-0.21	-0.18	0.02
1-1R2-K	388	389	390	6.0	-10.2	-23.6	6.1	-23.7	-0.03	-0.72	87.3	-0.72	-0.04	0.03	0.03
1-1R2-L	391	392	393	-18.3	-2.4	0.9	2.5	-19.9	-0.11	-0.63	-15.5	-0.15	-0.59	-0.13	0.04
0-1R3-A	69	68	67	-12.8	-11.6	-7.3	-6.8	-12.2	-0.36	-0.20	16.7	-0.37	-0.49	0.04	0.03
0-1R3-B	72	71	70	-16.4	-10.7	-8.8	-8.4	-16.8	-0.44	-0.64	-13.6	-0.45	-0.63	-0.04	0.04
0-1R3-C	75	74	73	-20.5	-7.6	-10.3	-6.1	-24.7	-0.44	-0.87	-28.4	-0.54	-0.78	-0.18	0.05
0-1R3-D	78	77	76	-28.5	-7.7	-7.6	-3.3	-32.8	-0.43	-1.11	-22.4	-0.53	-1.02	-0.24	0.03
0-1R3-E	81	80	79	-35.8	-5.6	-8.7	-0.8	-42.8	-0.46	-1.45	-25.5	-0.64	-1.27	-0.39	0.04
0-1R3-F	84	83	82	-42.5	-9.0	-5.4	-0.1	-47.8	-0.48	-1.58	25.5	-0.68	-1.37	0.43	0.05

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LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI				TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
O-1F3-G	87	86	85	-46.3	-23.1	0.0	2.0	-48.3	-0.48	-1.59	88.7	-1.59	-0.48	0.02	0.05
O-1F3-H	90	89	88	-42.1	-29.0	-1.8	-0.6	-43.3	-0.45	-1.43	-80.4	-1.41	-0.48	-0.16	0.05
O-1K3-J	93	92	91	-31.3	-30.2	-5.7	-1.1	-35.9	-0.39	-1.19	-68.8	-1.09	-0.50	-0.27	0.05
O-1K3-K	96	95	94	-19.4	-28.4	-7.1	2.8	-29.7	-0.20	-0.95	-56.6	-0.72	-0.43	-0.34	0.02
O-1K3-L	99	98	97	-55.4	-42.7	-7.2	-4.6	-57.9	-0.73	-1.96	-77.3	-1.90	-0.79	-0.26	0.07
I-1K3-A	394	395	396	3.7	8.5	12.6	12.6	3.7	0.45	0.25	87.7	0.25	0.45	0.01	0.03
I-1K3-B	397	398	399	4.5	7.3	20.3	21.8	3.0	0.75	0.31	-73.7	0.35	0.71	-0.12	0.03
I-1K3-C	400	401	402	2.4	10.3	29.6	31.0	1.2	1.03	0.35	-78.5	0.37	1.01	-0.13	0.04
I-1K3-D	405	406	405	2.5	7.4	28.5	30.8	0.2	1.02	0.31	-74.1	0.56	0.96	-0.19	0.03
I-1K3-F	406	407	408	6.4	7.5	20.2	22.3	4.3	0.78	0.36	-70.2	0.41	0.73	-0.13	0.04
I-1F3-F	404	410	411	6.7	7.9	14.9	15.9	5.8	0.58	0.32	62.9	0.40	0.53	0.09	0.02
I-1K3-G	412	413	414	9.1	9.4	14.2	15.0	8.3	0.58	0.42	20.3	0.56	0.44	0.05	0.03
I-1K3-H	415	416	417	13.8	10.2	8.1	13.8	8.0	0.54	0.40	83.1	0.40	0.53	0.02	0.02
I-1F3-J	418	419	420	15.2	3.6	-3.7	15.4	-4.0	0.47	0.02	83.6	0.03	0.46	0.05	0.02
I-1K3-K	421	422	423	10.5	-1.9	-17.2	10.6	-17.3	0.18	-0.47	-86.9	-0.46	0.17	-0.03	0.03
I-1K3-L	424	425	426	5.0	-3.8	-10.0	5.1	-10.1	0.07	-0.28	85.0	-0.28	0.07	0.03	0.02
O-1K4-A	102	101	100	-20.3	-16.6	-13.1	-13.1	-20.3	-0.63	-0.80	-1.0	-0.63	-0.80	-0.00	0.04
O-1K4-B	105	104	103	-20.5	-12.9	-14.8	-12.1	-23.1	-0.63	-0.86	-29.5	-0.69	-0.82	-0.11	0.04
O-1K4-C	108	107	106	-17.5	-6.2	-14.9	-6.1	-26.3	-0.46	-0.93	-41.3	-0.67	-0.72	-0.23	0.05
O-1K4-D	111	110	109	-23.0	-71.0	-9.5	0.4	-32.9	-0.31	-1.05	-33.1	-0.54	-0.85	-0.35	0.05
O-1K4-E	114	113	112	-32.9	-10.5	1.9	2.6	-33.6	-0.25	-1.08	36.7	-0.54	-0.76	0.40	0.04
O-1K4-F	117	116	115	-24.6	-26.8	-1.4	5.1	-31.0	-0.14	-0.97	-65.0	-0.82	-0.29	-0.32	0.04
O-1K4-G	120	119	118	-15.6	-26.1	-7.5	3.6	-26.7	-0.14	-0.84	-52.7	-0.59	-0.40	-0.34	0.03
O-1K4-H	123	122	121	-25.8	-24.3	-11.3	-2.6	-24.5	-0.33	-0.83	-50.8	-0.63	-0.53	-0.25	0.04
O-1K4-J	126	125	124	-17.9	-28.7	-12.3	-1.3	-29.0	-0.33	-0.97	-50.8	-0.71	-0.58	-0.31	0.04
I-1K4-A	427	428	429	20.2	11.6	13.9	23.2	10.9	0.87	0.59	-29.6	0.80	0.66	-0.12	0.04
I-1K4-B	430	431	432	16.0	12.4	26.0	30.9	11.1	1.13	0.67	-60.1	0.79	1.01	-0.20	0.05
I-1K4-C	433	434	435	7.6	16.3	37.2	38.4	6.4	1.33	0.59	-78.7	0.62	1.30	-0.14	0.06
I-1K4-D	436	437	438	9.1	12.3	35.7	37.4	7.5	1.31	0.61	-76.0	0.62	1.27	-0.16	0.04
I-1K4-E	439	440	441	9.3	26.7	31.7	33.3	7.6	1.17	0.58	30.4	1.02	0.73	0.26	0.03
I-1K4-F	442	443	444	14.8	27.4	12.8	27.4	3.2	0.94	0.38	-43.8	0.67	0.64	-0.28	0.04
I-1K4-G	445	446	447	4.9	17.1	14.8	18.6	1.0	0.62	0.22	-27.8	0.54	0.31	-0.17	0.03
I-1K4-H	448	449	450	-8.5	6.9	12.8	13.8	-9.5	0.36	-0.18	-12.1	0.34	-0.15	-0.11	0.01
I-1K4-J	451	452*	453	-1.6	-2.5	7.8	7.8	-12.6	0.13	-0.34	0.3	0.13	-0.34	0.00	0.03
O-1K5-A	129	128	127	-19.8	-20.0	-21.0	-19.7	-21.1	-0.86	-0.89	80.9	-0.89	-0.86	0.00	0.05
O-1K5-B	132	131	130	-18.3	-18.7	-19.0	-18.3	-19.0	-0.79	-0.81	82.3	-0.81	-0.79	0.00	0.06
O-1K5-C	135	134	133	-12.8	-17.1	-20.2	-12.7	-20.3	-0.62	-0.79	85.7	-0.79	-0.62	0.01	0.04
O-1K5-D	138	137	136	-11.2	-17.5	-21.8	-11.1	-21.9	-0.58	-0.83	84.6	-0.83	-0.59	0.02	0.04
O-1K5-E	141	140	139	-8.4	-16.7	-23.2	-8.4	-23.3	-0.51	-0.85	-3.4	-0.51	-0.85	-0.02	0.04
O-1K5-F	144	143	142	-16.0	-14.0	-10.4	-10.2	-16.1	-0.50	-0.63	-81.7	-0.63	-0.50	-0.02	0.04
O-1K5-G	147	146	145	-9.7	-12.9	-13.7	-9.4	-14.0	-0.45	-0.56	-15.2	-0.45	-0.55	-0.03	0.03
O-1K5-H	150	149	148	-13.3	-13.5	-15.6	-13.5	-17.4	-0.62	-0.71	42.5	-0.66	-0.67	0.05	0.04
O-1K5-J	153	152	151	-2.8	-6.2	-13.2	-2.8	-11.2	-0.22	-0.46	-1.2	-0.22	-0.46	-0.00	0.03
I-1K5-A	454	455	456	27.2	20.7	14.6	27.2	14.6	1.04	0.75	-1.1	1.04	0.75	-0.01	0.04
I-1K5-B	457	458	459	25.1	23.7	26.4	27.9	23.6	1.15	1.05	-54.0	1.09	1.12	-0.05	0.05
I-1K5-C	460	461	462	5.4	18.9	36.8	39.1	5.1	1.34	0.56	-84.5	0.56	1.33	-0.07	0.05
I-1K5-D	463	464	465	12.6	25.8	36.2	36.3	12.2	1.32	0.77	86.6	0.77	1.32	0.03	0.04
I-1K5-E	466	467	468	14.1	22.9	28.4	28.6	14.0	1.08	0.74	-6.5	1.08	0.75	-0.04	0.03
I-1K5-F	469	470	471	17.4	15.1	11.6	17.4	11.5	0.69	0.55	-83.7	0.55	0.69	-0.01	0.03
I-1K5-G	472	473	474	5.7	8.8	12.7	12.7	5.6	0.47	0.31	3.4	0.47	0.31	0.01	0.02
I-1K5-H	475	476	477	-10.9	8.9	25.7	25.7	-10.9	0.74	-0.11	-2.3	0.74	-0.10	-0.03	0.07
I-1K5-J	478	479	480	-14.5	-0.9	17.2	17.4	-14.7	0.43	-0.31	4.0	0.42	-0.31	0.05	0.03
O-2R1-A	168	167	166	35.7	21.0	5.1	35.7	5.1	1.23	0.52	-89.0	0.52	1.23	-0.01	0.04
O-2R1-B	171	170	169	49.1	32.2	13.9	49.1	13.9	1.76	0.94	-23.9	0.94	1.76	-0.02	0.10
O-2R1-C	174	173	172	44.4	39.5	36.5	44.5	36.4	1.83	1.64	83.1	1.64	1.82	0.02	0.06
O-2R1-D	177	176	175	27.1	29.8	40.7	41.9	26.0	1.64	1.27	15.7	1.61	1.30	0.10	0.06

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI				TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
0-2R1-E	180	179	175	17.9	12.0	22.3	22.9	9.3	0.85	0.54	19.3	0.84	0.58	0.11	0.04
0-2R1-F	183	182	181	8.0	5.9	10.7	13.1	5.6	0.49	0.34	79.5	0.32	0.48	0.03	0.02
0-2R1-G	186	185	184	6.5	11.7	10.6	12.3	4.8	0.55	0.28	61.8	0.32	0.41	0.07	0.02
0-2R1-H	189	188	187*	-1.8	18.1	18.0	22.2	-6.0	0.67	0.02	67.3	0.12	0.58	0.23	0.06
0-2R1-J	192	191	190	-7.1	19.0	16.0	23.0	-15.2	0.62	-0.24	64.3	-0.08	0.46	0.34	0.02
0-2R1-K	195	194	193	-13.4	10.6	19.4	21.4	-14.9	0.56	-0.28	78.1	-0.24	0.52	0.17	0.03
0-2R1-L	198	197	195	-26.8	-4.6	11.1	11.4	-21.0	0.11	-0.7	95.1	-0.77	0.10	0.08	0.03
1-2R1-A	493	494	495	-1.2	-22.6	-42.8	-1.2	-42.8	-0.46	-1.42	-0.8	-0.46	-1.42	-0.01	0.05
1-2R1-B	496	497	498	-2.2	-33.8	-63.3	-2.2	-63.3	-0.70	-2.11	-0.9	-0.70	-2.11	-0.02	0.07
1-2R1-C	499	500	501	-8.6	-44.4	-84.4	-8.6	-84.4	-1.12	-2.87	1.6	-1.12	-2.87	0.05	0.10
1-2R1-D	502	503	504	-2.9	-46.2	-92.3	-2.9	-92.4	-1.01	-3.07	0.9	-1.01	-3.07	0.01	0.10
1-2R1-E	505	506	507	6.3	-21.2	-49.2	6.3	-49.2	-0.28	-1.56	0.2	-0.28	-1.56	0.01	0.06
1-2R1-F	508	509	510	10.9	-7.8	-27.0	10.9	-27.0	0.09	-0.78	-44.6	-0.34	-0.35	-0.44	0.05
1-2R1-G	511	512	513	7.3	-24.1	-24.9	13.5	-31.0	0.14	-0.89	68.2	-0.75	-0.01	0.35	0.03
1-2R1-H	514	515	516	-11.0	-36.1	-16.0	9.3	-36.2	-0.05	-1.10	48.2	-0.64	-0.52	0.52	0.04
1-2R1-J	517	518	519	-23.1	-32.3	-8.4	2.3	-33.8	-0.26	-1.09	33.0	-0.51	-0.85	0.38	0.04
1-2R1-K	520	521	522	-16.1	-22.8	-12.5	-5.6	-23.0	-0.41	-0.81	39.0	-0.57	-0.66	0.20	0.04
1-2R1-L	523	524	525	-7.5	-17.1	-16.7	-5.3	-18.9	-0.36	-0.67	66.4	-0.62	-0.41	0.11	0.03
0-2R2-A	201	201	199	15.7	5.5	-0.6	15.9	-0.9	0.52	0.13	82.9	0.13	0.51	0.05	0.02
0-2R2-B	204	203	202	18.4	7.5	-1.9	18.5	-2.0	0.59	0.12	87.8	0.12	0.59	0.02	0.02
0-2R2-C	207	206*	205	13.9	10.6	-7.7	14.1	-5.5	0.51	0.24	-82.4	0.29	0.51	-0.03	0.06
0-2R2-D	210	209	208	0.8	25.6	14.2	26.8	-11.7	0.77	-0.12	-34.8	0.49	0.17	-0.42	0.03
0-2R2-E	213	212	211	-17.0	27.1	21.5	33.7	-29.2	0.82	-0.62	-26.1	0.54	-0.35	-0.57	0.03
0-2R2-F	216	215	214	-20.6	25.8	24.2	34.7	-31.0	0.84	-0.68	21.5	0.63	-0.40	0.52	0.03
0-2R2-G	219	218	217	-33.5	15.4	20.9	28.5	-41.1	0.53	-1.07	70.7	-0.90	0.36	0.50	0.03
0-2R2-H	222	221	220	-43.5	-0.1	18.3	20.7	-46.0	0.23	-1.31	79.0	-1.25	0.17	0.24	0.05
0-2R2-J	225	224	223	-41.5	-9.8	14.9	15.1	-41.7	0.09	-1.22	86.5	-1.22	0.08	0.08	0.03
0-2R2-K	228	227*	226	-35.0	-10.5	11.6	11.6	-35.0	0.04	-1.04	88.6	-1.04	0.04	0.03	0.06
0-2R2-L	231	230	229	-66.9	-36.8	5.7	6.3	-67.4	-0.46	-2.16	-85.1	-2.15	-0.47	-0.14	0.07
1-2R2-A	526	527	528	-2.7	-1.1	-18.4	1.7	-22.8	-0.17	-0.73	25.0	-0.27	-0.63	0.22	0.04
1-2R2-B	529	530	531	-2.5	-3.3	-21.4	0.9	-24.8	-0.22	-0.81	21.2	-0.29	-0.73	0.20	0.02
1-2R2-C	532	533	534	-9.0	-12.8	-23.7	-8.6	-24.7	-0.53	-0.90	14.2	-0.55	-0.88	0.09	0.04
1-2R2-D	535	536	537	-10.4	-32.8	-36.2	-7.3	-39.4	-0.63	-1.37	-18.2	-0.70	-1.30	-0.22	0.06
1-2R2-E	538	539	540	-9.4	-50.4	-48.3	0.2	-57.9	-0.57	-1.91	-23.9	-0.79	-1.69	-0.50	0.06
1-2R2-F	541	542	543	-10.7	-54.3	-45.6	3.3	-59.6	-0.48	-1.92	-73.1	-1.81	-0.60	-0.40	0.07
1-2R2-G	544	545	546	-13.0	-46.9	-31.8	3.9	-48.7	-0.35	-1.57	55.5	-1.18	-0.74	0.57	0.05
1-2R2-H	547	548	549	-13.0	-31.5	-16.2	2.3	-31.5	-0.24	-1.02	47.7	-0.66	-0.59	0.39	0.04
1-2R2-J	550	551	552	-8.6	-18.9	-13.7	-0.7	-19.6	-0.22	-0.65	56.1	-0.52	-0.35	0.20	0.03
1-2R2-K	553	554	555	4.2	-19.3	-28.0	6.0	-29.7	-0.10	-0.92	77.2	-0.88	-0.14	0.16	0.03
1-2R2-L	556	557	558	8.6	-13.0	-23.9	9.5	-24.8	0.07	-0.72	61.0	-0.70	0.05	0.12	0.03
0-2R3-A	234	233	232	-12.6	-14.7	-11.5	-9.4	-14.8	-0.46	-0.58	39.1	-0.51	-0.53	0.06	0.06
0-2R3-B	237	236	235	-17.7	-13.2	-10.6	-10.5	-17.9	-0.52	-0.69	-7.1	-0.52	-0.69	-0.02	0.03
0-2R3-C	240	239	238	-21.3	-12.4	-15.4	-11.7	-24.9	-0.63	-0.94	-31.8	-0.72	-0.85	-0.14	0.02
0-2R3-D	243	242	241	-27.4	-6.4	-9.4	-3.3	-33.5	-0.44	-1.14	-26.5	-0.56	-1.00	-0.28	0.04
0-2R3-E	246	245	244	-39.8	-9.8	-1.0	1.7	-42.5	-0.36	-1.38	-14.3	-0.43	-1.32	-0.25	0.07
0-2R3-F	249*	248	247	-39.9	-11.2	1.7	3.2	-41.3	-0.30	-1.33	34.6	-0.64	-1.00	0.48	0.16
0-2R3-G	252	251	250*	-47.3	-26.9	5.2	5.9	-47.9	-0.28	-1.52	-83.7	-1.51	-0.30	-0.14	0.07
0-2R3-H	255	254	253	-43.9	-37.4	4.1	9.8	-49.6	-0.17	-1.54	-71.9	-1.41	-0.30	-0.40	0.04
0-2R3-J	258	257	256	-41.5	-35.3	-0.4	4.1	-46.0	-0.32	-1.48	-72.5	-1.37	-0.44	-0.33	0.06
0-2R3-K	261	260	259*	-36.8	-38.7	-1.5	7.2	-45.5	-0.21	-1.43	-66.1	-1.23	-0.41	-0.45	0.05
0-2R3-L	264	263	262	-60.0	-51.9	-6.3	-0.4	-65.9	-0.67	-2.18	-72.6	-2.04	-0.80	-0.43	0.07
1-2R3-A	559	560	561	9.2	4.6	12.8	17.7	4.3	0.63	0.32	-52.8	0.43	0.51	-0.15	0.04
1-2R3-B	562	563	564	2.9	7.0	19.4	20.2	2.1	0.69	0.27	-78.3	0.29	0.67	-0.08	0.03
1-2R3-C	565	566	567	3.5	10.4	29.6	31.0	2.1	1.04	0.38	-77.4	0.41	1.01	-0.24	0.04
1-2R3-D	568	569	570**	-0.6	12.1	0.0	12.1	-12.6	0.27	-0.30	45.7	-0.02	-0.01	0.28	0.03
1-2R3-E	571	572**	573**	2.5	0.0	0.0	3.1	-0.5	0.10	0.01	-22.5	0.08	0.03	-0.03	0.04

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI				TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
I-2K3-F	575	575	576	3.9	2.1	10.0	12.7	1.2	0.43	0.17	74.1	0.19	0.41	0.07	0.03
I-2K3-G	577	578	579	8.1	5.3	9.7	12.6	5.2	0.47	0.30	38.7	0.40	0.36	0.08	0.04
I-2K3-H	581	581	584	12.9	6.4	4.1	13.4	3.6	0.48	0.25	77.2	0.26	0.47	0.02	0.02
I-2K3-J	585*	584	585	12.7	-3.2	-4.7	15.4	-7.3	0.43	-0.09	70.2	-0.03	0.37	0.17	0.02
I-2K3-K	586	587	588	9.3	-6.6	-17.2	10.1	-17.5	0.16	-0.48	83.9	-0.47	0.15	0.07	0.02
I-2K3-L	589	590	591	7.2	-7.9	-15.5	-7.9	-16.1	0.10	-0.45	80.8	-0.44	0.09	0.09	0.03
O-2K4-A	267	266	265*	-23.7	-18.6	-13.3	-13.3	-23.7	-0.67	-0.91	0.8	-0.67	-0.91	0.00	0.06
O-2K4-B	270	269	268	-22.9	-15.5	-13.2	-12.6	-23.5	-0.65	-0.90	-13.9	-0.66	-0.89	-0.06	0.08
O-2K4-C	273	272	271	-21.3	-8.5	-13.8	-7.7	-27.6	-0.53	-0.98	-33.8	-0.67	-0.84	-0.21	0.04
O-2K4-D	276	275	274	-23.3	-3.7	-10.5	-2.3	-31.6	-0.39	-1.06	-32.0	-0.58	-0.87	-0.30	0.06
O-2K4-E	277	278	277	-36.0	-11.9	2.9	3.4	-36.6	-0.25	-1.17	38.3	-0.60	-0.82	0.45	0.05
O-2K4-F	282	281	280	-27.8	-30.6	-3.8	3.3	-34.9	-0.24	-1.12	-64.5	-0.95	-0.40	-0.34	0.04
O-2K4-G	285	284	283	-26.1	-32.5	-8.3	0.5	-34.9	-0.33	-1.14	-60.1	-0.94	-0.53	-0.35	0.04
O-2K4-H	288	287	286	-17.9	-29.9	-13.3	-1.1	-30.1	-0.33	-1.00	-49.5	-0.72	-0.62	-0.33	0.04
O-2K4-J	291	290	289	-23.5	-34.9	-12.4	-0.1	-35.8	-0.36	-1.18	-54.1	-0.90	-0.64	-0.39	0.07
I-2K4-A	592	593	594*	20.0	14.0	11.9	20.4	11.4	0.79	0.56	-12.6	0.76	0.59	-0.04	0.06
I-2K4-B	595	596	597	21.8	18.1	27.2	31.5	17.5	1.21	0.89	-56.3	0.99	1.11	-0.15	0.05
I-2K4-C	598	599	600	11.8	22.9	47.1	41.6	11.4	1.48	0.79	-63.1	0.80	1.47	-0.08	0.07
I-2K4-D	601	602	603	9.6	21.8	40.5	40.9	9.3	1.44	0.71	-84.0	0.72	1.43	-0.08	0.05
I-2K4-E	604	605	606	12.4	33.2	32.4	37.1	7.6	1.30	0.62	21.4	1.21	0.71	0.23	0.04
I-2K4-F	607	608	609	16.7	28.1	18.1	28.1	6.8	0.99	0.50	-43.1	0.76	0.73	-0.25	0.03
I-2K4-G	610	611	612	2.0	12.6	18.4	18.7	2.3	0.64	0.26	-7.3	0.63	0.27	-0.05	0.03
I-2K4-H	613	614	615**	-0.7	1.0	0.0	2.6	-11.3	-0.03	-0.35	-25.5	-0.09	-0.29	-0.12	0.03
I-2K4-J	616	617	618**	-12.7	-0.3	0.0	0.3	-13.0	-0.12	-0.43	8.4	-0.13	-0.42	0.04	C.C.
O-2K5-A	294	293	292	-20.5	-20.1	-19.6	-19.5	-20.6	-0.85	-0.87	13.8	-0.85	-0.87	0.01	0.04
O-2K5-B	297	296	295	-17.1	-19.6	-23.7	-17.0	-23.8	-0.80	-0.95	-63.4	-0.95	-0.80	-0.02	0.06
O-2K5-C	300	299	298	-13.2	-17.6	-20.5	-13.2	-20.6	-0.64	-0.81	84.6	-0.81	-0.64	0.02	0.04
O-2K5-D	303	302	301	-9.3	-17.9	-23.2	-9.1	-23.4	-0.53	-0.86	83.4	-0.86	-0.54	0.04	0.03
O-2K5-E	306	305	304	-8.7	-17.0	-24.9	-8.7	-24.9	-0.53	-0.91	-0.6	-0.53	-0.91	-0.00	0.04
O-2K5-F	309	308	307	-17.8	-14.9	-11.4	-11.4	-17.8	-0.55	-0.70	-87.5	-0.70	-0.55	-0.01	0.04
O-2K5-G	312	311	310	-16.9	-16.6	-15.1	-16.9	-17.1	-0.66	-0.71	-73.2	-0.71	-0.66	-0.01	0.03
O-2K5-H	315	314	313	-23.3	-20.6	-17.9	-17.9	-23.3	-0.82	-0.95	89.4	-0.95	-0.82	0.00	0.05
O-2K5-J	318	317*	316*	-5.6	-12.9	-16.0	-5.2	-16.4	-0.33	-0.59	-11.0	-0.33	-0.58	-0.05	0.04
I-2K5-A	619	620**	621	30.7	0.0	15.1	47.2	-1.3	1.54	0.42	-35.6	1.16	0.80	-0.53	0.04
I-2K5-B	622	623	624**	31.3	27.6	0.0	35.4	-4.1	1.13	0.22	18.7	1.03	0.31	0.28	0.04
I-2K5-C	625	626	627	9.8	29.6	42.5	42.8	9.5	1.51	0.74	84.0	0.74	1.50	0.08	0.03
I-2K5-D	628	629	630	13.2	27.9	40.1	40.2	13.2	1.46	0.83	87.4	0.83	1.45	0.03	0.04
I-2K5-E	632	632	633	16.5	26.6	32.3	32.6	16.2	1.24	0.86	-7.8	1.23	0.86	-0.05	0.05
I-2K5-F	634	635	636	21.3	15.5	11.7	-21.4	11.6	0.82	0.59	84.0	0.60	0.82	0.02	0.04
I-2K5-G	637	638	639	2.5	8.5	20.0	21.0	1.2	0.70	0.25	7.4	0.70	0.25	0.06	0.03
I-2K5-H	640	641	642	-14.4	2.3	27.8	28.3	-14.9	0.78	-0.21	5.9	0.77	-0.20	0.10	0.03
I-2K5-J	643**	644	645	0.0	-5.1	10.5	16.9	-6.4	0.49	-0.04	31.5	0.35	0.10	0.24	0.04
O-1K6-A	156	155	154	6.0	4.1	-3.9	7.3	-4.5	0.20	-0.08	-76.5	-0.06	0.18	-0.06	0.02
O-1K6-B	159	158	157	14.3	2.9	-11.8	14.4	-11.9	0.36	-0.25	-86.4	-0.25	0.36	-0.04	0.02
O-1K6-C	162	161	160	22.0	4.2	-19.8	22.0	-15.9	0.57	-0.31	-88.3	-0.30	0.57	-0.03	0.04
O-1K6-D	165	164	163	24.1	2.6	-19.8	24.1	-19.8	0.60	-0.41	-89.5	-0.41	0.60	-0.01	0.03
I-1K6-A	481	482	483	6.3	4.5	6.0	7.8	4.3	0.30	0.23	-42.8	0.27	0.26	-0.04	0.04
I-1K6-B	484	485	486	4.1	11.8	14.1	14.8	3.4	0.52	0.26	75.8	0.27	0.50	0.06	0.03
I-1K6-C	487	488	489	3.5	13.7	20.6	20.8	3.3	0.72	0.31	84.6	0.32	0.71	0.04	0.02
I-1K6-D	490	491	492	4.3	14.7	21.6	21.8	4.1	0.76	0.35	84.2	0.36	0.76	0.04	0.03
O-2K6-A	321	320	319	4.8	-4.5	-5.9	6.1	-7.2	0.13	-0.18	71.7	-0.15	0.10	0.09	0.02
O-2K6-B	324	323	322	12.0	-3.9	-12.6	12.5	-13.1	0.28	-0.31	61.9	-0.30	0.27	0.08	0.02
O-2K6-C	327	326	325	20.1	-1.9	-17.3	20.4	-17.6	0.50	-0.38	85.0	-0.37	0.49	0.08	0.02
I-2K6-A	646	647	648	9.9	5.1	2.8	10.1	2.6	0.36	0.19	-9.4	0.35	0.19	-0.03	0.02
I-2K6-B	649	650	651	5.8	9.1	14.8	15.0	5.6	0.55	0.33	-82.3	0.35	0.55	-0.03	0.03
I-2K6-C	652	653	654	5.6	12.4	20.2	20.2	5.6	0.72	0.38	-88.2	0.38	0.72	-0.01	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CUNF
I-1R7-A	655	656	657	0.8	32.1	59.0	59.1	0.7	1.26	0.61	87.9	0.61	1.95	0.05	0.06
I-1R7-B	658	659	660	-2.7	26.1	44.6	45.1	-3.2	1.46	0.34	83.8	0.35	1.44	0.12	0.05
I-2R7-A	661	662	663	0.9	18.7	38.7	38.7	0.8	1.28	0.41	88.3	0.41	1.28	-0.05	0.05
EX-C-A	670	671	672	4.1	0.2	-8.0	9.1	-8.0	0.22	-0.17	88.7	-0.17	0.22	0.01	0.02
EX-C-B	675	674	673	-11.3	-1.5	7.7	7.7	-11.4	0.14	-0.30	-1.0	0.14	-0.30	-0.01	0.03
EA-C-L	676	677**	676	15.3	0.0	-6.8	10.5	-7.0	0.28	-0.13	84.3	-0.12	0.27	0.04	0.01
EX-C-U	669	668	667	-9.1	-1.2	5.9	6.0	-9.2	0.11	-0.24	-1.7	0.11	-0.24	-0.01	0.02
EX-B-A	687*	686	685	-7.2	-3.3	0.7	0.7	-7.2	-0.05	-0.23	-89.4	-0.23	-0.05	-0.00	0.05
EX-B-B	690	689	688	35.0	12.3	-10.1	35.0	-10.1	1.05	0.01	-0.2	1.05	0.01	-0.00	0.05
EX-B-C	681	680	679	-10.7	-8.8	-0.7	0.2	-11.6	-0.11	-0.38	-73.8	-0.36	-0.13	-0.07	0.02
EX-B-U	683	682	682	-1.9	-0.5	11.9	12.0	-15.0	0.25	-0.37	87.9	-0.37	0.25	0.02	0.03
EX-A-A	696	695	694	-8.9	-1.8	-1.0	0.1	-10.0	-0.10	-0.33	70.6	-0.30	-0.12	0.07	0.04
EX-A-M	693	692	691	-30.3	-9.2	15.3	15.4	-30.3	0.21	-0.85	-87.8	-0.85	0.21	-0.04	0.03
EX-A-L	666	665	664	-11.1	-9.5	-0.2	1.1	-12.3	-0.09	-0.40	-72.6	-0.37	-0.12	-0.09	0.04
EX-A-U	694	698	697	47.9	15.4	-13.5	47.9	-13.5	1.45	0.03	-1.7	1.44	0.03	-0.04	0.06

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

COMBUSTION T-10, LOAD CASE 12, F2Z

NOMINAL LOAD = 1.647E 03

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF	
0-1P1-A	3	2	1	9.9	2.3	-4.3	9.9	-4.3	0.23	-0.01	88.2	-0.01	0.28	0.01	0.01	
0-1K1-B	6	5	4	17.5	7.1	-2.0	17.6	-2.1	0.56	0.11	88.1	0.11	0.56	0.01	0.01	
0-1K1-C	9	8	7	18.4	7.8	3.9	19.2	3.2	0.66	0.29	77.6	0.31	0.65	0.04	0.01	
0-1K1-L	12	11	10	11.9	4.3	11.6	19.2	4.3	0.67	0.33	45.7	0.50	0.51	0.17	0.02	
0-1F1-E	15	14	13	-3.6	-2.0	11.9	16.1	-5.7	0.41	-0.05	19.1	0.36	-0.00	0.14	0.01	
0-1R1-F	18	17	16	-9.9	-3.4	9.7	10.3	-9.7	0.25	-0.21	56.2	-0.07	0.11	0.22	0.01	
0-1S1-G	21	20	19	-10.4	0.1	9.0	9.1	-10.5	0.20	-0.26	87.7	-0.25	0.19	0.02	0.01	
0-1K1-H	24	23	22	-17.9	-2.8	6.6	7.1	-18.2	0.05	-0.53	83.7	-0.52	0.05	0.00	0.00	
0-1K1-J	27	26	25	-20.3	-5.1	6.9	6.9	-20.4	0.03	-0.60	86.6	-0.60	0.03	0.04	0.02	
0-1K1-K	30	29	28	-18.8	-4.5	7.6	7.7	-18.9	0.07	-0.55	87.7	-0.55	0.07	0.02	0.01	
0-1K1-L	33	32	31	-43.7	-18.0	3.1	3.3	-43.8	-0.33	-1.41	87.2	-1.41	-0.33	0.05	0.04	
1-1F1-A	325	329	330	-3.2	-9.3	-10.9	-2.0	-11.5	-0.29	-0.40	-15.3	-0.21	-0.39	-0.05	0.01	
1-1K1-B	331	332	333	-2.5	-12.8	-21.0	-2.4	-21.1	-0.29	-0.72	-3.2	-0.29	-0.72	-0.02	0.02	
1-1K1-C	334	335	336	-1.7	-18.9	-3.6	-1.4	-34.6	-0.39	-1.15	-1.5	-0.39	-1.15	-0.02	0.03	
1-1R1-D	337	338	339	3.0	-20.2	-44.3	3.0	-44.3	-0.34	-1.43	0.6	-0.34	-1.43	0.01	0.05	
1-1R1-E	340	341*	342	9.4	-7.8	-39.9	10.5	-41.0	-0.06	-1.25	8.5	-0.09	-1.22	0.17	0.13	
1-1K1-F	343	344	345	11.7	-3.5	-30.3	12.5	-31.1	0.10	-0.90	-37.2	-0.26	-0.53	-0.48	0.04	
1-1K1-G	346	347	348	12.8	-6.9	-26.7	12.8	-26.7	0.15	-0.75	-89.9	-0.75	0.16	-0.00	0.03	
1-1K1-H	349	350	351	3.5	-11.5	-16.6	7.0	-18.1	0.05	-0.53	75.9	-0.49	0.02	0.14	0.01	
1-1K1-J	352	353	354	1.9	-10.1	-15.5	2.5	-16.1	-0.08	-0.51	79.7	-0.49	-0.09	0.08	0.02	
1-1R1-K	355	356	357	3.2	-10.6	-20.1	3.4	-20.3	-0.09	-0.63	84.8	-0.63	-0.09	0.05	0.04	
1-1K1-L	358	359**	360**	3.2	0.0	0.0	3.8	-0.7	0.12	0.01	67.5	0.03	0.10	0.04	0.02	
0-1K2-A	361	35	34	5.8	-0.8	-0.4	7.3	-2.0	0.22	0.01	65.9	0.04	0.12	0.08	0.01	
0-1K2-B	39	38	37	8.0	0.5	0.2	9.4	-1.2	0.30	0.05	66.9	0.08	0.27	0.08	0.02	
0-1K2-C	42	41	40	6.9	1.9	1.7	7.8	0.8	0.27	0.10	68.5	0.13	0.24	0.00	0.01	
0-1K2-D	45	44	43	-0.1	3.0	4.6	4.8	-0.2	0.15	0.04	-9.0	0.15	0.04	-0.02	0.01	
0-1K2-E	48	47	46	-11.1	3.7	5.3	7.6	-13.4	0.12	-0.37	-12.4	0.06	-0.31	-0.15	0.01	
0-1K2-F	51	50	49	-15.8	2.3	7.0	8.8	-17.6	0.12	-0.49	29.9	-0.03	-0.34	0.26	0.01	
0-1K2-G	54	53	52	-20.9	-1.5	4.5	6.2	-22.5	-0.02	-0.68	76.1	-0.64	-0.06	0.15	0.02	
0-1K2-H	57	56	55	-24.2	-6.2	4.4	4.8	-24.7	-0.08	-0.77	82.6	-0.75	-0.10	0.09	0.02	
0-1K2-J	60	59	58	-21.9	-10.4	3.8	3.8	-22.0	-0.09	-0.69	-87.2	-0.69	-0.09	-0.03	0.02	
0-1K2-K	63	62	61	-15.6	-10.8	2.4	3.4	-16.5	-0.05	-0.51	-77.5	-0.49	-0.07	-0.10	0.02	
0-1P2-L	66	65	64	-43.0	-21.2	0.9	0.9	-43.0	-0.39	-1.41	-89.8	-1.41	-0.39	-0.00	0.02	
1-1K2-A	361	362	363	-2.0	-2.1	-8.2	-0.8	-9.4	-0.12	-0.32	22.1	-0.15	-0.29	0.07	0.04	
1-1K2-B	364	365	366	-3.2	-1.7	-10.2	0.3	-11.7	-0.10	-0.38	20.7	-0.14	-0.35	0.02	0.01	
1-1K2-C	367	368	369	-2.1	-1.7	-13.0	0.5	-15.6	-0.14	-0.51	23.7	-0.20	-0.45	0.14	0.01	
1-1R2-D	370	371	372	0.6	-4.2	-16.8	1.4	-17.6	-0.13	-0.57	12.1	-0.15	-0.55	0.04	0.02	
1-1K2-E	373	374	375	3.6	-9.4	-19.8	3.6	-19.8	-0.08	-0.62	-3.2	-0.08	-0.62	-0.03	0.02	
1-1K2-F	376	377	378	4.9	-10.9	-20.3	5.2	-20.7	-0.03	-0.61	-52.2	-0.40	-0.25	-0.29	0.01	
1-1K2-G	379	380	381	-3	-9.7	-14.9	5.3	-15.9	0.02	-0.47	77.5	-0.45	-0.01	0.13	0.01	
1-1K2-H	382	383	384	5.0	-5.5	-12.0	5.2	-12.2	0.05	-0.35	83.3	-0.34	0.05	0.02	0.02	
1-1K2-J	385	386**	387	4.9	0.0	-12.0	5.7	-13.4	0.05	-0.39	-78.1	-0.37	0.04	-0.09	0.02	
1-1K2-K	388	389	390	6.2	-7.9	-20.1	6.2	-20.2	0.00	-0.60	87.9	-0.60	0.00	0.02	0.02	
1-1R2-L	391	392	393	-17.0	-7.0	0.1	0.3	-17.1	-0.16	-0.56	-4.6	-0.16	-0.56	-0.03	0.03	
0-1K3-A	69	68	67	-2.5	-2.7	2.0	2.8	-2.4	0.06	-0.08	21.7	0.04	-0.06	0.05	0.01	
0-1K3-B	72	71	70	-4.5	-2.7	1.9	2.2	-4.8	0.02	-0.14	11.9	0.02	-0.13	0.03	0.02	
0-1K3-C	75	74	73	-6.4	-2.6	1.0	1.0	-6.4	-0.03	-0.20	-0.6	-0.03	-0.20	-0.00	0.01	
0-1K3-D	78	77	76	-9.5	-3.0	1.5	1.6	-9.6	-0.04	-0.30	-5.1	-0.04	-0.30	-0.02	0.01	
0-1K3-E	81	80	79	-13.7	-2.8	0.3	1.3	-14.7	-0.10	-0.47	-14.7	-0.13	-0.45	-0.09	0.01	
0-1K3-F	84	83	82	-17.5	-4.8	1.0	1.6	-18.1	-0.13	-0.58	34.8	-0.27	-0.43	0.21	0.01	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI				TAU	LONG
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
U-1R3-- G	87	86	85	-19.5	-10.7	0.8	0.9	-19.6	-0.16	-0.64	-86.2	-0.64	-0.17	-0.03	0.02
U-1R3-- H	90	89	88	-18.1	-11.9	-0.8	-0.5	-18.4	-0.20	-0.61	-82.2	-0.61	-0.21	-0.06	0.02
U-1R3-- J	93	92	91	-14.1	-11.7	-1.9	-0.8	-15.1	-0.18	-0.51	-74.2	-0.48	-0.20	-0.09	0.02
U-1R3-- K	96	95	94	-9.3	-10.5	-2.3	0.0	-11.6	-0.11	-0.38	-63.6	-0.33	-0.17	-0.11	0.02
C-1R3-- L	99	98	97	-22.9	-18.8	-1.6	-1.1	-29.4	-0.33	-0.98	-82.8	-0.97	-0.34	-0.06	0.02
I-1R3-- A	394	395	396	1.9	2.8	2.1	2.8	1.2	0.10	0.07	49.9	0.08	0.09	0.02	0.01
I-1R3-- B	397	398	399	1.6	5.4	4.8	5.9	0.7	0.20	0.08	62.8	0.11	0.12	0.05	0.01
I-1R3-- C	400	401	402	2.5	6.5	7.9	8.2	2.2	0.29	0.15	76.9	0.16	0.29	0.03	0.02
I-1R3-- D	403	404	405	2.6	7.5	9.1	9.5	2.2	0.34	0.17	77.0	0.18	0.33	0.04	0.01
I-1R3-- E	406	407	408	5.3	8.2	5.5	8.2	2.6	0.30	0.17	46.2	0.23	0.23	0.06	0.01
I-1R3-- F	409	410	411	6.8	5.8	2.3	7.1	2.0	0.26	0.14	-39.7	0.22	0.17	-0.05	0.02
I-1R3-- G	412	413	414	8.0	4.1	2.1	8.1	2.0	0.29	0.15	81.4	0.15	0.28	0.02	0.02
I-1R3-- H	415	416	417	6.7	1.3	0.7	7.5	-0.2	0.25	0.02	70.6	0.09	0.23	0.06	0.01
I-1R3-- J	418	419	420	4.7	-2.5	-4.4	5.4	-5.1	0.13	-0.12	75.0	-0.10	0.11	0.06	0.01
I-1R3-- K	421	422	423	1.7	-4.9	-11.6	1.7	-11.6	-0.06	-0.37	-89.5	-0.37	-0.06	-0.00	0.02
I-1R3-- L	424	425	426	-1.5	-7.6	-10.8	-1.3	-11.0	-0.15	-0.38	81.3	-0.37	-0.16	0.03	0.03
U-1R4-- A	102	101	100	-3.8	0.5	1.9	2.3	-4.2	0.03	-0.12	-13.5	0.03	-0.11	-0.03	0.01
U-1R4-- B	103	104	103	-4.4	0.3	0.5	1.3	-5.3	-0.01	-0.16	-21.4	-0.03	-0.14	-0.05	0.02
U-1R4-- C	108	107	106	-4.4	0.2	0.4	1.4	-5.5	-0.01	-0.17	-23.3	-0.03	-0.14	-0.06	0.01
U-1R4-- D	111	110	109	-4.7	-0.7	-0.6	0.2	-5.5	-0.05	-0.18	-22.2	-0.07	-0.16	-0.05	0.01
U-1R4-- E	114	113	112	-6.1	-2.9	-1.8	-1.6	-6.4	-0.11	-0.23	32.2	-0.15	-0.19	0.05	0.01
U-1R4-- F	117	116	115	-5.6	-4.7	-3.2	-3.2	-5.6	-0.16	-0.22	-83.8	-0.22	-0.16	-0.01	0.03
U-1R4-- G	120	119	118	-4.6	-2.7	-4.3	-2.7	-6.2	-0.15	-0.23	47.6	-0.17	-0.19	0.04	0.03
U-1R4-- H	123	122	121	-5.4	-4.0	-4.9	-4.0	-6.3	-0.19	-0.25	51.6	-0.23	-0.21	0.03	0.02
U-1R4-- J	126	125	124	-8.2	-5.0	-3.0	-2.9	-8.3	-0.18	-0.39	83.5	-0.30	-0.12	0.01	0.02
I-1R4-- A	427	428	429	4.2	3.0	3.6	4.9	2.9	0.19	0.14	-35.5	0.17	0.16	-0.02	0.01
I-1R4-- B	430	431	432	3.5	4.1	6.7	7.0	3.3	0.26	0.18	-74.0	0.18	0.26	-0.02	0.03
I-1R4-- C	433	434	435	1.3	5.3	10.5	10.6	1.3	0.36	0.15	-86.3	0.15	0.36	-0.01	0.02
I-1R4-- D	436	437	438	1.0	4.9	10.2	10.2	1.0	0.35	0.13	-95.0	0.13	0.35	-0.02	0.01
I-1R4-- E	439	440	441	3.6	8.5	7.4	9.0	2.1	0.32	0.16	16.5	0.30	0.17	0.04	0.01
I-1R4-- F	442	443	444	4.0	5.4	3.4	5.4	2.0	0.20	0.12	-50.1	0.15	0.17	-0.04	0.02
I-1R4-- G	445	446	447	-0.7	1.5	2.9	2.9	-0.7	0.09	0.00	-6.5	0.09	0.01	-0.01	0.01
I-1R4-- H	448	449	450	-3.5	-1.1	1.3	1.3	-3.5	0.01	-0.10	0.3	0.01	-0.10	0.00	0.01
I-1R4-- J	451	452*	453*	-4.4	-2.2	-1.9	-1.6	-4.8	-0.10	-0.17	-19.0	-0.11	-0.17	-0.02	0.03
U-1R5-- A	129	128	127	0.8	3.2	0.0	3.2	-2.4	0.08	-0.05	-48.6	0.01	0.03	-0.07	0.01
U-1R5-- B	132	131	130	0.2	1.4	0.1	1.4	-1.2	0.04	-0.02	-45.8	0.01	0.01	-0.03	0.01
U-1R5-- C	135	134	133	0.2	0.7	-0.2	0.7	-0.7	0.02	-0.02	-53.2	-0.01	0.00	-0.02	0.00
U-1R5-- D	138	137	136	-0.3	-0.9	0.4	1.0	-1.0	0.02	-0.02	35.2	0.01	-0.01	0.02	0.01
U-1R5-- E	141**	140	139	0.0	-2.9	0.2	3.1	-2.9	0.07	-0.07	-45.8	0.00	0.01	-0.07	0.01
U-1R5-- F	144	143	142	0.4	5.2	0.1	5.2	-4.7	0.13	-0.19	44.1	0.01	0.01	0.11	0.01
U-1R5-- G	147	146	145	1.7	5.7	0.4	5.8	-3.7	0.15	-0.06	41.0	0.06	0.03	0.11	0.02
U-1R5-- H	150	149	148	1.1	5.3	1.1	5.3	-3.2	0.14	-0.05	44.9	0.05	0.05	0.10	0.01
U-1R5-- J	153	152	151	0.3	5.1	1.0	5.2	-3.1	0.14	-0.05	50.3	0.03	0.06	0.09	0.01
I-1R5-- A	454	455	456	-0.4	-1.0	0.4	1.0	-1.1	0.02	-0.02	-55.2	-0.01	0.01	-0.02	0.01
I-1R5-- B	457	458	459	-0.6	-2.2	-0.2	1.4	-2.2	0.03	-0.06	-48.7	-0.02	-0.01	-0.04	0.01
I-1R5-- C	460	461	462	-0.1	-3.1	-0.7	2.4	-3.2	0.05	-0.08	-42.0	-0.01	-0.02	-0.06	0.01
I-1R5-- D	463	464	465	-0.2	-4.5	-0.0	4.2	-4.5	0.10	-0.11	-45.5	-0.01	-0.00	-0.10	0.01
I-1R5-- E	466	467	468	-1.3	-4.6	-1.3	2.0	-4.6	0.02	-0.13	44.7	-0.05	-0.06	0.08	0.01
I-1R5-- F	469	470	471	-0.2	2.1	-1.3	2.2	-3.7	0.04	-0.10	-50.2	-0.04	-0.02	-0.07	0.01
I-1R5-- G	472	473	474	-0.1	1.3	-0.1	1.3	-1.5	0.03	-0.04	-45.4	-0.00	-0.00	-0.03	0.01
I-1R5-- H	475	476	477*	0.1	2.2	2.1	2.6	-0.4	0.08	0.01	-24.4	0.07	0.02	-0.03	0.03
I-1R5-- J	478	479	480	0.3	-0.4	-0.1	0.6	-0.4	0.02	-0.01	57.1	-0.00	0.01	0.01	0.01
U-2R1-- A	164	167	166	-10.8	-1.1	5.7	5.8	-11.0	0.08	-0.30	-5.2	0.08	-0.30	-0.03	0.01
U-2R1-- B	171	170	169	-10.3	-6.5	2.8	2.8	-16.3	-0.07	-0.51	-0.8	-0.07	-0.51	-0.01	0.03
U-2R1-- C	174	173	172	-17.8	-15.1	-4.9	-3.8	-18.9	-0.31	-0.66	15.1	-0.34	-0.64	0.09	0.02
U-2R1-- D	177	176	175	-8.7	-19.5	-11.8	-0.9	-19.6	-0.22	-0.66	49.8	-0.48	-0.40	0.21	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
O-2R1-E	180	179	178	3.7	-11.1	-11.1	6.9	-12.3	0.09	-0.40	67.1	-0.33	0.01	0.18	0.02
O-2K1-F	181	182	181	9.8	-5.3	-10.4	11.0	-11.6	0.25	-0.27	-58.3	-0.13	0.10	-0.23	0.01
O-2R1-G	186	185	184	15.4	-5.6	-11.1	17.5	-13.2	0.45	-0.26	-15.0	0.40	-0.21	-0.18	0.02
U-2R1-H	189	188	187	27.8	0.2	-10.9	29.5	-12.6	0.85	-0.12	-11.6	0.81	-0.08	-0.19	0.03
O-2R1-J	191	191	190	30.3	4.6	-10.0	31.1	-10.8	0.92	-0.05	-7.7	0.90	-0.03	-0.13	0.02
O-2K1-K	195	194	195	29.1	11.2	-9.6	29.2	-9.7	0.87	-0.03	2.1	0.87	-0.03	0.03	0.03
O-2K1-L	198	197	196	62.1	27.2	-8.0	61.1	-6.0	1.95	0.41	-0.3	1.95	0.41	-0.01	0.04
I-2K1-A	493	494	495	3.5	5.0	8.8	9.0	3.3	0.33	0.20	-78.7	0.20	0.32	-0.03	0.02
I-2R1-B	496	497	498	3.6	9.9	18.8	18.9	3.2	0.66	0.20	-85.2	0.30	0.66	-0.03	0.02
I-2R1-C	499	500	501	4.6	17.6	32.9	32.9	4.5	1.13	0.47	-87.8	0.48	1.13	-0.02	0.03
I-2R1-D	502	503	504	-2.2	22.9	45.5	45.5	-2.2	1.48	0.38	88.5	0.38	1.48	0.03	0.03
I-2K1-E	505	506	507	-9.3	18.5	36.9	37.4	-9.8	1.13	0.05	84.2	0.06	1.12	0.11	0.03
I-2R1-F	508	509	510	-11.8	13.1	30.6	30.9	-12.1	0.90	-0.09	40.0	0.44	0.32	0.44	0.02
I-2R1-G	511	512	513	-8.0	19.9	27.2	30.0	-10.8	0.88	-0.06	-15.1	0.82	0.00	-0.24	0.02
I-2R1-H	514	515	516	-0.2	18.7	19.5	23.0	-3.8	0.72	0.10	-21.4	0.64	0.19	-0.21	0.03
I-2R1-J	517	518	519	1.7	14.0	18.4	19.3	0.8	0.64	0.22	-12.7	0.62	0.24	-0.09	0.02
I-2R1-K	520	521	522	-5.9	9.3	27.8	27.9	-6.0	0.86	0.08	2.7	0.86	0.08	0.04	0.02
I-2R1-L	523	524	525	-6.4	9.4	29.5	29.6	-8.4	0.89	0.01	1.8	0.89	0.02	0.03	0.03
O-2R2-A	201	200	199	3.4	7.6	4.1	7.6	0.0	0.22	0.08	-42.3	0.17	0.15	-0.09	0.02
O-2R2-B	204	203	202	5.3	9.3	4.4	9.3	0.5	0.31	0.11	-47.8	0.20	0.22	-0.10	0.03
O-2R2-C	207	206*	205	7.5	6.1	7.0	8.5	8.1	0.34	0.28	51.4	0.31	0.32	0.03	0.03
O-2R2-D	210*	209	208	10.2	0.7	3.7	14.0	-0.1	0.46	0.13	58.8	0.22	0.37	0.14	0.03
O-2R2-E	213	212	211	25.8	-3.2	-0.6	33.2	-8.0	1.02	0.04	64.9	0.24	0.85	0.37	0.02
O-2R2-F	216	215	214	31.2	-2.4	-3.7	37.5	-10.0	1.14	0.04	-66.5	0.22	0.95	-0.40	0.02
O-2R2-G	219	218	217	37.4	6.4	-2.4	40.3	-5.3	1.28	0.22	-14.6	1.21	0.29	-0.26	0.02
O-2R2-H	222	221	220	37.9	18.1	-0.1	37.9	-0.1	1.25	0.37	-1.3	1.25	0.37	-0.02	0.03
O-2R2-J	225	224	223	33.3	-22.0	1.5	34.0	0.9	1.13	0.36	8.0	1.11	0.38	0.11	0.03
O-2R2-K	228	227	226	26.3	-20.3	1.2	27.9	-0.4	0.92	0.26	13.8	0.88	0.30	0.15	0.04
O-2R2-L	231	230	229	54.9	-31.9	0.4	55.3	0.1	1.82	0.55	4.4	1.82	0.56	0.10	0.04
I-2R2-A	526	527	528	0.7	-5.9	-4.3	3.1	-6.6	0.04	-0.19	-29.3	-0.02	-0.13	-0.10	0.02
I-2R2-B	529	530	531	0.5	-8.2	-7.7	2.9	-10.0	-0.00	-0.30	-25.1	-0.06	-0.25	-0.11	0.01
I-2R2-C	532	533	534	-1.3	-9.6	-10.5	-0.0	-11.8	-0.12	-0.39	-19.2	-0.15	-0.36	-0.08	0.03
I-2R2-D	535	536	537	-1.1	-8.2	-9.5	-0.3	-10.4	-0.11	-0.35	-17.0	-0.13	-0.32	-0.07	0.01
I-2R2-E	538	539	540	-0.0	-0.4	5.5	5.5	-6.0	0.12	-0.14	-69.1	-0.14	0.12	-0.00	0.01
I-2R2-F	541	542	543	-7.3	4.5	11.7	12.0	-7.6	0.32	-0.13	38.2	0.15	0.04	0.22	0.01
I-2R2-G	544	545	546	-10.0	-0.6	6.4	6.5	-10.1	0.11	-0.27	-4.2	0.11	-0.27	-0.03	0.01
I-2R2-H	547	548	549	-13.8	-2.3	7.0	7.0	-13.8	0.09	-0.39	-3.1	0.09	-0.39	-0.03	0.02
I-2R2-J	550	551	552	-14.1	-1.5	10.1	10.1	-14.2	0.19	-0.37	-1.3	0.19	-0.37	-0.01	0.02
I-2R2-K	553	554	555	-13.2	5.5	24.1	24.1	-13.2	0.66	-0.20	-0.0	0.66	-0.20	-0.00	0.03
I-2R2-L	556	557	558	-10.4	5.2	21.8	21.8	-10.4	0.62	-0.13	0.9	0.62	-0.13	0.01	0.02
O-2R3-A	234	233	232	12.6	7.9	-1.7	13.0	-2.2	0.41	0.06	-80.3	0.07	0.40	-0.06	0.02
O-2R3-B	237	236	235	15.7	9.3	0.5	15.8	0.4	0.52	0.17	-85.4	0.17	0.52	-0.03	0.01
O-2R3-C	240	239	238	12.2	8.7	3.2	15.3	3.2	0.53	0.26	87.6	0.26	0.53	0.01	0.01
O-2K3-D	243	242	241	15.6	5.4	2.3	16.5	1.4	0.56	0.21	76.0	0.23	0.54	0.08	0.02
O-2K3-E	246	245*	244	20.6	9.5	1.7	20.7	1.5	0.70	0.26	85.1	0.26	0.69	0.04	0.04
O-2R3-F	249	248	247*	23.2	10.6	5.9	24.1	5.1	0.84	0.41	-57.3	0.53	0.72	-0.20	0.11
O-2R3-G	252	251	250	22.5	16.8	5.4	22.9	4.9	0.80	0.39	9.3	0.79	0.40	0.07	0.04
O-2F3-H	255	254	253	17.8	17.7	6.1	20.1	3.7	0.70	0.32	22.2	0.65	0.38	0.13	0.03
O-2K3-J	258	257	256	15.4	15.2	7.7	16.9	6.2	0.62	0.37	22.0	0.58	0.40	0.09	0.03
O-2K3-K	261	260	259*	11.6	13.7	9.3	13.9	6.9	0.53	0.37	35.3	0.47	0.42	0.08	0.03
O-2R3-L	264	263	262	22.0	16.3	3.8	22.6	3.2	0.78	0.33	10.2	0.76	0.34	0.08	0.02
I-2R3-A	559	560	561	-8.7	-7.6	-11.2	-7.3	-12.7	-0.37	-0.49	31.4	-0.40	-0.46	0.06	0.02
I-2R3-B	562	563	564	-6.2	-10.9	-16.1	-8.0	-16.2	-0.43	-0.62	8.6	-0.43	-0.61	0.03	0.04
I-2R3-C	565	566	567	-10.2	-16.6	-22.2	-10.1	-22.2	-0.55	-0.83	-1.9	-0.55	-0.83	-0.01	0.02
I-2R3-D	568	569	570**	-7.5	-25.2	0.0	18.0	-22.5	0.34	-0.66	-50.0	-0.25	-0.07	-0.49	0.02
I-2R3-E	571	572**	573**	-10.2	0.0	0.0	2.1	-12.3	-0.05	-0.38	67.5	-0.34	-0.10	0.12	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CWF
I-2R3-F	272	575	576	-15.0	-24.6	-19.5	-9.4	-25.1	-0.56	-0.92	-81.6	-0.91	-0.57	-0.05	0.02
I-2R3-G	577	578	579	-18.4	-20.1	-12.6	-10.1	-20.9	-0.54	-0.79	28.9	-0.60	-0.73	0.11	0.04
I-2R3-H	580	581	582	-16.1	-14.3	-7.1	-6.4	-16.8	-0.38	-0.62	15.3	-0.39	-0.60	0.06	0.02
I-2R3-J	583	584	585	-8.0	-4.0	-2.4	-2.1	-8.3	-0.15	-0.29	-11.9	-0.16	-0.29	-0.03	0.03
I-2R3-K	586	587	588	-1.5	0.5	4.6	4.8	-1.7	0.14	-0.01	9.4	0.14	-0.00	0.02	0.02
I-2R3-L	589	590	591	1.4	2.6	8.0	8.5	0.8	0.29	0.11	16.0	0.28	0.11	0.05	0.01
U-2R4-A	267	266	265	7.2	-0.2	-4.2	7.4	-4.4	0.20	-0.07	61.8	-0.07	0.19	0.04	0.02
U-2R4-B	270	269	268	7.9	1.4	-0.1	8.6	-0.9	0.28	0.06	74.0	0.07	0.26	0.06	0.02
U-2R4-C	273	272	271	6.0	2.3	0.6	6.2	0.2	0.21	0.08	79.7	0.08	0.20	0.02	0.02
U-2R4-D	276	275	274	4.3	3.7	4.1	4.7	3.7	0.19	0.17	51.3	0.18	0.18	0.01	0.02
U-2R4-E	279	278	277	1.9	3.4	7.9	8.2	1.5	0.29	0.13	57.9	0.18	0.24	0.07	0.02
U-2R4-F	282	281	280	3.0	-1.4	7.2	11.9	-1.7	0.38	0.06	-54.1	0.17	0.27	-0.15	0.01
U-2R4-G	285	284	283	2.2	-2.5	9.4	12.9	-3.3	0.46	0.04	-56.6	0.17	0.33	-0.19	0.01
U-2R4-H	288	287	286	2.4	-3.5	8.1	14.4	-4.0	0.44	0.01	-54.1	0.16	0.29	-0.20	0.02
U-2R4-J	291	290	289	0.3	-6.3	5.5	12.5	-6.7	0.35	-0.10	-52.8	0.07	0.18	-0.21	0.01
I-2R4-A	592*	593	594	-7.6	-5.7	-4.0	-4.0	-7.6	-0.21	-0.29	88.2	-0.29	-0.21	0.00	0.04
I-2R4-B	595	596	597	-9.2	-8.0	-9.3	-8.0	-10.6	-0.37	-0.43	44.5	-0.40	-0.40	0.03	0.03
I-2R4-C	598	599	600	-5.6	-13.8	-17.2	-3.1	-17.7	-0.34	-0.63	-11.4	-0.35	-0.62	-0.06	0.03
I-2R4-D	601	602	603	-4.9	-13.5	-19.9	-4.8	-20.0	-0.26	-0.71	-4.2	-0.36	-0.71	-0.03	0.03
I-2R4-E	604	605	606	-10.0	-18.1	-14.7	-6.1	-18.6	-0.39	-0.67	-76.7	-0.66	-0.40	-0.05	0.02
I-2R4-F	607	608	609	-8.4	-12.2	-8.4	-4.6	-12.2	-0.27	-0.45	45.3	-0.36	-0.36	0.09	0.02
I-2R4-G	610	611	612	0.1	-5.2	-9.5	0.1	-9.5	-0.09	-0.31	87.2	-0.31	-0.09	0.01	0.01
I-2R4-H	613	614	615**	5.9	-3.5	0.0	10.0	-5.1	0.29	-0.04	57.4	0.08	0.20	0.15	0.01
I-2R4-J	616	617	618**	7.2	-0.8	0.0	9.3	-2.1	0.29	0.02	64.8	0.07	0.24	0.10	0.01
U-2R5-A	294	293	292	-1.1	-4.8	-1.0	2.7	-4.8	0.04	-0.13	54.6	-0.04	-0.05	0.09	0.02
U-2R5-B	297	296	295	-0.2	-3.6	-1.0	2.5	-3.6	0.05	-0.10	48.9	-0.03	-0.02	0.07	0.01
U-2R5-C	300	299	298	-0.7	0.6	-1.2	0.6	-2.5	-0.01	-0.08	-50.2	-0.05	-0.03	-0.05	0.01
U-2R5-D	303	302	301	-0.2	5.3	-0.4	5.3	-5.9	0.12	-0.14	-45.5	-0.01	-0.01	-0.13	0.01
U-2R5-E	306	305	304	-1.6	11.1	2.0	11.2	-10.8	0.26	-0.24	59.7	-0.03	0.05	0.25	0.01
U-2R5-F	309	308	307	-2.7	-16.3	0.3	14.0	-16.4	0.30	-0.40	-47.8	-0.09	-0.02	-0.35	0.02
U-2R5-G	312	311	310	-0.4	-17.3	-2.1	14.9	-17.3	0.32	-0.42	-43.5	-0.03	-0.07	-0.37	0.01
U-2R5-H	315	314	313	0.2	-20.5	-2.1	19.6	-20.6	0.41	-0.50	-43.3	-0.02	-0.07	-0.45	0.01
U-2R5-J	318	317	316*	1.4	-17.3	4.1	22.8	-17.3	0.58	-0.35	-47.0	0.09	0.15	-0.46	0.03
I-2R5-A	619	620**	621	0.8	0.0	0.6	1.4	-0.0	0.05	0.01	-40.6	0.03	0.03	-0.02	0.04
I-2R5-B	622	623	624**	0.9	1.2	0.0	1.3	-0.5	0.04	-0.00	30.7	0.03	0.01	0.02	0.01
I-2R5-C	625	626	627	0.6	2.0	2.7	2.7	0.5	0.10	0.04	79.5	0.05	0.09	0.01	0.01
I-2R5-D	628	629	630	1.0	3.9	2.5	4.0	-0.5	0.13	0.02	54.7	0.06	0.09	0.05	0.02
I-2R5-E	631	632	633	1.7	3.7	0.5	3.8	-1.5	0.11	-0.01	-51.8	0.03	0.06	-0.06	0.02
I-2R5-F	634	635	636	0.1	-1.5	0.4	2.0	-1.5	0.05	-0.03	42.8	0.01	0.01	0.04	0.01
I-2R5-G	637	638	639	-0.9	-2.6	0.7	2.6	-2.7	0.06	-0.07	36.0	0.02	-0.02	0.06	0.01
I-2R5-H	640	641	642	-1.3	-4.1	0.6	3.5	-4.3	0.07	-0.11	38.2	0.01	-0.04	0.09	0.01
I-2R5-J	643**	644	645	0.0	-6.3	0.4	6.7	-6.3	0.16	-0.16	44.1	0.01	0.00	0.15	0.01
U-1R6-A	154	155	154	-17.2	-5.5	8.2	8.2	-17.2	0.10	-0.42	2.3	0.10	-0.42	0.02	0.02
U-1R6-B	159	158	157	-16.7	-5.0	6.2	6.2	-16.7	0.04	-0.49	-0.6	0.04	-0.49	-0.01	0.02
U-1R6-C	162	161	160	-10.0	-2.4	3.9	4.0	-10.0	0.03	-0.28	-2.4	0.03	-0.29	-0.01	0.01
U-1R6-D	165	164	163	-0.1	2.4	0.9	2.5	-1.7	0.07	-0.03	-38.1	0.03	0.01	-0.05	0.01
I-1R6-A	481	482	483	10.7	-4.4	-20.7	10.7	-20.7	0.15	-0.58	1.1	0.15	-0.57	0.01	0.02
I-1R6-B	484	485	486	5.9	-3.0	-13.1	5.9	-13.2	0.07	-0.38	1.9	0.06	-0.37	0.01	0.02
I-1R6-C	487	488	489	2.3	-3.1	-7.5	2.3	-7.5	0.00	-0.22	-2.9	0.00	-0.22	-0.01	0.01
I-1R6-D	491	491	492**	-0.2	0.8	0.0	0.8	-1.0	0.02	-0.02	47.9	-0.01	-0.00	0.02	0.01
U-2R6-A	321	320	319	16.0	1.7	-7.9	16.2	-8.2	0.45	-0.11	84.5	-0.10	0.45	0.05	0.02
U-2R6-B	324	323	322	15.4	5.3	-6.9	15.4	-7.0	0.44	-0.08	-87.2	-0.08	0.44	-0.03	0.01
U-2R6-C	327	326	325	8.7	4.5	-3.7	9.0	-4.0	0.26	-0.04	-81.3	-0.04	0.25	-0.05	0.01
I-2R6-A	646	647	648	-9.4	10.6	20.8	21.6	-10.2	0.61	-0.12	81.1	-0.11	0.54	0.11	0.02
I-2R6-B	649	650	651	-5.0	7.4	14.5	14.8	-5.3	0.44	-0.03	82.6	-0.02	0.43	0.06	0.01
I-2R6-C	652	653	654	-2.5	4.2	7.4	7.7	-2.8	0.23	-0.02	80.2	-0.01	0.22	0.04	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-1R7- A	655	656	657	-0.5	4.1	-2.3	4.2	-6.9	0.07	-0.19	40.3	-0.04	-0.08	0.13	0.01
I-1R7- B	658	659	660	-1.7	-4.8	-17.0	-0.4	-18.2	-0.19	-0.61	15.4	-0.22	-0.58	0.11	0.02
I-2R7- A	661	662	663	1.5	12.9	12.0	14.9	-1.3	0.58	0.18	65.3	0.17	0.41	0.14	0.01
EX- C- A	670	671	672	-0.4	-0.1	-1.3	-0.0	-1.8	-0.02	-0.06	-60.3	-0.05	-0.03	-0.02	0.01
EX- C- B	675	674	673	-0.5	-0.3	-0.5	-0.3	-0.7	-0.02	-0.02	-41.8	-0.02	-0.02	-0.00	0.01
EX- C- C	678	677	676	1.0	1.5	1.4	1.6	0.9	0.06	0.04	-29.0	0.06	0.05	-0.01	0.01
EX- C- D	669	668	667	-0.8	-2.0	-0.3	1.0	-2.0	0.01	-0.06	40.0	-0.02	-0.03	0.03	0.01
EX- B- A	667	666*	665	-27.5	-12.8	4.8	4.9	-27.5	-0.11	-0.86	-87.4	-0.86	-0.11	-0.03	0.04
EX- B- B	690	639	688	-0.1	3.6	-0.2	3.6	-3.8	0.08	-0.09	44.7	-0.01	-0.01	0.09	0.01
EX- B- C	681	680	679	28.2	10.4	-7.2	28.2	-7.2	0.86	0.04	-0.2	0.86	0.04	-0.00	0.03
EX- B- U	684	683	682	-0.6	-4.4	0.5	4.4	-4.4	0.10	-0.10	-48.9	-0.02	0.01	-0.10	0.02
EX- A- A	696	695	694	-39.5	-13.2	8.2	8.3	-39.7	-0.12	-1.23	87.0	-1.22	-0.12	0.06	0.04
EX- A- B	693	692	691	0.7	-3.2	1.0	4.9	-3.2	0.13	-0.06	-45.9	0.03	0.04	-0.09	0.01
EX- A- C	666	665	664	41.8	16.8	-11.1	41.8	-11.1	1.27	0.05	1.6	1.27	0.05	0.03	0.06
EX- A- D	659	698	697	-0.5	1.3	-0.1	1.3	-1.9	0.02	-0.05	48.8	-0.02	-0.01	0.04	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

COMBUSTION T-10, LOAD CASE 13, (P)

NOMINAL LOAD = 5.725E 01

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CDNE
O-1R1-A	3	2	1	44.8	21.4	2.3	44.9	2.2	1.50	0.52	87.1	0.52	1.50	0.05	0.03
O-1R1-B	6	5	4	45.2	24.7	-0.7	45.4	-0.9	1.49	0.42	-86.9	0.42	1.48	-0.06	0.03
O-1R1-C	7	6	7	38.0	30.2	16.4	38.4	16.0	1.43	0.91	-82.6	0.92	1.42	-0.07	0.02
O-1R1-D	12	11	10	24.3	34.4	44.8	44.8	24.3	1.72	1.25	0.4	1.72	1.25	0.00	0.03
O-1R1-E	15	14	13	18.1	31.5	44.1	44.1	18.1	1.63	1.03	-0.9	1.63	1.03	-0.01	0.02
O-1R1-F	16	17	16	13.2	22.5	30.5	30.5	13.2	1.14	0.74	43.0	0.95	0.92	0.20	0.03
O-1R1-G	21	20	19	17.3	25.9	28.9	29.5	16.7	1.15	0.84	76.9	0.86	1.12	0.07	0.02
O-1R1-H	24	23	22	17.3	33.6	27.8	34.8	10.4	1.25	0.69	57.8	0.85	1.04	0.25	0.02
O-1R1-I	27	26	25	4.4	32.9	32.7	38.7	-1.6	1.20	0.32	67.3	0.47	1.12	0.33	0.05
O-1R1-K	30	29	28	-4.9	26.7	34.0	37.5	-8.4	1.15	0.09	74.0	0.17	1.07	0.28	0.02
O-1R1-L	33	32	31	5.7	28.2	35.3	37.1	3.8	1.26	0.49	76.2	0.54	1.22	0.18	0.02
I-1R1-A	328	329	330	-5.7	-1.6	1.7	1.7	-5.7	-0.00	-0.17	86.6	-0.17	-0.00	0.01	0.01
I-1R1-B	331	332	333	6.5	-3.6	-12.2	6.6	-12.3	0.10	-0.34	-3.1	0.09	-0.34	-0.02	0.01
I-1R1-C	334	335	336	2.6	-5.3	-9.9	2.8	-10.1	-0.01	-0.31	-7.1	-0.01	-0.30	-0.04	0.03
I-1R1-D	337	338	339	-4.1	-4.3	-1.9	-1.3	-4.7	-0.09	-0.17	-65.8	-0.15	-0.10	-0.03	0.02
I-1R1-E	340	341	342	-1.0	-0.2	2.7	3.0	-1.2	0.09	-0.01	-75.4	-0.00	0.08	-0.02	0.03
I-1R1-F	343	344	345	9.7	6.4	5.1	9.9	4.9	0.37	0.26	-56.2	0.29	0.34	-0.05	0.02
I-1R1-G	346	347	348	9.8	0.1	2.9	13.4	-0.8	0.43	0.11	59.6	0.14	0.35	0.14	0.02
I-1R1-H	349	350	351	-0.9	-12.5	3.5	15.3	-12.7	0.38	-0.27	40.5	0.11	0.01	0.32	0.02
I-1R1-I	352	353	354	-4.3	-13.1	3.7	13.1	-13.7	0.30	-0.32	36.4	0.08	-0.10	0.30	0.01
I-1R1-K	355	356	357	-3.3	-6.4	8.0	12.7	-6.1	0.34	-0.14	28.5	0.23	-0.03	0.20	0.02
I-1R1-L	358**	359**	360**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.0	0.0	0.0	0.0	0.0
O-1R2-A	36	35	34	32.6	11.6	-4.0	32.8	-4.2	1.04	0.19	85.8	0.19	1.03	0.06	0.02
O-1R2-B	37	28	37	33.2	14.4	-10.7	33.4	-11.0	0.99	-0.03	-85.9	-0.03	0.99	-0.07	0.03
O-1R2-C	42	41*	40	35.4	30.8	-6.7	30.9	-12.4	1.23	-0.00	-70.9	0.13	1.09	-0.38	0.02
O-1R2-D	43	44	43	35.0	40.1	6.1	45.1	-3.4	1.45	0.33	-63.7	0.55	1.23	-0.44	0.03
O-1R2-E	48	47	46	29.8	46.8	26.2	46.9	9.1	1.64	0.76	-47.8	1.16	1.24	-0.43	0.02
O-1R2-F	51	50	49	23.1	47.9	30.3	49.0	10.4	1.72	0.83	9.9	1.69	0.85	0.15	0.02
O-1R2-G	53	53	52	13.8	45.8	35.0	48.3	0.6	1.60	0.50	58.2	0.80	1.29	0.49	0.02
O-1R2-H	57	56	55	-3.3	35.2	33.0	42.1	-12.4	1.27	0.01	65.9	0.22	1.06	0.47	0.02
O-1R2-I	60	59	58	-14.0	21.9	31.9	32.3	-17.4	0.99	-0.22	75.3	-0.15	0.91	0.30	0.02
O-1R2-K	63	62	61	-17.3	13.1	31.6	32.3	-18.0	0.69	-0.27	83.2	-0.26	0.87	0.14	0.02
O-1R2-L	66	62	64	-10.2	15.8	31.0	31.6	-11.1	0.94	-0.05	82.6	-0.03	0.92	0.13	0.03
I-1R2-A	362	362	363	-2.8	13.6	17.6	19.3	-4.5	0.59	0.04	74.4	0.08	0.55	0.14	0.02
I-1R2-B	364	365	366	4.4	12.9	12.7	14.6	2.5	0.50	0.23	66.9	0.27	0.46	0.10	0.02
I-1R2-C	367	368	369	1.9	12.0	9.7	13.2	-1.6	0.42	0.08	61.0	0.16	0.34	0.14	0.02
I-1R2-D	370	371	372	-1.0	5.6	1.2	6.5	-12.3	0.09	-0.36	57.8	-0.22	-0.03	0.20	0.02
I-1R2-E	373	374	375	-16.1	-10.5	-8.8	-8.4	-16.6	-0.44	-0.63	76.0	-0.62	-0.45	0.04	0.04
I-1R2-F	376	377	378	-17.8	-16.2	-9.1	-8.2	-18.7	-0.43	-0.70	62.7	-0.65	-0.51	0.10	0.03
I-1R2-G	379	380	381	-15.4	-10.9	-5.2	-5.2	-15.4	-0.32	-0.56	3.6	-0.32	-0.56	0.01	0.02
I-1R2-H	382	383	384	-4.6	0.4	2.0	2.4	-5.3	0.03	-0.15	-14.1	0.02	-0.14	-0.04	0.01
I-1R2-I	385	386**	387	5.5	0.0	5.3	10.8	-0.0	0.36	0.11	45.5	0.23	0.23	0.12	0.02
I-1R2-K	388	389	390	14.4	6.3	3.2	14.9	2.7	0.52	0.24	78.2	0.25	0.51	0.06	0.02
I-1R2-L	391	392	393	28.2	10.5	-5.2	28.3	-5.2	0.88	0.11	88.2	0.11	0.88	0.02	0.03
O-1R3-A	69	68	67	17.5	2.2	-7.0	17.9	-7.4	0.52	-0.07	83.0	-0.06	0.51	0.07	0.02
O-1R3-B	72	71	70	17.3	1.5	-13.0	17.3	-13.0	0.44	-0.26	88.8	-0.26	0.44	0.01	0.02
O-1R3-C	75	74	73	20.5	8.5	-14.6	21.3	-15.4	0.55	-0.30	-81.1	-0.28	0.53	-0.13	0.02
O-1R3-D	78	77	76	18.7	18.2	-6.0	23.5	-10.8	0.67	-0.12	-68.1	-0.01	0.56	-0.27	0.02
O-1R3-E	81	80	79	15.0	23.5	0.4	25.1	-9.8	0.73	-0.07	-57.4	0.16	0.50	-0.37	0.02
O-1R3-F	84	83	82	5.9	26.9	9.5	27.0	-11.6	0.78	-0.11	2.6	0.77	-0.11	0.04	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
0-1R3-G	87	86	85	-7.6	20.5	21.0	26.6	-13.2	0.75	-0.17	88.0	-0.04	0.62	0.32	0.02
0-1R3-H	90	89	88	-12.3	12.2	25.7	26.5	-13.0	0.74	-0.17	82.0	-0.15	0.73	0.13	0.02
0-1R3-J	93	92	91	-16.0	5.1	22.5	22.6	-16.1	0.59	-0.31	87.2	-0.31	0.58	0.00	0.02
0-1R3-K	96	95	94	-14.2	0.0	20.8	21.1	-14.5	0.55	-0.27	84.7	-0.26	0.54	-0.07	0.01
0-1R3-L	99	98	97	-10.0	1.5	23.0	23.8	-10.8	0.68	-0.12	81.6	-0.10	0.66	-0.12	0.03
1-1R3-A	394	395	396	8.6	23.9	35.6	35.7	8.5	1.26	0.63	86.2	0.64	1.26	0.04	0.03
1-1R3-B	397	398	399	9.6	25.2	41.5	41.5	9.6	1.46	0.73	89.4	0.73	1.46	-0.01	0.04
1-1R3-C	400	401	402	7.6	35.0	46.9	48.3	6.1	1.65	0.68	79.3	0.71	1.62	0.18	0.03
1-1R3-D	403	404	405	0.5	37.0	47.2	50.7	-3.0	1.64	0.60	75.3	0.48	1.56	0.30	0.02
1-1R3-E	406	407	408	2.7	38.8	36.4	45.1	-6.0	1.43	0.25	65.6	0.45	1.23	0.44	0.02
1-1R3-F	409	410	411	12.9	37.7	19.9	38.0	-5.2	1.20	0.20	67.7	1.19	0.21	0.08	0.03
1-1R3-G	412	413	414	23.5	41.0	13.9	41.5	-4.1	1.33	0.27	51.1	0.69	0.91	-0.51	0.02
1-1R3-H	415	416	417*	38.1	34.1	2.9	42.8	-1.7	1.39	0.37	71.2	0.47	1.28	-0.31	0.02
1-1R3-J	418	419	420	36.4	28.9	7.3	39.6	0.2	1.37	0.60	79.4	0.62	1.34	-0.14	0.02
1-1R3-K	421	422	423	38.2	23.7	7.9	38.2	7.9	1.34	0.65	88.7	0.66	1.34	-0.02	0.02
1-1R3-L	424	425	426	36.4	20.3	8.0	36.5	7.9	1.28	0.62	86.2	0.62	1.28	0.04	0.03
0-1R4-A	102	101	100	15.8	3.8	6.1	15.6	2.3	0.67	0.27	82.0	0.36	0.58	0.17	0.03
0-1R4-B	105	104	103	20.0	4.8	-1.4	20.9	-2.3	0.67	0.13	78.5	0.15	0.65	0.10	0.02
0-1R4-C	106	107	106	25.0	7.2	-3.0	25.5	-3.5	0.81	0.15	82.5	0.15	0.79	0.09	0.01
0-1R4-D	111	110	109	22.6	15.3	-7.4	24.5	-9.3	0.71	-0.06	76.4	-0.02	0.67	-0.18	0.02
0-1R4-E	114	113	112	4.5	25.0	7.1	25.0	-13.4	0.69	-0.20	1.9	0.69	-0.19	0.03	0.01
0-1R4-F	117	116	115	-8.3	9.1	24.9	25.0	-8.4	0.74	-0.03	88.7	-0.03	0.74	0.02	0.01
0-1R4-G	120	119	118	-6.4	2.4	24.1	25.4	-7.7	0.76	-0.00	78.5	0.03	0.73	-0.15	0.04
0-1R4-H	123	122	121	-3.8	1.4	20.7	22.6	-5.7	0.69	0.03	75.1	0.09	0.64	-0.16	0.02
0-1R4-J	126	125	124	15.4	11.3	22.0	26.3	11.1	0.93	0.63	57.9	0.72	0.88	-0.16	0.03
1-1R4-A	427	428	429	26.6	32.4	36.0	36.1	26.5	1.45	1.23	83.4	1.23	1.45	0.03	0.02
1-1R4-B	430	431	432	18.7	32.7	48.7	48.8	18.5	1.79	1.09	86.2	1.10	1.79	0.05	0.03
1-1R4-C	433	434	435	7.7	45.7	61.6	63.8	5.5	2.16	0.81	78.8	0.86	2.11	0.26	0.03
1-1R4-D	436	437	438	8.8	51.1	69.0	71.4	6.4	2.42	0.92	79.0	0.97	2.36	0.28	0.04
1-1R4-E	439	440	441	37.1	70.3	43.9	70.5	10.5	2.43	1.04	3.3	2.42	1.05	0.08	0.05
1-1R4-F	442	443	444	65.5	56.0	10.0	71.0	-4.5	2.38	0.85	-73.3	0.98	2.26	-0.42	0.03
1-1R4-G	445	446	447	56.5	61.6	14.8	61.9	9.5	2.13	0.92	-71.3	1.05	2.01	-0.37	0.03
1-1R4-H	448	449	450	43.3	36.9	20.0	44.4	18.9	1.65	1.06	-77.8	1.09	1.63	-0.12	0.03
1-1R4-J	451	452	453	35.4	26.0	27.0	36.5	25.9	1.46	1.22	71.3	1.24	1.43	0.07	0.04
0-1R5-A	129	128	127	18.1	16.8	17.8	19.0	16.8	0.79	0.74	48.9	0.76	0.77	0.03	0.04
0-1R5-B	132	131	130	19.3	9.9	-0.3	19.3	-0.3	0.63	0.18	-88.8	0.18	0.63	-0.01	0.03
0-1R5-C	135	134	133	23.3	10.3	-2.0	23.4	-2.0	0.72	0.07	-87.8	0.07	0.72	-0.04	0.02
0-1R5-D	138	137	136	22.5	-0.7	-15.0	23.1	-15.5	0.61	-0.28	83.2	-0.27	0.59	0.10	0.02
0-1R5-E	141	140	139	24.1	0.1	-22.2	24.1	-22.2	0.57	-0.49	-1.0	0.57	-0.49	-0.02	0.01
0-1R5-F	144	143	142	-13.6	7.1	23.7	23.8	-13.7	0.65	-0.22	86.9	-0.21	0.65	0.05	0.01
0-1R5-G	147	146	145	-2.6	12.7	26.4	26.6	-2.8	0.82	0.07	86.0	0.08	0.81	0.05	0.02
0-1R5-H	150	149	148	10.8	16.7	27.3	27.6	10.5	1.01	0.62	-82.0	0.63	1.01	-0.05	0.03
0-1R5-J	153	152	151	28.3	28.4	26.6	28.7	26.2	1.21	1.15	24.1	1.20	1.16	0.02	0.03
1-1R5-A	454	455	456*	27.7	34.9	43.9	43.9	27.6	1.72	1.34	-87.1	1.35	1.72	-0.02	0.19
1-1R5-B	457	456	459	30.3	39.5	52.3	52.5	30.1	2.03	1.51	-85.3	1.52	2.02	-0.04	0.03
1-1R5-C	460	461	462	1.1	30.3	71.3	71.8	0.6	2.37	0.73	-85.2	0.74	2.36	-0.14	0.03
1-1R5-D	463	464	465	12.2	46.1	79.2	79.2	12.2	1.73	1.18	89.7	1.18	2.73	0.01	0.03
1-1R5-E	466	467	468	15.9	50.9	81.6	81.7	15.8	2.85	1.33	-1.9	2.85	1.33	-0.05	0.03
1-1R5-F	469	470	471**	76.9	37.1	0.0	76.9	-0.0	2.53	0.76	89.0	0.76	2.53	0.03	0.03
1-1R5-G	472	473	474	69.5	30.8	8.2	70.5	7.2	2.39	0.93	82.6	0.96	2.37	0.19	0.02
1-1R5-H	475	476	477	48.3	38.3	34.4	48.9	33.5	1.95	1.60	78.2	1.61	1.93	0.07	0.04
1-1R5-J	478	479	480	37.7	33.4	33.0	38.5	32.3	1.59	1.44	69.8	1.46	1.57	0.05	0.04
0-2R1-A	168	167	166	50.3	22.9	-2.1	50.3	-2.1	1.64	0.43	88.7	0.43	1.64	0.03	0.03
0-2R1-B	171	170	169	53.0	25.8	-0.1	53.0	-0.1	1.75	0.52	89.4	0.52	1.74	0.01	0.04
0-2R1-C	174	173	172	46.8	32.3	20.9	46.8	20.9	1.75	1.15	88.9	1.15	1.75	0.01	0.02
0-2R1-D	177	176	175	33.5	40.6	43.8	44.2	33.1	1.78	1.53	-10.4	1.78	1.54	-0.05	0.04

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CGNE	
U-2R1-E	180	179	178	20.4	33.6	41.2	41.6	20.0	1.57	1.07	-7.4	1.56	1.08	-0.06	0.02	
O-2R1-F	103	182	181	16.1	24.9	29.9	30.2	15.8	1.15	0.82	37.3	1.03	0.94	0.16	0.01	
O-2R1-G	106	182	181	15.5	25.9	28.3	29.4	14.3	1.11	0.76	74.0	0.79	1.08	0.09	0.03	
O-2R1-H	184	181	187	12.4	32.5	28.3	34.9	5.8	1.21	0.54	61.6	0.69	1.06	0.28	0.03	
O-2R1-J	192	191	190	3.1	30.5	28.6	35.2	-3.5	1.13	0.23	65.5	0.39	0.97	0.34	0.02	
O-2R1-K	195	194	193	-5.7	21.5	32.0	33.8	-7.5	1.04	0.09	78.0	0.13	1.00	0.19	0.02	
O-2R1-L	198	197	196	2.7	22.6	33.8	34.4	2.1	1.15	0.41	62.2	0.42	1.14	0.10	0.02	
I-2R1-A	493	494	495	-5.2	-0.8	4.2	4.2	-5.2	0.09	-0.13	-88.4	-0.13	0.09	-0.01	0.02	
I-2R1-B	496	497	498	2.8	-1.6	-9.1	3.0	-9.3	0.01	-0.28	7.4	0.00	-0.27	0.04	0.01	
I-2R1-C	499	500**	501	-1.3	0.0	-11.4	1.8	-14.5	-0.08	-0.46	25.8	-0.16	-0.39	0.15	0.02	
I-2R1-D	502	502	504	-9.5	-8.3	-10.7	-8.2	-12.0	-0.39	-0.48	25.7	-0.42	-0.45	0.04	0.03	
I-2R1-E	505	506	507	-1.7	-0.4	-0.7	-0.3	-2.1	-0.03	-0.07	61.1	-0.06	-0.04	0.02	0.02	
I-2R1-F	508	509	510	11.8	8.2	2.5	11.9	2.5	0.42	0.20	-39.0	0.33	0.28	-0.11	0.01	
I-2R1-G	511	512	513	10.1	-0.2	2.1	13.6	-1.4	0.44	0.09	61.2	0.17	0.36	0.15	0.02	
I-2R1-H	514	515	516	4.1	-10.1	0.5	14.8	-10.2	0.39	-0.10	49.1	0.06	0.14	0.29	0.01	
I-2R1-J	517	518	519	-3.1	-9.7	6.1	13.6	-10.6	0.34	-0.22	33.9	0.17	-0.04	0.26	0.01	
I-2R1-K	520	521	522	2.7	-2.7	4.9	10.3	-2.8	0.31	0.01	40.1	0.19	0.14	0.15	0.02	
I-2R1-L	523	524	525	18.6	6.8	-7.0	18.6	-7.1	0.54	-0.05	-87.7	-0.05	0.54	-0.02	0.01	
O-2R2-A	201	200	199	34.9	13.0	-3.5	35.1	-3.7	1.12	0.23	86.0	0.23	1.12	0.06	0.02	
O-2R2-B	202	203	202	34.4	16.4	-9.8	34.8	-10.1	1.05	0.01	-84.7	0.02	1.04	-0.09	0.03	
O-2R2-C	207	206	205	35.8	30.0	-5.3	40.5	-10.1	1.24	0.07	-72.1	0.18	1.13	-0.34	0.02	
O-2R2-D	210	209	208	31.0	45.6	10.9	47.6	-5.7	1.51	0.24	-56.1	0.66	1.13	-0.57	0.04	
O-2R2-E	213	212	211	24.9	50.5	31.5	50.8	5.6	1.73	0.69	-40.8	1.28	1.13	-0.52	0.04	
O-2R2-F	216	215	214	19.7	50.5	40.2	52.9	7.0	1.81	0.75	15.2	1.76	0.81	0.24	0.03	
O-2R2-G	219	218	217	8.9	45.7	39.3	50.5	-2.3	1.63	0.42	62.5	0.68	1.38	0.50	0.02	
O-2R2-H	222	221	220	-9.9	33.2	39.9	45.8	-15.9	1.35	-0.07	71.9	0.07	1.22	0.42	0.02	
O-2R2-J	225	224	223	-17.1	21.9	34.5	37.6	-20.2	1.04	-0.25	76.5	-0.22	0.97	0.30	0.02	
O-2R2-K	228	227	226	-18.6	9.9	32.6	32.8	-16.7	0.90	-0.29	86.8	-0.29	0.89	0.07	0.02	
O-2R2-L	231	230	229	-11.1	9.0	31.9	32.0	-11.1	0.94	-0.05	-68.1	-0.05	0.94	-0.03	0.02	
I-2R2-A	526	527	528	-1.4	17.2	21.8	23.7	-3.3	0.75	0.13	74.5	0.17	0.71	0.10	0.02	
I-2R2-B	529	530	531	4.9	10.4	20.2	22.2	2.9	0.76	0.32	71.4	0.36	0.72	0.13	0.01	
I-2R2-L	532	533	534	-0.1	20.3	21.0	24.9	-4.0	0.78	0.12	68.5	0.20	0.69	0.23	0.02	
I-2R2-U	535	536	537	-10.0	9.8	11.4	14.8	-13.3	0.36	-0.29	69.8	-0.22	0.28	0.21	0.04	
I-2R2-E	538	539	540	-14.7	-6.4	-3.9	-3.2	-15.4	-0.26	-0.54	76.0	-0.52	-0.27	0.07	0.03	
I-2R2-F	541	542	543	-16.6	-13.9	-6.7	-6.2	-17.1	-0.37	-0.63	57.2	-0.55	-0.45	0.11	0.03	
I-2R2-G	544	545	546	-14.4	-9.2	-3.5	-3.5	-14.4	-0.26	-0.51	1.3	-0.26	-0.51	0.01	0.03	
I-2R2-H	547	548	549	-3.4	3.4	2.7	4.5	-5.1	0.10	-0.12	-25.1	0.06	-0.08	-0.08	0.01	
I-2R2-J	550	551	552	8.0	5.4	2.6	8.0	2.0	0.29	0.16	-89.4	0.16	0.29	-0.00	0.02	
I-2R2-K	553	554	555	18.3	9.1	2.4	18.3	2.3	0.63	0.26	85.8	0.26	0.63	0.03	0.03	
I-2R2-L	556	557	558	28.3	9.9	-6.2	28.3	-6.2	0.87	0.08	88.1	0.08	0.87	0.03	0.02	
O-2R3-A	234	233	232*	18.9	4.6	0.9	20.9	-1.1	0.68	0.17	72.5	0.22	0.63	0.15	0.04	
O-2R3-B	237	236	235	15.8	0.4	-10.6	16.0	-10.8	0.42	-0.20	85.3	-0.19	0.42	0.05	0.01	
O-2R3-C	240	239	238	16.4	7.6	-12.3	17.5	-13.3	0.44	-0.27	-72.4	-0.24	0.42	-0.13	0.01	
O-2R3-D	243	242	241	17.6	16.7	-5.6	21.8	-9.7	0.62	-0.11	-68.7	-0.01	0.53	-0.25	0.02	
O-2R3-E	246	245	244	8.2	27.1	7.9	27.1	-11.0	0.78	-0.09	-45.2	0.14	0.35	-0.44	0.02	
O-2R3-F	249	248	247	3.6	28.0	14.1	28.7	-11.1	0.84	-0.08	7.7	0.82	-0.08	0.12	0.04	
O-2R3-G	252	251	250	-8.9	17.8	24.9	27.5	-11.0	0.79	-0.11	74.9	-0.05	0.73	0.23	0.01	
O-2R3-H	255	254*	253	-12.1	8.1	28.0	28.0	-12.1	0.80	-0.12	89.8	-0.12	0.80	0.00	0.02	
O-2R3-J	258	257	256	-15.2	4.8	24.5	24.5	-15.2	0.66	-0.26	89.8	-0.26	0.66	0.00	0.02	
O-2R3-K	261	260	259	-12.3	0.0	22.7	23.5	-13.1	0.64	-0.20	-81.7	-0.18	0.63	-0.12	0.02	
O-2R3-L	264	263	262	-2.0	4.3	25.5	27.5	-3.9	0.87	0.14	-75.7	0.19	0.82	-0.17	0.03	
I-2R3-A	559	560	561	24.5	8.0	39.3	56.3	7.4	1.93	0.80	-53.8	1.20	1.54	-0.54	0.03	
I-2R3-B	562	563	564	12.5	29.1	44.5	44.5	12.5	1.59	0.85	88.9	0.85	1.59	0.01	0.03	
I-2R3-C	565	566	567	10.2	38.5	50.4	52.0	8.6	1.80	0.80	78.9	0.84	1.76	0.19	0.02	
I-2R3-D	568	569	570**	4.8	47.9	0.0	47.9	-42.1	1.15	-0.93	43.5	0.16	0.02	1.05	0.01	
I-2R3-E	571	572**	573**	4.1	0.0	0.0	4.9	-0.8	0.15	0.02	-22.5	0.13	0.04	-0.05	0.02	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF.
I-2R3-F	574	575	576	10.7	44.9	29.4	46.6	-6.6	1.47	0.25	10.3	1.43	0.28	0.22	0.04
I-2R3-G	577	578	579	29.7	46.5	16.9	47.4	-0.8	1.55	0.44	-52.7	0.85	1.15	-0.54	0.03
I-2R3-H	580	581	582	34.5	43.6	11.0	46.7	-1.2	1.53	0.42	-52.7	0.70	1.25	-0.48	0.02
I-2R3-J	583	584	585	38.1	29.9	9.7	39.3	8.5	1.38	0.67	-78.6	0.70	1.35	-0.14	0.09
I-2R3-K	586	587	588	36.9	23.3	9.4	37.0	9.2	1.31	0.67	-85.6	0.67	1.31	-0.05	0.03
I-2R3-L	589	590	591	35.1	19.9	4.7	35.1	4.7	1.20	0.50	-90.0	0.50	1.20	-0.00	0.02
O-2R4-A	267	268	269	16.3	18.3	14.3	18.4	12.2	0.73	0.52	54.0	0.64	0.68	0.67	0.04
O-2R4-B	270	271	272	19.7	8.8	0.3	19.7	0.2	0.65	0.20	86.7	0.20	0.65	0.03	0.02
O-2R4-C	273	274	275	21.9	13.5	-1.7	22.4	-2.2	0.72	0.15	-82.0	0.16	0.70	-0.08	0.01
O-2R4-D	276	277	278	23.7	18.8	-3.5	26.3	-6.1	0.81	0.06	-73.8	0.12	0.75	-0.20	0.02
U-2R4-E	279	278	277	7.1	28.0	12.1	28.2	-9.1	0.84	-0.02	3.9	0.84	-0.02	0.06	0.02
O-2R4-F	282	281	280	-5.8	15.3	27.8	28.3	-6.3	0.87	0.07	82.8	0.06	0.86	0.10	0.02
O-2R4-G	285	284	283	-1.4	12.5	27.3	27.4	-1.4	0.89	0.22	-89.0	0.22	0.89	-0.01	0.03
U-2R4-H	288	287	286	1.2	8.3	22.9	23.5	0.6	0.78	0.25	-80.4	0.27	0.77	-0.09	0.02
O-2R4-J	291	290	289	22.0	16.7	23.6	29.0	16.7	1.12	0.84	-48.8	0.96	1.00	-0.14	0.03
I-2R4-A	592	593	594	22.9	28.8	39.4	39.7	22.6	1.53	1.14	-82.1	1.15	1.53	-0.05	0.04
I-2R4-B	595	596	597	25.4	39.5	47.0	47.5	24.9	1.81	1.29	81.5	1.30	1.60	0.08	0.03
I-2R4-C	598	599	600	12.3	50.3	60.2	64.0	8.5	2.19	0.91	74.8	1.00	2.11	0.32	0.02
I-2R4-D	601	602	603	8.3	22.4	69.0	72.0	2.3	2.43	0.89	77.8	0.96	2.35	0.32	0.03
I-2R4-E	604	605	606	39.3	75.3	43.2	75.4	7.2	2.56	0.98	1.6	2.55	0.98	0.04	0.03
I-2R4-F	607	608	609	61.6	64.5	15.2	73.3	3.5	2.45	0.84	-65.8	1.11	2.18	-0.60	0.07
I-2R4-G	610	611	612	51.7	49.6	19.5	56.9	14.3	2.02	1.03	-69.6	1.15	1.90	-0.32	0.03
I-2R4-H	613	614	615**	40.7	34.2	0.0	44.9	-4.3	1.44	0.30	-72.9	0.40	1.34	-0.32	0.02
I-2R4-J	616	617	618**	33.2	27.1	0.0	36.2	-3.0	1.16	0.26	-73.8	0.33	1.09	-0.24	0.02
U-2R5-A	294	293	292	20.5	16.2	15.4	20.5	15.4	0.83	0.71	-87.2	0.71	0.83	-0.01	0.02
O-2R5-B	297	296	295	23.9	14.5	1.9	24.0	1.8	0.81	0.30	-85.8	0.30	0.81	-0.04	0.02
O-2R5-C	299	298	297	29.5	12.0	-4.5	29.5	-4.5	0.93	0.14	89.1	0.14	0.93	0.01	0.02
O-2R5-D	303	302	301	29.2	6.7	-12.8	29.2	-12.8	0.84	-0.13	-89.3	-0.13	0.84	-0.01	0.01
O-2R5-E	306	305	304	33.6	10.7	-17.0	33.7	-17.1	0.94	-0.23	2.7	0.94	-0.23	0.06	0.01
O-2R5-F	309	308	307	-5.7	15.8	32.8	33.0	-5.8	1.03	0.13	86.7	0.14	1.03	0.05	0.04
O-2R5-G	312	311	310	2.6	18.3	31.7	31.7	2.6	1.07	0.40	87.8	0.40	1.07	0.03	0.02
U-2R5-H	315	314	313	19.5	26.3	28.7	29.2	19.0	1.15	0.91	77.4	0.93	1.14	0.05	0.03
O-2R5-J	318	317*	316	29.2	23.0	24.6	31.4	22.4	1.26	1.05	-29.6	1.21	1.10	-0.09	0.09
I-2R5-A	619	620**	621	28.6	0.0	39.0	68.0	-0.4	2.24	0.66	-49.4	1.33	1.57	-0.78	0.08
I-2R5-B	622	623	624**	28.2	37.4	0.0	41.3	-13.1	1.23	-0.02	29.4	0.93	0.28	0.54	0.03
I-2R5-C	625	626	627	6.0	39.0	64.7	55.0	5.7	2.20	0.83	66.4	0.64	2.19	0.09	0.03
I-2R5-D	628	629	630**	9.0	38.7	0.0	39.0	-30.0	0.99	-0.60	61.3	0.30	0.99	0.79	0.02
I-2R5-E	631*	632	633	85.7	46.8	72.3	111.8	46.1	4.14	2.63	50.9	3.23	3.54	0.74	0.21
I-2R5-F	634	635	636	71.8	37.9	1.2	71.8	1.1	2.38	0.75	-88.8	0.75	2.38	-0.03	0.03
I-2R5-G	637	638**	639	58.5	0.0	10.9	76.8	-7.4	2.46	0.92	62.2	0.94	2.04	0.80	0.03
I-2R5-H	640	641	642	42.9	34.4	25.6	42.9	25.6	1.67	1.27	-89.4	1.27	1.67	-0.00	0.04
I-2R5-J	643**	644**	645	0.0	0.0	27.9	33.7	-5.8	1.05	0.14	22.5	0.92	0.28	0.32	0.03
O-1R6-A	156	155	154	3.9	7.4	12.4	12.5	3.8	0.45	0.25	5.4	0.45	0.25	0.02	0.03
O-1R6-B	159	158	157	2.4	2.7	4.7	4.9	2.1	0.18	0.12	17.7	0.18	0.12	0.02	0.03
O-1R6-C	162*	161	160	11.3	6.7	8.5	13.4	6.4	0.51	0.34	56.7	0.39	0.46	0.07	0.08
O-1R6-D	165	164	163	7.0	7.3	7.1	7.3	6.8	0.31	0.30	-40.6	0.30	0.30	-0.01	0.02
I-1R6-A	481	482	483	25.7	14.7	6.4	25.8	6.3	0.91	0.44	-4.0	0.91	0.46	-0.03	0.02
I-1R6-B	484	485	486	33.0	18.9	3.4	33.0	3.4	1.12	0.44	1.3	1.12	0.44	0.02	0.02
I-1R6-C	487	488	489	23.9	13.8	4.8	23.9	4.8	0.84	0.40	-1.7	0.84	0.40	-0.01	0.02
I-1R6-D	490	491	492	25.5	15.7	4.5	25.6	4.5	0.89	0.40	1.8	0.89	0.40	0.02	0.03
O-2R6-A	321	320	319	4.1	7.0	9.0	9.0	4.0	0.34	0.22	-5.8	0.34	0.22	-0.01	0.03
O-2R6-B	324	323	322	2.4	4.7	7.6	7.6	2.4	0.27	0.15	3.8	0.27	0.16	0.01	0.02
O-2R6-C	327	326	325	4.5	5.1	9.0	9.0	4.5	0.26	0.21	3.5	0.24	0.21	0.00	0.03
I-2R6-A	646	647	648	30.6	17.5	6.2	30.6	6.2	1.07	0.51	-2.0	1.07	0.51	-0.02	0.01
I-2R6-B	649	650	651	27.7	15.3	5.5	27.7	5.5	0.97	0.46	-2.8	0.97	0.46	-0.03	0.02
I-2R6-C	652	653	654	28.3	16.2	4.5	28.3	4.5	0.98	0.43	-0.4	0.98	0.43	-0.00	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-1R7- A	655	656	657	36.0	29.0	19.3	36.1	19.2	1.38	0.99	4.5	1.38	0.99	0.03	0.08
I-1R7- B	658	659	660	32.9	26.6	16.4	33.2	16.2	1.25	0.86	6.6	1.25	0.87	0.04	0.03
I-2R7- A	661	662	663	37.7	22.0	7.2	37.7	7.2	1.31	0.61	-0.9	1.31	0.61	-0.01	0.03
EX- C- A	670	671	672	30.6	12.6	-2.2	30.7	-2.3	0.99	0.23	87.1	0.23	0.99	0.04	0.02
EX- C- B	675	674	673	25.6	21.8	16.3	25.6	16.3	1.01	0.79	-84.9	0.79	1.00	-0.02	0.02
EX- C- L	678	677	676	32.7	10.0	-2.3	33.4	-3.1	1.07	0.23	81.7	0.23	1.05	0.12	0.03
EX- C- D	669	668	667	24.2	21.3	17.1	24.3	17.0	0.97	0.30	-84.7	0.80	0.97	-0.02	0.03
EX- B- A	667	666	685	1.4	15.3	31.0	31.0	1.4	1.04	0.35	89.8	0.35	1.04	0.00	0.02
EX- B- B	690	689	688	11.5	15.4	21.2	21.2	11.4	0.81	0.59	-64.9	0.59	0.81	-0.02	0.02
EX- B- C	683	680	679	-0.1	13.1	28.3	28.3	-0.1	0.93	0.28	-87.9	0.28	0.93	-0.02	0.02
EX- B- D	684	683	682	11.8	17.4	25.3	25.4	11.7	0.95	0.64	-85.2	0.64	0.95	-0.03	0.02
EX- A- A	696	695	694	-0.3	14.5	27.0	27.1	-0.3	0.89	0.26	87.6	0.26	0.89	0.03	0.02
EX- A- B	693	692	691	13.5	16.9	24.9	24.9	13.5	0.95	0.69	-88.3	0.69	0.95	-0.01	0.03
EX- A- C	660	665	664	0.2	13.9	29.7	29.7	0.1	0.98	0.30	-88.0	0.30	0.98	-0.02	0.03
EX- A- D	699	698	697	13.3	16.3	22.6	22.9	13.1	0.88	0.66	-80.2	0.66	0.88	-0.04	0.04

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

IMC0021 STOP 0

FORM 1001 (REV. 10-65) PREVIOUS EDITIONS ARE OBSOLETE

COMBUSTION T-11, LOAD CASE 1, M3X

NOMINAL LOAD = 7.883E 05

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
O-1R1- A	3	2	1	10.6	-22.8	-52.5	10.7	-52.5	-0.17	-1.63	88.3	-1.63	-0.17	0.04	0.05
O-1R1- B	6	5	4	13.8	-18.5	-40.9	14.2	-41.4	0.06	-1.22	84.9	-1.21	0.05	0.11	0.02
O-1R1- C	9	8	7	15.5	-23.5	-48.7	16.2	-49.4	0.05	-1.47	84.0	-1.45	0.03	0.16	0.03
O-1R1- D	12	11	10	15.7	-26.7	-41.9	18.7	-45.0	0.17	-1.30	77.4	-1.23	0.10	0.31	0.02
O-1R1- E	15	14	13	16.5	-15.2	-19.8	21.0	-24.3	0.45	-0.59	71.7	-0.49	0.35	0.31	0.02
O-1R1- F	18	17	16*	13.2	0.2	-6.9	13.7	-7.3	0.38	-0.11	-53.2	0.07	0.20	-0.23	0.04
O-1R1- G	21	20	19	14.9	-4.8	-4.4	19.2	-8.7	0.55	-0.10	-23.1	0.45	0.00	-0.23	0.02
O-1R1- H	24	23	22	13.6	5.9	-1.7	13.6	-1.7	0.43	0.08	-0.2	0.43	0.08	-0.00	0.01
O-1R1- J	27	26	25	7.2	5.4	2.3	7.3	2.2	0.26	0.15	7.3	0.26	0.15	0.01	0.02
O-1R1- K	30	29	28	2.1	3.8	3.4	4.0	1.5	0.15	0.09	61.1	0.10	0.13	0.02	0.02
O-1R1- L	33	32	31	0.4	3.4	3.2	3.9	-0.3	0.13	0.03	65.1	0.05	0.11	0.04	0.01
I-1R1- A	328	329	330	-21.4	-17.1	-1.8	-0.4	-22.9	-0.24	-0.76	-75.4	-0.72	-0.27	-0.13	0.01
I-1R1- B	331	332	333	-18.4	-18.2	-11.2	-9.9	-19.7	-0.52	-0.75	-68.5	-0.72	-0.55	-0.08	0.03
I-1R1- C	334	335	336	-2.0	-11.7	-17.7	-1.8	-17.9	-0.24	-0.61	-6.7	-0.24	-0.60	-0.04	0.02
I-1R1- D	337	338	339	1.0	-5.2	-12.7	1.0	-12.7	-0.09	-0.41	2.8	-0.09	-0.41	0.02	0.02
I-1R1- E	340	341	342	-9.3	-2.6	-2.2	-1.0	-10.4	-0.14	-0.35	69.4	-0.33	-0.16	0.07	0.02
I-1R1- F	343	344	345	-19.7	-6.2	0.9	1.4	-20.2	-0.15	-0.65	36.2	-0.33	-0.48	0.24	0.02
I-1R1- G	346	347	348	-17.3	-3.3	-1.6	0.5	-19.4	-0.18	-0.64	-18.9	-0.22	-0.59	-0.14	0.01
I-1R1- H	349	350	351	-12.5	0.1	-1.8	1.8	-16.1	-0.10	-0.51	-26.7	-0.18	-0.43	-0.17	0.01
I-1R1- J	352	353	354	-9.1	-0.7	-0.7	1.1	-10.9	-0.07	-0.35	-22.5	-0.11	-0.31	-0.10	0.01
I-1R1- K	355	356	357	-6.4	1.8	0.3	2.8	-8.4	0.01	-0.27	-27.4	-0.05	-0.21	-0.11	0.02
I-1R1- L	358	359	360	-4.3	3.5	0.9	4.1	-7.6	0.06	-0.21	-31.8	-0.01	-0.13	-0.12	0.01
O-1R2- A	36	35	34	13.3	-15.4	-36.5	13.6	-36.8	0.09	-1.08	85.7	-1.07	0.08	0.09	0.02
O-1R2- B	39	38	37	14.4	-13.9	-29.8	15.2	-30.7	0.20	-0.86	82.2	-0.84	0.18	0.14	0.02
O-1R2- C	42	41	40	14.8	-18.1	-35.0	16.0	-36.3	0.17	-1.04	81.2	-1.01	0.14	0.18	0.01
O-1R2- D	45	44	43	15.6	-13.4	-36.9	15.7	-37.1	0.15	-1.07	87.0	-1.06	0.15	0.06	0.03
O-1R2- E	48	47	46	14.8	-9.8	-35.2	14.8	-35.2	0.14	-1.01	-89.6	-1.01	0.14	-0.01	0.02
O-1R2- F	51	50	49	14.1	-4.3	-25.5	14.1	-25.6	0.21	-0.70	-42.9	-0.21	-0.28	-0.46	0.02
O-1R2- G	54	53	52	11.2	-0.7	-21.1	11.8	-21.6	0.18	-0.60	7.4	0.16	-0.58	0.10	0.03
O-1R2- H	57	56	55	3.9	1.7	-12.5	5.9	-14.4	0.05	-0.42	18.0	0.01	-0.37	0.14	0.01
O-1R2- J	60	59	58	-0.7	-1.4	-10.5	0.9	-12.1	-0.09	-0.39	20.5	-0.13	-0.35	0.10	0.03
O-1R2- K	63	62	61	-3.2	-2.9	-7.6	-2.1	-8.7	-0.15	-0.31	24.1	-0.18	-0.28	0.06	0.02
O-1R2- L	66	65	64	-4.2	-3.7	-6.3	-3.4	-7.1	-0.18	-0.27	28.2	-0.20	-0.25	0.04	0.02
I-1R2- A	361	362	363	-19.8	-18.6	-14.2	-13.8	-20.2	-0.65	-0.80	-75.0	-0.79	-0.66	-0.04	0.02
I-1R2- B	364	365	366	-15.4	-17.8	-19.2	-15.3	-19.3	-0.70	-0.79	-7.1	-0.70	-0.79	-0.01	0.02
I-1R2- C	367	368	369	-2.2	-13.1	-23.1	-2.2	-23.1	-0.30	-0.78	-1.2	-0.30	-0.78	-0.01	0.02
I-1R2- D	370	371	372	5.6	-5.5	-19.8	5.7	-19.9	-0.01	-0.60	3.6	-0.01	-0.60	0.04	0.01
I-1R2- E	373	374	375	5.9	1.3	-12.3	6.9	-13.4	0.10	-0.37	13.2	0.07	-0.35	0.10	0.02
I-1R2- F	376	377	378	1.2	1.9	-9.1	3.8	-11.7	0.01	-0.35	-20.6	-0.03	-0.30	-0.12	0.02
I-1R2- G	379	380	381	5.2	4.6	-8.2	7.5	-10.5	0.14	-0.27	-68.9	-0.22	0.09	-0.14	0.01
I-1R2- H	382	383	384	10.8	11.8	-4.4	14.7	-8.2	0.40	-0.13	-65.8	-0.04	0.31	-0.20	0.02
I-1R2- J	385	386	387	14.6	10.6	-2.8	15.8	-4.0	0.48	0.02	-75.8	0.05	0.45	-0.11	0.01
I-1R2- K	388	389	390	11.3	12.6	0.4	14.5	-2.9	0.45	0.05	-64.4	0.12	0.38	-0.16	0.02
I-1R2- L	391	392	393	10.0	10.3	0.0	12.3	-2.2	0.38	0.05	-66.8	0.10	0.33	-0.12	0.01
O-1R3- A	69	68	67	6.4	-11.2	-19.5	7.2	-20.3	0.04	-0.60	80.1	-0.58	0.02	0.11	0.02
O-1R3- B	72	71	70	4.1	-10.6	-17.6	4.7	-18.3	-0.02	-0.56	80.2	-0.54	-0.04	0.09	0.02
O-1R3- C	75	74	73	3.2	-11.0	-20.8	3.4	-21.0	-0.10	-0.66	84.7	-0.65	-0.10	0.05	0.01
O-1R3- D	78	77	76	1.5	-12.8	-25.4	1.5	-25.4	-0.20	-0.82	88.3	-0.82	-0.20	0.02	0.02
O-1R3- E	81	80	79	1.1	-15.2	-27.3	1.3	-27.4	-0.23	-0.89	85.8	-0.89	-0.23	0.05	0.04
O-1R3- F	84	83	82	-0.9	-9.2	-27.8	0.0	-28.8	-0.28	-0.95	-34.5	-0.50	-0.73	-0.31	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SHIN	PHI	SIG(L)	SIG(T)		
0-1R3- G	87	86	85	-6.0	-3.5	-21.5	-0.9	-26.6	-0.29	-0.88	26.4	-0.41	-0.77	0.24	0.03
0-1R3- H	90	89	88	-7.8	-6.3	-18.4	-4.5	-21.8	-0.36	-0.76	26.0	-0.44	-0.69	0.16	0.03
0-1R3- J	93	92	91	-7.7	-7.8	-15.4	-6.2	-16.9	-0.37	-0.62	22.2	-0.41	-0.58	0.09	0.02
0-1R3- K	96	95	94	-6.2	-9.5	-14.8	-6.0	-14.9	-0.35	-0.55	6.5	-0.35	-0.55	0.02	0.02
0-1R3- L	99	98	97	-7.6	-10.2	-13.1	-7.6	-13.1	-0.38	-0.51	1.2	-0.38	-0.51	0.00	0.03
1-1R3- A	394	395	396	-11.9	-11.2	-15.1	-10.7	-16.2	-0.51	-0.64	27.3	-0.54	-0.61	0.05	0.02
1-1R3- B	397	398	399	-7.3	-7.6	-14.5	-6.0	-15.8	-0.35	-0.58	21.3	-0.38	-0.55	0.08	0.02
1-1R3- C	400	401	402	3.1	-2.9	-13.3	3.4	-13.6	-0.02	-0.42	7.6	-0.03	-0.41	0.05	0.02
1-1R3- D	403	404	405	10.9	4.0	-9.0	11.4	-9.4	0.28	-0.20	8.6	0.27	-0.19	0.07	0.01
1-1R3- E	406	407	408	15.7	12.7	-7.0	18.5	-9.7	0.51	-0.14	18.1	0.45	-0.07	0.19	0.04
1-1R3- F	409	410	411	18.5	9.8	-7.9	19.3	-8.7	0.55	-0.10	-3.5	0.33	0.12	-0.31	0.01
1-1R3- G	412	413	414	23.3	11.2	-7.2	23.6	-7.6	0.70	-0.02	-8.1	-0.01	0.70	-0.07	0.02
1-1R3- H	415	416	417	30.6	21.1	-5.0	32.4	-6.8	1.00	0.10	-17.5	0.14	0.96	-0.19	0.02
1-1R3- J	421	422	423	26.4	14.5	-0.8	26.5	-0.9	0.86	0.23	-86.5	0.23	0.86	-0.04	0.02
1-1R3- K	418	419	420	30.6	17.8	-1.5	30.9	-1.9	1.00	0.24	-84.2	0.25	0.99	-0.08	0.01
1-1R3- L	424	425	426	21.3	14.0	1.7	21.6	1.4	0.73	0.26	-82.8	0.27	0.72	-0.06	0.01
0-1R4- A	102	101	100	-3.2	3.5	-5.9	3.6	-12.7	-0.01	-0.38	-49.7	-0.23	-0.17	-0.19	0.01
0-1R4- B	105	104	103	-6.0	2.1	-4.2	2.1	-12.3	-0.05	-0.39	-41.5	-0.20	-0.24	-0.17	0.02
0-1R4- C	108	107	106	-9.0	0.8	-6.1	0.9	-16.0	-0.13	-0.52	-40.2	-0.29	-0.36	-0.19	0.02
0-1R4- D	111	110	109	-10.6	-1.7	-7.5	-1.5	-16.6	-0.21	-0.56	-39.1	-0.35	-0.42	-0.17	0.02
0-1R4- E	114	113	112	-12.9	-7.7	-5.4	-5.1	-13.1	-0.30	-0.48	34.7	-0.36	-0.42	0.09	0.02
0-1R4- F	117	116	115	-10.0	-11.4	-8.1	-6.5	-11.6	-0.33	-0.45	-55.8	-0.41	-0.37	-0.05	0.02
0-1R4- G	120	119	118	-8.4	-10.9	-9.0	-6.5	-10.9	-0.32	-0.42	-41.1	-0.37	-0.38	-0.05	0.02
0-1R4- H	123	122	121	-6.6	-9.4	-10.8	-6.5	-10.9	-0.32	-0.43	-9.4	-0.33	-0.42	-0.02	0.02
0-1R4- J	126	125	124	-6.1	-9.3	-10.3	-5.8	-10.6	-0.30	-0.41	-14.0	-0.30	-0.40	-0.03	0.02
1-1R4- A	427	428	429	-4.6	-1.2	-8.1	-0.9	-11.8	-0.15	-0.40	35.4	-0.23	-0.31	0.12	0.02
1-1R4- B	430	431	432	1.9	1.9	-8.7	4.1	-10.9	0.03	-0.32	22.4	-0.02	-0.27	0.12	0.02
1-1R4- C	433	434	435	8.8	5.6	-6.1	8.9	-7.2	0.26	-0.14	14.8	0.23	-0.11	0.10	0.01
1-1R4- D	436	437	438	8.0	14.1	1.8	14.6	-4.8	0.44	-0.01	35.6	0.28	0.14	0.21	0.01
1-1R4- E	439	440	441	21.7	15.9	-3.4	23.4	-5.0	0.72	0.07	-30.9	0.55	0.24	-0.29	0.01
1-1R4- F	442	443	444	28.9	14.8	-5.1	29.1	-5.4	0.91	0.11	-85.2	0.12	0.90	-0.07	0.02
1-1R4- G	445	446	447	27.0	12.7	-2.4	27.0	-2.4	0.87	0.19	-89.2	0.19	0.87	-0.01	0.02
1-1R4- H	448	449	450	21.7	6.5	0.7	22.8	-0.3	0.75	0.21	77.8	0.24	0.72	0.11	0.02
1-1R4- J	451	452	453	17.3	7.1	3.4	18.1	2.7	0.62	0.27	77.2	0.29	0.61	0.08	0.02
0-1R5- A	129	128	127	-1.5	12.8	-2.7	12.8	-17.0	0.25	-0.43	-46.2	-0.10	-0.07	-0.34	0.01
0-1R5- B	132	131	130	-3.2	13.1	-1.2	13.1	-17.5	0.26	-0.45	-43.2	-0.07	-0.12	-0.35	0.02
0-1R5- C	135	134	133	-1.9	15.6	-2.1	15.6	-19.6	0.32	-0.49	-45.1	-0.09	-0.08	-0.41	0.02
0-1R5- D	138	137	136	1.2	15.9	-3.8	16.1	-18.8	0.34	-0.46	-49.1	-0.12	-0.00	-0.40	0.01
0-1R5- E	141	140	139	-15.8	0.2	14.0	14.0	-15.9	0.31	-0.38	42.9	-0.01	-0.06	0.34	0.02
0-1R5- F	144	143	142	-2.7	-13.1	-0.9	9.6	-13.2	0.18	-0.34	-47.3	-0.10	-0.06	-0.26	0.01
0-1R5- G	147	146	145	-3.1	-9.7	-1.3	5.4	-9.8	0.08	-0.27	-48.6	-0.12	-0.07	-0.17	0.01
0-1R5- H	150	149	148	-1.0	-5.0	-0.7	3.3	-5.0	0.06	-0.13	-46.2	-0.04	-0.03	-0.10	0.02
0-1R5- J	153	152	151	-1.5	-2.5	-2.1	-1.1	-2.5	-0.06	-0.09	-33.4	-0.07	-0.08	-0.02	0.02
1-1R5- A	454	455	456	-0.8	4.8	-0.3	4.8	-5.9	0.10	-0.15	46.2	-0.03	-0.02	0.12	0.01
1-1R5- B	457	458	459	0.3	5.9	-1.4	6.0	-7.1	0.13	-0.18	41.4	-0.01	-0.04	0.15	0.01
1-1R5- C	460	461	462**	-0.4	8.3	0.0	8.3	-8.6	0.19	-0.20	45.6	-0.01	-0.00	0.19	0.01
1-1R5- D	463	464	465	0.5	-9.1	-0.3	9.3	-9.1	0.22	-0.21	-43.7	0.01	-0.01	-0.21	0.01
1-1R5- E	466	467	468	9.3	-0.3	-9.7	9.3	-9.7	0.21	-0.23	-45.4	-0.01	-0.01	-0.22	0.02
1-1R5- F	469	470	471	0.8	-7.2	-0.3	7.6	-7.2	0.18	-0.16	47.1	-0.00	0.02	0.17	0.01
1-1R5- G	472	473	474	0.8	-4.5	0.1	5.5	-4.5	0.14	-0.09	46.9	0.01	0.03	0.11	0.02
1-1R5- H	475	476	477	-0.1	-5.4	0.3	5.6	-5.4	0.13	-0.12	43.9	0.01	-0.00	0.13	0.01
1-1R5- J	478	479	480	-1.9	-7.4	1.0	6.6	-7.5	0.14	-0.18	39.2	0.01	-0.05	0.16	0.01
0-2R1- A	168	167	166	-12.1	18.0	50.9	50.9	-12.1	1.56	0.10	1.3	1.56	0.10	0.03	0.03
0-2R1- B	171	170	169	-14.3	7.1	39.7	40.3	-14.9	1.18	-0.09	5.8	1.17	-0.08	0.13	0.02
0-2R1- C	174	173	172	-16.7	7.4	46.2	47.1	-17.5	1.38	-0.11	6.6	1.36	-0.09	0.17	0.02
0-2R1- D	177	176	175	-12.4	-5.7	36.6	42.4	-18.2	1.22	-0.18	18.0	1.09	-0.05	0.41	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
0-2R1-E	180	179	178	-12.7	-13.8	15.3	21.9	-19.2	0.53	-0.42	23.6	0.38	-0.27	0.35	0.02
0-2R1-F	183	182	181	-16.1	-15.7	7.0	11.6	-20.6	0.18	-0.57	67.0	-0.45	0.06	0.27	0.02
0-2R1-G	186	185	184	-11.4	-22.5	4.3	17.0	-24.0	0.32	-0.62	-56.3	-0.33	0.03	-0.44	0.02
0-2R1-H	189	188	187	-4.0	-25.0	-0.6	20.5	-25.1	0.43	-0.63	-47.1	-0.14	-0.06	-0.52	0.02
0-2R1-J	192	191	190	2.1	-20.9	-4.3	18.9	-21.1	0.41	-0.51	-40.4	0.03	-0.12	-0.46	0.01
0-2R1-K	195	194	193	4.5	-15.7	-5.1	15.9	-16.5	0.36	-0.39	-36.4	0.10	-0.12	-0.36	0.01
0-2R1-L	198	197	196	7.6	-19.1	-5.4	22.2	-20.1	0.53	-0.44	-36.0	0.20	-0.10	-0.46	0.01
1-2R1-A	493	494**	495**	22.1	0.0	0.0	26.7	-4.6	0.84	0.11	-22.5	0.73	0.22	-0.26	0.01
1-2R1-B	496	497**	498**	16.6	0.0	12.3	29.1	-0.2	0.96	0.28	-40.8	0.67	0.57	-0.33	0.05
1-2R1-C	499	500	501	3.6	12.6	21.1	21.1	3.6	0.73	0.33	89.1	0.33	0.73	0.01	0.02
1-2R1-D	502	503	504	-1.6	12.3	16.3	17.6	-2.8	0.55	0.08	75.6	0.11	0.52	0.11	0.01
1-2R1-E	505**	506**	507	0.0	0.0	3.2	3.8	-0.7	0.12	0.02	-67.5	0.03	0.10	-0.04	0.02
1-2R1-F	508	509	510	19.8	16.0	-0.9	21.7	-2.8	0.69	0.12	-28.9	0.56	0.26	-0.24	0.02
1-2R1-G	511	512	513	22.4	13.5	-2.0	22.8	-2.5	0.73	0.14	-82.5	0.15	0.72	-0.08	0.01
1-2R1-H	514	515	516	24.3	5.6	-5.7	24.8	-6.2	0.76	0.04	83.1	0.05	0.74	0.09	0.02
1-2R1-J	517	518	519	23.2	-1.5	-6.1	26.3	-9.2	0.78	-0.04	72.8	0.03	0.70	0.23	0.02
1-2R1-K	520	521	522	12.7	-16.2	-2.3	27.8	-17.4	0.74	-0.30	54.7	0.05	0.40	0.49	0.01
1-2R1-L	523	524	525	6.8	-24.7	-1.4	30.4	-25.0	0.75	-0.52	49.2	0.02	0.21	0.63	0.01
0-2R2-A	201	200	199	-0.5	28.3	48.3	48.7	-0.9	1.60	0.45	-5.1	1.59	0.46	-0.10	0.02
0-2R2-B	204	203	202	0.4	24.9	41.9	42.3	0.0	1.39	0.42	-5.2	1.39	0.43	-0.09	0.02
0-2R2-C	207	206	205	-0.4	19.6	49.3	49.7	-0.9	1.63	0.46	5.5	1.62	0.47	0.11	0.02
0-2R2-D	210	209	208	1.8	9.6	53.7	59.4	-3.9	1.92	0.46	17.5	1.79	0.59	0.42	0.02
0-2R2-E	213	212	211	8.5	-3.2	51.4	69.4	-9.6	2.19	0.37	28.5	1.78	0.79	0.76	0.02
0-2R2-F	216	215	214	7.7	-10.3	38.3	59.7	-13.7	1.83	0.14	77.7	0.22	1.76	0.35	0.03
0-2R2-G	219	218	217	15.3	-9.4	27.8	53.2	-10.0	1.65	0.19	-50.7	0.78	1.07	-0.71	0.02
0-2R2-H	222	221	220	16.7	-5.4	19.5	41.7	-5.5	1.32	0.23	-46.7	0.74	0.81	-0.54	0.02
0-2R2-J	225	224	223	16.2	-1.6	15.5	33.3	-1.6	1.08	0.28	-44.4	0.69	0.67	-0.40	0.02
0-2R2-K	228	227	226	11.8	-1.7	12.1	25.7	-1.7	0.83	0.20	-45.3	0.51	0.52	-0.32	0.02
0-2R2-L	231	230	229	7.7	-10.2	8.8	26.7	-10.2	0.78	-0.07	-45.8	0.34	0.37	-0.43	0.02
1-2R2-A	526	527	528	18.8	-2.1	-11.3	19.9	-12.4	0.53	-0.21	-10.5	0.51	-0.19	-0.13	0.02
1-2R2-B	529	530	531	14.9	-2.8	-10.6	15.9	-11.5	0.41	-0.22	-10.7	0.39	-0.20	-0.12	0.01
1-2R2-C	532	533	534	3.3	-7.0	-11.6	3.8	-12.2	0.01	-0.36	-10.5	-0.01	-0.35	-0.07	0.02
1-2R2-D	535	536	537	-6.8	-12.1	-14.4	-6.5	-14.7	-0.36	-0.55	-10.5	-0.37	-0.54	-0.03	0.03
1-2R2-E	538	539	540	-6.0	-9.3	-8.2	-4.6	-9.6	-0.24	-0.36	-31.9	-0.28	-0.33	-0.05	0.02
1-2R2-F	541	542	543	-0.7	-5.6	-7.0	-0.3	-7.4	-0.08	-0.25	-59.9	-0.21	-0.12	-0.07	0.03
1-2R2-G	544	545	546	-5.3	-14.0	-9.9	-0.8	-14.4	-0.17	-0.48	54.8	-0.38	-0.27	0.15	0.03
1-2R2-H	547	548	549	-14.4	-25.6	-10.0	1.4	-25.8	-0.21	-0.84	40.3	-0.47	-0.57	0.31	0.02
1-2R2-J	550	551	552	-16.7	-27.7	-8.4	3.1	-28.2	-0.18	-0.90	37.3	-0.44	-0.63	0.35	0.02
1-2R2-K	553	554	555	-15.1	-30.6	-4.4	11.8	-31.2	0.08	-0.91	37.7	-0.29	-0.54	0.48	0.02
1-2R2-L	556	557	558	-11.3	-29.6	-2.6	16.2	-30.0	0.24	-0.83	39.6	-0.20	-0.40	0.52	0.02
0-2R3-A	234	233	232	13.4	29.1	36.4	37.2	12.7	1.35	0.79	-10.0	1.33	0.80	-0.10	0.02
0-2R3-B	237	236	235	16.9	29.0	31.0	32.6	15.3	1.23	0.83	-17.7	1.19	0.86	-0.12	0.03
0-2R3-C	240	239	238	16.9	29.4	37.6	37.9	16.7	1.41	0.92	-5.8	1.41	0.93	-0.05	0.03
0-2R3-D	243	242	241	15.7	28.4	51.4	52.1	15.0	1.87	1.01	8.1	1.85	1.03	0.12	0.03
0-2R3-E	246	245	244	14.8	27.1	62.2	64.8	12.2	2.26	1.04	12.8	2.20	1.10	0.26	0.04
0-2R3-F	249	248	247	20.1	14.6	50.8	61.4	9.6	2.12	0.92	71.9	1.04	2.00	0.35	0.03
0-2R3-G	252	251	250	25.5	9.0	40.6	58.2	7.9	2.00	0.84	-53.7	1.24	1.59	-0.55	0.02
0-2R3-H	255	254	253	18.9	10.4	36.3	46.8	8.3	1.63	0.74	-58.4	0.98	1.38	-0.40	0.02
0-2R3-J	258	257	256	12.2	8.9	31.9	38.5	5.6	1.32	0.57	-63.4	0.72	1.17	-0.30	0.02
0-2R3-K	261	260	259	4.0	4.8	28.5	33.0	-0.6	1.08	0.31	-68.5	0.41	0.98	-0.26	0.01
0-2R3-L	264	263	262	0.8	-5.4	23.2	32.7	-8.7	0.99	0.04	-61.4	0.26	0.77	-0.40	0.01
1-2R3-A	559	560	561	7.7	-7.1	-21.7	7.7	-21.7	0.04	-0.64	-0.3	0.04	-0.64	-0.00	0.02
1-2R3-B	562	563	564	3.0	-12.5	-27.3	3.0	-27.3	-0.17	-0.87	-0.6	-0.17	-0.87	-0.01	0.02
1-2R3-C	565	566	567	-9.7	-23.6	-35.5	-9.7	-35.5	-0.67	-1.27	-2.2	-0.67	-1.27	-0.02	0.03
1-2R3-D	568	569	570	-16.7	-40.2	-40.5	-12.0	-45.2	-0.84	-1.61	-22.1	-0.95	-1.50	-0.27	0.03
1-2R3-E	571	572	573	-23.9	-46.3	-36.1	-12.5	-47.5	-0.88	-1.69	-34.7	-1.14	-1.43	-0.38	0.09

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-2R3- F	574	575	576	-28.7	-45.8	-28.7	-11.6	-45.8	-0.84	-1.62	90.0	-1.62	-0.84	0.00	0.04
I-2R3- G	577	578	579	-42.7	-49.7	-20.4	-10.3	-52.9	-0.86	-1.84	29.2	-1.10	-1.61	0.42	0.03
I-2R3- H	580	581	582	-52.3	-53.6	-9.4	0.4	-62.2	-0.60	-2.05	23.3	-0.83	-1.82	0.53	0.03
I-2R3- J	583	584	585	-45.4	-44.5	-18.7	-13.8	-50.3	-0.95	-1.80	21.4	-1.07	-1.68	0.29	0.04
I-2R3- K	586	587	588	-33.6	-35.1	-9.0	-2.8	-39.8	-0.49	-1.34	24.1	-0.63	-1.20	0.32	0.03
I-2R3- L	589	590	591	-24.9	-32.0	-6.5	3.0	-34.4	-0.24	-1.10	30.3	-0.46	-0.88	0.38	0.02
O-2R4- A	267	266	265	15.4	9.7	13.7	19.4	9.7	0.74	0.51	50.0	0.60	0.64	0.11	0.03
O-2R4- B	270	269	268	17.5	11.1	11.7	19.1	10.1	0.73	0.52	64.8	0.56	0.69	0.08	0.02
O-2R4- C	273	272	271	17.4	15.1	19.6	22.0	15.0	0.87	0.71	35.9	0.82	0.77	0.08	0.03
O-2R4- D	276	275	274	12.3	20.3	23.4	23.9	11.8	0.90	0.62	-11.8	0.89	0.64	-0.06	0.03
O-2R4- E	279	278	277	6.9	13.8	32.1	33.3	5.7	1.16	0.52	57.3	0.70	0.97	0.29	0.02
U-2R4- F	282	281	280	4.8	-0.5	30.4	39.8	-4.6	1.27	0.24	-62.7	0.46	1.05	-0.42	0.03
U-2R4- G	285	284	283	5.3	-9.7	26.4	43.5	-11.8	1.32	0.04	-56.2	0.44	0.92	-0.59	0.02
U-2R4- H	288	287	286	-0.6	-12.4	25.2	40.2	-15.6	1.17	-0.12	-58.8	0.23	0.83	-0.57	0.02
O-2R4- J	291	290	289	-1.2	-17.6	20.9	39.4	-19.7	1.10	-0.26	-56.0	0.17	0.68	-0.63	0.02
I-2R4- A	592	593	594	-2.8	-7.0	-14.8	-2.6	-15.0	-0.23	-0.52	8.4	-0.24	-0.52	0.04	0.02
I-2R4- B	595	596	597	-10.0	-14.6	-18.9	-10.0	-18.9	-0.52	-0.72	-1.2	-0.52	-0.72	-0.00	0.02
I-2R4- C	598	599	600	-13.7	-26.3	-27.2	-11.5	-29.4	-0.67	-1.08	-20.5	-0.72	-1.03	-0.14	0.03
I-2R4- D	601	602	603	-10.0	-39.8	-44.4	-5.9	-48.5	-0.67	-1.66	-18.1	-0.77	-1.56	-0.29	0.03
I-2R4- E	604	605	606	-33.7	-56.6	-30.8	-7.9	-56.6	-0.82	-1.94	88.3	-1.94	-0.82	0.03	0.03
I-2R4- F	607	608	609	-53.6	-41.0	-4.0	-1.1	-56.5	-0.60	-1.87	13.1	-0.66	-1.81	0.28	0.05
I-2R4- G	610	611	612	-36.5	-37.4	-16.6	-11.7	-41.3	-0.80	-1.48	23.9	-0.91	-1.37	0.25	0.03
I-2R4- H	615	614	613	-26.9	-14.2	-13.5	-11.3	-29.1	-0.66	-1.07	69.1	-1.02	-0.71	0.14	0.03
I-2R4- J	616	617	618	-16.9	-24.2	-11.4	-3.8	-24.5	-0.37	-0.85	37.4	-0.54	-0.67	0.23	0.02
O-2R5- A	292	293	294	2.4	13.5	3.7	13.5	-7.5	0.37	-0.11	46.7	0.12	0.14	0.24	0.02
U-2R5- B	295	296	297	1.8	12.1	4.2	12.2	-6.2	0.34	-0.08	48.7	0.10	0.16	0.21	0.02
O-2R5- C	298	299	300	2.3	7.5	3.6	7.5	-1.6	0.23	0.02	49.2	0.11	0.14	0.10	0.03
O-2R5- D	301	302	303	1.7	-2.0	3.3	7.1	-2.1	0.21	0.00	-50.0	0.09	0.13	-0.10	0.02
O-2R5- E	306	308	304	-10.3	3.1	13.7	13.8	-10.4	0.35	-0.21	41.6	0.11	0.04	0.28	0.03
U-2R5- F	309	308	307	4.7	-20.5	0.3	25.6	-20.6	0.64	-0.43	-42.3	0.16	0.06	-0.53	0.02
O-2R5- G	312	311	310	10.1	-27.7	-3.9	34.6	-28.4	0.86	-0.59	-38.6	0.29	-0.03	-0.71	0.02
O-2R5- H	315	314	313	7.0	-29.4	-2.8	34.0	-29.7	0.83	-0.64	-40.6	0.20	-0.02	-0.73	0.02
U-2R5- J	318	317	316	10.7	-30.1	-4.6	37.1	-31.0	0.92	-0.66	-38.5	0.31	-0.05	-0.77	0.02
I-2R5- A	621	620	619	-2.3	-1.6	-0.6	-0.6	-2.3	-0.04	-0.08	2.6	-0.04	-0.08	0.00	0.01
I-2R5- B	622	623	624	-1.2	-5.1	-1.3	2.6	-5.1	0.04	-0.14	-44.8	-0.05	-0.05	-0.09	0.02
I-2R5- C	625	626	627	-2.2	-10.3	-1.1	7.0	-10.3	0.13	-0.27	-46.8	-0.08	-0.06	-0.20	0.01
I-2R5- D	628	629	630*	-1.1	-8.6	-8.0	0.7	-9.8	-0.07	-0.32	-24.8	-0.12	-0.27	-0.09	0.02
I-2R5- E	631	632	633	-7.4	-1.4	4.6	4.6	-7.4	0.08	-0.20	44.9	-0.06	-0.06	0.14	0.02
I-2R5- F	634	635	636	0.0	0.6	-0.5	0.6	-1.1	0.01	-0.03	-54.1	-0.02	-0.00	-0.02	0.02
I-2R5- G	637	638	639	-0.4	-8.7	-1.4	6.9	-8.8	0.14	-0.22	46.8	-0.05	-0.03	0.18	0.02
I-2R5- H	640	641	642	-0.8	-9.3	-0.2	8.4	-9.4	0.18	-0.23	44.1	-0.01	-0.03	0.20	0.01
I-2R5- J	643	644	645	-0.3	-10.2	-1.6	8.4	-10.2	0.18	-0.25	47.1	-0.06	-0.02	0.21	0.01
U-1R6- A	156	155	154	12.4	1.3	11.7	22.8	1.3	0.76	0.27	46.0	0.51	0.52	0.25	0.01
O-1R6- B	159	158*	157	9.1	7.9	15.9	18.2	6.8	0.67	0.40	26.7	0.61	0.46	0.11	0.03
O-1R6- C	162	161	160	4.6	1.6	11.4	15.3	0.8	0.51	0.18	31.0	0.42	0.27	0.15	0.02
O-1R6- D	165	164*	163*	-1.2	-2.0	3.5	5.2	-2.8	0.14	-0.04	26.9	0.11	-0.00	0.07	0.03
I-1R6- A	481	482	483	-32.3	-13.6	3.6	3.6	-32.3	-0.20	-1.03	88.9	-1.03	-0.20	0.02	0.01
I-1R6- B	484	485	486	-29.2	-13.3	4.0	4.0	-29.2	-0.16	-0.92	-88.7	-0.92	-0.16	-0.02	0.02
I-1R6- C	487	488	489	-17.9	-11.1	1.3	1.7	-18.3	-0.12	-0.59	-81.8	-0.58	-0.13	-0.07	0.01
I-1R6- D	490	491	492	-1.0	-5.6	-2.0	2.6	-5.6	0.03	-0.16	-41.6	-0.05	-0.08	-0.09	0.02
O-2R6- A	321	320	319	-12.0	-20.3	-12.1	-3.7	-20.3	-0.32	-0.71	45.2	-0.52	-0.52	0.19	0.02
U-2R6- B	324*	323	322	-21.5	-18.1	-14.7	-14.7	-21.5	-0.70	-0.85	0.1	-0.70	-0.85	0.00	0.13
O-2R6- C	327	326	325	-6.7	-12.5	-8.3	-2.5	-12.6	-0.21	-0.44	49.6	-0.34	-0.30	0.11	0.01
I-2R6- A	646**	647**	648**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2R6- B	649**	650**	651**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2R6- C	652**	653	654	0.0	3.1	-3.3	3.4	-6.7	0.04	-0.19	35.3	-0.03	-0.11	0.11	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
I-1R7- A	655**	656**	657**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-1R7- B	658**	659**	660**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2R7- A	661**	662**	663**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EX- C- A	670	671	672	7.3	-11.0	-33.9	7.4	-34.0	-0.09	-1.05	-86.9	-1.04	-0.09	-0.05	0.02
EX- C- B	675	674	673	-0.0	-2.7	-0.5	2.2	-2.7	0.05	-0.07	47.7	-0.02	-0.01	0.06	0.02
EX- C- C	678	677	676	33.6	12.7	-10.5	33.6	-10.5	1.00	-0.01	-88.5	-0.01	1.00	-0.03	0.01
EX- C- D	669	668	667	0.0	-1.9	1.1	3.0	-1.9	0.08	-0.03	38.8	0.04	0.01	0.06	0.01
EX- B- A	687	686	685	-0.2	-1.5	0.3	1.6	-1.6	0.04	-0.04	-49.8	-0.01	0.01	-0.04	0.01
EX- B- B	690	689	688	-0.0	0.9	-0.5	0.9	-1.5	0.02	-0.04	39.5	-0.01	-0.02	0.03	0.01
EX- B- C	681*	680	679	7.1	-1.6	-0.3	9.6	-2.8	0.29	0.00	-26.5	0.23	0.06	-0.11	0.06
EX- B- D	684	683	682	0.3	2.6	-0.2	2.6	-2.5	0.06	-0.06	41.8	0.01	-0.00	0.06	0.01
EX- A- A	696	695	694	-0.0	-17.7	0.7	18.4	-17.7	0.43	-0.40	-45.6	0.01	0.02	-0.42	0.01
EX- A- B	693	692	691	2.4	-23.4	-0.2	25.6	-23.4	0.61	-0.52	-43.5	0.08	0.02	-0.56	0.02
EX- A- C	666	665	664	1.7	-17.5	-2.1	17.1	-17.6	0.39	-0.41	-41.9	0.03	-0.05	-0.40	0.02
EX- A- D	699	698	697	-3.8	-24.6	2.6	23.6	-24.8	0.53	-0.58	-48.8	-0.10	0.05	-0.55	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

NOMINAL LOAD = 7.883E 05

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAJ	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	FMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
T-121-A	3	2	1	1.6	-19.2	0.6	21.5	-19.2	0.52	-0.42	45.7	0.04	0.06	0.47	0.03
T-121-B	6	5	4	5.4	-19.3	0.1	25.0	-19.5	0.63	-0.39	48.5	0.06	0.18	0.51	0.02
T-121-C	9	8	7	4.8	-25.7	-1.4	29.2	-25.9	0.71	-0.56	48.2	0.00	0.14	0.53	0.02
T-121-D	12	11	10	0.8	-32.8	1.3	34.9	-32.8	0.83	-0.74	44.8	0.05	0.04	0.78	0.03
T-121-E	15	14	13	-1.9	-30.8	0.0	28.9	-30.8	0.65	-0.73	44.1	-0.02	-0.06	0.59	0.02
T-121-F	18	17	16	-8.4	2.6	7.0	7.7	-9.1	0.16	-0.22	33.3	0.05	-0.11	0.18	0.03
T-121-G	21	20	19	-3.7	-23.4	5.6	25.7	-23.8	0.61	-0.53	-50.4	-0.07	0.15	-0.56	0.03
T-121-H	24	23	22	6.7	-15.2	-0.4	21.9	-15.6	0.57	-0.30	-39.5	0.22	0.05	-0.42	0.02
T-121-J	27	26	25	8.5	-9.0	-1.6	16.9	-10.0	0.46	-0.15	-34.0	0.26	0.03	-0.29	0.02
T-121-K	30	29	28	7.4	-0.6	-3.9	7.9	-4.4	0.22	-0.07	-11.4	0.21	-0.06	-0.06	0.03
T-121-L	33	32	31	6.6	1.3	-0.7	7.0	-1.1	0.22	0.03	-11.8	0.21	0.04	-0.04	0.02
T-121-A	320	329	330	-3.1	-30.0	-2.9	23.9	-30.0	0.49	-0.75	-45.1	-0.13	-0.13	-0.52	0.04
T-121-B	331	332	333	-2.6	-26.2	-7.7	15.8	-25.3	0.26	-0.71	-41.7	-0.17	-0.28	-0.48	0.02
T-121-C	334	335	336	0.1	-16.0	-16.0	3.5	-19.3	-0.08	-0.60	-22.6	-0.15	-0.53	-0.19	0.03
T-121-D	337	338	339	3.5	-3.8	-18.7	4.1	-19.3	-0.06	-0.60	9.4	-0.07	-0.58	0.09	0.02
T-121-E	340	341	342	4.6	11.2	-16.2	14.1	-25.7	0.21	-0.71	29.3	-0.01	-0.49	0.39	0.02
T-121-F	343	344	345	4.6	14.7	-14.8	16.9	-27.1	0.29	-0.73	-13.0	0.24	-0.68	-0.22	0.04
T-121-G	346	347	348	8.9	15.0	-15.1	18.6	-24.8	0.37	-0.63	-61.8	-0.41	0.14	-0.42	0.02
T-121-H	349	350	351	13.2	8.6	-13.0	15.7	-15.6	0.36	-0.35	-73.4	-0.30	0.31	-0.20	0.04
T-121-J	352	353	354	11.8	4.2	-7.9	12.1	-9.1	0.32	-0.15	-83.7	-0.14	0.31	-0.05	0.04
T-121-K	355	356	357	6.7	-1.1	-5.6	6.9	-5.8	0.17	-0.12	82.4	-0.12	0.16	0.06	0.05
T-121-L	358	359	360	1.4	-4.8	-0.4	5.9	-4.8	0.15	-0.10	45.7	0.00	0.04	0.12	0.02
T-122-A	36	35	34	18.1	-9.0	2.2	30.9	-17.6	0.91	-0.04	56.3	0.25	0.62	0.44	0.05
T-122-B	39	38	37	19.9	-4.6	7.8	33.3	-5.6	1.04	0.15	54.1	0.45	0.73	0.43	0.04
T-122-C	42	41	40	19.3	-2.7	18.4	40.4	-2.7	1.31	0.31	45.6	0.80	0.82	0.50	0.03
T-122-D	45	44	43	21.1	-8.2	17.5	46.9	-8.3	1.46	0.13	46.9	0.78	0.87	0.64	0.03
T-122-E	48	47	46	20.2	-10.7	19.0	50.0	-10.7	1.54	0.14	45.6	0.83	0.86	0.70	0.02
T-122-F	51	50	49	18.2	-14.2	13.0	45.5	-14.3	1.36	-0.02	-87.5	-0.02	1.36	-0.06	0.05
T-122-G	54	53	52	22.1	-7.1	8.7	38.9	-8.1	1.20	0.12	-36.7	0.81	0.51	-0.52	0.02
T-122-H	57	56	55	21.5	1.0	6.2	28.9	-1.1	0.94	0.25	-29.6	0.77	0.42	-0.30	0.03
T-122-J	60	59	58	15.8	8.7	7.4	16.7	6.5	0.61	0.39	-17.4	0.59	0.40	-0.07	0.04
T-122-K	63	62	61	10.2	11.5	9.2	11.6	7.8	0.46	0.37	37.3	0.43	0.40	0.04	0.02
T-122-L	66	65	64	8.1	11.8	7.9	11.9	4.1	0.43	0.25	44.1	0.35	0.34	0.09	0.04
T-122-A	361	362	363	-3.2	-35.9	-25.3	10.0	-38.5	-0.05	-1.17	-31.4	-0.36	-0.87	-0.50	0.03
T-122-B	364	365	366	-5.6	-34.2	-30.1	2.6	-39.3	-0.29	-1.24	-26.6	-0.48	-1.05	-0.38	0.03
T-122-C	367	368	369	-5.9	-31.1	-37.9	-3.5	-40.4	-0.51	-1.35	-15.0	-0.57	-1.31	-0.21	0.04
T-122-D	370	371	372	-4.8	-25.6	-40.0	-4.5	-40.3	-0.55	-1.37	-5.2	-0.56	-1.37	-0.07	0.03
T-122-E	373	374	375	-3.2	-15.2	-28.5	-3.2	-29.5	-0.39	-0.97	1.4	-0.39	-0.97	0.01	0.03
T-122-F	376	377	378	-1.3	-8.9	-23.9	-0.7	-24.5	-0.27	-0.81	-36.0	-0.46	-0.62	-0.26	0.03
T-122-G	379	380	381	-2.8	-13.1	-22.9	-2.8	-22.9	-0.32	-0.79	89.3	-0.78	-0.32	0.01	0.03
T-122-H	382	383	384	-8.9	-14.8	-14.3	-7.4	-15.8	-0.40	-0.59	65.4	-0.56	-0.43	0.07	0.02
T-122-J	385	386	387	-13.6	-15.2	-10.6	-8.6	-15.5	-0.44	-0.60	32.0	-0.48	-0.55	0.07	0.04
T-122-K	388	389	390	-12.0	-12.4	-5.9	-4.3	-13.6	-0.28	-0.49	24.3	-0.31	-0.45	0.08	0.03
T-122-L	391	392	393	-12.4	-9.9	-3.1	-2.6	-12.8	-0.21	-0.45	12.4	-0.22	-0.44	0.05	0.04
T-123-A	69	68	67	21.7	-10.3	0.7	35.0	-12.7	1.03	-0.07	58.0	0.24	0.72	0.50	0.02
T-123-B	72	71	70	23.3	-2.5	4.1	32.5	-5.1	1.02	0.15	60.2	0.37	0.81	0.37	0.02
T-123-C	75	74	73	27.7	3.7	8.0	35.1	0.6	1.16	0.37	62.4	0.54	0.99	0.33	0.03
T-123-D	78	77	76	27.9	6.5	14.5	37.4	5.0	1.28	0.54	57.3	0.75	1.06	0.34	0.02
T-123-E	81	80	79	20.9	6.8	23.0	37.2	6.8	1.29	0.59	43.0	0.97	0.92	0.35	0.07
T-123-F	84	83	82	22.9	8.8	17.5	31.9	8.5	1.14	0.60	-83.3	0.60	1.13	-0.06	0.04

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN - MIC ⁰ INCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	S MAX	S MIN	PHI	SIG(L)	SIG(T)	TAB	CONF
7-103-G	87	86	85	24.9	13.2	13.4	27.3	10.9	1.01	0.63	-22.8	0.95	0.69	-0.14	0.03
7-103-H	90	89	88	14.7	14.8	16.0	16.2	14.5	0.68	0.64	-69.2	0.64	0.67	-0.31	0.03
7-103-J	93	92	91	9.1	13.9	17.5	17.6	9.1	0.67	0.47	86.1	0.47	0.67	0.01	0.03
7-103-K	96	95	94	4.8	13.9	16.5	17.4	4.0	0.61	0.33	75.5	0.32	0.59	0.37	0.01
7-103-L	99	98	97	3.6	13.8	13.8	15.9	1.5	0.54	0.21	67.6	0.25	0.49	0.12	0.02
7-103-A	394	395	396	-10.6	-30.2	-23.7	-2.5	-31.8	-0.40	-1.07	-31.7	-0.58	-0.89	-0.30	0.04
7-103-B	397	398	399	-10.4	-29.7	-31.7	-7.3	-34.8	-0.59	-1.22	-19.6	-0.66	-1.15	-0.23	0.03
7-103-C	402	401	402	-16.6	-33.8	-39.2	-15.1	-40.7	-0.90	-1.43	-13.9	-0.93	-1.46	-0.14	0.06
7-103-D	403	404	405	-13.4	-40.0	-41.7	-9.7	-46.4	-0.74	-1.61	-20.7	-0.85	-1.51	-0.28	0.03
7-103-E	405	407	408	-16.6	-41.2	-39.5	-10.6	-45.5	-0.80	-1.63	-24.4	-0.94	-1.47	-0.33	0.03
7-103-F	409	410	411	-20.6	-40.3	-31.5	-10.8	-41.3	-0.76	-1.47	-79.5	-1.45	-0.79	-0.13	0.07
7-103-G	412	413	414	-28.6	-40.3	-23.6	-11.7	-40.5	-0.79	-1.45	40.0	-1.06	-1.18	0.33	0.05
7-103-H	415	416	417	-32.1	-37.9	-12.1	-3.4	-40.8	-0.52	-1.39	28.8	-0.72	-1.18	0.36	0.04
7-103-J	421	422	423	-24.4	-16.5	-10.1	-10.1	-24.4	-0.57	-0.91	-3.0	-0.58	-0.90	-0.02	0.06
7-103-K	418	419	420	-31.2	-26.8	-15.8	-15.1	-31.9	-0.81	-1.23	11.4	-0.83	-1.19	0.07	0.03
7-103-L	424	425	426	-16.6	-11.8	-7.7	-7.7	-16.6	-0.42	-0.62	-2.0	-0.42	-0.62	-0.01	0.03
7-104-A	102	101	100	20.6	-18.2	-10.3	33.1	-22.8	0.87	-0.42	61.7	-0.13	0.58	0.54	0.03
7-104-B	105	104	103	19.8	-17.4	-7.1	33.7	-21.0	0.90	-0.35	59.8	-0.04	0.59	0.55	0.03
7-104-C	109	107	106	19.6	-13.7	-3.2	33.0	-16.5	0.92	-0.22	58.7	0.09	0.62	0.51	0.02
7-104-D	111	110	109	17.0	-5.8	-1.0	24.3	-9.4	0.72	-0.24	61.6	0.14	0.55	0.32	0.01
7-104-E	114	113	112	16.5	7.1	-2.1	16.5	-2.1	0.52	0.09	-45.3	0.31	0.31	-0.21	0.02
7-104-F	117	116	115	7.0	10.7	7.2	10.7	3.6	0.39	0.22	45.7	0.30	0.31	0.08	0.03
7-104-G	120	119	118	0.9	7.0	10.7	10.8	0.8	0.36	0.13	82.9	0.14	0.36	0.03	0.03
7-104-H	123	122	121	-1.6	3.0	11.3	11.6	-1.8	0.36	0.05	-81.9	0.06	0.36	-0.34	0.01
7-104-J	126	125	124	-3.2	1.7	11.0	11.4	-3.5	0.34	-0.03	-81.2	0.01	0.33	-0.05	0.02
7-104-K	427	428	429	-7.4	-20.6	-13.1	0.5	-21.0	-0.19	-0.69	-37.4	-0.37	-0.50	-0.24	0.03
7-104-B	430	431	432	-14.5	-23.8	-13.6	-4.2	-23.8	-0.38	-0.83	-46.4	-0.61	-0.59	-0.23	0.02
7-104-C	433	434	435	-14.2	-27.9	-18.1	-4.3	-28.0	-0.42	-0.97	-40.3	-0.65	-0.74	-0.27	0.04
7-104-D	436	437	438	-8.7	-31.5	-31.6	-4.0	-36.3	-0.45	-1.24	-22.4	-0.63	-1.13	-0.26	0.03
7-104-E	439	440	441	-26.8	-39.8	-19.2	-5.8	-40.2	-0.59	-1.38	83.7	-1.37	-0.60	0.39	0.03
7-104-F	442	443	444	-32.3	-28.5	-7.0	-4.1	-35.1	-0.48	-1.23	17.6	-0.55	-1.13	0.21	0.03
7-104-G	445	446	447	-22.7	-19.9	-10.1	-9.2	-23.6	-0.54	-0.87	14.6	-0.56	-0.85	0.08	0.02
7-104-H	448	449	450	-15.5	-10.2	-8.1	-7.9	-15.8	-0.41	-0.53	-11.3	-0.42	-0.59	-0.34	0.02
7-104-J	451	452	453	-8.7	-6.3	-8.5	-6.2	-12.0	-0.32	-0.46	-49.2	-0.40	-0.39	-0.07	0.04
7-105-A	129	128	127	1.7	-32.3	-3.3	30.8	-32.4	0.70	-0.76	47.3	-0.09	0.02	0.73	0.02
7-105-B	132	131	130	3.5	-28.5	-3.4	28.8	-28.7	0.67	-0.66	48.4	-0.06	0.08	0.56	0.03
7-105-C	135	134	133	-0.4	-28.6	-3.7	24.5	-29.6	0.53	-0.79	46.8	-0.13	-0.05	0.61	0.03
7-105-D	138	137	136	-3.0	-22.3	1.5	21.0	-22.5	0.47	-0.53	42.0	0.02	-0.08	0.50	0.03
7-105-E	141	140	139	11.2	-1.7	-13.9	11.2	-13.9	0.23	-0.35	-45.8	-0.36	-0.25	-0.29	0.02
7-105-F	144**	143	142	0.0	4.4	-1.2	4.5	-5.7	0.09	-0.14	41.6	-0.01	-0.04	0.12	0.01
7-105-G	147	146	145	0.0	-1.5	-0.5	1.1	-1.6	0.32	-0.24	-39.5	-0.03	-0.32	-0.33	0.02
7-105-H	150*	149	148	-4.1	-5.1	-0.8	0.8	-5.6	-0.03	-0.19	-60.8	-0.14	-0.27	-0.35	0.07
7-105-J	153	152	151	0.8	-5.6	-3.9	3.2	-6.2	0.24	-0.17	-30.0	-0.01	-0.12	-0.39	0.02
7-105-A	454	455	456	1.2	-14.1	-0.4	14.9	-14.1	0.35	-0.32	-43.5	0.03	-0.00	-0.33	0.01
7-105-B	457	458	459	-0.3	-14.5	1.6	15.8	-14.5	0.38	-0.32	-46.8	0.01	0.05	-0.35	0.01
7-105-C	461	461	462**	0.7	-12.3	0.0	13.0	-12.3	0.31	-0.29	-44.2	0.02	0.01	-0.29	0.02
7-105-D	463	464	465	-0.4	7.9	-1.0	7.9	-9.2	0.17	-0.23	43.9	-0.02	-0.04	0.23	0.02
7-105-E	466*	467	468	98.9	2.2	6.0	120.9	-16.0	3.83	0.67	-68.6	1.09	3.41	-1.37	1.18
7-105-F	469	470	471	2.7	2.5	-0.6	3.3	-1.1	0.10	-0.01	-69.4	0.01	0.08	-0.33	0.02
7-105-G	472	473	474	1.0	-0.6	-0.8	1.3	-1.0	0.33	-0.22	69.6	-0.01	0.33	0.02	0.02
7-105-H	475	476	477	1.2	0.8	-0.3	1.3	-0.4	0.04	0.03	-78.2	0.00	0.04	-0.01	0.03
7-105-J	479	479	480	1.0	2.1	-1.6	2.4	-3.0	0.25	-0.09	-58.9	-0.04	0.32	-0.35	0.01
7-201-A	168	167	166	-1.5	-20.0	-0.9	17.6	-20.0	0.38	-0.43	44.5	-0.04	-0.06	0.43	0.03
7-201-B	171	170	169	-2.3	-21.1	-1.9	16.9	-21.1	0.35	-0.53	44.7	-0.09	-0.09	0.44	0.01
7-201-C	174	173	172	-3.9	-29.7	-1.1	24.7	-29.7	0.52	-0.73	43.5	-0.08	-0.14	0.63	0.03
7-201-D	177	176	175	6.4	-35.6	-8.1	34.7	-36.4	0.78	-0.85	50.9	-0.20	0.13	0.80	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMV	SMAX	SMIN	PHI	SIG(L)	SIG(T)	T&J	CONF
0-201-E	180	179	178	7.7	-28.3	-7.5	29.5	-29.3	0.68	-0.69	52.5	-0.17	0.18	0.56	0.03
0-201-F	183	182	181	3.7	-23.0	-1.1	25.7	-23.1	0.62	-0.51	-87.2	-0.51	0.62	-0.35	0.02
0-201-G	186	185	184	15.2	-20.9	-5.5	32.6	-22.9	0.85	-0.43	-34.0	0.45	-0.03	-0.59	0.02
0-201-H	189	188	187	30.7	-10.8	-7.2	41.2	-17.7	1.18	-0.19	-24.9	0.94	0.7	-0.52	0.03
0-201-J	192	191	190	35.2	-0.5	-17.7	38.6	-14.0	1.13	-0.09	-14.6	1.06	-0.00	-0.30	0.01
0-201-K	195	194	193	34.0	7.3	-11.9	34.3	-12.2	1.01	-0.05	-4.7	1.00	-0.06	-0.39	0.04
0-201-L	198	197	196	40.5	18.2	-17.2	40.7	-17.4	1.24	0.05	3.4	1.23	0.07	0.07	0.03
1-201-A	493	494**	495**	0.1	0.0	0.0	0.1	-0.0	0.00	0.00	-22.5	0.00	0.00	-0.00	0.00
1-201-B	496	497**	498*	0.9	0.0	0.2	1.3	-0.1	0.04	0.01	-28.4	0.03	0.02	-0.01	0.05
1-201-C	499	500	501**	0.3	-3.2	0.0	3.5	-3.2	0.08	-0.07	-43.6	0.01	0.00	-0.08	0.04
1-201-D	502	503	504	-3.0	13.8	17.3	19.3	-5.0	0.59	0.03	73.3	0.07	0.54	0.15	0.04
1-201-E	505**	506**	507*	0.0	0.0	11.8	14.2	-2.4	0.44	0.06	-67.5	0.12	0.39	-0.14	0.03
1-201-F	509	508**	510	-2.4	0.0	12.6	14.2	-4.0	0.43	0.01	62.1	0.10	0.34	0.17	0.03
1-201-G	511	512	513	2.0	27.1	10.7	27.5	-14.8	0.76	-0.21	-39.0	0.37	0.17	-0.48	0.02
1-201-H	514	515	516	9.5	20.8	6.1	20.9	-5.3	0.64	0.03	-48.7	0.30	0.37	-0.30	0.03
1-201-J	517	518	519	9.7	12.4	5.7	12.8	2.6	0.45	0.21	-56.6	0.28	0.38	-0.11	0.03
1-201-K	520	521	522	4.0	9.5	21.2	21.7	3.4	0.75	0.33	5.9	0.74	0.34	0.07	0.04
1-201-L	523	524	525	-1.9	4.9	25.2	31.5	-4.2	1.10	0.17	14.7	0.94	0.23	0.20	0.02
0-202-A	201	200	199	16.0	-9.0	3.1	29.1	-10.1	0.86	-0.04	54.6	0.26	0.56	0.43	0.03
0-202-B	204	203	202	15.6	-3.3	10.5	29.6	-3.5	0.94	0.18	49.5	0.50	0.62	0.38	0.04
0-202-C	207	206	205	19.5	-3.3	13.8	36.6	-3.5	1.18	0.25	49.1	0.65	0.78	0.45	0.07
0-202-D	210	209	208	25.5	-9.1	15.1	50.2	-9.5	1.56	0.18	50.0	0.75	0.99	0.68	0.04
0-202-E	213	212	211	37.8	-13.4	16.7	68.6	-14.9	2.12	0.19	52.6	0.90	1.40	0.93	0.04
0-202-F	216	215	214	39.8	-13.6	8.1	64.6	-16.8	1.97	0.09	-78.5	0.16	1.89	-0.37	0.06
0-202-G	219	218	217	45.9	-5.2	2.1	60.5	-12.5	1.87	0.19	-26.5	1.53	0.52	-0.57	0.04
0-202-H	222	221	220	48.1	7.9	1.0	53.4	-4.3	1.72	0.39	-17.6	1.59	0.51	-0.38	0.02
0-202-J	225	224	223	44.8	17.1	1.4	45.6	0.6	1.51	0.47	-7.7	1.49	0.49	-0.14	0.03
0-202-K	228	227	226	37.5	22.5	2.8	37.6	2.6	1.27	0.45	3.9	1.26	0.46	0.05	0.03
0-202-L	231	230	229	46.8	29.0	1.8	47.3	1.3	1.57	0.51	5.9	1.56	0.52	0.11	0.03
1-202-A	526	527	528	-3.2	-34.2	-19.4	-13.7	-35.6	0.38	-1.04	-35.3	-0.30	-0.67	-0.53	0.03
1-202-B	529	530	531	-3.4	-34.4	-23.9	9.4	-36.8	-0.05	-1.12	-31.8	-0.35	-0.82	-0.48	0.04
1-202-C	532	533	534	-4.6	-29.4	-27.7	1.4	-33.7	-0.29	-1.10	-24.5	-0.43	-0.96	-0.31	0.03
1-202-D	535	536	537	-8.6	-22.7	-25.5	-6.9	-27.2	-0.50	-0.95	-17.0	-0.54	-0.92	-0.13	0.04
1-202-E	538	539	540	-7.6	-6.3	-10.2	-6.0	-11.8	-0.31	-0.45	31.9	-0.35	-0.41	0.06	0.03
1-202-F	541	542	543	-5.4	4.5	-4.2	4.5	-14.1	0.01	-0.42	1.8	0.01	-0.42	0.01	0.03
1-202-G	544	545	546	-8.9	-1.7	-9.6	-1.7	-15.8	-0.21	-0.54	-44.4	-0.37	-0.38	-0.16	0.03
1-202-H	547	548	549	-16.5	-10.5	-5.6	-5.6	-16.5	-0.35	-0.60	-3.0	-0.35	-0.60	-0.01	0.04
1-202-J	550	551	552	-18.0	-7.6	3.6	3.6	-18.0	-0.06	-0.55	1.0	-0.06	-0.56	0.01	0.04
1-202-K	553	554	555	-18.2	-4.6	17.0	17.4	-18.7	0.39	-0.44	6.4	0.38	-0.43	0.09	0.03
1-202-L	556	557	558	-15.7	-6.9	21.1	23.4	-19.0	0.59	-0.36	13.8	0.54	-0.31	0.22	0.02
0-203-A	234	233	232	25.6	-5.8	1.0	36.0	-9.4	1.09	0.05	61.3	0.29	0.85	0.44	0.03
0-203-B	237	236	235	31.4	3.0	2.6	37.1	-3.1	1.19	0.26	67.9	0.40	1.06	0.32	0.03
0-203-C	240	239	238	32.9	6.1	11.5	41.5	2.9	1.40	0.51	61.7	0.71	1.20	0.37	0.04
0-203-D	243	242	241	36.1	7.8	20.9	50.6	8.4	1.73	0.71	55.1	1.05	1.40	0.48	0.04
0-203-E	246	245	244	39.2	19.4	27.4	56.9	9.6	1.97	0.89	52.2	1.29	1.56	0.53	0.05
0-203-F	249	248	247	47.1	13.5	19.0	57.1	9.0	1.97	0.85	-72.1	0.95	1.87	-0.32	0.04
0-203-G	252	251	250	48.9	29.4	13.8	52.0	17.6	1.82	0.87	-15.9	1.75	0.94	-0.25	0.05
0-203-H	255	254	253	41.6	24.4	15.5	42.2	14.9	1.54	0.91	-8.8	1.52	0.92	-0.10	0.05
0-203-J	258	257	256	33.6	28.9	17.2	34.3	16.5	1.30	0.89	11.6	1.28	0.90	0.08	0.04
0-203-K	261	260	259	24.5	22.9	17.5	25.0	17.0	0.99	0.81	13.8	0.98	0.82	0.04	0.05
0-203-L	264	263	262	30.1	25.3	15.8	30.5	15.4	1.16	0.81	9.2	1.15	0.82	0.05	0.04
1-203-A	559	560	561	-8.6	-36.8	-31.6	0.2	-43.4	-0.39	-1.33	-27.7	-0.60	-1.13	-0.39	0.05
1-203-B	562	563	564	-9.3	-36.0	-38.7	-5.0	-43.0	-0.59	-1.47	-19.6	-0.69	-1.37	-0.28	0.03
1-203-C	565	566	567	-17.9	-43.4	-46.9	-14.2	-50.6	-0.97	-1.81	-18.5	-1.05	-1.72	-0.25	0.04
1-203-D	568	569	570	-17.4	-53.6	-52.7	-9.4	-67.6	-0.91	-2.09	-23.2	-1.09	-1.91	-0.43	0.04
1-203-E	571	572	573	-23.5	-48.8	-45.1	-16.3	-52.4	-1.05	-1.89	-26.6	-1.22	-1.72	-0.33	0.11

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	E _{MAX}	E _{MIN}	S _{MAX}	S _{MIN}	PHI	SIG(L)	SIG(T)	T ₀₁	CONF
I-203-F	574	575	576	-26.6	-43.5	-31.3	-14.2	-43.7	-0.90	-1.58	-85.5	-1.58	-0.90	-0.35	0.04
I-203-G	577	578	579	-37.8	-43.9	-21.0	-12.7	-45.1	-0.87	-1.65	29.9	-1.07	-1.45	0.33	0.05
I-203-H	580	581	582	-42.3	-40.6	-8.7	-3.0	-48.1	-0.57	-1.61	21.0	-0.71	-1.48	0.35	0.04
I-203-J	583	584	585	-30.2	-25.0	-9.1	-9.1	-39.3	-0.69	-1.38	1.5	-0.69	-1.38	0.32	0.05
I-203-K	586	587	588	-30.4	-15.2	4.9	5.0	-30.6	-0.14	-0.95	3.9	-0.14	-0.96	0.35	0.03
I-203-L	589	590	591	-22.8	-11.3	6.9	7.2	-23.2	0.01	-0.69	6.3	0.00	-0.68	0.38	0.05
I-204-A	267	266	265	23.9	-18.9	-6.8	40.7	-22.9	1.09	-0.35	59.6	0.01	0.72	0.63	0.02
I-204-B	270	269	268	25.8	-15.1	-6.5	39.2	-19.9	1.10	-0.27	61.5	0.04	0.79	0.57	0.02
I-204-C	273	272	271	29.7	-9.2	-1.7	42.0	-14.0	1.25	-0.95	62.0	0.24	0.96	0.54	0.03
I-204-D	276	275	274	26.4	-2.2	0.5	33.8	-5.9	1.95	0.11	64.8	0.28	0.88	0.36	0.03
I-204-E	279	278	277	27.4	17.1	2.5	27.6	2.3	0.93	0.35	-40.2	0.69	0.59	-0.29	0.03
I-204-F	282	281	280	17.6	17.2	12.5	18.4	11.7	0.72	0.57	19.9	0.70	0.59	0.05	0.04
I-204-G	285	284	283	11.6	10.5	16.9	18.8	9.7	0.71	0.50	-62.9	0.55	0.67	-0.08	0.04
I-204-H	288	287	286	10.1	9.2	17.8	29.9	7.1	0.76	0.44	-62.0	0.51	0.69	-0.13	0.04
I-204-I	291	290	289	11.4	6.9	15.1	19.8	6.7	0.72	0.42	-53.1	0.52	0.61	-0.15	0.04
I-204-J	592	593	594	-12.0	-23.9	-18.8	-6.2	-24.6	-0.45	-0.87	-34.2	-0.58	-0.74	-0.20	0.03
I-204-K	595	596	597	-15.5	-27.3	-25.7	-12.2	-29.0	-0.59	-1.09	-26.4	-0.76	-1.00	-0.15	0.04
I-204-L	598	599	600	-14.2	-33.3	-34.8	-11.0	-39.1	-0.74	-1.35	-20.2	-0.81	-1.29	-0.20	0.03
I-204-M	601	602	603	-3.9	-39.3	-57.7	-9.9	-53.6	-0.56	-1.79	-13.6	-0.63	-1.71	-0.23	0.04
I-204-N	604	605	606	-28.0	-55.1	-35.1	-7.8	-55.4	-0.90	-1.90	-85.7	-1.90	-0.81	-0.08	0.04
I-204-O	607	608	609	-44.2	-40.2	-7.3	-2.3	-49.1	-0.56	-1.64	19.1	-0.68	-1.53	0.33	0.05
I-204-P	610	611	612	-26.9	-30.1	-13.7	-8.6	-32.1	-0.50	-1.14	27.9	-0.72	-1.02	0.22	0.03
I-204-Q	615	614	613	-19.6	-13.3	-9.9	-9.7	-19.8	-0.51	-0.75	81.8	-0.74	-0.52	0.03	0.03
I-204-R	616	617	618	-12.0	-10.7	-4.4	-4.0	-12.4	-0.25	-0.45	12.4	-0.26	-0.44	0.04	0.04
I-205-A	292	293	294	1.7	35.3	-3.3	35.3	-36.9	0.90	-0.87	43.0	0.02	-0.09	0.93	0.02
I-205-B	295	296	297	-0.1	31.9	2.7	31.9	-29.4	0.76	-0.65	46.3	0.02	0.09	0.71	0.02
I-205-C	298	299	300	2.2	28.9	-1.7	29.0	-28.5	0.57	-0.55	43.1	0.06	-0.03	0.56	0.03
I-205-D	301	302	303	0.3	19.8	0.2	18.8	-18.2	0.44	-0.51	44.9	0.01	0.01	0.43	0.02
I-205-E	306	305	304	10.3	-0.9	-12.5	10.3	-12.5	0.22	-0.31	-44.6	-0.04	-0.05	-0.26	0.02
I-205-F	309	308	307	0.2	1.4	-0.6	1.4	-1.8	0.03	-0.34	37.4	0.00	-0.02	0.34	0.03
I-205-G	312	311	310	3.4	-6.2	-1.0	9.0	-5.5	0.23	-0.13	-36.8	0.13	0.00	-0.17	0.03
I-205-H	315	314	313	3.5	8.1	-1.7	10.3	-8.5	0.25	-0.19	-37.0	0.10	-0.02	-0.21	0.02
I-205-I	318	317	316	4.0	-11.5	-3.5	12.6	-12.1	0.29	-0.27	-36.2	0.10	-0.08	-0.27	0.02
I-205-J	621	620	619	-9.9	10.9	0.8	10.9	-11.0	0.25	-0.25	-42.8	0.02	-0.02	-0.25	0.02
I-205-K	622	623	624	-0.5	-8.3	2.0	9.9	-8.4	0.24	-0.13	-48.9	0.00	0.06	-0.21	0.02
I-205-L	625	626	627	-0.8	-6.8	1.9	8.1	-5.9	0.20	-0.15	-59.2	-0.01	0.05	-0.17	0.02
I-205-M	628	629	630	-0.4	-0.3	4.1	5.0	-1.3	0.15	0.01	-67.8	0.03	0.13	-0.05	0.05
I-205-N	631	632	633	4.6	3.6	-1.7	5.3	-2.4	0.15	-0.03	-27.6	0.11	0.01	-0.37	0.03
I-205-O	634	635	636	2.7	-4.6	0.4	7.5	-4.7	0.20	-0.09	49.7	0.04	0.08	0.14	0.02
I-205-P	637	638	639	1.8	-11.3	-1.0	12.2	-11.4	0.29	-0.26	40.4	-0.01	0.05	0.27	0.04
I-205-Q	640	641	642	9.9	-7.3	-9.3	8.7	-7.3	0.19	-0.16	47.2	-0.00	0.03	0.18	0.03
I-205-R	643	644	645**	0.4	-1.5	0.0	1.9	-1.5	0.05	-0.03	48.3	0.00	0.01	0.04	0.01
I-206-A	156	155	154	-9.8	-12.5	3.6	9.2	-14.3	0.16	-0.38	29.1	0.03	-0.25	0.23	0.02
I-206-B	159	158*	157	-8.9	0.5	2.1	3.4	-19.1	0.01	-0.30	-17.8	-0.02	-0.27	-0.09	0.03
I-206-C	162	161	160	-4.5	6.8	1.1	7.2	-10.7	0.13	-0.29	-35.9	-0.01	-0.14	-0.20	0.02
I-206-D	165	164*	163	-0.4	7.5	0.2	7.5	-7.7	0.17	-0.19	-43.8	0.00	-0.01	-0.18	0.03
I-206-E	481	482	483	3.9	16.2	-10.6	17.5	-24.3	0.34	-0.63	34.8	0.02	-0.31	0.65	0.02
I-206-F	484	485	486	4.1	10.4	-8.1	11.9	-15.9	0.23	-0.41	32.0	0.05	-0.23	0.29	0.03
I-206-G	487	488	489	1.5	6.1	-4.2	6.6	-9.3	0.13	-0.24	34.4	0.01	-0.12	0.17	0.02
I-206-H	490	491	492	-7.4	3.9	-7.3	3.9	-4.7	0.08	-0.11	45.3	-0.02	-0.01	0.10	0.01
I-206-I	321	320	319	9.6	-6.2	-5.1	13.5	-9.9	0.36	-0.16	65.4	-0.07	0.27	0.20	0.01
I-206-J	324*	323	322	11.1	3.6	-2.7	11.1	-2.7	0.34	0.02	87.4	0.02	0.34	0.01	0.03
I-206-K	327	326	325	5.7	7.8	-3.4	9.2	-7.0	0.23	-0.14	-62.1	-0.06	0.15	-0.15	0.02
I-206-L	646**	647**	648**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-206-M	649**	650**	651**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-206-N	652**	653	654	0.0	7.7	5.1	8.3	-3.2	0.24	-0.02	58.2	0.05	0.17	0.12	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					T ₀₁	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	S _{MAX}	S _{MIN}	PHI	SIG(L)	SIG(T)		
I-17- A	655**	656**	657**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-17- B	658**	659**	660**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-27- A	661**	662**	663**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EX- C- A	670	671	672	0.1	-21.1	-1.4	19.8	-21.1	0.44	-0.50	46.1	-0.05	-0.01	0.47	0.03
EX- C- B	675	674	673	2.9	-23.6	-2.5	24.1	-23.7	0.56	-0.54	48.2	-0.06	0.07	0.55	0.04
EX- C- C	678	677	676	-1.5	-20.8	0.1	19.4	-20.8	0.44	-0.49	43.9	-0.01	-0.05	0.45	0.01
EX- C- D	669	668	667	-0.2	-25.9	-1.7	24.0	-25.9	0.54	-0.62	45.9	-0.06	-0.02	0.58	0.02
EX- B- A	687	686	685	-0.0	3.3	0.6	3.3	-2.7	0.08	-0.05	48.2	0.01	0.02	0.07	0.01
EX- B- B	690	689	688	0.4	-1.6	0.2	2.2	-1.6	0.06	-0.03	-43.4	0.01	0.01	-0.04	0.01
EX- B- C	681*	680	679	2.0	0.7	-1.2	2.0	-1.2	0.05	-0.02	5.2	0.05	-0.02	0.01	0.04
EX- B- D	684	683	682	0.6	-1.2	0.4	2.3	-1.2	0.06	-0.02	-43.0	0.02	0.02	-0.04	0.02
EX- A- A	696	695	694	-32.3	-11.0	9.2	9.2	-32.3	-0.02	-0.97	89.3	-0.97	-0.02	0.01	0.05
EX- A- B	693	692	691	-0.8	-3.4	0.3	3.7	-3.4	0.06	-0.08	-49.9	-0.02	0.00	-0.07	0.03
EX- A- C	666	665	664	34.5	16.5	-8.8	34.8	-9.1	1.06	0.04	4.8	1.05	0.05	0.08	0.04
EX- A- D	699	698	697	-0.0	-2.4	0.3	2.7	-2.4	0.06	-0.05	-46.9	0.00	0.01	-0.06	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

COMBUSTION T-11, LOAD CASE 3, M3Z

NOMINAL LOAD = 7.883E 05

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
U-1R1-A	5	2	1	9.3	7.3	5.6	9.3	5.6	0.36	0.28	88.9	0.28	0.36	0.00	0.04
U-1R1-E	6	5	4	9.6	9.4	7.1	10.0	6.7	0.39	0.32	-69.9	0.33	0.39	-0.02	0.03
U-1R1-F	9	8	7	6.8	14.1	11.0	14.5	3.2	0.51	0.25	-34.1	0.43	0.33	-0.12	0.03
U-1R1-G	12	11	10	1.9	20.4	13.1	21.5	-6.6	0.64	-0.01	-33.3	0.45	0.19	-0.30	0.02
U-1R1-H	15	14	13	-0.9	23.1	10.5	24.0	-14.5	0.65	-0.24	-36.4	0.34	0.07	-0.42	0.02
U-1R1-I	18	17	16	3.8	-20.8	3.0	27.5	-20.8	0.70	-0.41	-89.5	-0.41	0.70	-0.01	0.02
U-1R1-J	21	20	19	-3.1	16.9	0.8	19.0	-21.2	0.42	-0.51	47.8	-0.09	-0.00	0.46	0.01
U-1R1-K	24	23	22	-15.6	7.7	0.9	9.8	-24.6	0.08	-0.71	59.3	-0.51	-0.13	0.35	0.02
U-1R1-L	27	26	25	-17.7	-2.5	-4.1	-0.0	-21.7	-0.22	-0.72	64.4	-0.62	-0.31	0.19	0.01
U-1R1-M	30	29	28	-15.2	-7.6	-6.2	-5.2	-16.2	-0.33	-0.59	72.9	-0.56	-0.35	0.07	0.02
U-1R1-N	33	32	31	-14.0	-11.0	-8.3	-8.3	-14.8	-0.42	-0.57	85.7	-0.57	-0.42	0.01	0.02
I-1R1-A	328	329	330	-0.6	-5.7	-18.5	0.6	-19.7	-0.17	-0.64	14.2	-0.20	-0.61	0.11	0.01
I-1R1-B	331	332	333	1.6	1.0	-23.8	6.5	-28.6	-0.07	-0.88	21.9	-0.18	-0.77	0.28	0.01
I-1R1-C	334	335	336	0.5	8.6	-26.6	12.5	-38.6	0.03	-1.15	29.0	-0.25	-0.87	0.50	0.02
I-1R1-D	337	338	339	3.6	13.2	-25.0	17.1	-38.6	0.16	-1.10	29.6	-0.13	-0.79	0.55	0.01
I-1R1-E	340	341	342	3.9	12.2	-13.1	14.2	-23.5	0.24	-0.63	31.6	-0.00	-0.59	0.39	0.02
I-1R1-F	343	344	345	2.2	10.6	-7.4	11.5	-16.7	0.21	-0.44	-9.9	0.19	-0.42	-0.11	0.02
I-1R1-G	346	347	348	8.2	12.1	-3.7	13.7	-9.3	0.36	-0.17	-60.6	-0.04	0.23	-0.23	0.01
I-1R1-H	349	350	351	15.7	14.1	0.8	17.7	-1.3	0.57	0.13	-70.8	0.18	0.52	-0.14	0.01
I-1R1-I	352	353	354	22.0	14.2	0.3	22.5	-0.1	0.74	0.22	-82.1	0.23	0.73	-0.07	0.03
I-1R1-J	355	356	357	20.2	11.8	-3.2	20.6	-3.7	0.64	0.08	-82.2	0.09	0.63	-0.08	0.02
I-1R1-K	358	359	360	16.9	9.2	-1.6	17.1	-1.7	0.55	0.11	-85.4	0.12	0.54	-0.04	0.02
U-1R2-A	36*	35	34	-2.2	12.8	24.6	24.7	-2.2	0.79	0.17	-3.3	0.79	0.17	-0.04	0.03
U-1R2-B	39	38	37	-5.2	11.0	20.5	20.9	-5.6	0.63	0.02	-7.3	0.62	0.03	-0.06	0.02
U-1R2-C	42	41	40	-7.0	13.5	22.3	23.4	-8.1	0.69	-0.03	-10.8	0.67	-0.01	-0.13	0.02
U-1R2-D	45	44	43	-11.1	9.3	19.4	20.2	-12.0	0.55	-0.19	-9.3	0.53	-0.18	-0.12	0.02
U-1R2-E	48	47	46	-17.0	10.1	10.7	16.0	-22.3	0.31	-0.58	-21.8	0.18	-0.45	-0.31	0.02
U-1R2-F	51	50	49	-18.6	8.0	6.2	12.7	-25.1	0.17	-0.70	20.6	0.06	-0.59	0.29	0.02
U-1R2-G	54	53	52	-21.7	2.1	5.8	9.1	-25.0	0.05	-0.73	71.9	-0.66	-0.02	0.23	0.02
U-1R2-H	57	56	55	-20.9	-8.8	0.5	0.6	-20.9	-0.19	-0.68	86.2	-0.68	-0.19	0.03	0.02
U-1R2-I	60	59	58	-15.6	-10.6	-5.2	-5.2	-15.6	-0.33	-0.57	-89.2	-0.57	-0.33	-0.60	0.02
U-1R2-J	63	62	61	-11.3	-14.0	-8.2	-5.2	-14.3	-0.31	-0.52	-55.1	-0.45	-0.38	-0.10	0.01
U-1R2-K	66	65	64	-11.4	-13.0	-8.0	-6.0	-13.4	-0.33	-0.50	-38.8	-0.46	-0.38	-0.08	0.02
I-1R2-A	361	362	363	6.6	10.8	-2.0	11.8	-7.2	0.32	-0.12	31.6	0.20	-0.00	0.20	0.02
I-1R2-B	364	365	366	7.2	14.9	0.6	15.4	-7.7	0.43	-0.10	36.7	0.24	0.09	0.25	0.01
I-1R2-C	367	368	369	7.3	18.6	1.8	18.9	-9.8	0.53	-0.14	39.5	0.26	0.13	0.32	0.01
I-1R2-D	370	371	372	8.0	25.5	5.6	25.6	-12.0	0.72	-0.14	43.1	0.32	0.26	0.43	0.02
I-1R2-E	373	374	375	14.2	27.3	3.2	28.1	-10.6	0.82	-0.07	36.8	0.50	0.25	0.43	0.02
I-1R2-F	376	377	378	16.8	24.2	0.6	26.1	-8.5	0.78	-0.02	-13.8	0.73	0.02	-0.18	0.02
I-1R2-G	379	380	381	22.5	26.0	2.0	29.4	-4.9	0.92	0.13	-63.4	0.29	0.76	-0.32	0.02
I-1R2-H	382	383	384	27.9	26.3	2.1	32.1	-2.1	1.04	0.25	-69.5	0.35	0.94	-0.26	0.02
I-1R2-I	385	386	387	24.5	17.4	-0.1	28.8	-0.4	0.95	0.27	-83.7	0.28	0.94	-0.07	0.02
I-1R2-J	388	389	390	23.9	13.9	-1.0	24.2	-1.3	0.78	0.20	-84.3	0.20	0.78	-0.06	0.02
I-1R2-K	391	392	393	17.7	-6.6	0.3	18.0	-0.1	0.59	0.18	82.5	0.18	0.59	0.65	0.02
U-1R3-A	69	68	67	-7.6	21.5	34.9	36.3	-9.0	1.11	0.06	-10.1	1.08	0.10	-0.18	0.02
U-1R3-B	72	71	70	-9.8	19.6	31.2	33.0	-11.6	0.97	-0.06	-11.8	0.93	-0.01	-0.21	0.02
U-1R3-C	75	74	73	-13.3	17.5	35.2	36.1	-14.2	1.05	-0.11	-7.6	1.03	-0.09	-0.15	0.04
U-1R3-D	78	77	76	-16.0	13.9	34.3	34.7	-16.4	0.98	-0.20	-5.4	0.97	-0.19	-0.11	0.02
U-1R3-E	81	80	79	-16.1	12.7	27.3	28.4	-17.2	0.77	-0.29	-9.1	0.74	-0.26	-0.16	0.02
U-1R3-F	84	83	82	-17.5	0.9	24.2	24.3	-17.7	0.63	-0.34	48.3	0.09	0.20	0.48	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI				TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
U-1R3-G	87	86	85	-11.7	-8.7	17.2	21.2	-15.7	0.54	-0.31	-70.8	-0.22	0.45	-0.26	0.02
U-1R3-H	90	89	88	-8.3	-7.7	11.1	14.7	-11.9	0.37	-0.25	-68.3	-0.16	0.28	-0.21	0.01
U-1R3-J	93	92	91	-3.2	-7.9	2.4	7.6	-8.4	0.17	-0.20	-55.2	-0.08	0.05	-0.17	0.02
U-1R3-K	96	95	94	-2.2	-7.0	-0.4	4.5	-7.1	0.08	-0.19	-49.6	-0.08	-0.03	-0.13	0.01
U-1R3-L	99	98	97	-1.0	-7.1	-0.6	5.5	-7.1	0.11	-0.18	-45.8	-0.04	-0.03	-0.15	0.01
I-1R3-A	394	395	396	12.7	14.6	7.9	15.2	5.3	0.56	0.33	30.4	0.50	0.38	0.10	0.03
I-1R3-B	397	398	399	10.8	19.1	11.7	19.1	3.4	0.66	0.30	46.6	0.47	0.49	0.18	0.03
I-1R3-C	400	401	402	8.9	22.6	14.0	22.9	-0.0	0.76	0.23	51.3	0.43	0.55	0.26	0.03
I-1R3-D	403	404	405	7.5	25.7	15.5	26.3	-3.2	0.83	0.15	52.9	0.40	0.59	0.33	0.03
I-1R3-E	406	407	408	9.9	29.2	14.7	29.4	-4.8	0.92	0.13	49.0	0.47	0.58	0.39	0.02
I-1R3-F	409	410	411	19.0	28.2	8.0	29.2	-2.2	0.94	0.22	-10.3	0.92	0.24	-0.13	0.02
I-1R3-G	412	413	414	23.0	25.0	3.0	28.6	-2.6	0.92	0.20	-65.0	0.33	0.79	-0.28	0.03
I-1R3-H	415	416	417	20.1	20.8	2.0	24.4	-2.2	0.78	0.17	-66.5	0.27	0.68	-0.22	0.05
I-1R3-J	421	422	423	9.2	3.4	0.6	9.4	0.3	0.31	0.10	80.4	0.11	0.31	0.03	0.02
I-1R3-K	419	419	420	13.0	10.9	2.7	13.8	1.9	0.47	0.20	-74.6	0.22	0.46	-0.07	0.02
I-1R3-L	424	425	426	5.1	-1.9	1.3	8.5	-2.2	0.26	0.01	55.4	0.09	0.18	0.12	0.02
U-1R4-A	102	101	100	-4.9	21.5	35.4	36.4	-5.8	1.14	0.17	-8.6	1.12	0.19	-0.14	0.02
U-1R4-B	105	104	103	-3.7	23.3	35.2	36.6	-5.1	1.16	0.19	-10.6	1.12	0.23	-0.17	0.02
U-1R4-C	108	107	106	-0.9	28.4	38.6	40.8	-3.1	1.31	0.30	-12.9	1.26	0.35	-0.22	0.03
U-1R4-D	111	110	109	-1.7	28.4	36.2	39.2	-4.7	1.25	0.23	-15.3	1.18	0.30	-0.20	0.03
U-1R4-E	114	113	112	-4.2	11.5	35.1	35.5	-4.6	1.12	0.20	50.7	0.57	0.75	0.45	0.04
U-1R4-F	117	116	115	8.3	0.9	18.6	27.1	-0.1	0.89	0.26	-56.2	0.46	0.70	-0.29	0.03
U-1R4-G	120	119	118	11.2	-4.6	14.4	21.1	4.5	0.74	0.36	-50.4	0.51	0.58	-0.19	0.02
U-1R4-H	123	122	121	10.0	5.5	11.5	16.1	5.4	0.58	0.34	-49.1	0.44	0.48	-0.12	0.03
U-1R4-J	126	125	124	10.1	-7.3	11.0	13.8	7.2	0.53	0.38	-49.0	0.44	0.46	-0.08	0.03
I-1R4-A	427	428	429	11.2	-12.5	11.3	12.5	10.0	0.51	0.45	45.1	0.48	0.48	0.03	0.03
I-1R4-B	430	431	432	3.7	13.2	11.6	14.4	0.8	0.48	0.17	62.8	0.24	0.42	0.13	0.03
I-1R4-C	433	434	435	-1.3	13.2	11.1	15.2	-5.5	0.45	-0.03	63.3	0.07	0.35	0.19	0.03
I-1R4-D	436	437	438	-3.3	9.9	10.8	13.2	-6.2	0.37	-0.07	69.3	-0.02	0.32	0.15	0.02
I-1R4-E	439	440	441	2.9	8.1	0.7	8.2	-4.6	0.23	-0.07	-4.9	0.22	-0.07	-0.03	0.01
I-1R4-F	442	443	444	-4.5	-2.8	-1.8	-1.8	-4.6	-0.10	-0.17	-8.7	-0.11	-0.17	-0.01	0.03
I-1R4-G	445	446	447	-12.9	-6.1	-0.1	-0.1	-12.9	-0.13	-0.43	-2.1	-0.13	-0.43	-0.01	0.01
I-1R4-H	448	449	450	-13.2	-7.1	0.1	0.1	-13.3	-0.13	-0.44	2.4	-0.13	-0.44	0.01	0.01
I-1R4-J	451	452	453	-11.9	-10.8	-0.5	1.2	-13.5	-0.09	-0.43	19.6	-0.13	-0.40	0.11	0.01
U-1R5-A	129	128	127	4.0	19.1	34.3	34.3	4.0	1.17	0.47	0.0	1.17	0.47	0.00	0.02
U-1R5-B	132	131	130	6.5	15.9	31.0	31.3	6.2	1.09	0.51	6.5	1.09	0.52	0.07	0.02
U-1R5-C	135	134	133	9.3	21.1	35.4	35.5	9.2	1.26	0.65	2.7	1.26	0.66	0.03	0.04
U-1R5-D	138	137	136	12.1	20.5	28.0	28.0	12.1	1.04	0.67	-1.8	1.04	0.68	-0.01	0.04
U-1R5-E	141	140	139	17.0	13.3	18.7	22.5	13.2	0.87	0.66	84.9	0.66	0.87	0.02	0.03
U-1R5-F	144	143	142	20.4	17.4	14.0	20.4	14.0	0.81	0.66	1.6	0.81	0.66	0.00	0.04
U-1R5-G	147	146	145	21.4	18.9	16.4	21.4	16.4	0.87	0.75	0.3	0.87	0.75	0.00	0.05
U-1R5-H	150	149	148	14.8	15.2	15.9	15.9	14.7	0.67	0.64	-83.4	0.64	0.67	-0.00	0.03
U-1R5-J	153	152	151	15.1	15.3	14.9	15.3	14.7	0.65	0.64	33.7	0.65	0.64	0.01	0.04
I-1R5-A	454	455	456	6.5	7.4	12.2	12.8	5.9	0.48	0.32	-72.6	0.33	0.47	-0.05	0.02
I-1R5-B	457	458	459	-4.0	4.5	13.7	13.7	-4.0	0.41	0.00	-89.0	0.00	0.41	-0.01	0.03
I-1R5-C	460	461	462**	-8.2	0.3	0.0	1.9	-10.1	-0.04	-0.31	66.5	-0.27	-0.08	0.10	0.04
I-1R5-D	463	464	465	-6.7	-3.5	2.1	2.3	-6.8	0.01	-0.20	-82.3	-0.20	0.00	-0.03	0.02
I-1R5-E	466	467	468	-7.6	-10.2	-8.4	-5.8	-10.2	-0.29	-0.39	-85.0	-0.39	-0.29	-0.01	0.02
I-1R5-F	469	470	471	-22.3	-13.1	0.4	0.6	-22.5	-0.20	-0.74	5.4	-0.21	-0.73	0.05	0.02
I-1R5-G	472	473	474	-25.2	-15.8	-3.2	-3.1	-25.3	-0.35	-0.87	4.0	-0.36	-0.84	0.04	0.01
I-1R5-H	475	476	477	-22.6	-13.0	-2.0	-1.9	-22.7	-0.29	-0.77	3.0	-0.29	-0.76	0.03	0.02
I-1R5-J	478	479	480	-18.9	-10.4	-2.1	-2.1	-18.9	-0.26	-0.64	-0.1	-0.26	-0.64	-0.00	0.02
U-2R1-A	168	167	166	10.5	11.8	9.8	11.8	8.4	0.47	0.39	-50.8	0.43	0.44	-0.04	0.03
U-2R1-B	171	170	169	9.7	8.6	9.3	10.4	8.6	0.43	0.39	51.2	0.40	0.41	0.02	0.02
U-2R1-C	174	173	172	6.8	5.2	13.3	16.0	4.2	0.57	0.30	28.1	0.51	0.36	0.11	0.02
U-2R1-D	177	176	175	3.1	-7.1	11.1	23.5	-7.4	0.70	-0.01	39.4	0.41	0.28	0.35	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
0-2R1-E	180	179	176	2.6	-16.1	5.3	24.0	-16.1	0.63	-0.29	43.1	0.20	0.14	0.46	0.02
0-2R1-F	183	182	181	-2.3	-17.9	6.6	22.7	-18.4	0.57	-0.30	83.7	-0.37	0.55	0.10	0.02
0-2R1-G	186	185	184	9.5	-12.7	4.0	26.4	-12.9	0.74	-0.16	-40.9	0.35	0.22	-0.45	0.02
0-2R1-H	189	188	187	16.6	-0.1	6.2	24.0	-1.3	0.78	0.20	-32.8	0.61	0.37	-0.27	0.02
0-2R1-J	192	191	190	12.9	7.4	9.8	15.7	7.1	0.59	0.39	-34.2	0.52	0.45	-0.09	0.02
0-2R1-K	195	194	193	9.0	10.1	10.6	10.6	9.6	0.44	0.42	89.4	0.42	0.44	0.00	0.04
0-2R1-L	198	197	196	10.1	10.7	12.7	12.8	9.9	0.52	0.45	-77.1	0.46	0.52	-0.01	0.02
1-2R1-A	493	494**	495**	-0.0	0.0	0.0	0.0	-0.0	-0.00	-0.00	67.5	-0.00	-0.00	0.00	0.00
1-2R1-B	496**	497**	498**	0.0	0.0	-92.8	19.2	-112.0	-0.47	-3.50	22.5	-0.92	-2.66	1.07	0.23
1-2R1-C	499	500	501**	1.8	-33.2	0.0	35.0	-33.2	0.83	-0.75	-44.2	0.06	0.02	-0.79	0.16
1-2R1-E	502	503	504	2.7	-36.5	-26.2	16.9	-40.4	0.16	-1.17	-29.8	-0.17	-0.84	-0.57	0.02
1-2R1-F	505**	506**	507	0.0	0.0	-13.0	-2.7	-15.7	-0.07	-0.49	22.5	-0.13	-0.43	0.15	0.02
1-2R1-G	508	509**	510	2.0	0.0	-6.7	2.6	-7.3	0.01	-0.22	-30.8	-0.05	-0.16	-0.10	0.02
1-2R1-H	511	512	513	-4.9	-23.0	-9.6	8.7	-23.2	0.06	-0.68	49.2	-0.36	-0.26	0.36	0.03
1-2R1-J	514	515	516	-19.3	-32.3	-7.8	6.0	-33.1	-0.13	-1.03	36.4	-0.45	-0.72	0.43	0.02
1-2R1-K	517	518	519	-29.3	-29.8	-2.8	3.1	-35.1	-0.25	-1.13	23.1	-0.38	-0.99	0.32	0.03
1-2R1-L	520	521	522	-27.6	-21.9	1.3	3.8	-30.1	-0.17	-0.95	15.6	-0.23	-0.90	0.20	0.02
0-2R2-A	201	200	199	14.9	-1.3	-16.1	14.9	-16.1	0.33	-0.36	88.7	-0.38	0.33	0.02	0.02
0-2R2-B	204	203	202	17.5	2.5	-10.6	17.5	-10.7	0.47	-0.18	88.1	-0.18	0.47	0.02	0.02
0-2R2-C	207	206	205	15.5	6.8	-7.7	15.9	-8.0	0.44	-0.11	-83.0	-0.10	0.44	-0.07	0.02
0-2R2-D	210	209	208	13.0	7.0	-1.0	13.0	-1.1	0.42	0.09	-85.9	0.09	0.42	-0.02	0.03
0-2R2-E	213	212	211	9.6	4.2	7.9	13.4	4.1	0.48	0.27	50.6	0.35	0.40	0.10	0.02
0-2R2-F	216	215	214	11.3	4.3	10.9	17.9	4.3	0.63	0.32	-89.1	0.32	0.63	-0.01	0.02
0-2R2-G	219	218	217	7.3	5.5	10.7	12.9	5.1	0.48	0.29	-58.1	0.35	0.42	-0.08	0.03
0-2R2-H	222	221	220	-2.0	9.5	11.9	13.3	-3.3	0.40	0.02	73.5	0.05	0.37	0.10	0.02
0-2R2-J	225	224	223	-7.2	8.4	17.2	17.6	-7.7	0.50	-0.08	82.2	-0.07	0.49	0.08	0.02
0-2R2-K	228	227	226	-10.1	5.5	19.3	19.3	-10.1	0.54	-0.14	88.3	-0.14	5.54	0.02	0.02
0-2R2-L	231	230	229	-14.0	0.7	15.3	15.3	-14.0	0.37	-0.31	90.0	-0.31	0.37	0.00	0.02
1-2R2-A	526	527	528	-8.5	-14.9	-21.4	-8.5	-21.4	-0.49	-0.79	0.4	-0.49	-0.79	0.00	0.02
1-2R2-B	529	530	531	-6.7	-25.6	-31.2	-5.0	-32.9	-0.49	-1.13	-14.3	-0.53	-1.09	-0.15	0.02
1-2R2-C	532	533	534	-2.1	-36.0	-42.2	2.2	-46.5	-0.39	-1.51	-17.4	-0.49	-1.41	-0.32	0.02
1-2R2-D	535	536	537	-5.1	-49.7	-44.6	7.0	-56.6	-0.33	-1.80	-25.8	-0.61	-2.52	-0.58	0.02
1-2R2-E	538	539	540	-11.9	-57.3	-36.4	11.1	-59.5	-0.22	-1.85	-34.9	-0.75	-1.32	-0.76	0.02
1-2R2-F	541	542	543	-18.1	-54.1	-26.5	9.8	-54.4	-0.22	-1.70	-86.2	-1.69	-0.22	-0.10	0.03
1-2R2-G	544	545	546	-29.1	-55.5	-19.1	7.7	-55.9	-0.30	-1.77	40.5	-0.92	-1.15	0.73	0.03
1-2R2-H	547	548	549	-38.0	-52.2	-9.8	7.7	-55.5	-0.30	-1.75	31.8	-0.70	-1.35	0.65	0.03
1-2R2-J	550	551	552	-36.0	-36.7	-7.0	-0.5	-42.5	-0.44	-1.40	23.2	-0.59	-1.26	0.35	0.01
1-2R2-K	553	554	555	-28.7	-23.7	-8.6	-7.3	-29.9	-0.54	-1.06	13.5	-0.57	-1.03	0.12	0.02
1-2R2-L	556	557	558	-19.2	-14.6	-11.2	-11.2	-19.2	-0.56	-0.74	-4.1	-0.56	-0.74	-0.01	0.02
0-2R3-A	234	233	232	6.1	-23.7	-38.9	7.3	-40.1	-0.16	-1.25	81.1	-1.22	-0.18	0.17	0.02
0-2R3-B	237	236	235	6.0	-16.9	-33.5	6.2	-33.8	-0.13	-1.05	85.5	-1.05	-0.14	0.07	0.02
0-2R3-C	240	239	238	5.5	-16.2	-34.9	5.6	-35.0	-0.16	-1.10	87.8	-1.10	-0.16	0.04	0.02
0-2R3-D	243	242	241	-0.6	-11.9	-38.0	0.8	-39.4	-0.36	-1.29	-79.2	-1.26	-0.40	-0.17	0.01
0-2R3-E	246	245	244	-8.3	-5.4	-31.1	-1.4	-38.0	-0.42	-1.27	-64.2	-1.11	-0.58	-0.33	0.02
0-2R3-F	249	248	247	-16.2	0.7	-15.1	0.7	-34.1	-0.31	-1.12	2.5	-0.31	-1.11	0.4	0.02
0-2R3-G	252	251	250	-30.2	-3.8	-6.9	0.3	-37.3	-0.36	-1.23	64.2	-1.06	-0.52	0.34	0.02
0-2R3-H	255	254	253	-35.3	-8.3	2.0	3.8	-37.1	-0.24	-1.19	78.0	-1.14	-0.28	0.19	0.03
0-2R3-J	258	257	256	-34.5	-15.6	5.9	6.0	-34.6	-0.15	-1.08	-88.2	-1.08	-0.15	-0.03	0.01
0-2R3-K	261	260	259	-29.8	-14.4	7.0	7.3	-30.1	-0.06	-0.92	-85.4	-0.91	-0.06	-0.07	0.03
0-2R3-L	264	263	262	-35.3	-20.4	6.8	7.7	-36.2	-0.11	-1.12	-81.9	-1.10	-0.13	-0.14	0.02
1-2R3-A	559	560	561	-12.2	-6.4	-6.9	-5.5	-13.6	-0.31	-0.50	65.4	-0.47	-0.35	0.07	0.02
1-2R3-B	562	563	564	-7.8	-11.4	-10.9	-6.8	-12.0	-0.34	-0.46	-26.4	-0.37	-0.44	-0.05	0.03
1-2R3-C	565	566	567	-4.2	-19.4	-12.5	3.4	-20.1	-0.09	-0.63	-34.7	-0.26	-0.45	-0.25	0.02
1-2R3-D	568	569	570	-2.3	-30.9	-20.5	10.2	-32.9	0.01	-0.99	-32.5	-0.28	-0.70	-0.45	0.02
1-2R3-E	571	572	573	-5.8	-44.0	-30.4	10.6	-46.7	-0.11	-1.44	-32.3	-0.49	-1.06	-0.60	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH								STRESS - KSI			
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
1-2P3-F	574	575	576	-15.7	-49.7	-24.0	10.2	-49.9	-0.16	-1.55	-86.0	-1.54	-0.16	-0.10	0.02
1-2K3-G	577	578	579	-26.8	-45.6	-8.4	11.8	-47.0	-0.08	-1.43	35.9	-0.54	-0.97	0.65	0.01
1-2K3-H	580	581	582	-22.6	-34.2	-4.3	9.2	-36.2	-0.05	-1.10	33.1	-0.37	-0.79	0.48	0.02
1-2K3-J	583	584	585	-9.6	-23.0	-9.0	4.4	-23.0	-0.08	-0.71	44.4	-0.39	-0.40	0.32	0.02
1-2K3-K	586	587	588	-7.7	-12.8	-10.0	-4.8	-13.0	-0.29	-0.48	53.2	-0.41	-0.35	0.09	0.02
1-2K3-L	589	590	591	-6.3	-8.2	-14.3	-5.8	-14.8	-0.34	-0.54	-76.2	-0.53	-0.35	-0.05	0.02
0-2K4-A	267	266	265	-13.4	-36.9	-44.9	-11.5	-46.7	-0.84	-1.65	76.8	-1.61	-0.88	0.18	0.02
0-2K4-B	270	269	268	-16.3	-36.2	-41.1	-14.2	-43.2	-0.89	-1.56	74.3	-1.52	-0.94	0.17	0.02
0-2K4-C	273	272	271	-20.3	-37.0	-53.4	-20.3	-53.4	-1.20	-1.96	89.8	-1.96	-1.20	0.00	0.03
0-2K4-D	276	275	274	-21.3	-33.2	-49.7	-21.1	-49.9	-1.19	-1.85	85.4	-1.85	-1.19	-0.05	0.03
0-2K4-E	279	278	277	-38.6	-22.8	-36.4	-22.8	-52.2	-1.27	-1.95	2.2	-1.27	-1.95	0.03	0.03
0-2K4-F	282	281	280	-49.6	-31.3	-23.3	-22.3	-50.6	-1.24	-1.89	79.3	-1.87	-1.26	0.12	0.03
0-2K4-G	285	284	283	-49.3	-38.0	-20.5	-20.1	-49.6	-1.15	-1.84	-83.8	-1.83	-1.16	-0.07	0.03
0-2K4-H	288	287	286	-42.0	-37.8	-19.0	-16.9	-44.1	-0.99	-1.62	-73.8	-1.57	-1.04	-0.17	0.02
0-2K4-J	291	290	289	-41.9	-40.3	-17.6	-13.6	-45.8	-0.90	-1.65	-69.6	-1.56	-0.99	-0.24	0.03
1-2K4-A	592	593	594	-3.2	4.0	11.6	11.6	-3.2	0.35	0.01	88.6	0.01	0.35	0.01	0.02
1-2K4-b	595	596	597	6.7	5.5	14.6	17.1	4.1	0.60	0.31	-63.7	0.36	0.55	-0.12	0.02
1-2K4-C	598	599	600	11.7	5.8	18.4	24.9	5.3	0.87	0.42	-54.9	0.57	0.72	-0.21	0.04
1-2K4-L	601	602	603	10.8	9.8	14.6	16.2	9.2	0.62	0.46	-61.6	0.50	0.59	-0.07	0.03
1-2K4-E	604	605	606	12.4	7.0	9.5	15.3	6.7	0.57	0.37	-80.1	0.38	0.56	-0.03	0.02
1-2K4-F	607	608	609	19.6	8.7	5.7	20.7	4.6	0.73	0.36	75.0	0.38	0.70	0.09	0.02
1-2K4-G	610	611	612	25.5	4.6	6.0	30.5	1.0	1.01	0.33	65.6	0.45	0.90	0.26	0.04
1-2K4-H	615	614	613	18.2	21.2	5.7	23.1	0.8	0.77	0.25	28.1	0.66	0.37	0.21	0.02
1-2K4-J	618	617	616	13.4	2.7	-6.1	13.4	-6.2	0.38	-0.07	87.2	-0.07	0.38	0.02	0.02
0-2K5-A	292	293	294	-24.3	-36.4	-46.4	-24.2	-46.4	-1.26	-1.77	-2.8	-1.26	-1.77	-0.02	0.02
0-2K5-B	295	296	297	-26.0	-36.7	-46.6	-26.0	-46.6	-1.32	-1.79	-1.1	-1.32	-1.79	-0.01	0.02
0-2K5-C	298	299	300	-27.1	-41.4	-52.2	-26.9	-52.3	-1.41	-1.99	-4.0	-1.41	-1.99	-0.04	0.03
0-2K5-D	301	302	303	-27.1	-37.9	-46.9	-27.0	-47.0	-1.36	-1.82	-2.6	-1.36	-1.61	-0.02	0.18
0-2K5-E	306	305	304	-36.9	-27.7	-37.3	-27.7	-46.5	-1.37	-1.81	-0.7	-1.37	-1.81	-0.01	0.03
0-2K5-F	309	308	307	-46.7	-41.5	-29.8	-29.2	-47.3	-1.43	-1.85	-79.4	-1.83	-1.44	-0.68	0.03
0-2K5-G	312	311	310	-55.1	-47.4	-29.5	-28.5	-56.1	-1.50	-2.13	-79.1	-2.11	-1.52	-0.12	0.03
0-2K5-H	315	314	313	-44.6	-41.0	-28.5	-27.4	-45.7	-1.35	-1.78	-75.6	-1.75	-1.38	-0.10	0.03
0-2K5-J	318	317	316	-42.3	-37.5	-26.8	-26.3	-42.8	-1.29	-1.67	-79.6	-1.66	-1.30	-0.07	0.03
1-2K5-A	621	620	619	17.1	12.3	6.0	17.1	6.0	0.62	0.37	-86.2	0.37	0.62	-0.02	0.03
1-2K5-B	622	623	624	17.6	20.5	20.1	20.9	16.8	0.85	0.76	63.7	0.78	0.54	0.04	0.03
1-2K5-C	625	626	627	18.6	23.1	29.0	29.1	18.7	1.14	0.91	-85.3	0.91	1.14	-0.02	0.03
1-2K5-D	628	629	630*	11.4	28.7	30.4	33.2	8.7	1.18	0.61	70.4	0.68	1.12	0.18	0.11
1-2K5-E	631	632	633	32.0	49.5	31.4	49.5	14.0	1.77	0.95	-0.5	1.77	0.95	-0.61	0.04
1-2K5-F	634	635	636	55.4	25.7	2.8	55.6	2.6	1.86	0.64	86.3	0.64	1.85	0.08	0.03
1-2K5-G	637	638	639	33.1	25.0	18.0	33.2	18.0	1.27	0.92	87.8	0.92	1.27	0.01	0.04
1-2K5-h	640	641	642	23.4	17.6	10.2	23.5	10.1	0.87	0.57	-86.6	0.57	0.87	-0.02	0.03
1-2K5-J	643	644	645	16.1	10.7	4.8	16.1	4.8	0.58	0.32	-86.7	0.32	0.58	-0.01	0.02
0-1K6-A	156	155	154	4.8	22.0	-0.5	22.2	-17.9	0.55	-0.37	-48.8	0.03	0.15	-0.46	0.01
0-1K6-b	159	158	157	8.7	19.9	-4.2	21.1	-16.8	0.53	-0.34	-55.0	-0.05	0.24	-0.41	0.06
0-1K6-c	162	161	160	10.9	10.6	-6.6	14.4	-10.0	0.37	-0.19	-63.0	-0.11	0.30	-0.19	0.02
0-1K6-d	165	164*	163	11.5	0.4	-7.5	11.6	-7.6	0.31	-0.14	85.4	-0.13	0.30	0.04	0.02
1-1K6-A	481	482	483	2.1	3.7	1.6	3.7	0	0.12	0.04	41.1	0.09	0.07	0.04	0.01
1-1K6-B	484	485	486	1.8	0.6	7.9	10.1	-0.4	0.33	0.09	-62.9	0.14	0.28	-0.10	0.02
1-1K6-C	487	488	489	1.5	1.9	10.5	12.1	-0.1	0.40	0.12	-68.8	0.15	0.36	-0.10	0.02
1-1K6-L	490	491	492	2.0	6.6	11.2	11.2	2.0	0.39	0.18	-89.8	0.18	0.39	-0.00	0.03
0-2K6-A	321	320	319	6.6	-17.3	-3.3	21.2	-17.9	0.52	-0.38	52.4	-0.04	0.19	0.44	0.01
0-2K6-B	324*	323	322	9.6	-13.3	-4.1	20.2	-14.7	0.52	-0.28	56.5	-0.04	0.28	0.37	0.01
0-2K6-C	327	326	325*	8.0	-7.6	-6.1	12.0	-10.1	0.30	-0.21	64.8	-0.12	0.20	0.20	0.02
1-2K6-A	646**	647**	648**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1-2K6-B	649**	650**	651**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1-2K6-C	652**	653	654	0.0	10.5	10.3	12.6	-2.2	0.39	0.05	67.1	0.10	0.34	0.12	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-1K7- A	655**	656**	657**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-1K7- B	658**	659**	660**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2K7- A	661**	662**	663**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EX- C- A	670	671	672	1.9	1.1	-0.9	2.0	-1.0	0.06	-0.01	-79.7	-0.01	0.05	-0.01	0.02
EX- C- B	675	674	673	-10.8	10.6	34.9	34.9	-10.8	1.04	-0.01	1.9	1.04	-0.01	0.03	0.02
EX- C- C	678	677	676	-1.2	0.0	1.6	1.6	-1.2	0.04	-0.03	3.3	0.04	-0.03	0.00	0.01
EX- C- D	669	668	667	8.8	-10.4	-31.7	8.9	-31.7	-0.02	-0.96	-88.6	-0.96	-0.02	-0.02	0.02
EX- B- A	687	686	685	1.8	-0.5	-4.2	1.9	-4.3	0.02	-0.12	6.9	0.02	-0.12	0.02	0.01
EX- B- B	690	689	688	-0.3	1.7	5.7	5.9	-0.5	0.19	0.04	-80.3	0.05	0.19	-0.02	0.03
EX- B- C	681	680	679	1.8	-1.7	-4.4	1.8	-4.4	0.02	-0.13	-3.3	0.02	-0.13	-0.01	0.02
EX- B- D	684	683	682	-3.1	2.3	3.9	4.4	-3.5	0.11	-0.07	76.3	-0.06	0.10	0.04	0.02
EX- A- A	696	695	694	-4.6	-1.5	4.5	4.7	-4.8	0.11	-0.11	-81.2	-0.11	0.10	-0.03	0.02
EX- A- B	693	692	691	-28.2	-11.8	5.0	5.0	-28.2	-0.11	-0.88	-89.6	-0.88	-0.11	-0.01	0.02
EX- A- C	666	665	664	-2.1	-1.5	4.9	6.0	-3.2	0.17	-0.04	-69.7	-0.02	0.14	-0.07	0.02
EX- A- D	699	698	697	36.0	10.8	-13.0	36.0	-13.0	1.06	-0.07	-0.8	1.06	-0.07	-0.02	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

COMBUSTION T-11, LOAD CASE 5, F3Y

NOMINAL LOAD = 1.594E 05

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
U-1R1-A	3	2	1	15.2	19.8	43.7	46.7	12.2	1.66	0.87	17.1	1.59	0.93	0.22	0.45
U-1R1-B	6	5	4	14.0	18.4	29.5	30.2	13.3	1.13	0.74	11.7	1.11	0.75	0.08	0.47
U-1R1-C	9	8	7	-2.8	17.3	35.9	35.9	-2.8	1.16	0.26	-1.1	1.16	0.26	-0.02	0.44
U-1R1-D	12	11	10	0.0	33.0	19.3	35.0	-15.6	1.00	-0.17	-33.8	0.64	0.19	-0.54	0.17
U-1R1-E	15	14	13	-19.3	18.8	46.0	46.5	-19.8	1.34	-0.19	-4.7	1.33	-0.18	-0.13	0.63
U-1R1-F	18	17	16*	-16.7	-21.7	58.1	77.3	-35.9	2.19	-0.42	69.3	-0.09	1.87	0.86	0.29
U-1R1-G	21	20	19	-12.6	35.9	-15.2	35.9	-63.7	0.55	-1.75	44.2	-0.57	-0.63	1.15	0.31
U-1R1-H	24	23	22	-15.8	35.9	-1.8	36.4	-53.9	0.67	-1.42	49.5	-0.54	-0.21	1.03	0.30
U-1R1-J	27	26	25	-22.1	-1.0	-5.3	1.5	-29.0	-0.24	-0.94	61.7	-0.78	-0.39	0.29	0.44
U-1R1-K	30	29	28	-29.7	-9.0	-14.0	-6.7	-37.0	-0.59	-1.29	60.7	-1.12	-0.76	0.30	0.43
U-1R1-L	33	32	31	-33.8	-17.5	-15.2	-12.9	-36.1	-0.78	-1.32	71.5	-1.26	-0.84	0.16	0.63
I-1R1-A	328	329**	330	41.9	0.0	-35.3	42.0	-35.5	1.04	-0.75	-2.4	1.03	-0.75	-0.08	0.44
I-1R1-B	331	332	333	12.5	-5.1	-66.9	18.2	-72.7	-0.12	-2.22	14.6	-0.25	-2.08	0.51	0.46
I-1R1-C	334	335	336	11.4	6.1	-61.5	22.9	-73.0	0.03	-2.18	20.2	-0.23	-1.91	0.72	0.27
I-1R1-D	337	338	339	20.1	16.6	-63.8	35.0	-78.8	0.38	-2.25	21.2	0.03	-1.91	0.89	0.24
I-1R1-E	340	341	342	21.8	11.9	-37.6	27.8	-43.6	0.49	-1.16	16.8	0.35	-1.03	0.46	0.30
I-1R1-F	343	344	345	27.0	38.5	-28.7	47.3	-49.1	1.07	-1.15	-17.6	0.87	-0.95	-0.64	0.32
I-1R1-G	346	347	348	30.8	19.0	-21.1	34.7	-25.0	0.90	-0.48	-75.2	-0.39	0.81	-0.34	0.26
I-1R1-H	349	350	351**	35.6	42.5	0.0	48.2	-12.6	1.46	0.06	-62.9	0.35	-1.17	-0.57	0.25
I-1R1-J	352	353	354	49.8	20.2	-16.5	50.0	-16.7	1.48	-0.06	-86.9	-0.05	1.48	-0.08	0.26
I-1R1-K	355	356	35	24.9	11.2	12.8	28.6	9.1	1.03	0.58	64.2	0.67	0.95	0.18	0.83
I-1R1-L	358	359	360	35.1	10.2	6.4	38.5	2.9	1.30	0.48	71.9	0.56	1.22	0.24	0.29
O-1R2-A	36	35	34	31.3	11.7	32.0	51.6	11.7	1.82	0.89	44.5	1.36	1.35	0.46	0.70
O-1R2-B	39	38	37	1.8	12.6	38.4	39.8	0.3	1.32	0.40	11.1	1.28	0.44	0.17	0.46
O-1R2-C	42	41	40	-9.7	12.0	32.8	32.8	-9.7	0.99	0.01	-0.6	0.99	0.01	-0.01	0.51
O-1R2-D	45	44	43	-21.6	9.0	31.5	31.8	-21.9	0.83	-0.41	-4.3	0.82	-0.40	-0.09	0.32
O-1R2-E	48	47	46	-29.2	3.9	22.6	23.6	-30.2	0.48	-0.76	-7.7	0.46	-0.74	-0.17	0.31
O-1R2-F	51	50	49	-37.6	25.0	4.8	30.1	-62.9	0.37	-1.78	13.6	0.25	-1.66	0.49	0.39
O-1R2-G	54	53	52	-40.4	-0.8	-12.5	2.8	-59.6	-0.46	-1.81	59.3	-1.46	-0.81	0.59	0.52
O-1R2-H	57	56	55	-39.6	-5.3	-14.8	-2.0	-52.4	-0.58	-1.75	59.8	-1.45	-0.88	0.51	0.51
O-1R2-J	60	59	58	-22.6	-5.1	-11.4	-3.8	-30.2	-0.43	-1.03	57.6	-0.86	-0.60	0.28	0.32
O-1R2-K	63	62	61	-35.6	-16.8	-16.0	-12.5	-39.1	-0.80	-1.41	66.7	-1.33	-0.88	0.21	0.62
O-1R2-L	66	65	64	-10.4	-16.8	-24.9	-10.4	-25.0	-0.59	-0.93	3.3	-0.59	-0.92	0.02	0.41
I-1R2-A	361	362	363	8.1	22.4	-16.3	15.1	-33.2	0.50	-0.85	32.6	0.11	-0.46	0.61	0.42
I-1R2-B	364	365	366	19.3	7.7	-3.3	19.3	-3.3	0.60	0.08	-0.7	0.60	0.08	-0.01	0.29
I-1R2-C	367	368	369	2.6	22.5	-22.1	24.8	-44.3	0.38	-1.22	34.5	-0.13	-0.70	0.74	0.38
I-1R2-D	370	371	372	32.0	16.5	-16.3	33.5	-17.7	0.93	-0.25	9.8	0.89	-0.22	0.29	0.32
I-1R2-E	373	374	375	28.0	25.3	-16.8	35.4	-24.2	0.93	-0.45	20.7	0.76	-0.28	0.45	0.20
I-1R2-F	376	377	378	41.7	33.7	-20.6	49.3	-28.2	1.35	-0.44	-26.7	0.99	-0.08	-0.72	0.22
I-1R2-G	379	380	381	42.7	23.9	-25.2	45.9	-28.4	1.23	-0.48	-78.0	-0.41	1.16	-0.35	0.42
I-1R2-H	382	383	384	40.1	54.9	-7.6	61.7	-29.2	1.75	-0.35	-60.9	0.15	1.25	-0.89	0.28
I-1R2-J	385	386	387	76.3	17.4	-14.6	78.2	-16.5	2.42	0.23	81.7	0.27	2.37	0.31	0.52
I-1R2-K	388	389	390	32.5	19.8	-9.4	34.1	-11.0	1.01	-0.03	-79.3	0.01	0.98	-0.19	0.39
I-1R2-L	391	392	393	43.8	1.2	-16.5	46.3	-19.0	1.34	-0.17	78.8	-0.11	1.28	0.29	0.78
O-1R3-A	69	68	67	-14.5	41.9	33.0	49.6	-31.1	1.33	-0.53	-27.0	0.95	-0.15	-0.75	0.46
O-1R3-B	72	71	70	-8.9	16.4	37.9	37.9	-8.9	1.16	0.08	-2.3	1.16	0.08	-0.04	0.58
O-1R3-C	75	74	73	-36.8	14.0	59.2	59.2	-36.9	1.59	-0.63	-1.7	1.59	-0.62	-0.07	0.41
O-1R3-D	78	77	76	-24.9	14.8	37.9	39.0	-26.0	1.03	-0.47	-7.4	1.00	-0.45	-0.19	0.35
O-1R3-E	81	80	79	-13.0	17.3	37.6	38.1	-13.4	1.12	-0.07	-5.5	1.11	-0.06	-0.11	0.42
O-1R3-F	84	83	82	-29.2	16.3	45.3	46.2	-30.1	1.22	-0.54	38.7	0.54	0.15	0.86	0.44

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI				TAU	CONF	
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)			SIG(T)
U-1K3-G	87	86	85	-55.6	-14.6	21.1	21.2	-55.7	0.15	-1.63	86.0	-1.62	0.15	0.06	0.63
U-1K3-H	90	89	88	-19.3	-24.4	19.3	31.1	-31.1	0.72	-0.72	-64.2	-0.45	0.45	-0.56	0.16
U-1K3-J	93	92**	91	-14.2	0.0	4.6	5.8	-15.4	0.04	-0.45	76.5	-0.42	0.01	0.11	0.43
U-1K3-K	96	95	94	-16.3	-13.0	-17.3	-13.0	-20.6	-0.63	-0.81	41.1	-0.71	-0.73	0.09	0.43
U-1K3-L	99	98	97	-14.5	-20.6	-14.5	-8.4	-20.6	-0.48	-0.74	-45.0	-0.62	-0.62	-0.14	0.22
I-1R3-A	394	395	396	39.7	17.8	7.1	40.6	6.2	1.40	0.61	-9.5	1.38	0.63	-0.13	0.33
I-1R3-B	397	398	399	13.7	14.8	-6.1	18.6	-11.0	0.51	-0.18	24.0	0.39	-0.07	0.25	0.27
I-1R3-C	400	401	402	7.1	14.8	3.1	15.0	-4.9	0.45	-0.01	39.1	0.26	0.17	0.22	0.31
I-1R3-D	403	404	405	8.1	19.0	6.6	19.0	-4.3	0.58	0.05	43.1	0.33	0.30	0.27	0.29
I-1R3-E	406	407	408	17.5	42.7	14.0	42.8	-11.4	1.30	0.05	43.2	0.71	0.63	0.62	0.65
I-1R3-F	409	410	411	33.8	31.9	-0.7	39.6	-6.6	1.24	0.17	-24.2	1.06	0.35	-0.40	0.38
I-1K3-G	412	413	414**	49.0	27.2	0.0	49.2	-0.1	1.62	0.48	-86.9	0.48	1.62	-0.06	0.51
I-1K3-H	415	416	417	27.9	23.8	-5.1	30.4	-10.5	0.90	-0.05	-68.6	0.08	0.77	-0.57	0.73
I-1K3-J	421	422	423	42.2	-5.7	-9.4	50.4	-17.6	1.49	-0.08	69.7	0.11	1.30	0.1	0.71
I-1K3-K	418	419	420	24.9	8.1	11.2	30.1	6.0	1.05	0.50	62.3	0.62	0.93	0.23	0.57
I-1K3-L	424	425	426	18.5	-1.9	7.1	28.6	-2.9	0.91	0.19	55.6	0.42	0.68	0.34	0.27
U-1R4-A	102	101	100	-28.2	22.2	45.3	47.7	-30.7	1.27	-0.54	-10.2	1.21	-0.48	-0.32	0.42
U-1R4-B	105	104	103	-5.6	17.9	34.6	34.9	-5.9	1.09	0.17	-4.8	1.08	0.16	-0.08	0.43
U-1R4-C	108	107	106	-8.1	37.1	61.5	63.0	-9.7	1.98	0.30	-8.3	1.95	0.34	-0.24	0.81
U-1R4-D	111	110	109	-36.5	30.3	33.1	45.6	-49.0	1.02	-1.17	-21.3	0.73	-0.88	-0.74	0.29
U-1R4-E	114	113	112	-36.1	2.6	76.3	78.9	-38.8	2.22	-0.50	53.6	0.46	1.26	1.30	0.42
U-1K4-F	117	116	115	7.8	-17.5	18.5	44.4	-18.0	1.29	-0.15	-49.9	0.44	0.69	-0.71	0.48
U-1R4-G	120	119	118	-6.1	-17.8	47.0	67.0	-26.1	1.95	-0.20	-62.4	0.26	1.49	-0.88	0.48
U-1R4-H	123**	122	121	0.0	-2.3	42.9	53.4	-10.5	1.66	0.18	-66.1	0.42	1.41	-0.55	0.59
U-1K4-J	126	125	124	22.9	6.0	3.8	25.4	1.3	0.85	0.29	-18.9	0.79	0.35	-0.17	0.47
I-1R4-A	417	428	429	13.5	7.5	13.5	19.4	7.5	0.72	0.44	-45.0	0.58	0.58	-0.34	0.42
I-1R4-B	430	431	432	4.8	5.3	13.2	14.6	3.4	0.52	0.26	-69.1	0.29	0.48	-0.09	0.47
I-1R4-C	433	434	435	-9.2	11.7	1.8	12.7	-20.1	0.22	-0.54	54.7	-0.28	-0.03	0.36	0.38
I-1R4-D	436	437	438	1.8	5.7	14.2	14.6	1.4	0.50	0.19	-79.9	0.20	0.49	-0.05	0.22
I-1R4-E	439	440	441	0.7	6.3	-14.5	8.4	-22.1	0.06	-0.65	-15.0	0.01	-0.60	-0.18	0.23
I-1R4-F	442	443	444	-27.5	-6.1	-12.7	-4.3	-35.9	-0.50	-1.23	-31.1	-0.69	-1.03	-0.32	0.29
I-1K4-G	445	446	447	-17.8	-11.6	-2.3	-2.1	-18.0	-0.25	-0.61	5.7	-0.25	-0.61	0.04	0.44
I-1R4-H	448	449*	450**	-17.1	123.8	0.0	124.1	-141.1	2.69	-3.43	-43.2	-0.17	-0.56	-3.05	0.54
I-1R4-J	451	452	453	-12.7	-11.6	-1.5	0.0	-14.3	-0.14	-0.47	19.3	-0.18	-0.44	0.10	0.35
U-1R5-A	129	128	127	3.8	28.8	46.8	47.1	3.5	1.59	0.58	-4.7	1.58	0.59	-0.08	0.84
U-1R5-B	132	131	130	-10.6	12.9	40.1	40.2	-10.7	1.22	0.05	2.1	1.22	0.05	0.04	0.91
U-1R5-C	135	134	133	8.6	14.8	54.6	60.1	3.1	2.01	0.70	18.0	1.89	0.82	0.39	1.27
U-1K5-D	138	137	136	7.1	9.1	21.3	23.0	5.5	0.81	0.41	17.9	0.77	0.45	0.12	0.67
U-1R5-E	141	140	139	14.2	13.5	18.3	19.7	12.8	0.78	0.62	71.9	0.63	0.76	0.05	0.67
U-1R5-F	144	143	142	17.8	5.1	40.7	55.9	2.5	1.87	0.64	-57.7	0.99	1.52	-0.56	0.59
U-1R5-G	147	146	145	18.0	9.1	15.2	24.2	9.0	0.89	0.54	-39.7	0.74	0.68	-0.17	0.35
U-1K5-H	150	149	148	40.9	7.5	21.6	56.8	5.6	1.93	0.75	-33.9	1.56	1.12	-0.55	0.42
U-1R5-J	153	152	151	15.2	12.2	24.9	29.3	10.8	1.07	0.65	-60.8	0.75	0.97	-0.18	0.27
I-1R5-A	454	455	456	7.1	4.3	17.8	22.2	2.7	0.76	0.31	-61.6	0.41	0.66	-0.19	0.35
I-1R5-B	457	458	459	-3.8	5.1	20.6	21.0	-4.2	0.65	0.07	-82.4	0.08	0.64	-0.08	0.23
I-1R5-C	460	461	462**	-8.1	1.3	0.0	2.6	-10.8	-0.02	-0.33	63.6	-0.27	-0.08	0.12	0.25
I-1R5-D	463	464	465	-12.7	-12.2	-7.1	-6.3	-13.5	-0.34	-0.51	-70.6	-0.49	-0.36	-0.05	0.37
I-1R5-E	466	467	468	-33.0	-13.4	-16.5	-10.7	-38.8	-0.74	-1.39	18.0	-0.60	-1.32	0.19	0.49
I-1R5-F	469	470	471	-22.9	-38.1	-1.0	16.4	-40.3	0.14	-1.17	33.7	-0.26	-0.76	0.60	0.24
I-1R5-G	472	473	474	-48.3	-50.9	-13.0	-3.8	-57.5	-0.69	-1.93	24.5	-0.90	-1.72	0.47	0.42
I-1R5-H	475	476	477	-39.9	-15.5	7.1	7.1	-39.9	-0.16	-1.25	-1.1	-0.16	-1.25	-0.02	0.43
I-1R5-J	478	479	480	-27.5	-24.4	-10.7	-9.1	-29.0	-0.59	-1.05	16.3	-0.62	-1.01	0.12	0.29
U-2R1-A	168	167	166	14.5	56.5	82.5	83.4	13.6	2.88	1.27	-6.6	2.86	1.29	-0.19	0.38
U-2R1-B	171	170	169	4.8	23.9	64.6	66.5	2.9	2.22	0.75	9.9	2.18	0.80	0.25	0.43
U-2R1-C	174	173	172	-14.2	13.0	83.3	87.8	-18.8	2.71	0.25	11.9	2.60	0.35	0.50	0.39
U-2R1-D	177	176	175	-10.2	-17.2	63.0	83.4	-30.5	2.45	-0.18	25.0	1.98	0.29	1.01	0.28

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
U-2R1-E	180	179	178	-7.1	-78.6	11.4	83.5	-79.1	1.97	-1.78	41.7	0.31	-0.12	1.86	0.42
U-2R1-F	183	182	181	-42.4	-56.0	5.1	25.6	-62.9	0.22	-1.82	73.8	-1.66	0.06	0.55	0.39
U-2R1-G	186	185	184	-5.9	-87.5	5.3	87.2	-87.7	2.01	-2.03	-46.8	-0.14	0.12	-2.01	0.31
U-2R1-H	189	188	187**	1.5	-42.5	0.0	44.0	-42.5	1.03	-0.96	-44.5	0.05	0.02	-1.00	0.22
U-2R1-J	192	191	190	-18.5	-82.5	-1.0	63.5	-83.0	1.27	-2.11	-48.4	-0.62	-0.22	-1.68	0.50
U-2R1-K	195	194	193	-4.1	-66.0	-3.1	59.8	-66.9	1.31	-1.62	-45.2	-0.17	-0.14	-1.46	0.59
U-2R1-L	198	197	196	3.8	-98.5	-29.0	74.8	-100.1	1.48	-2.56	-39.6	-0.16	-0.92	-1.98	0.41
I-2R1-A	493**	494**	495**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2R1-B	496**	497**	498**	0.0	0.0	-595.8	123.4	-719.1	-3.04	-22.49	22.5	-5.89	-19.64	6.87	2.23
I-2R1-C	499	500	501**	19.3	-45.1	0.0	65.3	-46.0	1.70	-0.87	-40.0	0.64	0.19	-1.26	1.82
I-2R1-D	502	503	504	13.8	-33.8	-70.0	14.1	-70.4	-0.23	-2.18	-3.9	-0.24	-2.17	-0.13	0.75
I-2R1-E	505**	506**	507	0.0	0.0	-51.3	10.6	-62.0	-0.26	-1.94	22.5	-0.51	-1.69	0.59	0.73
I-2R1-F	509**	509**	510	58.4	0.0	-32.0	60.3	-33.9	1.65	-0.52	-53.1	0.26	0.87	-1.04	0.44
I-2R1-G	511	512	513	63.0	-39.6	-25.9	91.8	-54.7	2.49	-0.90	63.7	-0.23	1.82	1.34	0.49
I-2R1-H	514	515	516	52.1	-42.4	-33.0	76.7	-57.6	1.96	-1.14	64.7	-0.57	1.39	1.20	0.24
I-2R1-J	517	518	519	55.3	-88.3	-49.6	107.9	-102.3	2.55	-2.30	60.0	-1.09	1.33	2.10	0.40
I-2R1-K	520	521	522	18.5	-120.1	-43.3	99.7	-124.5	2.26	-3.12	53.0	-1.24	0.18	2.49	0.46
I-2R1-L	523	524	525	8.6	-141.9	-16.0	135.1	-142.4	3.04	-3.36	47.6	-0.44	0.13	3.19	0.29
U-2R2-A	201	200	199	9.7	79.9	47.8	83.3	-25.9	2.49	-0.03	-34.8	1.67	0.79	-1.18	0.39
U-2R2-B	204	203	202	22.9	52.9	73.2	73.6	22.4	2.65	1.47	-5.5	2.64	1.48	-0.11	0.42
U-2R2-C	207	206	205	16.3	36.2	105.9	112.3	9.8	3.80	1.43	14.5	3.65	1.58	0.57	0.27
U-2R2-D	210	209	208	1.8	26.4	88.7	92.6	-2.1	3.03	0.85	11.7	2.94	0.94	0.43	0.61
U-2R2-E	213	212	211	26.7	-4.5	95.0	134.5	-12.9	4.31	0.91	31.2	3.39	1.62	1.51	0.35
U-2R2-F	216	215	214	0.7	-26.8	79.4	117.7	-37.5	3.51	-0.07	74.8	0.17	3.26	0.91	0.75
U-2R2-G	219	218	217	6.6	-28.9	52.4	93.8	-32.8	2.77	-0.15	-55.1	0.80	1.81	-1.37	0.35
U-2R2-H	222	221	220	-10.4	-37.6	49.6	84.2	-45.0	2.33	-0.65	-56.8	0.15	1.53	-1.32	0.28
U-2R2-J	225	224	223	-24.9	-66.0	44.2	75.2	-55.9	1.93	-1.10	-60.9	-0.38	1.21	-1.29	0.50
U-2R2-K	228	227	226	-54.2	-84.8	26.2	67.4	-95.4	1.28	-2.48	-59.8	-1.53	0.33	-1.63	0.40
U-2R2-L	231	230	229	-72.4	-140.3	18.0	94.7	-149.0	1.65	-3.98	-55.9	-2.21	-0.12	-2.61	0.37
I-2R2-A	526	527	526	24.9	-40.0	-75.5	27.0	-77.6	0.12	-2.29	-8.2	0.07	-2.24	-0.34	0.30
I-2R2-B	529	530	531	30.5	-11.2	-63.0	30.8	-63.3	0.39	-1.78	3.1	0.38	-1.78	0.12	0.24
I-2R2-C	532	533	534	18.3	-47.3	-98.8	18.7	-99.3	-0.36	-3.09	-3.4	-0.37	-3.08	-0.16	0.51
I-2R2-D	535	536	537	12.5	-89.5	-113.1	23.7	-124.4	-0.45	-3.87	-16.0	-0.71	-3.61	-0.90	0.46
I-2R2-E	538	539	540	-5.3	-99.2	-91.8	17.9	-115.1	-0.55	-3.62	-24.7	-1.08	-3.08	-1.17	0.30
I-2R2-F	541	542	543	10.2	-77.1	-68.5	32.8	-91.1	0.18	-2.68	-70.3	-2.35	-0.14	-0.91	0.24
I-2R2-G	544	545	546	10.4	-95.3	-73.2	45.0	-107.7	0.42	-3.11	61.6	-2.31	-0.38	1.47	0.31
I-2R2-H	547	548	549	-1.0	-133.4	-88.0	54.4	-143.4	0.38	-4.19	58.0	-2.91	-0.90	2.05	0.44
I-2R2-J	550	551	552	-12.2	-111.3	-43.2	57.3	-112.7	0.78	-3.15	50.3	-1.54	-0.83	1.43	0.32
I-2R2-K	553	554	555	4.5	-109.0	-42.0	74.5	-111.9	1.35	-2.95	52.2	-1.34	-0.27	2.08	0.63
I-2R2-L	556	557	558	14.2	-144.0	-49.1	113.0	-147.9	2.26	-3.76	52.0	-1.48	-0.02	2.92	0.34
U-2R3-A	234	233	232	31.8	33.3	43.4	44.9	30.4	1.78	1.44	18.3	1.75	1.48	0.10	0.50
U-2R3-B	237	236	235	20.1	28.9	36.8	36.9	20.1	1.41	1.03	-1.3	1.41	1.03	-0.01	0.68
U-2R3-C	240	239	238	35.5	73.5	56.4	75.4	16.6	2.65	1.29	-34.6	2.21	1.73	-0.63	0.77
U-2R3-D	243	242	241	-14.5	70.0	77.8	91.7	-28.4	2.74	-0.03	-19.9	2.42	0.29	-0.89	0.37
U-2R3-E	246	245	244	-29.0	48.8	126.3	126.3	-29.0	3.88	0.29	-0.0	3.88	0.29	-0.00	0.50
U-2R3-F	249	248	247	-61.7	3.2	99.6	104.2	-46.2	2.98	-0.49	55.0	0.65	1.84	1.63	0.34
U-2R3-G	252	251	250	-42.7	-24.7	74.7	87.5	-55.4	2.33	-0.96	-72.6	-0.67	2.04	-0.94	0.35
U-2R3-H	255	254	253	-75.5	-48.3	73.2	86.8	-89.2	1.98	-2.08	-73.8	-1.77	1.67	-1.09	0.25
U-2R3-J	258	257	256	-96.5	-74.7	57.6	75.4	-114.3	1.35	-3.02	-72.2	-2.61	0.94	-1.28	0.40
U-2R3-K	261	260	259	-103.5	-113.0	47.5	85.7	-141.7	1.43	-3.82	-65.8	-2.94	0.54	-1.96	0.59
U-2R3-L	264	263	262	-129.5	-135.4	21.8	57.4	-165.1	0.26	-4.88	-66.4	-4.05	-0.56	-1.88	0.32
I-2R3-A	559	560	561	25.6	13.7	-42.2	32.1	-48.7	0.58	-1.29	16.4	0.43	-1.14	0.51	0.30
I-2R3-B	562	563**	564	21.6	0.0	-66.9	27.1	-72.4	0.18	-2.12	13.6	0.05	-1.99	0.52	0.29
I-2R3-C	565	566	567	32.5	-19.2	-80.2	32.7	-80.4	0.28	-2.33	2.3	0.28	-2.32	0.11	0.51
I-2R3-D	568	569	570	-3.3	-49.8	-121.7	-2.0	-123.0	-1.28	-4.08	6.1	-1.31	-4.04	0.29	0.43
I-2R3-E	571	572	573	-1.0	-92.2	-143.7	1.7	-146.4	-1.39	-4.81	-7.7	-1.46	-4.75	-0.46	0.42

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(I)	SIG(T)	TAU	CONF
I-2R3-F	574	575	576	-16.0	-112.4	-133.4	-5.0	-144.5	-1.59	-4.81	-61.3	-4.07	-2.33	-1.35	0.48
I-2R3-G	577	578	579	-24.9	-150.0	-84.1	45.5	-154.5	-0.03	-4.64	53.6	-3.02	-1.65	2.20	0.40
I-2R3-H	580	581	582	-36.6	-142.5	-81.7	27.3	-145.5	-0.54	-4.53	52.6	-3.06	-2.01	1.92	0.46
I-2R3-J	583	584	585	-8.1	-142.9	-100.4	45.6	-154.2	-0.02	-4.63	58.8	-3.39	-1.26	2.05	0.30
I-2R3-K	586	587	588	16.0	-109.3	-63.8	70.3	-118.1	1.15	-3.20	57.5	-1.95	-0.10	1.97	0.44
I-2R3-L	589	590	591	5.3	-136.1	-88.7	63.8	-147.2	0.65	-4.22	58.2	-2.87	-0.70	2.18	0.50
O-2R4-A	267	266	265	-11.4	-3.5	41.7	47.5	-17.3	1.40	-0.10	17.5	1.26	0.04	0.43	0.35
O-2R4-B	270	269	268	-15.2	-2.6	27.7	29.5	-17.0	0.89	-0.27	11.2	0.76	-0.23	0.20	0.24
U-2R4-C	273	272	271	-29.7	12.2	27.5	30.4	-32.7	0.68	-0.78	-12.5	0.61	-0.71	-0.31	0.37
U-2R4-D	276	275	274	-66.2	31.8	23.5	48.2	-90.8	0.69	-2.52	-24.9	0.12	-1.95	-1.22	0.46
U-2R4-E	279	278	277	-77.1	-23.0	52.6	53.5	-77.9	0.99	-2.04	49.7	-0.77	-0.27	1.50	0.43
U-2R4-F	282	281	280	-79.4	-115.5	56.2	112.4	-135.7	2.37	-3.36	-61.6	-2.06	1.07	-2.40	0.26
G-2R4-G	285	284	283	-87.2	-116.9	24.9	71.3	-133.6	1.03	-3.70	-61.6	-2.63	-0.04	-1.98	0.48
U-2R4-H	288	287	286	-119.9	-147.5	21.8	72.3	-170.4	0.70	-4.96	-62.9	-3.74	-0.47	-2.27	0.49
O-2R4-J	291	290	289**	-124.5	-144.7	0.0	41.0	-165.5	-0.29	-5.05	-63.5	-4.11	-1.23	-1.90	0.36
I-2R4-A	592	593	594	27.0	34.6	13.5	40.8	-0.4	1.34	0.39	35.4	1.02	0.71	0.45	0.24
I-2R4-B	595	596	597	44.7	36.9	34.1	45.3	33.5	1.82	1.55	-12.7	1.81	1.56	-0.66	0.56
I-2R4-C	598**	599	600	0.0	41.4	31.0	45.7	-14.7	1.36	-0.03	60.4	0.31	1.02	0.60	0.29
I-2R4-D	601	602	603	8.6	24.4	-4.8	25.4	-21.6	0.62	-0.46	36.7	0.24	-0.07	0.52	0.27
I-2R4-E	604	605	606	33.3	-30.0	-66.2	35.1	-68.0	0.49	-1.89	-52.6	-1.02	-0.39	-1.15	0.24
I-2R4-F	607	608	609	6.8	-90.6	-33.0	66.9	-93.1	1.28	-2.41	52.2	-1.02	-0.10	1.79	0.41
I-2R4-G	610	611	612	10.4	-82.8	-84.1	29.1	-102.7	-0.06	-3.10	67.9	-2.67	-0.49	1.06	0.34
I-2R4-H	615	614	613	0.5	42.4	-34.9	45.6	-85.0	0.66	-2.35	36.0	-0.38	-1.31	1.43	0.37
I-2R4-J	616	617	618	-3.3	-97.6	-91.1	19.7	-114.0	-0.48	-3.56	65.5	-3.03	-1.01	1.16	0.51
U-2R5-A	292	293	294	-48.0	-9.4	18.3	18.8	-48.5	0.14	-1.41	85.3	-1.40	0.13	0.13	0.49
O-2R5-B	295	296	297	-46.5	-16.8	18.3	18.4	-46.6	0.15	-1.35	-87.6	-1.35	0.14	-0.06	0.36
U-2R5-C	298	299	300	-30.5	-48.6	2.6	24.4	-52.4	0.29	-1.49	-57.8	-0.98	-0.22	-0.80	0.59
U-2R5-D	301	302	303	-37.4	-58.4	-8.1	15.8	-61.3	-0.09	-1.86	-56.1	-1.31	-0.64	-0.82	0.41
O-2R5-E	306	305	304	-44.0	-28.2	-34.1	-27.1	-50.9	-1.40	-1.95	12.3	-1.42	-1.92	0.11	0.54
O-2R5-F	309	308	307	-75.5	-61.5	-38.2	-37.6	-76.1	-1.99	-2.88	-83.0	-2.87	-2.01	-0.11	0.54
U-2R5-G	312	311	310	-108.2	-84.1	-38.4	-36.8	-109.8	-2.30	-3.98	-81.4	-3.95	-2.34	-0.25	0.71
O-2R5-H	315	314	313	-121.7	-119.4	-47.8	-34.0	-135.4	-2.46	-4.80	-88.4	-4.48	-2.78	-0.60	0.66
U-2R5-J	318	317	316	-139.1	-106.6	-35.3	-31.8	-142.6	-2.46	-5.02	-79.7	-4.94	-2.54	-0.45	0.68
I-2R5-A	621	620	619	34.7	37.4	21.8	59.3	2.3	1.98	0.66	-54.2	1.11	1.53	-0.62	0.57
I-2R5-B	622	623	624	28.8	42.3	77.1	79.3	26.6	2.88	1.66	-78.2	1.71	2.83	-0.24	0.95
I-2R5-C	625	626	627	10.4	43.5	125.6	130.6	5.4	4.36	1.47	-78.5	1.59	4.24	-0.57	0.51
I-2R5-D	628	629	630*	-9.8	83.6	429.8	463.6	-43.6	14.85	3.15	-75.0	3.93	14.07	-2.92	0.90
I-2R5-E	631	632	633	58.4	106.2	41.4	106.8	-7.0	3.45	0.82	-4.3	3.44	0.84	-0.20	0.50
I-2R5-F	634	635	636	102.0	20.4	1.8	111.0	-7.3	3.59	0.86	73.9	1.07	3.38	0.73	0.62
I-2R5-G	637	638	639	21.8	0.6	0.7	26.3	-3.7	0.83	0.14	67.3	0.24	0.73	0.25	0.26
I-2R5-H	640	641	642	-12.2	-23.0	-24.2	-10.5	-25.9	-0.60	-0.96	70.5	-0.92	-0.64	0.11	0.56
I-2R5-J	643	644	645	-6.7	-39.6	-58.4	-5.7	-59.3	-0.77	-2.01	82.3	-1.99	-0.80	0.16	0.52
O-1R6-A	156	155	154	10.4	26.4	-10.4	28.4	-28.4	0.65	-0.65	-55.8	-0.24	0.24	-0.61	0.23
O-1R6-B	159	158*	157**	1.0	29.6	0.0	29.6	-28.6	0.69	-0.65	-45.5	0.01	0.03	-0.67	1.15
U-1R6-C	162	161	160	44.5	21.2	-2.0	44.5	-2.0	1.45	0.37	90.0	0.37	1.45	0.00	0.76
U-1R6-D	165	164*	163	10.4	146.9	71.5	151.3	-69.4	4.30	-0.79	-37.0	2.46	1.05	-2.45	1.04
I-1R6-A	481	482	483	13.0	24.4	-7.6	26.7	-21.4	0.67	-0.44	32.3	0.35	-0.12	0.50	0.44
I-1R6-B	484	485	486	-5.9	17.3	7.1	18.5	-17.3	0.44	-0.39	55.6	-0.12	0.18	0.39	0.24
I-1R6-C	487	488	489	-52.8	11.6	34.3	39.1	-57.6	0.72	-1.51	77.2	-1.40	0.61	0.48	0.75
I-1R6-D	490	491	492	-41.7	-3.6	39.3	39.4	-41.8	0.89	-0.99	-88.3	-0.98	0.89	-0.06	0.42
U-2R6-A	321**	320	319	0.0	-61.5	-28.7	34.9	-63.6	0.52	-1.75	53.5	-0.95	-0.28	1.09	0.18
O-2R6-B	324*	323	322	600.2	-36.5	-22.0	739.5	-161.2	22.78	2.00	66.8	5.21	19.57	7.52	1.86
O-2R6-C	327	326	325	9.9	-15.8	9.2	34.8	-15.8	0.99	-0.18	45.4	0.40	0.42	0.58	0.41
I-2R6-A	646**	647**	648**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2R6-B	649**	650**	651**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2R6-C	652**	653	654	0.0	-5.1	30.8	41.6	-10.2	1.25	0.07	-63.5	0.30	1.01	-0.47	0.39

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
I-1R7- A	655**	656**	657**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-1R7- B	658**	659**	660**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2R7- A	661**	662**	663**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EX- C- A	670	671	672	-16.1	-3.5	14.7	14.9	-16.3	0.33	-0.39	5.1	0.32	-0.38	0.06	0.37
EX- C- B	675	674	673	-23.3	8.3	50.1	50.4	-23.6	1.43	-0.28	3.9	1.42	-0.27	0.12	0.50
EX- C- C	678	677	676	45.5	5.3	-12.4	47.6	-14.5	1.43	-0.01	79.3	0.04	1.38	0.26	0.28
EX- C- D	669	668	667	-12.2	10.2	25.2	25.5	-12.6	0.72	-0.16	-5.6	0.71	-0.15	-0.09	0.25
EX- B- A	687	686	685	-3.7	-0.3	-5.1	-0.2	-8.6	-0.09	-0.29	40.1	-0.17	-0.20	0.09	0.48
EX- B- B	690	689	688	-13.0	3.9	-0.7	5.5	-19.2	-0.01	-0.58	60.0	-0.44	-0.15	0.25	0.52
EX- B- C	681	680	679	-69.5	-6.1	25.4	28.0	-72.1	0.21	-2.10	80.7	-2.04	0.15	0.37	1.08
EX- B- D	664	663	662	13.0	4.0	-0.6	13.3	-1.0	0.43	0.10	-8.7	0.42	0.11	-0.05	0.66
EX- A- A	696	695	694	-14.2	22.8	5.6	24.0	-33.2	0.48	-0.85	55.0	-0.41	0.04	0.63	0.46
EX- A- B	693	692	691	-250.0	-120.8	60.0	62.1	-252.1	-0.45	-7.70	-85.3	-7.65	-0.50	-0.60	0.56
EX- A- C	666	665	664	6.5	-107.9	2.5	116.9	-107.9	2.79	-2.40	-44.5	0.24	0.15	-2.59	0.32
EX- A- D	699	698	697	252.5	96.5	-70.4	252.6	-70.5	7.63	0.18	1.0	7.63	0.18	0.13	0.43

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

NOMINAL LOAD = 4.557E 03

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF	
U-1R1- A	3	2	1	11.0	-19.9	-46.3	11.1	-46.4	-0.09	-1.42	87.8	-1.42	-0.09	0.05	0.04	
U-1R1- B	6	5	4	13.9	-16.7	-37.0	14.4	-37.5	0.10	-1.09	84.3	-1.08	0.09	0.12	0.02	
J-1R1- C	9	8	7	15.2	-22.9	-43.9	16.4	-45.1	0.10	-1.32	81.9	-1.30	0.07	0.20	0.02	
U-1R1- D	12	11	10	14.4	-26.2	-37.7	18.2	-41.5	0.19	-1.19	75.4	-1.10	0.10	0.34	0.02	
U-1R1- E	15	14	13	14.9	-15.4	-17.3	20.3	-22.7	0.44	-0.55	69.3	-0.42	0.32	0.33	0.02	
U-1R1- F	18	17	16	12.5	-0.5	-2.3	14.4	-4.2	0.43	0.00	-63.6	0.09	0.35	-0.17	0.03	
U-1R1- G	21	20	19	13.9	-4.8	-3.8	18.3	-8.2	0.52	-0.09	-24.0	0.42	0.01	-0.23	0.02	
U-1R1- H	24	23	22	12.5	4.5	-1.5	12.6	-1.6	0.40	0.07	-4.2	0.40	0.07	-0.02	0.02	
U-1R1- J	27	26	25	6.7	4.3	0.8	6.7	0.8	0.23	0.09	4.7	0.23	0.09	0.01	0.01	
U-1R1- K	30	29	28	1.9	3.3	2.5	3.3	1.1	0.12	0.07	52.3	0.09	0.10	0.03	0.02	
U-1R1- L	33	32	31	0.3	2.9	1.4	2.9	-1.2	0.08	-0.01	52.9	0.02	0.05	0.05	0.02	
I-1R1- A	328	329	330	-19.5	-17.8	-4.3	-2.3	-21.5	-0.29	-0.73	-71.1	-0.68	-0.33	-0.14	0.03	
I-1R1- B	331	332	333	-16.9	-18.9	-13.2	-10.8	-19.3	-0.55	-0.74	-57.7	-0.69	-0.60	-0.09	0.02	
I-1R1- C	334	335	336	-1.7	-11.3	-20.3	-1.7	-20.3	-0.26	-0.69	-1.0	-0.26	-0.69	-0.01	0.01	
I-1R1- U	337	338	339	1.9	-4.0	-15.7	2.4	-16.2	-0.08	-0.51	9.2	-0.09	-0.50	0.07	0.01	
I-1R1- E	340	341	342	-8.5	-1.0	-4.9	-0.7	-12.6	-0.15	-0.42	53.9	-0.33	-0.24	0.13	0.01	
I-1R1- F	343	344	345	-17.0	-3.8	-0.8	0.7	-18.5	-0.16	-0.60	28.9	-0.26	-0.50	0.19	0.02	
I-1R1- G	346	347	348	-13.9	-0.7	-3.1	1.0	-18.0	-0.14	-0.58	-27.7	-0.24	-0.49	-0.18	0.01	
I-1R1- H	349	350	351	-9.0	1.5	-2.9	2.1	-14.0	-0.07	-0.44	-33.8	-0.18	-0.32	-0.17	0.03	
I-1R1- J	352	353	354	-6.0	1.4	-1.3	1.9	-9.2	-0.03	-0.28	-32.5	-0.10	-0.21	-0.12	0.02	
I-1R1- K	355	356	357	-3.7	2.2	0.4	2.7	-6.0	0.03	-0.17	-31.0	-0.02	-0.12	-0.09	0.01	
I-1R1- L	358	359	360	-2.5	3.1	0.6	3.4	-5.4	0.06	-0.14	-34.7	-0.01	-0.08	-0.09	0.01	
U-1R2- A	36	35	34	14.3	-12.4	-30.1	14.7	-30.6	0.18	-0.86	89.3	-0.85	0.17	0.10	0.03	
U-1R2- B	39	38	37	15.7	-11.0	-25.0	16.6	-26.0	0.29	-0.69	81.4	-0.67	0.27	0.15	0.01	
U-1R2- C	42	41	40	14.9	-15.3	-28.7	16.5	-30.3	0.24	-0.83	79.5	-0.80	0.21	0.19	0.02	
U-1R2- G	45	44	43	15.4	-11.0	-30.9	15.7	-31.2	0.21	-0.87	85.2	-0.87	0.20	0.09	0.01	
U-1R2- E	48	47	46	14.6	-8.7	-29.2	14.7	-29.3	0.19	-0.82	88.3	-0.82	0.19	0.03	0.02	
U-1R2- F	51	50	49	12.9	-5.1	-22.2	12.9	-22.2	0.21	-0.60	-45.7	-0.21	-0.19	-0.40	0.01	
U-1R2- G	54	53	52	10.7	-0.5	-18.5	11.1	-18.9	0.18	-0.51	6.6	0.17	-0.50	0.08	0.02	
U-1R2- H	57	56	55	4.0	1.2	-11.0	5.3	-12.3	0.05	-0.35	16.1	0.02	-0.32	0.11	0.01	
U-1R2- J	60	59	58	0.2	-1.1	-9.8	1.4	-11.1	-0.06	-0.35	18.4	-0.09	-0.32	0.09	0.02	
U-1R2- K	63	62	61	-3.4	-2.2	-6.9	-1.7	-8.6	-0.14	-0.39	29.4	-0.18	-0.26	0.07	0.02	
U-1R2- L	66	65	64	-4.0	-3.4	-5.8	-3.1	-6.7	-0.17	-0.25	29.8	-0.19	-0.23	0.04	0.02	
I-1R2- A	361	362	363	-17.3	-19.6	-16.8	-14.5	-19.7	-0.67	-0.79	-47.5	-0.74	-0.73	-0.06	0.02	
I-1R2- B	364	365	366	-13.6	-17.9	-21.7	-13.6	-21.7	-0.66	-0.85	-2.1	-0.66	-0.85	-0.01	0.03	
I-1R2- C	367	368	369	-2.1	-13.6	-25.8	-2.1	-25.9	-0.32	-0.87	0.8	-0.32	-0.87	0.01	0.03	
I-1R2- G	370	371	372	6.1	-0.6	-22.9	6.2	-23.0	-0.02	-0.70	3.6	-0.03	-0.09	0.04	0.02	
I-1R2- E	373	374	375	6.5	1.1	-13.9	7.6	-15.0	0.10	-0.42	12.5	0.08	-0.39	0.11	0.03	
I-1R2- F	376	377	378	3.6	2.3	-11.3	5.8	-13.4	0.06	-0.39	-25.3	-0.02	-0.30	-0.17	0.02	
I-1R2- G	379	380	381	6.5	4.8	-9.4	8.6	-11.6	0.17	-0.30	-71.0	-0.25	0.12	-0.14	0.02	
I-1R2- H	382	383	384	11.2	11.1	-5.1	14.5	-8.4	0.39	-0.14	-67.7	-0.06	0.32	-0.19	0.01	
I-1R2- J	385	386	387	14.0	9.3	-3.5	14.9	-4.4	0.45	0.00	-77.5	0.02	0.43	-0.09	0.01	
I-1R2- K	388	389	390	11.1	11.1	-0.5	13.5	-3.0	0.41	0.04	-67.5	0.09	0.36	-0.13	0.01	
I-1R2- L	391	392	393	9.3	9.2	-0.2	11.2	-2.2	0.35	0.04	-67.7	0.08	0.30	-0.11	0.01	
U-1R3- A	69	68	67	7.9	-8.2	-14.5	8.9	-15.5	0.14	-0.42	78.3	-0.40	0.12	0.11	0.01	
U-1R3- B	72	71	70	5.5	-7.9	-13.1	6.3	-14.0	0.07	-0.40	78.1	-0.38	0.05	0.09	0.02	
U-1R3- C	75	74	73	4.9	-8.0	-15.5	5.2	-15.9	0.01	-0.47	82.8	-0.46	0.01	0.06	0.02	
U-1R3- D	78	77	76	3.5	-8.7	-19.4	3.6	-19.4	-0.07	-0.61	88.1	-0.60	-0.07	0.02	0.03	
U-1R3- E	81	80	79	1.8	-12.2	-21.5	2.0	-21.7	-0.15	-0.69	84.3	-0.69	-0.15	0.05	0.01	
U-1R3- F	84	83	82	0.8	-6.9	-22.7	1.4	-23.4	-0.18	-0.76	-35.5	-0.38	-0.56	-0.27	0.02	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
U-1R3-G	87	86	85	-4.5	-2.4	-16.6	-0.4	-20.7	-0.22	-0.69	26.7	-0.31	-0.59	0.19	0.01
U-1R3-H	90	89	88	-6.5	-4.8	-14.2	-3.6	-17.0	-0.29	-0.60	27.5	-0.35	-0.53	0.13	0.02
U-1R3-J	93	92	91	-7.2	-6.1	-12.6	-5.2	-14.6	-0.32	-0.53	27.3	-0.36	-0.49	0.09	0.02
U-1R3-K	96	95	94	-6.1	-0.2	-12.1	-5.9	-12.2	-0.32	-0.46	8.1	-0.32	-0.46	0.02	0.02
U-1R3-L	99	96	97	-7.5	-8.7	-10.5	-7.4	-10.0	-0.35	-0.42	5.2	-0.35	-0.42	0.01	0.03
1-1R3-A	394	395	396	-10.7	-12.6	-16.1	-10.5	-16.3	-0.51	-0.64	8.3	-0.51	-0.64	0.02	0.01
1-1R3-B	397	398	399	-6.7	-8.5	-16.2	-5.9	-17.0	-0.36	-0.62	15.7	-0.38	-0.60	0.07	0.02
1-1R3-C	400	401	402	2.2	-5.0	-16.0	2.4	-16.2	-0.08	-0.51	5.9	-0.09	-0.50	0.04	0.02
1-1R3-D	403	404	405	9.8	0.5	-11.8	9.9	-11.9	0.21	-0.30	3.9	0.21	-0.29	0.03	0.01
1-1R3-E	406	407	408	15.8	9.4	-9.3	17.3	-10.7	0.46	-0.18	13.1	0.43	-0.15	0.14	0.06
1-1R3-F	409	410	411	16.8	6.8	-10.3	17.2	-10.8	0.46	-0.18	-37.6	0.22	0.06	-0.31	0.01
1-1R3-G	412	413	414	20.6	7.5	-8.6	20.7	-8.7	0.60	-0.08	-87.2	-0.08	0.60	-0.63	0.02
1-1R3-H	415	416	417	25.1	17.1	-5.9	26.8	-7.6	0.81	0.02	-77.1	0.05	0.77	-0.17	0.02
1-1R3-J	421	422	423	22.5	12.3	-1.4	22.6	-1.5	0.73	0.17	-85.7	0.18	0.73	-0.64	0.02
1-1R3-K	418	419	420	26.4	14.7	-2.8	26.6	-3.1	0.85	0.16	-84.4	0.17	0.84	-0.07	0.02
1-1R3-L	424	425	426	19.0	11.8	0.7	19.2	0.5	0.64	0.21	-84.0	0.21	0.63	-0.04	0.02
U-1R4-A	101	101	100	-1.0	3.4	-3.1	3.5	-7.6	0.04	-0.22	-50.7	-0.11	-0.06	-0.13	0.02
U-1R4-B	105	104	103	-3.3	2.6	-1.8	2.7	-7.8	0.01	-0.23	-40.9	-0.09	-0.13	-0.12	0.01
U-1R4-C	108	107	106	-6.4	1.9	-3.3	2.1	-11.8	-0.05	-0.37	-38.7	-0.17	-0.24	-0.16	0.02
U-1R4-D	111	110	109	-8.2	0.5	-4.3	0.8	-13.3	-0.11	-0.43	-36.9	-0.22	-0.31	-0.16	0.02
U-1R4-E	114	113	112	-11.3	-5.1	-2.4	-2.1	-11.7	-0.18	-0.41	34.1	-0.25	-0.34	0.10	0.02
U-1R4-F	117	116	115	-9.8	-10.1	-5.0	-3.1	-10.6	-0.21	-0.38	-60.3	-0.34	-0.25	-0.07	0.02
U-1R4-G	120	119	118	-8.4	-9.0	-5.3	-4.2	-9.5	-0.23	-0.36	-62.5	-0.33	-0.26	-0.05	0.03
U-1R4-H	123	122	121	-6.4	-8.8	-7.8	-5.2	-8.9	-0.26	-0.35	-33.6	-0.29	-0.32	-0.04	0.02
U-1R4-J	126	125	124	-6.0	-7.9	-7.8	-5.5	-8.3	-0.26	-0.33	-23.9	-0.27	-0.32	-0.02	0.02
1-1R4-A	427	428	429	-3.7	-3.8	-7.9	-2.9	-8.7	-0.18	-0.31	21.8	-0.20	-0.30	0.05	0.02
1-1R4-B	430	431	432	1.0	-0.3	-8.5	2.1	-9.6	-0.02	-0.30	18.2	-0.05	-0.27	0.08	0.02
1-1R4-C	433	434	435	7.1	3.7	-6.3	7.9	-7.1	0.19	-0.16	13.4	0.17	-0.14	0.08	0.01
1-1R4-D	436	437	438	6.2	9.9	-1.3	10.7	-5.8	0.39	-0.08	31.5	0.19	0.02	0.17	0.01
1-1R4-E	439	440	441	17.1	11.0	-5.0	18.2	-6.0	0.54	-0.02	-33.0	0.37	0.15	-0.25	0.01
1-1R4-F	442	443	444	22.4	10.4	-5.0	22.6	-5.1	0.69	0.05	-86.5	0.06	0.69	-0.04	0.02
1-1R4-G	445	446	447	21.4	9.3	-3.1	21.4	-3.1	0.67	0.11	-89.6	0.11	0.67	-0.00	0.02
1-1R4-H	448	449	450	17.8	5.9	-0.1	18.3	-0.6	0.69	0.16	81.1	0.17	0.59	0.07	0.02
1-1R4-J	451	452	453	14.4	5.2	1.3	14.8	0.8	0.50	0.17	79.3	0.18	0.49	0.06	0.02
U-1R5-A	129	128	127	-0.5	9.8	0.4	9.9	-9.9	0.23	-0.23	-43.7	0.01	-0.01	-0.23	0.01
U-1R5-B	132	131	130	-2.0	10.2	0.9	10.3	-11.4	0.23	-0.27	-41.2	0.01	-0.06	-0.25	0.02
U-1R5-C	135	134	133	-0.8	13.2	0.5	13.2	-13.4	0.30	-0.31	-43.6	0.01	-0.02	-0.31	0.02
U-1R5-D	138	137	136	2.3	14.5	-0.9	14.6	-13.2	0.35	-0.29	-48.3	-0.01	0.07	-0.32	0.01
U-1R5-E	141	140	139	-13.2	0.8	13.3	13.3	-13.2	0.31	-0.30	43.4	0.02	-0.01	0.31	0.01
U-1R5-F	144	143	142	-0.7	-10.3	0.3	9.8	-10.3	0.22	-0.24	-46.4	-0.02	0.00	-0.23	0.01
U-1R5-G	147	146	145	-0.7	-8.4	0.0	7.8	-8.4	0.17	-0.20	-46.2	-0.02	-0.01	-0.19	0.01
U-1R5-H	150	149	148	-0.6	-4.8	0.3	4.6	-4.9	0.10	-0.11	-47.7	-0.02	0.01	-0.11	0.01
U-1R5-J	153**	152	151	0.0	-2.5	0.6	3.1	-2.5	0.08	-0.05	-47.9	0.01	0.02	-0.06	0.01
1-1R5-A	454	455	456	-0.1	3.0	0.8	3.0	-2.4	0.08	-0.05	49.5	0.00	0.02	0.06	0.01
1-1R5-B	457**	458	459	0.0	3.8	0.4	3.8	-3.4	0.09	-0.07	46.7	0.00	0.01	0.08	0.01
1-1R5-C	460	461	462**	-0.4	5.9	0.0	5.9	-6.3	0.13	-0.15	45.9	-0.01	-0.00	0.14	0.01
1-1R5-D	463	464	465	-0.2	-7.1	-0.3	6.7	-7.1	0.15	-0.17	-44.8	-0.01	-0.01	-0.16	0.01
1-1R5-E	466*	467	468	5.8	-0.4	-8.0	5.8	-8.1	0.11	-0.21	-42.0	-0.03	-0.06	-0.16	0.04
1-1R5-F	469	470	471	-1.1	-6.4	-0.3	5.0	-6.4	0.10	-0.13	43.0	-0.02	-0.04	0.13	0.02
1-1R5-G	472	473	474	-0.5	-4.7	-0.2	3.9	-4.7	0.08	-0.12	44.0	-0.01	-0.02	0.10	0.01
1-1R5-H	475	476	477	-1.5	-5.4	0.5	4.5	-5.5	0.09	-0.14	39.3	0.00	-0.04	0.11	0.01
1-1R5-J	478	479	480	-2.9	-7.4	1.2	6.0	-7.7	0.12	-0.20	36.4	0.01	-0.08	0.15	0.02
U-2R1-A	168	167	166	-10.8	16.4	47.7	47.8	-10.9	1.47	0.11	2.0	1.47	0.12	0.65	0.03
U-2R1-B	171	170	169	-11.9	6.5	37.2	37.9	-12.6	1.13	-0.04	7.0	1.11	-0.02	0.14	0.02
U-2R1-C	174	173	172	-14.8	5.4	43.5	44.9	-16.1	1.32	-0.09	8.6	1.29	-0.06	0.21	0.03
U-2R1-D	177	176	175	-10.9	-8.7	34.3	42.2	-18.7	1.20	-0.20	21.0	1.02	-0.02	0.47	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
U-2R1-E	180	179	178	-10.7	-16.5	13.8	23.4	-20.3	0.57	-0.44	27.9	0.35	-0.22	0.42	0.01
U-2R1-F	183	182	181	-15.0	-17.3	7.2	13.5	-21.3	0.23	-0.57	70.2	-0.48	0.14	0.26	0.02
U-2R1-G	186	185	184	-8.6	-23.5	3.9	19.7	-24.4	0.41	-0.61	-53.2	-0.25	0.04	-0.49	0.02
U-2R1-H	189	188	187	-0.5	-24.4	-0.5	23.5	-24.4	0.53	-0.57	-45.0	-0.02	-0.02	-0.55	0.01
U-2R1-J	192	191	190	5.9	-19.1	-4.1	21.6	-19.7	0.52	-0.44	-38.0	0.16	-0.08	-0.46	0.01
U-2R1-K	195	194	193	8.0	-14.3	-5.0	18.6	-15.5	0.46	-0.33	-33.8	0.22	-0.09	-0.36	0.01
U-2R1-L	198	197	196	11.4	-16.6	-5.7	24.1	-18.4	0.61	-0.37	-33.2	0.32	-0.07	-0.45	0.01
I-2R1-A	493	494**	495**	20.0	0.0	0.0	24.1	-4.1	0.75	0.10	-22.5	0.66	0.20	-0.23	0.01
I-2R1-B	496	497**	498	15.3	0.0	10.2	25.8	-0.3	0.85	0.25	-39.3	0.61	0.49	-0.29	0.03
I-2R1-C	499	500	501**	3.9	9.4	0.0	9.6	-5.7	0.26	-0.09	37.7	0.13	0.04	0.17	0.03
I-2R1-D	502	503	504	-1.0	10.7	14.1	15.1	-2.0	0.48	0.08	75.7	0.11	0.45	0.09	0.02
I-2R1-E	505**	506**	507*	0.0	0.0	5.6	6.8	-1.2	0.21	0.03	-67.5	0.06	0.19	-0.07	0.02
I-2R1-F	508	509**	510	19.0	0.0	-0.4	22.7	-4.1	0.71	0.09	-66.9	0.18	0.61	-0.22	0.02
I-2R1-G	511	512	513	21.1	12.9	-1.8	21.5	-2.3	0.69	0.14	-81.9	0.15	0.68	-0.08	0.02
I-2R1-H	514	515	516	21.8	3.9	-5.3	22.5	-6.0	0.68	0.03	81.1	0.04	0.67	0.10	0.02
I-2R1-J	517	518	519	20.4	-3.0	-5.3	24.1	-4.0	0.71	-0.06	70.3	0.03	0.62	0.24	0.02
I-2R1-K	520	521	522	10.0	-16.6	1.3	28.3	-17.0	0.76	-0.28	50.5	0.14	0.34	0.51	0.01
I-2R1-L	523	524	525	4.9	-25.1	1.6	31.7	-25.2	0.80	-0.52	46.6	0.10	0.18	0.65	0.01
U-2R2-A	201	200	199	3.5	28.5	44.5	45.0	3.0	1.51	0.54	-6.2	1.50	0.56	-0.10	0.02
U-2R2-B	204	203	202	4.0	24.9	39.2	39.6	3.7	1.34	0.51	-5.3	1.33	0.52	-0.08	0.02
U-2R2-C	207	206	205	3.1	19.4	46.8	47.5	2.4	1.59	0.55	7.1	1.57	0.56	0.13	0.02
U-2R2-D	210	209	208	5.5	9.2	51.6	58.7	-1.6	1.92	0.53	20.0	1.76	0.69	0.45	0.02
U-2R2-E	213	212	211	11.4	-4.9	49.7	70.9	-9.7	2.24	0.36	30.8	1.75	0.87	0.82	0.03
U-2R2-F	216	215	214	14.4	-10.8	37.3	64.2	-12.5	1.99	0.22	81.3	0.26	1.95	0.26	0.04
U-2R2-G	219	218	217	18.6	-8.9	27.0	54.7	-9.2	1.71	0.24	-48.8	0.88	1.07	-0.73	0.03
U-2R2-H	222	221	220	18.1	-3.9	20.1	42.1	-4.0	1.35	0.29	-46.2	0.80	0.84	-0.53	0.03
U-2R2-J	225	224	223	17.0	0.1	15.9	32.8	0.1	1.08	0.33	-44.1	0.72	0.69	-0.38	0.02
U-2R2-K	228	227	226	12.4	-1.4	12.2	26.0	-1.4	0.84	0.21	-44.9	0.53	0.52	-0.32	0.02
U-2R2-L	231	230	229	9.3	-9.6	8.5	27.3	-9.6	0.81	-0.04	-44.3	0.39	0.37	-0.43	0.02
I-2R2-A	526	527	528	16.0	-4.3	-14.7	16.8	-15.4	0.40	-0.34	-8.6	0.38	-0.33	-0.11	0.01
I-2R2-B	529	530	531	13.0	-7.0	-15.0	14.2	-16.2	0.31	-0.40	-11.5	0.28	-0.37	-0.14	0.01
I-2R2-C	532	533	534	2.6	-11.2	-17.4	3.3	-18.1	-0.07	-0.56	-10.4	-0.09	-0.55	-0.09	0.02
I-2R2-D	535	536	537	-6.5	-16.0	-19.7	-5.9	-20.3	-0.40	-0.73	-12.1	-0.41	-0.71	-0.07	0.02
I-2R2-E	538	539	540	-6.5	-12.9	-12.5	-5.0	-14.0	-0.30	-0.51	-24.5	-0.34	-0.48	-0.08	0.02
I-2R2-F	541	542	543	-2.0	-8.2	-9.2	-1.2	-10.0	-0.14	-0.34	-63.2	-0.30	-0.18	-0.03	0.02
I-2R2-G	544	545	546	-7.0	-17.2	-11.7	-1.1	-17.6	-0.21	-0.59	53.4	-0.46	-0.35	0.18	0.02
I-2R2-H	547	548	549	-16.0	-27.9	-10.7	1.4	-28.1	-0.23	-0.91	39.8	-0.51	-0.63	0.34	0.02
I-2R2-J	550	551	552	-18.4	-29.3	-8.2	3.5	-30.1	-0.18	-0.96	36.2	-0.45	-0.69	0.37	0.01
I-2R2-K	553	554	555	-16.3	-31.3	-3.0	12.9	-32.3	0.11	-0.94	36.5	-0.26	-0.57	0.50	0.01
I-2R2-L	556	557	558	-12.0	-29.9	-0.6	17.9	-30.6	0.29	-0.63	38.2	-0.14	-0.40	0.54	0.02
U-2R3-A	234	233	232	15.1	28.9	32.5	33.9	13.7	1.25	0.79	-15.3	1.22	0.82	-0.12	0.02
U-2R3-B	237	236	235	18.6	29.1	28.0	30.7	15.8	1.17	0.83	-25.4	1.11	0.69	-0.13	0.03
U-2R3-C	240	239	238	18.0	29.4	34.4	35.0	17.4	1.33	0.92	-10.6	1.31	0.93	-0.07	0.02
U-2R3-D	243	242	241	16.1	28.1	48.2	48.7	15.6	1.76	1.00	7.2	1.75	1.01	0.69	0.03
U-2R3-E	246	245	244	14.4	26.1	58.9	61.2	12.0	2.14	1.00	12.7	2.08	1.06	0.24	0.03
U-2R3-F	249	248	247	19.5	14.3	48.9	59.0	9.4	2.04	0.89	71.8	1.01	1.93	0.34	0.03
U-2R3-G	252	251	250	24.9	10.6	40.0	55.5	9.3	1.92	0.86	-54.6	1.22	1.56	-0.50	0.02
U-2R3-H	255	254	253	16.8	9.3	36.6	46.7	6.7	1.61	0.68	-59.8	0.92	1.37	-0.40	0.02
U-2R3-J	258	257	256	10.0	6.9	32.2	39.1	3.0	1.32	0.49	-64.0	0.65	1.16	-0.33	0.02
U-2R3-K	261	260	259	2.1	2.0	28.3	33.9	-3.4	1.08	0.22	-67.4	0.35	0.96	-0.31	0.03
U-2R3-L	264	263	262	-0.7	-9.0	23.0	34.6	-12.2	1.02	-0.06	-60.2	0.20	0.75	-0.47	0.02
I-2R3-A	559	560	561	6.0	-8.1	-24.2	6.1	-24.2	-0.04	-0.74	1.8	-0.04	-0.74	0.02	0.02
I-2R3-B	562	563	564	1.3	-13.2	-31.0	1.4	-31.0	-0.26	-1.01	3.0	-0.26	-1.01	0.04	0.01
I-2R3-C	565	566	567	-9.8	-25.2	-39.7	-9.8	-39.7	-0.71	-1.41	-0.9	-0.72	-1.41	-0.01	0.03
I-2R3-D	568	569	570	-16.0	-42.5	-44.7	-11.6	-49.1	-0.87	-1.73	-20.2	-0.97	-1.63	-0.28	0.03
I-2R3-E	571	572	573	-22.4	-49.6	-39.9	-10.7	-51.6	-0.86	-1.81	-32.3	-1.13	-1.54	-0.43	0.07

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. 4)

LOCATION	GAGE NUMBER	STRAIN - MICROINCHES/INCH						STRESS - KSI						TAU	CONF
		(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)		
I-2R3-F	574	575	576	-28.0	-48.8	-31.7	-10.9	-48.9	-0.84	-1.72	-87.2	-1.72	-0.84	-0.04	0.03
I-2R3-G	577	578	579	-42.6	-52.8	-22.4	-9.8	-55.2	-0.87	-1.92	31.8	-1.16	-1.63	0.47	0.03
I-2R3-H	580	581	582	-51.2	-55.4	-10.7	0.8	-62.7	-0.59	-2.06	25.2	-0.86	-1.79	0.56	0.03
I-2R3-J	583	584	585	-42.3	-45.3	-19.3	-12.3	-49.3	-0.89	-1.75	25.8	-1.05	-1.58	0.33	0.04
I-2R3-K	586	587	588	-31.0	-36.0	-9.1	-0.7	-39.4	-0.41	-1.21	27.8	-0.61	-1.11	0.37	0.03
I-2R3-L	589	590	591	-23.4	-32.8	-5.1	6.5	-35.0	-0.13	-1.09	31.9	-0.40	-0.82	0.43	0.03
U-2R4-A	267	266	265	14.9	10.2	10.4	15.9	9.3	0.62	0.47	66.2	0.49	0.59	0.06	0.03
U-2R4-B	270	269	268	15.4	11.0	9.1	15.6	8.4	0.60	0.45	79.0	0.45	0.60	0.03	0.02
U-2R4-C	273	272	271	15.1	15.4	16.3	16.3	15.0	0.69	0.66	10.6	0.69	0.66	0.01	0.03
U-2R4-D	276	275	274	9.4	20.6	21.2	23.2	7.3	0.84	0.47	-21.0	0.79	0.52	-0.12	0.02
U-2R4-E	279	278	277	1.6	11.6	32.0	32.9	0.7	1.09	0.35	54.5	0.60	0.84	0.35	0.01
U-2R4-F	282	281	280	-1.2	-5.3	30.2	34.8	-10.8	1.21	0.04	-64.2	0.26	0.98	-0.46	0.02
U-2R4-G	285	284	283	1.6	-15.9	25.4	45.2	-18.2	1.31	-0.15	-56.1	0.30	0.85	-0.68	0.01
U-2R4-H	288	287	286	-3.7	-18.7	23.9	42.0	-21.9	1.17	-0.31	-57.8	0.11	0.75	-0.66	0.02
U-2R4-J	291	290	289	-3.7	-23.7	18.3	40.3	-25.6	1.08	-0.45	-54.7	0.06	0.57	-0.72	0.01
I-2R4-A	592	593	594	-2.7	-4.5	-16.4	-1.1	-18.1	-0.21	-0.61	18.2	-0.25	-0.57	0.12	0.02
I-2R4-B	595	596	597	-9.2	-12.4	-20.0	-8.8	-20.5	-0.49	-0.76	11.2	-0.50	-0.75	0.05	0.03
I-2R4-C	596	599	600	-12.2	-24.1	-28.2	-11.3	-29.1	-0.66	-1.07	-12.9	-0.68	-1.05	-0.09	0.02
I-2R4-D	601	602	603	-7.7	-37.0	-44.9	-4.9	-47.8	-0.63	-1.62	-15.0	-0.70	-1.56	-0.25	0.03
I-2R4-E	604	605	606	-30.1	-55.7	-33.1	-7.4	-55.8	-0.79	-1.91	-88.2	-1.91	-0.80	-0.03	0.02
I-2R4-F	607	608	609	-49.9	-41.6	-5.1	-1.0	-54.0	-0.57	-1.79	16.1	-0.66	-1.69	0.33	0.03
I-2R4-G	610	611	612	-31.4	-36.4	-17.2	-8.5	-40.1	-0.68	-1.41	31.6	-0.68	-1.21	0.33	0.02
I-2R4-H	615	614	613	-23.1	-8.9	-13.5	-7.7	-28.8	-0.54	-1.03	38.5	-0.89	-0.67	0.22	0.03
I-2R4-J	616	617	618	-13.7	-26.2	-12.2	0.3	-26.2	-0.25	-0.86	43.4	-0.54	-0.57	0.31	0.02
U-2R5-A	292	293	294	0.1	7.4	-0.0	7.4	-7.3	0.17	-0.17	44.8	0.00	0.00	0.17	0.01
U-2R5-B	295	296	297**	-0.2	5.5	0.0	5.5	-5.8	0.13	-0.14	45.6	-0.01	-0.00	0.13	0.01
U-2R5-C	298	299	300	-0.6	-0.2	-0.1	-0.1	-0.7	-0.01	-0.02	77.9	-0.02	-0.01	0.00	0.01
U-2R5-D	301	302	303	-1.2	-8.5	-0.1	7.3	-8.5	0.16	-0.21	-47.0	-0.04	-0.01	-0.18	0.01
U-2R5-E	306	305	304	-17.5	1.5	14.8	15.0	-17.8	0.32	-0.44	40.0	0.01	-0.12	0.37	0.02
U-2R5-F	309	308	307	0.5	-26.4	-2.1	24.9	-26.4	0.56	-0.62	-43.5	-0.00	-0.06	-0.59	0.01
U-2R5-G	312	311	310	6.1	-36.1	-6.7	36.1	-36.7	0.83	-0.85	-39.9	0.13	-0.16	-0.83	0.01
U-2R5-H	315	314	313	3.7	-36.4	-5.4	34.9	-36.7	0.79	-0.86	-41.3	0.07	-0.14	-0.62	0.01
U-2R5-J	318	317	316	7.8	-36.9	-7.4	38.0	-37.7	0.88	-0.87	-39.2	0.18	-0.17	-0.86	0.01
I-2R5-A	621	620	619	-0.7	-4.3	0.2	3.8	-4.3	0.08	-0.10	41.6	0.00	-0.02	0.09	0.01
I-2R5-B	622	623	624	0.2	0.7	1.2	1.2	0.2	0.04	0.02	-87.3	0.02	0.04	-0.00	0.01
I-2R5-C	625	626	627	-1.0	-4.6	2.1	6.0	-4.8	0.15	-0.10	-53.3	-0.01	0.06	-0.12	0.02
I-2R5-D	628	629	630*	-0.3	-2.4	0.0	2.2	-2.4	0.05	-0.06	-46.7	-0.01	-0.00	-0.05	0.01
I-2R5-E	631	632	633	-0.6	3.8	3.4	4.5	-1.8	0.13	-0.01	19.7	0.12	0.00	0.05	0.01
I-2R5-F	634	635	636**	4.3	-0.6	0.0	5.6	-1.3	0.17	0.01	64.2	0.04	0.14	0.06	0.01
I-2R5-G	637	636	639	2.6	-10.9	0.2	13.7	-10.9	0.34	-0.23	47.8	0.03	0.09	0.28	0.01
I-2R5-H	640	641	642	0.1	-11.6	0.5	12.2	-11.6	0.29	-0.26	44.6	0.02	0.01	0.27	0.01
I-2R5-J	643	644	645	1.2	-13.4	-2.1	12.6	-13.5	0.28	-0.32	48.6	-0.06	0.02	0.30	0.01
U-1R6-A	156	155	154	11.3	1.7	10.4	20.1	1.7	0.68	0.25	46.4	0.46	0.48	0.21	0.01
U-1R6-B	159	158*	157	8.2	9.4	13.8	14.3	7.8	0.55	0.40	14.6	0.54	0.41	0.04	0.04
U-1R6-C	162	161	160	4.4	3.2	10.2	12.3	2.3	0.43	0.20	27.5	0.38	0.25	0.10	0.02
U-1R6-D	165	164	163	0.3	-3.7	1.0	5.0	-3.7	0.13	-0.07	42.5	0.04	0.02	0.10	0.02
I-1R6-A	481	482	483	-28.6	-11.2	2.7	2.8	-28.7	-0.19	-0.92	86.8	-0.92	-0.20	0.04	0.02
I-1R6-B	484	485	486	-25.7	-10.9	2.7	2.7	-25.7	-0.17	-0.82	88.7	-0.82	-0.17	0.02	0.02
I-1R6-C	487	488	489	-15.7	-9.2	2.0	2.3	-16.0	-0.08	-0.51	-82.6	-0.50	-0.09	-0.05	0.02
I-1R6-D	490	491	492**	-1.1	-4.3	0.0	3.2	-4.3	0.06	-0.11	-49.3	-0.04	-0.01	-0.09	0.02
U-2R6-A	321	320	319	-9.9	-20.4	-11.7	-1.1	-20.5	-0.24	-0.69	47.8	-0.48	-0.44	0.22	0.01
U-2R6-B	324*	323	322	-13.3	-17.6	-13.6	-9.3	-17.6	-0.48	-0.67	45.8	-0.58	-0.57	0.10	0.15
U-2R6-C	327	326	325	-4.6	-10.9	-7.9	-1.4	-11.2	-0.16	-0.38	54.8	-0.31	-0.23	0.11	0.02
I-2R6-A	646**	647**	648**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2R6-B	649**	650**	651**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2R6-C	652**	653	654	0.0	4.4	-1.4	4.5	-5.9	0.09	-0.15	41.2	-0.01	-0.04	0.12	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-1R7- A	655**	656**	657**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-1R7- B	658**	659**	660**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-1R7- A	661**	662**	663**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EX- C- A	670	671	672	5.6	-8.0	-24.9	5.7	-24.9	-0.06	-0.77	-87.0	-0.76	-0.06	-0.04	0.02
EX- C- B	675	674	673	-1.0	-5.4	1.2	5.7	-5.5	0.13	-0.12	39.4	0.03	-0.02	0.13	0.01
EX- C- C	678	677	676	24.3	10.4	-7.0	24.4	-7.1	0.74	0.01	-86.9	0.01	0.73	-0.04	0.01
EX- C- D	669	668	667	-0.2	0.0	0.4	0.4	-0.2	0.01	-0.00	5.2	0.01	-0.00	0.00	0.01
EX- B- A	667	666	685	-0.0	-1.4	-0.4	1.0	-1.4	0.02	-0.04	-40.9	-0.00	-0.01	-0.03	0.01
EX- B- B	690**	689	688	0.0	1.3	0.3	1.3	-1.0	0.03	-0.02	48.5	0.00	0.01	0.03	0.01
EX- B- C	661	680	679	-0.9	-1.0	-0.3	0.5	-1.7	-0.00	-0.05	-53.9	-0.03	-0.02	-0.02	0.02
EX- B- D	684	683	682	-0.2	2.0	0.1	2.0	-2.1	0.05	-0.05	47.2	-0.01	0.00	0.05	0.01
EX- A- A	696	695	694	-8.0	-20.8	2.5	16.1	-21.6	0.32	-0.55	-53.1	-0.24	0.00	-0.42	0.02
EX- A- B	693	692	691	-0.7	-27.1	0.6	27.0	-27.1	0.62	-0.63	-45.7	-0.02	0.01	-0.62	0.01
EX- A- C	666	665	664	9.3	-15.0	-3.2	22.1	-16.0	0.57	-0.31	-35.4	0.27	-0.01	-0.42	0.01
EX- A- D	699	698	697	-0.3	-21.3	0.3	21.3	-21.3	0.49	-0.49	-45.4	-0.01	0.01	-0.49	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

IMCCOZI STOP 0

COMBUSTION T-11, LOAD CASE 7, M2X

NOMINAL LOAD = 7.883E 05

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAJ	CONF
O-1R1-A	3	2	1*	-0.7	-3.8	0.6	3.8	-3.9	0.09	-0.09	40.0	0.01	-0.02	0.09	0.02
O-1R1-B	6	5	4	-0.6	-10.4	-0.4	9.4	-10.4	0.21	-0.25	44.7	-0.02	-0.02	0.23	0.01
O-1R1-C	9	8	7	2.3	-23.6	-4.1	22.0	-23.9	0.49	-0.57	49.0	-0.11	0.03	0.52	0.03
O-1R1-D	12	11	10	2.6	-32.4	-3.5	31.7	-32.5	0.72	-0.76	47.7	-0.09	0.05	0.74	0.01
O-1R1-E	15	14	13	7.1	-30.9	-5.6	33.1	-31.6	0.78	-0.71	50.7	-0.11	0.18	0.73	0.02
O-1R1-F	13	17	16	-1.3	-27.3	1.2	27.1	-27.3	0.62	-0.63	88.7	-0.63	0.62	0.03	0.03
O-1R1-G	21	20	19	4.2	-24.9	0.1	29.3	-25.0	0.72	-0.54	-42.8	0.14	0.04	-0.63	0.02
O-1R1-H	24	23	22	12.5	-19.0	-3.5	29.3	-20.3	0.77	-0.38	-35.6	0.38	0.01	-0.54	0.02
O-1R1-J	27	26	25	11.8	-15.5	-2.6	26.4	-17.2	0.70	-0.30	-35.3	0.36	0.03	-0.47	0.03
O-1R1-K	30	29	28	9.4	-13.4	-4.4	19.8	-14.8	0.51	-0.29	-33.2	0.27	-0.05	-0.37	0.02
O-1R1-L	33	32	31	8.0	-17.0	-2.4	23.3	-17.7	0.59	-0.35	-37.6	0.24	0.00	-0.46	0.02
I-1R1-A	328	329	330**	-2.0	-12.6	0.0	10.6	-12.6	0.23	-0.31	-47.5	-0.07	-0.02	-0.27	0.02
I-1R1-B	331	332	333	-0.4	-8.0	-0.3	7.4	-8.0	0.16	-0.19	-45.2	-0.02	-0.01	-0.18	0.03
I-1R1-C	334	335	336	-0.7	-0.4	0.7	0.8	-0.8	0.02	-0.02	-74.2	-0.01	0.02	-0.01	0.01
I-1R1-D	337	338	339	-0.9	5.8	0.9	5.9	-5.9	0.13	-0.14	49.5	-0.02	0.02	0.13	0.02
I-1R1-E	340	341	342	-0.8	11.5	0.3	11.5	-12.0	0.26	-0.28	46.3	-0.02	0.00	0.27	0.03
I-1R1-F	343	344	345	-0.1	10.9	1.0	10.9	-10.0	0.26	-0.22	1.5	0.26	-0.22	0.01	0.04
I-1R1-G	346	347	348	6.0	11.0	-2.9	12.0	-8.9	0.31	-0.17	-57.6	-0.04	0.17	-0.22	0.02
I-1R1-H	349	350	351	9.9	3.4	-9.0	10.4	-9.4	0.25	-0.21	-81.4	-0.20	0.24	-0.07	0.05
I-1R1-J	352	353	354	11.6	-4.6	-5.1	14.7	-8.3	0.40	-0.13	68.4	-0.05	0.33	0.18	0.02
I-1R1-K	355	356	357	6.3	-12.4	0.3	19.4	-12.7	0.51	-0.23	50.4	0.07	0.21	0.36	0.05
I-1R1-L	358	359	360	-1.4	-17.7	1.9	18.3	-17.8	0.43	-0.41	42.4	0.05	-0.03	0.41	0.03
O-1R2-A	36	35	34	11.8	13.7	11.5	13.7	9.6	0.55	0.45	-46.9	0.50	0.50	-0.05	0.08
O-1R2-B	39	38	37	15.4	11.3	15.3	19.5	11.3	0.75	0.56	45.6	0.66	0.66	0.10	0.05
O-1R2-C	42	41	40	16.9	4.0	21.6	34.8	3.8	1.18	0.47	40.6	0.88	0.77	0.35	0.03
O-1R2-D	45	44	43	19.5	-4.4	17.8	41.7	-4.4	1.33	0.27	46.0	0.78	0.82	0.53	0.05
O-1R2-E	48	47	46	22.4	-12.8	18.1	53.3	-12.9	1.63	0.10	46.9	0.82	0.92	0.76	0.03
O-1R2-F	51	50	49	22.5	-15.1	12.2	50.2	-15.5	1.50	-0.01	-85.5	-0.00	1.49	-0.12	0.04
O-1R2-G	54	53	52	27.3	-10.4	5.1	45.1	-12.6	1.36	0.03	-33.7	0.95	0.44	-0.61	0.03
O-1R2-H	57	56	55	23.4	-4.0	5.0	34.6	-6.2	1.08	0.14	-31.6	0.82	0.40	-0.42	0.05
O-1R2-J	60	59	58	15.0	-2.5	10.5	28.2	-2.7	0.90	0.19	-40.8	0.60	0.50	-0.35	0.04
O-1R2-K	63	62	61	9.2	-4.0	6.0	19.4	-4.1	0.60	0.06	-41.1	0.36	0.29	-0.27	0.02
O-1R2-L	66	65	64	5.1	-10.9	5.0	21.0	-10.9	0.58	-0.15	-44.9	0.22	0.21	-0.37	0.03
I-1R2-A	361	362	363	-0.8	-22.2	-29.3	0.8	-31.0	-0.28	-1.01	-13.3	-0.32	-0.97	-0.16	0.05
I-1R2-B	364	365	366	-0.6	-21.8	-33.5	0.0	-34.2	-0.34	-1.13	-8.1	-0.35	-1.11	-0.11	0.05
I-1R2-C	367	368	369	-1.6	-21.1	-39.3	-1.6	-39.4	-0.44	-1.31	-1.0	-0.44	-1.31	-0.02	0.05
I-1R2-D	370	371	372	-2.8	-19.6	-37.3	-2.8	-37.3	-0.46	-1.26	0.8	-0.46	-1.26	0.01	0.05
I-1R2-E	373	374	375	-1.6	-9.3	-22.6	-1.2	-23.0	-0.27	-0.77	7.5	-0.27	-0.76	0.07	0.04
I-1R2-F	376	377	378	0.9	-6.5	-16.1	0.9	-16.2	-0.13	-0.52	-41.3	-0.30	-0.35	-0.20	0.03
I-1R2-G	379	380	381	0.7	-11.7	-19.3	1.0	-19.6	-0.16	-0.64	83.1	-0.63	-0.17	0.06	0.04
I-1R2-H	382	383	384	-3.5	-16.0	-15.4	-0.6	-18.3	-0.20	-0.61	66.0	-0.54	-0.27	0.15	0.03
I-1R2-J	385	386	387	-7.2	-20.8	-14.0	0.1	-21.3	-0.21	-0.70	54.3	-0.53	-0.38	0.23	0.05
I-1R2-K	388	389	390	-4.7	-21.6	-8.9	8.1	-21.7	0.05	-0.64	49.1	-0.34	-0.24	0.34	0.05
I-1R2-L	391	392	393	-8.4	-21.9	0.6	14.6	-22.5	0.26	-0.60	38.0	-0.06	-0.27	0.42	0.02
O-1R3-A	69	68	67	20.7	18.7	12.3	21.2	11.8	0.82	0.60	-76.2	0.61	0.80	-0.05	0.03
O-1R3-B	72	71	70	23.1	19.0	16.1	23.1	16.1	0.92	0.76	84.9	0.76	0.92	0.01	0.04
O-1R3-C	75	74	73	21.2	19.0	22.4	24.6	19.0	1.00	0.87	39.3	0.95	0.92	0.06	0.03
O-1R3-D	78	77	76	19.6	15.6	27.3	32.1	14.7	1.20	0.80	31.8	1.09	0.92	0.18	0.03
O-1R3-E	81	80	79	12.6	13.8	31.0	34.1	9.6	1.22	0.65	20.5	1.15	0.72	0.19	0.05
O-1R3-F	84	83	82	16.1	8.0	27.3	36.4	6.9	1.27	0.59	78.8	0.61	1.26	0.13	0.05

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. ←)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
O-1R3-G	87	86	85	18.7	8.2	21.4	31.9	8.2	1.13	0.59	-48.3	0.83	0.89	-0.27	0.04
D-1R3-H	90	89	88	8.5	5.4	22.5	27.8	3.2	0.95	0.38	-62.4	0.50	0.83	-0.23	0.03
O-1R3-J	93	92	91	3.6	-2.0	19.3	27.0	-4.1	0.85	0.13	-60.1	0.31	0.67	-0.31	0.03
O-1P3-K	96	95	94	-1.9	-6.3	16.2	23.3	-9.0	0.68	-0.07	-62.0	0.10	0.51	-0.31	0.03
O-1P3-L	99	98	97	-7.4	-14.0	15.8	25.9	-17.4	0.68	-0.32	-61.2	-0.09	0.45	-0.42	0.04
I-1R3-A	394	395	396	-3.8	-19.6	-36.7	-3.8	-36.8	-0.49	-1.25	1.3	-0.49	-1.25	0.02	0.03
I-1R3-B	397	398	399	-5.9	-19.6	-42.7	-5.3	-43.3	-0.60	-1.48	7.2	-0.62	-1.47	0.11	0.04
I-1R3-C	400	401	402	-7.2	-27.6	-50.1	-7.2	-50.1	-0.73	-1.72	1.4	-0.73	-1.72	0.02	0.03
I-1R3-D	403	404	405	-3.8	-38.4	-51.0	-1.3	-53.5	-0.57	-1.78	-12.4	-0.63	-1.72	-0.25	0.05
I-1P3-E	406*	407	408	-17.0	-36.8	-43.1	-15.3	-46.8	-0.95	-1.63	-13.6	-0.99	-1.59	-0.16	0.07
I-1R3-F	409	410	411	-13.1	-39.1	-35.8	-5.9	-43.0	-0.62	-1.47	-71.1	-1.38	-0.71	-0.26	0.07
I-1R3-G	412	413	414	-20.3	-40.6	-28.7	-7.9	-41.1	-0.67	-1.43	52.4	-1.15	-0.95	0.37	0.06
I-1P3-H	415	416	417	-24.5	-37.6	-15.5	-1.9	-38.1	-0.44	-1.28	37.8	-0.75	-0.96	0.41	0.06
I-1P3-J	421	422	423	-10.8	-23.9	-11.0	2.1	-23.9	-0.17	-0.77	45.2	-0.47	-0.47	0.30	0.02
I-1R3-K	418	419	420	-18.5	-29.9	-21.2	-9.7	-30.0	-0.62	-1.08	48.9	-0.88	-0.82	0.23	0.07
I-1R3-L	424	425	426	-6.2	-23.2	-11.1	6.1	-23.4	-0.03	-0.71	49.7	-0.43	-0.32	0.34	0.04
O-1R4-A	102	101	100	14.2	12.1	7.2	14.5	6.9	0.55	0.37	-78.8	0.38	0.54	-0.03	0.04
O-1R4-B	105	104	103	12.8	13.4	9.9	13.9	8.8	0.54	0.43	-62.2	0.45	0.52	-0.05	0.04
O-1R4-C	108	107	106	8.9	15.7	12.2	16.0	5.1	0.58	0.33	-36.1	0.49	0.41	-0.12	0.03
O-1R4-D	111	110	109	2.2	19.9	16.3	22.1	-3.5	0.69	0.10	-28.2	0.56	0.23	-0.25	0.04
O-1R4-E	114	113	112	-11.7	12.3	27.2	27.7	-12.3	0.79	-0.13	38.3	0.44	0.22	0.45	0.06
O-1R4-F	117	116	115	-9.3	-11.7	22.6	31.0	-17.7	0.85	-0.28	-65.5	-0.08	0.65	-0.42	0.04
O-1R4-G	120	119	118	-6.6	-20.3	20.0	36.8	-23.4	0.98	-0.41	-58.1	-0.02	0.59	-0.62	0.03
O-1R4-H	123	122	121	-7.3	-24.0	15.7	34.7	-26.2	0.88	-0.52	-56.1	-0.08	0.45	-0.65	0.03
O-1R4-J	126	125	124	-9.9	-28.8	12.8	33.7	-30.8	0.81	-0.68	-55.3	-0.20	0.32	-0.70	0.03
I-1R4-A	427	428	429	-7.0	-7.6	-20.4	-4.7	-22.7	-0.38	-0.79	20.9	-0.43	-0.74	0.14	0.04
I-1R4-B	430	431	432	-9.1	-12.0	-25.7	-7.5	-27.3	-0.52	-0.98	16.5	-0.56	-0.94	0.12	0.04
I-1R4-C	433	434	435	-6.6	-19.3	-30.2	-6.6	-33.2	-0.52	-1.06	-2.1	-0.52	-1.06	-0.02	0.03
I-1R4-D	436	437	438	-1.8	-25.2	-40.5	-1.3	-40.9	-0.45	-1.36	-6.0	-0.46	-1.35	-0.09	0.03
I-1R4-E	439	440	441	-17.0	-40.1	-30.4	-6.0	-41.5	-0.61	-1.43	-78.9	-1.40	-0.64	-0.16	0.04
I-1R4-F	442	443	444	-22.9	-33.4	-13.7	-2.5	-34.1	-0.42	-1.15	36.5	-0.68	-0.89	0.35	0.04
I-1R4-G	445	446	447	-11.2	-25.5	-16.6	-1.9	-25.8	-0.32	-0.87	51.5	-0.66	-0.53	0.27	0.03
I-1R4-H	448	449	450	-5.9	-17.4	-10.8	1.1	-17.8	-0.14	-0.57	52.6	-0.41	-0.30	0.21	0.05
I-1R4-J	451	452	453	-0.5	-21.2	-13.4	8.6	-22.5	0.06	-0.66	57.2	-0.45	-0.15	0.33	0.04
O-1R5-A	129	128	127	-0.9	-0.0	-0.5	-0.0	-1.3	-0.01	-0.04	-36.7	-0.02	-0.03	-0.01	0.03
O-1R5-B	132	131	130	-1.8	4.3	-0.8	4.3	-6.9	0.07	-0.19	-42.5	-0.05	-0.07	-0.13	0.03
O-1R5-C	135	134	133	-1.3	11.8	-1.0	11.8	-14.1	0.25	-0.35	-44.6	-0.04	-0.05	-0.30	0.02
O-1R5-D	138	137	136	1.0	19.3	-0.2	19.3	-18.5	0.45	-0.42	-45.9	0.00	0.03	-0.44	0.02
O-1R5-E	141	140	139	-26.3	2.7	25.3	25.5	-26.5	0.58	-0.62	41.5	0.05	-0.10	0.60	0.03
O-1R5-F	144	143	142	-2.2	-33.3	-0.5	30.5	-33.3	0.68	-0.79	-45.8	-0.08	-0.04	-0.74	0.02
O-1R5-G	147	146	145	-2.2	-41.3	-2.2	36.9	-41.3	0.81	-1.00	-45.0	-0.09	-0.10	-0.50	0.06
O-1R5-H	150	149	148	0.1	-36.2	-1.2	35.0	-36.2	0.80	-0.85	-44.5	-0.01	-0.04	-0.82	0.04
O-1R5-J	153	152	151	2.6	-39.1	-6.7	35.3	-39.4	0.77	-0.95	-41.4	0.02	-0.20	-0.86	0.05
I-1R5-A	454	455	456	-1.1	7.1	1.0	7.1	-7.3	0.16	-0.17	49.0	-0.03	0.02	0.16	0.02
I-1R5-B	457	458	459	-0.4	3.5	0.7	3.6	-3.3	0.08	-0.07	49.6	-0.01	0.02	0.08	0.03
I-1R5-C	460	461	462	-0.5	-0.2	1.0	1.2	-0.6	0.03	-0.01	-73.3	-0.01	0.03	-0.01	0.02
I-1R5-D	463**	464	465	0.0	-3.4	-1.9	1.7	-3.6	0.02	-0.10	-34.5	-0.02	-0.06	-0.06	0.01
I-1R5-E	466	467	468	5.1	1.7	-6.0	5.5	-6.4	0.12	-0.16	-34.2	0.03	-0.07	-0.13	0.03
I-1R5-F	469	470	471	2.3	-7.0	-2.5	7.2	-7.4	0.15	-0.17	54.8	-0.06	0.05	0.16	0.03
I-1P5-G	472	473	474	1.4	-12.3	-1.5	12.4	-12.4	0.28	-0.29	48.3	-0.03	0.03	0.28	0.01
I-1R5-H	475	476	477	-1.5	-15.1	-0.6	13.0	-15.1	0.28	-0.37	44.1	-0.03	-0.05	0.32	0.03
I-1R5-J	478	479	480	-2.7	-18.1	1.1	16.5	-18.2	0.37	-0.44	41.9	0.01	-0.08	0.40	0.01
O-2R1-A	168	167	166	0.5	-3.8	-1.2	3.3	-3.9	0.07	-0.10	51.7	-0.03	0.01	0.08	0.02
O-2R1-B	171	170	169	2.3	-10.1	-1.7	10.9	-10.3	0.26	-0.23	50.4	-0.03	0.06	0.24	0.02
O-2R1-C	174	173	172	-0.7	-23.3	1.7	24.3	-23.4	0.37	-0.53	43.6	0.05	-0.01	0.55	0.03
O-2R1-D	177	176	175	2.6	-32.8	-2.7	32.8	-32.9	0.76	-0.76	47.3	-0.06	0.06	0.75	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI				TAJ	CONF	
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)			SIG(T)
O-2R1-E	180	179	178	-0.1	-32.1	-1.5	30.6	-32.1	0.69	-0.76	45.6	-0.05	-0.02	0.72	0.04
O-2R1-F	183	182	181	-5.1	-27.7	4.8	27.8	-28.1	0.64	-0.65	84.9	-0.64	0.63	0.11	0.02
O-2R1-G	186	185	184	2.8	-26.4	-0.3	28.9	-26.4	0.69	-0.58	-43.4	0.09	0.02	-0.64	0.02
O-2R1-H	189	188	187	7.7	-20.5	-0.8	27.8	-20.9	0.71	-0.41	-40.0	0.25	0.05	-0.55	0.03
O-2R1-J	192	191	190	6.0	-15.8	-1.4	20.7	-16.1	0.52	-0.33	-39.2	0.18	0.01	-0.42	0.02
O-2R1-K	195	194	193	4.9	-12.7	-2.5	15.6	-13.2	0.38	-0.28	-37.6	0.14	-0.03	-0.32	0.04
O-2R1-L	198	197	196	4.2	-18.5	-4.4	18.8	-19.0	0.43	-0.44	-38.4	0.09	-0.11	-0.42	0.03
I-2R1-A	493	494**	495**	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.00	0.00	0.0	0.00
I-2R1-B	496	497**	498*	-0.1	0.0	-8.0	1.6	-9.8	-0.04	-0.31	23.0	-0.08	-0.27	0.09	0.02
I-2R1-C	499	500	501	-0.4	-3.1	-3.9	-0.2	-4.1	-0.05	-0.14	-13.4	-0.05	-0.13	-0.02	0.02
I-2R1-D	502**	503	504	0.0	4.9	-4.6	5.2	-9.8	0.08	-0.27	36.1	-0.05	-0.11	0.17	0.02
I-2R1-E	505**	506**	507*	0.0	0.0	-5.5	1.1	-6.6	-0.03	-0.21	22.5	-0.05	-0.18	0.06	0.06
I-2R1-F	508	509	510	0.0	10.5	-2.2	10.6	-12.8	0.22	-0.32	-2.7	0.22	-0.31	-0.03	0.02
I-2R1-G	511	512	513	6.0	11.4	-6.0	12.9	-13.0	0.30	-0.30	-58.8	-0.14	0.14	-0.26	0.03
I-2R1-H	514	515	516	12.5	1.5	-8.2	12.5	-8.2	0.33	-0.15	88.2	-0.15	0.33	0.01	0.03
I-2R1-J	517	518	519	14.0	-3.9	-7.0	16.4	-9.4	0.45	-0.15	72.3	-0.09	0.39	0.17	0.03
I-2R1-K	520	521	522	7.5	-15.0	-3.6	19.8	-15.9	0.49	-0.33	54.1	-0.05	0.21	0.39	0.02
I-2R1-L	523	524	525	1.8	-22.2	-2.2	21.9	-22.3	0.50	-0.52	47.6	-0.05	0.04	0.51	0.01
O-2R2-A	201	200	199	15.3	12.8	12.5	15.6	12.1	0.64	0.55	71.6	0.56	0.63	0.02	0.05
O-2R2-B	204	203	202	16.8	10.1	14.6	21.5	10.0	0.81	0.54	50.6	0.65	0.70	0.13	0.05
O-2R2-C	207	206	205	16.2	4.9	19.0	30.4	4.8	1.05	0.46	41.9	0.79	0.72	0.29	0.04
O-2R2-D	210	209	208	17.6	-4.4	20.5	42.6	-4.5	1.36	0.27	43.3	0.85	0.78	0.54	0.03
O-2R2-E	213	212	211	21.8	-14.0	19.7	55.5	-14.0	1.69	0.09	45.9	0.86	0.91	0.80	0.04
O-2R2-F	216	215	214	21.3	-16.1	13.7	51.4	-16.3	1.53	-0.03	-86.8	-0.03	1.53	-0.09	0.04
O-2R2-G	219	218	217	21.3	-10.7	9.5	42.2	-11.4	1.28	0.04	-38.6	-0.80	0.52	-0.60	0.10
O-2R2-H	222	221	220	17.7	-7.0	6.7	32.1	-7.7	0.98	0.06	-37.0	0.65	0.40	-0.44	0.03
O-2R2-J	225	224*	223	10.1	-1.9	9.3	21.3	-1.9	0.68	0.15	-44.0	0.43	0.41	-0.27	0.05
O-2R2-K	228	227	226	4.3	-6.4	5.4	16.1	-6.4	0.47	-0.05	-46.5	0.19	0.22	-0.26	0.02
O-2R2-L	231	230	229	-2.1	-16.7	3.2	17.6	-16.6	0.42	-0.37	-49.4	-0.04	0.08	-0.39	0.02
I-2R2-A	526	527	528	-2.0	-21.0	-28.7	-0.9	-29.9	-0.32	-0.99	-11.5	-0.35	-0.97	-0.13	0.04
I-2R2-B	529	530	531	-0.6	-22.1	-33.4	0.1	-34.2	-0.33	-1.13	-8.6	-0.35	-1.11	-0.12	0.03
I-2R2-C	532	533	534	-0.8	-20.7	-40.0	-0.8	-40.0	-0.42	-1.33	-0.4	-0.42	-1.33	-0.01	0.02
I-2R2-D	535	536	537	-1.7	-18.9	-38.2	-1.7	-38.2	-0.43	-1.28	1.7	-0.43	-1.28	0.02	0.02
I-2R2-E	538	539	540	-0.8	-11.1	-24.3	-0.7	-24.4	-0.26	-0.81	3.4	-0.27	-0.81	0.03	0.02
I-2R2-F	541	542	543	1.1	-5.9	-18.9	1.6	-19.4	-0.14	-0.62	-36.5	-0.31	-0.45	-0.23	0.03
I-2R2-G	544	545	546	0.6	-12.3	-20.0	1.0	-20.3	-0.17	-0.66	82.8	-0.65	-0.18	0.06	0.03
I-2R2-H	547	548	549	-5.0	-16.7	-14.6	-1.4	-18.2	-0.23	-0.61	62.4	-0.53	-0.31	0.16	0.03
I-2R2-J	550	551	552	-5.2	-18.7	-12.9	1.3	-19.4	-0.15	-0.63	55.9	-0.48	-0.30	0.22	0.02
I-2R2-K	553	554	555	-5.7	-20.8	-7.1	8.0	-20.8	0.06	-0.61	46.4	-0.29	-0.26	0.33	0.03
I-2R2-L	556	557*	558	-2.9	-22.1	-4.4	14.9	-22.2	0.27	-0.58	46.1	-0.17	-0.14	0.43	0.05
O-2R3-A	234	233	232	20.4	19.7	15.9	20.9	15.4	0.84	0.71	-72.6	0.73	0.83	-0.04	0.04
O-2R3-B	237	236	235	22.3	20.7	15.5	22.8	15.1	0.90	0.72	-76.3	0.73	0.89	-0.04	0.04
O-2R3-C	240	239	238	20.8	19.8	19.9	21.1	19.6	0.89	0.86	65.0	0.86	0.88	0.01	0.04
O-2R3-D	243	242	241	16.8	16.6	28.1	30.5	14.3	1.15	0.77	22.9	1.09	0.83	0.13	0.05
O-2R3-E	246	245	244	13.6	14.1	33.1	36.8	9.9	1.31	0.69	21.7	1.23	0.78	0.21	0.04
O-2R3-F	249	248	247	16.4	7.8	26.5	36.0	6.9	1.25	0.58	79.8	0.60	1.23	0.12	0.06
O-2R3-G	252	251	250	16.9	4.3	21.3	34.1	4.1	1.16	0.47	-49.2	0.77	0.87	-0.34	0.03
O-2R3-H	255	254	253	6.2	1.0	20.4	27.5	-0.9	0.90	0.24	-60.0	0.41	0.73	-0.28	0.03
O-2R3-J	258	257	256	-0.5	-2.8	18.7	24.4	-6.2	0.74	0.04	-64.4	0.17	0.61	-0.28	0.02
O-2R3-K	261	260	259	-5.4	-7.6	16.0	22.0	-11.5	0.61	-0.16	-64.8	-0.02	0.47	-0.30	0.03
O-2R3-L	264	263	262	-9.7	-18.1	13.4	24.9	-21.2	0.61	-0.45	-60.0	-0.19	0.34	-0.46	0.03
I-2R3-A	559	560	561	-5.7	-20.9	-36.6	-5.7	-36.6	-0.55	-1.26	0.6	-0.55	-1.26	0.01	0.05
I-2R3-B	562	563	564	-3.6	-20.7	-42.5	-3.5	-42.7	-0.54	-1.44	3.6	-0.54	-1.44	0.06	0.04
I-2R3-C	565	566	567	-7.9	-26.8	-49.5	-7.8	-49.5	-0.75	-1.71	2.6	-0.75	-1.71	0.04	0.03
I-2R3-D	568	569	570	-5.0	-37.3	-50.3	-3.0	-52.3	-0.62	-1.75	-11.5	-0.66	-1.71	-0.22	0.08
I-2R3-E	571	572	573	-9.7	-33.6	-44.4	-8.5	-45.6	-0.73	-1.59	-10.4	-0.76	-1.56	-0.15	0.04

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-2R3- F	574	575	576	-11.9	-33.5	-37.3	-9.0	-40.1	-0.70	-1.41	-62.5	-1.26	-0.85	-0.29	0.05
I-2R3- G	577	578	579	-18.8	-40.0	-27.8	-6.0	-40.6	-0.60	-1.40	52.5	-1.10	-0.89	0.39	0.04
I-2R3- H	580	581	582	-23.4	-34.8	-14.8	-2.8	-35.4	-0.44	-1.19	37.4	-0.72	-0.92	0.36	0.05
I-2R3- J	583	584	585	-14.7	-27.8	-21.2	-7.6	-28.3	-0.53	-1.01	54.1	-0.84	-0.69	0.23	0.07
I-2R3- K	586	587	588	-5.9	-22.0	-13.2	3.5	-22.5	-0.11	-0.71	53.1	-0.49	-0.32	0.29	0.03
I-2R3- L	589	590	591	-4.1	-22.6	-8.0	10.7	-22.8	0.13	-0.64	48.3	-0.30	-0.21	0.38	0.03
O-2R4- A	267	266	265	13.6	11.6	9.2	13.6	9.1	0.54	0.44	-87.5	0.44	0.54	-0.00	0.03
O-2R4- B	270	269	268	13.2	12.7	6.8	14.2	5.8	0.52	0.33	-69.5	0.36	0.50	-0.06	0.04
O-2R4- C	273	272	271	8.1	16.8	13.5	17.4	4.3	0.61	0.31	-32.8	0.53	0.40	-0.14	0.03
O-2R4- D	276	275	274	-0.1	18.9	17.2	22.0	-4.9	0.68	0.06	-25.0	0.57	0.17	-0.24	0.03
O-2R4- E	279	278*	277	-11.7	-12.7	27.4	36.2	-20.5	0.99	-0.32	68.2	-0.14	0.81	0.45	0.04
O-2R4- F	282	281	280	-10.4	-13.3	24.0	33.2	-19.6	0.90	-0.32	-65.3	-0.11	0.69	-0.46	0.06
O-2R4- G	285	284	283	-7.4	-22.8	16.7	34.5	-25.3	0.89	-0.49	-56.9	-0.08	0.48	-0.63	0.05
O-2R4- H	288	287	286	-9.4	-24.0	13.5	30.4	-26.4	0.74	-0.57	-56.9	-0.18	0.35	-0.60	0.03
O-2R4- J	291	290	289	-8.9	-29.9	10.3	32.8	-31.4	0.77	-0.71	-53.7	-0.19	0.25	-0.7	0.04
I-2R4- A	592	593	594	-5.2	-9.1	-22.0	-4.1	-23.1	-0.36	-0.80	14.0	-0.39	-0.78	0.10	0.04
I-2R4- B	595	596	597	-8.1	-12.9	-25.6	-7.3	-26.5	-0.50	-0.95	12.2	-0.52	-0.93	0.09	0.05
I-2R4- C	598	599	600	-5.4	-19.2	-31.0	-5.4	-31.1	-0.48	-1.08	-2.2	-0.49	-1.08	-0.02	0.04
I-2R4- D	601	602	603	-1.9	-24.5	-39.1	-1.5	-39.6	-0.44	-1.32	-6.0	-0.45	-1.31	-0.09	0.05
I-2R4- E	604	605	606	-11.2	-36.5	-32.4	-3.7	-39.9	-0.52	-1.35	-72.1	-1.27	-0.59	-0.24	0.04
I-2R4- F	607	608	609	-25.0	-30.0	-7.9	-0.5	-32.5	-0.34	-1.07	28.9	-0.51	-0.90	0.31	0.03
I-2R4- G	610	611	612	-9.9	-25.1	-18.8	-2.8	-26.0	-0.35	-0.88	56.2	-0.72	-0.51	0.25	0.04
I-2R4- H	615	614	613	-3.9	1.4	-13.3	2.5	-19.7	-0.11	-0.62	32.5	-0.26	-0.48	0.23	0.03
I-2R4- J	616	617	618	0.5	-19.5	-11.8	9.5	-20.8	0.11	-0.59	57.0	-0.38	-0.10	0.32	0.03
O-2R5- A	292	293	294	-2.1	-3.2	-0.4	0.9	-3.4	-0.00	-0.10	-57.1	-0.07	-0.03	-0.05	0.03
O-2R5- B	295	296	297	-1.0	-5.8	0.5	5.4	-5.9	0.12	-0.14	-49.0	-0.03	0.01	-0.13	0.02
O-2R5- C	298	299	300	-2.2	-11.9	0.8	10.6	-12.0	0.23	-0.29	-48.8	-0.06	0.00	-0.26	0.02
O-2R5- D	301	302	303**	-2.3	-19.8	0.0	17.6	-19.8	0.38	-0.48	-46.7	-0.08	-0.02	-0.43	0.03
O-2R5- E	306	305	304	-28.2	0.3	25.2	25.3	-28.2	0.55	-0.68	43.1	-0.02	-0.10	0.62	0.05
O-2R5- F	309	308	307	0.8	-33.1	-3.7	30.3	-33.2	0.67	-0.80	-43.0	-0.01	-0.11	-0.73	0.04
O-2R5- G	312	311	310	7.2	-39.3	-7.0	40.4	-40.2	0.93	-0.93	-39.9	0.17	-0.16	-0.92	0.03
O-2R5- H	315	314	313	2.9	-36.9	-5.3	34.7	-37.1	0.78	-0.88	-41.7	0.04	-0.15	-0.82	0.04
O-2R5- J	318	317	316	8.1	-35.5	-7.3	37.2	-36.3	0.87	-0.83	-38.9	0.20	-0.16	-0.83	0.03
I-2R5- A	621	620	619	-0.7	-6.0	-0.4	4.9	-6.0	0.10	-0.15	44.2	-0.02	-0.03	0.13	0.02
I-2R5- B	622	623	624	-0.1	3.3	2.8	3.8	-1.1	0.11	0.00	63.0	0.02	0.09	0.05	0.02
I-2R5- C	625	626	627	-0.9	-0.3	1.9	2.1	-1.1	0.06	-0.02	-75.2	-0.01	0.05	-0.02	0.02
I-2R5- D	628	629	630	0.0	1.5	2.3	2.4	0.0	0.08	0.02	82.9	0.02	0.08	0.01	0.04
I-2R5- E	631	632	633	6.9	1.2	-3.4	7.0	-3.4	0.20	-0.04	-48.4	0.06	0.09	-0.12	0.03
I-2R5- F	634	635	636	0.8	-4.0	0.1	4.9	-4.0	0.12	-0.08	47.5	0.01	0.03	0.10	0.01
I-2R5- G	637	638	639	-0.0	-12.4	2.0	14.3	-12.4	0.35	-0.27	42.8	0.06	0.02	0.31	0.03
I-2R5- H	640	641	642	0.4	-14.2	-0.9	13.7	-14.2	0.31	-0.33	46.4	-0.03	0.00	0.32	0.03
I-2R5- J	643	644	645	0.8	-16.5	0.5	17.7	-16.5	0.42	-0.37	45.2	0.02	0.03	0.40	0.04
O-1R6- A	156	155	154	1.9	-17.6	-1.7	17.8	-17.7	0.41	-0.41	47.9	-0.04	0.05	0.41	0.03
O-1R6- B	159*	158	157*	0.6	-13.2	-4.5	9.7	-13.5	0.19	-0.35	51.3	-0.14	-0.02	0.26	0.06
O-1R6- C	162	161	160*	0.1	-11.5	0.7	12.3	-11.5	0.29	-0.26	44.2	0.03	0.01	0.27	0.02
O-1R6- D	165*	164	163	-3.2	-9.2	0.1	6.3	-9.4	0.12	-0.25	38.8	-0.03	-0.10	0.18	0.02
I-1R6- A	481	482	483	-2.1	6.6	1.3	6.8	-7.6	0.15	-0.18	51.9	-0.06	0.02	0.16	0.02
I-1R6- B	484	485	486	-0.4	-2.5	2.7	5.0	-2.8	0.14	-0.04	-56.6	0.01	0.08	-0.08	0.02
I-1R6- C	487	488	489	-0.4	-7.5	0.5	7.5	-7.5	0.17	-0.17	-46.7	-0.01	0.01	-0.17	0.02
I-1R6- D	490	491	492	-0.4	-10.6	-1.1	9.1	-10.6	0.20	-0.26	-44.0	-0.02	-0.04	-0.23	0.02
O-2R6- A	321	320	319	-0.3	-19.5	-2.1	17.2	-19.6	0.37	-0.47	46.4	-0.07	-0.03	0.42	0.03
O-2R6- B	324	323	322	-2.7	-13.8	0.7	11.9	-13.9	0.25	-0.34	41.2	-0.00	-0.08	0.30	0.03
O-2R6- C	327	326	325	-3.1	-9.4	9.4	17.2	-13.9	0.46	-0.19	31.8	0.28	-0.01	0.29	0.04
I-2R6- A	646**	647**	648**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2R6- B	649**	650**	651**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2R6- C	652**	653	654	0.0	-7.9	-0.6	7.3	-7.9	0.16	-0.19	-44.0	-0.01	-0.02	-0.18	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI			TAJ	CONF	
	(1)	(2)	(3)	E(1)	E(2)	E(3)	E _{MAX}	E _{MIN}	S _{MAX}	S _{MIN}	PHI	SIG(L)			SIG(T)
I-1R7- A	655**	656**	657**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-1R7- B	658**	659**	660**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2R7- A	661**	662**	663**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EX- C- A	670	671	672	-0.5	2.6	-0.2	2.6	-3.2	0.05	-0.08	-43.6	-0.01	-0.02	-0.07	0.02
EX- C- B	675	674	673	-0.4	-4.2	-0.6	3.2	-4.2	0.06	-0.11	45.8	-0.02	-0.02	0.08	0.02
EX- C- C	678	677	676	-0.7	1.7	-0.2	1.7	-2.5	0.03	-0.07	-41.3	-0.01	-0.02	-0.05	0.03
EX- C- D	669	668	667	-0.6	-4.7	-0.7	3.4	-4.7	0.07	-0.12	45.4	-0.03	-0.03	0.09	0.02
EX- B- A	687	686	685	1.3	-22.1	-1.0	22.4	-22.1	0.52	-0.51	-43.6	0.03	-0.02	-0.51	0.02
EX- B- B	690	689	688	-0.1	-23.8	-0.7	23.1	-23.8	0.52	-0.56	-44.6	-0.01	-0.02	-0.54	0.01
EX- B- C	681	680	679	-1.8	-20.1	1.1	19.4	-20.2	0.44	-0.47	-47.1	-0.05	0.02	-0.46	0.04
EX- B- D	684	683	682	3.9	-22.4	-0.6	25.7	-22.5	0.63	-0.49	-42.3	0.12	0.02	-0.55	0.06
EX- A- A	696	695	694	-19.8	1.8	2.7	6.7	-23.3	-0.01	-0.72	68.6	-0.63	-0.11	0.24	0.06
EX- A- B	693	692	691	-0.5	-23.2	-0.3	22.4	-23.2	0.51	-0.54	-45.1	-0.02	-0.02	-0.53	0.03
EX- A- C	666	665	664	-2.1	-21.3	-2.4	16.9	-21.3	0.35	-0.54	-44.8	-0.09	-0.10	-0.44	0.03
EX- A- D	699	698	697	-1.1	-21.2	0.6	20.7	-21.2	0.47	-0.49	-46.2	-0.03	0.01	-0.48	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

COMBUSTION T-11, LOAD CASE 8, H2Y

NOMINAL LOAD = 7.803E 05

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
O-1R1-A	3	2	1	5.6	3.3	0.1	5.6	0.1	0.19	0.06	-85.2	0.06	0.18	-0.01	0.02
O-1R1-B	6	5	4	6.8	4.5	3.6	7.0	3.5	0.26	0.18	78.1	0.19	0.26	0.02	0.02
O-1R1-C	9	8	7	4.0	5.1	7.8	8.0	3.9	0.30	0.21	12.2	0.30	0.21	0.02	0.02
O-1R1-D	12	11	10	-4.6	1.6	10.2	10.3	-4.7	0.29	-0.05	4.7	0.29	-0.05	0.03	0.02
O-1R1-E	15	14	13	-12.2	-3.7	9.6	9.8	-12.4	0.20	-0.31	6.1	0.19	-0.31	0.05	0.02
O-1R1-F	18	17	16	5.9	-1.3	8.7	16.1	-1.4	0.52	0.11	85.4	0.12	0.51	0.03	0.04
O-1R1-G	21	20	19	-17.0	-3.3	9.0	9.0	-17.0	0.13	-0.47	88.5	-0.47	0.13	0.02	0.01
O-1R1-H	24	23	22	-23.5	-6.2	6.8	7.0	-23.7	-0.00	-0.71	86.0	-0.71	-0.01	0.05	0.02
O-1R1-J	27	26	25	-28.1	-8.4	6.8	6.9	-28.2	-0.05	-0.86	86.4	-0.86	-0.05	0.05	0.03
O-1R1-K	30	29	28	-26.9	-10.9	7.4	7.4	-27.0	-0.02	-0.82	-88.2	-0.81	-0.02	-0.03	0.03
O-1R1-L	33	32	31	-36.0	-14.8	8.5	8.5	-36.0	-0.08	-1.10	-88.6	-1.10	-0.08	-0.02	0.02
I-1R1-A	328	329	330	-1.2	-5.7	-7.6	-1.0	-7.8	-0.11	-0.27	-10.8	-0.12	-0.26	-0.03	0.03
I-1R1-B	331	332	333	-2.1	-8.8	-15.2	-2.1	-15.2	-0.22	-0.52	-0.4	-0.22	-0.52	-0.00	0.02
I-1R1-C	334	335	336	0.8	-12.5	-26.7	0.8	-26.7	-0.24	-0.87	0.8	-0.24	-0.87	0.01	0.02
I-1R1-D	337	338	339	3.5	-15.4	-33.6	3.5	-33.6	-0.22	-1.07	-0.6	-0.22	-1.07	-0.01	0.03
I-1R1-E	340	341	342	7.5	-13.1	-29.1	7.7	-29.2	-0.04	-0.89	-3.6	-0.04	-0.88	-0.05	0.02
I-1R1-F	343*	344	345	10.3	-9.9	-26.6	10.4	-26.7	0.08	-0.78	-47.7	-0.39	-0.31	-0.43	0.02
I-1R1-G	346	347	348	7.8	-11.2	-23.9	8.1	-24.2	0.03	-0.72	84.4	-0.71	0.02	0.07	0.02
I-1R1-H	349	350	351	5.0	-11.5	-15.7	6.7	-17.4	0.05	-0.51	74.7	-0.47	0.01	0.14	0.02
I-1R1-J	352	353	354	3.1	-9.5	-12.3	4.6	-13.8	0.01	-0.41	73.7	-0.38	-0.02	0.11	0.02
I-1R1-K	355	356	357	3.3	-12.6	-24.3	3.5	-24.4	-0.13	-0.77	85.6	-0.77	-0.13	0.05	0.04
I-1R1-L	358	359	360	4.6	-11.4	-25.5	4.6	-25.6	-0.10	-0.83	88.3	-0.80	-0.10	0.02	0.03
O-1R2-A	36*	35	34	0.3	-1.3	0.0	1.6	-1.3	0.04	-0.03	47.3	0.00	0.01	0.03	0.02
O-1R2-B	39	38	37	1.6	0.2	1.0	2.4	0.2	0.08	0.03	53.6	0.05	0.06	0.02	0.02
O-1R2-C	42	41	40	-0.7	1.4	2.7	2.8	-0.7	0.08	0.00	-6.1	0.08	0.00	-0.01	0.02
O-1R2-D	45	44	43	-5.7	1.4	4.9	5.2	-6.0	0.11	-0.15	-9.4	0.11	-0.14	-0.04	0.02
O-1R2-E	48	47	46	-16.0	1.5	7.0	8.5	-17.4	0.11	-0.49	-13.9	0.07	-0.46	-0.14	0.02
O-1R2-F	51	50	49	-19.1	-0.5	6.9	8.1	-20.2	0.07	-0.59	33.5	-0.13	-0.39	0.30	0.01
O-1R2-G	54	53	52	-24.2	-3.9	8.1	8.6	-24.7	0.04	-0.73	82.8	-0.72	0.03	0.10	0.02
O-1R2-H	57	56	55	-28.5	-11.0	6.3	6.3	-28.5	-0.07	-0.88	89.8	-0.88	-0.07	0.00	0.02
O-1R2-J	60	59	58	-27.1	-8.4	6.5	6.6	-27.2	-0.05	-0.83	86.8	-0.83	-0.06	0.04	0.02
O-1R2-K	63	62	61	-26.5	-14.2	5.0	5.4	-26.9	-0.09	-0.83	-83.8	-0.82	-0.10	-0.08	0.02
O-1R2-L	66	65	64	-34.3	-17.0	6.2	6.4	-34.5	-0.13	-1.07	-85.8	-1.07	-0.13	-0.07	0.02
I-1R2-A	361	362	363	-1.3	2.0	-3.0	2.1	-6.5	0.01	-0.19	39.3	-0.07	-0.11	0.10	0.02
I-1R2-B	364	365	366	-1.7	0.2	-6.1	0.7	-8.5	-0.06	-0.27	30.8	-0.12	-0.22	0.09	0.01
I-1R2-C	367	368	369	1.1	-2.5	-11.4	1.6	-11.9	-0.06	-0.38	11.4	-0.08	-0.36	0.06	0.02
I-1R2-D	370	371	372	2.6	-4.5	-16.1	2.9	-16.3	-0.07	-0.51	6.8	-0.07	-0.50	0.05	0.02
I-1R2-E	373	374	375	5.2	-9.8	-20.3	5.4	-20.5	-0.02	-0.62	-5.1	-0.03	-0.62	-0.05	0.02
I-1R2-F	376	377	378	5.6	-12.1	-20.6	6.4	-21.4	3.00	-0.64	-54.8	-0.43	-0.21	-0.30	0.02
I-1R2-G	379	380	381	5.7	-11.5	-16.2	7.4	-17.9	0.07	-0.52	75.1	-0.48	0.03	0.14	0.02
I-1R2-H	382	383	384	5.6	-6.6	-9.6	6.9	-10.9	0.12	-0.29	74.3	-0.26	0.09	0.11	0.01
I-1R2-J	385	386	387	5.5	-9.4	-13.2	7.0	-14.8	0.09	-0.42	74.7	-0.38	0.05	0.13	0.02
I-1R2-K	388	389	390	5.0	-7.2	-20.2	5.0	-20.2	-0.03	-0.61	-89.1	-0.61	-0.03	-0.01	0.03
I-1R2-L	391	392	393	5.1	-8.9	-20.6	5.1	-20.6	-0.04	-0.63	87.5	-0.63	-0.04	0.03	0.02
O-1R3-A	69	68	67	-5.0	-3.9	1.3	1.9	-5.7	0.01	-0.17	16.5	-0.01	-0.15	0.05	0.02
O-1R3-B	72	71	70	-5.3	-4.5	0.4	1.1	-6.0	-0.02	-0.19	17.9	-0.04	-0.17	0.05	0.02
O-1R3-C	75	74	73	-8.1	-3.8	-0.2	-0.2	-8.1	-0.09	-0.27	-2.6	-0.09	-0.27	-0.01	0.02
O-1R3-D	78	77	76	-11.6	-3.4	-0.8	-0.1	-12.2	-0.12	-0.40	-13.5	-0.14	-0.39	-0.06	0.01
O-1R3-E	81	80	79	-15.7	-1.0	-3.0	1.2	-19.9	-0.16	-0.64	-26.4	-0.25	-0.55	-0.19	0.02
O-1R3-F	84	83	82	-20.8	-5.5	0.2	1.3	-21.9	-0.18	-0.71	32.6	-0.33	-0.55	0.24	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
O-1R3-G	87	86	85	-23.7	-11.4	0.6	0.6	-23.7	-0.21	-0.78	89.5	-0.78	-0.21	0.00	0.02
O-1P3-H	90	89	88	-24.1	-11.1	0.1	0.1	-24.1	-0.23	-0.79	87.9	-0.79	-0.24	0.02	0.02
O-1R3-J	93	92	91	-22.2	-12.8	-0.4	-0.3	-22.3	-0.23	-0.74	-86.0	-0.74	-0.23	-0.04	0.02
O-1R3-K	96	95	94	-20.7	-11.9	-0.6	-0.5	-20.8	-0.22	-0.69	-86.6	-0.69	-0.22	-0.03	0.01
O-1R3-L	99	98	97	-26.6	-13.3	0.7	0.7	-26.6	-0.24	-0.87	-89.3	-0.87	-0.24	-0.01	0.02
I-1R3-A	394	395	396	-0.8	4.9	5.9	6.7	-1.6	0.20	0.01	72.5	0.03	0.19	0.05	0.02
I-1R3-B	397	398	399	-0.4	5.7	7.1	7.7	-1.1	0.24	0.04	74.0	0.06	0.23	0.05	0.01
I-1R3-C	400	401	402	0.7	7.7	8.8	9.7	-0.3	0.32	0.09	72.0	0.11	0.30	0.07	0.02
I-1R3-D	403	404	405	1.9	8.9	6.6	9.4	-0.9	0.30	0.06	58.4	0.13	0.24	0.11	0.01
I-1R3-E	406	407	408	5.4	5.2	-0.0	6.4	-1.1	0.20	0.03	21.8	0.18	0.05	0.06	0.01
I-1R3-F	409	410	411	5.8	1.2	-3.1	5.8	-3.1	0.16	-0.05	-45.8	0.05	0.06	-0.10	0.01
I-1R3-G	412	413	414	6.6	0.8	-2.2	6.8	-2.4	0.20	-0.01	81.4	-0.01	0.19	0.03	0.02
I-1R3-H	415	416	417	7.5	1.8	-2.9	7.5	-2.9	0.22	-0.02	87.0	-0.02	0.22	0.01	0.02
I-1R3-J	421	422	423	5.7	-3.1	-11.3	5.7	-11.3	0.08	-0.32	89.1	-0.32	0.08	0.01	0.02
I-1P3-K	418	419	420	7.3	-2.3	-7.1	7.7	-7.5	0.18	-0.17	80.7	-0.16	0.17	0.06	0.01
I-1P3-L	424	425	426	4.8	-3.9	-14.1	4.8	-14.1	0.02	-0.42	-87.6	-0.42	0.02	-0.02	0.01
O-1R4-A	102	101	100	-6.3	-1.6	2.7	2.7	-6.3	0.03	-0.18	-1.5	0.03	-0.18	-0.01	0.02
O-1R4-B	105	104	103	-7.0	-2.4	2.5	2.5	-7.0	0.01	-0.21	0.8	0.01	-0.21	0.00	0.02
O-1R4-C	108	107	106	-7.8	-1.9	0.1	0.5	-8.2	-0.06	-0.27	-13.1	-0.07	-0.25	-0.04	0.02
O-1P4-D	111	110	109	-8.1	-3.6	-2.6	-2.1	-8.6	-0.15	-0.31	-16.3	-0.17	-0.29	-0.04	0.02
O-1P4-E	114	113	112	-10.4	-5.8	-4.1	-3.8	-10.7	-0.23	-0.39	32.9	-0.28	-0.34	0.07	0.02
O-1R4-F	117	116	115	-11.0	-8.2	-4.8	-4.7	-11.0	-0.27	-0.41	-86.5	-0.41	-0.27	-0.01	0.03
O-1R4-G	120	119	118	-12.5	-6.5	-4.9	-4.3	-13.1	-0.27	-0.47	75.1	-0.46	-0.29	0.05	0.04
O-1R4-H	123	122	121	-12.0	-6.8	-3.8	-3.7	-12.2	-0.24	-0.44	82.4	-0.43	-0.24	0.03	0.02
O-1R4-J	126	125	124	-13.9	-6.8	-3.0	-2.7	-14.1	-0.23	-0.49	82.0	-0.49	-0.23	0.04	0.02
I-1R4-A	427	428	429	0.4	1.1	6.9	7.8	-0.5	0.25	0.06	-71.2	0.08	0.23	-0.06	0.02
I-1R4-B	430	431	432	1.1	2.8	8.9	9.5	0.5	0.32	0.11	-75.6	0.12	0.30	-0.05	0.01
I-1P4-C	433	434	435	1.3	4.4	13.5	14.2	0.6	0.48	0.16	-76.9	0.18	0.46	-0.07	0.02
I-1P4-D	436	437	438	-1.3	7.4	15.6	15.6	-1.3	0.50	0.11	89.1	0.11	0.50	0.01	0.01
I-1R4-E	439	440	441	4.4	13.2	9.6	13.7	0.3	0.45	0.14	11.4	0.44	0.16	0.06	0.01
I-1R4-F	442	443	444	7.2	11.0	3.4	11.3	-0.7	0.37	0.09	-54.0	0.18	0.27	-0.13	0.01
I-1R4-G	445	446	447	3.7	6.5	2.3	6.6	-0.6	0.21	0.04	-50.7	0.11	0.14	-0.08	0.02
I-1P4-H	448	449*	450	2.7	2.5	-1.4	3.4	-2.1	0.09	-0.03	-69.3	-0.02	0.08	-0.04	0.01
I-1R4-J	451	452	453	2.5	0.3	-6.1	3.0	-6.6	0.03	-0.19	-76.7	-0.18	0.02	-0.05	0.02
O-1P5-A	129	128	127*	-0.4	3.0	1.0	3.1	-2.6	0.08	-0.05	-37.8	0.03	-0.00	-0.06	0.02
O-1P5-B	132	131	130	-1.6	2.4	-0.2	2.5	-4.3	0.04	-0.12	-39.2	-0.02	-0.06	-0.08	0.02
O-1R5-C	135	134	133	-1.0	1.8	-0.4	1.8	-3.2	0.03	-0.09	-41.4	-0.02	-0.04	-0.06	0.02
O-1R5-D	138	137	136	0.2	0.5	-0.5	0.6	-0.8	0.01	-0.02	-59.9	-0.01	0.00	-0.01	0.01
O-1R5-E	141	140	139	1.6	-0.2	-2.1	1.6	-2.1	0.03	-0.05	-44.4	-0.01	-0.01	-0.04	0.03
O-1R5-F	144	143	142*	-0.3	2.8	-1.3	2.9	-4.5	0.05	-0.12	41.1	-0.02	-0.05	0.08	0.01
O-1P5-G	147	146	145	-1.8	4.8	0.3	4.9	-6.4	0.10	-0.16	50.3	-0.06	-0.01	0.13	0.02
O-1P5-H	150	149	148	-0.6	4.8	0.4	4.8	-5.0	0.11	-0.12	47.8	-0.02	0.01	0.11	0.01
O-1R5-J	153	152	151	-1.0	4.6	0.8	4.7	-4.9	0.11	-0.11	50.3	-0.02	0.02	0.11	0.01
I-1R5-A	454	455	456	0.1	-4.0	-0.8	3.3	-4.0	0.07	-0.10	-41.6	-0.01	-0.03	-0.08	0.01
I-1R5-B	457	458	459	0.0	-5.2	-0.6	4.6	-5.2	0.10	-0.13	-43.2	-0.01	-0.02	-0.11	0.01
I-1R5-C	460	461	462	0.3	-4.8	-1.9	3.3	-4.9	0.06	-0.13	-37.0	-0.01	-0.06	-0.09	0.02
I-1P5-D	463	464	465	-0.2	7.7	1.5	7.7	-6.4	0.19	-0.14	48.4	0.01	0.05	0.16	0.01
I-1R5-E	466	467	468	-9.1	-0.4	7.8	7.8	-9.1	0.17	-0.22	44.4	-0.02	-0.03	0.20	0.01
I-1R5-F	469	470	471	-1.6	7.7	0.7	7.8	-8.7	0.17	-0.21	-41.1	0.01	-0.05	-0.19	0.01
I-1R5-G	472	473	474	-1.0	8.1	0.7	8.1	-8.3	0.19	-0.19	-42.1	0.01	-0.02	-0.19	0.01
I-1R5-H	475	476	477	-0.1	5.8	-0.4	5.8	-6.3	0.13	-0.15	-45.8	-0.02	-0.01	-0.14	0.01
I-1R5-J	478	479	480	0.4	3.4	-1.2	3.5	-4.3	0.07	-0.11	-50.6	-0.03	0.00	-0.09	0.02
O-2R1-A	168	167	166	-5.6	-2.6	-0.1	-0.1	-5.6	-0.06	-0.19	-3.2	-0.06	-0.18	-0.01	0.02
O-2R1-B	171	170	169	-5.8	-4.6	-2.6	-2.6	-5.9	-0.14	-0.22	5.7	-0.14	-0.22	0.01	0.02
O-2P1-C	174	173	172	-4.5	-5.4	-6.9	-4.5	-7.0	-0.22	-0.27	-82.2	-0.27	-0.22	-0.01	0.03
O-2R1-D	177	176	175	4.6	-2.2	-10.1	4.6	-10.1	0.05	-0.29	-87.9	-0.29	0.05	-0.01	0.02

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THIS DATA REPORT IS THE PROPERTY OF THE INSTRUMENT MANUFACTURER. PHOTOGRAPHY BY THE INSTRUMENT MANUFACTURER.

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)			
O-2R1-E	180	179	178	12.3	2.6	-9.5	12.4	-9.6	0.31	-0.19	-86.8	-0.19	0.31	-0.03	0.02	
O-2R1-F	183	182	181	15.2	0.7	-8.2	15.5	-8.5	0.43	-0.13	-51.9	0.08	0.22	-0.27	0.02	
O-2R1-G	186	185	184	17.7	2.2	-8.1	17.9	-8.4	0.51	-0.10	-5.6	0.50	-0.09	-0.06	0.02	
O-2R1-H	189	188	187	25.3	4.3	-7.6	25.9	-8.2	0.77	-0.02	-7.6	0.76	-0.00	-0.10	0.04	
O-2R1-J	192	191	190	27.1	7.2	-7.6	27.2	-7.8	0.82	0.01	-4.2	0.82	0.02	-0.06	0.03	
O-2R1-K	195	194	193	26.3	9.6	-8.7	26.3	-8.7	0.78	-0.03	1.3	0.78	-0.03	0.02	0.04	
O-2R1-L	198	197	196	34.3	15.2	-8.0	34.4	-8.1	1.05	0.07	2.8	1.05	0.07	0.05	0.02	
I-2R1-A	493	494**	495**	2.0	0.0	0.0	2.4	-0.4	0.08	0.01	-22.5	0.07	0.02	-0.02	0.02	
I-2R1-B	496	497**	498**	1.6	0.0	12.0	15.4	-1.8	0.49	0.09	-63.7	0.17	0.41	-0.16	0.04	
I-2R1-C	499	500	501	-0.9	12.6	26.0	26.0	-0.9	0.85	0.23	-90.0	0.23	0.85	-0.00	0.02	
I-2R1-D	502	503	504	-3.9	14.6	33.0	33.0	-3.9	1.05	0.20	89.8	0.20	1.05	0.00	0.02	
I-2R1-E	505**	506**	507	0.0	0.0	28.1	34.0	-5.8	1.06	0.14	-67.5	0.28	0.93	-0.32	0.08	
I-2R1-F	508	509	510	-8.5	10.9	25.8	26.0	-0.7	0.77	-0.03	41.2	0.42	0.32	0.40	0.02	
I-2R1-G	511	512	513	-8.0	10.8	24.5	24.7	-8.2	0.73	-0.03	-4.4	0.73	-0.02	-0.06	0.02	
I-2R1-H	514	515	516	-5.1	10.9	16.1	17.4	-6.4	0.51	-0.04	-13.5	0.48	-0.01	-0.12	0.02	
I-2R1-J	517	518	519	-3.3	8.2	13.2	13.8	-4.0	0.42	0.01	-10.8	0.40	0.02	-0.08	0.02	
I-2R1-K	520	521	522	-3.9	11.4	23.7	23.8	-3.9	0.75	0.11	-3.0	0.74	0.11	-0.03	0.02	
I-2R1-L	523	524	525	-4.6	10.5	28.9	29.0	-4.6	0.91	0.13	2.9	0.91	0.14	0.04	0.01	
O-2R2-A	201	200	199	-2.5	0.8	-0.1	1.1	-3.7	0.00	-0.11	-29.9	-0.03	-0.08	-0.05	0.02	
O-2R2-B	204	203	202	-2.0	-0.4	-1.2	-0.3	-2.9	-0.04	-0.10	-36.4	-0.06	-0.08	-0.03	0.02	
O-2R2-C	207	206	205	1.2	-1.3	-2.6	1.3	-2.7	0.02	-0.08	80.8	-0.07	0.01	0.01	0.02	
O-2R2-D	210	209	208	6.3	-2.4	-5.0	7.1	-5.8	0.18	-0.12	76.0	-0.10	0.16	0.07	0.02	
O-2R2-E	213	212	211	17.6	-2.5	-6.7	20.0	-9.1	0.57	-0.10	73.4	-0.05	0.51	0.18	0.01	
O-2R2-F	216	215	214	21.3	0.1	-7.7	22.8	-9.2	0.66	-0.08	-57.4	0.14	0.45	-0.33	0.02	
O-2R2-G	219	218	217	25.7	3.6	-7.3	26.7	-8.2	0.80	-0.01	-9.4	0.78	0.01	-0.13	0.02	
O-2R2-H	222	221	220	29.7	7.3	-6.9	30.2	-7.4	0.92	0.06	-6.4	0.91	0.07	-0.10	0.01	
O-2R2-J	225	224	223	28.9	10.3	-5.9	29.0	-5.9	0.90	0.09	-2.1	0.90	0.09	-0.03	0.03	
O-2R2-K	228	227	226	26.2	11.8	-6.7	26.3	-6.8	0.80	0.04	3.6	0.80	0.04	0.05	0.03	
O-2R2-L	231	230	229	37.8	17.4	-5.9	37.9	-6.0	1.19	0.18	1.8	1.19	0.18	0.03	0.02	
I-2R2-A	526	527	528	1.5	-1.2	3.1	5.9	-1.3	0.18	0.01	-51.6	0.08	0.12	-0.08	0.02	
I-2R2-B	529	530	531	1.3	-0.6	6.0	8.6	-1.2	0.27	0.04	-59.5	0.10	0.21	-0.10	0.02	
I-2R2-C	532	533	534	-0.3	0.7	10.1	11.6	-1.8	0.36	0.06	-70.3	0.09	0.33	-0.10	0.01	
I-2R2-D	535	536	537	-3.1	3.9	15.1	15.3	-3.3	0.47	0.04	-83.6	0.05	0.47	-0.05	0.02	
I-2R2-E	538	539	540	-5.0	9.2	17.9	18.2	-5.3	0.55	0.00	83.1	0.01	0.54	0.07	0.01	
I-2R2-F	541	542	543	-5.5	11.8	19.7	20.5	-6.3	0.61	-0.01	34.8	0.41	0.20	0.29	0.01	
I-2R2-G	544	545	546	-5.2	10.4	14.2	15.8	-6.8	0.45	-0.07	-15.6	0.42	-0.03	-0.14	0.01	
I-2R2-H	547	548	549	-5.9	5.8	8.3	9.6	-7.2	0.25	-0.14	-16.6	0.21	-0.11	-0.11	0.01	
I-2R2-J	550	551	552	-5.7	8.2	13.8	14.6	-6.5	0.42	-0.07	-11.6	0.40	-0.05	-0.10	0.01	
I-2R2-K	553	554	555	-6.0	8.9	21.7	21.7	-6.0	0.66	0.02	-2.2	0.65	0.02	-0.02	0.01	
I-2R2-L	556	557	558	-5.0	5.1	23.3	23.9	-5.6	0.73	0.05	8.1	0.72	0.07	0.10	0.02	
O-2R3-A	234	233	232	3.7	2.9	-1.4	4.2	-1.9	0.12	-0.02	-72.7	-0.01	0.11	-0.04	0.01	
O-2R3-B	237	236	235	5.4	4.5	-0.8	6.1	-1.5	0.19	0.01	-71.9	0.03	0.17	-0.05	0.01	
O-2R3-C	240	239	238	8.0	4.2	-0.1	8.0	-0.1	0.26	0.08	-88.6	0.08	0.26	-0.00	0.01	
O-2R3-D	243	242	241	11.8	3.4	1.4	12.7	0.5	0.42	0.14	74.3	0.16	0.40	0.07	0.02	
O-2R3-E	246	245	244	17.4	2.3	3.1	21.0	-0.4	0.69	0.19	66.0	0.28	0.61	0.18	0.02	
O-2R3-F	249	248	247	22.8	5.4	-0.3	24.1	-1.7	0.78	0.18	-58.3	0.35	0.61	-0.27	0.02	
O-2R3-G	252	251	250	26.2	11.0	-1.2	26.3	-1.3	0.85	0.22	-3.1	0.85	0.22	-0.03	0.02	
O-2R3-H	255	254	253	25.0	11.2	-0.5	25.1	-0.5	0.82	0.23	-2.3	0.82	0.23	-0.02	0.02	
O-2R3-J	258	257	256	23.1	12.9	-0.0	23.2	-0.1	0.76	0.23	3.5	0.76	0.23	0.03	0.01	
O-2R3-K	261	260	259	18.4	9.9	0.1	18.4	0.1	0.61	0.19	1.9	0.61	0.19	0.01	0.02	
O-2R3-L	264	263	262	26.2	14.0	-0.4	26.3	-0.5	0.86	0.24	2.4	0.86	0.25	0.03	0.01	
I-2R3-A	559	560	561	0.3	-4.6	-5.7	0.8	-6.3	-0.03	-0.20	-16.3	-0.05	-0.19	-0.04	0.01	
I-2R3-B	562	563	564	0.4	-5.8	-7.7	1.0	-8.2	-0.05	-0.26	-14.0	-0.06	-0.25	-0.05	0.02	
I-2R3-C	565	566	567	-2.5	-7.8	-9.3	-1.9	-9.8	-0.16	-0.34	-15.0	-0.17	-0.33	-0.05	0.02	
I-2R3-D	568	569	570	-2.9	-9.4	-8.4	-1.0	-10.3	-0.13	-0.35	-27.0	-0.18	-0.31	-0.09	0.01	
I-2R3-E	571	572	573*	-6.3	-6.5	-1.4	-0.3	-7.4	-0.08	-0.25	-66.6	-0.22	-0.11	-0.06	0.03	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E (1)	E (2)	E (3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-2R3-F	574	575	576	-6.7	-3.2	2.1	2.2	-6.8	0.01	-0.20	50.7	-0.12	-0.08	0.10	0.02
I-2R3-G	577	578	579	-7.6	-2.6	0.6	0.7	-7.7	-0.05	-0.25	-6.2	-0.05	-0.25	-0.02	0.02
I-2R3-H	580	581	582	-7.5	-3.1	2.8	2.8	-7.5	0.02	-0.22	4.0	0.02	-0.22	0.02	0.02
I-2R3-J	583	584	585	-8.8	1.2	7.0	7.3	-9.0	0.15	-0.23	-7.5	0.14	-0.22	-0.05	0.01
I-2R3-K	586	587	588	-6.3	1.7	11.5	11.6	-6.4	0.32	-0.10	2.9	0.32	-0.09	0.02	0.01
I-2R3-L	589	590	591	-5.9	2.7	13.2	13.2	-6.0	0.38	-0.07	2.9	0.38	-0.06	0.02	0.02
O-2R4-A	267	266	265	5.9	0.4	-2.7	6.1	-2.9	0.17	-0.03	82.2	-0.03	0.17	0.03	0.02
O-2R4-B	270	269	268	6.2	0.6	-2.1	6.5	-2.3	0.19	-0.01	80.1	-0.01	0.18	0.03	0.01
O-2R4-C	273	272	271	6.6	1.6	-0.6	6.9	-0.9	0.22	0.04	79.5	0.04	0.21	0.03	0.01
O-2R4-D	276	275	274	7.5	3.2	2.3	8.0	1.8	0.28	0.14	73.4	0.15	0.27	0.04	0.01
O-2R4-E	279	278	277	10.1	5.8	2.9	10.1	2.8	0.36	0.19	-50.0	0.26	0.29	-0.08	0.01
O-2R4-F	282	281	280	10.7	5.6	5.1	11.5	4.3	0.42	0.26	-19.6	0.40	0.27	-0.05	0.02
O-2R4-G	285	284	283	11.2	5.7	4.2	11.7	3.7	0.42	0.24	-15.0	0.41	0.25	-0.05	0.02
O-2R4-H	288	287	286	11.2	5.3	3.1	11.7	2.7	0.41	0.20	-12.5	0.40	0.21	-0.04	0.01
O-2R4-J	291	290	289	13.2	4.9	2.0	13.8	1.4	0.47	0.18	-13.0	0.45	0.20	-0.06	0.02
I-2R4-A	592	593	594	-0.7	-2.1	-7.3	-0.1	-7.9	-0.08	-0.26	15.0	-0.09	-0.25	0.04	0.02
I-2R4-B	595	596	597	-0.1	-3.3	-9.7	0.2	-9.9	-0.09	-0.32	9.2	-0.10	-0.32	0.04	0.02
I-2R4-C	598	599	600	-0.8	-4.9	-13.5	-0.4	-13.8	-0.15	-0.46	9.6	-0.16	-0.45	0.05	0.02
I-2R4-D	601	602	603	1.8	-7.1	-16.7	1.8	-16.7	-0.11	-0.53	1.2	-0.11	-0.53	0.01	0.02
I-2R4-E	604	605	606	-3.2	-13.5	-11.2	0.3	-14.6	-0.14	-0.48	-73.8	-0.45	-0.16	-0.09	0.01
I-2R4-F	607	608	609	-8.0	-11.1	-3.6	-0.1	-11.5	-0.12	-0.38	33.6	-0.20	-0.30	0.12	0.02
I-2R4-G	610	611	612	-3.6	-6.6	-3.3	-0.3	-6.6	-0.08	-0.22	43.9	-0.15	-0.15	0.07	0.03
I-2R4-H	615	614	613	-2.9	1.5	1.0	2.2	-4.1	0.03	-0.11	64.1	-0.09	0.00	0.06	0.02
I-2R4-J	616	617	618	-2.3	-1.5	4.5	5.3	-3.2	0.14	-0.05	18.5	0.12	-0.03	0.06	0.02
O-2R5-A	292	293	294	-1.5	3.1	-0.4	3.2	-5.0	0.05	-0.13	48.8	-0.05	-0.03	0.09	0.02
O-2R5-B	295	296	297	-0.6	3.0	0.0	3.0	-3.6	0.06	-0.09	47.5	-0.02	-0.01	0.08	0.02
O-2R5-C	298	299	300	-0.6	2.5	-0.0	2.5	-3.1	0.05	-0.08	47.8	-0.02	-0.01	0.06	0.01
O-2R5-D	301	302	303	-0.9	0.2	0.2	0.5	-1.2	0.00	-0.03	67.5	-0.03	-0.00	0.01	0.02
O-2R5-E	306	305	304	-1.8	-0.5	0.4	0.4	-1.8	-0.00	-0.05	39.7	-0.02	-0.03	0.03	0.02
O-2R5-F	309	308	307	-0.0	-3.5	-0.4	3.1	-3.5	0.07	-0.09	-43.4	-0.00	-0.01	-0.08	0.01
O-2R5-G	312	311	310	1.4	-5.4	-1.1	5.8	-5.5	0.14	-0.13	-38.5	0.03	-0.02	-0.13	0.01
O-2R5-H	315	314	313	0.8	-5.9	-1.0	5.7	-5.9	0.13	-0.14	-40.5	0.02	-0.03	-0.13	0.01
O-2R5-J	318	317	316	1.2	-5.0	-1.3	5.0	-5.1	0.11	-0.12	-38.0	0.03	-0.03	-0.11	0.01
I-2R5-A	621	620	619	-1.3	-5.0	0.1	3.8	-5.0	0.08	-0.13	40.4	-0.01	-0.04	0.10	0.02
I-2R5-B	622	623	624	0.1	4.4	0.6	4.4	-3.7	0.11	-0.08	46.5	0.01	0.02	0.09	0.01
I-2R5-C	625	626	627	0.1	5.6	0.4	5.6	-5.2	0.13	-0.12	45.8	0.01	0.01	0.12	0.01
I-2R5-D	628	629	630	-0.1	8.2	1.2	8.3	-7.2	0.20	-0.15	47.6	0.01	0.04	0.18	0.01
I-2R5-E	631	632	633	9.6	0.8	-7.8	9.6	-7.8	0.24	-0.16	-45.4	0.04	0.04	-0.20	0.02
I-2R5-F	634	635	636	-0.1	-7.6	0.4	7.9	-7.6	0.19	-0.17	44.1	0.01	0.00	0.18	0.01
I-2R5-G	637	638	639	-0.2	-9.0	0.2	9.0	-9.0	0.21	-0.21	44.4	0.00	-0.00	0.21	0.02
I-2R5-H	640	641	642	-0.1	-6.0	-0.1	5.8	-6.0	0.13	-0.14	45.0	-0.00	-0.00	0.14	0.01
I-2R5-J	643	644	645	0.8	-3.7	-1.1	3.5	-3.8	0.08	-0.09	52.4	-0.03	0.01	0.08	0.01
O-1R6-A	156	155	154	-17.8	-5.9	6.6	6.6	-17.8	0.04	-0.52	0.6	0.04	-0.52	0.01	0.01
O-1R6-B	159	158	157	-15.8	-5.8	4.9	5.0	-15.8	0.01	-0.47	1.0	0.01	-0.47	0.01	0.02
O-1R6-C	162	161	160	-8.8	-3.4	2.5	2.5	-8.8	-0.00	-0.26	1.1	-0.01	-0.26	0.00	0.01
O-1R6-D	165	164	163	-0.2	1.2	-0.4	1.2	-1.8	0.02	-0.05	-46.9	-0.01	-0.01	-0.03	0.02
I-1R6-A	481	482	483	9.1	-5.1	-21.2	9.1	-21.3	0.09	-0.61	1.8	0.09	-0.61	0.02	0.03
I-1R6-B	484	485	486	7.0	-4.8	-15.1	7.0	-15.1	0.08	-0.43	-1.9	0.08	-0.43	-0.02	0.01
I-1R6-C	487	488	489	4.0	-2.3	-8.2	4.0	-8.2	0.05	-0.23	-1.0	0.05	-0.23	-0.00	0.02
I-1R6-D	490	491	492	0.1	-0.1	-0.9	0.2	-1.0	-0.00	-0.03	12.9	-0.00	-0.03	0.01	0.03
O-2R6-A	321	320	319	18.5	6.4	-7.4	18.5	-7.5	0.54	-0.06	-88.0	-0.06	0.54	-0.02	0.01
O-2R6-B	324	323	322	15.7	4.7	-5.3	15.8	-5.3	0.47	-0.02	88.6	-0.02	0.47	0.01	0.03
O-2R6-C	327	326	325	8.3	1.5	-2.8	8.5	-2.9	0.25	-0.01	83.5	-0.01	0.25	0.03	0.02
I-2R6-A	646**	647**	648**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2R6-B	649**	650**	651**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2R6-C	652**	653	654	0.0	2.3	7.8	8.1	-0.3	0.26	0.07	-79.1	0.08	0.26	-0.04	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN -- MICROINCHES/INCH							STRESS - KSI				TAJ	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)			
I-1R7- A	655**	656**	657**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-1R7- B	658**	659**	660**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2R7- A	661**	662**	663**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EX- C- A	670*	671	672	1.2	0.1	-1.2	1.2	-1.3	0.03	-0.03	-86.5	-0.03	0.03	-0.00	0.02	0.02
EX- C- B	675	674	673	-0.1	0.0	-0.4	0.1	-0.6	-0.00	-0.02	-61.4	-0.02	-0.01	-0.01	0.01	0.01
EX- C- C	678	677	676	0.7	-0.1	0.0	0.9	-0.2	0.03	0.00	63.5	0.01	0.02	0.01	0.02	0.02
EX- C- D	669	668	667	-0.6	-1.6	0.1	1.2	-1.7	0.02	-0.04	37.5	-0.00	-0.02	0.03	0.02	0.02
EX- B- A	687	686	685	-35.0	-13.6	9.2	9.2	-35.0	-0.04	-1.06	-89.1	-1.06	-0.04	-0.02	0.02	0.02
EX- B- B	690	689	688	0.0	-0.3	0.8	1.3	-0.4	0.04	-0.00	-59.8	0.01	0.03	-0.02	0.01	0.01
EX- B- C	681	680	679	33.9	11.2	-9.8	33.9	-9.8	1.02	0.01	-1.1	1.02	0.01	-0.02	0.02	0.02
EX- B- D	684	683	682	-0.6	-0.8	0.5	0.8	-1.0	0.02	-0.02	-64.5	-0.02	0.01	-0.02	0.01	0.01
EX- A- A	696	695	694	-11.6	-32.1	8.2	30.2	-33.6	0.66	-0.81	-54.0	-0.30	0.16	-0.70	0.02	0.02
EX- A- B	693	692	691	0.0	-0.5	0.3	0.9	-0.5	0.02	-0.01	-50.4	0.00	0.01	-0.02	0.01	0.01
EX- A- C	666	665	664	33.1	14.1	-9.3	33.2	-9.4	1.00	0.02	2.9	1.00	0.02	0.05	0.02	0.02
EX- A- D	699	698	697	-0.3	-0.7	0.0	0.4	-0.7	0.01	-0.02	-54.6	-0.01	-0.00	-0.01	0.01	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

COMBUSTION T-11, LOAD CASE 9, M22

NOMINAL LOAD = 7.883E 05

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)			
O-1R1-A	3	2	1	18.4	16.9	14.6	18.4	14.5	0.75	0.66	-84.2	0.66	0.75	-0.01	0.02	
O-1R1-B	6	5	4	20.0	19.2	17.6	20.0	17.5	0.83	0.78	-80.7	0.78	0.83	-0.01	0.02	
O-1R1-C	9	8	7	13.7	19.2	24.2	24.2	13.7	0.93	0.69	-1.1	0.93	0.69	-0.00	0.04	
O-1R1-D	12	11	10	5.6	14.6	23.6	23.6	5.6	0.83	0.42	0.1	0.83	0.42	0.00	0.02	
O-1R1-E	15	14	13	3.2	7.8	13.0	13.0	3.2	0.46	0.24	1.6	0.46	0.24	0.01	0.02	
O-1R1-F	18	17	16*	3.3	6.1	3.8	6.1	0.9	0.21	0.09	2.6	0.21	0.09	0.01	0.03	
O-1R1-G	21	20	19	4.5	7.5	6.6	7.8	3.3	0.29	0.19	59.3	0.21	0.26	0.05	0.03	
O-1R1-H	24	23	22	-0.7	8.6	7.2	9.9	-3.4	0.29	-0.01	63.1	0.85	0.23	0.12	0.02	
O-1R1-J	27	26	25	-4.3	5.9	5.8	8.5	-5.9	0.22	-0.11	70.2	-0.07	0.18	0.11	0.02	
O-1R1-K	30	29	28	-5.7	3.2	6.9	7.4	-6.2	0.18	-0.13	79.0	-0.12	0.17	0.06	0.01	
O-1R1-L	33	32	31	-5.3	1.5	6.3	6.4	-5.4	0.16	-0.12	85.1	-0.11	0.15	0.02	0.01	
I-1R1-A	328	329	330	-1.6	-19.7	-36.0	-1.5	-36.0	-0.41	-1.20	-1.5	-0.41	-1.20	-0.02	0.02	
I-1R1-B	331	332	333	0.8	-24.3	-44.8	0.9	-44.9	-0.41	-1.47	-2.9	-0.42	-1.47	-0.05	0.01	
I-1R1-C	334	335	336	3.3	-25.8	-55.0	3.3	-55.0	-0.44	-1.78	0.1	-0.44	-1.78	0.00	0.02	
I-1R1-D	337	338	339	3.8	-24.8	-49.3	3.8	-49.3	-0.36	-1.59	-2.3	-0.36	-1.59	-0.05	0.01	
I-1R1-E	340	341	342	4.5	-13.0	-25.9	4.7	-26.1	-0.10	-0.81	-4.3	-0.11	-0.81	-0.05	0.01	
I-1R1-F	343*	344	345	6.8	-5.8	-14.8	6.9	-14.9	0.08	-0.42	-49.6	-0.21	-0.13	-0.25	0.03	
I-1R1-G	346	347	348	4.3	-11.7	-12.9	7.0	-15.6	0.08	-0.45	69.7	-0.38	0.01	0.17	0.01	
I-1R1-H	349	350	351	-4.2	-18.4	-6.7	7.6	-18.5	0.07	-0.53	47.0	-0.26	-0.20	0.30	0.02	
I-1R1-J	352	353	354	-10.1	-15.2	-1.1	5.0	-16.2	0.01	-0.49	32.6	-0.14	-0.34	0.22	0.01	
I-1R1-K	355	356	357	-9.8	-11.9	-2.6	0.6	-12.9	-0.11	-0.42	28.9	-0.18	-0.35	0.13	0.02	
I-1R1-L	358	359	360	-7.1	-7.6	-3.6	-2.5	-8.2	-0.16	-0.30	25.8	-0.19	-0.27	0.05	0.01	
O-1R2-A	36	35	34	12.3	12.0	8.4	12.9	7.8	0.50	0.39	-70.3	0.40	0.49	-0.04	0.05	
O-1R2-B	39	38	37	12.0	16.0	9.3	16.2	5.1	0.58	0.33	-51.9	0.43	0.49	-0.12	0.03	
O-1R2-C	42	41	40	9.4	18.7	13.7	19.0	4.1	0.67	0.32	-36.6	0.55	0.45	-0.17	0.02	
O-1R2-D	45	44	43	-0.8	17.4	17.7	21.3	-4.4	0.66	0.07	-22.1	0.58	0.15	-0.21	0.02	
O-1R2-E	48	47	46	-9.1	15.0	17.4	21.2	-13.0	0.57	-0.22	-19.6	0.48	-0.13	-0.25	0.01	
O-1R2-F	51	50	49	-10.7	11.8	15.5	18.5	-13.7	0.47	-0.27	27.1	0.32	-0.11	0.30	0.01	
O-1R2-G	54	53	52	-16.4	8.8	15.3	17.8	-19.0	0.40	-0.45	74.8	-0.39	0.34	0.22	0.02	
O-1R2-H	57	56	55	-23.6	1.0	14.4	15.2	-24.4	0.26	-0.66	81.8	-0.64	0.24	0.13	0.01	
O-1R2-J	60	59	58	-23.7	-0.8	11.9	12.6	-24.4	0.18	-0.68	82.1	-0.66	0.16	0.12	0.01	
O-1R2-K	63	62	61	-22.8	-9.6	11.0	11.4	-23.2	0.15	-0.65	-83.9	-0.64	0.14	-0.08	0.02	
O-1R2-L	66	65	64	-25.3	-12.3	7.3	7.6	-25.6	-0.00	-0.77	-84.3	-0.76	-0.01	-0.08	0.02	
I-1R2-A	361	362	363	-2.0	-4.0	-23.6	1.1	-26.7	-0.23	-0.87	19.5	-0.30	-0.80	0.20	0.02	
I-1R2-B	364	365	366	-0.8	-9.7	-29.6	0.2	-30.6	-0.30	-1.01	10.4	-0.32	-0.98	0.13	0.02	
I-1R2-C	367	368	369	2.7	-19.9	-37.1	2.9	-37.2	-0.27	-1.20	-3.9	-0.28	-1.19	-0.06	0.02	
I-1R2-D	370	371	372	2.6	-25.1	-38.8	3.8	-39.9	-0.27	-1.28	-9.3	-0.30	-1.25	-0.16	0.02	
I-1R2-E	373	374	375	0.4	-30.5	-33.3	5.5	-33.4	-0.20	-1.21	-19.9	-0.32	-1.09	-0.32	0.02	
I-1R2-F	376	377	378	-0.8	-28.3	-27.3	5.4	-33.5	-0.15	-1.05	-68.5	-0.93	-0.27	-0.31	0.01	
I-1R2-G	379	380	381	-4.9	-29.5	-19.4	6.7	-31.0	-0.08	-0.95	56.3	-0.69	-0.35	0.40	0.01	
I-1R2-H	382	383	384	-8.5	-23.8	-8.8	6.5	-23.8	-0.02	-0.72	45.3	-0.38	-0.37	0.35	0.01	
I-1R2-J	385	386	387	-8.7	-19.4	-7.4	3.4	-19.4	-0.08	-0.61	43.4	-0.23	-0.36	0.26	0.02	
I-1R2-K	388	389	390	-5.7	-13.1	-11.2	-3.1	-13.9	-0.24	-0.49	60.3	-0.43	-0.30	0.11	0.02	
I-1R2-L	391	392	393	-3.1	-9.1	-10.3	-2.4	-11.0	-0.19	-0.39	73.1	-0.37	-0.20	0.06	0.01	
O-1R3-A	69	68	67	-2.5	-2.4	-4.0	-2.1	-4.4	-0.11	-0.17	-67.1	-0.16	-0.12	-0.02	0.03	
O-1R3-B	72	71	70	-4.4	-0.9	-4.5	-0.9	-8.1	-0.11	-0.28	-45.3	-0.19	-0.19	-0.08	0.01	
O-1R3-C	75	74	73	-9.7	0.8	-5.4	1.1	-16.1	-0.12	-0.52	-37.8	-0.27	-0.37	-0.19	0.01	
O-1R3-D	78	77	76	-19.0	3.8	-3.8	5.6	-28.4	-0.10	-0.88	-31.7	-0.31	-0.66	-0.35	0.02	
O-1R3-E	81	80	79	-23.8	7.9	-3.2	10.3	-37.3	-0.03	-1.13	-32.2	-0.34	-0.82	-0.49	0.01	
O-1R3-F	84	83	82	-34.2	1.0	6.1	11.1	-39.2	-0.02	-1.18	26.6	-0.25	-0.95	0.46	0.02	

PHI IS THE ANGLE MEASURED ON THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
O-1R3-G	87	86	85	-41.7	-13.4	11.2	11.3	-41.8	-0.04	-1.27	87.9	-1.26	-0.04	0.04	0.02
O-1R3-H	90	89	88	-42.5	-16.4	10.3	10.3	-42.5	-0.08	-1.30	-89.6	-1.30	-0.08	-0.01	0.02
O-1R3-J	93	92	91	-37.9	-23.0	7.5	8.8	-39.2	-0.10	-1.21	-80.5	-1.18	-0.13	-0.18	0.02
O-1R3-K	96	95	94	-33.4	-23.1	5.0	7.0	-35.3	-0.12	-1.10	-77.5	-1.05	-0.16	-0.21	0.01
O-1R3-L	99	98	97	-39.0	-25.5	4.7	6.3	-40.5	-0.19	-1.27	-79.6	-1.24	-0.23	-0.19	0.01
I-1R3-A	394	395	396	1.7	9.0	0.1	9.0	-7.3	0.23	-0.15	42.1	0.06	0.02	0.19	0.01
I-1R3-B	397	398	399	1.0	7.2	2.7	7.3	-3.6	0.20	-0.05	49.4	0.06	0.10	0.12	0.02
I-1R3-C	400	401	402	4.2	1.2	0.7	4.6	0.3	0.16	0.06	-17.6	0.15	0.06	-0.03	0.01
I-1R3-D	403	404	405	3.6	-6.4	-5.3	6.3	-8.0	0.13	-0.20	-25.7	0.07	-0.14	-0.13	0.02
I-1R3-E	406	407	408	3.6	-15.9	-14.6	8.4	-19.3	0.09	-0.55	-24.4	-0.02	-0.44	-0.24	0.02
I-1R3-F	409	410	411	-2.6	-21.8	-11.9	8.0	-22.5	0.04	-0.66	-81.2	-0.65	0.02	-0.11	0.01
I-1R3-G	412	413	414	-6.1	-19.2	-5.3	7.8	-19.2	0.07	-0.56	44.1	-0.24	-0.25	0.31	0.02
I-1R3-H	415	416	417	-3.9	-14.7	-2.9	7.9	-14.7	0.11	-0.41	43.8	-0.14	-0.16	0.26	0.01
I-1R3-J	421	422	423	1.4	-10.5	-8.5	4.9	-12.1	0.04	-0.35	62.8	-0.27	-0.04	0.16	0.02
I-1R3-K	418	419	420	3.0	-14.0	-6.3	11.5	-14.8	0.23	-0.37	55.3	-0.18	0.04	0.28	0.01
I-1R3-L	424	425	426	2.4	-8.7	-12.7	3.1	-13.5	-0.03	-0.41	77.6	-0.40	-0.05	0.08	0.02
O-1R4-A	102	101	100	-16.5	-13.4	-9.9	-9.9	-16.5	-0.49	-0.64	1.3	-0.49	-0.64	0.00	0.01
O-1R4-B	105	104	103	-18.5	-12.9	-11.6	-11.0	-19.1	-0.55	-0.74	-15.8	-0.57	-0.73	-0.05	0.04
O-1R4-C	108	107	106	-21.1	-10.8	-15.4	-10.2	-26.3	-0.60	-0.97	-34.5	-0.72	-0.85	-0.17	0.02
O-1R4-D	111	110	109	-24.5	-7.1	-15.9	-6.4	-34.0	-0.55	-1.18	-36.0	-0.77	-0.96	-0.30	0.02
O-1R4-E	114	113	112	-37.5	-12.4	-4.9	-2.7	-39.8	-0.48	-1.34	30.8	-0.71	-1.11	0.38	0.02
O-1R4-F	117	116	115	-38.8	-31.7	-4.6	-1.9	-41.5	-0.47	-1.39	-74.9	-1.32	-0.53	-0.23	0.03
O-1R4-G	120	119	118	-38.3	-34.9	-6.9	-2.7	-42.5	-0.51	-1.43	-71.0	-1.33	-0.61	-0.28	0.01
O-1R4-H	123	122	121	-34.3	-34.2	-8.5	-3.3	-39.5	-0.50	-1.34	-67.7	-1.22	-0.62	-0.29	0.02
O-1R4-J	126	125	124	-35.0	-33.1	-7.3	-2.9	-39.5	-0.49	-1.33	-69.6	-1.23	-0.59	-0.28	0.02
I-1R4-A	427	428	429	7.2	14.9	21.9	21.9	7.2	0.79	0.45	88.7	0.45	0.79	0.01	0.03
I-1R4-B	430	431	432	10.7	17.6	23.9	23.9	10.7	0.89	0.59	88.5	0.59	0.89	0.01	0.02
I-1R4-C	433	434	435	9.4	19.8	29.8	29.8	9.4	1.08	0.61	89.5	0.61	1.08	0.00	0.03
I-1R4-D	436	437	438	5.4	19.5	25.5	26.3	4.6	0.91	0.41	79.1	0.43	0.89	0.09	0.02
I-1R4-E	439	440	441	13.8	15.2	11.1	15.5	9.4	0.60	0.46	-13.3	0.60	0.47	-0.03	0.02
I-1R4-F	442	443	444	14.8	9.3	5.5	14.9	5.4	0.54	0.32	84.7	0.33	0.54	0.02	0.02
I-1R4-G	445	446	447	10.8	-0.5	6.5	18.0	-0.7	0.59	0.15	51.7	0.32	0.42	0.21	0.02
I-1R4-H	448	449	450	3.5	-4.3	5.3	13.2	-4.4	0.39	-0.01	41.9	0.21	0.17	0.20	0.02
I-1R4-J	451	452	453	0.4	-7.5	-5.6	3.1	-8.3	0.02	-0.24	60.5	-0.18	-0.04	0.11	0.01
O-1R5-A	129	128	127	-21.7	-17.6	-11.8	-11.7	-21.8	-0.60	-0.83	5.0	-0.60	-0.83	0.02	0.02
O-1R5-B	132	131	130	-20.7	-16.8	-13.0	-13.0	-20.7	-0.63	-0.81	-0.1	-0.63	-0.81	-0.00	0.01
O-1R5-C	135	134	133	-20.2	-20.7	-18.9	-18.2	-20.9	-0.81	-0.87	31.1	-0.82	-0.85	0.03	0.02
O-1R5-D	138	137	136	-19.4	-20.9	-19.4	-17.9	-20.9	-0.80	-0.87	44.4	-0.83	-0.83	0.03	0.03
O-1R5-E	141	140	139	-19.2	-18.7	-20.8	-18.5	-21.5	-0.82	-0.89	-15.8	-0.83	-0.89	-0.02	0.02
O-1R5-F	144	143	142	-27.1	-22.3	-17.8	-17.8	-27.1	-0.85	-1.07	89.2	-1.07	-0.85	0.00	0.01
O-1R5-G	147	146	145	-35.3	-25.6	-16.0	-16.0	-35.3	-0.88	-1.32	89.9	-1.32	-0.88	0.00	0.03
O-1R5-H	150	149	148	-28.0	-22.1	-15.2	-15.2	-28.0	-0.78	-1.07	-87.8	-1.07	-0.78	-0.01	0.02
O-1R5-J	153	152	151	-31.8	-23.6	-13.3	-13.3	-31.9	-0.75	-1.18	-87.0	-1.18	-0.75	-0.02	0.02
I-1R5-A	454	455	456	11.9	19.9	29.4	29.5	11.9	1.09	0.68	-87.5	0.68	1.09	-0.02	0.02
I-1R5-B	457	458	459	12.3	22.6	32.5	32.5	12.3	1.19	0.73	89.3	0.73	1.19	0.01	0.01
I-1R5-C	460	461	462	8.4	23.6	41.6	41.7	8.3	1.46	0.69	-87.5	0.69	1.46	-0.03	0.07
I-1R5-D	463	464	465	5.9	25.3	43.2	43.2	5.9	1.48	0.62	88.0	0.62	1.48	0.02	0.02
I-1R5-E	466	467	468	21.3	32.8	19.4	32.8	7.8	1.16	0.58	-2.2	1.16	0.58	-0.02	0.03
I-1R5-F	469	470	471	24.5	15.0	5.0	24.5	5.0	0.86	0.41	-89.5	0.41	0.86	-0.00	0.02
I-1R5-G	472	473	474	9.9	11.3	13.7	13.7	9.9	0.55	0.46	7.7	0.55	0.46	0.01	0.02
I-1R5-H	475	476	477	-0.3	6.3	11.3	11.4	-0.4	0.37	0.10	-4.0	0.37	0.10	-0.02	0.02
I-1R5-J	478	479	480	-3.3	-0.3	3.5	3.5	-3.3	0.08	-0.08	3.1	0.08	-0.07	0.01	0.01
O-2R1-A	168	167	166	19.0	17.0	14.8	19.0	14.8	0.77	0.68	-88.4	0.68	0.77	-0.00	0.02
O-2R1-B	171	170	169	20.2	18.6	16.4	20.3	16.3	0.83	0.74	-85.2	-0.74	0.83	-0.01	0.03
O-2R1-C	174	173	172	14.7	20.4	23.7	23.8	14.6	0.93	0.72	-7.2	0.93	0.72	-0.03	0.03
O-2R1-D	177	176	175	5.6	13.2	22.1	22.1	5.6	0.79	0.40	2.3	0.78	0.40	0.02	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.G. +)

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.G. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
O-2R1- E	180	179	178	3.4	7.5	11.5	11.5	3.4	0.41	0.23	-0.3	0.41	0.23	-0.00	0.02
O-2R1- F	183	182	181	5.4	6.5	6.8	6.9	5.2	0.28	0.24	28.8	0.27	0.25	0.02	0.02
O-2P1- G	186	185	184	4.5	7.9	6.4	8.1	2.8	0.29	0.17	55.9	0.21	0.26	0.06	0.02
O-2R1- H	189	188	187	-0.5	9.4	5.9	10.1	-4.7	0.29	-0.04	57.7	0.04	0.19	0.15	0.01
O-2R1- J	192	191	190	-4.3	6.8	5.7	8.6	-7.2	0.21	-0.15	64.7	-0.09	0.15	0.14	0.01
O-2R1- K	195	194	193	-4.6	4.3	7.2	8.0	-5.3	0.21	-0.10	76.4	-0.08	0.19	0.07	0.02
O-2R1- L	198	197	196	-5.5	1.7	5.7	5.9	-5.7	0.14	-0.13	81.9	-0.12	0.13	0.04	0.01
I-2R1- A	493	494	495**	-3.0	-0.2	0.0	0.5	-3.5	-0.02	-0.11	69.1	-0.10	-0.03	0.03	0.02
I-2R1- B	496	497**	498*	0.4	0.0	-71.5	15.0	-86.1	-0.36	-2.69	22.4	-0.70	-2.35	0.82	0.24
I-2R1- C	499	500	501	1.7	-24.9	-55.4	1.8	-55.4	-0.49	-1.81	1.9	-0.49	-1.81	0.04	0.03
I-2R1- D	502	503	504	4.4	-24.7	-50.4	4.5	-50.5	-0.35	-1.62	-1.8	-0.35	-1.62	-0.04	0.02
I-2R1- E	505	506**	507	-0.1	0.0	-26.7	5.5	-32.3	-0.14	-1.01	22.6	-0.27	-0.88	0.31	0.08
I-2R1- F	508	509	510	4.7	-7.4	-15.5	4.9	-15.7	0.01	-0.47	-50.5	-0.28	-0.18	-0.23	0.02
I-2R1- G	511	512	513	3.6	-12.4	-13.2	6.6	-16.2	0.06	-0.47	68.9	-0.40	-0.01	0.18	0.01
I-2R1- H	514	515	516	-4.0	-18.1	-7.2	7.1	-18.2	0.05	-0.53	48.6	-0.28	-0.20	0.29	0.01
I-2R1- J	517	518	519	-9.7	-15.8	-2.8	3.8	-16.3	-0.03	-0.50	35.1	-0.19	-0.35	0.22	0.01
I-2R1- K	520	521	522	-9.4	-11.0	-2.3	0.4	-12.1	-0.10	-0.39	27.9	-0.17	-0.33	0.12	0.01
I-2R1- L	523	524	525	-6.2	-8.5	-4.2	-1.7	-8.7	-0.14	-0.30	36.6	-0.20	-0.24	0.08	0.02
O-2R2- A	201	200	199	13.4	12.2	7.1	14.0	6.6	0.53	0.35	-73.9	0.37	0.51	-0.05	0.02
O-2P2- B	204	203	202	14.3	14.1	8.0	15.5	6.8	0.58	0.38	-68.3	0.40	0.55	-0.07	0.02
O-2R2- C	207	206	205	8.9	17.8	12.0	18.0	2.9	0.62	0.27	-39.2	0.48	0.41	-0.17	0.01
O-2R2- D	210	209	208	-0.2	17.4	15.7	20.2	-4.8	0.62	0.04	-25.3	0.52	0.15	-0.22	0.01
O-2R2- E	213	212	211	-9.8	14.2	16.6	20.4	-13.6	0.54	-0.25	-19.6	0.45	-0.16	-0.25	0.01
O-2R2- F	216	215	214	-10.8	12.1	15.1	18.4	-14.1	0.47	-0.28	26.2	0.32	-0.14	0.30	0.01
O-2R2- G	219	218	217	-17.1	8.6	14.1	17.1	-20.1	0.37	-0.49	73.5	-0.43	0.30	0.23	0.02
O-2R2- H	222	221	220	-22.9	4.0	11.7	14.2	-25.4	0.22	-0.70	75.4	-0.64	0.16	0.22	0.01
O-2R2- J	225	224	223	-24.9	-3.2	11.7	12.0	-25.2	0.15	-0.71	84.7	-0.70	0.14	0.08	0.02
O-2R2- K	228	227	226	-22.7	-7.4	10.9	11.0	-22.7	0.14	-0.64	-87.5	-0.64	0.14	-0.03	0.01
O-2R2- L	231	230	229	-27.2	-13.1	7.7	8.0	-27.5	-0.01	-0.83	-84.5	-0.82	-0.02	-0.08	0.01
I-2R2- A	526	527	528	-2.0	-6.6	-24.4	-0.2	-26.2	-0.27	-0.87	15.2	-0.31	-0.82	0.15	0.01
I-2R2- B	529	530	531	-0.8	-11.3	-30.6	-0.2	-31.2	-0.32	-1.03	8.2	-0.33	-1.02	0.10	0.01
I-2P2- C	532	533	534	1.8	-16.7	-37.9	1.9	-37.9	-0.31	-1.23	1.9	-0.32	-1.23	0.03	0.02
I-2P2- D	535	536	537	2.8	-24.7	-38.7	3.8	-39.8	-0.27	-1.27	-8.9	-0.29	-1.25	-0.15	0.02
I-2R2- E	538	539	540	0.7	-30.3	-32.7	5.9	-38.0	-0.18	-1.19	-20.3	-0.30	-1.07	-0.33	0.01
I-2R2- F	541	542	543	-1.6	-29.8	-27.0	5.8	-34.3	-0.15	-1.07	-70.3	-0.97	-0.25	-0.29	0.01
I-2R2- G	544	545	546	-6.3	-29.8	-18.1	6.3	-30.7	-0.09	-0.95	54.3	-0.66	-0.39	0.41	0.01
I-2R2- H	547	548	549	-8.9	-23.9	-7.5	7.5	-23.9	0.01	-0.71	43.7	-0.34	-0.37	0.36	0.01
I-2P2- J	550	551	552	-8.0	-17.7	-7.4	2.4	-17.7	-0.10	-0.86	44.2	-0.32	-0.34	0.23	0.01
I-2R2- K	553	554	555	-5.8	-12.9	-11.4	-3.6	-13.7	-0.25	-0.49	61.7	-0.43	-0.31	0.10	0.01
I-2R2- L	556	557	558	-2.5	-6.9	-12.5	-2.5	-12.6	-0.21	-0.44	-86.7	-0.44	-0.21	-0.01	0.01
O-2R3- A	234	233	232	-3.3	-2.7	-3.6	-2.6	-4.3	-0.13	-0.17	-51.4	-0.15	-0.14	-0.02	0.02
O-2R3- B	237	236	235	-5.6	-1.0	-3.7	-0.9	-8.4	-0.11	-0.29	-37.9	-0.18	-0.22	-0.08	0.02
O-2R3- C	240	239	238	-8.2	1.3	-5.5	1.5	-15.1	-0.10	-0.48	-40.2	-0.26	-0.33	-0.19	0.01
O-2P3- D	243	242	241	-16.9	4.6	-6.3	5.5	-28.6	-0.10	-0.89	-36.0	-0.37	-0.67	-0.37	0.01
O-2R3- E	246	245	244	-26.8	7.1	-3.5	9.9	-40.3	-0.07	-1.23	-31.2	-0.38	-0.92	-0.51	0.02
O-2P3- F	249	248	247	-36.3	0.0	6.4	11.1	-41.0	-0.04	-1.24	27.5	-0.29	-0.99	0.49	0.03
O-2P3- G	252	251	250	-44.5	-12.1	10.8	11.2	-44.9	-0.07	-1.37	85.1	-1.36	-0.08	0.11	0.01
O-2R3- H	255	254	253	-43.6	-16.9	9.6	9.6	-43.6	-0.11	-1.34	89.9	-1.34	-0.11	0.00	0.02
O-2R3- J	258	257	256	-39.1	-23.3	7.5	8.7	-40.3	-0.11	-1.24	-81.1	-1.21	-0.14	-0.17	0.01
O-2R3- K	261	260	259	-31.4	-19.9	6.0	7.4	-32.7	-0.08	-1.01	-79.4	-0.97	-0.11	-0.17	0.02
O-2R3- L	264	263	262	-37.1	-26.7	3.6	5.9	-39.4	-0.20	-1.24	-76.9	-1.19	-0.25	-0.23	0.01
I-2R3- A	559	560	561	-0.2	8.4	3.2	8.7	-5.6	0.23	-0.10	51.9	0.03	0.10	0.16	0.02
I-2R3- B	562	563	564	0.9	6.7	2.5	6.8	-3.4	0.19	-0.04	49.4	0.05	0.09	0.12	0.02
I-2R3- C	565	566	567	3.9	1.9	1.1	4.0	1.0	0.14	0.07	-11.8	0.14	0.07	-0.01	0.02
I-2R3- D	568	569	570	4.4	-5.0	-3.5	7.2	-6.3	0.17	-0.14	-26.9	0.11	-0.07	-0.13	0.01
I-2R3- E	571	572	573	4.1	-14.0	-13.1	0.3	-17.3	0.10	-0.49	-23.9	0.01	-0.39	-0.22	0.04

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI			TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
I-2R3-F	574	575	576	1.1	-19.3	-13.3	8.9	-21.1	0.08	-0.61	-75.7	-0.57	0.04	-0.17	0.01
I-2R3-G	577	578	579	-3.9	-18.2	-4.6	9.8	-18.2	0.14	-0.50	45.7	-0.19	-0.17	0.32	0.01
I-2R3-H	580	581	582	-3.1	-13.1	-2.4	7.6	-13.1	0.12	-0.36	44.1	-0.11	-0.13	0.24	0.01
I-2R3-J	583	584	585	5.3	-12.4	-6.7	12.4	-13.9	0.27	-0.33	58.6	-0.17	0.11	0.27	0.01
I-2P3-K	586	587	588	3.9	-9.6	-9.7	6.7	-12.4	0.10	-0.34	67.6	-0.28	0.03	0.16	0.01
I-2R3-L	589	590	591	2.7	-8.0	-12.4	3.3	-13.1	-0.02	-0.40	78.8	-0.38	-0.03	0.07	0.02
O-2R4-A	267	266	265	-17.3	-13.7	-10.2	-10.2	-17.3	-0.51	-0.67	-0.4	-0.51	-0.67	-0.00	0.01
O-2R4-B	270	269	268	-19.0	-13.6	-10.6	-10.4	-19.2	-0.53	-0.74	-8.3	-0.54	-0.73	-0.03	0.02
O-2R4-C	273	272	271	-22.6	-10.4	-16.6	-10.0	-29.2	-0.62	-1.06	-36.0	-0.77	-0.91	-0.21	0.02
O-2R4-D	276	275	274	-24.3	-7.8	-15.0	-6.9	-32.3	-0.55	-1.13	-34.3	-0.73	-0.95	-0.27	0.01
O-2R4-E	279	278*	277	-39.4	48.4	-4.9	50.5	-94.7	0.73	-2.62	6.9	0.68	-2.58	0.40	0.18
O-2R4-F	282	281	280	-40.4	-30.3	-4.4	-2.7	-42.1	-0.51	-1.42	-78.1	-1.38	-0.55	-0.18	0.02
O-2R4-G	285	284	283	-37.3	-33.9	-8.5	-4.8	-41.0	-0.56	-1.40	-71.3	-1.31	-0.65	-0.25	0.02
O-2R4-H	288	287	286	-32.5	-31.9	-9.2	-4.8	-36.9	-0.52	-1.26	-68.3	-1.16	-0.63	-0.25	0.02
O-2R4-J	291	290	289	-33.0	-33.3	-8.4	-2.1	-38.3	-0.48	-1.29	-67.2	-1.17	-0.60	-0.29	0.01
I-2R4-A	592	593	594	6.2	18.5	23.1	23.9	5.3	0.84	0.41	77.7	0.43	0.82	0.09	0.02
I-2R4-B	595	596	597	10.4	19.4	27.1	27.1	10.4	1.00	0.61	87.8	0.61	1.00	0.01	0.03
I-2R4-C	598	599	600	8.9	18.7	30.8	30.9	8.9	1.10	0.60	-87.1	0.60	1.10	-0.03	0.04
I-2R4-D	601	602	603	7.2	19.7	26.2	26.7	6.7	0.95	0.49	81.2	0.50	0.94	0.07	0.02
I-2R4-E	604	605	606	14.1	15.9	11.9	16.1	9.9	0.63	0.49	-10.7	0.62	0.49	-0.03	0.03
I-2R4-F	607	608	609	15.2	7.6	5.6	15.9	4.8	0.57	0.32	75.2	0.33	0.56	0.06	0.02
I-2R4-G	610	611	612	11.2	-0.6	5.1	17.4	-1.1	0.56	0.14	54.6	0.28	0.42	0.20	0.02
I-2R4-H	615	614	613	4.4	13.9	5.6	13.9	-3.9	0.42	0.01	46.9	0.20	0.23	0.21	0.02
I-2R4-J	616	617	618	0.3	-6.5	-5.3	2.3	-7.4	0.00	-0.22	62.7	-0.17	-0.04	0.09	0.02
O-2R5-A	292	293	294	-20.9	-16.8	-13.0	-13.0	-20.9	-0.64	-0.82	88.6	-0.82	-0.64	0.00	0.02
O-2R5-B	295	296	297	-20.7	-17.5	-14.8	-14.8	-20.8	-0.69	-0.83	87.2	-0.83	-0.69	0.01	0.02
O-2R5-C	298	299	300	-19.4	-19.0	-19.7	-19.0	-20.2	-0.83	-0.85	37.6	-0.84	-0.84	0.01	0.03
O-2P5-D	301	302	303	-17.3	-18.7	-20.1	-17.3	-20.1	-0.77	-0.83	0.1	-0.77	-0.83	0.00	0.02
O-2R5-E	306	305	304	-19.7	-16.7	-21.5	-16.6	-24.6	-0.79	-0.97	-6.4	-0.79	-0.97	-0.02	0.04
O-2R5-F	309	308	307	-27.2	-21.3	-15.8	-15.8	-27.2	-0.79	-1.05	88.6	-1.05	-0.79	0.01	0.02
O-2R5-G	312	311	310	-34.4	-27.2	-14.9	-14.6	-34.8	-0.82	-1.29	-82.9	-1.28	-0.83	-0.06	0.02
O-2P5-H	315	314	313	-29.4	-22.2	-13.6	-13.6	-29.5	-0.74	-1.11	-87.4	-1.11	-0.74	-0.02	0.01
O-2R5-J	318	317	316	-29.9	-22.2	-11.8	-11.7	-30.0	-0.68	-1.11	-85.9	-1.10	-0.69	-0.03	0.03
I-2P5-A	621	620	619	29.9	21.7	14.8	29.9	14.7	1.13	0.78	87.8	0.78	1.13	0.01	0.03
I-2R5-B	622	623	624	14.4	24.9	31.7	31.9	14.2	1.19	0.78	84.0	0.79	1.19	0.04	0.04
I-2R5-C	625	626	627	10.4	25.2	39.4	39.4	10.4	1.40	0.73	89.5	0.73	1.40	0.01	0.02
I-2R5-D	628	629	630	5.4	26.4	44.8	44.9	5.4	1.53	0.62	88.1	0.62	1.53	0.03	0.07
I-2R5-E	631	632	633	24.8	38.7	22.8	38.7	8.8	1.36	0.67	-1.9	1.36	0.67	-0.02	0.03
I-2R5-F	634	635	636	29.3	15.1	4.1	29.4	4.0	1.01	0.42	86.4	0.42	1.01	0.04	0.03
I-2R5-G	637	638	639	8.9	12.0	14.6	14.6	8.9	0.57	0.44	-2.7	0.57	0.44	-0.01	0.02
I-2P5-H	640	641	642	-0.1	6.5	9.5	9.8	-0.4	0.32	0.09	-9.9	0.31	0.09	-0.04	0.01
I-2P5-J	643	644	645	-4.5	-0.3	3.4	3.4	-4.5	0.07	-0.12	-2.0	0.07	-0.12	-0.01	0.02
O-1R6-A	156	155	154	9.3	3.7	-2.3	9.3	-2.3	0.28	0.01	-88.6	0.01	0.28	-0.01	0.02
O-1R6-B	159	158	157*	14.5	5.0	-7.8	14.6	-8.0	0.40	-0.12	-85.8	-0.12	0.40	-0.04	0.03
O-1R6-C	162	161	160	21.6	3.6	-11.4	21.7	-11.5	0.60	-0.16	87.3	-0.16	0.60	0.04	0.03
O-1R6-D	165	164	163	24.3	3.9	-14.8	24.3	-14.9	0.66	-0.25	88.7	-0.25	0.65	0.02	0.02
I-1P6-A	481	482	483	5.3	4.3	3.6	5.3	3.6	0.21	0.17	-4.2	0.21	0.17	-0.00	0.02
I-1R6-B	484	485	486	4.9	9.8	13.9	13.9	4.9	0.51	0.30	87.6	0.30	0.51	0.01	0.03
I-1R6-C	487	488	489	4.2	12.4	19.5	19.5	4.2	0.68	0.33	87.9	0.33	0.68	0.01	0.02
I-1R6-D	490	491	492	4.0	12.2	21.9	21.9	3.9	0.76	0.35	-87.6	0.35	0.76	-0.02	0.03
O-2R6-A	321	320	319	9.8	4.5	-2.2	9.9	-2.3	0.30	0.03	-86.9	0.02	0.30	-0.02	0.02
O-2R6-B	324	323	322	15.5	4.1	-8.7	15.5	-8.7	0.45	-0.13	-88.3	-0.13	0.43	-0.02	0.02
O-2R6-C	327	326	325	19.8	0.4	-10.4	20.4	-11.0	0.56	-0.16	82.0	-0.15	0.55	0.10	0.02
I-2R6-A	646**	647**	648**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2R6-B	649**	650**	651**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2R6-C	652**	653	654	0.0	11.9	20.7	20.8	-0.1	0.68	0.20	85.8	0.20	0.68	0.04	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
I-1R7- A	655**	656**	657**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-1R7- B	658**	659**	660**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2R7- A	661**	662**	663**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EX- C- A	670	671	672	1.5	-0.2	-3.1	1.6	-3.1	0.02	-0.09	-83.3	-0.09	0.02	-0.01	0.01
EX- C- B	675	674	673	-2.0	0.9	4.6	4.6	-2.0	0.13	-0.02	3.2	0.13	-0.02	0.01	0.02
EX- C- C	678	677	676	-3.8	-0.3	3.7	3.7	-3.8	0.08	-0.09	2.1	0.08	-0.09	0.01	0.02
EX- C- D	669	668	667	-2.1	0.3	4.3	4.3	-2.2	0.12	-0.03	7.0	0.12	-0.03	0.02	0.01
EX- B- A	687	686	685	-3.6	-2.8	0.3	0.6	-3.9	-0.02	-0.12	-75.1	-0.12	-0.02	-0.03	0.02
EX- B- B	690	689	688	36.2	14.7	-9.4	36.3	-9.5	1.10	0.05	1.6	1.10	0.05	0.03	0.02
EX- B- C	681	680	679	-1.9	-1.0	-0.4	-0.4	-2.0	-0.03	-0.07	84.7	-0.07	-0.03	0.00	0.02
EX- B- D	684	683	682	-29.6	-12.0	10.2	10.3	-29.7	0.05	-0.88	-86.7	-0.88	0.04	-0.05	0.02
EX- A- A	696	695	694	-0.9	-3.7	0.2	3.1	-3.8	0.07	-0.09	-49.7	-0.03	-0.00	-0.08	0.01
EX- A- B	693	692	691	-29.4	-9.4	9.9	9.9	-29.4	0.03	-0.87	69.5	-0.87	0.03	0.01	0.02
EX- A- C	666	665	664	-2.1	-1.1	0.7	0.7	-2.1	0.00	-0.06	-82.3	-0.06	0.00	-0.01	0.01
EX- A- D	699	698	697	34.7	12.8	-9.0	34.7	-9.0	1.05	0.05	-0.0	1.05	0.05	-0.00	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

NOMINAL LOAD = 1.594E 05

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
O-1R1-A	3	2	1	27.5	21.5	14.0	27.6	13.9	1.05	0.73	-86.8	0.73	1.05	-0.02	0.07
O-1R1-B	6	5	4	31.0	26.7	21.3	31.1	21.3	1.23	1.01	-87.2	1.01	1.23	-0.01	0.08
O-1R1-C	9	8	7	21.7	27.9	29.9	30.4	21.2	1.21	1.03	-13.6	1.20	1.01	-0.05	0.05
O-1R1-D	12	11	10	8.9	20.0	34.0	34.1	8.8	1.21	0.63	3.2	1.21	0.63	0.03	0.05
O-1R1-E	15	14	13	-5.4	7.4	22.9	22.9	-5.4	0.70	0.05	2.7	0.70	0.05	0.03	0.04
O-1R1-F	18	17	16	-8.7	26.7	20.7	31.4	-19.3	0.84	-0.33	17.7	0.73	-0.22	0.34	0.05
O-1R1-G	21	20	19	-8.3	6.4	17.5	17.7	-8.5	0.50	-0.10	86.0	-0.10	0.50	0.04	0.07
O-1R1-H	24	23	22	-22.4	3.8	16.5	17.6	-23.5	0.35	-0.69	80.4	-0.57	0.32	0.16	0.04
O-1R1-J	27	26	25	-30.5	0.1	15.9	17.0	-31.6	0.25	-0.87	81.2	-0.85	0.22	0.17	0.08
O-1R1-K	30	29	28	-33.0	-4.4	17.2	17.5	-33.2	0.25	-0.92	85.0	-0.92	0.24	0.08	0.04
O-1R1-L	33	32	31	-41.6	-11.7	17.4	17.4	-41.6	0.16	-1.23	89.5	-1.20	0.16	0.01	0.04
I-1R1-A	328	329	330	-3.8	-25.0	-45.1	-3.8	-45.1	-0.57	-1.52	-0.8	-0.57	-1.52	-0.01	0.04
I-1R1-B	331	332	333	-1.5	-32.4	-58.0	-1.3	-58.2	-0.62	-1.93	-2.7	-0.62	-1.93	-0.01	0.06
I-1R1-C	334	335	336	1.0	-38.0	-80.6	1.1	-80.6	-0.76	-2.65	1.3	-0.76	-2.65	0.04	0.07
I-1R1-D	337	338	339	7.5	-40.6	-82.9	7.6	-83.0	-0.57	-2.66	-1.8	-0.57	-2.66	-0.07	0.08
I-1R1-E	340	341	342	12.1	-30.3	-59.0	12.7	-59.6	-0.17	-1.84	-5.5	-0.19	-1.82	-0.16	0.05
I-1R1-F	343	344	345	10.6	-20.5	-48.4	10.7	-48.5	-0.13	-1.49	-46.6	-0.85	-0.77	-0.68	0.07
I-1R1-G	346	347	348	13.5	-25.8	-43.1	15.6	-45.2	0.07	-1.33	79.3	-1.29	0.02	-0.26	0.05
I-1R1-H	349	350	351	2.2	-31.3	-28.7	10.5	-37.0	-0.02	-1.12	65.3	-0.92	-0.21	0.42	0.04
I-1R1-J	352	353	354	-5.9	-25.7	-18.7	2.5	-27.2	-0.19	-0.87	57.8	-0.68	-0.38	0.31	0.04
I-1R1-K	355	356	357	-3.2	-24.4	-37.8	-2.8	-38.2	-0.47	-1.29	83.6	-1.28	-0.48	0.09	0.06
I-1R1-L	358	359	360	1.5	-17.4	-36.3	1.5	-36.3	-0.31	-1.18	-90.0	-1.18	-0.31	-0.00	0.05
O-1R2-A	36	35	34	12.6	13.4	5.2	14.7	3.0	0.51	0.24	-64.6	0.29	0.46	-0.10	0.04
O-1R2-B	39	38	37	16.1	19.1	7.8	20.2	3.7	0.70	0.32	-60.1	0.42	0.61	-0.16	0.04
O-1R2-C	42	41	40	13.8	22.4	15.3	22.5	6.6	0.81	0.44	-42.3	0.64	0.61	-0.18	0.06
O-1R2-D	45	44	43	-1.0	18.4	21.5	24.1	-3.7	0.76	0.12	-17.9	0.70	0.18	-0.19	0.04
O-1R2-E	48	47	46	-18.8	19.6	25.3	30.7	-24.2	0.77	-0.50	-18.3	0.65	-0.37	-0.38	0.04
O-1R2-F	51	50	49	-21.6	14.7	22.5	26.7	-25.8	0.62	-0.59	28.6	0.35	-0.31	0.51	0.05
O-1R2-G	54	53	52	-33.7	8.5	21.6	25.2	-37.3	0.46	-0.98	76.2	-0.90	0.38	0.33	0.06
O-1R2-H	57	56	55	-45.6	-8.6	20.5	20.7	-45.8	0.23	-1.30	86.6	-1.30	0.22	0.09	0.07
O-1R2-J	60	59	58	-44.9	-4.5	15.2	16.9	-46.6	0.10	-1.37	80.5	-1.33	0.06	0.24	0.05
O-1R2-K	63	62	61	-41.0	-19.3	15.7	16.4	-41.7	0.13	-1.21	-83.4	-1.20	0.11	-0.15	0.07
O-1R2-L	66	65	64	-50.2	-23.5	12.1	12.5	-50.5	-0.09	-1.54	-85.9	-1.53	-0.10	-0.10	0.06
I-1R2-A	361	362	363	-2.8	-3.6	-26.8	1.6	-31.2	-0.26	-1.01	21.5	-0.36	-0.91	0.26	0.04
I-1R2-B	364	365	366	-1.7	-12.1	-34.1	-0.7	-35.1	-0.37	-1.16	9.8	-0.39	-1.14	0.13	0.05
I-1R2-C	367	368	369	0.4	-22.8	-46.5	0.4	-46.5	-0.45	-1.53	0.3	-0.45	-1.53	0.01	0.06
I-1R2-D	370	371	372	3.4	-29.4	-53.1	3.8	-53.5	-0.40	-1.73	-4.6	-0.41	-1.72	-0.11	0.09
I-1R2-E	373	374	375	5.3	-40.0	-54.0	9.2	-57.9	-0.27	-1.82	-13.9	-0.36	-1.73	-0.36	0.06
I-1R2-F	376	377	378	6.3	-40.8	-48.8	12.5	-55.0	-0.13	-1.69	-62.6	-1.36	-0.46	-0.64	0.06
I-1R2-G	379	380	381	-1.1	-40.6	-37.5	8.7	-47.3	-0.18	-1.47	65.2	-1.25	-0.41	0.49	0.04
I-1R2-H	382	383	384	-4.1	-27.3	-21.1	4.4	-29.6	-0.15	-0.93	60.0	-0.74	-0.34	0.34	0.05
I-1R2-J	385	386	387	-2.7	-27.1	-23.6	4.3	-37.6	-0.16	-0.97	63.4	-0.81	-0.32	0.32	0.04
I-1R2-K	388	389	390	1.5	-17.2	-29.5	1.8	-29.8	-0.23	-0.97	84.1	-0.96	-0.24	0.07	0.06
I-1R2-L	391	392	393	3.5	-14.7	-31.2	3.5	-31.2	-0.19	-0.99	88.6	-0.99	-0.19	0.02	0.04
O-1R3-A	69	68	67	-5.5	-5.0	-2.2	-1.9	-5.9	-0.12	-0.21	17.6	-0.13	-0.20	0.03	0.08
O-1R3-B	72	71	70	-7.9	-2.2	-6.1	-2.1	-11.9	-0.19	-0.41	-39.9	-0.28	-0.32	-0.11	0.08
O-1R3-C	75	74	73	-11.7	-0.4	-4.5	0.4	-16.6	-0.15	-0.54	-32.6	-0.27	-0.43	-0.18	0.03
O-1R3-D	78	77	76	-24.8	3.4	-3.8	6.3	-34.9	-0.14	-1.09	-29.7	-0.37	-0.85	-0.41	0.05
O-1R3-E	81	80	79	-32.3	6.6	-2.9	10.7	-40.0	-0.10	-1.41	-29.4	-0.42	-1.09	-0.56	0.06
O-1R3-F	84	83	82	-47.2	-1.7	8.6	13.7	-52.3	-0.06	-1.59	28.9	-0.42	-1.23	0.64	0.10

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
O-1R3-G	87	86	85	-56.6	-20.1	14.0	14.0	-56.6	-0.10	-1.73	89.1	-1.73	-0.10	0.03	0.04
O-1P3-H	90	89	88	-56.3	-23.4	12.8	12.8	-56.3	-0.13	-1.73	-88.7	-1.73	-0.13	-0.04	0.07
O-1R3-J	93	92	91	-48.7	-30.0	9.3	11.0	-50.4	-0.13	-1.55	-80.2	-1.51	-0.18	-0.24	0.08
O-1R3-K	96	95	94	-43.1	-30.4	4.9	7.5	-45.6	-0.20	-1.43	-77.3	-1.37	-0.26	-0.26	0.07
O-1R3-L	99	98	97	-51.4	-34.2	6.1	8.3	-53.6	-0.26	-1.69	-79.0	-1.63	-0.31	-0.27	0.06
I-1R3-A	394	395	396	3.2	12.7	2.5	12.7	-6.9	0.35	-0.10	44.0	0.13	0.12	0.23	0.02
I-1R3-B	397	398	399	-0.0	12.3	7.7	13.1	-5.4	0.38	-0.05	57.3	0.08	0.25	0.19	0.04
I-1P3-C	400	401	402	4.8	5.4	8.1	8.4	4.5	0.32	0.23	-73.3	0.24	0.32	-0.03	0.04
I-1R3-D	403	404	405	4.9	-0.9	-0.9	6.1	-2.2	0.18	-0.01	-22.5	0.15	0.02	-0.07	0.02
I-1R3-E	406	407	408	7.6	-14.6	-16.2	11.5	-20.0	0.18	-0.55	-20.4	0.09	-0.46	-0.24	0.05
I-1R3-F	409	410	411	1.6	-22.7	-16.0	10.6	-25.0	0.10	-0.72	-75.2	-0.67	0.05	-0.20	0.03
I-1R3-G	412	413	414	-1.0	-20.3	-10.1	9.8	-20.9	0.12	-0.59	53.6	-0.34	-0.13	0.34	0.04
I-1R3-H	415	416	417	1.8	-12.0	-7.9	7.9	-14.1	0.12	-0.39	58.1	-0.24	-0.02	0.23	0.03
I-1P3-J	421	422	423	7.6	-12.4	-20.5	8.8	-21.7	0.08	-0.63	78.5	-0.60	0.05	0.14	0.03
I-1R3-K	418	419	420	9.4	-14.8	-13.6	15.0	-19.2	0.30	-0.49	66.1	-0.36	0.17	0.29	0.03
I-1R3-L	424	425	426	5.3	-10.3	-25.2	5.3	-25.3	-0.07	-0.78	89.4	-0.78	-0.07	0.01	0.03
O-1R4-A	102	101	100	-2.3	-14.8	-8.2	-8.1	-20.3	-0.47	-0.75	3.0	-0.47	-0.75	0.01	0.04
O-1R4-B	105	104	103	-21.3	-15.8	-9.2	-9.2	-21.3	-0.51	-0.79	2.4	-0.51	-0.79	0.01	0.07
O-1R4-C	108	107	106	-26.5	-13.2	-15.4	-11.4	-30.5	-0.68	-1.12	-27.2	-0.77	-1.03	-0.18	0.06
O-1R4-D	111	110	109	-29.3	-7.0	-14.4	-5.3	-38.4	-0.55	-1.32	-31.6	-0.76	-1.11	-0.34	0.5
O-1R4-E	114	113	112	-41.8	-17.5	-3.3	-2.6	-42.5	-0.51	-1.43	37.6	-0.85	-1.08	0.44	0.07
O-1R4-F	117	116	115	-40.9	-38.0	-5.1	0.3	-46.3	-0.45	-1.52	-70.1	-1.40	-0.57	-0.34	0.04
O-1P4-G	120	119	118	-39.8	-38.4	-9.9	-4.6	-45.0	-0.60	-1.53	-68.9	-1.41	-0.72	-0.31	0.06
O-1R4-H	123	122	121	-33.2	-16.5	-12.6	-5.9	-40.0	-0.59	-1.38	-63.6	-1.22	-0.74	-0.31	0.07
O-1R4-J	126	125	124	-36.2	-36.3	-7.5	-1.4	-42.2	-0.46	-1.41	-67.4	-1.27	-0.60	-0.33	0.04
I-1R4-A	427	428	429	10.4	18.9	29.2	29.2	10.4	1.07	0.63	-87.2	0.63	1.06	-0.02	0.02
I-1R4-B	430	431	432	11.7	24.0	31.1	31.5	11.4	1.15	0.69	82.5	0.69	1.14	0.06	0.05
I-1R4-C	433	434	435	11.6	22.9	39.8	40.0	11.3	1.43	0.77	-84.5	0.77	1.43	-0.06	0.08
I-1R4-D	436	437	438	4.4	27.4	35.2	37.0	2.6	1.25	0.45	76.9	0.49	1.20	0.18	0.06
I-1R4-E	439	440	441	17.6	24.4	15.0	24.5	8.1	0.89	0.51	-4.5	0.89	0.51	-0.03	0.05
I-1P4-F	442	443	444	20.7	14.1	5.3	20.8	5.3	0.74	0.38	-86.0	0.38	0.74	-0.03	0.06
I-1P4-G	445	446	447	13.4	0.8	9.4	22.3	0.6	0.74	0.24	50.3	0.44	0.54	0.25	0.04
I-1R4-H	448	449	450	2.8	-3.5	2.8	9.2	-3.5	0.27	-0.03	45.0	0.12	0.12	0.15	0.04
I-1P4-J	451	452	453	0.6	-9.5	-12.3	1.6	-13.3	-0.08	-0.42	75.2	-0.40	-0.10	0.08	0.02
O-1R5-A	129	128	127	-26.5	-18.2	-8.6	-8.5	-26.6	-0.54	-0.96	2.1	-0.54	-0.96	0.02	0.06
O-1R5-B	132	131	130	-23.5	-19.2	-11.4	-11.2	-23.8	-0.60	-0.89	8.1	-0.61	-0.89	0.04	0.05
O-1R5-C	135	134	133	-25.0	-22.3	-17.0	-16.8	-25.2	-0.80	-1.00	9.2	-0.81	-0.99	0.03	0.04
O-1R5-D	138	137	136	-22.0	-22.9	-18.2	-16.7	-23.5	-0.78	-0.94	27.8	-0.82	-0.91	0.06	0.06
O-1P5-E	141	140	139	-21.0	-22.1	-19.6	-18.4	-22.2	-0.83	-0.91	79.6	-0.91	-0.83	0.02	0.05
O-1R5-F	144	143	142	-23.7	-19.9	-20.0	-19.2	-24.5	-0.87	-1.03	66.6	-0.98	-0.89	0.04	0.04
O-1R5-G	147	146	145	-30.8	-22.4	-17.1	-16.9	-31.0	-0.86	-1.19	83.6	-1.18	-0.87	0.04	0.05
O-1P5-H	150	149	148	-22.5	-19.4	-18.9	-18.5	-22.9	-0.84	-0.94	71.7	-0.93	-0.85	0.03	0.06
O-1R5-J	153	152	151	-25.4	-20.8	-13.6	-13.5	-25.6	-0.70	-0.98	-83.9	-0.97	-0.70	-0.03	0.05
I-1R5-A	454	455	456	12.7	22.2	34.8	34.9	12.6	1.28	0.76	-85.9	0.76	1.27	-0.04	0.05
I-1R5-B	457	458	459	12.5	24.6	40.5	40.6	12.4	1.46	0.81	-86.1	0.81	1.46	-0.04	0.04
I-1R5-C	460	461	462	7.2	28.8	49.7	49.7	7.2	1.71	0.73	89.5	0.73	1.71	0.01	0.09
I-1R5-D	463	464	465	6.2	30.7	55.8	55.8	6.2	1.90	0.76	-89.7	0.76	1.90	-0.01	0.06
I-1R5-E	466	467	468	25.3	38.4	22.1	38.5	8.9	1.36	0.67	-3.2	1.35	0.68	-0.04	0.05
I-1P5-F	469	470	471	27.3	15.2	5.1	27.3	5.0	0.95	0.44	87.5	0.44	0.95	0.02	0.04
I-1R5-G	472	473	474	8.1	10.5	13.9	13.9	8.1	0.54	0.40	5.0	0.54	0.40	0.01	0.04
I-1R5-H	475	476	477	-3.3	4.5	12.7	12.7	-3.3	0.39	0.02	0.5	0.39	0.02	0.00	0.04
I-1R5-J	478	479	480	-7.6	-2.8	2.2	2.2	-7.6	-0.00	-0.23	0.5	-0.00	-0.23	0.00	0.04
O-2R1-A	160	167	166	28.0	24.6	16.4	28.5	15.9	1.10	0.81	-79.0	0.82	1.09	-0.05	0.05
O-2R1-B	171	170	169	30.1	26.9	20.5	30.4	20.2	1.20	0.97	-80.7	0.97	1.20	-0.04	0.06
O-2R1-C	174	173	172	23.4	28.8	31.8	32.0	23.2	1.28	1.08	-8.1	1.28	1.09	-0.03	0.06
O-2R1-D	177	176	175	5.1	20.0	30.5	30.7	4.9	1.06	0.47	-4.8	1.06	0.47	-0.05	0.06

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. →)

LOCATION	GAGE NUMBERS			STRAIN - MICPOINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
O-2R1-E	180	179	178	-6.8	10.1	23.0	23.1	-6.9	0.69	0.00	-3.8	0.69	0.00	-0.05	0.04
O-2R1-F	183	182	181	-10.1	5.7	19.3	19.4	-10.1	0.54	-0.14	43.0	0.22	0.17	0.34	0.03
O-2R1-G	186	185	184	-15.7	7.2	16.9	18.2	-17.0	0.43	-0.38	79.0	-0.35	0.40	0.15	0.03
O-2R1-H	189	188	187	-26.7	3.5	16.3	18.0	-28.4	0.31	-0.76	78.9	-0.72	0.27	0.20	0.02
O-2R1-J	192	191**	190	-32.6	0.0	16.0	17.4	-34.0	0.24	-0.95	80.6	-0.92	0.20	0.19	0.06
O-2P1-K	195	194	193	-30.5	-1.2	19.0	19.4	-30.9	0.33	-0.83	84.8	-0.82	0.33	0.11	0.05
O-2R1-L	198	197	196	-42.1	-13.3	15.9	15.9	-42.1	0.11	-1.23	-89.8	-1.23	0.11	-0.00	0.05
I-2P1-A	493	494**	495**	-4.2	0.0	0.0	0.9	-5.1	-0.02	-0.16	67.5	-0.14	-0.04	0.05	0.04
I-2R1-B	496	497**	498	-1.8	0.0	-48.6	9.2	-59.6	-0.29	-1.87	23.6	-0.54	-1.62	0.58	0.13
I-2R1-C	499	500	501	1.7	-35.7	-79.6	1.8	-79.7	-0.73	-2.61	2.3	-0.73	-2.61	0.08	0.11
I-2R1-D	502	503	504	8.3	-40.9	-86.7	8.3	-86.7	-0.58	-2.78	-1.0	-0.58	-2.78	-0.04	0.08
I-2R1-E	505**	506**	507	0.0	0.0	-56.1	11.6	-67.7	-0.29	-2.12	22.5	-0.55	-1.85	0.65	0.06
I-2R1-F	508	509	510	10.9	0.0	-52.0	17.0	-58.2	-0.01	-1.75	-28.4	-0.41	-1.36	-0.73	0.08
I-2R1-G	511	512	513	10.6	-28.1	-45.4	12.5	-47.4	-0.06	-1.44	79.6	-1.39	-0.10	0.25	0.07
I-2R1-H	514	515	516	2.7	-30.4	-30.3	9.6	-37.2	-0.05	-1.13	67.4	-0.57	-0.21	0.38	0.05
I-2R1-J	517	518	519	-3.7	-25.7	-20.3	4.1	-28.1	-0.14	-0.88	60.6	-0.71	-0.32	0.32	0.05
I-2R1-K	520	521	522	-1.1	-26.7	-37.8	0.2	-39.1	-0.38	-1.29	79.2	-1.26	-0.41	0.17	0.04
I-2R1-L	523	524	525	1.3	-21.2	-42.0	1.3	-42.0	-0.37	-1.37	88.9	-1.37	-0.37	0.02	0.05
O-2R2-A	201	200	199	19.5	13.4	7.2	19.5	7.2	0.71	0.43	-89.6	0.43	0.71	-0.00	0.05
O-2R2-B	204	203	202	20.1	15.6	12.7	20.2	12.6	0.79	0.62	83.4	0.62	0.79	0.02	0.06
O-2R2-C	207	206	205	12.9	22.7	16.0	22.9	6.0	0.81	0.42	-39.8	0.65	0.58	-0.19	0.03
O-2R2-D	210	209	208	-1.7	21.0	23.1	26.8	-5.5	0.83	0.09	-19.8	0.74	0.17	-0.24	0.05
O-2R2-E	213	212	211	-20.5	17.2	24.3	29.0	-25.3	0.71	-0.55	-17.2	0.60	-0.44	-0.35	0.02
O-2R2-F	216	215	214	-27.3	14.8	25.3	29.7	-31.7	0.67	-0.75	29.5	0.32	-0.41	0.61	0.02
O-2R2-G	219	218	217	-32.4	7.7	22.6	25.3	-35.2	0.49	-0.91	77.7	-0.85	0.42	0.29	0.06
O-2R2-H	222	221	220	-46.7	-0.9	17.9	20.6	-49.4	0.19	-1.42	78.7	-1.36	0.13	0.31	0.06
O-2R2-J	225	224	223	-45.2	-11.3	20.1	20.1	-45.3	0.22	-1.29	88.9	-1.29	0.22	0.03	0.06
O-2R2-K	228	227	226	-41.8	-15.7	17.8	18.1	-42.0	0.18	-1.21	-86.4	-1.20	0.18	-0.09	0.06
O-2R2-L	231	230	229	-55.2	-26.4	13.3	13.8	-55.7	-0.10	-1.70	-85.4	-1.69	-0.11	-0.13	0.09
I-2R2-A	526	527	528	-2.8	-4.7	-27.0	0.9	-30.7	-0.27	-1.03	20.0	-0.36	-0.92	0.23	0.04
I-2R2-B	529	530	531	-2.0	-11.3	-36.8	-0.2	-38.7	-0.39	-1.28	12.5	-0.43	-1.23	0.19	0.04
I-2R2-C	532	533	534	0.3	-19.1	-48.6	0.8	-49.1	-0.46	-1.61	5.8	-0.47	-1.60	0.12	0.06
I-2R2-D	535	536	537	2.7	-30.2	-54.4	3.0	-54.7	-0.44	-1.77	-4.3	-0.45	-1.77	-0.10	0.06
I-2R2-E	538	539	540	2.9	-41.4	-53.2	7.3	-57.6	-0.33	-1.83	-15.1	-0.43	-1.72	-0.38	0.07
I-2R2-F	541	542	543	2.6	-43.7	-51.5	8.8	-57.7	-0.28	-1.81	-62.7	-1.49	-0.60	-0.62	0.05
I-2R2-G	544	545	546	-2.7	-44.7	-37.0	10.4	-50.0	-0.15	-1.55	62.3	-1.25	-0.45	0.57	0.05
I-2R2-H	547	548	549	-7.4	-31.3	-17.3	7.2	-32.0	-0.08	-0.98	52.3	-0.64	-0.42	0.44	0.04
I-2P2-J	550	551	552	1.5	-25.1	-24.8	3.5	-29.8	-0.18	-0.95	67.1	-0.83	-0.30	0.28	0.05
I-2P2-K	553	554	555	0.5	-19.4	-35.9	0.6	-36.0	-0.33	-1.18	87.3	-1.18	-0.34	0.04	0.05
I-2R2-L	556	557	558	6.3	-12.9	-38.1	6.5	-38.3	-0.16	-1.20	-86.2	-1.19	-0.17	-0.07	0.07
O-2R3-A	234	233	232	-4.1	-2.9	-0.9	-0.8	-4.2	-0.07	-0.15	6.8	-0.07	-0.14	0.01	0.04
O-2R3-B	237	236	235	-8.0	-1.8	-2.1	-0.7	-9.4	-0.1	-0.32	-23.7	-0.15	-0.28	-0.07	0.06
O-2R3-C	240	239	238	-11.3	2.2	-4.2	2.8	-18.3	-0.09	-0.57	-35.1	-0.25	-0.41	-0.23	0.04
O-2R3-D	243	242	241	-22.9	4.7	-2.8	7.4	-33.2	-0.08	-1.02	-30.1	-0.32	-0.78	-0.41	0.04
O-2R3-E	246	245	244	-37.6	7.3	-2.4	12.5	-52.5	-0.11	-1.61	-28.6	-0.45	-1.26	-0.63	0.04
O-2R3-F	249	248	247	-50.8	-3.1	9.9	14.5	-55.4	-0.07	-1.68	30.1	-0.48	-1.27	0.70	0.10
O-2R3-G	252	251	250	-60.3	-17.5	16.4	16.7	-60.5	-0.05	-1.83	86.7	-1.83	-0.05	0.10	0.07
O-2R3-H	255	254	253	-59.2	-23.4	16.4	16.5	-59.2	-0.04	-1.79	-88.5	-1.79	-0.04	-0.05	0.08
O-2R3-J	258	257	256	-51.2	-31.4	11.0	12.9	-53.2	-0.10	-1.63	-80.0	-1.58	-0.15	-0.26	0.08
O-2R3-K	261	260	259	-40.9	-26.6	8.9	11.1	-43.1	-0.06	-1.31	-78.5	-1.26	-0.11	-0.24	0.08
O-2R3-L	264	263	262	-48.9	-36.3	4.0	7.4	-52.4	-0.27	-1.65	-76.2	-1.57	-0.35	-0.32	0.06
I-2P3-A	559**	560	561	0.0	8.7	8.1	10.2	-2.1	0.31	0.03	65.5	0.08	0.27	0.11	0.05
I-2R3-B	562	563	564	0.9	11.5	9.2	12.7	-2.5	0.39	0.04	61.5	0.12	0.31	0.15	0.06
I-2P3-C	565	566	567	2.3	8.4	8.2	9.6	0.9	0.32	0.12	66.5	0.12	0.29	0.07	0.05
I-2R3-D	568	569	570	4.6	-0.2	-0.3	5.6	-1.3	0.17	0.01	-22.3	0.15	0.04	-0.06	0.03
I-2R3-E	571	572	573*	5.1	-10.4	-8.1	9.6	-12.6	0.19	-0.32	-26.8	0.09	-0.22	-0.21	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

PAGE 1531 NUMBER OF TEST POINTS ALLOWED FOR EACH P. 1

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-2R3- F	574	575	576	7.0	-20.0	-17.4	-14.0	-24.4	0.22	-0.67	-70.3	-0.57	0.12	-0.28	0.04
I-2R3- G	577	578	579	-0.8	-20.0	-8.4	11.3	-20.4	0.17	-0.55	52.0	-0.28	-0.11	0.36	0.03
I-2R3- H	580	581	582	1.2	-14.0	-5.9	9.8	-14.5	0.18	-0.38	53.4	-0.18	-0.02	0.27	0.03
I-2R3- J	583	584	585	12.2	-17.4	-16.1	18.9	-22.9	0.40	-0.57	66.3	-0.41	0.24	0.36	0.03
I-2R3- K	586	587	588	10.6	-11.3	-21.4	11.6	-22.5	0.16	-0.63	80.0	-0.60	0.14	0.13	0.03
I-2R3- L	589	590	591	6.8	-12.6	-24.4	7.3	-24.9	-0.01	-0.75	82.7	-0.74	-0.02	0.09	0.04
O-2R4- A	267	266	265	-19.5	-13.8	-7.6	-7.6	-19.5	-0.44	-0.72	1.4	-0.44	-0.72	0.01	0.04
O-2R4- B	270	269	268	-21.5	-15.7	-9.8	-9.8	-21.5	-0.54	-0.80	0.1	-0.54	-0.80	0.00	0.06
O-2R4- C	273	272	271	-26.6	-11.5	-13.8	-9.4	-31.0	-0.62	-1.11	-26.8	-0.72	-1.01	-0.20	0.04
O-2R4- D	276	275	274	-29.0	-6.0	-11.4	-3.5	-36.9	-0.48	-1.25	-29.0	-0.66	-1.07	-0.33	0.05
O-2R4- E	279	278	277	-45.7	-21.3	-1.6	-1.5	-45.8	-0.50	-1.53	41.9	-0.96	-1.07	0.51	0.07
O-2R4- F	282	281	280	-43.3	-36.3	-3.8	-0.1	-47.1	-0.47	-1.55	-73.6	-1.47	-0.55	-0.29	0.06
O-2R4- G	285	284	283	-40.2	-38.6	-8.4	-3.0	-45.6	-0.55	-1.53	-69.0	-1.41	-0.68	-0.33	0.06
O-2R4- H	288	287	286	-33.1	-35.8	-8.7	-1.6	-40.2	-0.45	-1.34	-64.6	-1.18	-0.61	-0.34	0.06
O-2R4- J	291	290	289	-32.5	-38.3	-7.5	2.1	-42.1	-0.35	-1.37	-62.2	-1.15	-0.57	-0.42	0.06
I-2R4- A	592	593	594	10.1	24.2	30.9	31.5	9.4	1.13	0.62	80.2	0.64	1.12	0.09	0.07
I-2R4- B	595	596	597	12.7	25.0	36.4	36.5	12.7	1.33	0.78	88.9	0.78	1.33	0.01	0.04
I-2R4- C	598	599	600	10.6	25.0	41.7	41.7	10.6	1.48	0.76	-87.9	0.76	1.48	-0.03	0.04
I-2R4- D	601	602	603	7.9	26.6	35.0	36.0	6.9	1.25	0.58	79.6	0.61	1.23	0.12	0.07
I-2R4- E	604	605	606	18.9	24.2	17.9	24.2	12.5	0.92	0.65	-2.5	0.92	0.65	-0.01	0.06
I-2R4- F	607	608	609	20.4	11.5	4.4	20.5	4.4	0.72	0.35	86.8	0.35	0.72	0.02	0.03
I-2R4- G	610	611	612	12.8	-0.1	5.7	19.2	-0.8	0.63	0.16	55.4	0.31	0.48	0.22	0.03
I-2R4- H	615	614	613	2.4	13.0	6.1	13.2	-4.7	0.39	-0.02	51.0	0.14	0.23	0.20	0.03
I-2R4- J	616	617	618	-2.3	-9.6	-11.3	-1.5	-12.1	-0.17	-0.41	74.2	-0.40	-0.19	0.06	0.04
O-2R5- A	292	293	294	-22.8	-17.6	-11.1	-11.1	-22.8	-0.59	-0.86	-86.6	-0.86	-0.59	-0.32	0.06
O-2R5- B	295	296	297	-23.3	-16.8	-12.4	-12.3	-23.4	-0.64	-0.89	84.6	-0.89	-0.64	0.02	0.06
O-2R5- C	298	299	300	-20.4	-20.0	-17.3	-16.9	-20.8	-0.76	-0.85	-71.8	-0.84	-0.77	-0.03	0.06
O-2R5- D	301	302	303	-19.3	-17.4	-17.9	-17.2	-23.0	-0.77	-0.83	59.6	-0.81	-0.78	0.03	0.05
O-2R5- E	306	305	304	-21.6	-17.5	-20.4	-17.5	-24.5	-0.82	-0.98	4.7	-0.82	-0.98	0.01	0.07
O-2R5- F	309	308	307	-23.9	-18.6	-17.2	-16.7	-24.4	-0.79	-0.97	75.0	-0.96	-0.80	0.04	0.06
O-2R5- G	312	311	310	-30.6	-25.3	-14.8	-14.4	-31.0	-0.78	-1.17	-81.1	-1.16	-0.79	-0.06	0.05
O-2R5- H	315	314	313	-24.6	-20.3	-15.3	-15.3	-24.6	-0.75	-0.96	-87.8	-0.96	-0.75	-0.01	0.05
O-2R5- J	318	317	316	-23.0	-19.6	-12.8	-12.5	-23.3	-0.64	-0.89	-80.6	-0.88	-0.65	-0.04	0.04
I-2R5- A	621	620	619	37.9	27.1	17.9	38.0	17.9	1.43	0.97	87.6	0.97	1.43	0.02	0.05
I-2R5- B	622	623	624	16.9	29.3	41.7	41.7	16.9	1.54	0.97	89.9	0.97	1.54	0.00	0.06
I-2R5- C	625	626	627	12.0	30.2	48.9	48.9	12.0	1.73	0.88	-89.5	0.88	1.73	-0.01	0.06
I-2R5- D	628	629	630	4.0	32.0	57.9	58.0	4.0	1.95	0.71	88.9	0.71	1.95	0.02	0.13
I-2R5- E	631	632	633	28.7	45.0	26.3	45.1	10.0	1.58	0.77	-1.9	1.58	0.78	-0.03	0.04
I-2R5- F	634	635	636	33.2	16.5	4.3	33.4	4.1	1.14	0.47	85.5	0.47	1.14	0.05	0.04
I-2R5- G	637	638	639	9.9	13.8	15.0	15.4	9.5	0.60	0.47	-13.7	0.59	0.47	-0.03	0.05
I-2R5- H	640	641	642	-4.3	5.5	12.1	12.3	-4.5	0.36	-0.03	-5.6	0.36	-0.02	-0.04	0.05
I-2R5- J	643	644	645	-7.0	-1.1	2.2	2.4	-7.2	0.01	-0.21	-7.9	0.00	-0.21	-0.03	0.04
O-1R6- A	156	155	154	-14.9	-2.0	8.5	8.5	-15.0	0.13	-0.41	-3.1	0.13	-0.41	-0.03	0.02
O-1R6- B	159	158*	157	-18.8	-3.4	4.0	4.7	-19.5	-0.04	-0.60	-9.6	-0.05	-0.58	-0.09	0.04
O-1R6- C	162	161	160	-18.4	-10.6	0.8	0.9	-18.5	-0.15	-0.60	5.4	-0.16	-0.60	0.04	0.04
O-1R6- D	165	164	163	-23.8	-10.7	-2.0	-1.8	-24.0	-0.30	-0.81	-5.8	-0.30	-0.80	-0.05	0.04
I-1R6- A	481	482	483	18.6	-5.8	-33.7	18.6	-33.8	0.28	-0.93	2.0	0.28	-0.93	0.04	0.04
I-1R6- B	484	485	486	21.6	-5.6	-27.2	21.7	-27.4	0.45	-0.69	-3.2	0.44	-0.68	-0.06	0.04
I-1R6- C	487	488	489	19.2	-0.8	-24.0	19.3	-24.1	0.40	-0.60	2.2	0.40	-0.60	0.04	0.04
I-1R6- D	490	491	492	20.4	-0.0	-24.9	20.5	-25.0	0.43	-0.62	2.8	0.43	-0.62	0.05	0.04
O-2R6- A	321	320	319	-15.3	-5.1	8.7	8.8	-15.4	0.14	-0.42	4.3	0.14	-0.42	0.04	0.02
O-2R6- B	324	323	322	-17.2	-7.5	3.7	3.8	-17.2	-0.05	-0.53	2.1	-0.05	-0.53	0.02	0.04
O-2R6- C	327	326	325	-20.5	-6.9	-2.2	-1.2	-21.5	-0.25	-0.72	-13.0	-0.27	-0.70	-0.10	0.05
I-2R6- A	646**	647**	648**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2R6- B	649**	650**	651**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2R6- C	652**	653	654	0.0	-1.9	-25.2	3.9	-29.1	-0.16	-0.92	20.2	-0.25	-0.83	0.25	0.05

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI				TAJ	CONF	
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)			
I-1R7- A	655**	656**	657**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-1R7- B	658**	659**	660**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2R7- A	661**	662**	663**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EX- C- A	670	671	672	2.1	0.0	-3.5	2.2	-3.5	0.04	-0.10	-83.0	-0.09	0.03	-0.02	0.03	0.04
EX- C- B	675	674	673	-1.8	3.2	5.8	6.0	-2.0	0.18	-0.01	-8.7	0.17	-0.00	-0.03	0.04	0.04
EX- C- C	678	677	676	-3.0	0.9	4.0	4.0	-3.0	0.10	-0.06	-3.5	0.10	-0.06	-0.01	0.04	0.04
EX- C- D	669	668	667	-2.1	0.7	6.1	6.2	-2.3	0.18	-0.02	8.6	0.18	-0.01	0.03	0.03	0.03
EX- B- A	687	686	685	-36.4	-12.9	10.0	10.0	-36.4	-0.03	-1.10	89.6	-1.10	-0.03	0.01	0.06	0.06
EX- B- B	690	689	688	-28.4	-10.5	14.0	14.3	-28.7	0.19	-0.80	-85.6	-0.80	0.18	-0.08	0.06	0.06
EX- B- C	681	680	679	-33.5	-13.4	6.9	6.9	-33.5	-0.10	-1.04	-89.9	-1.04	-0.10	-0.00	0.05	0.05
EX- B- D	684	683	682	-25.8	-9.5	10.8	10.9	-25.9	0.10	-0.75	-86.9	-0.74	0.10	-0.05	0.02	0.02
EX- A- A	696*	695	694	-10.4	-31.6	7.7	30.2	-33.0	0.67	-0.79	-53.4	-0.27	0.15	-0.70	0.03	0.03
EX- A- B	693	692	691	-27.7	-8.2	12.3	12.3	-27.7	0.13	-0.79	-89.2	-0.79	0.13	-0.01	0.06	0.06
EX- A- C	666	665	664	-32.4	-14.8	9.7	9.9	-32.7	0.00	-0.98	-85.4	-0.97	-0.00	-0.08	0.06	0.06
EX- A- D	699	698	697	-27.4	-9.3	11.2	11.2	-27.4	0.10	-0.79	-88.2	-0.79	0.10	-0.03	0.04	0.04

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

COMBUSTION T-11, LOAD CASE 11, F2Y

NOMINAL LOAD = 4.557E 03

LOCATION	GAGE NUMBERS			STRAIN - MICROPINCHES/INCH						STRESS - KSI				TAJ	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
0-101-A	3	2	1	19.5	16.7	13.1	19.5	13.1	0.77	0.63	-87.0	0.63	0.77	-0.01	0.08
0-101-B	6	5	4	22.5	18.4	16.4	22.6	15.2	0.91	0.75	81.1	0.76	0.90	0.02	0.09
0-101-C	9	8	7	15.3	19.4	23.9	23.9	15.3	0.94	0.74	1.6	0.94	0.74	0.01	0.04
0-101-D	12	11	10	7.7	15.2	23.1	23.1	7.7	0.84	0.49	0.9	0.84	0.48	0.01	0.03
0-101-E	15	14	13	3.1	9.9	13.1	13.5	2.7	0.47	0.22	-9.8	0.46	0.23	-0.04	0.04
0-101-F	18	17	16*	5.5	9.5	17.8	18.2	5.1	0.65	0.35	54.	0.45	0.55	0.14	0.09
0-101-G	21	20	19	5.5	10.1	7.7	10.3	2.9	0.37	0.20	54.0	0.26	0.31	0.08	0.06
0-101-H	24	23	22	-0.9	9.3	7.9	10.2	-3.8	0.32	-0.02	63.5	0.05	0.25	0.13	0.05
0-101-I	27	26	25	-4.3	7.6	7.0	9.8	-7.1	0.25	-0.14	66.1	-0.07	0.19	0.14	0.03
0-101-J	30	29	28	-7.1	4.6	7.8	8.9	-8.2	0.21	-0.19	75.2	-0.16	0.19	0.10	0.02
0-101-K	33	32	31	-5.0	4.6	6.8	7.9	-6.7	0.20	-0.12	73.9	-0.10	0.18	0.09	0.03
0-101-L	328	329	330	-1.8	-21.5	-36.3	-1.6	-35.5	-0.41	-1.22	-4.0	-0.42	-1.22	-0.06	0.08
0-101-M	331	332	333	0.2	-24.0	-45.5	0.2	-45.5	-0.44	-1.50	-1.7	-0.44	-1.50	-0.03	0.03
0-101-N	334	335	336	1.8	-26.2	-55.6	1.8	-55.6	-0.49	-1.81	0.7	-0.49	-1.81	0.02	0.05
0-101-O	337	338	339	4.1	-23.9	-48.8	4.1	-48.9	-0.35	-1.57	-1.7	-0.35	-1.57	-0.04	0.02
0-101-P	340	341	342	2.4	-11.9	-25.2	2.4	-25.2	-0.18	-0.84	-0.1	-0.18	-0.84	-0.00	0.03
0-101-Q	343*	344	345	-4.1	-6.3	-14.3	-3.3	-15.1	-0.26	-0.53	-30.0	-0.33	-0.46	-0.12	0.08
0-101-R	346	347	348	2.5	-9.7	-12.1	3.9	-13.6	-0.20	-0.44	73.2	-0.37	-0.04	0.11	0.02
0-101-S	349	350	351	-3.4	-17.0	-6.3	7.4	-17.0	0.07	-0.43	48.4	-0.24	-0.17	0.28	0.02
0-101-T	352	353	354	-9.5	-13.0	-1.5	3.0	-14.0	-0.24	-0.43	30.9	-0.14	-0.33	0.17	0.01
0-101-U	355	356	357	-9.8	-8.7	-3.2	-2.6	-10.5	-0.19	-0.31	16.9	-0.20	-0.36	0.05	0.04
0-101-V	358	359	360	-8.1	-6.2	-2.6	-2.4	-8.3	-0.16	-0.30	8.4	-0.16	-0.29	0.02	0.07
0-102-A	36	35	34	13.4	12.2	7.4	13.9	5.9	0.53	0.37	-74.7	0.38	0.51	-0.04	0.04
0-102-B	39	38	37	11.6	15.5	10.3	15.6	6.3	0.57	0.34	-49.0	0.45	0.48	-0.11	0.03
0-102-C	42	41	40	10.2	18.5	13.3	18.7	4.8	0.66	0.34	-38.4	0.54	0.47	-0.15	0.04
0-102-D	45	44	43	-0.9	17.2	15.2	20.5	-5.2	0.62	0.03	-24.0	0.53	0.13	-0.22	0.03
0-102-E	48	47	46	-0.4	15.4	16.6	21.1	-13.9	0.56	-0.25	-21.0	0.46	-0.15	-0.27	0.02
0-102-F	51	50	49	-9.8	13.1	15.2	18.4	-14.1	0.47	-0.29	23.9	0.34	-0.16	0.28	0.02
0-102-G	54	53	52	-16.3	10.6	14.4	18.2	-20.1	0.40	-0.49	71.6	-0.39	0.31	0.27	0.02
0-102-H	57	56	55	-23.2	2.5	13.5	14.9	-24.7	0.25	-0.67	79.1	-0.63	0.22	0.17	0.04
0-102-I	60	59**	58	-22.2	0.0	11.8	12.6	-22.9	0.19	-0.63	81.5	-0.61	0.17	0.12	0.03
0-102-J	63	62	61	-21.3	-8.1	5.3	9.4	-21.4	0.10	-0.61	-86.0	-0.61	0.10	-0.05	0.04
0-102-K	66	65	64	-23.1	-10.0	8.1	9.3	-23.3	0.04	-0.68	-85.5	-0.68	0.04	-0.05	0.03
0-102-L	361*	362	363	0.7	-3.5	-22.8	2.9	-25.1	-0.15	-0.80	16.4	-0.20	-0.75	0.17	0.05
0-102-M	364	365	366	-1.7	-8.8	-28.6	-0.3	-30.0	-0.31	-0.99	12.5	-0.34	-0.96	0.14	0.04
0-102-N	367	368	369	1.3	-19.1	-35.9	1.4	-36.0	-0.31	-1.17	-2.8	-0.31	-1.17	-0.04	0.03
0-102-O	370	371	372	1.3	-22.1	-35.8	1.9	-35.4	-0.30	-1.19	-7.4	-0.31	-1.17	-0.11	0.03
0-102-P	373	374	375	1.2	-27.2	-32.6	4.7	-36.1	-0.20	-1.14	-17.0	-0.28	-1.06	-0.26	0.02
0-102-Q	376	377	378	-0.7	-27.2	-25.8	5.5	-32.0	-0.13	-1.00	-69.1	-0.89	-0.24	-0.29	0.03
0-102-R	379	380	381	-4.3	-27.9	-19.5	5.7	-29.6	-0.10	-0.92	57.8	-0.69	-0.34	0.37	0.03
0-102-S	382	383	384	-7.5	-19.8	-8.1	4.2	-19.8	-0.06	-0.61	45.7	-0.34	-0.33	0.28	0.03
0-102-T	385	386	387	-7.9	-16.8	-5.8	3.1	-16.8	-0.06	-0.52	41.9	-0.27	-0.32	0.23	0.03
0-102-U	388	389	390	-6.1	-10.8	-10.2	-4.8	-11.5	-0.27	-0.43	64.0	-0.40	-0.30	0.06	0.04
0-102-V	391	392	393	-4.5	-5.4	-8.5	-4.2	-9.8	-0.23	-0.33	-75.8	-0.32	-0.23	-0.02	0.03
0-103-A	69	68	67	-3.7	-2.1	-3.4	-2.1	-5.0	-0.12	-0.13	-42.0	-0.15	-0.15	-0.03	0.03
0-103-B	72	71	70	-5.2	-1.1	-6.1	-1.0	-13.2	-0.13	-0.35	-47.7	-0.25	-0.23	-0.11	0.04
0-103-C	75	74	73	-9.8	0.5	-8.2	0.5	-19.6	-0.17	-0.51	-42.6	-0.37	-0.41	-0.22	0.04
0-103-D	78	77	76	-18.4	3.7	-6.0	4.9	-29.2	-0.13	-0.92	-34.4	-0.38	-0.66	-0.37	0.03
0-103-E	81*	80	79	-27.2	6.6	-4.9	9.2	-41.2	-0.10	-1.27	-31.9	-0.43	-0.94	-0.52	0.08
0-103-F	84	83	82	-32.6	1.3	4.1	9.8	-38.4	-0.06	-1.17	24.8	-0.25	-0.97	0.42	0.05

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	T4J	CONF
0-123-G	87	86	85	-40.3	-12.6	10.6	10.7	-40.4	-0.05	-1.23	87.5	-1.22	-0.05	0.05	0.04
0-123-H	90	89	88	-39.8	-15.5	9.9	9.9	-39.8	-0.07	-1.22	-89.4	-1.22	-0.07	-0.01	0.02
0-123-J	93	92	91	-35.8	-21.3	6.2	7.1	-36.8	-0.13	-1.14	-81.4	-1.12	-0.15	-0.15	0.03
0-123-K	96	95	94	-31.2	-20.9	5.2	6.8	-32.8	-0.10	-1.01	-78.3	-0.98	-0.14	-0.18	0.02
0-123-L	99	98	97	-36.1	-23.2	2.2	3.2	-37.1	-0.26	-1.19	-80.9	-1.17	-0.28	-0.15	0.03
I-123-A	394	395	396	1.8	8.4	0.5	8.5	-6.2	0.22	-0.12	42.4	0.06	0.03	0.17	0.02
I-123-B	397	398	399	0.9	6.4	2.5	6.5	-7.1	0.18	-0.04	49.8	0.05	0.09	0.11	0.02
I-123-C	400	401	402	4.9	1.0	2.4	6.6	0.7	0.22	0.03	-32.7	0.18	0.13	-0.35	0.04
I-123-D	403	404	405	2.1	-5.3	-4.6	4.0	-5.5	0.07	-0.17	-25.2	0.02	-0.13	-0.09	0.04
I-123-E	406	407	408	-4.5	-13.9	-12.2	-1.7	-15.1	-0.20	-0.51	-27.5	-0.27	-0.45	-0.13	0.03
I-123-F	409	410	411	-2.7	-19.9	-9.0	8.5	-20.2	0.08	-0.58	-83.6	-0.57	0.07	-0.37	0.03
I-123-G	412	413	414	-5.4	-17.1	-3.4	8.4	-17.2	0.11	-0.43	42.7	-0.16	-0.21	0.29	0.03
I-123-H	415	416	417	-1.7	-11.2	-3.0	6.5	-11.2	0.10	-0.31	47.1	-0.12	-0.09	0.20	0.03
I-123-J	421	422	423	1.9	-9.5	-9.2	4.4	-11.7	0.03	-0.34	66.7	-0.29	-0.03	0.14	0.03
I-123-K	418	419	420	2.9	-9.9	-4.3	9.1	-10.6	0.20	-0.26	55.7	-0.11	0.05	0.21	0.02
I-123-L	424	425	426	3.2	-5.6	-10.7	3.5	-11.0	0.01	-0.33	82.7	-0.32	0.00	0.34	0.03
0-124-A	102	101	100	-16.7	-12.3	-10.2	10.0	-16.9	-0.50	-0.55	-9.3	-0.50	-0.65	-0.03	0.04
0-124-B	105	104	103	-18.3	-13.7	-13.2	-12.4	-19.0	-0.60	-0.75	-19.5	-0.62	-0.73	-0.05	0.03
0-124-C	108	107	106	-21.5	-12.3	-15.5	-11.6	-25.4	-0.53	-0.95	-32.0	-0.72	-0.86	-0.14	0.04
0-124-D	111	110	109	-23.3	-6.1	-15.4	-5.5	-33.1	-0.51	-1.15	-36.6	-0.74	-0.92	-0.30	0.04
0-124-E	114	113	112	-36.9	-12.1	-5.1	-2.8	-39.2	-0.48	-1.32	30.4	-0.70	-1.11	0.37	0.05
0-124-F	117	116	115	-35.5	-29.0	-5.7	-3.5	-37.7	-0.49	-1.23	-75.3	-1.23	-0.54	-0.19	0.04
0-124-G	120	119	118	-35.6	-32.0	-6.8	-3.3	-39.2	-0.50	-1.32	-71.6	-1.24	-0.58	-0.25	0.02
0-124-H	123	122	121	-31.8	-31.1	-8.5	-4.1	-36.1	-0.49	-1.23	-68.3	-1.13	-0.59	-0.25	0.03
0-124-J	126	125	124	-32.5	-30.9	-7.3	-3.2	-36.6	-0.47	-1.24	-69.4	-1.14	-0.56	-0.25	0.05
I-124-A	427	428	429	6.2	14.6	21.4	21.4	6.2	0.77	0.42	87.1	0.42	0.77	0.02	0.04
I-124-B	430	431	432	10.9	16.0	22.9	22.9	10.9	0.86	0.57	-85.6	0.59	0.86	-0.02	0.04
I-124-C	433	434	435	10.0	18.5	29.5	29.6	9.9	1.07	0.62	-86.4	0.62	1.07	-0.33	0.07
I-124-D	436	437	438	5.0	18.6	25.9	26.4	4.5	0.91	0.41	81.6	0.42	0.90	0.07	0.03
I-124-E	439	440	441	13.6	16.2	13.0	16.2	10.4	0.64	0.50	-3.3	0.64	0.50	-0.01	0.04
I-124-F	442	443	444	14.8	11.0	7.2	14.8	7.2	0.56	0.38	89.8	0.38	0.56	0.00	0.03
I-124-G	445	446	447	11.3	0.3	7.8	19.0	0.1	0.63	0.19	50.3	0.37	0.45	0.21	0.02
I-124-H	448	449	450	4.2	-5.8	5.9	16.0	-5.8	0.47	-0.03	42.7	0.24	0.20	0.25	0.04
I-124-J	451	452	453	-0.5	-5.3	-2.6	2.4	-5.5	0.02	-0.15	53.1	-0.09	-0.04	0.09	0.02
0-125-A	129	128	127	-21.2	-16.7	-11.7	-11.7	-21.2	-0.50	-0.81	1.8	-0.60	-0.81	0.01	0.06
0-125-B	132	131	130	-20.9	-19.0	-13.3	-13.2	-21.0	-0.54	-0.82	6.4	-0.65	-0.82	0.02	0.04
0-125-C	135	134	133	-18.6	-20.9	-19.7	-17.3	-21.0	-0.78	-0.85	54.4	-0.83	-0.81	0.04	0.03
0-125-D	138	137	136	-18.1	-19.7	-19.9	-17.9	-20.1	-0.79	-0.84	70.3	-0.83	-0.79	0.02	0.04
0-125-E	141	140	139	-19.3	-19.1	-18.7	-18.7	-19.3	-0.81	-0.82	54.1	-0.82	-0.81	0.01	0.03
0-125-F	144	143	142	-24.9	-20.8	-17.4	-17.4	-24.9	-0.82	-0.99	86.8	-0.99	-0.92	0.01	0.03
0-125-G	147	146	145	-32.2	-24.0	-15.0	-15.0	-32.2	-0.81	-1.21	-88.5	-1.21	-0.81	-0.01	0.02
0-125-H	150	149	148	-25.9	-19.5	-14.5	-14.5	-26.0	-0.73	-1.00	86.4	-1.00	-0.73	0.02	0.03
0-125-J	153	152	151	-28.2	-21.0	-12.2	-12.2	-28.3	-0.68	-1.05	-87.0	-1.05	-0.68	-0.02	0.03
I-125-A	454	455	456	12.2	20.0	28.5	28.5	12.2	1.06	0.68	-88.8	0.68	1.06	-0.01	0.05
I-125-B	457	458	459	12.2	22.5	30.8	30.8	12.2	1.14	0.71	86.9	0.71	1.14	0.02	0.04
I-125-C	460	461	462	8.4	22.7	39.7	39.8	8.3	1.39	0.67	-87.5	0.67	1.39	-0.03	0.10
I-125-D	463	464	465	6.6	24.0	40.8	40.8	6.5	1.41	0.62	89.5	0.62	1.41	0.01	0.05
I-125-E	466	467	468	21.1	28.9	17.5	29.1	9.5	1.05	0.60	-5.3	1.05	0.60	-0.04	0.08
I-125-F	469	470	471	22.7	15.3	6.0	22.8	5.9	0.81	0.42	-86.8	0.42	0.81	-0.02	0.04
I-125-G	472	473	474	7.6	13.5	13.4	13.4	7.6	0.52	0.33	-0.4	0.52	0.38	-0.00	0.03
I-125-H	475	476	477	-1.3	4.6	11.4	11.4	-1.3	0.36	0.07	2.1	0.36	0.07	0.01	0.03
I-125-J	478	479	480	-5.2	-0.8	4.0	4.0	-5.2	0.08	-0.13	1.3	0.08	-0.13	0.00	0.02
0-221-A	168	167	166	21.2	18.9	17.1	21.2	17.1	0.87	0.77	86.5	0.77	0.87	0.01	0.04
0-221-B	171	170	169	20.2	19.5	18.5	20.2	18.5	0.85	0.81	-83.7	0.81	0.85	-0.00	0.04
0-221-C	174	173	172	13.4	20.6	26.3	26.4	13.3	1.00	0.70	-3.1	1.00	0.70	-0.02	0.03
0-221-D	177	176	175	4.6	13.4	24.6	24.7	4.5	0.86	0.39	3.4	0.86	0.39	0.03	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAJ	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	S MAX	S MIN	PHI	SIG(L)	SIG(T)		
0-201-E	180	179	178	2.0	6.3	12.7	12.8	1.9	0.44	0.13	5.5	0.4	0.19	0.02	0.03
0-201-F	183	182	181	5.0	2.9	7.8	10.2	2.7	0.36	0.13	79.2	0.19	0.36	0.03	0.03
0-201-G	186	185	184	4.0	6.1	8.4	8.4	4.0	0.32	0.21	-88.5	0.21	0.32	-0.00	0.04
0-201-H	189	188	187	-0.3	8.1	7.4	9.5	-2.4	0.29	0.01	65.2	0.06	0.24	0.10	0.03
0-201-J	192	191	190	-4.0	6.0	7.8	9.1	-5.3	0.25	-0.09	72.5	-0.05	0.22	0.10	0.03
0-201-K	195	194	193	-4.9	1.5	8.8	8.8	-4.9	0.24	-0.07	-88.0	-0.07	0.24	-0.01	0.02
0-201-L	198	197	196	-5.0	-1.2	7.9	8.5	-5.5	0.22	-0.10	-78.6	-0.09	0.21	-0.06	0.03
1-201-A	493	494**	495**	-2.1	0.0	0.0	0.4	-2.5	-0.11	-0.08	67.5	-0.07	-0.02	0.02	0.05
1-201-B	496**	497**	498**	0.0	0.0	-28.1	5.8	-34.0	-0.14	-1.05	22.5	-0.28	-0.93	0.32	0.02
1-201-C	499	500	501	1.8	-25.6	-54.3	1.8	-54.3	-0.48	-1.77	0.7	-0.48	-1.77	0.02	0.05
1-201-D	502	503	504	4.6	-25.8	-50.2	4.8	-50.4	-0.34	-1.61	-3.1	-0.35	-1.61	-0.07	0.04
1-201-E	505**	506**	507	0.0	0.0	-29.6	6.1	-35.8	-0.15	-1.12	22.5	-0.29	-0.98	0.34	0.05
1-201-F	508	509	510	5.4	-7.9	-15.2	5.8	-15.7	0.04	-0.45	-53.1	-0.28	-0.14	-0.24	0.04
1-201-G	511	512	513	1.7	-13.7	-13.9	4.9	-17.0	-0.11	-0.51	67.8	-0.44	-0.08	0.18	0.03
1-201-H	514	515	516	-3.0	-20.5	-8.0	9.7	-20.7	0.12	-0.59	49.8	-0.29	-0.18	0.35	0.01
1-201-J	517	518	519	-8.9	-18.0	-4.4	4.9	-18.3	-0.12	-0.55	39.4	-0.23	-0.34	0.26	0.02
1-201-K	520	521	522	-10.9	-15.1	-4.7	0.2	-15.7	-0.15	-0.52	33.6	-0.26	-0.40	0.17	0.04
1-201-L	523	524	525	-6.3	-13.3	-5.0	2.1	-13.4	-0.06	-0.42	42.5	-0.23	-0.26	0.18	0.03
0-202-A	201	200	199	15.1	14.0	8.2	15.8	7.5	0.50	0.47	-72.6	0.42	0.58	-0.05	0.02
0-202-B	204	203	202	16.4	17.1	11.1	18.0	9.5	0.65	0.49	-64.2	0.53	0.65	-0.38	0.05
0-202-C	207	206	205	10.9	20.1	14.6	20.3	5.1	0.72	0.37	-37.9	0.59	0.50	-0.17	0.05
0-202-D	210	209	208	0.6	18.5	19.2	22.6	-2.8	0.72	0.13	-21.5	0.64	0.21	-0.20	0.02
0-202-E	213	212	211	-8.7	14.8	17.7	22.5	-11.5	0.63	-0.15	-16.5	0.56	-0.19	-0.21	0.02
0-202-F	216	215	214	-8.9	11.7	18.0	19.7	-10.6	0.55	-0.15	31.0	0.36	0.03	0.31	0.05
0-202-G	219	218	217	-15.2	17.8	16.9	18.4	-16.7	0.44	-0.37	78.2	-0.33	0.41	0.15	0.03
0-202-H	222	221	220*	-22.7	2.3	9.2	11.6	-25.1	0.13	-0.71	75.3	-0.66	0.08	0.21	0.06
0-202-J	225	224	223	-24.5	-3.1	14.3	14.4	-24.6	0.23	-0.67	87.1	-0.66	0.23	0.05	0.03
0-202-K	228	227	226	-22.9	-8.6	13.0	13.4	-23.2	0.21	-0.63	-84.2	-0.62	0.20	-0.09	0.01
0-202-L	231	230	229	-28.7	-16.7	8.1	9.1	-29.8	0.01	-0.89	-80.5	-0.87	-0.02	-0.15	0.02
1-202-A	526	527	528	-1.5	7.6	-26.0	-0.1	-27.5	-0.27	-0.91	13.4	-0.31	-0.87	0.14	0.03
1-202-B	529	530	531	0.0	-12.6	-33.2	0.5	-33.7	-0.32	-1.11	6.8	-0.33	-1.09	0.09	0.02
1-202-C	532	533	534	1.2	-19.1	-40.8	1.2	-40.8	-0.36	-1.33	1.0	-0.36	-1.33	0.02	0.02
1-202-D	535	536	537	1.3	-27.6	-42.1	2.5	-43.3	-0.35	-1.43	-9.2	-0.37	-1.37	-0.17	0.03
1-202-F	538	539	540	-0.4	-33.9	-35.2	5.9	-41.5	-0.22	-1.31	-21.4	-0.36	-1.16	-0.37	0.02
1-202-G	541	542	543	-2.1	-33.6	-29.1	6.9	-38.1	-0.15	-1.19	-71.6	-1.08	-0.25	-0.31	0.04
1-202-H	544	545	546	-7.3	-32.5	-21.3	5.2	-33.8	-0.16	-1.05	55.5	-0.77	-0.45	0.42	0.03
1-202-M	547	548	549	-11.8	-29.2	-9.3	8.2	-29.3	-0.12	-0.85	43.1	-0.42	-0.49	0.43	0.04
1-202-J	550	551	552	-8.9	-22.1	-9.2	4.0	-22.1	-0.09	-0.69	45.4	-0.39	-0.38	0.30	0.03
1-202-K	553	554	555	-6.9	-17.2	-13.6	-2.5	-18.0	-0.26	-0.62	57.8	-0.52	-0.36	0.16	0.04
1-202-L	556	557	558	-2.6	-8.8	-14.2	-2.6	-14.2	-0.23	-0.49	87.8	-0.49	-0.23	0.01	0.02
0-203-A	234	233	232	-1.9	-1.8	-2.5	-1.7	-2.7	-0.08	-0.11	-67.9	-0.10	-0.09	-0.01	0.03
0-203-B	237	236	235	-4.5	0.4	-3.2	0.5	-8.1	-0.16	-0.25	-4.5	-0.15	-0.18	-0.10	0.02
0-203-C	240	239	238	-7.2	2.5	-5.0	2.6	-16.7	-0.06	-0.45	-41.3	-0.23	-0.29	-0.20	0.02
0-203-D	243	242	241	-16.2	6.5	-4.6	7.5	-28.3	-0.03	-0.85	-35.6	-0.31	-0.58	-0.39	0.03
0-203-E	246	245	244	-26.4	8.8	-0.8	12.2	-39.3	0.01	-1.18	-30.1	-0.29	-0.88	-0.52	0.04
0-203-F	249	248	247	-36.2	0.3	8.5	12.6	-40.4	0.02	-1.21	28.8	-0.27	-0.92	0.52	0.05
0-203-G	252	251	250	-44.7	-11.5	14.7	14.2	-44.2	0.13	-1.32	86.6	-1.31	0.03	0.08	0.03
0-203-H	255	254	253	-43.9	-17.2	14.0	14.1	-44.0	0.03	-1.31	-87.8	-1.31	0.03	-0.05	0.04
0-203-J	258	257	256	-40.7	-24.7	10.5	12.3	-42.5	-0.01	-1.29	-79.7	-1.24	-0.06	-0.22	0.02
0-203-K	261	260	259	-33.6	-22.0	8.5	10.6	-35.8	-0.10	-1.07	-77.9	-1.02	-0.05	-0.22	0.03
0-203-L	264	263	262	-40.4	-30.5	2.6	5.6	-43.3	-0.24	-1.37	-75.8	-1.30	-0.31	-0.27	0.03
1-203-A	559	560	561	-0.3	9.8	7.9	9.8	-9.2	0.23	-0.21	46.9	-0.00	0.03	0.22	0.02
1-203-B	562	563	564	1.3	5.6	-0.5	5.7	-4.9	0.14	-0.11	40.1	0.04	-0.00	0.12	0.02
1-203-C	565	566	567	4.7	0.3	-1.4	5.0	-1.7	0.15	-0.01	-11.7	0.14	0.00	-0.03	0.03
1-203-D	568	569	570	3.8	-7.9	-8.0	6.1	-10.4	0.10	-0.28	-22.1	0.05	-0.23	-0.13	0.03
1-203-E	571	572	573*	2.9	-18.6	-23.9	5.2	-26.1	-0.09	-0.81	-15.7	-0.14	-0.76	-0.19	0.09

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(I)	SIG(T)	TAJ	CONF
I-2P3-F	574	575	576	-1.4	-23.9	-17.0	7.4	-25.9	-0.01	-0.78	-76.0	-0.73	-0.76	-0.18	0.02
I-2P3-G	577	578	579	-6.1	-23.7	-7.4	10.2	-23.7	0.10	-0.68	46.0	-0.30	-0.28	0.39	0.02
I-2P3-H	580	581	582	-5.8	-18.1	-5.0	8.4	-19.2	0.10	-0.52	43.1	-0.19	-0.23	0.31	0.02
I-2P3-J	583	584	585	5.3	-17.9	-17.2	14.9	-19.8	0.30	-0.50	58.3	-0.28	0.07	0.36	0.02
I-2P3-K	586	587	588	1.7	-13.7	-12.1	5.8	-16.1	0.03	-0.47	64.4	-0.38	-0.06	0.20	0.02
I-2P3-L	589	590	591	0.9	-12.5	-14.7	2.7	-16.5	-0.78	-0.52	72.3	-0.48	-0.12	0.13	0.02
I-2P4-A	267	266	265	-16.5	-13.0	-9.7	-9.7	-16.5	-0.48	-0.64	-1.0	-0.48	-0.54	-0.00	0.04
I-2P4-B	270	269	268	-18.9	-14.6	-11.9	-11.8	-19.0	-0.58	-0.74	-6.4	-0.58	-0.74	-0.02	0.04
I-2P4-C	273	272	271	-22.8	-10.3	-16.4	-9.8	-29.5	-0.51	-1.07	-35.4	-0.77	-0.92	-0.21	0.02
I-2P4-D	276	275	274	-26.0	-6.8	-13.7	-5.4	-34.3	-0.52	-1.18	-32.4	-0.71	-0.99	-0.30	0.02
I-2P4-E	279	278*	277	-41.2	-22.6	-4.1	-4.1	-41.2	-7.54	-1.40	45.0	-0.97	-0.97	0.43	0.08
I-2P4-F	282	281	280	-42.8	-33.0	-3.7	-1.5	-45.1	-0.49	-1.50	-76.8	-1.45	-0.55	-0.22	0.03
I-2P4-G	285	284	283	-40.0	-38.2	-7.3	-1.8	-45.7	-0.51	-1.52	-69.4	-1.40	-0.64	-0.33	0.02
I-2P4-H	288	287	286	-35.1	-35.9	-10.5	-4.9	-49.7	-0.56	-1.39	-66.6	-1.26	-0.69	-0.30	0.03
I-2P4-J	291	290	289	-36.7	-37.6	-8.5	-2.0	-43.2	-0.49	-1.45	-66.6	-1.30	-0.64	-0.35	0.02
I-2P4-K	592	593	594	8.2	19.8	23.2	24.3	7.1	0.97	0.43	75.6	0.50	0.85	0.10	0.03
I-2P4-L	595	596	597	11.7	20.4	27.5	27.6	11.6	1.02	0.65	87.0	0.66	1.02	0.02	0.05
I-2P4-M	598	599	600	10.0	19.5	31.0	31.1	9.9	1.12	0.63	-87.3	0.64	1.12	-0.02	0.03
I-2P4-N	601	602	603	7.7	20.6	25.1	26.0	6.8	0.93	0.43	77.1	0.50	0.90	0.10	0.03
I-2P4-O	604	605	606	15.4	13.3	10.7	15.5	10.7	0.61	0.50	-42.4	0.56	0.55	-0.05	0.04
I-2P4-P	607	608	609	15.5	5.5	5.2	17.4	3.3	0.51	0.28	68.4	0.32	0.56	0.11	0.02
I-2P4-Q	610	611	612	11.6	-3.8	2.8	19.0	-4.6	0.58	0.04	55.9	0.21	0.41	0.25	0.02
I-2P4-R	615	614	613	4.9	14.1	5.3	14.1	-3.9	0.43	0.01	45.6	0.21	0.22	0.21	0.04
I-2P4-S	616	617	618	-0.0	-9.2	-7.4	2.9	-10.3	-0.01	-0.31	62.0	-0.24	-0.07	0.13	0.03
I-2P5-A	292	293	294	-21.9	-15.6	-12.6	-12.3	-22.2	-7.63	-0.85	89.4	-0.85	-0.63	0.04	0.04
I-2P5-B	295	296	297	-21.8	-18.1	-15.0	-15.0	-21.8	-0.71	-0.87	86.9	-0.87	-0.71	0.01	0.02
I-2P5-C	298	299	300	-20.9	-20.7	-19.9	-19.9	-21.0	-0.86	-0.89	-77.8	-0.89	-0.86	-0.01	0.04
I-2P5-D	301	302	303	-18.6	-20.0	-20.9	-18.6	-20.9	-0.82	-0.87	-4.9	-0.82	-0.87	-0.00	0.03
I-2P5-E	306	305	304	-21.6	-18.0	-21.3	-18.0	-25.0	-0.84	-1.00	1.4	-0.84	-1.00	0.00	0.04
I-2P5-F	309	308	307	-28.6	-23.3	-17.3	-17.3	-23.6	-0.85	-1.11	-88.2	-1.11	-0.85	-0.01	0.04
I-2P5-G	312	311	310	-36.6	-30.2	-15.3	-14.5	-37.4	-0.85	-1.38	-79.1	-1.36	-0.87	-0.10	0.04
I-2P5-H	315	314	313	-32.5	-25.9	-14.3	-14.0	-32.8	-0.79	-1.22	-82.2	-1.21	-0.79	-0.05	0.04
I-2P5-J	318	317	316	-32.3	-25.9	-12.5	-12.0	-32.9	-0.72	-1.20	-80.4	-1.19	-0.73	-0.08	0.02
I-2P5-A	621	620	619	31.2	23.0	16.1	31.2	16.1	1.19	0.84	87.6	0.84	1.19	0.01	0.03
I-2P5-B	622	623	624	15.9	26.6	32.8	33.1	15.5	1.24	0.84	82.3	0.85	1.24	0.05	0.04
I-2P5-C	625	626	627	11.1	27.1	41.6	41.6	11.1	1.48	0.78	88.6	0.78	1.48	0.02	0.03
I-2P5-D	628	629	630	4.0	27.4	61.1	65.0	4.1	2.18	0.78	-83.3	0.80	2.16	-0.16	0.35
I-2P5-E	631	632	633	26.4	41.6	23.6	41.6	8.4	1.46	0.69	-2.4	1.45	0.69	-0.03	0.04
I-2P5-F	634	635	636	32.6	15.4	4.8	33.0	4.4	1.13	0.47	83.4	0.48	1.12	0.08	0.03
I-2P5-G	637	638	639	10.5	13.1	15.5	15.5	10.5	0.51	0.50	-1.3	0.61	0.50	-0.00	0.03
I-2P5-H	640	641	642	-0.0	5.4	9.3	9.4	-0.1	0.31	0.09	-4.9	0.31	0.09	-0.02	0.04
I-2P5-J	643	644	645	-4.9	-1.4	3.5	3.5	-4.9	0.37	-0.13	4.4	0.07	-0.13	0.02	0.03
I-2P5-A	156	155	154	11.1	8.9	-2.4	12.5	-3.8	0.37	-0.00	-72.9	0.03	0.34	-0.11	0.06
I-2P5-B	159*	158	157*	11.6	8.0	-16.3	15.0	-19.8	0.30	-0.50	-71.7	-0.42	0.22	-0.24	0.08
I-2P5-C	162	161	160*	22.5	4.4	-13.8	22.5	-13.8	0.61	-0.23	-89.9	-0.23	0.61	-0.00	0.03
I-2P5-D	165	164	163	24.6	1.4	-14.0	24.9	-14.4	0.68	-0.23	84.3	-0.22	0.67	0.09	0.06
I-2P5-A	481	482	483	5.3	5.8	4.5	5.9	3.9	0.23	0.19	33.8	0.22	0.20	0.02	0.05
I-2P5-B	484	485	486	4.9	9.6	13.9	13.9	4.9	0.51	0.30	88.7	0.30	0.51	0.00	0.05
I-2P5-C	487	488	489	2.6	12.3	20.6	20.7	2.5	0.71	0.29	87.7	0.29	0.71	0.02	0.04
I-2P5-D	490	491	492	3.6	11.4	22.3	22.4	3.5	0.77	0.34	-85.2	0.34	0.77	-0.04	0.05
I-2P5-A	321	320	319	9.9	0.7	-3.0	17.5	-3.5	0.31	-0.01	78.3	0.00	0.30	0.06	0.03
I-2P5-B	324*	323*	322	13.6	-25.1	-9.5	31.5	-27.5	0.77	-0.59	56.5	-0.18	0.35	0.63	0.19
I-2P5-C	327	326	325*	22.0	0.7	-20.4	22.0	-20.4	0.52	-0.45	89.9	-0.45	0.52	0.00	0.49
I-2P6-A	646**	647**	648**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2P6-B	649**	650**	651**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2P6-C	652**	653	654	0.0	11.8	19.5	19.7	-0.2	0.65	0.19	84.1	0.19	0.64	0.55	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICRORINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAJ	CONF
I-127- A	655**	656**	657**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-127- B	658**	659**	660**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-227- A	661**	662**	663**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EX- C- A	670*	671	672	17.1	-3.8	-3.6	19.6	-5.1	0.59	-0.91	71.9	0.05	0.53	0.17	0.06
EX- C- B	675	674	673	-2.4	0.8	2.8	2.9	-2.4	0.07	-0.05	-6.6	0.07	-0.05	-0.01	0.02
EX- C- C	678	677	676	-2.6	0.1	3.9	3.9	-2.7	0.10	-0.35	4.3	0.10	-0.05	0.01	0.02
EX- C- D	669	668	667	-2.0	0.8	4.9	4.9	-2.1	0.14	-0.02	5.0	0.14	-0.02	0.01	0.03
EX- B- A	687	686	685	-4.0	0.6	-0.1	1.3	-5.4	-0.31	-0.17	62.6	-0.13	-0.34	0.06	0.03
EX- B- B	690	689	688	29.5	12.3	-7.1	29.6	-7.1	0.90	0.35	1.7	0.90	0.06	0.03	0.04
EX- B- C	681	680	679	-2.6	-5.3	0.8	3.9	-5.7	0.07	-0.15	-55.7	-0.08	0.00	-0.10	0.04
EX- B- D	684	683	682	-23.0	-9.3	9.5	9.7	-23.2	0.09	-0.67	-85.5	-0.66	0.09	-0.06	0.05
EX- A- A	696	695	694	1.2	-4.7	-0.1	5.9	-4.8	0.15	-0.13	-41.5	0.04	0.01	-0.12	0.03
EX- A- B	693	692	691	-36.8	-13.1	12.5	12.5	-36.8	0.35	-1.09	-88.9	-1.09	0.35	-0.32	0.03
EX- A- C	666	665	664	-2.0	-4.5	0.4	3.0	-4.7	0.05	-0.12	-54.0	-0.06	-0.01	-0.08	0.01
EX- A- D	699	698	697	41.4	14.8	-10.7	41.4	-10.7	1.26	0.06	-0.5	1.26	0.36	-0.31	0.04

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

COMBUSTION T-11, LOAD CASE 12, F22

NOMINAL LOAD = 4.557E 03

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI				T&J	CONF	
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)			SIG(T)
Q-121-A	3	2	1	5.9	1.3	-0.2	6.3	-0.6	0.20	0.04	76.4	0.05	0.19	0.04	0.03
Q-121-B	6	5	4	7.2	4.0	4.7	8.3	3.6	0.31	0.20	60.9	0.23	0.28	0.05	0.04
Q-121-C	9	8	7	3.1	2.8	6.4	7.3	2.2	0.26	0.14	24.7	0.24	0.16	0.04	0.03
Q-121-D	12	11	10	-5.5	-1.5	11.4	12.5	-5.6	0.35	-0.09	13.8	0.32	-0.07	0.10	0.03
Q-121-E	15	14	13	-12.1	-6.3	9.7	10.8	-13.3	0.23	-0.33	12.5	0.20	-0.30	0.12	0.03
Q-121-F	18	17	16	7.1	-1.1	0.1	17.4	-1.2	0.56	0.13	86.8	0.13	0.56	0.32	0.02
Q-121-G	21	20	19	-18.3	-5.0	9.3	9.0	-13.4	0.12	-0.51	-88.9	-0.51	0.12	-0.01	0.03
Q-121-H	24	23	22	-23.7	-7.2	7.9	7.9	-23.7	0.03	-0.70	88.7	-0.70	0.03	0.02	0.04
Q-121-I	27	26	25	-27.3	-9.5	8.3	8.3	-27.3	0.01	-0.82	-89.9	-0.82	0.01	-0.00	0.03
Q-121-J	30	29	28	-25.4	-10.6	7.9	8.0	-25.5	0.01	-0.75	-86.9	-0.76	0.01	-0.04	0.03
Q-121-K	33	32	31	-34.5	-12.9	9.1	9.1	-34.5	-0.04	-1.05	-89.8	-1.05	-0.04	-0.00	0.03
I-121-A	328	329	330	-1.4	-7.5	-9.2	-0.9	-9.8	-0.13	-0.33	-14.4	-0.14	-0.32	-0.05	0.03
I-121-B	331	332	333	-1.9	-10.5	-16.3	-1.8	-16.4	-0.22	-0.55	-5.4	-0.23	-0.56	-0.03	0.03
I-121-C	334	335	336	0.7	-13.5	-27.6	0.7	-27.6	-0.25	-0.90	-0.1	-0.25	-0.90	-0.00	0.03
I-121-D	337	338	339	4.9	-15.5	-33.9	4.9	-33.9	-0.17	-1.07	-1.5	-0.17	-1.07	-0.02	0.03
I-121-E	340	341	342	8.8	-11.1	-29.4	8.8	-29.5	0.70	-0.89	-1.3	-0.00	-0.89	-0.02	0.03
I-121-F	343*	344	345	27.9	-9.0	-27.5	29.1	-28.7	0.68	-0.65	-53.3	-0.18	0.20	-0.54	0.03
I-121-G	346	347	348	9.6	-8.8	-24.9	9.6	-24.9	0.07	-0.73	88.0	-0.73	0.07	0.03	0.02
I-121-H	349	350	351	5.9	-10.3	-17.2	6.8	-18.1	0.05	-0.53	78.9	-0.51	0.03	0.11	0.03
I-121-I	352	353	354	5.1	-9.6	-11.8	7.2	-13.9	0.10	-0.39	71.7	-0.34	0.05	0.15	0.02
I-121-J	355	356	357	4.3	-11.2	-23.3	4.4	-23.4	-0.09	-0.73	86.6	-0.73	-0.09	0.04	0.05
I-121-K	358	359	360	3.7	-11.3	-23.0	3.8	-23.1	-0.10	-0.72	86.6	-0.72	-0.11	0.04	0.02
Q-122-A	36	35	34	0.8	-1.1	0.6	2.5	-1.1	0.07	-0.01	47.0	0.03	0.03	0.04	0.04
Q-122-B	39	38	37	3.1	0.9	1.1	3.7	0.6	0.13	0.05	64.6	0.07	0.11	0.03	0.04
Q-122-C	42	41	40	1.1	3.0	6.0	6.0	1.1	0.21	0.09	6.8	0.21	0.10	0.01	0.03
Q-122-D	45	44	43	-4.2	1.0	7.6	7.7	-4.2	0.21	-0.05	3.6	0.21	-0.06	0.02	0.04
Q-122-E	48	47	46	-13.5	0.1	8.1	8.5	-14.0	0.14	-0.38	-7.4	0.13	-0.37	-0.07	0.02
Q-122-F	51	50	49	-17.3	-1.9	9.9	10.0	-17.4	0.16	-0.45	41.2	-0.12	-0.20	0.31	0.02
Q-122-G	54	53	52	-21.2	-4.6	9.0	9.1	-21.2	0.09	-0.61	87.3	-0.61	0.09	0.03	0.03
Q-122-H	57	56	55	-27.2	-11.1	5.6	6.6	-27.2	-0.05	-0.83	-88.7	-0.83	-0.05	-0.02	0.04
Q-122-I	60	59	58	-25.8	-7.3	6.7	6.9	-26.0	-0.03	-0.79	86.0	-0.79	-0.03	0.05	0.03
Q-122-J	63	62	61	-24.9	-12.1	4.8	5.0	-25.1	-0.08	-0.78	-86.0	-0.77	-0.09	-0.05	0.04
Q-122-K	66	65	64	-31.8	-15.8	6.5	6.7	-32.1	-0.10	-0.99	-85.4	-0.99	-0.10	-0.07	0.05
I-122-A	361	362	363	-0.8	-2.5	-5.6	-0.7	-5.7	-0.08	-0.20	8.0	-0.08	-0.19	0.02	0.02
I-122-B	364	365	366	-1.6	-2.3	-10.5	-0.2	-11.9	-0.12	-0.39	20.1	-0.16	-0.36	0.09	0.02
I-122-C	367	368	369	-0.0	-4.6	-16.4	0.7	-17.1	-0.15	-0.55	11.8	-0.16	-0.54	0.08	0.03
I-122-D	370	371	372	4.0	-6.4	-23.0	4.1	-23.1	-0.06	-0.62	3.8	-0.07	-0.62	0.04	0.02
I-122-E	373	374	375	5.9	-10.6	-22.2	6.1	-22.4	-0.02	-0.68	-5.0	-0.03	-0.67	-0.06	0.03
I-122-F	376	377	378	7.0	-13.2	-22.6	8.0	-23.5	0.03	-0.70	-55.1	-0.46	-0.21	-0.34	0.02
I-122-G	379	380	381	6.2	-11.1	-17.9	7.3	-19.0	0.05	-0.55	78.2	-0.53	0.03	0.12	0.03
I-122-H	382	383	384	5.3	-7.2	-11.0	6.4	-12.1	0.09	-0.33	76.0	-0.31	0.07	0.10	0.04
I-122-I	385	386	387	5.1	-11.5	-13.5	7.6	-15.0	0.09	-0.45	71.0	-0.39	0.03	0.17	0.03
I-122-J	388	389	390	3.2	-9.0	-19.5	3.2	-19.5	-0.09	-0.61	87.8	-0.61	-0.09	0.02	0.04
I-122-K	391	392	393	3.7	-11.2	-19.3	4.2	-19.8	-0.06	-0.61	81.9	-0.60	-0.07	0.08	0.03
Q-123-A	69	68	67	-2.6	-2.1	2.3	2.9	-3.3	0.06	-0.09	19.1	0.05	-0.06	0.04	0.02
Q-123-B	72	71	70	-3.5	-1.8	1.5	1.7	-3.6	0.02	-0.10	9.4	0.02	-0.10	0.02	0.02
Q-123-C	75	74	73	-6.7	-1.6	1.3	1.5	-6.9	-0.02	-0.21	-7.8	-0.02	-0.21	-0.03	0.03
Q-123-D	78	77	76	-9.3	-1.4	2.0	2.4	-9.7	-0.02	-0.30	-10.9	-0.03	-0.29	-0.05	0.03
Q-123-E	81	80	79	-12.9	0.0	-0.1	2.7	-15.6	-0.07	-0.49	-22.7	-0.13	-0.43	-0.15	0.02
Q-123-F	84	83	82	-19.7	-4.6	2.3	3.0	-20.4	-0.10	-0.64	34.7	-0.28	-0.47	0.25	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH				STRESS - KSI							
	(1)	(2)	(3)	E(1)	E(2)	E(3)	E _{MAX}	E _{MIN}	σ _{MAX}	σ _{MIN}	PHI	SIG(I)	SIG(T)	TAS	CONF
0-103-G	87	86	85	-22.6	-10.3	2.4	2.4	-22.6	-0.14	-0.72	-89.6	-0.72	-0.14	-0.00	0.03
0-103-H	90	89	88	-22.9	-9.5	1.8	1.9	-23.0	-0.17	-0.74	87.6	-0.74	-0.17	0.02	0.03
0-103-J	93	92	91	-22.2	-12.9	1.7	1.9	-22.5	-0.16	-0.72	-83.9	-0.72	-0.16	-0.06	0.03
0-103-K	96	95	94	-20.9	-12.2	1.0	1.2	-21.1	-0.17	-0.68	-84.3	-0.68	-0.17	-0.05	0.03
0-103-L	99	98	97	-27.2	-13.0	2.4	2.4	-27.2	-0.19	-0.87	-88.8	-0.87	-0.19	-0.01	0.03
1-103-A	394	395	396*	-2.6	2.2	1.1	2.8	-4.2	0.05	-0.11	61.1	-0.07	0.01	0.07	0.03
1-103-B	397	398	399	-1.8	4.5	2.3	5.0	-4.4	0.12	-0.10	58.0	-0.03	0.06	0.10	0.02
1-103-C	400	401	402	0.6	5.3	2.8	5.4	-2.0	0.16	-0.01	53.4	0.05	0.10	0.08	0.03
1-103-D	403	404	405	3.5	4.6	1.5	4.8	0.2	0.16	0.05	32.2	0.13	0.08	0.05	0.05
1-103-E	406	407	408	4.7	0.8	-6.0	4.9	-5.2	0.10	-0.15	7.3	0.10	-0.15	0.03	0.02
1-103-F	409	410	411	4.1	-2.8	-7.4	4.2	-7.5	0.06	-0.21	-50.2	-0.10	-0.05	-0.13	0.02
1-103-G	412	413	414	4.1	-4.3	-4.2	5.8	-6.0	0.13	-0.14	57.3	-0.10	0.09	0.10	0.02
1-103-H	415	416	417	4.6	-4.7	-4.2	6.8	-6.4	0.16	-0.14	65.9	-0.09	0.11	0.11	0.03
1-103-J	421	422	423	5.0	-6.1	-12.4	5.3	-12.7	0.05	-0.37	82.2	-0.36	0.04	0.06	0.03
1-103-K	418	419	420	4.7	-4.6	-9.8	5.0	-10.1	0.07	-0.28	82.0	-0.28	0.06	0.05	0.03
1-103-L	424	425	426	4.6	-5.8	-13.2	4.7	-13.3	0.02	-0.39	85.3	-0.39	0.02	0.03	0.03
0-104-A	102	101	100	-4.9	-0.5	3.4	3.4	-4.9	0.06	-0.13	-1.5	0.06	-0.13	-0.00	0.02
0-104-B	105	104	103	-6.4	0.6	2.5	3.2	-7.0	0.04	-0.20	-14.8	0.02	-0.18	-0.05	0.03
0-104-C	108	107	106	-7.6	-2.5	3.9	4.0	-7.7	0.06	-0.22	-6.6	0.05	-0.21	-0.03	0.03
0-104-D	111	110	109	-8.8	-1.3	-1.5	0.2	-10.4	-0.10	-0.34	-23.3	-0.14	-0.30	-0.09	0.03
0-104-E	114	113	112	-11.2	-3.3	-2.5	-1.2	-12.5	-0.16	-0.42	25.7	-0.21	-0.37	0.10	0.05
0-104-F	117	116	115	-11.1	-9.1	-2.3	-1.7	-11.7	-0.17	-0.43	-75.9	-0.39	-0.18	-0.05	0.03
0-104-G	120	119	118	-13.6	-6.9	-3.8	-3.5	-13.9	-0.25	-0.49	79.7	-0.49	-0.26	0.04	0.03
0-104-H	123	122	121	-12.9	-9.9	-1.8	-1.2	-13.5	-0.17	-0.44	-77.4	-0.44	-0.19	-0.06	0.03
0-104-J	126	125	124	-14.7	-9.5	-1.9	-1.8	-14.8	-0.21	-0.51	-84.6	-0.50	-0.21	-0.03	0.03
1-104-A	427	428	429	-0.7	-1.9	5.4	7.6	-2.9	0.22	-0.02	-62.9	0.03	0.17	-0.10	0.04
1-104-B	430	431	432	-0.5	1.0	5.4	5.7	-0.9	0.18	0.03	-77.2	0.04	0.17	-0.03	0.04
1-104-C	433	434	435	-0.3	1.4	9.5	10.4	-1.2	0.33	0.05	-73.4	0.08	0.31	-0.07	0.03
1-104-D	436	437	438	-1.9	2.8	10.9	11.0	-2.1	0.34	0.04	-82.5	0.04	0.34	-0.04	0.02
1-104-E	439	440	441	2.3	7.4	5.4	7.7	-0.1	0.25	0.07	11.9	0.25	0.08	0.04	0.03
1-104-F	442	443	444	3.9	5.9	1.6	6.1	-0.7	0.20	0.04	-54.9	0.09	0.14	-0.07	0.04
1-104-G	445	446	447	1.6	3.3	0.4	3.4	-1.4	0.10	-0.01	-52.4	0.03	0.06	-0.05	0.02
1-104-H	448	449*	450	3.7	3.5	-2.3	4.8	-3.4	0.12	-0.07	-68.2	-0.04	0.10	-0.07	0.03
1-104-J	451	452	453	1.7	-2.2	-7.8	1.8	-7.8	-0.02	-0.24	-84.7	-0.24	-0.02	-0.02	0.04
0-105-A	129	128	127	-0.2	1.7	1.5	2.0	-0.7	0.06	-0.00	-24.8	0.05	0.01	-0.02	0.03
0-105-B	132	131	130	-1.1	2.9	-0.2	2.9	-4.2	0.06	-0.11	-41.2	-0.02	-0.04	-0.08	0.03
0-105-C	135	134	133	0.2	3.2	0.3	3.2	-2.7	0.08	-0.05	-44.3	0.01	0.01	-0.07	0.02
0-105-D	138	137	136	-0.6	1.3	0.0	1.3	-1.9	0.02	-0.05	-38.9	-0.00	-0.02	-0.04	0.02
0-105-E	141	140	139	-1.8	0.5	2.0	2.0	-1.8	0.05	-0.04	39.4	0.01	-0.00	0.04	0.03
0-105-F	144	143	142	-0.2	-0.5	-0.0	0.3	-0.5	0.00	-0.01	-49.6	-0.01	-0.00	-0.01	0.01
0-105-G	147	146	145	-0.5	0.3	0.1	0.4	-0.8	0.01	-0.02	61.1	-0.02	-0.00	0.01	0.02
0-105-H	150	149	148	0.5	0.4	0.0	0.5	-0.0	0.02	0.00	18.3	0.02	0.01	0.00	0.02
0-105-J	153	152	151	-0.5	0.9	-0.6	0.9	-2.1	0.01	-0.05	44.3	-0.02	-0.03	0.04	0.03
1-105-A	454	455	456	0.0	-4.0	-0.7	3.3	-4.0	0.07	-0.10	-42.1	-0.01	-0.02	-0.08	0.02
1-105-B	457	458	459	0.0	-5.3	0.0	5.4	-5.3	0.13	-0.12	-43.0	0.00	0.00	-0.12	0.03
1-105-C	460	461	462	0.1	-4.4	-0.8	3.7	-4.4	0.08	-0.11	-41.9	-0.01	-0.03	-0.09	0.03
1-105-D	463	464	465	-0.7	7.4	1.0	7.5	-7.1	0.18	-0.16	48.2	-0.01	0.03	0.17	0.01
1-105-E	466	467	468	-8.9	-3.5	6.1	6.2	-8.9	0.11	-0.23	41.5	-0.04	-0.08	0.17	0.02
1-105-F	469	470	471	-2.2	5.4	-0.1	5.5	-7.7	0.10	-0.20	-40.5	-0.02	-0.07	-0.15	0.02
1-105-G	472	473	474	-1.2	5.5	-0.2	5.5	-3.9	0.11	-0.17	-42.7	-0.02	-0.04	-0.14	0.01
1-105-H	475	476	477	-0.4	2.9	-0.6	2.9	-3.9	0.06	-0.10	-45.8	-0.02	-0.02	-0.08	0.01
1-105-J	478	479	480	-0.4	0.2	-0.9	0.2	-1.5	-0.01	-0.05	-54.6	-0.03	-0.02	-0.02	0.02
0-201-A	168	167	166	-7.3	-3.7	-0.4	-0.4	-7.3	-0.09	-0.24	-1.1	-0.09	-0.24	-0.00	0.03
0-201-B	171	170	169	-5.4	-5.2	-3.6	-3.4	-5.6	-0.17	-0.22	20.2	-0.17	-0.21	0.02	0.02
0-201-C	174	173	172	-3.3	-9.4	-7.2	-0.6	-9.8	-0.12	-0.33	57.8	-0.27	-0.18	0.10	0.03
0-201-D	177	176	175	3.5	-7.5	-11.0	4.5	-11.9	0.03	-0.35	76.1	-0.33	0.01	0.09	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI				TAJ	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
0-201-F	189	179	178	13.6	-2.0	-11.2	14.0	-11.6	0.35	-0.24	82.7	-0.24	0.34	0.07	0.02
0-201-F	183	182	181	16.0	-0.7	-9.7	16.5	-10.3	0.44	-0.19	-53.4	0.04	0.22	-0.30	0.02
0-201-G	185	195	184	19.4	-1.4	-9.1	19.9	-9.6	0.56	-0.12	-7.4	0.55	-0.11	-0.09	0.03
0-201-H	189	188	187	28.5	5.7	-9.1	28.9	-9.5	0.86	-0.03	-6.0	0.85	-0.02	-0.09	0.04
0-201-J	192	191	190	31.8	8.1	-10.1	32.0	-10.3	0.95	-0.02	-3.7	0.95	-0.02	-0.06	0.03
0-201-K	195	194	193	31.1	10.9	-9.5	31.1	-9.5	0.93	-0.01	0.1	0.93	-0.01	0.00	0.02
0-201-L	198	197	196	39.1	19.1	-10.3	39.6	-10.7	1.20	0.04	5.3	1.19	0.05	0.11	0.03
I-201-A	493	494**	495**	1.2	0.0	0.0	1.5	-0.3	0.05	0.01	-22.5	0.04	0.01	-0.01	0.03
I-201-B	496	497**	498*	0.9	0.0	22.6	27.7	-4.2	0.87	0.13	-66.4	0.25	0.75	-0.27	0.18
I-201-C	499	500	501	-0.6	13.2	27.1	27.1	-0.6	0.99	0.25	-89.8	0.25	0.89	-0.00	0.05
I-201-D	502	503	504	-5.7	16.3	36.4	34.5	-5.8	1.08	0.15	87.2	0.15	1.08	0.05	0.04
I-201-E	505**	506**	507	0.0	0.0	30.8	37.2	-6.4	1.16	0.16	-67.5	0.30	1.01	-0.36	0.05
I-201-F	508	509	510	-10.4	14.2	27.4	28.3	-11.2	0.82	-0.09	36.6	0.50	0.23	0.44	0.03
I-201-G	511	512	513	-7.8	14.3	23.7	24.9	-9.0	0.73	-0.05	-11.0	0.70	-0.02	-0.15	0.04
I-201-H	514	515	516	-4.7	13.5	17.7	19.7	-5.7	0.58	-0.03	-16.0	0.54	0.02	-0.16	0.02
I-201-J	517	518	519	-2.2	10.1	13.0	14.4	-3.6	0.44	0.02	-15.8	0.41	0.06	-0.11	0.02
I-201-K	520	521	522	-6.3	12.8	26.9	27.1	-6.3	0.83	0.05	-4.3	0.83	0.06	-0.06	0.02
I-201-L	523	524	525	-5.3	10.6	32.0	32.2	-5.5	1.01	0.14	4.3	1.00	0.14	0.07	0.02
0-202-A	201	200	199	-1.1	1.4	1.4	1.9	-1.5	0.05	-0.03	-21.9	0.04	-0.02	-0.03	0.02
0-202-B	204	203	202	0.0	1.4	-0.6	1.4	-2.0	0.03	-0.05	-50.7	-0.02	-0.00	-0.04	0.02
0-202-C	207	206	205	2.3	-0.9	-1.1	2.8	-1.6	0.08	-0.03	69.3	-0.01	0.05	0.03	0.03
0-202-D	210	209	208	9.1	-2.6	-2.7	11.4	-5.0	0.33	-0.05	67.8	0.00	0.27	0.13	0.02
0-202-E	213	212	211	21.0	-4.3	-5.0	25.9	-9.9	0.75	-0.07	68.3	0.04	0.64	0.28	0.03
0-202-F	216	215	214	24.7	-1.5	-7.0	27.7	-10.1	0.81	-0.06	-61.6	0.14	0.62	-0.37	0.04
0-202-G	219	218	217	30.3	2.7	-7.1	32.3	-9.1	0.97	0.02	-12.7	0.93	0.06	-0.21	0.04
0-202-H	222	221	220	33.5	9.3	-7.0	33.9	-7.4	1.04	0.09	-5.5	1.04	0.10	-0.09	0.02
0-202-J	225	224	223	32.9	11.1	-5.9	33.1	-5.0	1.03	0.13	-3.5	1.03	0.13	-0.06	0.04
0-202-K	228	227	226	29.9	13.9	-5.8	30.0	-5.9	0.93	0.10	3.0	0.93	0.10	0.04	0.03
0-202-L	231	230	229	41.8	20.1	-6.2	41.9	-5.3	1.32	0.21	2.7	1.32	0.21	0.05	0.03
I-202-A	526	527	528	0.7	-3.0	-0.2	3.6	-3.1	0.09	-0.05	-41.1	0.02	0.00	-0.08	0.02
I-202-B	529	530	531	0.5	-3.4	1.9	5.8	-3.4	0.16	-0.06	-49.2	0.04	0.07	-0.11	0.03
I-202-C	532	533	534	0.1	-1.4	7.3	10.0	-2.6	0.30	0.01	-62.4	0.08	0.24	-0.12	0.03
I-202-D	535	536	537	-3.0	1.8	11.8	12.2	-3.5	0.37	0.01	-80.3	0.02	0.36	-0.06	0.02
I-202-E	538	539	540	-5.5	9.2	16.9	17.4	-5.1	0.51	-0.03	81.2	-0.01	0.50	0.08	0.02
I-202-F	541	542	543	-5.9	11.2	18.7	19.6	-6.8	0.58	-0.03	34.4	0.39	0.17	0.28	0.03
I-202-G	544	545	546	-6.7	9.5	13.5	15.2	-8.5	0.42	-0.13	-15.7	0.38	-0.09	-0.14	0.03
I-202-H	547	548	549	-7.4	4.4	8.1	9.1	-8.4	0.22	-0.19	-13.0	0.19	-0.17	-0.09	0.02
I-202-J	550	551	552	-6.4	7.3	14.4	14.5	-7.0	0.42	-0.08	-9.0	0.41	-0.07	-0.08	0.03
I-202-K	553	554	555	-6.2	9.1	23.7	23.7	-6.2	0.72	0.03	-0.7	0.72	0.03	-0.01	0.03
I-202-L	556	557	558	-8.6	6.1	25.4	25.6	-8.7	0.76	-0.03	3.9	0.75	-0.03	0.05	0.03
0-203-A	234	233	232	7.1	4.1	-0.5	7.2	-0.6	0.23	0.05	-83.9	0.05	0.23	-0.02	0.04
0-203-B	237	236	235	9.4	8.0	0.2	10.4	-0.8	0.33	0.07	-72.6	0.10	0.31	-0.07	0.02
0-203-C	240	239	238	11.6	5.7	1.6	11.7	1.5	0.40	0.17	84.7	0.17	0.40	0.02	0.04
0-203-D	243	242	241	14.9	4.1	3.8	17.0	1.7	0.58	0.22	68.3	0.27	0.53	0.12	0.03
0-203-E	246	245	244	21.0	3.3	5.7	26.0	0.7	0.86	0.28	63.7	0.39	0.75	0.23	0.03
0-203-F	249	248	247	26.0	5.2	2.0	28.3	-0.3	0.93	0.27	-61.5	0.42	0.78	-0.28	0.03
0-203-G	252	251	250	29.5	12.9	-0.2	29.6	-0.3	0.97	0.23	-3.3	0.97	0.29	-0.04	0.03
0-203-H	255	254	253	28.5	13.0	0.9	28.6	0.8	0.95	0.31	-3.5	0.95	0.31	-0.04	0.03
0-203-J	258	257	256	25.2	14.9	1.8	25.3	1.7	0.95	0.31	3.4	0.85	0.31	0.03	0.03
0-203-F	261	260	259	20.6	10.6	1.3	20.6	1.3	0.69	0.25	-0.9	0.69	0.25	-0.01	0.03
0-203-L	264	263	262	28.7	14.6	-0.2	28.7	-0.2	0.95	0.29	0.6	0.95	0.28	0.01	0.03
I-203-A	559	560	561	-0.4	-7.1	-11.2	-0.2	-11.3	-0.12	-0.39	-7.0	-0.12	-0.37	-0.03	0.04
I-203-B	562	563	564	-0.2	-8.5	-13.6	0.0	-13.8	-0.14	-0.46	-6.8	-0.14	-0.45	-0.04	0.03
I-203-C	565	566	567	-4.6	-12.6	-15.3	-4.0	-15.9	-0.29	-0.55	-13.2	-0.30	-0.55	-0.06	0.04
I-203-D	568	569	570	-2.8	-15.4	-15.4	-0.2	-18.0	-0.18	-0.60	-22.5	-0.24	-0.54	-0.15	0.03
I-203-E	571	572	573*	-8.8	-11.7	-10.8	-7.6	-11.9	-0.37	-0.47	-31.3	-0.40	-0.44	-0.04	0.07

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	PAGE NUMBERS (1)	(2)	(3)	STRAIN - MICRINCHES/INCH					STRESS - KSI				TAJ	CONF	
				E(1)	E(2)	F(3)	EMAX	EM	SMAX	SMIN	PHI	SIG(L)			SIG(T)
I-223-F	574	575	576	-9.4	-7.6	-2.7	-2.4	-9.8	-0.17	-0.35	57.1	-0.29	-0.23	0.08	0.03
I-223-G	577	578	579	-11.8	-7.9	-2.3	-2.2	-11.9	-0.19	-0.41	5.3	-0.19	-0.41	0.02	0.03
I-223-H	580	581	582	-12.2	-8.2	0.0	0.4	-12.5	-0.11	-0.41	9.5	-0.12	-0.40	0.05	0.03
I-223-J	583	584	585	-11.9	-0.9	5.5	5.8	-12.2	0.07	-0.35	-7.3	0.06	-0.34	-0.05	0.04
I-223-K	586	587	588	-8.9	-0.3	11.9	12.0	-9.1	0.31	-0.12	4.9	0.30	-0.12	0.04	0.04
I-223-L	589	590	591	-7.4	0.0	14.7	15.1	-7.7	0.42	-0.11	7.0	0.41	-0.10	0.06	0.03
O-224-A	267	266	265	8.1	1.1	-2.2	8.4	-2.5	0.25	0.09	80.4	0.01	0.24	0.04	0.03
O-224-B	270	269	268	8.8	2.0	-3.1	8.9	-3.1	0.26	-0.02	86.0	-0.01	0.26	0.02	0.03
O-224-C	273	272	271	9.9	4.5	0.4	10.0	0.4	0.33	0.11	85.7	0.11	0.33	0.02	0.02
O-224-D	276	275	274	9.7	6.1	2.6	9.7	2.6	0.35	0.18	90.0	0.18	0.35	0.00	0.02
O-224-E	279	278	277	10.0	7.0	5.8	10.2	5.6	0.39	0.29	-56.8	0.32	0.36	-0.05	0.02
O-224-F	282	281	280	11.2	7.1	8.4	12.8	6.8	0.49	0.35	-31.0	0.45	0.39	-0.06	0.05
O-224-G	285	284	283	11.1	4.4	7.7	14.6	4.1	0.52	0.28	-35.6	0.44	0.36	-0.11	0.03
O-224-H	288	287	286	12.2	3.6	6.8	16.1	3.0	0.56	0.25	-32.8	0.47	0.35	-0.14	0.03
O-224-J	291	290	289	13.7	2.0	4.3	17.4	3.5	0.58	0.19	-28.0	0.49	0.28	-0.16	0.03
I-224-A	592	593	594	0.2	-4.2	-11.0	0.3	-11.1	-0.10	-0.36	5.9	-0.10	-0.36	0.03	0.03
I-224-B	595	596	597	-1.5	-4.9	-14.5	-0.8	-15.2	-0.18	-0.51	12.6	-0.19	-0.49	0.07	0.04
I-224-C	598	599	600	-1.4	-9.0	-18.8	-1.3	-18.9	-0.23	-0.64	3.5	-0.23	-0.64	0.03	0.03
I-224-D	601	602	603	2.0	-11.5	-23.0	2.0	-23.0	-0.16	-0.74	-2.4	-0.16	-0.74	-0.02	0.03
I-224-E	604	605	606	-5.0	-19.7	-17.1	-0.5	-21.6	-0.23	-0.72	-72.4	-0.67	-0.28	-0.14	0.04
I-224-F	607	608	609	-12.6	-16.4	-5.3	-0.7	-17.2	-0.19	-0.57	32.0	-0.30	-0.47	0.17	0.03
I-224-G	610	611	612	-5.3	-11.6	-5.0	1.3	-11.6	-0.07	-0.37	44.4	-0.22	-0.22	0.15	0.02
I-224-H	615	614	613	-4.5	2.7	-0.9	3.0	-3.4	0.02	-0.25	54.1	-0.16	-0.08	0.12	0.04
I-224-J	616	617	618	-0.9	-6.6	4.8	11.0	-7.0	0.29	-0.12	35.7	0.15	0.02	0.20	0.04
O-225-A	292	293	294	-1.2	6.1	-1.5	6.1	-3.7	0.11	-0.23	44.5	-0.05	-0.06	0.17	0.04
O-225-B	295	296	297	-0.3	2.9	0.1	2.9	-3.1	0.06	-0.07	47.1	-0.01	0.00	0.07	0.03
O-225-C	298	299	300	-0.9	0.2	3.4	0.6	-1.1	0.01	-0.03	70.9	-0.03	0.00	0.01	0.02
O-225-D	301	302	303	-1.2	-2.0	0.3	1.2	-2.1	0.02	-0.05	-57.9	-0.04	-0.00	-0.03	0.02
O-225-E	306	305	304	-4.4	-0.6	4.1	4.1	-4.4	0.09	-0.10	48.2	-0.02	0.00	0.10	0.02
O-225-F	309	308	307	-0.6	-8.3	-2.7	7.0	-3.3	0.15	-0.20	-44.9	-0.03	-0.03	-0.18	0.03
O-225-G	312	311	310	2.8	-10.0	-2.0	11.1	-10.2	0.26	-0.23	-38.6	0.07	-0.04	-0.24	0.02
O-225-H	315	314	313	1.4	-11.2	-1.3	11.4	-11.2	0.26	-0.26	-41.5	0.03	-0.03	-0.26	0.02
O-225-J	318	317	316	3.9	-10.4	-2.0	12.6	-10.7	0.31	-0.23	-37.8	0.11	-0.03	-0.26	0.03
I-225-A	621	620	619	-1.2	-4.9	-0.4	3.4	-4.9	0.06	-0.13	42.0	-0.02	-0.04	0.09	0.02
I-225-B	622	623	624	0.2	4.6	0.4	4.6	-4.0	0.11	-0.09	45.9	0.01	0.02	0.10	0.02
I-225-C	625	626	627	0.5	7.2	-0.2	7.2	-6.9	0.17	-0.16	43.6	0.02	-0.00	0.16	0.02
I-225-D	628	629	630	-0.7	9.9	0.4	9.9	-10.2	0.22	-0.24	46.5	-0.02	0.00	0.23	0.01
I-225-E	631	632	633	12.0	-0.1	-11.1	12.0	-11.1	0.29	-0.25	-46.4	0.01	0.03	-0.27	0.03
I-225-F	634	635	636	-0.4	-9.6	1.2	10.4	-9.6	0.25	-0.22	42.7	0.03	-0.00	0.23	0.02
I-225-G	637	638	639	0.7	-13.2	-0.3	13.6	-13.2	0.32	-0.30	46.1	-0.00	0.02	0.31	0.02
I-225-H	640	641	642	-0.4	-7.9	0.5	8.0	-7.9	0.19	-0.18	43.4	0.01	-0.01	0.18	0.02
I-225-J	643	644	645	0.9	-7.8	-2.0	6.9	-8.0	0.15	-0.19	50.5	-0.06	0.01	0.17	0.02
O-126-A	156	155	154	-18.3	-5.9	6.9	6.9	-13.3	0.05	-0.54	0.3	0.05	-0.54	0.00	0.02
O-126-B	159	158	157	-16.4	-5.3	5.0	5.0	-16.4	0.00	-0.49	-1.1	0.00	-0.49	-0.01	0.03
O-126-C	162	161	160	-7.7	-1.1	2.3	2.5	-8.0	0.00	-0.24	-9.2	-0.03	-0.23	-0.04	0.02
O-126-D	165	164	163	-0.8	5.1	0.4	5.1	-5.5	0.11	-0.13	-41.7	0.01	-0.02	-0.12	0.03
I-126-A	481	482	483	8.5	-3.7	-21.9	8.8	-22.2	0.07	-0.64	5.5	0.06	-0.64	0.07	0.03
I-126-B	484	485	486	7.3	-2.7	-17.1	7.5	-17.3	0.08	-0.50	5.1	0.07	-0.49	0.05	0.03
I-126-C	487	488	489	3.5	-0.7	-9.6	3.7	-9.9	0.04	-0.25	8.8	0.03	-0.25	0.04	0.02
I-126-D	490	491	492	-0.0	1.3	-2.7	1.6	-4.4	0.01	-0.15	31.8	-0.03	-0.09	0.06	0.05
O-226-A	321	320	319	17.5	5.8	-7.4	17.5	-7.4	0.50	-0.07	-88.2	-0.07	0.50	-0.02	0.03
O-226-B	324	323	322	16.1	5.7	-5.9	16.1	-5.9	0.47	-0.03	-88.4	-0.03	0.47	-0.01	0.03
O-226-C	327	326	325	8.1	3.1	-2.9	8.1	-2.9	0.24	-0.01	-87.4	-0.01	0.24	-0.01	0.03
I-226-A	646**	647**	648**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-226-B	649**	650**	651**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-226-C	652**	653	654	0.0	5.5	8.7	8.9	-3.1	0.29	0.09	82.7	0.09	0.29	0.03	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI				FAJ	CONF	
	(1)	(2)	(3)	E(1)	E(2)	E(3)	E _{MAX}	E _{MIN}	S _{MAX}	S _{MIN}	PHI	SIG(L)			SIG(T)
T-107- A	655**	656**	657**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-107- B	658**	659**	660**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-207- A	661**	662**	663**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FX- C- A	670	671	672	-0.2	-0.5	-0.7	-0.2	-0.7	-0.01	-0.03	88.3	-0.03	-0.01	0.00	0.02
FX- C- B	675	674	673	-0.7	-0.5	-0.7	-0.5	-1.0	-0.03	-0.04	-42.7	-0.03	-0.03	-0.01	0.02
FX- C- C	678	677	676	-0.3	0.1	-0.6	0.1	-1.0	-0.01	-0.03	-54.2	-0.02	-0.02	-0.01	0.03
FX- C- D	669	668	667	-1.6	-3.0	-0.7	0.8	-3.1	-0.00	-0.09	38.3	-0.04	-0.06	0.04	0.04
FX- B- A	687	686	685	-28.7	-10.9	8.0	8.1	-28.7	-0.02	-0.87	-89.1	-0.87	-0.02	-0.01	0.03
FX- B- B	690	689	688	-0.6	0.2	-0.6	0.2	-1.4	-0.01	-0.04	45.7	-0.03	-0.03	0.02	0.02
FX- B- C	681	680	679	27.3	11.2	-0.1	27.4	-9.2	0.81	-0.03	3.2	0.81	-0.03	0.05	0.03
EX- B- D	684	683	682	-0.6	-2.2	0.1	1.8	-2.3	0.04	-0.05	-49.9	-0.02	-0.00	-0.05	0.03
FX- A- B	696	695	694	-14.6	-39.5	11.2	38.2	-41.6	0.85	-0.99	-54.4	-0.37	0.22	-0.87	0.03
FX- A- B	693	692	691	-0.2	-3.2	0.4	3.5	-3.2	0.08	-0.07	-47.7	-0.00	0.01	-0.08	0.03
EX- A- C	666	665	664	40.3	17.9	-11.3	40.5	-11.5	1.22	0.02	3.8	1.22	0.03	0.08	0.04
EX- A- D	699	698	697	-0.7	0.1	-0.3	0.1	-1.1	-0.01	-0.04	52.2	-0.03	-0.02	0.01	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

COMBUSTION T-11, LOAD CASE 13, (P)

NOMINAL LOAD = 1.953E 02

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TSJ	CONF
0-101-A	3	2	1	20.9	16.4	2.6	29.9	2.6	1.01	0.38	-89.8	0.38	1.01	-0.00	0.03
0-101-B	6	5	4	31.4	18.7	4.1	31.4	4.0	1.08	0.44	-87.9	0.44	1.07	0.02	0.03
0-101-C	9	8	7	27.7	25.2	1.5	28.2	18.0	1.11	0.87	-78.1	0.88	1.10	-0.05	0.05
0-101-D	12	11	10	21.7	29.7	35.6	36.6	21.7	1.42	1.08	1.9	1.42	1.08	0.21	0.04
0-101-E	15	14	13	18.6	25.4	34.0	34.1	18.6	1.31	0.95	3.4	1.31	0.95	0.02	0.04
0-101-F	18	17	16	21.9	21.8	26.4	27.4	20.9	1.11	0.96	68.4	0.98	1.09	0.05	0.09
0-101-G	21	20	19	15.8	21.7	26.0	26.1	15.7	1.02	0.78	85.4	0.78	1.01	0.02	0.05
0-101-H	24	23	22	14.6	24.4	23.2	25.8	12.0	0.97	0.65	63.9	0.71	0.91	0.13	0.06
0-101-I	27	26	25	6.8	24.1	24.3	27.8	3.4	0.95	0.39	67.9	0.46	0.87	0.20	0.02
0-101-J	30	29	28	0.5	19.9	24.5	26.6	-1.6	0.86	0.21	74.1	0.26	0.81	0.17	0.04
0-101-K	33	32	31	4.7	20.4	29.1	29.6	4.2	1.02	0.43	82.0	0.44	1.01	0.28	0.02
1-101-A	328	329	330	6.9	9.9	13.0	13.0	5.9	0.50	0.35	-89.3	0.35	0.50	-0.00	0.04
1-101-B	331	332	333	9.7	9.8	8.8	10.0	8.5	0.41	0.38	25.0	0.41	0.39	0.01	0.05
1-101-C	334	335	336	-1.0	5.5	9.9	10.0	-1.1	0.32	0.05	84.2	0.06	0.32	0.03	0.03
1-101-D	337	338	339	-6.8	1.7	8.8	8.9	-5.9	0.22	-0.14	87.3	-0.14	0.22	0.02	0.02
1-101-E	340	341	342	-1.6	2.3	5.7	5.7	-1.6	0.17	0.00	88.1	0.00	0.17	0.21	0.02
1-101-F	343	344	345	9.1	6.4	5.4	9.2	5.2	0.36	0.25	-57.2	0.29	0.33	-0.04	0.06
1-101-G	346	347	348	10.2	4.3	5.0	11.3	3.4	0.42	0.23	64.2	0.26	0.39	0.08	0.06
1-101-H	349	350	351	5.6	-2.4	1.4	11.5	-2.5	0.35	0.03	49.4	0.17	0.22	0.16	0.04
1-101-I	352	353	354	6.3	-2.7	3.5	12.6	-2.9	0.39	0.03	50.2	0.18	0.24	0.19	0.03
1-101-J	355	356	357	13.9	8.3	10.5	16.4	7.9	0.62	0.42	56.7	0.48	0.56	0.09	0.04
1-101-K	358	359	360	18.1	9.9	5.4	18.4	5.2	0.66	0.35	81.8	0.36	0.65	0.04	0.02
0-102-A	36	35	34	29.1	15.2	-1.0	29.1	-1.0	0.95	0.25	-87.8	0.25	0.95	-0.03	0.03
0-102-B	39	38	37	29.9	22.3	-2.2	32.0	-4.3	1.01	0.13	-76.1	0.22	0.96	-0.19	0.02
0-102-C	42	41	40	33.6	29.0	6.4	36.3	3.6	1.23	0.48	-73.2	0.54	1.17	-0.21	0.03
0-102-D	45	44	43	28.5	26.4	20.7	37.0	12.3	1.34	0.77	-54.2	0.97	1.15	-0.27	0.04
0-102-E	48	47	46	26.7	40.1	35.0	41.0	20.6	1.56	1.09	-33.0	1.42	1.23	-0.21	0.04
0-102-F	51	50	49	22.3	35.3	34.5	37.6	19.2	1.43	1.00	27.7	1.38	1.06	0.14	0.02
0-102-G	54	53	52	18.2	36.9	33.6	39.3	12.5	1.42	0.80	62.5	0.93	1.29	0.25	0.04
0-102-H	57	56	55	4.7	33.2	37.2	41.3	0.6	1.37	0.43	71.5	0.52	1.27	0.29	0.03
0-102-I	60	59	58	-0.6	30.8	32.3	38.1	-5.4	1.19	0.17	68.9	0.30	1.06	0.35	0.02
0-102-J	63	62	61	-7.5	18.6	33.2	34.0	-8.3	1.04	0.06	82.1	0.08	1.02	0.13	0.02
0-102-K	66	65	64	-3.9	16.3	37.0	30.3	-4.2	0.96	0.15	84.7	0.17	0.95	0.07	0.02
1-102-A	361	362	363	6.7	18.5	20.2	21.9	5.1	0.77	0.38	71.8	0.42	0.73	0.12	0.03
1-102-B	364	365	366**	6.9	18.1	0.0	18.5	-11.6	0.50	-0.20	38.4	0.23	0.07	0.34	0.02
1-102-C	367	368	369**	2.2	13.7	0.0	13.7	-1.5	0.34	-0.24	42.5	0.07	0.02	0.29	0.02
1-102-D	370	371	372	-7.1	8.4	8.6	11.7	-10.2	0.29	-0.22	68.0	-0.15	0.21	0.18	0.02
1-102-E	373	374	375	-9.4	-1.7	1.5	2.0	-9.9	-0.03	-0.31	78.7	-0.30	-0.04	0.05	0.02
1-102-F	376	377	378	-7.7	-2.8	0.1	0.2	-7.9	-0.07	-0.26	37.7	-0.14	-0.19	0.39	0.02
1-102-G	379	380	381	-8.1	-2.7	0.2	0.4	-3.3	-0.07	-0.27	-8.2	-0.07	-0.26	-0.03	0.04
1-102-H	382	383	384	-4.0	-1.6	0.8	0.8	-4.0	-0.01	-0.13	0.0	-0.01	-0.13	0.00	0.01
1-102-I	385	386	387	8.2	7.7	5.4	8.5	5.1	0.33	0.25	-73.3	0.26	0.32	-0.02	0.03
1-102-J	388	389	390	16.1	12.2	9.5	16.1	9.5	0.61	0.44	89.5	0.44	0.61	0.00	0.05
1-102-K	391	392	393	19.9	13.6	5.8	20.0	5.8	0.71	0.39	-86.9	0.39	0.71	-0.02	0.03
0-103-A	69	68	67	23.6	8.6	-3.7	23.6	-3.8	0.74	0.11	87.2	0.11	0.74	0.03	0.03
0-103-B	72	71	70	26.2	10.4	-3.7	26.2	-8.8	0.78	-0.03	-87.3	-0.03	0.78	-0.04	0.03
0-103-C	75	74	73	28.5	17.6	-7.7	29.9	-9.1	0.90	-0.01	-79.1	0.03	0.86	-0.17	0.02
0-103-D	78	77	76	27.9	24.8	-1.8	32.0	-6.0	1.00	0.12	-70.8	0.22	0.90	-0.27	0.03
0-103-E	81	80	79	23.1	29.2	6.7	31.4	-1.6	1.02	0.25	-59.8	0.45	0.83	-0.33	0.03
0-103-F	84	83	82	12.0	33.3	18.6	33.6	-3.1	1.08	0.23	5.2	1.07	0.24	0.08	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICRINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAJ	CONF
Q-123-G	87	86	85	-0.4	27.8	27.7	33.6	-6.2	1.04	0.13	67.5	0.26	0.91	0.33	0.04
Q-123-H	90	89	88	-8.4	21.7	31.3	33.8	-10.9	1.31	-0.33	76.4	0.03	0.95	0.24	0.03
Q-123-J	93	92	91	-11.1	12.2	29.7	29.9	-11.4	0.87	-0.08	85.9	-0.07	0.87	0.07	0.02
Q-123-K	96	95	94	-8.6	9.7	27.7	27.7	-8.6	0.83	-0.01	89.8	-0.01	0.93	0.00	0.02
Q-123-L	99	98	97	-5.8	8.3	24.7	24.7	-5.8	0.76	0.05	-87.8	0.05	0.76	-0.03	0.01
I-123-A	394	395	394	10.7	29.0	33.2	35.2	8.7	1.25	0.64	73.9	0.68	1.20	0.16	0.04
I-123-B	397	398	398	9.3	30.5	37.6	39.3	7.6	1.37	0.64	76.9	0.68	1.33	0.16	0.03
I-123-C	400	401	402	3.8	33.4	38.5	42.4	-0.1	1.40	0.42	72.4	0.51	1.31	0.28	0.02
I-123-D	403	404	405	-1.4	32.9	29.2	38.3	-10.6	1.16	0.03	64.4	0.24	0.95	0.44	0.03
I-123-E	406*	407	408	-1.1	23.8	18.5	26.7	-9.3	0.79	-0.04	61.4	0.15	0.60	0.35	0.03
I-123-F	409	410	411	2.2	20.3	9.3	20.7	-9.2	0.59	-0.13	6.8	0.58	-0.39	0.38	0.04
I-123-G	412	413	414	11.2	23.4	4.9	23.7	-7.7	0.71	-0.02	-50.8	0.27	0.42	-0.36	0.04
I-123-H	415	416	417	21.9	26.9	3.8	29.5	-3.9	0.93	0.16	-61.3	0.34	0.76	-0.32	0.02
I-123-J	421	422	423	34.4	25.0	7.9	34.9	7.3	1.22	0.59	-81.8	0.60	1.21	-0.09	0.04
I-123-K	418	419	420	31.9	30.7	9.1	35.8	5.3	1.23	0.53	-69.1	0.62	1.14	-0.23	0.04
I-123-L	424	425	426	34.5	26.0	9.7	35.1	9.1	1.25	0.65	-81.2	0.66	1.23	-0.09	0.03
Q-124-A	102	101	100	17.2	7.2	2.2	17.6	1.8	0.60	0.23	80.6	0.24	0.59	0.06	0.05
Q-124-B	105	104	103	18.1	5.8	-1.4	18.5	-1.7	0.59	0.13	82.6	0.13	0.58	0.06	0.04
Q-124-C	108	107	106	18.9	7.4	-4.0	18.9	-4.0	0.58	0.05	-90.0	0.05	0.58	-0.00	0.02
Q-124-D	111	110*	109	17.2	10.9	-2.8	17.8	-3.4	0.55	0.06	-79.8	0.08	0.54	-0.09	0.04
Q-124-E	114	113	112	5.6	18.0	7.3	19.0	-5.2	0.54	0.01	2.1	0.54	0.01	0.02	0.03
Q-124-F	117	116	115	-5.9	7.8	19.3	19.3	-5.9	0.58	-0.01	87.5	-0.00	0.58	0.03	0.03
Q-124-G	120	119	118	-3.5	5.6	19.3	19.5	-3.7	0.61	0.37	-84.4	0.08	0.60	-0.05	0.01
Q-124-H	123	122	121	-0.8	6.0	17.9	19.0	-1.9	0.61	0.13	-70.8	0.15	0.58	-0.11	0.02
Q-124-J	126	125	124	2.6	3.7	17.3	19.5	0.3	0.65	0.23	-69.8	0.26	0.59	-0.14	0.03
I-124-A	427	428	429	15.4	27.4	44.7	45.0	15.1	1.63	0.94	-84.9	0.95	1.63	-0.06	0.03
I-124-B	430	431	432	14.5	36.9	51.3	51.8	14.1	1.85	0.98	83.8	0.99	1.84	0.09	0.03
I-124-C	433	434	435	6.8	47.0	64.2	66.4	4.6	2.23	0.81	79.1	0.86	2.18	0.26	0.04
I-124-D	436	437	438	-4.9	54.9	70.7	76.6	-10.8	2.42	0.40	74.9	0.54	2.28	0.51	0.04
I-124-E	439	440	441	36.5	74.6	32.0	74.6	-0.1	2.40	0.54	-1.6	2.40	0.54	-0.05	0.03
I-124-F	442	443	444	63.4	63.3	3.5	75.7	-8.8	2.41	0.46	-67.6	0.74	2.13	-0.59	0.03
I-124-G	445	446	447	61.8	48.0	7.1	64.9	3.9	2.18	0.77	-76.8	0.85	2.11	-0.31	0.04
I-124-H	448	449	450	51.2	34.2	13.9	51.4	10.6	1.80	0.85	-85.5	0.86	1.79	-0.07	0.08
I-124-J	451	452	453	41.5	33.3	20.4	41.8	20.2	1.58	1.09	-83.8	1.08	1.57	-0.05	0.03
Q-125-A	129	128	127	13.3	12.1	7.2	13.8	6.7	0.52	0.36	-74.0	0.37	0.51	-0.04	0.03
Q-125-B	132	131	130	13.6	8.2	3.7	13.6	3.7	0.49	0.25	87.6	0.26	0.49	0.01	0.03
Q-125-C	135	134	133	13.3	9.1	3.2	13.4	3.2	0.47	0.24	-85.2	0.24	0.47	-0.02	0.02
Q-125-D	139	137	136	15.7	7.9	3.2	15.0	3.2	0.50	0.15	-88.9	0.15	0.50	-0.01	0.03
Q-125-F	141	140	139	6.2	14.1	7.0	14.1	0.1	0.47	0.14	3.5	0.46	0.14	0.02	0.03
Q-125-G	144	143	142	1.5	9.7	15.4	15.5	1.4	0.53	0.23	85.1	0.20	0.52	0.03	0.04
Q-125-H	147	146	145	5.5	11.2	16.8	16.8	5.5	0.61	0.35	89.7	0.35	0.61	0.00	0.04
Q-125-H	150	149	148	4.7	10.5	13.8	14.0	4.6	0.51	0.29	82.7	0.29	0.50	0.03	0.05
Q-125-J	153	152	151	9.3	11.6	13.3	13.3	9.3	0.53	0.44	85.1	0.44	0.53	0.01	0.03
I-125-A	454	455**	456	18.2	0.0	50.9	72.9	-3.7	2.37	0.60	-57.7	1.11	1.86	-0.90	0.03
I-125-B	457	458	459	13.0	36.9	61.8	61.8	13.0	2.16	1.04	-89.5	1.04	2.16	-0.01	0.04
I-125-C	460	461	462	2.1	37.8	78.0	78.0	2.1	2.59	0.84	-88.3	0.84	2.59	-0.05	0.20
I-125-D	463	464	465	-6.7	42.7	92.4	92.4	-6.7	2.98	0.69	-89.9	0.69	2.98	-0.00	0.03
I-125-E	466**	467	468	0.0	87.5	40.9	90.6	-49.7	2.49	-0.74	8.5	2.42	-0.67	0.47	0.03
I-125-F	469	470	471	86.9	44.0	-11.9	87.5	-12.4	2.76	0.65	-85.8	0.47	2.75	-0.17	0.06
I-125-G	472	473	474	73.9	41.7	5.6	73.9	5.6	2.49	0.92	-88.4	0.92	2.49	-0.04	0.04
I-125-H	475	476	477	56.7	32.1	10.3	56.7	10.2	1.97	0.90	88.3	0.90	1.97	0.03	0.04
I-125-J	478	479	480	44.0	32.2	23.1	44.1	23.0	1.68	1.19	86.5	1.20	1.68	0.03	0.04
Q-221-A	168	167	166	31.6	20.8	2.6	32.1	2.1	1.08	0.39	-82.8	0.40	1.07	-0.09	0.04
Q-221-B	171	170	169	30.6	18.5	5.1	30.7	5.0	1.06	0.47	-88.0	0.47	1.06	-0.01	0.04
Q-221-C	174	173	172	27.8	24.6	19.5	28.0	19.4	1.11	0.92	-83.5	0.92	1.11	-0.02	0.04
Q-221-D	177	176	175	21.2	29.5	37.0	37.0	21.1	1.43	1.05	-1.6	1.43	1.06	-0.01	0.05

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
0-201-E	180	179	178	15.5	25.0	34.4	34.4	15.5	1.29	0.85	-0.2	1.29	0.85	-0.00	0.03
0-201-F	183	182	181	14.6	23.7	27.4	28.0	14.1	1.06	0.74	33.8	0.96	0.84	0.15	0.03
0-201-G	186	185	184	15.6	21.9	26.0	26.2	15.5	1.02	0.77	84.1	0.77	1.01	0.03	0.02
0-201-H	189	188	187	14.5	26.5	23.5	27.7	17.2	1.32	0.61	60.6	0.71	0.92	0.17	0.02
0-201-J	192	191	190	6.4	25.0	23.7	28.2	1.5	0.95	0.34	65.5	0.44	0.84	0.23	0.02
0-201-K	195	194	193	0.7	20.0	23.8	26.1	-1.6	0.85	0.21	73.1	0.26	0.79	3.18	0.07
0-201-L	198	197	196	1.4	17.8	29.7	29.9	1.3	1.30	0.34	85.6	0.34	0.99	0.05	0.03
0-201-A	493**	494	495**	0.0	9.1	0.0	9.1	-9.1	0.21	-0.21	45.0	0.00	-0.00	0.21	0.02
0-201-B	496	497	498*	-9.0	-3.2	13.4	14.6	-10.2	0.38	-0.19	-77.2	-0.16	0.35	-0.12	0.05
0-201-C	499	500	501	-0.3	5.8	9.6	9.8	-0.5	0.32	0.09	83.4	0.08	0.31	0.03	0.03
0-201-D	502	503	504	-8.0	-0.3	8.5	8.5	-8.0	0.20	-0.18	-88.1	-0.18	0.20	-0.01	0.02
0-201-E	505	506**	507	-2.5	0.0	5.7	6.0	-2.8	0.17	-0.03	-79.3	-0.03	0.16	-3.04	0.03
0-201-F	508	509	510	-9.6	-1.8	4.7	4.8	-9.6	0.36	-0.27	42.5	-0.09	-0.12	0.17	0.03
0-201-G	511**	512**	513**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.0	0.0	0.0	0.0	0.0
0-201-H	514**	515**	516**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.0	0.0	0.0	0.0	0.0
0-201-J	517**	518**	519**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.0	0.0	0.0	0.0	0.0
0-201-K	520**	521**	522**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.0	0.0	0.0	0.0	0.0
0-201-L	523**	524**	525**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.0	0.0	0.0	0.0	0.0
0-202-A	201	200	199	28.9	16.5	-3.1	29.3	-3.5	0.93	0.17	-83.6	0.18	0.92	-0.09	0.02
0-202-B	204	203	202	31.6	18.4	-3.2	32.1	-3.7	1.32	0.20	-83.1	0.21	1.01	-0.10	0.02
0-202-C	207	206	205	30.1	27.5	5.7	33.4	2.4	1.13	0.41	-71.0	0.49	1.05	-0.22	0.02
0-202-D	210	209	208	28.3	35.4	20.2	36.1	12.3	1.31	0.75	-55.0	0.94	1.13	-0.26	0.04
0-202-E	213	212	211	25.1	37.1	34.5	38.4	21.1	1.48	1.08	-28.5	1.39	1.17	-0.17	0.04
0-202-F	216	215	214	23.1	37.6	38.0	40.8	20.3	1.55	1.07	23.3	1.47	1.15	0.17	0.03
0-202-G	219	218	217	16.6	36.4	35.6	40.2	12.1	1.44	0.80	66.3	0.90	1.34	0.24	0.06
0-202-H	222	221	220	7.3	35.4	33.5	40.3	0.5	1.33	0.42	65.6	0.57	1.18	0.35	0.03
0-202-J	225	224	223	-4.6	26.3	33.8	37.1	-7.9	1.14	0.11	74.3	0.18	1.07	0.27	0.03
0-202-K	229	227	226	-9.0	19.2	32.9	34.1	-10.3	1.02	-0.09	80.5	0.03	1.00	0.17	0.03
0-202-L	231	230	229	-5.0	16.7	31.4	31.7	-5.3	0.99	0.14	84.5	0.15	0.99	0.39	0.02
0-202-A	526	527	528	7.4	18.0	19.9	21.3	6.1	0.76	0.41	72.5	0.44	0.73	0.10	0.04
0-202-B	529	530	531	7.1	18.6	18.8	21.1	4.8	0.74	0.37	68.2	0.42	0.69	0.13	0.02
0-202-C	532	533	534	1.7	15.0	16.8	18.8	-3.2	0.62	0.13	71.4	0.22	0.57	0.13	0.02
0-202-D	535	536	537	-7.2	8.0	10.1	12.3	-9.4	0.31	-0.19	71.6	-0.14	0.26	0.15	0.03
0-202-E	538	539	540	-10.2	-1.2	2.1	2.8	-10.8	-0.02	-0.33	77.8	-0.31	-0.33	0.06	0.02
0-202-F	541	542	543**	-9.5	-4.3	0.0	0.0	-9.5	-0.39	-0.31	42.6	-0.19	-0.21	0.11	0.02
0-202-G	544	545	546	-8.1	-4.2	2.7	2.9	-8.4	0.01	-0.25	7.9	0.01	-0.24	3.04	0.02
0-202-H	547	548	549	-6.2	-3.2	2.1	2.3	-6.4	0.01	-0.19	7.6	0.01	-0.18	0.03	0.02
0-202-J	550	551	552	6.6	6.7	6.1	6.8	5.9	0.28	0.26	-65.4	0.27	0.28	-0.01	0.04
0-202-K	553	554	555	13.1	10.4	8.5	13.1	8.4	0.52	0.41	85.6	0.41	0.52	0.01	0.03
0-202-L	556	557	558	16.4	11.1	6.9	16.4	6.9	0.61	0.39	86.8	0.39	0.61	0.01	0.04
0-203-A	234	233	232	22.4	7.5	-5.4	22.5	-5.4	0.69	0.04	87.9	0.04	0.69	0.02	0.02
0-203-B	237	236	235	24.8	12.9	-7.6	25.3	-8.2	0.75	-0.02	-82.5	-0.01	0.74	-0.10	0.02
0-203-C	240	239	238	27.7	16.0	-8.3	28.7	-9.4	0.85	-0.03	-80.4	-0.00	0.83	-0.15	0.03
0-203-D	243	242	241	28.1	23.7	-4.1	31.9	-7.9	0.97	0.05	-71.9	0.14	0.88	-0.27	0.03
0-203-E	246	245	244	24.9	34.7	8.4	36.5	-3.2	1.17	0.25	-57.2	0.52	0.90	-0.42	0.05
0-203-F	249	248	247	12.7	33.7	19.4	34.0	-1.9	1.10	0.27	5.4	1.10	0.28	0.08	0.04
0-203-G	252	251	250	1.4	30.3	27.0	34.8	-6.4	1.08	0.13	64.2	0.31	0.90	0.37	0.03
0-203-H	255	254	253	-8.7	22.5	30.8	33.9	-11.8	1.00	-0.05	74.9	0.02	0.93	0.26	0.04
0-203-J	259	257	256	-11.6	15.1	30.3	31.1	-12.4	0.70	-0.17	82.4	-0.08	0.88	0.13	0.02
0-203-K	261	260	259	-11.1	10.3	25.4	25.7	-11.4	0.73	-0.12	85.2	-0.12	0.73	0.07	0.02
0-203-L	264	263	262	-6.6	7.8	25.9	26.0	-6.7	0.79	0.04	-86.7	0.04	0.79	-0.04	0.02
0-203-A	559	560	561	9.8	28.2	35.9	37.0	8.7	1.31	0.69	78.8	0.68	1.28	0.12	0.06
0-203-B	562	563	564	8.2	30.2	38.4	39.9	6.6	1.38	0.61	77.7	0.65	1.35	0.16	0.03
0-203-C	565	566	567	4.1	31.8	39.8	42.4	1.6	1.41	0.47	75.6	0.53	1.35	0.23	0.03
0-203-D	568	569	570	-2.1	33.5	32.6	40.4	-10.0	1.23	0.07	66.7	0.25	1.05	0.42	0.02
0-203-E	571	572	573*	-4.4	23.4	24.3	29.6	-9.7	0.88	-0.03	68.3	0.10	0.76	0.31	0.06

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	T&J	CONF
I-223-C	574	575	576	-1.3	18.9	11.7	20.4	-19.0	0.51	-0.13	12.7	0.54	-0.09	0.15	0.02
I-223-G	577	578	579	9.7	22.6	5.2	22.8	-7.9	0.57	-0.34	-49.2	0.27	0.37	-0.35	0.03
I-223-H	580	581	582	20.4	24.6	7.6	27.7	-5.7	0.85	0.35	-62.5	0.22	3.68	-0.33	3.03
I-223-J	583	584	585	32.9	27.7	7.0	35.1	4.8	1.20	0.51	-74.5	0.56	1.15	-0.18	0.03
I-223-K	586	587	588	34.4	24.4	7.8	34.8	7.4	1.22	0.59	-83.1	0.60	1.21	-0.38	3.02
I-223-L	589	590	591	35.0	22.2	15.3	35.4	14.9	1.31	0.84	81.6	0.85	1.30	0.07	0.06
I-224-A	267	266	265	15.3	4.0	1.8	16.6	0.4	0.55	0.18	73.0	0.21	0.52	0.10	0.01
I-224-B	270	269	268	17.1	3.5	-1.6	18.0	-2.5	0.57	0.17	77.7	0.12	0.55	0.10	0.02
I-224-C	273	272	271	20.0	5.8	-4.8	20.1	-4.9	0.62	0.04	85.9	0.04	0.61	0.04	0.02
I-224-D	276	275	274	17.1	10.1	-3.5	17.6	-4.0	0.54	0.04	-81.2	0.05	0.53	-0.38	3.03
I-224-E	279	278	277	4.3	18.9	9.3	19.1	-5.5	0.58	0.01	5.8	0.57	0.02	0.06	0.02
I-224-F	282	281	280	-2.6	9.3	19.2	19.3	-2.6	0.61	0.10	87.5	0.10	0.61	0.02	0.02
I-224-G	285	284	283	-2.2	3.7	19.0	20.3	-3.2	0.53	0.09	-78.2	0.11	0.60	-0.11	0.02
I-224-H	288	287	286	-0.9	3.3	16.7	17.8	-2.0	0.57	0.11	-76.1	0.14	0.54	-0.11	0.02
I-224-J	291	290	289	2.3	4.3	15.7	17.2	7.8	0.57	0.23	-72.4	0.23	0.54	-0.11	3.03
I-224-K	592	593	594	13.8	34.5	47.2	47.7	13.3	1.70	0.91	83.3	0.92	1.69	0.09	0.03
I-224-L	595	596	597	13.4	40.6	56.8	57.5	12.7	2.02	0.99	82.9	1.00	2.01	0.13	3.05
I-224-M	598	599	600	4.2	43.2	66.3	67.3	3.2	2.25	0.77	82.8	0.79	2.23	0.18	0.04
I-224-N	601	602	603	-5.1	52.4	72.4	76.7	-3.4	2.44	0.45	77.1	0.55	2.34	0.43	0.03
I-224-O	604	605	606	26.3	73.4	39.6	73.9	-9.3	2.35	0.44	4.3	2.34	0.45	0.14	0.05
I-224-P	607	608	609	69.2	53.4	-5.4	74.9	-11.2	2.36	0.37	-75.0	0.51	2.23	-0.50	0.04
I-224-Q	610	611	612	61.4	50.4	7.0	65.8	2.5	2.20	0.73	-74.6	0.84	2.09	-0.38	3.03
I-224-R	615	614	613	53.8	30.5	9.0	53.9	9.0	1.86	0.83	-1.2	1.86	0.83	-0.32	0.03
I-224-S	616	617	618	45.6	30.1	15.9	45.6	15.8	1.66	0.97	88.8	0.97	1.66	0.01	0.03
I-225-A	292	293	294	12.2	11.3	13.3	12.2	10.3	0.50	0.46	1.3	0.50	0.46	0.00	0.05
I-225-B	295	296	297	13.1	9.7	5.1	13.1	5.1	0.48	0.37	4.1	0.48	0.30	0.01	0.04
I-225-C	298	299	300	12.2	7.3	2.7	12.2	2.7	0.43	0.21	-0.9	0.43	0.21	-0.33	3.04
I-225-D	301	302	303	11.5	5.5	0.1	11.6	0.1	0.38	0.12	-1.7	0.38	0.12	-0.31	3.02
I-225-E	306	305	304	5.8	11.6	5.9	11.6	0.1	0.38	0.12	0.3	0.38	0.12	0.30	0.02
I-225-F	309	308	307	2.9	7.3	12.0	12.0	2.8	0.42	0.21	-89.2	0.21	0.42	-0.00	0.02
I-225-G	312	311	310	7.4	8.7	13.9	14.5	6.8	0.54	0.37	-74.3	0.38	0.53	-0.05	0.04
I-225-H	315	314	313	6.6	9.6	11.8	11.8	6.6	0.46	0.33	86.3	0.34	0.45	0.31	3.02
I-225-I	318	317	316	9.0	10.8	12.2	12.2	9.0	0.49	0.42	86.4	0.42	0.49	0.30	0.03
I-225-J	621	620	619	51.0	37.0	22.9	51.0	22.9	1.91	1.25	-89.9	1.26	1.91	-0.33	0.03
I-225-K	622	623	624	16.0	39.9	58.6	58.8	15.9	2.10	1.11	86.6	1.11	2.09	0.06	0.04
I-225-L	625	626**	627	5.3	0.0	73.8	91.8	-12.8	2.90	0.49	-65.5	0.50	2.49	-0.91	0.03
I-225-M	628	629	630	-7.1	48.2	93.8	94.1	-7.3	3.03	0.69	87.3	0.70	3.02	0.11	0.25
I-225-N	631	632	633	52.9	107.9	49.2	107.9	-5.9	3.50	0.87	-0.9	3.50	0.87	-0.34	0.05
I-225-O	634	635**	636**	111.5	0.0	7.0	134.6	-23.1	4.21	0.57	67.5	1.10	3.68	1.29	3.05
I-225-P	637	638	639	74.5	40.4	6.2	74.5	6.2	2.52	0.94	-89.9	0.94	2.52	-0.33	3.03
I-225-Q	640	641	642	58.4	32.9	4.9	58.5	4.8	1.97	0.74	-88.7	0.74	1.97	-0.03	0.03
I-225-R	643	644	645	46.4	33.1	17.9	46.5	17.8	1.71	1.05	-88.1	1.05	1.71	-0.32	0.05
I-226-A	155	155	154	7.4	10.7	14.1	14.1	7.4	0.54	0.38	0.8	0.54	0.38	0.00	0.02
I-226-B	159	158*	157	1.9	9.7	8.8	10.9	-3.2	0.36	0.17	-25.9	0.31	0.15	-0.17	3.04
I-226-C	162	161	160	-1.4	1.9	4.1	4.2	-1.4	0.12	-0.00	-5.0	0.12	-0.00	-0.01	0.03
I-226-D	165	164*	163	-1.2	-0.8	3.5	4.1	-1.9	0.12	-0.02	19.8	0.10	-0.01	0.34	3.03
I-226-E	481	482	483	26.4	18.9	7.6	26.6	7.4	0.95	0.51	5.7	0.94	0.51	0.04	0.03
I-226-F	484	485	486	34.1	20.7	6.6	34.1	6.6	1.10	0.55	0.6	1.19	0.56	0.31	3.05
I-226-G	487	488	489	37.7	21.4	7.0	37.8	7.0	1.31	0.67	-1.7	1.31	0.60	-0.02	0.03
I-226-H	490	491	492	40.6	24.3	6.7	40.6	6.7	1.41	0.62	1.0	1.40	0.62	0.01	0.04
I-226-I	321	320	319	6.9	9.2	13.3	13.4	6.8	0.51	0.36	7.4	0.51	0.36	0.02	0.03
I-226-J	324*	323	322	10.0	4.2	7.9	13.9	4.1	0.50	0.27	51.1	0.36	0.41	0.11	0.16
I-226-K	327	326	325	-0.2	1.8	3.1	3.2	-0.2	0.10	0.03	-5.6	0.10	0.03	-0.31	3.02
I-226-L	646	647	648**	28.0	17.3	0.0	28.4	-0.4	0.93	0.27	6.5	0.92	0.28	0.07	0.04
I-226-M	649	650**	651**	35.4	0.0	0.0	42.7	-7.3	1.34	0.18	-22.5	1.17	0.35	-0.41	3.04
I-226-N	652	653	654	39.0	23.1	7.2	39.0	7.2	1.36	0.62	-0.0	1.36	0.62	-0.00	0.04

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI			T&J	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(1)	SIG(T)		
T-1P7- A	655**	656**	657**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-1P7- B	658**	659**	660**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-2P7- A	661**	662**	663**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EX- C- A	670	671	672	18.7	11.5	3.3	18.7	3.3	0.65	0.29	-88.3	0.29	0.65	-0.31	0.02
FX- C- B	675	674	673	19.4	12.8	6.2	19.4	6.2	0.70	0.40	89.7	0.40	0.70	0.00	0.02
FX- C- C	678	677	676	3.6	13.3	22.2	22.2	3.6	0.77	0.34	-1.2	0.77	0.34	-0.01	0.04
FX- C- D	660	668	667	20.3	13.0	7.2	20.3	7.2	0.74	0.44	86.7	0.44	0.74	0.02	0.04
FX- R- A	687	686	685	2.6	13.8	23.0	23.0	2.6	0.79	0.31	87.1	0.31	0.78	0.02	0.03
FX- R- B	690	689	688	7.5	11.1	19.7	20.1	7.0	0.73	0.43	-79.0	0.44	0.72	-0.36	0.04
EX- R- C	681*	680	679	4.4	12.1	20.6	20.6	4.4	0.72	0.35	-88.7	0.35	0.72	-0.01	0.05
FX- R- D	684	683	682	7.5	14.2	18.7	18.8	7.4	0.69	0.43	84.6	0.43	0.69	0.02	0.04
EX- A- A	696	695*	694	2.9	6.7	22.4	24.0	1.3	0.80	0.28	-74.4	0.32	0.77	-0.14	0.05
EX- A- B	693	692	691	8.3	10.8	14.0	14.1	8.2	0.54	0.41	-86.5	0.41	0.54	-0.31	0.02
FX- A- C	666	665	664	3.8	15.3	28.5	28.5	3.7	0.98	0.40	-88.0	0.41	0.98	-0.02	0.05
FX- A- D	699	698	697	6.8	10.5	15.1	15.2	6.8	0.57	0.37	-86.5	0.37	0.57	-0.01	0.04

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

INCH21 STOP 0

COMBUSTION 7-12, LOAD CASE 1, MAX

NOMINAL LOAD = 2.992E 04

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CUNF
0-1R1-A	3	2	1	-0.6	-14.5	-32.5	-0.5	-32.6	-0.34	-1.08	-86.4	-1.08	-0.34	-0.05	0.02
0-1R1-B	6	5	4	-14.0	-19.8	-27.3	-14.0	-27.4	-0.73	-1.04	-86.4	-1.04	-0.73	-0.02	0.03
0-1R1-C	9	8	7	-20.4	-33.0	-44.1	-20.4	-44.1	-1.11	-1.66	88.3	-1.66	-1.11	0.04	0.03
0-1R1-D	12	11	10	-16.0	-30.6	-50.4	-16.0	-50.4	-1.09	-2.02	89.4	-2.02	-1.09	0.01	0.04
0-1R1-E	15	14	13	-9.6	-26.7	-45.5	-9.5	-45.5	-0.76	-1.60	-88.6	-1.59	-0.76	-0.02	0.03
0-1R1-F	18	17	16	0.1	-6.4	-14.5	0.1	-14.5	-0.14	-0.48	-66.9	-0.48	-0.14	-0.02	0.02
0-1R1-G	21	20	19	3.3	-1.0	-3.8	3.4	-3.9	0.07	-0.10	84.2	-0.09	0.07	0.02	0.01
0-1R1-H	24	23	22	4.8	1.9	0.3	4.9	0.2	0.16	0.05	81.9	0.06	0.16	0.02	0.02
0-1R1-J	27	26	25	4.7	2.6	2.9	5.4	2.3	0.20	0.13	63.1	0.14	0.19	0.03	0.02
0-1R1-K	30	29	28	3.6	3.4	3.3	3.6	3.3	0.15	0.14	77.1	0.14	0.15	0.00	0.02
0-1R1-L	162	161	160	2.1	3.1	5.2	5.2	2.0	0.19	0.12	8.7	0.19	0.12	0.01	0.01
0-1R1-M	165	164	163	1.7	2.0	4.9	5.4	1.2	0.19	0.09	19.7	0.18	0.10	0.03	0.02
0-1R1-N	168	167	166	0.9	1.7	2.9	3.0	0.8	0.11	0.06	6.9	0.11	0.06	0.01	0.02
0-1R1-O	171**	170	169	0.8	-0.5	0.0	0.6	-0.5	0.01	-0.01	43.7	0.00	0.00	0.01	0.00
0-1R2-A	33	32	31	-0.8	-14.6	-29.7	-0.8	-29.7	-0.32	-0.99	-88.7	-0.99	-0.32	-0.02	0.03
0-1R2-B	36	35	34	-11.6	-18.0	-21.0	-11.4	-21.3	-0.58	-0.81	80.3	-0.81	-0.59	0.04	0.03
0-1R2-C	39	38	37	-17.7	-29.6	-36.9	-17.4	-37.2	-0.94	-1.40	84.3	-1.39	-0.95	0.05	0.03
0-1R2-D	42	41	40	-14.4	-37.4	-46.2	-12.9	-47.7	-0.90	-1.70	78.0	-1.67	-0.93	0.16	0.03
0-1R2-E	45	44	43	-12.0	-31.7	-37.2	-10.2	-39.1	-0.72	-1.39	75.5	-1.35	-0.76	0.16	0.03
0-1R2-F	48	47	46	-6.4	-13.1	-14.8	-5.7	-15.5	-0.34	-0.57	74.6	-0.55	-0.36	0.06	0.02
0-1R2-G	51	50	49	-0.7	-2.2	-6.9	-0.3	-7.3	-0.08	-0.24	-76.3	-0.23	-0.09	-0.04	0.02
0-1R2-H	54	53	52	2.5	3.9	-1.5	4.4	-3.4	0.11	-0.07	-60.1	-0.02	0.07	-0.08	0.01
0-1R2-J	57	56	55	3.3	6.1	2.5	6.1	-0.3	0.20	0.05	-48.6	0.11	0.13	-0.07	0.01
0-1R2-K	60	59	58	3.9	5.3	3.9	5.3	2.6	0.20	0.14	-44.8	0.17	0.17	-0.03	0.02
0-1R3-A	63	62	61	-1.2	-8.1	-16.8	-1.2	-16.9	-0.20	-0.57	-86.5	-0.57	-0.21	-0.02	0.01
0-1R3-B	66	65	64	-9.9	-8.2	-11.0	-8.1	-12.9	-0.40	-0.50	-51.6	-0.46	-0.44	-0.05	0.02
0-1R3-C	69	68	67	-13.1	-17.1	-21.4	-13.1	-21.4	-0.64	-0.84	-38.8	-0.84	-0.64	-0.04	0.02
0-1R3-D	72	71	70	-10.8	-23.7	-29.1	-10.0	-29.8	-0.63	-1.04	78.8	-1.07	-0.64	0.09	0.03
0-1R3-E	75	74	73	-12.2	-27.0	-25.2	-8.1	-29.2	-0.56	-1.04	63.7	-0.95	-0.65	0.19	0.04
0-1R3-F	78	77	76	-12.9	-20.0	-12.3	-5.2	-20.0	-0.37	-0.71	43.8	-0.53	-0.55	0.17	0.02
0-1R3-G	81	80	79	-8.4	-12.0	-9.9	-6.2	-12.1	-0.33	-0.46	52.3	-0.41	-0.38	0.07	0.02
0-1R3-H	84	83	82	-4.3	-0.0	-6.6	-4.2	-6.7	-0.20	-0.26	76.6	-0.26	-0.21	0.01	0.02
0-1R3-J	87	86	85	-1.5	1.6	-1.0	1.6	-4.1	0.01	-0.12	-42.6	-0.05	-0.06	-0.07	0.02
0-1R3-K	90	89	88	0.0	3.8	4.3	4.9	-0.6	0.16	0.03	-18.8	0.14	0.04	-0.04	0.01
0-1R4-A	681	680	679	-13.0	-18.7	-15.7	-9.8	-18.9	-0.51	-0.72	53.7	-0.65	-0.58	0.10	0.02
0-1R4-B	93	92	91	-13.7	-17.5	-7.8	-3.4	-18.1	-0.29	-0.63	33.3	-0.39	-0.53	0.15	0.02
0-1R4-C	96	95	94	-8.3	-12.4	-6.6	-2.2	-12.4	-0.20	-0.43	40.7	-0.30	-0.33	0.12	0.01
0-1R4-D	99	98	97	-2.3	-1.7	-3.6	-1.5	-4.3	-0.09	-0.16	-58.7	-0.14	-0.11	-0.03	0.02
0-1R5-A	102	101	100	-0.3	1.8	-5.0	2.4	-7.6	0.00	-0.23	-59.1	-0.17	-0.06	-0.10	0.01
0-1R5-B	105*	104	103	-7.1	2.8	-5.5	2.9	-15.4	-0.06	-0.48	-42.5	-0.25	-0.29	-0.21	0.03
0-1R5-C	108	107	106	-9.0	2.0	-7.3	2.1	-18.4	-0.11	-0.58	-42.6	-0.33	-4.37	-0.14	0.01
0-1R5-D	111	110	109	-10.3	-3.9	-8.6	-3.8	-15.1	-0.28	-0.54	-40.8	-0.39	-0.43	-0.23	0.01
0-1R5-E	114	113	112	-9.9	-8.9	-9.0	-8.7	-10.2	-0.39	-0.42	-24.3	-0.39	-0.42	-0.01	0.02
0-1R5-F	117	116	115	-12.8	-14.2	-6.0	-3.6	-15.3	-0.27	-0.54	27.1	-0.32	-0.48	0.11	0.02
0-1R5-G	120	119	118	-14.1	-14.6	-3.6	-1.1	-16.3	-0.20	-0.56	23.6	-0.26	-0.50	0.13	0.01
0-1R5-H	123	122	121	-12.1	-14.5	-5.1	-1.7	-15.5	-0.21	-0.53	29.7	-0.29	-0.45	0.14	0.02
0-1R5-J	126	125	124	-13.2	-13.1	-2.8	-0.6	-15.3	-0.17	-0.51	22.4	-0.22	-0.46	0.12	0.02
0-1R5-K	129	128	127	-10.4	-10.6	-3.5	-1.9	-12.0	-0.18	-0.41	23.3	-0.22	-0.38	0.08	0.02
0-1R6-A	132	131	130	0.3	8.4	0.5	8.4	-7.6	0.20	-0.17	-44.6	0.02	0.01	-0.19	0.01
0-1R6-B	135	134	133	3.0	13.4	-1.0	13.5	-11.4	0.33	-0.24	-49.6	-0.00	0.09	-0.28	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH								STRESS - KSI			TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(I)	SIG(T)			
0-1R6-C	138	137	136	-0.9	15.5	1.9	15.6	-14.6	0.37	-0.33	-42.3	0.05	-0.01	-0.35	0.01	
0-1R6-D	141	140	139	1.2	14.1	0.2	14.1	-12.7	0.34	-0.28	-46.1	0.02	0.04	-0.31	0.01	
0-1R6-E	144	143	142	1.7	6.4	-0.2	6.5	-5.0	0.16	-0.10	-49.7	0.01	0.05	-0.13	0.01	
0-1R6-F	147	146	145	1.3	0.4	-0.8	1.3	-0.8	0.04	-0.01	-85.9	-0.01	0.04	-0.00	0.02	
0-1R6-G	150	149	148	2.2	-1.0	-0.5	3.2	-1.5	0.09	-0.02	63.2	0.00	0.07	0.04	0.02	
0-1R6-H	153	152	151	1.6	-0.5	0.0	2.4	-0.7	0.07	-0.00	60.4	0.02	0.05	0.03	0.00	
0-1R6-J	156	155	154	1.1	-0.1	-0.1	1.3	-0.3	0.04	0.00	69.3	0.01	0.04	0.01	0.01	
0-1R6-K	159	158	157	0.7	1.0	0.2	1.0	-0.2	0.03	0.00	-58.7	0.01	0.03	-0.01	0.01	
0-2R1-A	174	173	172	2.9	16.2	33.2	33.3	2.8	1.12	0.42	3.5	1.12	0.42	0.04	0.02	
0-2R1-B	177	176	175	14.1	17.9	23.7	23.8	14.0	0.92	0.70	5.6	0.92	0.70	0.02	0.02	
0-2R1-C	180	179	178	22.0	32.5	45.6	45.7	21.9	1.72	1.17	3.2	1.72	1.18	0.03	0.03	
0-2R1-D	183	182	181	16.4	33.5	55.9	56.1	16.2	2.01	1.09	3.8	2.00	1.09	0.06	0.03	
0-2R1-E	186	185	184	9.9	23.6	42.6	42.9	9.6	1.51	0.74	4.6	1.50	0.75	0.06	0.03	
0-2R1-F	189	188	187	1.0	5.3	12.2	12.4	0.9	0.42	0.15	6.9	0.41	0.16	0.03	0.02	
0-2R1-G	192	191	190	-3.4	-1.8	2.2	2.5	-3.7	0.05	-0.10	11.9	0.04	-0.09	0.03	0.01	
0-2R1-H	195	194	193	-5.5	-4.3	-2.0	-1.9	-3.6	-0.12	-0.20	9.1	-0.12	-0.20	0.01	0.02	
0-2R1-J	198	197	196	-5.1	-4.8	-3.1	-2.9	-5.3	-0.15	-0.20	17.0	-0.15	-0.20	0.02	0.02	
0-2R1-K	201	200	199	-4.6	-4.6	-4.2	-4.1	-4.7	-0.18	-0.19	24.7	-0.18	-0.19	0.01	0.02	
0-2R1-L	333	332	331	-2.0	-3.7	-5.2	-2.0	-5.2	-0.12	-0.19	88.2	-0.19	-0.12	0.00	0.02	
0-2R1-M	336	335	334	-2.5	-4.0	-5.0	-2.5	-5.0	-0.13	-0.19	85.6	-0.19	-0.13	0.00	0.02	
0-2R1-N	339	338	337	-0.7	-2.7	-2.0	0.2	-2.8	-0.02	-0.09	57.6	-0.07	-0.04	0.03	0.02	
0-2R2-A	204	203	202	0.8	13.6	26.2	26.2	0.8	0.87	0.29	-0.3	0.87	0.29	-0.00	0.03	
0-2R2-B	207	206	205	12.4	18.1	20.9	21.1	12.2	0.82	0.61	-9.7	0.81	0.62	-0.03	0.01	
0-2R2-C	210	209	208	18.7	32.4	40.0	40.4	18.2	1.51	1.00	-8.2	1.50	1.01	-0.07	0.02	
0-2R2-D	213	212	211	14.4	32.4	47.4	48.0	13.8	1.72	0.93	-7.6	1.70	0.94	-0.10	0.02	
0-2R2-E	216	215	214	11.3	26.6	37.7	37.9	11.1	1.36	0.74	-4.7	1.35	0.74	-0.05	0.02	
0-2R2-F	219	218	217	5.9	10.7	14.5	14.6	5.9	0.54	0.34	-3.6	0.54	0.34	-0.04	0.02	
0-2R2-G	222	221	220	0.3	0.3	5.5	6.5	-0.7	0.21	0.04	22.7	0.18	0.07	0.06	0.01	
0-2R2-H	225	224	223	-3.2	-5.3	1.9	4.5	-5.9	0.09	-0.15	30.6	0.03	-0.09	0.11	0.01	
0-2R2-J	228	227	226	-2.9	-7.9	-3.2	1.8	-7.9	-0.02	-0.24	46.1	-0.13	-0.13	0.11	0.01	
0-2R2-K	231	230	229	-3.7	-8.3	-4.4	0.2	-8.3	-0.08	-0.27	47.2	-0.18	-0.17	0.10	0.01	
0-2R3-A	234	233	232	1.3	8.3	15.5	15.5	1.3	0.52	0.20	0.5	0.52	0.20	0.00	0.01	
0-2R3-B	237	236	235	10.9	10.4	12.9	13.7	10.1	0.55	0.47	27.4	0.53	0.49	0.03	0.02	
0-2R3-C	240	239	238	12.9	16.4	23.3	23.5	12.6	0.90	0.65	8.9	0.89	0.65	0.04	0.02	
0-2R3-D	243	242	241	10.3	26.6	30.6	32.3	8.6	1.15	0.60	-15.6	1.11	0.64	-0.14	0.02	
0-2R3-E	246	245	244	12.8	26.1	21.4	27.1	7.1	0.96	0.50	-32.3	0.83	0.63	-0.21	0.03	
0-2R3-F	249	248	247	11.3	18.5	13.3	18.5	6.0	0.67	0.38	-40.2	0.55	0.50	-0.14	0.02	
0-2R3-G	252	251	250	7.5	11.6	9.3	11.7	5.1	0.44	0.28	-37.2	0.38	0.34	-0.07	0.02	
0-2R3-H	255	254	253	3.0	3.0	6.0	6.6	2.3	0.24	0.14	22.2	0.23	0.16	0.03	0.02	
0-2R3-J	258	257	256	-0.2	-3.0	1.1	4.0	-3.0	0.10	-0.06	39.9	0.03	0.01	0.08	0.01	
0-2R3-K	261	260	259	-1.1	-7.3	-5.2	1.5	-7.8	-0.03	-0.24	58.0	-0.18	-0.09	0.10	0.01	
0-2R4-A	664	662	662	9.1	18.1	19.0	20.5	7.6	0.75	0.45	-19.7	0.72	0.49	-0.09	0.02	
0-2R4-B	264	263	262	10.8	17.6	9.0	17.7	2.1	0.60	0.24	-48.2	0.40	0.44	-0.18	0.02	
0-2R4-C	267	266	265	7.0	11.2	6.4	11.2	2.2	0.39	0.18	-47.2	0.28	0.33	-0.10	0.01	
0-2R4-D	270	269	268	1.6	3.3	5.7	5.7	1.6	0.20	0.11	4.4	0.20	0.11	0.01	0.02	
0-2R5-A	273	272	271	1.4	-2.0	5.7	10.1	-2.9	0.30	0.00	35.4	0.20	0.10	0.14	0.01	
0-2R5-B	276	275	274	8.5	-2.5	3.5	14.9	-2.8	0.46	0.05	53.2	0.20	0.32	0.20	0.01	
0-2R5-C	279	278	277	9.6	0.3	6.8	16.4	-0.1	0.54	0.16	49.8	0.32	0.38	0.19	0.03	
0-2R5-D	282	281	280	7.4	5.6	11.8	14.1	5.1	0.51	0.31	30.5	0.46	0.36	0.09	0.01	
0-2R5-E	285	284	283	8.3	11.2	10.0	11.5	7.4	0.45	0.36	-28.1	0.43	0.38	-0.04	0.03	
0-2R5-F	288	287	286	12.0	16.0	5.6	16.7	0.9	0.56	0.19	-57.0	0.30	0.45	-0.17	0.02	
0-2R5-G	291	290	289	13.7	14.7	3.2	18.6	0.3	0.55	0.17	-65.0	0.24	0.48	-0.14	0.02	
0-2R5-H	294*	293	292	13.6	14.3	4.0	16.1	1.5	0.55	0.21	-65.4	0.27	0.49	-0.13	0.04	
0-2R5-J	297	296	295	11.0	13.6	3.2	14.6	-0.4	0.48	0.13	-60.4	0.22	0.39	-0.15	0.01	
0-2R5-K	300	299	298	7.5	11.2	4.8	11.4	1.0	0.38	0.19	-52.5	0.23	0.30	-0.12	0.01	
0-2R6-A	303	302	301	-1.0	-8.1	1.4	8.6	-8.1	0.20	-0.19	40.9	0.04	-0.02	0.19	0.01	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SHIN	PHI	SIG(L)	SIG(T)	T U	CONF
0-2R6-B	306	305	304	1.7	-15.1	-3.7	13.3	-15.4	0.29	-0.37	50.4	-0.11	0.02	0.33	0.01
0-2R6-C	309	308	307	2.1	-15.2	-3.3	14.2	-15.4	0.32	-0.37	50.2	-0.09	0.04	0.34	0.01
0-2R6-D	312	311	310	-0.7	-11.8	-0.7	10.4	-11.8	0.23	-0.29	45.0	-0.03	-0.03	0.26	0.01
0-2R6-E	315	314	313	-1.2	-3.6	0.0	2.5	-3.7	0.04	-0.10	39.0	-0.01	-0.04	0.07	0.01
0-2R6-F	318	317	316	-1.1	1.9	-0.3	1.9	-3.4	0.03	-0.09	40.5	-0.02	-0.04	-0.06	0.01
0-2R6-G	321	320	319	-1.2	2.4	-0.2	2.5	-3.9	0.04	-0.10	40.3	-0.02	-0.04	-0.07	0.01
0-2R6-H	324	323	322	-0.7	3.4	0.1	3.4	-4.0	0.07	-0.10	42.0	-0.00	-0.02	-0.08	0.01
0-2R6-J	327	326	325**	-0.6	2.4	0.0	2.4	-3.0	0.05	-0.07	42.1	-0.01	-0.02	-0.06	0.01
0-2R6-K	330	329	328**	-0.2	1.7	0.0	1.7	-1.9	0.04	-0.05	43.8	-0.00	-0.01	-0.04	0.01
I-1R1-A	340	341	342	-38.7	-20.4	7.6	8.1	-39.2	-0.12	-1.21	84.1	-1.20	-0.13	-0.11	0.02
I-1R1-B	343	344	345	-6.1	-7.4	-7.8	-6.0	-7.9	-0.27	-0.32	14.8	-0.28	-0.32	-0.01	0.02
I-1R1-C	346	347	348	26.6	5.8	-14.8	26.6	-14.8	0.73	-0.22	-0.2	0.73	-0.22	-0.00	0.02
I-1R1-D	349	350	351	27.3	10.5	-5.9	27.3	-5.9	0.84	0.08	-0.3	0.84	0.08	-0.00	0.02
I-1R1-E	352	353	354	21.0	10.0	-1.0	21.0	-1.0	0.68	0.17	0.2	0.68	0.17	0.00	0.02
I-1R1-F	355	356	357	0.3	-1.6	-3.3	0.3	-3.3	-0.02	-0.11	-1.7	-0.02	-0.11	-0.00	0.02
I-1R1-G	358	359	360	-4.9	-3.4	-1.5	-1.5	-4.9	-0.10	-0.18	-66.6	-0.18	-0.10	-0.00	0.01
I-1R1-H	361	362	363**	-5.7	-3.5	0.0	0.1	-5.8	-0.05	-0.19	83.2	-0.19	-0.08	-0.02	0.01
I-1R1-I	364	365	366	-6.5	-2.1	1.6	1.6	-6.4	-0.01	-0.19	88.2	-0.19	-0.01	0.01	0.01
I-1R1-J	367	368	369	-6.9	-1.3	2.6	2.6	-7.0	0.02	-0.20	85.0	-0.20	0.02	0.02	0.01
I-1R1-L	499	500	501	-6.9	-2.2	3.6	3.6	-6.9	0.05	-0.19	87.2	-0.19	0.05	-0.01	0.02
I-1R1-M	502	503	504	-6.7	-2.2	2.2	2.2	-6.7	0.01	-0.20	89.7	-0.20	0.01	0.00	0.01
I-1R1-N	505	506	507	-4.5	-1.8	0.8	0.8	-4.5	-0.02	-0.14	89.3	-0.14	-0.02	0.00	0.02
I-1R1-O	508	509	510	-0.2	-0.4	-0.0	0.2	-0.4	0.00	-0.01	52.0	-0.01	-0.00	-0.01	0.01
I-1R2-A	370	371	372	-26.8	-13.4	0.7	0.7	-26.8	-0.24	-0.88	89.4	-0.88	-0.24	-0.01	0.01
I-1R2-B	373	374	375	-5.1	-9.9	-13.4	-5.0	-13.5	-0.30	-0.69	4.0	-0.30	-0.49	-0.01	0.02
I-1R2-C	376	377	378	26.2	7.6	-17.2	26.4	-17.4	0.70	-0.31	4.0	0.69	-0.31	0.07	0.02
I-1R2-D	379	380	381	16.7	26.6	1.3	28.2	-10.2	0.83	-0.06	33.2	0.56	0.21	0.41	0.02
I-1R2-E	382	383	384	14.8	30.5	9.8	30.7	-6.0	0.95	0.12	41.1	0.59	0.47	0.42	0.02
I-1R2-F	385	386	387	6.9	17.5	3.2	17.7	-7.5	0.51	-0.07	40.7	0.26	0.17	0.29	0.01
I-1R2-G	388	389	390	-1.0	7.7	2.5	7.9	-6.4	0.20	-0.13	52.0	-0.01	0.07	0.16	0.01
I-1R2-H	391	392	393	-3.9	0.2	0.4	1.1	-4.6	-0.01	-0.14	69.4	-0.12	-0.02	0.04	0.01
I-1R2-J	394	395	396	-5.8	-2.8	0.4	0.4	-5.8	-0.04	-0.19	88.8	-0.19	-0.04	-0.00	0.01
I-1R2-K	397	398	399	-7.3	-4.0	1.6	1.8	-7.5	-0.02	-0.23	82.6	-0.23	-0.02	-0.03	0.02
I-1R3-A	400	401	402	-15.5	-9.5	-6.7	-6.4	-15.8	-0.37	-0.58	79.8	-0.58	-0.38	0.04	0.02
I-1R3-B	403	404	405	5.2	-6.2	-17.8	5.2	-17.8	-0.00	-0.54	0.3	-0.00	-0.54	0.00	0.01
I-1R3-C	406	407	408	15.2	8.8	-12.5	17.1	-14.3	0.42	-0.30	14.2	0.38	-0.26	0.17	0.02
I-1R3-D	409	410	411	14.7	26.8	6.3	27.3	-6.3	0.81	0.06	37.9	0.55	0.35	0.38	0.02
I-1R3-E	412	413	414	12.2	33.8	16.3	33.9	-5.3	1.06	0.16	48.0	0.56	0.66	0.45	0.03
I-1R3-F	415	416	417	8.8	28.6	15.3	29.0	-4.9	0.91	0.13	50.6	0.44	0.59	0.38	0.02
I-1R3-G	418	419	420	3.1	17.8	12.6	18.9	-3.2	0.59	0.08	57.6	0.23	0.44	0.23	0.01
I-1R3-H	421	422	423	0.2	9.3	6.9	10.2	-3.1	0.31	-0.00	60.3	0.07	0.23	0.13	0.01
I-1R3-J	424	425	426	-1.9	1.6	0.6	2.0	-3.2	0.03	-0.09	59.6	-0.06	0.00	0.05	0.02
I-1R3-K	427	428	429	-7.6	-4.3	0.5	0.6	-7.7	-0.06	-0.25	85.0	-0.24	-0.06	-0.02	0.01
I-1R4-A	430	431	432	4.9	29.2	20.2	30.9	-5.8	0.96	0.12	57.3	0.36	0.71	0.38	0.02
I-1R4-B	433	434	435	4.5	23.4	17.2	25.9	-3.2	0.79	0.14	58.4	0.32	0.61	0.29	0.01
I-1R4-C	436	437	438	4.7	15.5	8.4	15.7	-2.6	0.49	0.07	50.9	0.24	0.32	0.21	0.02
I-1R4-D	439	440	441	0.2	4.1	2.1	4.3	-2.0	0.12	-0.02	53.7	0.03	0.07	0.07	0.01
I-1R5-A	439	440	441	-8.4	-6.0	-7.0	-5.8	-9.6	-0.29	-0.37	55.6	-0.35	-0.31	0.04	0.02
I-1R5-B	442	443	444	7.4	-2.0	-13.6	7.4	-13.7	0.11	-0.38	3.2	0.11	-0.38	0.03	0.01
I-1R5-C	445	446	447	8.5	6.5	-9.7	10.9	-12.1	0.24	-0.29	18.9	0.19	-0.24	0.16	0.01
I-1R5-D	448	449	450	5.8	20.6	7.2	20.6	-7.7	0.60	-0.05	46.3	0.26	0.29	0.33	0.01
I-1R5-E	453	452	451	14.5	23.2	4.0	24.2	-5.7	0.74	0.05	34.7	0.52	0.28	0.32	0.02
I-1R5-F	454	455	456	4.5	22.9	14.0	23.7	-5.3	0.73	0.06	54.6	0.29	0.50	0.32	0.02
I-1R5-G	457	458	459	3.5	21.3	16.1	22.9	-3.4	0.72	0.12	59.3	0.27	0.56	0.27	0.02
I-1R5-H	460	461	462	1.4	18.4	15.9	20.8	-3.5	0.65	0.09	63.4	0.20	0.54	0.22	0.01
I-1R5-J	463	464	465	1.1	15.2	14.5	17.8	-2.1	0.57	0.11	66.1	0.18	0.49	0.17	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

FORM 1001 REVISED BY THE AIR FORCE RESEARCH LABORATORY

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
I-1R0-K	466	467	468	3.0	12.1	10.9	13.5	0.5	0.45	0.15	63.6	0.21	0.39	0.12	0.01
I-1R6-A	469	470	471	0.3	1.6	1.0	1.6	-0.3	0.05	0.01	55.7	0.02	0.04	0.02	0.01
I-1R6-B	472	473**	474	-0.1	0.0	3.2	3.9	-0.7	0.12	0.02	-68.1	0.03	0.11	-0.04	0.01
I-1R6-C	475	476	477	-0.7	6.3	2.4	6.5	-7.9	0.17	-0.10	52.9	-0.00	0.07	0.13	0.01
I-1R6-D	478	479	480	0.3	12.2	-1.0	2.2	-12.9	0.27	-0.31	43.6	-0.00	-0.03	0.29	0.01
I-1R6-E	481	482	483	-1.2	11.9	-0.7	1.9	-13.8	0.26	-0.34	45.5	-0.05	-0.03	0.30	0.01
I-1R6-F	484	485	486	1.1	8.9	-1.7	9.0	-9.6	0.20	-0.23	40.7	0.02	-0.04	0.21	0.01
I-1R6-G	487	488	489	-0.2	7.4	-1.3	7.4	-8.9	0.16	-0.22	43.2	-0.02	-0.04	0.19	0.01
I-1R6-H	490	491	492	-0.3	4.8	-1.9	4.8	-7.0	0.09	-0.18	40.9	-0.03	-0.07	0.13	0.01
I-1R6-J	493	494	495	0.1	2.7	-1.8	2.9	-4.5	0.05	-0.12	37.5	-0.01	-0.06	0.08	0.01
I-1R6-K	496	497	498	-0.4	2.1	-0.7	2.1	-3.2	0.04	-0.09	43.8	-0.02	-0.03	0.06	0.00
I-2R1-A	511	512	513	27.9	9.8	-7.6	27.9	-7.6	0.85	0.03	-0.6	0.85	0.03	-0.01	0.02
I-2R1-B	514	515	516	19.0	9.8	4.5	19.2	4.3	0.68	0.33	-7.6	0.67	0.34	-0.05	0.02
I-2R1-C	517	518	519	-30.6	-6.9	14.7	14.7	-30.7	0.18	-0.86	88.7	-0.86	0.18	0.02	0.03
I-2R1-D	520	521	522	-29.0	-15.2	4.6	4.8	-29.2	-0.13	-0.92	-85.0	-0.91	-0.14	-0.07	0.03
I-2R1-E	523	524	525	-21.1	-11.3	0.6	0.6	-21.2	-0.19	-0.69	-87.3	-0.69	-0.19	-0.02	0.03
I-2R1-F	526	527	528	-0.1	0.3	2.4	2.7	-0.3	0.08	0.01	-72.7	0.02	0.08	-0.02	0.02
I-2R1-G	529	530	531	6.4	2.8	1.8	6.7	1.5	0.24	0.12	-14.6	0.23	0.12	-0.03	0.02
I-2R1-H	532	533	534	6.4	1.9	-0.4	6.5	-0.6	0.21	0.05	-8.4	0.21	0.05	-0.02	0.01
I-2R1-J	535	536**	537	6.3	0.0	-2.4	6.8	-2.8	0.20	-0.03	-12.3	0.19	-0.02	-0.05	0.01
I-2R1-K	538	539	540	6.0	1.7	-3.0	6.0	-3.1	0.17	-0.04	-4.7	0.17	-0.04	-0.02	0.02
I-2R1-L	672	671	670	-3.3	1.3	6.4	6.4	-3.3	0.18	-0.05	1.3	0.18	-0.05	0.01	0.01
I-2R1-M	675	674	673	-3.0	1.0	6.7	6.8	-3.0	0.19	-0.03	5.1	0.19	-0.03	0.02	0.02
I-2R1-N	678	677	676	-1.1	0.3	3.3	3.4	-1.3	0.10	-0.01	10.3	0.10	-0.00	0.02	0.01
I-2R2-A	541	542	543	23.3	14.0	1.9	23.4	1.8	0.79	0.24	3.9	0.79	0.24	0.03	0.02
I-2R2-B	544	545	546	0.6	9.2	13.8	14.1	0.2	0.47	0.15	81.5	0.16	0.46	0.05	0.01
I-2R2-C	547	548	549	-28.9	-13.9	13.6	14.5	-28.8	0.18	-0.84	-01.8	-0.92	0.16	-0.15	0.02
I-2R2-D	550	551	552	-25.3	-28.6	-3.4	3.6	-32.3	-0.20	-1.03	-63.8	-0.87	-0.36	-0.33	0.02
I-2R2-E	553	554	555	-10.3	-32.4	-11.0	3.5	-32.8	-0.21	-1.05	-50.9	-0.71	-0.54	-0.41	0.02
I-2R2-F	556	557	558	-4.0	-18.4	-6.4	8.1	-18.5	0.08	-0.53	-42.3	-0.19	-0.25	-0.31	0.01
I-2R2-G	559	560	561	1.9	-7.6	-2.8	7.1	-8.0	0.16	-0.19	-36.0	0.04	-0.07	-0.17	0.01
I-2R2-H	562	563	564	4.5	-0.3	-1.0	5.2	-1.7	0.16	-0.00	-18.6	0.14	0.01	-0.05	0.02
I-2R2-J	565	566	567	6.2	2.1	-1.4	6.3	-1.4	0.19	0.02	-2.3	0.19	0.02	-0.01	0.01
I-2R2-K	568	569	570	7.6	3.0	-1.9	7.6	-1.9	0.23	0.01	1.2	0.23	0.01	0.00	0.01
I-2R3-A	571	572	573	13.9	9.7	6.9	14.0	6.8	0.53	0.36	-5.6	0.53	0.36	-0.02	0.01
I-2R3-B	574	575	576	-8.9	3.7	16.7	16.7	-8.9	0.46	-0.13	-89.5	-0.13	0.46	-0.02	0.02
I-2R3-C	577	578	579	-17.8	-9.0	11.4	12.5	-18.9	0.23	-0.50	-79.1	-0.47	0.20	-0.13	0.02
I-2R3-D	580	581	582	-16.3	-29.0	-8.8	1.3	-29.4	-0.15	-0.93	-51.4	-0.63	-0.45	-0.38	0.02
I-2R3-E	593	584	585	-14.0	-35.7	-17.5	4.2	-35.8	-0.21	-1.14	-42.5	-0.64	-0.72	-0.46	0.02
I-2R3-F	586	587	588	-0.7	-25.0	-21.0	6.6	-28.3	-0.06	-0.87	-27.2	-0.23	-0.70	-0.33	0.02
I-2R3-G	589	590	591	-0.7	-18.3	-14.2	5.3	-20.2	-0.03	-0.61	-29.0	-0.16	-0.48	-0.15	0.02
I-2R3-H	592	593	594	0.1	-9.9	-6.6	4.1	-10.6	0.03	-0.31	-31.6	-0.06	-0.22	-0.15	0.01
I-2R3-J	595	596	597	3.0	-1.5	-3.0	3.4	-3.4	0.08	-0.08	-13.5	0.07	-0.07	-0.04	0.02
I-2R3-K	598	599	600	7.2	1.7	-0.6	7.4	-1.1	0.23	0.04	-18.2	0.23	0.04	-0.03	0.01
I-2R4-A	608	609	610	-3.3	-29.4	-23.4	5.6	-32.3	-0.13	-1.01	-28.9	-0.34	-0.80	-0.37	0.03
I-2R4-B	601	602	603	-6.4	-24.8	-16.4	2.9	-25.7	-0.16	-0.82	-34.8	-0.37	-0.60	-0.31	0.02
I-2R4-C	604	605	606	-2.0	-15.5	-12.8	2.4	-17.2	-0.09	-0.54	-28.2	-0.19	-0.44	-0.19	0.01
I-2R4-D	607	608	609	1.0	-7.9	-8.9	2.4	-10.3	-0.02	-0.32	-19.4	-0.06	-0.28	-0.09	0.02
I-2R5-A	610	611	612	5.7	5.5	5.8	6.1	5.5	0.25	0.24	-50.1	0.25	0.25	-5.01	0.03
I-2R5-B	613	614	615	-8.6	-0.5	11.9	12.2	-8.9	0.31	-0.17	-64.2	-0.17	0.31	-0.05	0.01
I-2R5-C	616	617	618	-7.4	-10.5	3.4	8.2	-12.1	0.15	-0.32	-61.2	-0.21	0.04	-0.20	0.02
I-2R5-D	619	620	621	-3.2	-19.2	-10.9	5.7	-19.8	-0.01	-0.60	-36.3	-0.21	-0.39	-0.28	0.02
I-2R5-E	622	623	624	-8.1	-5.6	-13.1	4.6	-25.8	-0.10	-0.60	-40.3	-0.40	-0.51	-0.35	0.02
I-2R5-F	625	626	627	-3.0	-22.9	-18.5	3.6	-25.1	-0.13	-0.79	-28.8	-0.28	-0.64	-0.28	0.02
I-2R5-G	628	629	630	-1.3	-19.9	-20.3	2.3	-24.0	-0.16	-0.77	-21.8	-0.24	-0.68	-0.21	0.02
I-2R5-H	631	632	633	-0.1	-17.4	-18.2	3.0	-21.4	-0.11	-0.68	-21.0	-0.19	-0.60	-0.19	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

COMBUSTION T-12, LOAD CASE 2, M3Y

NOMINAL LOAD = 2.992E 04

LOCATION	GAGE NUMBERS			STRAIN - MILDINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
O-1R1-A	3	4	5	-0.2	-17.4	-0.7	16.4	-17.4	0.37	-0.41	45.4	-0.03	-0.01	0.39	0.01
O-1R1-B	6	5	4	0.1	-8.1	0.9	9.2	-8.2	0.22	-0.18	43.7	0.03	0.01	0.20	0.01
O-1R1-C	9	8	7	1.2	-6.8	-0.4	7.6	-6.8	0.18	-0.15	48.2	-0.00	0.04	0.17	0.01
O-1R1-D	12	11	10	0.7	-8.5	-0.3	8.9	-8.5	0.21	-0.19	46.8	-0.00	0.02	0.20	0.01
O-1R1-E	15	14	13	1.3	-9.9	-0.9	10.3	-10.0	0.24	-0.23	48.1	-0.02	0.03	0.23	0.01
O-1R1-F	18	17	16	0.6	-7.7	-0.7	7.6	-7.7	0.17	-0.18	47.5	-0.02	0.01	0.18	0.00
O-1R1-G	21	20	19	-0.2	-5.8	-0.1	5.5	-5.8	0.12	-0.14	44.7	-0.01	-0.01	0.13	0.01
O-1R1-H	24	23	22	-1.0	-3.3	0.1	2.5	-3.4	0.05	-0.09	39.8	-0.01	-0.03	0.07	0.01
O-1R1-I	27	26	25	-0.7	-1.9	0.2	1.4	-1.9	0.03	-0.05	37.0	0.00	-0.02	0.04	0.00
O-1R1-J	30	29	28	-1.0	-1.2	-0.2	0.1	-1.3	-0.01	-0.04	26.0	-0.02	-0.04	0.01	0.01
O-1R1-K	162	161	160	-0.8	0.1	0.2	0.3	-0.9	0.00	-0.03	-20.3	-0.00	-0.02	-0.01	0.00
O-1R1-L	165	164	163	-0.5	0.1	0.2	0.3	-0.6	0.00	-0.02	-15.7	0.00	-0.02	-0.01	0.00
O-1R1-M	168	167	166	-0.5	0.2	0.1	0.3	-0.7	0.00	-0.02	-24.1	-0.00	-0.02	-0.01	0.00
O-1R1-N	171**	170	169	0.0	0.4	-0.1	0.4	-0.5	0.01	-0.01	-48.6	-0.00	-0.00	-0.01	0.00
O-1R2-A	33	32	31	3.5	-20.9	-10.1	15.6	-22.2	0.29	-0.58	55.5	-0.30	0.02	0.41	0.01
O-1R2-B	36	35	34	4.2	-10.1	-2.5	12.3	-10.6	0.30	-0.23	53.6	-0.04	0.11	0.25	0.01
O-1R2-C	39	38	37	4.4	-6.3	-0.5	10.5	-6.7	0.28	-0.12	53.3	0.03	0.14	0.19	0.00
O-1R2-D	42	41	40	2.2	-6.0	1.7	10.0	-6.0	0.27	-0.10	45.9	0.08	0.09	0.19	0.01
O-1R2-E	45	44	43	2.9	-4.0	2.9	10.4	-4.6	0.30	-0.05	45.1	0.12	0.12	0.17	0.01
O-1R2-F	48	47	46	3.6	-2.4	2.8	8.8	-2.5	0.27	0.01	47.2	0.13	0.15	0.13	0.01
O-1R2-G	51	50	49	1.6	-1.4	1.3	4.3	-1.4	0.13	-0.00	46.1	0.06	0.06	0.07	0.01
O-1R2-H	54	53	52	0.4	-2.5	0.4	3.3	-2.5	0.08	-0.05	44.9	0.02	0.02	0.07	0.00
O-1R2-I	57	56	55	-0.5	-1.9	-0.6	0.7	-1.9	0.01	-0.05	46.2	-0.03	-0.02	0.03	0.01
O-1R2-J	60	59	58	-1.0	-1.7	-0.6	0.0	-1.7	-0.02	-0.06	38.3	-0.03	-0.04	0.02	0.00
O-1R3-A	63	62	61	4.0	-26.7	-13.6	18.8	-28.4	0.34	-0.75	55.9	-0.41	-0.00	0.51	0.01
O-1R3-B	66	65	64	6.4	-15.8	-4.9	17.8	-16.3	0.43	-0.36	54.7	-0.10	0.16	0.37	0.01
O-1R3-C	69	68	67	5.5	-7.1	-1.8	11.5	-7.8	0.30	-0.14	56.0	-0.01	0.16	0.21	0.01
O-1R3-D	72	71	70	3.1	-3.4	1.0	7.5	-3.5	0.21	-0.04	50.6	0.06	0.11	0.12	0.01
O-1R3-E	75	74	73	2.3	0.0	3.2	5.5	-0.0	0.18	0.05	40.6	0.13	0.11	0.06	0.01
O-1R3-F	78	77	76	4.1	3.4	2.5	4.1	2.5	0.16	0.12	-87.2	0.12	0.16	-0.00	0.01
O-1R3-G	81	80	79	3.0	1.9	1.6	3.1	1.5	0.12	0.08	74.8	0.08	0.11	0.01	0.01
O-1R3-H	84	83	82	1.5	0.5	0.9	2.0	0.4	0.07	0.03	57.4	0.04	0.06	0.02	0.01
O-1R3-I	87	86	85	-0.0	-1.6	-0.1	1.4	-1.6	0.03	-0.04	45.8	-0.00	-0.00	0.04	0.01
O-1R3-J	90	89	88	-0.2	-1.4	-1.4	0.0	-1.6	-0.01	-0.05	67.3	-0.05	-0.02	0.01	0.01
O-1R4-A	681	680	679	1.7	0.6	2.6	3.8	0.5	0.13	0.05	36.9	0.10	0.08	0.04	0.01
O-1R4-B	93	92	91	3.3	3.2	0.8	3.8	0.3	0.13	0.05	-68.4	0.06	0.12	-0.03	0.01
O-1R4-C	96	95	94	1.6	1.9	1.5	1.9	1.2	0.07	0.06	-52.5	0.06	0.07	-0.01	0.01
O-1R4-D	99	98	97	0.3	-0.2	0.6	1.1	-0.2	0.04	0.00	39.6	0.02	0.02	0.01	0.01
O-1R5-A	102	101	100	1.2	-26.8	-5.7	22.5	-27.1	0.48	-0.67	49.0	-0.18	-0.02	0.57	0.01
O-1R5-B	105	104	103	2.9	-18.0	-2.4	18.7	-18.2	0.44	-0.42	49.1	-0.05	0.07	0.42	0.01
O-1R5-C	108	107	106	2.6	-10.3	-0.4	12.6	-10.4	0.31	-0.22	48.8	0.01	0.06	0.26	0.00
O-1R5-D	111	110	109	2.0	-4.1	0.3	6.5	-4.1	0.17	-0.07	49.6	0.03	0.07	0.12	0.00
O-1R5-E	114	113	112	1.6	-0.2	1.2	3.0	-0.2	0.10	0.02	48.0	0.06	0.06	0.04	0.00
O-1R5-F	117	116	115	3.1	2.8	0.5	3.4	0.2	0.11	0.04	-71.5	0.05	0.11	-0.02	0.01
O-1R5-G	120	119	118	2.7	2.6	0.4	3.1	-0.0	0.10	0.03	-69.6	0.04	0.09	-0.02	0.01
O-1R5-H	123	122	121	2.2	2.6	0.5	2.8	-0.1	0.09	0.03	-62.6	0.04	0.08	-0.03	0.01
O-1R5-I	126	125	124	2.7	1.8	0.2	2.7	0.2	0.09	0.03	-83.3	0.03	0.09	-0.01	0.01
O-1R5-J	129	128	127	1.8	1.9	0.7	2.1	0.4	0.07	0.03	-63.3	0.04	0.07	-0.02	0.01
O-1R6-A	132	131	130	-1.8	-23.7	1.7	23.7	-23.8	0.55	-0.55	42.9	0.04	-0.04	0.55	0.01
O-1R6-B	135	134	133	-2.9	-19.8	2.7	19.8	-20.0	0.45	-0.46	41.0	0.06	-0.07	0.45	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI				TAU	CONF	
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)			SIG(T)
0-1R6-C	138	137	136	2.3	-12.6	-2.3	12.8	-12.8	0.29	-0.30	50.1	-0.05	0.05	0.29	0.00
0-1R6-D	141	140	139	0.0	-6.5	0.1	6.7	-6.5	0.16	-0.15	44.8	0.01	0.00	0.15	0.01
0-1R6-E	144	143	142	0.0	-1.6	0.2	1.9	-1.6	0.05	-0.03	43.6	0.01	0.00	0.04	0.01
0-1R6-F	147	146	145	-0.1	0.6	0.0	0.6	-0.7	0.01	-0.02	-41.9	-0.00	-0.00	-0.01	0.00
0-1R6-G	150	149	148	-0.0	0.8	0.1	0.8	-0.8	0.02	-0.02	-42.1	0.00	-0.00	-0.02	0.00
0-1R6-H	153	152	151	0.2	0.5	-0.1	0.5	-0.5	0.01	-0.01	-54.2	-0.00	0.00	-0.01	0.00
0-1R6-J	156**	155	154	0.0	0.2	0.1	0.2	-0.1	0.01	-0.00	-39.3	0.00	0.00	-0.00	0.00
0-1R6-K	159**	158	157**	0.0	-0.1	0.0	0.1	-0.1	0.00	-0.00	45.0	0.00	-0.00	0.00	0.00
0-2R1-A	174	173	172	0.3	-16.5	-0.3	16.4	-16.5	0.38	-0.38	45.5	-0.01	0.01	0.38	0.01
0-2R1-B	177	176	175	0.4	-8.5	0.6	9.6	-8.5	0.23	-0.19	44.8	0.02	0.02	0.21	0.01
0-2R1-C	180	179	178	1.7	-6.6	-0.5	7.9	-6.7	0.19	-0.14	49.5	-0.00	0.05	0.17	0.01
0-2R1-D	183	182	181	2.0	-7.9	-0.1	9.9	-8.0	0.25	-0.17	46.4	0.02	0.06	0.20	0.01
0-2R1-E	186	185	184	1.7	-9.4	-0.9	10.2	-9.5	0.24	-0.21	48.8	-0.01	0.05	0.23	0.01
0-2R1-F	189	188	187	1.1	-8.1	-0.9	8.3	-8.2	0.19	-0.19	48.5	-0.02	0.03	0.19	0.01
0-2R1-G	192	191	190	0.4	-6.0	-1.1	5.4	-6.1	0.12	-0.15	48.9	-0.03	0.00	0.13	0.01
0-2R1-H	195	194	193	0.7	-3.5	-1.0	3.3	-3.6	0.07	-0.07	51.8	-0.03	0.01	0.08	0.01
0-2R1-J	198	197	196	1.4	-2.3	-1.3	2.7	-2.7	0.06	-0.06	50.0	-0.03	0.03	0.05	0.01
0-2R1-K	201	200	199	1.2	-0.7	-0.6	1.6	-1.1	0.04	-0.02	56.3	-0.01	0.03	0.02	0.00
0-2R1-L	333	332	331	0.8	0.4	-0.2	0.8	-0.2	0.02	-0.00	-81.0	0.00	0.02	-0.00	0.00
0-2R1-M	336	335	334	0.5	0.7	-0.2	0.8	-0.5	0.02	-0.01	-62.3	-0.00	0.02	-0.01	0.01
0-2R1-N	339	338	337	0.5	0.7	0.0	0.8	-0.2	0.02	-0.00	-57.4	0.01	0.02	-0.01	0.01
0-2R2-A	204	203	202	2.5	-17.5	-7.7	13.2	-18.3	0.25	-0.47	54.4	-0.23	0.01	0.34	0.01
0-2R2-B	207	206	205	5.4	-9.7	-4.2	12.0	-10.8	0.29	-0.24	57.4	-0.08	0.14	0.24	0.00
0-2R2-C	210	209	208	3.9	-7.6	-0.9	10.9	-7.9	0.28	-0.15	52.5	0.01	0.12	0.21	0.01
0-2R2-D	213	212	211	3.6	-6.5	-0.0	10.3	-6.7	0.27	-0.12	51.1	0.03	0.14	0.19	0.01
0-2R2-E	216	215	214	4.6	-4.4	1.4	10.6	-4.6	0.30	-0.05	50.9	0.09	0.16	0.17	0.01
0-2R2-F	219	218	217	5.1	-2.2	3.3	10.7	-2.2	0.33	0.03	48.9	0.16	0.20	0.15	0.01
0-2R2-G	222	221	220	4.5	-2.1	1.5	8.3	-2.3	0.25	0.01	53.3	0.09	0.16	0.12	0.01
0-2R2-H	225	224	223	2.6	-1.6	-0.1	4.4	-1.9	0.13	-0.02	57.6	0.02	0.08	0.07	0.01
0-2R2-J	228	227	226	1.9	-1.7	-1.8	2.6	-2.5	0.06	-0.06	68.2	-0.04	0.04	0.04	0.01
0-2R2-K	231	230	229	1.1	-1.1	-2.1	1.2	-2.2	0.02	-0.06	80.4	-0.06	0.02	0.01	0.01
0-2R3-A	234	233	232	4.0	-23.5	-12.0	17.8	-25.2	0.34	-0.65	56.4	-0.35	0.03	0.46	0.01
0-2R3-B	237	236	235	5.5	-15.1	-3.8	17.4	-15.8	0.42	-0.35	53.1	-0.07	0.14	0.37	0.01
0-2R3-C	240	239	238	5.6	-8.3	-2.0	12.6	-9.0	0.33	-0.17	55.3	-0.01	0.16	0.23	0.01
0-2R3-D	243	242	241	1.5	-5.5	0.7	7.7	-5.5	0.20	-0.10	46.7	0.04	0.06	0.15	0.01
0-2R3-E	246	245	244	3.7	0.3	3.2	6.5	0.3	0.22	0.07	47.4	0.14	0.15	0.07	0.01
0-2R3-F	249	248	247	5.8	2.5	3.1	6.9	2.1	0.25	0.14	62.4	0.16	0.22	0.05	0.02
0-2R3-G	252	251	250	4.6	2.6	2.1	4.9	1.8	0.18	0.11	74.2	0.11	0.17	0.02	0.01
0-2R3-H	255*	254	253	4.4	1.0	1.3	5.3	0.4	0.18	0.07	65.2	0.09	0.16	0.04	0.01
0-2R3-J	258	257	256	1.8	-0.8	-0.2	2.7	-1.1	0.08	-0.01	61.5	0.01	0.06	0.04	0.01
0-2R3-K	261	260	259	2.0	-1.1	-2.3	2.2	-2.5	0.05	-0.06	78.5	-0.06	0.04	0.02	0.01
0-2R4-A	684	683	682	2.7	-0.6	0.7	4.2	-0.8	0.13	0.02	56.4	0.05	0.10	0.05	0.01
0-2R4-B	264	263	262	4.1	3.2	1.7	4.2	1.7	0.15	0.10	-84.9	0.10	0.15	-0.00	0.01
0-2R4-C	267	266	265	3.2	1.7	1.6	3.6	1.4	0.13	0.08	66.4	0.09	0.12	0.02	0.01
0-2R4-D	270	269	268	3.2	0.3	2.7	5.5	0.3	0.19	0.07	47.4	0.12	0.13	0.06	0.01
0-2R5-A	273	272	271	1.9	-25.8	-8.1	21.0	-27.3	0.42	-0.69	51.0	-0.25	-0.02	0.55	0.01
0-2R5-B	276	275	274	6.4	-18.1	-8.3	17.8	-19.6	0.39	-0.47	56.5	-0.21	0.13	0.40	0.01
0-2R5-C	279	278	277	3.5	-11.4	-3.5	11.8	-11.9	0.27	-0.27	53.5	-0.08	0.08	0.26	0.01
0-2R5-D	282	281	280	-0.4	-4.8	2.7	7.3	-5.0	0.19	-0.09	37.8	0.03	0.01	0.14	0.01
0-2R5-E	285	284	283	1.2	-0.4	1.4	3.0	-0.4	0.09	0.02	43.4	0.06	0.05	0.04	0.01
0-2R5-F	288	287	286	2.5	3.2	1.1	3.3	0.3	0.11	0.04	-57.9	0.06	0.04	-0.03	0.01
0-2R5-G	291	290	289	3.4	2.5	0.9	3.4	0.8	0.12	0.06	-80.3	0.06	0.12	-0.01	0.03
0-2R5-H	294*	293	292	-0.4	2.2	0.7	2.4	-2.5	0.05	-0.06	-35.3	0.02	-0.02	-0.05	0.02
0-2R5-J	297	296	295	2.7	2.0	0.8	2.7	0.8	0.10	0.05	-83.2	0.05	0.10	-0.01	0.01
0-2R5-K	300	299	298	2.8	2.2	1.7	2.8	1.7	0.11	0.08	83.9	0.08	0.11	0.00	0.01
0-2R5-A	303	302	301	-3.0	-22.6	2.1	21.8	-22.7	0.49	-0.53	41.7	0.04	-0.08	0.51	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
O-2R6-B	306	305	304	2.2	-19.2	-5.1	16.7	-19.6	0.36	-0.48	50.8	-0.15	6.02	0.41	0.01
O-2R6-C	309	308	307	1.8	-13.1	-4.1	11.2	-13.5	0.24	-0.33	51.9	-0.12	6.02	0.28	0.01
O-2R6-D	312	311	310	-1.0	-6.8	-0.9	4.9	-6.8	0.09	-0.18	44.8	-0.04	-0.04	0.13	0.01
O-2R6-E	315	314	313	-0.5	-2.1	-0.4	1.3	-2.1	0.02	-0.06	44.3	-0.02	-0.02	0.04	0.01
O-2R6-F	318	317	316	-0.6	0.7	-0.1	0.8	-1.5	0.01	-0.04	-38.4	-0.01	-0.02	-0.03	0.01
O-2R6-G	321	320	319	-0.6	0.7	0.1	0.8	-1.4	0.01	-0.04	-35.5	-0.00	-0.02	-0.02	0.01
O-2R6-H	324	323	322	-0.1	0.6	0.2	0.6	-0.5	0.02	-0.01	-26.9	0.01	0.00	-0.01	0.01
O-2R6-J	327	326	325	-0.0	0.4	0.0	0.4	-0.4	0.01	-0.01	-41.5	0.00	-0.00	-0.01	0.00
O-2R6-K	330	329	328	-0.1	-0.1	-0.1	-0.1	-0.1	-0.00	-0.01	-24.8	-0.00	-0.00	-0.00	0.00
I-1R1-A	340	341	342	5.5	-20.5	-4.9	21.8	-21.2	0.51	-0.48	-38.0	0.13	-0.11	-0.48	0.01
I-1R1-B	343	344	345	-1.1	-14.1	-1.1	11.9	-14.1	0.25	-0.35	-45.0	-0.05	-0.05	-0.30	0.01
I-1R1-C	346	347	348	-0.8	-9.0	-1.9	6.2	-9.0	0.12	-0.23	-43.0	-0.05	-0.07	-0.18	0.01
I-1R1-D	349	350	351	-0.5	-7.9	-1.8	5.7	-7.9	0.11	-0.21	-42.4	-0.03	-0.06	-0.16	0.01
I-1R1-E	352	353	354	0.2	-7.1	-2.1	5.2	-7.2	0.10	-0.18	-39.8	-0.02	-0.07	-0.14	0.01
I-1R1-F	355	356	357	0.6	-3.0	-1.6	2.4	-3.2	0.05	-0.08	-32.5	0.01	-0.04	-0.06	0.01
I-1R1-G	358	359	360	0.2	0.4	-1.0	0.6	-1.4	0.01	-0.04	25.5	-0.00	-0.03	0.02	0.00
I-1R1-H	361	362	363	0.3	1.6	-1.1	1.7	-2.4	0.03	-0.06	34.8	0.00	-0.03	0.04	0.01
I-1R1-I	364	365	366	1.1	1.4	-1.1	1.8	-1.8	0.04	-0.04	26.5	0.02	-0.03	0.03	0.01
I-1R1-K	367	368*	369	0.7	1.4	-0.7	1.6	-1.6	0.04	-0.04	31.3	0.02	-0.02	0.03	0.01
I-1R1-L	499	500	501	0.5	0.2	-0.9	0.6	-1.0	0.01	-0.03	13.8	0.01	-0.02	0.01	0.01
I-1R1-M	502	503	504	0.2	-0.4	-0.7	0.2	-0.7	0.00	-0.02	-10.0	0.00	-0.02	-0.00	0.00
I-1R1-N	505	506	507	0.1	-0.2	-0.3	0.2	-0.3	0.00	-0.01	-16.7	0.00	-0.01	-0.00	0.00
I-1R1-U	508	509	510	-0.2	-0.5	0.1	0.5	-0.6	0.01	-0.01	-52.4	-0.00	0.00	-0.01	0.00
I-1R2-A	370	371	372	-1.9	-19.4	0.7	18.3	-19.5	0.41	-0.46	-46.9	-0.05	0.00	-0.44	0.01
I-1R2-B	373	374	375	-5.8	-13.8	-0.2	8.2	-14.1	0.13	-0.38	-52.2	-0.09	-0.06	-0.25	0.01
I-1R2-C	376	377	378	-4.6	-12.3	-7.9	0.0	-12.5	-0.12	-0.41	-37.3	-0.23	-0.31	-0.14	0.01
I-1R2-D	379	380	381	1.1	-8.1	-13.4	1.3	-13.7	-0.09	-0.44	-7.4	-0.10	-0.43	-0.04	0.01
I-1R2-E	382	383	384	-1.8	-9.7	-8.6	0.4	-10.8	-0.09	-0.35	-26.4	-0.15	-0.30	-0.10	0.01
I-1R2-F	385	386	387	-2.4	-5.3	-3.1	-0.2	-5.3	-0.06	-0.18	-41.0	-0.11	-0.13	-0.06	0.01
I-1R2-G	388	389	390	-0.2	-0.7	-1.4	-0.2	-1.5	-0.02	-0.05	8.5	-0.02	-0.05	0.00	0.01
I-1R2-H	391	392	393	0.5	1.2	-0.2	1.2	-0.9	0.03	-0.02	34.5	0.02	-0.00	0.02	0.00
I-1R2-J	394	395	396*	1.7	2.3	-2.1	2.9	-3.3	0.06	-0.08	26.5	0.04	-0.05	0.06	0.00
I-1R2-K	397	398	399	1.7	1.8	0.2	2.1	-0.2	0.07	0.01	23.6	0.06	0.02	0.02	0.01
I-1R3-A	400	401	402	-4.4	-17.3	2.9	16.2	-17.6	0.36	-0.42	-51.2	-0.11	0.05	-0.38	0.01
I-1R3-B	403	404	405	-8.2	-12.8	-0.1	5.4	-13.7	0.04	-0.40	-57.5	-0.27	-0.08	-0.20	0.01
I-1R3-C	406	407	408	-1.5	-5.9	-10.6	-0.2	-12.0	-0.12	-0.40	-19.8	-0.16	-0.37	-0.09	0.01
I-1R3-D	409	410	411	-1.8	-9.1	-11.6	-1.2	-12.1	-0.16	-0.41	-13.2	-0.17	-0.40	-0.06	0.02
I-1R3-E	412	413	414	-3.5	-8.1	-10.5	-3.3	-10.7	-0.21	-0.39	-9.0	-0.22	-0.38	-0.03	0.05
I-1R3-F	415	416	417	-3.4	-5.5	-3.8	-1.7	-5.5	-0.11	-0.27	-41.7	-0.15	-0.16	-0.04	0.01
I-1R3-G	418	419	420	-0.5	-3.0	-2.4	0.3	-3.3	-0.02	-0.10	-28.9	-0.04	-0.09	-0.03	0.01
I-1R3-H	421	422	423	0.2	-1.3	-0.9	0.8	-1.5	0.01	-0.04	-29.6	-0.00	-0.03	-0.02	0.01
I-1R3-J	424	425*	426	0.7	1.2	0.1	1.2	-0.4	0.04	-0.00	36.1	0.02	0.01	0.02	0.02
I-1R3-K	427	428	429	2.2	1.0	-0.1	2.2	-0.1	0.07	0.02	-0.9	0.07	0.02	-0.00	0.01
I-1R4-A	685	686	687	-2.5	-5.7	-7.5	-2.4	-7.6	-0.15	-0.27	-8.4	-0.16	-0.27	-0.02	0.02
I-1R4-B	430	431	432	-1.5	-4.2	-2.8	0.0	-4.3	-0.04	-0.14	-35.8	-0.08	-0.11	-0.05	0.01
I-1R4-C	433	434	435	-0.9	-3.3	-1.3	1.1	-3.3	0.00	-0.10	-42.1	-0.04	-0.05	-0.05	0.01
I-1R4-D	436	437	438	-0.2	-1.4	-0.1	1.1	-1.4	0.02	-0.03	-45.9	-0.01	-0.00	-0.03	0.01
I-1R5-A	439	440	441	-4.6	-25.7	0.6	21.8	-25.8	0.46	-0.64	-48.1	-0.15	-0.03	-0.53	0.00
I-1R5-B	442	443	444	-5.4	-10.0	0.5	5.7	-10.5	0.08	-0.29	-55.6	-0.17	-0.04	-0.17	0.01
I-1R5-C	445	446	447	-1.5	-6.2	-4.6	0.5	-6.6	-0.05	-0.21	-32.2	-0.10	-0.17	-0.07	0.01
I-1R5-D	448	449	450	-1.5	-5.5	-6.5	-1.1	-6.9	-0.10	-0.24	-15.8	-0.11	-0.23	-0.04	0.01
I-1R5-E	453	452	451	-5.1	-4.0	-1.9	-1.8	-5.2	-0.11	-0.19	-80.3	-0.19	-0.11	-0.01	0.01
I-1R5-F	454	455	456	-2.1	-3.7	-3.4	-1.6	-3.9	-0.09	-0.14	-27.5	-0.10	-0.13	-0.02	0.01
I-1R5-G	457	458	459	-1.4	-3.3	-2.6	-0.6	-3.4	-0.05	-0.12	-32.6	-0.07	-0.10	-0.03	0.01
I-1R5-H	460	461	462	-0.6	-3.0	-2.6	0.1	-3.3	-0.03	-0.11	-26.9	-0.05	-0.09	-0.03	0.00
I-1R5-J	463	464	465	-0.1	-2.7	-2.4	0.6	-3.2	-0.01	-0.10	-25.6	-0.03	-0.08	-0.03	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-1R5-K	466	467	468	-0.4	-2.2	-2.1	0.0	-2.5	-0.02	-0.08	-24.3	-0.03	-0.07	-0.02	0.01
I-1R6-A	469	470	471	-0.6	-18.2	-0.7	17.2	-18.2	0.39	-0.43	-45.1	-0.32	-0.02	-0.41	0.01
I-1R6-B	472	473**	474	-0.2	0.0	-0.5	0.0	-0.7	-0.01	-0.02	35.0	-0.02	-0.02	0.01	0.01
I-1R6-C	475	476	477	-0.1	-1.6	0.7	2.2	-1.6	0.06	-0.03	-50.5	0.00	0.02	-0.04	0.00
I-1R6-D	478	479	480	-0.1	-1.2	0.5	1.6	-1.2	0.04	-0.02	-50.2	0.00	0.01	-0.03	0.00
I-1R6-E	481	482	483	-0.3	0.0	0.2	0.2	-0.3	0.00	-0.01	83.9	-0.01	0.00	0.00	0.00
I-1R6-F	484	485	486	0.1	-0.3	-0.4	0.2	-0.5	0.00	-0.01	-20.2	0.00	-0.01	-0.00	0.00
I-1R6-G	487	488	489	0.2	-0.4	-0.5	0.3	-0.6	0.00	-0.02	-18.6	0.00	-0.02	-0.01	0.00
I-1R6-H	490	491	492	0.3	-0.4	-0.7	0.3	-0.8	0.00	-0.02	-10.8	0.00	-0.02	-0.00	0.02
I-1R6-J	493	494	495	0.1	-0.3	-0.2	0.3	-0.4	0.01	-0.01	-32.3	0.00	-0.00	-0.01	0.00
I-1R6-K	496	497	498	0.3	-0.4	-0.2	0.5	-0.4	0.01	-0.01	-31.6	0.01	-0.00	-0.01	0.00
I-2R1-A	511	512	513	-1.1	-19.7	0.9	19.6	-19.8	0.45	-0.46	-46.5	-0.03	0.02	-0.45	0.01
I-2R1-B	514	515	516	-1.7	-14.4	1.8	14.6	-14.5	0.34	-0.34	-48.5	-0.04	0.04	-0.33	0.01
I-2R1-C	517	518	519	-1.2	-9.1	-0.1	7.9	-9.1	0.17	-0.22	-46.8	-0.04	-0.02	-0.20	0.01
I-2R1-D	520	521	522	0.5	-6.8	-1.3	8.1	-8.9	0.18	-0.21	-41.8	0.00	-0.04	-0.19	0.01
I-2R1-E	523	524	525	-0.7	-7.6	0.8	7.7	-7.6	0.18	-0.17	-47.9	-0.02	0.02	-0.18	0.01
I-2R1-F	526	527	528	-0.2	-3.3	0.8	3.9	-3.3	0.10	-0.07	-48.7	0.00	0.02	-0.08	0.01
I-2R1-G	529	530	531	-0.0	0.7	0.8	0.9	-0.1	0.03	0.01	74.2	0.01	0.03	0.01	0.01
I-2R1-H	532	533	534	-0.1	2.2	1.1	2.3	-1.4	0.06	-0.02	54.2	0.01	0.03	0.04	0.01
I-2R1-J	535	536**	537	-0.1	0.0	1.2	1.4	-0.3	0.04	0.00	-70.2	0.01	0.04	-0.01	0.01
I-2R1-K	538	539	540	0.2	2.3	1.1	2.3	-1.0	0.07	-0.01	53.0	0.02	0.04	0.04	0.01
I-2R1-L	672	671	670	0.6	1.1	-0.0	1.1	-0.5	0.03	-0.01	-56.9	0.00	0.02	-0.02	0.01
I-2R1-M	675	674	673*	1.1	0.3	-0.8	1.1	-0.9	0.03	-0.02	-83.7	-0.02	0.03	-0.00	0.01
I-2R1-N	678	677	676	0.6	-0.2	-0.1	0.8	-0.3	0.02	-0.00	65.0	0.00	0.02	0.01	0.01
I-2R2-A	541	542	543	-1.7	-20.4	-1.2	17.5	-20.5	0.38	-0.50	-45.4	-0.07	-0.06	-0.44	0.01
I-2R2-B	544	545	546	-7.8	-13.4	1.2	7.7	-14.3	0.11	-0.40	-57.0	-0.24	-0.04	-0.23	0.01
I-2R2-C	547	548	549	-3.0	-13.0	-9.2	1.4	-13.6	-0.09	-0.44	-33.0	-0.19	-0.33	-0.16	0.01
I-2R2-D	550	551	552	-0.8	-13.0	-11.5	2.5	-14.9	-0.06	-0.46	-26.1	-0.14	-0.39	-0.16	0.01
I-2R2-E	553	554	555	-2.3	-12.2	-6.8	1.9	-12.9	-0.07	-0.41	-31.8	-0.16	-0.31	-0.15	0.02
I-2R2-F	556	557	558	-3.0	-6.5	-2.2	1.3	-6.5	-0.02	-0.20	-47.9	-0.12	-0.10	-0.09	0.01
I-2R2-G	559	560	561	-1.1	-1.7	0.4	1.2	-1.0	0.02	-0.05	-59.2	-0.03	0.00	-0.03	0.01
I-2R2-H	562	563	564	0.7	1.2	0.8	1.2	0.3	0.04	0.02	48.5	0.03	0.03	0.01	0.02
I-2R2-J	565	566	567	1.4	2.5	1.6	2.6	0.4	0.09	0.04	48.3	0.06	0.07	0.02	0.01
I-2R2-K	568	569	570	1.8	2.4	1.3	2.4	0.7	0.09	0.05	37.0	0.07	0.06	0.02	0.01
I-2R3-A	571	572	573	-8.5	-19.0	3.8	15.4	-20.1	0.31	-0.51	-55.2	-0.24	0.04	-0.58	0.01
I-2R3-B	574	575	576	-8.3	-14.0	-1.4	5.0	-14.6	0.02	-0.43	-55.3	-0.29	-0.13	-0.21	0.01
I-2R3-C	577	578	579	-2.9	-12.7	-11.2	-0.1	-14.0	-0.14	-0.46	-26.8	-0.21	-0.40	-0.13	0.01
I-2R3-D	580	581	582	-1.1	-10.5	-12.5	-0.0	-13.6	-0.13	-0.45	-16.4	-0.16	-0.42	-0.09	0.01
I-2R3-E	583	584	585	-3.2	-9.5	-8.6	-1.4	-10.4	-0.15	-0.36	-26.2	-0.19	-0.32	-0.08	0.01
I-2R3-F	586	587	588	-1.7	-6.2	-4.6	0.1	-6.5	-0.06	-0.21	-32.2	-0.10	-0.17	-0.07	0.01
I-2R3-G	589	590	591	-0.4	-4.4	-1.8	2.2	-4.5	0.03	-0.13	-39.1	-0.03	-0.06	-0.08	0.01
I-2R3-H	592	593	594**	0.0	-2.8	0.0	2.9	-2.8	0.07	-0.06	-44.8	0.00	0.00	-0.07	0.00
I-2R3-J	595	596	597	0.4	-0.1	1.8	2.4	-0.3	0.08	0.02	-60.6	0.03	0.06	-0.03	0.01
I-2R3-K	598	599	600	1.2	1.5	2.5	2.6	1.1	0.10	0.06	-76.1	0.06	0.10	-0.01	0.01
I-2R4-A	603	602	601	-1.7	-5.9	-7.7	-1.5	-7.9	-0.13	-0.28	-10.9	-0.13	-0.27	-0.03	0.02
I-2R4-B	604	603	602	-1.5	-4.7	-2.8	0.3	-4.8	-0.04	-0.15	-36.0	-0.08	-0.11	-0.06	0.01
I-2R4-C	605	604	603	0.6	-3.9	-2.2	2.6	-4.2	0.04	-0.11	-32.5	-0.00	-0.07	-0.07	0.01
I-2R4-D	607	606	605	1.3	-2.3	-1.4	2.6	-2.6	0.06	-0.06	-29.5	0.03	-0.03	-0.05	0.01
I-2R5-A	610	611	612	-6.2	-17.6	1.6	13.5	-18.1	0.27	-0.46	-52.2	-0.19	-0.01	-0.35	0.01
I-2R5-B	613	614	615	-5.6	-12.0	-0.8	5.9	-12.3	0.07	-0.35	-52.6	-0.19	-0.08	-0.20	0.01
I-2R5-C	616	617	618	-0.1	-5.7	-6.4	0.8	-7.2	-0.05	-0.23	-19.2	-0.07	-0.21	-0.06	0.01
I-2R5-D	619	620	621	-0.6	-4.7	-6.7	-0.4	-6.9	-0.08	-0.23	-9.3	-0.09	-0.23	-0.02	0.01
I-2R5-E	622	623	624	-1.9	-5.0	-4.6	-1.0	-5.5	-0.09	-0.19	-26.3	-0.11	-0.17	-0.04	0.01
I-2R5-F	625	626	627	-1.8	-3.4	-2.8	-1.1	-3.5	-0.07	-0.13	-31.8	-0.09	-0.11	-0.02	0.01
I-2R5-G	628	629	630	-0.8	-3.3	-2.9	-0.1	-3.6	-0.04	-0.12	-26.1	-0.05	-0.10	-0.03	0.01
I-2R5-H	631	632	633	0.6	-2.5	-3.4	0.9	-3.7	-0.01	-0.11	-14.8	-0.01	-0.11	-0.03	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-2R5-J	637	635	636	0.7	-2.6	-2.7	1.4	-3.3	0.01	-0.10	-22.0	-0.00	-0.08	-0.04	0.01
I-2R5-K	637	638	639	1.4	-2.2	-2.4	2.1	-3.1	0.04	-0.08	-20.7	0.02	-0.07	-0.04	0.01
I-2R6-A	640	641	642	-1.6	-14.8	-0.3	12.9	-14.0	0.28	-0.36	-46.4	-0.06	-0.03	-0.32	0.01
I-2R6-B	643	644	645	0.8	-8.5	-1.0	8.4	-8.6	0.19	-0.20	-42.0	0.02	-0.03	-0.19	0.01
I-2R6-C	646	647	648	0.4	-1.3	0.5	2.1	-1.3	0.06	-0.02	-46.0	0.02	0.02	-0.04	0.01
I-2P6-D	649	650	651	0.6	0.1	1.8	2.4	-0.1	0.08	0.02	-59.0	0.04	0.06	-0.03	0.01
I-2R6-E	652	653	654	0.4	0.3	0.8	1.0	0.2	0.03	0.02	-62.4	0.02	0.03	-0.01	0.01
I-2R6-F	655	656	657	0.2	0.5	0.5	0.6	0.1	0.02	0.01	64.5	0.01	0.02	0.00	0.01
I-2R6-G	658	659	660	-0.0	-0.3	0.3	0.6	-0.4	0.02	-0.01	-55.8	0.00	0.01	-0.01	0.00
I-2R6-H	661	662	663	-0.1	-0.5	0.2	0.6	-0.5	0.02	-0.01	-51.7	0.00	0.01	-0.01	0.00
I-2R6-J	664	665	666	-0.1	-0.3	-0.0	0.2	-0.3	0.00	-0.01	-48.5	-0.00	-0.00	-0.01	0.00
I-2R6-K	667	668	669	-0.1	-0.1	0.2	0.3	-0.2	0.01	-0.00	-61.9	0.00	0.01	-0.00	0.00
O-1CR-12	729	724	727	0.5	-6.7	3.3	10.6	-6.8	0.28	-0.12	40.5	0.11	0.05	0.20	0.01
O-1CR-23	732	731	730	2.0	-1.7	3.9	7.7	-1.8	0.24	0.02	39.3	0.15	0.10	0.11	0.01
O-1CR-56	735	734	733	0.1	-1.5	1.4	3.1	-1.6	0.09	-0.02	37.1	0.05	0.02	0.05	0.01
O-2CR-12	738	737	736	1.9	-6.7	2.0	10.6	-6.7	0.28	-0.12	44.8	0.09	0.08	0.20	0.01
O-2CR-23	741	740	739	3.9	-1.7	2.7	8.4	-1.7	0.26	0.03	48.4	0.13	0.16	0.12	0.01
O-2CR-56	744	743	742	0.0	-1.6	0.1	1.7	-1.6	0.04	-0.04	44.3	0.00	0.00	0.04	0.01
I-1CR-12	745	746	747	-1.6	-8.7	-5.5	2.0	-9.1	-0.02	-0.28	-34.6	-0.11	-0.20	-0.12	0.00
I-1CR-23	748	749	750	-3.5	-9.5	-7.9	-1.3	-10.1	-0.14	-0.35	-29.9	-0.19	-0.29	-0.09	0.01
I-1CR-56	751	752	753	-1.1	-2.4	-2.4	-0.9	-2.7	-0.06	-0.10	-22.0	-0.06	-0.09	-0.01	0.01
I-2CR-12	754	755	756	-2.1	-10.9	-4.3	4.5	-11.0	0.04	-0.32	-42.0	-0.11	-0.16	-0.18	0.01
I-2CR-23	757	758	759	-5.7	-11.5	-7.7	-1.8	-11.6	-0.17	-0.40	-39.1	-0.26	-0.31	-0.11	0.02
I-2CR-56	760	761	762	-0.8	-2.3	-2.8	-0.2	-2.4	-0.03	-0.08	-31.3	-0.04	-0.07	-0.02	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

COMBUSTION T-12, LOAD CASE 3, M3Z

NOMINAL LOAD = 2.992E 04

GAGE LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
0-1R1-A	3	2	1	0.7	0.4	-1.1	0.8	-1.3	0.02	-0.03	-73.2	-0.03	0.01	-0.01	0.02
0-1R1-B	6	5	4	0.7	4.2	-0.4	4.2	-4.0	0.10	-0.09	-48.7	-0.01	0.02	-0.09	0.01
0-1R1-C	9	8	7	-0.3	3.9	0.0	3.9	-4.2	0.09	-0.10	-43.8	-0.00	-0.01	-0.09	0.01
0-1R1-D	12	11	10	-0.7	0.8	-0.9	0.9	-2.4	0.00	-0.07	-46.8	-0.04	-0.03	-0.04	0.01
0-1R1-E	15	14	13	-1.2	1.9	-0.6	1.9	-2.6	0.03	-0.10	-42.1	-0.03	-0.04	-0.06	0.01
0-1R1-F	18	17	16	-0.9	4.5	0.7	4.5	-4.8	0.10	-0.11	-40.3	0.01	-0.02	-0.11	0.01
0-1R1-G	21	20	19	-0.5	6.0	0.4	6.0	-6.2	0.14	-0.14	-42.9	0.01	-0.01	-0.14	0.01
0-1R1-H	24	23	22	-0.5	6.6	0.4	6.6	-6.7	0.15	-0.16	-43.0	0.01	-0.01	-0.15	0.02
0-1R1-J	27	26	25	-0.2	5.3	0.4	5.3	-5.1	0.12	-0.12	-43.5	0.01	-0.00	-0.12	0.01
0-1R1-K	30**	29	28	0.0	2.9	0.0	2.9	-2.8	0.07	-0.06	-44.8	0.00	0.00	-0.07	0.01
0-1R1-L	162	161	160	0.4	0.9	-0.2	0.9	-0.8	0.02	-0.02	-54.8	-0.00	0.01	-0.02	0.01
0-1R1-M	165	164	163	0.7	0.2	-0.3	0.7	-0.3	0.02	-0.00	-89.1	-0.00	0.02	-0.00	0.01
0-1R1-N	168	167	166	0.9	0.4	-0.5	0.9	-0.5	0.02	-0.01	-79.9	-0.01	0.02	-0.01	0.01
0-1R1-O	171	170	169	1.0	0.4	-0.6	1.1	-0.6	0.03	-0.01	-82.9	-0.01	0.03	-0.00	0.00
0-1R2-A	33	32	31	0.3	8.9	18.2	18.3	0.3	0.60	0.19	1.2	0.60	0.19	0.01	0.02
0-1R2-B	36	35	34	3.8	12.8	13.2	14.9	2.2	0.51	0.22	-21.2	0.47	0.26	-0.10	0.02
0-1R2-C	39	38	37	4.1	15.2	17.8	19.0	2.9	0.66	0.28	-15.8	0.63	0.31	-0.10	0.03
0-1R2-D	42	41	40	2.5	12.5	15.7	16.5	1.7	0.56	0.22	-13.7	0.54	0.24	-0.08	0.02
0-1R2-E	45	44	43	-0.1	6.4	7.7	8.5	-0.9	0.27	0.05	-17.0	0.25	0.07	-0.06	0.01
0-1R2-F	48	47	46	-0.3	-1.0	-2.4	-0.6	-7.0	-0.09	-0.24	-31.7	-0.13	-0.20	-0.07	0.01
0-1R2-G	51	50	49	-7.1	-1.0	-4.3	-0.8	-10.5	-0.13	-0.36	-36.6	-0.21	-0.28	-0.11	0.02
0-1R2-H	54	53**	52	-5.0	0.7	-2.8	0.1	-7.9	-0.07	-0.26	-37.3	-0.14	-0.19	-0.09	0.02
0-1R2-J	57	56	55	-4.5	0.8	-0.9	1.3	-6.7	-0.02	-0.21	-31.6	-0.07	-0.16	-0.08	0.02
0-1R2-K	60	59	58	-1.4	1.6	0.3	1.7	-2.8	0.03	-0.02	-34.2	-0.00	-0.04	-0.05	0.01
0-1R3-A	63	62	61	2.4	21.0	33.1	33.4	2.0	1.12	0.40	-6.0	1.11	0.40	-0.08	0.05
0-1R3-B	66	65	64	8.4	23.2	24.3	26.8	5.9	0.94	0.46	-20.3	0.89	0.52	-0.16	0.04
0-1R3-C	69	68	67	8.3	24.4	29.2	30.6	6.9	1.08	0.53	-14.2	1.04	0.56	-0.13	0.03
0-1R3-D	72	71	70	5.8	21.2	26.6	27.7	4.6	0.96	0.43	-12.8	0.93	0.45	-0.12	0.04
0-1R3-E	75	74	73	4.8	14.3	15.2	16.8	3.2	0.58	0.27	-19.7	0.55	0.31	-0.10	0.03
0-1R3-F	78	77	76	-4.9	-2.1	-1.0	-0.8	-5.1	-0.08	-0.17	-11.6	-0.08	-0.17	-0.02	0.02
0-1R3-G	81	80	79	-6.5	-6.1	-3.6	-3.2	-6.8	-0.17	-0.26	18.3	-0.18	-0.25	0.02	0.01
0-1R3-H	84	83	82	-5.6	-6.1	-4.4	-3.8	-6.3	-0.19	-0.24	30.0	-0.20	-0.23	0.03	0.04
0-1R3-J	87	86	85	-4.5	-3.5	-4.0	-3.5	-5.1	-0.17	-0.20	-36.2	-0.18	-0.19	-0.02	0.03
0-1R3-K	90	89	88	-3.3	-0.8	-0.8	-0.3	-3.8	-0.05	-0.13	-22.1	-0.06	-0.12	-0.03	0.01
0-1R4-A	681	680	679	8.4	16.6	15.0	17.6	5.8	0.64	0.37	-28.0	0.58	0.43	-0.11	0.02
0-1R4-B	93	92	91	-2.7	-1.7	0.3	0.4	-2.8	-0.02	-0.09	8.7	-0.02	-0.09	0.01	0.01
0-1R4-C	96	95	94	-5.6	-6.4	-1.2	0.3	-7.1	-0.06	-0.23	27.0	-0.09	-0.19	0.07	0.02
0-1R4-D	99	98	97	-4.6	-3.9	-2.8	-2.8	-4.6	-0.14	-0.18	5.7	-0.14	-0.18	0.00	0.02
0-1R5-A	102	101	100	5.2	23.1	32.0	32.7	4.5	1.12	0.47	-9.2	1.11	0.49	-0.16	0.03
0-1R5-B	105	104	103	14.6	30.5	30.8	33.9	11.4	1.23	0.77	-21.9	1.16	0.78	-0.18	0.05
0-1R5-C	108	107	106	14.8	28.9	28.9	31.9	11.9	1.17	0.71	-22.5	1.19	0.77	-0.18	0.04
0-1R5-D	111	110	109	11.6	23.8	25.6	27.3	9.8	1.00	0.59	-18.4	0.96	0.63	-0.12	0.04
0-1R5-E	114	113	112	10.6	17.3	16.8	18.4	9.1	0.70	0.48	-24.9	0.66	0.52	-0.08	0.03
0-1R5-F	117	116	115	7.1	7.9	4.0	8.4	2.7	0.30	0.17	-62.0	0.20	0.27	-0.05	0.02
0-1R5-G	120	119	118	2.7	3.1	1.6	3.2	1.1	0.12	0.07	-60.8	0.08	0.11	-0.02	0.02
0-1R5-H	123	122	121	0.0	2.0	1.7	2.3	-0.5	0.07	0.01	-26.1	0.06	0.02	-0.03	0.02
0-1R5-J	126	125	124	-0.8	0.3	1.6	1.6	-0.8	0.04	-0.01	1.5	0.04	-0.01	0.00	0.01
0-1R5-K	129	128	127	-2.5	-0.5	1.6	1.6	-2.5	0.03	-0.07	1.2	0.03	-0.07	0.00	0.01
0-1R6-A	132	131	130	8.8	16.5	29.7	30.1	8.4	1.08	0.58	7.3	1.07	0.58	0.06	0.04
0-1R6-B	135	134	133	21.1	27.1	30.4	30.6	20.9	1.22	0.99	-8.1	1.21	1.00	-0.03	0.12

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICRONS/INCH						STRESS - KSI				TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
0-1A6-C	138	137	136	20.6	22.9	26.7	26.8	20.5	1.09	0.94	7.1	1.08	0.94	0.02	0.05
0-1A6-D	141	140	139	16.3	23.2	22.5	24.3	14.5	0.95	0.72	-25.3	0.90	0.76	-0.09	0.07
0-1A6-E	144	143	142	16.4	15.6	16.0	16.9	15.5	0.71	0.68	54.2	0.69	0.70	0.02	0.03
0-1A6-F	147	146	145	13.2	8.3	3.8	13.2	3.8	0.47	0.25	89.1	0.25	0.47	0.00	0.02
0-1A6-G	150	149	148	10.0	6.0	1.1	10.0	1.1	0.34	0.13	-86.8	0.14	0.34	-0.01	0.01
0-1A6-H	153	152	151	8.0	4.6	1.1	8.0	1.1	0.27	0.12	-89.3	0.12	0.27	-0.00	0.01
0-1A6-J	156	155	154	7.8	4.2	2.2	8.0	2.1	0.28	0.15	81.8	0.15	0.28	0.02	0.02
0-1A6-K	159	158	157	5.6	5.5	5.1	5.6	5.1	0.24	0.22	-71.6	0.22	0.23	-0.00	0.02
0-2R1-A	174	173	172	1.5	0.1	0.2	1.9	-0.2	0.06	0.01	65.5	0.02	0.05	0.02	0.02
0-2R1-B	177	176	175**	1.4	-2.5	0.0	4.0	-2.6	0.11	-0.05	51.3	0.01	0.05	0.07	0.01
0-2R1-C	180	179	178	0.9	-3.5	0.4	4.8	-3.5	0.12	-0.07	46.9	0.02	0.03	0.09	0.01
0-2R1-D	183	182	181	-0.6	-1.6	1.1	2.3	-1.8	0.06	-0.04	33.0	0.03	-0.01	0.04	0.01
0-2R1-E	186	185	184	-0.5	-3.0	0.3	2.8	-3.0	0.06	-0.07	41.0	0.00	-0.01	0.07	0.01
0-2R1-F	189**	188	187	0.0	-5.5	0.5	6.0	-5.6	0.14	-0.12	43.9	0.01	0.00	0.13	0.01
0-2R1-G	192	191	190	0.2	-7.2	0.0	7.4	-7.2	0.17	-0.16	45.3	0.00	0.01	0.17	0.01
0-2R1-H	195	194	193	0.3	-6.5	-0.3	6.5	-6.5	0.15	-0.15	46.2	-0.01	0.01	0.15	0.01
0-2R1-J	198	197	196	-0.2	-5.2	-0.7	4.3	-5.2	0.09	-0.13	46.4	-0.02	-0.01	0.11	0.01
0-2R1-K	201	200	199**	-0.3	-2.9	0.0	2.6	-2.9	0.06	-0.07	43.5	-0.00	-0.01	0.06	0.01
0-2R1-L	333	332	331	0.5	-2.1	-0.7	1.9	-2.2	0.04	-0.05	53.3	-0.02	0.01	0.05	0.01
0-2R1-M	336	335	334	0.7	-0.4	-0.8	0.8	-0.9	0.02	-0.02	79.0	-0.02	0.01	0.01	0.01
0-2R1-N	339	338	337	1.2	0.3	-0.1	1.3	-0.2	0.04	0.01	80.8	0.01	0.04	0.01	0.02
0-2R2-A	204	203	202	1.0	-7.9	-16.4	1.0	-16.4	-0.13	-0.53	89.3	-0.53	-0.13	0.01	0.02
0-2R2-B	207	206	205	-1.3	-12.2	-13.1	0.5	-14.9	-0.13	-0.49	69.8	-0.44	-0.17	0.12	0.02
0-2R2-C	210	209	208	-5.4	-16.8	-17.3	-3.4	-19.4	-0.30	-0.67	69.0	-0.63	-0.35	0.12	0.03
0-2R2-D	213	212	211	-5.0	-11.8	-15.3	-4.7	-15.6	-0.31	-0.56	81.0	-0.55	-0.31	0.04	0.02
0-2R2-E	216	215	214	-3.0	-4.3	-19.5	25.1	-8.6	0.74	-0.04	24.0	0.61	0.09	0.29	0.02
0-2R2-F	219	218	217	4.6	1.3	3.0	-6.5	1.1	0.22	0.10	54.0	0.14	0.18	0.06	0.02
0-2R2-G	222	221	220	6.3	1.9	5.2	9.6	1.9	0.33	0.16	49.0	0.23	0.26	0.09	0.02
0-2R2-H	225	224	223	4.5	0.2	3.1	7.5	0.1	0.25	0.08	50.4	0.15	0.18	0.08	0.01
0-2R2-J	228	227	226	3.2	-0.5	0.8	4.9	-0.8	0.15	0.02	57.6	0.06	0.12	0.06	0.01
0-2R2-K	231	230	229	1.4	-2.2	-0.6	3.1	-2.3	0.08	-0.05	55.8	-0.01	0.04	0.06	0.01
0-2R3-A	234	233	232	-1.3	-19.7	-29.2	-0.6	-29.9	-0.31	-0.99	81.1	-0.97	-0.33	0.10	0.04
0-2R3-B	237	236	235	-7.7	-24.8	-23.9	-3.7	-27.9	-0.40	-0.96	66.0	-0.86	-0.49	0.21	0.04
0-2R3-C	240	239	238	-9.8	-23.0	-27.5	-8.8	-28.5	-0.57	-1.03	76.7	-1.00	-0.60	0.10	0.05
0-2R3-D	243	242	241	-9.7	-23.5	-26.0	-7.9	-27.8	-0.53	-0.99	72.6	-0.95	-0.58	0.13	0.05
0-2R3-E	246	245	244	-4.6	-8.0	-9.4	-4.5	-9.6	-0.24	-0.36	79.1	-0.36	-0.25	0.02	0.04
0-2R3-F	249	248	247	1.6	3.4	1.7	3.4	-0.2	0.11	0.03	-44.2	0.07	0.07	-0.04	0.02
0-2R3-G	252	251	250	5.8	7.0	3.4	7.3	2.0	0.26	0.14	-58.3	0.27	0.23	-0.05	0.03
0-2R3-H	255	254	253	3.9	6.7	3.9	6.7	1.1	0.23	0.10	-44.6	0.17	0.17	-0.06	0.02
0-2R3-J	258	257	256	3.0	3.0	2.5	3.0	2.5	0.12	0.11	-67.2	0.11	0.12	-0.00	0.02
0-2R3-K	261	260	259	2.6	0.5	0.7	3.2	0.1	0.11	0.04	64.3	0.05	0.09	0.03	0.01
0-2R4-A	264	263	262	-9.5	-14.0	-18.1	-9.5	-18.1	-0.49	-0.69	88.9	-0.69	-0.49	0.00	0.03
0-2R4-B	267	266	265	0.9	3.0	-0.2	3.0	-2.3	0.08	-0.05	-50.7	0.00	0.03	-0.06	0.01
0-2R4-C	270	269	268	4.6	5.6	0.4	6.3	-1.2	0.19	0.02	-62.4	0.06	0.16	-0.07	0.02
0-2R4-U	273	272	271	4.8	3.3	1.8	4.8	1.8	0.18	0.11	-89.7	0.11	0.18	-0.00	0.02
0-2R5-A	276	275	274	-7.5	-25.2	-32.7	-6.5	-33.7	-0.55	-1.17	78.9	-1.15	-0.57	0.12	0.05
0-2R5-B	279	278	277	-14.5	-29.5	-30.7	-12.0	-33.2	-0.73	-1.21	69.9	-1.16	-0.78	0.16	0.05
0-2R5-C	282	281	280	-15.9	-28.6	-29.8	-13.8	-31.9	-0.77	-1.19	70.3	-1.14	-0.82	0.13	0.05
0-2R5-D	285	284	283	-14.6	-24.6	-23.9	-12.1	-26.3	-0.66	-0.99	65.4	-0.93	-0.72	0.12	0.05
0-2R5-E	288	287	286	-11.5	-16.0	-18.9	-11.4	-19.0	-0.56	-0.74	83.9	-0.74	-0.57	0.02	0.03
0-2R5-F	291	290	289	-8.1	-6.6	-4.5	-4.5	-8.1	-0.23	-0.31	5.6	-0.23	-0.31	0.01	0.01
0-2R5-G	294	293	292	-3.8	-2.6	-2.4	-2.2	-4.0	-0.11	-0.15	-17.0	-0.12	-0.15	-0.01	0.01
0-2R5-H	297	296	295	-1.6	-1.0	-3.6	-0.7	-4.5	-0.07	-0.15	-61.2	-0.13	-0.09	-0.04	0.03
0-2R5-J	300	299	298	0.0	-0.2	-2.6	0.5	-3.0	-0.01	-0.10	-69.9	-0.09	-0.02	-0.03	0.01
0-2R6-A	303	302	301	0.4	0.6	-3.1	1.3	-3.9	0.00	-0.12	-65.9	-0.10	-0.02	-0.05	0.01
0-2R6-B	306	305	304	-9.4	-15.2	-27.2	-8.9	-27.8	-0.57	-1.00	-80.3	-0.99	-0.58	-0.07	0.04

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
0-2R6-B	306	308	304	-16.3	-24.6	-33.7	-16.3	-33.7	-0.87	-1.27	-88.7	-1.27	-0.87	-0.01	0.10
0-2R6-C	309	308	307	-19.5	-22.5	-28.9	-19.1	-29.2	-0.92	-1.15	-80.0	-1.15	-0.93	-0.04	0.04
0-2R6-U	312	311	310	-15.2	-21.1	-25.0	-15.1	-25.1	-0.75	-0.98	84.1	-0.97	-0.75	0.02	0.04
0-2R6-E	325	324	313	-14.6	-16.1	-17.2	-14.6	-17.2	-0.65	-0.71	86.0	-0.71	-0.65	0.00	0.03
0-2R6-F	328	317	316	-12.6	-9.2	-4.5	-4.5	-12.7	-0.27	-0.46	4.3	-0.27	-0.46	0.01	0.02
0-2R6-G	321	320	319	-9.4	-6.6	-2.4	-2.4	-9.4	-0.17	-0.33	5.8	-0.17	-0.33	0.02	0.02
0-2R6-H	324	323	322	-7.0	-6.2	-2.6	-2.2	-7.4	-0.15	-0.26	16.6	-0.16	-0.26	0.03	0.02
0-2R6-J	327	326	325	-6.4	-4.7	-3.0	-3.0	-6.4	-0.16	-0.24	-0.7	-0.16	-0.24	-0.00	0.01
0-2R6-K	330	329	328	-5.7	-5.1	-4.8	-4.8	-5.7	-0.21	-0.24	-8.1	-0.22	-0.24	-0.00	0.02
I-1R1-A	340	341	342	-1.2	1.0	0.5	1.3	-1.9	0.02	-0.05	61.3	-0.03	0.01	0.03	0.01
I-1R1-B	343	344	345	-1.2	1.5	-0.6	1.5	-3.2	0.02	-0.09	48.7	-0.04	-0.03	0.05	0.01
I-1R1-C	346	347	348	2.2	11.5	-4.7	12.0	-14.4	0.25	-0.36	37.4	0.03	-0.13	0.29	0.02
I-1R1-D	349	350	351	2.5	18.7	-5.3	19.0	-21.8	0.41	-0.53	39.5	0.03	-0.15	0.56	0.02
I-1R1-E	352	353	354	0.1	21.7	-3.2	21.8	-24.9	0.47	-0.61	43.0	-0.03	-0.11	0.54	0.03
I-1R1-F	355	356	357	-0.3	24.9	-0.9	24.9	-16.1	0.33	-0.38	44.5	-0.04	-0.03	0.36	0.02
I-1R1-G	358	359	360	-0.2	7.4	-0.8	7.4	-8.4	0.16	-0.20	43.9	-0.02	-0.03	0.18	0.01
I-1R1-H	261**	362	363	0.0	2.3	-0.7	2.3	-3.0	0.05	-0.08	41.2	-0.01	-0.02	0.06	0.01
I-1R1-J	354	365	366	0.3	-0.4	-0.3	0.4	-0.5	0.01	-0.01	-25.3	0.01	-0.01	-0.01	0.01
I-1R1-K	367	368	369	0.0	-0.7	0.1	0.8	-0.7	0.02	-0.02	-46.7	0.00	0.00	-0.02	0.01
I-1R1-L	499	500	501	-0.3	-1.0	0.6	1.4	-1.1	0.04	-0.02	-54.4	-0.00	0.02	-0.03	0.02
I-1R1-M	502	503	504	-0.3	-0.3	0.4	0.6	-0.5	0.01	-0.01	-68.5	-0.01	0.01	-0.01	0.00
I-1R1-N	505	506	507	-0.3	-0.0	0.8	0.8	-0.4	0.02	-0.00	-77.6	-0.00	0.02	-0.01	0.01
I-1R1-O	508	509	510	0.9	-0.2	2.0	3.3	-0.3	0.11	0.02	-54.0	0.05	0.08	-0.34	0.02
I-1R2-A	370	371	372	12.3	6.7	-1.4	12.4	-1.5	0.39	0.07	5.2	0.39	0.08	0.03	0.02
I-1R2-B	373	374	375	4.7	7.7	4.6	7.7	1.6	0.27	0.13	44.5	0.20	0.20	0.07	0.02
I-1R2-C	376	377	378	-3.2	13.2	4.8	13.8	-12.3	0.34	-0.27	53.9	-0.06	0.13	0.29	0.01
I-1R2-D	379	380	381	-13.3	10.4	13.8	17.2	-16.8	0.44	-0.38	71.5	-0.70	0.32	0.24	0.02
I-1R2-E	382	383	384	-4.6	20.2	11.5	22.1	-15.2	0.58	-0.28	57.9	-0.04	0.33	0.39	0.03
I-1R2-F	385	386	387	8.3	18.4	3.2	18.7	-7.2	0.54	-0.05	39.4	0.30	0.19	0.29	0.02
I-1R2-G	388	389	390	5.6	14.8	2.9	11.9	-3.4	0.36	0.01	39.9	0.21	0.15	0.17	0.01
I-1R2-H	391	392	393	2.9	5.0	0.2	5.2	-2.1	0.15	-0.02	34.3	0.10	0.04	0.08	0.01
I-1R2-J	394	395	396	1.0	0.8	-1.6	1.4	-2.0	0.03	-0.05	19.6	0.02	-0.04	0.02	0.01
I-1R2-K	397	398	399	-0.6	-1.4	-1.3	-0.3	-1.5	-0.03	-0.05	-28.5	-0.03	-0.05	-0.01	0.01
I-1R3-A	400	401	402	18.8	8.2	0.5	18.9	0.4	0.63	0.20	-4.6	0.62	0.20	-0.03	0.02
I-1R3-B	403	404	405	-0.0	10.6	9.3	12.2	-2.9	0.37	0.02	64.1	0.09	0.31	0.14	0.02
I-1R3-C	406	407	408	-7.6	10.1	12.0	14.8	-10.4	0.39	-0.20	70.6	-0.13	0.32	0.18	0.01
I-1R3-D	409	410	411	-9.6	6.0	8.5	10.6	-11.7	0.23	-0.28	72.0	-0.23	0.15	0.15	0.02
I-1R3-E	412	413	414*	-3.3	7.1	8.7	10.1	-4.7	0.29	-0.05	72.1	-0.02	0.26	0.10	0.04
I-1R3-F	415	416	417	7.5	11.7	3.0	12.1	-1.5	0.38	0.07	35.4	0.28	0.17	0.15	0.02
I-1R3-G	418	419	420	4.9	9.7	4.2	9.8	-0.7	0.31	0.07	42.9	0.20	0.19	0.12	0.01
I-1R3-H	421	422	423	2.9	9.5	4.4	9.5	-2.2	0.29	0.02	48.6	0.14	0.17	0.13	0.02
I-1R3-J	424	425*	426	3.8	1.3	-0.3	3.8	-0.4	0.12	0.03	-5.2	0.12	0.03	-0.01	0.03
I-1R3-K	427	428	429	2.2	1.2	-2.3	2.6	-2.6	0.06	-0.06	14.6	0.05	-0.05	0.03	0.01
I-1R4-A	685	686	687	-4.6	0.6	-0.8	1.1	-6.4	-0.03	-0.20	59.9	-0.16	-0.07	0.06	0.01
I-1R4-B	430	431	432	5.2	5.3	-0.1	6.4	-1.3	0.20	0.02	23.4	0.17	0.05	0.06	0.02
I-1R4-C	433	434	435	2.7	7.2	3.7	7.2	-0.7	0.23	0.05	48.6	0.13	0.15	0.09	0.01
I-1R4-D	436	437	438	3.1	6.2	1.5	6.3	-1.6	0.19	0.01	39.3	0.12	0.08	0.09	0.02
I-1R5-A	439	440*	441	22.9	-9.2	7.8	41.0	-10.3	1.25	0.07	-36.4	0.83	0.48	-0.57	0.10
I-1R5-B	442	443	444	-9.2	10.4	17.9	19.2	-10.4	0.53	-0.15	78.1	0.2	0.50	0.14	0.02
I-1R5-C	445	446	447	-9.0	6.0	11.1	12.3	-10.1	0.30	-0.21	76.8	0.28	0.28	0.11	0.01
I-1R5-D	448	449	450	-10.0	-2.7	0.7	1.1	-10.4	-0.07	-0.33	80.1	0.32	-0.07	0.04	0.01
I-1R5-E	453	452	451	-6.1	-4.4	-6.1	-4.4	-7.7	-0.22	-0.30	45.2	0.20	-0.26	0.04	0.03
I-1R5-F	454	455	456	5.2	-2.8	-8.1	5.3	-8.2	0.09	-0.22	-6.0	0.09	-0.22	-0.03	0.01
I-1R5-G	457	458	459	5.1	-1.7	-6.4	5.2	-6.5	0.11	-0.16	-5.2	0.11	-0.16	-0.02	0.02
I-1R5-H	460	461	462	4.2	-0.6	-3.9	4.2	-4.0	0.10	-0.09	-5.3	0.10	-0.09	-0.02	0.01
I-1R5-J	463	464	465	1.8	-0.2	-2.0	1.8	-2.0	0.04	-0.05	-1.2	0.04	-0.05	-0.00	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	
I-1R5-K	466	467	468	1.6	1.4	-0.1	1.8	-0.3	0.06	0.01	17.6	0.05	0.01	0.01	0.01
I-1R6-A	469	470	471	24.6	15.4	9.3	24.8	9.3	0.91	0.55	-6.2	-0.91	0.56	-0.04	0.04
I-1R6-B	472	473**	474	-14.8	0.0	22.2	22.6	-15.2	0.59	-0.28	-84.4	-0.27	0.58	-0.08	0.02
I-1R6-C	475	476	477	-10.5	-1.0	11.2	11.3	-10.5	0.27	-0.24	-86.4	-0.23	0.26	-0.03	0.02
I-1R6-D	478	479	480	-10.0	-7.0	-5.1	-5.0	-10.1	-0.26	-0.38	84.2	-0.38	-0.27	0.01	0.02
I-1R6-E	481	482	483	-3.7	-7.9	-11.6	-3.6	-11.6	-0.23	-0.42	-1.9	-0.24	-0.42	-0.01	0.02
I-1R6-F	484	485	486	3.9	-4.5	-13.2	3.9	-13.2	-0.00	-0.40	0.4	-0.00	-0.40	0.00	0.02
I-1R6-G	487	488	489	6.3	-	-13.1	6.3	-13.1	0.08	-0.37	-0.6	0.08	-0.37	-0.03	0.02
I-1R6-H	490	491	492	4.9	-2.9	-13.0	5.0	-13.0	0.04	-0.38	3.7	0.03	-0.38	0.03	0.03
I-1R6-J	493	494	495	3.9	-4.2	-12.2	3.9	-12.2	0.01	-0.36	-0.3	0.01	-0.36	-0.00	0.02
I-1R6-K	496	497	498	2.3	-2.8	-9.6	2.3	-9.6	-0.02	-0.29	4.0	-0.02	-0.29	0.02	0.02
I-2R1-A	511	512	513	-1.6	-3.2	-0.1	1.7	-3.4	0.02	-0.09	-53.9	-0.05	-0.02	-0.06	0.02
I-2R1-B	514	515	516	-1.9	-3.5	-1.1	0.6	-3.6	-0.02	-0.11	-50.1	-0.07	-0.06	-0.02	0.01
I-2R1-C	517	518	519	-2.3	-16.5	-3.9	10.2	-16.5	0.17	-0.44	-43.3	-0.12	-0.15	-0.31	0.02
I-2R1-D	520	521	522	1.9	-23.9	-9.1	17.4	-24.6	0.33	-0.64	-37.4	-0.63	-0.28	-0.47	0.02
I-2R1-E	523	524	525	-1.3	-25.6	-3.4	21.0	-25.6	0.44	-0.64	-43.7	-0.08	-0.12	-0.54	0.03
I-2R1-F	526	527	528	-1.6	-18.0	-2.5	13.9	-18.0	0.28	-0.46	-44.2	-0.08	-0.10	-0.37	0.02
I-2R1-G	529	530	531	-0.1	-8.8	-1.2	7.5	-8.8	0.16	-0.22	-43.2	-0.02	-0.04	-0.19	0.02
I-2R1-H	532**	533	534	0.0	-2.9	-1.5	1.5	-3.1	0.02	-0.09	-35.4	-0.02	-0.05	-0.05	0.01
I-2R1-J	535	536**	537	0.2	0.0	-0.3	0.2	-0.3	0.01	-0.01	2.4	0.01	-0.01	0.00	0.00
I-2R1-K	538	539	540	0.2	1.9	0.2	1.9	-1.5	0.05	-0.03	44.5	0.01	0.01	0.04	0.01
I-2R1-L	672	671	670	0.5	1.9	0.7	1.9	-0.7	0.06	-0.00	-43.6	0.03	0.02	-0.03	0.01
I-2R1-M	675	674	673*	1.1	1.0	3.1	3.5	0.6	0.12	0.06	23.7	0.11	0.07	0.02	0.05
I-2R1-N	678	677	676	0.8	0.3	-0.1	0.8	-0.1	0.03	0.01	89.2	0.01	0.03	0.00	0.01
I-2R2-A	541	542	543	-13.5	-8.4	0.5	0.8	-13.7	-0.11	-0.44	-82.2	-0.44	-0.12	-0.05	0.02
I-2R2-B	544	545	546	-5.6	-8.8	-4.9	-1.7	-8.8	-0.14	-0.37	-47.9	-0.23	-0.22	-0.06	0.02
I-2R2-C	547	548	549	5.7	-14.9	-12.4	11.4	-18.0	0.20	-0.48	-26.0	0.07	-0.35	-0.27	0.03
I-2R2-D	550	551	552	7.5	-18.7	-14.7	15.2	-22.4	0.28	-0.59	-26.9	0.10	-0.41	-0.35	0.02
I-2R2-E	553	554	555	3.4	-21.6	-13.5	13.5	-23.6	0.21	-0.64	-31.5	-0.02	-0.11	-0.38	0.03
I-2R2-F	556	557	558	-7.2	-15.8	-7.5	5.2	-19.6	-0.03	-0.60	-44.6	-0.31	-0.32	-0.29	0.02
I-2R2-G	559	560	561	-5.5	-12.2	-5.1	1.6	-12.2	-0.07	-0.39	-45.7	-0.23	-0.22	-0.16	0.02
I-2R2-H	562	563	564	-2.4	-5.6	-1.3	1.9	-5.7	0.01	-0.17	-49.4	-0.09	-0.07	-0.09	0.01
I-2R2-J	565	566	567	-0.3	-1.9	0.3	1.9	-1.9	0.04	-0.04	-49.9	-0.01	0.01	-0.04	0.01
I-2R2-K	568	569	570	1.5	1.0	1.1	1.6	0.9	0.06	0.05	-29.4	0.06	0.05	-0.01	0.02
I-2R3-A	571	572	573	-18.1	-10.2	-1.1	-1.1	-18.1	-0.21	-0.61	-88.0	-0.61	-0.21	-0.01	0.03
I-2R3-B	574	575	576	0.6	-10.6	-9.5	3.4	-12.4	-0.01	-0.37	-25.1	-0.08	-0.31	-0.14	0.02
I-2R3-C	577	578	579	6.5	-12.7	-12.0	10.9	-16.3	0.20	-0.43	-23.6	0.10	-0.33	-0.23	0.02
I-2R3-D	580	581	582	10.7	-5.0	-9.0	12.3	-10.6	0.30	-0.23	-15.4	0.26	-0.19	-0.14	0.01
I-2R3-E	583	584	585	5.2	-6.9	-5.0	8.7	-8.5	0.20	-0.20	-27.0	0.12	-0.11	-0.16	0.01
I-2R3-F	586	587	588	-6.5	-11.2	-6.4	-1.7	-11.2	-0.17	-0.39	-45.1	-0.28	-0.28	-0.11	0.03
I-2R3-G	589	590	591	-5.1	-10.1	-4.7	0.3	-10.1	-0.09	-0.33	-46.1	-0.21	-0.21	-0.12	0.01
I-2R3-H	592	593	594	-4.0	-8.6	-4.1	0.6	-8.6	-0.07	-0.28	-44.7	-0.17	-0.17	-0.11	0.02
I-2R3-J	595	596	597	-2.8	-4.8	-0.4	1.8	-5.0	0.01	-0.15	-55.5	-0.10	-0.04	-0.07	0.01
I-2R3-K	598	599	600	-2.3	-1.6	1.5	1.8	-2.7	0.03	-0.07	-74.8	-0.06	0.03	-0.03	0.02
I-2R4-A	601	602	603	7.2	1.5	1.8	8.5	0.5	0.28	0.10	-23.8	0.25	0.13	-0.07	0.02
I-2R4-B	604	605	606	-6.4	-3.5	0.3	0.3	-6.4	-0.05	-0.21	-86.4	-0.21	-0.05	-0.01	0.01
I-2R4-C	607	608	609	-3.8	-6.4	-3.2	-0.5	-6.4	-0.08	-0.22	-47.7	-0.16	-0.14	-0.07	0.02
I-2R4-D	610	611	612	-2.1	-5.6	-4.0	-0.4	-5.7	-0.07	-0.19	-34.7	-0.11	-0.15	-0.06	0.01
I-2R5-A	613	614	615	-17.6	-14.2	-6.6	-6.2	-18.0	-0.38	-0.65	-79.5	-0.64	-0.39	-0.05	0.03
I-2R5-B	616	617	618	11.0	-8.2	-16.3	12.1	-17.4	0.23	-0.45	-11.2	0.20	-0.43	-0.13	0.03
I-2R5-C	619	620	621	11.5	-1.2	-8.2	11.8	-8.6	0.31	-0.17	-8.0	0.30	-0.16	-0.06	0.02
I-2R5-D	622	623	624	12.2	5.9	0.5	12.3	0.5	0.41	0.14	-2.5	0.41	0.14	-0.01	0.02
I-2R5-E	625	626	627	5.9	6.6	8.4	8.6	5.8	0.34	0.28	-78.1	0.28	0.34	-0.01	0.03
I-2R5-F	628	629	630	-4.5	1.4	8.1	8.1	-4.5	0.22	-0.07	-87.9	-0.07	0.22	-0.01	0.02
I-2R5-G	631	632	633	-6.9	-0.4	6.5	6.5	-6.9	0.15	-0.16	-89.2	-0.16	0.15	-0.00	0.02
I-2R5-H	634	635	636	-4.9	0.0	4.3	4.3	-4.9	0.09	-0.12	87.9	-0.12	0.09	0.01	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

DATA SHEET PREPARED BY THE RESEARCH DIVISION, GENERAL ELECTRIC

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI				TAU	CONF	
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(I)			SIG(T)
I-2R5-J	634	635	636	-3.8	0.2	1.6	1.9	-4.1	0.02	-0.12	76.7	-0.11	0.01	0.03	0.02
I-2R5-K	637	638	639	-2.9	-0.6	0.3	0.5	-3.0	-0.01	-0.10	77.7	-0.09	-0.02	0.02	0.01
I-2R6-A	640	641	642	-17.2	-14.4	-10.8	-10.7	-17.3	-0.53	-0.68	-86.3	-0.68	-0.53	-0.01	0.03
I-2R6-b	643	644	645	16.8	-2.5	-20.2	16.8	-20.2	0.35	-0.50	-1.2	0.35	-0.50	-0.02	0.04
I-2R6-C	646	647	648	11.8	2.9	-7.3	11.8	-7.3	0.32	-0.12	1.9	0.32	-0.12	0.01	0.02
I-2R6-D	649	650	651	11.8	8.5	7.8	12.2	7.4	0.48	0.36	-16.7	0.47	0.37	-0.03	0.03
I-2R6-E	652	653	654	5.0	7.6	12.7	12.9	4.8	0.47	0.29	-81.1	0.29	0.47	-0.03	0.04
I-2R6-F	655	656	657	-3.6	4.4	13.6	13.6	-3.6	0.41	0.02	-89.6	0.02	0.41	-0.00	0.02
I-2R6-G	658	659	660	-6.3	3.1	13.8	13.8	-6.3	0.39	-0.07	-88.2	-0.07	0.39	-0.01	0.02
I-2R6-H	661	662	663	-6.5	0.9	12.6	12.9	-6.8	0.36	-0.10	-83.7	-0.3	0.35	-0.05	0.03
I-2R6-J	664	665	666	-6.9	1.8	11.7	11.7	-7.0	0.32	-0.11	-88.3	-0.11	0.32	-0.01	0.04
I-2R6-K	667	668	669	-4.2	1.0	9.4	9.6	-4.4	0.27	-0.05	-83.6	-0.05	0.27	-0.04	0.02
O-1CR-12	729	728	727	0.2	5.0	4.7	5.9	-1.0	0.18	0.03	-24.2	0.16	0.05	-0.06	0.01
O-1CR-23	732	731	730	2.7	12.2	13.0	14.6	1.1	0.49	0.18	-20.1	0.46	0.22	-0.10	0.01
O-1CR-56	735	734	733	14.7	17.5	15.8	17.5	12.9	0.71	0.60	-38.6	0.67	0.64	-0.05	0.04
O-2CR-12	737	737	736	-1.8	-3.0	-4.6	-1.8	-4.6	-0.10	-0.17	-86.5	-0.17	-0.10	-0.00	0.02
O-2CR-23	741	740	739	-4.1	-6.5	-9.8	-4.1	-9.9	-0.23	-0.37	-85.1	-0.36	-0.23	-0.01	0.03
O-2CR-56	744	743	742	-15.1	-17.4	-19.6	-15.1	-19.6	-0.69	-0.79	89.0	-0.79	-0.69	0.00	0.04
I-1CR-12	745	746	747	-0.2	24.6	4.1	24.7	-20.8	0.61	-0.44	47.7	0.63	0.13	0.52	0.02
I-1CR-23	748	749	750	-0.7	15.1	6.0	15.5	-10.2	0.41	-0.18	52.6	0.04	0.19	0.29	0.02
I-1CR-56	751	752	753	-6.4	-7.5	-10.3	-6.2	-10.5	-0.31	-0.41	11.3	-0.31	-0.40	0.02	0.02
I-2CR-12	754	755	756	1.0	-20.0	-9.9	17.7	-26.6	0.32	-0.70	-37.9	-0.07	-0.32	-0.50	0.03
I-2CR-23	757	758	759	-0.8	-16.0	-7.6	8.0	-16.5	0.10	-0.46	-37.0	-0.10	-0.26	-0.27	0.02
I-2CR-56	760	761	762	4.3	8.5	11.2	11.2	4.3	0.41	0.25	84.0	0.25	0.41	0.02	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C. +)

COMBUSTION T-12, LOAD CASE 5, F3Y

NOMINAL LOAD = 1.91E 04

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI				TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
O-1F1-A	3	2	1	7.4	23.6	51.5	52.2	6.7	1.79	0.74	7.4	1.77	0.75	0.13	0.05
O-1R1-B	6	5	4	28.4	33.1	43.4	44.0	27.9	1.72	1.35	10.4	1.71	1.37	0.07	0.09
O-1F1-C	9	8	7	34.7	53.7	73.1	73.1	34.7	2.75	1.87	0.2	2.75	1.87	0.00	0.05
O-1R1-D	12	11	10	23.2	55.0	89.0	89.0	25.2	3.16	1.64	1.0	3.16	1.64	0.03	0.04
U-1A1-E	15	14	13	11.9	39.2	63.1	63.2	11.8	2.20	1.01	-1.9	2.20	1.01	-0.04	0.08
O-1K1-F	18	17	16	-2.6	5.1	1.8	5.5	-6.3	0.12	-0.15	-34.1	0.03	-0.07	-0.13	0.02
O-1K1-G	21	20	19	-10.4	-13.2	-21.9	-9.7	-22.6	-0.54	-0.84	-76.5	-0.83	-0.56	-0.07	0.07
U-1I1-H	24	23	22	-15.3	-12.2	-28.3	-10.2	-33.4	-0.67	-1.20	-62.1	-1.08	-0.78	-0.22	0.05
O-1A1-J	27	26	25	-14.8	-13.5	-33.1	-10.1	-37.9	-0.71	-1.35	-65.6	-1.24	-0.82	-0.24	0.09
O-1R1-K	30	29	28	-11.8	-16.4	-24.5	-11.5	-24.7	-0.62	-0.93	-82.3	-0.92	-0.63	-0.04	0.00
O-1A1-L	162	161	160	-4.9	-0.6	-13.4	1.0	-17.4	-0.14	-0.56	-62.4	-0.47	-0.23	-0.17	0.03
O-1R1-M	165	164	163	4.7	9.9	1.6	10.0	-3.7	0.29	-0.02	-91.5	0.10	0.17	-0.15	0.04
O-1K1-N	166	167	168	8.3	14.0	13.5	15.0	6.9	0.56	0.38	-25.0	0.53	0.41	-0.07	0.06
O-1R1-O	171	170	169	11.6	15.1	17.4	17.5	11.6	0.69	0.55	-5.4	0.69	0.56	-0.01	0.04
O-1F2-U	33	32	31	8.2	28.7	51.1	51.1	8.2	1.77	0.78	1.3	1.77	0.78	0.02	0.11
O-1K2-B	36	35	34	21.2	35.9	36.9	39.5	18.6	1.49	1.00	-20.6	1.43	1.06	-0.16	0.09
O-1K2-C	39	38	37	28.3	57.0	67.7	69.6	26.3	2.56	1.56	-12.3	2.51	1.60	-0.21	0.09
U-1A2-D	42	41	40	17.7	65.9	81.9	85.7	13.9	2.96	1.31	-13.3	2.87	1.39	-0.37	0.07
O-1K2-E	45	44	43	12.8	48.2	57.7	61.2	9.3	2.11	0.91	-15.1	2.03	0.99	-0.30	0.05
U-1K2-F	46	47	46	-4.6	4.4	5.1	6.6	-6.2	0.16	-0.14	-20.4	0.12	-0.10	-0.10	0.04
O-1A2-G	51	50	49	-17.3	-19.1	-16.6	-14.7	-19.1	-0.67	-0.78	40.5	-0.72	-0.73	0.05	0.04
U-1A2-H	54	53	52	-20.8	-29.8	-26.4	-16.8	-30.4	-0.86	-1.17	57.2	-1.08	-0.95	0.14	0.06
O-1A2-J	57	56	55	-21.8	-26.5	-36.3	-21.3	-36.8	-1.07	-1.42	-80.2	-1.41	-1.08	-0.06	0.06
U-1A2-K	60	59	58	-18.8	-18.7	-27.5	-16.9	-24.3	-0.85	-1.13	-67.7	-1.09	-0.89	-0.10	0.06
O-1A3-B	63	62	61	5.0	28.9	37.2	39.0	3.2	1.32	0.49	-12.9	1.28	0.53	-0.18	0.08
O-1A3-C	66	65	64	21.6	37.5	29.0	38.1	12.6	1.38	0.79	-36.6	1.17	1.00	-0.28	0.09
O-1A3-D	69	68	67	16.3	55.0	58.1	64.6	9.8	2.23	0.96	-20.2	2.08	1.11	-0.41	0.11
O-1A3-E	72	71	70	7.8	64.8	72.7	80.9	-0.5	2.66	0.78	-18.6	2.47	0.97	-0.57	0.12
O-1A3-F	75	74	73	10.2	59.5	55.4	67.8	-2.3	2.21	0.60	-24.9	1.93	0.88	-0.62	0.09
O-1A3-G	78	77	76	1.2	18.8	12.2	20.0	-6.6	0.59	-0.02	-32.8	0.41	0.16	-0.28	0.05
O-1R3-H	81	80	79	-8.2	-10.5	-7.2	-4.9	-10.6	-0.26	-0.40	40.1	-0.32	-0.34	0.06	0.07
U-1A3-I	84	83	82	-12.8	-25.8	-22.6	-8.3	-27.1	-0.54	-0.98	60.7	-0.87	-0.65	0.19	0.08
U-1A3-J	87	86	85	-15.7	-30.2	-31.6	-13.3	-34.0	-0.77	-1.25	70.2	-1.20	-0.83	0.15	0.11
O-1A3-K	90	89	88	-15.1	-21.5	-33.9	-14.6	-34.4	-0.82	-1.26	-81.1	-1.27	-0.83	-0.07	0.09
O-1A4-A	884	880	879	20.7	56.4	44.1	59.1	5.7	2.01	0.77	-32.0	1.66	1.12	-0.55	0.08
O-1A4-B	93	92	91	5.2	18.7	7.1	18.7	-6.4	0.55	-0.03	-42.9	0.28	0.24	-0.29	0.05
O-1A4-C	96	95	94	-12.0	-15.1	-3.5	0.8	-16.3	-0.14	-0.53	30.0	-0.23	-0.43	0.17	0.06
O-1A4-D	99	98	97	-18.0	-23.9	-20.2	-14.2	-24.0	-0.70	-0.93	51.3	-0.84	-0.79	0.11	0.07
O-1A5-A	102	101	100*	2.1	13.0	12.3	15.0	-0.6	0.49	0.13	-24.4	0.43	0.19	-0.13	0.08
O-1A5-B	105	104	103*	20.5	35.3	22.8	35.3	8.0	1.24	0.61	-42.5	0.96	0.90	-0.31	0.11
O-1A5-C	108	107	106	21.5	50.4	36.2	51.6	6.2	1.76	0.71	-35.6	1.41	1.07	-0.50	0.14
O-1A5-D	111	110	109	17.3	55.6	55.6	63.5	9.4	2.19	0.94	-22.4	2.01	1.12	-0.44	0.11
O-1A5-E	114	113	112	19.9	49.6	48.2	55.3	12.8	1.95	0.97	-24.1	1.79	1.13	-0.36	0.10
O-1A5-F	117	116	115	27.4	40.4	22.6	40.6	9.4	1.43	0.71	-49.4	1.02	1.13	-0.36	0.08
O-1A5-G	120	119	118	23.3	28.8	11.6	30.2	4.7	1.04	0.45	-53.6	0.61	0.88	-0.26	0.06
O-1A5-H	123	122	121	12.0	22.4	14.7	22.4	5.3	0.79	0.40	-42.2	0.61	0.57	-0.20	0.08
O-1A5-I	126	125	124	13.2	15.3	5.1	16.6	1.7	0.56	0.22	-61.8	0.30	0.49	-0.14	0.05
O-1A5-K	129	128	127	1.4	9.4	4.8	9.7	-3.4	0.28	-0.02	-37.4	0.17	0.09	-0.15	0.06
O-1R6-A	132	131	130	8.9	-1.6	-1.3	11.2	-3.6	0.33	-0.01	66.7	0.05	0.28	0.12	0.10
O-1R6-B	135	134	133	26.4	15.0	11.6	27.4	10.6	1.01	0.62	75.7	0.64	0.99	0.09	0.11

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
0-146-C	133	137	136	31.7	29.1	24.9	31.8	24.8	1.29	1.13	-83.6	1.13	1.29	-0.02	0.11
0-146-U	141	140*	139	29.3	40.3	39.1	42.0	26.3	1.55	1.28	-25.6	1.58	1.35	-0.14	0.15
0-146-E	144	143	142	36.0	36.0	45.5	47.4	34.0	1.90	1.59	22.3	1.86	1.64	0.11	0.10
0-146-F	147	146	145	39.1	26.0	17.9	39.2	17.9	1.47	0.98	88.7	0.98	1.47	0.01	0.07
0-146-G	150	149	148	41.3	25.4	8.6	41.3	8.6	1.45	0.69	-89.3	0.69	1.45	-0.01	0.09
0-146-H	152	151	151	38.2	21.2	6.3	38.3	6.2	1.32	0.58	88.1	0.59	1.32	0.03	0.09
0-146-J	155	154	154	39.0	20.8	6.1	39.1	6.0	1.35	0.59	87.0	0.59	1.35	0.04	0.06
0-146-K	159	158	157	29.2	23.2	14.4	29.3	14.3	1.11	0.76	-84.7	0.76	1.10	-0.03	0.09
0-241-A	174	173	172	14.0	31.4	64.0	65.1	12.9	2.27	1.07	8.5	2.25	1.10	0.18	0.08
0-241-U	177	176	175	33.4	37.6	40.2	46.6	33.1	1.86	1.55	9.4	1.85	1.56	0.05	0.08
0-241-C	180	179	178	42.8	64.3	89.6	89.7	42.7	3.38	2.30	2.3	3.38	2.30	0.04	0.12
0-241-E	182	181	181	31.2	60.5	103.1	103.7	30.6	3.72	2.03	5.2	3.71	2.05	0.15	0.11
0-241-F	186	185	184	16.6	36.8	66.9	67.4	16.1	2.38	1.20	5.6	2.37	1.21	0.11	0.09
0-241-G	189	188	187	-2.0	-11.6	0.8	10.5	-11.7	0.23	-0.28	41.4	0.00	-0.06	0.25	0.05
0-241-H	192	191	190	-11.7	-28.1	-21.3	-4.0	-29.0	-0.42	-1.00	56.3	-0.82	-0.60	0.27	0.08
0-241-U	195	194	193	-14.1	-31.2	-24.1	-9.5	-33.8	-0.65	-1.21	64.1	-1.10	-0.75	0.22	0.07
0-241-J	198	197	196	-13.4	-30.1	-30.0	-9.9	-33.5	-0.66	-1.20	67.4	-1.12	-0.74	0.19	0.06
0-241-K	202	200	199	-13.4	-28.0	-25.9	-9.3	-30.0	-0.60	-1.08	63.5	-0.99	-0.70	0.19	0.06
0-241-L	333	332	331	-4.4	-14.6	-12.4	-1.0	-15.8	-0.19	-0.53	61.5	-0.45	-0.27	0.14	0.06
0-241-M	336	335	334	5.5	-2.7	4.3	12.5	-2.8	0.39	0.03	47.3	0.20	0.22	0.18	0.05
0-241-N	339	338	337	10.9	10.4	14.8	16.0	9.7	0.62	0.48	25.7	0.60	0.51	0.06	0.08
0-242-A	204	203	202	5.8	31.9	47.2	47.9	5.1	1.63	0.64	-7.4	1.61	0.66	-0.13	0.12
0-242-B	207	206	205	29.7	42.9	43.7	46.0	27.3	1.79	1.35	-20.9	1.73	1.41	-0.14	0.12
0-242-C	210	209	208	37.4	68.7	80.6	82.7	35.3	3.07	1.98	-12.1	3.03	2.03	-0.22	0.16
0-242-E	213	212	211	23.2	70.6	94.2	96.1	21.2	3.38	1.65	-9.3	3.33	1.70	-0.27	0.14
0-242-F	216	215	214	4.7	45.1	72.6	72.8	9.4	2.49	1.03	-3.6	2.49	1.04	-0.09	0.09
0-242-G	219	218	217	-6.7	-0.6	13.3	14.0	-7.4	0.39	-0.11	10.7	0.37	-0.09	0.06	0.04
0-242-H	222	221	220	-20.3	-31.7	-12.1	-0.2	-32.2	-0.32	-1.06	37.6	-0.60	-0.79	0.00	0.08
0-242-U	225	224	223	-22.4	-42.8	-25.4	-5.0	-42.9	-0.59	-1.46	47.3	-1.06	-0.99	0.44	0.07
0-242-J	228	227	226	-20.3	-36.2	-31.6	-14.2	-37.7	-0.84	-1.38	59.5	-1.24	-0.98	0.24	0.08
0-242-K	231	230	229	-17.4	-31.4	-24.3	-13.3	-33.4	-0.77	-1.23	63.2	-1.14	-0.86	0.19	0.10
0-243-A	234	233	232*	6.0	21.1	28.5	29.1	5.3	1.01	0.46	-9.5	1.00	0.48	-0.09	0.09
0-243-B	237	236	235	21.3	34.3	23.6	34.4	10.6	1.24	0.69	-42.3	0.99	0.94	-0.27	0.10
0-243-C	240	239	238	18.9	53.0	53.1	60.1	11.8	2.10	0.98	-22.4	1.94	1.14	-0.39	0.17
0-243-E	243	242	241	13.2	79.1	80.5	93.5	0.2	3.09	0.93	-21.9	2.78	1.23	-0.75	0.18
0-243-U	246	245	244	7.4	52.8	49.6	60.7	-3.7	1.96	0.48	-24.5	1.71	0.73	-0.56	0.12
0-243-F	249	248	247	-3.0	18.8	21.8	25.0	-6.2	0.76	0.04	-18.6	0.69	0.12	-0.22	0.06
0-243-G	252	251	250	-15.9	-8.6	9.2	10.3	-17.0	0.17	-0.46	11.3	0.15	-0.43	0.12	0.07
0-243-H	255	254	253	-22.8	-31.7	-11.0	-1.0	-32.8	-0.36	-1.09	34.1	-0.59	-0.86	0.34	0.04
0-243-U	258	257	256	-24.0	-41.0	-21.5	-4.5	-41.0	-0.55	-1.40	43.1	-0.95	-1.00	0.42	0.05
0-243-K	261	260	259	-11.6	-37.2	-32.8	-3.8	-40.6	-0.53	-1.36	62.6	-1.20	-0.71	0.35	0.07
0-244-A	264	263	262	0.8	55.9	65.4	72.6	-6.4	2.33	0.51	-17.6	2.16	0.67	-0.52	0.14
0-244-B	264	263	262	-2.9	20.4	13.7	22.5	-11.7	0.63	-0.16	-30.5	0.42	0.04	-0.34	0.03
0-244-C	267	266	265	-18.4	-4.9	3.7	4.0	-18.7	-0.05	-0.56	-6.1	-0.06	-0.57	-0.06	0.04
0-244-U	270	269	268	-39.0	-17.8	0.7	-0.6	-39.1	-0.41	-1.29	-3.0	-0.41	-1.29	-0.05	0.04
0-245-A	273	272	271	6.3	9.8	1.7	10.2	-2.2	0.31	0.03	-55.8	0.12	0.22	-0.13	0.08
0-245-U	276	275	274	19.6	19.7	10.7	21.5	8.9	0.80	0.51	-67.4	0.55	0.75	-0.10	0.10
0-245-L	279	278	277*	16.7	45.2	34.7	47.2	4.2	1.60	0.80	-32.6	1.31	0.89	-0.45	0.14
0-245-E	282	281	280	22.5	59.5	43.0	61.4	4.1	2.07	0.74	-34.5	1.64	1.17	-0.62	0.15
0-245-U	285*	284	283	10.4	55.7	48.8	62.0	-2.8	2.02	0.52	-26.9	1.71	0.83	-0.60	0.13
0-245-F	288	287	286	19.2	46.0	25.3	46.2	-1.7	1.51	0.40	-41.4	1.02	0.88	-0.55	0.06
0-245-G	291	290	289	24.6	37.7	7.5	38.7	-6.6	1.21	0.17	-56.1	0.49	0.89	-0.48	0.08
0-245-H	294*	293	292	19.7	31.6	6.6	32.7	-6.4	1.01	0.11	-54.8	0.41	0.71	-0.43	0.13
0-245-J	297	296	295	7.4	26.5	5.0	26.5	-14.2	0.73	-0.21	-46.7	0.24	0.29	-0.47	0.05
0-245-K	300	299	298	-7.0	20.4	3.7	21.0	-24.3	0.45	-0.59	-38.1	0.05	-0.20	-0.51	0.04
0-246-A	303	302	301	0.0	-7.4	-8.7	1.0	-9.7	-0.66	-0.31	72.2	-0.29	-0.09	0.07	0.09

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI				TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
O-2R0-H	306	305	304*	16.4	10.6	9.6	17.2	8.8	0.65	0.46	72.2	0.48	0.64	0.06	0.14
O-2R6-C	309	308	307	20.1	12.8	13.6	22.1	11.7	0.84	0.60	64.6	0.65	0.80	0.09	0.12
O-2K6-U	312	311	310*	20.3	24.6	31.9	32.1	20.1	1.26	0.98	7.1	1.25	0.98	0.03	0.13
O-2K6-F	315	314	313*	26.9	28.0	32.5	32.9	26.4	1.35	1.20	15.1	1.34	1.21	0.04	0.11
O-2K6-F	316	317	316	39.4	26.1	9.0	39.5	8.8	1.39	0.68	-86.4	0.68	1.39	-0.04	0.08
O-2K6-G	321	320	319	41.3	23.3	2.2	41.4	2.1	1.39	0.48	-87.7	0.48	1.38	-0.04	0.10
O-2K6-H	324	323	322	43.5	18.7	-2.5	43.6	-2.6	1.41	0.35	87.8	0.35	1.41	0.04	0.10
O-2R6-J	327	326	325	42.9	22.5	-7.5	43.4	-7.9	1.35	0.17	-84.6	0.18	1.34	-0.11	0.06
O-2K6-K	330	329	328	31.1	13.7	-8.0	31.2	-8.1	0.95	0.04	-86.8	0.04	0.95	-0.05	0.05
I-1K1-A	340	341	342	60.1	28.8	-17.6	60.8	-18.3	1.82	-0.00	5.5	1.81	0.02	0.17	0.06
I-1R1-B	343	344	345	7.1	6.2	7.1	8.0	6.2	0.32	0.28	-45.0	0.30	0.30	-0.02	0.05
I-1K1-L	346	347	348	-43.3	-13.8	13.0	13.0	-43.4	-0.00	-1.30	88.6	-1.30	-0.00	0.03	0.08
I-1K1-D	349	350	351	-40.3	-19.4	-8.1	-7.4	-41.1	-0.65	-1.43	81.6	-1.41	-0.67	0.11	0.10
I-1R1-E	352	352	354	-24.5	-11.5	-16.9	-10.8	-30.5	-0.66	-1.11	56.3	-0.97	-0.80	0.21	0.11
I-1K1-F	353	356	357	29.4	12.3	-16.7	30.1	-17.4	0.82	-0.28	7.2	0.80	-0.26	0.14	0.06
I-1R1-G	358	359	360	45.5	21.7	-22.7	47.1	-24.3	1.31	-0.33	8.4	1.28	-0.30	0.24	0.04
I-1R1-H	361	362	363	45.4	19.4	-24.6	46.6	-25.7	1.28	-0.39	7.2	1.25	-0.36	0.21	0.05
I-1R1-J	364	365	366	44.7	21.1	-21.2	46.0	-22.5	1.29	-0.29	8.0	1.26	-0.26	0.22	0.04
I-1K1-K	367	368	369	37.2	20.1	-16.4	38.9	-18.1	1.10	-0.21	10.0	1.06	-0.17	0.22	0.07
I-1R1-L	399	500	501	17.1	9.5	-6.4	17.8	-7.0	0.52	-0.06	9.6	0.50	-0.04	0.09	0.05
I-1K1-M	502	503	504	-5.6	1.5	2.9	3.7	-6.4	0.06	-0.17	73.4	-0.15	0.04	0.06	0.03
I-1K1-N	505	506	507	-23.7	-6.7	8.7	8.7	-23.8	0.05	-0.70	88.6	-0.70	0.05	0.02	0.05
I-1K1-O	508	509	510	-7.7	-30.6	13.8	38.5	-32.3	0.95	-0.63	-53.8	-0.12	0.38	-0.78	0.07
I-1R2-A	370	371	372	43.9	19.0	-8.5	43.9	-8.5	1.36	0.15	1.4	1.36	0.15	0.03	0.06
I-1R2-B	373	374	375	2.4	10.8	19.4	19.6	5.2	0.70	0.37	-83.4	0.37	0.69	-0.04	0.06
I-1R2-C	376	377	378	-42.3	-17.0	23.0	23.8	-43.1	0.36	-1.19	-83.7	-1.17	0.34	-0.17	0.06
I-1R2-D	379	380	381	-31.8	-39.3	-2.8	9.1	-43.7	-0.13	-1.35	-61.7	-1.08	-0.41	-0.51	0.07
I-1R2-E	382	383	384	-19.6	-27.8	-13.4	-4.8	-28.2	-0.44	-0.98	-52.6	-0.78	-0.64	-0.26	0.08
I-1R2-F	385	386	387	19.5	2.8	-12.2	19.5	-12.2	0.52	-0.21	-1.5	0.52	-0.21	-0.04	0.05
I-1R2-G	388	389	390	39.0	22.3	-10.2	40.2	-11.5	1.21	0.02	8.9	1.18	0.05	0.18	0.06
I-1R2-H	391	392	393	43.8	28.4	-10.8	46.3	-13.2	1.39	0.02	11.7	1.34	0.08	0.27	0.05
I-1R2-J	394	395	396	47.4	25.4	-12.3	48.4	-13.3	1.46	0.04	7.4	1.44	0.06	0.18	0.05
I-1R2-K	397	398	399	34.5	22.2	-10.2	36.7	-12.4	1.09	-0.05	12.2	1.04	0.00	0.23	0.08
I-1R3-A	400	401	402	34.9	13.4	7.2	36.9	5.2	1.27	0.54	-14.5	1.22	0.58	-0.18	0.04
I-1R3-B	403	404	405	-11.9	4.0	30.1	30.7	-12.5	0.89	-0.11	-83.1	-0.09	0.87	-0.12	0.05
I-1R3-C	406	407	408	-29.4	-17.1	27.1	31.3	-33.6	0.70	-0.80	-75.3	-0.70	0.60	-0.37	0.05
I-1R3-D	409	410	411	-30.4	-41.4	1.3	16.7	-45.7	0.10	-1.34	-60.2	-0.99	-0.26	-0.62	0.11
I-1R3-E	412	413	414*	-22.6	-44.3	-13.0	9.1	-44.7	-0.14	-1.36	-50.1	-0.87	-0.65	-0.61	0.08
I-1R3-F	415	416	417	3.5	-14.2	-18.0	5.6	-20.1	-0.01	-0.61	-16.5	-0.06	-0.56	-0.16	0.08
I-1R3-G	418	419	420	16.4	9.2	-6.3	17.1	-7.0	0.50	-0.06	10.0	0.48	-0.04	0.10	0.03
I-1R3-H	421	422	423	23.2	33.7	8.5	35.2	-3.5	1.13	0.23	33.8	0.85	0.51	0.41	0.05
I-1R3-J	424	425*	426	41.6	37.5	-3.3	48.2	-9.9	1.49	0.15	19.6	1.34	0.30	0.42	0.12
I-1R3-K	427	428	429	42.1	27.5	-8.5	44.2	-10.6	1.35	0.09	11.4	1.30	0.14	0.25	0.06
I-1K4-A	435	436	437	-14.5	-46.9	-32.8	1.3	-48.6	-0.44	-1.59	-34.3	-0.80	-1.22	-0.54	0.12
I-1K4-B	430	431	432	3.9	-14.4	-19.3	5.7	-21.1	-0.02	-0.64	-15.1	-0.05	-0.60	-0.16	0.03
I-1K4-C	433	434	435**	10.7	16.5	0.0	17.7	-7.0	0.52	-0.06	32.2	0.35	0.11	0.26	0.03
I-1K4-D	436	437	438	21.7	28.7	6.8	30.5	-2.0	0.99	0.24	31.4	0.78	0.44	0.33	0.03
I-1K4-E	439	440*	441	27.7	22.0	21.5	28.7	20.5	1.15	0.96	-20.1	1.13	0.98	-0.06	0.14
I-1K4-F	442	443	444	-23.2	6.3	44.9	45.2	-23.5	1.26	-0.33	-86.2	-0.32	1.25	-0.10	0.06
I-1K4-G	445	446	447	-26.3	-6.5	33.2	34.7	-27.9	0.87	-0.58	-80.8	-0.54	0.83	-0.23	0.05
I-1R5-D	448	449	450	-24.0	-36.1	-10.0	3.3	-37.3	-0.26	-1.20	-55.1	-0.89	-0.57	-0.44	0.06
I-1K5-E	453	452	451	-33.2	-41.5	-19.0	-9.1	-43.1	-0.72	-1.51	-57.4	-1.28	-0.95	-0.36	0.06
I-1R5-F	454	455	456	-2.6	-37.2	-39.6	3.5	-45.6	-0.34	-1.47	-20.6	-0.48	-1.33	-0.37	0.09
I-1K5-G	457	458	459	0.1	-33.6	-35.5	6.2	-41.6	-0.21	-1.31	-20.9	-0.35	-1.17	-0.37	0.05
I-1K5-H	460	461	462	1.8	-23.0	-28.7	4.5	-31.4	-0.16	-0.99	-16.0	-0.23	-0.93	-0.22	0.06
I-1R5-J	463	464	465	1.2	-14.5	-20.0	2.4	-21.2	-0.13	-0.67	-12.6	-0.16	-0.65	-0.12	0.06

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI				TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
I-1R5-K	466	467	468	2.3	-4.6	-11.0	2.3	-11.0	-0.03	-0.34	-1.1	-0.03	-0.34	-0.01	0.04
I-1R6-A	469	470	471	27.0	22.2	25.8	30.6	22.2	1.23	1.03	-40.7	1.15	1.12	-0.10	0.15
I-1R6-B	472	473**	474	-30.4	0.0	47.3	48.2	-31.3	1.28	-0.56	-83.9	-0.53	1.26	-0.19	0.07
I-1R6-C	475	476	477	-21.2	6.3	28.7	28.8	-21.3	0.74	-0.42	87.1	-0.42	0.74	0.06	0.06
I-1R6-D	478	479	480	-21.9	-15.2	-17.2	-14.6	-24.5	-0.72	-0.95	58.9	-0.89	-0.72	0.10	0.07
I-1R6-E	481	482	483	-12.4	-25.3	-42.1	-12.3	-42.2	-0.82	-1.51	3.8	-0.83	-1.51	0.05	0.13
I-1R6-F	484	485	486	2.2	-22.3	-50.1	2.2	-50.1	-0.42	-1.63	1.8	-0.42	-1.63	0.04	0.07
I-1R6-G	487	488	489	10.3	-21.0	-50.6	10.4	-50.6	-0.16	-1.57	-0.8	-0.16	-1.57	-0.02	0.09
I-1R6-H	490	491	492	10.4	-21.4	-52.4	10.4	-52.4	-0.17	-1.62	-0.3	-0.17	-1.62	-0.01	0.16
I-1R6-J	493	494	495	8.1	-21.2	-50.0	8.1	-50.0	-0.23	-1.57	-0.2	-0.23	-1.57	-0.01	0.08
I-1R6-K	496	497	498	4.2	-15.9	-42.5	4.4	-42.7	-0.28	-1.36	3.9	-0.28	-1.36	0.07	0.06
I-2R1-A	511	512	513	51.7	12.8	-17.9	51.9	-18.1	1.53	-0.08	-3.4	1.53	-0.08	-0.10	0.04
I-2R1-B	514	515	516	35.2	12.4	5.5	37.2	3.5	1.26	0.49	-14.1	1.22	0.53	-0.18	0.07
I-2R1-C	517	518	519	-59.5	-24.0	18.8	19.0	-59.6	0.04	-1.78	-87.3	-1.77	0.03	-0.09	0.07
I-2R1-D	520	521	522	-46.7	-40.6	-7.5	-3.3	-50.9	-0.61	-1.71	-72.7	-1.61	-0.71	-0.31	0.10
I-2R1-E	523	524*	525	-27.1	-29.9	-15.5	-10.9	-31.7	-0.67	-1.15	-62.0	-1.05	-0.78	-0.20	0.11
I-2R1-F	526	527	528	33.6	-0.5	-16.8	35.1	-18.3	0.98	-0.26	-9.7	0.94	-0.22	-0.20	0.08
I-2R1-G	529	530	531	48.9	5.6	-22.1	49.7	-22.9	1.41	-0.26	-6.2	1.39	-0.24	-0.18	0.06
I-2R1-H	532	533	534	50.3	5.9	-25.2	50.9	-25.8	1.42	-0.35	-5.1	1.41	-0.33	-0.16	0.04
I-2R1-J	535	536**	537	41.5	0.0	-24.4	42.6	-25.5	1.15	-0.42	-7.3	1.13	-0.39	-0.20	0.05
I-2R1-K	538	539	540	30.7	2.2	-18.0	37.6	-18.9	1.05	-0.25	-7.3	1.03	-0.23	-0.17	0.06
I-2R1-L	672	671	670	-7.6	-3.8	16.4	18.9	-10.1	0.52	-0.15	17.1	0.46	-0.09	0.19	0.06
I-2R1-M	675	674	673	1.2	-6.0	-8.6	1.7	-9.1	-0.04	-0.28	77.5	-0.27	-0.05	0.05	0.09
I-2R1-N	678	677	676	8.3	-9.4	-23.4	8.4	-23.5	0.05	-0.69	86.6	-0.69	0.04	0.04	0.05
I-2R2-A	541	542	543	40.8	22.5	-4.7	41.3	-5.2	1.31	0.24	5.5	1.30	0.25	0.10	0.08
I-2R2-B	544	545	546	-5.1	8.0	17.9	18.0	-5.2	0.54	0.01	86.0	0.01	0.54	0.04	0.06
I-2R2-C	547	548	549	-57.8	-34.9	13.0	15.2	-59.9	-0.09	-1.83	-80.3	-1.78	-0.14	-0.29	0.08
I-2R2-D	550	551	552	-46.4	-56.1	-18.6	-5.1	-59.9	-0.76	-2.03	-60.3	-1.71	-1.07	-0.55	0.09
I-2R2-E	553	554	555	-27.2	-51.0	-29.0	-5.1	-51.0	-0.67	-1.73	-43.9	-1.18	-1.22	-0.53	0.08
I-2R2-F	556	557	558	25.8	-13.3	-22.0	30.3	-26.4	0.74	-0.57	-16.3	0.63	-0.47	-0.35	0.07
I-2R2-G	559	560	561	46.3	9.6	-20.9	46.4	-21.0	1.32	-0.23	-2.7	1.32	-0.23	-0.07	0.07
I-2R2-H	562	563	564	53.7	19.6	-18.6	53.8	-18.6	1.59	-0.08	1.6	1.59	-0.08	0.05	0.06
I-2R2-J	565	566	567	51.9	14.8	-14.7	52.2	-14.9	1.57	0.02	-3.3	1.57	0.03	-0.09	0.06
I-2R2-K	568	569	570	43.1	8.7	-11.9	44.0	-12.7	1.32	0.01	-7.1	1.30	0.03	-0.16	0.06
I-2R3-A	571	572	573	24.8	15.0	11.2	25.4	10.6	0.94	0.60	-11.8	0.93	0.61	-0.07	0.08
I-2R3-B	574	575	576	-16.5	1.1	34.1	35.3	-17.7	0.99	-0.23	-81.5	-0.21	0.96	-0.18	0.07
I-2R3-C	577	578	579	-39.2	-20.7	23.0	25.5	-41.6	0.43	-1.12	-79.0	-1.06	0.37	-0.29	0.07
I-2R3-D	580	581	582	-36.7	-51.1	-14.6	2.1	-53.4	-0.46	-1.74	-56.7	-1.35	-0.84	-0.54	0.11
I-2R3-E	583	584	585	-23.8	-57.3	-33.2	0.6	-57.6	-0.55	-1.89	-40.3	-1.11	-1.33	-0.66	0.07
I-2R3-F	586	587	588	17.8	-13.9	-35.5	18.3	-36.0	0.25	-1.01	-5.4	0.24	-1.00	-0.12	0.05
I-2R3-G	589	590	591	25.6	4.3	-22.1	25.7	-22.2	0.63	-0.48	3.1	0.63	-0.47	0.06	0.04
I-2R3-H	592	593	594	39.8	19.9	-18.8	41.3	-20.3	1.16	-0.26	8.9	1.13	-0.23	0.22	0.08
I-2R3-J	595	596	597	49.1	21.5	-13.2	49.3	-13.4	1.49	0.05	3.3	1.49	0.05	0.06	0.06
I-2R3-K	598	599	600	41.7	4.4	-8.0	44.7	-10.9	1.36	0.08	-13.3	1.30	0.15	-0.29	0.07
I-2R4-A	608	609	610	-9.9	-49.8	-38.0	5.5	-53.4	-0.35	-1.71	-30.8	-0.70	-1.35	-0.60	0.13
I-2R4-B	601	602	603	4.5	-17.8	-32.1	4.9	-32.5	-0.16	-1.02	-6.1	-0.17	-1.02	-0.09	0.06
I-2R4-C	604	605	606	15.7	12.7	-14.1	19.9	-18.3	0.47	-0.41	19.3	0.38	-0.31	0.27	0.04
I-2R4-D	607	608	609	24.2	30.5	-6.8	35.5	-18.1	0.99	-0.25	27.3	0.73	0.02	0.50	0.07
I-2R5-A	610	611	612	16.6	16.7	22.0	23.0	15.3	0.91	0.74	-68.3	0.76	0.89	-0.06	0.11
I-2R5-B	613	614	615	-23.5	2.8	44.2	45.0	-24.3	1.24	-0.36	-83.7	-0.34	1.22	-0.17	0.10
I-2R5-C	616	617	618	-22.2	-16.4	28.9	35.6	-28.9	0.89	-0.60	-71.1	-0.45	0.73	-0.46	0.06
I-2R5-D	619	620	621	-17.3	-39.4	-10.5	11.8	-39.7	-0.00	-1.19	-48.8	-0.68	-0.52	-0.59	0.07
I-2R5-E	622	623	624	-21.0	-49.3	-31.1	-2.2	-49.8	-0.57	-1.66	-38.9	-1.00	-1.23	-0.54	0.06
I-2R5-F	625	626	627	-2.1	-36.1	-42.7	2.1	-46.9	-0.40	-1.53	-17.0	-0.49	-1.43	-0.32	0.05
I-2R5-G	628	629	630	1.1	-24.5	-40.9	1.6	-41.4	-0.36	-1.35	-6.2	-0.37	-1.34	-0.11	0.04
I-2R5-H	631	632	633	-1.4	-16.4	-34.0	-1.3	-34.7	-0.39	-1.16	2.7	-0.39	-1.15	0.04	0.08

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH								STRESS - KSI				TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)				
I-2R5-J	634	635	636	-1.9	-10.8	-26.2	-1.2	-28.7	-0.32	-0.96	8.8	-0.34	-0.94	0.10	0.07		
I-2R5-K	637	638	639	-1.0	-1.2	-24.3	3.7	-29.0	-0.17	-0.92	22.2	-0.27	-0.81	0.26	0.05		
I-2R6-A	640*	641	642	15.4	19.4	26.6	26.8	15.2	1.03	0.77	-82.1	0.77	1.03	-0.04	0.12		
I-2R6-B	643	644	645	-23.6	10.9	50.3	50.4	-23.7	1.43	-0.28	-88.1	-0.28	1.43	-0.06	0.15		
I-2R6-C	646	647	648	-20.3	5.2	35.5	35.6	-20.4	0.97	-0.32	-87.5	-0.32	0.97	-0.06	0.09		
I-2R6-D	649	650	651	-18.3	-12.5	-9.4	-9.2	-11.5	-0.49	-0.70	81.8	-0.70	-0.49	0.03	0.08		
I-2R6-E	652	653	654	-10.5	-22.6	-36.3	-10.5	-36.3	-0.71	-1.30	1.7	-0.71	-1.30	0.02	0.09		
I-2R6-F	655	656	657	-2.5	-24.5	-47.0	-2.5	-47.0	-0.55	-1.57	0.3	-0.55	-1.57	0.01	0.09		
I-2R6-G	658	659	660	-1.8	-23.5	-48.5	-1.8	-48.5	-0.54	-1.62	2.0	-0.54	-1.62	0.04	0.10		
I-2R6-H	661	662	663	-3.8	-23.6	-48.2	-3.7	-48.3	-0.60	-1.63	3.1	-0.60	-1.63	0.06	0.08		
I-2R6-J	664	665	666	-8.8	-24.8	-43.6	-8.7	-43.7	-0.72	-1.53	2.4	-0.72	-1.53	0.03	0.14		
I-2R6-K	667	668	669	-11.4	-26.8	-38.5	-11.2	-38.7	-0.75	-1.39	-4.0	-0.76	-1.38	-0.04	0.05		
O-1CR-12	729	728	727	15.4	55.3	69.1	72.1	12.3	2.50	1.12	-13.0	2.43	1.19	-0.30	0.06		
O-1CR-23	732	731	730	10.4	59.3	61.1	70.3	1.2	2.33	0.74	-21.4	2.12	0.95	-0.54	0.09		
O-1CR-56	735	734	733	29.8	43.8	38.2	44.7	23.3	1.70	1.21	-33.5	1.55	1.36	-0.23	0.10		
O-2CR-12	736	737	736	14.4	49.3	74.2	74.6	14.5	2.60	1.22	-4.6	2.59	1.23	-0.11	0.08		
O-2CR-23	741	740	739	3.8	54.4	66.4	71.9	-1.6	2.35	0.66	-15.8	2.23	0.78	-0.44	0.12		
O-2CR-56	744	743	742	21.1	42.9	35.5	44.6	12.1	1.59	0.84	-31.8	1.38	1.05	-0.34	0.15		
I-1CR-12	745	746	747	-16.9	-16.7	-15.2	-14.9	-17.2	-0.66	-0.71	-71.0	-0.71	-0.67	-0.02	0.10		
I-1CR-23	748	749	750	-25.1	-35.9	-9.6	2.7	-37.5	-0.28	-1.21	-56.3	-0.92	-0.57	-0.43	0.07		
I-1CR-56	751	752	753	-19.5	-36.4	-37.0	-16.4	-40.2	-0.94	-1.49	-21.4	-1.01	-1.41	-0.19	0.10		
I-2CR-12	754	755	756	-27.0	-41.6	-21.0	-6.2	-41.8	-0.62	-1.44	-49.8	-1.10	-0.96	-0.41	0.11		
I-2CR-23	757	758	759	-35.0	-54.2	-25.6	-5.9	-54.7	-0.74	-1.86	-50.5	-1.41	-1.19	-0.55	0.03		
I-2CR-56	760	761	762	-12.4	-39.9	-37.6	-5.5	-44.5	-0.62	-1.52	-24.8	-0.78	-1.36	-0.34	0.07		

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

COMBUSTION T-12, LOAD CASE 6, F3Z

NOMINAL LOAD = 3.885E 02

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
O-1R1-A	3	2	1	-0.8	-11.8	-27.5	-0.8	-27.7	-0.29	-0.92	-85.0	-0.91	-0.30	-0.05	0.01
O-1R1-B	6	5	4	-12.2	-18.0	-24.2	-12.2	-24.2	-0.64	-0.92	-89.1	-0.92	-0.64	-0.00	0.01
O-1R1-C	9	8	7	-19.0	-30.2	-39.6	-19.0	-39.6	-1.02	-1.49	87.5	-1.49	-1.02	0.02	0.01
O-1R1-D	12	11	10	-15.0	-33.6	-50.4	-15.0	-50.4	-0.99	-1.81	88.6	-1.81	-0.99	0.02	0.01
O-1R1-E	15	14	13	-9.3	-25.9	-40.9	-9.3	-40.9	-0.71	-1.44	88.6	-1.44	-0.71	0.02	0.02
O-1R1-F	18	17	16	-0.6	-8.4	-13.3	-0.4	-13.5	-0.15	-0.45	83.4	-0.44	-0.15	0.03	0.01
O-1R1-G	21	20	19	2.6	-2.1	-5.0	3.2	-3.6	0.07	-0.09	72.7	-0.07	0.06	0.04	0.01
O-1R1-H	24	23	22	3.8	1.5	0.7	4.0	0.5	0.14	0.06	76.5	0.06	0.13	0.02	0.02
O-1R1-I	27	26	25	3.7	2.0	2.2	4.2	1.7	0.16	0.10	62.9	0.11	0.14	0.02	0.02
O-1R1-K	30	29	28	3.6	1.9	3.1	4.9	1.8	0.18	0.11	49.5	0.14	0.15	0.03	0.03
O-1R1-L	162	161	160	1.4	2.1	3.5	3.6	1.3	0.13	0.08	8.4	0.13	0.08	0.01	0.02
O-1R1-M	165	164	163	0.9	2.1	3.2	3.2	0.9	0.11	0.06	-2.5	0.11	0.06	-0.00	0.01
O-1R1-N	168	167	166	0.4	0.4	1.7	1.9	0.1	0.00	0.02	21.9	0.00	0.03	0.01	0.01
O-1R1-O	171	170	169	-0.3	-0.3	-0.3	-0.3	-0.3	-0.01	-0.01	58.4	-0.01	-0.01	0.00	0.00
O-1R2-A	33	32	31	-0.7	-12.4	-26.2	-0.7	-26.2	-0.28	-0.86	85.3	-0.88	-0.28	0.01	0.01
O-1R2-B	36	35	34	-10.3	-16.8	-18.4	-9.6	-19.1	-0.51	-0.73	74.3	-0.71	-0.52	0.06	0.02
O-1R2-C	39	38	37	-16.6	-27.6	-33.6	-16.2	-34.0	-0.87	-1.28	82.0	-1.27	-0.88	0.06	0.02
O-1R2-D	42	41	40	-13.2	-34.3	-41.8	-11.7	-43.4	-0.81	-1.55	77.3	-1.51	-0.85	0.16	0.01
O-1R2-E	45	44	43	-9.9	-28.9	-33.6	-8.0	-35.6	-0.61	-1.25	74.5	-1.21	-0.66	0.16	0.01
O-1R2-F	48	47	46	-5.1	-11.4	-13.2	-4.5	-13.8	-0.29	-0.50	75.6	-0.49	-0.30	0.05	0.01
O-1R2-G	51	50	49	-0.7	-1.6	-5.1	-0.3	-5.5	-0.06	-0.18	-74.7	-0.17	-0.07	-0.03	0.02
O-1R2-H	54	53	52	1.9	2.8	-0.9	3.2	-2.2	0.08	-0.04	-60.3	-0.01	0.05	-0.03	0.01
O-1R2-I	57	56	55	2.1	4.6	2.3	4.7	-0.3	0.15	0.04	-43.6	0.10	0.09	-0.06	0.01
O-1R2-K	60	59	58	2.6	4.4	4.2	4.7	2.1	0.14	0.12	-25.7	0.16	0.13	-0.02	0.01
O-1R3-A	63	62	61	-0.4	-10.5	-16.3	-0.1	-16.6	-0.17	-0.55	82.5	-0.54	-0.17	0.05	0.01
O-1R3-B	66	65	64	-7.9	-9.8	-11.0	-7.9	-11.0	-0.37	-0.44	83.9	-0.44	-0.37	0.01	0.02
O-1R3-C	69	68	67	-11.7	-15.8	-19.8	-11.7	-19.8	-0.58	-0.77	89.6	-0.77	-0.58	0.00	0.01
O-1R3-D	72	71	70	-8.8	-21.2	-26.4	-8.1	-27.1	-0.53	-0.97	78.8	-0.96	-0.55	0.08	0.01
O-1R3-E	75	74	73	-11.3	-24.5	-22.6	-7.6	-26.3	-0.51	-0.94	63.5	-0.86	-0.60	0.17	0.03
O-1R3-F	78	77	76	-10.4	-16.4	-11.1	-5.1	-16.4	-0.33	-0.59	46.7	-0.47	-0.45	0.13	0.02
O-1R3-G	81	80	79	-6.2	-10.4	-8.0	-3.5	-10.7	-0.22	-0.39	51.9	-0.32	-0.28	0.08	0.01
O-1R3-H	84	83	82	-3.0	-4.0	-4.9	-3.0	-4.9	-0.15	-0.19	-89.2	-0.19	-0.15	-0.00	0.01
O-1R3-I	87	86	85	-0.5	1.1	-0.8	1.1	-2.4	0.01	-0.07	-27.6	-0.02	-0.02	-0.04	0.01
O-1R3-K	90	89	88	0.6	4.4	3.6	4.9	-0.7	0.15	0.03	-29.9	0.12	0.06	-0.05	0.01
O-1R4-A	681	680	679	-11.4	-16.6	-13.9	-8.5	-16.7	-0.45	-0.64	52.7	-0.57	-0.51	0.09	0.01
O-1R4-B	93	92	91	-12.1	-14.3	-6.0	-3.0	-15.1	-0.25	-0.53	30.0	-0.32	-0.40	0.12	0.02
O-1R4-C	96	95	94	-6.3	-10.5	-5.4	-1.3	-10.5	-0.14	-0.36	42.1	-0.24	-0.20	0.11	0.02
O-1R4-D	99	98	97	-1.6	-0.9	-2.6	-0.9	-3.4	-0.06	-0.12	-56.2	-0.10	-0.08	-0.03	0.01
O-1R5-A	102	101	100	-0.2	-2.7	-4.6	-0.1	-4.7	-0.05	-0.15	86.2	-0.15	-0.05	0.01	0.01
O-1R5-B	105	104	103	-6.1	0.0	-5.2	0.0	-11.4	-0.11	-0.37	-42.7	-0.23	-0.25	-0.13	0.01
O-1R5-C	108	107	106	-8.8	-0.6	-7.4	-0.5	-15.6	-0.17	-0.52	-42.4	-0.33	-0.36	-0.17	0.01
O-1R5-D	111	110	109	-9.7	-3.8	-8.4	-3.8	-14.3	-0.27	-0.51	-41.6	-0.37	-0.40	-0.12	0.02
O-1R5-E	114	113	112	-9.3	-8.8	-9.1	-8.8	-9.6	-0.38	-0.40	-39.0	-0.39	-0.40	-0.01	0.01
O-1R5-F	117	116	115	-10.6	-12.0	-5.2	-3.0	-12.8	-0.23	-0.45	28.2	-0.28	-0.40	0.09	0.01
O-1R5-G	120	119	118	-12.2	-12.4	-3.3	-1.2	-14.2	-0.18	-0.48	23.4	-0.23	-0.43	0.11	0.02
O-1R5-H	123	122	121	-9.8	-12.1	-3.7	-0.6	-12.9	-0.15	-0.43	30.2	-0.22	-0.36	0.12	0.01
O-1R5-I	126	125	124	-10.7	-11.4	-2.9	-0.8	-12.8	-0.15	-0.43	24.7	-0.20	-0.38	0.11	0.01
O-1R5-K	129	128	127	-9.2	-8.6	-3.5	-2.7	-10.0	-0.19	-0.36	18.9	-0.21	-0.34	0.05	0.02
O-1R6-A	132**	131	130	0.0	3.7	-0.1	3.7	-3.8	0.08	-0.09	-45.5	-0.00	-0.00	-0.09	0.01
O-1R6-B	135	134	133	1.3	8.5	-0.8	8.5	-8.1	0.20	-0.18	-48.6	-0.01	0.03	-0.19	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

THIS FILE PRINTED BY THE AIR FORCE RESEARCH AND DEVELOPMENT COMMAND

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CUMF
0-1R6-C	136	137	136	-1.1	12.3	1.1	12.3	-12.3	0.28	-0.28	-42.5	0.02	-0.03	-0.28	0.01
0-1R6-D	141	140*	139	0.9	10.3	0.0	10.3	-9.5	0.25	-0.21	-46.3	0.01	0.03	-0.23	0.01
0-1R6-E	144	143	142	0.9	5.7	-0.3	5.7	-5.1	0.14	-0.11	-48.2	-0.00	0.03	-0.12	0.01
0-1R6-F	147	146	145	1.5	0.5	-0.4	1.5	-0.4	0.05	0.00	88.9	0.00	0.05	0.00	0.02
0-1R6-G	150	149	148	1.9	-0.2	-0.4	2.3	-0.7	0.07	-0.00	69.0	0.01	0.06	0.02	0.02
0-1R6-H	153	152	151**	1.7	-0.1	0.0	2.1	-0.6	0.07	0.01	65.4	0.02	0.06	0.02	0.02
0-1R6-J	156	155	154	0.7	-0.0	-0.1	0.8	-0.2	0.02	0.00	70.6	0.00	0.02	0.01	0.00
0-1R6-K	159	158	157	0.4	0.5	0.1	0.5	0.0	0.02	0.01	-65.2	0.01	0.02	-0.00	0.00
0-2R1-A	174	173	172	2.8	14.5	29.3	29.3	2.7	0.99	0.38	3.4	0.99	0.38	0.04	0.02
0-2R1-B	177	176	175	12.4	16.5	21.0	21.0	12.4	0.82	0.62	1.3	0.82	0.62	0.00	0.01
0-2R1-C	180	179	178	19.2	29.3	40.9	40.9	19.2	1.54	1.03	2.0	1.54	1.03	0.02	0.02
0-2R1-D	183	182	181	14.8	29.6	49.9	50.1	14.6	1.80	0.98	4.4	1.79	0.98	0.06	0.02
0-2R1-E	186	185	184	9.1	20.1	36.2	37.1	8.9	1.31	0.66	5.9	1.30	0.67	0.07	0.02
0-2R1-F	189	188	187	0.5	3.0	10.6	11.2	-0.1	0.37	0.11	13.3	0.36	0.12	0.06	0.01
0-2R1-G	192	191	190	-3.5	-3.2	0.2	0.8	-4.1	-0.01	-0.13	20.2	-0.03	-0.11	0.04	0.02
0-2R1-H	195	194	193	-4.3	-5.1	-1.4	-0.2	-5.5	-0.06	-0.18	28.6	-0.09	-0.15	0.05	0.01
0-2R1-J	198	197	196	-4.0	-5.0	-2.6	-1.4	-5.1	-0.10	-0.18	33.9	-0.12	-0.16	0.04	0.01
0-2R1-K	201	200	199	-3.4	-4.6	-3.5	-2.3	-4.6	-0.12	-0.17	45.8	-0.15	-0.15	0.03	0.01
0-2R1-L	333	332	331	-2.0	-3.0	-3.7	-1.9	-3.8	-0.10	-0.15	64.5	-0.14	-0.10	0.00	0.02
0-2R1-M	336	335	334	-1.0	-2.6	-3.5	-0.9	-3.6	-0.07	-0.13	78.5	-0.12	-0.07	0.01	0.01
0-2R1-N	339	338	337	-0.8	-3.1	-1.8	0.6	-3.2	-0.01	-0.10	52.8	-0.07	-0.04	0.04	0.02
0-2R2-A	204	203	202	0.1	13.6	22.6	22.8	-0.1	0.75	0.22	-5.5	0.75	0.23	-0.05	0.03
0-2R2-B	207	206	205	11.7	17.6	19.0	19.6	11.1	0.76	0.56	-16.0	0.74	0.57	-0.05	0.01
0-2R2-C	210	209	208	17.3	29.5	35.7	36.2	16.9	1.36	0.91	-9.0	1.35	0.92	-0.07	0.01
0-2R2-D	213	212	211	13.2	31.2	42.5	42.9	12.8	1.54	0.85	-6.4	1.53	0.86	-0.08	0.01
0-2R2-E	216	215	214	9.6	23.5	34.0	34.1	9.5	1.22	0.65	-3.9	1.22	0.65	-0.04	0.02
0-2R2-F	219	218	217	5.5	9.6	12.9	13.0	5.4	0.48	0.31	-2.9	0.48	0.31	-0.01	0.01
0-2R2-G	222	221	220	0.1	-1.5	5.2	7.5	-2.2	0.23	0.00	29.5	0.17	0.06	0.10	0.01
0-2R2-H	225	224	223	-2.4	-5.8	1.3	5.0	-6.1	0.10	-0.15	35.3	0.02	-0.07	0.12	0.01
0-2R2-J	228	227	226	-2.5	-6.7	-2.9	1.4	-6.7	-0.02	-0.21	48.4	-0.12	-0.11	0.09	0.03
0-2R2-K	231	230	229	-4.0	-5.9	-4.4	-2.5	-5.9	-0.14	-0.22	48.7	-0.19	-0.18	0.04	0.01
0-2R3-A	234	233	232	1.6	8.5	13.2	13.3	1.5	0.45	0.38	-5.0	0.45	0.18	-0.02	0.02
0-2R3-B	237	236	235	10.2	11.4	12.8	12.8	10.2	0.52	0.46	1.5	0.52	0.46	0.00	0.02
0-2R3-C	240	239	238	11.8	16.3	21.3	21.3	11.8	0.82	0.60	1.4	0.82	0.60	0.01	0.02
0-2R3-D	243	242	241	9.7	24.5	28.5	30.0	8.3	1.07	0.57	-14.9	1.04	0.60	-0.12	0.01
0-2R3-E	246	245	244	10.6	22.5	19.6	23.8	6.3	0.85	0.44	-29.5	0.75	0.54	-0.17	0.01
0-2R3-F	249	248	247	10.7	16.7	12.0	16.7	6.0	0.61	0.36	-41.3	0.50	0.47	-0.12	0.02
0-2R3-G	252	251	250	6.6	10.0	8.7	10.2	5.1	0.39	0.27	-33.0	0.35	0.30	-0.05	0.02
0-2R3-H	255*	254	253	-3.4	2.4	6.0	6.1	-3.5	0.17	-0.06	-6.8	0.16	-0.05	-0.03	0.02
0-2R3-J	258	257	256	-0.3	-3.3	0.9	3.9	-3.3	0.10	-0.07	40.5	0.03	0.00	0.06	0.02
0-2R3-K	261	260	259	-0.6	-5.9	-4.8	1.2	-6.5	-0.03	-0.20	61.5	-0.16	-0.07	0.07	0.01
0-2R4-A	684	683	682	7.9	16.8	17.9	19.2	6.5	0.70	0.40	-19.0	0.67	0.44	-0.09	0.01
0-2R4-B	264	263	262	9.4	15.4	8.2	15.5	2.2	0.53	0.22	-47.6	0.36	0.39	-0.15	0.01
0-2R4-C	267	266	265	6.1	9.2	6.7	9.2	3.6	0.34	0.21	-41.6	0.28	0.27	-0.06	0.02
0-2R4-D	270	269	268	1.6	2.6	5.3	5.5	1.4	0.20	0.10	11.8	0.19	0.10	0.02	0.02
0-2R5-A	273	272	271	2.1	0.5	4.7	6.6	0.2	0.22	0.07	32.9	0.18	0.12	0.07	0.01
0-2R5-B	276	275	274	7.8	-0.1	3.7	11.9	-0.4	0.39	0.10	54.7	0.20	0.29	0.15	0.01
0-2R5-C	279	278	277	8.9	2.3	7.6	14.2	2.2	0.49	0.21	48.0	0.34	0.37	0.14	0.02
0-2R5-D	282	281	280	7.0	7.2	11.3	12.1	6.7	0.46	0.33	21.4	0.44	0.34	0.05	0.02
0-2R5-E	285	284	283	6.9	11.7	10.7	12.3	5.4	0.46	0.30	-28.7	0.42	0.33	-0.07	0.02
0-2R5-F	288	287	286	9.5	14.9	5.9	15.2	0.2	0.50	0.16	-52.0	0.29	0.37	-0.17	0.02
0-2R5-G	291	290	289	11.7	13.7	3.3	15.0	0.0	0.49	0.15	-62.0	0.23	0.42	-0.14	0.02
0-2R5-H	294*	293	292	12.8	13.3	4.1	15.0	2.0	0.51	0.21	-66.1	0.26	0.46	-0.11	0.03
0-2R5-J	297	296	295	9.4	12.4	3.8	13.1	0.1	0.43	0.13	-57.9	0.22	0.35	-0.13	0.01
0-2R5-K	300	299	298	5.9	9.8	5.8	9.8	1.9	0.34	0.16	-45.2	0.25	0.25	-0.09	0.02
0-2R6-A	303	302	301	-0.8	-5.0	1.1	5.4	-5.1	0.13	-0.11	40.0	0.03	-0.01	0.12	0.

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI				TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
O-2R6-B	306	305	305	1.1	-10.2	-2.7	8.8	-10.3	0.19	-0.25	50.6	-0.08	0.01	0.22	0.01
O-2R6-C	309	308	307	1.6	-10.5	-2.2	10.1	-10.7	0.23	-0.25	50.2	-0.06	0.05	0.24	0.01
O-2R6-D	312	311	310	-0.6	-7.5	-0.2	6.7	-7.5	0.15	-0.16	44.2	-0.01	-0.02	0.16	0.01
O-2R6-E	315	314	313	-0.9	-2.0	-0.5	0.6	-2.0	-0.09	-0.06	40.2	-0.03	-0.04	0.03	0.01
O-2R6-F	316	317	316	-1.3	-2.5	0.1	2.6	-3.8	0.05	-0.10	-38.7	-0.01	-0.04	-0.07	0.01
O-2R6-G	321	320	319	-1.0	-3.1	-0.1	3.1	-4.2	0.06	-0.11	-41.3	-0.01	-0.03	-0.08	0.01
O-2R6-H	325	323	322	-0.3	3.3	-0.1	3.3	-3.7	0.07	-0.09	-43.3	-0.01	-0.01	-0.08	0.01
O-2R6-J	327	326	325	-0.4	3.2	-0.0	3.2	-3.6	0.07	-0.09	-43.3	-0.00	-0.01	-0.08	0.01
O-2R6-K	330	329	328	-0.0	2.7	0.0	2.7	-2.7	0.06	-0.06	-44.7	0.00	-0.00	-0.08	0.01
I-1R1-A	340	341	342	-33.2	-18.3	5.0	5.4	-33.7	-0.15	-1.06	-83.8	-1.05	-0.17	-0.10	0.01
I-1R1-B	343	344	345	-5.3	-5.7	-1.7	-5.1	-7.9	-0.25	-0.31	16.6	-0.25	-0.31	0.02	0.02
I-1R1-C	346	347	348	23.7	4.1	-13.1	23.7	-13.1	0.65	-0.20	-1.9	0.65	-0.20	-0.03	0.02
I-1R1-D	349	350	351	24.8	7.9	-4.5	25.0	-4.6	0.78	0.09	-4.4	0.77	0.10	-0.03	0.01
I-1R1-E	352	353	354	17.5	7.4	-1.2	17.5	-1.2	0.57	0.13	-2.4	0.57	0.13	-0.02	0.01
I-1R1-F	355	356	357	0.1	-1.7	-2.0	0.3	-2.2	-0.01	-0.01	-17.5	-0.02	-0.06	-0.02	0.01
I-1R1-G	358	359	360	-5.4	-4.6	-1.4	-1.1	-5.7	-0.09	-0.20	-74.5	-0.19	-0.10	-0.03	0.01
I-1R1-H	361	362	363	-6.3	-3.4	-0.0	-0.0	-6.3	-0.06	-0.21	-87.4	-0.21	-0.06	-0.01	0.01
I-1R1-J	364	365	366	-5.5	-2.2	1.4	1.4	-5.5	-0.01	-0.17	-88.6	-0.17	-0.01	-0.06	0.01
I-1R1-K	367	368	369	-5.6	-2.0	3.0	3.0	-5.7	0.04	-0.14	-85.7	-0.16	0.04	-0.01	0.01
I-1R1-L	499	500	501	-5.4	-2.0	3.4	3.6	-5.5	0.04	-0.15	-83.3	-0.14	0.06	-0.02	0.01
I-1R1-M	502	503	504	-5.0	-2.2	1.3	1.3	-5.0	-0.01	-0.15	-86.9	-0.15	-0.01	-0.01	0.01
I-1R1-N	505	506	507	-3.2	-1.5	0.3	0.3	-3.2	-0.02	-0.10	-89.6	-0.11	-0.02	-0.01	0.02
I-1R1-O	508	509	510**	-0.4	-0.4	0.0	0.1	-0.5	-0.00	-0.02	-71.9	-0.01	-0.00	-0.00	0.01
I-1R2-A	370	371	372	-23.7	-12.4	0.0	0.1	-23.7	-0.23	-0.78	-88.5	-0.78	-0.23	-0.01	0.01
I-1R2-B	373	374	375	-4.2	-9.5	-12.5	-4.1	-12.7	-0.26	-0.46	-7.3	-0.26	-1.45	-0.01	0.01
I-1R2-C	376	377	378	23.6	4.8	-16.7	23.7	-16.8	0.62	-0.32	2.0	0.61	-0.32	0.03	0.01
I-1R2-D	379	380	381	15.1	22.8	-0.7	24.7	-10.2	0.71	-0.09	31.6	0.49	0.13	0.26	0.01
I-1R2-E	382	383	384	13.5	25.3	8.4	25.5	-3.6	0.80	0.13	40.0	0.53	0.42	0.33	0.01
I-1R2-F	385	386	387	4.5	13.4	2.1	13.5	-6.9	0.28	-0.09	41.6	0.17	0.12	0.23	0.01
I-1R2-G	388	389	390	-2.4	5.1	1.7	5.4	-6.1	0.12	-0.15	55.2	-0.06	0.03	0.13	0.01
I-1R2-H	391	392	393	-4.2	-0.4	0.3	0.8	-4.6	-0.02	-0.14	73.4	-0.13	-0.03	0.01	0.01
I-1R2-J	394	395	396*	-5.6	-2.4	1.3	1.3	-5.6	-0.01	-0.17	-88.1	-0.17	-0.01	-0.01	0.02
I-1R2-K	397	398	399	-6.0	-3.8	0.8	1.1	-6.2	-0.03	-0.19	-80.3	-0.19	-0.03	-0.02	0.01
I-1R3-A	400	401	402	-13.6	-10.2	-6.3	-6.3	-13.6	-0.34	-0.51	-88.6	-0.51	-0.34	-0.00	0.02
I-1R3-B	403	404	405	3.9	-6.4	-16.8	3.9	-16.8	-0.04	-0.51	0.2	-0.04	-0.51	0.00	0.01
I-1R3-C	406	407	408	13.7	6.9	-13.1	15.3	-14.6	0.36	-0.33	13.0	0.32	-0.30	0.23	0.01
I-1R3-D	409	410	411	13.5	22.9	3.0	23.8	-7.2	0.71	-0.02	35.1	0.45	0.23	0.31	0.01
I-1R3-E	412	413	414	11.4	29.3	12.7	29.3	-5.2	0.91	0.12	46.1	0.50	0.53	0.40	0.01
I-1R3-F	415	416	417	5.9	24.4	12.4	24.7	-6.4	0.75	0.05	51.0	0.32	0.47	0.35	0.01
I-1R3-G	418	419	420	1.8	15.2	10.9	16.3	-3.6	0.50	0.04	58.6	0.17	0.38	0.20	0.01
I-1R3-H	421	422	423	0.1	7.9	5.0	8.7	-2.6	0.26	-0.06	60.8	0.06	0.20	0.11	0.01
I-1R3-J	424	425*	426	-2.2	2.9	0.5	3.1	-4.9	0.05	-0.13	54.9	-0.07	-0.01	0.09	0.02
I-1R3-K	427	428	429	-5.6	-2.9	0.9	0.9	-5.6	-0.02	-0.18	-85.7	-0.18	-0.03	-0.01	0.01
I-1R4-A	485	486	487	4.1	25.4	16.4	26.6	-6.1	0.82	0.06	56.0	0.30	0.58	0.35	0.01
I-1R4-B	430	431	432	2.8	20.3	15.4	22.0	-3.7	0.69	0.09	59.7	0.25	0.54	0.26	0.01
I-1R4-C	433	434	435	3.7	12.8	8.0	13.1	-1.4	0.42	0.08	53.7	0.20	0.30	0.16	0.01
I-1R4-D	436	437	438	-0.1	2.7	1.5	2.9	-1.5	0.08	-0.02	56.3	0.01	0.05	0.05	0.01
I-1R5-A	439	440	441	-7.0	-9.1	-5.5	-3.3	-9.2	-0.20	-0.34	-52.1	-0.28	-0.25	-0.07	0.02
I-1R5-B	442	443	444	6.4	-2.9	-12.3	6.4	-12.3	0.09	-0.34	9.2	0.09	-0.34	0.00	0.01
I-1R5-C	445	446	447	8.1	4.0	-8.7	9.1	-9.7	0.20	-0.23	13.5	0.18	-0.21	0.19	0.01
I-1R5-D	448	449	450	5.5	17.2	6.0	17.2	-5.7	0.51	-0.02	45.5	0.24	0.25	0.27	0.02
I-1R5-E	453	452	451	12.3	19.8	2.9	20.7	-5.5	0.63	0.02	34.4	0.44	0.22	0.28	0.01
I-1R5-F	454	455	456	3.7	19.3	11.8	20.5	-5.0	0.63	0.04	54.2	0.24	0.42	0.28	0.01
I-1R5-G	457	458	459	2.2	18.8	14.3	20.4	-3.9	0.63	0.07	59.9	0.21	0.44	0.24	0.01
I-1R5-H	460	461	462	0.9	14.7	14.3	17.6	-2.2	0.55	0.10	66.6	0.17	0.46	0.16	0.01
I-1R5-J	463	464	465	1.2	13.4	11.5	15.0	-2.3	0.47	0.07	63.1	0.15	0.39	0.16	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	LUNF
I-1R5-K	466	467	468	1.6	10.7	9.7	12.1	-0.9	0.39	0.09	64.3	0.15	0.34	0.12	0.02
I-1R6-A	469	470	471	-0.4	-1.7	0.1	1.4	-1.7	0.03	-0.04	-49.3	-0.01	0.00	-0.04	0.01
I-1R6-B	472	473**	474	-0.2	0.0	1.4	1.6	-0.4	0.05	0.00	-70.8	0.01	0.04	-0.01	0.01
I-1R6-C	475	476	477	-0.4	5.4	1.4	5.4	-4.4	0.14	-0.09	50.4	0.00	0.04	0.11	0.01
I-1R6-D	478	479	480	0.3	9.5	-1.1	9.5	-10.4	0.21	-0.25	43.0	-0.00	-0.04	0.23	0.01
I-1R6-E	481	482	483	-1.2	9.9	-0.2	9.9	-17.3	0.22	-0.27	46.3	-0.04	-0.02	0.24	0.01
I-1R6-E	484	485	486	0.6	8.2	-1.6	8.2	-9.3	0.18	-0.22	1.5	0.00	-0.02	0.20	0.01
I-1R6-G	487	488	489	-0.3	5.3	-0.9	5.3	-6.6	0.11	-0.16	43.5	-0.02	-0.03	0.14	0.01
I-1R6-H	490	491	492	-0.3	3.4	-0.9	3.4	-4.7	0.07	-0.12	43.0	-0.02	-0.03	0.09	0.01
I-1R6-J	493	494	495	0.1	3.1	-1.1	3.1	-4.0	0.06	-0.10	40.2	-0.01	-0.03	0.00	0.01
I-1R6-K	496	497	498	-0.5	1.7	-0.7	1.7	-2.9	0.03	-0.08	43.7	-0.02	-0.05	0.05	0.01
I-2R1-A	511	512	513	23.7	8.1	-5.9	23.7	-5.9	0.72	0.05	-1.6	0.72	0.04	-0.02	0.01
I-2R1-B	514	515	516	16.2	8.1	4.9	16.7	4.4	0.59	0.31	-11.7	0.58	0.32	-0.06	0.01
I-2R1-C	517	518	519	-26.9	-6.2	13.0	13.6	-26.9	0.18	-0.75	89.4	-0.75	0.18	0.01	0.01
I-2R1-D	520	521	522	-24.7	-13.5	4.0	4.3	-25.0	-0.10	-0.71	-83.8	-0.77	-0.11	-0.07	0.01
I-2R1-E	523	524	525	-18.5	-10.1	0.2	0.3	-18.5	-0.17	-0.61	-80.9	-0.61	-0.17	-0.02	0.02
I-2R1-E	526	527	528	2.4	0.3	2.6	4.7	0.3	0.16	0.06	-46.4	0.11	0.11	-0.05	0.02
I-2R1-G	529	530	531	6.2	3.0	1.4	6.3	1.2	0.22	0.10	-9.1	0.22	0.11	-0.02	0.02
I-2R1-H	532	533	534	6.4	-2.5	-0.6	6.4	-0.6	0.20	0.05	-3.1	0.20	0.04	-0.01	0.01
I-2R1-H	535	536**	537	6.0	0.0	-2.7	6.3	-3.0	0.18	-0.04	-16.3	0.17	-0.05	-0.04	0.01
I-2R1-K	538	539	540	6.1	0.9	-3.1	6.2	-3.2	0.17	-0.04	-3.7	0.17	-0.04	-0.01	0.02
I-2R1-L	672	671	670	-2.9	1.5	4.7	4.8	-3.0	0.13	-0.05	-4.1	0.13	-0.05	-0.01	0.01
I-2R1-M	675	674	673*	-1.9	0.9	3.6	3.6	-1.9	0.10	-0.03	-1.2	0.10	-0.03	-0.02	0.01
I-2R1-N	678	677	676	-0.7	0.3	2.9	3.1	-0.8	0.09	0.00	11.8	0.09	0.01	0.02	0.01
I-2R2-A	541	542	543	20.4	14.1	1.9	20.8	1.5	0.70	0.25	8.9	0.69	0.26	0.07	0.02
I-2R2-B	544	545	546	0.1	9.0	11.8	12.5	-0.6	0.41	0.10	76.2	0.12	0.39	0.07	0.02
I-2R2-C	547	548	549	-25.9	-11.7	10.2	10.6	-26.3	0.09	-0.76	-84.0	-0.75	0.08	-0.09	0.01
I-2R2-D	550	551	552	-22.4	-25.7	-4.5	1.7	-28.6	-0.23	-0.93	-63.1	-0.78	-0.37	-0.23	0.01
I-2R2-E	553	554	555	-16.4	-28.9	-10.2	2.4	-29.2	-0.21	-0.91	-50.4	-0.64	-0.51	-0.36	0.01
I-2R2-F	556	557	558	-2.4	-16.4	-5.6	8.4	-16.5	0.12	-0.46	-41.4	-0.14	-0.21	-0.24	0.01
I-2R2-G	559	560	561	3.5	-5.8	-3.0	7.1	-6.6	0.17	-0.15	-30.9	0.09	-0.06	-0.14	0.01
I-2R2-H	562	563	564	4.4	-0.1	-2.0	4.6	-2.3	0.13	-0.03	-11.3	0.12	-0.02	-0.03	0.02
I-2R2-J	565	566	567	6.3	2.4	-1.1	6.3	-1.1	0.20	0.03	-1.4	0.20	0.03	-0.00	0.01
I-2R2-K	568	569	570	7.1	2.6	-1.3	7.1	-1.3	0.22	0.03	-2.3	0.22	0.03	-0.01	0.01
I-2R3-A	571	572	573	11.7	11.0	6.1	12.4	5.4	0.46	0.30	18.3	0.45	0.32	0.05	0.02
I-2R3-B	574	575	576	-7.6	4.4	14.3	14.4	-7.7	0.40	-0.11	87.3	-0.11	0.40	0.02	0.01
I-2R3-C	577	578	579	-15.0	-8.2	7.7	8.6	-15.9	0.13	-0.44	-78.9	-0.42	0.11	-0.21	0.02
I-2R3-D	580	581	582	-14.4	-24.6	-8.4	2.2	-24.9	-0.18	-0.80	-51.4	-0.56	-0.42	-0.30	0.02
I-2R3-E	583	584	585	-11.6	-30.8	-16.1	3.2	-31.0	-0.20	-0.95	-41.2	-0.54	-0.65	-0.34	0.01
I-2R3-F	586	587	588	0.2	-22.0	-18.9	6.5	-25.2	-0.03	-0.77	-26.5	-0.18	-0.62	-0.29	0.01
I-2R3-G	589	590	591	0.0	-15.7	-11.9	5.5	-17.4	0.01	-0.52	-29.4	-0.12	-0.39	-0.23	0.01
I-2R3-H	592	593	594	0.7	-7.9	-6.6	3.2	-9.1	0.02	-0.27	-27.0	-0.04	-0.21	-0.12	0.01
I-2R3-J	595	596	597	3.4	-1.5	-1.7	4.4	-2.6	0.12	-0.09	-21.7	0.10	-0.02	-0.05	0.01
I-2R3-K	598	599	600	6.2	1.1	-0.3	6.7	-0.8	0.21	0.05	-14.8	0.20	0.05	-0.04	0.01
I-2R4-A	608	609	690	-3.3	-24.1	-20.3	3.2	-26.8	-0.16	-0.85	-27.7	-0.31	-0.70	-0.28	0.02
I-2R4-B	601	602	603	-4.1	-20.5	-14.5	3.0	-21.7	-0.12	-0.68	-32.5	-0.28	-0.52	-0.26	0.01
I-2R4-C	604	605	606	-0.2	-13.1	-12.1	3.0	-15.3	-0.05	-0.47	-24.8	-0.13	-0.40	-0.16	0.01
I-2R4-D	607	608	609	1.8	-5.7	-7.2	2.7	-8.1	0.01	-0.24	-17.0	-0.01	-0.22	-0.07	0.01
I-2R5-A	610	611	612	4.8	7.1	6.0	7.2	3.7	0.27	0.19	54.5	0.22	0.25	0.04	0.02
I-2R5-B	613	614	615	-6.9	0.5	9.6	9.7	-6.9	0.25	-0.13	-86.9	-0.13	0.25	-0.02	0.01
I-2R5-C	616	617	618	-5.9	-8.1	2.8	6.3	-9.4	0.12	-0.25	-61.7	-0.17	0.03	-0.15	0.01
I-2R5-D	619	620	621	-2.7	-16.1	-10.0	4.0	-16.7	-0.03	-0.51	-34.8	-0.19	-0.36	-0.22	0.01
I-2R5-E	622	623	624	-7.1	-21.8	-11.1	3.8	-22.0	-0.09	-0.69	-40.6	-0.34	-0.43	-0.29	0.01
I-2R5-F	625	626	627	-1.8	-18.6	-15.7	3.3	-20.8	-0.10	-0.65	-27.4	-0.21	-0.54	-0.23	0.01
I-2R5-G	628	629	630	-0.9	-15.9	-16.9	1.8	-19.6	-0.13	-0.63	-29.6	-0.20	-0.57	-0.16	0.01
I-2R5-H	631	632	633	0.1	-13.5	-15.5	2.0	-17.4	-0.11	-0.56	-18.3	-0.15	-0.51	-0.13	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

FORM 1001 (REVISED BY THE BUREAU OF MINING RESEARCH)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-2R5-J	634	635	636	0.6	-12.2	-14.2	2.4	-16.0	-0.08	-0.50	-18.2	-0.12	-0.46	-0.14	0.01
I-2R5-K	637	638	639	-0.2	-9.2	-11.9	0.6	-12.7	-0.11	-0.41	-14.2	-0.12	-0.39	-0.07	0.01
I-2R6-A	640	641	642	-0.0	0.7	-1.9	1.0	-3.0	0.00	-0.09	30.8	-0.02	-0.06	0.07	0.01
I-2R6-B	643	644	645	0.2	-2.2	-1.7	1.0	-2.5	0.01	-0.07	-28.6	-0.01	-0.05	-0.03	0.01
I-2R6-C	646	647	648	-0.2	-7.0	-1.9	5.0	-7.1	0.09	-0.18	-41.1	-0.03	-0.06	-0.14	0.01
I-2R6-D	649	650	651	-0.4	-8.9	1.8	10.4	-9.0	0.25	-0.19	-49.3	0.00	0.06	-0.22	0.01
I-2R6-E	652	653	654	1.0	-8.7	-0.1	9.7	-8.7	0.23	-0.19	-43.3	0.01	0.01	-0.21	0.01
I-2R6-F	655	656	657	0.6	-6.7	0.4	7.6	-6.7	0.19	-0.14	-44.7	0.02	0.02	-0.17	0.01
I-2R6-G	658	659	660**	0.2	-4.8	0.0	5.0	-4.8	0.12	-0.11	-44.5	0.01	0.00	-0.11	0.01
I-2R6-H	661	662	663	0.3	-3.0	0.3	3.7	-3.0	0.09	-0.06	-45.1	0.01	0.01	-0.08	0.01
I-2R6-J	664	665	666	-0.1	-2.0	-0.1	1.8	-2.0	0.04	-0.05	-44.7	-0.00	-0.00	-0.07	0.01
I-2R6-K	667	668	669	0.3	0.2	0.6	0.8	0.1	0.03	0.01	-58.7	0.02	0.02	-0.01	0.01
O-1CR-12	729	728	727	-11.0	-33.4	-40.7	-9.2	-42.5	-0.72	-1.49	76.5	-1.45	-0.77	0.17	0.01
O-1CR-23	732	731	730	-11.2	-28.7	-29.6	-8.0	-32.8	-0.59	-1.16	68.9	-1.09	-0.66	0.19	0.01
O-1CR-56	735	734	733	-1.4	1.2	-5.4	1.6	-8.3	-0.02	-0.26	-56.8	-0.19	-0.10	-0.11	0.01
O-2CR-12	738	737	736	9.0	25.2	37.5	37.6	8.8	1.33	0.66	-3.8	1.32	0.67	-0.04	0.01
O-2CR-23	741	740	739	9.3	24.0	28.2	29.5	8.0	1.05	0.56	-14.4	1.02	0.59	-0.12	0.01
O-2CR-56	744	743	742	3.1	1.9	2.9	4.1	1.9	0.15	0.10	47.2	0.13	0.13	0.02	0.01
I-1CR-12	745	746	747	16.8	17.2	0.6	20.4	-3.1	0.64	0.10	23.1	0.56	0.16	0.20	0.01
I-1CR-23	748	749	750	14.4	27.5	7.8	27.8	-5.6	0.86	0.09	39.3	0.55	0.40	0.38	0.01
I-1CR-56	751	752	753	3.4	16.0	4.2	16.0	-8.4	0.44	-0.12	46.0	0.15	0.17	0.28	0.01
I-2CR-12	754	755	756	-17.7	-20.3	-3.0	2.0	-22.7	-0.16	-0.73	-63.3	-0.61	-0.27	-0.23	0.01
I-2CR-23	757	758	759	-20.4	-30.8	-9.7	1.6	-31.7	-0.26	-1.03	-54.4	-0.77	-0.52	-0.30	0.01
I-2CR-56	760	761	762	-3.8	-15.1	-5.1	6.2	-15.1	0.05	-0.44	-43.2	-0.18	-0.21	-0.24	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

COMBUSTION T-12, LOAD CASE 7, M2X

NOMINAL LOAD = 2.850E 05

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF.
O-1R1-A	3	2	1	1.6	8.9	-0.1	9.0	-7.4	0.22	-0.16	-48.0	0.01	0.05	-0.19	0.01
O-1R1-B	6	5	4	1.3	5.8	0.3	5.9	-4.3	0.15	-0.08	-47.7	0.02	0.05	-0.12	0.01
O-1R1-C	9	8	7	1.0	-5.1	-0.4	6.7	-6.2	0.16	-0.15	48.0	-0.00	0.03	0.15	0.01
O-1R1-D	12	11	10	2.5	-26.3	-1.2	27.7	-26.4	0.85	-0.60	47.0	-0.02	0.07	0.62	0.02
O-1R1-E	15	14	13	5.3	-35.4	-4.6	36.5	-35.8	0.85	-0.62	48.9	-0.10	0.13	0.83	0.02
O-1R1-F	18	17	16	4.4	-32.0	-4.5	32.2	-32.3	0.74	-0.75	49.0	-0.11	0.10	0.74	0.03
O-1R1-G	21	20	19	0.6	-25.8	-1.5	24.9	-25.8	0.57	-0.60	46.2	-0.04	0.02	0.58	0.03
O-1R1-H	24	23	22	0.6	-20.2	-3.1	17.8	-20.3	0.39	-0.49	47.8	-0.10	-0.01	0.44	0.02
O-1R1-J	27	26	25	0.2	-16.7	-0.8	16.0	-16.7	0.36	-0.39	45.9	-0.03	-0.00	0.38	0.01
O-1R1-K	30	29	28	0.8	-15.1	-1.9	14.1	-15.2	0.31	-0.30	47.7	-0.06	0.01	0.34	0.02
O-1R1-L	162	161	160	-0.3	-13.9	0.2	13.8	-13.9	0.32	-0.32	44.6	0.00	-0.01	0.32	0.02
O-1R1-M	165	164	163	-1.9	-14.1	1.5	13.8	-14.2	0.32	-0.33	41.6	0.03	-0.05	0.32	0.01
O-1R1-N	168	167	166	-0.5	-14.3	-0.2	13.6	-14.3	0.31	-0.38	44.6	-0.01	-0.02	0.32	0.01
O-1R1-O	171	170	169	-1.0	-13.7	-0.0	12.7	-13.7	0.28	-0.33	46.0	-0.01	-0.03	0.31	0.01
O-1R2-A	33	32	31	11.3	6.9	-12.0	13.4	-14.1	0.30	-0.33	-74.1	-0.28	0.25	-0.17	0.02
O-1R2-B	36	35	34	13.3	8.8	-1.5	13.8	-2.0	0.44	0.07	-79.3	0.08	0.42	-0.07	0.02
O-1R2-C	39	38	37	7.6	-1.0	0.8	10.5	-2.0	0.32	0.04	61.6	0.10	0.26	0.12	0.01
O-1R2-D	42	41	40	2.4	-18.0	1.8	22.2	-18.0	0.53	-0.37	45.5	0.08	0.10	0.46	0.01
O-1R2-E	45	44	43	3.7	-18.4	7.9	30.1	-18.5	0.61	-0.31	42.5	0.30	0.20	0.56	0.02
O-1R2-F	48	47	46	5.2	-14.3	9.8	29.4	-14.4	0.83	-0.18	42.0	0.37	0.27	0.50	0.02
O-1R2-G	51	50	49	1.2	-14.4	8.1	24.0	-14.7	0.65	-0.25	39.9	0.28	0.12	0.44	0.01
O-1R2-H	54	53	52	-1.4	-16.4	3.6	18.7	-16.5	0.45	-0.36	40.9	0.10	-0.01	0.40	0.02
O-1R2-J	57	56	55	-0.4	-17.8	-2.2	15.2	-17.8	0.33	-0.44	46.5	-0.08	-0.09	0.38	0.02
O-1R2-K	60	59	58	-0.6	-16.6	-1.9	14.2	-16.7	0.30	-0.41	46.2	-0.07	-0.04	0.36	0.02
O-1R3-A	63	62	61	13.0	-3.4	-19.7	13.0	-19.7	0.23	-0.52	89.9	-0.52	0.23	0.00	0.02
O-1R3-B	66	65	64	12.7	4.0	-0.7	13.0	-0.9	0.42	0.10	81.8	0.10	0.41	0.05	0.02
O-1R3-C	69	68	67	2.4	-0.0	2.7	5.2	-0.0	0.17	0.05	43.2	0.11	0.11	0.08	0.01
O-1R3-D	72	71	70	-4.5	-2.4	5.7	6.6	-5.4	0.16	-0.11	15.3	0.14	-0.09	0.07	0.02
O-1R3-E	75	74	73	-5.4	2.5	9.4	9.5	-5.4	0.26	-0.08	-1.8	0.26	-0.08	-0.01	0.01
O-1R3-F	78	77	76	-1.8	4.9	10.2	10.2	-1.9	0.32	0.04	-3.2	0.32	0.04	-0.02	0.01
O-1R3-G	81	80	79	-5.5	-0.8	9.7	10.2	-6.0	0.28	-0.10	10.3	0.27	-0.09	0.07	0.01
O-1R3-H	84	83	82	-7.5	-7.1	8.1	11.0	-10.4	0.26	-0.23	21.6	0.19	-0.17	0.17	0.02
O-1R3-J	87	86	85	-7.3	-12.9	5.4	12.6	-14.5	0.27	-0.35	31.0	0.11	-0.19	0.28	0.01
O-1R3-K	90	89	88	1.4	-15.2	-1.7	15.0	-15.3	0.34	-0.36	48.0	-0.04	0.03	0.35	0.02
O-1R4-A	681	680	679	-7.7	11.7	5.8	13.4	-15.3	0.29	-0.37	-31.0	0.12	-0.20	-0.29	0.01
O-1R4-B	93	92	91	-7.9	6.9	6.9	9.9	-10.9	0.22	-0.26	-22.6	0.15	-0.19	-0.17	0.02
O-1R4-C	96	95	94	-12.0	-0.2	10.8	10.8	-12.1	0.24	-0.29	-1.1	0.24	-0.29	-0.01	0.02
O-1R4-D	99	98	97	-15.5	-10.4	15.5	18.7	-18.6	0.43	-0.43	17.0	0.36	-0.36	0.24	0.02
O-1R5-A	102	101	100	7.3	-8.6	-10.7	9.6	-13.0	0.19	-0.33	71.3	-0.28	0.13	0.16	0.01
O-1R5-B	105	104	103	3.9	-1.1	1.1	6.4	-1.4	0.20	0.02	55.4	0.08	0.14	0.08	0.02
O-1R5-C	108	107	106	-5.0	5.5	4.0	7.0	-8.0	0.15	-0.19	-26.4	0.08	-0.13	-0.14	0.01
O-1R5-D	111	110	109	-13.8	13.7	10.1	17.7	-21.4	0.37	-0.53	-26.2	0.20	-0.35	-0.36	0.02
O-1R5-E	114	113	112	-12.8	16.8	7.9	19.4	-24.3	0.40	-0.61	-30.9	0.13	-0.34	-0.44	0.02
O-1R5-F	117	116	115	-11.2	14.4	6.5	16.6	-21.3	0.34	-0.54	-31.1	0.10	-0.30	-0.39	0.01
O-1R5-G	120	119	118	-9.5	11.3	5.3	13.2	-17.4	0.26	-0.44	-30.5	0.08	-0.26	-0.31	0.02
O-1R5-H	123	122	121	-11.9	8.5	8.5	12.7	-16.2	0.26	-0.41	-22.6	0.16	-0.31	-0.24	0.02
O-1R5-J	126	125	124	-11.1	8.5	7.8	12.2	-15.3	0.25	-0.39	-23.6	0.15	-0.29	-0.25	0.02
O-1R5-K	129	128	127	-16.1	9.4	10.3	15.1	-20.9	0.29	-0.54	-21.4	0.18	-0.43	-0.28	0.03
O-1R6-A	132	131	130	-1.6	-7.8	0.4	6.7	-7.9	0.14	-0.19	40.9	-0.00	-0.05	0.17	0.01
O-1R6-B	135	134	133	-1.4	-3.7	-0.1	2.3	-3.7	0.04	-0.10	38.8	-0.02	-0.03	0.07	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN - MICRINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
0-1R6-C	138	137	136	-2.5	10.5	0.9	10.7	-12.3	0.23	-0.30	-40.8	0.00	-0.07	-0.20	0.01
0-1R6-D	141	140	139	0.5	25.5	0.1	25.5	-25.0	0.59	-0.57	-45.2	0.01	0.02	-0.30	0.02
0-1R6-E	144	143	142	0.6	29.1	-0.3	29.1	-28.7	0.67	-0.66	-45.5	-0.00	0.02	-0.67	0.02
0-1R6-F	147	146	145	0.3	24.8	-1.0	24.8	-25.5	0.57	-0.60	-45.7	-0.03	-0.00	-0.58	0.02
0-1R6-G	150	149	148	1.4	22.1	-0.5	22.1	-21.2	0.52	-0.48	-46.3	-0.00	0.04	-0.50	0.01
0-1R6-H	153	152	151	0.2	19.8	0.7	19.8	-19.0	0.47	-0.43	-44.6	0.02	0.01	-0.45	0.02
0-1R6-J	156	155	154	1.1	20.0	-1.1	20.0	-20.0	0.46	-0.45	-46.6	-0.02	0.03	-0.46	0.02
0-1R6-K	159	158	157	0.5	23.6	0.9	23.6	-22.2	0.56	-0.50	-44.8	0.04	0.03	-0.53	0.02
0-2R1-A	174	173	172	0.1	8.5	1.2	8.5	-7.2	0.21	-0.15	-42.9	0.04	0.01	-0.18	0.01
0-2R1-B	177	176	175	0.1	6.8	-0.2	6.8	-7.0	0.16	-0.16	-45.6	-0.01	-0.00	-0.10	0.01
0-2R1-C	180	179	178	1.7	-4.9	-0.3	6.4	-5.0	0.16	-0.10	49.9	0.01	0.05	0.13	0.01
0-2R1-D	183	182	181	4.0	-27.1	-1.6	29.5	-27.2	0.71	-0.60	47.8	-0.01	0.11	0.65	0.02
0-2R1-E	186	185	184	3.8	-35.3	-4.3	35.0	-35.6	0.80	-0.83	48.3	-0.11	0.08	0.81	0.02
0-2R1-F	189	188	187	2.0	-32.0	-2.4	31.6	-32.1	0.72	-0.74	47.0	-0.08	0.04	0.73	0.02
0-2R1-G	192	191	190	-0.1	-25.6	-2.2	23.4	-25.7	0.52	-0.61	46.2	-0.07	-0.02	0.57	0.03
0-2R1-H	195	194	193	1.0	-19.8	-2.0	18.8	-19.9	0.42	-0.47	47.2	-0.09	0.01	0.45	0.02
0-2R1-J	198	197	196	0.5	-16.5	-0.5	16.4	-16.5	0.38	-0.38	45.9	-0.01	0.01	0.38	0.02
0-2R1-K	201	200	199	-0.7	-14.3	0.2	13.9	-14.3	0.32	-0.34	44.1	0.00	-0.02	0.33	0.01
0-2R1-L	203	202	201	-0.1	-13.6	-2.3	11.3	-13.7	0.24	-0.34	47.6	-0.08	-0.02	0.29	0.01
0-2R1-M	206	205	204	-0.1	-13.3	-1.7	11.5	-13.3	0.25	-0.33	46.8	-0.06	-0.02	0.29	0.01
0-2R1-N	209	208	207	-1.3	-14.9	-0.5	13.1	-14.9	0.28	-0.36	44.2	-0.03	-0.05	0.32	0.02
0-2R2-A	204	203	202	12.4	6.1	-11.0	14.6	-13.2	0.35	-0.29	-73.8	-0.24	0.30	-0.17	0.02
0-2R2-B	207	206	205	13.0	10.5	-0.9	14.2	-2.1	0.45	0.07	-73.8	0.10	0.42	-0.10	0.02
0-2R2-C	210	209	208	6.6	-2.3	1.0	10.5	-2.9	0.32	0.01	57.4	0.10	0.23	0.14	0.02
0-2R2-D	213	212	211	3.8	-17.8	-0.2	21.5	-17.9	0.51	-0.33	47.9	0.03	0.12	0.45	0.02
0-2R2-E	216	215	214	8.1	-17.6	4.5	30.3	-17.7	0.82	-0.28	47.2	0.23	0.31	0.55	0.01
0-2R2-F	219	218	217	4.5	-13.6	10.8	29.2	-13.8	0.83	-0.17	40.8	0.40	0.26	0.49	0.02
0-2R2-G	222	221	220	2.8	-14.7	6.2	23.8	-14.8	0.64	-0.25	42.4	0.23	0.15	0.44	0.02
0-2R2-H	225	224	223	-0.4	-16.1	2.6	18.4	-16.1	0.45	-0.35	42.5	0.08	0.01	0.40	0.01
0-2R2-J	228	227	226	1.8	-16.3	-4.0	14.4	-16.6	0.31	-0.40	50.4	-0.11	0.02	0.35	0.01
0-2R2-K	231	230	229	-0.5	-15.4	-1.4	13.5	-15.4	0.29	-0.30	45.9	-0.05	-0.03	0.33	0.02
0-2R3-A	234	233	232	14.8	0.4	-16.0	14.8	-16.0	0.33	-0.38	-89.7	-0.38	0.35	-0.00	0.01
0-2R3-B	237	236	235	12.3	2.9	-0.7	13.0	-1.3	0.41	0.06	78.0	0.10	0.40	0.07	0.03
0-2R3-C	240	239	238	2.7	-0.1	3.9	6.8	-0.2	0.22	0.06	40.1	0.16	0.13	0.08	0.03
0-2R3-D	243	242	241	-5.6	-1.4	7.9	8.4	-6.1	0.22	-0.12	10.4	0.21	-0.11	0.06	0.02
0-2R3-E	246	245	244	-3.5	3.5	10.0	10.0	-3.5	0.29	-0.02	-1.0	0.29	-0.02	-0.01	0.02
0-2R3-F	249	248	247	-1.3	4.2	10.7	10.7	-1.3	0.34	0.06	2.3	0.34	0.06	0.01	0.02
0-2R3-G	252	251	250	-4.2	-0.1	11.2	11.9	-5.0	0.34	-0.05	12.4	0.33	-0.03	0.08	0.02
0-2R3-H	255	254	253	-5.3	-9.1	8.5	14.4	-11.2	0.37	-0.23	28.7	0.23	-0.09	0.25	0.02
0-2R3-J	258	257	256	-6.2	-12.5	5.2	12.7	-13.6	0.28	-0.33	32.3	0.11	-0.15	0.26	0.02
0-2R3-K	261	260	259	-0.2	-14.9	-0.4	14.3	-14.9	0.33	-0.35	45.2	-0.01	-0.01	0.34	0.01
0-2R4-A	684	683	682	-12.6	7.8	11.3	13.9	-15.3	0.31	-0.36	-17.6	0.25	-0.30	-0.19	0.02
0-2R4-B	264	263	262	-8.6	5.5	9.7	10.9	-9.9	0.26	-0.22	-14.3	0.23	-0.19	-0.12	0.02
0-2R4-C	267	266	265	-10.1	2.3	10.7	10.9	-10.2	0.26	-0.23	-5.3	0.25	-0.23	-0.04	0.01
0-2R4-D	270	269	268	-17.8	-0.2	18.6	18.6	-17.8	0.44	-0.40	0.9	0.44	-0.40	0.01	0.01
0-2R5-A	273	272	271	8.4	-7.4	-10.9	10.2	-12.7	0.21	-0.32	73.8	-0.28	0.17	0.14	0.01
0-2R5-B	276	275	274	6.0	-0.7	-0.0	7.8	-1.8	0.24	0.02	64.7	0.06	0.20	0.09	0.01
0-2R5-C	279	278	277	-4.9	5.1	5.4	7.3	-6.9	0.17	-0.16	-21.9	0.13	-0.11	-0.11	0.01
0-2R5-D	282	281	280	-6.2	17.3	5.3	18.2	-19.1	0.41	-0.45	-36.0	0.11	-0.15	-0.41	0.02
0-2R5-E	285	284	283	-12.8	17.6	8.9	20.4	-24.3	0.43	-0.66	-30.4	0.17	-0.34	-0.45	0.02
0-2R5-F	288	287	286	-10.8	19.5	7.7	17.0	-20.1	0.36	-0.49	-30.0	0.15	-0.25	-0.37	0.02
0-2R5-G	291	290	289	-8.0	12.7	3.8	13.9	-18.1	0.28	-0.46	-34.1	0.05	-0.23	-0.34	0.01
0-2R5-H	294	293	292	-9.4	8.8	7.6	12.0	-13.8	0.26	-0.34	-24.4	0.16	-0.24	-0.22	0.02
0-2R5-J	297	296	295	-10.7	8.4	8.7	12.5	-14.5	0.27	-0.36	-22.1	0.16	-0.27	-0.22	0.02
0-2R5-K	300	299	298	-15.7	7.8	12.1	15.1	-18.7	0.31	-0.47	-17.3	0.24	-0.40	-0.22	0.02
0-2R6-A	303	302	301	-1.5	-7.9	1.0	7.6	-8.0	0.17	-0.19	40.4	0.02	-0.04	0.18	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

DATA COURTESY OF THE UNIVERSITY OF MICHIGAN

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONE
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SHAX	SHIN	PHI	SIG(L)	SIG(T)		
O-2R6-B	306	305	304	-0.6	-0.6	-1.1	-0.5	-1.2	-0.03	-0.04	-49.0	-0.04	-0.03	-0.00	0.01
O-2R6-C	309	308	307	-2.4	10.9	1.9	11.1	-11.7	0.25	-0.27	-39.7	0.04	-0.06	-0.26	0.01
O-2R6-D	312	311	310	0.0	25.6	0.4	25.6	-25.1	0.59	-0.57	-44.8	0.01	0.01	-0.56	0.02
O-2R6-E	315	314	313	3.5	27.9	-3.1	28.1	-27.8	0.65	-0.64	-48.4	-0.07	0.06	-0.64	0.02
O-2R6-F	318	317	316	-2.5	24.1	2.3	24.3	-24.5	0.56	-0.57	-42.2	0.05	-0.06	-0.56	0.01
ROSETTES O-2R6-G THROUGH O-2R6-J WERE NOT READ.															
O-2K6-H	324	323	322	-0.2	19.6	0.3	19.6	-19.5	0.45	-0.45	-44.6	0.01	-0.00	-0.45	0.01
O-2R6-J	327	326	325	-1.0	19.9	1.7	19.9	-19.2	0.47	-0.44	-43.0	0.05	-0.02	-0.45	0.01
O-2K6-K	330	329	328	-0.8	20.7	1.3	20.7	-20.2	0.48	-0.46	-43.5	0.03	-0.01	-0.47	0.01
I-1K1-A	340	341	342	0.6	3.2	-2.4	1.8	-3.6	0.02	-0.10	-28.0	-0.00	-0.07	-0.05	0.01
I-1R1-B	343	344	345	-0.0	0.3	-2.0	0.6	-2.6	-0.01	-0.08	26.4	-0.02	-0.06	0.03	0.02
I-1K1-C	346	347	348*	0.0	0.7	-2.7	1.1	-3.8	-0.00	-0.11	28.0	-0.03	-0.09	0.05	0.02
I-1R1-D	349	350	351*	-1.2	-12.0	-2.6	8.2	-12.1	0.15	-0.32	-43.2	-0.07	-0.10	-0.23	0.02
I-1R1-E	352	353	354	0.2	-19.0	-1.9	17.3	-19.0	0.38	-0.46	-43.4	-0.01	-0.06	-0.42	0.03
I-1K1-F	355	356	357	0.8	-14.5	-1.4	13.9	-14.6	0.32	-0.34	-42.8	0.01	-0.04	-0.33	0.02
I-1R1-G	358	359	360	0.9	7.9	-0.7	10.1	-9.9	0.23	-0.23	-42.6	0.02	-0.02	-0.23	0.02
I-1R1-H	361	362	363	0.2	7.3	-0.3	9.2	-9.3	0.21	-0.21	-44.2	0.00	-0.01	-0.21	0.02
I-1R1-J	364	365	366	-0.7	9.3	-0.3	8.3	-9.3	0.18	-0.22	-45.7	-0.03	-0.02	-0.20	0.01
I-1K1-K	367	368	369	-0.8	-11.6	-0.3	10.6	-11.6	0.23	-0.22	-45.7	-0.03	-0.02	-0.20	0.01
I-1R1-L	499	500	501	-0.8	-12.8	-0.1	11.9	-12.8	0.27	-0.30	-45.8	-0.03	-0.01	-0.28	0.01
I-1R1-M	502	503	504	-2.5	-12.7	0.1	10.4	-12.8	0.22	-0.32	-48.3	-0.08	-0.02	-0.27	0.01
I-1K1-N	505	506	507	0.1	-13.1	-1.9	11.4	-13.1	0.24	-0.32	-42.7	-0.01	-0.06	-0.23	0.01
I-1R1-O	508	509	510	-13.8	-1.3	-0.6	1.6	-16.1	-0.11	-0.52	69.0	-0.46	-0.16	0.14	0.02
I-1R2-A	370	371	372	-13.7	-9.9	-2.7	-2.4	-14.0	-0.22	-0.49	-81.8	-0.48	-0.22	-0.04	0.02
I-1R2-B	373	374	375	-13.5	-13.7	-16.8	-12.9	-17.4	-0.60	-0.70	20.9	-0.61	-2.69	0.03	0.04
I-1R2-C	376	377	378	-5.6	-24.2	-41.9	-5.6	-42.0	-0.60	-1.44	-0.7	-0.60	-1.44	-0.01	0.05
I-1R2-D	379	380	381	-1.1	-13.6	-45.0	0.8	-47.0	-0.44	-1.54	11.6	-0.48	-1.50	0.22	0.07
I-1R2-E	382	383	384	-2.3	-25.3	-33.5	-0.6	-35.2	-0.37	-1.17	-12.7	-0.41	-1.13	-0.17	0.05
I-1R2-F	385	386	387	-2.5	-19.8	-14.9	4.0	-21.4	-0.08	-0.67	-30.4	-0.23	-0.52	-0.26	0.02
I-1R2-G	388	389	390	6.5	-12.1	-10.2	11.3	-15.0	0.23	-0.38	-25.5	0.11	-0.27	-0.24	0.02
I-1R2-H	391	392	393	7.8	-9.2	-6.6	12.7	-11.5	0.31	-0.25	-26.9	0.19	-0.14	-0.23	0.02
I-1K2-J	394	395	396	5.5	-8.9	-1.1	13.7	-9.3	0.36	-0.17	-36.8	0.17	0.02	-0.25	0.02
I-1R2-K	397	398	399	4.5	-10.1	-1.4	13.6	-10.5	0.34	-0.21	-37.9	0.13	-0.00	-0.27	0.01
I-1R3-A	400	401	402	-17.0	-8.0	-2.9	-2.7	-17.3	-0.26	-0.60	82.2	-0.59	-0.26	0.05	0.03
I-1R3-B	403	404	405	-18.1	-17.8	-20.4	-17.4	-21.1	-0.78	-0.87	26.0	-0.80	-0.85	0.03	0.03
I-1R3-C	406	407	408	3.8	-26.0	-52.3	3.9	-52.4	-0.39	-1.69	-1.8	-0.39	-1.69	-0.04	0.05
I-1R3-D	409	410	411	-3.3	-18.4	-45.1	-2.3	-45.9	-0.54	-1.54	7.7	-0.56	-1.52	0.13	0.06
I-1R3-E	412	413	414	-5.5	-13.9	-30.4	-4.8	-31.0	-0.47	-1.07	9.0	-0.48	-1.06	0.09	0.07
I-1R3-F	415	416	417	2.2	-9.8	-17.2	2.5	-17.4	-0.09	-0.55	-6.6	-0.10	-0.54	-0.05	0.02
I-1R3-G	418	419	420	9.9	-5.4	-14.5	10.3	-14.9	0.19	-0.39	-7.1	0.18	-0.38	-0.07	0.02
I-1R3-H	421	422	423	14.7	-9.1	-15.2	15.5	-16.0	0.35	-0.37	-9.1	0.34	-0.36	-0.11	0.01
I-1R3-J	424	425	426	9.1	-10.6	-8.2	14.5	-13.6	0.34	-0.31	-25.9	0.22	-0.18	-0.25	0.01
I-1R3-K	427	428	429	4.3	-12.6	-3.0	14.3	-13.1	0.34	-0.29	-37.2	0.11	-0.06	-0.30	0.01
I-1R4-A	430	431	432	-5.9	-4.1	-21.1	-1.4	-25.5	-0.30	-0.86	25.4	-0.40	-0.75	0.22	0.01
I-1R4-B	433	434	435	5.8	-0.4	-11.2	6.1	-11.5	0.09	-0.32	7.6	0.08	-0.31	-0.05	0.02
I-1R4-C	436	437	438	13.5	-2.4	-14.7	13.6	-14.8	0.30	-0.35	-3.5	0.30	-0.35	-0.04	0.01
I-1R4-D	439	440	441	15.1	-6.8	-17.6	16.0	-18.5	0.34	-0.45	-9.4	0.32	-0.43	-0.13	0.02
I-1R5-A	442	443	444	-12.1	-6.8	-0.9	-0.9	-12.2	-0.15	-0.41	-88.3	-0.42	-0.15	-0.01	0.02
I-1R5-B	445	446	447	-10.5	-13.1	-12.8	-9.8	-13.5	-0.46	-0.54	-22.9	-0.47	-0.53	-0.02	0.02
I-1R5-C	448	449	450	3.1	-17.6	-28.5	3.9	-29.2	-0.16	-0.92	-8.7	-0.18	-0.91	-0.11	0.02
I-1R5-D	451	452	453	-2.2	-6.5	-23.3	-0.5	-25.0	-0.26	-0.83	15.2	-0.30	-0.79	0.14	0.02
I-1R5-E	454	455	456	-13.5	0.3	-4.4	1.4	-19.2	-0.15	-0.62	58.2	-0.49	-0.28	0.21	0.02
I-1R5-F	457	458	459	-1.3	5.2	-6.5	5.6	-13.4	0.05	-0.39	37.1	-0.11	-0.23	0.21	0.01
I-1R5-G	460	461	462	3.6	6.5	-6.0	7.8	-10.3	0.16	-0.26	29.1	0.06	-0.16	0.18	0.01
I-1R5-H	463	464	465	5.4	7.4	-5.9	9.2	-9.7	0.21	-0.23	26.9	0.12	-0.14	0.18	0.01
I-1R5-J	466	467	468	8.3	9.7	-9.1	12.9	-13.8	0.29	-0.33	24.7	0.18	-0.22	0.23	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-1R5-K	466	467	468	12.0	11.5	-12.2	16.7	-16.9	0.38	-0.32	21.8	0.28	-0.24	0.27	0.01
I-1R6-A	469	470	471	-0.0	1.3	-0.3	1.3	-1.6	0.0	-0.04	42.9	-0.00	-0.01	0.03	0.01
I-1R6-B	472	473**	474	0.1	0.2	1.1	1.4	-0.2	0.1	0.01	-65.9	0.01	0.04	-0.01	0.01
I-1R6-C	475	476	477	0.0	-0.4	2.5	3.3	-0.8	0.10	0.01	-63.2	0.03	0.06	-0.04	0.02
I-1R6-D	476	479	480	0.2	5.3	1.6	5.3	-1.6	0.14	-0.07	49.7	0.02	0.05	0.10	0.01
I-1R6-E	481	482	483	-1.4	10.6	2.3	10.8	-9.9	0.26	-0.22	50.1	-0.02	0.06	0.24	0.01
I-1R6-F	484	485	486	0.8	11.2	-0.5	11.2	-11.4	0.28	-0.26	43.7	0.02	-0.00	0.27	0.01
I-1R6-G	487	488	489	-0.3	11.7	1.1	11.7	-10.9	0.28	-0.24	46.7	0.00	0.03	0.26	0.01
I-1R6-H	490	491	492	-0.4	12.0	2.3	12.1	-10.2	0.30	-0.22	48.5	0.01	0.07	0.26	0.02
I-1R6-J	493	494	495	1.7	13.0	-1.1	13.1	-12.5	0.31	-0.28	41.9	0.04	-0.02	0.29	0.01
I-1R6-K	496	497	498	-1.3	16.6	2.5	16.7	-15.5	0.40	-0.35	48.4	-0.02	0.07	0.37	0.01
I-2R1-A	511	512	513*	-1.0	-3.5	2.0	4.9	-3.8	0.12	-0.06	-55.1	-0.01	0.06	-0.09	0.01
I-2R1-B	514	515	516	-0.2	0.7	-1.3	0.8	-2.6	-0.00	-0.04	38.5	-0.03	-0.05	0.04	0.01
I-2R1-C	517	518*	519*	-0.1	0.3	-3.1	0.3	-3.9	-0.01	-0.12	25.6	-0.03	-0.10	0.04	0.01
I-2R1-D	520	521	522*	0.5	-15.7	-4.3	10.1	-14.0	0.20	-0.36	-39.2	-0.03	-0.14	-0.27	0.03
I-2R1-E	523	524	525	-1.3	-20.0	-1.0	17.8	-20.0	0.39	-0.44	-45.2	-0.05	-0.05	-0.44	0.02
I-2R1-F	526	527	528	-1.2	-15.7	-0.4	14.2	-15.7	0.31	-0.38	-45.7	-0.04	-0.04	-0.34	0.02
I-2R1-G	529	530	531	-0.4	-10.2	-0.9	8.9	-10.2	0.19	-0.25	-44.4	-0.02	-0.03	-0.22	0.01
I-2R1-H	532	533	534	-1.4	-10.0	-0.3	8.3	-10.1	0.18	-0.25	-46.7	-0.05	-0.02	-0.21	0.01
I-2R1-J	535	536**	537	-0.1	0.0	-0.9	0.1	-1.1	-0.01	-0.03	25.9	-0.01	-0.03	0.01	0.01
I-2R1-K	538	539	540	-0.5	-12.0	-0.5	11.1	-12.0	0.25	-0.29	-45.0	-0.02	-0.02	-0.27	0.01
I-2R1-L	672	671	670	-2.1	-12.7	0.7	11.4	-12.8	0.25	-0.31	41.6	0.00	-0.06	0.28	0.01
I-2R1-M	675	674	673	-1.5	-11.7	0.6	10.8	-11.7	0.24	-0.28	42.4	0.00	-0.04	0.28	0.01
I-2R1-N	678	677	676	-0.1	-10.5	-0.6	9.9	-10.5	0.22	-0.25	45.7	-0.02	-0.01	0.23	0.01
I-2R2-A	541	542	543	-13.4	-10.1	-3.2	-3.0	-13.7	-0.23	-0.48	-80.5	-0.47	-0.24	-0.04	0.01
I-2R2-B	544	545	546	-14.2	-14.0	-18.6	-13.2	-19.7	-0.63	-0.78	24.1	-0.65	-0.75	0.06	0.01
I-2R2-C	547	548	549	-5.4	-21.8	-43.1	-5.2	-43.2	-0.60	-1.48	3.6	-0.60	-1.47	0.05	0.03
I-2R2-D	550	551	552	0.1	-27.2	-44.7	0.6	-45.2	-0.43	-1.49	-6.2	-0.44	-1.47	-0.11	0.00
I-2R2-E	553	554	555	-3.3	-28.7	-33.3	-0.0	-36.6	-0.36	-1.21	-17.3	-0.44	-1.13	-0.24	0.00
I-2R2-F	556	557	558	0.1	-19.8	-16.5	6.1	-22.5	-0.02	-0.68	-27.2	-0.16	-0.54	-0.27	0.03
I-2R2-G	559	560	561	6.5	-12.7	-10.3	11.8	-15.6	0.23	-0.40	-26.0	0.11	-0.24	-0.25	0.02
I-2R2-H	562	563	564	8.6	-8.9	-5.8	13.9	-11.0	0.35	-0.23	-27.3	0.23	-0.11	-0.23	0.02
I-2R2-J	565	566	567	0.0	-9.5	-2.8	13.5	-10.3	0.34	-0.21	-34.1	0.17	-0.03	-0.20	0.01
I-2R2-K	568	569	570	4.7	-10.5	-1.8	13.8	-11.0	0.35	-0.22	-37.3	0.14	-0.01	-0.28	0.01
I-2R3-A	571	572	573	-17.4	-8.6	-2.0	-2.0	-17.5	-0.24	-0.60	85.6	-0.60	-0.24	0.03	0.02
I-2R3-B	574	575	576	-19.0	-19.2	-20.6	-18.8	-20.8	-0.83	-0.87	19.2	-0.83	-0.87	0.01	0.03
I-2R3-C	577	578	579	1.1	-31.8	-50.6	2.0	-51.6	-0.44	-1.68	-7.6	-0.47	-1.66	-0.16	0.04
I-2R3-D	580	581	582	-1.6	-20.2	-47.1	-1.2	-47.5	-0.51	-1.58	5.2	-0.52	-1.57	0.10	0.03
I-2R3-E	583	584	585	-5.3	-15.8	-31.4	-5.1	-31.7	-0.48	-1.09	5.6	-0.49	-1.09	0.06	0.04
I-2R3-F	586	587	588	4.2	-7.5	-18.4	4.2	-18.4	-0.04	-0.56	-1.0	-0.04	-0.56	-0.01	0.02
I-2R3-G	589	590	591	10.3	-7.9	-16.3	11.1	-17.2	0.20	-0.44	-10.0	0.18	-0.44	-0.11	0.03
I-2R3-H	592	593	594	13.1	-9.3	-13.8	15.9	-16.5	0.36	-0.39	-16.8	0.30	-0.32	-0.21	0.01
I-2R3-J	595	596	597	9.3	-11.4	-8.8	15.0	-14.5	0.35	-0.33	-26.1	0.22	-0.20	-0.27	0.01
I-2R3-K	598	599	600	1.4	-13.8	-1.2	14.1	-13.8	0.33	-0.32	-42.3	0.04	-0.03	-0.32	0.02
I-2R4-A	608	609	600	-7.8	-2.2	-20.4	-0.7	-27.3	-0.29	-0.91	31.0	-0.46	-0.75	0.27	0.03
I-2R4-B	601	602	603	6.3	-1.2	-12.7	6.5	-12.9	0.09	-0.36	6.0	0.08	-0.36	0.05	0.02
I-2R4-C	604	605	606	12.3	0.6	-14.3	12.4	-14.4	0.27	-0.35	3.1	0.26	-0.35	0.03	0.01
I-2R4-D	607	608	609	16.1	2.7	-16.8	16.4	-17.1	0.37	-0.40	5.2	0.37	-0.39	0.07	0.01
I-2R5-A	610	611	612	-12.4	-5.3	-2.5	-2.0	-12.9	-0.19	-0.44	78.5	-0.43	-0.20	0.02	0.02
I-2R5-B	613	614	615	-12.6	-13.3	-11.9	-11.2	-13.1	-0.50	-0.55	-54.8	-0.53	-0.52	-0.02	0.04
I-2R5-C	616	617	618	1.8	-12.4	-27.3	1.8	-27.3	-0.21	-0.88	0.7	-0.21	-0.88	0.01	0.02
I-2R5-D	619	620	621	-5.1	-3.7	-18.4	-1.3	-22.2	-0.26	-0.75	25.2	-0.35	-0.66	0.19	0.02
I-2R5-E	622	623	624	-1.0	0.6	-14.4	3.0	-18.4	-0.08	-0.58	25.4	-0.17	-0.49	0.19	0.02
I-2R5-F	625	626	627	-2.2	5.6	-6.0	5.8	-13.9	0.05	-0.40	39.5	-0.13	-0.22	0.22	0.01
I-2R5-G	628	629	630	1.7	7.4	-5.4	8.1	-11.8	0.15	-0.31	34.5	0.00	-0.16	0.21	0.02
I-2R5-H	631	632	633	4.7	0.1	-5.2	9.5	-10.0	0.21	-0.23	29.6	0.10	-0.12	0.19	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICRO INCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	LUNF
I-2R5-J	634	635	636	7.0	9.2	-7.3	11.6	-12.0	0.27	-0.28	26.3	0.16	-0.17	0.22	0.01
I-2R5-K	637	638	639	11.1	11.5	-10.6	15.8	-15.4	0.37	-0.35	23.0	0.26	-0.24	0.26	0.02
I-2R6-A	640	641	642	0.5	2.3	-0.2	2.3	-2.0	0.06	-0.04	40.0	0.02	-0.00	0.05	0.01
I-2R6-B	643	644	645	0.1	-2.3	1.6	4.1	-2.4	0.11	-0.04	-31.7	0.02	0.05	-0.07	0.01
I-2R6-C	646	647	648	0.3	0.6	3.7	4.2	-0.2	0.14	-0.04	-70.7	0.05	0.12	-0.03	0.01
I-2R6-D	649	650	651	0.6	7.3	2.8	7.4	-4.0	0.21	-0.06	50.5	0.05	0.16	0.13	0.01
I-2R6-E	652	653	654	-0.9	10.9	3.4	11.1	-9.8	0.28	-0.18	50.9	0.00	0.10	0.23	0.01
I-2R6-F	655	656	657	-0.2	11.7	0.5	11.8	-11.4	0.27	0.26	45.9	-0.00	0.02	0.27	0.01
I-2R6-G	658	659	660	-0.7	12.3	2.4	12.4	-10.8	0.30	-0.23	48.7	0.00	0.07	0.27	0.01
I-2R6-H	661	662	663	-1.4	12.5	2.5	12.7	-11.6	0.30	-0.26	49.6	-0.02	0.07	0.28	0.01
I-2R6-I	664	665	666	-0.3	12.4	1.7	12.2	-10.8	0.30	-0.23	47.5	0.01	0.05	0.26	0.01
I-2R6-K	667	668	669	-1.3	15.1	4.0	15.4	-12.7	0.38	-0.27	50.5	-0.00	0.12	0.32	0.01
O-1CR-12	729	728	727	-0.4	-27.0	9.6	36.6	-27.4	0.93	-0.54	40.5	0.31	0.08	0.73	0.01
O-1CR-23	732	731	730	-1.4	-7.5	10.7	18.4	-9.2	0.52	-0.12	32.0	0.34	0.06	0.29	0.01
O-1CR-56	735	734	733	4.2	26.2	-6.9	26.7	-29.4	0.59	-0.70	-50.7	-0.19	0.07	-0.63	0.01
O-2CR-12	738	737	736	3.0	-26.5	6.8	36.3	-26.5	0.94	-0.51	43.3	0.25	0.11	0.72	0.01
O-2CR-23	741	740	739	1.1	-6.7	10.0	18.6	-7.5	0.54	-0.06	35.0	0.34	0.13	0.28	0.01
O-2CR-56	744	743	742*	-6.0	25.6	5.3	26.2	-26.9	0.60	-0.63	-38.8	0.12	-0.15	-0.60	0.01
I-1CR-12	745	746	747	-2.5	-27.3	-19.3	7.4	-29.3	-0.04	-0.89	-31.4	-0.27	-0.66	-0.38	0.01
I-1CR-23	748	749	750	-5.7	-23.5	-33.2	-5.1	-33.8	-0.50	-1.16	-8.2	-0.52	-1.15	-0.09	0.01
I-1CR-56	751	752	753	-0.7	4.2	-6.4	4.7	-11.8	0.04	-0.34	34.7	-0.09	-0.22	0.18	0.01
I-2CR-12	754	755	756	-3.3	-27.8	-19.2	7.1	-29.6	-0.06	-0.91	-32.1	-0.30	-0.67	-0.38	0.01
I-2CR-23	757	758	759	-7.6	-28.3	-33.5	-5.5	-35.7	-0.53	-1.23	-15.3	-0.58	-1.18	-0.18	0.01
I-2CR-56	760	761	762	-0.1	6.0	-5.9	6.4	-12.4	0.09	-0.35	36.0	-0.06	-0.19	0.21	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

COMBUSTION T-12, LOAD CASE B, MZY

NOMINAL LOAD = 2.850E 05

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	COIF
0-1R1-A	3	2	1	3.7	0.1	-3.0	3.7	-3.0	0.09	-0.06	87.9	-0.06	0.09	0.01	0.01
0-1R1-b	6	5	4	4.3	1.7	-0.6	4.3	-0.6	0.14	0.02	87.9	0.02	0.14	0.00	0.01
0-1R1-C	9	8	7	1.5	2.0	1.7	2.1	1.1	0.08	0.06	-37.2	0.07	0.07	-0.01	0.00
0-1R1-D	12	11	10	-3.3	0.6	2.6	2.7	-3.5	0.06	-0.09	-9.1	0.05	-0.08	-0.02	0.01
0-1R1-E	15	14	13	-6.1	-0.3	4.2	4.2	-6.1	0.08	-0.16	-3.7	0.08	-0.16	-0.02	0.01
0-1R1-F	18	17	16	-8.6	-2.1	5.7	5.7	-8.6	0.10	-0.23	2.6	0.10	-0.23	0.02	0.00
0-1R1-G	24	20	19	-11.4	-2.0	7.5	7.5	-11.4	0.14	-0.30	0.1	0.14	-0.30	0.00	0.01
0-1R1-H	24	23	22	-14.6	-3.0	8.6	8.6	-14.6	0.14	-0.40	0.0	0.14	-0.40	0.00	0.01
0-1R1-J	27	26	25	-17.2	-4.5	8.4	8.4	-17.2	0.11	-0.48	0.2	0.11	-0.48	0.00	0.01
0-1R1-K	30	29	28	-18.2	-6.6	8.5	8.6	-13.3	0.10	-0.52	3.6	0.10	-0.52	0.04	0.01
0-1R1-L	162	161	160	-19.4	-5.9	7.5	7.5	-19.4	0.05	-0.57	-0.0	0.05	-0.57	-0.00	0.02
0-1R1-M	165	164	163	-16.5	-4.9	5.4	5.4	-16.5	0.01	-0.49	-1.9	0.01	-0.49	-0.02	0.01
0-1R1-N	168	167	166	-9.8	-3.6	2.7	2.7	-9.8	-0.01	-0.30	-0.0	-0.01	-0.30	-0.00	0.01
0-1R1-U	171	170	169	0.1	0.7	0.2	0.7	-0.4	0.02	-0.01	-43.3	0.01	0.00	-0.01	0.00
0-1R2-A	33	32	31	1.2	-2.7	-1.4	2.8	-3.0	0.06	-0.07	58.2	-0.03	0.03	0.06	0.00
0-1R2-B	36	35	34	1.0	-1.6	0.5	3.1	-1.6	0.09	-0.02	48.1	0.03	0.04	0.05	0.01
0-1R2-C	39	33	37	-1.5	0.1	2.2	2.2	-1.5	0.06	-0.03	3.3	0.06	-0.03	0.00	0.00
0-1R2-D	42	41	40	-6.5	3.8	3.1	5.6	-9.0	0.10	-0.24	-24.6	0.04	-0.18	-0.13	0.01
0-1R2-E	45	44	43	-8.9	4.8	2.0	6.4	-13.3	0.08	-0.38	-28.1	-0.02	-0.27	-0.19	0.00
0-1R2-F	48	47	46	-13.1	2.9	2.1	5.9	-16.8	0.03	-0.50	-24.0	-0.06	-0.41	-0.19	0.01
0-1R2-G	51	50	49	-16.3	0.6	3.6	5.8	-18.5	0.01	-0.55	-17.6	-0.04	-0.50	-0.16	0.01
0-1R2-H	54	53	52	-19.0	-2.0	4.2	5.4	-20.2	-0.02	-0.61	-12.4	-0.05	-0.59	-0.12	0.01
0-1R2-J	57	56	55	-21.5	-6.8	5.6	5.7	-21.5	-0.03	-0.65	-2.3	-0.03	-0.65	-0.03	0.01
0-1R2-K	60	59	58	-21.9	-8.5	6.4	6.4	-22.0	-0.01	-0.66	1.4	-0.01	-0.66	0.02	0.01
0-1R3-A	63	62	61	-1.8	-0.6	3.2	3.5	-2.2	0.09	-0.04	14.0	0.09	-0.03	0.03	0.00
0-1R3-B	66	65	64	-2.5	-1.2	1.8	2.0	-2.6	0.04	-0.07	11.4	0.03	-0.06	0.02	0.00
0-1R3-C	69	68	67	-3.9	0.1	2.3	2.5	-4.0	0.04	-0.11	-7.8	0.04	-0.10	-0.02	0.01
0-1R3-D	72	71	70	-6.1	2.8	1.6	4.1	-8.6	0.05	-0.24	-26.2	-0.01	-0.18	-0.12	0.00
0-1R3-E	75	74	73	-5.6	3.7	-3.5	3.7	-12.9	-0.00	-0.39	-41.3	-0.17	-0.22	-0.19	0.01
0-1R3-F	78	77	76	-8.0	3.0	-3.6	3.2	-14.8	-0.04	-0.46	-37.9	-0.20	-0.30	-0.20	0.01
0-1R3-G	81	80	79	-10.2	2.8	-2.8	3.6	-16.5	-0.05	-0.51	-34.1	-0.19	-0.36	-0.22	0.01
0-1R3-H	84	83	82	-14.4	2.6	0.2	5.0	-19.2	-0.02	-0.58	-26.4	-0.13	-0.47	-0.22	0.01
0-1R3-J	87	86	85	-18.3	-0.4	2.3	4.9	-20.8	-0.05	-0.64	-18.2	-0.10	-0.58	-0.18	0.01
0-1R3-K	90	89	88	-22.2	-7.6	5.1	5.1	-22.2	-0.05	-0.68	-2.0	-0.05	-0.68	-0.02	0.03
0-1R4-A	681	680	679	-2.2	0.4	-5.6	0.7	-8.4	-0.06	-0.27	-55.9	-0.20	-0.13	-0.10	0.01
0-1R4-B	93	92	91	-3.0	2.2	-5.8	2.4	-11.1	-0.03	-0.34	-51.1	-0.22	-0.16	-0.15	0.01
0-1R4-C	96	95	94	-6.0	4.7	-4.8	4.7	-15.6	0.00	-0.47	-43.3	-0.22	-0.25	-0.23	0.02
0-1R4-D	99	98	97	-21.1	2.2	-4.2	4.4	-29.7	-0.15	-0.94	-30.2	-0.35	-0.74	-0.34	0.01
0-1R5-A	102	101	100	-2.1	1.7	3.5	3.7	-2.3	0.10	-0.04	-10.3	0.09	-0.03	-0.02	0.01
0-1R5-B	105	104	103	-2.1	1.1	1.5	2.0	-2.6	0.04	-0.07	-19.5	0.03	-0.05	-0.03	0.01
0-1R5-C	108	107	106	-1.2	0.6	0.6	1.0	-1.6	0.02	-0.04	-22.6	0.01	-0.03	-0.02	0.01
0-1R5-D	111	110	109	-0.6	-1.1	-2.1	-0.6	-2.2	-0.04	-0.08	-80.3	-0.08	-0.04	-0.01	0.01
0-1R5-E	114	113	112	-0.2	-1.9	-4.5	-0.2	-4.5	-0.05	-0.15	-84.4	-0.15	-0.05	-0.01	0.01
0-1R5-F	117	116	115	0.2	-1.1	-3.8	0.3	-3.9	-0.03	-0.13	-80.4	-0.12	-0.03	-0.02	0.01
0-1R5-G	120	119	118	0.8	0.0	-5.6	1.6	-6.5	-0.01	-0.20	-71.1	-0.18	-0.03	-0.06	0.01
0-1R5-H	123	122	121	0.4	1.5	-6.1	2.6	-8.3	0.00	-0.25	-63.2	-0.20	-0.05	-0.10	0.01
0-1R5-J	126	125	124	1.9	1.7	-7.7	3.7	-9.6	0.03	-0.28	-67.9	-0.24	-0.02	-0.11	0.01
0-1R5-K	129	128	127	-0.8	1.2	-11.7	3.0	-15.4	-0.05	-0.48	-63.2	-0.39	-0.14	-0.17	0.01
0-1R6-A	132	131	130	0.4	1.9	-0.4	1.9	-1.9	0.04	-0.05	-51.1	-0.01	0.01	-0.04	0.01
0-1R6-B	135	134	133	0.2	1.6	-0.7	1.7	-0.7	0.03	-0.05	-51.8	-0.02	-0.00	-0.04	0.00

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. →)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
0-146-C	138	137	136	0.2	-0.1	-0.1	0.2	-0.1	0.01	-0.00	77.0	-0.00	0.00	0.00	0.00
0-146-D	141	140	139	0.0	-3.1	-0.0	3.2	-3.1	0.07	-0.07	45.2	0.00	0.00	0.07	0.00
0-146-E	144	143	142	-0.0	-4.2	0.2	4.3	-4.2	0.10	-0.09	44.3	0.00	0.00	0.10	0.01
0-146-F	147	146	145	0.3	-3.3	0.2	3.8	-3.3	0.09	-0.07	45.6	0.01	0.01	0.08	0.01
0-146-G	150	149	148	0.1	-2.8	0.2	3.0	-2.8	0.07	-0.06	44.5	0.01	0.00	0.07	0.00
0-146-H	153	152	151	0.2	-2.3	0.1	2.6	-2.3	0.06	-0.05	45.9	0.00	0.01	0.06	0.01
0-146-J	156	155	154	0.1	-1.8	0.2	2.1	-1.8	0.05	-0.04	44.1	0.01	0.00	0.04	0.01
0-146-K	159	158	157	0.1	-1.2	0.4	1.6	-1.2	0.04	-0.02	42.6	0.01	0.01	0.03	0.00
0-2R1-A	174	173	172	-3.4	-0.6	4.1	4.2	-3.5	0.10	-0.07	6.9	0.10	-0.07	0.02	0.01
0-2R1-B	177	176	175	-3.7	-1.8	0.8	0.8	-3.8	-0.01	-0.12	4.2	-0.01	-0.12	0.01	0.01
0-2R1-C	180	179	178	-0.8	-1.3	-1.1	-0.7	-1.3	-0.03	-0.05	58.8	-0.05	-0.04	0.01	0.01
0-2R1-D	183	182	181	3.8	1.1	-1.5	3.9	-1.5	0.11	-0.01	88.7	-0.01	0.11	0.00	0.01
0-2R1-E	186	185	184	6.8	2.3	-3.2	6.9	-3.3	0.19	-0.04	-87.0	-0.04	0.19	-0.01	0.01
0-2R1-F	189	188	187	9.9	3.0	-5.2	9.9	-5.2	0.28	-0.07	-87.7	-0.07	0.27	-0.01	0.01
0-2R1-G	192	191	190	13.2	3.9	-7.8	13.2	-7.8	0.36	-0.13	-89.1	-0.13	0.36	-0.01	0.01
0-2R1-H	195	194	193	15.5	3.9	-9.5	15.5	-9.5	0.42	-0.16	-88.0	-0.16	0.42	-0.02	0.01
0-2R1-J	198	197	196	17.9	4.8	-9.7	17.9	-9.7	0.49	-0.14	-88.5	-0.14	0.49	-0.02	0.00
0-2R1-K	201	200	199	20.0	5.7	-9.2	20.0	-9.2	0.57	-0.11	-89.3	-0.11	0.57	-0.01	0.01
0-2R1-L	333	332	331	20.5	7.1	-7.8	20.5	-7.8	0.60	-0.05	-88.5	-0.05	0.60	-0.02	0.01
0-2R1-M	336	335	334	16.8	6.9	-5.5	16.8	-5.6	0.50	-0.02	-86.8	-0.01	0.50	-0.03	0.01
0-2R1-N	339	338	337	9.4	4.2	-2.7	9.5	-2.7	0.29	0.00	-86.3	0.01	0.28	-0.02	0.01
0-2R2-A	204	203	202	-1.3	2.9	1.8	3.3	-2.8	0.08	-0.06	-29.8	0.05	-0.03	-0.06	0.01
0-2R2-B	207	206	205	-1.4	1.3	0.1	1.4	-2.7	0.02	-0.08	-34.6	-0.01	-0.04	-0.04	0.00
0-2R2-C	210	209	208	2.1	0.0	-1.8	2.1	-1.8	0.05	-0.04	88.9	-0.04	0.05	0.00	0.01
0-2R2-D	213	212	211	7.0	-2.3	-2.4	8.9	-4.3	0.25	-0.05	67.9	-0.01	0.21	0.11	0.01
0-2R2-E	216	215	214	10.2	-2.9	-2.5	13.1	-5.4	0.38	-0.05	66.6	0.02	0.31	0.16	0.00
0-2R2-F	219	218	217	13.0	-2.6	-2.0	16.6	-5.5	0.49	-0.02	66.3	0.06	0.41	0.19	0.01
0-2R2-G	222	221	220	17.6	0.6	-4.4	19.2	-5.9	0.57	-0.01	75.6	0.03	0.54	0.14	0.01
0-2R2-H	225	224	223	19.5	2.7	-5.6	20.2	-6.3	0.60	-0.01	80.6	0.01	0.59	0.10	0.00
0-2R2-J	226	227	226	21.8	8.1	-6.8	21.8	-6.8	0.65	-0.01	-88.7	-0.01	0.65	-0.01	0.00
0-2R2-K	231	230	229	21.7	8.2	-7.5	21.7	-7.6	0.64	-0.03	-87.8	-0.03	0.64	-0.03	0.01
0-2R3-A	234	233	232	1.4	1.5	-2.3	2.2	-3.1	0.04	-0.08	-67.0	-0.06	0.02	-0.04	0.00
0-2R3-B	237	236	235	1.9	1.2	-1.9	2.3	-2.2	0.05	-0.05	-73.8	-0.04	0.04	-0.03	0.00
0-2R3-C	240	239	238	3.5	-0.1	-1.6	3.7	-1.8	0.10	-0.02	79.4	-0.02	0.10	0.02	0.00
0-2R3-D	243	242	241	4.9	-2.7	0.0	8.2	-3.3	0.24	-0.03	57.5	0.05	0.16	0.12	0.00
0-2R3-E	246	245	244	6.3	-3.0	3.8	13.3	-3.1	0.41	0.03	49.3	0.19	0.25	0.19	0.01
0-2R3-F	249	248	247	8.8	-2.5	2.8	14.6	-3.0	0.45	0.04	55.0	0.18	0.32	0.19	0.01
0-2R3-G	252	251	250	9.8	-3.3	2.9	16.7	-3.9	0.51	0.04	54.8	0.19	0.35	0.22	0.01
0-2R3-H	255	254	253	15.1	-2.0	-2.3	18.5	-5.7	0.55	-0.01	67.9	0.07	0.48	0.20	0.01
0-2R3-J	258	257	256	18.3	-0.0	-3.9	20.4	-6.1	0.61	0.00	73.5	0.05	0.56	0.17	0.01
0-2R3-K	261	260	259	21.5	6.4	-6.7	21.5	-6.7	0.64	-0.01	88.0	-0.01	0.64	0.02	0.01
0-2R4-A	684	683	682	4.3	-0.4	3.4	8.1	-0.4	0.26	0.07	47.8	0.16	0.18	0.10	0.00
0-2R4-B	264	263	262	4.8	-2.2	4.5	11.4	-2.2	0.36	0.04	45.6	0.20	0.20	0.16	0.01
0-2R4-C	267	266	265	5.3	-4.6	6.1	15.9	-4.6	0.48	0.01	43.8	0.25	0.23	0.24	0.01
0-2R4-D	270	269	268	16.3	-3.0	13.4	32.8	-3.1	1.05	0.22	47.3	0.60	0.67	0.41	0.01
0-2R5-A	273	272	271	1.4	-1.9	-4.1	1.5	-4.2	0.01	-0.12	84.7	-0.12	0.01	0.01	0.00
0-2R5-B	276	275	274	2.0	-0.6	-2.2	2.0	-2.3	0.04	-0.05	83.7	-0.05	0.04	0.01	0.01
0-2R5-C	279	278	277	1.5	-0.2	-0.9	1.6	-1.0	0.04	-0.02	78.8	-0.01	0.04	0.01	0.01
0-2R5-D	282	281	280	0.8	1.9	2.8	2.8	0.8	0.10	0.05	-2.8	0.10	0.05	-0.00	0.01
0-2R5-E	285	284	283	1.3	2.4	4.7	4.8	1.2	0.17	0.09	9.2	0.17	0.09	0.01	0.02
0-2R5-F	288	287	286	0.6	1.7	4.6	4.8	0.4	0.16	0.06	11.9	0.16	0.06	0.02	0.01
0-2R5-G	291	290	289	-0.3	0.2	5.2	6.0	-1.1	0.19	0.02	19.5	0.17	0.04	0.05	0.01
0-2R5-H	294	293	292	0.6	-1.2	5.8	6.3	-1.9	0.25	0.02	29.9	0.20	0.08	0.10	0.01
0-2R5-J	297	296	295	-0.5	-1.6	6.9	9.3	-2.9	0.28	-0.00	26.4	0.22	0.05	0.11	0.01
0-2R5-K	300	299	298	2.4	-1.9	9.7	14.8	-2.7	0.46	0.00	32.7	0.34	0.17	0.18	0.01
0-2R6-A	303	302	301	-0.6	-2.8	-0.1	2.1	-2.8	0.04	-0.07	42.3	-0.01	-0.02	0.06	0.00

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	
0-2R6-B	305	305	304	0.1	-2.1	-0.7	1.6	-2.2	0.03	-0.06	50.7	-0.02	-0.00	0.04	0.00
0-2R6-C	309	308	307	-0.1	-0.6	-0.2	0.2	-0.6	-0.00	-0.02	49.2	-0.01	-0.01	0.01	0.00
0-2R6-D	312	311	310	0.1	2.4	0.1	2.4	-2.2	0.06	-0.05	-44.8	0.00	0.00	-0.05	0.00
0-2R6-E	315	314	313	0.7	3.9	-0.1	3.9	-3.3	0.10	-0.07	-48.0	0.00	0.02	-0.08	0.01
0-2R6-F	318**	317	316	0.0	3.8	0.4	3.8	-3.4	0.09	-0.07	-43.3	0.01	0.00	-0.08	0.00
0-2R6-G	321	320	319**	0.1	2.6	0.0	2.6	-2.5	0.06	-0.06	-45.8	0.00	0.00	-0.06	0.01
0-2R6-H	324	323	322	1.1	1.9	-0.2	2.1	-1.2	0.06	-0.02	-56.2	0.00	0.03	-0.03	0.01
0-2R6-J	327	326	325**	0.4	1.8	0.0	1.8	-1.5	0.05	-0.03	-48.3	0.00	0.01	-0.04	0.01
0-2R6-K	330	329	328	0.4	0.8	-0.1	0.9	-0.5	0.02	-0.01	-55.8	0.00	0.01	-0.01	0.00
I-1R1-A	340	341	342	-3.8	-1.9	0.5	0.5	-3.8	-0.02	-0.12	-85.9	-0.12	-0.02	-0.01	0.01
I-1R1-B	343	344	345	-4.6	-4.0	-4.0	-3.9	-4.7	-0.17	-0.19	70.4	-0.19	-0.18	0.01	0.01
I-1R1-C	346	347	348	-3.4	-8.2	-13.4	-3.4	-13.4	-0.25	-0.47	1.4	-0.25	-0.47	0.01	0.01
I-1R1-D	349	350	351	0.7	-9.8	-19.1	0.7	-19.2	-0.17	-0.62	-1.7	-0.17	-0.62	-0.01	0.01
I-1R1-E	352	353	354	2.6	-7.8	-19.3	2.6	-19.4	-0.11	-0.61	1.4	-0.11	-0.61	0.01	0.01
I-1R1-F	355	356	357	6.5	-6.3	-20.6	6.5	-20.6	0.01	-0.61	1.5	0.01	-0.61	0.02	0.01
I-1R1-G	358	359	360	8.4	-6.5	-22.7	8.4	-22.8	0.05	-0.67	1.2	0.05	-0.67	0.01	0.01
I-1R1-H	361	362	363	8.6	-7.0	-24.0	8.6	-24.0	0.05	-0.71	1.2	0.04	-0.71	0.02	0.01
I-1R1-J	364	365	366	9.2	-7.5	-23.2	9.2	-23.2	0.07	-0.67	-0.9	0.07	-0.67	-0.01	0.01
I-1R1-K	367	368	369	9.3	-6.4	-22.0	9.3	-22.0	0.04	-0.63	-0.1	0.09	-0.63	-0.00	0.01
I-1R1-L	499	500	501	7.3	-6.3	-19.1	7.4	-19.1	0.05	-0.56	-0.9	0.05	-0.56	-0.01	0.01
I-1R1-M	502	503	504	5.9	-5.0	-14.4	6.0	-14.4	0.05	-0.42	-2.1	0.05	-0.42	-0.02	0.01
I-1R1-N	505	506	507	3.0	-2.1	-7.9	3.0	-7.9	0.02	-0.23	1.9	0.02	-0.23	0.01	0.01
I-1R1-O	508	509	510	0.1	-0.1	-0.1	0.2	-0.1	0.00	-0.00	-26.3	0.00	-0.00	-0.00	0.00
I-1R2-A	370	371	372	-0.7	0.3	0.4	0.5	-0.8	0.01	-0.02	71.3	-0.02	0.01	0.01	0.00
I-1R2-B	373	374	375	-2.2	-0.8	-0.1	-0.1	-2.3	-0.02	-0.08	80.7	-0.07	-0.03	0.01	0.00
I-1R2-C	376	377	378	-1.6	-2.6	-4.6	-1.5	-4.7	-0.10	-0.17	8.3	-0.10	-0.17	0.01	0.01
I-1R2-D	379	380	381	-2.1	1.0	-4.5	1.2	-7.8	-0.04	-0.25	37.1	-0.11	-0.17	0.10	0.01
I-1R2-E	382	383	384	0.3	4.3	-5.4	4.9	-10.0	0.06	-0.28	33.8	-0.04	-0.18	0.16	0.01
I-1R2-F	385	386	387	3.8	1.6	-10.8	5.4	-12.5	0.06	-0.36	17.6	0.02	-0.32	0.12	0.01
I-1R2-G	388	389	390	3.9	1.4	-12.6	5.7	-14.4	0.05	-0.42	17.4	0.00	-0.38	0.13	0.01
I-1R2-H	391	392	393	5.1	-1.2	-15.6	5.9	-16.3	0.03	-0.48	10.7	0.01	-0.46	0.09	0.01
I-1R2-J	394	395	396	6.5	-4.9	-17.7	6.5	-17.7	0.04	-0.52	1.6	0.04	-0.52	0.02	0.01
I-1R2-K	397	398	399	6.3	-5.0	-18.7	6.4	-18.8	0.02	-0.56	2.9	0.02	-0.55	0.03	0.00
I-1R3-A	400	401	402	2.0	0.9	0.3	2.1	0.3	0.07	0.03	-7.8	0.07	0.03	-0.01	0.01
I-1R3-B	403	404	405	0.9	2.2	3.5	3.5	0.9	0.13	0.06	89.9	0.06	0.13	0.00	0.01
I-1R3-C	406	407	408	-1.1	3.3	7.1	7.1	-1.1	0.22	0.03	87.5	0.03	0.22	0.01	0.01
I-1R3-D	409	410	411	0.6	3.8	5.1	5.3	0.4	0.18	0.07	78.1	0.07	0.17	0.02	0.01
I-1R3-E	412	413	414*	0.8	4.6	1.1	4.6	-2.7	0.12	-0.04	46.5	0.04	0.04	0.08	0.01
I-1R3-F	415	416	417	-2.7	3.8	-2.7	3.8	-9.3	0.03	-0.27	45.0	-0.12	-0.12	0.15	0.01
I-1R3-G	418	419	420	-4.7	4.4	-3.8	4.4	-12.9	0.02	-0.38	46.4	-0.19	-0.17	0.20	0.01
I-1R3-H	421	422	423	-4.8	5.3	-6.8	5.3	-17.0	0.01	-0.51	42.4	-0.23	-0.27	0.26	0.01
I-1R3-J	424	425*	426	4.1	2.0	-16.1	6.9	-18.9	0.04	-0.56	19.2	-0.02	-0.49	0.19	0.01
I-1R3-K	427	428	429	6.7	-4.3	-20.3	6.9	-20.5	0.03	-0.61	5.3	0.02	-0.60	0.06	0.01
I-1R4-A	685	686	687	0.3	1.6	3.3	3.3	0.3	0.11	0.04	-85.9	0.04	0.11	-0.09	0.01
I-1R4-B	430	431	432	-6.0	1.9	-0.2	2.7	-9.0	0.00	-0.27	59.9	-0.20	-0.07	0.12	0.00
I-1R4-C	433	434	435	-7.3	4.5	-4.6	4.4	-16.3	-0.02	-0.49	48.8	-0.29	-0.22	0.24	0.00
I-1R4-D	436	437	438	-3.8	5.3	-13.2	6.1	-23.1	-0.03	-0.70	35.6	-0.26	-0.47	0.32	0.01
I-1R5-A	439	440	441	2.4	0.6	0.1	2.5	-0.0	0.08	0.02	-14.4	0.08	0.03	-0.01	0.01
I-1R5-B	442	443	444	2.0	2.2	3.9	4.2	1.7	0.15	0.10	-70.2	0.10	0.15	-0.02	0.01
I-1R5-C	445	446	447	-1.6	2.7	8.3	8.3	-1.7	0.26	0.03	-86.5	0.03	0.26	-0.01	0.01
I-1R5-D	448	449	450	0.5	0.1	5.5	6.9	-0.8	0.22	0.04	-65.0	0.07	0.19	-0.07	0.00
I-1R5-E	453	452	451	2.8	-0.5	0.7	4.2	-0.7	0.13	0.02	-32.6	0.10	0.05	-0.05	0.01
I-1R5-F	454	455	456	-2.8	-0.7	0.6	0.7	-2.9	-0.01	-0.09	83.8	-0.09	-0.01	0.01	0.01
I-1R5-G	457	458	459	-5.0	-0.7	0.2	0.7	-5.5	-0.03	-0.17	73.8	-0.16	-0.04	0.04	0.01
I-1R5-H	460	461	462	-7.1	-0.5	0.7	1.5	-7.9	-0.03	-0.25	72.5	-0.23	-0.05	0.06	0.01
I-1R5-J	463	464	465	-10.0	-0.2	0.6	2.2	-11.7	-0.04	-0.36	69.8	-0.32	-0.08	0.10	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SHAX	SMIN	PHI	SIG(L)	SIG(T)			
I-1R5-K	466	467	468	-12.6	-0.5	0.1	2.3	-14.8	-0.07	-0.47	68.8	-0.41	-0.12	0.13	0.01	
I-1R6-A	469	470	471	-0.1	-0.3	0.1	0.3	-0.3	0.01	-0.01	-53.5	-0.00	0.00	-0.01	0.00	
I-1R6-B	472	473**	474	-0.1	0.0	-0.2	0.0	-0.3	-0.00	-0.01	35.5	-0.00	-0.01	0.00	0.00	
I-1R6-C	475	476	477	-0.0	-2.8	-1.3	1.6	-2.9	0.02	-0.08	-36.9	-0.01	-0.04	-0.05	0.00	
I-1R6-D	478	479	480	-0.2	-4.6	-1.2	3.3	-4.6	0.06	-0.12	-41.3	-0.02	-0.04	-0.09	0.01	
I-1R6-E	481	482	483	0.1	-3.8	-1.6	2.4	-3.9	0.04	-0.10	-37.2	-0.01	-0.05	-0.07	0.00	
I-1R6-F	484	485	486	-0.0	-2.3	-0.8	1.5	-2.3	0.03	-0.06	-39.0	-0.01	-0.03	-0.04	0.01	
I-1R6-G	487	488	489	0.1	-1.5	-0.7	0.9	-1.6	0.02	-0.04	-35.7	-0.00	-0.02	-0.03	0.01	
I-1R6-H	490	491	492*	-0.0	-1.7	-2.2	0.2	-2.3	-0.02	-0.08	-14.5	-0.02	-0.07	-0.01	0.01	
I-1R6-J	493	494	495	-0.2	-1.8	-0.5	1.2	-1.8	0.02	-0.05	-42.0	-0.01	-0.02	-0.03	0.01	
I-1R6-K	496	497	498	0.4	-2.5	-1.2	1.8	-2.6	0.03	-0.07	-34.9	0.00	-0.03	-0.05	0.01	
I-2R1-A	511	512	513	3.2	1.2	-1.1	3.2	-1.1	0.09	-0.01	2.0	0.09	-0.01	0.00	0.01	
I-2R1-B	514	515	516	5.5	3.2	2.5	5.7	2.3	0.21	0.13	-13.8	0.21	0.14	-0.02	0.01	
I-2R1-C	517	518	519	2.4	7.9	14.2	14.2	2.4	0.49	0.22	-88.2	0.22	0.49	-0.01	0.01	
I-2R1-D	520	521	522	-1.7	7.8	19.2	19.3	-1.8	0.62	0.13	-87.3	0.13	0.62	-0.02	0.01	
I-2R1-E	523	524	525	-4.0	8.4	19.6	19.6	-4.0	0.61	0.06	88.7	0.06	0.61	0.01	0.01	
I-2R1-F	526	527	528	-6.8	7.0	20.8	20.8	-6.8	0.62	-0.02	89.9	-0.02	0.62	0.00	0.01	
I-2R1-G	529	530	531	-7.8	7.3	22.1	22.1	-7.8	0.65	-0.04	89.6	-0.04	0.65	0.00	0.01	
I-2R1-H	532	533	534	-8.0	8.2	23.4	23.4	-8.0	0.69	-0.03	89.0	-0.03	0.69	0.01	0.01	
I-2R1-J	535	536**	537	-8.1	0.0	23.3	25.0	-9.8	0.73	-0.08	-77.1	-0.04	0.69	-0.18	0.01	
I-2R1-K	538	539	540	-8.1	7.5	21.8	21.8	-8.2	0.64	-0.05	88.7	-0.05	0.64	0.02	0.01	
I-2R1-L	674	671	670	18.5	5.0	-6.6	18.6	-6.6	0.55	-0.03	87.8	-0.03	0.55	0.02	0.01	
I-2R1-M	675	674	673	14.0	4.7	-5.7	14.0	-5.7	0.41	-0.05	-88.6	-0.05	0.41	-0.01	0.01	
I-2R1-N	676	677	676	8.0	3.2	-3.9	8.1	-4.0	0.23	-0.05	-84.7	-0.05	0.23	-0.03	0.01	
I-2R2-A	541	542	543	1.6	0.2	-1.1	1.6	-1.1	0.04	-0.02	-1.5	0.04	-0.02	-0.00	0.01	
I-2R2-B	544	545	546	2.9	1.3	1.2	3.3	0.9	0.12	0.06	-21.2	0.11	0.07	-0.02	0.01	
I-2R2-C	547	548	549	1.2	2.5	5.7	5.9	1.0	0.20	0.09	-78.3	0.10	0.20	-0.02	0.01	
I-2R2-D	550	551	552	-0.9	-1.1	8.3	10.4	-2.9	0.31	0.01	-67.1	0.05	0.21	-0.11	0.01	
I-2R2-E	553	554	555	-1.9	-4.1	7.9	11.6	-5.6	0.33	-0.07	-62.3	0.02	0.24	-0.16	0.01	
I-2R2-F	556	557	558	-3.6	-2.8	10.7	13.0	-6.0	0.37	-0.07	-69.3	-0.01	0.32	-0.15	0.01	
I-2R2-G	559	560	561	-3.7	-0.6	13.2	14.7	-5.3	0.43	-0.03	-73.9	0.01	0.40	-0.12	0.01	
I-2R2-H	562	563	564	-4.7	1.2	15.4	16.2	-5.6	0.48	-0.02	-78.9	-0.00	0.46	-0.10	0.04	
I-2R2-J	565	566	567	-5.6	3.8	17.9	18.1	-5.8	0.54	-0.01	-84.4	-0.01	0.54	-0.05	0.01	
I-2R2-K	568	569	570	-5.7	5.8	19.6	19.7	-5.7	0.59	0.01	-87.4	0.01	0.59	-0.03	0.01	
I-2R3-A	571	572	573	-1.3	-1.1	-0.3	-0.2	-1.4	-0.02	-0.05	-75.8	-0.05	-0.02	-0.01	0.01	
I-2R3-B	574	575	576	-0.7	-1.9	-2.9	-0.7	-2.9	-0.05	-0.10	-2.7	-0.05	-0.10	-0.00	0.01	
I-2R3-C	577	578	579	0.3	-4.1	-5.6	0.6	-5.9	-0.04	-0.19	-12.5	-0.05	-0.18	-0.03	0.01	
I-2R3-D	580	581	582	-0.7	-4.7	-3.6	0.8	-5.1	-0.02	-0.16	-30.5	-0.06	-0.13	-0.06	0.01	
I-2R3-E	583	584	585	-1.4	-5.7	-1.2	3.1	-5.7	0.05	-0.16	-45.6	-0.06	-0.05	-0.10	0.01	
I-2R3-F	586	587	588	4.6	-4.3	1.3	10.3	-4.4	0.29	-0.05	-38.5	0.16	0.09	-0.17	0.01	
I-2R3-G	589	590	591	4.1	-4.5	5.4	14.0	-4.5	0.42	-0.01	-47.0	0.19	0.22	-0.21	0.01	
I-2R3-H	592	593	594	2.6	-4.6	9.7	17.5	-5.2	0.53	0.00	-54.2	0.18	0.35	-0.25	0.01	
I-2R3-J	595	596	597	-2.5	-1.1	16.8	19.9	-5.6	0.60	0.01	-69.6	0.08	0.53	-0.19	0.00	
I-2R3-K	598	599	600	-5.8	8.1	22.2	22.2	-5.8	0.68	0.03	-89.7	0.03	0.68	-0.00	0.01	
I-2R4-A	601	602	603	-0.4	-3.3	-3.6	0.1	-4.1	-0.04	-0.13	-19.6	-0.05	-0.12	-0.03	0.01	
I-2R4-B	604	605	606	4.9	-1.9	1.3	8.4	-2.2	0.26	0.01	-35.3	0.17	0.09	-0.12	0.01	
I-2R4-C	607	608	609	9.1	-3.1	2.0	14.9	-3.8	0.45	0.02	-33.7	0.32	0.16	-0.20	0.01	
I-2R4-D	610	611	612	12.0	-2.9	3.6	19.3	-3.7	0.60	0.07	-34.3	0.43	0.24	-0.25	0.01	
I-2R5-A	613	614	615	-1.8	-0.9	-0.1	-0.1	-1.8	-0.02	-0.06	88.7	-0.06	-0.02	0.00	0.01	
I-2R5-B	616	617	618	-2.1	-1.9	-3.2	-1.7	-3.5	-0.09	-0.13	27.0	-0.10	-0.13	0.02	0.01	
I-2R5-C	619	620	621	0.5	-1.9	-6.4	0.7	-6.5	-0.04	-0.21	8.7	-0.05	-0.21	0.02	0.01	
I-2R5-D	622	623	624	-1.3	-0.4	-4.3	0.0	-5.7	-0.06	-0.19	29.3	-0.09	-0.16	0.06	0.00	
I-2R5-E	625	626	627	-0.6	-1.0	-2.7	-0.4	-3.0	-0.04	-0.10	17.3	-0.05	-0.10	0.02	0.01	
I-2R5-F	628	629	630	3.1	-0.3	-1.7	3.2	-1.9	0.09	-0.03	-10.6	0.08	-0.03	-0.02	0.01	
I-2R5-G	631	632	633	5.6	0.2	-1.8	5.9	-2.2	0.17	-0.01	-12.1	0.17	-0.01	-0.04	0.00	
I-2R5-H	634	635	636	7.3	0.6	-1.9	7.7	-2.3	0.23	-0.00	-12.2	0.22	0.01	-0.05	0.01	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)			
I-245-J	634	635	636	9.7	0.4	-1.0	11.0	-2.3	0.34	0.03	-18.1	0.31	0.06	-0.09	0.01	
I-245-K	637	638	639	10.8	0.3	-0.2	12.7	-2.1	0.40	0.06	-20.9	0.35	0.10	-0.11	0.01	
I-246-A	640	641	642	-0.0	0.9	0.0	0.9	-0.9	0.02	-0.02	46.0	-0.00	0.00	0.02	0.00	
I-246-B	643	644	645	-0.1	1.3	0.8	1.4	-0.8	0.04	-0.01	57.4	0.00	0.02	0.02	0.01	
I-246-C	646	647	648	-0.3	2.9	1.3	3.1	-2.0	0.08	-0.04	54.0	0.00	0.04	0.06	0.00	
I-246-D	649	650	651	0.1	3.8	0.1	3.8	-3.6	0.09	-0.08	44.7	0.01	0.00	0.08	0.01	
I-246-E	652	653	654	-0.4	2.4	-0.0	2.4	-2.9	0.05	-0.07	47.2	-0.01	-0.00	0.06	0.00	
I-246-F	655	656	657	-0.2	1.4	-0.7	1.4	-2.4	0.02	-0.06	40.9	-0.01	-0.03	0.04	0.01	
I-246-G	658	659	660	-0.2	0.7	-0.4	0.7	-1.3	0.01	-0.04	42.0	-0.01	-0.01	0.02	0.00	
I-246-H	661	662	663	-0.2	0.5	-0.3	0.5	-1.0	0.01	-0.03	42.3	-0.01	-0.01	0.02	0.01	
I-246-J	664	665	666	-0.1	0.7	-0.2	0.7	-1.0	0.01	-0.03	42.6	-0.00	-0.01	0.02	0.01	
I-246-K	667	668	669	-0.2	1.0	-0.1	1.0	-1.3	0.02	-0.03	46.5	-0.01	-0.00	0.03	0.00	
O-1CR-12	729	728	727	-6.6	4.3	2.6	5.8	-9.8	0.10	-0.27	-26.9	0.02	-0.19	-0.15	0.01	
O-1CR-23	732	731	730	-7.3	5.3	-1.2	5.7	-14.2	0.05	-0.41	-36.2	-0.11	-0.25	-0.22	0.01	
O-1CR-56	735	734	733	-0.7	-4.8	-0.3	3.9	-4.8	0.08	-0.12	43.7	-0.02	-0.02	0.10	0.01	
O-2CR-12	738	737	736	7.0	-2.4	-3.0	8.7	-4.7	0.24	-0.07	69.5	-0.03	0.20	0.10	0.01	
O-2CR-23	741	740	739	9.3	-3.5	0.3	14.2	-4.6	0.42	-0.01	59.3	0.10	0.31	0.19	0.01	
O-2CR-56	744	743	742	-0.4	4.3	2.2	4.6	-2.8	0.12	-0.05	-34.5	0.07	0.01	-0.03	0.00	
I-1CR-12	745	746	747	2.7	-1.3	-14.3	3.9	-15.4	-0.03	-0.47	13.9	-0.05	-0.44	0.10	0.01	
I-1CR-23	748	749	750	2.0	5.0	-2.1	5.4	-5.5	0.12	-0.13	34.0	0.04	-0.05	0.12	0.00	
I-1CR-56	751	752	753	-0.0	-2.3	1.1	3.5	-2.4	0.09	-0.04	-50.4	0.01	0.04	-0.07	0.01	
I-2CR-12	754	755	756	-3.3	2.1	15.7	16.6	-4.2	0.51	0.03	-78.2	0.05	0.44	-0.10	0.02	
I-2CR-23	757	758	759	-3.6	-4.5	4.6	7.0	-6.0	0.17	-0.13	-64.8	-0.07	0.12	-0.12	0.01	
I-2CR-56	760	761	762	-0.0	1.0	-2.0	1.2	-3.2	0.01	-0.09	31.8	-0.02	-0.06	0.05	0.01	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

JHCOU21 STOP 0

COMBUSTION T-12, LOAD CASE 9, M22

NOMINAL LOAD = 2.850E 05

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SHAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
O-1R1-A	3	2	1	19.8	5.1	-10.5	19.8	-10.5	0.55	-0.15	-89.1	-0.15	0.55	-0.01	0.01
O-1R1-B	6	5	4	20.8	11.0	0.8	20.8	0.8	0.69	0.23	-89.5	0.23	0.69	-0.00	0.02
O-1R1-C	9	8	7	7.0	10.1	11.0	11.2	6.7	0.44	0.33	-14.4	0.43	0.34	-0.02	0.03
O-1R1-D	12	11	10	-7.1	1.7	8.1	8.2	-7.3	0.20	-0.16	-4.7	0.20	-0.16	-0.03	0.02
O-1R1-E	15	14	13	-7.7	-1.2	6.1	6.1	-7.7	0.13	-0.19	1.5	0.12	-0.19	0.01	0.02
O-1R1-F	16	17	16	-2.0	2.7	7.5	7.5	-2.0	0.23	0.01	0.7	0.23	0.01	0.00	0.01
O-1R1-G	21	20	19	-3.2	1.1	6.2	6.2	-3.3	0.17	-0.05	2.4	0.17	-0.05	0.01	0.01
O-1R1-H	24	23	22	-4.1	-0.6	4.1	4.2	-4.1	0.10	-0.09	4.1	0.10	-0.09	0.01	0.01
O-1R1-J	27	26	25	-2.0	-0.7	1.3	1.3	-2.0	0.02	-0.05	5.5	0.02	-0.05	0.01	0.01
O-1R1-K	30	29	28	0.0	-0.5	-1.1	0.0	-1.1	-0.01	-0.04	-85.2	-0.04	-0.01	-0.00	0.01
O-1R1-L	162	161	160	7.6	2.1	-5.0	7.6	-5.1	0.20	-0.09	-86.0	-0.09	0.20	-0.02	0.01
O-1R1-M	165	164	163	15.7	4.4	-5.9	15.7	-5.9	0.46	-0.04	88.7	-0.04	0.46	0.01	0.02
O-1R1-N	168	167	166	21.8	7.1	-8.1	21.8	-8.1	0.64	-0.05	-89.5	-0.05	0.64	-0.01	0.01
O-1R1-O	171	170	169	23.6	7.8	-8.6	23.6	-8.6	0.69	-0.05	-89.4	-0.05	0.69	-0.01	0.02
O-1R2-A	33	32	31	11.9	-4.6	-9.5	13.4	-11.0	0.33	-0.23	75.6	-0.19	0.30	0.14	0.01
O-1R2-B	36	35	34	10.2	1.7	3.5	13.0	0.7	0.43	0.15	61.5	0.22	0.37	0.12	0.02
O-1R2-C	39	38	37	-3.7	5.9	11.4	11.7	-4.0	0.34	-0.02	-7.7	0.34	-0.01	-0.05	0.02
O-1R2-D	42	41	40	-17.3	12.9	9.9	17.7	-25.2	0.34	-0.66	-25.4	0.15	-0.47	-0.38	0.02
O-1R2-E	45	44	43	-18.5	14.8	3.5	17.4	-32.4	0.25	-0.90	-31.9	-0.07	-0.57	-0.52	0.02
O-1R2-F	48	47	46	-15.2	11.3	2.4	13.3	-26.1	0.18	-0.73	-31.8	-0.07	-0.48	-0.41	0.03
O-1R2-G	51	50	49	-10.5	6.1	3.0	8.2	-15.8	0.11	-0.44	-27.9	-0.01	-0.32	-0.23	0.01
O-1R2-H	54	53	52	-7.9	2.7	3.1	5.1	-9.9	0.07	-0.28	-21.4	0.02	-0.23	-0.12	0.02
O-1R2-J	57	56	55	-4.0	0.4	1.8	2.1	-4.4	0.03	-0.12	-13.8	0.02	-0.11	-0.03	0.01
O-1R2-K	60	59*	58	1.0	0.0	-0.2	1.1	-0.3	0.03	0.00	72.9	0.00	0.03	0.01	0.01
O-1R3-A	63	62	61	-1.6	-6.5	3.1	8.4	-6.9	0.21	-0.14	36.0	0.09	-0.02	0.17	0.01
O-1R3-B	66	65	64	-3.6	-4.3	4.3	6.5	-5.8	0.16	-0.13	24.8	0.11	-0.08	0.11	0.02
O-1R3-C	69	68	67	-13.5	6.4	8.6	11.3	-16.7	0.22	-0.43	-19.4	0.15	-0.36	-0.21	0.01
O-1R3-D	72	71	70	-23.9	15.9	11.2	22.0	-34.6	0.38	-0.92	-25.9	0.13	-0.68	-0.51	0.01
O-1R3-E	75	74	73	-20.4	18.7	-6.1	19.5	-45.9	0.19	-1.32	-38.7	-0.40	-0.73	-0.74	0.02
O-1R3-F	78	77	76	-20.1	8.7	-4.7	10.1	-34.8	-0.01	-1.05	-35.0	-0.35	-0.71	-0.49	0.01
O-1R3-G	81	80	79	-15.0	4.4	-1.1	6.2	-22.4	-0.02	-0.68	-30.5	-0.19	-0.51	-0.29	0.01
O-1R3-H	84	83	82	-10.3	3.4	1.5	5.4	-14.1	0.04	-0.41	-26.4	-0.05	-0.32	-0.18	0.01
O-1R3-J	87	86	85	-6.2	1.0	1.2	2.6	-7.6	0.01	-0.22	-21.7	-0.02	-0.19	-0.08	0.01
O-1R3-K	90	89	88	-0.5	1.6	1.1	1.9	-1.2	0.05	-0.02	-29.8	0.03	-0.00	-0.03	0.03
O-1R4-A	68	680	679	-10.8	15.3	-14.3	15.4	-40.5	0.11	-1.18	-46.8	-0.58	-0.50	-0.64	0.02
O-1R4-B	93	92	91	-13.4	6.9	-5.3	7.4	-26.1	-0.01	-0.79	-38.0	-0.31	-0.49	-0.38	0.02
O-1R4-C	96	95	94	-10.5	4.4	-3.2	5.0	-18.7	-0.02	-0.57	-36.0	-0.21	-0.38	-0.26	0.02
O-1R4-D	99	98	97	-10.6	1.5	-1.8	2.7	-15.1	-0.06	-0.47	-30.2	-0.16	-0.37	-0.18	0.02
O-1R5-A	102	101	100	-8.7	-3.6	11.6	12.8	-9.9	0.32	-0.20	13.2	0.30	-0.17	0.12	0.01
O-1R5-B	105	104	103	-7.2	-3.3	2.1	2.2	-7.3	0.00	-0.22	4.3	-0.00	-0.22	0.02	0.01
O-1R5-C	108	107	106	-7.4	6.7	1.0	7.5	-13.9	0.11	-0.38	-33.4	-0.04	-0.23	-0.23	0.01
O-1R5-D	111	110	109	-11.5	11.9	-2.0	12.5	-26.0	0.16	-0.73	-37.9	-0.18	-0.40	-0.43	0.01
O-1R5-E	114	113	112	-12.4	10.6	-8.3	10.7	-31.3	0.04	-0.93	-42.2	-0.40	-0.49	-0.48	0.01
O-1R5-F	117	116	115	-12.0	7.4	-6.4	7.6	-26.0	-0.01	-0.78	-40.3	-0.33	-0.46	-0.38	0.02
O-1R5-G	120	119	118	-7.5	7.2	-7.9	7.2	-22.6	0.02	-0.67	-45.4	-0.33	-0.32	-0.34	0.01
O-1R5-H	123	122	121	-7.5	7.6	-5.1	7.6	-20.2	0.05	-0.59	-42.6	-0.24	-0.30	-0.32	0.01
O-1R5-J	126	125	124	-2.5	6.9	-8.3	7.2	-18.1	0.06	-0.53	-51.6	-0.30	-0.17	-0.28	0.01
O-1R5-K	129	128	127	-7.3	3.6	-13.7	3.9	-24.9	-0.12	-0.78	-51.4	-0.52	-0.37	-0.32	0.02
O-1R6-A	132	131	130	-12.6	-1.8	10.4	10.4	-12.7	0.22	-0.31	1.6	0.22	-0.31	0.02	0.02
O-1R6-B	135	134	133	-8.0	-6.3	-1.0	-0.5	-8.4	-0.10	-0.28	13.3	-0.11	-0.27	0.04	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
0-1R6-C	138	137	136	-2.3	-5.0	-4.4	-1.3	-5.3	-0.10	-0.19	60.6	-0.17	-0.12	0.04	0.02
0-1R6-D	141	140	139	-1.8	-7.8	-12.1	-1.7	-12.1	-0.18	-0.42	85.1	-0.42	-0.18	0.02	0.02
0-1R6-E	144	143	142	-1.8	-9.3	-14.2	-1.6	-14.3	-0.19	-0.49	83.8	-0.48	-0.20	0.03	0.01
0-1R6-F	147	146	145	-2.7	-7.3	-11.9	-2.7	-11.9	-0.21	-0.42	89.7	-0.42	-0.21	-0.00	0.02
0-1R6-G	150	149	148	1.0	-6.0	-10.8	1.1	-10.9	-0.07	-0.35	84.6	-0.35	-0.07	0.03	0.01
0-1R6-H	153	152*	151	4.5	-4.6	-12.2	4.6	-12.2	0.03	-0.36	87.4	-0.36	0.03	0.02	0.03
0-1R6-J	156	155	154	7.7	-3.3	-12.7	7.7	-12.8	-0.13	-0.34	87.8	-0.34	0.13	0.02	0.01
0-1R6-K	159	158	157	6.4	-8.5	-22.3	6.4	-22.4	-0.01	-0.67	89.0	-0.67	-0.01	0.01	0.03
0-2R1-A	174	173	172	20.0	3.3	-17.8	20.2	-17.9	0.49	-0.39	86.7	-0.39	0.48	-0.05	0.03
0-2R1-B	177	176	175	18.0	8.1	-4.2	18.1	-4.3	0.55	0.04	86.8	0.04	0.55	-0.03	0.02
0-2R1-C	180	179	178	0.5	3.0	2.5	3.3	-0.3	0.11	0.02	-28.7	0.09	0.04	-0.04	0.02
0-2R1-D	183	182	181	-12.1	-8.6	-5.3	-5.3	-12.1	-0.29	-0.45	-1.3	-0.29	-0.45	-0.00	0.03
0-2R1-E	186	185	184	-11.0	-7.9	-2.6	-2.5	-11.2	-0.19	-0.39	7.4	-0.19	-0.39	0.03	0.03
0-2R1-F	189	188	187	-3.7	0.0	5.4	5.5	-3.8	0.14	-0.07	5.4	0.14	-0.07	0.02	0.02
0-2R1-G	192	191	190	-3.9	0.8	5.1	5.1	-3.9	0.13	-0.08	-1.4	0.13	-0.08	-0.01	0.02
0-2R1-H	195	194	193	-3.2	0.3	5.3	5.3	-3.2	0.14	-0.05	5.2	0.14	-0.05	0.02	0.01
0-2R1-J	198	197	196	-2.6	0.1	2.8	2.8	-2.6	0.07	-0.06	-0.5	0.07	-0.06	-0.00	0.01
0-2R1-K	201	200**	199**	0.2	0.0	0.0	0.3	-0.1	0.01	0.00	67.5	0.00	0.01	0.00	0.00
0-2R1-L	333	332	331	8.3	2.6	-3.1	8.3	-3.1	0.24	-0.02	-89.9	-0.02	0.24	-0.00	0.01
0-2R1-M	336	335	334	15.4	-6.4	-4.9	15.4	-5.0	0.46	-0.01	86.8	-0.01	0.46	-0.03	0.02
0-2R1-N	339	338	337	21.6	-8.2	-6.6	21.6	-6.6	0.65	-0.00	-88.6	-0.00	0.65	-0.02	0.02
0-2R2-A	204	203	202	11.2	-6.5	-13.5	12.3	-14.6	0.26	-0.36	78.4	-0.33	0.24	0.12	0.02
0-2R2-B	207	206	205	7.7	-1.6	-1.9	9.4	-3.7	0.27	-0.23	68.4	0.01	0.23	0.10	0.01
0-2R2-C	210	209	208	-8.9	-1.5	2.4	2.6	-9.2	-0.00	-0.28	-8.6	-0.01	-0.27	-0.04	0.03
0-2R2-D	213	212	211	-23.1	4.8	-0.3	8.4	-31.8	-0.04	-0.96	-27.7	-0.24	-0.76	-0.38	0.02
0-2R2-E	216	215	214	-25.6	7.1	-1.8	10.2	-37.6	-0.03	-1.14	-30.1	-0.31	-0.86	-0.48	0.03
0-2R2-F	219	218	217	-15.1	9.5	-0.9	10.9	-26.8	0.09	-0.78	-33.9	-0.18	-0.51	-0.40	0.01
0-2R2-G	222	221	220	-12.1	5.6	4.4	8.7	-16.4	0.12	-0.45	-24.5	0.02	-0.35	-0.22	0.01
0-2R2-H	225	224	223	-7.7	3.4	2.8	5.4	-10.3	0.08	-0.28	-23.9	0.02	-0.23	-0.13	0.01
0-2R2-J	228	227	226	-4.8	0.7	3.4	3.6	-5.0	0.07	-0.13	-9.2	0.07	-0.12	-0.03	0.01
0-2R2-K	231	230	229	0.3	0.7	0.6	0.7	0.1	0.03	0.01	-31.4	0.02	0.01	-0.01	0.01
0-2R3-A	234	233	232	-1.5	-9.4	-2.3	5.6	-9.4	0.09	-0.26	46.6	-0.09	-0.07	0.17	0.01
0-2R3-B	237	236	235	-6.0	-5.6	1.6	2.9	-7.3	0.02	-0.21	21.1	-0.01	-0.18	0.08	0.02
0-2R3-C	240	239	238	-16.1	3.9	3.3	7.8	-20.6	0.05	-0.50	-23.3	-0.05	-0.50	-0.24	0.02
0-2R3-D	243	242	241	-19.6	14.9	-1.1	16.5	-37.3	0.18	-1.07	-34.9	-0.23	-0.66	-0.58	0.02
0-2R3-E	246	245	244	-24.1	9.7	-10.2	10.6	-44.9	-0.10	-1.38	-37.8	-0.58	-0.90	-0.62	0.02
0-2R3-F	249	248	247	-22.7	5.0	-5.2	6.9	-34.9	-0.12	-1.08	-32.6	-0.40	-0.80	-0.44	0.02
0-2R3-G	252	251	250	-16.0	4.2	-2.9	5.5	-24.6	-0.06	-0.75	-32.2	-0.25	-0.56	-0.31	0.02
0-2R3-H	255	254	253	-11.5	-1.3	0.6	3.6	-14.5	-0.02	-0.44	-24.0	-0.09	-0.37	-0.16	0.01
0-2R3-J	258	257	256	-6.7	1.7	1.0	3.1	-8.8	0.02	-0.26	-25.0	-0.03	-0.21	-0.11	0.02
0-2R3-K	261	260	259	-0.9	1.9	1.8	2.4	-1.5	0.07	-0.03	-23.9	0.05	-0.01	-0.03	0.01
0-2R4-A	684	683	682	-27.1	9.4	-1.7	12.6	-41.4	0.01	-1.24	-30.9	-0.32	-0.91	-0.55	0.01
0-2R4-B	264	263	262	-18.1	1.9	-4.2	3.6	-25.9	-0.14	-0.82	-30.9	-0.32	-0.64	-0.30	0.02
0-2R4-C	267	266	265	-10.0	2.3	-5.7	2.5	-18.3	-0.10	-0.58	-39.1	-0.29	-0.39	-0.23	0.02
0-2R4-D	270	269	268	-1.4	0.1	-10.4	0.1	-21.8	-0.21	-0.72	-43.7	-0.45	0.48	-0.23	0.02
0-2R5-A	273	272	271	-10.5	-3.4	8.6	8.9	-10.8	0.19	-0.27	7.1	0.18	-0.26	0.06	0.01
0-2R5-B	276	275	274	-9.2	-4.2	0.9	0.9	-9.2	-0.06	-0.30	0.2	-0.06	-0.30	0.00	0.01
0-2R5-C	279	278	277	-9.7	6.7	1.2	8.0	-16.5	0.10	-0.47	-31.8	-0.06	-0.31	-0.25	0.01
0-2R5-D	282	281	280	-6.0	10.7	-12.8	11.0	-29.8	0.07	-0.87	-49.8	-0.48	-0.32	-0.46	0.02
0-2R5-E	285	284	283	-13.2	8.1	-11.0	8.2	-32.3	-0.05	-0.98	-43.4	-0.49	-0.54	-0.47	0.02
0-2R5-F	288	287	286	-14.8	4.0	-6.5	4.6	-25.9	-0.11	-0.81	-37.0	-0.36	-0.55	-0.34	0.02
0-2R5-G	291	290	289	-8.8	4.8	-7.9	4.8	-21.5	-0.05	-0.66	-44.1	-0.35	-0.37	-0.30	0.02
0-2R5-H	294*	293	292	-11.5	4.3	-7.9	4.4	-23.8	-0.09	-0.74	-41.3	-0.37	-0.46	-0.32	0.02
0-2R5-J	297	296	295	-6.3	4.0	-8.3	4.0	-18.6	-0.05	-0.57	-47.6	-0.34	-0.29	-0.26	0.01
0-2R5-K	300	299	298	-9.5	2.4	-12.3	2.5	-24.3	-0.16	-0.78	-48.0	-0.50	-0.44	-0.31	0.01
0-2R6-A	303	302	301	-13.0	-0.9	8.3	8.4	-13.1	0.15	-0.35	-3.8	0.15	-0.35	-0.03	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
O-2R6-B	306	305	304	-6.6	-5.2	-2.3	-2.2	-6.7	-0.14	-0.24	9.4	-0.14	-0.24	0.02	0.02
O-2R6-C	309	308	307	-1.9	-2.0	-4.0	-1.5	-4.4	-0.09	-0.16	-68.7	-0.15	-0.10	-0.02	0.02
O-2R6-D	312	311	310	-0.7	-5.8	-12.5	-0.6	-12.6	-0.15	-0.42	-86.1	-0.42	-0.15	-0.02	0.02
O-2R6-E	315	314	313	-1.3	-8.4	-13.9	-1.3	-13.9	-0.18	-0.47	86.5	-0.47	-0.18	0.02	0.02
O-2R6-F	318	317	316	-2.4	-6.7	-11.1	-2.4	-11.1	-0.19	-0.39	-89.9	-0.39	-0.19	-0.00	0.02
O-2R6-G	321	320	319	1.8	-5.4	-9.4	2.1	-9.6	-0.03	-0.30	81.9	-0.29	-0.03	0.04	0.02
O-2R6-H	324	323	322	5.3	-4.2	-10.3	5.5	-10.5	0.08	-0.29	83.7	-0.29	0.07	0.04	0.02
O-2R6-J	327	326	325	7.6	-2.9	-13.6	7.6	-13.6	0.12	-0.37	-89.7	-0.37	0.12	-0.00	0.01
O-2R6-K	330	329	328	7.4	-6.2	-17.3	7.5	-17.3	0.08	-0.50	87.1	-0.50	0.07	0.03	0.02
I-1R1-A	340	341	342	-18.8	-12.1	-1.4	-1.1	-19.0	-0.23	-0.64	-83.5	-0.63	-0.23	-0.05	0.03
I-1R1-B	343	344	345	-20.1	-21.8	-20.8	-19.1	-21.9	-0.84	-0.91	-37.0	-0.87	-0.89	-0.03	0.02
I-1R1-C	346	347	348	-14.0	-36.0	-58.4	-14.0	-58.4	-1.04	-2.05	0.3	-1.04	-2.05	0.00	0.03
I-1R1-D	349	350	351	1.9	-38.9	-62.6	2.3	-70.0	-0.62	-2.28	-4.0	-0.62	-2.28	-0.12	0.03
I-1R1-E	352	353	354	0.6	-27.6	-53.6	0.7	-53.6	-0.51	-1.76	-1.2	-0.51	-1.76	-0.03	0.02
I-1R1-F	355	356	357	2.0	-15.2	-33.5	2.0	-33.5	-0.26	-1.08	0.8	-0.27	-1.08	0.01	0.02
I-1R1-G	358	359	360	4.4	-7.9	-22.0	4.4	-22.1	-0.07	-0.68	2.1	-0.07	-0.68	0.02	0.01
I-1R1-H	361	362	363	4.3	-4.3	-13.4	4.3	-13.4	0.01	-0.40	0.9	0.01	-0.40	0.01	0.02
I-1R1-J	364	365	366	4.0	-1.6	-5.5	4.1	-5.5	0.08	-0.14	-5.2	0.08	-0.14	-0.02	0.01
I-1R1-K	367	368	369	2.0	0.4	0.2	2.2	-0.0	0.07	0.02	-18.4	0.07	0.03	-0.02	0.01
I-1R1-L	499	500	501	-1.0	4.2	7.9	8.0	-1.0	0.25	0.04	85.1	0.05	0.25	0.02	0.02
I-1R1-M	502	503	504	-4.6	0.2	15.3	15.3	-4.6	0.46	0.00	87.7	0.00	0.46	0.02	0.02
I-1R1-N	505	506	507	-6.5	5.7	18.7	18.7	-6.5	0.55	-0.02	-89.2	-0.03	0.55	-0.01	0.02
I-1R1-O	508	509	510	8.3	-5.9	21.4	36.7	-6.9	1.14	0.13	-53.7	0.49	0.79	-0.48	0.02
I-1R2-A	370	371	372	-9.6	-3.8	-0.4	-0.2	-9.8	-0.10	-0.33	82.5	-0.32	-0.11	0.03	0.02
I-1R2-B	373	374	375	-14.9	-12.5	-10.4	-10.4	-14.9	-0.49	-0.59	88.0	-0.59	-0.49	0.00	0.02
I-1R2-C	376	377	378	-7.5	-25.1	-35.7	-7.0	-36.1	-0.59	-1.26	-7.1	-0.60	-1.25	-0.08	0.02
I-1R2-D	379	380	381	-4.7	-5.6	-38.0	1.5	-44.3	-0.39	-1.44	21.7	-0.53	-1.30	0.36	0.02
I-1R2-E	382	383	384	-0.4	1.1	-27.2	6.2	-33.8	-0.13	-1.05	24.0	-0.28	-0.90	0.34	0.02
I-1R2-F	385	386	387	2.5	-6.4	-20.9	2.8	-21.3	-0.12	-0.67	6.9	-0.13	-0.67	0.07	0.02
I-1R2-G	388	389	390	1.4	-6.8	-15.8	1.4	-15.9	-0.11	-0.51	1.5	-0.11	-0.51	0.01	0.02
I-1R2-H	391	392	393	1.4	-7.1	-10.1	2.0	-10.7	-0.04	-0.33	-13.0	-0.05	-0.32	-0.06	0.02
I-1R2-J	394	395	396	0.2	-5.5	-1.7	4.2	-5.6	0.08	-0.14	-39.5	-0.01	-0.05	-0.11	0.03
I-1R2-K	397	398	399	0.8	-2.9	-0.5	3.3	-3.0	0.08	-0.07	-38.9	0.02	-0.01	-0.07	0.02
I-1R3-A	400	401	402	2.1	3.9	1.5	3.9	-0.3	0.13	0.03	41.0	0.09	0.07	0.05	0.01
I-1R3-B	403	404	405	-1.9	-0.6	5.0	5.6	-2.5	0.16	-0.03	-73.8	-0.01	0.15	-0.05	0.01
I-1R3-C	406	407	408	-0.3	-3.2	0.7	3.7	-3.3	0.09	-0.07	-48.9	-0.00	0.02	-0.08	0.01
I-1R3-D	409	410	411	3.0	6.1	-4.7	7.1	-8.8	0.15	-0.22	30.6	0.05	-0.13	0.16	0.02
I-1R3-E	412	413	414	5.0	10.8	-5.2	11.9	-12.1	0.27	-0.28	32.4	0.11	-0.12	0.25	0.02
I-1R3-F	415	416	417	-1.3	6.3	-7.9	6.7	-16.0	0.06	-0.46	36.6	-0.12	-0.27	0.25	0.01
I-1R3-G	418	419	420	-5.6	2.8	-6.5	2.8	-15.0	-0.05	-0.46	43.6	-0.25	-0.27	0.21	0.02
I-1R3-H	421	422	423	-4.3	1.4	-6.4	1.4	-12.1	-0.07	-0.38	40.5	-0.20	-0.25	0.15	0.01
I-1R3-J	424	425	426	0.2	-1.4	-7.5	0.8	-8.1	-0.05	-0.26	15.1	-0.07	-0.24	0.05	0.03
I-1R3-K	427	428	429	-1.0	-4.0	-0.6	2.4	-4.0	0.04	-0.11	-56.6	-0.04	-0.03	-0.07	0.01
I-1R4-A	685	686	687	5.3	10.9	2.7	11.0	-3.0	0.33	0.01	39.6	0.20	0.14	0.16	0.02
I-1R4-B	430	431	432	-7.3	4.5	-1.2	5.0	-13.5	0.23	-0.40	54.6	-0.25	-0.11	0.20	0.02
I-1R4-C	433	434	435	-5.2	6.8	-4.8	6.8	-16.8	0.06	-0.49	45.6	-0.22	-0.21	0.27	0.02
I-1R4-D	436	437	438	-0.2	1.9	-7.1	2.9	-10.2	-0.00	-0.31	29.1	-0.06	-0.23	0.13	0.01
I-1R5-A	439	440	441	11.5	10.6	3.2	12.6	2.1	0.44	0.19	18.9	0.41	0.22	0.07	0.05
I-1R5-B	442	443	444	8.9	9.7	18.4	19.8	7.5	0.73	0.44	-70.3	0.48	0.70	-0.09	0.02
I-1R5-C	445	446	447	-3.3	15.6	29.5	29.7	-3.5	0.94	0.16	85.7	0.18	0.94	0.06	0.03
I-1R5-D	448	449	450	6.1	11.6	18.5	18.5	6.1	0.67	0.38	-86.7	0.39	0.67	-0.02	0.00
I-1R5-E	451	452	453	8.8	10.2	8.2	10.2	6.8	0.40	0.33	39.4	0.37	0.36	0.04	0.03
I-1R5-F	454	455	456	-0.5	4.1	-0.9	4.2	-5.6	0.08	-0.14	43.9	-0.03	-0.03	0.11	0.02
I-1R5-G	457	458	459	-7.7	1.9	-2.0	2.5	-12.2	-0.04	-0.38	56.5	-0.27	-0.14	0.16	0.02
I-1R5-H	460	461	462	-12.1	2.0	0.4	4.2	-15.9	-0.02	-0.48	64.2	-0.40	-0.11	0.18	0.02
I-1R5-J	463	464	465	-15.5	4.1	0.4	6.6	-21.7	0.00	-0.65	62.2	-0.51	-0.14	0.27	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-1R5-K	466	467	468	-13.6	3.6	-0.7	5.4	-19.7	-0.02	-0.60	60.4	-0.45	-0.16	0.25	0.01
I-1R6-A	469	470	471	15.9	10.5	3.6	16.0	3.6	0.56	0.28	3.2	0.56	0.28	0.02	0.01
I-1R6-B	472	473**	474	12.6	0.0	20.9	34.0	-0.5	1.11	0.32	-51.9	0.62	0.81	-0.39	0.01
I-1R6-C	475	476	477	-4.2	15.0	36.3	36.3	-4.3	1.15	0.22	-88.6	0.22	1.15	-0.02	0.02
I-1R6-D	478	479	480	7.1	13.3	20.8	20.9	7.0	0.76	0.44	-87.2	0.44	0.76	-0.02	0.01
I-1R6-E	481	482	483	8.1	7.6	7.1	8.1	7.1	0.34	0.32	-2.8	0.34	0.32	-0.00	0.02
I-1R6-F	484	485	486	1.7	-0.7	-1.1	2.0	-1.5	0.05	-0.03	-17.7	0.04	-0.02	-0.02	0.02
I-1R6-G	487	488	489	-7.2	-5.2	-3.5	-3.5	-7.2	-0.19	-0.27	87.0	-0.27	-0.19	0.00	0.03
I-1R6-H	490	491	492	-14.5	-8.5	-3.2	-3.2	-14.5	-0.25	-0.51	88.2	-0.51	-0.25	0.01	0.03
I-1R6-J	493	494	495	-19.6	-9.3	-2.2	-2.0	-19.7	-0.26	-0.67	84.8	-0.67	-0.27	0.04	0.02
I-1R6-K	496	497	498	-21.6	-12.4	-2.9	-2.9	-21.6	-0.31	-0.74	-89.6	-0.74	-0.31	-0.00	0.02
I-2R1-A	511	512	513*	-20.5	-11.3	-4.8	-4.7	-20.7	-0.36	-0.73	85.1	-0.72	-0.36	0.03	0.04
I-2R1-B	514	515	516	-25.2	-19.7	-16.4	-16.1	-26.4	-0.79	-1.03	81.2	-1.02	-0.80	0.04	0.03
I-2R1-C	517	518	519	-5.3	-35.3	-64.9	-5.3	-64.9	-0.81	-2.19	-0.2	-0.81	-2.19	-0.00	0.04
I-2R1-D	520	521	522	8.9	-28.8	-73.9	9.1	-74.0	-0.43	-2.35	2.5	-0.44	-2.35	0.08	0.03
I-2R1-E	523	524	525	6.1	-25.8	-53.7	6.2	-53.7	-0.33	-1.71	-1.9	-0.33	-1.71	-0.05	0.02
I-2R1-F	526	527	528	2.4	-16.7	-33.3	2.4	-33.4	-0.25	-1.08	-2.0	-0.25	-1.08	-0.03	0.01
I-2R1-G	529	530	531	3.2	-9.5	-21.4	3.2	-21.4	-0.11	-0.67	-1.1	-0.11	-0.67	-0.01	0.01
I-2R1-H	532	533	534	3.8	-5.1	-12.9	3.8	-13.0	-0.00	-0.39	-2.0	-0.00	-0.39	-0.01	0.01
I-2R1-J	535	536**	537	2.3	0.0	-6.3	2.8	-6.7	0.02	-0.19	12.3	0.01	-0.18	0.05	0.02
I-2R1-K	538*	539	540	0.8	1.2	-0.3	1.4	-0.9	0.04	-0.02	30.7	0.02	-0.00	0.02	0.02
I-2R1-L	541	542	543	7.8	2.2	-1.0	7.9	-1.2	0.25	0.04	82.6	0.04	0.25	0.03	0.01
I-2R1-M	544	545	546	14.6	5.3	-4.8	14.6	-4.8	0.43	-0.02	-88.6	-0.02	0.43	-0.01	0.03
I-2R1-N	547	548	549	19.5	7.8	-6.6	19.6	-6.7	0.58	-0.03	87.0	-0.03	0.58	-0.03	0.01
I-2R2-A	542	542	543	-16.1	-7.0	-0.2	-0.1	-16.2	-0.16	-0.54	5.7	-0.53	-0.17	0.03	0.03
I-2R2-B	544	545	546	-15.5	-15.5	-14.8	-14.6	-15.7	-0.64	-0.66	5.3	-0.66	-0.64	-0.01	0.02
I-2R2-C	547	548	549	-0.8	-20.3	-39.5	-0.8	-39.5	-0.42	-1.31	-0.3	-0.42	-1.31	-0.00	0.03
I-2R2-D	550	551	552	8.0	-6.7	-43.2	10.2	-45.4	-0.11	-1.40	11.5	-0.16	-1.35	0.25	0.02
I-2R2-E	553	554	555	6.3	4.8	-28.2	12.4	-34.4	0.07	-1.01	21.3	-0.07	-0.87	0.37	0.01
I-2R2-F	556	557	558	2.8	0.2	-19.3	5.6	-22.1	-0.03	-0.67	18.6	-0.10	-0.61	0.19	0.02
I-2R2-G	559	560	561	0.9	-4.3	-15.4	1.5	-15.9	-0.11	-0.51	9.9	-0.12	-0.50	0.07	0.02
I-2R2-H	562	563	564	0.6	0.6	-11.2	0.7	-11.4	-0.09	-0.37	-6.3	-0.09	-0.36	-0.03	0.03
I-2R2-J	565	566	567	-0.2	-5.8	-6.0	0.9	-7.1	-0.04	-0.22	-21.7	-0.07	-0.20	-0.06	0.01
I-2R2-K	568	569	570	-1.2	-4.6	-0.9	2.5	-4.6	0.04	-0.13	-46.2	-0.05	-0.04	-0.08	0.01
I-2R3-A	571	572	573	-1.0	1.5	1.4	1.9	-1.5	0.05	-0.03	66.8	-0.02	0.04	0.03	0.01
I-2R3-B	574	575	576	-0.2	-2.0	2.3	4.3	-2.2	0.12	-0.03	-56.0	0.02	0.07	-0.07	0.01
I-2R3-C	577	578	579	2.1	-0.6	-0.3	2.8	-1.0	0.08	-0.01	-25.3	0.07	0.01	-0.03	0.02
I-2R3-D	580	581	582	6.9	9.8	-3.0	11.2	-7.3	0.30	-0.13	28.8	0.20	-0.03	0.18	0.01
I-2R3-E	583	584	585	7.8	16.5	-2.8	17.5	-12.5	0.45	-0.24	34.6	0.23	-0.02	0.32	0.01
I-2R3-F	586	587	588	-6.2	11.1	-0.4	11.4	-18.0	0.20	-0.48	50.7	-0.21	-0.07	0.53	0.02
I-2R3-G	589	590	591	-5.5	7.7	-4.9	7.7	-18.0	0.07	-0.52	45.7	-0.23	-0.21	0.30	0.02
I-2R3-H	592	593	594	-2.0	3.1	-6.4	3.5	-11.8	-0.00	-0.36	36.7	-0.13	-0.23	0.17	0.01
I-2R3-J	595	596	597	-0.1	-2.0	-7.8	0.4	-8.3	-0.07	-0.27	13.6	-0.08	-0.26	0.05	0.02
I-2R3-K	598	599	600	-2.7	-5.5	-1.2	1.8	-5.6	0.00	-0.17	-50.8	-0.10	-0.06	-0.08	0.01
I-2R4-A	608	609	610	4.4	16.6	8.4	16.8	-4.0	0.51	0.03	50.5	0.23	0.32	0.24	0.03
I-2R4-B	601	602	603	-5.9	9.9	-0.6	10.2	-16.6	0.17	-0.45	50.7	-0.20	-0.08	0.30	0.02
I-2R4-C	604	605	606	-8.3	9.7	1.4	10.5	-17.5	0.17	-0.47	55.1	-0.26	-0.04	0.30	0.02
I-2R4-D	607	608	609	-6.6	5.5	-0.2	7.0	-13.8	0.09	-0.39	53.9	-0.22	-0.07	0.23	0.02
I-2R5-A	610	611	612	10.0	7.3	2.9	10.1	2.8	0.36	0.19	7.1	0.36	0.19	0.02	0.02
I-2R5-B	613	614	615	10.8	10.2	15.7	17.1	9.4	0.66	0.48	-64.8	0.51	0.62	-0.07	0.02
I-2R5-C	616	617	618	-0.2	11.6	28.2	28.4	-0.4	0.93	0.27	-85.1	0.27	0.93	-0.06	0.01
I-2R5-D	619	620	621	6.5	14.0	19.9	19.9	6.4	0.72	0.41	86.6	0.41	0.72	0.02	0.02
I-2R5-E	622	623	624	10.8	15.0	7.5	15.3	3.1	0.53	0.25	37.1	0.43	0.35	0.14	0.02
I-2R5-F	625	626	627	-1.5	8.2	2.7	8.5	-7.3	0.21	-0.16	52.8	-0.02	0.08	0.18	0.01
I-2R5-G	628	629	630	-10.6	4.6	3.9	7.4	-14.2	0.10	-0.39	66.1	-0.31	0.02	0.18	0.01
I-2R5-H	631	632	633	-12.9	4.2	5.0	8.2	-16.1	0.11	-0.45	68.7	-0.38	0.04	0.19	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
I-2R5-J	634	635	636	-15.5	4.2	5.9	9.2	-19.2	0.11	-0.54	69.9	-0.46	0.04	0.21	0.03
I-2K5-K	637	638	639	-13.5	4.8	4.3	8.3	-17.6	0.10	-0.50	66.8	-0.40	0.01	0.22	0.01
I-2K6-A	640	641	642	16.2	10.5	6.1	16.3	6.1	0.60	0.36	-4.0	0.60	0.36	-0.02	0.02
I-2K6-B	643	644	645	13.4	16.5	22.6	22.8	13.2	0.88	0.66	-81.2	0.66	0.88	-0.03	0.03
I-2K6-C	646	647	648	-3.1	18.0	37.8	37.8	-3.1	1.22	0.27	89.1	0.27	1.22	0.01	0.01
I-2K6-D	649	650	651	8.5	16.7	22.2	22.3	8.4	0.82	0.50	84.6	0.50	0.82	0.03	0.02
I-2K6-E	652	653	654	8.4	9.4	7.2	9.5	6.1	0.37	0.30	34.1	0.35	0.32	0.04	0.02
I-2K6-F	655	656*	657	1.0	-1.6	-3.3	1.0	-3.4	0.00	-0.10	-5.4	0.00	-0.10	-0.01	0.02
I-2R6-G	658	659	660	-8.4	-5.0	-3.2	-3.1	-8.5	-0.19	-0.31	81.4	-0.31	-0.19	0.02	0.01
I-2K6-H	661	662	663	-12.8	-9.6	-4.3	-4.1	-12.9	-0.26	-0.47	-83.1	-0.46	-0.27	-0.02	0.01
I-2K6-J	664	665	666	-17.7	-10.2	-3.3	-3.3	-17.7	-0.28	-0.62	88.9	-0.62	-0.28	0.01	0.04
I-2R6-N	667	668	669	-18.2	-12.5	-3.0	-2.8	-18.4	-0.27	-0.63	-83.0	-0.63	-0.28	-0.04	0.02
O-1CR-12	724	728	727	-11.2	11.5	4.7	13.5	-20.0	0.25	-0.52	-30.9	0.04	-0.32	-0.34	0.02
U-1CR-25	732	731	730	-18.4	18.9	-2.0	20.1	-40.4	0.26	-1.13	-37.1	-0.25	-0.62	-0.67	0.02
O-1CR-56	735	734	733	-0.1	-2.7	-15.5	1.4	-17.0	-0.12	-0.55	-73.3	-0.51	-0.16	-0.12	0.02
O-2CR-12	738	737	736	-14.8	5.6	-4.4	6.4	-25.7	-0.04	-0.78	-35.5	-0.29	-0.53	-0.35	0.02
O-2CR-23	741	740	739	-27.4	10.5	-5.5	12.7	-45.5	-0.03	-1.37	-33.9	-0.45	-0.96	-0.62	0.03
U-1CR-56	744	743	742*	-3.6	0.5	-10.8	1.3	-15.7	-0.11	-0.51	-57.6	-0.39	-0.22	-0.18	0.06
I-1CR-12	745	746	747	1.2	-14.2	-43.5	2.3	-44.6	-0.37	-1.45	8.6	-0.39	-1.42	0.16	0.02
I-1CR-23	748	749	750	6.4	5.7	-17.4	10.8	-21.9	0.14	-0.61	21.7	0.04	-0.51	0.26	0.03
I-1CR-56	751	752	753	8.8	9.5	8.4	9.5	7.7	0.39	0.35	39.0	0.37	0.36	0.02	0.03
-2CR-12	754	755	756	6.9	-10.8	-46.9	8.4	-48.4	-0.20	-1.51	9.4	-0.24	-1.48	0.21	0.02
I-2CR-13	757	758	759	13.2	9.9	-19.1	17.7	-23.5	0.35	-0.60	14.2	0.25	-0.50	0.30	0.02
I-2CR-56	760	761	762	8.8	11.1	6.3	11.3	3.8	0.41	0.24	35.2	0.35	0.29	0.08	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

FORM 10-61 (REV. 1-65) (10-61) (10-61) (10-61) (10-61)

COMBUSTION T-12, LOAD CASE 10, F2X

NOMINAL LOAD = 5.030E 04

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
0-1K1-A	3	2	1	16.2	1.9	-15.7	18.2	-15.8	0.44	-0.34	-88.8	-0.34	0.44	-0.02	0.01
0-1K1-B	6	5	4	17.2	7.1	-4.4	17.3	-4.4	0.53	0.03	-88.2	0.03	0.53	-0.02	0.02
0-1K1-C	9	8	7	3.3	4.0	1.5	4.2	0.7	0.15	0.06	-60.2	0.08	0.13	-0.04	0.02
0-1K1-D	12	11	10	-9.7	-5.2	-1.9	-1.9	-9.7	-0.16	-0.34	-4.0	-0.16	-0.34	-0.01	0.03
0-1K1-E	15	14	13	-10.0	-6.0	-0.6	-0.5	-10.1	-0.12	-0.34	4.2	-0.12	-0.34	0.02	0.03
0-1K1-F	18	17	16	-5.9	0.0	7.4	7.4	-5.9	0.19	-0.12	3.1	0.19	-0.12	0.02	0.01
0-1K1-G	21	20	19	-8.6	-0.0	9.9	10.0	-8.7	0.24	-0.19	2.1	0.24	-0.19	0.02	0.01
0-1K1-H	24	23	22	-12.4	-1.5	10.2	10.2	-12.4	0.21	-0.31	1.1	0.21	-0.31	0.01	0.02
0-1K1-J	27	26	25	-16.1	-3.3	9.2	9.2	-16.1	0.14	-0.44	-0.3	0.14	-0.44	-0.00	0.01
0-1K1-K	30	29	28	-17.8	-0.5	8.8	9.0	-18.0	0.12	-0.50	4.3	0.11	-0.50	0.05	0.01
0-1K1-L	162	161	160	-23.4	-7.5	9.0	9.0	-23.4	0.07	-0.68	0.5	0.07	-0.68	0.01	0.01
0-1K1-M	165	164	163	-26.7	-7.7	8.5	8.5	-26.7	0.02	-0.80	-2.3	0.02	-0.80	-0.03	0.02
0-1K1-N	168	167	166	-28.1	-10.3	8.8	8.9	-28.1	0.01	-0.84	1.0	0.01	-0.84	0.01	0.01
0-1K1-O	171	170	169	-28.5	-10.0	9.3	9.3	-28.5	0.02	-0.85	0.6	0.02	-0.85	0.01	0.01
0-1K2-A	33	32	31	10.4	-7.5	-13.5	11.7	-14.9	0.24	-0.38	76.8	-0.34	0.21	0.14	0.04
0-1K2-B	36	35	34	9.1	-2.5	-1.0	12.4	-4.3	0.37	-0.02	63.9	0.06	0.29	0.15	0.03
0-1K2-C	39	38	37	-0.3	0.4	4.0	4.2	-6.5	0.08	-0.17	-8.5	0.07	-0.17	-0.04	0.02
0-1K2-D	42	41	40	-19.3	0.5	0.3	9.3	-28.5	0.03	-0.64	-29.2	-0.18	-0.63	-0.37	0.02
0-1K2-E	45	44	43	-20.9	9.2	-2.5	11.1	-34.5	0.03	-1.03	-33.1	-0.29	-0.71	-0.48	0.02
0-1K2-F	48	47	46	-18.7	9.5	0.9	11.9	-29.7	0.10	-0.86	-30.9	-0.15	-0.61	-0.42	0.02
0-1K2-G	61	50	49	-17.9	6.3	3.5	10.0	-24.4	0.09	-0.70	-25.8	-0.06	-0.55	-0.31	0.02
0-1K2-H	54	53	52	-18.4	2.0	5.1	7.9	-21.2	0.05	-0.62	-18.1	-0.01	-0.55	-0.20	0.03
0-1K2-J	57	56	55	-26.8	-4.9	6.3	6.5	-21.0	0.01	-0.63	-5.0	0.00	-0.62	-0.05	0.02
0-1K2-K	60	59	58	-22.0	-7.6	7.7	7.8	-22.1	0.04	-0.65	0.9	0.04	-0.65	0.01	0.02
0-1K3-A	63	62	61	-1.9	-7.5	0.5	6.2	-7.6	0.13	-0.19	39.9	-0.00	-0.06	0.16	0.01
0-1K3-B	66	65	64	-4.8	5.4	3.0	5.0	-6.5	0.10	-0.18	24.4	0.05	-0.13	0.10	0.01
0-1K3-C	69	68	67	-14.1	3.4	5.2	8.0	-16.9	0.10	-0.48	-19.6	0.03	-0.41	-0.18	0.02
0-1K3-D	72	71	70	-23.3	10.8	6.4	15.9	-32.9	0.20	-0.93	-26.2	-0.02	-0.71	-0.45	0.01
0-1K3-E	75	74	73	-20.2	13.3	-9.7	13.8	-43.6	0.02	-1.30	-39.7	-0.52	-0.76	-0.65	0.02
0-1K3-F	78	77	76	-20.5	5.6	-7.2	6.7	-34.3	-0.12	-1.07	-35.6	-0.44	-0.75	-0.45	0.02
0-1K3-G	81	80	79	-17.5	3.2	-4.0	4.7	-26.2	-0.10	-0.82	-32.1	-0.30	-0.62	-0.32	0.01
0-1K3-H	84	83	82	-17.2	4.1	-1.0	6.4	-24.6	-0.03	-0.75	-29.2	-0.20	-0.58	-0.31	0.01
0-1K3-J	87	86	85	-18.1	1.8	1.9	6.0	-22.1	-0.02	-0.67	-22.3	-0.12	-0.58	-0.23	0.01
0-1K3-K	90	89	88	-22.2	-4.6	0.6	7.0	-22.6	0.01	-0.68	-6.2	-0.00	-0.67	-0.07	0.04
0-1K4-A	681	680	679	-11.2	10.8	-14.6	10.8	-36.6	-0.01	-1.10	-47.1	-0.59	-0.51	-0.55	0.02
0-1K4-B	93	92	91	-12.9	4.0	-7.6	4.3	-24.8	-0.10	-0.77	-39.8	-0.38	-0.50	-0.33	0.01
0-1K4-C	96	95	94	-10.9	3.7	-5.1	4.0	-20.0	-0.07	-0.62	-38.1	-0.28	-0.41	-0.27	0.01
0-1K4-D	99	98	97	-22.1	3.2	-5.3	5.2	-32.6	-0.15	-1.02	-31.9	-0.39	-0.78	-0.39	0.01
0-1K5-A	102	101	100	-8.0	-2.8	10.6	11.5	-8.9	0.29	-0.18	11.9	0.27	-0.16	0.10	0.01
0-1K5-B	105	104	103	-7.0	-1.6	1.9	2.0	-7.1	-0.00	-0.21	-6.3	-0.01	-0.21	-0.02	0.02
0-1K5-C	108	107	106	-7.0	7.2	0.8	7.9	-14.1	0.12	-0.39	-34.7	-0.04	-0.22	-0.24	0.02
0-1K5-E	111	110	109	-11.7	10.5	-2.2	11.2	-25.0	0.12	-0.71	-37.4	-0.10	-0.41	-0.40	0.02
0-1K5-F	114	113	112	-10.9	7.6	-8.3	7.6	-26.8	-0.01	-0.81	-42.8	-0.38	-0.44	-0.40	0.02
0-1K5-H	117	116	115	-12.1	4.9	-5.4	5.3	-22.8	-0.05	-0.70	-38.1	-0.30	-0.45	-0.31	0.02
0-1K5-L	120	119	118	-8.7	3.5	-7.3	3.5	-19.5	-0.08	-0.61	-43.2	-0.33	-0.36	-0.27	0.02
0-1K5-N	123	122	121	-7.4	4.4	-6.0	4.5	-17.9	-0.03	-0.54	-43.2	-0.27	-0.30	-0.26	0.02
0-1K5-J	126	125	124	-3.2	4.0	-8.9	4.4	-16.6	-0.02	-0.50	-52.9	-0.33	-0.19	-0.23	0.01
0-1K5-K	129	128	127	-7.0	2.2	-14.2	2.7	-23.9	-0.15	-0.76	-52.9	-0.54	-0.37	-0.29	0.02
0-1K6-A	132	131	130	-10.3	-0.0	10.7	10.7	-10.4	0.25	-0.24	0.6	0.25	-0.24	0.00	0.02
0-1K6-B	135	134	133	-5.9	-2.5	-0.2	-0.1	-6.0	-0.06	-0.20	-6.0	-0.07	-0.20	-0.01	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

NOV 2001 REVISED BY THE CHARLES & JOHNSON ENGINEERING, INC.

LOCATION	GAGE NUMBERS			STRAIN - MICRINCHES/INCH								STRESS - KSI			
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
U-1K6-C	136	137	136	-0.9	-1.9	-2.3	-0.8	-2.3	-0.05	-0.09	78.5	-0.08	-0.05	0.01	0.02
U-1K6-D	141	140	139	-0.1	-4.1	-5.5	-0.1	-8.8	-0.09	-0.28	-88.2	-0.28	-0.09	-0.01	0.01
U-1K6-E	144	143	142	-0.3	-0.0	-10.8	-0.3	-10.8	-0.12	-0.36	87.3	-0.36	-0.12	0.01	0.02
U-1K6-F	147	146	145	-1.0	-5.4	-7.9	-0.9	-8.0	-0.11	-0.27	82.8	-0.27	-0.11	0.02	0.02
U-1K6-G	150	149	148	1.3	-3.4	-6.7	1.4	-6.8	-0.02	-0.21	84.6	-0.21	-0.02	0.02	0.01
U-1K6-H	153	152	151	4.7	-3.2	-8.4	4.9	-8.5	0.08	-0.23	84.3	-0.23	0.07	0.03	0.02
U-1K6-J	156	155	154	7.0	-2.1	-8.6	7.1	-8.8	0.15	-0.22	85.3	-0.22	0.14	0.03	0.01
U-1K6-K	159	158	157	5.6	-5.7	-15.3	5.7	-15.2	0.04	-0.45	87.5	-0.45	0.03	0.02	0.02
U-2K1-A	174	173	172	19.6	5.1	-11.6	19.7	-11.6	0.53	-0.19	-87.9	-0.19	0.53	-0.03	0.02
U-2K1-B	177	176	175	19.2	10.8	0.1	19.3	-0.0	0.64	0.19	-86.4	0.19	0.63	-0.03	0.03
U-2K1-C	180	179	178	4.0	8.5	9.5	10.0	3.5	0.37	0.21	-16.4	0.35	0.23	-0.04	0.03
U-2K1-D	183	182*	181	-9.1	-0.6	5.5	5.6	-9.2	0.69	-0.25	-4.6	0.09	-0.25	-0.03	0.03
U-2K1-E	186	185	184	-9.5	-2.9	4.9	4.9	-9.5	0.07	-0.27	2.3	0.07	-0.26	0.01	0.02
U-2K1-F	189	188	187	-7.1	-0.7	9.1	9.3	-7.3	0.23	-0.15	5.7	0.23	-0.15	0.04	0.01
U-2K1-G	192	191	190	-10.2	-0.7	9.9	10.0	-10.2	0.23	-0.24	1.5	0.23	-0.24	0.01	0.01
U-2K1-H	195	194	193	-13.0	-2.4	9.9	10.0	-13.1	0.20	-0.33	2.0	0.20	-0.33	0.02	0.01
U-2K1-J	198	197	196	-16.5	-5.6	9.0	9.2	-16.6	0.14	-0.46	4.2	0.14	-0.45	0.04	0.01
U-2K1-K	201	200	199	-19.7	-6.3	8.6	8.6	-19.8	0.09	-0.57	1.5	0.09	-0.57	0.02	0.01
U-2K1-L	333	332	331	-24.1	-8.7	8.5	8.5	-24.2	0.04	-0.71	1.5	0.04	-0.71	0.02	0.01
U-2K1-M	336	335	334	-27.1	-10.7	8.4	8.4	-27.1	0.01	-0.81	2.2	0.01	-0.81	0.03	0.02
J-2K1-N	339	338	337	-28.8	-10.2	7.1	7.1	-28.9	-0.05	-0.88	-1.1	-0.05	-0.88	-0.02	0.02
U-2K2-A	204	203	202	10.5	-4.4	-8.9	11.8	-10.2	0.29	-0.22	76.0	-0.19	0.26	0.12	0.03
U-2K2-B	207	206	205	9.7	1.3	1.8	11.7	-0.2	0.38	0.11	65.5	0.16	0.37	0.10	0.02
U-2K2-C	210	209	208	-4.6	4.7	10.2	10.4	-4.9	0.30	-0.08	-7.4	0.29	-0.05	-0.05	0.02
U-2K2-D	213	212	211	-19.2	10.3	8.2	15.4	-26.4	0.25	-0.72	-24.5	0.08	-0.55	-0.36	0.02
U-2K2-E	216	215	214	-24.0	11.4	6.7	16.6	-34.0	0.21	-0.96	-26.3	-0.02	-0.73	-0.46	0.02
U-2K2-F	219	218	217	-17.1	11.7	3.5	14.4	-28.0	0.20	-0.78	-30.5	-0.05	-0.53	-0.43	0.01
U-2K2-G	222	221	220	-19.0	4.8	6.4	10.6	-23.1	0.12	-0.66	-20.5	0.02	-0.56	-0.26	0.01
U-2K2-H	225	224	223	-18.8	0.4	6.0	7.8	-20.6	0.05	-0.60	-14.4	0.01	-0.56	-0.16	0.01
U-2K2-J	228	227	226	-21.3	-6.8	7.0	7.9	-21.3	0.02	-0.63	-0.7	0.02	-0.63	-0.01	0.02
U-2K2-K	231	230	229	-21.8	-7.3	6.1	6.1	-21.8	-0.02	-0.66	-1.2	-0.02	-0.66	-0.01	0.02
U-2K3-A	234	233	232	-1.1	-7.0	2.7	8.9	-7.2	0.22	-0.15	38.1	0.08	-0.01	0.18	0.02
U-2K3-B	237	236	235	-3.0	-2.1	5.0	6.0	-4.1	0.16	-0.07	19.0	0.13	-0.05	0.07	0.01
U-2K3-C	240	239	238	-12.3	6.2	8.5	11.3	-15.0	0.22	-0.38	-18.9	0.16	-0.32	-0.19	0.02
U-2K3-D	243	242	241	-15.9	18.8	5.4	21.0	-31.6	0.38	-0.83	-33.1	0.02	-0.47	-0.56	0.02
U-2K3-E	246	245	244	-20.0	13.2	-5.6	14.1	-39.8	0.07	-1.17	-37.3	-0.38	-0.72	-0.60	0.04
U-2K3-F	249	248	247	-19.8	8.8	-3.4	10.4	-33.6	0.01	-1.00	-34.0	-0.32	-0.69	-0.47	0.02
U-2K3-G	252	251	250	-14.4	7.7	-3.0	8.7	-26.1	0.03	-0.77	-35.4	-0.24	-0.51	-0.38	0.02
U-2K3-H	255	254	253	-17.3	3.0	2.8	7.1	-21.6	0.02	-0.64	-22.8	-0.08	-0.54	-0.24	0.02
U-2K3-J	258	257	256	-18.8	1.0	4.2	8.9	-21.4	0.01	-0.64	-17.9	-0.05	-0.56	-0.19	0.02
U-2K3-K	261	260	259	-21.2	-4.8	6.1	6.4	-21.5	-0.00	-0.64	-5.6	-0.01	-0.64	-0.06	0.01
U-2K4-A	684	683	682	-22.0	11.5	1.5	14.5	-34.9	0.15	-1.01	-30.8	-0.17	-0.71	-0.50	0.02
U-2K4-B	264	263	262	-14.4	6.3	-3.0	7.4	-24.8	-0.00	-0.74	-34.6	-0.24	-0.50	-0.35	0.01
U-2K4-C	267	266	265	-8.1	5.5	-6.2	5.6	-20.6	-0.02	-0.62	-42.1	-0.29	-0.35	-0.30	0.01
U-2K4-D	270	269	268	-18.8	2.6	-15.6	2.6	-37.1	-0.28	-1.20	-42.7	-0.70	-0.77	-0.46	0.01
U-2K5-A	273	272	271	-8.1	-2.2	9.7	10.2	-8.6	0.25	-0.18	9.5	0.24	-0.17	0.07	0.01
U-2K5-H	276	275	274	-6.1	-2.6	2.0	2.1	-6.1	0.01	-0.18	4.1	0.01	-0.18	0.01	0.02
U-2K5-C	279	278	277	-0.2	7.7	3.9	9.0	-11.4	0.18	-0.29	-30.1	0.07	-0.17	-0.20	0.01
U-2K5-D	282	281	280	-3.6	11.0	-7.7	11.7	-23.1	0.16	-0.65	-48.4	-0.29	-0.20	-0.40	0.01
U-2K5-E	285	284	283	-10.3	10.1	-7.4	10.1	-27.6	0.05	-0.82	-42.9	-0.35	-0.41	-0.44	0.02
U-2K5-F	288	287	286	-10.6	6.6	-4.7	6.9	-22.2	0.01	-0.66	-39.2	-0.26	-0.40	-0.33	0.02
U-2K5-G	291	290	289	-4.9	6.8	-7.7	6.8	-19.4	0.03	-0.57	-48.0	-0.30	-0.24	-0.30	0.02
U-2K5-H	294	293	292	-4.6	6.7	-0.6	6.7	-17.9	0.04	-0.52	-47.4	-0.26	-0.22	-0.28	0.02
U-2K5-J	297	296	295	-3.4	6.4	-7.4	6.6	-17.3	0.05	-0.51	-49.8	-0.28	-0.18	-0.27	0.01
U-2K5-K	300	299	298	-7.3	4.9	-11.0	5.0	-23.3	-0.07	-0.72	-48.7	-0.44	-0.35	-0.32	0.01
U-2K6-A	303	302	301	-10.8	-1.3	8.6	8.6	-10.8	0.18	-0.27	0.5	0.18	-0.27	0.00	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)			
0-286-0	306	305	304	-4.9	-4.5	-1.1	-0.5	-5.4	-0.07	-0.18	19.4	-0.08	-0.17	0.04	0.02	
0-286-1	309	308	307	-0.7	-3.1	-3.1	-0.2	-3.6	-0.04	-0.12	68.1	-0.11	-0.05	0.03	0.02	
0-286-L	312	311	310	-0.1	-5.8	-8.7	0.1	-9.0	-0.09	-0.29	81.0	-0.29	-0.09	0.03	0.02	
0-286-E	315	314	313	-0.5	-7.0	-10.4	-0.3	-10.6	-0.11	-0.35	81.2	-0.35	-0.12	0.04	0.02	
0-286-F	318	317	316	-1.1	-4.1	-8.1	-1.0	-8.1	-0.11	-0.28	86.1	-0.28	-0.11	-0.01	0.02	
0-286-G	321	320	319	1.3	-2.7	-6.8	1.3	-6.8	-0.03	-0.21	-89.8	-0.21	-0.03	-0.00	0.02	
0-286-H	324	323	322	5.4	-1.5	-7.5	5.4	-7.5	0.10	-0.20	89.2	-0.19	0.10	0.60	0.01	
0-286-J	327	326	325	0.6	-1.4	-9.0	0.6	-9.0	0.13	-0.23	89.4	-0.23	0.13	0.00	0.01	
0-286-K	330	329	328	7.2	-3.5	-12.7	7.2	-12.8	0.11	-0.35	87.8	-0.35	0.11	0.02	0.01	
I-181-A	340	341	342	-24.0	-14.2	0.5	0.8	-24.3	-0.21	-0.79	-84.3	-0.79	-0.22	-0.06	0.02	
I-181-B	343	344	345	-20.1	-21.2	-20.4	-19.4	-21.1	-0.85	-0.89	-40.	-0.87	-0.87	-0.02	0.02	
I-181-C	346	347	348	-9.5	-32.0	-57.7	-9.5	-57.7	-0.88	-2.00	0.9	-0.88	-2.00	0.02	0.03	
I-181-D	349	350	351	7.0	-35.9	-68.4	7.4	-68.8	-0.44	-2.19	-3.9	-0.44	-2.19	-0.12	0.02	
I-181-E	352	353	354	5.2	-25.8	-55.0	5.3	-55.0	-0.37	-1.76	-0.9	-0.37	-1.76	-0.02	0.02	
I-181-F	355	356	357	5.3	-15.2	-39.8	5.4	-39.9	-0.22	-1.26	2.6	-0.22	-1.26	0.05	0.03	
I-181-G	358	359	360	8.5	-12.7	-33.2	8.5	-33.2	-0.05	-1.01	0.6	-0.05	-1.01	0.01	0.02	
I-181-H	361	362	363	10.0	-9.6	-29.4	10.0	-29.4	0.04	-0.87	0.2	0.04	-0.87	0.00	0.01	
I-181-J	364	365	366	10.5	-8.1	-26.1	10.5	-26.1	0.09	-0.76	-0.4	0.09	-0.76	-0.01	0.02	
I-181-K	367	368	369	11.4	-6.0	-24.5	11.4	-24.5	0.13	-0.70	0.8	0.13	-0.69	0.01	0.03	
I-181-L	370	371	372	10.0	-7.5	-25.0	10.0	-25.0	0.08	-0.73	0.1	0.08	-0.73	0.00	0.02	
I-181-M	373	374	375	9.5	-8.6	-25.1	9.5	-25.1	0.07	-0.73	-1.3	0.07	-0.73	-0.02	0.01	
I-181-N	376	377	378	9.4	-7.6	-26.2	9.4	-26.2	0.05	-0.77	1.2	0.05	-0.77	0.02	0.02	
I-181-O	379	380	381	-9.1	7.5	-26.7	9.0	-44.9	-0.15	-1.39	35.5	-0.57	-0.97	0.59	0.02	
I-182-A	370	371	372	-13.5	-4.4	0.2	0.5	-13.9	-0.12	-0.45	80.8	-0.44	-0.13	0.05	0.01	
I-182-B	373	374	375	-13.9	-11.8	-9.5	-9.5	-13.9	-0.45	-0.55	-88.3	-0.55	-0.45	-0.00	0.02	
I-182-C	376	377	378	-3.0	-21.2	-34.5	-2.8	-34.7	-0.44	-1.17	-4.4	-0.44	-1.17	-0.06	0.02	
I-182-D	379	380	381	-2.1	0.1	-33.9	6.1	-42.0	-0.22	-1.32	24.3	-0.40	-1.14	0.42	0.02	
I-182-E	382	383	384	2.2	8.3	-22.6	12.1	-32.5	0.08	-0.95	28.1	-0.15	-0.74	0.43	0.02	
I-182-F	385	386	387	4.3	-0.4	-3.2	7.0	-25.9	-0.02	-0.78	16.6	-0.09	-0.72	0.21	0.04	
I-182-G	388	389	390	2.8	-3.1	-20.2	4.1	-21.5	-0.08	-0.67	13.0	-0.11	-0.64	0.13	0.01	
I-182-H	391	392	393	4.4	-5.3	-20.4	4.7	-20.7	-0.05	-0.63	0.2	-0.06	-0.63	0.06	0.02	
I-182-J	394	395	396	6.4	-7.3	-19.5	6.4	-19.5	0.02	-0.58	-1.6	0.02	-0.58	-0.02	0.02	
I-182-K	397	398	399	6.7	-6.3	-20.7	6.7	-20.7	0.02	-0.62	1.4	0.02	-0.62	0.02	0.02	
I-183-A	400	401	402	0.1	2.0	0.0	2.0	-1.9	0.05	-0.04	44.6	0.00	0.00	0.05	0.01	
I-183-B	403	404	405	-1.6	-0.6	2.9	3.2	-1.9	0.09	-0.03	-75.2	-0.02	0.08	-0.03	0.01	
I-183-C	406	407	408	1.8	0.0	0.6	2.5	-0.1	0.08	0.02	-32.0	0.07	0.04	-0.03	0.02	
I-183-D	409	410	411	4.6	10.7	-1.1	11.1	-7.7	0.29	-0.14	36.2	0.14	0.01	0.21	0.02	
I-183-E	412	413	414	0.4	16.1	-2.2	16.7	-12.5	0.43	-0.25	36.5	0.19	-0.01	0.32	0.02	
I-183-F	415	416	417	-1.5	11.7	-4.2	11.7	-17.5	0.21	-0.46	42.4	-0.09	-0.15	0.34	0.03	
I-183-G	418	419	420	-7.5	7.8	-5.3	7.8	-20.7	0.05	-0.60	47.2	-0.30	-0.25	0.33	0.02	
I-183-H	421	422	423	-8.2	6.5	-7.8	6.5	-22.5	-0.01	-0.68	45.3	-0.35	-0.34	0.34	0.01	
I-183-J	424	425*	426	2.5	1.6	-18.2	6.4	-22.0	-0.01	-0.66	21.5	-0.10	-0.58	0.22	0.02	
I-183-K	427	428	429	5.9	-6.3	-23.1	6.1	-23.3	-0.03	-0.71	4.4	-0.02	-0.70	0.05	0.02	
I-184-A	665	666	687	5.5	14.3	6.5	14.5	-2.5	0.45	0.06	46.7	0.25	0.27	0.20	0.02	
I-184-B	430	431	432	-9.7	7.9	2.9	9.5	-16.3	0.15	-0.44	59.6	-0.29	0.00	0.26	0.02	
I-184-C	433	434	435	-9.4	10.6	-3.7	10.8	-23.9	0.12	-0.68	49.7	-0.35	-0.22	0.40	0.02	
I-184-D	436	437	438	-4.7	7.1	-14.5	7.8	-27.1	-0.01	-0.82	36.9	-0.30	-0.53	0.39	0.02	
I-185-A	439	440*	441	10.4	8.0	2.7	10.7	2.4	0.37	0.18	10.6	0.37	0.19	0.03	0.02	
I-185-B	442	443	444	8.4	9.9	14.9	15.4	7.9	0.59	0.41	-76.0	0.42	0.58	-0.04	0.02	
I-185-C	445	446	447	-1.4	14.3	25.8	26.0	-1.6	0.84	0.21	85.2	0.21	0.84	0.05	0.02	
I-185-D	448	449	450	6.1	12.8	16.5	16.7	5.9	0.61	0.36	82.1	0.36	0.60	0.03	0.03	
I-185-E	451	452	451	8.1	11.0	6.4	11.1	3.3	0.40	0.22	36.7	0.33	0.29	0.09	0.02	
I-185-F	454	455	456	-0.9	6.2	0.4	6.3	-6.7	0.14	-0.16	47.8	-0.02	0.00	0.12	0.01	
I-185-G	457	458	459	-7.5	4.3	1.9	5.7	-11.4	0.08	-0.32	61.6	-0.23	-0.01	0.17	0.01	
I-185-H	460	461	462	-12.7	4.2	3.7	7.5	-16.4	0.08	-0.47	66.7	-0.38	-0.00	0.20	0.01	
I-185-J	463	464	465	-16.1	4.7	3.5	8.4	-21.1	0.07	-0.61	65.9	-0.50	-0.05	0.25	0.02	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI				TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
I-1R5-K	466	467	468	-17.1	5.6	2.3	8.8	-23.5	0.00	-0.69	63.4	-0.54	-0.09	0.30	0.01
I-1R6-A	469	470	471	15.5	9.8	5.2	15.5	5.2	0.56	0.33	-3.3	0.56	0.33	-0.01	0.02
I-1R6-B	472	473**	474	10.5	0.0	19.4	30.6	-0.6	1.00	0.28	-53.2	0.54	0.74	-0.35	0.02
I-1R6-C	475	476	477	-2.7	13.8	32.0	32.1	-2.7	1.03	0.23	-88.5	0.23	1.03	-0.02	0.01
I-1R6-D	478	479	480	6.3	12.7	17.1	17.2	6.2	0.63	0.38	85.0	0.38	0.63	0.02	0.03
I-1R6-E	481	482	483	7.6	7.2	5.3	7.8	5.1	0.31	0.25	16.6	0.30	0.25	0.02	0.03
I-1R6-F	484	485	486	1.6	-0.2	-2.1	1.6	-2.1	0.03	-0.03	1.7	0.03	-0.05	0.00	0.01
I-1R6-G	487	488	489	-6.2	-3.4	-3.3	-3.2	-6.3	-0.17	-0.24	-79.4	-0.24	-0.17	-0.01	0.02
I-1R6-H	490	491	492	-12.3	-7.3	-1.9	-1.9	-12.3	-0.19	-0.43	-89.2	-0.43	-0.19	-0.00	0.03
I-1R6-J	493	494	495	-15.9	-7.7	-2.4	-2.3	-16.0	-0.23	.55	84.2	-0.55	-0.24	0.03	0.02
I-1R6-K	496	497	498	-17.4	-10.0	-3.3	-3.3	-17.8	-0.28	-0.62	88.1	-0.62	-0.28	0.01	0.03
I-2K1-A	511	512	513	-14.6	-8.5	-2.2	-2.2	-14.6	-0.22	-0.59	-89.5	-0.59	-0.22	-0.00	0.01
I-2K1-B	514	515	516	-21.9	-16.9	-13.0	-12.9	-22.0	-0.64	-0.85	86.7	-0.85	-0.64	0.01	0.02
I-2K1-C	517	518	519	-11.0	-34.2	-57.6	-11.0	-57.6	-0.93	-2.01	0.2	-0.93	-2.01	0.00	0.04
I-2K1-D	520	521	522	3.8	-29.6	-70.1	4.0	-70.3	-0.56	-2.28	2.8	-0.57	-2.27	0.08	0.03
I-2K1-E	523	524	525	2.9	-28.0	-53.7	2.6	-53.8	-0.44	-1.75	-2.4	-0.45	-1.74	-0.05	0.02
I-2K1-F	526	527	528	5.3	-17.5	-38.3	5.3	-38.3	-0.20	-1.21	-1.3	-0.20	-1.21	-0.02	0.02
I-2K1-G	529	530	531	8.8	-11.8	-32.3	8.8	-32.3	-0.03	-0.96	-0.0	-0.03	-0.96	-0.00	0.01
I-2K1-H	532	533	534	10.5	-9.5	-28.0	10.5	-28.0	0.07	-0.82	-1.2	0.07	-0.82	-0.02	0.02
I-2K1-J	535	536**	537	10.4	0.0	-26.5	12.1	-28.2	0.12	-0.81	11.8	0.08	-0.77	0.19	0.02
I-2K1-K	538	539	540	12.2	-6.3	-24.4	12.2	-24.4	0.16	-0.69	-0.3	0.16	-0.69	-0.00	0.02
I-2K1-L	672	671	670	-23.3	-6.4	10.5	10.5	-23.3	0.12	-0.66	0.1	0.12	-0.66	0.00	0.02
I-2K1-M	673	674	673	-24.7	-7.2	10.9	10.9	-24.7	0.11	-0.71	0.5	0.11	-0.71	0.01	0.03
I-2K1-N	678	677	676	-26.1	-9.4	10.1	10.1	-26.1	0.08	-0.76	2.3	0.07	-0.76	0.03	0.01
I-2R2-A	541	542	543	-10.3	-3.8	0.4	0.5	-10.4	-0.09	-0.34	83.8	-0.34	-0.09	0.03	0.02
I-2R2-J	544	545	546	-14.6	-12.0	-10.0	-10.0	-14.6	-0.47	-0.58	86.3	-0.58	-0.47	0.01	0.01
I-2R2-C	547	548	549	-6.5	-20.0	-34.2	-6.5	-34.2	-0.55	-1.19	0.6	-0.55	-1.19	0.01	0.03
I-2R2-D	550	551	552	2.3	-10.1	-40.3	4.1	-42.1	-0.28	-1.35	11.4	-0.32	-1.31	0.21	0.02
I-2R2-E	553	554	555	1.8	2.2	-29.4	8.5	-36.1	-0.08	-1.11	22.8	-0.23	-0.95	0.37	0.02
I-2R2-F	556	557	558	1.1	-0.7	-21.4	4.5	-24.9	-0.10	-0.77	20.0	-0.17	-0.69	0.22	0.03
I-2R2-G	559	560	561	3.0	-2.5	-20.3	4.5	-21.8	-0.07	-0.66	13.8	-0.10	-0.64	0.14	0.02
I-2R2-H	562	563	564	5.3	-3.7	-20.1	5.8	-20.6	-0.01	-0.62	8.1	-0.02	-0.61	0.08	0.02
I-2R2-J	565	566	567	7.9	-5.6	-19.8	7.9	-19.8	0.06	-0.57	0.7	0.06	-0.57	0.01	0.01
I-2R2-K	568	569	570	8.5	-6.1	-21.7	8.6	-21.7	0.07	-0.63	1.0	0.07	-0.63	0.01	0.01
I-2R3-A	571	572	573	1.7	3.1	1.8	3.1	0.4	0.11	0.05	46.0	0.06	0.06	0.03	0.02
I-2R3-H	574	575	576	-1.9	0.2	6.4	6.9	-2.3	0.20	-0.01	-77.0	0.00	0.19	-0.05	0.02
I-2R3-C	577	578	579	-0.7	-0.1	3.1	3.6	-1.1	0.11	-0.00	-72.4	0.01	0.10	-0.03	0.02
I-2R3-D	580	581	582	2.9	6.3	-3.0	6.9	-7.1	0.16	-0.16	32.7	0.06	-0.07	0.15	0.02
I-2R3-E	583	584	585	5.6	11.4	-4.3	12.5	-11.1	0.30	-0.24	32.3	0.15	-0.09	0.25	0.02
I-2R3-F	586	587	588	-6.8	6.8	-4.2	6.9	-17.9	0.05	-0.52	48.1	-0.27	-0.20	0.28	0.02
I-2R3-G	589	590	591	-6.7	-6.4	-7.5	6.4	-20.6	0.01	-0.62	44.1	-0.29	-0.31	0.31	0.01
I-2R3-H	592	593	594	-3.7	-5.4	-12.3	6.0	-22.0	-0.02	-0.67	36.1	-0.24	-0.44	0.31	0.02
I-2R3-J	595	596	597	3.4	-0.9	-19.6	6.5	-22.7	-0.01	-0.68	18.9	-0.08	-0.61	0.21	0.02
I-2R3-K	598	599	600	6.4	-9.0	-24.1	6.4	-24.1	-0.03	-0.73	-0.3	-0.03	-0.73	-0.00	0.02
I-2R4-A	688	689	690	3.1	9.8	4.9	9.9	-1.9	0.31	0.04	49.3	0.15	0.19	0.13	0.03
I-2R4-B	601	602	603	-7.5	7.1	-3.9	7.2	-18.6	0.05	-0.54	49.0	-0.29	-0.20	0.30	0.01
I-2R4-C	604	605	606	-13.0	6.6	-0.6	8.0	-21.5	0.05	-0.63	57.5	-0.43	-0.15	0.31	0.01
I-2R4-D	607	608	609	-12.6	6.1	-1.6	6.9	-22.1	0.01	-0.66	55.0	-0.44	-0.21	0.32	0.01
I-2R5-A	610	611	612	11.3	-9.4	5.0	11.5	4.7	0.43	0.27	10.6	0.42	0.28	0.03	0.03
I-2K5-B	613	614	615	0.9	10.9	15.5	16.1	8.6	0.62	0.44	-78.8	0.43	0.61	-0.03	0.02
I-2K5-C	616	617	618	-1.5	9.4	26.2	26.6	-1.8	0.86	0.20	-83.9	0.21	0.85	-0.07	0.02
I-2K5-D	619	620	621	5.9	8.8	13.7	16.1	5.3	0.59	0.34	-78.6	0.35	0.58	-0.05	0.02
I-2K5-E	622	623	624	7.3	7.9	3.8	8.5	2.7	0.31	0.17	26.3	0.28	0.20	0.05	0.02
I-2K5-F	625	626	627	-2.8	3.4	-0.3	3.6	-6.7	0.05	-0.19	52.1	-0.10	-0.04	0.11	0.02
I-2K5-G	628	629	630	-11.9	0.2	0.4	2.8	-14.3	-0.05	-0.44	67.8	-0.39	-0.11	0.14	0.01
I-2K5-H	631	632	633	-13.7	0.4	3.0	4.8	-15.6	0.00	-0.47	72.6	-0.42	-0.04	0.13	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

FORM 1981 REVISED BY THE STRUCTURAL DIVISION, SEPTEMBER 1968

LOCATION	GAGE NUMBERS			STRAIN - MICRINCHES/INCH						STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(I)	SIG(T)	TAU	CONF	
I-2R5-J	634	635	636	-16.4	0.2	2.0	4.6	-19.0	-0.04	-0.58	70.5	-0.52	-0.10	0.17	0.01	
I-2R5-K	637	638	639	-16.3	2.0	-0.4	4.7	-21.4	-0.06	-0.66	63.7	-0.54	-0.18	0.24	0.02	
I-2R6-A	640	641	642	15.2	9.8	5.8	15.2	5.8	0.56	0.34	-4.3	0.56	0.34	-0.02	0.02	
I-2R6-B	643	644	645	11.2	14.2	20.5	20.8	10.9	0.79	0.56	-80.5	0.57	0.79	-0.04	0.02	
I-2R6-C	646	647	648	-2.0	14.7	32.7	32.7	-2.0	1.06	0.26	-89.0	0.26	1.06	-0.01	0.02	
I-2R6-L	649	650	651	6.6	13.1	18.4	18.4	6.6	0.67	0.40	66.8	0.40	0.67	0.02	0.01	
I-2R6-E	652	653	654	8.4	6.0	5.3	8.6	5.1	0.33	0.25	-14.3	0.33	0.26	-0.02	0.02	
I-2R6-F	655	656	657	0.6	-2.0	-3.4	0.6	-3.5	-0.01	-0.11	-8.6	-0.02	-0.11	-0.01	0.02	
I-2R6-G	658	659	660	-6.6	-6.0	-3.6	-3.3	-6.9	-0.18	-0.26	-74.1	-0.25	-0.18	-0.02	0.01	
I-2R6-H	661	662	663	-12.0	-8.7	-3.1	-3.0	-12.2	-0.22	-0.43	-83.2	-0.43	-0.22	-0.02	0.02	
I-2R6-J	664	665	666	-14.7	-9.5	-2.2	-2.1	-14.8	-0.22	-0.51	-65.3	-0.51	-0.22	-0.02	0.02	
I-2R6-K	667	668	669	-14.6	-11.2	-3.2	-2.8	-15.2	-0.24	-0.53	-79.6	-0.52	-0.25	-0.05	0.01	
O-1CR-1	729	728	727	-13.8	6.3	-2.5	7.4	-23.7	0.01	-0.71	-34.4	-0.22	-0.48	-0.33	0.02	
O-1CR-2	732	731	730	-20.5	12.9	-6.1	13.6	-42.2	0.03	-1.26	-38.6	-0.47	-0.76	-0.63	0.02	
O-1CR-3	735	734	733	0.1	-1.6	-13.0	1.7	-14.6	-0.09	-0.46	-71.7	-0.43	-0.13	-0.11	0.02	
O-2CR-1	738	737	736	-13.3	9.6	3.9	12.0	-21.4	0.19	-0.59	-29.5	-0.00	-0.40	-0.33	0.02	
O-2CR-2	741	740	739	-24.4	14.8	2.9	18.2	-39.7	0.21	-1.13	-50.9	-0.15	-0.78	-0.59	0.02	
O-2CR-3	744	743	742	-1.5	2.6	-16.8	3.6	-16.1	-0.03	-0.49	-59.0	-0.37	-0.16	-0.20	0.02	
I-1CR-1	745	746	747	4.6	-9.1	-43.4	6.7	-45.5	-0.23	-1.43	11.6	-0.28	-1.58	0.24	0.02	
I-1CR-2	748	749	750	6.7	12.4	-13.2	15.3	-21.8	0.29	-0.57	28.7	0.09	-0.37	0.56	0.02	
I-1CR-3	751	752	753	7.6	9.9	6.3	9.9	4.2	0.37	0.24	39.2	0.32	0.29	0.07	0.02	
I-2CR-1	754	755	756	3.4	-13.6	-47.3	4.7	-48.7	-0.33	-1.56	9.1	-0.36	-1.53	0.19	0.02	
I-2CR-2	757	758	759	8.2	4.7	-20.0	11.7	-23.6	0.15	-0.66	18.4	0.07	-0.58	0.24	0.01	
I-2CR-3	760	761	762	7.6	5.8	4.5	7.6	4.5	0.29	0.22	-3.6	0.29	0.22	-0.00	0.02	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

COMBUSTION T-12, LOAD CASE 11, F2Y

NOMINAL LOAD = 1.647E 03

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF	
U-1K1-A	3	2	1	19.6	2.3	-13.4	19.6	-13.4	0.51	-0.25	88.6	-0.25	0.51	0.02	0.01	
U-1K1-B	6	5	4	19.5	8.5	-1.7	19.5	-1.7	0.63	0.14	89.0	0.14	0.63	0.01	0.02	
U-1K1-C	9	8	7	4.6	6.0	5.4	6.1	3.9	0.24	0.19	-33.7	0.22	0.20	-0.02	0.02	
U-1K1-D	12	11	10	-6.5	-1.6	1.3	1.7	-8.9	-0.03	-0.28	-11.3	-0.04	-0.27	-0.05	0.02	
U-1K1-E	15	14	13	-9.3	-2.0	2.2	2.4	-9.5	-0.01	-0.29	-7.3	-0.02	-0.28	-0.03	0.01	
U-1K1-F	18	17	16	-2.4	2.7	6.2	6.3	-2.5	0.18	-0.62	-5.5	0.18	-0.02	-0.02	0.02	
U-1K1-G	21	20	19	-3.7	2.7	7.0	7.1	-3.8	0.20	-0.05	-5.3	0.19	-0.05	-0.02	0.03	
U-1K1-H	24	23	22	-2.9	2.8	5.6	5.8	-3.1	0.16	-0.05	-9.6	0.16	-0.04	-0.03	0.02	
U-1K1-J	27	26	25	-1.5	1.5	2.0	2.4	-1.9	0.06	-0.04	-17.8	0.05	-0.03	-0.03	0.01	
U-1K1-K	30	29	28	0.2	1.5	-0.2	1.5	-1.5	0.04	-0.04	-49.1	-0.00	0.01	-0.04	0.01	
U-1K1-L	162	161	160	7.5	3.6	-3.6	7.7	-3.9	0.22	-0.05	-81.6	-0.05	0.21	-0.04	0.01	
U-1K1-M	165	164	163	15.1	5.7	-5.7	15.2	-6.0	0.44	-0.05	-86.9	-0.05	0.44	-0.03	0.02	
U-1K1-N	168	167	166	21.2	8.1	-7.3	21.2	-7.4	0.63	-0.03	-87.5	-0.03	0.63	-0.03	0.01	
U-1K1-U	171	170	169	23.5	7.5	-8.6	23.5	-8.6	0.69	-0.05	-89.9	-0.05	0.69	-0.00	0.02	
U-1K2-A	33	32	31	10.5	-6.6	-11.8	12.0	-13.3	0.26	-0.32	75.9	-0.28	0.23	0.14	0.02	
U-1K2-B	36	35	34	8.5	-0.7	0.3	10.9	-2.2	0.34	0.04	64.3	0.09	0.28	0.12	0.01	
U-1K2-C	39	38	37	-5.1	2.9	6.6	7.0	-5.5	0.18	-0.11	-10.0	0.17	-0.10	-0.05	0.02	
U-1K2-D	42	41	40	-18.7	9.6	3.8	13.0	-28.0	0.15	-0.79	-28.3	-0.06	-0.58	-0.40	0.02	
U-1K2-E	45	44	43	-20.1	12.2	-0.9	14.1	-35.2	0.12	-1.02	-33.5	-0.23	-0.67	-0.52	0.02	
U-1K2-F	48	47	46	-15.0	10.8	0.3	12.3	-27.1	0.14	-0.77	-33.6	-0.14	-0.49	-0.42	0.03	
U-1K2-G	51	50	49	-10.3	8.2	2.2	9.7	-17.8	0.14	-0.49	-31.5	-0.03	-0.32	-0.28	0.02	
U-1K2-H	54	53	52	-6.1	4.9	2.4	6.1	-9.8	0.10	-0.26	-28.7	0.02	-0.18	-0.15	0.01	
U-1K2-J	57	56	55	-2.9	2.7	2.9	3.9	-3.9	0.09	-0.09	-21.1	0.07	-0.07	-0.06	0.01	
U-1K2-K	60	59	58	0.6	2.6	0.4	2.6	-1.6	0.07	-0.03	-46.7	0.02	0.02	-0.05	0.01	
U-1K3-A	63	62	61	-2.3	-7.6	1.7	7.2	-7.8	0.16	-0.19	37.4	0.03	-0.06	0.17	0.01	
U-1K3-B	66	65	64	-5.3	-4.7	2.7	3.9	-6.5	0.06	-0.18	20.1	0.04	-0.15	0.08	0.01	
U-1K3-C	69	68	67	-14.2	3.8	6.1	8.8	-16.8	0.12	-0.47	-18.7	0.06	-0.41	-0.18	0.02	
U-1K3-D	72	71	70	-24.7	13.1	6.6	18.0	-36.1	0.24	-1.01	-27.4	-0.03	-0.75	-0.51	0.02	
U-1K3-E	75	74	73	-19.9	14.4	-9.3	14.9	-44.1	0.06	-1.31	-39.8	-0.50	-0.75	-0.67	0.02	
U-1K3-F	78	77	76	-29.1	6.7	-5.9	7.9	-33.9	-0.07	-1.04	-35.1	-0.39	-0.72	-0.45	0.02	
U-1K3-G	81	80	79	-14.5	3.0	-3.8	4.1	-22.5	-0.09	-0.70	-33.1	-0.27	-0.52	-0.28	0.02	
U-1K3-H	84	83	82	-9.9	3.9	-0.9	4.9	-15.6	0.01	-0.47	-32.3	-0.13	-0.33	-0.21	0.02	
U-1K3-J	87	86	85	-5.0	3.1	0.5	3.8	-8.3	0.04	-0.24	-31.3	-0.03	-0.16	-0.12	0.01	
U-1K3-K	90	89	88	0.1	4.1	1.1	4.1	-2.9	0.11	-0.65	-40.9	0.04	0.02	-0.06	0.02	
U-1K4-A	681	680	679	-12.0	12.3	-15.4	12.4	-39.7	0.01	-1.19	-46.8	-0.63	-0.55	-0.60	0.01	
U-1K4-B	93	92	91	-13.6	4.4	-7.1	4.7	-25.4	-0.10	-0.79	-38.7	-0.37	-0.52	-0.34	0.02	
U-1K4-C	96	95	94	-8.9	-2.9	-4.2	3.2	-16.3	-0.06	-0.51	-38.1	-0.23	-0.34	-0.22	0.02	
U-1K4-D	99	98	97	-7.8	-2.2	-4.1	2.4	-14.3	-0.06	-0.45	-38.5	-0.21	-0.30	-0.19	0.02	
U-1K5-A	102	101	100	-9.4	-3.7	10.3	11.1	-10.2	0.26	-0.23	11.3	0.25	-0.21	0.09	0.02	
U-1K5-B	105	104*	103	-8.4	-0.7	1.7	2.4	-9.0	-0.01	-0.27	-13.9	-0.03	-0.26	-0.00	0.02	
U-1K5-C	108	107	106	-7.6	6.4	0.4	7.2	-14.4	0.09	-0.48	-34.2	-0.06	-0.25	-0.23	0.02	
U-1K5-D	111	110	109	-12.5	10.7	-2.6	11.3	-26.5	0.11	-0.76	-37.4	-0.21	-0.44	-0.42	0.02	
U-1K5-E	114	113	112	-11.9	9.7	-9.3	9.7	-30.9	0.01	-0.92	-43.2	-0.42	-0.49	-0.47	0.02	
U-1K5-F	117	116	115	-13.1	5.0	-6.8	5.3	-25.2	-0.07	-0.78	-39.0	-0.35	-0.50	-0.34	0.02	
U-1K5-G	120	119	118	-9.0	4.3	-7.6	4.3	-20.9	-0.07	-0.65	-43.4	-0.34	-0.37	-0.29	0.02	
U-1K5-H	123	122	121	-9.1	4.8	-6.4	4.9	-20.4	-0.04	-0.63	-41.9	-0.30	-0.36	-0.29	0.02	
U-1K5-J	126	125	124	-3.7	4.1	-8.6	4.4	-16.8	-0.02	-0.51	-51.7	-0.32	-0.21	-0.24	0.01	
U-1K5-K	129	128	127	-6.3	1.7	-13.6	2.2	-22.2	-0.15	-0.71	-53.7	-0.51	-0.34	-0.27	0.01	
U-1K6-A	132	131	130	-11.7	-0.8	10.6	10.6	-11.4	0.24	-0.27	0.9	0.24	-0.27	0.01	0.01	
U-1K6-B	135	134	133	-7.6	-5.1	-1.3	-1.2	-7.6	-0.12	-0.26	6.1	-0.12	-0.26	0.02	0.02	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
0-1K0-C	132	137	136	-1.8	-3.4	-4.7	-1.8	-4.7	-0.11	-0.17	86.8	-0.17	-0.11	0.00	0.01
0-1K0-D	141	140	139	-0.5	-6.8	-11.2	-0.4	-11.3	-0.13	-0.38	89.2	-0.37	-0.13	0.02	0.03
0-1K0-E	144	143	142	-1.3	-7.6	-13.1	-1.3	-13.1	-0.17	-0.45	88.2	-0.45	-0.17	0.01	0.04
0-1K0-F	147	146	145	-2.5	-5.8	-10.4	-2.5	-10.4	-0.19	-0.37	85.5	-0.37	-0.19	-0.01	0.03
0-1K0-G	150	149	148	1.0	-5.4	-9.0	1.2	-9.2	-0.05	-0.29	82.0	-0.29	-0.06	0.03	0.02
0-1K0-H	153	152	151	4.4	-4.5	-10.8	4.5	-10.9	0.04	-0.31	85.2	-0.31	0.04	0.03	0.02
0-1K0-J	156	155	154	7.0	-3.1	-11.0	7.1	-11.0	0.13	-0.29	86.5	-0.29	0.12	0.03	0.01
0-1K0-K	159	158	157	6.2	-7.8	-19.3	6.2	-19.4	0.01	-0.58	67.3	-0.58	0.01	0.03	0.02
0-2K1-A	174	173	172	19.8	4.5	-13.9	19.9	-14.0	0.52	-0.26	-87.3	-0.26	0.52	-0.04	0.01
0-2K1-B	177	176	175	19.7	10.9	-0.9	19.9	-1.1	0.64	0.16	-85.7	0.16	0.64	-0.04	0.02
0-2K1-C	180	179	178	4.1	5.7	6.1	6.3	3.9	0.25	0.19	-16.1	0.24	0.20	-0.01	0.02
0-2K1-D	183	182	181	-9.4	-4.7	0.3	0.3	-9.4	-0.09	-0.31	0.8	-0.09	-0.31	0.00	0.01
0-2K1-E	186	185	184	-9.2	-5.7	0.3	0.5	-9.4	-0.08	-0.30	7.3	-0.08	-0.30	0.03	0.01
0-2K1-F	189	188	187	-3.5	-1.0	6.5	7.1	-4.1	0.19	-0.07	13.3	0.18	-0.05	0.06	0.01
0-2K1-G	192	191	190	-3.7	-0.7	7.1	7.6	-4.2	0.21	-0.06	12.0	0.20	-0.05	0.06	0.02
0-2K1-H	195	194	193	-3.5	-1.1	4.4	4.7	-3.8	0.12	-0.08	10.7	0.11	-0.07	0.04	0.01
0-2K1-J	198	197	196	-2.4	-3.0	2.2	3.6	-3.8	0.08	-0.09	26.0	0.05	-0.06	0.07	0.01
0-2K1-K	201	200	199	-0.3	-2.5	-0.0	2.2	-2.5	0.05	-0.06	43.5	-0.00	-0.01	0.05	0.01
0-2K1-L	333	332	331	7.5	-0.0	-4.2	7.7	-4.4	0.21	-0.01	82.0	-0.06	0.20	0.04	0.02
0-2K1-M	336	335	334	15.7	4.2	-8.0	15.8	-6.0	0.46	-0.04	88.3	-0.04	0.46	0.01	0.02
0-2K1-N	339	338	337	21.9	6.9	-6.8	21.9	-6.8	0.65	-0.01	88.7	-0.01	0.65	0.02	0.02
0-2K2-A	204	203	202	12.0	-5.0	-10.9	13.3	-12.2	0.32	-0.27	77.1	-0.24	0.29	0.13	0.01
0-2K2-B	207	206	205	9.5	0.6	0.4	11.3	-1.4	0.36	0.07	68.1	0.11	0.32	0.10	0.02
0-2K2-C	210	209	208	-6.0	2.6	8.0	-8.2	-6.2	0.21	-0.12	-6.5	0.21	-0.12	-0.04	0.01
0-2K2-D	213	212	211	-20.8	8.3	6.0	13.3	-28.1	0.16	-0.80	-24.8	-0.01	-0.63	-0.36	0.01
0-2K2-E	216	215	214	-23.8	9.6	3.0	13.7	-34.4	0.11	-1.00	-28.0	-0.14	-0.75	-0.46	0.01
0-2K2-F	219	218	217	-15.3	10.0	1.3	11.9	-25.9	0.14	-0.74	-31.9	-0.11	-0.49	-0.39	0.01
0-2K2-G	222	221	220	-12.6	4.4	4.9	8.2	-15.9	0.11	-0.44	-21.6	0.04	-0.37	-0.19	0.02
0-2K2-H	225	224	223	-8.4	1.3	4.0	4.9	-9.3	0.07	-0.26	-14.7	0.05	-0.24	-0.08	0.01
0-2K2-J	228	227	226	-4.1	-1.7	2.4	2.6	-4.2	0.04	-0.11	7.8	0.04	-0.11	0.02	0.01
0-2K2-K	231	230	229	0.2	-0.8	0.7	1.7	-0.9	0.05	-0.01	39.5	0.02	0.01	0.03	0.01
0-2K3-A	234	233	232	-0.8	-8.2	0.1	7.5	-8.2	0.17	-0.25	43.2	-0.00	-0.03	0.18	0.01
0-2K3-B	237	236	235	-4.4	-3.7	3.9	5.2	-5.6	0.11	-0.13	20.0	0.09	-0.11	0.08	0.01
0-2K3-C	240	239	238	-13.8	5.5	6.3	9.9	-17.5	0.15	-0.48	-21.3	0.07	-0.39	-0.21	0.02
0-2K3-D	243	242	241	-16.0	18.2	2.1	20.1	-36.0	0.31	-0.99	-34.5	-0.11	-0.57	-0.60	0.02
0-2K3-E	246	245	244	-22.1	12.8	-7.0	13.9	-42.9	0.03	-1.28	-37.3	-0.45	-0.80	-0.63	0.01
0-2K3-F	249	248	247	-22.8	6.8	-2.8	9.2	-34.8	-0.04	-1.06	-31.5	-0.32	-0.78	-0.45	0.02
0-2K3-G	252	251	250	-15.5	4.0	-1.8	6.3	-23.5	-0.03	-0.71	-31.3	-0.21	-0.53	-0.31	0.01
0-2K3-H	255	254	253	-12.6	0.3	1.9	3.9	-14.5	-0.02	-0.44	-18.9	-0.06	-0.39	-0.13	0.03
0-2K3-J	258	257	256	-7.5	0.0	2.7	3.3	-8.0	0.03	-0.23	-12.6	0.02	-0.22	-0.06	0.02
0-2K3-K	261	260	259	-0.9	0.2	2.0	2.0	-0.5	0.06	-0.01	3.5	0.06	-0.01	0.01	0.01
0-2K4-A	684	683	682	-25.9	11.9	0.5	15.2	-40.5	0.10	-1.19	-30.8	-0.24	-0.85	-0.57	0.01
0-2K4-B	164	263	262	-18.2	4.0	-2.7	5.9	-26.9	-0.07	-0.63	-30.8	-0.27	-0.63	-0.33	0.01
0-2K4-C	267	266	265	-11.0	2.9	-5.4	3.4	-18.8	-0.07	-0.59	-36.2	-0.25	-0.41	-0.24	0.02
0-2K4-D	270	269	268	-13.9	0.6	-7.5	1.0	-22.4	-0.19	-0.73	-37.1	-0.38	-0.53	-0.26	0.01
0-2K5-A	273	272	271	-10.1	-4.3	10.1	11.0	-11.0	0.25	-0.25	11.7	0.23	-0.23	0.10	0.01
0-2K5-B	276	275	274	-8.2	-3.9	1.1	1.1	-8.2	-0.05	-0.26	1.9	-0.05	-0.26	0.01	0.01
0-2K5-C	279	278	277	-8.6	7.3	2.5	8.7	-14.8	0.14	-0.40	-30.9	-0.00	-0.27	-0.24	0.01
0-2K5-D	282	281	280	-5.0	12.7	-10.7	12.9	-28.7	0.14	-0.82	-48.9	-0.40	-0.82	-0.48	0.02
0-2K5-E	285	284	283	-11.8	10.7	-9.0	10.7	-31.6	0.04	-0.93	-43.1	-0.41	-0.46	-0.49	0.02
0-2K5-F	288	287	286	-14.0	7.0	-6.2	7.4	-27.6	-0.03	-0.84	-38.6	-0.34	-0.52	-0.39	0.02
0-2K5-G	291	290	289	-7.9	6.8	-7.7	6.8	-22.4	0.00	-0.67	-44.8	-0.33	-0.34	-0.34	0.02
0-2K5-H	294	293	292	-7.3	6.6	-6.4	6.6	-20.4	0.02	-0.61	-44.0	-0.28	-0.31	-0.31	0.02
0-2K5-J	297	296	295	-6.3	5.7	-7.8	5.7	-19.8	-0.01	-0.60	-46.7	-0.32	-0.28	-0.29	0.01
0-2K5-K	300	299	298	-10.0	4.3	-11.8	4.3	-26.1	-0.12	-0.82	-46.6	-0.49	-0.43	-0.35	0.01
0-2K6-A	303	302	301	-12.9	-0.9	9.5	9.5	-12.9	0.19	-0.33	-2.2	0.19	-0.33	-0.02	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
0-2R0-B	306	305	304	-7.0	-6.2	-2.6	-2.2	-7.4	-0.15	-0.27	16.0	-0.15	-0.26	0.03	0.02
0-2R0-C	309	308	307	-1.5	-3.8	-4.0	-1.1	-4.4	-0.08	-0.16	70.5	-0.15	-0.09	0.02	0.01
0-2R6-U	312	311	310	-1.6	-7.2	-12.9	-1.6	-12.9	-0.18	-0.44	-89.6	-0.44	-0.18	-0.00	0.01
0-2R6-E	315	314	313	-1.5	-8.9	-15.8	-1.2	-14.9	-0.19	-0.50	86.4	-0.50	-0.19	0.02	0.02
0-2R6-F	318	317	316	-1.5	-5.8	-11.8	-1.4	-11.8	-0.16	-0.40	-85.4	-0.40	-0.17	-0.02	0.02
0-2R6-G	321	320	319	1.8	-4.6	-10.5	1.9	-10.5	-0.04	-0.33	88.8	-0.33	-0.04	0.01	0.04
0-2R6-H	324	323	322	5.6	-4.4	-11.5	5.7	-11.7	0.07	-0.33	85.3	-0.33	0.07	0.03	0.01
0-2R6-J	327	326	325	7.9	-3.1	-14.3	7.9	-14.3	0.12	-0.39	-89.6	-0.39	0.12	-0.00	0.02
0-2R6-K	330	329	328	7.6	-5.8	-18.4	7.6	-18.4	0.07	-0.53	89.2	-0.53	0.07	0.01	0.02
I-1R1-A	340	341	342	-22.9	-13.8	-1.0	-0.9	-23.1	-0.26	-0.77	-85.2	-0.77	-0.26	-0.04	0.02
I-1R1-B	343	344	345	-20.6	-22.1	-22.3	-20.3	-22.6	-0.89	-0.94	-19.2	-0.90	-0.94	-0.02	0.03
I-1R1-C	346	347	348	-10.4	-34.7	-59.8	-10.4	-59.8	-0.93	-2.07	0.5	-0.93	-2.07	0.01	0.03
I-1R1-D	349	350	351	4.5	-36.5	-69.9	4.7	-70.1	-0.54	-2.26	-2.9	-0.54	-2.26	-0.09	0.03
I-1R1-E	352	353	354	3.1	-25.2	-53.7	3.1	-53.7	-0.43	-1.74	0.1	-0.43	-1.74	0.00	0.03
I-1R1-F	355	356	357	2.3	-13.7	-34.0	2.4	-34.1	-0.26	-1.10	3.3	-0.26	-1.10	0.05	0.04
I-1R1-G	358	359	360	4.8	-7.6	-22.0	4.8	-22.0	-0.06	-0.68	2.1	-0.06	-0.68	0.02	0.02
I-1R1-H	361	362	363	3.8	-3.9	-12.9	3.9	-12.9	-0.00	-0.39	2.2	-0.00	-0.39	0.01	0.02
I-1R1-J	364	365	366	3.2	0.0	-6.6	3.5	-6.9	0.05	-0.19	9.7	0.04	-0.19	0.04	0.02
I-1R1-K	367	368	369	1.5	1.9	0.2	2.1	-0.4	0.06	0.01	29.4	0.05	0.02	0.02	0.02
I-1R1-L	499	500	501	-1.1	6.1	8.7	9.2	-1.6	0.29	0.04	77.6	0.05	0.28	0.05	0.02
I-1R1-M	502	503	504	-4.0	7.4	15.4	15.5	-4.1	0.47	0.02	84.9	0.02	0.47	0.04	0.02
I-1R1-N	505	506	507	-5.5	6.2	19.8	19.9	-5.6	0.60	0.01	-87.9	0.01	0.60	-0.02	0.01
I-1R1-O	508	509	510	9.4	-6.3	20.4	36.8	-7.0	1.14	0.13	-52.2	0.51	0.77	-0.49	0.02
I-1R2-A	370	371	372	-12.7	-4.8	-0.6	-0.3	-13.0	-0.14	-0.43	81.4	-0.42	-0.14	0.04	0.01
I-1R2-B	373	374	375	-13.7	-13.2	-10.9	-10.7	-13.9	-0.49	-0.56	-73.2	-0.56	-0.50	-0.02	0.02
I-1R2-C	376	377	378	-4.6	-23.1	-37.7	-4.4	-36.0	-0.50	-1.23	-5.3	-0.51	-1.22	-0.07	0.02
I-1R2-D	379	380	381	-2.8	-2.3	-36.0	4.5	-43.3	-0.28	-1.38	23.0	-0.45	-1.22	0.40	0.02
I-1R2-E	382	383	384	1.4	5.5	-22.8	9.5	-30.9	0.01	-0.92	26.6	-0.16	-0.74	0.37	0.02
I-1R2-F	385	386	387	2.7	-2.4	-20.1	4.3	-21.7	-0.07	-0.67	14.6	-0.11	-0.64	0.15	0.02
I-1R2-G	388	389	390	0.8	-4.9	-14.3	1.0	-14.5	-0.11	-0.47	6.8	-0.12	-0.46	0.04	0.01
I-1R2-H	391	392	393	-0.4	-5.3	-9.9	-0.4	-10.0	-0.11	-0.33	-3.7	-0.11	-0.33	-0.01	0.02
I-1R2-J	394	395	396	-0.7	-3.7	-4.7	-0.5	-4.9	-0.06	-0.17	-13.4	-0.07	-0.16	-0.02	0.03
I-1R2-K	397	398	399	-0.7	-1.0	0.2	0.6	-1.1	0.01	-0.03	-61.6	-0.02	-0.00	-0.02	0.01
I-1R3-A	400	401	402	2.0	3.1	1.0	3.1	-1.1	0.09	-0.06	44.6	0.04	0.04	0.05	0.02
I-1R3-B	403	404	405	-0.6	-0.7	3.4	4.3	-1.5	0.13	-0.01	-67.1	0.01	0.11	-0.05	0.01
I-1R3-C	406	407	408	1.2	-1.1	1.3	3.6	-1.1	0.11	-0.30	-46.0	0.05	0.06	-0.05	0.04
I-1R3-D	409	410	411	5.2	8.4	-1.0	9.1	-4.8	0.25	-0.07	31.6	0.17	0.02	0.14	0.02
I-1R3-E	412	413	414	6.3	14.6	-0.2	15.0	-4.0	0.41	-0.15	37.1	0.21	0.06	0.27	0.02
I-1R3-F	415	416	417	-0.5	10.8	-4.4	11.0	-15.9	0.20	-0.41	40.9	-0.06	-0.15	0.31	0.02
I-1R3-G	418	419	420	-5.8	5.8	-3.3	5.9	-15.0	0.05	-0.44	48.4	-0.22	-0.17	0.24	0.01
I-1R3-H	421	422	423	-5.5	2.2	-4.2	2.2	-12.0	-0.05	-0.37	47.7	-0.22	-0.19	0.16	0.02
I-1R3-J	424	425	426	-1.1	0.4	-4.4	0.8	-0.3	-0.04	-0.20	31.0	-0.08	-0.16	0.07	0.02
I-1R3-K	427	428	429	-1.9	-1.5	-0.4	-0.3	-2.0	-0.03	-0.07	-76.6	-0.07	-0.03	-0.01	0.01
I-1R4-A	605	606	607	6.7	1.3	6.6	14.3	-0.9	0.46	0.11	44.8	0.29	0.29	0.18	0.02
I-1R4-B	430	431	432	-7.6	7.4	1.5	8.4	-14.5	0.13	-0.40	56.8	-0.24	-0.03	0.24	0.01
I-1R4-C	434	435	436	-6.3	8.3	-1.5	8.5	-16.3	0.12	-0.45	50.6	-0.22	-0.11	0.28	0.02
I-1R4-U	438	437	438	-2.3	3.9	-3.8	3.9	-10.0	0.03	-0.29	41.8	-0.11	-0.15	0.16	0.01
I-1R5-A	439	440	441	11.3	7.8	3.4	11.3	3.3	0.41	0.22	3.5	0.40	0.22	0.01	0.03
I-1R5-B	442	443	444	8.8	10.1	-16.7	17.5	8.0	0.65	0.44	-73.1	0.46	0.64	-0.06	0.03
I-1R5-C	445	446	447	-1.8	15.4	28.5	28.7	-1.9	0.93	0.22	86.2	0.22	0.92	0.05	0.02
I-1R5-D	448	449	450	6.5	13.4	17.8	18.0	6.4	0.65	0.39	83.7	0.39	0.65	0.03	0.03
I-1R5-E	453	452	451	9.4	11.8	8.6	11.9	6.1	0.45	0.32	40.5	0.40	0.38	0.07	0.02
I-1R5-F	454	455	456	0.0	7.0	-0.0	7.0	-7.0	0.16	-0.16	44.9	-0.00	-0.00	0.16	0.01
I-1R5-G	457	458	459	-6.7	3.5	0.4	4.4	-10.7	0.04	-0.31	59.0	-0.22	-0.05	0.15	0.01
I-1R5-H	460	461	462	-11.3	3.4	2.4	5.9	-14.8	0.05	-0.43	65.6	-0.35	-0.03	0.18	0.01
I-1R5-J	463	464	465	-13.9	4.3	2.2	7.1	-18.8	0.05	-0.55	64.2	-0.44	-0.07	0.23	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

THIS REPORT FOLLOWS THE REQUIREMENTS SPECIFIED IN S. 1

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-1R5-K	466	467	468	-13.9	4.0	2.0	6.8	-18.7	0.04	-0.55	64.3	-0.44	-0.07	0.23	0.02
I-1R6-A	469	470	471	16.2	10.1	4.2	16.2	4.2	0.58	0.30	-0.4	0.58	0.30	-0.06	0.02
I-1R6-B	472	473**	474	12.3	0.0	20.1	32.8	-0.5	1.08	0.31	-51.8	0.60	0.78	-0.37	0.02
I-1R6-C	475	476	477	-2.9	15.7	34.9	34.9	-2.9	1.12	0.25	-89.5	0.25	1.12	-0.01	0.01
I-1R6-D	478	479	480	7.1	13.5	19.8	19.8	7.1	0.72	0.43	89.8	0.43	0.72	0.00	0.01
I-1R6-E	481	482	483	8.8	8.4	6.4	9.1	6.2	0.36	0.24	15.8	0.36	0.30	0.02	0.02
I-1R6-F	484	485	486	2.1	-0.5	-1.5	2.3	-1.6	0.06	-0.03	-11.6	0.05	-0.03	-0.02	0.01
I-1R6-G	487	488	489	-8.0	-4.4	-3.1	-3.1	-8.0	-0.16	-0.23	87.8	-0.23	-0.16	0.00	0.02
I-1R6-H	490	491	492	-12.2	-7.2	-0.6	-0.5	-12.2	-0.14	-0.41	-85.7	-0.41	-0.14	-0.02	0.02
I-1R6-J	493	494	495	-17.1	-8.3	-2.2	-2.1	-17.2	-0.24	-0.59	84.8	-0.59	-0.24	0.03	0.02
I-1R6-K	496	497	498	-18.9	-10.7	-2.8	-2.8	-18.9	-0.28	-0.65	89.5	-0.65	-0.28	0.00	0.02
I-2R1-A	511	512	515*	-17.1	-9.5	-6.9	-6.4	-17.6	-0.38	-0.64	77.0	-0.63	-0.40	0.06	0.10
I-2R1-B	514	515	516	-24.4	-18.2	-15.2	-14.9	-24.7	-0.74	-0.96	80.4	-0.96	-0.74	0.04	0.03
I-2R1-C	517	518	519	-10.1	-35.5	-62.0	-10.1	-62.0	-0.95	-2.15	0.7	-0.95	-2.15	0.01	0.03
I-2R1-D	520	521	522	6.4	-30.9	-71.4	6.4	-71.4	-0.49	-2.29	1.1	-0.50	-2.29	0.04	0.03
I-2R1-E	523	524	525	3.1	-28.1	-52.8	3.3	-53.0	-0.42	-1.72	-3.3	-0.42	-1.71	-0.08	0.03
I-2R1-F	526	527	528	2.0	-17.4	-32.4	2.1	-32.5	-0.25	-1.05	-3.6	-0.26	-1.05	-0.05	0.02
I-2R1-G	529	530	531	4.0	-10.3	-21.2	4.2	-21.3	-0.07	-0.66	-3.9	-0.08	-0.66	-0.04	0.01
I-2R1-H	532	533	534	3.4	-6.7	-12.8	3.6	-13.0	-0.01	-0.39	-6.9	-0.01	-0.39	-0.05	0.01
I-2R1-J	535	536**	537	2.9	0.0	-8.6	3.2	-8.9	0.04	-0.20	10.6	0.03	-0.19	0.04	0.01
I-2R1-K	538	539	540	2.2	-1.5	-0.5	3.5	-1.9	0.10	-0.03	-30.0	0.07	0.00	-0.05	0.03
I-2R2-L	672	671	670	7.2	1.3	-11.9	7.6	-11.3	0.24	0.03	77.8	0.04	0.23	0.04	0.02
I-2R2-M	675	674	673	14.2	4.0	-4.8	14.3	-4.1	0.43	0.01	86.4	0.01	0.43	0.03	0.03
I-2R2-N	678	677	676	19.1	7.5	-6.3	19.1	-6.3	0.57	-0.02	-87.6	-0.02	0.57	-0.02	0.02
I-2R2-A	541	542	543	-14.0	-4.6	0.1	0.3	-12.8	-0.12	-0.42	82.9	-0.41	-0.12	0.04	0.02
I-2R2-B	544	545	546	-15.7	-14.6	-13.5	-13.5	-15.7	-0.60	-0.65	89.8	-0.65	-0.60	0.00	0.02
I-2R2-C	547	548	549	-3.4	-22.3	-38.6	-3.3	-38.7	-0.49	-1.31	-2.1	-0.49	-1.31	-0.03	0.02
I-2R2-D	550	551	552	-7.7	-10.8	-44.1	6.3	-45.7	-0.24	-1.45	10.1	-0.28	-1.41	0.21	0.02
I-2R2-E	553	554	555	3.7	1.9	-30.8	9.6	-36.7	-0.05	-1.11	20.9	-0.18	-0.98	0.36	0.03
I-2R2-F	556	557	558	3.3	-2.0	-20.5	5.0	-22.2	-0.06	-0.68	14.6	-0.10	-0.64	0.15	0.02
I-2R2-G	559	560	561	2.9	-0.8	-15.3	2.9	-15.3	-0.06	-0.48	-1.8	-0.06	-0.48	-0.01	0.02
I-2R2-H	562	563	564	2.4	-6.6	-11.3	2.7	-11.6	-0.02	-0.35	-8.9	-0.03	-0.35	-0.05	0.02
I-2R2-J	565	566	567	1.0	-7.2	-5.8	3.4	-8.3	0.03	-0.24	-27.1	-0.03	-0.18	-0.11	0.01
I-2R2-K	568	569	570	0.5	-5.6	-1.3	4.9	-5.7	0.11	-0.14	-40.0	0.00	-0.04	-0.12	0.01
I-2R3-A	571	572	573	0.5	2.5	1.3	2.6	-0.8	0.08	-0.00	51.7	0.03	0.05	0.04	0.01
I-2R3-B	574	575	576	-2.1	-1.2	4.1	4.9	-2.8	0.13	-0.04	-72.0	-0.03	0.12	-0.05	0.02
I-2R3-C	577	578	579	1.1	-1.2	0.9	3.2	-1.2	0.09	-0.01	-44.1	0.04	0.04	-0.05	0.01
I-2R3-D	580	581	582	5.0	7.1	-3.3	8.7	-9.0	0.20	-0.21	27.2	0.11	-0.12	0.17	0.01
I-2R3-E	583	584	585	6.7	13.2	-6.2	14.7	-14.3	0.34	-0.33	31.8	0.16	-0.14	0.30	0.01
I-2R3-F	586	587	588	-4.1	8.6	-4.0	8.6	-16.8	0.12	-0.47	45.1	-0.18	-0.17	0.29	0.01
I-2R3-G	589	590	591	-3.4	5.0	-0.5	5.1	-15.1	0.02	-0.45	40.7	-0.18	-0.25	0.23	0.01
I-2R3-H	592	593	594	0.0	2.0	-8.8	3.4	-12.1	-0.01	-0.37	27.6	-0.09	-0.29	0.15	0.00
I-2R3-J	595	596	597	2.8	-2.9	-8.1	2.8	-8.1	0.01	-0.24	-1.6	0.01	-0.24	-0.01	0.01
I-2R3-K	598	599	600	-2.5	-6.1	-1.5	2.0	-6.1	0.01	-0.18	-48.6	-0.10	-0.08	-0.09	0.02
I-2R4-A	608	609	690	5.1	12.6	0.1	12.6	-1.4	0.40	0.08	47.0	0.23	0.25	0.16	0.03
I-2R4-B	601	602	603	-5.0	8.5	-2.6	8.6	-16.1	0.12	-0.45	47.8	-0.19	-0.13	0.28	0.02
I-2R4-C	604	605	606	-6.5	8.2	-0.9	8.6	-16.0	0.12	-0.44	51.6	-0.22	-0.09	0.28	0.01
I-2R4-D	607	608	609	-3.1	0.6	-2.7	6.6	-12.5	0.10	-0.35	45.6	-0.13	-0.12	0.22	0.01
I-2R5-A	610	611	612	11.3	9.8	4.9	11.8	4.4	0.43	0.26	14.2	0.42	0.27	0.04	0.02
I-2R5-B	613	614	615	11.0	11.7	16.9	17.7	10.2	0.68	0.51	-71.7	0.53	0.67	-0.05	0.02
I-2R5-C	616	617	618	-0.6	11.1	28.4	28.6	-0.8	0.94	0.26	-84.5	0.26	0.93	-0.07	0.02
I-2R5-D	619	620	621	6.0	12.9	19.3	19.3	6.0	0.70	0.39	89.2	0.39	0.70	0.00	0.02
I-2R5-E	622	623	624	9.8	12.2	7.1	12.4	4.4	0.45	0.27	35.1	0.39	0.33	0.09	0.02
I-2R5-F	625	626	627	-2.1	7.0	0.9	7.2	-8.3	0.15	-0.20	50.6	-0.06	0.01	0.18	0.01
I-2R5-G	628	629	630	-10.9	13.0	1.8	5.3	-14.4	0.03	-0.42	65.1	-0.34	-0.05	0.17	0.01
I-2R5-H	631	632	633	-13.5	3.7	3.4	7.1	-17.2	0.08	-0.50	66.9	-0.41	-0.02	0.20	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI				TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
I-2R5-J	634	635	636	-15.9	4.7	3.7	8.5	-20.7	0.07	-0.60	66.1	-0.49	-0.04	0.25	0.02
I-2R5-K	637	638	639	-14.0	5.8	1.7	8.1	-20.4	0.07	-0.59	61.7	-0.45	-0.08	0.28	0.02
I-2R6-A	640	641	642	16.6	11.3	6.0	16.6	6.0	0.61	0.36	-0.3	0.61	0.36	-0.00	0.03
I-2R6-B	643	644	645	13.4	16.5	22.3	22.5	13.2	0.87	0.66	-81.5	0.66	0.87	-0.03	0.02
I-2R6-C	646	647	648	-2.3	17.7	38.3	38.3	-2.3	1.24	0.30	-89.6	0.30	1.24	-0.01	0.01
I-2R6-D	649	650	651	7.9	16.5	23.0	23.1	7.8	0.84	0.49	85.8	0.49	0.84	0.03	0.02
I-2R6-E	652	653	654	4.6	8.0	7.5	9.6	7.5	0.39	0.34	1.9	0.39	0.34	0.00	0.01
I-2R6-F	655	656	657	1.1	-1.2	-2.0	1.3	-2.2	0.02	-0.06	-13.9	0.02	-0.05	-0.02	0.01
I-2R6-G	658	659	660	-8.3	-6.7	-3.3	-3.1	-8.4	-0.19	-0.31	-80.0	-0.30	-0.19	-0.02	0.01
I-2R6-H	661	662	663	-14.2	-10.6	-2.4	-2.0	-14.6	-0.21	-0.50	-79.6	-0.49	-0.22	-0.05	0.01
I-2R6-J	664	665	666	-18.9	-11.2	-1.9	-1.8	-18.9	-0.25	-0.64	-87.3	-0.64	-0.25	-0.02	0.03
I-2R6-K	667	668	669	-19.4	-13.2	-3.1	-2.8	-19.7	-0.29	-0.68	-83.3	-0.67	-0.29	-0.05	0.03
O-1CR-1	724	728	727	-12.4	9.7	-0.7	10.7	-23.9	0.12	-0.66	-35.1	-0.15	-0.42	-0.38	0.01
O-1CR-2	732	732	730	-19.8	15.5	-7.2	16.2	-43.2	0.11	-1.27	-38.9	-0.43	-0.73	-0.67	0.02
O-1CR-3	735	735	733	-0.2	-2.0	-15.6	1.4	-17.2	-0.12	-0.55	-73.3	-0.52	-0.16	-0.12	0.02
O-2CR-1	738	737	736	-12.7	6.7	0.4	8.3	-20.5	0.07	-0.60	-31.4	-0.11	-0.41	-0.30	0.02
O-2CR-2	741	740	739	-25.7	12.9	-0.8	15.7	-42.2	0.10	-1.24	-32.3	-0.28	-0.85	-0.60	0.01
O-2CR-3	744	743	742*	-3.4	0.8	-10.6	1.6	-15.6	-0.10	-0.50	-57.2	-0.38	-0.22	-0.18	0.05
I-1CR-1	745	746	747	2.9	-10.6	-42.2	4.6	-43.9	-0.28	-1.40	10.9	-0.32	-1.36	0.21	0.01
I-1CR-2	748	749	750	7.4	10.3	-13.5	13.9	-20.0	0.26	-0.52	26.0	0.11	-0.37	0.31	0.02
I-1CR-3	751	752	753	8.5	10.7	7.9	10.7	5.6	0.41	0.29	41.7	0.36	0.34	0.06	0.02
I-2CR-1	754	755	756	3.5	-14.3	-47.5	4.7	-48.7	-0.33	-1.56	8.4	-0.35	-1.53	0.18	0.03
I-2CR-2	757	758	759	10.6	5.8	-21.3	14.1	-24.8	0.22	-0.68	17.5	0.14	-0.60	0.26	0.02
I-2CR-3	760	761	762	9.9	9.1	6.3	-10.2	6.0	0.40	0.30	14.7	0.39	0.31	0.02	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

COMBUSTION T-12, LOAD CASE 12, F2Z

NOMINAL LOAD = 1.647E 03

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
U-1K1-A	3	2	1	4.3	1.2	-2.7	4.4	-2.8	0.12	-0.05	-86.9	-0.05	0.12	-0.01	0.01
O-1K1-E	6	5	4	5.0	2.8	-0.6	5.1	-0.7	0.16	0.03	-83.8	0.03	0.16	-0.01	0.01
O-1K1-L	9	8	7	1.8	1.7	1.8	1.9	1.7	0.08	0.07	45.0	0.08	0.08	0.00	0.01
U-1K1-D	12	11	10	-2.5	-2.7	2.5	3.6	-3.6	0.08	-0.08	23.5	0.06	-0.06	0.06	0.01
O-1K1-F	15	14	13	-5.8	-5.5	3.6	5.4	-7.6	0.10	-0.20	21.6	0.06	-0.16	0.10	0.01
U-1K1-F	16	17	16	-8.4	-6.7	5.2	6.9	-10.1	0.13	-0.26	18.4	0.09	-0.23	0.12	0.01
O-1K1-G	21	20	19	-11.5	-6.0	7.4	8.2	-12.3	0.15	-0.32	11.3	0.13	-0.31	0.09	0.01
O-1K1-H	24	23	22	-14.7	-5.2	9.1	9.3	-14.9	0.16	-0.40	5.7	0.15	-0.39	0.06	0.01
O-1K1-J	27	26	25	-17.7	-5.2	8.5	8.6	-17.7	0.11	-0.50	1.5	0.11	-0.50	0.02	0.01
O-1K1-K	30	29	28	-18.6	-7.6	8.9	9.1	-19.0	0.11	-0.54	5.4	0.11	-0.53	0.06	0.01
O-1K1-L	162	161	160	-19.9	-5.9	7.7	7.7	-19.9	0.06	-0.58	-0.5	0.06	-0.58	-0.01	0.02
O-1K1-M	165	164	165	-16.9	-3.8	6.0	6.1	-17.0	0.03	-0.50	-4.0	0.03	-0.50	-0.04	0.02
O-1K1-N	168	167	166	-9.8	-2.8	3.5	3.5	-9.8	0.02	-0.29	-1.8	0.02	-0.29	-0.01	0.01
O-1K1-U	171**	170	169	0.0	2.2	0.0	2.2	-2.1	0.05	-0.05	-44.7	0.00	0.00	-0.05	0.00
O-1R2-A	33	32	31	3.5	-1.4	-3.4	3.8	-3.6	0.09	-0.08	78.7	-0.08	0.08	0.03	0.01
U-1R2-B	36	35	34	4.7	-0.3	0.2	5.9	-1.1	0.18	0.02	65.0	0.05	0.15	0.06	0.02
O-1R2-C	39	38	37	-0.2	0.4	2.1	2.3	-0.3	0.07	0.01	13.4	0.07	0.01	0.02	0.01
O-1R2-D	42	41	40	-6.3	0.9	3.2	3.8	-6.9	0.06	-0.19	-13.8	0.04	-0.18	-0.06	0.01
O-1R2-E	45	44	43	-6.7	2.3	2.9	4.9	-10.6	0.06	-0.30	-20.8	0.01	-0.26	-0.12	0.01
O-1R2-F	48	47	46	-12.3	1.1	3.1	5.0	-14.2	0.02	-0.42	-18.4	-0.02	-0.37	-0.13	0.01
O-1R2-G	51	50	49	-15.9	-0.1	4.4	5.7	-17.3	0.02	-0.51	-13.8	-0.01	-0.48	-0.12	0.02
O-1R2-H	54	53	52	-18.5	-3.3	4.5	5.1	-19.1	-0.02	-0.58	-9.1	-0.04	-0.57	-0.09	0.01
O-1R2-J	57	56	55	-20.4	-7.9	6.0	6.0	-20.9	-0.01	-0.63	1.0	-0.01	-0.63	0.01	0.01
O-1R2-K	60	59	58	-21.3	-9.0	6.7	6.8	-21.4	0.01	-0.64	3.5	0.01	-0.63	0.04	0.02
O-1R3-A	63	62	61	0.5	-1.3	-0.0	1.8	-1.3	0.05	-0.03	50.0	0.00	0.02	0.04	0.01
O-1R3-B	66	65	64	-0.2	-0.6	1.8	2.5	-0.9	0.07	-0.01	26.9	0.06	0.01	0.03	0.01
O-1R3-C	69	68	67	-3.2	0.2	2.5	2.5	-3.3	0.05	-0.08	-5.6	0.05	-0.08	-0.01	0.01
O-1R3-D	72	71	70	-7.1	2.5	2.3	4.4	-9.2	0.05	-0.26	-22.9	0.01	-0.21	-0.11	0.01
O-1R3-E	75	74	73	-6.7	3.6	-2.2	3.9	-12.7	0.00	-0.38	-37.1	-0.14	-0.24	-0.16	0.01
U-1R3-F	78	77	76	-8.1	3.8	-2.0	4.3	-14.4	-0.00	-0.43	-35.6	-0.15	-0.29	-0.20	0.01
O-1R3-G	81	80	79	-10.3	2.7	-1.6	3.8	-15.6	-0.03	-0.48	-31.6	-0.15	-0.35	-0.20	0.01
U-1R3-H	84	83	82	-14.2	2.6	0.9	5.3	-18.6	-0.01	-0.56	-25.3	-0.11	-0.46	-0.21	0.01
U-1R3-J	87	86	85	-17.7	-1.0	2.8	4.7	-19.6	-0.04	-0.60	-16.1	-0.08	-0.56	-0.15	0.02
O-1R3-K	90	89	88	-20.7	-7.3	4.0	4.7	-20.7	-0.05	-0.64	-1.6	-0.05	-0.64	-0.02	0.02
O-1R4-A	681	680	679	-3.4	2.0	-5.4	2.1	-10.8	-0.04	-0.34	-49.4	-0.21	-0.16	-0.15	0.01
O-1R4-E	93	92	91	-3.4	3.4	-5.4	3.5	-12.3	-0.01	-0.37	-48.7	-0.21	-0.17	-0.18	0.02
O-1R4-C	96	95	94	-6.7	4.5	-4.1	4.6	-15.5	-0.00	-0.46	-41.3	-0.20	-0.26	-0.23	0.02
O-1R4-L	99	98	97	-20.6	1.4	-3.0	4.0	-27.7	-0.14	-0.87	-28.1	-0.30	-0.71	-0.30	0.02
O-1R5-A	102	101	100	-0.5	0.2	1.9	2.0	-0.7	0.06	-0.00	11.4	0.06	0.00	0.01	0.01
O-1R5-B	105	104	103	-1.1	0.9	1.9	2.0	-1.2	0.05	-0.02	-9.9	0.05	-0.02	-0.01	0.01
O-1R5-C	106	107	106	-1.9	1.3	0.9	1.8	-2.7	0.03	-0.07	-25.9	0.01	-0.05	-0.04	0.01
O-1R5-D	111	110	109	-3.6	1.4	-0.5	1.7	-5.8	-0.00	-0.17	-33.0	-0.05	-0.12	-0.08	0.01
O-1R5-F	114	113	112	-2.4	0.6	-3.1	0.7	-6.2	-0.04	-0.20	-48.1	-0.13	-0.11	-0.08	0.01
U-1R5-F	117	116	115	-3.0	1.6	-3.6	1.6	-8.2	-0.03	-0.26	-46.8	-0.15	-0.14	-0.11	0.02
O-1R5-G	120	119	118	-0.9	1.1	-5.1	1.6	-7.6	-0.02	-0.23	-58.8	-0.18	-0.08	-0.09	0.02
U-1R5-H	123	122	121	-1.1	3.1	-5.4	3.4	-10.0	0.01	-0.29	-54.3	-0.19	-0.09	-0.15	0.01
U-1R5-J	126	125	124	0.2	2.6	-6.7	3.5	-10.0	0.02	-0.29	-60.4	-0.22	-0.06	-0.13	0.01
O-1R5-K	129	128	127	-2.8	3.4	-9.7	4.0	-16.5	-0.01	-0.51	-54.8	-0.35	-0.19	-0.22	0.02
U-1R6-A	132**	131	130	0.0	1.7	-0.0	1.7	-1.7	0.05	-0.04	-45.1	-0.00	-0.00	-0.04	0.01
O-1R6-B	135	134	133	0.3	1.9	-0.2	2.0	-1.9	0.05	-0.04	-48.5	-0.00	0.01	-0.04	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(I)	SIG(T)	TAU	CUNF
U-1K6-C	138**	137	136	0.0	1.3	0.5	1.3	-0.8	0.04	-0.01	-37.9	0.02	0.01	-0.02	0.01
U-1K6-D	141	140*	139**	0.3	-1.0	0.0	1.3	-1.0	0.03	-0.02	48.3	0.00	0.01	0.03	0.03
U-1K6-E	142	143**		0.2	0.0	0.2	0.5	-0.0	0.01	0.00	43.4	0.01	0.01	0.01	0.02
U-1K6-F	147	145	145	3.7	0.1	0.2	0.9	0.0	0.03	0.01	65.4	0.01	0.03	0.01	0.01
U-1K6-G	150	149	148	-0.0	0.3	0.1	0.3	-0.2	0.01	-0.00	-36.6	0.00	0.00	-0.01	0.00
U-1K6-H	153	152	151	0.6	1.2	0.1	1.2	-0.5	0.03	-0.00	-54.3	0.01	0.02	-0.02	0.02
U-1K6-J	156	155	154	0.1	0.8	-0.1	0.8	-0.8	0.02	-0.02	-47.9	-0.00	0.00	-0.02	0.00
U-1K6-K	159	158	157	0.2	2.8	0.1	2.8	-2.5	0.07	-0.05	-43.2	0.01	0.01	-0.06	0.01
U-2K1-A	174	173	172	-4.1	1.0	3.6	3.8	-4.3	0.08	-0.11	-9.0	0.08	-0.10	-0.03	0.01
U-2K1-B	177	176	175	-3.4	-0.3	0.8	1.0	-3.7	-0.00	-0.11	-13.1	-0.01	-0.11	-0.02	0.01
U-2K1-C	180	179	178	-0.6	-1.9	-1.1	0.3	-2.0	-0.01	-0.06	51.7	-0.04	-0.03	0.03	0.01
U-2K1-D	183	182	181	4.5	-2.9	-2.0	6.5	-4.0	0.18	-0.07	64.1	-0.02	0.13	0.10	0.01
U-2K1-E	186	185	184	7.3	-3.2	-4.7	8.8	-6.2	0.23	-0.12	71.6	-0.08	0.19	0.10	0.02
U-2K1-F	189	188	187	10.9	-1.5	-5.3	12.0	-6.4	0.33	-0.09	76.0	-0.07	0.31	0.10	0.01
U-2K1-G	192	191	190	13.7	0.2	-8.0	14.0	-8.3	0.38	-0.14	83.1	-0.13	0.37	0.06	0.02
U-2K1-H	195	194	193	15.8	1.8	-9.3	15.9	-9.4	0.43	-0.15	86.8	-0.15	0.43	0.03	0.01
U-2K1-J	198	197	196	18.5	3.7	-9.7	18.5	-9.7	0.51	-0.14	88.5	-0.14	0.51	0.02	0.01
U-2K1-K	201	200	199	20.6	-5.3	-8.7	20.6	-8.7	0.59	-0.08	88.7	-0.08	0.59	0.01	0.01
U-2K1-L	203	202	201	20.7	8.4	-8.3	20.8	-8.4	0.60	-0.07	-85.8	-0.07	0.60	-0.05	0.02
U-2K1-M	206	205	204	17.3	8.6	-6.0	17.7	-6.4	0.52	-0.04	-82.5	-0.03	0.51	-0.07	0.01
U-2K1-N	209	208	207	10.2	6.1	-2.4	10.5	-2.8	0.32	0.01	-80.1	0.02	0.31	-0.05	0.01
U-2K2-A	204	203	202	0.4	3.9	0.5	3.9	-3.0	0.10	-0.06	-44.7	0.02	0.02	-0.08	0.01
U-2K2-B	207	206	205	0.7	3.0	-0.2	3.0	-2.4	0.07	-0.03	-49.5	0.00	0.02	-0.06	0.01
U-2K2-C	210	209	208	2.9	-0.5	-1.4	3.2	-1.7	0.09	-0.02	74.6	-0.02	0.08	0.03	0.01
U-2K2-D	213	212	211	7.8	-5.1	-2.7	11.9	-6.8	0.33	-0.10	62.2	-0.01	0.23	0.18	0.01
U-2K2-E	216	215	214	11.0	-5.2	-1.9	17.4	-7.3	0.50	-0.07	62.0	0.06	0.37	0.24	0.01
U-2K2-F	219	218	217	14.6	-4.4	-0.6	20.7	-6.7	0.62	-0.02	61.9	0.12	0.48	0.20	0.01
U-2K2-G	222	221	220	19.3	-0.3	-3.9	21.9	-6.4	0.65	0.01	72.6	0.06	0.60	0.19	0.01
U-2K2-H	225	224	223	20.9	1.9	-5.5	22.1	-6.7	0.66	-0.00	78.1	0.02	0.63	0.13	0.01
U-2K2-J	228	227	226	23.5	8.4	-7.3	23.5	-7.3	0.70	-0.01	-89.5	-0.01	0.70	-0.01	0.02
U-2K2-K	231	230	229	22.8	8.7	-7.9	22.9	-7.9	0.68	-0.03	-87.8	-0.03	0.67	-0.03	0.01
U-2K3-A	234	233	232	3.9	1.1	-4.7	4.1	-4.9	0.09	-0.12	-80.4	-0.12	0.08	-0.03	0.02
U-2K3-B	237	236	235	3.5	1.6	-2.3	3.7	-2.5	0.10	-0.04	-81.1	-0.04	0.09	-0.02	0.01
U-2K3-C	240	239	238	4.2	-0.1	-1.1	4.7	-1.6	0.14	-0.01	73.9	0.00	0.13	0.04	0.02
U-2K3-D	243	242	241	4.0	-3.1	0.6	7.9	-3.3	0.23	-0.03	53.7	0.06	0.14	0.12	0.01
U-2K3-E	246	245	244	8.2	-2.6	4.8	13.6	-2.6	0.42	0.05	47.5	0.22	0.25	0.19	0.01
U-2K3-F	249	248	247	9.3	-2.3	4.3	16.3	-2.7	0.51	0.07	52.7	0.23	0.35	0.21	0.02
U-2K3-G	252	251	250	10.6	-2.9	4.1	18.0	-3.4	0.56	0.07	53.8	0.24	0.39	0.24	0.02
U-2K3-H	255	254	253	16.6	-2.8	-1.4	21.3	-6.2	0.64	0.01	65.4	0.12	0.53	0.24	0.02
U-2K3-J	258	257	256	19.9	-0.5	-2.1	22.6	-6.7	0.68	0.00	72.5	0.06	0.62	0.19	0.01
U-2K3-K	261	260	259	23.4	7.0	-7.5	23.5	-7.6	0.70	-0.02	88.3	-0.02	0.70	0.02	0.02
U-2K4-A	264	263	262	3.0	0.5	4.9	7.5	0.4	0.25	0.09	37.4	0.19	0.15	0.08	0.02
U-2K4-B	267	266	265	4.1	-1.3	6.2	11.7	-1.4	0.37	0.07	40.5	0.24	0.20	0.15	0.02
U-2K4-C	270	269	268	5.4	-4.3	7.8	17.6	-4.4	0.54	0.03	41.8	0.31	0.25	0.25	0.02
U-2K4-D	273	272	271	17.5	-2.6	16.5	36.6	-2.6	1.18	0.28	45.7	0.72	0.74	0.45	0.02
U-2K5-A	276	275	274	3.3	-4.0	-5.1	3.6	-5.7	0.05	-0.18	75.9	-0.17	0.04	0.06	0.01
U-2K5-B	279	278	277	2.5	-1.0	-3.1	2.6	-3.2	0.05	-0.08	83.4	-0.08	0.05	0.02	0.01
U-2K5-C	282	281	280	0.6	0.3	-0.2	0.7	-0.3	0.02	-0.00	-72.5	-0.00	0.02	-0.01	0.01
U-2K5-D	285	284	283	-0.2	4.8	3.8	5.4	-1.7	0.16	-0.00	-28.0	0.12	0.03	-0.07	0.01
U-2K5-E	288	287	286	-2.4	5.3	6.5	7.5	-3.6	0.21	-0.04	-18.7	0.18	-0.02	-0.08	0.01
U-2K5-F	291	290	289	-0.9	4.4	6.1	6.5	-1.3	0.20	0.02	-13.7	0.19	0.03	-0.04	0.01
U-2K5-G	294	293	292	-1.6	1.9	6.2	6.2	-1.6	0.19	0.01	3.1	0.19	0.01	0.01	0.01
U-2K5-H	297	296	295	-0.9	0.0	7.3	8.4	-2.0	0.26	0.02	18.8	0.23	0.04	0.07	0.02
U-2K5-J	300	299	298	-2.0	-1.0	8.8	10.4	-3.6	0.31	-0.02	19.5	0.27	0.02	0.10	0.02
U-2K6-A	303	302	301	0.8	-1.0	12.0	15.7	-2.9	0.49	0.06	26.4	0.40	0.14	0.17	0.01
U-2K6-B	306	305	304	-0.8	-4.4	0.0	3.6	-4.4	0.07	-0.11	41.9	-0.01	-0.03	0.09	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

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LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF	
0-2R6-B	306	305	304	-0.2	-2.4	-1.5	0.8	-2.5	0.00	-0.08	56.9	-0.05	-0.02	0.04	0.01	
0-2R6-C	309	308	307	-0.5	1.0	-0.1	1.6	-2.3	0.03	-0.06	-42.0	-0.01	-0.02	-0.04	0.01	
0-2R6-D	312	311	310	-0.3	6.7	0.1	6.7	-7.0	0.15	-0.16	-44.3	-0.00	-0.01	-0.16	0.01	
0-2R6-E	315	314	313	1.3	8.4	-1.1	8.5	-8.3	0.20	-0.19	-49.2	-0.02	0.03	-0.19	0.01	
0-2R6-F	318	317	316	-0.4	7.5	0.7	7.5	-7.2	0.18	-0.16	-42.9	0.02	-0.00	-0.17	0.01	
0-2R6-G	321	320	319	0.4	6.2	0.2	6.2	-5.7	0.15	-0.12	-45.5	0.01	0.01	-0.14	0.01	
0-2R6-H	324	323	322	0.7	4.8	0.1	4.8	-4.0	0.12	-0.08	-47.1	0.01	0.02	-0.10	0.01	
0-2R6-J	327	326	325	0.7	5.0	0.3	5.0	-4.0	0.12	-0.08	-46.6	0.02	0.03	-0.10	0.01	
0-2R6-K	330	329	328	0.4	3.9	-0.1	3.9	-3.6	0.09	-0.08	-46.8	0.00	0.01	-0.09	0.01	
I-1R1-A	340	341	342	-3.5	-2.0	1.2	1.8	-4.1	0.02	-0.12	-71.9	-0.10	0.01	-0.04	0.01	
I-1R1-B	343	344	345	-5.3	-5.0	-4.3	-4.3	-5.3	-0.19	-0.22	-79.8	-0.22	-0.19	-0.20	0.02	
I-1R1-C	346	347	348	-3.2	-9.2	-14.5	-3.2	-14.5	-0.25	-0.51	-1.8	-0.25	-0.51	-0.01	0.02	
I-1R1-D	349	350	351	0.5	-12.4	-20.3	0.8	-20.6	-0.18	-0.67	-6.8	-0.18	-0.67	-0.06	0.01	
I-1R1-E	352	353	354	2.0	-11.7	-20.3	3.4	-21.0	-0.10	-0.66	-6.8	-0.10	-0.65	-0.07	0.02	
I-1R1-F	355	356	357	7.0	-8.9	-21.8	7.0	-21.8	0.02	-0.65	-2.9	0.01	-0.65	-0.03	0.02	
I-1R1-G	358	359	360	8.9	-7.5	-23.0	8.9	-23.0	0.07	-0.67	-0.8	0.07	-0.67	-0.01	0.01	
I-1R1-H	361	362	363	9.4	-8.2	-24.0	9.5	-24.1	0.07	-0.70	-1.6	0.07	-0.70	-0.02	0.02	
I-1R1-J	364	365	366	10.1	-7.4	-23.9	10.1	-23.9	0.10	-0.69	-0.8	0.10	-0.69	-0.01	0.02	
I-1R1-K	367	368	369	9.6	-5.7	-21.8	9.6	-21.8	0.10	-0.62	0.7	0.10	-0.62	0.01	0.01	
I-1R1-L	369	370	371	7.9	-5.7	-19.4	7.9	-19.4	0.07	-0.56	0.1	0.07	-0.56	0.00	0.02	
I-1R1-M	372	373	374	6.8	-3.8	-14.5	6.8	-14.5	0.08	-0.41	0.0	0.08	-0.41	0.00	0.01	
I-1R1-N	375	376	377	5.6	-0.5	-7.7	3.9	-6.1	0.05	-0.23	9.9	0.04	-0.22	0.05	0.01	
I-1R1-U	378	379	380	2.8	0.3	0.5	3.4	-0.1	0.11	0.03	-24.1	0.10	0.04	-0.03	0.02	
I-1R2-A	370	371	372	-3.2	-1.0	0.2	0.2	-3.2	-0.02	-0.10	81.5	-0.10	-0.03	0.01	0.01	
I-1R2-B	373	374	375	-4.9	-3.1	-2.7	-2.5	-5.0	-0.13	-0.19	74.6	-0.19	-0.14	0.02	0.02	
I-1R2-C	376	377	378	-2.1	-7.0	-11.7	-2.1	-11.7	-0.19	-0.41	-0.8	-0.19	-0.41	-0.00	0.01	
I-1R2-L	379	380	381	-1.8	-1.2	-12.3	0.8	-11.9	-0.12	-0.48	24.1	-0.18	-0.42	0.14	0.01	
I-1R2-E	382	383	384	0.1	0.1	-10.7	2.4	-12.9	-0.05	-0.40	22.4	-0.10	-0.35	0.12	0.01	
I-1R2-F	385	386	387	3.5	-1.4	-13.4	4.1	-14.0	-0.00	-0.42	10.1	-0.02	-0.41	0.07	0.01	
I-1R2-G	388	389	390	5.2	-0.5	-14.4	6.0	-15.2	0.05	-0.44	11.4	0.03	-0.42	0.09	0.02	
I-1R2-H	391	392	393	5.5	-2.2	-15.8	5.9	-16.3	0.03	-0.48	7.7	0.02	-0.47	0.07	0.01	
I-1R2-J	394	395	396	7.2	-5.0	-16.5	7.3	-16.5	0.08	-0.47	-1.0	0.08	-0.47	-0.01	0.04	
I-1R2-K	397	398	399	6.4	-4.5	-17.7	6.5	-17.8	0.04	-0.52	2.7	0.04	-0.52	0.03	0.02	
I-1R3-A	400	401	402	-1.7	-0.4	-0.2	-0.0	-1.9	-0.02	-0.06	70.1	-0.06	-0.02	0.01	0.01	
I-1R3-B	403	404	405	-2.1	-0.5	0.5	0.5	-2.1	-0.00	-0.06	82.8	-0.06	-0.00	0.01	0.01	
I-1R3-C	406	407	408	-0.1	-0.6	-0.9	-0.1	-0.9	-0.01	-0.03	-7.3	-0.01	-0.03	-0.00	0.01	
I-1R3-D	409	410	411	0.5	1.1	-2.3	1.5	-3.3	0.02	-0.09	27.0	-0.00	-0.07	0.04	0.02	
I-1R3-E	412	413	414	0.3	2.4	-1.6	2.5	-3.8	0.05	-0.10	36.4	-0.01	-0.05	0.07	0.02	
I-1R3-F	415	416	417	-1.8	1.4	-5.5	1.7	-9.0	-0.03	-0.28	34.9	-0.11	-0.20	0.12	0.02	
I-1R3-G	418	419	420	-3.0	3.1	-5.7	3.3	-12.0	-0.01	-0.36	39.9	-0.16	-0.22	0.17	0.01	
I-1R3-H	421	422	423	-3.7	4.4	-8.0	4.6	-16.3	-0.01	-0.49	39.0	-0.20	-0.30	0.24	0.01	
I-1R3-J	424	425	426	4.3	-0.8	-16.2	5.6	-17.4	0.01	-0.52	13.4	-0.02	-0.49	0.12	0.02	
I-1R3-K	427	428	429	6.3	-4.3	-19.0	6.4	-19.1	0.02	-0.57	4.6	0.02	-0.56	0.05	0.02	
I-1R4-A	430	431	432	-0.1	1.8	0.1	1.8	-1.9	0.04	-0.04	46.6	-0.00	0.00	0.04	0.01	
I-1R4-B	433	434	435	-4.5	1.8	-1.6	2.1	-8.1	-0.01	-0.25	53.2	-0.16	-0.10	0.11	0.01	
I-1R4-C	436	437	438	-5.0	7.1	-6.5	4.1	-15.6	-0.02	-0.47	42.9	-0.23	-0.26	0.23	0.01	
I-1R4-D	439	440	441	-1.7	4.7	-13.3	6.0	-21.0	-0.01	-0.63	32.3	-0.19	-0.46	0.28	0.02	
I-1R5-A	442	443	444	0.5	2.2	0.0	2.2	-1.7	0.06	-0.03	41.4	0.02	0.01	0.05	0.02	
I-1R5-B	445	446	447	0.3	0.5	2.8	3.1	-0.1	0.10	0.03	-70.6	0.04	0.09	-0.02	0.01	
I-1R5-C	448	449	450	-0.5	0.4	4.3	4.7	-0.9	0.14	0.02	-74.4	0.02	0.14	-0.03	0.01	
I-1R5-D	451	452	453	-0.1	-0.2	1.7	2.2	-0.6	0.07	0.00	-65.5	0.01	0.06	-0.02	0.01	
I-1R5-E	454	455	456	0.4	-0.6	0.4	0.8	-0.0	0.03	0.01	-47.5	0.02	0.02	-0.01	0.01	
I-1R5-F	457	458	459	-2.4	0.4	-0.5	0.7	-3.5	-0.01	-0.11	58.4	-0.08	-0.04	0.04	0.01	
I-1R5-G	460	461	462	-3.8	0.8	-0.7	1.2	-5.6	-0.02	-0.17	58.8	-0.13	-0.06	0.07	0.01	
I-1R5-H	463	464	465	-6.1	0.8	-0.2	1.7	-8.0	-0.02	-0.25	63.3	-0.20	-0.07	0.09	0.01	
I-1R5-J	466	467	468	-7.8	1.5	-0.3	2.7	-10.7	-0.02	-0.33	62.0	-0.26	-0.09	0.13	0.01	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)			
I-1R5- A	466	467	468	-10.1	1.2	-1.3	2.4	-13.8	-0.06	-0.43	61.4	-0.35	-0.14	0.16	0.01	
I-1R5- B	469	470**	471	0.2	0.0	-0.1	0.2	-0.1	0.01	-0.66	-13.9	0.01	-0.00	-0.00	0.00	
I-1R5- C	472	473**	474	-0.0	0.0	0.3	0.4	-0.1	0.01	0.00	-69.0	0.00	0.01	-0.00	0.00	
I-1R6- C	475	476	477	0.1	-2.3	-0.5	1.9	-2.3	0.04	-0.06	-41.3	-0.00	-0.02	-0.05	0.01	
I-1R6- D	478	479	480	-0.0	-3.0	-0.4	2.5	-3.0	0.05	-0.07	-43.0	-0.01	-0.01	-0.06	0.01	
I-1R6- E	481	482	483	0.2	-1.6	-0.5	1.6	-1.9	0.03	-0.05	-39.3	0.00	-0.01	-0.04	0.01	
I-1R6- F	484**	485	486	0.0	0.1	-0.2	0.1	-0.3	0.00	-0.01	29.3	-0.00	-0.01	0.00	0.00	
I-1R6- G	487	488	489	0.0	1.0	-0.5	1.0	-1.3	0.02	-0.03	41.4	-0.00	-0.01	0.03	0.01	
I-1R6- H	490	491	492	-0.2	0.8	1.2	1.2	-0.3	0.04	0.06	78.8	0.00	0.04	0.01	0.02	
I-1R6- J	493	494	495	-0.5	0.3	-0.0	0.4	-0.6	0.01	-0.02	52.4	-0.01	-0.00	0.01	0.00	
I-1R6- K	496	497	498	-0.2	0.4	0.0	0.4	-0.6	0.01	-0.02	51.8	-0.01	-0.00	0.01	0.00	
I-2R1- A	511	512	513	2.7	0.4	-0.3	2.9	-0.5	0.09	0.01	-14.3	0.09	0.02	-0.02	0.01	
I-2R1- B	514	515	516	5.0	3.8	1.7	5.1	1.6	0.18	0.10	8.1	0.18	0.11	0.01	0.01	
I-2R1- C	517	518	519	2.3	8.3	13.7	13.7	2.3	0.47	0.21	88.6	0.21	0.47	0.01	0.01	
I-2R1- D	520	521	522	-1.4	6.0	18.3	18.6	-1.7	0.60	0.13	-83.2	0.13	0.59	-0.06	0.01	
I-2R1- E	523	524	525	-7.4	5.6	19.6	19.8	-4.6	0.61	0.04	-85.3	0.05	0.60	-0.05	0.01	
I-2R1- F	526	527	528	-7.1	5.3	20.5	20.6	-7.2	0.61	-0.03	-97.1	-0.03	0.61	-0.03	0.02	
I-2R1- G	529	530	531	-8.6	7.1	22.5	22.5	-8.6	0.66	-0.06	89.8	-0.06	0.66	0.00	0.01	
I-2R1- H	532	533	534	-8.1	6.0	23.3	23.3	-8.1	0.69	-0.04	89.2	-0.04	0.69	0.01	0.02	
I-2R1- J	535	536**	537	-8.2	0.0	24.0	25.9	-10.0	0.75	-0.07	-76.9	-0.03	0.71	-0.18	0.01	
I-2R1- K	538	539	540	-8.1	8.3	21.7	21.7	-8.2	0.64	-0.05	87.2	-0.05	0.63	0.03	0.01	
I-2R1- L	541	542	543	18.7	6.0	-6.5	18.7	-6.5	0.55	-0.03	89.9	-0.03	0.55	0.00	0.01	
I-2R1- M	544	545	546	14.9	6.1	-5.5	15.0	-5.6	0.44	-0.04	-86.1	-0.03	0.44	-0.03	0.01	
I-2R2- A	547	548	549	0.4	-1.1	-1.6	0.4	-1.7	-0.00	-0.05	-12.3	-0.00	-0.05	-0.01	0.01	
I-2R2- B	550	551	552	-0.5	-3.4	1.2	6.1	-3.4	0.15	-0.12	-49.2	-0.01	0.03	-0.13	0.01	
I-2R2- C	553	554	555	-2.2	-8.0	3.1	9.3	-8.4	0.22	-0.18	-53.7	-0.04	0.08	-0.20	0.01	
I-2R2- D	556	557	558	-4.1	-6.0	8.2	12.1	-8.1	0.32	-0.15	-63.7	-0.05	0.23	-0.18	0.01	
I-2R2- E	559	560	561	-3.3	-2.1	12.3	14.7	-5.7	0.43	-0.04	-70.0	0.01	0.37	-0.15	0.01	
I-2R2- F	562	563	564	-3.6	0.2	15.8	17.5	-5.3	0.32	-0.00	-74.4	0.04	0.49	-0.14	0.01	
I-2R2- G	565	566	567	-5.1	4.7	18.7	18.9	-5.3	0.57	0.01	-84.9	0.02	0.57	-0.05	0.02	
I-2R2- H	568	569	570	-5.6	6.5	20.7	20.7	-5.7	0.63	0.02	-87.9	0.02	0.63	-0.02	0.01	
I-2R3- A	571	572	573	-4.6	-2.3	-0.4	-0.3	-4.6	-0.06	-0.16	87.0	-0.16	-0.06	0.01	0.01	
I-2R3- B	574	575	576	-4.1	-4.8	-6.4	-4.0	-6.5	-0.20	-0.25	9.8	-0.20	-0.25	0.01	0.02	
I-2R3- C	577	578	579	0.5	-9.2	-14.1	0.8	-14.5	-0.12	-0.47	-8.9	-0.12	-0.46	-0.05	0.02	
I-2R3- D	580	581	582	-0.7	-7.5	-11.3	-0.5	-11.5	-0.13	-0.38	-7.9	-0.13	-0.38	-0.03	0.01	
I-2R3- E	583	584	585	-2.4	-7.7	-6.4	-0.6	-8.3	-0.10	-0.28	-24.3	-0.14	-0.24	-0.08	0.01	
I-2R3- F	586	587	588	5.5	-5.5	-1.1	10.5	-6.2	0.29	-0.10	-33.3	0.17	0.02	-0.18	0.01	
I-2R3- G	589	590	591	5.4	-6.3	4.1	15.8	-6.3	0.46	-0.05	-43.4	0.22	0.19	-0.26	0.01	
I-2R3- H	592	593	594	4.2	-6.3	9.5	20.2	-6.6	0.60	-0.02	-50.7	0.23	0.35	-0.30	0.01	
I-2R3- J	595	596	597	-2.5	-2.0	18.4	22.4	-6.5	0.67	0.01	-68.1	0.10	0.58	-0.23	0.01	
I-2R3- K	598	599	600	-6.4	8.9	24.7	24.7	-6.4	0.75	0.03	-84.6	0.03	0.75	-0.01	0.01	
I-2R4- A	601	602	603	-0.5	-3.5	-6.5	-0.5	-6.5	-0.08	-0.22	0.1	-0.08	-0.22	0.00	0.02	
I-2R4- B	604	605	606	11.7	-2.9	0.6	17.7	-5.3	0.31	-0.04	-31.5	0.22	0.06	-0.15	0.02	
I-2R4- C	607	608	609	14.7	-3.7	2.0	22.0	-5.3	0.53	-0.00	-30.6	0.39	0.14	-0.23	0.01	
I-2R4- D	610	611	612	-3.3	-1.4	-0.3	-0.3	-3.4	-0.04	-0.11	82.6	-0.11	-0.04	0.01	0.01	
I-2R4- E	613	614	615	-3.9	-3.4	-4.6	-3.3	-5.2	-0.16	-0.20	34.6	-0.17	-0.19	0.02	0.02	
I-2R4- F	616	617	618	1.2	-3.5	-10.8	1.4	-11.0	-0.06	-0.35	6.1	-0.07	-0.35	0.03	0.01	
I-2R4- G	619	620	621	-2.5	-0.3	-7.1	0.3	-9.8	-0.09	-0.32	31.5	-0.15	-0.26	0.10	0.01	
I-2R4- H	622	623	624	-0.3	-0.3	-4.6	0.6	-5.6	-0.03	-0.18	22.9	-0.06	-0.16	0.05	0.01	
I-2R4- J	625	626	627	3.7	1.9	-2.2	3.9	-2.4	0.11	-0.04	10.9	0.10	-0.04	0.03	0.01	
I-2R4- K	628	629*	630	6.6	0.0	-2.5	7.0	-2.9	0.20	-0.03	-12.0	0.19	-0.02	-0.05	0.02	
I-2R4- L	631	632	633	8.9	2.1	-2.2	9.0	-2.3	0.27	0.01	-6.5	0.27	0.02	-0.03	0.02	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

THIS TEST PERFORMED BY THE MISSOURI ELECTRIC COMPANY

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-2R5-J	634	635	636	12.3	2.5	-3.0	12.6	-3.3	0.38	0.02	-8.0	0.38	0.02	-0.05	0.02
I-2R5-K	637	638	639	13.7	1.9	-1.9	14.7	-2.8	0.46	0.05	-13.6	0.43	0.07	-0.09	0.01
I-2R6-A	640	641	642	0.2	1.2	0.2	1.2	-0.7	0.03	-0.01	44.8	0.01	0.01	0.02	0.01
I-2R6-B	643	644	645	0.1	1.8	0.9	1.9	-0.9	0.05	-0.01	53.6	0.01	0.03	0.03	0.01
I-2R6-C	646	647	648	-0.2	3.7	2.5	4.0	-1.7	0.12	-0.02	59.0	0.02	0.08	0.06	0.01
I-2R6-D	649	650	651	0.4	5.5	1.2	5.5	-3.8	0.14	-0.07	47.3	0.03	0.04	0.11	0.01
I-2R6-E	652	653	654	-0.3	5.3	1.4	5.3	-4.3	0.13	-0.09	50.1	0.00	0.04	0.11	0.01
I-2R6-F	655	656	657	-0.4	4.0	-0.6	4.0	-5.0	0.08	-0.13	44.4	-0.02	-0.02	0.10	0.01
I-2R6-G	658	659	660	-0.0	3.2	-0.2	3.2	-3.4	0.07	-0.08	44.2	-0.00	-0.01	0.08	0.01
I-2R6-H	661	662	663	-0.3	3.1	0.1	3.1	-3.3	0.07	-0.08	47.0	-0.01	0.00	0.07	0.01
I-2R6-J	664	665	666	-0.3	2.9	0.4	2.9	-2.7	0.07	-0.06	48.6	-0.00	0.01	0.06	0.01
I-2R6-K	667	668	669	-1.2	3.4	0.4	3.5	-4.3	0.07	-0.11	51.0	-0.04	0.00	0.09	0.01
O-1CR-12	729	728	727	-6.6	0.7	3.8	4.2	-7.0	0.07	-0.19	-11.1	0.06	-0.18	-0.05	0.01
O-1CR-23	732	731	730	-7.8	4.0	-0.2	4.9	-12.8	0.03	-0.37	-32.3	-0.08	-0.26	-0.18	0.01
O-1CR-56	735	734	733	-0.3	-0.8	-1.7	-0.2	-1.7	-0.03	-0.06	-82.5	-0.06	-0.03	-0.00	0.01
O-2CR-12	738	737	736	7.3	-5.9	-1.8	12.6	-7.0	0.34	-0.11	58.9	0.01	0.22	0.20	0.01
O-2CR-23	741	740	739	10.0	-4.6	2.1	17.4	-5.3	0.52	-0.00	55.2	0.17	0.35	0.24	0.01
O-2CR-56	744	743	742	-1.7	8.8	2.0	9.0	-8.2	0.22	-0.18	-37.8	0.07	-0.03	-0.19	0.01
I-1CR-12	745	746	747	1.9	-5.6	-17.9	2.2	-18.2	-0.11	-0.58	6.9	-0.11	-0.57	0.06	0.01
I-2CR-23	748	749	750	0.6	1.1	-7.3	2.6	-9.3	-0.01	-0.28	24.3	-0.05	-0.24	0.15	0.01
I-1CR-56	751	752	753	0.0	-0.9	-0.5	0.4	-0.9	0.01	-0.03	-34.9	-0.00	-0.02	-0.01	0.01
I-2CR-12	754	755	756	-3.1	-3.0	13.3	16.6	-6.4	0.48	-0.05	-67.8	0.03	0.41	-0.19	0.01
I-2CR-23	757	758	759	-4.8	-8.8	-0.5	3.9	-9.2	0.04	-0.26	-54.5	-0.16	-0.06	-0.14	0.01
I-2CR-56	760	761	762	0.1	2.2	-3.2	2.6	-5.6	0.03	-0.16	33.1	-0.03	-0.10	0.09	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

INC0021 STOP 0

COMBUSTION T-12, LOAD CASE 13, (P)

NOMINAL LOAD = 5.725E 01

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(I)	SIG(T)	TAU	CONF
0-1K1-A	3	2	1	35.0	10.1	-15.7	35.0	-15.7	1.00	-0.17	-80.5	-0.17	1.00	-0.01	0.01
0-1K1-B	6	5	4	33.5	7.6	-16.6	33.5	-16.6	0.94	-0.22	89.0	-0.22	0.94	0.02	0.02
0-1K1-C	9	8	7	31.5	17.9	-4.8	32.0	-5.4	1.00	0.14	-83.0	0.15	0.99	-0.10	0.01
0-1K1-D	12	11	10	29.9	25.0	16.3	29.3	15.9	1.12	0.81	-79.8	0.82	1.11	-0.05	0.02
0-1K1-E	15	14	13	28.2	30.9	32.6	32.6	28.1	1.35	1.25	-6.1	1.35	1.25	-0.01	0.02
0-1K1-F	18	17	16	22.1	23.2	23.9	23.9	22.1	1.01	0.96	-5.1	1.01	0.97	-0.00	0.02
0-1K1-G	21	20	19	12.1	16.7	21.2	21.2	12.1	0.82	0.61	-0.4	0.82	0.61	-0.00	0.02
0-1K1-H	24	23	22	5.1	12.5	17.9	18.0	5.0	0.54	0.34	-4.5	0.54	0.34	-0.02	0.03
0-1K1-J	27	26	25	2.1	7.8	11.1	11.2	1.9	0.39	0.17	-7.4	0.39	0.18	-0.03	0.02
0-1K1-K	30	29	28	0.9	3.9	7.0	7.8	0.8	0.26	0.10	3.6	0.26	0.11	0.01	0.03
0-1K1-L	162	161	160	3.3	9.2	14.9	14.9	3.3	0.52	0.26	-0.6	0.52	0.26	-0.00	0.02
0-1K1-M	165	164	163	5.9	13.2	19.4	19.4	5.8	0.70	0.38	-2.2	0.70	0.39	-0.01	0.02
0-1K1-N	168	167	166	6.2	13.3	20.6	20.6	6.2	0.74	0.41	0.4	0.74	0.41	0.00	0.02
0-1K1-U	171	170	169	5.6	10.3	14.4	14.4	5.6	0.53	0.33	-1.9	0.53	0.33	-0.01	0.02
0-1K2-A	33	32	31	26.1	6.3	-8.1	26.3	-8.3	0.79	-0.01	85.5	-0.01	0.78	0.06	0.02
0-1K2-B	36	35	34	27.0	7.0	-12.2	27.0	-12.2	0.77	-0.14	89.5	-0.14	0.77	0.01	0.02
0-1K2-C	39	38	37	29.4	19.5	-3.8	30.7	-5.2	0.96	0.13	-78.9	0.16	0.93	-0.16	0.01
0-1K2-D	42	41	40	28.0	33.5	15.0	35.2	7.7	1.24	0.60	-59.1	0.77	1.07	-0.28	0.01
0-1K2-E	45	44	43	28.0	41.5	25.4	41.5	11.9	1.49	0.80	-47.4	1.12	1.17	-0.34	0.01
0-1K2-F	48	47	46	23.2	37.4	19.3	37.5	5.0	1.29	0.54	-48.4	0.87	0.96	-0.57	0.02
0-1K2-G	51	50	49	15.2	28.2	20.8	28.6	7.3	1.02	0.52	-37.4	0.83	0.71	-0.24	0.02
0-1K2-H	54	53	52	9.6	20.8	20.6	23.0	7.2	0.83	0.47	-22.9	0.77	0.52	-0.13	0.02
0-1K2-J	57	56	55	5.2	12.0	16.0	16.1	5.0	0.58	0.33	-7.2	0.58	0.33	-0.03	0.01
0-1K2-K	60	59	58	3.1	6.1	11.7	11.9	2.9	0.42	0.21	8.2	0.42	0.22	0.03	0.02
0-1K3-A	63	62	61	21.4	9.7	9.6	23.8	7.2	0.86	0.47	67.7	0.53	0.80	0.13	0.01
0-1K3-B	66	65	64	22.5	5.7	-3.9	23.0	-4.4	0.71	0.06	82.4	0.09	0.70	0.08	0.01
0-1K3-C	69	68	67	25.0	16.9	1.0	25.7	0.4	0.85	0.27	-81.0	0.28	0.84	-0.09	0.02
0-1K3-D	72	71	70	21.8	33.9	15.6	33.4	4.1	1.14	0.46	-51.1	0.73	0.87	-0.33	0.03
0-1K3-E	75	74	73	22.5	39.8	17.9	39.9	0.7	1.32	0.42	-48.6	0.81	0.93	-0.45	0.02
0-1K3-F	78	77	76	12.8	30.1	10.2	30.1	-7.2	0.92	0.06	-47.0	0.46	0.52	-0.43	0.01
0-1K3-G	81	80	79	9.4	25.9	16.4	26.4	-0.5	0.86	0.24	-37.4	0.64	0.47	-0.30	0.02
0-1K3-H	84	83	82	8.0	23.0	19.1	24.5	2.6	0.83	0.33	-29.8	0.71	0.45	-0.22	0.02
0-1K3-J	87	86	85	6.1	18.2	18.3	20.7	3.6	0.72	0.32	-22.3	0.66	0.38	-0.14	0.01
0-1K3-K	90	89	88	3.6	10.3	14.8	14.9	3.5	0.53	0.26	-5.5	0.53	0.27	-0.03	0.02
0-1K4-A	681	680	679	23.2	32.4	11.9	33.4	1.7	1.12	0.38	-55.4	0.62	0.88	-0.34	0.02
0-1K4-B	93	92	91	9.3	22.2	9.4	22.2	-3.5	0.70	0.18	-64.8	0.40	0.40	-0.30	0.02
0-1K4-C	96	95	94	10.2	23.4	13.2	23.5	-0.0	0.77	0.23	-41.3	0.54	0.47	-0.27	0.02
0-1K4-D	99	98	97	12.9	28.3	22.8	29.4	6.3	1.03	0.50	-32.2	0.88	0.65	-0.24	0.03
0-1K5-A	102	101	100	18.1	13.7	21.6	26.3	13.4	1.00	0.70	37.1	0.89	0.81	0.14	0.02
0-1K5-B	105	104	103	20.8	8.2	0.7	21.1	0.3	0.70	0.22	82.9	0.23	0.69	0.06	0.01
0-1K5-C	108	107	106	27.6	16.4	1.7	27.7	1.6	0.93	0.33	-86.2	0.33	0.93	-0.04	0.01
0-1K5-D	111	110	109	26.7	28.2	8.7	31.5	3.8	1.08	0.44	-65.3	0.55	0.97	-0.24	0.01
0-1K5-E	114	113	112	22.6	29.6	12.6	30.6	4.6	1.06	0.45	-56.4	0.64	0.87	-0.28	0.01
0-1K5-F	117	116	115	12.7	20.9	6.7	21.3	-1.9	0.68	0.15	-52.6	0.35	0.49	-0.26	0.03
0-1K5-G	120	119	118	10.3	18.2	6.0	18.4	-2.0	0.59	0.12	-51.1	0.30	0.40	-0.23	0.02
0-1K5-H	123	122	121	10.0	19.0	11.0	19.0	2.0	0.65	0.25	-43.2	0.46	0.44	-0.20	0.03
0-1K5-J	126	125	124	14.8	20.6	7.6	21.3	1.1	0.71	0.25	-55.5	0.40	0.56	-0.22	0.02
0-1K5-K	129	128	127	19.5	25.5	12.1	26.2	5.4	0.92	0.44	-55.4	0.59	0.76	-0.22	0.03
0-1K6-A	132	131	130	20.1	16.4	20.2	23.9	16.4	0.95	0.78	44.5	0.86	0.86	0.09	0.03
0-1K6-B	135	134	133	23.0	8.1	1.1	23.7	0.4	0.78	0.25	80.1	0.26	0.77	0.09	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH								STRESS - KSI			
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
0-1R6--C	131	137	136	32.1	17.3	-3.1	32.3	-3.3	1.03	0.21	-65.5	0.22	1.03	-0.06	0.03
0-1R6--D	141	140	139	32.7	18.4	2.0	32.7	1.9	1.10	0.39	-66.0	0.39	1.10	-0.02	0.04
0-1R6--E	144	143	142	28.0	16.1	9.1	28.0	9.1	1.01	0.58	88.6	0.58	1.01	0.01	0.03
0-1R6--F	147	146	145	16.0	9.9	5.0	16.0	4.9	0.58	0.32	86.8	0.32	0.58	0.01	0.04
0-1R6--G	150	149	148	12.9	9.0	4.0	12.9	3.9	0.46	0.26	-85.9	0.26	0.46	-0.01	0.02
0-1R6--H	153	152	151	13.3	8.6	4.7	13.3	4.6	0.48	0.28	87.4	0.28	0.48	0.01	0.02
0-1R6--J	156	155	154	18.0	9.6	4.9	18.3	4.6	0.65	0.33	82.0	0.34	0.64	0.04	0.03
0-1R6--K	159	158	157	25.1	18.3	12.0	25.2	12.0	0.95	0.64	87.4	0.64	0.95	0.01	0.02
0-2R1--A	174	173	172	38.3	12.5	-14.4	38.3	-14.4	1.12	-0.10	-89.4	-0.10	1.12	-0.01	0.01
0-2R1--B	177	176	175	35.3	11.9	-14.8	35.3	-14.8	1.02	-0.14	-88.1	-0.14	1.02	-0.04	0.02
0-2R1--C	180	179	178	33.2	19.8	-1.5	33.6	-2.0	1.09	0.27	-83.6	0.28	1.08	-0.09	0.01
0-2R1--D	183	182	181	30.7	27.3	20.4	31.0	20.1	1.22	0.97	-80.2	0.98	1.21	-0.04	0.02
0-2R1--E	186	185	184	30.1	31.9	32.1	32.4	29.9	1.36	1.31	-17.7	1.36	1.31	-0.02	0.02
0-2R1--F	189	188	187	22.6	21.5	20.6	22.6	20.5	0.95	0.90	87.4	0.90	0.95	0.00	0.06
0-2R1--G	192	191	190	13.1	14.7	16.9	16.9	13.0	0.69	0.66	4.0	0.68	0.60	0.01	0.04
0-2R1--H	195	194	193	5.7	6.3	13.4	13.6	5.5	0.50	0.31	8.6	0.50	0.32	0.03	0.02
0-2R1--J	198	197	196	0.9	4.5	9.2	9.2	0.8	0.31	0.12	3.8	0.31	0.12	0.01	0.01
0-2R1--K	201	200	199	1.3	3.4	5.2	5.2	1.3	0.19	0.10	-1.4	0.19	0.10	-0.00	0.03
0-2R1--L	333	332	331	4.7	11.2	19.0	19.0	4.6	0.67	0.34	2.4	0.67	0.34	0.01	0.03
0-2R1--M	335	335	334	8.2	15.4	21.3	21.3	8.2	0.78	0.48	-2.8	0.78	0.48	-0.01	0.03
0-2R1--N	339	338	337	10.8	21.3	31.2	31.2	10.8	1.13	0.66	-0.9	1.13	0.66	-0.01	0.02
0-2R2--A	204	203	202	25.1	4.5	-11.2	25.2	-11.4	0.72	-0.13	86.2	-0.12	0.72	0.06	0.03
0-2R2--B	207	206	205	28.9	9.9	-11.5	28.9	-11.5	0.84	-0.09	-88.3	-0.09	0.84	-0.03	0.01
0-2R2--C	210	209	208	30.7	19.1	0.7	31.1	0.3	1.03	0.32	-83.6	0.33	1.02	-0.08	0.01
0-2R2--D	213	212	211	27.9	37.8	20.2	38.4	9.7	1.36	0.70	-52.9	0.94	1.12	-0.32	0.02
0-2R2--E	216	215	214	24.9	42.5	30.6	42.8	12.6	1.54	0.84	-39.5	1.25	1.12	-0.34	0.02
0-2R2--F	219	218	217	21.8	34.7	18.4	34.8	5.4	1.20	0.52	-48.3	0.82	0.90	-0.34	0.01
0-2R2--G	222	221	220	12.5	24.1	18.2	24.5	6.2	0.87	0.45	-35.8	0.72	0.59	-0.20	0.02
0-2R2--H	225	224	223	7.3	17.1	18.6	20.0	5.9	0.72	0.39	-18.1	0.69	0.42	-0.10	0.01
0-2R2--J	228	227	226	3.2	8.5	12.6	12.6	3.1	0.45	0.23	-3.6	0.45	0.23	-0.01	0.02
0-2R2--K	231	230	229	1.1	3.5	6.9	6.9	1.0	0.24	0.10	4.5	0.24	0.10	0.01	0.01
0-2R3--A	234	233	232	19.8	4.7	6.2	23.7	2.3	0.80	0.31	64.8	0.40	0.71	0.19	0.01
0-2R3--B	237	236	235	21.8	4.0	-2.9	23.0	-4.1	0.72	0.09	78.2	0.12	0.69	0.13	0.02
0-2R3--C	240	239	238	25.0	15.3	3.3	25.1	3.2	0.86	0.35	-86.9	0.36	0.86	-0.03	0.02
0-2R3--D	243	242	241	26.0	36.5	17.9	37.1	6.9	1.29	0.59	-52.8	0.85	1.04	-0.34	0.02
0-2R3--E	246	245	244	19.4	38.2	15.9	38.2	-2.9	1.23	0.28	-47.4	0.72	0.80	-0.47	0.02
0-2R3--F	249	248	247	10.4	27.7	9.8	27.7	-7.5	0.84	0.03	-45.5	0.42	0.44	-0.41	0.02
0-2R3--G	252	251	250	8.0	23.4	13.3	23.7	-2.4	0.76	0.16	-39.1	0.52	0.40	-0.29	0.03
0-2R3--H	255	254	253	3.9	18.2	17.8	21.0	0.7	0.70	0.23	-23.2	0.63	0.30	-0.17	0.03
0-2R3--J	258	257	256	3.3	14.8	14.8	17.2	1.0	0.58	0.20	-22.3	0.52	0.26	-0.13	0.02
0-2R3--K	261	260	259	1.8	7.9	10.5	10.8	1.5	0.37	0.16	-10.9	0.36	0.16	-0.04	0.03
0-2R4--A	684	683	682	16.9	36.0	22.6	36.2	3.3	1.23	0.47	-40.1	0.91	0.78	-0.37	0.02
0-2R4--B	264	263	262	6.5	20.8	11.1	21.0	-3.4	0.66	0.09	-39.6	0.43	0.32	-0.28	0.02
0-2R4--C	267	266	265	4.4	20.8	10.2	20.8	-1.2	0.67	0.17	-43.9	0.43	0.41	-0.25	0.02
0-2R4--D	270	269	268	17.8	27.4	15.4	27.5	5.7	0.96	0.46	-48.1	0.68	0.74	-0.25	0.03
0-2R5--A	273	272	271	19.3	13.6	20.3	25.9	13.6	0.99	0.71	42.6	0.86	0.84	0.14	0.02
0-2R5--B	276	275	274	23.1	11.0	-0.5	23.1	-0.5	0.76	0.21	89.4	0.21	0.76	0.01	0.02
0-2R5--C	279	278	277	29.3	20.0	3.2	29.8	2.7	1.01	0.36	-82.0	0.39	1.00	-0.09	0.02
0-2R5--D	282	281	280	30.2	23.3	6.4	31.2	5.3	1.08	0.48	-78.4	0.51	1.06	-0.12	0.02
0-2R5--E	285	284	283	23.2	29.9	14.4	30.7	6.9	1.08	0.53	-55.8	0.70	0.91	-0.26	0.03
0-2R5--F	288	287	286	11.4	21.9	8.0	22.0	-2.6	0.70	0.13	-49.0	0.38	0.46	-0.28	0.03
0-2R5--G	291	290	289	11.0	17.1	5.1	18.3	-2.2	0.58	0.11	-53.4	0.28	0.41	-0.23	0.02
0-2R5--H	294*	293	292	8.0	18.0	7.2	18.0	-2.8	0.57	0.09	-46.2	0.32	0.34	-0.24	0.03
0-2R5--J	297	296	295	12.9	20.5	7.7	20.9	-0.2	0.69	0.20	-52.1	0.38	0.50	-0.24	0.02
0-2R5--K	300	299	298	16.0	24.1	11.5	24.3	3.2	0.83	0.34	-51.1	0.54	0.64	-0.24	0.03
0-2R6--A	303	302	301	16.7	13.5	17.0	20.1	13.5	0.80	0.64	43.5	0.73	0.72	0.08	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICRONS/INCH					STRESS - KSI				TAU	CONF	
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)			SIG(T)
O-2R6-B	306	305	304	23.0	13.4	-0.1	23.2	-0.2	0.76	0.22	-85.2	0.23	0.76	-0.04	0.01
O-2R6-C	304	308	307	28.7	16.4	-0.6	28.9	-0.8	0.95	0.26	-85.5	0.26	0.94	-0.05	0.01
O-2R6-D	312	311	310	29.2	17.2	3.1	29.2	3.0	0.99	0.39	-87.7	0.39	0.99	-0.02	0.01
O-2R6-E	315	314	313	26.3	17.3	9.1	26.3	9.1	0.96	0.56	88.8	0.56	0.96	0.01	0.03
O-2R6-F	312	317	316	16.4	12.3	4.6	16.6	4.3	0.59	0.31	-81.5	0.31	0.56	-0.04	0.02
O-2R6-G	321	320	319	13.3	9.5	4.5	13.3	4.5	0.48	0.28	-86.0	0.28	0.48	-0.01	0.02
O-2R6-H	324	323	322	13.8	9.5	6.0	13.8	6.0	0.51	0.34	87.2	0.34	0.51	0.01	0.03
O-2R6-J	327	326	325	16.7	13.0	4.9	18.8	4.8	0.67	0.34	-84.9	0.35	0.66	-0.03	0.02
O-2R6-K	330	329	328	23.1	15.2	6.6	23.1	6.6	0.83	0.45	-88.9	0.45	0.83	-0.01	0.02
I-1R1-A	340	341	342	-10.2	0.2	19.6	20.2	-10.8	0.56	-0.16	-81.5	-0.14	0.54	-0.10	0.02
I-1R1-B	343	344	345	-6.1	5.0	14.8	14.8	-6.1	0.43	-0.05	88.3	-0.05	0.43	0.01	0.02
I-1R1-C	346	347	348	-15.4	-1.9	8.1	8.2	-15.5	0.12	-0.43	85.8	-0.43	0.11	0.04	0.02
I-1R1-D	344	350	351	-18.1	-7.4	3.6	3.6	-18.1	-0.06	-0.16	-89.6	-0.56	-0.06	-0.00	0.02
I-1R1-E	352	353	354	-19.5	-8.1	4.5	4.5	-19.5	-0.05	-0.16	-88.6	-0.60	-0.05	-0.01	0.02
I-1R1-F	355	356	357	2.7	6.6	10.2	10.2	2.7	0.36	0.15	89.0	0.19	0.36	0.00	0.02
I-1R1-G	358	359	360	15.1	12.0	10.0	15.2	9.9	0.60	0.48	-6.0	0.60	0.48	-0.01	0.02
I-1R1-H	361	362	363	20.6	14.0	9.3	20.7	9.2	0.77	0.51	-5.0	0.77	0.51	-0.02	0.02
I-1R1-J	364	365	366	28.3	17.8	6.8	28.3	6.6	1.00	0.50	0.5	1.00	0.50	0.00	0.03
I-1R1-K	367	368	369	32.6	19.6	4.6	32.6	4.5	1.12	0.47	2.1	1.12	0.47	0.00	0.03
I-1R1-L	499	500	501	24.8	14.5	3.8	24.8	3.8	0.85	0.37	0.5	0.85	0.37	0.00	0.03
I-1R1-M	502	503	504	22.4	13.6	5.0	22.4	5.0	0.79	0.38	-0.3	0.79	0.38	-0.00	0.03
I-1R1-N	505	506	507	19.8	12.9	4.1	19.8	4.1	0.69	0.33	3.5	0.69	0.33	0.02	0.02
I-1R1-O	508	09	510	16.2	30.3	6.6	30.9	-8.1	0.94	0.04	37.8	0.60	0.38	0.44	0.04
I-1R2-A	370	371	372	-3.8	10.7	26.0	26.0	-3.8	0.82	0.13	-89.2	0.13	0.82	-0.01	0.02
I-1R2-B	373	374	375	-2.2	12.4	24.9	24.9	-2.2	0.80	0.17	87.7	0.17	0.80	0.02	0.02
I-1R2-C	376	377	378	-13.4	8.9	19.8	20.8	-14.3	0.54	-0.27	80.5	-0.24	0.52	0.13	0.01
I-1R2-D	374	380	381	-16.0	-1.8	17.9	18.1	-16.2	0.44	-0.35	-85.3	-0.35	0.43	-0.06	0.02
I-1R2-E	382	383	384	-16.4	3.6	14.2	14.9	-17.1	0.32	-0.42	81.4	-0.40	0.31	0.11	0.01
I-1R2-F	385	386	387	6.4	7.4	4.4	7.7	3.2	0.28	0.18	31.8	0.26	0.21	0.05	0.02
I-1R2-G	388	389	390	15.2	7.5	3.1	15.4	2.9	0.53	0.25	-7.3	0.53	0.25	-0.04	0.02
I-1R2-H	391	392	393	16.4	7.8	2.2	18.8	1.8	0.64	0.25	-3.5	0.63	0.25	-0.06	0.02
I-1R2-J	394	395	396	25.8	11.7	2.9	26.1	2.6	0.89	0.34	-6.4	0.88	0.35	-0.06	0.01
I-1R2-K	397	398	399	31.6	19.8	3.8	31.8	3.7	1.08	0.44	4.3	1.08	0.44	0.05	0.02
I-1R3-A	400	401	402	6.1	16.4	26.6	26.6	6.1	0.94	0.46	89.7	0.46	0.94	0.00	0.02
I-1R3-B	403	404	405	4.6	20.9	32.9	33.1	4.4	1.14	0.47	85.7	0.48	1.13	0.05	0.02
I-1R3-C	406	407	408	-11.9	22.8	49.0	49.3	-12.2	1.51	0.09	86.0	0.09	1.50	0.10	0.07
I-1R3-D	409	410	411	-15.3	20.6	42.8	43.6	-16.1	1.28	-0.10	83.4	-0.08	1.26	0.15	0.03
I-1R3-E	412	413	414	-8.0	21.2	32.0	34.1	-10.1	1.02	0.01	77.7	0.05	0.98	0.21	0.01
I-1R3-F	415	416	417	11.2	17.6	14.0	17.8	7.3	0.66	0.42	52.7	0.51	0.57	0.12	0.03
I-1R3-G	418	419	420	10.8	11.9	7.9	12.3	6.5	0.47	0.33	29.9	0.44	0.37	0.06	0.02
I-1R3-H	421	422	423	14.7	14.2	7.0	15.9	5.7	0.58	0.35	20.7	0.55	0.38	0.08	0.01
I-1R3-J	424	425*	426	18.8	16.6	6.5	20.0	5.4	0.71	0.37	16.2	0.68	0.40	0.09	0.06
I-1R3-K	427	428	429	25.3	17.7	5.6	25.6	5.3	0.90	0.43	6.3	0.89	0.43	0.05	0.02
I-1R4-A	435	436	437	-6.3	20.0	41.1	41.2	-6.4	1.30	0.20	86.9	0.20	1.29	0.06	0.01
I-1R4-B	430	431	432	11.1	16.6	14.1	16.8	6.3	0.64	0.44	55.4	0.50	0.57	0.09	0.01
I-1R4-C	433	434	435	13.4	18.6	12.7	18.6	7.5	0.69	0.43	43.4	0.57	0.55	0.13	0.01
I-1R4-D	436	437	438	18.8	23.2	10.4	24.1	5.1	0.85	0.41	32.0	0.72	0.53	0.20	0.01
I-1R5-A	439	440	441	16.4	23.5	24.5	25.5	15.5	0.99	0.76	71.7	0.78	0.97	0.07	0.03
I-1R5-B	442	443	444	10.2	28.1	39.4	39.7	9.9	1.41	0.72	83.6	0.73	1.40	0.08	0.01
I-1R5-C	445	446	447	-10.3	41.0	64.5	67.0	-12.7	2.08	0.24	79.8	0.30	2.02	0.32	0.02
I-1R5-D	448	449	450	-10.4	27.0	61.5	61.5	-10.4	1.92	0.26	88.9	0.27	1.92	0.03	0.04
I-1R5-E	453	452	451	47.3	21.7	-4.8	47.3	-4.8	1.51	0.31	0.5	1.51	0.31	0.01	0.02
I-1R5-F	454	455	456	13.6	23.5	23.7	25.7	11.7	0.96	0.64	68.3	0.68	0.92	0.11	0.02
I-1R5-G	457	458	459	13.9	20.1	18.8	20.8	11.8	0.80	0.60	61.8	0.64	0.76	0.09	0.02
I-1R5-H	460	461	462	10.8	17.3	18.3	19.2	9.9	0.73	0.51	71.8	0.54	0.71	0.06	0.03
I-1R5-J	463	464	465	10.8	20.7	19.7	22.3	6.2	0.82	0.49	64.6	0.55	0.76	0.13	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-1R5-K	466	467	468	10.2	25.4	24.4	28.1	6.5	0.99	0.49	65.5	0.58	0.90	0.19	0.02
I-1R6-A	469	470	471	21.2	22.5	21.0	22.5	19.8	0.94	0.87	42.9	0.91	0.90	0.05	0.03
I-1R6-B	472	473**	474	15.5	0.0	41.8	0.2	-2.9	1.96	0.50	-7.3	0.92	1.53	-0.66	0.04
I-1R6-C	475	476	477	-12.7	24.9	70.5	10.7	-12.9	2.20	0.28	-87.2	0.28	2.20	-0.09	0.02
I-1R6-D	478	479	480	-8.1	30.2	64.0	64.1	-8.1	2.03	0.37	88.3	0.37	2.03	0.05	0.01
I-1R6-E	481	482	483	-0.7	21.6	47.0	47.0	-0.7	1.54	0.44	-88.1	0.44	1.54	-0.04	0.03
I-1R6-F	484	485	486	12.9	22.5	28.4	28.6	12.6	1.07	0.70	83.0	0.70	1.06	0.04	0.02
I-1R6-G	487	488	489	14.7	17.6	20.9	20.9	14.7	0.83	0.69	-88.2	0.69	0.83	-0.00	0.02
I-1R6-H	490	491	492	13.4	15.7	18.2	18.2	13.4	0.73	0.62	-89.2	0.62	0.73	-0.00	0.05
I-1R6-J	493	494	495	12.2	16.6	19.5	19.6	12.2	0.77	0.59	84.0	0.60	0.76	0.02	0.02
I-1R6-K	496	497	498	9.5	15.4	24.7	24.9	9.4	0.91	0.55	-83.8	0.56	0.91	-0.04	0.01
I-2R1-A	511	512	513	-7.8	6.5	21.3	21.3	-7.8	0.62	-0.05	-89.5	-0.05	0.62	-0.01	0.01
I-2R1-B	514	515	516	-4.4	7.4	18.3	18.3	-4.4	0.56	0.04	88.8	0.04	0.56	0.01	0.01
I-2R1-C	517	518	519	-18.5	-4.2	7.8	7.8	-18.5	0.07	-0.53	87.5	-0.53	0.07	0.03	0.01
I-2R1-D	520	521	522	-18.8	-10.5	1.2	1.4	-19.0	-0.14	-0.61	-85.1	-0.61	-0.15	-0.04	0.02
I-2R1-E	523	524	525	-19.3	-7.7	2.3	2.4	-19.3	-0.11	-0.61	88.0	-0.61	-0.11	0.02	0.05
I-2R1-F	526	527	528	8.5	8.1	6.2	8.8	6.0	0.35	0.28	16.6	0.34	0.29	0.02	0.03
I-2R1-G	529	530	531	19.8	13.7	7.4	19.8	7.4	0.73	0.44	0.6	0.73	0.44	0.00	0.02
I-2R1-H	532	533	534	25.1	16.3	6.6	25.2	6.6	0.89	0.47	1.4	0.89	0.47	0.01	0.02
I-2R1-J	535	536**	537	31.6	0.0	4.8	40.8	-4.4	1.30	0.26	-26.9	1.09	0.47	-0.42	0.01
I-2R1-K	538	539	540	36.8	20.0	2.8	36.8	2.8	1.24	0.46	0.3	1.24	0.46	0.00	0.02
I-2R1-L	672	671*	670	3.3	15.7	23.3	23.6	3.1	0.81	0.33	-6.8	0.80	0.34	-0.06	0.06
I-2R1-M	675	674	673	4.9	11.3	19.5	19.5	4.8	0.69	0.35	3.4	0.69	0.35	0.02	0.06
I-2R1-N	678	677	676	6.9	6.6	8.2	8.8	6.4	0.35	0.30	28.2	0.34	0.31	0.02	0.03
I-2R2-A	541	542	543	0.1	11.4	27.2	27.4	-0.1	0.90	0.27	-85.2	0.27	0.90	-0.05	0.01
I-2R2-B	544	545	546	-2.8	13.9	25.9	26.1	-3.0	0.83	0.16	85.3	0.17	0.83	0.05	0.02
I-2R2-C	547	546	549	-17.4	6.4	22.9	23.2	-17.7	0.59	-0.35	84.9	-0.35	0.58	0.08	0.02
I-2R2-D	550	551	552	-19.5	3.6	16.0	16.8	-20.2	0.35	-0.50	81.7	-0.48	0.34	0.12	0.02
I-2R2-E	553	554	555	-17.0	5.3	11.2	13.4	-19.3	0.25	-0.50	74.8	-0.45	0.20	0.19	0.02
I-2R2-F	556	557	558	10.4	11.1	5.3	12.1	3.6	0.44	0.24	26.8	0.40	0.28	0.08	0.01
I-2R2-G	559	560	561	20.6	12.7	3.2	20.7	3.2	0.71	0.31	2.5	0.71	0.31	0.02	0.02
I-2R2-H	562	563	564	23.9	12.9	1.9	23.9	1.9	0.81	0.30	0.1	0.81	0.30	0.00	0.02
I-2R2-J	565	566	567	31.9	16.5	2.7	31.9	2.7	1.08	0.40	-1.5	1.08	0.41	-0.02	0.03
I-2R2-K	568	569	570	37.8	22.4	3.7	37.9	3.6	1.28	0.49	2.9	1.28	0.50	0.04	0.02
I-2R3-A	571	572	573	9.3	22.5	27.0	28.0	8.3	1.00	0.55	76.9	0.57	0.98	0.10	0.01
I-2R3-B	574	575	576	5.6	23.1	35.1	35.3	5.4	1.22	0.53	84.7	0.53	1.21	0.06	0.01
I-2R3-C	577	578	579	-10.2	30.8	47.1	49.7	-12.0	1.51	0.07	78.3	0.13	1.45	0.29	0.01
I-2R3-D	580	581	582	-15.9	20.1	43.7	44.3	-16.5	1.30	-0.11	84.1	-0.09	1.28	0.14	0.02
I-2R3-E	583	584	585	-10.0	20.3	30.6	32.9	-12.3	0.96	-0.08	76.9	-0.03	0.91	0.23	0.02
I-2R3-F	586	587	588	12.9	19.6	14.9	19.7	8.1	0.73	0.46	50.0	0.57	0.62	0.13	0.03
I-2R3-G	589	590	591	14.2	15.7	10.3	16.2	8.2	0.62	0.43	30.4	0.57	0.48	0.08	0.03
I-2R3-H	592	593	594	16.9	16.2	7.1	18.5	5.6	0.67	0.37	20.3	0.63	0.40	0.10	0.01
I-2R3-J	595	596	597*	23.7	18.6	2.6	25.0	1.2	0.84	0.29	13.8	0.81	0.32	0.13	0.05
I-2R3-K	598	599	600	31.6	18.4	6.3	31.6	6.3	1.10	0.52	1.1	1.10	0.52	0.01	0.02
I-2R4-A	601	602	603	-6.9	13.5	39.1	39.3	-7.1	1.22	0.16	-86.7	0.16	1.22	-0.06	0.02
I-2R4-B	604	603	603	13.7	19.2	15.2	19.3	9.6	0.73	0.51	49.6	0.60	0.64	0.11	0.03
I-2R4-C	604	605	606	12.0	19.6	14.3	19.7	6.7	0.71	0.41	50.0	0.54	0.59	0.15	0.01
I-2R4-D	607	606	609	14.1	29.1	19.4	29.4	4.1	1.01	0.42	51.0	0.66	0.78	0.29	0.02
I-2R5-A	610	611	612	17.1	24.4	21.7	24.9	13.9	0.96	0.71	57.4	0.78	0.89	0.12	0.03
I-2R5-B	613	614	615	13.9	29.9	39.8	40.2	13.6	1.46	0.84	83.4	0.85	1.45	0.07	0.02
I-2R5-C	616	617	618	-12.9	27.6	65.9	65.9	-13.0	2.05	0.23	89.2	0.23	2.05	0.02	0.02
I-2R5-D	619	620	621	-8.9	17.7	60.7	61.7	-9.9	1.94	0.28	-83.4	0.31	1.91	-0.19	0.02
I-2R5-E	622	623	624	-3.0	27.5	44.8	45.7	-3.9	1.47	0.32	82.2	0.34	1.45	0.15	0.02
I-2R5-F	625	626	627	11.5	22.2	25.6	26.5	10.7	0.98	0.61	76.5	0.63	0.96	0.08	0.02
I-2R5-G	628	629	630	12.1	18.6	19.6	20.5	11.1	0.79	0.57	71.8	0.59	0.77	0.06	0.02
I-2R5-H	631	632	633	9.3	16.8	17.4	18.7	8.1	0.69	0.45	69.9	0.48	0.67	0.08	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-2K5-J	634	635	636	10.3	19.5	20.7	22.1	8.9	0.62	0.51	71.0	0.54	0.76	0.09	0.04
I-2K5-K	637	638	639	8.5	23.9	22.0	26.2	4.3	0.91	0.40	64.1	0.50	0.81	0.20	0.01
I-2K6-A	640	641	642	21.1	22.1	21.8	22.2	20.7	0.94	0.90	59.5	0.91	0.93	0.01	0.04
I-2K6-B	643	644	645	13.6	26.4	43.4	43.6	13.5	1.57	0.88	-85.9	0.88	1.57	-0.05	0.02
I-2K6-C	646	647	648	-13.0	26.5	74.5	74.7	-13.2	2.33	0.30	-87.2	0.31	2.33	-0.10	0.02
I-2K6-U	649	650	651	-7.9	32.5	70.1	70.1	-7.9	2.23	0.43	88.9	0.43	2.23	0.04	0.02
I-2K6-E	652	653	654	-1.1	19.5	47.8	48.1	-1.4	1.57	0.43	-85.5	0.44	1.57	-0.09	0.03
I-2K6-F	655	656	657	13.4	20.7	28.6	28.6	13.4	1.08	0.72	-88.8	0.72	1.08	-0.01	0.01
I-2K6-G	658	659	660	15.6	17.9	21.9	22.0	15.4	0.88	0.73	-82.7	0.73	0.88	-0.02	0.03
I-2K6-H	661	662	663	13.5	16.3	19.3	19.3	13.5	0.77	0.64	-89.3	0.64	0.77	-0.00	0.02
I-2K6-J	664	665	666	11.6	15.1	19.5	19.5	11.5	0.76	0.57	-86.9	0.57	0.76	-0.01	0.03
I-2K6-K	667	668	669	7.9	15.5	23.8	23.8	7.9	0.86	0.50	-88.7	0.50	0.86	-0.01	0.03
O-1CR-12	729	728	727	29.2	38.9	23.0	38.9	18.4	1.46	0.99	-46.6	1.21	1.24	-0.24	0.03
O-1CR-23	732	731	730	25.0	41.5	20.1	41.7	3.4	1.41	0.53	-48.8	0.91	1.02	-0.44	0.02
O-1CR-56	735	734	733	27.3	18.8	6.7	27.5	6.6	0.97	0.49	-85.2	0.49	0.97	-0.04	0.02
O-2CR-12	738	737	736	28.5	38.9	30.4	38.9	20.0	1.48	1.05	-42.2	1.28	1.24	-0.22	0.02
O-2CR-23	741	740	739	19.7	42.3	23.7	42.4	1.1	1.41	0.46	-42.2	0.98	0.59	-0.47	0.03
O-2CR-56	744	743	742	27.8	23.4	9.2	29.0	7.9	1.03	0.55	-76.0	0.58	1.01	-0.11	0.02
I-1CR-12	745	746	747	-17.8	-2.6	5.1	5.7	-18.4	0.01	-0.55	80.8	-0.54	-0.01	0.09	0.02
I-1CR-23	748	749	750	-10.7	15.8	20.3	23.9	-14.3	0.65	-0.23	72.3	-0.15	0.56	0.26	0.02
I-1CR-56	751	752	753	-1.7	31.5	51.2	52.0	-2.5	1.69	0.43	82.9	0.45	1.67	0.16	0.02
I-2CR-12	754	755	756	-17.8	-3.1	4.0	4.6	-18.5	-0.03	-0.56	80.5	-0.55	-0.04	0.09	0.02
I-2CR-23	757	758	759	-9.7	19.3	18.1	24.7	-16.3	0.65	-0.29	66.3	-0.14	0.50	0.35	0.02
I-2CR-56	760	761	762	-0.5	26.3	43.9	44.4	-1.0	1.45	0.41	84.1	0.42	1.44	0.11	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

NOMINAL LOAD = 7.423E 04

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					CONF	
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		TAU
O-1R1-A	3	2	1	1.4	-13.3	-29.2	1.5	-29.2	-0.24	-0.95	-88.9	-0.95	-0.24	-0.01	0.02
O-1R1-B	6	5	4	-3.4	-21.5	-36.6	-3.4	-36.7	-0.47	-1.24	87.5	-1.24	-0.48	0.03	0.03
O-1R1-C	9	8	7	-7.3	-22.9	-38.0	-7.3	-38.0	-0.62	-1.33	89.6	-1.33	-0.62	0.00	0.04
O-1R1-D	12	11	10	-7.1	-19.8	-29.5	-7.0	-29.6	-0.53	-1.05	86.4	-1.04	-0.53	0.03	0.03
O-1R1-E	15	14	13	-4.8	-12.1	-17.1	-4.7	-17.2	-0.32	-0.61	85.0	-0.61	-0.33	0.03	0.02
O-1R1-F	18	17	16	-2.2	-6.0	-7.6	-2.0	-7.8	-0.14	-0.28	78.7	-0.27	-0.15	0.03	0.01
O-1R1-G	21	20	19	-0.3	-3.5	-4.0	0.1	-4.5	-0.04	-0.15	72.3	-0.14	-0.05	0.03	0.01
O-1R1-H	24	23	22	1.0	-0.8	-1.8	1.1	-1.8	0.02	-0.05	82.3	-0.05	0.02	0.01	0.01
O-1R1-J	27	26	25	1.6	0.4	0.4	1.8	0.1	0.06	0.02	67.8	0.03	0.05	0.01	0.01
O-1R1-K	30	29	28	2.2	1.0	1.1	2.5	0.8	0.09	0.05	65.8	0.06	0.08	0.01	0.01
O-1R1-L	162	161	160	2.1	1.4	2.1	2.7	1.4	0.10	0.07	45.1	0.09	0.09	0.02	0.01
O-1R1-M	165	164	163	2.0	1.2	1.7	2.5	1.2	0.09	0.06	53.1	0.08	0.08	0.01	0.01
O-1R1-N	168	167**	166	0.7	0.0	0.9	1.6	-0.0	0.05	0.02	42.4	0.04	0.03	0.02	0.01
O-1R1-O	171**	170	169	0.0	-1.0	-0.0	0.9	-1.0	0.02	-0.02	45.7	-0.00	-0.00	0.02	0.01
O-1R2-A	33	32	31	0.3	-11.2	-27.8	0.5	-28.0	-0.26	-0.92	-84.9	-0.91	-0.26	-0.06	0.02
O-1R2-B	36	35	34	-5.8	-16.8	-34.6	-5.4	-35.0	-0.53	-1.21	-83.3	-1.20	-0.53	-0.08	0.03
O-1R2-C	39	38	37	-9.3	-19.4	-36.4	-8.8	-36.8	-0.66	-1.30	-83.0	-1.29	-0.67	-0.08	0.04
O-1R2-D	42	41	40	-7.4	-17.6	-27.3	-7.4	-27.3	-0.51	-0.97	89.2	-0.97	-0.51	0.01	0.04
O-1R2-E	45	44	43	-5.5	-13.9	-16.4	-4.7	-17.1	-0.33	-0.61	75.7	-0.59	-0.34	0.07	0.02
O-1R2-F	48	47	46	-3.2	-7.0	-7.0	-2.4	-7.8	-0.16	-0.28	67.5	-0.26	-0.18	0.04	0.01
O-1R2-G	51	50	49	-1.7	-4.2	-3.9	-1.0	-4.6	-0.08	-0.16	63.9	-0.15	-0.09	0.03	0.01
O-1R2-H	54**	53	52	0.0	-1.2	-1.5	0.1	-1.7	-0.01	-0.05	75.5	-0.05	-0.02	0.01	0.01
O-1R2-J	57	56	55	0.9	0.9	0.3	1.0	0.3	0.04	0.02	-70.8	0.02	0.03	-0.01	0.01
O-1R2-K	60	59	58	1.3	2.1	1.4	2.1	0.7	0.08	0.04	-42.5	0.06	0.06	-0.02	0.01
O-1R3-A	63	62	61	-0.4	-6.5	-21.3	0.5	-22.2	-0.20	-0.73	-78.6	-0.71	-0.22	-0.10	0.02
O-1R3-B	66	65	64	-3.6	-12.1	-27.5	-3.1	-27.9	-0.38	-0.95	-82.1	-0.94	-0.39	-0.08	0.02
O-1R3-C	69	68	67	-6.1	-11.0	-27.2	-4.7	-28.6	-0.44	-0.99	-75.9	-0.96	-0.47	-0.13	0.03
O-1R3-D	72	71	70	-6.3	-13.9	-19.2	-6.2	-19.3	-0.40	-0.70	85.1	-0.70	-0.40	0.03	0.02
O-1R3-E	75	74	73	-6.0	-11.8	-10.2	-3.9	-12.3	-0.25	-0.44	59.9	-0.40	-0.30	0.08	0.02
O-1R3-F	78	77	76	-5.0	-7.9	-4.5	-1.6	-7.9	-0.13	-0.28	42.7	-0.20	-0.21	0.07	0.02
O-1R3-G	81	80	79	-4.2	-4.7	-7.9	-2.3	-4.8	-0.12	-0.18	30.5	-0.14	-0.17	0.03	0.01
O-1R3-H	84	83	82	-1.6	-2.9	-2.1	-0.9	-2.9	0.06	-0.10	51.5	-0.09	-0.08	0.02	0.01
O-1R3-J	87	86	85	-0.8	-0.7	-0.1	-0.0	-0.9	-0.01	-0.03	19.7	-0.01	-0.03	0.01	0.01
O-1R3-K	90	89	88	-0.1	0.4	1.1	1.1	-0.1	0.03	0.01	4.2	0.03	0.01	0.00	0.01
O-1R4-A	681	680	679	-5.7	-9.8	-7.2	-3.0	-9.9	-0.20	-0.36	50.9	-0.29	-0.26	0.08	0.02
O-1R4-B	93	92	91	-5.0	-6.6	-2.2	-0.3	-6.9	-0.08	-0.23	32.6	-0.12	-0.19	0.07	0.02
O-1R4-C	96	95	94	-3.1	-3.8	-1.7	-0.9	-3.9	-0.07	-0.14	31.9	-0.09	-0.12	0.03	0.02
O-1R4-D	99	98	97	-1.5	-1.6	-0.7	-0.5	-1.7	-0.03	-0.06	25.9	-0.04	-0.06	0.01	0.01
O-1R5-A	102	101	100	-0.1	-2.0	-12.2	1.2	-13.5	-0.09	-0.43	-72.9	-0.40	-0.12	-0.10	0.02
O-1R5-B	105	104	103	-3.7	-2.8	-16.9	-0.3	-20.2	-0.21	-0.67	-65.8	-0.59	-0.29	-0.17	0.02
O-1R5-C	108	107	106	-5.1	-2.6	-12.7	-1.5	-16.3	-0.21	-0.55	-60.4	-0.47	-0.29	-0.15	0.02
O-1R5-D	111	110	109	-4.2	-5.3	-8.7	-3.9	-9.0	-0.22	-0.33	-76.7	-0.33	-0.22	-0.03	0.01
O-1R5-E	114	113	112	-4.5	-6.8	-3.9	-1.6	-6.8	-0.12	-0.24	41.7	-0.17	-0.19	0.06	0.02
O-1R5-F	117	116	115	-4.4	-6.1	-1.5	0.5	-6.4	-0.05	-0.21	32.6	-0.09	-0.16	0.07	0.01
O-1R5-G	120	119	118	-3.7	-5.4	-1.0	1.0	-5.6	-0.02	-0.18	33.3	-0.07	-0.13	0.07	0.01
O-1R5-H	123	122	121	-3.4	-4.9	-1.1	0.6	-5.2	-0.03	-0.16	33.0	-0.07	-0.12	0.06	0.01
O-1R5-J	126	125	124	-3.8	-3.5	-0.6	-0.1	-4.2	-0.05	-0.14	19.9	-0.06	-0.13	0.03	0.01
O-1R5-K	129	128	127	-3.0	-3.2	-0.2	0.5	-3.7	-0.02	-0.12	24.3	-0.04	-0.10	0.04	0.01
O-1R6-A	132	131	130	-0.2	5.3	0.4	5.3	-5.1	0.12	-0.12	-43.6	0.01	-0.00	-0.12	0.01
O-1R6-B	135	134	133	-0.5	7.8	0.5	7.8	-7.9	0.18	-0.18	-43.2	0.01	-0.01	-0.18	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
0-1R6-C	138	137	136	-0.3	6.7	2.1	6.9	-5.0	0.18	-0.10	-39.2	0.07	0.01	-0.13	0.01
0-1R6-D	141	140	139	0.3	2.6	0.1	2.6	-2.2	0.06	-0.05	-46.2	0.01	0.01	-0.06	0.01
0-1R6-E	144	143	142	0.3	-0.6	-0.1	0.8	-0.6	0.02	-0.01	52.6	-0.00	0.01	0.02	0.00
0-1R6-F	147	146	145	0.4	-2.1	-0.1	2.4	-2.1	0.06	-0.05	47.9	0.00	0.01	0.05	0.01
0-1R6-G	150	149	148	0.2	-1.9	-0.1	2.0	-1.9	0.05	-0.04	46.7	-0.00	0.01	0.05	0.00
0-1R6-H	153	152	151	0.4	-1.4	-0.2	1.6	-1.5	0.04	-0.03	51.1	-0.00	0.01	0.03	0.01
0-1R6-J	156	155	154	0.2	-1.9	-0.1	2.0	-1.9	0.05	-0.04	47.3	-0.00	0.01	0.04	0.01
0-1R6-K	159	158	157	-0.2	-1.0	0.2	1.0	-1.0	0.02	-0.02	38.6	0.01	-0.00	0.02	0.01
0-2R1-A	174	173	172	-2.1	13.6	30.4	30.4	-2.1	0.98	0.23	1.0	0.98	0.23	0.01	0.03
0-2R1-B	177	176	175	3.7	17.1	33.1	33.1	3.7	1.13	0.45	2.6	1.13	0.45	0.03	0.03
0-2R1-C	180	179	178	6.7	21.0	39.0	39.1	6.6	1.36	0.60	3.2	1.35	0.61	0.04	0.04
0-2R1-D	183	182	181	6.1	15.1	30.0	30.4	5.7	1.06	0.49	6.8	1.05	0.50	0.07	0.03
0-2R1-E	186	185	184	5.0	9.8	17.5	17.7	4.8	0.63	0.33	6.8	0.63	0.34	0.03	0.02
0-2R1-F	189	188	187	1.6	3.3	6.9	7.1	1.5	0.25	0.12	9.8	0.24	0.12	0.02	0.01
0-2R1-G	192	191	190	0.2	0.8	3.4	3.6	-0.1	0.12	0.03	15.1	0.11	0.04	0.02	0.01
0-2R1-H	195	194	193*	-1.1	-1.1	-0.0	0.2	-1.3	-0.00	-0.04	23.3	-0.01	-0.03	0.01	0.02
0-2R1-J	198	197	196	-1.5	-1.9	-0.6	-0.1	-2.0	-0.02	-0.07	29.8	-0.03	-0.06	0.02	0.01
0-2R1-K	201	200	199	-2.6	-2.7	-1.8	-1.5	-2.8	-0.08	-0.11	27.5	-0.09	-0.10	0.01	0.01
0-2R1-L	333	332	331	-2.1	-3.5	-2.3	-1.0	-3.5	-0.07	-0.12	47.4	-0.10	-0.09	0.03	0.01
0-2R1-M	336	335	334	-1.8	-2.5	-2.6	-1.7	-2.7	-0.08	-0.11	69.4	-0.10	-0.09	0.01	0.01
0-2R1-N	339	338	337	-1.3	-2.2	-1.1	-0.1	-2.2	-0.03	-0.08	42.8	-0.05	-0.05	0.02	0.01
0-2R2-A	204	203	202	0.1	12.1	29.3	29.6	-0.1	0.97	0.29	5.0	0.97	0.29	0.06	0.02
0-2R2-B	207	206	205	6.0	12.9	30.3	31.3	4.9	1.08	0.47	11.6	1.06	0.50	0.12	0.03
0-2R2-C	210	209	208	6.8	18.8	33.4	33.4	6.7	1.17	0.55	2.6	1.17	0.55	0.03	0.03
0-2R2-D	213	212	211	6.6	15.1	29.4	29.7	6.4	1.04	0.51	7.5	1.04	0.52	0.07	0.03
0-2R2-E	216	215	214	5.2	12.6	17.3	17.4	5.0	0.62	0.34	-6.3	0.62	0.34	-0.03	0.02
0-2R2-F	219	218	217	3.3	5.1	7.7	7.7	3.2	0.29	0.18	4.8	0.29	0.18	0.01	0.02
0-2R2-G	222	221	220	1.7	2.6	3.9	3.9	1.7	0.15	0.10	5.8	0.15	0.10	0.01	0.01
0-2R2-H	225	224	223	-0.1	-1.3	1.5	2.9	-1.4	0.08	-0.02	34.4	0.05	0.01	0.05	0.01
0-2R2-J	228	227	226	-1.1	-2.5	-0.1	1.4	-2.6	0.02	-0.07	37.4	-0.01	-0.04	0.04	0.01
0-2R2-K	231	230	229	-1.2	-3.0	-2.1	-0.2	-3.0	-0.04	-0.10	53.8	-0.08	-0.06	0.03	0.01
0-2R3-A	234	233	232	1.0	8.6	24.0	24.7	0.4	0.82	0.26	9.4	0.80	0.27	0.09	0.02
0-2R3-B	237	236	235	5.4	10.3	25.2	26.4	4.2	0.91	0.40	13.4	0.88	0.43	0.12	0.03
0-2R3-C	240	239	238	7.5	12.3	24.9	25.8	6.6	0.92	0.47	12.0	0.90	0.49	0.09	0.03
0-2R3-D	243	242	241	5.4	13.4	19.6	19.7	5.3	0.70	0.37	-3.5	0.70	0.37	-0.02	0.02
0-2R3-E	246	245	244	4.6	12.5	12.7	14.2	3.0	0.50	0.24	-21.9	0.46	0.28	-0.09	0.01
0-2R3-F	249	248	247	4.1	7.2	5.3	7.3	2.1	0.26	0.14	-38.1	0.22	0.19	-0.06	0.01
0-2R3-G	252	251	250	1.9	4.4	4.0	4.7	1.2	0.17	0.09	-27.4	0.15	0.10	-0.03	0.02
0-2R3-H	255	254	253	0.6	1.4	2.8	2.8	0.6	0.10	0.05	7.5	0.10	0.05	0.01	0.01
0-2R3-J	258	257	256	-0.7	-0.9	0.6	1.0	-1.1	0.02	-0.03	26.0	0.01	-0.02	0.02	0.01
0-2R3-K	261	260	259	0.4	-1.8	-1.4	1.1	-2.1	0.02	-0.06	61.5	-0.04	-0.00	0.03	0.01
0-2R4-A	684	683	682	5.7	10.8	7.9	10.9	2.7	0.39	0.20	-37.1	0.32	0.27	-0.09	0.02
0-2R4-B	264	263	262	3.9	6.3	3.7	6.3	1.3	0.22	0.10	-46.1	0.16	0.16	-0.06	0.01
0-2R4-C	267	266	265	1.5	3.9	2.5	3.9	0.1	0.13	0.04	-37.6	0.10	0.08	-0.04	0.01
0-2R4-D	270	269	268	-0.3	1.9	2.1	2.5	-0.6	0.08	0.00	-20.1	0.07	0.01	-0.02	0.01
0-2R5-A	273	272	271	0.8	4.0	13.7	14.5	0.1	0.48	0.15	13.4	0.46	0.16	0.08	0.01
0-2R5-B	276	275	274	3.4	3.1	14.0	16.4	1.0	0.55	0.20	23.2	0.49	0.25	0.13	0.02
0-2R5-C	279	278	277	3.3	6.1	15.4	16.2	2.5	0.56	0.24	14.0	0.54	0.26	0.07	0.02
0-2R5-D	282	281	280	2.9	6.4	9.2	9.3	2.9	0.33	0.19	-3.3	0.33	0.19	-0.01	0.02
0-2R5-E	285	284	283	3.8	8.3	5.5	8.4	0.9	0.29	0.11	-38.7	0.22	0.18	-0.09	0.01
0-2R5-F	288	287	286	3.6	7.6	2.7	7.7	-1.3	0.24	0.03	-47.9	0.13	0.15	-0.10	0.02
0-2R5-G	291	290	289	3.6	6.7	2.6	6.8	-0.6	0.22	0.05	-49.2	0.12	0.15	-0.08	0.01
0-2R5-H	294	293	292	2.6	5.4	2.1	5.4	-0.6	0.17	0.03	-47.5	0.10	0.11	-0.07	0.01
0-2R5-J	297	296	295	1.8	4.9	2.1	4.9	-1.0	0.15	0.02	-43.4	0.09	0.08	-0.07	0.01
0-2R5-K	300	299	298	1.4	4.2	2.2	4.2	-0.6	0.13	0.02	-40.1	0.09	0.07	-0.05	0.01
U-2R6-A	303	302	301	0.4	-4.3	-0.9	3.9	-4.4	0.08	-0.11	49.4	-0.03	0.00	0.09	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
O-2R6-B	306	305	304	-0.6	-7.5	-0.7	6.1	-7.5	0.13	-0.18	45.3	-0.03	-0.03	0.16	0.01
O-2R6-C	309	308	307	-0.9	-4.4	-0.1	3.4	-4.4	0.07	-0.11	42.2	-0.01	-0.03	0.09	0.01
O-2R6-D	312	311	310	-0.3	-0.3	0.1	0.2	-0.4	0.00	-0.01	21.0	0.00	-0.01	0.00	0.00
O-2R6-E	315	314	313	-0.4	4.0	0.3	4.0	-4.2	0.09	-0.10	-42.5	0.00	-0.01	-0.09	0.01
O-2R6-F	318	317	316	-0.6	4.6	0.4	4.7	-4.9	0.11	-0.12	-42.0	0.01	-0.02	-0.11	0.01
O-2R6-G	321	320	319	-0.3	3.7	0.5	3.7	-3.5	0.09	-0.08	-42.0	0.01	-0.01	-0.08	0.01
O-2R6-H	324	323	322	-0.1	3.8	0.2	3.8	-3.7	0.09	-0.08	-44.0	0.00	-0.00	-0.09	0.01
O-2R6-J	327**	326	325	0.0	3.7	0.2	3.7	-3.5	0.09	-0.08	-44.2	0.01	0.00	-0.08	0.01
O-2R6-K	330	329	328	-0.5	3.1	0.3	3.1	-3.3	0.07	-0.08	-41.6	0.00	-0.01	-0.07	0.01
I-1R1-A	340	341	342	-22.0	-12.0	-2.5	-2.5	-22.0	-0.30	-0.75	89.2	-0.75	-0.30	0.01	0.02
I-1R1-B	343	344	345	-2.0	-3.9	-9.0	-1.7	-9.3	-0.15	-0.32	12.6	-0.16	-0.32	0.04	0.01
I-1R1-C	346	347	348	5.6	1.0	-4.1	5.6	-4.1	0.14	-0.08	1.5	0.14	-0.08	0.01	0.01
I-1R1-D	349	350	351	1.0	4.7	7.4	7.4	1.0	0.25	0.11	85.8	0.11	0.25	0.01	0.01
I-1R1-E	352	353	354	2.8	4.1	6.2	6.2	2.7	0.23	0.15	-83.6	0.15	0.23	-0.01	0.02
I-1R1-F	355	356	357	-0.5	1.7	4.2	4.3	-0.5	0.14	0.02	-87.6	0.03	0.13	-0.00	0.01
I-1R1-G	358	359	360	-3.6	-0.6	2.7	2.7	-3.6	0.05	-0.09	-88.8	-0.09	0.05	-0.00	0.01
I-1R1-H	361	362	363	-4.7	-2.4	1.1	1.1	-4.8	-0.01	-0.15	-84.8	-0.15	-0.01	-0.01	0.01
I-1R1-J	364	365	366	-5.2	-2.4	0.5	0.5	-5.2	-0.03	-0.17	-89.5	-0.17	-0.03	-0.00	0.01
I-1R1-K	367	368	369	-5.6	-2.8	0.8	0.8	-5.6	-0.03	-0.18	-86.6	-0.18	-0.03	-0.01	0.01
I-1R1-L	499	500	501	-5.1	-2.9	0.6	0.7	-5.2	-0.03	-0.16	-83.2	-0.16	-0.03	-0.02	0.01
I-1R1-M	502	503	504	-3.9	-2.1	0.7	0.7	-4.0	-0.02	-0.12	-84.8	-0.12	-0.02	-0.01	0.01
I-1R1-N	505**	506	507	0.0	-1.9	0.2	2.1	-1.9	0.05	-0.04	-46.6	0.00	0.01	-0.05	0.01
I-1R1-O	508	509	510**	-0.0	0.3	0.0	0.3	-0.3	0.01	-0.01	45.2	-0.00	-0.00	0.01	0.00
I-1R2-A	370	371	372	-18.1	-11.4	-3.8	-3.8	-18.1	-0.30	-0.64	-88.3	-0.64	-0.30	-0.01	0.02
I-1R2-B	373	374	375	-1.6	-4.6	-9.3	-1.5	-9.4	-0.14	-0.33	6.5	-0.14	-0.32	0.02	0.01
I-1R2-C	376	377	378**	6.0	4.1	0.0	6.2	-0.2	0.20	0.06	9.7	0.20	0.06	0.02	0.01
I-1R2-D	379	380	381	-1.1	1.4	8.9	9.5	-1.7	0.30	0.04	-76.6	0.05	0.28	-0.06	0.01
I-1R2-E	382	383	384	0.5	10.2	9.8	12.0	-1.6	0.38	0.07	66.5	0.12	0.33	0.12	0.01
I-1R2-F	385	386	387	-0.0	7.9	5.3	8.5	-3.2	0.25	-0.02	58.5	0.05	0.17	0.12	0.01
I-1R2-G	388	389	390	-1.4	5.1	3.2	5.7	-3.8	0.15	-0.07	59.5	-0.01	0.09	0.10	0.01
I-1R2-H	391	392	393	-3.1	1.2	1.8	2.4	-3.7	0.04	-0.10	71.4	-0.08	0.03	0.04	0.00
I-1R2-J	394	395	396	-4.1	-0.2	1.1	1.4	-4.4	0.00	-0.13	77.4	-0.12	-0.00	0.03	0.01
I-1R2-K	397	398	399	-4.8	-0.9	0.6	0.9	-5.1	-0.02	-0.16	78.3	-0.15	-0.03	0.03	0.01
I-1R3-A	400	401	402	-14.1	-7.5	-3.0	-2.9	-14.1	-0.24	-0.50	84.7	-0.49	-0.24	0.02	0.01
I-1R3-B	403	404	405	3.1	0.2	-9.7	4.0	-10.6	0.03	-0.31	14.2	0.01	-0.29	0.08	0.01
I-1R3-C	406	407	408	7.7	8.2	-7.4	11.2	-10.9	0.26	-0.25	23.5	0.18	-0.17	0.19	0.01
I-1R3-D	409	410	411	-1.3	12.6	10.4	14.5	-5.4	0.42	-0.03	63.0	0.06	0.33	0.19	0.01
I-1R3-E	412	413	414	1.3	16.3	10.3	17.3	-5.7	0.51	-0.02	56.5	0.14	0.35	0.24	0.01
I-1R3-F	415	416	417	-0.1	12.5	9.4	13.8	-4.5	0.41	-0.01	60.6	0.09	0.31	0.18	0.01
I-1R3-G	418	419	420	-0.1	7.4	6.5	8.5	-2.1	0.26	0.01	64.3	0.06	0.21	0.10	0.01
I-1R3-H	421	422	423	0.6	5.1	3.1	5.4	-1.7	0.16	-0.00	55.4	0.05	0.11	0.08	0.01
I-1R3-J	424	425	426	-0.7	2.3	1.5	2.6	-1.8	0.07	-0.03	60.4	-0.01	0.04	0.04	0.01
I-1R3-K	427	428	429	-2.6	0.7	0.1	1.1	-3.6	0.00	-0.11	62.0	-0.08	-0.02	0.04	0.01
I-1R4-A	485	486	487	2.5	16.1	8.2	16.4	-5.7	0.49	-0.03	52.5	0.16	0.30	0.25	0.01
I-1R4-B	430	431	432	1.1	11.1	7.9	11.9	-2.9	0.36	0.02	58.7	0.11	0.27	0.15	0.01
I-1R4-C	433	434	435	0.9	6.1	4.5	6.6	-1.2	0.20	0.03	58.8	0.07	0.16	0.08	0.01
I-1R4-D	436**	437**	438**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-1R5-A	439	440	441	-7.6	-2.9	-2.4	-1.7	-8.3	-0.14	-0.29	70.6	-0.27	-0.15	0.05	0.02
I-1R5-B	442	443	444	3.0	6.3	-6.2	7.5	-10.7	0.14	-0.28	29.7	0.04	-0.18	0.18	0.01
I-1R5-C	445	446	447	7.7	12.9	-7.1	14.9	-14.3	0.35	-0.32	29.7	0.18	-0.16	0.29	0.01
I-1R5-D	448	449	450	-1.1	14.8	6.2	15.4	-10.2	0.41	-0.18	53.3	0.03	0.19	0.28	0.01
I-1R5-E	453	452	451	4.8	13.7	2.5	13.8	-6.4	0.39	-0.07	41.7	0.19	0.13	0.23	0.01
I-1R5-F	454	455	456	3.6	13.2	7.3	13.4	-2.5	0.42	0.09	51.9	0.19	0.28	0.18	0.01
I-1R5-G	457	458	459	-0.4	8.2	8.4	10.1	-2.2	0.31	0.03	68.0	0.07	0.27	0.10	0.01
I-1R5-H	460**	461	462	0.0	7.5	5.6	8.2	-2.6	0.25	-0.00	60.7	0.06	0.19	0.11	0.01
I-1R5-J	463	464	465	1.1	5.2	4.5	5.8	-0.2	0.19	0.05	62.8	0.08	0.16	0.06	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF	
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SHAX	SMIN	PHI	SIG(L)	SIG(T)			
I-1R5-K	466**	467**	468**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-1R6-A	469	470**	471	-0.2	0.0	0.8	0.9	-0.3	0.03	-0.00	-75.0	0.00	0.02	-0.01	0.01	0.01
I-1R6-B	472	473	474**	2.0	11.4	0.0	11.5	-9.5	0.28	-0.20	42.3	0.07	0.02	0.24	0.01	0.01
I-1R6-C	475	476	477	-0.7	15.6	2.2	15.6	-14.1	0.38	-0.31	47.8	-0.00	0.07	0.34	0.02	0.01
I-1R6-D	478	479	480	2.9	13.3	-3.3	13.7	-14.1	0.31	-0.33	36.6	0.06	-0.08	0.31	0.01	0.01
I-1R6-E	481	482	483	0.7	9.5	-0.8	9.5	-9.6	0.22	-0.22	42.7	0.02	-0.02	0.22	0.01	0.01
I-1R6-F	484	485	486	0.2	7.3	-0.5	7.3	-7.5	0.17	-0.18	43.7	0.00	-0.01	0.57	0.01	0.01
I-1R6-G	487	488	489	-0.1	5.3	-0.4	5.3	-5.8	0.12	-0.14	44.3	-0.01	-0.01	0.13	0.01	0.01
I-1R6-H	490	491	492	-0.2	3.0	-0.2	3.0	-3.4	0.07	-0.08	45.3	-0.01	-0.01	0.07	0.00	0.00
I-1R6-J	493	494	495	0.3	2.5	-0.4	2.5	-2.6	0.06	-0.06	40.6	0.01	-0.01	0.06	0.01	0.01
I-1R6-K	496**	497**	498**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2R1-A	511	512	513	21.5	9.6	3.2	21.9	2.8	0.75	0.31	-8.4	0.74	0.32	-0.06	0.02	0.02
I-2R1-B	514	515	516	2.7	5.5	8.1	8.1	2.6	0.29	0.17	88.3	0.17	0.29	0.00	0.01	0.01
I-2R1-C	517	518	519	-6.4	-1.0	3.1	3.1	-6.4	0.04	-0.18	86.2	-0.18	0.04	0.01	0.01	0.01
I-2R1-D	520	521	522	-0.9	-5.3	-8.1	-0.9	-8.2	-0.11	-0.28	-6.0	-0.11	-0.28	-0.02	0.02	0.02
I-2R1-E	523	524	525	-2.4	-5.6	-6.5	-2.1	-6.9	-0.14	-0.25	-14.8	-0.14	-0.24	-0.03	0.01	0.01
I-2R1-F	526	527	528	0.4	-2.4	-3.7	0.5	-3.8	-0.02	-0.12	-10.2	-0.02	-0.12	-0.02	0.01	0.01
I-2R1-G	529	530	531	3.1	0.1	-2.0	3.1	-2.0	0.08	-0.04	-4.6	0.08	-0.04	-0.01	0.01	0.01
I-2R1-H	532	533	534	4.2	1.2	-1.0	4.2	-1.0	0.13	0.01	-4.4	0.13	0.01	-0.01	0.01	0.01
I-2R1-J	535	536	537	5.8	1.5	-0.7	6.0	-0.9	0.19	0.03	-6.6	0.19	0.03	-0.02	0.01	0.01
I-2R1-K	538	539	540	4.5	1.7	-0.5	4.5	-0.5	0.14	0.03	-3.9	0.14	0.03	-0.01	0.02	0.02
I-2R1-L	672	671	670	-1.1	2.2	4.3	4.3	-1.2	0.13	0.00	-6.2	0.13	0.01	-0.01	0.01	0.01
I-2R1-M	675	674	673	-0.9	1.8	4.0	4.0	-0.9	0.12	0.01	-2.6	0.12	0.01	-0.01	0.01	0.01
I-2R1-N	678	677	676	-0.6	1.2	2.1	2.2	-0.7	0.07	-0.00	-9.3	0.06	0.00	-0.01	0.01	0.01
I-2R2-A	541	542	543	17.2	10.5	0.7	17.4	0.6	0.58	0.19	5.1	0.57	0.19	0.03	0.02	0.02
I-2R2-B	544	545	546	1.2	3.8	6.5	6.5	1.2	0.23	0.11	-88.9	0.11	0.23	-0.00	0.01	0.01
I-2R2-C	547	548	549	-7.1	-5.6	1.7	2.5	-7.9	0.01	-0.24	-73.4	-0.22	-0.01	-0.07	0.01	0.01
I-2R2-D	550	551	552	0.4	-10.2	-12.1	1.7	-13.4	-0.08	-0.43	-17.5	-0.11	-0.39	-0.10	0.01	0.01
I-2R2-E	553	554	555	-1.5	-12.5	-11.9	1.1	-14.5	-0.11	-0.47	-24.1	-0.17	-0.41	-0.13	0.02	0.02
I-2R2-F	556	557	558	0.6	-8.9	-7.5	3.3	-10.2	0.01	-0.30	-26.7	-0.05	-0.24	-0.13	0.01	0.01
I-2R2-G	559	560	561	2.6	-5.6	-5.5	4.4	-7.3	0.07	-0.20	-23.0	0.03	-0.16	-0.10	0.01	0.01
I-2R2-H	562	563	564	3.0	-3.5	-2.7	4.8	-4.5	0.11	-0.10	-25.9	0.07	-0.06	-0.08	0.01	0.01
I-2R2-J	565	566	567	4.3	-0.9	-1.7	5.0	-2.4	0.14	-0.03	-18.1	0.13	-0.01	-0.05	0.00	0.00
I-2R2-K	568	569	570	4.1	-0.1	-1.5	4.4	-1.8	0.13	-0.02	-13.6	0.12	-0.01	-0.03	0.01	0.01
I-2R3-A	571	572	573	12.6	6.9	0.4	12.6	0.4	0.42	0.14	2.1	0.42	0.14	0.01	0.01	0.01
I-2R3-B	574	575	576	-2.0	-2.2	4.8	6.4	-3.5	0.17	-0.05	-66.6	-0.02	0.14	-0.08	0.01	0.01
I-2R3-C	577	578	579	-6.6	-11.7	1.5	7.4	-12.6	0.12	-0.34	-57.0	-0.20	-0.02	-0.21	0.01	0.01
I-2R3-D	580	581	582	3.4	-13.1	-16.4	3.4	-18.4	-0.00	-0.55	-15.8	-0.05	-0.51	-0.15	0.02	0.02
I-2R3-E	583	584	585	0.3	-15.4	-15.1	3.7	-18.5	-0.06	-0.57	-23.1	-0.14	-0.49	-0.18	0.02	0.02
I-2R3-F	586	587	588	-0.6	-13.4	-10.3	3.9	-14.8	-0.02	-0.45	-29.3	-0.12	-0.35	-0.18	0.01	0.01
I-2R3-G	589	590	591	-0.3	-9.0	-5.8	3.6	-9.6	0.02	-0.28	-32.6	-0.07	-0.19	-0.14	0.01	0.01
I-2R3-H	592	593	594	0.5	-5.4	-3.4	3.0	-5.9	0.04	-0.16	-31.7	-0.02	-0.11	-0.09	0.01	0.01
I-2R3-J	595	596	597	2.9	-2.6	-2.9	3.9	-3.9	0.09	-0.09	-20.5	0.07	-0.07	-0.06	0.01	0.01
I-2R3-K	598	599	600	2.3	-2.1	-0.1	4.5	-2.3	0.12	-0.03	-34.6	0.07	0.02	-0.07	0.01	0.01
I-2R4-A	608	609	600	-3.0	-17.6	-11.3	4.1	-18.4	-0.05	-0.56	-34.2	-0.21	-0.40	-0.24	0.01	0.01
I-2R4-B	601	602	603	-0.4	-10.5	-10.0	1.9	-12.4	-0.06	-0.39	-23.8	-0.11	-0.34	-0.12	0.02	0.02
I-2R4-C	604	605	606	0.3	-5.6	-6.7	1.1	-7.4	-0.04	-0.23	-17.3	-0.06	-0.22	-0.06	0.01	0.01
I-2R4-D	607	608	609	1.9	-3.3	-4.9	2.4	-5.4	0.03	-0.15	-13.8	0.01	-0.14	-0.04	0.01	0.01
I-2R5-A	610	611	612	6.7	2.8	-0.5	6.7	-0.6	0.21	0.05	-2.5	0.21	0.05	-0.01	0.01	0.01
I-2R5-B	613	614	615*	-2.8	-8.8	5.1	11.9	-9.6	0.30	-0.20	-55.7	-0.04	0.14	-0.23	0.02	0.02
I-2R5-C	616	617	618*	-4.1	-16.5	0.3	12.9	-16.7	0.26	-0.42	-49.3	-0.13	-0.03	-0.34	0.01	0.01
I-2R5-D	619	620	621	5.0	-13.2	-14.2	8.3	-17.5	0.10	-0.50	-21.0	0.02	-0.42	-0.20	0.01	0.01
I-2R5-E	622	623	624	0.3	-14.0	-10.6	5.7	-16.0	0.03	-0.47	-29.9	-0.10	-0.35	-0.22	0.01	0.01
I-2R5-F	625	626	627	-1.2	-11.6	-8.5	2.8	-12.5	-0.03	-0.38	-30.6	-0.12	-0.29	-0.15	0.01	0.01
I-2R5-G	628	629	630	-0.4	-8.5	-7.3	1.8	-9.6	-0.03	-0.30	-26.5	-0.09	-0.25	-0.11	0.01	0.01
I-2R5-H	631	632	633	0.2	-5.9	-6.6	1.0	-7.5	-0.04	-0.24	-18.8	-0.06	-0.22	-0.06	0.01	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. #)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-2R5-J	634	635	636	0.1	-4.5	-5.7	0.6	-6.1	-0.04	-0.20	-15.0	-0.05	-0.19	-0.04	0.01
I-2R5-K	637	638	639	0.1	-2.6	-4.2	0.2	-4.2	-0.03	-0.14	-7.4	-0.04	-0.14	-0.01	0.01
I-2R6-A	640	641	642	-0.4	-1.4	0.2	1.2	-1.4	0.03	-0.03	-50.9	-0.01	0.00	-0.03	0.00
I-2R6-B	643	644	645	0.8	-11.2	-2.8	9.3	-11.4	0.19	-0.28	-40.0	-0.00	-0.09	-0.24	0.01
I-2R6-C	646	647	648	-1.1	-16.8	-0.8	14.9	-16.8	0.32	-0.41	-45.3	-0.05	-0.04	-0.37	0.01
I-2R6-D	649	650	651	1.6	-12.9	-0.7	13.8	-12.9	0.33	-0.29	-42.5	0.05	-0.01	-0.31	0.01
I-2R6-E	652	653	654**	-1.4	-8.4	0.0	7.1	-8.5	0.15	-0.21	-47.6	-0.05	-0.01	-0.18	0.01
I-2R6-F	655**	656	657	0.0	-6.1	0.7	6.7	-6.1	0.16	-0.13	-46.5	0.01	-0.02	-0.15	0.01
I-2R6-G	658	659	660	0.1	-3.6	0.1	3.8	-3.6	0.09	-0.08	-45.3	0.00	0.01	-0.09	0.01
I-2R6-H	661**	662	663	0.0	-2.5	0.2	2.7	-2.5	0.06	-0.06	-45.8	0.00	0.01	-0.06	0.01
I-2R6-J	664**	665	666	0.0	-1.6	0.3	1.9	-1.6	0.05	-0.03	-47.5	0.00	0.01	-0.04	0.01
I-2R6-K	667	668	669	-0.1	-0.8	0.1	0.8	-0.8	0.02	-0.02	-47.5	-0.00	0.00	-0.02	0.00

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

COMBUSTION T-13, LOAD CASE 2, M3Y

NOMINAL LOAD = 7.423E 04

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)			
O-1R1- A	3	2	1	0.3	-19.7	-2.8	17.2	-19.8	0.37	-0.48	47.4	-0.09	-0.02	0.43	0.01	
O-1R1- B	6	5	4	-1.4	-18.3	-1.4	15.4	-18.3	0.33	-0.45	45.0	-0.06	-0.06	0.39	0.01	
O-1R1- C	9	8	7	-0.1	-15.0	-2.8	12.2	-13.1	0.25	-0.38	47.9	-0.09	-0.03	0.31	0.01	
O-1R1- D	12	11	10	-0.2	-12.1	-1.8	10.2	-12.2	0.21	-0.30	47.1	-0.06	-0.02	0.26	0.01	
O-1R1- E	15	14	13	-0.3	-9.0	-1.1	7.5	-9.0	0.16	-0.22	46.4	-0.04	-0.02	0.19	0.01	
O-1R1- F	18	17	16	-0.4	-5.7	-0.4	4.9	-5.7	0.11	-0.14	45.0	-0.02	-0.02	0.12	0.01	
O-1R1- G	21	20	19	0.0	-4.7	-0.1	4.6	-4.7	0.11	-0.11	45.3	-0.00	-0.00	0.11	0.01	
O-1R1- H	24	23	22	-0.8	-3.7	-0.0	2.9	-3.7	0.06	-0.09	41.7	-0.01	-0.03	0.08	0.01	
O-1R1- J	27	26	25	-1.2	-3.3	0.1	2.3	-3.4	0.04	-0.09	38.3	-0.01	-0.04	0.06	0.01	
O-1R1- K	30	29	28	-1.0	-2.6	0.2	1.8	-2.6	0.03	-0.07	37.1	-0.00	-0.03	0.05	0.01	
O-1R1- L	162	161	160	-1.4	-0.4	0.7	0.7	-1.4	0.01	-0.04	2.5	0.01	-0.04	0.00	0.01	
O-1R1- M	165	164	163	-0.8	0.2	-0.2	0.2	-1.2	-0.00	-0.04	-31.6	-0.01	-0.03	-0.01	0.01	
O-1R1- N	168	167	166	-0.5	0.2	0.1	0.3	-0.7	0.00	-0.02	-24.0	-0.00	-0.02	-0.01	0.01	
O-1R1- O	171**	170	169	0.0	0.6	0.1	0.6	-0.5	0.02	-0.01	-42.0	0.00	0.00	-0.01	0.00	
O-1R2- A	33	32	31	3.4	-21.6	-5.9	19.7	-22.2	0.43	-0.54	51.4	-0.16	0.05	0.47	0.02	
O-1R2- B	36	35	34	4.4	-18.7	-3.2	20.2	-19.1	0.48	-0.43	50.6	-0.06	0.11	0.44	0.02	
O-1R2- C	39	38	37	5.2	-14.2	-2.8	17.0	-14.7	0.42	-0.31	52.3	-0.04	0.14	0.35	0.01	
O-1R2- D	42	41	40	4.0	-8.6	-2.1	10.9	-9.0	0.27	-0.19	53.9	-0.03	0.11	0.22	0.01	
O-1R2- E	45	44	43	1.8	-5.5	0.7	7.9	-5.5	0.21	-0.10	47.4	0.04	0.07	0.15	0.01	
O-1R2- F	48	47	46	1.8	-2.5	0.5	4.8	-2.5	0.13	-0.04	50.0	0.03	0.06	0.08	0.01	
O-1R2- G	51	50	49	1.3	-2.3	0.7	4.4	-2.4	0.12	-0.03	47.6	0.04	0.05	0.08	0.01	
O-1R2- H	54	53	52	0.4	-1.9	0.1	2.4	-1.9	0.06	-0.04	47.5	0.01	0.02	0.05	0.02	
O-1R2- J	57	56	55	-0.1	-2.1	0.2	2.2	-2.1	0.05	-0.05	43.5	0.00	-0.00	0.05	0.01	
O-1R2- K	60	59	58	-0.3	-1.6	-0.4	0.8	-1.6	0.01	-0.04	45.9	-0.02	-0.02	0.03	0.01	
O-1R3- A	63	62	61	4.3	-21.0	-5.6	20.4	-21.6	0.46	-0.51	51.8	-0.14	0.09	0.47	0.03	
O-1R3- B	66	65	64	1.0	-19.6	0.1	20.7	-19.6	0.49	-0.44	45.6	0.01	0.03	0.46	0.01	
O-1R3- C	69	68	67	6.9	-13.4	-2.4	18.6	-14.1	0.47	-0.28	53.3	-0.01	0.20	0.36	0.01	
O-1R3- D	72	71	70	3.2	-8.1	0.0	11.5	-8.2	0.30	-0.16	49.7	0.03	0.11	0.22	0.01	
O-1R3- E	75	74	73	1.8	-3.6	1.2	6.5	-3.6	0.18	-0.05	46.8	0.04	0.07	0.12	0.01	
O-1R3- F	78	77	76	1.5	0.0	0.4	2.1	-0.1	0.07	0.02	60.2	0.03	0.06	0.02	0.01	
O-1R3- G	81	80	79	0.7	1.7	1.3	1.8	0.3	0.06	0.03	-32.7	0.05	0.04	-0.02	0.02	
O-1R3- H	84	83	82	1.0	0.5	0.6	1.2	0.4	0.04	0.03	60.8	0.03	0.04	0.01	0.02	
O-1R3- J	87	86	85	0.2	-0.2	0.0	0.4	-0.2	0.01	-0.00	54.4	0.00	0.01	0.01	0.00	
O-1R3- K	90**	89	88	0.0	-0.9	-0.5	0.5	-0.9	0.01	-0.03	54.9	-0.02	-0.00	0.02	0.01	
O-1R4- A	681	680	679	1.6	-3.6	0.3	5.6	-3.7	0.15	-0.07	49.0	0.03	0.06	0.11	0.02	
O-1R4- B	93	92	91	1.4	1.2	0.8	1.4	0.8	0.06	0.04	-86.8	0.04	0.06	-0.00	0.01	
O-1R4- C	96	95	94	0.8	1.3	0.7	1.3	0.2	0.04	0.02	-47.4	0.03	0.03	-0.01	0.01	
O-1R4- D	99	98	97	0.3	1.0	0.5	1.0	-0.2	0.03	0.00	-39.3	0.02	0.01	-0.01	0.01	
O-1R5- A	102	101	100	0.3	-22.5	-1.4	21.3	-22.5	0.48	-0.53	46.1	-0.05	-0.01	0.51	0.01	
O-1R5- B	105	104	103	5.3	-23.0	-4.6	24.2	-23.5	0.57	-0.53	50.9	-0.10	0.13	0.54	0.02	
O-1R5- C	108	107	106	6.3	-15.8	-4.8	18.2	-16.7	0.44	-0.37	54.2	-0.10	0.16	0.38	0.02	
O-1R5- D	111	110	109	2.8	-8.4	-2.4	9.2	-8.8	0.21	-0.20	53.4	-0.05	0.07	0.20	0.01	
O-1R5- E	114	113	112	1.5	-3.6	-0.6	4.6	-3.7	0.11	-0.08	52.2	-0.01	0.04	0.09	0.01	
O-1R5- F	117	116	115	0.9	0.1	-0.2	1.0	-0.2	0.03	0.00	74.8	0.00	0.03	0.01	0.01	
O-1R5- G	120	119	118	1.6	0.5	0.0	1.7	-0.0	0.05	0.02	78.9	0.02	0.05	0.01	0.01	
O-1R5- H	123	122	121	1.0	0.9	0.2	1.1	0.1	0.04	0.01	-68.1	0.02	0.03	-0.01	0.01	
O-1R5- J	126	125	124	0.8	0.8	-0.7	1.1	-1.0	0.03	-0.02	-67.5	-0.01	0.02	-0.02	0.01	
O-1R5- K	129	128	127	0.6	0.5	0.1	0.6	0.1	0.02	0.01	-74.0	0.01	0.02	-0.00	0.01	
O-1R6- A	132	131	130	1.3	-23.3	-2.5	22.2	-23.4	0.50	-0.55	47.4	-0.07	0.02	0.53	0.01	
O-1R6- B	135	134	133	1.5	-24.2	-0.8	24.8	-24.2	0.58	-0.55	46.3	-0.01	0.04	0.57	0.01	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
0-1R6-C	136	137	136	3.1	-18.3	-3.6	18.1	-18.6	0.41	-0.43	50.3	-0.09	0.07	0.42	0.01
0-1R6-D	141	140	139	1.3	-10.4	-1.2	10.6	-10.5	0.25	-0.24	48.4	-0.03	0.03	0.24	0.01
0-1R6-E	144	143	142	0.4	-4.0	-0.3	4.2	-4.0	0.10	-0.09	47.3	-0.00	0.01	0.09	0.01
0-1R6-F	147	146	145	0.2	-0.8	-0.1	1.0	-0.8	0.02	-0.02	49.7	-0.00	0.01	0.02	0.01
0-1R6-G	150	149	148	-0.0	-0.2	-0.2	0.0	-0.2	-0.00	-0.01	69.3	-0.01	-0.00	0.00	0.00
0-1R6-H	153	152	151	-0.2	-0.1	0.1	0.1	-0.2	0.00	-0.01	6.3	0.00	-0.01	0.00	0.00
0-1R6-J	156	155	154	-0.2	-0.1	0.2	0.2	-0.2	0.00	-0.01	5.8	0.00	-0.01	0.00	0.00
0-1R6-K	159	158	157	0.4	0.1	-0.1	0.4	-0.1	0.01	0.00	87.8	0.00	0.01	0.00	0.00
0-2R1-A	174	173	172	0.6	-18.1	-0.0	18.7	-18.1	0.44	-0.41	45.5	0.01	0.02	0.42	0.00
0-2R1-B	177	176	175	1.8	-15.0	0.0	16.8	-15.0	0.41	-0.33	46.6	0.02	0.06	0.37	0.01
0-2R1-C	180	179	178	2.3	-12.9	0.7	15.8	-12.9	0.40	-0.27	46.6	0.05	0.08	0.33	0.01
0-2R1-D	183	182	181	2.4	-9.9	-1.0	11.4	-10.0	0.28	-0.22	49.6	-0.01	0.07	0.24	0.01
0-2R1-E	186	185	184	0.9	-7.4	0.2	8.4	-7.4	0.20	-0.16	46.2	0.01	0.03	0.18	0.01
0-2R1-F	189	188	187	0.6	-4.5	-1.1	4.1	-4.6	0.09	-0.11	50.7	-0.03	0.01	0.10	0.02
0-2R1-G	192	191	190*	0.9	-4.0	-2.3	3.0	-4.4	0.05	-0.12	57.7	-0.07	0.01	0.08	0.01
0-2R1-H	195	194	193	0.8	-3.4	-0.8	3.5	-3.5	0.08	-0.08	51.6	-0.02	0.02	0.08	0.01
0-2R1-J	198	197	196	1.0	-2.3	-0.5	3.0	-2.4	0.07	-0.05	52.9	-0.01	0.03	0.06	0.01
0-2R1-K	201	200	199	0.8	-2.2	-1.0	2.2	-2.4	0.05	-0.06	56.4	-0.02	0.02	0.05	0.01
0-2R1-L	333	332	331	1.3	-0.5	-1.3	1.3	-1.4	0.03	-0.03	80.8	-0.03	0.03	0.01	0.01
0-2R1-M	336	335	334	0.4	0.5	-0.5	0.6	-0.7	0.01	-0.02	66.0	-0.01	0.01	-0.01	0.01
0-2R1-N	339	338	337	0.3	0.8	-0.3	0.8	-0.8	0.02	-0.02	54.7	-0.01	0.01	-0.02	0.00
0-2R2-A	204	203	202	1.9	-20.4	-1.6	20.7	-20.5	0.48	-0.47	47.4	-0.04	0.04	0.47	0.01
0-2R2-B	207	206	205	7.4	-15.0	-3.5	19.8	-15.9	0.49	-0.33	53.9	-0.04	0.21	0.39	0.01
0-2R2-C	210	209	208	6.3	-11.7	-0.7	17.8	-12.1	0.47	-0.22	51.8	0.04	0.20	0.34	0.01
0-2R2-D	213	212	211	5.7	-7.5	0.2	13.7	-7.8	0.37	-0.12	52.4	0.06	0.19	0.24	0.01
0-2R2-E	216	215	214	2.1	-4.7	2.5	9.4	-6.7	0.26	-0.06	44.1	0.10	0.09	0.16	0.02
0-2R2-F	219	218	217	3.9	-2.7	1.0	7.9	-2.9	0.23	-0.02	52.9	0.07	0.14	0.12	0.01
0-2R2-G	222	221	220	2.6	-1.7	0.1	4.6	-1.9	0.13	-0.02	56.1	0.07	0.09	0.07	0.02
0-2R2-H	225	224	223	2.8	-1.5	-0.7	4.1	-2.0	0.12	-0.03	62.2	0.01	0.08	0.06	0.01
0-2R2-J	228	227	226	2.8	-1.7	-0.5	4.5	-2.2	0.13	-0.03	59.6	0.01	0.09	0.07	0.01
0-2R2-K	231	230	229	2.7	-2.0	-1.1	4.1	-2.6	0.11	-0.05	62.1	-0.01	0.08	0.06	0.01
0-2R3-A	234	233	232	5.0	-20.7	-3.6	22.5	-21.1	0.53	-0.47	50.7	-0.07	0.13	0.49	0.01
0-2R3-B	237	236	235	6.1	-17.4	-3.3	20.8	-18.0	0.51	-0.39	52.0	-0.05	0.17	0.43	0.01
0-2R3-C	240	239	238	7.2	-12.4	-1.4	18.8	-13.0	0.49	-0.24	52.8	0.03	0.22	0.35	0.00
0-2R3-D	243	242	241	4.0	-6.5	1.5	12.0	-6.5	0.32	-0.10	48.8	0.09	0.15	0.21	0.01
0-2R3-E	246	245	244	3.3	-2.6	1.2	7.2	-2.7	0.21	-0.02	51.1	0.07	0.12	0.11	0.01
0-2R3-F	249	248	247	2.7	0.4	2.2	4.5	0.3	0.15	0.06	48.6	0.10	0.11	0.05	0.01
0-2R3-G	252	251	250	3.8	0.9	1.3	4.6	0.3	0.16	0.06	64.1	0.08	0.14	0.04	0.02
0-2R3-H	255	254	253	2.8	0.3	0.2	3.3	-0.3	0.11	0.02	68.9	0.03	0.10	0.03	0.01
0-2R3-J	258	257	256	2.6	0.1	-0.1	3.0	-0.5	0.10	0.01	70.0	0.02	0.09	0.03	0.01
0-2R3-K	261	260	259	2.4	0.2	-1.7	2.4	-1.7	0.06	-0.03	88.0	-0.03	0.06	0.00	0.01
0-2R4-A	684	683	682	1.7	-2.0	1.5	5.2	-2.0	0.15	-0.01	45.7	0.07	0.07	0.08	0.01
0-2R4-B	264	263	262	2.5	1.1	2.2	3.6	1.1	0.13	0.07	47.9	0.10	0.10	0.03	0.02
0-2R4-C	267	266	265	1.6	1.3	1.3	1.7	1.2	0.07	0.06	63.0	0.06	0.06	0.00	0.01
0-2R4-D	270	269	268	1.3	-0.0	0.8	2.1	-0.1	0.07	0.02	52.3	0.04	0.05	0.02	0.01
0-2R5-A	273	272	271	-0.4	-24.1	-1.1	22.6	-24.2	0.51	-0.57	45.4	-0.04	-0.03	0.54	0.01
0-2R5-B	276	275	274	3.7	-21.9	-3.6	22.3	-22.2	0.52	-0.51	49.7	-0.06	0.09	0.51	0.02
0-2R5-C	279	278	277	-0.9	-15.0	4.8	19.2	-15.2	0.48	-0.31	40.2	0.15	0.02	0.39	0.02
0-2R5-D	282	281	280	3.9	-7.8	-2.1	10.1	-8.3	0.25	-0.17	54.5	-0.03	0.11	0.20	0.02
0-2R5-E	285	284	283	1.8	-2.5	0.5	4.9	-2.6	0.13	-0.04	49.7	0.03	0.06	0.08	0.02
0-2R5-F	288	287	286	1.8	0.6	0.8	2.1	0.4	0.07	0.03	62.7	0.04	0.07	0.02	0.02
0-2R5-G	291	290	289	1.2	2.2	1.5	2.2	0.5	0.08	0.04	39.5	0.06	0.05	-0.02	0.01
0-2R5-H	294	293	292	1.6	1.0	1.8	2.4	1.0	0.09	0.06	40.4	0.07	0.07	0.02	0.02
0-2R5-J	297	296	295	0.8	1.5	1.7	1.8	0.7	0.07	0.04	14.4	0.07	0.04	-0.01	0.01
0-2R5-K	300	299	298	1.5	1.2	1.6	1.9	1.2	0.08	0.06	40.6	0.07	0.07	0.01	0.01
0-2R6-A	303	302	301	2.3	-23.5	-5.6	20.6	-23.9	0.44	-0.58	50.2	-0.16	0.02	0.50	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN = MICROINCHES/INCH						STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)			
O-2R6-B	306	305	304	-1.3	-26.6	-3.6	21.7	-26.7	0.45	-0.66	46.4	-0.13	-0.08	0.56	0.01	
O-2R6-C	309	308	307	-2.1	-19.6	-1.3	16.1	-19.6	0.34	-0.49	44.3	-0.06	-0.08	0.41	0.02	
O-2R6-D	312	311	310	0.8	-11.8	-2.4	10.3	-11.9	0.22	-0.29	49.1	-0.07	0.00	0.25	0.01	
O-2R6-E	315	314	313	-0.2	-4.0	-0.5	3.3	-4.0	0.07	-0.10	46.1	-0.02	-0.01	0.08	0.01	
O-2R6-F	318	317	316	-0.2	-0.2	-0.1	-0.1	-0.2	-0.00	-0.01	39.4	-0.01	-0.01	0.00	0.00	
O-2R6-G	321	320	319	0.2	0.3	-0.3	0.4	-0.5	0.01	-0.01	-59.4	-0.01	0.00	-0.01	0.00	
O-2R6-H	324	323	322	-0.3	0.4	-0.0	0.4	-0.8	0.01	-0.02	-38.9	-0.00	-0.01	-0.01	0.00	
O-2R6-J	327	326	325	0.1	0.2	-0.2	0.2	-0.4	0.00	-0.01	-61.0	-0.01	0.00	-0.01	0.00	
O-2R6-K	330	329	328	-0.2	0.4	-0.1	0.4	-0.6	0.01	-0.02	-42.7	-0.00	-0.01	-0.01	0.00	
I-1R1-A	340	341	342	-0.2	-17.4	-3.3	14.0	-17.5	0.29	-0.44	-42.2	-0.04	-0.11	-0.36	0.01	
I-1R1-B	343	344	345	2.2	-12.5	-4.7	10.6	-13.1	0.22	-0.33	-36.6	0.03	-0.13	-0.26	0.01	
I-1R1-C	346	347	348	-0.0	-5.0	-1.5	3.5	-5.1	0.07	-0.13	-39.9	-0.02	-0.05	-0.10	0.01	
I-1R1-D	349	350	351	0.1	-3.1	-1.5	1.8	-3.3	0.03	-0.09	-35.4	-0.01	-0.05	-0.06	0.01	
I-1R1-E	352	353	354	0.1	-4.4	-1.4	3.2	-4.5	0.06	-0.12	-39.3	-0.01	-0.04	-0.09	0.01	
I-1R1-F	355	356	357	-0.1	-3.2	-0.9	2.3	-3.3	0.04	-0.09	-40.6	-0.01	-0.03	-0.06	0.01	
I-1R1-G	358	359	360	0.2	-1.0	-1.2	0.3	-1.3	-0.00	-0.04	-17.8	-0.01	-0.04	-0.01	0.01	
I-1R1-H	361	362	363	0.1	-0.4	-0.9	0.1	-0.9	-0.01	-0.03	0.9	-0.01	-0.03	0.00	0.01	
I-1R1-J	364	365	366	0.3	0.7	-1.0	0.8	-1.6	0.01	-0.04	29.7	-0.00	-0.03	0.02	0.01	
I-1R1-K	367	368	369	0.3	0.8	-0.7	0.9	-1.4	0.02	-0.04	33.0	0.00	-0.02	0.02	0.01	
I-1R1-L	499	500	501	0.2	0.4	-0.8	0.5	-1.1	0.01	-0.03	25.9	-0.00	-0.03	0.02	0.01	
I-1R1-M	502**	503	504	0.0	-0.3	-0.7	0.0	-0.7	-0.01	-0.02	5.5	-0.01	-0.02	0.00	0.01	
I-1R1-N	505**	506	507	0.0	-0.2	-0.4	0.0	-0.4	-0.00	-0.01	-4.1	-0.00	-0.01	-0.00	0.00	
I-1R1-O	508	509	510	0.1	-0.1	0.2	0.4	-0.1	0.01	0.00	-50.4	0.01	0.01	-0.01	0.00	
I-1R2-A	370	371	372	-3.1	-18.6	-0.8	14.8	-18.6	0.30	-0.47	-46.9	-0.11	-0.06	-0.38	0.01	
I-1R2-B	373	374	375	-3.3	-14.0	-3.3	7.4	-14.0	0.10	-0.39	-45.0	-0.14	-0.14	-0.25	0.00	
I-1R2-C	376	377	378**	-1.8	-7.4	0.0	5.6	-7.5	0.11	-0.19	-49.0	-0.06	-0.02	-0.15	0.00	
I-1R2-D	379	380	381	-0.4	1.0	-6.3	1.9	-8.6	-0.02	-0.27	28.2	-0.08	-0.21	0.10	0.01	
I-1R2-E	382	383	384	-0.1	-4.1	-6.2	0.1	-6.3	-0.06	-0.21	-8.9	-0.06	-0.20	-0.02	0.01	
I-1R2-F	385*	386	387	-1.6	-3.8	-3.5	-0.9	-4.1	-0.07	-0.15	-26.5	-0.09	-0.13	-0.03	0.01	
I-1R2-G	388	389	390	0.2	-1.7	-1.5	0.7	-2.0	0.00	-0.06	-24.8	-0.01	-0.05	-0.02	0.01	
I-1R2-H	391	392	393	-0.0	-0.6	-1.2	-0.0	-1.2	-0.01	-0.04	1.0	-0.01	-0.04	0.00	0.01	
I-1R2-J	394	395	396	0.4	0.4	-0.6	0.6	-0.9	0.01	-0.02	23.1	0.01	-0.02	0.01	0.00	
I-1R2-K	397	398	399	0.8	0.4	-1.1	1.0	-1.3	0.02	-0.03	15.5	0.02	-0.03	0.01	0.01	
I-1R3-A	400	401	402	-4.9	-17.7	0.7	13.8	-17.9	0.28	-0.45	-50.1	-0.15	-0.02	-0.36	0.01	
I-1R3-B	403	404	405	-5.3	-13.4	-2.0	6.2	-13.5	0.07	-0.39	-49.8	-0.20	-0.12	-0.22	0.01	
I-1R3-C	406	407	408	-1.4	-8.5	-7.5	0.6	-9.5	-0.07	-0.31	-26.6	-0.12	-0.26	-0.09	0.01	
I-1R3-D	409	410	411	0.6	-4.3	-9.7	0.6	-9.7	-0.07	-0.31	0.9	-0.07	-0.31	0.00	0.01	
I-1R3-E	412	413	414	-1.1	-4.3	-5.8	-0.9	-6.0	-0.09	-0.21	-9.7	-0.09	-0.20	-0.02	0.01	
I-1R3-F	415	416	417	-1.0	-3.1	-3.9	-0.9	-4.1	-0.07	-0.14	-11.2	-0.07	-0.14	-0.01	0.01	
I-1R3-G	418	419	420	-0.6	-2.4	-2.4	-0.3	-2.8	-0.04	-0.09	-21.5	-0.04	-0.09	-0.02	0.01	
I-1R3-H	421	422	423	-0.2	-1.4	-0.9	0.4	-1.5	-0.00	-0.04	-32.5	-0.01	-0.03	-0.02	0.01	
I-1R3-J	424	425	426	0.1	-1.0	-0.6	0.5	-1.1	0.01	-0.03	-32.7	-0.00	-0.02	-0.02	0.01	
I-1R3-K	427	428	429	0.6	-0.2	-0.2	0.8	-0.4	0.02	-0.00	-22.7	0.02	-0.00	-0.01	0.00	
I-1R4-A	430	431	432	-0.8	-3.6	-5.2	-0.7	-5.3	-0.07	-0.18	-7.8	-0.08	-0.18	-0.01	0.01	
I-1R4-B	433	434	435	-0.4	-1.6	-1.3	0.0	-1.7	-0.02	-0.06	-30.5	-0.03	-0.05	-0.02	0.01	
I-1R4-C	436**	437**	438**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
I-1R5-A	441	440	441	-3.7	-17.1	1.8	15.5	-17.4	0.34	-0.42	-49.9	-0.10	0.02	-0.37	0.01	
I-1R5-B	442	443	444	-3.4	-12.3	-1.8	7.1	-12.3	0.11	-0.34	-47.4	-0.13	-0.09	-0.22	0.01	
I-1R5-C	445	446	447	-1.5	-7.2	-4.5	1.4	-7.4	-0.03	-0.23	-35.2	-0.09	-0.16	-0.10	0.01	
I-1R5-D	448	449	450	0.3	-2.3	-5.0	0.3	-5.0	-0.04	-0.16	0.3	-0.04	-0.16	0.00	0.01	
I-1R5-E	453	452	451	-3.2	-2.1	-0.8	-0.8	-3.3	-0.06	-0.12	-88.3	-0.12	-0.06	-0.00	0.02	
I-1R5-F	454	455	456	-0.5	-2.4	-2.0	0.2	-2.6	-0.02	-0.09	-28.8	-0.04	-0.07	-0.03	0.01	
I-1R5-G	457	458	459	-0.6	-2.3	-2.1	-0.2	-2.6	-0.03	-0.09	-24.8	-0.04	-0.08	-0.02	0.01	
I-1R5-H	460**	461	462	0.0	-1.6	-1.9	0.2	-2.1	-0.01	-0.07	-16.2	-0.02	-0.06	-0.01	0.01	
I-1R5-J	463	464	465	-0.7	-2.2	-1.3	0.2	-2.3	-0.01	-0.07	-37.6	-0.04	-0.09	-0.03	0.01	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
I-1R5-K	466**	467**	468**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-1R6-A	469	470**	471	4.4	0.0	-6.0	4.5	-6.0	0.09	-0.15	4.3	0.09	-0.15	0.02	0.01
I-1R6-B	472	473	474	-1.7	-10.4	1.9	10.7	-10.5	0.25	-0.24	-49.9	-0.04	0.04	-0.24	0.00
I-1R6-C	475	476	477	-0.0	-3.9	0.8	4.7	-3.9	0.12	-0.08	-47.5	0.01	0.02	-0.10	0.01
I-1R6-D	478	479	480	-0.2	-1.0	0.2	1.0	-1.0	0.02	-0.02	-51.7	-0.01	0.01	-0.02	0.01
I-1R6-E	481	482	483	-0.1	-0.3	-0.2	-0.0	-0.3	-0.00	-0.01	-34.5	-0.01	-0.01	-0.00	0.00
I-1R6-F	484	485	486	0.0	-0.3	-0.2	0.2	-0.3	0.00	-0.01	-33.3	-0.00	-0.01	-0.01	0.00
I-1R6-G	487	488	489	0.1	0.0	-0.2	0.1	-0.2	0.00	-0.00	15.9	0.00	-0.00	0.00	0.00
I-1R6-H	490	491	492	0.0	-0.2	-0.3	0.0	-0.3	-0.00	-0.01	-6.1	-0.00	-0.01	-0.00	0.00
I-1R6-J	493	494	495	-0.2	-0.4	-0.2	0.0	-0.4	-0.00	-0.01	-48.0	-0.01	-0.01	-0.00	0.00
I-1R6-K	496**	497**	498**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2R1-A	511	512	513	-3.0	-16.3	3.7	17.4	-16.5	0.41	-0.36	-50.6	-0.06	0.09	-0.39	0.01
I-2R1-B	514	515	516	-3.3	-11.9	2.6	11.5	-12.2	0.26	-0.29	-52.2	-0.08	0.05	-0.26	0.01
I-2R1-C	517	518	519	-0.9	-4.7	0.5	4.4	-4.8	0.10	-0.11	-49.4	-0.02	0.01	-0.10	0.01
I-2R1-D	520	521	522	0.1	-2.7	-0.5	2.3	-2.7	0.05	-0.07	-41.2	-0.00	-0.02	-0.06	0.01
I-2R1-E	523	524	525	-0.4	-4.0	0.4	4.1	-4.0	0.09	-0.09	-47.6	-0.01	0.01	-0.09	0.01
I-2R1-F	526	527	528	-0.3	-2.7	0.6	3.0	-2.7	0.07	-0.06	-49.2	-0.00	0.02	-0.07	0.01
I-2R1-G	529	530	531	-0.2	-0.9	1.0	1.8	-1.0	0.05	-0.02	-57.4	0.00	0.03	-0.03	0.01
I-2R1-H	532	533	534	0.2	0.3	1.7	1.9	-0.0	0.06	0.02	-71.1	0.02	0.06	-0.01	0.01
I-2R1-J	535	536	537	0.2	0.7	1.0	1.0	0.1	0.04	0.01	81.6	0.02	0.04	0.00	0.01
I-2R1-K	538	539	540	-0.3	0.5	0.8	0.9	-0.4	0.02	-0.00	78.3	-0.00	0.02	0.01	0.01
I-2R1-L	672	671	670	1.2	-0.4	-0.2	1.6	-0.7	0.05	-0.01	63.8	0.01	0.04	0.02	0.01
I-2R1-M	675	674	673	0.6	-0.2	-0.3	0.8	-0.4	0.02	-0.01	69.9	-0.00	0.02	0.01	0.01
I-2R1-N	678	677	676	0.6	-0.6	-0.2	1.1	-0.7	0.03	-0.01	58.4	-0.00	0.02	0.02	0.01
I-2R2-A	541	542	543	1.9	-17.9	-3.8	16.2	-18.1	0.35	-0.44	-40.2	0.02	-0.11	-0.39	0.05
I-2R2-B	544	545	546	-3.2	-14.2	-2.5	8.5	-14.2	0.14	-0.38	-45.9	-0.13	-0.11	-0.26	0.01
I-2R2-C	547	548	549	-2.4	-8.7	-6.2	0.5	-9.1	-0.07	-0.30	-33.5	-0.14	-0.23	-0.10	0.01
I-2R2-D	550	551	552	1.2	-5.8	-8.9	1.6	-9.2	-0.04	-0.29	-10.5	-0.05	-0.28	-0.04	0.01
I-2R2-E	553	554	555	-1.1	-7.1	-6.8	0.3	-8.2	-0.07	-0.27	-24.1	-0.10	-0.23	-0.07	0.01
I-2R2-F	556	557	558	-1.3	-5.4	-3.0	1.2	-5.5	-0.01	-0.17	-37.6	-0.07	-0.11	-0.08	0.01
I-2R2-G	559	560	561	-0.5	-3.4	-2.1	0.9	-3.6	-0.00	-0.11	-35.1	-0.04	-0.07	-0.05	0.01
I-2R2-H	562	563	564	-0.2	-2.1	-0.4	1.4	-2.1	0.03	-0.06	-43.4	-0.01	-0.02	-0.04	0.01
I-2R2-J	565	566	567	0.2	-0.1	0.4	0.7	-0.1	0.02	0.00	-50.8	0.01	0.02	-0.01	0.01
I-2R2-K	568	569	570	0.5	0.6	1.0	1.1	0.4	0.04	0.02	-70.9	0.03	0.04	-0.00	0.01
I-2R3-A	571	572	573	-1.4	-17.0	-2.6	13.1	-17.0	0.26	-0.43	-43.8	-0.07	-0.10	-0.35	0.01
I-2R3-B	574	575	576	-2.7	-14.1	-4.5	6.9	-14.1	0.09	-0.40	-42.5	-0.13	-0.18	-0.24	0.01
I-2R3-C	577	578	579	-2.5	-10.5	-8.4	0.4	-11.3	-0.10	-0.37	-29.9	-0.17	-0.30	-0.12	0.01
I-2R3-D	580	581	582	1.3	-5.1	-11.4	1.3	-11.4	-0.07	-0.36	-0.4	-0.07	-0.36	-0.00	0.01
I-2R3-E	583	584	585	-0.6	-6.3	-8.0	-0.1	-8.5	-0.09	-0.28	-14.5	-0.10	-0.27	-0.05	0.01
I-2R3-F	586	587	588	-1.6	-5.9	-4.9	-0.1	-6.3	-0.07	-0.21	-29.0	-0.10	-0.18	-0.06	0.01
I-2R3-G	589	590	591*	-0.9	-4.4	0.5	4.0	-4.4	0.09	-0.11	-49.4	-0.02	0.01	-0.10	0.02
I-2R3-H	592	593	594	-0.5	-3.2	-1.0	1.7	-3.2	0.02	-0.09	-41.7	-0.03	-0.04	-0.06	0.01
I-2R3-J	595	596	597	0.4	-1.0	0.2	1.6	-1.0	0.04	-0.02	-41.8	0.02	0.01	-0.03	0.01
I-2R3-K	598	599	600	0.1	0.2	2.7	2.3	-0.3	0.07	0.01	-69.0	0.02	0.07	-0.02	0.01
I-2R4-A	601	602	603	-0.5	-4.1	-3.9	0.3	-4.7	-0.04	-0.15	-23.7	-0.06	-0.13	-0.04	0.02
I-2R4-B	604	605	606	0.5	-3.1	-2.0	1.9	-3.4	0.03	-0.09	-31.2	-0.00	-0.06	-0.05	0.01
I-2R4-C	607	608	609	1.4	-1.8	-0.8	2.7	-2.0	0.07	-0.04	-30.8	0.04	-0.01	-0.05	0.01
I-2R5-A	610	611	612	-1.2	-16.2	-2.3	12.8	-16.2	0.26	-0.41	-43.9	-0.06	-0.09	-0.33	0.01
I-2R5-B	613	614	615	-3.8	-12.5	-1.6	7.1	-12.6	0.11	-0.34	-48.2	-0.14	-0.07	-0.23	0.03
I-2R5-C	616	617	618	-0.9	-8.8	-5.8	2.6	-9.3	-0.01	-0.28	-32.8	-0.09	-0.20	-0.13	0.01
I-2R5-D	619	620	621	0.6	-2.7	-6.9	0.7	-6.9	-0.05	-0.22	2.8	-0.05	-0.22	0.01	0.02
I-2R5-E	622	623	624	-0.3	-3.6	-4.1	0.1	-4.6	-0.04	-0.15	-18.0	-0.05	-0.14	-0.03	0.01
I-2R5-F	625	626	627	-0.6	-3.2	-3.1	0.0	-3.7	-0.04	-0.12	-23.5	-0.05	-0.11	-0.03	0.01
I-2R5-G	628	629	630	-0.1	-2.8	-2.5	0.5	-3.2	-0.01	-0.10	-25.4	-0.03	-0.08	-0.03	0.01
I-2R5-H	631	632	633	0.2	-1.9	-1.8	0.6	-2.3	-0.00	-0.07	-22.9	-0.01	-0.06	-0.02	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI				TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
I-2R5-J	634	635	636	0.4	-2.4	-2.6	0.9	-3.1	-0.00	-0.09	-21.1	-0.01	-0.08	-0.03	0.01
I-2R5-K	637	638	639	0.9	-1.6	-1.7	1.3	-2.2	0.02	-0.06	-20.6	-0.01	-0.05	-0.03	0.01
I-2R6-A	640	641	642	-3.7	-16.5	1.6	14.6	-16.8	0.31	-0.41	-49.9	-0.11	0.01	-0.36	0.01
I-2R6-B	643	644	645	0.8	-11.1	-2.3	9.6	-11.2	0.21	-0.27	-40.7	0.00	-0.07	-0.24	0.01
I-2R6-C	646	647	648	-0.1	-5.3	0.3	5.4	-5.3	0.13	-0.12	-46.1	-0.00	0.01	-0.12	0.01
I-2R6-D	649	650	651	0.1	-1.2	0.3	1.5	-1.2	0.04	-0.02	-47.4	0.01	0.01	-0.03	0.01
I-2R6-E	652	653	654**	-0.1	-0.2	0.0	0.1	-0.2	-0.00	-0.01	-61.9	-0.00	-0.00	-0.00	0.00
I-2R6-F	655**	656	657	0.0	-0.3	0.4	0.7	-0.3	0.02	-0.00	-58.1	0.00	0.01	-0.01	0.00
I-2R6-G	658	659	660	-0.1	-1.1	0.1	1.2	-1.1	0.03	-0.03	-47.1	-0.00	0.00	-0.03	0.01
I-2R6-H	661	662	663	-0.7	-0.8	0.1	0.4	-1.0	0.00	-0.03	-63.8	-0.02	-0.00	-0.01	0.01
I-2R6-J	664	665	666	-0.3	-0.8	-0.1	0.4	-0.8	0.01	-0.02	-48.0	-0.01	-0.01	-0.01	0.01
I-2R6-K	667	668	669	-0.6	-1.2	-0.1	0.5	-1.2	0.01	-0.04	-54.3	-0.02	-0.01	-0.02	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. →)

COMBUSTION T-13, LOAD CASE 3, M3Z

NOMINAL LOAD = 7.423E 04

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
O-1R1-A	3	2	1	0.5	5.8	0.7	5.8	-4.5	0.15	-0.09	-44.3	0.03	0.02	-0.12	0.01
O-1R1-B	6	5	4**	1.4	8.0	0.0	8.0	-6.6	0.20	-0.14	-47.7	0.01	0.05	-0.17	0.01
O-1R1-C	9	8	7	0.2	6.8	0.4	6.8	-6.2	0.16	-0.14	-44.6	0.01	0.01	-0.15	0.01
O-1R1-D	12	11	10	-0.2	2.7	0.1	2.7	-2.8	0.06	-0.07	-43.5	0.00	-0.01	-0.06	0.01
O-1R1-E	15	14	13	-0.3	0.1	-0.2	0.1	-0.5	-0.00	-0.02	-40.6	-0.01	-0.01	-0.01	0.02
O-1R1-F	18	17	16	-0.8	0.2	0.9	0.9	-0.8	0.02	-0.02	-5.9	0.02	-0.02	-0.00	0.02
O-1R1-G	21	20	19	-0.5	1.1	0.3	1.2	-1.3	0.03	-0.03	-35.5	0.01	-0.01	-0.03	0.01
O-1R1-H	24	23	22	-0.2	2.0	0.2	2.0	-2.1	0.05	-0.05	-41.8	0.00	-0.01	-0.05	0.00
O-1R1-J	27	26	25	-0.4	2.2	0.3	2.2	-2.3	0.05	-0.06	-41.1	0.00	-0.01	-0.05	0.01
O-1R1-K	30	29	28	-0.4	2.3	0.4	2.4	-2.4	0.05	-0.05	-40.0	0.01	-0.01	-0.05	0.01
O-1R1-L	162	161	160	0.2	2.1	-0.3	2.1	-2.2	0.05	-0.05	-48.4	-0.01	0.00	-0.05	0.01
O-1R1-M	165	164	163	1.4	1.4	-0.3	1.7	-0.6	0.05	-0.00	-67.8	0.00	0.04	-0.02	0.01
O-1R1-N	168	167	166	0.8	0.6	0.2	0.8	0.1	0.03	0.01	-82.0	0.01	0.03	-0.01	0.01
O-1R1-O	171	170	169	1.0	0.3	-0.6	1.0	-0.6	0.03	-0.01	-86.6	-0.01	0.03	-0.00	0.01
O-1R2-A	33	32	31	-0.6	10.0	13.1	14.1	-1.5	0.45	0.09	-14.4	0.43	0.11	-0.09	0.01
O-1R2-B	36	35	34	1.4	15.5	15.7	18.5	-1.5	0.60	0.14	-22.1	0.53	0.20	-0.16	0.02
O-1R2-C	39	38	37	1.0	14.1	15.3	17.4	-1.1	0.56	0.13	-19.8	0.51	0.18	-0.14	0.01
O-1R2-D	42	41	40	0.4	7.1	9.9	10.3	-0.0	0.34	0.10	-11.3	0.33	0.11	-0.05	0.02
O-1R2-E	45	44	43	0.3	3.1	3.6	4.0	-0.0	0.13	0.04	-16.9	0.12	0.05	-0.03	0.02
O-1R2-F	48	47	46	-1.1	0.5	0.5	0.9	-1.4	0.01	-0.04	-22.7	0.01	-0.03	-0.02	0.01
O-1R2-G	51	50	49	-1.7	0.1	-1.2	0.1	-3.0	-0.03	-0.10	-40.5	-0.06	-0.07	-0.03	0.02
O-1R2-H	54	53	52	-2.7	-0.1	-1.0	0.1	-3.8	-0.04	-0.13	-32.0	-0.06	-0.10	-0.04	0.01
O-1R2-J	57	56	55	-2.0	0.8	-0.9	0.9	-3.8	-0.01	-0.11	-38.2	-0.05	-0.07	-0.05	0.01
O-1R2-K	60	59	58	-2.6	0.2	-0.1	0.7	-3.4	-0.01	-0.11	-26.3	-0.03	-0.09	-0.04	0.01
O-1R3-A	63	62	61	-1.4	13.8	22.1	22.5	-1.8	0.72	0.16	-8.1	0.71	0.17	-0.08	0.02
O-1R3-B	66	65	64	2.8	22.4	26.8	29.0	0.7	0.96	0.31	-16.2	0.91	0.36	-0.17	0.04
O-1R3-C	69	68	67	3.4	18.1	26.7	27.1	3.0	0.92	0.37	-7.3	0.91	0.38	-0.07	0.03
O-1R3-D	72	71	70	4.1	23.5	15.7	16.8	3.0	0.58	0.27	-15.8	0.56	0.29	-0.08	0.02
O-1R3-E	75	74	73	3.1	7.2	7.2	8.1	2.2	0.29	0.15	-22.6	0.27	0.17	-0.05	0.01
O-1R3-F	78	77	76	0.3	0.7	0.8	0.9	0.3	0.03	0.02	-16.5	0.03	0.02	-0.00	0.01
O-1R3-G	81	80	79	-1.9	-0.2	-0.7	-0.0	-2.6	-0.03	-0.09	-31.7	-0.04	-0.07	-0.03	0.02
O-1R3-H	84	83	82	-2.2	-3.1	-1.9	-1.0	-3.1	-0.06	-0.11	-41.2	-0.08	-0.09	0.02	0.02
O-1R3-J	87	86	85	-2.5	-2.0	-1.4	-1.4	-2.5	-0.07	-0.10	-1.6	-0.07	-0.10	-0.00	0.02
O-1R3-K	90	89	88	-2.2	-2.4	-1.3	-0.9	-2.6	-0.05	-0.09	-29.3	-0.06	-0.08	0.02	0.01
O-1R4-A	681	680	679	4.9	6.2	7.4	8.5	3.8	0.32	0.21	-29.5	0.29	0.24	-0.05	0.02
O-1R4-B	93	92	91	-0.1	0.5	0.9	0.9	-0.1	0.03	0.01	-7.1	0.03	0.01	-0.00	0.01
O-1R4-C	96	95	94	-2.0	-1.3	-0.7	-0.7	-2.0	-0.04	-0.07	-3.2	-0.04	-0.07	-0.00	0.02
O-1R4-D	99	98	97	-1.9	-2.8	-1.1	-0.1	-2.9	-0.03	-0.10	35.6	-0.05	-0.07	0.03	0.01
O-1R5-A	102	101	100	1.1	16.3	29.5	29.6	1.0	0.98	0.33	-2.1	0.98	0.33	-0.02	0.02
O-1R5-B	105	104	103	4.7	23.4	42.1	42.1	4.7	1.43	0.57	-0.0	1.43	0.57	-0.00	0.03
O-1R5-C	108	107	106	5.2	16.6	32.5	32.6	5.0	1.13	0.49	4.7	1.12	0.49	0.05	0.02
O-1R5-D	111	110	109	5.8	13.9	18.5	18.8	5.5	0.67	0.37	-7.6	0.67	0.37	-0.04	0.01
O-1R5-E	114	113	112	5.9	7.8	7.3	8.0	5.3	0.31	0.25	-29.0	0.30	0.27	-0.03	0.01
O-1R5-F	117	116	115	4.2	3.7	1.8	4.4	1.6	0.16	0.10	-74.8	0.10	0.16	-0.02	0.01
O-1R5-G	120	119	118	2.8	1.6	0.3	2.8	0.3	0.10	0.04	-89.9	0.04	0.10	-0.00	0.01
O-1R5-H	123	122	121	2.0	0.8	0.2	2.1	0.1	0.07	0.02	80.0	0.03	0.07	0.01	0.01
O-1R5-J	126	125	124	1.1	0.2	0.2	1.3	0.0	0.04	0.01	69.6	0.02	0.04	0.01	0.01
O-1R5-K	129**	128	127	0.0	-0.1	-0.0	0.1	-0.1	0.00	-0.00	47.1	-0.00	-0.00	0.00	0.00
O-1R6-A	132	131	130	2.5	15.3	31.8	31.9	2.3	1.08	0.39	3.6	1.07	0.40	0.04	0.03
O-1R6-B	135	134	133	6.5	24.5	46.3	46.4	6.4	1.59	0.67	2.8	1.59	0.67	0.04	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI					CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(I)	SIG(T)	TAU		
O-1R6-C	138	137	136	8.6	18.3	33.0	33.2	8.4	1.18	0.60	5.8	1.17	0.61	0.06	0.02	
O-1R6-D	141	140	139	8.5	12.5	18.9	19.0	8.4	0.71	0.46	6.4	0.71	0.47	0.03	0.02	
O-1R6-E	144	143	142	8.5	6.0	8.8	9.3	8.0	0.39	0.36	37.3	0.38	0.37	0.01	0.02	
O-1R6-F	147	146	145	7.2	3.6	2.1	7.4	1.9	0.26	0.13	79.5	0.14	0.26	0.02	0.02	
O-1R6-G	150	149	148	4.7	2.7	0.5	4.7	0.5	0.16	0.06	-88.9	0.06	0.16	-0.00	0.01	
O-1R6-H	153	152	151	3.3	1.9	0.3	3.3	0.3	0.11	0.04	-86.8	0.04	0.11	-0.00	0.01	
O-1R6-J	156	155	154	2.7	1.5	0.3	2.7	0.3	0.09	0.04	89.8	0.04	0.09	0.00	0.02	
O-1R6-K	159	158	157	1.7	1.0	0.2	1.7	0.2	0.06	0.02	-87.8	0.02	0.06	-0.00	0.01	
O-2R1-A	174	173	172	0.5	-3.9	-0.0	4.4	-3.9	0.11	-0.08	46.9	0.00	0.02	0.10	0.01	
O-2R1-B	177	176	175	1.4	-6.7	-0.1	8.1	-6.7	0.20	-0.14	47.9	0.01	0.05	0.17	0.01	
O-2R1-C	180	179	178	0.4	-7.0	0.2	7.5	-7.0	0.18	-0.16	45.4	0.01	0.01	0.17	0.01	
O-2R1-D	183	182	181	-0.1	-3.6	-0.2	3.3	-3.6	0.07	-0.08	45.5	-0.01	-0.00	0.08	0.01	
O-2R1-E	186	185	184	-0.7	-0.4	0.2	0.2	-0.8	-0.00	-0.02	7.5	-0.00	-0.02	0.00	0.01	
O-2R1-F	189	188	187	-0.4	-0.5	0.9	1.2	-0.7	0.03	-0.01	24.1	0.02	-0.01	0.02	0.01	
O-2R1-G	192	191	190	-0.1	-1.4	-0.9	0.5	-1.5	0.00	-0.04	55.9	-0.03	-0.01	0.02	0.03	
O-2R1-H	195	194	193	-0.2	-1.7	0.1	1.6	-1.7	0.04	-0.04	42.8	-0.00	-0.01	0.04	0.02	
O-2R1-J	198	197	196	-0.1	-2.4	0.2	2.4	-2.4	0.06	-0.05	43.1	0.00	-0.00	0.06	0.00	
O-2R1-K	201	200	199	0.2	-2.4	-0.2	2.4	-2.4	0.06	-0.06	47.0	-0.00	0.00	0.06	0.01	
O-2R1-L	333	332	331	0.1	-1.7	-0.3	1.5	-1.7	0.03	-0.04	48.4	-0.01	0.00	0.04	0.01	
O-2R1-M	336	335	334	1.5	-1.1	-0.9	2.1	-1.6	0.06	-0.03	65.5	-0.02	0.04	0.03	0.01	
O-2R1-N	339	338	337	1.8	-0.5	-0.4	2.3	-1.0	0.07	-0.01	66.3	0.00	0.05	0.03	0.01	
O-2R2-A	204	203	202	1.0	-11.0	-12.5	2.7	-14.3	-0.05	-0.44	71.2	-0.40	-0.09	0.12	0.02	
O-2R2-B	207	206	205	0.1	-11.6	-13.6	1.6	-15.2	-0.10	-0.48	72.5	-0.45	-0.13	0.11	0.02	
O-2R2-C	210	209	208	-2.0	-12.9	-11.8	0.9	-14.6	-0.12	-0.47	64.6	-0.41	-0.18	0.14	0.01	
O-2R2-D	213	212	211	-3.3	-6.4	-10.3	-3.3	-10.3	-0.21	-0.37	-87.0	-0.37	-0.21	-0.01	0.02	
O-2R2-E	216	215	214	-1.8	-2.6	-4.6	-1.7	-4.7	-0.10	-0.17	-78.4	-0.17	-0.11	-0.01	0.02	
O-2R2-F	219	218	217	-0.6	-0.1	-0.7	-0.1	-1.5	-0.01	-0.04	-48.2	-0.03	-0.03	-0.01	0.01	
O-2R2-G	222	221	220	0.8	0.2	1.1	1.7	0.2	0.06	0.02	39.8	0.04	0.04	0.02	0.02	
O-2R2-H	225	224	223	1.5	0.2	1.1	2.5	0.2	0.08	0.03	49.7	0.05	0.06	0.03	0.01	
O-2R2-J	228	227	226	1.1	-0.2	0.7	2.0	-0.2	0.06	0.01	50.6	0.03	0.04	0.02	0.01	
O-2R2-K	231	230	229	2.9	-0.2	-0.0	3.6	-0.7	0.11	0.01	65.8	0.03	0.10	0.04	0.01	
O-2R3-A	234	233	232	0.6	-14.3	-24.4	0.8	-24.7	-0.22	-0.80	84.7	-0.80	-0.22	0.05	0.01	
O-2R3-B	237	236	235	-2.3	-17.7	-25.8	-1.8	-26.4	-0.32	-0.89	81.4	-0.87	-0.33	0.00	0.02	
O-2R3-C	240	239	238	-5.3	-17.0	-23.9	-5.0	-24.2	-0.40	-0.85	82.8	-0.84	-0.41	0.05	0.01	
O-2R3-D	243	242	241	-5.6	-11.4	-15.9	-5.6	-15.9	-0.34	-0.58	86.5	-0.58	-0.34	0.01	0.01	
O-2R3-E	246	245	244	-5.3	-4.9	-7.9	-4.5	-8.8	-0.23	-0.34	-63.2	-0.31	-0.25	-0.04	0.01	
O-2R3-F	249	248	247	-1.8	-0.2	-1.5	-0.2	-3.1	-0.04	-0.10	-42.1	-0.07	-0.07	-0.03	0.01	
O-2R3-G	252	251	250	-0.0	1.3	0.6	1.3	-0.8	0.04	-0.01	-36.7	0.02	0.01	-0.02	0.01	
O-2R3-H	255	254	253	0.4	2.6	2.2	2.9	-0.4	0.09	0.02	-28.2	0.07	0.03	-0.03	0.02	
O-2R3-J	258	257	256	1.7	1.2	1.5	2.0	1.2	0.08	0.06	54.7	0.07	0.07	0.01	0.01	
O-2R3-K	261	260	259	1.6	2.0	1.0	2.1	0.5	0.07	0.04	-55.7	0.05	0.06	-0.02	0.01	
O-2R4-A	684	683	682	-5.5	-5.9	-9.7	-4.9	-10.3	-0.27	-0.39	-70.3	-0.38	-0.28	-0.04	0.02	
O-2R4-B	264	263	262	-2.1	-0.4	-1.2	-0.3	-3.0	-0.04	-0.10	-35.4	-0.06	-0.08	-0.03	0.01	
O-2R4-C	267	266	265	-0.3	1.1	0.4	1.2	-1.0	0.03	-0.02	-35.8	0.01	-0.01	-0.02	0.01	
O-2R4-D	270	269	268	0.7	2.1	0.1	2.2	-1.3	0.06	-0.02	-50.2	0.01	0.03	-0.04	0.01	
O-2R5-A	273	272	271	-3.4	-20.4	-30.8	-3.0	-31.2	-0.41	-1.06	83.2	-1.05	-0.42	0.08	0.02	
O-2R5-B	276	275	274	-6.9	-21.3	-33.5	-6.9	-33.6	-0.56	-1.18	87.7	-1.17	-0.56	0.10	0.02	
O-2R5-C	279	278	277	-8.3	-23.9	-31.1	-7.5	-31.9	-0.56	-1.12	79.8	-1.11	-0.58	0.10	0.04	
O-2R5-D	282	281	280	-7.5	-11.8	-19.4	-7.3	-19.7	-0.43	-0.72	-82.1	-0.71	-0.44	-0.04	0.02	
O-2R5-E	285	284	283	-6.3	-7.6	-11.1	-6.1	-11.4	-0.31	-0.43	-77.6	-0.43	-0.32	-0.03	0.01	
O-2R5-F	288	287	286	-5.3	-3.7	-4.0	-3.5	-5.7	-0.17	-0.22	-27.5	-0.18	-0.21	-0.02	0.02	
O-2R5-G	291	290	289	-3.2	-1.9	-2.0	-1.7	-3.5	-0.09	-0.13	-25.0	-0.10	-0.13	-0.02	0.01	
O-2R5-H	294	293	292	-1.6	-0.6	-1.4	-0.5	-2.5	-0.04	-0.09	-41.4	-0.05	-0.07	-0.02	0.01	
O-2R5-J	297	296	295	-0.3	-0.1	-1.8	0.2	-2.3	-0.02	-0.07	-63.5	-0.06	-0.03	-0.02	0.01	
O-2R5-K	300	299	298	-0.3	0.1	-0.8	0.2	-1.3	-0.01	-0.04	-54.5	-0.03	-0.02	-0.02	0.01	
O-2R6-A	303	302	301	-3.1	-16.0	-30.1	-3.1	-30.1	-0.40	-1.02	-88.8	-1.02	-0.40	-0.01	0.05	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI				TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
O-2R6-B	306	305	304	-7.7	-25.9	-46.0	-7.7	-46.0	-0.71	-1.59	-88.5	-1.59	-0.71	-0.02	0.03
O-2R6-C	309	308	307	-9.1	-21.9	-33.9	-9.0	-33.9	-0.63	-1.21	88.9	-1.21	-0.63	0.01	0.02
O-2R6-D	312	311	310	-9.2	-14.4	-21.7	-9.1	-21.8	-0.52	-0.81	-85.1	-0.81	-0.52	-0.02	0.02
O-2R6-E	315	314	313	-7.7	-8.0	-10.7	-7.3	-11.1	-0.35	-0.44	-71.5	-0.43	-0.36	-0.03	0.02
O-2R6-F	318	317	316	-6.8	-5.2	-3.5	-3.5	-6.8	-0.18	-0.26	0.3	-0.18	-0.26	0.00	0.02
O-2R6-G	321	320	319	-5.1	-4.0	-3.3	-3.3	-5.1	-0.16	-0.20	-6.9	-0.16	-0.20	-0.01	0.01
O-2R6-H	324	323	322	-3.8	-3.6	-2.7	-2.6	-3.9	-0.12	-0.15	18.1	-0.13	-0.15	0.01	0.01
O-2R6-J	327	326	325	-2.9	-2.7	-2.6	-2.6	-2.9	-0.11	-0.12	-4.6	-0.11	-0.12	-0.00	0.03
O-2R6-K	330	329	328	-1.0	-1.0	-2.8	-0.7	-3.1	-0.05	-0.11	-67.5	-0.10	-0.06	-0.02	0.01
I-1R1-A	340	341	342	-0.5	0.4	-0.8	0.4	-1.7	-0.00	-0.05	40.8	-0.02	-0.03	0.02	0.01
I-1R1-B	343	344	345	-2.6	6.4	0.2	6.6	-9.0	0.13	-0.23	50.3	-0.08	-0.02	0.18	0.01
I-1R1-C	346	347	348	1.4	11.8	-3.2	12.0	-13.8	0.26	-0.33	39.9	0.02	-0.09	0.29	0.01
I-1R1-U	349	350	351	1.3	9.3	-3.4	9.5	-11.7	0.20	-0.29	38.7	0.01	-0.10	0.24	0.01
I-1R1-E	352	353	354	-0.6	11.3	-0.4	11.3	-12.3	0.25	-0.29	45.1	-0.02	-0.02	0.27	0.01
I-1R1-F	355	356	357	2.0	9.2	-3.5	9.6	-11.1	0.21	-0.27	37.2	0.03	-0.10	0.23	0.01
I-1R1-G	358	359	360	0.6	6.9	-1.4	7.0	-7.8	0.15	-0.19	41.1	0.01	-0.04	0.17	0.01
I-1R1-H	361	362	363	0.1	5.0	-0.4	5.0	-5.3	0.11	-0.13	43.6	-0.00	-0.01	0.12	0.01
I-1R1-J	364	365	366	-0.1	3.2	-0.4	3.2	-3.7	0.07	-0.09	43.9	-0.01	-0.01	0.08	0.01
I-1R1-K	367**	368	369	0.0	1.8	-0.0	1.8	-1.8	0.04	-0.04	44.7	-0.00	-0.00	0.04	0.01
I-1R1-L	499	500	501	-0.1	-0.0	0.2	0.2	-0.1	0.01	-0.00	-71.0	-0.00	0.00	-0.00	0.00
I-1R1-M	502	503	504	-0.6	-0.2	0.6	0.6	-0.7	0.01	-0.02	-84.5	-0.02	0.01	-0.00	0.00
I-1R1-N	505**	506	507	0.0	0.4	0.8	1.3	-0.5	0.04	-0.00	-58.8	0.01	0.03	-0.02	0.01
I-1R1-O	508	509	510	-0.2	0.4	1.1	1.1	-0.2	0.03	0.00	-88.6	0.00	0.03	-0.00	0.01
I-1R2-A	370	371	372	6.8	5.5	1.9	7.1	1.6	0.25	0.12	12.6	0.24	0.13	0.03	0.02
I-1R2-B	373	374	375	1.0	9.3	2.1	9.3	-6.1	0.25	-0.11	47.1	0.05	0.08	0.18	0.01
I-1R2-C	376	377	378**	2.4	13.5	0.0	13.5	-11.1	0.34	-0.23	42.2	0.08	0.02	0.28	0.01
I-1R2-D	379	380	381	-8.0	2.6	8.5	8.8	-8.3	0.21	-0.19	82.1	-0.18	0.20	0.05	0.01
I-1R2-E	382	383	384	-5.2	10.3	4.7	11.4	-12.0	0.26	-0.28	57.5	-0.13	0.10	0.24	0.02
I-1R2-F	385*	386	387	2.4	8.9	1.2	8.9	-5.2	0.24	-0.09	42.6	0.09	0.06	0.16	0.02
I-1R2-G	388	389	390	4.4	7.7	1.5	7.9	-2.0	0.24	0.01	36.5	0.16	0.09	0.11	0.02
I-1R2-H	391	392	393	2.7	5.5	1.8	5.6	-1.0	0.17	0.02	41.1	0.11	0.09	0.08	0.02
I-1R2-J	394	395	396	2.5	3.2	0.3	3.6	-0.8	0.11	0.01	29.1	0.09	0.03	0.04	0.01
I-1R2-K	397	398	399	1.7	1.9	-0.2	2.3	-0.8	0.07	-0.00	25.8	0.05	0.01	0.03	0.01
I-1R3-A	400	401	402	13.7	8	3.5	13.7	3.4	0.49	0.25	-2.1	0.48	0.25	-0.01	0.02
I-1R3-B	403	404	405	0.7	11.0	5.5	12.1	-5.9	0.34	-0.08	52.6	0.08	0.10	0.20	0.01
I-1R3-C	406	407	408	2.8	12.2	0.4	12.2	-9.1	0.31	-0.18	41.8	0.10	0.04	0.24	0.01
I-1R3-D	409	410	411	-3.3	6.7	1.0	6.9	-9.2	0.14	-0.23	52.6	-0.10	0.00	0.18	0.01
I-1R3-E	412	413	414	-0.2	5.7	-1.8	5.7	-7.7	0.11	-0.20	41.5	-0.02	-0.06	0.15	0.01
I-1R3-F	415	416	417	2.0	5.6	0.4	5.6	-3.2	0.15	-0.05	40.1	0.07	0.03	0.10	0.01
I-1R3-G	418	419	420	2.6	4.7	1.4	4.7	-0.7	0.15	0.02	38.8	0.10	0.07	0.06	0.01
I-1R3-H	421	422	423	3.8	4.1	0.6	4.7	-0.3	0.15	0.04	25.3	0.13	0.06	0.04	0.01
I-1R3-J	424	425	426	3.2	3.2	0.8	3.7	0.3	0.12	0.05	21.8	0.11	0.06	0.03	0.02
I-1R3-K	427	428	429	3.5	1.2	-0.2	3.5	-0.3	0.11	0.03	-6.2	0.11	0.03	-0.01	0.01
I-1R4-A	435	436	437	0.8	1.9	-5.4	2.9	-7.5	0.02	-0.22	26.7	-0.03	-0.17	0.10	0.01
I-1R4-B	430	431	432	2.6	3.0	-0.7	3.6	-1.8	0.10	-0.02	25.8	0.08	0.00	0.05	0.01
I-1R4-C	433	434	435	2.4	3.2	0.3	3.4	-0.7	0.11	0.01	29.7	0.08	0.04	0.04	0.02
I-1R4-D	436**	437**	438**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-1R5-A	439	440	441	15.5	10.0	5.2	15.5	5.2	0.56	0.32	-2.1	0.56	0.33	-0.01	0.02
I-1R5-B	442	443	444	-1.7	9.9	9.5	12.1	-4.3	0.36	-0.02	66.4	0.04	0.30	0.14	0.02
I-1R5-C	445	446	447	1.3	7.9	1.5	7.9	-5.0	0.21	-0.09	45.3	0.06	0.06	0.15	0.01
I-1R5-D	448	449	450	-1.5	1.0	-5.7	1.5	-8.7	-0.04	-0.27	32.8	-0.11	-0.20	0.11	0.02
I-1R5-E	453	452	451	-7.4	-1.8	0.2	0.6	-7.8	-0.06	-0.25	77.1	-0.24	-0.07	0.04	0.01
I-1R5-F	454	455	456	1.8	-1.1	-5.0	1.9	-5.1	0.01	-0.15	4.4	0.01	-0.15	0.01	0.01
I-1R5-G	457	458	459	1.4	1.1	-3.3	2.2	-4.1	0.03	-0.11	20.3	0.01	-0.10	0.05	0.02
I-1R5-H	460**	461	462	0.0	0.4	-2.4	0.8	-3.2	-0.00	-0.10	26.7	-0.02	-0.08	0.04	0.01
I-1R5-J	463	464	465	1.5	0.8	-1.9	1.8	-2.1	0.04	-0.05	14.7	0.03	-0.05	0.02	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-1R5-K	466**	467**	468**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-1R6-A	469	470**	471	15.5	0.0	4.0	21.1	-1.6	0.68	0.16	-29.7	0.55	0.29	-0.22	0.01
I-1R6-B	472	473	474	-2.5	4.3	10.4	10.4	-2.5	0.32	0.02	88.4	0.02	0.32	0.01	0.01
I-1R6-C	475	476	477	-1.2	1.6	3.3	3.4	-1.2	0.10	-0.07	83.0	-0.01	0.10	0.01	0.02
I-1R6-D	478	479	480	-0.6	-5.0	-7.5	-0.4	-7.6	-0.09	-0.26	-7.6	-0.09	-0.25	-0.02	0.02
I-1R6-E	481	482	483	0.2	-4.4	-8.9	0.2	-8.9	-0.08	-0.29	-0.3	-0.08	-0.29	-0.00	0.01
I-1R6-F	484	485	486	0.4	-3.9	-7.5	0.5	-7.6	-0.06	-0.24	-2.5	-0.06	-0.24	-0.01	0.01
I-1R6-G	487	488	489	1.8	-2.4	-7.1	1.8	-7.1	-0.01	-0.22	2.1	-0.01	-0.22	0.01	0.02
I-1R6-H	490	491	492	1.8	-1.5	-5.0	1.8	-5.0	0.01	-0.15	0.7	0.01	-0.15	0.00	0.01
I-1R6-J	493	494	495	1.2	-2.3	-4.3	1.3	-4.4	-0.00	-0.13	-7.3	-0.00	-0.13	-0.02	0.02
I-1R6-K	496**	497**	498**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2R1-A	511	512	513	-0.2	-3.7	-1.5	2.0	-3.7	0.03	-0.10	-38.5	-0.02	-0.05	-0.06	0.01
I-2R1-B	514	515	516	-2.2	-9.8	-1.0	6.6	-9.8	0.12	-0.26	-47.1	-0.08	-0.06	-0.19	0.01
I-2R1-C	517	518	519	-1.1	-15.7	-2.8	11.9	-15.8	0.24	-0.40	-43.3	-0.06	-0.10	-0.32	0.01
I-2R1-D	520	521	522	0.7	-11.7	-5.1	7.8	-12.1	0.14	-0.32	-36.5	-0.03	-0.16	-0.22	0.01
I-2R1-E	523	524	525	-0.6	-13.4	-1.3	11.6	-13.4	0.25	-0.33	-44.1	-0.03	-0.05	-0.29	0.01
I-2R1-F	526	527	528	-0.8	-11.1	-1.3	9.0	-11.1	0.19	-0.28	-43.4	-0.04	-0.05	-0.23	0.01
I-2R1-G	529	530	531	-0.4	-7.8	-1.2	6.3	-7.8	0.13	-0.20	-43.4	-0.03	-0.04	-0.16	0.01
I-2R1-H	532	533	534	-0.2	-6.1	-0.9	5.0	-6.1	0.11	-0.15	-43.4	-0.02	-0.03	-0.13	0.01
I-2R1-J	535**	536	537	0.0	-4.0	-0.6	3.4	-4.0	0.07	-0.10	-42.8	-0.01	-0.02	-0.09	0.01
I-2R1-K	538*	539	540	-2.6	-1.5	-0.6	-0.6	-2.6	-0.04	-0.09	86.7	-0.09	-0.04	0.00	0.03
I-2R1-L	672	671	670	0.7	-0.1	0.0	0.9	-0.2	0.03	0.00	61.5	0.01	0.02	0.01	0.02
I-2R1-M	675	674	673**	0.4	-0.3	0.0	0.7	-0.3	0.02	-0.00	55.0	0.00	0.01	0.01	0.01
I-2R1-N	678	677	676	1.8	-0.5	-0.1	2.5	-0.8	0.07	-0.00	62.8	0.01	0.06	0.03	0.01
I-2R2-A	541	542	543	-7.5	-5.2	-2.9	-2.9	-7.5	-0.17	-0.27	-89.5	-0.27	-0.17	-0.00	0.03
I-2R2-B	544	545	546	-1.8	-11.5	-5.5	4.3	-11.7	0.03	-0.34	-38.3	-0.12	-0.20	-0.18	0.01
I-2R2-C	547	548	549	-0.5	-15.2	-5.0	9.9	-15.4	0.18	-0.41	-39.9	-0.07	-0.17	-0.29	0.01
I-2R2-D	550	551	552	2.7	-10.5	-8.3	6.7	-12.3	0.10	-0.34	-27.2	0.01	-0.25	-0.18	0.01
I-2R2-E	553	554	555	2.3	-11.5	-6.3	8.4	-12.4	0.15	-0.33	-32.8	0.01	-0.18	-0.22	0.01
I-2R2-F	556	557	558	-1.3	-9.9	-4.2	4.5	-10.0	0.05	-0.29	-39.2	-0.08	-0.15	-0.16	0.02
I-2R2-G	559	560	561	-3.0	-8.9	-4.4	1.5	-8.9	-0.04	-0.28	-41.0	-0.14	-0.18	-0.12	0.01
I-2R2-H	562	563	564	-4.1	-6.8	-2.2	0.7	-6.9	-0.05	-0.22	-52.0	-0.16	-0.11	-0.09	0.01
I-2R2-J	565	566	567	-2.3	-4.6	-1.3	1.1	-4.7	-0.01	-0.14	-49.9	-0.09	-0.07	-0.07	0.01
I-2R2-K	568	569	570	-1.6	-2.2	-0.2	0.6	-2.3	-0.00	-0.07	-59.2	-0.05	-0.02	-0.03	0.01
I-2R3-A	571	572	571	-11.9	-9.3	-3.1	-2.7	-12.2	-0.21	-0.43	-78.6	-0.42	-0.22	-0.04	0.01
I-2R3-B	574	575	576	0.3	-11.5	-7.5	5.2	-12.5	0.05	-0.36	-31.9	-0.06	-0.25	-0.18	0.01
I-2R3-C	577	578	579	-0.2	-13.9	-2.7	11.1	-14.0	0.23	-0.35	-42.2	-0.03	-0.09	-0.29	0.01
I-2R3-D	580	581	582	5.3	-6.0	-4.0	8.8	-7.5	0.22	-0.16	-27.4	0.14	-0.08	-0.15	0.01
I-2R3-E	583	584	585	1.5	-4.9	-1.2	5.4	-5.1	0.13	-0.11	-37.3	0.04	-0.03	-0.12	0.01
I-2R3-F	586	587	588	-2.8	-5.7	-1.4	1.6	-5.7	-0.01	-0.17	-50.4	-0.10	-0.07	-0.08	0.01
I-2R3-G	589	590	591	-4.4	-5.5	-1.2	0.3	-5.9	-0.05	-0.19	-60.1	-0.16	-0.08	-0.06	0.01
I-2R3-H	592	593	594	-4.8	-4.1	-0.9	-0.5	-5.2	-0.07	-0.18	-73.8	-0.17	-0.08	-0.03	0.01
I-2R3-J	595	596	597	-3.5	-4.0	-1.9	-1.1	-4.3	-0.08	-0.15	-60.6	-0.13	-0.10	-0.03	0.02
I-2R3-K	598	599	600	-3.4	-2.7	-0.1	0.1	-3.7	-0.03	-0.12	-75.5	-0.11	-0.04	-0.02	0.02
I-2R4-A	688	689	690	0.1	-0.2	5.5	6.8	-1.2	0.21	0.03	-66.2	0.06	0.18	-0.07	0.02
I-2R4-B	601	602	603	-2.7	-2.4	0.4	0.9	-3.1	-0.00	-0.09	-70.6	-0.08	-0.01	-0.03	0.01
I-2R4-C	604	605	606	-3.7	-1.8	-0.3	-0.3	-3.7	-0.05	-0.12	87.7	-0.12	-0.05	0.00	0.01
I-2R4-D	607	608	609	-2.8	-2.0	-0.9	-0.9	-2.8	-0.06	-0.10	-84.7	-0.10	-0.06	-0.00	0.01
I-2R5-A	610	611	612	-16.8	-8.9	-2.5	-2.5	-16.8	-0.25	-0.58	87.1	-0.58	-0.25	0.02	0.02
I-2R5-B	613	614	615	2.3	-8.3	-6.9	5.2	-9.8	0.08	-0.27	-26.4	0.01	-0.26	-0.14	0.01
I-2R5-C	616	617	618	0.3	-6.7	-0.3	6.6	-6.7	0.15	-0.15	-43.7	0.01	-0.01	-0.15	0.01
I-2R5-D	619	620	621	3.8	-0.8	4.8	9.5	-0.9	0.30	0.07	-48.0	0.17	0.20	-0.12	0.01
I-2R5-E	622	623	624	0.8	2.0	6.1	6.5	0.4	0.22	0.08	-76.2	0.09	0.21	-0.03	0.02
I-2R5-F	625	626	627	-0.8	0.6	4.8	5.1	-1.1	0.16	0.01	-76.5	0.02	0.15	-0.03	0.01
I-2R5-G	628	629	630	-2.4	-0.2	3.9	4.0	-2.5	0.11	-0.04	-81.8	-0.04	0.10	-0.02	0.02
I-2R5-H	631	632	633	-3.8	-0.6	2.9		-3.9	0.06	-0.10	-89.0	-0.10	0.06	-0.00	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
I-2R5-J	634	635	636	-4.5	-0.6	1.9	2.0	-4.6	0.02	-0.13	83.7	-0.13	0.02	0.02	0.02
I-2R5-K	637	638	639	-4.2	-0.6	1.6	1.7	-4.3	0.01	-0.13	83.2	-0.12	0.01	0.02	0.02
I-2R6-A	640	641	642	-16.1	-7.4	-3.1	-2.7	-16.4	-0.25	-0.57	80.8	-0.56	-0.26	0.05	0.02
I-2R6-B	643	644	645	3.8	-0.6	-6.7	3.8	-6.8	0.06	-0.18	4.8	0.06	-0.18	0.02	0.01
I-2R6-C	646	647	648	0.8	0.5	1.1	1.4	0.5	0.05	0.03	-55.4	0.04	0.04	-0.01	0.01
I-2R6-D	649	650	651	2.0	4.4	8.6	8.8	1.9	0.31	0.15	-81.7	0.15	0.30	-0.02	0.02
I-2R6-E	652	653	654**	1.5	5.5	0.0	5.6	-4.0	0.14	-0.08	40.4	0.05	0.02	0.11	0.01
I-2R6-F	655	656	657	-0.2	3.9	7.4	7.4	-0.2	0.24	0.07	87.7	0.07	0.24	0.01	0.02
I-2R6-G	658	659	660	-3.3	2.2	6.1	6.1	-3.4	0.17	-0.05	84.7	-0.05	0.17	0.02	0.02
I-2R6-H	661	662	663	-4.2	0.7	5.3	5.3	-4.3	0.13	-0.09	88.8	-0.09	0.13	0.00	0.02
I-2R6-J	664	665	666	-4.9	0.0	4.6	4.6	-4.9	0.10	-0.12	89.0	-0.12	0.10	0.00	0.01
I-2R6-K	667	668	668	-4.1	-0.4	6.5	6.6	-4.2	0.11	-0.09	-85.8	-0.09	0.11	-0.01	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

FORM 1-63-100 (REV. 10-65) GAGE DATA SHEET

COMBUSTION T-13, LOAD CASE 5, F3Y

NOMINAL LOAD = 3.400E 04

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
O-1R1-A	3	2	1	0.2	26.9	34.9	37.3	-2.2	1.21	0.30	-14.2	1.15	0.35	-0.22	0.15
O-1R1-B	6	5	4	9.0	28.6	44.7	44.8	8.9	1.56	0.74	-2.8	1.56	0.74	-0.04	0.23
O-1R1-C	9	8	7	11.3	48.2	49.9	56.7	4.5	1.91	0.71	-21.1	1.76	0.87	-0.41	0.24
O-1R1-D	12	11	10	2.2	24.0	43.3	43.4	2.2	1.45	0.50	-1.6	1.45	0.50	-0.03	0.26
O-1R1-E	15	14	13	1.7	2.7	22.9	26.6	-2.0	0.86	0.20	21.0	0.77	0.28	0.22	0.20
O-1R1-F	18	17	16	-5.3	-8.0	4.3	8.4	-9.4	0.19	-0.23	28.7	0.09	-0.13	0.17	0.20
O-1R1-G	21	20	19	-3.7	-3.1	-18.3	-0.3	-21.8	-0.22	-0.72	-66.3	-0.64	-0.30	-0.18	0.28
O-1R1-H	24	23	22	-8.4	-0.9	-23.3	0.9	-32.6	-0.29	-1.07	-58.2	-0.85	-0.51	-0.35	0.22
O-1R1-J	27	26*	25	-16.1	-31.1	-9.3	6.0	-31.4	-0.11	-0.98	39.8	-0.47	-0.62	0.42	0.31
O-1R1-K	30	29	28	-11.8	-10.8	-12.8	-10.7	-13.9	-0.49	-0.56	-54.7	-0.54	-0.52	-0.03	0.22
O-1R1-L	162	161	160	2.4	2.8	-3.3	3.9	-4.8	0.08	-0.12	-65.7	-0.09	0.05	-0.08	0.16
O-1R1-M	165	164	163	5.6	-1.1	-1.0	7.0	-2.5	0.21	-0.01	67.1	0.02	0.17	0.08	0.18
O-1R1-N	168	167	166	9.2	10.5	6.7	10.8	5.1	0.41	0.28	-58.3	0.31	0.37	-0.06	0.14
O-1R1-O	171	170	169	8.4	11.3	12.7	12.8	8.3	0.51	0.40	-9.1	0.50	0.40	-0.02	0.16
O-1R2-A	33	32	31	2.3	14.4	25.1	25.1	2.3	0.85	0.32	-1.7	0.85	0.32	-0.02	0.23
O-1R2-B	36	35	34	9.4	29.7	53.4	53.4	9.3	1.85	0.84	2.1	1.85	0.84	0.04	0.21
O-1R2-C	39	38	37	9.4	37.1	61.2	61.2	9.3	2.11	0.91	-2.0	2.11	0.91	-0.04	0.21
O-1R2-D	42	41	40	5.2	24.2	45.6	45.6	5.2	1.56	0.62	1.8	1.55	0.62	0.03	0.18
O-1R2-E	45	44	43	4.4	20.2	23.6	25.4	2.6	0.86	0.34	-16.3	0.82	0.38	-0.14	0.11
O-1R2-F	48	47	46	0.2	6.4	-1.2	6.4	-7.4	0.14	-0.18	-47.8	-0.04	-0.01	-0.16	0.09
O-1R2-G	51	50	49	-6.5	-3.1	-8.2	-3.0	-11.7	-0.21	-0.42	-50.3	-0.33	-0.30	-0.10	0.26
O-1R2-H	54	53	52	-5.8	-6.9	-15.0	-4.6	-16.1	-0.31	-0.58	-71.6	-0.55	-0.34	-0.08	0.10
O-1R2-J	57	56	55	-14.9	-11.6	-8.2	-8.2	-14.9	-0.42	-0.57	0.9	-0.42	-0.57	0.00	0.24
O-1R2-K	60	59	58	-7.4	-8.0	-12.1	-6.8	-12.7	-0.35	-0.48	-71.5	-0.47	-0.36	-0.04	0.24
O-1R3-A	63	62	61	3.8	16.7	35.9	36.2	3.5	1.23	0.47	5.6	1.22	0.48	0.07	0.21
O-1R3-B	66	65	64	6.2	39.8	42.9	48.4	0.7	1.60	0.50	-19.9	1.47	0.63	-0.35	0.19
O-1R3-C	69	68	67	5.5	46.4	63.1	65.5	3.0	2.19	0.75	-11.5	2.13	0.80	-0.28	0.18
O-1R3-D	72	71	70	7.0	42.5	42.6	49.9	-0.3	1.64	0.48	-22.4	1.47	0.65	-0.41	0.24
O-1R3-E	75	74	73	5.3	36.1	19.8	37.2	-12.1	1.11	-0.03	-36.4	0.71	0.37	-0.54	0.26
O-1R3-F	78	77	76	-1.5	9.2	1.6	9.4	-9.3	0.22	-0.21	-40.1	0.04	-0.03	-0.21	0.16
O-1R3-G	81*	80	79	5.8	-4.5	0.2	11.0	-5.0	0.31	-0.06	55.1	0.06	0.19	0.17	0.25
O-1R3-H	84	83	82	-1.1	-6.2	-9.7	-1.1	-9.7	-0.13	-0.33	85.0	-0.33	-0.13	0.02	0.16
O-1R3-J	87	86	85	-2.3	-8.6	-7.4	-0.3	-9.4	-0.10	-0.31	62.3	-0.27	-0.15	0.09	0.18
O-1R3-K	90	89	88	-1.7	-13.2	-10.2	2.4	-14.3	-0.06	-0.45	60.3	-0.35	-0.16	0.17	0.12
O-1R4-A	681	680	679	10.3	34.2	28.0	36.6	1.7	1.22	0.42	-29.7	1.03	0.62	-0.35	0.16
O-1R4-B	93	92	91	6.2	7.2	1.7	7.9	-0.1	0.26	0.08	-62.1	0.12	0.22	-0.08	0.15
O-1R4-C	96	95	94	-0.9	-2.5	-4.2	-0.9	-4.2	-0.07	-0.15	-89.7	-0.15	-0.07	-0.00	0.14
O-1R4-D	99	98	97	-4.0	-6.1	-4.0	-1.9	-6.1	-0.12	-0.22	45.0	-0.17	-0.17	0.05	0.15
O-1R5-A	102	101	100	3.7	21.2	26.7	28.2	2.2	0.95	0.35	-13.7	0.92	0.39	-0.14	0.29
O-1R5-B	105	104	103	3.9	28.5	47.6	47.8	3.7	1.61	0.59	-3.6	1.61	0.60	-0.06	0.26
O-1R5-C	108	107	106	4.4	21.8	53.0	53.9	3.5	1.81	0.65	7.9	1.79	0.67	0.16	0.18
O-1R5-D	111	110	109	17.3	40.1	43.5	46.7	14.1	1.68	0.93	-18.3	1.61	1.00	-0.22	0.26
O-1R5-E	114	113	112	15.8	18.7	15.0	18.7	12.0	0.74	0.58	-48.3	0.65	0.67	-0.08	0.21
O-1R5-F	117	116	115	12.7	13.8	4.1	15.3	1.5	0.52	0.20	-64.2	0.26	0.46	-0.13	0.13
O-1R5-G	120	119	118	8.6	10.4	3.1	11.2	0.6	0.37	0.13	-60.8	0.19	0.31	-0.10	0.16
O-1R5-H	123	122	121	10.1	3.7	2.0	10.8	1.3	0.37	0.15	74.9	0.17	0.35	0.05	0.31
O-1R5-J	126	125	124	4.2	2.2	-20.3	7.9	-24.0	0.02	-0.71	-70.0	-0.63	-0.06	-0.24	0.11
O-1R5-K	129	128	127	3.3	1.2	1.2	3.7	0.7	0.13	0.06	67.5	0.07	0.12	0.02	0.13
O-1R6-A	132	131	130	11.4	15.3	28.1	29.2	10.3	1.06	0.63	14.0	1.04	0.65	0.10	0.30
O-1R6-B	135	134	133	22.2	37.9	54.3	54.3	22.2	2.01	1.27	0.6	2.01	1.27	0.01	0.38

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
0-1R6-C	138	137	136	28.2	35.5	60.9	63.2	25.9	2.34	1.48	14.4	2.29	1.53	0.21	0.31
0-1R6-D	141	140	139	26.8	17.1	31.9	42.0	16.8	1.55	0.97	39.2	1.32	1.20	0.28	0.30
0-1R6-E	144	143	142	14.8	9.6	19.4	24.9	9.3	0.91	0.55	36.5	0.78	0.68	0.17	0.35
0-1R6-F	147	146	145	17.9	6.0	-2.0	18.1	-2.2	0.57	0.11	84.6	0.11	0.57	0.04	0.22
0-1R6-G	150	149	148	16.7	9.2	-2.6	16.9	-2.9	0.53	0.07	-83.8	0.08	0.52	-0.05	0.15
0-1R6-H	153	152	151	23.8	7.4	0.0	24.6	-0.8	0.80	0.22	79.6	0.21	0.78	0.10	0.17
0-1R6-J	156*	155	154	-7.1	4.8	3.1	6.5	-10.5	0.11	-0.29	-26.6	0.03	-0.20	-0.16	0.30
0-1R6-K	159	158	157	5.5	5.3	5.8	6.0	5.3	0.25	0.23	32.2	0.24	0.24	0.01	0.13
0-2R1-A	174	173	172	-0.8	18.0	36.6	36.6	-0.8	1.20	0.33	-0.2	1.20	0.33	-0.00	0.15
0-2R1-B	177	176	175	9.5	23.3	54.0	55.6	7.9	1.91	0.81	10.4	1.87	0.85	0.20	0.25
0-2R1-C	180	179	178	8.4	30.0	67.0	68.0	7.4	2.31	0.92	7.4	2.29	0.94	0.18	0.24
0-2R1-D	183	182	181	8.2	14.1	56.1	62.1	2.1	2.07	0.68	18.5	1.93	0.82	0.42	0.17
0-2R1-E	186	185	184	3.4	-9.0	24.3	39.0	-11.3	1.17	0.01	32.7	0.83	0.35	0.53	0.26
0-2R1-F	189	188	187	-0.0	-1.0	2.3	3.6	-1.3	0.10	-0.01	30.5	0.08	0.02	0.05	0.14
0-2R1-G	192	191	190	-2.6	-8.6	7.2	14.3	-9.6	0.38	-0.18	32.9	0.21	-0.01	0.25	0.15
0-2R1-H	195	194	193	0.7	-13.8	-11.4	5.1	-15.7	0.01	-0.47	62.7	-0.37	-0.09	0.20	0.25
0-2R1-J	198	197	196*	-5.6	-20.3	-6.4	8.3	-20.4	0.07	-0.59	45.8	-0.27	-0.25	0.33	0.18
0-2R1-K	201	200	199	-13.1	-17.0	-7.3	-2.8	-17.6	-0.27	-0.61	33.5	-0.37	-0.50	0.16	0.19
0-2R1-L	333**	332	331	0.0	-11.5	-7.0	5.2	-12.3	0.05	-0.35	56.8	-0.23	-0.07	0.19	0.11
0-2R1-M	336	335	334	3.1	-4.2	-1.5	6.3	-4.7	0.16	-0.09	57.2	-0.02	0.09	0.11	0.16
0-2R1-N	339	338	337	7.1	3.1	8.8	12.9	3.0	0.46	0.23	40.0	0.36	0.32	0.11	0.19
0-2R2-A	204	203	202	5.9	17.1	34.6	34.9	5.5	1.21	0.53	6.3	1.20	0.54	0.07	0.14
0-2R2-B	207	206	205	8.4	23.3	43.7	43.9	8.2	1.53	0.71	4.5	1.52	0.71	0.06	0.15
0-2R2-C	210	209	208	19.3	33.4	56.2	56.7	18.8	2.06	1.18	6.6	2.04	1.19	0.10	0.32
0-2R2-D	213	212	211	5.2	18.9	56.9	59.6	2.5	1.99	0.67	12.5	1.93	0.73	0.28	0.24
0-2R2-E	216	215	214	4.1	20.5	31.6	31.8	3.8	1.09	0.44	-5.4	1.08	0.45	-0.06	0.26
0-2R2-F	219	218	217	-2.3	-0.3	8.1	9.0	-3.2	0.27	-0.02	16.1	0.24	0.01	0.07	0.30
0-2R2-G	222	221	220	-16.6	-5.7	1.5	1.7	-16.8	-0.11	-0.54	-5.7	-0.11	-0.53	-0.04	0.16
0-2R2-H	225	224	223	-13.4	-26.2	-2.2	11.4	-27.0	0.11	-0.78	36.6	-0.21	-0.46	0.42	0.19
0-2R2-J	228	227	226	-12.1	-20.3	-4.3	4.5	-21.0	-0.06	-0.65	36.1	-0.26	-0.44	0.28	0.12
0-2R2-K	231	230	229	-3.4	-12.4	-7.7	1.6	-12.7	-0.07	-0.40	53.7	-0.29	-0.19	0.16	0.15
0-2R3-A	234	233	232	2.8	18.3	33.5	33.5	2.8	1.13	0.42	-0.2	1.13	0.42	-0.00	0.19
0-2R3-B	237	236	235	16.4	28.9	40.1	40.1	16.3	1.48	0.94	-1.7	1.48	0.94	-0.02	0.20
0-2R3-C	240	239	238	5.6	30.2	47.7	48.0	5.3	1.64	0.65	-4.8	1.63	0.66	-0.08	0.18
0-2R3-D	243	242	241	4.2	34.2	41.6	44.7	1.0	1.48	0.47	-15.6	1.41	0.55	-0.26	0.14
0-2R3-E	246	245	244	0.7	25.3	28.7	32.3	-2.8	1.04	0.23	-18.5	0.95	0.31	-0.24	0.11
0-2R3-F	249	248	247	-4.0	7.8	7.2	10.0	-6.7	0.26	-0.12	-23.9	0.20	-0.06	-0.14	0.08
0-2R3-G	252	251	250	-12.5	-2.2	3.0	3.4	-12.9	-0.02	-0.39	-9.1	-0.03	-0.38	-0.06	0.12
0-2R3-H	255	254*	253**	-22.9	-30.1	0.0	10.4	-33.3	0.01	-1.00	29.2	-0.23	-0.76	0.43	0.12
0-2R3-J	258	257	256	-8.2	-21.4	-0.7	12.9	-21.8	0.21	-0.59	38.8	-0.10	-0.28	0.39	0.18
0-2R3-K	261	260	259	1.1	-20.9	-10.2	12.7	-21.8	0.20	-0.59	54.6	-0.33	-0.06	0.38	0.12
0-2R4-A	264	263	262	7.5	36.4	11.0	36.5	-18.0	1.03	-0.23	-43.2	0.44	0.36	-0.63	0.10
0-2R4-B	264	263	262	-1.6	10.8	5.3	11.5	-7.7	0.30	-0.14	-34.4	0.16	-0.00	-0.21	0.15
0-2R4-C	267	266	265	-8.6	-10.9	1.4	5.2	-12.4	0.05	-0.36	27.7	-0.04	-0.27	0.17	0.20
0-2R4-D	270	269	268	-25.5	-2.8	2.6	5.1	-27.9	-0.11	-0.87	-15.7	-0.17	-0.81	-0.20	0.15
0-2R5-A	273	272	271	4.6	12.1	19.3	19.3	4.6	0.8	0.34	-0.5	0.68	0.34	-0.00	0.25
0-2R5-B	276	275	274	8.2	29.2	40.9	41.6	7.5	1.44	0.66	-8.0	1.43	0.67	-0.11	0.24
0-2R5-C	279	278	277	10.7	14.3	36.9	40.0	7.6	1.40	0.65	18.0	1.32	0.72	0.22	0.32
0-2R5-D	282	281	280	3.9	23.3	29.5	31.1	2.3	1.05	0.38	-13.7	1.01	0.42	-0.15	0.23
0-2R5-E	285	284	283	18.8	30.1	11.9	30.5	0.2	1.01	0.31	-51.6	0.58	0.74	-0.34	0.18
0-2R5-F	288	287	286	5.5	27.0	1.5	27.1	-20.1	0.69	-0.39	-47.5	0.10	0.20	-0.54	0.09
0-2R5-G	291	290	289	8.6	17.9	-2.6	18.9	-13.0	0.49	-0.24	-55.3	-0.00	0.26	-0.34	0.12
0-2R5-H	294	293	292	6.6	11.0	-2.8	12.2	-8.3	0.32	-0.15	-58.5	-0.03	0.19	-0.21	0.16
0-2R5-J	297*	296	295	9.9	10.0	-3.0	12.7	-5.8	0.36	-0.06	-67.4	-0.00	0.30	-0.15	0.15
0-2R5-K	300	299	298	-0.9	15.7	3.2	15.9	-13.6	0.39	-0.29	-41.0	0.10	0.00	-0.34	0.13
0-2R6-A	303	302*	301	3.1	-22.4	22.3	49.1	-23.7	1.38	-0.30	37.3	0.77	0.32	0.81	0.27

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
O-2R6-B	306	305	304	8.6	13.5	24.8	25.4	8.0	0.92	0.51	10.7	0.90	0.53	0.07	0.20
O-2R6-C	309	308	307	8.5	15.2	38.9	41.1	6.3	1.42	0.61	14.6	1.37	0.66	0.20	0.20
O-2R6-D	212	311	310	12.8	11.3	17.9	20.1	10.6	0.77	0.55	29.0	0.72	0.60	0.09	0.17
O-2R6-E	315	314	313	28.7	19.1	3.3	29.1	2.9	0.99	0.38	-83.1	0.39	0.98	-0.07	0.15
O-2R6-F	318	317	316**	19.4	4.9	0.0	20.5	-1.1	0.67	0.17	76.7	0.19	0.64	0.11	0.11
O-2R6-G	321	320	319	20.5	9.0	-10.9	21.0	-11.5	0.58	-0.17	-82.5	-0.16	0.57	-0.10	0.17
O-2R6-H	324	323	322	14.3	-5.5	-17.6	14.7	-18.1	0.31	-0.45	83.2	-0.44	0.30	0.09	0.14
O-2R6-J	327	326	325	19.1	1.2	-14.4	19.1	-14.4	0.49	-0.29	88.0	-0.29	0.49	0.03	0.07
O-2R6-K	330	329	328	26.6	0.6	-18.7	26.8	-19.0	0.70	-0.36	85.9	-0.36	0.69	0.08	0.08
I-1R1-A	340	341	342	31.5	20.1	0.7	32.0	0.2	1.06	0.32	7.3	1.05	0.33	0.09	0.16
I-1R1-B	343	344	345	3.0	0.3	9.2	12.7	-0.5	0.42	0.11	-58.9	0.19	0.33	-0.13	0.20
I-1R1-C	346	347	348	-7.0	0.9	-1.0	1.7	-9.8	-0.04	-0.31	60.6	-0.24	-0.10	0.11	0.08
I-1R1-D	349	350	351	1.3	-2.8	-23.2	3.8	-25.7	-0.13	-0.81	16.9	-0.19	-0.75	0.19	0.10
I-1R1-E	352	353	354	3.9	-2.5	-21.1	5.3	-22.5	-0.05	-0.69	12.9	-0.08	-0.66	0.14	0.13
I-1R1-F	355	356	357	18.4	-1.3	-24.3	18.5	-24.4	0.37	-0.62	2.2	0.37	-0.62	0.34	0.12
I-1R1-G	358	359	360	24.0	14.4	-19.5	27.2	-22.7	0.67	-0.48	14.6	0.60	-0.41	0.28	0.12
I-1R1-H	361	362	363	29.2	27.3	-8.1	35.6	-14.5	1.03	-0.12	20.9	0.88	0.02	0.39	0.14
I-1R1-J	364	365	366	24.8	24.8	-3.5	30.7	-9.4	0.92	-0.01	22.5	0.78	0.13	0.33	0.14
I-1R1-K	367	368	369	22.9	25.3	-1.7	29.8	-8.6	0.90	0.01	25.0	0.74	0.17	0.34	0.18
I-1R1-L	499	500	501	16.3	22.7	2.0	24.5	-6.1	0.75	0.04	31.0	0.56	0.23	0.31	0.16
I-1R1-M	502	503	504	-2.8	0.5	3.3	3.3	-2.9	0.08	-0.06	87.5	-0.06	0.08	0.01	0.06
I-1R1-N	505**	506	507	0.0	-1.1	8.3	10.9	-2.6	0.33	0.02	-64.1	0.08	0.27	-0.12	0.13
I-1R1-O	508	509	510	-15.8	-1.7	5.3	5.9	-16.4	0.03	-0.46	80.9	-0.47	0.02	0.08	0.13
I-1R2-A	370	371	372	34.5	14.4	1.4	34.9	1.0	1.16	0.38	-6.1	1.15	0.39	-0.08	0.24
I-1R2-B	373	374	375	-1.1	7.5	11.4	11.8	-1.5	0.38	0.07	80.0	0.08	0.37	0.05	0.24
I-1R2-C	376	377	378**	-4.8	2.6	0.0	3.2	-8.0	0.03	-0.23	57.7	-0.16	-0.05	0.12	0.10
I-1R2-D	379	380	381	-3.5	2.3	-10.0	2.9	-16.3	-0.07	-0.51	35.1	-0.21	-0.36	0.21	0.15
I-1R2-E	382**	383	384	0.0	-2.3	-10.2	0.7	-11.0	-0.08	-0.35	14.3	-0.10	-0.34	0.06	0.26
I-1R2-F	385*	386	387	22.9	13.6	-8.6	24.2	-9.9	0.70	-0.09	11.2	0.67	-0.06	0.15	0.25
I-1R2-G	388*	389	390	27.6	19.5	-3.2	29.3	-4.9	0.92	0.13	12.7	0.88	0.17	0.17	0.26
I-1R2-H	391	392	393	30.0	17.3	-2.0	30.4	-2.4	0.98	0.22	5.9	0.97	0.23	0.08	0.13
I-1R2-J	394	395	396	18.4	18.9	-1.6	22.9	-6.1	0.69	0.02	23.2	0.59	0.13	0.24	0.14
I-1R2-K	397	398	399	22.7	15.8	-3.7	24.2	-5.2	0.75	0.07	12.7	0.71	0.10	0.14	0.31
I-1R3-A	400	401	402	28.7	18.1	13.0	29.2	12.5	1.08	0.70	-9.6	1.07	0.71	-0.06	0.18
I-1R3-B	403	404	405	-7.0	14.1	23.2	24.4	-8.2	0.72	-0.03	79.1	-0.00	0.70	0.14	0.18
I-1R3-C	406	407	408	-10.9	7.9	12.2	14.3	-13.0	0.34	-0.29	74.0	-0.24	0.30	0.17	0.10
I-1R3-D	409**	410	411	0.0	-2.8	-6.7	0.1	-6.8	-0.07	-0.22	5.2	-0.07	-0.22	0.01	0.11
I-1R3-E	412	413	414	2.2	-3.4	-13.8	2.5	-13.8	-0.05	-0.43	8.0	-0.06	-0.42	0.05	0.07
I-1R3-F	415	416	417	8.0	3.1	-10.8	9.0	-11.9	0.18	-0.30	12.9	0.16	-0.28	0.10	0.06
I-1R3-G	418	419	420	11.9	13.1	-3.6	16.0	-7.7	0.45	-0.10	24.6	0.36	-0.00	0.21	0.11
I-1R3-H	421	422	423	15.3	12.8	0.2	16.9	-1.3	0.54	0.12	17.0	0.51	0.16	0.12	0.11
I-1R3-J	424	425	426	13.3	12.5	2.8	14.9	1.2	0.50	0.19	20.1	0.47	0.22	0.10	0.18
I-1R3-K	427	428	429	25.0	6.2	-0.9	26.2	-2.1	0.84	0.19	-12.2	0.81	0.22	-0.14	0.11
I-1R4-A	435	436**	437**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-1R4-B	439	440	441	26.6	22.3	19.2	26.6	19.2	1.07	0.90	-4.9	1.07	0.90	-0.01	0.25
I-1R4-C	442	443	444	-17.0	14.3	42.2	42.2	-17.0	1.22	-0.14	88.4	-0.14	1.22	0.04	0.17
I-1R4-D	445	446	447	-7.9	4.5	7.2	8.6	-9.2	0.19	-0.22	73.8	-0.19	0.16	0.11	0.15
I-1R5-A	448	449	450	-1.5	-3.9	-15.1	-0.2	-16.4	-0.17	-0.54	16.6	-0.20	-0.51	0.10	0.14
I-1R5-B	453	452	451	-21.9	-9.2	0.8	0.8	-22.0	-0.17	-0.72	86.5	-0.71	-0.19	0.03	0.09
I-1R5-C	454	455	456	4.2	-18.4	-27.5	5.5	-28.8	-0.10	-0.90	-11.5	-0.13	-0.86	-0.16	0.25
I-1R5-D	457	458	459	7.7	-3.7	-16.3	7.8	-16.3	0.09	-0.46	1.4	0.09	-0.46	0.01	0.29
I-1R5-E	460**	461	462	0.0	0.2	-11.4	2.5	-13.9	-0.05	-0.43	23.0	-0.11	-0.38	0.14	0.25
I-1R5-F	463	464	465	-1.2	-1.0	-6.6	0.0	-7.8	-0.08	-0.26	23.1	-0.10	-0.23	0.07	0.16

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-1R5-K	466**	467**	468**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-1R6-A	469	470**	471	23.9	10.0	19.8	43.8	-0.1	1.44	-0.43	-42.3	0.98	0.89	-0.50	0.25
I-1R6-b	472	473	474	-21.2	10.8	40.3	40.3	-21.3	1.12	-0.30	88.8	-0.30	1.12	0.03	0.15
I-1R6-C	475	476	477	-7.7	2.8	12.7	14.0	-9.0	0.37	-0.16	-76.2	-0.13	0.34	-0.12	0.20
I-1R6-D	478	479	480	2.3	-8.8	-25.1	-1.3	-26.1	-0.30	-0.87	11.5	-0.32	-0.85	0.11	0.17
I-1R6-E	481	482	483	4.4	-12.1	-26.0	4.5	-26.1	-0.11	-0.82	-2.5	-0.11	-0.81	-0.03	0.23
I-1R6-F	484	485	486	0.2	-15.4	-31.1	0.2	-31.1	-0.30	-1.02	0.2	-0.30	-1.02	0.00	0.16
I-1R6-G	487	488	489	5.3	-18.6	-33.6	5.8	-34.1	-0.14	-1.07	-6.5	-0.16	-1.05	-0.10	0.21
I-1R6-H	490	491	492	4.0	7.9	-16.9	4.0	-16.9	-0.04	-0.52	1.5	-0.04	-0.52	0.01	0.17
I-1R6-J	493	494	495	0.7	-7.4	-12.8	0.9	-12.9	-0.10	-0.42	-5.9	-0.10	-0.41	-0.03	0.20
I-1R6-K	496**	497**	498**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2R1-A	511	512	513	35.5	10.1	-0.4	37.0	-1.9	1.20	0.30	-11.2	1.17	0.34	-0.17	0.14
I-2R1-B	514	515	516	3.0	0.1	9.6	13.3	-0.7	0.43	0.11	-58.8	0.19	0.35	-0.14	0.14
I-2R1-C	517	518	519	-8.0	9.2	-1.4	0.9	-10.3	-0.07	-0.33	-63.0	-0.28	-0.13	-0.10	0.17
I-2R1-D	520	521	522	1.4	-14.2	-26.1	1.5	-26.3	-0.21	-0.85	-3.8	-0.21	-0.85	-0.04	0.14
I-2R1-E	523	524	525	4.4	-26.0	-18.6	15.0	-29.3	0.21	-0.82	-29.3	-0.04	-0.57	-0.44	0.14
I-2R1-F	526	527	528	16.6	-6.8	-11.4	19.4	-14.2	0.50	-0.28	-16.9	0.43	-0.21	-0.22	0.09
I-2R1-G	529	530	531	28.4	-1.0	-12.0	30.4	-14.0	0.86	-0.16	-12.2	0.82	-0.11	-0.21	0.07
I-2R1-H	532	533	534	31.6	1.7	-5.0	34.9	-8.4	1.07	0.07	-16.1	0.99	0.15	-0.27	0.13
I-2R1-J	535	536	537	34.5	-0.8	-5.3	39.8	-10.5	1.21	0.05	-18.8	1.09	0.17	-0.35	0.20
I-2R1-K	538	539	540	9.3	4.1	-7.7	9.9	-8.3	0.24	-0.18	10.7	0.23	-0.16	0.08	0.27
I-2R1-L	672	671	670	-1.9	9.8	12.6	13.8	-3.2	0.42	0.03	-15.7	0.42	0.06	-0.10	0.12
I-2R1-M	675	674	673	3.7	4.6	-1.3	5.4	-3.0	0.15	-0.05	-63.2	-0.01	0.11	-0.08	0.06
I-2R1-N	676	677	676	10.2	-2.3	-13.8	10.2	-13.8	0.20	-0.35	88.8	-0.35	0.20	0.01	0.12
I-2R2-A	541	542*	543	24.5	35.8	0.2	38.8	-14.1	1.14	-0.08	31.3	0.81	0.25	0.54	0.14
I-2R2-B	544	545	546	0.5	1.0	5.6	6.3	-0.2	0.21	0.06	-71.1	0.07	0.19	-0.05	0.14
I-2R2-C	547	548	549	-5.9	-13.8	-7.5	0.4	-13.8	-0.12	-0.45	-41.8	-0.27	-0.31	-0.16	0.07
I-2R2-D	550	551	552	2.2	-13.8	-36.8	2.5	-37.1	-0.28	-1.20	5.1	-0.29	-1.19	0.08	0.17
I-2R2-E	553	554	555	7.9	-21.4	-35.2	9.2	-36.5	-0.06	-1.11	-9.9	-0.09	-1.08	-0.18	0.19
I-2R2-F	556	557*	558	16.6	-4.3	-20.5	16.7	-20.6	0.35	-0.51	-3.6	0.3	-0.53	-0.05	0.15
I-2R2-G	559	560	561	28.3	1.7	-21.8	28.4	-21.8	0.72	-0.44	-1.7	0.72	-0.44	-0.04	0.15
I-2R2-H	562	563	564	32.8	6.3	-9.9	33.4	-10.5	1.00	-0.02	-6.8	0.98	-0.00	-0.12	0.15
I-2R2-J	565	566	567	30.8	0.3	-6.4	34.3	-9.9	1.03	0.01	-16.3	0.95	0.09	-0.28	0.13
I-2R2-K	568	569	570	21.5	-1.7	-3.7	25.4	-7.6	0.76	0.00	-20.1	0.67	0.09	-0.25	0.07
I-2R3-A	571	572	573	25.5	16.7	3.1	25.8	2.9	0.88	0.35	6.1	0.87	0.36	0.06	0.10
I-2R3-B	574	575	576	-4.2	9.1	16.6	17.0	-4.6	0.52	0.02	82.2	0.03	0.51	0.07	0.09
I-2R3-C	577	578	579	-8.6	-7.3	5.7	7.8	-10.7	0.15	-0.27	-70.4	-0.23	0.10	-0.13	0.10
I-2R3-D	580	581	582	2.4	-6.6	-21.5	2.7	-21.9	-0.13	-0.69	7.0	-0.13	-0.69	0.07	0.09
I-2R3-E	583	584	585	5.4	-3.7	-32.0	7.7	-34.3	-0.08	-1.05	13.6	-0.14	-1.00	0.22	0.16
I-2R3-F	586	587	588	17.4	-2.8	-29.2	17.6	-29.4	0.29	-0.80	3.8	0.29	-0.79	0.07	0.08
I-2R3-G	589	590	591	23.4	0.1	-10.5	24.5	-11.7	0.69	-0.14	-10.1	0.67	-0.12	-0.14	0.07
I-2R3-H	592	593	594	28.4	5.4	-13.8	28.5	-13.9	0.80	-0.18	-2.6	0.80	-0.17	-0.04	0.07
I-2R3-J	595	596	597	39.5	8.2	-13.1	40.0	-13.6	1.18	-0.05	-5.4	1.17	-0.04	-0.12	0.20
I-2R3-K	598	599	600	19.8	-7.6	-0.3	29.9	-10.3	0.88	-0.04	-30.0	0.65	0.19	-0.40	0.11
I-2R4-A	688	689	690	3.4	-11.4	-25.2	3.4	-25.2	-0.14	-0.80	-1.0	-0.14	-0.80	-0.01	0.11
I-2R4-B	601	602	603	9.4	2.2	-34.9	14.0	-39.5	0.07	-1.16	17.0	-0.04	-1.06	0.35	0.24
I-2R4-C	604	605	606	8.6	13.5	-17.7	17.8	-26.9	0.32	-0.71	27.0	0.11	-0.50	0.42	0.19
I-2R4-D	607	608	609	20.3	10.8	-29.3	24.6	-33.7	0.48	-0.87	15.9	0.38	-0.77	0.35	0.17
I-2R5-A	610	611	612	20.6	26.0	11.2	27.1	4.7	0.94	0.42	32.6	0.79	0.57	0.23	0.18
I-2R5-B	613	614	615*	-10.9	4.4	44.4	47.0	-13.5	1.41	0.02	-78.0	0.08	1.35	-0.28	0.32
I-2R5-C	616	617	618	-10.9	0.4	18.4	18.7	-11.3	0.51	-0.19	-83.7	-0.18	0.50	-0.08	0.14
I-2R5-D	619	620	621	2.3	-3.5	-17.9	3.2	-18.8	-0.08	-0.59	11.6	-0.10	-0.57	0.10	0.27
I-2R5-E	622	623	624	5.1	-11.5	-31.6	5.2	-31.7	-0.14	-0.99	2.6	-0.14	-0.99	0.04	0.15
I-2R5-F	625	626	627	2.2	-9.2	-20.6	2.2	-20.6	-0.13	-0.66	0.0	-0.13	-0.66	0.00	0.12
I-2R5-G	628	629	630	-1.7	-1.7	-10.8	0.1	-12.7	-0.12	-0.42	22.4	-0.16	-0.37	0.10	0.30
I-2R5-H	631	632	633	0.5	4.5	-14.7	6.8	-21.0	0.02	-0.63	28.4	-0.13	-0.48	0.27	0.20

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. →)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-2R5- J	634	635	636	-2.9	10.0	-10.2	10.4	-23.5	0.11	-0.67	38.7	-0.20	-0.37	0.36	0.15
I-2R5- K	637	638	639	-1.7	5.3	-13.8	6.7	-22.1	0.00	-0.66	32.6	-0.19	-0.47	0.30	0.11
I-2R6- A	640	641	642	20.3	22.3	18.4	22.5	16.2	0.90	0.76	36.0	0.85	0.81	0.07	0.20
I-2R6- B	643	644	645	-6.8	4.0	42.5	46.1	-10.4	1.42	0.11	-75.4	0.20	1.33	-0.32	0.11
I-2R6- C	646	647	648	-5.8	0.9	16.1	16.9	-6.6	0.49	-0.05	-79.4	-0.03	0.47	-0.10	0.15
I-2R6- D	649	650	651	2.2	-3.5	-9.2	2.2	-9.2	-0.02	-0.28	-0.2	-0.02	-0.28	-0.00	0.14
I-2R6- E	652	653	654**	7.8	-20.8	0.0	29.0	-21.1	0.75	-0.41	-40.5	0.26	0.08	-0.57	0.13
I-2R6- F	655	656	657	0.4	-16.1	-30.1	0.5	-30.2	-0.28	-0.99	-2.3	-0.28	-0.99	-0.03	0.21
I-2R6- G	658	659	660	-4.2	-8.1	-29.9	-1.4	-32.7	-0.37	-1.09	17.4	-0.43	-1.03	0.21	0.22
I-2R6- H	661	662	663	-17.2	-10.5	-24.5	-9.9	-31.8	-0.64	-1.15	35.3	-0.81	-0.98	0.24	0.31
I-2R6- J	664	665	666	-15.1	-17.6	-15.8	-13.3	-17.6	-0.61	-0.71	-40.3	-0.65	-0.67	-0.05	0.21
I-2R6- K	667	668	669	-22.9	-16.3	-6.8	-6.7	-23.1	-0.45	-0.83	-85.0	-0.82	-0.45	-0.03	0.19

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

INCO021 STOP 0

COMBUSTION T-13, LOAD CASE 6, F3I

NOMINAL LOAD = 9.641E 02

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(I)	SIG(T)	TAU	CONF
O-1R1-A	3	2	1	0.7	-11.2	-24.1	0.8	-24.1	-0.21	-0.79	-89.0	-0.79	-0.21	-0.01	0.02
O-1R1-B	6	5	4	-2.8	-18.4	-31.0	-2.7	-31.0	-0.40	-1.05	86.9	-1.05	-0.40	0.04	0.02
O-1R1-C	9	8	7	-5.9	-20.2	-32.7	-5.8	-32.7	-0.52	-1.14	88.1	-1.14	-0.52	0.02	0.02
O-1R1-D	12	11	10	-5.7	-17.4	-26.3	-5.6	-26.4	-0.45	-0.93	86.2	-0.92	-0.45	0.03	0.04
O-1R1-E	15	14	13	-3.9	-10.2	-14.7	-3.9	-14.8	-0.27	-0.53	85.1	-0.52	-0.28	0.02	0.03
O-1R1-F	18	17	16	-2.1	-5.7	-6.1	-1.6	-6.6	-0.12	-0.23	71.3	-0.22	-0.13	0.04	0.02
O-1R1-G	21	20	19	0.4	-3.1	-3.8	0.7	-4.2	-0.02	-0.13	73.8	-0.12	-0.03	0.03	0.02
O-1R1-H	24	23	22	1.6	-1.0	-0.4	2.4	-1.3	0.07	-0.02	61.9	0.00	0.05	0.04	0.01
O-1R1-I	27	26	25	1.6	0.6	0.5	1.7	0.3	0.06	0.03	71.8	0.03	0.06	0.01	0.01
O-1R1-J	30	29	28	1.9	0.9	0.9	2.1	0.7	0.08	0.04	68.3	0.05	0.07	0.01	0.01
O-1R1-K	162	161	160	1.7	1.3	1.8	2.1	1.3	0.08	0.06	39.7	0.08	0.07	0.01	0.01
O-1R1-M	165	164	163	1.9	0.7	1.3	2.5	0.6	0.09	0.05	53.9	0.06	0.07	0.02	0.01
O-1R1-N	168	167	166	0.6	0.1	0.9	1.4	0.1	0.05	0.02	40.0	0.05	0.03	0.02	0.01
O-1R1-O	171	170	169	-0.0	-0.4	0.1	0.5	-0.4	0.01	-0.01	42.5	0.00	-0.00	0.01	0.00
O-1R2-A	33	32	31	1.0	-9.7	-22.5	1.1	-22.5	-0.19	-0.73	-87.4	-0.75	-0.19	-0.02	0.02
O-1R2-B	36	35	34	-4.6	-14.7	-29.0	-4.4	-29.2	-0.43	-1.01	-85.1	-1.00	-0.44	-0.05	0.02
O-1R2-C	39	38	37	-7.0	-16.5	-31.1	-6.7	-31.4	-0.53	-1.10	-84.0	-1.09	-0.54	-0.06	0.01
O-1R2-D	42	41	40	-5.7	-14.6	-25.3	-5.7	-23.3	-0.42	-0.82	89.6	-0.82	-0.42	0.00	0.02
O-1R2-E	45	44	43	-4.4	-11.4	-13.9	-4.0	-14.4	-0.27	-0.51	77.5	-0.50	-0.28	0.05	0.02
O-1R2-F	48	47	46	-2.3	-5.8	-5.6	-1.6	-6.4	-0.11	-0.23	66.3	-0.21	-0.15	0.04	0.01
O-1R2-G	51	50	49	-1.1	-3.2	-3.0	-0.6	-3.5	-0.05	-0.12	65.7	-0.11	-0.07	0.03	0.01
O-1R2-H	54	53	52	0.2	-1.3	-1.0	0.6	-1.4	0.01	-0.04	62.4	-0.05	-0.00	0.02	0.01
O-1R2-I	57	56	55	1.0	1.1	0.6	1.2	0.4	0.04	0.03	-63.1	0.03	0.04	-0.01	0.01
O-1R2-K	60	59	58	1.3	1.3	1.2	1.3	1.2	0.05	0.05	-81.1	0.05	0.05	-0.00	0.01
O-1R3-A	63	62	61	0.1	-6.2	-17.5	0.5	-17.9	-0.16	-0.58	-82.0	-0.58	-0.17	-0.06	0.01
O-1R3-B	66	65	64	-3.2	-11.3	-22.8	-3.1	-23.0	-0.33	-0.79	-85.0	-0.78	-0.33	-0.04	0.02
O-1R3-C	69	68	67	-4.9	-10.4	-23.2	-4.2	-23.9	-0.37	-0.83	-79.1	-0.81	-0.39	-0.08	0.01
O-1R3-D	72	71	70	-5.1	-11.8	-16.2	-5.0	-16.3	-0.33	-0.59	84.3	-0.59	-0.33	0.03	0.01
O-1R3-E	75	74	73	-5.2	-9.6	-8.5	-3.7	-10.0	-0.22	-0.37	60.8	-0.33	-0.25	0.06	0.01
O-1R3-F	78	77	76	-4.0	-6.2	-3.1	-0.9	-6.2	-0.09	-0.21	40.0	-0.14	-0.16	0.06	0.01
O-1R3-G	81	80	79	-3.1	-3.2	-2.8	-2.6	-3.2	-0.12	-0.13	30.2	-0.12	-0.13	0.01	0.02
O-1R3-H	84	83	82	-1.1	-1.8	-1.8	-1.0	-1.9	-0.05	-0.07	69.0	-0.07	-0.06	0.01	0.01
O-1R3-J	87	86	85	-0.4	-0.2	-0.2	-0.2	-0.4	-0.01	-0.01	-22.5	-0.01	-0.01	-0.00	0.00
O-1R3-K	90	89	88	0.1	0.6	0.9	0.9	0.1	0.03	0.01	-10.3	0.03	0.01	-0.00	0.01
O-1R4-A	681	680	679	-4.1	-8.3	-6.2	-1.8	-8.5	-0.14	-0.30	54.2	-0.24	-0.19	0.07	0.01
O-1R4-B	93	92	91	-6.0	-5.4	-1.7	-0.0	-5.7	-0.06	-0.19	32.8	-0.09	-0.15	0.06	0.01
O-1R4-C	96	95	94	-2.5	-2.5	-1.8	-1.6	-2.7	-0.08	-0.10	25.2	-0.08	-0.10	0.01	0.01
O-1R4-D	99	98	97	-0.9	-0.8	-0.5	-0.4	-0.9	-0.02	-0.03	15.7	-0.02	-0.03	0.00	0.01
O-1R5-A	102	101	100	0.1	-3.4	-9.9	0.3	-10.2	-0.09	-0.33	-81.5	-0.33	-0.10	-0.04	0.01
O-1R5-B	105	104	103	-2.5	-3.8	-13.9	-1.0	-15.4	-0.18	-0.52	-71.1	-0.48	-0.22	-0.10	0.01
O-1R5-C	108	107	106	-3.6	-3.2	-11.0	-1.8	-12.9	-0.19	-0.44	-65.8	-0.40	-0.23	-0.10	0.01
O-1R5-D	111	110	109	-3.2	-4.6	-7.4	-3.1	-7.5	-0.17	-0.28	-81.5	-0.27	-0.18	-0.01	0.01
O-1R5-E	114	113	112	-3.3	-5.5	-3.4	-1.2	-5.5	-0.09	-0.19	45.3	-0.14	-0.14	0.05	0.01
O-1R5-F	117	116	115	-3.5	-5.1	-0.9	0.9	-5.3	-0.02	-0.17	33.1	-0.07	-0.12	0.07	0.02
O-1R5-G	120	119	118	-2.9	-4.4	-0.9	0.9	-4.6	-0.02	-0.14	34.2	-0.06	-0.10	0.06	0.01
O-1R5-H	123	122	121	-3.0	-3.0	-0.9	0.3	-4.2	-0.03	-0.14	30.5	-0.06	-0.11	0.05	0.01
O-1R5-J	126	125	124	-2.8	-3.0	-0.5	0.1	-3.5	-0.03	-0.11	24.4	-0.04	-0.10	0.03	0.01
O-1R5-K	129	128	127	-2.4	-2.6	-0.2	0.4	-3.0	-0.02	-0.09	25.1	-0.03	-0.08	0.03	0.01
O-1R6-A	132	131	130	-0.4	1.8	0.6	1.9	-1.7	0.05	-0.04	-37.2	0.02	-0.01	-0.04	0.01
O-1R6-B	135	134	133	0.3	5.5	0.7	4.5	-3.5	0.11	-0.07	-43.8	0.02	0.02	-0.09	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
D-1R6-C	138	137	136	-0.1	4.2	1.6	4.3	-2.8	0.11	-0.05	-38.2	0.05	0.01	-0.08	0.01
D-1R6-D	141	140	139	0.3	1.6	0.2	1.6	-1.0	0.04	-0.02	-46.4	0.01	0.01	-0.05	0.01
C-1R6-E	144	143	142	0.4	-0.8	-0.1	1.1	-0.8	0.03	-0.02	52.6	0.00	0.01	0.02	0.00
C-1R6-F	147	146	145	0.5	-1.6	-0.1	2.0	-1.6	0.05	-0.03	49.5	0.00	0.01	0.04	0.01
D-1R6-G	150	149	148	0.1	-1.6	0.1	1.8	-1.6	0.04	-0.03	45.1	0.00	0.01	0.04	0.01
D-1R6-H	153	152	151	0.3	-1.1	-0.1	1.4	-1.1	0.03	-0.02	49.3	0.00	0.01	0.03	0.00
D-1R6-J	156	155	154	0.1	-1.4	-0.0	1.5	-1.4	0.03	-0.03	46.1	0.00	0.00	0.03	0.01
D-1R6-K	159	158	157	-0.6	-0.6	-1.0	-0.5	-1.1	-0.03	-0.04	-70.3	-0.04	-0.03	-0.00	0.03
C-2R1-A	174	173	172	-1.3	11.2	24.9	24.9	-1.3	0.81	0.20	1.2	0.81	0.20	0.01	0.01
U-2R1-B	177	176	175	3.7	14.5	28.0	28.1	3.6	0.96	0.40	3.2	0.96	0.40	0.03	0.01
D-2R1-C	180	179	178	5.8	17.3	33.4	33.6	5.6	1.16	0.52	4.7	1.16	0.52	0.05	0.02
D-2R1-D	183	182	181	5.2	12.1	25.6	26.1	4.7	0.91	0.41	9.0	0.90	0.43	0.08	0.01
D-2R1-E	186	185	184	4.1	7.7	14.9	15.2	3.8	0.54	0.28	9.1	0.53	0.28	0.04	0.01
D-2R1-F	189	188	187	1.5	2.0	6.0	6.6	0.9	0.23	0.09	18.7	0.21	0.11	0.04	0.01
D-2R1-G	192	191	190	0.1	0.3	2.4	2.8	-0.3	0.09	0.02	19.5	0.08	0.03	0.02	0.02
D-2R1-H	195	194	193	-0.6	-1.3	1.0	1.8	-1.5	0.05	-0.03	30.7	0.03	-0.01	0.05	0.01
D-2R1-J	198	197	196	-1.2	-2.0	-0.5	0.3	-2.0	-0.01	-0.06	35.9	-0.03	-0.05	0.03	0.01
J-2R1-K	201	200	199	-2.0	-2.9	-0.6	0.5	-3.1	-0.01	-0.10	33.5	-0.04	-0.07	0.04	0.01
D-2R1-L	333	332	331	-1.7	-3.0	-1.8	-0.5	-3.0	-0.05	-0.10	45.9	-0.08	-0.07	0.03	0.01
D-2R1-M	336	335	334	-1.6	-2.0	-2.4	-1.6	-2.4	-0.08	-0.09	88.9	-0.09	-0.08	0.00	0.01
D-2R1-N	339	338	337	-1.1	-1.7	-1.4	-0.8	-1.7	-0.04	-0.06	53.9	-0.06	-0.05	0.01	0.01
D-2R2-A	204	203	202	0.9	10.9	23.9	24.0	0.8	0.80	0.26	3.7	0.80	0.27	0.03	0.02
D-2R2-B	207	206	205	4.9	11.7	25.9	26.6	4.3	0.92	0.40	9.9	0.90	0.42	0.09	0.01
D-2R2-C	210	209	208	5.6	16.5	28.8	28.8	5.6	1.01	0.47	1.7	1.00	0.47	0.02	0.01
D-2R2-D	213	212	211	5.7	12.7	25.3	25.7	5.3	0.90	0.43	8.0	0.89	0.44	0.07	0.01
D-2R2-E	216	215	214	4.3	10.4	15.2	15.2	4.2	0.54	0.29	-3.6	0.54	0.29	-0.02	0.01
D-2R2-F	219	218	217	2.9	4.9	6.3	6.3	2.9	0.24	0.16	-4.7	0.24	0.16	-0.01	0.01
D-2R2-G	222	221	220	1.5	1.6	3.0	3.2	1.3	0.12	0.07	20.1	0.11	0.08	0.01	0.01
D-2R2-H	225**	224	223	0.0	-1.5	1.1	2.7	-1.6	0.07	-0.03	37.6	0.04	0.01	0.05	0.01
D-2R2-J	228	227	226	-0.7	-2.5	-0.2	1.6	-2.5	0.03	-0.07	41.1	-0.01	-0.03	0.05	0.01
D-2R2-K	231	230	229	-1.1	-2.8	-2.0	-0.2	-2.9	-0.04	-0.10	54.8	-0.08	-0.06	0.03	0.01
D-2R3-A	234	233	232	1.7	9.2	19.4	19.5	1.6	0.66	0.24	4.3	0.66	0.25	0.03	0.01
D-2R3-B	237	236	235	4.6	10.0	21.6	22.1	4.0	0.77	0.35	9.9	0.76	0.36	0.07	0.01
D-2R3-C	240	239	238	6.1	11.2	21.6	22.1	5.7	0.78	0.41	9.6	0.77	0.42	0.06	0.01
D-2R3-D	243	242	241	4.3	12.0	17.3	17.4	4.2	0.61	0.31	-5.4	0.61	0.31	-0.03	0.01
D-2R3-E	246	245	244	3.4	10.7	11.1	12.4	2.1	0.43	0.19	-21.1	0.40	0.22	-0.08	0.01
D-2R3-F	249	248	247	2.9	6.2	4.9	6.4	1.5	0.23	0.11	-32.8	0.19	0.14	-0.05	0.01
D-2R3-G	252*	251	250	2.0	3.2	3.6	5.7	1.9	0.14	0.10	-12.5	0.14	0.10	-0.01	0.01
D-2R3-H	255	254	253	0.6	1.2	2.5	2.5	0.5	0.09	0.04	8.6	0.09	0.04	0.01	0.01
D-2R3-J	258	257	256	-0.0	-0.9	0.9	1.8	-1.0	0.05	-0.01	35.5	0.03	0.01	0.03	0.01
D-2R3-K	261	260	259	0.6	-1.9	-1.5	1.3	-2.3	0.02	-0.06	62.7	-0.04	0.00	0.03	0.01
D-2R4-A	684	683	682	4.3	9.8	7.0	10.0	1.3	0.34	0.14	-35.9	0.27	0.21	-0.09	0.02
D-2R4-B	264	263	262	2.7	5.5	3.6	5.6	0.7	0.19	0.08	-39.6	0.15	0.12	-0.05	0.01
D-2R4-C	267	266	265	0.7	3.4	3.2	3.9	0.1	0.15	0.04	-25.0	0.11	0.06	-0.05	0.01
D-2R4-D	270	269	268	-0.6	1.3	2.4	2.4	-0.7	0.07	0.00	-7.8	0.07	0.00	-0.01	0.02
D-2R5-A	273	272	271	2.6	5.3	10.9	11.2	2.3	0.39	0.19	9.6	0.38	0.19	0.03	0.02
D-2R5-B	276	275	274	2.7	4.6	11.8	12.5	2.0	0.43	0.19	15.3	0.42	0.21	0.06	0.01
D-2R5-C	279	278	277	2.9	6.7	12.2	12.2	2.8	0.43	0.21	5.3	0.43	0.22	0.02	0.05
D-2R5-D	282	281	280	2.0	6.7	8.5	8.8	1.7	0.31	0.14	-11.9	0.30	0.15	-0.03	0.02
D-2R5-E	285	284	283	2.5	7.9	4.8	8.1	-0.8	0.26	0.05	-37.6	0.18	0.13	-0.10	0.01
D-2R5-F	288	287	286	2.3	6.5	2.6	6.5	-1.7	0.20	0.01	-44.0	0.11	0.10	-0.09	0.01
D-2R5-G	291	290	289	2.6	5.7	2.4	5.7	-0.6	0.18	0.04	-46.2	0.10	0.11	-0.07	0.01
D-2R5-H	294	293	292	1.9	5.2	1.7	5.2	-1.6	0.15	-0.00	-45.8	0.07	0.08	-0.08	0.01
D-2R5-J	297	296	295	0.7	4.3	2.7	4.5	-1.1	0.14	0.01	-34.5	0.10	0.05	-0.06	0.01
D-2R5-K	300	299	298	0.1	3.5	2.7	3.9	-1.1	0.12	0.00	-28.6	0.09	0.03	-0.05	0.01
D-2R6-A	303**	302	301	0.0	-1.9	-0.4	1.5	-1.9	0.03	-0.05	48.5	-0.01	-0.00	0.04	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI				TAU	CONF	
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)			SIG(T)
0-2R6-B	306	305	304	-0.3	-3.8	-0.9	2.6	-3.9	0.05	-0.10	47.5	-0.03	-0.02	0.07	0.01
0-2R6-C	309	308	307	-0.5	-1.9	-0.6	0.9	-1.9	0.01	-0.06	45.7	-0.02	-0.02	0.03	0.00
0-2R6-D	312	311	310	-1.0	1.8	-0.1	1.8	-2.9	0.03	-0.08	-39.6	-0.01	-0.03	-0.05	0.01
0-2R6-E	315	314	313	-0.6	4.6	0.1	4.7	-5.2	0.10	-0.12	-42.9	-0.00	-0.02	-0.11	0.01
0-2R6-F	318	317	316	-0.7	4.7	0.5	4.7	-4.9	0.11	-0.12	-41.3	0.01	-0.02	-0.11	0.00
0-2R6-G	321	320	319	-0.2	4.0	0.2	4.0	-4.0	0.09	-0.09	-43.7	0.01	-0.00	-0.09	0.01
0-2R6-H	324	323	322	-0.1	3.8	0.2	3.8	-3.7	0.09	-0.08	-43.8	0.01	-0.00	-0.09	0.01
0-2R6-J	327	326	325**	0.5	4.1	0.0	4.1	-3.6	0.10	-0.08	-46.7	0.00	0.02	-0.09	0.01
0-2R6-K	330	329	328	-0.7	3.3	0.5	3.3	-3.6	0.07	-0.08	-40.1	0.01	-0.02	-0.08	0.01
I-1R1-A	340	341	342	-17.6	-9.8	-2.5	-2.5	-17.6	-0.26	-0.60	89.1	-0.60	-0.26	0.01	0.02
I-1R1-B	343	344	345	-0.7	-2.6	-7.5	-0.4	-7.9	-0.09	-0.26	11.8	-0.10	-0.26	0.03	0.01
I-1R1-C	346	347	348	5.4	0.7	-3.8	5.4	-3.8	0.14	-0.07	-0.1	0.14	-0.07	-0.00	0.01
I-1R1-D	349	350	351	0.8	3.6	5.8	5.8	0.8	0.20	0.08	86.2	0.09	0.20	0.01	0.01
I-1R1-E	352	353	354	2.6	3.3	4.9	4.9	2.5	0.19	0.13	-79.9	0.13	0.19	-0.01	0.01
I-1R1-F	355	356	357	-0.6	1.1	3.5	3.6	-0.6	0.11	0.01	-84.3	0.02	0.11	-0.01	0.01
I-1R1-G	358	359	360	-3.0	-0.9	2.1	2.1	-3.1	0.04	-0.08	-85.5	-0.08	0.04	-0.01	0.01
I-1R1-H	361	362	363	-3.9	-2.1	0.6	0.6	-4.0	-0.02	-0.13	-84.3	-0.12	-0.02	-0.01	0.01
I-1R1-J	364	365	366	-4.3	-2.3	0.4	0.5	-4.4	-0.03	-0.14	-85.3	-0.14	-0.03	-0.01	0.01
I-1R1-K	367	368	369	-4.7	-2.4	0.3	0.3	-4.7	-0.03	-0.15	-86.9	-0.15	-0.04	-0.01	0.02
I-1R1-L	499	500*	501	-4.0	-2.0	0.6	0.6	-4.1	-0.02	-0.13	-86.6	-0.13	-0.02	-0.01	0.01
I-1R1-M	502	503	504	-3.2	-1.7	0.5	0.5	-3.2	-0.02	-0.10	-85.0	-0.10	-0.02	-0.01	0.01
I-1R1-N	505**	506	507	0.0	-1.4	0.3	1.8	-1.4	0.04	-0.03	-48.1	0.00	0.01	-0.04	0.00
I-1R1-O	508	509	510	0.2	0.3	0.1	0.3	0.1	0.01	0.01	37.6	0.01	0.01	0.00	0.00
I-1R2-A	370	371	372	-14.6	-10.5	-3.6	-3.5	-14.7	-0.26	-0.52	-83.0	-0.52	-0.26	-0.03	0.01
I-1R2-B	373	374	375	-0.5	-4.9	-8.9	-0.5	-8.9	-0.11	-0.30	-1.1	-0.11	-0.30	-0.00	0.01
I-1R2-C	376	377	378**	5.2	2.8	0.0	5.2	-0.0	0.17	0.05	2.0	0.17	0.05	0.00	0.01
I-1R2-D	379	380	381	-0.9	1.5	7.4	7.7	-1.3	0.24	0.03	-78.8	0.04	0.23	-0.04	0.00
I-1R2-E	382	383	384	0.5	8.0	7.6	9.4	-1.3	0.30	0.05	65.8	0.09	0.25	0.09	0.01
I-1R2-F	385	386	387	1.0	6.0	4.0	6.3	-1.3	0.20	0.02	56.7	0.07	0.14	0.08	0.01
I-1R2-G	388	389	390	-1.1	4.2	2.5	4.7	-3.2	0.12	-0.06	58.3	-0.01	0.07	0.08	0.01
I-1R2-H	391	392	393	-2.8	1.2	1.7	2.3	-3.4	0.04	-0.09	71.2	-0.08	0.03	0.04	0.01
I-1R2-J	394	395	396	-3.0	-0.1	0.6	0.9	-3.4	-0.00	-0.10	74.4	-0.09	-0.01	0.03	0.01
I-1R2-K	397	398	399	-3.9	-0.9	0.4	0.6	-4.1	-0.02	-0.13	79.2	-0.13	-0.03	0.02	0.01
I-1R3-A	400	401	402	-11.5	-8.2	-2.3	-2.2	-11.7	-0.19	-0.41	-82.2	-0.40	-0.19	-0.03	0.01
I-1R3-B	403	404	405	2.7	-1.5	-8.5	2.9	-8.7	0.01	-0.26	7.0	0.01	-0.25	0.03	0.01
I-1R3-C	406	407	408	7.0	5.9	-7.2	9.2	-9.5	0.21	-0.22	20.3	0.16	-0.17	0.14	0.01
I-1R3-D	409	410	411	-1.1	10.6	7.8	11.8	-5.2	0.34	-0.05	60.7	0.04	0.25	0.17	0.01
I-1R3-E	412	413	414	1.0	13.0	8.3	13.8	-4.5	0.41	-0.01	56.8	0.11	0.28	0.19	0.01
I-1R3-F	415	416	417	-0.0	10.3	7.8	11.4	-3.6	0.34	-0.01	60.7	0.08	0.26	0.15	0.01
I-1R3-G	418	419	420	-0.2	5.9	5.2	6.8	-1.9	0.21	0.01	64.2	0.04	0.17	0.08	0.01
I-1R3-H	421	422	423	0.5	4.1	2.5	4.3	-1.3	0.13	0.00	55.7	0.04	0.09	0.06	0.01
I-1R3-J	424	425	426	-0.9	1.8	1.3	2.2	-1.8	0.05	-0.04	62.6	-0.02	0.03	0.04	0.00
I-1R3-K	427	428	429	-1.8	0.4	-0.0	0.6	-2.5	-0.00	-0.07	62.5	-0.06	-0.02	0.03	0.01
I-1R4-A	435	436	437	2.3	13.3	6.3	13.5	-4.9	0.40	-0.03	51.3	0.14	0.23	0.21	0.01
I-1R4-B	430	431	432	0.8	9.0	6.3	9.7	-2.6	0.29	0.01	58.3	0.09	0.22	0.13	0.01
I-1R4-C	433	434	435	0.6	5.2	3.7	5.6	-1.2	0.17	0.02	58.4	0.06	0.13	0.07	0.01
I-1R4-D	436**	437**	438**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-1R5-A	439	440	441	-6.3	-4.7	-1.6	-1.5	-0.4	-0.11	-0.23	-80.8	-0.22	-0.12	-0.02	0.01
I-1R5-B	442	443	444	3.1	3.9	-5.3	5.5	-7.6	0.10	-0.20	25.1	0.05	-0.14	0.12	0.01
I-1R5-C	445	446	447	6.6	9.9	-6.3	11.9	-11.6	0.28	-0.26	28.2	0.16	-0.14	0.23	0.01
I-1R5-D	448	449	450	-0.9	12.4	5.1	12.8	-8.6	0.34	-0.16	53.2	0.02	0.16	0.24	0.01
I-1R5-E	453	452	451	3.9	1.3	2.4	11.3	-5.0	0.52	-0.05	42.5	0.15	0.12	0.19	0.01
I-1R5-F	454	455	456	2.9	11.0	6.2	11.2	-2.1	0.35	0.04	52.0	0.16	0.23	0.15	0.02
I-1R5-G	457	458	459	-0.3	6.9	6.5	8.2	-2.0	0.25	0.01	66.0	0.05	0.21	0.09	0.01
I-1R5-H	460**	461	462	0.0	6.0	4.4	6.6	-2.3	0.20	-0.01	59.7	0.04	0.14	0.09	0.01
I-1R5-J	463	464	465	0.4	4.3	3.8	4.9	-0.8	0.15	0.02	63.6	0.05	0.13	0.05	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI.					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-1R5-K	466**	467**	468**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-1R6-A	469	470**	471	0.5	0.0	-0.4	0.5	-0.4	0.01	-0.01	-4.5	0.01	-0.01	-0.00	0.00
I-1R6-B	472	473	474	1.4	8.0	0.3	8.0	-6.3	0.20	-0.13	43.0	0.05	0.02	0.15	0.01
I-1R6-C	475	476	477	-0.5	12.7	2.0	12.7	-11.2	0.31	-0.24	48.0	0.00	0.06	0.27	0.01
I-1R6-D	478	479	480	2.3	10.4	-2.8	10.7	-11.3	0.24	-0.27	38.3	0.05	-0.07	0.25	0.02
I-1R6-E	481	482	483	0.5	7.9	-0.7	7.9	-8.1	0.18	-0.19	42.8	0.01	-0.02	0.18	0.01
I-1R6-F	484	485	486	0.2	5.9	-0.5	5.9	-6.2	0.13	-0.15	43.4	0.00	-0.01	0.14	0.01
I-1R6-G	487	488	489	-0.2	4.0	-0.4	4.0	-4.5	0.09	-0.11	44.4	-0.01	-0.01	0.10	0.01
I-1R6-H	490	491	492	-0.3	2.5	-0.3	2.5	-3.1	0.05	-0.08	45.3	-0.01	-0.01	0.06	0.00
I-1R6-J	493	494	495	0.4	2.1	-0.5	2.1	-2.2	0.05	-0.05	39.0	0.01	-0.01	0.05	0.01
I-1R6-K	496**	497**	498**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2P1-A	511	512	513	17.1	7.9	3.0	17.4	2.7	0.60	0.26	-8.3	0.59	0.27	-0.05	0.01
I-2R1-B	514	515	516	1.5	4.4	6.8	6.8	1.5	0.24	0.12	87.8	0.12	0.24	0.00	0.01
I-2R1-C	517	518	519	-5.8	-1.2	3.0	3.0	-5.8	0.04	-0.16	89.1	-0.16	0.04	0.00	0.01
I-2R1-D	520	521	522	-0.9	-5.0	-6.8	-0.7	-7.0	-0.09	-0.24	-10.4	-0.10	-0.23	-0.03	0.01
I-2R1-E	523	524	525	-2.3	-5.1	-5.5	-1.9	-5.9	-0.12	-0.21	-17.9	-0.13	-0.21	-0.03	0.01
I-2R1-F	526	527	528	0.4	-2.5	-3.3	0.7	-3.5	-0.01	-0.11	-14.8	-0.02	-0.10	-0.02	0.01
I-2R1-G	529	530	531	2.7	-0.3	-2.0	2.8	-2.1	0.07	-0.04	-8.3	0.07	-0.04	-0.02	0.00
I-2R1-H	532	533	534	3.6	0.6	-0.8	3.7	-0.9	0.11	0.01	-10.1	0.11	0.01	-0.02	0.01
I-2R1-J	535	536	537	4.6	0.8	-0.6	4.9	-0.9	0.15	0.02	-12.5	0.15	0.05	-0.05	0.01
I-2R1-K	538*	539	540	5.2	1.3	0.4	5.6	-0.1	0.19	0.05	-15.6	0.16	0.06	-0.03	0.01
I-2R1-L	672	671	670	-0.6	1.9	3.4	3.4	-0.6	0.11	0.01	-7.3	0.11	0.01	-0.01	0.01
I-2R1-M	675	674	673	-0.8	1.3	3.0	3.0	-0.8	0.09	0.00	-2.9	0.09	0.00	-0.00	0.01
I-2R1-N	678	677	676	-0.5	1.2	1.4	1.6	-0.7	0.05	-0.01	-18.5	0.04	-0.00	-0.02	0.01
I-2R2-A	541	542	543	13.3	9.3	0.8	13.7	0.4	0.46	0.15	9.8	0.45	0.16	0.05	0.02
I-2R2-B	544	545	546	0.2	3.0	4.9	4.9	0.2	0.16	0.06	84.8	0.06	0.16	0.01	0.01
I-2R2-C	547	548	549	-5.7	-5.0	0.7	1.5	-6.5	-0.02	-0.20	-71.4	-0.18	-0.04	-0.06	0.01
I-2R2-D	550	551	552	0.7	-8.4	-10.7	1.6	-11.6	-0.06	-0.37	-15.6	-0.08	-0.34	-0.08	0.01
I-2R2-E	553	554	555	-0.9	-10.7	-10.5	1.2	-12.7	-0.08	-0.41	-23.0	-0.13	-0.36	-0.12	0.01
I-2R2-F	556	557	558	1.4	-7.0	-6.6	3.3	-8.5	0.02	-0.25	-23.9	-0.02	-0.20	-0.10	0.02
I-2R2-G	559	560	561	2.5	-4.6	-4.5	4.0	-6.0	0.07	-0.16	-22.7	0.04	-0.12	-0.08	0.01
I-2R2-H	562	563	564	3.0	-2.8	-2.3	4.5	-3.8	0.11	-0.08	-24.9	0.08	-0.05	-0.07	0.01
I-2R2-J	565	566	567	3.7	-0.9	-1.1	4.5	-1.9	0.15	-0.02	-20.9	0.11	-0.00	-0.05	0.01
I-2R2-K	568	569**	570	3.5	0.0	-0.8	3.9	-1.2	0.12	-0.00	-16.1	0.11	0.01	-0.03	0.01
I-2R3-A	571	572	573	9.7	6.9	0.2	10.1	-0.2	0.33	0.09	11.0	0.32	0.10	0.04	0.01
I-2R3-B	574	575	576	-2.3	-1.2	3.1	3.5	-2.7	0.09	-0.06	-75.2	-0.05	0.08	-0.04	0.01
I-2R3-C	577	576	579	-5.4	-10.4	0.2	5.6	-10.9	0.08	-0.30	-54.9	-0.18	-0.05	-0.18	0.01
I-2R3-D	580	581	582	2.8	-11.0	-14.4	4.2	-15.8	-0.02	-0.48	-15.5	-0.05	-0.45	-0.12	0.01
I-2R3-E	583	584	585	0.6	-13.0	-13.1	3.3	-15.9	-0.05	-0.49	-22.3	-0.11	-0.43	-0.16	0.01
I-2R3-F	586	587	588	-0.2	-11.0	-9.1	3.1	-12.4	-0.02	-0.38	-27.4	-0.10	-0.30	-0.15	0.01
I-2R3-G	589	590	591	0.2	-7.6	-5.1	3.4	-8.2	0.03	-0.24	-31.5	-0.04	-0.16	-0.12	0.01
I-2P3-H	592	593	594	0.9	-4.4	-2.9	2.9	-4.9	0.05	-0.13	-30.7	-0.00	-0.09	-0.08	0.01
I-2R3-J	595	596	597	2.8	-2.3	-2.4	3.9	-3.4	0.09	-0.07	-22.0	0.07	-0.05	-0.06	0.01
I-2R3-K	598	599	600	1.9	-2.0	0.1	4.2	-2.1	0.12	-0.03	-56.7	0.07	0.02	-0.07	0.01
I-2R4-A	688	689	690	-2.3	-14.5	-9.8	3.2	-15.3	-0.05	-0.47	-32.9	-0.17	-0.35	-0.19	0.01
I-2R4-B	601	602	603	0.3	-8.2	-9.1	1.6	-10.4	-0.05	-0.33	-19.6	-0.08	-0.30	-0.09	0.02
I-2R4-C	604	605	606	1.1	-4.0	-5.6	1.5	-6.0	-0.01	-0.18	-14.1	-0.02	-0.17	-0.04	0.01
I-2R4-D	607	608	609	2.6	-2.3	-4.4	2.9	-4.7	0.05	-0.13	-11.2	0.04	-0.12	-0.03	0.01
I-2R5-A	610	611	612	4.9	4.6	0.4	5.6	-0.4	0.18	0.04	21.0	0.16	0.06	0.05	0.01
I-2R5-B	613	614	615	-2.6	-6.1	2.2	6.2	-6.6	0.14	-0.15	-56.0	-0.06	0.05	-0.14	0.02
I-2R5-C	616	617	618	-3.3	-13.8	-0.6	9.9	-13.9	0.19	-0.36	-48.2	-0.11	-0.05	-0.27	0.01
I-2R5-D	619	620	621	4.1	-10.7	-12.0	6.5	-14.5	0.1	-0.41	-20.0	0.02	-0.36	-0.16	0.01
I-2R5-E	622	623	624	0.4	-11.6	-8.8	4.5	-12.9	0.02	-0.38	-29.1	-0.07	-0.29	-0.17	0.01
I-2R5-F	625	626	627	-0.7	-9.0	-6.9	2.3	-9.9	-0.02	-0.30	-29.6	-0.09	-0.23	-0.12	0.01
I-2R5-G	628	629	630	0.2	-6.2	-6.8	1.2	-7.8	-0.04	-0.25	-20.1	-0.06	-0.22	-0.07	0.01
I-2R5-H	631	632	633	1.0	-4.5	-5.9	1.5	-6.4	-0.01	-0.20	-15.1	-0.03	-0.18	-0.05	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
I-2R5-J	634	635	636	0.9	-3.0	-4.7	1.1	-4.9	-0.01	-0.15	-11.2	-0.02	-0.15	-0.03	0.01
I-2R5-K	637	638	639	1.3	-1.6	-4.2	1.3	-4.2	0.00	-0.12	-1.7	0.00	-0.12	-0.00	0.01
I-2R6-A	640	641	642	-0.1	2.0	-0.1	2.0	-2.2	0.04	-0.05	44.7	-0.00	-0.01	0.00	0.00
I-2R6-B	643	644	645	0.6	-7.9	-2.0	6.6	-8.0	0.14	-0.20	-39.8	-0.00	-0.01	-0.17	0.01
I-2R6-C	646	647	648	-0.9	-13.4	-0.7	11.7	-13.4	0.25	-0.33	-45.2	-0.04	-0.03	-0.29	0.01
I-2R6-D	649	650	651	1.2	-10.0	-0.6	10.6	-10.1	0.25	-0.23	-42.5	0.03	-0.01	-0.24	0.01
I-2R6-E	652	653	654**	-0.5	-6.1	0.0	5.7	-6.2	0.13	-0.15	-46.1	-0.02	-0.00	-0.14	0.01
I-2R6-F	655	656	657	-0.0	-4.2	0.9	5.1	-4.2	0.12	-0.09	-47.8	0.01	0.03	-0.11	0.00
I-2R6-G	658	659	660	0.2	-2.9	0.3	3.3	-2.9	0.08	-0.06	-45.2	0.01	0.01	-0.07	0.01
I-2R6-H	661	662	663	-0.4	-0.9	0.4	1.1	-1.0	0.03	-0.02	-56.7	-0.01	0.01	-0.02	0.01
I-2R6-J	664	665	666	-0.1	-0.5	0.4	0.8	-0.5	0.02	-0.01	-56.5	-0.00	0.01	-0.01	0.01
I-2R6-K	667	668	669	0.2	0.2	0.1	0.2	0.1	0.01	0.01	-1.2	0.01	0.01	-0.00	0.00

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. #)

COMBUSTION T-13, LOAD CASE 7, M2X

NOMINAL LOAD = 7.883E 05

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)			
O-1R1-A	3	2	1	0.4	2.9	-0.8	3.0	-3.5	0.06	-0.08	-50.4	-0.02	0.00	-0.07	0.01	
O-1R1-B	6	5	4	0.0	-5.4	-0.3	5.2	-5.4	0.12	-0.13	45.9	-0.01	-0.00	0.12	0.02	
O-1R1-C	9	8	7	1.3	-17.6	-1.5	17.5	-17.6	0.40	-0.41	47.3	-0.04	0.03	0.40	0.01	
O-1R1-D	12	11	10	1.7	-31.0	-1.5	31.3	-31.1	0.73	-0.71	46.5	-0.03	0.04	0.72	0.01	
J-1R1-E	15	14	13	2.5	-30.8	-3.0	30.4	-30.9	0.70	-0.72	47.6	-0.07	0.05	0.71	0.01	
O-1R1-F	18	17	16	1.5	-25.7	-2.1	25.2	-25.8	0.58	-0.60	47.0	-0.05	0.03	0.59	0.01	
O-1R1-G	21	20	19	0.4	-23.2	-2.3	21.2	-23.2	0.47	-0.55	46.8	-0.07	-0.01	0.51	0.01	
O-1R1-H	24	23	22	0.6	-21.1	-2.0	19.6	-21.1	0.44	-0.50	46.8	-0.06	-0.00	0.47	0.01	
O-1R1-J	27	26	25	1.1	-19.0	-2.9	17.4	-19.1	0.38	-0.46	48.1	-0.08	0.01	0.42	0.01	
O-1R1-K	30	29	28	1.7	-17.4	-2.9	16.5	-17.6	0.37	-0.42	48.9	-0.08	0.03	0.39	0.01	
O-1R1-L	162	161	160	0.1	-16.9	-0.5	16.5	-16.9	0.38	-0.39	45.5	-0.01	-0.00	0.39	0.01	
J-1R1-M	165	164	163	-0.2	-16.2	-0.3	15.7	-16.2	0.36	-0.38	45.2	-0.01	-0.01	0.37	0.01	
O-1R1-N	168	167	166	-0.3	-15.6	-0.2	15.1	-15.6	0.34	-0.37	44.9	-0.01	-0.01	0.35	0.00	
G-1R1-O	171	170	169	0.7	-15.9	-0.9	15.7	-16.0	0.36	-0.37	46.4	-0.02	0.01	0.37	0.01	
O-1R2-A	33	32	31	13.0	9.8	1.9	13.5	1.4	0.46	0.18	-78.5	0.19	0.45	-0.05	0.03	
O-1R2-B	36	35	34	11.9	5.9	6.0	13.3	4.7	0.48	0.29	66.9	0.32	0.45	0.07	0.02	
O-1R2-C	39	38	37	10.8	-4.2	7.3	22.4	-4.3	0.70	0.08	48.8	0.35	0.43	0.31	0.02	
O-1R2-D	42	41	40	8.5	-15.9	4.0	28.5	-16.0	0.78	-0.25	47.9	0.22	0.32	0.51	0.01	
O-1R2-E	45	44	43	0.9	-18.6	9.1	29.0	-19.0	0.77	-0.34	40.0	0.31	0.12	0.54	0.01	
O-1R2-F	48	47	46	0.4	-16.3	6.5	23.4	-16.5	0.61	-0.31	40.6	0.22	0.48	0.45	0.01	
O-1R2-G	51	50	49	-4.5	-15.0	9.7	21.7	-16.4	0.55	-0.33	34.1	0.28	-0.05	0.41	0.03	
O-1R2-H	54	53	52	-1.5	-16.8	5.0	20.6	-17.1	0.51	-0.36	40.0	0.15	-0.00	0.43	0.02	
O-1R2-J	57	56	55	-2.7	-16.9	3.9	18.3	-17.2	0.43	-0.39	39.6	0.10	-0.05	0.40	0.01	
O-1R2-K	60	59	58	3.8	-17.7	-3.3	18.6	-18.1	0.43	-0.41	50.6	-0.07	0.09	0.41	0.01	
O-1R3-A	63	62	61	13.9	7.6	4.5	14.2	4.2	0.51	0.28	80.5	0.28	0.50	0.04	0.03	
O-1R3-B	66	65	64	11.2	10.1	10.3	11.5	9.9	0.48	0.44	62.8	0.45	0.47	0.01	0.04	
U-1R3-C	69	68	67	6.9	7.8	13.6	14.4	6.1	0.54	0.34	18.0	0.52	0.36	0.06	0.03	
O-1R3-D	72	71	70	-1.8	5.4	13.8	13.8	-1.8	0.44	0.08	2.3	0.44	0.08	0.01	0.02	
O-1R3-E	75	74	73	-5.7	4.1	13.4	13.4	-5.7	0.38	-0.05	-0.8	0.38	-0.05	-0.01	0.02	
J-1R3-F	78	77	76	-9.7	-11.0	13.0	13.3	-10.0	0.34	-0.20	6.6	0.35	-0.19	0.06	0.01	
O-1R3-G	81	80	79	-11.6	-2.5	13.3	13.7	-12.0	0.33	-0.26	7.4	0.32	-0.25	0.08	0.01	
G-1R3-H	84	83	82	-13.5	-8.0	12.7	14.8	-15.6	0.35	-0.37	15.1	0.29	-0.32	0.18	0.01	
O-1R3-J	87	86	85	-8.2	-15.6	6.5	15.6	-17.3	0.34	-0.42	31.8	0.13	-0.21	0.34	0.01	
O-1R3-K	90	89	88	0.3	-17.9	-2.9	15.3	-18.0	0.33	-0.44	47.7	-0.09	-0.02	0.36	0.01	
O-1R4-A	681	680	679	-8.0	14.8	12.5	18.4	-14.0	0.47	-0.28	-25.5	0.33	-0.14	-0.29	0.02	
O-1R4-B	93	92	91	-14.0	5.4	13.8	14.8	-15.0	0.34	-0.35	-10.7	0.32	-0.32	-0.13	0.01	
O-1R4-C	96	95	94	-17.2	-0.9	15.2	15.2	-17.2	0.35	-0.42	-0.2	0.33	-0.42	-0.00	0.02	
O-1R4-D	99	96	97	-17.6	-7.7	15.4	16.7	-18.9	0.36	-0.46	10.9	0.33	-0.43	0.15	0.02	
O-1R5-A	102	101	100	8.0	5.1	2.8	8.0	2.8	0.29	0.17	86.5	0.17	0.29	0.01	0.02	
O-1R5-B	105	104	103	4.1	8.8	7.9	9.4	2.6	0.33	0.18	-28.1	0.30	0.21	-0.07	0.01	
O-1R5-C	108	107	106	-3.6	15.9	11.5	18.1	-10.2	0.50	-0.16	-28.9	0.34	-0.00	-0.28	0.01	
O-1R5-D	111	110	109	-8.6	22.1	13.3	24.9	-20.3	0.62	-0.42	-30.5	0.35	-0.15	-0.46	0.01	
O-1R5-E	114	113	112	-8.9	21.8	12.6	24.5	-20.9	0.60	-0.45	-30.9	0.33	-0.17	-0.46	0.02	
O-1R5-F	117	116	115	-8.2	16.0	8.9	18.2	-17.5	0.43	-0.40	-9.6	0.21	-0.18	-0.36	0.01	
O-1R5-G	120	119	118	-11.6	12.9	11.8	17.5	-17.3	0.41	-0.40	-23.8	0.27	-0.27	-0.30	0.01	
G-1R5-H	123	122	121	-14.3	11.0	14.5	18.1	-17.9	0.42	-0.41	-18.5	0.34	-0.35	-0.25	0.01	
O-1R5-J	126	125	124	-14.4	12.2	12.6	17.9	-19.8	0.40	-0.47	-22.1	0.27	-0.35	-0.30	0.01	
O-1R5-K	129	128	127	-13.2	12.1	12.5	17.5	-18.2	0.40	-0.43	-22.0	0.28	-0.31	-0.29	0.02	
O-1R6-A	32	131	130	-0.5	-1.0	-0.2	0.3	-1.0	0.00	-0.03	40.0	-0.01	-0.02	0.02	0.01	
O-1R6-B	135	134	133	-0.7	7.3	0.6	7.3	-7.4	0.17	-0.17	-42.4	0.01	-0.02	-0.17	0.01	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH								STRESS - KSI			TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)			
O-1R6-C	138	137	136	-3.9	19.0	4.9	19.5	-18.5	0.46	-0.42	-38.3	0.12	-0.68	-0.43	0.01	
O-1R6-D	141	140	139	-1.5	31.3	5.3	31.5	-27.8	0.76	-0.60	-41.7	0.16	0.00	-0.68	0.01	
O-1R6-E	144	143	142	-2.1	31.8	4.2	31.9	-29.8	0.76	-0.67	-42.0	0.12	-0.63	-0.71	0.01	
O-1R6-F	147	146	145	0.3	20.7	1.5	20.7	-18.9	0.49	-0.42	-44.1	0.05	0.02	-0.46	0.02	
O-1R6-G	150	149	148	2.1	23.4	0.7	23.4	-20.6	0.57	-0.45	-45.5	0.04	0.08	-0.51	0.01	
O-1R6-H	153	152	151	-0.3	22.8	2.0	22.8	-21.1	0.54	-0.47	-43.4	0.06	0.01	-0.51	0.01	
O-1R6-J	156	155	154	0.9	22.6	2.4	22.6	-19.3	0.55	-0.41	-44.0	0.09	0.05	-0.48	0.02	
O-1R6-K	159	158	157*	2.6	18.6	0.7	18.6	-15.4	0.46	-0.32	-46.6	0.05	0.09	-0.59	0.02	
O-2R1-A	174	173	172	0.9	1.6	0.2	1.6	-0.5	0.05	-0.00	-54.5	0.02	0.03	-0.02	0.02	
O-2R1-B	177	176	175	2.3	-3.7	-1.3	5.1	-4.1	0.15	-0.08	56.5	-0.02	0.06	0.10	0.02	
O-2R1-C	180	179	178	2.8	-16.4	-2.5	16.9	-16.6	0.39	-0.38	49.5	-0.05	0.07	0.38	0.02	
O-2R1-D	183	182	181	6.8	-30.3	-7.1	30.7	-31.0	0.71	-0.72	51.5	-0.17	0.15	0.69	0.01	
O-2R1-E	186	185	184	2.2	-31.5	-2.8	31.0	-31.6	0.71	-0.73	47.3	-0.07	0.04	0.72	0.02	
O-2R1-F	189	188	187	0.3	-24.5	-2.1	22.6	-24.5	0.50	-0.58	46.5	-0.07	-0.01	0.54	0.01	
O-2R1-G	192	191	190	0.2	-21.8	-1.4	20.6	-21.8	0.46	-0.52	46.1	-0.04	-0.01	0.49	0.02	
O-2R1-H	195	194	193	0.1	-20.6	-1.7	19.1	-20.7	0.42	-0.49	46.4	-0.06	-0.01	0.46	0.01	
O-2R1-J	198	197	196	-0.8	-17.9	-0.3	18.9	-17.9	0.38	-0.42	44.6	-0.02	-0.03	0.40	0.01	
O-2R1-K	201	200	199	0.8	-16.8	-3.0	14.6	-16.9	0.31	-0.41	48.5	-0.09	-0.01	0.36	0.02	
C-2R1-L	333	332	331	-1.8	-16.1	0.3	14.7	-16.2	0.33	-0.39	43.1	-0.01	-0.05	0.36	0.01	
O-2R1-M	336	335	334	0.1	-16.1	-0.9	15.2	-16.1	0.34	-0.38	46.0	-0.03	-0.01	0.36	0.01	
O-2R1-N	339	338	337	-0.9	-15.6	0.7	15.4	-15.7	0.35	-0.36	43.5	0.01	-0.02	0.36	0.01	
C-2R2-A	204	203	202	11.3	7.4	2.9	11.8	2.9	0.42	0.21	-89.7	0.21	0.42	-0.00	0.01	
O-2R2-B	207	206	205	13.1	6.4	5.0	13.9	4.2	0.50	0.28	73.3	0.29	0.48	0.06	0.02	
O-2R2-C	210	209	208	10.8	-2.9	7.8	21.7	-3.0	0.68	0.11	48.5	0.36	0.43	0.28	0.02	
O-2R2-D	213	212	211	9.8	-14.6	4.7	29.3	-14.8	0.82	-0.20	48.3	0.25	0.37	0.30	0.01	
O-2R2-E	216	215	214	-0.0	-18.3	10.3	29.1	-18.8	0.77	-0.33	38.8	0.34	0.10	0.54	0.01	
O-2R2-F	219	218	217	1.3	-15.9	5.7	22.9	-16.0	0.60	-0.30	41.8	0.20	0.10	0.45	0.02	
O-2R2-G	222	221	220	-1.2	-15.5	5.6	20.1	-15.8	0.51	-0.32	39.5	0.17	0.01	0.41	0.01	
O-2R2-H	225	224	223	0.3	-16.5	2.2	19.1	-16.5	0.47	-0.35	43.5	0.08	0.03	0.41	0.01	
O-2R2-J	228	227	226	-1.3	-16.3	1.4	18.5	-16.4	0.58	-0.38	42.6	0.03	-0.03	0.38	0.01	
O-2R2-K	231	230	229	2.1	-15.4	-3.6	14.2	-15.6	0.31	-0.38	50.5	-0.10	0.03	0.34	0.01	
O-2R3-A	234	233	232	13.2	8.6	4.1	13.2	4.1	0.48	0.26	85.6	0.26	0.48	0.00	0.02	
O-2R3-B	237	236	235	12.1	10.4	9.1	12.1	9.1	0.49	0.42	87.0	0.42	0.49	0.00	0.02	
O-2R3-C	240	239	238	7.1	8.0	12.1	12.6	6.6	0.48	0.34	16.6	0.47	0.35	0.04	0.02	
O-2R3-D	243	242	241	-0.7	4.8	13.4	13.6	-0.8	0.44	0.11	6.3	0.43	0.11	0.04	0.1	
O-2R2-E	246	245	244	-5.9	2.9	14.4	14.5	-6.0	0.42	-0.05	3.8	0.42	-0.05	0.03	0.02	
O-2R3-F	249	248	247	-10.5	0.4	13.8	13.9	-10.6	0.35	-0.21	2.9	0.35	-0.21	0.03	0.01	
O-2R3-G	252	251	250	-10.8	-5.6	13.5	15.3	-12.6	0.38	-0.26	14.8	0.34	-0.22	0.16	0.01	
O-2R3-H	255	254	253	-8.5	-11.6	9.1	15.0	-14.5	0.35	-0.35	26.7	0.21	-0.19	0.27	0.02	
O-2R3-J	258	257	256	-7.7	-14.8	7.0	15.7	-16.4	0.36	-0.38	31.3	0.16	-0.18	0.33	0.01	
O-2R3-K	261	260	259	2.2	-15.7	-3.3	14.8	-16.0	0.33	-0.38	50.1	-0.09	0.04	0.35	0.01	
O-2R4-A	264	263	262	-6.4	14.9	11.6	17.9	-12.6	0.46	-0.24	-26.9	0.32	-0.10	-0.28	0.01	
O-2R4-B	264	263	262	-12.8	6.1	14.1	15.2	-13.8	0.36	-0.31	-11.0	0.34	-0.28	-0.12	0.01	
O-2R4-C	267	266	265	-16.9	0.9	16.8	16.8	-16.9	0.39	-0.39	-1.7	0.39	-0.39	-0.02	0.02	
O-2R4-D	270	269	268	-18.5	-2.0	17.6	17.7	-18.6	0.40	-0.44	2.4	0.40	-0.44	0.04	0.01	
O-2R5-A	273	272	271	8.9	6.2	3.7	8.9	3.7	0.55	0.21	89.0	0.21	0.33	0.00	0.02	
O-2R5-B	276	275	274	5.3	9.8	6.9	9.8	2.3	0.35	0.17	-39.0	0.28	0.24	-0.09	0.02	
O-2R5-C	279	278	277*	4.7	18.0	6.4	18.1	-7.0	0.55	-0.05	-43.1	0.26	0.22	-0.29	0.02	
O-2R5-D	282	281	280	-9.9	20.4	14.6	24.1	-19.4	0.60	-0.40	-27.9	0.38	-0.18	-0.42	0.01	
O-2R5-E	285	284	283	-8.2	22.9	10.8	24.9	-22.3	0.60	-0.49	-35.2	0.27	-0.16	-0.50	0.01	
O-2R5-F	288	287	286	-11.2	15.1	12.6	19.4	-18.0	0.46	-0.40	-25.2	0.31	-0.24	-0.33	0.01	
O-2R5-G	291	290	289	-11.7	15.0	11.1	18.8	-19.4	0.45	-0.45	-26.6	0.25	-0.28	-0.35	0.02	
O-2R5-H	294	293	292	-12.5	13.7	13.6	19.1	-17.9	0.45	-0.40	-22.5	0.33	-0.28	-0.30	0.01	
O-2R5-J	297	296	295	-14.8	12.8	14.7	19.5	-19.7	0.45	-0.45	-20.6	0.34	-0.34	-0.30	0.02	
O-2R5-K	300	299	298	-16.5	9.1	16.0	18.5	-19.0	0.42	-0.44	-15.0	0.36	-0.39	-0.22	0.01	
O-2R6-A	303	302	301	-0.5	-0.4	-0.3	-0.3	-0.5	-0.02	-0.02	-3.6	-0.02	-0.02	-0.00	0.00	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI				TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
O-2R6-B	306	305	304	0.1	6.6	0.2	6.6	-6.3	0.15	-0.14	-44.6	0.01	0.00	-0.15	0.02
O-2R6-C	309	308	307	1.7	20.4	0.4	20.4	-18.3	0.49	-0.40	-45.9	0.03	0.06	-0.45	0.01
O-2R6-D	312	311	310	-3.4	31.4	6.3	31.8	-28.9	0.76	-0.64	-40.4	0.17	-0.05	-0.69	0.01
O-2R6-E	315	314	313	-2.0	31.6	4.5	31.8	-29.5	0.76	-0.66	-42.0	0.12	-0.02	-0.70	0.01
O-2R6-F	318	317	316	-1.3	25.2	3.7	25.4	-23.0	0.61	-0.51	-42.1	0.11	-0.01	-0.56	0.02
O-2R6-G	321	320	319	1.1	23.2	3.3	23.2	-18.8	0.58	-0.39	-43.5	0.12	0.07	-0.48	0.01
O-2R6-H	324	323	322	0.9	25.2	2.0	25.2	-22.3	0.61	-0.49	-44.3	0.07	0.05	-0.55	0.01
O-2R6-J	327	326	325	1.5	25.0	0.7	25.0	-22.8	0.60	-0.50	-45.4	0.04	0.06	-0.55	0.01
O-2R6-K	330	329	328	-2.5	20.8	4.5	21.1	-19.1	0.51	-0.42	-40.0	0.12	-0.04	-0.46	0.01
I-1R1-A	340	341	342	1.2	-4.9	-2.2	4.3	-5.3	0.09	-0.13	-34.4	0.02	-0.06	-1.10	0.01
I-1R1-B	343	344	345	1.1	-1.9	-2.2	1.5	-2.7	0.02	-0.07	-18.7	0.01	-0.06	-0.03	0.02
I-1R1-C	346	347	348	-0.1	4.3	-3.3	4.5	-7.9	0.07	-0.22	37.6	-0.04	-0.11	0.14	0.01
I-1R1-D	349	350	351	-1.4	-5.4	-0.3	3.8	-5.4	0.07	-0.14	-48.4	-0.05	-0.02	-0.11	0.01
I-1R1-E	352	353	354	0.6	-11.7	-1.4	11.0	-11.7	0.25	-0.28	-42.5	0.01	-0.04	-0.26	0.01
I-1R1-F	355	356	357	-2.7	-12.6	2.1	12.2	-12.8	0.28	-0.30	-50.5	-0.07	0.04	-0.28	0.01
I-1R1-G	358	359	360	-0.6	-12.2	0.6	12.2	-12.2	0.28	-0.28	-46.4	-0.01	0.01	-0.28	0.01
I-1R1-H	361	362	363	0.4	-11.0	-0.2	11.2	-11.0	0.26	-0.25	-44.2	0.01	-0.00	-0.26	0.01
I-1R1-I	364	365	366	-0.0	-10.9	-0.3	10.6	-10.9	0.24	-0.25	-44.7	-0.00	-0.01	-0.25	0.01
I-1R1-K	367	368	369	0.6	-11.2	-1.6	10.3	-11.2	0.23	-0.27	-42.1	0.00	-0.05	-0.25	0.02
I-1R1-L	499	500	501	-0.3	-13.4	-0.9	12.2	-13.4	0.27	-0.32	-44.3	-0.02	-0.03	-0.29	0.01
I-1R1-M	502	503	504	-0.6	-13.1	-1.2	11.3	-13.1	0.24	-0.32	-44.3	-0.03	-0.05	-0.28	0.01
I-1R1-N	505**	506	507	0.0	-13.3	-1.3	12.0	-13.3	0.26	-0.32	-43.5	-0.01	-0.04	-0.29	0.01
I-1R1-O	508	509	510	0.8	12.9	-0.0	12.9	-12.1	0.31	-0.27	44.0	0.03	0.01	0.25	0.01
I-1R2-A	370	371	372	-3.7	-14.3	-17.5	-2.7	-18.4	-0.27	-0.63	-14.2	-0.29	-0.61	-0.69	0.02
I-1R2-B	373	374	375	-4.2	-16.6	-29.6	-4.2	-29.6	-0.43	-1.02	0.8	-0.45	-1.02	0.01	0.02
I-1R2-C	376	377	378**	2.2	-17.1	0.0	19.3	-17.2	0.47	-0.38	-43.3	0.07	0.02	-0.42	0.02
I-1R2-D	379	380	381	-5.4	5.8	-25.6	8.1	-39.1	-0.12	-1.21	32.3	-0.43	-0.90	0.49	0.03
I-1R2-E	382	383	384	1.0	-13.4	-26.0	1.0	-26.0	-0.22	-0.85	-1.8	-0.22	-0.85	-0.02	0.02
I-1R2-F	385	386	387	3.2	-13.3	-16.2	5.4	-18.4	-0.00	-0.55	-17.5	-0.05	-0.50	-0.16	0.02
I-1R2-G	388	389	390	5.8	-12.9	-12.3	9.9	-16.5	0.16	-0.45	-23.4	0.07	-0.35	-0.22	0.02
I-1R2-H	391	392	393	8.4	-10.9	-10.4	12.6	-14.6	0.27	-0.36	-23.2	0.17	-0.26	-0.23	0.01
I-1R2-I	394	395	396	6.3	-11.0	-6.8	12.4	-12.8	0.28	-0.30	-29.3	0.14	-0.16	-0.25	0.02
I-1R2-K	397	398	399	2.9	-12.9	-1.9	14.1	-13.1	0.34	-0.29	-39.9	0.08	-0.03	-0.31	0.01
I-1R3-A	400	401	402	-6.0	-13.2	-20.0	-6.0	-20.0	-0.39	-0.72	-1.1	-0.39	-0.72	-0.01	0.02
I-1R3-B	403	404	405	-5.5	-22.5	-36.4	-5.4	-36.5	-0.54	-1.25	-2.9	-0.54	-1.25	-0.04	0.01
I-1R3-C	406	407	408	4.0	-30.3	-48.4	5.2	-49.6	-0.32	-1.58	-8.6	-0.35	-1.56	-0.19	0.02
I-1R3-D	409	410	411	3.9	-12.4	-43.5	5.0	-44.7	-0.28	-1.42	8.8	-0.30	-1.40	0.17	0.02
I-1R3-E	412	413	414	-0.2	-10.1	-24.4	-0.0	-24.6	-0.24	-0.81	5.2	-0.25	-0.81	0.05	0.03
I-1R3-F	415	416	417	4.1	-5.1	-15.2	4.4	-15.5	-0.01	-0.47	6.9	-0.01	-0.46	0.06	0.01
I-1R3-G	418	419	420	10.0	-0.6	-12.5	10.0	-12.5	0.21	-0.31	1.7	0.21	-0.31	0.02	0.01
I-1R3-H	421	422	423	11.3	-4.9	-11.8	12.2	-12.7	0.28	-0.30	-11.0	0.26	-0.28	-0.11	0.01
I-1R3-I	424	425	426	10.2	-7.6	-9.9	12.8	-12.6	0.30	-0.29	-18.8	0.24	-0.23	-0.18	0.01
I-1R3-K	427	428	429	0.3	-12.7	1.2	14.3	-12.7	0.35	-0.28	-46.0	0.02	0.04	-0.31	0.01
I-1R4-A	435	436	437	0.5	-5.5	-18.7	1.1	-19.3	-0.15	-0.63	10.4	-0.17	-0.61	0.08	0.02
I-1R4-B	430	431	432	6.5	4.6	-8.7	8.4	-10.7	0.17	-0.27	10.5	0.13	-0.22	0.13	0.01
I-1R4-C	433	434	435	13.6	4.0	-13.6	13.3	-14.4	0.30	-0.36	9.5	0.28	-0.33	0.10	0.01
I-1R4-D	436**	437**	438**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-1R5-A	439	440	441	-4.6	-7.4	-15.1	-4.1	-15.6	-0.29	-0.56	12.5	-0.30	-0.54	0.06	0.02
I-1R5-B	442	443	444	-3.6	-15.5	-21.8	-3.2	-22.3	-0.33	-0.71	-8.5	-0.34	-0.76	-0.06	0.01
I-1R5-C	445	446	447	0.9	-27.4	-29.3	5.8	-34.2	-0.15	-1.07	-20.5	-0.26	-0.96	-0.30	0.02
I-1R5-D	448	449	450	0.5	-3.5	-19.1	2.1	-20.7	-0.14	-0.66	15.5	-0.13	-0.63	0.14	0.01
I-1R5-E	453	452	451	-10.2	1.7	1.4	4.0	-12.8	0.01	-0.38	62.6	-0.32	-0.05	0.14	0.01
I-1R5-F	454	455	456	4.1	5.6	-6.9	7.5	-10.3	0.15	-0.26	20.0	0.07	-0.19	0.16	0.01
I-1R5-G	457	458	459	1.8	10.3	-3.8	10.6	-12.6	0.23	-0.31	30.1	0.02	-0.11	0.26	0.01
I-1R5-H	460**	461	462	0.0	10.5	-7.4	11.0	-18.4	0.18	-0.50	30.7	-0.07	-0.25	0.33	0.01
I-1R5-I	463	464	465	8.4	12.7	-7.5	15.1	-14.1	0.34	-0.32	28.5	0.20	-0.16	0.28	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. 4)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
I-1R5-K	466**	467**	468**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-1R6-A	469	470**	471	-1.1	0.0	3.2	5.4	-1.3	0.10	-0.01	-76.9	-0.00	0.09	-0.02	0.01
I-1R6-B	472	473	474	-0.8	-3.5	3.9	7.1	-4.1	0.19	-0.06	-57.4	0.01	0.12	-0.12	0.01
I-1R6-C	475	476	477	-0.0	-8.6	4.5	13.3	-8.8	0.35	-0.16	-50.9	0.04	0.15	-0.25	0.02
I-1R6-D	478	479	480	1.4	6.4	1.1	6.4	-3.9	0.17	-0.07	44.1	0.06	0.05	0.12	0.01
I-1R6-E	481*	482	483	2.1	8.5	0.5	8.7	-6.3	0.22	-0.12	41.5	0.07	0.03	0.17	0.03
I-1R6-F	484	485	486**	0.4	12.5	0.0	12.5	-12.1	0.29	-0.27	44.5	0.01	0.00	0.28	0.01
I-1R6-G	487	488	489	-0.3	13.5	2.0	13.6	-11.9	0.33	-0.26	47.6	0.01	0.06	0.29	0.01
I-1R6-H	490	491	492	-0.6	13.8	1.4	13.9	-13.0	0.33	-0.29	47.1	-0.00	0.04	0.31	0.01
I-1R6-J	493	494	495	2.7	16.5	-1.7	16.7	-15.6	0.39	-0.35	41.1	0.07	-0.03	0.37	0.01
I-1R6-K	496**	497**	498**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2R1-A	511	512	513	-0.9	-5.3	-0.3	4.2	-5.3	0.08	-0.15	-46.8	-0.05	-0.02	-0.11	0.01
I-2R1-B	514	515	516	-0.4	-1.7	-1.8	-0.2	-2.0	-0.03	-0.07	-20.5	-0.03	-0.06	-0.01	0.02
I-2R1-C	517	518	519	0.3	4.4	-2.2	4.6	-6.4	0.09	-0.17	38.4	-0.01	-0.07	0.12	0.02
I-2R1-D	520	521	522	0.0	-3.8	-0.9	2.9	-3.8	0.06	-0.10	-41.2	-0.01	-0.03	-0.06	0.02
I-2R1-E	523	524	525	-0.8	-10.1	0.6	9.9	-10.1	0.23	-0.23	-47.1	-0.02	0.01	-0.23	0.01
I-2R1-F	526	527	528	-0.8	-10.3	0.3	9.8	-10.3	0.22	-0.24	-46.7	-0.02	0.00	-0.23	0.01
I-2R1-G	529	530	531	-1.4	-11.4	0.3	10.3	-11.4	0.23	-0.27	-47.2	-0.04	-0.00	-0.25	0.01
I-2R1-H	532	533	534	-0.7	-10.5	-0.1	9.7	-10.5	0.21	-0.25	-45.9	-0.03	-0.01	-0.25	0.01
I-2R1-J	535	536	537	-1.1	-11.1	-0.1	10.0	-11.1	0.22	-0.27	-46.3	-0.04	-0.01	-0.24	0.01
I-2R1-K	538*	539	540	-6.3	-11.2	-0.2	5.3	-11.7	0.06	-0.34	-55.4	-0.21	-0.07	-0.18	0.03
I-2R1-L	672	671	670	0.5	12.7	0.2	12.7	-12.0	0.30	-0.27	-45.3	0.01	0.02	-0.28	0.01
I-2R1-M	675	674	673	-0.2	12.2	1.7	12.2	-10.7	0.30	-0.23	-42.7	0.05	0.01	-0.26	0.02
I-2R1-N	678	677	676	-0.5	12.4	1.2	12.4	-11.7	0.29	-0.26	-43.0	0.03	-0.00	-0.28	0.01
I-2R2-A	541	542	543	-3.3	-12.7	-16.8	-2.8	-17.3	-0.26	-0.60	-10.8	-0.28	-0.59	-0.06	0.02
I-2R2-B	544	545	546	-5.4	-16.2	-28.2	-5.3	-28.3	-0.46	-0.98	1.6	-0.46	-0.98	0.01	0.02
I-2R2-C	547	548	549	0.8	-15.6	-38.3	1.1	-38.6	-0.35	-1.26	4.5	-0.35	-1.25	0.07	0.03
I-2R2-D	550	551	552	6.3	-13.2	-34.0	6.3	-34.0	-0.13	-1.06	0.9	-0.13	-1.06	0.01	0.03
I-2R2-E	553	554	555	2.0	-15.8	-24.3	2.8	-25.1	-0.16	-0.80	-9.8	-0.17	-0.78	-0.11	0.02
I-2R2-F	556	557	558	3.5	-12.9	-16.1	5.5	-18.1	0.00	-0.54	-16.9	-0.04	-0.50	-0.15	0.03
I-2R2-G	559	560	561	6.3	-11.1	-12.4	9.2	-15.4	0.15	-0.42	-20.3	0.08	-0.35	-0.19	0.02
I-2R2-H	562	563	564	5.8	-10.7	-7.6	10.9	-12.8	0.23	-0.31	-27.9	0.12	-0.19	-0.23	0.01
I-2R2-J	565	566	567	5.1	-10.9	-5.2	12.0	-12.1	0.28	-0.28	-32.2	0.12	-0.12	-0.25	0.01
I-2R2-K	568	569	570	2.2	-11.1	-1.8	11.8	-11.3	0.28	-0.26	-40.0	0.06	-0.04	-0.26	0.01
I-2R3-A	571	572	573	-5.9	-12.4	-21.3	-5.8	-21.4	-0.40	-0.76	4.6	-0.41	-0.76	0.03	0.01
I-2R3-B	574	575	576	-5.5	-19.1	-35.1	-5.5	-35.2	-0.53	-1.21	2.3	-0.53	-1.21	0.03	0.01
I-2R3-C	577	578	579	4.1	-26.5	-48.9	4.4	-49.2	-0.34	-1.58	-4.3	-0.35	-1.57	-0.09	0.01
I-2R3-D	580	581	582	0.6	-8.4	-41.3	3.9	-44.4	-0.31	-1.43	14.7	-0.38	-1.35	0.27	0.02
I-2R3-E	583	584	585	-1.3	-7.5	-23.2	-0.3	-24.2	-0.25	-0.80	11.9	-0.27	-0.78	0.11	0.02
I-2R3-F	586	587	588	5.6	-4.3	-14.9	5.6	-15.0	0.04	-0.44	1.2	0.04	-0.44	0.01	0.01
I-2R3-G	589	590	591	9.3	-3.5	-11.6	9.5	-11.9	0.20	-0.30	-6.3	0.19	-0.29	-0.05	0.01
I-2R3-H	592	593	594	11.0	-4.4	-10.1	12.1	-11.2	0.29	-0.25	-12.4	0.26	-0.22	-0.11	0.01
I-2R3-J	595	596	597	11.4	-6.8	-10.1	13.6	-12.4	0.33	-0.27	-17.2	0.27	-0.22	-0.17	0.01
I-2R3-K	598	599	600	1.5	-10.4	0.8	12.6	-10.4	0.31	-0.22	-44.4	0.05	0.04	-0.27	0.01
I-2R4-A	688	689	690	0.2	-4.7	-18.3	1.1	-19.3	-0.15	-0.63	12.7	-0.18	-0.60	0.10	0.01
I-2R4-B	601	602	603	7.2	4.0	-11.0	8.9	-12.7	0.17	-0.53	16.6	0.13	-0.29	0.14	0.02
I-2R4-C	604	605	606	14.2	2.8	-14.4	14.5	-14.6	0.33	-0.34	5.6	0.33	-0.33	0.07	0.01
I-2R4-D	607	608	609	17.5	1.6	-15.8	17.5	-15.8	0.42	-0.35	1.3	0.42	-0.35	0.02	0.01
I-2R5-A	610	611	612	-5.2	-4.9	-11.4	-3.7	-12.9	-0.25	-0.46	23.9	-0.28	-0.43	0.08	0.01
I-2R5-B	613	614	615	-3.5	-14.0	-20.5	-3.2	-20.8	-0.31	-0.72	-6.7	-0.32	-0.71	-0.05	0.02
I-2R5-C	616	617	618	3.6	-22.6	-31.0	5.8	-33.2	-0.14	-1.04	-13.6	-0.19	-0.99	-0.20	0.02
I-2R5-D	619	620	621	-5.0	0.3	-19.1	2.1	-26.2	-0.19	-0.84	30.2	-0.35	-0.68	0.28	0.01
I-2R5-E	622	623	624	-0.1	3.7	-7.5	4.6	-12.2	0.03	-0.36	31.9	-0.08	-0.25	0.17	0.01
I-2R5-F	625	626	627	2.1	7.6	-7.5	8.6	-14.0	0.15	-0.38	32.5	-0.01	-0.23	0.24	0.01
I-2R5-G	628	629	630	4.7	8.8	-6.9	10.4	-12.6	0.22	-0.31	29.9	0.09	-0.18	0.23	0.01
I-2R5-H	631	632	633	7.4	11.3	-7.2	13.5	-13.3	0.31	-0.31	28.5	0.17	-0.17	0.26	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI				TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
I-2R5-J	634	635	636	8.4	15.8	-7.1	17.7	-16.5	0.42	-0.37	31.5	0.21	-0.15	0.35	0.03
I-2R5-K	637	638	639	10.2	14.2	-8.3	17.2	-15.3	0.41	-0.33	27.6	0.25	-0.17	0.31	0.02
I-2R6-A	640	641	642	0.4	4.5	0.6	4.5	-3.5	0.11	-0.07	45.7	0.02	0.02	0.09	0.02
I-2R6-B	643	644	645	-0.3	-3.1	2.1	5.1	-3.3	0.14	-0.06	53.5	0.01	0.07	-0.09	0.02
I-2R6-C	646	647	648	0.1	-7.7	1.7	9.6	-7.7	0.24	-0.16	47.7	0.02	0.06	-0.20	0.01
I-2R6-D	649	650	651	-0.3	6.3	0.7	6.3	-6.0	0.15	-0.13	47.4	-0.00	0.02	0.14	0.01
I-2R6-E	652	653	654**	1.6	10.0	0.0	10.1	-8.5	0.25	-0.18	42.5	0.05	0.02	0.21	0.01
I-2R6-F	655	656	657	1.4	13.7	0.4	13.7	-11.9	0.33	-0.26	44.0	0.05	0.03	0.30	0.01
I-2R6-G	658	659	660	-0.9	16.0	1.6	16.1	-15.4	0.38	-0.35	47.2	-0.01	0.04	0.56	0.01
I-2R6-H	661	662	663	0.7	16.2	1.1	16.2	-14.4	0.39	-0.31	45.4	0.03	0.04	0.35	0.02
I-2R6-J	664	665	666	0.4	17.5	2.5	17.5	-14.7	0.43	-0.31	46.9	0.04	0.09	0.57	0.01
I-2R6-K	667	668	669	0.1	16.5	2.8	16.6	-15.7	0.46	-0.33	47.3	0.03	0.09	0.39	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

COMBUSTION T-13, LOAD CASE 8, M2Y

NOMINAL LOAD = 7.883E 05

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI				TAU	CONF	
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)			SIG(T)
O-1R1-A	3	2	1	1.7	2.3	-0.1	2.5	-0.9	0.07	-0.01	-60.3	0.01	0.05	0.05	0.01
O-1R1-B	6	5	4	2.2	0.6	2.3	3.9	0.6	0.14	0.06	43.9	0.10	0.10	0.04	0.03
O-1R1-C	9	8	7	-2.4	2.3	3.3	3.8	-2.9	0.10	-0.06	-16.1	0.09	-0.05	-0.04	0.03
O-1R1-D	12	11	10	-5.7	-1.6	4.3	4.4	-5.8	0.09	-0.15	5.2	0.08	-0.15	0.02	0.01
O-1R1-E	15	14	13	-10.1	-3.2	4.3	4.3	-10.1	0.04	-0.29	1.0	0.04	-0.29	0.01	0.01
O-1R1-F	18	17	16	-13.7	-4.9	6.0	6.1	-13.8	0.06	-0.39	2.9	0.06	-0.39	0.02	0.02
O-1R1-G	21	20	19	-15.9	-5.7	7.6	7.7	-16.0	0.10	-0.45	3.6	0.09	-0.45	0.04	0.01
O-1R1-H	24	23	22	-19.0	-6.6	8.0	8.1	-19.0	0.08	-0.55	2.4	0.08	-0.55	0.05	0.02
O-1R1-J	27	26	25	-20.4	-7.9	8.4	8.5	-20.5	0.08	-0.59	3.7	0.07	-0.59	0.04	0.01
O-1R1-K	30	29	28	-21.6	-9.3	8.2	8.5	-21.9	0.06	-0.64	5.0	0.06	-0.63	0.06	0.02
O-1R1-L	162	161	160	-19.9	-7.3	7.9	8.0	-20.0	0.07	-0.58	2.6	0.06	-0.58	0.03	0.02
O-1R1-M	165	164	163	-15.6	-5.8	6.0	6.1	-15.6	0.05	-0.46	2.6	0.04	-0.45	0.02	0.02
O-1R1-N	168	167	166	-9.5	-3.3	2.8	2.8	-9.5	-0.00	-0.28	-0.3	-0.00	-0.28	-0.00	0.02
O-1R1-O	171	170	169	0.2	-0.2	-0.6	0.2	-0.6	0.00	-0.02	-89.1	-0.02	0.00	-0.00	0.01
O-1R2-A	33	32	31	0.4	-0.6	0.2	1.3	-0.6	0.04	-0.01	47.1	0.01	0.01	0.02	0.01
O-1R2-B	36	35	34	-0.9	0.6	1.7	1.7	-0.9	0.05	-0.01	-4.0	0.05	-0.01	-0.00	0.01
O-1R2-C	39	38	37	-4.4	1.7	2.7	3.5	-5.1	0.07	-0.13	-17.4	0.05	-0.12	-0.06	0.01
O-1R2-D	42	41	40	-9.2	2.2	2.7	4.8	-11.3	0.05	-0.32	-21.2	-0.00	-0.26	-0.13	0.02
O-1R2-E	45	44	43	-10.3	4.4	1.6	6.2	-15.0	0.06	-0.43	-27.9	-0.05	-0.33	-0.20	0.01
O-1R2-F	48	47	46	-15.7	1.4	4.1	6.4	-18.0	0.03	-0.53	-17.9	-0.02	-0.48	-0.16	0.02
O-1R2-G	51	50	49	-17.4	1.6	3.9	6.7	-20.2	0.02	-0.60	-19.0	-0.04	-0.53	-0.19	0.01
O-1R2-H	54	53	52	-22.2	-2.8	6.2	7.1	-23.1	0.01	-0.69	-10.1	-0.02	-0.67	-0.12	0.02
O-1R2-J	57	56	55	-23.9	-3.9	6.8	7.5	-24.6	0.00	-0.74	-8.4	-0.01	-0.72	-0.11	0.01
O-1R2-K	60	59	58	-25.3	-11.2	7.3	7.5	-25.5	-0.01	-0.77	3.9	-0.01	-0.76	0.05	0.02
O-1R3-A	63	62	61	-2.4	-1.1	2.1	2.3	-2.6	0.05	-0.06	10.6	0.04	-0.06	0.02	0.02
O-1R3-B	66	65	64	-3.7	-0.4	0.8	1.0	-3.9	-0.00	-0.12	-12.7	-0.01	-0.11	-0.02	0.03
O-1R3-C	69	68	67	-4.8	0.9	0.8	2.0	-6.0	0.01	-0.18	-22.9	-0.02	-0.15	-0.07	0.02
O-1R3-D	72	71	70	-6.9	3.7	-2.4	4.0	-13.4	0.00	-0.40	-37.5	-0.15	-0.25	-0.19	0.02
O-1R3-E	75	74	73	-5.8	4.6	-5.2	4.6	-15.5	-0.00	-0.47	-44.2	-0.23	-0.24	-0.23	0.01
O-1R3-F	78	77	76	-8.5	3.8	-3.4	4.1	-16.0	-0.02	-0.49	-37.7	-0.19	-0.31	-0.22	0.02
O-1R3-G	81	80	79	-11.9	4.7	-4.3	5.3	-21.5	-0.04	-0.66	-56.8	-0.26	-0.43	-0.50	0.03
O-1R3-H	84	83	82	-17.7	4.6	-2.2	6.4	-26.5	-0.05	-0.81	-31.0	-0.25	-0.61	-0.34	0.02
O-1R3-J	87	86	85	-26.8	-4.4	4.4	5.8	-28.2	-0.09	-0.87	-11.8	-0.12	-0.84	-0.16	0.03
O-1R3-K	90	89	88	-28.2	-11.4	6.2	5.2	-28.2	-0.07	-0.87	0.6	-0.07	-0.67	0.01	0.02
O-1R4-A	681	680	679	-3.2	2.8	-6.1	2.9	-12.2	-0.02	-0.37	-50.5	-0.23	-0.17	-0.17	0.02
O-1R4-B	93	92	91	-4.8	3.0	-6.8	3.1	-14.7	-0.04	-0.45	-48.2	-0.27	-0.23	-0.20	0.02
O-1R4-C	96	95	94	-8.9	6.0	-6.7	6.1	-21.8	-0.01	-0.66	-42.7	-0.31	-0.36	-0.32	0.02
O-1R4-D	99	98	97	-22.2	6.2	-9.9	7.0	-39.1	-0.16	-1.22	-37.2	-0.55	-0.83	-0.51	0.03
O-1R5-A	102	101	100	-2.7	-1.6	1.3	1.5	-2.9	0.02	-0.08	11.4	0.02	-0.08	0.02	0.02
O-1R5-B	105	104	103	-2.9	0.4	0.3	1.0	-3.6	-0.00	-0.11	-23.0	-0.02	-0.09	-0.04	0.02
O-1R5-C	108	107**	106	-3.5	0.0	-1.2	0.3	-4.9	-0.04	-0.16	-31.9	-0.07	-0.13	-0.05	0.02
O-1R5-T	111	110	109	-2.5	-0.1	-3.1	-0.1	-5.5	-0.06	-0.18	-48.2	-0.13	-0.11	-0.06	0.01
O-1R5-	14	113	112	-0.8	-1.0	-6.4	0.2	-7.4	-0.07	-0.24	-68.3	-0.22	-0.09	-0.06	0.02
O-1R5-	7	116	115	0.3	-0.4	-7.1	1.5	-8.1	-0.04	-0.26	-70.7	-0.23	-0.06	-0.07	0.02
O-1R5-G	0	119	118	0.2	0.5	-7.5	2.0	-9.3	-0.03	-0.29	-66.5	-0.25	-0.07	-0.10	0.01
O-1R5-H	123	122	121	0.0	1.3	-8.5	2.7	-11.1	-0.02	-0.34	-63.9	-0.28	-0.48	-0.15	0.01
O-1R5-J	126	125	124	1.3	2.1	-10.4	4.3	-13.4	0.01	-0.40	-65.8	-0.33	-0.06	-0.15	0.03
O-1R5-K	129	128	127	2.7	2.4	-15.6	6.3	-19.2	0.02	-0.57	-68.1	-0.49	-0.06	-0.20	0.02
O-1R6-A	132	131	130	-0.2	0.8	0.2	0.8	-0.8	0.02	-0.02	-39.4	0.00	-0.00	-0.02	0.01
O-1R6-B	135	134	133	-0.4	0.8	-0.2	0.8	-1.3	0.01	-0.04	-42.1	-0.01	-0.01	-0.02	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN = MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
0-1R6-C	138	137	136	0.2	0.2	-0.4	0.3	-0.5	0.01	-0.01	-70.9	-0.01	0.60	-0.01	0.01
0-1R6-D	141	140	139	0.1	-0.8	-0.2	0.8	-0.8	0.02	-0.02	50.2	-0.00	0.60	0.02	0.00
0-1R6-E	144	143	142	-0.1	-1.3	-0.7	0.6	-1.4	0.01	-0.04	53.1	-0.02	-0.01	0.02	0.01
0-1R6-F	147	146	145	0.2	-1.6	-0.3	1.5	-1.6	0.03	-0.04	49.0	-0.01	0.00	0.04	0.01
0-1R6-G	150	149	148	-0.1	-1.7	-0.2	1.4	-1.7	0.03	-0.04	45.4	-0.01	-0.01	0.04	0.01
0-1R6-H	153	152	151	0.0	-1.8	-0.5	1.4	-1.8	0.03	-0.05	49.8	-0.02	-0.00	0.04	0.01
0-1R6-J	156	155	154	-0.1	-2.3	-0.4	1.8	-2.3	0.04	-0.06	47.7	-0.02	-0.01	0.05	0.01
0-1R6-K	159	158	157	-0.6	-0.7	0.1	0.4	-0.8	0.00	-0.02	26.1	-0.00	-0.02	0.01	0.02
0-2R1-A	174	173	172	-2.4	-1.0	-0.2	-0.1	-2.4	-0.03	-0.08	-6.9	-0.03	-0.08	-0.01	0.02
0-2R1-B	177	176	175	-0.8	-1.0	-1.2	-0.8	-1.2	-0.04	-0.05	85.2	-0.05	-0.04	0.00	0.01
0-2R1-C	180	179	178	2.2	-1.5	-2.0	2.8	-2.5	0.07	-0.06	71.0	-0.04	0.05	0.04	0.02
0-2R1-D	183	182	181	5.0	1.2	-3.1	5.0	-3.1	0.14	-0.05	-88.2	-0.05	0.14	-0.01	0.01
0-2R1-E	186	185	184	8.3	3.0	-4.9	8.9	-5.0	0.24	-0.08	-95.7	-0.07	0.24	-0.02	0.02
0-2R1-F	189	188	187	12.8	3.3	-6.6	12.8	-6.6	0.36	-0.09	-89.3	-0.09	0.36	-0.01	0.01
0-2R1-G	192	191	190	15.7	4.7	-8.3	15.7	-8.4	0.44	-0.12	-87.4	-0.12	0.43	-0.02	0.02
0-2R1-H	195	194	193	17.9	5.2	-7.6	17.9	-7.6	0.52	-0.07	-89.8	-0.07	0.52	-0.00	0.01
0-2R1-J	198	197	196	19.7	5.3	-8.7	19.7	-8.7	0.56	-0.09	89.6	-0.09	0.56	0.00	0.01
0-2R1-K	201	200	199	20.1	6.8	-8.2	20.1	-8.2	0.58	-0.07	-88.3	-0.07	0.56	-0.02	0.01
0-2R1-L	333	332	331	20.6	5.9	-8.5	20.6	-8.5	0.60	-0.07	89.6	-0.07	0.60	0.00	0.01
0-2R1-M	336	335	334	15.7	6.0	-6.6	15.8	-6.6	0.46	-0.06	-86.4	-0.06	0.45	-0.03	0.01
0-2R1-N	339	338	337	9.5	2.9	-3.1	9.5	-3.2	0.28	-0.01	88.6	-0.01	0.28	0.01	0.01
0-2R2-A	204	203	202	-0.4	0.2	-0.5	0.2	-1.1	-0.00	-0.03	-47.6	-0.02	-0.02	-0.02	0.01
0-2R2-B	207	206	205	1.1	0.0	-0.9	1.1	-0.9	0.03	-0.02	89.5	-0.02	0.03	0.00	0.01
0-2R2-C	210	209	208	3.4	-1.9	-1.9	4.6	-3.0	0.12	-0.05	67.3	-0.03	0.09	0.06	0.02
0-2R2-D	213	212	211	7.2	-3.5	-3.6	9.3	-5.8	0.25	-0.10	67.9	-0.05	0.20	0.12	0.01
0-2R2-E	216	215	214	8.4	-3.5	-1.4	12.0	-5.0	0.35	-0.05	62.4	0.04	0.26	0.16	0.02
0-2R2-F	219	218	217	14.7	-0.4	-4.3	16.2	-5.8	0.48	-0.03	74.7	0.01	0.44	0.13	0.02
0-2R2-G	222	221**	220	17.4	0.0	-5.0	19.0	-6.6	0.56	-0.03	75.6	0.01	0.52	0.14	0.02
0-2R2-H	225	224	223	21.9	3.2	-7.7	22.4	-8.2	0.66	-0.05	82.7	-0.04	0.65	0.09	0.01
0-2R2-J	228	227	226	23.8	5.3	-8.0	24.0	-8.2	0.71	-0.03	85.5	-0.03	0.70	0.06	0.02
0-2R2-K	231	230	229	24.2	9.7	-8.5	24.3	-8.6	0.72	-0.04	-86.7	-0.04	0.71	-0.04	0.01
0-2R3-A	234	233	232	1.1	0.8	-2.2	1.6	-2.7	0.03	-0.07	-70.2	-0.06	0.42	-0.05	0.02
0-2R3-B	237	236	235	3.4	0.3	-1.6	3.5	-1.7	0.10	-0.02	83.7	-0.02	0.10	0.01	0.01
0-2R3-C	240	239	238	4.7	-1.7	-0.6	6.6	-2.5	0.19	-0.02	62.7	0.03	0.15	0.09	0.01
0-2R3-D	243	242	241	5.0	-3.3	2.1	10.5	-3.5	0.31	-0.01	51.1	0.12	0.19	0.16	0.01
0-2R3-E	246	245	244	5.8	-3.4	2.5	12.0	-3.6	0.36	-0.00	51.2	0.14	0.22	0.18	0.01
0-2R3-F	249	248	247	6.4	-4.8	5.4	16.6	-4.8	0.50	0.01	46.4	0.24	0.27	0.25	0.01
0-2R3-G	252	251	250	13.5	-3.5	1.4	19.9	-5.0	0.61	0.03	59.4	0.18	0.46	0.25	0.02
0-2R3-H	255	254	253	19.9	-0.8	-3.3	23.1	-6.4	0.70	0.02	71.0	0.09	0.62	0.21	0.01
0-2R3-J	258	257	256	23.7	1.4	-5.8	25.6	-7.6	0.77	0.00	76.4	0.04	0.72	0.18	0.01
0-2R3-K	261	260	259	26.4	12.6	-7.0	26.7	-7.3	0.81	0.02	-85.1	0.03	0.60	-0.07	0.01
0-2R4-A	684	683	682	1.7	-1.1	5.9	9.1	-1.5	0.28	0.04	33.3	0.21	0.11	0.11	0.01
0-2R4-B	264	263	262	2.5	-4.1	7.8	14.8	-4.5	0.44	-0.00	37.1	0.28	0.16	0.21	0.02
0-2R4-C	267	266	265	4.9	-6.0	7.2	18.2	-6.0	0.54	-0.02	42.3	0.29	0.23	0.28	0.02
0-2R4-D	270	269	268	8.9	-7.2	6.7	22.8	-7.2	0.68	-0.01	47.0	0.31	0.36	0.34	0.01
0-2R5-A	273	272	271	2.4	-0.7	-1.2	2.8	-1.6	0.08	-0.03	71.9	-0.02	0.07	0.03	0.01
0-2R5-B	276	275	274	2.0	-0.0	-1.0	2.0	-1.1	0.06	-0.02	80.4	-0.01	0.05	0.01	0.01
0-2R5-C	279	278	277	2.2	-0.2	0.6	3.2	-0.3	0.10	0.02	59.1	0.04	0.08	0.04	0.03
0-2R5-D	282	281**	280	2.1	0.0	3.0	5.1	-0.0	0.17	0.05	40.2	0.12	0.10	0.06	0.02
0-2R5-E	285	284	283	0.3	0.4	5.7	6.8	-0.8	0.22	0.04	21.9	0.19	0.07	0.06	0.01
0-2R5-F	288	287	286	-0.3	0.5	5.7	7.0	-1.7	0.22	0.01	23.1	0.18	0.05	0.07	0.01
0-2R5-G	291	290	289	-2.1	0.0	8.4	19.2	-2.9	0.28	-0.01	15.5	0.26	0.01	0.07	0.01
0-2R5-H	294	293	292	-1.6	-2.0	9.7	12.3	-4.2	0.36	-0.02	23.6	0.30	0.04	0.14	0.01
0-2R5-J	297	296	295	-3.4	-2.3	9.7	11.7	-5.3	0.33	-0.06	19.9	0.29	-0.02	0.13	0.01
0-2R5-K	300	299	298	-0.7	-3.7	8.9	13.2	-5.1	0.39	-0.04	29.1	0.29	0.06	0.18	0.01
0-2R6-A	303	302*	301	-0.4	0.0	-0.2	0.0	-0.6	-0.01	-0.02	-34.3	-0.01	-0.02	-0.01	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)			
O-2R6-B	306	305	304	-0.8	-2.3	-0.4	1.0	-2.3	0.01	-0.06	41.3	-0.02	-0.03	0.04	0.01	
O-2R6-C	309	308	307	-0.3	1.1	-0.5	0.1	-1.1	-0.01	-0.03	44.6	-0.02	-0.02	0.01	0.01	
O-2R6-D	312	311	310	-0.3	0.3	-0.3	0.3	-0.8	0.00	-0.02	44.2	-0.01	-0.01	-0.01	0.01	
O-2R6-E	315	314	313	0.0	2.0	-0.2	2.0	-2.2	0.05	-0.05	46.4	-0.01	-0.00	-0.05	0.01	
O-2R6-F	318	317	316**	0.1	2.5	0.0	2.5	-2.4	0.06	-0.05	45.7	0.00	0.00	-0.06	0.01	
O-2R6-G	321	320	319	0.1	1.7	-0.4	1.7	-2.0	0.04	-0.05	48.7	-0.01	-0.00	-0.04	0.01	
O-2R6-H	324	323	322	-0.1	1.6	-0.0	1.6	-1.7	0.03	-0.04	44.5	-0.00	-0.00	-0.04	0.01	
O-2R6-J	327	326	325	0.4	2.0	-0.4	2.0	-2.0	0.05	-0.05	50.7	0.01	0.01	-0.05	0.01	
O-2F6-K	330	329	328	0.2	0.5	-0.2	0.5	-0.5	0.01	-0.01	54.7	-0.00	0.00	-0.01	0.00	
I-1R1-A	340	341	342	-2.1	-2.4	-3.8	-2.0	-4.0	-0.10	-0.15	15.8	-0.11	-0.15	0.01	0.04	
I-1R1-B	343	344	345	-2.4	-5.5	-9.6	-2.3	-9.6	-0.17	-0.34	3.5	-0.17	-0.34	0.01	0.02	
I-1R1-C	346	347	348	1.4	-8.4	-16.4	1.4	-16.5	-0.12	-0.53	-2.9	-0.12	-0.53	-0.02	0.01	
I-1R1-D	349	350	351	3.9	-9.3	-19.6	4.0	-19.7	-0.06	-0.61	-3.6	-0.06	-0.61	-0.03	0.02	
I-1R1-E	352	353	354	3.4	-6.9	-18.3	3.4	-18.3	-0.07	-0.57	1.5	-0.07	-0.57	0.01	0.02	
I-1R1-F	355	356	357	4.8	-9.4	-19.1	5.0	-19.4	-0.03	-0.59	-5.3	-0.03	-0.58	-0.05	0.01	
I-1R1-G	358	359	360	6.5	-8.5	-22.2	6.5	-22.2	-0.01	-0.67	-1.4	-0.01	-0.67	-0.02	0.01	
I-1R1-H	361	362	363	7.5	-6.7	-23.4	7.5	-23.4	0.02	-0.70	2.3	0.01	-0.70	0.03	0.02	
I-1R1-J	364	365	366	7.3	-7.8	-24.5	7.3	-24.5	-0.00	-0.73	1.3	-0.00	-0.73	0.02	0.01	
I-1R1-K	367	368	369	7.3	-6.7	-24.0	7.4	-24.0	0.01	-0.72	2.9	0.00	-0.72	0.04	0.01	
I-1R1-L	499	500	501	7.4	-7.4	-24.2	7.5	-24.2	0.01	-0.72	1.7	0.01	-0.72	0.02	0.02	
I-1R1-M	502	503	504	5.8	-6.2	-17.1	5.9	-17.1	0.02	-0.51	-1.3	0.02	-0.51	-0.01	0.02	
I-1R1-N	505**	506	507	0.0	-4.6	-9.9	0.0	-9.9	-0.10	-0.33	1.8	-0.10	-0.33	0.01	0.02	
I-1K1-O	508	509	510	-0.9	0.2	0.3	0.5	-1.1	0.01	-0.03	70.5	-0.03	0.00	0.01	0.02	
I-1R2-A	370	371	372	-2.1	-0.7	-2.1	-0.7	-3.6	-0.06	-0.13	45.0	-0.09	-0.09	0.03	0.03	
I-1R2-B	373	374	375	-1.6	-1.6	-5.2	-0.9	-6.0	-0.09	-0.21	22.7	-0.11	-0.19	0.04	0.02	
I-1R2-C	376	377	378**	1.4	-4.0	0.0	5.4	-4.0	0.14	-0.08	-40.8	0.04	0.01	-0.11	0.01	
I-1R2-D	379	380	381	-5.3	3.2	-5.0	3.2	-13.5	-0.03	-0.41	45.5	-0.22	-0.22	0.19	0.02	
I-1R2-E	382	383	384	-2.9	4.9	-6.7	5.1	-14.7	0.02	-0.43	39.4	-0.16	-0.25	0.22	0.02	
I-1R2-F	385	386	387	1.6	1.3	-10.6	3.9	-12.8	0.00	-0.38	21.7	-0.05	-0.33	0.15	0.02	
I-1R2-G	388	389	390	2.9	2.0	-13.5	5.7	-16.3	0.03	-0.48	20.8	-0.04	-0.42	0.17	0.02	
I-1R2-H	391	392	393	3.5	0.8	-15.2	5.6	-17.3	0.02	-0.51	17.7	-0.03	-0.46	0.15	0.02	
I-1R2-J	394	395	396	5.5	-2.7	-18.6	6.2	-19.5	0.01	-0.58	9.1	-0.00	-0.57	0.09	0.03	
I-1R2-K	397	398	399	6.1	-7.5	-19.7	6.1	-19.5	0.01	-0.58	-1.9	0.01	-0.58	-0.02	0.02	
I-1R3-A	400	401	402	-0.7	0.7	2.4	2.4	-0.7	0.07	0.00	-88.0	0.00	0.07	-0.00	0.01	
I-1R3-B	403	404	405	0.4	1.5	3.2	3.2	0.4	0.11	0.05	-87.7	0.05	0.11	-0.01	0.01	
I-1R3-C	406	407	408	0.8	1.7	4.3	4.5	0.6	0.15	0.06	-77.9	0.07	0.15	-0.02	0.02	
I-1R3-D	409	410	411	-0.7	2.2	2.0	2.7	-1.4	0.07	-0.02	65.4	-0.00	0.06	0.04	0.01	
I-1R3-E	412	413	414	-2.7	2.8	0.6	3.1	-5.2	0.05	-0.14	56.6	-0.08	-0.01	0.09	0.02	
I-1R3-F	415	416	417	-5.6	3.1	-0.2	3.7	-9.5	0.03	-0.28	57.2	-0.19	-0.06	0.14	0.01	
I-1R3-G	418	419	420	-6.6	2.8	-1.3	3.3	-11.2	-0.00	-0.34	55.8	-0.23	-0.11	0.16	0.02	
I-1R3-H	421	422	423	-2.9	3.5	-6.6	3.7	-13.3	-0.01	-0.40	38.8	-0.16	-0.25	0.19	0.02	
I-1R3-J	424	425	426	0.9	3.1	-10.0	4.8	-14.0	0.02	-0.41	27.3	-0.07	-0.32	0.18	0.01	
I-1R3-K	427	428	429	5.7	-5.5	-15.8	5.7	-15.8	0.03	-0.46	-1.3	0.03	-0.46	-0.01	0.02	
I-1R4-A	435	436	437	-1.8	0.8	1.4	1.7	-2.1	0	-0.05	73.1	-0.05	0.03	0.02	0.01	
I-1R4-B	430	431	432	-6.1	0.8	0.9	2.3	-7.5	0.00	-0.22	68.2	-0.19	-0.05	0.08	0.01	
I-1R4-C	433	434	435	-8.7	3.6	-2.2	4.2	-15.1	-0.01	-0.46	54.8	-0.31	-0.16	0.21	0.02	
I-1R4-D	436**	437**	438**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
I-1R5-A	439	440	441	0.2	0.0	2.8	3.4	-0.5	0.11	0.02	-65.4	0.03	0.09	-0.03	0.01	
I-1R5-B	442	443	444	0.7	1.1	5.3	6.0	-0.0	0.20	0.06	-70.3	0.07	0.18	-0.04	0.02	
I-1R5-C	445	446	447	-1.1	3.0	7.7	7.7	-1.1	0.24	0.04	-88.2	0.04	0.24	-0.01	0.01	
I-1R5-D	448**	449	450	0.0	-1.4	3.3	5.1	-1.8	0.15	-0.01	-59.2	0.03	0.11	-0.07	0.01	
I-1R5-E	453	452	451	1.3	-2.3	-2.0	2.2	-2.9	0.04	-0.07	-24.5	0.02	-0.05	-0.04	0.01	
I-1R5-F	454	455	456	-2.8	-1.9	1.6	1.9	-3.1	0.03	-0.08	-74.7	-0.08	0.03	-0.05	0.02	
I-1R5-G	457	458	459	-4.3	-1.4	0.5	0.6	-4.3	-0.02	-0.14	84.5	-0.14	-0.03	0.01	0.02	
I-1R5-H	460**	461	462	0.0	-0.5	0.2	0.7	-0.6	0.02	-0.01	-49.4	0.00	0.01	-0.01	0.00	
I-1R5-J	463	464	465	-9.5	-0.4	0.9	2.2	-10.8	-0.03	-0.34	71.6	-0.31	-0.06	0.09	0.01	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)			
I-1R5-K	466**	467**	468**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-1R6-A	469	470**	471	0.2	0.0	-1.0	0.3	-1.1	0.00	-0.03	16.3	-0.00	-0.03	0.01	0.01	
I-1R6-B	472	473	474	-0.8	-2.1	-0.1	1.3	-2.2	0.02	-0.06	-50.8	-0.03	-0.01	-0.04	0.01	
I-1R6-C	475	476	477	-0.0	-2.5	-0.2	2.2	-2.5	0.05	-0.06	-43.8	-0.00	-0.01	-0.05	0.01	
I-1R6-D	478	479	480	-2.0	-6.0	0.5	4.7	-6.2	0.09	-0.16	-51.7	-0.06	-0.00	-0.12	0.02	
I-1R6-E	481	482	483	-0.4	-2.7	-0.6	1.7	-2.8	0.03	-0.07	-43.4	-0.02	-0.02	-0.05	0.01	
I-1R6-F	484**	485	486	0.0	-2.2	-0.5	1.7	-2.2	0.03	-0.06	-41.3	-0.00	-0.02	-0.04	0.01	
I-1R6-G	487	488	489	-0.6	-0.8	-0.9	-0.6	-0.9	-0.05	-0.04	-11.5	-0.03	-0.04	-0.00	0.02	
I-1R6-H	490	491	492	0.2	-0.2	-0.9	0.2	-0.9	-0.00	-0.03	9.0	-0.00	-0.03	0.00	0.01	
I-1R6-J	493	494	495	-0.2	0.0	-0.5	0.0	-0.8	-0.01	-0.03	53.4	-0.01	-0.02	0.01	0.01	
I-1R6-K	496**	497**	498**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
I-2R1-A	511	512	513	1.5	2.1	2.9	2.9	1.5	0.11	0.08	-85.3	0.08	0.11	-0.00	0.01	
I-2R1-B	514	515	516	1.0	4.4	7.8	7.8	1.0	0.27	0.11	-89.8	0.11	0.27	-0.00	0.02	
I-2R1-C	517	518	519	-2.0	6.6	13.6	13.7	-2.0	0.43	0.07	87.2	0.07	0.43	0.02	0.01	
I-2R1-D	520	521	522	-4.5	6.6	16.1	16.1	-4.5	0.49	0.01	87.8	0.01	0.49	0.02	0.01	
I-2R1-E	523	524	525	-3.9	7.0	16.0	16.0	-4.0	0.49	0.03	87.2	0.03	0.49	0.02	0.01	
I-2R1-F	526	527	528	-5.8	6.2	18.3	18.3	-5.8	0.55	-0.01	-89.9	-0.01	0.55	-0.00	0.03	
I-2R1-G	529	530	531	-6.4	8.2	20.7	20.8	-6.4	0.62	-0.01	87.9	-0.01	0.62	0.02	0.01	
I-2R1-H	532	533	534	-7.0	7.8	23.9	23.9	-7.0	0.72	0.01	-88.7	0.01	0.72	-0.02	0.01	
I-2R1-J	535	536	537	-7.3	9.2	23.8	23.8	-7.4	0.71	-0.01	88.2	-0.01	0.71	0.02	0.01	
I-2R1-K	538*	539	540	-4.7	8.6	23.5	23.5	-4.7	0.73	0.08	-88.4	0.08	0.73	-0.02	0.04	
I-2R1-L	672	671	670	21.4	7.3	-8.2	21.4	-8.2	0.63	-0.06	-88.7	-0.06	0.62	-0.02	0.01	
I-2R1-M	675	674	673	16.0	5.3	-5.9	16.0	-5.9	0.47	-0.04	-89.4	-0.04	0.47	-0.01	0.02	
I-2R1-N	678	677	676	8.5	3.2	-4.3	8.6	-4.3	0.24	-0.06	-85.2	-0.06	0.24	-0.03	0.01	
I-2R2-A	541	542*	543	0.7	1.9	0.3	1.9	-0.9	0.05	-0.01	40.9	0.03	0.02	0.03	0.01	
I-2R2-B	544	545	546	0.6	1.1	3.0	3.2	0.4	0.11	0.05	-74.1	0.05	0.11	-0.02	0.02	
I-2R2-C	547	548	549	-1.3	3.3	6.1	6.2	-1.4	0.19	0.02	83.1	0.02	0.19	0.02	0.02	
I-2R2-D	550	551	552	-3.1	-0.3	8.4	9.1	-3.8	0.26	-0.03	-76.4	-0.02	0.25	-0.07	0.02	
I-2R2-E	553	554	555	-0.2	-3.7	6.8	11.1	-4.5	0.32	-0.04	-58.1	0.06	0.22	-0.16	0.02	
I-2R2-F	556	557	558	-2.3	-2.5	9.1	11.6	-4.8	0.33	-0.04	-67.2	0.01	0.28	-0.13	0.01	
I-2R2-G	559	560	561	-2.3	-4.1	11.1	15.3	-6.4	0.44	-0.06	-64.0	0.04	0.34	-0.20	0.01	
I-2R2-H	562	563	564	-5.0	-0.5	15.2	16.7	-6.4	0.49	-0.05	-75.4	-0.01	0.45	-0.13	0.02	
I-2R2-J	565	566	567	-6.4	2.9	18.2	18.5	-6.8	0.54	-0.04	-83.1	-0.03	0.54	-0.07	0.02	
I-2R2-K	568	569	570	-6.7	6.8	18.9	18.9	-6.7	0.56	-0.04	88.5	-0.03	0.56	0.02	0.01	
I-2R3-A	571**	572	573	0.0	-0.7	-2.3	0.1	-2.4	-0.02	-0.08	11.3	-0.02	-0.08	0.01	0.01	
I-2R3-B	574	575	576	-0.5	-2.2	-4.3	-0.5	-4.3	-0.06	-0.15	2.3	-0.06	-0.15	0.00	0.02	
I-2R3-C	577	578	579	-0.6	-2.7	-5.3	-0.5	-5.4	-0.07	-0.18	3.1	-0.07	-0.18	0.01	0.02	
I-2R3-D	580	581	582	0.9	-2.6	-3.0	1.4	-3.5	0.01	-0.10	-19.1	-0.00	-0.09	-0.04	0.01	
I-2R3-E	583	584	585	1.9	-3.9	-1.5	4.6	-4.2	0.11	-0.09	-33.6	0.05	-0.03	-0.09	0.01	
I-2R3-F	586	587	588	3.8	-3.3	0.5	7.9	-3.6	0.22	-0.04	-36.5	0.13	0.05	-0.13	0.02	
I-2R3-G	589	590	591	3.3	-4.5	2.5	10.3	-4.5	0.29	-0.05	-43.4	0.13	0.11	-0.17	0.01	
I-2R3-H	592	593	594	1.9	-3.8	6.3	12.2	-4.1	0.36	-0.01	-52.8	0.12	0.23	-0.18	0.01	
I-2R3-J	595	596	597	0.1	-4.4	9.7	15.3	-5.5	0.45	-0.03	-58.6	0.10	0.32	-0.21	0.01	
I-2R3-K	598	599	600	-5.8	3.9	15.9	16.0	-5.8	0.47	-0.03	-86.8	-0.03	0.47	-0.03	0.03	
I-2R4-A	688	689	690	2.1	-1.9	-2.7	2.6	-3.1	0.05	-0.08	-16.9	0.04	-0.07	-0.04	0.01	
I-2R4-B	601	602	603	5.2	-1.0	-0.9	6.6	-2.3	0.19	-0.01	-22.9	0.16	0.02	-0.07	0.03	
I-2R4-C	604	605	606	9.0	-4.1	3.8	17.1	-4.4	0.52	0.03	-38.1	0.33	0.21	-0.24	0.02	
I-2R4-D	607	608	609	12.4	-6.2	5.6	24.6	-6.6	0.75	0.05	-38.7	0.46	0.31	-0.35	0.02	
I-2R5-A	610	611	612	0.0	-0.1	-1.9	0.3	-2.2	-0.01	-0.07	20.6	-0.02	-0.06	0.02	0.02	
I-2R5-B	613	614	615	-0.3	-0.7	-5.0	0.3	-5.7	-0.04	-0.18	19.9	-0.06	-0.17	0.04	0.03	
I-2R5-C	616	617	618	0.2	-2.3	-6.8	0.3	-6.9	-0.06	-0.23	7.8	-0.06	-0.22	0.02	0.01	
I-2R5-D	619	620	621	-0.7	1.6	-3.3	1.8	-5.8	0.00	-0.17	35.3	-0.05	-0.11	0.08	0.01	
I-2R5-E	622	623	624	1.1	1.2	-1.9	1.8	-2.6	0.03	-0.07	23.9	0.02	-0.05	0.04	0.01	
I-2R5-F	625	626	627	2.5	0.2	-1.2	2.8	-1.2	0.07	-0.01	-7.9	0.07	-0.01	-0.01	0.01	
I-2R5-G	628	629	630	4.5	0.2	-1.5	4.8	-1.8	0.14	-0.01	-11.7	0.13	-0.00	-0.03	0.02	
I-2R5-H	631	632	633	7.4	0.2	-2.0	8.0	-2.7	0.24	-0.01	-14.0	0.22	0.01	-0.06	0.01	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. 4)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-2R5- J	634	635	636	10.5	0.4	-3.3	11.2	-4.0	0.33	-0.02	-12.3	0.31	-0.01	-0.07	0.02
I-2R5- K	637	638	639	12.6	1.3	-2.4	13.6	-3.3	0.41	0.02	-13.5	0.39	0.05	-0.09	0.01
I-2R6- A	640	641	642	0.1	2.1	0.1	2.1	-1.9	0.05	-0.04	45.1	0.00	0.00	0.05	0.01
I-2R6- B	643	644	645	-0.4	1.8	1.8	2.3	-0.8	0.07	-0.01	67.9	0.00	0.06	0.02	0.01
I-2R6- C	646	647	648	-0.0	2.3	1.2	2.4	-1.3	0.07	-0.02	54.8	0.01	0.04	0.04	0.01
I-2R6- D	649	650	651	-0.4	4.4	0.5	4.4	-4.3	0.10	-0.10	48.1	-0.01	0.01	0.10	0.01
I-2R6- E	652	653	654**	0.6	3.1	0.0	3.1	-2.5	0.08	-0.05	41.8	0.02	0.01	0.06	0.02
I-2R6- F	655	656	657	0.1	1.5	-0.2	1.5	-1.7	0.03	-0.04	41.9	0.00	-0.01	0.04	0.01
I-2R6- G	658	659	660	-0.2	0.6	-0.4	0.6	-1.1	0.01	-0.03	42.4	-0.01	-0.01	0.02	0.01
I-2R6- H	661	662	663	-0.1	0.2	-0.1	0.2	-0.4	0.00	-0.01	47.7	-0.00	-0.00	0.01	0.00
I-2R6- J	664	665	666	-0.1	0.3	-0.0	0.3	-0.4	0.00	-0.01	49.3	-0.00	-0.00	0.01	0.00
I-2R6- K	667	668	669	-0.1	0.9	0.1	0.9	-0.9	0.02	-0.02	47.5	-0.00	0.00	0.02	0.00

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

COMBUSTION T-13, LOAD CASE 9, M22

NOMINAL LOAD = 7.883E 05

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
O-1R1-A	3	2	1	13.9	10.8	4.1	14.2	3.8	0.51	0.27	-80.2	0.27	0.50	-0.04	0.02
O-1R1-B	6	5	4	10.3	12.1	12.5	12.7	10.0	0.52	0.46	-17.4	0.51	0.46	-0.02	0.05
O-1R1-C	9	8	7	2.9	8.6	13.3	13.3	2.9	0.47	0.23	-2.4	0.47	0.23	-0.01	0.05
O-1R1-D	12	11	10*	-6.4	1.3	8.4	8.4	-6.4	0.21	-0.13	-1.1	0.21	-0.15	-0.01	0.03
O-1R1-E	15	14	13	-10.3	-2.3	3.8	3.8	-10.3	0.02	-0.30	-3.9	0.02	-0.30	-0.02	0.01
O-1R1-F	18	17	16	-8.4	-2.6	4.0	4.1	-8.4	0.05	-0.24	1.8	0.05	-0.24	0.01	0.01
O-1R1-G	21	20	19	-7.2	-1.9	4.7	4.7	-7.2	0.08	-0.19	3.2	0.08	-0.19	0.02	0.01
O-1R1-H	24	23	22	-5.2	-1.0	3.2	3.2	-5.2	0.05	-0.14	-0.1	0.05	-0.14	-0.00	0.01
O-1R1-J	27	26	25	-1.4	-0.5	1.6	1.7	-1.5	0.04	-0.03	11.5	0.04	-0.03	0.01	0.01
O-1R1-K	30	29	28	1.9	1.4	-0.1	2.0	-0.2	0.06	0.01	-76.0	0.02	0.46	-0.01	0.01
O-1R1-L	162	161	160	10.1	2.9	-3.9	10.1	-3.9	0.30	-0.03	89.2	-0.03	0.30	0.00	0.02
O-1R1-M	165	164	163	17.1	5.2	-8.0	17.1	-8.0	0.48	-0.09	-88.6	-0.09	0.48	-0.01	0.01
O-1R1-N	168	167	166	22.3	7.8	-9.7	22.4	-9.8	0.64	-0.10	-87.4	-0.10	0.64	-0.03	0.01
O-1R1-J	171	170	169	24.5	8.6	-9.7	24.5	-9.8	0.71	-0.08	-87.9	-0.08	0.71	-0.03	0.01
O-1R2-A	33	32	31	8.6	4.9	5.2	9.5	4.2	0.36	0.23	65.0	0.26	0.33	0.05	0.02
O-1R2-B	36	35	34	3.4	9.1	7.8	9.7	1.5	0.33	0.14	-29.0	0.29	0.19	-0.08	0.03
O-1R2-C	39	38	37	-6.2	12.5	8.4	14.7	-12.5	0.36	-0.27	-28.7	0.22	-0.12	-0.26	0.02
O-1R2-D	42	41	40	-17.0	13.5	8.2	17.5	-26.3	0.32	-0.69	-27.5	0.10	-0.48	-0.41	0.03
O-1R2-E	45	44	43	-16.3	13.0	1.8	15.0	-29.4	0.20	-0.82	-33.0	-0.10	-0.52	-0.47	0.02
O-1R2-F	48	47	46	-16.3	7.1	4.1	10.6	-22.8	0.12	-0.65	-26.1	-0.03	-0.50	-0.30	0.03
O-1R2-G	51	50	49	-12.7	5.3	2.4	7.8	-18.0	0.08	-0.52	-27.2	-0.05	-0.39	-0.24	0.01
O-1R2-H	54	53	52	-9.3	1.9	2.7	4.7	-11.3	0.04	-0.33	-20.5	-0.00	-0.28	-0.12	0.01
O-1R2-J	57	56	55	-5.0	1.6	1.7	3.0	-6.3	0.04	-0.18	-22.2	0.01	-0.15	-0.08	0.01
O-1R2-K	60	59	58	0.6	1.3	0.4	1.3	-0.3	0.04	0.00	-48.6	0.02	0.02	-0.02	0.01
O-1R3-A	63	62	61	-4.4	-3.1	4.8	5.9	-5.5	0.14	-0.12	17.6	0.12	-0.10	0.08	0.03
O-1R3-B	66	65	64	-7.7	3.1	4.1	5.8	-9.4	0.10	-0.25	-19.9	0.06	-0.21	-0.11	0.02
O-1R3-C	69	68	67	-16.0	9.0	0.6	11.0	-26.3	0.10	-0.76	-31.8	-0.14	-0.52	-0.39	0.02
O-1R3-D	72	71	70	-19.1	17.3	-4.0	18.3	-41.4	0.19	-1.18	-37.6	-0.32	-0.67	-0.67	0.02
O-1R3-E	75	74	73	-14.9	17.4	-9.8	17.5	-42.2	0.16	-1.22	-42.6	-0.47	-0.59	-0.69	0.02
O-1R3-F	78	77	76	-16.9	8.3	-3.6	9.4	-29.9	0.01	-0.89	-35.2	-0.29	-0.59	-0.43	0.01
O-1R3-G	81	80	79	-14.5	4.9	-3.6	5.9	-24.1	-0.04	-0.74	-34.3	-0.26	-0.52	-0.32	0.01
O-1R3-H	84	83	82	-13.4	2.5	-0.3	4.6	-18.2	-0.03	-0.56	-27.4	-0.14	-0.44	-0.21	0.02
O-1R3-J	87	86	85	-9.6	-1.2	1.8	2.4	-10.2	-0.02	-0.31	-12.9	-0.04	-0.30	-0.06	0.02
O-1R3-K	90	89	88	-0.5	-0.5	0.5	0.7	-0.7	0.02	-0.02	21.0	0.01	-0.01	0.01	0.01
O-1R4-A	681	680	679	-13.2	14.2	-13.8	14.2	-41.1	0.06	-1.22	-45.3	-0.58	-0.57	-0.64	0.02
O-1R4-B	93	92	91	-13.0	8.3	-8.4	6.4	-27.9	-0.06	-0.86	-41.1	-0.41	-0.51	-0.59	0.01
O-1R4-C	96	95	94	-13.2	5.4	-4.5	6.0	-23.8	-0.04	-0.72	-36.5	-0.28	-0.48	-0.33	0.02
O-1R4-D	99	96	97	-13.3	2.9	-4.2	3.8	-21.3	-0.09	-0.66	-34.3	-0.27	-0.48	-0.27	0.01
O-1R5-A	102	101	100	-12.3	-6.9	2.2	2.4	-12.5	-0.04	-0.39	7.6	-0.05	-0.38	0.04	0.02
J-1R5-B	105	104	103	-13.8	-6.2	-3.3	-2.8	-14.3	-0.23	-0.50	-12.0	-0.24	-0.49	-0.05	0.02
O-1R5-C	108	107	106	-16.9	0.3	-6.4	1.4	-24.7	-0.20	-0.80	-33.1	-0.36	-0.62	-0.28	0.03
O-1R5-D	111	110	109	-14.9	8.3	-9.2	8.5	-32.6	-0.04	-0.99	-41.0	-0.45	-0.58	-0.47	0.01
O-1R5-E	114	113	112	-9.3	8.0	-16.0	8.3	-33.5	-0.06	-1.02	-49.6	-0.62	-0.46	-0.48	0.01
O-1R5-F	117	116	115	-5.5	4.4	-16.7	5.4	-27.6	-0.10	-0.86	-55.0	-0.61	-0.35	-0.36	0.01
O-1R5-G	120	119	118	-6.3	4.2	-14.2	4.8	-25.3	-0.09	-0.79	-52.6	-0.53	-0.35	-0.33	0.01
O-1R5-H	123	122	121	-6.1	5.5	-12.8	5.9	-24.8	-0.05	-0.76	-51.3	-0.48	-0.33	-0.35	0.01
O-1R5-J	126	125	124	-2.8	5.6	-15.6	6.9	-25.3	-0.02	-0.77	-56.7	-0.54	-0.25	-0.34	0.01
O-1R5-K	129	128	127	-0.8	5.8	-20.1	8.4	-29.3	-0.01	-0.88	-60.4	-0.67	-0.22	-0.37	0.01
O-1R6-A	132	131	130	-14.9	-8.3	0.6	0.7	-15.0	-0.13	-0.49	4.3	-0.13	-0.49	0.03	0.02
O-1R6-B	135	134	133	-13.8	-11.5	-8.2	-8.1	-13.9	-0.40	-0.54	5.1	-0.41	-0.54	0.01	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. →)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
O-1R6- C	138	137	136	-11.2	-13.5	-12.5	-10.1	-13.6	-0.47	-0.55	55.6	-0.52	-0.49	0.04	0.02
O-1R6- D	141	140	139	-7.4	-13.9	-17.6	-7.3	-17.8	-0.41	-0.66	62.2	-0.65	-0.42	0.03	0.02
O-1R6- E	144	143	142	-2.9	-13.1	-22.9	-2.9	-22.9	-0.32	-0.78	89.5	-0.78	-0.32	0.00	0.02
O-1R6- F	147	146	145	-0.4	-11.5	-20.8	-0.4	-20.9	-0.22	-0.69	87.6	-0.69	-0.22	0.02	0.01
O-1R6- G	150	149	148	1.9	-12.1	-22.5	2.0	-22.6	-0.16	-0.73	85.8	-0.72	-0.16	0.04	0.02
O-1R6- H	153	152	151	3.9	-8.8	-22.8	3.9	-22.8	-0.09	-0.71	88.8	-0.71	-0.10	-0.01	0.01
O-1R6- J	156	155	154	5.9	-10.4	-25.8	5.9	-25.8	-0.06	-0.79	89.3	-0.79	-0.06	0.01	0.02
O-1R6- K	159	158	157	9.2	-12.2	-31.6	9.2	-31.6	-0.01	-0.95	88.6	-0.95	-0.01	0.02	0.02
O-2R1- A	174	173	172	13.8	9.4	2.4	14.0	2.3	0.48	0.21	-83.4	0.22	0.48	-0.03	0.04
O-2R1- B	177	176	175	10.1	9.1	6.9	10.2	6.8	0.40	0.33	-79.2	0.33	0.40	-0.01	0.04
O-2R1- C	180	179	178	1.7	5.0	10.4	10.5	1.6	0.36	0.16	6.6	0.36	0.16	0.02	0.02
O-2R1- D	183	182	181	-7.9	-1.3	2.1	2.4	-8.2	-0.00	-0.25	-9.0	-0.01	-0.24	-0.04	0.02
O-2R1- E	186	185	184	-11.9	-5.3	2.5	2.5	-11.9	-0.03	-0.37	2.4	-0.03	-0.37	0.01	0.01
O-2R1- F	189	188	187	-9.5	-3.1	3.7	3.8	-9.5	0.03	-0.28	0.9	0.03	-0.28	0.00	0.01
O-2R1- G	192	191	190	-8.1	-1.4	5.2	5.2	-8.1	0.09	-0.22	-0.1	0.09	-0.22	-0.00	0.02
O-2R1- H	195	194	193	-5.3	-0.9	3.9	3.9	-5.3	0.08	-0.14	1.1	0.08	-0.14	0.00	0.02
O-2R1- J	198	197	196	-2.2	-0.9	3.0	3.3	-2.5	0.08	-0.05	13.5	0.08	-0.04	0.03	0.01
O-2R1- K	201	200	199	0.9	0.1	-0.2	0.9	-0.2	0.03	0.00	79.5	0.00	0.03	0.00	0.01
O-2R1- L	333	332	331	9.3	2.5	-3.0	9.3	-3.0	0.28	-0.01	87.0	-0.01	0.28	0.01	0.02
O-2R1- M	336	335	334	16.1	5.7	-6.4	16.1	-6.5	0.47	-0.05	-87.8	-0.05	0.47	-0.02	0.01
O-2R1- N	339	338	337	22.2	6.5	-8.7	22.2	-8.7	0.65	-0.07	89.6	-0.07	0.65	0.01	0.01
O-2R2- A	204	203	202	7.9	3.6	1.9	8.2	1.7	0.29	0.14	78.3	0.14	0.28	0.03	0.02
O-2R2- B	207	206	205	3.2	5.8	5.1	6.1	2.2	0.22	0.13	-30.5	0.20	0.15	-0.04	0.03
O-2R2- C	210	209	208	-6.0	9.1	5.4	10.7	-11.3	0.24	-0.27	-29.3	0.12	-0.15	-0.22	0.02
O-2R2- D	213	212	211	-17.3	11.4	4.1	14.3	-27.5	0.20	-0.77	-29.6	-0.04	-0.55	-0.42	0.02
O-2R2- E	216	215	214	-15.2	11.7	-2.3	12.7	-30.2	0.12	-0.87	-36.3	-0.23	-0.52	-0.47	0.02
O-2R2- F	219	218	217	-16.5	5.3	4.2	9.3	-21.6	0.09	-0.62	-24.0	-0.03	-0.50	-0.27	0.02
O-2R2- G	222	221	220	-14.1	4.2	3.0	7.4	-18.6	0.06	-0.54	-24.5	-0.04	-0.44	-0.23	0.01
O-2R2- H	225	224	223	-11.1	0.6	4.0	5.1	-12.1	0.05	-0.35	-14.3	0.02	-0.33	-0.10	0.02
O-2R2- J	228	227	226	-5.8	1.6	2.1	3.4	-7.1	0.04	-0.20	-20.5	0.01	-0.17	-0.08	0.01
O-2R2- K	231	230	229	-0.2	1.3	0.4	1.3	-1.1	0.03	-0.02	-37.2	0.01	-0.00	-0.03	0.01
O-2R3- A	234	233	232	-3.9	-3.4	0.6	1.2	-4.5	-0.00	-0.13	19.0	-0.02	-0.12	0.04	0.02
O-2R3- B	237	236	235	-7.5	-0.3	0.3	1.5	-8.8	-0.04	-0.27	-20.2	-0.07	-0.25	-0.08	0.02
O-2R3- C	240	239	238	-17.6	7.7	-0.8	9.7	-28.1	0.04	-0.83	-31.8	-0.20	-0.59	-0.39	0.02
O-2R3- D	243	242	241	-19.4	15.7	-6.3	16.5	-42.2	0.13	-1.23	-38.5	-0.40	-0.70	-0.66	0.03
O-2R3- E	246	245	244	-21.1	14.8	-5.7	15.8	-42.6	0.10	-1.25	-37.4	-0.40	-0.75	-0.65	0.02
O-2R3- F	249	248	247	-16.0	8.3	-6.5	8.8	-31.3	-0.02	-0.95	-38.2	-0.37	-0.59	-0.45	0.01
O-2R3- G	252	251	250	-17.7	3.7	-0.5	6.3	-24.5	-0.04	-0.75	-28.0	-0.19	-0.59	-0.29	0.01
O-2R3- H	255	254	253	-16.3	-0.1	3.3	5.2	-18.2	-0.01	-0.55	-16.5	-0.05	-0.50	-0.15	0.02
O-2R3- J	258	257	256	-9.8	-0.7	3.1	3.6	-10.4	0.02	-0.31	-11.2	0.00	-0.29	-0.06	0.01
O-2R3- K	261	260	259	-2.5	-0.6	0.8	0.8	-2.6	0.00	-0.08	-4.8	0.00	-0.08	-0.01	0.01
O-2R4- A	684	683	682	-10.8	12.9	-18.1	13.1	-41.9	0.02	-1.25	-48.8	-0.70	-0.53	-0.63	0.02
O-2R4- B	264	263	262	-13.0	6.4	-9.8	6.5	-29.2	-0.07	-0.90	-42.5	-0.45	-0.52	-0.41	0.02
O-2R4- C	267	266	265	-10.8	5.5	-4.8	5.8	-21.4	-0.02	-0.65	-38.6	-0.26	-0.40	-0.31	0.02
O-2R4- D	270	269	268	-8.0	4.1	-3.2	4.4	-15.7	-0.01	-0.47	-38.1	-0.19	-0.30	-0.23	0.01
O-2R5- A	273	272	271	-12.6	-7.6	-0.5	-0.4	-12.6	-0.14	-0.42	4.9	-0.14	-0.42	0.02	0.02
O-2R5- B	276	275	274	-14.2	-5.4	-3.8	-2.7	-15.3	-0.24	-0.53	-17.2	-0.26	-0.50	-0.08	0.02
O-2R5- C	279	278	277	-10.2	1.0	-14.2	1.2	-25.6	-0.21	-0.83	-45.3	-0.57	-0.48	-0.51	0.02
O-2R5- D	282	281	280	-17.7	7.1	-9.3	7.5	-34.5	-0.09	-1.06	-39.2	-0.48	-0.68	-0.48	0.03
O-2R5- E	285	284	283	-8.4	7.7	-19.4	8.4	-36.2	-0.08	-1.11	-52.1	-0.72	-0.47	-0.50	0.02
O-2R5- F	288	287	286	-9.5	5.4	-14.3	5.6	-29.3	-0.11	-0.91	-49.0	-0.56	-0.45	-0.40	0.02
O-2R5- G	291	290	289	-5.7	4.0	-16.7	4.9	-27.3	-0.11	-0.85	-55.0	-0.61	-0.35	-0.35	0.01
O-2R5- H	294	293	292	-3.1	4.6	-16.1	6.0	-25.2	-0.05	-0.77	-57.3	-0.56	-0.26	-0.33	0.02
O-2R5- J	297	296	295	-2.2	5.7	-15.3	7.1	-24.6	-0.01	-0.74	-57.2	-0.53	-0.22	-0.33	0.01
O-2R5- K	300	299	298	-2.3	6.7	-10.5	7.4	-20.2	0.04	-0.59	-53.7	-0.37	-0.18	-0.30	0.01
O-2R6- A	303	302	301	-14.5	-9.9	0.0	0.5	-14.9	-0.13	-0.49	10.1	-0.14	-0.48	0.06	0.04

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. #)

LOCATION	GAGE NUMBERS			STRAIN - MICRONDICHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SHAX	SHMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
O-2R6-B	306	305	304	-14.2	-11.2	-7.7	-7.7	-14.2	-0.40	-0.54	2.2	-0.40	-0.54	0.01	0.02
O-2R6-C	309	308	307	-11.2	-13.0	-12.0	-10.2	-13.0	-0.46	-0.53	52.6	-0.51	-0.49	0.03	0.01
O-2R6-D	312	311	310	-7.8	-13.9	-18.7	-7.8	-18.8	-0.44	-0.70	86.9	-0.69	-0.44	0.01	0.02
O-2R6-E	315	314	313	-3.1	-13.0	-22.6	-3.1	-22.6	-0.33	-0.78	89.5	-0.78	-0.33	0.00	0.01
O-2R6-F	318	317	316	-0.1	-11.7	-21.1	-0.0	-21.2	-0.21	-0.70	86.9	-0.70	-0.21	0.03	0.02
O-2R6-G		320	319	2.2	-11.3	-22.5	2.3	-22.6	-0.15	-0.72	87.5	-0.72	-0.15	0.03	0.02
O-2R6-H		323	322	5.4	-10.5	-24.0	5.4	-24.0	-0.06	-0.74	87.7	-0.74	-0.06	0.03	0.01
O-2R6-J	327	326	325	6.4	-10.3	-24.2	6.4	-24.2	-0.05	-0.74	87.4	-0.73	-0.05	0.03	0.02
O-2R6-K	330	329	328	8.3	-3.8	-20.0	8.4	-20.1	0.08	-0.58	-85.8	-0.58	0.08	-0.05	0.01
I-1R1-A	340	341	342	-7.1	-14.0	-25.9	-7.0	-24.0	-0.47	-0.86	4.9	-0.47	-0.86	0.03	0.02
I-1R1-B	343	34	345	-6.1	-20.7	-44.6	-5.6	-45.1	-0.63	-1.54	6.8	-0.64	-1.53	0.11	0.01
I-1R1-C	346	347	348	9.1	-29.7	-64.9	9.2	-64.9	-0.34	-2.05	-1.4	-0.34	-2.05	-0.04	0.03
I-1R1-D	349	350	351	13.0	-30.5	-62.7	13.4	-63.1	-0.18	-1.95	-4.3	-0.19	-1.94	-0.13	0.04
I-1R1-E	352	353	354	3.4	-18.4	-42.7	3.5	-42.7	-0.31	-1.37	1.5	-0.31	-1.37	0.03	0.02
I-1R1-F	355	356	357	3.2	-16.5	-28.5	3.6	-29.0	-0.17	-0.92	-6.8	-0.18	-0.91	-0.09	0.01
I-1R1-G	358	359	360	3.1	-8.8	-20.7	3.1	-20.7	-0.10	-0.65	-0.1	-0.10	-0.65	-0.00	0.01
I-1R1-H	361	362	363	3.0	-4.9	-12.9	3.0	-12.9	-0.03	-0.40	0.2	-0.03	-0.40	0.00	0.01
I-1R1-J	364	365	366	1.6	-2.8	-7.5	1.6	-7.5	-0.02	-0.23	0.6	-0.02	-0.23	0.00	0.02
I-1R1-K	367	368	369	0.6	-0.6	-2.6	0.6	-2.7	-0.01	-0.08	8.5	-0.01	-0.08	0.01	0.03
I-1R1-L	499	500	501	-2.0	3.7	10.3	10.4	-2.1	0.32	0.04	-88.0	0.03	0.32	-0.01	0.01
I-1R1-M	502	503	504	-5.5	7.2	17.7	17.8	-5.6	0.53	-0.31	87.2	-0.01	0.53	0.03	0.01
I-1R1-N	505**	506	507	0.0	9.2	24.2	24.6	-0.3	0.81	0.23	-83.3	0.24	0.80	-0.07	0.01
I-1R1-O	508	509	510	-6.8	9.4	23.8	23.9	-6.8	0.72	0.01	88.4	0.01	0.72	0.02	0.01
I-1R2-A	370	371	372	-5.1	-7.2	-16.7	-4.1	-17.7	-0.31	-0.62	16.1	-0.33	-0.60	0.08	0.02
I-1R2-B	373	374	375	-2.7	-16.1	-30.1	-2.7	-30.1	-0.39	-1.02	0.5	-0.39	-1.02	0.01	0.02
I-1R2-C	376	377	378**	8.1	-25.8	0.0	34.2	-26.1	0.87	-0.52	-41.1	0.27	0.08	-0.69	0.01
I-1R2-D	379	380	381	-10.9	11.8	-30.6	13.2	-54.7	-0.10	-1.67	36.6	-0.66	-1.12	0.75	0.02
I-1R2-E	382	383	384	-2.0	3.5	-24.2	6.9	-33.1	-0.10	-1.02	28.1	-0.30	-0.82	0.38	0.03
I-1R2-F	385	386	387	3.6	-1.2	-18.6	5.3	-20.2	-0.03	-0.62	14.8	-0.07	-0.58	0.15	0.03
I-1R2-G	388	389	390	3.2	-3.5	-14.4	3.5	-14.7	-0.03	-0.45	6.7	-0.04	-0.44	0.05	0.02
I-1R2-H	391	392*	393	2.4	9.5	-10.5	11.0	-19.1	0.17	-0.52	32.3	-0.03	-0.32	0.31	0.04
I-1R2-J	394	395	396	1.9	-4.0	-5.8	2.4	-6.3	0.02	-0.18	-13.8	0.01	-0.17	-0.05	0.01
I-1R2-K	397	398	399	-0.2	-3.7	-0.6	2.8	-3.7	0.06	-0.09	-43.5	-0.01	-0.02	-0.08	0.01
I-1R3-A	400	401	402	0.1	5.8	2.6	6.0	-3.3	0.17	-0.05	53.0	0.03	0.09	0.10	0.03
I-1R3-B	403	404	405	4.5	-2.1	-0.3	6.9	-2.7	0.20	-0.02	-30.0	0.15	0.03	-0.10	0.01
I-1R3-C	406	407	408	5.0	-10.1	-4.4	11.7	-11.1	0.28	-0.25	-32.9	0.12	-0.10	-0.24	0.02
I-1R3-D	409	410	411	3.0	4.5	-8.7	6.6	-12.2	0.09	-0.34	25.5	0.01	-0.26	0.17	0.02
I-1R3-E	412	413	414	3.7	10.1	-5.4	11.0	-12.6	0.24	-0.31	33.7	0.07	-0.14	0.25	0.02
I-1R3-F	415	416	417	-0.3	1.1	-3.8	7.2	-11.3	0.13	-0.30	39.7	-0.05	-0.13	0.21	0.02
I-1R3-G	418	419	420	-2.6	4.3	-2.9	4.3	-9.8	0.05	-0.28	44.5	-0.11	-0.12	0.16	0.02
I-1R3-H	421	422	423	-0.2	2.0	-4.6	2.6	-7.3	0.01	-0.22	31.6	-0.05	-0.15	0.10	0.02
I-1R3-J	424	425	426	0.2	0.2	-3.6	1.0	-4.4	-0.01	-0.14	22.3	-0.03	-0.12	0.04	0.02
I-1R3-K	427	428	429	-1.4	-1.3	-0.1	0.1	-1.6	-0.01	-0.05	-71.1	-0.05	-0.02	-0.01	0.01
I-1R4-A	485	486	487	5.3	10.9	1.9	11.1	-3.9	0.33	-0.02	38.3	0.19	0.11	0.17	0.02
I-1R4-B	430	431	432	-2.8	4.8	0.9	5.1	-7.1	0.10	-0.18	53.9	-0.08	0.00	0.13	0.01
I-1R4-C	433	434	435	-4.9	5.3	-0.6	5.8	-13.4	0.06	-0.39	54.2	-0.23	-0.09	0.21	0.01
I-1R4-D	436**	437**	438**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-1R5-A	439	440	441	4.1	11.9	14.6	15.3	3.5	0.54	0.27	77.6	0.29	0.55	0.06	0.01
I-1R5-B	442	443	444	8.5	11.5	19.9	20.5	7.9	0.75	0.46	-77.1	0.48	0.74	-0.06	0.02
I-1R5-C	445	446	447	-0.5	11.0	27.1	27.3	-0.6	0.89	0.25	-85.2	0.25	0.89	-0.05	0.02
I-1R5-D	448	449	450	2.4	11.3	14.8	15.3	1.9	0.52	0.21	78.3	0.23	0.51	0.06	0.02
I-1R5-E	453	452	451	4.2	9.0	5.1	9.1	0.2	0.30	0.10	47.9	0.19	0.21	0.10	0.02
I-1R5-F	454	455	456	3.3	6.0	0.5	6.3	-2.5	0.18	-0.02	35.7	0.11	0.05	0.10	0.01
I-1R5-G	457	458	459	-6.0	2.2	2.5	4.1	-7.5	0.08	-0.21	68.7	-0.17	0.02	0.09	0.01
I-1R5-H	460**	461	462	0.0	2.7	1.4	2.8	-1.4	0.08	-0.02	54.4	0.01	0.04	0.05	0.01
I-1R5-J	463	464	465	-15.3	1.2	2.7	5.4	-18.0	-0.00	-0.54	70.1	-0.48	-0.06	0.17	0.04

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CCNF
I-1R5-K	466**	467**	468**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-1R6-A	469	470**	471	7.0	0.0	16.0	23.9	-0.9	0.78	0.21	-55.8	0.39	0.60	-0.27	0.02
I-1R6-B	472	473	474	9.6	18.2	26.2	26.2	9.6	0.96	0.58	89.1	0.58	0.96	0.01	0.02
I-1R6-C	475	476	477	-1.7	14.9	36.4	36.6	-1.9	1.19	0.30	-80.3	0.50	1.18	-0.06	0.04
I-1R6-D	478	479	480	3.0	11.4	17.5	17.6	3.0	0.61	0.27	85.7	0.27	0.61	0.03	0.01
I-1R6-E	481*	482	483	2.2	4.2	5.9	5.9	2.2	0.22	0.13	87.1	0.13	0.22	0.00	0.02
I-1R6-F	484	485	486	1.0	-0.0	2.0	3.1	-0.1	0.10	0.03	-53.9	0.05	0.08	-0.03	0.01
I-1R6-G	487	488	489	-5.6	-3.5	0.4	0.6	-5.8	-0.04	-0.18	-81.8	-0.18	-0.04	-0.02	0.02
I-1R6-H	490	491	492	-12.5	-7.4	0.7	0.9	-12.7	-0.09	-0.41	-83.5	-0.40	-0.10	-0.04	0.02
I-1R6-J	493	494	495	-18.7	-6.7	2.6	2.7	-18.8	-0.10	-0.59	86.2	-0.59	-0.10	0.05	0.08
I-1R6-K	496**	497**	498**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2R1-A	511	512	513	-11.2	-17.8	-24.1	-11.2	-24.1	-0.61	-0.90	-0.7	-0.61	-0.90	-0.00	0.04
I-2R1-B	514	515	516	-7.2	-29.7	-45.3	-6.9	-45.6	-0.68	-1.57	-5.1	-0.68	-1.56	-0.08	0.02
I-2R1-C	517	518	519	9.7	-31.4	-65.0	9.9	-65.2	-0.32	-2.05	-2.9	-0.32	-2.05	-0.09	0.02
I-2R1-D	520	521	522	12.8	-23.9	-59.9	12.8	-59.9	-0.17	-1.85	-0.3	-0.17	-1.85	-0.01	0.01
I-2R1-E	523	524	525	4.5	-19.5	-39.9	4.4	-39.9	-0.25	-1.27	-2.2	-0.25	-1.27	-0.04	0.01
I-2R1-F	526	527	528	3.1	-14.0	-26.9	3.2	-29.0	-0.18	-0.92	-2.0	-0.18	-0.92	-0.03	0.01
I-2R1-G	529	530	531	2.8	-10.3	-20.5	2.9	-20.6	-0.11	-0.65	-3.5	-0.11	-0.65	-0.03	0.02
I-2R1-H	532	533	534	2.0	-6.7	-14.2	2.0	-14.2	-0.07	-0.45	-2.1	-0.07	-0.45	-0.01	0.01
I-2R1-J	535	536	537	2.1	-3.5	-7.7	2.2	-7.7	-0.01	-0.23	-4.4	-0.01	-0.23	-0.02	0.02
I-2R1-K	538	539	540	0.6	-1.3	-3.2	0.6	-3.2	-0.01	-0.10	-0.2	-0.01	-0.10	-0.00	0.01
I-2R1-L	672	671	670	8.4	3.7	-2.5	8.4	-2.6	0.25	-0.00	-86.2	0.00	0.25	-0.02	0.01
I-2R1-M	675	674	673	15.8	5.8	-4.5	15.8	-4.5	0.48	0.01	-89.6	0.01	0.48	-0.00	0.03
I-2R1-N	678	677	676	21.7	9.0	-5.8	21.8	-5.8	0.66	0.02	-87.9	0.02	0.66	-0.02	0.01
I-2R2-A	541	542	543	-8.1	0.0	14.4	-5.9	-16.6	-0.56	-0.61	26.7	-0.41	-0.56	0.10	0.03
I-2R2-B	544	545	546	-3.8	-17.0	-30.5	-3.8	-30.5	-0.42	-1.04	0.2	-0.42	-1.04	0.00	0.02
I-2R2-C	547	548	549	10.8	-23.8	-43.4	11.8	-44.4	-0.05	-1.35	-7.7	-0.08	-1.35	-0.17	0.05
I-2R2-D	550	551	552	11.0	-11.2	-46.1	11.7	-46.7	-0.08	-1.43	6.2	-0.09	-1.41	0.15	0.01
I-2R2-E	553	554	555	2.2	1.9	-25.6	7.8	-31.1	-0.05	-0.95	22.2	-0.18	-0.62	0.31	0.02
I-2R2-F	556	557	558	2.3	-0.2	-18.9	5.0	-21.6	-0.05	-0.66	18.7	-0.11	-0.60	0.19	0.01
I-2R2-G	559	560	561	2.0	-2.0	-13.9	2.9	-14.9	-0.05	-0.46	13.1	-0.07	-0.44	0.09	0.01
I-2R2-H	562	563	564	1.6	-4.2	-10.6	1.6	-10.6	-0.05	-0.53	1.5	-0.05	-0.33	0.01	0.01
I-2R2-J	565	566	567	0.5	-4.7	-6.0	1.0	-6.6	-0.03	-0.21	-15.1	-0.04	-0.19	-0.04	0.01
I-2R2-K	568	569	570	-0.6	-4.7	-2.3	1.9	-4.8	0.01	-0.14	-37.7	-0.04	-0.08	-0.07	0.01
I-2R3-A	571	572	573	-3.2	3.0	1.0	3.5	-5.7	0.06	-0.15	58.7	-0.09	0.00	0.09	0.01
I-2R3-B	574	575	576	4.4	-1.1	-3.6	4.7	-3.9	0.12	-0.08	-10.3	0.11	-0.08	-0.03	0.02
I-2R3-C	577	578	579	7.6	-8.9	-7.2	12.0	-11.5	0.28	-0.26	-25.6	0.18	-0.16	-0.21	0.02
I-2R3-D	580**	581	582	0.0	6.3	-6.1	6.8	-13.0	0.10	-0.36	35.9	-0.06	-0.20	0.22	0.01
I-2R3-E	583	584	585	0.5	12.5	-2.7	12.6	-14.8	0.27	-0.36	41.6	-0.01	-0.69	0.31	0.02
I-2R3-F	586	587	588	0.2	8.0	-3.2	8.2	-11.2	0.16	-0.29	39.8	-0.02	-0.10	0.22	0.02
I-2R3-G	589	590	591	-1.4	4.7	-4.2	4.9	-10.5	0.06	-0.30	39.8	-0.09	-0.15	0.17	0.02
I-2R3-H	592	593	594	-1.0	2.9	-3.6	3.1	-7.6	0.03	-0.22	38.1	-0.07	-0.13	0.12	0.01
I-2R3-J	595	596	597	-0.4	0.3	-3.6	0.8	-6.8	-0.02	-0.15	27.6	-0.05	-0.12	0.05	0.01
I-2R3-K	598	599	600	-0.5	-1.3	-0.8	0.0	-1.3	-0.01	-0.04	-40.0	-0.03	-0.03	-0.02	0.01
I-2R4-A	688	689	690	5.4	14.3	2.1	14.4	-6.9	0.41	-0.08	40.6	0.20	0.12	0.24	0.05
I-2R4-B	601	602	603	-5.2	6.3	1.0	6.8	-11.0	0.12	-0.30	55.3	-0.16	-0.02	0.19	0.02
I-2R4-C	604	605	606	-8.9	6.3	-3.9	6.6	-19.3	0.03	-0.57	50.6	-0.33	-0.22	0.29	0.02
I-2R4-D	607	608	609	-6.8	4.8	-4.6	4.8	-16.2	-0.00	-0.49	48.0	-0.27	-0.22	0.24	0.02
I-2R5-A	610	611	612	4.0	10.0	13.1	13.3	3.8	0.48	0.26	81.0	0.26	0.47	0.03	0.01
I-2R5-B	613	614	615	8.4	12.2	20.2	20.5	8.0	0.76	0.47	-80.0	0.48	0.75	-0.05	0.03
I-2R5-C	616	617	618	1.2	9.9	26.0	26.5	0.7	0.88	0.29	-81.7	0.30	0.67	-0.09	0.04
I-2R5-D	619	620	621	0.5	11.3	16.8	17.2	0.0	0.57	0.17	81.1	0.16	0.56	0.06	0.02
I-2R5-E	622	623	624	3.6	11.8	5.9	11.9	-2.4	0.37	0.04	49.6	0.18	0.23	0.16	0.02
I-2R5-F	625	626	627	0.8	8.3	1.6	8.3	-6.0	0.21	-0.12	46.6	0.04	0.06	0.17	0.02
I-2R5-G	628	629	630	-7.2	4.5	0.6	5.4	-12.0	0.06	-0.34	58.4	-0.23	-0.05	0.18	0.02
I-2R5-H	631	632	633	-13.6	2.4	2.9	6.0	-16.6	0.03	-0.49	68.4	-0.42	-0.04	0.18	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(I)	SIG(T)	TAU	CONF
I-2R5-J	634	635*	636	-18.4	-2.3	3.2	4.4	-19.6	-0.05	-0.60	77.0	-0.58	-0.08	0.12	0.03
I-2R5-K	637	638	639	-18.1	1.4	3.6	6.6	-21.1	0.01	-0.63	70.7	-0.56	-0.00	0.20	0.02
I-2R6-A	640	641	642	6.8	12.6	16.4	16.5	6.7	0.61	0.38	84.1	0.39	0.61	0.02	0.02
I-2R6-B	643	644	645	9.4	17.8	26.7	26.7	9.4	0.97	0.57	-89.1	0.97	0.97	-0.01	0.03
I-2R6-C	646	647	648	-3.4	18.1	36.8	36.9	-3.4	1.18	0.25	88.1	0.25	1.16	0.03	0.02
I-2R6-D	649	650	651	2.8	9.2	17.9	18.0	2.7	0.62	0.27	-85.6	0.27	0.62	-0.03	0.02
I-2R6-E	652	653	654**	3.9	5.2	0.0	5.7	-1.8	0.17	-0.00	29.3	0.13	0.04	0.07	0.01
I-2R6-F	655	656	657	0.3	0.1	1.0	1.3	0.0	0.04	0.01	-61.8	0.02	0.04	-0.01	0.01
I-2R6-G	658	659	660	-8.5	-4.2	0.7	0.7	-8.5	-0.06	-0.27	-88.0	-0.27	-0.06	-0.01	0.02
I-2R6-H	661	662	663	-16.2	-8.1	1.7	1.8	-16.2	-0.10	-0.52	-87.2	-0.52	-0.10	-0.02	0.01
I-2R6-J	664	665	666	-22.1	-10.2	3.6	3.7	-22.1	-0.10	-0.49	-87.8	-0.69	-0.10	-0.02	0.01
I-2R6-K	667	668	669	-27.2	-12.9	4.2	4.2	-27.2	-0.13	-0.86	-87.5	-0.85	-0.13	-0.03	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

IHC0021 STOP 0

COMBUSTION 1-13, LOAD CASE 10, F2X

NOMINAL LOAD = 1.594E 05

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
0-1R1-A	3	2	1	15.2	9.5	1.2	15.3	1.1	0.51	0.19	-84.8	0.19	0.51	-0.03	0.07
0-1R1-B	6	5	4	13.6	12.7	10.1	13.8	9.9	0.55	0.46	-76.9	0.47	0.55	-0.02	0.08
0-1R1-C	9	8	7	2.9	6.8	8.4	8.7	2.7	0.31	0.17	-11.0	0.31	0.18	-0.01	0.02
0-1R1-D	12	11	10	-9.0	-3.2	6.4	6.6	-9.3	0.13	-0.24	7.0	0.12	-0.23	0.04	0.06
0-1R1-E	15	14	13	-13.7	-6.0	3.6	3.6	-13.7	-0.02	-0.42	3.1	-0.02	-0.42	0.02	0.03
0-1R1-F	18	17	16	-15.0	-6.4	8.0	8.4	-15.4	0.12	-0.42	7.1	0.12	-0.42	0.07	0.05
0-1R1-G	21	20	19	-12.6	-4.8	9.7	10.2	-13.1	0.21	-0.33	8.5	0.20	-0.32	0.06	0.08
0-1R1-H	24	23	22	-16.5	-6.5	9.9	10.2	-16.9	0.17	-0.46	6.8	0.16	-0.45	0.07	0.03
0-1R1-I	27	26	25	-17.4	-8.3	8.2	8.7	-17.4	0.11	-0.50	8.1	0.10	-0.49	0.04	0.04
0-1R1-K	30	29	28	-22.2	-10.8	7.6	8.0	-22.6	0.04	-0.66	6.7	0.03	-0.66	0.08	0.05
0-1R1-L	162	161	160	-22.7	-5.9	10.8	10.8	-22.7	0.13	-0.64	-0.1	0.13	-0.64	-0.00	0.05
0-1R1-M	165	164	163	-25.2	-7.8	9.9	9.9	-25.2	0.08	-0.73	0.3	0.08	-0.73	0.00	0.04
0-1R1-N	168	167	166	-29.1	-9.2	8.5	8.5	-29.1	-0.01	-0.87	-1.6	-0.01	-0.87	-0.02	0.03
0-1R1-U	171	170	169	-30.0	-13.9	10.2	10.6	-30.4	0.05	-0.90	5.6	0.04	-0.89	0.04	0.04
0-1R2-A	33	32	31**	11.0	1.8	0.0	12.1	-1.1	0.32	0.08	73.2	0.11	0.36	0.08	0.07
0-1R2-B	36	35	34	4.1	5.6	5.6	5.9	3.8	0.23	0.18	-22.5	0.23	0.19	-0.02	0.04
0-1R2-C	39	38	37	-8.0	11.7	6.7	13.8	-15.7	0.30	-0.38	-29.4	0.14	-0.22	-0.29	0.05
0-1R2-D	42	41	40	-19.6	11.5	4.4	15.0	-30.2	0.20	-0.85	-28.9	-0.05	-0.60	-0.44	0.04
0-1R2-E	45	44	43	-18.9	12.8	-0.8	14.5	-32.2	0.14	-0.94	-34.1	-0.21	-0.63	-0.52	0.03
0-1R2-F	48	47	46	-24.5	6.1	6.1	12.4	-30.9	0.10	-0.96	-22.5	-0.04	-0.75	-0.35	0.06
0-1R2-G	51	50	49	-21.3	7.5	4.4	12.0	-21.4	0.12	-0.79	-25.2	-0.04	-0.62	-0.35	0.05
0-1R2-H	54	53	52	-24.4	1.3	8.6	11.0	-26.8	0.10	-0.78	-14.6	0.04	-0.72	-0.21	0.05
0-1R2-J	57	56	55	-26.5	-2.0	6.7	8.5	-28.2	-0.00	-0.85	-12.7	-0.04	-0.81	-0.16	0.05
0-1R2-K	60	59	58	-24.5	-10.9	8.2	8.4	-24.7	0.03	-0.72	4.7	0.03	-0.73	0.06	0.06
0-1R3-A	63	62	61	-5.3	-5.3	6.1	8.4	-7.6	0.20	-0.17	22.5	0.15	-0.11	0.13	0.06
0-1R3-B	66	65	64	-9.9	-1.4	3.1	3.4	-10.1	0.01	-0.30	-8.5	0.00	-0.29	-0.05	0.05
0-1R3-C	69	68	67	-12.9	8.6	2.4	11.0	-24.8	0.12	-0.71	-29.8	-0.09	-0.50	-0.36	0.05
0-1R3-D	72	71	70	-21.6	16.4	-6.3	17.3	-45.2	0.12	-1.32	-38.0	-0.42	-0.77	-0.70	0.06
0-1R3-E	75	74	73	-18.7	17.2	-12.4	17.6	-49.1	0.09	-1.45	-24.5	-0.61	-0.77	-0.77	0.05
0-1R3-F	78	77	76	-20.9	7.4	-4.1	9.1	-34.2	-0.04	-1.04	-33.6	-0.34	-0.73	-0.46	0.04
0-1R3-G	81	80	79	-21.6	6.0	-2.9	8.0	-32.5	-0.07	-1.03	-12.4	-0.34	-0.75	-0.43	0.06
0-1R3-H	84	83	82	-25.0	3.8	-1.6	7.4	-34.0	-0.09	-1.05	-27.8	-0.30	-0.84	-0.39	0.04
0-1R3-J	87	86	85	-31.5	-4.6	4.2	6.4	-33.7	-0.12	-1.05	-13.5	-0.17	-1.00	-0.21	0.05
0-1R3-K	90	89	88	-29.7	-11.9	6.9	6.9	-29.7	-0.07	-0.91	0.8	-0.07	-0.91	0.01	0.03
0-1R4-A	681	680	679	-14.4	14.2	-15.8	14.2	-44.1	0.03	-1.31	-45.8	-0.66	-0.62	-0.67	0.04
0-1R4-B	93	92	91	-16.7	8.3	-9.3	8.6	-34.6	-0.06	-1.05	-40.1	-0.47	-0.64	-0.49	0.05
0-1R4-C	96	95	94	-17.7	8.4	-9.1	8.8	-35.7	-0.06	-1.09	-39.5	-0.48	-0.67	-0.50	0.06
0-1R4-D	99	98	97	-26.8	5.9	-12.2	7.0	-46.1	-0.23	-1.45	-37.0	-0.67	-1.01	-0.59	0.06
0-1R5-A	102	101	100	-11.3	-5.2	5.0	5.3	-11.5	0.06	-0.33	7.2	0.05	-0.32	0.05	0.02
0-1R5-B	105	104	103	-13.2	-6.3	6.0	6.0	-13.2	-0.13	-0.43	1.2	-0.13	-0.43	0.01	0.03
0-1R5-C	108	107**	106	-16.1	0.0	-2.4	2.3	-26.7	-0.13	-0.66	-26.7	-0.24	-0.55	-0.21	0.05
0-1R5-D	111	110	109	-17.2	9.2	-7.0	9.9	-34.1	-0.01	-1.03	-38.3	-0.40	-0.64	-0.41	0.06
0-1R5-E	114	113	112	-12.5	7.2	-18.0	7.4	-37.8	-0.13	-1.17	-48.5	-0.72	-0.59	-0.52	0.03
0-1R5-F	117	116	115	-8.4	3.3	-15.6	3.7	-27.7	-0.15	-0.88	-51.7	-0.60	-0.43	-0.35	0.05
0-1R5-G	120	119	118	-7.5	4.0	-13.3	4.3	-25.1	-0.11	-0.79	-50.7	-0.51	-0.38	-0.33	0.03
0-1R5-H	123	122	121	-7.5	4.3	-12.3	4.5	-24.4	-0.09	-0.76	-49.0	-0.48	-0.37	-0.33	0.07
0-1R5-J	126	125	124	-2.9	7.0	-16.8	8.4	-28.1	-0.00	-0.84	-56.2	-0.58	-0.26	-0.39	0.06
0-1R5-K	129	128	127	-1.9	6.4	-20.1	8.7	-30.6	-0.02	-0.92	-58.8	-0.68	-0.26	-0.40	0.04
0-1R6-A	132	131	130	-14.1	-8.0	6.5	7.4	-14.9	0.10	-0.42	11.2	0.08	-0.40	0.10	0.02
0-1R6-B	135	134	133	-13.5	-8.6	-1.2	-1.1	-13.7	-0.17	-0.46	6.5	-0.17	-0.46	0.03	0.07

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI				TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
0-1R6-C	138	137	136	-11.0	-11.1	-8.4	-7.8	-11.6	-0.37	-0.46	22.8	-0.39	-0.45	0.03	0.07
0-1R6-D	141	140	139	-6.8	-10.9	-13.7	-6.7	-13.8	-0.36	-0.52	84.8	-0.52	-0.36	0.01	0.04
0-1R6-E	144	143	142	-4.7	-10.4	-19.3	-4.6	-19.4	-0.34	-0.62	-85.3	-0.68	-0.35	-0.03	0.04
0-1R6-F	147	146	145	-2.0	-10.4	-20.1	-2.0	-20.1	-0.26	-0.68	-87.8	-0.68	-0.26	-0.02	0.00
0-1R6-G	150	149	148	0.3	-10.4	-20.7	0.3	-20.7	-0.20	-0.68	89.6	-0.68	-0.20	0.00	0.06
0-1R6-H	153	152	151	3.7	-7.6	-18.9	3.7	-18.9	-0.07	-0.59	89.5	-0.59	-0.07	0.00	0.04
0-1R6-J	156	155	154	5.3	-8.1	-23.8	5.3	-23.8	-0.06	-0.73	-88.1	-0.73	-0.06	-0.02	0.05
0-1R6-K	154	158	157	7.8	-9.7	-27.1	7.8	-27.1	-0.01	-0.82	89.8	-0.82	-0.01	0.00	0.11
0-2R1-A	171	173	172	14.4	11.4	1.2	15.3	0.3	0.51	0.16	-75.6	0.18	0.49	-0.08	0.02
0-2R1-B	177	176	175	12.9	12.1	9.2	13.2	8.9	0.52	0.42	-74.3	0.43	0.51	-0.03	0.05
0-2R1-C	180	179	178	1.1	7.3	10.3	10.7	0.9	0.36	0.14	-8.9	0.36	0.14	-0.03	0.05
0-2R1-D	183	182	181	-0.6	-1.9	3.6	3.6	-8.6	0.03	-0.25	-3.1	0.03	-0.25	-0.02	0.04
0-2R1-E	186	185	184	-14.6	-4.9	2.4	2.5	-14.6	-0.06	-0.44	-4.0	-0.07	-0.44	-0.03	0.05
0-2R1-F	189	188	187	-15.4	-5.1	7.6	7.7	-15.5	0.10	-0.43	3.1	0.10	-0.43	0.03	0.04
0-2R1-G	192	191	190	-16.0	-4.2	14.1	14.5	-16.3	0.32	-0.40	6.2	0.31	-0.39	0.04	0.08
0-2R1-H	195	194	193	-18.0	-5.0	7.6	7.6	-18.0	0.07	-0.52	-0.3	0.07	-0.52	-0.00	0.03
0-2R1-J	198	197	196	-18.0	-4.9	8.3	8.3	-18.0	0.10	-0.51	0.2	0.10	-0.51	0.00	0.02
0-2R1-K	201	200	199	-20.5	-6.3	10.6	11.0	-20.9	0.16	-0.58	6.0	0.15	-0.57	0.06	0.04
0-2R1-L	203	202	201	-23.1	-7.4	13.1	13.3	-23.2	0.21	-0.64	3.8	0.20	-0.63	0.06	0.05
0-2R1-M	206	205	204	-27.1	-8.9	9.8	9.8	-27.1	0.06	-0.80	0.5	0.06	-0.80	0.01	0.05
0-2R1-N	209	208	207	-26.7	-9.6	11.4	11.4	-26.8	0.12	-0.77	3.0	0.11	-0.77	0.05	0.05
0-2R2-A	204	203	202	8.6	0.5	0.5	10.3	-1.1	0.33	0.06	67.4	0.13	0.29	0.09	0.03
0-2R2-B	207	206	205	9.3	7.4	4.7	9.3	4.6	0.35	0.74	-89.4	0.25	0.35	-0.01	0.10
0-2R2-C	210	209	208	-5.5	11.6	9.2	14.0	-10.3	0.36	-0.10	-26.4	0.25	-0.09	-0.22	0.03
0-2R2-D	213	212	211	-16.1	12.5	5.1	15.7	-28.7	0.23	-0.79	-24.3	-0.01	-0.54	-0.44	0.05
0-2R2-E	216	215	214	-18.2	13.2	-0.9	14.8	-33.9	0.15	-0.97	-34.6	-0.21	-0.61	-0.52	0.04
0-2R2-F	219	218	217	-19.3	4.7	7.7	11.3	-23.0	0.15	-0.64	-18.9	0.06	-0.56	-0.24	0.05
0-2R2-G	222	221	220	-20.6	3.7	3.1	8.4	-25.9	0.02	-0.77	-23.1	-0.10	-0.65	-0.29	0.05
0-2R2-H	225	224	223	-24.7	-1.8	10.4	11.2	-25.5	0.12	-0.73	-8.5	0.10	-0.71	-0.12	0.04
0-2R2-J	228	227	226	-23.8	-3.7	9.3	9.7	-24.2	0.08	-0.70	-6.1	0.07	-0.69	-0.08	0.04
0-2R2-L	231	230	229	-25.6	-8.1	7.8	7.8	-24.6	0.01	-0.73	-0.4	0.01	-0.73	-0.01	0.03
0-2R3-A	234	233	232	-5.0	-5.5	1.4	3.0	-6.7	0.03	-0.19	24.5	-0.00	-0.15	0.08	0.04
0-2R3-B	237	236	235	-6.9	-0.8	4.2	4.3	-6.9	0.07	-0.19	-2.8	0.07	-0.19	-0.01	0.05
0-2R3-C	240	239	238	-13.4	6.8	0.6	9.5	-27.3	0.04	-0.81	-29.4	-0.16	-0.80	-0.36	0.04
0-2R3-D	243	242	241	-20.4	15.4	-3.9	16.6	-30.9	0.14	-1.18	-36.7	-0.33	-0.71	-0.64	0.04
0-2R3-E	246	245	244	-24.0	16.8	-7.2	17.8	-49.0	0.10	-1.44	-37.7	-0.47	-0.86	-0.75	0.03
0-2R3-F	249	248	247	-20.3	6.7	-8.2	7.5	-36.0	-0.11	-1.11	-37.0	-0.47	-0.75	-0.48	0.05
0-2R3-G	252	251	250	-20.8	6.2	-2.6	8.4	-31.8	-0.04	-0.97	-31.5	-0.29	-0.71	-0.41	0.06
0-2R3-H	255	254	253	-26.5	2.6	4.3	9.0	-31.0	-0.01	-0.93	-20.2	-0.12	-0.82	-0.30	0.06
0-2R3-J	258	257	256	-27.8	-2.1	8.9	10.3	-29.3	0.05	-0.86	-11.0	0.02	-0.83	-0.17	0.07
0-2R3-K	261	260	259	-28.8	-12.3	10.2	10.5	-29.0	0.05	-0.85	4.4	0.05	-0.85	0.07	0.06
0-2R4-A	264	263	262	-12.1	15.9	-14.1	16.1	-47.3	0.06	-1.40	-48.2	-0.75	-0.59	-0.73	0.06
0-2R4-B	267	266	265	-14.6	5.7	-10.6	5.7	-29.0	-0.10	-0.90	-43.4	-0.48	-0.52	-0.40	0.04
0-2R4-C	270	269	268	-10.8	9.6	-6.6	9.7	-27.1	0.05	-0.80	-41.8	-0.32	-0.42	-0.42	0.07
0-2R4-D	273	272	271	-13.7	11.5	-2.3	12.0	-30.9	0.09	-0.90	-39.3	-0.31	-0.50	-0.48	0.04
0-2R5-A	276	275	274	-11.7	-5.3	2.4	2.7	-11.7	-0.04	-0.36	2.7	-0.04	-0.36	0.02	0.03
0-2R5-B	279	278	277	-13.8	-4.8	-0.1	0.2	-14.1	-0.13	-0.46	-8.7	-0.14	-0.46	-0.05	0.05
0-2R5-C	282	281	280	-9.3	2.4	-10.0	2.4	-21.7	-0.14	-0.69	-45.8	-0.42	-0.41	-0.28	0.06
0-2R5-D	285	284	283	-16.3	7.4	-7.2	7.9	-31.5	-0.05	-0.96	-38.3	-0.40	-0.61	-0.44	0.05
0-2R5-E	288	287	286	-10.0	7.1	-16.9	7.4	-34.3	-0.10	-1.06	-49.8	-0.66	-0.50	-0.47	0.06
0-2R5-F	291	290	289	-9.9	1.5	-13.2	1.6	-25.8	-0.19	-0.80	-48.6	-0.53	-0.46	-0.30	0.07
0-2R5-G	294	293	292	-6.3	6.1	-14.7	6.7	-27.6	-0.05	-0.84	-52.1	-0.55	-0.35	-0.36	0.03
0-2R5-H	297	296	295	-3.8	3.5	-14.8	4.7	-23.2	-0.08	-0.72	-56.6	-0.52	-0.27	-0.30	0.06
0-2R5-J	299	298	297	-7.3	5.8	-14.3	6.2	-27.8	-0.07	-0.86	-50.9	-0.54	-0.38	-0.38	0.06
0-2R5-K	302	301	300	-2.5	8.7	-9.8	9.1	-21.4	0.09	-0.61	-51.9	-0.35	-0.18	-0.34	0.04
0-2R6-A	303	302	301	-13.7	-1.7	5.9	6.1	-14.0	0.06	-0.40	-6.5	0.06	-0.39	-0.05	0.08

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI				IAU	CONF.
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
U-2R6-B	306	305	304	-13.4	-8.6	-2.1	-2.0	-13.4	-0.20	-0.46	4.4	-0.20	-0.46	0.02	0.04
U-2R6-C	309	308	307	-10.5	-11.4	-11.1	-10.2	-11.5	-0.45	-0.46	60.0	-0.47	-0.46	0.04	0.08
U-2R6-D	312	311	310	-8.3	-13.2	-15.1	-7.9	-15.4	-0.41	-0.59	77.9	-0.58	-0.42	0.04	0.02
U-2R6-E	315	314	313	-3.8	-10.3	-19.3	-3.7	-14.4	-0.31	-0.69	-85.4	-0.67	-0.32	-0.03	0.04
U-2R6-F	318	317	316	-3.7	-9.6	-18.2	-3.6	-18.3	-0.39	-0.64	-84.8	-0.64	-0.30	-0.03	0.06
U-2R6-G	321	320	319	0.4	-8.9	-19.4	0.4	-19.5	-0.18	-0.64	-88.3	-0.64	-0.18	-0.01	0.07
U-2R6-H	324	323	322	3.4	-10.2	-19.7	3.6	-20.0	-0.08	-0.62	84.2	-0.62	-0.08	0.05	0.07
U-2R6-J	327	326	325	4.9	-7.9	-21.4	4.9	-21.5	-0.05	-0.66	-89.1	-0.66	-0.05	-0.01	0.04
U-2R6-K	330	329	328	8.2	-3.1	-17.3	8.3	-17.4	0.10	-0.49	-96.8	-0.49	0.10	-0.03	0.02
I-1R1-A	340	341	342	-11.8	-14.2	-23.0	-11.0	-23.4	-0.60	-0.90	15.1	-0.62	-0.88	0.07	0.05
I-1R1-B	343	344	345	-5.7	-20.7	-48.0	-5.7	-48.0	-0.66	-1.64	0.2	-0.66	-1.64	0.02	0.07
I-1R1-C	346	347	348	8.4	-34.4	-72.2	8.5	-72.3	-0.43	-2.30	-1.8	-0.44	-2.30	-0.06	0.05
I-1R1-D	349	350	351	15.9	-36.3	-76.5	16.6	-77.2	-0.22	-2.38	-3.9	-0.23	-2.37	-0.18	0.04
I-1R1-E	352	353	354	4.4	-25.6	-56.0	4.5	-56.1	-0.41	-1.80	2.0	-0.41	-1.80	0.05	0.08
I-1R1-F	355	356	357	5.0	-21.1	-41.9	5.8	-42.1	-0.23	-1.33	-3.5	-0.23	-1.33	-0.07	0.06
I-1R1-G	358	359	360	10.6	-16.0	-38.9	10.7	-38.9	-0.03	-1.18	-2.2	-0.03	-1.18	-0.04	0.05
I-1R1-H	361	362	363	10.6	-11.6	-36.8	10.7	-36.9	-0.01	-1.11	1.8	-0.01	-1.11	0.03	0.06
I-1R1-I	364	365	366	10.3	-13.1	-36.9	10.3	-36.9	-0.02	-1.11	0.2	-0.02	-1.11	0.00	0.07
I-1R1-J	367	368	369	10.3	-9.2	-32.2	10.4	-32.3	0.02	-0.96	2.3	0.02	-0.96	0.04	0.05
I-1R1-L	499	500	501	11.8	-15.4	-37.2	11.9	-37.4	0.02	-1.11	-3.1	0.02	-1.11	-0.06	0.07
I-1R1-M	502	503	504	10.8	-11.5	-36.0	10.8	-36.0	-0.00	-1.08	1.2	-0.00	-1.08	0.03	0.06
I-1R1-N	505**	506	507	0.0	-14.9	-37.0	0.4	-37.3	-0.36	-1.23	5.5	-0.37	-1.22	0.06	0.06
I-1R1-O	508	509	510	11.3	-11.9	-32.2	11.4	-32.3	0.06	-0.95	-2.0	0.06	-0.95	-0.03	0.02
I-1R2-A	370	371	372	-7.7	-4.2	-17.0	-6.7	-18.0	-0.40	-0.66	17.1	-0.42	-0.64	0.07	0.07
I-1R2-B	373	374	375	-8.1	-15.9	-33.1	-7.2	-33.9	-0.57	-1.19	19.3	-0.59	-1.17	0.11	0.06
I-1R2-C	376	377	378**	9.6	-25.9	0.0	35.8	-26.2	0.42	-0.51	-40.6	0.32	0.09	-0.71	0.04
I-1R2-D	379	380	381	-17.4	14.7	-32.4	15.4	-65.2	-0.14	-2.00	39.6	-0.89	-1.44	0.91	0.02
I-1R2-E	382	383	384	-3.2	5.8	-31.5	9.8	-44.4	-0.12	-1.37	29.2	-0.42	-1.07	0.53	0.04
I-1R2-F	385	386	387	3.9	1.3	-27.2	8.6	-31.9	-0.03	-0.97	19.9	-0.14	-0.80	0.30	0.08
I-1R2-G	388	389	390	5.0	0.9	-26.9	8.9	-30.8	-0.01	-0.93	18.4	-0.10	-0.84	0.27	0.06
I-1R2-H	391	392	393	3.0	-1.6	-24.9	5.9	-27.8	-0.08	-0.86	16.9	-0.15	-1.72	0.22	0.06
I-1R2-I	394	395	396	7.8	-6.1	-27.0	8.2	-27.3	-0.00	-0.82	5.6	-0.01	-0.81	0.08	0.04
I-1R2-K	397	398	399	6.3	-13.4	-25.9	6.6	-26.3	-0.04	-0.80	-6.3	-0.02	-0.79	-0.08	0.02
I-1R3-A	400	401	402	-3.0	5.3	1.2	5.6	-7.4	0.11	-0.14	54.6	-0.09	0.01	0.14	0.05
I-1R3-B	403	404	405	4.1	-1.0	-0.8	5.3	-2.0	0.15	-0.01	-23.8	0.13	-0.01	-0.06	0.05
I-1R3-C	406	407	408	7.4	-8.1	-5.6	12.0	-10.2	0.29	-0.22	-27.2	0.19	-0.11	-0.21	0.05
I-1R3-E	409	410	411	1.2	8.6	-10.9	9.9	-19.6	0.13	-0.55	32.8	-0.07	-0.35	0.31	0.04
I-1R3-F	412	413	414	1.3	14.5	-7.6	15.0	-21.4	0.28	-0.56	37.9	-0.03	-0.24	0.41	0.03
I-1R3-G	418	419	420	-9.6	7.6	-2.3	8.1	-19.9	0.07	-0.58	52.6	-0.34	-0.17	0.31	0.02
I-1R3-H	421	422	423	-1.9	6.0	-12.6	7.0	-21.5	0.02	-0.64	34.0	-0.19	-0.43	0.21	0.07
I-1R3-I	424	425	426	0.1	4.0	-15.0	6.3	-21.3	-0.00	-0.64	28.4	-0.15	-0.49	0.27	0.07
I-1R3-K	427	428	429	6.7	-9.8	-22.8	6.8	-22.9	-0.00	-0.69	-3.4	-0.00	-0.68	-0.04	0.05
I-1R4-A	430	431	432	4.1	15.6	-4.4	14.5	-14.8	0.33	-0.34	36.5	0.09	-0.10	0.32	0.03
I-1R4-B	433	434	435	-7.6	9.7	2.3	10.7	-16.0	0.19	-0.52	55.8	-0.23	-0.00	0.29	0.04
I-1R4-C	436	437	438	-14.6	11.0	-2.5	11.9	-29.0	0.11	-0.84	53.6	-0.51	-0.23	0.43	0.05
I-1R4-D	439**	440**	441**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-1R5-A	442	443	444	2.8	11.4	13.5	14.4	1.8	0.49	0.20	74.2	0.23	0.47	0.08	0.02
I-1R5-B	445	446	447	7.3	10.2	21.0	22.0	6.2	0.79	0.42	-72.2	0.45	0.74	-0.09	0.06
I-1R5-C	448	449	450	0.5	14.0	27.5	27.5	0.5	0.91	0.29	-90.0	0.29	0.91	-0.00	0.02
I-1R5-E	451	452	453	0.7	12.7	14.9	16.5	-0.9	0.53	0.13	72.6	0.17	0.50	0.11	0.05
I-1R5-F	454	455	456	4.3	13.6	6.4	13.7	-3.0	0.42	0.04	48.7	0.20	0.23	0.19	0.04
I-1R5-G	457	458	459	0.2	8.4	1.2	8.4	-7.0	0.21	-0.12	47.0	0.02	0.04	0.18	0.02
I-1R5-H	460**	461	462	-11.9	2.4	1.7	5.0	-15.2	0.01	-0.45	66.1	-0.37	-0.06	0.17	0.04
I-1R5-I	463**	464	465	0.0	3.3	2.5	3.7	-1.1	0.11	-0.00	60.8	0.02	0.08	0.05	0.04
I-1R5-J	466	467	468	-20.7	0.9	3.9	7.0	-23.8	-0.00	-0.72	71.5	-0.64	-0.08	0.21	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICRGINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-1R5-A	460**	467**	468**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-1R6-A	469	470**	471	6.0	0.0	14.0	21.5	-0.9	0.70	0.18	-56.3	0.34	0.54	-0.24	0.05
I-1R6-B	472	473	474	10.2	20.5	27.2	27.4	10.1	1.00	0.60	04.1	0.61	1.00	0.07	0.03
I-1R6-C	475	476	477	-4.9	17.7	39.4	39.4	-4.9	1.25	0.23	89.3	0.23	1.25	0.01	0.04
I-1R6-L	478	479	480	2.2	10.0	19.5	19.5	2.1	0.66	0.20	-87.4	0.26	0.65	-0.02	0.07
I-1R6-L	481	482	483	2.1	5.0	8.2	8.2	2.1	0.29	0.15	86.8	0.15	0.29	0.01	0.04
I-1R6-F	485	486	487	-0.7	-1.1	1.5	2.1	-1.4	0.06	-0.03	-63.5	-0.01	0.04	-0.03	0.07
I-1R6-G	487	488	489	-7.8	-4.1	-2.8	-2.5	-8.0	-0.16	-0.29	77.2	-0.28	-0.17	0.03	0.08
I-1R6-H	490	491	492	-16.7	-9.9	0.5	0.7	-16.9	-0.14	-0.55	-84.0	-0.55	-0.15	-0.04	0.05
I-1R6-J	493	494	495	-21.9	-6.6	2.1	2.5	-22.4	-0.14	-0.71	82.3	-0.70	-0.15	0.08	0.03
I-1R6-K	496**	497**	498**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2K1-A	511	512	513	-11.2	-16.8	-21.9	-11.2	-21.9	-0.59	-0.83	-1.1	-0.59	-0.83	-0.60	0.04
I-2K1-B	514	515	516	-12.6	-32.0	-45.1	-12.2	-45.5	-0.85	-1.62	-5.5	-0.86	-1.61	-0.07	0.04
I-2K1-L	517	518	519	7.3	-37.5	-72.5	7.6	-72.8	-0.47	-2.32	-3.5	-0.48	-2.32	-0.11	0.05
I-2K1-D	520	521	522	13.4	-28.6	-72.4	13.4	-72.4	-0.27	-2.25	0.6	-0.27	-2.25	0.02	0.06
I-2K1-E	523	524	525	5.4	-25.3	-51.8	5.4	-51.8	-0.33	-1.66	-0.1	-0.33	-1.66	-0.00	0.04
I-2K1-F	526	527	528	6.3	-19.0	-41.0	6.3	-41.8	-0.21	-1.32	-1.5	-0.21	-1.32	-0.03	0.07
I-2K1-G	529	530	531	11.2	-15.7	-38.9	11.3	-39.0	-0.01	-1.17	-2.2	-0.01	-1.17	-0.04	0.07
I-2K1-H	532	533	534	12.8	-12.4	-33.8	13.3	-33.2	0.10	-1.00	-5.7	0.09	-0.92	-0.11	0.03
I-2K1-J	535	536	537	13.0	-13.4	-36.5	13.0	-36.6	0.07	-1.08	-1.9	0.07	-1.08	-0.04	0.07
I-2K1-K	538	539	540	10.8	-11.3	-34.0	10.8	-34.0	0.02	-1.01	0.1	0.02	-1.01	0.00	0.07
I-2K1-L	672	671	670	-30.5	-8.3	10.6	10.6	-30.5	0.05	-0.90	-2.3	0.05	-0.90	-0.04	0.04
I-2K1-M	673	674	675	-32.3	-14.2	14.4	14.8	-32.8	0.15	-0.97	5.5	0.14	-0.96	0.11	0.05
I-2K1-N	676	677	678	-32.0	-11.0	12.3	12.4	-32.0	0.09	-0.93	1.5	0.09	-0.93	0.03	0.07
I-2K2-A	541	542*	543	-7.2	0.0	-14.2	0.0	-21.9	-0.20	-0.72	36.0	-0.38	-0.54	0.25	0.08
I-2K2-B	544	545	546	-6.1	-10.6	-27.7	-6.1	-27.7	-0.48	-0.97	0.7	-0.48	-0.97	0.01	0.06
I-2K2-C	547	548	549	12.0	-25.1	-48.4	12.6	-49.0	-0.07	-1.49	-5.5	-0.08	-1.48	-0.14	0.06
I-2K2-D	550	551	552	11.0	-10.6	-52.2	13.0	-53.6	-0.10	-1.64	8.3	-0.13	-1.61	0.22	0.06
I-2K2-L	553	554	555	3.1	2.7	-33.5	10.4	-40.8	-0.06	-1.24	22.2	-0.23	-1.07	0.41	0.09
I-2K2-F	556	557	558	1.6	1.8	-28.7	8.0	-35.2	-0.08	-1.08	22.7	-0.23	-0.93	0.35	0.04
I-2K2-G	559	560	561	1.0	1.9	-24.4	7.3	-29.8	-0.06	-0.91	22.5	-0.18	-0.79	0.30	0.03
I-2K2-H	562	563	564	4.8	-5.0	-24.6	5.6	-25.4	-0.07	-0.78	9.2	-0.09	-0.76	0.11	0.05
I-2K2-J	565	566	567	5.7	-6.3	-25.1	6.1	-25.5	-0.05	-0.78	6.3	-0.06	-0.77	0.08	0.03
I-2K2-K	568	569	570	6.3	-9.8	-27.0	6.3	-27.0	-0.06	-0.83	1.0	-0.06	-0.83	0.01	0.05
I-2K3-A	571	572	573	-1.2	3.2	1.3	3.5	-3.4	0.06	-0.08	55.6	-0.03	0.03	0.07	0.03
I-2K3-B	574	575	576	1.7	-0.5	-4.1	1.8	-4.2	0.02	-0.12	6.3	0.02	-0.12	0.02	0.04
I-2K3-C	577	578	579	9.3	-10.0	-8.0	14.4	-13.1	0.34	-0.29	-25.5	0.23	-0.17	-0.25	0.03
I-2K3-D	580	581	582	-1.2	11.3	-8.0	11.7	-20.8	0.18	-0.57	38.9	-0.12	-0.28	0.37	0.03
I-2K3-E	583	584	585	-3.7	15.4	-1.8	15.4	-21.0	0.30	-0.54	46.5	-0.14	-0.10	0.42	0.04
I-2K3-F	586	587	588	-2.4	12.4	-4.2	12.4	-19.1	0.22	-0.51	43.4	-0.12	-0.16	0.36	0.03
I-2K3-G	589	590	591	-6.1	6.1	-3.4	6.2	-15.7	0.05	-0.46	48.5	-0.24	-0.17	0.25	0.05
I-2K3-H	592	593	594	-2.6	7.8	-7.2	8.0	-17.8	0.09	-0.51	39.8	-0.16	-0.26	0.29	0.04
I-2K3-J	595	596	597	-0.1	4.2	-14.6	6.3	-21.0	-0.00	-0.63	29.0	-0.15	-0.48	0.27	0.02
I-2K3-K	598	599	600	6.0	-6.2	-20.3	6.1	-20.3	-0.00	-0.61	2.0	-0.00	-0.61	0.02	0.05
I-2K4-A	686	689	690	0.6	15.7	1.6	15.9	-7.8	0.45	-0.19	38.8	0.25	0.12	0.27	0.04
I-2K4-B	601	602	603	-9.6	7.1	1.1	8.3	-16.8	0.11	-0.47	57.7	-0.31	-0.06	0.26	0.05
I-2K4-L	604	605	606	-17.7	7.9	-5.8	8.8	-32.3	-0.03	-0.98	53.4	-0.64	-0.37	0.45	0.05
I-2K4-D	607	608	609	-17.4	8.8	-10.7	9.0	-37.2	-0.07	-1.14	49.2	-0.68	-0.53	0.53	0.04
I-2K5-A	610	611	612	6.2	10.9	10.5	11.7	5.0	0.43	0.28	64.8	0.31	0.41	0.06	0.05
I-2K5-B	613	614	615	7.1	11.5	21.0	22.2	6.5	0.80	0.43	-79.2	0.45	0.70	-0.07	0.08
I-2K5-C	616	617	618	0.4	11.7	24.0	24.0	0.4	0.80	0.25	-88.7	0.25	0.80	-0.01	0.07
I-2K5-D	619	620	621	-1.9	10.1	16.9	17.3	-2.3	0.55	0.10	82.2	0.10	0.54	0.06	0.03
I-2K5-E	622	623	624	-0.2	11.5	6.3	12.2	-6.1	0.34	-0.08	52.3	0.06	0.20	0.20	0.03
I-2K5-F	625	626	627	-1.2	6.7	1.7	8.8	-8.3	0.21	-0.19	49.8	-0.02	0.04	0.19	0.03
I-2K5-G	628	629	630	-9.7	4.6	1.9	6.4	-14.2	0.07	-0.41	62.1	-0.30	-0.03	0.20	0.04
I-2K5-H	631	632	633	-18.0	2.8	1.8	6.7	-22.8	-0.01	-0.69	66.1	-0.57	-0.12	0.25	0.06

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH								STRESS - KSI			
	(1)	(2)	(3)	E(1)	E(2)	(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CORF
I-2K5-J	634	635	636	-25.6	0.3	5.6	8.7	-21.6	0.00	-0.86	73.4	-0.79	-0.07	0.24	0.04
I-2K5-K	637	638	639	-25.0	1.5	1.9	7.2	-30.2	-0.06	-0.93	68.0	-0.80	-0.18	0.30	0.04
I-2K6-A	640	641	642	7.0	14.3	16.0	16.8	6.2	0.61	0.37	73.8	0.39	0.60	0.07	0.05
I-2K6-B	643	644	645	9.9	14.3	28.4	29.5	8.8	1.06	0.58	-76.8	0.61	1.03	-0.11	0.06
I-2K6-C	646	647	648	-3.4	17.9	39.2	39.2	-3.4	1.26	0.27	90.0	0.27	1.26	0.00	0.04
I-2K6-D	649	650	651	3.3	9.3	21.4	21.8	2.8	0.75	0.31	-80.8	0.32	0.74	-0.07	0.04
I-2K6-E	652	653	654**	2.4	4.4	0.0	5.9	-0.5	0.19	0.04	16.2	0.18	0.05	0.04	0.06
I-2K6-F	655	656	657	-2.2	-0.4	1.6	1.6	-2.2	0.03	-0.06	-88.7	-0.06	0.03	-0.00	0.03
I-2K6-G	658	659	660	-12.2	-10.8	0.1	1.7	-13.8	-0.08	-0.44	-71.3	-0.40	-0.12	-0.11	0.05
I-2K6-H	661	662	663	-19.7	-10.1	1.2	1.3	-19.7	-0.15	-0.64	-87.5	-0.64	-0.15	-0.02	0.05
I-2K6-J	664	665	666	-26.4	-10.1	5.3	5.3	-26.5	-0.09	-0.82	89.2	-0.82	-0.09	0.01	0.04
I-2K6-K	667	668	669	-34.3	-15.5	4.4	4.4	-34.3	-0.19	-1.09	-89.2	-1.09	-0.19	-0.01	0.05

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

COMBUSTION T-13, LOAD CASE II, F2Y

NOMINAL LOAD = 4.557E 03

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CORF	
O-1R1-A	3	2	1	14.4	8.8	6.3	14.7	6.0	0.54	0.34	79.3	0.35	0.54	0.04	0.05	
O-1R1-B	6	5	4	10.8	9.6	10.8	12.0	9.6	0.49	0.44	44.2	0.46	0.46	0.03	0.05	
O-1R1-C	9	8	7	3.1	8.8	9.7	10.5	2.3	0.37	0.16	-18.1	0.35	0.20	-0.06	0.06	
O-1R1-D	12	11	10	-7.5	1.8	4.4	5.3	-8.3	0.09	-0.22	-14.6	0.07	-0.20	-0.08	0.03	
O-1R1-E	15	14	13	-12.8	-2.9	2.9	3.2	-13.1	-0.02	-0.50	-7.5	-0.03	-0.39	-0.05	0.04	
O-1R1-F	18	17	16	-10.7	-1.4	4.2	4.4	-10.9	0.04	-0.32	-6.9	0.03	-0.31	-0.04	0.05	
O-1R1-G	21	20	19	-5.8	-2.0	5.3	5.6	-6.1	0.12	-0.15	8.5	0.12	-0.14	-0.04	0.03	
O-1R1-H	24	23	22	-5.6	1.5	4.1	4.6	-6.1	0.09	-0.16	-12.3	0.08	-0.14	-0.05	0.03	
O-1R1-J	27	26	25	-3.0	0.8	2.9	3.1	-3.1	0.07	-0.07	-7.9	0.07	-0.07	-0.02	0.02	
O-1R1-K	30	29	28	0.3	2.8	0.6	2.8	-1.9	0.08	-0.03	3.1	0.02	0.02	-0.05	0.03	
O-1R1-L	162	161	160	9.7	4.0	-5.1	9.9	-5.3	0.27	-0.08	-83.4	-0.07	0.27	-0.04	0.03	
O-1R1-M	165	164	163	18.0	6.4	-6.8	18.0	-6.8	0.53	-0.05	-88.1	-0.05	0.53	-0.02	0.03	
O-1R1-N	168	167	166	21.8	9.4	-10.3	22.2	-10.7	0.63	-0.13	-83.6	-0.12	0.62	-0.08	0.02	
O-1R1-O	171	170	169	25.2	9.2	-11.0	25.3	-11.2	0.72	-0.12	-86.7	-0.11	0.72	-0.05	0.04	
U-1R2-A	33	32	31	10.1	4.3	3.1	10.8	2.4	0.28	0.19	73.1	0.20	0.36	0.05	0.06	
U-1R2-B	36	35	34	5.2	8.9	9.2	9.8	4.5	0.37	0.25	-20.4	0.35	0.26	-0.04	0.05	
U-1R2-C	39	38	37	-8.7	12.6	8.5	15.2	-13.3	0.35	-0.36	-27.9	0.19	-0.20	-0.29	0.02	
U-1R2-D	42	41	40	-19.1	13.0	5.9	16.6	-29.9	0.25	-0.82	-28.7	0.00	-0.57	-0.45	0.03	
U-1R2-E	45	44	43	-17.0	14.6	-0.1	16.1	-33.1	0.20	-0.92	-35.0	-0.17	-0.56	-0.53	0.02	
U-1R2-F	48	47	46	-18.4	7.7	3.9	11.4	-25.9	0.12	-0.74	-26.6	-0.05	-0.57	-0.34	0.03	
U-1R2-G	51	50	49	-11.4	7.1	0.5	8.4	-19.4	0.08	-0.56	-32.3	-0.10	-0.37	-0.29	0.04	
U-1R2-H	54	53	52	-10.3	3.9	2.6	6.3	-13.9	0.07	-0.40	-25.1	-0.02	-0.31	-0.18	0.02	
U-1R2-J	57	56	55	-3.0	2.6	2.4	3.7	-4.3	0.08	-0.10	-23.2	0.05	-0.08	-0.07	0.02	
U-1R2-K	60	59	58	-0.8	2.3	1.4	2.6	-2.0	0.07	-0.04	-30.5	0.04	-0.01	-0.05	0.01	
O-1R3-A	63	62	61	5.5	-3.8	2.4	3.0	-6.1	0.04	-0.17	15.1	0.02	-0.16	0.05	0.05	
O-1R3-B	66	65	64	-10.6	3.1	2.4	5.4	-13.1	0.05	-0.38	-24.0	-0.02	-0.31	-0.16	0.05	
O-1R3-C	69	68	67	-16.6	8.0	1.4	10.4	-25.7	0.09	-0.74	-30.1	-0.12	-0.54	-0.36	0.02	
O-1R3-D	72	71	70	-20.2	16.5	-7.4	17.2	-44.7	0.12	-1.31	-39.0	-0.44	-0.74	-0.70	0.03	
O-1R3-E	75	74	73	-16.7	17.2	-12.4	17.3	-46.4	0.11	-1.36	-43.1	-0.57	-0.67	-0.73	0.03	
O-1R3-F	78	77	76	-17.4	8.1	-6.3	8.9	-33.0	-0.03	-1.00	-37.0	-0.38	-0.65	-0.47	0.03	
O-1R3-G	81	80	79	-15.7	4.6	-6.4	5.3	-27.5	-0.10	-0.85	-36.8	-0.37	-0.58	-0.36	0.05	
U-1R3-H	84	83	82	-13.4	2.7	-1.0	4.5	-18.9	-0.04	-0.58	-28.9	-0.16	-0.45	-0.23	0.03	
O-1R3-J	87	86	85	-10.6	-0.3	0.5	2.2	-12.4	-0.05	-0.39	-20.2	-0.09	-0.34	-0.11	0.04	
U-1R3-K	90	89	88	-2.2	2.2	0.9	2.6	-3.8	0.05	-0.10	-30.6	0.01	-0.06	-0.06	0.03	
O-1R4-A	681	680	679	-14.8	12.4	-16.7	12.4	-43.9	-0.02	-1.33	-46.0	-0.70	-0.65	-0.65	0.00	
O-1R4-B	93	92	91	-14.4	5.0	-9.4	5.2	-29.1	-0.12	-0.91	-40.8	-0.45	-0.57	-0.39	0.03	
O-1R4-C	96	95	94	-13.8	6.5	-7.2	6.8	-27.8	-0.05	-0.85	-39.5	-0.37	-0.53	-0.39	0.05	
O-1R4-D	99	98	97	-11.6	5.1	-6.7	5.3	-23.6	-0.06	-0.73	-40.2	-0.34	-0.45	-0.33	0.04	
O-1R5-A	102	101	100	-13.4	-7.0	1.3	1.4	-13.5	-0.09	-0.43	3.6	-0.09	-0.45	0.02	0.03	
O-1R5-B	105	104	103	-13.0	-5.3	-3.5	-2.7	-13.9	-0.22	-0.48	-16.3	-0.25	-0.46	-0.07	0.00	
O-1R5-C	108	107	106	-18.0	0.7	-3.6	2.5	-24.1	-0.16	-0.77	-28.7	-0.30	-0.63	-0.26	0.05	
U-1R5-D	111	110	109	-16.1	7.4	-10.8	7.5	-34.3	-0.09	-1.06	-41.4	-0.51	-0.64	-0.48	0.04	
O-1R5-E	114	113	112	-10.1	6.5	-16.7	6.8	-33.6	-0.11	-1.04	-49.7	-0.65	-0.50	-0.46	0.05	
O-1R5-F	117	116	115	-5.8	3.8	-18.8	5.1	-29.7	-0.13	-0.93	-55.9	-0.68	-0.38	-0.37	0.03	
O-1R5-G	120	119	118	-6.5	2.1	-14.5	2.8	-23.7	-0.14	-0.76	-53.8	-0.54	-0.36	-0.29	0.02	
O-1R5-H	123	122	121	-6.1	4.3	-13.5	4.8	-24.4	-0.08	-0.70	-52.3	-0.50	-0.34	-0.33	0.03	
O-1R5-J	126	125	124	-3.5	4.3	-17.4	5.9	-26.7	-0.07	-0.82	-57.6	-0.61	-0.29	-0.34	0.04	
U-1R5-K	129	128	127	-0.3	4.3	-21.5	7.7	-29.4	-0.04	-0.89	-62.4	-0.71	-0.22	-0.35	0.02	
O-1R6-A	132	131	130	-15.8	-9.1	0.4	0.5	-15.9	-0.14	-0.52	5.0	-0.14	-0.52	0.03	0.04	
O-1R6-B	135	134	133	-15.8	-11.0	-9.5	-9.4	-13.9	-0.45	-0.55	-7.6	-0.45	-0.55	-0.01	0.04	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	F(2)	F(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
U-1R6-C	138	137	136	-10.6	-13.2	-9.6	-6.9	-13.3	-0.36	-0.51	40.4	-0.42	-0.44	0.07	0.05
U-1R6-D	141	140	139	-6.6	-13.0	-16.6	-6.4	-16.8	-0.38	-0.62	82.3	-0.61	-0.38	0.03	0.03
U-1R6-E	144	143	142	-3.4	-12.7	-22.6	-3.4	-22.6	-0.33	-0.78	89.1	-0.78	-0.33	-0.01	0.04
U-1R6-F	147	146	145	-0.6	-10.8	-20.7	-0.6	-20.7	-0.22	-0.69	89.6	-0.69	-0.22	0.00	0.02
U-1R6-G	150	149	148	1.8	-11.2	-22.0	1.9	-22.1	-0.16	-0.71	87.5	-0.71	-0.16	0.02	0.04
U-1R6-H	153	152	151	3.0	-8.2	-20.9	3.0	-20.9	-0.11	-0.66	88.3	-0.66	-0.11	-0.02	0.03
U-1R6-J	156	155	154	6.4	-9.3	-24.3	6.2	-24.3	-0.04	-0.74	89.1	-0.74	-0.04	0.01	0.02
U-1R6-K	159	158	157	8.0	-11.9	-28.4	8.1	-28.5	-0.01	-0.86	87.4	-0.86	-0.02	0.04	0.02
U-2R1-A	174	173	172	13.8	11.0	5.1	14.3	4.6	0.52	0.29	-78.9	0.31	0.51	-0.05	0.03
U-2R1-B	177	176	175	10.9	11.6	9.6	11.7	8.8	0.47	0.41	-57.9	0.43	0.45	-0.03	0.03
U-2R1-C	180	179	178	2.6	6.8	10.4	10.4	2.6	0.37	0.19	-2.0	0.37	0.19	-0.01	0.05
U-2R1-D	183	182	181	-7.7	-2.7	4.8	4.9	-7.8	0.08	-0.21	5.6	0.08	-0.21	0.03	0.02
U-2R1-E	186	185	184	-13.8	-9.7	2.6	3.5	-14.8	-0.03	-0.45	13.3	-0.05	-0.43	0.09	0.05
U-2R1-F	189	188	187	-11.1	-3.8	3.2	3.2	-11.1	-0.00	-0.33	-0.7	-0.00	-0.33	-0.00	0.04
U-2R1-G	192	191	190*	-8.4	-3.2	5.4	5.6	-8.6	0.10	-0.23	6.8	0.10	-0.22	0.04	0.06
U-2R1-H	195	194	193	-4.7	-2.7	3.8	4.4	-5.3	0.09	-0.13	14.2	0.08	-0.12	0.05	0.04
U-2R1-J	198	197	196	-2.6	-3.4	1.3	2.8	-4.0	0.05	-0.10	27.6	0.02	-0.07	0.06	0.02
U-2R1-K	201	200	199	2.2	-0.7	0.4	3.5	-0.9	0.11	0.00	56.7	0.04	0.08	0.05	0.03
U-2R1-L	203	202	201	10.0	-0.4	-3.5	10.9	-4.4	0.32	-0.04	76.0	-0.02	0.29	0.03	0.02
U-2R1-M	206	205	204	17.6	4.5	-8.1	17.6	-8.1	0.50	-0.09	89.5	-0.09	0.50	0.01	0.02
U-2R1-N	209	208	207	22.7	6.1	-10.1	22.7	-10.1	0.65	-0.11	89.6	-0.11	0.65	0.01	0.03
U-2R2-A	204	203	202	8.8	3.7	5.5	11.0	3.3	0.40	0.22	57.7	0.27	0.35	0.08	0.02
U-2R2-B	207	206	205	5.2	6.0	7.3	7.3	5.2	0.29	0.24	6.9	0.29	0.24	0.00	0.05
U-2R2-C	210	209	208	-5.1	10.3	10.5	13.6	-8.2	0.37	-0.14	-22.0	0.30	-0.07	-0.18	0.04
U-2R2-D	213	212	211	-17.3	13.4	6.3	16.8	-27.7	0.28	-0.75	-29.0	0.04	-0.51	-0.43	0.02
U-2R2-E	216	215	214	-16.0	12.0	-1.0	13.3	-30.3	0.14	-0.87	-34.9	-0.19	-0.54	-0.47	0.00
U-2R2-F	219	218	217	-17.4	5.2	4.8	9.7	-22.3	0.10	-0.64	-23.1	-0.01	-0.53	-0.27	0.04
U-2R2-G	222	221	220	-14.1	2.9	5.6	6.8	-17.3	0.05	-0.50	-21.3	-0.02	-0.43	-0.19	0.03
U-2R2-H	225	224	223	-11.6	-0.1	3.1	4.2	-12.6	0.01	-0.38	-14.7	-0.01	-0.35	-0.10	0.04
U-2R2-J	228	227	226	-4.8	-0.7	1.8	1.9	-4.8	0.01	-0.14	-6.7	0.01	-0.14	-0.02	0.03
U-2R2-K	231	230	229	1.0	2.8	-0.2	2.8	-2.0	0.07	-0.04	-51.7	0.00	0.03	-0.02	0.02
U-2R3-A	234	233	232	-4.6	-3.2	2.0	2.5	-5.1	0.03	-0.14	14.9	0.02	-0.13	0.04	0.04
U-2R3-B	237	236	235	-7.5	0.5	2.9	3.7	-8.3	0.04	-0.25	-14.2	0.02	-0.22	-0.07	0.02
U-2R3-C	240	239	238	-16.0	8.2	4.0	11.0	-27.0	0.10	-0.78	-29.2	-0.11	-0.57	-0.37	0.03
U-2R3-D	243	242	241	-20.2	16.7	-4.7	17.7	-42.5	0.16	-1.22	-37.5	-0.35	-0.71	-0.67	0.02
U-2R3-E	246	245	244	-22.5	17.2	-5.2	18.4	-46.0	0.15	-1.33	-37.2	-0.39	-0.79	-0.71	0.04
U-2R3-F	249	248	247	-18.1	8.6	-6.2	9.4	-35.1	-0.03	-1.03	-37.3	-0.39	-0.66	-0.48	0.03
U-2R3-G	252	251	250	-21.3	3.1	1.0	7.1	-27.4	-0.04	-0.83	-24.9	-0.18	-0.69	-0.50	0.06
U-2R3-H	255	254	253	-17.7	-2.9	5.4	5.9	-18.1	0.01	-0.54	-7.8	0.00	-0.53	-0.07	0.01
U-2R3-J	258	257	256	-10.5	-2.1	2.7	3.0	-10.8	-0.01	-0.33	-7.8	-0.01	-0.32	-0.04	0.04
U-2R3-K	261	260	259	0.4	-1.0	0.0	2.2	-1.0	0.06	-0.01	41.4	0.03	0.02	0.04	0.03
U-2R4-A	264	263	262	-11.1	15.6	-18.8	15.8	-45.7	0.07	-1.35	-48.6	-0.73	-0.55	-0.70	0.02
U-2R4-B	267	266	265	-14.8	7.0	-8.8	7.2	-36.9	-0.07	-0.95	-40.5	-0.44	-0.58	-0.42	0.02
U-2R4-C	270	269	268	-13.3	7.2	-3.1	8.0	-24.4	0.02	-0.72	-35.8	-0.23	-0.47	-0.35	0.03
U-2R4-D	273	272	271	-10.0	-3.0	-1.2	4.1	-15.2	-0.02	-0.46	-31.4	-0.14	-0.34	-0.20	0.04
U-2R5-A	276	275	274	-11.4	-7.1	0.9	1.1	-11.7	-0.08	-0.37	8.2	-0.08	-0.37	0.04	0.06
U-2R5-B	279	278	277	-16.4	-4.5	-2.4	-0.9	-18.0	-0.21	-0.60	-12.6	-0.24	-0.57	-0.11	0.05
U-2R5-C	282	281	280	-9.2	4.6	-14.2	4.8	-28.3	-0.12	-0.86	-49.3	-0.56	-0.45	-0.38	0.04
U-2R5-D	285	284	283	-18.4	8.4	-9.8	8.8	-37.0	-0.08	-1.13	-32.6	-0.51	-0.70	-0.52	0.04
U-2R5-E	288	287	286	-11.1	8.5	-19.9	8.9	-39.9	-0.10	-1.23	-50.2	-0.77	-0.56	-0.55	0.04
U-2R5-F	291	290	289	-10.8	7.7	-14.8	7.8	-33.4	-0.07	-1.02	-47.8	-0.59	-0.50	-0.47	0.02
U-2R5-G	294	293	292	-7.8	5.8	-18.5	6.3	-32.8	-0.11	-1.02	-52.9	-0.69	-0.44	-0.44	0.04
U-2R5-H	297	296	295	-4.3	6.1	-17.6	7.4	-29.2	-0.05	-0.89	-55.7	-0.62	-0.31	-0.39	0.06
U-2R5-J	300	299	298	-3.5	6.8	-15.3	7.9	-26.6	-0.00	-0.80	-55.0	-0.54	-0.27	-0.37	0.03
U-2R5-K	303	302	301	-3.5	8.1	-10.5	8.5	-22.4	0.06	-0.68	-51.6	-0.38	-0.22	-0.35	0.02
U-2R6-A	306	305	304	-14.6	-6.5	-0.6	-0.5	-14.7	-0.16	-0.49	-4.4	-0.16	-0.49	-0.03	0.06

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
O-2R5-B	306	305	304	-15.4	-13.9	-8.1	-7.6	-16.3	-0.41	-0.61	13.4	-0.42	-0.60	0.04	0.04
U-2F6-C	309	308	307	-13.7	-14.8	-12.9	-11.8	-14.9	-0.54	-0.61	37.7	-0.56	-0.58	0.03	0.04
O-2K6-D	312	311	310	-9.0	-14.5	-14.7	-9.0	-19.7	-0.49	-0.74	89.3	-0.74	-0.49	0.00	0.04
U-2R6-E	315	314	313	-3.2	-11.8	-24.1	-3.1	-24.2	-0.34	-0.83	-84.9	-0.83	-0.35	-0.04	0.03
U-2R6-F	316	317	316	0.5	-11.9	-22.6	0.5	-22.6	-0.21	-0.74	88.0	-0.74	-0.21	0.02	0.03
O-2R6-G	321	320	319	2.8	-11.7	-25.0	2.8	-25.1	-0.16	-0.80	88.9	-0.80	-0.16	0.01	0.03
O-2R6-H	322	323	322	6.2	-11.5	-27.0	6.3	-27.1	-0.06	-0.81	88.1	-0.81	-0.06	0.03	0.03
U-2R6-J	327	326	325	7.8	-10.5	-27.1	7.8	-27.1	-0.01	-0.82	88.6	-0.81	-0.01	0.02	0.03
O-2K6-K	330	329	328	9.7	-3.7	-23.2	9.9	-23.5	0.10	-0.67	-25.7	-0.67	0.09	-0.07	0.05
I-1R1-A	340	341	342	-9.7	-14.0	-25.8	-8.8	-26.6	-0.55	-0.97	12.4	-0.57	-0.95	0.09	0.02
I-1R1-B	343	344	345	-8.1	-22.9	-47.5	-7.5	-48.1	-0.72	-1.66	6.9	-0.74	-1.65	0.11	0.06
I-1R1-C	346	347	346	9.6	-30.7	-67.7	9.6	-67.7	-0.35	-2.14	-1.2	-0.35	-2.14	-0.04	0.07
I-1R1-D	349	350	351	13.9	-32.0	-66.5	14.3	-66.9	-0.19	-2.06	-4.1	-0.20	-2.06	-0.13	0.05
I-1R1-E	352	353	354	3.3	-19.2	-45.3	3.5	-45.5	-0.34	-1.47	3.3	-0.34	-1.46	0.07	0.04
I-1R1-F	355	356	357	2.6	-17.0	-31.1	2.8	-31.3	-0.22	-1.01	-4.6	-0.22	-1.00	-0.06	0.02
I-1R1-G	358	359	360	2.9	-9.7	-21.8	3.0	-21.8	-0.12	-0.69	-0.7	-0.12	-0.69	-0.01	0.03
I-1R1-H	361	362	363	3.9	-3.9	-15.9	4.2	-16.2	-0.02	-0.49	7.1	-0.03	-0.48	0.06	0.04
I-1R1-J	364	365	366	2.3	-1.7	-10.4	2.7	-10.8	-0.02	-0.33	10.3	-0.03	-0.32	0.06	0.04
I-1R1-K	367	368	369	0.9	1.7	-2.0	2.1	-3.2	0.04	-0.08	28.4	0.01	-0.06	0.05	0.02
I-1R1-L	499	500	501	-2.0	5.9	9.0	9.5	-2.5	0.29	0.01	78.3	0.02	0.28	0.05	0.02
I-1R1-M	502	503	504	-5.5	8.7	16.8	17.2	-5.9	0.51	-0.02	82.3	-0.01	0.50	0.07	0.04
I-1R1-N	505**	506	507	0.0	10.2	22.9	22.9	-0.1	0.76	0.22	-86.9	0.23	0.75	-0.03	0.03
I-1R1-O	508	509	510	-7.0	8.2	24.0	24.0	-7.0	0.72	0.01	-89.5	0.01	0.72	-0.01	0.04
I-1R2-A	370	371	372	-6.8	-9.7	-17.9	-6.2	-18.5	-0.39	-0.67	12.7	-0.40	-0.66	0.06	0.04
I-1R2-B	373	374	375	-5.5	-17.4	-31.7	-5.4	-31.7	-0.49	-1.10	2.6	-0.49	-1.10	0.03	0.02
I-1R2-C	376	377	376**	8.7	-24.7	0.0	33.7	-25.1	0.86	-0.49	-40.8	0.29	0.09	-0.67	0.03
I-1R2-D	379	380	381	-12.2	12.7	-31.2	14.0	-57.3	-0.11	-1.75	37.3	-0.71	-1.15	0.79	0.03
I-1R2-E	382	383	384	-2.4	4.3	-24.7	7.5	-34.6	-0.09	-1.07	29.1	-0.32	-0.84	0.41	0.03
I-1R2-F	385	386	387	2.6	-1.3	-14.3	4.7	-21.3	-0.06	-0.66	16.4	-0.10	-0.61	0.16	0.04
I-1R2-G	388	389	390	3.7	-2.1	-15.1	4.3	-15.8	-0.01	-0.48	10.5	-0.03	-0.46	0.06	0.03
I-1R2-H	391	392	393	0.6	-1.5	-10.5	1.6	-11.5	-0.06	-0.36	15.9	-0.08	-0.34	0.06	0.05
I-1R2-J	394	395	396	0.6	-2.4	-7.7	0.7	-7.9	-0.05	-0.25	7.8	-0.06	-0.25	0.03	0.03
I-1R2-K	397	398	399	-0.1	-3.7	-1.4	2.3	-3.8	0.04	-0.10	-39.0	-0.02	-0.05	-0.07	0.02
I-1R3-A	400	401	402	-0.5	5.1	2.6	5.3	-3.2	0.14	-0.05	55.5	0.01	0.08	0.09	0.02
I-1R3-B	403	404	405	4.0	-0.8	-0.2	5.3	-1.5	0.16	0.00	-26.1	0.13	0.03	-0.06	0.04
I-1R3-C	406	407	408	5.0	-9.9	-3.1	12.6	-10.6	0.31	-0.22	-34.8	0.14	-0.05	-0.25	0.02
I-1R3-D	409	410	411	2.7	-4.9	-9.2	6.8	-13.3	0.09	-0.37	27.0	-0.00	-0.28	0.19	0.02
I-1R3-E	412	413	414	4.1	11.5	-5.6	12.4	-13.8	0.27	-0.33	34.1	0.08	-0.14	0.28	0.02
I-1R3-F	415	416	417	-1.0	8.8	-2.9	8.8	-12.7	0.17	-0.33	42.5	-0.06	-0.10	0.25	0.03
I-1R3-G	418	419	420	-5.5	4.0	-0.8	4.3	-10.6	0.04	-0.31	54.2	-0.19	-0.08	0.16	0.02
I-1R3-H	421	422	423	-1.5	2.8	-2.2	2.8	-6.6	0.03	-0.19	42.7	-0.07	-0.09	0.11	0.01
I-1R3-J	424	425	426	-2.1	1.1	-1.3	1.1	-4.4	-0.01	-0.14	49.2	-0.08	-0.06	0.06	0.03
I-1R3-K	427	428	429	-0.4	1.2	-0.4	1.2	-2.0	0.02	-0.06	44.9	-0.02	-0.02	0.04	0.01
I-1R4-A	685	686	687*	5.3	11.7	2.1	11.9	-4.5	0.35	-0.03	39.4	0.19	0.12	0.19	0.03
I-1R4-B	430	431	432	-4.6	6.5	1.5	7.1	-10.1	0.13	-0.26	55.4	-0.14	0.00	0.19	0.03
I-1R4-C	433	434	435	-10.0	6.7	1.0	8.0	-16.9	0.09	-0.48	58.2	-0.32	-0.06	0.26	0.04
I-1R4-D	436**	437**	438**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-1R5-A	439	440	441	2.9	11.3	15.2	15.6	2.5	0.54	0.24	79.7	0.25	0.53	0.05	0.04
I-1R5-B	442	443	444	9.6	11.3	19.1	20.0	8.7	0.75	0.49	-73.6	0.51	0.73	-0.07	0.02
I-1R5-C	445	446	447	-0.1	11.4	26.5	26.6	-0.3	0.88	0.26	-86.1	0.26	0.97	-0.04	0.02
I-1R5-D	448	449	450	2.7	11.4	15.5	15.9	2.3	0.55	0.23	80.0	0.24	0.54	0.05	0.03
I-1R5-E	453	452	451	4.4	11.4	5.1	11.4	-1.9	0.36	0.05	46.6	0.20	0.21	0.15	0.03
I-1R5-F	454	455	456	3.1	6.5	1.3	6.6	-2.2	0.20	-0.01	39.2	0.11	0.07	0.10	0.02
I-1R5-G	457	458	459	-7.4	2.2	2.6	4.4	-9.1	0.05	-0.26	68.9	-0.22	0.01	0.10	0.03
I-1R5-H	460**	461	462	0.0	3.4	2.4	3.7	-1.5	0.11	-0.01	59.0	0.02	0.08	0.05	0.03
I-1R5-J	463	464	465	-14.7	0.7	3.5	5.5	-16.7	0.02	-0.50	72.8	-0.45	-0.03	0.14	0.04

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF.
I-1K5-K	466**	467**	468**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-1K6-A	469	470**	471	6.0	0.0	15.6	22.6	-1.0	0.74	0.19	-56.9	0.35	0.57	-0.25	0.02
I-1R6-B	472	473	474	9.5	19.3	25.9	26.0	9.3	0.95	0.56	89.5	0.57	0.95	0.04	0.03
I-1K6-C	475	476	477	-1.4	15.3	36.2	36.3	-1.6	1.18	0.31	-86.9	0.31	1.18	-0.05	0.03
I-1R6-D	478	479	480	2.8	12.0	17.6	18.0	2.4	0.62	0.26	81.1	0.27	0.61	-0.05	0.03
I-1K6-E	481*	482	483	-2.3	2.7	7.3	7.3	-2.3	0.22	-0.00	88.6	-0.00	0.22	0.01	0.07
I-1K6-F	484	485	486	1.4	0.6	2.2	2.0	0.5	0.11	0.05	-53.3	0.07	0.09	-0.03	0.02
I-1K6-G	487	488	489	-6.4	-3.2	-0.0	-0.0	-6.4	-0.06	-0.21	89.7	-0.21	-0.06	0.00	0.02
I-1R6-H	490	491	492	-12.1	-7.4	0.3	0.5	-12.3	-0.10	-0.40	-83.6	-0.40	-0.11	-0.03	0.05
I-1R6-J	493	494	495	-10.7	-6.8	1.5	1.5	-16.8	-0.12	-0.54	87.4	-0.54	-0.12	0.02	0.02
I-1R6-K	496**	497**	498**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2K1-A	511	512	513	-9.9	-17.7	-24.1	-9.8	-24.1	-0.56	-0.89	-2.8	-0.56	-0.89	-0.02	0.04
I-2K1-B	514	515	516	-8.4	-30.6	-45.5	-8.2	-45.9	-0.72	-1.59	-9.6	-0.72	-1.58	-0.08	0.03
I-2K1-C	517	518	519	8.7	-34.5	-67.0	9.0	-67.4	-0.37	-2.13	-4.0	-0.38	-2.12	-0.12	0.03
I-2K1-D	520	521	522	13.0	-25.3	-62.0	13.0	-62.6	-0.19	-1.93	-0.4	-0.19	-1.93	-0.01	0.03
I-2K1-E	523	524	525	3.3	-21.5	-40.2	3.6	-40.4	-0.28	-1.30	-4.0	-0.29	-1.29	-0.07	0.03
I-2K1-F	526	527	528	2.1	-15.9	-27.8	2.4	-28.1	-0.20	-0.90	-5.7	-0.21	-0.90	-0.07	0.03
I-2K1-G	529	530	531	3.1	-10.9	-20.6	3.2	-20.8	-0.10	-0.63	-5.0	-0.10	-0.65	-0.05	0.04
I-2K1-H	532	533	534	2.4	-10.0	-11.3	4.4	-13.2	0.02	-0.39	-19.6	-0.03	-0.35	-0.13	0.03
I-2K1-J	535	536	537	0.7	-4.9	-7.9	0.9	-8.1	-0.05	-0.26	-8.2	-0.06	-0.25	-0.03	0.04
I-2K1-K	538	539	540	-1.3	-1.3	0.2	0.7	-1.8	0.01	-0.05	-63.1	-0.04	-0.01	-0.02	0.04
I-2R1-L	670	671	670	10.5	7.0	-3.0	11.3	-3.7	0.33	-0.01	-77.4	0.01	0.32	-0.07	0.03
I-2K1-M	672	673	673	17.4	6.9	-3.9	17.4	-3.9	0.53	0.04	-89.5	0.04	0.53	-0.00	0.02
I-2K1-N	674	677	676	22.1	9.7	0.0	22.3	0.7	0.67	-0.00	-66.1	0.00	0.66	-0.04	0.02
I-2R2-A	541	542	543	-8.2	-5.9	-15.5	-4.9	-18.8	-0.35	-0.67	29.3	-0.42	-0.59	0.14	0.04
I-2K2-B	544	545	546	-2.4	-17.7	-32.1	-2.4	-32.1	-0.40	-1.08	-0.9	-0.40	-1.08	-0.01	0.02
I-2K2-C	547	548	549	0.8	-26.0	-46.9	9.6	-47.7	-0.15	-1.48	-7.0	-0.17	-1.46	-0.16	0.07
I-2K2-D	550	551	552	12.1	-11.6	-50.0	13.0	-50.9	-0.08	-1.55	6.6	-0.10	-1.53	0.17	0.03
I-2K2-E	553	554	555	2.8	-0.1	-28.9	7.4	-33.4	-0.09	-1.03	19.7	-0.19	-0.92	0.30	0.04
I-2K2-F	556	557	558	3.2	-1.4	-17.3	4.6	-18.7	-0.03	-0.57	14.4	-0.07	-0.54	0.13	0.05
I-2K2-G	559	560	561	5.1	-4.4	-15.4	3.3	-15.6	-0.05	-0.48	5.5	-0.05	-0.48	0.04	0.03
I-2K2-H	562	563	564	2.5	-5.6	-10.7	2.6	-10.9	-0.02	-0.33	-6.2	-0.02	-0.33	-0.03	0.01
I-2K2-J	565	566	567	0.8	-6.6	-6.2	2.5	-8.0	0.00	-0.24	-23.7	-0.03	-0.20	-0.09	0.02
I-2K2-K	568	569	570	-0.6	-5.3	0.1	4.7	-5.3	0.10	-0.13	-47.1	-0.02	-0.00	-0.12	0.01
I-2K3-A	571	572	573	-3.1	4.7	1.0	5.0	-7.1	0.10	-0.19	54.8	-0.09	0.00	0.13	0.03
I-2K3-B	574	575	576	3.8	-0.7	-4.9	3.8	-4.9	0.08	-0.12	-1.0	0.08	-0.12	-0.00	0.03
I-2K3-C	577	578	579	8.2	-11.2	-10.2	12.6	-14.8	0.27	-0.36	-23.8	0.17	-0.26	-0.23	0.04
I-2K3-D	580	581	582	0.8	5.9	-8.7	6.9	-14.9	0.08	-0.42	32.1	-0.06	-0.28	0.23	0.02
I-2K3-E	583	584	585	2.0	11.2	-4.4	11.5	-12.8	0.24	-0.34	37.7	0.02	-0.12	0.28	0.02
I-2K3-F	586	587	588	0.7	8.4	-6.7	9.0	-14.9	0.15	-0.40	35.9	-0.04	-0.21	0.26	0.03
I-2K3-G	589	590	591	0.8	3.2	-5.1	4.0	-8.3	0.05	-0.23	30.7	-0.02	-0.16	0.12	0.02
I-2K3-H	592	593	594	1.2	0.8	-4.7	2.2	-5.7	0.02	-0.17	20.4	-0.01	-0.14	0.00	0.03
I-2K3-J	595	596	597	2.6	-0.8	-5.9	2.7	-6.0	0.03	-0.17	5.4	0.03	-0.17	0.02	0.03
I-2K3-K	598	599	600	-0.7	-5.0	0.8	5.1	-5.0	0.12	-0.12	-49.2	-0.02	0.02	-0.12	0.03
I-2K4-A	601	602	603	2.2	12.8	0.4	13.0	-7.4	0.36	-0.12	38.2	0.18	0.07	0.23	0.03
I-2K4-B	604	605	606	-6.1	6.3	-1.1	6.6	-13.8	0.08	-0.39	52.1	-0.21	-0.10	0.23	0.04
I-2K4-C	607	608	609	-8.1	6.1	-7.5	6.2	-21.7	-0.01	-0.65	45.6	-0.34	-0.33	0.32	0.04
I-2K4-D	610	611	612	-5.0	5.6	-8.2	5.7	-18.9	0.00	-0.57	41.2	-0.25	-0.32	0.28	0.04
I-2K5-A	613	614	615	5.7	11.3	12.1	12.9	4.9	0.57	0.29	71.8	0.31	0.46	0.05	0.04
I-2K5-B	616	617	618	9.1	14.8	21.6	21.6	9.0	0.80	0.51	-87.5	0.51	0.80	-0.01	0.08
I-2K5-C	619	620	621	1.4	9.6	27.1	28.1	0.4	0.93	0.29	-78.8	0.31	0.91	-0.12	0.02
I-2K5-D	622	623	624	1.7	10.6	15.5	15.9	0.7	0.53	0.16	61.2	0.19	0.52	0.05	0.03
I-2K5-E	625	626	627	3.0	11.5	5.8	11.7	-2.8	0.36	0.02	50.6	0.16	0.22	0.16	0.02
I-2K5-F	628	629	630	0.6	9.3	0.3	9.3	-8.4	0.22	-0.18	44.6	0.02	0.02	0.20	0.02
I-2K5-G	631	632	633	-6.4	4.4	0.4	5.2	-11.2	0.06	-0.32	57.3	-0.21	-0.05	0.17	0.04
I-2K5-H	634	635	636	-13.3	2.7	0.2	4.9	-18.0	-0.02	-0.55	63.0	-0.44	-0.12	0.21	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SHIN	PHI	SIG(L)	SIG(T)	TAU	LUNF
I-2R6-J	634	635*	636	-19.6	-3.7	5.0	5.6	-20.3	-0.02	-0.62	81.8	-0.60	-0.03	0.08	0.04
I-2R6-K	637	638	639	-16.7	3.1	3.6	7.4	-20.6	0.04	-0.61	68.2	-0.52	-0.05	0.22	0.04
I-2R6-A	640	641	642	7.7	13.9	16.9	17.2	7.4	0.64	0.41	80.4	0.42	0.63	0.04	0.03
I-2R6-B	643	644	645	10.5	17.7	27.4	27.5	10.4	1.01	0.62	-85.7	0.62	1.01	-0.03	0.02
I-2R6-C	646	647	648	-2.9	17.4	38.5	38.6	-2.9	1.24	0.25	-89.5	0.28	1.24	-0.01	0.04
I-2R6-D	649	650	651	3.0	9.9	20.1	20.2	2.9	0.70	0.30	-84.6	0.30	0.69	-0.04	0.04
I-2R6-E	654	653	654**	4.6	5.8	0.0	6.5	-1.9	0.19	0.00	28.5	0.15	0.05	0.00	0.02
I-2R6-F	655	656	657	-0.2	0.4	1.4	1.4	-0.3	0.05	0.01	-82.3	0.01	0.04	-0.01	0.03
I-2R6-G	658	659	660	-10.9	-6.1	0.7	0.8	-11.0	-0.08	-0.35	-64.9	-0.35	-0.08	-0.02	0.05
I-2R6-H	661	662	663	-14.3	-9.9	1.6	1.7	-19.3	-0.14	-0.62	-87.0	-0.62	-0.14	-0.03	0.03
I-2R6-J	664	665	666	-25.5	-11.1	3.4	3.2	-25.5	-0.15	-0.81	89.8	-0.81	-0.15	0.00	0.03
I-2R6-K	667	668	669	-31.0	-14.7	4.2	4.2	-31.1	-0.17	-0.98	-88.0	-0.98	-0.17	-0.03	0.04

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

COMBUSTION T-13, LOAD CASE 12, F22

NOMINAL LOAD = 4.557E 03

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
O-1R1-A	3	2	1	1.6	1.1	-0.7	1.8	-0.8	0.05	-0.01	-76.6	-0.01	0.05	-0.01	0.02
O-1R1-B	6	5	4	0.7	0.3	0.5	0.9	0.3	0.03	0.02	56.7	0.02	0.03	0.01	0.03
O-1R1-C	9*	8	7	-3.0	-0.1	2.1	2.1	-3.1	0.04	-0.08	-4.2	0.04	-0.08	-0.01	0.03
O-1R1-D	12	11	10	-4.1	-6.0	3.1	6.0	-7.1	0.13	-0.17	28.3	0.06	-0.11	0.13	0.03
O-1R1-E	15	14	13	-11.7	-6.9	3.0	3.5	-12.2	-0.01	-0.37	2.5	-0.02	-0.36	0.06	0.07
O-1R1-F	18	17	16	-13.3	-8.7	4.4	5.3	-14.3	0.03	-0.42	12.7	0.01	-0.40	0.10	0.04
O-1R1-G	21	20	19	-17.2	-9.2	8.9	9.8	-18.2	0.14	-0.50	10.6	0.12	-0.48	0.12	0.04
O-1R1-H	24	23	22	-18.4	-9.7	7.2	7.9	-19.0	0.07	-0.55	8.9	0.06	-0.54	0.10	0.03
O-1R1-I	27	26	25	-20.1	-4.9	7.0	7.1	-22.2	0.03	-0.60	-3.5	0.03	-0.59	-0.04	0.05
O-1R1-K	30	29	28	-21.6	-12.0	9.2	10.2	-22.7	0.11	-0.65	10.3	0.09	-0.62	0.13	0.05
O-1R1-L	162	161	160	-22.5	-5.6	10.2	10.2	-22.5	0.11	-0.64	-0.9	0.21	-0.64	-0.02	0.02
O-1R1-M	163	164	163	-10.1	-4.6	5.6	5.6	-16.1	0.03	-0.48	-1.7	0.02	-0.48	-0.01	0.03
O-1R1-N	168	167	166	-11.6	-2.1	3.0	3.3	-11.9	-0.01	-0.36	-8.5	-0.02	-0.35	-0.05	0.03
O-1R1-O	171	170	169	-0.8	1.6	0.6	1.7	-1.9	0.04	-0.05	-33.5	0.01	-0.02	-0.04	0.03
O-1R2-A	33	32	31	1.0	5.3	0.8	2.7	-1.0	0.12	0.02	-52.1	0.07	0.14	-0.07	0.05
O-1R2-B	36	35	34	0.4	1.4	1.7	1.8	0.3	0.06	0.03	-16.3	0.06	0.03	-0.01	0.04
O-1R2-C	39	38	37	-2.4	1.1	2.9	3.0	-2.5	0.08	-0.05	-8.4	0.07	-0.05	-0.02	0.02
O-1R2-D	42	41	40	-8.6	1.2	3.1	4.3	-9.8	0.04	-0.28	-17.0	0.02	-0.25	-0.09	0.04
O-1R2-E	45	44	43	-11.0	1.9	3.8	5.1	-12.3	0.05	-0.30	-15.8	0.02	-0.33	-0.11	0.02
O-1R2-F	48	47	46	-15.8	-0.7	5.4	6.3	-16.8	0.04	-0.49	-11.5	0.02	-0.47	-0.10	0.04
O-1R2-G	51	50**	49	-17.2	0.0	3.9	5.9	-19.3	0.02	-0.56	-16.1	-0.04	-0.53	-0.15	0.02
O-1R2-H	54	53	52	-22.1	-4.3	7.2	7.6	-22.4	0.03	-0.66	-6.0	0.02	-0.66	-0.07	0.03
O-1R2-J	57	56	55	-24.8	-5.4	6.5	7.0	-25.2	-0.02	-0.76	-6.8	-0.03	-0.75	-0.09	0.04
O-1R2-K	60	59	58	-30.0	-12.8	8.0	8.1	-30.1	-0.03	-0.91	2.7	-0.03	-0.91	0.04	0.04
O-1R3-A	63	62	61	-0.3	-3.4	1.0	4.5	-3.9	0.11	-0.08	40.5	0.03	-0.00	0.10	0.04
O-1R3-B	66	65	64	-2.3	0.1	-1.8	0.3	-4.3	-0.03	-0.14	-41.8	-0.08	-0.09	-0.05	0.06
O-1R3-C	69	68	67	-3.0	2.5	1.6	3.2	-4.6	0.06	-0.12	-27.1	0.02	-0.08	-0.07	0.02
O-1R3-D	72	71	70	-7.0	4.0	-0.0	5.2	-13.0	0.04	-0.38	-35.0	-0.05	-0.24	-0.20	0.03
O-1R3-E	75	74	73	-5.4	4.2	-5.3	4.4	-15.1	-0.00	-0.45	-44.8	-0.01	-0.23	-0.23	0.03
O-1R3-F	78	77	76	-9.0	2.9	-3.5	3.3	-15.8	-0.05	-0.49	-36.6	-0.20	-0.33	-0.21	0.05
O-1R3-G	81	80	79	-12.7	2.6	-4.7	3.3	-20.7	-0.10	-0.65	-35.2	-0.28	-0.47	-0.26	0.04
O-1R3-H	84	83	82	-17.7	3.5	-0.7	6.1	-24.5	-0.04	-0.75	-28.1	-0.20	-0.59	-0.29	0.04
O-1R3-J	87	86	85	-26.5	-4.6	3.9	2.3	-27.9	-0.12	-0.87	-11.8	-0.12	-0.83	-0.15	0.03
O-1R3-K	90	89	88	-28.8	-13.6	6.3	6.4	-29.0	-0.08	-0.89	3.8	-0.08	-0.89	0.05	0.04
O-1R4-A	681	680	679	-2.5	4.6	-6.3	4.8	-13.7	0.02	-0.40	-51.0	-0.23	-0.15	-0.21	0.04
O-1R4-B	93	92	91	-6.3	3.9	-5.8	3.5	-15.6	-0.04	-0.48	-44.2	-0.25	-0.27	-0.22	0.03
O-1R4-C	96	95	94	-10.5	4.7	-6.9	4.9	-22.3	-0.06	-0.69	-41.2	-0.33	-0.42	-0.31	0.03
O-1R4-D	99	98	97	-22.3	7.1	-9.6	8.0	-39.9	-0.13	-1.24	-37.3	-0.54	-0.83	-0.53	0.03
O-1R5-A	102	101	100	-3.5	-1.6	1.0	1.0	-3.5	-0.00	-0.11	4.8	-0.00	-0.11	0.01	0.04
O-1R5-B	105	104	103	-2.9	0.4	0.5	1.2	-3.5	0.00	-0.10	-21.3	-0.01	-0.09	-0.04	0.04
O-1R5-C	108	107	106	-5.0	0.9	0.8	2.1	-6.2	0.01	-0.18	-22.8	-0.02	-0.10	-0.07	0.04
O-1R5-D	111	110	109	-4.4	2.6	-1.6	2.7	-8.7	0.00	-0.26	-38.1	-0.10	-0.16	-0.13	0.03
O-1R5-E	114	113	112	-1.2	2.6	-3.4	2.5	-7.1	0.01	-0.21	-51.5	-0.12	-0.07	-0.11	0.04
O-1R5-F	117	116	115	-0.4	1.5	-5.2	2.1	-7.8	-0.01	-0.24	-59.6	-0.13	-0.07	-0.10	0.03
O-1R5-G	120	119	118	-0.8	0.6	-5.7	1.3	-7.8	-0.03	-0.24	-61.2	-0.19	-0.08	-0.09	0.02
O-1R5-H	123	122	121	-2.6	1.4	-6.7	1.7	-11.0	-0.05	-0.35	-54.2	-0.25	-0.15	-0.14	0.03
O-1R5-J	126	125	124	-0.8	3.4	-11.0	4.7	-16.5	-0.01	-0.50	-59.5	-0.37	-0.15	-0.21	0.02
O-1R5-K	129	128	127	0.3	3.2	-14.2	5.5	-19.4	-0.01	-0.58	-62.8	-0.46	-0.13	-0.23	0.02
O-1R6-A	132	131	130**	-0.6	0.5	0.0	0.5	-1.1	0.01	-0.03	-34.6	-0.01	-0.02	-0.02	0.02
O-1R6-B	135	134	133	-0.4	1.6	-0.0	1.6	-2.0	0.03	-0.05	-42.1	-0.01	-0.01	-0.04	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(1)	SIG(T)	TAU	CUNF
0-1R6-C	136	137	138	-0.4	1.9	0.6	2.0	-1.8	0.05	-0.04	-37.1	0.02	-0.01	-0.04	0.01
0-1R6-D	141	140	139	0.1	2.8	0.1	2.8	-2.6	0.07	-0.06	-45.4	0.00	0.00	-0.06	0.02
0-1R6-E	147	143	142	0.1	3.3	0.3	3.3	-2.9	0.08	-0.08	-44.2	0.01	0.01	-0.07	0.04
0-1R6-F	147	146	145	-0.1	1.3	0.3	1.4	-1.1	0.03	-0.02	-39.9	0.01	-0.00	-0.03	0.01
0-1R6-G	150	149	148	-0.3	0.6	0.3	0.7	-0.7	0.02	-0.02	-32.1	0.01	-0.01	-0.02	0.01
0-1R6-H	153	152	151	-1.9	0.2	0.1	0.6	-2.3	-0.00	-0.07	-23.4	-0.01	-0.06	-0.02	0.03
0-1R6-J	156	155	154	-0.5	0.7	0.4	0.6	-0.7	0.01	-0.02	-21.8	0.01	-0.01	-0.01	0.02
0-1R6-K	159	158	157	-0.5	0.4	0.5	0.7	-0.6	0.02	-0.01	-19.8	0.01	-0.01	-0.04	0.02
0-2R1-A	174	173	172	-3.2	-0.7	-0.0	0.2	-3.5	-0.03	-0.11	-15.7	-0.03	-0.11	-0.02	0.04
0-2R1-B	177	176	175	-2.1	-2.6	-2.3	-1.8	-2.7	-0.09	-0.11	51.3	-0.10	-0.09	0.01	0.06
0-2R1-C	180	179	178	0.7	-3.2	-4.6	1.0	-5.0	-0.02	-0.16	78.6	-0.15	-0.02	0.03	0.04
0-2R1-U	183	182	181	7.6	-3.5	-4.1	9.6	-6.1	0.26	-0.11	68.9	-0.06	0.21	0.12	0.02
0-2R1-E	186	185	184	9.0	-0.4	-5.7	9.2	-6.0	0.25	-0.11	82.1	-0.10	0.24	0.05	0.03
0-2R1-F	189	188	187	13.8	0.6	-7.3	14.1	-7.7	0.39	-0.11	82.9	-0.11	0.38	0.00	0.04
0-2R1-G	192	191	190	16.7	4.6	-9.3	16.8	-9.3	0.46	-0.14	88.1	-0.14	0.46	-0.02	0.03
0-2R1-H	195	194	193	19.5	3.4	-10.4	19.6	-10.4	0.54	-0.14	87.7	-0.15	0.54	0.03	0.03
0-2R1-J	198	197	196	20.1	5.2	-9.1	20.1	-9.1	0.57	-0.14	89.5	-0.10	0.57	0.01	0.02
0-2R1-K	201	200	199	20.9	6.4	-10.7	21.0	-10.8	0.58	-0.14	87.6	-0.15	0.58	-0.03	0.03
0-2R1-L	204	203	202	21.1	6.8	-8.9	21.1	-8.9	0.61	-0.14	88.7	-0.08	0.61	-0.02	0.02
0-2R1-M	206	205	204	16.8	8.1	-7.3	17.3	-7.8	0.49	-0.09	82.2	-0.08	0.48	-0.08	0.03
0-2R1-N	209	208	207	10.2	5.0	-3.7	10.7	-4.1	0.31	-0.03	80.0	-0.02	0.30	-0.00	0.02
0-2R2-A	204	203	202	0.3	0.4	-0.8	0.6	-1.1	0.01	-0.03	-64.2	-0.02	0.00	-0.02	0.02
0-2R2-B	207	206	205	2.7	1.7	-1.1	2.9	-1.2	0.08	-0.01	-78.1	-0.01	0.08	-0.02	0.04
0-2R2-C	210	209	208	5.0	-2.8	-1.3	7.4	-3.8	0.21	-0.05	62.1	0.01	0.15	0.11	0.03
0-2R2-D	213	212	211	9.6	-5.2	-2.6	14.1	-7.1	0.39	-0.10	62.7	0.01	0.29	0.20	0.04
0-2R2-E	216	215	214	8.8	-7.9	-1.6	16.2	-9.0	0.44	-0.14	57.2	0.03	0.27	0.26	0.02
0-2R2-F	219	218	217	16.3	-2.8	-4.9	19.2	-7.9	0.56	-0.07	70.6	0.00	0.49	0.20	0.03
0-2R2-G	222	221	220	20.2	-1.3	-6.8	22.4	-9.0	0.65	-0.07	74.6	-0.02	0.60	0.19	0.02
0-2R2-H	225	224	223	24.7	2.7	-8.8	25.2	-9.6	0.75	-0.07	81.3	-0.05	0.73	0.12	0.03
0-2R2-J	228	227	226	26.1	5.6	-9.5	26.5	-9.8	0.78	-0.06	85.5	-0.05	0.77	0.06	0.02
0-2R2-K	231	230	229	26.8	11.1	-16.2	27.1	-10.4	0.79	-0.08	85.7	-0.07	0.78	-0.06	0.02
0-2R3-A	234	233	232	4.8	1.0	-2.7	4.8	-2.7	0.13	-0.04	-89.9	-0.04	0.13	-0.00	0.01
0-2R3-C	237	236	235	5.0	0.7	-1.4	5.2	-1.6	0.16	-0.00	80.7	0.00	0.12	0.02	0.02
0-2R3-L	240	239	238	6.5	-1.8	0.1	9.4	-2.7	0.28	0.00	60.9	0.07	0.22	0.12	0.02
0-2R3-U	243	242	241	6.8	-4.9	4.9	16.7	-5.0	0.50	0.00	47.6	0.23	0.27	0.25	0.03
0-2R3-F	246	245	244	7.3	-3.8	3.8	15.1	-4.0	0.46	0.02	50.2	0.20	0.28	0.22	0.03
0-2R3-F	249	248	247	6.2	-5.8	4.8	16.9	-5.8	0.50	-0.03	46.8	0.27	0.25	0.26	0.02
0-2R3-G	252	251	250	14.4	-6.3	2.0	24.0	-7.6	0.71	-0.01	56.6	0.21	0.49	0.33	0.03
0-2R3-H	255	254	253	23.0	-2.1	-3.4	27.6	-8.0	0.83	0.01	62.0	0.12	0.73	0.28	0.04
0-2R3-J	258	257	256	26.7	0.1	-7.5	29.1	-9.9	0.86	-0.04	75.5	0.02	0.80	0.22	0.04
0-2R3-K	261	260	259	30.5	14.2	-9.6	30.9	-9.9	0.92	-0.02	82.8	-0.01	0.91	-0.02	0.02
0-2R4-A	264	263	262	1.0	-0.1	7.7	10.0	-1.3	0.32	0.06	26.7	0.27	0.11	0.10	0.03
0-2R4-B	264	263	262	4.1	-3.4	10.5	18.4	-3.8	0.57	0.06	26.7	0.39	0.24	0.25	0.03
0-2R4-C	267	266	265	4.8	-6.0	6.6	19.5	-6.2	0.58	-0.01	40.8	0.33	0.24	0.29	0.03
0-2R4-U	270	269	268	9.5	-9.8	8.3	27.6	-9.8	0.81	-0.05	45.9	0.37	0.40	0.43	0.02
0-2R5-A	273	272	271	2.9	-1.3	-1.5	3.7	-2.3	0.10	-0.04	68.3	-0.02	0.08	0.05	0.02
0-2R5-B	276	275	274	2.8	0.7	-0.9	2.8	-0.9	0.08	-0.00	85.7	-0.00	0.08	0.01	0.02
0-2R5-L	279	278	277	2.6	0.7	9.1	12.0	-0.2	0.39	0.11	28.9	0.33	0.18	0.12	0.04
0-2R5-D	282	281	280	3.3	2.8	6.9	8.1	2.2	0.29	0.15	26.1	0.26	0.16	0.05	0.02
0-2R5-E	285	284	283	-1.2	2.9	6.4	6.4	-1.2	0.20	0.02	-2.0	0.20	0.02	-0.01	0.03
0-2R5-F	288	287	286	-2.4	-0.9	8.9	10.2	-3.8	0.30	-0.02	17.9	0.27	0.01	0.09	0.03
0-2R5-G	291	290	289	-4.2	2.2	10.7	10.8	-4.3	0.31	-0.04	3.8	0.31	-0.03	0.02	0.03
0-2R5-H	294	293	292	-3.7	-0.2	12.6	13.8	-4.9	0.41	-0.03	14.9	0.38	0.00	0.11	0.03
0-2R5-J	297	296	295	-5.6	-3.7	13.7	16.5	-8.4	0.46	-0.11	19.4	0.40	-0.05	0.18	0.04
0-2R5-K	300	299	298	-2.1	-3.9	12.0	16.3	-6.4	0.47	-0.05	25.8	0.58	0.05	0.21	0.03
0-2R6-A	303	302	301	-0.4	-2.7	-0.4	1.9	-2.7	0.04	-0.07	45.0	-0.02	-0.02	0.05	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
0-2K6-E	308	305	302	-0.9	-1.5	-0.7	0.3	-1.6	-0.01	-0.05	38.1	-0.02	-0.04	-0.04	0.04
0-2K6-L	104	308	307	-0.3	0.9	0.4	1.0	-0.9	0.02	-0.02	-34.8	0.01	-0.01	-0.02	0.01
0-2K6-C	312	311	310	-1.3	5.5	0.1	5.6	-6.8	0.12	-0.17	-31.8	-0.01	-0.04	-0.14	0.04
0-2K6-F	315	314	313	-0.3	6.2	1.6	6.2	-4.9	0.16	-0.16	-40.1	0.05	0.01	-0.13	0.02
0-2K6-E	316	317	316	-0.0	5.5	0.4	5.5	-3.2	0.13	-0.14	-43.9	0.01	0.00	-0.12	0.02
0-2K6-G	321	320	319	-0.3	4.2	1.5	4.3	-3.2	0.11	-0.06	-38.2	0.04	0.06	-0.08	0.01
0-2K6-H	322	323	322	1.5	6.1	0.4	6.2	-4.2	0.16	-0.02	-48.0	0.03	0.05	-0.12	0.03
0-2K6-J	327**	326	325	0.0	6.0	0.3	6.0	-5.7	0.14	-0.13	-44.3	0.01	0.00	-0.14	0.01
0-2K6-K	330	329	328	-0.1	2.8	0.7	2.9	-1.2	0.07	-0.04	-40.5	0.02	0.00	-0.06	0.01
I-1K1-A	340	341	342	-3.3	-2.7	-3.2	-2.7	-3.8	-0.13	-0.15	47.2	-0.14	-0.14	0.01	0.03
I-1K1-B	343	342	342	-1.1	-3.9	-10.1	-0.8	-16.4	-0.13	-0.35	10.3	-0.14	-0.34	0.04	0.04
I-1K1-C	346	347	348	1.1	-8.2	-17.0	1.1	-17.0	-0.13	-0.55	-0.9	-0.13	-0.55	-0.01	0.04
I-1K1-U	349	350	351	3.4	-10.6	-18.7	3.8	-19.1	-0.08	-0.59	-7.4	-0.07	-1.58	-0.07	0.03
I-1K1-E	352	353	354	3.4	-9.6	-18.6	3.6	-18.0	-0.07	-0.56	-5.1	-0.07	-0.58	-0.05	0.03
I-1K1-F	355	356	357	6.1	-12.2	-20.5	7.0	-21.4	0.02	-0.64	-10.2	-0.00	-0.62	-0.11	0.02
I-1K1-G	358	359	360	6.0	-10.2	-23.1	8.2	-23.3	0.04	-0.69	-4.9	0.03	-0.66	-0.06	0.02
I-1K1-H	361	362	363	7.0	-7.3	-24.1	7.1	-24.1	-0.01	-0.73	2.3	-0.01	-0.72	0.03	0.03
I-1K1-J	364	365	366	7.7	-8.6	-25.7	7.7	-25.7	-0.00	-0.77	0.7	-0.00	-0.77	0.01	0.03
I-1K1-K	367	368	369	6.6	-5.8	-25.5	7.2	-25.8	-0.02	-0.78	6.1	-0.03	-0.77	0.08	0.04
I-1K1-L	499	500	501	8.6	-7.4	-25.6	8.6	-25.7	0.03	-0.76	1.8	0.03	-0.76	0.03	0.04
I-1K1-M	502	503	504	5.7	-4.9	-19.5	5.8	-19.6	-0.00	-0.59	4.4	-0.00	-0.59	0.05	0.03
I-1K1-N	505**	506	507	0.0	-3.9	-11.4	0.3	-11.6	-0.11	-0.38	3.6	-0.11	-0.37	0.04	0.03
I-1K1-O	508	509	510	0.5	-3.9	-0.7	3.7	-4.0	0.08	-0.05	-40.6	0.01	-0.02	-0.09	0.03
I-1K2-A	370	371	372	-3.5	-1.8	-3.9	-1.8	-5.6	-0.11	-0.20	42.5	-0.15	-0.16	0.04	0.04
I-1K2-B	373	374	375	-3.8	-3.9	-6.6	-3.3	-7.0	-0.18	-0.26	20.6	-0.19	-0.25	0.02	0.02
I-1K2-C	376	377	378**	1.4	-6.5	0.0	7.7	-6.3	0.19	-0.13	-42.2	0.04	0.01	-0.16	0.02
I-1K2-U	379	380	381	-3.1	4.2	-9.2	4.5	-17.5	-0.02	-0.52	37.9	-0.22	-0.34	0.25	0.04
I-1K2-E	382	383	384	-1.3	0.8	-11.4	2.4	-14.8	-0.07	-0.46	27.4	-0.15	-0.38	0.16	0.04
I-1K2-F	385	386	387	1.9	0.1	-13.2	3.8	-15.1	-0.02	-0.46	18.6	-0.07	-0.42	0.15	0.03
I-1K2-G	388	389	390	2.3	-0.1	-15.8	4.5	-18.0	-0.03	-0.55	18.0	-0.08	-0.50	0.15	0.03
I-1K2-H	391	392	393	2.4	0.0	-16.8	4.8	-19.2	-0.03	-0.59	18.6	-0.09	-0.53	0.17	0.03
I-1K2-J	394	395	396	6.7	-4.9	-20.2	6.8	-20.3	0.02	-0.60	3.9	0.02	-0.60	0.04	0.04
I-1K2-K	397	398	399	6.6	-8.4	-19.6	6.7	-19.8	0.03	-0.59	-4.0	0.02	-0.58	-0.04	0.03
I-1K3-A	400	401	402	-1.9	-0.3	-0.9	-0.2	-2.5	-0.03	-0.09	57.1	-0.07	-0.05	0.02	0.03
I-1K3-B	403	404	405	-0.4	-0.6	-0.4	-0.2	-0.6	-0.01	-0.02	-51.9	-0.02	-0.02	-0.00	0.02
I-1K3-C	406	407	408	2.1	-3.0	-1.9	3.8	-3.6	0.09	-0.08	-28.6	0.05	-0.04	-0.07	0.01
I-1K3-D	409	410	411	-0.0	-0.4	-3.4	0.4	-3.9	-0.02	-0.13	19.5	-0.04	-0.11	0.03	0.02
I-1K3-E	412	413	414	-3.3	1.0	-4.9	1.1	-9.2	-0.06	-0.29	40.6	-0.16	-0.19	0.12	0.04
I-1K3-F	415	416	417	-5.0	1.8	-3.4	1.8	-10.3	-0.04	-0.32	48.8	-0.20	-0.16	0.14	0.04
I-1K3-G	418	419	420	-6.6	4.5	-3.6	4.6	-14.8	0.01	-0.44	49.4	-0.25	-0.18	0.22	0.04
I-1K3-H	421	422	423	-1.6	3.1	-7.6	3.0	-12.9	-0.01	-0.39	34.4	-0.13	-0.27	0.18	0.02
I-1K3-J	424	425	426	1.3	2.1	-10.5	4.3	-13.5	0.01	-0.40	24.1	-0.06	-0.32	0.15	0.03
I-1K3-K	427	428	429	5.4	-6.9	-16.2	5.4	-16.2	0.02	-0.48	-2.6	0.02	-0.48	-0.02	0.03
I-1K4-A	435	436	437	-1.3	0.1	-2.2	0.1	-3.7	-0.03	-0.12	38.2	-0.07	-0.09	0.04	0.04
I-1K4-B	438	439	440**	-5.9	1.1	0.0	2.1	-7.9	-0.01	-0.25	63.0	-0.19	-0.06	0.09	0.04
I-1K4-C	433	434	435	-7.6	4.2	-3.6	4.4	-15.6	-0.01	-0.47	50.7	-0.29	-0.19	0.23	0.04
I-1K4-D	436**	437**	438**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-1K5-A	441	440	441	-1.2	-1.1	0.2	0.4	-1.4	-0.00	-0.04	-70.4	-0.04	-0.01	-0.01	0.01
I-1K5-B	442	443	444	0.2	-1.4	2.3	4.1	-1.6	0.12	-0.01	-56.1	0.03	0.06	-0.06	0.02
I-1K5-C	445	446	447	-1.0	-0.2	2.4	2.6	-1.2	0.07	-0.02	-76.8	-0.01	0.07	-0.02	0.02
I-1K5-U	448	449	450	-0.3	-2.3	-0.2	1.7	-2.3	0.03	-0.06	-45.8	-0.01	-0.01	-0.05	0.03
I-1K5-E	453	452	451	-0.2	-1.0	-3.1	-0.1	-3.3	-0.03	-0.11	12.5	-0.04	-0.10	0.02	0.02
I-1K5-F	454	455	456	-1.1	-0.6	-0.7	-0.6	-1.2	-0.03	-0.05	61.5	-0.04	-0.03	0.01	0.02
I-1K5-G	457	458	459	-2.7	0.1	-0.4	0.4	-2.5	-0.02	-0.11	62.9	-0.09	-0.04	0.04	0.04
I-1K5-H	461**	461	462	0.0	1.0	-0.2	1.0	-1.2	0.02	-0.03	42.7	-0.00	-0.01	0.03	0.01
I-1K5-J	463	464	465	-7.4	2.1	0.1	3.2	-10.5	0.00	-0.31	61.5	-0.24	-0.07	0.13	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(1)	SIG(2)	TAU	CONF.
I-1R5-K	466**	467**	468**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-1R6-A	464	470**	471	0.4	0.0	-2.7	0.8	-3.1	-0.01	-0.10	18.7	-0.02	-0.09	0.03	0.03
I-1R6-B	472	473	474**	-1.2	-2.0	0.0	1.4	-2.7	0.02	-0.07	-53.6	-0.04	-0.01	-0.05	0.02
I-1R6-C	475	476	477	0.1	-3.3	-1.1	2.4	-3.4	0.05	-0.09	-38.8	-0.01	-0.05	-0.07	0.02
I-1R6-D	476	479	480	-0.7	-3.4	0.1	2.8	-3.5	0.06	-0.09	-58.3	-0.02	-0.01	-0.07	0.02
I-1R6-E	481**	482	483	0.0	-1.0	-0.8	0.4	-1.1	0.00	-0.05	-29.7	-0.01	-0.03	-0.01	0.02
I-1R6-F	484**	485	486	0.0	0.4	-0.5	0.5	-1.0	0.21	-0.03	34.5	-0.01	-0.02	0.02	0.01
I-1R6-G	487	488	489	-1.2	0.4	-1.8	0.4	-3.4	-0.02	-0.11	40.1	-0.06	-0.07	0.04	0.03
I-1R6-H	490	491	492	0.1	2.0	-0.1	2.0	-2.0	0.05	-0.05	43.2	0.00	-0.00	0.05	0.01
I-1R6-J	493	494	495	0.4	2.0	-0.7	2.1	-2.3	0.05	-0.06	37.9	0.01	-0.02	0.05	0.01
I-1R6-K	496**	497**	498**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2R1-A	511	512	513	2.3	2.5	5.1	5.6	1.8	0.20	0.12	-68.9	0.13	0.19	-0.03	0.02
I-2R1-B	514	515	516	2.3	4.6	10.0	10.2	2.2	0.35	0.14	-82.8	0.14	0.34	-0.03	0.02
I-2R1-C	517	518	519	-2.3	7.7	14.7	14.8	-2.5	0.46	0.07	84.9	0.07	0.46	0.04	0.03
I-2R1-D	520	521	522	-5.0	5.2	18.3	18.4	-5.1	0.56	0.02	-86.3	0.02	0.56	-0.05	0.03
I-2R1-E	523	524	525	-3.9	6.8	17.4	17.4	-3.9	0.53	0.04	89.9	0.04	0.53	0.00	0.02
I-2R1-F	526	527	528	-7.4	5.5	18.7	18.7	-7.4	0.54	-0.06	-89.7	-0.06	0.54	-0.00	0.02
I-2R1-G	529	530	531	-8.1	8.6	23.2	23.2	-8.2	0.68	-0.04	88.1	-0.04	0.68	0.02	0.03
I-2R1-H	532	533	534	-8.8	8.1	24.6	24.6	-8.8	0.72	-0.05	89.6	-0.05	0.72	0.00	0.02
I-2R1-J	535	536	537	-9.1	9.9	25.7	25.7	-9.2	0.76	-0.05	87.3	-0.05	0.76	0.04	0.03
I-2R1-K	538*	539	540	-10.0	10.8	25.4	26.0	-14.6	0.71	-0.22	82.8	-0.21	0.70	0.12	0.04
I-2R1-L	542	543	544	23.1	6.2	-9.3	23.1	-9.3	0.67	-0.08	88.0	-0.08	0.67	0.02	0.04
I-2R1-M	545	546	547	16.0	3.0	-6.8	16.2	-6.9	0.46	-0.07	85.8	-0.06	0.46	0.04	0.04
I-2R1-N	548	549	550	9.8	1.6	-3.8	10.0	-4.0	0.29	-0.03	84.4	-0.03	0.29	0.03	0.03
I-2R2-A	551	552	553	1.4	-0.7	-1.1	1.7	-1.3	0.05	-0.02	-16.8	0.04	-0.02	-0.02	0.02
I-2R2-B	554	555	556	0.0	-1.7	6.4	2.1	-1.7	0.05	-0.03	-8.0	0.01	0.01	-0.04	0.02
I-2R2-C	557	558	559	-2.7	-0.3	2.2	2.1	-2.7	0.05	-0.07	-89.3	-0.07	0.04	-0.00	0.02
I-2R2-D	560	561	562	-1.1	-2.7	5.0	7.5	-3.6	0.21	-0.04	-61.6	0.01	0.15	-0.11	0.02
I-2R2-E	563	564	565	-0.4	-6.9	4.1	10.9	-7.2	0.29	-0.13	-22.2	0.03	0.13	-0.20	0.02
I-2R2-F	566	567	568	-2.6	-4.5	7.0	10.4	-6.0	0.28	-0.09	-62.8	-0.02	0.20	-0.15	0.04
I-2R2-G	569	570	571	-2.6	-6.6	11.5	17.6	-8.6	0.49	-0.11	-61.2	0.03	0.35	-0.26	0.02
I-2R2-H	572	573	574	-5.7	-1.8	15.1	17.0	-7.6	0.48	-0.08	-74.0	-0.04	0.44	-0.15	0.04
I-2R2-J	575	576	577	-6.7	2.2	20.0	20.4	-7.1	0.60	-0.03	-82.7	-0.02	0.59	-0.08	0.04
I-2R2-K	578	579	580	-7.9	8.3	21.2	21.3	-8.0	0.62	-0.05	86.8	-0.05	0.62	0.04	0.04
I-2R3-A	581	582	583	-1.2	-2.7	-7.5	-0.8	-7.9	-0.10	-0.27	13.9	-0.11	-0.26	0.04	0.06
I-2R3-B	584	585	586	-2.5	-4.3	-9.3	-2.2	-9.7	-0.17	-0.34	12.5	-0.18	-0.33	0.04	0.04
I-2R3-C	587	588	589	-0.8	-7.9	-12.1	-0.7	-12.2	-0.14	-0.41	-4.7	-0.15	-0.41	-0.02	0.04
I-2R3-D	590	591	592	0.8	-5.0	-10.2	0.8	-10.2	-0.08	-0.33	-1.5	-0.08	-0.33	-0.01	0.03
I-2R3-E	593	594	595	3.2	-5.0	-5.5	5.2	-6.5	0.11	-0.16	-24.5	0.06	-0.12	-0.10	0.04
I-2R3-F	596	597	598	6.8	-4.2	-1.4	10.7	-5.3	0.30	-0.07	-29.6	0.21	0.02	-0.16	0.04
I-2R3-G	599	600	601	6.7	-5.7	0.6	13.5	-6.2	0.38	-0.07	-36.0	0.23	0.09	-0.22	0.02
I-2R3-H	602	603	604	2.9	-6.4	7.5	16.9	-6.6	0.49	-0.05	-50.6	0.17	0.27	-0.27	0.02
I-2R3-J	605	606	607	0.4	-6.3	11.3	19.3	-7.5	0.56	-0.06	-57.0	0.14	0.38	-0.28	0.03
I-2R3-K	608	609	610	-7.6	5.1	16.1	18.1	-7.6	0.52	-0.07	-89.7	-0.07	0.52	-0.00	0.03
I-2R4-A	611	612	613	2.6	-3.8	-4.9	3.5	-5.7	0.06	-0.15	-17.6	0.05	-0.13	-0.06	0.01
I-2R4-B	614	615	616	7.9	-0.4	-3.2	8.5	-3.8	0.24	-0.04	-13.2	0.23	-0.03	-0.06	0.03
I-2R4-C	617	618	619	11.9	-5.2	2.1	20.2	-6.1	0.60	-0.00	-44.1	0.41	0.19	-0.24	0.04
I-2R4-D	620	621	622	16.4	-8.1	4.9	30.2	-9.0	0.91	0.06	-36.5	0.59	0.32	-0.43	0.03
I-2R4-E	623	624	625	-1.2	-0.8	-2.6	-0.6	-3.2	-0.05	-0.11	29.1	-0.07	-0.10	0.03	0.02
I-2R4-F	626	627	628	-1.0	-2.8	-6.8	-0.8	-7.0	-0.10	-0.24	10.1	-0.10	-0.23	0.02	0.04
I-2R4-G	629	630	631	1.1	-6.7	-13.6	1.1	-13.6	-0.10	-0.44	-1.5	-0.10	-0.44	-0.01	0.03
I-2R4-H	632	633	634	0.7	1.0	-7.5	2.4	-11.3	-0.03	-0.35	31.5	-0.12	-0.26	0.14	0.03
I-2R5-A	635	636	637	0.7	2.3	-2.8	2.7	-4.9	0.04	-0.13	31.2	-0.01	-0.09	0.08	0.02
I-2R5-B	638	639	640	2.9	0.9	-2.4	3.0	-2.5	0.07	-0.05	7.2	0.07	-0.05	0.02	0.01
I-2R5-C	641	642	643	5.5	1.6	-2.5	5.5	-2.5	0.16	-0.03	1.0	0.16	-0.03	0.00	0.01
I-2R5-D	644	645	646	10.0	1.6	-3.3	10.3	-3.0	0.30	-0.02	-7.6	0.30	-0.01	-0.04	0.04

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CUNF	
I-2R5-J	634	635	636	1.0	2.0	-4.8	14.3	-5.2	0.42	-0.04	-7.8	0.41	-0.02	-2.06	0.02	
I-2R5-K	637	638	639	16.6	2.6	-2.9	17.5	-3.8	0.54	0.05	-11.7	0.52	0.07	-0.10	0.03	
I-2R6-A	640	641	642	-0.0	1.7	0.2	1.7	-1.6	0.04	-0.03	47.2	0.00	0.01	0.04	0.02	
I-2R6-B	643	644	645	-1.6	1.9	1.1	2.2	-2.8	0.05	-0.07	60.9	-0.04	0.02	0.05	0.03	
I-2R6-C	646	647	648	0.3	1.0	0.3	1.0	-0.5	0.03	-0.00	45.8	0.01	0.01	0.02	0.01	
I-2R6-D	649	650	651	-0.5	5.4	-0.1	5.4	-6.0	0.12	-0.14	46.1	-0.02	-0.01	0.13	0.01	
I-2R6-E	652	653	654**	1.0	4.2	0.0	4.2	-3.5	0.11	-0.07	41.5	0.03	0.01	0.02	0.02	
I-2R6-F	655	656	657	0.3	4.3	0.1	4.3	-3.9	0.10	-0.09	44.6	0.01	0.01	0.10	0.01	
I-2R6-G	658	659	660	0.1	3.7	0.4	3.7	-3.2	0.07	-0.07	46.2	0.01	0.01	0.08	0.02	
I-2R6-H	661	662	663	0.2	3.1	0.4	3.1	-2.5	0.08	-0.05	46.4	0.01	0.02	0.06	0.04	
I-2R6-I	664	665	666	0.7	3.6	-0.1	3.6	-3.0	0.09	-0.06	41.5	0.02	0.00	0.08	0.02	
I-2R6-K	667	668	669	0.7	5.4	-0.1	5.4	-4.9	0.13	-0.11	42.7	0.02	0.00	0.12	0.03	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

COMBUSTION T-13, LOAD CASE 13, (P)

NOMINAL LOAD = 1.953E 02

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
O-1R1-A	5	2	1	27.5	14.7	0.9	27.5	0.9	0.92	0.30	-88.5	0.30	0.92	-0.02	0.01
U-1R1-B	6	5	4	29.2	16.5	5.2	29.2	5.2	1.01	0.46	86.2	0.46	1.01	0.02	0.03
O-1R1-C	9	6	7	30.3	22.9	11.8	30.3	11.6	1.12	0.68	-84.4	0.69	1.12	-0.04	0.02
O-1R1-D	12	11	10	27.9	24.8	20.8	27.9	20.8	1.13	0.96	-86.8	0.96	1.13	-0.01	0.03
O-1R1-E	15	14	13	23.0	22.6	20.1	23.3	19.6	0.97	0.88	-71.4	0.89	0.96	-0.04	0.04
O-1R1-F	16	17	16	16.7	17.1	15.7	17.2	15.2	0.72	0.67	-59.1	0.68	0.70	-0.02	0.02
O-1R1-G	21	20	19	11.8	12.8	13.6	14.7	11.7	0.60	0.52	7.3	0.60	0.53	0.01	0.03
O-1R1-H	24	23	22	8.0	10.0	11.5	11.6	8.0	0.46	0.38	-3.4	0.46	0.38	-0.00	0.02
O-1R1-I	27	26	25	4.9	7.1	9.4	9.4	4.9	0.36	0.25	0.5	0.36	0.25	0.00	0.01
O-1R1-K	30	29	28	3.5	5.4	8.0	8.0	3.5	0.30	0.19	4.5	0.30	0.19	0.01	0.01
O-1R1-L	101	101	60	2.9	7.5	12.0	12.0	2.9	0.42	0.21	-0.5	0.42	0.21	-0.00	0.01
O-1R1-M	165	164	163	3.3	9.9	16.0	16.0	3.3	0.56	0.27	-0.9	0.56	0.27	-0.00	0.03
U-1R1-N	168	167	166	4.7	12.3	18.5	18.5	4.7	0.66	0.34	-3.1	0.66	0.34	-0.02	0.01
O-1R1-O	171	170	169	5.7	12.4	19.5	19.5	5.7	0.70	0.38	0.5	0.70	0.38	0.00	0.01
O-1R2-A	33	32	31	28.1	15.6	1.1	28.1	1.1	0.94	0.31	-81.9	0.32	0.94	-0.02	0.02
O-1R2-B	36	35	34	32.1	19.8	5.1	32.1	5.0	1.11	0.48	-87.4	0.48	1.11	-0.03	0.02
O-1R2-C	39	38	37	30.4	26.4	11.2	31.9	9.7	1.15	0.64	-74.9	0.67	1.11	-0.13	0.01
O-1R2-D	42	41	40	23.3	31.5	18.3	31.7	10.4	1.15	0.66	-51.0	0.85	0.95	-0.24	0.02
O-1R2-E	45	44	43	23.3	31.2	18.2	31.5	10.0	1.14	0.64	-51.8	0.83	0.95	-0.24	0.02
O-1R2-F	48	47	46	16.1	25.8	15.7	25.8	6.0	0.91	0.45	-45.5	0.68	0.69	-0.23	0.01
O-1R2-G	51	50	49	13.0	20.1	12.7	20.1	5.7	0.72	0.39	-45.6	0.55	0.56	-0.17	0.01
O-1R2-H	54	53	52	7.1	14.7	12.9	15.5	4.5	0.56	0.30	-29.0	0.50	0.36	-0.11	0.02
O-1R2-I	57	56	55	5.0	11.5	11.0	12.6	3.4	0.45	0.24	-24.7	0.41	0.27	-0.08	0.01
O-1R2-K	60	59	58	3.0	7.1	10.4	10.4	3.0	0.37	0.20	-3.2	0.37	0.20	-0.01	0.01
O-1R3-A	63	62	61	20.2	11.3	1.7	20.2	1.7	0.68	0.26	-68.8	0.26	0.68	-0.01	0.01
O-1R3-B	66	65	64	21.6	12.7	3.5	21.6	3.5	0.75	0.33	-84.6	0.33	0.75	-0.00	0.01
O-1R3-C	69	68	67	11.0	19.8	8.2	22.9	6.4	0.81	0.44	-70.5	0.44	0.77	-0.14	0.02
O-1R3-D	72	71	70	19.6	29.3	11.9	29.9	1.6	1.00	0.35	-52.9	0.59	0.76	-0.31	0.01
O-1R3-E	75	74	73	17.7	29.1	11.1	29.5	-0.7	0.96	0.27	-51.4	0.54	0.69	-0.34	0.02
O-1R3-F	78	77	76	12.3	23.3	9.9	23.3	-2.2	0.75	0.16	-46.6	0.44	0.47	-0.29	0.01
O-1R3-G	81	80	79	10.0	20.4	10.1	20.4	-0.4	0.67	0.19	-44.8	0.43	0.43	-0.24	0.03
O-1R3-H	84	83	82	6.6	18.9	13.4	19.5	0.5	0.65	0.21	-34.4	0.51	0.35	-0.20	0.02
O-1R3-I	87	86	85	3.6	13.5	14.9	16.3	2.1	0.56	0.23	-18.7	0.52	0.26	-0.10	0.02
O-1R3-K	90	89	88	3.4	8.5	14.1	14.1	3.4	0.50	0.25	1.7	0.50	0.25	0.01	0.01
O-1R4-A	681	680	679	17.6	27.9	10.7	28.3	0.0	0.93	0.28	-52.0	0.53	0.69	-0.32	0.02
O-1R4-B	93	92	91	11.2	20.1	8.5	20.2	-0.5	0.66	0.18	-48.7	0.39	0.45	-0.24	0.01
O-1R4-C	96	95	94	9.4	19.8	11.3	19.6	0.9	0.66	0.22	-42.1	0.47	0.42	-0.22	0.01
O-1R4-D	99	98	97	11.3	20.3	14.7	20.5	5.5	0.73	0.39	-38.4	0.60	0.52	-0.17	0.01
O-1R5-A	102	101	100	16.6	9.2	2.4	16.6	2.4	0.57	0.24	89.0	0.24	0.57	0.01	0.01
O-1R5-B	105	104	103	19.2	13.0	4.3	19.4	4.2	0.68	0.33	-85.2	0.33	0.68	-0.03	0.02
U-1R5-C	108	107	106	17.6	16.7	5.1	19.6	3.2	0.68	0.30	-64.7	0.34	0.63	-0.14	0.02
O-1R5-D	111	110	109	17.1	23.6	9.6	24.3	2.4	0.82	0.32	-55.1	0.49	0.66	-0.24	0.02
O-1R5-E	114	113	112	17.8	23.3	9.5	24.1	3.0	0.82	0.34	-59.3	0.49	0.67	-0.22	0.01
O-1R5-F	117	116	115	16.1	19.0	5.1	20.6	0.6	0.69	0.22	-61.5	0.33	0.58	-0.19	0.02
O-1R5-G	120	119	118	14.7	17.7	6.2	18.9	2.1	0.64	0.25	-60.2	0.35	0.55	-0.17	0.02
U-1R5-H	123	122	121	13.0	18.1	7.8	18.6	2.2	0.63	0.26	-54.3	0.38	0.51	-0.18	0.01
O-1R5-I	126	125	124	15.3	18.2	7.0	19.3	3.0	0.67	0.29	-60.2	0.36	0.57	-0.16	0.02
O-1R5-K	129	128	127	15.0	18.1	9.0	16.8	5.2	0.67	0.36	-58.1	0.45	0.58	-0.14	0.01
O-1R6-A	132	131	130	16.7	10.7	3.1	16.8	3.0	0.58	0.27	-86.7	0.27	0.58	-0.02	0.01
O-1R6-B	135	134	133	20.3	13.2	4.2	20.3	4.1	0.71	0.34	-86.6	0.34	0.71	-0.02	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH								STRESS - KSI			
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF.
U-1R6-L	138	137	136	21.3	13.9	2.6	21.5	2.4	0.73	0.29	-84.1	0.30	0.73	-0.05	0.02
U-1R6-L	141	140	139	21.5	14.1	5.6	21.5	6.6	0.77	0.43	90.0	0.43	0.77	0.00	0.02
U-1R6-E	144	143	142	20.6	14.8	9.0	20.6	9.0	0.77	0.50	-89.9	0.50	0.77	-0.00	0.02
U-1R6-F	147	146	145	18.0	10.4	4.4	18.1	4.3	0.64	0.32	86.8	0.32	0.64	0.02	0.01
U-1R6-G	150	149	148	18.5	9.9	2.2	18.6	2.2	0.63	0.26	88.2	0.26	0.63	0.02	0.01
U-1R6-H	153	152	151	17.9	11.1	2.8	17.9	2.7	0.62	0.27	-87.0	0.27	0.62	-0.02	0.01
U-1R6-J	156	155	154	17.3	11.3	4.6	17.3	4.6	0.62	0.32	-88.1	0.32	0.61	-0.01	0.02
U-1R6-K	159	158	157	20.1	13.6	7.8	20.1	7.8	0.74	0.45	88.5	0.45	0.74	0.01	0.02
U-2R1-A	174	173	172	26.6	13.9	0.5	26.6	0.5	0.88	0.28	-89.3	0.28	0.88	-0.01	0.02
U-2R1-B	177	176	175	29.3	17.2	2.8	29.4	2.7	0.99	0.38	-87.6	0.38	0.99	-0.03	0.02
U-2R1-C	180	179	178	29.1	21.9	11.9	29.2	11.8	1.08	0.68	-85.4	0.68	1.08	-0.03	0.02
U-2R1-D	183	182	181	25.9	25.3	26.0	26.7	19.2	1.07	0.90	-71.1	0.92	1.05	-0.05	0.02
U-2R1-E	186	185	184	22.6	22.5	20.2	23.0	19.8	0.95	0.88	-68.8	0.89	0.94	-0.03	0.01
U-2R1-F	189	188	187	15.7	15.8	13.7	16.2	13.2	0.67	0.60	-66.5	0.61	0.65	-0.03	0.01
U-2R1-G	192	191	190	10.8	12.6	13.6	13.7	10.7	0.56	0.49	-7.4	0.56	0.49	-0.01	0.02
U-2R1-H	195	194	193	7.1	8.7	10.9	10.9	7.1	0.43	0.34	4.3	0.43	0.34	0.01	0.02
U-2R1-J	198**	197	196	0.0	6.0	8.9	9.4	-0.5	0.31	0.08	-12.9	0.29	0.09	-0.05	0.01
U-2R1-A	201	200	199	3.2	5.4	8.2	8.2	3.2	0.30	0.19	3.3	0.30	0.19	0.01	0.03
U-2R1-L	233	232	231	3.3	7.1	11.8	11.9	3.2	0.42	0.22	3.1	0.42	0.22	0.01	0.02
U-2R1-M	236	235	234	4.0	10.5	15.9	15.9	4.0	0.56	0.29	-2.5	0.56	0.29	-0.01	0.01
U-2R1-N	239	238	237	5.4	12.7	19.3	19.3	5.3	0.69	0.37	-1.5	0.69	0.37	-0.01	0.02
U-2R2-A	204	203	202	24.9	12.6	1.4	24.9	1.4	0.84	0.29	88.6	0.29	0.84	0.01	0.01
U-2R2-B	207	206	205	20.8	16.4	2.7	20.9	2.6	0.91	0.55	-86.1	0.55	0.91	-0.04	0.01
U-2R2-C	210	209	208	27.1	21.5	8.3	27.8	7.6	0.99	0.52	-78.8	0.54	0.97	-0.09	0.01
U-2R2-D	213	212	211	21.6	29.7	10.4	24.8	11.2	1.09	0.66	-48.3	0.85	0.90	-0.21	0.01
U-2R2-E	216	215	214	21.7	30.0	17.0	30.2	8.4	1.08	0.56	-51.2	0.78	0.86	-0.25	0.02
U-2R2-F	219	218	217	14.8	24.3	15.2	24.3	5.3	0.85	0.42	-43.9	0.65	0.63	-0.22	0.03
U-2R2-G	222	221	220	11.0	19.5	13.3	19.6	4.7	0.69	0.35	-40.7	0.55	0.49	-0.17	0.02
U-2R2-H	225	224	223	8.9	17.3	13.0	13.2	4.6	0.55	0.20	-27.4	0.50	0.36	-0.10	0.01
U-2R2-J	228	227	226	5.5	10.8	10.6	11.8	4.3	0.43	0.26	-23.8	0.40	0.29	-0.06	0.02
U-2R2-K	231	230	229	3.9	7.0	8.6	8.7	3.9	0.32	0.21	-9.0	0.32	0.21	-0.02	0.02
U-2R3-A	234	233	232	19.0	10.5	2.2	19.7	2.2	0.67	0.27	88.5	0.27	0.67	0.01	0.02
U-2R3-B	237	236	235	21.4	13.5	2.1	21.4	1.9	0.72	0.27	-84.4	0.28	0.72	-0.04	0.01
U-2R3-C	240	239	238	21.4	19.7	6.2	23.4	4.2	0.81	0.37	-71.1	0.42	0.77	-0.14	0.01
U-2R3-D	243	242	241	17.7	27.2	11.8	27.6	1.9	0.93	0.33	-51.6	0.56	0.70	-0.29	0.01
U-2R3-E	246	245	244	16.1	30.4	15.7	30.4	0.4	1.01	0.31	-46.4	0.64	0.68	-0.35	0.01
U-2R3-F	249	248	247	13.3	23.5	9.3	23.6	-1.1	0.77	0.20	-9.7	0.44	0.53	-0.28	0.01
U-2R3-G	252	251	250	7.7	20.3	13.6	20.8	0.5	0.69	0.22	-36.5	0.52	0.39	-0.22	0.02
U-2R3-H	255	254	253	4.2	15.6	14.9	17.6	1.6	0.60	0.23	-24.1	0.53	0.29	-0.14	0.02
U-2R3-J	258	257	256	3.6	13.2	13.9	15.3	2.0	0.53	0.22	-20.5	0.49	0.26	-0.19	0.01
U-2R3-K	261	260	259	2.9	7.3	12.5	12.6	2.9	0.44	0.22	1.8	0.44	0.22	0.01	0.01
U-2R4-A	264	263	262	19.7	26.6	8.3	27.8	0.3	0.92	0.28	-57.2	0.47	0.73	-0.29	0.02
U-2R4-B	267	266	265	12.4	21.6	8.4	21.3	-0.1	0.70	0.21	-49.9	0.41	0.50	-0.24	0.02
U-2R4-C	270	269	268	10.0	18.5	10.1	18.5	1.6	0.63	0.24	-44.8	0.43	0.43	-0.19	0.04
U-2R4-D	273	272	271	11.8	19.0	10.8	19.6	3.0	0.68	0.29	-46.8	0.47	0.50	-0.19	0.02
U-2R4-E	276	275	274	19.7	10.7	3.0	19.7	3.0	0.68	0.29	87.7	0.29	0.68	0.02	0.02
U-2R4-F	279	278	277*	19.7	12.8	1.6	19.9	1.3	0.67	0.24	-83.3	0.25	0.66	-0.05	0.02
U-2R4-G	282	281	280	20.4	12.7	2.2	20.5	2.1	0.70	0.27	-85.7	0.28	0.70	-0.03	0.02
U-2R4-H	285	284	283	17.0	23.8	9.7	24.4	2.3	0.83	0.32	-54.7	0.49	0.66	-0.24	0.01
U-2R4-J	288	287	286	18.0	23.0	10.3	23.8	4.5	0.83	0.38	-56.9	0.52	0.70	-0.20	0.03
U-2R5-A	286	287	286	15.3	20.3	6.7	21.3	0.7	0.71	0.23	-27.4	0.37	0.57	-0.22	0.01
U-2R5-B	291	290	289	14.8	17.5	4.9	19.0	0.7	0.63	0.21	-61.5	0.31	0.54	-0.18	0.01
U-2R5-C	294	293	292	13.7	17.5	6.3	18.4	1.6	0.62	0.23	-58.1	0.34	0.51	-0.17	0.01
U-2R5-D	297	296	295	15.9	18.0	6.5	19.4	3.0	0.67	0.29	-62.3	0.37	0.59	-0.10	0.01
U-2R5-E	300	299	298	12.4	18.5	7.5	19.5	3.4	0.68	0.31	-59.7	0.40	0.58	-0.15	0.02
U-2R5-F	303	302*	301	16.8	8.5	3.6	17.0	3.4	0.59	0.28	82.6	0.29	0.59	0.04	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.G. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH								STRESS - KSI			
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CORF
U-240-B	300	305	304	19.8	12.9	3.7	19.8	3.7	0.69	0.32	-82.0	0.32	0.69	-0.01	0.01
O-246-C	309	308	307	19.7	11.2	3.4	19.7	3.4	0.68	0.31	88.8	0.31	0.68	0.01	0.02
O-246-U	312	311	310	20.6	14.4	6.9	20.7	6.9	0.75	0.43	-86.0	0.43	0.75	-0.01	0.02
U-240-L	315	314	313	20.0	14.0	6.9	20.0	6.9	0.75	0.49	-89.4	0.49	0.75	-0.00	0.02
O-246-F	316	317	316	18.0	12.1	5.1	18.0	5.1	0.64	0.35	-87.5	0.35	0.64	-0.01	0.02
U-246-G	321	320	319	17.5	10.5	2.8	17.5	2.8	0.63	0.26	-88.6	0.26	0.60	-0.01	0.02
U-246-H	324	323	322	18.2	11.0	3.7	18.2	3.7	0.62	0.30	-89.8	0.30	0.64	-0.00	0.01
O-240-J	327	326	325	20.9	12.4	4.5	20.9	4.5	0.73	0.35	89.2	0.35	0.73	0.01	0.02
O-246-K	330	329	328	19.4	12.2	2.8	19.5	2.7	0.67	0.28	-86.1	0.28	0.67	-0.02	0.02
I-141-A	340	341	342	9.5	16.1	22.6	22.6	9.5	0.84	0.54	89.6	0.54	0.84	0.00	0.06
I-141-B	343	344	345	-4.9	0.7	22.0	22.2	-5.0	0.69	0.05	-86.1	0.06	0.68	-0.04	0.02
I-141-C	346	347	348	-11.4	3.3	15.9	16.0	-11.4	0.41	-0.22	87.9	-0.22	0.41	0.02	0.01
I-141-E	349	350	351	-6.8	0.5	5.9	6.0	-6.8	0.13	-0.17	85.7	-0.17	0.13	0.02	0.01
I-141-F	352	353	354	-3.4	1.2	5.3	5.3	-3.4	0.14	-0.06	88.5	-0.06	0.14	0.01	0.01
I-141-G	355	356	357	9.3	7.6	5.9	9.3	5.9	0.37	0.29	-0.2	0.37	0.29	-0.00	0.02
I-141-H	358	359	360	20.7	13.0	7.1	20.8	7.1	0.76	0.44	-3.9	0.75	0.44	-0.02	0.01
I-141-I	361	362	363	27.8	16.8	5.8	27.8	5.8	0.97	0.47	0.0	0.97	0.47	0.00	0.01
I-141-J	364	365	366	30.6	18.0	6.5	30.7	6.5	1.07	0.52	0.5	1.07	0.52	0.01	0.02
I-141-K	367	368	369	34.3	14.4	6.7	34.3	6.6	1.20	0.56	1.9	1.20	0.56	0.02	0.03
I-141-L	499	500	501	30.2	19.7	8.7	30.8	8.7	1.10	0.59	-0.2	1.10	0.59	-0.00	0.01
I-141-M	504	503	502	25.2	12.9	6.4	25.2	6.1	0.91	0.52	1.0	0.91	0.52	0.01	0.01
I-141-N	505**	506	507	0.0	15.2	19.1	27.9	-8.7	0.83	-0.01	60.8	0.19	0.63	0.36	0.06
I-141-O	508	509	510	21.2	14.5	6.5	21.2	6.8	0.77	0.43	2.2	0.76	0.43	0.01	0.02
I-142-A	376	371	372	4.4	18.0	26.6	26.9	4.1	0.93	0.40	83.6	0.41	0.92	0.06	0.01
I-142-B	373	374	375	-4.5	14.8	28.6	28.8	-4.7	0.90	0.11	85.3	0.13	0.90	0.06	0.01
I-142-C	376	377	378**	-11.2	9.7	0.0	10.7	-21.9	0.14	-0.62	55.1	-0.37	-0.11	0.35	0.01
I-142-E	374	350	381	-1.3	-7.0	10.6	17.7	-8.5	0.50	-0.10	-58.5	0.06	0.33	-0.27	0.01
I-142-F	382	383	384	-3.0	8.0	15.0	15.2	-3.3	0.47	0.04	83.8	0.05	0.46	0.05	0.01
I-142-G	385*	386	387	6.7	12.0	8.4	12.1	3.0	0.43	0.22	50.2	0.31	0.34	0.10	0.02
I-142-H	388	389	390	20.9	17.2	7.0	21.6	6.2	0.77	0.42	12.7	0.76	0.44	0.08	0.02
I-142-I	391	392	393	27.4	20.8	0.6	28.1	6.0	0.98	0.47	9.9	0.97	0.49	0.09	0.01
I-142-J	394	395	396	29.2	18.9	5.3	29.3	5.2	1.02	0.46	4.0	1.02	0.46	0.04	0.02
I-142-K	397	398	399	35.1	19.5	5.5	35.1	5.5	1.21	0.53	-1.5	1.21	0.53	-0.02	0.01
I-143-A	400*	401	402	63.5	24.2	33.4	76.9	19.9	2.73	1.42	-29.0	2.42	1.73	-0.56	0.20
I-143-B	403	404	405	-3.0	24.0	43.0	43.4	-3.3	1.49	0.32	85.1	0.33	1.39	0.09	0.01
I-143-C	406	407	408	-11.8	22.7	46.6	47.1	-12.3	1.43	0.06	84.8	0.07	1.42	0.12	0.02
I-143-D	409	410	411	-10.2	12.3	40.9	41.0	-10.4	1.25	0.06	-86.6	0.07	1.25	-0.07	0.01
I-143-E	412	413	414	-0.9	22.2	30.8	32.4	-2.5	1.04	0.24	77.7	0.27	1.00	0.17	0.01
I-143-F	415	416	417	10.3	23.0	19.9	24.3	5.9	0.86	0.43	60.6	0.54	0.76	0.18	0.01
I-143-G	418	419	420	15.7	21.9	13.2	22.0	6.9	0.79	0.44	40.1	0.65	0.59	0.17	0.01
I-143-H	421	422	423	24.0	24.7	8.4	27.7	4.6	0.96	0.43	23.7	0.87	0.51	0.20	0.01
I-143-I	424	425	426	27.2	24.8	5.3	30.2	2.4	1.02	0.38	19.0	0.95	0.44	0.20	0.01
I-143-K	427	428	429	32.3	14.2	3.0	32.7	2.6	1.10	0.41	-6.6	1.09	0.42	-0.08	0.01
I-144-A	685	686	687	0.9	27.3	34.4	37.0	-1.7	1.20	0.31	75.1	0.37	1.14	0.22	0.02
I-144-B	430	431	432	11.0	24.2	17.4	24.7	3.7	0.85	0.37	53.8	0.53	0.68	0.23	0.01
I-144-C	433	434	435	15.8	26.6	18.4	26.7	7.4	0.95	0.51	48.9	0.70	0.76	0.22	0.03
I-144-D	436**	437**	438**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-145-A	440	441	442	13.5	29.1	49.3	49.4	13.3	1.76	0.93	-86.5	0.93	1.76	-0.05	0.05
I-145-B	442	443	444	-2.9	26.9	52.8	52.9	-3.0	1.71	0.42	88.0	0.43	1.71	0.05	0.02
I-145-C	445	446	447	-11.9	36.4	64.2	65.7	-13.4	2.03	0.21	82.1	0.24	2.00	0.25	0.01
I-145-D	448	449	450	-9.6	20.5	51.0	51.0	-9.6	1.59	0.19	-89.6	0.19	1.59	-0.01	0.02
I-145-E	453	452	451	32.4	24.2	-0.7	34.4	-2.7	1.11	0.25	13.4	1.06	0.30	0.19	0.03
I-145-F	454	455	456	7.0	24.4	23.1	27.8	2.3	0.94	0.35	64.5	0.46	0.83	0.23	0.02
I-145-G	457	458	459	7.6	21.5	26.4	27.4	6.6	0.97	0.49	77.2	0.51	0.95	0.10	0.05
I-145-H	460**	461	462	0.0	22.7	23.7	27.9	-4.2	0.88	0.14	68.7	0.23	0.78	0.25	0.02
I-145-I	463	464	465	11.2	23.7	24.2	26.6	8.9	0.96	0.56	68.6	0.61	0.91	0.14	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-1K5- K	466**	467**	468**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-1K6- A	469	470**	471	8.1	0.0	38.9	51.6	-4.6	1.65	0.36	-61.6	0.65	1.36	-0.54	0.01
I-1K6- B	472	473	474	-4.2	28.8	35.5	55.6	-4.4	1.79	0.40	86.9	0.41	1.79	0.07	0.01
I-1K6- C	475	476	477	-16.8	23.4	71.7	71.8	-17.0	2.20	0.15	-87.4	0.15	2.20	-0.09	0.02
I-1K6- D	478	479	480	-9.6	28.6	80.3	51.2	-9.9	1.79	0.24	85.7	0.25	1.78	0.12	0.02
I-1K6- E	481	482	483	-6.3	16.3	36.0	36.6	-6.4	1.14	0.15	88.4	0.15	1.14	0.03	0.03
I-1K6- F	484	485	486	3.2	17.8	30.7	30.7	3.5	1.05	0.42	88.6	0.42	1.05	0.02	0.01
I-1K6- G	487	488	489	8.4	16.6	26.6	26.7	8.4	0.96	0.54	-87.0	0.54	0.96	-0.02	0.01
I-1K6- H	490	491	492	9.3	16.1	25.8	25.9	9.1	0.94	0.56	-85.0	0.56	0.94	-0.03	0.02
I-1K6- J	493	494	495	9.6	17.7	25.3	25.3	9.6	0.93	0.57	89.3	0.57	0.93	0.00	0.02
I-1K6- K	496**	497**	498**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I-2K1- A	511*	512*	513	39.7	57.2	22.9	58.5	4.1	1.97	0.71	36.0	1.54	1.15	0.60	0.31
I-2K1- B	514	515	516	0.3	16.2	22.5	23.5	-0.6	0.77	0.21	77.9	0.23	0.74	0.11	0.02
I-2K1- C	517	518	519	-11.6	3.1	15.7	15.7	-11.6	0.40	-0.23	67.9	-0.23	0.40	0.02	0.01
I-2K1- D	520	521	522	-1.5	1.2	8.9	9.4	-2.1	0.29	0.03	-77.1	0.04	0.28	-0.06	0.02
I-2K1- E	523	524	525	-1.6	1.3	5.8	5.9	-1.7	0.18	0.00	-83.7	0.01	0.18	-0.02	0.01
I-2K1- F	526	527	528	8.2	6.3	5.1	8.3	5.1	0.32	0.25	-6.3	0.32	0.25	-0.01	0.02
I-2K1- G	529	530	531	21.3	14.2	6.0	21.4	6.0	0.76	0.41	2.0	0.76	0.41	0.01	0.01
I-2K1- H	532	533	534	26.7	18.1	10.6	28.8	10.5	1.05	0.63	7.9	1.05	0.63	-0.05	0.01
I-2K1- J	535	536	537	33.1	19.8	6.5	33.1	6.5	1.16	0.54	-0.0	1.16	0.54	-0.00	0.02
I-2K1- K	538	539	540	32.7	19.0	6.9	32.8	6.9	1.15	0.55	-1.8	1.15	0.55	-0.04	0.02
I-2K1- L	672	671	670	6.3	18.8	29.7	29.7	6.3	1.04	0.50	-1.9	1.04	0.50	-0.04	0.01
I-2K1- M	675	674	673	6.4	15.1	24.4	24.4	6.4	0.87	0.45	0.8	0.87	0.45	0.01	0.01
I-2K1- N	678	677	676	6.5	13.6	22.3	22.3	6.4	0.80	0.43	2.7	0.80	0.43	0.02	0.01
I-2K2- A	541	542*	543	5.1	65.5	36.9	67.7	-21.7	2.02	-0.04	54.1	0.67	1.31	0.98	0.12
I-2K2- B	544	545	546	-2.8	15.3	28.2	28.4	-3.0	0.91	0.18	85.3	0.19	0.90	0.06	0.01
I-2K2- C	547	546	549	-10.2	8.3	25.9	25.9	-10.5	0.75	-0.09	89.0	-0.09	0.75	-0.01	0.01
I-2K2- D	550	551	552	-7.9	3.9	15.9	15.9	-7.9	0.45	-0.10	-89.7	-0.10	0.45	-0.03	0.01
I-2K2- E	553	554	555	-2.4	9.1	17.3	17.3	-3.7	0.54	0.02	83.9	0.06	0.54	0.05	0.03
I-2K2- F	556	557	558	9.7	13.5	8.4	13.5	4.6	0.49	0.29	40.6	0.40	0.37	0.16	0.02
I-2K2- G	559	560	561	19.7	17.7	5.6	21.1	5.1	0.75	0.36	17.5	0.71	0.41	0.11	0.02
I-2K2- H	562	563	564	26.4	18.5	5.2	26.8	4.9	0.93	0.43	7.1	0.92	0.43	0.06	0.01
I-2K2- J	565	566	567	31.4	20.1	5.9	31.5	5.8	1.10	0.50	3.3	1.09	0.51	0.03	0.01
I-2K2- K	568	569	570	31.0	18.6	5.2	31.0	5.2	1.07	0.48	1.2	1.07	0.48	0.01	0.01
I-2K3- A	571	572	573	5.0	22.0	33.7	35.9	4.8	1.17	0.49	84.7	0.50	1.16	0.00	0.01
I-2K3- B	574	575	576	-2.4	20.9	41.1	41.1	-2.5	1.33	0.32	87.9	0.33	1.33	0.04	0.02
I-2K3- C	577	578	579	-11.2	10.7	47.2	47.2	-11.2	1.45	0.10	89.3	0.10	1.45	0.02	0.02
I-2K3- D	580	581	582	-8.6	8.0	39.3	40.4	-9.7	1.23	0.08	-81.5	0.11	1.21	-0.17	0.02
I-2K3- E	583	584	585	-1.0	18.3	29.3	29.9	-1.6	0.97	0.24	82.2	0.26	0.96	0.19	0.01
I-2K3- F	586	587	588	12.1	24.2	17.0	24.5	4.7	0.85	0.40	52.1	0.57	0.68	0.22	0.01
I-2K3- G	589	590	591	17.8	21.2	4.6	22.2	5.2	0.78	0.39	30.8	0.68	0.49	0.17	0.04
I-2K3- H	592	593	594	23.4	22.2	6.4	26.1	3.7	0.90	0.38	20.3	0.83	0.44	0.17	0.01
I-2K3- J	595	596	597	26.5	24.8	7.1	29.4	4.2	1.01	0.43	19.7	0.94	0.50	0.18	0.01
I-2K3- K	598	599	600	28.2	11.9	2.5	28.6	2.0	0.96	0.35	-7.4	0.95	0.36	-0.08	0.01
I-2K4- A	608	609	610	0.1	28.0	34.9	37.8	-2.8	1.22	0.28	74.5	0.35	1.15	0.24	0.01
I-2K4- B	601	602	603	10.5	25.1	20.4	26.2	4.7	0.91	0.41	58.5	0.55	0.78	0.22	0.03
I-2K4- C	604	605	606	16.8	26.1	18.8	26.2	9.4	0.96	0.57	48.5	0.74	0.79	0.19	0.01
I-2K4- D	607	608	609	18.2	27.4	18.0	27.4	8.8	0.99	0.56	44.6	0.78	0.77	0.21	0.01
I-2K5- A	610*	611	612	32.6	30.9	54.1	59.9	27.0	2.24	1.48	-65.1	1.62	1.11	-0.29	0.29
I-2K5- B	613	614	615	-2.9	25.7	52.9	52.9	-2.9	1.72	0.43	89.3	0.43	1.71	0.02	0.04
I-2K5- C	616	617	618	-13.6	29.6	65.2	65.4	-13.8	2.02	0.19	87.3	0.20	2.02	0.02	0.04
I-2K5- D	619	620	621	-6.3	9.0	51.9	55.0	-9.4	1.72	0.23	-77.3	0.31	1.65	-0.32	0.01
I-2K5- E	622	623	624	-2.9	21.3	33.0	34.1	-3.9	1.08	0.21	80.5	0.23	1.06	0.14	0.01
I-2K5- F	625	626	627	6.1	24.9	27.7	30.3	3.5	1.03	0.42	71.8	0.48	0.97	0.18	0.04
I-2K5- G	628	629	630	4.4	23.3	24.0	26.6	6.9	0.94	0.49	68.9	0.55	0.88	0.15	0.02
I-2K5- H	631	632	633	11.1	22.7	23.0	25.3	8.8	0.92	0.54	68.4	0.59	0.87	0.13	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-2R5-J	634	635	636	10.4	22.4	23.1	25.2	8.2	0.91	0.52	69.1	0.57	0.86	0.13	0.01
I-2R5-K	637	638	639	9.0	24.1	23.8	27.1	5.8	0.95	0.46	67.1	0.53	0.87	0.13	0.02
I-2R6-A	640	641	642	11.3	26.8	40.3	40.4	11.3	1.44	0.77	88.1	0.77	1.44	0.02	0.02
I-2R6-B	643	644	645	-2.7	21.6	54.9	55.2	-3.1	1.79	0.44	-85.6	0.45	1.78	-0.10	0.02
I-2R6-C	646	647	648	-10.6	27.4	73.2	73.2	-18.6	2.23	0.11	89.9	0.11	2.23	0.00	0.02
I-2R6-D	649	650	651	-11.0	14.6	48.5	48.8	-11.3	1.50	0.11	-86.0	0.12	1.49	-0.10	0.01
I-2R6-E	652	653	654*	-5.2	20.0	0.0	20.2	-26.0	0.41	-0.66	48.6	-0.19	-0.06	0.53	0.01
I-2R6-F	655	656	657	4.1	18.6	31.6	31.6	4.1	1.08	0.45	88.4	0.45	1.08	0.02	0.02
I-2R6-G	658	659	660	0.2	18.1	28.0	28.0	8.2	1.00	0.55	90.0	0.55	1.00	0.00	0.01
I-2R6-H	661	662	663	9.8	18.0	25.4	25.5	9.8	0.94	0.58	88.5	0.58	0.94	0.01	0.01
I-2R6-J	664*	665	666	16.3	18.3	25.6	26.3	15.6	1.02	0.77	-75.1	0.79	1.00	-0.06	0.09
I-2R6-K	667	668	669	9.0	17.4	25.7	25.7	9.0	0.94	0.55	89.6	0.55	0.94	0.00	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

IHC0021 STOP 0

COMBUSTION T-16, LOAD CASE 1, M3X

NOMINAL LOAD = 1.097E 05

LOCATION	GAGE NUMBERS			STRAIN - MICROPINCHES/INCH					STRESS - FSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
0-101-A	2	2	1	-33.5	-32.8	-34.0	-33.5	-34.0	-2.63	-5.41	-09.6	-5.41	-2.63	-0.02	0.09
0-101-F	6	5	6	17.3	-24.7	-45.7	19.1	-47.4	0.16	-1.37	80.7	-1.33	0.12	0.24	0.04
0-101-C	9	8	7	26.6	-37.6	-31.6	35.1	-45.9	0.70	-1.20	71.4	-1.01	0.50	0.17	0.02
0-101-F	17	11	14	20.0	-35.7	-53.2	47.6	-61.4	0.96	-1.55	74.0	-1.36	0.77	0.66	0.04
0-101-F	15	14	13	22.3	-31.8	-38.4	42.5	-48.6	0.92	-1.18	70.4	-1.35	0.69	0.66	0.02
0-101-F	18	17	16	27.0	-13.5	-38.1	34.4	-24.5	0.89	-0.47	-64.3	-0.21	0.64	-0.53	0.04
0-101-G	21	20	19	27.4	-0.4	-7.7	24.3	-9.6	0.71	-0.08	-13.6	0.66	-0.02	-0.18	0.04
0-101-F	24	23	22	9.1	12.1	-6.1	14.5	-11.5	0.27	-0.24	27.1	0.24	-0.11	0.24	0.03
0-101-J	27	26	25	1.3	6.0	-2.9	7.2	-8.8	0.15	-0.22	37.4	0.01	-0.08	0.18	0.02
0-101-K	28	29	28	-0.4	1.4	-2.6	1.6	-4.7	0.01	-0.14	34.9	-0.04	-0.09	0.07	0.04
0-101-L	23	32	31	0.3	6.5	0.4	6.5	-5.8	0.15	-0.13	45.2	0.01	0.02	0.14	0.02
0-102-F	36	35	34	15.3	-39.9	-42.0	18.7	-65.4	-0.03	-1.97	78.4	-1.09	-0.11	0.38	0.04
0-102-F	39	38	37	27.6	-14.2	-14.2	48.3	-34.9	1.25	-0.24	67.5	-0.09	1.10	0.60	0.04
0-102-C	42	41	40	25.0	-26.4	-26.9	47.5	-30.4	1.18	-0.83	67.7	-0.54	0.89	0.70	0.04
0-102-F	45	44	43	29.1	-69.7	-34.7	71.3	-76.9	1.59	-1.63	57.8	-0.26	0.62	1.54	0.24
0-102-F	49	47	45	19.0	-12.6	-22.3	19.0	-42.3	0.21	-1.21	89.1	-1.21	0.21	0.02	0.02
0-102-F	51	50	49	15.4	-5.6	-37.6	16.1	-39.3	0.14	-1.14	38.7	-0.36	-0.04	-1.62	0.04
0-102-G	54	53	52	4.1	-4.0	-36.9	7.6	-46.3	-0.13	-1.25	15.5	-0.23	-1.17	0.23	0.05
0-102-H	57	56	55	-6.2	-6.5	-25.3	-0.4	-41.1	-0.42	-1.26	22.3	-0.56	-1.22	0.22	0.04
0-102-J	60	59	58	-11.1	-15.0	-21.7	-9.8	-33.0	-0.65	-1.18	12.8	-0.68	-1.11	0.12	0.04
0-102-K	62	62	61	-7.2	-14.9	-28.8	-6.8	-29.2	-0.51	-1.02	8.3	-0.52	-1.02	0.07	0.06
0-102-L	66	65	64	-24.0	-20.8	-14.6	-14.4	-24.2	-0.71	-0.94	-81.0	-0.93	-0.72	-0.03	0.06
0-103-A	69	68	67	15.6	4.2	8.2	20.4	3.4	0.71	0.31	57.7	0.43	0.59	0.13	0.03
0-103-C	72	71	70	14.1	2.7	10.3	21.9	2.6	0.75	0.30	56.6	0.48	0.57	0.22	0.06
0-103-C	75	74	72	4.0	-5.2	-1.8	8.1	-5.9	0.21	-0.12	57.2	-0.02	0.11	0.15	0.02
0-103-F	70	77	76	-0.1	-14.5	-12.5	4.0	-16.6	-0.03	-0.51	63.5	-0.41	-0.12	0.19	0.04
0-103-E	81	80	79	0.8	-14.6	-26.7	0.9	-26.8	-0.24	-0.58	86.2	-0.87	-0.24	0.12	0.02
0-103-F	84	83	82	-5.0	-7.1	-31.9	0.3	-35.2	-0.24	-1.16	-27.2	-0.51	-0.99	-0.13	0.05
0-103-C	87	86	85	-9.3	-6.3	-27.8	-3.2	-37.9	-0.44	-1.11	26.5	-0.58	-1.01	0.28	0.03
0-103-F	90	89	88	-17.3	-9.3	-29.2	-6.5	-34.9	-0.56	-1.21	26.7	-0.69	-1.08	0.26	0.05
0-103-J	95	92	92	-12.7	-15.1	-21.0	-11.1	-32.6	-0.70	-1.22	20.0	-0.76	-1.16	0.17	0.02
0-103-Y	91	95	94	-6.5	-20.2	-32.7	-6.4	-32.7	-0.54	-1.14	-1.5	-0.54	-1.14	-0.02	0.05
0-103-L	96	98	97	-36.1	-30.2	-20.9	-20.4	-36.3	-1.04	-1.40	-92.9	-1.40	-1.05	-0.04	0.01
0-104-A	102	101	100	1.5	12.8	15.8	16.9	0.4	0.56	0.18	-15.1	0.54	0.21	-0.10	0.04
0-104-B	105	104	102	-2.9	14.2	11.0	16.8	-7.8	0.48	-0.09	-26.4	0.26	0.02	-0.22	0.02
0-104-C	108	107	106	-5.2	14.5	10.3	16.8	-11.7	0.44	-0.22	-28.6	0.29	-0.07	-0.28	0.05
0-104-U	111	110	109	-12.1	11.9	4.7	14.0	-21.4	0.25	-0.37	-20.8	0.04	-0.35	-0.26	0.03
0-104-F	114	113	112	-19.3	-1.9	1.3	3.3	-20.3	-0.09	-0.64	28.1	-0.21	-0.51	0.23	0.03
0-104-F	117	116	115	-19.7	-14.6	-1.4	-0.5	-20.6	-0.22	-0.58	78.0	-0.56	-0.24	-0.08	0.02
0-104-G	120	119	118	-14.7	-12.3	-7.2	-7.0	-15.0	-0.38	-0.56	-80.0	-0.56	-0.38	-0.03	0.02
0-104-H	123	122	121	-10.4	-12.3	-17.1	-10.1	-17.4	-0.51	-0.67	11.6	-0.51	-0.67	0.03	0.05
0-104-J	126	125	124	-24.2	-23.2	-12.3	-10.5	-26.0	-0.60	-0.96	-70.0	-0.92	-0.64	-0.11	0.02
0-105-A	129	121	127	0.4	14.0	4.7	14.2	-9.1	0.38	-0.14	-39.6	0.16	0.06	-0.26	0.02
0-105-F	132	131	130	0.6	16.8	0.4	16.8	-15.7	0.40	-0.35	-45.2	0.02	0.02	-0.37	0.02
0-105-C	135	134	132	-1.4	27.7	3.9	27.7	-26.1	0.66	-0.59	-42.7	0.08	-0.02	-0.62	0.03
0-105-D	134	137	136	-0.2	29.5	1.5	29.5	-29.3	0.69	-0.64	-44.1	0.05	0.00	-0.67	0.03
0-105-F	141	140	139	-28.2	4.8	28.4	28.7	-28.6	0.67	-0.66	-4.7	0.66	-0.65	-0.11	0.03
0-105-F	144	143	142	-2.0	-23.2	1.6	22.9	-23.3	0.53	-0.54	-47.2	-0.05	0.03	-0.53	0.03
0-105-C	147	146	145	-0.7	-17.3	-0.9	15.7	-17.3	0.35	-0.42	-44.8	-0.03	-0.04	-0.38	0.02
0-105-H	150	149	148	0.9	-9.2	-2.7	7.5	-9.4	0.16	-0.23	-38.8	0.00	-0.08	-0.19	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI				TAU	CONF.	
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)			SIG(T)
C-155-J	153	152	151	-4.2	-3.7	-0.1	0.4	-4.7	-0.03	-0.15	-71.7	-0.14	-0.04	-0.04	0.03
C-201-A	169	167	166	42.4	78.0	117.9	117.9	42.3	4.21	2.56	1.6	4.30	2.56	0.05	0.02
C-201-B	171	170	169	-21.2	5.2	39.8	40.1	-21.5	1.11	-0.31	3.8	1.10	-0.21	0.10	0.03
C-201-C	174	172	172	-26.1	-12.2	46.8	53.2	-32.5	1.43	-0.55	15.9	1.28	-0.40	0.52	0.05
C-201-D	177	176	175	-32.7	-27.4	48.4	61.7	-45.9	1.58	-0.90	20.5	1.27	-0.60	0.82	0.05
C-201-E	180	178	178	-24.7	-36.8	31.7	52.7	-45.7	1.29	-0.98	27.5	0.80	-0.50	0.93	0.05
C-201-F	183	182	181	-29.3	-35.5	9.5	22.3	-42.0	0.32	-1.17	71.5	-1.02	0.17	0.45	0.06
C-201-G	186	185	184	-24.8	-48.3	11.8	39.2	-52.1	0.78	-1.33	-56.8	-0.70	0.15	-0.96	0.05
C-201-H	189	188	187	16.4	-36.7	-10.4	44.9	-30.9	1.10	-0.84	-35.7	0.44	-0.18	-0.92	0.03
C-201-I	192	191	190	20.5	-7.8	0.9	31.5	-10.2	0.94	-0.02	-31.0	0.68	0.23	-0.43	0.03
C-201-J	195	194	193	14.7	1.5	9.1	24.1	0.6	0.90	0.26	-74.2	0.63	0.43	-0.25	0.06
C-201-K	198	197	196	44.7	1.0	11.7	60.1	-3.6	1.94	0.48	-29.4	1.59	0.83	-0.63	0.06
C-201-L	201	200	199	10.9	63.6	75.8	81.6	5.1	2.74	0.97	-15.9	2.61	1.11	-0.47	0.06
C-201-M	204	203	202	12.9	44.0	11.9	44.0	-19.3	1.26	-0.20	-45.4	0.52	0.54	-0.73	0.04
C-201-N	207	206	205	27.8	48.5	40.8	70.5	7.1	2.39	0.93	-34.9	1.92	1.41	-0.69	0.07
C-201-O	210	209	208	33.9	56.6	57.7	61.9	29.7	2.33	1.59	-21.1	2.24	1.69	-0.25	0.07
C-201-P	213	212	211	42.5	26.4	65.0	83.2	24.2	2.98	1.62	33.8	2.56	2.04	0.63	0.07
C-201-Q	216	215	214	45.1	16.0	61.4	91.4	15.1	3.16	1.40	83.8	1.42	3.14	0.19	0.06
C-201-R	219	218	217	47.2	27.6	54.0	73.8	27.4	2.70	1.63	-49.2	2.39	2.25	-0.53	0.05
C-201-S	222	221	220	39.9	45.2	54.9	55.1	39.7	2.21	1.85	-84.2	1.86	2.20	-0.04	0.07
C-201-T	225	224	223	26.9	52.1	54.3	58.5	22.7	2.15	1.33	70.0	1.42	2.06	0.27	0.06
C-201-U	228	227	226	9.6	36.3	47.1	49.6	7.1	1.71	0.72	76.0	0.76	1.65	0.23	0.06
C-201-V	231	230	229	40.4	17.4	21.2	47.3	14.3	1.70	0.96	-27.2	1.54	1.10	-0.31	0.07
C-201-W	234	233	232	-0.7	2.0	-19.6	5.3	-25.6	-0.08	-0.79	-64.0	-0.65	-0.22	-0.28	0.04
C-201-X	237	236	235	12.1	10.0	-5.0	14.9	-6.8	0.42	-0.08	-73.3	-0.03	0.38	-0.14	0.03
C-201-Y	240	239	238	20.1	19.4	10.9	21.5	9.5	0.80	0.53	-70.0	0.56	0.77	-0.09	0.06
C-201-Z	243	242	241	16.9	20.1	22.2	22.2	16.9	0.90	0.78	-6.3	0.90	0.78	-0.01	0.05
C-202-A	246	245	244	7.3	20.7	27.3	37.3	7.2	1.30	0.61	2.9	1.30	0.61	0.04	0.04
C-202-B	249	248	247	11.4	14.9	41.0	44.9	7.6	1.56	0.69	63.8	0.86	1.39	0.21	0.05
C-202-C	252	251	250	14.5	7.9	35.6	45.2	4.0	1.54	0.61	-60.8	0.83	1.32	-0.40	0.03
C-202-D	255	254	253	8.0	14.5	41.4	44.2	5.1	1.51	0.61	-74.3	0.67	1.44	-0.23	0.05
C-202-E	258	257	256	8.5	21.1	42.4	43.0	8.0	1.50	0.69	-82.8	0.70	1.48	-0.10	0.05
C-202-F	261	260	259	-2.8	17.5	36.4	36.4	-2.8	1.17	0.27	89.0	0.27	1.17	0.02	0.04
C-202-G	264	263	262	-26.5	-22.4	18.1	24.5	-33.0	0.48	-0.84	-70.4	-0.70	0.33	-0.42	0.04
C-202-H	267	266	265	14.0	-12.7	-15.8	19.0	-20.0	0.43	-0.47	70.7	-0.37	0.33	0.28	0.05
C-202-I	270	269	268	22.3	-8.3	-4.6	30.6	-12.4	0.88	-0.12	64.1	0.07	0.69	0.40	0.05
C-202-J	273	272	271	19.7	-9.1	2.3	22.9	-10.9	0.98	-0.04	56.7	0.27	0.67	0.46	0.05
C-202-K	276	275	274	18.1	-2.1	11.0	31.6	-2.4	1.02	0.23	51.0	0.54	0.71	0.28	0.04
C-202-L	279	278	277	2.3	17.4	23.2	24.2	1.3	0.81	0.28	33.1	0.65	0.44	0.24	0.05
C-202-M	282	281	280	16.2	-2.1	20.0	40.3	-2.2	1.31	0.33	-46.2	0.80	0.84	-0.49	0.07
C-202-N	285	284	283	10.5	-7.6	22.4	41.1	-8.3	1.27	0.13	-52.0	0.57	1.64	-0.55	0.04
C-202-O	288	287	286	0.5	-9.7	28.3	41.4	-12.6	1.24	-0.01	-60.5	0.30	0.94	-0.53	0.04
C-202-P	291	290	289	-10.1	-26.2	18.8	22.1	-32.4	0.74	-0.75	-63.0	-0.44	0.43	-0.60	0.04
C-202-Q	294	293	292	2.1	17.3	1.4	17.4	-13.9	0.43	-0.29	44.3	0.08	0.07	0.36	0.03
C-202-R	297	296	295	1.4	16.3	-1.3	16.3	-16.2	0.28	-0.37	42.6	0.02	-0.03	0.37	0.02
C-202-S	300	299	298	0.9	20.2	1.1	20.2	-18.3	0.49	-0.40	45.1	0.04	0.04	0.44	0.03
C-202-T	303	302	301	1.8	12.9	-3.2	13.2	-14.6	0.29	-0.35	39.8	0.03	-0.05	0.31	0.02
C-202-U	306	305	304	0.9	4.5	-1.0	4.6	-4.8	0.10	-0.11	39.3	0.02	-0.03	0.11	0.02
C-202-V	309	308	307	-0.7	-5.7	-0.1	5.0	-5.7	0.11	-0.14	-46.7	-0.02	-0.01	-0.12	0.04
C-202-W	312	311	310	-1.3	-13.4	-1.1	11.0	-12.4	0.23	-0.33	-45.2	-0.05	-0.05	-0.28	0.03
C-202-X	315	314	313	0.7	-18.9	-2.4	16.6	-18.9	0.36	-0.46	-42.9	-0.02	-0.08	-0.41	0.02
C-202-Y	318	317	316	-1.2	-35.6	0.2	34.6	-35.6	0.79	-0.83	-45.6	-0.04	-0.01	-0.81	0.03
I-101-A	321	320	320	-2.6	-17.6	-3.9	11.1	-17.6	0.12	-0.47	-43.8	-0.13	-0.15	-0.33	0.04
I-101-B	324	323	323	-50.6	-19.3	20.8	20.8	-59.6	0.09	-1.76	89.9	-1.76	0.09	0.00	0.05
I-101-C	327	326	326	-14.0	-15.9	-34.1	-71.6	-37.4	-0.75	-1.35	20.9	-0.83	-1.27	0.20	0.07
I-101-D	330	329	329	0.3	-26.6	-58.2	0.4	-58.3	-0.57	-1.92	2.3	-0.57	-1.92	0.05	0.09

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF.
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
I-1R1-E	349	341	342	2.5	6.1	-28.6	11.6	-27.7	0.01	-1.12	25.5	-0.20	-0.92	0.44	0.05
I-1R1-F	343	344	345	-13.0	13.0	-4.7	13.4	-31.1	0.13	-0.80	5.4	0.12	-0.88	0.10	0.04
I-1R1-G	346	347	348	-2.2	10.1	-6.9	10.3	-19.5	0.15	-0.54	-49.6	-0.25	-0.14	-0.34	0.04
I-1R1-H	349	350	351	8.0	7.9	0.6	9.5	-0.9	0.30	0.06	-67.9	0.10	0.27	-0.08	0.05
I-1R1-J	352	353	354	3.9	0.6	6.9	10.4	0.3	0.75	0.11	36.4	0.27	0.20	0.11	0.05
I-1R1-K	355	356	357	0.1	-0.9	3.2	4.6	-1.3	0.14	0.00	29.4	0.11	0.03	0.16	0.04
I-1R1-L	358	359	360	0.1	5.2	1.0	5.2	-4.2	0.13	-0.09	-42.1	0.03	0.01	-0.11	0.03
I-1R2-A	361	362	363**	-23.5	-30.3	0.0	10.3	-23.7	0.00	-1.01	-61.1	-0.77	-0.23	-0.43	0.04
I-1R2-B	364	365	366	-53.2	-35.6	-22.7	-10.9	-65.0	-1.00	-2.25	62.1	-1.98	-1.27	0.52	0.06
I-1R2-C	367	368	369	-11.9	-11.8	-41.8	-5.7	-48.1	-0.66	-1.64	22.6	-0.81	-1.50	0.35	0.04
I-1R2-D	370	371	372	13.2	-2.6	-41.1	15.4	-43.4	0.08	-1.28	11.4	0.03	-1.23	0.26	0.06
I-1R2-E	373	374	375	22.4	7.3	-20.3	33.8	-20.7	0.82	-0.65	4.7	0.81	-0.64	0.12	0.05
I-1R2-F	376	377	378	38.3	13.9	-25.7	39.2	-26.6	1.03	-0.49	-38.3	0.44	0.09	-0.74	0.05
I-1R2-G	379	380	381	45.3	18.5	-18.2	45.6	-16.6	1.32	-0.16	-65.6	-0.15	1.21	-0.11	0.05
I-1R2-H	382	383	384	50.0	24.1	-3.6	50.0	-3.6	1.61	0.38	-89.1	0.38	1.61	-0.02	0.05
I-1R2-J	385	386	387	45.1	17.1	-0.5	45.7	-1.1	1.50	0.42	83.6	0.43	1.48	0.12	0.05
I-1R2-K	388	389	390	29.7	6.3	-3.7	21.0	-5.0	0.97	0.14	79.1	0.17	0.94	0.15	0.05
I-1R3-A	391	392	393	17.1	11.3	8.3	17.3	8.1	0.65	0.44	81.3	0.44	0.65	0.03	0.04
I-1R3-B	394	395	396	-12.2	-17.1	-29.5	-12.1	-30.6	-0.70	-1.12	13.9	-0.73	-1.10	0.10	0.05
I-1R3-C	397	398	399	-8.2	-5.7	-20.8	-1.9	-36.1	-0.42	-1.21	25.4	-0.56	-1.06	0.31	0.04
I-1R3-D	400	401	402	7.2	-2.9	-27.6	8.7	-20.0	-0.00	-0.87	11.3	-0.03	-0.84	0.17	0.05
I-1R3-E	403	404	405	10.3	10.4	-17.3	21.5	-19.6	0.52	-0.43	13.6	0.46	-0.38	0.22	0.02
I-1R3-F	406	407	408	34.3	22.5	-7.5	36.2	-9.4	1.10	0.05	11.8	1.06	0.09	0.21	0.03
I-1R3-G	409	410	411	42.7	21.8	-5.6	43.8	-5.8	1.39	0.24	-41.3	0.88	0.75	-0.57	0.03
I-1R3-H	412	413	414	48.9	22.1	-1.0	49.0	-1.1	1.60	0.45	87.9	0.45	1.60	0.04	0.04
I-1R3-J	415	416	417	51.9	28.1	2.1	51.9	2.1	1.73	0.58	-88.7	0.58	1.73	-0.03	0.03
I-1R3-K	418	419	420	44.7	19.7	2.8	45.1	2.4	1.51	0.52	84.5	0.54	1.50	0.09	0.03
I-1R3-L	421	422	423	29.9	10.9	-1.8	30.2	-2.1	0.97	0.23	84.4	0.24	0.97	0.07	0.05
I-1R3-M	424	425	426	11.2	9.9	14.3	15.9	9.6	0.62	0.47	30.7	0.58	0.51	0.06	0.06
I-1R4-A	427	428	429	1.7	-3.4	-5.8	1.9	-6.1	0.00	-0.18	-9.5	-0.00	-0.18	-0.03	0.03
I-1R4-B	430	431	432	1.6	-11.9	-7.2	7.3	-12.9	0.11	-0.35	-32.1	-0.02	-0.22	-0.21	0.04
I-1R4-C	433	434	435	0.5	-13.8	-8.0	8.8	-14.3	0.15	-0.38	-36.9	-0.04	-0.19	-0.26	0.04
I-1R4-D	436	437	438	3.8	-3.0	0.9	8.0	-3.2	0.23	-0.03	-37.5	0.14	0.07	-0.12	0.12
I-1R4-E	439	440	441	0.6	9.8	9.5	9.8	9.3	0.47	0.40	-2.8	0.42	0.40	-0.00	0.05
I-1R4-F	442	443	444	16.7	17.2	8.7	18.8	6.7	0.68	0.40	-65.8	0.45	0.64	-0.10	0.03
I-1R4-G	445	446	447	22.5	20.5	2.8	25.0	1.2	0.84	0.29	-70.8	0.35	0.76	-0.17	0.03
I-1R4-H	448	449	450	12.7	12.1	2.8	14.9	1.6	0.51	0.20	-72.4	0.33	0.48	-0.09	0.03
I-1R4-J	451	452	453	2.1	7.1	18.4	19.0	1.5	0.64	0.24	10.6	0.63	0.25	0.07	0.03
I-1R5-A	454	455	456	-1.0	-5.6	0.6	5.3	-5.7	0.12	-0.12	-49.1	-0.02	0.01	-0.13	0.03
I-1R5-B	457	458	459	-1.4	-15.1	0.6	14.3	-15.1	0.32	-0.36	-46.9	-0.04	0.01	-0.24	0.02
I-1R5-C	460	461	462	-0.2	-21.3	-0.6	20.5	-21.3	0.47	-0.50	-44.7	-0.01	-0.02	-0.48	0.03
I-1R5-D	463	464	465	-0.2	-20.5	-0.2	20.2	-20.5	0.46	-0.46	-45.0	-0.01	-0.01	-0.47	0.02
I-1R5-E	466	467	468	0.4	-21.7	1.6	23.1	-21.2	0.55	-0.47	-45.8	0.03	0.06	-0.51	0.04
I-1R5-F	469	470	471	0.8	19.7	-3.0	19.8	-22.0	0.43	-0.53	-47.6	-0.09	-0.09	-0.46	0.02
I-1R5-G	472	473	474	-1.7	15.3	1.7	15.4	-15.4	0.36	-0.35	-41.9	0.04	-0.04	-0.35	0.02
I-1R5-H	475	476	477**	0.6	11.3	0.9	11.4	-10.8	0.27	-0.24	-45.7	0.01	0.02	-0.26	0.02
I-1R5-J	478	479	480	0.5	3.5	2.0	3.6	-1.1	0.11	0.00	-35.6	0.07	0.04	-0.05	0.03
I-2R1-A	492	494	495	8.4	4.7	-15.6	11.0	-18.2	0.18	-0.49	17.3	0.12	-0.43	0.19	0.06
I-2R1-B	496	497	498	66.1	10.6	-28.2	66.0	-28.9	1.92	-0.29	-5.0	1.90	-0.28	-0.19	0.07
I-2R1-C	499	500	501	25.5	32.6	20.8	34.0	21.3	1.33	1.04	54.7	1.24	1.23	0.14	0.07
I-2R1-D	502	503	504	-3.3	37.0	27.6	59.2	-4.8	1.90	0.43	81.1	0.46	1.87	0.23	0.04
I-2R1-E	505	506	507	-4.1	34.8	27.1	39.5	-16.5	1.14	-0.15	61.9	0.13	0.85	0.54	0.04
I-2R1-F	508	509	510	12.4	32.8	5.5	33.1	-15.7	0.94	-0.17	-4.1	0.93	-0.17	-0.08	0.06
I-2R1-G	511**	512**	513	0.0	0.0	4.0	4.8	-0.8	0.15	0.02	22.5	0.13	0.04	0.05	0.07
I-2R1-H	514	515	516	14.9	14.9	1.3	17.7	-1.6	0.57	0.12	-67.4	0.19	0.50	-0.16	0.05
I-2R1-J	517	518	519	-6.2	-4.5	4.5	5.6	-7.3	0.11	-0.19	17.0	0.09	-0.16	0.08	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

FORM 1000 REVISED BY THE BUREAU OF RESEARCH FEBRUARY 1954

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF.
I-241-F	520	521	522	-21.5	-17.1	12.6	16.8	-25.6	0.20	-0.68	18.3	0.20	-0.58	0.29	0.05
I-241-L	522	524	525	-23.4	-33.5	-1.2	11.6	-36.2	0.02	-1.88	31.1	-0.27	-0.78	0.49	0.04
I-252-A	526	527	528	2.6	-14.1	-6.5	11.0	-14.9	0.22	-0.2	-34.7	0.02	-0.19	-0.28	0.05
I-252-E	529	530	531	47.4	-4.5	-23.9	51.0	-27.4	1.41	-0.40	-12.2	1.33	-0.32	-0.37	0.05
I-252-C	532	533	534	5.0	-13.0	-35.9	5.1	-36.0	-0.19	-1.14	3.3	-0.19	-1.13	0.06	0.06
I-252-I	535	536	537	-13.6	-46.0	-60.7	-12.0	-62.3	-1.01	-2.17	-10.3	-1.05	-2.13	-0.20	0.05
I-252-E	538	539	540**	-51.4	-67.7	0.0	23.5	-75.0	0.03	-2.24	-60.7	-1.70	-0.51	-0.97	0.06
I-252-F	541	542	543	-38.9	-56.3	-26.0	-20.9	-54.0	-1.32	-2.32	65.1	-2.14	-1.50	0.38	0.07
I-252-G	544	545	546	-69.9	-63.2	-20.3	-14.5	-75.8	-1.23	-2.64	18.0	-1.36	-2.51	0.42	0.10
I-252-H	547	548	549	-64.9	-63.4	-13.6	-10.9	-87.6	-1.22	-2.99	10.8	-1.29	-2.93	0.33	0.08
I-252-J	550	551	552	-69.8	-43.0	-5.6	-5.0	-70.4	-0.86	-2.37	5.5	-0.87	-2.36	0.14	0.07
I-252-K	553	554**	555	-45.3	0.0	6.5	13.0	-51.7	-0.08	-1.58	-18.4	-0.23	-1.43	-0.45	0.06
I-252-L	556	557	558	-33.3	-43.6	-8.2	5.3	-46.8	-0.39	-1.49	30.6	-0.60	-1.18	0.53	0.05
I-253-A	559*	560	561	10.2	9.1	16.6	18.8	8.1	0.70	0.45	-63.3	0.50	0.65	-0.11	0.10
I-253-B	562	563	564	-12.2	-1.2	14.2	14.4	-12.4	0.35	-0.27	-85.2	-0.26	0.35	-0.05	0.03
I-253-C	565	566	567	-33.4	-11.3	0.9	1.6	-34.1	-0.28	-1.11	82.0	-1.09	-0.20	0.11	0.05
I-253-D	568	569	570	-36.7	-46.7	-22.3	-10.8	-48.2	-0.83	-1.69	-56.4	-1.43	-1.10	-2.40	0.07
I-253-E	571	572	573	-56.3	-73.3	-43.9	-26.0	-74.1	-1.59	-2.70	-52.5	-2.29	-2.00	-0.54	0.06
I-253-F	574	575	576	-66.5	-81.1	-47.4	-21.0	-82.9	-1.84	-3.04	79.2	-3.00	-1.88	0.22	0.06
I-253-G	577	578	579	-69.5	-72.4	-40.7	-32.6	-77.6	-1.84	-2.88	25.1	-2.03	-2.59	0.40	0.07
I-253-H	580	581	582	-61.6	-59.8	-32.9	-28.2	-66.3	-1.59	-2.46	20.5	-1.69	-2.36	0.29	0.05
I-253-J	583	584	585	-34.1	-37.1	-32.0	-29.9	-37.3	-1.32	-1.51	27.6	-1.39	-1.44	0.09	0.06
I-253-K	586	587	588	-9.4	-26.2	-24.6	-5.1	-28.9	-0.45	-1.00	64.8	-0.90	-0.55	0.21	0.05
I-253-L	589	590	591	3.7	-25.1	-14.6	16.3	-27.1	0.27	-0.73	57.4	-0.44	-0.02	0.45	0.05
I-254-A	592	593	594	-17.1	-2.3	3.0	4.1	-18.2	-0.05	-0.56	77.3	-0.54	-0.07	0.11	0.05
I-254-B	595	596	597	-17.6	-1.6	-3.4	0.9	-21.9	-0.19	-0.71	64.3	-0.61	-0.29	0.21	0.04
I-254-C	598	599	600	-17.1	-10.6	-15.0	-10.5	-21.6	-0.56	-0.82	50.6	-0.71	-0.66	0.13	0.07
I-254-D	601	602	603	-21.6	-22.7	-27.0	-21.2	-27.4	-0.97	-1.11	15.4	-0.98	-1.10	0.04	0.08
I-254-E	604	605	606	-29.7	-33.9	-32.5	-27.9	-34.2	-1.26	-1.60	-76.5	-1.40	-1.27	-0.03	0.04
I-254-F	607	608	609	-33.3	-33.9	-22.4	-19.7	-36.0	-1.01	-1.38	24.0	-1.07	-1.32	0.14	0.05
I-254-G	610	611	612	-24.6	-27.3	-22.3	-19.4	-27.5	-0.91	-1.10	36.8	-0.98	-1.03	0.09	0.08
I-254-H	613	614	615	-5.1	-15.6	-23.0	-8.1	-23.0	-0.49	-0.84	89.7	-0.84	-0.49	0.00	0.06
I-254-J	616	617	618	0.7	-27.7	-25.2	7.9	-32.4	-0.06	-0.95	65.0	-0.82	-0.23	0.36	0.04
I-255-A	619	620**	621	1.8	0.0	2.6	4.5	-0.0	0.15	0.04	-49.8	0.09	0.10	-0.05	0.04
I-255-B	622	623	624	1.6	10.6	4.9	10.7	-5.2	0.31	-0.02	51.4	0.10	0.18	0.17	0.05
I-255-C	625	626	627	0.9	16.6	2.1	16.6	-13.6	0.41	-0.28	46.2	0.05	0.08	0.25	0.03
I-255-D	628	629	630	0.5	14.1	2.0	14.2	-11.7	0.35	-0.25	46.6	0.04	0.07	0.30	0.03
I-255-E	631	632	633	1.9	11.3	1.4	11.3	-8.0	0.29	-0.15	44.2	0.08	0.06	0.22	0.03
I-255-F	634	635	636	2.6	-2.3	0.1	5.0	-2.4	0.14	-0.03	54.9	0.03	0.08	0.08	0.03
I-255-G	637	638	639	1.6	-0.4	-0.4	2.1	-0.9	0.06	-0.01	66.8	0.00	0.05	0.02	0.02
I-255-H	640	641	642	1.3	-3.5	0.5	5.4	-3.5	0.14	-0.06	47.8	0.03	0.05	0.10	0.02
I-255-J	643	644	645	-1.1	-17.5	0.7	17.4	-17.5	0.40	-0.41	43.3	0.02	-0.03	0.40	0.03
O-186-A	156	155	154	8.5	10.4	26.4	28.9	6.1	1.01	0.49	19.1	0.96	0.54	3.16	0.05
O-186-I	159	158	157	-0.3	16.4	35.7	25.8	-0.3	1.18	0.34	2.2	1.17	0.34	3.03	0.04
O-186-C	162	161	160	-2.2	11.8	25.4	25.4	-2.2	0.82	0.18	-0.4	0.82	0.18	-0.00	0.04
O-186-P	165	164	163	-0.9	0.2	3.3	3.5	-1.1	0.10	-0.00	12.2	0.10	0.00	0.02	0.03
O-286-A	321	320	319	-7.9	-29.5	-30.4	-3.8	-34.4	-0.57	-1.17	68.6	-1.06	-0.56	0.24	0.05
O-286-B	324	323	322	1.6	-19.6	-38.5	1.6	-38.5	-0.33	-1.25	88.4	-1.25	-0.33	0.03	0.04
O-286-C	327	326	325	-22.4	-11.7	0.3	0.3	-22.4	-0.21	-0.74	1.5	-0.21	-0.74	0.01	0.06
I-186-A	481**	482**	483	0.0	0.0	16.6	20.0	-3.4	0.63	0.08	-67.5	0.16	0.55	-0.19	0.04
I-186-B	484	485	486	-26.2	-10.6	14.0	14.0	-36.2	0.10	-1.05	89.4	-1.05	0.10	2.01	0.04
I-186-C	487	488	489	-26.0	-14.9	7.0	7.9	-26.8	-0.01	-0.61	-80.9	-0.79	-0.03	-0.13	0.04
I-186-D	490	491	492	-2.0	-7.4	0.8	6.4	-7.6	0.14	-0.19	-50.8	-0.06	0.01	-0.16	0.02
I-286-A	646	647	648	33.8	19.4	-12.5	35.4	-14.0	1.03	-0.11	10.3	0.99	-0.08	0.20	0.04
I-286-B	649	650	651	38.1	11.0	-14.7	38.1	-14.7	1.11	-0.11	-0.7	1.11	-0.11	-0.02	0.04
I-286-C	652	653	654	25.4	2.2	-7.3	26.7	-8.6	0.80	-0.02	-11.4	0.76	0.01	-0.16	0.05

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI				TAU	CONE	
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)			SIG(T)
0-1P7- A	666	665	664	-29.0	21.1	-1.7	23.5	-54.3	0.24	-1.56	10.3	0.18	-1.50	0.31	0.05
0-1P7- B	663	662	661	-10.1	-8.3	-19.9	-6.6	-23.4	-0.45	-0.84	-18.1	-0.49	-0.80	-0.11	0.06
0-1P7- C	660	659	658	3.5	-12.8	-39.5	4.2	-40.2	-0.26	-1.28	-38.2	-0.65	-0.89	-0.50	0.03
0-1R7- D	657	656	655	27.6	-2.6	-28.6	27.7	-28.7	0.53	-0.67	-47.2	-0.07	0.03	-0.65	0.05
I-1R7- A	688	689	690	-11.2	2.9	18.9	78.9	-11.2	0.51	-0.18	46.9	0.14	0.19	0.35	0.04
I-1P7- B	685	686	687	50.7	20.1	1.1	31.3	0.5	1.04	0.33	-37.0	0.78	0.58	-0.34	0.02
I-1R7- C	682	683	684	46.5	18.2	-16.5	46.7	-16.6	1.37	-0.09	-42.1	0.72	0.57	-0.73	0.05
I-1P7- D	679	680	681	17.3	3.7	-29.7	19.3	-31.7	0.32	-0.85	-33.6	-0.04	-0.49	-0.54	0.06
0-2R7- A	678	677	676	13.9	2.1	5.2	78.2	0.9	0.61	0.21	-74.7	0.29	0.58	-0.10	0.03
0-2R7- B	675	674	673	10.7	2.3	31.1	42.1	-0.3	1.38	0.40	75.6	0.47	1.32	0.24	0.04
0-2R7- C	672	671	670	26.2	30.9	56.0	59.2	23.1	2.18	1.35	62.2	1.53	2.00	0.24	0.05
0-2P7- D	669	668	667	7.1	-39.2	37.1	85.2	-47.0	2.40	-0.51	83.1	-0.47	2.26	0.35	0.04
I-2P7- A	700	701	702	-6.8	-14.8	-23.2	-6.8	-23.2	-0.45	-0.82	-44.2	-0.64	-0.65	-0.19	0.05
I-2R7- B	697	698	699	-49.8	-55.9	-26.2	-28.5	-57.6	-1.51	-2.18	76.1	-2.14	-1.55	0.16	0.06
I-1R7- C	694	695	696	-75.1	-91.9	-47.9	-28.2	-94.8	-1.87	-3.40	78.0	-3.34	-1.93	0.31	0.07
I-2R7- D	691	692	693	-10.9	11.3	10.2	15.4	-16.1	0.35	-0.38	21.0	0.25	-0.29	0.24	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

COMBUSTION T-16, LOAD CASE 2, M3Y

NOMINAL LOAD = 1.097E 05

LOCATION	GAGE NUMBERS			STRAIN - MICRONS/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	FMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONE
C-1R1-A	3	2	1	9.0	-20.1	-0.3	29.2	-20.5	0.76	-0.39	50.4	0.08	0.29	0.56	0.04
C-1R1-B	6	5	4	12.3	-21.2	-0.7	33.6	-22.0	0.89	-0.39	51.8	0.10	0.40	0.62	0.03
C-1R1-C	9	8	7	7.8	-21.8	2.7	42.4	-31.9	1.08	-0.63	46.9	0.17	0.28	0.65	0.03
C-1R1-L	12	11	10	11.2	-54.1	-0.2	65.3	-54.4	1.61	-1.15	47.8	0.10	0.37	1.37	0.04
C-1R1-E	15	14	13	6.6	-58.1	-2.5	62.3	-58.3	1.48	-1.30	47.2	-0.02	0.19	1.39	0.03
C-1R1-F	18	17	16	4.7	-44.8	-8.4	41.7	-45.3	0.93	-1.08	-85.7	-1.07	0.91	-0.25	0.04
C-1R1-C	21	20	19	-4.9	-37.8	10.0	43.6	-38.5	1.06	-0.84	-50.2	-0.06	0.28	-0.93	0.03
C-1R1-H	24	23	22	12.4	-24.4	-8.4	30.5	-26.4	0.74	-0.57	-34.3	0.33	-0.15	-0.61	0.03
C-1R1-J	27	26	25	14.8	-9.4	-5.7	21.8	-12.7	0.59	-0.20	-26.8	0.43	-0.04	-0.32	0.03
C-1R1-K	30	29	28	13.3	5.4	3.2	14.1	2.5	0.49	0.22	-11.9	0.47	0.24	-0.07	0.02
C-1R1-L	33	32	31	39.8	14.0	11.0	43.7	7.0	1.51	0.66	-19.1	1.42	0.75	-0.26	0.06
C-1R2-A	36	35	34	22.2	-9.7	-10.1	29.8	-16.7	0.82	-0.26	67.9	-0.10	0.67	0.37	0.04
C-1R2-E	39	38	37	44.9	21.8	2.3	45.0	2.2	1.50	0.52	87.6	0.52	1.50	0.04	0.04
C-1R2-C	42	41	40	52.8	21.9	17.6	53.1	17.3	1.92	1.10	84.7	1.10	1.92	0.09	0.07
C-1R2-F	45	44	43	52.5	25.8	21.2	56.0	17.7	2.02	1.14	72.5	1.22	1.94	0.25	0.05
C-1R2-E	48	47	46	51.3	11.4	34.8	75.7	10.4	2.60	1.09	52.3	1.65	2.03	0.73	0.06
C-1R2-F	51	50	49	52.1	7.5	30.6	76.9	5.8	2.59	0.95	-81.2	0.99	2.56	-0.25	0.05
C-1R2-G	54	53	52	45.1	19.8	27.2	54.8	17.5	1.98	1.12	-30.7	1.76	1.34	-0.38	0.04
C-1R2-H	57	56	55	29.9	34.2	23.8	34.8	18.9	1.33	0.97	33.9	1.22	1.09	0.17	0.05
C-1R2-J	60	59	58	17.0	43.9	25.8	44.4	-1.5	1.45	0.39	50.5	0.82	1.02	0.52	0.05
C-1R2-K	63	62	61	5.3	33.6	23.7	35.7	-6.7	1.11	0.13	57.9	0.51	0.63	0.44	0.04
C-1R2-L	66	65	64	18.3	29.7	12.8	30.0	1.2	1.00	0.33	39.6	0.73	0.60	0.33	0.04
C-1R3-A	69	68	67	13.6	-17.4	-24.9	16.9	-28.2	0.28	-0.74	74.3	-0.49	0.20	0.27	0.06
C-1R3-P	72	71	70	22.7	-3.5	-8.5	25.9	-11.8	0.74	-0.13	73.0	-0.06	0.66	0.24	0.03
C-1R3-C	75	74	73	23.5	2.2	1.1	27.1	-2.8	0.67	0.18	69.0	0.27	0.78	0.23	0.04
C-1R3-D	78	77	76	16.0	5.7	6.2	18.4	3.8	0.66	0.31	66.0	0.36	0.59	0.12	0.07
C-1R3-E	81	80	79	12.7	7.4	10.0	15.5	7.2	0.58	0.39	54.2	0.46	0.52	0.09	0.02
C-1R3-F	84	83	82	13.3	8.7	9.7	14.8	8.1	0.57	0.41	-73.4	0.43	0.56	-0.04	0.03
C-1R3-G	87	86	85	9.8	7.6	9.7	11.8	7.6	0.47	0.37	-44.1	0.42	0.42	-0.05	0.03
C-1R3-H	90	89	88	-0.1	9.3	11.5	12.3	-1.2	0.40	0.08	73.8	0.11	0.38	0.08	0.03
C-1R3-J	93	92	91	-1.9	10.3	13.3	14.6	-3.2	0.45	0.04	74.5	0.07	0.42	0.11	0.02
C-1R3-K	96	95	94	-4.4	9.7	12.0	13.9	-6.3	0.40	-0.07	72.0	-0.03	0.35	0.14	0.02
C-1R3-L	99	98	97	-26.1	-4.7	7.7	8.3	-26.6	0.07	-0.80	82.6	-0.78	-0.00	0.10	0.03
C-1R4-A	102	101	100	15.0	-21.3	-11.1	28.6	-24.7	0.70	-0.53	59.6	-0.22	0.38	0.54	0.02
C-1R4-E	105	104	103	12.8	-13.4	-2.2	25.5	-14.8	0.69	-0.24	55.9	0.06	0.40	0.43	0.03
C-1R4-C	108	107	106	6.9	-7.8	0.7	15.8	-8.2	0.44	-0.11	52.4	0.09	0.23	0.27	0.02
C-1R4-D	111	110	109	8.8	-3.1	11.6	23.5	-3.2	0.74	0.13	42.0	0.47	0.40	0.31	0.03
C-1R4-F	114	113	112	7.7	-1.5	0.7	18.9	-1.5	0.61	0.14	87.1	0.14	0.61	0.02	0.02
C-1R4-E	117	116	115	7.9	-3.2	4.7	15.9	-3.3	0.49	0.05	-40.2	0.31	0.23	-0.22	0.02
C-1R4-G	120	119	118	0.8	-6.3	9.5	17.5	-7.1	0.51	-0.06	-55.4	0.12	0.32	-0.27	0.03
C-1R4-H	123	122	121	-0.9	-7.8	9.2	17.1	-8.8	0.48	-0.12	-56.4	0.06	0.29	-0.28	0.03
C-1R4-J	126	125	124	-18.4	-15.8	4.7	7.8	-21.5	0.04	-0.63	-71.1	-0.56	-0.03	-0.21	0.04
C-1R5-A	129	128	127	0.8	-29.1	-7.8	22.4	-29.4	0.01	-0.75	49.7	-0.25	-0.05	0.59	0.02
C-1R5-B	132	131	130	-1.5	-19.6	-0.9	17.1	-19.6	0.37	-0.48	44.5	-0.05	-0.06	0.42	0.02
C-1R5-C	135	134	133	-0.1	-10.6	-2.3	7.3	-10.8	0.13	-0.28	50.1	-0.11	-0.04	0.20	0.02
C-1R5-D	138	137	136	-0.5	-5.9	-0.5	4.8	-5.9	0.10	-0.15	45.2	-0.02	-0.02	0.11	0.03
C-1R5-E	141	140	139	-1.9	-0.2	0.1	0.3	-2.2	-0.01	-0.07	-18.6	-0.02	-0.06	-0.02	0.03
C-1R5-F	144	143	142**	-1.4	-8.5	0.0	7.1	-8.5	0.15	-0.21	-47.5	-0.05	-0.01	-0.18	0.02
C-1R5-G	147	146	145	-0.2	-11.1	0.0	10.9	-11.1	0.25	-0.26	-45.3	-0.00	0.00	-0.25	0.03
C-1R5-H	150	149	148	2.4	-9.7	-2.6	9.8	-10.0	0.23	-0.23	-37.7	0.05	-0.06	-0.22	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
O-175-J	153	152	151	-0.1	-6.9	0.0	6.8	-6.9	0.16	-0.16	-45.3	-0.00	-0.00	-0.16	0.02
O-175-A	166	167	166	4.5	-13.3	1.3	19.2	-13.4	0.50	-0.25	47.8	0.00	0.16	0.26	0.02
O-251-R	171	170	169	-7.2	-23.2	-3.5	12.6	-23.3	0.19	-0.64	42.0	-0.19	-0.27	-0.41	0.00
O-251-C	174	173	172	-7.6	-36.5	-2.5	30.4	-36.5	0.64	-0.90	45.4	-0.14	-0.12	0.77	0.03
O-251-E	177	176	175	2.3	-70.7	-9.9	63.4	-71.0	1.39	-1.71	47.6	-0.30	-0.02	1.54	0.06
O-251-F	180	179	178	8.1	-65.7	-10.0	64.5	-66.4	1.47	-1.55	49.0	-0.25	0.17	1.49	0.03
O-251-F	183	182	181	-0.6	-48.8	-1.2	46.9	-48.8	1.06	-1.14	49.8	-1.14	1.06	-0.01	0.04
O-251-G	186	185	184	6.7	-46.8	-0.7	52.9	-47.0	1.28	-1.03	42.9	0.21	0.04	-1.15	0.02
O-251-H	189	188	187	32.4	-20.1	-17.0	44.9	-29.5	1.19	-0.53	-24.2	0.90	-0.24	-0.64	0.04
O-251-J	192	191	190	52.9	3.8	-6.7	35.0	-8.7	1.07	0.06	-12.6	1.02	0.11	-0.22	0.03
O-251-K	195	194	193	29.7	13.9	0.3	29.7	19.3	0.98	0.30	-2.0	0.98	0.30	-0.02	0.05
O-251-L	198	197	196	86.5	41.7	10.0	89.2	0.3	3.03	1.19	-5.4	3.01	1.20	-0.17	0.05
O-252-A	201	200	199	20.4	-12.7	-17.6	25.0	-22.3	0.60	-0.42	71.8	-0.38	0.50	0.32	0.02
O-252-B	204	203	202	47.1	17.2	-6.1	47.4	-6.3	1.50	0.26	86.4	0.27	1.49	0.08	0.04
O-252-C	207	206	205	55.2	35.4	23.0	55.7	22.6	2.06	1.30	83.4	1.31	2.05	0.09	0.04
O-252-D	210	209	208	61.5	31.3	13.2	64.4	20.3	2.32	1.31	75.0	1.37	2.26	0.25	0.03
O-252-E	213	212	211	67.2	14.8	25.5	84.1	8.5	2.86	1.11	61.8	1.50	2.47	0.73	0.03
O-252-F	216	215	214	68.5	11.1	23.2	87.3	4.4	2.92	1.01	-72.5	1.16	2.77	-0.52	0.04
O-252-G	219	218	217	62.9	28.6	21.1	66.8	17.2	2.37	1.23	-16.3	2.28	1.32	-0.31	0.04
O-252-H	222	221	220	46.0	48.8	22.2	52.8	16.4	1.90	1.06	25.6	1.75	1.22	0.33	0.04
O-252-J	225	224	223	30.2	11.9	25.0	52.1	3.1	1.75	0.62	41.9	1.24	1.12	0.56	0.05
O-252-K	228	227	226	15.5	41.6	21.6	41.8	-4.7	1.23	0.26	48.7	0.73	0.86	0.53	0.03
O-252-L	231	230	229	76.9	53.5	12.3	78.1	11.1	2.68	1.14	7.7	2.66	1.16	0.21	0.07
O-253-A	234	233	232	16.7	-16.7	-35.5	17.7	-36.5	0.22	-1.03	82.2	-1.00	0.20	0.17	0.03
O-253-B	237	236	235	28.7	0.5	-12.4	29.4	-13.7	0.83	-0.16	80.1	-0.13	0.80	0.17	0.01
O-253-C	240	239	238	30.9	3.1	-1.7	34.5	-5.3	1.08	0.17	72.4	0.25	1.00	0.26	0.03
O-253-D	243	242	241	24.6	2.3	3.5	29.8	-1.8	0.97	0.24	65.9	0.36	0.84	0.27	0.05
O-253-E	246	245	244	14.0	-0.6	12.5	27.1	-0.6	0.89	0.25	46.5	0.55	0.59	0.22	0.04
O-253-F	249	248	247	18.1	5.9	9.6	22.8	4.9	0.80	0.39	-75.9	0.41	0.78	-0.10	0.04
O-253-G	252	251	250	16.4	7.2	6.2	17.7	4.8	0.63	0.34	-19.1	0.60	0.37	-0.09	0.05
O-253-H	255	254	253	8.0	13.4	11.8	14.0	5.9	0.52	0.33	59.0	0.38	0.47	0.08	0.06
O-253-J	258	257	256	5.3	18.4	15.5	19.9	6.9	0.66	0.22	61.2	0.33	0.56	0.18	0.04
O-253-K	261	260	259	-1.1	14.5	10.3	16.0	-6.8	0.46	-0.07	60.0	0.07	0.33	0.23	0.02
O-253-L	264	263	262	-17.1	2.2	8.0	9.7	-18.8	0.13	-0.53	75.8	-0.49	0.09	0.16	0.04
O-254-A	267	266	265	15.2	-27.1	-16.9	29.9	-31.6	0.67	-0.75	60.7	-0.41	0.33	0.61	0.02
O-254-B	270	269	268	22.3	-10.9	-4.7	33.9	-15.3	0.97	-0.17	62.3	0.08	0.72	0.47	0.03
O-254-C	273	272	271	15.5	-9.5	5.9	21.5	-10.1	0.94	-0.02	51.7	0.35	0.57	0.47	0.03
O-254-D	276	275	274	11.4	-3.5	11.1	26.0	-3.5	0.82	0.14	45.3	0.48	0.49	0.34	0.03
O-254-E	279	278	277	0.2	10.9	15.5	16.1	-0.4	0.53	0.15	34.2	0.41	0.27	0.18	0.02
O-254-F	282	281	280	6.8	-3.9	12.8	23.7	-4.2	0.74	0.10	-51.2	0.35	0.49	-0.31	0.05
O-254-G	285	284	283	2.8	-9.2	17.8	25.4	-9.9	0.74	-0.07	-53.2	0.22	0.45	-0.29	0.03
O-254-H	288	287	286	-1.5	-8.3	14.5	23.2	-10.3	0.66	-0.11	-54.3	0.09	0.46	-0.34	0.02
O-254-J	291	290	289	-21.6	-16.6	9.1	12.2	-24.8	0.16	-0.70	-73.1	-0.62	0.08	-0.24	0.03
O-255-A	294	293	292	-2.8	23.6	-1.3	23.6	-27.7	0.51	-0.68	45.8	-0.10	-0.07	0.59	0.02
O-255-B	297	296	295	-0.9	12.8	-2.2	12.8	-16.0	0.27	-0.40	43.7	-0.05	-0.08	0.33	0.02
O-255-C	300	299	298	-1.2	7.8	-2.2	7.8	-11.2	0.15	-0.29	43.5	-0.06	-0.08	0.22	0.02
O-255-D	303	302	301	-3.4	-1.7	-1.8	-1.4	-3.8	-0.08	-0.16	65.5	-0.13	-0.09	0.02	0.04
O-255-E	306	305	304	-0.8	-12.2	-0.7	10.7	-12.2	0.23	-0.30	-45.2	-0.03	-0.03	-0.26	0.03
O-255-F	309	308	307	-2.2	-18.5	-0.9	15.3	-18.5	0.32	-0.46	-46.1	-0.08	-0.05	-0.29	0.02
O-255-G	312	311	310	-1.6	-19.2	-2.2	15.4	-19.2	0.32	-0.48	-44.5	-0.07	-0.09	-0.40	0.04
O-255-H	315	314	313	0.7	-15.8	-1.3	15.2	-15.8	0.35	-0.37	-43.2	0.01	-0.03	-0.36	0.02
O-255-J	318	317	316	1.0	-14.6	-0.0	15.6	-14.6	0.37	-0.33	-44.1	0.03	0.01	-0.35	0.03
I-181-A	328	329	320	-6.5	-43.5	-8.4	28.6	-43.5	0.51	-1.15	-44.2	-0.30	-0.24	-0.63	0.03
I-181-B	331	332	333	-2.8	-23.0	-10.2	10.5	-23.4	0.11	-0.67	-38.7	-0.19	-0.36	-0.38	0.04
I-181-C	334	335	336	0.7	-5.9	-17.7	1.0	-18.1	-0.14	-0.59	7.8	-0.15	-0.58	0.06	0.03
I-181-D	337	338*	339	0.3	-2.3	-19.2	2.6	-21.6	-0.13	-0.69	18.2	-0.18	-0.63	0.17	0.05

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	PAGE NUMBERS			STRAIN - MICROCINCHES/INCH						STRESS - KSI				TAU	CONF.
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
I-101-F	340	341	342	1.1	30.9	-12.1	40.4	-52.4	0.81	-1.23	40.6	-0.09	-0.62	1.06	0.02
I-101-G	343	344	345	1.3	45.0	-8.8	45.2	-52.7	0.97	-1.29	-2.9	0.96	-1.28	-0.12	0.03
I-101-H	346	347	349	20.1	44.7	-11.3	47.7	-38.9	1.19	-0.81	-55.6	-0.17	0.55	-0.92	0.03
I-101-I	349	350	351	20.9	22.9	-1.3	27.0	-7.5	0.82	0.02	-65.1	0.16	0.68	-0.30	0.03
I-101-J	352	353	354	2.1	5.7	4.9	6.0	1.0	0.21	0.09	-28.9	0.18	0.12	-0.05	0.04
I-101-K	355	356	357	-17.1	-4.0	14.6	14.8	-17.4	0.22	-0.43	4.9	0.31	-0.42	0.06	0.03
I-101-L	358	359	360	-22.1	-11.6	-5.3	-5.0	-22.2	-0.39	-0.70	-7.0	-0.39	-0.78	-0.05	0.05
I-102-A	361	362	362*	-14.9	-39.5	0.0	25.4	-40.3	0.44	-1.06	-51.6	-0.49	-0.15	-0.74	0.02
I-102-E	364	365	366	-17.5	-35.8	-33.0	-12.2	-38.3	-0.78	-1.38	-26.8	-0.40	-1.26	-0.24	0.06
I-102-C	367	366	369	-10.7	-46.0	-72.1	-10.4	-72.5	-1.06	-2.49	-4.2	-1.07	-2.48	-0.11	0.04
I-102-F	370	371	372	-7.6	-53.5	-56.0	-7.0	-56.6	-1.09	-2.93	-4.8	-1.10	-2.91	-0.13	0.06
I-102-F	373	374	375	-19.8	-51.8	-67.4	-18.4	-68.8	-1.29	-2.45	-9.5	-1.32	-2.42	-0.19	0.04
I-102-F	376	377	378	-20.9	-37.9	-45.0	-19.9	-46.0	-1.11	-1.71	-56.1	-1.52	-1.30	-0.28	0.06
I-102-G	379	380	381	-31.5	-44.2	-35.4	-22.6	-44.4	-1.18	-1.69	50.1	-1.48	-1.39	0.25	0.07
I-102-H	382	383	384	-30.8	-37.8	-13.4	-9.3	-43.9	-0.74	-1.54	20.1	-0.84	-1.45	0.26	0.05
I-102-J	385	386	387	-36.9	-28.6	-3.7	-1.8	-38.8	-0.44	-1.30	73.3	-0.49	-1.25	0.19	0.04
I-102-K	388	389	390	-25.3	-19.5	2.6	4.8	-27.5	-0.11	-0.86	15.1	-0.16	-0.81	0.19	0.03
I-102-L	391	392	393	-18.0	-14.9	-6.9	-6.4	-18.5	-0.39	-0.67	11.7	-0.41	-0.66	0.06	0.03
I-103-A	394	395	396	-13.2	-17.8	-4.0	1.7	-18.9	-0.13	-0.61	-58.2	-0.47	-0.26	-0.21	0.04
I-103-B	397	398	399	-26.1	-18.8	-5.3	-4.9	-26.5	-0.42	-0.92	-81.7	-0.91	-0.43	-0.07	0.03
I-103-C	400	401	402	-31.9	-28.1	-17.4	-16.6	-32.7	-0.87	-1.24	-77.4	-1.22	-0.89	-0.08	0.05
I-103-F	403	404	405	-27.9	-41.9	-36.4	-21.5	-42.8	-1.13	-1.62	-33.3	-1.28	-1.48	-0.22	0.05
I-103-F	406	407	408	-32.0	-51.0	-42.9	-22.8	-52.0	-1.27	-1.94	-34.0	-1.48	-1.73	-0.31	0.05
I-103-F	409	410	411	-35.8	-53.0	-41.5	-24.0	-53.3	-1.32	-1.99	-64.4	-1.99	-1.32	-0.07	0.05
I-103-G	412	413	414	-24.2	-48.7	-33.1	-18.6	-48.7	-1.09	-1.79	44.0	-1.43	-1.46	0.35	0.04
I-103-H	415	416	417	-24.5	-35.8	-25.9	-14.7	-35.8	-0.84	-1.33	46.9	-1.10	-1.07	0.24	0.03
I-103-J	418	419	420	-9.4	-19.6	-22.1	-8.4	-23.2	-0.50	-0.85	74.6	-0.82	-0.53	0.09	0.03
I-103-K	421	422	423	5.1	-9.0	-20.4	5.2	-20.5	-0.03	-0.63	87.1	-0.62	-0.03	0.03	0.03
I-103-L	424	425	426	9.2	-2.1	-10.3	9.3	-10.4	0.20	-0.25	85.5	-0.25	0.20	0.04	0.04
I-104-A	427	428	429	-18.4	-25.7	1.2	11.2	-28.3	0.09	-0.82	-59.9	-0.59	-0.14	-0.40	0.03
I-104-B	430	431	432	-14.5	-15.0	-4.6	-2.2	-16.9	-0.24	-0.58	-66.0	-0.52	-0.29	-0.13	0.03
I-104-C	433	434	435	-11.0	-18.2	-12.5	-5.2	-18.2	-0.35	-0.65	-41.6	-0.48	-0.52	-0.15	0.03
I-104-E	436	437	438	-18.7	-22.7	-15.8	-12.2	-22.3	-0.62	-0.86	-53.4	-0.77	-0.71	-0.11	0.03
I-104-E	439	440	441	-21.3	-20.5	-14.9	-14.1	-22.1	-0.68	-0.87	63.7	-0.83	-0.72	0.07	0.05
I-104-F	442	443	444	-16.9	-12.5	-10.7	-10.5	-17.1	-0.52	-0.67	-11.2	-0.52	-0.66	-0.03	0.04
I-104-F	445	446	447	-17.0	-5.9	-8.5	-5.5	-14.9	-0.33	-0.55	-34.0	-0.40	-0.48	-0.10	0.05
I-104-G	448	449	450	-3.9	-3.7	-15.2	-1.5	-17.6	-0.22	-0.60	-67.0	-0.54	-0.28	-0.13	0.06
I-104-J	451	452	453	0.5	-3.0	-10.2	0.8	-10.6	-0.08	-0.34	-80.3	-0.33	-0.09	-0.04	0.04
I-105-A	454	455	456	0.8	-17.0	-1.0	16.9	-17.0	0.39	-0.39	-43.5	0.02	-0.02	-0.39	0.01
I-105-B	457	458	459	0.4	-9.7	-0.5	9.6	-9.7	0.22	-0.22	-43.6	0.01	-0.01	-0.22	0.02
I-105-C	460	461	462	-0.5	-4.4	1.5	5.5	-4.5	0.14	-0.09	-50.6	-0.00	0.04	-0.11	0.02
I-105-D	463	464	465	-1.3	-5.4	1.5	5.8	-5.6	0.13	-0.13	-52.1	-0.03	0.04	-0.13	0.02
I-105-E	466	467	468	-1.0	-8.6	0.4	8.0	-8.6	0.18	-0.21	-47.5	-0.03	0.00	-0.19	0.02
I-105-F	469	470	471	1.3	10.2	-2.3	10.3	-11.3	0.23	-0.27	-49.8	-0.06	0.02	-0.25	0.02
I-105-G	472	473	474	-0.3	7.9	0.9	7.9	-7.4	0.19	-0.17	-42.8	0.03	-0.00	-0.18	0.01
I-105-H	475	476	477	0.2	6.8	0.1	6.8	-6.5	0.16	-0.15	-45.2	0.01	0.01	-0.15	0.02
I-105-J	478	479	480	-0.0	3.0	-0.3	3.0	-3.3	0.07	-0.08	-46.1	-0.01	-0.00	-0.07	0.02
I-201-A	493	494	495	0.6	-29.4	-0.1	29.8	-29.4	0.69	-0.67	-64.7	0.02	0.00	-0.66	0.02
I-201-B	496	497	498	2.6	-21.6	4.0	28.1	-21.6	0.71	-0.63	-65.8	0.12	0.16	-0.57	0.03
I-201-C	499	500	501	0.3	4.4	10.8	10.9	0.2	0.36	0.11	-83.6	0.12	0.36	-0.03	0.03
I-201-D	502	503	504	0.3	21.0	12.2	22.1	-9.7	0.63	-0.10	56.0	0.13	0.40	0.34	0.02
I-201-E	505	506	507	-3.2	49.5	9.6	49.9	-43.5	1.21	-0.94	48.9	-0.01	0.28	1.07	0.04
I-201-F	508	509	510	-2.0	49.9	7.1	50.1	-45.0	1.21	-0.99	2.7	1.20	-0.98	0.10	0.03
I-201-G	511	512*	513	14.7	0.0	5.5	21.2	-1.0	0.69	0.18	57.2	0.33	0.54	0.23	0.04
I-201-H	514	515	516	17.7	32.0	9.3	32.4	-5.5	1.01	0.14	-51.4	0.48	0.67	-0.43	0.04
I-201-J	517	518	519	-5.8	8.4	16.7	17.1	-6.2	0.50	-0.04	-7.4	0.49	-0.03	-0.07	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF	
I-2P1-Y	520	521	522	-26.2	-0.1	32.4	32.6	-26.3	0.81	-0.55	3.1	0.01	-0.54	0.07	0.03	
I-2P1-L	523	524	525	-10.9	-4.8	4.8	5.1	-20.2	-0.02	-0.62	-6.3	-0.04	-0.61	-0.06	0.02	
I-2P2-A	526	527	528	-7.0	-37.2	-26.6	-0.5	-43.2	-0.44	-1.43	-23.1	-0.59	-1.28	-0.36	0.04	
I-2P2-B	529	530	531	-3.6	-28.5	-35.9	-1.3	-38.1	-0.42	-1.27	-14.2	-0.47	-1.22	-0.20	0.04	
I-2P2-C	532	533	534	-19.6	-42.1	-62.7	-10.6	-62.7	-1.27	-2.26	-1.3	-1.27	-2.26	-0.02	0.04	
I-2P2-D	535	536	537	-10.4	-63.2	-100.6	-9.7	-101.2	-1.32	-3.43	-4.9	-1.34	-3.42	-0.18	0.05	
I-2P2-E	538	539	540**	-25.1	-50.3	0.0	25.9	-61.0	0.58	-1.66	-52.5	-0.83	-0.25	-1.08	0.03	
I-2P2-F	541	542	543	-28.3	-41.7	-43.1	-26.4	-44.9	-1.32	-1.74	-63.4	-1.66	-1.40	-0.17	0.05	
I-2P2-G	544	545	546	-28.1	-44.9	-31.3	-23.9	-45.5	-1.24	-1.74	35.8	-1.41	-1.56	0.24	0.06	
I-2P2-H	547	548	549	-48.0	-30.3	-10.8	-8.3	-50.5	-0.77	-1.75	14.1	-0.83	-1.69	0.23	0.05	
I-2P2-J	550	551	552	-40.9	-23.0	5.2	5.7	-41.5	-0.22	-1.31	6.3	-0.23	-1.30	0.12	0.04	
I-2P2-K	553	554**	555	-29.8	0.0	20.0	20.5	-30.3	0.38	-0.80	-5.6	0.36	-0.79	-0.11	0.03	
I-2P2-L	556	557	558	-19.7	-11.9	2.4	2.8	-20.2	-0.11	-0.64	8.2	-0.12	-0.63	0.09	0.04	
I-2P3-A	559	560	561	-14.7	-26.7	-5.4	7.2	-27.3	-0.03	-0.83	-52.8	-0.54	-0.32	-0.38	0.04	
I-2P3-B	562	563	564	-24.2	-20.5	-9.3	-8.4	-25.1	-0.52	-0.91	-76.5	-0.80	-0.55	-0.09	0.04	
I-2P3-C	565	566	567	-29.1	-28.3	-18.3	-18.3	-39.1	-0.99	-1.47	85.8	-1.47	-0.99	0.01	0.04	
I-2P3-D	568	569	570	-29.6	-50.8	-40.6	-18.4	-51.7	-1.12	-1.89	-35.3	-1.38	-1.63	-0.36	0.05	
I-2P3-E	571	572	573	-22.4	-61.7	-52.3	-21.8	-64.0	-1.35	-2.32	-31.7	-1.62	-2.06	-0.44	0.06	
I-2P3-F	574	575	576	-27.0	-63.8	-49.8	-22.0	-64.8	-1.37	-2.35	-81.2	-2.33	-1.39	-0.15	0.05	
I-2P3-G	577	578	579	-27.8	-55.8	-27.8	-19.8	-55.8	-1.21	-2.03	45.1	-1.62	-1.62	0.41	0.06	
I-2P3-H	580	581	582	-24.6	-26.2	-25.7	-14.1	-36.2	-0.82	-1.33	46.4	-1.09	-1.07	0.25	0.04	
I-2P3-J	583	584	585	-3.3	-14.8	-21.7	-3.0	-22.0	-0.32	-0.75	83.0	-0.75	-0.32	0.05	0.03	
I-2P3-K	586	587	588	10.4	-4.2	-12.6	10.7	-13.8	0.22	-0.35	53.8	-0.34	0.21	0.06	0.02	
I-2P3-L	589	590	591	14.3	3.7	-1.7	14.7	-2.1	0.46	0.08	80.9	0.07	0.45	0.05	0.04	
I-2P4-A	592	593	594	-23.9	-24.2	6.0	9.9	-29.8	0.03	-0.89	-67.2	-0.75	-0.11	-0.23	0.04	
I-2P4-B	595	596	597	-23.9	-20.7	-7.8	-6.5	-25.3	-0.46	-0.90	-74.5	-0.67	-0.49	-0.11	0.04	
I-2P4-C	598	599	600	-20.9	-25.0	-20.5	-16.3	-25.0	-0.79	-0.99	-46.4	-0.89	-0.88	-0.10	0.05	
I-2P4-D	601	602	603	-26.5	-31.9	-25.3	-13.5	-22.3	-0.77	-1.20	-37.5	-0.93	-1.04	-0.21	0.06	
I-2P4-E	604	605	606	-27.4	-28.5	-21.0	-18.8	-29.6	-0.91	-1.16	71.8	-1.14	-0.94	0.07	0.09	
I-2P4-F	607	608	609	-21.8	-16.4	-13.0	-12.9	-21.9	-0.64	-0.85	-6.6	-0.64	-0.85	-0.02	0.06	
I-2P4-G	610	611	612	-7.7	-7.5	-35.6	-5.9	-17.4	-0.27	-0.63	-66.7	-0.59	-0.41	-0.10	0.05	
I-2P4-H	613	614	615	0.8	-0.2	-15.8	3.6	-18.6	-0.07	-0.58	-69.3	-0.51	-0.13	-0.17	0.04	
I-2P4-J	616	617	618	5.7	-3.0	-12.8	5.7	-12.9	0.06	-0.37	-88.2	-0.37	0.06	-0.01	0.03	
I-2P5-A	619	620**	621	4.3	0.0	-5.2	4.3	-5.3	0.09	-0.13	2.9	0.09	-0.13	0.01	0.03	
I-2P5-B	622	623	624	2.5	-10.8	-0.6	12.8	-10.9	0.31	-0.23	-41.3	0.06	0.01	-0.27	0.03	
I-2P5-C	625	626	627	0.3	-4.0	1.3	5.6	-4.1	0.15	-0.08	-48.0	0.02	0.05	-0.11	0.02	
I-2P5-D	628	629	630	0.8	-5.9	2.0	8.7	-5.9	0.23	-0.11	-67.5	0.04	0.07	-0.17	0.03	
I-2P5-E	631	632	633	0.0	-6.6	2.4	9.2	-6.7	0.24	-0.13	-20.4	0.02	0.08	-0.18	0.04	
I-2P5-F	634	635	636	1.5	14.3	0.6	14.3	-12.1	0.25	-0.26	-16.0	0.04	0.06	-0.30	0.03	
I-2P5-G	637	638	639	0.1	11.9	1.6	11.9	-10.2	0.29	-0.22	-43.1	0.05	0.02	-0.25	0.03	
I-2P5-H	640	641	642	0.5	7.7	1.1	7.7	-6.1	0.19	-0.13	-44.0	0.04	0.03	-0.16	0.02	
I-2P5-J	643	644	645	-0.6	2.2	0.2	2.2	-2.6	0.05	-0.06	-40.3	0.00	-0.02	-0.05	0.02	
O-2P6-A	156	155	154	-3.9	-9.4	1.9	7.8	-9.8	0.16	-0.25	35.5	0.02	-0.11	0.19	0.04	
O-2P6-B	159	158	157	-3.3	2.6	2.1	3.6	-4.8	0.07	-0.12	-24.9	0.04	-0.09	-0.07	0.02	
O-2P6-C	162	161	160	-2.1	7.6	3.5	8.1	-6.8	0.20	-0.14	-24.0	0.09	-0.04	-0.16	0.03	
O-2P6-D	165	164	163	0.7	9.2	-0.5	9.3	-9.0	0.22	-0.21	-46.9	-0.01	0.02	-0.21	0.02	
O-2P6-A	321	320	319	-6.6	-12.2	-2.1	15.2	-12.6	0.38	-0.27	52.0	-0.02	0.13	0.31	0.03	
O-2P6-B	324	323	322	2.5	3.7	-1.5	4.3	-3.3	0.11	-0.07	-60.5	-0.02	0.07	-0.07	0.02	
O-2P6-C	327	326	325	-2.6	8.2	2.2	8.5	-8.9	0.19	-0.21	-27.0	0.05	-0.06	-0.19	0.03	
I-2P6-A	481**	482**	483	0.0	0.0	-3.1	0.6	-3.7	-0.02	-0.12	22.5	-0.03	-0.10	0.04	0.02	
I-2P6-B	484	485	486	1.8	4.2	-4.4	5.0	-7.6	0.09	-0.20	30.3	0.02	-0.13	0.13	0.02	
I-2P6-C	487	488	489	0.2	-4.8	-2.6	2.7	-5.1	0.04	-0.14	-34.5	-0.02	-0.06	-0.08	0.02	
I-2P6-D	490	491	492	-0.6	-8.7	0.6	8.8	-8.8	0.20	-0.20	-46.9	-0.01	0.01	-0.20	0.02	
I-2P6-A	646	647	648	-3.1	28.7	6.0	29.1	-26.2	0.70	-0.58	49.8	-0.04	0.17	0.63	0.02	
I-2P6-B	649	650	651	-1.8	7.1	4.0	7.8	-5.6	0.20	-0.11	58.0	-0.02	0.12	0.14	0.02	
I-2P6-C	652	653	654	-1.2	-4.9	4.5	8.9	-5.5	0.24	-0.09	-36.7	0.01	0.14	-0.15	0.03	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					CONF.	
	(1)	(2)	(3)	E(1)	E(2)	E(3)	FMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		TAU
Q-1P7-A	666	665	664	4.6	5.9	0.3	6.5	-1.6	0.20	0.01	-15.6	0.19	0.02	-0.02	0.02
Q-1P7-P	663	662	661	10.1	-0.6	8.5	19.2	-0.6	0.63	0.17	-87.7	0.17	0.63	-0.02	0.03
Q-1P7-C	660	659	658	30.6	16.1	22.5	37.7	15.4	1.40	0.88	-79.4	0.90	1.38	-0.09	0.04
Q-1P7-D	657	656	655	25.9	-35.8	10.6	72.8	-36.3	2.04	-0.48	-86.0	-0.47	2.03	-0.18	0.04
I-1P7-A	688	689	690	-16.4	-8.1	-0.7	-0.7	-16.5	-0.19	-0.55	43.3	-0.36	-0.36	0.16	0.03
I-1P7-B	685	686	687	-28.1	-37.4	-27.5	-18.2	-37.4	-0.97	-1.41	89.2	-1.41	-0.97	0.01	0.05
I-1P7-C	682	683	684	-24.6	-64.5	-54.6	-22.4	-66.9	-1.40	-2.42	-76.6	-2.37	-1.45	-0.22	0.05
I-1P7-D	679	680	681	10.7	21.0	-22.3	25.7	-37.2	0.48	-0.97	-15.8	0.37	-0.87	-0.38	0.02
Q-2P7-A	678	677	676	0.6	1.2	12.5	14.5	-1.5	0.46	0.09	66.0	0.16	0.40	0.14	0.03
Q-2P7-E	675	674	673	12.7	-5.7	9.6	28.1	-5.8	0.87	0.05	-87.4	0.09	0.67	-0.04	0.03
Q-2P7-C	672	671	670	30.8	21.2	18.9	42.6	16.1	1.56	0.95	-67.0	1.07	1.45	-0.24	0.05
Q-2P7-D	669	668	667	43.5	-41.2	2.8	90.6	-44.3	2.55	-0.57	-81.2	-0.49	2.47	-0.47	0.03
I-2P7-A	700	701	702	-20.4	-14.5	-4.8	-4.6	-20.6	-0.35	-0.72	52.0	-0.56	-0.49	0.10	0.04
I-2P7-B	697	698	699	-32.4	-45.8	-34.2	-20.7	-45.9	-1.14	-1.72	-88.0	-1.72	-1.14	-0.02	0.05
I-2P7-C	694	695	696	-41.8	-76.6	-63.1	-26.0	-78.8	-1.66	-2.86	-78.1	-2.80	-1.69	-0.25	0.04
I-2P7-D	691	692	693	4.8	30.8	-6.9	31.3	-33.4	0.70	-0.79	-5.2	0.69	-0.78	-0.13	0.04

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

CONSTRUCTION T-16, LOAD CASE 3, M27

NOMINAL LOAD = 1.097E 05

LOCATION	GAGE NUMBERS			STRAIN - MICROPINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
C-181-A	2	2	1	9.8	-4.2	0.0	15.3	-5.5	0.45	-0.03	59.1	0.10	0.32	0.21	0.02
C-181-B	6	5	4	23.0	0.7	2.9	28.8	-2.0	0.92	0.10	64.7	0.32	0.79	0.28	0.05
C-181-C	9	8	7	22.9	1.6	7.8	31.0	-0.2	1.02	0.30	59.3	0.56	0.83	0.22	0.03
C-181-D	12	11	10	18.4	29.4	19.8	29.5	8.7	1.66	0.58	-43.0	0.84	0.80	-0.24	0.03
C-181-E	15	14	13	4.1	53.0	18.6	53.6	-31.0	1.46	-0.49	-40.1	0.65	0.32	-0.96	0.03
C-181-F	18	17	16	8.1	45.8	6.7	45.8	-31.0	1.21	-0.57	-0.5	1.20	-0.57	-0.02	0.03
C-181-G	21	20	19	-3.7	32.9	-7.8	33.0	-44.4	0.65	-1.14	43.5	-0.20	-0.29	0.89	0.04
C-181-H	24	23	22	-26.9	4.3	-3.6	7.5	-38.0	-0.13	-1.18	60.4	-0.92	-0.30	0.45	0.03
C-181-J	27	26	25	-25.6	-12.7	-11.5	-9.4	-27.7	-0.58	-1.01	70.1	-0.96	-0.63	0.14	0.04
C-181-K	30	29	28	-19.6	-19.4	-15.0	-14.2	-20.4	-0.67	-0.81	-68.8	-0.79	-0.69	-0.05	0.03
C-181-L	33	32	31	-64.9	-30.1	-16.4	-14.2	-67.1	-1.13	-2.25	78.3	-2.30	-1.18	0.24	0.03
C-182-A	36	35	34	12.2	33.2	65.4	65.0	11.6	2.29	1.03	5.9	2.28	1.05	0.13	0.04
C-182-B	39	38	37	-11.5	4.2	14.5	14.8	-11.7	0.37	-0.24	-5.7	0.37	-0.23	-0.06	0.02
C-182-C	42	41	40	-20.5	-1.6	15.7	15.7	-20.5	0.32	-0.52	-1.2	0.22	-0.52	-0.02	0.02
C-182-D	45	44	43	-23.4	-17.5	20.8	26.1	-28.7	0.58	-0.69	18.1	0.45	-0.57	0.37	0.05
C-182-E	48	47	46	-34.9	-4.1	1.8	5.6	-38.7	-0.20	-1.22	-17.1	-0.29	-1.13	-0.29	0.03
C-182-F	51	50	49	-41.0	-7.0	-5.1	1.0	-47.1	-0.43	-1.54	24.1	-0.62	-1.36	0.41	0.05
C-182-G	54	53	52	-36.2	-17.7	-9.2	-8.3	-37.1	-0.64	-1.31	79.7	-1.28	-0.66	0.12	0.03
C-182-H	57	56	55	-25.8	-31.3	-16.6	-10.1	-32.3	-0.65	-1.17	-57.3	-1.02	-0.80	-0.23	0.03
C-182-J	60	59	58	-14.3	-35.5	-18.6	2.6	-35.6	-0.27	-1.15	-41.8	-0.60	-0.76	-0.44	0.03
C-182-K	63	62	61	-6.2	-26.1	-17.3	3.6	-27.2	-0.15	-0.66	-34.4	-0.38	-0.63	-0.25	0.02
C-182-L	66	65	64	-33.6	-41.4	-10.5	0.4	-44.5	-0.43	-1.46	-60.4	-1.21	-0.68	-0.45	0.04
C-183-A	69	68	67	-5.3	30.3	46.1	48.0	-7.1	1.51	0.24	-10.5	1.47	0.28	-0.23	0.03
C-183-B	72	71	70	-12.4	23.7	24.4	31.6	-10.6	0.85	-0.33	-22.0	0.68	-0.17	-0.41	0.03
C-183-C	75	74	73	-11.4	27.6	27.1	25.4	-19.8	0.97	-0.30	-22.9	0.78	-0.11	-0.46	0.03
C-183-D	78	77	76	-13.9	24.5	28.8	34.7	-19.9	0.95	-0.31	-19.3	0.81	-0.18	-0.39	0.05
C-183-E	81	80	79	-13.8	14.9	26.0	27.9	-15.7	0.76	-0.24	-12.0	0.72	-0.20	-0.20	0.03
C-183-F	84	83	82	-12.9	0.8	22.1	22.6	-13.3	0.41	-0.21	51.3	0.11	0.29	0.40	0.02
C-183-G	87	86	85	-7.0	-3.0	17.8	20.4	-9.5	0.58	-0.11	-72.9	-0.05	0.52	-0.19	0.02
C-183-H	90	89	88	0.6	-2.9	10.6	15.4	-4.3	0.47	0.01	-60.2	0.12	0.35	-0.20	0.02
C-183-J	93	92	91	5.5	-0.9	6.4	12.8	-1.0	0.41	0.10	-46.9	0.24	0.27	-0.16	0.03
C-183-K	96	95	94	5.2	1.4	5.6	9.4	1.4	0.22	0.14	-46.7	0.23	0.24	-0.09	0.04
C-183-L	99	98	97	21.8	9.7	3.0	22.2	2.6	0.76	0.31	-8.0	0.75	0.31	-0.06	0.02
C-184-A	102	101	100	-1.0	18.7	14.8	21.1	-7.3	0.42	-0.03	-28.1	0.48	0.11	-0.27	0.03
C-184-B	105	104	103	1.5	20.6	12.8	21.8	-7.4	0.64	-0.03	-33.5	0.44	0.18	-0.31	0.04
C-184-C	108	107	106	-2.9	23.5	18.4	26.8	-11.2	0.77	-0.10	-27.9	0.58	0.09	-0.36	0.04
C-184-D	111	110	109	-0.4	28.3	20.1	30.9	-11.2	0.91	-0.06	-30.5	0.66	0.19	-0.43	0.04
C-184-E	114	113	112	-5.5	14.6	27.9	28.2	-5.9	0.87	0.09	39.2	0.56	0.40	0.39	0.04
C-184-F	117	116	115	5.9	2.2	17.7	23.1	0.5	0.77	0.25	-60.6	0.37	0.64	-0.22	0.06
C-184-G	120	119	118	8.8	7.4	16.7	19.4	6.1	0.70	0.39	-63.3	0.45	0.64	-0.12	0.04
C-184-H	123	122	121	9.7	13.0	20.7	21.2	9.3	0.79	0.52	-78.9	0.53	0.78	-0.05	0.05
C-184-J	126	125	124	41.4	35.4	15.7	43.1	14.0	1.56	0.89	14.1	1.52	0.93	0.16	0.05
C-185-A	129	128	127	9.8	6.5	8.9	12.2	6.4	0.47	0.33	49.2	0.39	0.41	0.07	0.05
C-185-B	132	131	130	9.3	7.7	5.7	9.3	5.6	0.36	0.28	-86.9	0.28	0.36	-0.00	0.03
C-185-C	135	134	133	11.3	7.5	4.9	11.4	4.9	0.42	0.27	84.2	0.27	0.42	0.02	0.04
C-185-D	138	137	136	11.9	8.5	9.4	13.2	8.1	0.51	0.40	60.3	0.43	0.49	0.05	0.04
C-185-E	141	140	139	14.7	12.3	13.6	16.1	12.2	0.65	0.56	53.4	0.59	0.62	0.04	0.05
C-185-F	144	143	142	20.7	17.8	13.0	20.8	12.9	0.81	0.63	7.2	0.81	0.63	0.02	0.05
C-185-G	147	146	145	16.3	17.0	17.5	17.9	12.8	0.75	0.70	61.7	0.71	0.74	0.02	0.05
C-185-H	150	149	148	14.9	19.0	24.8	24.8	14.8	0.96	0.73	-95.5	0.73	0.96	-0.02	0.05

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				TAU	CONF.
	(1)	(2)	(3)	E(1)	E(2)	F(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)			
Q-1R5-J	153	152	151	61.2	46.2	13.7	62.7	12.1	2.19	1.02	10.2	2.15	1.06	0.20	0.07	
Q-2R1-A	168	167	166	8.0	16.2	1.3	16.8	-6.7	0.49	-0.05	-54.4	0.13	0.31	-0.26	0.03	
Q-2R1-P	171	170	169	20.4	27.8	4.2	29.8	-5.2	0.93	0.12	-58.8	0.34	0.71	-0.36	0.02	
Q-2R1-C	174	173	172	26.1	30.8	12.4	22.7	5.0	1.14	0.52	-60.3	0.67	0.98	-0.27	0.05	
Q-2R1-D	177	176	175	23.1	5.8	17.7	25.2	5.6	1.22	0.53	50.3	0.81	0.94	0.34	0.04	
Q-2R1-E	180	179	178	16.6	-31.1	8.0	55.9	-31.4	1.53	-0.48	47.8	0.43	0.63	1.00	0.02	
Q-2R1-F	183	182	181	7.3	-33.3	5.8	46.7	-33.6	1.21	-0.64	-89.5	-0.64	1.21	-0.02	0.02	
Q-2R1-G	186	185	184	22.9	-15.9	12.8	52.0	-16.3	1.55	-0.02	-40.8	0.88	0.65	-0.78	0.04	
Q-2R1-H	189	188	187	34.3	26.9	18.2	34.4	18.2	1.31	0.94	2.3	1.31	0.94	-0.01	0.04	
Q-2R1-K	192	191	190	22.2	41.8	30.8	42.4	10.6	1.50	0.77	52.9	1.03	1.23	0.35	0.04	
Q-2R1-J	195	194	193	11.6	34.4	26.6	36.1	2.1	1.21	0.43	58.1	0.65	0.99	0.35	0.03	
Q-2R1-L	198	197	196	24.5	28.0	17.0	28.9	12.6	1.08	0.70	31.2	0.98	0.80	0.17	0.07	
Q-2R2-A	201	200	199	-5.0	-30.2	-66.7	-4.5	-67.2	-0.81	-2.26	-84.8	-2.25	-0.82	-0.13	0.03	
Q-2R2-B	204	203	202	21.1	-0.4	-20.2	21.1	-20.2	0.50	-0.46	88.7	-0.46	0.50	0.02	0.04	
Q-2R2-C	207	206	205	24.0	-0.9	-26.0	24.1	-26.0	0.52	-0.69	-98.8	-0.69	0.52	-0.63	0.02	
Q-2R2-D	210	209	208	18.6	19.8	-9.2	25.2	-15.8	0.68	-0.27	-66.4	-0.12	0.52	-0.35	0.02	
Q-2R2-E	213	212	211	8.2	17.7	1.1	18.2	-8.8	0.51	-0.11	-52.7	0.12	0.28	-0.30	0.02	
Q-2R2-F	216	215	214	14.7	26.5	15.2	26.5	3.4	0.91	0.37	0.6	0.91	0.37	0.01	0.04	
Q-2R2-G	219	218	217	3.7	28.5	19.4	30.3	-7.2	0.93	0.06	57.4	0.31	0.68	0.39	0.03	
Q-2R2-H	222	221	220	-10.2	25.8	24.9	32.8	-18.1	0.90	-0.27	66.8	-0.09	0.72	0.43	0.02	
Q-2R2-J	225	224	223	-17.5	16.1	23.3	27.2	-21.4	0.68	-0.44	73.6	-0.35	0.59	0.30	0.02	
Q-2R2-K	228	227	226	-16.8	7.8	14.8	17.1	-19.1	0.38	-0.46	75.4	-0.41	0.32	0.20	0.02	
Q-2R2-L	231	230	229	-61.0	-20.8	-0.3	1.2	-62.5	-0.58	-2.05	81.1	-2.01	-0.61	-0.23	0.05	
Q-2R3-A	234	233	232	-3.5	-39.1	-62.6	-2.9	-63.2	-0.72	-2.11	84.3	-2.10	-0.73	0.14	0.04	
Q-2R3-B	237	236	235	-4.4	-32.5	-27.0	4.5	-25.9	-0.21	-1.14	62.0	-0.93	-0.41	0.39	0.03	
Q-2R3-C	240	239	238	-5.0	-38.4	-42.6	-0.0	-47.6	-0.47	-1.57	71.1	-1.45	-0.59	0.34	0.04	
Q-2R3-D	243	242	241	-8.5	-31.7	-35.9	-5.5	-38.8	-0.57	-1.34	72.6	-1.27	-0.64	0.22	0.04	
Q-2R3-E	246	245	244	-18.0	-27.3	-26.7	-15.8	-20.0	-0.81	-1.11	65.7	-1.06	-0.86	0.11	0.05	
Q-2R3-F	249	248	247	-25.4	-23.0	-22.6	-22.3	-25.8	-0.99	-1.07	26.7	-1.01	-1.05	0.03	0.06	
Q-2R3-G	252	251	250	-28.2	-25.4	-15.9	-15.0	-29.1	-0.78	-1.11	-75.6	-1.09	-0.80	-0.08	0.04	
Q-2R3-H	255	254	253	-31.1	-27.0	-9.2	-7.2	-33.1	-0.57	-1.16	-73.0	-1.12	-0.61	-0.16	0.04	
Q-2R3-J	258	257	256	-28.8	-32.0	-8.3	-1.7	-35.4	-0.41	-1.19	-63.7	-1.03	-0.56	-0.31	0.03	
Q-2R3-K	261	260	259	-22.4	-30.9	-8.5	1.5	-32.4	-0.27	-1.05	-57.1	-0.82	-0.50	-0.26	0.03	
Q-2R3-L	264	263	262	-96.8	-72.9	-12.6	-8.3	-99.1	-1.25	.35	-77.5	-3.25	-1.35	-0.44	0.04	
Q-2R4-A	267	266	265	-22.1	-39.6	-20.0	-11.9	-40.2	-0.79	-1.44	52.1	-1.21	-1.02	0.31	0.05	
Q-2R4-B	270	269	268	-21.8	-30.5	-21.7	-13.0	-30.5	-0.73	-1.13	44.7	-0.93	-0.93	0.20	0.04	
Q-2R4-C	273	272	271	-17.6	-28.4	-26.7	-14.5	-29.9	-0.77	-1.13	63.2	-1.06	-0.84	0.14	0.05	
Q-2R4-D	276	275	274	-15.3	-22.8	-30.0	-15.3	-30.0	-0.80	-1.14	89.2	-1.14	-0.80	0.00	0.04	
Q-2R4-E	279	278	277	-17.6	-23.3	-27.3	-17.5	-27.4	-0.85	-1.08	-29.8	-0.98	-0.64	-0.11	0.05	
Q-2R4-F	282	281	280	-29.5	-22.6	-16.9	-16.8	-29.6	-0.85	-1.14	87.0	-1.14	-0.85	0.02	0.03	
Q-2R4-G	285	284	283	-24.3	-28.9	-20.4	-15.5	-24.2	-0.80	-1.12	-53.4	-1.00	-0.91	-0.15	0.04	
Q-2R4-H	288	287	286	-21.7	-32.1	-25.2	-14.6	-32.3	-0.80	-1.21	-39.3	-0.96	-1.04	-0.20	0.03	
Q-2R4-J	291	290	289	-51.2	-55.0	-29.7	-22.3	-58.6	-1.32	-2.15	-53.3	-1.98	-1.48	-0.34	0.03	
Q-2R5-A	294	293	292	-39.7	-37.6	-21.2	-30.7	-40.2	-1.41	-1.63	-76.5	-1.62	-1.42	-0.05	0.05	
Q-2R5-B	297	296	295	-19.3	-26.9	-29.6	-18.7	-26.1	-0.91	-1.18	-12.7	-0.93	-1.16	-0.06	0.03	
Q-2R5-C	300	299	298	-25.4	-24.7	-23.3	-23.2	-25.5	-1.02	-1.07	-79.6	-1.07	-1.02	-0.01	0.04	
Q-2R5-D	303	302	301	-26.0	-27.9	-19.2	-19.2	-36.0	-0.99	-1.38	-89.1	-1.38	-0.99	-0.01	0.04	
Q-2R5-E	306	305	304	-29.7	-29.9	-18.5	-18.4	-29.7	-1.00	-1.49	-87.6	-1.49	-1.00	-0.02	0.04	
Q-2R5-F	309	308	307	-33.5	-27.6	-21.0	-21.0	-33.5	-1.02	-1.31	-88.3	-1.31	-1.02	-0.01	0.04	
Q-2R5-G	312	311	310	-23.1	-27.2	-26.7	-22.0	-27.8	-1.00	-1.14	-25.9	-1.03	-1.11	-0.05	0.05	
Q-2R5-H	315	314	313	-24.6	-32.7	-35.0	-32.7	-36.9	-1.44	-1.54	42.3	-1.49	-1.50	0.05	0.06	
Q-2R5-J	318	317	316	-50.2	-40.5	-37.9	-36.9	-51.2	-1.72	-2.05	75.0	-2.03	-1.75	0.08	0.07	
I-1R1-A	328	329	330	-12.0	-12.4	-20.0	-10.6	-21.3	-0.56	-0.81	20.9	-0.59	-0.78	0.08	0.05	
I-1R1-P	331	332	333	-9.1	-0.0	-21.7	1.2	-31.9	-0.28	-1.04	33.8	-0.51	-0.80	0.25	0.06	
I-1R1-C	334	335	336	0.6	0.2	-42.2	9.3	-50.9	-0.20	-1.59	22.3	-0.40	-1.39	0.49	0.06	
I-1R1-D	337	338*	339	0.3	9.7	-42.6	16.4	-58.7	-0.04	-1.77	27.6	-0.41	-1.40	0.71	0.04	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(TL)	TAU	CONF
I-1R1-E	340	343	342	-0.5	0.7	-23.5	5.1	-29.1	-0.12	-0.91	24.0	-0.25	-0.78	0.29	0.06
I-1R1-F	343	344	345	2.5	-6.2	-11.1	2.7	-11.4	-0.02	-0.35	-52.9	-0.23	-0.14	-0.16	0.04
I-1R1-G	346	347	348	6.1	-6.7	-3.3	10.8	-8.0	0.28	-0.16	60.1	-0.05	0.17	0.19	0.03
I-1R1-H	349	350	351	10.4	4.4	-3.3	10.5	-3.3	0.31	-0.01	-86.7	-0.00	0.33	-0.02	0.04
I-1R1-J	352	353	354	25.7	13.0	-9.9	26.4	-10.6	0.77	-0.09	-82.0	-0.07	0.75	-0.12	0.04
I-1R1-K	355	356	357	34.0	10.2	-19.8	34.1	-20.0	0.93	-0.32	-86.7	-0.32	0.97	-0.07	0.03
I-1R1-L	358	359	360	29.8	15.4	5.7	30.6	8.8	1.10	0.59	78.4	0.61	1.08	0.10	0.04
I-1R2-A	361	362	363**	4.6	6.2	0.0	6.8	-2.2	0.20	-0.00	29.5	0.15	0.05	0.09	0.04
I-1R2-B	364	365	366	26.3	19.7	-2.0	36.4	-2.1	1.18	0.29	3.0	1.18	0.29	0.05	0.03
I-1R2-C	367	368	369	19.1	20.1	18.5	28.1	9.5	1.02	0.59	44.0	0.81	0.80	0.21	0.05
I-1R2-D	370	371	372	12.5	44.2	38.3	48.2	2.5	1.61	0.56	62.2	0.79	1.39	0.43	0.03
I-1R2-E	373	374	375	25.2	58.5	39.7	59.5	5.4	2.01	0.77	52.8	1.22	1.56	0.60	0.05
I-1R2-F	376	377	378	23.4	52.8	28.1	53.0	8.6	1.83	0.81	-3.5	1.83	0.81	-0.06	0.05
I-1R2-G	379	380	381	40.4	51.9	24.2	53.5	11.1	1.87	0.90	-56.2	1.20	1.57	-0.45	0.07
I-1R2-H	382	383	384	38.3	35.7	12.2	42.0	8.5	1.47	0.70	-70.7	0.78	1.38	-0.24	0.05
I-1R2-J	385	386	387	20.5	22.5	0.6	32.0	-1.0	1.05	0.28	-77.5	0.32	1.01	-0.16	0.04
I-1R2-K	388	389	390	20.8	11.4	-10.5	22.0	-11.7	0.61	-0.17	-79.2	-0.14	0.58	-0.14	0.03
I-1R2-L	391	392	393	9.3	5.5	5.6	10.1	4.8	0.38	0.26	67.3	0.28	0.	0.04	0.04
I-1R3-A	394	395	396	21.1	6.2	0.7	26.2	4.6	0.91	0.41	-29.0	0.79	0.	-0.21	0.04
I-1R3-B	397	398	399	28.1	8.4	9.4	32.7	4.8	1.13	0.48	-24.0	1.02	0.59	-0.24	0.04
I-1R3-C	400	401	402	12.6	11.0	12.8	15.5	10.9	0.62	0.51	-29.8	0.58	0.56	-0.05	0.05
I-1R3-D	403	404	405	3.1	12.1	20.4	20.5	3.0	0.71	0.30	85.6	0.30	0.70	0.03	0.03
I-1R3-E	406	407	408	4.1	21.4	24.3	26.6	1.8	0.90	0.32	72.3	0.38	0.84	0.17	0.04
I-1R3-F	409	410	411	6.9	28.0	23.1	30.3	-0.3	1.00	0.29	16.0	0.94	0.34	0.19	0.03
I-1R3-G	412	413	414	2.8	24.8	21.9	27.9	-2.1	0.90	0.21	-26.4	0.70	0.34	-0.27	0.04
I-1R3-H	415	416	417	-7.6	13.8	15.7	19.2	-11.2	0.52	-0.18	-20.0	0.44	-0.10	-0.23	0.02
I-1R3-J	418	419	420	-14.8	7.2	10.8	13.8	-17.8	0.28	-0.45	-17.9	0.21	-0.38	-0.21	0.02
I-1R3-K	421	422	423	-15.3	3.8	8.4	10.1	-14.9	0.18	-0.39	-14.8	0.15	-0.35	-0.14	0.03
I-1R3-L	424	425	426	-8.9	-3.6	-2.0	-2.7	-9.2	-0.18	-0.33	-11.6	-0.19	-0.22	-0.03	0.03
I-1R4-A	427	428	429	12.6	12.7	14.0	14.2	12.4	0.59	0.55	-68.0	0.56	0.59	-0.01	0.04
I-1R4-B	430	431	432	-3.8	2.5	19.8	21.1	-5.0	0.64	0.04	-77.6	0.07	0.62	-0.12	0.05
I-1R4-C	433	434	435	-10.2	-5.3	17.2	19.8	-12.8	0.52	-0.23	-73.7	-0.17	0.47	-0.20	0.02
I-1R4-D	436	437	438	-17.2	-13.0	11.0	15.8	-21.0	0.21	-0.54	-71.2	-0.45	0.22	-0.26	0.02
I-1R4-E	439	440	441	-23.9	-5.0	12.1	12.1	-23.9	0.16	-0.67	43.6	-0.23	-0.27	0.42	0.04
I-1R4-F	442	443	444	-25.5	1.6	4.9	9.0	-29.6	0.00	-0.89	-19.0	-0.09	-0.79	-0.27	0.02
I-1R4-G	445	446	447	-24.1	-1.6	2.8	5.6	-26.8	-0.08	-0.63	-17.1	-0.15	-0.77	-0.21	0.02
I-1R4-H	448	449	450	-13.6	3.5	0.7	5.8	-18.7	0.01	-0.56	-27.2	-0.11	-0.44	-0.23	0.02
I-1R4-J	451	452	453	1.7	-4.0	-22.8	3.3	-24.4	-0.13	-0.77	-76.0	-0.73	-0.17	-0.15	0.04
I-1R5-A	454	455	456	0.1	6.4	14.4	14.5	0.0	0.48	0.14	-86.5	0.15	0.48	-0.02	0.04
I-1R5-B	457	458	459	-7.9	1.7	12.8	12.9	-6.0	0.24	-0.14	-86.3	-0.12	0.34	-0.03	0.02
I-1R5-C	460	461	462	-6.4	0.0	9.1	9.2	-6.5	0.24	-0.12	-85.2	-0.12	0.24	-0.03	0.03
I-1R5-D	463	464	465	-8.1	-5.5	-3.0	-3.0	-8.1	-0.18	-0.30	88.6	-0.30	-0.18	0.00	0.03
I-1R5-E	466	467	468	-11.0	-11.3	-15.0	-10.4	-15.6	-0.50	-0.62	19.9	-0.51	-0.60	0.04	0.06
I-1R5-F	469	470	471	-24.2	-17.5	-8.2	-8.1	-24.3	-0.51	-0.88	4.7	-0.51	-0.88	0.03	0.05
I-1R5-G	472	473	474	-25.6	-12.8	-2.9	-2.8	-25.7	-0.25	-0.87	-3.6	-0.25	-0.87	-0.03	0.04
I-1R5-H	475	476	477	-0.9	-5.9	-4.4	-4.2	-19.1	-0.24	-0.37	-11.9	-0.24	-0.37	-0.03	0.05
I-1R5-J	478	479	480	0.3	-15.6	-38.2	9.3	-28.4	-0.07	-1.17	89.7	-1.17	-0.07	0.03	0.04
I-2R1-A	493	494	495	-6.6	-19.9	-19.7	-3.7	-22.6	-0.35	-0.78	-22.9	-0.41	-0.72	-0.16	0.04
I-2R1-B	496	497	498	0.1	-26.0	-20.7	9.3	-29.9	0.01	-0.89	-29.0	-0.20	-0.68	-0.38	0.03
I-2R1-C	499	500	501	-1.4	-26.9	-41.9	3.7	-47.0	-0.34	-1.51	-18.5	-0.46	-1.39	-0.35	0.04
I-2R1-D	502	503	504	-1.3	-55.8	-50.6	12.8	-64.7	-0.22	-2.01	-25.2	-0.54	-1.68	-0.69	0.04
I-2R1-E	505	506	507	-1.4	-24.5	-26.9	2.2	-30.6	-0.23	-0.99	-19.5	-0.31	-0.90	-0.24	0.04
I-2R1-F	508	509	510	2.2	-0.6	-11.4	3.3	-12.5	-0.02	-0.38	-29.8	-0.11	-0.29	-0.16	0.03
I-2R1-G	511**	512**	513	0.0	0.0	-15.7	3.2	-18.0	-0.08	-0.59	-67.5	-0.52	-0.15	-0.18	0.03
I-2R1-H	514	515	516	-28.8	-39.5	-7.1	6.2	-42.1	-0.21	-1.22	31.6	-0.52	-1.02	0.20	0.02
I-2R1-J	517	518	519	-46.1	-38.2	3.9	9.2	-51.4	-0.20	-1.60	17.2	-0.33	-1.48	0.39	0.04

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-2F1-K	520	521	522	-37.4	-26.3	10.1	13.2	-40.6	0.03	-1.21	14.0	-0.04	-1.13	0.29	0.03
I-2F1-L	523	524	525	-28.6	-19.7	-5.4	-5.1	-28.9	-0.45	-1.00	6.5	-0.46	-1.00	0.06	0.04
I-2F2-A	526	527	528	-6.1	2.9	0.6	3.8	-9.4	0.03	-0.27	60.4	-0.20	-0.04	0.13	0.03
I-2F2-P	529	530	531	-36.7	-10.6	1.7	2.9	-37.9	-0.28	-1.22	80.2	-1.19	-0.31	0.16	0.04
I-2F2-C	532	533	534	-26.3	-23.2	-12.7	-11.7	-27.2	-0.66	-1.01	-75.7	-0.99	-0.68	-0.09	0.04
I-2F2-D	535	536	537	-23.9	-61.6	-48.5	-8.0	-64.4	-0.90	-2.20	-32.1	-1.27	-1.83	-0.59	0.03
I-2F2-E	538	539	540**	-30.7	-94.4	0.0	65.2	-95.9	1.20	-2.52	-50.5	-1.01	-0.30	-1.22	0.04
I-2F2-F	541	542	543	-44.4	-94.7	-51.1	-0.7	-94.8	-0.46	-3.13	-87.9	-3.13	-0.96	-0.06	0.04
I-2F2-G	544	545	546	-46.8	-77.5	-37.4	-6.3	-77.8	-0.98	-2.63	41.2	-1.69	-1.91	0.2	0.04
I-2F2-H	547	548	549	-26.2	-47.3	-19.5	-6.7	-49.0	-0.71	-1.68	33.4	-1.00	-1.39	0.45	0.03
I-2F2-J	550	551	552	-15.9	-24.5	-15.2	-6.6	-24.5	-0.46	-0.77	43.8	-0.66	-0.64	0.21	0.04
I-2F2-K	553	55**	555	-0.0	0.0	-19.9	4.1	-24.0	-0.10	-0.75	-67.5	-0.66	-0.20	-0.23	0.02
I-2F2-L	556	557	558	2.0	-5.0	-5.4	4.5	-6.8	0.08	-0.18	60.9	-0.15	0.05	0.09	0.02
I-2F3-A	559	560	561	-16.7	-9.6	-1.9	-1.9	-16.7	-0.23	-0.57	-88.8	-0.57	-0.23	-0.01	0.03
I-2F3-P	562	563	564	-22.7	-6.9	3.0	3.3	-23.0	-0.12	-0.73	82.6	-0.72	-0.13	0.07	0.03
I-2F3-C	565	566	567	-0.1	-8.5	10.1	13.7	-12.7	0.33	-0.28	-68.5	-0.20	0.24	-0.21	0.02
I-2F3-E	568	569	570	-2.7	-4.4	7.8	11.2	-6.1	0.31	-0.09	-63.0	-0.01	0.23	-0.16	0.02
I-2F3-F	571	572	573	-0.5	-17.6	-4.4	6.9	-11.8	0.11	-0.32	-39.1	-0.06	-0.15	-0.21	0.03
I-2F3-H	574	575	576	-0.2	-11.7	-9.7	7.7	-17.6	0.08	-0.50	-79.0	-0.48	0.06	-0.11	0.03
I-2F3-G	577**	578	579	0.0	-11.7	-5.8	6.4	-12.2	0.09	-0.34	54.0	-0.19	-0.06	0.20	0.02
I-2F4-H	580	581	582	16.3	-5.1	-8.4	10.2	-11.3	0.52	-0.18	72.0	-0.12	0.45	0.21	0.02
I-2F4-J	583	584	585	17.9	-4.4	-13.5	19.2	-14.2	0.49	-0.20	78.7	-0.27	0.46	0.15	0.02
I-2F3-K	586	587	588	13.4	-6.3	-22.0	13.5	-22.1	0.23	-0.60	86.8	-0.59	0.22	0.05	0.02
I-2F3-L	589	590	591	7.0	1.4	1.3	8.1	0.2	0.27	0.09	68.1	0.11	0.24	0.06	0.04
I-2F4-A	592	592	594	3.7	-9.2	-18.2	3.8	-18.4	-0.06	-0.57	-4.9	-0.06	-0.56	-0.04	0.03
I-2F4-B	595	596	597	13.2	-1.4	-4.8	14.9	-6.4	0.43	-0.16	-16.1	0.39	-0.03	-0.13	0.02
I-2F4-C	598	599	600	19.4	16.2	12.4	19.4	12.3	0.76	0.60	2.5	0.76	0.60	0.01	0.04
I-2F4-D	601	602	603	22.8	29.0	20.1	29.1	13.7	1.10	0.74	39.8	0.95	0.89	0.17	0.05
I-2F4-F	604	605	606	20.6	26.1	18.2	29.3	17.6	1.14	0.87	-31.3	1.07	0.94	-0.12	0.05
I-2F4-E	607	608	609	31.5	23.4	14.8	21.5	14.8	1.78	0.80	-89.0	0.80	1.18	-0.01	0.04
I-2F4-G	610	611	612	22.2	16.4	13.6	22.4	13.3	0.87	0.66	80.5	0.67	0.87	0.03	0.03
I-2F4-H	613	614	615	0.3	1.8	11.2	12.5	-0.9	0.40	0.09	17.9	0.37	0.12	0.09	0.03
I-2F4-J	616	617	618	-16.4	-0.5	-17.7	17.8	-16.4	0.42	-0.36	2.1	0.42	-0.36	0.03	0.02
I-2F5-A	619	620**	621	34.8	0.0	-19.7	25.8	-20.7	0.98	-0.23	-7.7	0.95	-0.31	-0.17	0.05
I-2F5-B	622	623	624	33.5	12.5	0.0	36.0	-0.5	1.12	0.32	-7.1	1.10	0.33	-0.10	0.02
I-2F5-C	625	626	627	11.6	18.6	25.6	25.6	11.6	0.96	0.64	-89.8	0.64	0.96	-0.00	0.06
I-2F5-E	628	629	630	25.4	27.9	33.3	33.6	25.1	1.36	1.16	-80.2	1.17	1.35	-0.03	0.07
I-2F5-F	631	632	633	28.2	32.7	37.7	37.7	28.2	1.52	1.30	85.6	1.30	1.52	0.02	0.05
I-2F5-H	634	635	636	41.0	32.5	21.8	41.1	21.8	1.57	1.72	-86.8	1.13	1.57	-0.03	0.05
I-2F5-G	637	638	639	30.8	21.1	13.0	30.9	12.9	1.15	0.73	87.5	0.73	1.15	0.02	0.02
I-2F5-I	640	641	642	0.4	8.7	25.4	26.1	-0.3	0.86	0.75	9.4	0.84	0.27	0.10	0.03
I-2F5-J	643	644	645	-23.2	15.2	49.2	49.3	-23.2	1.40	-0.28	-1.7	1.39	-0.28	-0.05	0.13
I-1F6-A	156	155	154	0.1	18.0	-2.2	18.1	-20.6	0.29	-0.50	-57.9	-0.10	-0.01	-0.44	0.02
I-1F6-E	159	158	157	3.0	5.1	-5.2	6.5	-0.2	0.12	-0.24	-62.1	-0.16	0.04	-0.15	0.02
I-1F6-C	162	161	160	7.9	4.2	-7.3	8.9	-8.2	0.21	-0.18	-76.5	-0.16	0.19	-0.09	0.03
I-1F6-F	165	164	163	10.4	-1.1	-10.8	10.4	-10.8	0.24	-0.25	87.5	-0.25	0.24	0.02	0.04
I-2F6-A	321	320	319	0.7	-20.9	-1.8	19.9	-20.9	0.45	-0.49	46.8	-0.05	0.01	0.47	0.02
I-2F6-F	324	323	322	2.9	-7.6	-6.5	5.7	-9.3	0.10	-0.25	64.6	-0.19	0.03	0.13	0.02
I-2F6-C	327	326	325	-8.5	-2.8	7.5	7.8	-8.8	0.17	-0.21	7.8	0.16	-0.21	0.05	0.04
I-1F6-A	481**	482**	483	0.0	0.0	-9.4	0.1	-0.5	-0.00	-0.02	22.5	-0.00	-0.01	0.01	0.01
I-1F6-E	484*	485	486	-2.3	-9.9	4.7	12.9	-10.4	0.32	-0.22	-53.7	-0.03	0.13	-0.26	0.02
I-1F6-C	487	488	489	2.5	-1.2	6.2	10.3	-1.6	0.32	0.05	-54.3	0.14	0.23	-0.13	0.03
I-1F6-F	490	491	492	2.4	6.6	9.1	9.2	2.3	0.33	0.17	82.5	0.17	0.32	0.02	0.05
I-2F6-A	646	647	648	2.0	19.4	2.5	19.4	-15.0	0.49	-0.30	45.4	0.09	0.10	0.40	0.03
I-2F6-P	649	650	651	2.3	17.3	4.9	17.4	-10.2	0.47	-0.16	47.5	0.12	0.18	0.32	0.03
I-2F6-C	652	652	654	2.0	11.3	6.7	11.5	-1.9	0.36	0.05	53.4	0.16	0.25	0.15	0.04

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

FORM 1487-1 (REV. 10-6-60) U.S. GOVERNMENT PRINTING OFFICE: 1961 O - 168,000

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CORF
C-187-A	666	665	664	4.7	25.4	11.2	25.7	-9.8	0.75	-0.07	5.2	0.74	-0.06	0.07	0.05
C-187-E	662	662	661	-10.4	14.1	29.6	30.1	-10.9	0.88	-0.06	38.7	0.51	0.31	0.46	0.04
C-187-C	660	659	658	-22.2	-4.1	9.8	9.9	-22.4	0.10	-0.64	41.3	-0.22	-0.32	0.37	0.03
D-187-D	657	656	655	-27.4	27.9	0.8	30.3	-56.9	0.44	-1.58	9.5	0.38	-1.52	0.33	0.04
J-187-J	688	688	690	-20.2	-11.2	2.8	3.0	-20.5	-0.10	-0.64	51.0	-0.43	-0.32	0.26	0.04
I-187-F	685	686	687	-10.3	7.0	19.5	19.7	-10.5	0.55	-0.15	40.4	0.25	0.14	0.24	0.04
I-187-C	682	683	684	25.3	50.2	35.9	50.9	10.4	1.78	0.85	7.6	1.76	0.86	0.12	0.05
I-187-D	679	680	681	16.5	17.1	2.1	19.9	-1.3	0.64	0.15	-21.3	0.58	0.22	-0.17	0.04
C-287-A	678	677	676	-24.9	-18.8	-28.9	-18.8	-37.0	-0.99	-1.41	-3.2	-0.99	-1.40	-0.02	0.04
C-187-P	675	674	673	-10.1	-18.3	-21.8	-17.5	-22.4	-0.80	-0.91	-24.1	-0.82	-0.89	-0.04	0.04
C-287-C	672	671	670	-19.0	-1.5	-8.8	-0.5	-27.3	-0.29	-0.91	11.2	-0.31	-0.88	0.12	0.03
D-287-D	668	668	667	40.7	5.6	20.6	57.6	3.7	1.94	0.69	-79.1	0.74	1.89	-0.23	0.04
I-287-A	700	701	702	31.4	35.4	29.7	35.5	25.6	1.42	1.20	-4.8	1.62	1.20	-0.02	0.04
I-287-E	697	698	699	16.5	10.2	5.9	16.6	5.8	0.61	0.36	-50.4	0.46	0.50	-0.12	0.05
I-187-C	694	695	696	-22.8	-61.7	-25.1	3.2	-62.1	-0.51	-2.02	-85.0	-2.01	-0.52	-0.13	0.04
I-287-E	691	692	693	-23.6	-62.8	-39.6	0.6	-63.8	-0.61	-2.10	-82.8	-2.07	-0.63	-0.18	0.07

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

NOMINAL LOAD = 1.865E 04

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	FMAX	FMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
C-101-A	3	2	1	31.4	23.5	152.2	152.7	30.8	5.34	2.53	3.9	5.33	2.54	0.19	0.23
C-101-B	6	5	4	-0.6	20.3	43.1	43.1	-0.6	1.41	0.41	1.2	1.41	0.41	0.02	0.13
C-101-C	9	8	7	2.3	23.8	38.4	38.6	3.7	1.30	0.48	-4.8	1.30	0.49	-0.07	0.18
C-101-D	12	11	10	-1.1	38.3	41.5	48.1	-7.8	1.51	0.22	-20.2	1.36	0.37	-0.42	0.19
C-101-E	14	14	13	-4.6	41.5	6.9	41.9	-29.6	0.09	-0.89	-40.9	0.18	-0.08	-0.93	0.15
C-101-F	18	17	16	2.6	23.7	-21.1	25.7	-44.3	0.41	-1.20	-9.9	0.36	-1.16	-0.27	0.13
C-101-G	21	20	19	-13.6	5.2	-30.3	6.5	-50.4	-0.28	-1.60	26.4	-0.75	-1.13	0.63	0.30
C-101-H	24	23	22	-26.1	-22.0	-35.4	-21.1	-38.3	-1.08	-1.47	32.4	-1.19	-1.36	0.18	0.21
C-101-J	27	26	25	-29.1	-37.7	-35.2	-25.8	-38.5	-1.23	-1.52	-30.8	-1.31	-1.45	-0.12	0.24
C-101-K	30	29	28	-15.9	-28.4	-35.1	-15.5	-35.5	-0.86	-1.32	-8.5	-0.87	-1.31	-0.07	0.20
C-101-L	32	32	31	-28.9	-24.2	-22.6	-22.2	-60.2	-1.33	-2.21	79.2	-2.18	-1.36	0.16	0.20
C-102-A	36	35	34	1.1	52.2	90.3	90.9	0.4	3.30	1.00	-4.6	3.28	1.02	-0.19	0.12
C-102-B	39	38	37	-32.4	6.9	15.2	19.8	-37.0	0.29	-1.02	-16.5	0.18	-0.92	-0.26	0.18
C-102-C	42	41	40	-27.7	11.3	27.4	29.7	-30.0	0.68	-0.09	-11.3	0.63	-0.64	-0.26	0.15
C-102-D	45	44	43	-21.2	6.3	-50.5	7.3	-89.0	-0.64	-2.86	-50.8	-1.97	-1.53	-1.09	0.20
C-102-E	48	47	46	-24.0	0.4	27.5	27.6	-24.1	0.67	-0.52	1.5	0.67	-0.52	0.03	0.15
C-102-F	51	50	49	-27.1	-8.6	13.0	13.3	-37.3	0.07	-1.10	41.1	-0.44	-0.60	0.58	0.20
C-102-G	54	53	52	-20.2	-17.2	5.2	5.8	-30.8	-0.11	-0.96	-82.5	-0.94	-0.13	-0.11	0.16
C-102-H	57	56	55	-18.6	-26.8	-4.5	5.3	-28.4	-0.10	-0.88	-57.4	-0.66	-0.33	-0.35	0.18
C-102-J	60	59	58	-7.7	-25.4	-10.5	7.2	-25.4	-0.01	-0.77	-42.5	-0.36	-0.42	-0.37	0.12
C-102-K	63	62	61	-5.3	-17.8	-8.1	4.5	-17.9	-0.03	-0.55	-61.4	-0.26	-0.32	-0.26	0.11
C-102-L	66	65	64	-23.3	-27.5	-7.6	-1.0	-29.9	-0.33	-0.99	-61.5	-0.84	-0.48	-0.28	0.14
C-103-A	69	68	67	-9.1	23.3	18.6	27.9	-18.4	0.74	-0.33	-26.6	0.52	-0.12	-0.43	0.26
C-103-B	72	71	70	-5.1	18.0	8.6	19.4	-15.9	0.48	-0.23	-33.5	0.23	-0.08	-0.37	0.10
C-103-C	75	74	73	-2.7	21.8	22.5	27.2	-7.4	0.82	0.03	-21.6	0.71	0.13	-0.27	0.14
C-103-D	78	77	76	8.8	25.3	30.3	31.7	7.4	1.12	0.56	-14.0	1.09	0.59	-0.13	0.18
C-103-E	81	80	79	-3.0	18.9	36.7	36.8	-3.1	1.18	0.26	-3.0	1.18	0.26	-0.05	0.18
C-103-F	84	83	82	-1.2	7.1	35.9	38.6	-3.9	1.23	0.25	59.5	0.51	0.98	0.43	0.10
C-103-G	87	86	85	-0.8	2.2	29.9	34.3	-5.2	1.08	0.17	-70.5	0.27	0.96	-0.29	0.08
C-103-H	90	89	88	4.9	0.2	22.6	29.9	-2.4	0.96	0.22	-61.5	0.39	0.79	-0.31	0.10
C-103-J	93	92	91	4.8	4.5	20.0	23.4	1.4	0.79	0.28	-66.8	0.36	0.71	-0.18	0.13
C-103-K	96	95	94	1.6	5.6	17.8	18.7	0.6	0.62	0.21	-75.6	0.23	0.60	-0.09	0.18
C-103-L	99	98	97	9.6	8.9	7.4	9.7	7.3	0.39	0.34	11.0	0.39	0.34	0.01	0.24
C-104-A	102	101	100	-2.6	5.5	-4.4	5.0	-12.6	0.06	-0.36	-47.9	-0.17	-0.13	-0.21	0.16
C-104-B	105	104	103	-0.2	6.1	-0.2	6.1	-6.6	0.14	-0.16	-45.1	-0.01	-0.01	-0.15	0.09
C-104-C	108	107	106	0.3	7.9	3.3	8.1	-4.6	0.22	-0.07	-38.0	0.11	0.04	-0.14	0.12
C-104-D	111	110	109	5.6	11.6	9.2	12.0	2.8	0.42	0.21	-33.5	0.36	0.29	-0.10	0.17
C-104-E	114	113	112	8.1	11.2	17.3	17.6	7.8	0.66	0.43	54.1	0.51	0.58	0.11	0.24
C-104-F	117	116	115	17.0	6.9	14.0	16.4	8.6	0.63	0.45	-55.9	0.50	0.57	-0.08	0.20
C-104-G	120	119	118	14.3	7.3	15.0	22.0	7.3	0.80	0.46	-46.2	0.62	0.64	-0.17	0.16
C-104-H	123	122	121	10.4	15.0	25.6	26.2	9.8	0.96	0.58	-79.3	0.59	0.95	-0.07	0.15
C-104-J	126	125	124	35.3	29.2	21.2	35.4	21.2	1.38	1.05	3.9	1.37	1.05	0.02	0.19
C-105-A	129	128	127	11.2	-0.1	-3.4	12.2	-4.4	0.36	-0.02	75.5	-0.00	0.33	0.09	0.14
C-105-B	132	131	130	7.3	1.0	1.0	8.6	-0.4	0.28	0.07	67.5	0.10	0.25	0.07	0.07
C-105-C	135	134	133	10.2	7.2	7.8	11.1	6.9	0.43	0.34	62.0	0.36	0.41	0.04	0.26
C-105-D	138	137	136	5.0	8.2	14.1	14.3	4.8	0.52	0.30	8.2	0.52	0.30	0.03	0.25
C-105-E	141	140	139	10.2	10.6	11.3	11.3	10.2	0.47	0.45	8.6	0.47	0.45	0.00	0.21
C-105-F	144	143	142	14.0	10.8	13.5	16.7	10.8	0.66	0.52	-42.5	0.60	0.58	-0.07	0.26
C-105-G	147	146	145	10.2	11.0	10.3	11.0	9.5	0.46	0.42	47.5	0.44	0.44	0.02	0.18
C-105-H	150	149	148	11.4	13.0	17.5	17.8	11.0	0.69	0.54	-77.5	0.55	0.69	-0.03	0.16

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
Q-105-J	152	152	151	59.4	41.2	2.9	61.1	1.2	2.03	0.44	9.8	1.99	0.68	0.23	0.26
Q-111-A	161	167	166	46.2	93.8	131.4	131.7	46.0	4.89	2.82	-3.3	4.79	2.82	-0.11	0.16
Q-111-B	171	170	169	-7.9	27.3	48.9	49.7	-8.7	1.55	0.20	-6.7	1.53	0.22	-0.16	0.15
Q-111-C	174	173	172	1.9	24.9	56.0	56.3	1.6	1.87	0.61	4.3	1.87	0.62	0.09	0.18
Q-111-D	177	176	175	-1.3	-12.2	51.6	71.0	-20.7	2.14	0.02	27.4	1.69	0.47	0.87	0.15
Q-111-E	180	179	178	-0.1	-46.6	2.4	48.9	-46.6	1.15	-1.05	44.3	0.08	0.02	1.10	0.15
Q-111-F	183	182	181	-5.2	-66.1	-20.0	13.5	-48.7	-0.04	-1.67	-78.2	-1.41	-0.10	-0.29	0.23
Q-111-G	186	185	184	-2.1	-60.4	-20.0	39.2	-61.2	0.69	-1.63	-39.9	-0.27	-0.68	-1.14	0.12
Q-201-H	189	188	187	9.5	-35.0	-27.9	22.7	-41.0	0.34	-1.13	-27.0	0.04	-0.82	-0.60	0.14
Q-211-J	192	191	190	1.8	-28.8	-22.8	11.5	-32.5	0.04	-0.96	-28.0	-0.17	-0.73	-0.42	0.14
Q-211-K	195	194	193	-9.4	-32.7	-6.9	16.5	-32.8	0.22	-0.92	-46.5	-0.38	-0.32	-0.57	0.15
Q-211-L	198	197	196	-16.9	-88.6	-5.8	66.0	-88.8	1.30	-2.27	-47.1	-0.61	-0.36	-1.78	0.12
Q-212-A	201	200	199	11.0	62.9	79.8	84.0	6.8	2.84	1.05	-13.5	2.74	1.15	-0.40	0.22
Q-212-B	204	203	202	10.7	33.4	9.8	33.4	-12.9	0.97	-0.89	-45.6	0.43	0.45	-0.53	0.13
Q-212-C	207	206	205	30.8	50.6	42.7	60.3	13.2	2.12	1.03	-37.7	1.71	1.44	-0.53	0.15
Q-212-D	210	209	208	34.2	58.7	60.3	64.6	29.9	2.43	1.63	-20.5	2.33	1.72	-0.26	0.19
Q-212-E	213	212	211	27.1	20.9	59.7	71.1	15.6	2.50	1.22	27.0	2.23	1.48	0.52	0.14
Q-212-F	216	215	214	30.1	14.5	40.2	66.6	12.8	2.32	1.08	79.6	1.12	2.28	0.22	0.14
Q-212-G	219	218	217	16.0	17.7	46.8	52.0	10.8	1.82	0.87	-69.2	0.99	1.70	-0.32	0.15
Q-212-H	222	221	220	-7.3	14.4	25.0	35.0	-7.3	1.68	0.11	89.2	0.11	1.08	0.01	0.04
Q-212-J	225	224	223	-24.3	-5.4	27.4	28.4	-25.2	0.69	-0.55	-82.4	-0.53	0.66	-0.16	0.07
Q-212-K	228	227	226	-31.6	-32.1	15.6	25.7	-41.7	0.44	-1.12	-67.2	-0.89	0.20	-0.56	0.12
Q-212-L	231	230	229	-173.9	-163.0	-6.2	18.7	-200.8	-1.37	-6.43	-69.5	-5.81	-1.99	-1.66	0.24
Q-213-A	234	233	232	-6.1	10.5	7.3	12.6	-11.4	0.30	-0.25	-27.9	0.18	-0.13	-0.23	0.19
Q-213-B	237	236	235	1.6	0.8	-2.8	2.0	-3.2	0.03	-0.09	-73.5	-0.08	0.02	-0.55	0.09
Q-213-C	240	239	238	11.6	12.7	10.1	12.9	8.8	0.51	0.42	-55.8	0.45	0.48	-0.04	0.25
Q-213-D	243	242	241	3.2	15.9	26.3	26.4	3.1	0.90	0.36	-2.9	0.90	0.26	-0.03	0.14
Q-213-E	246	245	244	-11.2	23.9	45.6	46.4	-12.0	1.41	0.06	-6.6	1.39	0.08	-0.15	0.17
Q-213-F	249	248	247	-22.6	5.7	54.4	55.7	-23.9	1.60	-0.24	52.4	0.45	0.92	0.89	0.17
Q-213-G	252	251	250	-28.4	-13.1	50.6	57.4	-35.2	1.54	-0.59	-74.2	-0.44	1.39	-0.56	0.13
Q-213-H	255	254	253	-27.6	-35.6	50.3	67.1	-54.4	1.67	-1.13	-18.2	-0.74	1.29	-0.57	0.16
Q-213-J	258	257	256	-22.9	-49.3	36.5	63.6	-60.0	1.50	-1.35	-62.1	-0.72	0.88	-1.18	0.16
Q-213-K	261	260	259	-35.7	-62.4	22.7	56.5	-69.5	1.18	-1.73	-58.8	-0.95	0.39	-1.29	0.17
Q-213-L	264	263	262	-198.9	-217.2	-5.0	48.7	-252.6	-0.89	-7.84	-65.0	-6.61	-2.13	-2.66	0.28
Q-214-A	267	266	265	-7.7	-4.3	9.9	11.5	-9.2	0.29	-0.19	15.8	0.25	-0.16	0.13	0.13
Q-214-B	270	269	268	-3.4	-6.0	0.0	2.9	-6.3	0.03	-0.18	34.1	-0.03	-0.11	0.10	0.11
Q-214-C	273	272	271	-0.8	5.0	0.8	5.0	-5.1	0.12	-0.12	-40.6	0.02	-0.02	-0.12	0.12
Q-214-D	276	275	274	-9.6	15.4	9.4	18.0	-18.2	0.42	-0.42	-29.2	0.22	-0.22	-0.36	0.13
Q-214-E	279	278	277	2.9	-42.6	35.0	82.5	-44.7	2.28	-0.66	82.7	-0.61	2.23	0.37	0.18
Q-214-F	282	281	280	-40.0	-37.8	29.1	41.5	-53.3	0.84	-1.35	-68.8	-1.06	0.56	-0.74	0.04
Q-214-G	285	284	283	-21.2	-52.6	15.4	50.0	-55.9	1.10	-1.35	-55.1	-0.55	0.30	-1.15	0.14
Q-214-H	288	287	286	-24.6	-55.8	6.6	40.4	-58.4	0.75	-1.52	-54.2	-0.75	-0.02	-1.08	0.15
Q-214-J	291	290	289	-78.5	-113.4	-15.9	26.0	-120.4	-0.33	-2.71	-57.6	-2.74	-1.30	-1.53	0.22
Q-215-A	294	293	292	-0.1	-20.4	-21.1	3.8	-25.0	-0.12	-0.79	-21.5	-0.21	-0.70	-0.23	0.12
Q-215-B	297	296	295	-6.4	-15.1	-12.7	-3.1	-16.0	-0.26	-0.56	-30.5	-0.35	-0.49	-0.13	0.20
Q-215-C	300	299	298	-15.6	-17.5	-7.5	-4.4	-18.8	-0.33	-0.66	-62.0	-0.59	-0.40	-0.14	0.10
Q-215-D	303	302	301	-27.1	-27.2	-5.2	-0.6	-31.7	-0.33	-1.05	-67.4	-0.94	-0.44	-0.25	0.15
Q-215-E	306	305	304	-29.3	-24.5	-5.3	-3.3	-31.3	-0.42	-1.06	-74.5	-1.02	-0.47	-0.17	0.22
Q-215-F	309	308	307	-16.5	-19.4	-9.7	-6.0	-20.3	-0.40	-0.73	-59.2	-0.64	-0.48	-0.15	0.24
Q-215-G	312	311	310	-10.7	-19.2	-13.6	-4.9	-19.4	-0.35	-0.69	-39.2	-0.49	-0.55	-0.16	0.27
Q-215-H	315	314	313	-12.3	-22.4	-26.4	-12.9	-26.9	-0.69	-1.01	-10.7	-0.70	-1.06	-0.06	0.39
Q-215-J	318	317	316	-37.9	-33.2	-26.2	-26.1	-38.0	-1.24	-1.51	-84.2	-1.61	-1.24	-0.03	0.35
I-101-A	328	329	330	-4.5	18.0	0.4	18.1	-22.2	0.38	-0.55	48.5	-0.14	-0.03	0.46	0.16
I-101-B	331	332	333	44.5	18.2	-28.6	45.9	-30.1	1.22	-0.54	7.9	1.18	-0.50	0.24	0.16
I-101-C	334	335	336	13.5	9.2	-11.5	16.0	-14.0	0.39	-0.30	16.7	0.33	-0.25	0.19	0.15
I-101-F	337	338	339	15.6	-30.6	-8.1	40.1	-32.5	1.00	-0.68	-35.5	0.44	-0.11	-0.79	0.16

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(I)	SIG(T)	TAU	CONF
I-101-L	346	347	342	35.6	9.2	-15.9	35.6	-15.9	1.02	-0.17	-0.8	1.02	-0.17	-0.02	0.15
I-101-F	343	344	345	66.1	17.9	-25.1	66.2	-25.2	1.93	-0.18	-46.6	0.82	0.54	-1.05	0.15
I-101-G	346	347	348	81.8	20.0	-6.0	62.7	-6.9	2.00	0.39	83.4	0.41	1.98	0.18	0.16
I-101-H	349	350	351	66.1	34.1	0.9	66.1	0.9	2.19	0.68	-89.4	0.66	2.19	-0.02	0.19
I-101-J	352	353	354	63.4	37.9	-5.1	64.5	-6.1	2.07	0.44	-82.9	0.46	2.04	-0.20	0.19
I-101-K	355	356	357	60.2	17.6	-8.3	61.2	-9.3	1.93	0.30	83.1	0.32	1.90	0.19	0.20
I-101-L	358	359	360	47.7	19.6	20.2	52.9	14.1	1.92	1.00	66.8	1.14	1.77	0.33	0.15
I-102-A	361	362	363*	20.5	32.0	0.0	34.3	-13.7	0.95	-0.11	32.3	0.68	0.20	0.20	0.17
I-102-P	364	365	366	71.4	25.6	2.1	73.2	0.4	2.42	0.74	-8.9	2.38	0.78	-0.26	0.17
I-102-C	367	368	369	23.7	20.3	22.5	26.0	20.2	1.06	0.92	-38.9	1.00	0.98	-0.06	0.15
I-102-F	370	371	372	3.0	24.7	29.0	31.5	1.5	1.05	0.36	73.5	0.42	1.00	0.19	0.18
I-102-G	373	374	375	4.1	30.4	23.8	23.2	-5.3	1.04	0.15	60.4	0.37	0.82	0.38	0.22
I-102-H	376	377	378	12.5	24.7	12.7	24.7	0.5	0.82	0.26	0.1	0.82	0.26	0.00	0.16
I-102-I	379	380	381	14.0	17.4	9.9	17.8	6.1	0.65	0.38	-55.5	0.46	0.56	-0.13	0.20
I-102-M	382	383	384	9.7	7.8	2.2	10.2	1.7	0.35	0.16	-76.8	0.17	0.34	-0.04	0.19
I-102-J	385	386	387	1.9	2.7	-2.4	3.4	-2.9	0.07	-0.09	-63.2	-0.56	0.04	-0.07	0.07
I-102-K	388	389	390	2.0	-0.8	-11.2	3.7	-11.2	0.00	-0.36	-77.6	-0.34	-0.01	-0.08	0.11
I-102-L	391	392	393	-1.1	-3.6	0.4	3.0	-3.7	0.06	-0.09	38.6	0.00	-0.03	0.08	0.11
I-102-A	394	395	396	18.1	15.1	18.4	21.4	15.1	0.85	0.71	-46.6	0.78	0.75	-0.07	0.24
I-102-E	397	398	399	25.7	10.1	16.9	23.3	9.3	1.19	0.62	-24.2	1.01	0.81	-0.26	0.21
I-102-C	400	401	402	7.1	19.1	15.1	19.2	3.0	0.66	0.29	59.9	0.38	0.57	0.16	0.24
I-102-D	403	404	405	-4.0	0.1	18.1	20.1	-6.0	0.60	-0.00	-73.9	0.05	0.56	-0.16	0.13
I-102-F	406	407	408	-10.9	-1.3	12.2	13.5	-11.2	0.33	-0.24	-84.2	-0.23	0.33	-0.06	0.12
I-102-G	409	410	411	-10.8	4.9	16.5	16.7	-11.0	0.44	-0.20	40.7	0.17	0.07	0.32	0.09
I-102-H	412	413	414	-19.2	1.4	21.5	21.5	-19.2	0.52	-0.42	-0.4	0.52	-0.42	-0.01	0.15
I-102-M	415	416	417	-28.1	-5.3	11.8	12.0	-28.3	0.12	-0.81	-4.0	0.11	-0.81	-0.06	0.17
I-102-J	418	419	420	-27.2	-3.4	7.2	8.4	-28.4	-0.00	-0.25	-10.5	-0.03	-0.83	-0.15	0.16
I-102-K	421	422	423	-17.1	-0.8	11.4	11.5	-17.2	0.21	-0.45	-4.1	0.21	-0.45	-0.05	0.26
I-102-L	424	425	426	-9.1	-6.1	-0.6	-6.1	-11.5	-0.32	-0.44	-42.2	-0.37	-0.55	-0.06	0.16
I-102-A	427	428	429	7.4	6.2	8.3	9.5	6.1	0.37	0.30	-52.5	0.33	0.35	-0.04	0.13
I-102-F	430	431	432	-2.7	-1.0	13.0	15.1	-4.8	0.45	-0.01	-70.9	0.04	0.40	-0.14	0.20
I-102-C	433	434	435	-10.9	-8.5	6.4	8.4	-12.9	0.15	-0.34	-72.1	-0.20	0.10	-0.14	0.18
I-102-D	436	437	438	-22.7	-22.9	7.7	6.9	-27.9	-0.05	-0.85	-67.2	-0.73	-0.17	-0.29	0.19
I-102-E	439	440	441	-38.9	-15.4	3.4	3.5	-29.0	-0.27	-1.25	41.8	-0.71	-0.82	0.49	0.15
I-102-F	442	443	444	-29.0	-2.7	-1.4	3.4	-33.9	-0.22	-1.08	-21.2	-0.33	-0.07	-0.29	0.13
I-102-G	445	446	447	-26.8	-5.7	-3.3	-0.1	-30.1	-0.30	-0.99	-19.2	-0.27	-0.92	-0.22	0.12
I-102-H	448	449	450	-12.3	-0.8	-0.0	-0.6	-19.7	-0.21	-0.65	-38.5	-0.38	-0.48	-0.21	0.13
I-102-I	451	452	453	2.0	-5.3	-23.9	3.2	-25.1	-0.14	-0.79	-78.3	-0.77	-0.17	-0.13	0.15
I-102-J	454	455	456	-9.2	-2.4	6.4	6.5	-9.3	0.12	-0.24	-86.1	-0.24	0.12	-0.02	0.18
I-102-K	457	458	459	-1.2	-3.5	0.7	0.7	-8.2	-0.06	-0.26	88.4	-0.26	-0.06	0.01	0.14
I-102-L	460	461	462	-3.1	-2.6	-4.8	-2.4	-5.4	-0.13	-0.20	28.1	-0.15	-0.19	0.03	0.21
I-102-M	463	464	465	-3.2	-6.7	-2.7	-0.2	-6.8	-0.07	-0.23	-42.8	-0.14	-0.16	-0.08	0.10
I-102-N	466	467	468	-6.0	-8.0	-2.8	-2.9	-6.9	-0.18	-0.32	-67.5	-0.33	-0.20	-0.05	0.23
I-102-O	469	470	471	-12.7	-10.8	-3.4	-2.6	-13.5	-0.22	-0.47	15.4	-0.24	-0.45	0.06	0.20
I-102-P	472	473	474	-12.7	-8.1	-3.8	-3.8	-12.7	-0.25	-0.46	-0.8	-0.25	-0.46	-0.00	0.15
I-102-Q	475	476	477	-0.8	-5.5	-1.9	2.7	-5.5	0.04	-0.15	48.8	-0.07	-0.05	0.09	0.16
I-102-R	478	479	480	12.3	-8.8	-30.4	12.3	-30.4	0.10	-0.88	-89.6	-0.88	0.10	-0.01	0.19
I-102-S	483	484	485	9.1	9.8	-9.6	13.5	-13.9	0.31	-0.33	23.6	0.21	-0.22	0.23	0.13
I-102-T	486	487	488	64.8	-0.4	-38.2	65.5	-10.0	1.80	-0.66	-7.5	1.76	-0.62	-0.32	0.22
I-201-C	499	500	501	19.8	0.7	-5.3	21.4	-6.9	0.64	-0.01	-13.7	0.60	0.02	-0.15	0.15
I-201-D	502	503	504	7.4	-14.2	-10.4	16.0	-17.0	0.29	-0.42	-27.5	0.14	-0.27	-0.29	0.10
I-201-E	505	506	507	40.3	2.0	-25.7	40.7	-26.2	1.08	-0.46	-4.6	1.07	-0.45	-0.12	0.18
I-201-F	508	509	510	56.3	17.5	-25.5	56.3	-25.6	1.60	-0.29	-43.5	0.71	0.61	-0.94	0.12
I-201-G	511**	512**	513	0.0	0.0	-26.1	5.4	-31.5	-0.13	-0.98	-67.5	-0.86	-0.26	-0.30	0.16
I-201-H	514	515	516	55.6	-0.0	-17.6	65.1	-27.1	1.88	-0.25	71.3	-0.03	1.66	0.65	0.06
I-201-I	517	518	519	29.6	-32.5	-2.7	62.2	-35.3	1.70	-0.95	54.7	0.20	0.95	1.06	0.12

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONE
I-2P1-K	520*	521	522	-2.7	-64.9	-3.5	58.7	-64.9	1.29	-1.56	45.2	-0.14	-0.12	1.43	C.23
I-2P1-L	523	524	525	-9.0	-38.1	3.9	83.3	-87.4	1.87	-2.09	42.8	0.04	-0.26	1.97	C.15
I-2P1-A	526	527	528	8.4	0.3	-0.6	9.7	-1.9	0.30	-0.03	-19.2	0.27	0.06	-0.08	0.11
I-2P1-H	519*	530	531	54.4	4.4	-27.0	55.5	-28.0	1.55	-0.38	-6.5	1.53	-0.35	-0.22	0.18
I-2P1-C	532	533	534	6.3	-13.4	-39.5	6.6	-39.7	-0.18	-1.24	3.9	-0.18	-1.24	-0.07	0.21
I-2P1-D	535	536	537	-10.0	-61.2	-85.1	-7.6	-87.5	-1.12	-2.96	-10.1	-1.17	-2.90	-0.32	0.24
I-2P1-F	538	539	540**	-31.5	-95.0	0.0	65.1	-66.6	1.19	-2.54	-50.6	-1.04	-0.31	-1.83	C.22
I-2P1-F	541	542	543	-30.0	-89.1	-64.2	-1.7	-92.5	-0.97	-3.77	-78.9	-2.99	-1.05	-0.39	0.27
I-2P1-G	544	545	546	-31.7	-88.0	-51.6	5.8	-89.1	-0.69	-2.88	51.0	-2.01	-1.56	1.07	0.26
I-2P1-H	547	548	549	-27.4	-68.5	-33.8	7.4	-68.6	-0.43	-2.19	47.4	-1.38	-1.24	0.67	0.28
I-2P1-J	550	551	552	-10.6	-62.0	-29.5	22.9	-63.0	0.13	-1.85	51.3	-1.08	-0.64	0.97	C.18
I-2P1-K	553	554**	555	5.2	0.0	-49.9	13.1	-57.8	-0.14	-1.78	-70.5	-1.59	-0.32	-0.52	0.19
I-2P1-L	556	557	558	-0.8	-92.1	-11.4	87.0	-99.2	1.89	-2.41	46.6	-0.38	-0.14	2.15	0.16
I-2P1-A	559*	560	561	-61.5	14.3	7.3	26.7	-81.0	0.08	-2.47	64.9	-1.96	-0.37	0.96	C.33
I-2P1-F	562	563	564	10.2	14.6	11.7	14.7	7.2	0.56	0.38	51.0	0.45	0.49	0.09	0.27
I-2P1-C	565	566	567	-6.2	6.7	11.7	12.5	-7.0	0.34	-0.11	78.3	-0.09	0.33	0.09	0.10
I-2P1-D	568	569	570	-18.7	-14.8	-2.5	-1.5	7	-0.24	-0.67	-76.2	-0.64	-0.27	-0.10	0.15
I-2P1-F	571	572	573	-27.0	-40.7	-33.2	-19.0		-1.03	-1.54	-36.9	-1.22	-1.36	-0.25	0.18
I-2P1-F	574	575	576	-22.8	-50.6	-44.1	-26.2		-1.38	-1.96	-78.0	-1.94	-1.40	-0.12	0.25
I-2P1-G	577	578	579	-31.3	-48.5	-33.4	-16.2	-4.0	-1.02	-1.76	46.9	-1.41	-1.36	0.37	0.19
I-2P1-J	580	581	582	-17.7	-39.3	-27.8	-5.5	-40.1	-0.58	-1.36	53.5	-1.09	-0.86	0.38	0.19
I-2P1-J	583	584	585	1.9	-37.3	-46.1	6.3	-50.5	-0.29	-1.60	73.8	-1.50	-0.39	0.35	C.20
I-2P1-K	586	587	588	5.5	-50.0	-59.2	12.9	-66.6	-0.23	-2.07	72.2	-1.80	-0.41	0.53	C.21
I-2P1-L	589	590	591	3.7	-76.1	-14.8	65.5	-76.7	1.40	-1.88	48.7	-0.45	-0.03	1.63	C.11
I-2P1-A	592	593	594	30.2	20.5	-3.0	31.6	-4.4	1.00	0.17	11.3	0.97	0.20	0.16	S.13
I-2P1-E	595	596	597	17.1	18.5	11.6	19.3	9.4	0.73	0.50	28.0	0.68	0.55	0.09	0.15
I-2P1-C	598	599	600	9.1	25.2	29.9	31.4	7.6	1.11	0.56	75.5	0.60	1.07	0.13	0.15
I-2P1-L	601	602	603	4.5	25.4	29.4	32.3	1.6	1.08	0.37	72.1	0.44	1.01	0.21	0.14
I-2P1-F	604	605	606	7.2	21.6	9.9	21.7	-4.5	0.67	0.07	2.9	0.67	0.07	0.03	0.18
I-2P1-F	607	608	609	5.4	11.4	-0.6	11.9	-7.1	0.32	-0.12	-54.1	0.03	0.17	-0.21	0.17
I-2P1-F	610	611	612	-5.2	-0.4	-4.1	-0.4	-8.9	-0.10	-0.30	-41.2	-0.19	-0.21	-0.10	0.17
I-2P1-H	613	614	615	-20.2	-18.9	-11.6	-10.6	-21.1	-0.56	-0.80	17.8	-0.58	-0.78	0.07	0.16
I-2P1-J	616	617	618	-27.2	-54.9	-20.9	7.0	-55.1	-0.31	-1.75	42.1	-0.96	-1.10	0.71	0.14
I-2P1-A	619	620**	621	68.2	0.0	0.7	82.7	-13.8	2.59	0.36	-22.8	2.26	0.70	-0.60	0.27
I-2P1-E	622	623	624	44.9	31.3	43.9	57.5	31.3	2.21	1.60	-47.9	1.91	1.89	-0.30	C.23
I-2P1-C	625	626	627	4.1	37.1	76.0	76.1	4.0	2.55	0.88	-87.7	0.89	2.55	-0.07	0.23
I-2P1-D	628	629	630	27.3	46.2	73.9	74.3	26.0	2.72	1.62	-84.7	1.63	2.71	-0.10	C.28
I-2P1-E	631	632	633	26.5	46.1	61.9	62.0	26.4	2.31	1.48	86.9	1.49	2.30	0.04	0.30
I-2P1-F	634	635	636	50.0	43.3	23.2	51.6	21.6	1.91	1.22	-76.7	1.26	1.88	-0.15	C.24
I-2P1-G	637	638	639	14.2	13.9	16.2	16.8	13.5	0.69	0.61	26.3	0.67	0.63	0.03	C.31
I-2P1-C	640	641	642	-13.4	1.4	22.2	22.4	-13.6	0.61	-0.23	4.8	0.60	-0.22	0.07	C.11
I-2P1-J	643	644	645	-30.0	-4.5	16.9	17.0	-30.1	0.26	-0.82	-2.5	0.26	-0.62	-0.05	0.15
O-2P6-A	156	155	154	-7.5	-9.7	-42.0	-1.7	-48.9	-0.54	-1.63	-62.4	-1.49	-0.67	-0.36	0.18
O-2P6-B	159	158	157	1.0	1.6	-13.0	4.3	-16.4	-0.02	-0.50	-66.1	-0.42	-0.10	-0.18	0.08
O-2P6-C	162	161	160	6.1	16.3	17.5	19.0	4.6	0.67	0.34	-19.0	0.64	0.37	-0.10	C.10
O-2P6-D	165	164	163	9.2	29.4	40.7	41.3	8.6	1.45	0.69	-7.8	1.43	0.71	-0.10	0.24
O-2P6-A	321	320	319	-5.8	-47.0	-45.0	3.8	-54.6	-0.41	-1.76	66.1	-1.54	-0.64	0.50	C.15
O-2P6-F	324	323	322	0.3	-16.8	-16.6	4.0	-20.2	-0.07	-0.63	67.2	-0.54	-0.15	0.20	C.24
O-2P6-C	327	326	325	21.0	6.2	3.6	22.9	1.7	0.77	0.28	72.5	0.32	0.73	0.14	0.17
I-1P1-A	481**	482**	483	0.0	0.0	-11.6	2.4	-14.0	-0.06	-0.44	22.5	-0.11	-0.38	0.13	0.17
I-1P1-B	484	485	486	6.2	6.2	0.6	8.6	0.1	0.28	0.09	12.8	0.27	0.10	0.04	0.15
I-1P1-C	487	488	489	-31.2	-4.8	18.6	18.6	-31.2	0.30	-0.85	88.2	-0.84	0.30	0.04	0.13
I-1P1-F	490	491	492	-49.8	-11.5	29.8	29.8	-49.8	0.49	-1.35	-88.9	-1.35	0.44	-0.04	0.25
I-2P6-A	646	647	648	58.0	20.3	-12.4	58.1	-12.4	1.79	0.16	-2.1	1.79	0.17	-0.66	C.14
I-2P6-B	649	650	651	12.7	1.8	2.9	12.5	0.0	0.51	0.15	-25.3	0.55	0.22	-0.14	0.16
I-2P6-C	652	653	654	-33.9	-9.1	15.3	15.3	-33.9	0.17	-0.97	89.8	-0.97	0.17	0.00	0.15

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

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LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	FMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
O-1F7- A	666	665	664	4.6	8.6	5.3	8.6	1.3	0.30	0.13	3.0	0.30	0.13	0.01	0.13
O-1F7- B	665	662	661	-1.3	10.5	24.8	24.8	-1.3	0.81	0.20	47.6	0.48	0.53	0.30	0.14
O-1P7- C	660	659	658	-14.5	1.0	31.2	32.3	-15.7	0.91	-0.20	53.9	0.19	0.53	0.53	0.11
O-1F7- F	657	656	655	-21.7	2.9	-9.8	7.2	-48.7	-0.24	-1.52	11.6	-0.30	-1.48	0.25	0.30
I-1P7- J	688	689	690	-16.6	-8.5	4.4	4.7	-16.9	-0.01	-0.51	51.5	-0.32	-0.20	0.24	0.09
I-1P7- B	685	686	687	-26.3	-8.8	7.3	7.3	-24.3	-0.02	-0.80	43.8	-0.39	-0.42	0.39	0.12
I-1P7- C	682	683	684	-1.9	14.2	15.0	18.0	-4.8	0.54	0.02	24.0	0.46	0.10	0.20	0.12
I-1P7- D	679	680	681	32.6	13.9	-4.2	32.6	-4.2	1.03	0.19	-45.6	0.60	0.62	-0.42	0.21
O-2P7- J	678	677	676	-38.7	-19.6	8.2	8.6	-39.1	-0.10	-1.20	50.3	-0.75	-0.55	0.54	0.22
O-2P7- H	675	674	673	-30.8	-9.7	44.3	47.7	-34.3	1.23	-0.66	56.8	-0.09	0.67	0.87	0.17
O-2P7- C	672	671	670	-10.6	11.6	51.6	52.8	-11.8	1.62	0.13	53.0	0.67	1.08	0.72	0.20
O-2P7- D	669	668	667	18.3	-36.4	11.2	66.0	-36.5	1.81	-0.55	-88.0	-0.55	1.81	-0.06	0.11
I-2F7- A	700	701	702	22.9	53.1	40.2	53.5	19.7	1.96	1.18	6.2	1.95	1.19	0.08	0.24
I-2P7- F	697	698	699	-10.4	-5.9	-11.8	-5.9	-16.4	-0.36	-0.60	-3.8	-0.36	-0.60	-0.02	0.26
I-2P7- C	694	695	696	-39.4	-93.1	-66.8	-10.8	-95.4	-1.30	-3.25	-80.6	-3.20	-1.35	-0.32	0.15
I-2P7- F	691	692	693	26.4	-21.0	-34.3	25.8	-38.8	0.63	-0.97	-59.6	-0.56	0.22	-0.70	0.12

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

INCCCL STOP C

COMBUSTION T-16, LOAD CASE 6, F3Z

NOMINAL LOAD = 1.424E 03

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
O-1R1-A	3	2	1	-25.0	-74.7	-127.5	-25.0	-127.5	-2.08	-4.45	-89.2	-4.45	-2.08	-0.03	0.07
O-1R1-B	6	5	4	18.7	-21.8	-37.8	21.2	-40.4	0.30	-1.12	78.3	-1.06	0.24	0.28	0.04
O-1R1-C	9	8	7	24.7	-32.4	-31.0	37.2	-43.5	0.80	-1.07	66.8	-0.78	0.5	0.67	0.05
O-1R1-D	12	11	10	35.2	-41.4	-43.9	49.9	-58.6	1.06	-1.44	68.4	-1.10	0.73	0.86	0.04
O-1R1-E	15	14	13	29.1	-39.4	-31.9	47.3	-50.2	1.06	-1.19	64.4	-0.76	0.64	0.88	0.06
O-1R1-F	18	17	16	24.7	-22.4	-15.8	38.1	-29.2	0.97	-0.59	-71.4	-0.43	0.61	-0.47	0.04
O-1R1-G	21	20	19	5.5	-12.3	-0.4	17.7	-12.6	0.46	-0.24	-39.3	0.18	0.04	-0.34	0.07
O-1R1-H	24	23	22	11.1	5.0	-5.6	11.4	-5.9	0.32	-0.08	7.7	0.31	-0.08	0.05	0.04
O-1R1-J	27	26	25	5.0	5.4	-2.5	6.8	-4.4	0.18	-0.08	23.8	0.14	-0.03	0.10	0.02
O-1R1-K	30	29	28	2.8	5.9	0.0	6.1	-3.3	0.17	-0.05	36.5	0.09	0.03	0.10	0.04
O-1R1-L	33	32	31	12.1	10.6	2.9	13.1	2.0	0.45	0.19	16.9	0.43	0.22	0.07	0.06
O-1R2-A	36	35	34	19.3	-30.9	-47.8	23.2	-51.7	0.25	-1.47	76.8	-1.38	0.16	0.38	0.03
O-1R2-B	39	38	37	41.5	-3.8	-9.6	48.3	-16.4	1.43	-0.06	71.1	0.09	1.27	0.46	0.04
O-1R2-C	42	41	40	41.2	-11.9	-16.4	50.1	-25.3	1.40	-0.34	69.9	-0.13	1.20	0.56	0.04
O-1R2-D	45	44	43	38.3	-12.9	-22.9	44.5	-29.2	1.18	-0.52	73.1	-0.38	1.04	0.47	0.05
O-1R2-E	48	47	46	28.8	-8.2	-23.9	30.9	-26.0	0.76	-0.55	78.9	-0.50	0.71	0.25	0.04
O-1R2-F	51	50	49	24.3	-1.3	-22.6	24.4	-22.7	0.58	-0.51	-47.7	-0.01	0.09	-0.54	0.07
O-1R2-G	54	53	52	14.6	1.0	-22.4	15.2	-23.0	0.27	-0.61	7.5	0.26	-0.59	0.11	0.04
O-1R2-H	57	56	55	0.7	2.1	-23.0	6.6	-29.0	-0.07	-0.89	24.1	-0.20	-0.75	0.21	0.05
O-1R2-J	60	59	58	-6.7	-2.5	-19.4	-0.7	-25.4	-0.27	-0.84	29.4	-0.41	-0.71	0.24	0.03
O-1R2-K	63	62	61	-6.7	-4.1	-17.7	-2.4	-22.0	-0.30	-0.75	28.0	-0.40	-0.65	0.19	0.05
O-1R2-L	66	65	64	-18.2	-10.2	-10.8	-8.8	-20.2	-0.49	-0.75	65.2	-0.71	-0.54	0.10	0.03
O-1R3-A	69	68	67	17.8	1.3	5.9	24.0	-0.3	0.79	0.23	59.6	0.27	0.64	0.24	0.06
O-1R3-B	72	71	70	16.1	2.8	8.0	22.2	1.9	0.75	0.28	56.7	0.42	0.61	0.22	0.05
O-1R3-C	75	74	73	6.9	-1.7	0.5	9.9	-2.6	0.30	0.01	60.4	0.02	0.23	0.12	0.04
O-1R3-D	78*	77	76	-0.3	-8.7	-7.4	2.2	-9.8	-0.03	-0.30	63.1	-0.25	-0.08	0.11	0.03
O-1R3-E	81	80	79	4.5	-10.7	-18.3	5.1	-18.9	-0.02	-0.57	80.8	-0.56	-0.03	0.09	0.04
O-1R3-F	84	83	82	-0.6	-4.8	-23.3	1.5	-25.3	-0.20	-0.82	-28.9	-0.35	-0.68	-0.26	0.03
O-1R3-G	87	86	85	-6.9	-3.6	-20.2	-1.6	-25.5	-0.31	-0.66	28.2	-0.43	-0.73	0.23	0.04
O-1R3-H	90	89	88	-11.2	-5.6	-21.3	-4.4	-28.1	-0.42	-0.97	32.4	-0.58	-0.81	0.25	0.05
O-1R3-J	93	92	91	-12.0	-10.9	-21.5	-9.2	-24.3	-0.54	-0.89	25.6	-0.61	-0.63	0.14	0.02
O-1R3-K	96	95	94	-7.2	-13.6	-24.9	-6.8	-25.3	-0.48	-0.90	7.6	-0.46	-0.89	0.06	0.02
O-1R3-L	99	98	97	-36.9	-27.9	-14.0	-13.7	-37.2	-0.82	-1.36	-83.9	-1.36	-0.83	-0.06	0.03
O-1R4-A	102	101	100	7.1	6.2	14.1	16.2	5.0	0.58	0.32	25.5	0.54	0.37	0.10	0.06
O-1R4-B	105	104	103	1.6	8.3	11.1	11.5	1.2	0.39	0.15	-11.3	0.28	0.16	-0.05	0.05
O-1R4-C	108	107	106	-4.3	11.1	9.5	13.6	-8.4	0.36	-0.14	-25.5	0.27	-0.05	-0.20	0.04
O-1R4-D	111	110	109	-7.9	8.3	8.0	11.5	-11.4	0.27	-0.26	-23.0	0.19	-0.12	-0.19	0.02
O-1R4-E	114	113	112	-13.2	-0.6	5.6	6.1	-13.8	0.07	-0.39	35.4	-0.09	-0.24	0.22	0.02
O-1R4-F	117	116	115	-13.0	-14.0	1.0	4.6	-16.7	-0.01	-0.50	-65.6	-0.42	-0.10	-0.18	0.04
O-1R4-G	120	119	118	-11.1	-12.7	-3.9	-1.2	-13.9	-0.18	-0.47	-62.2	-0.41	-0.24	-0.12	0.05
O-1R4-H	123	122	121	-8.4	-13.8	-9.1	-7.7	-13.8	-0.26	-0.49	-43.2	-0.37	-0.38	-0.12	0.04
O-1R4-J	126	125	124	-25.1	-23.3	-8.9	-6.8	-27.3	-0.49	-0.97	-71.0	-0.92	-0.54	-0.15	0.04
O-1R5-A	129	128	127	0.3	2.9	2.9	3.5	-0.2	0.11	0.03	-22.4	0.10	0.04	-0.03	0.03
O-1R5-B	132	131	130	0.7	8.8	0.9	8.8	-7.2	0.22	-0.15	-44.6	0.04	0.03	-0.18	0.02
O-1R5-C	135	134	133	-1.9	18.9	2.3	19.0	-18.7	0.44	-0.43	-41.8	0.06	-0.04	-0.43	0.02
O-1R5-D	138	137	136	-0.2	22.9	0.8	22.9	-22.3	0.54	-0.51	-44.3	0.03	0.00	-0.52	0.02
O-1R5-E	141	140	139	-23.0	2.3	22.4	22.6	-23.1	0.52	-0.54	-3.2	0.51	-0.53	-0.06	0.03
O-1R5-F	144	143	142**	-2.3	-22.1	0.0	19.9	-22.2	0.44	-0.53	-46.5	-0.07	-0.02	-0.48	0.02
O-1R5-G	147	146	145**	-0.9	-19.0	0.0	18.1	-19.0	0.41	-0.45	-45.7	-0.03	-0.01	-0.43	0.02
O-1R5-H	150	149	148	0.4	-8.2	-2.4	6.3	-8.3	0.13	-0.21	-35.5	-0.01	-0.08	-0.17	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

FROM 1953 REVISED BY THE PERSONNEL DESIGN DIVISION

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	F(2)	E(3)	FMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
O-1R5-J	153	152	151	-4.3	-4.5	-0.5	0.4	-5.3	-0.04	-0.17	-66.4	-0.15	-0.06	-0.05	0.04
O-2R1-A	168	167	166	32.7	61.5	92.8	92.8	32.7	3.38	1.99	1.2	3.38	2.00	0.03	0.06
O-2P1-B	171	170	169	-20.8	2.0	32.7	33.0	-21.1	0.88	-0.37	4.2	0.87	-0.36	0.09	0.03
O-2R1-C	174	173	172	-24.0	-16.9	37.4	45.4	-32.0	1.18	-0.61	18.8	1.00	-0.42	0.54	0.02
O-2R1-D	177	176	175	-26.6	-39.6	39.9	63.6	-50.3	1.60	-1.03	27.1	1.05	-0.49	1.07	0.04
O-2R1-E	180	179	178	-18.0	-45.7	23.1	55.1	-49.9	1.32	-1.10	33.5	0.58	-0.36	1.11	0.04
O-2P1-F	183	182	181	-23.3	-40.6	8.3	29.2	-44.2	0.52	-1.17	77.3	-1.09	0.44	0.36	0.03
O-2R1-G	186	185	184	-18.6	-51.2	9.3	43.9	-53.2	0.92	-1.32	-53.4	-0.52	0.12	-1.07	0.04
O-2R1-H	189	188	187	18.5	-24.8	-12.8	43.5	-37.9	1.06	-0.82	-33.7	0.48	-0.24	-0.27	0.03
O-2R1-J	192	191	190	23.5	-6.0	-0.9	32.4	-9.8	0.97	-0.00	-27.4	0.77	0.20	-0.40	0.04
O-2R1-K	195	194	193	19.7	4.2	6.7	24.3	2.1	0.82	0.31	-27.1	0.72	0.42	-0.21	0.03
O-2P1-L	198	197	196	60.4	9.2	12.1	72.5	-0.0	2.29	0.72	-24.1	2.11	1.00	-0.62	0.06
O-2R2-A	201	200	199	15.9	56.8	59.2	66.5	8.6	2.28	0.94	-20.8	2.11	1.11	-0.44	0.03
O-2R2-B	204	203	202	21.5	43.6	9.7	44.2	-13.0	1.33	0.01	-51.0	0.53	0.81	-0.65	0.03
O-2R2-C	207	206	205	36.9	68.1	49.0	68.8	17.0	2.44	1.24	-38.2	1.98	1.70	-0.56	0.04
O-2R2-D	210	209	208	42.9	54.5	53.5	56.4	40.0	2.25	1.88	-24.9	2.19	1.94	-0.14	0.05
O-2R2-E	213	212	211	51.5	26.2	60.1	85.8	25.9	3.08	1.70	40.9	2.49	2.29	0.68	0.05
O-2R2-F	216	215	214	53.9	15.4	55.7	94.2	15.4	3.26	1.44	69.3	1.44	3.26	0.02	0.05
O-2R2-G	219	218	217	53.2	28.5	48.9	73.6	28.4	2.71	1.67	-42.3	2.24	2.14	-0.52	0.05
O-2R2-H	222	221	220	42.0	-8.4	48.6	49.8	40.8	2.05	1.84	68.4	1.87	2.02	0.07	0.04
O-2R2-J	225	224	223	27.4	52.3	48.6	55.8	20.2	2.04	1.22	63.3	1.38	1.87	0.33	0.04
O-2R2-K	228	227	226	8.7	37.7	42.1	46.1	4.6	1.57	0.61	71.9	0.70	1.47	0.24	0.04
O-2R2-L	231	230	229	44.0	17.4	17.9	49.8	12.2	1.76	0.89	-23.1	1.63	1.03	-0.31	0.04
O-2R3-A	234	233	232	2.3	9.9	-15.7	12.2	-25.6	0.15	-0.72	-59.3	-0.49	-0.09	-0.38	0.03
O-2R3-B	237	236	235	18.4	14.3	-4.3	20.5	-6.4	0.61	-0.01	-73.8	0.04	0.56	-0.17	0.03
O-2R3-C	240	239	238	22.0	19.4	10.3	22.9	9.4	0.85	0.54	-75.4	0.56	0.83	-0.08	0.05
O-2R3-D	243	242	241	16.7	18.5	19.3	19.4	16.7	0.80	0.74	-9.7	0.80	0.74	-0.01	0.05
O-2R3-E	246	245	244	7.9	16.6	32.9	33.4	7.4	1.17	0.57	8.4	1.16	0.59	0.09	0.04
O-2R3-F	249	248	247	12.0	13.1	34.8	38.7	8.1	1.36	0.65	66.0	0.77	1.24	0.26	0.05
O-2R3-G	252	251	250	12.9	7.3	32.9	41.4	4.4	1.41	0.55	-61.4	0.75	1.21	-0.36	0.03
O-2R3-H	255	254	253	6.1	12.2	35.7	38.1	3.7	1.29	0.50	-74.7	0.96	1.24	-0.20	0.05
O-2R3-J	258	257	256	5.1	17.1	38.2	38.8	4.5	1.22	0.53	-82.4	0.55	1.31	-0.10	0.06
O-2R3-K	261	260	259	-7.7	12.0	30.8	30.8	-7.7	0.94	0.05	89.3	0.05	0.94	0.01	0.04
O-2R3-L	264	263	262	-37.1	-36.8	13.9	24.3	-47.4	0.33	-1.32	-67.7	-1.08	0.09	-0.58	0.03
O-2R4-A	267	266	265	15.3	-3.7	-11.0	16.6	-12.3	0.42	-0.24	78.0	-0.21	0.40	0.14	0.04
O-2R4-B	270	269	268	20.3	-2.3	-1.7	25.3	-6.7	0.77	0.03	66.8	0.14	0.65	0.27	0.04
O-2R4-C	273	272	271	17.4	-4.0	7.8	29.8	-4.6	0.94	0.14	53.1	0.43	0.65	0.38	0.05
O-2R4-D	276	275	274	13.5	3.9	16.9	26.6	3.8	0.91	0.39	40.8	0.69	0.61	0.26	0.06
O-2R4-E	279	278	277	2.9	10.8	27.5	28.2	2.2	0.95	0.35	54.9	0.55	0.75	0.28	0.04
O-2R4-F	282	281	280	13.4	-5.2	22.6	41.6	-5.6	1.32	0.22	-50.6	0.66	0.88	-0.53	0.05
O-2R4-G	285	284	283	6.5	-12.8	22.6	43.0	-13.9	1.28	-0.03	-53.2	0.44	0.81	-0.63	0.03
O-2R4-H	288	287	286	-2.5	-15.2	28.4	45.1	-19.2	1.30	-0.19	-59.3	0.20	0.91	-0.65	0.04
O-2R4-J	291	290	289	-27.6	-40.0	16.9	35.8	-46.5	0.72	-1.18	-61.4	-0.74	0.28	-0.00	0.03
O-2R5-A	294	293	292	1.1	8.4	-0.5	8.5	-7.8	0.20	-0.17	42.2	0.03	-0.00	0.19	0.02
O-2R5-B	297	296	295	1.2	10.4	-1.1	10.5	-10.4	0.24	-0.24	41.9	0.03	-0.02	0.24	0.01
O-2R5-C	300**	299	298	0.0	10.6	-1.0	10.6	-11.6	0.24	-0.28	43.7	-0.01	-0.03	0.26	0.03
O-2R5-D	303	302	301	-0.8	2.2	-1.6	2.2	-4.6	0.03	-0.13	41.2	-0.04	-0.06	0.08	0.04
O-2R5-E	306	305	304	-0.5	-8.8	-7.6	5.8	-8.9	0.10	-0.24	-40.9	-0.04	-0.09	-0.17	0.04
O-2R5-F	309	308	307	-1.8	-18.2	-0.6	15.9	-18.2	0.34	-0.44	-46.0	-0.06	-0.04	-0.39	0.03
O-2R5-G	312	311	310	-1.7	-23.8	-1.6	20.5	-23.8	0.44	-0.58	-45.0	-0.07	-0.07	-0.51	0.03
O-2R5-H	315	314	313	0.1	-27.4	-3.5	24.0	-27.4	0.52	-0.67	-43.0	-0.03	-0.11	-0.59	0.02
O-2R5-J	318	317	316	-1.5	-45.7	-2.4	41.8	-45.7	0.93	-1.09	-44.7	-0.07	-0.09	-1.01	0.03
I-1R1-A	328	329	330	-5.3	-23.2	-6.4	11.5	-23.2	0.15	-0.65	-44.0	-0.24	-0.26	-0.40	0.04
I-1R1-B	331	332	333	-48.6	-17.2	14.0	14.0	-48.6	-0.02	-1.46	89.9	-1.46	-0.02	0.00	0.04
I-1R1-C	334	335	336	-10.8	-12.4	-31.8	-7.6	-35.0	-0.60	-1.23	20.2	-0.67	-1.15	0.21	0.06
I-1R1-D	337	338	339	0.6	-20.2	-50.6	1.0	-51.0	-0.47	-1.67	5.3	-0.48	-1.66	0.11	0.04

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

FORM 1000 (REV. 11-60) U.S. GOVERNMENT PRINTING OFFICE: 1961 O - 348 000

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SHIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-1R1-E	340	341	342	2.3	15.4	-25.1	18.7	-41.6	0.21	-1.18	31.5	-0.17	-0.81	0.62	0.04
I-1R1-F	343	344	345	-9.8	21.8	-5.8	21.8	-37.5	0.35	-1.02	1.9	0.35	-1.02	0.05	0.04
I-1R1-G	346	347	348	2.8	20.5	-7.9	21.1	-26.3	0.44	-0.66	-51.5	-0.23	0.01	-0.53	0.02
I-1R1-H	349	350	351	10.6	11.2	-0.5	13.3	-3.2	0.41	0.03	-65.9	0.09	0.34	-0.14	0.04
I-1R1-J	352	353	354	2.8	-0.3	2.3	5.4	-0.3	0.17	0.04	47.0	0.10	0.12	0.07	0.03
I-1R1-K	355	356	357	-6.7	-2.5	4.4	4.5	-6.8	0.09	-0.18	6.7	0.08	-0.18	0.03	0.05
I-1R1-L	358	359	360	-8.7	-1.0	-1.3	0.4	-10.4	-0.09	-0.34	-23.8	-0.12	-0.20	-0.09	0.05
I-1R2-A	361	362	363**	-24.8	-23.2	0.0	11.8	-36.6	0.03	-1.09	-60.4	-0.82	-0.25	-0.48	0.05
I-1R2-B	364	365	366	-45.4	-22.1	-28.8	-20.0	-54.2	-1.20	-1.99	59.6	-1.78	-1.40	0.35	0.04
I-1R2-C	367	368	369	-11.9	-21.6	-53.7	-9.1	-56.6	-0.86	-1.96	14.2	-0.92	-1.69	0.26	0.04
I-1R2-D	370	371	372	7.3	-17.7	-58.0	8.2	-58.9	-0.31	-1.86	6.6	-0.33	-1.64	0.18	0.02
I-1R2-E	373	374	375	21.3	-10.3	-44.7	21.3	-44.7	0.26	-1.26	1.2	0.26	-1.26	0.03	0.04
I-1R2-F	376	377	378	24.8	-1.9	-33.8	24.9	-33.9	0.49	-0.87	-42.4	-0.13	-0.25	-0.69	0.04
I-1R2-G	379	380	381	27.9	2.2	-23.8	27.9	-23.8	0.68	-0.51	-89.8	-0.51	0.68	-0.00	0.03
I-1R2-H	382	383	384	28.9	7.5	-9.0	29.1	-9.1	0.87	-0.01	86.3	-0.01	0.66	0.06	0.02
I-1R2-J	385	386	387	26.9	7.6	-1.5	27.7	-2.3	0.89	0.20	80.2	0.22	0.87	0.12	0.03
I-1R2-K	388	389	390	17.7	0.7	-3.0	19.6	-5.0	0.60	0.03	73.7	0.07	0.55	0.15	0.02
I-1R2-L	391	392	393	10.3	5.8	4.8	10.8	4.3	0.40	0.25	74.1	0.26	0.39	0.04	0.04
I-1R3-A	394	395	396	-12.4	-17.4	-25.9	-12.1	-26.1	-0.66	-0.98	7.2	-0.66	-0.98	0.04	0.02
I-1R3-B	397	398	399	-10.8	-8.3	-24.4	-6.1	-29.1	-0.49	-1.02	26.9	-0.60	-0.91	0.21	0.03
I-1R3-C	400	401	402	-1.2	-10.6	-25.8	-0.9	-26.2	-0.29	-0.87	6.6	-0.30	-0.86	0.07	0.04
I-1R3-D	403	404	405	10.1	-1.5	-22.9	10.8	-23.7	0.12	-0.67	8.2	0.11	-0.66	0.11	0.03
I-1R3-E	406	407	408	21.0	5.9	-18.9	21.6	-19.5	0.52	-0.42	6.8	0.51	-0.42	0.11	0.04
I-1R3-F	409	410	411	27.3	4.6	-14.4	27.4	-14.5	0.76	-0.21	-47.5	0.23	0.32	-0.48	0.02
I-1R3-G	412	413	414	31.3	6.5	-9.4	31.7	-9.9	0.95	-0.01	83.8	-0.60	0.94	-0.10	0.02
I-1R3-H	415	416	417	36.6	13.4	-4.8	36.8	-4.9	1.16	0.20	86.5	0.20	1.16	0.06	0.03
I-1R3-J	418	419	420	34.9	12.1	-5.3	35.1	-5.5	1.10	0.17	86.1	0.17	1.10	0.06	0.04
I-1R3-K	421	422	423	25.3	6.8	-8.4	25.4	-8.5	0.75	-0.03	87.2	-0.03	0.75	0.04	0.03
I-1R3-L	424	425	426	12.9	6.3	8.3	15.3	5.9	0.56	0.34	59.5	0.40	0.51	0.10	0.04
I-1R4-A	427	428	429	-1.7	-7.4	-2.7	3.0	-7.4	0.03	-0.22	-42.2	-0.08	-0.11	-0.12	0.02
I-1R4-B	430	431	432	-2.0	-12.4	-4.8	5.8	-12.5	0.07	-0.36	-40.4	-0.11	-0.19	-0.21	0.03
I-1R4-C	433	434	435	-2.8	-16.7	-6.7	7.4	-16.9	0.08	-0.48	-40.4	-0.16	-0.25	-0.28	0.03
I-1R4-D	436	437	438	-1.4	-11.3	-2.2	7.6	-11.3	0.04	-0.30	-43.8	-0.07	-0.09	-0.22	0.02
I-1R4-E	439	440	441	1.0	1.8	4.6	4.8	0.8	0.17	0.07	59.8	0.10	0.14	0.04	0.05
I-1R4-F	442	443	444	8.2	11.4	5.3	11.6	1.9	0.40	0.18	-53.7	0.26	0.32	-0.11	0.04
I-1R4-G	445	446	447	14.6	15.0	1.5	17.6	-1.4	0.57	0.13	-66.8	0.19	0.50	-0.16	0.03
I-1R4-H	448	449	450	9.2	8.8	-0.4	10.9	-2.1	0.34	0.04	-68.7	0.08	0.30	-0.10	0.02
I-1R4-J	451	452	453	3.7	4.3	12.8	14.3	2.2	0.49	0.21	20.6	0.46	0.25	0.09	0.02
I-1R5-A	454	455	456	-0.7	-9.6	1.1	10.1	-9.6	0.24	-0.22	-47.6	-0.01	0.03	-0.23	0.02
I-1R5-B	457	458	459	-1.4	-16.2	-0.2	14.7	-16.2	0.32	-0.39	-46.1	-0.05	-0.02	-0.36	0.04
I-1R5-C	460	461	462	0.0	-21.1	-0.5	20.7	-21.1	0.47	-0.49	-44.7	0.00	-0.01	-0.48	0.02
I-1R5-D	463	464	465	-0.7	-20.9	-0.2	20.0	-20.9	0.45	-0.49	-45.3	-0.02	-0.01	-0.47	0.02
I-1R5-E	466	467	468	-0.9	-22.1	-1.0	20.3	-22.1	0.45	-0.53	-44.9	-0.04	-0.04	-0.49	0.02
I-1R5-F	469	470	471	0.1	17.4	-4.5	17.6	-21.9	0.36	-0.55	-48.3	-0.15	-0.04	-0.45	0.02
I-1R5-G	472	473	474	-2.5	13.9	0.6	14.0	-15.9	0.30	-0.39	-42.1	-0.01	-0.08	-0.34	0.02
I-1R5-H	475	476	477	-0.5	9.8	-1.2	9.8	-11.5	0.21	-0.28	-46.0	-0.05	-0.03	-0.25	0.03
I-1R5-J	478**	479	480	0.0	2.4	-0.0	2.4	-2.5	0.06	-0.06	-45.3	-0.00	-0.00	-0.06	0.01
I-2R1-A	493	494	495	10.2	0.9	-11.6	10.3	-11.7	0.22	-0.28	4.2	0.22	-0.28	0.04	0.04
I-2R1-B	496	497	498	54.7	6.6	-21.6	55.9	-22.8	1.62	-0.20	-7.3	1.59	-0.17	-0.23	0.04
I-2R1-C	499	500	501	21.3	30.5	27.5	31.3	17.5	1.20	0.89	58.4	0.97	1.12	0.14	0.05
I-2R1-D	502	503	504	-2.3	36.3	49.8	52.6	-5.1	1.68	0.35	77.1	0.42	1.62	0.29	0.04
I-2R1-E	505	506	507	-1.4	40.5	23.9	43.1	-20.6	1.22	-0.25	56.7	0.19	0.77	0.67	0.03
I-2R1-F	508	509	510	13.0	37.8	5.7	38.0	-19.4	1.06	-0.26	-3.6	1.06	-0.26	-0.08	0.05
I-2R1-G	511	512**	513	22.1	0.0	4.0	28.9	-2.8	0.92	0.19	62.3	0.35	0.77	0.30	0.06
I-2R1-H	514	515	516	18.2	18.7	2.1	21.9	-1.6	0.71	0.17	-66.4	0.25	0.62	-0.20	0.05
I-2R1-J	517	518	519	-6.8	-3.6	7.8	8.9	-7.9	0.22	-0.17	14.8	0.19	-0.15	0.10	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

DATA FILED IN THE GEOTECHNICAL ENGINEERING DEPARTMENT

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	F(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-2R1-K	520	521	522	-24.7	-17.9	18.8	23.4	-29.4	0.48	-0.74	17.2	0.37	-0.63	0.34	0.03
I-2R1-L	523	524	525	-24.0	-33.1	0.8	13.2	-36.4	0.08	-1.07	30.0	-0.21	-0.78	0.50	0.02
I-2R2-A	526	527	528	-0.9	-16.0	-16.9	1.9	-19.6	-0.13	-0.63	-20.9	-0.20	-0.56	-0.16	0.04
I-2R2-B	529	530	531	39.3	-4.6	-30.3	40.5	-31.4	1.02	-0.64	-7.4	1.00	-0.61	-0.21	0.03
I-2R2-C	532	533	534	1.1	-17.8	-47.2	1.7	-47.8	-0.42	-1.56	6.1	-0.43	-1.55	0.12	0.04
I-2R2-D	535	536	537	-11.1	-53.8	-78.4	-10.0	-79.6	-1.11	-2.72	-7.5	-1.14	-2.69	-0.21	0.04
I-2R2-E	538	539	540**	-45.9	-70.1	0.0	29.5	-75.4	0.23	-2.19	-58.0	-1.51	-0.45	-1.09	0.04
I-2R2-F	541	542	543	-52.7	-55.9	-33.0	-26.5	-59.2	-1.46	-2.21	71.5	-2.14	-1.54	0.23	0.05
I-2R2-G	544	545	546	-64.8	-65.0	-29.6	-22.2	-72.2	-1.45	-2.60	22.6	-1.62	-2.43	0.41	0.06
I-2R2-H	547	548	549	-77.7	-64.6	-15.5	-10.6	-82.5	-1.17	-2.83	15.1	-1.28	-2.71	0.42	0.06
I-2R2-J	550	551	552	-64.4	-45.7	-5.2	-3.3	-66.4	-0.76	-2.22	10.1	-0.81	-2.18	0.25	0.03
I-2R2-K	553	554**	555	-43.1	0.0	8.9	14.0	-48.2	-0.01	-1.45	-16.7	-0.13	-1.33	-0.39	0.03
I-2R2-L	556	557	558	-31.2	-43.0	-6.0	8.9	-46.1	-0.16	-1.43	31.3	-0.51	-1.09	0.56	0.06
I-2R3-A	559	560	561	-2.4	8.2	10.3	11.6	-3.6	0.35	-0.00	73.3	0.02	0.32	0.10	0.04
I-2R3-B	562	563	564	-14.7	-1.1	6.6	7.0	-15.1	0.08	-0.43	82.2	-0.42	0.07	0.07	0.02
I-2R3-C	565	566	567	-34.5	-12.9	-5.4	-3.8	-36.1	-0.49	-1.23	77.0	-1.19	-0.52	0.16	0.03
I-2R3-D	568	569	570	-35.8	-49.2	-32.8	-19.2	-49.3	-1.72	-1.82	-47.9	-1.50	-1.43	-0.35	0.05
I-2R3-E	571	572	573	-50.5	-75.3	-52.0	-27.2	-75.3	-1.64	-2.75	-44.1	-2.18	-2.21	-0.56	0.15
I-2R3-F	574	575	576	-60.0	-81.0	-52.8	-31.6	-81.2	-1.84	-2.99	85.9	-2.98	-1.85	0.08	0.05
I-2R3-G	577	578	579	-61.9	-73.5	-44.4	-31.1	-75.3	-1.77	-2.79	33.4	-2.08	-2.48	0.47	0.04
I-2R3-H	580	581	582	-52.0	-58.0	-34.3	-25.8	-60.4	-1.45	-2.25	29.6	-1.64	-2.05	0.34	0.05
I-2R2-J	583	584	585	-24.1	-35.1	-33.6	-21.0	-36.7	-1.06	-1.42	63.5	-1.35	-1.13	0.14	0.06
I-2R3-K	586	587	588	-3.4	-25.3	-26.1	0.8	-30.2	-0.27	-0.99	68.5	-0.89	-0.37	0.24	0.05
I-2R3-L	589	590	591	7.1	-27.8	-10.9	25.4	-29.3	0.55	-0.71	54.6	-0.29	0.12	0.60	0.03
I-2R4-A	592	593	594	-18.1	0.9	0.8	4.8	-72.1	-0.06	-0.60	67.4	-0.59	0.15	0.22	0.04
I-2R4-B	595	596	597	-18.3	-1.0	-7.3	0.2	-25.8	-0.25	-0.85	57.5	-0.68	-0.42	0.27	0.04
I-2R4-C	598	599	600	-17.3	-13.0	-19.4	-12.9	-23.8	-0.66	-0.91	39.5	-0.76	-0.81	0.12	0.07
I-2R4-D	601	602	603	-19.6	-24.0	-18.5	-19.6	-28.5	-0.93	-1.13	0.3	-0.93	-1.13	0.00	0.04
I-2R4-E	604	605	606	-28.6	-34.3	-33.9	-27.3	-35.3	-1.25	-1.43	-69.3	-1.41	-1.27	-0.06	0.05
I-2R4-F	607	608	609	-30.1	-33.3	-23.7	-19.8	-34.0	-0.99	-1.32	31.5	-1.68	-1.23	0.15	0.05
I-2R4-G	610	611	612	-21.1	-24.9	-23.1	-19.2	-25.1	-0.88	-1.02	54.8	-0.97	-0.93	0.06	0.05
I-2R4-H	613	614	615	-5.8	-16.6	-24.0	-5.7	-24.1	-0.43	-0.85	84.8	-0.85	-0.43	0.04	0.04
I-2R4-J	616	617	618	2.7	-32.8	-23.8	15.4	-36.5	0.15	-1.05	60.4	-0.76	-0.15	0.51	0.04
I-2R5-A	619	620**	621	0.3	0.0	1.7	2.2	-0.2	0.07	0.01	-62.8	0.03	0.06	-0.02	0.04
I-2R5-B	622	623	624	1.4	11.3	6.3	11.7	-4.0	0.35	-0.02	54.2	0.11	0.22	0.17	0.05
I-2R5-C	625	626	627	0.7	13.2	2.8	13.2	-0.8	0.34	-0.19	47.6	0.05	0.10	0.26	0.02
I-2R5-D	628	629	630	1.2	12.0	3.0	12.9	-8.7	0.34	-0.16	47.3	0.07	0.11	0.25	0.02
I-2R5-E	631	632	633	4.1	9.0	2.5	9.1	-2.5	0.27	0.01	41.0	0.16	0.12	0.13	0.03
I-2R5-F	634	635	636	2.6	-0.4	-0.2	3.3	-0.9	0.10	0.00	65.7	0.02	0.08	0.04	0.02
I-2R5-G	637	638	639	1.5	2.0	0.4	2.1	-0.1	0.07	0.02	-59.6	0.03	0.05	-0.02	0.02
I-2R5-H	640	641	642	0.4	-3.3	0.6	4.3	-3.4	0.11	-0.07	44.2	0.02	0.02	0.09	0.02
I-2R5-J	643	644	645	-1.1	-23.1	1.7	23.7	-23.1	0.55	-0.53	43.3	0.05	-0.02	0.54	0.04
O-1R6-A	156	155	154	4.3	5.8	21.3	23.8	1.8	0.80	0.30	19.7	0.74	0.35	0.16	0.04
O-1R6-B	159	158	157	-1.7	13.3	28.0	28.0	-1.7	0.91	0.22	-0.3	0.91	0.22	-0.00	0.04
O-1R6-C	162	161	160	-1.3	10.4	20.7	20.7	-1.3	0.67	0.16	-1.8	0.67	0.16	-0.02	0.04
O-1R6-D	165	164	163	-0.7	0.9	1.1	1.3	-0.9	0.03	-0.02	-17.9	0.03	-0.01	-0.02	0.02
O-2R6-A	321	320	319	-4.9	-26.4	-23.9	0.9	-29.7	-0.26	-0.97	64.3	-0.84	-0.40	0.28	0.03
O-2R6-B	324	323	322	0.8	-14.9	-28.7	0.8	-28.7	-0.26	-0.94	88.3	-0.94	-0.26	0.02	0.04
O-2R6-C	327	326	325	-17.1	-7.1	1.0	1.0	-17.1	-0.14	-0.55	-3.0	-0.14	-0.55	-0.02	0.04
I-1R6-A	481**	482**	483	0.0	0.0	12.1	14.6	-2.5	0.46	0.06	-67.5	0.12	0.40	-0.14	0.04
I-1R6-B	484	485	486	-30.0	-7.2	8.5	8.8	-30.3	-0.01	-0.01	84.7	-0.90	-0.02	0.08	0.07
I-1R6-C	487	488	489	-22.3	-12.6	4.0	4.5	-22.8	-0.08	-0.71	-82.7	-0.70	-0.09	-0.08	0.04
I-1R6-D	490	491	492	-1.8	-9.2	-0.5	6.9	-9.2	0.14	-0.24	-47.3	-0.06	-0.03	-0.19	0.03
I-2R6-A	646	647	648	26.4	24.1	-8.6	32.1	-14.2	0.92	-0.15	20.4	0.79	-0.02	0.35	0.03
I-2R6-B	649	650	651	30.4	10.2	-12.1	30.5	-12.2	0.88	-0.10	1.4	0.88	-0.10	0.02	0.03
I-2R6-C	652	653	654	19.6	0.5	-5.5	21.2	-7.1	0.63	-0.02	-13.8	0.59	0.01	-0.15	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
O-1R7- A	666	665	664	-21.5	19.0	-1.1	20.6	-42.2	0.25	-1.22	9.3	0.21	-1.18	0.23	0.03
O-1R7- B	663	662	661	-7.0	-7.2	-12.5	-6.0	-13.5	-0.33	-0.50	-23.4	-0.36	-0.48	-0.06	0.05
O-1R7- C	660	659	658	7.9	-6.0	-26.8	8.2	-27.1	0.00	-0.81	-39.4	-0.33	-0.48	-0.40	0.03
O-1R7- D	657	656	655	30.6	-13.0	-19.2	36.9	-25.4	0.96	-0.47	-63.5	-0.19	0.68	-0.57	0.04
I-1R7- A	688	689	690	-14.9	-0.7	15.6	15.7	-15.0	0.37	-0.34	47.0	-0.01	0.04	0.35	0.04
I-1R7- B	685	686	687	18.0	6.0	-5.2	18.0	-5.2	0.54	0.01	-46.1	0.26	0.29	-0.27	0.03
I-1R7- C	682	683	684	29.4	1.0	-28.3	29.4	-28.3	0.69	-0.64	-44.6	0.03	-0.01	-0.67	0.04
I-1R7- D	679	680	681	18.1	8.0	-28.8	21.7	-32.4	0.39	-0.85	-30.2	0.08	-0.54	-0.54	0.03
O-2R7- A	678	677	676	7.4	2.5	14.3	19.8	1.8	0.67	0.26	78.7	0.27	0.65	-0.08	0.06
O-2R7- B	675	674	673	7.7	1.4	28.7	38.0	-1.6	1.24	0.32	74.0	0.39	1.17	0.24	0.04
O-2R7- C	672	671	670	30.9	28.5	49.8	55.5	25.2	2.08	1.38	70.7	1.46	2.00	0.22	0.05
O-2R7- D	669	668	667	18.0	-43.2	30.1	91.6	-43.5	2.59	-0.53	87.4	-0.52	2.58	0.14	0.05
I-2R7- A	700	701	702	-10.9	-15.1	-21.4	-10.8	-21.5	-0.57	-0.81	-39.4	-0.67	-0.71	-0.12	0.07
I-2R7- B	697	698	699	-46.1	-57.0	-40.8	-28.8	-58.1	-1.52	-2.20	84.8	-2.20	-1.53	0.06	0.06
I-2R7- C	694	695	696	-69.3	-95.6	-60.3	-33.7	-95.9	-2.06	-3.50	85.8	-3.49	-2.07	0.10	0.06
I-2R7- D	691	692	693	-5.1	16.1	6.0	17.0	-16.1	0.40	-0.36	9.7	0.38	-0.34	0.13	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

COMBUSTION T-16, LOAD CASE 7, M2X

NOMINAL LOAD = 1.097E 05

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	FMAX	FMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
O-1R1-A	3	2	1	4.4	2.6	1.4	4.4	1.3	0.16	0.09	85.6	0.09	0.16	0.01	0.05
O-1R1-B	6	5	4	6.8	-12.1	0.8	20.0	-12.4	0.54	-0.21	50.3	0.09	0.23	0.37	0.05
O-1R1-C	9	8	7	-1.2	-36.9	-2.3	33.4	-36.9	0.74	-0.89	45.5	-0.09	-0.06	0.81	0.03
O-1R1-D	12	11	10	1.9	-60.2	-5.5	56.7	-60.3	1.27	-1.43	46.8	-0.16	0.01	1.35	0.05
O-1R1-E	15	14	13	7.0	-63.8	-9.5	61.9	-64.4	1.40	-1.51	48.8	-0.24	0.14	1.44	0.05
O-1R1-F	18	17	16	-1.3	-40.8	1.6	41.1	-40.8	0.95	-0.94	89.0	-0.94	0.95	0.03	0.04
O-1R1-G	21	20	19	16.5	-48.3	-0.9	64.5	-49.0	1.64	-0.98	-40.6	0.53	0.13	-1.29	0.05
O-1R1-H	24	23	22	9.2	-3.0	-8.6	9.8	-9.2	0.23	-0.21	-10.3	0.22	-0.19	-0.08	0.04
O-1R1-J	27	26	25	20.1	-23.4	-10.9	36.6	-27.4	0.93	-0.54	-30.5	0.55	-0.16	-0.65	0.07
O-1R1-K	30	29	28	15.9	5.5	5.7	18.1	3.4	0.63	0.29	-22.9	0.58	0.34	-0.12	0.07
O-1P1-L	33	32	31	50.5	7.8	10.4	60.7	0.2	2.00	0.61	-24.2	1.77	0.84	-0.52	0.06
O-1R2-A	36	35	34	27.4	19.8	8.1	27.6	7.9	0.99	0.53	-84.1	0.54	0.96	-0.05	0.08
O-1R2-B	39	38	37	51.0	40.1	9.7	53.2	7.5	1.83	0.77	-77.3	0.82	1.78	-0.23	0.06
O-1R2-C	42	41	40	58.2	39.7	22.8	58.2	22.8	2.14	1.33	88.7	1.33	2.14	0.02	0.10
O-1R2-D	45	44	43	56.1	27.6	21.7	59.5	18.3	2.14	1.19	73.3	1.27	2.06	0.26	0.06
O-1R2-E	48	47	46	57.3	14.8	34.3	78.9	12.7	2.73	1.20	55.2	1.70	2.23	0.72	0.06
O-1R2-F	51	50	49	60.8	9.5	20.1	83.8	6.1	2.82	1.03	-78.0	1.11	2.75	-0.37	0.06
O-1R2-G	54	53	52	50.5	23.0	26.6	58.2	18.9	2.11	1.20	-26.2	1.93	1.38	-0.26	0.07
O-1R2-H	57	56	55	31.4	38.0	23.9	38.7	16.6	1.44	0.93	34.9	1.27	1.10	0.24	0.07
O-1R2-J	60	59	58	16.1	43.4	23.7	43.7	-3.9	1.40	0.20	49.6	0.77	0.94	0.54	0.05
O-1R2-K	63	62	61	2.7	27.7	21.7	30.3	-6.0	0.94	0.10	60.7	0.30	0.74	0.36	0.05
O-1R2-L	66	65	64	8.2	3.5	10.4	15.3	3.4	0.54	0.26	-50.3	0.38	0.43	-0.13	0.04
O-1R3-A	69	68	67	1.5	9.4	-5.1	9.8	-13.4	0.19	-0.34	-53.3	-0.15	0.00	-0.26	0.04
O-1R3-B	72	71	70	24.5	13.4	2.1	24.5	2.1	0.83	0.31	-89.8	0.31	0.83	-0.00	0.05
O-1P3-C	75	74	73	24.9	13.3	8.7	25.6	8.0	0.92	0.52	78.2	0.53	0.91	0.08	0.06
O-1R3-D	78	77	76	18.4	8.4	8.4	20.4	6.3	0.73	0.41	67.7	0.46	0.69	0.11	0.09
O-1R3-E	81	80	79	11.5	7.6	9.9	14.0	7.5	0.53	0.38	52.0	0.44	0.48	0.07	0.07
O-1R3-F	84	83	82	11.4	6.2	7.5	13.2	5.7	0.49	0.32	-74.6	0.33	0.48	-0.04	0.07
O-1R3-G	87	86	85	5.6	4.8	8.0	9.1	4.5	0.35	0.24	-60.6	0.26	0.32	-0.05	0.05
O-1R3-H	90	89	88	-6.7	2.8	7.7	8.1	-7.1	0.20	-0.15	81.3	-0.14	0.19	0.05	0.04
O-1R3-J	93	92	91	-10.8	1.9	9.9	10.2	-11.1	0.23	-0.26	83.8	-0.26	0.22	0.05	0.05
O-1R3-K	96	95	94	-10.5	-2.8	7.7	7.8	-10.6	0.15	-0.27	-85.6	-0.27	0.15	-0.03	0.04
O-1P3-L	99	98	97	-57.2	-42.7	0.0	3.3	-60.5	-0.49	-1.26	-76.9	-1.88	-0.56	-0.33	0.06
O-1R4-A	102	101	100	12.6	1.1	-0.4	14.3	-2.1	0.45	0.07	71.1	0.11	0.41	0.12	0.06
O-1P4-B	105	104	103	10.5	1.0	5.9	15.8	0.4	0.53	0.18	53.7	0.30	0.40	0.17	0.05
O-1R4-C	108*	107	106	-2.4	4.6	8.6	8.8	-2.6	0.26	-0.00	-7.6	0.26	0.00	-0.03	0.09
O-1R4-D	111	110	109	0.6	6.6	17.5	17.9	0.3	0.59	0.19	8.1	0.58	0.19	0.06	0.06
O-1P4-E	114	113	112	-3.3	0.4	23.8	27.0	-6.5	0.82	0.05	63.0	0.21	0.67	0.31	0.07
O-1R4-F	117	116	115	1.4	-15.0	10.0	26.9	-15.5	0.73	-0.24	-50.9	0.14	0.34	-0.48	0.05
O-1R4-G	120	119	118	-0.4	-20.7	12.4	26.2	-23.2	0.64	-0.50	-58.1	-0.19	0.32	-0.51	0.06
O-1R4-H	123	122	121	-10.0	-21.8	11.0	25.1	-24.2	0.59	-0.55	-57.6	-0.22	0.26	-0.51	0.05
O-1R4-J	126	125	124	-35.0	-50.0	18.2	40.9	-57.8	0.78	-1.50	-61.3	-0.98	0.25	-0.96	0.05
O-1R5-A	129	128	127	-0.2	-5.7	-1.2	4.2	-5.7	0.08	-0.15	47.9	-0.04	-0.02	0.11	0.05
O-1R5-B	132	131	130	-0.5	0.7	0.8	1.0	-0.7	0.02	-0.01	-19.7	0.02	-0.01	-0.01	0.05
O-1R5-C	135	134	133	0.9	10.3	2.1	10.3	-7.3	0.27	-0.14	-43.1	0.08	0.05	-0.20	0.04
O-1R5-D	138	137	136	0.6	17.0	1.7	17.0	-14.7	0.42	-0.32	-44.0	0.06	0.04	-0.37	0.03
O-1R5-E	141	140	139	-22.1	6.9	22.0	23.0	-22.1	0.53	-0.54	-8.7	0.51	-0.51	-0.16	0.03
O-1R5-F	144	143	142	-2.0	-26.2	2.7	27.0	-26.3	0.63	-0.60	-47.5	-0.04	0.07	-0.61	0.03
O-1R5-G	147	146	145	1.4	-27.3	2.0	30.8	-27.3	0.74	-0.60	-45.3	0.07	0.08	-0.67	0.03
O-1R5-H	150	149	148	6.8	-22.4	-4.0	25.8	-23.0	0.62	-0.50	-38.6	0.18	-0.07	-0.55	0.06

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. 9)

LOCATION	GAGE NUMBERS			STRAIN - MICPOINCHES/INCH								STRESS - KSI			
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF.
0-1R5- J	153	152	151	-2.9	-40.4	4.0	41.7	-40.6	0.97	-0.93	-47.4	-0.06	0.10	-0.95	0.04
0-2P1- A	168	167	166	3.2	0.7	-1.3	3.2	-1.3	0.09	-0.07	86.5	-0.01	0.09	0.01	0.07
0-2R1- B	171	170	169	0.8	-5.1	-1.2	4.8	-5.2	0.11	-0.12	51.0	-0.03	0.01	0.11	0.02
0-2R1- C	174	173	172	1.2	-28.4	-1.0	28.6	-28.4	0.66	-0.65	46.1	-0.02	0.03	0.66	0.04
0-2R1- D	177	176	175	9.4	-65.1	-4.1	70.7	-65.4	1.68	-1.46	47.8	-0.04	0.27	1.56	0.04
0-2R1- E	180	179	178	12.1	-66.1	-5.4	73.3	-66.7	1.76	-1.47	48.6	-0.06	0.34	1.60	0.05
0-2R1- F	183	182	181	-1.5	-52.3	4.5	55.4	-52.4	1.21	-1.18	88.4	-1.18	1.20	0.07	0.04
0-2R1- G	186	185	184	4.3	-47.0	0.7	52.0	-47.0	1.25	-1.04	44.0	0.15	0.07	-1.14	0.03
0-2R1- H	189	188	187	22.8	-22.6	-14.3	36.8	-28.3	0.93	-0.57	-27.7	0.61	-0.25	-0.62	0.04
0-2R1- J	192	191	190	18.4	-1.1	-5.3	20.7	-7.6	0.61	-0.05	-16.4	0.55	0.01	-0.18	0.01
0-2R1- K	195	194	193	12.7	3.4	5.9	16.1	2.5	0.56	0.24	-30.1	0.48	0.32	-0.14	0.04
0-2R1- L	198	197	196	40.3	4.7	8.5	49.6	-0.9	1.63	0.46	-25.5	1.41	0.68	-0.45	0.07
0-2R2- A	201	200	199	25.4	16.7	3.3	25.6	3.0	0.67	0.35	-83.8	0.36	0.27	-0.66	0.03
0-2R2- B	204	203	202	51.2	30.7	-2.3	52.0	-3.0	1.68	0.41	-83.4	0.43	1.67	-0.14	0.04
0-2R2- C	207	206	205	54.1	44.1	26.0	54.7	25.4	2.05	1.38	-61.9	1.39	2.04	-0.69	0.05
0-2R2- D	210	209	208	55.8	33.0	23.9	57.2	22.5	2.11	1.31	78.4	1.34	2.08	0.16	0.01
0-2R2- E	213	212	211	56.8	14.5	24.6	71.4	10.0	2.45	1.04	60.8	1.37	2.11	0.60	0.03
0-2R2- F	216	215	214	55.7	11.4	24.8	73.0	7.5	2.48	0.97	-75.9	1.06	2.39	-0.36	0.04
0-2R2- G	219	218	217	47.1	23.6	21.1	50.8	17.4	1.85	1.08	-19.4	1.76	1.16	-0.24	0.05
0-2R2- H	222	221	220	26.3	36.9	22.6	37.1	11.9	1.34	0.76	40.3	1.09	1.01	0.29	0.06
0-2R2- J	225	224	223	11.3	35.9	22.6	36.7	-2.8	1.18	0.27	53.3	0.60	0.86	0.44	0.05
0-2R2- K	228	227	226	0.3	20.7	18.7	24.0	-5.0	0.74	0.07	64.6	0.19	0.62	-0.26	0.06
0-2R2- L	231	230	229	-4.4	-10.7	5.2	12.4	-11.7	0.29	-0.26	-56.8	-0.60	0.13	-0.66	0.04
0-2R3- A	234	233	232	12.3	7.3	-8.4	13.6	-9.7	0.35	-0.19	-76.4	-0.16	0.32	-0.12	0.03
0-2R3- B	237	236	235	22.9	12.3	-3.1	23.1	-3.3	0.73	0.12	-84.9	0.12	0.73	-0.05	0.06
0-2R3- C	240	239	238	21.1	13.8	6.0	21.1	6.0	0.75	0.41	-88.9	0.41	0.75	-0.01	0.05
0-2R3- D	243	242	241	12.7	4.6	6.4	15.5	3.7	0.55	0.27	61.1	0.34	0.48	0.12	0.05
0-2R3- E	246	245	244	2.7	0.3	2.2	16.1	-1.2	0.52	0.12	28.2	0.43	0.21	0.17	0.03
0-2R3- F	249	248	247	1.4	-0.3	11.8	15.3	-2.1	0.48	0.08	71.6	0.12	0.44	0.12	0.04
0-2R3- G	252	251	250	-0.2	-1.0	10.7	13.7	-3.1	0.42	0.03	-65.3	0.10	0.35	-0.15	0.05
0-2R3- H	255	254	253	-3.6	-1.6	9.5	10.9	-5.0	0.31	-0.06	-72.7	-0.02	0.28	-0.10	0.04
0-2R3- J	258	257	256	-11.5	-4.4	10.8	11.5	-12.2	0.26	-0.29	-80.0	-0.27	0.24	-0.24	0.05
0-2R3- K	261	260	259	-15.5	-8.1	8.7	9.6	-16.4	0.15	-0.44	-79.3	-0.42	0.13	-0.11	0.05
0-2R3- L	264	263	262	-76.8	-64.0	-1.0	6.5	-84.2	-0.62	-2.72	-73.3	-2.54	-0.79	-0.58	0.07
0-2R4- A	267	266	265	10.7	0.5	-1.7	11.8	-2.9	0.36	0.62	73.6	0.05	0.34	0.09	0.07
0-2R4- B	270	269	268	13.6	2.7	2.2	15.6	0.2	0.51	0.16	68.9	0.21	0.47	0.12	0.06
0-2R4- C	273	272	271	7.6	3.8	11.9	16.1	3.4	0.56	0.27	35.0	0.47	0.37	0.14	0.01
0-2R4- D	276	275	274	1.6	6.2	19.3	20.2	0.7	0.67	0.22	12.9	0.65	0.24	0.10	0.06
0-2R4- E	279	278	277	3.0	-5.0	24.2	35.0	-7.8	1.08	0.09	75.1	0.15	1.01	0.25	0.03
0-2R4- F	282	281	280	-3.0	-14.0	17.4	30.7	-16.3	0.85	-0.23	-57.8	0.07	0.54	-0.49	0.06
0-2R4- G	285	284	283	-4.8	-18.8	12.9	28.6	-20.5	0.74	-0.39	-55.6	-0.03	0.38	-0.53	0.04
0-2R4- H	288	287	286	-7.0	-19.9	13.1	28.1	-22.0	0.71	-0.45	-56.8	-0.10	0.36	-0.53	0.04
0-2R4- J	291	290	289	-42.7	-48.2	4.2	18.1	-56.5	0.04	-1.68	-64.5	-1.36	-0.28	-0.67	0.01
0-2R5- A	294	293	292	0.1	5.5	-0.7	5.5	-6.2	0.12	-0.15	43.0	-0.00	-0.02	0.14	0.04
0-2R5- B	297	296	295	0.3	-0.1	-0.7	0.3	-0.7	0.00	-0.02	6.6	0.00	-0.02	0.00	0.04
0-2R5- C	300	299	298	0.7	-8.5	-0.3	8.9	-8.5	0.21	-0.19	-43.4	0.02	-0.00	-0.20	0.05
0-2R5- D	303	302	301	-2.0	-14.4	0.9	13.4	-14.5	0.30	-0.34	-48.0	-0.06	0.01	-0.24	0.04
0-2R5- E	306	305	304	-1.5	-21.9	0.3	20.8	-21.9	0.47	-0.52	-46.2	-0.04	-0.00	-0.49	0.05
0-2R5- F	309*	308	307	0.1	-26.9	0.9	28.0	-26.9	0.66	-0.61	-35.4	-0.01	0.03	-0.63	0.05
0-2R5- G	312	311	310	-2.3	-26.3	-0.3	23.7	-26.3	0.52	-0.63	-46.2	-0.68	-0.03	-0.56	0.07
0-2R5- H	315	314	313	-0.5	-23.7	-2.0	21.4	-23.7	0.47	-0.57	-44.0	-0.03	-0.07	-0.52	0.05
0-2R5- J	318	317	316	-1.1	-34.7	-0.1	33.5	-34.7	0.76	-0.81	-45.4	-0.04	-0.01	-0.79	0.06
1-1R1- A	322	329	330	-4.0	-21.1	-7.5	10.1	-21.7	0.12	-0.61	-41.9	-0.21	-0.29	-0.36	0.07
1-1R1- B	331	332	333	-2.1	-1.9	-0.0	0.3	-2.4	-0.02	-0.08	-71.4	-0.07	-0.02	-0.02	0.07
1-1R1- C	334	335	336	-0.9	9.8	-6.5	10.1	-17.4	0.16	-0.47	39.1	-0.09	-0.22	0.31	0.06
1-1R1- D	337*	338	339	-5.0	10.0	-2.1	10.0	-17.1	0.16	-0.46	48.1	-0.19	-0.12	0.31	0.10

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				CONF
	(1)	(2)	(3)	E(1)	F(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	
I-1R1-E	340	341	342	-2.6	20.0	0.8	20.1	-21.9	0.45	-0.52	47.3	-0.08	0.00	0.48	0.04
I-1R1-F	343	344	345	-3.2	40.2	1.3	40.3	-42.2	0.91	-0.99	1.6	0.91	-0.99	0.05	0.06
I-1R1-G	346	347	348	16.4	41.3	-3.2	42.7	-29.5	1.12	-0.55	-52.9	0.06	0.51	-0.20	0.05
I-1R1-H	349	350	351	19.2	18.0	2.8	21.7	0.2	0.72	0.22	-69.7	0.28	0.66	-0.16	0.13
I-1R1-J	352	353	354	0.4	-3.8	4.3	8.9	-4.1	0.25	-0.05	36.3	0.15	0.06	0.14	0.06
I-1R1-K	355	356	357	-21.2	-13.4	14.5	17.1	-23.9	0.33	-0.62	14.6	0.27	-0.56	0.23	0.06
I-1R1-L	358	359	360	-26.6	-31.5	-3.3	5.3	-35.2	-0.17	-1.11	27.5	-0.37	-0.91	0.38	0.04
I-1R2-A	361	362	363	-12.2	-23.3	-40.2	-11.9	-40.5	-0.79	-1.45	5.9	-0.60	-1.45	0.07	0.09
I-1R2-B	364	365	366	-8.5	-24.3	-40.5	-8.5	-40.5	-0.68	-1.42	0.4	-0.68	-1.42	0.01	0.06
I-1R2-C	367	368	369	-8.5	-41.0	-81.6	-8.3	-81.9	-1.08	-2.78	3.2	-1.09	-2.78	0.09	0.06
I-1R2-D	370	371	372	-2.8	-51.3	-94.9	-2.7	-95.0	-1.03	-3.16	-1.5	-1.03	-3.16	-0.06	0.03
I-1R2-E	373	374	375	-16.7	-54.7	-73.4	-15.1	-75.0	-1.24	-2.62	-9.4	-1.28	-2.58	-0.22	0.11
I-1R2-F	376	377	378	-18.1	-30.4	-50.8	-17.4	-51.5	-1.08	-1.87	-53.4	-1.59	-1.56	-0.38	0.07
I-1R2-G	379	380	381	-28.1	-47.1	-41.2	-20.5	-48.7	-1.16	-1.81	58.8	-1.63	-1.33	0.29	0.06
I-1R2-H	382	383	384	-37.6	-43.3	-20.1	-11.9	-45.8	-0.84	-1.63	29.4	-1.03	-1.44	0.33	0.06
I-1R2-J	385	386	387	-31.9	-38.6	-7.5	2.7	-42.1	-0.33	-1.36	28.6	-0.56	-1.13	0.44	0.06
I-1R2-K	388	389	390	-22.1	-32.7	1.0	14.5	-35.6	0.12	-1.03	31.2	-0.19	-0.72	0.51	0.06
I-1R2-L	391	392	393	-17.6	-35.2	-8.0	10.1	-35.7	-0.02	-1.08	38.9	-0.44	-0.66	0.52	0.06
I-1R3-A	394	395	396	-14.9	-8.7	-8.6	-7.4	-16.1	-0.40	-0.60	68.1	-0.58	-0.43	0.07	0.07
I-1R3-B	397	398	399	-24.2	-8.6	-14.1	-7.4	-30.9	-0.55	-1.09	57.9	-0.94	-0.70	0.24	0.10
I-1R3-C	400	401	402	-26.7	-25.5	-29.8	-25.1	-31.4	-1.14	-1.28	30.3	-1.17	-1.25	0.06	0.07
I-1R3-D	403	404	405	-25.5	-43.7	-51.2	-24.4	-52.3	-1.32	-1.97	-11.4	-1.35	-1.94	-0.12	0.11
I-1R3-E	406	407	408	-20.8	-51.5	-55.7	-16.4	-60.2	-1.13	-2.14	-18.6	-1.24	-2.04	-0.31	0.07
I-1R3-F	409	410	411	-26.3	-55.2	-54.8	-22.5	-60.6	-1.34	-2.22	-68.0	-2.10	-1.46	-0.31	0.09
I-1R3-G	412	413	414	-24.8	-54.7	-46.3	-13.6	-57.5	-1.02	-2.03	59.6	-1.77	-1.28	0.44	0.07
I-1R3-H	415	416	417	-10.6	-38.5	-35.1	-3.0	-42.7	-0.52	-1.44	64.0	-1.26	-0.70	0.36	0.09
I-1R3-J	418	419	420	5.8	-23.2	-29.6	9.1	-32.9	-0.03	-1.00	73.7	-0.92	-0.10	0.26	0.06
I-1R3-K	421	422	423	18.1	-16.2	-20.9	20.2	-32.0	0.35	-0.86	78.3	-0.81	0.30	0.24	0.07
I-1R3-L	424	425	426	16.5	-20.2	-7.9	31.6	-23.0	0.81	-0.45	58.3	-0.10	0.46	0.56	0.05
I-1R4-A	427	428	429	-13.9	-6.2	-0.8	-0.7	-14.0	-0.16	-0.47	85.2	-0.47	-0.16	0.03	0.05
I-1R4-B	430	431	432	-12.0	-10.7	-12.6	-10.7	-13.9	-0.49	-0.56	39.0	-0.52	-0.53	0.04	0.06
I-1R4-C	433	434	435	-8.5	-19.7	-18.4	-5.5	-21.4	-0.39	-0.76	-25.7	-0.46	-0.69	-0.14	0.06
I-1R4-D	436	437	438	-16.6	-24.6	-21.9	-13.2	-25.2	-0.69	-0.96	-31.8	-0.76	-0.89	-0.12	0.07
I-1R4-E	439	440	441	-18.8	-21.3	-20.1	-17.5	-21.4	-0.79	-0.88	-80.8	-0.88	-0.79	-0.01	0.06
I-1R4-F	442	443	444	-12.3	-12.1	-13.2	-12.0	-13.6	-0.53	-0.56	-60.4	-0.56	-0.54	-0.02	0.06
I-1R4-G	445	446	447	-4.3	-4.2	-12.0	-2.6	-13.7	-0.22	-0.48	-66.9	-0.44	-0.26	-0.09	0.06
I-1R4-H	448	449	450	3.1	-9.1	-20.7	3.1	-20.7	-0.10	-0.65	89.2	-0.65	-0.10	0.01	0.06
I-1R4-J	451	452	453	3.5	-20.7	-8.2	16.9	-21.6	0.34	-0.55	53.9	-0.24	0.03	0.42	0.06
I-1R5-A	454	455	456	-0.0	-0.7	0.4	1.1	-0.7	0.03	-0.01	-52.2	0.00	0.01	-0.02	0.06
I-1R5-B	457	458	459	-0.2	-4.0	0.1	3.9	-4.0	0.09	-0.09	-45.9	-0.00	0.00	-0.09	0.05
I-1R5-C	460	461	462	-0.1	-5.1	1.2	6.3	-5.1	0.16	-0.11	-48.3	0.01	0.04	-0.13	0.04
I-1R5-D	463	464	465	-0.8	-6.8	0.7	6.7	-6.9	0.15	-0.16	-48.2	-0.02	0.01	-0.16	0.03
I-1R5-E	466	467	468	0.2	-13.4	1.0	14.7	-13.4	0.35	-0.30	-45.8	0.02	0.03	-0.32	0.05
I-1R5-F	469	470	471	2.0	14.5	-1.8	14.6	-14.4	0.34	-0.33	-48.8	-0.04	0.05	-0.33	0.03
I-1R5-G	472	473	474	-0.9	13.9	0.6	13.9	-14.2	0.32	-0.33	-43.5	0.01	-0.02	-0.32	0.03
I-1R5-H	475	476	477	-0.0	5.9	-1.2	5.9	-7.2	0.12	-0.18	-47.6	-0.04	-0.01	-0.15	0.04
I-1R5-J	478	479	480	-1.6	-15.3	3.8	17.7	-15.5	0.43	-0.34	40.3	0.11	-0.01	0.38	0.04
I-2R1-A	493	494	495	-1.2	-16.5	-8.7	7.2	-17.1	0.07	-0.49	-36.0	-0.13	-0.30	0.27	0.06
I-2R1-B	496	497	498	1.1	-15.0	-6.0	10.6	-15.5	0.20	-0.41	-37.2	-0.02	-0.19	-0.29	0.05
I-2R1-C	499	500	501	-1.8	9.7	-4.3	9.7	-15.9	0.16	-0.43	42.2	-0.10	-0.16	0.29	0.07
I-2R1-D	502	503	504	-0.7	14.4	-8.8	14.8	-24.3	0.25	-0.65	39.0	-0.11	-0.30	0.44	0.04
I-2R1-E	505	506	507	0.8	37.1	-10.1	37.4	-46.7	0.77	-1.17	41.3	-0.07	-0.33	0.96	0.04
I-2R1-F	508	509	510	1.7	38.9	-3.4	38.8	-40.5	0.88	-0.95	-1.8	0.88	-0.95	-0.06	0.04
I-2R1-G	511	512*	513	16.7	0.0	-7.7	17.5	-8.5	0.49	-0.11	79.8	-0.09	0.47	0.10	0.07
I-2R1-H	514	515	516	14.6	13.0	-0.2	16.6	-2.1	0.53	-0.09	-71.1	0.14	0.48	-0.13	0.06
I-2R1-J	517	518	519	-4.6	-7.9	6.4	11.3	-9.5	0.28	-0.20	28.9	0.17	-0.09	0.20	0.04

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SHAX	SHIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-2R1-K	520	521	522	-23.7	-19.9	12.8	17.8	-28.7	0.30	-0.77	19.2	0.19	-0.66	0.33	0.07
I-2R1-L	523	524	525	-23.5	-34.0	-3.7	9.2	-36.3	-0.06	-1.11	32.1	-0.35	-0.91	0.47	0.04
I-2R2-A	526	527	528	-13.9	-28.3	-46.0	-13.8	-46.0	-0.91	-1.65	2.9	-0.91	-1.65	0.04	0.09
I-2R2-B	529	530	531	-1.3	-16.7	-43.7	-0.5	-44.5	-0.46	-1.47	7.7	-0.48	-1.46	0.14	0.01
I-2R2-C	532	533	534	-16.0	-34.3	-70.6	-14.6	-72.1	-1.19	-2.52	-9.1	-1.23	-2.49	0.21	0.06
I-2R2-D	535	536	537	-4.6	-61.9	-108.5	-4.4	-108.8	-1.22	-3.63	-2.9	-1.23	-3.62	-0.12	0.06
I-2R2-E	538	539	540	-17.8	-62.6	-81.7	-15.4	-84.2	-1.34	-2.93	-10.9	-1.40	-2.87	-0.29	0.06
I-2R2-F	541	542	543	-20.6	-47.7	-53.1	-17.3	-56.4	-1.13	-2.03	-61.8	-1.83	-1.33	-0.37	0.05
I-2R2-G	544	545	546	-29.9	-51.0	-60.8	-18.8	-51.9	-1.13	-1.90	54.7	-1.64	-1.39	0.26	0.07
I-2R2-H	547	548	549	-34.0	-43.3	-15.6	-4.2	-45.4	-0.59	-1.54	31.7	-0.85	-1.28	0.43	0.09
I-2R2-J	550	551	552	-27.0	-30.7	-6.5	0.5	-34.1	-0.32	-1.12	26.9	-0.48	-0.95	0.32	0.09
I-2R2-K	553	554**	555	-16.4	0.0	-0.2	3.3	-19.9	-0.09	-0.62	-22.9	-0.17	-0.54	-0.19	0.08
I-2R2-L	556	557	558	-12.5	-30.3	-0.3	18.2	-31.1	-0.29	-0.84	37.8	-0.13	-0.42	0.55	0.06
I-2R3-A	559*	560	561	-25.3	-4.7	-4.4	-0.2	-29.5	-0.30	-0.97	67.9	-0.88	-0.40	0.24	0.12
I-2R3-B	562	563	564	-13.6	-6.3	-10.0	-6.0	-17.7	-0.37	-0.64	54.0	-0.55	-0.47	0.13	0.07
I-2R3-C	565	566	567	-27.1	-15.3	-17.4	-13.8	-30.8	-0.76	-1.15	62.3	-1.07	-0.84	0.16	0.05
I-2R3-D	568	569	570	-18.5	-40.9	-38.0	-12.4	-44.2	-0.84	-1.58	-26.2	-0.99	-1.44	-0.29	0.05
I-2R3-E	571	572	573	-22.5	-49.8	-49.9	-16.9	-55.5	-1.10	-2.00	-22.4	-1.23	-1.87	-0.31	0.06
I-2R3-F	574	575	576	-24.0	-54.9	-50.5	-15.2	-59.3	-1.09	-2.11	-71.5	-2.00	-1.19	-0.31	0.10
I-2R3-G	577	578	579	-22.0	-52.0	-39.4	-7.6	-53.8	-0.78	-1.85	56.1	-1.52	-1.11	0.49	0.07
I-2R3-H	580	581	582	-11.3	-35.7	-29.4	-2.6	-38.1	-0.46	-1.28	60.3	-1.08	-0.66	0.35	0.09
I-2R3-J	583	584	585	7.2	-18.3	-29.2	8.6	-30.6	-0.02	-0.92	79.1	-0.89	-0.05	0.17	0.07
I-2R3-K	586	587	588	19.4	-16.1	-25.5	22.9	-29.0	0.47	-0.73	74.9	-0.65	0.39	0.30	0.04
I-2R3-L	589	590	591	13.8	-18.1	-2.8	30.5	-19.5	0.81	-0.34	54.7	0.05	0.43	0.54	0.07
I-2R4-A	592	593	594	-15.0	-4.7	-0.5	0.2	-15.6	-0.15	-0.57	78.6	-0.50	-0.16	0.07	0.02
I-2R4-B	595	596	597	-12.4	-8.0	-8.1	-7.1	-13.4	-0.37	-0.51	66.5	-0.49	-0.39	0.05	0.06
I-2R4-C	598	599	600	-13.3	-15.6	-15.9	-13.0	-16.3	-0.59	-0.66	-18.0	-0.60	-0.66	-0.02	0.05
I-2R4-D	601	602	603	-16.2	-23.4	-20.5	-12.9	-23.8	-0.66	-0.91	-33.4	-0.74	-0.84	-0.12	0.07
I-2R4-E	604	605	606	-19.5	-20.1	-18.1	-17.3	-20.3	-0.77	-0.84	75.7	-0.84	-0.78	0.02	0.10
I-2R4-F	607	608	609	-16.4	-13.2	-11.7	-11.5	-16.6	-0.54	-0.66	-9.9	-0.55	-0.66	-0.02	0.07
I-2R4-G	610	611	612	-5.7	-10.0	-15.1	-5.7	-15.1	-0.34	-0.55	-87.6	-0.55	-0.34	-0.01	0.05
I-2R4-H	613	614	615	0.9	-6.2	-19.5	1.3	-19.9	-0.15	-0.64	-81.6	-0.63	-0.16	-0.07	0.05
I-2R4-J	616	617	618	1.7	-24.3	-17.2	11.2	-26.8	0.11	-0.77	59.9	-0.55	-0.11	0.38	0.05
I-2R5-A	619	620	621	1.9	-0.2	-0.2	2.4	-0.7	0.07	0.00	-22.5	0.66	0.01	-0.03	0.04
I-2R5-B	622	623	624	2.9	-3.5	0.2	6.8	-3.6	0.19	-0.05	-37.4	0.10	0.04	-0.22	0.05
I-2R5-C	625	626	627	1.0	-3.2	5.4	9.9	-3.5	0.29	-0.02	-54.4	0.69	0.19	-0.15	0.07
I-2R5-D	628	629	630	1.2	-7.0	3.8	12.1	-7.1	0.33	-0.12	-48.8	0.08	0.14	-0.22	0.05
I-2R5-E	631	632	633	0.4	-8.9	2.8	12.2	-9.0	0.31	-0.18	-48.3	0.04	0.10	-0.24	0.03
I-2R5-F	634	635	636	2.6	14.9	0.9	14.9	-11.4	0.38	-0.23	-46.9	0.66	0.10	-0.20	0.03
I-2R5-G	637	638	639	1.1	12.2	3.1	12.3	-8.2	0.32	-0.15	-42.2	0.11	0.07	-0.23	0.03
I-2R5-H	640	641	642	0.4	5.0	2.2	5.1	-2.5	0.14	-0.03	-38.2	0.08	0.04	-0.06	0.04
I-2R5-J	643	644	645	-0.7	-16.9	2.4	18.7	-17.0	0.45	-0.38	42.5	0.67	0.00	0.41	0.05
O-1R6-A	156	155	154	5.0	-11.6	0.8	17.5	-11.7	0.46	-0.21	49.1	0.08	0.17	0.33	0.05
O-1R6-B	159	158	157	2.2	-4.4	2.4	9.1	-4.4	0.26	-0.06	44.7	0.10	0.10	0.16	0.05
O-1R6-C	162	161	160	2.1	0.2	1.7	3.6	0.2	0.12	0.04	48.2	0.08	0.09	0.04	0.06
O-1R6-D	165	164	163	0.9	3.3	3.3	3.8	0.4	0.13	0.05	-22.1	0.12	0.06	-0.03	0.06
O-2R6-A	321	320	319	-2.9	-20.3	-0.6	16.8	-20.3	0.35	-0.50	43.2	-0.55	-0.10	0.43	0.05
O-2R6-B	324	323	322	-0.6	-8.4	-1.6	6.2	-8.4	0.12	-0.22	47.1	-0.06	-0.04	0.17	0.05
O-2R6-C	327	326*	325	-1.2	-5.9	-0.6	4.1	-5.9	0.08	-0.15	42.1	-0.03	-0.05	0.12	0.05
I-1R6-A	481	482**	483	-3.1	0.0	4.1	4.1	-3.2	0.10	-0.06	-86.3	-0.06	0.10	-0.01	0.06
I-1R6-B	484	485	486	-2.5	-1.1	0.3	0.3	-2.4	-0.01	-0.08	-88.0	-0.03	-0.01	-0.00	0.08
I-1R6-C	487	488	489	-0.4	-10.6	-1.5	8.7	-10.6	0.18	-0.26	-43.4	-0.03	-0.05	-0.22	0.04
I-1R6-D	490	491	492	-0.8	-14.8	-0.0	14.0	-14.8	0.32	-0.35	-45.8	-0.03	-0.01	-0.33	0.04
I-2R6-A	646	647	648	1.2	20.4	-0.3	20.5	-19.6	0.48	-0.44	43.9	0.04	0.00	0.46	0.04
I-2R6-B	649	650	651	0.7	-1.8	-0.6	2.0	-1.9	0.05	-0.04	-35.2	0.02	-0.01	-0.04	0.04
I-2R6-C	652	653	654	0.0	-10.9	0.1	11.0	-10.9	0.26	-0.25	-45.1	0.00	0.00	-0.25	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. ←)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI				TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	FMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
O-1R7- A	666	665	664	-15.4	24.8	0.5	25.8	-40.7	0.45	-1.09	6.9	0.42	-1.07	0.18	0.06
O-1R7- B	663	662	661	3.5	-1.0	11.9	17.3	-1.0	0.55	0.11	77.1	0.13	0.53	0.10	0.05
O-1R7- C	660	659	658	33.6	16.2	20.2	39.5	14.3	1.44	0.86	-73.9	0.91	1.40	-0.16	0.06
O-1R7- D	657	656	655	30.3	-41.2	10.0	82.3	-42.0	2.30	-0.57	-85.3	-0.55	2.28	-0.23	0.06
I-1F7- A	688	689	690	-19.4	-9.4	-2.7	-2.6	-19.5	-0.28	-0.67	39.5	-0.44	-0.51	0.19	0.08
I-1R7- B	685	686	687	-21.5	-40.5	-40.2	-17.5	-44.3	-1.01	-1.63	-67.9	-1.54	-1.10	-0.22	0.10
I-1R7- C	682	683	684	-29.4	-69.9	-66.0	-18.9	-76.5	-1.38	-2.71	-70.2	-2.56	-1.53	-0.42	0.04
I-1R7- D	679	680	681	8.4	39.2	-18.9	41.2	-51.7	0.85	-1.30	-8.5	0.80	-1.25	-0.31	0.07
O-2R7- A	678	677	676	-14.6	0.1	19.8	20.0	-14.8	0.51	-0.29	49.1	0.05	0.17	0.40	0.06
O-2R7- B	675	674	673	-2.6	-7.8	12.8	20.2	-10.0	0.57	-0.13	74.6	-0.08	0.52	0.18	0.05
O-2R7- C	672	671	670	22.1	15.1	19.6	26.7	15.0	1.03	0.76	-83.7	0.76	1.03	-0.03	0.07
O-2R7- D	669	668	667	39.4	-38.7	4.3	84.9	-41.2	2.39	-0.52	-81.9	-0.46	2.34	-0.40	0.06
I-2R7- A	700	701	702	-18.1	-10.2	-2.0	-2.0	-18.1	-0.24	-0.62	45.7	-0.43	-0.43	0.19	0.06
I-2R7- B	697	698	699	-22.3	-40.0	-32.5	-13.8	-41.0	-0.86	-1.49	-79.0	-1.46	-0.86	-0.12	0.06
I-2R7- C	694	695	696	-30.4	-74.1	-68.6	-18.3	-80.6	-1.40	-2.84	-71.1	-2.69	-1.55	-0.44	0.07
I-2R7- D	691	692	693	6.6	13.6	-22.8	18.1	-34.3	0.26	-0.95	-17.0	0.15	-0.85	-0.34	0.05

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

COMBUSTION T-16, LOAD CASE 8, MZY

NOMINAL LOAD = 1.097E 05

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONE
O-1R1- A	3	2	1	1.0	-4.2	-10.6	1.0	-10.6	-0.07	-0.24	-67.1	-0.34	-0.07	-0.01	0.03
O-1P1- B	6	5	4	11.1	4.7	-0.8	11.1	-0.8	0.26	0.08	87.5	0.08	0.36	0.01	0.01
O-1R1- C	9	8	7	8.9	8.7	0.5	10.5	-1.1	0.31	0.07	-68.4	0.10	0.30	-0.09	0.03
O-1R1- D	12	11	10	13.0	11.5	8.0	13.2	7.8	0.51	0.39	-78.6	0.39	0.51	-0.02	0.01
O-1R1- E	15	14	13	2.7	6.2	8.7	8.7	2.6	0.31	0.17	-5.2	0.31	0.17	-0.01	0.01
O-1R1- F	18	17	16	4.9	3.9	5.1	6.1	3.9	0.24	0.19	87.6	0.19	0.24	0.00	0.02
O-1R1- G	21	20	19	-12.3	2.9	-0.6	4.6	-17.5	-0.02	-0.53	61.0	-0.41	-0.14	0.22	0.03
O-1R1- H	24	23	22	-5.8	2.9	41.6	3.2	-10.6	0.00	-0.32	53.9	-0.21	-0.11	0.15	0.02
O-1R1- J	27	26	25	-14.3	1.2	3.8	5.9	-16.3	0.03	-0.48	72.4	-0.43	-0.01	0.15	0.01
O-1R1- K	30	29	28	-15.4	-5.2	4.2	4.3	-15.4	-0.01	-0.47	88.9	-0.46	-0.01	0.01	0.01
O-1R1- L	33	32	31	-56.2	-21.0	-5.0	-3.2	-57.9	-0.68	-1.94	79.8	-1.90	-0.72	0.22	0.02
O-1R2- A	36	35	34	-1.2	-5.8	-2.5	2.1	-5.9	0.01	-0.17	49.6	-0.10	-0.07	0.09	0.02
O-1R2- B	39	38	37	-1.6	-4.4	-2.1	0.8	-4.5	-0.02	-0.14	48.2	-0.09	-0.07	0.06	0.01
O-1R2- C	42	41	40	-2.4	-3.5	-3.2	-2.0	-3.6	-0.10	-0.16	60.1	-0.13	-0.11	0.02	0.03
O-1R2- D	45	44	43	-6.4	-0.8	-0.7	0.5	-7.5	-0.06	-0.24	-22.0	-0.09	-0.22	-0.06	0.03
O-1R2- E	48	47	46	-14.2	-0.1	-1.0	2.4	-17.6	-0.10	-0.56	-24.3	-0.17	-0.48	-0.17	0.02
O-1R2- F	51	50	49	-17.7	-0.9	0.2	3.2	-20.6	-0.10	-0.65	24.4	-0.19	-0.55	0.21	0.01
O-1R2- G	54	53	52	-20.0	-4.5	-0.1	1.3	-21.5	-0.17	-0.69	75.4	-0.66	-0.20	0.13	0.02
O-1R2- H	57	56	55	-20.0	-11.3	-0.6	-0.6	-20.0	-0.22	-0.67	-87.1	-0.66	-0.22	-0.02	0.01
O-1R2- J	60	59	58	-16.1	-17.2	-1.9	1.9	-19.8	-0.13	-0.63	-65.4	-0.55	-0.22	-0.19	0.02
O-1R2- K	63	62	61	-10.3	-12.0	-0.6	2.7	-13.6	-0.04	-0.42	-63.3	-0.35	-0.12	-0.15	0.02
O-1R2- L	66	65	64	-48.2	-37.5	-7.4	-5.2	-50.4	-0.67	-1.71	-77.3	-1.66	-0.72	-0.22	0.03
O-1R3- A	69	68	67	-5.2	-4.2	3.4	4.5	-6.3	0.08	-0.16	18.7	0.66	-0.14	0.08	0.02
O-1R3- B	72	71	70	-7.3	-4.1	0.0	0.0	-7.3	-0.07	-0.24	3.3	-0.67	-0.24	0.01	0.02
O-1R3- C	75	74	73	-7.8	-4.8	-2.6	-2.6	-7.8	-0.16	-0.28	-4.2	-0.16	-0.28	-0.01	0.03
O-1R3- D	78	77	76	-8.5	-3.4	-0.7	-0.5	-8.7	-0.10	-0.29	-8.5	-0.11	-0.29	-0.03	0.02
O-1R3- E	81	80	79	-11.5	-2.2	-0.6	0.6	-12.7	-0.11	-0.41	-17.5	-0.13	-0.38	-0.09	0.01
O-1R3- F	84	83	82	-14.0	-6.7	0.6	0.6	-14.0	-0.12	-0.46	44.7	-0.29	-0.29	0.17	0.01
O-1R3- G	87	86	85	-12.5	-8.5	-0.1	0.3	-12.9	-0.12	-0.42	-80.3	-0.41	-0.13	-0.05	0.02
O-1R3- H	90	89	88	-9.5	-9.4	-1.2	0.4	-11.1	-0.10	-0.36	-68.1	-0.33	-0.13	-0.09	0.01
O-1P3- J	93	92	91	-7.1	-8.8	-3.1	-1.0	-9.3	-0.12	-0.32	-59.5	-0.27	-0.17	-0.08	0.01
O-1R3- K	96	95	94	-3.9	-7.5	-1.5	2.2	-7.6	-0.00	-0.23	-52.0	-0.14	-0.09	-0.11	0.01
O-1R3- L	99	98	97	-18.6	-13.1	-3.1	-2.8	-19.5	-0.28	-0.67	-76.1	-0.65	-0.31	-0.02	0.02
O-1R4- A	102	101	100	-5.1	-0.6	1.3	1.5	-5.3	-0.00	-0.16	-9.4	-0.01	-0.15	-0.03	0.01
O-1R4- B	105	104	103	-5.0	-0.9	-0.5	0.1	-5.6	-0.05	-0.18	-19.7	-0.07	-0.17	-0.04	0.02
O-1R4- C	108*	107	106	0.0	-1.0	-1.4	0.1	-1.5	-0.01	-0.05	78.1	-0.05	-0.01	0.01	0.03
O-1R4- D	111	110	109	-3.1	-1.3	-4.4	-1.2	-6.3	-0.10	-0.22	-52.7	-0.18	-0.14	-0.06	0.03
O-1R4- E	114	113	112	-2.8	-2.6	-4.7	-2.3	-5.2	-0.13	-0.19	-19.8	-0.13	-0.19	-0.02	0.02
O-1R4- F	117	116	115	-3.1	-0.1	-6.5	-0.0	-7.6	-0.08	-0.25	39.4	-0.15	-0.16	0.09	0.02
O-1R4- G	120	119	118	-2.4	1.1	-5.3	1.3	-8.9	-0.05	-0.28	36.6	-0.13	-0.20	0.11	0.03
O-1P4- H	123	122	121	-0.5	1.6	-5.1	2.2	-7.8	-0.01	-0.24	31.3	-0.07	-0.17	0.10	0.02
O-1R4- J	126	125	124	-3.2	0.1	-4.5	0.2	-7.9	-0.07	-0.26	40.3	-0.15	-0.18	0.09	0.02
O-1R5- A	129	128	127	0.0	3.1	0.7	3.1	-2.3	0.08	-0.05	-41.5	0.02	0.01	-0.06	0.01
O-1R5- B	132	131	130	0.3	0.9	0.2	0.9	-0.4	0.03	-0.00	-46.4	0.01	0.01	-0.02	0.01
O-1R5- C	135	134	133	0.4	-1.2	0.3	1.9	-1.2	0.05	-0.02	46.1	0.01	0.02	0.04	0.01
O-1R5- D	138	137	136	0.3	-3.8	0.3	4.5	-3.8	0.11	-0.08	44.8	0.01	0.01	0.10	0.01
O-1R5- E	141	140	139	7.7	-0.6	-6.3	7.9	-6.5	0.20	-0.13	84.9	-0.13	0.19	0.03	0.01
O-1R5- F	144	143	142	1.0	9.5	-0.1	9.5	-8.6	0.23	-0.19	43.3	0.03	0.01	0.21	0.01
O-1R5- G	147	146	145	0.1	9.4	0.5	9.4	-8.9	0.22	-0.20	45.7	0.01	0.02	0.21	0.01
O-1R5- H	150	149	148	-1.4	8.5	1.5	8.6	-8.6	0.20	-0.20	49.9	-0.03	0.04	0.20	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
0-1R5-J	153	152	151	1.0	8.6	-1.4	8.7	-9.1	0.20	-0.21	41.0	0.02	-0.04	0.20	0.03
0-2R1-A	168	167	166	-2.5	2.4	6.1	6.2	-2.5	0.18	-0.02	-3.5	0.18	-0.02	-0.01	0.01
0-2R1-B	171	170	169	-13.8	-7.8	1.9	2.1	-14.0	-0.07	-0.44	6.6	-0.07	-0.44	0.04	0.02
0-2R1-C	174	173	172	-17.6	-9.9	-2.3	-2.3	-17.6	-0.25	-0.60	-0.3	-0.25	-0.60	-0.00	0.04
0-2R1-D	177	176	175	-14.2	-10.9	-6.7	-6.7	-14.2	-0.36	-0.54	3.3	-0.36	-0.53	0.01	0.02
0-2R1-E	180	179	178	-2.7	-5.7	-7.3	-2.6	-7.4	-0.16	-0.27	82.0	-0.27	-0.16	0.02	0.02
0-2R1-F	183	182	181	0.9	-3.1	-5.5	1.0	-5.6	-0.02	-0.17	-52.0	-0.12	-0.08	-0.07	0.02
0-2R1-G	186	185	184	4.2	-4.9	-5.0	6.0	-6.8	0.13	-0.17	-21.9	0.09	-0.12	-0.10	0.01
0-2R1-H	189	188	187	12.6	-1.0	-5.5	13.7	-6.6	0.39	-0.08	-13.2	0.36	-0.06	-0.10	0.01
0-2R1-J	192	191	190	15.0	2.9	-4.3	15.3	-4.6	0.46	0.00	-7.2	0.45	0.01	-0.06	0.01
0-2R1-K	195	194	193	16.4	4.6	-5.2	16.5	-5.2	0.49	-0.01	-2.6	0.49	-0.01	-0.02	0.01
0-2R1-L	198	197	196	53.4	23.9	1.0	53.6	0.8	1.77	0.56	-3.5	1.77	0.56	-0.08	0.02
0-2R2-A	201	200	199	0.1	2.8	2.0	3.0	-1.0	0.09	-0.00	-31.0	0.07	0.02	-0.04	0.01
0-2R2-B	204	203	202	0.6	3.4	1.6	3.5	-1.3	0.10	-0.01	-39.1	0.06	0.03	-0.05	0.01
0-2R2-C	207	206	205	3.7	5.0	4.4	5.1	3.0	0.20	0.15	-34.8	0.18	0.16	-0.02	0.02
0-2R2-D	210	209	208	7.8	1.4	0.9	8.8	-0.2	0.29	0.08	70.0	0.11	0.26	0.07	0.02
0-2R2-E	213	212	211	16.9	2.3	-0.1	18.8	-2.1	0.60	0.12	-72.3	0.16	0.56	0.14	0.01
0-2R2-F	216	215	214	19.2	1.1	-1.1	21.9	-3.8	0.69	0.09	-64.0	0.20	0.57	-0.23	0.01
0-2R2-G	219	218	217	21.9	5.8	-0.6	22.9	-1.6	0.74	0.17	-11.7	0.72	0.20	-0.11	0.02
0-2R2-H	222	221	220	20.6	12.3	0.1	20.7	-0.1	0.68	0.20	5.4	0.68	0.21	0.04	0.01
0-2R2-J	225	224	223	16.6	14.2	0.9	18.3	-0.8	0.59	0.15	17.4	0.56	0.19	0.13	0.02
0-2R2-K	228	227	226	11.8	11.2	-0.1	13.8	-2.2	0.43	0.07	21.1	0.39	0.11	0.12	0.01
0-2R2-L	231	230	229	60.8	31.6	4.0	60.8	4.0	2.04	0.73	-0.8	2.04	0.73	-0.02	0.03
0-2R3-A	234	233	232	4.3	2.1	-3.5	4.7	-3.9	0.12	-0.08	-77.9	-0.07	0.11	-0.04	0.01
0-2R3-B	237	236	235	7.7	3.8	-1.5	7.8	-1.5	0.24	0.02	-85.7	0.03	0.24	-0.02	0.02
0-2R3-C	240	239	238	8.0	4.6	2.6	8.1	2.5	0.29	0.16	82.3	0.17	0.29	0.02	0.02
0-2R3-D	243	242	241	8.3	1.9	0.8	9.1	-0.1	0.30	0.09	72.4	0.11	0.28	0.06	0.01
0-2R3-E	246	245	244	9.2	1.0	0.9	10.8	-0.7	0.35	0.08	68.1	0.12	0.31	0.09	0.01
0-2R3-F	249	248	247	12.7	4.5	-0.7	12.8	-0.8	0.41	0.10	-51.2	0.22	0.29	-0.15	0.01
0-2R3-G	252	251	250	12.7	7.0	-1.0	12.8	-1.1	0.41	0.09	4.8	0.41	0.09	0.03	0.01
0-2R3-H	255	254	253	11.4	8.2	0.4	11.8	-0.0	0.39	0.12	11.3	0.28	0.13	0.05	0.03
0-2R3-J	258	257	256	6.9	8.7	2.1	9.2	-0.4	0.30	0.08	30.2	0.25	0.14	0.10	0.01
0-2R3-K	261	260	259	4.4	6.7	0.4	7.2	-2.4	0.21	-0.01	32.6	0.15	0.06	0.10	0.01
0-2R3-L	264	263	262	24.0	18.4	2.4	25.2	1.3	0.84	0.29	12.9	0.82	0.32	0.12	0.02
0-2R4-A	267	266	265	4.0	-0.3	-2.4	4.2	-2.6	0.11	-0.04	80.4	-0.04	0.11	0.03	0.02
0-2R4-B	270	269	268	4.6	1.0	-0.1	4.9	-0.4	0.16	0.04	76.4	0.04	0.15	0.03	0.01
0-2R4-C	273	272	271	3.9	0.5	1.7	5.4	0.2	0.18	0.06	57.8	0.10	0.15	0.05	0.01
0-2R4-D	276	275	274	2.2	1.1	4.0	5.3	0.9	0.18	0.08	32.5	0.15	0.11	0.05	0.02
0-2R4-E	279	278	277	2.3	3.5	5.3	5.3	2.3	0.20	0.13	51.5	0.16	0.17	0.03	0.02
0-2R4-F	282	281	280	3.2	-0.1	5.0	8.3	-0.2	0.27	0.08	-51.2	0.15	0.20	-0.10	0.02
0-2R4-G	285	284	283	2.5	-0.6	4.3	7.4	-0.7	0.24	0.05	-51.6	0.12	0.17	-0.09	0.01
0-2R4-H	288	287	286	2.3	-0.3	4.9	7.8	-0.5	0.25	0.06	-54.0	0.13	0.19	-0.09	0.01
0-2R4-J	291	290	289	3.0	0.9	3.6	5.8	0.9	0.20	0.09	-48.4	0.14	0.15	-0.06	0.01
0-2R5-A	294**	293	292	0.0	1.5	-0.7	1.5	-2.2	0.03	-0.06	39.8	-0.01	-0.02	0.04	0.01
0-2R5-B	297	296	295	0.1	0.3	-0.2	0.3	-0.4	0.01	-0.01	31.9	0.00	-0.01	0.01	0.00
0-2R5-C	300	299	298	-0.2	-1.6	-0.1	1.3	-1.6	0.03	-0.04	-46.0	-0.01	-0.00	-0.03	0.01
0-2R5-D	303	302	301	-0.3	-5.2	0.3	5.2	-5.2	0.12	-0.12	-46.6	-0.01	0.01	-0.12	0.01
0-2R5-E	306	305	304	-0.2	-8.0	0.2	8.0	-8.0	0.19	-0.18	-45.6	-0.00	0.00	-0.19	0.01
0-2R5-F	309	308	307	0.4	-8.1	0.3	8.8	-8.1	0.21	-0.18	-45.8	0.02	0.01	-0.20	0.01
0-2R5-G	312	311	310	0.4	-8.3	1.2	10.0	-8.3	0.25	-0.18	-46.3	0.03	0.04	-0.21	0.02
0-2R5-H	315	314	313	1.9	-6.3	-0.2	8.1	-6.4	0.20	-0.13	-40.9	0.06	0.01	-0.17	0.02
0-2R5-J	318	317	316	0.2	-6.5	0.3	7.1	-6.5	0.17	-0.14	-45.2	0.01	0.01	-0.16	0.02
1-1R1-A	328	329	330	-3.7	-4.7	-6.2	-3.7	-6.2	-0.18	-0.24	5.3	-0.18	-0.24	0.01	0.02
1-1R1-B	331	332	333	-5.8	-7.3	-9.8	-5.7	-9.9	-0.29	-0.38	7.3	-0.29	-0.38	0.01	0.02
1-1R1-C	334	335	336	1.3	-13.4	-25.8	1.3	-25.8	-0.21	-0.84	-2.5	-0.21	-0.84	-0.03	0.03
1-1R1-D	337	338	339	1.1	-16.9	-32.4	1.1	-32.4	-0.28	-1.06	-2.2	-0.29	-1.06	-0.03	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF.
I-1R1-E	340	341	342	5.6	-14.0	-28.2	5.8	-28.4	-0.09	-0.88	-4.6	-0.09	-0.87	-0.06	0.02
I-1R1-F	343	344	345	8.1	-6.4	-21.4	8.1	-21.4	0.06	-0.62	-44.5	-0.28	-0.29	-0.34	0.01
I-1R1-G	346	347	348	5.7	-10.4	-15.7	7.0	-17.0	0.06	-0.49	76.5	-0.46	0.03	0.13	0.01
I-1R1-H	349	350	351	1.0	-9.9	-9.6	3.4	-12.0	-0.01	-0.36	66.8	-0.31	-0.06	0.13	0.02
I-1R1-J	352	353	354	1.3	-6.1	-8.2	2.0	-8.8	-0.02	-0.27	75.5	-0.26	-0.04	0.06	0.01
I-1R1-K	355	356	357	7.4	-6.0	-18.2	7.5	-18.2	0.07	-0.53	88.5	-0.53	0.07	0.02	0.02
I-1R1-L	358	359	360	4.8	-1.9	1.2	8.3	-2.2	0.25	0.01	55.1	0.09	0.17	0.11	0.02
I-1R2-A	361	362	363	-0.4	2.2	-0.1	2.2	-2.6	0.05	-0.06	47.0	-0.01	-0.01	0.06	0.01
I-1R2-B	364	365	366	-1.2	2.6	1.4	2.9	-2.8	0.07	-0.06	58.3	-0.03	0.03	0.06	0.01
I-1R2-C	367	368	369	-0.3	2.4	3.7	3.8	-0.4	0.12	0.02	80.2	0.03	0.12	0.02	0.03
I-1R2-D	370	371	372	0.1	3.2	1.9	3.3	-1.3	0.10	-0.01	56.4	0.02	0.06	0.05	0.01
I-1R2-E	373	374	375	4.0	0.2	-3.2	4.0	-3.2	0.10	-0.07	-1.0	0.10	-0.07	-0.00	0.02
I-1R2-F	376	377	378	5.0	-3.6	-6.1	5.8	-6.9	0.12	-0.17	-59.3	-0.09	0.05	-0.13	0.02
I-1R2-G	379	380	381	6.4	-0.1	-4.6	6.5	-4.7	0.17	-0.09	84.8	-0.09	0.16	0.02	0.02
I-1R2-H	382	383	384	8.4	1.7	-4.7	8.4	-4.7	0.23	-0.07	89.3	-0.07	0.23	0.00	0.02
I-1R2-J	385	386	387	8.4	1.2	-7.2	8.4	-7.3	0.20	-0.16	-87.5	-0.16	0.20	-0.02	0.01
I-1R2-K	388	389	390	8.7	-1.9	-18.2	9.0	-18.5	0.11	-0.52	-84.0	-0.51	0.11	-0.07	0.02
I-1R2-L	391	392	393	0.8	0.1	-1.0	0.8	-1.0	0.02	-0.03	-82.6	-0.02	0.02	-0.01	0.01
I-1R3-A	394	395	396	3.3	1.9	2.2	3.8	1.7	0.14	0.09	-27.7	0.13	0.10	-0.02	0.01
I-1R3-B	397	398	399	5.8	3.5	4.1	6.7	3.3	0.25	0.17	-30.5	0.23	0.19	-0.03	0.01
I-1R3-C	400	401	402	5.6	7.8	9.7	9.7	5.6	0.37	0.28	88.0	0.28	0.27	0.00	0.02
I-1R3-D	403	404	405	3.6	10.9	13.1	13.8	3.0	0.48	0.23	75.8	0.25	0.47	0.06	0.02
I-1R3-E	406	407	408	6.1	12.0	12.2	13.3	5.0	0.49	0.30	68.6	0.32	0.46	0.06	0.02
I-1R3-F	409	410	411	7.5	11.4	9.6	11.6	5.5	0.44	0.30	10.0	0.43	0.30	0.01	0.01
I-1R3-G	412	413	414	7.7	10.1	8.1	10.1	5.7	0.39	0.29	-42.1	0.24	0.33	-0.05	0.02
I-1R3-H	415	416	417	5.4	5.8	4.5	5.9	4.0	0.23	0.19	-59.0	0.20	0.22	-0.02	0.01
I-1R3-J	418	419	420	0.4	0.9	1.1	1.1	0.4	0.04	0.02	-16.2	0.04	0.02	-0.03	0.01
I-1R3-K	421	422	423	-3.6	-1.4	-5.0	-1.3	-7.3	-0.11	-0.25	-51.8	-0.20	-0.17	-0.07	0.02
I-1R3-L	424	425	426	-7.2	-3.6	-4.1	-3.1	-8.2	-0.18	-0.30	-26.5	-0.21	-0.28	-0.05	0.02
I-1R4-A	427	428	429	6.0	3.1	1.4	6.0	1.4	0.21	0.10	-6.8	0.21	0.11	-0.01	0.01
I-1R4-B	430	431	432	3.8	3.7	5.4	5.8	3.4	0.23	0.17	-64.8	0.18	0.22	-0.02	0.02
I-1R4-C	433	434	435	1.8	7.1	9.7	9.9	1.6	0.34	0.15	80.7	0.15	0.34	0.03	0.02
I-1R4-D	436	437	438	4.1	8.0	9.4	9.7	3.8	0.36	0.22	77.0	0.23	0.35	0.03	0.02
I-1R4-E	439	440	441	5.0	7.6	7.2	8.0	4.2	0.31	0.22	17.7	0.30	0.23	0.03	0.01
I-1R4-F	442	443	444	2.8	4.2	4.7	4.8	2.7	0.18	0.14	-13.2	0.18	0.14	-0.01	0.01
I-1R4-G	445	446	447	-0.4	0.2	2.9	3.2	-0.7	0.10	0.01	16.5	0.09	0.02	0.02	0.02
I-1R4-H	448	449	450	-3.5	-1.0	2.6	2.6	-3.5	0.05	-0.09	5.4	0.05	-0.09	0.01	0.01
I-1R4-J	451	452	453	-4.8	-0.3	3.1	3.1	-4.9	0.05	-0.13	-4.2	0.05	-0.13	-0.01	0.01
I-1R5-A	454	455	456	-0.1	1.1	0.3	1.1	-0.9	0.03	-0.02	51.1	0.00	0.01	0.02	0.01
I-1R5-B	457	458	459	0.1	0.5	-0.1	0.5	-0.5	0.01	-0.01	40.0	0.00	-0.00	0.01	0.00
I-1R5-C	460	461	462	0.0	0.0	-1.2	0.3	-1.4	-0.01	-0.04	22.5	-0.01	-0.04	0.01	0.02
I-1R5-D	463	464	465	-0.1	-1.2	-1.9	-0.0	-1.9	-0.02	-0.06	-5.9	-0.02	-0.06	-0.00	0.02
I-1R5-E	466	467	468	-0.2	-0.3	-0.7	-0.1	-0.7	-0.01	-0.02	9.5	-0.01	-0.02	0.00	0.01
I-1R5-F	469	470	471	-0.5	-2.5	0.3	2.2	-2.5	0.05	-0.06	40.1	0.00	-0.02	0.05	0.01
I-1R5-G	472	473	474	0.0	-2.9	-0.3	2.6	-2.9	0.06	-0.07	46.9	-0.01	-0.00	0.06	0.01
I-1R5-H	475	476	477	0.2	-1.1	0.2	1.4	-1.1	0.04	-0.02	45.1	0.01	0.01	0.03	0.01
I-1R5-J	478	479	480	0.9	0.9	-0.9	1.3	-1.3	0.03	-0.03	-68.1	-0.02	0.02	-0.02	0.01
I-2R1-A	493	494	495	3.6	6.2	7.4	7.5	3.4	0.28	0.19	79.7	0.19	0.28	0.02	0.02
I-2R1-B	496	497	498	4.5	6.1	9.4	9.6	4.4	0.36	0.24	-80.3	0.24	0.26	-0.02	0.02
I-2R1-C	499	500	501	2.3	11.0	23.3	23.5	2.2	0.20	0.20	-85.1	0.31	0.79	-0.04	0.02
I-2R1-D	502	503	504	-1.3	16.8	35.0	35.0	-1.3	1.14	0.30	-89.8	0.31	1.14	-0.00	0.02
I-2R1-E	505	506	507	-7.7	11.1	26.5	26.6	-7.8	0.20	0.01	87.2	0.01	0.80	0.04	0.02
I-2R1-F	508	509	510	-8.4	5.9	19.5	19.5	-8.5	0.56	-0.09	44.2	0.25	0.23	0.32	0.01
I-2R1-G	511	512**	513	-6.4	0.0	15.2	16.0	-7.3	0.46	-0.08	11.0	0.44	-0.06	0.10	0.01
I-2R1-H	514	515	516	-1.3	9.1	9.8	11.6	-3.1	0.35	0.01	-20.5	0.31	0.05	-0.11	0.02
I-2R1-J	517	518	519	-1.4	6.8	11.1	11.4	-1.7	0.36	0.06	-8.5	0.35	0.06	-0.04	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI				TAU	CONF	
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)			SIG(T)
I-2R1-K	520	521	522	-8.7	6.0	20.1	20.1	-8.7	0.58	-0.09	-0.6	0.58	-0.09	-0.01	0.02
I-2R1-L	523	524	525	-0.7	6.4	6.2	7.7	-2.2	0.23	0.00	-23.1	0.20	0.04	-0.08	0.01
I-2R2-A	526	527	528	0.9	-1.2	1.7	4.0	-1.2	0.12	0.00	-50.7	0.05	0.07	-0.06	0.01
I-2R2-B	529	530	531	2.8	-1.6	-0.4	4.4	-2.0	0.12	-0.02	-30.2	0.09	0.01	-0.06	0.02
I-2R2-C	532	533	534	0.6	-3.4	-4.6	1.0	-5.0	-0.02	-0.15	-13.8	-0.02	-0.15	-0.03	0.03
I-2R2-D	535	536	537	0.7	-2.5	-5.2	0.7	-5.2	-0.03	-0.17	-2.3	-0.03	-0.16	-0.01	0.02
I-2R2-E	538	539	540	-3.8	0.6	3.2	3.3	-3.9	0.07	-0.10	82.9	-0.09	0.07	0.02	0.01
I-2R2-F	541	542	543	-5.3	4.5	6.8	7.9	-6.4	0.20	-0.13	29.1	0.12	-0.06	0.14	0.01
I-2R2-G	544	545	546	-6.5	1.3	4.7	5.2	-7.0	0.10	-0.18	-10.8	0.09	-0.17	-0.05	0.01
I-2R2-H	547	548	549	-7.9	-0.2	4.8	4.9	-8.0	0.08	-0.22	-6.1	0.08	-0.21	-0.03	0.01
I-2R2-J	550	551	552	-8.6	0.7	9.1	9.1	-8.6	0.22	-0.19	-1.3	0.21	-0.14	-0.01	0.02
I-2R2-K	553	554**	555	-9.2	0.0	18.9	19.8	-10.0	0.55	-0.13	9.6	0.53	-0.12	0.11	0.01
I-2R2-L	556	557	558	-3.5	2.7	5.8	6.1	-3.7	0.16	-0.06	-9.1	0.16	-0.06	-0.04	0.02
I-2R3-A	559	560	561	-3.8	-2.6	-2.4	-2.3	-3.9	-0.11	-0.15	71.7	-0.15	-0.12	0.01	0.02
I-2R3-B	562	563	564	-4.8	-3.7	-4.2	-3.6	-5.4	-0.17	-0.21	56.3	-0.20	-0.18	0.02	0.02
I-2R3-C	565	566	567	-7.3	-5.9	-9.0	-5.7	-10.5	-0.29	-0.40	34.7	-0.33	-0.37	0.05	0.03
I-2R3-D	568	569	570	-4.2	-12.6	-12.7	-2.9	-15.0	-0.25	-0.52	-18.8	-0.27	-0.49	-0.08	0.02
I-2R3-E	571	572	573	-6.2	-13.0	-12.6	-4.6	-14.2	-0.29	-0.51	-24.1	-0.33	-0.48	-0.08	0.02
I-2R3-F	574	575	576	-6.6	-11.7	-10.6	-4.8	-12.3	-0.28	-0.45	-73.8	-0.44	-0.30	-0.05	0.02
I-2R3-G	577	578	579	-7.1	-9.3	-9.0	-6.5	-9.6	-0.31	-0.38	63.9	-0.37	-0.32	0.03	0.03
I-2R3-H	580	581	582	-5.3	-5.9	-5.2	-4.5	-5.9	-0.21	-0.24	43.6	-0.22	-0.22	0.02	0.03
I-2R3-J	583	584	585	-0.2	0.4	-1.4	0.6	-2.2	-0.00	-0.07	-58.9	-0.05	-0.02	-0.03	0.02
I-2R3-K	586	587	588	3.5	2.6	6.0	7.2	2.3	0.26	0.15	29.6	0.23	0.17	0.05	0.02
I-2R3-L	589	590	591	4.7	3.2	3.7	5.4	3.0	0.21	0.15	57.5	0.17	0.19	0.02	0.04
I-2R4-A	592	593	594	-6.2	-2.8	-0.6	-0.5	-6.3	-0.08	-0.21	83.4	-0.21	-0.08	0.02	0.02
I-2R4-B	595	596	597	-5.2	-4.3	-4.4	-4.2	-5.4	-0.19	-0.22	64.1	-0.21	-0.20	0.01	0.03
I-2R4-C	598	599	600	-3.9	-7.3	-8.7	-3.7	-8.9	-0.21	-0.33	-11.4	-0.21	-0.23	-0.02	0.02
I-2R4-D	601	602	603	-4.1	-8.8	-9.6	-3.5	-10.2	-0.22	-0.37	-17.2	-0.23	-0.36	-0.04	0.02
I-2R4-E	604	605	606	-6.1	-7.9	-7.0	-5.2	-8.0	-0.25	-0.31	-80.3	-0.31	-0.25	-0.01	0.02
I-2R4-F	607	608	609	-4.6	-4.0	-4.2	-4.0	-4.6	-0.18	-0.20	-34.2	-0.19	-0.19	-0.01	0.02
I-2R4-G	610	611	612	0.6	-0.1	-3.7	1.1	-4.1	-0.01	-0.12	-72.8	-0.11	-0.02	-0.03	0.01
I-2R4-H	613	614	615	4.1	2.2	-3.6	4.5	-4.1	0.11	-0.09	-76.7	-0.08	0.10	-0.04	0.01
I-2R4-J	616	617	618	4.5	1.4	-0.5	4.5	-0.5	0.14	0.03	83.4	0.03	0.24	0.01	0.01
I-2R5-A	619	620	621	0.4	-0.4	-0.3	0.7	-0.5	0.02	-0.01	-28.6	0.01	-0.00	-0.01	0.01
I-2R5-B	622	623	624*	0.1	-0.2	-1.4	0.3	-1.5	-0.01	-0.05	14.5	-0.01	-0.05	0.01	0.02
I-2R5-C	625	626	627	-0.0	-0.6	0.3	1.0	-0.7	0.02	-0.01	-51.3	0.00	0.01	-0.02	0.02
I-2R5-D	628	629	630	-0.4	-0.0	0.3	0.3	-0.4	0.01	-0.01	87.3	-0.01	0.01	0.00	0.00
I-2R5-E	631	632	633	-0.0	-0.4	0.1	0.5	-0.4	0.01	-0.01	-47.9	0.00	0.00	-0.01	0.00
I-2R5-F	634	635	636	-0.3	0.2	-0.3	0.2	-0.8	0.00	-0.02	-45.4	-0.01	-0.01	-0.01	0.01
I-2R5-G	637	638	639	-0.3	2.2	0.1	2.2	-2.3	0.05	-0.06	-42.2	0.00	-0.01	-0.05	0.01
I-2R5-H	640	641	642	-0.7	0.8	-1.2	0.8	-2.7	-0.00	-0.08	-49.6	-0.05	-0.04	-0.04	0.02
I-2R5-J	643	644	645	-0.8	-0.7	-1.0	-0.7	-1.1	-0.03	-0.04	-62.6	-0.04	-0.03	-0.00	0.03
O-1R6-A	156	155	154	-7.5	-1.6	4.8	4.8	-7.5	0.08	-0.20	1.0	0.08	-0.21	0.01	0.02
O-1R6-B	159	158	157	-7.7	-2.2	4.6	4.6	-7.7	0.07	-0.21	3.0	0.07	-0.21	0.01	0.02
O-1R6-C	162	161	160	-4.7	-2.1	3.0	3.2	-4.9	0.06	-0.13	9.5	0.05	-0.12	0.03	0.02
O-1R6-D	165	164	163	-0.6	-0.9	0.2	0.7	-1.1	0.01	-0.03	29.5	0.00	-0.02	0.02	0.02
O-2R6-A	321	320	319	7.5	1.9	-5.4	7.6	-5.4	0.20	-0.10	-86.5	-0.10	0.20	-0.02	0.02
O-2R6-B	324	323	322	7.6	1.9	-5.6	7.7	-5.7	0.20	-0.11	-86.1	-0.11	0.20	-0.02	0.01
O-2R6-C	327	326	325	-3.2	0.5	4.1	4.1	-3.2	0.10	-0.06	0.0	0.10	-0.06	0.00	0.01
I-1R6-A	481	482**	483	6.9	0.0	-11.9	7.2	-12.2	0.12	-0.33	7.4	0.11	-0.32	0.06	0.01
I-1R6-B	484	485	486	2.7	-3.9	-10.0	2.7	-10.0	-0.01	-0.30	-1.3	-0.01	-0.30	-0.01	0.02
I-1R6-C	487	488	489	0.1	-1.6	-5.4	0.2	-5.6	-0.05	-0.18	10.4	-0.05	-0.18	0.02	0.01
I-1R6-D	490	491	492	-0.1	-0.3	-0.5	-0.1	-0.5	-0.01	-0.02	4.4	-0.01	-0.02	0.00	0.01
I-2R6-A	646	647	648	-6.2	3.6	11.0	11.9	-6.2	0.33	-0.09	87.8	-0.09	0.33	0.02	0.01
I-2R6-B	649	650	651	-2.8	3.6	8.4	8.5	-2.9	0.25	-0.01	86.0	-0.01	0.25	0.02	0.01
I-2R6-C	652	653	654	-0.5	2.2	4.6	4.7	-0.5	0.15	0.03	88.6	0.03	0.15	0.00	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
O-1R7-A	666	665	664	2.8	-7.5	-1.0	9.6	-7.8	0.24	-0.16	-83.6	-0.15	0.23	-0.04	0.01
O-1R7-B	663	662	661	-8.9	-2.4	-0.8	-0.2	-9.6	-0.10	-0.32	29.4	-0.15	-0.27	0.09	0.02
O-1R7-C	660	659	658	-18.1	-5.4	-1.6	-0.5	-19.2	-0.21	-0.64	30.8	-0.32	-0.52	0.19	0.02
O-1R7-D	657	656	655	-6.7	7.1	6.2	9.5	-10.0	0.21	-0.24	20.6	0.16	-0.18	0.15	0.01
I-1R7-A	688	689	690	2.9	3.7	3.1	3.7	2.2	0.14	0.11	3.6	0.14	-0.11	0.00	0.02
I-1R7-B	685	686	687	6.2	10.9	10.3	11.6	4.9	0.43	0.28	19.2	0.41	0.29	0.05	0.02
I-1R7-C	682	683	684	7.6	8.0	6.3	8.2	5.7	0.33	0.27	-16.6	0.32	0.27	-0.02	0.02
I-1R7-D	679	680	681	3.5	-11.2	-17.2	4.4	-18.1	-0.03	-0.55	-56.6	-0.39	-0.19	-0.24	0.01
O-2R7-A	678	677	676	-2.2	1.3	7.5	7.7	-2.4	0.23	-0.00	52.8	0.08	0.14	0.11	0.02
O-2R7-B	675	674	673	7.4	0.8	0.9	8.8	-0.5	0.29	0.07	-68.1	0.10	0.26	-0.07	0.01
O-2R7-C	672	671	670	18.8	6.8	-0.1	19.1	-0.4	0.63	0.17	-52.7	0.34	0.46	-0.22	0.01
O-2R7-D	669	668	667	6.8	-7.4	-5.8	10.6	-9.6	0.25	-0.21	-70.8	-0.16	0.20	-0.14	0.02
I-2R7-A	700	701	702	-4.9	-5.1	-4.2	-3.9	-5.2	-0.18	-0.21	72.7	-0.21	-0.18	0.01	0.03
I-2R7-B	697	698	699	-7.3	-11.6	-10.4	-5.7	-12.0	-0.31	-0.45	-75.4	-0.44	-0.31	-0.04	0.03
I-2R7-C	694	695	696	-7.8	-8.5	-5.7	-4.7	-8.8	-0.24	-0.34	74.9	-0.23	-0.25	0.02	0.03
I-2R7-D	691	692	693	-4.8	13.4	18.8	20.4	-6.5	0.61	-0.01	30.8	0.45	0.15	0.27	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

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COMBUSTION T-16, LOAD CASE 9, M2T

NOMINAL LOAD = 1.097E 05

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
O-1R1-A	3	2	1	13.7	7.9	3.6	13.8	3.4	0.49	0.25	85.5	0.26	0.49	0.02	0.05
O-1R1-B	6	5	4	26.6	20.9	3.9	36.6	3.9	1.25	0.49	-88.9	0.49	1.25	-0.01	0.06
O-1R1-C	9	8	7	28.4	31.0	10.8	34.0	5.2	1.17	0.51	-63.8	0.64	1.04	-0.26	0.06
O-1R1-D	12	11	10	32.8	35.2	34.1	35.3	31.6	1.48	1.30	-25.2	1.45	1.42	-0.04	0.11
O-1R1-E	15	14	13	13.6	18.0	25.0	25.2	13.4	0.96	0.69	6.6	0.96	0.70	0.03	0.09
O-1R1-F	18	17	16	10.3	16.6	10.6	16.6	4.3	0.59	0.31	0.6	0.59	0.31	0.00	0.08
O-1R1-G	21	20	19	2.9	12.2	10.2	13.3	-0.2	0.44	0.13	61.6	0.20	0.37	0.13	0.05
O-1R1-H	24	23	22	8.8	14.4	25.4	25.8	8.3	0.93	0.53	-81.1	0.54	0.92	-0.06	0.04
O-1R1-J	27	26	25	-1.3	25.7	13.3	27.0	-15.0	0.74	-0.23	55.2	0.09	0.43	0.45	0.05
O-1R1-K	30	29	28	-8.9	14.9	16.4	20.6	-13.1	0.55	-0.23	69.4	-0.13	0.45	0.26	0.03
O-1R1-L	33	32	31	-38.8	-4.9	4.1	7.4	-42.1	-0.17	-1.32	75.0	-1.24	-0.25	0.29	0.07
O-1R2-A	36	35	34	-0.3	-0.3	1.6	2.0	-0.7	0.06	-0.00	22.2	0.05	0.01	0.02	0.03
O-1R2-B	39	38	37	2.6	2.8	-2.5	3.8	-3.7	0.09	-0.08	-66.5	-0.06	0.06	-0.06	0.04
O-1R2-C	42	41	40	4.5	11.1	-0.8	11.5	-7.8	0.30	-0.14	-53.0	0.02	0.14	-0.21	0.04
O-1R2-D	45	44	43	-0.7	14.7	3.6	14.9	-12.0	0.37	-0.25	-40.4	0.11	0.01	-0.21	0.03
O-1R2-E	48	47	46	-20.6	11.5	3.5	14.8	-32.0	0.17	-0.91	-29.5	-0.09	-0.65	-0.46	0.04
O-1R2-F	51	50	49	-23.4	12.4	7.1	17.5	-33.7	0.24	-0.94	18.3	0.13	-0.82	0.35	0.04
O-1R2-G	54	53	52	-30.7	5.3	4.7	12.4	-36.4	0.03	-1.14	67.0	-0.96	-0.15	0.42	0.05
O-1R2-H	57	56	55	-33.7	-4.3	5.0	7.4	-36.2	-0.11	-1.12	76.3	-1.06	-0.17	0.23	0.04
O-1R2-J	60	59	58	-28.9	-19.6	2.2	3.4	-30.1	-0.19	-0.96	-79.2	-0.93	-0.21	-0.14	0.05
O-1R2-K	63	62	61	-21.3	-17.1	-1.0	0.6	-22.9	-0.21	-0.75	-75.0	-0.71	-0.24	-0.14	0.06
O-1R2-L	66	65	64	-76.5	-57.5	-12.7	-10.2	-79.0	-1.12	-2.71	-79.0	-2.65	-1.18	-0.30	0.07
O-1R3-A	69	68	67	-13.8	-15.1	-3.1	-0.0	-17.0	-0.17	-0.56	25.5	-0.24	-0.40	0.15	0.05
O-1R3-B	72	71	70	-18.0	-14.8	-8.6	-8.4	-18.2	-0.46	-0.68	9.1	-0.46	-0.68	0.04	0.06
O-1P3-C	75	74	73	-15.8	-10.1	-10.5	-9.2	-17.1	-0.47	-0.66	-24.5	-0.50	-0.62	-0.07	0.06
O-1R3-D	78	77	76	-18.6	-8.7	-4.5	-3.9	-10.1	-0.32	-0.67	-10.8	-0.33	-0.66	-0.06	0.06
O-1R3-E	81	80	79	-27.2	-5.8	0.2	2.2	-29.2	-0.22	-0.94	-14.6	-0.26	-0.69	-0.18	0.04
O-1R3-F	84	83	82	-30.2	-14.0	1.6	1.6	-30.2	-0.25	-0.98	44.4	-0.61	-0.62	0.37	0.04
O-1R3-G	87	86	85	-28.0	-20.8	2.7	4.8	-30.0	-0.14	-0.94	-76.0	-0.89	-0.19	-0.19	0.04
O-1R3-H	90	89	88	-23.4	-24.2	4.5	10.9	-29.8	0.06	-0.87	-66.7	-0.73	-0.08	-0.34	0.04
O-1R3-J	93	92	91	-19.2	-27.4	-2.2	8.0	-29.4	-0.03	-0.89	-58.6	-0.66	-0.26	-0.38	0.04
O-1R3-K	96	95	94	-11.2	-26.5	-4.7	10.8	-26.8	0.09	-0.78	-50.0	-0.42	-0.27	-0.43	0.04
O-1P3-L	99	98	97	-48.8	-46.3	-8.5	-1.9	-55.5	-0.61	-1.85	-69.4	-1.69	-0.76	-0.41	0.04
O-1R4-A	102	101	100	-17.1	-13.4	-8.5	-8.4	-17.2	-0.45	-0.65	4.2	-0.45	-0.65	0.01	0.07
O-1R4-B	105	104	103	-18.0	-10.4	-11.5	-9.3	-20.1	-0.51	-0.76	-26.4	-0.56	-0.71	-0.10	0.07
O-1R4-C	108	107	106	-4.7	-3.5	-7.1	-3.2	-8.6	-0.19	-0.32	-58.0	-0.28	-0.23	-0.06	0.04
O-1R4-D	111	110	109	-13.5	0.3	-9.5	0.5	-22.5	-0.22	-0.77	-40.2	-0.45	-0.53	-0.27	0.05
O-1R4-E	114	113	112	-23.4	-2.6	1.1	3.8	-26.1	-0.13	-0.82	27.7	-0.28	-0.67	0.28	0.04
O-1R4-F	117	116	115	-1.2	-21.2	0.7	6.3	-24.8	-0.04	-0.75	-65.0	-0.63	-0.17	-0.27	0.04
O-1R4-G	120	119	118	-15.5	-22.0	-1.2	7.0	-23.7	-0.00	-0.71	-58.9	-0.52	-0.19	-0.31	0.04
O-1R4-H	123	122	121	-10.5	-18.3	-8.5	-0.6	-18.4	-0.20	-0.61	-48.2	-0.43	-0.38	-0.20	0.06
O-1R4-J	126	125	124	-11.2	-22.3	-15.1	-3.8	-22.5	-0.35	-0.78	-39.1	-0.52	-0.61	-0.21	0.04
O-1R5-A	129	128	127	-22.3	-22.0	-20.1	-19.8	-22.6	-0.88	-0.94	18.1	-0.88	-0.93	0.02	0.06
O-1R5-B	132	131	130	-16.1	-18.1	-15.4	-13.4	-18.1	-0.62	-0.73	40.3	-0.67	-0.68	0.05	0.06
O-1R5-C	135	134	133	-14.6	-17.8	-16.9	-13.4	-18.1	-0.62	-0.73	59.8	-0.70	-0.65	0.05	0.06
O-1R5-D	138	137	136	-11.8	-18.7	-24.4	-11.8	-24.4	-0.63	-0.92	87.2	-0.92	-0.63	0.01	0.05
O-1R5-E	141	140	139	-15.4	-8.6	-17.9	-8.5	-24.8	-0.52	-0.90	-49.4	-0.74	-0.68	-0.19	0.05
O-1R5-F	144	143	142	-15.3	-12.4	-9.6	-9.6	-15.3	-0.47	-0.60	89.6	-0.60	-0.47	0.00	0.07
O-1R5-G	147	146	145	-6.7	-9.3	-8.7	-5.7	-9.6	-0.28	-0.37	-29.8	-0.31	-0.35	-0.04	0.07
O-1R5-H	150	149	148	-6.0	-8.2	-13.2	-5.7	-13.4	-0.32	-0.50	10.8	-0.33	-0.49	0.03	0.06

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	FMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
0-1R5-J	153	152	151	5.0	-5.4	-6.6	6.6	-8.2	0.14	-0.20	-19.2	0.10	-0.17	-0.11	0.04
0-2R1-A	168	167	166	21.9	14.9	7.3	21.9	7.3	0.79	0.46	-88.5	0.46	0.79	-0.01	0.06
0-2R1-B	171	170	169	39.6	25.1	3.2	40.0	2.8	1.34	0.49	-84.2	0.50	1.34	-0.09	0.05
0-2R1-C	174	173	172	8.9	33.3	19.9	34.1	-5.3	1.07	0.16	-36.9	0.74	0.49	-0.44	0.07
0-2R1-D	177	176	175	32.4	36.1	29.2	36.4	25.3	1.45	1.19	-53.4	1.28	1.36	-0.12	0.12
0-2R1-E	180	179	178	14.5	17.5	21.6	21.7	14.5	0.86	0.69	4.6	0.86	0.69	0.01	0.10
0-2R1-F	183	182	181	8.2	9.5	46.2	53.2	1.2	1.77	0.57	66.5	0.76	1.58	0.44	0.08
0-2R1-G	186	185	184	9.5	17.1	7.6	17.2	-0.1	0.57	0.17	41.7	0.39	0.34	0.20	0.04
0-2R1-H	189	188	187	-0.7	22.5	13.0	23.9	-11.6	0.67	-0.14	56.4	0.11	0.42	0.38	0.04
0-2R1-J	192	191	190	-5.7	18.9	13.6	21.8	-13.9	0.58	-0.24	61.4	-0.05	0.39	0.35	0.04
0-2R1-K	195	194	193	-13.7	10.1	11.7	15.9	-17.9	0.35	-0.43	69.4	-0.34	0.25	0.20	0.05
0-2R1-L	198	197	196	-57.3	-9.6	3.0	4.4	-38.7	-0.24	-1.23	79.8	-1.20	-0.27	0.17	0.06
0-2R2-A	201	200	199	1.8	2.2	3.6	3.8	1.7	0.14	0.09	16.3	0.14	0.10	0.01	0.04
0-2R2-B	204	203	202	2.0	0.8	-3.5	2.4	-3.9	0.04	-0.11	-75.6	-0.10	0.03	-0.03	0.04
0-2R2-C	207	206	205	0.1	-1.1	-7.7	0.9	-8.5	-0.05	-0.27	-72.7	-0.25	-0.07	-0.06	0.04
0-2R2-D	210	209	208	-12.6	9.8	3.0	11.8	-21.5	0.18	-0.59	-31.0	-0.03	-0.39	-0.34	0.04
0-2R2-E	213	212	211	-27.2	9.3	4.4	14.6	-37.5	0.11	-1.09	-26.3	-0.12	-0.85	-0.48	0.04
0-2R2-F	216	215	214	-28.2	13.5	8.0	19.6	-39.9	0.25	-1.12	18.7	0.11	-6.98	0.42	0.04
0-2R2-G	219	218	217	-34.2	4.7	6.7	13.8	-41.3	0.05	-1.22	69.0	-1.06	-0.12	0.42	0.06
0-2R2-H	222	221	220	-34.4	-10.2	5.4	5.8	-34.9	-0.15	-1.09	83.9	-1.08	-0.16	0.10	0.06
0-2R2-J	225	224	223	-29.9	-18.1	2.2	2.8	-30.4	-0.21	-0.98	-82.6	-0.96	-0.22	-0.10	0.05
0-2R2-K	228	227	226	-21.1	-18.2	-0.3	2.1	-22.6	-0.16	-0.76	-72.1	-0.70	-0.22	-0.17	0.06
0-2R2-L	231	230	229	-93.9	-51.2	-9.9	-9.9	-93.9	-1.25	-3.19	89.6	-3.19	-1.25	0.01	0.06
0-2R3-A	234	233	232	-11.4	-12.2	-6.2	-4.5	-13.1	-0.28	-0.48	26.3	-0.32	-0.44	0.08	0.05
0-2R3-B	237	236	235	-17.1	-13.5	-5.5	-5.1	-17.5	-0.34	-0.63	10.2	-0.35	-0.42	0.05	0.06
0-2R3-C	240	239	238	-17.7	-11.0	-13.1	-10.4	-20.4	-0.54	-0.77	-31.2	-0.61	-0.71	-0.10	0.09
0-2R3-D	243	242	241	-19.2	-7.6	-4.3	-3.2	-20.3	-0.31	-0.70	-14.4	-0.33	-0.58	-0.10	0.04
0-2R3-E	246	245	244	-23.2	-3.3	-1.8	1.7	-26.7	-0.21	-0.86	-20.3	-0.29	-0.78	-0.21	0.05
0-2R3-F	249	248	247	-30.8	-12.0	2.4	2.5	-31.0	-0.22	-1.00	41.1	-0.56	-0.66	0.38	0.06
0-2R3-G	252	251	250	-30.4	-19.4	3.2	4.2	-31.4	-0.17	-0.99	-80.3	-0.97	-0.19	-0.14	0.04
0-2R3-H	255	254	253	-27.3	-23.7	2.2	6.0	-21.1	-0.11	-0.96	-71.4	-0.88	-0.20	-0.26	0.05
0-2R3-J	258	257	256	-21.2	-28.1	-1.4	8.2	-30.8	-0.03	-0.93	-60.3	-0.71	-0.25	-0.39	0.04
0-2R3-K	261	260	259	-15.2	-26.5	-2.6	9.8	-27.6	0.05	-0.81	-54.9	-0.53	-0.24	-0.41	0.05
0-2R3-L	264	263	262	-59.4	-53.2	-5.4	1.6	-66.5	-0.60	-2.18	-71.2	-2.01	-0.77	-0.46	0.07
0-2R4-A	267	266	265	-17.4	-15.4	-11.7	-11.6	-17.6	-0.56	-0.69	8.5	-0.56	-0.69	0.02	0.08
0-2R4-B	270	269	268	-19.5	-11.6	-9.3	-8.6	-20.2	-0.48	-0.75	-14.4	-0.50	-0.73	-0.06	0.07
0-2R4-C	273	272	271	-12.6	-3.5	-9.1	-3.3	-18.4	-0.29	-0.64	-38.4	-0.42	-0.50	-0.17	0.06
0-2R4-D	276	275	274	-14.3	1.7	-8.9	2.0	-25.2	-0.18	-0.81	-39.2	-0.43	-0.56	-0.31	0.05
0-2R4-E	279	278	277	-5.8	-23.0	1.6	19.1	-23.4	0.40	-0.58	85.0	-0.57	0.39	0.09	0.04
0-2R4-F	282	281	280	-20.2	-17.0	2.7	5.4	-22.9	-0.05	-0.70	-72.1	-0.64	-0.11	-0.19	0.06
0-2R4-G	285	284	283	-12.9	-18.4	-7.8	3.8	-19.5	-0.07	-0.61	-57.9	-0.45	-0.22	-0.24	0.06
0-2R4-H	288	287	286	-9.8	-14.1	-7.7	-3.3	-14.2	-0.25	-0.50	-50.7	-0.40	-0.35	-0.12	0.07
0-2R4-J	291	290	289	-9.3	-21.3	-12.2	-0.2	-21.4	-0.22	-0.71	-41.1	-0.43	-0.50	-0.24	0.04
0-2R5-A	294	293	292	-24.4	-24.1	-21.7	-21.3	-24.7	-0.95	-1.03	-71.0	-1.02	-0.96	-0.02	0.05
0-2R5-B	297	296	295	-15.0	-18.3	-17.6	-13.9	-18.7	-0.64	-0.75	-28.5	-0.67	-0.73	-0.05	0.07
0-2R5-C	300	299	298	-19.3	-16.0	-14.9	-14.6	-19.6	-0.68	-0.79	76.5	-0.78	-0.68	0.03	0.05
0-2R5-D	303	302	301	-26.6	-18.4	-11.5	-11.5	-26.7	-0.64	-0.99	87.4	-0.99	-0.64	0.02	0.07
0-2R5-E	306	305	304	-23.1	-17.9	-11.2	-11.1	-23.2	-0.60	-0.87	-86.5	-0.87	-0.60	-0.02	0.06
0-2R5-F	309	308	307	-18.4	-14.2	-11.5	-11.4	-18.5	-0.54	-0.72	83.4	-0.72	-0.56	0.02	0.07
0-2R5-G	312	311	310	-10.1	-12.2	-13.8	-10.1	-13.8	-0.47	-0.56	-4.0	-0.47	-0.55	-0.01	0.11
0-2R5-H	315	314	313	-11.0	-9.2	-12.8	-9.0	-14.8	-0.44	-0.58	36.0	-0.40	-0.53	0.06	0.06
0-2R5-J	318	317	316	3.4	-6.9	-12.3	3.8	-12.7	0.09	-0.28	-8.9	-0.01	-0.37	-0.06	0.06
I-1R1-A	328	329	330	-14.2	-18.0	-24.3	-14.1	-24.4	-0.71	-0.95	6.8	-0.71	-0.94	-0.03	0.06
I-1R1-B	331	332	333	-3.2	-20.8	-38.2	-3.2	-38.2	-0.48	-1.29	-0.2	-0.48	-1.29	-0.00	0.11
I-1R1-C	334	335	336	7.5	-39.2	-75.8	7.8	-76.1	-0.50	-2.43	-2.4	-0.50	-2.42	-0.12	0.06
I-1R1-D	337	338	339	0.5	-38.6	-74.9	0.5	-74.9	-0.73	-2.47	-1.0	-0.73	-2.46	-0.03	0.08

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI				TAU	CONF.	
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)			SIG(T)
I-1R1-E	340	341	342	2.1	-42.8	-45.7	10.1	-53.6	-0.20	-1.67	-20.6	-0.38	-1.48	-0.48	0.07
I-1R1-F	343	344	345	4.9	-11.5	-22.6	5.2	-22.9	-0.05	-0.70	-50.5	-0.44	-0.32	-0.32	0.06
I-1R1-G	346	347	348	-0.9	-25.9	-18.0	9.1	-27.9	0.02	-0.23	58.7	-0.60	-0.21	0.30	0.05
I-1R1-H	349	350	351	-15.9	-31.4	-11.9	3.7	-31.5	-0.19	-1.00	41.7	-0.55	-0.64	0.40	0.07
I-1R1-J	352	353	354	-23.3	-29.0	-7.3	0.5	-31.2	-0.29	-1.02	29.9	-0.47	-0.84	0.32	0.06
I-1R1-K	355	356	357	-12.0	-20.3	-15.5	-7.0	-20.6	-0.43	-0.75	52.6	-0.63	-0.55	0.15	0.06
I-1R1-L	358	359	360	-9.5	-15.5	-1.9	4.7	-16.2	-0.00	-0.49	34.3	-0.16	-0.33	0.22	0.02
I-1R2-A	361	362	363	-3.2	4.0	-1.8	4.0	-9.0	0.04	-0.26	48.0	-0.12	-0.09	0.15	0.04
I-1R2-B	364	365	366	-3.9	-0.4	-0.3	0.4	-4.6	-0.03	-0.15	68.2	-0.13	-0.05	0.04	0.06
I-1R2-C	367	368	369	-4.3	-9.5	-1.8	3.6	-9.7	0.02	-0.28	-50.6	-0.16	-0.10	-0.15	0.05
I-1R2-D	370	371	372	-10.0	-14.5	-13.5	-8.5	-15.0	-0.43	-0.58	-28.7	-0.46	-0.54	-0.06	0.07
I-1R2-E	373	374	375	-6.1	-29.5	-20.4	4.4	-31.0	-0.16	-0.98	-33.1	-0.40	-0.73	-0.37	0.07
I-1R2-F	376	377	378	-7.1	-36.2	-20.4	9.6	-37.2	-0.05	-1.13	-81.7	-1.11	-0.07	-0.15	0.08
I-1R2-G	379	380	381	-0.4	-29.8	-16.6	4.2	-30.2	-0.16	-0.95	51.0	-0.64	-0.48	0.39	0.07
I-1R2-H	382	383	384	-0.3	-15.5	-12.2	4.8	-17.3	-0.01	-0.52	61.4	-0.41	-0.13	0.21	0.05
I-1R2-J	385	386	387	8.8	-6.9	-12.5	10.0	-13.7	0.19	-0.35	77.3	-0.33	0.17	0.12	0.04
I-1R2-K	388	389	390	15.2	-8.2	-26.4	15.3	-26.6	0.24	-0.75	86.5	-0.72	0.24	0.06	0.04
I-1R2-L	391	392	393	9.6	0.1	1.4	12.2	-1.2	0.39	0.08	63.6	0.14	0.33	0.12	0.04
I-1R3-A	394	395	396	3.0	4.7	6.3	6.3	3.0	0.24	0.16	88.4	0.16	0.24	0.00	0.05
I-1R3-B	397	398	399	6.5	2.9	12.7	17.0	2.2	0.58	0.24	-57.2	0.34	0.46	-0.16	0.07
I-1R3-C	400	401	402	3.4	9.4	21.0	21.5	2.9	0.74	0.31	-81.1	0.32	0.73	-0.07	0.05
I-1R3-D	403	404	405	-1.5	8.9	25.4	25.8	-1.9	0.83	0.19	-83.6	0.20	0.82	-0.07	0.06
I-1R3-E	406	407	408	1.3	9.6	20.7	20.8	1.2	0.70	0.25	-85.9	0.25	0.70	-0.03	0.05
I-1R3-F	409	410	411	4.0	9.5	15.5	15.5	4.0	0.55	0.29	46.1	0.41	0.42	0.13	0.05
I-1R3-G	412	413	414	7.2	12.3	14.5	14.8	7.0	0.56	0.38	-10.7	0.55	0.38	-0.03	0.06
I-1R3-H	415	416	417	9.9	11.8	10.0	11.8	8.0	0.47	0.38	-44.3	0.43	0.42	-0.04	0.10
I-1R3-J	418	419	420	7.4	7.6	0.3	9.0	-1.3	0.28	0.05	-66.6	0.08	0.25	-0.09	0.03
I-1R3-K	421	422	423	3.2	2.0	-13.4	5.8	-16.0	0.03	-0.47	-69.7	-0.41	-0.03	-0.16	0.05
I-1R3-L	424	425	426	-2.3	-5.4	-1.3	1.8	-5.4	0.01	-0.16	41.0	-0.07	-0.09	0.08	0.04
I-1R4-A	427	428	429	16.8	5.3	0.2	17.4	-0.4	0.57	0.16	-10.7	0.56	0.17	-0.07	0.07
I-1R4-B	430	431	432	13.2	5.5	12.2	19.8	5.5	0.71	0.38	-43.1	0.55	0.53	-0.17	0.05
I-1R4-C	433	434	435	4.9	12.8	25.7	26.0	4.6	0.90	0.41	-83.1	0.42	0.89	-0.06	0.05
I-1R4-D	436	437	438	7.7	13.5	27.4	28.2	6.9	1.00	0.51	-78.8	0.53	0.98	-0.09	0.07
I-1R4-E	439	440	441	4.3	20.2	26.8	27.7	3.4	0.95	0.38	33.8	0.77	0.56	0.26	0.04
I-1R4-F	442	443	444	4.5	22.0	16.8	23.6	-2.3	0.75	0.16	-30.8	0.60	0.31	-0.26	0.03
I-1R4-G	445	446	447	-0.1	13.1	10.1	14.6	-4.5	0.44	-0.00	-28.8	0.33	0.10	-0.10	0.03
I-1R4-H	448	449	450	-12.5	5.0	7.3	9.9	-15.0	0.18	-0.40	-18.7	0.12	-0.34	-0.17	0.04
I-1R4-J	451	452	453	-17.2	-6.6	8.6	8.9	-17.4	0.12	-0.49	5.2	0.11	-0.48	0.05	0.04
I-1R5-A	454	455	456	26.6	13.4	-3.2	26.7	-3.3	0.85	0.16	3.2	0.85	0.16	0.04	0.04
I-1R5-B	457	458	459	19.4	19.3	12.9	20.7	11.7	0.80	0.59	21.9	0.77	0.62	0.07	0.05
I-1R5-C	460	461	462	10.3	18.9	30.3	30.4	10.2	1.10	0.64	-86.0	0.64	1.10	-0.03	0.08
I-1R5-D	463	464	465	13.1	22.2	30.4	30.4	13.1	1.13	0.75	88.5	0.73	1.13	0.01	0.06
I-1R5-E	466	467	468	15.6	20.5	27.4	27.5	15.7	1.06	0.79	-84.6	0.79	1.06	-0.03	0.05
I-1R5-F	469	470	471	14.8	14.0	12.2	14.9	12.2	0.61	0.55	-80.1	0.55	0.61	-0.01	0.05
I-1R5-G	472	473	474	4.6	5.7	8.2	8.3	4.5	0.32	0.22	11.0	0.32	0.23	0.02	0.04
I-1R5-H	475	476	477	-6.6	5.1	12.7	12.9	-6.8	0.36	-0.10	-5.9	0.35	-0.09	-0.05	0.04
I-1R5-J	478	479	480	-12.9	5.2	16.4	16.8	-13.2	0.42	-0.27	-6.5	0.42	-0.26	-0.08	0.02
I-2R1-A	493	494	495	-17.7	-24.8	-34.0	-17.6	-34.0	-0.92	-1.30	3.7	-0.92	-1.29	0.02	0.08
I-2R1-B	496	497	498	-0.8	-19.7	-37.5	-0.8	-37.5	-0.40	-1.25	-0.8	-0.40	-1.25	-0.01	0.05
I-2R1-C	499	500	501	-2.6	-32.9	-66.4	-2.6	-66.5	-0.74	-2.22	1.5	-0.74	-2.22	0.04	0.06
I-2R1-D	502	503	504	-2.5	-44.6	-80.1	-2.4	-80.2	-0.87	-2.67	-2.4	-0.87	-2.66	-0.09	0.07
I-2R1-E	505	506	507	1.5	-25.0	-43.8	1.8	-44.1	-0.38	-1.44	-4.8	-0.38	-1.43	-0.09	0.05
I-2R1-F	508	509	510	5.6	-8.6	-21.1	5.6	-21.2	-0.02	-0.64	-46.8	-0.35	-0.31	-0.31	0.06
I-2R1-G	511	512**	513	0.6	0.0	-16.4	3.7	-19.4	-0.07	-0.60	-68.6	-0.53	-0.14	-0.18	0.04
I-2R1-H	514	515	516	-15.8	-31.8	-11.8	4.4	-31.9	-0.17	-1.01	41.8	-0.54	-0.64	0.42	0.06
I-2R1-J	517	518	519	-19.2	-23.0	-7.9	-2.5	-24.5	-0.33	-0.83	29.5	-0.45	-0.71	0.22	0.05

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	F(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-2R1-K	520	521	522	-4.4	-18.2	-15.9	-0.3	-20.0	-0.21	-0.66	62.7	-0.57	-0.30	0.19	0.00
I-2R1-L	523	524	525	-5.5	-10.9	-7.3	-1.8	-11.0	-0.17	-0.38	50.8	-0.50	-0.25	0.10	0.06
I-2R2-A	526	527	528	-7.3	-2.4	-8.3	-2.4	-13.3	-0.21	-0.46	42.5	-0.32	-0.35	0.13	0.08
I-2R2-B	529	530	531	-3.1	-0.6	-3.3	-0.6	-5.8	-0.08	-0.20	44.2	-0.13	-0.14	0.06	0.06
I-2R2-C	532	533	534	-7.3	-0.0	3.3	3.7	-7.7	0.05	-0.22	79.8	-0.21	0.04	0.05	0.00
I-2R2-D	535	536	537	-12.4	-14.3	-1.7	1.9	-16.0	-0.10	-0.51	-63.2	-0.43	-0.18	-0.17	0.04
I-2R2-E	538	539	540	-8.7	-30.5	-22.9	0.5	-32.1	-0.30	-1.05	-32.1	-0.51	-0.24	-0.34	0.07
I-2R2-F	541	542	543	-10.9	-35.3	-22.4	2.8	-36.1	-0.26	-1.16	-81.5	-1.14	-0.28	-0.13	0.04
I-2R2-G	544	545	546	-5.9	-23.9	-15.7	3.1	-24.7	-0.14	-0.78	55.2	-0.58	-0.35	-0.30	0.04
I-2R2-H	547	548	549	5.2	-9.5	-12.0	7.2	-14.0	0.10	-0.39	72.2	-0.34	0.05	0.14	0.00
I-2R2-J	550	551	552	12.9	-7.1	-15.1	14.2	-16.4	0.31	-0.40	78.3	-0.37	0.28	0.14	0.04
I-2R2-K	553	554	555	20.0	-4.7	-26.9	20.0	-26.9	0.39	-0.69	88.5	-0.69	0.39	0.03	0.07
I-2R2-L	556	557	558	14.1	0.6	-2.5	15.6	-4.0	0.48	0.02	73.9	0.06	0.44	0.12	0.02
I-2R3-A	559*	560	561	11.4	5.1	5.9	13.2	4.2	0.47	0.27	-26.1	0.43	0.31	-0.08	0.18
I-2R3-B	562	563	564	3.8	3.4	11.9	13.8	1.9	0.47	0.20	-66.0	0.24	0.43	-0.10	0.06
I-2R3-C	565	566	567	9.3	4.4	17.4	23.2	3.5	0.80	0.34	-57.2	0.48	0.67	-0.21	0.04
I-2R3-D	568	569	570	1.4	13.5	24.8	24.8	1.4	0.83	0.29	89.0	0.29	0.83	0.01	0.00
I-2R3-E	571	572	573	2.4	11.6	21.8	21.8	2.3	0.74	0.29	-88.7	0.29	0.74	-0.01	0.08
I-2R3-F	574	575	576	5.3	14.0	16.5	17.3	4.5	0.62	0.32	30.8	0.54	0.40	0.13	0.07
I-2R3-G	577	578	579	6.1	12.3	13.1	14.0	5.1	0.51	0.31	-19.0	0.49	0.33	-0.06	0.06
I-2R3-H	580	581	582	6.8	8.5	7.1	8.6	5.4	0.33	0.26	-43.0	0.30	0.30	-0.04	0.07
I-2R3-J	583	584	585	3.3	1.4	-2.6	3.5	-2.8	0.09	-0.06	-80.7	-0.05	0.08	-0.02	0.03
I-2R3-K	586	587	588	-0.7	-5.2	-13.7	-0.4	-14.0	-0.15	-0.46	-81.7	-0.46	-0.16	-0.04	0.00
I-2R3-L	589	590	591	-5.2	-5.4	-1.8	-0.9	-6.1	-0.09	-0.21	24.2	-0.11	-0.19	0.04	0.05
I-2R4-A	592	593	594	14.8	4.4	-3.6	14.9	-3.7	0.45	0.02	-34.8	0.45	0.02	-0.02	0.04
I-2R4-B	595	596	597	13.1	4.0	10.4	19.6	3.9	0.68	0.32	-40.1	0.53	0.47	-0.18	0.05
I-2R4-C	598	599	600	9.4	13.5	23.9	24.5	8.8	0.89	0.53	-78.1	0.55	0.88	-0.07	0.08
I-2R4-D	601	602	603	8.5	15.2	28.9	29.5	7.9	1.05	0.55	-80.4	0.57	1.04	-0.09	0.05
I-2R4-E	604	605	606	6.4	21.8	28.0	29.0	5.4	1.01	0.47	33.4	0.84	0.62	0.25	0.07
I-2R4-F	607	608	609	8.2	25.5	20.9	27.2	1.9	0.91	0.33	-29.9	0.77	0.48	-0.25	0.05
I-2R4-G	610	611	612	1.5	15.8	13.3	17.7	-2.2	0.55	0.08	-27.4	0.45	0.18	-0.19	0.02
I-2R4-H	613	614	615	-11.2	4.7	9.5	10.6	-12.3	0.23	-0.30	-12.9	0.20	-0.27	-0.12	0.04
I-2R4-J	616	617	618	-12.3	-1.5	6.6	6.7	-12.4	0.10	-0.34	-4.0	0.10	-0.34	-0.02	0.02
I-2R5-A	619	620	621	28.4	13.5	-6.0	28.6	-6.2	0.88	0.08	3.8	0.88	0.08	0.05	0.05
I-2R5-B	622	623	624	19.9	12.3	10.8	20.8	9.8	0.78	0.53	-16.9	0.76	0.55	-0.07	0.07
I-2R5-C	625	626	627	1.7	14.7	26.5	26.5	1.6	0.89	0.32	88.6	0.32	0.89	0.01	0.06
I-2R5-D	628	629	630	12.1	19.8	25.6	25.7	12.1	0.57	0.65	86.2	0.65	0.96	0.02	0.06
I-2R5-E	631	632	633	13.5	19.4	20.4	21.2	12.8	0.82	0.63	72.7	0.65	0.81	0.06	0.05
I-2R5-F	634	635	636	14.5	10.2	11.1	14.0	9.7	0.62	0.48	61.8	0.51	0.59	0.06	0.05
I-2R5-G	637	638	639	5.9	7.1	7.8	7.8	5.8	0.21	0.27	-7.5	0.31	0.27	-0.01	0.04
I-2R5-H	640	641	642	-6.6	3.0	14.0	14.0	-6.7	0.40	-0.08	1.8	0.39	-0.08	0.02	0.00
I-2R5-J	643	644	645	-12.6	5.9	18.7	19.0	-12.9	0.50	-0.24	-5.2	0.49	-0.23	-0.07	0.04
O-1R6-A	156	155	154	2.2	-3.3	-4.1	2.9	-4.9	0.05	-0.13	71.7	-0.11	0.03	0.05	0.04
O-1R6-B	159	158	157	6.8	-2.7	-10.2	6.9	-10.3	0.13	-0.27	86.7	-0.27	0.12	0.02	0.05
O-1R6-C	162	161	160	13.7	0.5	-15.8	13.8	-15.9	0.30	-0.39	-87.0	-0.39	0.30	-0.04	0.05
O-1R6-D	165	164	163	16.5	-1.9	-18.8	16.5	-18.9	0.36	-0.46	88.8	-0.46	0.26	0.02	0.05
O-2R6-A	321	320	319	4.6	-0.2	-2.5	4.8	-2.7	0.13	-0.04	80.3	-0.04	0.13	0.03	0.06
O-2R6-B	324	323	322	10.4	0.0	-9.7	10.5	-9.7	0.25	-0.22	88.9	-0.22	0.25	0.01	0.06
O-2R6-C	327	326	325	-13.6	-0.6	13.3	13.3	-13.6	0.21	-0.32	1.0	0.31	-0.32	0.01	0.03
I-1R6-A	481	482**	483	9.3	0.0	5.1	14.7	-0.3	0.48	0.14	-36.9	0.36	0.26	-0.17	0.04
I-1R6-B	484	485	486	8.9	7.9	9.8	10.9	7.8	0.44	0.37	-54.0	0.39	0.41	-0.05	0.06
I-1R6-C	487	488	489	6.6	9.2	13.9	14.1	6.4	0.53	0.35	-82.1	0.35	0.52	-0.02	0.07
I-1R6-D	490	491	492	6.1	11.6	14.0	15.0	6.0	0.55	0.34	32.9	0.35	0.53	0.03	0.05
I-2R6-A	646	647	648	4.9	5.9	5.4	5.9	4.4	0.24	0.20	55.9	0.21	0.23	0.02	0.07
I-2R6-B	649	650	651	3.9	8.0	12.6	12.6	3.9	0.45	0.25	-88.3	0.25	0.45	-0.01	0.00
I-2R6-C	652	653	654	7.4	12.5	16.0	16.0	7.4	0.60	0.40	84.9	0.40	0.60	0.02	0.05

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI				TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
O-1R7-A	666	665	664	-23.4	-4.9	-4.5	-0.9	-27.0	-0.30	-0.90	23.1	-0.39	-0.81	0.22	0.07
O-1R7-B	663	662	661	-27.1	-6.2	6.3	6.8	-27.6	-0.05	-0.84	38.0	-0.5	-0.54	0.39	0.06
C-1R7-C	660	659	658	-32.9	-5.3	-2.6	1.9	-37.3	-0.31	-1.27	25.4	-0.47	-1.05	0.35	0.05
O-1R7-D	657	656	655	4.7	27.6	25.1	31.2	-1.5	1.01	0.26	19.3	0.93	0.34	0.14	0.07
I-1R7-A	688	689	690	9.4	20.1	27.5	27.6	9.3	1.00	0.58	39.9	0.83	0.75	0.21	0.06
I-1R7-B	685	686	687	2.0	15.1	22.1	22.5	1.5	0.76	0.27	26.4	0.59	0.44	0.23	0.06
I-1R7-C	682	683	684	-1.1	-10.8	-0.9	8.7	-10.8	0.18	-0.27	89.7	-0.27	0.18	0.00	0.02
I-1R7-D	679	680	681	-11.2	-25.3	-35.1	-11.1	-35.3	-0.71	-1.27	-50.1	-1.04	-0.94	-0.28	0.05
O-2R7-A	678	677	676	-24.2	-11.0	-10.2	-7.8	-26.5	-0.52	-0.95	24.2	-0.59	-0.88	0.16	0.06
O-2R7-B	675	674	673	-25.4	-7.0	2.7	3.4	-26.1	-0.15	-0.83	36.3	-0.39	-0.59	0.32	0.04
O-2R7-C	672	671	670	-39.4	-11.3	-0.8	1.1	-41.3	-0.37	-1.35	32.8	-0.66	-1.06	0.45	0.06
O-2R7-D	669	668	667	3.6	26.6	19.9	28.7	-5.1	0.89	0.12	14.4	0.85	0.16	0.19	0.05
I-2R7-A	700	701	702	12.1	24.8	28.1	29.4	10.8	1.08	0.65	29.7	0.97	0.75	0.18	0.04
I-2R7-B	697	698	699	5.6	18.7	26.0	26.4	5.2	0.92	0.43	37.0	0.74	0.61	0.24	0.04
I-2R7-C	694	695	696	2.1	-4.8	2.5	9.3	-4.8	0.26	-0.07	89.2	-0.07	0.26	0.00	0.03
I-2R7-D	691	692	693	-7.2	-43.7	-35.1	5.4	-47.7	-0.29	-1.52	-74.2	-1.43	-0.38	-0.32	0.06

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

IHC002I STOP 0

COMBUSTION T-16, LOAD CASE 10, F2X

NOMINAL LOAD = 1.865E 04

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
Q-101-A	3	7	1	19.9	0.4	-0.3	19.9	-0.3	0.65	0.19	89.0	0.19	0.65	0.01	0.04
Q-101-B	5	5	4	51.7	20.2	6.0	51.7	6.0	1.76	0.71	-89.6	0.71	1.76	-0.01	0.05
Q-101-C	9	9	7	66.9	41.7	14.0	66.9	13.9	2.34	1.12	-88.7	1.12	2.34	-0.03	0.06
Q-101-D	12	11	10	48.3	53.4	48.0	53.4	42.9	2.18	1.94	-45.9	2.06	2.07	-0.12	0.06
Q-101-E	15	14	13	16.4	33.9	41.0	42.0	15.4	1.54	0.92	-11.4	1.51	0.95	-0.12	0.05
Q-101-F	18	17	16	9.3	15.5	19.9	20.0	8.2	0.74	0.47	38.1	0.64	0.57	0.13	0.08
Q-101-G	21	20	19	9.8	25.2	6.2	25.3	-9.2	0.74	-0.05	42.0	0.39	0.30	0.40	0.13
Q-101-H	24	23	22	-9.7	27.9	19.0	32.0	-22.7	0.83	-0.43	60.9	-0.13	0.53	0.54	0.03
Q-101-J	27	26	25	-20.2	23.5	19.0	30.5	-31.7	0.69	-0.74	64.6	-0.48	0.43	0.56	0.04
Q-101-K	30	29	28	-29.0	11.4	21.3	25.6	-33.2	0.51	-0.84	74.4	-0.75	0.42	0.35	0.04
Q-101-L	33	32	31	-104.1	-25.1	-1.7	5.3	-111.2	-0.92	-3.61	75.8	-3.45	-1.09	0.64	0.04
Q-102-A	36	35	34	-0.9	-4.2	1.0	4.5	-4.3	0.11	-0.10	38.8	0.03	-0.02	0.10	0.04
Q-102-B	39	38	37	1.6	0.2	-3.1	1.8	-3.3	0.03	-0.09	-79.4	-0.09	0.02	-0.02	0.03
Q-102-C	42	41	40	2.1	9.5	-2.5	10.0	-9.4	0.24	-0.21	-53.4	-0.05	0.08	-0.21	0.04
Q-102-D	45	44	43	-4.5	17.2	3.8	17.7	-18.3	0.40	-0.43	-38.3	0.08	-0.11	-0.41	0.04
Q-102-E	48	47	46	-35.9	15.5	5.5	21.8	-52.3	0.20	-1.51	-28.0	-0.17	-1.13	-0.71	0.05
Q-102-F	51	50	49	-40.4	16.6	12.0	26.3	-54.7	0.33	-1.54	20.2	0.10	-1.32	0.61	0.04
Q-102-G	54	53	52	-49.4	4.8	8.6	17.8	-57.7	0.02	-1.72	69.5	-1.51	-0.20	0.57	0.04
Q-102-H	57	56	55	-50.8	-12.6	6.7	8.2	-52.3	-0.25	-1.64	80.9	-1.61	-0.28	0.22	0.05
Q-102-J	60	59	58	-42.5	-20.8	2.8	5.4	-45.0	-0.27	-1.43	-77.1	-1.37	-0.33	-0.25	0.06
Q-102-K	63	62	61	-34.4	-23.7	-0.6	0.4	-35.5	-0.34	-1.17	-80.0	-1.14	-0.36	-0.14	0.05
Q-102-L	66	65	64	-127.9	-95.5	-20.7	-16.7	-131.9	-1.05	-4.51	-79.2	-4.42	-1.95	-0.49	0.09
Q-103-A	69	68	67	-13.1	-17.1	-3.0	2.3	-18.4	-0.11	-0.58	30.4	-0.23	-0.46	0.21	0.08
Q-103-B	72	71	70	-23.9	-15.8	-8.7	-8.7	-23.9	-0.52	-0.88	-1.8	-0.52	-0.87	-0.01	0.11
Q-103-C	75	74	73	-22.7	-13.2	-8.8	-8.3	-23.2	-0.50	-0.85	-10.0	-0.51	-0.84	-0.06	0.04
Q-103-D	78	77	76	-22.0	-10.0	-2.3	-2.1	-22.2	-0.29	-0.75	-6.2	-0.29	-0.75	-0.05	0.08
Q-103-E	81	80	79	-37.8	-8.6	0.4	2.9	-40.3	-0.30	-1.30	-14.0	-0.36	-1.24	-0.23	0.06
Q-103-F	84	83	82	-42.4	-20.8	1.7	1.7	-42.4	-0.36	-1.38	45.5	-0.88	-0.86	0.51	0.04
Q-103-G	87	86	85	-40.5	-27.6	1.2	2.7	-42.0	-0.33	-1.36	-79.5	-1.32	-0.36	-0.18	0.05
Q-103-H	90	89	88	-34.1	-33.2	-0.6	5.8	-40.4	-0.21	-1.28	-68.3	-1.13	-0.36	-0.37	0.05
Q-103-J	93	92	91	-27.7	-35.9	-5.3	5.9	-38.9	-0.19	-1.22	-60.0	-0.97	-0.45	-0.45	0.03
Q-103-K	96	95	94	-17.4	-34.5	-10.0	7.5	-34.9	-0.10	-1.08	-50.1	-0.57	-0.50	-0.48	0.06
Q-103-L	99	98	97	-58.1	-61.3	-11.6	-4.4	-75.3	-0.89	-2.53	-71.4	-2.36	-1.06	-0.49	0.04
Q-104-A	102	101	100	-24.4	-18.4	-15.3	-15.1	-24.6	-0.74	-0.96	-8.9	-0.75	-0.96	-0.03	0.08
Q-104-B	105	104	103	-24.3	-12.5	-14.5	-11.0	-27.9	-0.64	-1.03	-27.3	-0.72	-0.95	-0.16	0.06
Q-104-C	108	107	106	-13.7	-5.9	-11.5	-5.8	-19.4	-0.38	-0.70	-40.3	-0.52	-0.57	-0.15	0.12
Q-104-D	111	110	109	-20.1	-0.1	-14.1	0.2	-34.4	-0.33	-1.13	-39.9	-0.66	-0.80	-0.29	0.06
Q-104-E	114	113	112	-29.0	-4.4	-2.1	1.9	-33.1	-0.26	-1.07	25.1	-0.41	-0.93	0.31	0.05
Q-104-F	117	116	115	-25.9	-26.3	-1.0	4.4	-31.3	-0.7	-0.99	-67.1	-0.87	-0.29	-0.20	0.07
Q-104-G	120	119	118	-14.9	-20.1	-3.0	3.7	-21.6	-0.09	-0.68	-59.0	-0.52	-0.25	-0.26	0.04
Q-104-H	123	122	121	-10.3	-18.3	-9.7	-1.7	-18.3	-0.24	-0.62	-46.2	-0.44	-0.42	-0.19	0.05
Q-104-J	126	125	124	-3.7	-17.7	-17.8	-0.8	-20.7	-0.23	-0.69	-22.4	-0.30	-0.62	-0.16	0.06
Q-105-A	129	128	127	-24.3	-23.7	-24.6	-23.7	-25.3	-1.03	-1.07	-49.6	-1.05	-1.05	-0.02	0.05
Q-105-B	132	131	130	-18.5	-22.6	-20.9	-16.5	-22.9	-0.77	-0.92	56.3	-0.87	-0.82	0.07	0.07
Q-105-C	135	134	133	-13.0	-17.4	-16.4	-11.5	-17.9	-0.55	-0.70	61.0	-0.67	-0.59	0.06	0.04
Q-105-D	138	137	136	-13.2	-19.4	-26.4	-13.1	-26.4	-0.69	-1.00	-88.3	-1.00	-0.70	-0.01	0.08
Q-105-E	141	140	139	-14.2	-7.5	-18.7	-7.2	-25.7	-0.49	-0.92	-52.1	-0.76	-0.65	-0.21	0.04
Q-105-F	144	143	142	-16.0	-8.9	-5.8	-5.4	-16.4	-0.34	-0.59	79.2	-0.58	-0.35	0.05	0.05
Q-105-G	147	146	145	-6.4	-6.9	-6.6	-6.1	-6.9	-0.27	-0.29	-39.1	-0.28	-0.28	-0.01	0.05
Q-105-H	150	149	148	-5.6	-7.4	-8.8	-5.6	-8.8	-0.27	-0.35	-4.3	-0.27	-0.34	-0.01	0.05

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI					
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
0-185-J	153	152	151	18.5	1.5	-7.6	10.1	-8.2	0.55	-0.08	-8.5	0.54	-0.07	-0.09	0.12
0-181-A	158	147	166	28.2	18.5	7.8	28.2	7.8	1.01	0.54	-88.7	0.54	1.01	-0.01	0.04
0-181-B	171	170	169	51.4	31.8	3.4	51.8	3.0	1.74	0.61	-84.8	0.62	1.73	-0.10	0.05
0-181-C	174	173	172	62.4	45.7	22.0	62.7	21.7	2.28	1.34	-85.1	1.34	2.27	-0.08	0.06
0-181-D	177	176	175	45.6	53.2	41.0	53.5	33.1	2.09	1.62	-51.5	1.80	1.91	-0.23	0.09
0-181-E	180	179	178	15.2	25.8	33.4	33.5	15.1	1.25	0.83	-4.6	1.25	0.83	-0.03	0.07
0-181-F	183	182	181	7.7	13.4	14.6	15.3	7.1	0.57	0.38	28.2	0.53	0.43	0.08	0.06
0-181-G	186	185	184	4.2	25.4	14.1	26.2	-7.9	0.78	-0.00	53.4	0.28	0.51	0.38	0.04
0-181-H	189	188	187	-13.6	25.5	20.4	31.4	-24.2	0.80	-0.49	64.0	-0.24	0.55	0.51	0.03
0-181-J	192	191	190	-23.7	21.1	23.5	31.6	-31.8	0.73	-0.74	69.0	-0.55	0.54	0.49	0.05
0-181-K	195	194	193	-31.9	10.4	20.4	25.0	-36.5	0.46	-0.95	74.1	-0.85	0.36	0.37	0.05
0-181-L	198	197	196	-95.4	-32.6	4.0	5.4	-96.8	-0.78	-3.14	83.1	-3.10	-0.81	0.28	0.06
0-181-A	201	200	199	0.9	1.7	4.6	4.8	0.6	0.17	0.07	15.2	0.16	0.07	0.02	0.05
0-181-B	204	203	202	2.3	-1.5	-5.2	2.3	-5.2	0.02	-0.15	89.4	-0.15	0.02	0.00	0.03
0-181-C	207	206	205	-2.6	-3.7	-12.2	-1.3	-13.5	-0.18	-0.46	-71.1	-0.43	-0.21	-0.09	0.03
0-181-D	210	209	208	-20.1	12.1	2.7	15.1	-32.5	0.18	-0.92	-30.6	-0.11	-0.64	-0.48	0.06
0-181-E	213	212	211	-43.0	11.1	6.9	20.3	-56.3	0.11	-1.66	-24.7	-0.20	-1.35	-0.67	0.04
0-181-F	216	215	214	-49.5	14.6	14.3	27.7	-62.9	0.29	-1.30	22.4	-0.01	-1.50	0.74	0.04
0-181-G	219	218	217	-57.3	1.1	10.7	18.6	-65.1	-0.03	-1.96	72.2	-1.78	-0.21	0.56	0.06
0-181-H	222	221	220	-53.2	-17.7	7.7	8.1	-53.6	-0.26	-1.69	85.3	-1.68	-0.27	0.12	0.07
0-181-J	225	224	223	-43.8	-25.0	3.5	4.0	-44.3	-0.31	-1.42	-84.2	-1.41	-0.32	-0.11	0.04
0-181-K	228	227	226	-33.1	-25.5	0.4	2.7	-35.4	-0.26	-1.14	-75.7	-1.09	-0.31	-0.21	0.06
0-181-L	231	230	229	-151.2	-77.9	-9.7	-9.7	-151.3	-1.81	-5.08	89.0	-5.08	-1.82	0.06	0.10
0-181-A	234	233	232	-14.9	-16.0	-7.1	-4.6	-17.4	-0.32	-0.62	26.1	-0.38	-0.56	0.12	0.07
0-181-B	237	236	235	-23.4	-14.1	-4.2	-4.2	-23.4	-0.37	-0.81	0.8	-0.37	-0.81	0.01	0.05
0-181-C	240	239	238	-21.0	-13.3	-14.3	-17.2	-23.1	-0.63	-0.88	-26.2	-0.68	-0.83	-0.10	0.06
0-181-D	243	242	241	-23.2	-0.8	-5.8	-4.6	-24.4	-0.39	-0.85	-14.1	-0.42	-0.82	-0.11	0.04
0-181-F	246	245	244	-31.4	-2.6	-2.0	3.7	-37.1	-0.25	-1.19	-22.0	-0.38	-1.06	-0.23	0.08
0-181-G	249	248	247	-37.3	-13.6	3.8	4.1	-37.6	-0.24	-1.20	40.7	-0.64	-0.79	0.48	0.06
0-181-H	252	251	250	-42.1	-25.2	3.2	3.9	-42.9	-0.30	-1.37	-62.9	-1.36	-0.31	-0.13	0.05
0-181-J	255	254	253	-39.5	-32.7	0.9	4.9	-43.5	-0.27	-1.39	-73.2	-1.29	-0.36	-0.31	0.08
0-181-K	258	257	256	-25.0	-34.0	-5.3	6.1	-36.4	-0.16	-1.14	-58.8	-0.88	-0.42	-0.43	0.05
0-181-L	261	260	259	-19.5	-30.7	-5.3	8.0	-31.8	-0.05	-0.97	-54.7	-0.56	-0.36	-0.43	0.07
0-181-A	264	263	262	-78.4	-68.1	-8.6	-0.8	-86.2	-0.88	-2.85	-72.4	-2.67	-1.06	-0.57	0.06
0-181-B	267	266	265	-21.5	-16.4	-14.0	-13.9	-21.6	-0.67	-0.85	5.0	-0.67	-0.85	0.02	0.06
0-181-C	270	269	268	-25.6	-16.3	-10.4	-10.3	-25.8	-0.59	-0.95	-6.3	-0.60	-0.95	-0.04	0.11
0-181-D	273	272	271	-19.1	-5.3	-13.3	-4.9	-27.4	-0.42	-0.95	-37.5	-0.63	-0.76	-0.25	0.05
0-181-E	276	275	274	-20.4	-1.2	-11.0	-0.5	-31.0	-0.32	-1.03	-36.0	-0.57	-0.78	-0.23	0.06
0-181-F	279	278	277	-4.3	-28.4	-3.3	20.9	-28.4	0.41	-0.73	89.4	-0.73	0.41	0.01	0.06
0-181-G	282	281	280	-22.8	-17.7	1.1	3.0	-24.6	-0.15	-0.78	-74.9	-0.74	-0.19	-0.16	0.06
0-181-H	285	284	283	-12.0	-19.0	-5.3	2.3	-19.5	-0.12	-0.62	-53.9	-0.45	-0.29	-0.24	0.05
0-181-J	288	287	286	-6.7	-16.4	-11.6	-1.5	-16.8	-0.27	-0.57	-35.7	-0.34	-0.45	-0.17	0.03
0-181-K	291	290	289	-1.6	-17.6	-11.0	5.9	-18.5	0.01	-0.55	-33.8	-0.16	-0.38	-0.26	0.04
0-181-A	294	293	292	-28.9	-24.6	-24.0	-24.0	-28.9	-1.08	-1.19	-88.6	-1.19	-1.08	-0.00	0.06
0-181-B	297	296	295	-17.6	-20.5	-21.1	-17.3	-21.4	-0.78	-0.88	-16.8	-0.79	-0.87	-0.03	0.07
0-181-C	300	299	298	-19.8	-15.3	-15.3	-14.3	-20.7	-0.68	-0.82	67.6	-0.80	-0.70	0.05	0.05
0-181-D	303	302	301	-26.3	-19.9	-11.6	-11.6	-26.4	-0.64	-0.98	-86.3	-0.98	-0.64	-0.02	0.06
0-181-E	306	305	304	-25.4	-18.9	-8.3	-8.1	-25.6	-0.52	-0.92	-83.3	-0.92	-0.52	-0.05	0.08
0-181-F	309	308	307	-14.7	-10.7	-9.8	-9.4	-15.2	-0.46	-0.59	73.9	-0.58	-0.47	0.04	0.10
0-181-G	312	311	310	-5.4	-8.4	-8.5	-4.8	-9.1	-0.25	-0.35	-21.1	-0.26	-0.33	-0.03	0.07
0-181-H	315	314	313	-8.6	-8.0	-11.4	-7.6	-12.4	-0.37	-0.46	27.6	-0.40	-0.46	0.05	0.08
0-181-J	318	317	316	15.1	-0.6	-13.1	15.2	-13.2	0.37	-0.28	-3.2	0.37	-0.28	-0.04	0.03
1-181-A	328	329	330	-21.6	-25.5	-35.3	-21.0	-35.9	-1.05	-1.39	11.7	-1.06	-1.38	0.07	0.08
1-181-B	331	332	333	-8.1	-31.3	-53.6	-8.1	-53.6	-0.80	-1.85	-0.6	-0.80	-1.85	-0.01	0.07
1-181-C	334	335	336	6.1	-54.0	-107.6	6.2	-107.7	-0.86	-3.49	-1.6	-0.86	-3.49	-0.07	0.07
1-181-D	337	338	339	4.0	-60.5	-112.8	4.4	-113.1	-0.97	-3.69	-3.0	-0.98	-3.68	-0.14	0.10

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH				STRESS - KSI							
	(1)	(2)	(3)	F(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-1P1-E	340	341	342	4.9	-61.4	-76.0	12.5	-83.5	-0.42	-2.63	-16.3	-0.59	-2.46	-0.60	0.06
I-1P1-F	343	344	345	15.0	-18.5	-48.6	15.0	-48.6	0.01	-1.45	-46.5	-0.76	-0.68	-0.73	0.06
I-1P1-G	346	347	348	7.0	-36.8	-36.1	16.4	-45.5	0.09	-1.34	67.0	-1.12	-0.13	0.51	0.06
I-1P1-H	349	350	351	-18.0	-43.6	-20.5	5.1	-43.7	-0.26	-1.39	46.4	-0.85	-0.80	0.56	0.07
I-1P1-J	352	353	354	-22.9	-34.8	-14.2	-1.7	-35.4	-0.41	-1.18	37.6	-0.70	-0.89	0.38	0.05
I-1P1-K	355	356	357	-4.8	-27.0	-33.4	-2.8	-35.4	-0.44	-1.20	75.5	-1.15	-0.49	0.18	0.09
I-1P1-L	358	359	360	-3.5	-14.1	-1.7	8.9	-14.1	0.15	-0.38	42.8	-0.09	-0.13	0.26	0.05
I-1P2-A	361	362	363	-3.4	5.1	-0.1	5.3	-8.7	0.09	-0.24	51.8	-0.11	-0.04	0.16	0.03
I-1P2-B	364	365	366	-3.5	2.5	1.3	3.2	-5.4	0.05	-0.15	62.2	-0.10	0.01	0.08	0.04
I-1P2-C	367	368	369	-7.8	-5.6	1.6	2.2	-8.5	-0.01	-0.26	-76.0	-0.24	-0.03	-0.06	0.05
I-1P2-D	370	371	372	-14.3	-12.4	-12.7	-12.1	-14.9	-0.55	-0.61	62.3	-0.60	-0.56	0.03	0.08
I-1P2-E	373	374	375	-4.4	-33.2	-27.6	4.8	-36.7	-0.21	-1.16	-28.0	-0.42	-0.95	-0.40	0.08
I-1P2-F	376	377	378	-8.0	-46.9	-31.5	9.8	-49.3	-0.17	-1.53	-78.3	-1.47	-0.22	-0.27	0.06
I-1P2-G	379	380	381	-7.0	-34.7	-20.9	7.9	-35.8	-0.09	-1.10	54.2	-0.76	-0.44	0.48	0.05
I-1P2-H	382	383	384	3.4	-14.8	-19.0	5.4	-21.0	-0.03	-0.64	74.0	-0.59	-0.08	0.16	0.04
I-1P2-J	385	386	387	17.0	-4.9	-21.6	17.1	-21.8	0.35	-0.55	86.2	-0.55	0.34	0.05	0.03
I-1P2-K	388	389	390	27.4	-7.2	-47.4	27.5	-47.5	0.44	-1.29	-87.8	-1.29	0.43	-0.07	0.04
I-1P2-L	391	392	393	11.3	3.4	1.2	12.0	0.4	0.40	0.13	75.6	0.15	0.38	0.06	0.04
I-1P3-A	394	395	396	7.4	8.5	9.7	9.7	7.4	0.39	0.34	-88.2	0.34	0.39	-0.00	0.07
I-1P3-B	397	398	399	12.4	4.5	16.1	24.1	4.3	0.84	0.38	-50.4	0.57	0.65	-0.22	0.06
I-1P3-C	400	401	402	9.3	16.4	37.6	33.5	8.4	1.19	0.61	-79.4	0.63	1.17	-0.10	0.06
I-1P3-D	403	404	405	3.9	17.1	41.4	42.2	3.1	1.42	0.52	-81.8	0.54	1.40	-0.13	0.10
I-1P3-E	406	407	408	4.9	19.5	34.6	34.6	4.9	1.19	0.50	-89.5	0.51	1.19	-0.01	0.07
I-1P3-F	409	410	411	9.4	20.9	27.0	27.4	9.0	0.99	0.57	36.3	0.84	0.72	0.20	0.05
I-1P3-G	412	413	414	12.1	21.2	22.1	23.6	10.6	0.88	0.58	-19.8	0.85	0.62	-0.10	0.05
I-1P3-H	415	416	417	13.7	17.9	12.2	17.9	7.9	0.67	0.44	-49.4	0.54	0.57	-0.11	0.04
I-1P3-J	418	419	420	8.6	9.1	0.2	10.7	-1.9	0.33	0.04	-65.9	0.09	0.28	-0.11	0.04
I-1P3-K	421	422	423	1.0	2.9	-14.3	5.6	-18.8	-0.00	-0.57	-64.4	-0.46	-0.11	-0.22	0.04
I-1P3-L	424	425	426	-6.3	-5.8	-6.7	-5.8	-7.1	-0.26	-0.29	-53.7	-0.28	-0.27	-0.02	0.08
I-1P4-A	427	428	429	21.3	5.9	-0.1	22.3	-1.1	0.72	0.18	-12.0	0.70	0.21	-0.11	0.05
I-1P4-B	430	431	432	17.2	6.2	17.4	28.3	6.2	1.00	0.49	-45.3	0.74	0.74	-0.26	0.04
I-1P4-C	433	434	435	6.7	16.6	34.7	35.3	6.1	1.22	0.55	-82.0	0.56	1.21	-0.09	0.07
I-1P4-D	436	437	438	10.4	17.1	39.0	40.9	8.5	1.43	0.69	-76.0	0.73	1.39	-0.18	0.06
I-1P4-E	439	440	441	8.6	27.8	38.5	39.1	8.0	1.37	0.65	37.1	1.11	0.91	0.34	0.06
I-1P4-F	442	443	444	6.7	31.3	25.5	34.0	-1.8	1.10	0.28	-29.1	0.91	0.47	-0.35	0.03
I-1P4-G	445	446	447	1.6	15.1	15.2	21.1	-4.3	0.65	0.07	-28.8	0.52	0.20	-0.25	0.05
I-1P4-H	448	449	450	-11.9	12.1	13.5	17.8	-15.2	0.43	-0.36	-20.8	0.33	-0.26	-0.26	0.03
I-1P4-J	451	452	453	-15.8	-0.4	12.4	12.5	-15.9	0.25	-0.40	-2.7	0.25	-0.40	-0.03	0.03
I-1P5-A	454	455	456	35.6	16.9	-2.4	35.6	-2.4	1.15	0.27	0.4	1.15	0.27	0.01	0.09
I-1P5-B	457	458	459	24.7	25.7	17.3	27.0	15.0	1.04	0.76	25.8	0.99	0.81	0.11	0.06
I-1P5-C	460	461	462	8.6	23.0	35.5	35.5	8.6	1.26	0.63	88.1	0.64	1.25	0.02	0.07
I-1P5-D	463	464	465	16.9	26.9	33.6	33.8	16.7	1.28	0.89	84.5	0.89	1.28	0.04	0.08
I-1P5-E	466	467	468	17.5	23.4	25.2	15.7	17.0	1.02	0.81	75.7	0.83	1.00	0.05	0.10
I-1P5-F	469	470	471	14.1	13.2	13.0	14.2	12.9	0.60	0.57	73.9	0.57	0.59	0.01	0.08
I-1P5-G	472	473	474	3.4	3.4	11.9	13.6	1.6	0.47	0.19	22.5	0.42	0.23	0.10	0.05
I-1P5-H	475	476	477	-11.9	0.6	11.4	11.4	-11.9	0.26	-0.28	-2.1	0.26	-0.28	-0.02	0.05
I-1P5-J	478	479	480	-14.1	2.3	13.1	13.4	-14.4	0.30	-0.34	-5.8	0.29	-0.34	-0.06	0.05
I-2P1-A	492	494	495	-20.8	-31.8	-48.8	-20.5	-49.1	-1.16	-1.82	6.0	-1.17	-1.81	0.07	0.06
I-2P1-B	496	497	498	-3.9	-26.2	-51.8	-3.9	-51.9	-0.64	-1.75	2.0	-0.64	-1.75	0.04	0.06
I-2P1-C	499	500	501	-3.1	-45.5	-91.5	-3.0	-91.6	-1.01	-3.05	1.2	-1.01	-3.05	0.04	0.07
I-2P1-D	502	503	504	-1.4	-60.8	-116.3	-1.3	-116.3	-1.20	-3.85	-1.0	-1.20	-3.85	-0.05	0.08
I-2P1-E	505	506	507	6.1	-40.3	-70.3	7.0	-71.1	-0.47	-2.28	-6.1	-0.49	-2.26	-0.19	0.06
I-2P1-F	508	509	510	15.2	-20.1	-42.6	15.9	-43.3	0.09	-1.27	-51.2	-0.73	-0.44	-0.67	0.08
I-2P1-G	511	512**	513	6.7	0.0	-35.5	11.1	-39.9	-0.03	-1.21	-72.8	-1.10	-0.13	-0.33	0.08
I-2P1-H	514	515	516	-16.7	-43.7	-22.8	4.4	-43.5	-0.29	-1.40	48.6	-0.92	-0.77	0.55	0.06
I-2P1-J	517	518	519	-19.6	-35.8	-22.8	-6.5	-35.8	-0.57	-1.25	48.1	-0.94	-0.87	0.34	0.05

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	FMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
I-201-K	520	521	522	0.5	-26.3	-24.3	2.9	-26.7	-0.27	-1.18	75.9	-1.13	-0.32	0.22	0.07
I-201-L	523	524	525	-6.9	-15.5	-12.3	-3.1	-16.1	-0.26	-0.56	57.2	-0.47	-0.35	0.14	0.05
I-202-A	525	527	528	-5.2	2.7	-6.1	2.8	-14.0	-0.05	-0.43	43.4	-0.23	-0.25	0.19	0.07
I-202-B	529	530	531	-2.5	6.8	0.6	6.9	-8.8	0.14	-0.22	50.7	-0.08	-0.00	0.18	0.05
I-202-C	532	533	534	-3.1	5.5	13.0	13.0	-3.1	0.40	0.03	88.0	0.03	0.40	0.01	0.06
I-202-D	535	536	537	-12.9	-11.5	5.0	7.8	-15.6	0.10	-0.44	-69.8	-0.37	0.04	-0.18	0.03
I-202-E	538	539	540	-8.4	-34.4	-26.4	1.8	-36.6	-0.30	-1.19	-31.0	-0.54	-0.95	-0.39	0.06
I-202-F	541	542	543	-12.0	-45.6	-27.9	6.8	-46.8	-0.24	-1.47	-81.4	-1.45	-0.27	-0.18	0.05
I-202-G	544	545	546	-5.0	-29.6	-20.8	5.6	-31.4	-0.13	-0.98	57.7	-0.73	-0.37	0.38	0.07
I-202-H	547	548	549	8.4	-17.7	-19.1	13.1	-23.8	0.20	-0.65	69.0	-0.55	0.09	0.28	0.05
I-202-J	550	551	552	17.7	-10.9	-24.9	19.9	-26.1	0.36	-0.67	80.5	-0.65	0.34	0.17	0.05
I-202-K	553	554**	555	27.3	0.0	-46.1	28.5	-47.3	0.47	-1.28	-82.8	-1.25	0.44	-0.22	0.05
I-202-L	556	557	558	15.1	-2.5	-10.7	17.1	-11.6	0.45	-0.21	79.3	-0.19	0.43	0.12	0.06
I-203-A	559	560	561	6.7	5.1	9.2	10.7	4.7	0.40	0.26	-60.1	0.30	0.36	-0.06	0.11
I-203-B	562	563	564	5.3	3.8	16.6	20.1	1.8	0.68	0.26	-64.2	0.34	0.60	-0.17	0.05
I-203-C	565	565	567	14.1	7.3	25.3	33.3	6.1	1.16	0.53	-57.2	0.71	0.97	-0.29	0.08
I-203-D	568	569	570	2.2	20.1	36.9	26.9	2.2	1.24	0.44	89.2	0.44	1.24	0.01	0.04
I-203-E	571	572	573	7.5	22.6	35.2	35.3	7.5	1.24	0.60	87.5	0.60	1.24	0.03	0.06
I-203-F	574	575	576	8.0	22.4	26.7	28.0	6.8	0.99	0.50	30.9	0.86	0.63	0.22	0.06
I-203-G	577	578	579	10.0	20.1	20.8	22.5	8.3	0.82	0.50	-20.4	0.76	0.54	-0.11	0.06
I-203-H	580	581	582	10.1	14.3	10.1	14.3	5.8	0.53	0.33	-45.0	0.43	0.43	-0.10	0.05
I-203-J	583	584	585	3.1	8.3	-2.9	8.8	-8.6	0.21	-0.20	-55.1	-0.07	0.07	-0.19	0.05
I-203-K	586	587	588	-1.8	-2.1	-16.6	1.1	-19.5	-0.16	-0.63	-68.1	-0.56	-0.22	-0.16	0.05
I-203-L	589	590	591	-9.3	-6.5	-3.6	-3.6	-9.3	-0.21	-0.34	0.0	-0.21	-0.34	0.00	0.07
I-204-A	592	593	594	18.4	4.7	-1.4	19.1	-2.1	0.61	0.12	-19.6	0.59	0.14	-0.09	0.03
I-204-B	595	596	597	16.3	3.7	13.7	26.4	3.6	0.91	0.38	-41.7	0.67	0.61	-0.26	0.08
I-204-C	598	599	600	11.0	11.6	28.2	31.3	7.9	1.11	0.57	-68.6	0.64	1.04	-0.16	0.04
I-204-D	601	602	603	10.2	17.1	36.1	37.4	8.9	1.32	0.66	-77.6	0.69	1.29	-0.14	0.08
I-204-E	604	605	606	5.2	25.7	35.4	35.8	7.8	1.26	0.51	37.9	1.01	0.85	0.31	0.09
I-204-F	607	608	609	8.2	33.3	25.7	35.5	-1.6	1.15	0.30	-30.9	0.93	0.52	-0.38	0.08
I-204-G	610	611	612	-0.2	20.5	19.0	24.1	-5.3	0.74	0.06	-24.6	0.62	0.18	-0.26	0.06
I-204-H	613	614	615	-13.5	5.4	14.2	15.1	-14.4	0.35	-0.33	-10.2	0.33	-0.31	-0.12	0.03
I-204-J	616	617	618	-18.6	0.3	8.6	9.6	-19.6	0.12	-0.55	-10.7	0.10	-0.53	-0.12	0.05
I-205-A	619	620	621	36.3	17.5	-3.1	36.4	-3.1	1.17	0.26	1.3	1.17	0.26	0.02	0.06
I-205-B	622	623	624	27.3	18.9	21.5	30.6	18.2	1.19	0.90	-31.0	1.11	0.98	-0.13	0.10
I-205-C	625	626	627	4.7	21.5	35.9	35.9	4.6	1.23	0.51	87.8	0.51	1.23	0.03	0.06
I-205-D	628	629	630	17.7	27.2	31.1	31.7	17.1	1.21	0.88	78.5	0.89	1.20	0.07	0.05
I-205-E	631	632	633	20.5	24.1	25.3	25.6	20.2	1.04	0.92	76.7	0.93	1.04	0.03	0.05
I-205-F	634	635**	636	17.5	0.0	14.4	32.0	-0.1	1.05	0.31	47.7	0.65	0.72	0.37	0.04
I-205-G	637	638	639	5.9	4.6	10.0	11.8	4.1	0.43	0.25	28.9	0.39	0.29	0.08	0.04
I-205-H	640	641	642	-5.4	0.9	16.1	17.0	-6.3	0.50	-0.04	11.3	0.48	-0.02	0.10	0.04
I-205-J	643	644	645	-11.9	4.9	18.6	18.7	-12.0	0.50	-0.21	-3.0	0.49	-0.21	-0.04	0.05
I-206-A	155	155	154	-8.9	-2.7	5.9	6.0	-9.0	0.11	-0.24	4.6	0.11	-0.23	0.03	0.04
I-206-B	159	153	157	-9.5	-8.2	-4.4	-4.1	-9.8	-0.23	-0.36	13.7	-0.24	-0.36	0.03	0.05
I-206-C	162	161	160	-3.6	-9.8	-12.9	-3.3	-13.1	-0.24	-0.47	80.5	-0.46	-0.25	0.04	0.06
I-206-D	165	164	163	-1.2	-8.4	-15.2	-1.2	-15.2	-0.19	-0.51	89.1	-0.51	-0.19	0.01	0.03
I-206-E	321	320	319	-7.5	-4.0	3.4	3.7	-7.8	0.05	-0.22	9.7	0.04	-0.21	0.04	0.03
I-206-F	324	323	322	-4.0	-6.0	-3.7	-3.7	-8.0	-0.20	-0.30	1.7	-0.20	-0.30	0.00	0.05
I-206-G	327	324	325	-10.6	-7.2	-3.4	-3.4	-10.6	-0.22	-0.38	1.7	-0.22	-0.38	0.00	0.04
I-206-H	481	481**	481	14.0	0.0	-15.3	14.0	-15.3	0.31	-0.37	1.3	0.31	-0.36	0.01	0.03
I-206-I	484	485	486	7.4	-2.7	-11.3	7.5	-11.4	0.13	-0.30	-2.2	0.13	-0.30	-0.02	0.04
I-206-J	487	488	489	12.0	2.9	-8.0	12.1	-8.0	0.32	-0.14	2.5	0.32	-0.14	0.02	0.03
I-206-K	490	491	492	15.3	4.3	-8.6	15.3	-8.6	0.42	-0.13	2.2	0.42	-0.13	0.02	0.02
I-206-L	646	647	648	11.9	-2.5	-15.1	11.9	-15.2	0.24	-0.38	-1.8	0.24	-0.38	-0.02	0.03
I-206-M	649	650	651	10.7	-0.5	-12.7	10.8	-12.7	0.23	-0.31	1.2	0.23	-0.31	0.01	0.05
I-206-N	652	653	654	14.0	1.1	-8.2	14.2	-8.3	0.38	-0.13	-4.7	0.38	-0.13	-0.04	0.05

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI				TAU	CONF
	(1)	(2)	(3)	F(1)	F(2)	F(3)	E _{MAX}	E _{MIN}	S _{MAX}	S _{MIN}	PHI	SIG(I)	SIG(T)		
Q-197-A	655	665	664	-25.6	-8.0	-5.5	-2.9	-28.1	-0.38	-0.96	26.5	-0.49	-0.84	0.23	0.03
Q-197-B	663	662	661	-32.3	-10.1	6.0	6.2	-32.5	-0.12	-1.01	40.5	-0.49	-0.63	0.44	0.03
Q-197-C	660	659	658	-54.1	-10.1	-9.3	-0.6	-62.9	-0.64	-2.08	23.0	-0.86	-1.86	0.52	0.08
Q-197-D	657	656	655	-4.8	35.7	34.6	43.5	-13.8	1.30	-0.02	21.7	1.12	0.16	0.45	0.10
I-197-A	688	689	690	12.5	23.8	35.2	35.2	12.5	1.28	0.76	45.1	1.02	1.02	0.26	0.08
I-197-B	685	686	687	5.8	25.2	36.6	37.1	5.3	1.27	0.54	37.8	1.00	0.82	0.36	0.04
I-197-C	682	683	684	6.1	-2.9	7.8	17.8	-3.9	0.55	0.05	87.8	0.05	0.55	0.02	0.08
I-197-D	679	680	681	-4.1	-35.6	-52.4	-3.0	-53.5	-0.63	-1.79	-53.4	-1.38	-1.04	-0.56	0.06
Q-297-A	678	677	676	-24.7	-10.4	-10.3	-7.4	-27.6	-0.52	-0.98	22.8	-0.59	-0.91	0.17	0.05
Q-297-B	675	674	673	-29.1	-6.9	3.9	4.8	-30.0	-0.14	-0.94	35.5	-0.41	-0.67	0.38	0.05
Q-297-C	672	671	670	-56.0	-17.2	1.1	2.9	-57.8	-0.48	-1.88	35.2	-0.94	-1.41	0.66	0.07
Q-297-D	659	668	667	-3.6	36.5	29.5	41.8	-15.9	1.22	-0.11	17.5	1.10	0.01	0.38	0.05
I-297-A	700	701*	702	11.6	94.8	33.3	95.7	-50.8	2.65	-0.73	4.3	2.63	-0.71	0.25	0.29
I-297-B	697	698	699	5.0	28.7	33.5	36.3	2.1	1.22	0.43	28.3	1.04	0.61	0.33	0.04
I-297-C	694	695	696	4.4	-2.2	6.4	14.1	-3.3	0.43	0.03	86.7	0.03	0.43	0.02	0.03
I-297-D	691	692	693	-6.8	-60.3	-54.2	7.6	-68.6	-0.43	-2.19	-70.7	-2.00	-0.62	-0.55	0.06

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

COMBUSTION T-16, LOAD CASE 11, F2Y

NOMINAL LOAD = 6.339E 02

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)				
Q-1P1-A	3	2	1	13.8	6.9	-1.3	13.8	-1.4	0.44	0.09	-87.5	0.09	0.44	-0.02	0.05		
Q-1P1-B	6	5	4	37.1	19.7	5.2	37.2	5.2	1.28	0.54	87.3	0.54	1.27	0.03	0.08		
Q-1P1-C	9	8	7	31.0	30.5	8.5	35.3	4.2	1.21	0.49	-68.2	0.59	1.11	-0.25	0.11		
Q-1P1-D	12	11	10	33.5	34.2	30.5	34.7	29.3	1.43	1.31	-61.6	1.34	1.41	-0.05	0.08		
Q-1P1-E	15	14	13	14.5	20.6	24.3	24.5	14.7	0.95	0.71	-7.2	0.94	0.72	-0.03	0.07		
Q-1P1-F	18	17	16	9.1	18.6	9.6	18.6	0.1	0.62	0.19	0.7	0.62	0.19	0.01	0.07		
Q-1P1-G	21	20	19	0.5	13.4	11.1	15.1	-3.5	0.46	0.03	62.4	0.13	0.37	0.18	0.05		
Q-1P1-H	24	23	22	7.9	12.2	21.2	21.6	7.5	0.79	0.46	-80.2	0.47	0.78	-0.05	0.07		
Q-1P1-I	27	26	25	-3.5	22.1	10.6	23.4	-16.4	0.61	-0.31	55.4	-0.01	0.31	0.43	0.06		
Q-1P1-K	30	29	28	-11.9	13.4	12.9	18.4	-17.4	0.43	-0.39	66.9	-0.26	0.31	0.30	0.04		
Q-1P1-L	33	32	31	-39.6	-2.2	3.6	8.7	-44.8	-0.16	-1.39	71.9	-1.27	-0.27	0.37	0.05		
Q-1P2-A	36	35	34	0.6	-2.1	-0.1	2.6	-2.1	0.06	-0.04	49.2	0.00	0.02	0.05	0.05		
Q-1P2-B	39	38	37	3.3	1.8	-2.7	3.7	-3.0	0.09	-0.06	-77.0	-0.06	0.08	-0.03	0.04		
Q-1P2-C	42	41	40	4.1	8.3	-4.2	9.3	-9.4	0.21	-0.22	-58.2	-0.10	0.09	-0.19	0.05		
Q-1P2-D	45	44	43	-0.5	13.7	2.2	13.8	-12.1	0.34	-0.26	-42.1	0.07	0.01	-0.30	0.04		
Q-1P2-E	48	47	46	-20.4	11.3	2.0	14.1	-32.6	0.16	-0.94	-30.7	-0.14	-0.65	-0.47	0.05		
Q-1P2-F	51	50	49	-23.3	15.7	6.6	19.9	-36.6	0.30	-1.01	16.0	0.20	-0.91	0.35	0.07		
Q-1P2-G	54	53	52	-29.7	11.2	4.1	16.5	-42.1	0.13	-1.22	62.6	-0.94	-0.16	0.55	0.07		
Q-1P2-H	57	56	55	-32.4	-6.5	3.4	5.1	-34.1	-0.17	-1.07	78.0	-1.03	-0.21	0.18	0.05		
Q-1P2-J	60	59	58	-28.3	-18.2	0.7	1.3	-28.9	-0.24	-0.94	-81.5	-0.92	-0.26	-0.10	0.06		
Q-1P2-K	63	62	61	-20.9	-16.1	-2.6	-1.6	-21.9	-0.27	-0.74	-77.3	-0.71	-0.29	-0.10	0.06		
Q-1P2-L	66	65	64	-73.9	-52.6	-13.8	-12.6	-75.2	-1.16	-2.60	-81.9	-2.57	-1.19	-0.20	0.11		
Q-1P3-A	69	68	67	-12.3	-12.9	0.0	3.0	-15.3	-0.05	-0.47	23.9	-0.12	-0.40	0.16	0.05		
Q-1P3-B	72	71	70	-16.1	-13.0	-8.2	-8.1	-16.2	-0.43	-0.61	6.6	-0.43	-0.61	0.02	0.05		
Q-1P3-C	75	74*	73	-16.5	-1.1	-9.3	-0.6	-25.3	-0.27	-0.84	-36.5	-0.47	-0.64	-0.27	0.07		
Q-1P3-D	78*	77	76	-22.8	-7.3	-3.4	-1.8	-24.4	-0.30	-0.82	-15.4	-0.34	-0.79	-0.13	0.05		
Q-1P3-E	81	80	79	-25.1	-2.7	1.1	3.5	-27.5	-0.16	-0.87	-16.2	-0.21	-0.82	-0.19	0.04		
Q-1P3-F	84	83	82	-27.6	-13.3	2.2	2.3	-27.7	-0.20	-0.89	46.1	-0.56	-0.53	0.24	0.04		
Q-1P3-G	87	86	85	-27.1	-19.3	2.2	3.7	-28.6	-0.16	-0.91	-77.5	-0.87	-0.20	-0.16	0.04		
Q-1P3-H	90	89	88	-22.4	-22.4	0.9	5.8	-27.2	-0.08	-0.84	-67.4	-0.73	-0.19	-0.27	0.02		
Q-1P3-J	93	92	91	-19.2	-22.9	-2.3	4.8	-26.3	-0.10	-0.82	-61.4	-0.66	-0.27	-0.20	0.04		
Q-1P3-K	96	95	94	-12.4	-25.6	-6.5	6.9	-25.9	-0.03	-0.78	-50.1	-0.47	-0.34	-0.37	0.05		
Q-1P3-L	99	98	97	-47.0	-42.4	-9.4	-4.0	-52.4	-0.65	-1.77	-70.4	-1.64	-0.77	-0.35	0.07		
Q-1P4-A	102	101	100	-19.2	-14.1	-11.4	-11.2	-19.4	-0.56	-0.75	-8.8	-0.57	-0.75	-0.03	0.07		
Q-1P4-B	105	104	103	-19.4	-10.5	-12.4	-9.5	-22.3	-0.53	-0.83	-28.4	-0.60	-0.76	-0.12	0.05		
Q-1P4-C	108*	107	106	-6.6	-6.6	-9.1	-6.0	-9.6	-0.29	-0.38	-67.5	-0.37	-0.31	-0.03	0.08		
Q-1P4-D	111	110	109	-17.0	0.1	-12.9	0.2	-30.1	-0.29	-0.99	-41.1	-0.59	-0.69	-0.25	0.04		
Q-1P4-E	114	113	112	-26.5	-5.8	0.3	2.2	-28.4	-0.21	-0.91	30.7	-0.39	-0.73	0.31	0.04		
Q-1P4-F	117	116	115	-21.8	-20.6	-0.2	3.5	-25.4	-0.14	-0.80	-69.1	-0.72	-0.22	-0.22	0.05		
Q-1P4-G	120	119	118	-15.3	-19.5	-1.6	4.5	-21.4	-0.06	-0.66	-60.9	-0.52	-0.20	-0.25	0.05		
Q-1P4-H	123	122	121	-10.2	-17.1	-9.0	-2.1	-17.1	-0.24	-0.59	-47.3	-0.43	-0.40	-0.17	0.06		
Q-1P4-J	126	125	124	-8.6	-17.5	-14.0	-4.5	-18.1	-0.33	-0.64	-33.2	-0.42	-0.55	-0.14	0.06		
Q-1P5-A	129	128	127	-18.2	-19.2	-17.3	-16.3	-19.2	-0.73	-0.79	36.6	-0.75	-0.77	0.03	0.08		
Q-1P5-B	132	131	130	-17.8	-16.9	-16.4	-16.4	-17.8	-0.72	-0.75	-5.7	-0.72	-0.75	-0.00	0.10		
Q-1P5-C	135	134	133	-9.1	-13.5	-14.4	-8.6	-14.9	-0.43	-0.58	73.4	-0.56	-0.44	0.04	0.08		
Q-1P5-D	138	137	136	-10.1	-14.3	-21.3	-9.9	-21.4	-0.54	-0.80	-83.2	-0.80	-0.54	-0.03	0.08		
Q-1P5-E	141*	140	139	-15.6	-6.2	-15.1	-6.2	-24.6	-0.45	-0.87	-44.3	-0.65	-0.66	-0.21	0.05		
Q-1P5-F	144	143	142	-13.2	-7.8	-6.2	-5.7	-13.7	-0.32	-0.51	76.1	-0.50	-0.33	0.04	0.07		
Q-1P5-G	147	146	145	-5.1	-8.2	-7.7	-4.2	-8.6	-0.22	-0.33	-27.4	-0.25	-0.30	-0.04	0.09		
Q-1P5-H	150	149	148	-6.4	-7.1	-11.7	-5.7	-12.3	-0.31	-0.46	18.0	-0.33	-0.45	0.04	0.07		

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	F(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
0-195-J	153	152	151	6.7	-2.1	-5.5	7.3	-6.0	0.18	-0.13	-12.0	0.17	-0.11	-0.06	0.07
0-201-A	168	167	166	23.8	18.1	13.7	23.8	13.6	0.92	0.68	86.5	0.69	0.92	0.01	0.07
0-201-B	171	170	169	37.6	25.3	5.2	38.1	4.8	1.30	0.53	-83.3	0.54	1.29	-0.09	0.05
0-201-C	174	173	172	9.5	32.4	20.0	16.1	-4.6	1.08	0.19	-37.1	0.75	0.51	-0.43	0.05
0-201-D	177	176	175	31.9	32.6	32.0	32.6	31.4	1.38	1.36	-42.4	1.37	1.37	-0.01	0.09
0-201-E	180	179	178	14.3	14.3	24.5	26.7	12.2	1.00	0.67	22.5	0.95	0.71	0.12	0.09
0-201-F	183	182	181	8.2	7.9	45.6	53.5	0.2	1.77	0.54	67.7	0.71	1.59	0.43	0.08
0-201-G	186	185*	184	8.2	16.0	8.7	16.0	0.9	0.54	0.19	46.0	0.36	0.37	0.17	0.05
0-201-H	189*	188	187	7.4	21.2	14.3	21.7	-0.1	0.72	0.21	54.2	0.38	0.54	0.24	0.06
0-201-J	192	191	190	-5.2	19.0	14.7	22.2	-12.6	0.61	-0.20	62.4	-0.02	0.43	0.33	0.05
0-201-K	195	194	193	-12.5	11.1	14.0	17.5	-16.0	0.42	-0.35	71.0	-0.27	0.34	0.24	0.04
0-201-L	198	197	196	-37.9	-13.1	3.4	3.8	-38.3	-0.25	-1.22	84.3	-1.21	-0.26	0.10	0.07
0-202-A	201	200	199	3.5	5.0	5.2	5.4	3.3	0.21	0.16	-18.9	0.21	0.17	-0.02	0.05
0-202-B	204	203	202	3.6	3.1	-6.7	5.4	-8.6	0.09	-0.23	-68.8	-0.19	0.05	-0.11	0.03
0-202-C	207	206	205	2.3	1.5	-4.2	3.1	-5.0	0.05	-0.13	-71.6	-0.12	0.03	-0.06	0.03
0-202-D	210	209	208	-8.7	14.0	5.7	15.6	-18.6	0.33	-0.46	-32.5	0.10	-0.23	-0.26	0.03
0-202-E	213	212	211	-25.3	12.3	8.3	18.2	-35.2	0.25	-0.98	-25.6	0.02	-0.75	-0.48	0.04
0-202-F	216	215	214	-25.8	13.9	12.9	21.7	-34.6	0.37	-0.92	21.8	0.19	-0.75	0.45	0.04
0-202-G	219	218	217	-32.1	6.5	12.2	17.6	-37.6	0.21	-1.06	71.7	-0.94	0.08	0.38	0.07
0-202-H	222	221	220	-32.6	-5.8	10.8	11.4	-33.2	0.05	-0.98	83.4	-0.97	0.03	0.12	0.07
0-202-J	225	224	223	-29.1	-14.8	7.0	7.4	-29.5	-0.05	-0.90	-84.2	-0.89	-0.06	-0.09	0.06
0-202-K	228	227	226	-22.3	-14.4	2.2	3.7	-23.9	-0.11	-0.75	-76.4	-0.71	-0.15	-0.15	0.07
0-202-L	231	230	229	-99.7	-54.9	-7.9	-7.9	-99.7	-1.25	-3.36	-89.3	-3.36	-1.25	-0.02	0.13
0-203-A	234	233	232	-12.8	-13.0	-4.5	-2.6	-14.7	-0.23	-0.51	23.1	-0.27	-0.47	0.10	0.05
0-203-B	237	236	235	-17.4	-13.1	-7.4	-7.3	-17.4	-0.41	-0.65	4.4	-0.41	-0.64	0.02	0.05
0-203-C	240	239	238	-17.6	-13.1	-13.1	-12.2	-18.5	-0.59	-0.73	-22.7	-0.51	-0.71	-0.05	0.06
0-203-D	243	242	241	-19.6	-8.9	-2.7	-2.4	-19.8	-0.28	-0.68	-7.3	-0.28	-0.67	-0.05	0.05
0-203-E	246	245	244	-24.2	-2.2	-3.1	1.9	-29.2	-0.23	-0.94	-23.6	-0.34	-0.83	-0.26	0.08
0-203-F	249	248	247	-31.8	-12.7	4.7	4.7	-31.8	-0.16	-1.00	43.6	-0.56	-0.60	0.42	0.06
0-203-G	252	251	250	-32.1	-20.8	5.5	6.9	-33.5	-0.10	-1.04	-79.1	-1.00	-0.14	-0.17	0.06
0-203-H	255	254	253	-37.0	-26.0	4.9	7.2	-39.2	-0.15	-1.22	-77.3	-1.17	-0.20	-0.23	0.12
0-203-J	258	257	256	-24.3	-30.4	1.2	11.3	-34.3	0.03	-1.07	-62.0	-0.79	-0.20	-0.44	0.06
0-203-K	261	260	259	-18.7	-26.9	-0.1	12.2	-31.0	0.09	-0.90	-57.7	-0.62	-0.19	-0.45	0.06
0-203-L	264	263	262	-69.8	-63.8	-8.2	0.5	-78.6	-0.76	-2.58	-70.6	-2.38	-0.96	-0.57	0.09
0-204-A	267	266	265	-19.8	-18.5	-13.4	-12.9	-20.3	-0.62	-0.90	15.7	-0.64	-0.76	0.04	0.07
0-204-B	270	269	268	-20.7	-14.5	-12.7	-12.1	-21.3	-0.61	-0.82	-14.5	-0.62	-0.81	-0.05	0.07
0-204-C	273	272	271	-16.8	-7.6	-13.4	-7.4	-22.8	-0.47	-0.83	-38.8	-0.61	-0.69	-0.17	0.06
0-204-D	276	275	274	-18.5	-1.2	-10.4	-0.6	-28.2	-0.30	-0.94	-36.4	-0.52	-0.71	-0.30	0.05
0-204-E	279	278	277	-7.0	-25.7	0.2	19.2	-26.0	0.28	-0.87	85.4	-0.66	0.37	0.08	0.04
0-204-F	282	281	280	-22.4	-20.4	2.2	5.9	-26.1	-0.06	-0.80	-70.0	-0.72	-0.15	-0.24	0.04
0-204-G	285	284	283	-12.7	-21.3	-2.8	6.7	-22.2	0.00	-0.66	-55.1	-0.45	-0.22	-0.31	0.05
0-204-H	288	287	286	-10.5	-18.1	-6.4	1.4	-18.3	-0.14	-0.59	-50.9	-0.41	-0.32	-0.22	0.05
0-204-J	291	290	289	-11.4	-25.9	-11.7	2.9	-25.9	-0.16	-0.83	-44.7	-0.49	-0.50	-0.23	0.05
0-205-A	294	293	292	-21.2	-20.9	-21.6	-20.9	-21.9	-0.90	-0.93	35.9	-0.91	-0.92	0.01	0.07
0-205-B	297	296	295	-13.3	-15.7	-17.2	-13.3	-17.2	-0.61	-0.70	-7.0	-0.61	-0.70	-0.01	0.05
0-205-C	300	299	298	-17.9	-13.9	-12.6	-12.3	-18.2	-0.59	-0.72	76.6	-0.71	-0.59	0.03	0.06
0-205-D	303	302	301	-23.8	-14.0	-9.7	-9.2	-24.4	-0.54	-0.89	79.2	-0.88	-0.56	0.06	0.07
0-205-E	306	305	304	-21.0	-13.3	-7.8	-7.7	-21.1	-0.46	-0.77	85.4	-0.77	-0.46	0.02	0.08
0-205-F	309	308	307	-14.3	-10.1	-7.7	-7.6	-14.4	-0.39	-0.55	82.8	-0.55	-0.39	0.02	0.06
0-205-G	312	311	310	-8.5	-10.1	-7.8	-6.2	-10.2	-0.30	-0.40	-50.1	-0.36	-0.34	-0.04	0.07
0-205-H	315	314	313	-9.1	-9.9	-13.7	-7.9	-13.9	-0.40	-0.54	10.3	-0.40	-0.53	0.02	0.05
0-205-J	318	317	316	0.9	-8.6	-13.6	1.3	-13.9	-0.10	-0.45	-8	-0.10	-0.44	-0.05	0.06
I-1R1-A	328	328	330	-19.6	-22.2	-29.2	-19.1	-29.7	-0.92	-1.17	12.	-0.93	-1.16	0.05	0.08
I-1R1-B	331	332	333	-10.5	-26.2	-39.6	-10.5	-39.7	-0.74	-1.41	-2.2	-0.74	-1.41	-0.03	0.08
I-1R1-C	334	335	336	2.0	-42.1	-80.5	2.1	-80.6	-0.73	-2.64	-2.0	-0.73	-2.63	-0.07	0.11
I-1R1-D	337	338	339	-1.2	-41.3	-77.1	-1.1	-77.2	-0.80	-2.55	-1.6	-0.80	-2.55	-0.05	0.11

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	STRESS - KSI			STRESS - KSI			STRESS - KSI			STRESS - KSI			PHI	SIG(L)	SIG(T)	TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)					
I-1P1-E	340	341	342	2.5	-43.0	-47.9	9.6	-55.1	-0.23	-1.72	-19.4	-0.39	-1.56	-0.47	0.11		
I-1P1-F	343	344	345	3.0	-11.7	-21.9	3.2	-22.1	-0.11	-0.70	-50.2	-0.46	-0.35	-0.29	0.06		
I-1P1-G	346	347	348	-2.4	-24.4	-18.6	6.1	-27.0	-0.07	-0.83	59.6	-0.64	-0.26	0.33	0.05		
I-1P1-H	349	350	351	-17.5	-31.4	-11.8	2.4	-31.7	-0.23	-1.02	40.2	-0.56	-0.69	0.39	0.06		
I-1P1-J	352	353	354	-23.9	-26.5	-8.4	-3.3	-29.1	-0.40	-0.99	26.5	-0.52	-0.87	0.24	0.05		
I-1P1-K	355	356	357	-10.4	-19.4	-15.6	-6.1	-19.9	-0.40	-0.72	56.1	-0.62	-0.50	0.15	0.05		
I-1P1-L	358	359	360	-8.5	-11.8	-1.9	2.2	-12.5	-0.05	-0.39	31.7	-0.15	-0.30	0.15	0.07		
I-1P2-A	361	362	363*	-4.7	-0.3	-9.2	0.1	-14.0	-0.14	-0.46	35.7	-0.25	-0.35	0.15	0.05		
I-1P2-B	364	365	366	-4.9	0.1	-1.1	0.6	-6.6	-0.05	-0.21	60.6	-0.17	-0.09	0.07	0.05		
I-1P2-C	367	368	369	-7.2	-7.3	-2.9	-1.9	-8.2	-0.14	-0.29	-66.5	-0.27	-0.17	-0.05	0.06		
I-1P2-D	370	371	372	-9.3	-12.8	-12.5	-8.5	-13.4	-0.41	-0.53	-24.7	-0.43	-0.51	-0.04	0.08		
I-1P2-E	373	374	375	-2.2	-24.9	-18.8	6.1	-27.2	-0.07	-0.84	-30.0	-0.26	-0.64	-0.33	0.06		
I-1P2-F	376	377	378	-6.9	-31.6	-19.5	6.3	-32.6	-0.12	-1.01	-80.6	-0.99	-0.14	-0.14	0.05		
I-1P2-G	379	380	381	-4.4	-23.7	-13.1	6.8	-24.4	-0.02	-0.74	53.1	-0.48	-0.28	0.35	0.06		
I-1P2-H	382	383	384	4.9	-10.2	-10.4	7.9	-13.4	0.13	-0.36	68.0	-0.30	0.06	0.17	0.06		
I-1P2-J	385	386	387	13.4	-0.5	-12.4	13.5	-12.4	0.32	-0.28	87.7	-0.28	0.32	0.02	0.05		
I-1P2-K	388	389	390	19.1	-2.5	-22.6	19.1	-22.6	0.61	-0.56	88.9	-0.56	0.41	0.02	0.05		
I-1P2-L	391	392	393	13.1	5.5	3.2	13.8	2.5	0.48	0.22	75.9	0.23	0.46	0.06	0.06		
I-1P3-A	394	395	396	4.9	4.8	5.6	5.9	4.7	0.24	0.21	-62.1	0.22	0.23	-0.01	0.06		
I-1P3-B	397	398	399	8.3	2.7	11.5	17.3	2.5	0.59	0.25	-51.3	0.39	0.46	-0.17	0.04		
I-1P3-C	400	401	402	5.2	8.8	20.8	21.8	4.2	0.76	0.35	-75.9	0.38	0.74	-0.10	0.03		
I-1P3-D	403	404	405	0.4	9.4	26.0	26.6	-0.2	0.87	0.26	-81.7	0.27	0.86	-0.09	0.05		
I-1P3-E	406	407	408	2.2	10.8	21.0	21.1	2.2	0.72	0.28	-87.3	0.28	0.72	-0.02	0.04		
I-1P3-F	409	410	411	5.7	11.5	16.0	16.0	5.7	0.58	0.35	41.1	0.48	0.45	0.12	0.04		
I-1P3-G	412	413	414	7.9	12.7	12.2	13.5	6.5	0.51	0.35	-25.8	0.48	0.38	-0.06	0.05		
I-1P3-H	415	416	417	9.8	11.4	6.8	11.8	4.8	0.44	0.28	-58.3	0.32	0.39	-0.07	0.06		
I-1P3-J	418	419	420	5.8	6.7	-0.1	7.7	-2.0	0.24	0.01	-63.7	0.06	0.19	-0.09	0.05		
I-1P3-K	421	422	423	1.8	1.7	-13.2	4.8	-16.3	-0.00	-0.49	-67.7	-0.42	-0.07	-0.17	0.04		
I-1P3-L	424	425	426	-4.3	-3.8	-2.9	-2.9	-4.3	-0.14	-0.17	6.4	-0.14	-0.17	0.00	0.06		
I-1P4-A	427	428	429	13.8	2.8	-2.9	14.3	-3.2	0.44	0.03	-9.1	0.43	0.04	-0.06	0.07		
I-1P4-B	430	431	432	11.2	3.0	11.7	19.8	3.0	0.68	0.30	-45.8	0.48	0.49	-0.19	0.06		
I-1P4-C	433	434	435	3.6	9.4	23.4	24.3	2.8	0.83	0.33	-78.8	0.35	0.81	-0.09	0.06		
I-1P4-D	436	437	438	3.6	11.4	26.9	27.5	3.0	0.94	0.37	-80.9	0.39	0.92	-0.09	0.06		
I-1P4-E	439	440	441	2.6	19.1	27.8	28.4	2.0	0.96	0.35	36.4	0.74	0.56	0.29	0.05		
I-1P4-F	442	443	444	5.1	23.3	17.3	24.8	-2.3	0.79	0.17	-31.6	0.62	0.34	-0.28	0.05		
I-1P4-G	445	446	447	2.8	14.9	11.1	15.9	-2.0	0.51	0.09	-31.2	0.39	0.20	-0.18	0.03		
I-1P4-H	448	449	450	-10.1	6.8	10.0	12.1	-12.2	0.28	-0.28	-17.2	0.23	-0.23	-0.16	0.04		
I-1P4-J	451	452	453	-14.5	0.0	10.9	11.0	-14.6	0.72	-0.37	-4.0	0.22	-0.37	-0.04	0.05		
I-1P5-A	454	455	456	26.5	13.4	-1.2	26.5	-1.2	0.86	0.22	1.7	0.86	0.22	0.02	0.04		
I-1P5-B	457	458	459	19.4	17.8	17.9	19.8	12.5	0.78	0.61	13.1	0.77	0.62	0.04	0.05		
I-1P5-C	460	461	462	9.8	17.4	28.4	28.5	9.7	1.04	0.60	-85.0	0.60	1.03	-0.04	0.05		
I-1P5-D	463	464	465	12.2	19.7	28.5	28.5	12.2	1.06	0.68	-87.8	0.68	1.06	-0.01	0.04		
I-1P5-E	466	467	468	14.2	17.1	22.2	22.3	14.1	0.87	0.68	-82.6	0.65	0.87	-0.02	0.08		
I-1P5-F	469	470	471	17.8	12.7	11.5	13.0	11.2	0.54	0.50	-68.8	0.51	0.54	-0.01	0.05		
I-1P5-G	472	473	474	4.1	4.7	7.4	7.7	3.8	0.29	0.20	16.4	0.28	0.21	0.02	0.06		
I-1P5-H	475	476	477	-7.1	2.3	10.5	10.5	-7.1	0.28	-0.13	-1.9	0.28	-0.13	-0.01	0.04		
I-1P5-J	478	479	480	-11.9	4.2	14.0	14.4	-12.3	0.35	-0.26	-6.9	0.34	-0.25	-0.07	0.04		
I-2P1-A	493	494	495	-14.2	-24.4	-35.2	-14.2	-35.2	-0.82	-1.30	0.8	-0.82	-1.30	0.01	0.06		
I-2P1-B	496	497	498	2.6	-18.8	-38.4	2.7	-38.4	-0.29	-1.24	-1.3	-0.29	-1.24	-0.02	0.05		
I-2P1-C	499	500	501	-0.9	-30.8	-67.1	-0.7	-67.2	-0.69	-2.22	2.7	-0.59	-2.22	0.07	0.11		
I-2P1-D	502	503	504	-2.7	-44.9	-80.6	-2.5	-80.8	-0.88	-2.69	-2.4	-0.88	-2.68	-0.08	0.10		
I-2P1-E	505	506	507	2.8	-25.3	-44.9	3.2	-45.3	-0.34	-1.46	-5.1	-0.35	-1.45	-0.10	0.11		
I-2P1-F	508	509	510	5.1	-9.2	-22.7	5.1	-22.7	-0.06	-0.70	-45.8	-0.39	-0.37	-0.32	0.08		
I-2P1-G	511	512**	513	1.4	0.0	-20.6	5.0	-24.2	-0.08	-0.75	-69.4	-0.67	-0.16	-0.22	0.07		
I-2P1-H	514	515	516	-17.7	-34.6	-13.1	3.9	-34.7	-0.22	-1.11	41.6	-0.61	-0.71	0.44	0.08		
I-2P1-J	517	518	519	-22.5	-25.4	-10.3	-5.5	-27.3	-0.45	-0.96	28.0	-0.56	-0.84	0.21	0.10		

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
I-2R1-K	520	521	522	-10.6	-23.2	-15.0	-2.2	-23.5	-0.30	-0.79	51.0	-0.60	-0.50	0.24	0.08
I-2R1-L	523	524	525	-7.2	-14.3	-5.6	1.5	-14.3	-0.09	-0.46	42.1	-0.26	-0.29	0.18	0.06
I-2R2-A	526	527	528	-6.0	1.0	-5.8	1.0	-12.8	-0.09	-0.41	45.4	-0.26	-0.25	0.16	0.06
I-2R2-B	529	530	531	-0.3	1.0	-3.8	1.5	-5.5	-0.01	-0.17	29.9	-0.05	-0.13	0.07	0.06
I-2R2-C	532	533	534	-5.5	-1.5	0.2	0.4	-5.7	-0.04	-0.18	78.9	-0.18	-0.05	0.03	0.07
I-2R2-D	535	536	537	-12.9	-17.9	-10.3	-5.2	-18.0	-0.35	-0.64	-50.9	-0.53	-0.47	-0.15	0.05
I-2R2-E	538	539	540	-11.2	-38.5	-29.6	-0.1	-40.7	-0.41	-1.34	-31.5	-0.66	-1.09	-0.42	0.09
I-2R2-F	541	542	543	-15.3	-43.7	-28.4	0.9	-44.6	-0.41	-1.46	-81.7	-1.44	-0.43	-0.15	0.08
I-2R2-G	544	545	546	-12.5	-31.3	-21.0	-1.6	-32.0	-0.37	-1.07	53.2	-0.82	-0.62	0.34	0.08
I-2R2-H	547	548	549	-3.5	-17.1	-15.2	0.3	-19.0	-0.18	-0.62	63.7	-0.54	-0.27	0.18	0.07
I-2R2-J	550	551	552	7.3	-12.6	-19.1	8.8	-20.7	0.09	-0.60	76.6	-0.56	0.05	0.15	0.04
I-2R2-K	553	554	555	14.5	-13.6	-29.9	15.3	-30.6	0.20	-0.86	82.6	-0.84	0.18	0.14	0.04
I-2R2-L	556	557	558	10.1	-7.0	-7.8	13.2	-11.0	0.33	-0.23	68.8	-0.16	0.25	0.19	0.05
I-2R2-A	559	560	561	2.9	3.7	6.3	6.5	2.6	0.24	0.15	-76.4	0.16	0.24	-0.02	0.05
I-2R3-B	562	563	564	1.6	1.9	11.4	13.3	-0.2	0.43	0.12	-68.2	0.17	0.39	-0.11	0.03
I-2R3-C	565	566	567	6.9	3.4	18.6	23.9	1.7	0.80	0.29	-61.0	0.41	0.68	-0.22	0.04
I-2R3-D	568	569	570	-0.8	11.5	25.8	25.8	-0.8	0.84	0.23	-87.9	0.23	0.84	-0.02	0.05
I-2R3-E	571	572	573	-0.7	9.7	21.7	21.7	-0.7	0.71	0.19	-87.9	0.19	0.71	-0.02	0.06
I-2R3-F	574	575	576	2.5	7.0	14.0	14.2	2.4	0.49	0.22	51.5	0.32	0.39	0.13	0.06
I-2R3-G	577	578	579	3.3	8.7	11.4	11.6	3.1	0.41	0.22	-8.9	0.41	0.22	-0.03	0.04
I-2R3-H	580	581	582	7.4	8.2	6.6	8.2	5.7	0.33	0.27	-54.0	0.29	0.31	-0.03	0.05
I-2R3-J	583	584	585	3.1	2.3	-4.4	4.1	-5.4	0.08	-0.14	-71.1	-0.11	0.06	-0.07	0.04
I-2R3-K	586	587	588	0.5	-4.5	-16.7	1.2	-17.4	-0.13	-0.56	-78.6	-0.55	-0.15	-0.08	0.07
I-2R3-L	589	590	591	-1.2	-9.6	-4.6	2.0	-9.7	-0.03	-0.30	48.4	-0.18	-0.15	0.13	0.06
I-2R4-A	592	593	594	14.7	5.2	-2.9	14.7	-2.9	0.46	0.05	-2.2	0.46	0.05	-0.02	0.06
I-2R4-B	595	596	597	13.6	6.4	9.7	17.2	6.0	0.63	0.37	-34.7	0.54	0.45	-0.12	0.07
I-2R4-C	598	599	600	9.4	11.2	24.5	26.4	7.5	0.95	0.51	-71.3	0.55	0.90	-0.13	0.08
I-2R4-D	601	602	603	7.6	16.2	28.8	28.9	7.5	1.03	0.53	-84.6	0.54	1.02	-0.05	0.05
I-2R4-E	604	605	606	5.5	21.2	26.3	27.6	4.2	0.95	0.41	31.6	0.80	0.56	0.24	0.07
I-2R4-F	607	608	609	7.8	22.5	17.2	23.5	1.5	0.79	0.28	-32.4	0.64	0.43	-0.23	0.06
I-2R4-G	610	611	612	0.6	13.4	12.1	15.5	-2.8	0.48	0.06	-25.3	0.41	0.14	-0.16	0.06
I-2R4-H	613	614	615	-12.6	1.3	8.8	9.3	-13.0	0.18	-0.34	-8.4	0.17	-0.33	-0.07	0.05
I-2R4-J	616	617	618*	-18.6	-5.8	490.0	586.4	-115.0	18.20	2.01	21.8	15.97	4.23	5.57	3.50
I-2R5-A	619	620	621	31.9	15.7	-3.3	31.9	-3.3	1.02	0.21	2.3	1.02	0.21	0.03	0.06
I-2R5-B	622	623	624	24.8	16.2	13.9	25.6	13.1	0.97	0.68	-15.0	0.95	0.70	-0.07	0.07
I-2R5-C	625	626	627	4.1	20.1	29.4	29.8	3.7	1.02	0.42	82.6	0.43	1.01	0.08	0.06
I-2R5-D	628	629	630	15.4	24.1	28.8	29.1	15.1	1.11	0.79	81.6	0.79	1.10	0.05	0.06
I-2R5-E	631	632	633	16.5	27.6	23.8	25.2	15.1	0.98	0.75	68.1	0.78	0.95	0.08	0.05
I-2R5-F	634	635**	636	17.3	0.0	12.2	29.7	-0.2	0.98	0.29	49.9	0.57	0.69	0.34	0.04
I-2R5-G	637	638	639	8.0	6.3	8.2	10.0	6.3	0.39	0.31	43.5	0.35	0.35	0.04	0.05
I-2R5-H	640	641	642	-9.2	0.4	14.3	14.5	-9.4	0.38	-0.17	5.1	0.38	-0.16	0.05	0.03
I-2R5-J	643	644	645*	-15.4	5.4	21.8	22.0	-15.5	0.57	-0.29	-3.3	0.57	-0.29	-0.05	0.05
J-1R6-A	156	155	154	3.0	4.3	-1.4	4.9	-3.2	0.13	-0.06	-61.3	-0.01	0.09	-0.08	0.07
Q-1R6-B	159	158	157	5.8	0.3	-8.7	6.0	-8.9	0.11	-0.23	-83.4	-0.23	0.11	-0.04	0.05
Q-1R6-C	162	161	160	12.9	0.7	-15.9	13.1	-16.1	0.27	-0.40	-85.6	-0.40	0.27	-0.05	0.06
Q-1R6-D	165	164	163	16.0	-4.4	-19.9	16.1	-20.0	0.33	-0.50	86.2	-0.50	0.33	0.06	0.05
Q-2R6-A	321	320	319	3.9	-4.8	-1.2	8.0	-5.3	0.21	-0.10	56.2	-0.00	0.12	0.14	0.04
Q-2R6-B	324	323	322	6.1	-4.3	-11.9	6.2	-12.0	0.09	-0.33	85.7	-0.33	0.08	0.03	0.05
Q-2R6-C	327	326	325	-18.5	-3.5	12.1	12.1	-18.5	0.22	-0.49	0.6	0.22	-0.49	0.01	0.04
T-1R6-A	481	482**	483	2.6	0.0	4.3	7.0	-0.1	0.23	0.07	-51.9	0.13	0.17	-0.08	0.06
I-1R6-B	484	485	486	1.3	5.9	10.0	10.1	1.3	0.34	0.14	88.6	0.14	0.34	0.00	0.06
I-1R6-C	487	488	489	3.1	8.8	14.2	14.2	3.1	0.50	0.24	89.3	0.24	0.50	0.00	0.05
I-1R6-D	490	491	492	6.6	10.7	15.1	15.1	6.6	0.56	0.37	-88.6	0.37	0.56	-0.00	0.05
I-2R6-A	646	647	648	3.9	3.4	1.4	4.1	1.2	0.15	0.08	14.9	0.14	0.08	0.02	0.03
I-2R6-B	649	650	651	4.4	6.1	8.2	8.2	4.4	0.31	0.23	-87.6	0.23	0.31	-0.00	0.03
I-2R6-C	652	653	654	5.0	9.0	14.0	14.0	5.0	0.51	0.30	-87.0	0.30	0.51	-0.01	0.06

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	E _{MAX}	E _{MIN}	S _{MAX}	S _{MIN}	PHI	SIG(L)	SIG(T)			
0-107-A	666	665	664	-22.5	-5.7	-7.0	-2.9	-26.6	-0.36	-0.90	20.4	-0.42	-0.84	0.18	0.07	
0-107-B	663	662	661	-25.5	-7.0	3.9	4.4	-26.0	-0.11	-0.81	37.7	-0.37	-0.55	0.34	0.05	
0-107-C	660	650	658	-33.7	-7.6	-6.6	-1.7	-38.6	-0.44	-1.29	23.6	-0.57	-1.15	0.31	0.07	
0-107-D	657	656	655	4.2	26.4	17.4	27.8	-6.1	0.86	0.07	11.5	0.82	0.10	0.15	0.05	
I-107-A	688	689	690	7.7	17.3	26.0	26.0	7.7	0.93	0.51	43.5	0.73	0.71	0.21	0.04	
I-107-B	685	686	687	3.0	16.6	23.6	24.1	2.5	0.82	0.32	36.0	0.65	0.49	0.24	0.04	
I-107-C	682	683	684	2.6	-7.2	0.9	10.7	-7.3	0.28	-0.13	-87.2	-0.13	0.28	-0.02	0.03	
I-107-D	679	680	681	-8.6	-21.2	-32.3	-8.5	-32.4	-0.60	-1.15	-46.9	-0.89	-0.86	-0.27	0.07	
0-207-A	678	677	676	-23.5	-9.7	-7.8	-5.5	-25.8	-0.44	-0.91	25.2	-0.52	-0.82	0.18	0.07	
0-207-B	675	674	673	-25.3	-4.0	6.3	7.3	-26.2	-0.02	-0.79	35.4	-0.28	-0.53	0.36	0.06	
0-207-C	672	671	670	-37.0	-8.7	3.0	5.4	-38.4	-0.20	-1.21	34.6	-0.53	-0.89	0.47	0.06	
0-207-D	669	668	667	5.8	25.2	21.7	27.7	-0.2	0.91	0.27	17.4	0.85	0.32	0.18	0.07	
I-207-A	700	701	702	11.3	23.5	25.8	27.3	9.8	1.00	0.59	27.8	0.91	0.68	0.17	0.07	
I-207-B	697	698	699	1.3	15.6	19.9	21.1	0.1	0.70	0.21	31.0	0.57	0.34	0.21	0.05	
I-207-C	694	695	696	-6.6	-16.4	-7.5	2.3	-16.4	-0.09	-0.52	-88.6	-0.52	-0.09	-0.01	0.05	
I-207-D	691	692	693	-8.7	-46.6	-38.5	3.8	-51.0	-0.38	-1.64	-73.5	-1.54	-0.48	-0.24	0.08	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

COMBUSTION T-16, LOAD CASE 12, F2Z

NOMINAL LOAD = 1.424E 03

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
Q-1R1-A	3	2	1	3.1	-2.6	-8.2	3.1	-8.2	0.02	-0.24	89.6	-0.24	0.02	0.00	0.03
Q-1R1-B	6	5	4	12.7	2.0	-0.8	13.8	-1.9	0.44	0.08	74.6	0.10	0.41	0.09	0.01
Q-1R1-C	9	8	7	10.3	-1.5	-0.4	13.3	-3.4	0.41	0.02	64.9	0.09	0.34	0.15	0.04
Q-1R1-D	12	11	10	13.9	-6.0	7.1	27.4	-6.3	0.84	0.06	50.8	0.37	0.53	0.38	0.02
Q-1R1-E	15	14	13	3.7	-11.3	7.0	22.0	-11.3	0.61	-0.16	42.1	0.27	0.19	0.38	0.02
Q-1R1-F	18	17	16	3.6	-6.9	5.7	16.2	-6.9	0.47	-0.07	87.3	-0.07	0.47	0.02	0.03
Q-1R1-G	21	20	19	-5.6	-10.5	-1.1	4.2	-10.9	0.03	-0.32	-53.8	-0.20	-0.09	-0.17	0.02
Q-1R1-H	24	23	22	-4.5	1.7	-1.1	2.0	-7.6	-0.01	-0.23	55.2	-0.16	-0.08	0.10	0.03
Q-1R1-J	27	26	25	-6.4	-5.7	1.1	2.2	-7.5	-0.00	-0.23	-70.8	-0.20	-0.03	-0.07	0.03
Q-1R1-K	30	29	28	-8.5	-0.9	5.5	5.5	-8.5	0.10	-0.23	87.8	-0.22	0.10	0.01	0.01
Q-1R1-L	33	32	31	-30.3	-10.5	-0.2	0.5	-31.1	-0.29	-1.02	81.1	-1.00	-0.31	0.11	0.02
Q-1R2-A	36	35	34	6.8	1.5	-0.0	7.3	-0.5	0.23	0.05	75.4	0.07	0.22	0.04	0.02
Q-1R2-B	39	38	37	13.3	7.5	0.4	13.3	0.3	0.44	0.14	-87.2	0.14	0.44	-0.01	0.01
Q-1R2-C	42	41	40	14.3	8.8	3.5	14.3	3.5	0.51	0.26	89.2	0.26	0.51	0.00	0.04
Q-1R2-D	45	44	43	11.8	8.7	5.2	11.8	5.1	0.44	0.29	-87.9	0.29	0.44	-0.01	0.02
Q-1R2-E	48	47	46	3.7	3.8	8.4	9.2	2.8	0.33	0.18	21.6	0.31	0.20	0.05	0.03
Q-1R2-F	51	50	49	0.6	2.0	8.5	9.2	-0.1	0.30	0.09	61.5	0.14	0.25	0.09	0.01
Q-1R2-G	54	53	52	-4.6	2.3	7.6	7.7	-4.6	0.21	-0.08	86.6	-0.07	0.21	0.02	0.01
Q-1R2-H	57	56	55	-0.8	1.0	5.6	6.2	-10.4	0.10	-0.28	79.3	-0.27	0.09	0.07	0.02
Q-1R2-J	60	59	58	-9.9	-1.0	5.6	5.7	-10.0	0.09	-0.27	86.0	-0.27	0.09	0.03	0.02
Q-1R2-K	63	62	61	-9.0	-0.9	5.6	5.6	-9.1	0.10	-0.24	86.8	-0.24	0.10	0.02	0.03
Q-1R2-L	66	65	64	-35.9	-25.4	-3.4	-2.4	-36.9	-0.44	-1.24	-80.3	-1.22	-0.47	-0.13	0.03
Q-1R3-A	69	68**	67	-1.4	0.0	1.0	1.0	-1.5	0.02	-0.04	-5.6	0.02	-0.04	-0.01	0.02
Q-1R3-B	72	71	70	0.7	0.6	0.1	0.8	-0.0	0.03	0.01	-71.0	0.01	0.02	-0.01	0.01
Q-1R3-C	75	74	73	-0.2	1.2	0.7	1.3	-0.8	0.04	-0.01	-31.6	0.02	0.00	-0.02	0.03
Q-1R3-D	78	77	76	-2.2	0.8	1.8	2.0	-2.4	0.04	-0.06	-13.2	0.04	-0.05	-0.02	0.02
Q-1R3-E	81	80	79	-7.7	-0.3	2.5	3.0	-8.2	0.02	-0.24	-12.0	0.01	-0.23	-0.05	0.03
Q-1R3-F	84	83	82	-0.2	-3.5	2.7	2.7	-9.2	-0.00	-0.28	46.0	-0.14	-0.13	0.14	0.03
Q-1R3-G	87	86	85	-9.2	-7.3	1.9	3.0	-10.3	-0.00	-0.31	-73.4	-0.28	-0.03	-0.08	0.03
Q-1R3-H	90	89	88	-8.8	-6.3	1.4	2.0	-9.4	-0.03	-0.29	-76.7	-0.28	-0.04	-0.06	0.01
Q-1R3-J	93	92	91	-8.7	-7.0	1.0	1.9	-9.7	-0.03	-0.30	-73.5	-0.28	-0.05	-0.07	0.03
Q-1R3-K	96	95	94	-6.0	-6.4	1.3	3.1	-7.8	0.03	-0.23	-66.0	-0.18	-0.02	-0.09	0.02
Q-1R3-L	99	98	97	-29.5	-21.9	-1.3	0.2	-31.0	-0.30	-1.02	-77.6	-0.99	-0.33	-0.15	0.02
Q-1R4-A	102	101	100	-0.7	-0.4	0.6	0.7	-0.8	0.02	-0.02	13.9	0.01	-0.02	0.01	0.01
Q-1R4-B	105	104	103	-0.3	-0.7	1.9	2.7	-1.1	0.08	-0.01	27.3	0.06	0.01	0.04	0.02
Q-1R4-C	108	107	106	0.3	0.3	0.7	0.8	0.2	0.03	0.01	23.7	0.03	0.02	0.01	0.03
Q-1R4-D	111	110	109	-1.5	0.5	1.4	1.5	-1.6	0.03	-0.04	-9.8	0.03	-0.04	-0.01	0.01
Q-1R4-E	114	113	112	-2.9	-0.8	2.1	2.1	-2.9	0.04	-0.07	49.4	-0.03	-0.01	0.06	0.01
Q-1R4-F	117	116	115	-2.3	-3.9	0.4	2.3	-4.2	0.04	-0.11	-57.2	-0.07	-0.01	-0.07	0.02
Q-1R4-G	120	119	118	-4.3	-4.2	0.0	0.9	-5.1	-0.02	-0.16	-67.8	-0.14	-0.04	-0.05	0.03
Q-1R4-H	123	122	121	-3.1	-5.9	-0.6	2.4	-6.1	0.02	-0.18	-53.5	-0.11	-0.05	-0.09	0.02
Q-1R4-J	126	125	124	-12.3	-12.8	0.3	4.1	-16.1	-0.03	-0.49	-64.4	-0.40	-0.11	-0.18	0.02
Q-1R5-A	129	128**	127	-0.2	0.0	0.1	0.1	-0.2	0.00	-0.01	-11.8	0.00	-0.01	-0.00	0.00
Q-1R5-B	132	131	130	0.3	0.5	-0.2	0.6	-0.4	0.01	-0.01	-62.6	-0.00	0.01	-0.01	0.01
Q-1R5-C	135	134	133	0.1	1.2	0.2	1.2	-0.8	0.03	-0.02	-43.6	0.01	0.01	-0.02	0.02
Q-1R5-D	138**	137	136	0.0	-1.4	0.4	1.8	-1.4	0.04	-0.03	41.7	0.01	0.00	0.04	0.01
Q-1R5-E	141**	140	139	0.0	-0.4	-0.3	0.1	-0.4	0.00	-0.01	60.1	-0.01	-0.00	0.01	0.00
Q-1R5-F	144	143	142	-0.2	-0.2	0.1	0.1	-0.2	-0.00	-0.01	-75.9	-0.01	-0.00	-0.00	0.00
Q-1R5-G	147	146	145	0.7	-0.3	0.2	1.2	-0.3	0.04	0.00	-36.2	0.02	0.01	-0.02	0.02
Q-1R5-H	150	149	148	0.4	-1.6	-0.5	1.6	-1.7	0.04	-0.04	-36.8	0.01	-0.01	-0.04	0.01

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
Q-2R5-J	153	152	151	-0.7	-8.6	0.1	6.0	-8.6	0.18	-0.20	-46.4	-0.02	-0.00	-0.19	0.02
Q-2R1-A	168	167	166	-2.1	2.3	5.3	5.4	-2.2	0.16	-0.02	-5.2	0.15	-0.02	-0.02	0.03
Q-2P1-B	171	170	169	-13.2	-7.8	0.7	0.9	-13.4	-0.10	-0.43	6.5	-0.11	-0.43	0.04	0.03
Q-2R1-C	174	173	172	-3.8	-18.7	-2.0	13.0	-19.7	0.24	-0.49	43.4	-0.10	-0.14	0.27	0.02
Q-2R1-D	177	176	175	-9.2	-29.7	-8.8	11.7	-29.7	0.09	-0.86	44.8	-0.38	-0.39	0.48	0.02
Q-2P1-E	180	179	178	0.5	-21.9	-8.7	14.3	-22.5	0.25	-0.60	52.2	-0.28	-0.07	0.41	0.02
Q-2R1-F	183	182	181	1.3	-15.7	-15.2	5.0	-19.0	-0.02	-0.58	-68.2	-0.50	-0.10	-0.19	0.02
Q-2R1-G	186	185	184	6.4	-15.7	-5.0	19.1	-15.7	0.43	-0.37	-35.4	0.16	-0.10	-0.38	0.02
Q-2P1-H	189	188	187	20.3	-4.8	-9.3	23.5	-12.5	0.65	-0.18	-17.5	0.58	-0.10	-0.24	0.02
Q-2P1-J	192	191	190	22.7	4.7	-4.9	23.3	-5.5	0.71	0.05	-8.4	0.70	0.06	-0.10	0.02
Q-2R1-K	195	194	193	23.4	9.2	-4.2	23.4	-4.2	0.73	0.09	-0.8	0.73	0.09	-0.01	0.01
Q-2P1-L	198	197	196	75.3	35.0	3.3	75.6	3.0	2.52	0.85	-3.4	2.52	0.85	-0.10	0.04
Q-2R2-A	201	200	199	7.8	8.1	1.8	9.3	0.3	0.31	0.10	-66.1	0.14	0.28	-0.08	0.02
Q-2P2-B	204	203	202	16.7	12.8	1.1	17.7	0.2	0.58	0.18	-76.7	0.20	0.56	-0.09	0.02
Q-2R2-C	207	206	205	19.3	18.7	12.3	20.3	11.2	0.78	0.57	-70.2	0.59	0.76	-0.07	0.02
Q-2P2-D	210	209	208	24.2	10.9	8.0	25.7	6.4	0.91	0.47	73.7	0.50	0.88	0.12	0.01
Q-2R2-E	213	212	211	33.4	5.2	6.0	39.7	-0.3	1.31	0.38	66.7	0.53	1.16	0.34	0.03
Q-2P2-F	216	215	214	36.6	4.8	4.4	43.0	-2.0	1.40	0.36	-67.2	0.52	1.24	-0.37	0.03
Q-2P2-G	219	218	217	37.1	13.6	4.9	38.7	3.3	1.31	0.49	-12.3	1.27	0.53	-0.17	0.02
Q-2R2-H	222	221	220	29.8	24.8	6.1	31.6	4.3	1.09	0.45	15.1	1.04	0.50	0.16	0.03
Q-2P2-J	225	224	223	22.2	26.2	6.8	28.5	0.5	0.94	0.30	28.4	0.80	0.44	0.27	0.02
Q-2R2-K	228	227	226	13.8	20.4	5.8	21.1	-1.5	0.68	0.18	34.6	0.51	0.33	0.24	0.02
Q-2P2-L	231	230	229	72.2	38.2	5.6	72.2	5.6	2.44	0.90	0.2	2.44	0.90	0.01	0.04
Q-2R3-A	234	233	232	7.7	3.9	-6.2	8.4	-6.9	0.21	-0.15	-77.5	-0.13	0.19	-0.07	0.01
Q-2P3-B	237	236	235	14.9	7.7	-3.7	15.2	-4.0	0.46	0.02	-83.7	0.02	0.46	-0.05	0.02
Q-2R3-C	240	239	238	14.6	8.0	4.2	14.8	4.0	0.53	0.28	82.1	0.28	0.52	0.03	0.03
Q-2P3-D	243	242	241	12.2	3.6	2.2	13.4	1.0	0.45	0.17	72.1	0.19	0.42	0.08	0.02
Q-2R3-E	246	245	244	10.6	0.8	4.0	14.6	0.0	0.48	0.15	58.6	0.24	0.39	0.15	0.02
Q-2P3-F	249	248	247	15.0	4.5	2.2	16.2	1.0	0.54	0.19	-61.1	0.27	0.46	-0.15	0.02
Q-2R3-G	252	251	250	14.1	7.2	0.6	14.1	0.6	0.47	0.16	-0.4	0.47	0.16	-0.00	0.02
Q-2P3-H	255	254	253	9.2	9.4	2.7	10.7	1.2	0.36	0.15	23.6	0.33	0.18	0.08	0.03
Q-2P3-J	258	257	256	5.7	9.8	4.2	9.9	-0.0	0.33	0.10	40.4	0.23	0.19	0.11	0.02
Q-2R3-K	261	260	259	1.1	6.8	1.9	6.8	-3.8	0.19	-0.06	47.0	0.06	0.07	0.12	0.01
Q-2P3-L	264	263	262	10.8	8.3	4.2	10.9	4.1	0.40	0.24	6.8	0.40	0.25	0.02	0.03
Q-2R4-A	267	266	265	7.3	-0.7	-4.4	7.7	-4.8	0.21	-0.08	79.7	-0.07	0.20	0.05	0.03
Q-2R4-B	270	269	268	9.1	1.5	0.9	10.3	-0.4	0.34	0.09	69.8	0.12	0.31	0.08	0.02
Q-2P4-C	273	272	271	4.9	0.8	5.5	9.6	0.8	0.32	0.12	42.9	0.23	0.22	0.10	0.02
Q-2R4-D	276	275	274	4.7	2.8	9.6	12.1	2.2	0.42	0.19	30.3	0.36	0.25	0.10	0.03
Q-2P4-E	279	278	277	1.4	1.4	12.4	14.7	-0.9	0.47	0.12	67.4	0.17	0.42	0.13	0.01
Q-2R4-F	282	281	280	3.1	-2.1	9.4	17.1	-4.6	0.52	0.02	-53.5	0.19	0.34	-0.24	0.02
Q-2P4-G	285	284	283	3.4	-7.5	8.4	19.5	-7.7	0.57	-0.06	-50.2	0.20	0.31	-0.31	0.03
Q-2R4-H	288	287	286	-0.3	-6.5	9.2	16.3	-7.5	0.47	-0.09	-56.7	0.08	0.30	-0.25	0.02
Q-2P4-J	291	290	289	-7.7	-13.1	-1.7	12.7	-14.8	0.27	-0.36	-59.5	-0.20	0.11	-0.28	0.02
Q-2R5-A	294	293	292	-0.7	3.7	-5.0	3.7	-5.4	0.07	-0.14	44.1	-0.03	-0.04	0.10	0.02
Q-2P5-B	297	296	295	0.3	0.4	-1.0	0.6	-1.3	0.01	-0.04	25.4	-0.00	-0.03	0.02	0.01
Q-2R5-C	300	299	298	-0.2	-2.9	-0.2	2.5	-2.9	0.05	-0.07	-44.9	-0.01	-0.01	-0.06	0.01
Q-2P5-D	303	302	301	-2.4	-9.2	1.1	8.1	-9.4	0.17	-0.23	-50.8	-0.07	0.01	-0.20	0.02
Q-2R5-E	306	305	304	-0.2	-14.5	-0.1	14.2	-14.5	0.32	-0.34	-45.1	-0.01	-0.01	-0.33	0.02
Q-2P5-F	309	308	307	0.8	-16.9	-0.1	17.7	-16.9	0.41	-0.38	-44.3	0.03	0.01	-0.40	0.02
Q-2R5-G	312	311	310	-0.4	-17.9	1.6	19.2	-19.0	0.45	-0.40	-46.5	0.00	0.05	-0.43	0.02
Q-2P5-H	315	314	313	1.3	-14.9	-0.7	15.5	-14.9	0.36	-0.34	-43.1	0.04	-0.01	-0.35	0.02
Q-2R5-J	318	317	316	0.8	-18.8	0.5	20.1	-19.8	0.48	-0.42	-44.7	0.03	0.02	-0.45	0.02
I-1P1-A	328	327	326	-3.7	-10.4	-8.3	-1.1	-10.9	-0.14	-0.37	-31.2	-0.20	-0.31	-0.10	0.03
I-1R1-B	331	332	333	-6.8	-9.8	-11.4	-6.7	-11.5	-0.34	-0.44	-8.4	-0.34	-0.44	-0.02	0.08
I-1P1-C	334	335	336	1.6	-10.4	-28.4	1.9	-29.7	-0.22	-0.93	5.7	-0.23	-0.92	0.07	0.03
I-1R1-D	337	338	339	2.0	-13.4	-32.7	2.1	-32.8	-0.26	-1.06	3.2	-0.26	-1.06	0.04	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	E4X	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-101-E	340	341	342	5.2	-5.5	-27.6	6.1	-28.6	-0.08	-0.88	9.6	-0.10	-0.26	0.13	0.03
I-101-F	343	344	345	7.7	8.0	-21.1	13.9	-27.3	0.19	-0.76	-22.2	0.05	-0.63	-0.33	0.02
I-101-G	346	347	348	10.7	4.1	-16.5	12.4	-18.2	0.23	-0.48	-76.3	-0.44	0.19	-0.16	0.02
I-101-H	349	350	351	6.2	-4.0	-7.7	6.9	-8.4	0.15	-0.21	77.4	-0.19	0.13	0.08	0.02
I-101-J	352*	353	354	2.1	-4.6	-5.7	3.0	-6.6	0.03	-0.19	72.2	-0.17	0.01	0.06	0.03
I-101-K	355	356	357	1.1	-6.4	-9.6	1.6	-10.0	-0.05	-0.32	79.1	-0.31	-0.06	0.05	0.03
I-101-L	358	359	360	-3.3	-5.9	-0.3	2.6	-5.2	0.02	-0.18	34.8	-0.04	-0.11	0.09	0.02
I-102-A	361	362	363	-4.5	-5.7	-11.3	-3.9	-11.9	-0.25	-0.43	16.4	-0.26	-0.42	0.05	0.02
I-102-B	364	365	366	-4.1	-4.2	-10.2	-2.9	-11.4	-0.21	-0.40	22.1	-0.23	-0.38	0.07	0.02
I-102-C	367	368	369	-2.3	-0.4	-21.6	-1.9	-21.9	-0.28	-0.74	7.4	-0.29	-0.73	0.06	0.02
I-102-D	370	371	372	-1.0	-11.6	-26.4	-0.8	-26.5	-0.29	-0.88	4.6	-0.29	-0.88	0.05	0.02
I-102-E	373	374	375	-0.7	-15.9	-24.0	-0.1	-24.5	-0.25	-0.81	-8.4	-0.26	-0.80	-0.08	0.02
I-102-F	376	377	378	-1.7	-15.5	-20.0	-0.6	-21.2	-0.23	-0.70	-58.4	-0.57	-0.36	-0.21	0.02
I-102-G	379	380	381	-3.2	-15.2	-14.2	-0.1	-17.2	-0.17	-0.57	65.0	-0.50	-0.24	0.15	0.02
I-102-H	382	387	384	-4.8	-11.1	-9.9	-2.8	-11.9	-0.21	-0.42	61.9	-0.37	-0.26	0.09	0.03
I-102-J	385	386	387	-2.5	-8.6	-8.1	-1.0	-9.6	-0.13	-0.33	65.1	-0.29	-0.16	0.08	0.03
I-102-K	388	389	390	1.0	-10.0	-15.5	1.5	-16.0	-0.11	-0.51	80.7	-0.50	-0.12	0.06	0.03
I-102-L	391	392	393	-2.9	-6.0	-3.6	-0.5	-6.0	-0.08	-0.20	48.4	-0.15	-0.13	0.06	0.02
I-103-A	394	395**	396	-0.7	0.0	-0.7	0.0	-1.3	-0.01	-0.04	45.9	-0.03	-0.02	0.02	0.01
I-103-B	397	398	399	-1.9	-0.0	0.5	0.7	-2.1	0.00	-0.06	75.9	-0.06	-0.00	0.02	0.01
I-103-C	400	401	402	-3.2	-0.9	0.6	0.6	-3.3	-0.01	-0.10	84.0	-0.10	-0.01	0.01	0.01
I-103-D	403	404	405	-3.1	-3.6	-1.5	-0.8	-3.8	-0.06	-0.13	-61.5	-0.12	-0.08	-0.03	0.02
I-103-E	406	407	408	-2.0	-4.6	-5.5	-1.9	-6.5	-0.13	-0.23	-5.0	-0.13	-0.23	-0.01	0.02
I-103-F	409	410	411	-1.7	-6.4	-5.7	-0.3	-7.0	-0.08	-0.24	-71.8	-0.22	-0.10	-0.05	0.02
I-103-G	412	413	414	-0.7	-6.8	-5.2	1.5	-7.4	-0.02	-0.23	60.2	-0.18	-0.07	0.09	0.01
I-103-H	415	416	417	0.4	-5.2	-5.0	1.7	-6.3	-0.01	-0.19	66.3	-0.16	-0.04	0.07	0.01
I-103-J	418	419	420	1.8	-6.4	-6.8	3.3	-8.3	0.03	-0.24	68.8	-0.21	-0.01	0.09	0.02
I-103-K	421	422	423	2.1	-5.8	-11.2	2.2	-11.3	-0.04	-0.35	84.6	-0.35	-0.04	0.03	0.02
I-103-L	424	425	426	-0.6	-7.3	-4.3	2.7	-7.6	0.01	-0.22	55.5	-0.15	-0.06	0.11	0.03
I-104-A	427	428	429	0.8	1.7	1.2	1.7	0.3	0.06	0.03	53.8	0.04	0.05	0.02	0.02
I-104-B	430	431	432	-0.0	0.7	2.0	2.0	-0.1	0.07	0.02	-80.9	0.02	0.06	-0.01	0.02
I-104-C	433	434	435	-0.4	0.6	3.1	3.3	-0.5	0.10	0.01	-78.3	0.02	0.10	-0.02	0.02
I-104-D	436	437	438	-0.1	0.3	2.5	2.6	-0.8	0.08	-0.00	-80.1	0.00	0.07	-0.01	0.01
I-104-E	439	440	441	-0.9	0.1	0.9	0.9	-1.0	0.02	-0.02	41.2	0.00	-0.00	0.02	0.01
I-104-F	442	443	444	-0.0	-0.6	0.3	0.4	-1.0	0.00	-0.03	12.5	0.00	-0.03	0.01	0.01
I-104-G	445	446	447	-2.4	-1.5	0.3	0.4	-2.5	-0.01	-0.08	9.7	-0.01	-0.08	0.01	0.03
I-104-H	448	449	450	-2.3	-4.3	-2.9	-0.8	-4.4	-0.07	-0.15	49.9	-0.12	-0.10	0.04	0.02
I-104-J	451	452	453	-3.7	-7.0	-0.3	3.3	-7.3	0.04	-0.21	35.8	-0.05	-0.12	0.12	0.02
I-105-A	454	455	456	0.3	0.4	0.6	0.6	0.3	0.02	0.02	-79.6	0.02	0.02	-0.00	0.01
I-105-B	457	458	459	0.1	0.4	0.2	0.4	-0.1	0.01	0.00	52.1	0.01	0.01	-0.01	0.00
I-105-C	460	461	462	-0.1	-0.4	0.2	0.6	-0.5	0.02	-0.01	-54.5	-0.00	0.01	-0.01	0.01
I-105-D	463	464	465	0.2	-1.0	-0.1	1.2	-1.0	0.03	-0.02	-41.4	0.01	0.00	-0.03	0.01
I-105-E	466	467	468	0.0	-3.8	-0.1	3.7	-3.8	0.09	-0.09	-44.6	-0.00	-0.00	-0.09	0.02
I-105-F	469	470	471	0.1	1.4	-0.1	1.4	-1.3	0.03	-0.03	-47.1	-0.00	0.00	-0.03	0.02
I-105-G	472	473	474	-0.4	1.5	0.3	1.5	-1.7	0.03	-0.04	-38.9	0.01	-0.01	-0.04	0.02
I-105-H	475	476	477	-0.4	-0.1	-0.1	-0.0	-0.4	-0.01	-0.01	-19.1	-0.01	-0.01	-0.00	0.01
I-105-J	478	479	480	-0.4	-4.5	0.9	5.0	-4.5	0.12	-0.10	41.2	0.03	-0.00	0.11	0.01
I-201-A	493	494	495	3.8	2.7	6.8	8.4	2.3	0.30	0.16	-59.6	0.19	0.26	-0.06	0.03
I-201-B	496	497	498	4.2	4.3	9.5	10.6	3.1	0.38	0.21	-67.9	0.23	0.36	-0.06	0.03
I-201-C	499	500	501	3.3	15.7	23.6	23.8	3.0	0.82	0.34	83.6	0.34	0.81	0.05	0.03
I-201-D	502	503	504	-0.6	27.0	33.1	34.0	-1.5	1.11	0.29	80.5	0.31	1.08	0.00	0.02
I-201-E	505	506	507	-7.1	24.4	25.6	31.5	-13.0	0.91	-0.12	68.6	0.02	0.77	0.35	0.02
I-201-F	508	509	510	-6.8	20.1	18.8	25.1	-13.1	0.70	-0.18	21.1	0.58	-0.07	0.30	0.02
I-201-G	511	512**	513	-0.8	0.0	14.9	17.7	-3.5	0.55	0.06	21.0	0.49	0.12	0.16	0.02
I-201-H	514	515	516	4.2	16.4	10.8	17.0	-2.0	0.54	0.10	-35.0	0.40	0.25	-0.21	0.02
I-201-J	517	518	519	-4.5	7.2	14.7	14.9	-4.8	0.45	-0.01	-6.3	0.44	-0.00	-0.05	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH						STRESS - KSI				TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
I-2P1-K	520	521	522	-15.8	4.5	27.5	27.6	-15.9	0.75	-0.25	1.8	0.75	-0.25	0.03	0.02
I-2P1-L	523	524	525	-7.0	3.6	7.3	8.1	-7.8	0.19	-0.18	-12.8	0.17	-0.16	-0.08	0.01
I-2P1-A	525	527	528	-3.7	-8.7	-11.9	-3.6	-12.0	-0.24	-0.43	-6.0	-0.24	-0.43	-0.02	0.03
I-2P2-B	529	530	531	1.4	-7.3	-13.2	1.5	-13.4	-0.08	-0.43	-5.2	-0.09	-0.42	-0.03	0.03
I-2P2-C	532	533	534	-4.8	-12.6	-24.5	-4.6	-24.7	-0.40	-0.86	5.9	-0.40	-0.86	0.05	0.02
I-2P2-D	535	536	537	-0.2	-19.4	-35.4	-0.1	-35.4	-0.35	-1.17	-2.6	-0.35	-1.17	-0.04	0.02
I-2P2-E	538	539	540	-9.1	-16.1	-20.7	-9.0	-20.8	-0.50	-0.78	-6.0	-0.51	-0.77	-0.03	0.03
I-2P2-F	541	542	543	-11.1	-8.0	-7.5	-7.1	-11.6	-0.35	-0.45	26.5	-0.37	-0.43	0.04	0.03
I-2P2-G	544	545	546	-15.7	-12.6	-7.4	-7.2	-15.8	-0.39	-0.59	7.1	-0.40	-0.59	0.02	0.05
I-2P2-H	547	548	549	-18.0	-13.4	0.8	2.0	-19.1	-0.12	-0.61	13.5	-0.15	-0.58	0.11	0.04
I-2R2-J	550	551	552	-17.4	-7.6	9.0	9.4	-17.9	0.13	-0.50	7.3	0.12	-0.49	0.08	0.03
I-2P2-K	553	554**	555	-15.4	0.0	27.0	22.3	-15.7	0.58	-0.30	5.0	0.57	-0.29	0.08	0.03
I-2P2-L	556	557	558	-7.9	-4.1	6.5	7.3	-8.7	0.15	-0.21	12.5	0.14	-0.20	0.08	0.03
I-2P3-A	559	560	561	-5.8	-5.7	-5.0	-4.9	-5.9	-0.22	-0.24	-72.7	-0.24	-0.22	-0.01	0.03
I-2P3-R	562	563	564	-9.6	-7.1	-8.4	-7.0	-11.0	-0.34	-0.43	53.5	-0.40	-0.27	0.04	0.03
I-2P3-C	565	566	567	-15.8	-11.4	-15.1	-11.3	-19.5	-0.57	-0.76	47.4	-0.67	-0.65	0.09	0.03
I-2P3-D	568	569	570	-10.0	-26.6	-25.3	-5.9	-29.4	-0.49	-1.03	-2.0	-0.58	-0.93	-0.21	0.04
I-2P3-E	571	572	573	-13.3	-28.3	-27.8	-9.9	-31.2	-0.64	-1.13	-23.3	-0.71	-1.05	-0.18	0.04
I-2P3-F	574	575	575	-15.5	-28.4	-25.2	-11.0	-29.7	-0.66	-1.09	-74.5	-1.06	-0.69	-0.11	0.04
I-2P3-G	577	578	579	-14.5	-25.9	-20.0	-9.1	-26.4	-0.53	-0.95	53.8	-0.80	-0.68	0.20	0.03
I-2P3-H	580	581	582	-9.3	-16.0	-12.4	-5.4	-16.2	-0.34	-0.59	53.5	-0.50	-0.43	0.12	0.03
I-2P3-J	583	584	585	1.8	-5.0	-7.4	2.4	-7.9	0.00	-0.24	76.8	-0.22	-0.01	0.05	0.02
I-2P3-K	586	587	588	8.6	-0.8	0.2	11.0	-2.2	0.34	0.04	64.5	0.09	0.28	0.12	0.02
I-2P3-L	589	590	591	10.1	-0.0	3.4	14.3	-0.8	0.46	0.11	58.3	0.21	0.37	0.16	0.02
I-2P4-A	592	593	594	-11.7	-4.6	-1.1	-0.8	-12.0	-0.15	-0.40	80.9	-0.40	-0.15	0.04	0.02
I-2P4-B	595	596	597	-9.7	-8.6	-6.9	-6.8	-9.7	-0.32	-0.39	-83.3	-0.39	-0.32	-0.01	0.03
I-2P4-C	598	599	600	-8.4	-13.8	-15.3	-7.9	-15.8	-0.42	-0.60	-14.7	-0.43	-0.59	-0.04	0.04
I-2P4-D	601	602	603	-8.4	-16.9	-17.4	-6.9	-18.9	-0.42	-0.69	-20.6	-0.45	-0.66	-0.09	0.04
I-2P4-F	604	605	606	-12.1	-15.9	-13.8	-9.9	-16.0	-0.48	-0.62	-81.7	-0.62	-0.49	-0.02	0.04
I-2P4-F	607	608	609	-9.2	-9.5	-8.9	-8.6	-9.5	-0.38	-0.40	35.1	-0.38	-0.39	0.01	0.04
I-2P4-G	610	611	612	-1.0	-4.2	-9.6	-0.9	-9.8	-0.13	-0.33	-82.8	-0.33	-0.13	0.03	0.02
I-2P4-H	613	614	615	4.4	-0.1	-8.7	4.7	-9.0	0.07	-0.25	-81.3	-0.24	0.08	-0.05	0.02
I-2P4-J	616	617	618	6.0	-5.4	-4.3	8.9	-7.2	0.22	-0.15	64.7	-0.08	0.15	0.14	0.02
I-2P5-A	619	620	621	1.0	-0.2	-0.0	1.4	-0.4	0.04	0.00	-27.1	0.03	0.01	-0.02	0.03
I-2P5-B	622	623	624	0.6	-1.3	-0.6	1.4	-1.4	0.03	-0.03	-32.4	0.01	-0.01	-0.03	0.03
I-2P5-C	625	626	627	0.3	-0.4	1.7	2.6	-0.6	0.08	0.01	-57.7	0.03	0.06	-0.03	0.03
I-2P5-D	628	629	630	0.6	-0.2	1.8	2.7	-0.3	0.08	0.02	-56.9	0.04	0.06	-0.03	0.02
I-2P5-E	631	632	633	0.1	-1.0	1.2	2.4	-1.1	0.07	-0.01	-54.6	0.02	0.04	-0.04	0.02
I-2P5-F	634	635**	636	0.7	0.0	0.5	1.2	-0.0	0.04	0.01	48.2	0.02	0.03	0.01	0.02
I-2P5-G	637	638	639	-0.3	6.1	1.3	6.1	-5.1	0.15	-0.11	-41.0	0.04	0.00	-0.13	0.01
I-2P5-G	640	641	642	-0.0	2.7	0.4	2.7	-2.4	0.07	-0.05	-42.9	0.01	0.00	-0.06	0.01
I-2P5-J	643	644	645	-0.7	-7.2	1.3	7.9	-7.3	0.19	-0.16	41.2	0.03	-0.01	0.17	0.03
O-1P5-A	156	155	154	-7.5	-3.4	4.8	5.1	-7.8	0.09	-0.21	9.1	0.08	-0.20	0.05	0.02
O-1P6-B	159	158	157	-7.8	0.0	5.2	5.4	-7.9	0.10	-0.21	-5.7	0.10	-0.21	-0.03	0.02
O-1P6-C	162	161	160	-5.8	1.6	2.9	3.9	-6.8	0.06	-0.19	-17.8	0.04	-0.16	-0.07	0.02
O-1P6-D	165	164	163	0.2	3.3	-0.2	3.3	-3.4	0.08	-0.08	-46.8	-0.01	0.00	-0.06	0.01
O-2P6-A	321	320	319	7.6	-0.8	-5.5	7.8	-5.8	0.20	-0.11	82.1	-0.11	0.20	0.04	0.03
O-2P6-B	324	323	322	8.6	4.1	-5.8	9.1	-6.3	0.24	-0.12	-79.9	-0.11	0.23	-0.06	0.03
O-2P6-C	327	326	325	-2.8	3.4	4.3	5.2	-3.7	0.13	-0.07	-18.3	0.11	-0.05	-0.06	0.02
I-1P6-A	481	482**	483	6.1	0.0	-10.8	6.4	-11.1	0.10	-0.30	7.8	0.09	-0.29	0.05	0.02
I-1P6-B	484	485	486	3.1	-0.9	-9.4	3.5	-9.8	0.02	-0.29	10.0	0.01	-0.28	0.05	0.02
I-1P6-C	487	488	489	0.5	-0.9	-4.6	0.8	-4.9	-0.02	-0.15	12.7	-0.03	-0.15	0.03	0.02
I-1P6-D	490	491**	492	-0.1	0.0	0.3	0.3	-0.1	0.01	-0.00	-75.2	0.00	0.01	-0.00	0.00
I-2P6-A	646	647	648	-4.7	10.8	13.6	15.6	-6.7	0.45	-0.07	72.6	-0.02	0.40	0.15	0.02
I-2P6-B	649	650	651	-1.7	6.8	9.2	10.0	-2.5	0.30	0.02	75.5	0.03	0.29	0.07	0.02
I-2P6-C	652	653	654	-0.2	2.6	5.0	5.0	-0.2	0.16	0.04	87.6	0.04	0.16	0.00	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
0-107-A	666	665	664	-0.9	0.2	-0.4	0.2	-1.4	-0.01	-0.04	8.7	-0.01	-0.04	0.01	0.02
0-107-B	663	662	661	-6.1	-2.9	2.5	2.6	-6.2	0.03	-0.18	52.5	-0.10	-0.05	0.10	0.02
0-107-C	660	659	658	-6.5	0.4	4.4	4.6	-6.7	0.08	-0.18	37.2	-0.01	-0.08	0.13	0.02
0-107-D	657	656	655	2.6	-4.6	9.4	17.2	-5.2	0.51	-0.00	81.1	0.01	0.50	0.08	0.02
1-107-A	688	689	690	-3.0	-0.0	0.9	1.2	-3.3	0.01	-0.10	31.4	-0.02	-0.07	0.05	0.03
1-107-B	685	686	687	-1.0	-2.4	-3.6	-1.0	-3.6	-0.07	-0.13	-47.2	-0.10	-0.10	-0.03	0.03
1-107-C	682	683	684	-2.4	-12.2	-13.8	-1.1	-15.2	-0.19	-0.51	-62.9	-0.44	-0.25	-0.13	0.02
1-107-D	679	680	681	5.1	1.0	-21.8	8.0	-24.7	0.02	-0.74	-27.7	-0.14	-0.57	-0.31	0.02
0-207-A	678	677	676	-6.0	0.9	14.6	15.2	-6.5	0.44	-0.07	54.2	0.11	0.26	0.24	0.02
0-207-B	675	674	673	7.5	-0.8	4.8	13.2	-0.9	0.43	0.10	-84.6	0.10	0.42	-0.03	0.02
0-207-C	672	671	670	26.5	11.6	5.6	27.4	4.7	0.95	0.43	-56.5	0.59	0.79	-0.24	0.04
0-207-D	669	668	667	18.2	-17.9	-6.6	32.5	-20.9	0.86	-0.37	-76.2	-0.30	0.79	-0.29	0.03
1-207-A	700	701*	702	-10.8	-1.7	-6.2	-1.3	-15.7	-0.20	-0.53	9.2	-0.21	-0.52	0.05	0.11
1-207-B	697	698	699	-14.7	-24.4	-20.0	-9.8	-24.9	-0.57	-0.92	-79.8	-0.91	-0.58	-0.06	0.03
1-207-C	694	695	696	-17.1	-28.5	-24.0	-11.8	-29.3	-0.68	-1.08	-78.3	-1.07	-0.70	-0.08	0.03
1-207-D	691	692	693	-2.3	18.8	13.7	21.1	-9.7	0.60	-0.11	15.6	0.55	-0.06	0.18	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN -			MICROINCHES/INCH			STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)			
0-197- A	666	665	664	-0.9	0.2	-0.4	0.2	-1.4	-0.01	-0.04	8.7	-0.01	-0.04	0.01	0.02	
0-197- B	663	662	661	-6.1	-2.9	2.5	2.6	-6.2	0.03	-0.18	52.5	-0.10	-0.05	0.10	0.02	
0-197- C	660	659	658	-6.5	0.4	4.4	4.6	-6.7	0.08	-0.18	37.2	-0.01	-0.08	0.13	0.02	
0-197- D	657	656	655	7.6	-4.6	9.4	17.2	-5.2	0.51	-0.00	81.1	0.01	0.50	0.08	0.02	
I-197- A	688	689	690	-3.0	-0.0	0.9	1.2	-3.1	0.01	-0.10	31.4	-0.02	-0.07	0.05	0.03	
I-197- B	685	686	687	-1.0	-2.4	-3.6	-1.0	-3.6	-0.07	-0.13	-47.7	-0.10	-0.10	-0.03	0.03	
I-197- C	682	683	684	-2.4	-17.2	-13.8	-1.1	-15.7	-0.19	-0.51	-62.9	-0.44	-0.25	-0.13	0.02	
I-197- D	679	680	681	5.1	1.0	-21.8	8.0	-24.7	0.02	-0.74	-27.7	-0.14	-0.57	-0.31	0.02	
J-227- A	678	677	676	-6.0	0.9	14.6	15.2	-6.5	0.44	-0.07	54.2	0.11	0.26	0.24	0.02	
0-227- B	675	674	673	7.5	-0.8	4.8	13.2	-0.9	0.43	0.10	-84.6	0.10	0.42	-0.03	0.02	
0-227- C	672	671	670	26.5	11.6	5.6	27.4	4.7	0.95	0.43	-56.5	0.59	0.79	-0.24	0.04	
0-227- D	669	668	667	19.2	-17.9	-6.6	32.5	-20.9	0.86	-0.37	-76.2	-0.30	0.79	-0.29	0.03	
I-227- A	700	701*	702	-10.8	-1.7	-6.2	-1.3	-15.7	-0.20	-0.53	9.2	-0.21	-0.52	0.05	0.11	
I-227- B	697	698	699	-14.7	-24.4	-20.0	-9.8	-24.9	-0.57	-0.92	-79.8	-0.91	-0.58	-0.06	0.03	
I-227- C	694	695	696	-17.1	-28.5	-24.0	-11.8	-29.3	-0.68	-1.08	-78.3	-1.07	-0.70	-0.08	0.03	
I-227- D	691	692	693	-2.3	18.8	13.7	21.1	-9.7	0.60	-0.11	15.6	0.55	-0.06	0.18	0.02	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

NOMINAL LOAD = 2.083E 01

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	S MAX	S MIN	PHI	SIG(L)	SIG(T)		
Q-1R1-A	3	2	1	44.4	16.4	-5.5	44.6	-5.7	1.41	0.25	86.5	0.26	1.41	0.07	0.05
Q-1R1-B	6	5	4	46.2	23.9	-9.2	46.7	-9.7	1.44	0.14	-84.4	0.15	1.43	-0.13	0.03
Q-1R1-C	9	8	7	37.8	20.0	-0.1	37.8	-0.1	1.25	0.37	-88.2	0.37	1.24	-0.03	0.04
Q-1R1-D	12	11	10	23.3	27.0	27.3	28.0	22.7	1.15	1.02	-20.2	1.13	1.04	-0.04	0.06
Q-1R1-E	15	14	13	13.2	22.6	38.2	38.6	12.8	1.40	0.81	7.0	1.39	0.81	0.07	0.04
Q-1R1-F	18	17	16	7.7	13.7	19.0	19.0	7.7	0.70	0.44	43.3	0.58	0.56	0.13	0.06
Q-1R1-G	21	20	19	16.1	20.4	22.9	23.0	15.9	0.92	0.75	82.5	0.76	0.91	0.02	0.05
Q-1R1-H	24	23	22	12.0	34.5	25.0	35.7	1.2	1.19	0.39	56.1	0.64	0.94	0.37	0.06
Q-1R1-I	27	26	25	6.9	32.6	26.2	35.2	-2.2	1.14	0.28	60.6	0.49	0.93	0.37	0.06
Q-1R1-K	30	29	28	-3.7	24.8	28.2	32.6	-8.1	0.99	0.06	70.9	0.16	0.89	0.29	0.04
Q-1R1-L	32	32	31	2.6	21.0	33.5	33.8	2.3	1.14	0.41	84.5	0.42	1.13	0.07	0.05
Q-1R2-A	36	35	34	24.7	3.4	-9.8	25.2	-10.3	0.73	-0.09	83.3	-0.08	0.72	0.09	0.04
Q-1R2-B	39	38	37	20.0	10.0	-14.4	21.5	-15.8	0.55	-0.31	-78.7	-0.28	0.52	-0.17	0.04
Q-1R2-C	42	41	40	22.3	18.9	-12.1	27.2	-17.0	0.73	-0.29	-70.6	-0.18	0.61	-0.32	0.03
Q-1R2-D	45	44	43*	10.0	31.4	16.9	31.8	-4.9	1.00	0.15	-39.6	0.65	0.50	-0.42	0.08
Q-1R2-E	48	47	46	16.5	32.9	13.3	33.0	-3.1	1.06	0.22	-47.5	0.60	0.68	-0.41	0.05
Q-1R2-F	51	50	49	13.1	37.0	25.2	38.0	0.3	1.26	0.39	9.4	1.23	0.41	0.14	0.05
Q-1R2-G	54	53	52	4.2	34.0	24.0	36.3	-8.1	1.12	0.09	58.2	0.38	0.83	0.46	0.03
Q-1R2-H	57	56	55	-7.0	25.6	24.3	31.7	-14.4	0.90	-0.16	66.3	0.01	0.73	0.39	0.02
Q-1R2-I	60	59	58	-12.6	10.7	18.7	20.1	-14.5	0.52	-0.28	76.4	-0.23	0.48	0.18	0.03
Q-1R2-K	63	62	61	-14.4	1.1	14.1	14.2	-14.5	0.32	-0.34	87.4	-0.34	0.32	0.03	0.02
Q-1R2-L	66	65	64	-18.4	-1.7	22.1	22.4	-18.7	0.55	-0.40	-85.1	-0.39	0.55	-0.08	0.03
Q-1R3-A	69	68	67*	15.9	3.2	0.7	17.4	-0.9	0.57	0.14	73.1	0.18	0.53	0.12	0.04
Q-1R3-B	72	71	70	10.0	-1.3	-6.5	10.6	-7.1	0.28	-0.13	79.7	-0.11	0.27	0.07	0.04
Q-1R3-C	75	74	73	13.0	5.5	-5.5	13.1	-5.7	0.38	-0.06	-84.6	-0.05	0.37	-0.04	0.04
Q-1R3-D	78*	77	76	5.7	9.6	-2.5	10.6	-7.3	0.28	-0.14	-58.6	-0.02	0.16	-0.18	0.06
Q-1R3-E	81	80	79	4.6	14.5	2.1	14.6	-7.8	0.40	-0.11	-48.2	0.12	0.17	-0.26	0.03
Q-1R3-F	84	83	82	-3.0	12.9	9.6	14.8	-8.2	0.41	-0.12	16.6	0.36	-0.08	0.15	0.04
Q-1R3-G	87	86	85	-6.9	0.4	15.2	16.4	-8.1	0.46	-0.11	77.3	-0.08	0.43	0.12	0.04
Q-1R3-H	90	89	88	-9.5	0.7	16.3	16.6	-9.8	0.45	-0.16	-84.1	-0.15	0.44	-0.06	0.02
Q-1R3-I	93	92	91	-12.3	-5.7	13.4	14.8	-13.8	0.35	-0.31	-77.1	-0.27	0.32	-0.14	0.03
Q-1R3-K	96	95	94	-13.1	-8.5	12.0	14.3	-15.4	0.32	-0.37	-73.9	-0.31	0.27	-0.18	0.02
Q-1R3-L	99	98	97	-3.9	-2.9	16.1	19.5	-7.4	0.57	-0.05	-69.0	0.03	0.49	-0.21	0.04
Q-1R4-A	102	101	100	12.2	1.8	6.9	17.7	1.4	0.60	0.22	54.5	0.35	0.47	0.18	0.04
Q-1R4-B	105	104	103	11.6	0.0	-2.7	12.9	-4.0	0.39	-0.00	74.0	0.03	0.36	0.10	0.04
Q-1R4-C	108	107	106	11.8	5.8	-5.3	12.2	-5.7	0.35	-0.07	-81.7	-0.06	0.34	-0.06	0.02
Q-1R4-D	111	110	109	13.1	10.9	-9.9	16.4	-13.1	0.41	-0.27	-70.5	-0.20	0.33	-0.21	0.03
Q-1R4-E	114	113	112	-1.4	21.8	3.8	22.0	-19.5	0.53	-0.43	3.6	0.53	-0.42	0.06	0.03
Q-1R4-F	117	116	115	-14.2	1.1	15.9	15.9	-14.2	0.38	-0.31	89.5	-0.31	0.38	0.01	0.03
Q-1R4-G	120	119	118	-10.2	-1.0	16.0	16.6	-10.8	0.44	-0.19	-81.7	-0.18	0.43	-0.09	0.03
Q-1R4-H	123	122	121	-9.7	-2.4	14.1	15.0	-10.5	0.39	-0.20	-79.3	-0.18	0.37	-0.11	0.03
Q-1R4-I	126	125	124	27.4	14.5	14.1	29.9	11.6	1.10	0.68	-21.8	1.04	0.74	-0.15	0.08
Q-1R5-A	129	128	127	10.2	9.7	12.7	13.6	9.3	0.54	0.44	27.0	0.52	0.46	0.04	0.05
Q-1R5-B	132	131	130	7.8	-0.7	-9.2	7.8	-9.2	0.17	-0.23	-90.0	-0.23	0.17	-0.00	0.04
Q-1R5-C	135	134	133	10.7	-2.6	-13.5	10.8	-13.5	0.22	-0.34	87.0	-0.34	0.22	0.03	0.04
Q-1R5-D	138	137	136	11.9	-9.6	-24.5	12.2	-24.8	0.16	-0.70	85.0	-0.69	0.15	0.07	0.03
Q-1R5-E	141	140	139	-3.8	13.1	-11.6	13.5	-28.9	0.16	-0.82	-50.3	-0.42	-0.24	-0.48	0.04
Q-1R5-F	144	143	142	-19.0	-0.9	13.1	13.2	-19.1	0.25	-0.50	86.3	-0.50	0.24	0.05	0.04
Q-1R5-G	147	146	145	-9.6	4.1	17.5	17.5	-9.7	0.48	-0.15	89.5	-0.15	0.48	0.01	0.04
Q-1R5-H	150	149	148	-13.7	-1.3	15.8	15.9	-13.9	0.39	-0.30	-85.5	-0.30	0.38	-0.05	0.02

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	E _{MAX}	E _{MIN}	S _{MAX}	S _{MIN}	PHI	SIG(L)	SIG(T)	TAU	CONF
0-195-J	153	157	151*	50.1	38.2	5.7	52.4	3.4	1.76	0.63	12.4	1.71	0.68	0.24	0.06
0-201-A	168	167	166	54.6	22.8	-2.4	54.8	-2.6	1.78	0.46	86.7	0.46	1.78	0.08	0.04
0-201-B	171	170	169	50.8	28.2	-3.4	51.2	-3.7	1.65	0.38	-85.3	0.39	1.64	-0.10	0.04
0-201-C	174	173	172	42.2	28.1	6.7	42.6	6.3	1.47	0.63	-84.1	0.64	1.46	-0.09	0.04
0-201-D	177	176	175	29.1	35.6	27.7	35.6	21.2	1.38	1.05	-47.7	1.20	1.23	-0.17	0.09
0-201-E	180	179	178	15.3	28.3	36.8	37.0	15.1	1.37	0.86	-5.9	1.36	0.87	-0.05	0.05
0-201-F	183	182	181	9.7	20.7	21.9	23.6	7.9	0.86	0.49	25.6	0.79	0.56	0.14	0.06
0-201-G	186	185	184	15.0	24.8	21.1	25.5	10.6	0.95	0.60	57.2	0.70	0.84	0.16	0.05
0-201-H	189	188	187	7.8	30.2	26.6	33.2	1.2	1.11	0.37	63.0	0.52	0.96	0.30	0.05
0-201-J	192	191	190	-0.4	26.0	27.1	32.1	-5.3	1.00	0.14	68.7	0.25	0.89	0.29	0.04
0-201-K	195	194	193	-5.1	18.1	23.4	26.0	-7.7	0.78	0.00	74.0	0.06	0.72	0.31	0.03
0-201-L	198	197	196	-4.4	13.8	26.7	26.9	-4.6	0.84	0.11	85.1	0.12	0.84	0.06	0.04
0-202-A	201	200	199	30.2	16.2	6.7	30.4	6.5	1.07	0.52	84.4	0.52	1.06	0.05	0.07
0-202-B	204	203	202	14.5	6.9	-14.3	16.0	-15.8	0.37	-0.36	-77.3	-0.33	0.34	-0.16	0.03
0-202-C	207	206	205	19.0	13.5	-11.0	21.7	-13.7	0.58	-0.24	-73.8	-0.17	0.52	-0.22	0.05
0-202-D	210	209	208	16.0	29.1	4.9	29.9	-9.0	0.90	-0.00	-53.3	0.32	0.58	-0.43	0.04
0-202-E	213	212	211	6.5	31.7	16.4	32.3	-9.4	0.97	0.01	-38.1	0.60	0.38	-0.47	0.03
0-202-F	216	215	214	5.0	32.4	24.6	34.9	-5.4	1.10	0.17	74.5	1.04	0.23	0.23	0.03
0-202-G	219	218	217	-3.9	26.6	24.6	37.0	-11.3	0.94	-0.06	65.6	0.11	0.77	0.38	0.03
0-202-H	222	221	220	-11.9	15.6	21.5	24.7	-15.0	0.67	-0.25	73.6	-0.18	0.59	0.25	0.02
0-202-J	225	224	223	-14.4	4.9	16.4	16.9	-14.9	0.41	-0.32	82.9	-0.31	0.40	0.09	0.03
0-202-K	228	227	226	-14.5	-0.3	15.3	15.3	-14.5	0.36	-0.33	-88.7	-0.33	0.36	-0.02	0.02
0-202-L	231	230	229	-23.8	-2.6	24.5	24.7	-24.0	0.58	-0.55	-86.5	-0.54	0.57	-0.07	0.04
0-203-A	234	233	232	21.1	9.7	12.6	25.1	8.6	0.91	0.53	60.5	0.62	0.82	1.16	0.04
0-203-B	237	236	235	9.4	-2.2	-1.7	12.0	-4.3	0.35	-0.02	66.4	0.04	0.29	0.14	0.02
0-203-C	240	239	238	13.2	6.6	-2.2	13.2	-2.3	0.41	0.06	-85.9	0.06	0.41	-0.03	0.03
0-203-D	243	242	241	17.0	11.7	1.7	14.5	0.2	0.48	0.15	-71.0	0.18	0.44	-0.10	0.03
0-203-E	246	245	244	11.8	17.4	3.9	18.2	-2.5	0.57	0.10	-56.3	0.24	0.43	-0.22	0.03
0-203-F	249	248	247	2.3	17.0	12.6	18.3	-3.4	0.57	0.07	14.3	0.54	0.10	0.12	0.02
0-203-G	252	251	250	-2.2	12.4	16.2	17.7	-3.6	0.55	0.06	74.9	0.09	0.51	0.12	0.04
0-203-H	255	254	253	-6.8	5.2	15.6	15.6	-6.8	0.45	-0.07	88.0	-0.07	0.45	0.02	0.04
0-203-J	258	257	256	-10.9	-2.6	11.7	12.1	-11.3	0.29	-0.25	-82.4	-0.24	0.28	-0.07	0.02
0-203-K	261	260	259	-10.1	-9.0	11.7	14.9	-13.8	0.36	-0.31	-69.0	-0.22	0.27	-0.22	0.02
0-203-L	264	263	262	4.6	1.9	19.7	25.0	-0.6	0.82	0.23	-63.1	0.35	0.70	-0.24	0.03
0-204-A	267	266	265	18.2	14.7	18.0	21.5	14.7	0.85	0.70	46.1	0.77	0.78	0.08	0.07
0-204-B	270	269	268	15.8	4.3	-5.8	15.8	-5.8	0.46	-0.04	88.1	-0.03	0.46	0.02	0.03
0-204-C	273	272	271	18.1	7.6	-6.9	18.2	-7.0	0.53	-0.05	-95.4	-0.05	0.53	-0.05	0.03
0-204-D	276	275	274	14.8	13.8	-8.7	19.0	-12.9	0.50	-0.24	-68.8	-0.14	0.40	-0.25	0.04
0-204-E	279	278	277	19.6	2.1	0.5	22.5	-2.4	0.72	0.14	-65.0	0.25	0.62	-0.22	0.04
0-204-F	282	281	280	-10.8	10.7	16.6	18.6	-12.9	0.49	-0.24	75.1	-0.19	0.44	0.18	0.03
0-204-G	285	284	283	-7.3	1.7	15.4	15.6	-7.6	0.44	-0.10	-84.2	-0.09	0.43	-0.05	0.05
0-204-H	288	287	286	-3.8	-0.0	12.4	13.5	-4.9	0.40	-0.03	-76.0	-0.00	0.37	-0.10	0.03
0-204-J	291	290	289	35.5	19.9	20.4	39.0	16.9	1.45	0.94	-23.4	1.37	1.02	-0.19	0.06
0-205-A	294	293	292	11.2	11.6	14.3	14.7	10.8	0.59	0.50	-71.6	0.51	0.58	-0.03	0.05
0-205-B	297	296	295	-5.7	2.4	12.0	12.0	-5.7	0.34	-0.07	-87.6	-0.07	0.34	-0.02	0.03
0-205-C	300	299	298	-12.3	-0.9	15.0	15.2	-12.5	0.38	-0.26	-85.3	-0.26	0.37	-0.05	0.04
0-205-D	303	302	301	-26.4	-6.6	15.3	15.4	-26.4	0.25	-0.72	-88.5	-0.72	0.24	-0.03	0.04
0-205-E	306	305	304	-26.4	-7.8	15.5	15.7	-26.5	0.25	-0.72	-86.8	-0.72	0.25	-0.05	0.04
0-205-F	309	308	307*	-16.3	-1.5	15.9	15.9	-16.4	0.36	-0.38	-87.7	-0.38	0.36	-0.03	0.03
0-205-G	312	311	310	-5.0	5.5	17.6	17.7	-5.0	0.53	0.01	-87.9	0.01	0.53	-0.02	0.06
0-205-H	315	314	313	-6.5	4.4	14.7	14.7	-6.5	0.42	-0.07	89.1	-0.07	0.42	0.01	0.06
0-205-J	318	317	316	51.4	28.5	20.4	53.1	18.7	1.94	1.14	-12.8	1.90	1.18	-0.17	0.07
I-101-A	320	320	320	-33.2	-0.1	20.4	21.1	-34.0	0.36	-0.91	83.3	-0.89	0.34	0.15	0.05
I-101-B	331*	332	333**	-5.5	-8.7	0.0	3.7	-9.3	0.03	-0.27	-57.6	-0.18	-0.05	-0.14	0.05
I-101-C	334	335	336	7.5	-15.3	-27.6	8.3	-28.4	-0.01	-0.85	-8.4	-0.03	-0.84	-0.12	0.06
I-101-D	337	338	339	-0.4	-9.8	-13.3	0.2	-13.9	-0.13	-0.46	-12.4	-0.15	-0.44	-0.07	0.06

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI					TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)		
I-1R1-E	340	341	342	-7.7	-2.8	-0.3	-0.3	-7.7	-0.08	-0.26	88.8	-0.26	-0.08	0.00	0.07
I-1R1-F	343	344	345	3.9	4.4	8.7	9.3	3.2	0.34	0.20	63.9	0.23	0.31	0.06	0.05
I-1R1-G	346	347	348	1.3	-6.2	2.0	9.5	-6.2	0.25	-0.11	43.8	0.08	0.06	0.18	0.05
I-1R1-H	349	350	351	-0.9	-17.5	0.7	9.3	-18.5	0.12	-0.52	33.8	-0.08	-0.32	0.30	0.04
I-1R1-J	352	353	354	-15.4	-17.3	7.3	13.3	-21.5	0.23	-0.58	24.6	0.09	-0.44	0.30	0.05
I-1R1-K	355	356	357	-2.7	-6.4	4.9	9.4	-7.3	0.24	-0.15	31.5	0.13	-0.04	0.17	0.05
I-1R1-L	358	359	360	20.5	0.9	-10.1	21.1	-10.7	0.59	-0.14	82.1	-0.13	0.58	0.10	0.07
I-1R2-A	361	362	363**	-12.5	16.9	0.0	17.7	-30.3	0.28	-0.82	52.6	-0.41	-0.12	0.53	0.05
I-1R2-B	364	365	366	-4.8	11.1	26.8	26.8	-4.8	0.84	0.11	89.9	0.11	0.84	0.00	0.03
I-1R2-C	367	369	369	-1.2	4.3	15.5	15.9	-1.6	0.51	0.10	-80.5	0.11	0.50	-0.07	0.04
I-1R2-D	370	371	372	-4.0	3.3	3.5	4.9	-5.4	0.11	-0.13	68.0	-0.10	0.07	0.08	0.03
I-1R2-F	373	374	375	-9.5	-11.6	-9.9	-7.8	-11.6	-0.37	-0.46	-41.7	-0.41	-0.42	-0.04	0.05
I-1R2-G	376	377	378	-19.1	-21.1	-10.7	-6.7	-22.1	-0.44	-0.79	75.6	-0.77	-0.46	0.09	0.07
I-1R2-H	379	380	381	-13.0	-13.6	-5.0	-2.9	-15.1	-0.24	-0.53	24.6	-0.29	-0.48	0.11	0.04
I-1R2-I	382	383	384	0.0	0.1	-1.3	0.4	-1.7	-0.00	-0.05	-66.7	-0.04	-0.01	-0.02	0.03
I-1R2-J	385	386	387	14.4	7.5	0.0	14.4	0.0	0.47	0.14	-89.0	0.14	0.47	-0.01	0.03
I-1R2-K	388	389	390	24.0	11.4	-1.2	24.0	-1.2	0.78	0.20	-90.0	0.20	0.78	-0.00	0.03
I-1R2-L	391	392	393	37.0	18.5	-2.9	37.1	-3.0	1.19	0.27	-88.0	0.27	1.19	-0.03	0.03
I-1R3-A	394	395	396	3.3	14.2	33.3	33.9	2.8	1.14	0.43	-82.3	0.44	1.13	-0.10	0.05
I-1R3-B	397	399	399	11.2	10.7	31.3	31.5	11.1	1.15	0.68	-85.6	0.68	1.14	-0.04	0.07
I-1R3-C	400	401	402	8.8	23.0	34.4	34.5	8.7	1.22	0.63	86.9	0.63	1.22	0.03	0.06
I-1R3-D	403	404*	405	5.0	32.0	39.0	42.3	1.7	1.41	0.47	73.5	0.55	1.33	0.26	0.10
I-1R3-E	406	407	408	8.5	34.0	29.4	37.3	0.6	1.24	0.39	62.4	0.57	1.05	0.35	0.08
I-1R3-F	409	410	411	16.0	32.3	17.2	32.3	0.9	1.07	0.35	1.1	1.07	0.35	0.01	0.07
I-1R3-G	412	413	414	19.8	36.6	14.9	26.8	-2.1	1.19	0.30	-48.6	0.69	0.80	-0.44	0.04
I-1R3-H	415	416	417	23.7	34.0	12.2	25.0	0.9	1.16	0.38	-54.9	0.64	0.90	-0.27	0.07
I-1R3-I	418	419	420	23.9	26.7	11.9	28.6	7.3	1.01	0.52	-62.2	0.63	0.91	-0.20	0.03
I-1R3-J	421	422*	423	22.1	21.4	10.9	23.9	9.0	0.88	0.53	-69.3	0.58	0.83	-0.11	0.11
I-1R3-L	424	425*	426	22.0	12.8	5.6	22.1	5.6	0.78	0.40	86.6	0.40	0.78	0.07	0.06
I-1R4-A	427	428	429	24.7	25.3	23.0	25.6	27.1	1.06	0.98	30.6	1.04	1.00	0.03	0.05
I-1R4-B	430	431	432	16.0	26.5	30.1	30.9	15.3	1.17	0.81	77.1	0.83	1.15	0.08	0.05
I-1R4-C	433	434	435	8.6	27.0	41.0	45.1	4.4	1.53	0.59	71.4	0.69	1.44	0.28	0.04
I-1R4-D	436	437	438	15.7	41.3	43.1	47.6	11.2	1.68	0.84	69.5	0.94	1.58	0.27	0.04
I-1R4-E	439	440	441	23.7	47.1	34.9	47.9	10.7	1.69	0.83	8.7	1.67	0.85	0.13	0.04
I-1R4-F	442	443	444	23.7	44.4	21.8	45.5	10.1	1.60	0.78	-54.8	1.05	1.33	-0.38	0.03
I-1R4-G	445	446	447	32.0	36.2	14.6	38.9	7.7	1.36	0.64	-62.0	0.80	1.20	-0.20	0.04
I-1R4-H	448	449	450	27.5	29.9	24.5	30.0	17.0	1.16	0.86	-40.7	1.03	0.98	-0.15	0.04
I-1R4-I	451	452	453	21.4	27.9	15.6	23.8	13.3	0.91	0.67	-61.8	0.73	0.86	-0.10	0.06
I-1R5-A	454	455	456	39.3	38.8	28.6	41.1	26.8	1.62	1.29	21.1	1.58	1.33	0.11	0.06
I-1R5-B	457	458	459	35.1	44.0	39.8	44.4	30.4	1.76	1.44	54.8	1.55	1.66	0.15	0.14
I-1R5-C	460*	461	462	3.2	38.2	59.0	59.9	2.3	2.00	0.67	82.8	0.69	1.98	0.16	0.08
I-1R5-D	463	464	465	23.1	45.4	63.5	63.6	23.0	2.32	1.39	87.0	1.39	2.32	0.05	0.05
I-1R5-E	466	467	468	24.7	46.5	61.0	61.3	24.3	2.26	1.41	84.2	1.42	2.25	0.09	0.07
I-1R5-F	469	470	471	50.9	30.6	18.5	51.4	17.9	1.87	1.10	82.9	1.11	1.86	0.10	0.04
I-1R5-G	472	473	474	44.9	23.1	8.4	45.3	8.1	1.57	0.71	84.5	0.72	1.56	0.08	0.05
I-1R5-H	475	476*	477	27.9	-10.0	18.9	57.1	-10.3	1.78	0.22	48.9	0.90	1.11	0.77	0.16
I-1R5-I	479	479	480	23.0	24.9	28.1	28.2	22.9	1.15	1.03	6.9	1.15	1.03	0.01	0.14
I-2R1-A	493	494	495	-19.4	-0.2	10.8	11.2	-18.9	0.18	-0.51	83.0	-0.50	0.17	0.08	0.05
I-2R1-B	496	497	498	-1.4	-3.9	-2.3	0.2	-3.9	-0.03	-0.13	-29.0	-0.07	-0.09	-0.05	0.03
I-2R1-C	499	500	501	4.9	-6.6	-20.8	5.0	-20.9	-0.04	-0.62	2.9	-0.04	-0.64	0.03	0.04
I-2R1-D	502	502	504	-0.7	-4.9	-17.6	0.3	-18.6	-0.17	-0.61	13.2	-0.20	-0.59	0.10	0.05
I-2R1-F	505	506	507	-4.4	-2.7	-2.4	-2.2	-4.6	-0.12	-0.17	73.1	-0.17	-0.12	0.02	0.04
I-2R1-G	508	509*	510	5.0	4.7	4.8	5.1	4.7	0.21	0.21	-72.9	0.21	0.21	-0.00	0.11
I-2R1-H	511**	512**	513	0.0	0.0	2.0	2.5	-0.4	0.08	0.01	22.5	0.07	0.02	0.02	0.08
I-2R1-I	514	515	516	-4.3	-16.8	0.2	12.9	-17.0	0.26	-0.43	40.6	-0.04	-0.14	0.34	0.03
I-2R1-J	517	518	519	-7.2	-13.3	3.5	10.8	-14.5	0.21	-0.37	32.4	0.04	-0.20	0.26	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH							STRESS - KSI				
	(1)	(2)	(3)	E(1)	E(2)	E(3)	FMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
I-2R1-K	520	521	522	7.0	-2.6	0.5	10.9	-3.4	0.33	-0.00	58.5	0.09	0.24	0.15	0.03
I-2R1-L	523	524	525	21.0	6.6	-9.0	21.0	-9.0	0.60	-0.09	-88.9	-0.09	0.60	-0.01	0.03
I-2R2-A	526	527	528	-8.3	14.5	32.5	32.7	-8.4	0.99	0.05	86.7	0.05	0.99	0.05	0.04
I-2R2-B	529	530	531	4.1	15.6	27.8	27.9	4.1	0.96	0.41	-89.2	0.41	0.96	-0.01	0.06
I-2R2-C	532	533	534	-0.0	17.4	29.4	29.6	-0.3	0.97	0.28	84.8	0.29	0.97	0.06	0.03
I-2R2-D	535	534	537	-5.6	13.7	18.9	20.8	-7.5	0.61	-0.04	75.0	0.00	0.57	0.16	0.03
I-2R2-E	538	539	540**	-8.5	-1.6	0.0	0.8	-9.2	-0.07	-0.30	74.1	-0.28	-0.08	0.06	0.03
I-2R2-F	541	542	543	-11.1	-8.2	-5.2	-5.2	-11.1	-0.28	-0.42	45.6	-0.35	-0.35	0.07	0.04
I-2R2-G	544*	545*	546	0.3	4.6	-2.9	4.8	-7.4	0.08	-0.20	-52.7	-0.09	-0.02	-0.13	0.05
I-2R2-H	547	548	549	6.4	5.0	-0.1	6.9	-0.6	0.22	0.05	-75.3	0.06	0.21	-0.04	0.03
I-2R2-J	550	551	552	15.7	5.3	-0.6	16.0	-0.9	0.52	0.13	82.5	0.14	0.51	0.05	0.03
I-2R2-K	553	554**	555	20.7	0.0	-4.5	23.0	-6.9	0.69	0.00	73.7	0.05	0.64	0.19	0.04
I-2R2-L	556	557	558	31.9	11.1	-8.1	21.9	-8.1	0.97	0.05	88.8	0.05	0.97	0.02	0.04
I-2R3-A	559	560	561	10.5	22.5	32.4	32.5	10.4	1.17	0.66	87.2	0.67	1.17	0.02	0.04
I-2R3-B	562	563	564	13.4	22.5	28.7	28.9	13.3	1.08	0.72	84.6	0.73	1.08	0.03	0.06
I-2R3-C	565	566	567	12.7	24.7	30.9	31.4	11.6	1.15	0.69	80.6	0.71	1.14	0.07	0.04
I-2R3-D	568	569	570	6.8	41.5	37.2	46.8	-2.7	1.51	0.37	64.0	0.59	1.30	0.45	0.03
I-2R3-E	571	572	573	6.5	37.3	30.4	40.7	-3.7	1.31	0.28	61.2	0.52	1.07	0.43	0.06
I-2R3-F	574	575	576	13.5	37.5	23.0	38.0	-1.6	1.24	0.32	6.9	1.22	0.34	0.11	0.06
I-2R3-G	577**	578	579	0.0	37.1	12.7	27.7	-25.0	1.00	-0.45	-39.2	0.42	0.13	-0.71	0.04
I-2R3-H	580	581	582	24.0	29.7	8.7	31.7	1.0	1.06	0.35	-60.0	0.52	0.88	-0.31	0.05
I-2R3-J	583	584	585	21.7	20.9	11.2	23.4	9.5	0.87	0.55	-69.9	0.58	0.83	-0.10	0.04
I-2R3-K	586	587	588	22.8	18.4	11.7	22.9	11.6	0.87	0.61	-84.0	0.61	0.87	-0.03	0.06
I-2R3-L	589	590	591	25.1	14.9	3.6	25.1	3.5	0.86	0.37	-88.4	0.37	0.86	-0.01	0.04
I-2R4-A	592	593	594	25.9	27.3	24.0	27.5	22.3	1.13	1.01	34.4	1.09	1.05	0.06	0.05
I-2R4-B	595	596	597	24.1	28.0	27.3	28.5	23.0	1.17	1.04	62.9	1.07	1.14	0.05	0.11
I-2R4-C	598	599	600	15.3	34.1	39.9	42.5	12.6	1.53	0.84	72.6	0.90	1.47	0.20	0.04
I-2R4-D	601	602	603	15.7	44.7	48.0	57.5	11.2	1.84	0.84	70.7	0.99	1.74	0.30	0.04
I-2R4-E	604	605	604	28.2	50.5	37.6	51.2	14.7	1.83	0.99	7.5	1.82	1.00	0.11	0.04
I-2R4-F	607	608	609	41.1	50.7	20.2	53.2	9.0	1.93	0.79	-58.7	1.07	1.55	-0.46	0.05
I-2R4-G	610	611	612	36.0	41.1	18.6	43.6	11.0	1.55	0.79	-61.1	0.97	1.37	-0.32	0.06
I-2R4-H	613	614	615	25.7	28.0	26.1	28.0	23.7	1.16	1.06	-42.4	1.11	1.10	-0.05	0.06
I-2R4-J	616	617	618	24.5	27.6	23.1	27.7	19.9	1.11	0.93	-50.1	1.00	1.04	-0.09	0.08
I-2R5-A	619	620**	621	41.9	0.0	75.2	68.1	-1.0	2.24	0.64	-38.0	1.63	1.25	-0.77	0.07
I-2R5-B	622	623	624	34.8	27.7	37.4	44.6	27.6	1.74	1.35	-49.4	1.52	1.58	-0.19	0.13
I-2R5-C	625	626	627	5.4	26.9	50.7	50.8	5.4	1.73	0.68	-88.6	0.68	1.00	-0.03	0.07
I-2R5-D	628	629	630	22.5	35.2	51.8	52.0	22.3	1.93	1.25	-86.1	1.25	1.00	-0.05	0.08
I-2R5-E	631	632	633	24.5	40.7	54.1	54.1	24.5	2.03	1.34	67.3	1.34	2.00	0.03	0.05
I-2R5-F	634	635	636	55.7	38.3	16.2	55.8	16.1	2.00	1.08	-86.6	1.09	2.00	-0.05	0.08
I-2R5-G	637	638	639	48.6	28.4	9.0	48.6	9.0	1.69	0.78	89.5	0.78	1.69	0.01	0.07
I-2R5-H	640	641	642	32.7	21.4	24.7	37.0	20.4	1.42	1.04	59.2	1.14	1.32	0.17	0.05
I-2R5-J	643	644	645	26.6	32.2	31.0	32.8	24.8	1.33	1.14	-28.7	1.28	1.18	-0.08	0.08
O-1R6-A	156	155	154	0.1	3.4	8.8	8.9	-0.0	0.29	0.09	6.5	0.29	0.09	0.02	0.03
O-1R6-B	159	158	157	-0.2	0.2	1.3	1.4	-0.2	0.04	0.01	12.5	0.04	0.01	0.01	0.04
O-1R6-C	162	161	160	6.2	-1.8	-4.1	7.0	-4.8	0.18	-0.09	75.4	-0.07	0.16	0.07	0.02
O-1R6-D	165	164	163	7.2	0.2	-2.1	7.8	-2.6	0.23	-0.01	76.3	0.00	0.22	0.06	0.04
O-2R6-A	321	320	319	0.1	6.9	10.1	10.5	-0.2	0.34	0.10	-9.9	0.34	0.10	-0.04	0.04
O-2R6-B	324	323	322	1.8	2.3	5.3	5.7	1.4	0.20	0.10	17.5	0.19	0.11	0.03	0.03
O-2R6-C	327	326	325	-0.9	3.2	5.4	5.6	-1.0	0.17	0.02	-8.5	0.17	0.02	-0.02	0.03
I-1R6-A	481**	482**	483	0.0	0.0	6.8	8.2	-1.4	0.26	0.03	-67.5	0.07	0.22	-0.08	0.04
I-1R6-B	484	485	486	20.1	13.1	2.9	20.3	2.8	0.70	0.29	5.2	0.69	0.29	0.04	0.04
I-1R6-C	487	488	489	25.2	14.9	3.9	25.2	3.9	0.87	0.38	0.9	0.87	0.38	0.01	0.05
I-1R6-D	490	491	492	21.1	14.7	4.9	21.3	4.7	0.75	0.37	5.9	0.75	0.37	0.04	0.05
I-2R6-A	646	647	648	12.4	6.9	7.7	14.0	6.1	0.52	0.34	-26.8	0.49	0.38	-0.07	0.05
I-2R6-B	649	650	651	15.7	8.6	5.1	16.1	4.8	0.58	0.32	-9.5	0.57	0.32	-0.04	0.04
I-2R6-C	652	653	654	19.5	12.6	4.9	19.5	4.8	0.69	0.35	1.7	0.69	0.35	0.01	0.03

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMREPS			STRAIN - MICROINCHES/INCH							STRESS - KSI				TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)			
Q-1P7-A	666	665	664	-7.3	-1.0	18.2	19.7	-8.8	0.56	-0.10	58.3	0.09	0.38	0.29	0.05	
Q-1P7-B	663	662	661	-0.4	18.7	8.2	19.4	-11.6	0.52	-0.19	8.1	0.51	-0.18	0.10	0.04	
Q-1P7-C	650	659	658	0.4	22.6	7.2	22.9	-15.3	0.60	-0.28	5.2	0.60	-0.27	0.08	0.03	
Q-1P7-D	657	656	655*	22.7	34.8	32.7	36.4	19.0	1.39	0.99	17.6	1.35	1.02	0.12	0.13	
I-1P7-A	688	689	690	33.1	45.8	42.0	46.9	28.1	1.83	1.39	14.1	1.80	1.42	0.10	0.16	
I-1P7-B	685	684	687	19.0	41.8	29.7	42.6	6.0	1.46	0.62	8.5	1.45	0.64	0.12	0.05	
I-1P7-C	692	693	684	-1.3	5.7	2.8	6.1	-4.6	0.16	-0.09	11.3	0.15	-0.08	0.05	0.03	
I-1P7-D	679	680	681	-19.8	-26.0	-9.2	-1.9	-27.1	-0.33	-0.91	77.6	-0.89	-0.36	0.12	0.04	
Q-2P7-A	678	677	676	-6.7	14.1	-4.1	14.1	-25.0	0.22	-0.68	1.9	0.22	-0.68	0.03	0.04	
Q-2P7-B	675	674	677	9.0	21.2	7.3	21.2	-5.0	0.65	0.05	-1.8	0.65	0.05	-0.02	0.05	
Q-2P7-C	672	671	67	-3.9	21.1	15.0	23.8	-12.6	0.66	-0.18	15.7	0.60	-0.12	0.22	0.04	
Q-2P7-D	669	668	667	13.9	33.6	32.9	37.4	9.4	1.32	0.68	21.5	1.24	0.77	0.22	0.05	
I-2P7-A	700	701	702	31.7	58.6	44.5	59.6	16.6	2.13	1.14	8.7	2.11	1.16	0.15	0.08	
I-2P7-B	697	698	699	10.5	44.5	27.1	44.8	1.8	1.49	0.50	5.1	1.49	0.51	0.09	0.04	
I-2P7-C	694	695	696	3.0	16.7	9.6	17.2	-4.6	0.57	0.02	8.7	0.51	0.03	0.08	0.03	
I-2P7-D	691	692	693	-11.2	-16.6	-5.3	0.7	-17.1	-0.15	-0.56	80.3	-0.55	-0.16	0.07	0.05	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

INCO021 STOP

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COMBUSTION T-10, LOAD CASE 1, MAX

NOMINAL LOAD = 2.850E 05

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
0-1A1-A	3	2	1	9.7	-33.8	-75.1	9.7	-75.1	-0.42	-2.38	89.2	-2.38	-0.42	0.03	0.06
0-1A1-B	6	5	4	24.9	-17.4	-50.6	25.1	-50.9	0.33	-1.43	86.6	-1.42	0.32	0.10	0.03
0-1A1-C	9	8	7	34.1	-33.4	-67.8	36.7	-70.4	0.51	-1.96	81.0	-1.90	0.45	0.38	0.04
0-1A1-E	12	11	10	40.5	-41.8	-77.3	45.0	-81.1	0.67	-2.25	79.2	-2.15	0.57	0.54	0.06
0-1A1-F	15	14	13	30.2	-34.6	-38.6	41.7	-50.1	0.88	-1.24	69.3	-0.98	0.61	0.70	0.03
0-1A1-G	18	17	16	26.3	-17.4	-12.5	38.0	-24.2	1.01	-0.42	-70.7	-0.26	0.86	-0.45	0.04
0-1A1-G	21	20	19	28.3	0.6	-10.4	30.1	-12.1	0.87	-0.10	-11.7	0.83	-0.06	-0.19	0.03
0-1A1-H	24	23	22	15.8	15.1	-6.3	19.9	-10.5	0.55	-0.15	21.6	0.46	-0.05	0.24	0.02
0-1A1-J	27	26	25	1.5	8.9	-4.5	9.3	-12.3	0.19	-0.31	37.0	0.01	-0.13	0.24	0.02
0-1A1-K	30	29	28	-1.8	1.1	-4.5	1.3	-7.4	-0.03	-0.23	36.5	-0.10	-0.16	0.10	0.04
0-1A1-L	33	32	31	-2.0	2.1	-3.7	2.2	-7.9	-0.01	-0.24	40.2	-0.10	-0.14	0.12	0.03
1-1A1-A	32A	32A	330	-32.5	-14.2	14.9	15.5	-33.1	0.18	-0.94	-83.6	-0.92	0.17	-0.12	0.03
1-1A1-H	331	332	333	-36.3	-27.7	-9.9	-9.5	-38.8	-0.70	-1.37	-82.9	-1.36	-0.71	-0.08	0.04
1-1A1-C	334	335	336	-15.2	-32.0	-48.2	-15.2	-48.2	-0.98	-1.74	-0.4	-0.98	-1.74	-0.01	0.04
1-1A1-D	337	338	339	5.8	-20.2	-55.7	6.1	-56.1	-0.35	-1.79	4.4	-0.36	-1.78	0.11	0.05
1-1A1-E	341	342	342	-3.7	3.2	-22.1	5.6	-31.3	-0.12	-0.98	30.1	-0.34	-0.76	0.37	0.03
1-1A1-F	343	344	345	-20.0	7.2	-5.7	8.5	-34.2	-0.06	-1.04	9.8	-0.09	-1.02	0.16	0.04
1-1A1-G	346	347	348	-13.4	8.1	-4.3	8.7	-26.4	0.03	-0.78	-37.5	-0.27	-0.48	-0.34	0.03
1-1A1-H	349	350	351	0.8	10.4	-0.8	10.4	-10.4	0.24	-0.24	-47.2	-0.02	0.02	-0.24	0.04
1-1A1-J	352	353	354	2.6	8.0	2.7	8.0	-2.7	0.24	-0.01	-44.8	0.12	0.11	-0.12	0.03
1-1A1-K	355	356	357	2.6	3.6	2.0	3.6	0.9	0.13	0.07	-51.1	0.09	0.10	-0.03	0.03
1-1A1-L	358	354**	360**	0.8	0.0	0.0	0.9	-0.2	0.03	0.00	67.5	0.01	0.02	0.01	0.03
0-1A2-A	361	35	34	19.7	-34.2	-41.7	27.6	-49.5	0.42	-1.36	71.4	-1.18	0.24	0.54	0.04
0-1A2-B	364	36	37	28.6	-23.9	-23.1	37.4	-34.0	0.90	-0.75	67.0	-0.50	0.65	0.59	0.03
0-1A2-C	42	41	40	25.4	-27.7	-28.1	36.3	-36.4	0.81	-0.92	67.7	-0.67	0.56	0.61	0.02
0-1A2-D	45	44	43	16.0	-32.0	-38.9	25.2	-48.1	0.37	-1.27	71.4	-1.10	0.21	0.50	0.03
0-1A2-E	48	47	46	15.1	-24.1	-49.5	15.8	-50.2	0.02	-1.50	84.0	-1.48	0.01	0.16	0.05
0-1A2-F	51	50	49	14.5	-8.7	-44.2	15.2	-44.9	0.06	-1.33	-39.1	-0.50	-0.78	-0.68	0.05
0-1A2-G	54	53	52	5.3	-5.4	-0.7	10.5	-6.0	0.29	-0.09	-34.4	0.17	0.02	-0.18	0.01
0-1A2-H	57	56	55	-5.4	-7.5	-38.1	-0.4	-41.1	-0.42	-1.36	20.5	-0.54	-1.24	0.31	0.04
0-1A2-J	60	59	58	-9.6	-13.2	-33.5	-7.0	-36.1	-0.59	-1.26	17.4	-0.65	-1.20	0.19	0.06
0-1A2-K	63	62	61	-4.6	-12.6	-30.8	-3.6	-31.6	-0.43	-1.08	10.6	-0.46	-1.06	0.12	0.05
0-1A2-L	66	65	64	-20.3	-15.0	-18.7	-14.9	-24.1	-0.73	-0.94	50.0	-0.86	-0.82	0.10	0.06
1-1A2-A	361	362	363	-26.6	-20.4	-17.7	-17.4	-26.9	-0.84	-1.06	79.6	-1.05	-0.85	0.04	0.05
1-1A2-B	364	365	366	-26.5	-21.3	-31.6	-20.9	-37.2	-1.06	-1.43	35.9	-1.18	-1.30	0.18	0.04
1-1A2-C	367	368	369	-11.3	-18.0	-49.1	-8.5	-48.0	-0.75	-1.67	15.5	-0.82	-1.60	0.23	0.04
1-1A2-D	370	371	372	16.4	-4.9	-45.0	17.8	-46.4	0.13	-1.35	8.5	0.10	-1.32	0.22	0.03
1-1A2-E	373	374	375	34.9	17.0	-30.7	38.1	-33.9	0.92	-0.74	12.2	0.85	-0.67	0.34	0.03
1-1A2-F	376	377	378	34.5	21.1	-24.2	38.6	-28.3	0.99	-0.55	-30.7	0.54	-0.15	-0.68	0.02
1-1A2-G	379	380	381	44.0	22.8	-18.4	45.5	-20.0	1.30	-0.21	-81.1	-0.17	1.27	-0.23	0.04
1-1A2-H	382	383	384	49.4	32.7	-8.9	51.5	-7.9	1.62	0.25	-79.2	0.30	1.57	-0.25	0.03
1-1A2-J	385	386**	387	50.5	0.0	-3.5	59.2	-12.3	1.83	0.18	69.5	0.38	1.63	0.54	0.03
1-1A2-K	388	389	390	39.7	14.7	-4.0	39.9	-4.2	1.27	0.26	85.9	0.26	1.27	0.07	0.03
1-1A2-L	391*	392	393	38.1	16.4	5.5	38.9	4.6	1.33	0.54	80.9	0.56	1.31	0.12	0.09
0-1A3-A	69	68	67	15.6	-2.3	3.0	22.5	-4.0	0.70	0.09	59.3	0.25	0.54	0.27	0.02
0-1A3-B	72	71	70	12.9	-3.8	4.9	22.5	-4.4	0.69	0.07	53.7	0.29	0.67	0.29	0.03
0-1A3-C	75	74	73	6.8	-8.7	4.6	20.1	-8.7	0.58	-0.09	47.3	0.22	0.27	0.33	0.03
0-1A3-D	78	77	76	3.7	-11.8	-7.1	9.8	-13.2	0.19	-0.34	59.0	-0.20	0.05	0.23	0.03
0-1A3-E	81	80	79	-0.3	-15.6	-21.4	0.7	-22.4	-0.20	-0.73	77.8	-0.71	-0.22	0.11	0.05
0-1A3-F	84	83	82	-0.6	-13.5	-29.0	-0.5	-29.1	-0.30	-0.96	-42.4	-0.60	-0.66	-0.33	0.04

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. +)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH					STRESS - KSI						
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN	PHI	SIG(L)	SIG(T)	TAU	CONF
0-183-B	87	86	85	-7.3	-6.3	-27.3	-2.6	-32.3	-0.40	-1.09	24.2	-0.52	-0.97	0.26	0.03
0-183-H	90	89	88	-11.9	-7.7	-28.7	-5.2	-35.5	-0.52	-1.22	28.2	-0.68	-1.07	0.29	0.05
0-183-J	93	92	91	10.5	-14.2	-31.3	-8.5	-33.3	-0.61	-1.16	16.4	-0.66	-1.14	0.16	0.05
0-183-K	94	93	92	-4.1	-18.5	-35.3	-4.1	-35.4	-0.48	-1.21	2.2	-0.49	-1.20	0.03	0.05
0-183-L	99	98	97	-31.0	-25.9	-21.6	-21.6	-31.0	-1.02	-1.24	87.3	-1.24	-1.02	0.01	0.09
1-183-A	397	395	396	-12.0	-13.6	-26.1	-11.2	-26.9	-0.63	-1.00	13.1	-0.65	-0.98	0.08	0.04
1-183-B	397	398	399	-5.1	-8.4	-28.0	-2.5	-30.6	-0.39	-1.03	17.7	-0.45	-0.97	0.19	0.04
1-183-C	400	401	402	6.3	-5.3	-27.6	7.1	-28.5	-0.05	-0.87	8.7	-0.07	-0.85	0.12	0.04
1-183-D	403	404	405	16.1	14.1	-16.9	21.6	-22.3	0.49	-0.52	20.7	0.36	-0.40	0.33	0.02
1-183-E	406	407	408	32.5	28.3	-10.5	38.6	-16.5	1.11	-0.16	19.4	0.97	-0.02	0.40	0.03
1-183-F	409	410	411	46.9	24.1	-13.0	47.7	-13.8	1.44	0.02	-38.3	-0.89	0.56	-0.69	0.03
1-183-G	412	413	414	51.6	22.3	-9.7	51.6	-9.7	1.61	0.19	-88.7	0.19	1.60	-0.03	0.04
1-183-H	415	416	417	57.9	17.9	-3.3	59.3	-4.7	1.91	0.43	81.5	0.47	1.88	0.22	0.03
1-183-J	418	419	420	55.2	20.0	-3.0	55.9	-3.6	1.81	0.43	64.1	0.45	1.79	0.14	0.04
1-183-K	421	422	423	41.0	14.3	-3.7	41.4	-4.1	1.32	0.27	84.5	0.28	1.31	0.10	0.03
1-183-L	424	425	426	24.6	14.9	13.6	26.0	12.2	0.98	0.66	71.4	0.69	0.95	0.10	0.04
U-184-A	102	101	100	5.4	19.1	15.7	20.5	0.6	0.68	0.22	-29.3	0.57	0.33	-0.20	0.03
U-184-B	103	104	103	-6.8	17.0	12.8	19.0	-8.9	0.56	-0.04	-29.1	0.42	0.10	-0.25	0.02
U-184-C	106	107	106	-5.1	17.0	10.6	19.0	-13.5	0.49	-0.26	-30.6	0.30	-0.06	-0.33	0.03
U-184-D	111	110	109	-12.3	11.0	10.3	15.5	-17.5	0.34	-0.42	-23.5	0.22	-0.30	-0.20	0.03
U-184-E	112	113	112	-17.0	-1.6	8.0	8.3	-17.3	0.10	-0.49	38.8	-0.13	-0.26	0.29	0.03
U-184-F	117	116	115	-15.5	-13.5	0.1	2.0	-17.4	-0.11	-0.55	-71.6	-0.51	-0.15	-0.13	0.04
U-184-G	120	119	118	-12.1	-14.5	-7.4	-4.5	-15.0	-0.30	-0.54	-58.3	-0.47	-0.36	-0.11	0.05
U-184-H	123	122	121	-12.0	-13.9	-12.4	-10.4	-14.0	-0.48	-0.56	-41.5	-0.52	-0.53	-0.04	0.04
U-184-J	126	125	124	-19.7	-17.7	-12.3	-11.9	-20.1	-0.59	-0.76	-77.5	-0.77	-0.60	-0.04	0.03
1-184-A	427	428	429	-0.9	-4.9	-13.0	-0.6	-13.4	-0.15	-0.45	9.4	-0.16	-0.44	0.05	0.03
1-184-B	430	431	432	4.4	-6.7	-15.2	4.5	-15.3	-0.00	-0.46	-3.9	-0.01	-0.46	-0.03	0.03
1-184-C	433	434	435	5.3	-5.6	-8.4	6.4	-9.5	0.12	-0.45	-15.2	0.09	-0.22	-0.09	0.02
1-184-D	436	437	438	6.9	6.0	0.7	7.6	0.0	0.25	0.08	17.6	0.23	0.09	0.05	0.03
1-184-E	439	440	441	16.3	16.0	5.8	18.3	4.0	0.64	0.31	-23.9	0.59	0.37	-0.12	0.03
1-184-F	442	443	444	25.6	17.1	2.6	26.0	2.2	0.88	0.33	-82.8	0.34	0.87	-0.07	0.03
1-184-G	445	446	447	25.2	20.5	3.2	26.9	1.5	0.90	0.32	-75.1	0.36	0.86	-0.15	0.02
1-184-H	448	449	450	18.3	13.5	4.4	18.6	4.1	0.65	0.32	-81.5	0.33	0.65	-0.05	0.04
1-184-J	451	452	453	10.8	10.1	14.5	15.8	9.5	0.61	0.47	27.1	0.58	0.50	0.06	0.06
0-185-A	129	128	127	2.5	22.1	4.8	22.1	-14.6	0.58	-0.27	-43.2	0.18	0.13	-0.43	0.02
0-185-B	132	131	130	-0.2	23.0	5.4	23.9	-18.7	0.60	-0.38	-41.2	0.18	0.05	-0.49	0.02
0-185-C	135	134	133	1.0	24.3	3.0	24.3	-25.2	0.72	-0.54	-44.0	0.11	0.06	-0.63	0.02
0-185-D	138	137	136	9.9	24.8	-6.3	30.9	-27.3	0.75	-0.59	-53.1	-0.11	0.26	-0.65	0.02
0-185-E	141	140	139	2.5	29.1	1.1	29.1	-25.6	0.71	-0.55	-44.2	0.09	0.66	0.63	0.02
0-185-F	144	143	142	-3.1	-24.3	1.5	22.8	-24.4	0.51	-0.58	-47.8	-0.09	0.02	-0.54	0.03
0-185-G	147	146	145	-2.2	-17.0	1.0	15.9	-17.1	0.35	-0.41	-47.8	-0.06	0.01	-0.36	0.02
U-185-H	150	149	148	-0.3	-8.6	-0.2	8.0	-8.6	0.18	-0.20	-45.2	-0.01	-0.01	-0.19	0.01
0-185-J	153	152	151	-2.3	-4.1	0.5	2.5	-4.4	0.04	-0.12	-57.2	-0.07	-0.01	-0.07	0.03
1-185-A	454	455	456	-0.8	-1.1	1.1	1.7	-1.5	0.04	-0.03	-63.4	-0.02	0.03	-0.03	0.02
1-185-B	457	458	459	-2.4	-9.6	1.4	8.9	-10.0	0.20	-0.24	-50.8	-0.07	0.02	-0.21	0.01
1-185-C	460	461	462	0.3	-12.0	-1.2	11.1	-12.1	0.25	-0.29	-43.1	-0.00	-0.04	-0.27	0.02
1-185-D	463	464	465	-0.9	-13.7	-1.4	11.3	-13.7	0.24	-0.34	-44.4	-0.04	-0.06	-0.29	0.02
1-185-E	466	467	468	-1.4	-14.9	-1.2	12.3	-14.9	0.26	-0.37	-44.7	-0.05	-0.06	0.31	0.02
1-185-F	469	470	471	0.4	13.3	-2.6	13.3	-15.5	0.29	-0.38	-48.0	-0.06	-0.01	-0.33	0.02
1-185-G	472	473	474	-1.1	13.5	-3.3	13.6	-18.0	0.27	-0.46	-47.0	-0.12	-0.07	-0.36	0.02
1-185-H	475	476	477	-0.0	9.7	2.5	9.8	-7.3	0.25	-0.14	-40.7	0.08	0.02	-0.19	0.04
1-185-J	478	479	480	1.9	1.8	0.9	2.1	0.8	0.08	0.05	-71.6	0.05	0.07	-0.01	0.05
0-241-A	160	167	166	-15.8	29.9	64.3	64.7	-16.2	1.97	0.11	-4.0	1.96	0.11	-0.13	0.05
0-281-B	172	170	169	-22.9	22.5	61.5	61.6	-23.0	1.80	-0.15	-2.2	1.80	-0.15	-0.07	0.05
0-281-C	174	173	172	-27.7	11.3	74.5	75.9	-29.1	2.21	-0.21	6.7	2.18	-0.18	0.28	0.06
0-281-D	177	176	175	-29.2	-21.4	68.7	83.6	-44.2	2.32	-0.63	20.0	1.97	-0.28	0.95	0.06

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. →)

LOCATION	GAGE NUMBERS			STRAIN - MICROINCHES/INCH				STRESS - KSI				PHI	SIG(L)	SIG(T)	TAU	CONF
	(1)	(2)	(3)	E(1)	E(2)	E(3)	EMAX	EMIN	SMAX	SMIN						
0-2K1-S	180	179	178	-31.8	-35.4	30.3	45.7	-47.3	1.04	-1.11	24.1	0.68	-0.75	0.80	0.03	
0-2K1-F	183	182	181	-30.0	-42.3	6.1	22.9	-47.5	0.28	-1.34	74.2	-1.22	0.16	0.43	0.04	
0-2K1-G	186	185	184	-17.3	-51.3	-2.6	32.1	-52.0	0.54	-1.40	-50.0	-0.60	-0.26	-0.95	0.04	
0-2K1-H	189	188	187	11.0	-44.4	-12.7	44.2	-46.0	1.00	-1.06	-37.4	0.24	-0.31	-1.00	0.03	
0-2K1-J	192	191	190	20.0	-23.3	-9.1	37.6	-26.8	0.97	-0.51	-31.6	0.57	-0.10	-0.66	0.02	
0-2K1-K	195	194	193	19.1	-7.4	-5.5	25.6	-12.0	0.73	-0.14	-4.6	0.58	0.01	-0.33	0.03	
0-2K1-L	198	197	196	25.6	-12.7	1.6	42.7	-15.3	1.26	-0.08	-32.7	0.87	0.31	-0.61	0.02	
1-2K1-A	493	494	495	48.8	9.5	-19.9	49.2	-23.2	1.42	-0.18	-4.3	1.41	-0.17	-0.12	0.04	
1-2K1-B	496	497	498	47.3	18.1	3.3	48.3	2.4	1.62	0.56	-8.3	1.59	0.58	-0.15	0.04	
1-2K1-C	499	500	501	20.1	31.3	41.6	41.6	20.1	1.57	1.07	88.7	1.07	1.57	0.01	0.04	
1-2K1-D	502	503	504	-4.1	28.2	51.7	52.4	-9.9	1.63	0.19	83.6	0.21	1.61	0.16	0.03	
1-2K1-E	505	506	507	7.9	31.0	21.5	32.4	-5.0	1.04	0.22	56.3	0.47	0.79	0.38	0.04	
1-2K1-F	508	509	510	22.7	32.5	7.5	34.1	-3.8	1.09	0.21	-11.8	1.05	0.25	-0.18	0.03	
1-2K1-G	511	512	513	30.2	30.4	2.0	36.1	-4.0	1.15	0.23	-67.3	0.36	1.01	-0.33	0.03	
1-2K1-H	514	515	516	31.0	8.9	-5.4	31.4	-5.8	0.98	0.12	83.9	0.13	0.97	0.09	0.04	
1-2K1-J	517	518	519	12.0	-13.8	-0.4	26.4	-1.8	0.72	-0.23	53.8	0.11	0.39	0.45	0.03	
1-2K1-K	520	521	522	-0.4	-19.6	5.6	25.0	-19.6	0.63	-0.41	41.2	0.18	0.04	0.51	0.02	
1-2K1-L	523	524	525	-12.4	-36.6	4.4	29.7	-37.7	0.61	-0.95	37.8	0.02	-0.37	0.75	0.03	
0-2K2-A	201	200	199	13.5	50.9	51.0	58.7	5.8	1.99	0.77	-22.4	1.81	0.95	-0.43	0.05	
0-2K2-B	205	204	203	24.2	56.1	41.5	57.6	8.0	1.98	0.83	-34.8	1.61	1.21	-0.54	0.04	
0-2K2-C	207	206	205	31.3	62.6	68.7	72.6	27.4	2.66	1.64	-17.0	2.57	1.71	-0.29	0.06	
0-2K2-D	210	209	208	36.0	53.4	84.5	85.5	35.0	3.16	2.00	7.9	3.14	2.02	0.16	0.06	
0-2K2-E	213	212	211	37.9	19.6	82.4	106.5	13.9	3.65	1.51	30.6	3.04	2.06	0.94	0.07	
0-2K2-F	216	215	214	40.5	0.9	69.9	111.4	-1.0	3.66	1.07	82.4	1.11	3.64	0.34	0.05	
0-2K2-G	219	218	217	47.4	14.2	64.5	98.5	13.3	3.38	1.41	-50.8	2.20	2.59	-0.96	0.07	
0-2K2-H	222	221	220	42.8	29.3	58.4	71.1	28.1	2.62	1.63	-54.3	1.97	2.20	-0.47	0.07	
0-2K2-J	225	224	223	30.5	38.2	54.8	55.6	29.7	2.13	1.53	-80.0	1.55	2.11	-0.10	0.07	
0-2K2-K	228	227	226	15.2	33.1	49.2	49.2	15.1	1.77	0.99	88.4	0.99	1.77	0.02	0.04	
0-2K2-L	231	230	229	20.3	14.9	30.6	37.2	13.7	1.36	0.82	-58.0	0.97	1.21	-0.24	0.04	
1-2K2-A	526	527	528	27.6	-8.6	-33.3	28.2	-33.9	0.59	-0.84	-5.4	0.58	-0.83	-0.13	0.05	
1-2K2-B	529	530	531	30.6	-8.9	-40.0	30.8	-40.3	0.62	-1.02	-3.4	0.61	-1.02	-0.10	0.05	
1-2K2-C	532	533	534	5.4	-22.8	-49.1	5.4	-49.1	-0.31	-1.57	-1.0	-0.31	-1.56	-0.02	0.04	
1-2K2-D	535	536	537	-24.0	-52.6	-59.3	-20.8	-62.4	-1.30	-2.26	-15.9	-1.36	-2.19	-0.25	0.07	
1-2K2-E	538	539	540	-44.5	-62.1	-36.8	-18.7	-62.5	-1.23	-2.24	-49.9	-1.83	-1.65	-0.50	0.06	
1-2K2-F	541	542	543	-41.5	-51.6	-24.8	-12.8	-53.4	-0.95	-1.89	77.8	-1.85	-0.99	0.19	0.04	
1-2K2-G	544	545	546	-58.0	-71.4	-30.9	-14.4	-74.6	-1.21	-2.60	31.6	-1.59	-2.22	0.62	0.05	
1-2K2-H	547	548	549	-86.5	-74.4	-15.7	-8.7	-93.5	-1.21	-3.17	16.7	-1.37	-3.01	0.54	0.05	
1-2K2-J	551	551	552	-69.2	-37.3	-3.2	-1.8	-90.6	-0.66	-3.01	7.3	-0.99	-2.97	0.26	0.05	
1-2K2-K	553	554	555	-62.1	-43.8	0.7	3.4	-64.7	-0.53	-2.10	11.4	-0.59	-2.04	0.30	0.04	
1-2K2-L	556	557	558	-44.0	-48.2	-0.1	4.5	-55.2	-0.40	-1.71	24.9	-0.64	-1.53	0.53	0.04	
0-2K3-A	237	233	232	20.2	23.8	3.4	26.5	-2.9	0.84	0.17	-62.4	0.31	0.70	-0.28	0.04	
0-2K3-B	237	236	235	23.1	25.3	3.4	31.4	0.1	1.04	0.32	-71.1	0.39	0.96	-0.22	0.04	
0-2K3-C	240	239	238	26.5	27.4	14.9	29.5	11.9	1.09	0.68	-65.5	0.75	1.02	-0.15	0.04	
0-2K3-D	242	241	240	21.5	30.3	25.2	35.5	16.1	1.17	0.63	-37.7	1.04	0.96	-0.16	0.03	
0-2K3-E	246	245	244	16.0	28.8	44.4	44.5	15.9	1.62	0.90	2.7	1.62	0.97	0.03	0.04	
0-2K3-F	249	248	247	12.1	30.8	54.0	54.1	12.0	1.90	0.93	48.0	1.36	1.47	0.48	0.04	
0-2K3-G	252	251	250	14.9	20.5	49.8	53.4	11.2	1.87	0.90	-72.9	0.40	1.79	-0.27	0.07	
0-2K3-H	255	254	253	5.9	14.7	50.4	53.2	0.0	1.75	0.53	-76.7	0.59	1.69	-0.28	0.04	
0-2K3-J	258	257	256	0.2	18.2	53.2	54.5	-1.1	1.79	0.50	-81.1	0.53	1.76	-0.20	0.03	
0-2K3-K	261*	260*	259	-19.9	15.9	54.2	54.7	-11.4	1.89	0.17	-85.0	0.18	1.88	-0.13	0.05	
0-2K3-L	264	263	262	-18.9	-5.8	36.7	40.4	-22.5	1.11	-0.34	-76.1	-0.26	1.02	-0.34	0.03	
1-2K3-A	559	560	561	-5.6	-3.3	-9.4	-2.1	-10.9	-0.18	-0.38	23.9	-0.21	-0.35	0.07	0.04	
1-2K3-B	562	563	564	-11.9	-5.9	-1.4	-5.8	-20.5	-0.39	-0.73	40.3	-0.54	-0.59	0.17	0.05	
1-2K3-C	565	566	567	-27.8	-22.3	-26.0	-22.2	-31.6	-1.05	-1.26	50.6	-1.17	-1.13	0.11	0.04	
1-2K3-D	568	569	570**	-36.7	-60.4	0.0	27.6	-64.3	0.27	-1.85	-56.8	-1.21	-0.36	-0.97	0.03	
1-2K3-E	571	572**	573**	-56.9	0.0	0.0	11.8	-68.6	-0.29	-2.15	67.5	-1.87	-0.56	0.66	0.05	

PHI IS THE ANGLE MEASURED FROM THE REFERENCE DIRECTION TO THE DIRECTION FOR MAXIMUM STRESS. (C.C. *)

APPENDIX VI

STRESS INTENSITY ADJUSTMENTS AND TABULATIONS

Table VI.1 presents the adjustments made in values of the stress intensities calculated by LINDA/NOSEY. These are adjustments made according to the procedure of Section 3.1.2. Table VI.2 is a complete presentation of normalized stress intensities.

Table VI.1. Adjusted Principal Stresses

Tee	Load	Rosette	Original		Changed	
			S _{max}	S _{min}	S _{max}	S _{min}
T-10	M3X	I-1R1-L	0.23	0.03	1.5	0.0
		I-1R2-J	14.58	1.43	12.0	2.0
		I-1R2-L	10.59	4.28	8.5	2.0
		I-2R3-D	2.17	-14.70	-12.0	-15.0
		I-2R3-E	- 2.31	-17.09	-14.0	-22.0
	M3Y	I-1R1-L	0.0	0.0	1.5	- 3.5
		I-2R3-D	5.51	-17.37	-15.0	-20.0
		I-2R3-E	- 1.82	-13.47	-15.0	-23.5
		I-2R5-A	0.37	- 0.55	2.0	- 2.0
		I-2R5-B	2.39	- 2.16	1.9	- 1.8
		I-2R5-G	0.45	0.09	.70	- .05
	M3Z	I-1R1-L	0.0	0.0	2.0	- 8.0
		I-2R3-D	2.83	- 1.93	5.0	- 1.5
		I-2R3-E	- 0.05	- 0.38	6.5	- 0.5
	F3Y	I-1R1-L	0.0	0.0	1.75	- 0.85
		I-2R3-E	- 0.14	- 1.05	- 0.2	- 2.3
		I-2R5-A	3.33	0.93	3.0	0.5
		I-2R5-B	2.17	0.22	3.3	0.8
	F3Z	I-1R1-L	0.0	0.0	0.5	0.3
		I-1R5-J	1.18	0.21	1.18	- 0.6
		I-2R3-D	2.79	-14.64	-11.0	-18.0
		I-2R3-E	- 2.23	-16.47	-14.0	-23.0
		I-2R4-H	4.57	- 6.74	- 4.0	- 8.0
		I-2R4-J	7.23	- 6.18	- 2.0	- 6.0
		I-2R5-A	0.21	0.02	1.0	- 0.5
		I-2R5-G	0.52	- 0.13	2.5	- 1.75
		I-2R5-J	0.19	0.03	3.5	- 3.5
	M2X	I-1R1-L	0.0	0.0	2.5	- 5.5
		I-1R2-J	- 2.22	-10.70	- 3.0	-10.5
		I-2R1-C	- 0.08	- 0.30	2.5	- 2.5
		I-2R3-D	5.17	-11.56	-12.0	-18.0
		I-2R3-E	- 0.92	- 6.81	-12.0	-20.0
		I-2R5-G	0.60	0.08	2.0	- 1.5
I-2R5-J		0.34	0.05	2.0	- 1.5	

Table VI.1 -- Continued

Tee	Load	Rosette	Original		Changed	
			S _{max}	S _{min}	S _{max}	S _{min}
T-10	M2Y	I-1R1-L	3.62	0.49	- 1.5	-10.0
		I-2R3-D	4.09	- 7.31	- 6.5	- 9.5
		I-2R3-E	- 0.65	- 4.82	- 6.0	- 9.5
		I-2R4-E	- 5.37	- 8.23	- 4.0	- 8.23
		I-2R5-G	0.09	- 0.04	0.6	- 0.6
		I-2R5-J	0.36	0.05	0.5	- 0.5
	M2Z	I-1R1-L	- 0.38	- 2.82	- 3.5	- 7.0
		O-2R2-C	3.95	1.61	5.5	- 0.5
		I-2R3-G	4.21	3.29	5.0	2.5
		O-2R5-G	- 5.56	- 5.65	- 5.00	- 6.0
		O-2R5-J	- 2.63	-13.17	- 5.0	- 7.0
		I-2R5-A	13.68	3.77	11.0	2.0
		I-2R5-B	9.71	2.04	12.0	4.0
		I-2R3-D	3.11	- 2.95	8.5	3.5
		I-2R3-E	1.56	0.21	7.0	3.0
	F2X	I-1R1-L	0.0	0.0	- 4.0	- 9.0
		I-1R3-L	- 0.27	- 4.09	0.0	- 9.0
		I-1R5-F	4.29	1.05	5.5	3.5
		I-2R3-D	3.03	- 2.89	8.0	3.5
		I-2R3-E	1.40	0.19	7.0	3.2
		I-2R5-A	11.07	3.02	8.5	6.0
		I-2R5-B	7.97	1.49	9.0	7.5
		I-2R5-G	5.28	0.62	5.0	1.0
		I-2R5-J	3.45	0.47	3.5	- 3.5
	F2Y	I-1R1-L	- 0.28	- 2.10	- 2.0	- 6.0
		O-2R2-C	4.59	2.60	6.0	0.5
		I-2R3-D	2.46	- 2.67	7.5	3.0
		I-2R3-E	0.86	0.12	6.0	2.5
		I-2R5-A	13.89	3.82	10.0	7.0
		I-2R5-B	10.14	1.95	11.0	10.0
		I-2R5-J	4.44	- 0.38	5.0	- 5.0
	F2Z	I-1R1-L	1.71	0.23	- 0.5	- 9.0
		I-2R3-D	4.86	- 9.48	- 8.0	-12.0
		I-2R3-E	- 0.74	- 5.49	- 8.0	-12.5

Table VI.1 -- Continued

Tee	Load	Rosette	Original		Changed	
			S _{max}	S _{min}	S _{max}	S _{min}
T-10	Pres	I-1R1-L	0.0	0.0	3.5	- 0.5
		I-2R3-D	12.09	- 9.92	17.5	6.0
		I-2R3-E	1.60	0.22	17.0	3.0
		I-2R4-H	15.09	3.19	15.09	10.0
		I-2R4-J	12.21	2.7	12.21	10.0
		I-2R5-A	23.45	6.91	19.0	12.0
		I-2R5-B	12.90	- 0.26	22.0	12.0
		I-2R5-D	10.35	- 6.33	26.0	9.0
		I-2R5-E	43.42	27.53	27.0	7.0
		I-2R5-G	25.76	5.41	23.0	10.0
		I-2R5-J	11.03	1.49	15.0	13.0
T-11	M3X	O-1R1-F	4.70	- 1.30	7.0	- 4.0
		I-2R1-A	10.39	1.41	11.0	3.0
		I-2R1-B	11.88	3.51	10.8	6.0
		I-2R1-E	1.49	0.20	5.5	1.5
	M3Y	O-1R1-F			4.5	- 4.5
		I-2R1-A	0.0	- 0.02	3.5	- 5.4
		I-2R1-B	- 0.06	- 0.29	1.5	- 5.0
		I-2R1-C	0.50	- 0.60	0.5	- 4.3
		I-2R1-E			0.5	- 4.5
		I-2R1-F			1.5	- 5.0
		I-2R5-J	0.23	- 0.35	1.0	- 1.0
		I-1R5-E	- 4.79	-27.44	1.0	- 1.0
	M3Z	I-2R1-A	0.0	- 0.02	2.0	- 7.5
		I-2R1-B	- 5.62	-41.54	- 1.0	-10.0
		I-2R1-C	9.80	- 8.87	0.0	-13.5
		I-2R1-E	- 0.79	- 5.83	1.0	-10.0
		I-2R1-F	0.16	- 2.56	0.0	- 9.0
	F3Y	O-1R1-F	0.88	- 0.17	0.5	- 0.17
		I-1R1-A	0.42	- 0.30	0.0	- 0.8
		I-2R4-H	1.08	- 1.38	- 0.05	- 0.2
		I-2R1-A	0.0	0.0	- 0.2	- 1.0
		I-2R1-B	- 1.22	- 9.03	- 0.1	- 1.0
		I-2R1-C	0.68	- 0.35	0.68	- 0.9
I-2R5-D		5.96	1.26	1.75	0.65	

Table VI.1 --- Continued

Tee	Load	Rosette	Original		Changed	
			S _{max}	S _{min}	S _{max}	S _{min}
T-11	F3Z	I-1R1-A	- 3.46	- 8.81	- 6.0	- 8.81
		I-2R1-A	9.10	1.23	8.8	6.0
		I-2R1-B	10.22	2.97	9.0	6.5
		I-2R1-C	3.14	- 1.14	8.0	3.0
		I-2R1-E	2.57	0.35	5.0	1.8
		I-2R1-F	8.52	1.06	7.5	1.9
	M2X	I-2R1-A	0.0	0.0	1.0	- 2.0
		I-2R1-B			.25	- 1.5
		I-2R1-D	0.47	- 1.69	0.0	- 1.4
		I-2R1-E	- 0.17	- 1.29	0.5	- 1.75
	M2Y	O-1R1-F	7.40	1.62	2.5	- 5.5
		O-1R5-A	1.11	- 0.77	1.11	- 1.5
		I-1R5-C	0.86	- 1.86	2.00	- 1.86
		I-2R1-A	1.08	0.15	3.8	1.6
		I-2R1-B	7.02	1.35	7.5	3.0
	M2Z	O-1R1-F	2.63	1.14	4.0	2.5
		I-2R1-A	- 0.22	- 1.38	- 5.4	-15.
		I-2R1-B	- 4.44	-33.43	- 5.5	-18.
		O-2R4-E	9.03	-32.61	- 6.5	-16.
	F2X	I-2R1-A	- 0.10	- 0.74	- 2.5	- 7.0
		I-2R1-B	- 1.34	- 8.79	- 3.0	- 9.0
		I-2R1-E			- 1.0	- 8.5
	F2Y	O-1R1-F	4.05	2.18	3.1	1.0
		O-1R3-E	- 0.65	- 7.89	- 0.65	- 7.0
		I-1R3-E	- 1.27	- 3.20	0.5	- 3.20
		I-2R1-A	- 0.07	- 0.48	- 2.0	- 8.0
		I-2R1-B	- 0.89	- 6.61	- 2.5	-10.0
		I-2R5-D	13.58	4.83	12.0	4.83
	F2Z	I-1R1-F	4.90	- 4.78	0.5	- 5.8
		I-2R1-A	0.33	0.05	2.5	1.0
		I-2R1-B	6.33	0.98	4.0	1.6
		I-2R3-E	- 2.67	- 3.40	- 1.0	- 3.4
		O-1R1-F	4.08	0.96	1.3	- 3.0

Table VI.1 -- Continued

Tee	Load	Rosette	Original		Changed	
			S _{max}	S _{min}	S _{max}	S _{min}
T-11	Pres	I-1R1-F	2.91	2.15	2.0	0.0
		I-1R1-G	3.45	1.86	2.5	0.0
		I-1R5-A	19.38	4.91	17.0	10.0
		I-1R5-E	20.43	- 6.08	25.0	5.0
		I-2R1-A	1.72	- 1.72	4.0	2.5
		I-2R1-B	3.13	- 1.57	3.5	2.0
		I-2R1-E	1.39	- 0.27	1.0	- 2.0
		I-2R1-G	0.0	0.0	0.5	- 2.0
		I-2R1-H	0.0	0.0	1.0	- 1.0
		I-2R1-J	0.0	0.0	2.0	0.0
		I-2R1-K	0.0	0.0	3.0	0.5
		I-2R1-L	0.0	0.0	4.0	1.5
		I-2R5-C	23.76	3.99	21.0	7.0
		I-2R5-F	34.49	4.67	28.0	7.0
T-12	M3X	O-2R6-J	0.73	- 1.07	.99	- 1.27
		O-2R6-K	0.55	- 0.65	.88	- .88
		I-1R6-B	.72	0.22	1.5	- 0.4
		I-2R1-J	2.80	- 0.36	2.8	.13
		I-2R6-A	- 0.30	- 1.22	- .13	- .90
	M3Y	O-2R5-H	1.08	- 1.21	2.19	1.13
		I-1R2-J	1.29	- 1.62	1.3	0.0
		I-1R3-E	- 4.31	- 7.77	- 3.9	- 7.0
		I-1R6-B	- 0.13	- 0.46	4.5	- 4.7
		I-2R1-J	0.88	0.07	1.3	- 0.5
	M3Z	I-1R5-A	15.64	0.82	8.0	5.0
		I-2R1-J	0.07	- 0.09	.10	- .14
	F3Y	I-1R6-B	4.29	- 1.87	5.0	- 1.20
		I-2R1-J	3.87	- 1.41	4.2	- 1.0
	F3Z	O-1R6-H	0.94	0.09	.70	0.00
		O-2R3-H	2.41	- 0.81	3.5	2.0
		I-1R6-B	0.69	0.05	.60	- .50
		I-2R1-J	2.54	- 0.54	2.7	0.0

Table VI.1 -- Continued

Tee	Load	Rosette	Original		Changed	
			S _{max}	S _{min}	S _{max}	S _{min}
T-12	M2X	I-1R6-B	0.58	0.09	1.1	- .45
		I-2R1-A	1.62	- 1.01	.30	- 1.35
		I-2R1-J	- 0.09	- 0.46	3.0	- 3.5
	M2Y	I-1R6-B	- 0.06	- 0.22	0.3	- 0.2
		I-1R6-H	- 0.48	- 2.00	.20	- 1.2
		I-2R1-J	19.23	- 2.04	17.6	- 1.4
	M2Z	O-1R2-K	0.41	0.01	.41	.16
		O-2R1-K	0.11	0.02	- .13	- .45
		O-2R5-H	- 1.06	- 8.84	- .80	- 7.0
		I-1R6-B	13.30	3.81	10.0	6.1
	F2X	I-1R6-B	12.51	3.51	10.0	6.7
		I-2R1-J	1.50	-10.12	1.1	-10.1
	F2Y	I-1R6-B	12.16	3.78	10.1	6.61
	F2Z	I-2R1-J	11.24	- 1.11	10.5	- 6.0
	Pres	I-1R6-B	20.51	5.25	16.0	9.0
I-2R1-J		13.64	2.72	11.5	5.0	
T-13	M3X	I-1R2-C	3.53	0.96	3.53	- 1.0
		I-1R4-D	0.00	0.00	2.00	0.0
		I-1R5-H	4.26	- 0.08	4.26	1.0
		I-1R5-K	0.0	0.0	2.00	0.00
		I-1R6-K	0.0	0.0	0.5	- 1.0
		I-2R6-E	2.58	- 3.63	4.0	- 3.63
	M3Y	I-1R2-C	1.82	- 3.11	0.5	- 5.5
		I-1R4-D	0.0	0.0	0.3	- 0.4
		I-1R5-K	0.0	0.0	- 0.2	- 1.0
		I-1R6-A	1.42	- 2.52	6.5	- 7.0
		I-2R3-G	1.45	- 1.73	0.0	- 1.73

Table VI.1 -- Continued

Tee	Load	Rosette	Original		Changed	
			S _{max}	S _{min}	S _{max}	S _{min}
T-13	M3Z	I-1R2-C	4.24	- 2.92	3.0	- 2.5
		I-1R4-D	0.0	0.0	1.0	0.3
		I-1R6-K	0.0	0.0	0.0	- 1.0
		I-2R1-K	- 0.56	- 1.15	0.3	- 0.9
		I-2R6-E	1.80	- 0.98	4.0	2.0
	F3Y	O-1R1-J	- 0.13	- 1.15	- 0.5	- 1.15
		O-1R3-G	0.37	- 0.06	0.0	- 0.25
		O-1R6-J	0.13	- 0.33	0.75	0.00
		O-2R2-C	2.42	1.39	0.8	1.39
		O-2R3-H	0.01	- 1.17	0.01	- 0.65
		O-2R6-A	1.63	- 0.35	0.65	0.40
		I-1R4-D	0.0	0.0	0.85	0.0
		I-1R5-K	0.0	0.0	0.0	- 0.2
		I-1R6-A	1.70	0.51	1.15	0.51
		I-1R6-K	0.0	0.0	0.0	- 0.5
		I-2R1-K	0.29	- 0.21	1.0	0.1
		I-2R2-A	1.34	- 0.09	0.5	- 0.09
		I-2R5-B	1.66	0.02	1.3	0.02
		I-2R6-E	0.88	- 0.48	0.88	- 0.15
	F3Z	I-1R4-D	0.0	0.0	0.2	- 1.0
		I-1R5-K	0.0	0.0	2.0	0.0
		I-1R6-A	0.30	- 0.16	1.5	- 1.0
		I-1R6-K	0.0	0.0	1.0	- 0.75
	M2X	I-1R2-C	5.59	- 4.48	- 3.5	-14.0
		I-1R4-D	0.0	0.0	4.7	- 4.2
		I-1R5-H	2.15	- 5.96	3.5	- 4.5
		I-1R5-K	0.0	0.0	5.0	- 3.5
		I-1R6-K	0.0	0.0	5.0	- 5.0
		I-2R1-K	0.69	- 4.00	3.0	- 3.5
	M2Y	O-2R6-A	- 0.07	- 0.25	0.2	- 0.5
		I-1R2-C	1.71	- 0.98	- 0.5	- 4.0
		I-1R4-D	0.0	0.0	0.0	- 9.0
		I-1R5-H	0.24	- 0.13	- 0.2	- 3.0
		I-1R5-K	0.0	0.0	- 0.5	- 5.7
		I-1R6-F	0.43	- 0.69	0.0	- 0.69
		I-2R1-K	9.05	0.95	8.5	- 0.4

Table VI.1 -- Continued

Tee	Load	Rosette	Original		Changed	
			S _{max}	S _{min}	S _{max}	S _{min}
T-13	M2Z	I-1R2-C	11.64	- 6.99	- 3.0	-19.0
		I-1R2-H	2.32	- 6.98	0.5	- 6.0
		I-1R4-D	0.0	0.0	0.0	- 8.5
		I-1R5-H	1.04	- 0.26	1.04	- 5.0
		I-1R5-K	0.0	0.0	0.0	-10.0
		I-1R6-A	10.42	2.78	8.0	5.0
		I-1R6-K	0.0	0.0	- 1.0	-11.0
		I-2R3-D	1.29	- 4.81	4.0	- 4.81
	F2X	O-2R1-G	1.24	- 1.56	0.5	- 1.56
		I-1R2-C	3.63	- 2.01	- 1.0	- 6.5
		I-1R4-D	0.0	0.0	0.0	- 4.3
		I-1R5-H	0.43	- 0.01	0.0	- 2.3
		I-1R5-K	0.0	0.0	0.0	- 3.3
		I-1R6-K	0.0	0.0	- 0.4	- 3.8
	F2Y	I-1R2-C	5.38	- 3.07	- 2.0	- 9.0
		I-1R4-D	0.0	0.0	0.0	- 4.8
		I-1R5-H	0.69	- 0.05	0.2	- 2.3
		I-1R5-K	0.0	0.0	0.0	- 4.0
		I-1R6-E	1.36	- 0.03	2.0	0.5
		I-1R6-K	0.0	0.0	- 0.5	- 4.5
	F2Z	O-2R6-J	0.88	- 0.80	0.88	- 0.45
		I-1R2-C	1.18	- 0.82	- 0.7	- 2.5
		I-1R4-D	0.0	0.0	0.0	- 4.3
		I-1R5-H	0.14	- 0.18	0.14	- 1.25
		I-1R5-K	0.0	0.0	0.0	- 2.75
		I-1R6-E	0.01	- 0.21	0.01	- 0.5
		I-1R6-F	0.04	- 0.18	0.04	- 0.6
		I-1R6-K	0.0	0.0	0.3	- 0.4
		I-2R1-K	4.44	- 1.40	4.44	- 0.3
		I-2R6-C	0.18	- 0.03	0.18	- 0.7

Table VI.1 -- Continued

Tee	Load	Rosette	Original		Changed	
			S _{max}	S _{min}	S _{max}	S _{min}
T-13	Pres	I-1R2-C	1.95	- 8.82	9.0	- 1.0
		I-1R3-A	39.19	20.33	17.0	10.0
		I-1R4-D	0.0	0.0	14.0	8.0
		I-1R5-H	12.59	1.96	13.5	7.5
		I-1R5-K	0.0	0.0	13.5	8.0
		I-1R6-A	23.72	5.15	20.0	8.0
		I-1R6-K	0.0	0.0	14.0	8.0
		I-2R1-A	28.23	10.25	16.0	9.0
		I-2R1-D	4.17	0.37	4.17	- 2.0
		I-2R2-A	28.94	- 0.64	16.0	7.5
		I-2R5-A	32.16	21.26	23.0	13.0
		I-2R6-E	5.87	- 9.41	17.0	3.0
		I-2R6-J	14.63	11.09	14.0	9.0
T-16	M3X	O-1R2-D	7.52	- 8.66	3.3	- 4.8
		I-1R2-A	0.02	- 4.78	- 1.5	- 8.0
		I-2R1-G	.72	0.10	3.57	- .12
		I-2R2-E	0.17	-10.59	- 5.5	-10.6
		I-2R2-K	- .40	- 7.46	- 2.9	- 7.5
	M3Y	I-1R2-A	3.09	- 7.59	0.0	- 8.0
		I-2R2-E	4.08	-11.66	- 8.0	-20.0
		I-2R5-A	0.63	- 0.92	3.4	- 3.4
	M3Z	I-2R1-G	- 0.55	- 4.03	- 0.5	- 4.0
		I-2R2-E	8.18	-17.16	- 6.3	-22.0
		I-2R2-K	- 0.70	- 5.12	- 0.70	- 3.6
		I-2R5-A	6.66	- 2.25	4.5	1.0
	F3Y	O-1R2-D	- 0.82	- 3.68	.85	- .80
		I-2R1-G	- 0.17	- 1.27	2.2	- .35
		I-2R2-E	1.53	- 3.27	- 1.3	- 3.9
		I-2R2-K	- 0.18	- 2.29	0.2	- 2.3
		I-2R5-A	3.33	0.47	3.3	2.0
	F3Z	I-1R2-A	.15	- 5.91	- 1.5	- 8.0
		I-2R1-G	5.01	1.04	4.8	- .30
		I-2R2-E	1.23	-11.89	- 7.0	-13.4
		I-2R2-K	- 0.08	- 7.86	- 2.0	-10.0
		I-2R5-A	0.38	0.08	2.0	0.0

Table VI.1 -- Continued

Tee	Load	Rosette	Original		Changed	
			S _{max}	S _{min}	S _{max}	S _{min}
T-16	M2X	I-2R1-G	2.00	- 0.43	4.3	- 2.0
		I-2R2-K	- 0.36	- 2.52	- 0.40	- 3.2
	M2Y	O-1R1-C	3.66	0.73	5.8	3.0
		I-2R1-G	4.99	- 0.90	4.98	- 0.9
	M2Z	I-2R1-G	- 0.33	- 2.86	0.0	- 3.7
		I-2R3-A	2.25	1.27	1.2	1.00
	F2X	I-2R1-G	- .10	- 4.16	.5	- 4.5
		I-2R5-F	3.64	1.08	2.3	2.1
	F2Y	I-2R4-J	88.64	9.79	0.5	- 1.6
		I-2R5-F	4.77	1.40	3.8	2.9
	F2Z	I-2R1-G	4.13	0.45	4.8	.06
		I-2R2-K	4.36	- 2.23	4.36	- 2.23
	Pres	I-1R1-B	0.18	- 1.55	.18	- 3.0
		I-1R2-A	1.64	- 4.74	5.0	- 1.5
		I-1R5-H	10.26	1.29	6.53	4.63
		I-1R5-J	6.65	5.95	4.99	- 0.04
		I-2R1-F	1.24	1.19	2.28	- 0.55
		I-2R1-G	0.45	0.06	22.5	1.90
		I-2R2-K	3.98	0.00	4.0	0.75
		I-2R3-G	5.74	- 2.60	6.6	1.9
I-2R5-A	12.88	3.69	12.0	8.0		

Table VI.2. Normalized Stress Intensities

Key to Table VI.2

 = Maximum Stress Intensity for Specified Load

 = Maximum Stress Intensity for Specific Load on Stainless Steel Weld. (Applies only to T-16)

 = Adjusted Data Point

NORMALIZED STRESS INTENSITIES (KSI) FOR T-10 LOAD CASE#1 =M3X

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5		ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	2.3805	1.7779	0.7030	0.6819	0.8520	A	1.1221	1.0579	0.9976	0.4470	0.0734
B	1.7546	1.6471	0.6903	0.5967	0.9847	B	1.3713	1.4322	1.0340	0.4584	0.4365
C	2.4711	1.7345	0.6654	0.7503	1.2573	C	1.7394	1.6648	0.6677	0.3678	0.5352
D	2.9244	1.6463	0.5299	0.7613	1.3445	D	1.7874	1.4815	1.0130	0.2501	0.5775
E	2.1183	1.5237	0.7310	0.5911	1.2614	E	0.9774	1.6608	1.2722	0.6436	0.6274
F	1.4332	1.3056	0.9633	0.5542	1.0893	F	1.0435	1.5431	1.4366	0.8796	0.6652
G	0.9730	0.3810	1.0287	0.5395	0.7601	G	0.8079	1.5128	1.6050	0.9015	0.7277
H	0.7002	1.3592	1.2211	0.5630	0.3821	H	0.4805	1.6178	1.9101	0.6544	0.3942
J	0.4977	1.2596	1.1819	0.7805	0.1588	J	0.2468	1.5066 [▲]	1.5053	0.6128	0.0762
K	0.2302	1.0842	1.2056	0.0	0.0	K	0.1280	1.2728	1.3231	0.0	0.0
L	0.2406	0.9430	1.2364	0.0	0.0	L	0.1883 [▲]	1.0672 [▲]	0.4788	0.0	0.0

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5		ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	1.9733	1.9903	0.8442	0.8238	0.9844	A	1.6016	1.4314	0.3792	0.4492	0.0826
B	1.9528	1.9792	1.0359	0.7554	0.9393	B	1.6147	1.6405	0.7325	0.6408	0.1271
C	2.4225	2.6632	1.0908	0.6773	0.8291	C	1.5692	1.5649	1.2618	0.7050	0.2291
D	2.9490	3.1630	1.1661	0.5583	0.6005	D	1.6313	2.2625	1.8832 [▲]	1.1438	0.3551
E	2.1464	3.6465	1.6240	0.5778	0.0771	E	1.0365	2.2434	2.7621 [▲]	1.6176	0.2786
F	1.6234	3.6606	1.9014	0.7172	0.5783	F	1.0056	1.8887	3.6024	1.6263	0.3199
G	1.9393	3.3785	1.8722	1.1366	1.0596	G	1.1518	2.6011	3.6399	1.3650	0.5223
H	2.0805	2.6203	1.7543	1.3713	1.6422	H	0.9789	3.1676	3.5464	1.3441	0.7723
J	1.4847	2.1264	1.7860	1.7807	1.6970	J	0.9502	3.0050	2.5727	1.5725	1.0726
K	0.8673	1.7714	1.6908	0.0	0.0	K	1.0338	2.0995	1.6940	0.0	0.0
L	1.3382	1.3613	1.4510	0.0	0.0	L	1.5548	1.7751	1.3260	0.0	0.0

NORMALIZED STRESS INTENSITIES (KSI) FOR [-10] LOAD CASE #2 = M3Y

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5		ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.7090	1.3254	1.3343	1.3851	1.4463	A	1.4631	1.8099	1.1931	0.9745	0.7714
B	0.8339	1.8865	1.3586	1.1422	1.0872	B	1.1110	2.3281	1.4029	0.8860	0.6244
C	1.8273	2.1348	1.4088	0.9270	0.9599	C	0.8919	3.0069	1.9165	0.9685	0.3811
D	3.1566	2.5864	1.2514	0.6945	0.5515	D	0.8677	3.3522	2.4370	1.1548	0.3678
E	2.8824	3.1302	1.0755	0.3086	0.2571	E	2.0923	2.5573	2.5996	1.1791	0.4019
F	2.2356	2.9195	0.9865	0.1472	0.1855	F	2.3527	1.7485	2.5964	0.9452	0.3000
G	2.0601	2.4714	0.6543	0.3227	0.3464	G	2.1206	1.6727	2.3484	0.6394	0.2822
H	1.4679	1.5216	0.6403	0.4096	0.4830	H	1.0244	1.5921	1.8681	0.6114	0.1576
J	0.8729	1.3365	0.7831	0.7072	0.4928	J	0.4234	1.7428	1.2718	0.5861	0.2170
K	0.5413	1.1774	0.8905	0.0	0.0	K	0.3531	1.1908	0.7940	0.0	0.0
L	0.9872	1.1155	0.7259	0.0	0.0	L	0.8302 [▲]	0.8526	0.7649	0.0	0.0

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5		ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.6397	1.4089	1.6124	1.6543	1.6278	A	1.7144	1.7461	1.4059	0.9599	0.5042 [▲]
B	0.7161	1.9629	1.6363	1.4422	1.3383	B	1.5546	2.2262	1.5020	1.2331	0.4664 [▲]
C	1.8898	2.4809	1.6078	1.0958	0.9960	C	0.5914	2.9967	2.0765	1.2770	0.2892
D	3.4760	3.0394	1.4680	0.7512	0.4491	D	0.9245	3.5771	2.5210 [▲]	1.5730	0.1782
E	3.1398	3.5781	1.5124	0.5569	0.0393	E	2.0252	2.2931	2.9622 [▲]	1.6142	0.2179
F	2.3901	3.5985	1.4578	0.5373	0.5944	F	2.2472	1.3704	3.3350	1.2513	0.2595
G	2.4632	3.2979	1.2520	0.5779	0.8798	G	2.1331	1.6337	2.9140	0.8700	0.0945 [▲]
H	2.2560	2.4806	1.0966	0.7029	1.0918	H	1.2555	1.9730	2.4702	0.5620	0.0556
J	1.6738	2.0907	1.2109	0.8908	1.0522	J	0.7130	1.8895	1.5480	0.4554	0.0648
K	1.2506	1.7027	1.1816	0.0	0.0	K	0.9936	1.5707	0.7386	0.0	0.0
L	2.5000	2.4783	0.9556	0.0	0.0	L	1.1226	1.0255	0.3579	0.0	0.0

NORMALIZED STRESS INTENSITIES (KSI) FOR [-10 LOAD CASE#3 =K32

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5		ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.7719	1.2616	1.3166	0.9197	0.5874	A	0.8182	0.5948	0.8409	0.5851	0.6108
B	1.0000	0.8473	1.2794	1.0054	0.5116	B	1.2274	0.7479	0.8092	0.5355	0.5544
C	0.9402	1.0514	1.3422	1.0917	0.6465	C	1.7798	1.0985	0.7866	0.5537	0.4122
D	1.1594	1.2437	1.4362	1.1406	0.5500	D	2.1230	1.6101	0.9813	0.6679	0.2898
E	1.8631	1.0971	1.3177	1.1947	0.6591	E	1.1613	1.8939	1.1442	0.8689	0.5196
F	1.8985	1.5563	1.1647	1.0965	0.7362	F	0.4754	1.7316	1.1789	0.9683	0.8221
G	1.8921	1.4767	0.9576	1.0584	0.8284	G	0.3383	1.7642	0.9709	1.0512	0.9808
H	1.4118	1.2044	0.7045	1.0419	1.4936	H	0.5650	1.5374	0.6447	0.8249	0.7205
J	1.2438	1.0849	0.5760	1.3663	1.4156	J	0.6504	1.4601	0.5988	0.4613	0.7040
K	0.8921	1.0294	0.4144	0.0	0.0	K	1.2311	1.0285	0.5134	0.0	0.0
L	1.6999	1.2168	0.4957	0.0	0.0	L	1.3755 ^A	0.7079	0.2262	0.0	0.0

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5		ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.8697	1.3904	1.9536	1.9481	1.4624	A	0.8826	0.9875	1.0869	0.3269	0.9496
B	1.1353	1.4197	1.5500	1.7938	1.5616	B	1.2555	1.2708	0.8400	0.7881	1.3357
C	0.9791	1.3034	1.9021	1.6183	1.4083	C	3.0556	2.0099	0.7462	0.9663	1.2579
D	1.3612	1.0118	1.6563	1.4709	1.3697	D	2.2704	3.2523	0.8941 ^A	1.1989	1.5569
E	2.0749	0.8384	1.7987	1.4341	1.5759	E	1.2496	3.7956	0.9628 ^A	1.2897	1.7692
F	2.0330	1.0065	1.7284	1.4428	1.3892	F	0.5662	3.6063	1.0675	1.4421	1.7963
G	1.7277	1.0176	1.7247	1.7768	1.5741	G	0.8061	3.3597	0.7909	1.2628	1.7822
H	1.4116	1.2342	1.7391	1.7657	2.5180	H	1.5211	2.5498	0.8903	0.3190	1.4479
J	1.3459	1.4836	1.6834	2.5050	1.6192	J	1.8382	1.8761	1.1064	0.1426	0.7761
K	1.3983	1.3333	1.5620	0.0	0.0	K	1.6914	1.2370	0.9860	0.0	0.0
L	1.1187	1.3684	2.4465	0.0	0.0	L	1.1771	0.8717	0.7507	0.0	0.0

NORMALIZED STRESS INTENSITIES (KSI) FOR T-10 LOAD CASE#5 =F3Y

STRESS INTENSITY ON TOP OUTSIDE SURFACE						STRESS INTENSITY ON TOP INSIDE SURFACE					
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	2.3896	2.1187	1.4847	0.7795	0.2734	A	1.3491	1.3414	1.2915	0.7907	0.4975
B	1.4611	1.6570	1.6420	1.3389	0.4071	B	1.4070	1.3025	1.2139	0.4934	0.4744
C	1.7925	1.4618	1.7549	0.9408	0.4653	C	1.3514	1.3788	0.9166	0.7401	0.3929
D	1.9641	1.6912	1.4388	1.0044	0.5158	D	1.7682	1.3815	0.7887	1.3548	0.3482
E	1.9385	1.6135	1.7547	1.1575	0.7359	E	2.4705	1.3203	0.7678	1.3099	0.5591
F	2.2543	1.6690	1.3467	1.2286	0.8407	F	2.0162	1.5749	0.6594	1.7286	0.9964
G	2.4358	1.2865	1.2657	0.8633	0.8379	G	2.2960	1.4736	0.9807	0.9972	0.8561
H	2.4088	1.2634	1.2661	1.3102	1.6534	H	2.0339	1.4305	1.1134	1.0278	0.7729
J	1.9078	1.0454	0.9235	1.3301	1.7019	J	2.0827	1.4568	0.8591	0.7971	1.8743
K	1.5637	1.0459	0.6667	0.0	0.0	K	2.0051	1.2123	0.6635	0.0	0.0
L	1.7323	1.0395	1.4066	0.0	0.0	L	2.6156 [▲]	0.9512	0.2948	0.0	0.0

STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE						STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	2.7182	2.1017	0.3917	0.8395	1.0864	A	2.8334	2.0244	0.4593	1.8322	3.0180 [▲]
B	2.5784	2.5848	0.5421	0.5422	0.4527	B	2.1226	2.1640	0.5441	1.9577	3.3198 [▲]
C	3.5709	3.2212	0.5603	0.6705	0.3933	C	1.2113	2.7915	0.2558	2.4082	3.4861
D	3.0468	3.8621	1.3787	1.4753	0.5607	D	1.6079	4.4459	1.2846	2.0254	3.3067
E	2.9581	3.3595	2.5535	2.7714	0.9199	E	2.8332	4.9571	2.3138 [▲]	1.2650	2.2073
F	2.8231	3.8454	2.6440	3.2102	0.9663	F	2.8664	4.5742	3.1072	0.6166	1.6188
G	3.1127	2.6755	3.1673	3.5418	1.6160	G	3.0217	4.6130	2.7577	0.8961	1.0301
H	1.7726	1.8630	4.1120	3.3932	2.8214	H	3.6272	3.9354	2.3583	1.9694	1.5316
J	1.7816	2.0728	4.1267	4.3836	1.7392	J	3.7185	2.6650	2.5936	3.0927	1.0442
K	1.7437	2.8179	3.9261	0.0	0.0	K	3.5450	3.2433	2.9598	0.0	0.0
L	3.2748	4.9154	6.5757	0.0	0.0	L	5.2625	4.8077	3.0660	0.0	0.0

NORMALIZED STRESS INTENSITIES (KSI) FOR T-10 LOAD CASE#6 =F3Z

STRESS INTENSITY ON TOP OUTSIDE SURFACE						STRESS INTENSITY ON TOP INSIDE SURFACE					
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	2.0863	1.5704	0.6733	0.5098	0.6485	A	0.9254	1.0150	0.9644	0.4145	0.1777
B	1.5166	1.5446	0.6873	0.4020	0.6715	B	1.2572	1.4210	1.0985	0.4018	0.4172
C	2.1907	1.5841	0.5007	0.5004	0.9764	C	1.5693	1.7529	0.9174	0.3942	0.5321
D	2.7022	1.5288	0.5428	0.5960	1.1375	D	1.6094	1.5505	0.9142	0.1380	0.5814
E	2.0027	1.3027	0.5878	0.4693	1.1313	E	1.0273	1.4701	1.0968	0.4369	0.6084
F	1.4289	1.1792	0.8071	0.4789	0.9278	F	0.9283	1.3481	1.2573	0.6680	0.5078
G	0.0489	1.0032	0.9745	0.4656	0.6902	G	0.8657	1.2833	1.2520	0.7017	0.5598
H	0.5590	1.0343	1.0378	0.5367	0.4749	H	0.4394	1.2376	1.4887	0.4976	0.4015
J	0.3122	0.9207	0.9650	0.8036	0.2290	J	0.1836	1.3238	1.4970	0.3881	0.2117 [▲]
K	0.1485	0.8190	1.0350	0.0	0.0	K	0.0909	1.0108	1.0883	0.0	0.0
L	0.1578	0.7363	1.0908	0.0	0.0	L	0.0595 [▲]	0.6228	0.7348	0.0	0.0

STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE						STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	1.7174	1.8298	0.8966	0.6234	0.705	A	1.3957	1.3245	0.3750	0.4089	0.1784 [▲]
B	1.7278	1.8645	1.0941	0.5732	0.7320	B	1.4532	1.5216	0.8595	0.7023	0.1833
C	2.1796	2.5277	1.0999	0.4915	0.6554	C	1.8691	1.6098	1.3911	0.7055	0.1777
D	2.7282	2.9522	1.1078	0.4354	0.2549	D	1.5567	2.2515	2.1411 [▲]	1.1354	0.2862
E	2.0199	3.3942	1.5130	0.6217	0.1645	E	1.1041	2.0432	2.7358 [▲]	1.5607	0.2141
F	1.5312	3.4925	1.8113	0.8071	0.7290	F	1.0517	1.6516	3.4084	1.5442	0.2536
G	1.8891	3.1477	1.7608	1.1790	1.2073	G	1.0252	2.3256	3.4034	1.2815	0.5055 [▲]
H	1.9994	2.4398	1.5963	1.3975	1.8455	H	0.9737	2.8683	3.2552	0.9516 [▲]	0.7340
J	1.4273	1.8953	1.6262	1.8337	1.9241	J	0.7715	2.6887	2.3353	0.7137 [▲]	0.8326 [▲]
K	0.8177	1.6224	1.5513	0.0	0.0	K	0.9361	1.9195	1.5479	0.0	0.0
L	1.2858	1.3383	1.3178	0.0	0.0	L	1.4782	1.6053	1.2799	0.0	0.0

NORMALIZED STRESS INTENSITIES (KSI) FOR T-10 LOAD CASE#1 =M2X

STRESS INTENSITY ON TOP OUTSIDE SURFACE						STRESS INTENSITY ON TOP INSIDE SURFACE					
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.0883	1.3557	1.2751	0.6198	0.1281	A	6214	1.6030	1.3541	0.7122	0.0923
B	0.3868	1.2787	1.5004	0.4788	0.0922	B	0.3581	2.2453	1.6083	0.7261	0.2283
C	1.5769	2.0023	1.4336	0.3682	0.3313	C	0.1163	2.9824	2.3390	1.0715	0.3590
D	2.9420	2.5053	1.2421	0.5272	0.7697	D	0.4472	3.2251	2.7097	1.2468	0.2817
E	2.8109	3.1363	1.1458	0.7415	1.1545	E	1.5536	2.2874	2.7829	1.2605	0.3142
F	2.2592	2.9104	1.0831	1.0707	1.5049	F	1.6986	1.6098	2.7258	0.9424	0.2779
G	2.1632	2.5527	0.7653	1.2541	1.6083	G	1.5753	1.6176	2.4232	0.7816	0.3417
H	1.7004	1.5375	0.6467	1.3192	1.8920	H	0.9015	1.4770	1.8121	0.9088	0.2930
J	1.0892	1.0483	0.8212	1.8989	1.9193	J	0.6796	1.3235 [▲]	1.2376	1.2650	0.9193
K	0.6641	0.8562	0.7540	0.0	0.0	K	0.9046	1.1071	1.0802	0.0	0.0
L	1.2093	0.6301	1.3033	0.0	0.0	L	1.0084 [▲]	1.0791	1.0400	0.0	0.0
STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE						STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.1941	1.3572	1.1897	0.4489	0.1144	A	0.7218	1.5416	1.1861	0.5828	0.0359
B	0.1348	1.9464	1.4261	0.4501	0.0338	B	0.5562	2.1811	1.6211	0.7668	0.2468
C	1.5554	2.2609	1.2724	0.3111	0.3716	C	0.6302 [▲]	3.0738	1.9745	0.9439	0.3434
D	3.2632	2.5607	0.9705	0.4223	0.7813	D	0.7516	3.5730	2.2689 [▲]	1.1457	0.3203
E	3.0085	2.8270	0.9618	0.7921	1.1844	E	1.5464	2.5139	2.5210 [▲]	1.1234	0.3906
F	2.3459	2.8315	0.9149	1.1646	1.5752	F	1.6179	1.7039	2.7543	0.6213	0.4840
G	2.3361	2.3969	0.8630	1.3770	1.6817	G	1.4750	1.7565	2.3048	0.7740	0.4412 [▲]
H	1.8485	1.4169	0.6979	1.4337	2.0414	H	0.8519	1.6180	1.7565	1.2062	0.3795
J	1.1758	1.0517	0.8611	1.8353	1.9597	J	0.6158	1.3064	1.3573	1.5273	0.3151 [▲]
K	0.6475	0.8105	0.9761	0.0	0.0	K	0.9080	1.0947	1.0049	0.0	0.0
L	1.1410	0.6515	1.4132	0.0	0.0	L	1.3222	1.1304	1.0115	0.0	0.0

NORMALIZED STRESS INTENSITIES (KSI) FOR T-10 LOAD CASE#0 =M2Y

STRESS INTENSITY ON TOP OUTSIDE SURFACE						STRESS INTENSITY ON TOP INSIDE SURFACE					
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.2951	0.1836	0.2340	0.1949	0.1548	A	0.3295	0.1240	0.2311	0.2830	0.0267
B	0.4663	0.1640	0.2878	0.2190	0.0755	B	0.6267	0.1609	0.3739	0.3337	0.0532
C	0.5771	0.0699	0.3530	0.1833	0.0112	C	1.0440	0.1964	0.5545	0.4600	0.1087
D	0.5217	0.2425	0.4179	0.1819	0.1152	D	1.3069	0.2659	0.6514	0.4933	0.1351
E	0.3254	0.6636	0.5697	0.2052	0.2808	E	1.0032	0.3960	0.5694	0.4735	0.1689
F	0.3888	0.7424	0.6316	0.2711	0.3937	F	0.9140	0.4879	0.5354	0.3388	0.1129
G	0.4947	0.9023	0.6558	0.3238	0.4037	G	0.8457	0.4006	0.4970	0.2021	0.0721
H	0.6903	0.9129	0.5807	0.3500	0.4737	H	0.5611	0.4187	0.4225	0.2219	0.1611
J	0.7163	0.7865	0.4971	0.3019	0.4869	J	0.5231	0.4825	0.2103	0.1900	0.1071
K	0.6250	0.5759	0.3753	0.0	0.0	K	0.6596	0.7157	0.2600	0.0	0.0
L	1.5791	1.5261	0.8665	0.0	0.0	L	0.5319 [▲]	0.5418	0.2980	0.0	0.0
STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE						STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.3488	0.2009	0.2522	0.2095	0.1160	A	0.3282	0.1641	0.2747	0.2202	0.0114
B	0.5033	0.1867	0.3418	0.1920	0.0709	B	0.6433	0.1755	0.3877	0.3018	0.0346
C	0.5822	0.1044	0.3380	0.1574	0.0245	C	1.1079	0.1928	0.5395	0.4514	0.0527
D	0.4475	0.3051	0.4105	0.1492	0.1499	D	1.4453	0.1516	0.5528 [▲]	0.5298	0.1109
E	0.3271	0.7048	0.5633	0.2254	0.3209	E	1.0710	0.4057	0.5528 [▲]	0.4789 [▲]	0.1289
F	0.4211	0.8144	0.6685	0.2587	0.4329	F	0.9216	0.5290	0.5318	0.3213	0.0789
G	0.4914	0.9666	0.6434	0.3258	0.4593	G	0.8430	0.4254	0.4823	0.2110	0.0698 [▲]
H	0.7718	0.9850	0.6083	0.2982	0.5461	H	0.6066	0.4292	0.4045	0.1621	0.1000
J	0.7717	0.9114	0.5651	0.2917	0.5136	J	0.5454	0.4351	0.2099	0.1729	0.0582 [▲]
K	0.7626	0.7515	0.4907	0.0	0.0	K	0.7244	0.7126	0.2038	0.0	0.0
L	1.6035	1.5782	0.8162	0.0	0.0	L	0.7883	0.6149	0.2983	0.0	0.0

NORMALIZED STRESS INTENSITIES (KSI) FOR T-10 LOAD CASE#9 #M2'

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5		ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	1.2062	0.5714	0.5164	0.8268	0.8992	A	1.5938	0.7872	0.4778	0.9485	1.1390
B	1.8508	0.6993	0.6250	0.9204	0.8572	B	2.2372	0.8749	0.7296	1.2130	1.2321
C	1.8735	0.7027	0.8694	0.9849	0.8263	C	2.9085	1.0087	1.0011	1.3861	1.5323
D	1.7906	0.7606	1.1432	1.1030	0.8522	D	2.8139	1.2267	0.9653	1.3701	1.4748
E	0.9927	1.4557	1.5087	1.1190	0.9229	E	1.5194	1.6210	0.6845	1.2307	1.2265
F	0.4901	1.4598	0.6080	1.0458	0.6879	F	0.7743	1.6038	0.5143	0.9823	0.8224
G	0.5760	1.5729	1.5389	0.9566	0.6132	G	0.9425	1.3204	0.5350	0.6204	0.5250
H	0.6800	1.4610	1.5221	0.9472	0.8745	H	1.0267	0.8402	0.5347	0.5189	0.9454
J	0.9091	1.1549	1.3142	1.1862	0.5503	J	1.0063	0.6197	0.4729	0.4802	0.7564
K	0.8617	0.7976	1.0054	0.0	0.0	K	0.8141	0.7777	0.6935	0.0	0.0
L	0.7993	1.5947	2.1768	0.0	0.0	L	0.7787 [▲]	0.6875	0.4313	0.0	0.0

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5		ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	1.2340	0.4730	0.5710	0.9189	0.8617	A	1.4458	0.7305	0.6108	0.6780	1.2236 [▲]
B	1.7515	0.5194	0.7395	1.0939	0.9558	B	2.1251	0.7151	0.7533	1.2106	1.3349 [▲]
C	1.8401	0.6674 [▲]	0.9625	1.0657	0.8043	C	2.9159	0.7818	1.1048	1.4697	1.4811
D	1.5614	0.8998	1.1130	1.0012	0.8192	D	3.1020	1.1572	0.9455 [▲]	1.4630	1.4151
E	0.8407	1.4310	1.4398	1.1365	0.8624	E	1.5407	1.6847	0.7787 [▲]	1.3272	1.1909
F	0.4768	1.6132	1.3894	1.0521	0.6653	F	0.7128	1.7298	0.5579	1.0256	0.7734
G	0.5670	1.6706	1.5082	1.0548	0.6285 [▲]	G	0.8986	1.3691	0.5562 [▲]	0.7215	0.7175
H	0.7964	1.5026	1.4419	0.8773	0.8210	H	1.0278	0.8429	0.5736	0.4270	0.9553
J	0.9244	1.2342	1.4010	0.9969	0.7787 [▲]	J	0.9779	0.5182	0.3609	0.4083	0.4957
K	0.8290	1.0282	1.3279	0.0	0.0	K	0.7157	0.7976	0.5594	0.0	0.0
L	0.9005	2.0889	1.9795	0.0	0.0	L	0.5636	0.7710	0.4575	0.0	0.0

NORMALIZED STRESS INTENSITIES (KSI) FOR T-10 LOAD CASE#10 =F2X

STRESS INTENSITY ON TOP OUTSIDE SURFACE						STRESS INTENSITY ON TOP INSIDE SURFACE					
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	1.5246	0.6894	0.5440	0.9558	1.0828	A	1.9041	0.9648	0.5331	1.0664	1.2362
B	2.3278	0.7883	0.7366	1.0841	0.9476	B	2.8565	1.0126	0.9011	1.4156	1.3006
C	2.4055	0.7732	0.9930	1.0858	1.0042	C	3.7893	1.2485	1.3366	1.6177	1.6191
D	2.3355	0.9493	1.3771	1.2944	0.9465	D	4.0005	1.4859	1.3175	1.6377	1.5117
E	1.3748	1.8385	1.7965	1.2271	1.0057	E	2.6016	1.8866	0.9875	1.4815	1.2284
F	0.7513	2.0344	1.9636	1.1023	0.6675	F	1.7423	2.0257	0.6933	1.1792	0.8194 [▲]
G	0.7877	2.1408	2.0459	0.9953	0.5259	G	1.7437	1.6219	0.6817	0.7283	0.5350
H	1.3303	1.9710	1.8638	0.9681	0.6576	H	1.4236	1.0164	0.7020	0.6622	1.0109
J	1.4911	1.5781	1.5667	1.0565	0.4125	J	1.3773	0.9597	0.5839	0.5243	0.9134
K	1.4633	1.1375	1.2018	0.0	0.0	K	1.3263	1.3112	0.8960	0.0	0.0
L	2.2892	3.1630	2.6406	0.0	0.0	L	1.3409 [▲]	1.1335	0.6094 [▲]	0.0	0.0
STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE						STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	1.5122	0.5440	0.6595	1.0393	1.0044	A	1.7068	0.8329	0.7246	0.9543	1.2664 [▲]
B	2.1522	0.6015	0.8967	1.1363	1.1168	B	2.5973	0.8148	0.8939	1.3926	1.3409 [▲]
C	2.4224	0.5443	1.0935	1.0779	0.8784	C	4.3892	0.8786	1.3579	1.6515	1.5748
D	2.0184	1.1200	1.2765	1.2230	0.9099	D	4.2829	1.3260	1.1919 [▲]	1.6559	1.5053
E	1.1424	2.0161	1.7223	1.2220	0.9420	E	2.5061	2.1146	1.0429 [▲]	1.5284	1.1721
F	0.6666	2.1816	1.8920	1.1345	0.6147	F	1.7507	2.2198	0.7609	1.1384	0.7378
G	0.7557	2.2341	1.8886	1.0502	0.6074	G	1.6892	1.6677	0.6880	0.8157	0.7449 [▲]
H	1.3708	2.0313	1.7887	0.8893	0.6183	H	1.5192	1.0447	0.7096	0.5672	1.0058
J	1.5060	1.8476	1.6845	0.9365	0.4755	J	1.3944	0.6770	0.5576	0.4727	1.0429 [▲]
K	1.4465	1.5559	1.5245	0.0	0.0	K	1.3644	1.3275	0.7286	0.0	0.0
L	2.2944	3.1513	2.3950	0.0	0.0	L	1.3718	1.2066	0.6232	0.0	0.0

NORMALIZED STRESS INTENSITIES (KSI) FOR T-10 LOAD CASE#11 =F2Y

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5		ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	1.2001	0.5462	0.5024	0.7995	0.8901	A	1.5762	0.7296	0.4519	0.8721	1.0417
U	1.7607	0.6093	0.6383	0.8827	0.8070	B	2.1986	0.8136	0.7434	1.1290	1.1551
C	1.7733	0.5873	0.8733	0.9287	0.7945	C	2.8420	0.9213	1.0351	1.3300	1.3395
D	1.6387	0.7071	1.1139	1.0820	0.8331	D	2.7618	1.0614	1.0172	1.3071	1.3204
E	0.9526	1.3432	1.4525	1.0834	0.8502	E	1.4648	1.4152	0.7770	1.1732	1.0813
F	0.5851	1.4144	1.5790	0.9736	0.6335	F	0.7521	1.4619	0.5812	0.9357	0.6890
G	0.5998	1.4842	1.5925	0.8442	0.5557	G	0.8547	1.1392	0.5761	0.6246	0.4746
H	0.7458	1.3699	1.4333	0.8345	0.7002	H	0.9893	0.6872	0.5360	0.5371	0.8466
J	0.9029	1.0371	1.1936	0.9686	0.4613	J	0.9259	0.5642	0.4686	0.4713	0.7409
K	0.8042	0.6135	0.9516	0.0	0.0	K	0.7272	0.7214	0.6436	0.0	0.0
L	0.8633	1.8441	1.9563	0.0	0.0	L	0.6665 [▲]	0.6315	0.3508	0.0	0.0

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5		ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	1.2278	0.5169	0.5802	0.9114	0.8721	A	1.4236	0.7342	0.6265	0.7874	1.1109 [▲]
U	1.7573	0.5898	0.6423	0.9006	0.9540	B	2.1102	0.8091	0.6867	1.2120	1.2220 [▲]
C	1.8274	0.6665 [▲]	0.9377	0.9806	0.8039	C	2.8687	0.9005	1.0435	1.4837	1.5062
D	1.6373	0.8883	1.1363	1.0630	0.8613	D	3.0741	1.3703	0.8332 [▲]	1.4397	1.4556
E	0.8796	1.4507	1.3851	1.1722	0.9072	E	1.5601	1.9063	0.6665 [▲]	1.2989	1.2359
F	0.4890	1.5159	1.3307	1.1182	0.7011	F	0.8752	1.9320	0.4317	0.9930	0.8201
G	0.4527	1.6077	1.5217	1.1449	0.7108	G	1.0266	1.5658	0.4676	0.6388	0.7029
H	0.6725	1.5387	1.5385	1.0025	0.9468	H	1.1036	1.0169	0.4775	0.3463	0.9963
J	0.8583	1.3114	1.4776	1.1817	0.5921	J	1.0930	0.6531	0.5238	0.4254	1.1109 [▲]
K	0.8392	1.0750	1.4293	0.0	0.0	K	0.8148	0.9213	0.6367	0.0	0.0
L	0.8862	2.1616	2.1777	0.0	0.0	L	0.6750	0.7901	0.5527	0.0	0.0

NORMALIZED STRESS INTENSITIES (KSI) FOR T-10 LOAD CASE#12 =F22

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5		ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.3292	0.2223	0.1425	0.1489	0.1314	A	0.4038	0.3166	0.1049	0.1888	0.0487
B	0.5586	0.2970	0.1619	0.1607	0.0601	B	0.7191	0.3834	0.2024	0.2633	0.0830
C	0.6630	0.2659	0.1996	0.1663	0.0331	C	1.1545	0.5101	0.2922	0.3608	0.1290
D	0.6741	0.1546	0.2994	0.1785	0.0462	D	1.4317	0.5661	0.3351	0.3468	0.2011
E	0.4565	0.4833	0.4730	0.2250	0.1390	E	1.2492	0.6178	0.2950	0.3180	0.1526
F	0.4655	0.6088	0.5009	0.2175	0.2297	F	1.0068	0.6299	0.2553	0.1995	0.1352
G	0.4503	0.6816	0.6385	0.2305	0.2185	G	0.9121	0.4883	0.2872	0.0888	0.0639
H	0.5840	0.7656	0.6131	0.2473	0.1961	H	0.5804	0.4016	0.2471	0.1110	0.0820
J	0.6313	0.6876	0.5069	0.3013	0.1897	J	0.5054	0.4413	0.2416	0.1729	0.0237
K	0.6128	0.5105	0.3835	0.0	0.0	K	0.6350	0.6081	0.3663	0.0	0.0
L	1.4123	1.4078	0.9794	0.0	0.0	L	0.6296 [▲]	0.5615	0.3751	0.0	0.0

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5		ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.3875	0.2495	0.4068	0.2729	0.1736	A	0.3298	0.2234	0.4911	0.2919	0.0454
B	0.5107	0.3106	0.5234	0.2757	0.1405	B	0.6589	0.3012	0.6152	0.4271	0.0408
C	0.6597	0.3391	0.5349	0.2092	0.0762	C	1.1293	0.3888	0.8315	0.6323	0.0956
D	0.6556	0.4605	0.5569	0.1909	0.2582	D	1.4782	0.3451	0.8394 [▲]	0.7072	0.1265
E	0.4890	1.0170	0.6976	0.2867	0.5076	E	1.1349	0.2656	0.2744 [▲]	0.6725	0.1217
F	0.5198	1.1379	0.8433	0.3762	0.7005	F	0.9942	0.4510	0.9200	0.4464	0.0824
G	0.7088	1.2764	0.8047	0.4592	0.7426	G	0.9415	0.3813	0.7898	0.3136	0.1225
H	0.9705	1.2493	0.7004	0.4358	0.9053	H	0.7223	0.4812	0.6183	0.3261	0.1801
J	0.9653	1.1285	0.6174	0.4436	0.9261	J	0.6444	0.5600	0.2939	0.2854	0.3000
K	0.8969	0.9170	0.5271	0.0	0.0	K	0.8601	0.8617	0.1491	0.0	0.0
L	1.9550	1.8226	0.7775	0.0	0.0	L	0.8912	0.7428	0.2897	0.0	0.0

NORMALIZED STRESS INTENSITIES (KSI) FOR T-10 LOAD CASE#13 =PRES

STRESS INTENSITY ON TOP OUTSIDE SURFACE					STRESS INTENSITY ON TOP INSIDE SURFACE						
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	1.5021	1.0386	0.5836	0.6694	0.7934	A	0.1707	0.6496	1.3198	1.5105	1.7775
B	1.4068	1.0249	0.7005	0.6667	0.6333	B	0.4351	0.5619	1.5190	1.8494	2.0851
C	1.4252	1.2307	0.9485	0.8059	0.7208	C	0.2981	0.4755	1.7112	2.2138	2.4320
D	1.7193	1.4539	0.7907	0.7797	0.8904	D	0.1097	0.4331	1.6978	2.4735	2.7899
E	1.6314	1.6367	0.8056	0.8881	1.0692	E	0.1424	0.5713	1.4864	2.4850	2.9075
F	1.1375	1.7185	0.8899	0.7688	0.8667	F	0.4318	0.6415	1.2575	2.4409	2.5917
G	1.1383	1.5976	0.9174	0.7636	0.8185	G	0.4919	0.5025	1.3853	2.1900	2.4521
H	1.2487	1.2655	0.9113	0.6881	1.0141	H	0.6448	0.1777	1.4500	1.7089	2.0034
J	1.2610	1.2167	0.8934	0.9757	1.2069	J	0.6196	0.4141	1.4224	1.5172	1.6445
K	1.1519	1.1599	0.8200	0.0	0.0	K	0.4806	0.5753	1.3942	0.0	0.0
L	1.2622	0.9879	0.7968	0.0	0.0	L	0.3912 [▲]	0.9376	1.3390	0.0	0.0

STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					STRESS INTENSITY ON BOTTOM INSIDE SURFACE						
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	1.6382	1.1196	0.6777	0.7287	0.8295	A	0.2172	0.8074	1.9879	1.5899	1.8702 [▲]
B	1.7451	1.0466	0.6174	0.6523	0.8094	B	0.2835	0.8183	1.6478	1.8690	2.1564 [▲]
C	1.7486	1.2369	0.7114	0.7156	0.9275	C	0.4020	0.8394	1.8559	2.2504	2.2554
D	1.7839	1.5115	0.7269	0.8059	0.9702	D	0.4194	0.6491	1.7270 [▲]	2.4829	2.5381 [▲]
E	1.5690	1.7295	0.8788	0.8599	1.1714	E	0.0421	0.4823	1.6793 [▲]	2.6130	2.6335 [▲]
F	1.1509	1.8141	0.9185	0.8706	1.0290	F	0.4750	0.5686	1.5298	2.5088	2.4366
G	1.1111	1.6415	0.9027	0.8876	1.0707	G	0.4929	0.4529	1.6120	2.0753	2.2518 [▲]
H	1.2081	1.4235	0.9267	0.7806	1.1510	H	0.5763	0.2202	1.5853	1.4971 [▲]	1.7247
J	1.1267	1.3352	0.9170	1.1214	1.2566	J	0.5602	0.3467	1.4360	1.2223 [▲]	1.4885 [▲]
K	1.0393	1.1895	0.8431	0.0	0.0	K	0.3700	0.6847	1.3690	0.0	0.0
L	1.1547	0.9950	0.8672	0.0	0.0	L	0.6020	0.9293	1.2589	0.0	0.0

NORMALIZED STRESS INTENSITIES (KSI) FOR T-11 LOAD CASE #1 = MAX

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5		ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	1.6263	1.1528	0.6362	0.3839	0.6880	A	0.7573	0.8021	0.6404	0.3981	0.2462
B	1.2822	1.0586	0.5564	0.3852	0.7056	B	0.7491	0.7880	0.5786	0.3471	0.3030
C	1.5137	1.2063	0.6580	0.5193	0.8105	C	0.6082	0.7827	0.4155	0.3964	0.3895
D	1.4696	1.2185	0.8240	0.5623	0.8036	D	0.4094	0.5993	0.4797	0.4494	0.4228
E	1.0459	1.1558	0.8917	0.4825	0.6896	E	0.3537	0.4684	0.6492	0.7224	0.4400
F	0.8851 [▲]	0.9157	0.9475	0.4456	0.5249	F	0.6531	0.3584	0.6454	0.9075	0.3415
G	0.6442	0.7715	0.8846	0.4249	0.3507	G	0.6355	0.4163	0.7195	0.6672	0.2304
H	0.4315	0.4682	0.7623	0.4254	0.1914	H	0.5122	0.5298	1.0013	0.7476	0.2541
J	0.2628	0.3904	0.6194	0.4070	0.0940	J	0.3485	0.4798	0.8637	0.6229	0.3260
K	0.1468	0.3062	0.5509	0.0	0.0	K	0.2709	0.4507	1.0009	0.0	0.0
L	0.1271	0.2669	0.5058	0.0	0.0	L	0.2690	0.3823	0.7250	0.0	0.0

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5		ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	1.5582	1.5953	1.3512	0.7360	0.4845	A	0.8851 [▲]	0.7462	0.6773	0.5216	0.0834
B	1.2719	1.3933	1.2261	0.7290	0.4241	B	0.8690 [▲]	0.6326	0.8694	0.7213	0.1796
C	1.4899	1.6310	1.4130	0.8732	0.2317	C	0.7313	0.3696	1.2659	1.0816	0.4011
D	1.3975	1.9200	1.8664	0.9042	0.2130	D	0.5526	0.5483	1.6078	1.6579	0.3160
E	0.9489	2.1941	2.2550	1.1551	0.5581	E	0.4426 [▲]	0.3609	1.6883	1.9449	0.2764
F	0.7425	1.8342	2.1181	1.2670	1.0650	F	0.6889	0.2476	1.0243	1.8736	0.0397
G	0.9454	1.6533	1.9969	1.3170	1.4551	G	0.7275	0.4833	1.8446	1.4773	0.3610
H	1.0515	1.3205	1.6265	1.2880	1.4707	H	0.7550	0.8367	2.0457	1.0719	0.4099
J	0.9241	1.0807	1.3237	1.3632	1.5719	J	0.8194	0.9002	1.7955	0.8455	0.4296
K	0.7476	0.8293	1.0835	0.0	0.0	K	1.0440	0.9924	1.3400	0.0	0.0
L	0.9757	0.8520	0.9915	0.0	0.0	L	1.2786	1.0659	1.1042	0.0	0.0

NORMALIZED STRESS INTENSITIES (KSI) FOR T-11 LOAD CASE #2 = M3Y

STRESS INTENSITY ON TOP OUTSIDE SURFACE						STRESS INTENSITY ON TOP INSIDE SURFACE					
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.9395	0.9579	1.1027	1.2913	1.4580	A	1.2435	1.1718	1.0725	0.6866	0.6685
B	1.0251	1.0416	1.0219	1.2614	1.3284	B	0.9723	1.2360	1.2189	0.8281	0.7009
C	1.2716	1.3054	1.1646	1.1413	1.2273	C	0.6037	1.3650	1.4900	0.9669	0.5840
D	1.5630	1.4638	1.2011	0.7587	1.0032	D	0.5970	1.3731	1.6145	1.2361	0.3948
E	1.3788	1.5417	1.2920	0.5236	0.5791	E	0.9203	0.9703	1.6051	1.3830	0.2790 [▲]
F	1.2553 [▲]	1.3786	1.1370	0.3877	0.2337	F	1.0167	0.8141	1.4691	1.1971	0.1019
G	1.1423	1.2026	1.0087	0.3643	0.0625	G	1.0013	0.7827	1.4512	0.8680	0.0544
H	0.8656	0.9396	0.6772	0.3627	0.1764	H	0.7223	0.5937	1.3781	0.5974	0.0389
J	0.6201	0.6146	0.5689	0.3434	0.2174	J	0.4658	0.5970	0.9050	0.4572	0.1259
K	0.2845	0.4583	0.6125	0.0	0.0	K	0.2931	0.4911	1.2010	0.0	0.0
L	0.2187	0.4315	0.5393	0.0	0.0	L	0.2469	0.4488	0.6222	0.0	0.0

STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE						STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.8690	0.9058	1.0935	1.4526	1.6680	A	1.2414 [▲]	1.1210	1.3310	0.8719	0.5058
B	0.8776	0.9416	1.1915	1.3647	1.4142	B	0.9066 [▲]	1.1197	1.4679	1.0766	0.4212
C	1.2549	1.1790	1.3968	1.2926	1.3251	C	0.6695 [▲]	1.0967	1.8090	1.3628	0.3464
D	1.6400	1.5598	1.7307	1.0454	0.8539	D	0.5866	0.9648	2.0920	1.7761	0.1532
E	1.3522	2.1159	1.9715	0.9320	0.5244	E	0.6974 [▲]	0.4488	1.3873	1.9021	0.1765
F	1.1268	1.9654	1.9719	0.7217	0.0736	F	0.9066 [▲]	0.4309	1.5810	1.6432	0.2828
G	1.2758	1.8701	1.8210	0.7142	0.3580	G	0.9757	0.5373	1.6463	1.1426	0.5457
H	1.3575	1.7167	1.5397	0.7586	0.4325	H	0.6365	0.6001	1.6140	0.7477	0.3527
J	1.2134	1.5082	1.2952	0.7190	0.5697	J	0.4468	0.5581	1.3846	0.4489	0.2790 [▲]
K	1.0744	1.2658	0.9926	0.0	0.0	K	0.7505	0.8330	0.9595	0.0	0.0
L	1.2388	1.5724	1.1569	0.0	0.0	L	0.9978	0.9567	0.7012	0.0	0.0

NORMALIZED STRESS INTENSITIES (KSI) FOR T-11 LOAD CASE #3 = M3Z

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5		ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.3604	0.7930	1.1096	1.1413	1.1685	A	0.6429	0.4388	0.5551	0.5121	0.4811
B	0.3948	0.6347	1.0297	1.1572	1.0941	B	0.8796	0.5320	0.6624	0.4838	0.4104
C	0.5113	0.7273	1.1612	1.3138	1.2601	C	1.1789	0.6614	0.7554	0.4761	0.3131
D	0.6500	0.7424	1.1809	1.2461	1.0426	D	1.2857	0.8669	0.8343	0.4466	0.2104
E	0.8871	0.8845	1.0539	1.1234	0.8722	E	0.8706	0.8926	0.9203	0.2957	0.3933
F	1.1144	0.8701	0.9695	0.8905	0.8107	F	0.6492	0.7995	0.9420	0.1690	0.7356
G	0.9278	0.7872	0.8512	0.7400	0.8673	G	0.5309	0.9196	0.9178	0.4269	0.8667
H	0.7944	0.6844	0.6144	0.5849	0.6703	H	0.5719	1.0383	0.7811	0.4361	0.7661
J	0.7163	0.5670	0.3607	0.5278	0.6503	J	0.7391	0.9459	0.3141	0.4338	0.6428
K	0.5854	0.5221	0.2680	0.0	0.0	K	0.6435	0.7845	0.4746	0.0	0.0
L	0.5698	0.5016	0.2907	0.0	0.0	L	0.5459	0.5937	0.2591	0.0	0.0

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5		ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.4725	0.7168	1.2489	1.6533	1.7696	A	0.6324 [▲]	0.7907	0.5050	0.3513	0.6233
B	0.4264	0.6508	1.0519	1.5641	1.7946	B	0.8431 [▲]	1.1334	0.4618	0.6043	0.8549
C	0.5673	0.5512	1.0982	1.9619	1.9911	C	1.1382 [▲]	1.5111	0.6298	0.8721	1.1449
D	0.7118	0.4189	1.2920	1.8536	1.8156	D	1.3219	1.7976	0.9951	0.6240	1.1798
E	0.9254	0.4819	1.2671	1.9473	1.8080	E	0.9275 [▲]	1.8508	1.4362	0.5701	1.7700
F	0.9481	0.6325	1.1154	1.8886	1.8493	F	0.7588 [▲]	1.6971	1.5452	0.7273	1.6593
G	0.9060	0.4752	1.2277	1.8352	2.1304	G	0.7363	1.7679	1.4339	1.0147	1.2717
H	0.7780	0.4047	1.1850	1.6199	1.7780	H	1.0336	1.7536	1.1012	0.7703	0.8742
J	0.5857	0.5840	1.0813	1.6463	1.6716	J	1.1275	1.4048	0.7136	0.4526	0.5795
K	0.4434	0.6781	0.9189	0.0	0.0	K	0.9549	1.0580	0.4756	0.0	0.0
L	0.5204	0.6759	1.1180	0.0	0.0	L	0.7513	0.7439	0.5440	0.0	0.0

NORMALIZED STRESS INTENSITIES (KSI) FOR T-11 LOAD CASE #5 = F3Y

STRESS INTENSITY ON TOP OUTSIDE SURFACE						STRESS INTENSITY ON TOP INSIDE SURFACE					
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	1.6612	1.8174	1.3627	1.8097	1.5873	A	1.9925 [▲]	1.3442	1.4005	0.7153	0.7591
B	1.1275	1.3165	1.1624	1.0911	1.2196	B	2.2164	0.6047	0.6837	0.5156	0.6510
C	1.1556	0.9860	2.2191	1.9820	2.0122	C	2.2124	1.5940	0.4590	0.7551	0.3290
D	1.1678	1.2390	1.4991	2.1825	0.8114	D	2.6256	1.1825	0.5838	0.4956	0.5086
E	1.5285	1.2416	1.1900	2.7155	0.7771	E	1.6483	1.3758	1.2969	0.7036	1.3868
F	1.6607 [▲]	2.1466	1.7611	1.4401	1.8687	F	2.2249	1.7907	1.2413	1.2266	1.3103
G	2.2991	1.8069	1.7738	2.1491	0.8886	G	1.3773	1.7153	1.6194	0.6129	1.9322
H	2.0849	1.7479	1.4371	1.6570	1.9300	H	1.4645	2.0968	0.9432	0.4981	1.2460
J	0.9405	1.0341	0.4877	0.8515	1.0737	J	1.5402	2.4154	1.5691	0.4712	1.0473
K	1.2859	1.4132	0.8065	0.0	0.0	K	1.0324	1.0403	1.0525	0.0	0.0
L	1.3178	0.9250	0.7621	0.0	0.0	L	1.2993	1.5076	0.9133	0.0	0.0

STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE						STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	2.8849	2.5187	1.7795	1.4959	1.5524	A	2.4906 [▲]	2.4146	1.8642	1.3409	1.9778
B	2.2211	2.6488	1.4134	1.0717	1.5011	B	2.4906 [▲]	2.1708	2.2953	1.8234	2.8761
C	2.7095	3.7987	2.5490	1.4563	1.7713	C	3.9351 [▲]	3.0871	2.6092	1.3945	4.3590
D	2.6298	3.0326	2.7710	3.2071	1.8642	D	2.1820	3.8657	4.0754	1.0842	4.3585 [▲]
E	3.7523	4.3070	3.8771	3.0330	1.9457	E	1.9382	3.6181	4.8106	2.3800	3.4512
F	2.0430	3.5817	3.4714	5.7251	2.8779	F	2.1728	2.8607	4.3121	3.6928	3.5880
G	4.0343	2.9207	3.2973	4.7291	3.9837	G	3.3810	3.5232	4.6425	3.0995	0.8304
H	1.9957	2.9812	4.0617	5.5999	4.8006	H	3.0998	4.5658	4.5284	3.0139 [▲]	0.9571
J	3.3807	3.0258	4.3762	5.0519	5.0166	J	4.8509	3.9247	4.6313	3.5645	2.0124
K	2.9242	3.7578	5.2489	0.0	0.0	K	5.1735	4.3018	4.3486	0.0	0.0
L	4.0365	5.6235	5.1356	0.0	0.0	L	6.4038	6.0198	4.8694	0.0	0.0

NORMALIZED STRESS INTENSITIES (KSI) FOR T-11 LOAD CASE #6 = F3Z

STRESS INTENSITY ON TOP OUTSIDE SURFACE						STRESS INTENSITY ON TOP INSIDE SURFACE					
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	1.4187	1.0448	0.5635	0.2577	0.4559	A	0.7306 [▲]	0.7912	0.6401	0.3145	0.1255
B	1.1985	0.9826	0.4686	0.2408	0.4990	B	0.7427	0.8496	0.6193	0.2953	0.1674
C	1.4199	1.0784	0.4859	0.2692	0.6139	C	0.6861	0.8728	0.5093	0.3468	0.2818
D	1.3794	1.0825	0.6052	0.4306	0.6424	D	0.5100	0.6972	0.5043	0.3815	0.3181
E	0.9922	1.0141	0.5949	0.4056	0.6120	E	0.4231	0.5208	0.6461	0.5576	0.3204
F	0.4314	0.8092	0.7559	0.3815	0.4641	F	0.6023	0.4448	0.6456	0.6926	0.2630
G	0.6107	0.6921	0.6877	0.3552	0.3738	G	0.5845	0.4664	0.6782	0.6747	0.1986
H	0.3994	0.4077	0.5967	0.3461	0.2191	H	0.4394	0.5298	0.8095	0.5964	0.2291
J	0.2305	0.3504	0.5325	0.3278	0.1304	J	0.2830	0.4486	0.7308	0.4971	0.3159
K	0.1207	0.2993	0.4601	0.0	0.0	K	0.2007	0.4148	0.8479	0.0	0.0
L	0.0953	0.2522	0.4194	0.0	0.0	L	0.2025	0.3481	0.6384	0.0	0.0

STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE						STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	1.4683	1.5146	1.2519	0.6173	0.3406	A	0.7297 [▲]	0.7432	0.7391	0.6074	0.1869
B	1.1672	1.3405	1.1699	0.6020	0.2613	B	0.7463 [▲]	0.7023	1.0098	0.7611	0.0431
C	1.4074	1.5902	1.3271	0.6862	0.0226	C	0.6634 [▲]	0.5649	1.4058	1.0720	0.2488
D	1.4048	1.9192	1.7592	0.8376	0.3646	D	0.4783	0.7272	1.7334	1.6227	0.1065
E	1.0091	2.2399	2.1380	1.0908	0.7564	E	0.4146 [▲]	0.5110	1.6055	1.9114	0.1462
F	0.8042	1.9925	2.0375	1.2062	1.1838	F	0.6219 [▲]	0.3418	1.7198	1.7890	0.1731
G	1.0176	1.7136	1.9224	1.4648	1.6783	G	0.6873	0.5906	1.9167	1.4065	0.5681
H	1.1061	1.3501	1.6065	1.4746	1.6537	H	0.6816	0.9130	2.0589	1.0264	0.5488
J	0.9530	1.0825	1.3202	1.5214	1.7471	J	0.7652	0.9576	1.7464	0.8623	0.6023
K	0.7870	0.8430	1.0830	0.0	0.0	K	1.0449	1.0436	1.3062	0.0	0.0
L	0.9800	0.8517	1.0803	0.0	0.0	L	1.3117	1.1191	1.0892	0.0	0.0

NORMALIZED STRESS INTENSITIES (KSI) FOR T-11 LOAD CASE #7 = M2X

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5		ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.1786	0.5479	0.8150	0.5466	0.0444	A	0.5369	1.0128	1.2498	0.7934	0.3319
B	0.4564	0.7538	0.9209	0.5449	0.2590	B	0.3555	1.1265	1.4818	0.9756	0.1579
C	1.0586	1.1843	0.9996	0.5773	0.5990	C	0.0369	1.3132	1.7223	1.0619	0.0409
D	1.4811	1.3305	1.2049	0.6924	0.8728	D	0.2708	1.2566	1.7760	1.3612	0.1209
E	1.4929	1.6311	1.2172	0.9222	1.2008	E	0.5429	0.7691	1.6278	1.4261	0.2747
F	1.2563	1.5153	1.2689	1.1242	1.4727	F	0.4822	0.5236	1.4744	1.1485	0.3358
G	1.2538	1.3612	1.1338	1.3891	1.8044	G	0.4833	0.6365	1.4331	0.8704	0.5713
H	1.1454	1.0810	0.9476	1.4062	1.6435	H	0.4566	0.6102	1.2758	0.5749	0.6474
J	1.0064	0.9046	0.8493	1.4904	1.7241	J	0.5308	0.7032	0.7678	0.7189	0.8017
K	0.8003	0.5993	0.7466	0.0	0.0	K	0.7400	0.6888	1.0842	0.0	0.0
L	0.9455	0.7371	0.9981	0.0	0.0	L	0.8320	0.8571	0.7123	0.0	0.0

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5		ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.1676	0.6355	0.8424	0.5379	0.1035	A	0.4828 [▲]	0.9941	1.2631	0.8017	0.2509
B	0.4889	0.8065	0.8996	0.5250	0.2600	B	0.2817 [▲]	1.1253	1.4415	0.9454	0.1150
C	1.0999	1.0507	0.8892	0.6147	0.5199	C	0.1383	1.3282	1.7109	1.0771	0.0745
D	1.5150	1.3616	1.1480	0.6773	0.8629	D	0.2253 [▲]	1.2764	1.7528	1.3189	0.0787
E	1.4462	1.6911	1.3104	1.3066	1.2345	E	0.3621 [▲]	0.8113	1.5861	1.3533	0.2392
F	1.2911	1.5625	1.2545	1.2194	1.4657	F	0.5392	0.6232	1.4128	1.0748	0.2074
G	1.2767	1.2790	1.1638	1.3807	1.8601	G	0.5977	0.6608	1.3982	0.8850	0.6178
H	1.1239	0.9816	0.8981	1.3114	1.6590	H	0.4785	0.6149	1.1943	0.6249	0.6444
J	0.8506	0.6846	0.7445	1.4797	1.6955	J	0.5948	0.6283	1.0076	0.6980	0.7904
K	0.6646	0.5181	0.7739	0.0	0.0	K	0.8236	0.6652	0.7085	0.0	0.0
L	0.8726	0.7900	1.0643	0.0	0.0	L	1.0182	0.8551	0.7729	0.0	0.0

NORMALIZED STRESS INTENSITIES (KSI) FOR T-11 LOAD CASE #8 = M2Y

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5		ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.1852	0.0666	0.1743	0.2078	0.1821 [▲]	A	0.2687	0.1986	0.2048	0.2525	0.1686
B	0.2638	0.0809	0.1867	0.2178	0.1578	B	0.5236	0.2739	0.2449	0.3171	0.2270
C	0.3025	0.0840	0.2681	0.2653	0.1157	C	0.8711	0.3762	0.3182	0.4754	0.2693 [▲]
D	0.3457	0.2598	0.4040	0.3055	0.0324	D	1.0733	0.5103	0.3013	0.5024	0.3266
E	0.5134	0.5977	0.6442	0.3893	0.0856	E	0.8876	0.6233	0.2005	0.4547	0.3908
F	0.5581 [▲]	0.6535	0.7101	0.4094	0.1695	F	0.8556	0.6415	0.2056	0.3654	0.3804
G	0.5996	0.7681	0.7764	0.4747	0.2609	G	0.7472	0.5834	0.2113	0.2111	0.3799
H	0.7117	0.8783	0.7944	0.4371	0.2278	H	0.5571	0.4111	0.2403	0.1267	0.2783
J	0.8617	0.8331	0.7377	0.4918	0.2205	J	0.4231	0.5026	0.3936	0.2217	0.1791
K	0.8160	0.8336	0.6904	0.0	0.0	K	0.7713	0.6151	0.3509	0.0	0.0
L	1.1036	1.0739	0.8709	0.0	0.0	L	0.7977	0.6290	0.4369	0.0	0.0
GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5		ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.1854	0.1111	0.1420	0.2079	0.1893	A	0.2651 [▲]	0.1812	0.1983	0.2607	0.2037
B	0.2156	0.0984	0.1865	0.2026	0.1519	B	0.5232 [▲]	0.2704	0.2619	0.3249	0.1881
C	0.2741	0.0931	0.2639	0.2174	0.1286	C	0.8492	0.3651	0.3424	0.4606	0.2483
D	0.3381	0.2974	0.4224	0.2823	0.0376	D	1.0489	0.4720	0.3505	0.5342	0.3562
E	0.5062	0.6698	0.6880	0.3612	0.0546	E	1.0627	0.5473	0.2484	0.4805	0.4010
F	0.5547	0.7386	0.7788	0.4231	0.1540	F	0.7990	0.6196	0.2080	0.3809	0.3594
G	0.6071	0.8051	0.8542	0.4236	0.2614	G	0.7601	0.5227	0.2475	0.2209	0.4142
H	0.7875	0.9233	0.8208	0.4109	0.2673	H	0.5485	0.3892	0.2387	0.1445	0.2706
J	0.8213	0.8967	0.7625	0.4686	0.2333	J	0.4173	0.4889	0.3771	0.1960	0.1692
K	0.8079	0.7998	0.6086	0.0	0.0	K	0.7462	0.6557	0.4139	0.0	0.0
L	1.0523	1.1900	0.8625	0.0	0.0	L	0.9108	0.7344	0.4425	0.0	0.0

NORMALIZED STRESS INTENSITIES (KSI) FOR I-II LOAD CASE #9 = M22

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5		ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.7515	0.5031	0.1657	0.6425	0.8331	A	1.2033	0.8681	0.3754	0.7923	1.0893
B	0.8337	0.5837	0.2756	0.7397	0.8099	B	1.4709	1.0057	0.2521	0.8937	1.1928
C	0.9334	0.6784	0.5211	0.9678	0.8683	C	1.7793	1.1987	0.1558	1.0760	1.4564
D	0.8344	0.6591	0.3810	1.1837	0.8661	D	1.5684	1.2795	0.3312	0.9120	1.4817
E	0.4605	0.7902	1.1286	1.2375	0.8903	E	0.8132	1.2108	0.6387	0.6034	1.1603
F	0.3219 [▲]	0.7435	1.1823	1.3870	1.0706	F	0.5031	1.0500	0.7044	0.5443	0.8589
G	0.2894	0.8490	1.2661	1.4281	1.3211	G	0.5218	0.9547	0.6233	0.5863	0.5507
H	0.3058	0.9148	1.2980	1.3364	1.0731	H	0.6007	0.7214	0.5225	0.4055	0.3716
J	0.3319	0.8539	1.2052	1.3301	1.1824	J	0.4904	0.6075	0.3930	0.2649	0.1587
K	0.3154	0.7972	1.0961	0.0	0.0	K	0.4202	0.4873	0.6081	0.0	0.0
L	0.2713	0.7679	1.2739	0.0	0.0	L	0.2952	0.3868	0.4142	0.0	0.0

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5		ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.7734	0.5251	0.1668	0.6717	0.8194	A	1.2069 [▲]	0.8654	0.3300	0.8403	1.1310
B	0.8292	0.5775	0.2661	0.7373	0.8306	B	1.4483 [▲]	1.0306	0.2338	0.9975	1.1913
C	0.9295	0.6208	0.4849	1.0618	0.8537	C	1.8089	1.2324	0.1421	1.1047	1.4015
D	0.7855	0.6203	0.8903	1.1333	0.8335	D	1.6188	1.2742	0.3103	0.9463	1.5316
E	0.4135	0.7849	1.2286	1.2874 [▲]	0.9742	E	1.0094	1.1936	0.5924	0.6292	1.3632
F	0.2806	0.7514	1.2411	1.4152	1.0541	F	0.4756	1.0749	0.6927	0.5721	1.0076
G	0.2940	0.8600	1.3700	1.3995	1.2896	G	0.5245	0.9502	0.6452	0.5624	0.5682
H	0.3426	0.5139	1.3423	1.2629	1.1059	H	0.5845	0.7247	0.4791	0.4192	0.3208
J	0.3651	0.8588	1.2416	1.292	1.1062	J	0.5009	0.5609	0.6067	0.2234	0.1828
K	0.3069	0.7777	1.0056	0.0	0.0	K	0.3944	0.4867	0.4424	0.0	0.0
L	0.2691	0.8273	1.2407	0.0	0.0	L	0.3018	0.4381	0.3977	0.0	0.0

NORMALIZED STRESS INTENSITIES (KSI) FOR T-11 LOAD CASE #10= F2X

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5		ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	1.0474	0.5146	0.2110	0.7490	0.4599	A	1.5244	1.0128	0.4519	1.0659	1.2755
B	1.2344	0.7027	0.4135	0.7932	0.8944	B	1.9304	1.1627	0.4281	1.1498	1.4624
C	1.2111	0.8064	0.5436	1.1187	0.9960	C	2.6475	1.5293	0.3229	1.4313	1.7090
D	1.2122	0.7592	1.0884	1.3192	0.9412	D	2.6602	1.7268	0.1903	1.2451	1.9006
E	0.7025	1.2681	1.4105	1.4271	0.9148	E	1.8401	1.8185	0.7270	0.8876	1.3563
F	1.1690	1.2116	1.5889	1.5243	0.9974	F	1.4928	1.6901	0.8237	0.7384	0.9495
G	0.6030	1.4412	1.7270	1.5309	1.1889	G	1.4028	1.4728	0.7093	0.7410	0.5379
H	0.9490	1.5346	1.7300	1.3756	0.9385	H	1.1153	0.9319	0.5069	0.2936	0.3853
J	1.1221	1.4656	1.5534	1.4061	0.9761	J	0.8713	0.9670	0.7052	0.4225	0.2281
K	1.1693	1.3420	1.4308	0.0	0.0	K	1.2882	0.9654	0.7897	0.0	0.0
L	1.3616	1.5418	1.6851	0.0	0.0	L	1.1822	0.9949	0.7797	0.0	0.0

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5		ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	1.0989	0.7143	0.1456	0.7167	0.8615	A	1.4931 [▲]	1.0015	0.3149	1.1331	1.4287
B	1.2021	0.7910	0.3163	0.8049	0.8923	B	1.9197 [▲]	1.2762	0.3938	1.3273	1.5413
C	1.2842	0.8136	0.5748	1.1140	0.8926	C	2.6098	1.6115	0.3241	1.4802	1.7313
D	1.0609	0.8300	1.0198	1.2510	0.8304	D	2.7763	1.7741	0.1729	1.2538	1.9506
E	0.6926	1.2535	1.6085	1.5259	0.9321	E	1.8130 [▲]	1.8254	0.5131	0.9221	1.5845
F	0.6800	1.4154	1.5816	1.5533	0.9707	F	1.7493	1.8147	0.8874	0.7178	1.1416
G	0.8108	1.3962	1.8317	1.5341	1.1651	G	1.4377	1.5467	0.7316	0.6252	0.6008
H	1.0698	1.6147	1.7901	1.3409	0.9635	H	1.1316	0.9824	0.5613	0.4136	0.3866
J	1.1846	1.5092	1.6266	1.3681	0.8915	J	0.8847	0.9483	0.9648	0.4146	0.2217
K	1.1604	1.3869	1.3097	0.0	0.0	K	1.2882	1.1790	0.7860	0.0	0.0
L	1.3401	1.6988	1.6525	0.0	0.0	L	1.3710	1.1973	0.7496	0.0	0.0

NORMALIZED STRESS INTENSITIES (KSI) FOR T-11 LOAD CASE #11= F2Y

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5		ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.7738	0.5258	0.1840	0.6547	0.8137	A	1.2198	0.7977	0.3388	0.7668	1.0614
B	0.9059	0.5749	0.3470	0.7509	0.1243	B	1.4984	0.9904	0.2213	0.8633	1.1365
C	0.9407	0.6631	0.6071	0.9515	0.8623	C	1.8141	1.1731	0.2247	1.0739	1.3937
D	0.8376	0.6238	0.9161	1.1476	0.8407	D	1.5705	1.1813	0.2411	0.9142	1.4113
E	0.4708	0.8096	1.1252 [▲]	1.3207	0.8206	E	0.8403	1.1450	0.5947 [▲]	0.6366	1.0535
F	0.4822 [▲]	0.7488	1.1681	1.2772	0.9939	F	0.5298	1.0003	0.6631	0.5601	0.8089
G	0.3685	0.8848	1.2259	1.3243	1.2100	G	0.4086	0.9185	0.5900	0.6266	0.5155
H	0.3370	0.9140	1.2155	1.2317	0.9998	H	0.5636	0.6105	0.4102	0.5028	0.3616
J	0.3894	0.8202	1.1432	1.2389	1.0517	J	0.4310	0.5238	0.3728	0.1813	0.2111
K	0.3951	0.7116	1.0149	0.0	0.0	K	0.3720	0.4275	0.4536	0.0	0.0
L	0.3214	0.7296	1.1904	0.0	0.0	L	0.2964	0.3303	0.3336	0.0	0.0

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5		ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.8679	0.5951	0.1053	0.6390	0.8537	A	1.2859 [▲]	0.9063	0.4384	0.8714	1.1889
B	0.8479	0.6874	0.2620	0.7428	0.8686	B	1.6074 [▲]	1.1053	0.2439	1.0247	1.2441
C	1.0019	0.7206	0.4594	1.0681	0.8881	C	1.7734	1.3339	0.1545	1.1223	1.4817
D	0.8586	0.7161	0.8584	1.1850	0.8740	D	1.6134	1.4018	0.3804	0.9251	1.9289 [▲]
E	0.4404	0.7836	1.1895	1.3970	1.0015	E	1.1187	1.3102	0.6100	0.6150	1.4555
F	0.3627	0.7010	1.2231	1.5023	1.1131	F	0.4949	1.1866	0.7793	0.6063	1.1308
G	0.3163	0.8091	1.3499	1.5246	1.3759	G	0.5129	1.0637	0.7822	0.5797	0.6147
H	0.2882	0.8473	1.3419	1.3912	1.2205	H	0.7023	0.8848	0.6132	0.4261	0.3080
J	0.3336	0.8994	1.2785	1.4454	1.2016	J	0.5534	0.6889	0.7997	0.3110	0.1955
K	0.3156	0.8450	1.0704	0.0	0.0	K	0.5167	0.6164	0.5053	0.0	0.0
L	0.3222	0.8977	1.3725	0.0	0.0	L	0.4198	0.4932	0.5183	0.0	0.0

NORMALIZED STRESS INTENSITIES (KSI) FOR T-11 LOAD CASE #12= F2Z

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5		ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.2027	0.0817	0.1439	0.1918	0.0627	A	0.3314	0.1963	0.1611	0.2434	0.1696
B	0.3084	0.1278	0.1226	0.2360	0.1642	B	0.5596	0.3948	0.2163	0.1790	0.2481
C	0.2408	0.2092	0.2117	0.2716	0.1372	C	0.9025	0.5563	0.1719	0.3311	0.1859
D	0.4414	0.2742	0.2959	0.3424	0.0728	D	1.0691	0.6206	0.1605	0.3424	0.3371
E	0.5565	0.5177	0.4084	0.4230	0.0693	E	0.8838	0.6781	0.2557	0.2537	0.3477
F	0.5923 [▲]	0.6316	0.6438	0.4033	0.0173	F	0.8678 [▲]	0.7281	0.2700	0.1953	0.3049
G	0.6379	0.7003	0.7198	0.4939	0.0289	G	0.7977	0.6066	0.2733	0.1094	0.2872
H	0.7280	0.8304	0.7389	0.4554	0.0165	H	0.5749	0.4264	0.3034	0.1906	0.1564
J	0.8214	0.7887	0.7214	0.5053	0.0707	J	0.4868	0.5434	0.4160	0.2410	0.0480
K	0.7745	0.7767	0.6836	0.0	0.0	K	0.7282	0.6110	0.3499	0.0	0.0
L	1.0478	0.9914	0.8729	0.0	0.0	L	0.7241	0.6119	0.4172	0.0	0.0

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5		ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.2439	0.0787	0.2314	0.2515	0.3417	A	0.3444 [▲]	0.1543	0.3750	0.3621	0.1909
B	0.2180	0.0770	0.3330	0.2769	0.1384	B	0.5510 [▲]	0.2134	0.4556	0.5079	0.1986
C	0.3303	0.1030	0.3990	0.3324	0.0391	C	0.8875	0.3038	0.5637	0.6366	0.3250
D	0.3776	0.3797	0.5760	0.3453	0.0771	D	1.0804	0.3689	0.5956	0.7389	0.4638
E	0.5902	0.8253	0.8636	0.3910	0.1962	E	1.1619	0.5415	0.4663 [▲]	0.7171	0.5339
F	0.6183	0.8726	0.9313	0.4902	0.3526	F	0.9113	0.6093	0.3450	0.5738	0.4621
G	0.6800	0.9745	0.9730	0.5223	0.4918	G	0.7832	0.5463	0.4137	0.3690	0.6175
H	0.8870	1.0444	0.9500	0.5594	0.5221	H	0.6102	0.4036	0.4087	0.2630	0.3685
J	0.9748	1.0300	0.8519	0.5798	0.5390	J	0.4381	0.5042	0.4163	0.4156	0.3432
K	0.9356	0.9309	0.6912	0.0	0.0	K	0.8302	0.7188	0.4867	0.0	0.0
L	1.1987	1.3186	0.9456	0.0	0.0	L	1.0089	0.7921	0.5259	0.0	0.0

NORMALIZED STRESS INTENSITIES (KSI) FOR T-11 LOAD CASE #13=PRES

STRESS INTENSITY ON TOP OUTSIDE SURFACE						STRESS INTENSITY ON TOP INSIDE SURFACE					
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	1.0120	0.9494	0.7414	0.5971	0.5214	A	0.6915	0.9661	1.4421	1.8272	2.2698 [▲]
B	1.0753	1.0114	0.8079	0.5916	0.4853	B	0.6075	0.6964	1.5648	2.0405	2.3596
C	1.1068	1.2335	0.9006	0.5825	0.4717	C	0.5130	0.5822	1.5910	2.4295	2.7876
D	1.4204	1.3410	0.9965	0.5534	0.4961	D	0.4198	0.5044	1.3544	2.6130	3.1747
E	1.3064	1.5550	1.0166	0.5421	0.4659	E	0.3674	0.2736	0.9842	2.5947	3.2460 [▲]
F	1.1098	1.4297	1.0785	0.5825	0.5254	F	0.4393 [▲]	0.1862	0.7865	2.6037	2.9555
G	1.0152	1.4207	1.0444	0.6069	0.6076	G	0.5003 [▲]	0.1995	0.9018	2.3741	2.6871
H	0.9698	1.3675	1.0309	0.6081	0.5060	H	0.5485	0.1824	1.1283	1.9948	2.1654
J	0.9483	1.1914	0.9527	0.6476	0.5295	J	0.5817	0.5264	1.4191	1.7719	1.8750
K	0.8619	1.0393	0.8373	0.0	0.0	K	0.8158	0.8085	1.4262	0.0	0.0
L	1.0176	0.9572	0.7575	0.0	0.0	L	0.8516	0.9100	1.4433	0.0	0.0

STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE						STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	1.0777	0.9300	0.6868	0.5528	0.5038	A	0.6834 [▲]	0.9574	1.5001	1.8991	2.1011
B	1.0604	1.0203	0.7727	0.5692	0.4826	B	0.6224 [▲]	0.9371	1.5759	2.2167	2.2902
C	1.1134	1.1259	0.8795	0.6157	0.4290	C	0.5128	0.8116	1.6071	2.4436	2.7579 [▲]
D	1.4294	1.3114	0.9727	0.5415	0.5814	D	0.3963	0.5085	1.4298	2.6306	3.2237
E	1.2876	1.4761	1.1711	0.5768	0.3840	E	0.3661 [▲]	0.3120	1.0754	2.5412	3.6944
F	1.0606	1.5463	1.1026	0.6088	0.4240	F	0.3316	0.2188	0.7681	2.5547	3.0121 [▲]
G	1.0156	1.4428	1.0830	0.6260	0.5439	G	0.3051 [▲]	0.2600	0.8678	2.3905	2.7117
H	1.0156	1.3340	1.0537	0.5680	0.4551	H	0.3173 [▲]	0.2070	1.0432	2.0591	2.1696
J	0.9476	1.1447	1.0037	0.5738	0.4897	J	0.4393 [▲]	0.4778	1.3994	1.8556	1.9034
K	0.8459	1.0243	0.8558	0.0	0.0	K	0.5613 [▲]	0.7113	1.4162	0.0	0.0
L	0.9982	0.9929	0.7921	0.0	0.0	L	0.6834 [▲]	0.8041	1.5099	0.0	0.0

NORMALIZED STRESS INTENSITIES (KSI) FOR T-12 LOAD CASE #1= M3X

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	1.0794	0.9880	0.5674	0.7212	0.2300	0.3710
B	1.0413	0.8134	0.5042	0.6294	0.4810	0.5762
C	1.6558	1.3989	0.8352	0.4313	0.5845	0.6972
D	2.0173	1.7005	1.0827	0.1569	0.5364	0.6191
E	1.5952	1.3889	1.0433	0.0	0.4216	0.2662
F	0.4786	0.5688	0.7115	0.0	0.5390	0.0486
G	0.1685	0.2439	0.4601	0.0	0.5593	0.1071
H	0.1630	0.1816	0.2622	0.0	0.5282	0.0720
J	0.1999	0.1989	0.1336	0.0	0.5109	0.0401
K	0.1508	0.1987	0.1561	0.0	0.4138	0.0326

INTENSITIES AT CRUTCH LINE GAGES
 GAGE12 1.6822
 GAGE23 1.2854
 GAGE56 0.2703

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	1.1249	0.8706	0.5244	0.7501	0.3033	0.3858
B	0.9219	0.8165	0.5516	0.6039	0.4624	0.6626
C	1.7239	1.5124	0.9010	0.3913	0.5409	0.6836
D	2.0086	1.7185	1.1514	0.2032	0.5138	0.5137
E	1.5084	1.3580	0.9627	0.0	0.4522	0.1412
F	0.4168	0.5376	0.6713	0.0	0.5597	0.1226
G	0.1421	0.2083	0.4364	0.0	0.5499	0.1459
H	0.2042	0.2423	0.2423	0.0	0.5465	0.1705
J	0.2030	0.2414	0.1609	0.0	0.4785	0.1576 [▲]
K	0.1939	0.2720	0.2421	0.0	0.3844	0.1226 [▲]

INTENSITIES AT CRUTCH LINE GAGES
 GAGE12 1.5316
 GAGE23 1.1719
 GAGE56 0.2333

GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	1.2135	0.8762	0.5845	0.9618	0.3732	0.0511
B	0.3188	0.4943	0.5367	0.7902	0.4874	0.1325 [▲]
C	0.9553	1.0103	0.7246	0.4921	0.5322	0.2628
D	0.8417	0.8850	0.8383	0.1438	0.6527	0.5793
E	0.6805	0.9515	1.0643	0.0	0.7404	0.5938
F	0.1066	0.5805	0.9066	0.0	0.7299	0.4288
G	0.1770	0.3311	0.5907	0.0	0.7227	0.3778
H	0.1894	0.1415	0.3056	0.0	0.6520	0.2725
J	0.1937	0.1887	0.1202	0.0	0.5651	0.1710
K	0.2223	0.2289	0.2465	0.0	0.4485	0.1235

INTENSITIES AT CRUTCH LINE GAGES
 GAGE12 0.7502
 GAGE23 1.0299
 GAGE56 0.5780

GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.8454	0.7893	0.5274	1.0092	0.2546	0.0628 [▲]
B	0.6762	0.4688	0.5920	0.8184	0.4847	0.1818
C	1.0477	1.0230	0.7246	0.5432	0.4679	0.3285
D	0.9160	1.0288	0.9276	0.3155	0.5973	0.5601
E	0.6917	1.0466	1.1383	0.0	0.8044	0.5521
F	0.0841	0.6136	0.8684	0.0	0.7923	0.4558
G	0.2368	0.3483	0.6135	0.0	0.7672	0.3137
H	0.2099	0.1604	0.3412	0.0	0.6752	0.2548
J	0.1953 [▲]	0.1924	0.1557	0.0	0.6174	0.1408
K	0.2106	0.2318	0.2339	0.0	0.4927	0.0652

INTENSITIES AT CRUTCH LINE GAGES
 GAGE12 0.8470
 GAGE23 1.1802
 GAGE56 0.5721

NORMALIZED STRESS INTENSITIES (KSI) FOR T-12 LOAD CASE #2= M3Y

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.7799	0.8712	1.0900	0.1290	1.1443	1.0963
B	0.4007	0.5280	0.7862	0.1275	0.8524	0.9190
C	0.3326	0.3967	0.4467	0.0744	0.5322	0.5899
D	0.4017	0.3709	0.2522	0.0352	0.2448	0.3059
E	0.4689	0.3443	0.1807	0.0	0.0965	0.0804
F	0.3522	0.2673	0.1601	0.0	0.1135	0.0290
G	0.2610	0.1327	0.1166	0.0	0.1024	0.0360
H	0.1365	0.1334	0.0697	0.0	0.0928	0.0223
J	0.0772	0.0608	0.0704	0.0	0.0918	0.0081
K	0.0423	0.0556	0.0521	0.0	0.0731	0.0050

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 GAGE23 GAGE56
 0.3998 0.2356 0.1081

GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.9915	0.8721	0.7818	0.2730	1.0984	0.8189
B	0.5995	0.5150	0.4406	0.1427	0.3750	0.4563 [▲]
C	0.3517	0.4132	0.3974	0.1029	0.2118	0.0873
D	0.3134	0.4368	0.4119	0.0571	0.2384	0.0651
E	0.2861	0.3525	0.3472 [▲]	0.0	0.1881	0.0118
F	0.1311	0.1764	0.1988	0.0	0.1435	0.0154
G	0.0458	0.0502	0.1045	0.0	0.1192	0.0215
H	0.0950	0.0497	0.0529	0.0	0.1091	0.0257
J	0.0843	0.0645 [▲]	0.0391	0.0	0.0980	0.0143
K	0.0730	0.0669	0.0730	0.0	0.0827	0.0210

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 GAGE23 GAGE56
 0.2605 0.3452 0.0964

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.7593	0.7269	0.9925	0.1310	1.1156	1.0280
B	0.4179	0.5251	0.7663	0.1544	0.8633	0.8387
C	0.3359	0.4335	0.4985	0.1324	0.5473	0.5709
D	0.4127	0.3935	0.3049	0.1862	0.2833	0.2699
E	0.4553	0.3493	0.2188	0.0	0.0944	0.0778
F	0.3803	0.3293	0.2466	0.0	0.1128	0.0532
G	0.2652	0.2516	0.1787	0.0	0.1207	0.0499
H	0.1596	0.1466	0.1783	0.0	0.1086 [▲]	0.0254
J	0.1256	0.1184	0.0863	0.0	0.0968	0.0187
K	0.0628	0.0783	0.1078	0.0	0.1099	0.0050

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 GAGE23 GAGE56
 0.3996 0.2584 0.0765

GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.9081	0.8761	0.8192	0.2758	0.7291	0.6393
B	0.6732	0.5088	0.4526	0.1544	0.4216	0.3916
C	0.3926	0.4355	0.4629	0.1570	0.2302	0.0768
D	0.3914	0.4645	0.4483	0.1207	0.2321	0.0794
E	0.3525	0.4079	0.3559	0.0	0.1912	0.0349
F	0.1661	0.2009	0.2137	0.0	0.1259	0.0199
G	0.0282	0.0708	0.1549	0.0	0.1203	0.0221
H	0.0851	0.0411	0.1314	0.0	0.1127	0.0265
J	0.0893 [▲]	0.0883	0.0774	0.0	0.1083	0.0127
K	0.0756	0.0869	0.0974	0.0	0.1186	0.0114

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 GAGE23 GAGE56
 0.3582 0.3986 0.0816

NORMALIZED STRESS INTENSITIES (KSI) FOR T-12 LOAD CASE #3= M3Z

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.0487	0.6046	1.1214	0.6370	1.1233	1.0755
B	0.1904	0.5116	0.9438	0.0878	1.2316	1.2163
C	0.1860	0.6559	1.0778	0.2302	1.1676	1.0860
D	0.0747	0.5601	0.9602	0.1788	0.9972	0.9452
E	0.1284	0.2703	0.5849	0.0	0.6970	0.7108
F	0.2148	0.2374	0.1749	0.0	0.3037	0.4715
G	0.2813	0.3553	0.2568	0.0	0.1169	0.3414
H	0.3069	0.2596	0.2437	0.0	0.0696	0.2735
J	0.2398	0.2081	0.2025	0.0	0.0532	0.2828
K	0.1313	0.1043	0.1291	0.0	0.0965	0.2353

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 GAGE23 GAGE56
 0.1840 0.4935 0.7065

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.0598	0.5313	0.9902	0.6922	1.1735	1.0038
B	0.1520	0.4873	0.9576	0.1231	1.2139	1.2716
C	0.1900	0.6728	1.0263	0.1941	1.1868	1.1528
D	0.0961	0.5597	0.9931	0.1757	0.9873	0.9755
E	0.1334	0.2621	0.3612	0.0	0.7391	0.7134
F	0.2667	0.2248	0.1096	0.0	0.3110	0.4620
G	0.3369	0.3342	0.2594	0.0	0.1531	0.3342
H	0.2986	0.2476	0.2307	0.0	0.1549	0.2648
J	0.2210	0.1530	0.1248	0.0	0.0956	0.2424
K	0.1279	0.1253	0.1079	0.0	0.1206	0.2369

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 GAGE23 GAGE56
 0.1690 0.3659 0.7939

GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.0743	0.3947	0.6277	0.2020	0.6399 ^A	0.9095
U	0.1087	0.2691	0.3719	0.1971	0.6842	0.8711
C	0.6098	0.6023	0.5825	0.2300	0.5175	0.5030
D	0.9426	0.7834	0.5152	0.1901	0.3305	0.3815
E	1.0779	0.8597	0.3422	0.0	0.2986	0.4181
F	0.7160	0.5960	0.3828	0.0	0.3129	0.3951
G	0.3650	0.3601	0.3149	0.0	0.2693	0.4481
H	0.1235	0.1695	0.2911	0.0	0.1900	0.4159
J	0.0225	0.0778	0.1220	0.0	0.0886	0.3700
K	0.0352	0.0544	0.1188	0.0	0.0563	0.2948

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 GAGE23 GAGE56
 1.0493 0.5949 0.4068

GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.1168	0.4446	0.6064	0.2840	0.6538	0.6758
B	0.1119	0.3063	0.3744	0.2092	0.6814	0.8538
C	0.6164	0.6784	0.6274	0.2175	0.4719	0.4399
D	0.9697	0.8661	0.5280	0.1930	0.4087	0.4757
E	1.0756	0.8572	0.3986	0.0	0.3397	0.4737
F	0.7360	0.6033	0.3868	0.0	0.2923	0.4126
G	0.3766	0.3863	0.3303	0.0	0.3111	0.4649
H	0.1066	0.1750	0.2792	0.0	0.2133	0.4531
J	0.0192 ^A	0.0879	0.1568	0.0	0.1378	0.4316
K	0.0787	0.0630	0.1035	0.0	0.0955	0.3225

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 GAGE23 GAGE56
 1.0229 0.5657 0.4128

NORMALIZED STRESS INTENSITIES (KSI) FOR T-12 LOAD CASE #5= F3Y

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	1.7878	1.7662	1.3169	2.0050	0.4077	0.3421
B	1.7247	1.4869	1.3791	0.5789	1.2739	1.0091
C	2.7515	2.5553	2.2277	0.5282	1.7613	1.2929
D	3.1626	2.9629	2.6630	0.9326	2.1874	1.6459
E	2.1989	2.1080	2.2122	0.0	1.9482	1.9000
F	0.2734	0.2954	0.6136	0.0	1.4303	1.4674
G	0.8422	0.7760	0.3960	0.0	1.0415	1.4480
H	1.2014	1.1682	0.9766	0.0	0.7907	1.3231
J	1.3478	1.4227	1.2521	0.0	0.5633	1.3490
K	0.9288	1.1335	1.2770	0.0	0.3026	1.1069

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 GAGE23 GAGE56
 2.4980 2.3303 1.7032

GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	1.8250	1.3641	1.2680	1.5889	1.1484	1.2288
B	0.3243	0.6979	0.9960	0.6392	1.5838	1.8758 ^A
C	1.3016	1.5451	1.4969	0.5716	1.4462	1.1570
D	1.4282	1.3503	1.4404	0.9865	1.1973	0.9534
E	1.1136	0.9769	1.3836	0.0	1.5090	1.5130
F	1.0973	0.7315	0.6070	0.0	1.4701	1.6300
G	1.6460	1.2128	0.5569	0.0	1.3105	1.5663
H	1.6687	1.3949	1.1253	0.0	0.9909	1.6241
J	1.5809	1.4645	1.4902	0.0	0.6739	1.5701
K	1.3176	1.1318	1.3528	0.0	0.3407	1.3648

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 GAGE23 GAGE56
 0.7141 1.2092 1.4866

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	2.2746	1.6293	1.0119	2.3304	0.3139	0.3092
B	1.8622	1.7875	1.2369	0.7883	0.7957	0.6548
C	3.3786	3.0740	2.0985	0.5756	1.5966	0.8425
D	3.7204	3.3786	3.0836	1.2946	2.0656	1.2559
E	2.3808	2.4947	1.9635	0.0	2.0164	1.3468
F	0.5127	0.4959	0.7618	0.0	1.5063	1.3888
G	0.9971	1.0646	0.6286	0.0	1.2113	1.3850
H	1.2076	1.4627	1.0928	0.0	1.0144	1.4108
J	1.2021	1.3829	1.3970	0.0	0.9404	1.3523
K	1.0824	1.2329	1.3753	0.0	1.0461	0.9486

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 GAGE23 GAGE56
 2.6016 2.3533 1.5888

GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	1.6158	1.3095	0.9430	1.7064	0.9121	1.0333
B	1.2625	0.5433	1.2221	1.0248	1.5984	1.7108
C	1.8149	1.8257	1.5487	0.8816	1.4885	1.2907
D	1.7106	2.0259	1.7389	1.2363	1.1903	0.6994
E	1.1529	1.7325	1.8941	0.0	1.6645	1.3011
F	1.2330	1.3074	1.2530	0.0	1.5250	1.5744
G	1.6762	1.5565	1.1071	0.0	1.3495	1.6180
H	1.7698	1.6704	1.4216	0.0	1.1557	1.6294
J	1.5483 ^A	1.5725	1.4917	0.0	0.9597	1.5269
K	1.3055	1.3229	1.3649	0.0	0.9198	1.3862

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 GAGE23 GAGE56
 1.4406 1.8612 1.5224

NORMALIZED STRESS INTENSITIES (KSI) FOR T-12 LOAD CASE #6= F3Z

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.9193	0.8794	0.5490	0.6361	0.1548	0.1739
B	0.9174	0.7252	0.4410	0.5279	0.3739	0.3844
C	1.4938	1.2905	0.7686	0.3577	0.5211	0.5687
D	1.8107	1.5455	0.9734	0.1191	0.5094	0.4579
E	1.4412	1.2513	0.9435	0.0	0.4025	0.2503
F	0.4473	0.4995	0.5927	0.0	0.4524	0.0470
G	0.1565	0.1833	0.3869	0.0	0.4803	0.0708
H	0.1363	0.1246	0.1923	0.0	0.4303	0.0487 ^A
J	0.1554	0.1507	0.0807	0.0	0.4300	0.0249
K	0.1803	0.1754	0.1531	0.0	0.3561	0.0174

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 1.4926
 GAGE23 1.1602
 GAGE56 0.2590

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.9941	0.7524	0.4548	0.6980	0.2203	0.2423
B	0.8164	0.7569	0.5226	0.5312	0.3897	0.4414
C	1.5390	1.3606	0.8175	0.3392	0.4910	0.4797
D	1.7973	1.5398	1.0695	0.1954	0.4597	0.3279
E	1.3113	1.2182	0.8471	0.0	0.4569	0.0607
F	0.3698	0.4808	0.6105	0.0	0.5018	0.1487
G	0.1269	0.2259	0.3871	0.0	0.4948	0.1692
H	0.1823	0.2556	0.2435 ^A	0.0	0.5122	0.1613
J	0.1827	0.2087	0.1678	0.0	0.4318	0.1579
K	0.1729	0.2206	0.2036	0.0	0.3416	0.1225

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 1.3280
 GAGE23 1.0530
 GAGE56 0.1541

GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	1.0563	0.7810	0.5124	0.8171	0.3364	0.0724
B	0.3117	0.4584	0.5143	0.6674	0.4302	0.0765 ^A
C	0.8512	0.9341	0.6887	0.4185	0.4343	0.2276
D	0.7782	0.8061	0.7161	0.0994	0.5305	0.4608
E	0.5662	0.8049	0.9135	0.0	0.6285	0.4901
F	0.0691	0.4702	0.7524	0.0	0.6257	0.4034
G	0.1991	0.2670	0.5007	0.0	0.6344	0.2735
H	0.2079	0.1443	0.2613	0.0	0.5505	0.1874
J	0.1670	0.1708	0.1842	0.0	0.4733	0.1650
K	0.2007	0.1939	0.1770	0.0	0.3915	0.1064

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 0.6437
 GAGE23 0.8612
 GAGE56 0.5630

GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.7236	0.7005	0.4632	0.8511	0.2731	0.0908
B	0.5947	0.4072	0.5091	0.6444	0.3834	0.0797
C	0.9340	0.8523	0.5642	0.4741	0.3628	0.2791
D	0.7814	0.9253	0.8002	0.2494	0.5119	0.4459
E	0.6081	0.9396	0.9894	0.0	0.6867	0.4256
F	0.1586	0.5749	0.7662	0.0	0.6533	0.3306
G	0.2208	0.3153	0.5293	0.0	0.6276	0.2276
H	0.2047	0.1592	0.2850	0.0	0.5551	0.1537
J	0.1878	0.1968	0.1610	0.0	0.5020	0.0875 ^A
K	0.2159	0.2211	0.2128	0.0	0.4112	0.0265

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 0.7281
 GAGE23 1.0279
 GAGE56 0.4904

NORMALIZED STRESS INTENSITIES (KSI) FOR T-12 LOAD CASE #7= M2X

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.3787	0.6337	0.7542	0.6623	0.5219	0.3351
B	0.2339	0.4359	0.4181	0.4821	0.1977	0.1392
C	0.2976	0.3247	0.1703	0.5280	0.3454	0.5291
D	1.2472	0.9266	0.2754	0.8607	0.9038	1.1650
E	1.6676	1.1210	0.3421	0.0	1.0092	1.3338
F	1.4878	1.0112	0.3192	0.0	0.8739	1.1626
G	1.1700	0.8942	0.3756	0.0	0.7062	0.9999
H	0.8800	0.8132	0.4949	0.0	0.6678	0.8966
J	0.7562	0.7627	0.6243	0.0	0.6392	0.9220
K	0.6742	0.7112	0.6978	0.0	0.8308	1.0575

INTENSITIES AT CRITCH LINE GAGES
 GAGE12 GAGE23 GAGE56
 1.4752 0.6371 1.2948

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.3625	0.6406	0.7097	0.6736	0.5287	0.3611
B	0.3176	0.4484	0.4140	0.4812	0.2389	0.0435
C	0.2623	0.3176	0.2216	0.4879	0.3289	0.5261
D	1.3093	0.9076	0.3341	0.8394	0.8621	1.1691
E	1.6279	1.1081	0.3118	0.0	1.0317	1.2891
F	1.4684	0.9923	0.3411	0.0	0.8563	1.1248
G	1.1323	0.8895	0.3901	0.0	0.7375	1.0017
H	0.8933	0.7957	0.5903	0.0	0.5953	0.9028
J	0.7605	0.7136	0.6115	0.0	0.6239	0.9026
K	0.6519	0.6675	0.6752	0.0	0.7811	0.9445

INTENSITIES AT CRITCH LINE GAGES
 GAGE12 GAGE23 GAGE56
 1.4501 0.6027 1.2263

GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.1242	0.4853	0.5958	0.8558	0.4096	0.0649
B	0.0792	0.7010	0.3671	0.4063	0.5431	0.1210 ^Δ
C	0.1146	1.4380	1.6879	0.6567	0.9247	0.1005
D	0.4682	1.5400	1.5381	0.7954	0.8280	0.2059
E	0.6376	1.1664	1.0709	0.0	0.6197	0.4776
F	0.6576	0.6656	0.5505	0.0	0.4372	0.5385
G	0.4621	0.6086	0.5816	0.0	0.4180	0.5218
H	0.4255	0.5590	0.7277	0.0	0.4375	0.5142
J	0.4050	0.5314	0.6480	0.0	0.6161	0.5911
K	0.5119	0.5553	0.6331	0.0	0.7738	0.7445

INTENSITIES AT CRITCH LINE GAGES
 GAGE12 GAGE23 GAGE56
 0.8922 1.1637 0.3794

GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.1248 ^Δ	0.4803	0.5974	0.9132	0.4447	0.1005
B	0.0793	0.7783	0.8727	0.4476	0.5499	0.1511
C	0.1231	1.4763	1.6807	0.6172	0.8816	0.1359
D	0.5563	1.4857	1.5769	0.7725	0.7455	0.2639
E	0.8723	1.2054	1.0939	0.0	0.5758	0.4598
F	0.6896	0.6815	0.5640	0.0	0.4543	0.5351
G	0.4409	0.6304	0.6530	0.0	0.4584	0.5353
H	0.4244	0.5748	0.7462	0.0	0.4490	0.5593
J	0.4916 ^Δ	0.5495	0.6806	0.0	0.5446	0.5313
K	0.5330	0.5713	0.6440	0.0	0.7212	0.6471

INTENSITIES AT CRITCH LINE GAGES
 GAGE12 GAGE23 GAGE56
 0.9066 1.2295 0.4349

NORMALIZED STRESS INTENSITIES (KSI) FOR T-12 LOAD CASE #6= M2Y

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.1533	0.1338	0.1308	0.2710	0.1373	0.0893
B	0.1373	0.1079	0.1067	0.3439	0.1045	0.0882
C	0.0793	0.0862	0.1484	0.4679	0.0579	0.0079
D	0.1422	0.3376	0.2924	0.9354	0.0770	0.1454
E	0.2381	0.4558	0.3870	0.0	0.1500	0.1947
F	0.3307	0.5229	0.4553	0.0	0.1269	0.1641
G	0.4369	0.5605	0.5103	0.0	0.1973	0.1346
H	0.5347	0.6126	0.5834	0.0	0.2524	0.1147
J	0.5912	0.6538	0.6392	0.0	0.3083	0.0881
K	0.6206	0.6604	0.6810	0.0	0.4785	0.0648

INTENSITIES AT CROTCH LINE GAGES		
GAGE12	GAGE23	GAGE56
0.3612	0.4598	0.2023

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.1792	0.1412	0.1232	0.2639	0.1302	0.1142
B	0.1164	0.0952	0.1030	0.3554	0.0994	0.0870
C	0.0497	0.0902	0.1278	0.4802	0.0579	0.0168
D	0.1234	0.3044	0.2640	1.0512	0.1004	0.1046
E	0.2340	0.4279	0.4063	0.0	0.1707	0.1675
F	0.3494	0.5105	0.4515	0.0	0.1615	0.1654
G	0.4841	0.5794	0.5116	0.0	0.1861	0.1178
H	0.5775	0.6109	0.5604	0.0	0.2542	0.0749
J	0.6377	0.6594	0.6125	0.0	0.2803	0.0761
K	0.6747	0.6753	0.6515	0.0	0.4596	0.0320

INTENSITIES AT CROTCH LINE GAGES		
GAGE12	GAGE23	GAGE56
0.3080	0.4346	0.1699

GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.1196	0.0319	0.0701	0.1109	0.0825	0.0134
B	0.1926	0.0762	0.1255	0.2692	0.1543	0.0189 ^A
C	0.4746	0.1699	0.2226	0.4934	0.2582	0.1025
D	0.6248	0.2452	0.1787	0.7013	0.2179	0.1824
E	0.6121	0.3439	0.1677	0.0	0.1324	0.1441
F	0.6247	0.4131	0.3014	0.0	0.0887	0.0877
G	0.7199	0.4642	0.3995	0.0	0.1739	0.0584
H	0.7526	0.5116	0.5145	0.0	0.2468	0.0529 ^A
J	0.7478	0.5593	0.5964	0.0	0.3623	0.0701
K	0.7229	0.5802	0.6333	0.0	0.4650	0.1016

INTENSITIES AT CROTCH LINE GAGES		
GAGE12	GAGE23	GAGE56
0.4693	0.2514	0.1357

GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.0988	0.0629	0.0470	0.1341	0.0609	0.0398
B	0.2106	0.1161	0.1030	0.2557	0.1333	0.0504
C	0.4925	0.2043	0.1901	0.4536	0.2088	0.1173
D	0.6181	0.3124	0.1608	0.5989	0.1881	0.1698
E	0.6083	0.3977	0.2042	0.0	0.1021	0.1221
F	0.6370	0.4387	0.3395	0.0	0.1186	0.0864
G	0.6891	0.4601	0.4276	0.0	0.1876	0.0470
H	0.7240	0.5029	0.5264	0.0	0.2320	0.0352
J	0.7186	0.5534 ^A	0.5997	0.0	0.3404	0.0403
K	0.6924	0.5920	0.6756	0.0	0.3966	0.0539

INTENSITIES AT CROTCH LINE GAGES		
GAGE12	GAGE23	GAGE56
0.5056	0.2982	0.1008

NORMALIZED STRESS INTENSITIES (KSI) FOR T-12 LOAD CASE #9= M2Z

STRESS INTENSITY ON TOP OUTSIDE SURFACE							STRESS INTENSITY ON TOP INSIDE SURFACE						
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.6991	0.5622	0.3538	1.2887	0.5221	0.5320	A	0.6378	0.3252	0.1272	0.3326	0.4376	0.5622
B	0.6945	0.4338	0.2835	0.7865	0.2186	0.2836	B	0.9090	0.5934	0.1876	0.4261	0.7283	0.8377 ^A
C	0.4372	0.3613	0.6558	0.5671	0.4946	0.1890	C	2.0647	1.2606	0.1602	0.5441	0.9448	1.1549
D	0.3565	0.9907	1.3070	0.4715	0.8894	0.4174	D	2.2837	1.4440	0.3666	0.3062	0.6709	0.7574
E	0.3195	1.1480	1.5084	0.0	0.9699	0.4877	E	1.7620	1.0546	0.5548	0.0	0.4037	0.3370
F	0.2289	0.9107	1.0489	0.0	0.7830	0.4182	F	1.0846	0.6729	0.5240	0.0	0.2245	0.0795
G	0.2179	0.5530	0.6755	0.0	0.6883	0.3483	G	0.6840	0.5086	0.4649	0.0	0.3771	0.2734
H	0.1907	0.3461	0.4502	0.0	0.6430	0.3869	H	0.4086	0.3329	0.3033	0.0	0.4832	0.5097
J	0.0766	0.1500	0.2364	0.0	0.5838	0.4732	J	0.2221	0.2268	0.2587	0.0	0.6527	0.6700
K	0.0378	0.0343 ^A	0.0709	0.0	0.7805	0.6739	K	0.0718	0.1451	0.1465	0.0	0.5962	0.7410

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 GAGE23 GAGE56
 0.7732 1.3946 0.5457

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 GAGE23 GAGE56
 1.4464 0.7543 0.3896

STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE							STRESS INTENSITY ON BOTTOM INSIDE SURFACE						
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.8785	0.6203	0.3467	1.2451	0.4534	0.4948	A	0.7275	0.5356	0.0797	0.5136	0.3612	0.5973
B	0.5538	0.3030	0.2361	0.8176	0.2952	0.2419	B	1.0305	0.6608	0.1510	0.6189	0.6556	0.8830
C	0.1063	0.2765	0.6537	0.5766	0.5667	0.1589	C	2.1900	1.3081	0.0887	0.6460	0.9327	1.2154
D	0.4520	0.9647	1.2422	0.7190	0.9414	0.4208	D	2.3502	1.3968	0.4286	0.4782	0.7209	0.8184
E	0.3922	1.1397	1.3766	0.0	0.9844	0.4720	E	1.7102	1.0809	0.6916	0.0	0.5337	0.3739
F	0.2135	0.8698	1.0814	0.0	0.8081	0.3905	F	1.0769	0.6737	0.6791	0.0	0.3651	0.1015
G	0.2082	0.5779	0.7542	0.0	0.6615	0.2973	G	0.6732	0.5101	0.5925	0.0	0.4983	0.3117
H	0.1975	0.3611	0.4429	0.0	0.5864 ^A	0.3680	H	0.3895	0.3680	0.3552	0.0	0.5591	0.4668
J	0.1230	0.1991	0.2744	0.0	0.5727	0.4873	J	0.2189	0.2243	0.2705	0.0	0.6552	0.6159
K	0.0377 ^A	0.0256	0.0918	0.0	0.7757	0.5732	K	0.0523	0.1635	0.1706	0.0	0.5972	0.6343

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 GAGE23 GAGE56
 0.7827 1.3747 0.5057

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 GAGE23 GAGE56
 1.5125 0.9504 0.4097

NORMALIZED STRESS INTENSITIES (KSI) FOR T-12 LOAD CASE #10= F2X

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.7841	0.6149	0.3175	1.0994	0.4715	0.4854
B	0.5256	0.3845	0.2742	0.7748	0.2137	0.1984
C	0.1451	0.2490	0.5750	0.6201	0.5076	0.0857
D	0.3387	0.8671	1.1248	1.0237	0.8339	0.2835
E	0.3376	1.0533	1.3236	0.0	0.8074	0.3587
F	0.3077	0.9605	1.0658	0.0	0.6978	0.2733
G	0.4297	0.7925	0.8183	0.0	0.6094	0.2093
H	0.5216	0.6712	0.7482	0.0	0.5443	0.3088
J	0.5839	0.6343	0.6711	0.0	0.5035	0.3652
K	0.6218	0.6879	0.6817	0.0	0.7596	0.4837

GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.7927	0.4532	0.0913	0.4539	0.3747	0.5624
B	0.8874	0.5515	0.1177	0.5950	0.5652	0.8010 ^Δ
C	1.9962	1.1718	0.0827	0.8010	0.8414	1.0302
D	2.1940	1.3242	0.4356	0.8158	0.6082	0.6284
E	1.7614	1.0293	0.6744	0.0	0.4002	0.3082
F	1.2618	0.7834	0.6740	0.0	0.2994	0.0855
G	1.0120	0.6672	0.6576	0.0	0.3949	0.2412
H	0.9104	0.6347	0.6779	0.0	0.5518	0.4254
J	0.8458	0.5963	0.6636	0.0	0.6803	0.5497
K	0.8296	0.6328	0.7076	0.0	0.7457	0.6184

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 0.7188
 GAGE23 1.2881
 GAGE56 0.4637

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 1.4329
 GAGE23 0.8556
 GAGE56 0.3689

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.7222	0.5078	0.3716	1.1404	0.4321	0.4468
B	0.6356	0.3845	0.2327	0.7437	0.1892	0.1835
C	0.3650	0.3528	0.6076	0.6241	0.4703	0.1205
D	0.3420	0.9643	1.2145	1.1957	0.8033	0.2947
E	0.3331	1.1669	1.2438	0.0	0.8764	0.3528
F	0.3821	0.9779	1.0144	0.0	0.6699	0.2783
G	0.4651	0.7779	0.8021	0.0	0.6063	0.2120
H	0.5317	0.6546	0.6618	0.0	0.5683	0.2992
J	0.5949	0.6535	0.6536	0.0	0.5512	0.3599
K	0.6541	0.6595	0.6441	0.0	0.7195	0.4602

GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.5039	0.3390	0.1074	0.3069	0.4268	0.5577
B	0.8521	0.5793	0.2127	0.5963	0.6160	0.7933
C	2.0094	1.1913	0.1079	0.6812	0.8574	1.0588
D	2.2773	1.3463	0.3226	0.6709	0.5653	0.6723
E	1.7466	1.1052	0.5436	0.0	0.3055	0.3340
F	1.2109	0.7744	0.5715	0.0	0.2368	0.1094
G	0.9789	0.6753	0.6242	0.0	0.4433	0.2588
H	0.8872	0.6221	0.6661	0.0	0.4692	0.4309
J	0.8971 ^Δ	0.6381	0.6846	0.0	0.5810	0.5079
K	0.8453	0.6979	0.7307	0.0	0.6587	0.5295

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 0.7709
 GAGE23 1.3360
 GAGE56 0.4936

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 1.5580
 GAGE23 0.8143
 GAGE56 0.2938

NORMALIZED STRESS INTENSITIES (KSI) FOR T-12 LOAD CASE #11= F2Y

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.7619	0.5819	0.3475	1.2026	0.4923	0.5083
B	0.6271	0.3385	0.2411	0.7907	0.2736	0.2634
C	0.2383	0.2878	0.5908	0.5065	0.4990	0.1721
D	0.2780	0.9452	1.2499	0.4470	0.8729	0.3754
E	0.2886	1.1374	1.3609	0.0	0.9377	0.4461
F	0.2018	0.9086	1.0387	0.0	0.7790	0.3688
G	0.2506	0.6337	0.7001	0.0	0.6472	0.2920
H	0.2072	0.3668	0.4739	0.0	0.6249	0.3547
J	0.0999	0.1811	0.2781	0.0	0.5093	0.4188
K	0.0709	0.0968	0.1616	0.0	0.7089	0.5913

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 0.7977
 GAGE23 1.3719
 GAGE56 0.5524

GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.7692	0.4309	0.0960	0.4617	0.4055	0.5769
B	0.9444	0.5645	0.1339	0.5286	0.6544	0.8274 ^A
C	2.0742	1.2304	0.1089	0.5723	0.9259	1.1216
D	2.2634	1.3829	0.3211	0.3225	0.6547	0.7222
E	1.7396	0.9321	0.5535	0.0	0.4514	0.3601
F	1.0991	0.6736	0.6188	0.0	0.3221	0.0900
G	0.6785	0.4695	0.4622	0.0	0.3467	0.2294
H	0.3877	0.3327	0.3723	0.0	0.4783	0.4083
J	0.2399	0.1665	0.1996	0.0	0.5961	0.5878
K	0.0648	0.0389	0.0690	0.0	0.5880	0.6521

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 1.4021
 GAGE23 0.7827
 GAGE56 0.4098

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.7813	0.5861	0.3612	1.2856	0.5079	0.5186
B	0.6442	0.3591	0.2496	0.8263	0.2608	0.2651
C	0.2457	0.3332	0.6315	0.5849	0.5423	0.1564
D	0.3088	0.9540	1.2946	0.7279	0.9599	0.4414
E	0.3046	1.1091	1.3104	0.0	0.9758	0.5026
F	0.2587	0.8731	1.0549	0.0	0.8351	0.4039
G	0.2728	0.5554	0.7133	0.0	0.6745	0.3265
H	0.1962	0.3271	0.4393	0.0	0.6223	0.4005
J	0.1713	0.1557	0.2605	0.0	0.5968	0.5116
K	0.1069	0.0587	0.0676	0.0	0.8187	0.5992

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 0.6647
 GAGE23 1.3358
 GAGE56 0.4991

GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.6435	0.4185	0.0772	0.4005	0.4310	0.6061
B	0.9617	0.6506	0.1775	0.5702	0.6834	0.8737
C	2.1450	1.3080	0.1020	0.5661	0.9354	1.2381
D	2.2898	1.4448	0.4085	0.4406	0.6962	0.8376
E	1.7154	1.1139	0.6701	0.0	0.4523	0.3894
F	1.0513	0.6834	0.5865	0.0	0.3578	0.0795
G	0.6615	0.4770	0.4660	0.0	0.4545	0.3081
H	0.3938	0.3555	0.3654	0.0	0.5622	0.5023
J	0.2339	0.2688	0.2518	0.0	0.6730	0.6423
K	0.1252	0.2455	0.1886	0.0	0.6593	0.6764

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 1.5580
 GAGE23 0.8977
 GAGE56 0.3952

NORMALIZED STRESS INTENSITIES (KSI) FOR T-12 LOAD CASE #12= F22

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.1645	0.1712	0.0720	0.3365	0.0606	0.0785
B	0.1609	0.1846	0.0780	0.3712	0.0732	0.0981
C	0.0793	0.0712	0.1339	0.4639	0.1037	0.0483
D	0.1671	0.2466	0.3131	0.8728	0.1744	0.0521
E	0.2980	0.3578	0.3840	0.0	0.1949	0.0149
F	0.3909	0.4417	0.4329	0.0	0.2553	0.0297
G	0.4733	0.5303	0.4772	0.0	0.2344	0.0132
H	0.5591	0.5790	0.5611	0.0	0.3089	0.0389
J	0.6057	0.6294	0.5985	0.0	0.3111	0.0387
K	0.6493	0.6510	0.6368	0.0	0.5052	0.1206

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 GAGE23 GAGE56
 0.2087 0.4082 0.0585

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.1886	0.1606	0.2098	0.2526	0.2380	0.1842
B	0.1113	0.1258	0.1417	0.3721	0.1345	0.0772
C	0.0620	0.1149	0.1454	0.5357	0.0224	0.0885
D	0.2472	0.4307	0.2600	1.1794	0.1645	0.3159
E	0.3468	0.5706	0.4232	0.0	0.2546	0.3897
F	0.4233	0.6318	0.5108	0.0	0.2011	0.3401
G	0.5148	0.6580	0.5603	0.0	0.1893	0.2746
H	0.5836	0.6653	0.6427	0.0	0.2560	0.2022
J	0.6516	0.7107	0.6777	0.0	0.3221	0.2065
K	0.6778	0.7097	0.7164	0.0	0.4894	0.1744

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 GAGE23 GAGE56
 0.4510 0.5224 0.3982

GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.1363	0.1043	0.0629	0.0655	0.0911	0.0073
B	0.2170	0.1911	0.0649	0.2477	0.1020	0.0120
C	0.5100	0.4065	0.0318	0.4735	0.1449	0.0978
D	0.6722	0.4844	0.1106	0.6336	0.0663	0.1267
E	0.6577	0.4029	0.1468	0.0	0.0259	0.0788
F	0.6664	0.4210	0.2793	0.0	0.1100	0.0099
G	0.7346	0.4905	0.3631	0.0	0.1744	0.0529
H	0.7738	0.5114	0.4933	0.0	0.2481	0.0372
J	0.7851	0.5472	0.5500	0.0	0.3273	0.0225
K	0.7240	0.5593	0.5901	0.0	0.4323	0.0241

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 GAGE23 GAGE56
 0.5784 0.2617 0.0309

GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.0904	0.0470	0.1560	0.2206	0.1143	0.0450
B	0.1829	0.0551	0.2522	0.3462	0.2030	0.0649
C	0.4745	0.0506	0.4694	0.5313	0.3483	0.1327
D	0.5959	0.2658	0.3840	0.6744	0.3218	0.2150
E	0.6061	0.4094	0.2781	0.0	0.1770	0.2216
F	0.6406	0.4658	0.3856	0.0	0.1463	0.2091
G	0.7185	0.4713	0.5117	0.0	0.2295	0.1519
H	0.7249	0.5248	0.6194	0.0	0.2743	0.1462
J	0.7442	0.5717	0.6743	0.0	0.3023	0.1296
K	0.6904	0.6264	0.7506	0.0	0.4555	0.1787

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 GAGE23 GAGE56
 0.5306 0.3010 0.1887

NORMALIZED STRESS INTENSITIES (KSI) FOR -12 LOAD CASE #13=PRE5

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	1.1703	0.7997	0.8555	1.1175	1.0012	0.9485
B	1.1570	0.9045	0.7143	0.6974	0.6987	0.7834
C	1.0032	0.9602	0.8497	0.7740	0.9285	1.0335
D	1.1244	1.2365	1.1405	1.0315	1.0772	1.0977
E	1.3546	1.4861	1.3231	0.0	1.0551	1.0144
F	1.0077	1.2853	0.9227	0.0	0.6835	0.5773
G	0.8178	1.0157	0.8640	0.0	0.5862	0.4641
H	0.6414	0.8298	0.8323	0.0	0.6466	0.4841
J	0.3888	0.5817	0.7191	0.0	0.7126	0.6494
K	0.2649	0.4201	0.5277	0.0	0.9172	0.9482

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 1.4632
 GAGE23 1.4073
 GAGE56 0.9704

GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.7172	0.8771	0.9939	1.3529	1.0508	0.9951
B	0.4843	0.8562	1.1923	0.6945	1.4651	2.0142 ^A
C	0.5462	0.8105	1.5631	0.7439	2.1386	2.2611
D	0.5035	0.7915	1.3785	0.9028	1.9819	2.0905
E	0.5541	0.7400	1.0807	0.0	1.5697	1.6008
F	0.4213	0.3417	0.7174	0.0	1.0189	1.1246
G	0.6554	0.5920	0.5265	0.0	0.8618	0.6909
H	0.8314	0.6940	0.6390	0.0	0.7879	0.7883
J	1.0589	0.9439	0.7681	0.0	0.8723	0.8229
K	1.1771	1.1417	0.9534	0.0	1.0476	0.9693

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 0.5563
 GAGE23 0.8797
 GAGE56 1.7464

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	1.2163	0.8451	0.8037	1.2272	0.9889	0.7976
B	1.1571	0.9335	0.7174	0.6588	0.7575	0.7616
C	1.0893	1.0279	0.8580	0.6749	1.0088	0.9452
D	1.2196	1.3609	1.2969	0.9621	1.0812	0.9931
E	1.3630	1.5362	1.2314	0.0	1.0815	0.9554
F	0.9481	1.2007	0.8377	0.0	0.6998	0.5905
G	0.6853	0.8696	0.7576	0.0	0.5803	0.4842
H	0.5011	0.7177	0.6980	0.0	0.5657	0.5149
J	0.3126	0.4462	0.5757	0.0	0.6858	0.6663
K	0.1861	0.2387	0.3711	0.0	0.8322	0.8282

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 1.4808
 GAGE23 1.4078
 GAGE56 1.0344

GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.6822	0.9587	1.0614	1.2819	1.0164	0.9947
B	0.6168	0.8876	1.2757	0.7865	1.5156	1.6279
C	0.6088	0.9443	1.5691	0.7711	2.1032	2.3902
D	0.5547	0.8553	1.4049	1.0662	1.9931	2.2907
E	0.5564	0.7535	1.0432	0.0	1.5243	1.6305
F	0.4056	0.4928	0.7869	0.0	1.0358	1.1331
G	0.7830	0.7699	0.6736	0.0	0.8445	0.9347
H	0.9517	0.8624	0.7224	0.0	0.7521	0.8273
J	1.1545 ^A	1.1366	0.8951	0.0	0.8730	0.8144
K	1.2977	1.3413	1.1604	0.0	0.9629	0.9209

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 0.5330
 GAGE23 0.9474
 GAGE56 1.5098

NORMALIZED STRESS INTENSITIES (KSI) FOR T-13 LOAD CASE #1= M3X

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.9493	0.9173	0.7262	0.3564	0.4334	0.2388
B	1.2418	1.2076	0.9517	0.2298	0.6692	0.3627
C	1.3258	1.3001	0.9886	0.1379	0.5516	0.2739
D	1.0457	0.9717	0.6975	0.0605	0.3344	0.1104
E	0.6143	0.6112	0.4448	0.0	0.2412	0.0317
F	0.2780	0.2814	0.2752	0.0	0.2075	0.1049
G	0.1461	0.1612	0.1822	0.0	0.1765	0.0914
H	0.0669	0.0533	0.1039	0.0	0.1641	0.0711
J	0.0604	0.0360	0.0298	0.0	0.1411	0.0900
K	0.0905	0.0754	0.0344	0.0	0.1177	0.0467

GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.7496	0.6354	0.4953	0.5107	0.2913	0.0262
B	0.3242	0.3250	0.3369	0.3639	0.4220	0.4845
C	0.2244	0.2613 [▲]	0.5098	0.2044	0.6746	0.6850
D	0.2545	0.2954	0.4579	0.1154 [▲]	0.5898	0.6404
E	0.2325	0.3798	0.5302	0.0	0.4661	0.4405
F	0.1351	0.2709	0.4227	0.0	0.4168	0.3423
G	0.1448	0.2198	0.2608	0.0	0.3107	0.2573
H	0.1462	0.1393	0.1628	0.0	0.2457 [▲]	0.1493
J	0.1651	0.1333	0.1003	0.0	0.1884	0.1165
K	0.1777	0.1588	0.1086	0.0	0.1154 [▲]	0.0865 [▲]

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.9803	0.9730	0.8165	0.3863	0.4789	0.1906
B	1.1290	1.0820	0.9120	0.2198	0.5497	0.3136
C	1.3552	1.1684	0.9150	0.1313	0.5980	0.1802
D	1.0584	1.0440	0.7013	0.0757	0.3340	0.0133
E	0.6302	0.6236	0.4991	0.0	0.2858	0.1902
F	0.2476	0.2860	0.2614	0.0	0.2395	0.2210
G	0.1184	0.1460	0.1681	0.0	0.2173	0.1671
H	0.0405	0.1005	0.0951	0.0	0.1710	0.1724
J	0.0675	0.0922	0.0499	0.0	0.1513	0.1663
K	0.1089	0.1023	0.0742	0.0	0.1332	0.1489

GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.7502	0.5778	0.4201	0.5648	0.2149	0.0598
B	0.2933	0.2275	0.2281	0.3888	0.4958	0.4778
C	0.2198	0.2420	0.4614	0.2344	0.6823	0.7306
D	0.2791	0.4261	0.5526	0.1792	0.5960	0.6174
E	0.2465	0.4667	0.5733	0.0	0.5004	0.4401 [▲]
F	0.1198	0.3121	0.4489	0.0	0.3844	0.2956
G	0.1179	0.2695	0.3047	0.0	0.2986	0.1704
H	0.1289	0.2133	0.2043	0.0	0.2378	0.1192
J	0.1887	0.1706	0.1800	0.0	0.1965	0.0796
K	0.1444	0.1443	0.1572	0.0	0.1378	0.0354

NORMALIZED STRESS INTENSITIES (KSI) FOR T-13 LOAD CASE #2= M3Y

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					
	RCW 1	RCW 2	RCW 3	RCW 4	ROW 5	ROW 6
A	0.8539	0.9656	0.9698	0.2143	1.0105	1.0533
B	0.7769	0.9068	0.9280	0.0555	1.1002	1.1313
C	0.6305	0.7312	0.7542	0.0438	0.8064	0.8467
D	0.5149	0.4595	0.4555	0.0307	0.4149	0.4863
E	0.3801	0.3098	0.2334	0.0	0.1903	0.1885
F	0.2453	0.1700	0.0676	0.0	0.0316	0.0420
G	0.2149	0.1564	0.0614	0.0	0.0548	0.0065
H	0.1540	0.1001	0.0427	0.0	0.0371	0.0071
J	0.1315	0.1004	0.0131	0.0	0.0489	0.0090
K	0.1014	0.0554	0.0323	0.0	0.0216	0.0115

GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	RCW 5	RCW 6
A	0.7251	0.7703	0.7307	0.1799	0.7579	0.8275 [▲]
B	0.5450	0.4924	0.4548	0.1039	0.4476	0.4881
C	0.1988	0.3678 [▲]	0.3075	0.0563	0.2301	0.1993
D	0.1174	0.2656	0.3118	0.0429 [▲]	0.1610	0.0462
E	0.1779	0.2081	0.2060	0.0	0.1151	0.0097
F	0.1289	0.1456	0.1427	0.0	0.0855	0.0111
G	0.0403	0.0616	0.0931	0.0	0.0866	0.0058
H	0.0298	0.0385	0.0442	0.0	0.0666	0.0098
J	0.0556	0.0348	0.0361	0.0	0.0719	0.0118
K	0.0535	0.0520	0.0260	0.0	0.0613 [▲]	0.0

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					
	RCW 1	RCW 2	RCW 3	RCW 4	ROW 5	ROW 6
A	0.8485	0.9517	1.0055	0.1652	1.0783	1.0253
B	0.7343	0.8217	0.8938	0.1284	1.0267	1.1160
C	0.6625	0.6896	0.7345	0.0669	0.7954	0.8240
D	0.4952	0.4956	0.4266	0.0701	0.4248	0.5119
E	0.3656	0.3259	0.2275	0.0	0.1713	0.1684
F	0.1992	0.2481	0.1510	0.0	0.0736	0.0088
G	0.1704	0.1509	0.1570	0.0	0.0770	0.0216
H	0.1625	0.1414	0.1061	0.0	0.0889	0.0278
J	0.1245	0.1546	0.0954	0.0	0.0670	0.0139
K	0.1054	0.1560	0.0955	0.0	0.0751	0.0247

GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	RCW 6
A	0.7851	0.7909	0.6939	0.2378	0.6695	0.7222
B	0.5463	0.5248	0.4856	0.1523	0.4546	0.4798
C	0.2122	0.2949	0.3687	0.1229	0.2823	0.2460
D	0.1162	0.2880	0.3617	0.1089	0.2199	0.0625
E	0.1875	0.2663	0.2805	0.0	0.1490	0.0059
F	0.1326	0.1702	0.2105	0.0	0.1220	0.0223
G	0.0654	0.1079	0.1060 [▲]	0.0	0.0998	0.0533
H	0.0618	0.0820	0.1146	0.0	0.0689	0.0318
J	0.0356	0.0232	0.0603	0.0	0.0932	0.0275
K	0.0284	0.0395	0.0744	0.0	0.0802	0.0414

NORMALIZED STRESS INTENSITIES (KSI) FOR T-13 LOAD CASE #3= M3Z

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.2405	0.4491	0.7249	0.3188	0.9850	1.0750
B	0.3377	0.5970	0.9614	0.0278	1.4330	1.5942
C	0.2987	0.5630	0.9230	0.0726	1.1252	1.1777
D	0.1265	0.3381	0.5824	0.0963	0.6738	0.7102
E	0.0170	0.1314	0.2879	0.0	0.3146	0.3862
F	0.0385	0.0529	0.0314	0.0	0.1609	0.2620
G	0.0582	0.0966	0.0867	0.0	0.0950	0.1609
H	0.0942	0.1255	0.1108	0.0	0.0701	0.1108
J	0.1057	0.1150	0.0980	0.0	0.0426	0.0923
K	0.1093	0.1063	0.0932	0.0	0.0042	0.0586

GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.0536	0.2495	0.4850	0.2412	0.5626	0.6788
B	0.3589	0.3560	0.4157	0.1226	0.3772	0.3185
C	0.5946	0.4367 [▲]	0.4915	0.1069	0.2974	0.1067
D	0.4891	0.3949	0.3725	0.0794 [▲]	0.2722	0.2556
E	0.5450	0.5403	0.3090	0.0	0.2519	0.2899
F	0.4777	0.3262	0.2051	0.0	0.1602	0.2448
G	0.3397	0.2397	0.1493	0.0	0.1438	0.2179
H	0.2383	0.1737	0.1516	0.0	0.0977	0.1562
J	0.1598	0.1102	0.1243	0.0	0.0907	0.1333
K	0.0840	0.0707	0.1139	0.0	0.0	0.0794 [▲]

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.1914	0.4439	0.8048	0.3899	1.0571	1.0243
B	0.3412	0.4838	0.8869	0.1034	1.1757	1.5935
C	0.3345	0.4732	0.8468	0.0510	1.1245	1.2062
D	0.1577	0.3719	0.5791	0.0812	0.7198	0.8073
E	0.0232	0.1726	0.3351	0.0	0.4343	0.4374
F	0.0440	0.0426	0.1049	0.0	0.2236	0.2596
G	0.0472	0.0588	0.0484	0.0	0.1328	0.2013
H	0.0771	0.0841	0.0915	0.0	0.0873	0.1545
J	0.1114	0.0631	0.0780	0.0	0.0749	0.1198
K	0.1117	0.1127	0.0739	0.0	0.0419	0.1094

GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.1323	0.2743	0.4299	0.2118	0.5789	0.5685
B	0.3793	0.3688	0.4081	0.0942	0.3475	0.2443
C	0.6381	0.5841	0.5783	0.1244	0.3073	0.0500
D	0.4590	0.4364	0.3744	0.1022	0.3042	0.3081
E	0.5769	0.4806	0.2410	0.0	0.2174	0.3176 [▲]
F	0.4655	0.3345	0.1731	0.0	0.1579	0.2433
G	0.3254	0.2797	0.1911	0.0	0.1500	0.2210
H	0.2579	0.2223	0.1769	0.0	0.1548	0.2198
J	0.1709	0.1433	0.1516	0.0	0.1520	0.2187
K	0.0953 [▲]	0.0719	0.1196	0.0	0.1392	0.2014

NORMALIZED STRESS INTENSITIES (KSI) FOR T-13 LOAD CASE #5= F3Y

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	1.2078	0.8510	1.2290	1.2246	0.9511	1.0649
B	1.5642	1.8543	1.6021	0.2603	1.6108	2.0085
C	1.9136	2.1101	2.1900	0.1462	1.8121	2.3383
D	1.4519	1.5554	1.6416	0.2189	1.6803	1.5494
E	0.8583	0.8645	1.1361	0.0	0.7358	0.9122
F	0.4118	0.3190	0.4310	0.0	0.5205	0.5743
G	0.7220	0.4153	0.2125 ^Δ	0.0	0.3731	0.5298
H	1.0665	0.5775	0.3317	0.0	0.3684	0.8041
J	0.9775 ^Δ	0.5716	0.3125	0.0	0.7362	0.6375 ^Δ
K	0.5643	0.4847	0.4496	0.0	0.1291	0.2488

GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	1.0575	1.1608	1.0849	0.7847	1.0672	0.9775 ^Δ
B	0.4151	0.3757	0.7508	0.4350	1.3671	1.4209
C	0.3061	0.2570	0.6298	0.4685	0.4125	0.5313
D	0.8095	0.5097	0.2236	0.7225 ^Δ	0.5429	0.8716
E	0.6890	0.3540	0.4314	0.0	0.7160	0.8156
F	0.9899	0.7861	0.4825	0.0	0.8960	1.0227
G	1.1506	0.9168	0.5459	0.0	0.5559	1.0656
H	1.1557	0.9774	0.5426	0.0	0.4343	0.5188
J	0.9251	0.6948	0.5029	0.0	0.2554	0.4180
K	0.8981	0.7453	0.8438	0.0	0.1700 ^Δ	0.4250 ^Δ

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	1.1984	1.2066	1.1330	1.2581	0.6833	0.5525 ^Δ
B	1.9108	1.5296	1.4828	0.4429	1.4443	0.9166
C	2.3145	1.1815 ^Δ	1.6357	0.4060	1.3952	1.4169
D	2.0690	1.9892	1.4844	0.8703	1.0484	0.7678
E	1.1727	1.0863	1.0360	0.0	1.0064	0.9867
F	0.1116	0.2821	0.3850	0.0	1.0881	0.6655
G	0.5528	0.5358	0.3916	0.0	0.7351	0.7494
H	0.4794	0.8863	0.5610 ^Δ	0.0	0.4730	0.7569
J	0.6609	0.6467	0.8015	0.0	0.4248	0.7743
K	0.6078	0.4037	0.7970	0.0	0.6797	1.0564

GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	1.1995	0.5015 ^Δ	0.8775	0.7985	0.9387	0.9007
B	0.4322	0.2056	0.5156	1.2335	1.1050 ^Δ	1.4151
C	0.3295	0.4519	0.4260	1.0310	0.6927	0.5414
D	0.8510	1.1971	0.6944	1.3455	0.5877	0.2801
E	1.0219	1.1126	1.0543	0.0	0.9931	0.8755 ^Δ
F	0.7765	0.8613	1.0862	0.0	0.6559	0.9900
G	1.0242	1.1582	0.8347	0.0	0.4162	1.0902
H	1.0694	1.0141	0.9781	0.0	0.6411	1.1450
J	1.2071	1.0328	1.2373	0.0	0.7831	0.7115
K	0.8500 ^Δ	0.7630	0.9277	0.0	0.6649	0.8270

NORMALIZED STRESS INTENSITIES (KSI) FOR T-13 LOAD CASE #6= F3Z

STRESS INTENSITY ON TOP OUTSIDE SURFACE							STRESS INTENSITY ON TOP INSIDE SURFACE						
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.7864	0.7326	0.5843	0.2965	0.3320	0.0837	A	0.6040	0.5202	0.4072	0.4243	0.2266	0.1199 [▲]
B	1.0497	1.0059	0.7871	0.1867	0.5173	0.1851	B	0.2627	0.2999	0.2666	0.2930	0.3024	0.3300
C	1.1365	1.0999	0.8291	0.1037	0.4413	0.1751	C	0.2121	0.1727	0.4316	0.1716	0.5411	0.5510
D	0.9265	0.8244	0.5880	0.0335	0.2765	0.0598	D	0.1994	0.2412	0.3919	0.0575 [▲]	0.4942	0.5079
E	0.5251	0.5138	0.3668	0.0	0.1940	0.0450	E	0.1874	0.2953	0.4230	0.0	0.3770	0.3681
F	0.2348	0.2261	0.2147	0.0	0.1668	0.0824	F	0.1111	0.1954	0.3467	0.0	0.3488	0.2797
G	0.1313	0.1220	0.1319	0.0	0.1431	0.0796	G	0.1184	0.1822	0.2056	0.0	0.2492	0.1959
H	0.0859	0.0477	0.0736	0.0	0.1356	0.0570	H	0.1250	0.1300	0.1296	0.0	0.2046	0.1297
J	0.0593	0.0432	0.0149	0.0	0.1124	0.0666	J	0.1394	0.1014	0.091	0.0	0.1535	0.1000
K	0.0758	0.0546	0.0312	0.0	0.0942	0.0401	K	0.1509	0.1294	0.0748	0.0	0.0959 [▲]	0.0839 [▲]
STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE							STRESS INTENSITY ON BOTTOM INSIDE SURFACE						
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.8070	0.8001	0.6580	0.3426	0.3905	0.0777	A	0.5984	0.4551	0.3316	0.4727	0.1818	0.0975
B	0.9619	0.9190	0.7697	0.1906	0.4331	0.1498	B	0.2390	0.1646	0.1441	0.3278	0.2944	0.3374
C	1.1631	1.0049	0.7839	0.1281	0.4315	0.0647	C	0.2031	0.2010	0.3810	0.1841	0.5482	0.5797
D	0.9079	0.9009	0.6142	0.0729	0.3087	0.1102	D	0.2377	0.3668	0.4803	0.1751	0.4843	0.4767
E	0.5379	0.5436	0.4292	0.0	0.2589	0.2265	E	0.2139	0.4052	0.4905	0.0	0.4026	0.2730
F	0.2267	0.2356	0.2250	0.0	0.1975	0.2218	F	0.1094	0.2725	0.3762	0.0	0.3025	0.2142
G	0.0894	0.1188	0.1418	0.0	0.1802	0.1856	G	0.1123	0.2296	0.2688	0.0	0.2457	0.1429
H	0.0765	0.0989	0.0882	0.0	0.1555	0.1739	H	0.1137	0.1920	0.1805	0.0	0.1969	0.0477
J	0.0635	0.0960	0.0651	0.0	0.1377	0.1778	J	0.1533	0.1497	0.1676	0.0	0.1504	0.0302
K	0.0964	0.0964	0.0827	0.0	0.1170	0.1586	K	0.1855	0.1187	0.1450	0.0	0.1268	0.0086

NORMALIZED STRESS INTENSITIES (KSI) FOR T-13 LOAD CASE #7= M2X

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.1491	0.4586	0.5097	0.7475	0.2931	0.0316
B	0.2447	0.4838	0.4775	0.6882	0.3347	0.3408
C	0.8108	0.6954	0.5351	0.7481	0.6528	0.8778
D	1.4396	1.0273	0.4373	0.8198	1.0431	1.3673
E	1.4159	1.1061	0.4392	0.0	1.0472	1.4237
F	1.1769	0.9204	0.5383	0.0	0.8228	0.9127
G	1.0257	0.8791	0.5935	0.0	0.8026	1.0172
H	0.9398	0.8684	0.7005	0.0	0.8320	1.0137
J	0.8429	0.8181	0.7602	0.0	0.8702	0.9667
K	0.7857	0.8453	0.7682	0.0	0.8253	0.7844

GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.2195	0.6346	0.7174	0.6254	0.5556	0.1093
B	0.0972	1.0188	1.2550	0.4407	0.7653	0.2570
C	0.2855	1.1716 [▲]	1.5843	0.6400	1.0713	0.5094
D	0.2121	1.2079	1.4236	0.7448 [▲]	0.6634	0.2369
E	0.5235	0.8468	0.8113	0.0	0.3883	0.3442
F	0.5762	0.5519	0.4668	0.0	0.4113	0.5675
G	0.5623	0.6101	0.5206	0.0	0.5359	0.5873
H	0.5128	0.6289	0.5760	0.0	0.6695 [▲]	0.6205
J	0.4942	0.5816	0.5857	0.0	0.6730	0.7443
K	0.4966	0.6272	0.6233	0.0	0.7113 [▲]	0.8369 [▲]

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.0495	0.4171	0.4751	0.7038	0.3300	0.0183
B	0.2105	0.4984	0.4877	0.6693	0.3474	0.2963
C	0.7736	0.6843	0.4796	0.7784	0.5777	0.8919
D	1.4255	1.0159	0.4388	0.8370	1.0061	1.4006
E	1.4433	1.1062	0.4732	0.0	1.0896	1.4144
F	1.0874	0.8984	0.5637	0.0	0.8420	1.1173
G	0.9790	0.8290	0.6450	0.0	0.8820	0.9691
H	0.9172	0.8206	0.6819	0.0	0.8547	1.0968
J	0.8032	0.7587	0.7398	0.0	0.9044	1.1038
K	0.7264	0.6875	0.7112	0.0	0.8652	0.9267

GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.2180	0.5992	0.7633	0.6260	0.4612	0.1845
B	0.0690	0.9844	1.2133	0.4994	0.7171	0.1954
C	0.2540	1.2607	1.5793	0.6724	1.0369	0.4004
D	0.1561	1.0597	1.4263	0.7683	0.8437	0.2831
E	0.4622	0.7989	0.8006	0.0	0.3886	0.4278
F	0.4647	0.5446	0.4738	0.0	0.5225	0.5917
G	0.5001	0.5682	0.4933	0.0	0.5312	0.7264
H	0.4649	0.5469	0.5359	0.0	0.6185	0.7050
J	0.4873	0.5545	0.6015	0.0	0.7890	0.7434
K	0.5440 [▲]	0.5315	0.5313	0.0	0.7487	0.7905

NORMALIZED STRESS INTENSITIES (KSI) FOR T-13 LOAD CASE #8= M2Y

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.0788	0.0437	0.1122	0.3738	0.1007	0.0387
B	0.1352	0.0591	0.1182	0.4528	0.1087	0.0490
C	0.1557	0.1999	0.1848	0.6570	0.1594	0.0199
D	0.2345	0.3724	0.4018	1.2207	0.1819	0.0385
E	0.3315	0.4894	0.4666	0.0	0.2419	0.0462
F	0.4581	0.5632	0.4851	0.0	0.2552	0.0718
G	0.5469	0.6223	0.6565	0.0	0.2882	0.0729
H	0.6252	0.6977	0.8079	0.0	0.3402	0.0729
J	0.6700	0.7394	0.8721	0.0	0.4079	0.0928
K	0.7001	0.7660	0.8668	0.0	0.5870	0.0265

GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.1505	0.1252	0.0715	0.0872	0.1089	0.0327
B	0.3393	0.2068	0.1109	0.2246	0.1971	0.0791
C	0.5293	0.3219 [▲]	0.1545	0.4554	0.2415	0.1072
D	0.6101	0.4130	0.0929	0.7242 [▲]	0.1582	0.2504
E	0.5703	0.4582	0.1922	0.0	0.1170	0.1039
F	0.5881	0.3864	0.3050	0.0	0.1163	0.0555 [▲]
G	0.6667	0.5063	0.3377	0.0	0.1367	0.0373
H	0.7136	0.5289	0.4001	0.0	0.2414 [▲]	0.0277
J	0.7341	0.5922	0.4341	0.0	0.3351	0.0259
K	0.7250	0.5910	0.4969	0.0	0.4587 [▲]	0.0

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.0812	0.0343	0.0997	0.2833	0.1019	0.0563 [▲]
B	0.0461	0.0457	0.1190	0.4459	0.0729	0.0754
C	0.1220	0.1747	0.2094	0.5581	0.1017	0.0350
D	0.1881	0.3469	0.3237	0.6910	0.1677	0.0257
E	0.3205	0.3939	0.3592	0.0	0.2151	0.0987
F	0.4478	0.5083	0.5004	0.0	0.2157	0.1134
G	0.5560	0.5911	0.6078	0.0	0.2811	0.0859
H	0.5820	0.7050	0.6988	0.0	0.3825	0.0760
J	0.6567	0.7432	0.7675	0.0	0.3938	0.0933
K	0.6543	0.7602	0.8072	0.0	0.4224	0.0233

GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.1111	0.0645	0.0790	0.1315	0.0702	0.0903
B	0.2676	0.1101	0.1463	0.2038	0.1830	0.0716
C	0.4306	0.1913	0.1822	0.5218	0.2251	0.0855
D	0.4868	0.2980	0.1135	0.7450	0.1745	0.2001
E	0.4891	0.3610	0.2036	0.0	0.1015	0.1294
F	0.5555	0.3774	0.2642	0.0	0.0896	0.0738
G	0.6278	0.5020	0.3413	0.0	0.1518	0.0388
H	0.7180	0.5340	0.3766	0.0	0.2459	0.0131
J	0.7189	0.5834	0.4817	0.0	0.3513	0.0152
K	0.7162 [▲]	0.5926	0.5033	0.0	0.4137	0.0401

NORMALIZED STRESS INTENSITIES (KSI) FOR T-13 LOAD CASE #9= M2Z

GAGE DEF.	STRESS INTENSITY ON TLP OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.5059	0.3553	0.2617	1.2763	0.3896	0.4887
B	0.5177	0.3345	0.8520	0.8561	0.5002	0.5378
C	0.4685	0.6264	0.8603	0.7246	0.7992	0.5480
D	0.3426	1.0119	1.3777	0.6643	0.9906	0.6573
E	0.3268	1.0239	1.3765	0.0	1.0219	0.7838
F	0.2872	0.7691	0.9075	0.0	0.8552	0.6915
G	0.2756	0.5954	0.7360	0.0	0.7869	0.7261
H	0.1931	0.3683	0.5551	0.0	0.7604	0.7114
J	0.0738	0.2162	0.3133	0.0	0.7665	0.7937
K	0.0641	0.0395	0.0336	0.0	0.8832	0.9506

GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.8614	0.6243	0.2153	0.3443	0.5405	0.5978 [▲]
B	1.5421	1.0177	0.2224	0.2800	0.7549	0.9004
C	2.0505	1.4198 [▲]	0.5265	0.4440	0.8934	1.1867
D	1.9484	1.6726	0.4337	0.6352 [▲]	0.5247	0.6102
E	1.3743	1.0216	0.5445	0.0	0.3008	0.2161
F	0.9188	0.6151	0.4287	0.0	0.2034	0.1016
G	0.6502	0.4489	0.3251	0.0	0.2666	0.1840
H	0.3954	0.4857 [▲]	0.2277	0.0	0.4513 [▲]	0.4084
J	0.2298	0.2019	0.1353	0.0	0.5410	0.5933
K	0.0830	0.1504	0.0510	0.0	0.7472 [▲]	0.8220 [▲]

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.4625	0.2854	0.1347	1.2703	0.4207	0.4870
B	0.4036	0.2211	0.2743	0.9000	0.5296	0.5450
C	0.3619	0.5088	0.8711	0.6468	0.8335	0.5306
D	0.2460	0.9662	1.3544	0.4728	1.0645	0.6956
E	0.3676	0.9906	1.3492	0.0	1.1106	0.7764
F	0.3060	0.7132	0.9455	0.0	0.9107	0.6979
G	0.3080	0.5998	0.7454	0.0	0.8522	0.7226
H	0.2132	0.3974	0.5484	0.0	0.7715	0.7379
J	0.1350	0.2422	0.3220	0.0	0.7414	0.7356
K	0.0283	0.0566	0.0782	0.0	0.6366	0.6596

GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.9040	0.6060	0.2119	0.4913	0.4766	0.6093
B	1.5704	1.0414	0.1975	0.4119	0.7570	0.9725
C	2.0514	1.3490	0.5441	0.5971	0.8820	1.1825
D	1.8466	1.4254	0.6583 [▲]	0.4857	0.5684	0.6214
E	1.2732	0.9487	0.6340	0.0	0.3687	0.1735
F	0.9239	0.6626	0.4460	0.0	0.3306	0.0441
G	0.6499	0.4607	0.3551	0.0	0.4022	0.2728
H	0.4461	0.3330	0.2466	0.0	0.5220	0.5171
J	0.2332	0.2062	0.1505	0.0	0.6039	0.6939
K	0.0993	0.1547	0.0437	0.0	0.6404	0.8555

NORMALIZED STRESS INTENSITIES (KSI) FOR T-13 LOAD CASE #10= F2X

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.5146	0.3873	0.3712	1.3445	0.3887	0.5149
B	0.5514	0.2322	0.3115	1.0540	0.4339	0.4627
C	0.3120	0.6808	0.8262	1.0888	0.6606	0.4601
D	0.3671	1.0430	1.4439	1.4496	1.0253	0.5216
E	0.4165	1.1250	1.5407	0.0	1.1739	0.6863
F	0.5486	1.0002	1.0373	0.0	0.8774	0.6836
G	0.5384	0.9101	1.0256	0.0	0.7855	0.6802
H	0.6265	0.8727	1.0469	0.0	0.7586	0.5867
J	0.6151	0.8469	1.0473	0.0	0.8422	0.7326
K	0.7052	0.7639	0.9116	0.0	0.9224	0.8152

GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.8953	0.6591	0.3000	0.6743	0.4943	0.6991
B	1.6395	1.1900	0.1672	0.6162	0.7878	1.0039
C	2.2996	1.6498 [▲]	0.5125	0.9438	0.9126	1.2499
D	2.3813	1.9972	0.6792	1.0914 [▲]	0.5343	0.6643
E	1.8041	1.3688	0.8398	0.0	0.4215	0.2903
F	1.3300	0.9683	0.2613	0.0	0.3558	0.0817
G	1.1778	0.9283	0.6463	0.0	0.4644	0.2901
H	1.1101	0.8572	0.6595	0.0	0.5838 [▲]	0.5495
J	1.1134	0.8201	0.6388	0.0	0.7161	0.7119
K	0.9848	0.8027	0.6872	0.0	0.8376 [▲]	0.9645 [▲]

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.5065	0.3272	0.2248	1.4640	0.3626	0.4631
B	0.5220	0.3526	0.2580	0.8983	0.4628	0.4622
C	0.3633	0.5602	0.8493	0.8485	0.6923	0.4784
D	0.2824	1.0250	1.3261	0.9888	0.9605	0.5871
E	0.4582	1.1222	1.5424	0.0	1.0572	0.6764
F	0.5339	0.7913	1.1130	0.0	0.8006	0.6388
G	0.5229 [▲]	0.7920	0.9665	0.0	0.8448	0.6382
H	0.5908	0.8468	0.9341	0.0	0.7199	0.6226
J	0.6081	0.7812	0.9140	0.0	0.8560	0.6585
K	0.7351	0.7475	0.9113	0.0	0.7045	0.5931

GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.8334	0.7171	0.1577	0.5468	0.4344	0.6148
B	1.6195	0.9747	0.1370	0.5782	0.7961	1.0589
C	2.3243	1.4903	0.6339	0.9777	0.7962	1.2567
D	2.2529	1.6399	0.7500	1.1360	0.5470	0.7477
E	1.6555	1.2409	0.8402	0.0	0.4227	0.1901
F	1.3172	1.0801	0.7275	0.0	0.3932	0.0897
G	1.1731	0.9119	0.5053	0.0	0.4766	0.4391
H	1.0971	0.7815	0.5954	0.0	0.6864	0.6378
J	1.1450	0.7802	0.6312	0.0	0.8621	0.8200
K	1.0346	0.8284	0.6093	0.0	0.9253	1.0865

NORMALIZED STRESS INTENSITIES (KSI) FOR I-13 LOAD CASE #11= F2Y

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.5447	0.3809	0.2098	1.3250	0.4300	0.5199
B	0.4898	0.3685	0.4275	0.9064	0.4833	0.5513
C	0.3687	0.7046	0.8347	0.8494	0.7704	0.5059
D	0.3149	1.0724	1.4293	0.7269	1.0575	0.6160
E	0.4008	1.1360	1.4700	0.0	1.0389	0.7788
F	0.3531	0.8610	1.0013	0.0	0.9303	0.6890
G	0.2697	0.6403	0.8539	0.0	0.7553	0.7091
H	0.2472	0.4657	0.5767	0.0	0.7568	0.6589
J	0.1415	0.1829	0.3852	0.0	0.8237	0.7385
K	0.1088	0.1062	0.1483	0.0	0.8942	0.8598

GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.9653	0.6709	0.1970	0.3792	0.5378	0.7365
B	1.6605	1.1003	0.1595	0.3973	0.7466	0.9504
C	2.1366	1.4466 [▲]	0.5353	0.5738	0.8760	1.1818
D	2.0650	1.7514	0.4659	0.7715 [▲]	0.5474	0.6157
E	1.4655	1.0676	0.6050	0.0	0.3564	0.3215 [▲]
F	1.0051	0.6565	0.4967	0.0	0.2017	0.1050
G	0.6893	0.4766	0.3447	0.0	0.3118	0.2129
H	0.4919	0.3622	0.2167	0.0	0.4018 [▲]	0.3998
J	0.3308	0.2517	0.1356	0.0	0.5113	0.5373
K	0.1214	0.1400	0.0742	0.0	0.6429 [▲]	0.7233 [▲]

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.5101	0.3969	0.1766	1.4191	0.3733	0.4898
B	0.4734	0.2918	0.2762	0.5460	0.6025	0.6131
C	0.3689	0.5036	0.8776	0.7470	0.8845	0.6071
D	0.2923	1.0258	1.3903	0.4619	1.1334	0.7363
E	0.4514	1.0078	1.4846	0.0	1.2272	0.8296
F	0.3346	0.7372	1.0298	0.0	1.0237	0.7405
G	0.3297	0.5571	0.8341	0.0	1.0164	0.7982
H	0.2228	0.3887	0.5543	0.0	0.8912	0.8305
J	0.1562	0.1555	0.3261	0.0	0.7996	0.8151
K	0.1070	0.1116	0.0752	0.0	0.7130	0.7708

GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.8933	0.6685	0.2807	0.4720	0.4732	0.6389
B	1.5920	1.0817	0.2006	0.4700	0.8020	1.0087
C	2.1314	1.4782	0.6330	0.6544	0.9310	1.2419
D	1.9343	1.5498	0.5049	0.5666	0.5313	0.6956
E	1.2964	1.0279	0.5855	0.0	0.3565	0.1948
F	0.9029	0.5704	0.5497	0.0	0.4088	0.0450
G	0.6530	0.4813	0.2822	0.0	0.3789	0.3540
H	0.4080	0.3324	0.1825	0.0	0.5460	0.6207
J	0.2592	0.2427	0.2009	0.0	0.6158	0.8100
K	0.0572	0.2313	0.2330	0.0	0.6458	0.9830

NORMALIZED STRESS INTENSITIES (KSI) FOR T-13 LOAD CASE #12= F2Z

STRESS INTENSITY ON TOP OUTSIDE SURFACE							STRESS INTENSITY ON TOP INSIDE SURFACE						
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.0597	0.1797	0.1939	0.4276	0.1064	0.0379	A	0.1525	0.2034	0.0860	0.1198	0.0419	0.0961
B	0.0323	0.0618	0.1400	0.4803	0.1084	0.0822	B	0.3519	0.2644	0.0230	0.2416	0.1307	0.0945
C	0.1196	0.1287	0.1797	0.6880	0.1905	0.0867	C	0.5493	0.4018 [▲]	0.1691	0.4707	0.0878	0.1332
D	0.3025	0.3237	0.4194	1.2358	0.2643	0.1248	D	0.5926	0.5340	0.1250	0.6912 [▲]	0.0928	0.1456
E	0.3669	0.4032	0.4537	0.0	0.2213	0.1425	E	0.5848	0.4649	0.2930	0.0	0.1079	0.0804 [▲]
F	0.4518	0.5313	0.4870	0.0	0.2356	0.0574	F	0.6569	0.4598	0.3217	0.0	0.0469	0.1029 [▲]
G	0.6463	0.5800	0.6510	0.0	0.2428	0.0335	G	0.7270	0.5485	0.4477	0.0	0.1108	0.1081
H	0.6209	0.6916	0.7476	0.0	0.3458	0.0710	H	0.7258	0.5860	0.3898	0.0	0.2274 [▲]	0.0937
J	0.6312	0.7626	0.8667	0.0	0.4970	0.0284	J	0.7710	0.6265	0.4107	0.0	0.3169	0.1028
K	0.7591	0.9117	0.8922	0.0	0.5845	0.0299	K	0.7809	0.6107	0.4984	0.0	0.4420 [▲]	0.1125 [▲]
STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE							STRESS INTENSITY ON BOTTOM INSIDE SURFACE						
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.1126	0.0394	0.1740	0.3178	0.1377	0.1067	A	0.2021	0.0694	0.2675	0.2123	0.1122	0.0761
B	0.1055	0.0958	0.1571	0.5684	0.0854	0.0487	B	0.3474	0.0877	0.3410	0.2849	0.2381	0.1159
C	0.1559	0.2571	0.2826	0.5928	0.3928	0.0434	C	0.4638	0.1097	0.4087	0.6069	0.4383	0.1414 [▲]
D	0.3624	0.4900	0.5006	0.8633	0.2872	0.2848	D	0.5578	0.2553	0.3280	0.9076	0.3473	0.2642
E	0.3510	0.5811	0.4587	0.0	0.2002	0.2562	E	0.5341	0.4172	0.2684	0.0	0.1749	0.1852
F	0.5025	0.6252	0.5236	0.0	0.3227	0.2477	F	0.6025	0.3779	0.3688	0.0	0.1261	0.1913
G	0.6012	0.7242	0.7280	0.0	0.3476	0.1742	G	0.7241	0.6051	0.4536	0.0	0.1852	0.1603
H	0.6921	0.8107	0.8314	0.0	0.4325	0.2401	H	0.7724	0.5670	0.5421	0.0	0.3195	0.1291
J	0.6739	0.8362	0.9003	0.0	0.5735	0.2138 [▲]	J	0.8059	0.6352	0.6170	0.0	0.4496	0.1529
K	0.7330	0.8646	0.9405	0.0	0.5240	0.1170	K	0.7619 [▲]	0.6745	0.5927	0.0	0.5380	0.2390

NORMALIZED STRESS INTENSITIES (KSI) FOR T-13 LOAD CASE #13=PRES

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.9159	0.9381	0.6822	0.9332	0.5709	0.5836
B	1.0146	1.1091	0.7479	0.6608	0.6789	0.7109
C	1.1194	1.1472	0.8167	0.6618	0.6763	0.7316
D	1.1255	1.1493	1.0001	0.7303	0.8246	0.7748
E	0.9650	1.1374	0.9641	0.0	0.8231	0.7684
F	0.7166	0.9092	0.7466	0.0	0.6853	0.6381
G	0.6003	0.7179	0.6693	0.0	0.6407	0.6333
H	0.4601	0.5551	0.6479	0.0	0.6328	0.6165
J	0.3584	0.4495	0.5587	0.0	0.6667	0.6151
K	0.2972	0.3724	0.4996	0.0	0.6716	0.7398

GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	1.0326	1.1228	1.3807 [▲]	1.3982	1.9550	1.5899 [▲]
B	0.8769	1.0978	1.5927	1.0447	1.9091	1.9854
C	0.6314	0.8228 [▲]	1.6261	1.1483	2.2279	2.3947
D	0.3241	0.6938	1.4455	1.1715 [▲]	1.7801	1.9813
E	0.3377	0.6647	1.2366	0.0	1.3022	1.3394
F	0.5602	0.6244	1.0552	0.0	1.1337	1.2426
G	0.9502	0.9685	0.9873	0.0	1.1638	1.1567
H	1.1696	1.1795	1.1543	0.0	1.1366 [▲]	1.1394
J	1.2698	1.2135	1.2127	0.0	1.1582	1.1237
K	1.3926	1.4051	1.2986	0.0	1.1366 [▲]	1.1715 [▲]

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	0.8817	0.8353	0.6695	0.9185	0.6798	0.5940
B	0.9941	0.9135	0.7239	0.7016	0.6704	0.6896
C	1.0783	0.9916	0.8129	0.6266	0.6978	0.6826
D	1.0706	1.0923	0.9273	0.6752	0.8261	0.7484
E	0.9543	1.0801	1.0054	0.0	0.8289	0.7467
F	0.6655	0.8547	0.7684	0.0	0.7077	0.6448
G	0.5566	0.6910	0.6892	0.0	0.6316	0.6042
H	0.4303	0.5475	0.5955	0.0	0.6206	0.6374
J	0.3056	0.4321	0.5317	0.0	0.6695	0.7320
K	0.3023	0.3238	0.4422	0.0	0.6768	0.6697

GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
A	1.3110 [▲]	1.3110 [▲]	1.3601	1.4125	1.7991 [▲]	1.6374
B	0.9637	1.1023	1.5258	1.1061	1.9100	1.9842
C	0.6317	0.9434	1.672	1.1503	2.2153	2.4253
D	0.4860 [▲]	0.6420	1.4290	1.1848	1.9161	1.6917
E	0.3724	0.7355	1.1640	0.0	1.2795	1.3807 [▲]
F	0.5175	0.6863	1.0481	0.0	1.2288	1.2782
G	0.9585	0.9420	0.9795	0.0	1.1385	1.1994
H	1.2486	1.1258	1.0919	0.0	1.1154	1.1314
J	1.3508	1.2914	1.2055	0.0	1.1080	1.1715 [▲]
K	1.3431	1.2694	1.1589	0.0	1.1440	1.1307

NORMALIZED STRESS INTENSITIES (KSI) FOR T-16 LOAD CASE #1 = M3X

GAGE DEF.	STRESS INTENSITY ON TLP OUTSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	5.4068	1.9693	0.7071	0.5623	0.5388
B	1.5338	1.6906	0.7461	0.5663	0.7497
C	1.8926	2.0062	0.3250	0.6571	1.2435
D	2.5152	1.7122 [▲]	0.5081	0.8164	1.2334
E	2.1008	1.4160	0.8761	0.6350	1.3224
F	1.3587	1.2775	1.1570	0.6832	1.0683
G	0.7807	1.2531	1.1491	0.5625	0.7621
H	0.6007	1.3593	1.2149	0.6728	0.3905
J	0.3701	1.1837	1.2176	0.9614	0.1516
K	0.1455	1.0308	1.1409	0.0	0.0
L	0.2846	0.9404	1.4010	0.0	0.0

GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.6610	1.691 [▲]	1.1291	0.1845	0.2528
B	1.8544	2.2493	1.2089	0.4649	0.6785
C	1.3478	1.6411	0.8707	0.5343	0.9661
D	1.9193	1.3578	0.9485	0.2588	0.9407
E	1.1370	1.4667	1.0992	0.4161	1.0225
F	1.0256	1.5176	1.3870	0.6842	0.9635
G	0.6872	1.4830	1.6041	0.8371	0.7099
H	0.3029	1.6132	1.7309	0.5065	0.5112
J	0.3471	1.4967	1.5111	0.6402	0.1074
K	0.1380	0.9711	0.9736	0.0	0.0
L	0.2159	0.6513	0.6194	0.0	0.0

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
1.3014	1.2828	0.8364	1.7953

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
1.1769	1.4610	1.0377	0.6940

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	4.3062	2.7410	0.7916	0.9008	0.7217
B	1.4200	1.4608	0.4995	1.0050	0.7511
C	1.9772	2.3939	0.8041	1.0119	0.8888
D	2.4825	2.3343	0.8992	1.0174	0.6395
E	2.2705	2.9829	1.3021	0.8104	0.2183
F	1.4848	3.1611	1.5550	1.3075	0.2465
G	2.1054	2.7031	1.5382	1.2733	0.5650
H	1.9351	2.2080	1.5081	1.2456	0.8194
J	0.9632	2.1535	1.4954	1.4888	1.6211
K	0.8025	1.7050	1.1733	0.0	0.0
L	1.9448	1.7016	1.3272	0.0	0.0

GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.6737	0.5979	0.6981	0.5602	0.1475
B	2.2105	1.8093	0.6173	0.7122	0.3459
C	1.3312	1.1363	1.1094	0.8161	0.6967
D	1.9035	2.1714	1.6949	1.1130	0.5975
E	1.2918	2.2407 [▲]	2.7009	1.4049	0.4440
F	1.1137	2.3154	3.0390	1.3803	0.1699
G	1.0083 [▲]	2.6419	2.8808	1.0977	0.0681
H	0.5689	2.9948	2.4649	0.8369	0.2055
J	0.2990	2.3704	1.5144	0.9900	0.8057
K	0.9798	1.5854 [▲]	1.0039	0.0	0.0
L	1.1038	1.4904	1.0015	0.0	0.0

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
2.9133	2.1785	1.3442	0.6081

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
0.7265	(3.4038)	2.1805	0.8320

NORMALIZED STRESS INTENSITIES (KSI) FOR T-16 LOAD CASE #2 = M3Y

STRESS INTENSITY ON TOP OUTSIDE SURFACE						STRESS INTENSITY ON TOP INSIDE SURFACE					
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	1.1479	1.0751	1.0393	1.2310	1.1969	A	1.6636	1.1363 [▲]	0.6062	0.9112	0.7818
B	1.2825	1.5038	0.8696	0.9315	0.8470	B	0.7827	1.3846	0.9230	0.5781	0.4448
C	1.7138	1.9229	0.8663	0.5549	0.4165	C	0.5865	2.4914	1.2413	0.6518	0.2317
D	2.7623	2.0204	0.6429	0.7446	0.2469	D	0.6857	2.9250	1.6227	0.6568	0.2617
E	2.7835	2.5977	0.5826	0.6088	0.6688	E	2.1410	2.4493	1.9409	0.8672	0.3847
F	2.0074	2.5936	0.5696	0.4910	0.3616	F	2.2595	1.7134	1.9937	0.6669	0.4995
G	1.8926	1.9789	0.4656	0.5680	0.5077	G	1.9968	1.6856	1.7906	0.5463	0.3535
H	1.3113	1.3343	0.4017	0.5978	0.4591	H	0.8167	1.5407	1.3251	0.5955	0.3069
J	0.7982	1.4469	0.4496	0.6748	0.3163	J	0.2088	1.2969	0.8469	0.3402	0.1453
K	0.4888	1.1100	0.4677	0.0	0.0	K	0.7421	0.8592	0.6251	0.0	0.0
L	1.5111	0.9993	0.8057	0.0	0.0	L	0.7861	0.6742	0.4543	0.0	0.0

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
2.5199	1.3953	0.6264	0.1994

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
1.4514	2.4252	1.4140	0.5498

STRESS INTENSITY ON NOTCH OUTSIDE SURFACE						STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.7537	1.0905	1.2513	1.4195	1.1835	A	1.3664	1.4278	0.8290	0.9174	0.9659 [▲]
B	0.8292	1.4990	0.9957	1.1344	0.6647	B	1.1480	1.2705	0.9096	0.8976	0.5463
C	1.5436	2.0589	1.0845	0.9601	0.4386	C	0.3621	2.2603	1.4707	0.9870	0.2234
D	3.0996	2.3239	0.9655	0.8235	0.1389	D	0.7345	3.4336	1.8877	1.1971	0.3360
E	3.0187	2.8575	0.8882	0.5255	0.5271	E	2.1565	2.8407 [▲]	2.3244	1.1610	0.3665
F	2.2098	2.9229	0.3011	0.7414	0.7804	F	2.1950	1.7422	2.3547	0.8491	0.6097
G	2.3052	2.3729	0.6329	0.8145	0.7992	G	0.6896	1.7357	2.0346	0.6320	0.5104
H	1.7184	1.9026	0.5195	0.7742	0.7168	H	1.0146	1.7467	1.3326	0.5775	0.3205
J	1.0681	1.7470	0.3642	0.8527	0.6971	J	0.5373	1.3115	0.7535	0.4290	0.1101
K	0.9809	1.3325	0.5259	0.0	0.0	K	1.3594	1.1720	0.5661	0.0	0.0
L	3.0308	2.6037	0.6585	0.0	0.0	L	0.6151	0.6370	0.4638	0.0	0.0

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
3.1135	1.5635	0.8704	0.4644

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
1.4937	2.8560	1.7168	0.7242

NORMALIZED STRESS INTENSITIES (KS)

STRESS INTENSITY ON TLP OUTSIDE SURFACE						STRESS INTENSITY ON TOP INSIDE SURFACE					
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.4738	2.2911	1.5114	0.6551	0.4668	A	0.8081	0.2087	0.9085	0.5921	0.4776
B	0.9203	0.6121	1.1796	0.6739	0.3633	B	1.0413	1.1788	1.1267	0.6443	0.4816
C	1.0192	0.8354	1.2737	0.8761	0.4244	C	1.5860	1.0216	0.6180	0.7531	0.5611
D	1.0601	1.2653	1.2617	0.9727	0.5148	D	1.7733	1.6137	0.7056	0.8493	0.2982
E	1.9522	1.2215	1.0051	0.8731	0.6504	E	0.9093	2.0134	0.8959	0.8311	0.6182
F	1.7724	1.5436	0.8275	0.7658	0.8138	F	0.3471	1.8306	0.9962	0.8911	0.8819
G	1.7861	1.3056	0.6911	0.6989	0.7475	G	0.4338	1.8731	0.8964	0.8301	0.8750
H	1.1796	1.1651	0.4657	0.7893	0.9648	H	0.3182	1.4691	0.7020	0.5637	0.3744
J	1.0058	1.1475	0.4137	1.5599	2.1880	J	0.8536	1.0462	0.7286	0.7721	1.1726
K	0.8121	0.8602	0.3228	0.0	0.0	K	1.2481	0.7775	0.5771	0.0	0.0
L	2.3533	1.4643	0.7570	0.0	0.0	L	1.0973	0.3796	0.3298	0.0	0.0

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
2.0122	0.7446	0.9444	0.8194

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
0.6442	1.7794	0.6968	0.6446

STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE						STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.5416	2.2611	2.1134	1.4415	1.6306	A	0.7810	0.3044	0.5680	0.5679	0.6598 ^A
B	0.9296	0.9540	1.1401	1.1343	1.1776	B	0.9052	1.2195	0.7268	0.4901	1.1161
C	1.1358	1.2020	1.5693	1.1277	1.0694	C	1.5129	1.0140	0.6082	0.7632	0.9599
D	1.2157	0.9458	1.3353	1.1392	1.3788	D	2.0060	2.2014	0.4010	1.0959	1.3554
E	2.0146	0.6228	1.1109	1.0763	1.4908	E	0.9854	3.2255 ^A	0.4324	1.1385	1.5227
F	1.8519	0.9073	1.0709	1.1415	1.3119	F	0.3806	3.1334	0.5837	1.1849	1.5706
G	1.5756	0.9266	1.1065	1.1163	1.1355	G	0.5865 ^A	2.6276	0.4295	0.8709	1.1459
H	1.3123	1.1736	1.1623	1.2083	1.5395	H	1.3264	1.6826	0.7049	0.4026	0.8587
J	1.5011	1.1211	1.1855	2.1513	2.0531	J	1.6041	0.8738	0.7845	0.7888	1.6741
K	1.2116	0.8341	1.0532	0.0	0.0	K	1.2405	0.5278 ^A	0.8218	0.0	0.0
L	1.0780	2.0482	3.3480	0.0	0.0	L	1.0037	0.2607	0.2685	0.0	0.0

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
1.0965	0.9063	0.9123	1.4056

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
2.0963	2.0175	0.6062	1.4233

NORMALIZED STRESS INTENSITIES (KSI) FOR T-16 LOAD CASE #5 = F3Y

STRESS INTENSITY ON TOP OUTSIDE SURFACE						STRESS INTENSITY ON TOP INSIDE SURFACE					
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	5.3407	3.2990	1.0696	0.4198	0.3834	A	0.9322	1.1075	0.8539	0.3739	0.3643
B	1.4141	1.3116	0.8129	0.2923	0.2791	B	1.7539	2.4159	1.1899	0.4589	0.2617
C	1.3039	1.3778	0.8235	0.2929	0.4335	C	0.6914	1.0557	0.6620	0.4913	0.2024
D	1.5101	0.6605 ^A	1.1178	0.4234	0.5199	D	1.6765	1.0525	0.6026	0.8515	0.2250
E	1.8802	1.1920	1.1822	0.6572	0.4724	E	1.1894	1.0407	0.5699	1.2521	0.3217
F	1.6150	1.1672	1.2332	0.6259	0.6592	F	2.1086	0.8187	0.6374	1.0826	0.4700
G	1.5959	0.9585	1.0784	0.7978	0.4575	G	1.9990	0.6466	0.9362	0.9917	0.4553
H	1.4719	0.8819	0.9631	0.9592	0.6949	H	2.1976	0.3524	0.9298	0.6546	0.1895
J	1.5242	0.7668	0.7860	1.3754	2.0260	J	2.0669	0.1677	0.8537	0.7946	0.9841
K	1.3232	0.5464	0.6238	0.0	0.0	K	1.9265	0.3590	0.6633	0.0	0.0
L	2.2060	0.9950	0.3909	0.0	0.0	L	1.9151	0.1557	0.4404	0.0	0.0

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
1.5333	1.1073	0.8054	0.2960

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
1.0348	0.5440	0.7957	0.5088

STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE						STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	4.7964	2.8364	0.5546	0.4775	0.7862	A	0.6333	0.3010	2.4863	0.9980	2.5644 ^A
B	1.5532	1.0667	0.1211	0.2135	0.5570	B	2.4594	1.9262	0.5562	0.7296	2.2051
C	1.8730	2.1200	0.5111	0.2334	0.6617	C	0.6510	1.2445	0.4504	1.1094	2.5488
D	2.1369	2.4260	0.9005	0.8361	1.0512	D	0.7147	2.9603	0.6653	1.0795	2.7155
E	2.2037	2.4987	1.4106	2.9354	1.0644	E	1.5430	3.0306 ^A	1.5441	0.6702	2.3060
F	1.4716	2.3217	1.8367	2.1880	0.7281	F	1.8892	3.0671	1.9422	0.4367	1.9147
G	2.3171	1.8216	2.1384	2.4435	0.6876	G	1.9816 ^A	2.8791	1.7595	0.2984	0.6883
H	1.4706	1.0808	2.8031	2.2786	1.0123	H	2.1263	2.1892	1.3758	0.8020	0.8330
J	1.0164	1.2366	2.8511	3.7130	1.5102	J	2.2499	1.9842	1.6036	1.7463	1.0868
K	1.1366	1.5560	2.9090	0.0	0.0	K	2.8516	1.9427 ^A	2.0693	0.0	0.0
L	3.5726	0.4335	7.8440	0.0	0.0	L	3.9605	4.2983	3.2826	0.0	0.0

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
2.3150	1.6249	1.8910	1.2043

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
1.6057	3.2515	0.5978	1.9582

NORMALIZED STRESS INTENSITIES (KSI) FOR T-16 LOAD CASE #6 = F3Z

STRESS INTENSITY ON TOP OUTSIDE SURFACE					STRESS INTENSITY ON TOP INSIDE SURFACE						
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	4.45C2	1.7289	0.7878	0.5846	0.1127	A	0.7998	1.4759 [▲]	0.9813	0.2412	0.4539
B	1.4215	1.4910	0.7524	0.3917	0.3680	B	1.4648	1.9855	1.0189	0.4225	0.7136
C	1.8627	1.7380	0.3021	0.5078	0.8705	C	1.2300	1.9555	0.8718	0.5603	0.9629
D	2.5023	1.7012	0.3019	0.5280	1.0430	D	1.6712	1.8609	0.7956	0.4355	0.9440
E	2.2498	1.3135	0.5723	0.4595	1.0539	E	1.3914	1.5238	0.9486	0.1671	0.9783
F	1.5517	1.0854	0.8200	0.5037	0.9710	F	1.3691	1.3579	0.9669	0.4016	0.9122
G	0.5996	0.8832	0.8576	0.4685	0.8580	G	1.0931	1.1927	0.9601	0.5656	0.6915
H	0.3993	0.8898	0.9702	0.4921	0.3373	H	0.4070	0.8817	1.1630	0.3382	0.4909
J	0.2592	0.8435	0.8913	0.9668	0.1690	J	0.1745	0.8916	1.1026	0.4932	0.1140
K	0.2179	0.7487	0.9007	0.0	0.0	K	0.2624	0.5978	0.7816	0.0	0.0
L	0.4505	0.7518	1.3620	0.0	0.0	L	0.3399	0.3984	0.5620	0.0	0.0

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
1.4379	0.8153	0.5041	1.4743

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
1.2480	1.3310	0.5425	0.7068

STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					STRESS INTENSITY ON BOTTOM INSIDE SURFACE						
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	3.3036	2.2783	0.8722	0.6657	0.3751	A	0.5081	0.6276	0.3506	0.6806	0.3690 [▲]
B	1.2483	1.3288	0.6204	0.7672	0.4820	B	1.8177	1.6589	0.5101	0.8496	0.3618
C	1.7880	2.4358	0.8475	0.9357	0.5138	C	1.2039	1.5585	1.2291	0.9133	0.5305
D	2.6281	2.2548	0.8049	0.9147	0.1567	D	1.6843	2.7212	1.8157	1.1329	0.4968
E	2.4225	3.0835	1.1744	0.9518	0.3396	E	1.4695	2.4721 [▲]	2.7521	1.4326	0.2743
F	1.6934	3.2565	1.3562	1.3152	0.7857	F	1.3247	2.2145	2.9907	1.3183	0.0983
G	2.2421	2.7081	1.4097	1.3144	1.0209	G	0.9409 [▲]	2.6007	2.7882	1.0161	0.0679
H	1.8816	2.0450	1.2940	1.4846	1.1881	H	0.7067	2.8257	2.2470	0.8519	0.1769
J	0.9756	2.0395	1.3231	1.9001	2.0193	J	0.3870	2.2203	1.4186	1.1967	1.0809
K	0.8212	1.5666	0.9377	0.0	0.0	K	1.2174	1.8448 [▲]	0.9895	0.0	0.0
L	2.3896	1.7630	1.6559	0.0	0.0	L	1.1442	1.4312	1.2625	0.0	0.0

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
3.1167	2.0783	1.2375	0.6704

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
0.7653	3.4960	2.2008	0.8138

NORMALIZED STRESS INTENSITIES (KSI) FOR T-16 LOAD CASE #7 = M2X

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.1591	0.9864	0.5359	0.4501	0.2285
U	0.7484	1.8281	0.8286	0.5268	0.0343
C	1.6217	2.1444	0.9228	0.2626	0.4052
D	2.7012	2.1430	0.7345	0.5917	0.7320
E	2.9141	2.7253	0.5343	0.6248	1.0657
F	1.0898	2.8230	0.4927	0.9779	1.2292
G	2.6185	2.1054	0.3456	1.1407	1.3404
H	0.4378	1.4396	0.3485	1.1377	1.1273
J	1.4762	1.4020	0.4906	2.2785	1.6983
K	0.6318	0.9414	0.4255	0.0	0.0
L	2.0017	0.5369	1.9604	0.0	0.0

GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.7332	1.4526	0.6036	0.4677	0.0423
B	0.0761	1.4184	1.0930	0.5643	0.1822
C	0.6357	2.7803	1.2829	0.7604	0.2626
D	0.6262	3.1590	1.9651	0.9625	0.3136
E	0.9684	2.6209	2.1447	0.8785	0.6486
F	1.9030	1.8705	2.2188	0.5649	0.6679
G	1.6667	1.8089	2.0301	0.4790	0.6487
H	0.7189	1.6260	1.4367	0.6508	0.3037
J	0.3006	1.3621	0.9950	0.8890	0.7667
K	0.9447	1.1547	1.2060	0.0	0.0
L	1.1076	1.0778	1.2606	0.0	0.0

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 2.8683 GAGE23 1.4447 GAGE34 0.5520 GAGE45 1.5341

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 2.1447 GAGE23 2.7087 GAGE34 1.6318 GAGE45 0.6692

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.1033	0.8741	0.5386	0.3622	0.2711
B	0.2315	1.6832	0.7299	0.5144	0.0234
C	1.3149	2.0531	0.7549	0.5636	0.4019
D	3.1392	2.1089	0.5472	0.6739	0.6428
E	3.2301	2.4524	0.5183	1.0777	0.9857
F	2.4860	2.4798	0.4846	1.0850	1.2678
G	1.5536	1.8457	0.4197	1.1314	1.1541
H	1.5041	1.3390	0.3670	1.1561	1.0410
J	0.6525	1.1813	0.5480	1.7207	1.5739
K	0.5565	0.7404	0.5980	0.0	0.0
L	1.6271	0.5566	2.7161	0.0	0.0

GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.5612	1.6544	0.9748	0.5140	0.0724
B	0.6036	1.4736	0.6417	0.5127	0.2404
C	0.5910	2.5199	1.1525	0.6648	0.3109
D	0.9010	3.6300	1.5785	0.9137	0.4432
E	1.9419	2.9272	1.9958	0.8413	0.4900
F	1.8308	2.0292	2.1055	0.6612	0.6063
G	0.5992 ^A	1.8971	1.8478	0.5548	0.4719
H	0.5263	1.5402	1.2826	0.6442	0.1746
J	0.4798	1.1177	0.9249	0.8775	0.8240
K	1.0735	0.7891 ^A	1.1986	0.0	0.0
L	1.1058	1.1373	1.1550	0.0	0.0

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 2.8683 GAGE23 1.4447 GAGE34 0.6955 GAGE45 0.8036

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 2.1447 GAGE23 2.8395 GAGE34 1.4873 GAGE45 0.6154

NORMALIZED STRESS INTENSITIES (KSI) FOR T-16 LOAD CASE #8 = M2Y

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.3406	0.1838	0.2493	0.1588	0.1256
B	0.3596	0.1395	0.2416	0.1845	0.0312
C	0.5296 ^A	0.1381	0.2832	0.0484	0.0707
D	0.5113	0.2431	0.2930	0.2197	0.1915
E	0.3441	0.5554	0.4130	0.1947	0.3301
F	0.2390	0.6479	0.4564	0.2506	0.4199
G	0.5309	0.6947	0.4216	0.2312	0.4222
H	0.3177	0.6659	0.3632	0.2363	0.3975
J	0.5128	0.6349	0.3154	0.2578	0.4089
K	0.4651	0.4224	0.2300	0.0	0.0
L	1.9410	1.7125	0.6715	0.0	0.0

GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.2401	0.1103	0.1413	0.2120	0.0456
B	0.3816	0.1321	0.2536	0.2255	0.0227
C	0.8386	0.1227	0.3748	0.3422	0.0438
D	1.0586	0.1075	0.4835	0.3561	0.0638
E	0.8795	0.1656	0.4873	0.3051	0.0246
F	0.6798	0.2933	0.4365	0.1839	0.1086
G	0.5545	0.2591	0.3907	0.0987	0.1276
H	0.3619	0.3017	0.2341	0.1418	0.0587
J	0.2718	0.3615	0.0406	0.1837	0.0586
K	0.5925	0.6357	0.2518	0.0	0.0
L	0.2512	0.0433	0.3003	0.0	0.0

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
0.4490	0.6374	0.3176	0.3994

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
0.5518	0.3265	0.4308	0.1443

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.2005	0.0921	0.1989	0.1555	0.0872
B	0.4417	0.1103	0.2415	0.1590	0.0159
C	0.6035	0.1969	0.2925	0.1805	0.0672
D	0.5356	0.2885	0.2997	0.1827	0.2414
E	0.2706	0.6011	0.3487	0.1987	0.3708
F	0.1738	0.6852	0.4149	0.2722	0.3903
G	0.2973	0.7397	0.4098	0.2387	0.4222
H	0.4674	0.6833	0.3892	0.2508	0.3338
J	0.4598	0.5942	0.3040	0.1994	0.3141
K	0.5001	0.4350	0.2219	0.0	0.0
L	1.7743	2.0433	0.8427	0.0	0.0

GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.2814	0.1214	0.1515	0.2131	0.0294
B	0.3593	0.1461	0.2130	0.2202	0.0483
C	0.7960	0.1540	0.4042	0.3310	0.0375
D	1.1428	0.1651	0.5230	0.3715	0.0179
E	0.8000	0.1658	0.5138	0.3131	0.0219
F	0.6444	0.3298	0.4544	0.1987	0.0234
G	0.5369 ^A	0.2794	0.3817	0.1247	0.1044
H	0.3508	0.2995	0.2400	0.1980	0.0817
J	0.3582	0.4087	0.0662	0.1438	0.0413
K	0.6640	0.6868	0.2609	0.0	0.0
L	0.2330	0.2258	0.2081	0.0	0.0

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
0.4471	0.6284	0.2650	0.2425

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
0.6199	0.3353	0.4518	0.2091

NORMALIZED STRESS INTENSITIES (KSI) FOR T-16 LOAD CASE #9 = M22

STRESS INTENSITY ON TOP OUTSIDE SURFACE						STRESS INTENSITY ON TOP INSIDE SURFACE					
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.4901	0.0617	0.5589	0.6488	0.9412	A	0.9453	0.3000	0.2376	0.5697	0.8488
B	1.2463	0.1739	0.6838	0.7554	0.7301	B	1.2894	0.1476	0.5826	0.7087	0.7977
C	1.1707	0.4448	0.6551	0.3164	0.7299	C	2.4322	0.3051	0.7374	0.9018	1.1029
D	1.4752	0.6223	0.6679	0.7707	0.9223	D	2.4654	0.5796	0.8309	0.9976	1.1309
E	0.9626	1.0803	0.9405	0.8230	0.9003	E	1.6670	0.9782	0.6981	0.9465	1.0636
F	0.5885	1.1820	0.9802	0.7547	0.6007	F	0.7026	1.1307	0.5505	0.7547	0.6102
G	0.4361	1.1725	0.9414	0.7136	0.3735	G	0.8545	0.7549	0.5554	0.4398	0.3190
H	0.9323	1.1193	0.9387	0.6110	0.4991	H	1.0026	0.5233	0.4690	0.5753	0.4552
J	0.9703	0.9596	0.8903	0.7807	0.3402	J	1.0225	0.5455	0.2848	0.6062	0.6938
K	0.7771	0.7499	0.8680	0.0	0.0	K	0.7468	0.9672	0.5046	0.0	0.0
L	1.3158	2.7061	1.8472	0.0	0.0	L	0.4865	0.3911	0.1865	0.0	0.0

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 1.0148 GAGE23 1.2112 GAGE34 0.8437 GAGE45 0.8969

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 1.2723 GAGE23 0.4497 GAGE34 0.7580 GAGE45 1.0021

STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE						STRESS INTENSITY ON BOTTOM INSIDE SURFACE					
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.7926	0.1416	0.4759	0.6936	1.0256	A	1.2960	0.4609	0.2537 ^A	0.4537	0.8814
B	1.3449	0.1454	0.6287	0.7504	0.7524	B	1.2451	0.1968	0.4745	0.6845	0.7834
C	1.0708	0.2719	0.7742	0.6395	0.7901	C	2.2175	0.2612	0.7993	0.8949	0.8905
D	1.4490	0.7672	0.7014	0.8112	0.9920	D	2.6670	0.5093	0.8315	1.0512	0.9662
E	0.8582	1.2025	0.8623	0.9806	0.8738	E	1.4363	1.0533	0.7409	1.0089	0.8246
F	1.7651	1.3723	0.9971	0.7005	0.7234	F	0.6421	1.1629	0.6150	0.9140	0.6216
G	0.5659	1.2700	0.9924	0.6064	0.5551	G	0.7821 ^A	0.7847	0.5127	0.5542	0.3146
H	0.8176	1.0919	0.9648	0.5005	0.5776	H	1.0085	0.4876	0.3349	0.5295	0.4767
J	0.8226	0.9750	0.9341	0.7060	0.3805	J	0.8339	0.7058	0.1445	0.4412	0.7348
K	0.7795	0.7556	0.8633	0.0	0.0	K	0.6628	1.0824	0.4647	0.0	0.0
L	1.2324	3.1915	2.1756	0.0	0.0	L	0.3794	0.4760	0.2098	0.0	0.0

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 0.8945 GAGE23 1.3496 GAGE34 0.8270 GAGE45 0.9521

INTENSITIES AT CROTCH LINE GAGES
 GAGE12 1.5173 GAGE23 0.3242 GAGE34 0.9202 GAGE45 1.0757

NORMALIZED STRESS INTENSITIES (KSI) FOR T-16 LOAD CASE #10= F2X

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE					GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5		ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.6512	0.2028	0.5843	0.9605	1.0664	A	1.3915	0.3235	0.3925	0.7234	1.1514
B	1.7630	0.1168	0.8753	1.0280	0.9182	B	1.8477	0.1984	0.8367	0.9954	1.0394
C	2.3446	0.4471	0.8460	0.6976	0.7034	C	3.4877	0.2570	1.1864	1.2224	1.2551
D	2.1844	0.8325	0.7527	1.1320	1.0018	D	3.6854	0.6120	1.4214	1.4339	1.2800
E	1.5375	1.7104	1.3009	1.0716	0.9199	E	2.6307	1.1638	1.1898	1.3679	1.0151
F	0.7411	1.8683	1.3814	0.9895	0.5931	F	1.4695	1.5283	0.9924	1.1037	0.5957
G	0.7971	1.7419	1.3570	0.6751	0.2871	G	1.4293	1.1022	0.8827	0.6527	0.4654
H	1.2612	1.6422	1.2762	0.6205	0.3453	H	1.3887	0.6401	0.6697	0.7830	0.5387
J	1.4336	1.4317	1.2240	0.6897	0.6313	J	1.1833	0.8984	0.3323	0.6540	0.6410
K	1.3567	1.1664	1.0750	0.0	0.0	K	1.1951	1.7302	0.5658	0.0	0.0
L	3.6127	4.5136	2.5270	0.0	0.0	L	0.5308	0.4013	0.2928	0.0	0.0

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
1.3222	2.0780	1.0094	0.9568

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
1.7931	0.5486	1.2749	1.2845

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5		ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	1.0080	0.1659	0.6190	0.8490	1.1910	A	1.8204	0.4337	0.3990	0.6101	1.1683
B	1.7378	0.1717	0.8132	0.9519	0.8769	B	1.7492	0.3615	0.6787	0.9064	1.1902
C	2.2817	0.4587	0.8821	0.9526	0.8241	C	3.0495	0.3971	1.1580	1.1082	1.2305
D	2.0903	1.0966	0.8496	1.0261	0.9839	D	3.8486	0.5413	1.2377	1.3202	1.2126
E	1.2536	1.7680	1.1874	1.1382	0.9241	E	2.2757	1.1890	1.2367	1.2565	1.0442
F	0.5736	2.0909	1.1980	0.7822	0.5932	F	1.3661	1.4745	0.9883	1.1533	0.6667 ^A
G	0.7860	1.9637	1.3744	0.6207	0.3466	G	1.4493 ^A	0.9783	0.8247	0.7411	0.4280
H	1.2843	1.6872	1.3851	0.5685	0.4834	H	1.4027	0.8507	0.5280	0.6810	0.5375
J	1.4645	1.4220	1.1400	0.5633	0.6562	J	1.2462	1.0390	0.4029	0.6738	0.7070
K	1.4175	1.1402	0.9697	0.0	0.0	K	1.1805	1.7474	0.6305	0.0	0.0
L	3.1379	5.0821	2.8498	0.0	0.0	L	0.5613	0.6626	0.3434	0.0	0.0

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
1.3314	1.8763	0.9413	0.9838

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
2.1865	0.4317	1.2187	3.3801

NORMALIZED STRESS INTENSITIES (KSI) FOR T-16 LOAD CASE #11= F2Y

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.4422	0.1078	0.4739	0.7520	0.7945
B	1.2761	0.1546	0.6127	0.8276	0.7481
C	1.2058	0.4318	0.8389	0.3780	0.5755
D	1.4336	0.5978	0.8221	0.9885	0.8043
E	0.9479	1.0791	0.8711	0.9137	0.8711
F	0.6154	1.3051	0.8893	0.8038	0.5064
G	0.4623	1.3520	0.9068	0.6613	0.3264
H	0.7872	1.0735	0.8407	0.5851	0.4629
J	0.9172	0.9401	0.8206	0.6396	0.3074
K	0.8253	0.7375	0.7839	0.0	0.0
L	1.3914	2.6026	1.7661	0.0	0.0

GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	1.1684	0.4617	0.2413	0.4381	0.8620
B	1.4119	0.2130	0.5941	0.6836	0.7770
C	2.6367	0.2885	0.7608	0.8273	1.0355
D	2.5544	0.5257	0.8749	0.9375	1.0594
E	1.7207	0.8351	0.7166	0.9572	0.8742
F	0.6973	1.3143	0.5842	0.7933	0.5410
G	0.8309	0.7356	0.5097	0.5056	0.2913
H	1.0202	0.4911	0.4356	0.5596	0.4056
J	0.9912	0.5903	0.2356	0.5908	0.6155
K	0.7170	0.9633	0.4885	0.0	0.0
L	0.3922	0.4787	0.1705	0.0	0.0

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
0.8555	1.2885	0.8133	0.9037

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
1.1514	0.4153	0.8185	0.9332

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.9194	0.2110	0.5092	0.7972	0.9294
B	1.3031	0.3221	0.6462	0.8230	0.6995
C	1.0795	0.1875	0.7313	0.8254	0.7215
D	1.3846	0.7875	0.6780	0.9370	0.8943
E	0.9993	1.2341	0.9448	1.0428	0.7710
F	1.7667	1.2974	1.0032	0.8023	0.5503
G	0.5378	1.2738	1.0369	0.6663	0.3962
H	0.7152	1.0289	1.2227	0.5891	0.5374
J	0.8024	0.8995	1.0519	0.8271	0.4469
K	0.7746	0.7501	0.9951	0.0	0.0
L	1.2243	3.3646	2.5850	0.0	0.0

GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	1.3022	0.4126	0.2413	0.4568	1.0201
B	1.2412	0.1659	0.4347	0.6265	0.9730
C	2.2227	0.1845	0.8030	0.9457	1.0196
D	2.6877	0.6447	0.8433	1.0280	1.1091
E	1.4613	1.3430	0.7078	0.9511	0.9802
F	0.6989	1.4626	0.4904	0.7895	0.7801 ^A
G	0.7497	1.0690	0.4132	0.4821	0.3911
H	1.1057	0.6248	0.3286	0.5157	0.5501
J	0.9551	0.6822	0.2177	0.4311 ^A	0.8646
K	0.7950	1.0596	0.5618	0.0	0.0
L	0.4568	0.5581	0.2992	0.0	0.0

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
0.9121	1.2128	0.7921	0.9065

INTENSITIES AT CROTCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
1.6449	0.5169	0.6983	0.9968

NORMALIZED STRESS INTENSITIES (KSI) FOR T-16 LOAD CASE #12= F2Z

STRESS INTENSITY ON TOP OUTSIDE SURFACE					STRESS INTENSITY ON TOP INSIDE SURFACE						
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.2611	0.2341	0.0563	0.0352	0.0065	A	0.3711	0.4321	0.0443	0.0586	0.0215
B	0.4368	0.4428	0.0254	0.0878	0.0230	B	0.4446	0.4032	0.0648	0.0658	0.0122
C	0.4055	0.5066	0.0475	0.0279	0.0461	C	0.9265	0.7413	0.1010	0.1025	0.0247
D	0.8397	0.4403	0.1011	0.0720	0.0731	D	1.0602	0.8831	0.1338	0.0772	0.0517
E	0.7701	0.3321	0.2592	0.1151	0.0124	E	0.8013	0.8099	0.2334	0.0430	0.1750
F	0.5355	0.3022	0.2766	0.1499	0.0074	F	0.9504	0.7034	0.2358	0.0305	0.0616
G	0.3480	0.2837	0.3085	0.1605	0.0374	G	0.7078	0.5692	0.2286	0.0773	0.0737
H	0.2315	0.3830	0.2909	0.1967	0.0760	H	0.3535	0.4206	0.1905	0.1517	0.0142
J	0.2256	0.3624	0.2999	0.4892	0.3820	J	0.2227	0.3280	0.2661	0.2446	0.2209
K	0.3240	0.3397	0.2506	0.0	0.0	K	0.3154	0.5125	0.3510	0.0	0.0
L	1.0201	1.2405	1.0190	0.0	0.0	L	0.2024	0.2040	0.2371	0.0	0.0

INTENSITIES AT CRITCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
0.5161	0.2597	0.2043	0.0450

INTENSITIES AT CRITCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
0.7549	0.5106	0.1299	0.1028

STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE					STRESS INTENSITY ON BOTTOM INSIDE SURFACE						
GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	GAGE DEF.	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.1746	0.3091	0.3531	0.2890	0.2091	A	0.2983	0.4330	0.2421	0.4037	0.0430
B	0.4319	0.5844	0.4613	0.3372	0.0450	B	0.3804	0.4264	0.4307	0.3878	0.0659
C	0.7317	0.7815	0.5291	0.3245	0.1239	C	0.8155	0.8616	0.7566	0.5987	0.0796
D	0.9555	0.9123	0.4516	0.4200	0.4025	D	1.1071	1.1698	1.0278	0.6930	0.0848
E	0.8494	1.3061	0.4819	0.4749	0.6631	E	1.0289	0.7753	1.1266	0.6248	0.0792
F	0.5754	1.3991	0.5430	0.5187	0.7984	F	0.8816	0.4520	1.0890	0.3989	0.0388
G	0.8034	1.3104	0.4699	0.6301	0.8566	G	0.5487 ^A	0.5923	0.9500	0.3317	0.2591
H	0.8312	1.0854	0.3630	0.5495	0.7024	H	0.5414	0.6115	0.5882	0.5170	0.1185
J	0.7132	0.9446	0.3259	0.6358	0.8967	J	0.4544	0.6298	0.2368	0.3722	0.3501
K	0.7308	0.6817	0.2465	0.0	0.0	K	1.0025	0.8755 ^A	0.3409	0.0	0.0
L	2.5222	2.4369	0.4018	0.0	0.0	L	0.3657	0.3686	0.4042	0.0	0.0

INTENSITIES AT CRITCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
1.2427	0.9501	0.4267	0.5011

INTENSITIES AT CRITCH LINE GAGES

GAGE12	GAGE23	GAGE34	GAGE45
0.7092	1.0823	0.9182	0.5300

NORMALIZED STRESS INTENSITIES (KSI) FOR T-16 LOAD CASE #13=PRES

GAGE DEF.	STRESS INTENSITY ON TOP OUTSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	1.4150	0.8194	0.5664	0.5980	0.5406
B	1.4428	0.8610	0.4076	0.3891	0.3911
C	1.2458	1.0206	0.4347	0.4137	0.5606
D	1.1461	0.9984	0.4142	0.6814	0.6540
E	1.3994	1.0563	0.5183	0.9576	0.9780
F	0.7021	1.2565	0.5320	0.6939	0.7473
G	0.9169	1.1162	0.5648	0.6315	0.6261
H	1.1903	1.0634	0.6100	0.5888	0.6888
J	1.1405	0.7989	0.6595	1.1011	1.7601
K	0.9941	0.6610	0.6847	0.0	0.0
L	1.1363	0.9490	0.6199	0.0	0.0

GAGE DEF.	STRESS INTENSITY ON TOP INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	1.2713	1.1285 [▲]	1.1647	1.0821	1.6409
B	0.5521 [▲]	0.8571	1.1677	1.1891	1.7856
C	0.8458	0.5303	1.2432	1.5511	2.0200
D	0.4361	0.2379	1.4309	1.6998	2.3454
E	0.2349	0.4380	1.2568	1.7068	2.2834
F	0.3598	0.7734	1.0956	1.6197	1.8926
G	0.3612	0.5048	1.2129	1.3788	1.5933
H	0.6403	0.0466	1.1825	1.1771	1.1546 [▲]
J	0.8028	0.4951	1.0345	0.9355	0.6872 [▲]
K	0.3848	0.8008	0.8991	0.0	0.0
L	0.7333	1.2138	0.8027	0.0	0.0

INTENSITIES AT CROTCH LINE GAGES			
GAGE12	GAGE23	GAGE34	GAGE45
1.3869	0.8836	0.7136	0.6592

INTENSITIES AT CROTCH LINE GAGES			
GAGE12	GAGE23	GAGE34	GAGE45
0.8928	0.2477	1.4856	1.8460

GAGE DEF.	STRESS INTENSITY ON BOTTOM OUTSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	1.7798	1.0677	0.9121	0.8542	0.5919
B	1.6503	0.7353	0.3780	0.4992	0.4092
C	1.4651	0.8184	0.4143	0.5831	0.6401
D	1.3833	0.6986	0.4791	0.7350	0.9631
E	1.3683	0.9715	0.5746	0.7180	0.9735
F	0.8565	1.0980	0.5698	0.7273	0.7455
G	0.9455	0.9999	0.5470	0.5351	0.5323
H	1.1079	0.9166	0.5174	0.4262	0.4895
J	1.0041	0.7338	0.5398	1.4519	1.9352
K	0.7808	0.6876	0.6617	0.0	0.0
L	0.8417	1.1222	0.8175	0.0	0.0

GAGE DEF.	STRESS INTENSITY ON BOTTOM INSIDE SURFACE				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5
A	0.6942	1.0147	1.1947	1.1486	2.1042 [▲]
B	0.1072	0.9795	1.1033	1.1869	1.7648
C	0.6173	0.9953	1.1721	1.5483	1.7474
D	0.5875	0.6544	1.5355	1.8623	1.9545
E	0.1517	0.2758	1.3265	1.8526	2.0477
F	0.4913 [▲]	0.3970	1.2590	1.8551	2.0205
G	0.5903 [▲]	0.2799	1.1667 [▲]	1.5671	1.7106
H	0.6890	0.2410	1.0761	1.1800	1.4435
J	0.5825	0.5386	0.8860	1.1310	1.3483
K	0.3474	0.7153 [▲]	0.8902	0.0	0.0
L	0.6920	0.9915	0.8329	0.0	0.0

INTENSITIES AT CROTCH LINE GAGES			
GAGE12	GAGE23	GAGE34	GAGE45
0.3423	0.2006	0.1738	0.5427

INTENSITIES AT CROTCH LINE GAGES			
GAGE12	GAGE23	GAGE34	GAGE45
0.5978	0.7125	1.3248	0.8392

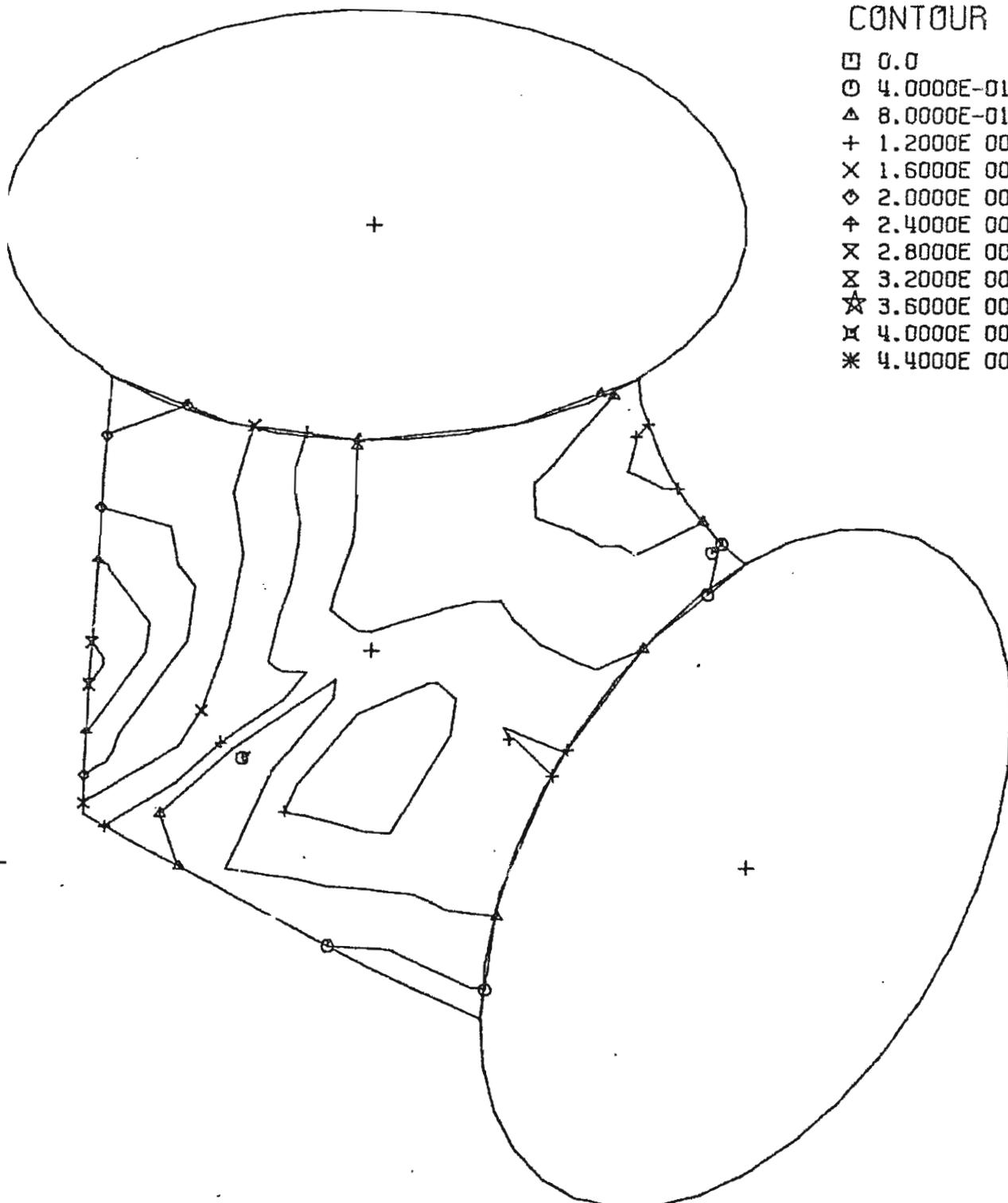
APPENDIX VII
STRESS INTENSITY PLOTS

C.E. B16.9 T-10, M3X

Top Outside Surface

CONTOUR VALUES

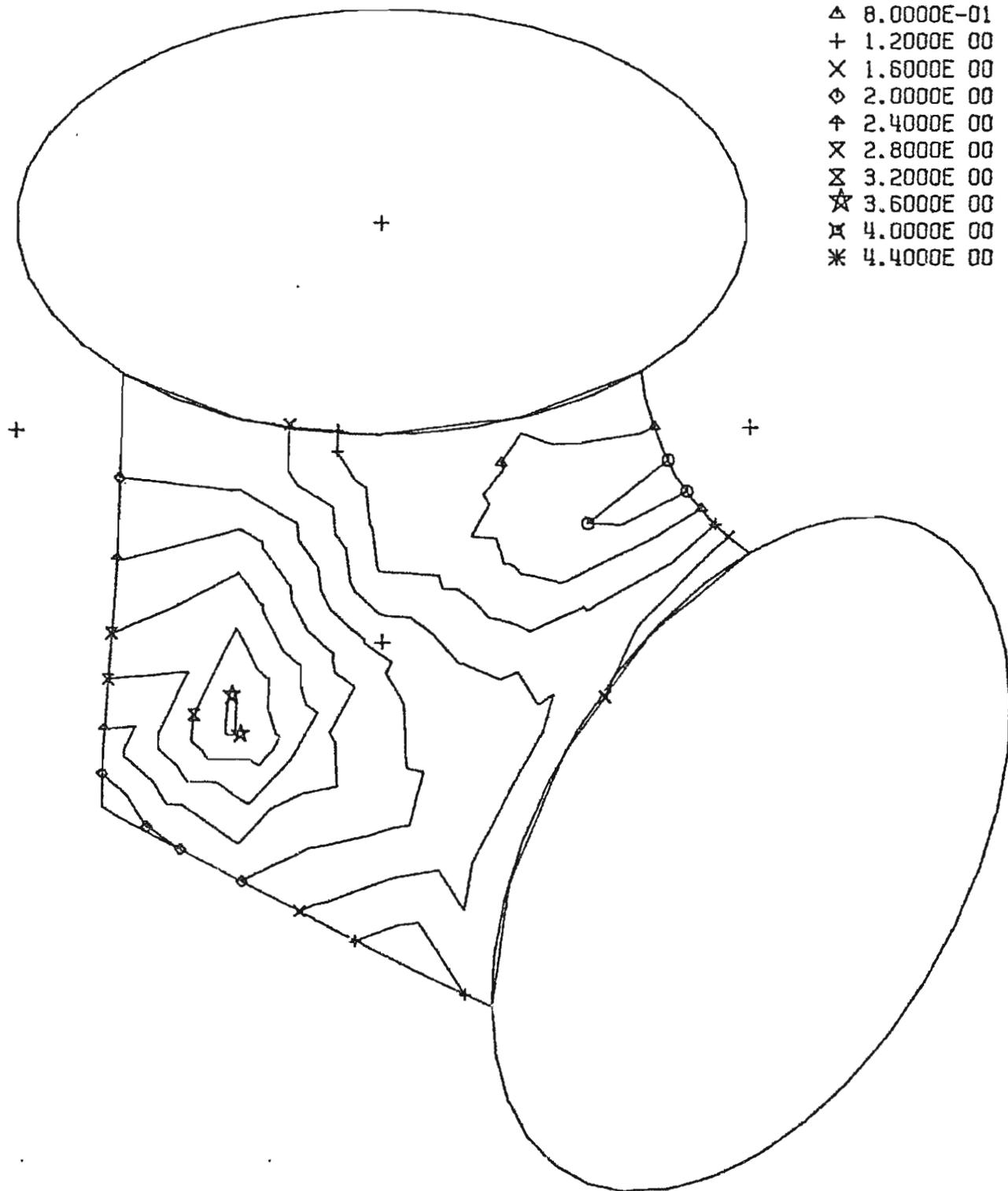
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- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⊕ 2.4000E 00
- ⊗ 2.8000E 00
- ⊘ 3.2000E 00
- ☆ 3.6000E 00
- ⊠ 4.0000E 00
- * 4.4000E 00



C.E. B16.9 T-10, M3X
Bottom Outside Surface

CONTOUR VALUES

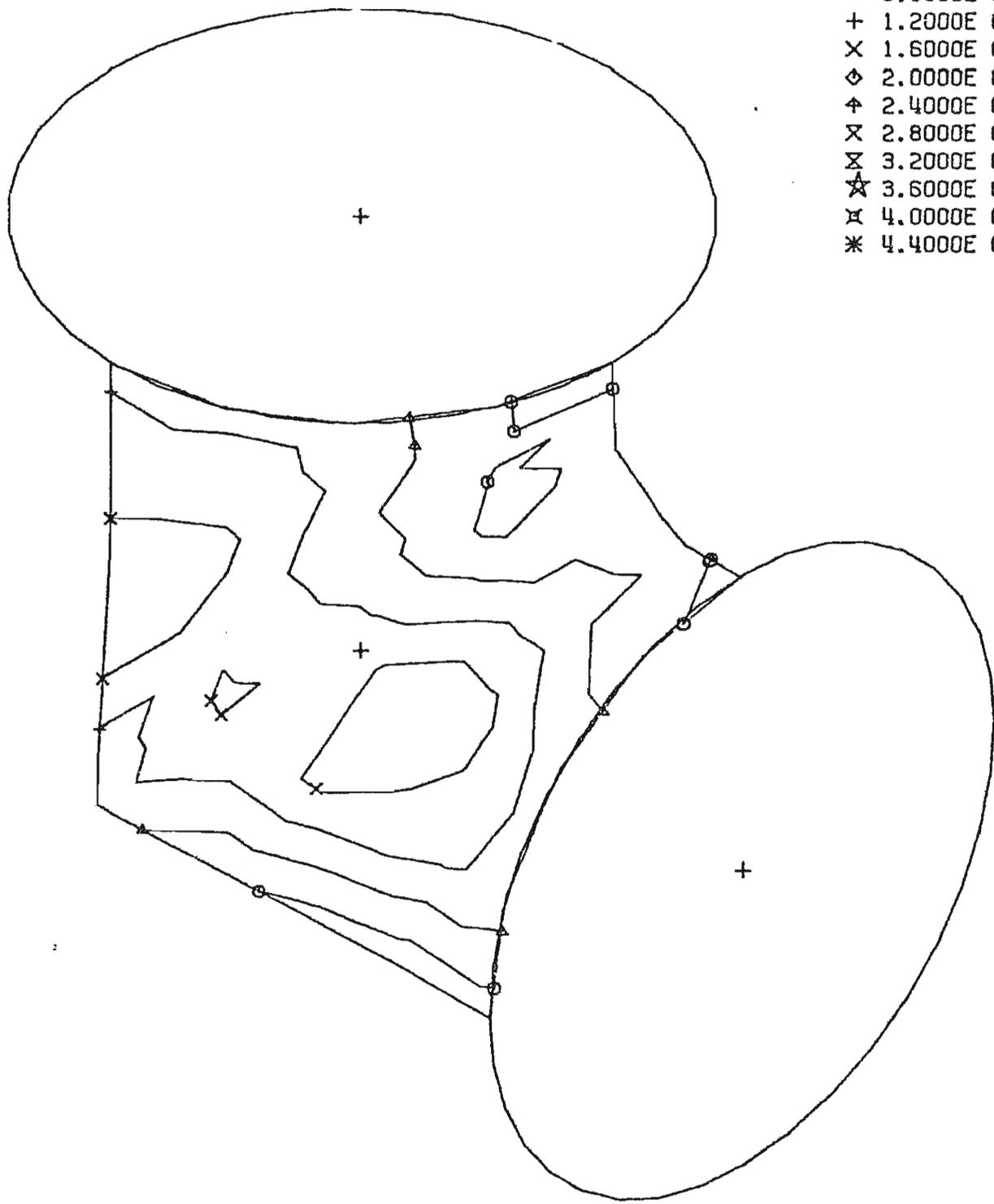
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- ⊕ 2.4000E 00
- ⊗ 2.8000E 00
- ⊘ 3.2000E 00
- ☆ 3.6000E 00
- ⊗ 4.0000E 00
- ✱ 4.4000E 00



C.E. B16.9 T-13, M3X
Top Inside Surface

CONTOUR VALUES

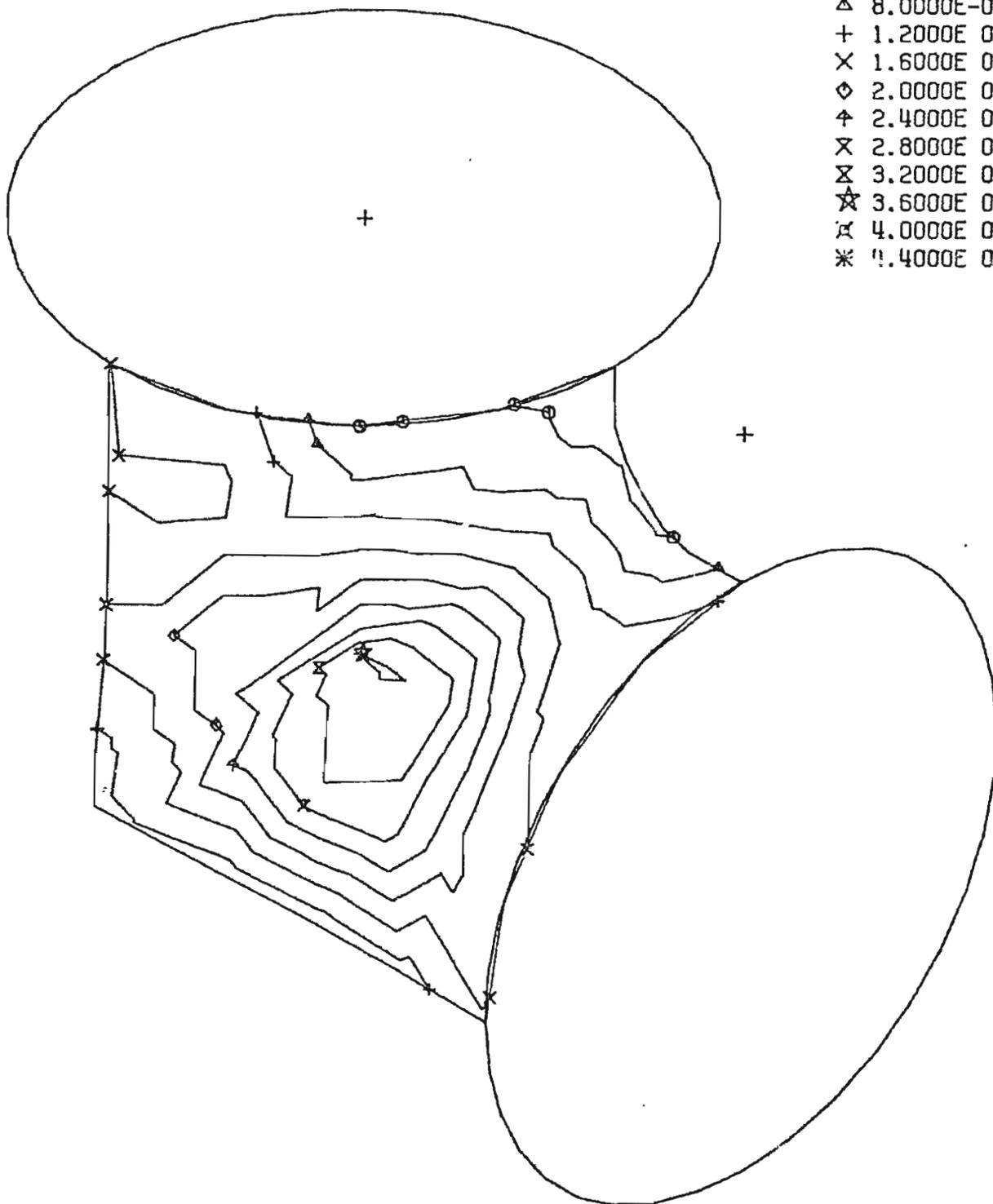
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- × 1.6000E 00
- ◇ 2.0000E 00
- ⋈ 2.4000E 00
- ⋈ 2.8000E 00
- ⋈ 3.2000E 00
- ☆ 3.6000E 00
- ⋈ 4.0000E 00
- * 4.4000E 00



C.E. B16.9 T-10, M3X
Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⋈ 2.4000E 00
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- ⊘ 3.2000E 00
- ☆ 3.6000E 00
- ⊚ 4.0000E 00
- * 4.4000E 00

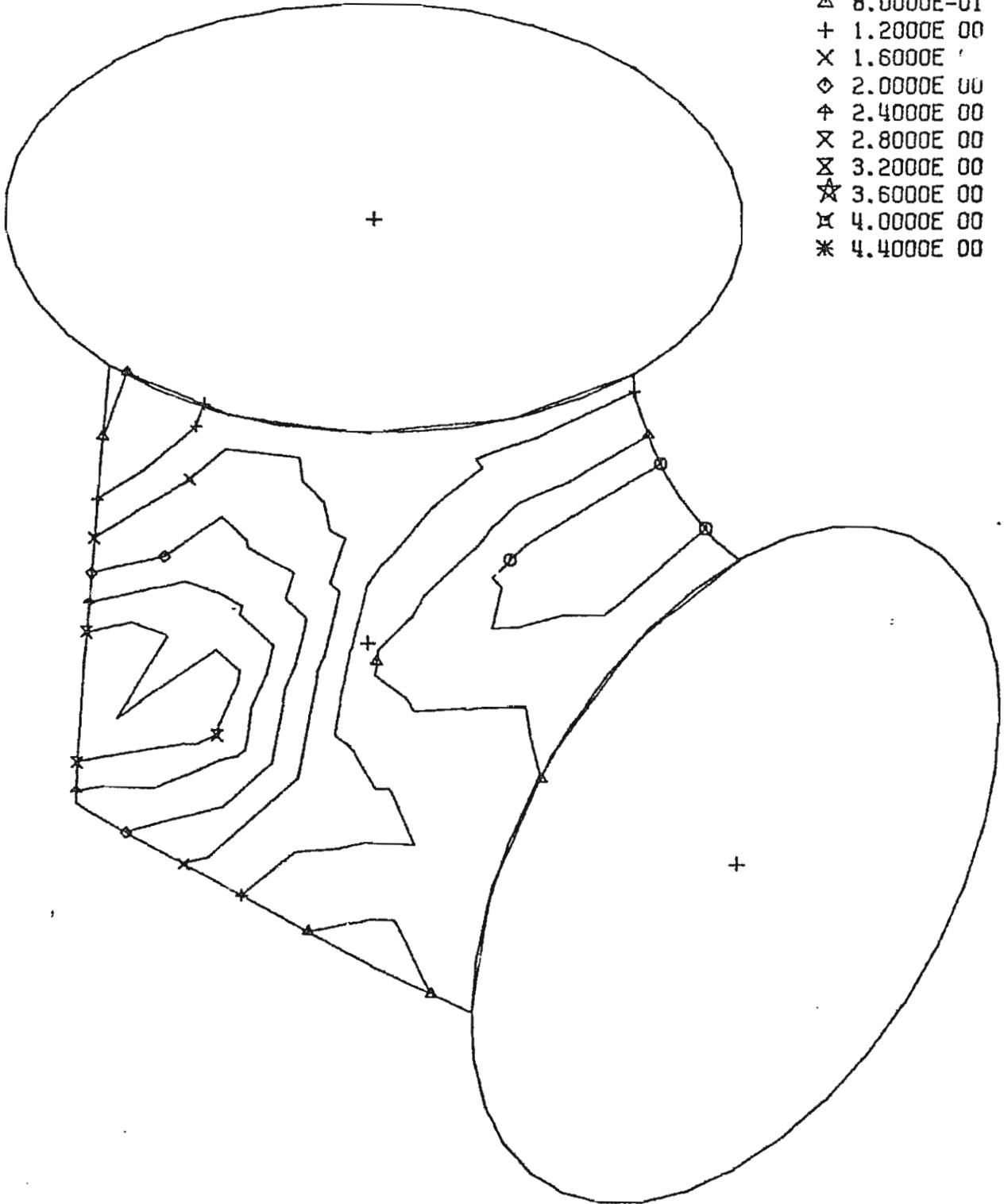


C.E. B16.9 T-10, M3Y

Top Outside Surface

CONTOUR VALUES

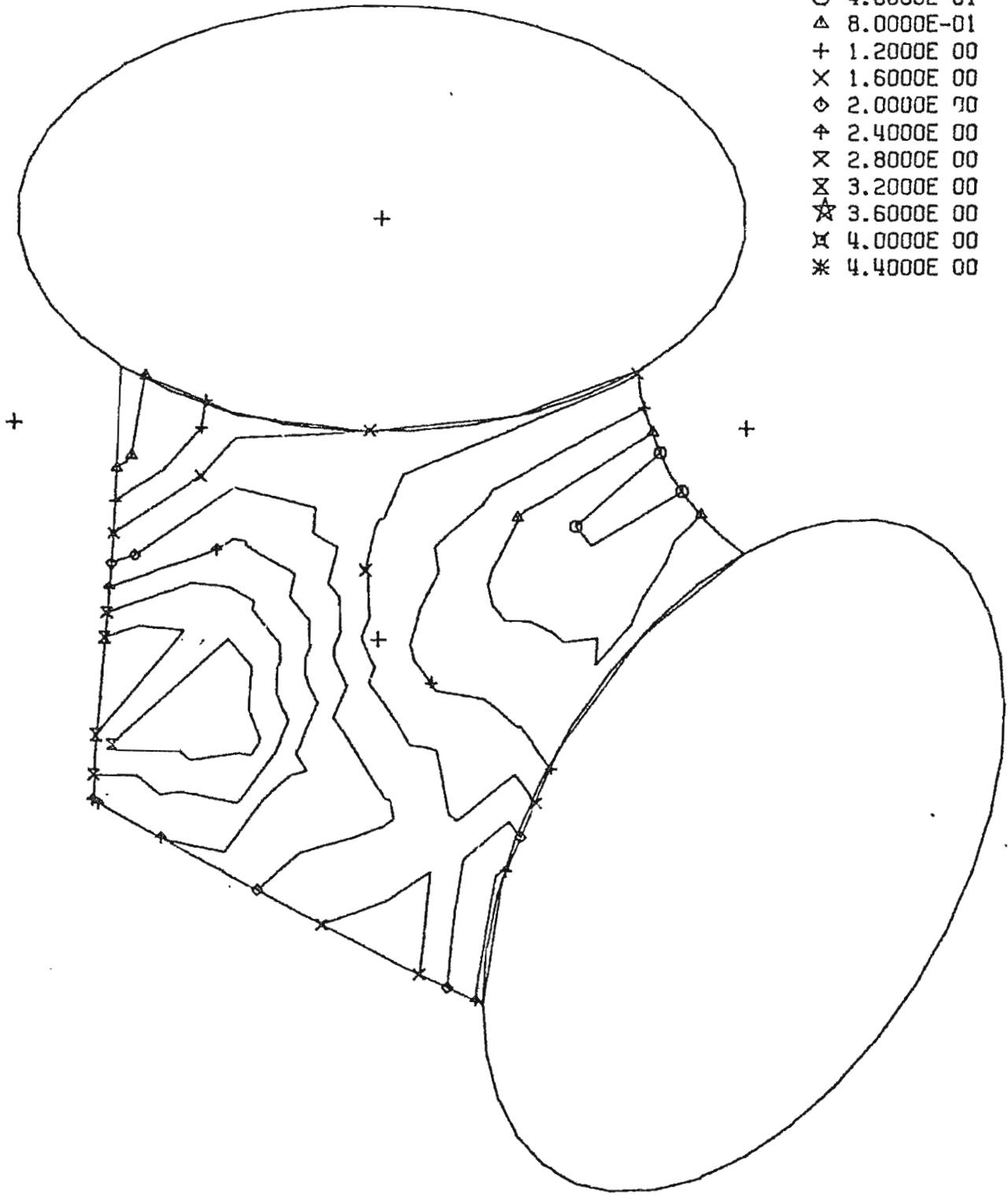
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- × 1.6000E 00
- ◇ 2.0000E 00
- ⋈ 2.4000E 00
- ⋈ 2.8000E 00
- ⋈ 3.2000E 00
- ☆ 3.6000E 00
- ⋈ 4.0000E 00
- * 4.4000E 00



C.E. B16.9 T-10, M3Y
Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⊕ 2.4000E 00
- ⊗ 2.8000E 00
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- ☆ 3.6000E 00
- ⊚ 4.0000E 00
- ※ 4.4000E 00

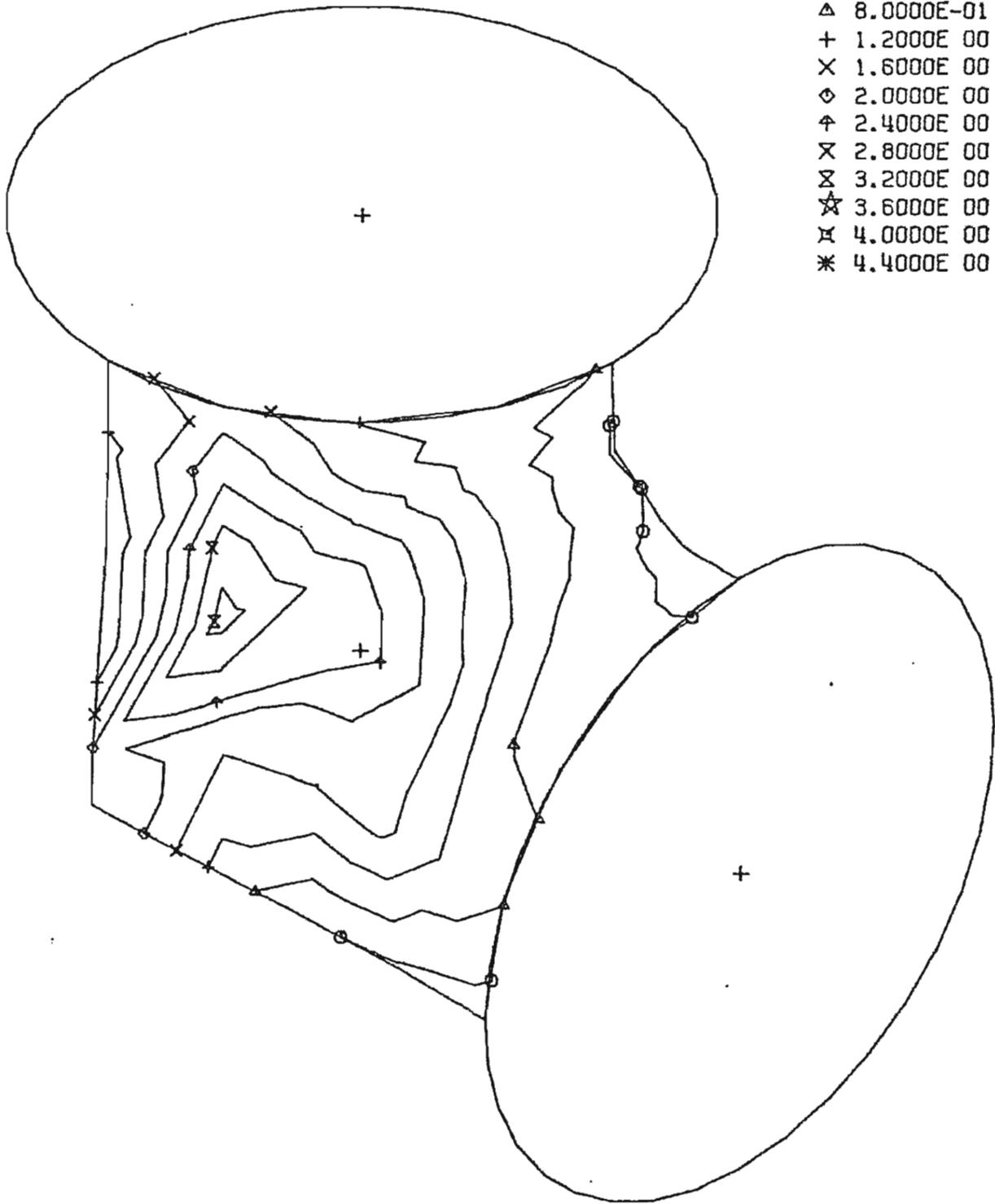


C.E. B16.9 T-10, M3Y

Top Inside Surface

CONTOUR VALUES

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- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⊕ 2.4000E 00
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- ⊘ 3.2000E 00
- ☆ 3.6000E 00
- ⊗ 4.0000E 00
- * 4.4000E 00

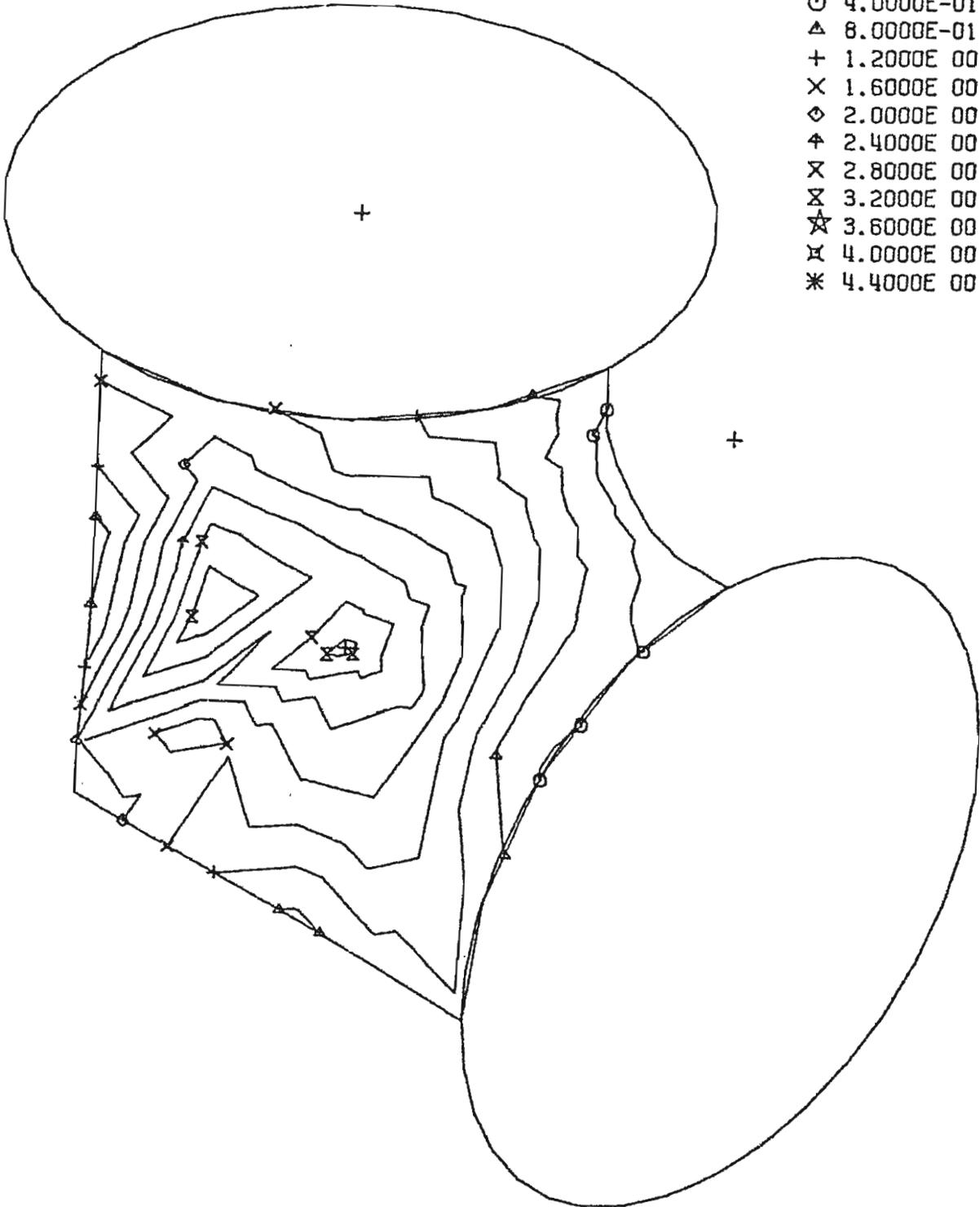


C.E. B16.9 T-10, M3Y

Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⋈ 2.4000E 00
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- ⊠ 3.2000E 00
- ☆ 3.6000E 00
- ⊞ 4.0000E 00
- * 4.4000E 00

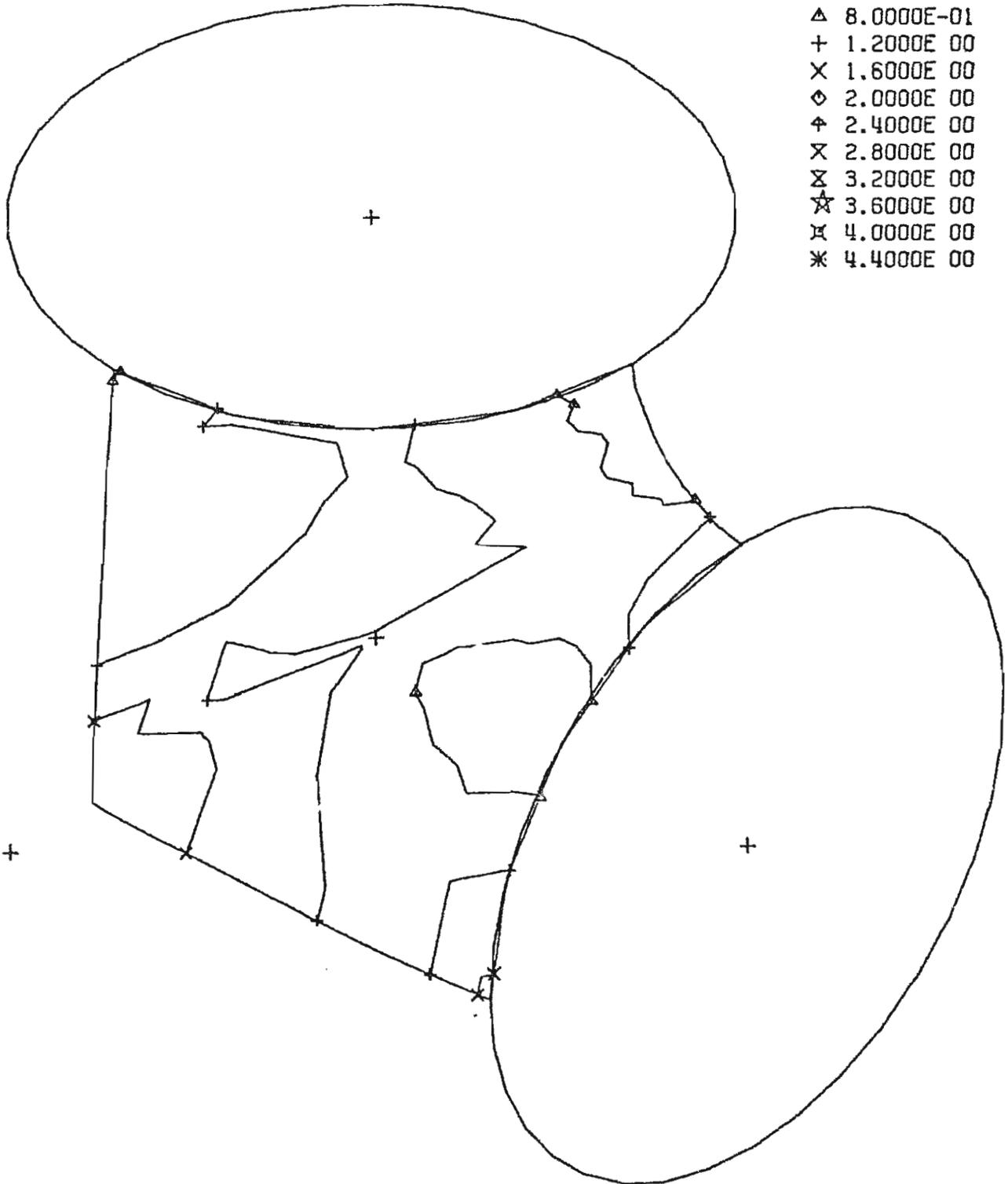


C.E. B16.9 T-10, M3Z

Top Outside Surface

CONTOUR VALUES

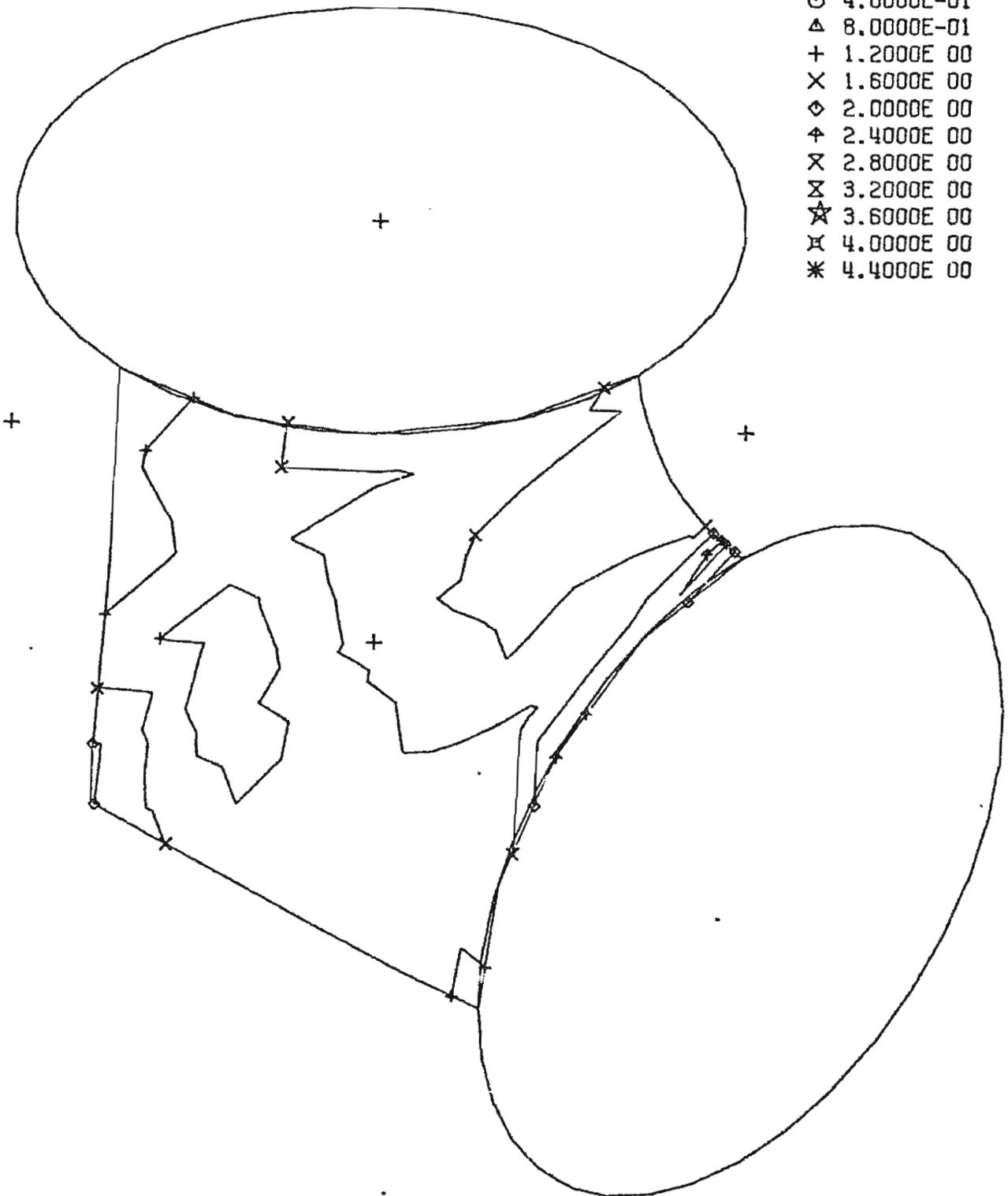
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- × 1.6000E 00
- ◇ 2.0000E 00
- ⋈ 2.4000E 00
- ⋈ 2.8000E 00
- ⋈ 3.2000E 00
- ☆ 3.6000E 00
- ⋈ 4.0000E 00
- * 4.4000E 00



C.E. B16.9 T-10, M3Z
Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⊕ 2.4000E 00
- ⊗ 2.8000E 00
- ⊘ 3.2000E 00
- ☆ 3.6000E 00
- ⊚ 4.0000E 00
- * 4.4000E 00

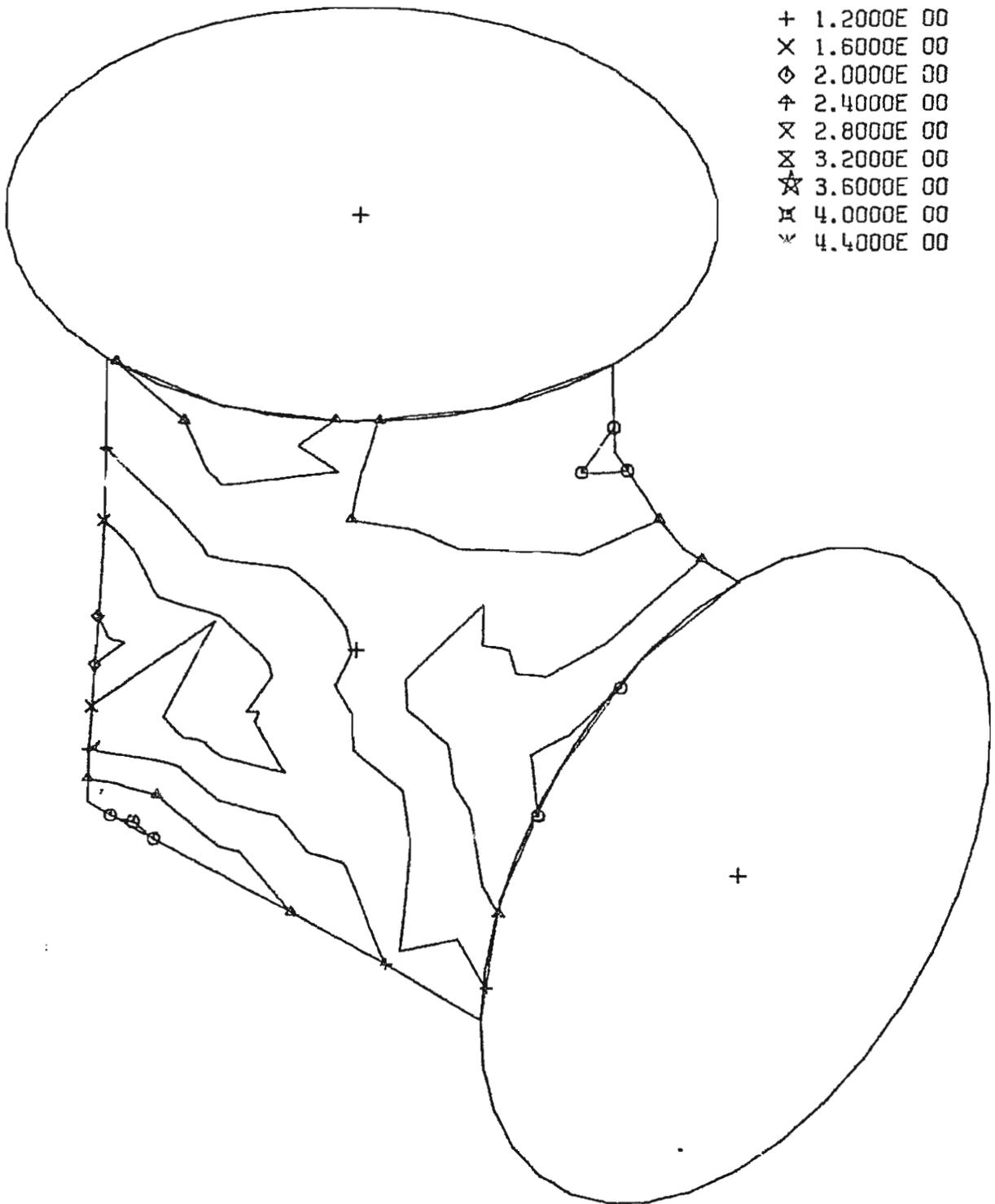


C.E. B16.9 T-10, M3Z

Top Inside Surface

CONTOUR VALUES

- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- † 2.4000E 00
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- ⊗ 3.2000E 00
- ☆ 3.6000E 00
- ⊗ 4.0000E 00
- ∨ 4.4000E 00



+

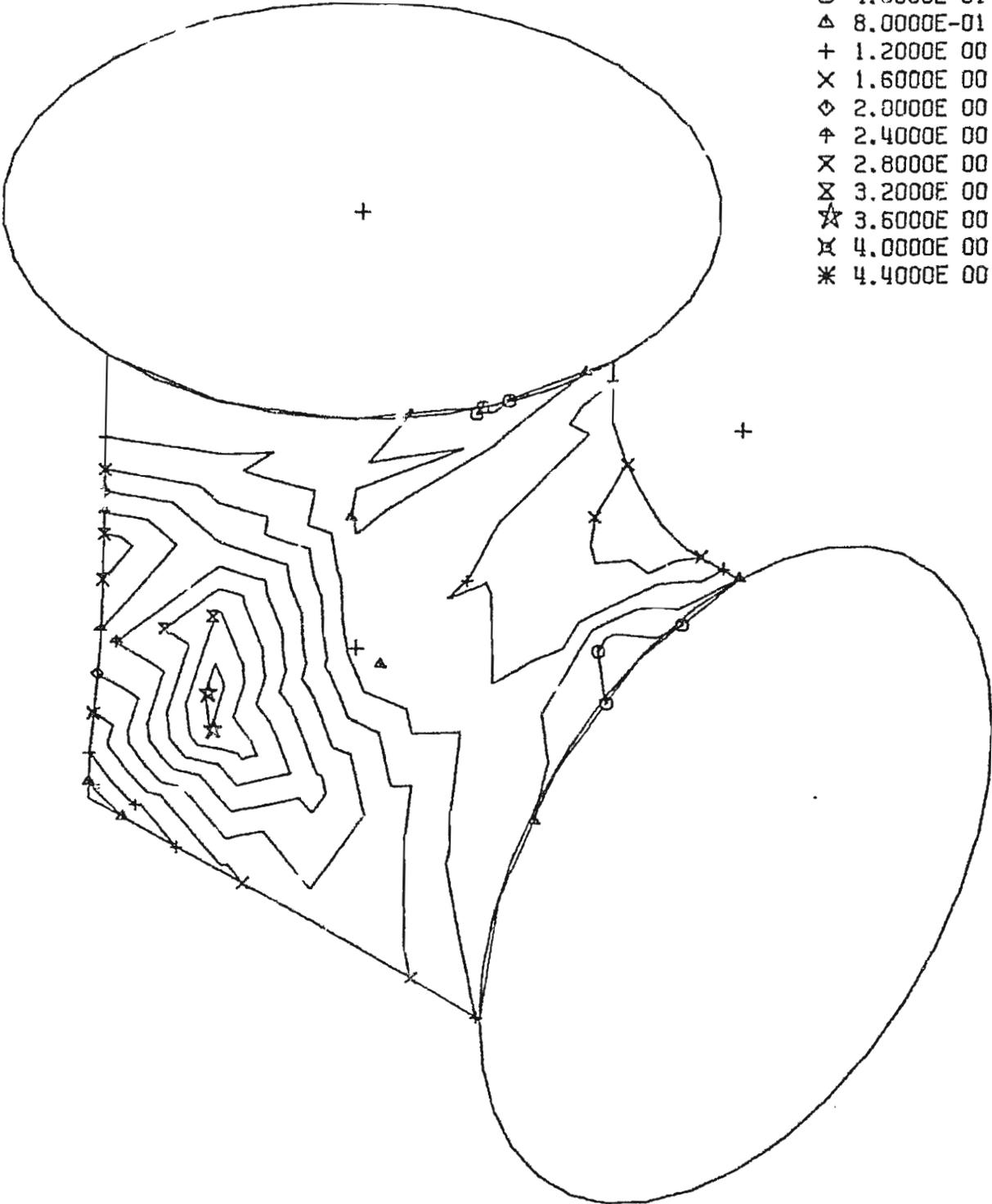
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C.E. B16,9 T-10, M3Z

Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⋈ 2.4000E 00
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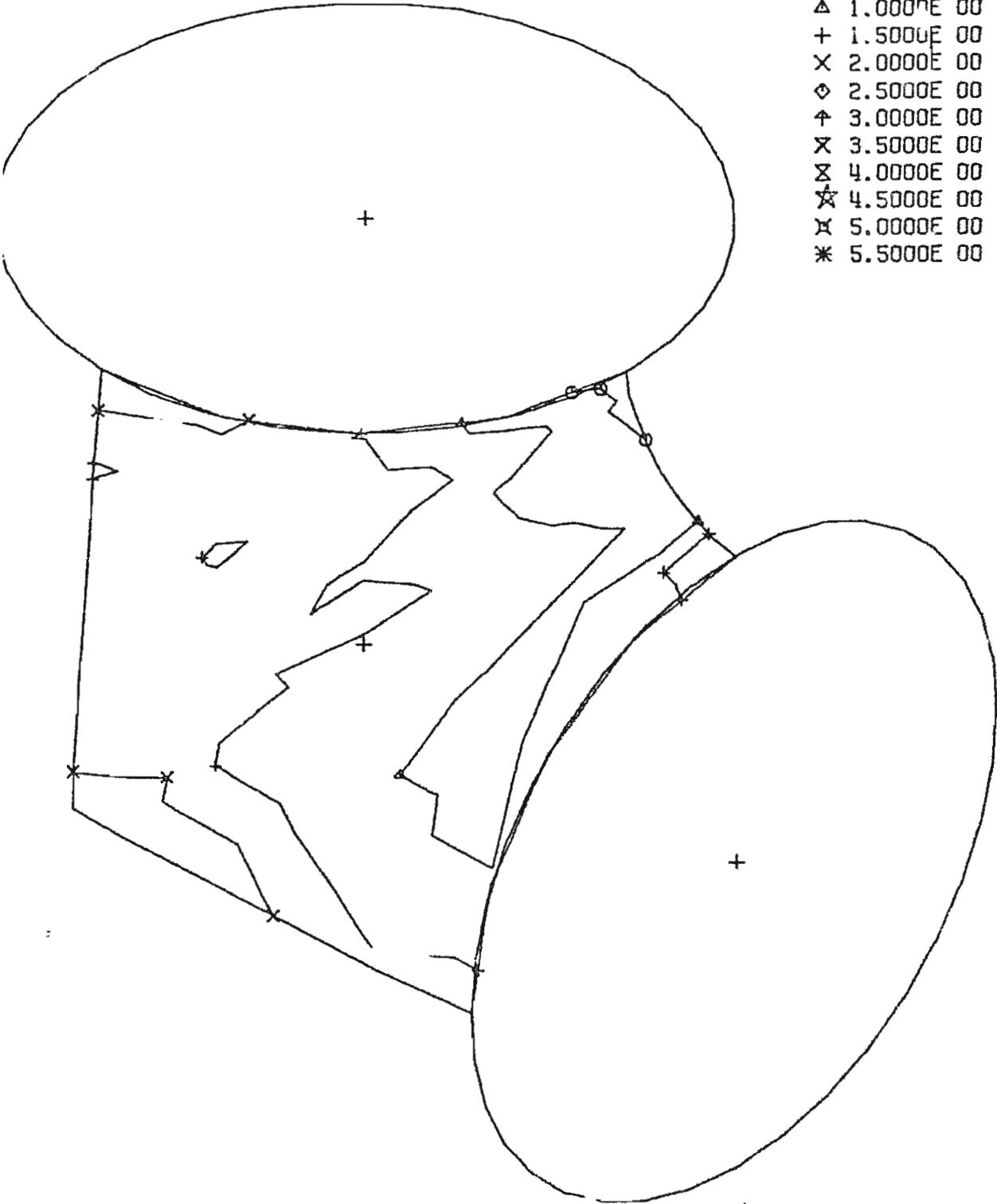


C.E. B16.9 T-10, F3Y

Top Outside Surface

CONTOUR VALUES

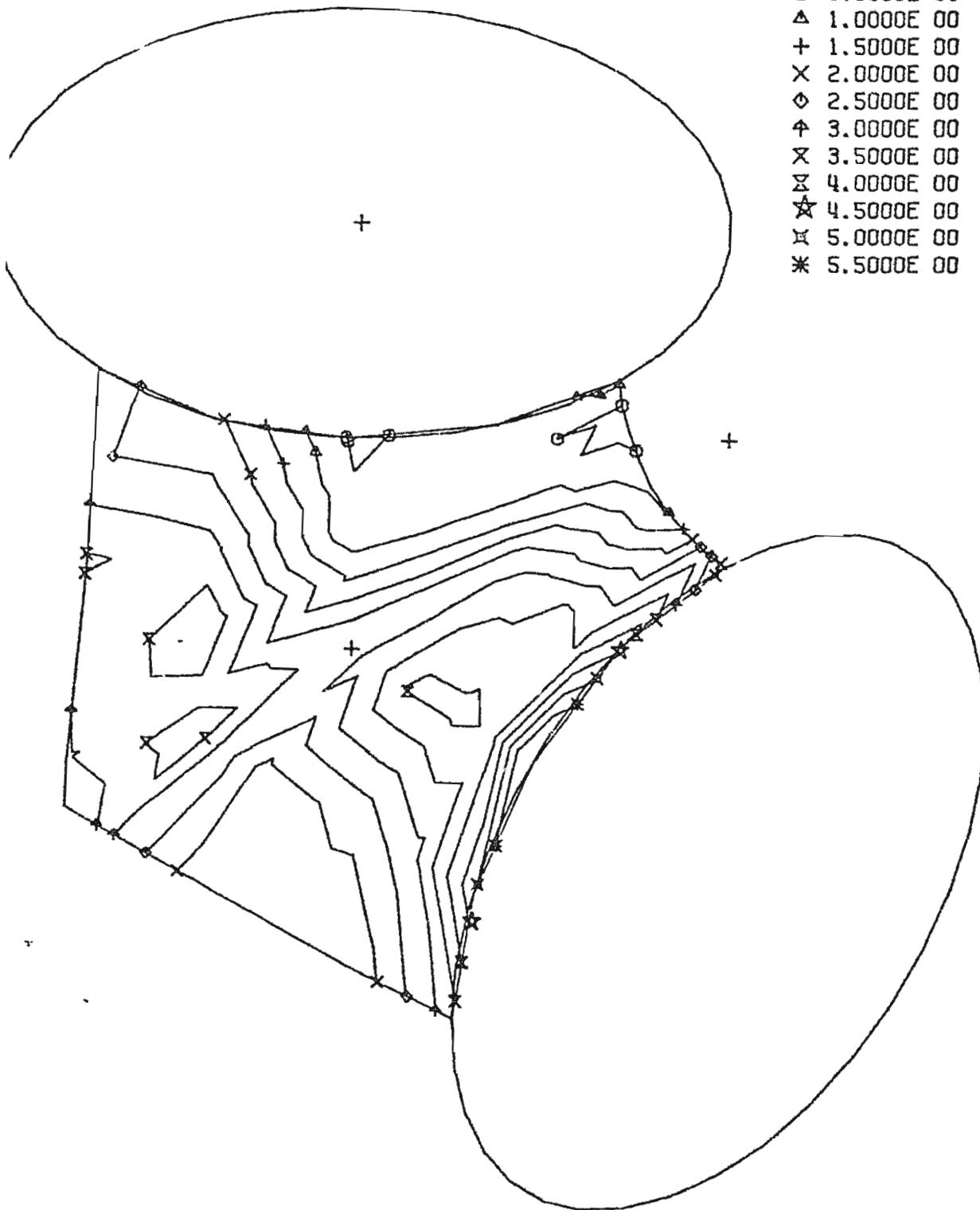
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- X 2.0000E 00
- ◇ 2.5000E 00
- † 3.0000E 00
- × 3.5000E 00
- ⊗ 4.0000E 00
- ☆ 4.5000E 00
- ⊠ 5.0000E 00
- * 5.5000E 00



C.E. B16.9 T-10, F3Y
Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 5.0000E-01
- △ 1.0000E 00
- + 1.5000E 00
- × 2.0000E 00
- ◇ 2.5000E 00
- ⊕ 3.0000E 00
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- ☆ 4.5000E 00
- ⊚ 5.0000E 00
- * 5.5000E 00

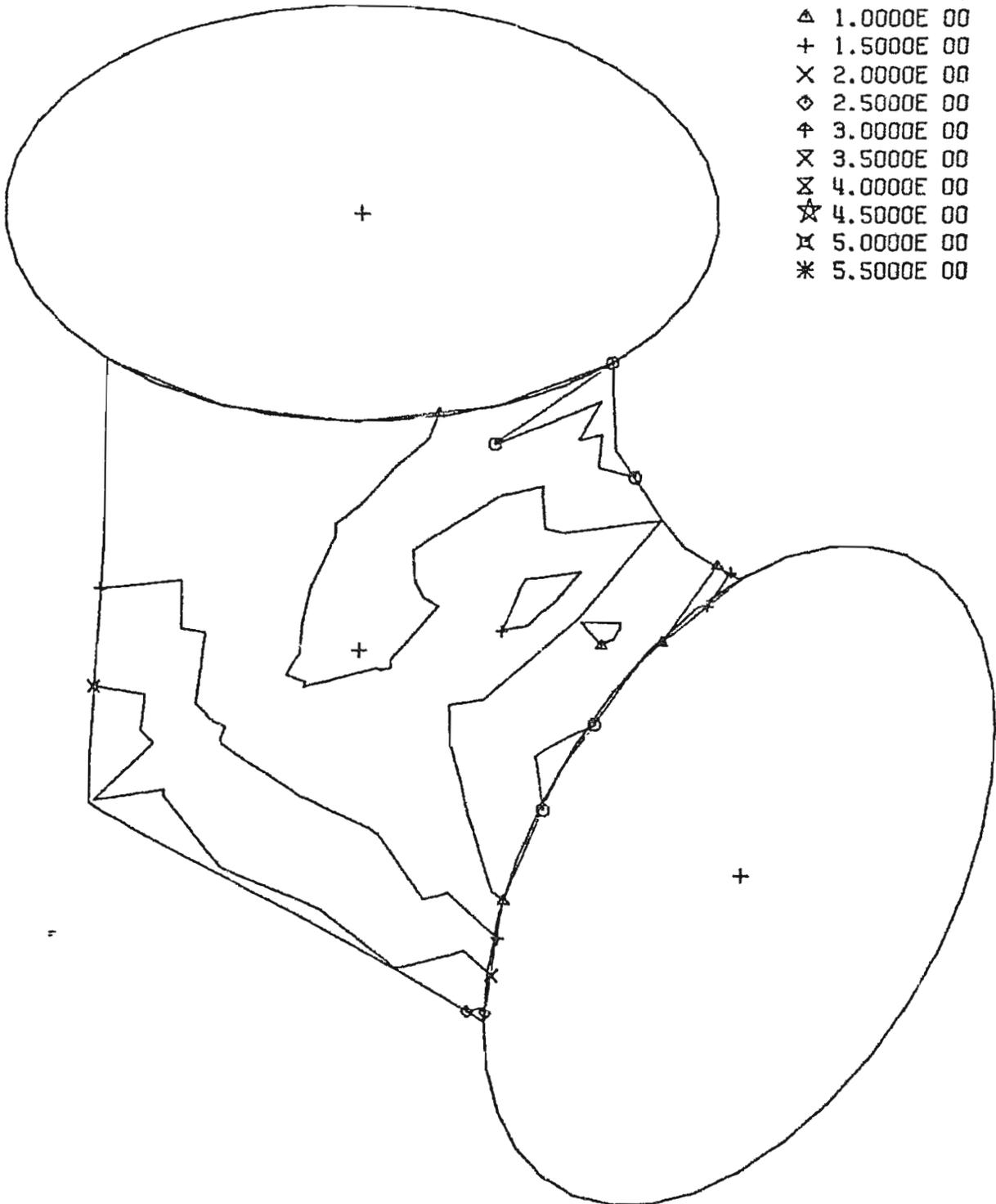


C.E. B16.9 T-10, F3Y

Top Inside Surface

CONTOUR VALUES

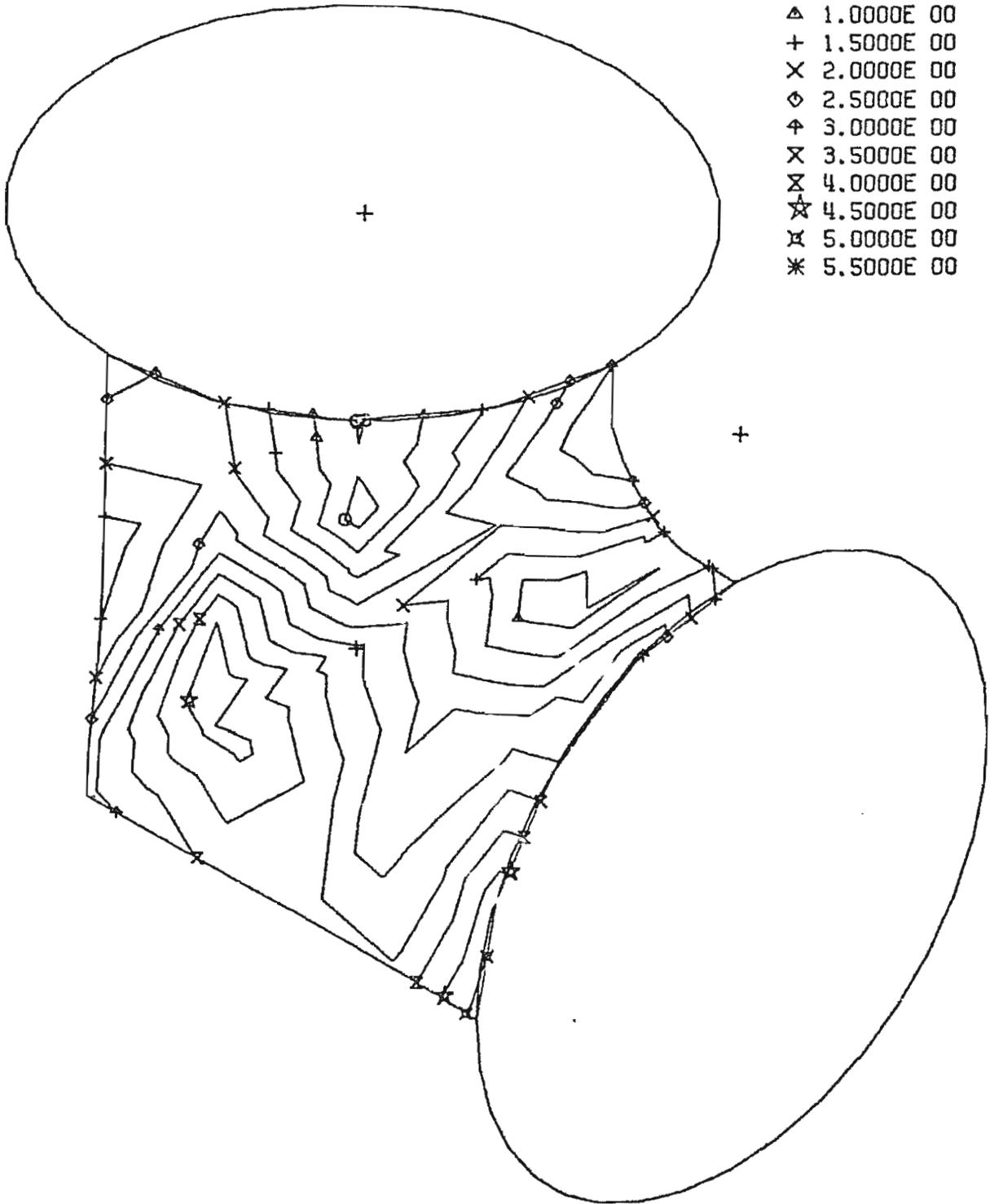
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- + 1.5000E 00
- × 2.0000E 00
- ◇ 2.5000E 00
- ⊕ 3.0000E 00
- ⊗ 3.5000E 00
- ⊘ 4.0000E 00
- ☆ 4.5000E 00
- ⊗ 5.0000E 00
- * 5.5000E 00



C.E. B16.9 T-10, F3Y
Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 5.0000E-01
- △ 1.0000E 00
- + 1.5000E 00
- × 2.0000E 00
- ◇ 2.5000E 00
- ⊕ 3.0000E 00
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- ☆ 4.5000E 00
- ⊚ 5.0000E 00
- * 5.5000E 00

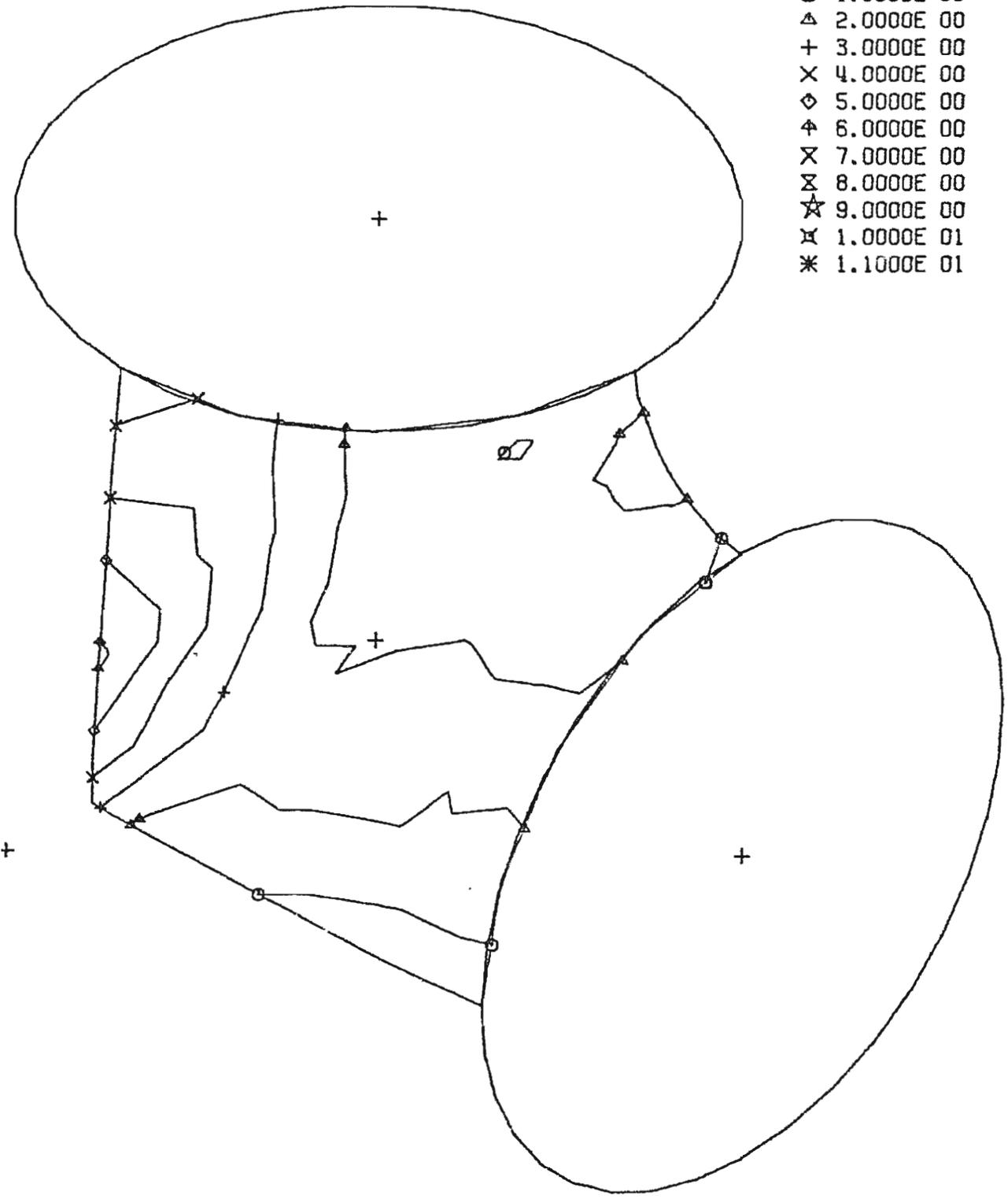


C.E. B16.9 T-10, F3Z

Top Outside Surface

CONTOUR VALUES

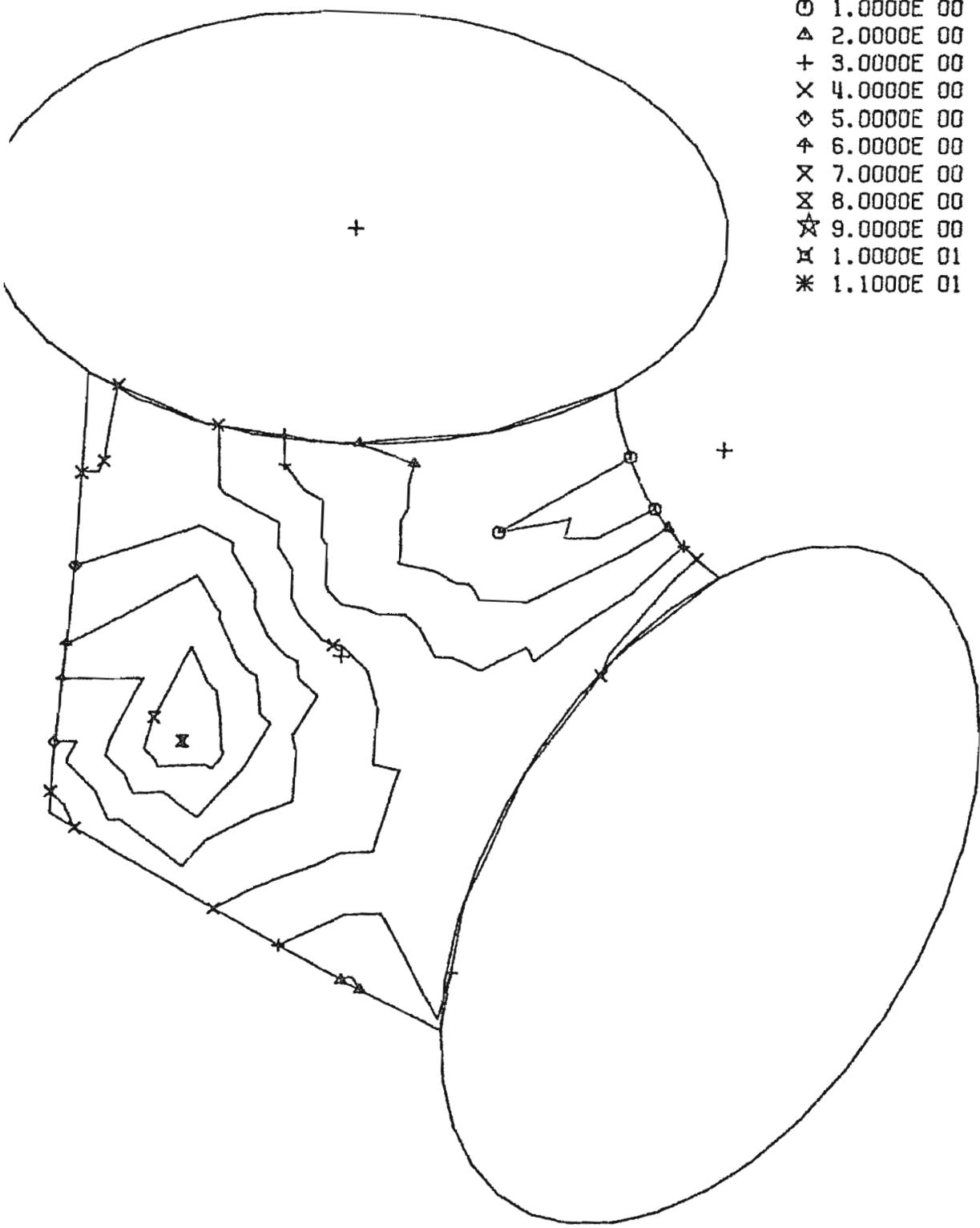
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- ⊗ 7.0000E 00
- ⊗ 8.0000E 00
- ☆ 9.0000E 00
- ⊗ 1.0000E 01
- * 1.1000E 01



C.E. B16.9 T-10, F3Z
Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 1.0000E 00
- △ 2.0000E 00
- + 3.0000E 00
- × 4.0000E 00
- ◇ 5.0000E 00
- ⋈ 6.0000E 00
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- ☆ 9.0000E 00
- ⊠ 1.0000E 01
- * 1.1000E 01

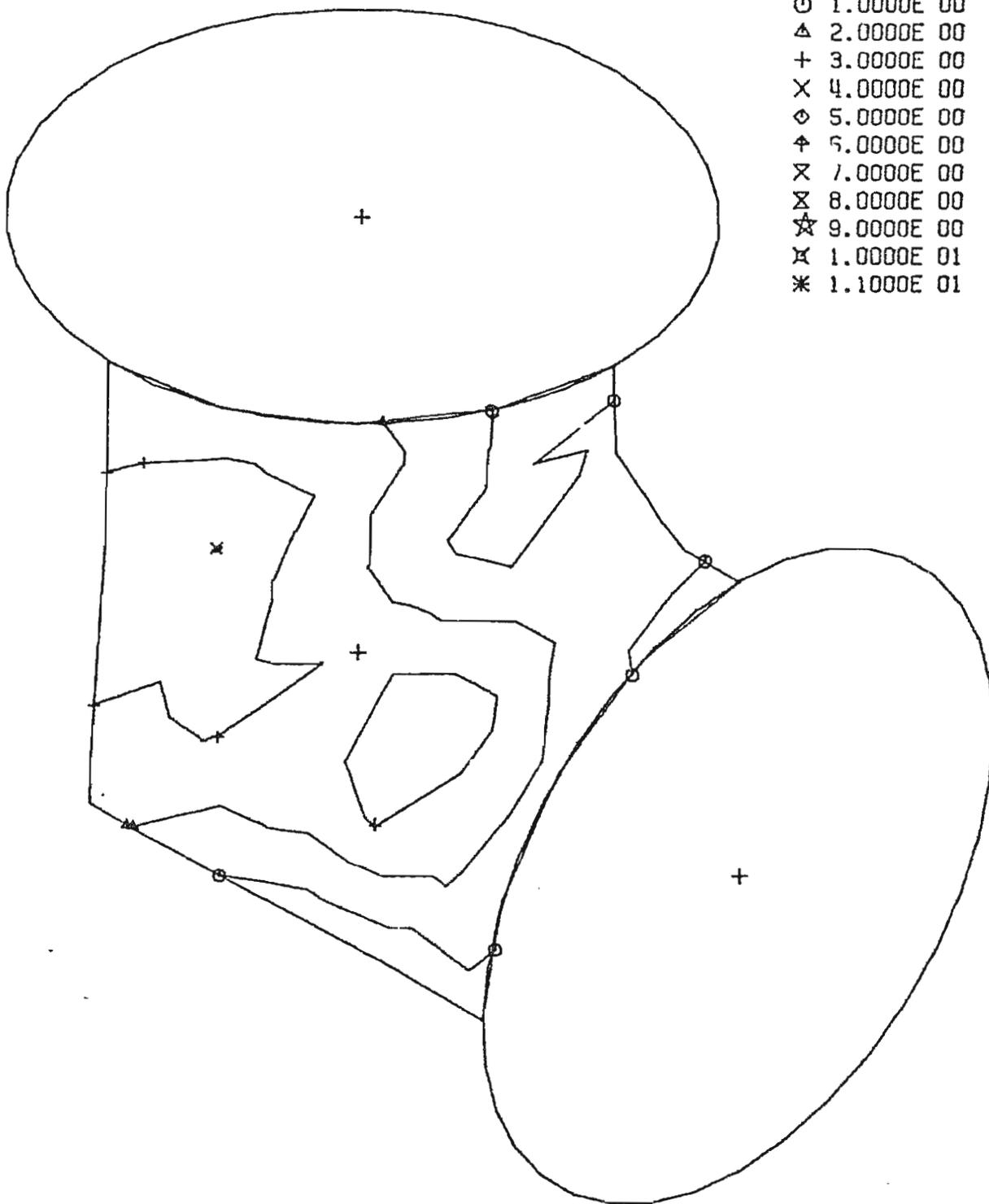


C.E. B16,9 T-10, F3Z

Top Inside Surface

CONTOUR VALUES

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- ⊙ 1.0000E 00
- △ 2.0000E 00
- + 3.0000E 00
- X 4.0000E 00
- ◇ 5.0000E 00
- ⋈ 6.0000E 00
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- ☆ 9.0000E 00
- ⊗ 1.0000E 01
- * 1.1000E 01

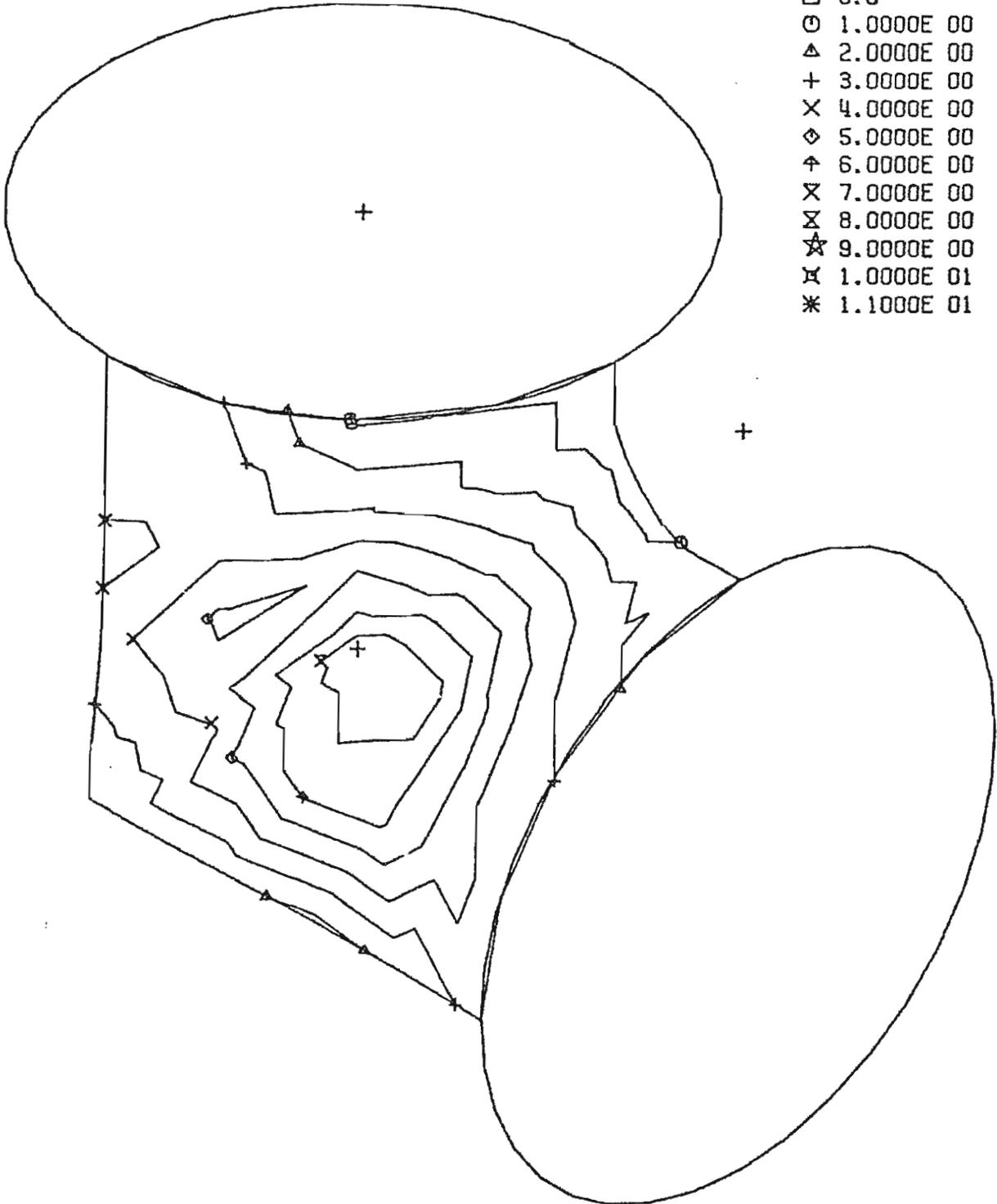


C.E. B16.9 T-10, F3Z

Bottom Inside Surface

CONTOUR VALUES

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- △ 2.0000E 00
- + 3.0000E 00
- × 4.0000E 00
- ◇ 5.0000E 00
- ⊕ 6.0000E 00
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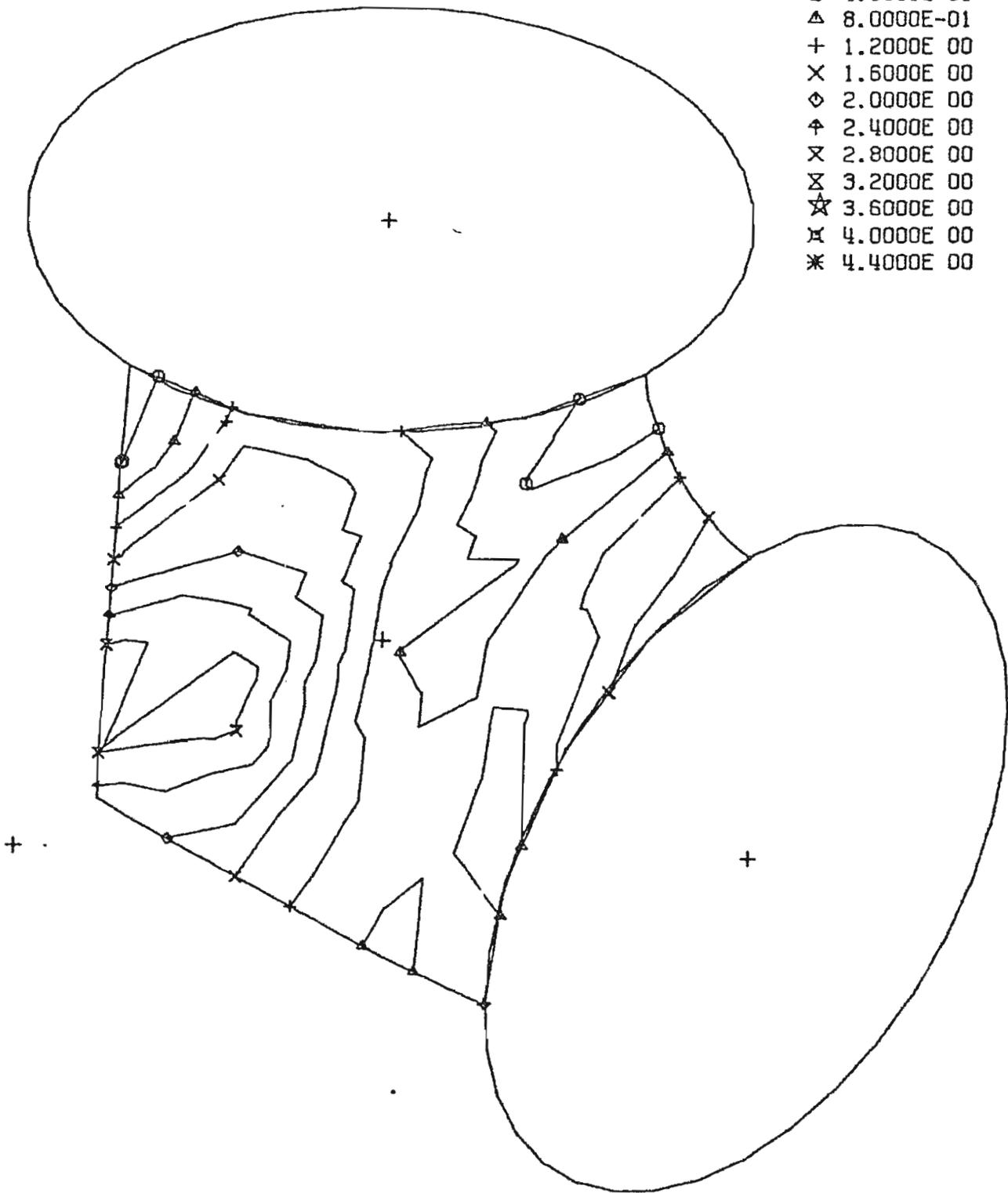


C.E. B16.9 T-10, M2X

Top Outside Surface

CONTOUR VALUES

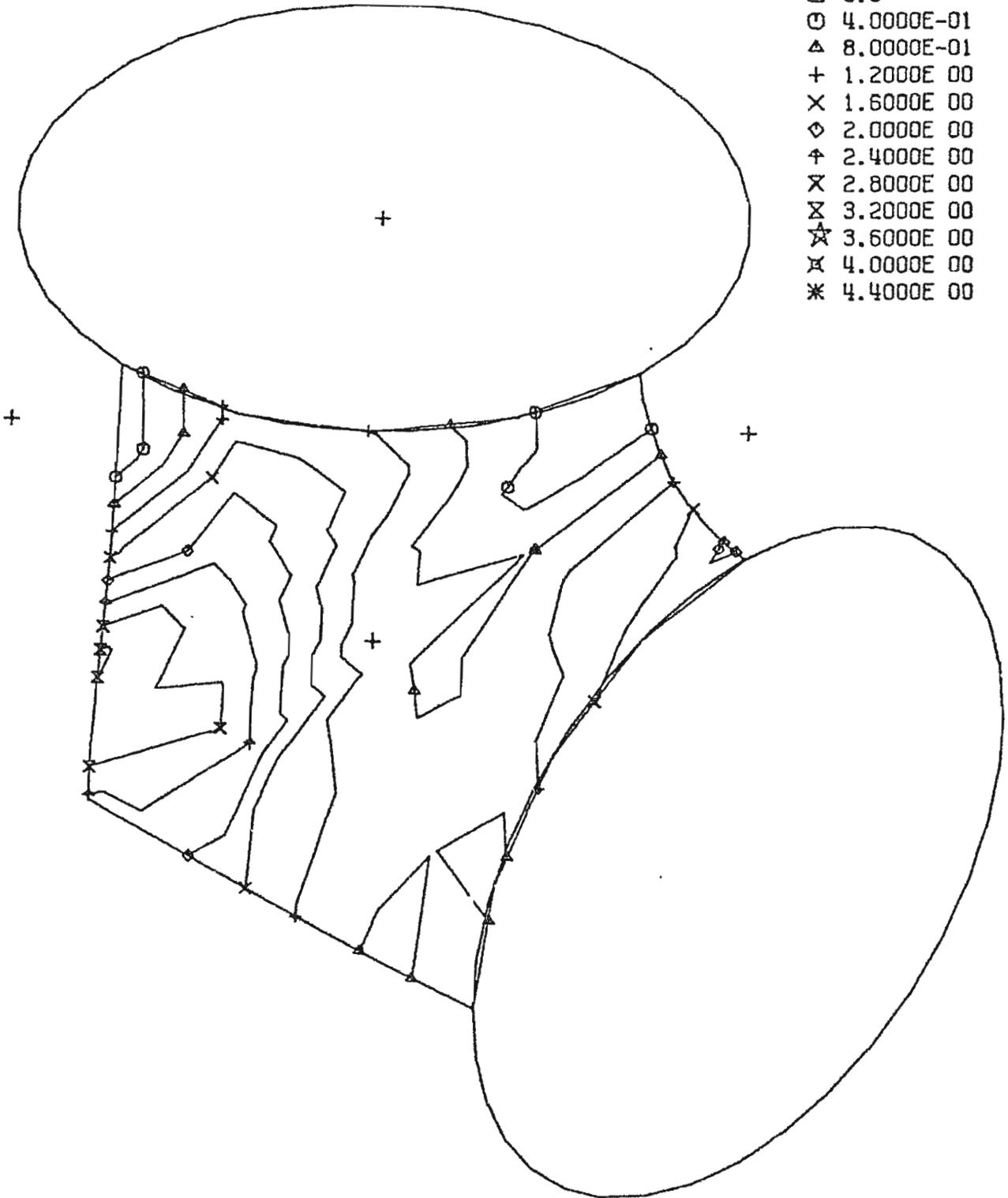
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- ⋈ 2.8000E 00
- ⋈ 3.2000E 00
- ☆ 3.6000E 00
- ⋈ 4.0000E 00
- * 4.4000E 00



C.E. B16.9 T-10, M2X
Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- † 2.4000E 00
- × 2.8000E 00
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- ☆ 3.6000E 00
- ⊗ 4.0000E 00
- * 4.4000E 00

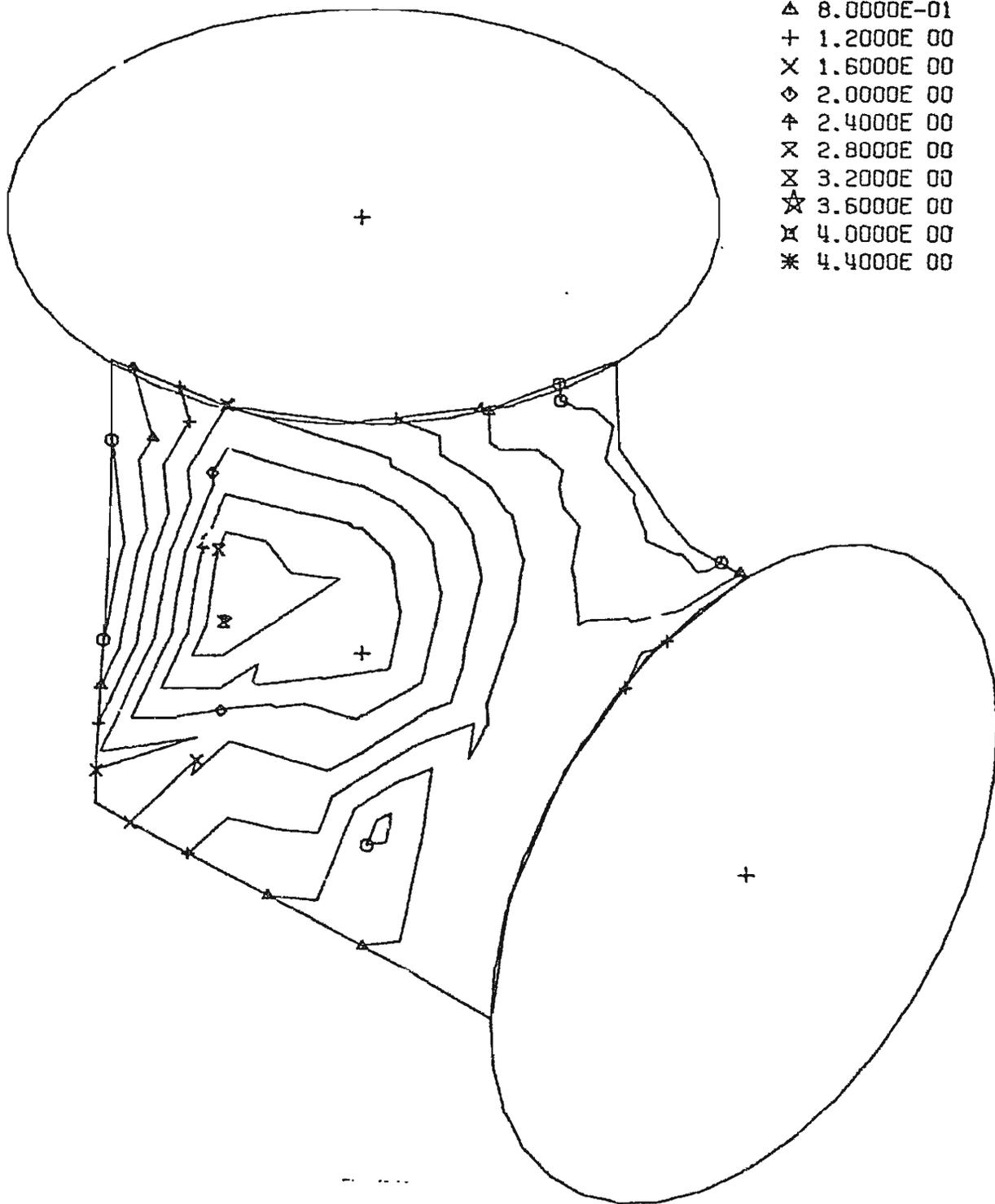


C.E. B16.9 T-10, M2X

Top Inside Surface

CONTOUR VALUES

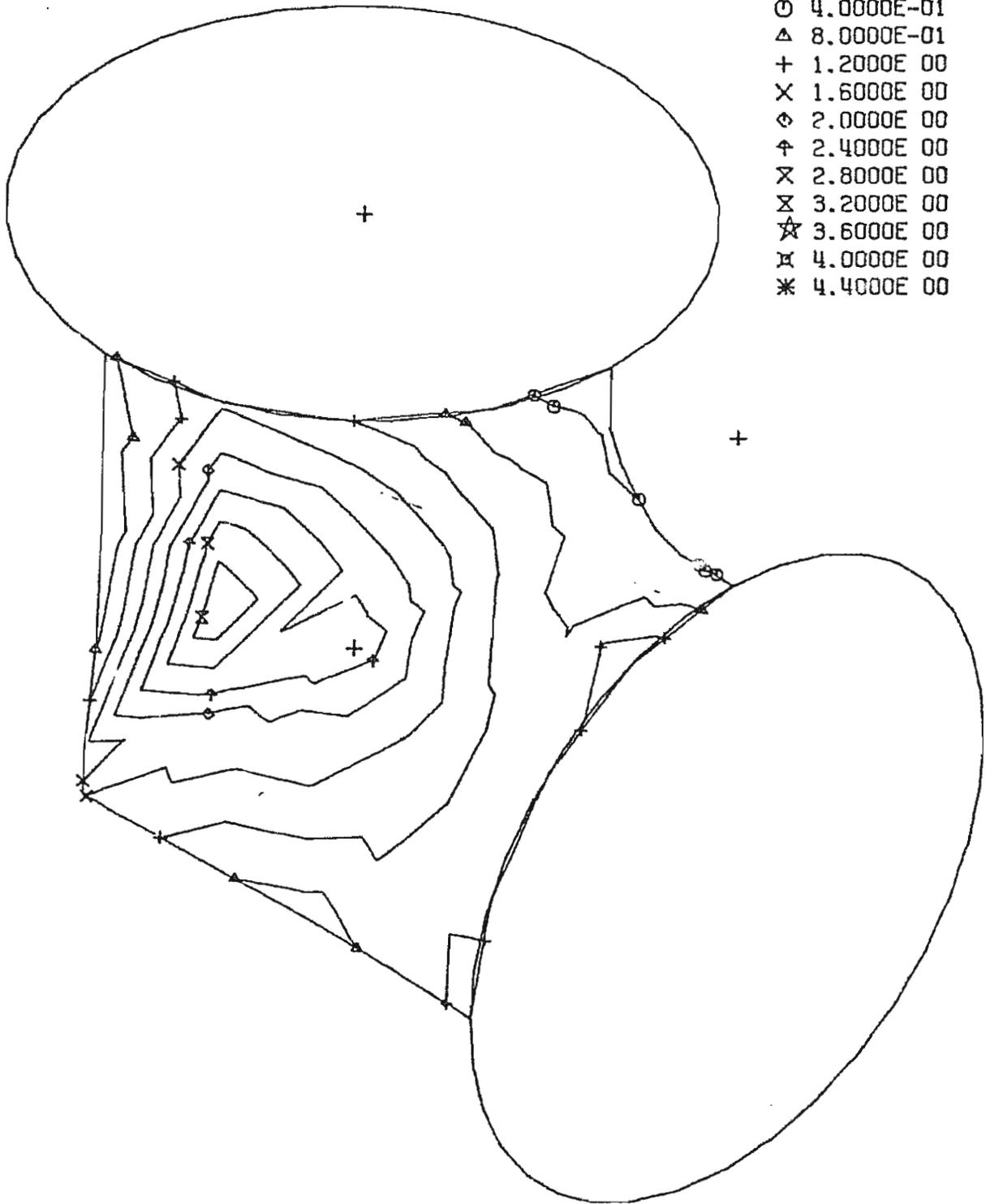
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- ⋈ 2.4000E 00
- × 2.8000E 00
- ⊗ 3.2000E 00
- ☆ 3.6000E 00
- ⊗ 4.0000E 00
- * 4.4000E 00



C.E. B16.9 T-10, M2X
Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⊕ 2.4000E 00
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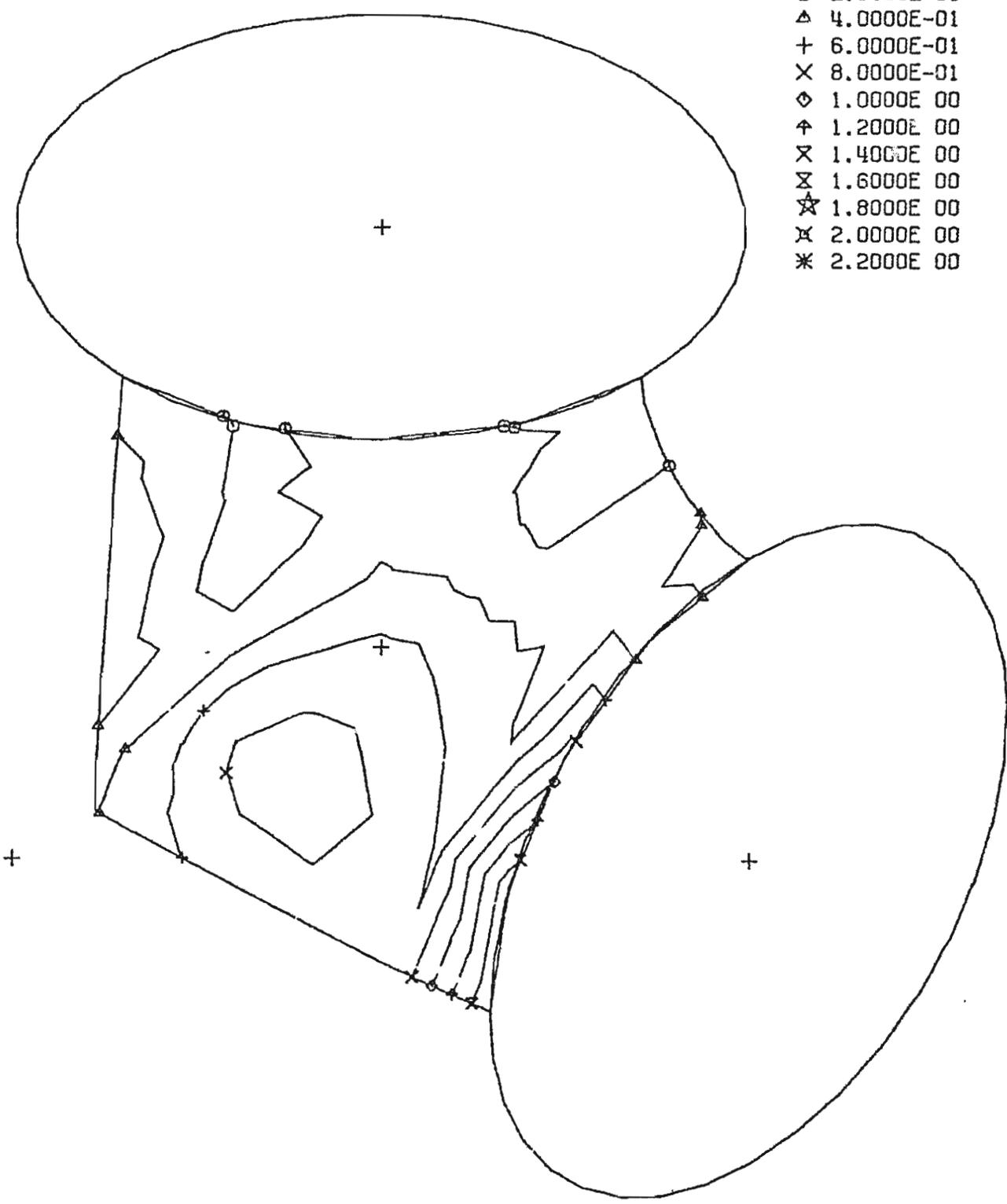


C.E. B16.9 T-10, M2Y

Top Outside Surface

CONTOUR VALUES

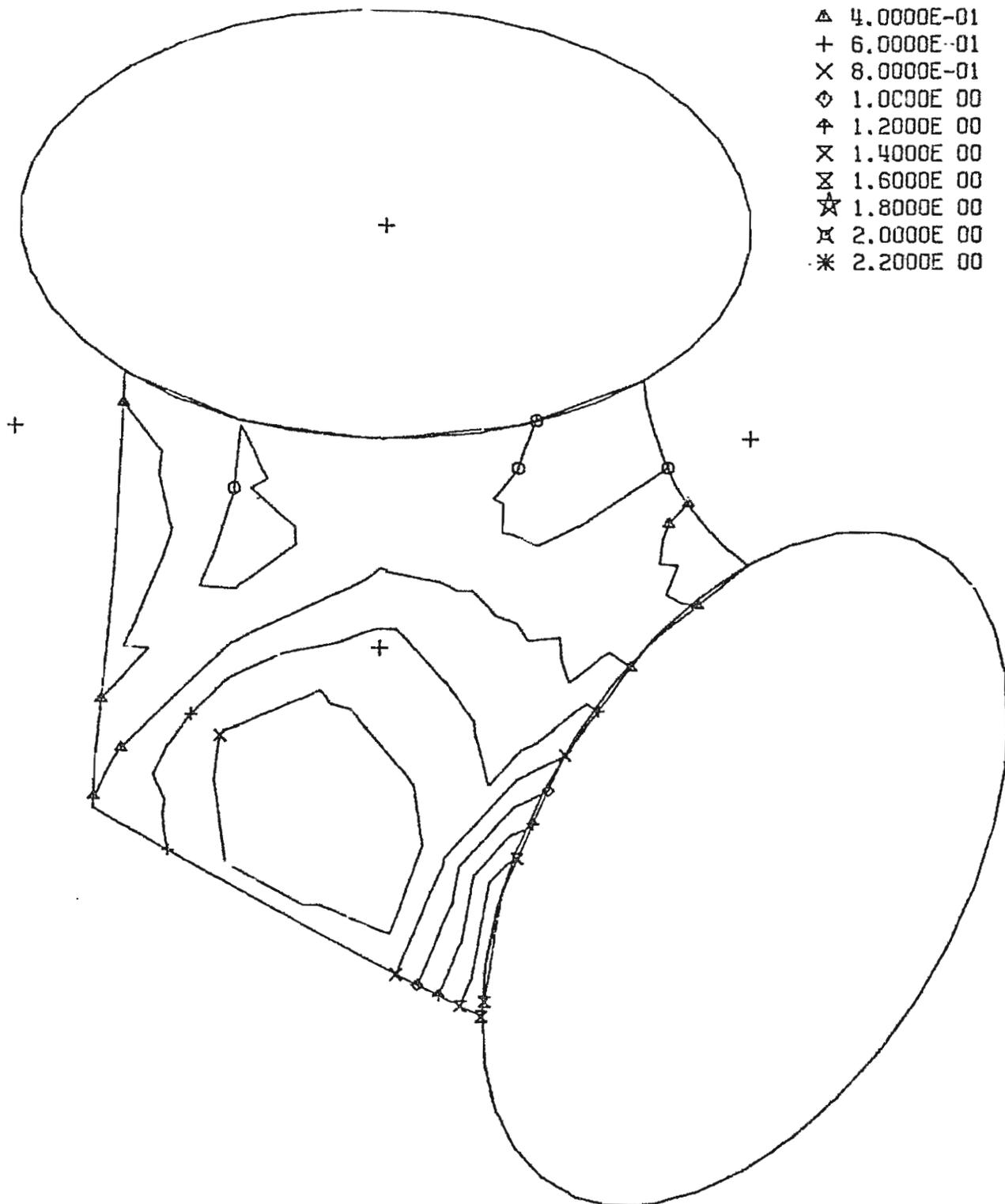
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- × 8.0000E-01
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- ⋈ 1.2000E 00
- ⋈ 1.4000E 00
- ⋈ 1.6000E 00
- ☆ 1.8000E 00
- ⋈ 2.0000E 00
- * 2.2000E 00



C.E. B16.9 T-10, M2Y
Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⋈ 1.2000E 00
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- * 2.2000E 00

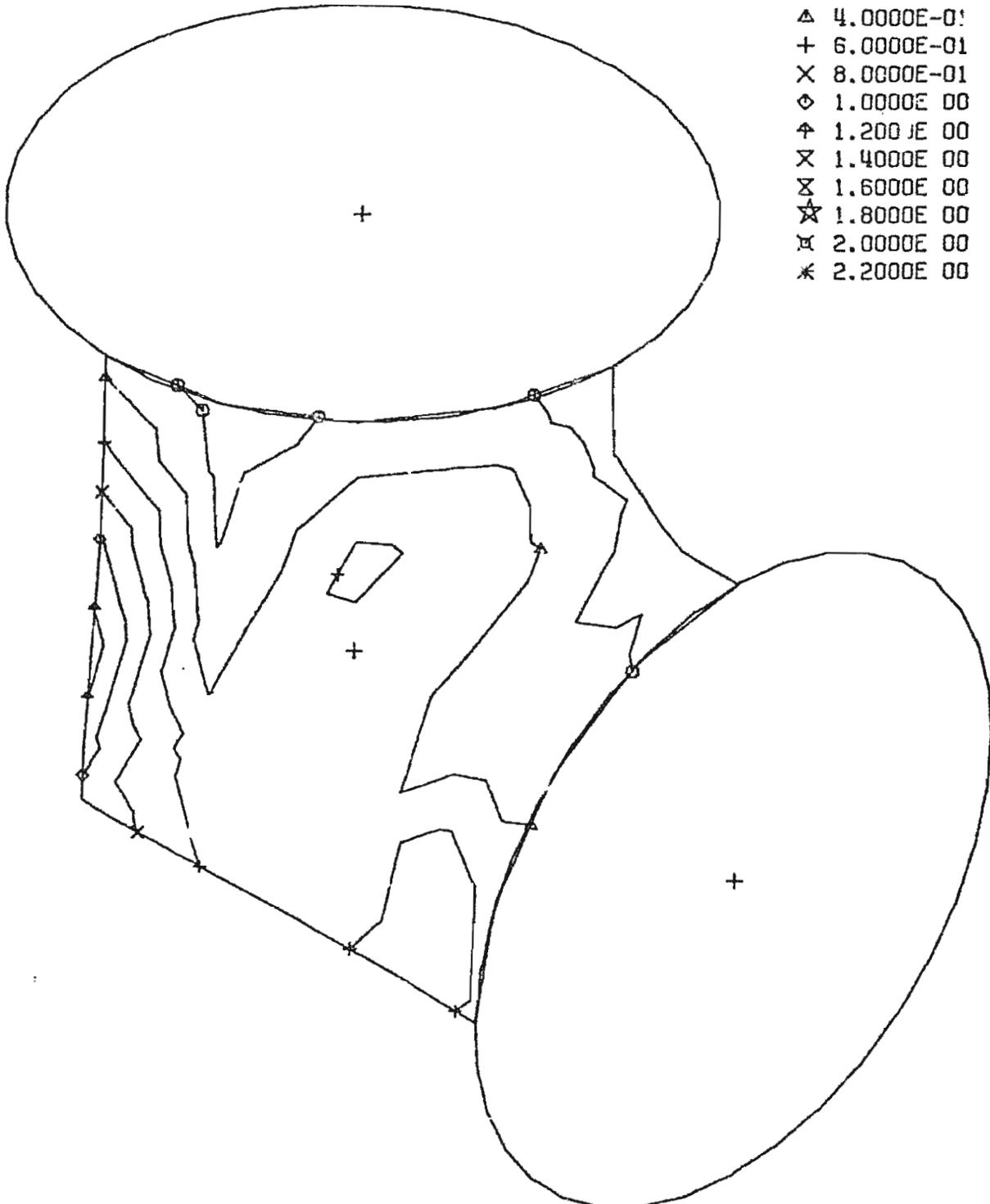


C.E. B16.9 T-10, M2Y

Top Inside Surface

CONTOUR VALUES

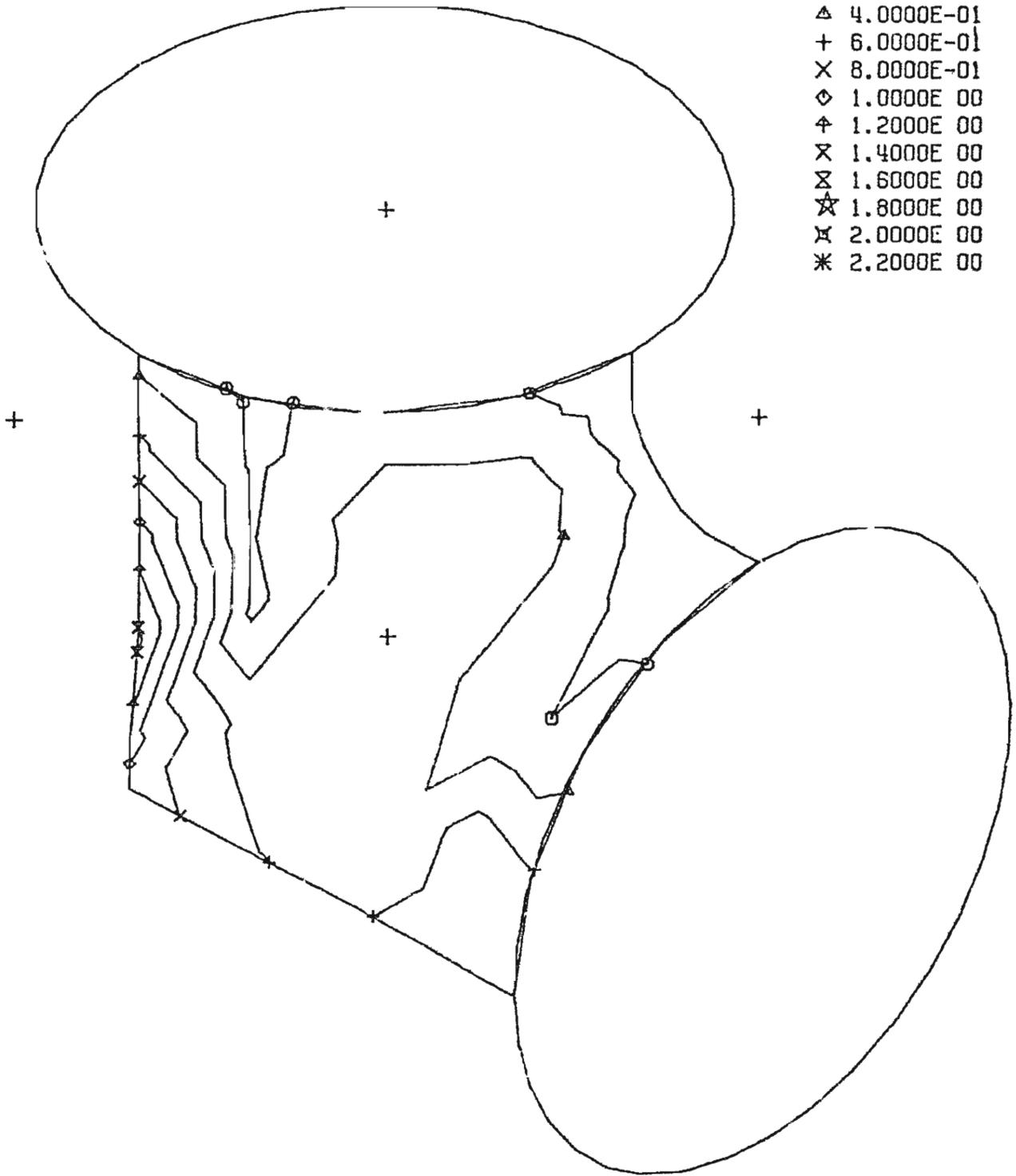
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- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
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- ⊠ 2.2000E 00



C.E. B16.9 T-10, M2Y
Bottom Inside Surface

CONTOUR VALUES

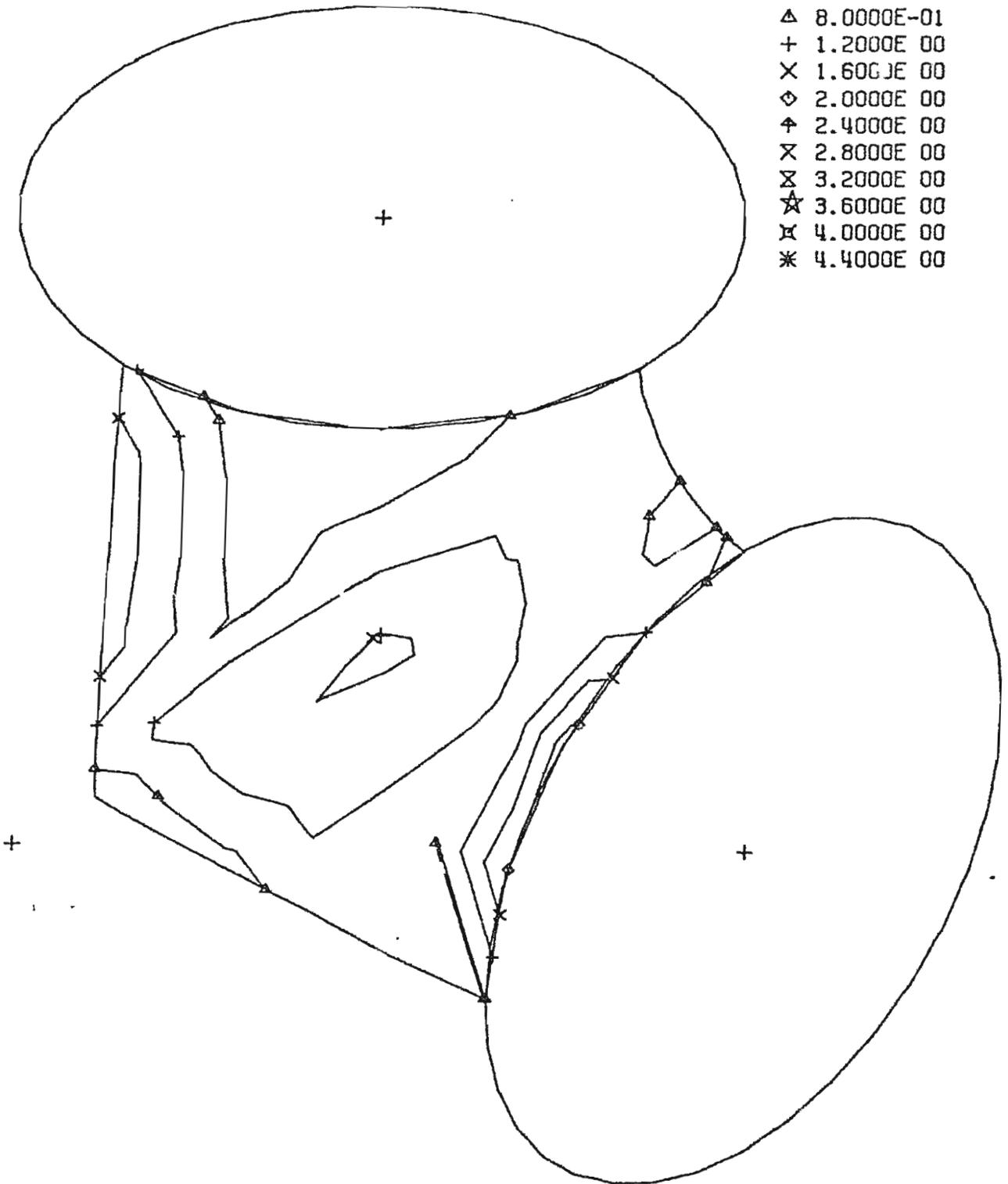
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- × 8.0000E-01
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- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
- ☆ 1.8000E 00
- ⊠ 2.0000E 00
- * 2.2000E 00



C.E. B16.9 T-10, M2Z
Top Outside Surface

CONTOUR VALUES

- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⋈ 2.4000E 00
- ⊗ 2.8000E 00
- ⊘ 3.2000E 00
- ☆ 3.6000E 00
- ⊠ 4.0000E 00
- * 4.4000E 00

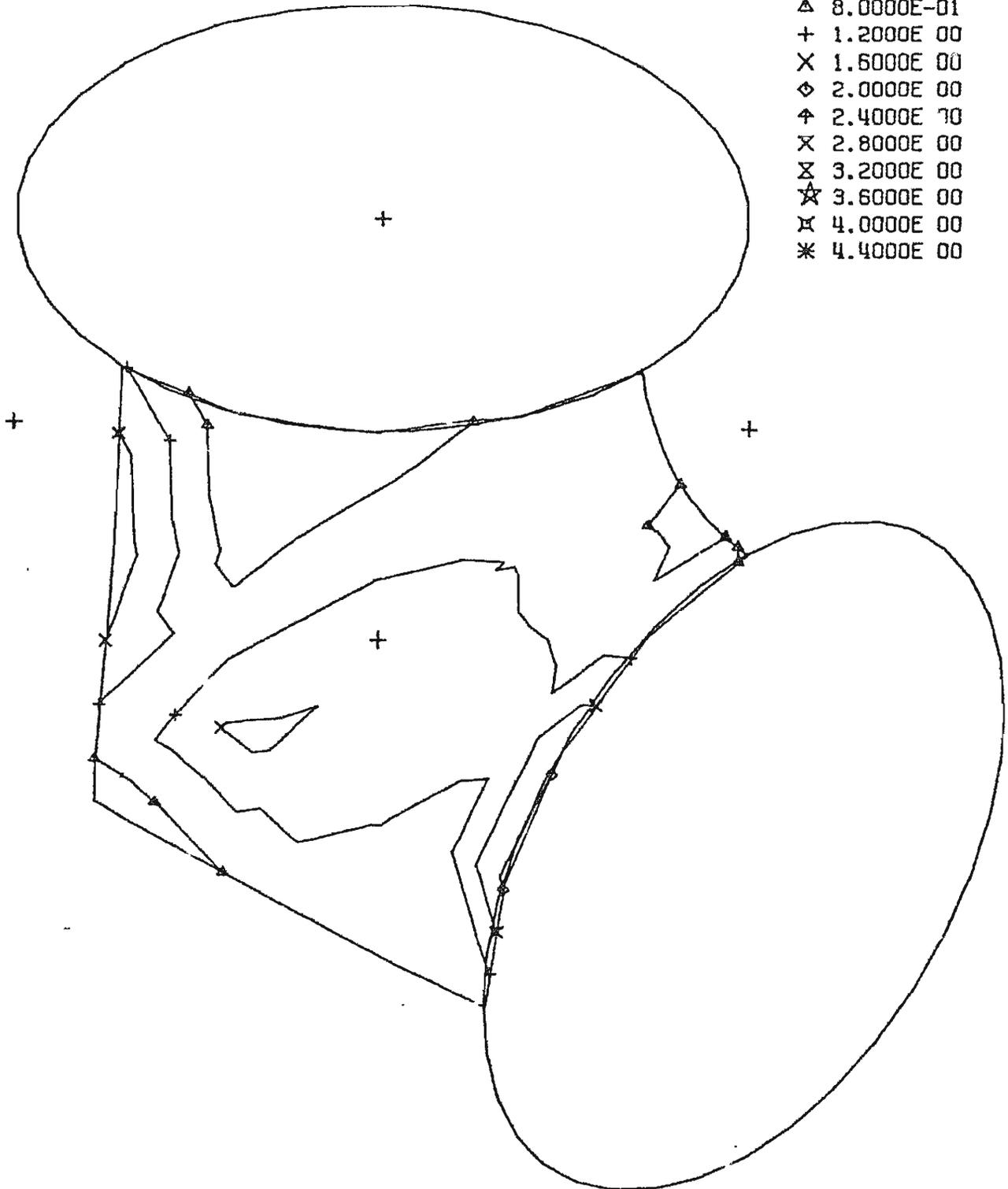


C.E. B16.9 T-10, M2Z

Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⋈ 2.4000E 00
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- ⊘ 3.2000E 00
- ☆ 3.6000E 00
- ⊠ 4.0000E 00
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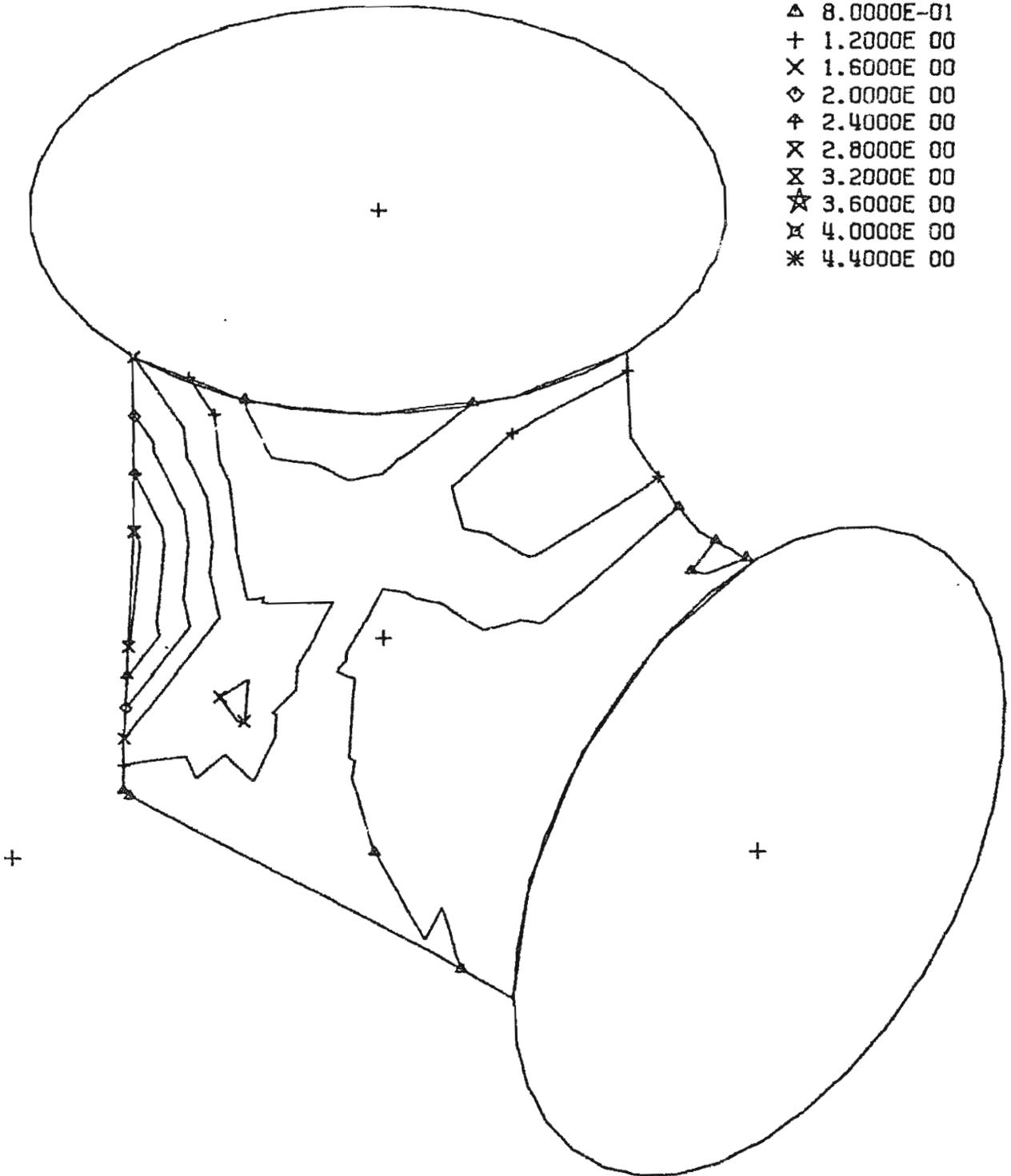


C.E. B16.9 T-10, M2Z

Top Inside Surface

CONTOUR VALUES

- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⋈ 2.4000E 00
- ⊗ 2.8000E 00
- ⊘ 3.2000E 00
- ☆ 3.6000E 00
- ⊗ 4.0000E 00
- * 4.4000E 00

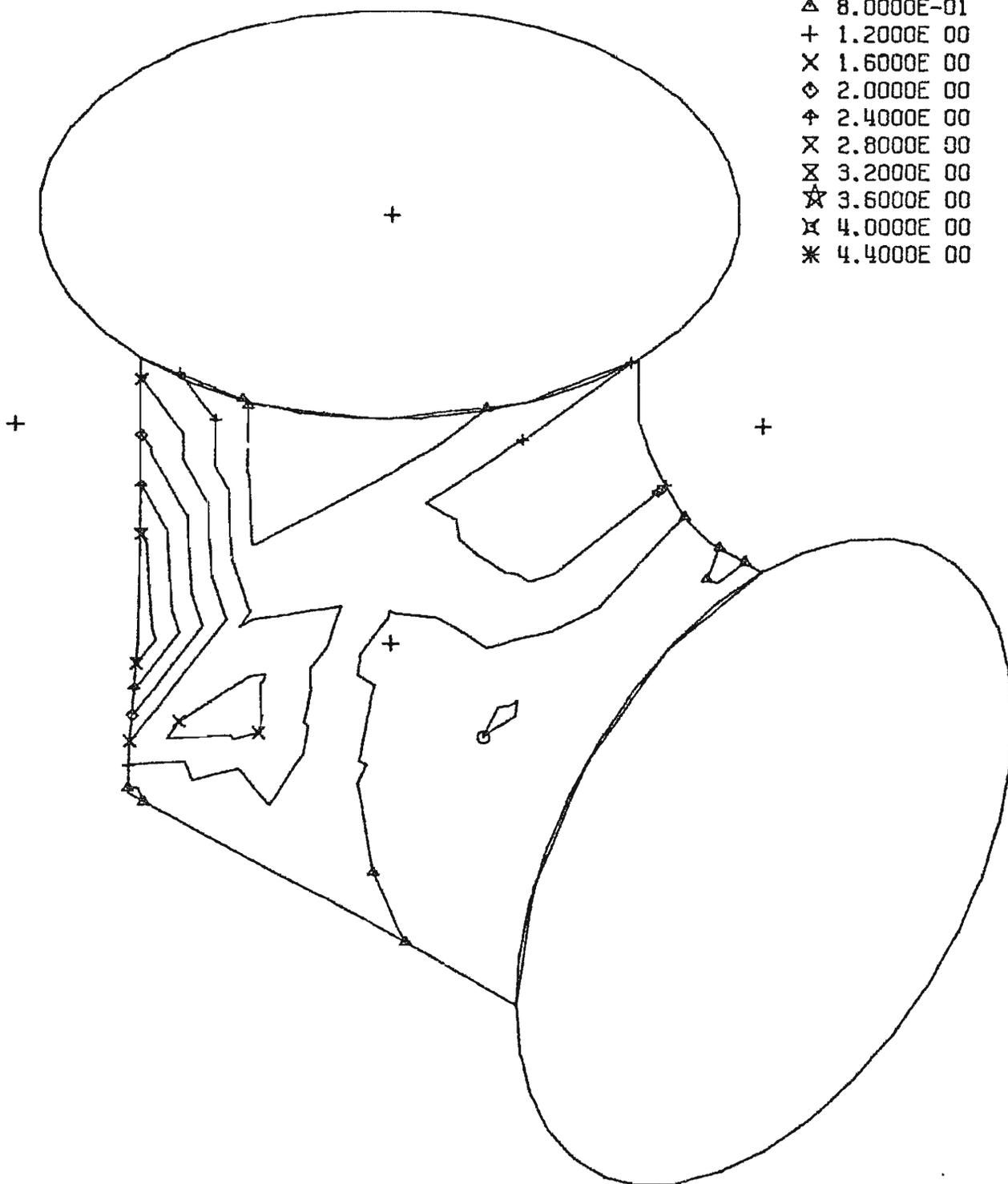


C.E. B16.9 T-10, M2Z

Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⋈ 2.4000E 00
- ⊗ 2.8000E 00
- ⊘ 3.2000E 00
- ☆ 3.6000E 00
- ⊗ 4.0000E 00
- * 4.4000E 00

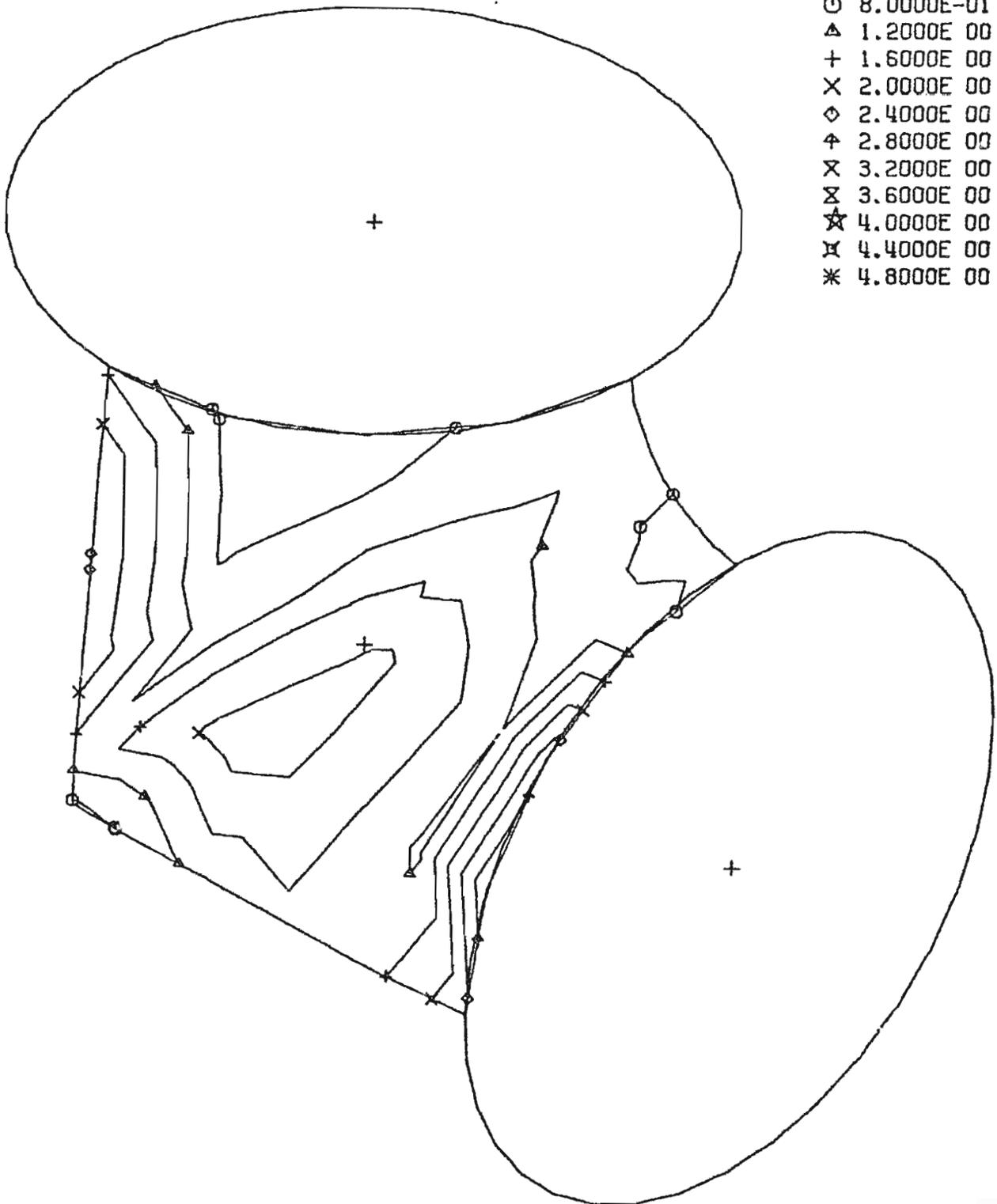


C.E. B16.9 T-10, F2X

Top Outside Surface

CONTOUR VALUES

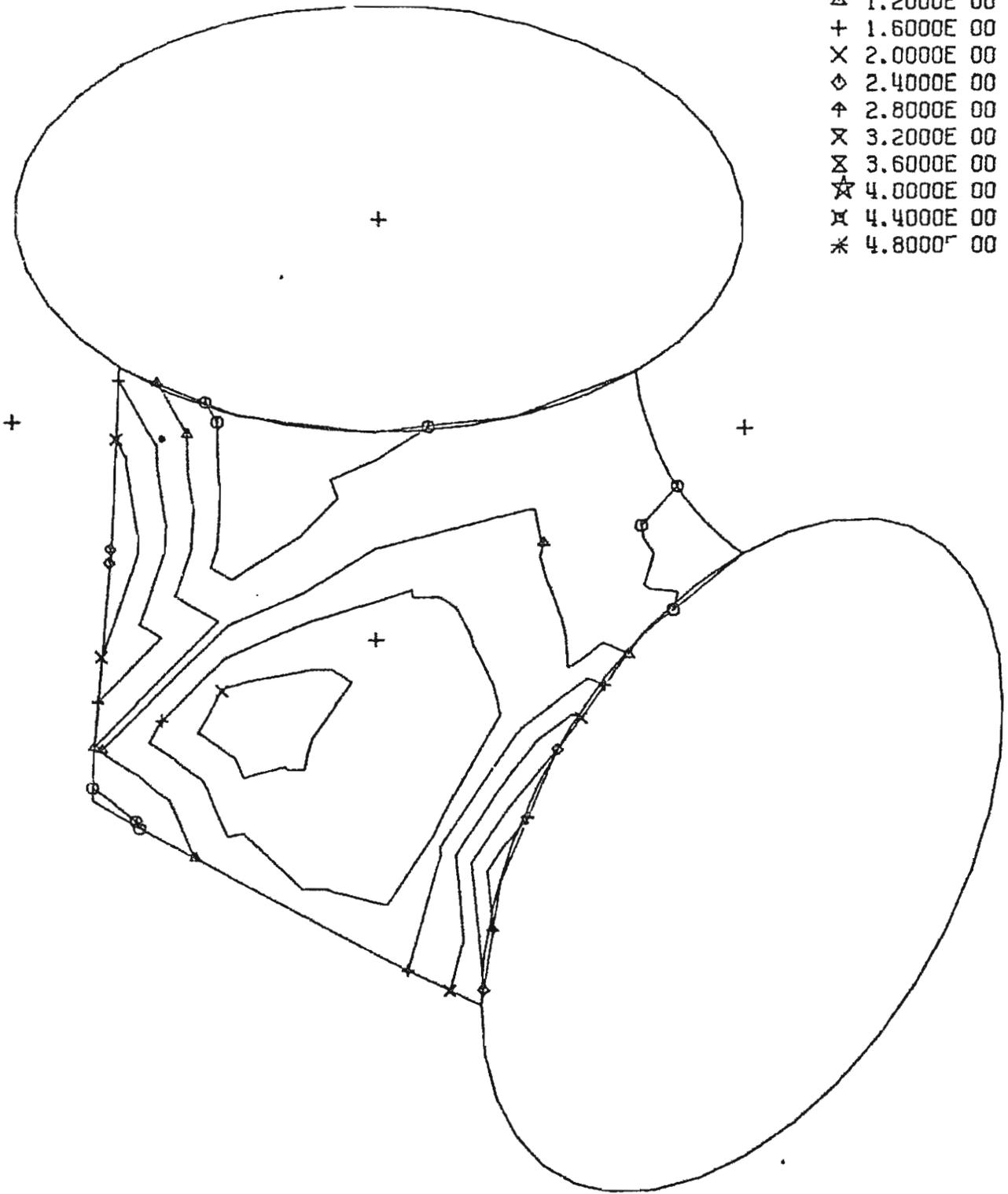
- 4.0000E-01
- 8.0000E-01
- △ 1.2000E 00
- + 1.6000E 00
- × 2.0000E 00
- ◇ 2.4000E 00
- ⋈ 2.8000E 00
- ⊗ 3.2000E 00
- ⊘ 3.6000E 00
- ☆ 4.0000E 00
- ⊠ 4.4000E 00
- * 4.8000E 00



C.E. B16.9 T-10, F2X
Bottom Outside Surface

CONTOUR VALUES

- 4.0000E-01
- 8.0000E-01
- △ 1.2000E 00
- + 1.6000E 00
- × 2.0000E 00
- ◇ 2.4000E 00
- ⋈ 2.8000E 00
- ⊗ 3.2000E 00
- ⊘ 3.6000E 00
- ☆ 4.0000E 00
- ⊠ 4.4000E 00
- * 4.8000E 00

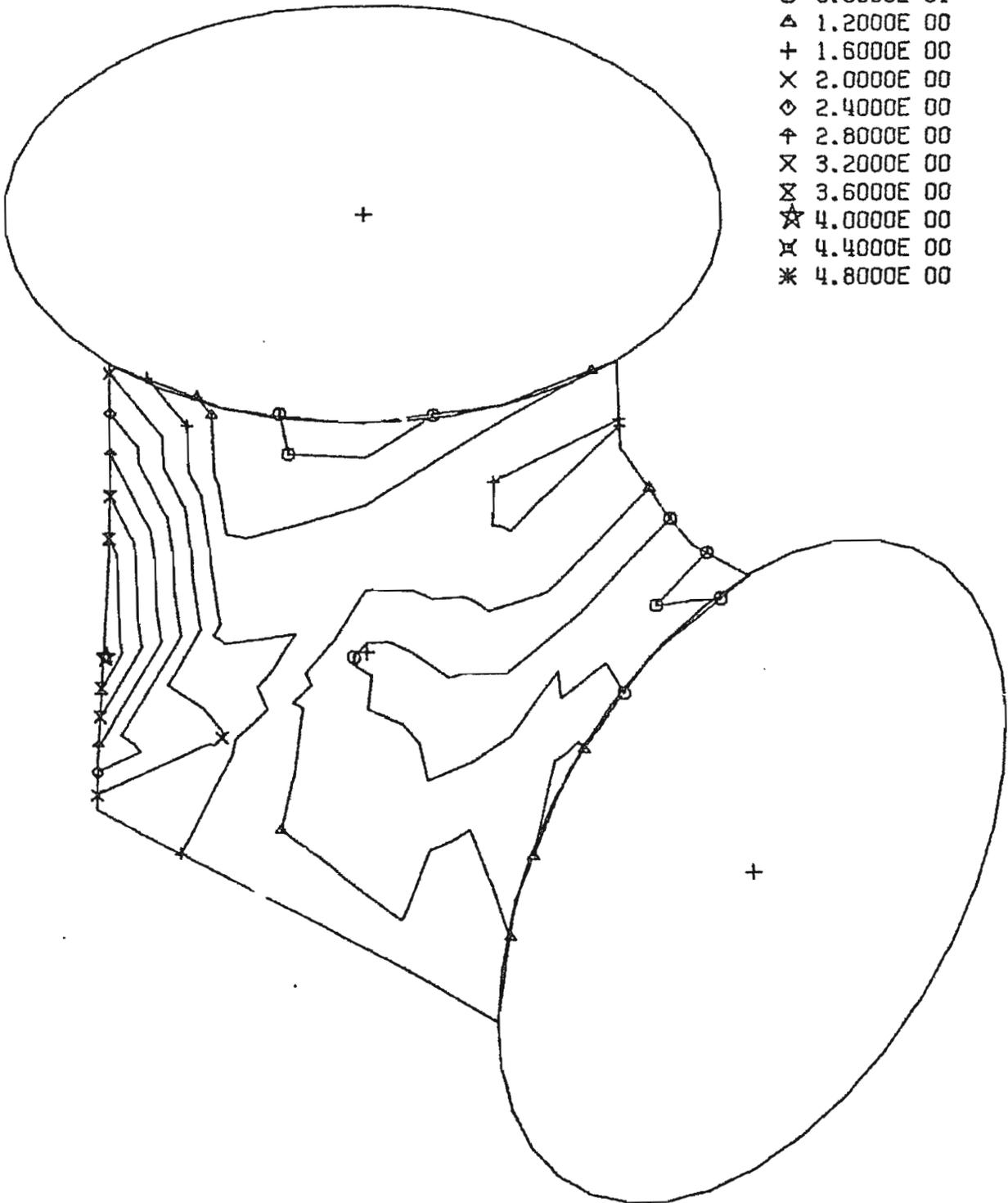


C.E. B16.9 T-10, F2X

Top Inside Surface

CONTOUR VALUES

- 4.0000E-01
- 8.0000E-01
- △ 1.2000E 00
- + 1.6000E 00
- X 2.0000E 00
- ◇ 2.4000E 00
- † 2.8000E 00
- × 3.2000E 00
- ⊗ 3.6000E 00
- ☆ 4.0000E 00
- ⋈ 4.4000E 00
- * 4.8000E 00

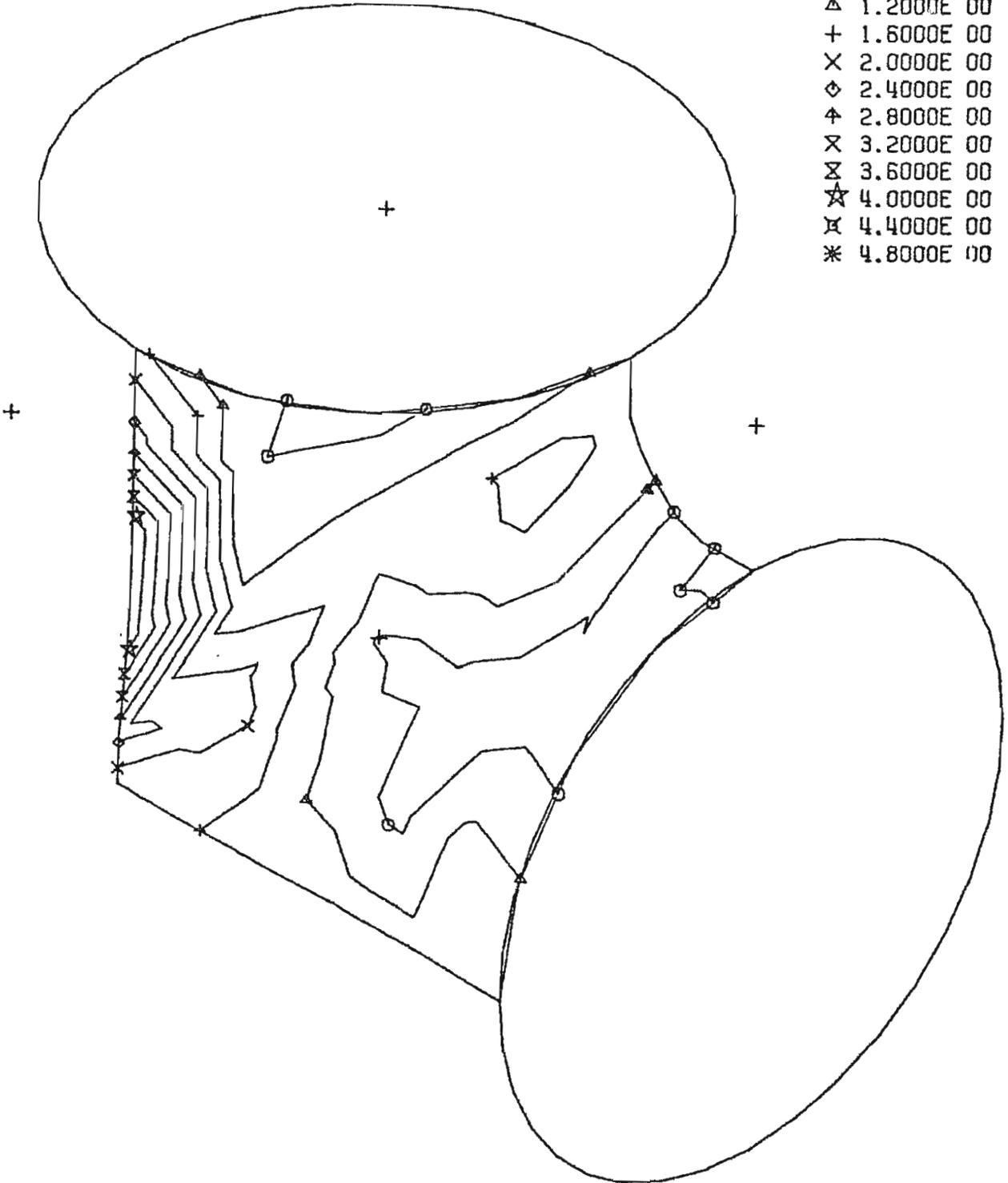


C.E. B16.9 T-10, F2X

Bottom Inside Surface

CONTOUR VALUES

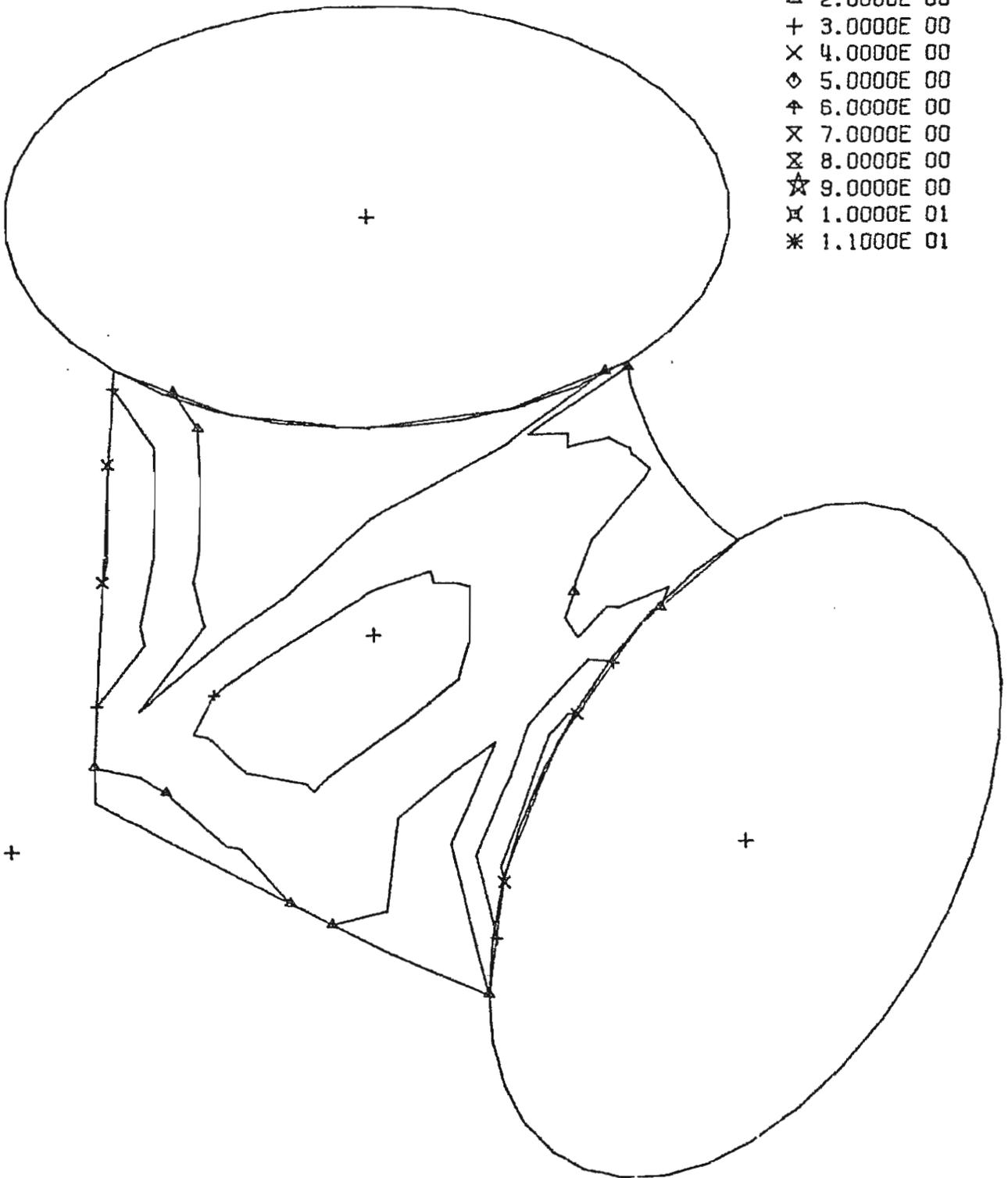
- 4.0000E-01
- 8.0000E-01
- △ 1.2000E 00
- + 1.6000E 00
- × 2.0000E 00
- ◇ 2.4000E 00
- ⋈ 2.8000E 00
- ⋈ 3.2000E 00
- ⋈ 3.6000E 00
- ☆ 4.0000E 00
- ⋈ 4.4000E 00
- * 4.8000E 00



C.E. B16.9 T-10, F2Y
Top Outside Surface

CONTOUR VALUES

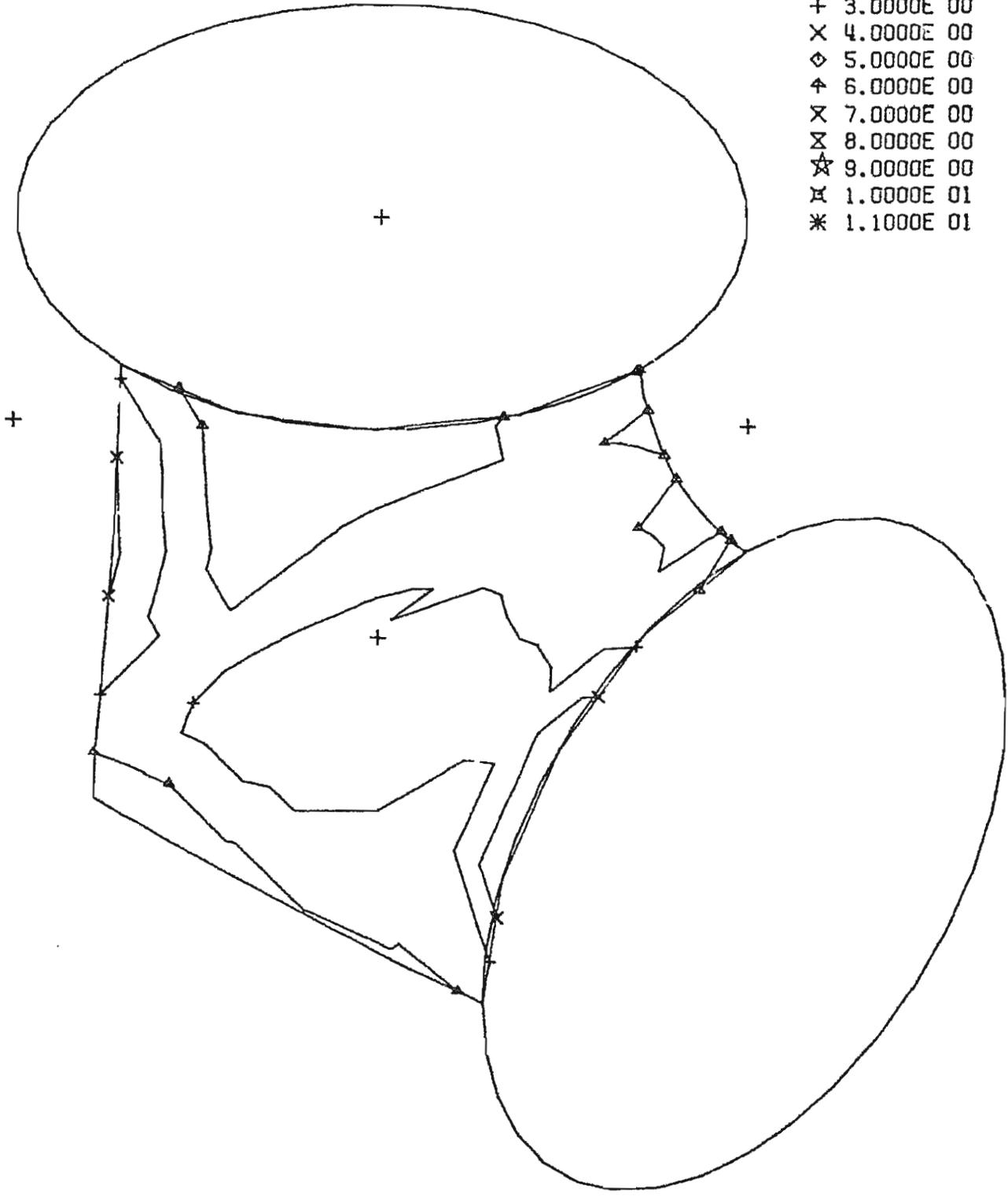
- 0.0
- 1.0000E 00
- △ 2.0000E 00
- + 3.0000E 00
- × 4.0000E 00
- ◇ 5.0000E 00
- ⊕ 6.0000E 00
- ⊗ 7.0000E 00
- ⊘ 8.0000E 00
- ☆ 9.0000E 00
- ⊚ 1.0000E 01
- * 1.1000E 01



C.E. B16.9 T-10, F2Y
Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 1.0000E 00
- △ 2.0000E 00
- + 3.0000E 00
- X 4.0000E 00
- ◇ 5.0000E 00
- ⋈ 6.0000E 00
- ⋈ 7.0000E 00
- ⋈ 8.0000E 00
- ☆ 9.0000E 00
- ⋈ 1.0000E 01
- * 1.1000E 01

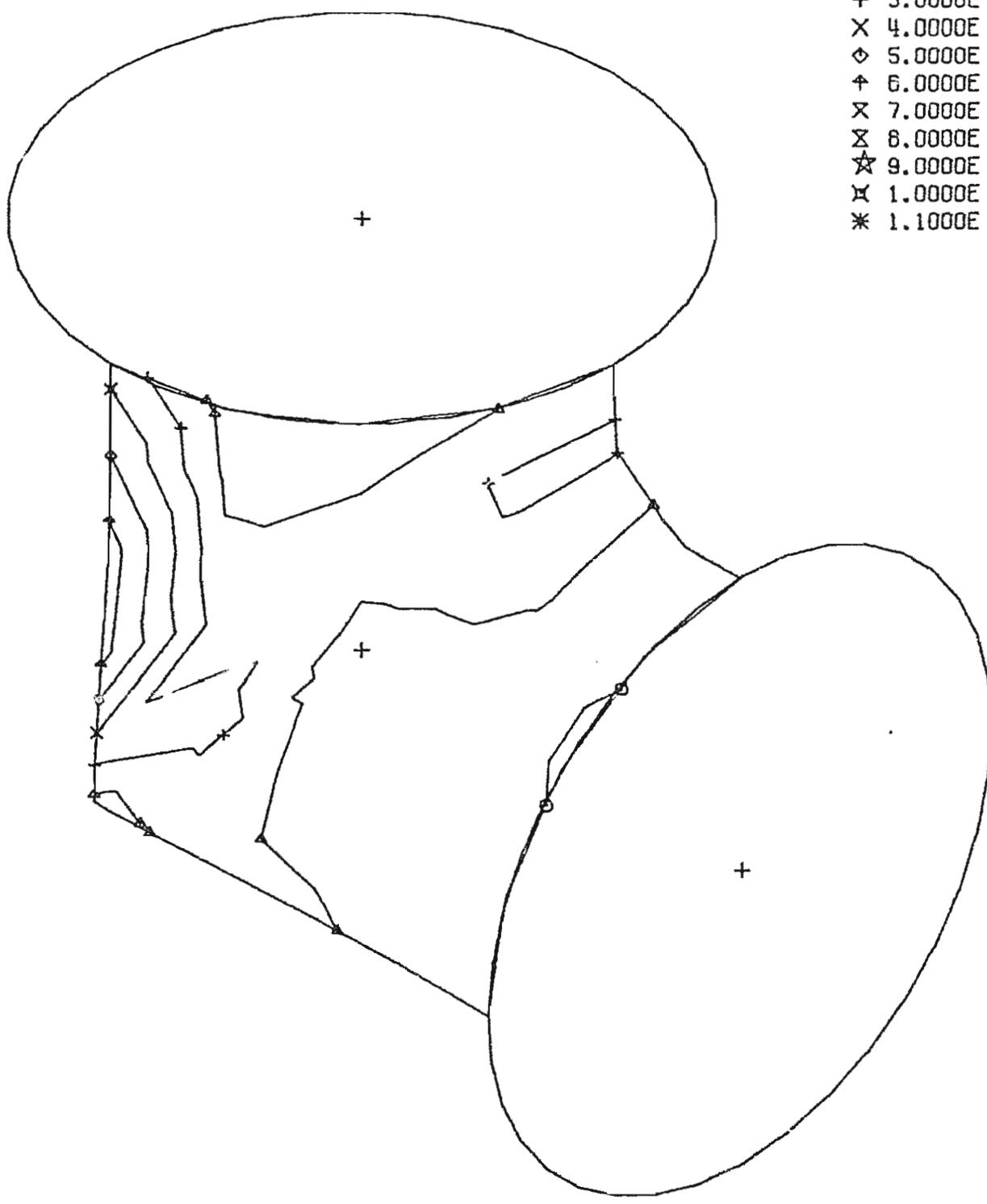


C.E. B16.9 T-10, F2Y

Top Inside Surface

CONTOUR VALUES

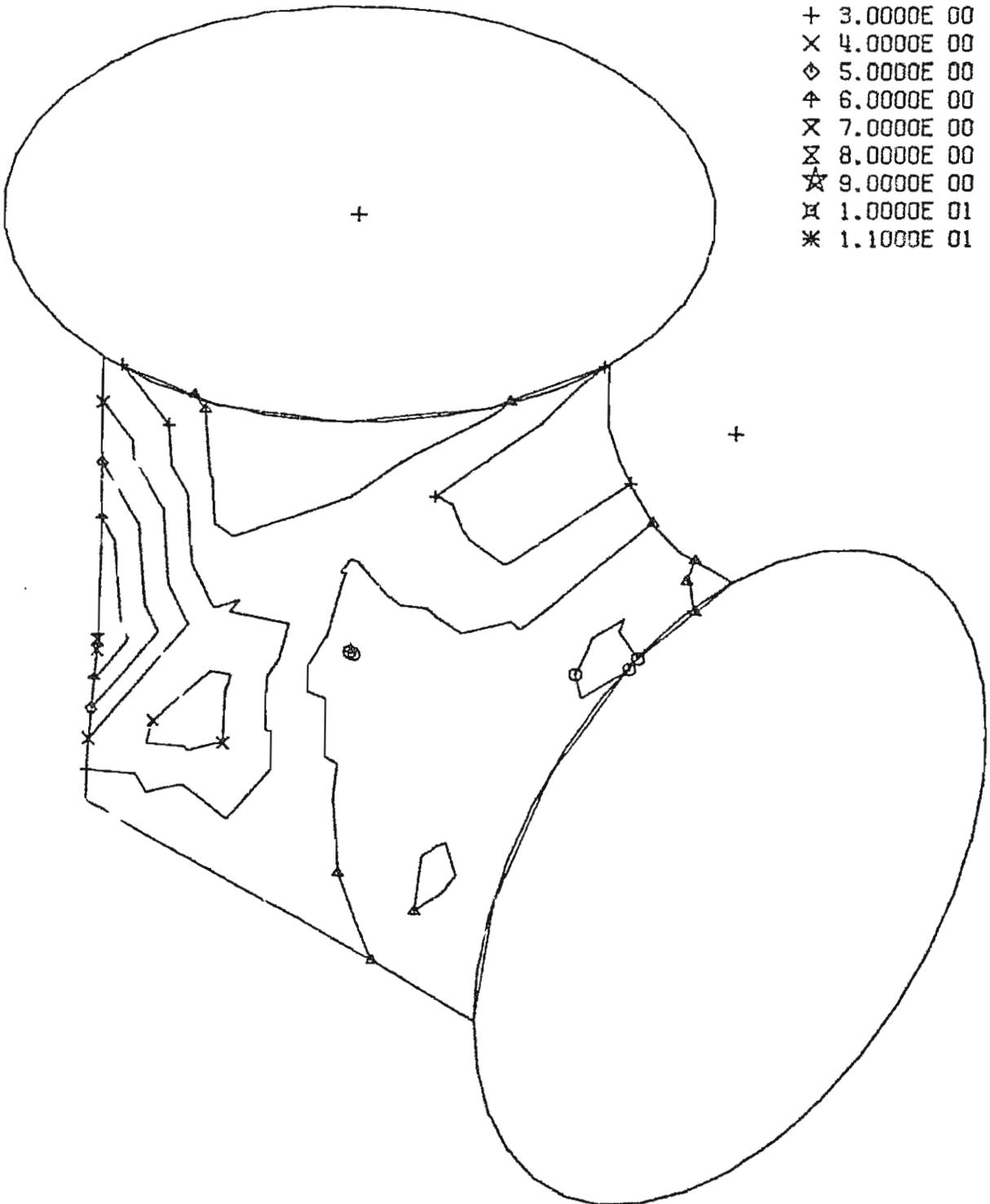
- 0.0
- 1.0000E 00
- △ 2.0000E 00
- + 3.0000E 00
- X 4.0000E 00
- ◇ 5.0000E 00
- ⊕ 6.0000E 00
- ⊗ 7.0000E 00
- ⊘ 8.0000E 00
- ☆ 9.0000E 00
- ⊗ 1.0000E 01
- * 1.1000E 01



C.E. B16.9 T-10, F2Y
Bottom Inside Surface

CONTOUR VALUES

- 0.0
- ⊙ 1.0000E 00
- △ 2.0000E 00
- + 3.0000E 00
- × 4.0000E 00
- ◇ 5.0000E 00
- ⊕ 6.0000E 00
- ⊗ 7.0000E 00
- ⊘ 8.0000E 00
- ☆ 9.0000E 00
- ⊠ 1.0000E 01
- * 1.1000E 01

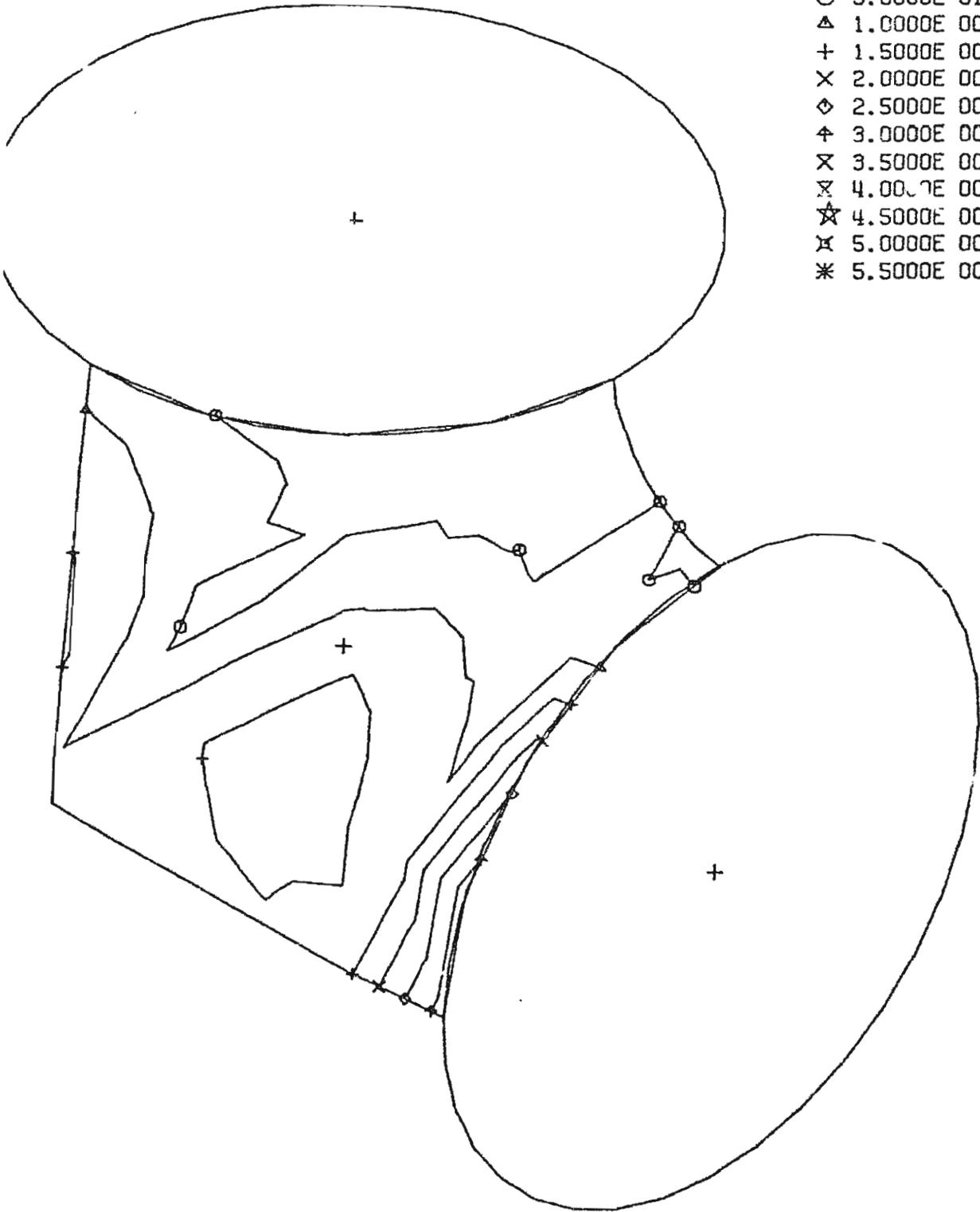


C.E. B16.9 T-10, F2Z

Top Outside Surface

CONTOUR VALUES

- 0.0
- 5.0000E-01
- △ 1.0000E 00
- + 1.5000E 00
- × 2.0000E 00
- ◇ 2.5000E 00
- ⋈ 3.0000E 00
- ⊗ 3.5000E 00
- ⊗ 4.0000E 00
- ☆ 4.5000E 00
- ⊗ 5.0000E 00
- * 5.5000E 00

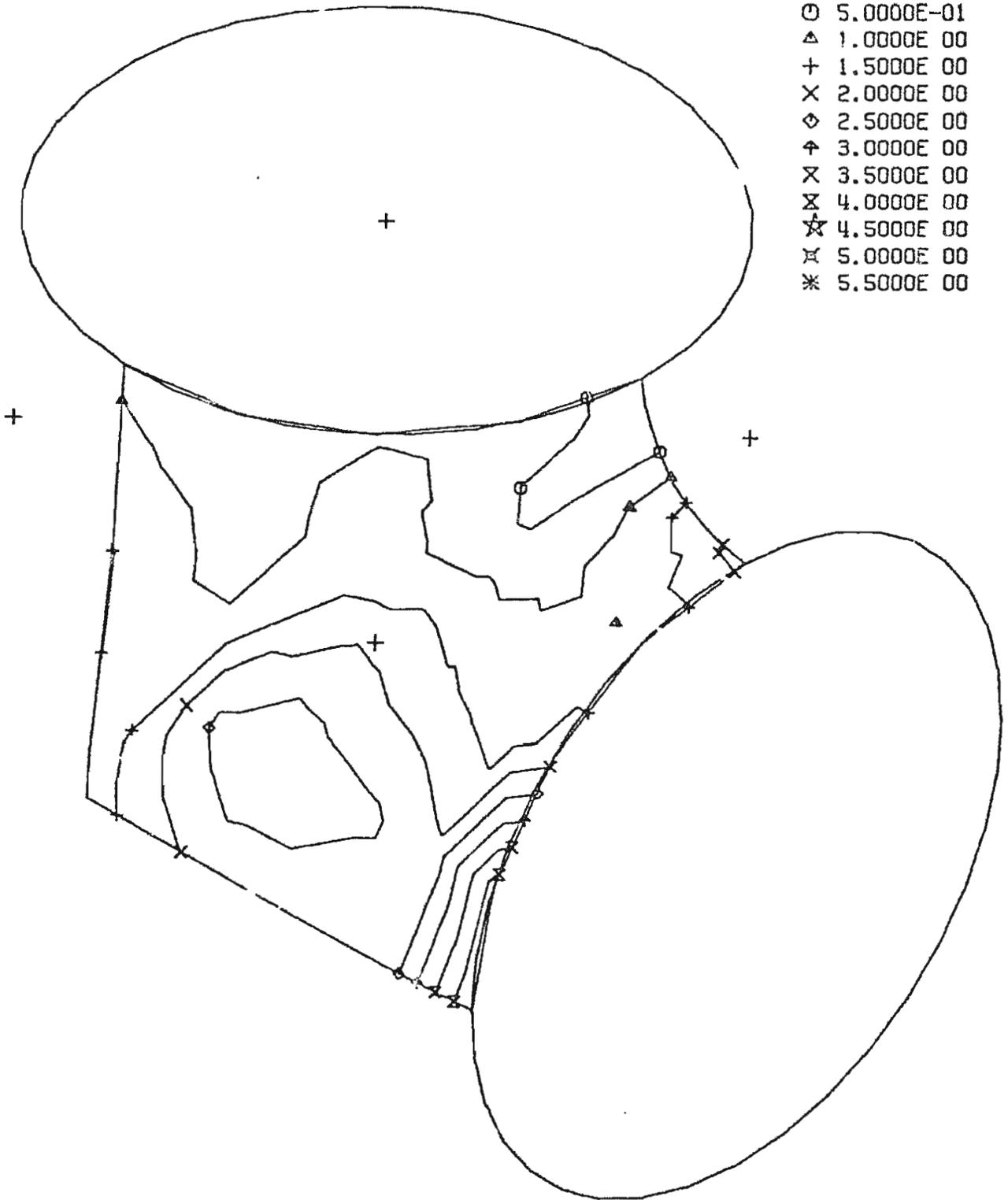


C.E. B16.9 T-10, F2Z

Bottom Outside Surface

CONTOUR VALUES

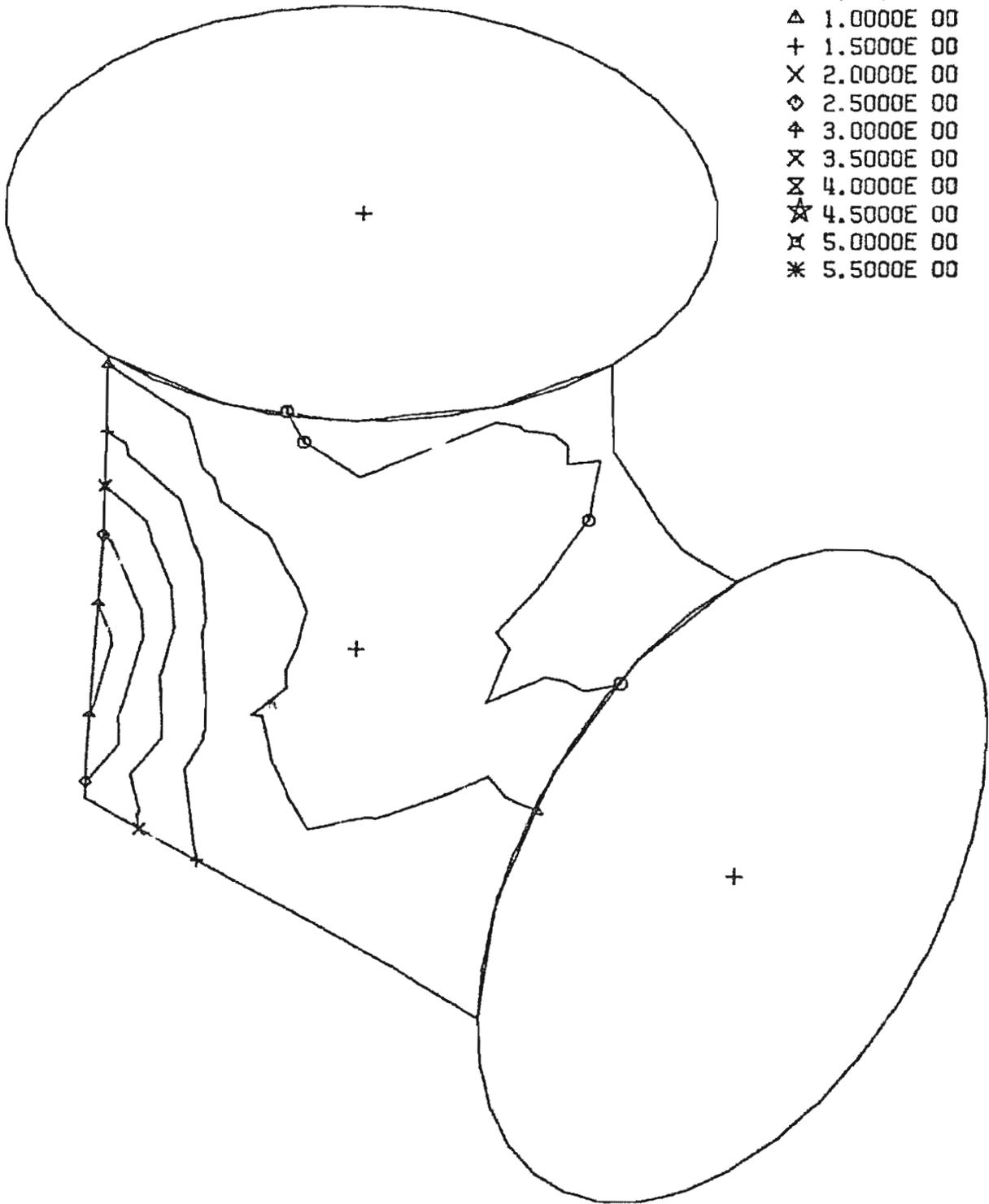
- 0.0
- 5.0000E-01
- △ 1.0000E 00
- + 1.5000E 00
- × 2.0000E 00
- ◇ 2.5000E 00
- ⊕ 3.0000E 00
- ⊗ 3.5000E 00
- ⊘ 4.0000E 00
- ☆ 4.5000E 00
- ⊗ 5.0000E 00
- * 5.5000E 00



C.E. B16.9 T-10, F2Z
Top Inside Surface

CONTOUR VALUES

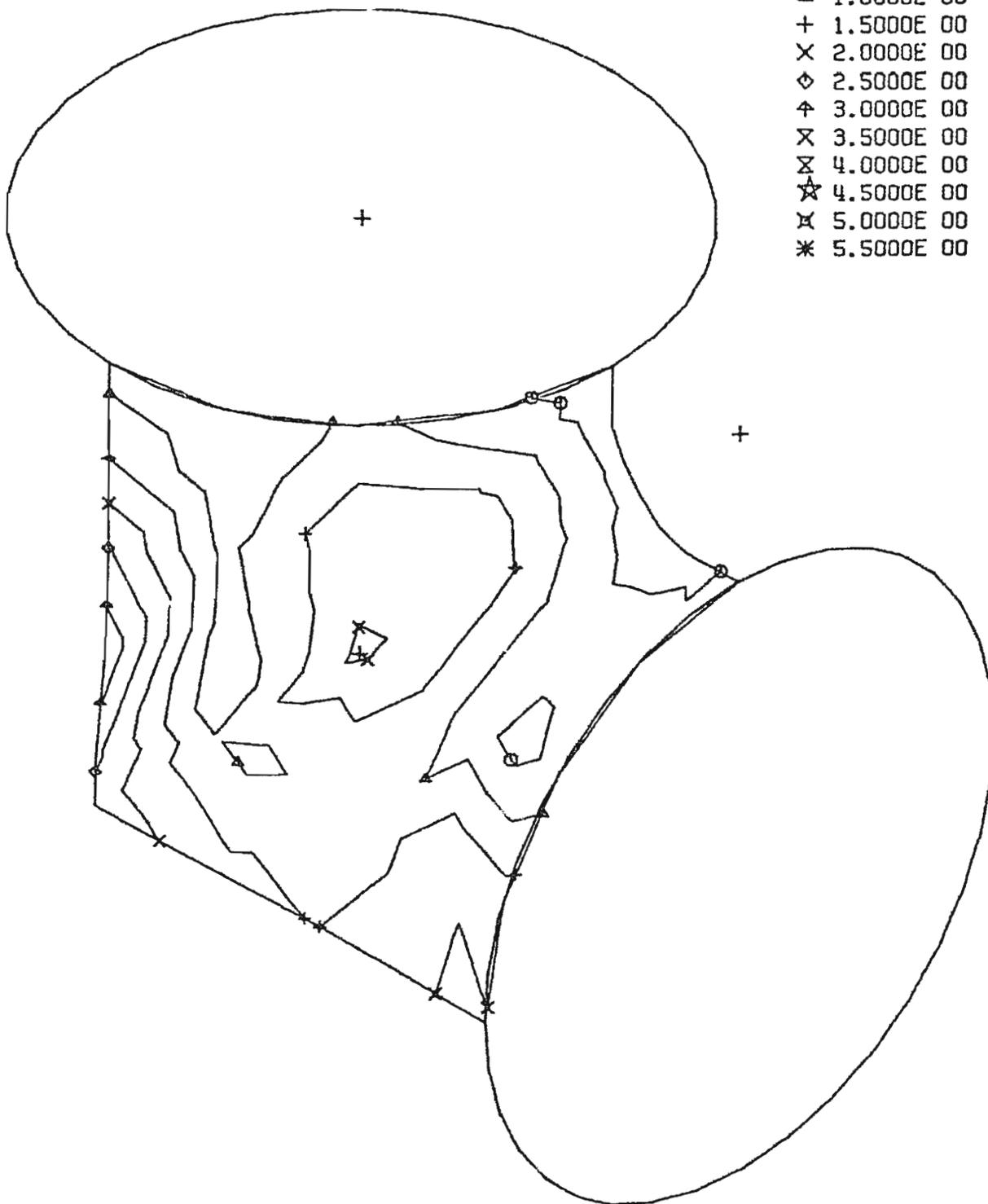
- 0.0
- 5.0000E-01
- △ 1.0000E 00
- + 1.5000E 00
- × 2.0000E 00
- ◇ 2.5000E 00
- ⋈ 3.0000E 00
- × 3.5000E 00
- ⊗ 4.0000E 00
- ★ 4.5000E 00
- ⊠ 5.0000E 00
- * 5.5000E 00



C.E. B16.9 T-10, F2Z
Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 5.0000E-01
- △ 1.0000E 00
- + 1.5000E 00
- × 2.0000E 00
- ◇ 2.5000E 00
- ⋈ 3.0000E 00
- ⊗ 3.5000E 00
- ☆ 4.5000E 00
- ⊠ 5.0000E 00
- * 5.5000E 00

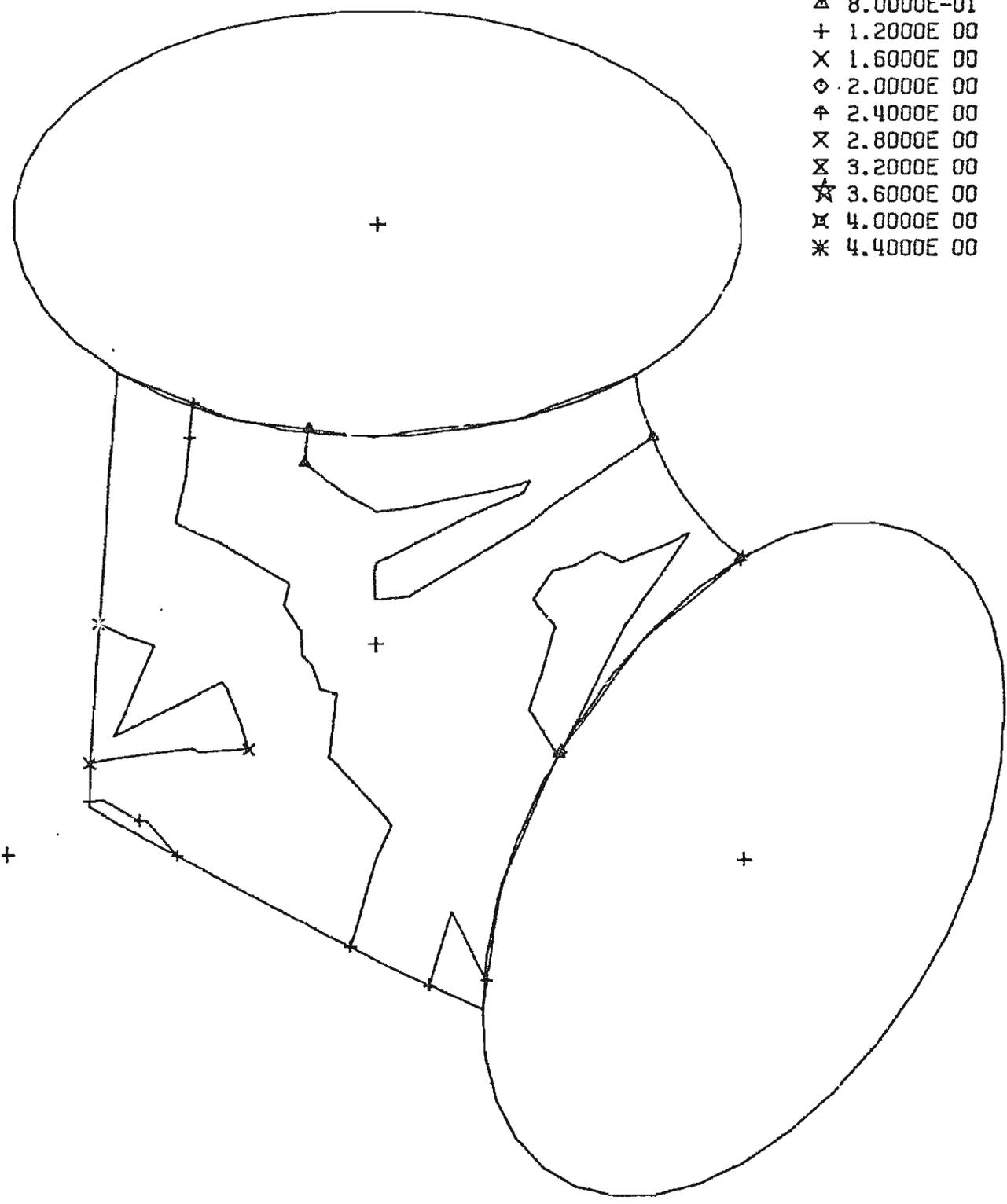


C.E. B16.9 T-10, PRESSURE

Top Outside Surface

CONTOUR VALUES

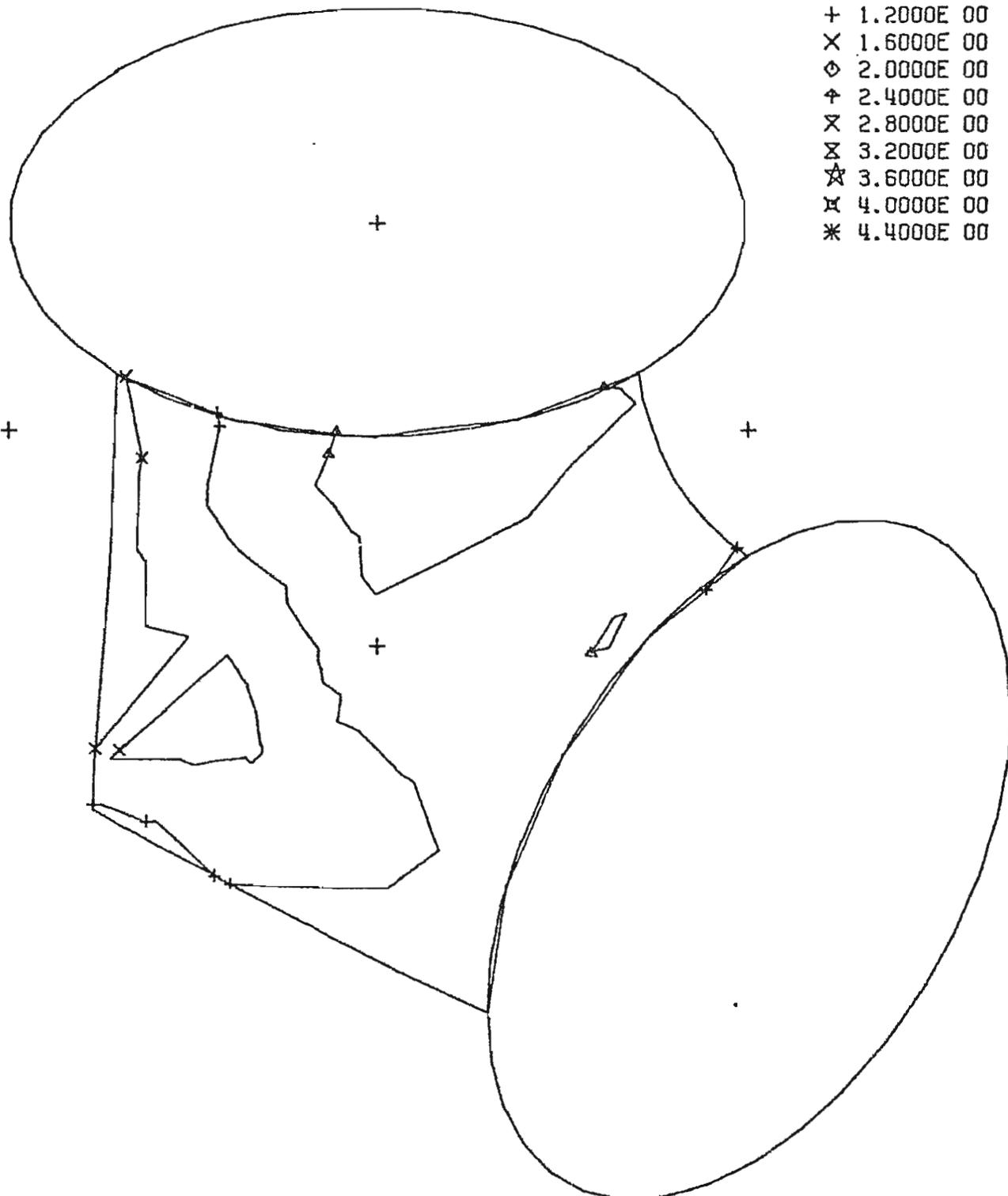
- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⋈ 2.4000E 00
- ⋈ 2.8000E 00
- ⋈ 3.2000E 00
- ☆ 3.6000E 00
- ⋈ 4.0000E 00
- * 4.4000E 00



C.E. B16.9 T-10, PRESSURE
Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⊕ 2.4000E 00
- ⊗ 2.8000E 00
- ⊘ 3.2000E 00
- ☆ 3.6000E 00
- ⊠ 4.0000E 00
- * 4.4000E 00

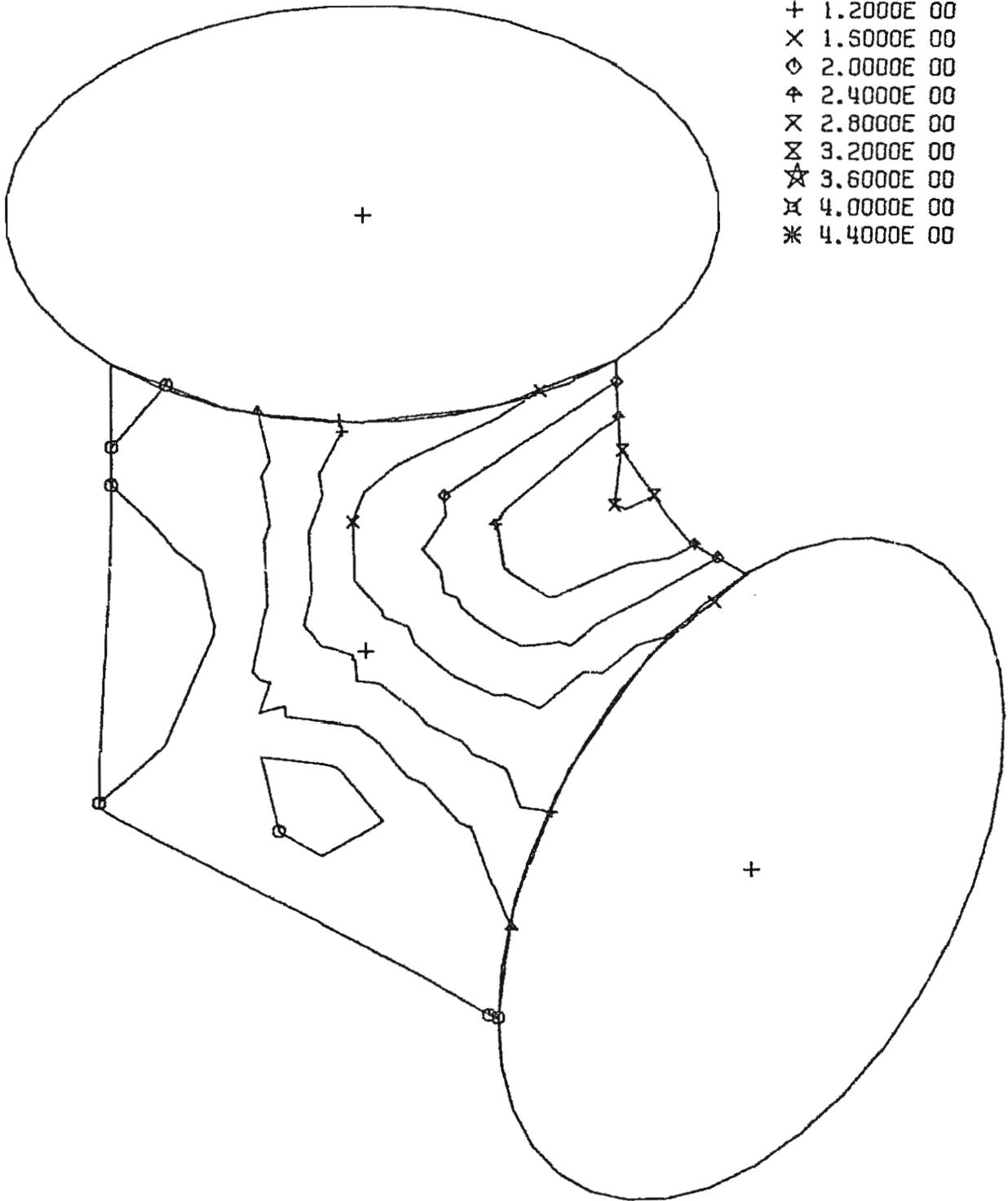


C.E. B16.9 T-10, PRESSURE

Top Inside Surface

CONTOUR VALUES

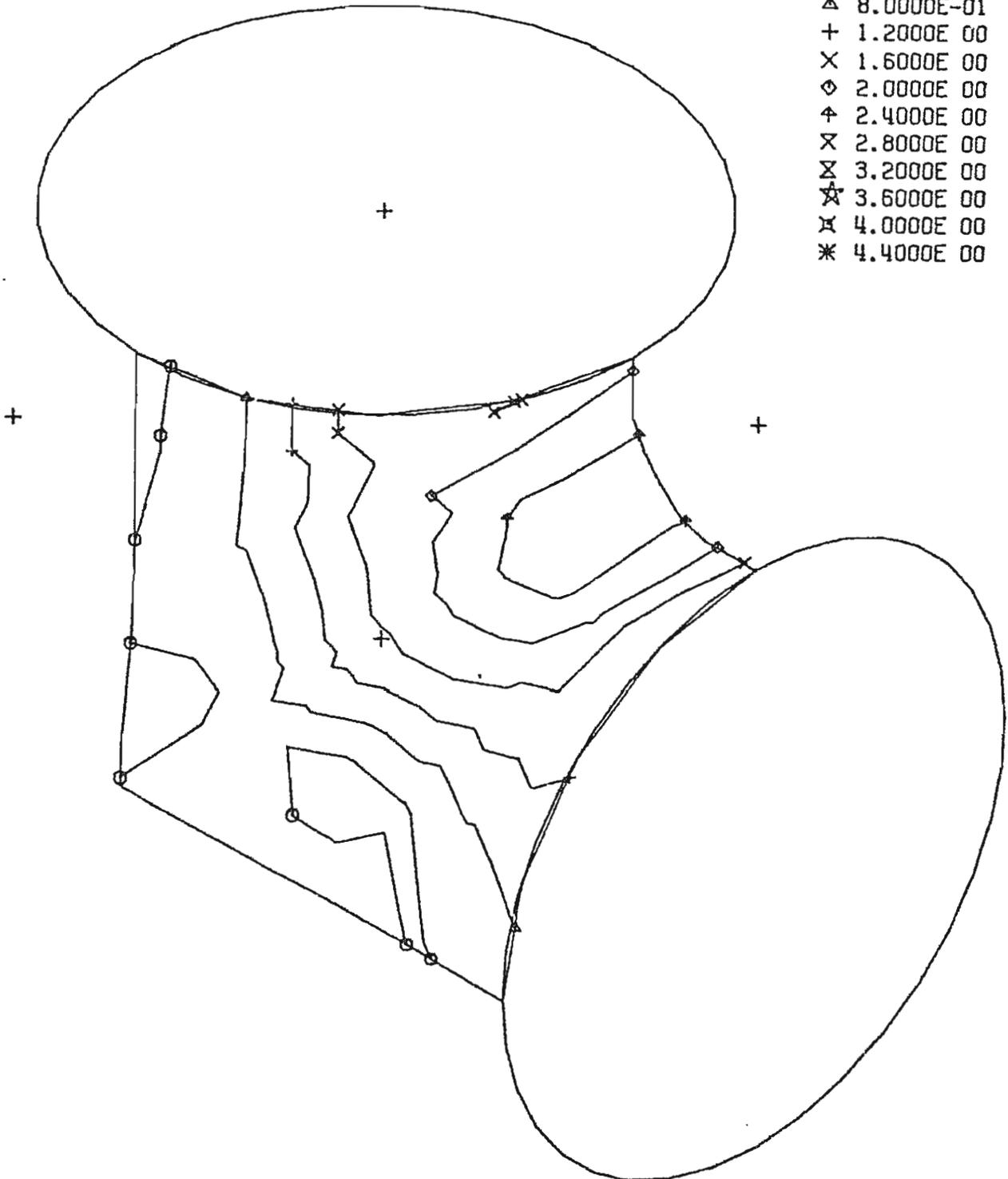
- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.5000E 00
- ◇ 2.0000E 00
- ⋈ 2.4000E 00
- × 2.8000E 00
- ⊗ 3.2000E 00
- ☆ 3.6000E 00
- ⊗ 4.0000E 00
- * 4.4000E 00



C.E. B16.9 T-10, PRESSURE
Bottom Inside Surface

CONTOUR VALUES

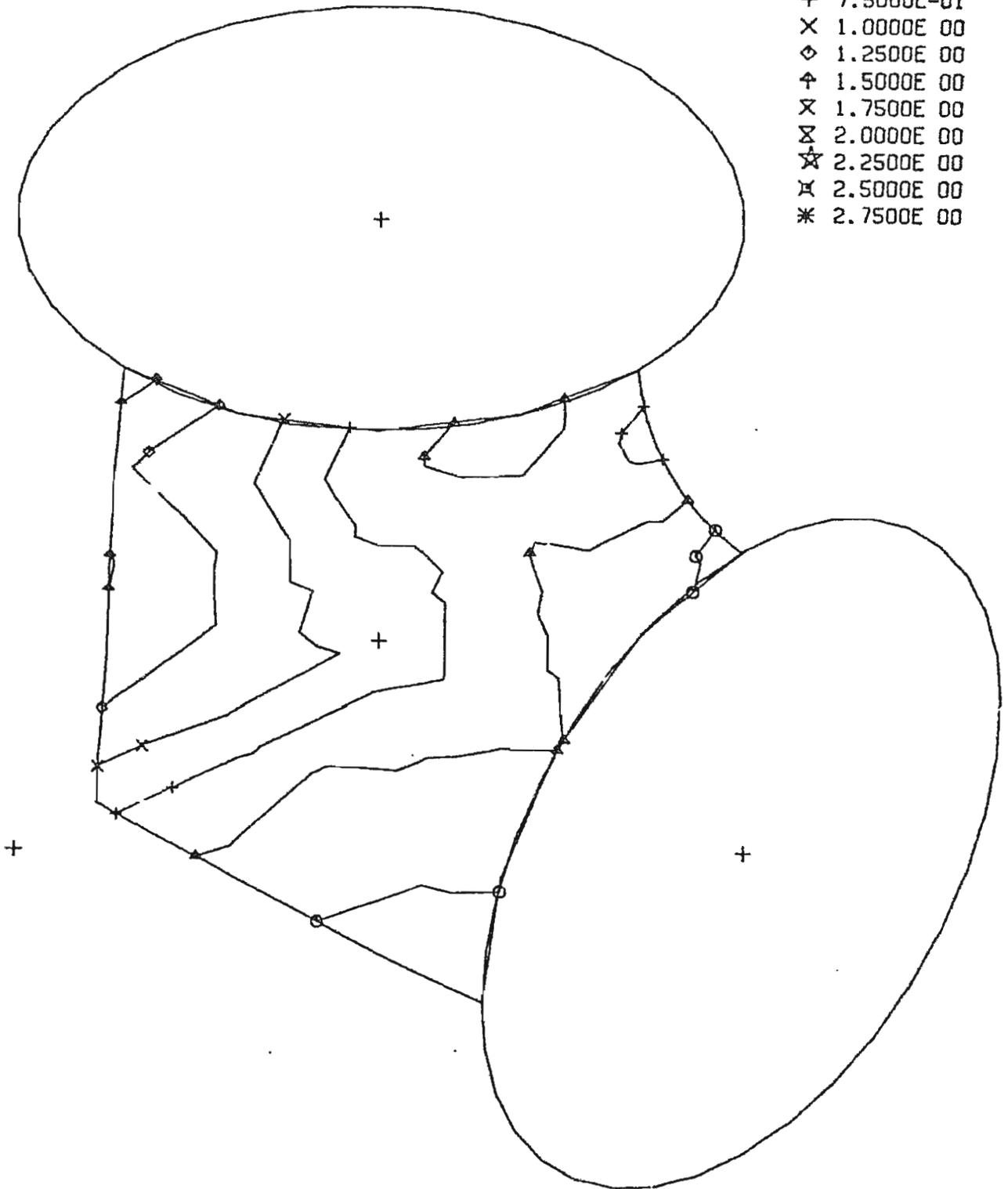
- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⊕ 2.4000E 00
- ⊗ 2.8000E 00
- ⊘ 3.2000E 00
- ☆ 3.6000E 00
- ⊠ 4.0000E 00
- * 4.4000E 00



C.E. B16.9 T-11, M3X
Top Outside Surface

CONTOUR VALUES

- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- × 1.0000E 00
- ◇ 1.2500E 00
- ⋈ 1.5000E 00
- ⋈ 1.7500E 00
- ⋈ 2.0000E 00
- ☆ 2.2500E 00
- ⋈ 2.5000E 00
- * 2.7500E 00

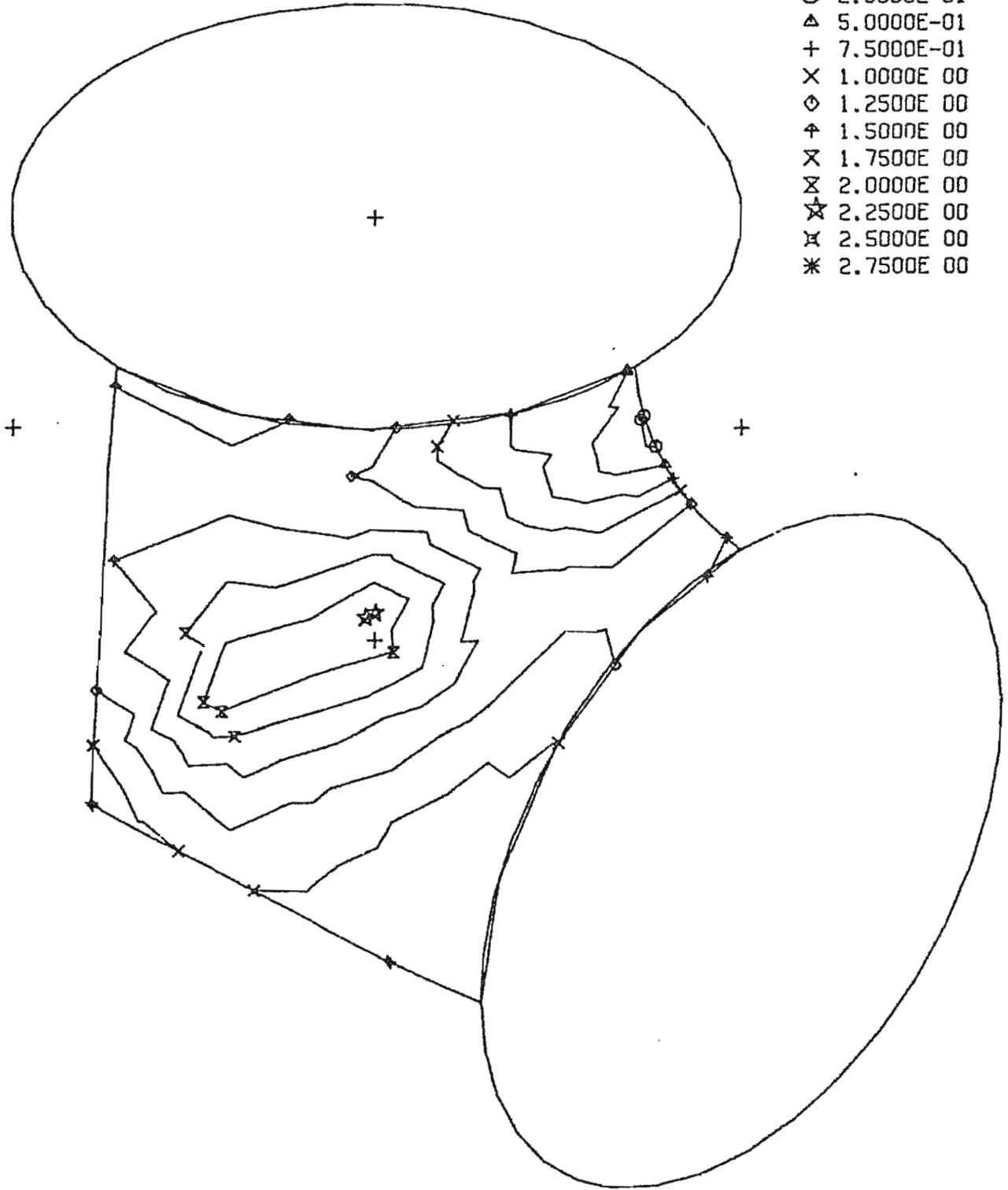


C.E. B16.9 T-11, M3X

Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- × 1.0000E 00
- ◇ 1.2500E 00
- ⊕ 1.5000E 00
- ⊗ 1.7500E 00
- ⊘ 2.0000E 00
- ☆ 2.2500E 00
- ⊗ 2.5000E 00
- * 2.7500E 00

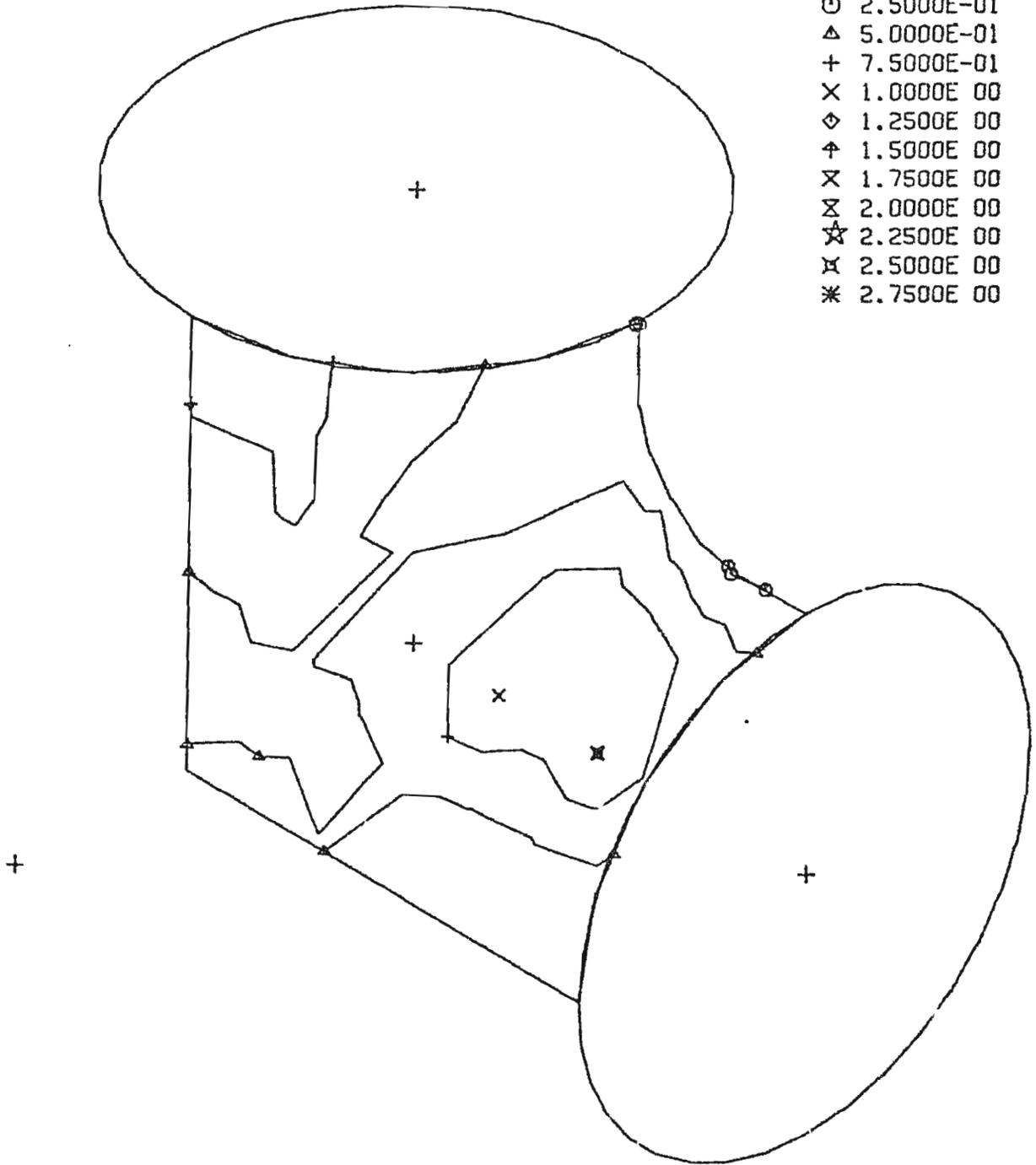


C.E. B16.9 T-11, M3X

Top Inside Surface

CONTOUR VALUES

- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- × 1.0000E 00
- ◇ 1.2500E 00
- ⋈ 1.5000E 00
- ⊗ 1.7500E 00
- ⊘ 2.0000E 00
- ☆ 2.2500E 00
- ⊗ 2.5000E 00
- * 2.7500E 00

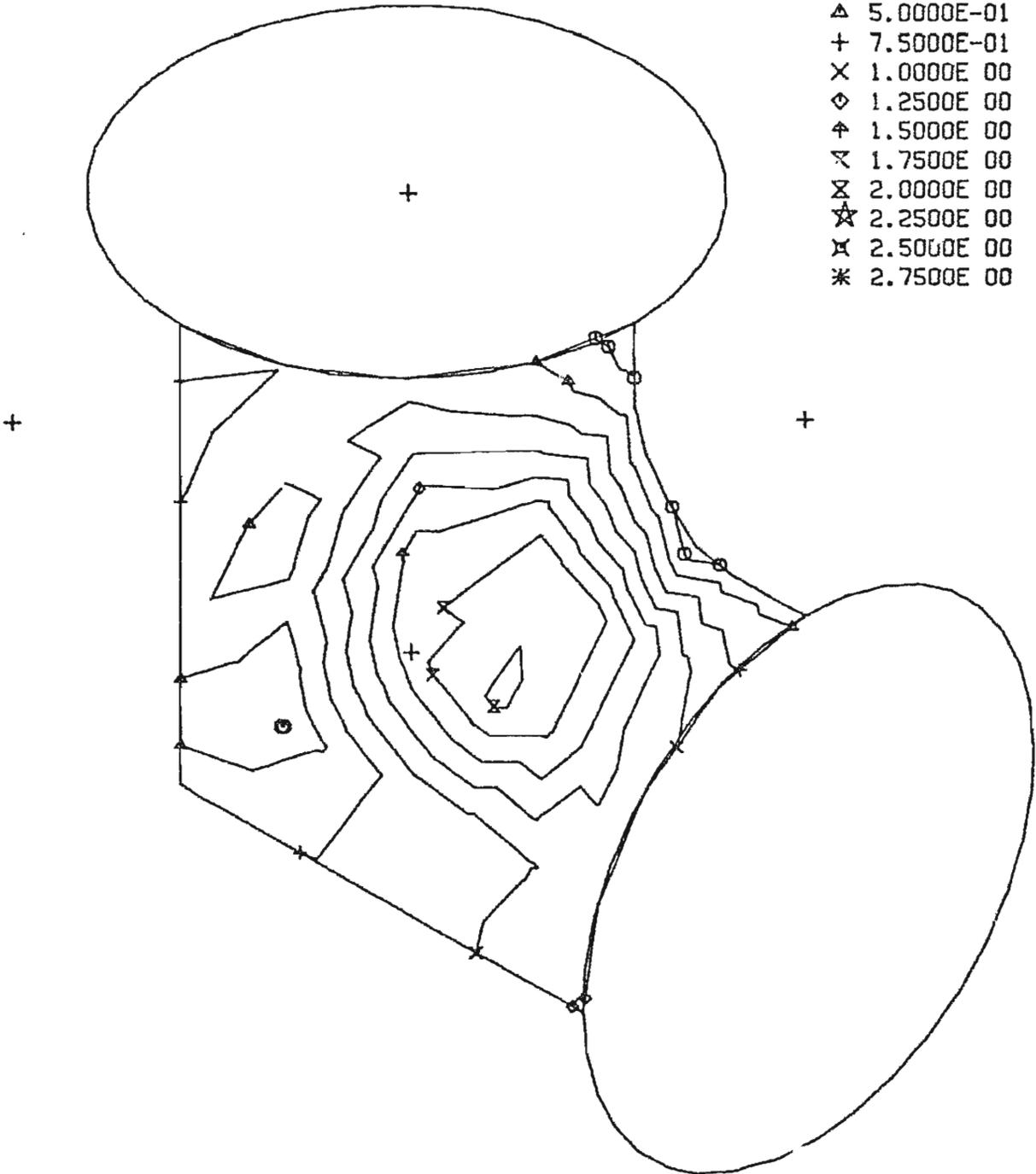


C.E. B16.9 I-11, M3X

Bottom Inside Surface

CONTOUR VALUES

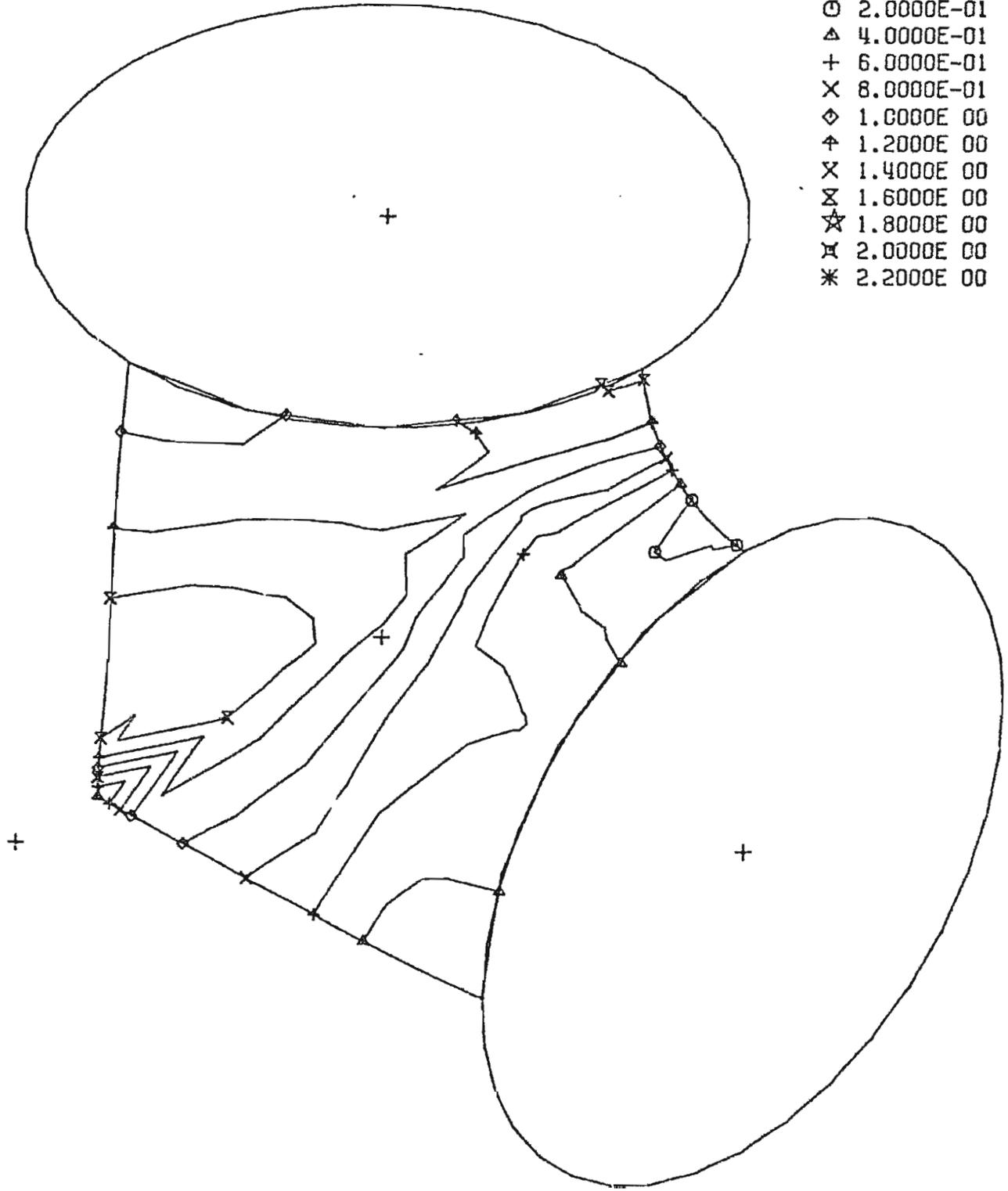
- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- × 1.0000E 00
- ◇ 1.2500E 00
- ⋈ 1.5000E 00
- ⋈ 1.7500E 00
- ⋈ 2.0000E 00
- ☆ 2.2500E 00
- ⋈ 2.5000E 00
- * 2.7500E 00



C.E. B16.9 T-11, M3Y
Top Outside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⊕ 1.2000E 00
- × 1.4000E 00
- ⊗ 1.6000E 00
- ☆ 1.8000E 00
- ⊗ 2.0000E 00
- * 2.2000E 00

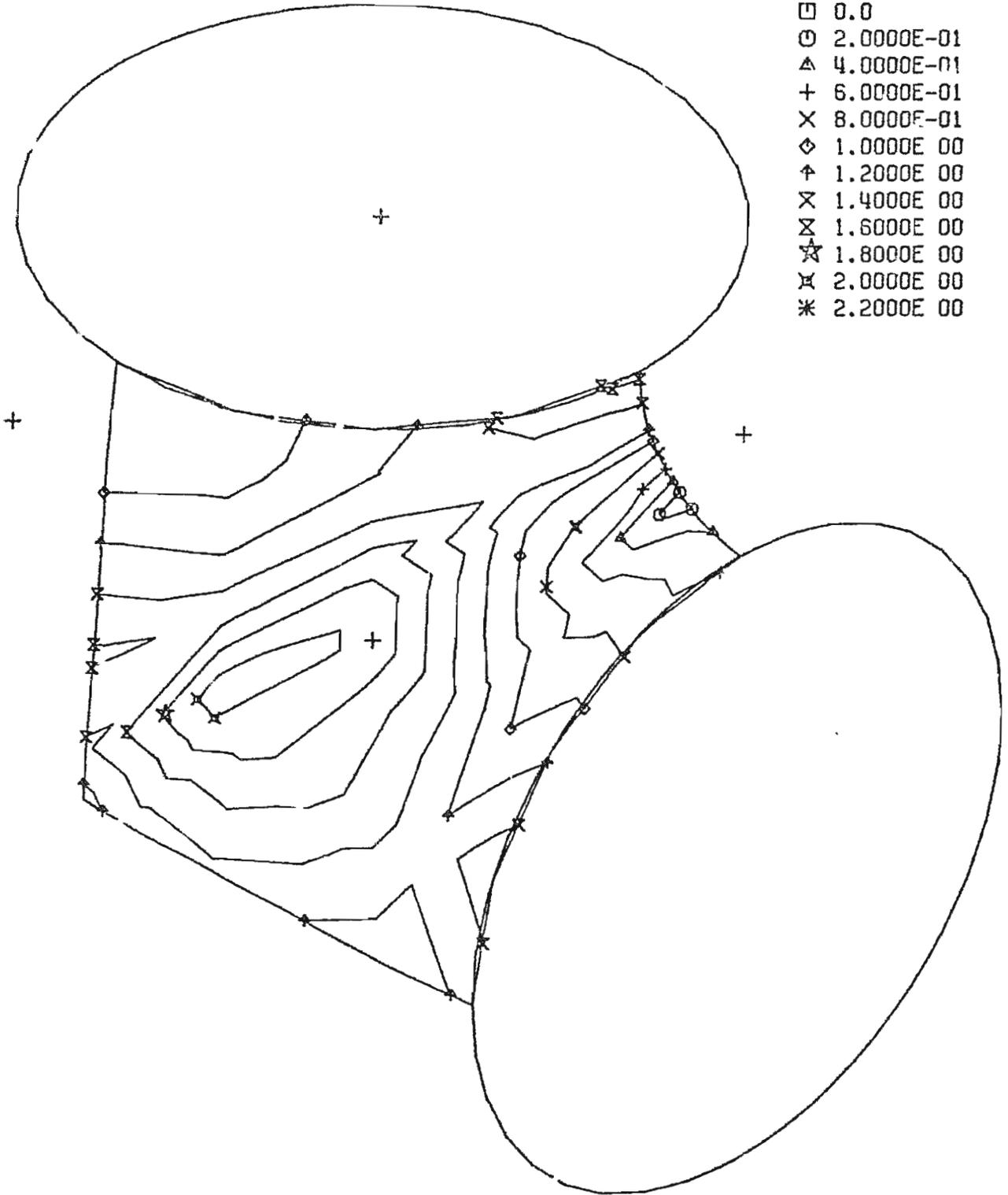


C.E. B16.9 T-11, M3Y

Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ↑ 1.2000E 00
- ⋈ 1.4000E 00
- ⊗ 1.6000E 00
- ☆ 1.8000E 00
- ⊘ 2.0000E 00
- * 2.2000E 00

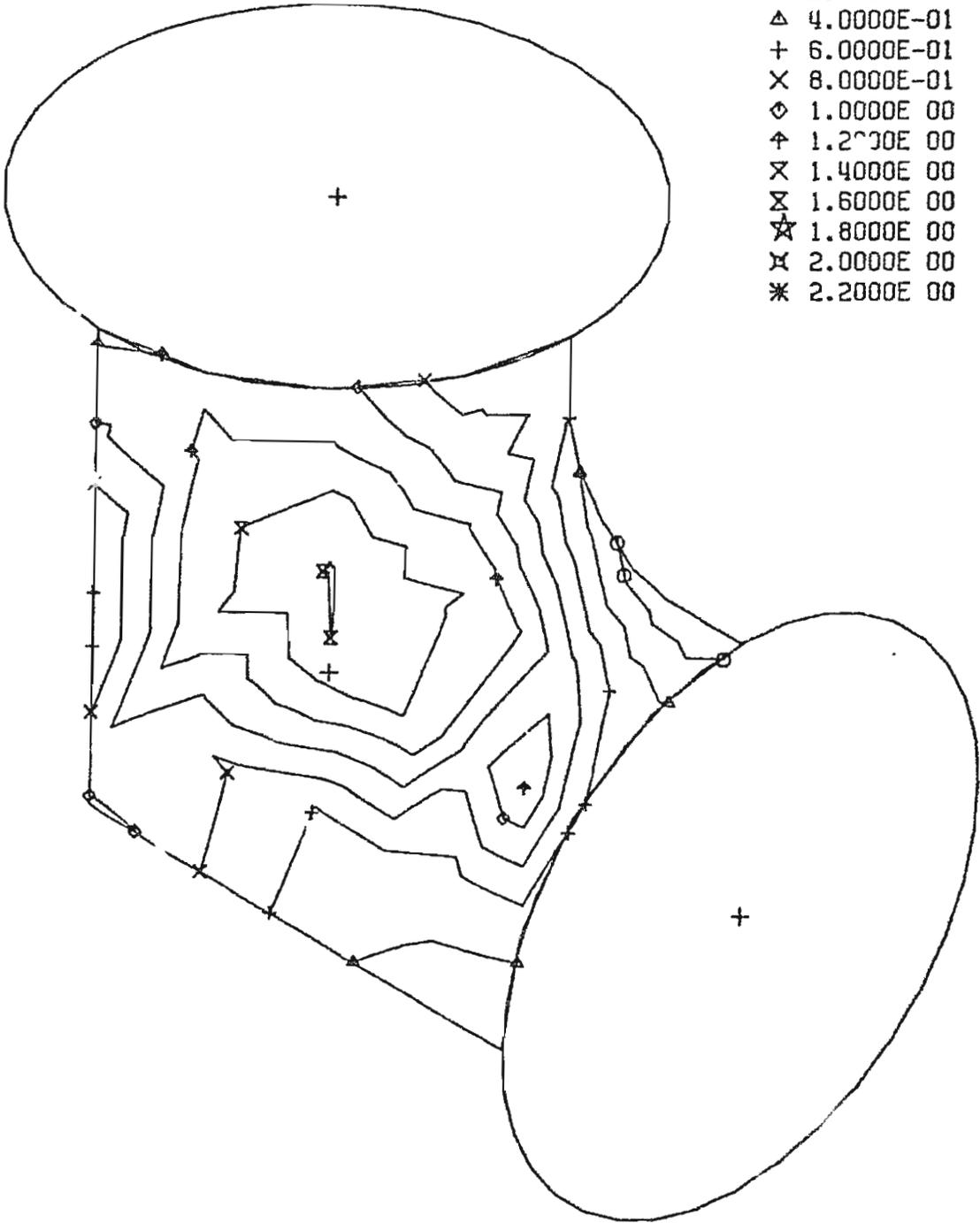


C.E. B16.9 T-11, M3Y

Top Inside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⊕ 1.2000E 00
- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
- ☆ 1.8000E 00
- ⊗ 2.0000E 00
- * 2.2000E 00

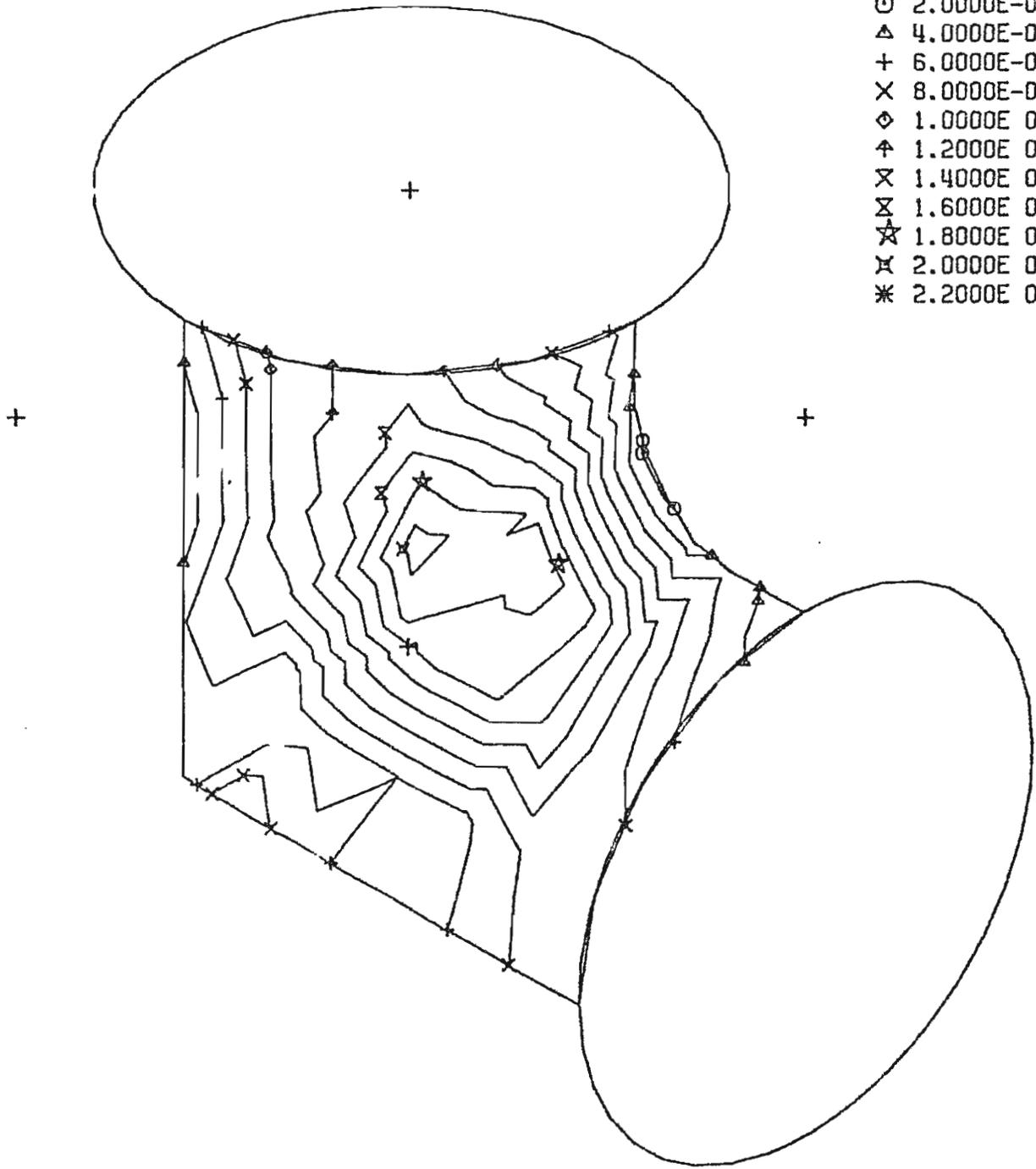


C.E. B16.9 T-11, M3Y

Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⋈ 1.2000E 00
- ⋈ 1.4000E 00
- ⋈ 1.6000E 00
- ☆ 1.8000E 00
- ⋈ 2.0000E 00
- * 2.2000E 00

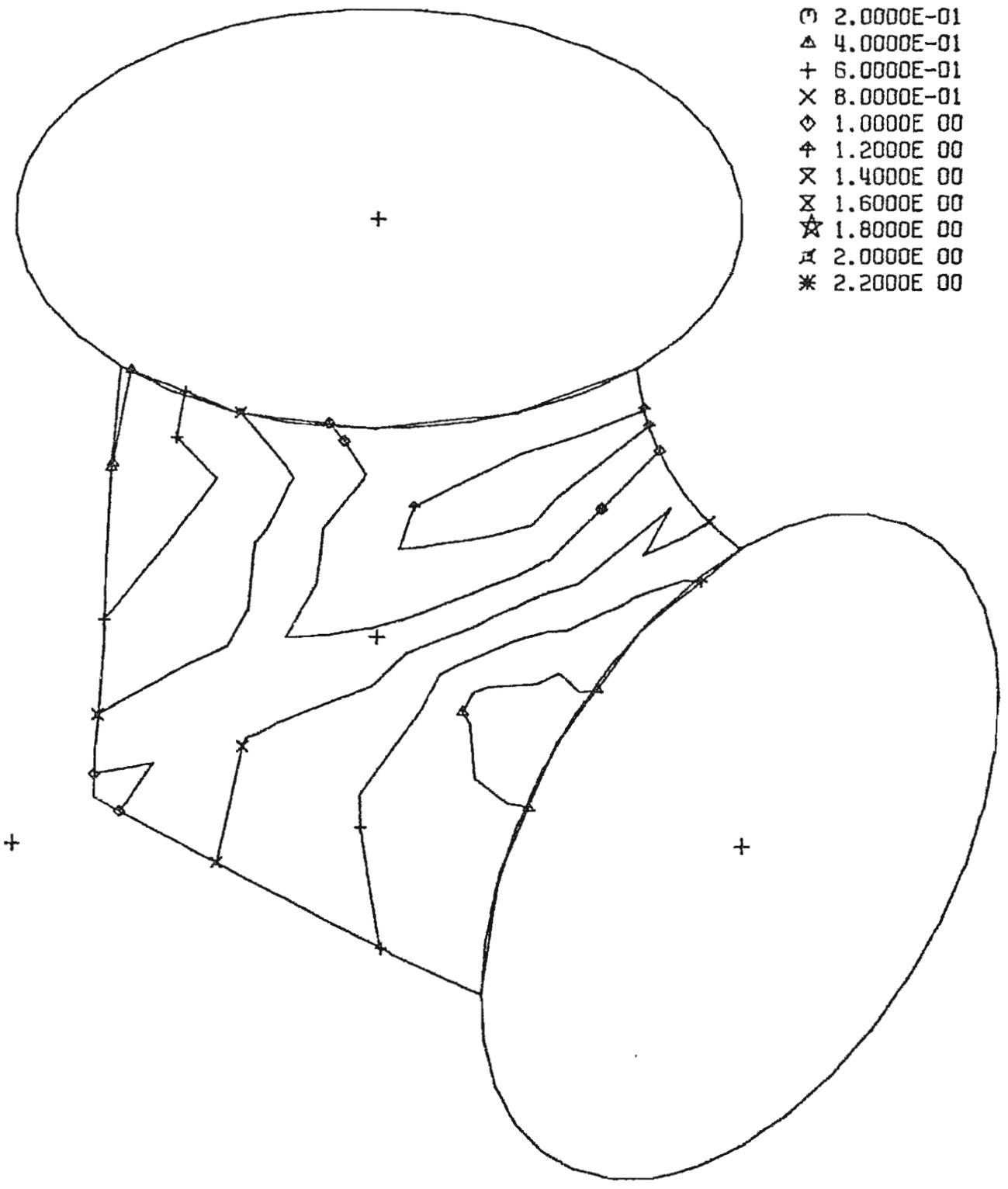


C.E. B16.9 T-11, M32

Top Outside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⊕ 1.2000E 00
- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
- ☆ 1.8000E 00
- ⊠ 2.0000E 00
- * 2.2000E 00

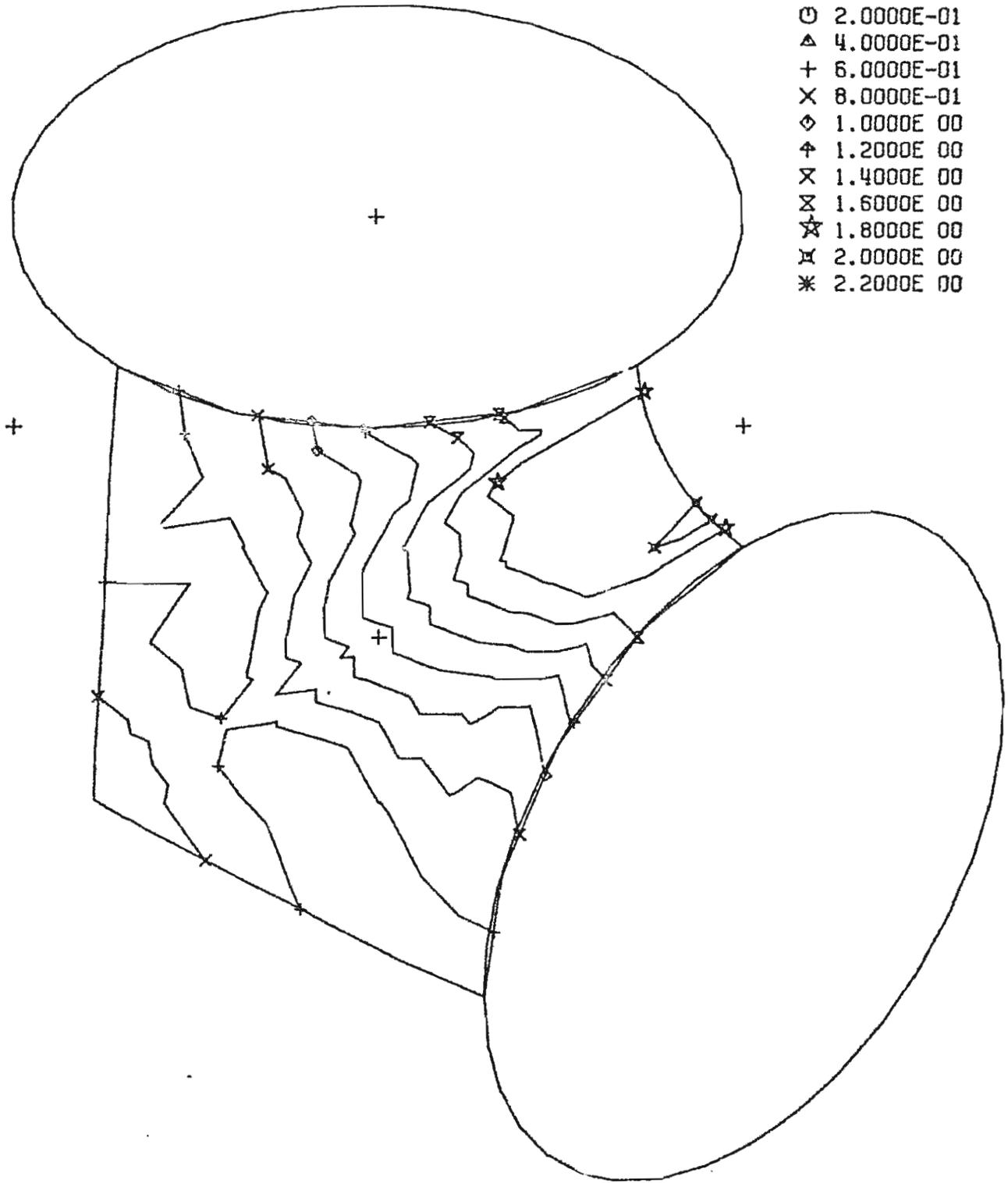


C.E. B16.9 T-11, M32

Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⊕ 1.2000E 00
- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
- ☆ 1.8000E 00
- ⊗ 2.0000E 00
- * 2.2000E 00

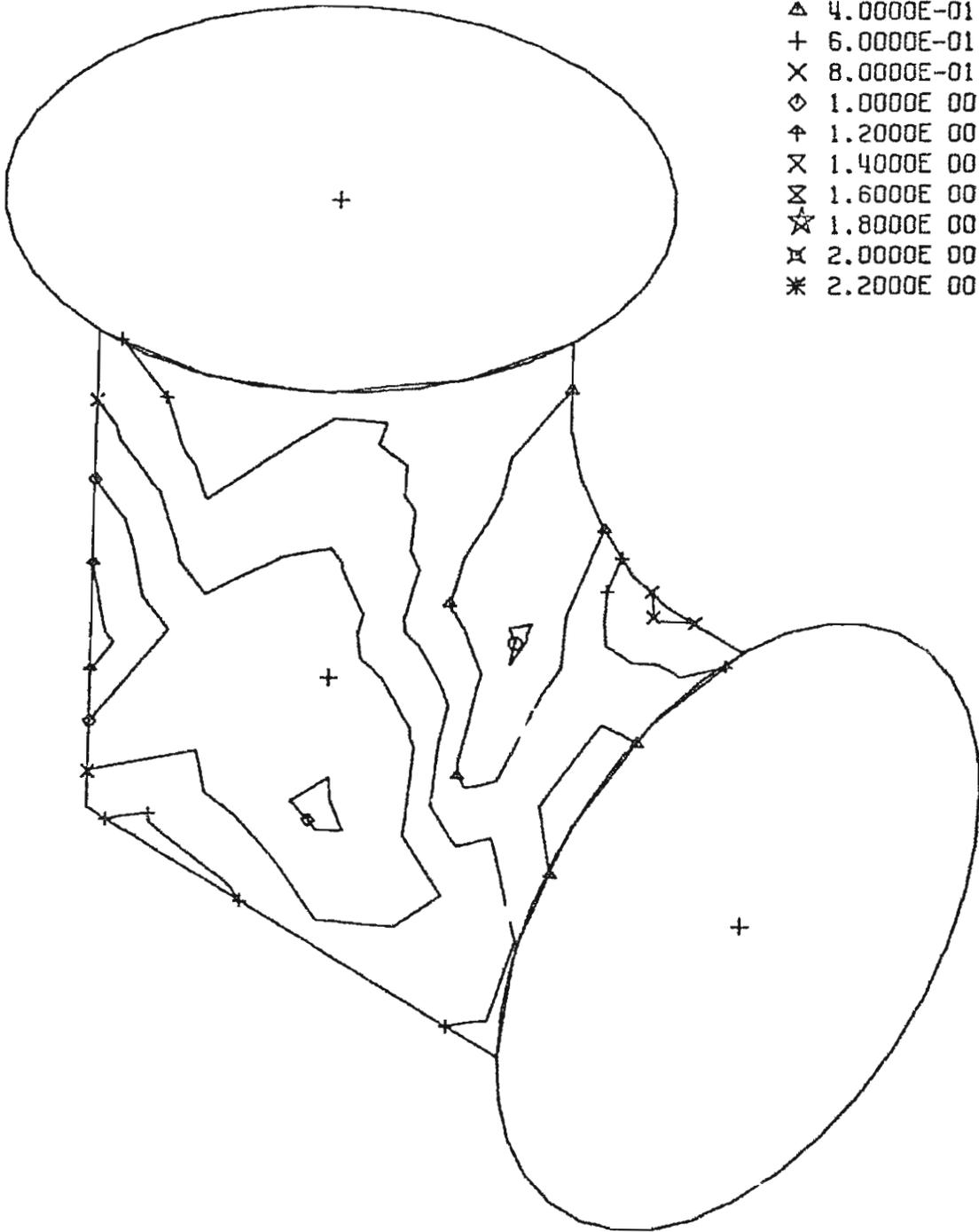


C.E. B16.9 T-11, M3Z

Top Inside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⊕ 1.2000E 00
- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
- ☆ 1.8000E 00
- ⊞ 2.0000E 00
- * 2.2000E 00

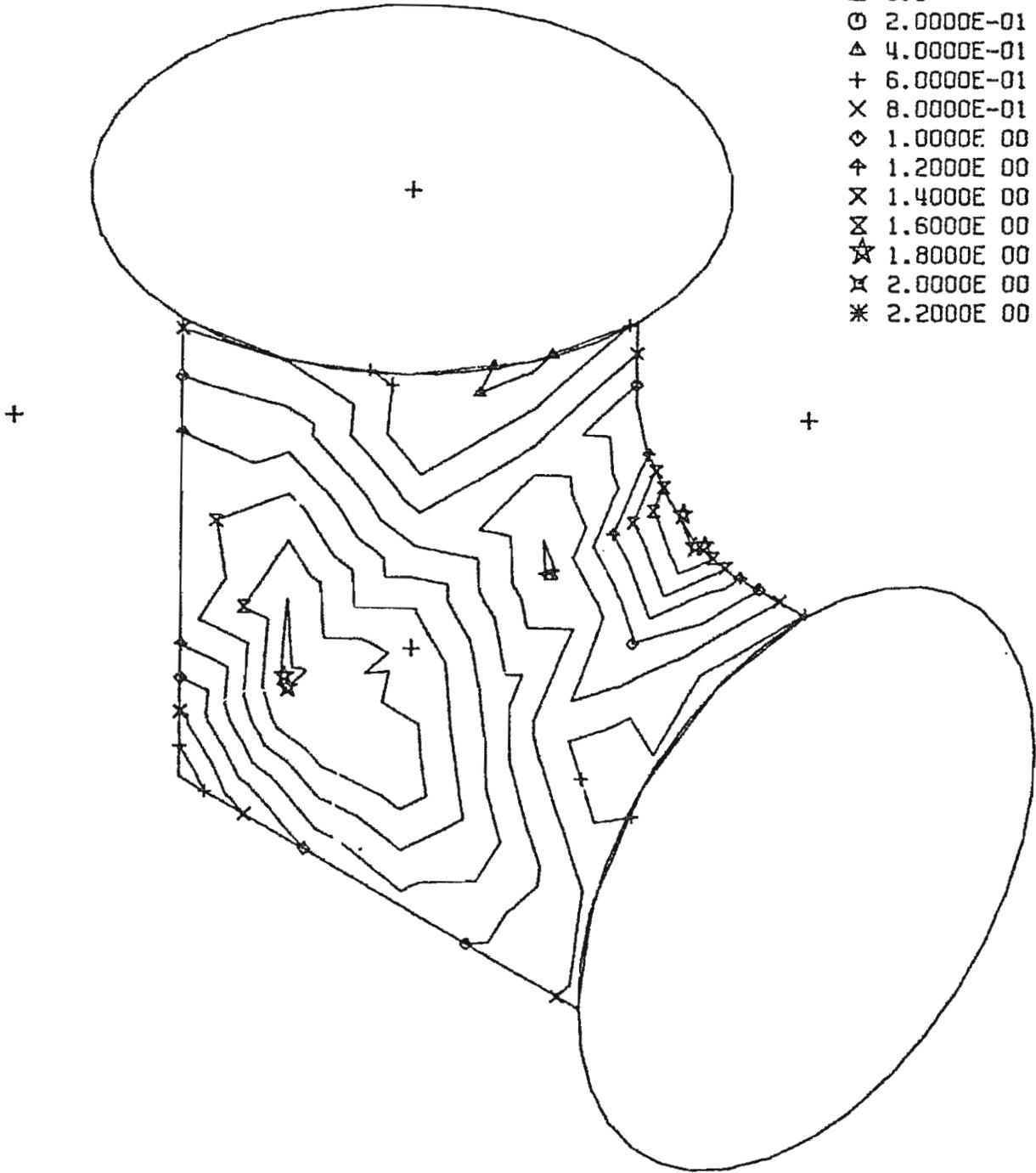


C.E. B16.9 T-11, M3Z

Bottom Inside Surface

CONTOUR VALUES

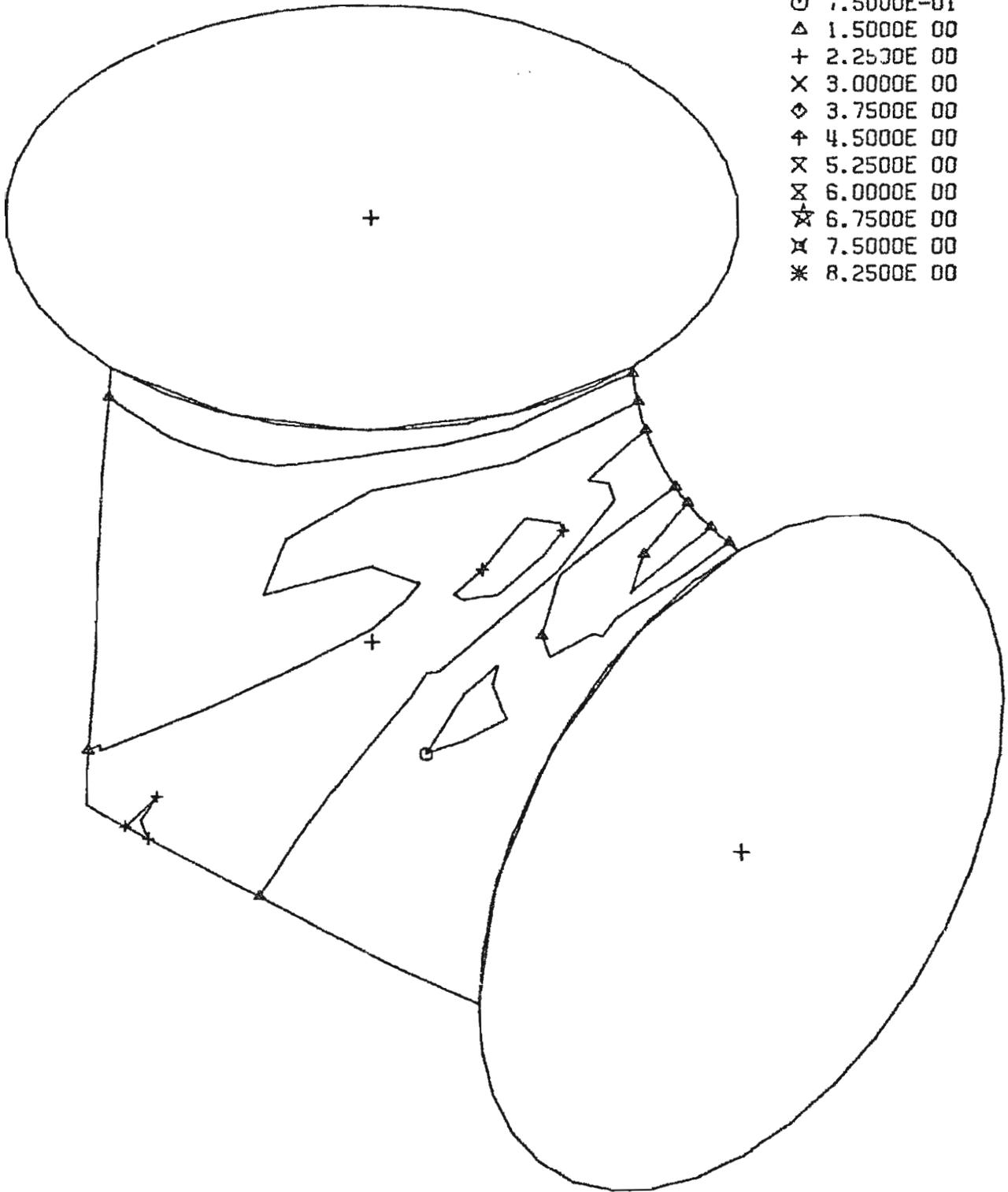
- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⊕ 1.2000E 00
- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
- ☆ 1.8000E 00
- ⊗ 2.0000E 00
- * 2.2000E 00



C.E. B16.9 T-11, F3Y
Top Outside Surface

CONTOUR VALUES

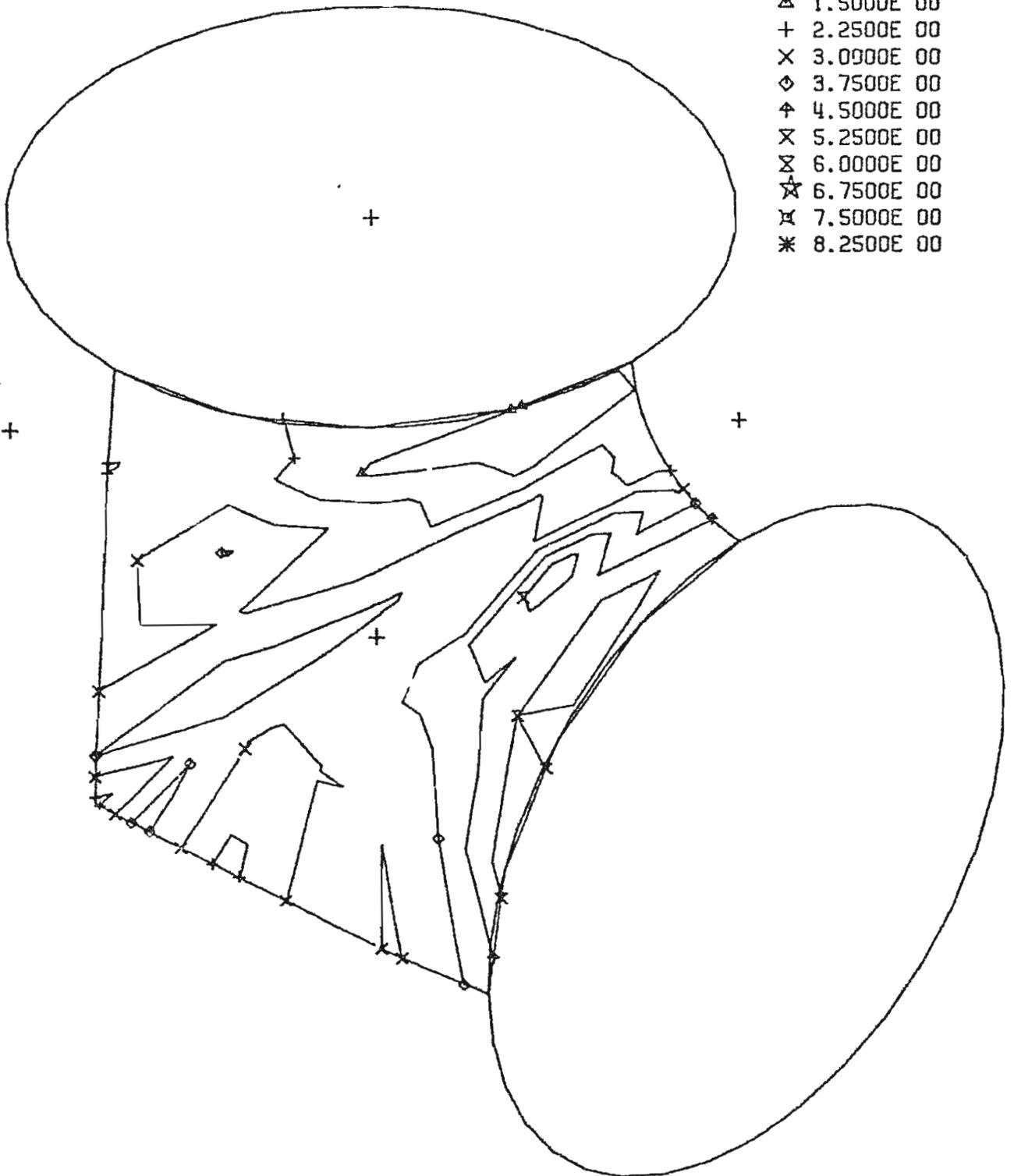
- 0.0
- 7.5000E-01
- △ 1.5000E 00
- + 2.2500E 00
- X 3.0000E 00
- ◇ 3.7500E 00
- ⊕ 4.5000E 00
- ⊗ 5.2500E 00
- ⊘ 6.0000E 00
- ☆ 6.7500E 00
- ⊗ 7.5000E 00
- * 8.2500E 00



C.E. B16.9 T-11, F3Y
Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 7.5000E-01
- △ 1.5000E 00
- + 2.2500E 00
- × 3.0000E 00
- ◇ 3.7500E 00
- ⊕ 4.5000E 00
- ⊗ 5.2500E 00
- ⊘ 6.0000E 00
- ☆ 6.7500E 00
- ⊗ 7.5000E 00
- * 8.2500E 00

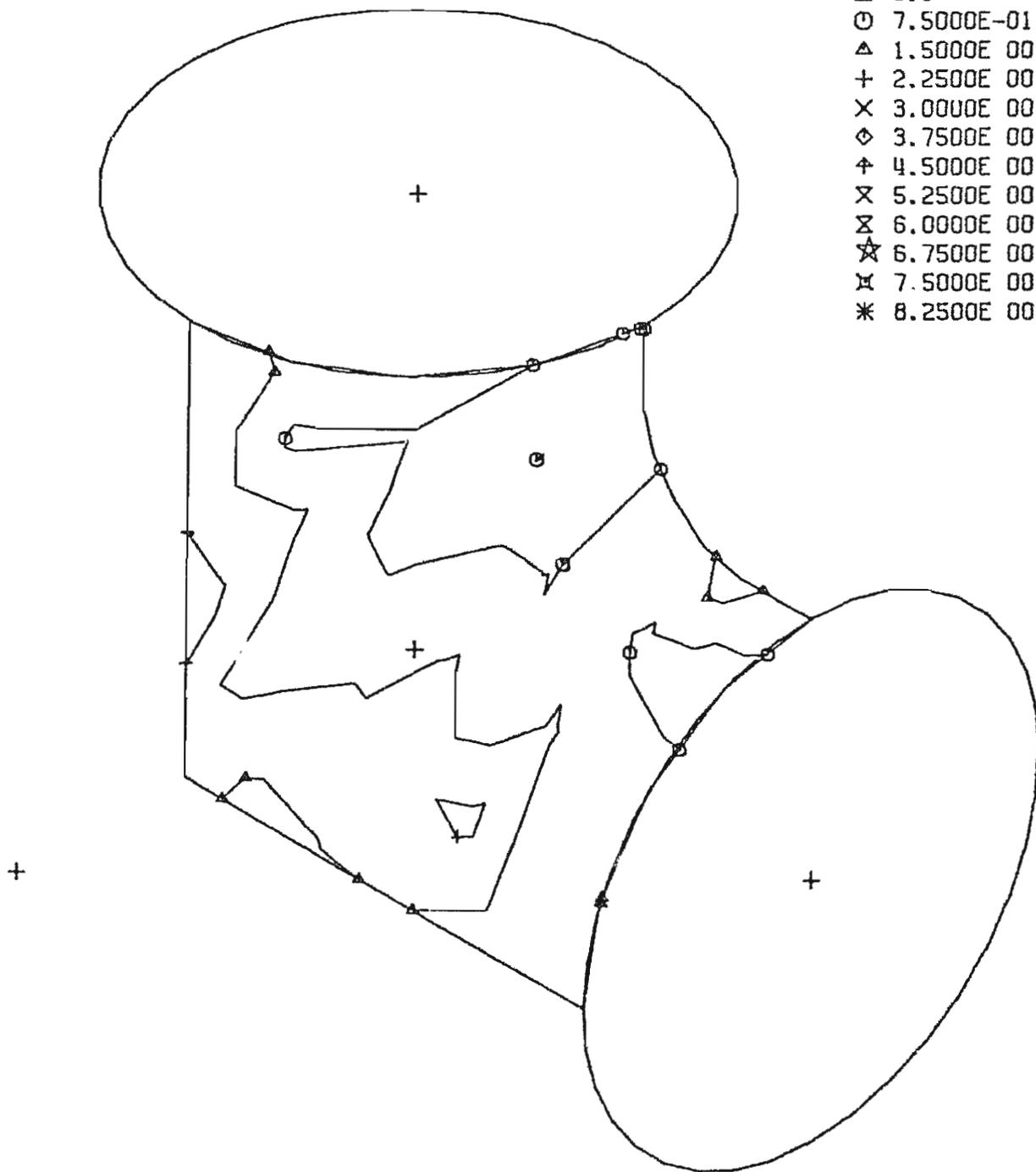


C.E. B16.9 T-11, F3Y

Top Inside Surface

CONTOUR VALUES

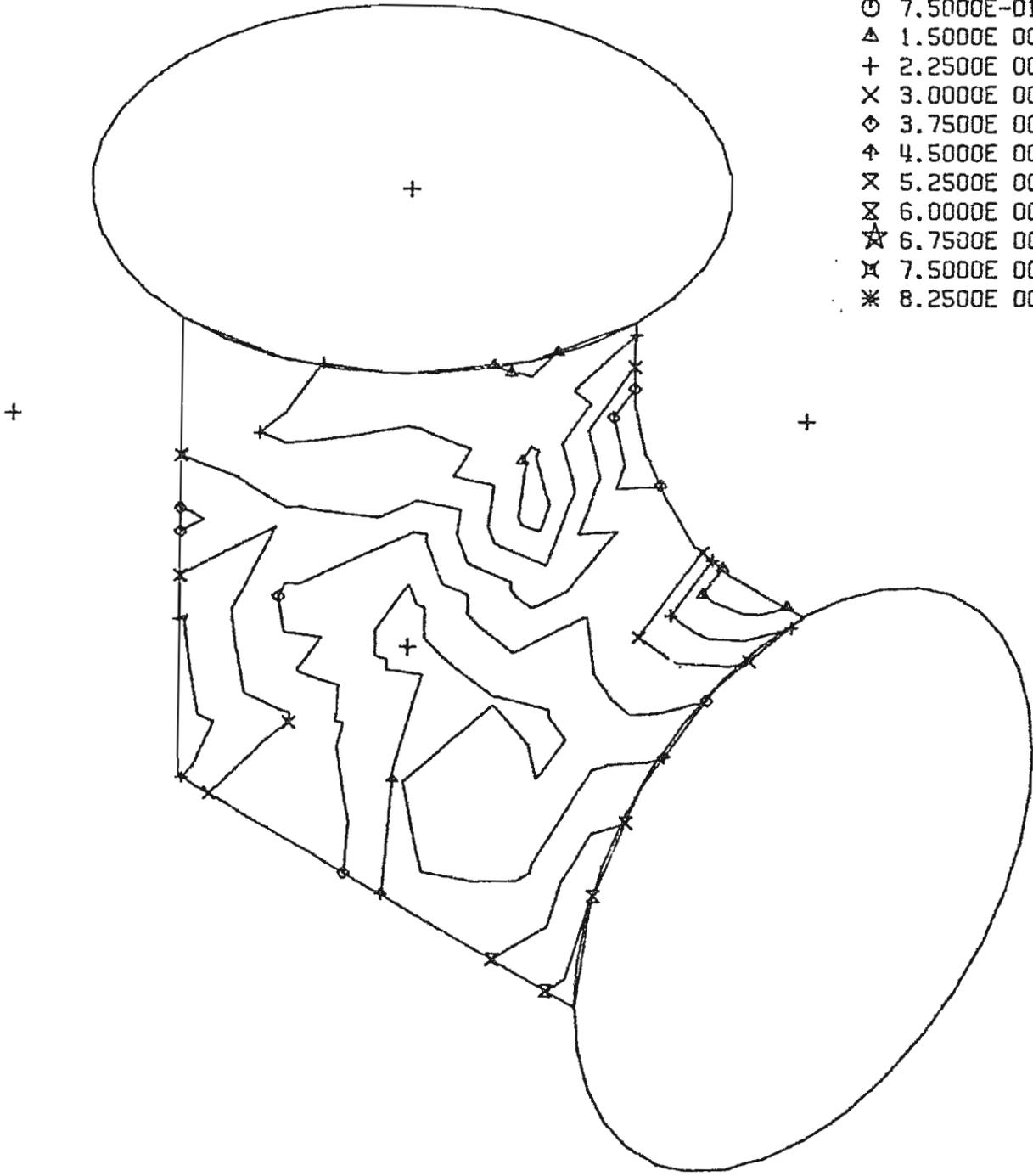
- 0.0
- 7.5000E-01
- △ 1.5000E 00
- + 2.2500E 00
- × 3.0000E 00
- ◇ 3.7500E 00
- ⊕ 4.5000E 00
- ⊗ 5.2500E 00
- ⊘ 6.0000E 00
- ☆ 6.7500E 00
- ⊗ 7.5000E 00
- * 8.2500E 00



C.E. B16.9 T-11, F3Y
Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 7.5000E-01
- △ 1.5000E 00
- + 2.2500E 00
- × 3.0000E 00
- ◇ 3.7500E 00
- ↑ 4.5000E 00
- × 5.2500E 00
- ⊗ 6.0000E 00
- ☆ 6.7500E 00
- ⊗ 7.5000E 00
- * 8.2500E 00

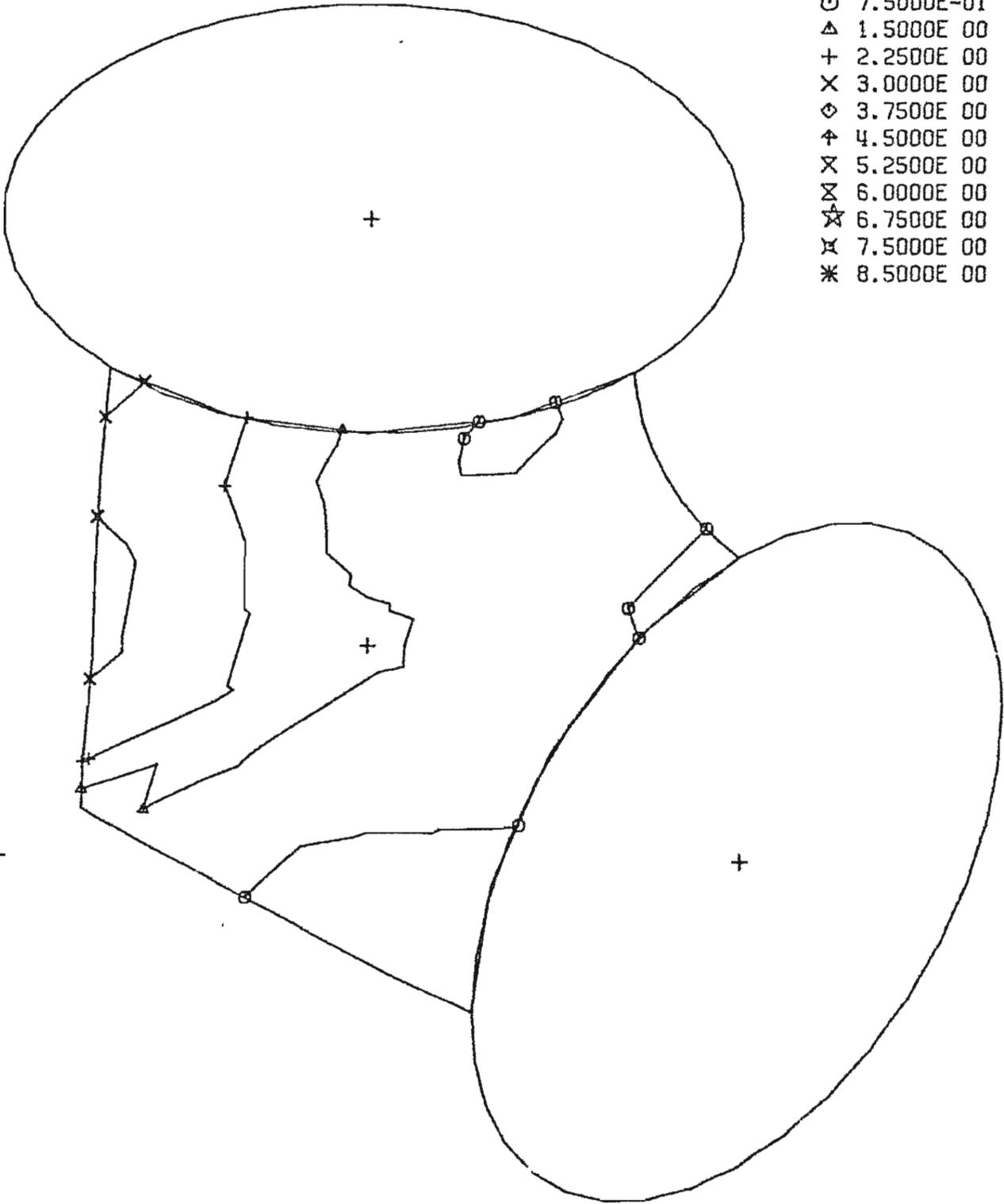


C.E. B16.9 T-11, F3Z

Top Outside Surface

CONTOUR VALUES

- 0.0
- 7.5000E-01
- △ 1.5000E 00
- + 2.2500E 00
- × 3.0000E 00
- ◇ 3.7500E 00
- ⋈ 4.5000E 00
- ⊗ 5.2500E 00
- ⊘ 6.0000E 00
- ☆ 6.7500E 00
- ⊠ 7.5000E 00
- * 8.5000E 00

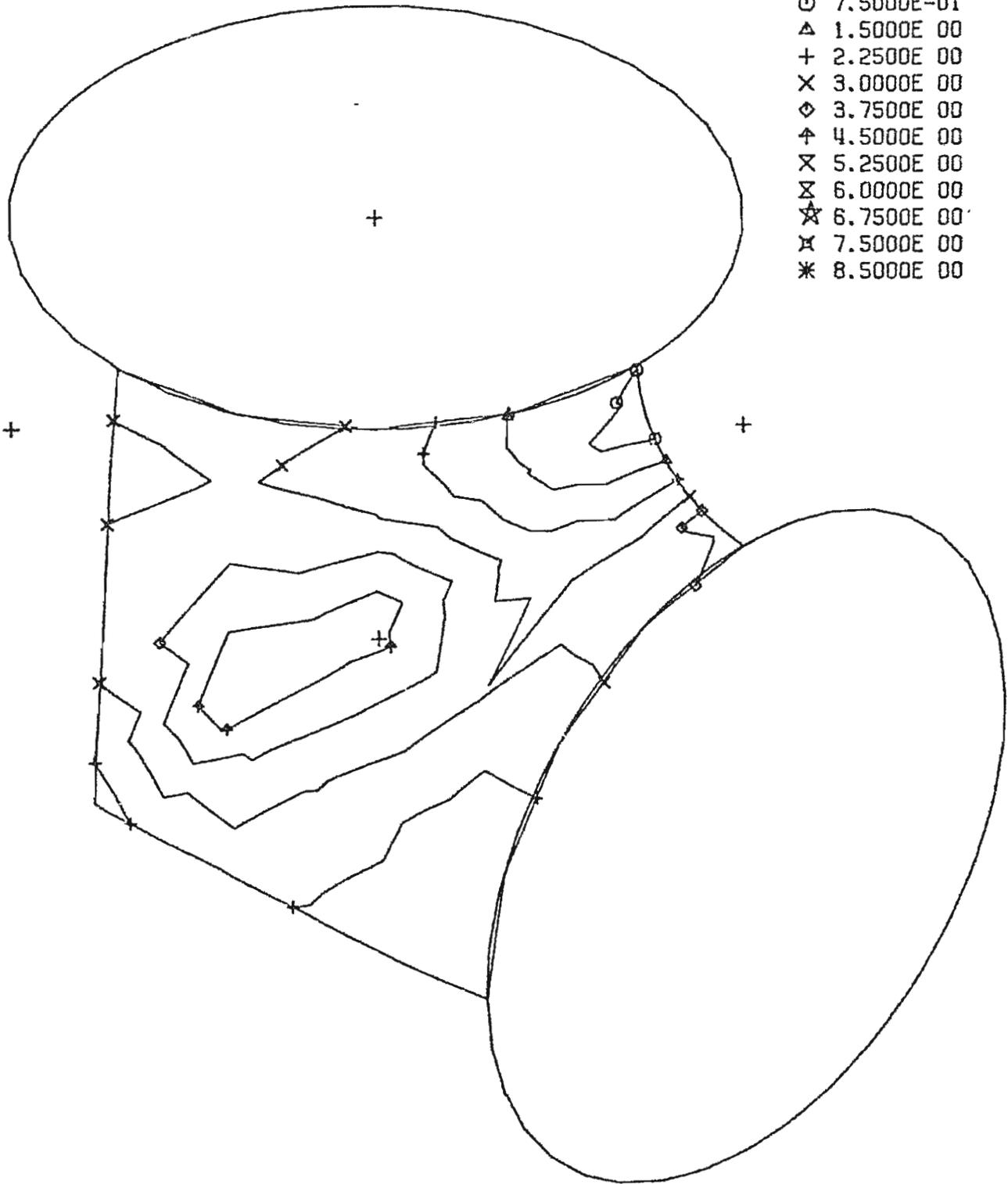


C.E. B16.9 T-11, F3Z

Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 7.5000E-01
- △ 1.5000E 00
- + 2.2500E 00
- × 3.0000E 00
- ◇ 3.7500E 00
- ⋈ 4.5000E 00
- ⊗ 5.2500E 00
- ⊘ 6.0000E 00
- ☆ 6.7500E 00
- ⋈ 7.5000E 00
- * 8.5000E 00

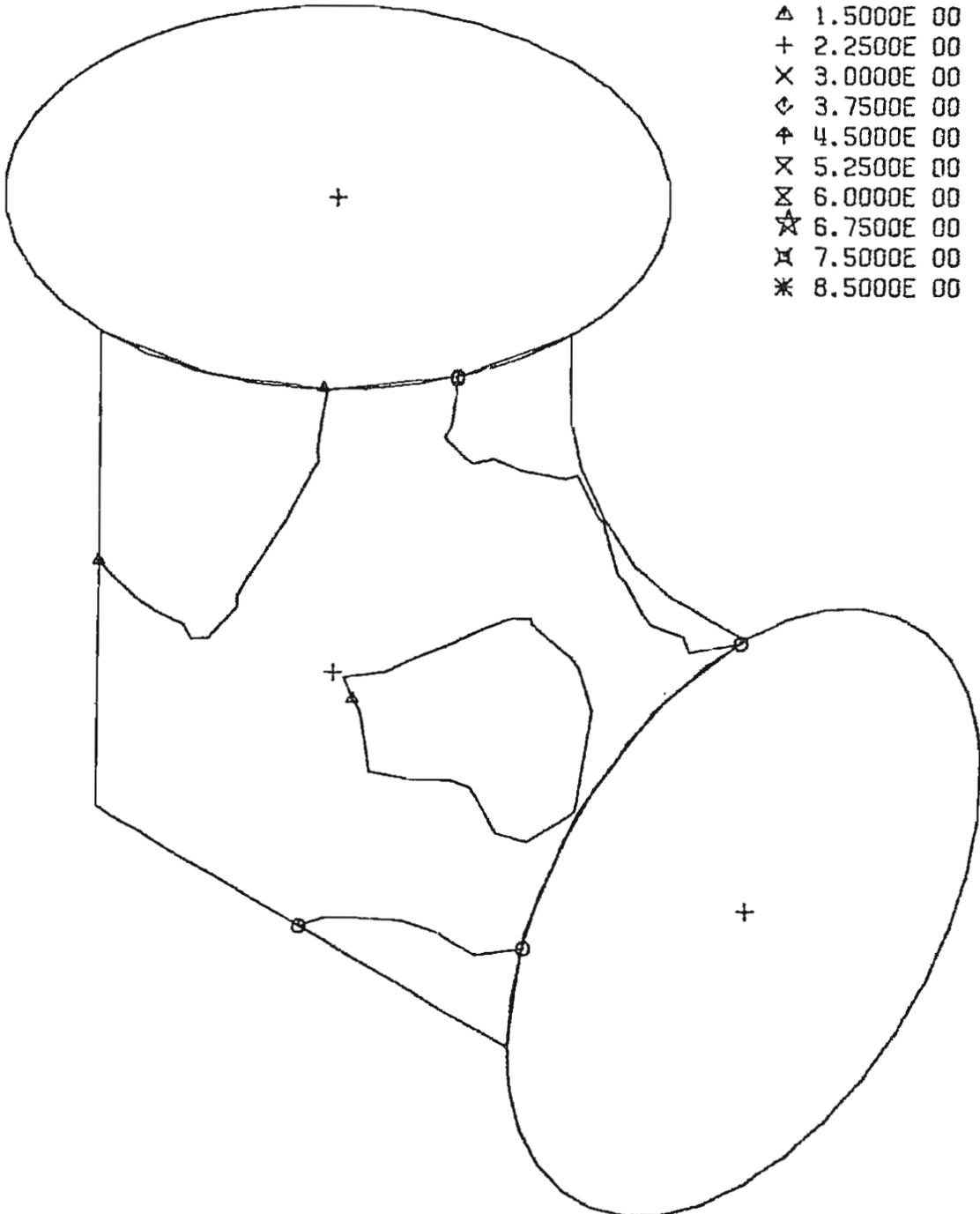


C.E. B16.9 T-11, F3Z

Top Inside Surface

CONTOUR VALUES

- 0.0
- 7.5000E-01
- △ 1.5000E 00
- + 2.2500E 00
- × 3.0000E 00
- ◇ 3.7500E 00
- ⋈ 4.5000E 00
- ⊗ 5.2500E 00
- ⊗ 6.0000E 00
- ☆ 6.7500E 00
- ⊗ 7.5000E 00
- * 8.5000E 00

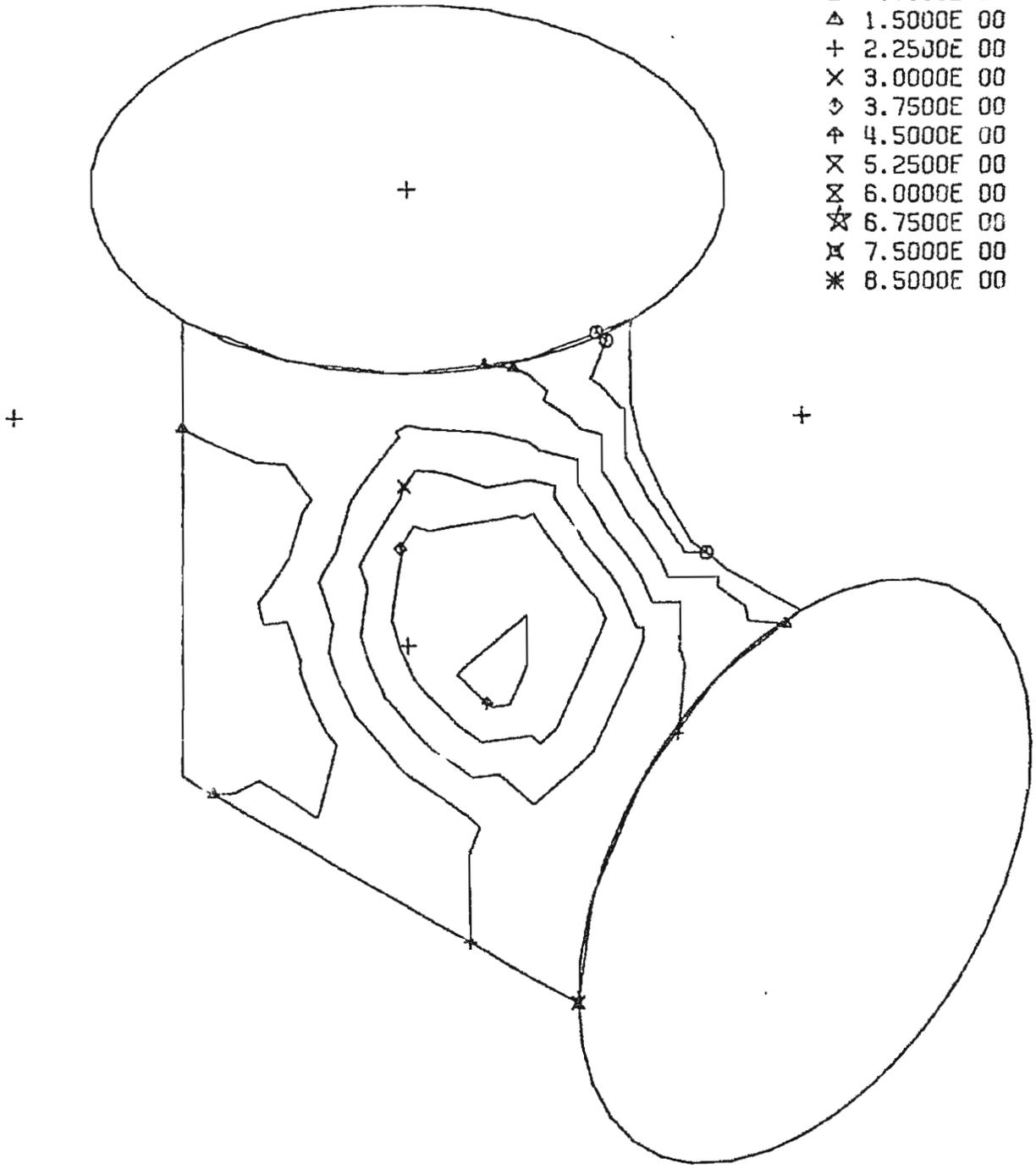


C.E. B16.9 T-11, F3Z

Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 7.5000E-01
- △ 1.5000E 00
- + 2.2500E 00
- × 3.0000E 00
- ◇ 3.7500E 00
- ⊕ 4.5000E 00
- ⊗ 5.2500E 00
- ⊘ 6.0000E 00
- ☆ 6.7500E 00
- ⊗ 7.5000E 00
- * 8.5000E 00

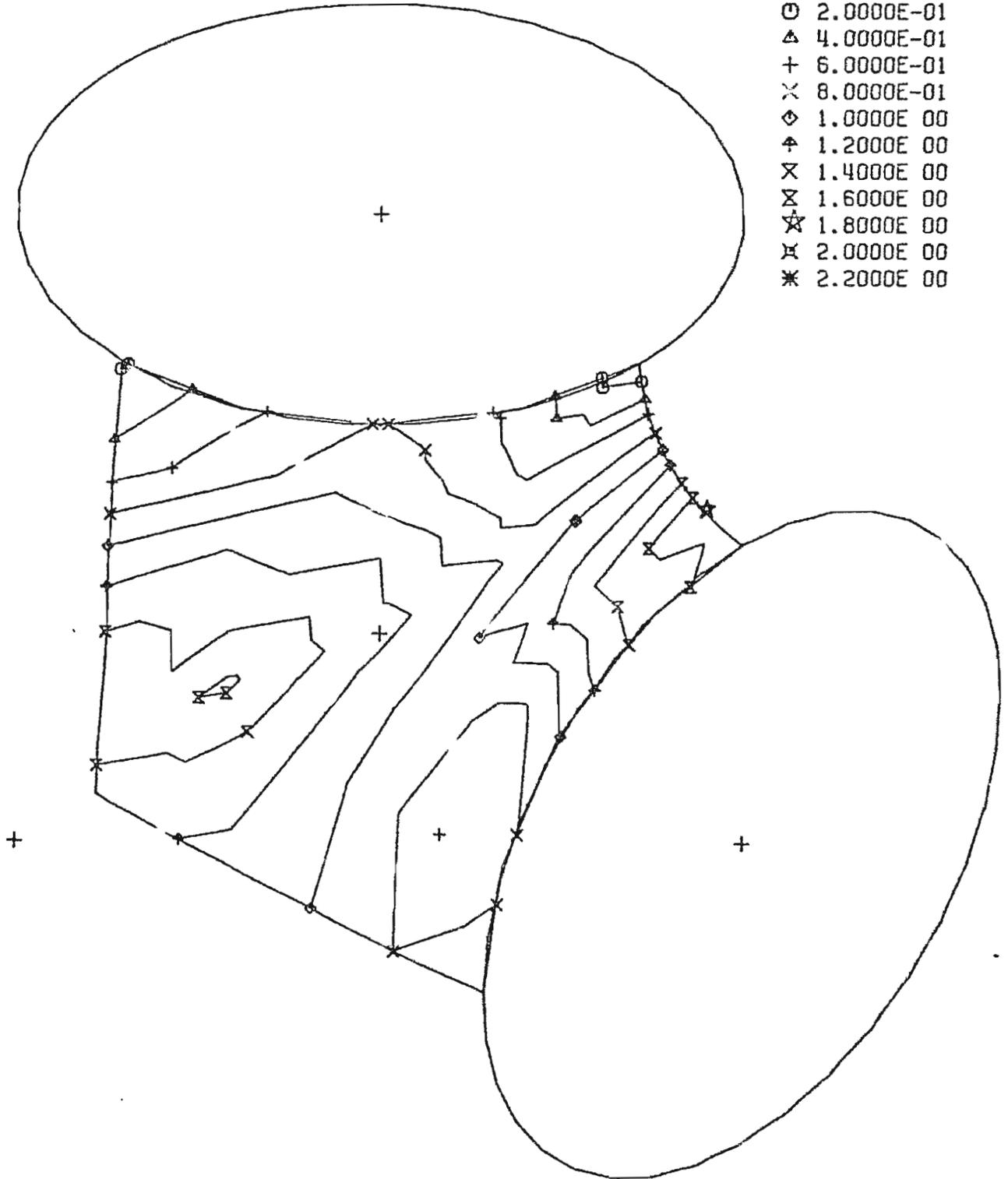


C.E. B16.9 T-11, M2X

Top Outside Surface

CONTOUR VALUES

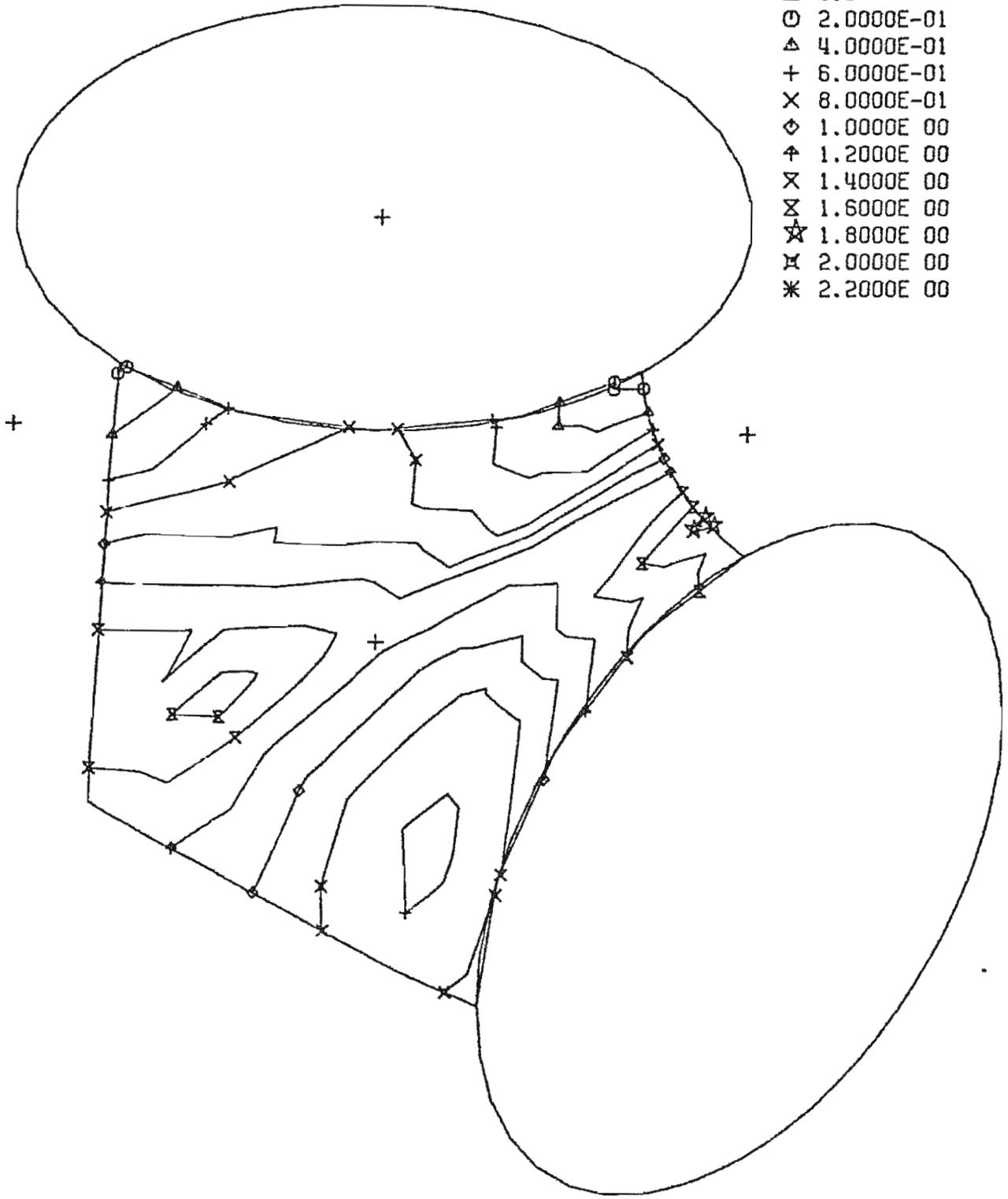
- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⊕ 1.2000E 00
- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
- ☆ 1.8000E 00
- ⊞ 2.0000E 00
- * 2.2000E 00



C.E. B16.9 T-11, M2X
Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- X 8.0000E-01
- ◇ 1.0000E 00
- ⊕ 1.2000E 00
- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
- ☆ 1.8000E 00
- ⊚ 2.0000E 00
- * 2.2000E 00

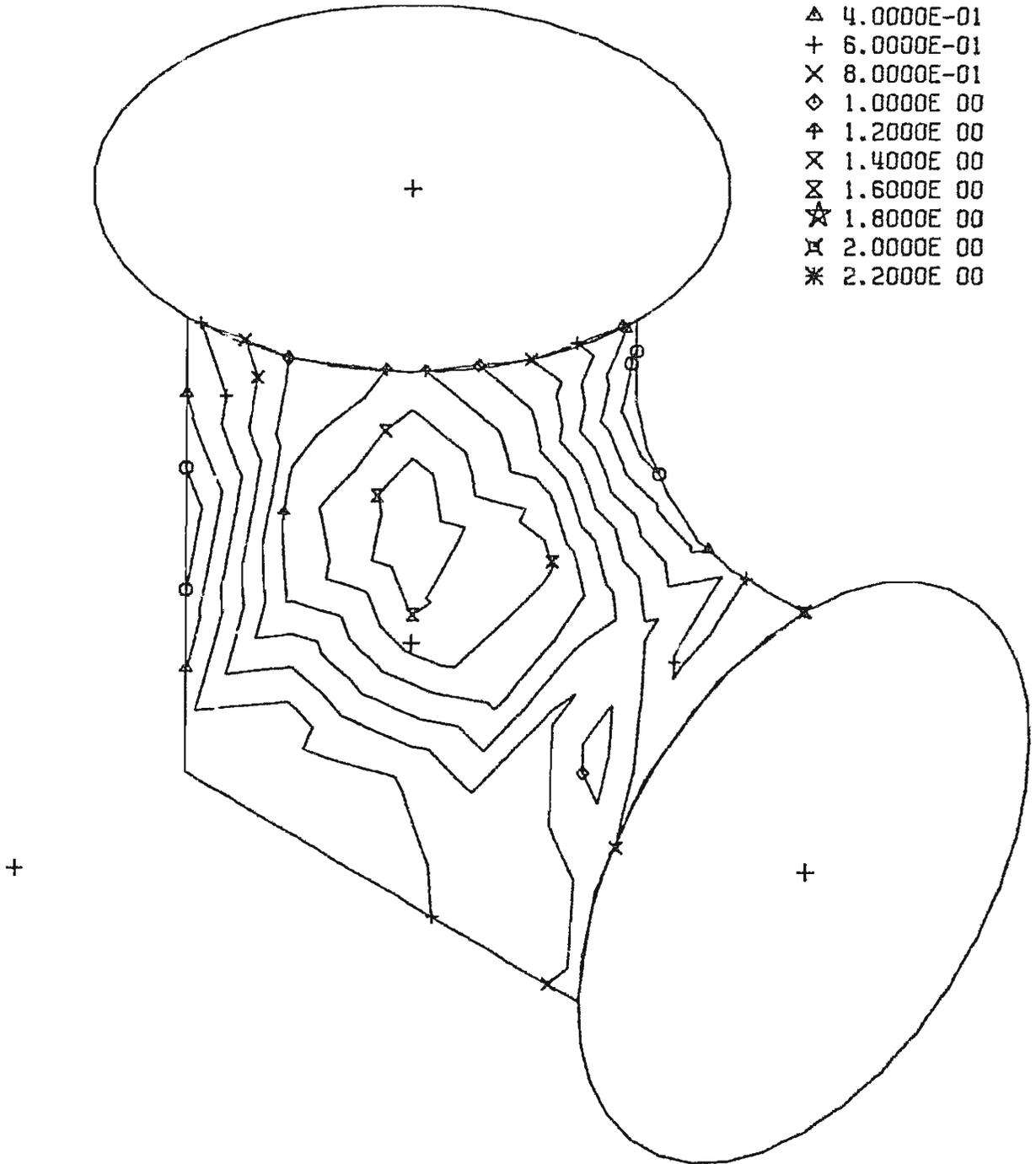


C.E. B16.9 T-11, M2X

Top Inside Surface

CONTOUR VALUES

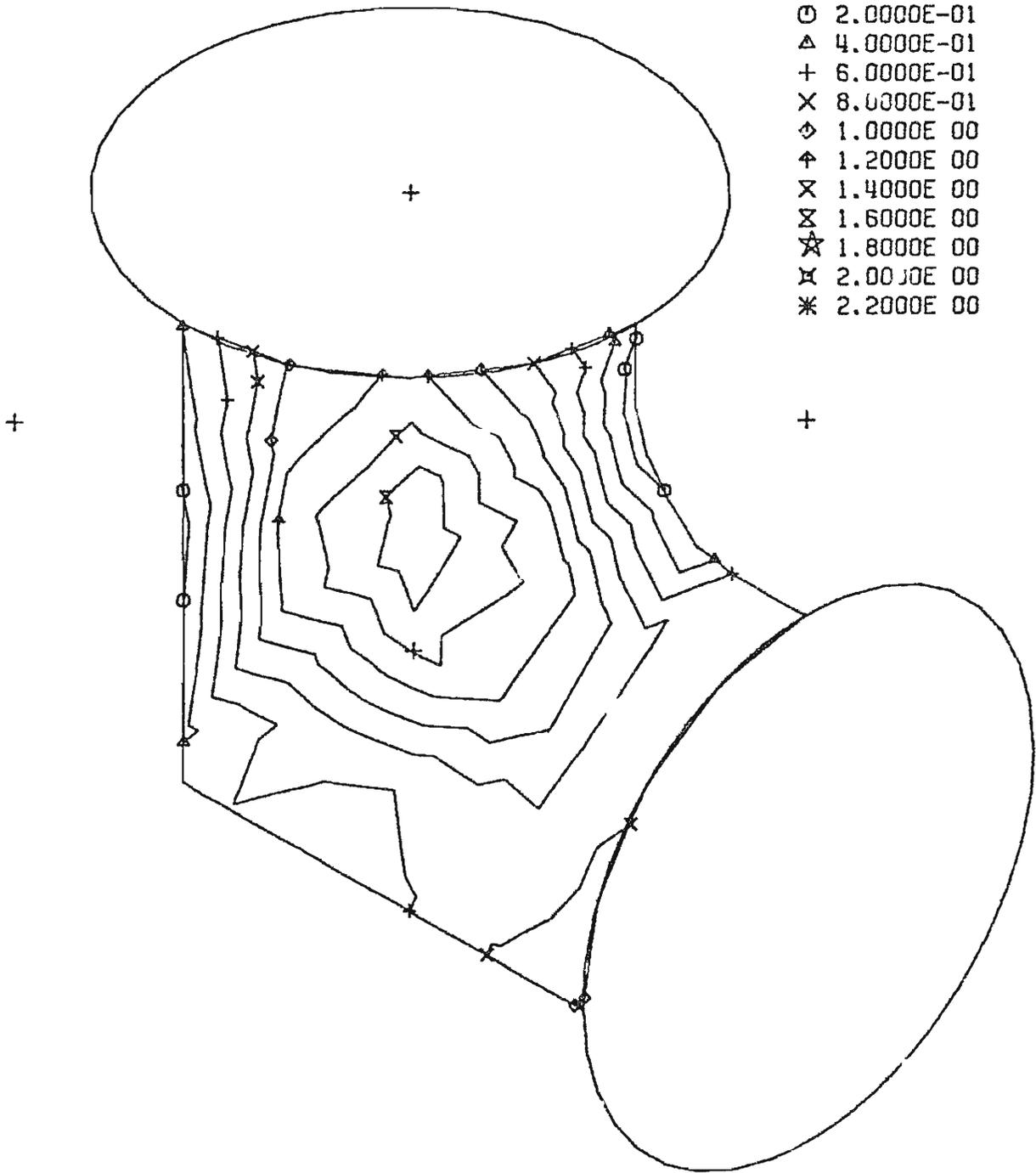
- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⊕ 1.2000E 00
- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
- ☆ 1.8000E 00
- ⊚ 2.0000E 00
- * 2.2000E 00



C.E. B16.9 T-11, M2X
Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⋈ 1.2000E 00
- × 1.4000E 00
- ⊗ 1.6000E 00
- ☆ 1.8000E 00
- ⊗ 2.0000E 00
- * 2.2000E 00

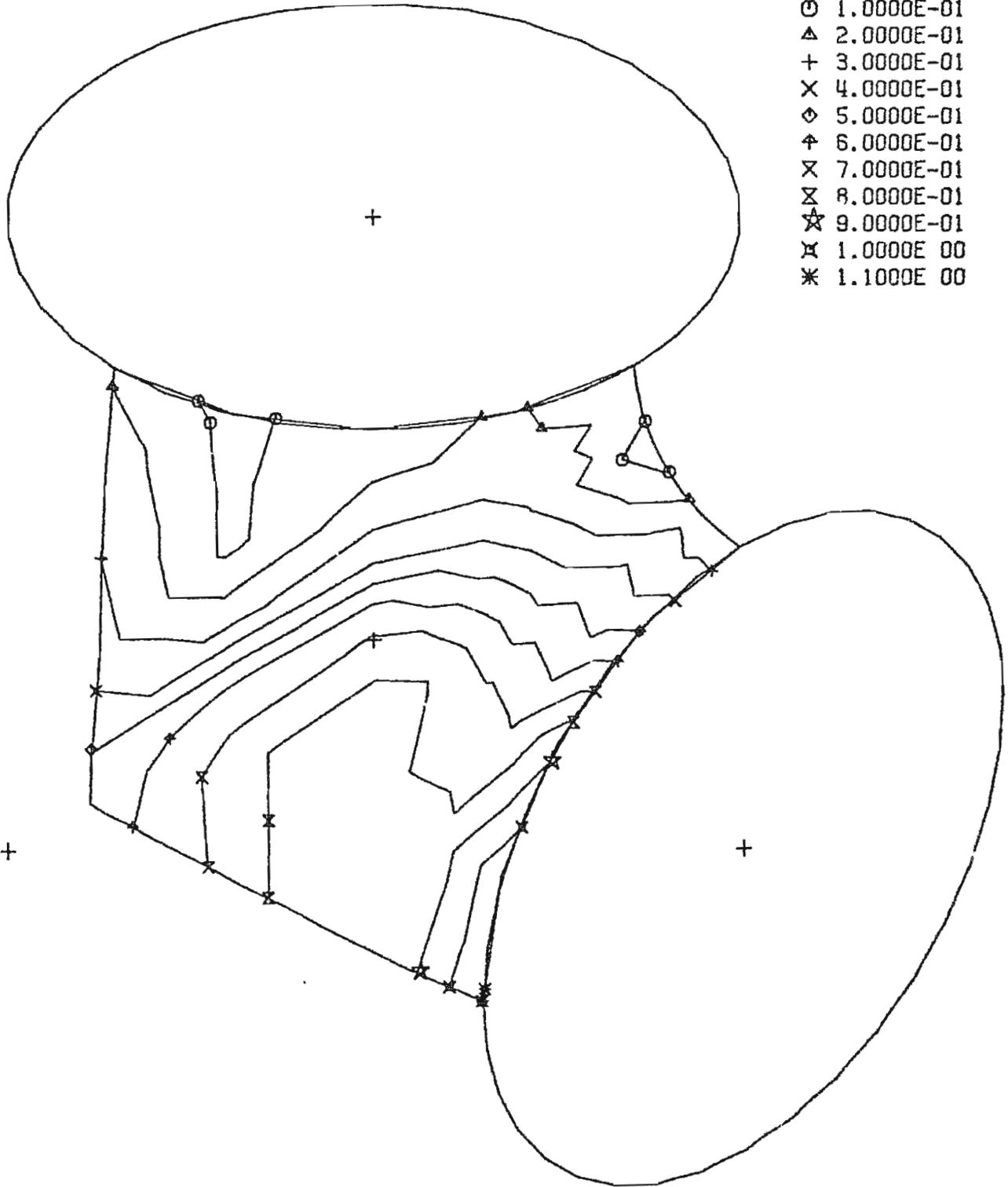


C.E. B16.9 T-11, M2Y

Top Outside Surface

CONTOUR VALUES

- 0.0
- 1.0000E-01
- △ 2.0000E-01
- + 3.0000E-01
- × 4.0000E-01
- ◇ 5.0000E-01
- ⊕ 6.0000E-01
- ⊗ 7.0000E-01
- ⊘ 8.0000E-01
- ☆ 9.0000E-01
- ⊠ 1.0000E 00
- * 1.1000E 00

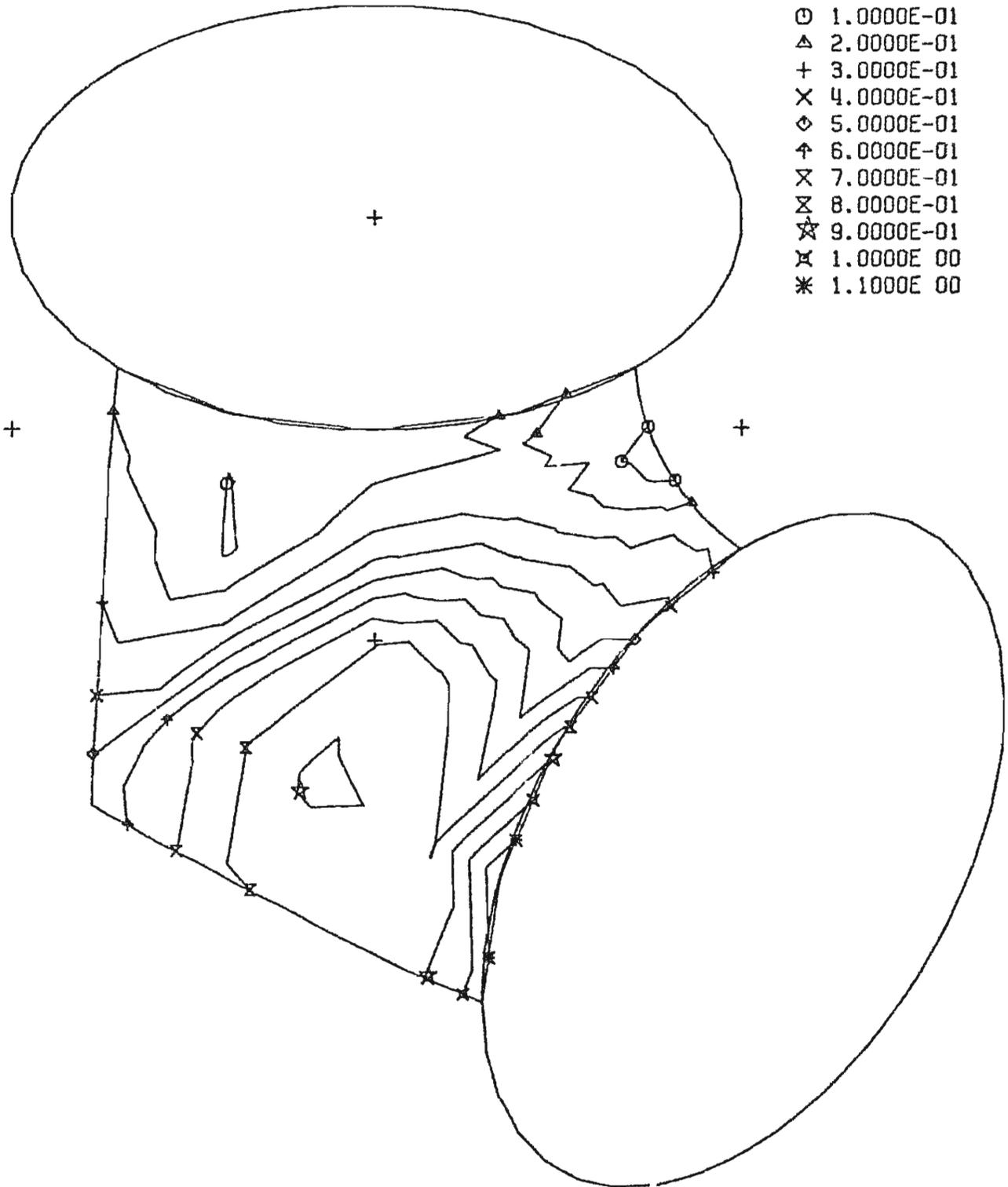


C.E. B16.9 T-11, M2Y

Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 1.0000E-01
- △ 2.0000E-01
- + 3.0000E-01
- × 4.0000E-01
- ◇ 5.0000E-01
- ↑ 6.0000E-01
- ⋈ 7.0000E-01
- ⊗ 8.0000E-01
- ☆ 9.0000E-01
- ⊠ 1.0000E 00
- * 1.1000E 00

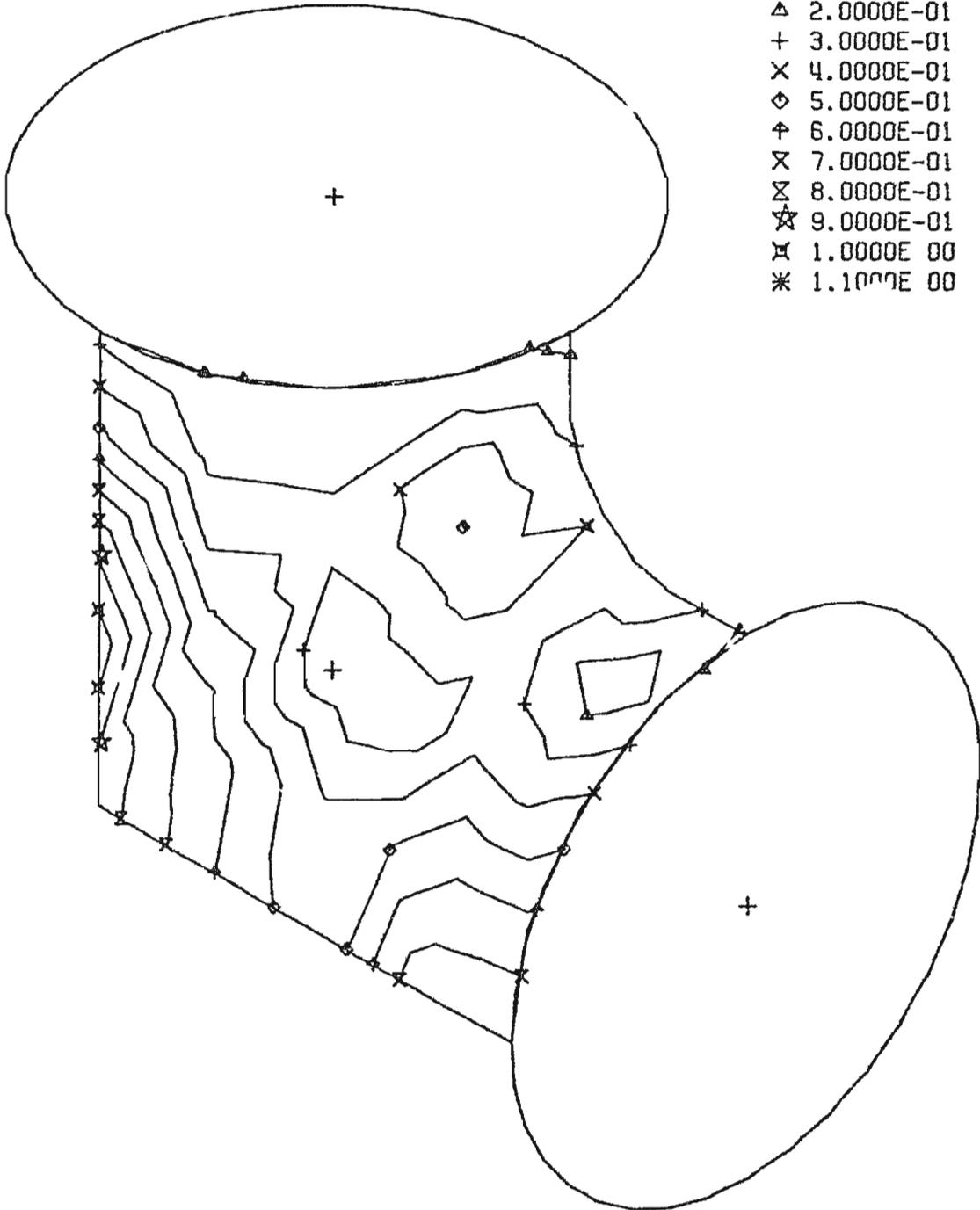


C.E. B16.9 T-11, M2Y

Top Inside Surface

CONTOUR VALUES

- 0.0
- 1.0000E-01
- △ 2.0000E-01
- + 3.0000E-01
- × 4.0000E-01
- ◇ 5.0000E-01
- ⊕ 6.0000E-01
- ⊗ 7.0000E-01
- ⊘ 8.0000E-01
- ☆ 9.0000E-01
- ⊗ 1.0000E 00
- * 1.1000E 00

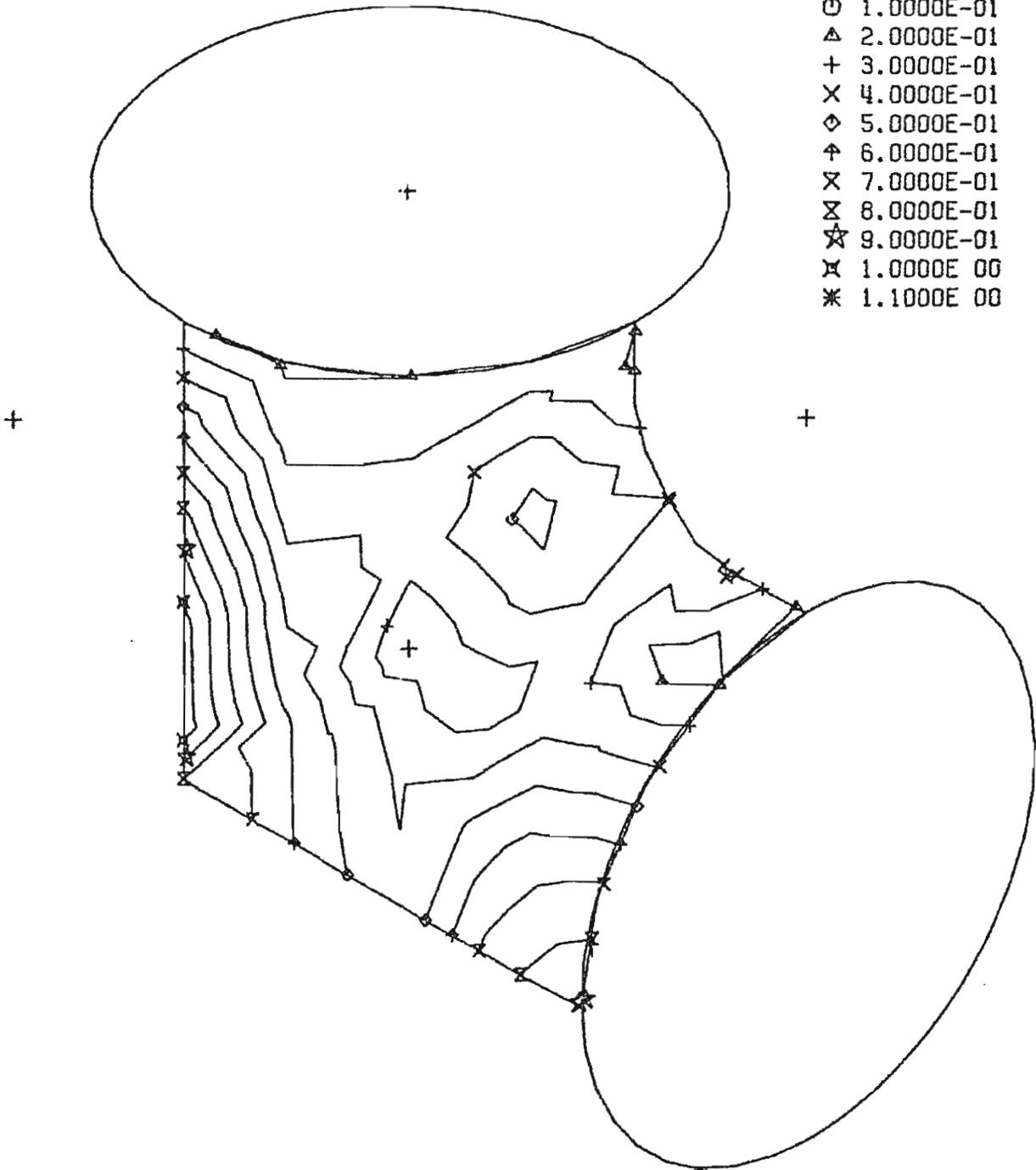


C.E. B16.9 T-11, M2Y

Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 1.0000E-01
- △ 2.0000E-01
- + 3.0000E-01
- × 4.0000E-01
- ◇ 5.0000E-01
- ⊕ 6.0000E-01
- ⊗ 7.0000E-01
- ⊗ 8.0000E-01
- ☆ 9.0000E-01
- ⊗ 1.0000E 00
- * 1.1000E 00

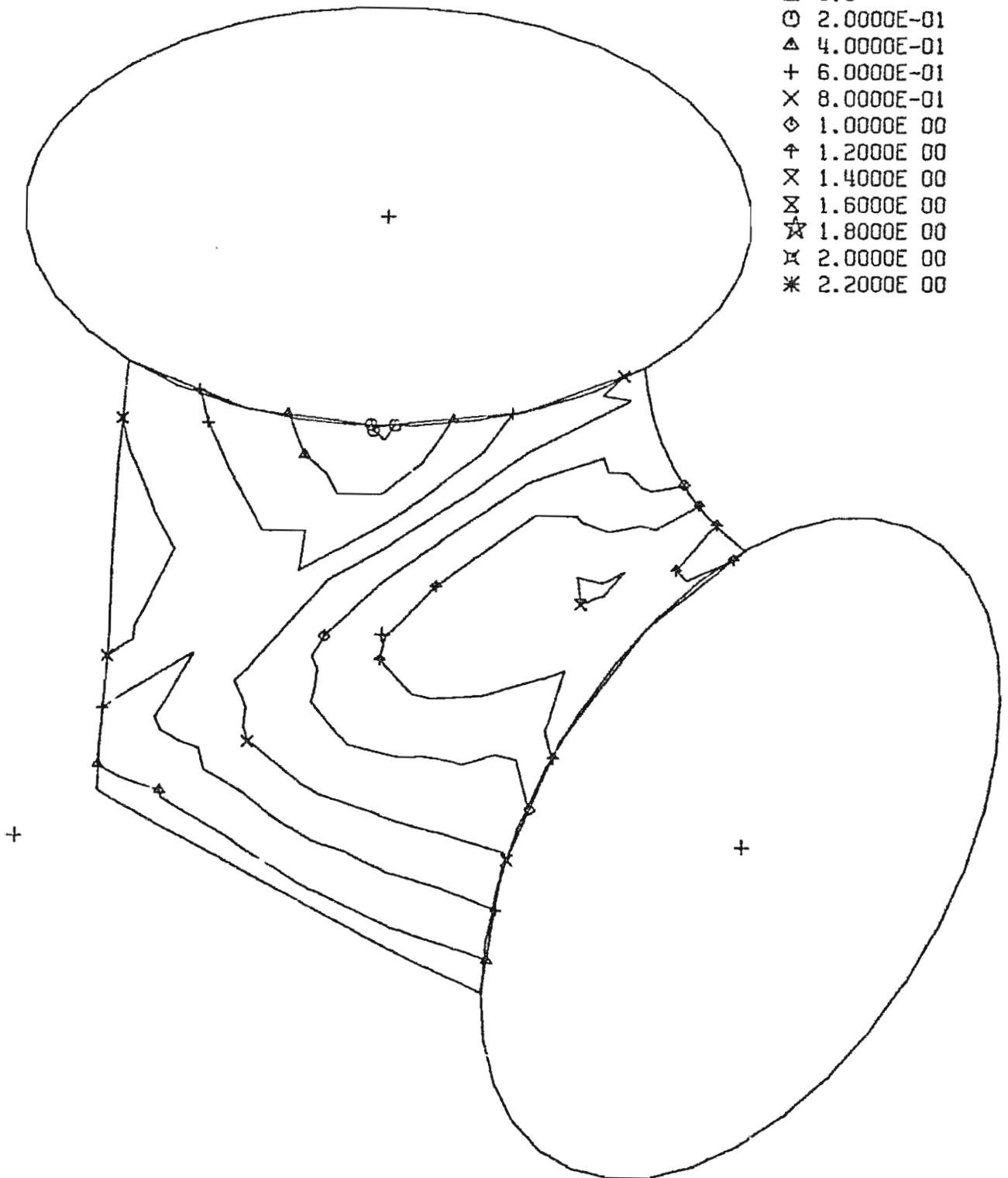


C.E. B16.9 T-11, M2Z

Top Outside Surface

CONTOUR VALUES

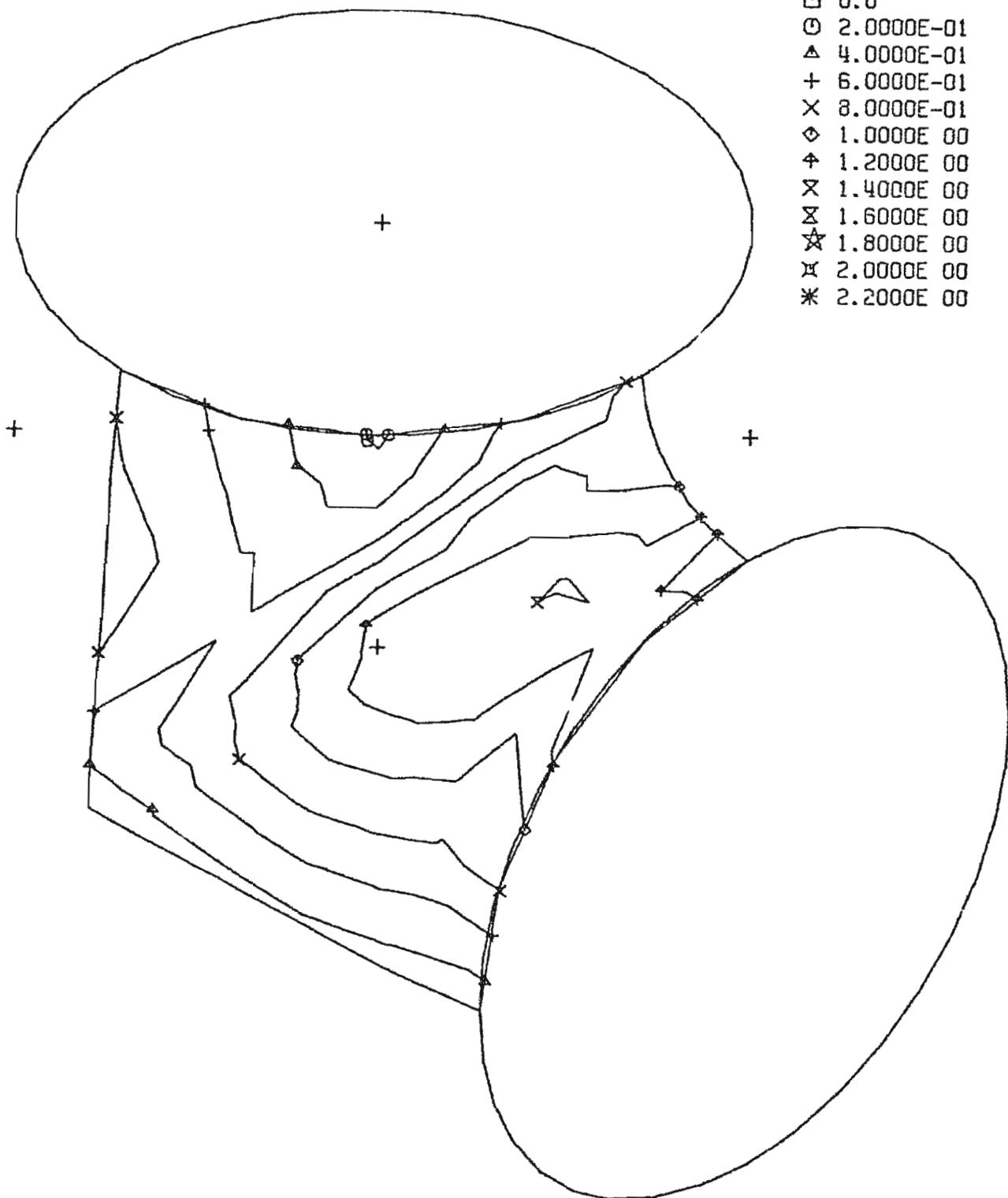
- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- † 1.2000E 00
- × 1.4000E 00
- ⊗ 1.6000E 00
- ☆ 1.8000E 00
- ⊗ 2.0000E 00
- * 2.2000E 00



C.E. B16.9 T-11, M2Z
Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⊕ 1.2000E 00
- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
- ☆ 1.8000E 00
- ⊚ 2.0000E 00
- * 2.2000E 00

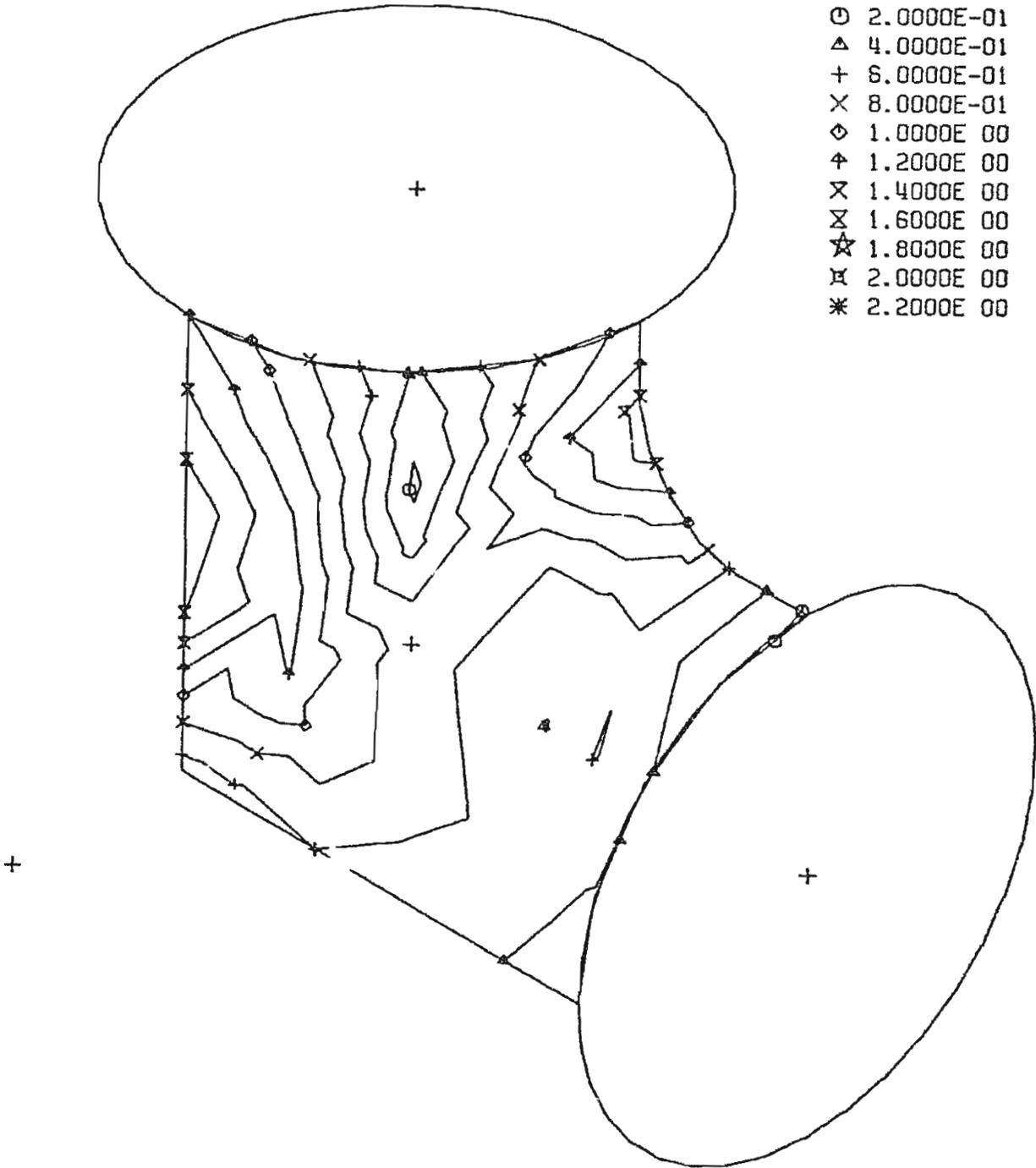


C.E. B16.9 T-11, M2Z

Top Inside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⋈ 1.2000E 00
- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
- ☆ 1.8000E 00
- ⊞ 2.0000E 00
- * 2.2000E 00

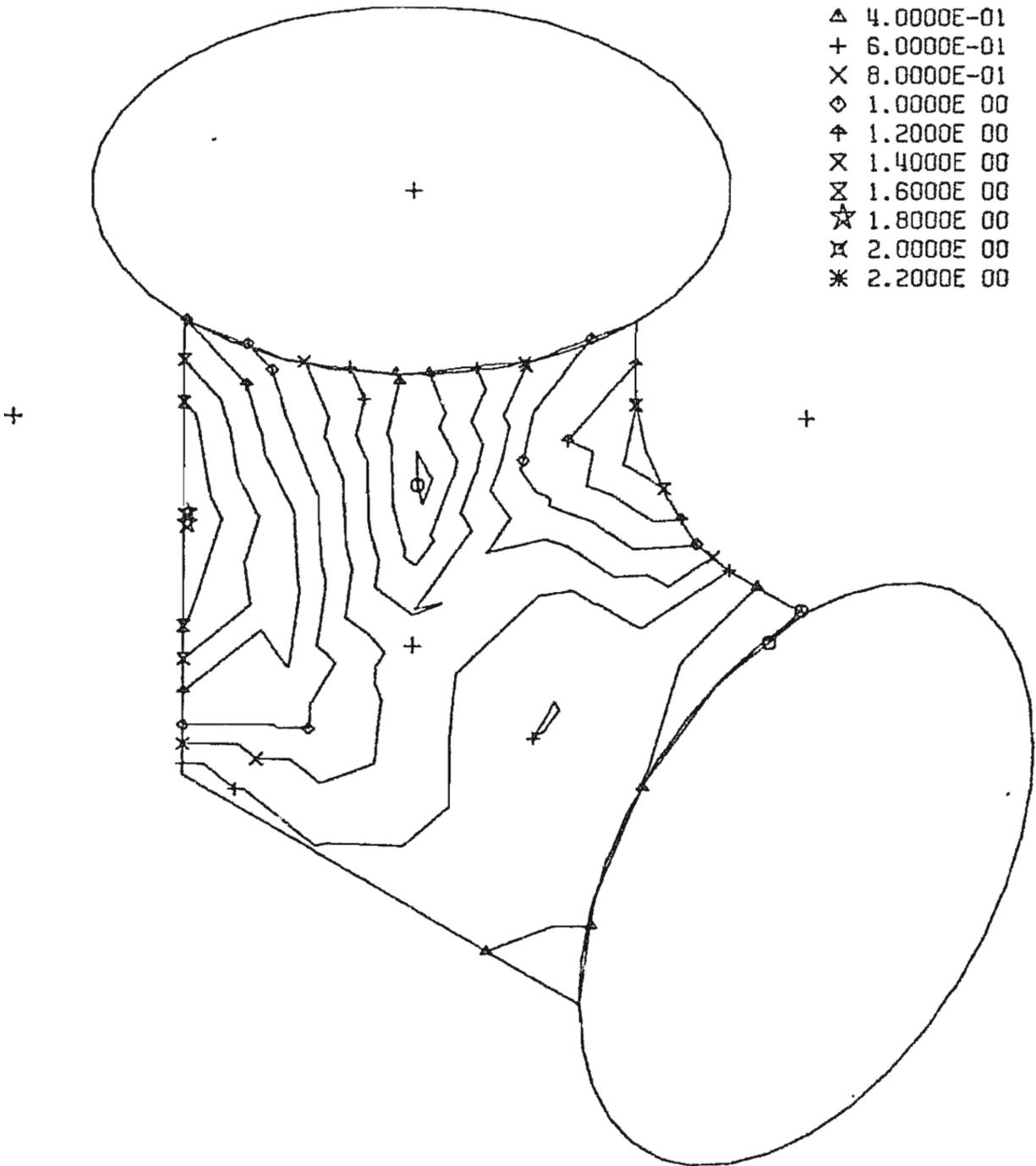


C.E. B16.9 T-11, M2Z

Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⊕ 1.2000E 00
- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
- ☆ 1.8000E 00
- ⊗ 2.0000E 00
- ✱ 2.2000E 00

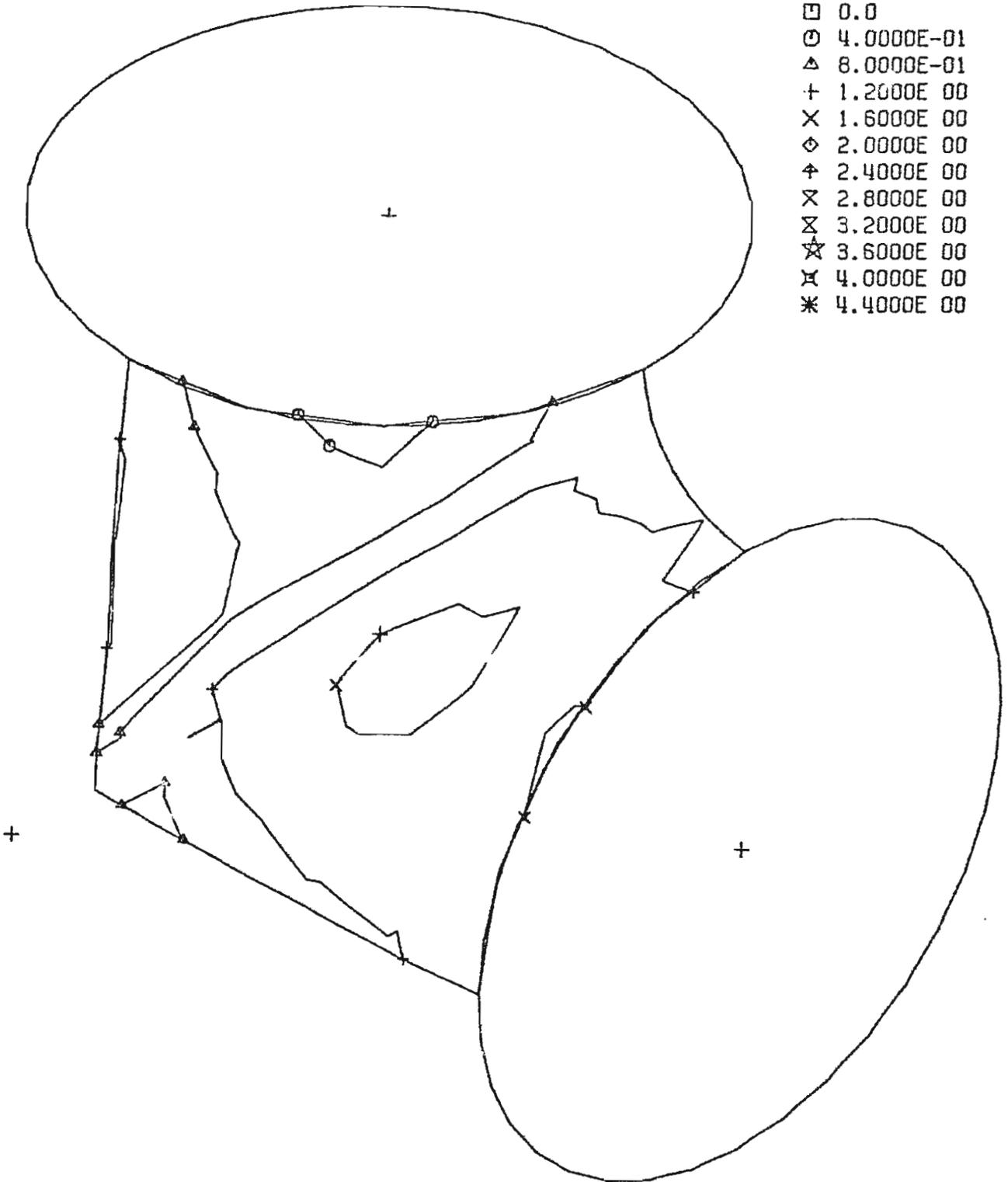


C.E. B16.9 T-11, F2X

Top Outside Surface

CONTOUR VALUES

- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⊕ 2.4000E 00
- ⊗ 2.8000E 00
- ⊘ 3.2000E 00
- ☆ 3.6000E 00
- ⊗ 4.0000E 00
- * 4.4000E 00

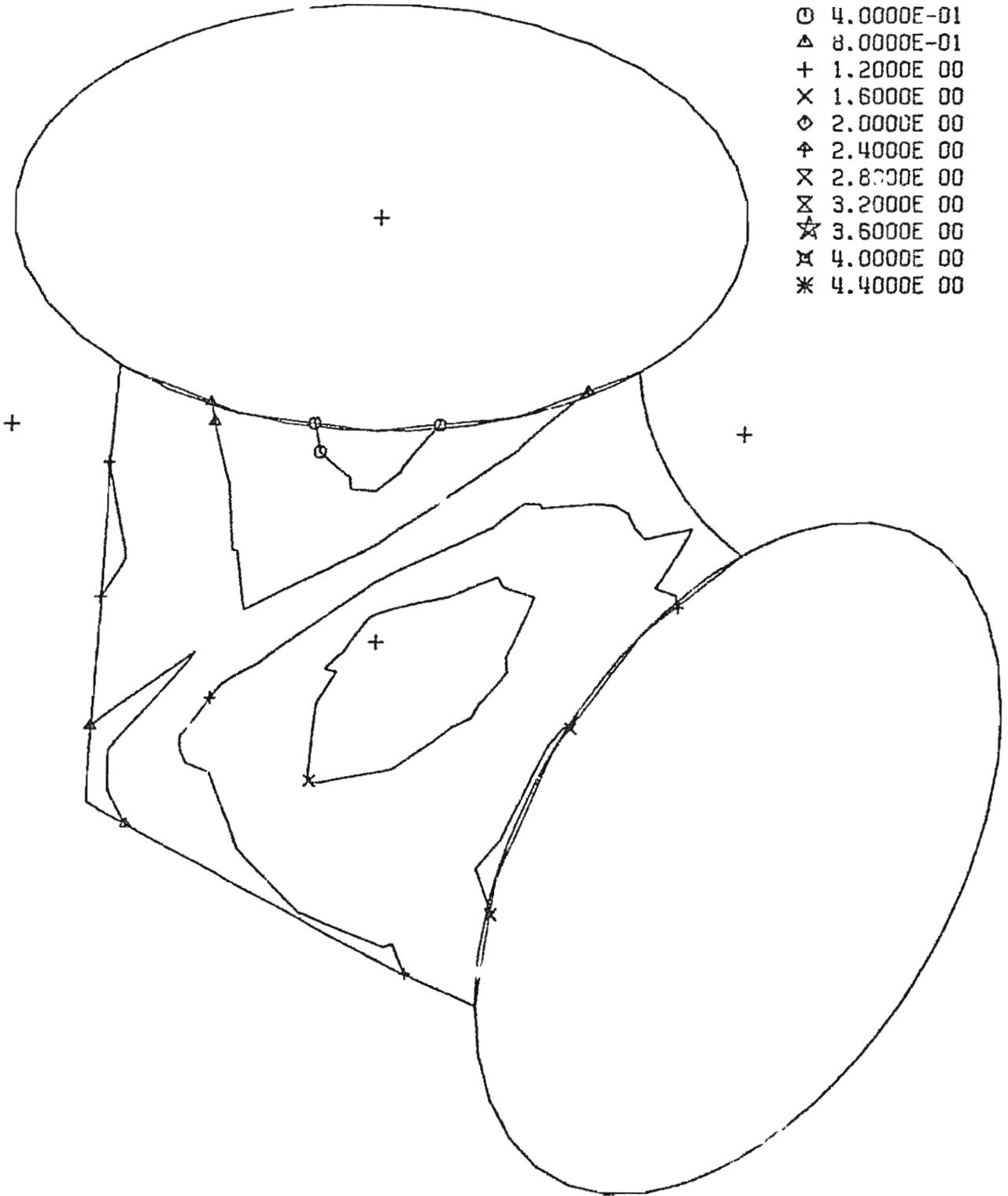


C.E. B16.9 T-11, F2X

Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⊕ 2.4000E 00
- ⊗ 2.8000E 00
- ⊘ 3.2000E 00
- ☆ 3.6000E 00
- ⊗ 4.0000E 00
- * 4.4000E 00

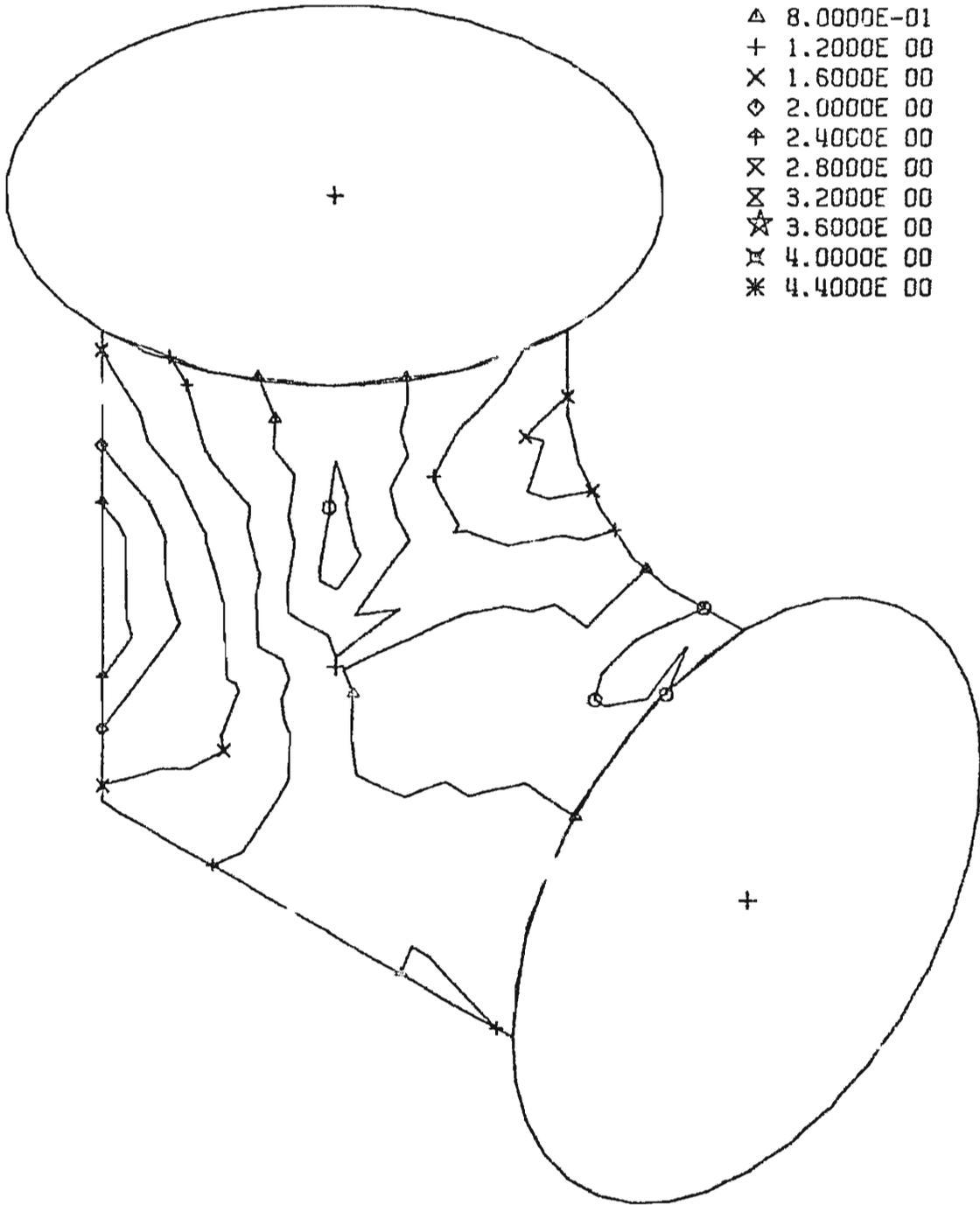


C.E. B16.9 T-11, F2X

Top Inside Surface

CONTOUR VALUES

- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⋈ 2.4000E 00
- ⋈ 2.8000E 00
- ⋈ 3.2000E 00
- ☆ 3.6000E 00
- ⋈ 4.0000E 00
- * 4.4000E 00



+

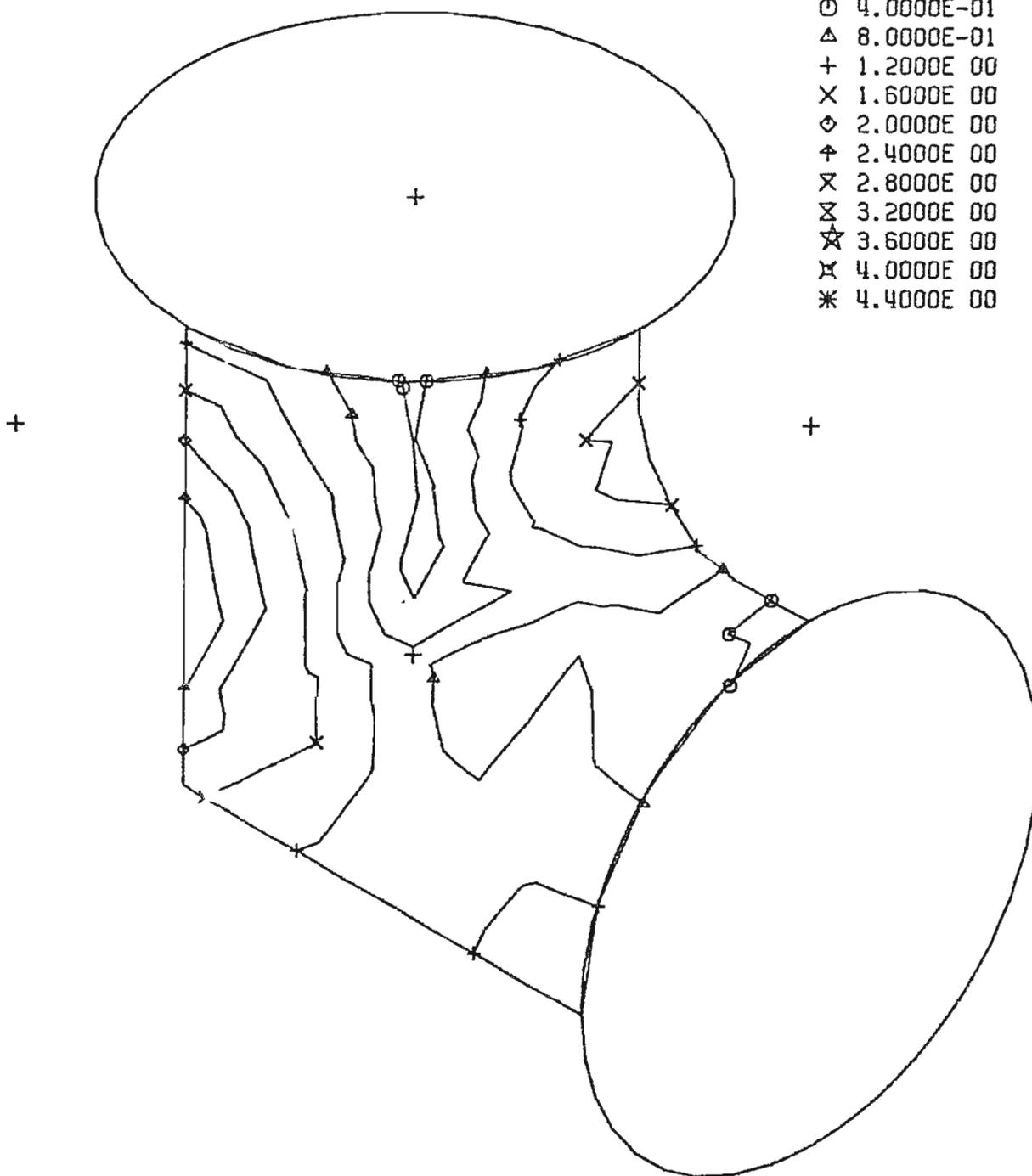
+

C.E. B16.9 T-11, F2X

Bottom Inside Surface

CONTOUR VALUES

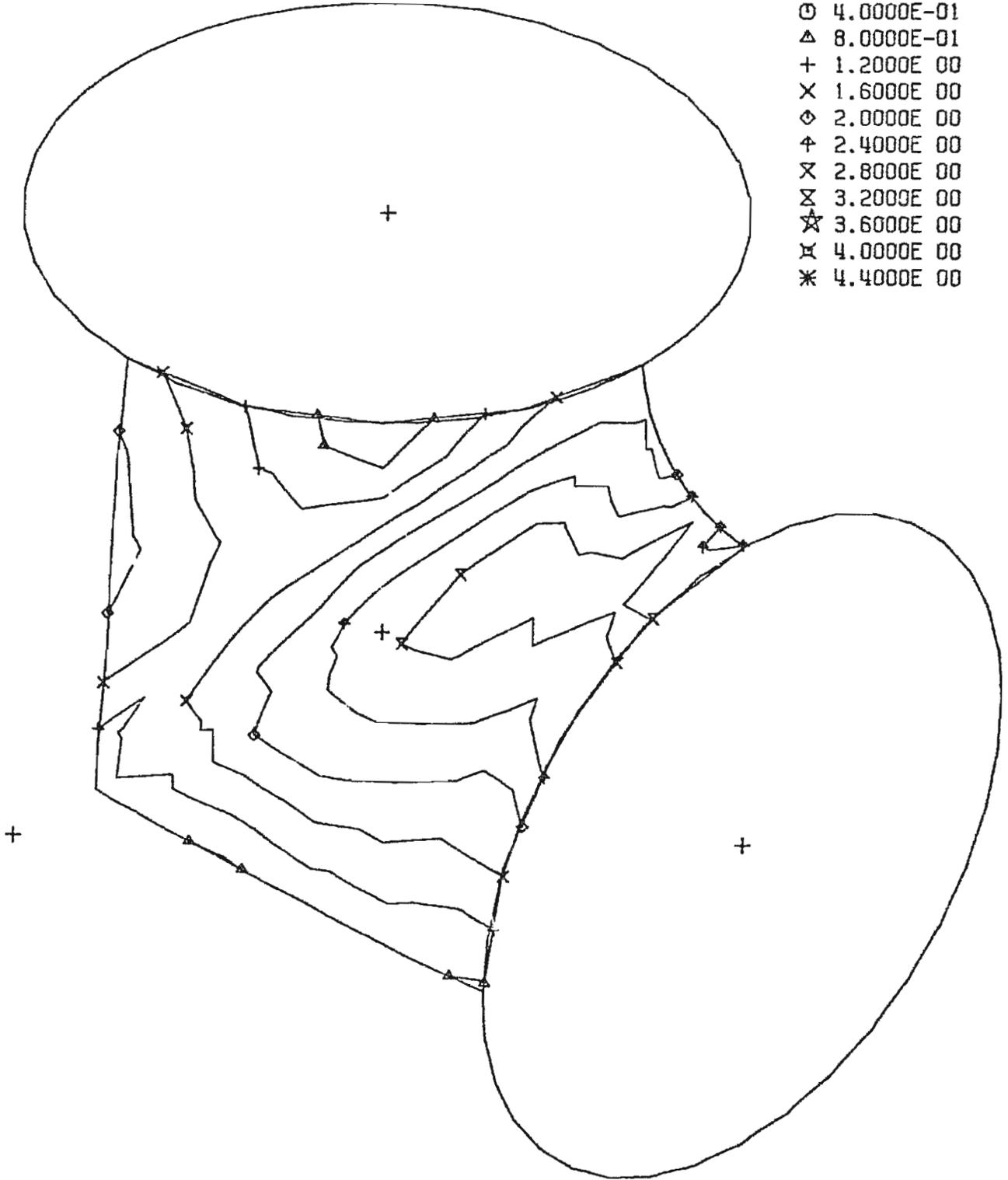
- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⊕ 2.4000E 00
- ⊗ 2.8000E 00
- ⊘ 3.2000E 00
- ☆ 3.6000E 00
- ⊗ 4.0000E 00
- * 4.4000E 00



C.E. B16.9 T-11, F2Y
Top Outside Surface

CONTOUR VALUES

- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⊕ 2.4000E 00
- ⊗ 2.8000E 00
- ⊘ 3.2000E 00
- ☆ 3.6000E 00
- ⊗ 4.0000E 00
- * 4.4000E 00

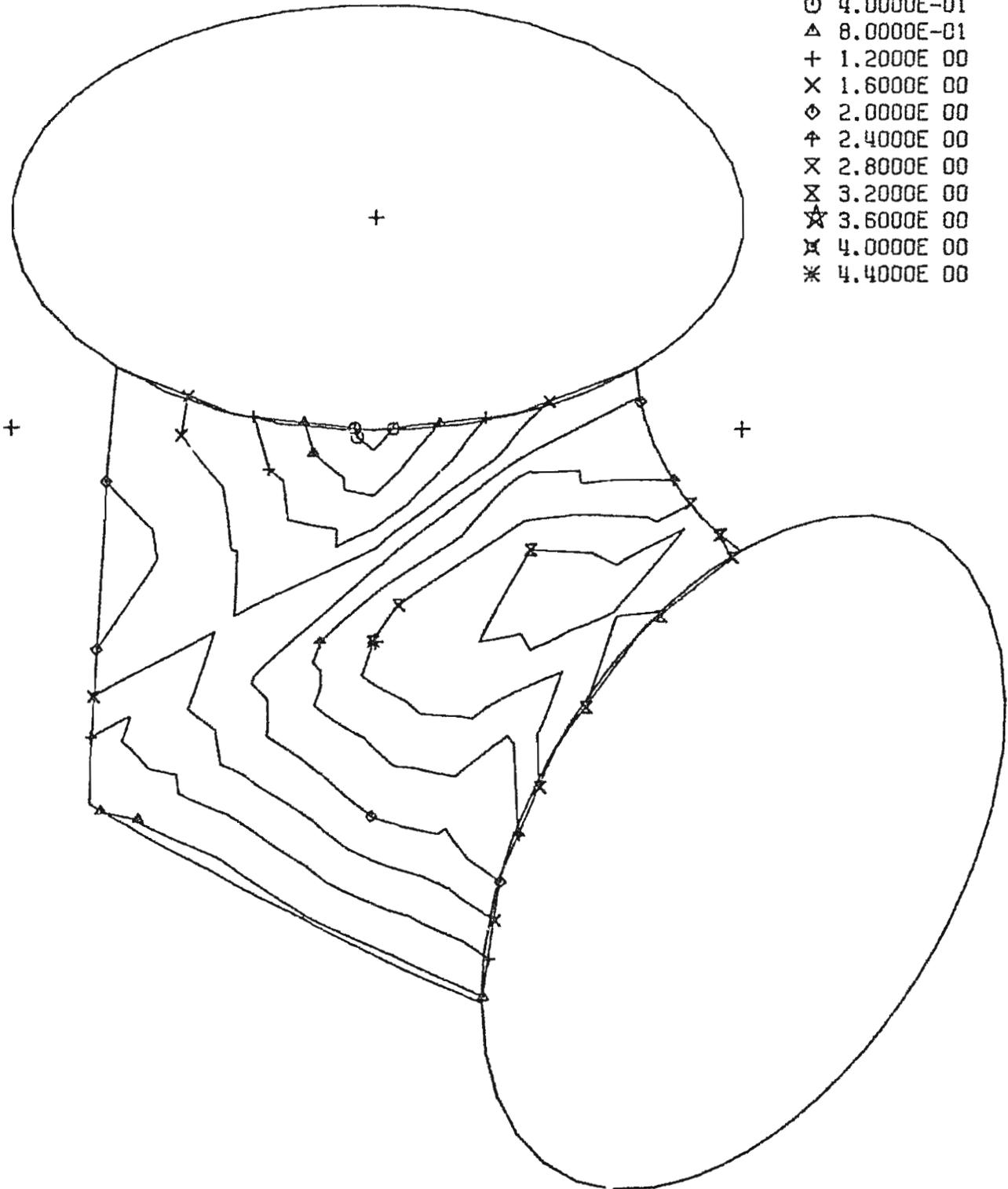


C.E. B16.9 T-11, F2Y

Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⊕ 2.4000E 00
- ⊗ 2.8000E 00
- ⊘ 3.2000E 00
- ☆ 3.6000E 00
- ✕ 4.0000E 00
- ✱ 4.4000E 00

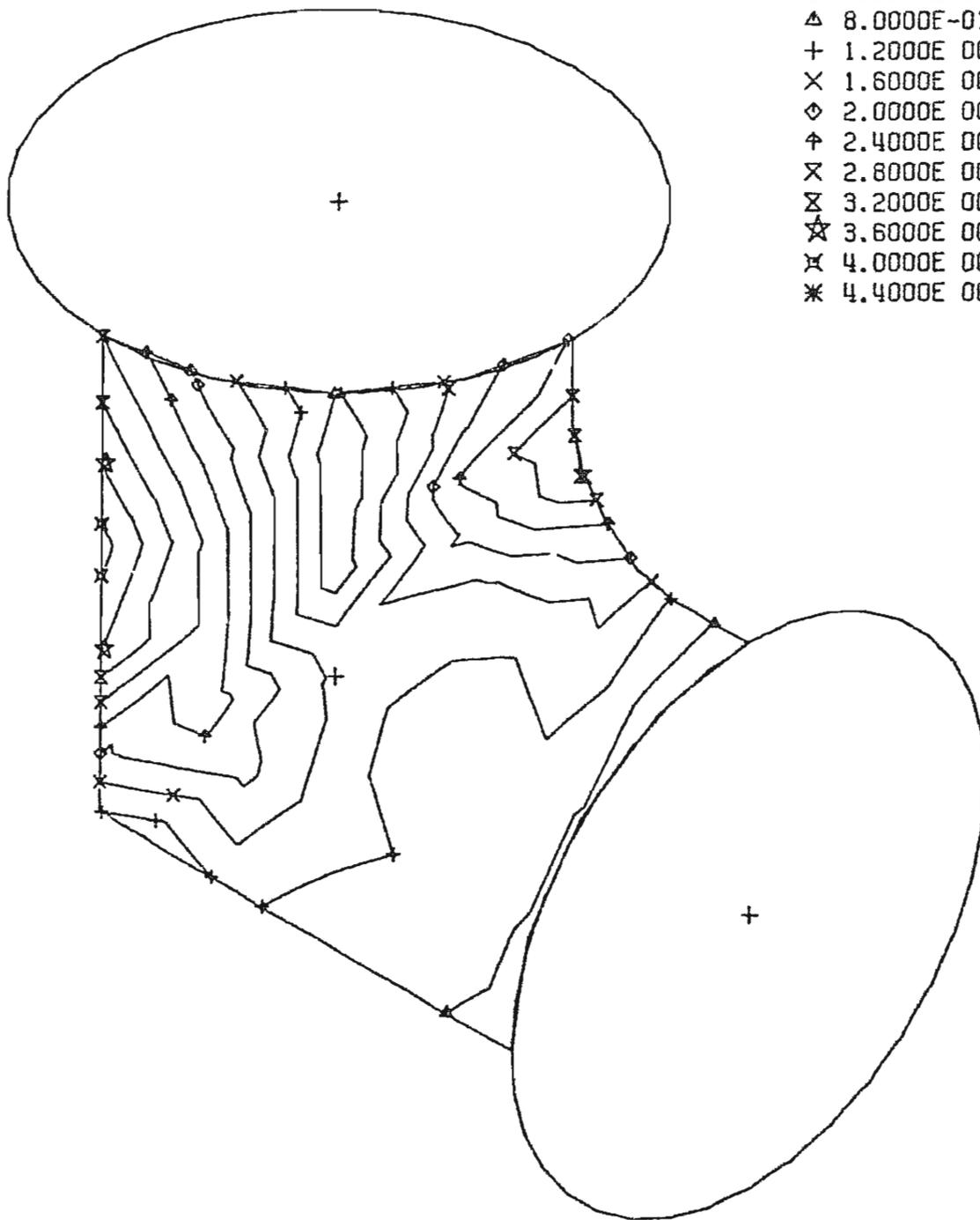


C.E. B16.9 T-11, F2Y

Top Inside Surface

CONTOUR VALUES

- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⋈ 2.4000E 00
- ⋈ 2.8000E 00
- ⊗ 3.2000E 00
- ☆ 3.6000E 00
- ⊗ 4.0000E 00
- * 4.4000E 00

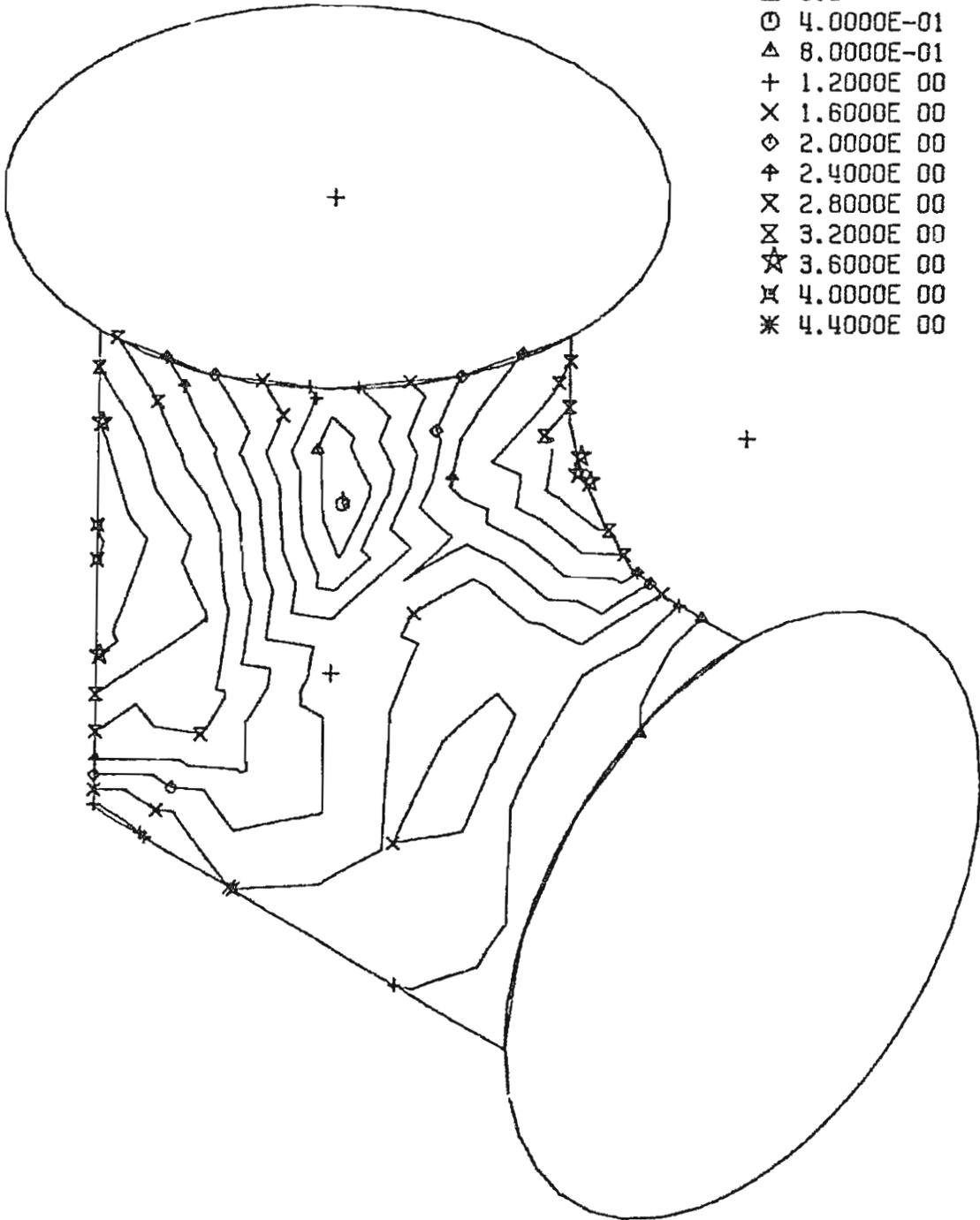


C.E. B16.9 T-11, F2Y

Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⊕ 2.4000E 00
- ⊗ 2.8000E 00
- ⊘ 3.2000E 00
- ☆ 3.6000E 00
- ⊚ 4.0000E 00
- ✱ 4.4000E 00

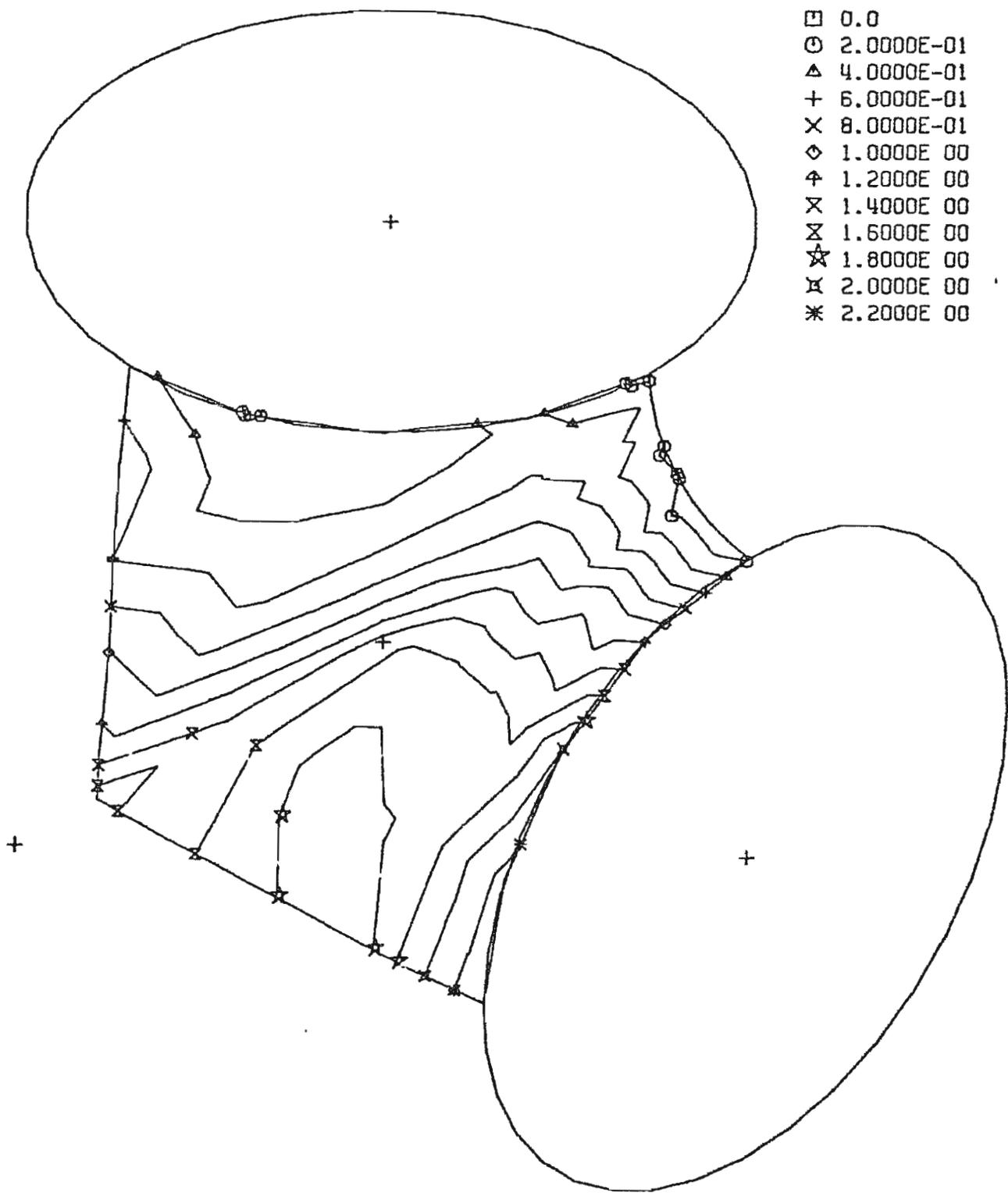


C.E. B16.9 T-11, F2Z

Top Outside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⊕ 1.2000E 00
- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
- ☆ 1.8000E 00
- ⊗ 2.0000E 00
- * 2.2000E 00

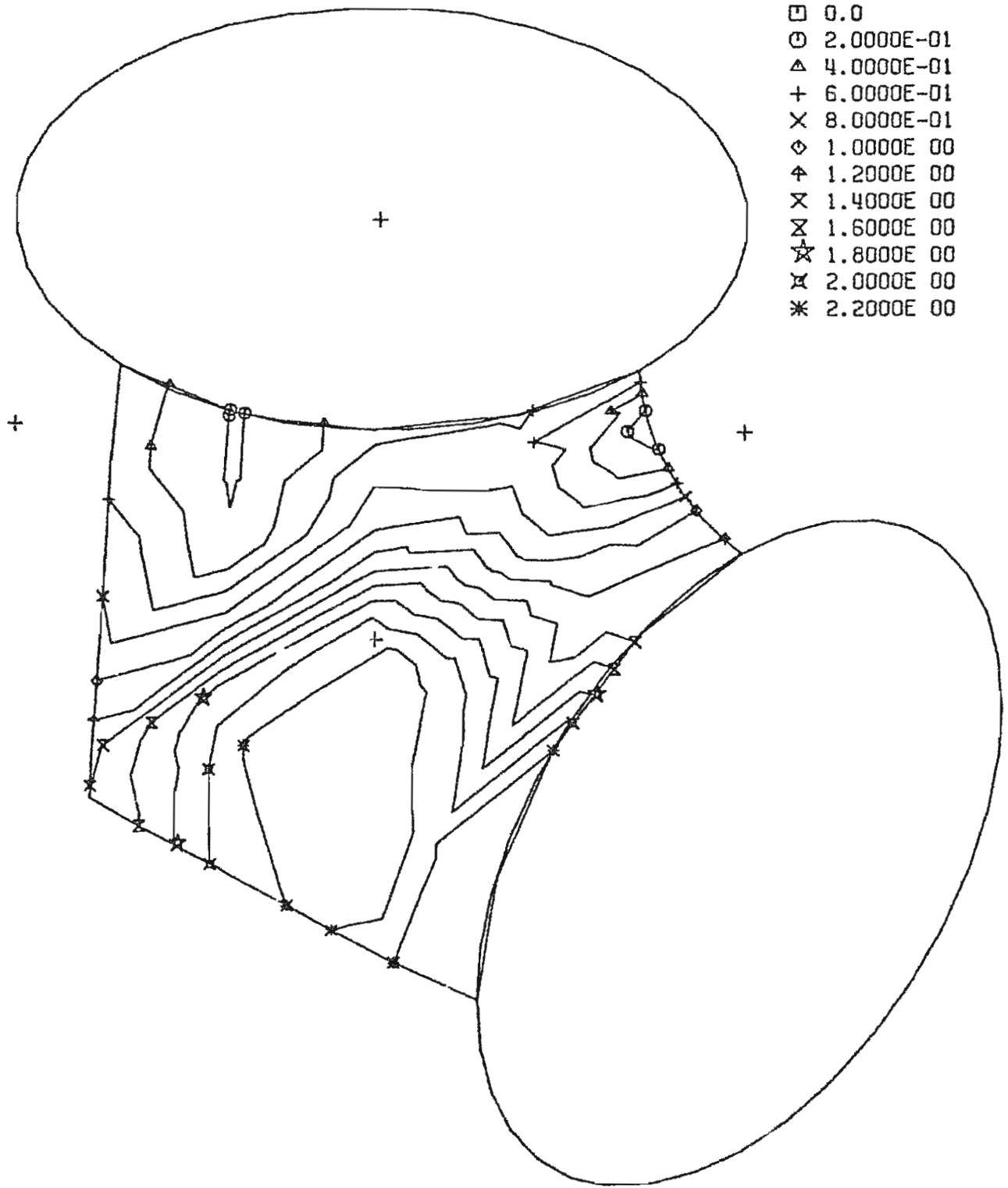


C.E. B16.9 T-11, F2Z

Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⊕ 1.2000E 00
- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
- ☆ 1.8000E 00
- ⊗ 2.0000E 00
- * 2.2000E 00

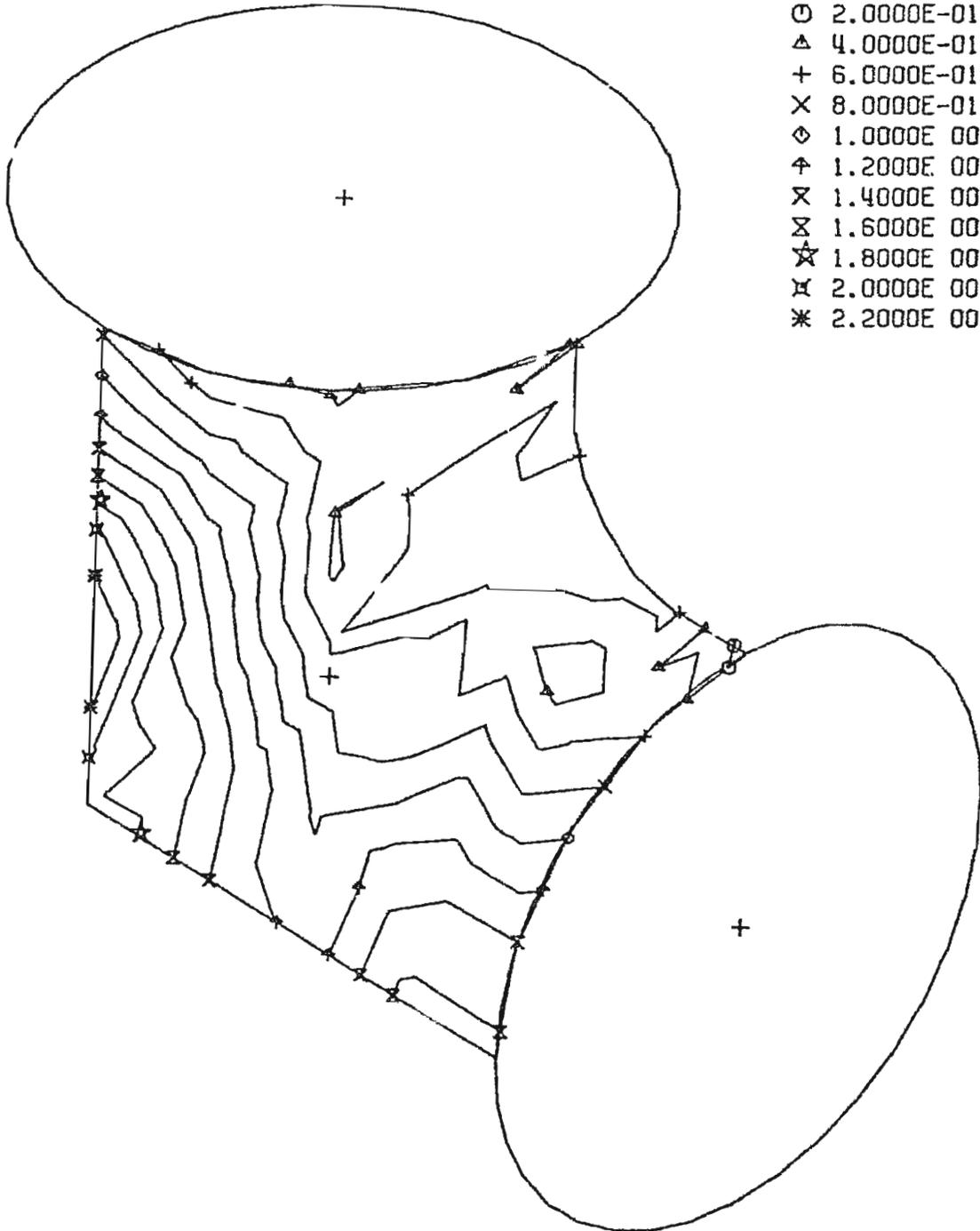


C.E. B16.9 T-11, F22

Top Inside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⊕ 1.2000E 00
- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
- ☆ 1.8000E 00
- ⊞ 2.0000E 00
- * 2.2000E 00

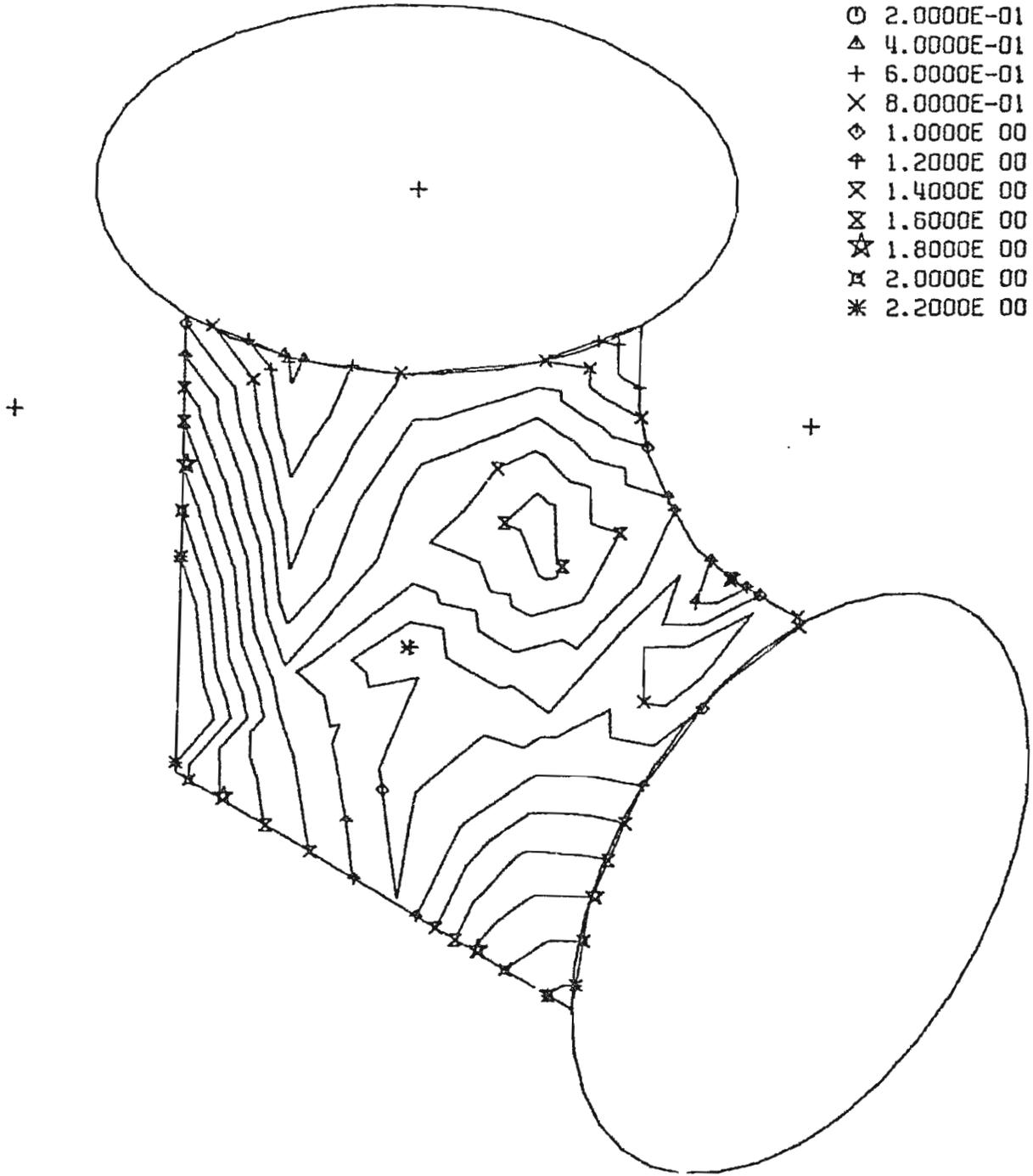


C.E. B16.9 T-11, F2Z

Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⊕ 1.2000E 00
- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
- ☆ 1.8000E 00
- ⊗ 2.0000E 00
- * 2.2000E 00

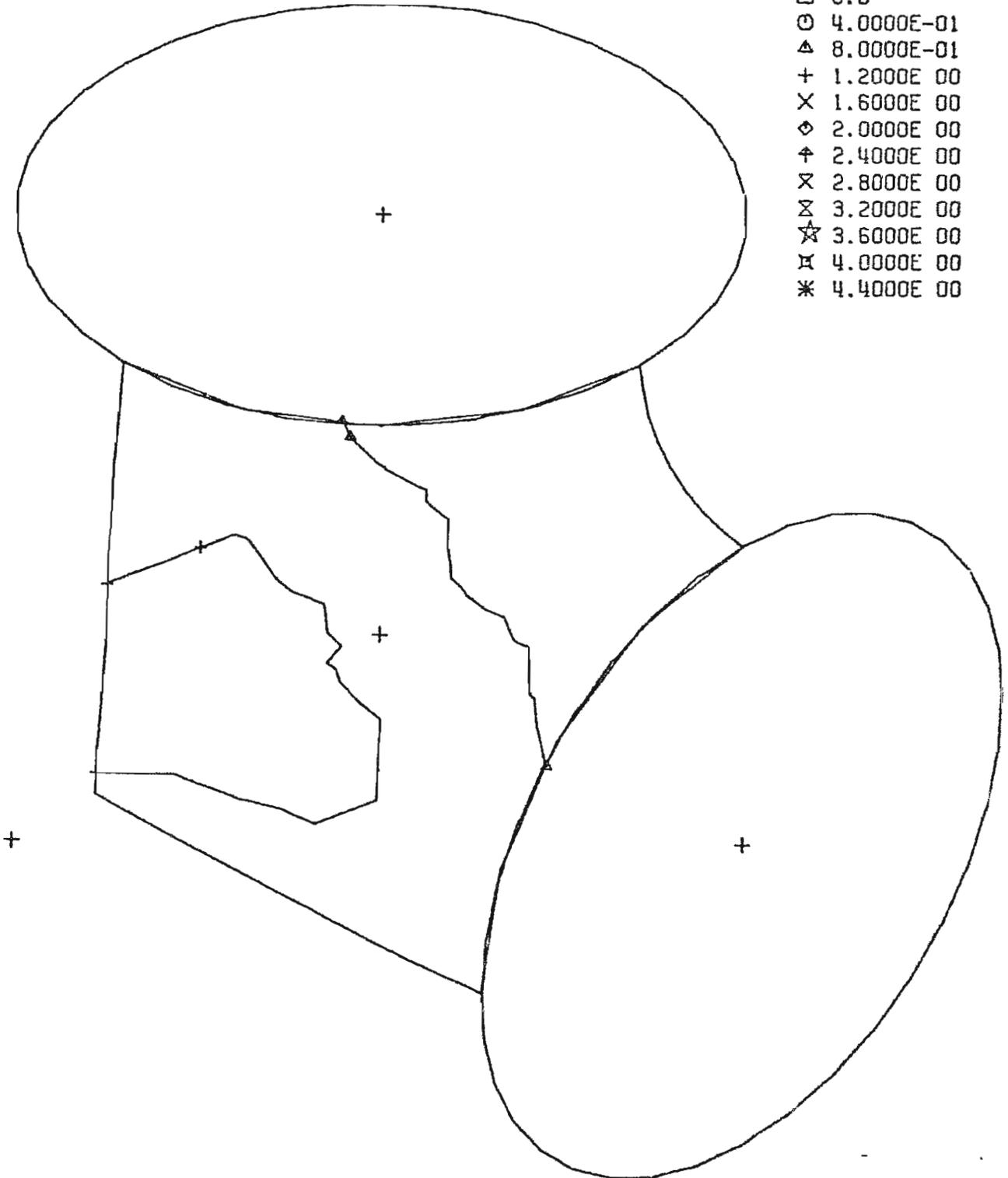


C.E. B16.9 T-11, PRESSURE

Top Outside Surface

CONTOUR VALUES

- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⊕ 2.4000E 00
- ⊗ 2.8000E 00
- ⊘ 3.2000E 00
- ☆ 3.6000E 00
- ⊚ 4.0000E 00
- * 4.4000E 00

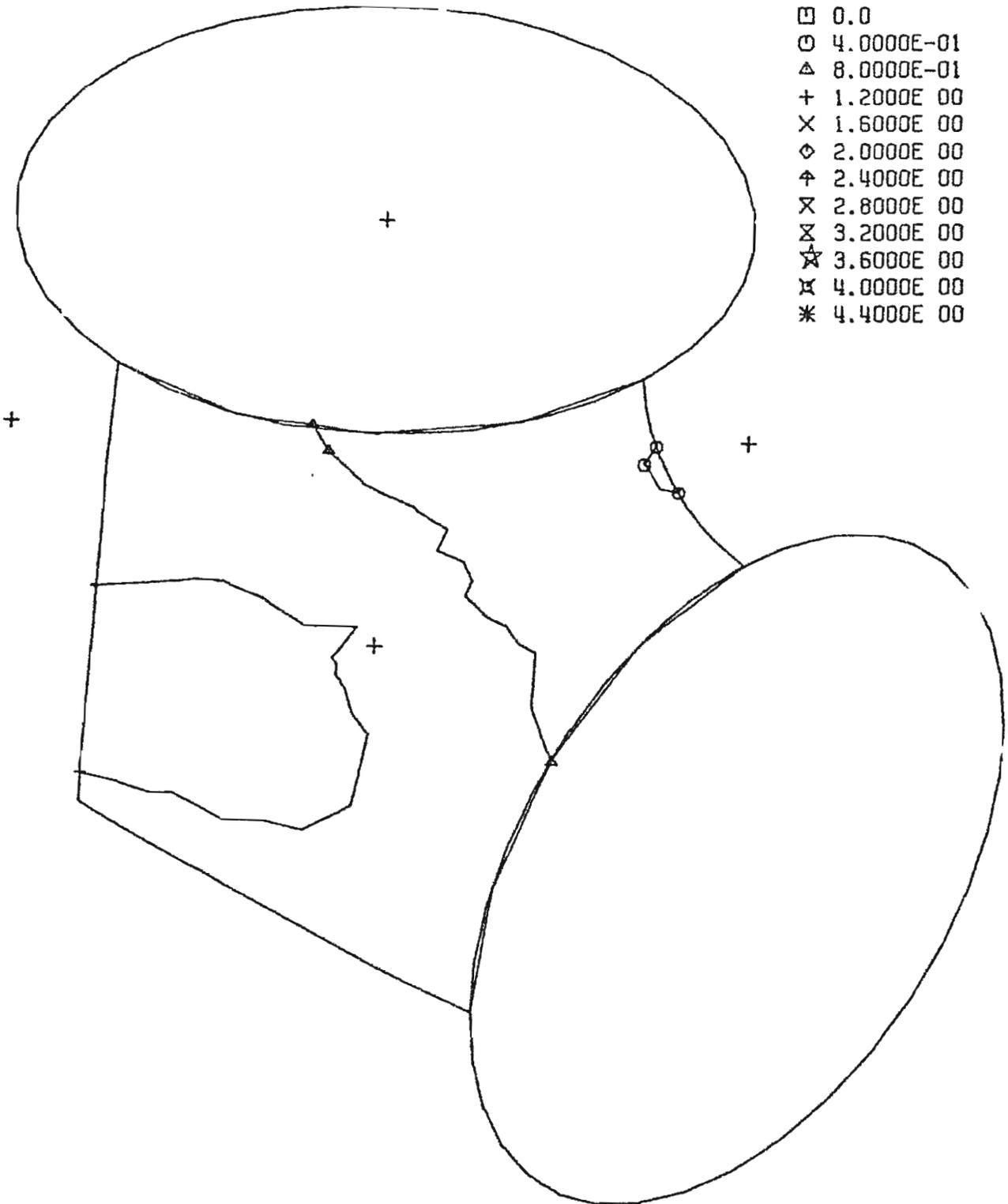


C.E. B16.9 T-11, PRESSURE

Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⋈ 2.4000E 00
- ⊗ 2.8000E 00
- ⊘ 3.2000E 00
- ☆ 3.6000E 00
- ⊗ 4.0000E 00
- * 4.4000E 00

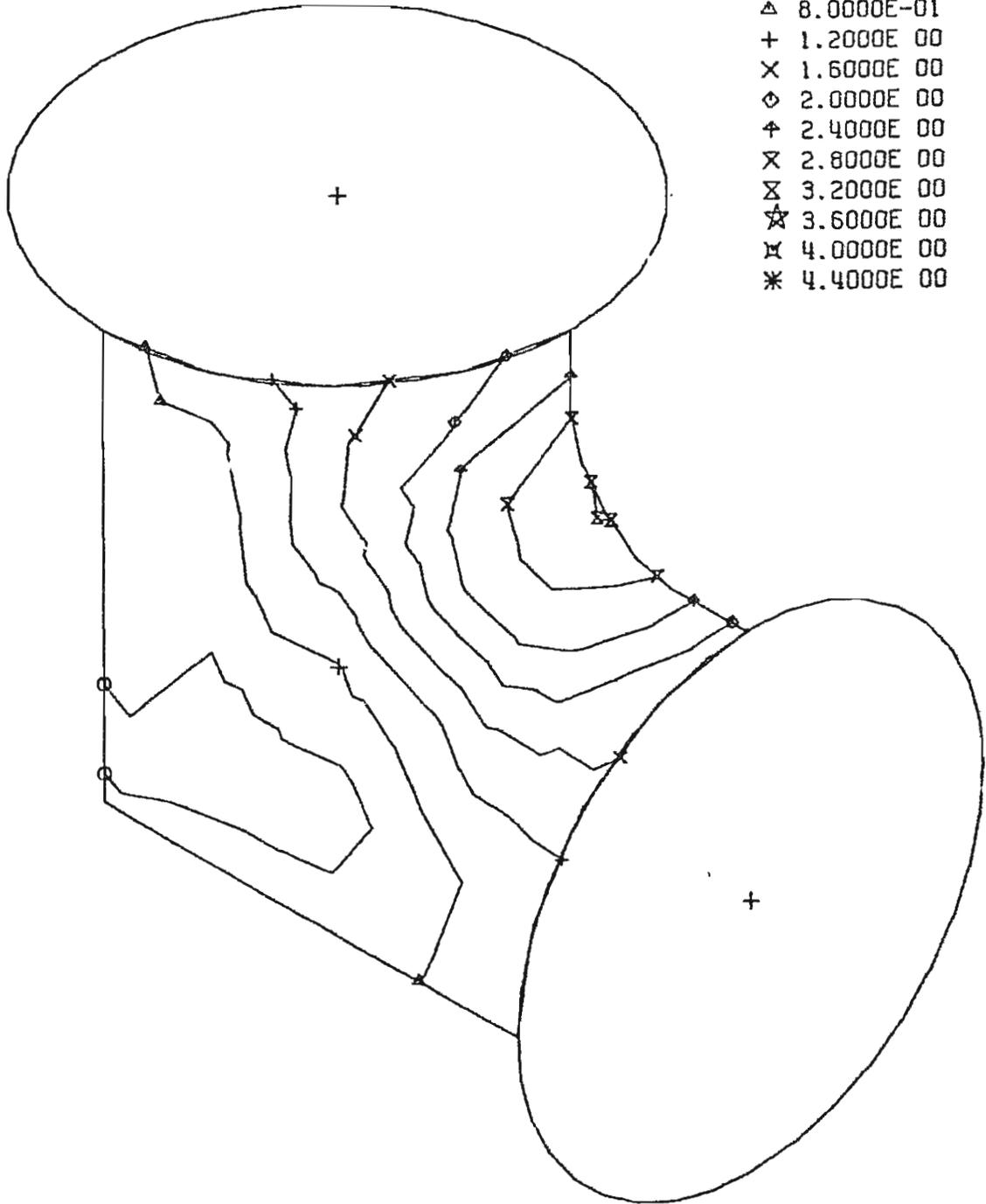


C.E. B16.9 T-11, PRESSURE

Top Inside Surface

CONTOUR VALUES

- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⊕ 2.4000E 00
- ⊗ 2.8000E 00
- ⊠ 3.2000E 00
- ☆ 3.6000E 00
- ⊞ 4.0000E 00
- * 4.4000E 00

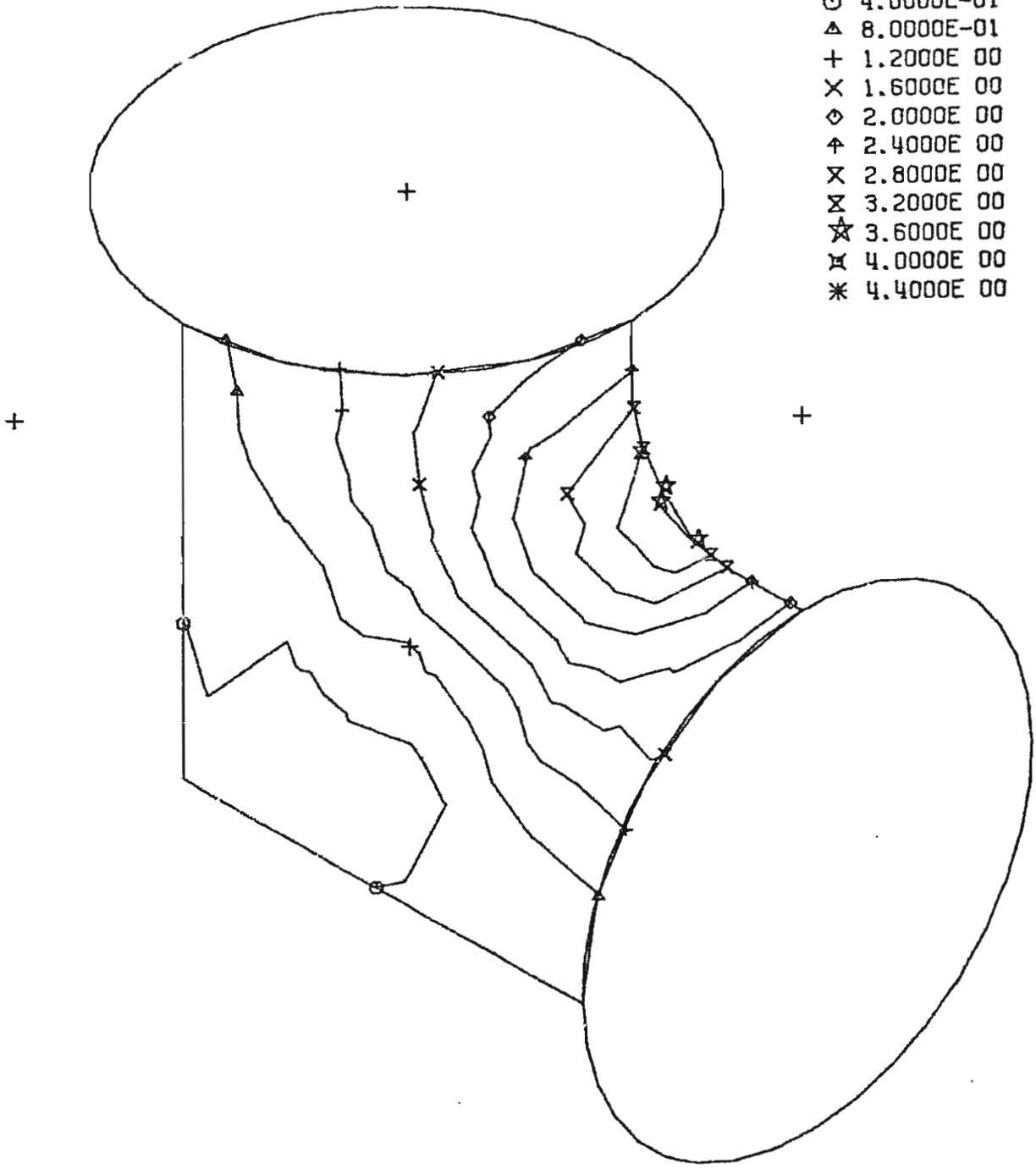


C.E. B16.9 T-11, PRESSURE

Bottom Inside Surface

CONTOUR VALUES

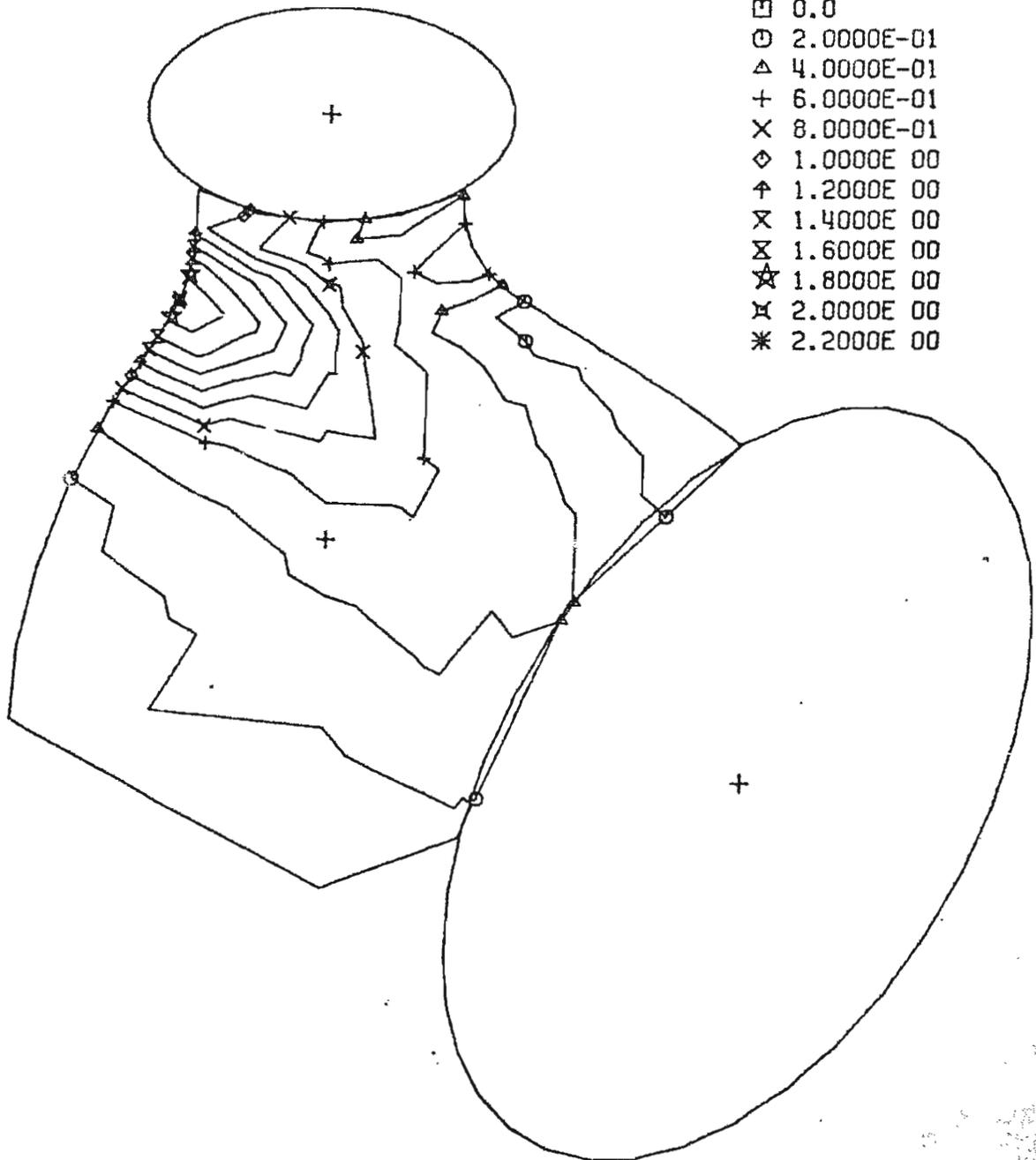
- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⋈ 2.4000E 00
- ⊗ 2.8000E 00
- ⊘ 3.2000E 00
- ☆ 3.6000E 00
- ⊗ 4.0000E 00
- * 4.4000E 00



C.E. B16.9 T-12, M3X
Top Outside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ↑ 1.2000E 00
- ⋈ 1.4000E 00
- ⊗ 1.6000E 00
- ☆ 1.8000E 00
- ⋈ 2.0000E 00
- * 2.2000E 00

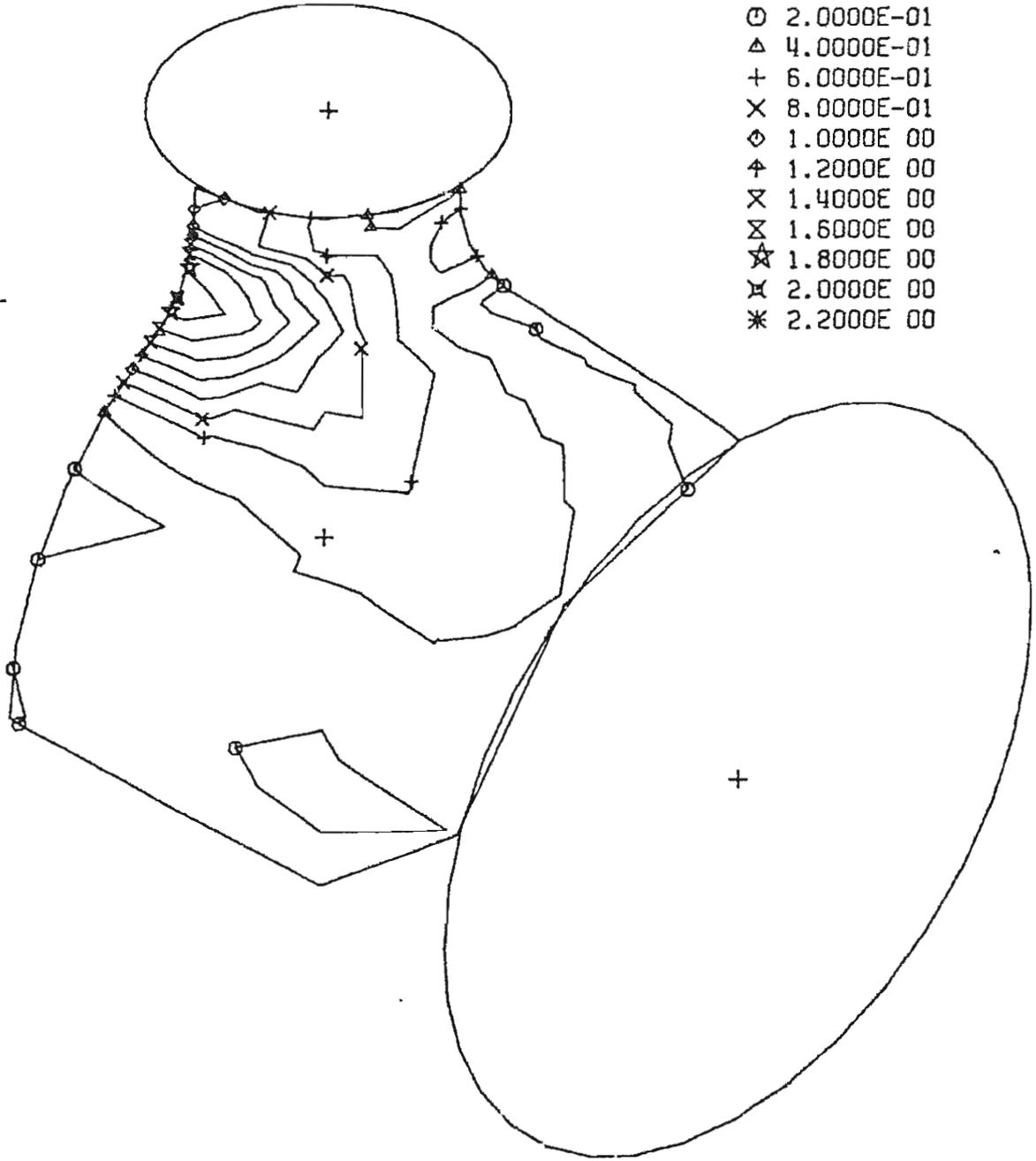


C.E. B16.9 T-12, M3X

Bottom Outside Surface

CONTOUR VALUES

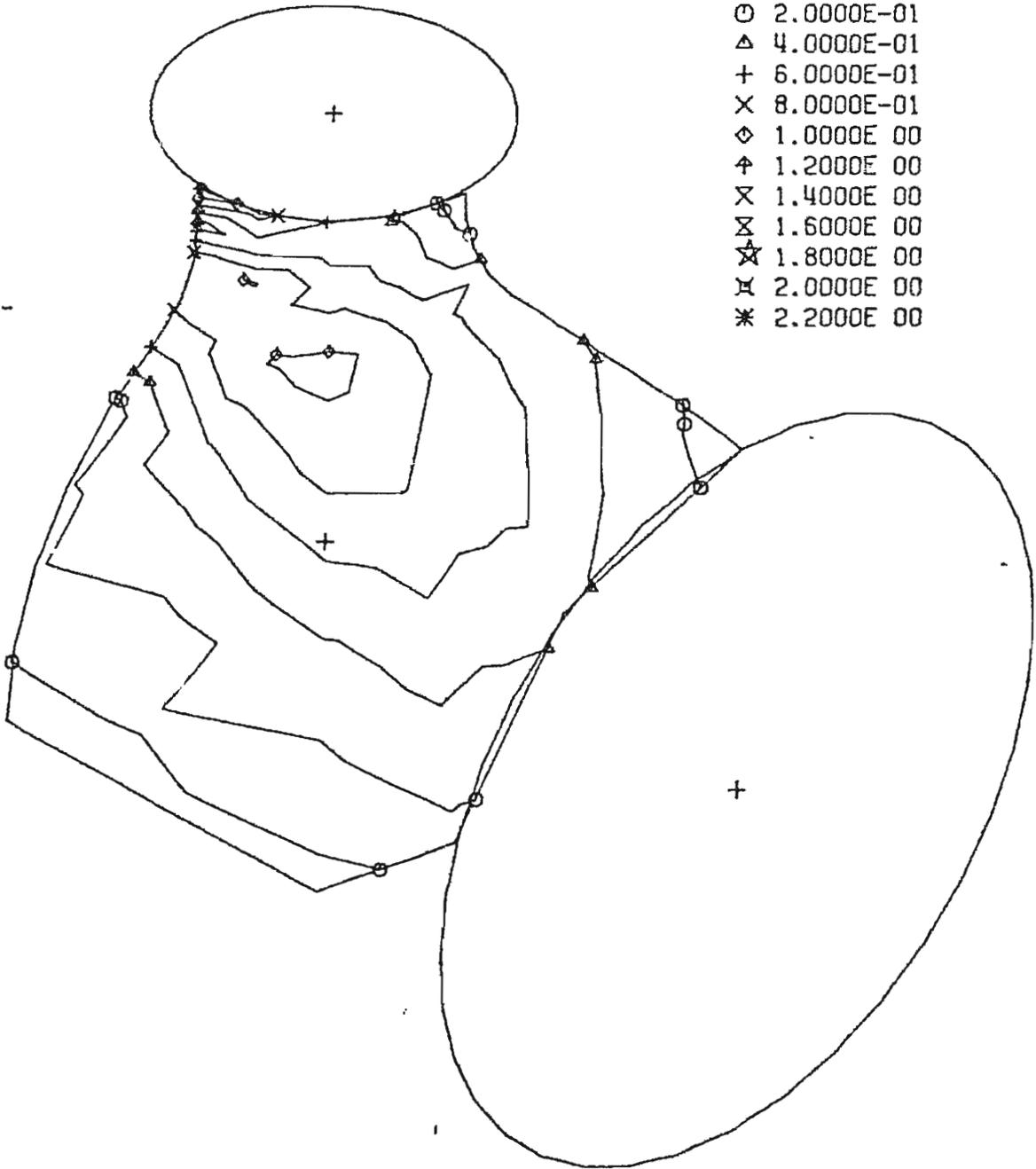
- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⋈ 1.2000E 00
- ⊗ 1.4000E 00
- ⊗ 1.6000E 00
- ☆ 1.8000E 00
- ⊗ 2.0000E 00
- * 2.2000E 00



C.E. B16.9 T-12, M3X
Top Inside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⋈ 1.2000E 00
- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
- ☆ 1.8000E 00
- ⊞ 2.0000E 00
- * 2.2000E 00

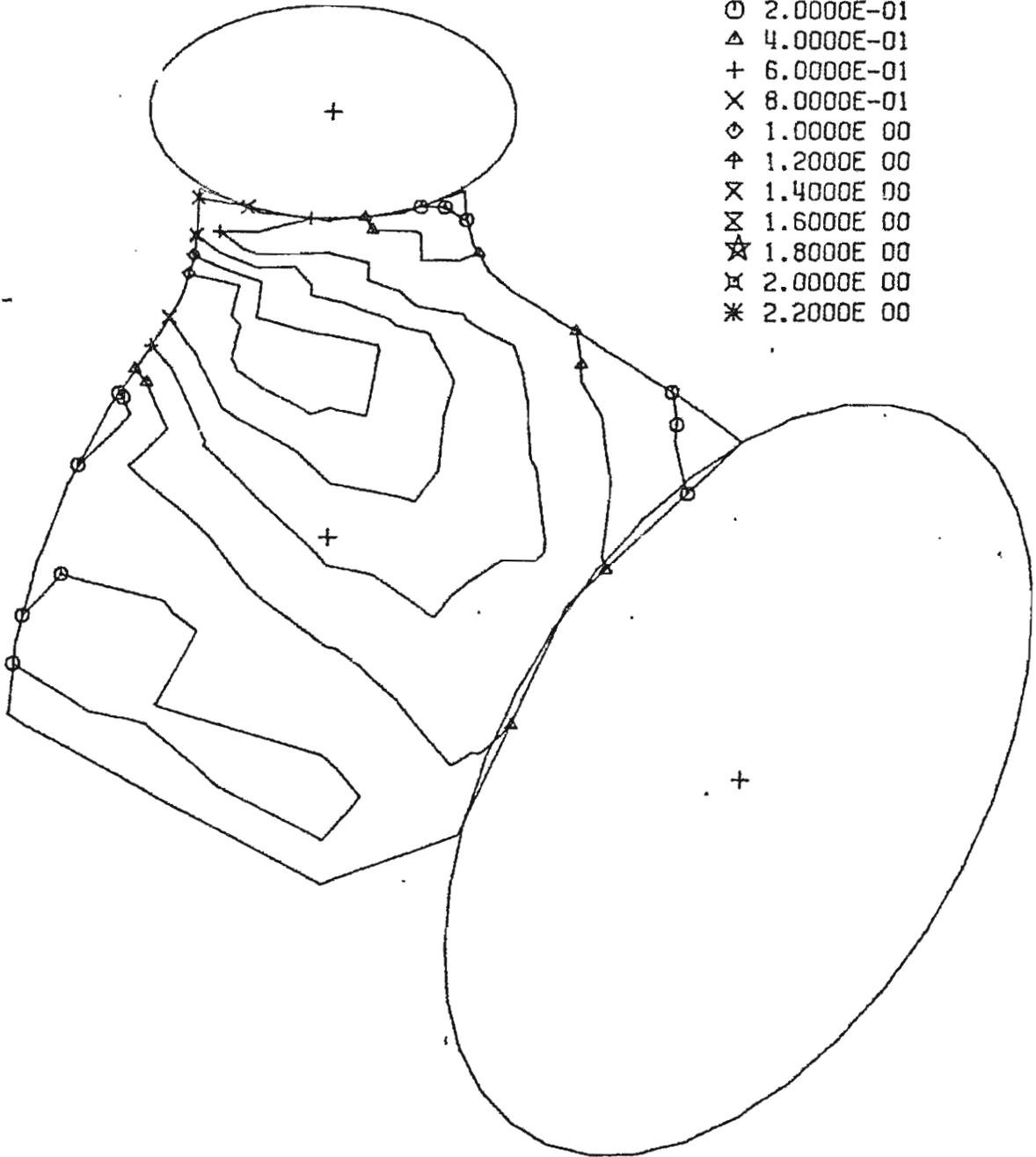


C.E. B16.9 T-12, M3X

Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⋈ 1.2000E 00
- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
- ☆ 1.8000E 00
- ⊠ 2.0000E 00
- * 2.2000E 00

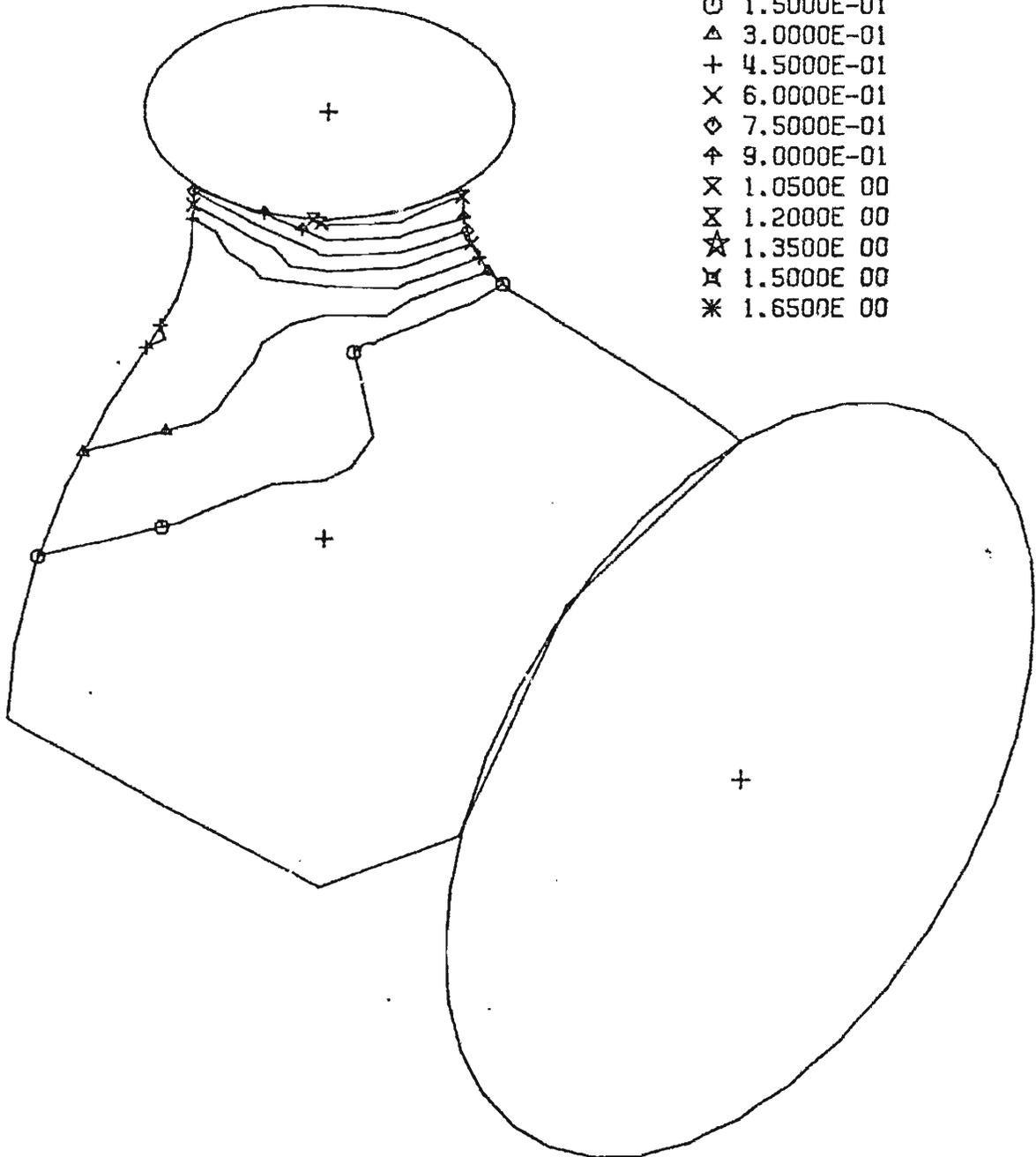


C.E. B16.9 T-12, M3Y

Top Outside Surface

CONTOUR VALUES

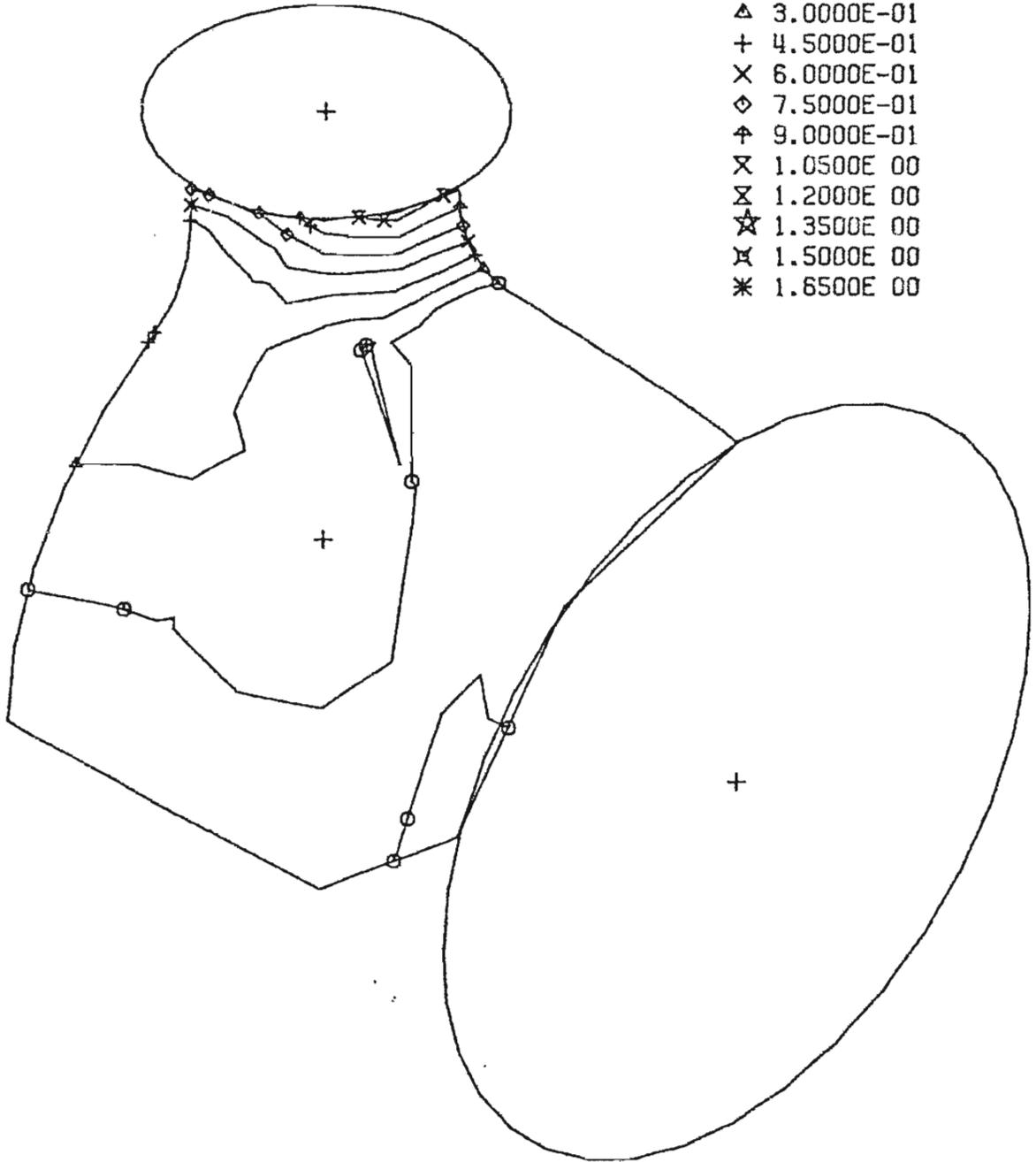
- 0.0
- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ⊕ 9.0000E-01
- ⊗ 1.0500E 00
- ⊘ 1.2000E 00
- ☆ 1.3500E 00
- ⊚ 1.5000E 00
- * 1.6500E 00



C.E. B16.9 T-12, M3Y
Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ⊕ 9.0000E-01
- ⊗ 1.0500E 00
- ⊘ 1.2000E 00
- ☆ 1.3500E 00
- ⊗ 1.5000E 00
- * 1.6500E 00

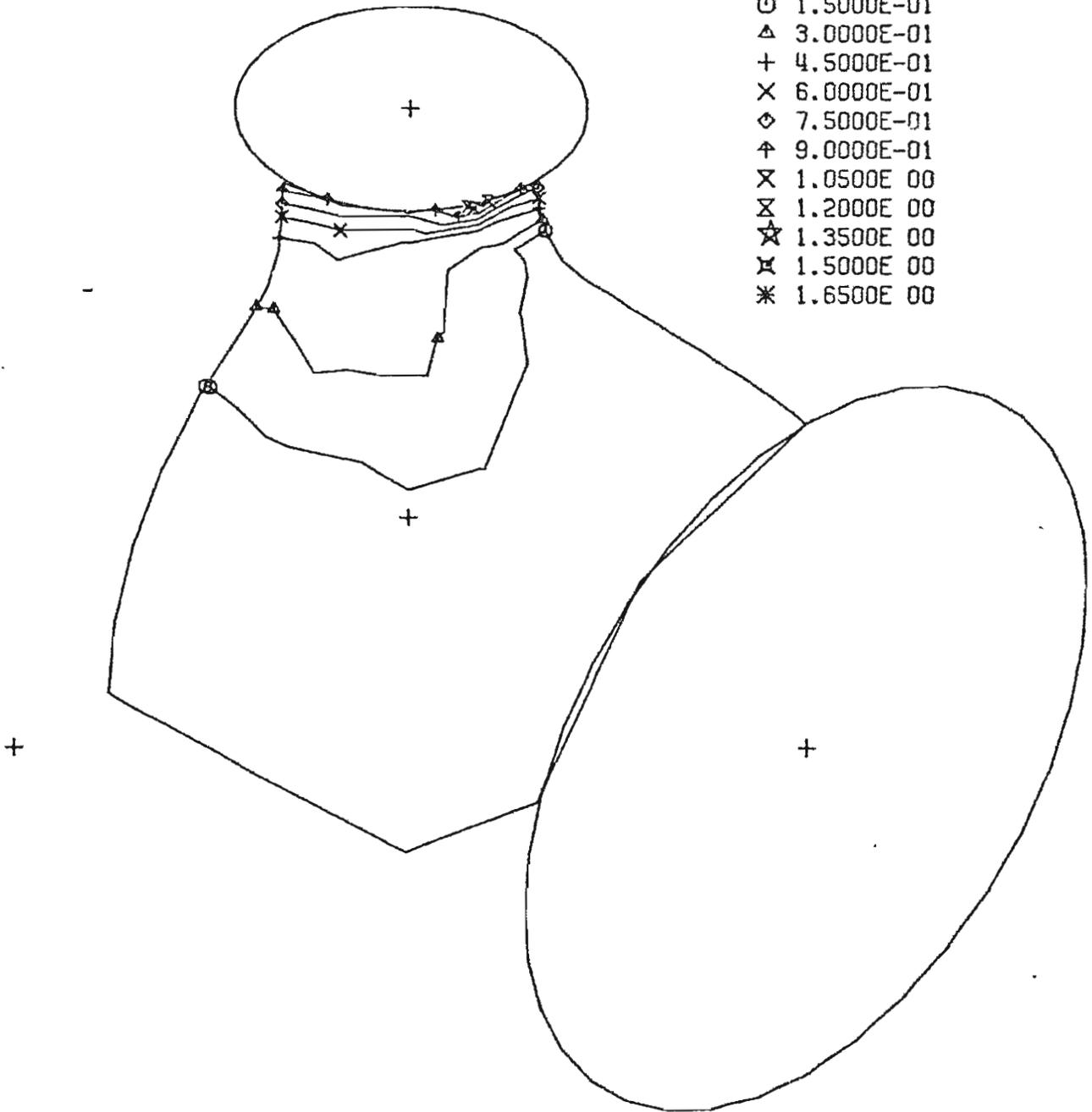


C.E. B16.9 T-12, M3Y

Top Inside Surface

CONTOUR VALUES

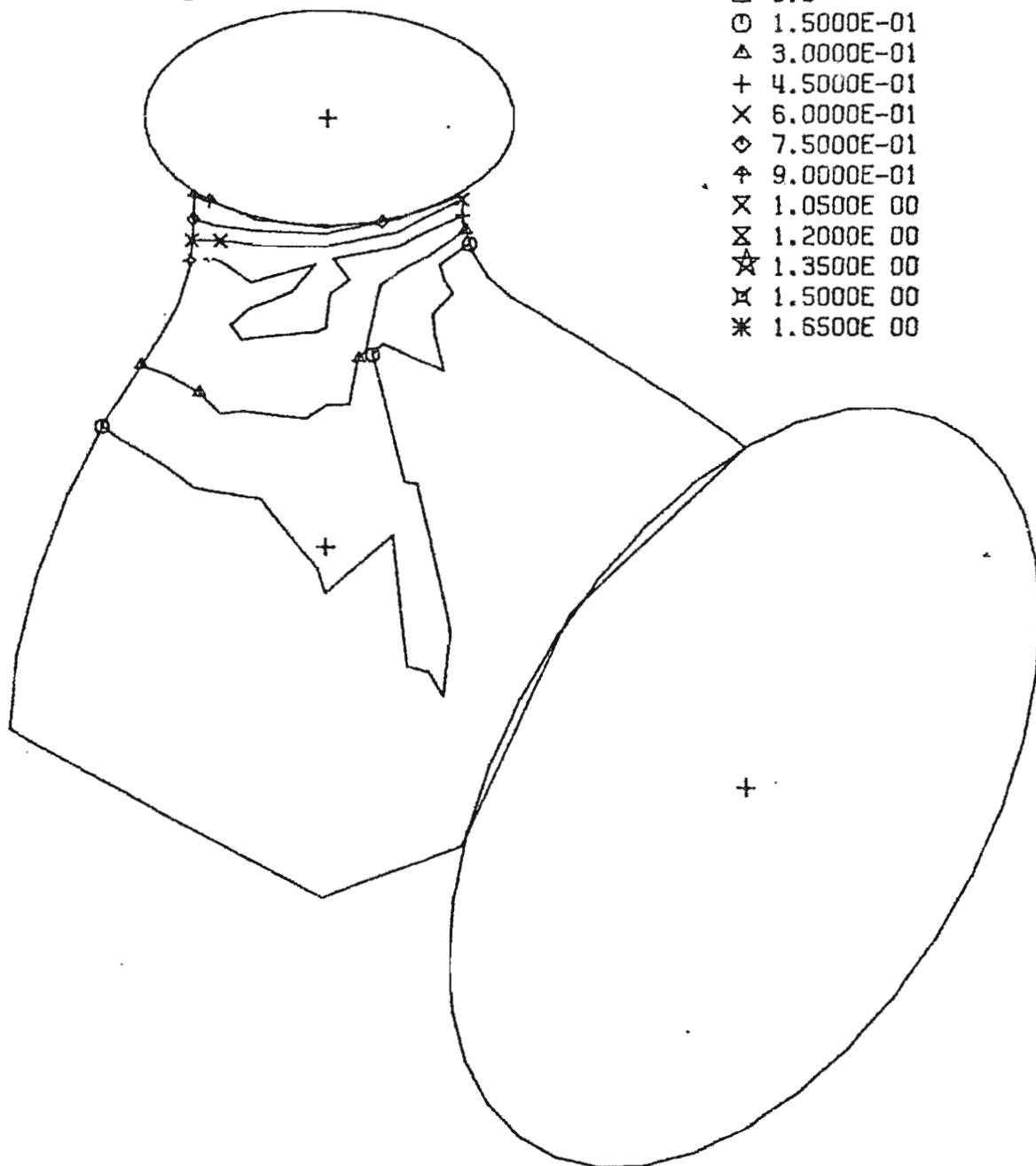
- 0.0
- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ⋈ 9.0000E-01
- ⊗ 1.0500E 00
- ⊗ 1.2000E 00
- ☆ 1.3500E 00
- ⊗ 1.5000E 00
- * 1.6500E 00



C.E. B16.9 T-12, M3Y
Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ⊕ 9.0000E-01
- ⊗ 1.0500E 00
- ⊘ 1.2000E 00
- ☆ 1.3500E 00
- ⊗ 1.5000E 00
- * 1.6500E 00

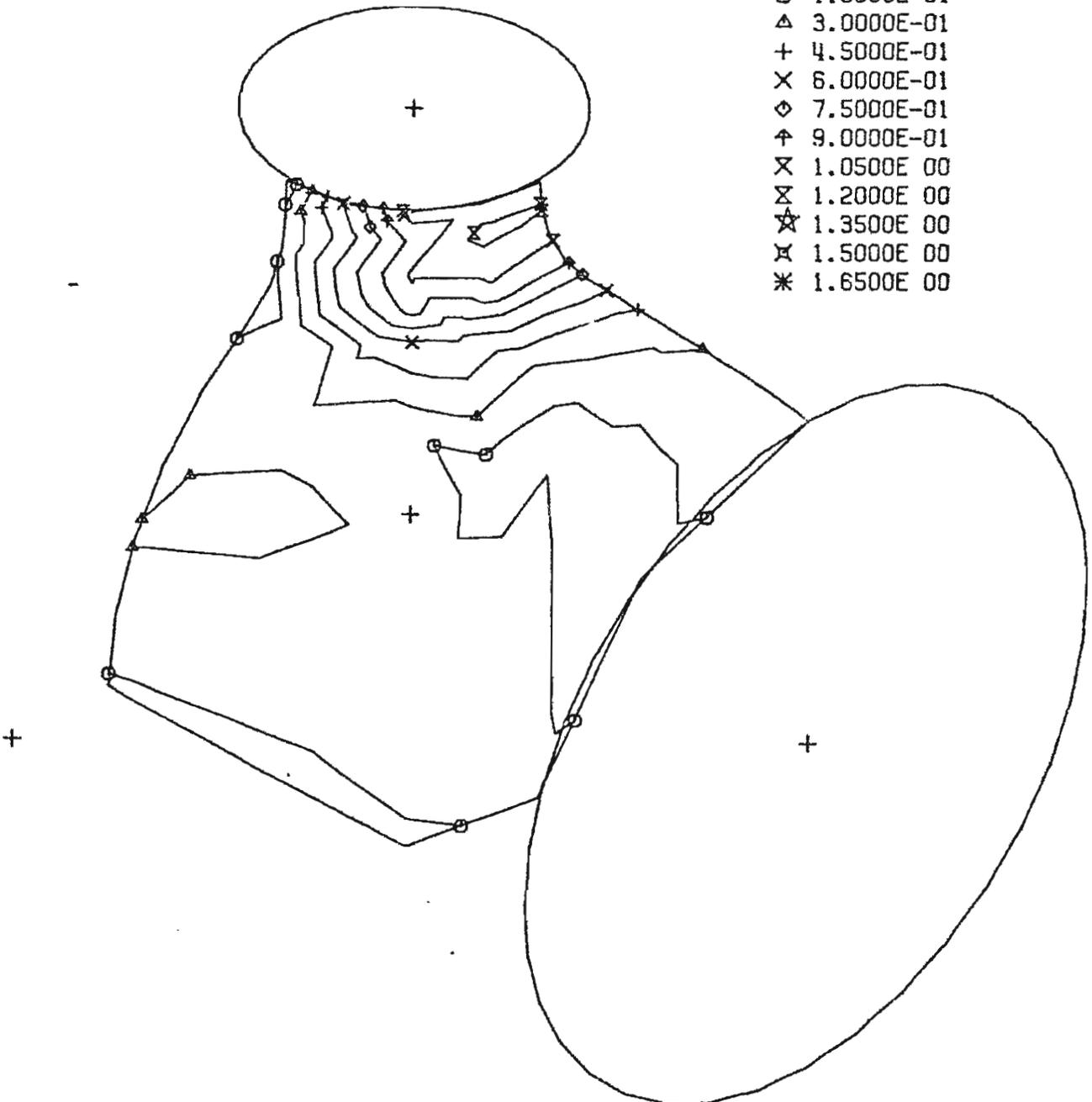


C.E. B16.9 T-12, M3Z

Top Outside Surface

CONTOUR VALUES

- 0.0
- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ↑ 9.0000E-01
- × 1.0500E 00
- ⊗ 1.2000E 00
- ☆ 1.3500E 00
- ⊗ 1.5000E 00
- * 1.6500E 00

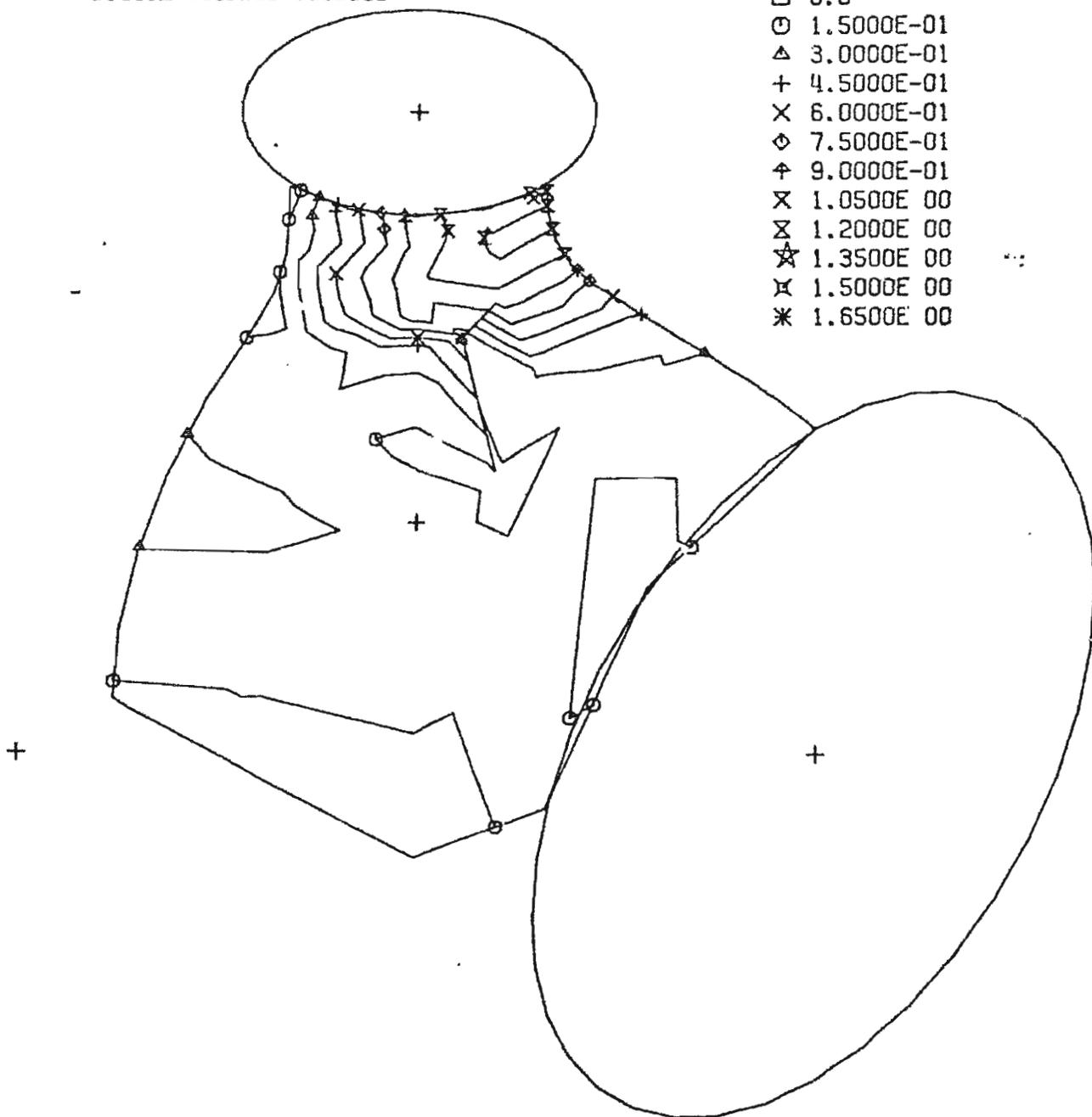


C.E. B16.9 T-12, M3Z

Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ⊕ 9.0000E-01
- ⊗ 1.0500E 00
- ⊗ 1.2000E 00
- ☆ 1.3500E 00
- ⊗ 1.5000E 00
- * 1.6500E 00

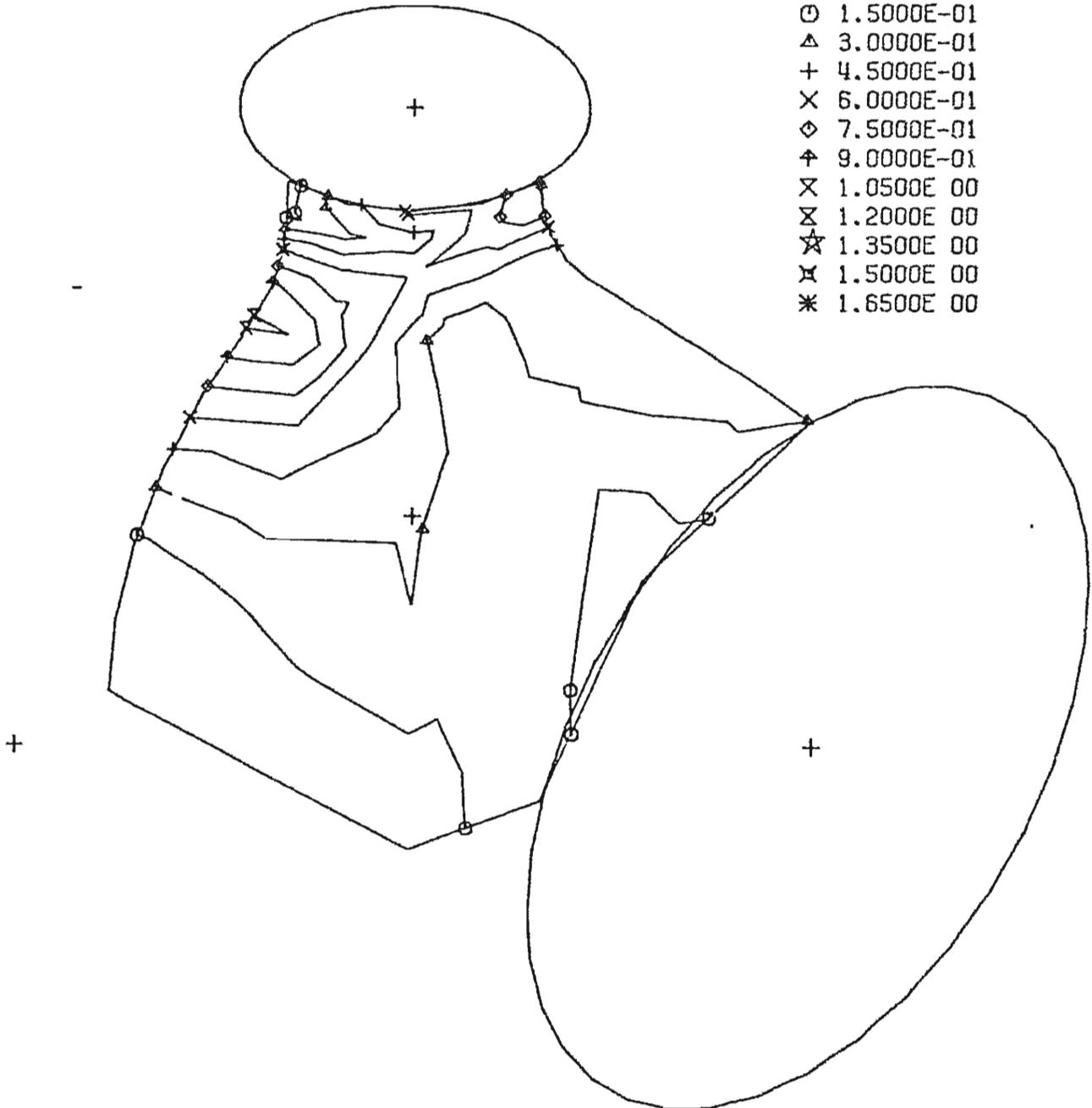


C.E. B16.9 T-12, M3Z

Top Inside Surface

CONTOUR VALUES

- 0.0
- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ⋈ 9.0000E-01
- ⊗ 1.0500E 00
- ⊘ 1.2000E 00
- ☆ 1.3500E 00
- ⊠ 1.5000E 00
- * 1.6500E 00

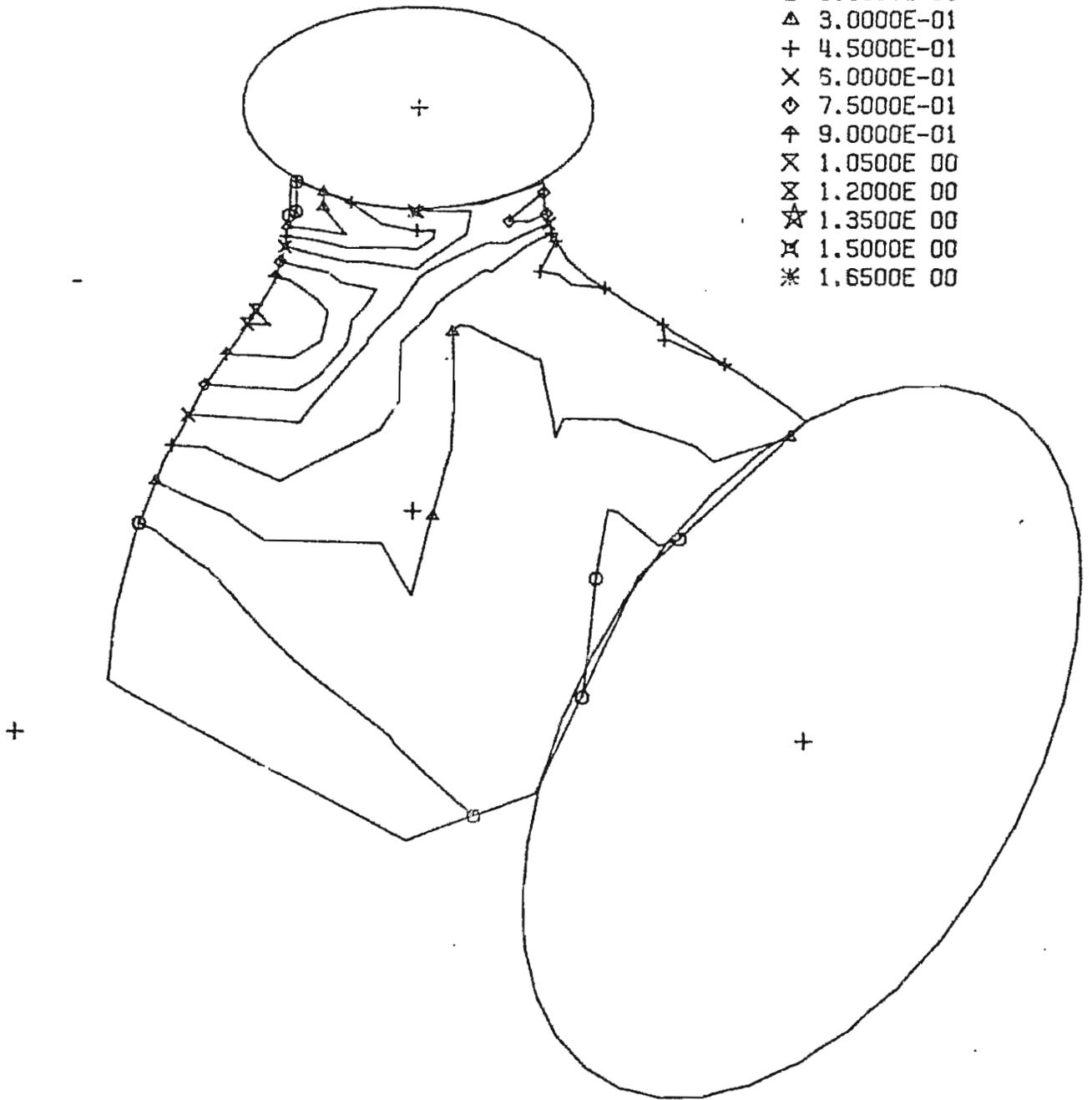


C.E. B16.9 T-12, M3Z

Bottom Inside Surface

CONTOUR VALUES

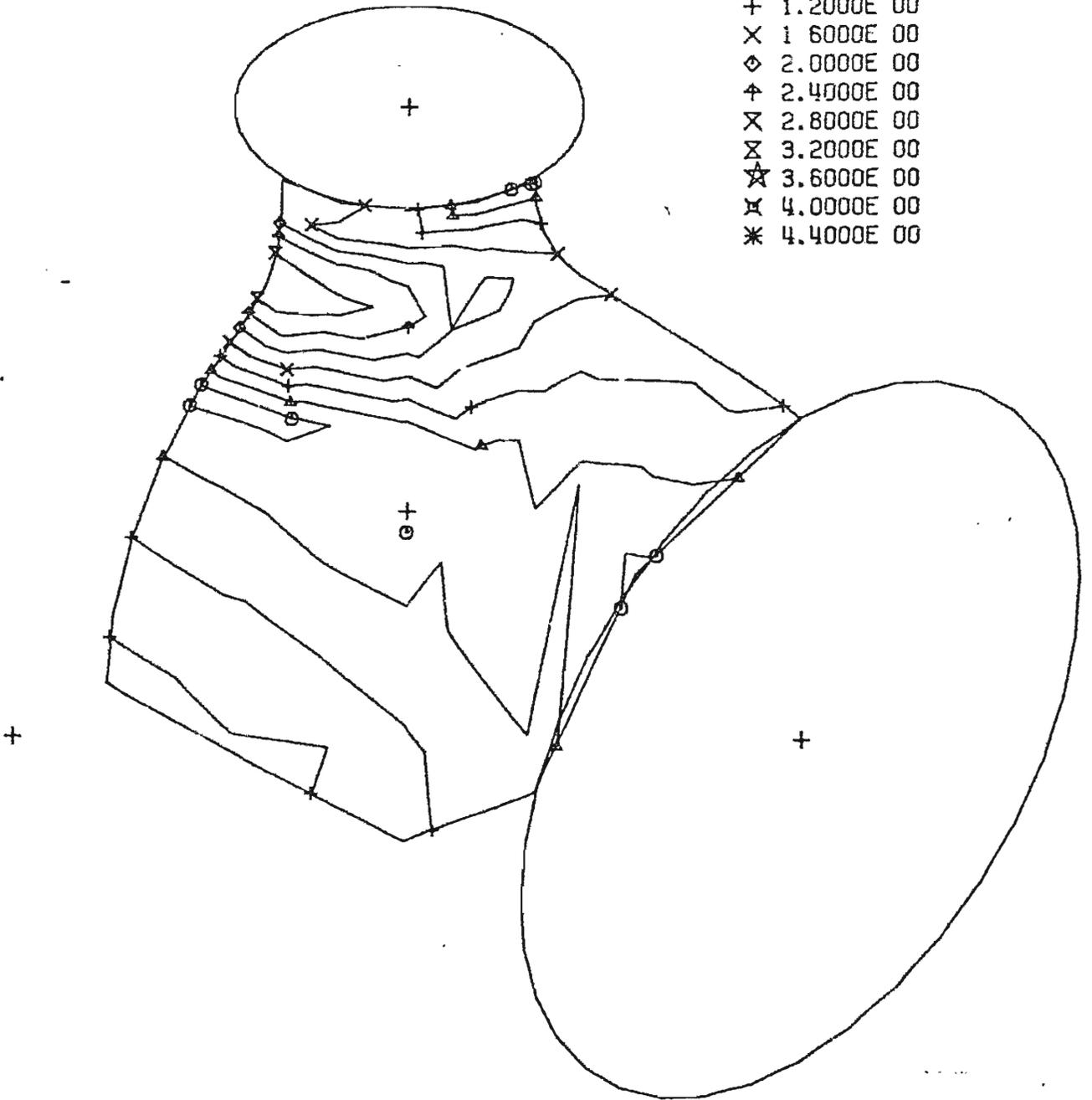
- 0.0
- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 5.0000E-01
- ◇ 7.5000E-01
- ⊕ 9.0000E-01
- ⊗ 1.0500E 00
- ⊘ 1.2000E 00
- ☆ 1.3500E 00
- ⊗ 1.5000E 00
- * 1.6500E 00



C.E. B16.9 T-12, F3Y
Top Outside Surface

CONTOUR VALUES

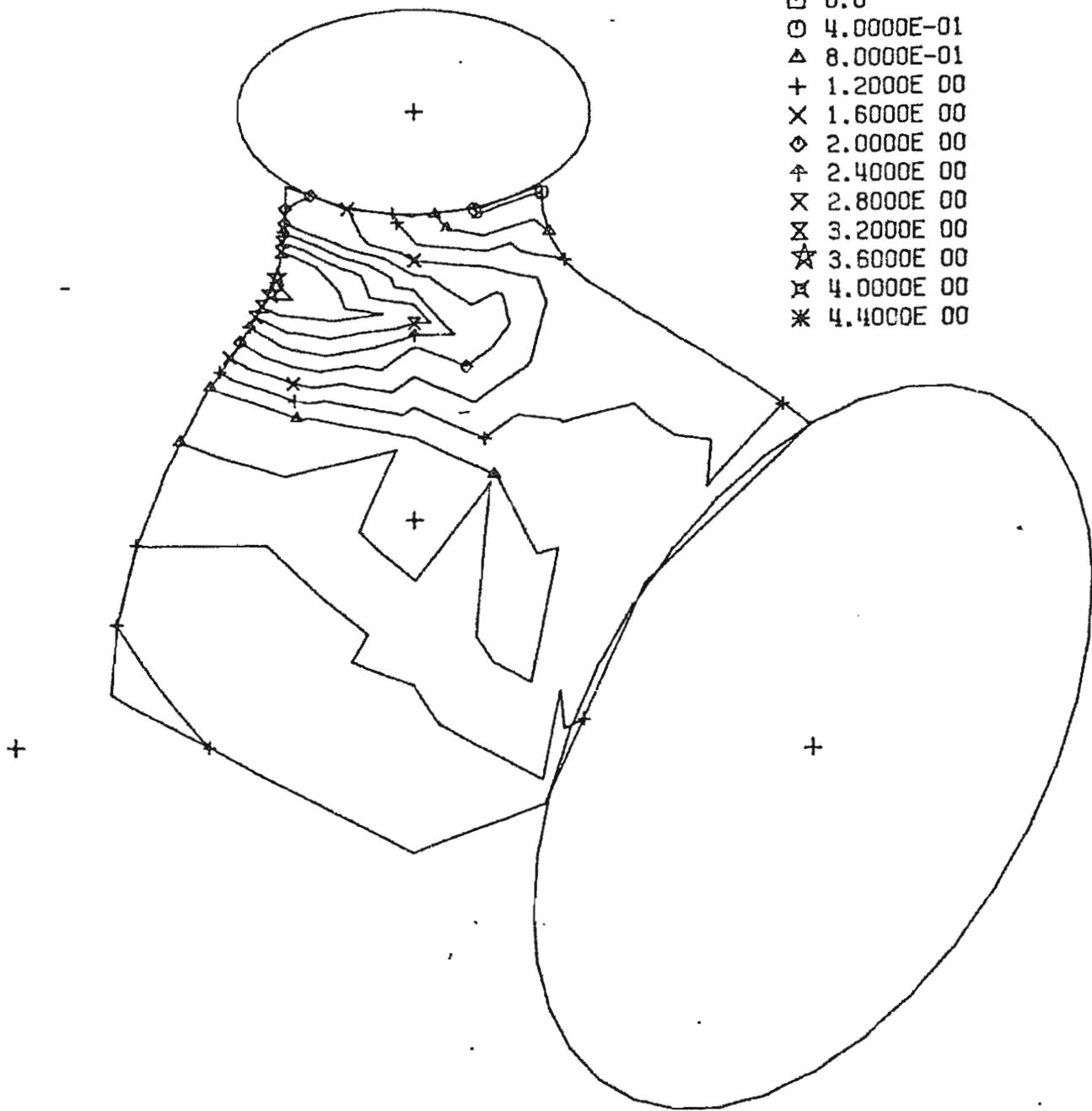
- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⊕ 2.4000E 00
- ⊗ 2.8000E 00
- ⊘ 3.2000E 00
- ☆ 3.6000E 00
- ⊗ 4.0000E 00
- * 4.4000E 00



C.E. B16.9 T-12, F3Y
Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⋈ 2.4000E 00
- ⊗ 2.8000E 00
- ⊘ 3.2000E 00
- ☆ 3.6000E 00
- ⊗ 4.0000E 00
- * 4.4000E 00

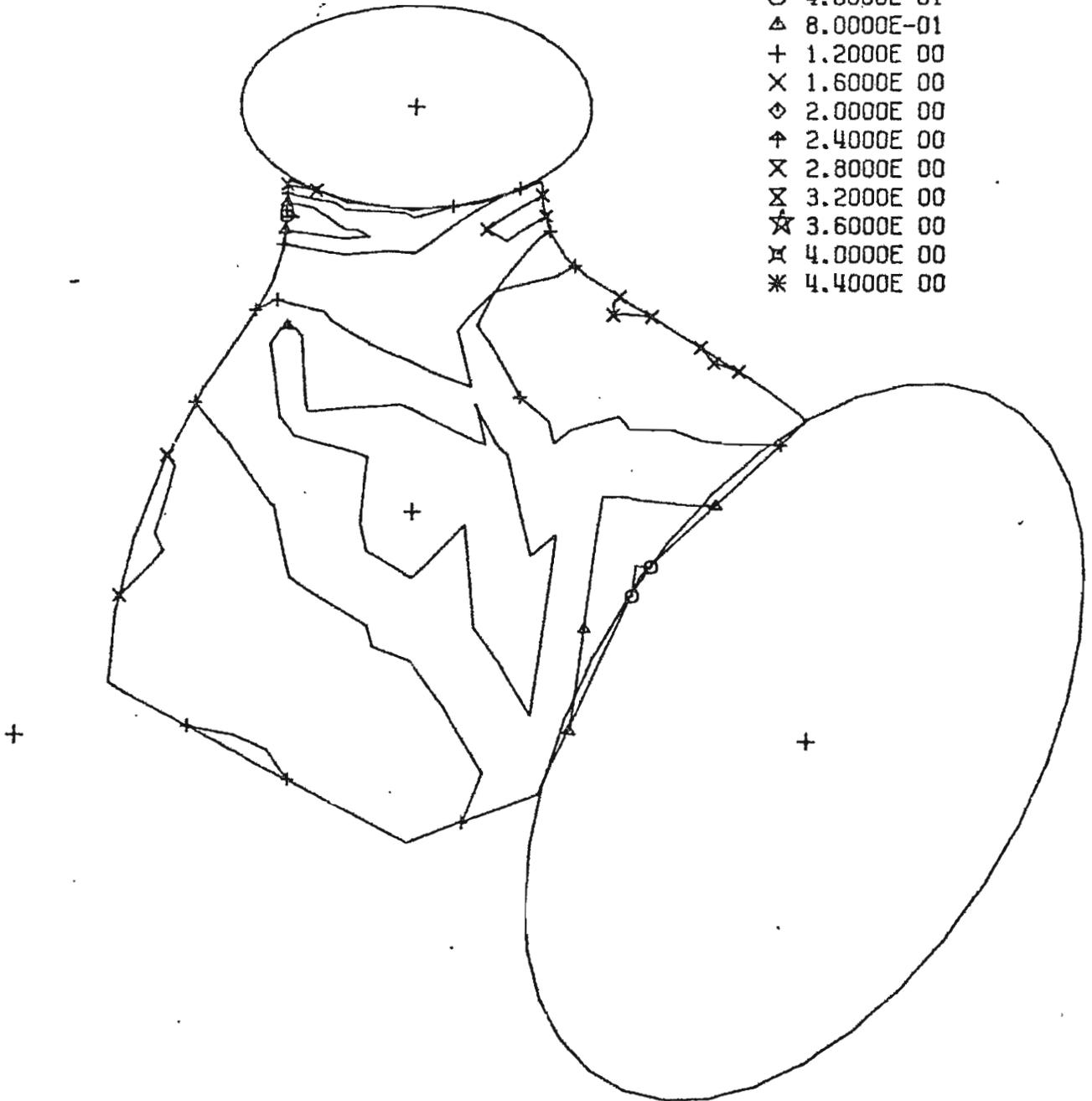


C.E. B16.9 T-12, F3Y

Top Inside Surface

CONTOUR VALUES

- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ↑ 2.4000E 00
- × 2.8000E 00
- ⊗ 3.2000E 00
- ☆ 3.6000E 00
- ⊗ 4.0000E 00
- * 4.4000E 00

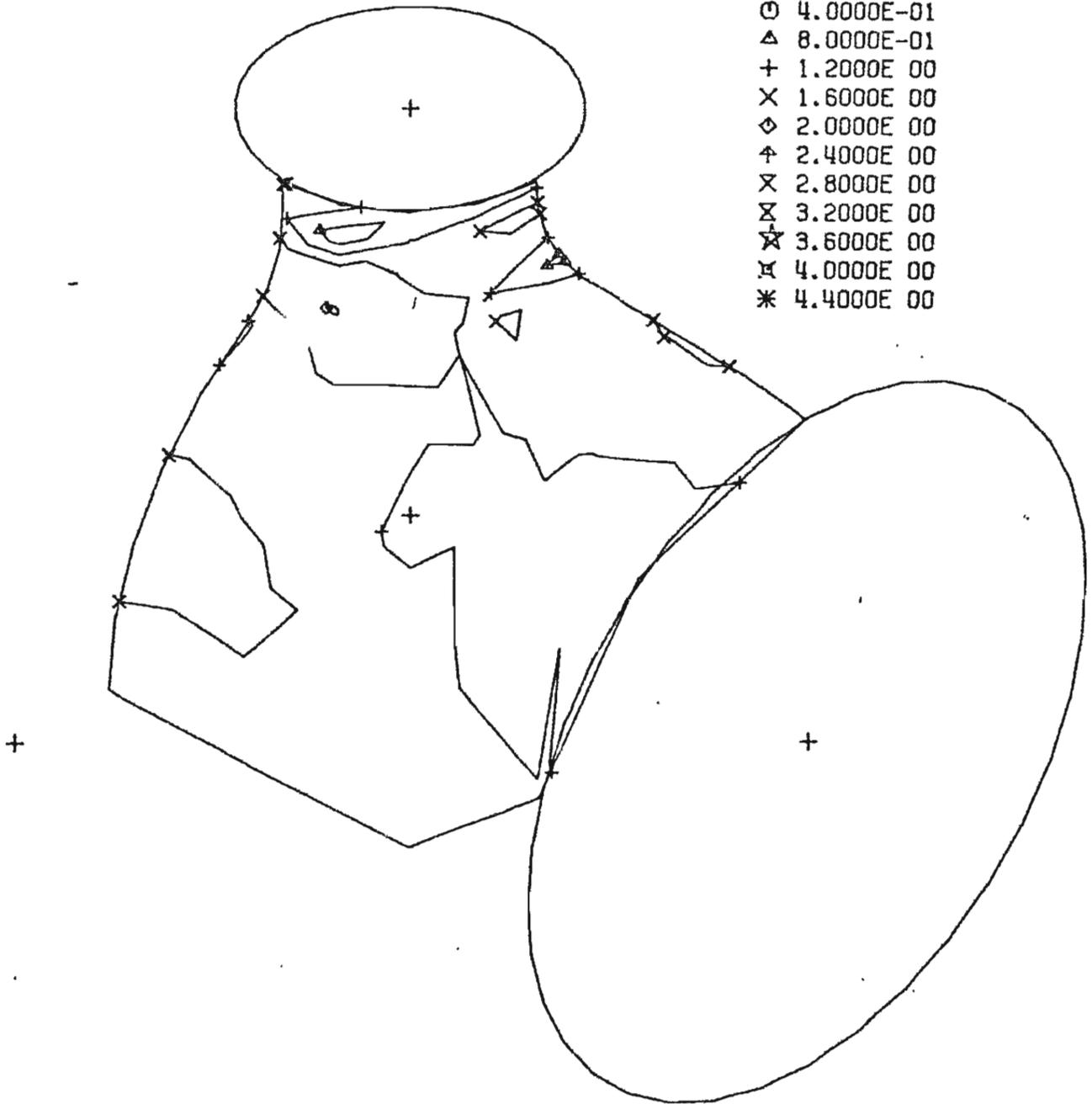


C.E. B16.9 T-12, F3Y

Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⋈ 2.4000E 00
- ⊗ 2.8000E 00
- ⊠ 3.2000E 00
- ☆ 3.6000E 00
- ⊞ 4.0000E 00
- * 4.4000E 00

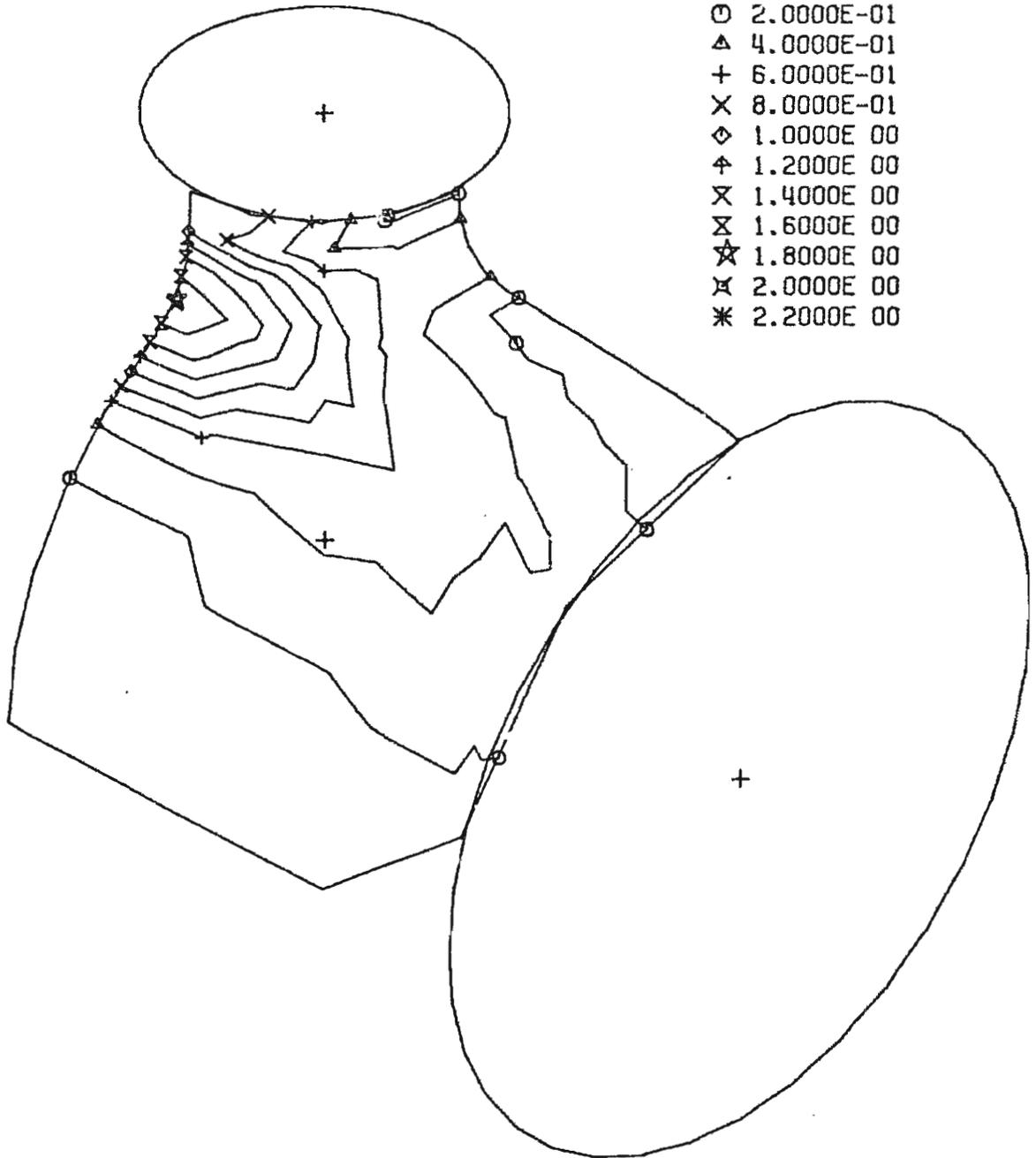


C.E. B16.9 T-12, F3Z

Top Outside Surface

CONTOUR VALUES

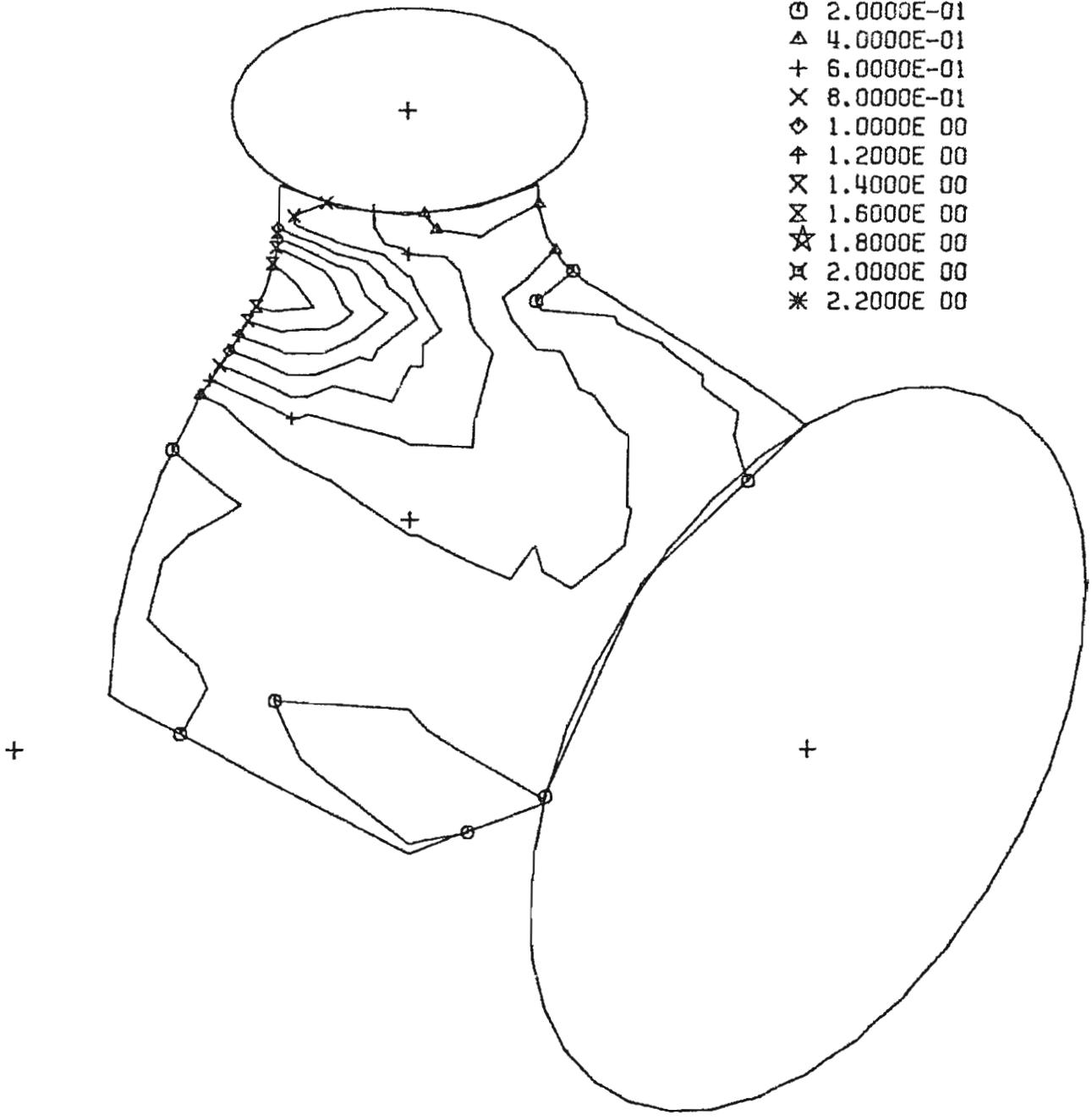
- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⊕ 1.2000E 00
- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
- ☆ 1.8000E 00
- ⊗ 2.0000E 00
- * 2.2000E 00



C.E. B16.9 T-12, F3Z
Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⋈ 1.2000E 00
- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
- ☆ 1.8000E 00
- ⊞ 2.0000E 00
- * 2.2000E 00

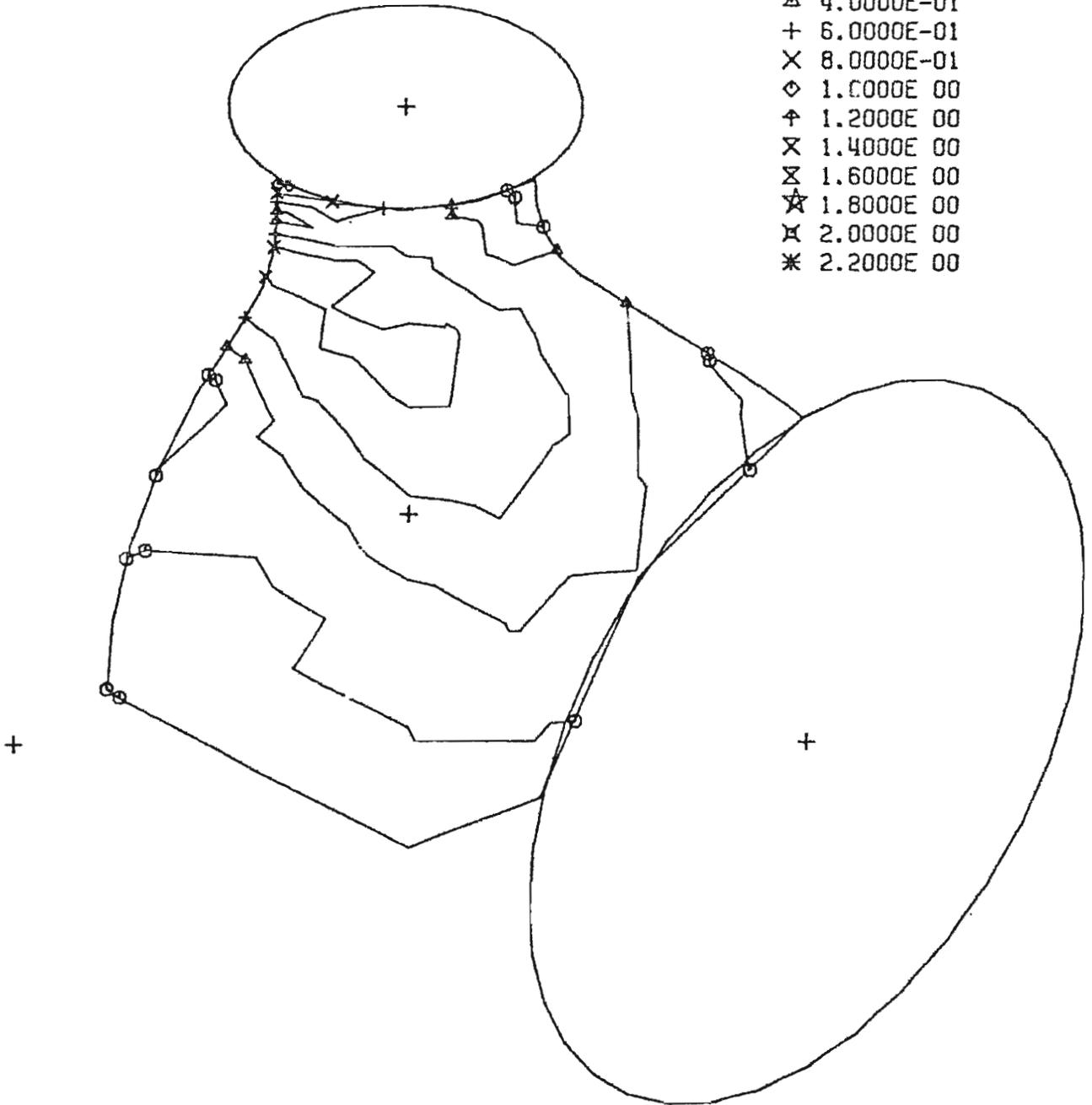


C.E. B16.9 T-12, F32

Top Inside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⊕ 1.2000E 00
- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
- ☆ 1.8000E 00
- ⊚ 2.0000E 00
- * 2.2000E 00

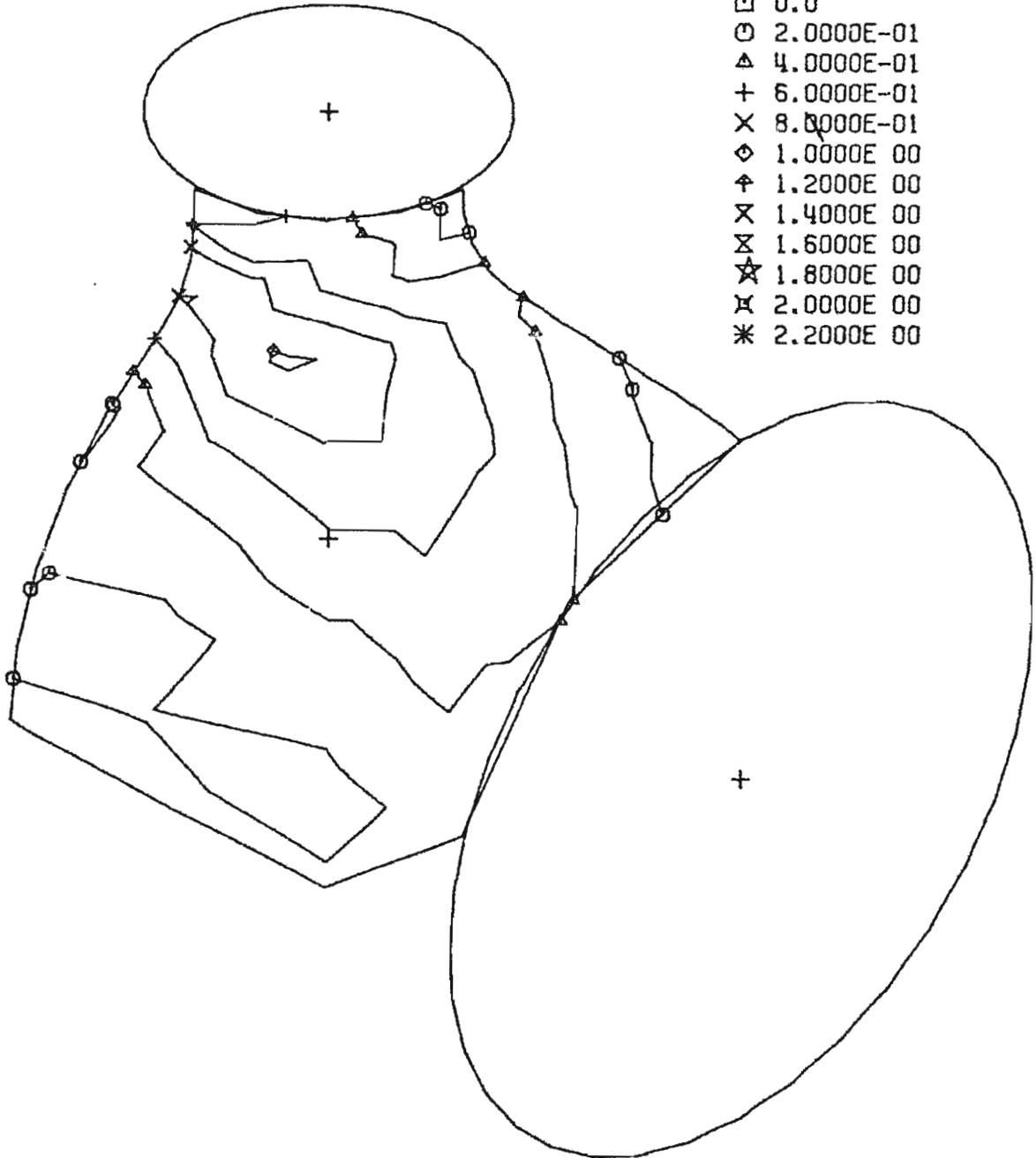


C.E. B16.9 T-12, F3Z

Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⊕ 1.2000E 00
- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
- ☆ 1.8000E 00
- ⊗ 2.0000E 00
- * 2.2000E 00

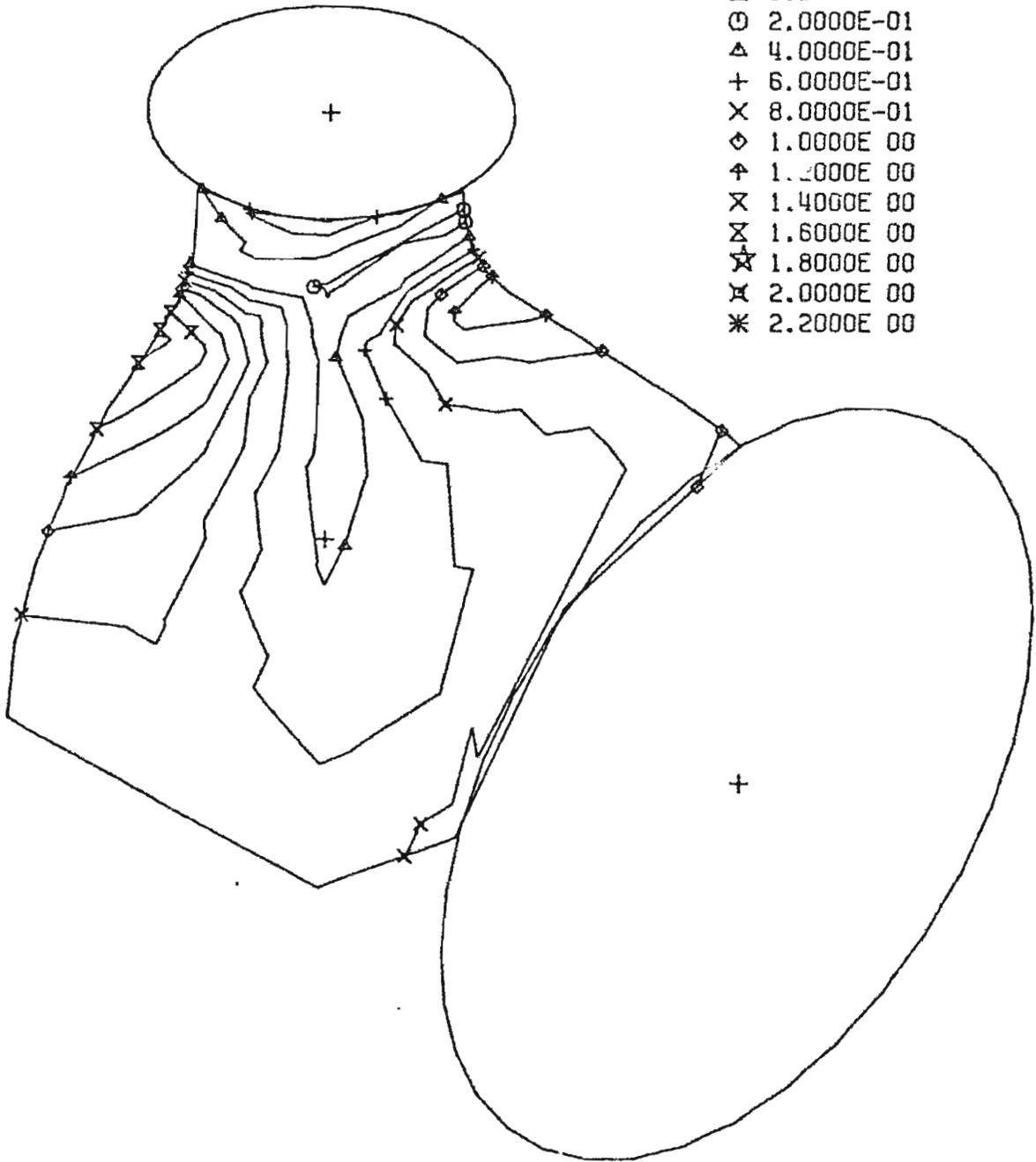


C.E. B16.9 T-12, M2X

Top Outside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⊕ 1.2000E 00
- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
- ☆ 1.8000E 00
- ⊗ 2.0000E 00
- * 2.2000E 00

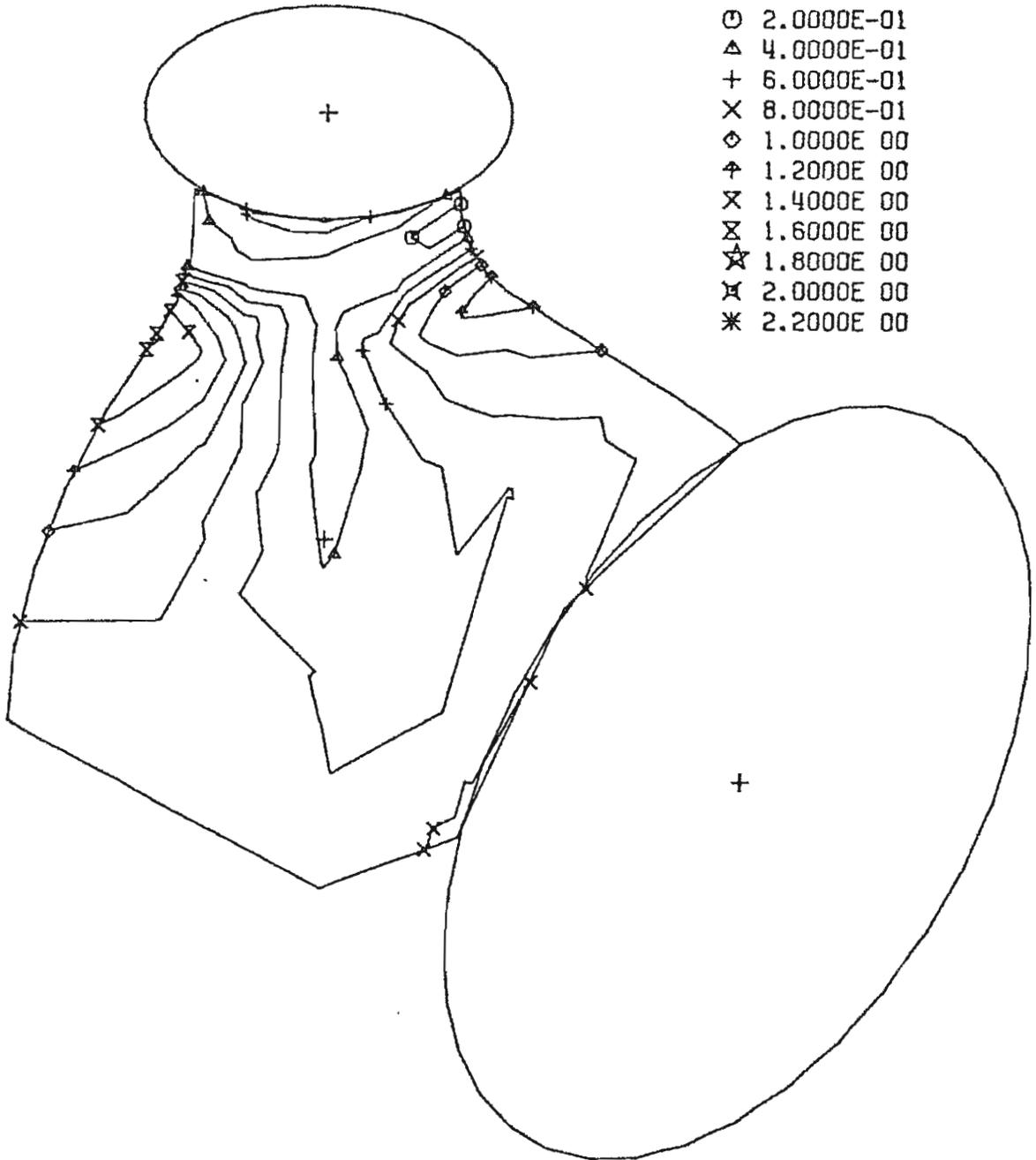


C.E. B16.9 T-12, M2X

Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⊕ 1.2000E 00
- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
- ☆ 1.8000E 00
- ⊗ 2.0000E 00
- * 2.2000E 00

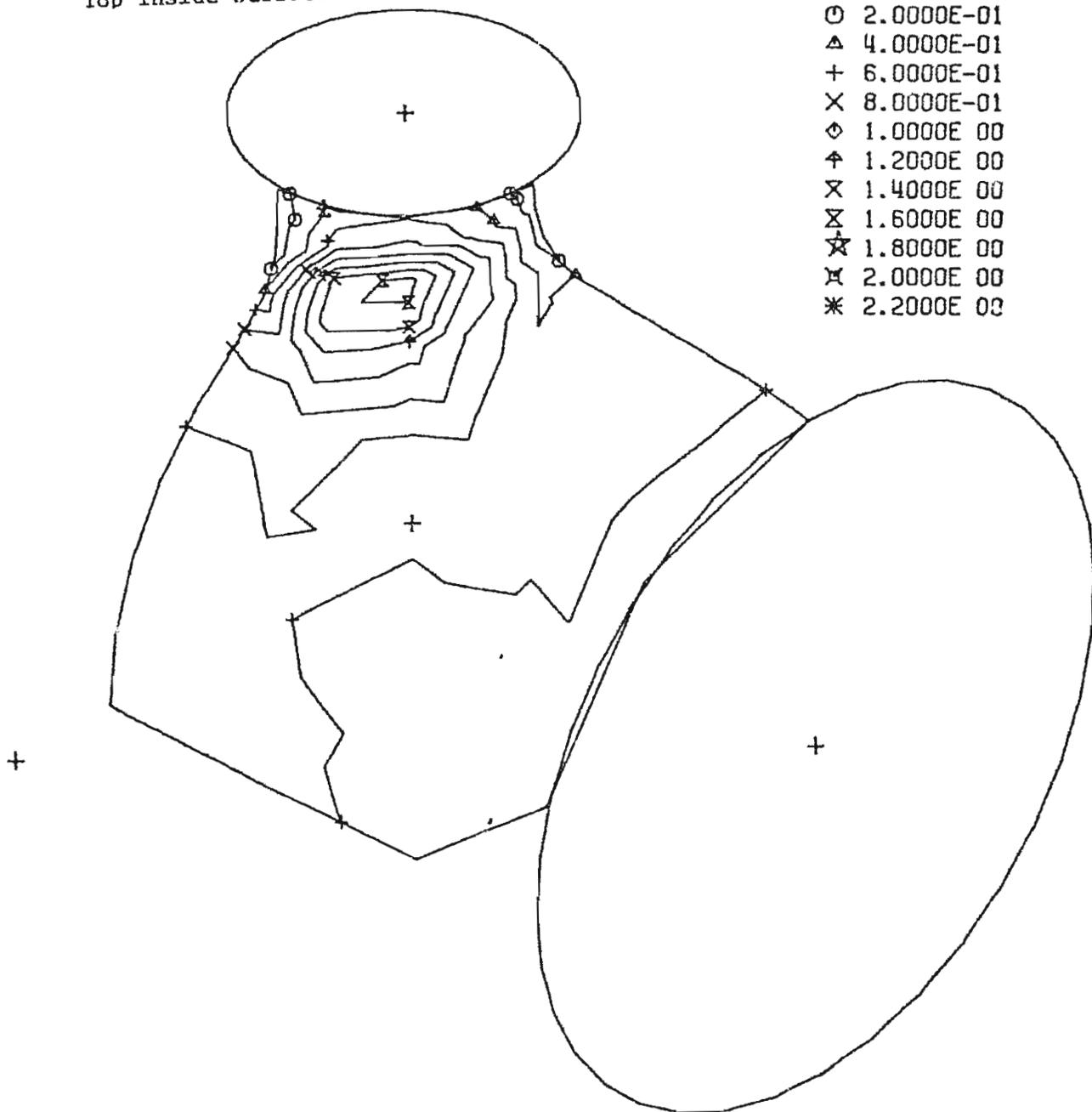


C.E. B16.9 T-12, M2X

Top Inside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⋈ 1.2000E 00
- × 1.4000E 00
- ⊗ 1.6000E 00
- ☆ 1.8000E 00
- ⊠ 2.0000E 00
- * 2.2000E 00

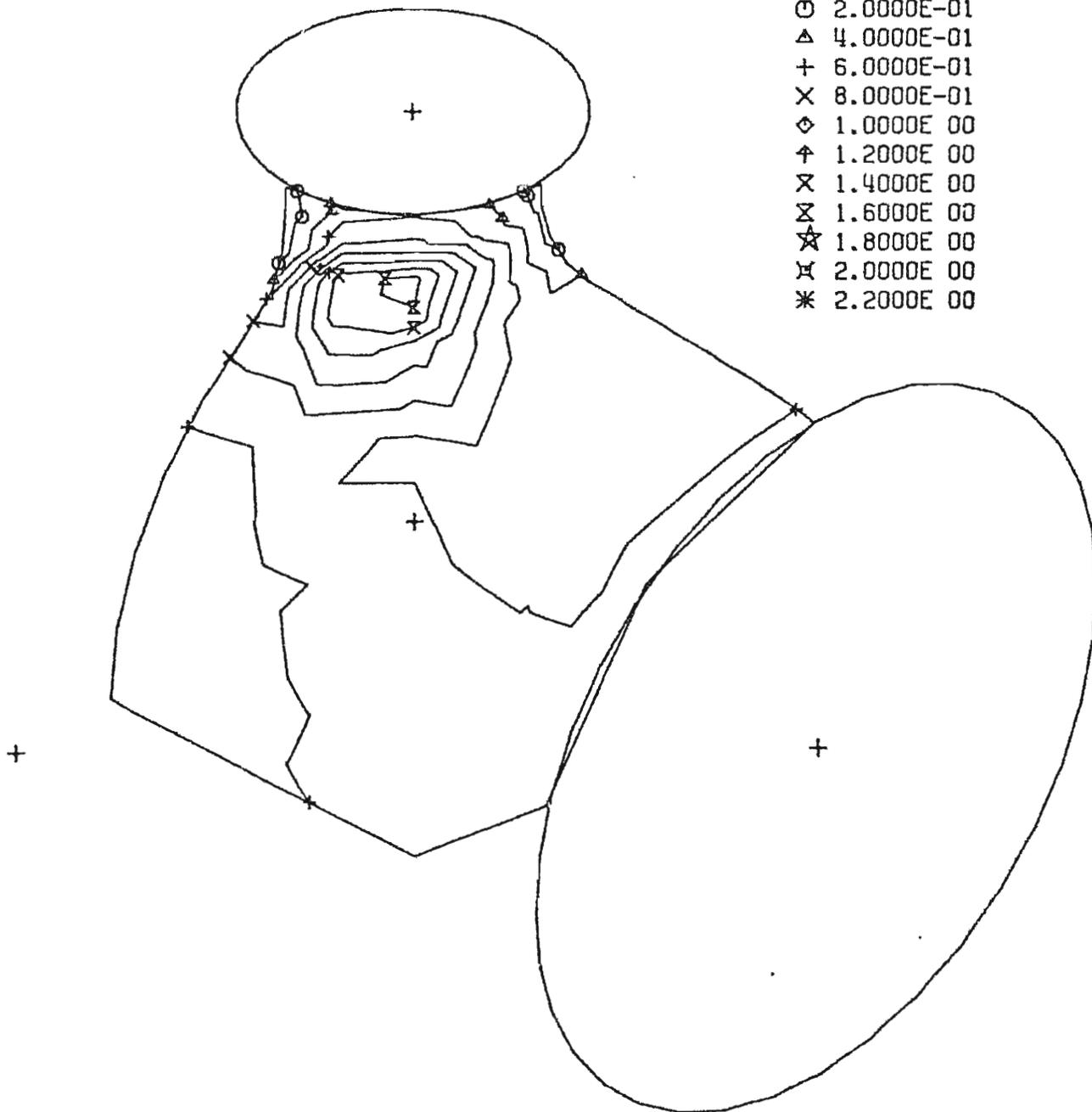


C.E. B16.9 T-12, M2X

Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ↑ 1.2000E 00
- × 1.4000E 00
- Σ 1.6000E 00
- ☆ 1.8000E 00
- ⋈ 2.0000E 00
- * 2.2000E 00

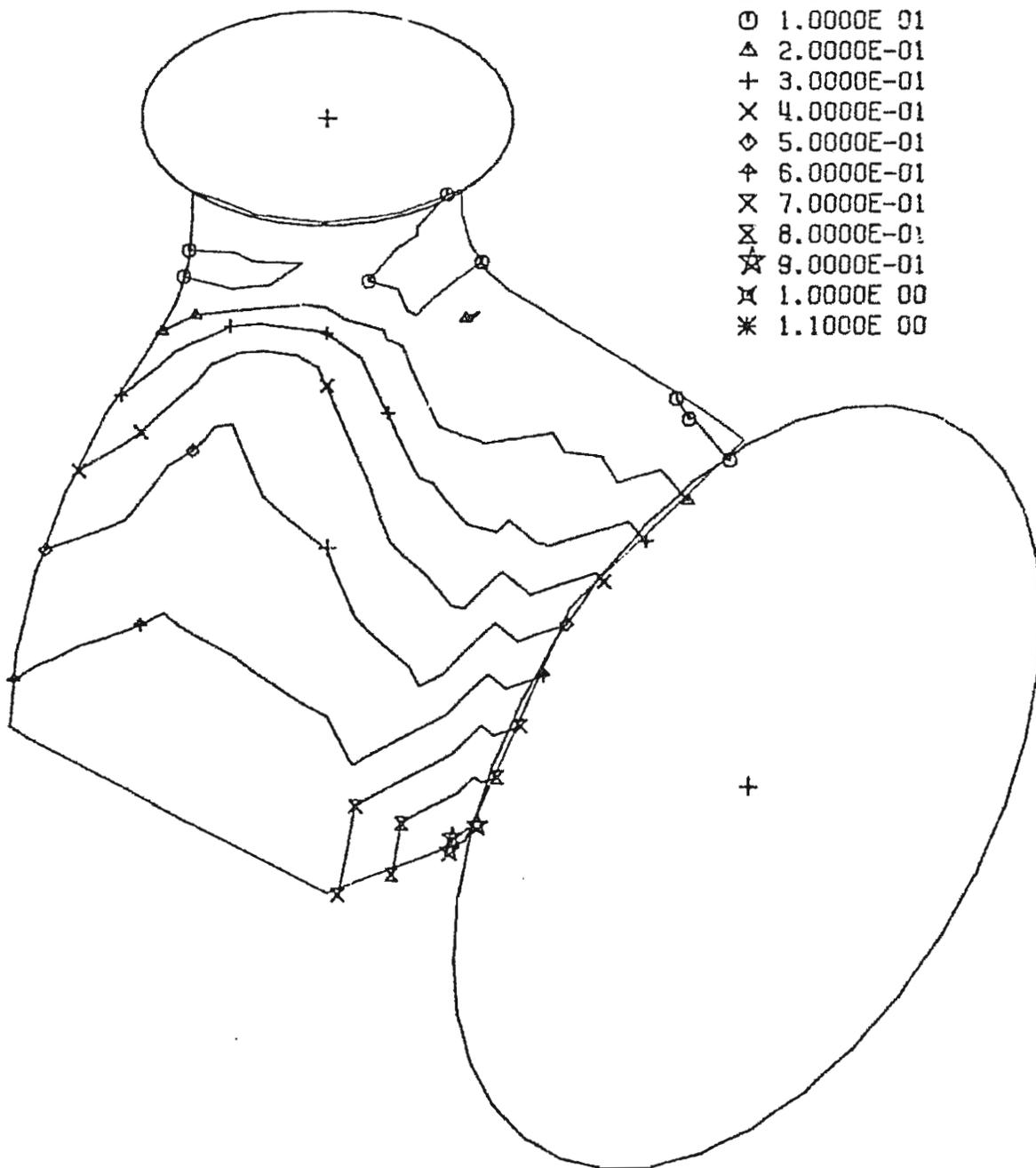


C.E. B16.9 T-12, M2Y

Top Outside Surface

CONTOUR VALUES

- 0.0
- 1.0000E 01
- △ 2.0000E-01
- + 3.0000E-01
- × 4.0000E-01
- ◇ 5.0000E-01
- ⊕ 6.0000E-01
- ⊗ 7.0000E-01
- ⊘ 8.0000E-01
- ☆ 9.0000E-01
- ⊗ 1.0000E 00
- * 1.1000E 00

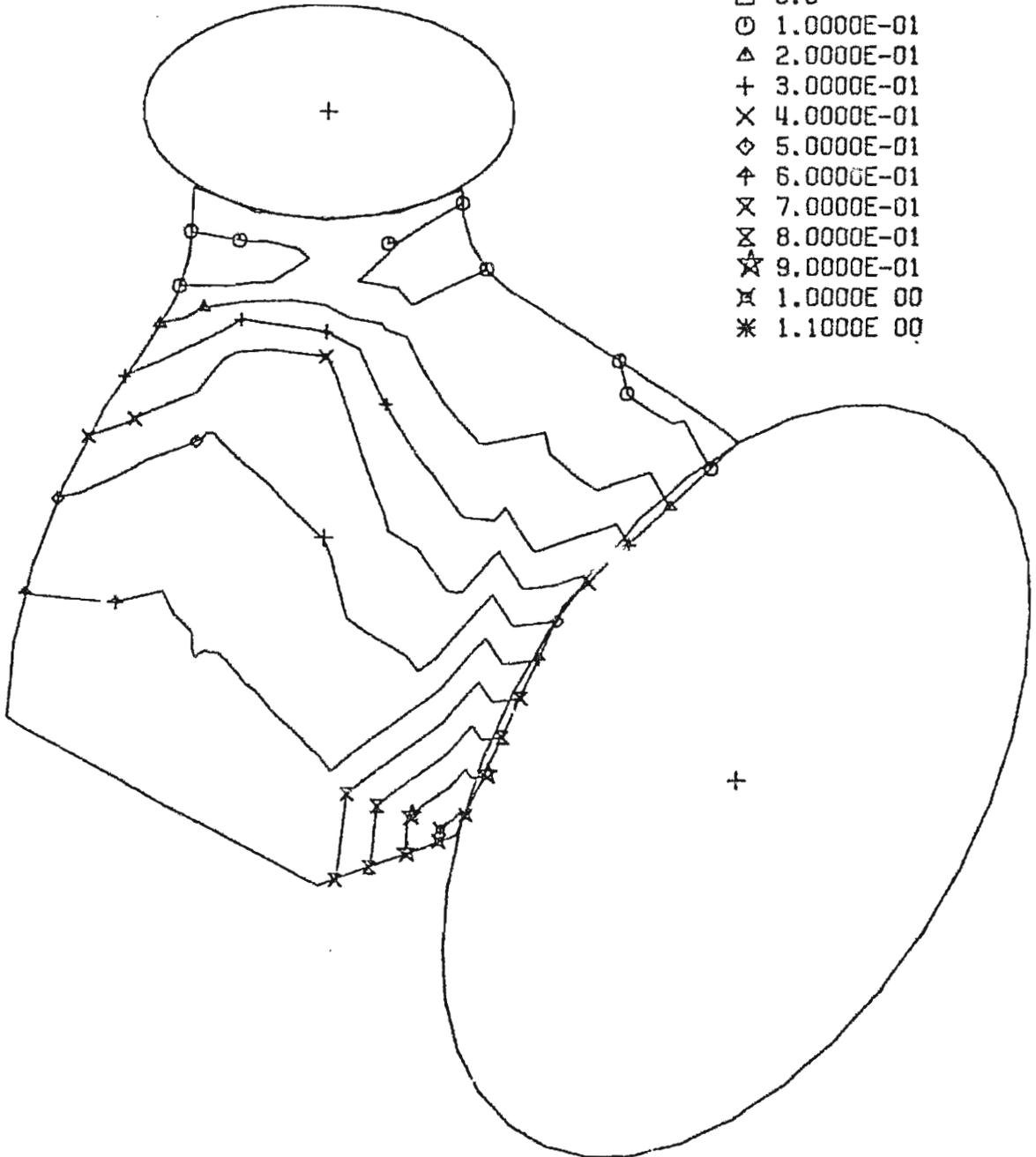


C.E. B16.9 T-12, M2Y

Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 1.0000E-01
- △ 2.0000E-01
- + 3.0000E-01
- × 4.0000E-01
- ◇ 5.0000E-01
- ⋈ 6.0000E-01
- ⊗ 7.0000E-01
- ⊗ 8.0000E-01
- ☆ 9.0000E-01
- ⊗ 1.0000E 00
- * 1.1000E 00

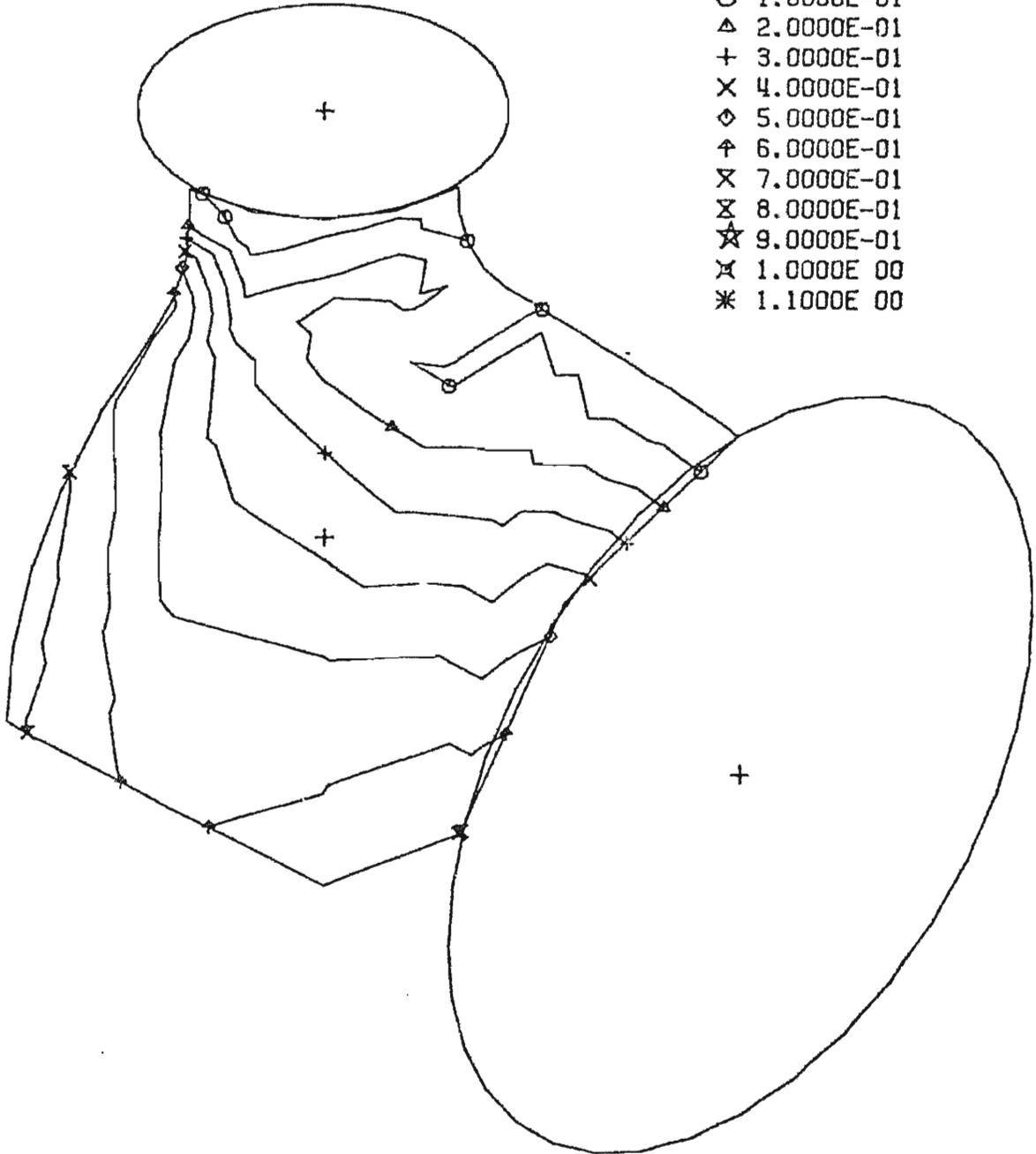


C.E. B16.9 T-12, M2Y

Top Inside Surface

CONTOUR VALUES

- 0.0
- 1.0000E-01
- △ 2.0000E-01
- + 3.0000E-01
- × 4.0000E-01
- ◇ 5.0000E-01
- ⋈ 6.0000E-01
- ⊗ 7.0000E-01
- ⊘ 8.0000E-01
- ☆ 9.0000E-01
- ⊗ 1.0000E 00
- * 1.1000E 00

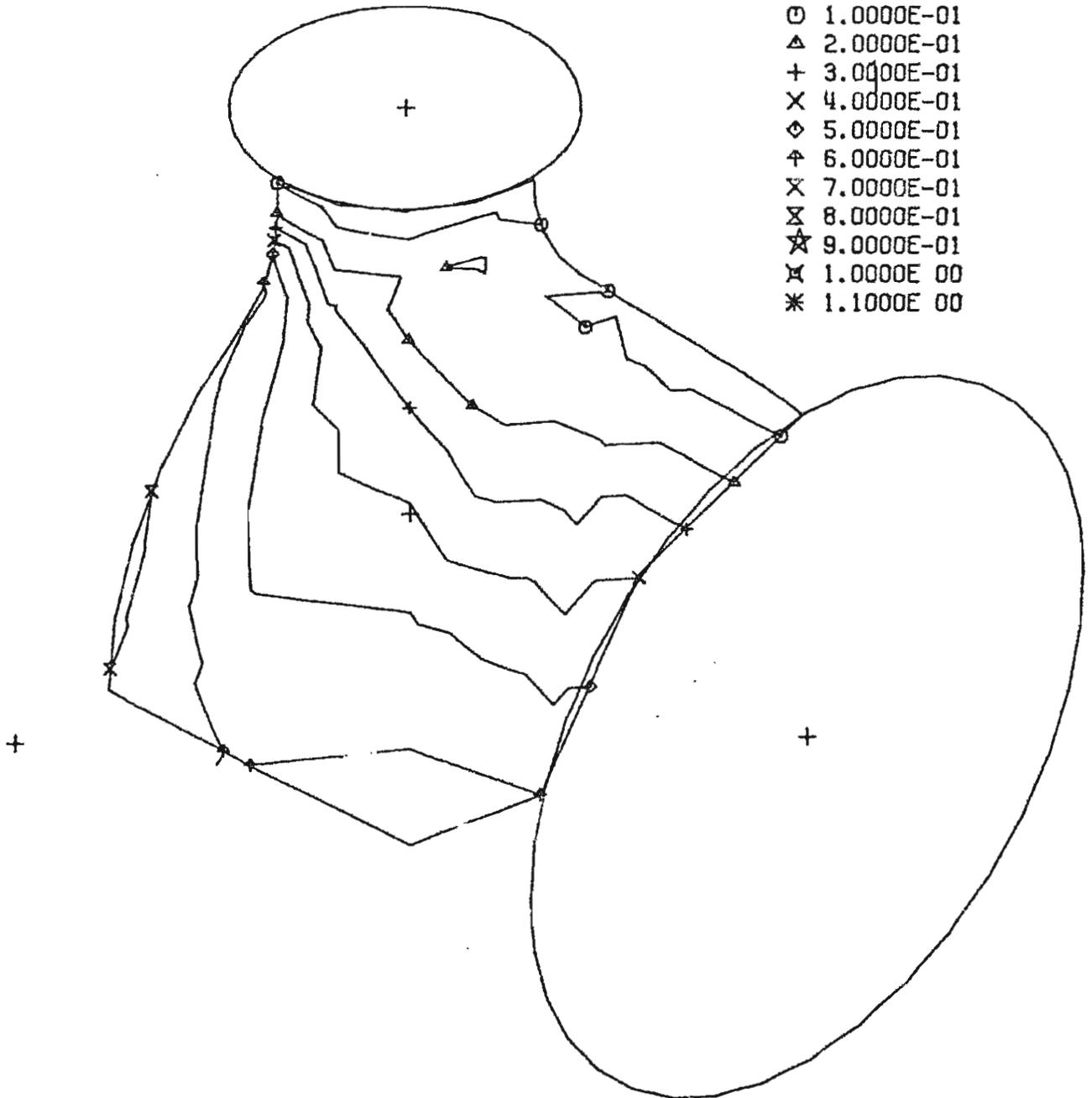


C.E. B16.9 T-12, M2Y

Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 1.0000E-01
- △ 2.0000E-01
- + 3.0000E-01
- X 4.0000E-01
- ◇ 5.0000E-01
- ⊕ 6.0000E-01
- ⊗ 7.0000E-01
- ⊘ 8.0000E-01
- ☆ 9.0000E-01
- ⊗ 1.0000E 00
- * 1.1000E 00

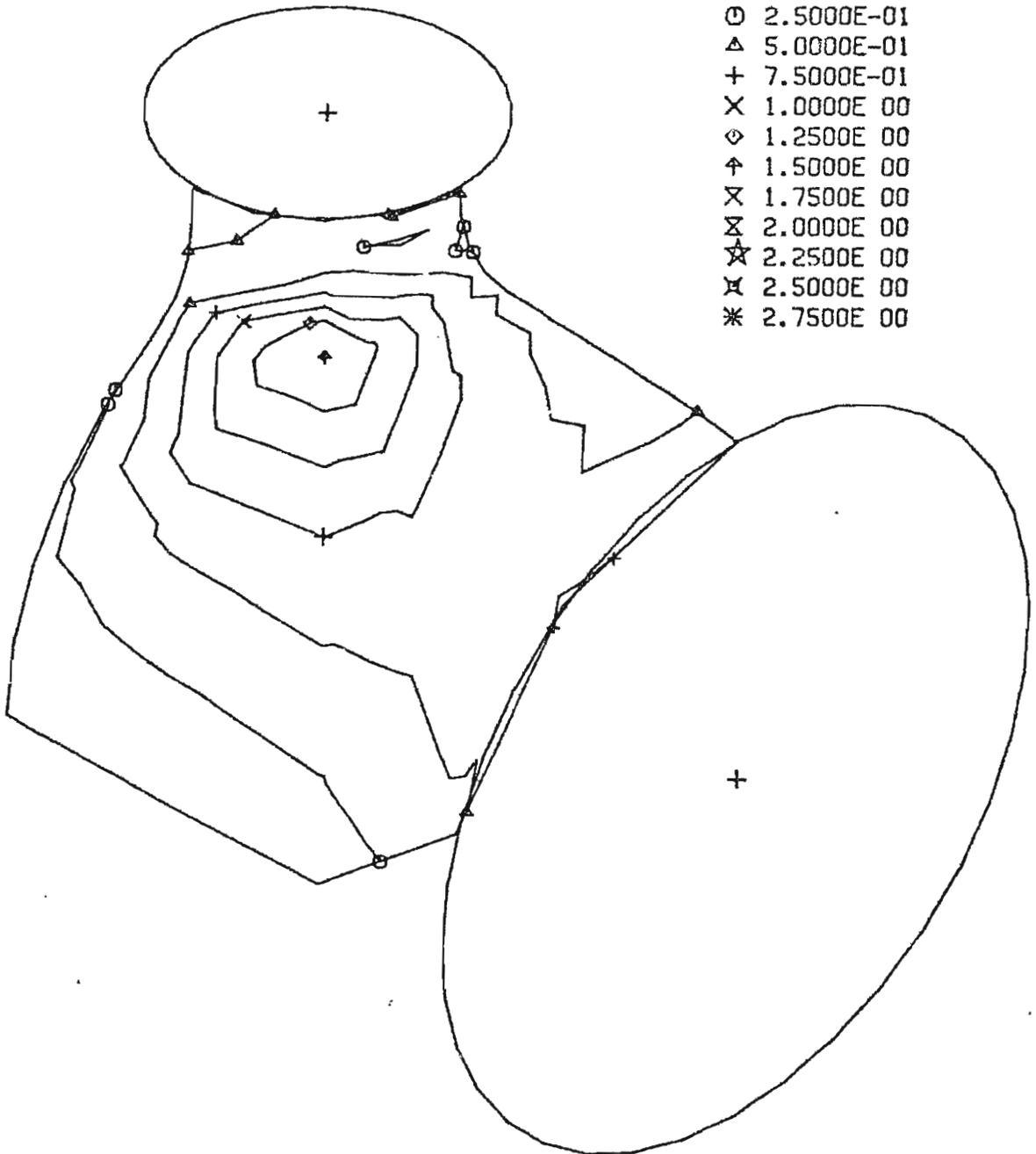


C.E. B16.9 T-12, M2Z

Top Outside Surface

CONTOUR VALUES

- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- X 1.0000E 00
- ◇ 1.2500E 00
- ↑ 1.5000E 00
- × 1.7500E 00
- ⊗ 2.0000E 00
- ☆ 2.2500E 00
- ⋈ 2.5000E 00
- * 2.7500E 00

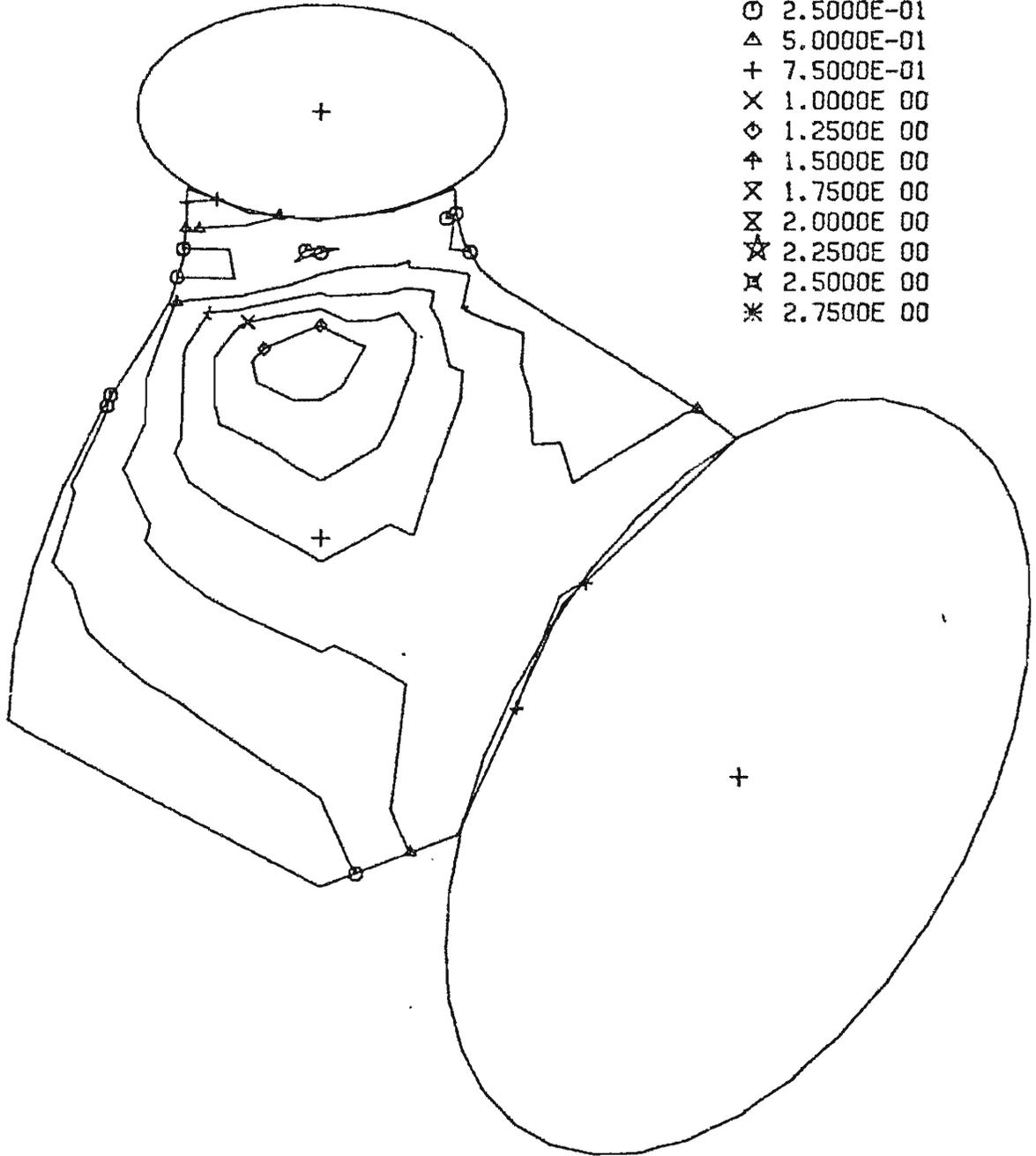


C.E. B16.9 T-12, M2Z

Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- × 1.0000E 00
- ◇ 1.2500E 00
- ⋈ 1.5000E 00
- ⊗ 1.7500E 00
- ⊘ 2.0000E 00
- ☆ 2.2500E 00
- ⊠ 2.5000E 00
- ※ 2.7500E 00

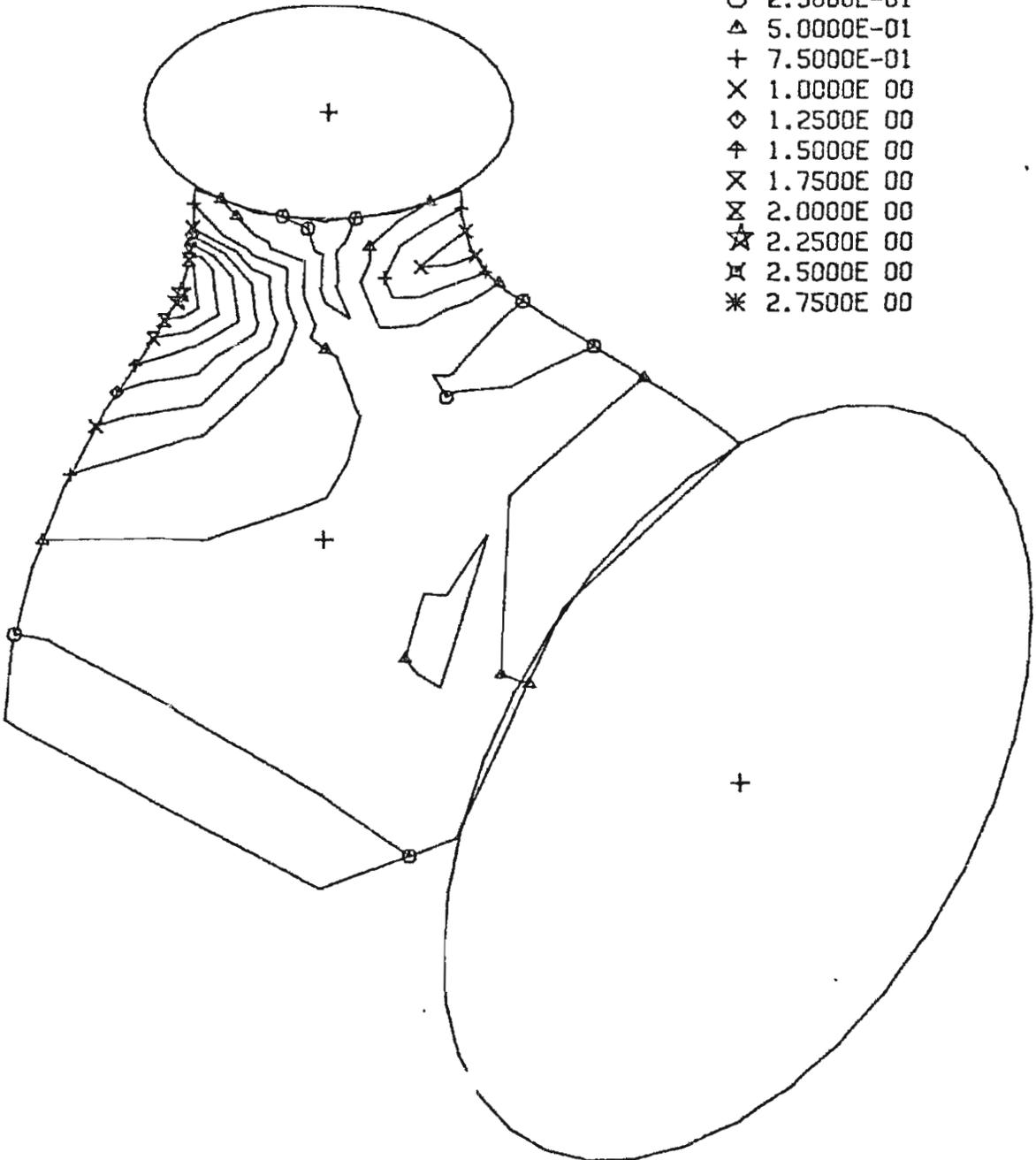


C.E. B16.9 T-12, M2Z

Top Inside Surface

CONTOUR VALUES

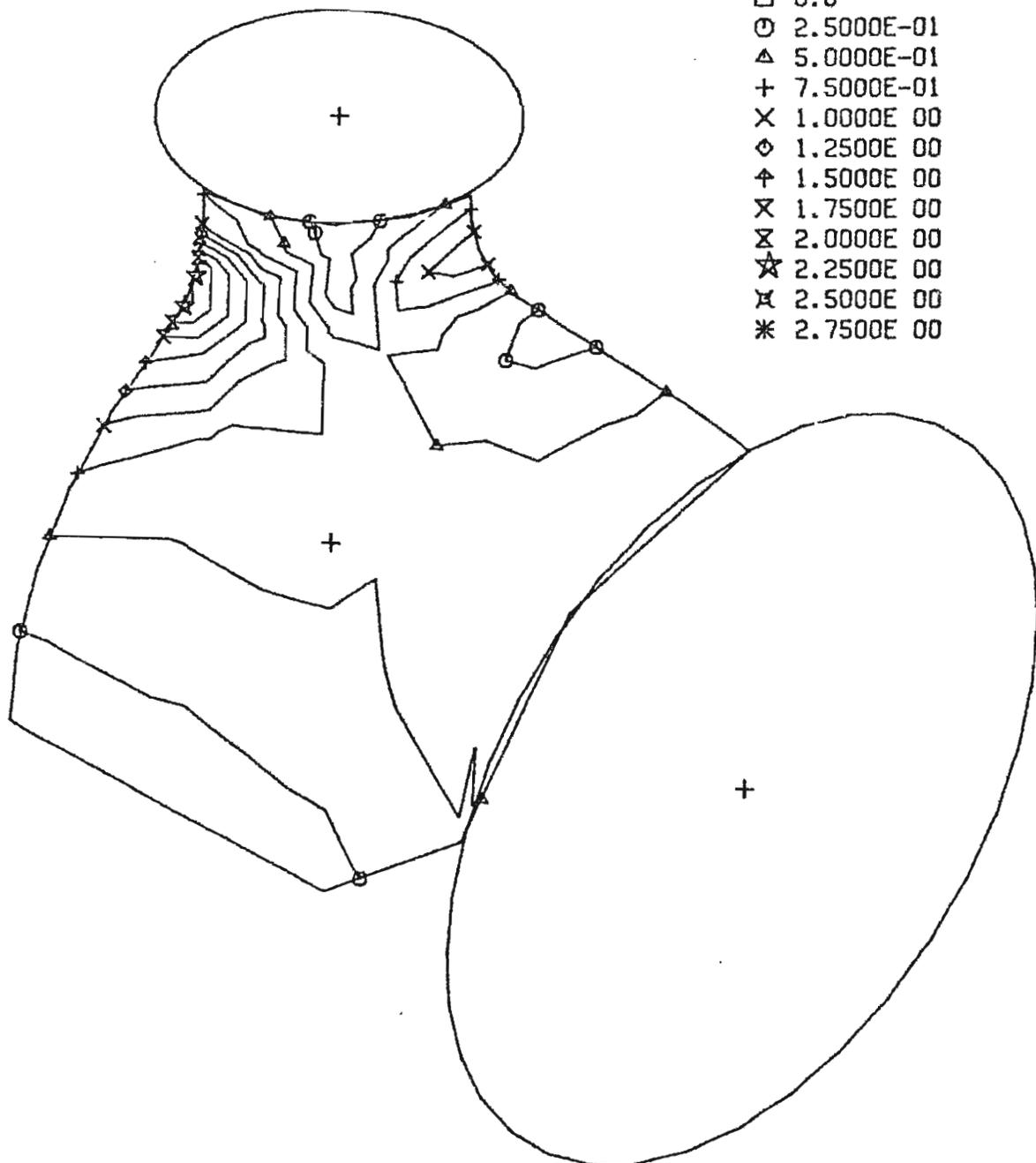
- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- × 1.0000E 00
- ◇ 1.2500E 00
- ⋈ 1.5000E 00
- ⊗ 1.7500E 00
- ⊘ 2.0000E 00
- ☆ 2.2500E 00
- ⊠ 2.5000E 00
- * 2.7500E 00



C.E. Bl6.9 T-12, M2Z
Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- × 1.0000E 00
- ◇ 1.2500E 00
- ⊕ 1.5000E 00
- ⊗ 1.7500E 00
- ⊘ 2.0000E 00
- ☆ 2.2500E 00
- ⊗ 2.5000E 00
- * 2.7500E 00

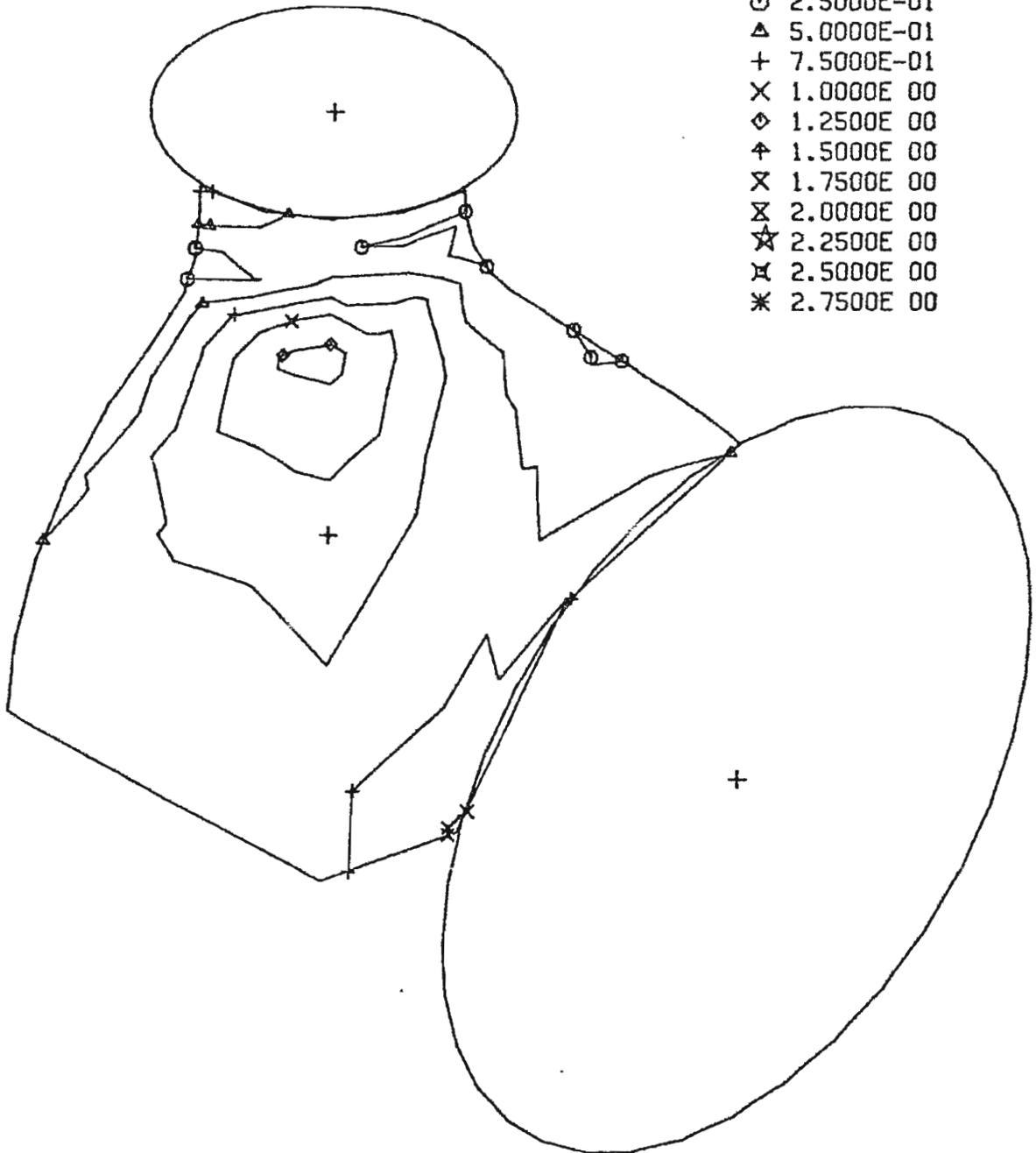


C.E. B16.9 T-12, F2X

Top Outside Surface

CONTOUR VALUES

- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- × 1.0000E 00
- ◇ 1.2500E 00
- ⋈ 1.5000E 00
- ⊗ 1.7500E 00
- ⊠ 2.0000E 00
- ☆ 2.2500E 00
- ⊞ 2.5000E 00
- * 2.7500E 00

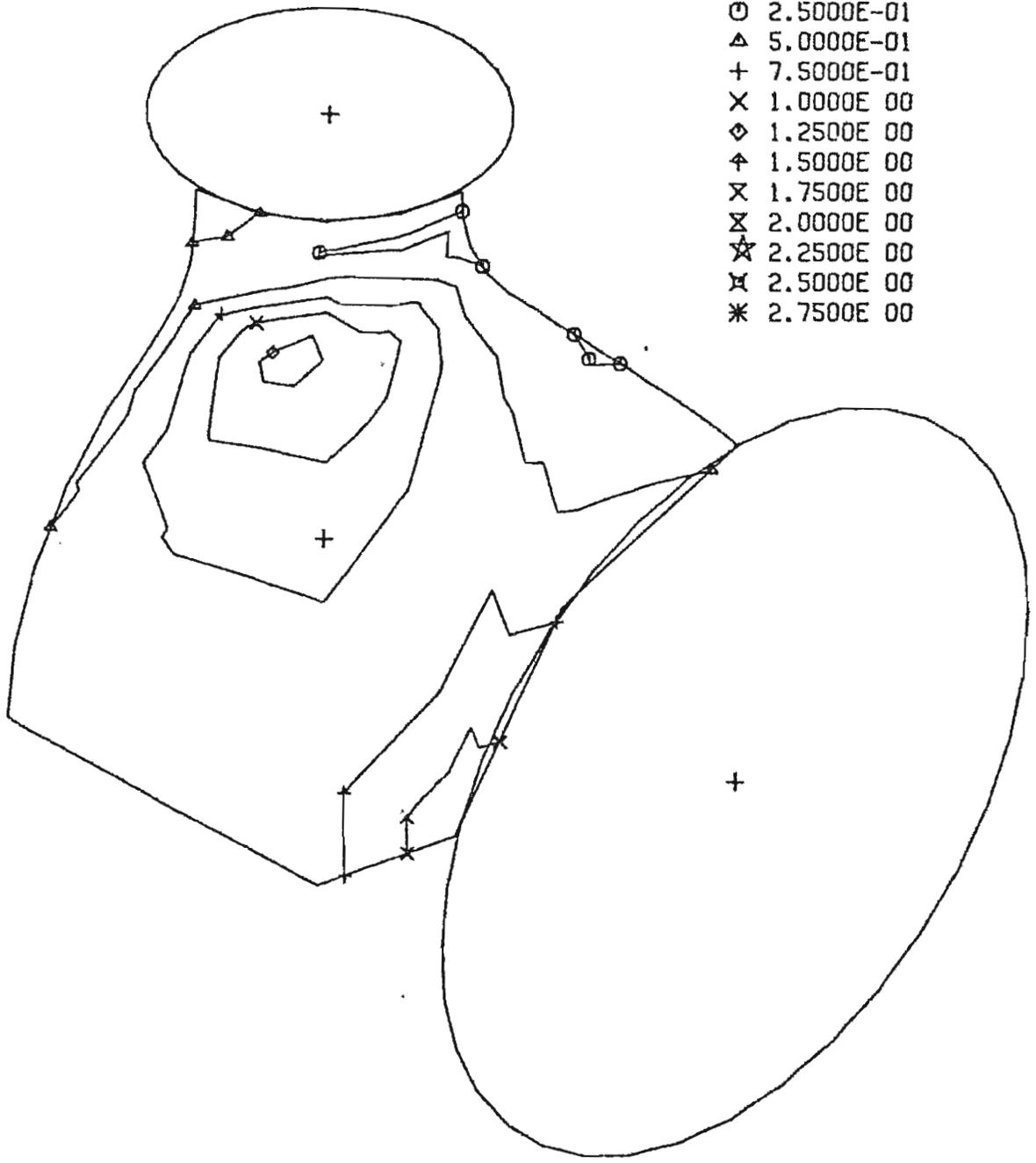


C.E. B16.9 T-12, F2X

Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- × 1.0000E 00
- ◇ 1.2500E 00
- ⋈ 1.5000E 00
- ⊗ 1.7500E 00
- ⊠ 2.0000E 00
- ☆ 2.2500E 00
- ⊞ 2.5000E 00
- * 2.7500E 00

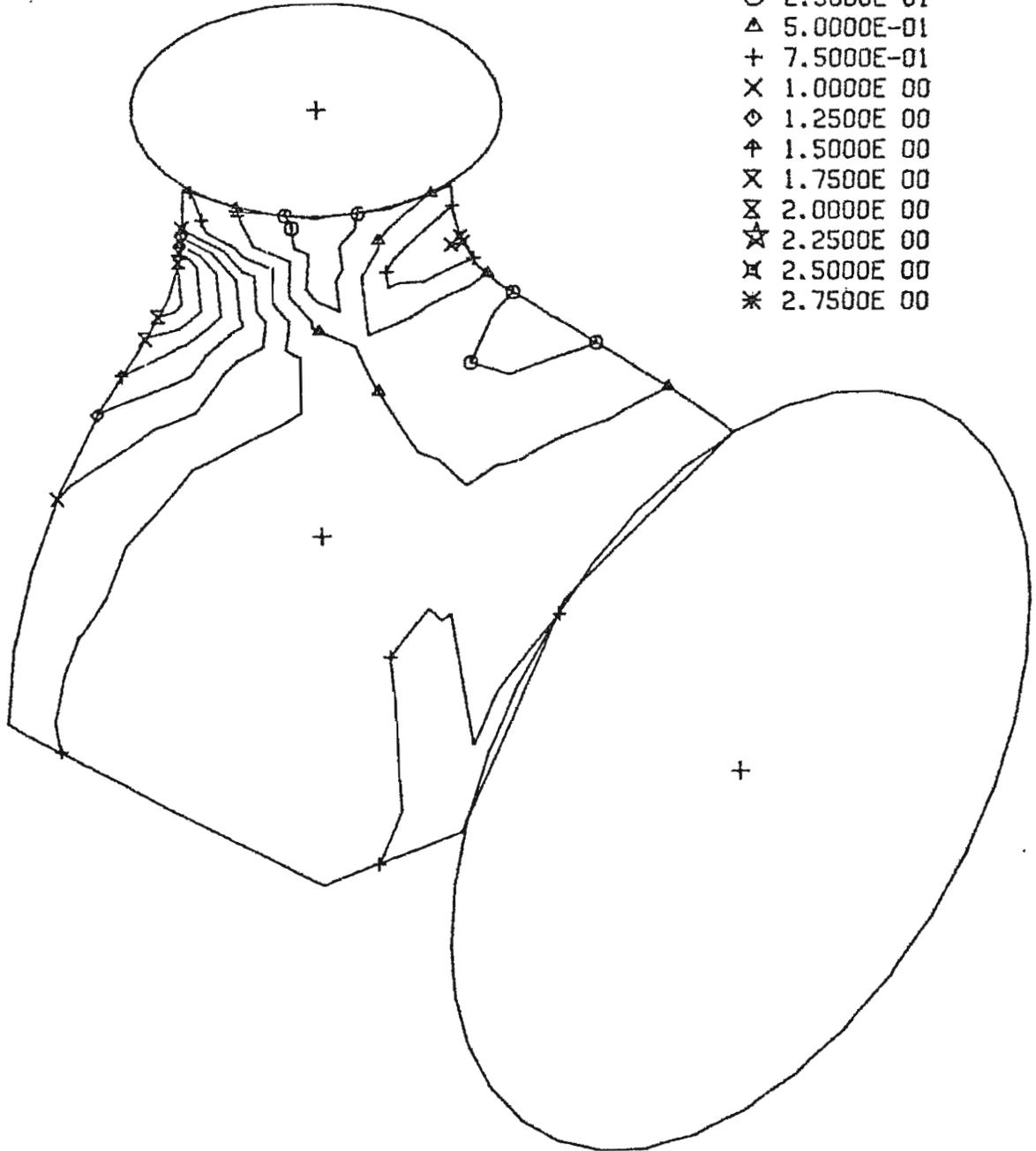


C.E. B16.9 T-12, F2X

Top Inside Surface

CONTOUR VALUES

- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- × 1.0000E 00
- ◇ 1.2500E 00
- ⊕ 1.5000E 00
- ⊗ 1.7500E 00
- ⊘ 2.0000E 00
- ☆ 2.2500E 00
- ⊚ 2.5000E 00
- * 2.7500E 00

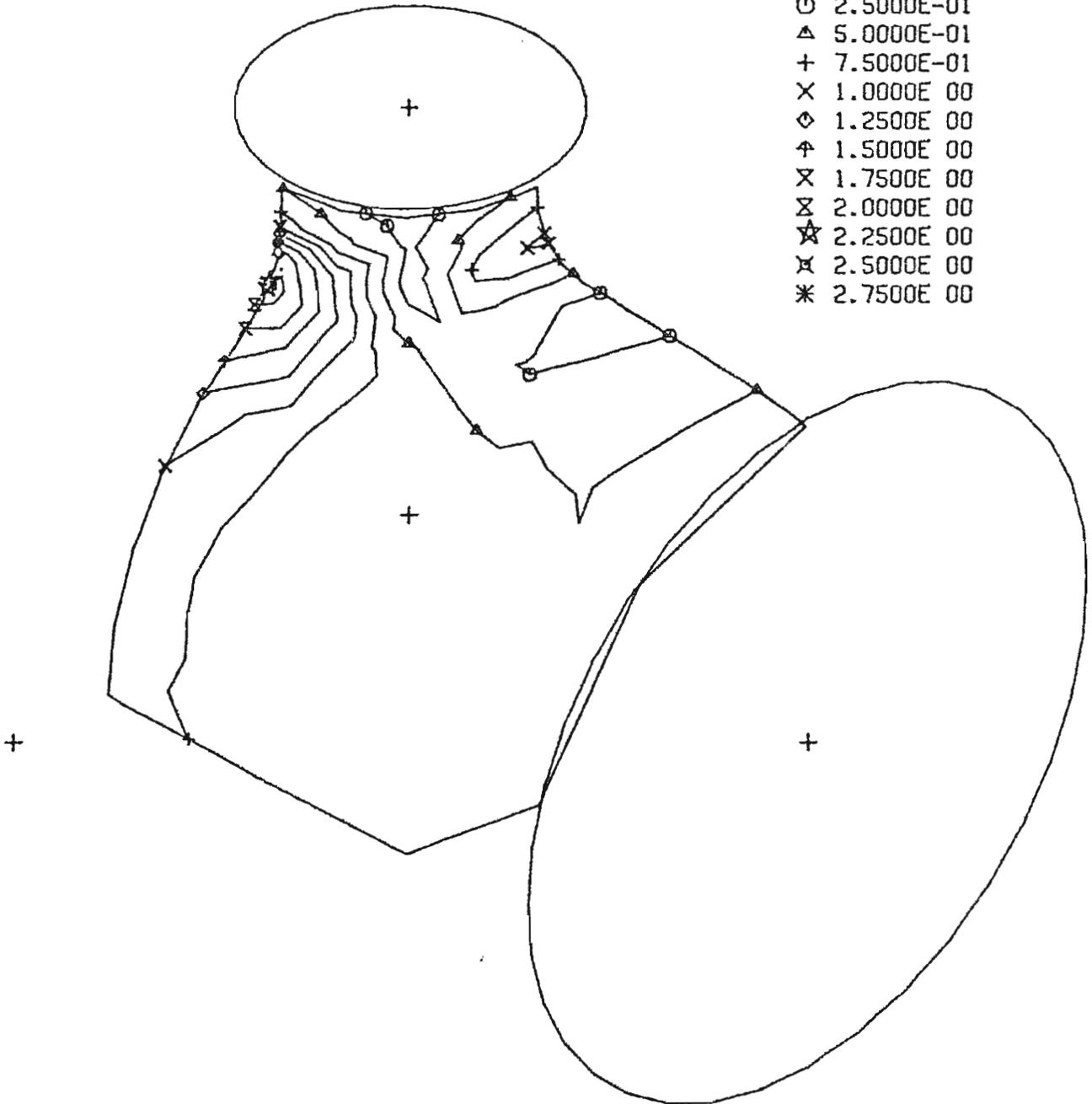


C.E. B16.9 T-12, F2X

Bottom Inside Surface

CONTOUR VALUES

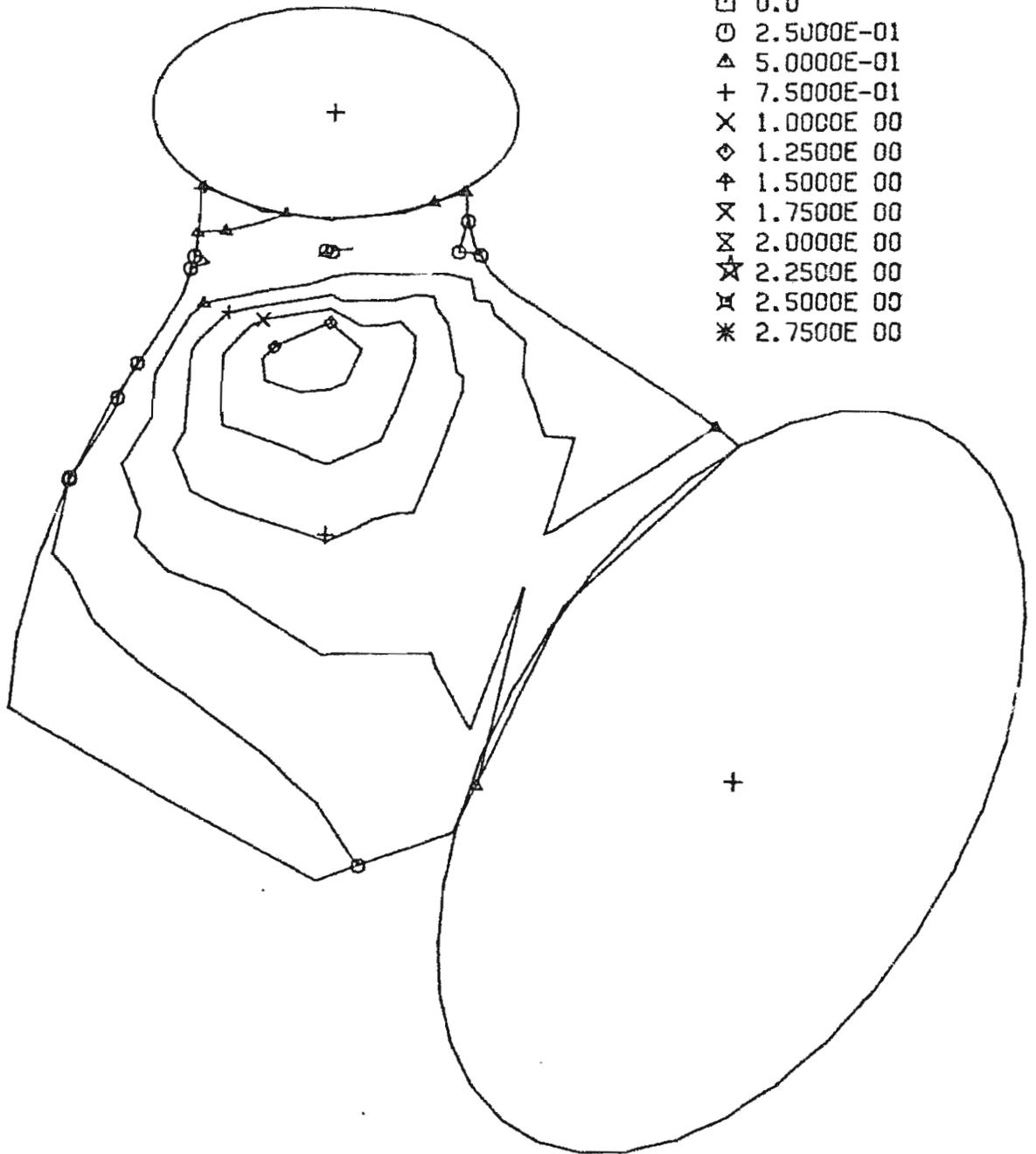
- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- × 1.0000E 00
- ◇ 1.2500E 00
- ⊕ 1.5000E 00
- ⊗ 1.7500E 00
- ⊗ 2.0000E 00
- ☆ 2.2500E 00
- ⊗ 2.5000E 00
- * 2.7500E 00



C.E. B16.9 T-12, F2Y
Top Outside Surface

CONTOUR VALUES

- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- × 1.0000E 00
- ◇ 1.2500E 00
- ⊕ 1.5000E 00
- ⊗ 1.7500E 00
- ⊘ 2.0000E 00
- ☆ 2.2500E 00
- ⊗ 2.5000E 00
- * 2.7500E 00

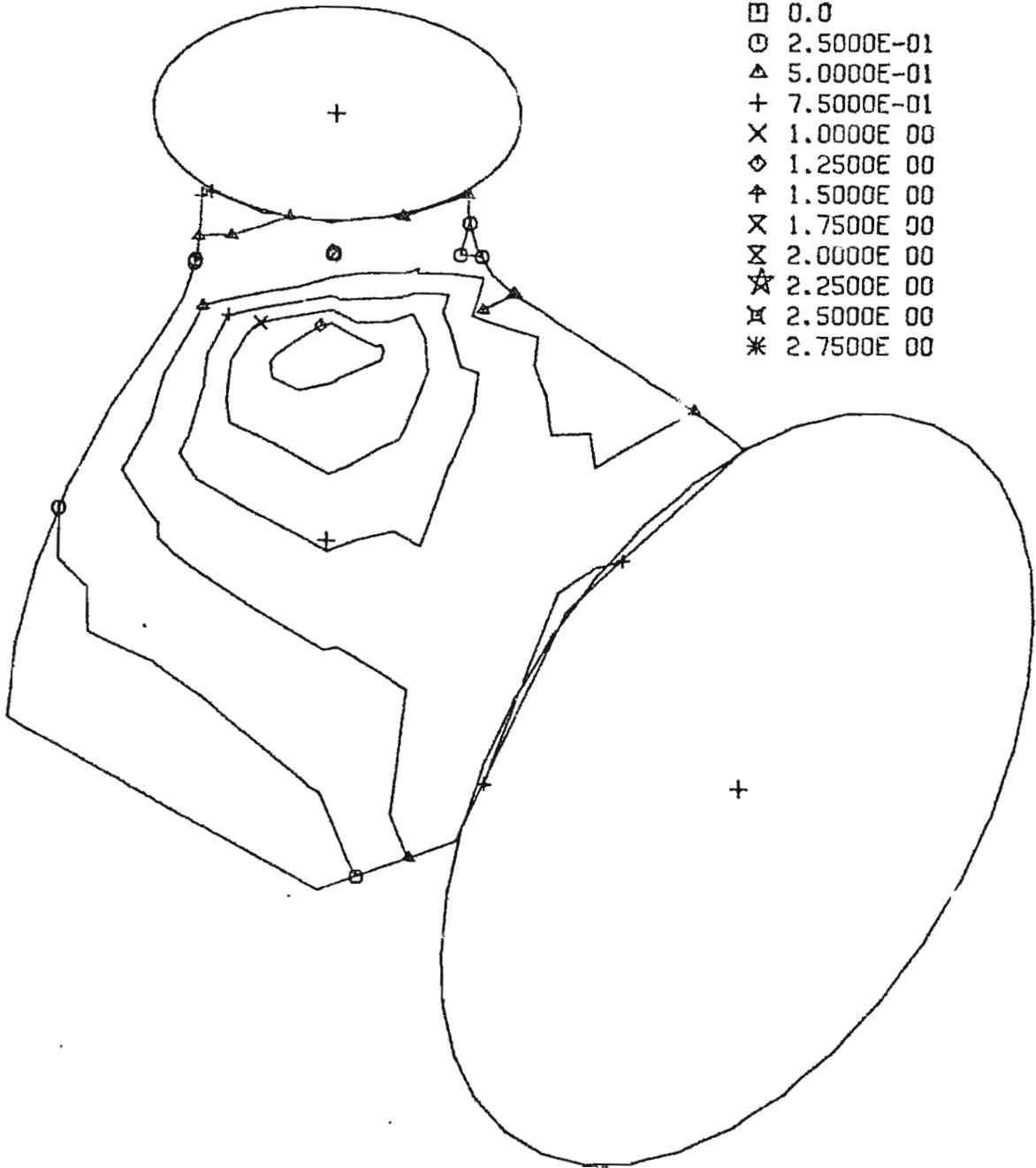


C.E. B16.9 T-12, F2Y

Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- × 1.0000E 00
- ◇ 1.2500E 00
- ⋈ 1.5000E 00
- ⊗ 1.7500E 00
- ⊗ 2.0000E 00
- ☆ 2.2500E 00
- ⊗ 2.5000E 00
- * 2.7500E 00

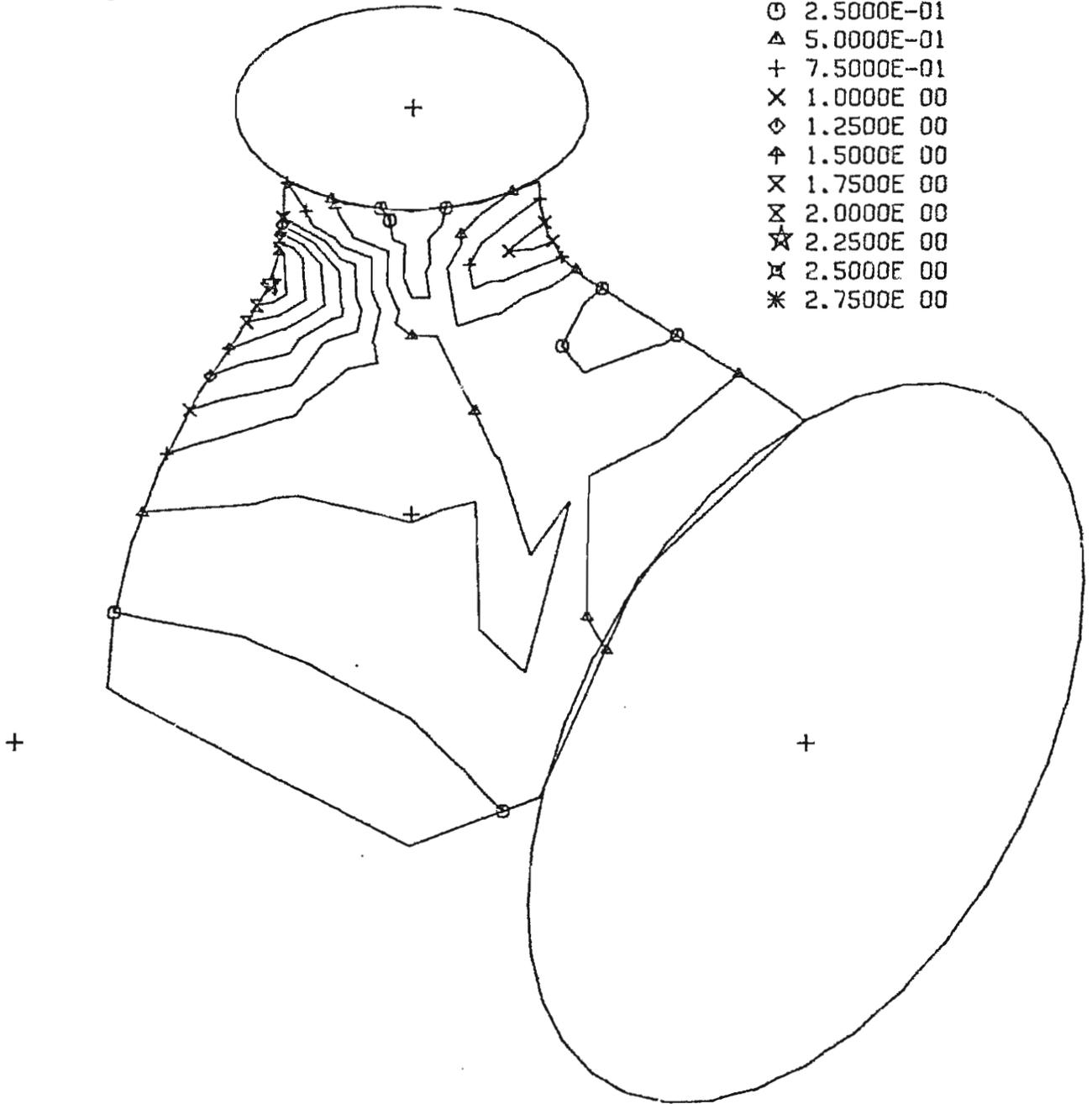


C.E. B16.9 T-12, F2Y

Top Inside Surface

CONTOUR VALUES

- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- × 1.0000E 00
- ◇ 1.2500E 00
- ⋈ 1.5000E 00
- ⊗ 1.7500E 00
- ⊘ 2.0000E 00
- ☆ 2.2500E 00
- ⊗ 2.5000E 00
- * 2.7500E 00

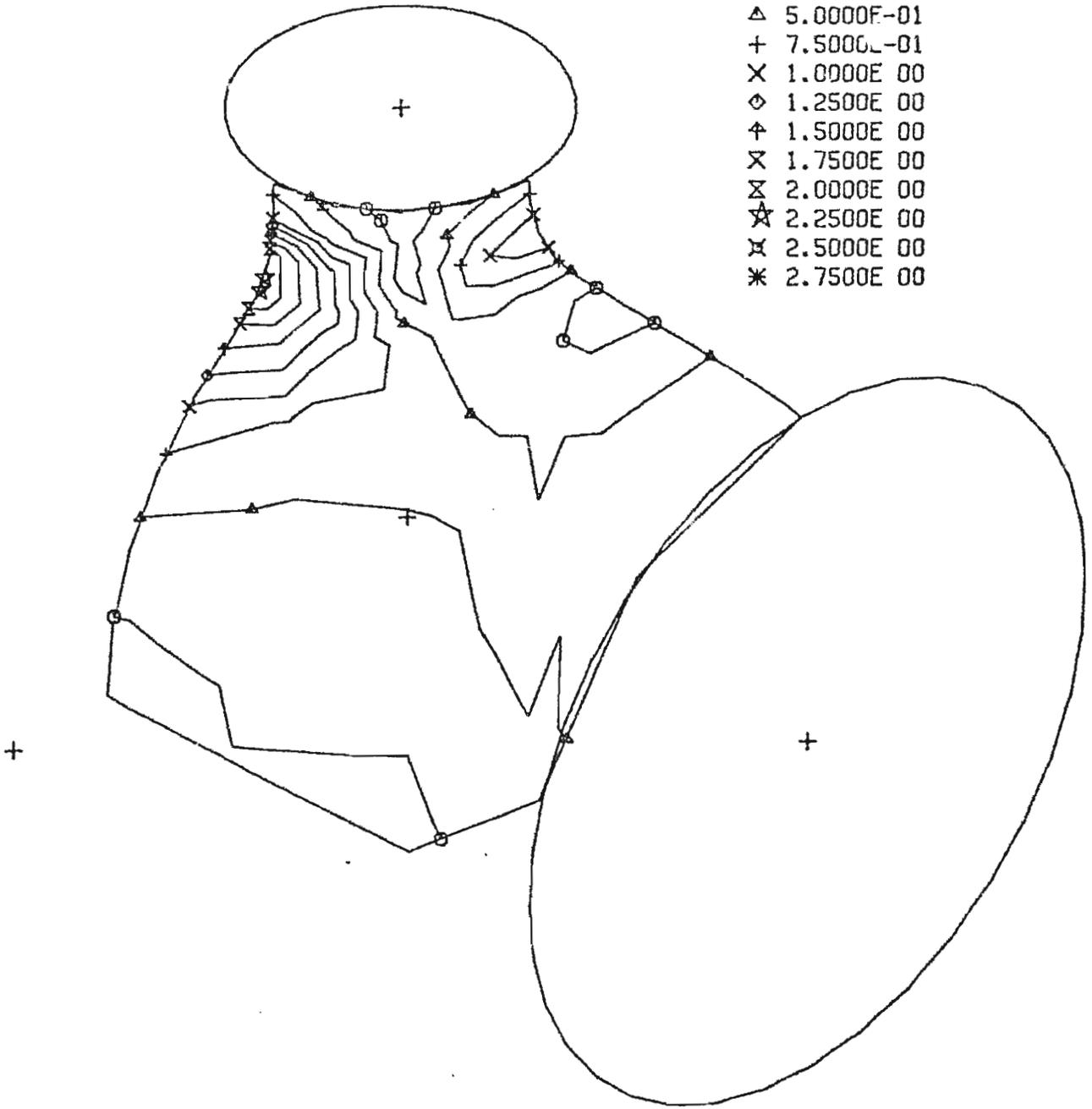


C.E. B16.9 T-12, F2Y

Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- × 1.0000E 00
- ◇ 1.2500E 00
- ⊕ 1.5000E 00
- ⊗ 1.7500E 00
- ⊘ 2.0000E 00
- ☆ 2.2500E 00
- ⊗ 2.5000E 00
- * 2.7500E 00

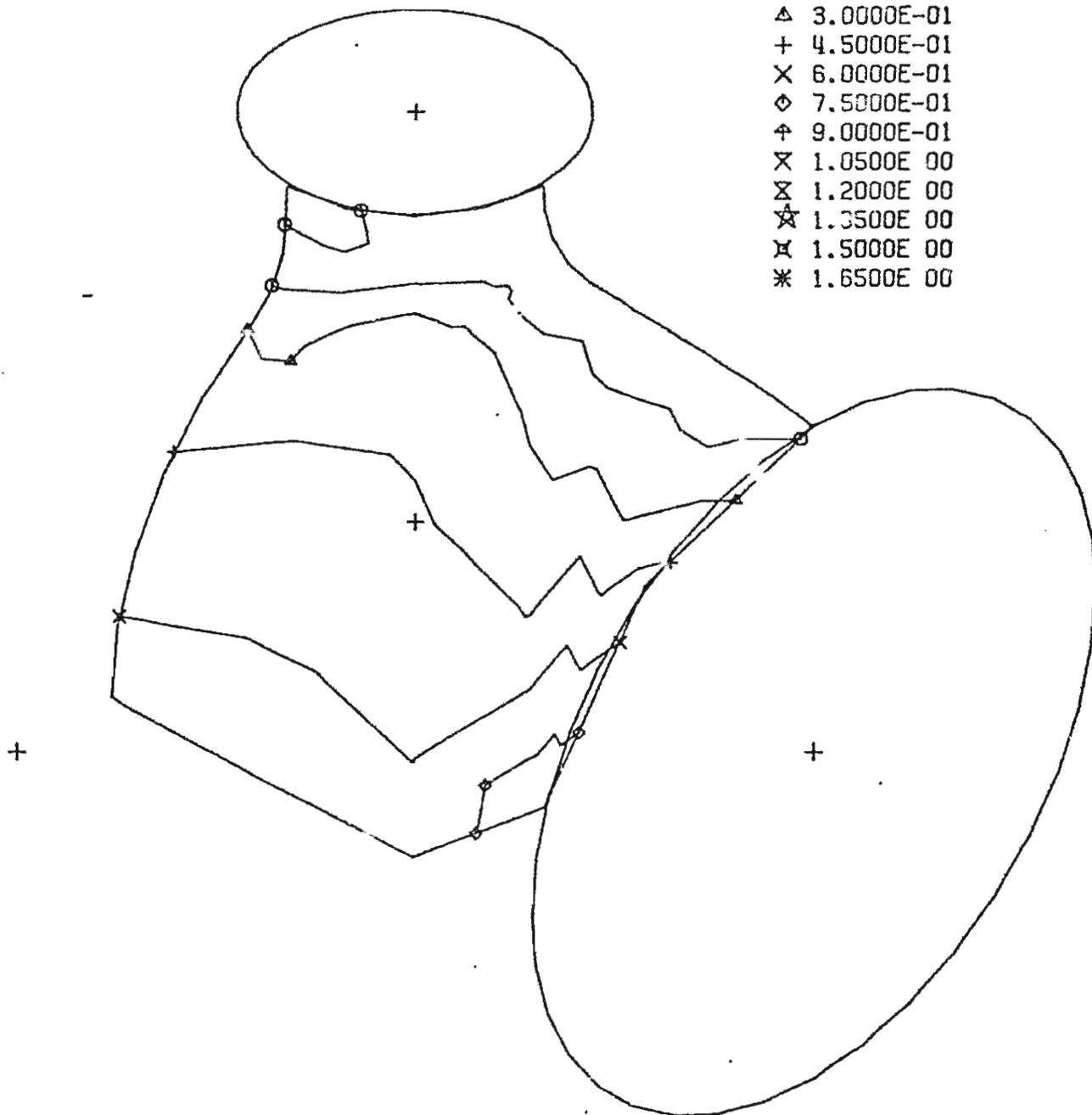


C.E. B16.9 T-12, F2Z

Top Outside Surface

CONTOUR VALUES

- 0.0
- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ⊕ 9.0000E-01
- ⊗ 1.0500E 00
- ⊘ 1.2000E 00
- ☆ 1.3500E 00
- ⊗ 1.5000E 00
- * 1.6500E 00

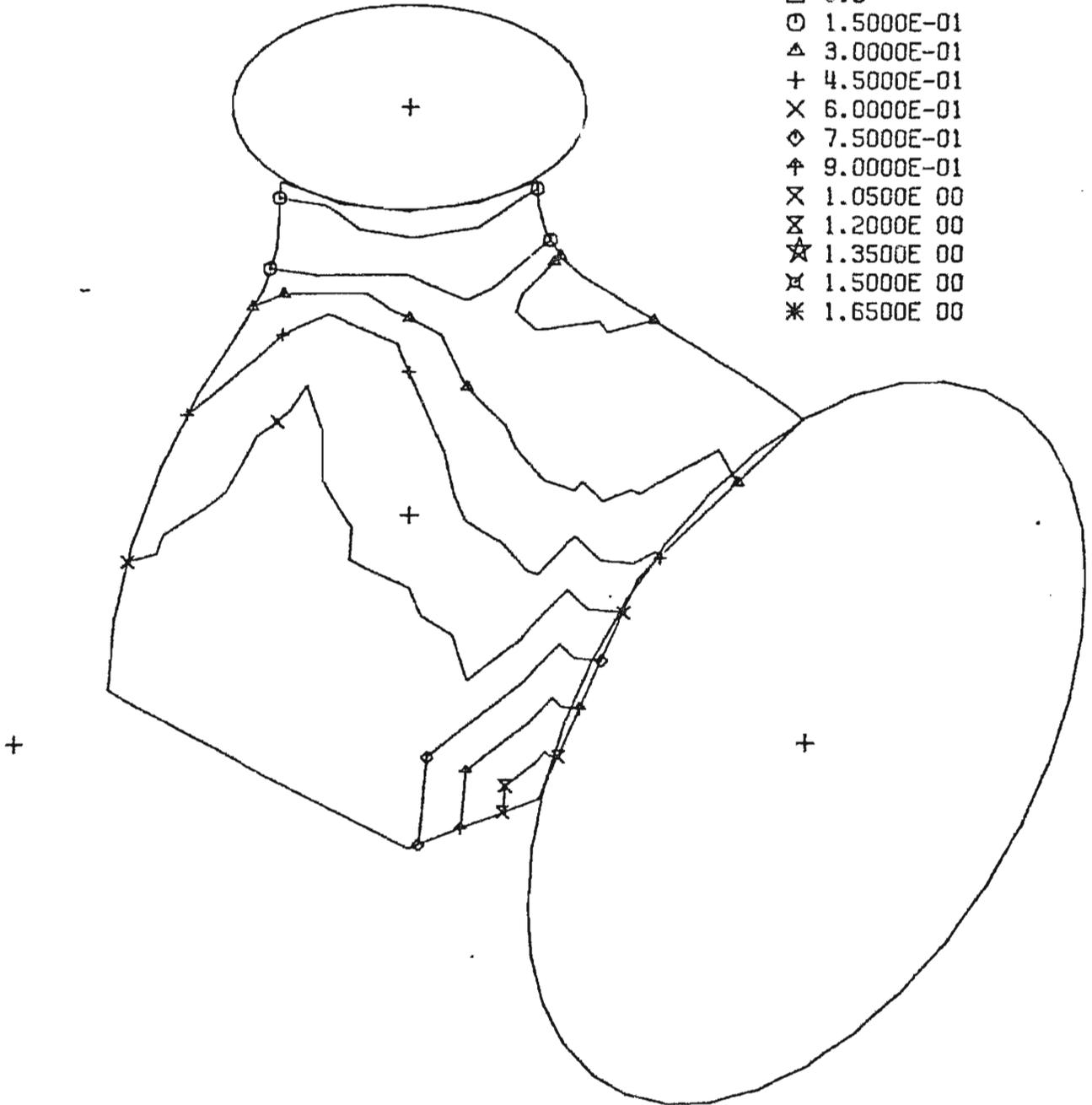


C.E. B16.9 T-12, F2Z

Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ⊕ 9.0000E-01
- ⊗ 1.0500E 00
- ⊘ 1.2000E 00
- ☆ 1.3500E 00
- ⊗ 1.5000E 00
- * 1.6500E 00

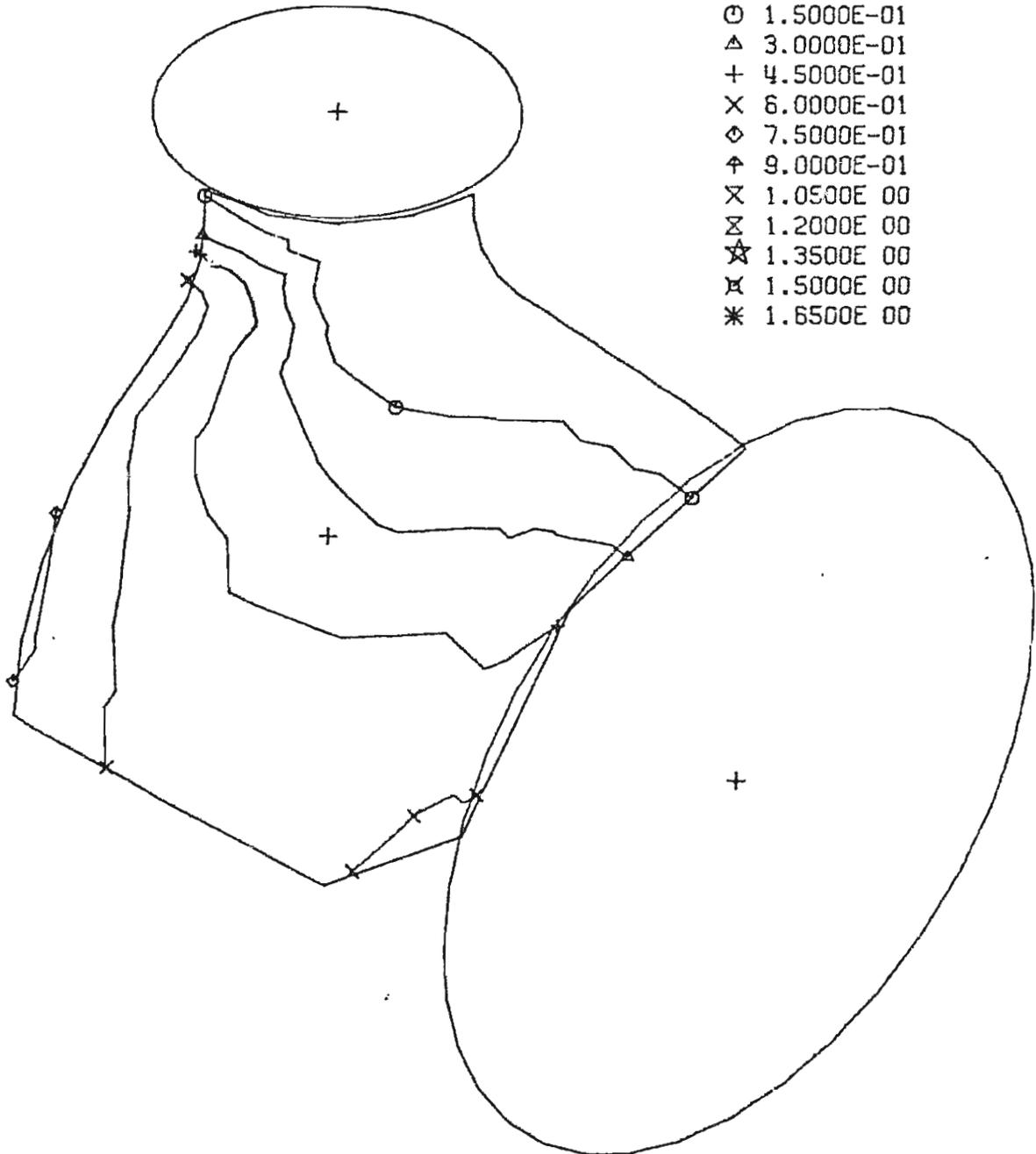


C.E. B16.9 T-12, F2Z

Top Inside Surface

CONTOUR VALUES

- 0.0
- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ⊕ 9.0000E-01
- ⊗ 1.0500E 00
- ⊘ 1.2000E 00
- ☆ 1.3500E 00
- ⊗ 1.5000E 00
- * 1.6500E 00

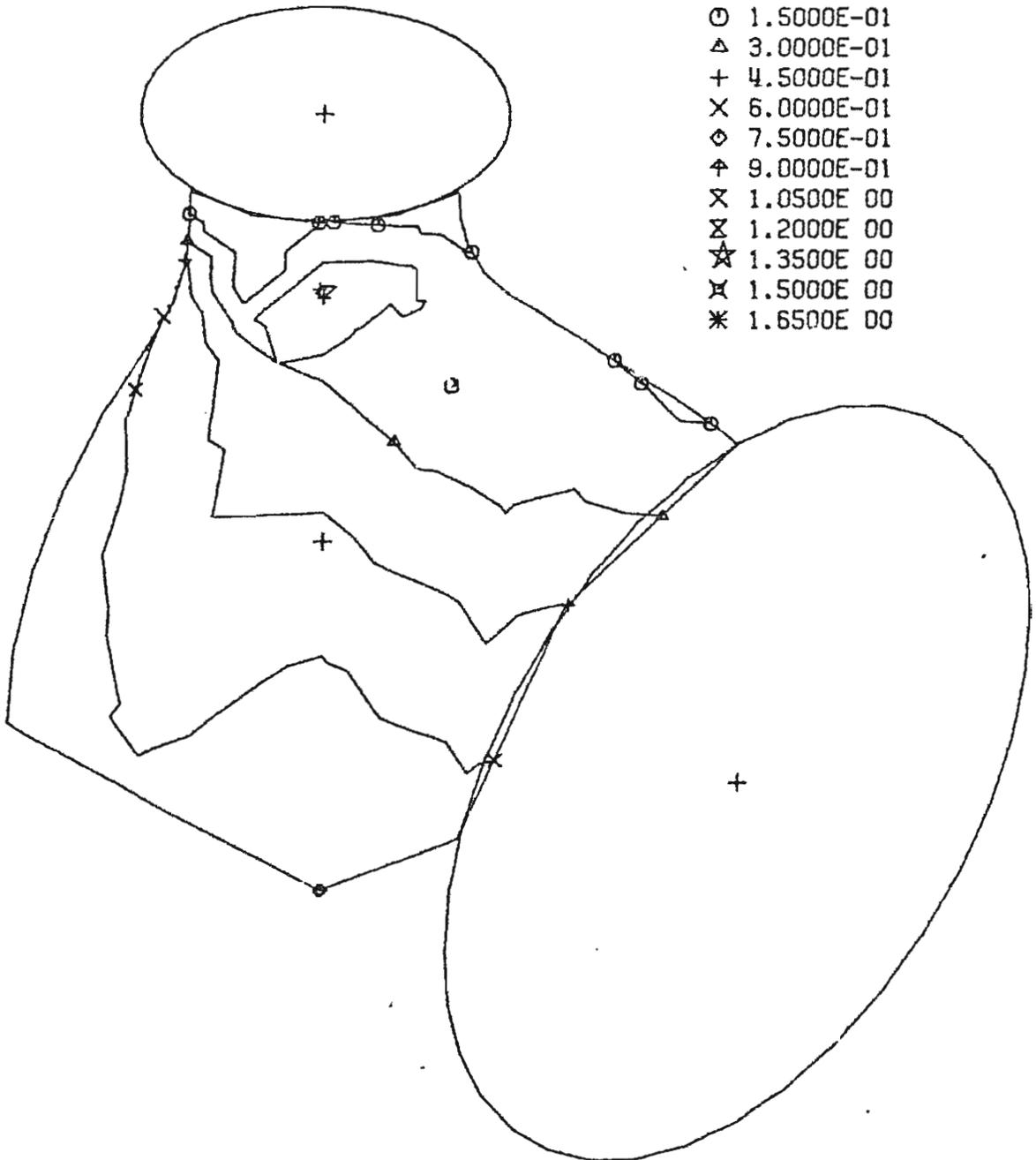


C.E. B16.9 T-12, F2Z

Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ⊕ 9.0000E-01
- ⊗ 1.0500E 00
- ⊘ 1.2000E 00
- ★ 1.3500E 00
- ⊚ 1.5000E 00
- * 1.6500E 00

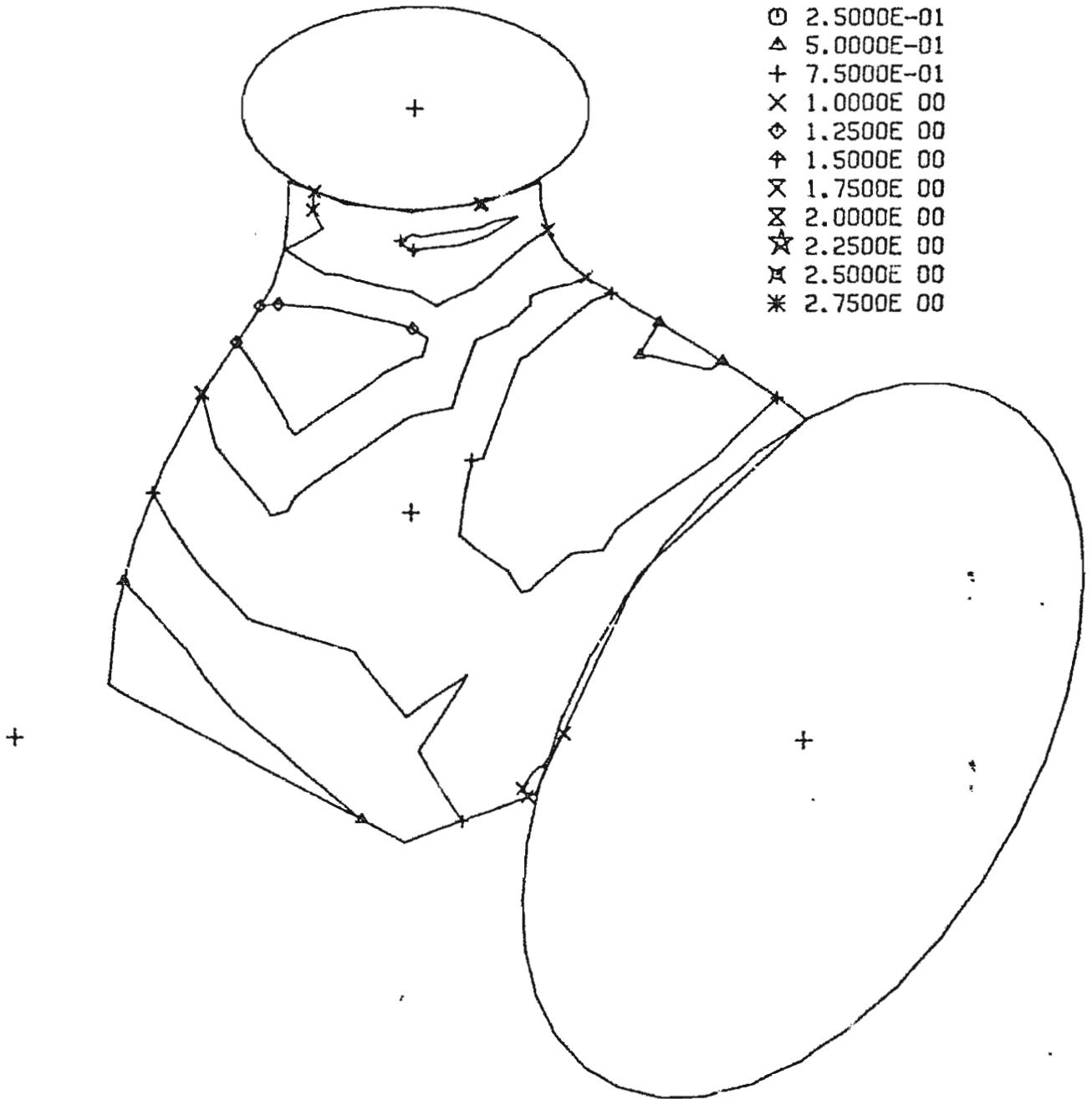


C.E. B16.9 T-12, PRESSURE

Top Outside Surface

CONTOUR VALUES

- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- × 1.0000E 00
- ◇ 1.2500E 00
- ⋈ 1.5000E 00
- ⊗ 1.7500E 00
- ⊗ 2.0000E 00
- ☆ 2.2500E 00
- ⊗ 2.5000E 00
- * 2.7500E 00

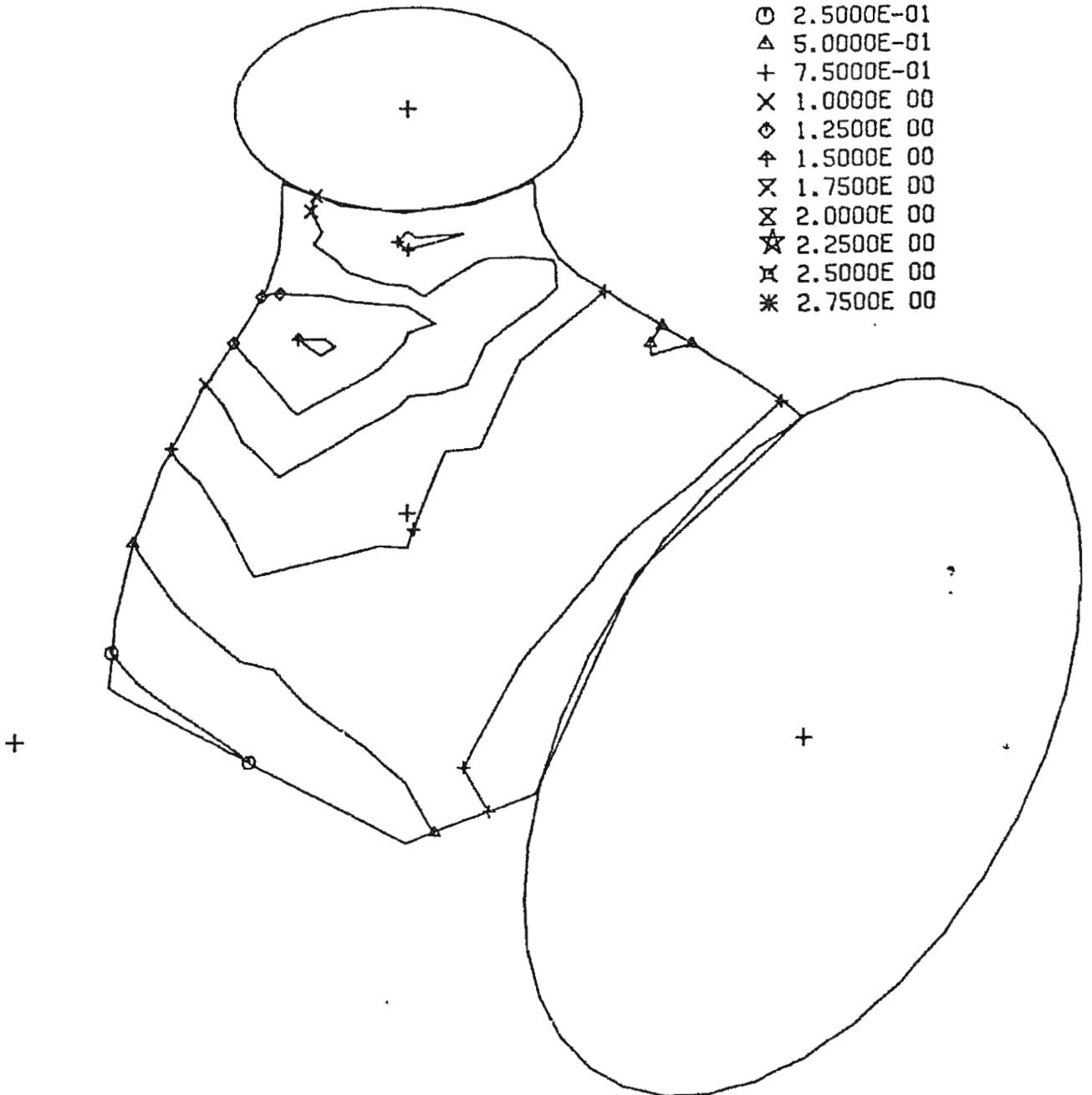


C.E. B16.9 T-12, PRESSURE

Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- × 1.0000E 00
- ◇ 1.2500E 00
- ⊕ 1.5000E 00
- ⊗ 1.7500E 00
- ⊘ 2.0000E 00
- ☆ 2.2500E 00
- ⊚ 2.5000E 00
- * 2.7500E 00

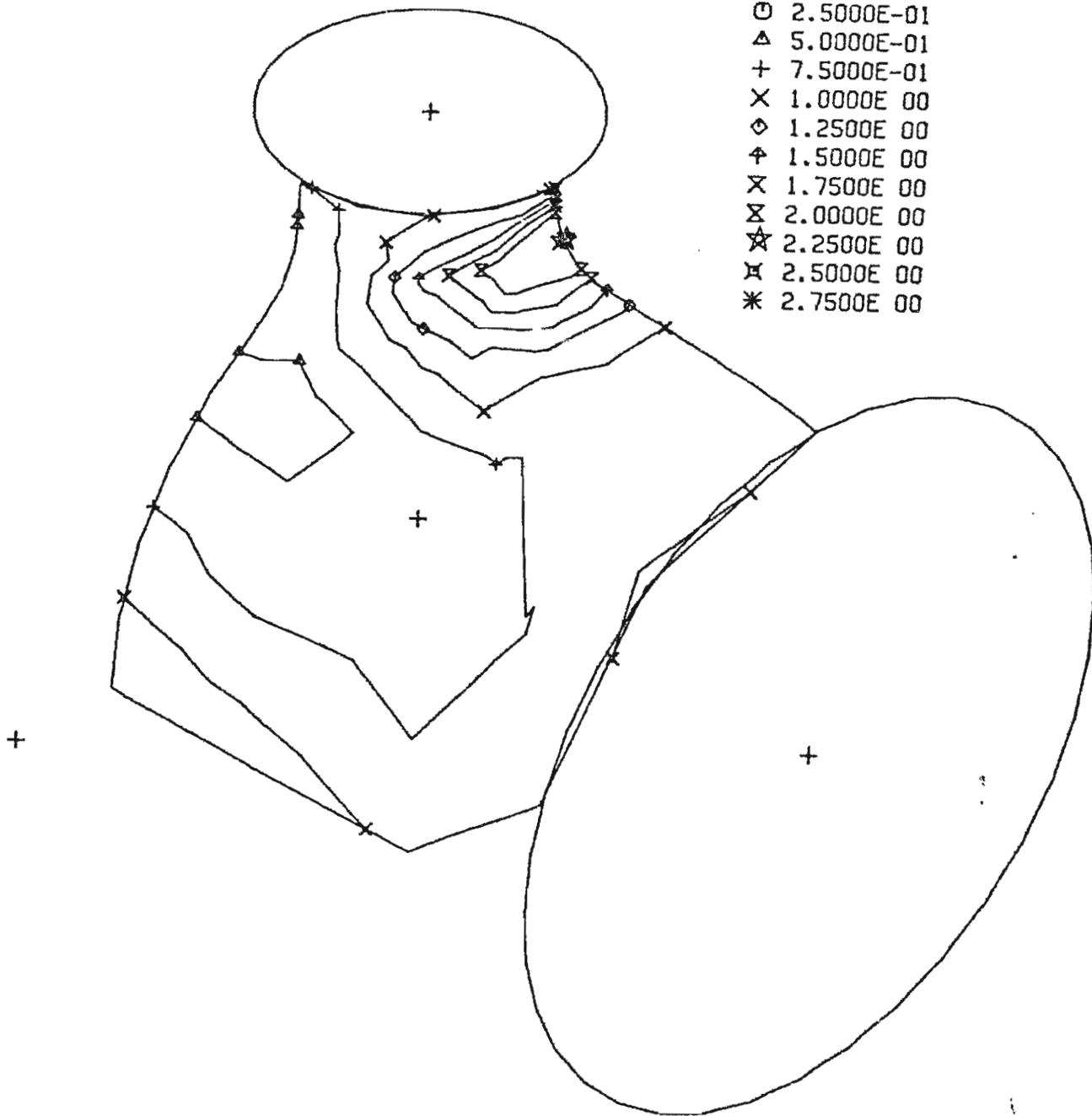


C.E. B16.9 T-12, PRESSURE

Top Inside Surface

CONTOUR VALUES

- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- × 1.0000E 00
- ◇ 1.2500E 00
- ⊕ 1.5000E 00
- ⊗ 1.7500E 00
- ⊘ 2.0000E 00
- ☆ 2.2500E 00
- ⊠ 2.5000E 00
- * 2.7500E 00

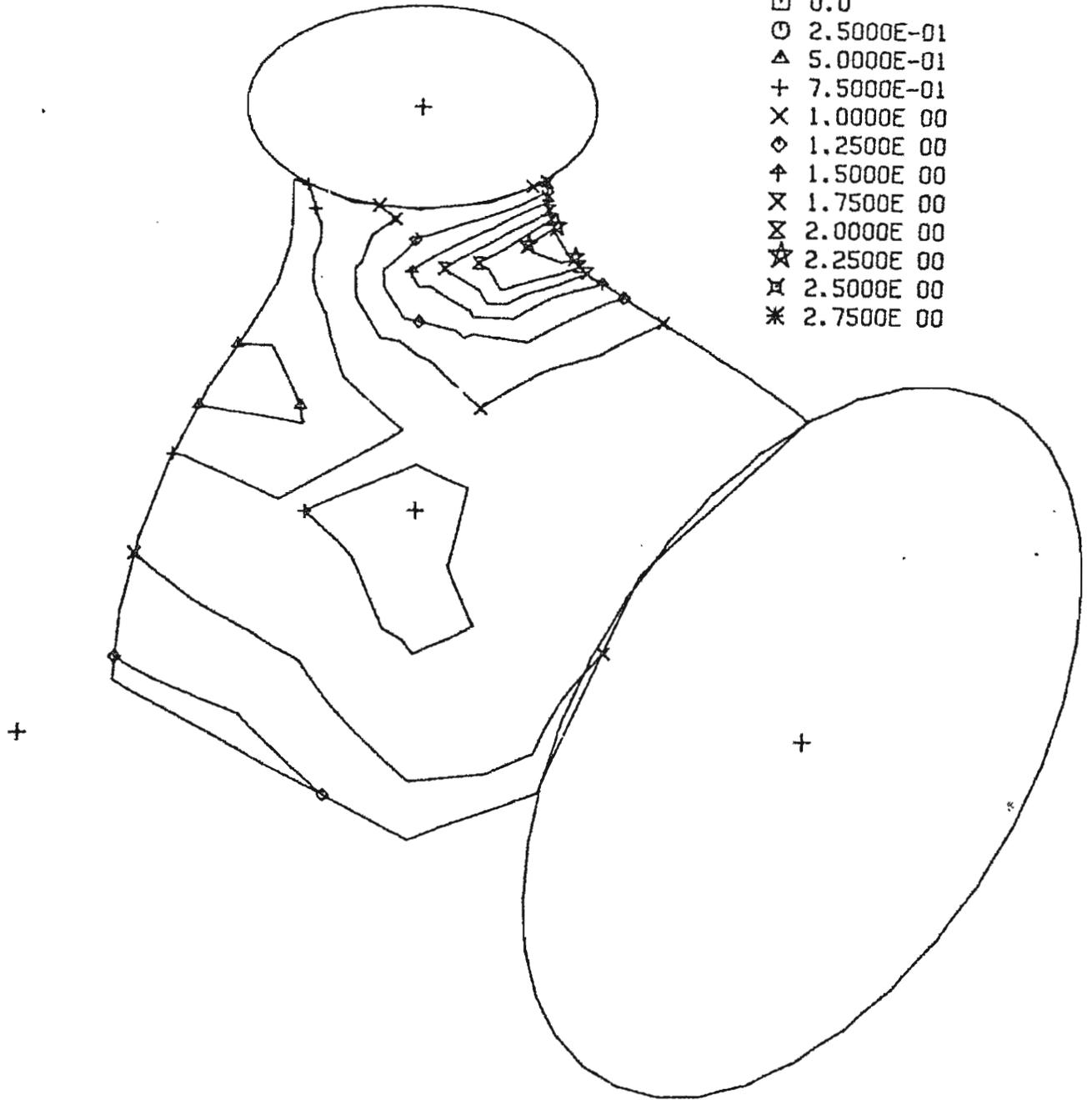


C.E. B16.9 T-12, PRESSURE

Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- × 1.0000E 00
- ◇ 1.2500E 00
- ⊕ 1.5000E 00
- ⊗ 1.7500E 00
- ⊗ 2.0000E 00
- ☆ 2.2500E 00
- ⊗ 2.5000E 00
- * 2.7500E 00

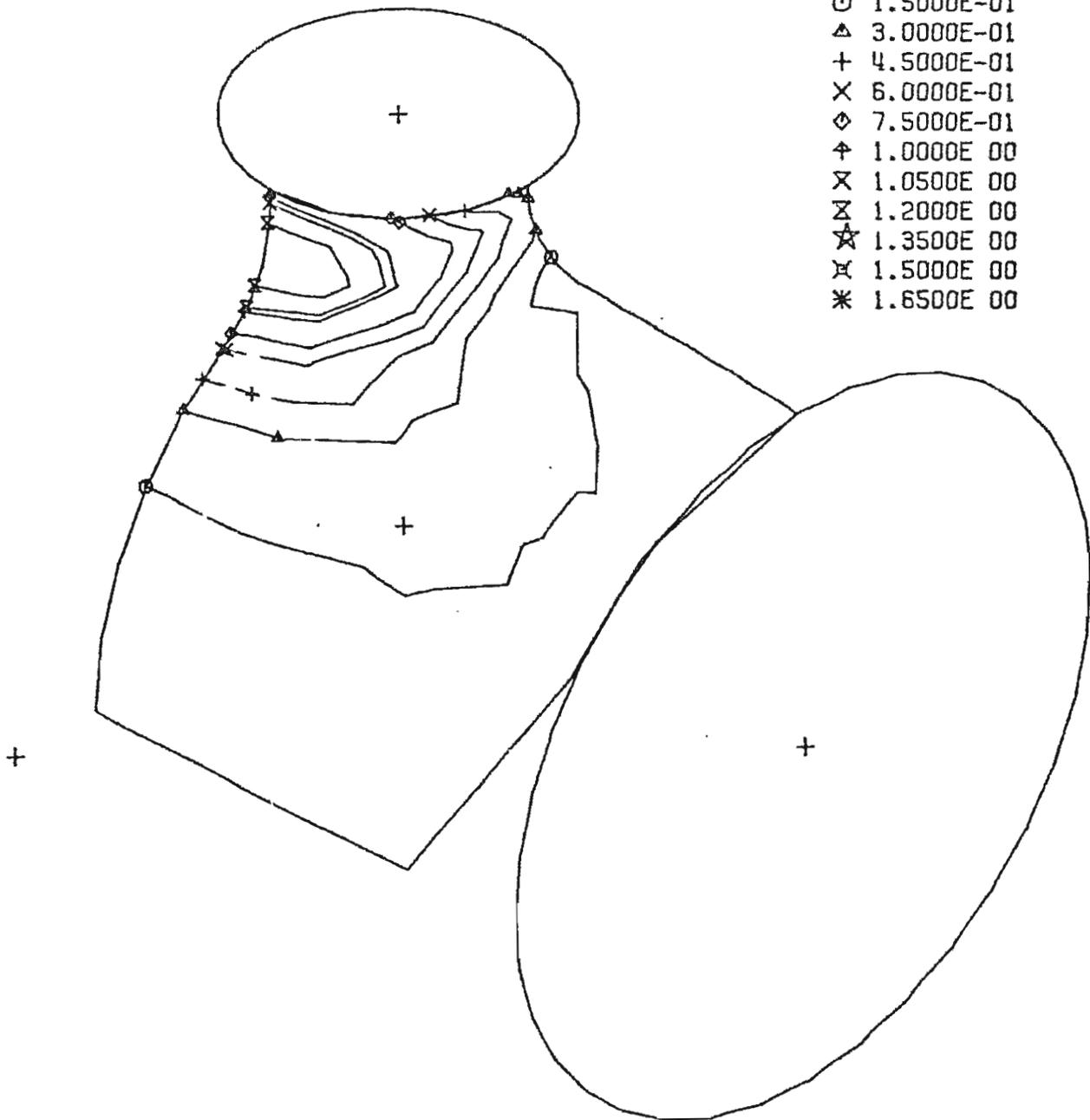


C.E. B16.9 T-13, M3X

Top Outside Surface

CONTOUR VALUES

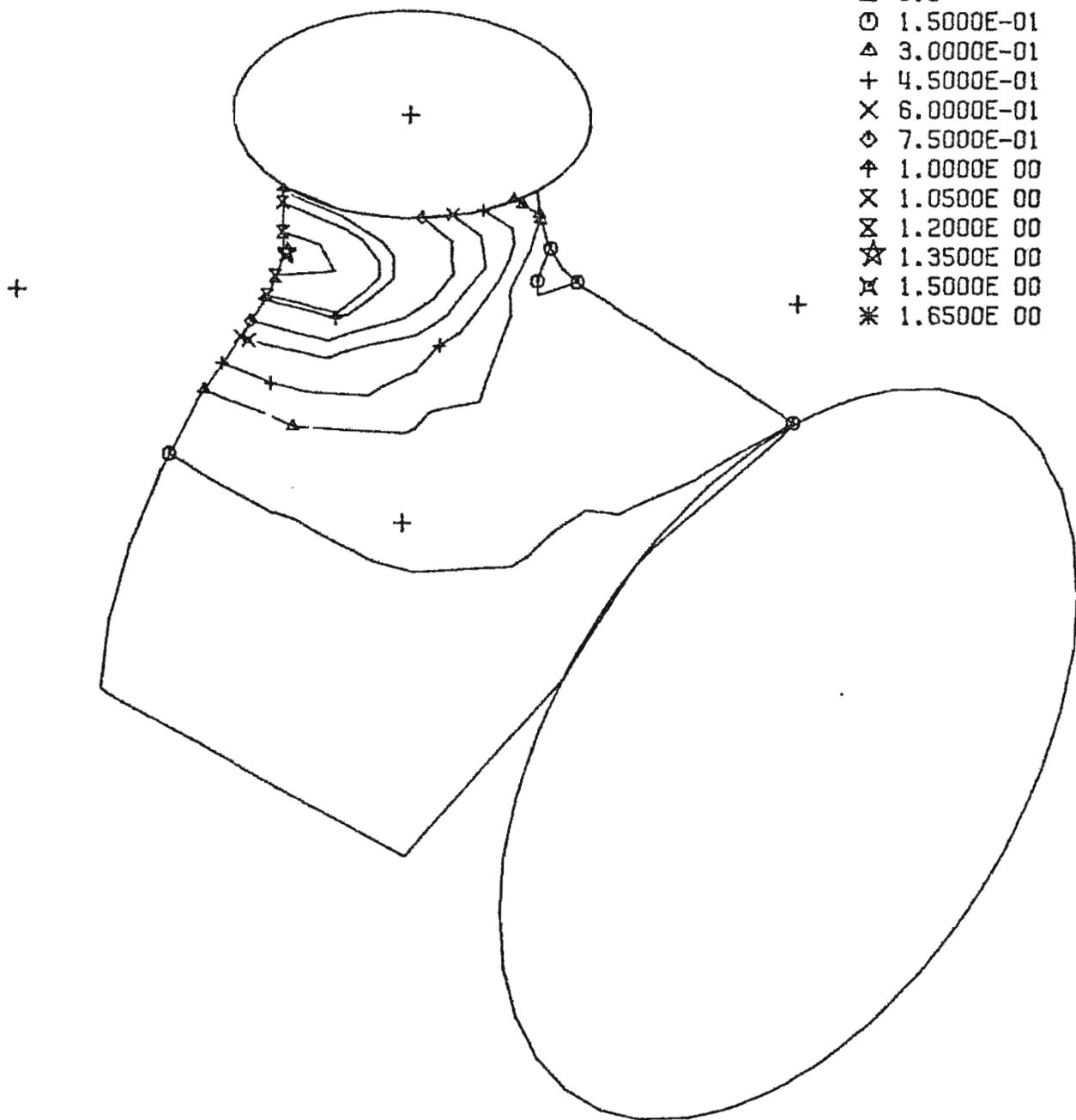
- 0.0
- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ⋈ 1.0000E 00
- ⋈ 1.0500E 00
- ⋈ 1.2000E 00
- ☆ 1.3500E 00
- ⋈ 1.5000E 00
- * 1.6500E 00



C.E. B16.9, T-13, M3X
Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ⋈ 1.0000E 00
- ⊗ 1.0500E 00
- ⊗ 1.2000E 00
- ☆ 1.3500E 00
- ⊗ 1.5000E 00
- * 1.6500E 00

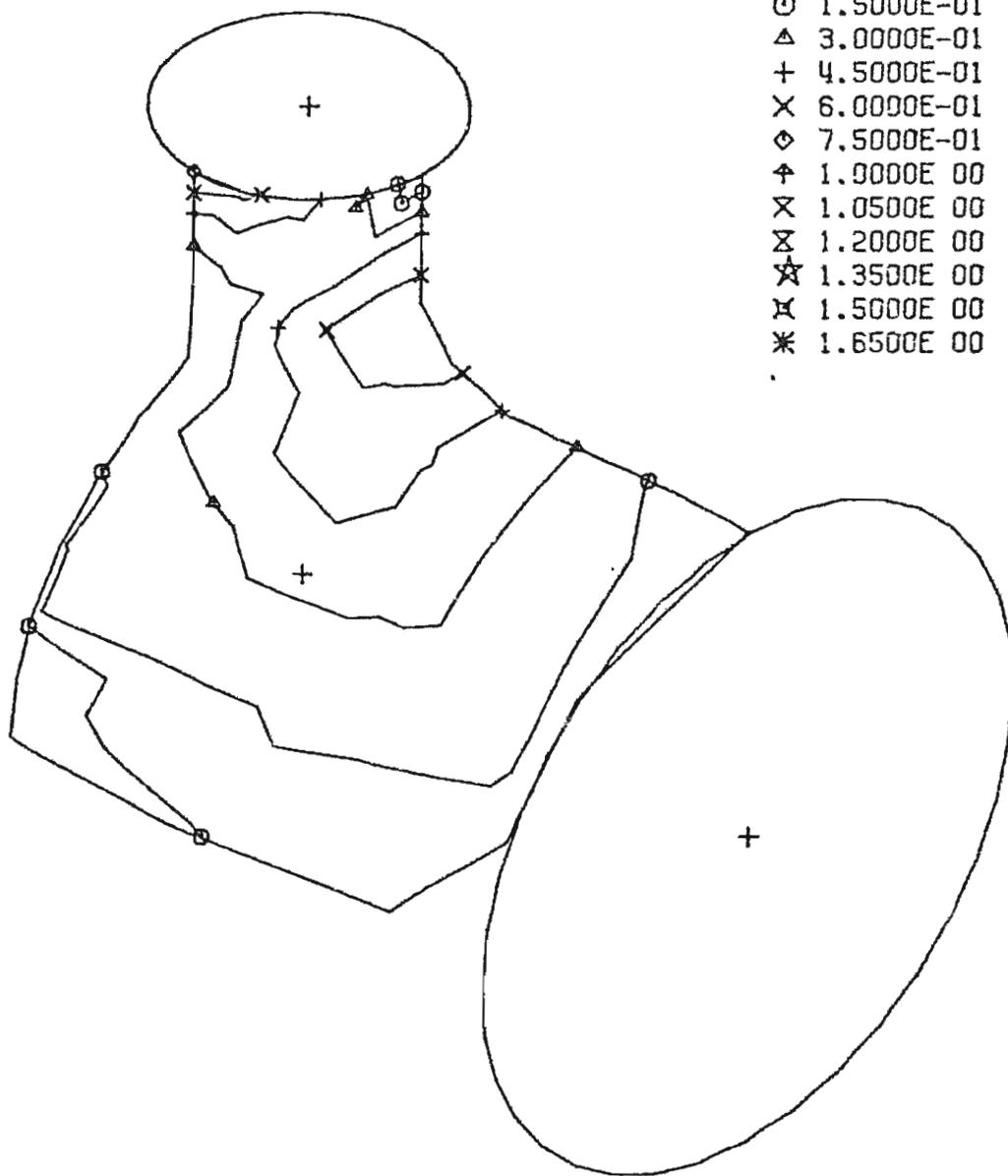


C.E. B15.9 T-13, M3X

Top Inside Surface

CONTOUR VALUES

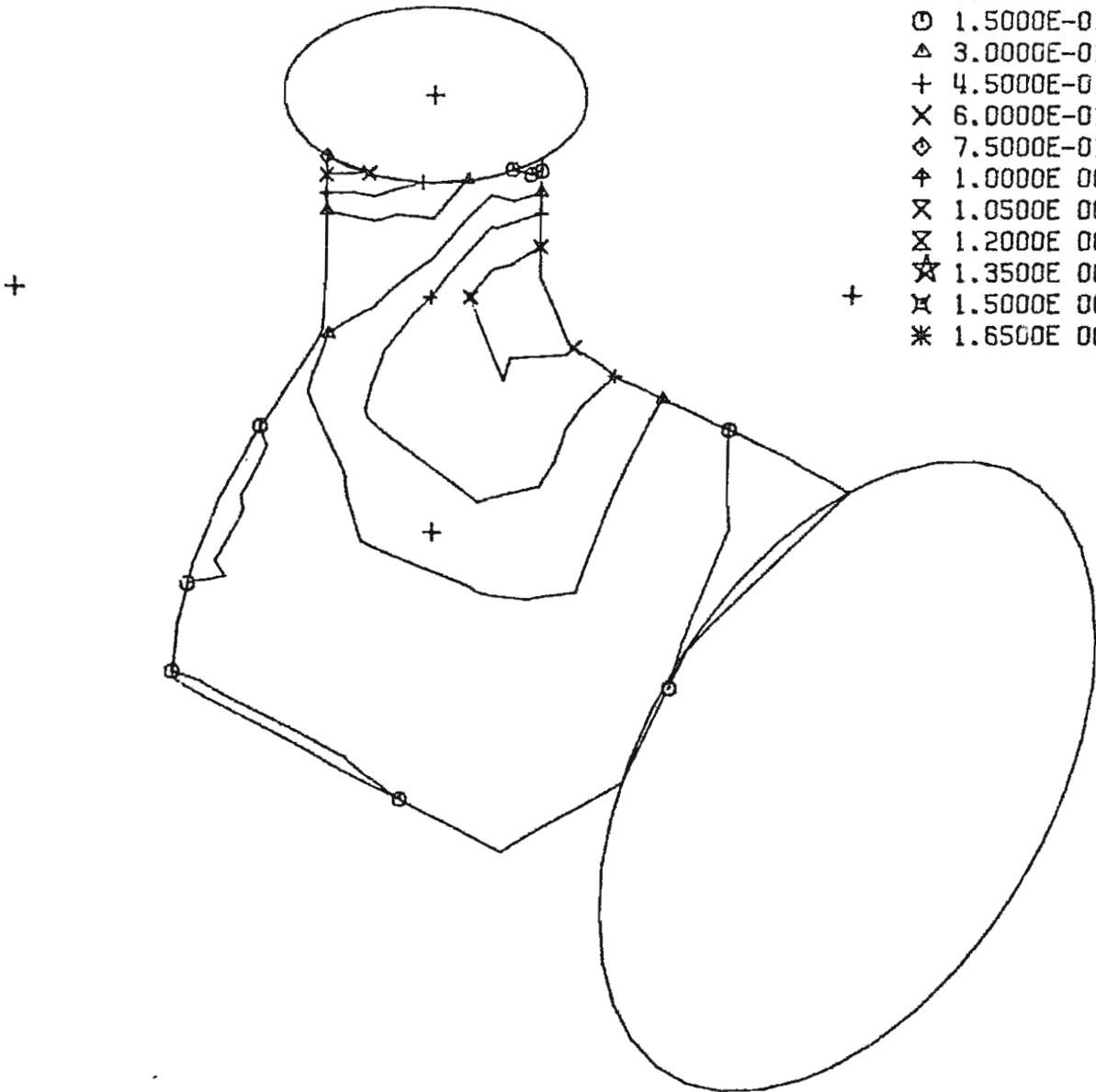
- 0.0
- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ⊕ 1.0000E 00
- ⊗ 1.0500E 00
- ⊘ 1.2000E 00
- ☆ 1.3500E 00
- ⊗ 1.5000E 00
- * 1.6500E 00



C.E. B16.9, T-13, M3X
Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ⊕ 1.0000E 00
- ⊗ 1.0500E 00
- ⊘ 1.2000E 00
- ☆ 1.3500E 00
- ⊗ 1.5000E 00
- * 1.6500E 00

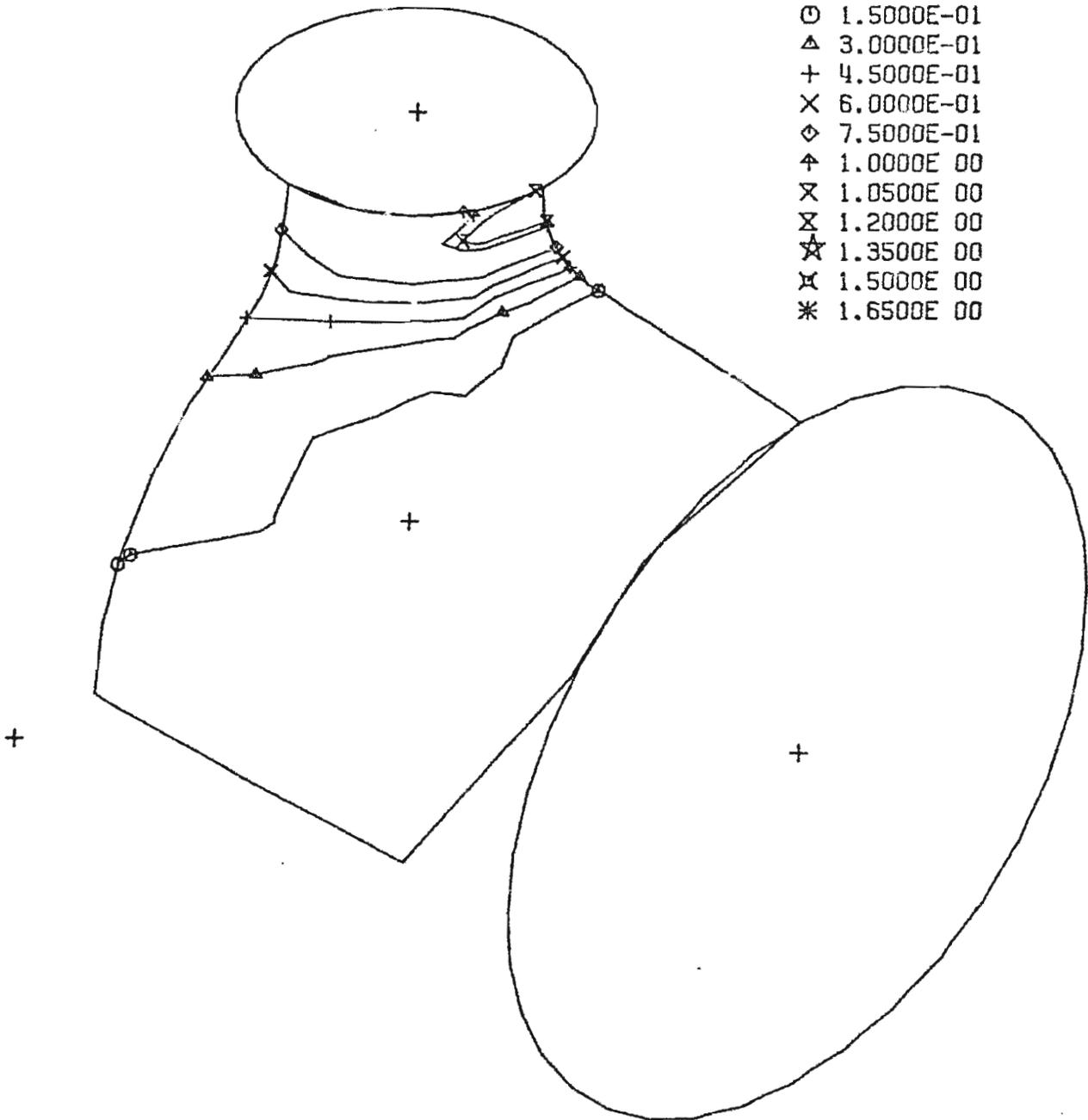


C.E. B16.9 T-13, M3Y

Top Outside Surface

CONTOUR VALUES

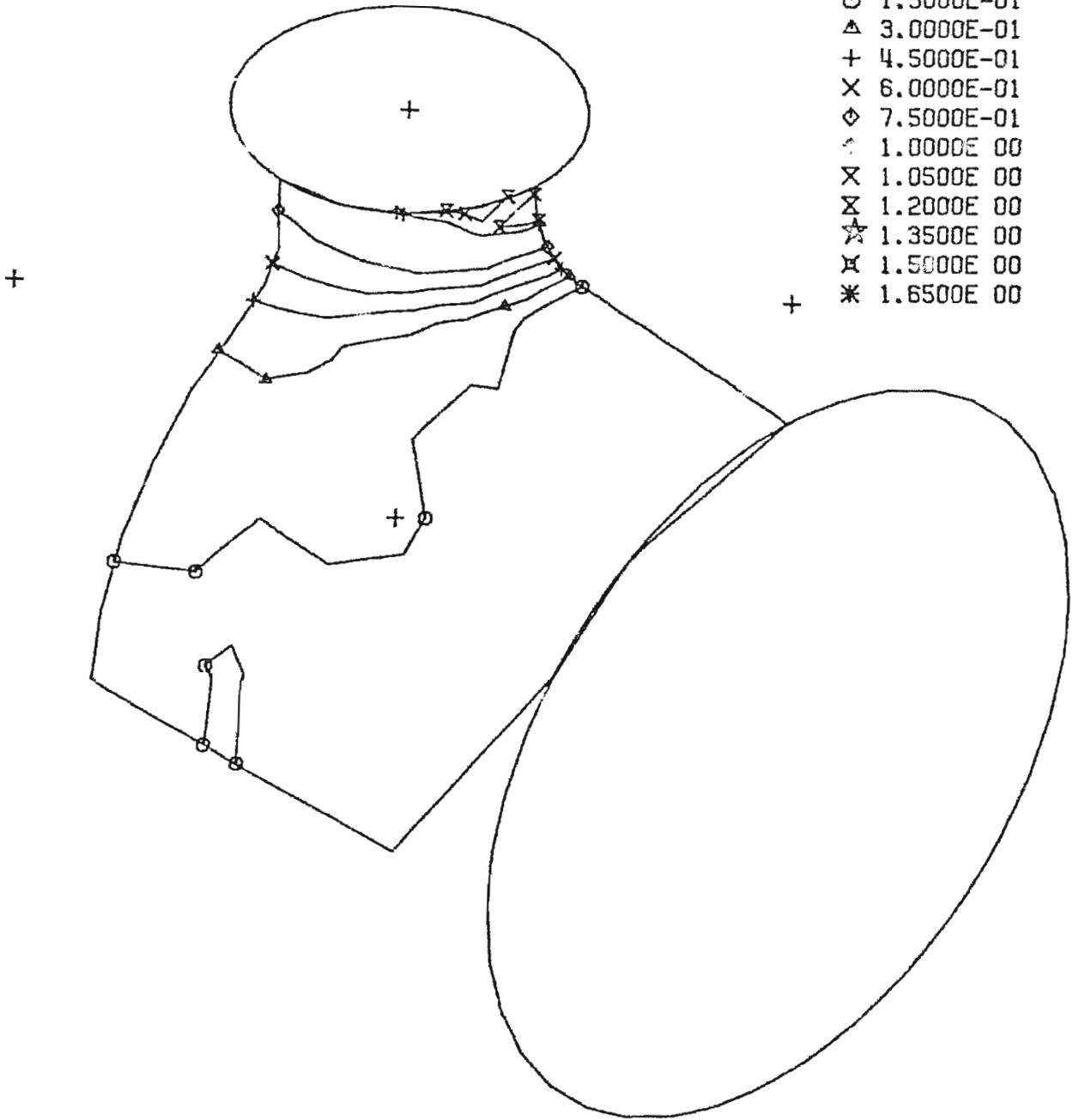
- 0.0
- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ⋈ 1.0000E 00
- ⊗ 1.0500E 00
- ⊘ 1.2000E 00
- ☆ 1.3500E 00
- ⊗ 1.5000E 00
- * 1.6500E 00



C E. B16.9 T-13, M3Y
Bottom Outside Surface

CONTOUR VALUES

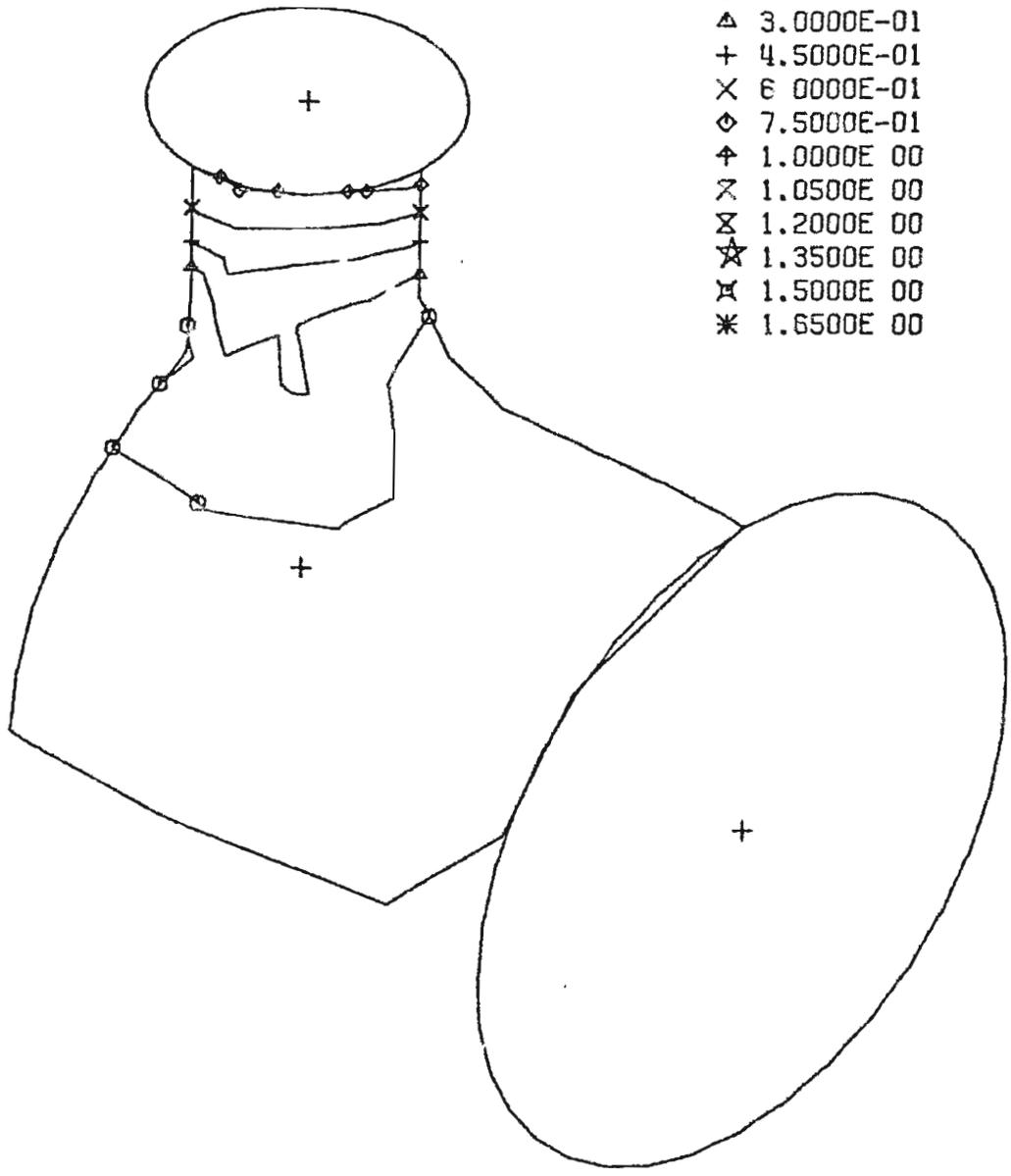
- 0.0
- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ∧ 1.0000E 00
- × 1.0500E 00
- ⊗ 1.2000E 00
- ☆ 1.3500E 00
- ⊗ 1.5000E 00
- * 1.6500E 00



C.E. B16.9 T-13, M3Y
Top Inside Surface

CONTOUR VALUES

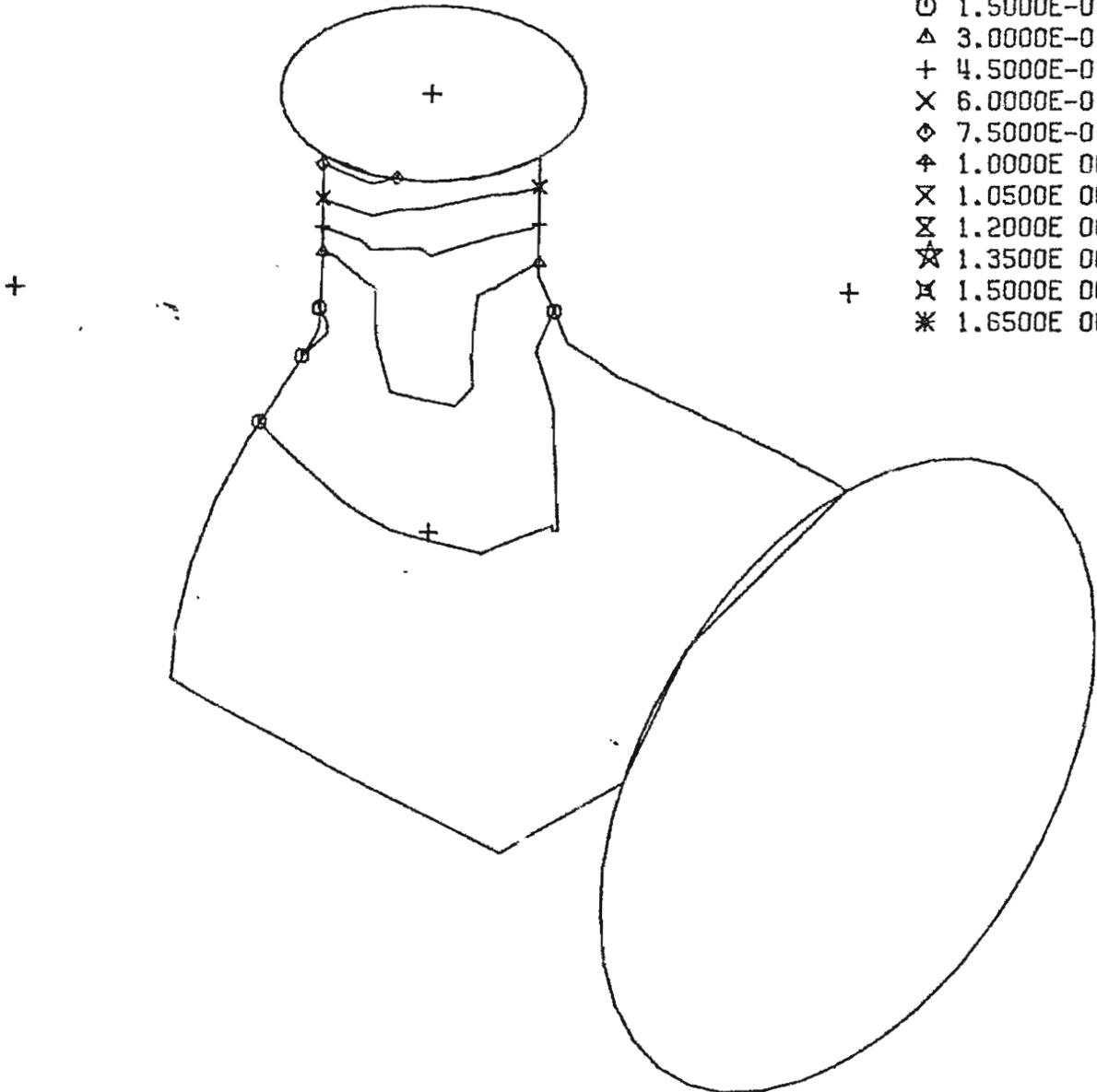
- 0.0
- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ⋈ 1.0000E 00
- ⋈ 1.0500E 00
- ⋈ 1.2000E 00
- ☆ 1.3500E 00
- ⋈ 1.5000E 00
- * 1.6500E 00



C.E. B16.9 T-13, M3Y
Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ⊕ 1.0000E 00
- ⊗ 1.0500E 00
- ⊗ 1.2000E 00
- ☆ 1.3500E 00
- ⊗ 1.5000E 00
- * 1.6500E 00

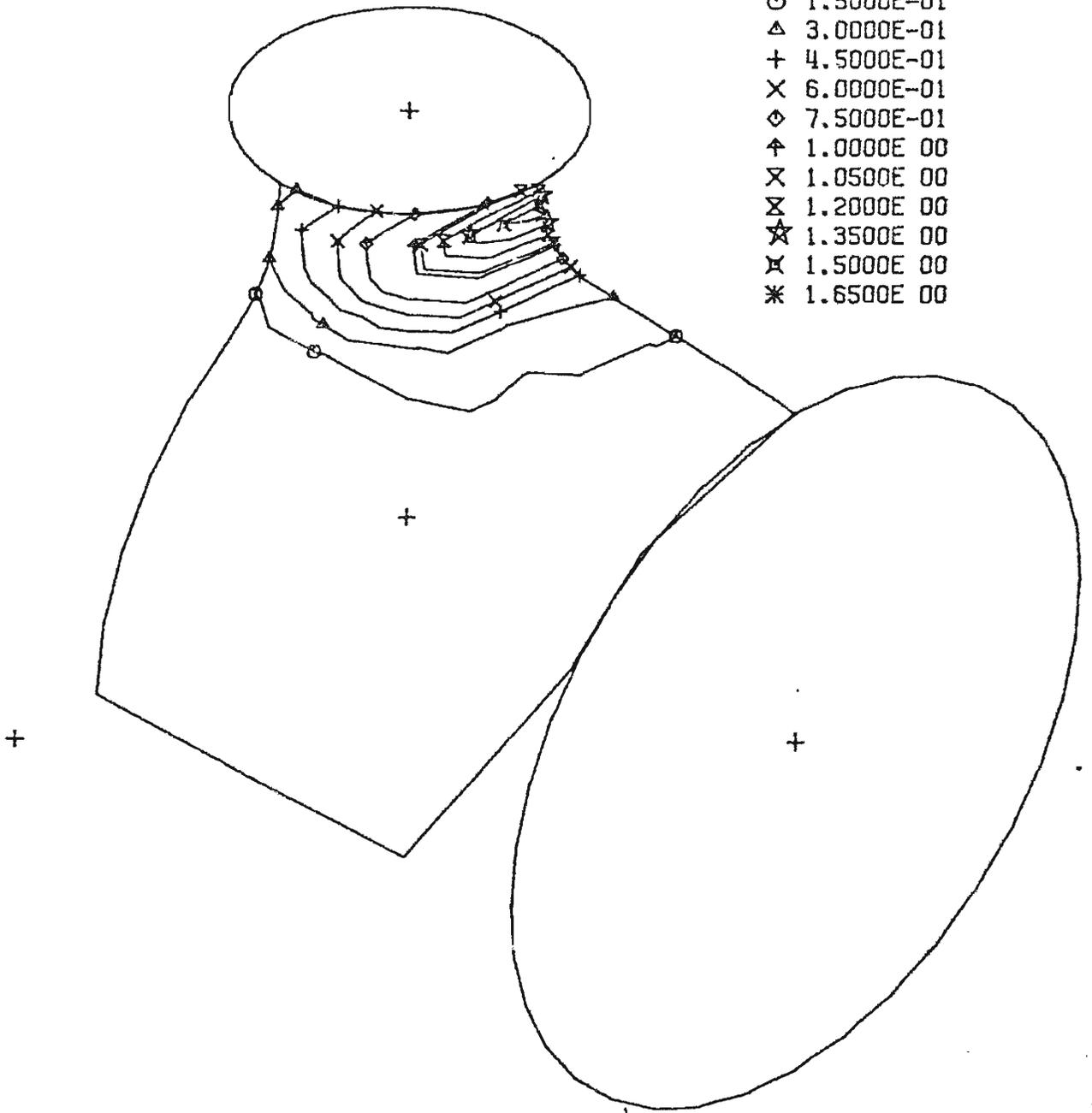


C.E. B16.9 T-13, M32

Top Outside Surface

CONTOUR VALUES

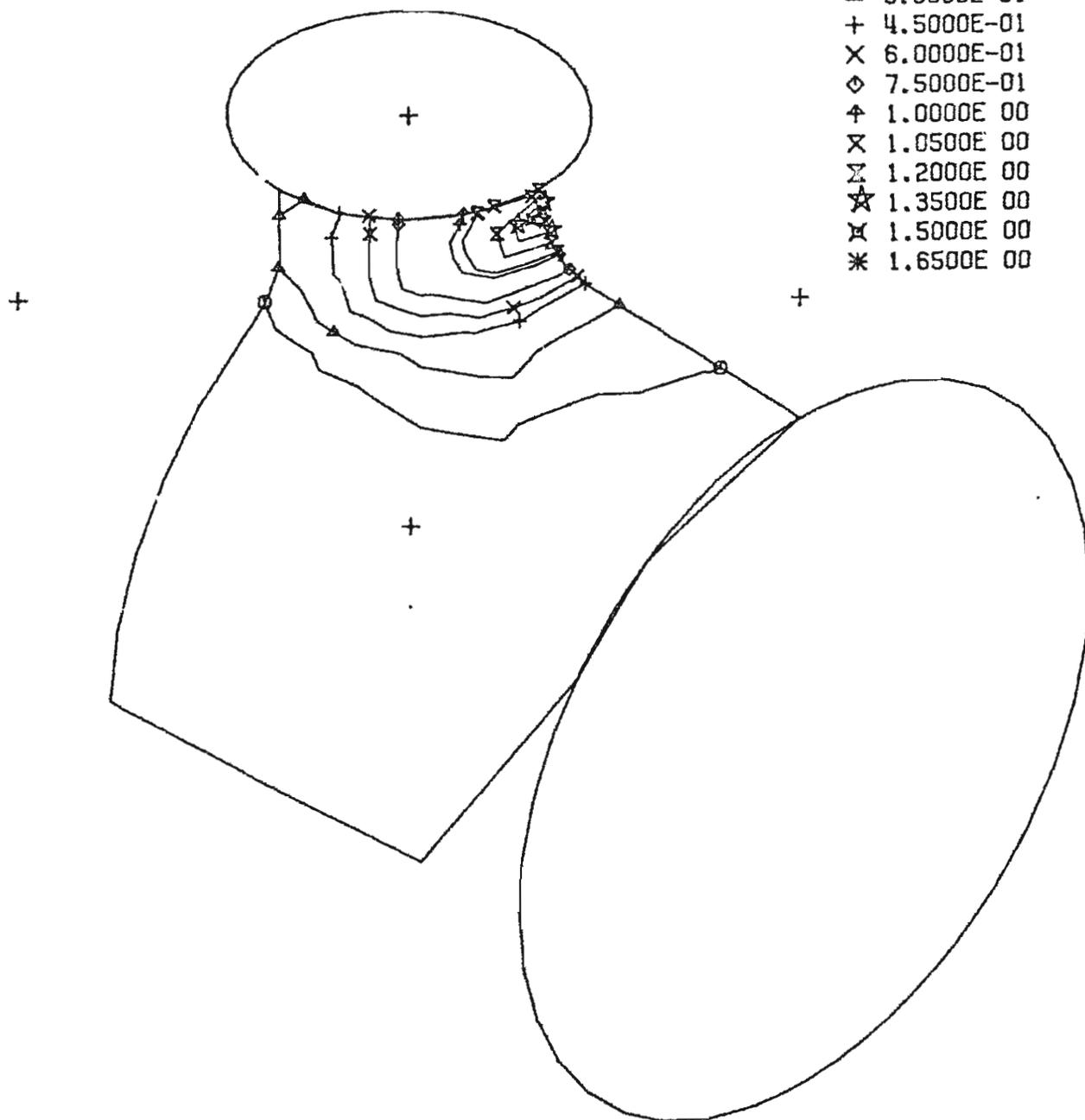
- 0.0
- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ↑ 1.0000E 00
- × 1.0500E 00
- ⊗ 1.2000E 00
- ☆ 1.3500E 00
- ⊗ 1.5000E 00
- * 1.6500E 00



C.E. B16.9 T-13, M32
Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ⊕ 1.0000E 00
- × 1.0500E 00
- ⊗ 1.2000E 00
- ☆ 1.3500E 00
- ⊗ 1.5000E 00
- * 1.6500E 00

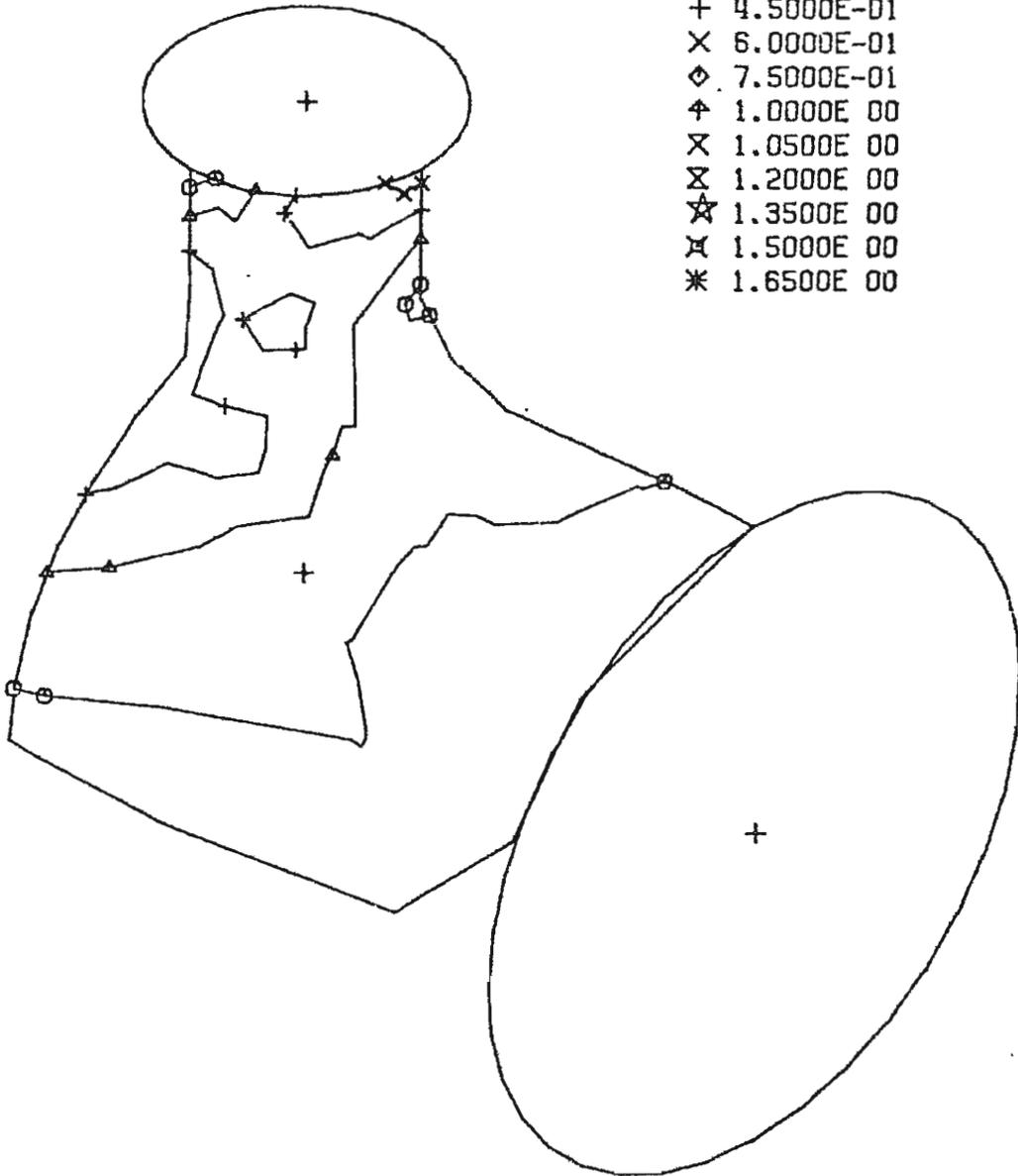


C.E. B16.0 T-13, M3Z

Top Inside Surface

CONTOUR VALUES

- 0.0
- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ⊕ 1.0000E 00
- × 1.0500E 00
- ⊗ 1.2000E 00
- ☆ 1.3500E 00
- ⊗ 1.5000E 00
- * 1.6500E 00

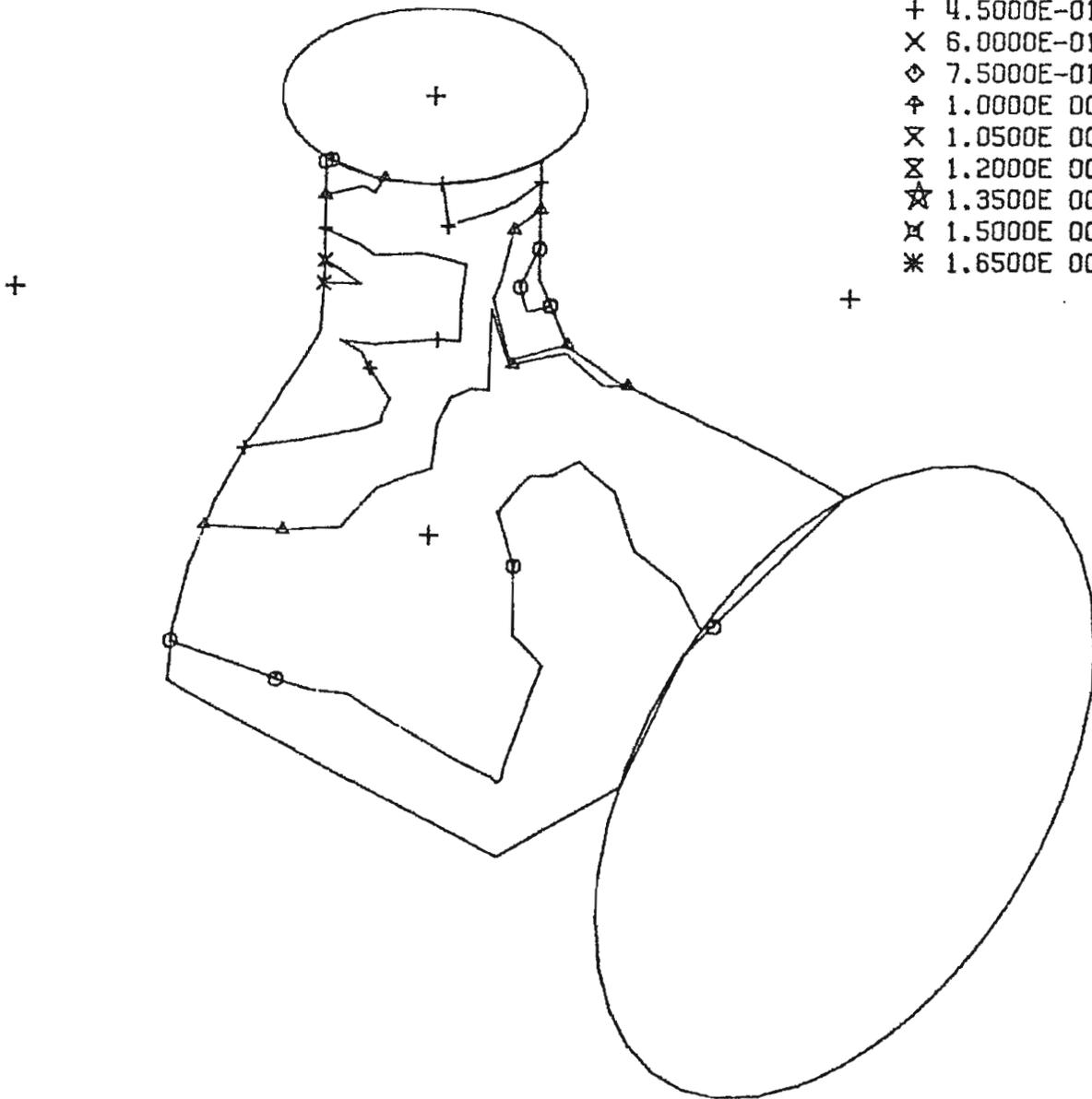


C.E. B16.9 T-13, M3Z

Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ⊕ 1.0000E 00
- ⊗ 1.0500E 00
- ⊘ 1.2000E 00
- ☆ 1.3500E 00
- ⊗ 1.5000E 00
- * 1.6500E 00

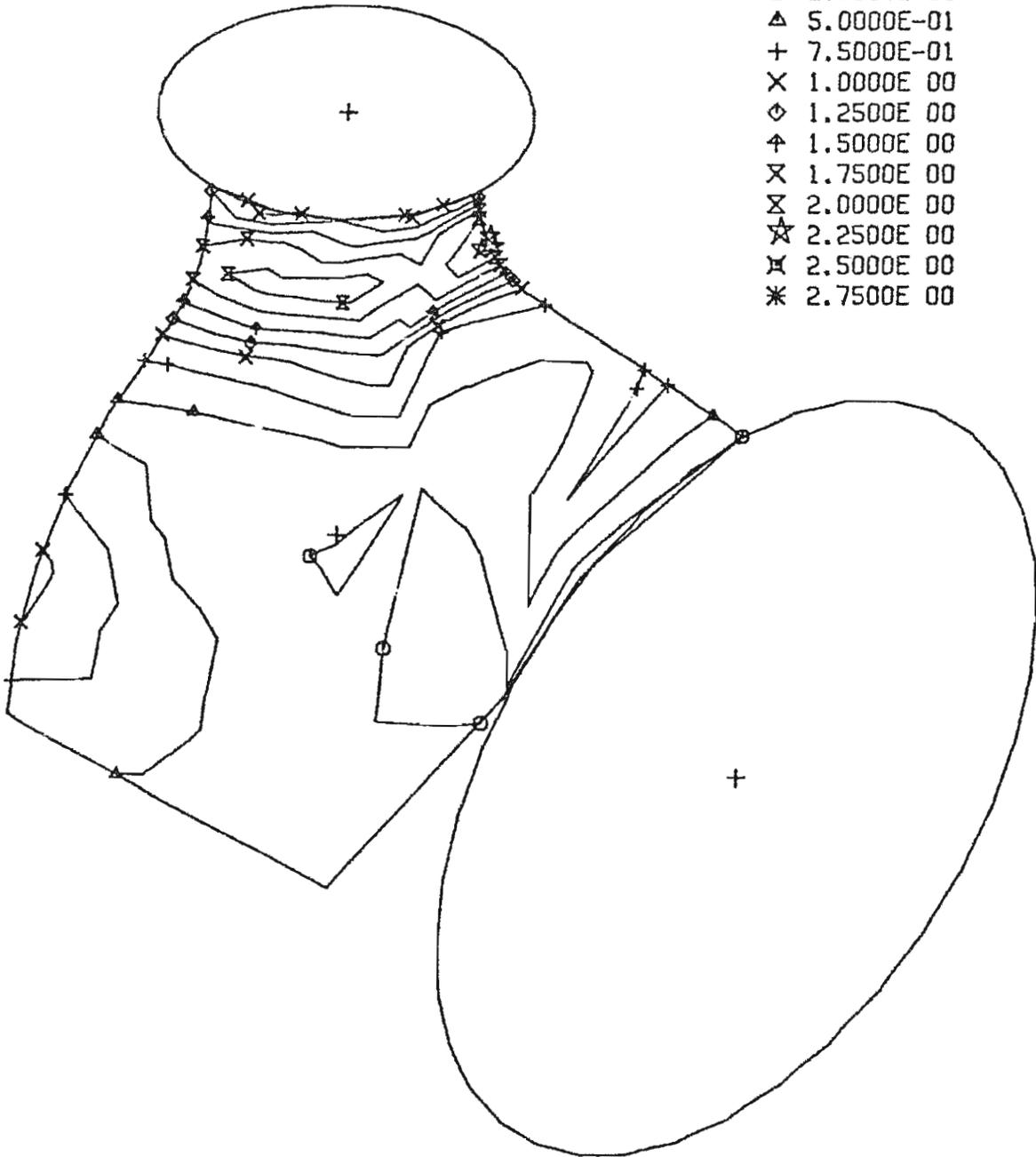


C.E. B16.9 T-13, F3Y

Top Outside Surface

CONTOUR VALUES

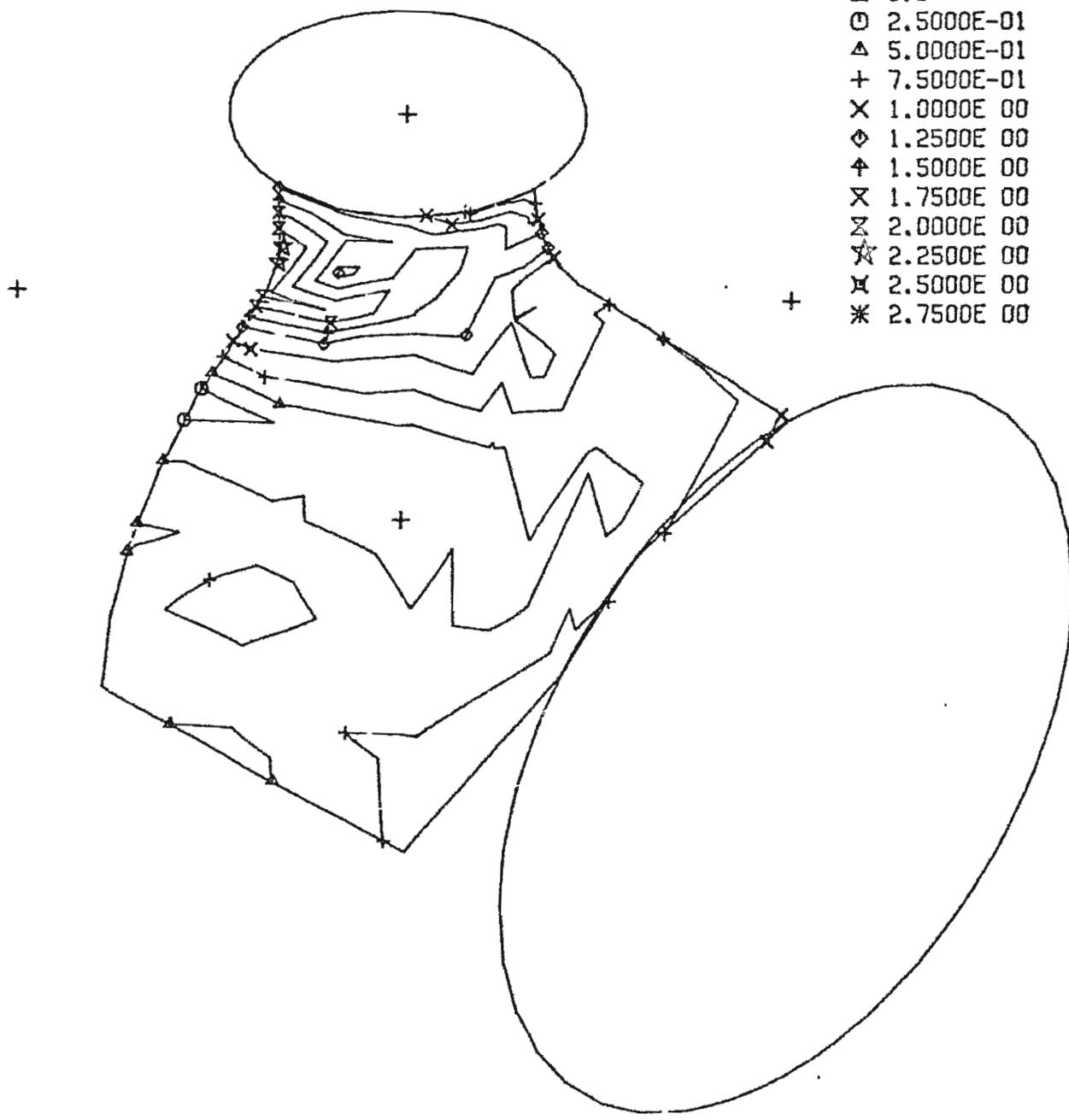
- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- × 1.0000E 00
- ◇ 1.2500E 00
- ⊕ 1.5000E 00
- ⊗ 1.7500E 00
- ⊘ 2.0000E 00
- ☆ 2.2500E 00
- ⊗ 2.5000E 00
- * 2.7500E 00



C.E. B16.9 T-13, F3Y
Bottom Outside Surface

CONTOUR VALUES

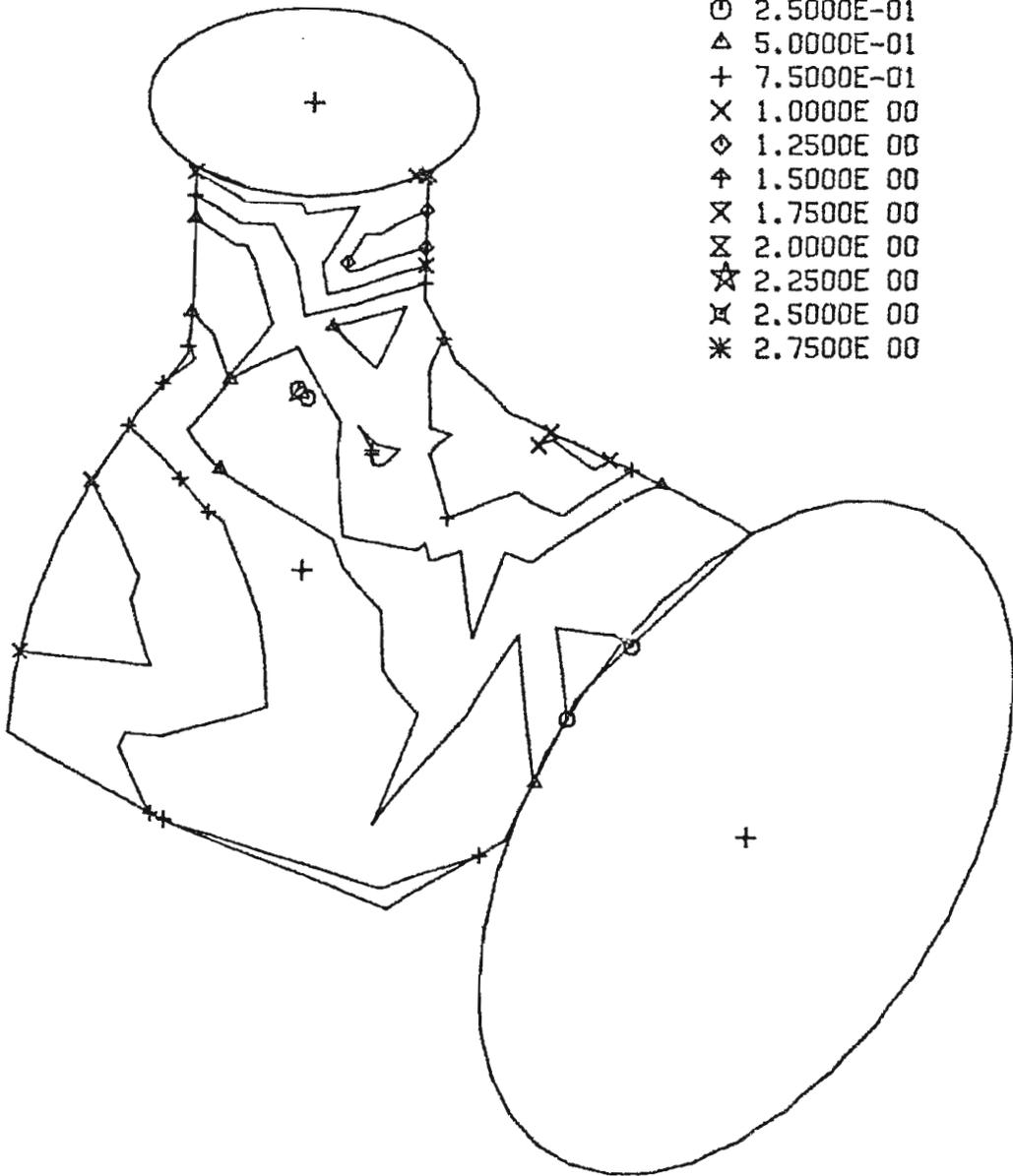
- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- × 1.0000E 00
- ◇ 1.2500E 00
- ⋈ 1.5000E 00
- ⊗ 1.7500E 00
- ⊘ 2.0000E 00
- ☆ 2.2500E 00
- ⊠ 2.5000E 00
- * 2.7500E 00



C.E. B16.9 T-13, F3Y
Top Inside Surface

CONTOUR VALUES

- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- × 1.0000E 00
- ◇ 1.2500E 00
- ⋈ 1.5000E 00
- ⊗ 1.7500E 00
- ⊠ 2.0000E 00
- ☆ 2.2500E 00
- ⊞ 2.5000E 00
- * 2.7500E 00

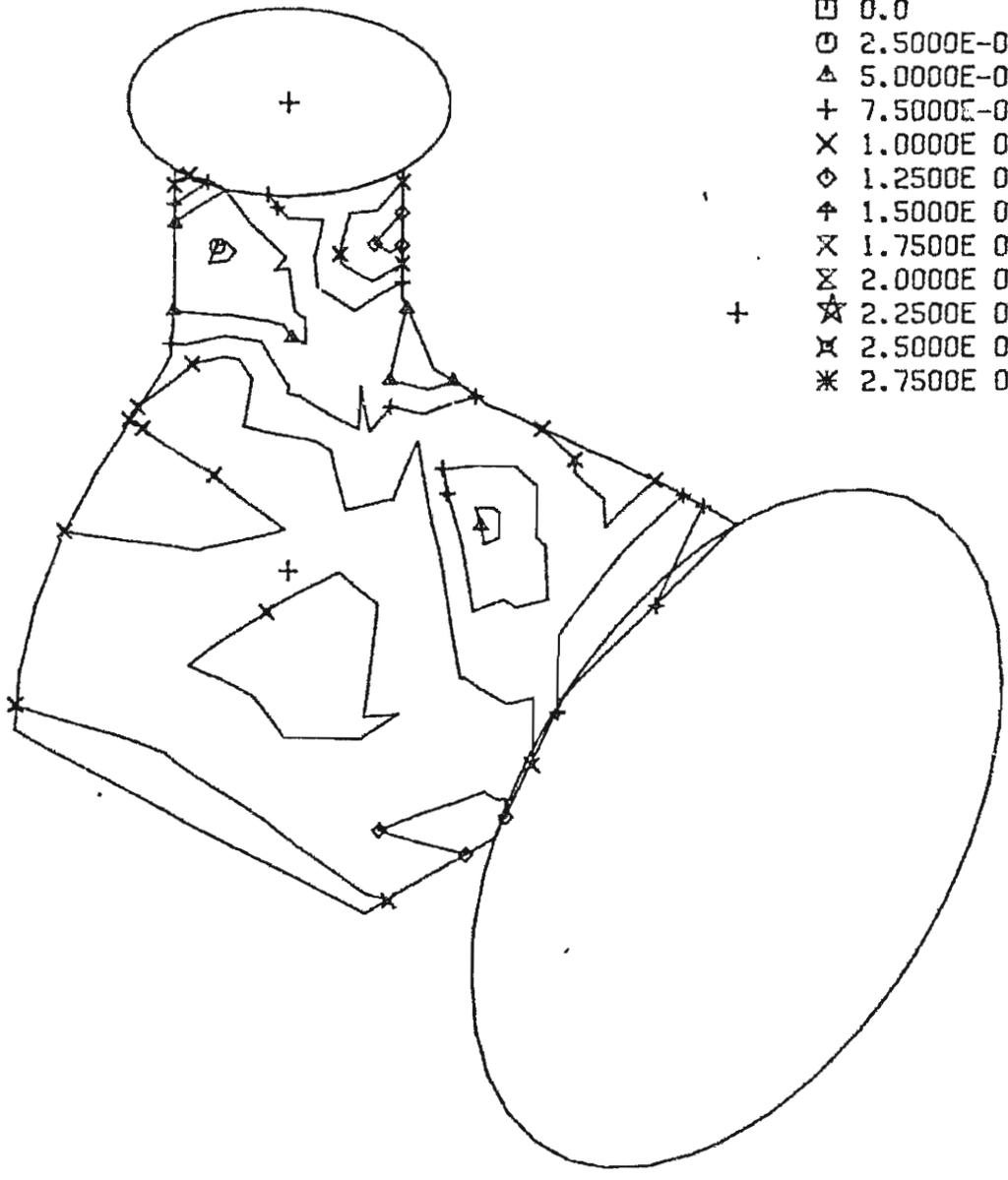


C.E. B16.9 T-13, F3Y

Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- × 1.0000E 00
- ◇ 1.2500E 00
- ⊕ 1.5000E 00
- ⊗ 1.7500E 00
- ⊘ 2.0000E 00
- + ☆ 2.2500E 00
- ⊗ 2.5000E 00
- * 2.7500E 00

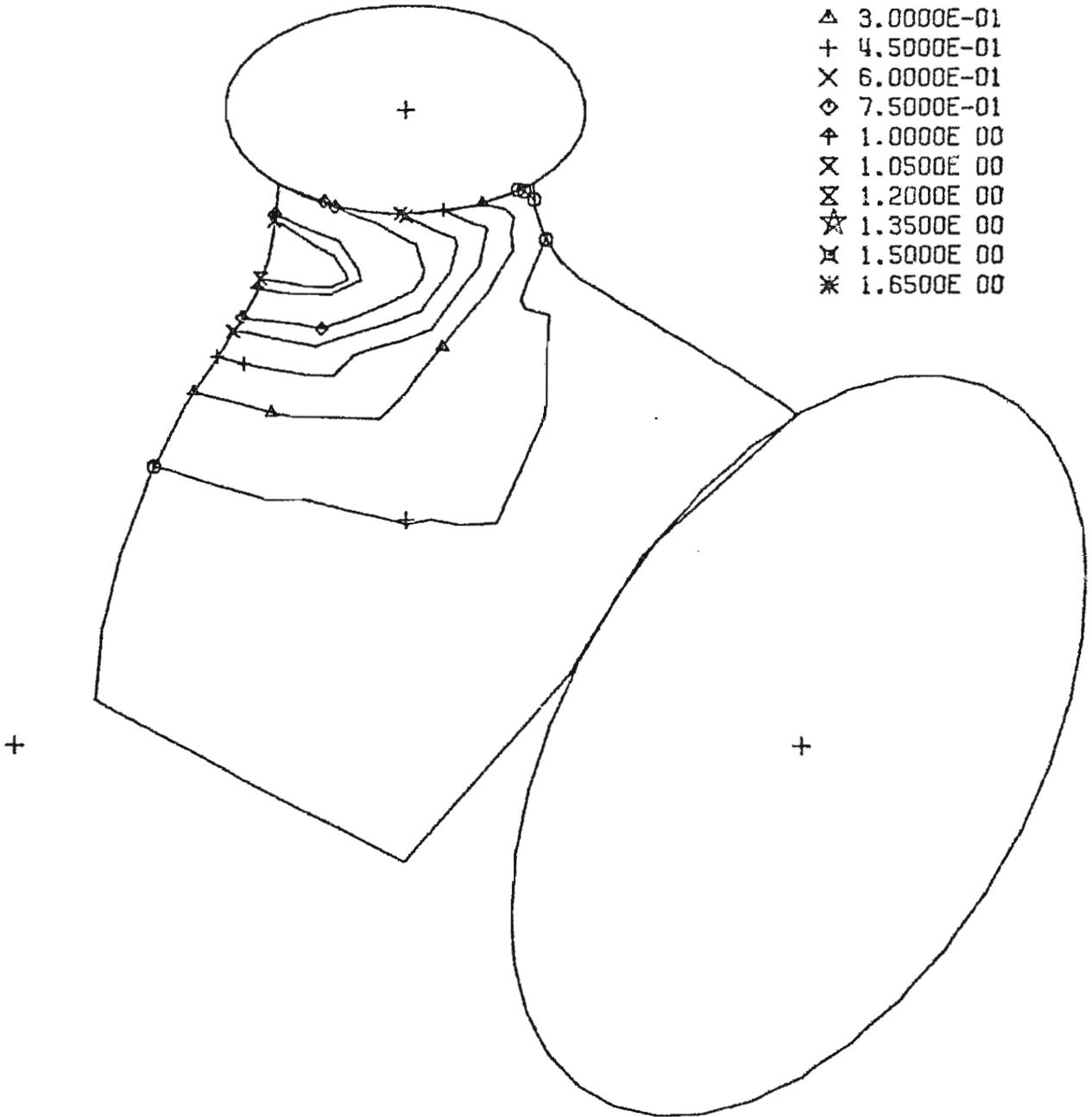


C.E. B16.9 ~ 13, F3Z

Top Outside Surface

CONTOUR VALUES

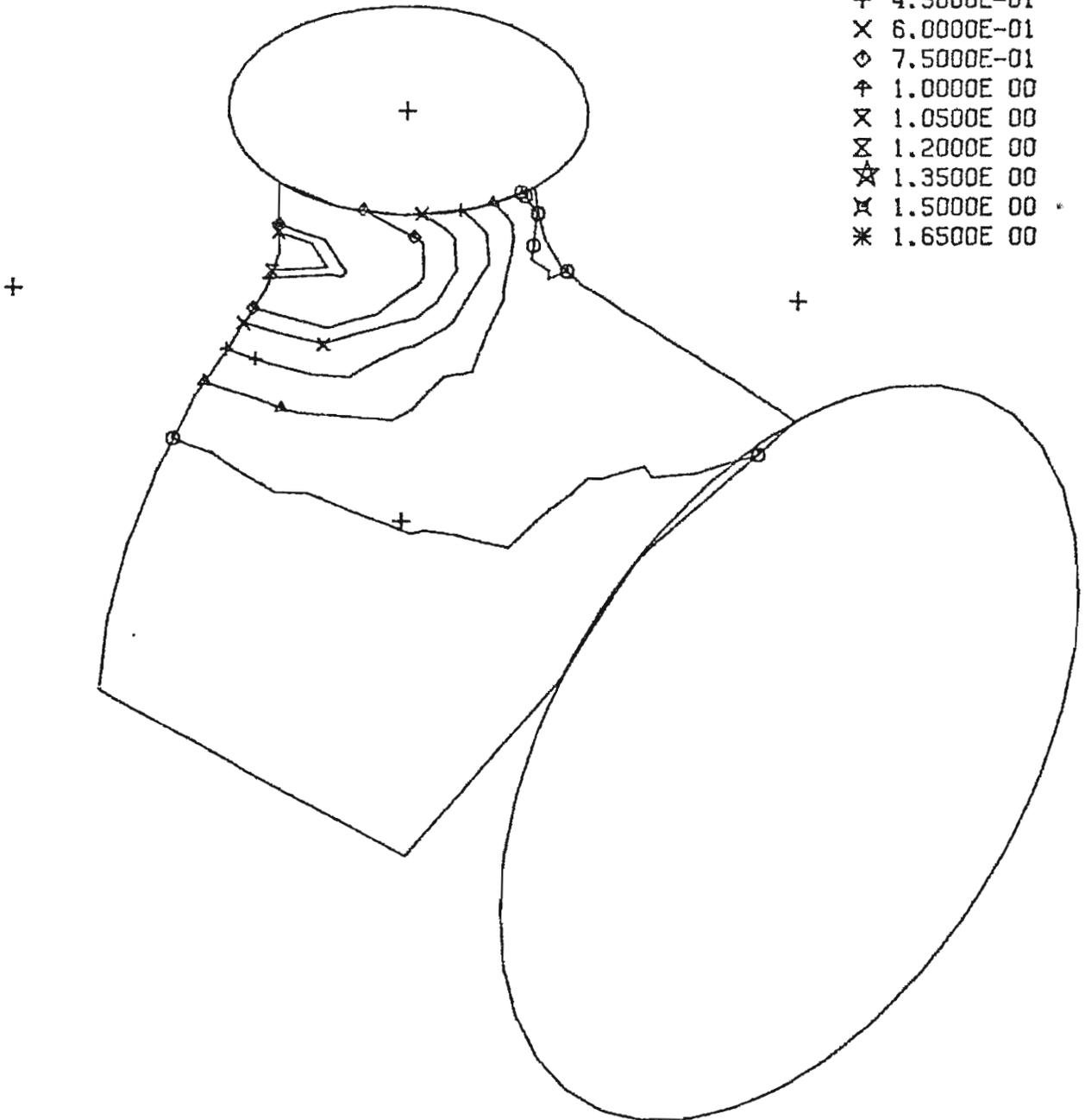
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- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ⊕ 1.0000E 00
- ⊗ 1.0500E 00
- ⊘ 1.2000E 00
- ☆ 1.3500E 00
- ⊗ 1.5000E 00
- * 1.6500E 00



C.E. B16.9 T-13, F3Z
Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ⊕ 1.0000E 00
- ⊗ 1.0500E 00
- ⊘ 1.2000E 00
- ☆ 1.3500E 00
- ⊗ 1.5000E 00
- * 1.6500E 00

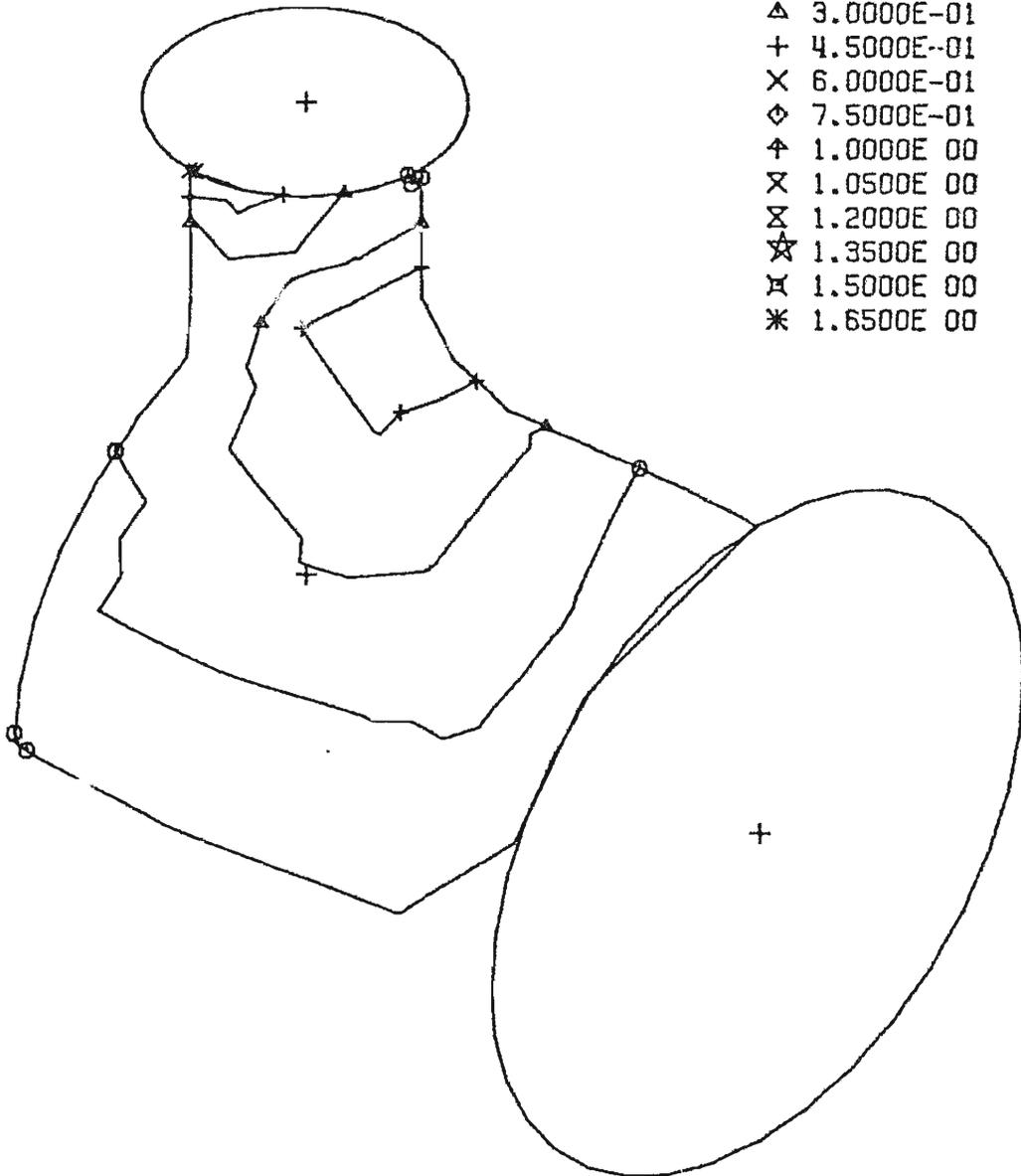


C.E. B16.9 T-13, F3Z

Top Inside Surface

CONTOUR VALUES

- 0.0
- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ↑ 1.0000E 00
- × 1.0500E 00
- ⊗ 1.2000E 00
- ☆ 1.3500E 00
- ⊗ 1.5000E 00
- * 1.6500E 00



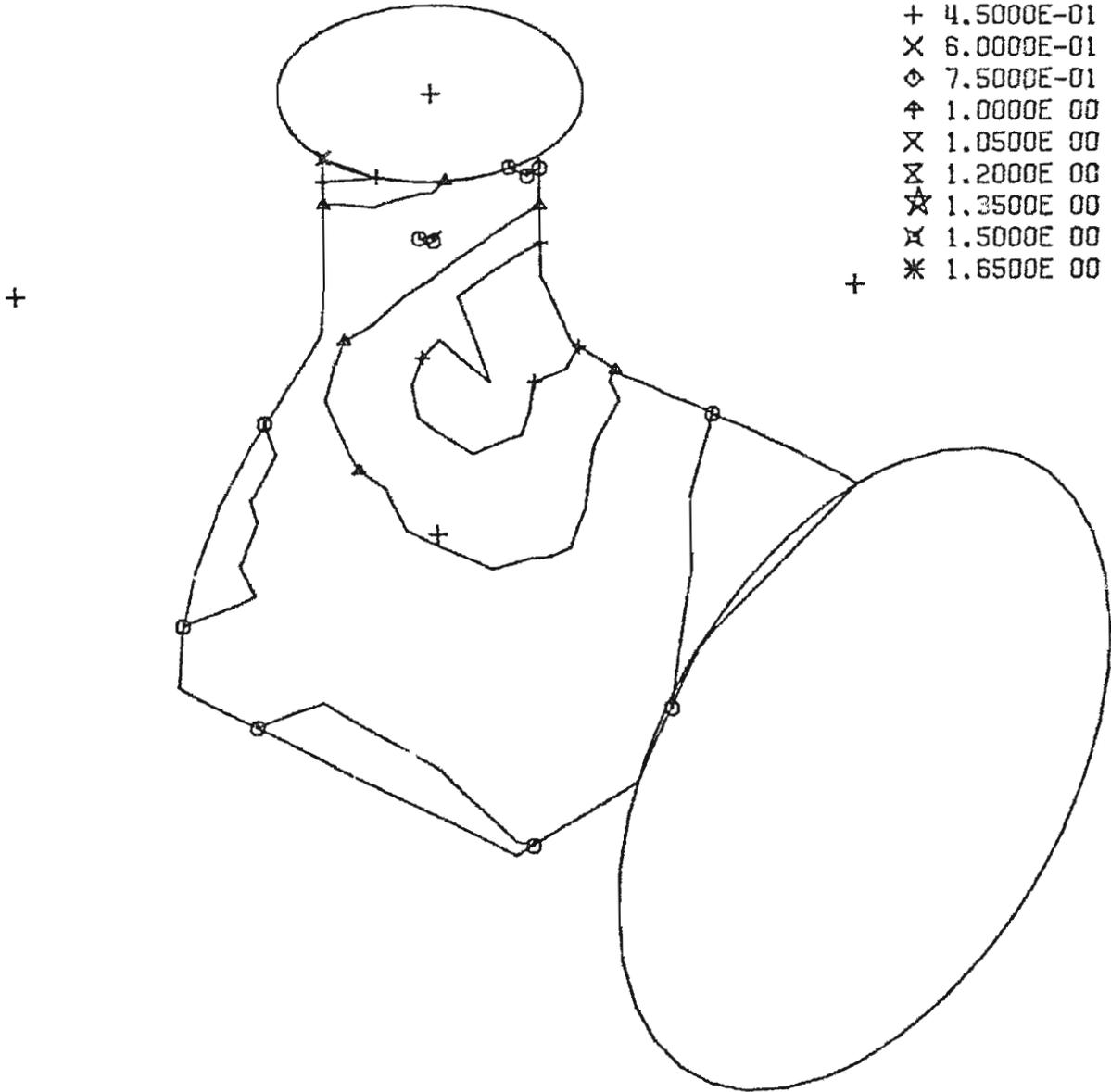
+

+

C.E. B16.9 T-13, F3Z
Bottom Inside Surface

CONTOUR VALUES

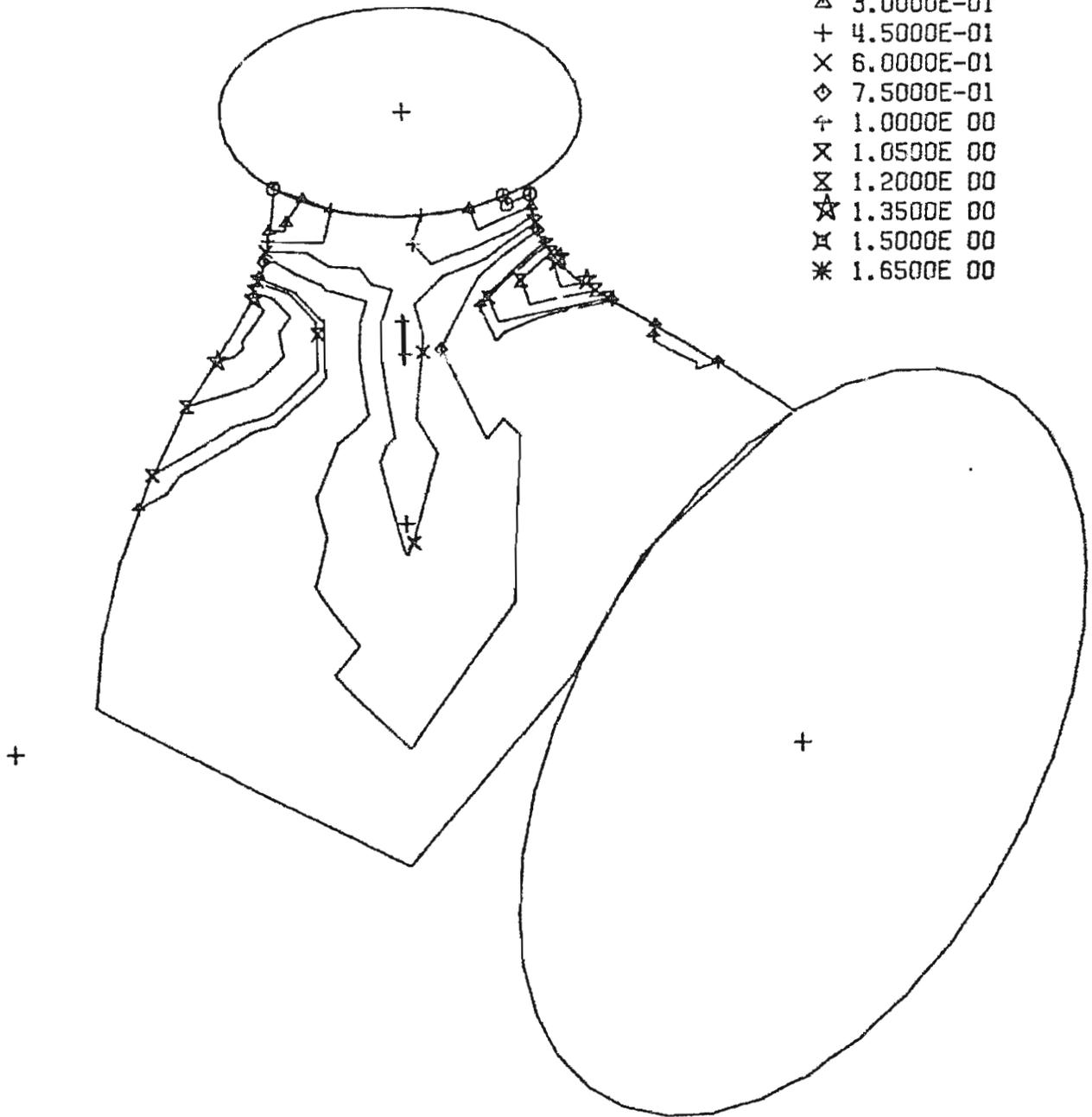
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- + 4.5000E-01
- X 6.0000E-01
- ◇ 7.5000E-01
- ⊕ 1.0000E 00
- ⊗ 1.0500E 00
- ⊘ 1.2000E 00
- ☆ 1.3500E 00
- ⊗ 1.5000E 00
- * 1.6500E 00



C.E. B16.9 T-13, M2X
Top Outside Surface

CONTOUR VALUES

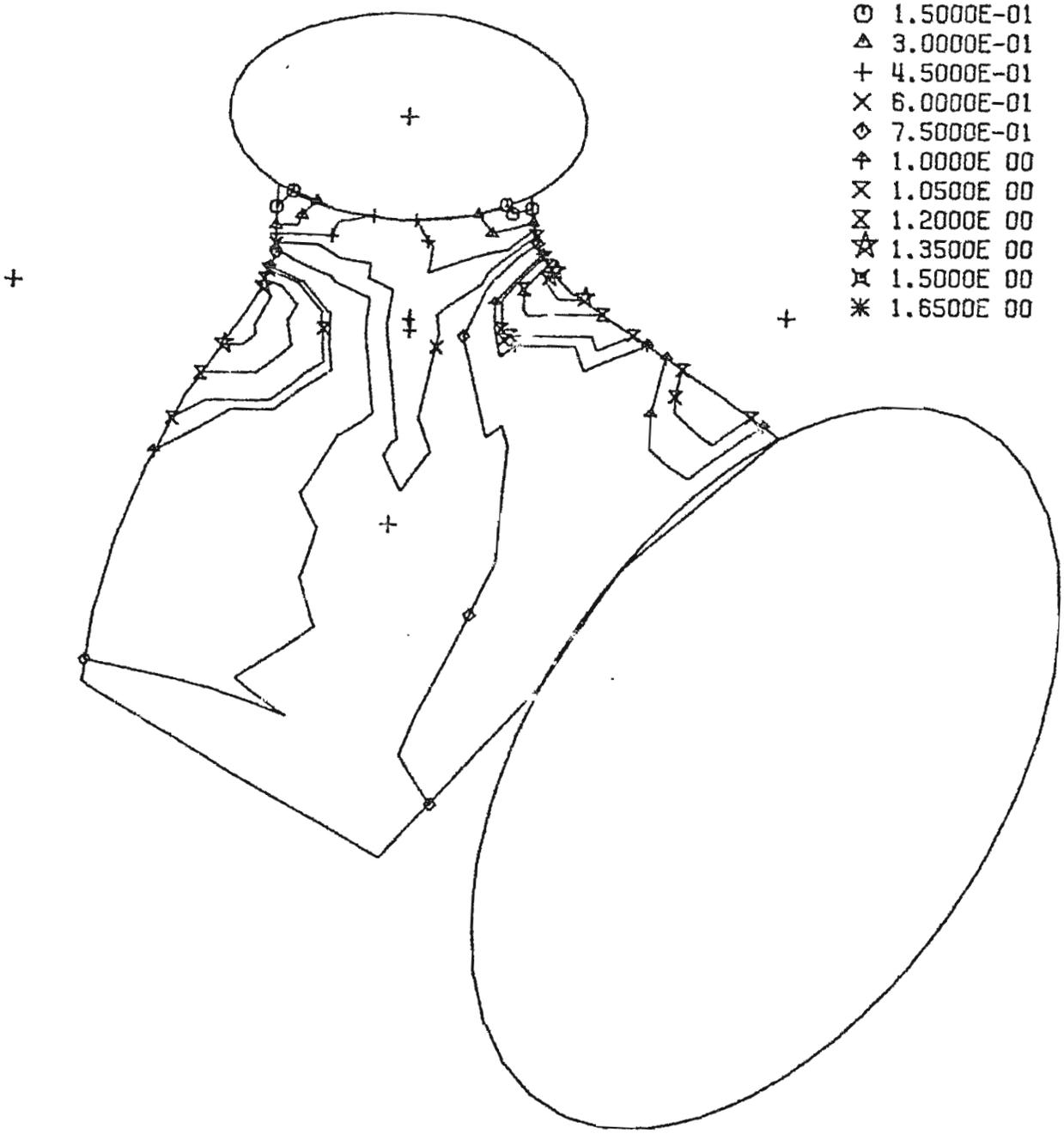
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- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ⊕ 1.0000E 00
- ⊗ 1.0500E 00
- ⊗ 1.2000E 00
- ☆ 1.3500E 00
- ⊗ 1.5000E 00
- * 1.6500E 00



C.E. B16.9 T-13, M2X
Bottom Outside Surface

CONTOUR VALUES

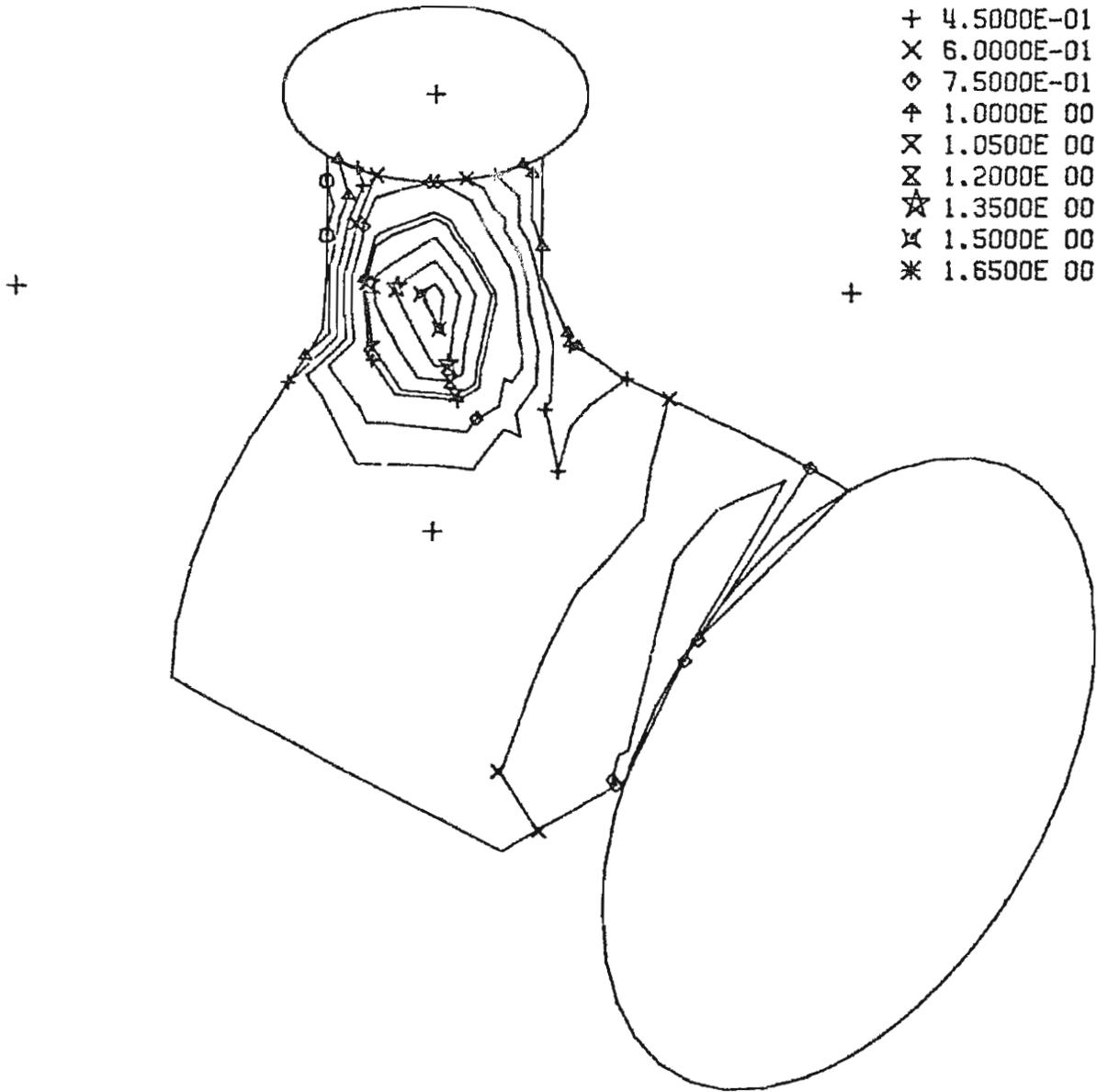
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- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ⊕ 1.0000E 00
- ⊗ 1.0500E 00
- ⊘ 1.2000E 00
- ☆ 1.3500E 00
- ⊗ 1.5000E 00
- * 1.6500E 00



C.E. B16.9 T-13, M2X
Bottom Inside Surface

CONTOUR VALUES

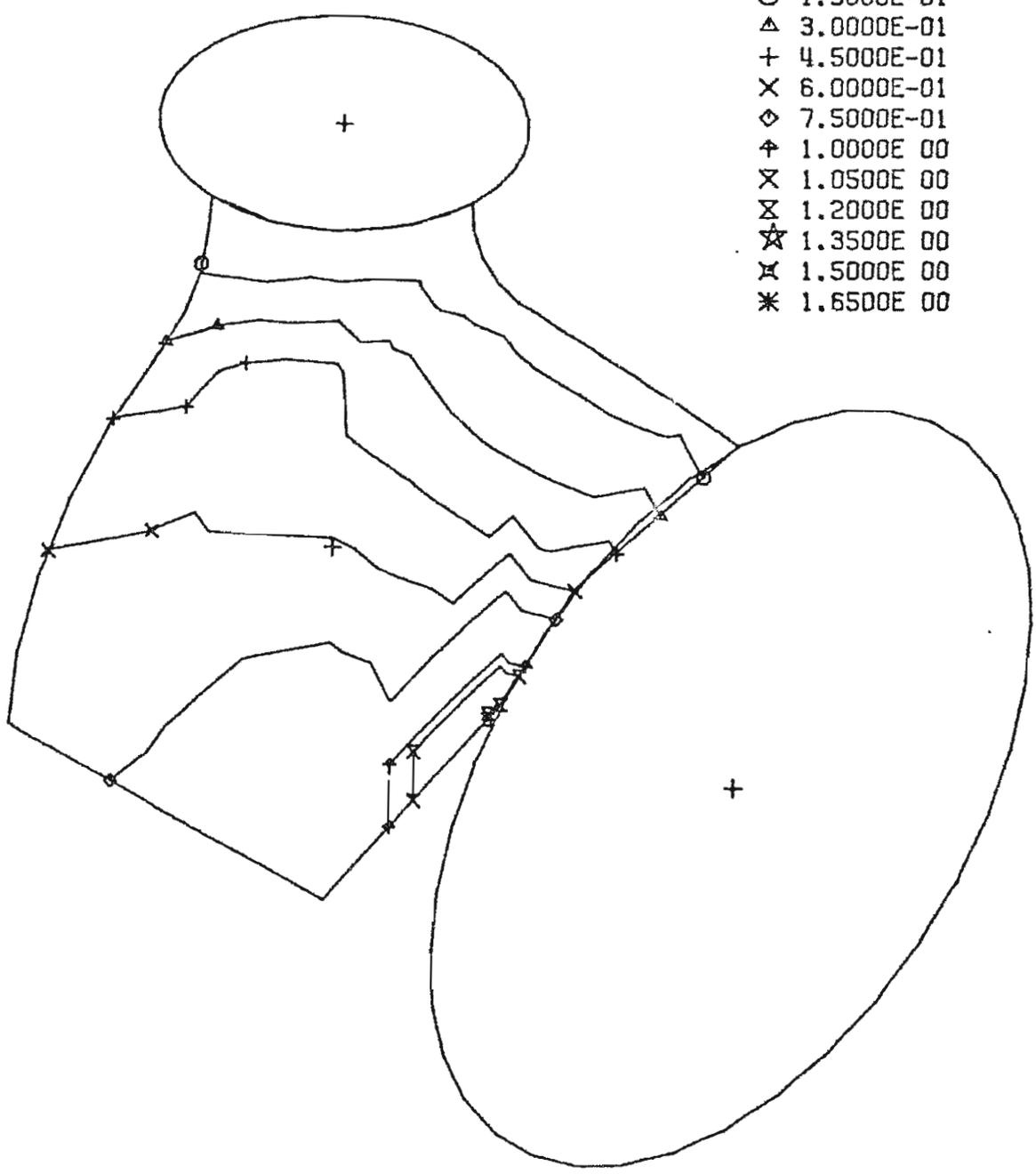
- 0.0
- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ⊕ 1.0000E 00
- ⊗ 1.0500E 00
- ⊘ 1.2000E 00
- ☆ 1.3500E 00
- ⊗ 1.5000E 00
- * 1.6500E 00



C.E. B16.9 T-13, M2Y
Top Outside Surface

CONTOUR VALUES

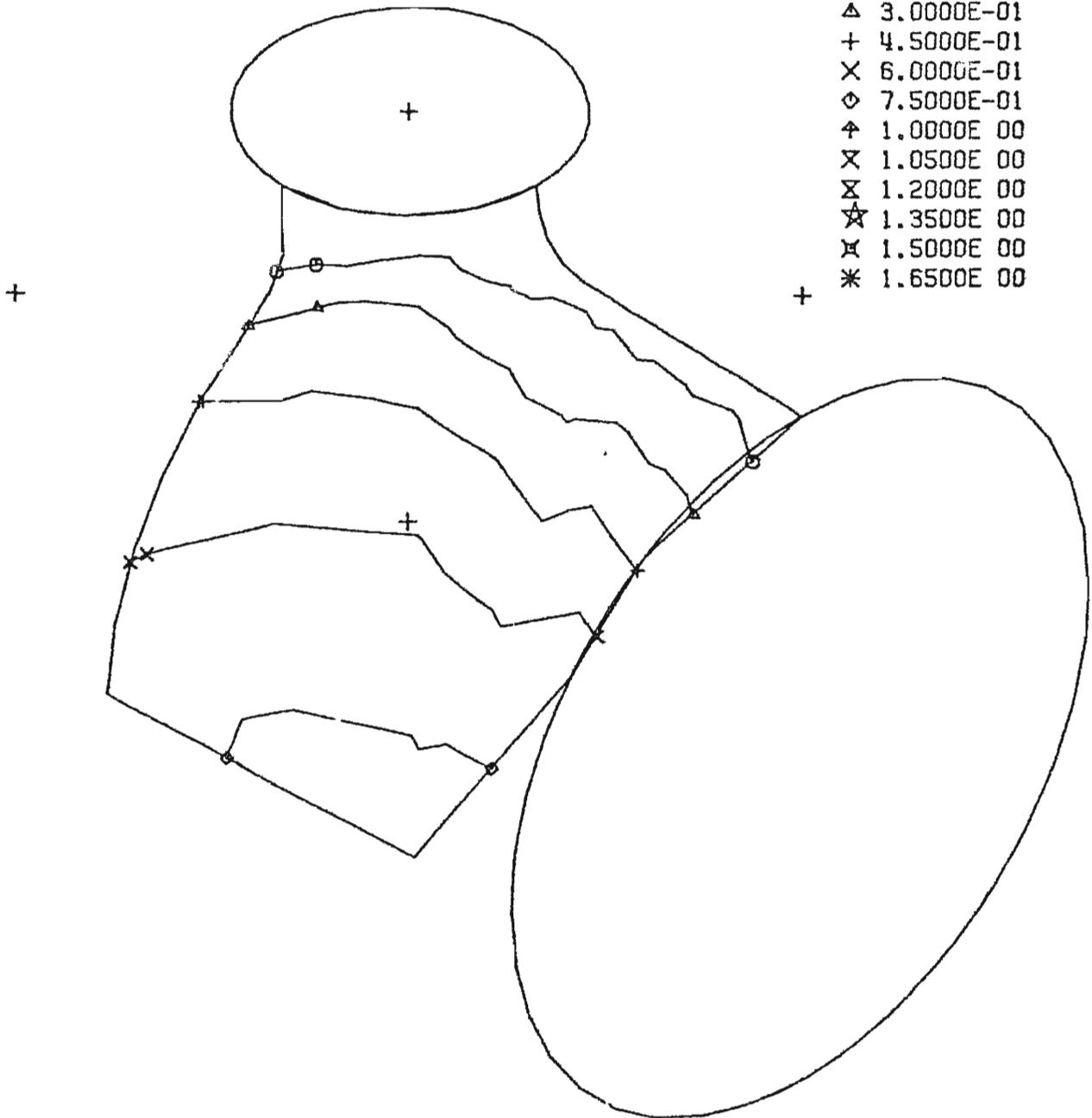
- 0.0
- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ⊕ 1.0000E 00
- ⊗ 1.0500E 00
- ⊘ 1.2000E 00
- ☆ 1.3500E 00
- ⊗ 1.5000E 00
- * 1.6500E 00



C.E. B16.9 T-13, M2Y
Bottom Outside Surface

CONTOUR VALUES

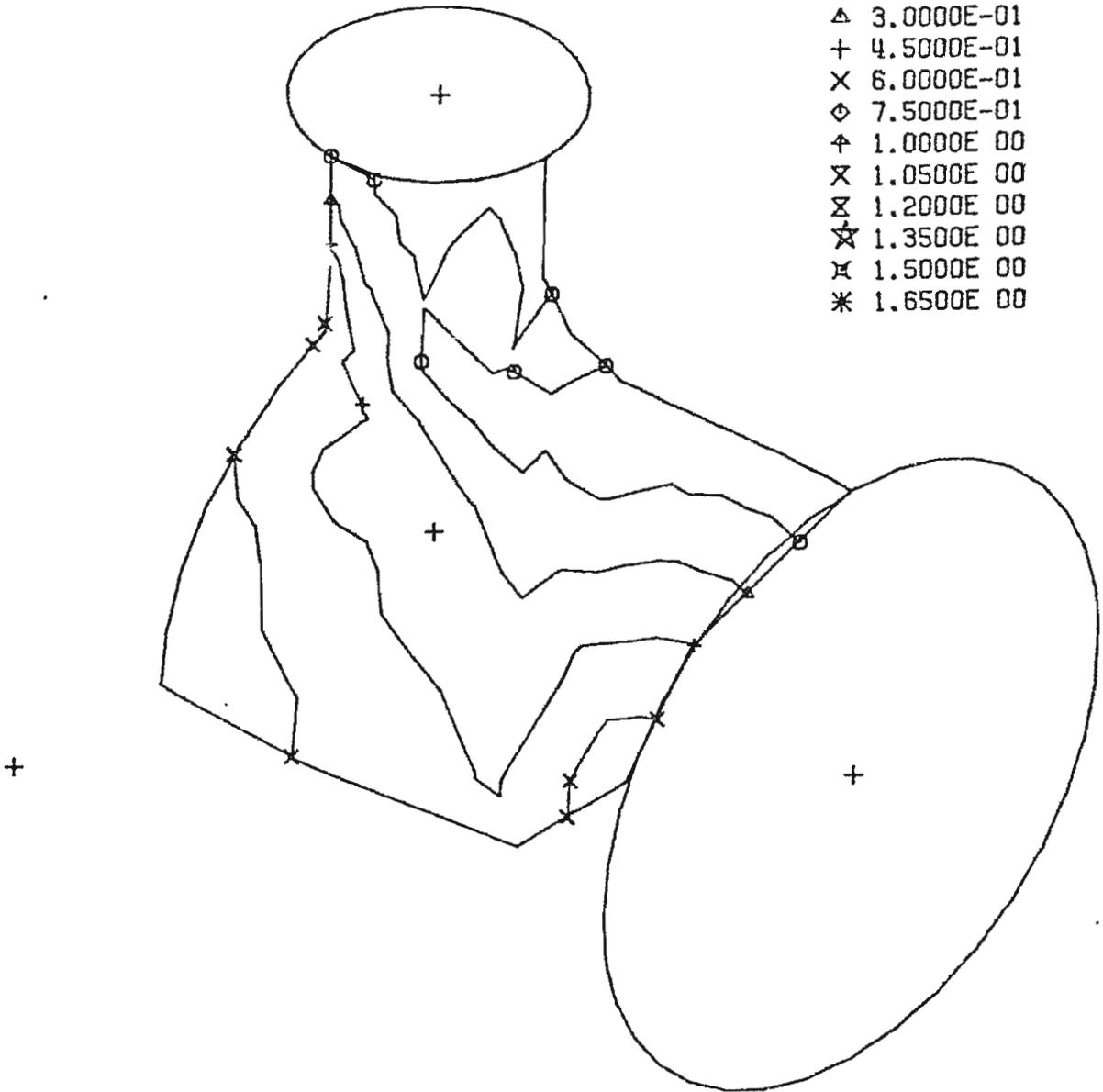
- 0.0
- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ⊕ 1.0000E 00
- ⊗ 1.0500E 00
- ⊗ 1.2000E 00
- ☆ 1.3500E 00
- ⊗ 1.5000E 00
- * 1.6500E 00



C.E. B16.9 T-13, M2Y
Top Inside Surface

CONTOUR VALUES

- 0.0
- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ⊕ 1.0000E 00
- ⊗ 1.0500E 00
- ⊗ 1.2000E 00
- ☆ 1.3500E 00
- ⊗ 1.5000E 00
- * 1.6500E 00

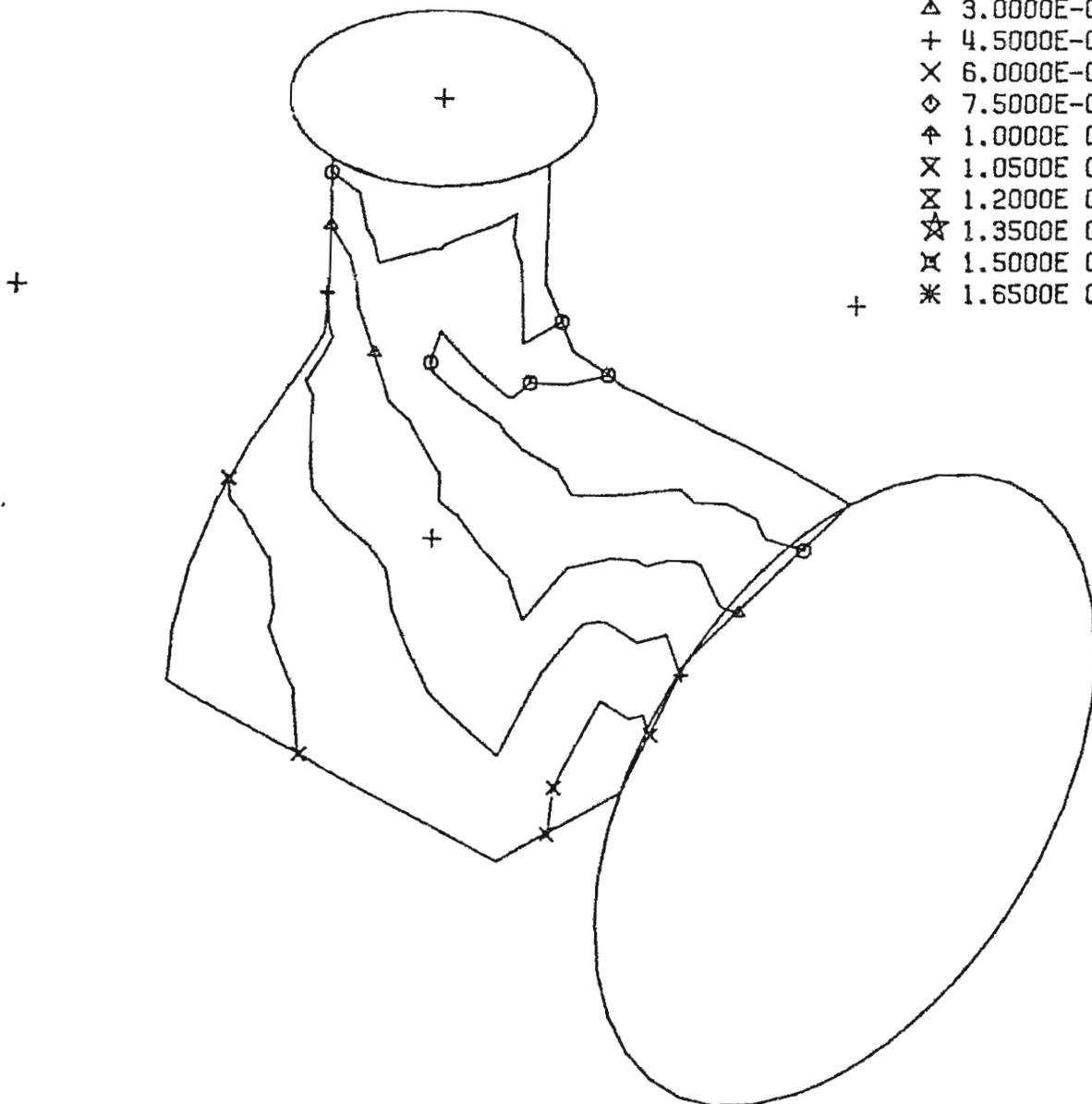


C.E. B16.9 T-13, M2Y

Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 1.5000E-01
- △ 3.0000E-01
- + 4.5000E-01
- × 6.0000E-01
- ◇ 7.5000E-01
- ⋈ 1.0000E 00
- × 1.0500E 00
- ⊗ 1.2000E 00
- ☆ 1.3500E 00
- ⋈ 1.5000E 00
- * 1.6500E 00

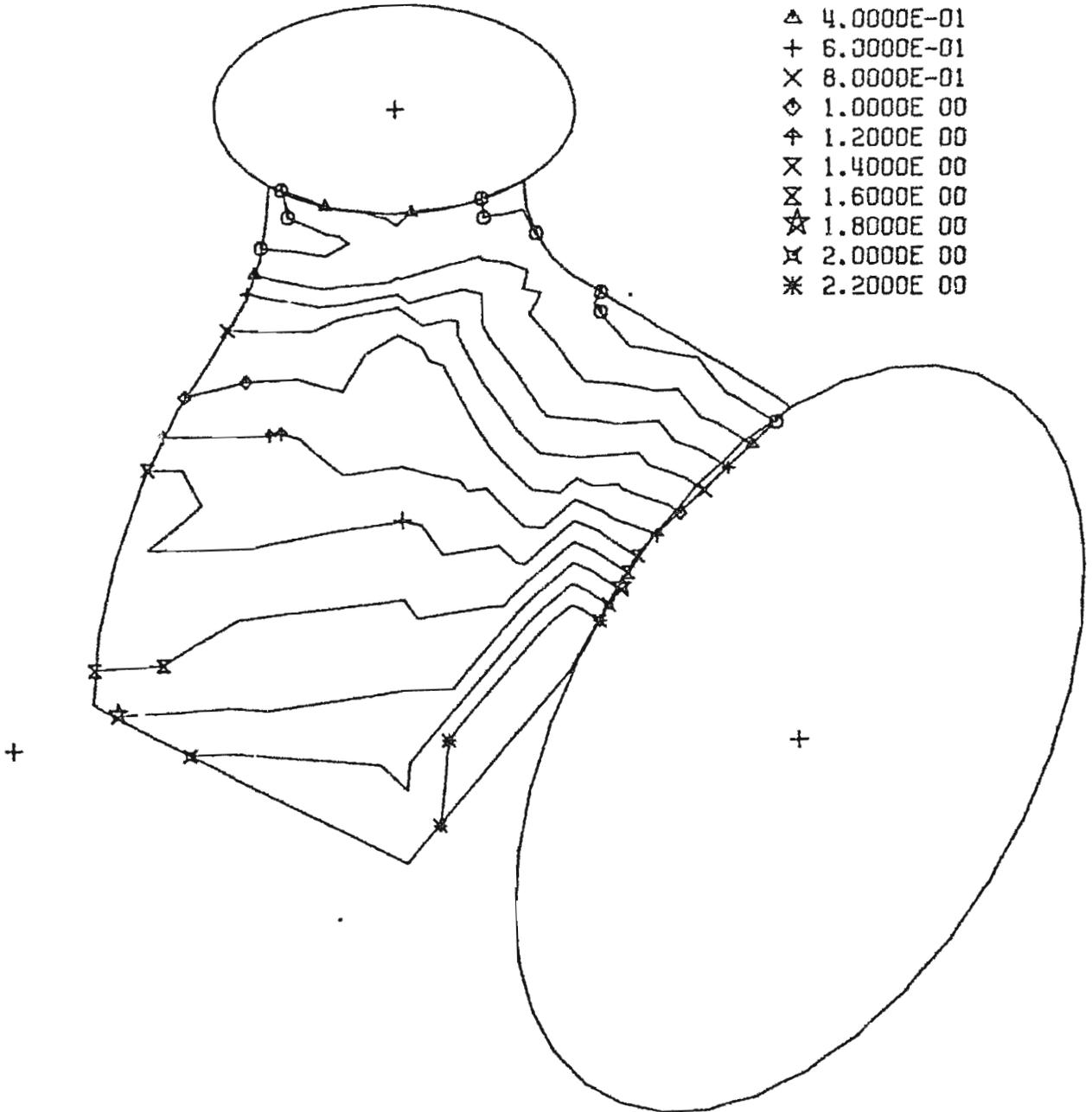


C.E. B16.9 T-13, M2Z

Top Outside Surface

CONTOUR VALUES

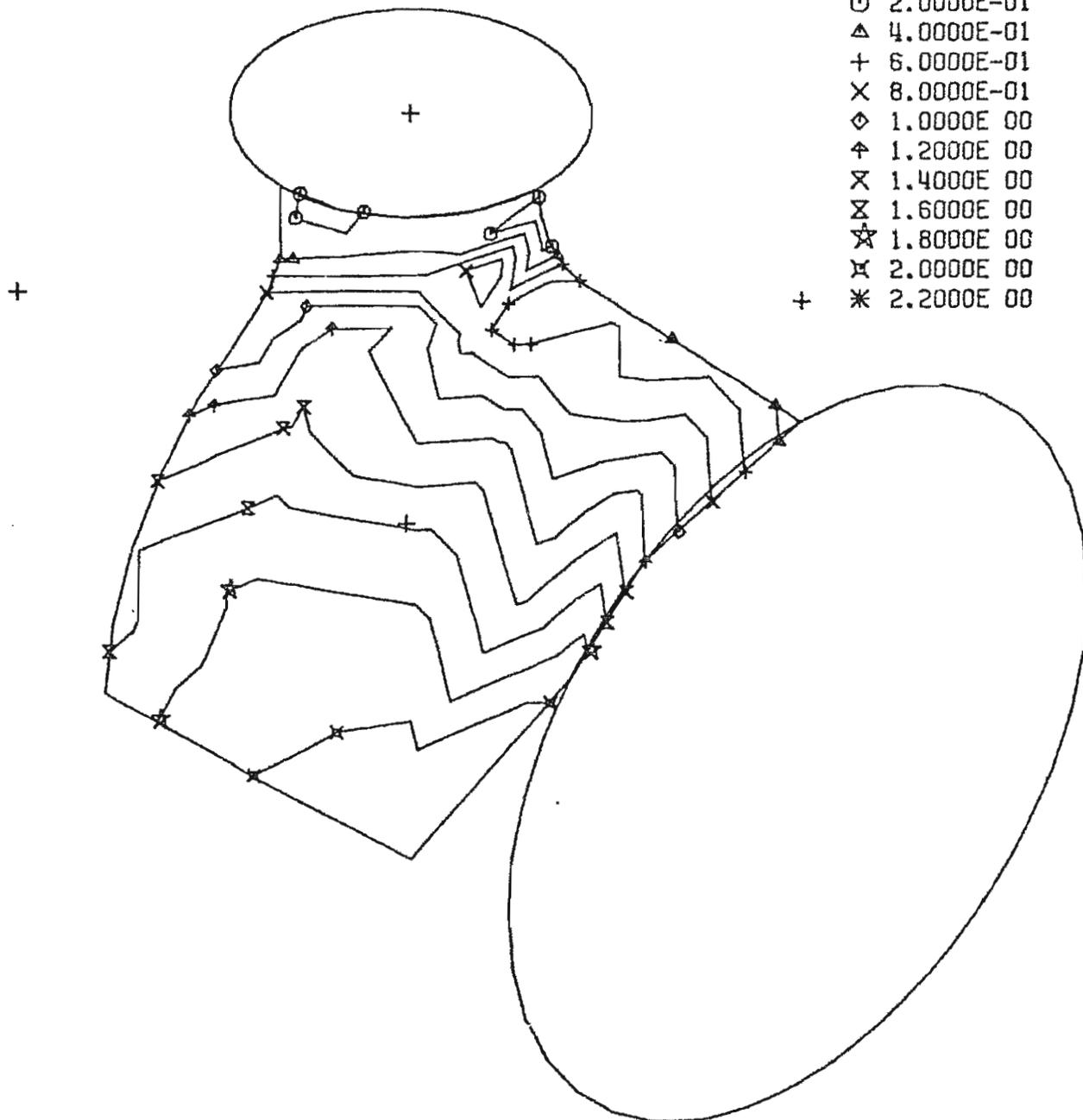
- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⊕ 1.2000E 00
- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
- ☆ 1.8000E 00
- ⊗ 2.0000E 00
- * 2.2000E 00



C.E. B16.9 T-13, M2Z
Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- X 8.0000E-01
- ◇ 1.0000E 00
- ⋈ 1.2000E 00
- X 1.4000E 00
- Σ 1.6000E 00
- ☆ 1.8000E 00
- ⊗ 2.0000E 00
- * 2.2000E 00

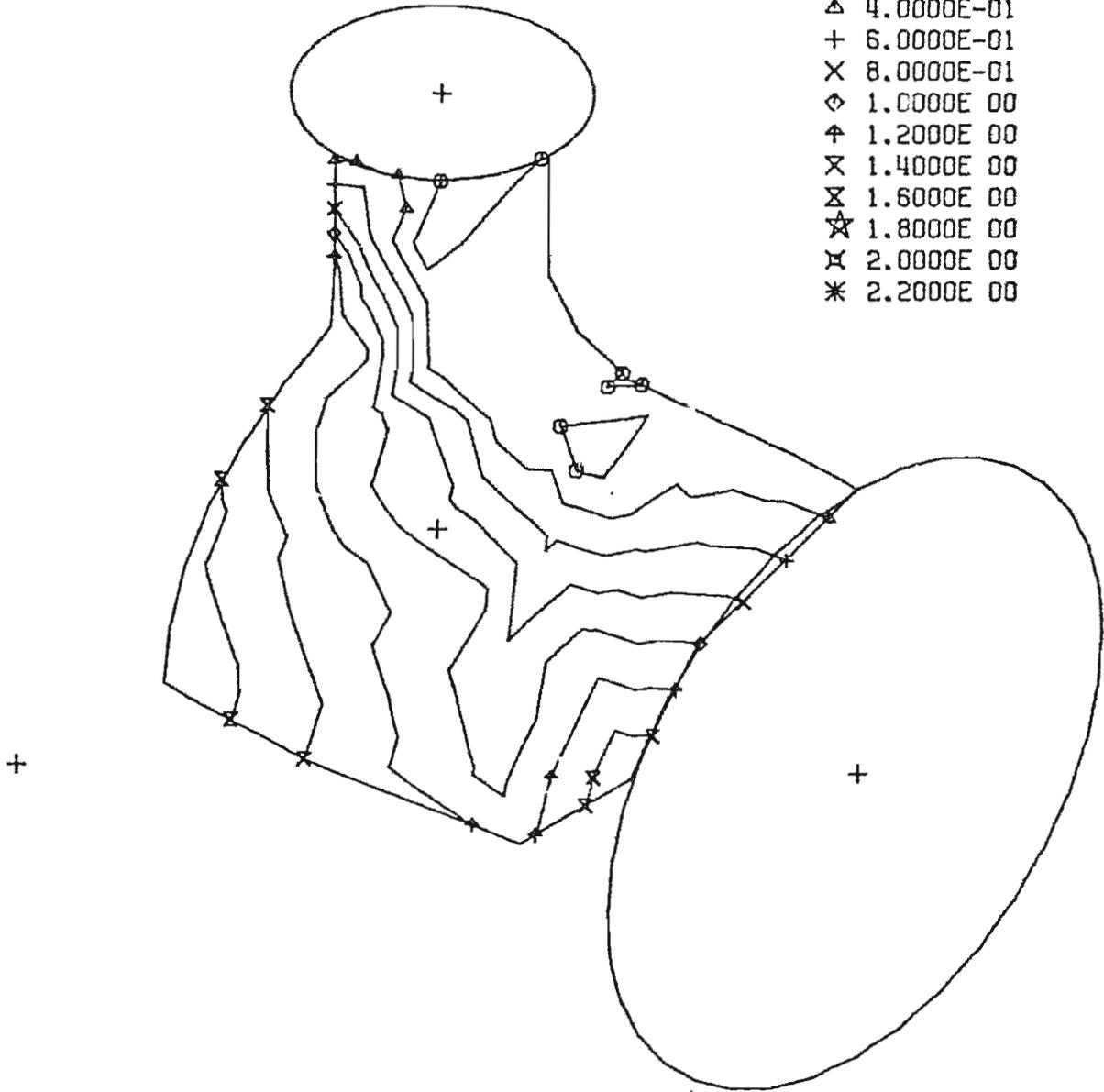


C.E. B16.9 T-13, M2Z

Top Inside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- X 8.0000E-01
- ◇ 1.0000E 00
- ⊕ 1.2000E 00
- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
- ☆ 1.8000E 00
- ⊗ 2.0000E 00
- * 2.2000E 00

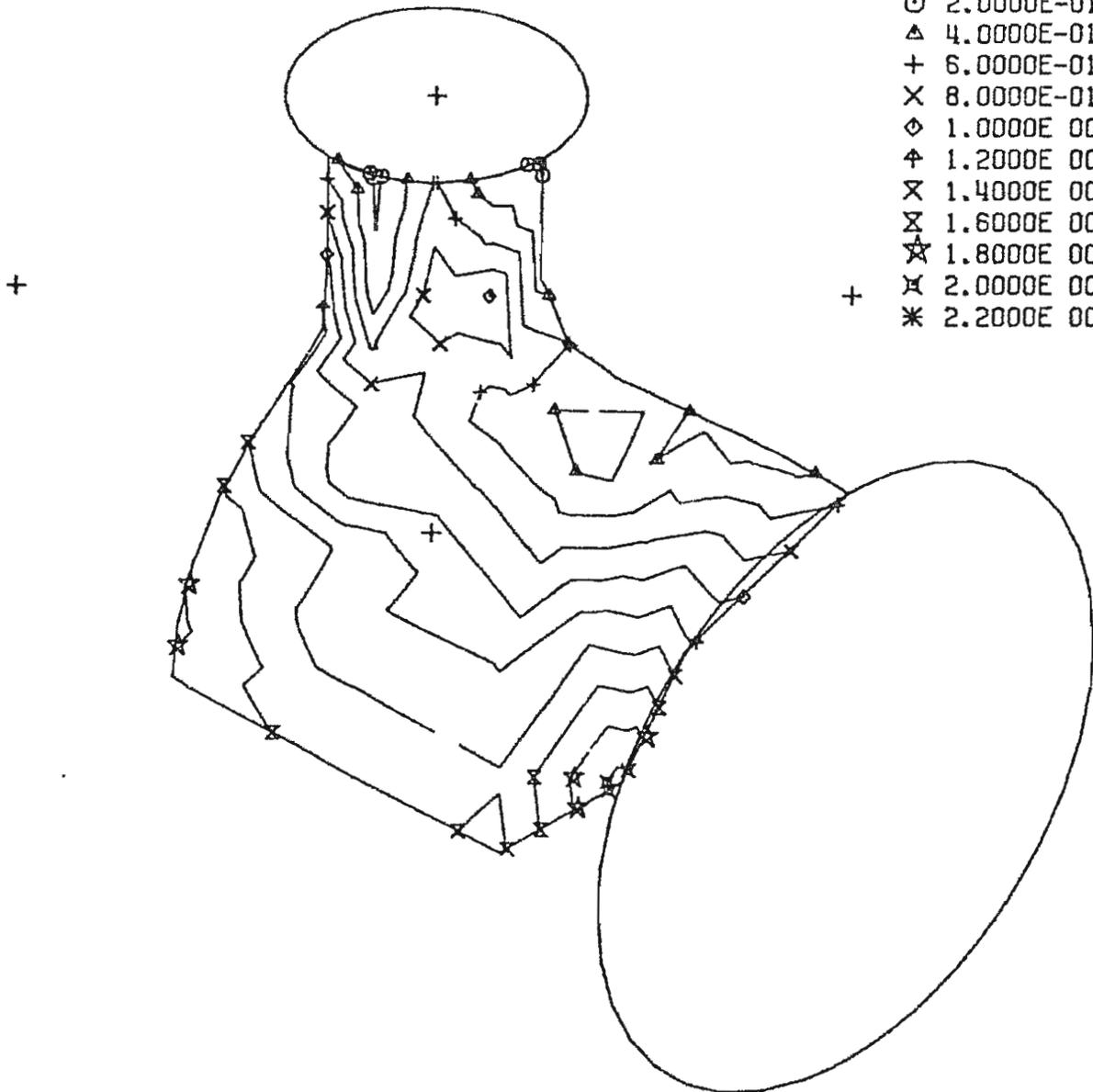


C.E. B16.9 T-13, M2Z

Bottom Inside Surface

CONTOUR VALUES

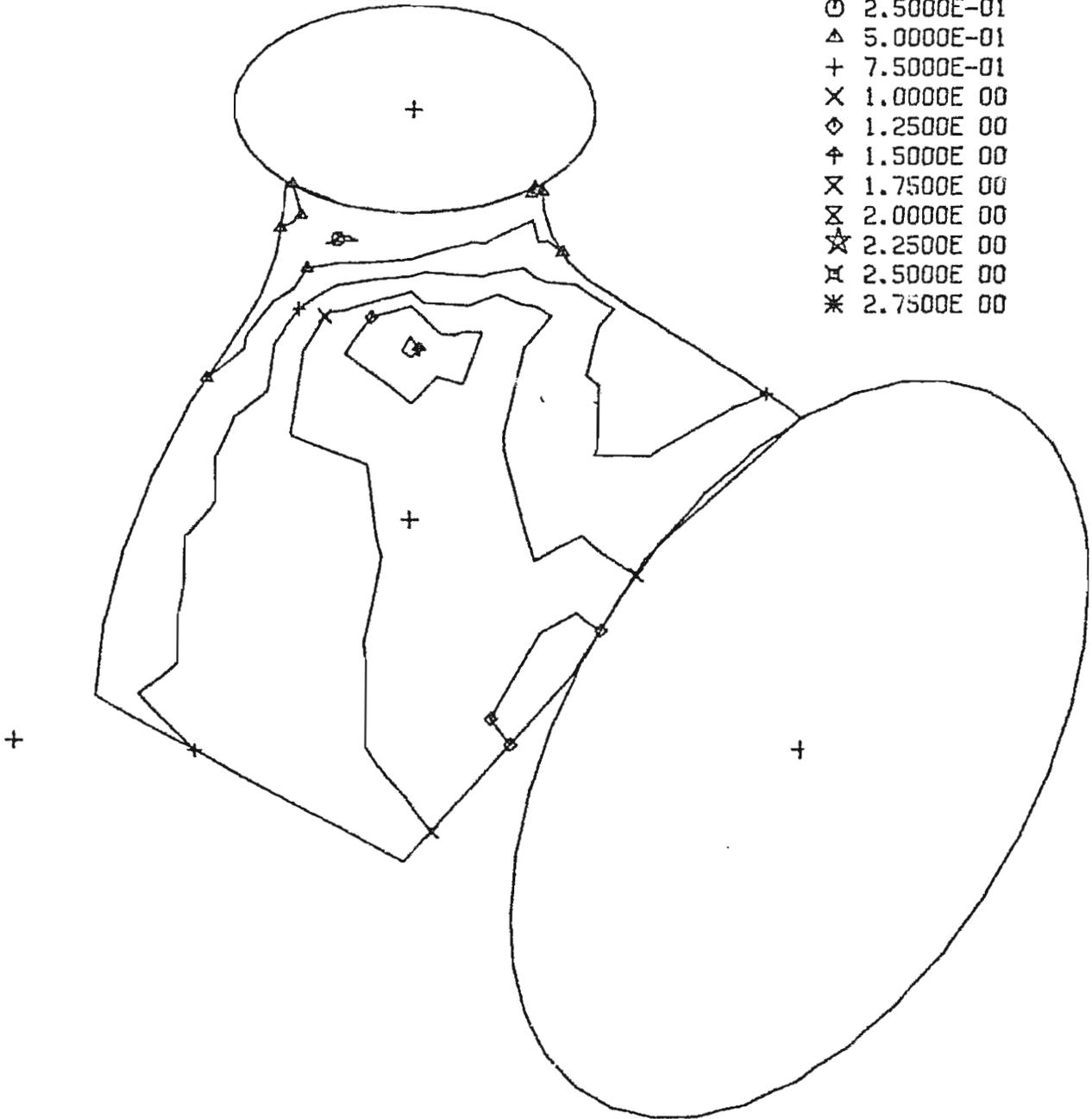
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○	2.0000E-01
△	4.0000E-01
+	6.0000E-01
X	8.0000E-01
◇	1.0000E 00
⊕	1.2000E 00
⊗	1.4000E 00
⊘	1.6000E 00
☆	1.8000E 00
⊗	2.0000E 00
*	2.2000E 00



C.E. B16.9 T-13, F2X
Top Outside Surface

CONTOUR VALUES

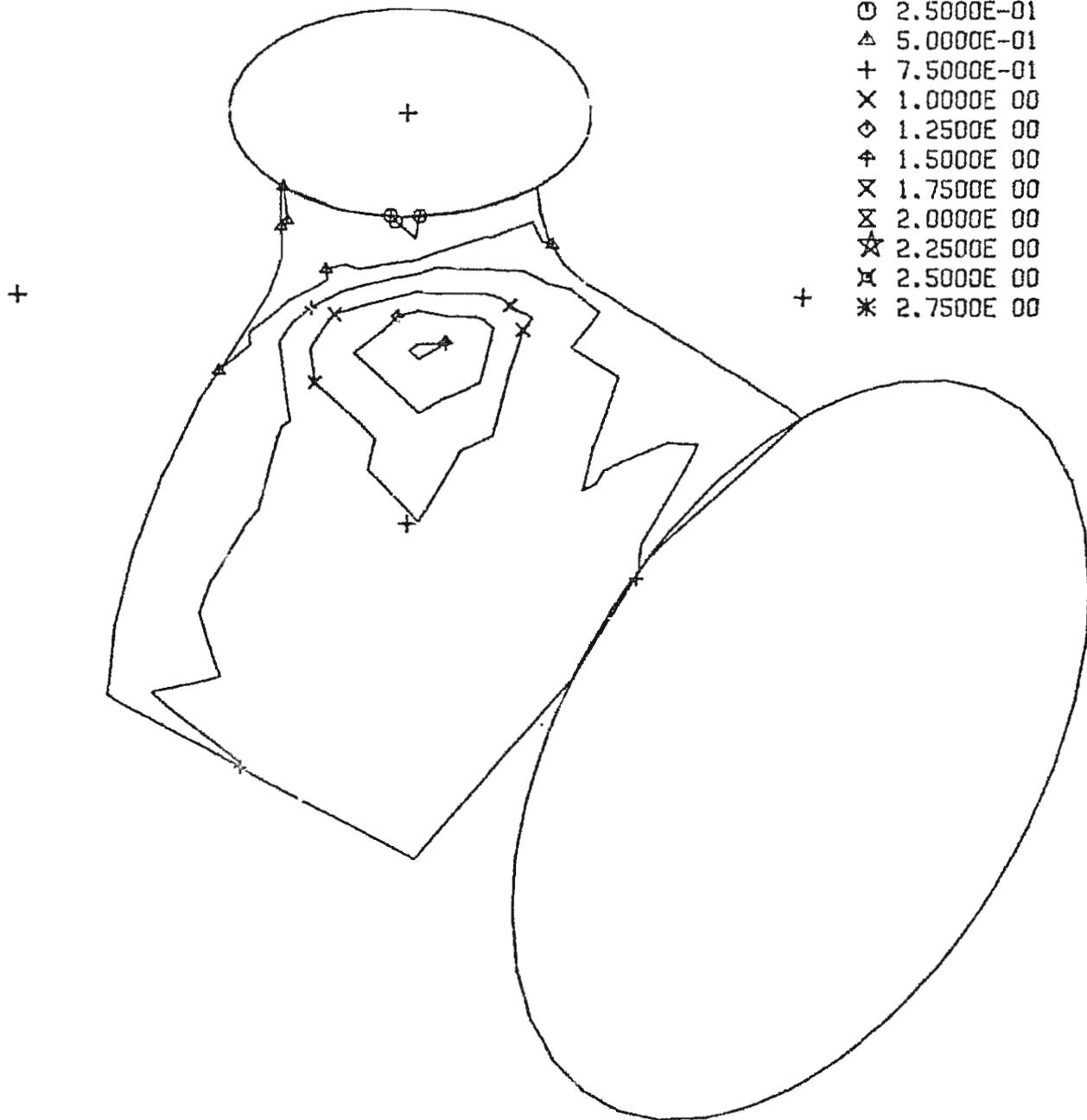
- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- × 1.0000E 00
- ◇ 1.2500E 00
- † 1.5000E 00
- × 1.7500E 00
- ⊗ 2.0000E 00
- ☆ 2.2500E 00
- ⊗ 2.5000E 00
- * 2.7500E 00



C.E. B16.9 T-13, F2X
Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- × 1.0000E 00
- ◇ 1.2500E 00
- ⊕ 1.5000E 00
- ⊗ 1.7500E 00
- ⊗ 2.0000E 00
- ☆ 2.2500E 00
- ⊗ 2.5000E 00
- * 2.7500E 00

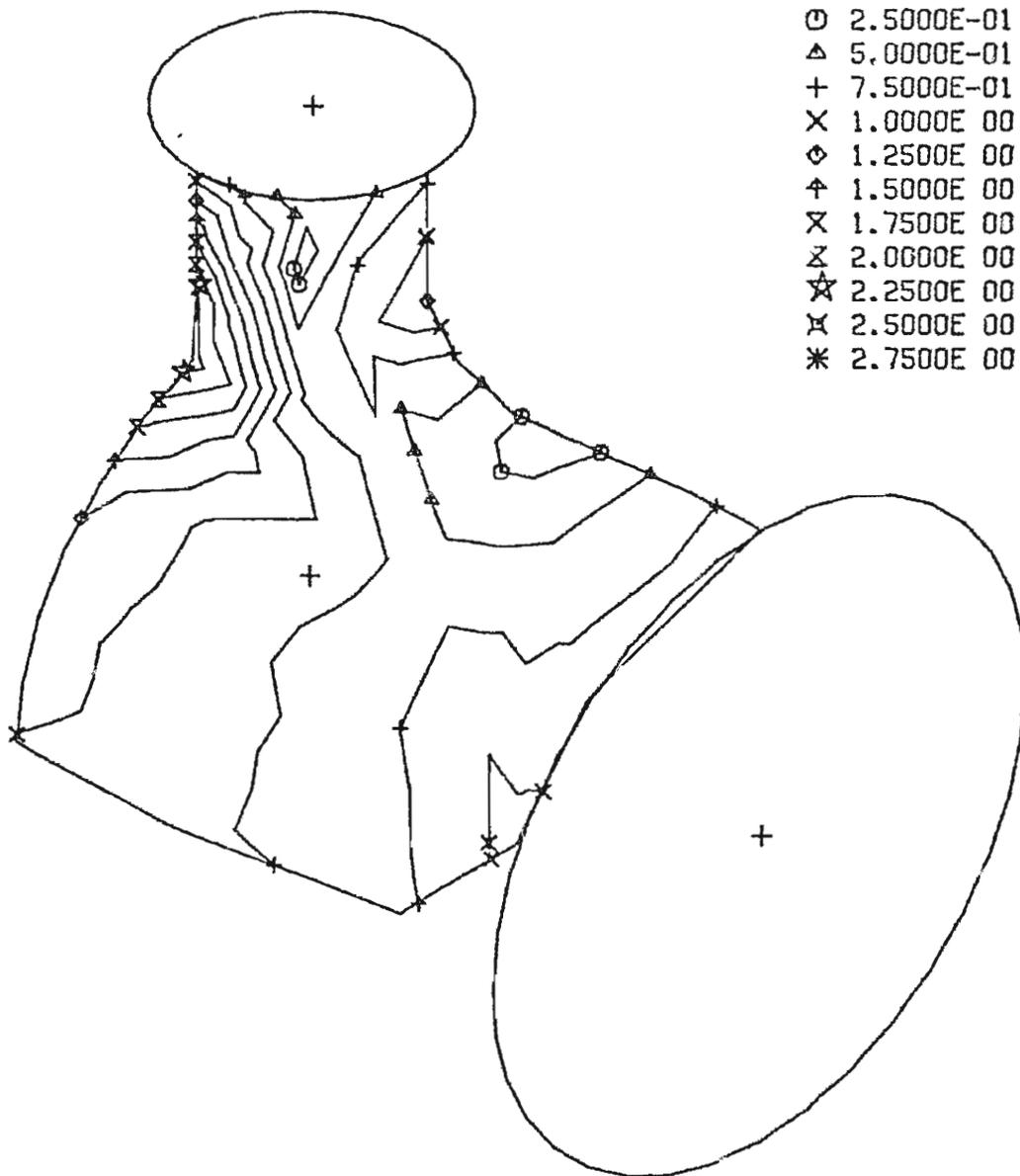


C.E. B16.9 T-13, F2X

Top Inside Surface

CONTOUR VALUES

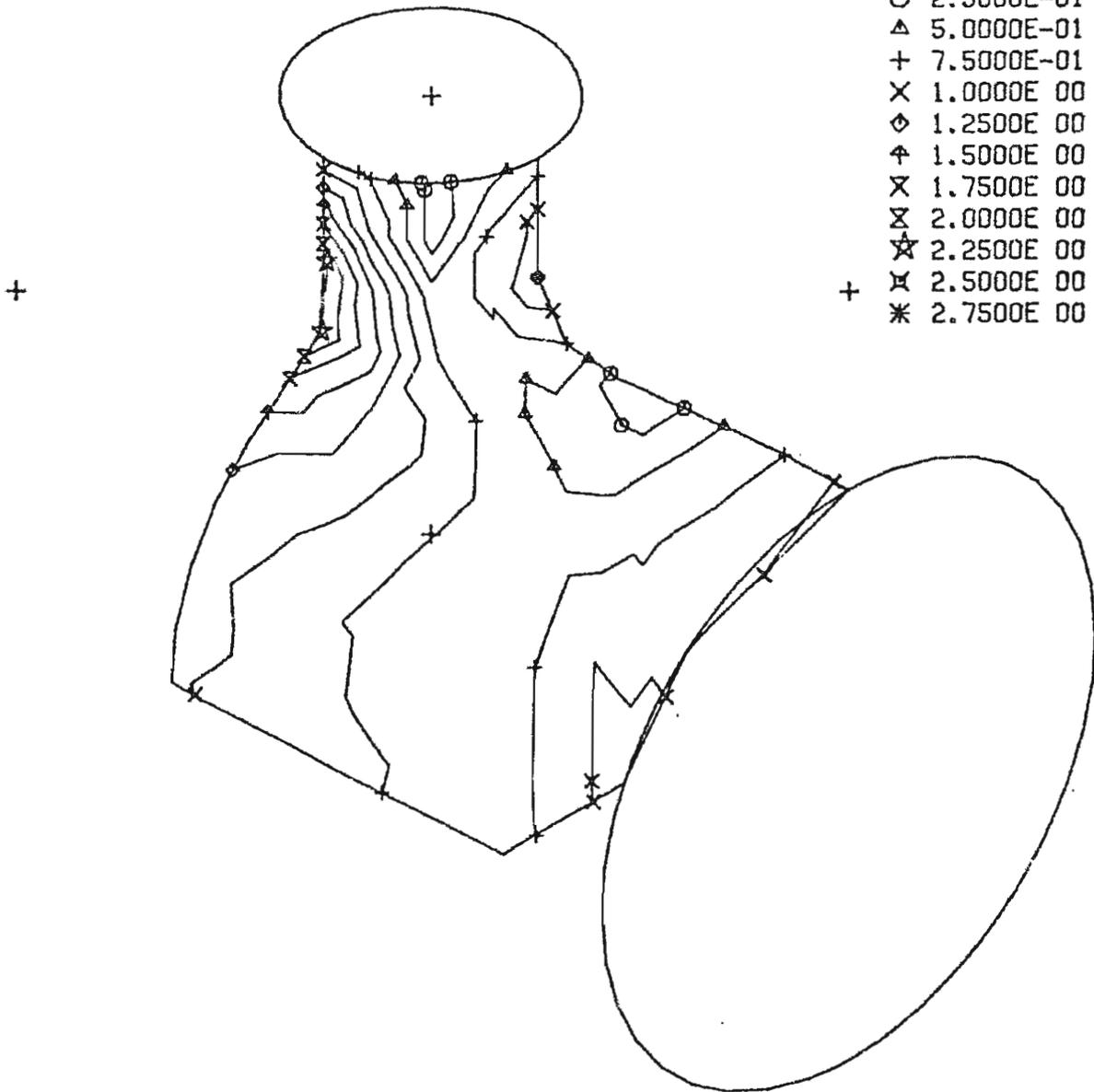
- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- × 1.0000E 00
- ◇ 1.2500E 00
- ⊕ 1.5000E 00
- ⊗ 1.7500E 00
- ⊘ 2.0000E 00
- ☆ 2.2500E 00
- ⊗ 2.5000E 00
- * 2.7500E 00



C.E. B16.9 T-13, F2X
Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- × 1.0000E 00
- ◇ 1.2500E 00
- ⊕ 1.5000E 00
- ⊗ 1.7500E 00
- ⊗ 2.0000E 00
- ☆ 2.2500E 00
- + 2.5000E 00
- * 2.7500E 00

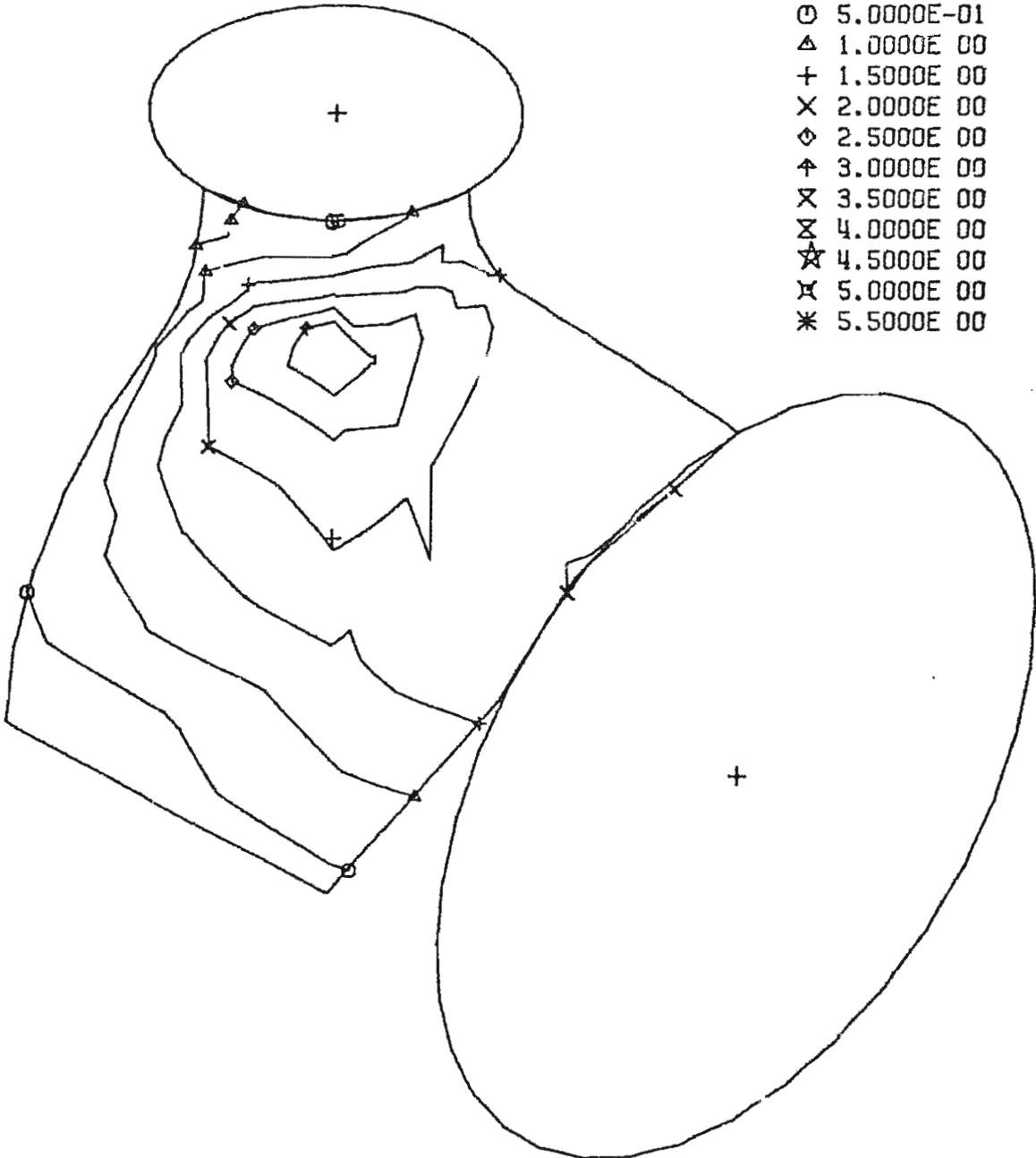


C.E. B16.9 T-13, F2Y

Top Outside Surface

CONTOUR VALUES

- 0.0
- 5.0000E-01
- △ 1.0000E 00
- + 1.5000E 00
- × 2.0000E 00
- ◇ 2.5000E 00
- ⋈ 3.0000E 00
- ⋈ 3.5000E 00
- ⋈ 4.0000E 00
- ☆ 4.5000E 00
- ⋈ 5.0000E 00
- * 5.5000E 00

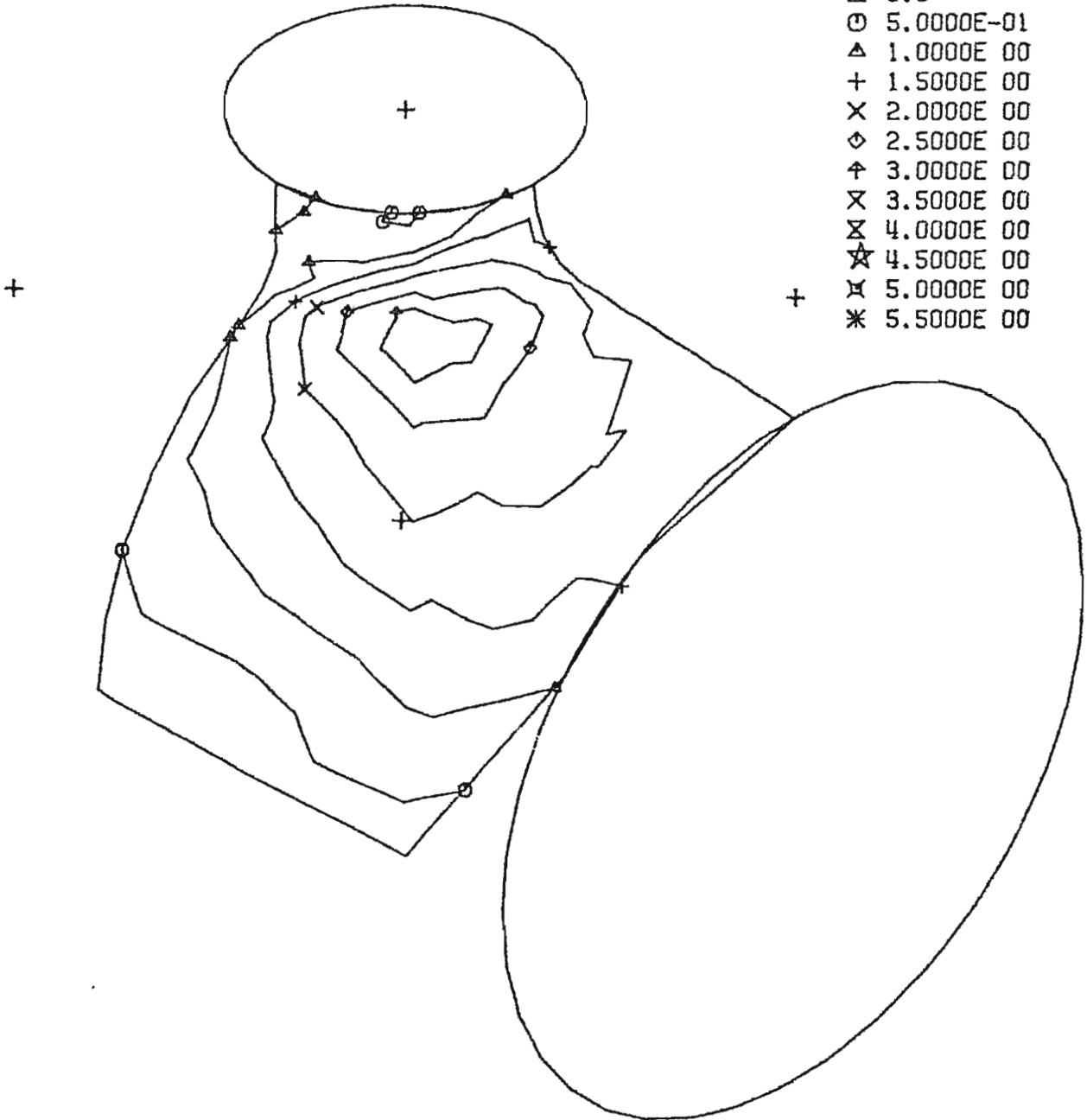


C.E. B16.9 T-13, F2Y

Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 5.0000E-01
- △ 1.0000E 00
- + 1.5000E 00
- × 2.0000E 00
- ◇ 2.5000E 00
- ⋈ 3.0000E 00
- ⊗ 3.5000E 00
- ⊠ 4.0000E 00
- ☆ 4.5000E 00
- ⊞ 5.0000E 00
- * 5.5000E 00

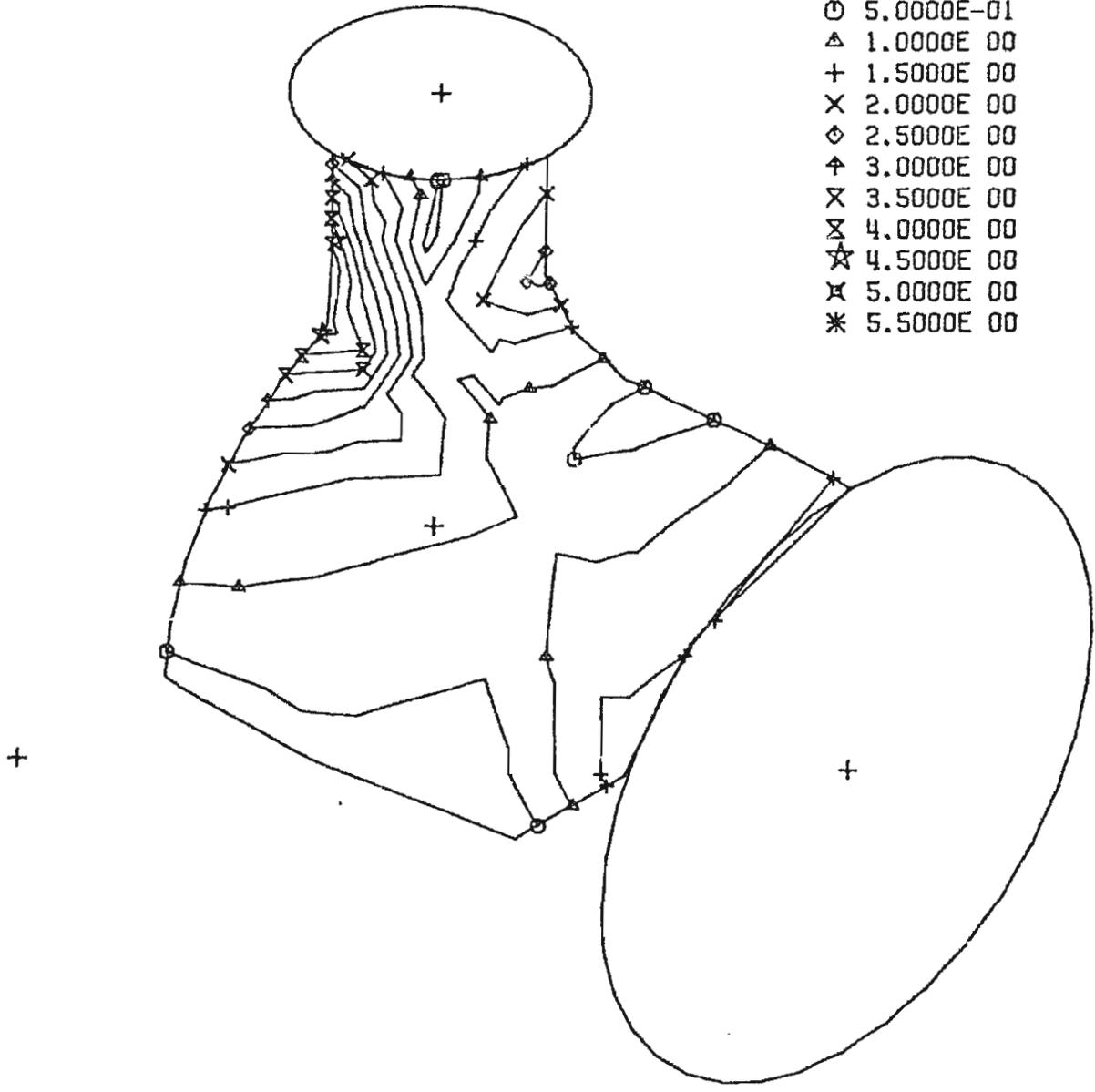


C.E. B16.9 T-13, F2Y

Top Inside Surface

CONTOUR VALUES

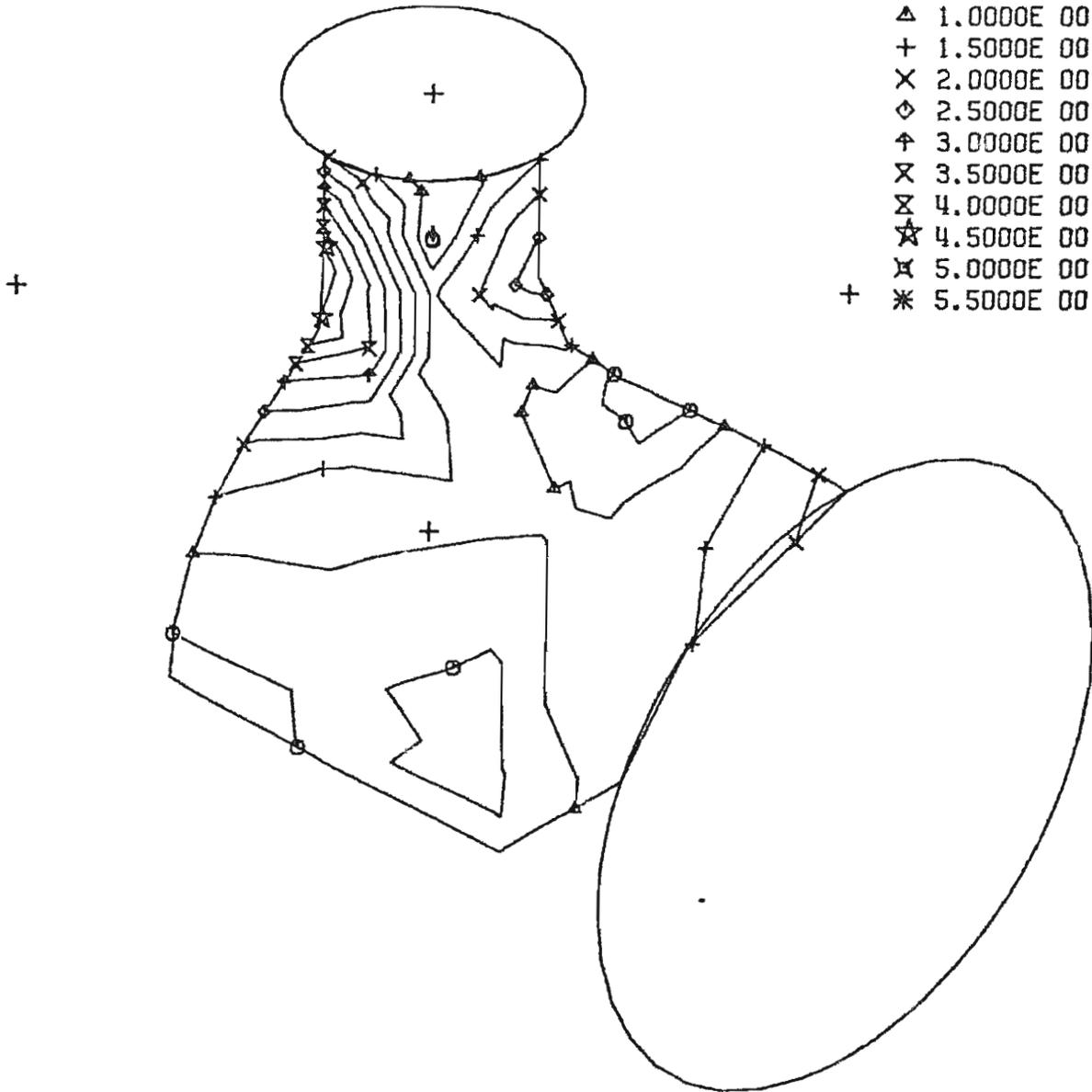
- 0.0
- 5.0000E-01
- △ 1.0000E 00
- + 1.5000E 00
- × 2.0000E 00
- ◇ 2.5000E 00
- ↑ 3.0000E 00
- ⊗ 3.5000E 00
- ⊗ 4.0000E 00
- ☆ 4.5000E 00
- ⊗ 5.0000E 00
- * 5.5000E 00



C.E. B16.9 T-13, F2Y
Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 5.0000E-01
- △ 1.0000E 00
- + 1.5000E 00
- × 2.0000E 00
- ◇ 2.5000E 00
- ⊕ 3.0000E 00
- ⊗ 3.5000E 00
- ⊗ 4.0000E 00
- ☆ 4.5000E 00
- ⊗ 5.0000E 00
- + * 5.5000E 00

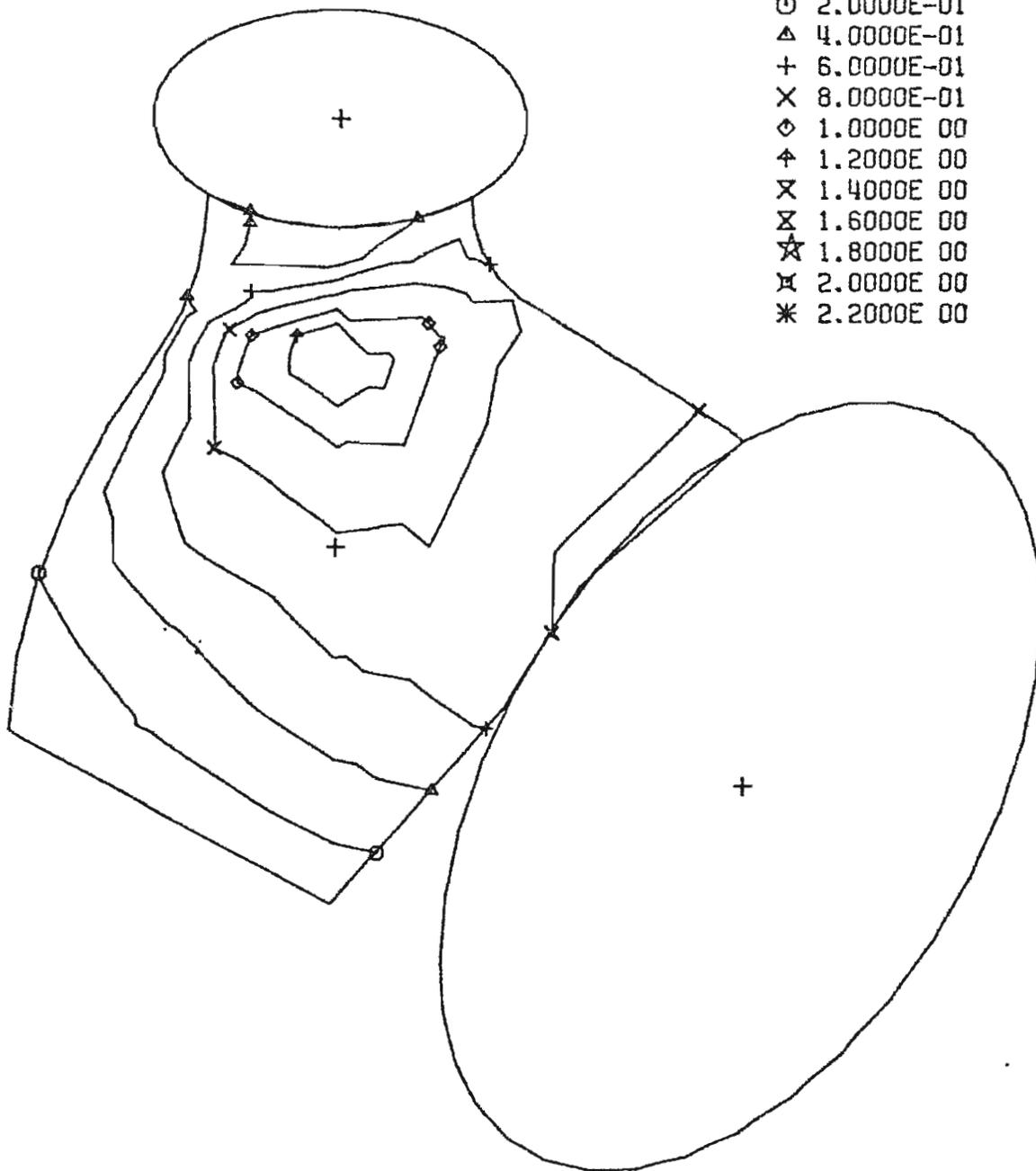


C.E. B16.9 T-13, F2Z

Top Outside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⋈ 1.2000E 00
- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
- ☆ 1.8000E 00
- ⊞ 2.0000E 00
- * 2.2000E 00

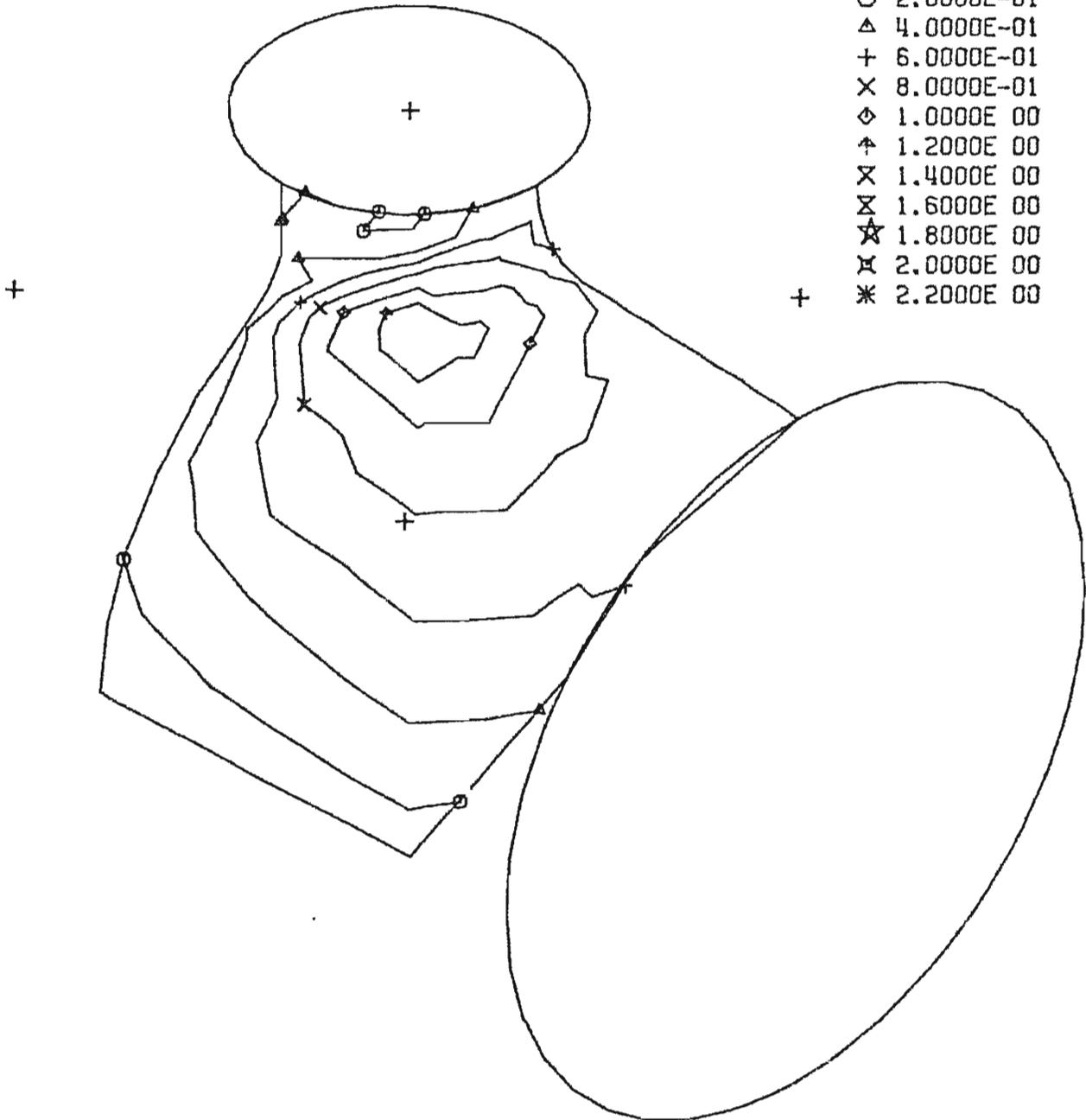


C.E. B16.9 T-13, F2Z

Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ↑ 1.2000E 00
- × 1.4000E 00
- ⊗ 1.6000E 00
- ☆ 1.8000E 00
- ⊗ 2.0000E 00
- * 2.2000E 00

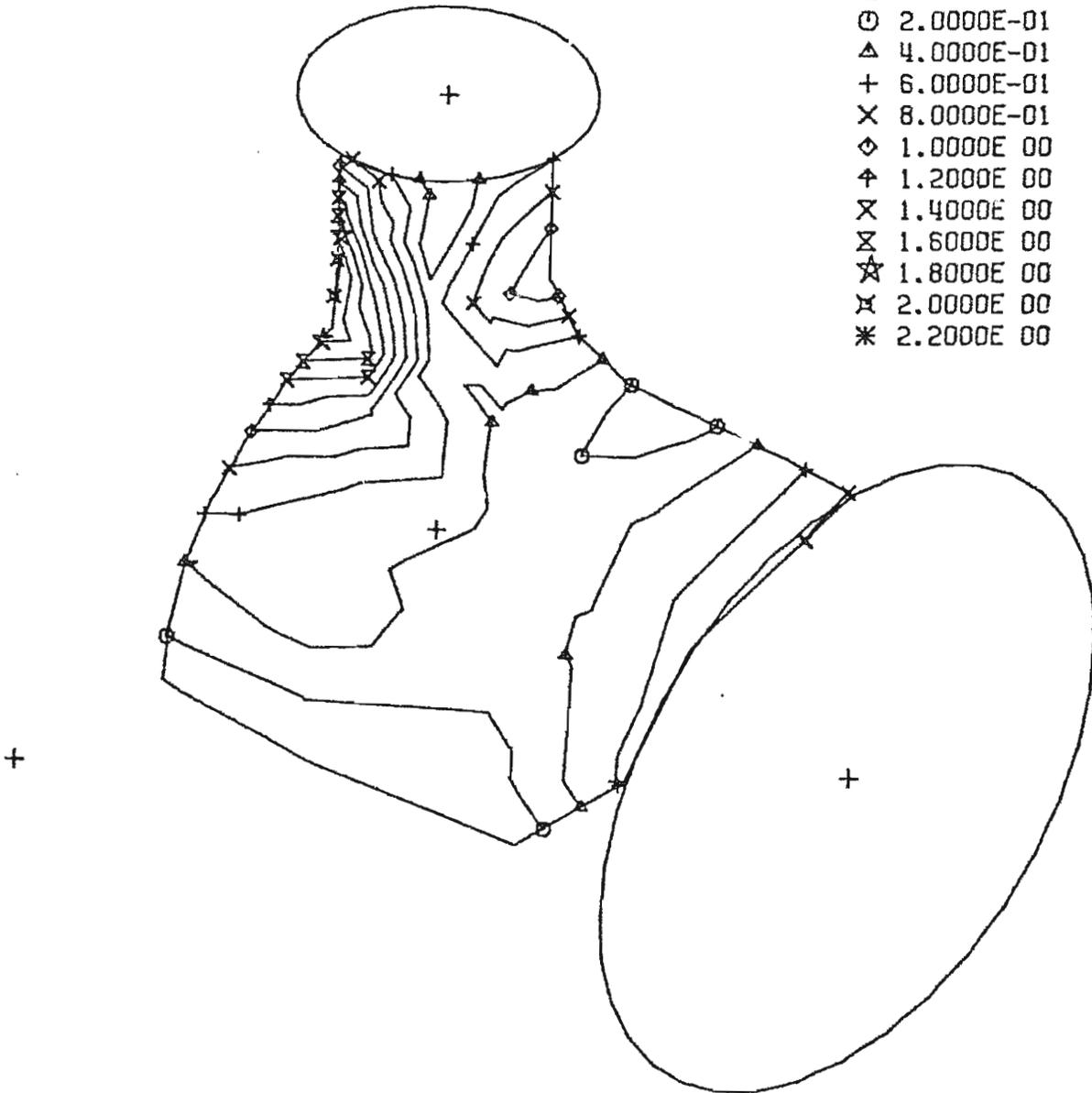


C.E. B16.9 T-13, F2Z

Top Inside Surface

CONTOUR VALUES

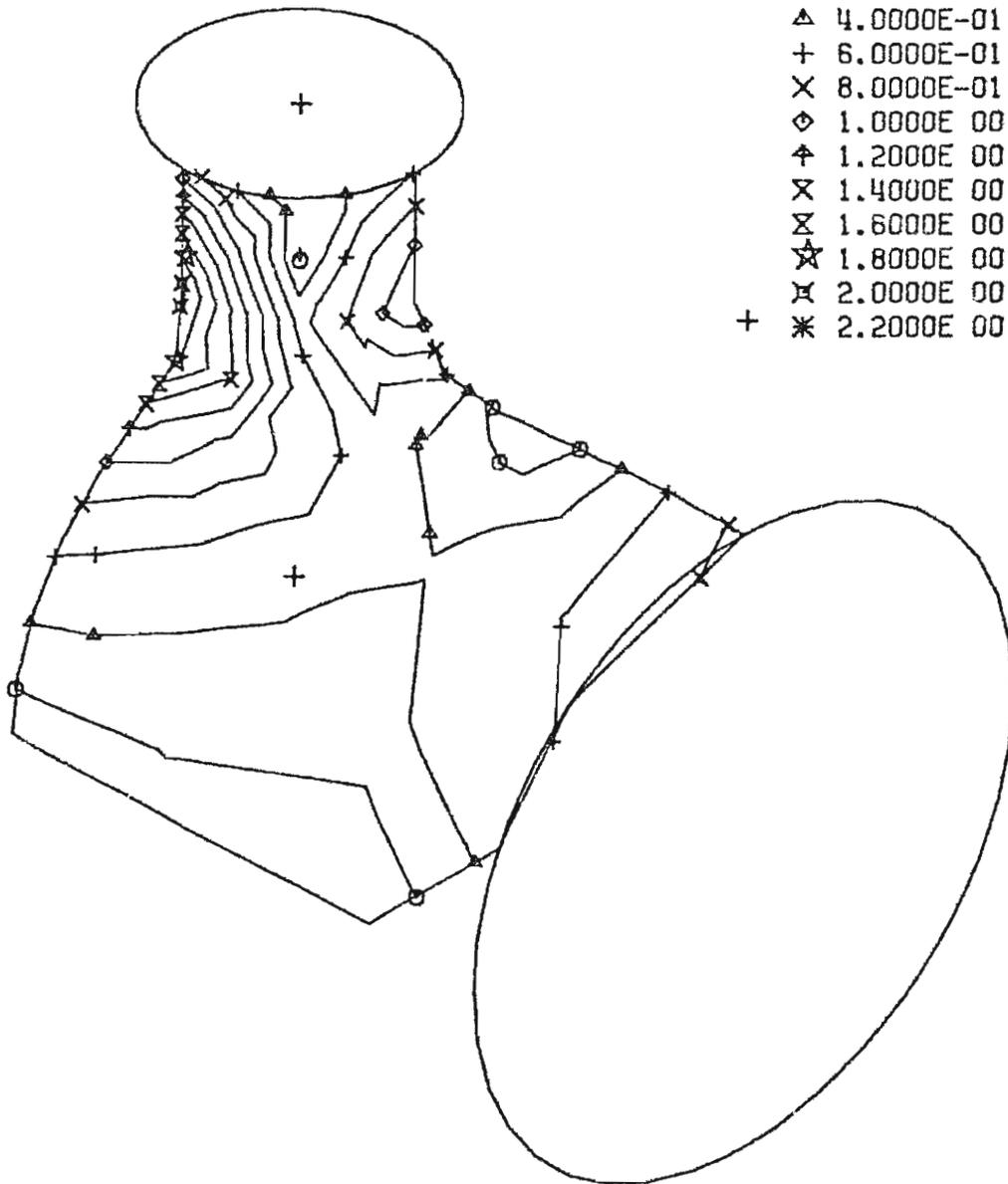
- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⊕ 1.2000E 00
- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
- ☆ 1.8000E 00
- ⊚ 2.0000E 00
- * 2.2000E 00



C.E. B16.9 T-13, F22
Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 2.0000E-01
- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⊕ 1.2000E 00
- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
- ☆ 1.8000E 00
- ⊙ 2.0000E 00
- + * 2.2000E 00

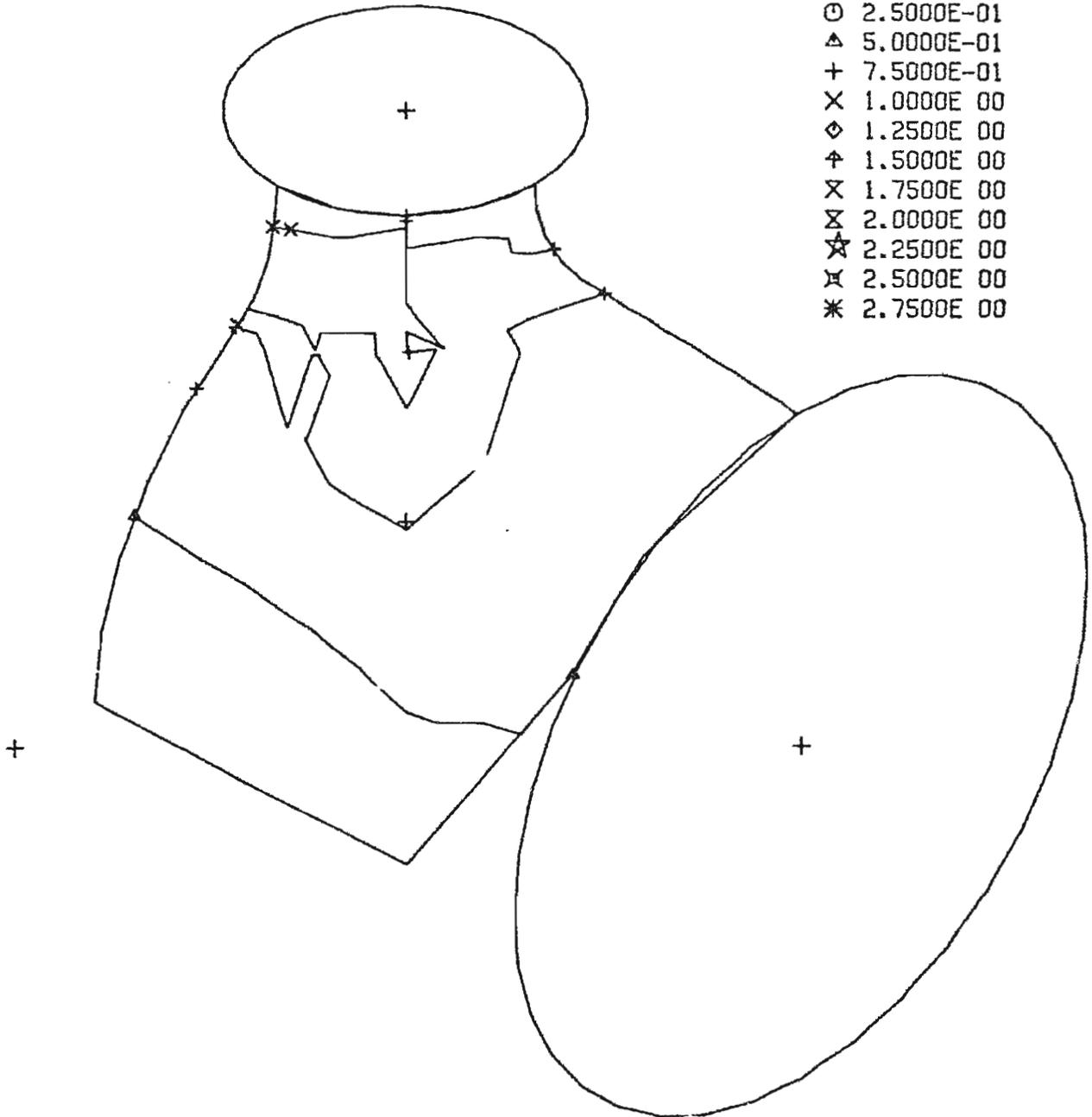


C.E. B16.9 T-13, PRESSURE

Top Outside Surface

CONTOUR VALUES

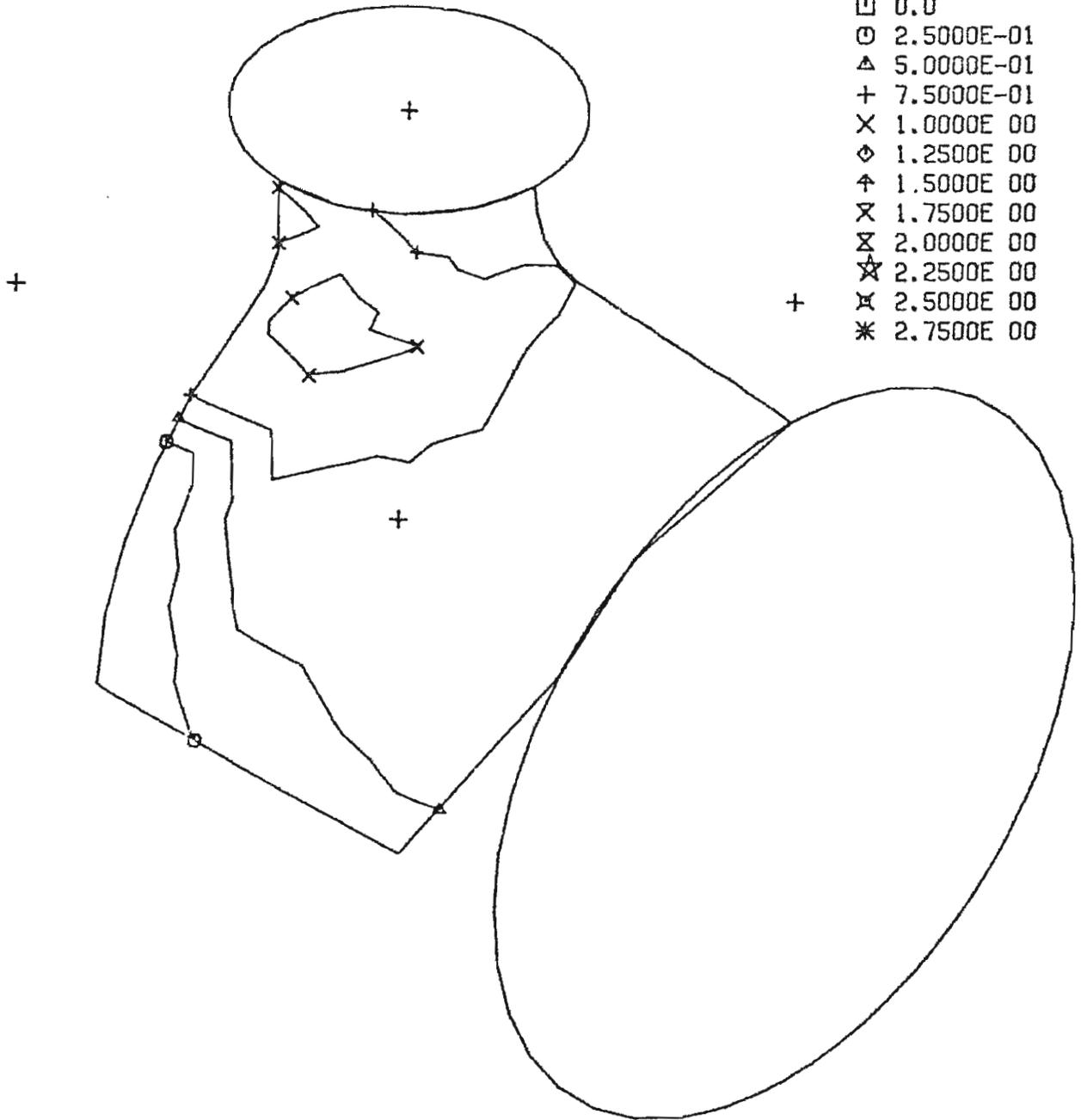
- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- × 1.0000E 00
- ◇ 1.2500E 00
- † 1.5000E 00
- × 1.7500E 00
- ⊗ 2.0000E 00
- ☆ 2.2500E 00
- ⊗ 2.5000E 00
- * 2.7500E 00



C.E. B16.9 T-13, PRESSURE
Bottom Outside Surface

CONTOUR VALUES

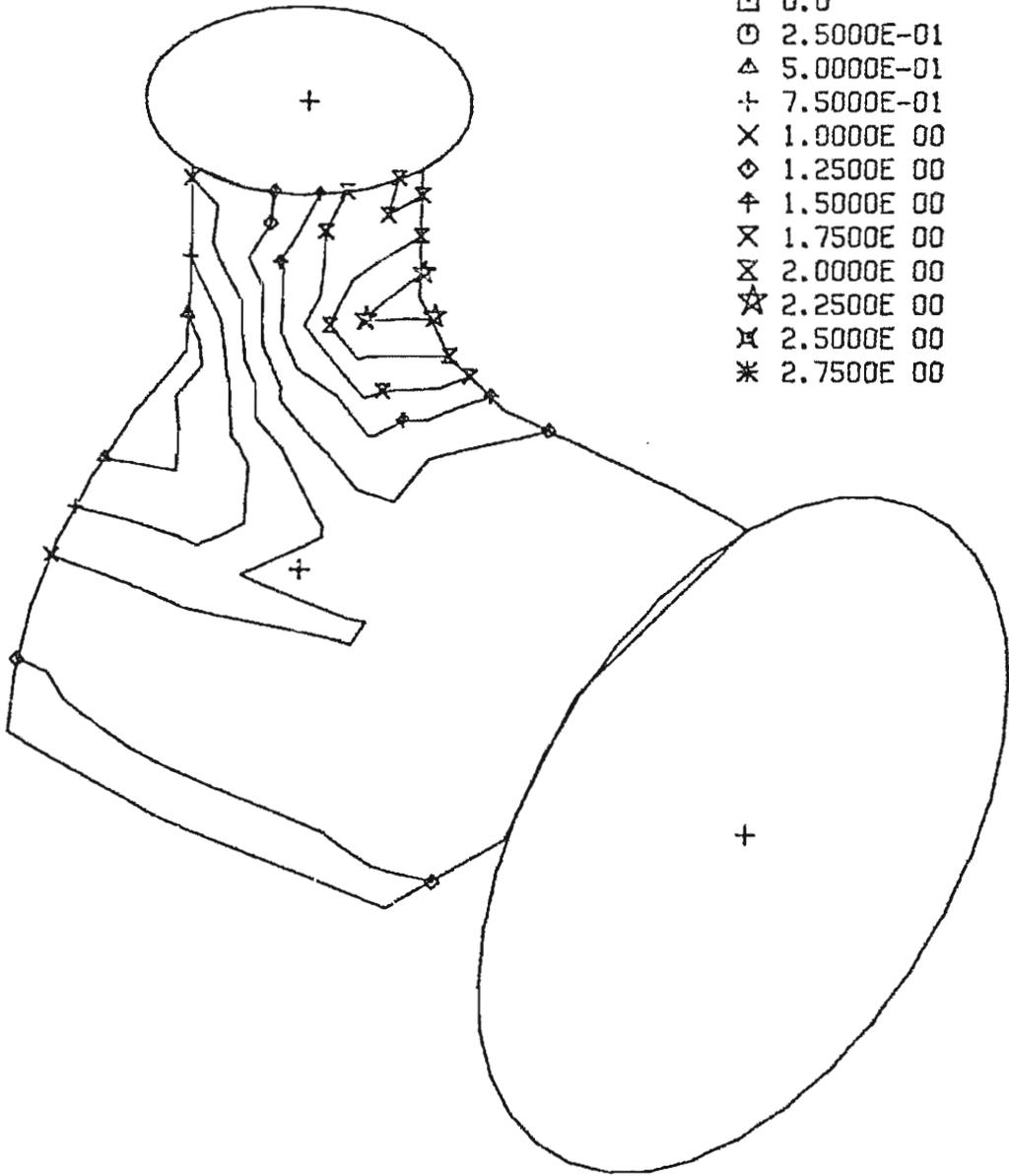
- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- × 1.0000E 00
- ◇ 1.2500E 00
- ↑ 1.5000E 00
- ⌘ 1.7500E 00
- ⊗ 2.0000E 00
- ☆ 2.2500E 00
- ⊠ 2.5000E 00
- * 2.7500E 00



C.E. B16.9 T-13, PRESSURE
Top Inside Surface

CONTOUR VALUES

- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- × 1.0000E 00
- ◇ 1.2500E 00
- ⋈ 1.5000E 00
- ⋈ 1.7500E 00
- ⋈ 2.0000E 00
- ☆ 2.2500E 00
- ⋈ 2.5000E 00
- * 2.7500E 00

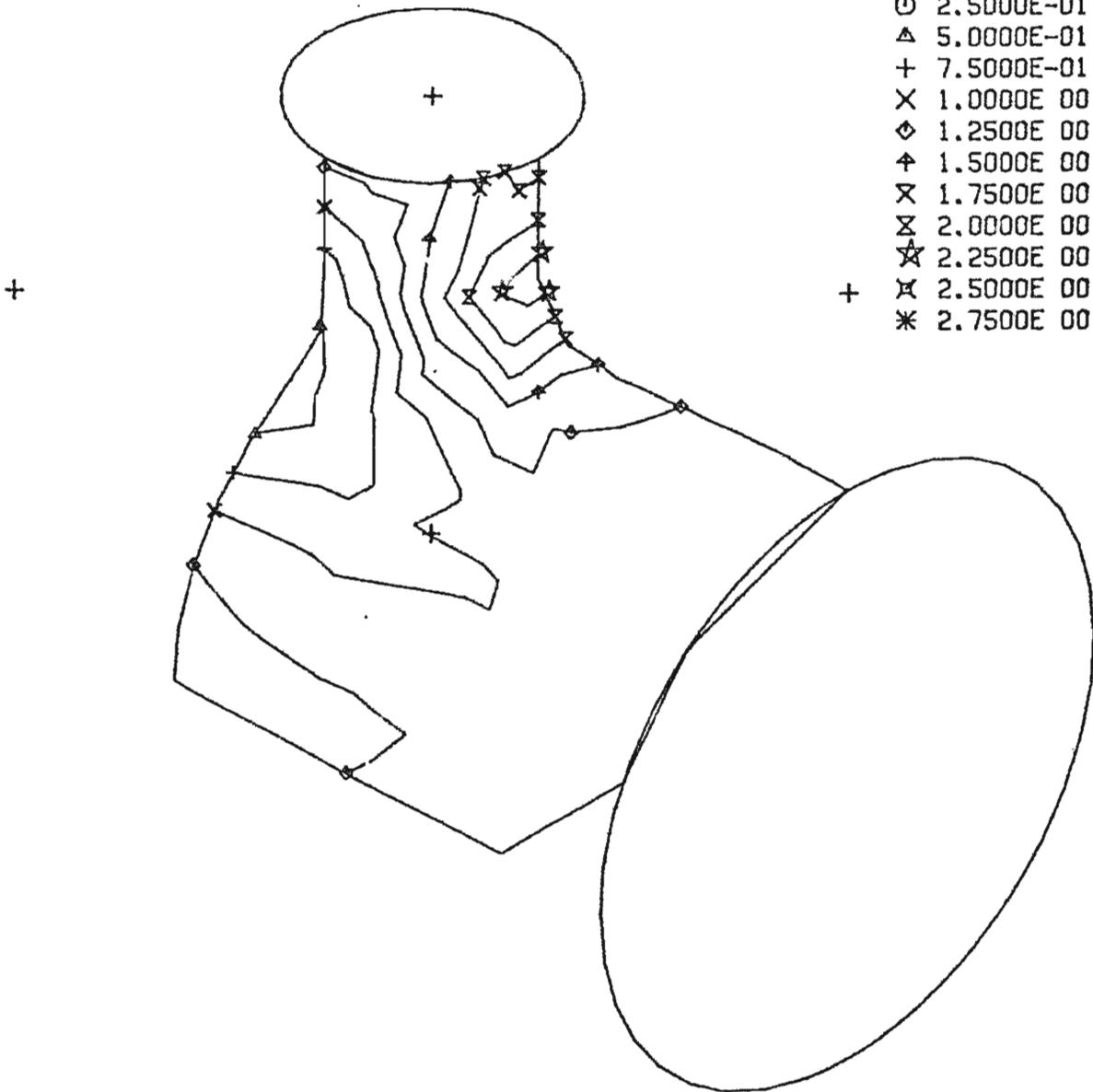


C.E. B16.9 T-13, PRESSURE

Bottom Inside Surface

CONTOUR VALUES

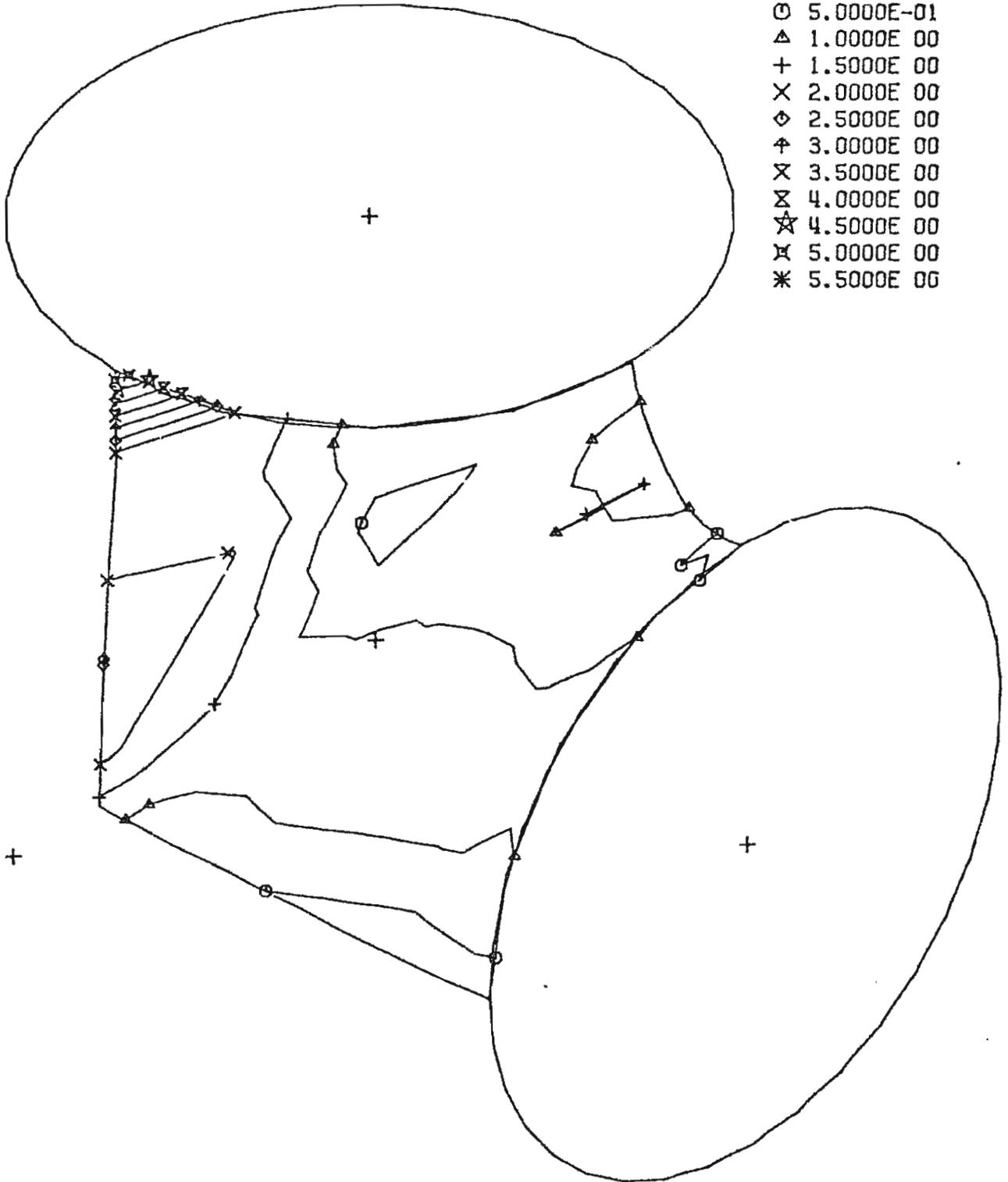
- 0.0
- 2.5000E-01
- △ 5.0000E-01
- + 7.5000E-01
- × 1.0000E 00
- ◇ 1.2500E 00
- ⋈ 1.5000E 00
- ⊗ 1.7500E 00
- ⊘ 2.0000E 00
- ☆ 2.2500E 00
- + 2.5000E 00
- * 2.7500E 00



C.E. B16.9 T-16, M3X
Top Outside Surface

CONTOUR VALUES

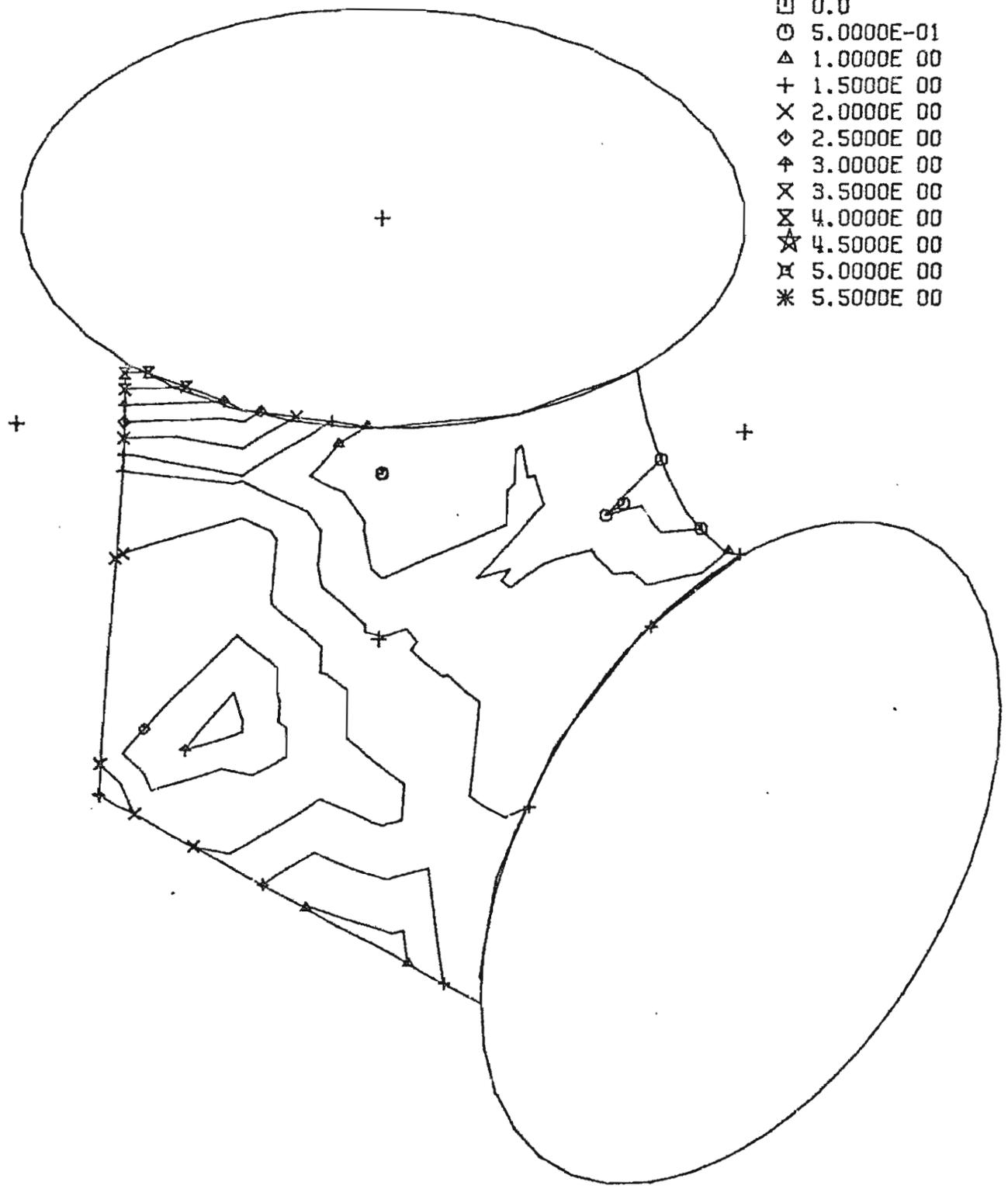
- 0.0
- 5.0000E-01
- △ 1.0000E 00
- + 1.5000E 00
- × 2.0000E 00
- ◇ 2.5000E 00
- ⊕ 3.0000E 00
- ⊗ 3.5000E 00
- ⊘ 4.0000E 00
- ☆ 4.5000E 00
- ⊚ 5.0000E 00
- * 5.5000E 00



C.E. B16.9 T-16, M3X
Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 5.0000E-01
- △ 1.0000E 00
- + 1.5000E 00
- × 2.0000E 00
- ◇ 2.5000E 00
- ⋈ 3.0000E 00
- ⊗ 3.5000E 00
- ⊘ 4.0000E 00
- ☆ 4.5000E 00
- ⊚ 5.0000E 00
- * 5.5000E 00

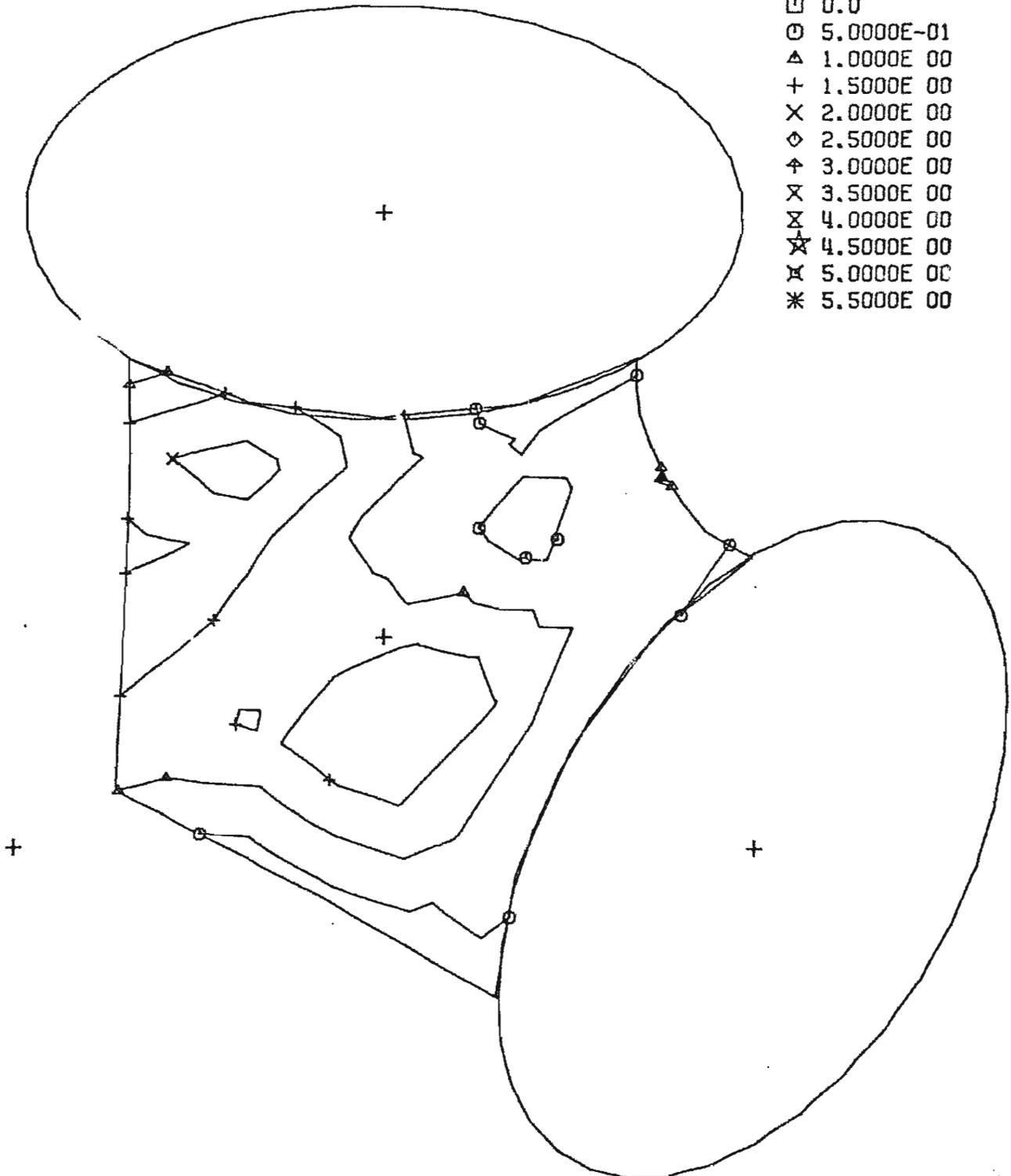


C.E. B16.9 T-16, M3X

Top Inside Surface

CONTOUR VALUES

- 0.0
- 5.0000E-01
- △ 1.0000E 00
- + 1.5000E 00
- X 2.0000E 00
- ◇ 2.5000E 00
- ⋈ 3.0000E 00
- ⋈ 3.5000E 00
- ⋈ 4.0000E 00
- ☆ 4.5000E 00
- ⋈ 5.0000E 00
- * 5.5000E 00

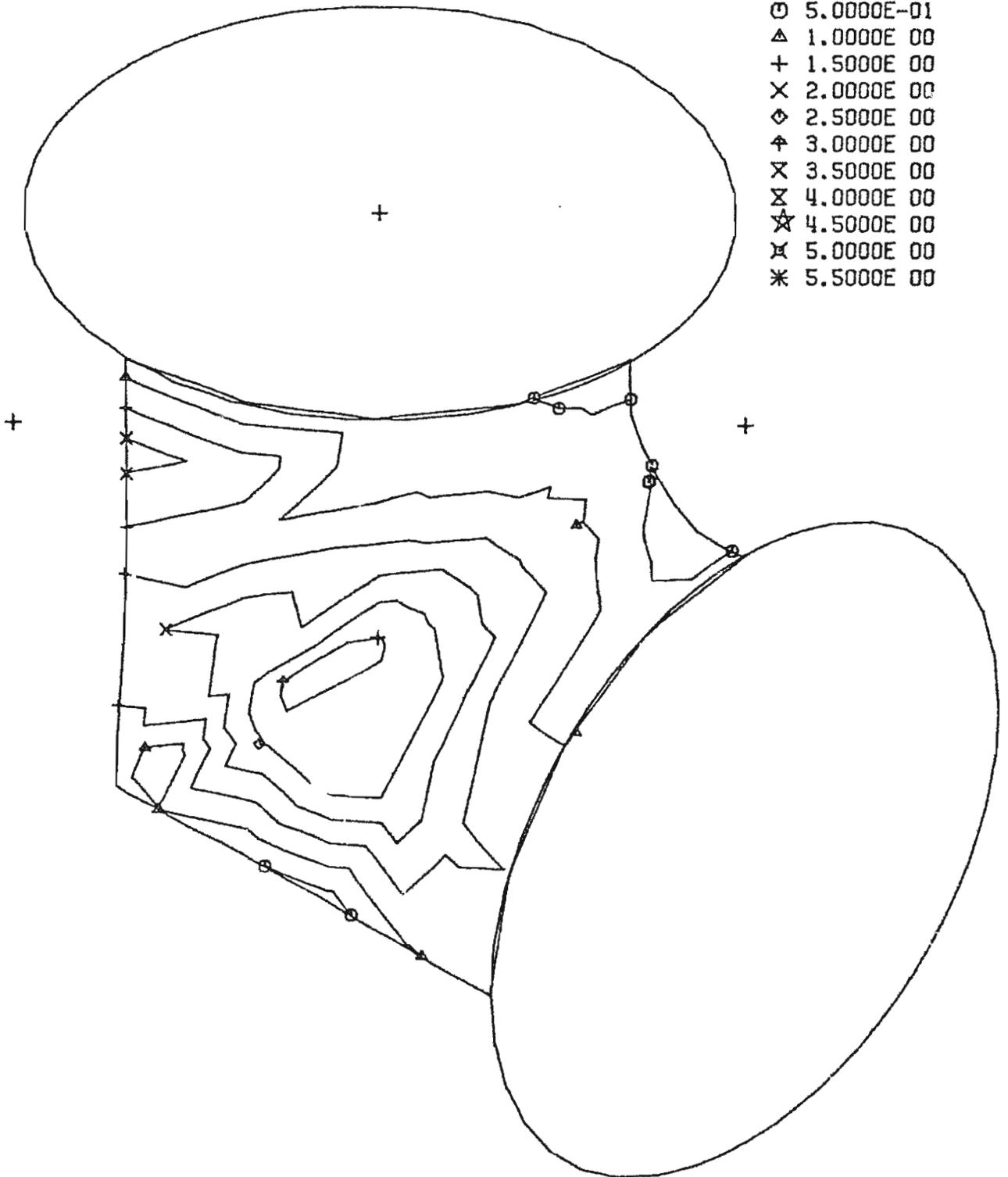


C.E. B16.9 T-16, M3X

Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 5.0000E-01
- △ 1.0000E 00
- + 1.5000E 00
- × 2.0000E 00
- ◇ 2.5000E 00
- ⋈ 3.0000E 00
- ⊗ 3.5000E 00
- ⊘ 4.0000E 00
- ☆ 4.5000E 00
- ⊗ 5.0000E 00
- * 5.5000E 00

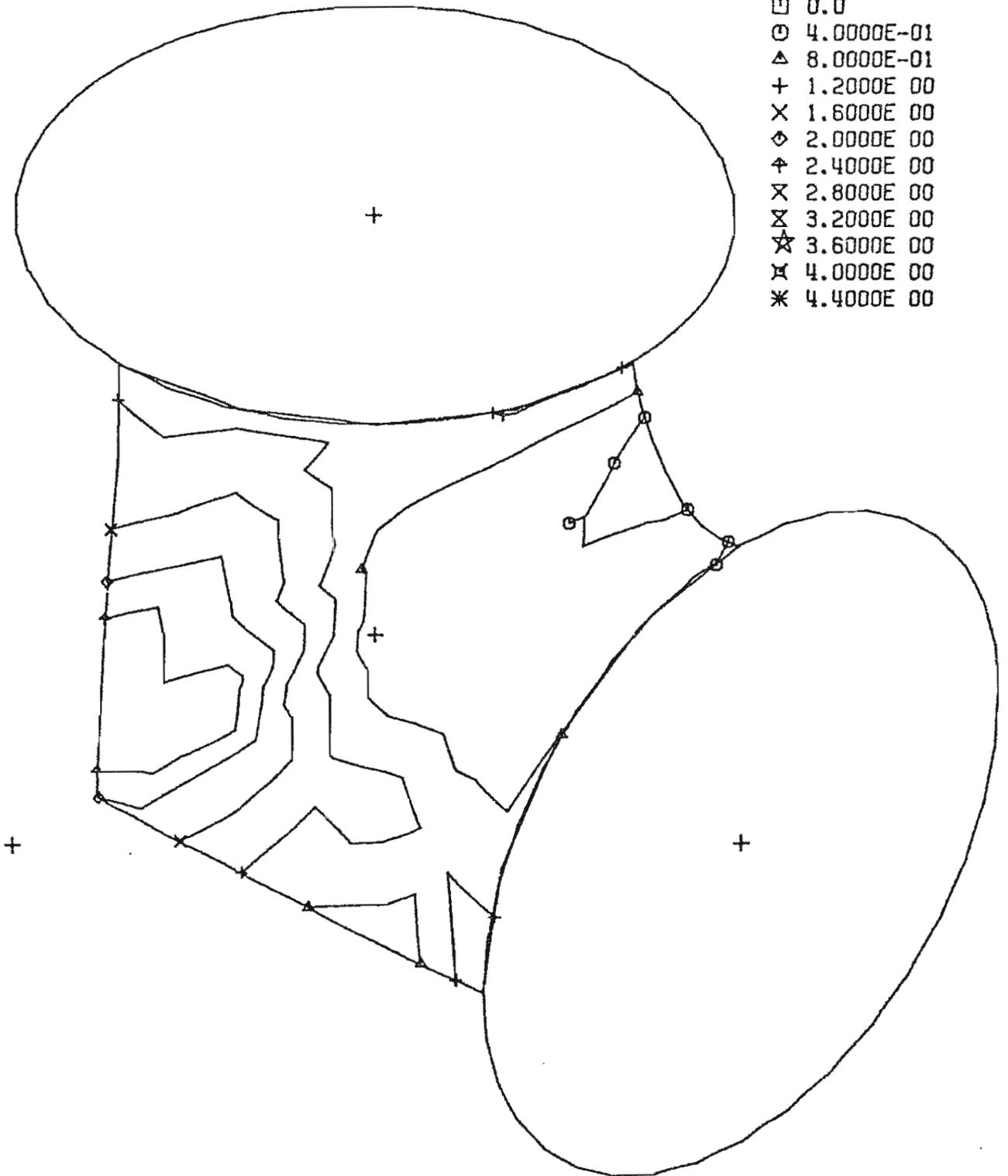


C.E. B16.9 T-16, M3Y

Top Outside Surface

CONTOUR VALUES

- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⋈ 2.4000E 00
- ⊗ 2.8000E 00
- ⊠ 3.2000E 00
- ☆ 3.6000E 00
- ⊞ 4.0000E 00
- * 4.4000E 00

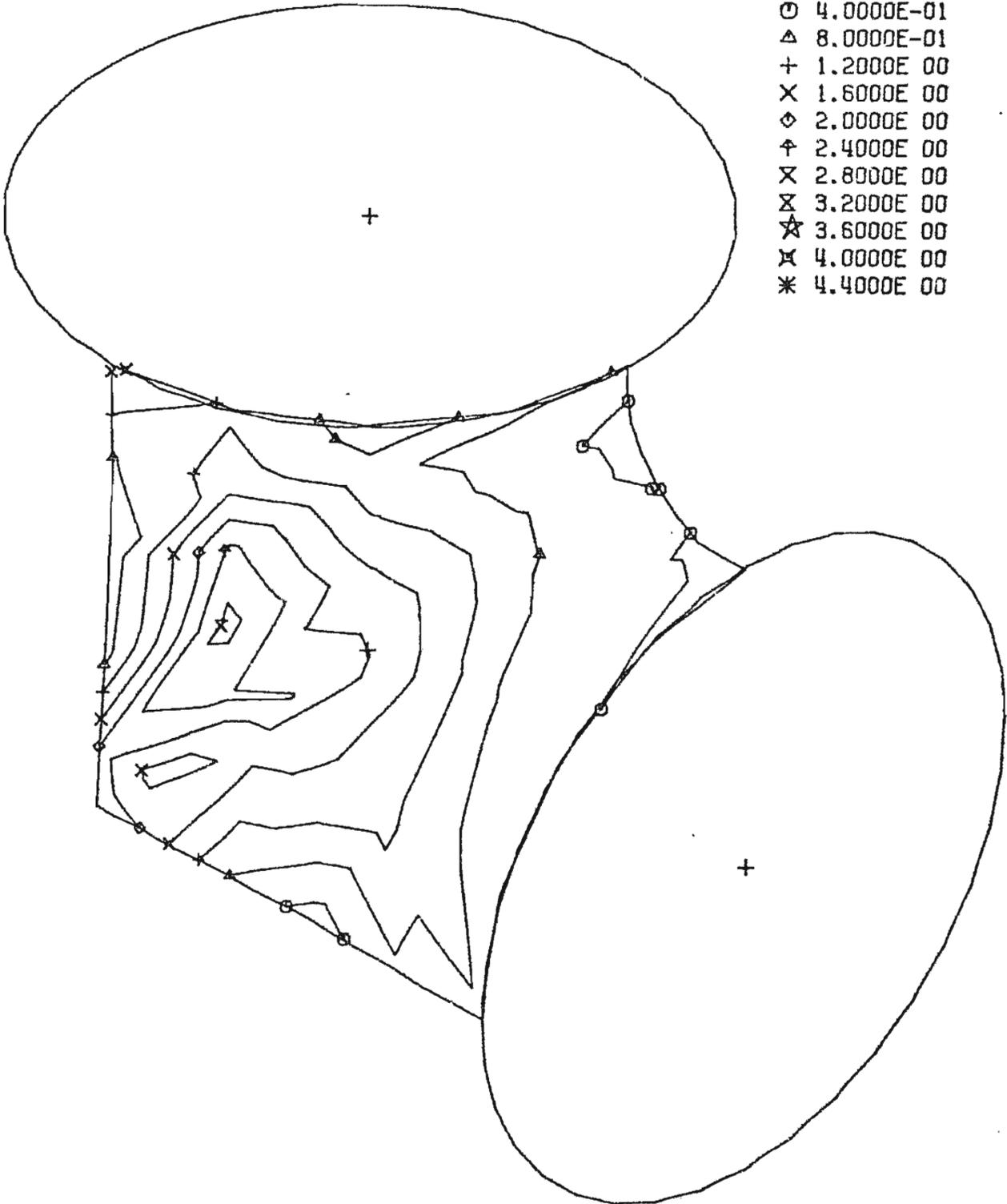


C.E. B16.9 T-16, M3Y

Top Inside Surface

CONTOUR VALUES

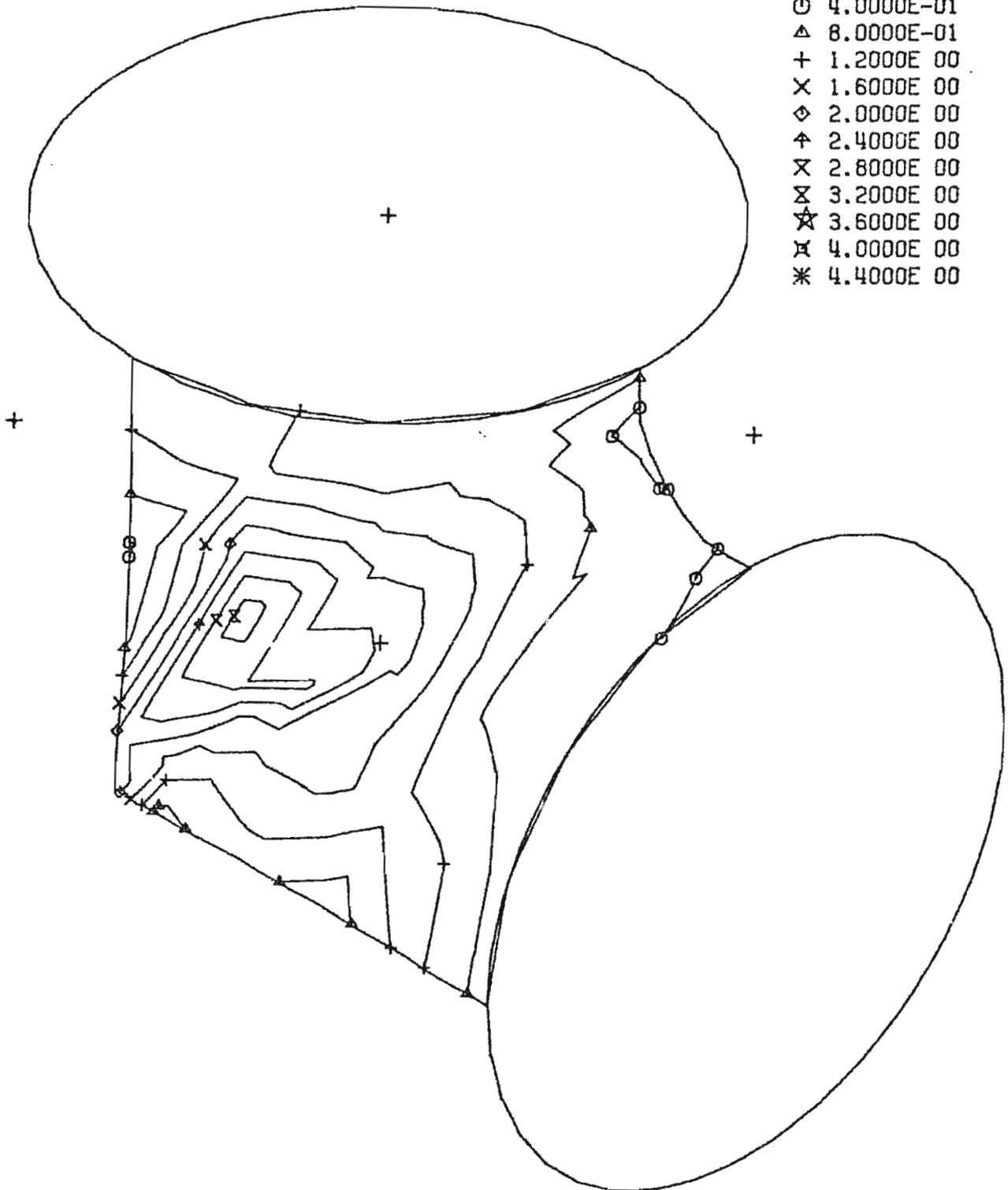
- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- X 1.6000E 00
- ◇ 2.0000E 00
- † 2.4000E 00
- × 2.8000E 00
- ⊗ 3.2000E 00
- ☆ 3.6000E 00
- ⋈ 4.0000E 00
- * 4.4000E 00



C.E. B16.9 T-16, M3Y
Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⋈ 2.4000E 00
- ⊗ 2.8000E 00
- ☆ 3.6000E 00
- ⊠ 4.0000E 00
- * 4.4000E 00

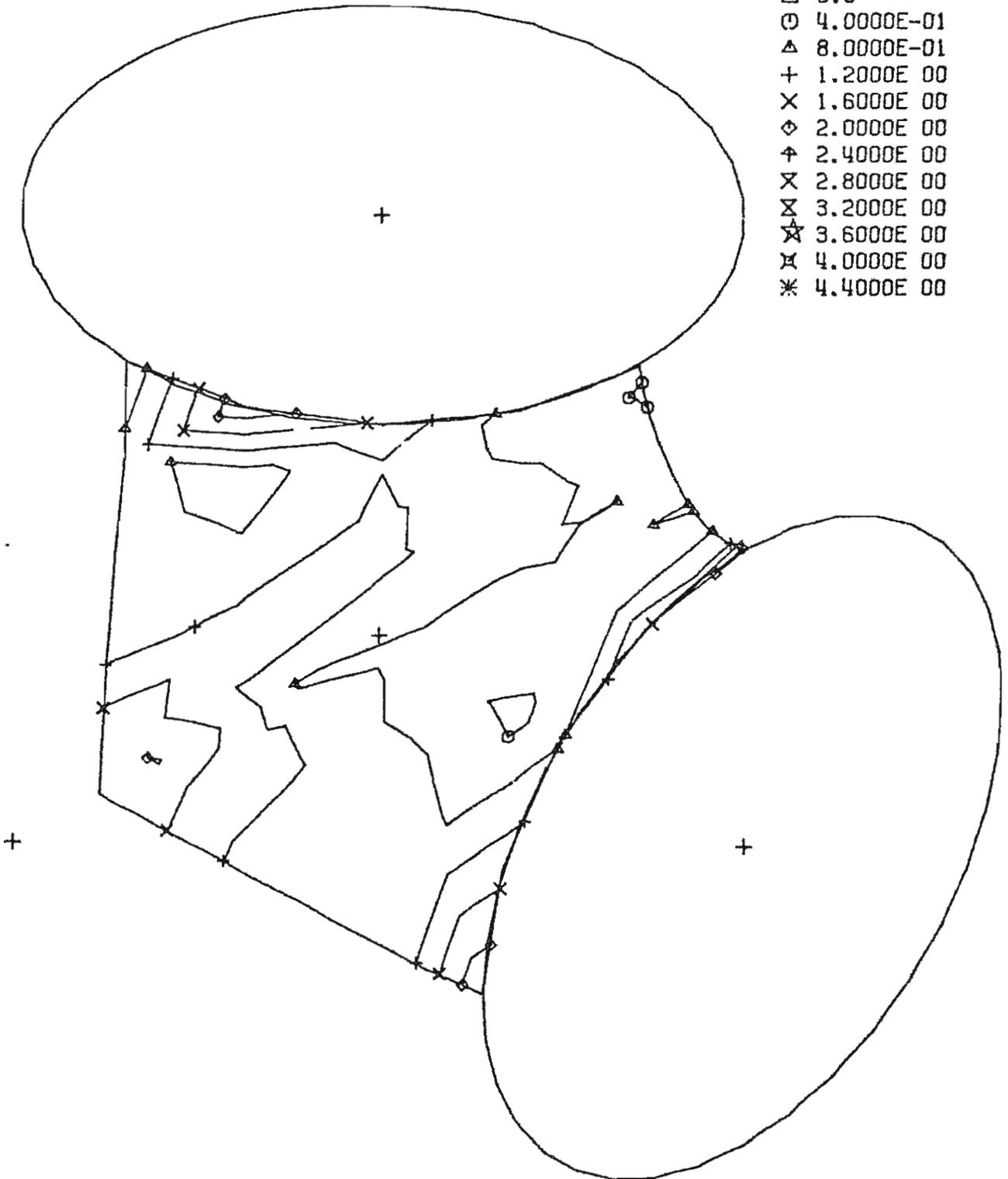


C.E. B16.9 T-16, M3Z

Top Outside Surface

CONTOUR VALUES

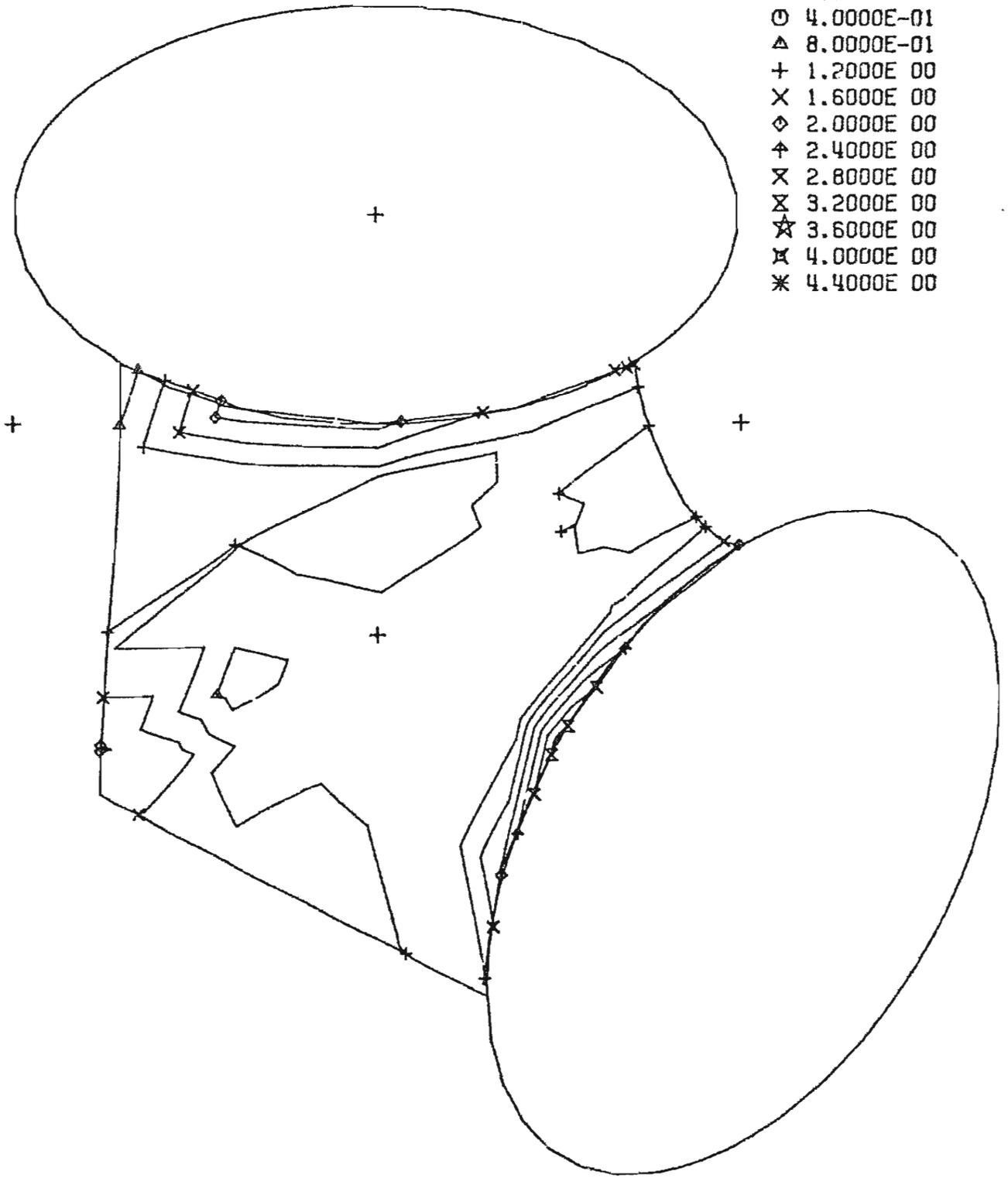
- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- X 1.6000E 00
- ◇ 2.0000E 00
- ⋈ 2.4000E 00
- × 2.8000E 00
- ⊗ 3.2000E 00
- ☆ 3.6000E 00
- ⊠ 4.0000E 00
- * 4.4000E 00



C.E. B16.9 T-16, M3Z
Bottom Outside Surface

CONTOUR VALUES

- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- X 1.6000E 00
- ◇ 2.0000E 00
- ↑ 2.4000E 00
- × 2.8000E 00
- ⊗ 3.2000E 00
- ☆ 3.6000E 00
- ⊗ 4.0000E 00
- * 4.4000E 00

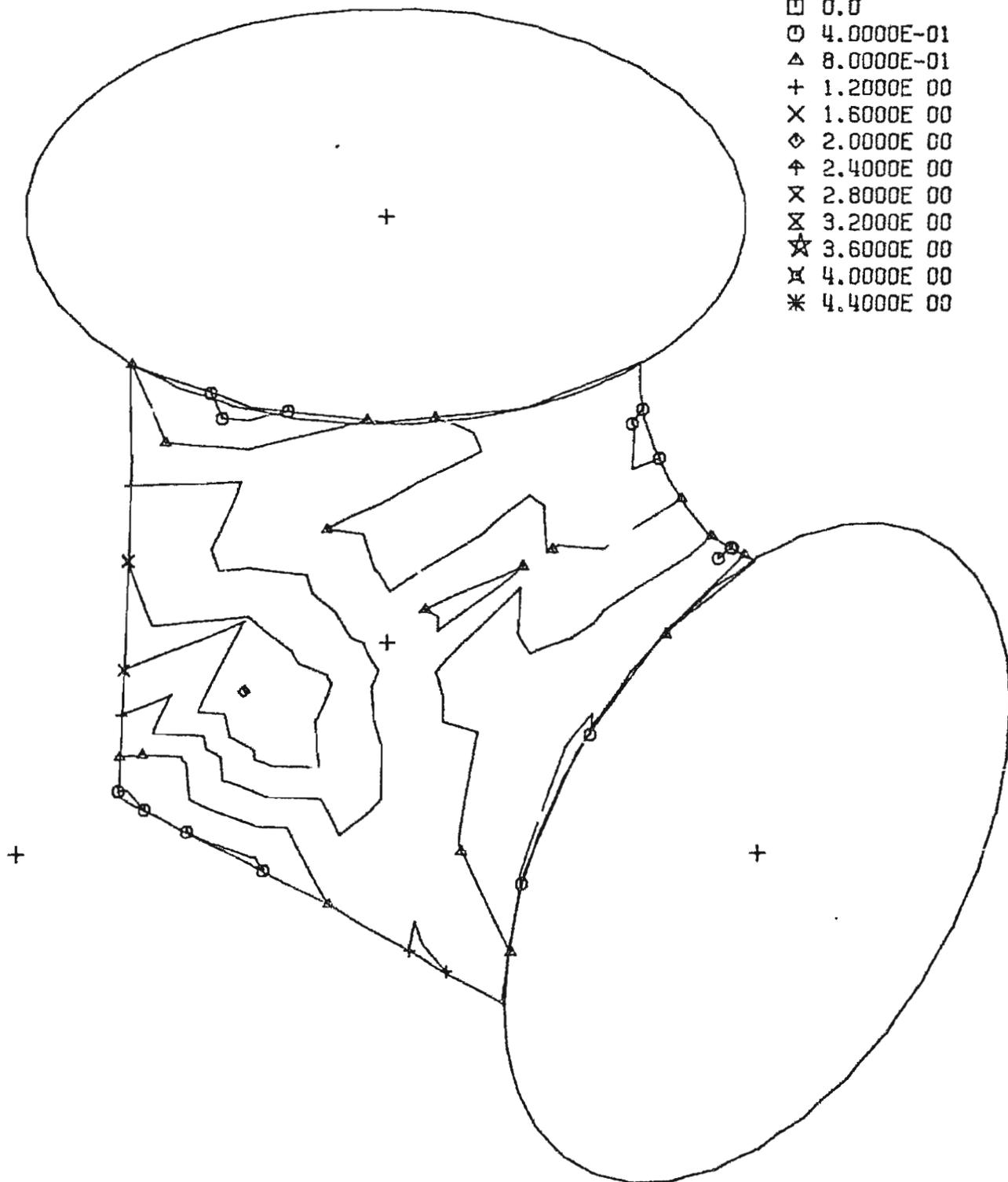


C.E. B16.9 T-16, M3Z

Top Inside Surface

CONTOUR VALUES

- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⋈ 2.4000E 00
- ⊗ 2.8000E 00
- ⊘ 3.2000E 00
- ☆ 3.6000E 00
- ⊠ 4.0000E 00
- * 4.4000E 00

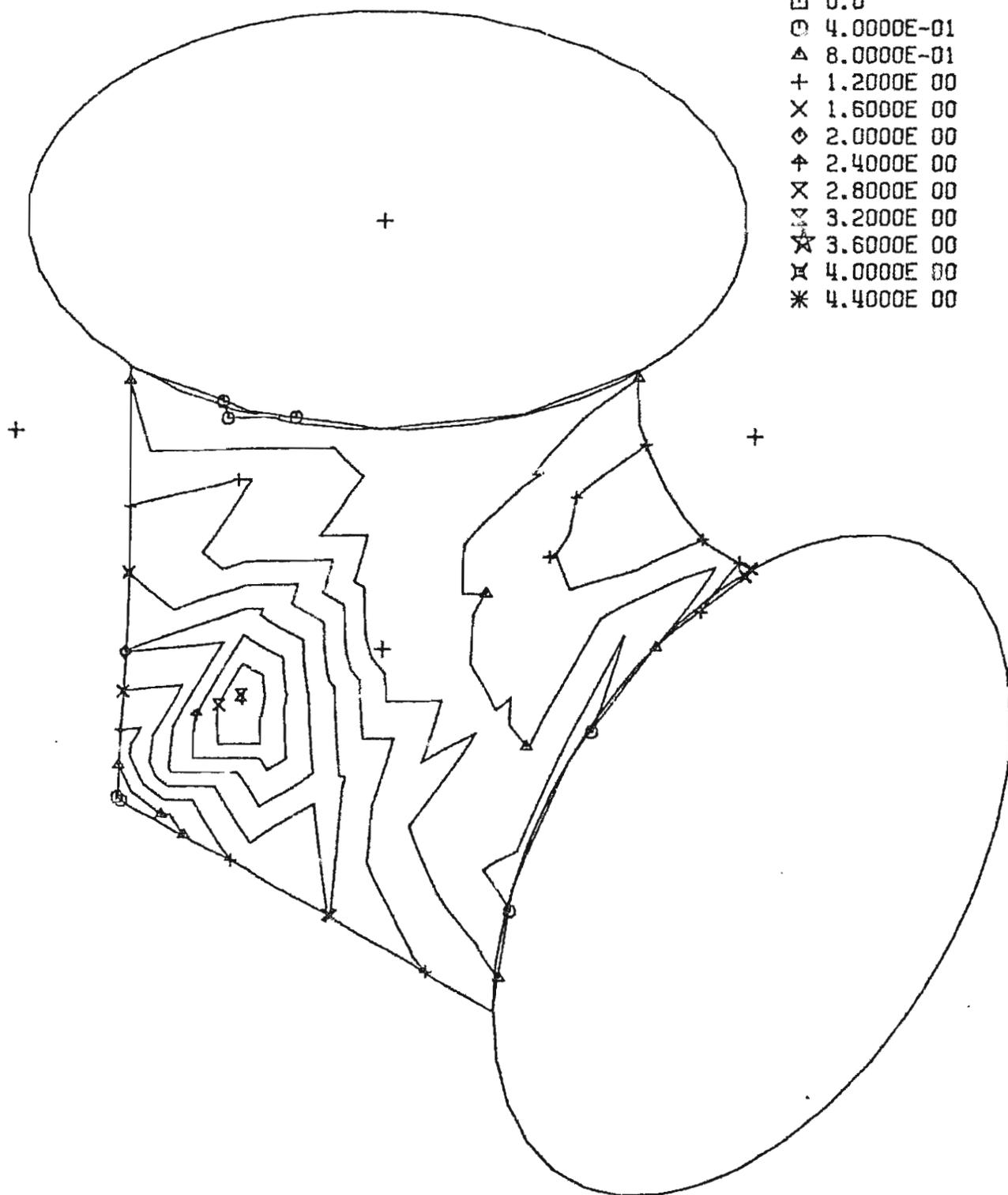


C.E. B16.9 T-16, M3Z

Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 4.0000E-01
- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⋈ 2.4000E 00
- ⊗ 2.8000E 00
- ⊘ 3.2000E 00
- ☆ 3.6000E 00
- ⊠ 4.0000E 00
- * 4.4000E 00

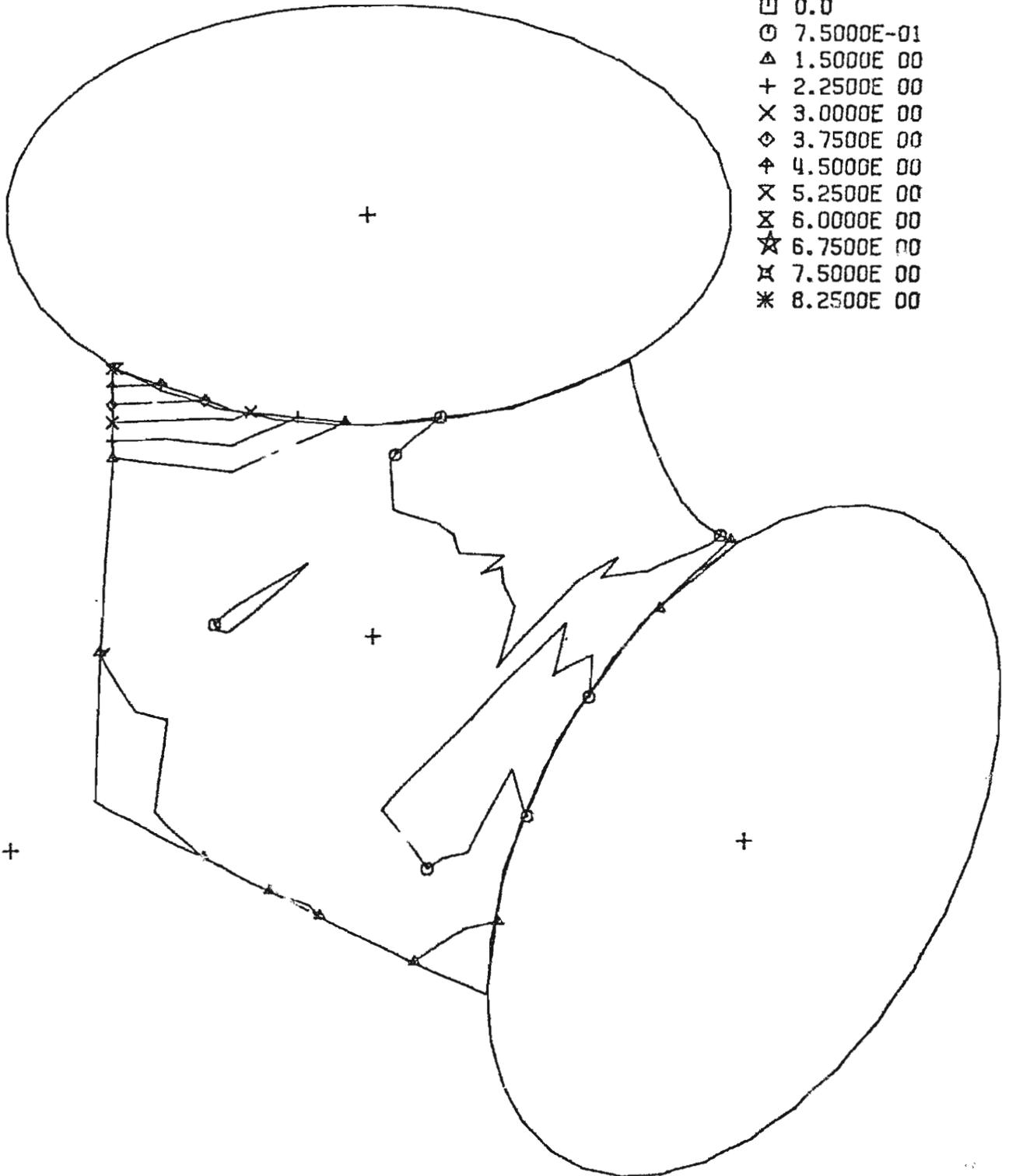


C.E. B16.9 T-16, F3Y

Top Outside Surface

CONTOUR VALUES

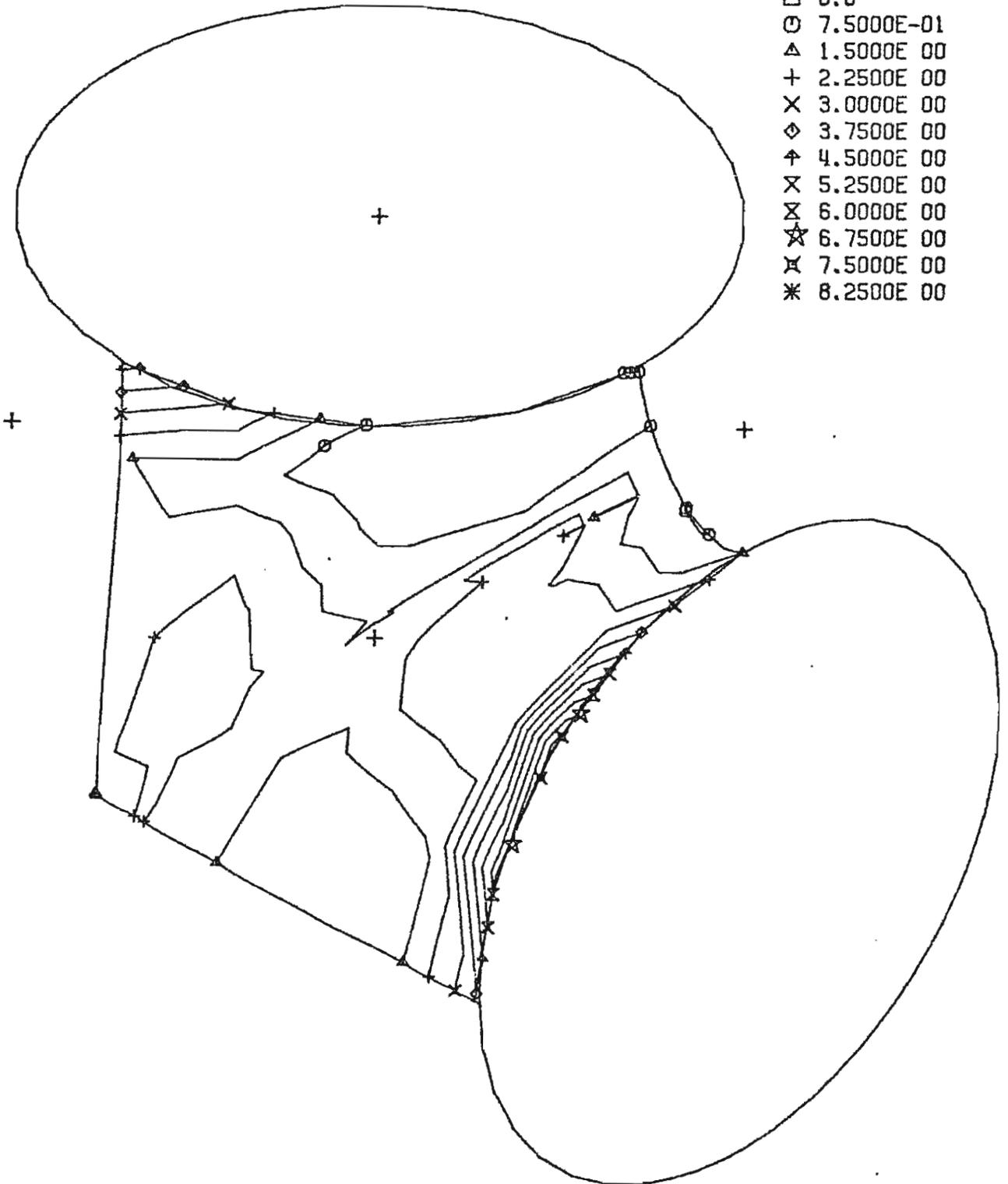
- 0.0
- 7.5000E-01
- △ 1.5000E 00
- + 2.2500E 00
- × 3.0000E 00
- ◇ 3.7500E 00
- ⋈ 4.5000E 00
- ⊗ 5.2500E 00
- ⊘ 6.0000E 00
- ☆ 6.7500E 00
- ⊗ 7.5000E 00
- * 8.2500E 00



C.E. B16.9 T-16, F3Y
Bottom Outside Surface

CONTOUR VALUES

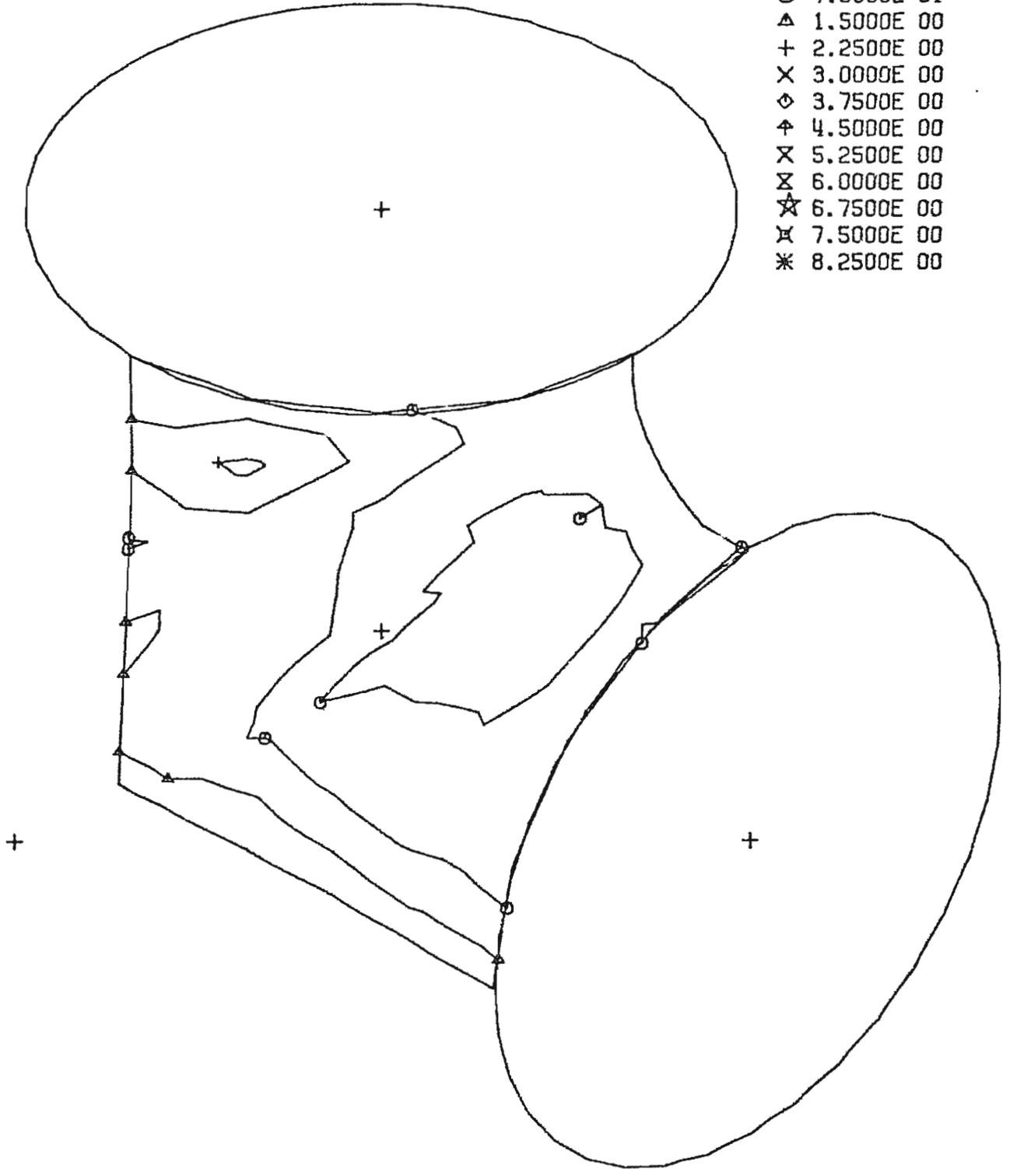
- 0.0
- 7.5000E-01
- △ 1.5000E 00
- + 2.2500E 00
- × 3.0000E 00
- ◇ 3.7500E 00
- ↑ 4.5000E 00
- × 5.2500E 00
- ⊗ 6.0000E 00
- ☆ 6.7500E 00
- ⊗ 7.5000E 00
- * 8.2500E 00



C.E. B16.9 T-16, F3Y
Top Inside Surface

CONTOUR VALUES

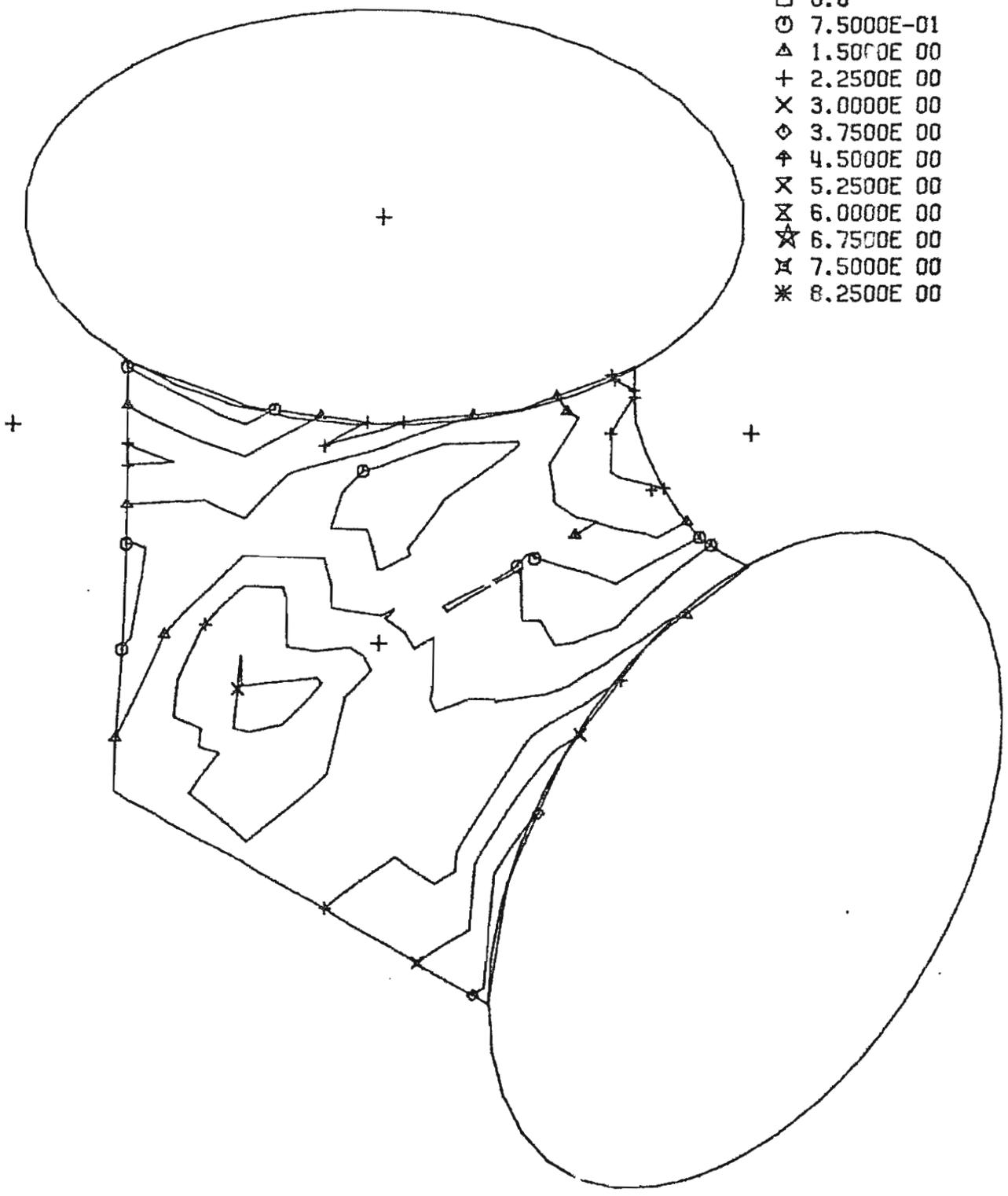
- 0.0
- 7.5000E-01
- △ 1.5000E 00
- + 2.2500E 00
- × 3.0000E 00
- ◇ 3.7500E 00
- ⋈ 4.5000E 00
- ⊗ 5.2500E 00
- ⊘ 6.0000E 00
- ☆ 6.7500E 00
- ⊗ 7.5000E 00
- * 8.2500E 00



C.E. B16.9 T-16, F3Y
Bottom Inside Surface

CONTOUR VALUES

- 0.0
- 7.5000E-01
- △ 1.5000E 00
- + 2.2500E 00
- × 3.0000E 00
- ◇ 3.7500E 00
- ⊕ 4.5000E 00
- ⊗ 5.2500E 00
- ⊘ 6.0000E 00
- ☆ 6.7500E 00
- ⊗ 7.5000E 00
- * 8.2500E 00

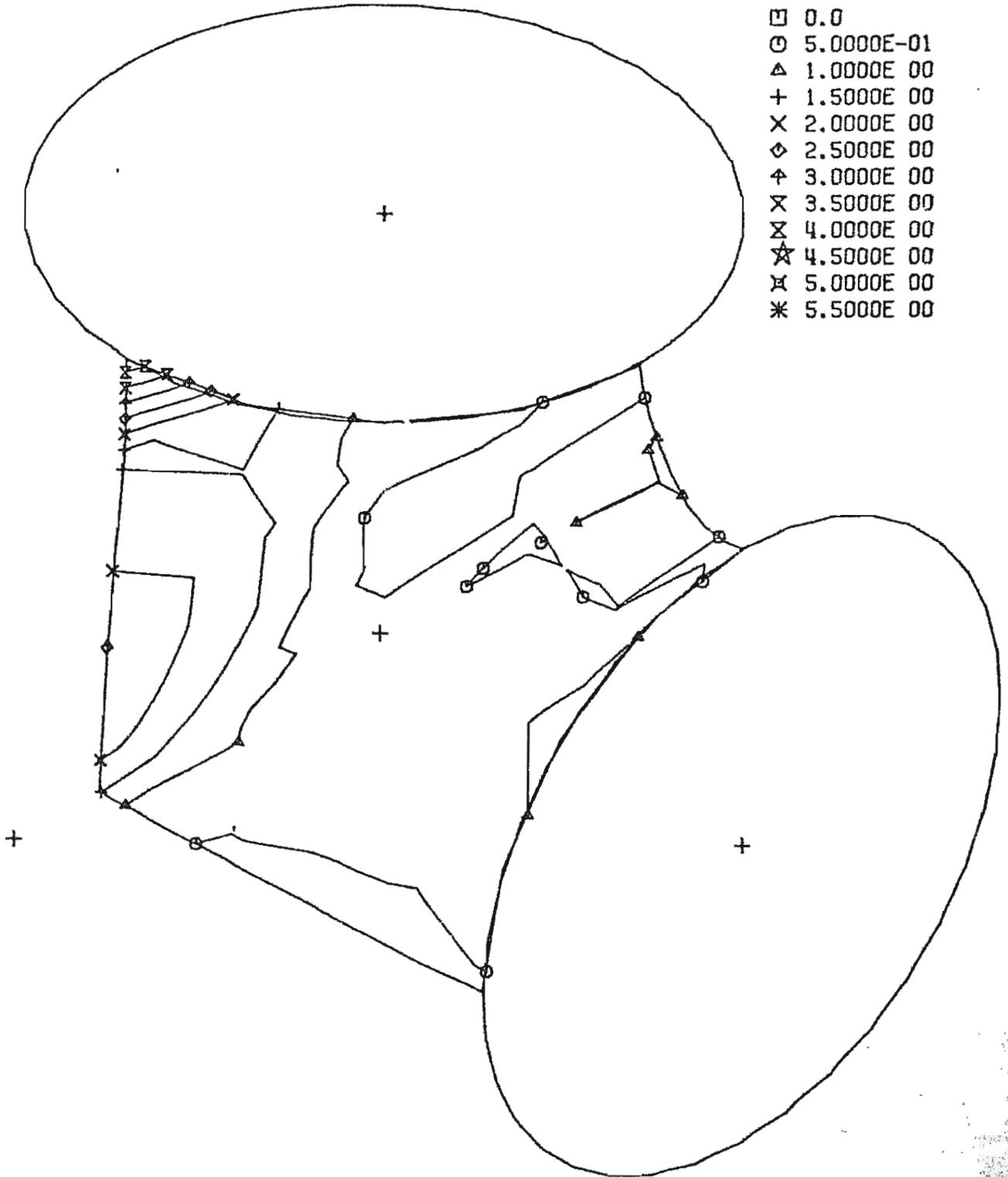


C.E. B16.9 T-16, F3Z

Top Outside Surface

CONTOUR VALUES

- 0.0
- 5.0000E-01
- △ 1.0000E 00
- + 1.5000E 00
- × 2.0000E 00
- ◇ 2.5000E 00
- ⋈ 3.0000E 00
- ⊗ 3.5000E 00
- ⊘ 4.0000E 00
- ☆ 4.5000E 00
- ⊗ 5.0000E 00
- * 5.5000E 00

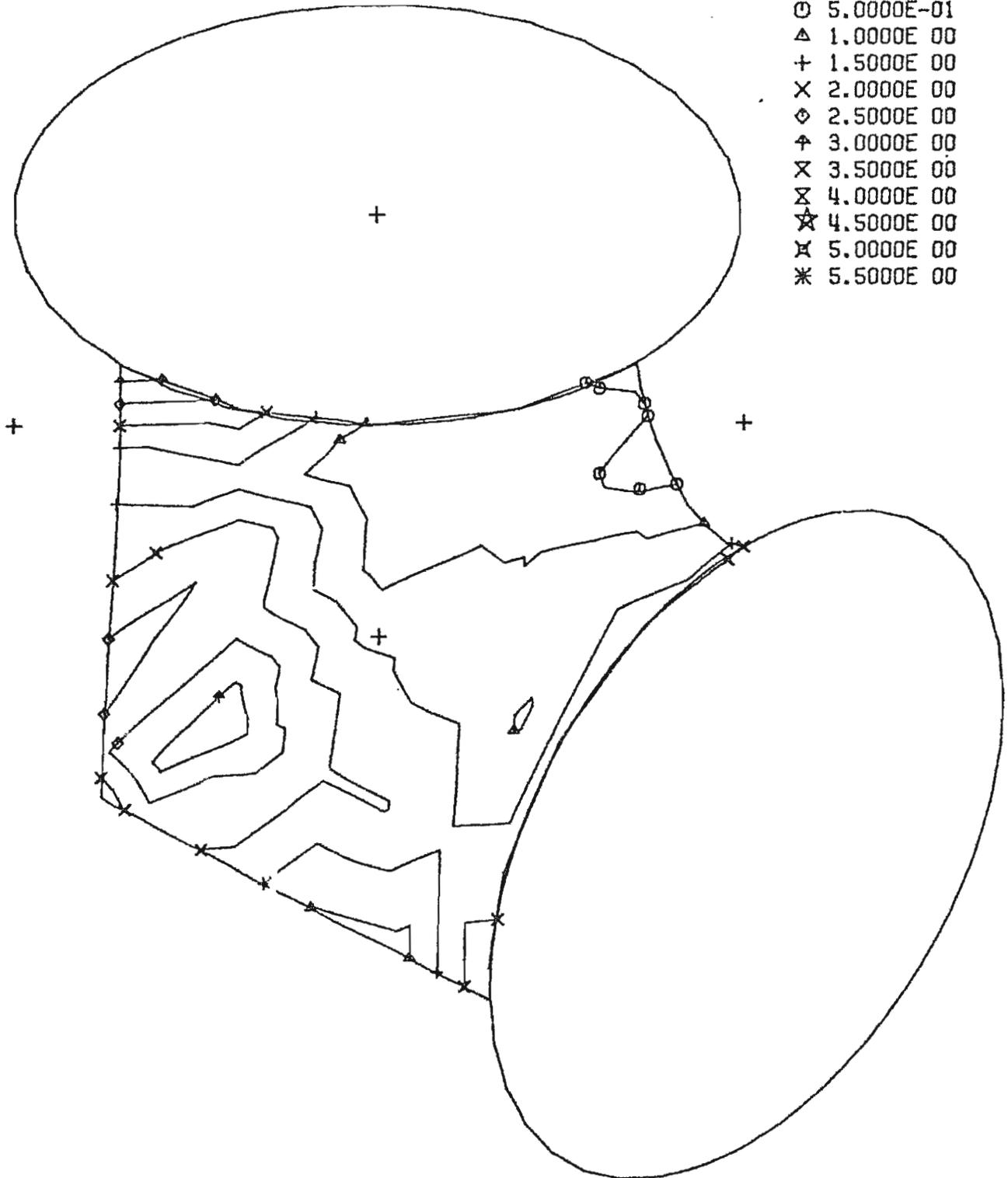


C.E. B16.9 T-16, F3Z

Bottom Outside Surface

CONTOUR VALUES

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- × 2.0000E 00
- ◇ 2.5000E 00
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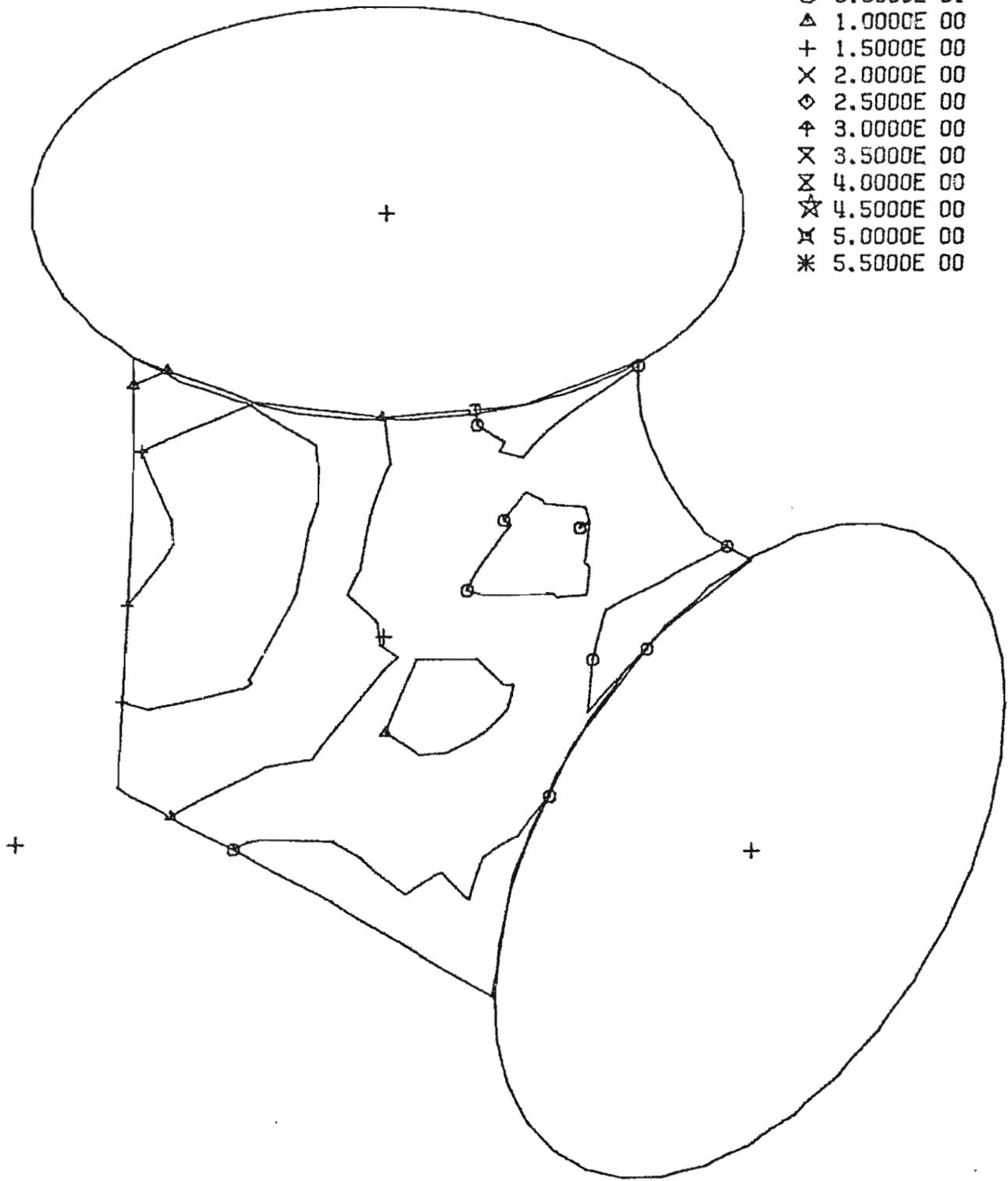


C.E. B16.9 T-16, F3Z

Top Inside Surface

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- × 2.0000E 00
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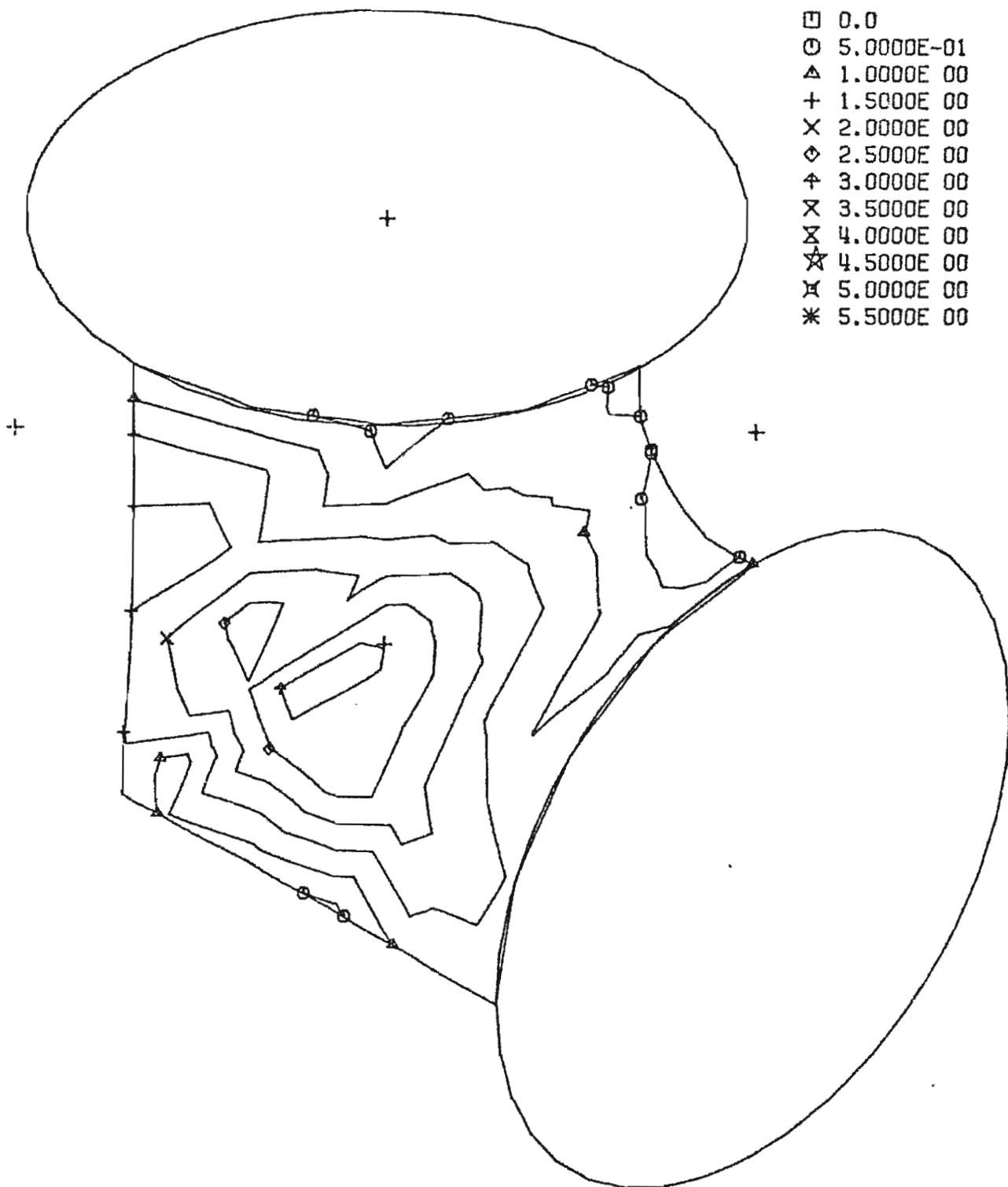


C.E. B16.9 T-16, F3Z

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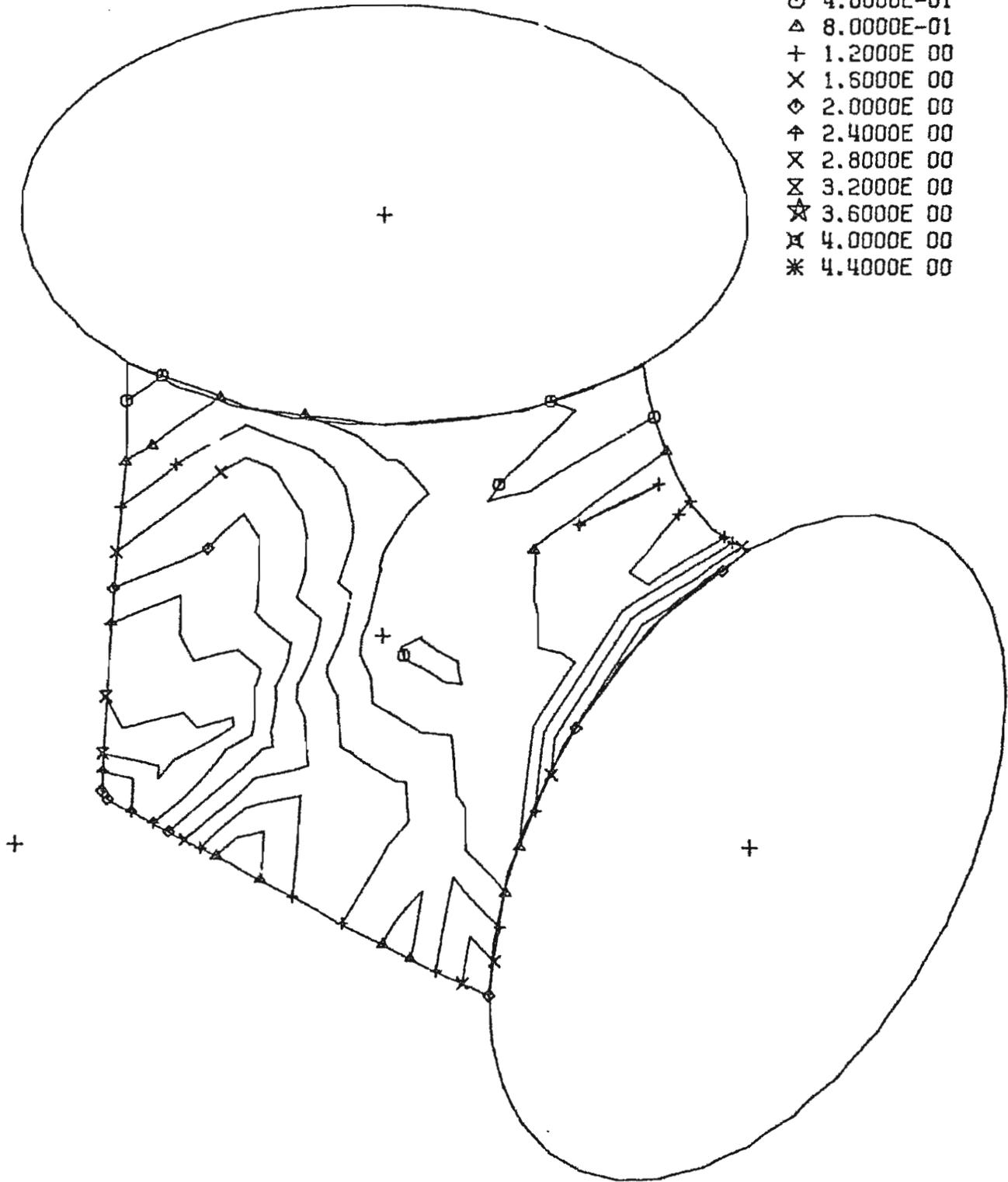
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- ⊘ 4.0000E 00
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- * 5.5000E 00



C.E. B16.9 T-15, M2X
Top Outside Surface

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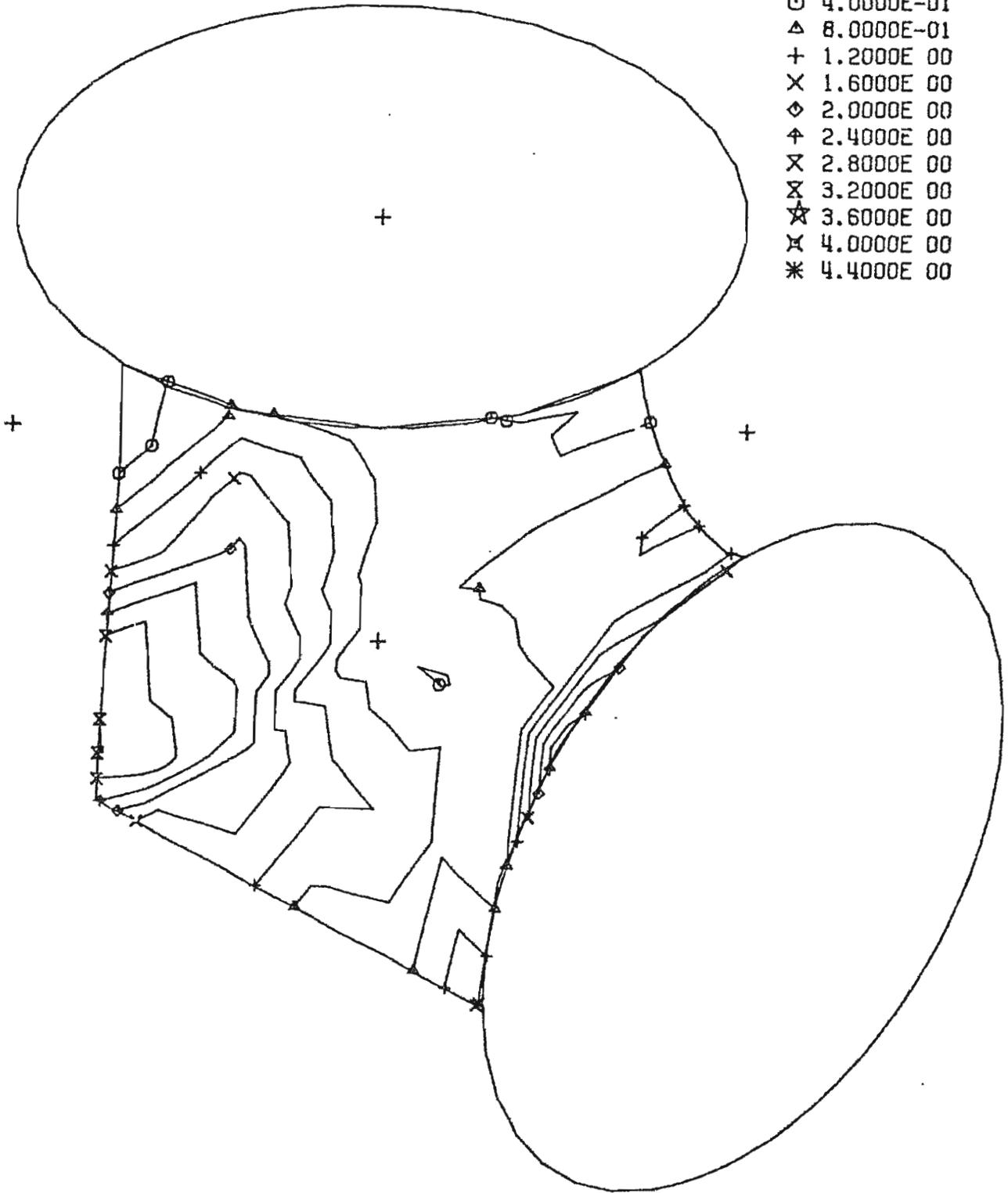
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- × 2.8000E 00
- ⊗ 3.2000E 00
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- * 4.4000E 00



C.E. B16.9 T-16, M2X
Bottom Outside Surface

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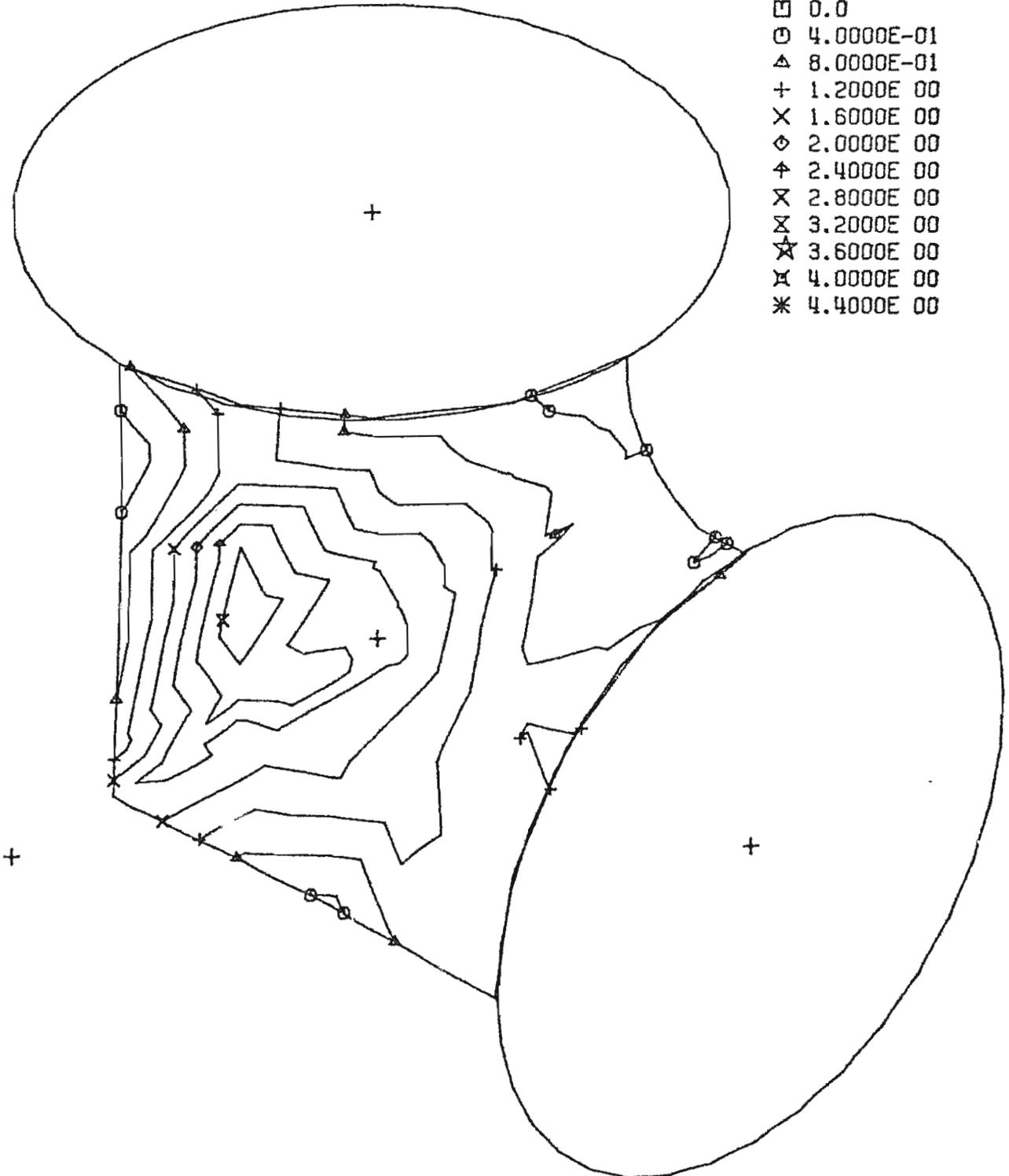
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- ⊗ 2.8000E 00
- ⊠ 3.2000E 00
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- ⊞ 4.0000E 00
- * 4.4000E 00



C.E. B16.9 T-16, M2X
Top Inside Surface

CONTOUR VALUES

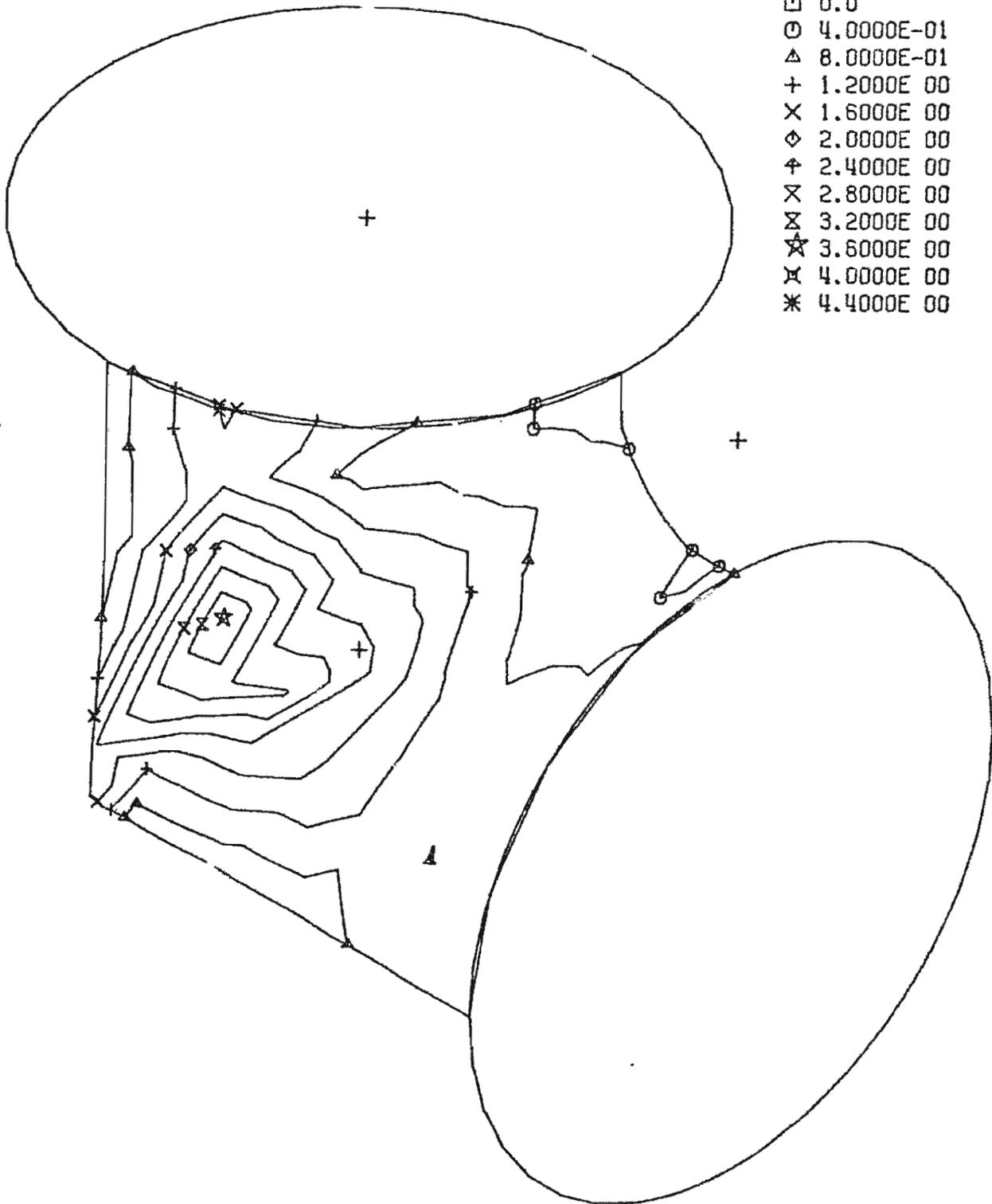
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- ⊗ 2.8000E 00
- ⊘ 3.2000E 00
- ☆ 3.6000E 00
- ⊗ 4.0000E 00
- * 4.4000E 00



C.E. B16.9 T-16, M2X
Bottom Inside Surface

CONTOUR VALUES

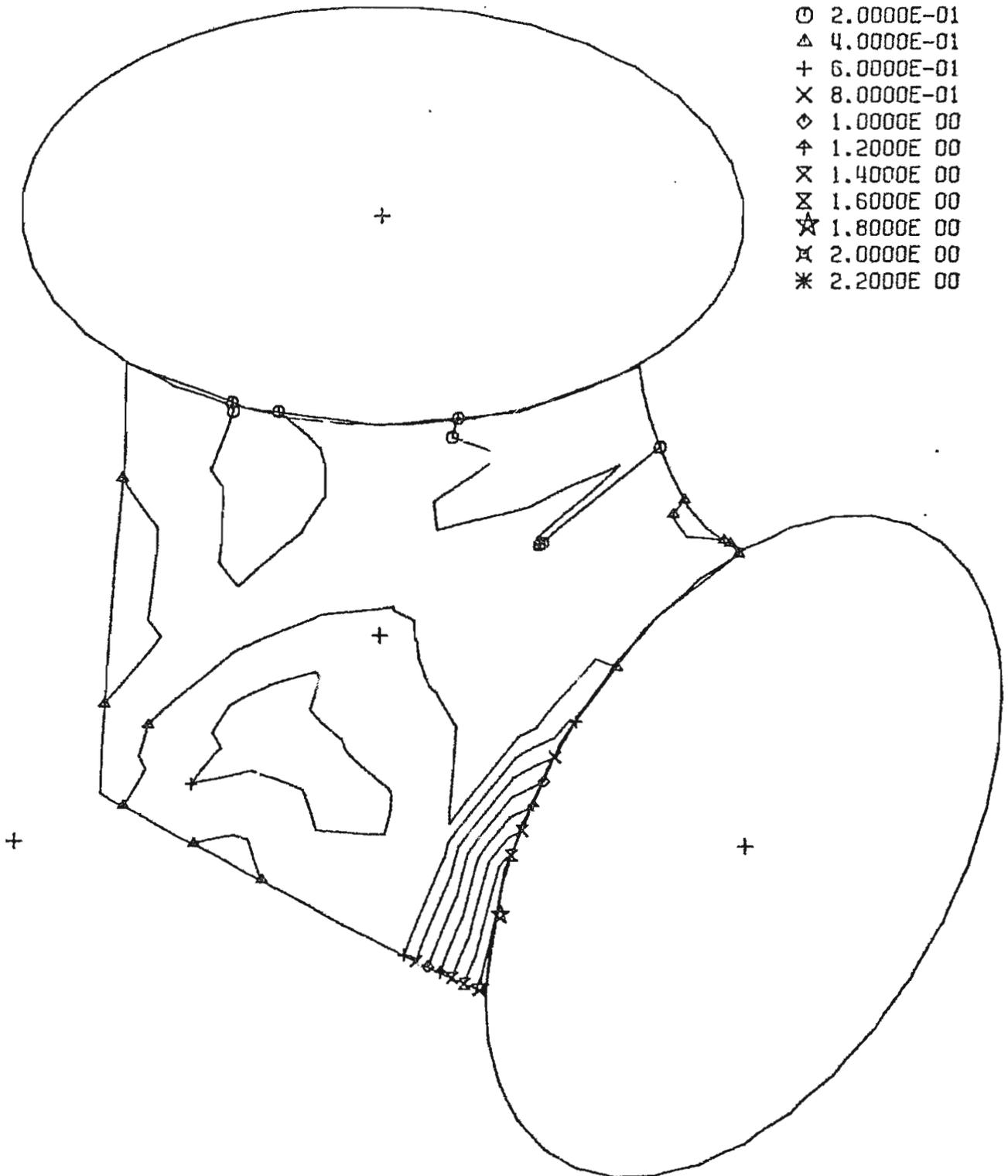
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- ⊗ 2.8000E 00
- ⊘ 3.2000E 00
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- ⊗ 4.0000E 00
- * 4.4000E 00



C.E. B16.9 T-16, M2Y
Top Outside Surface

CONTOUR VALUES

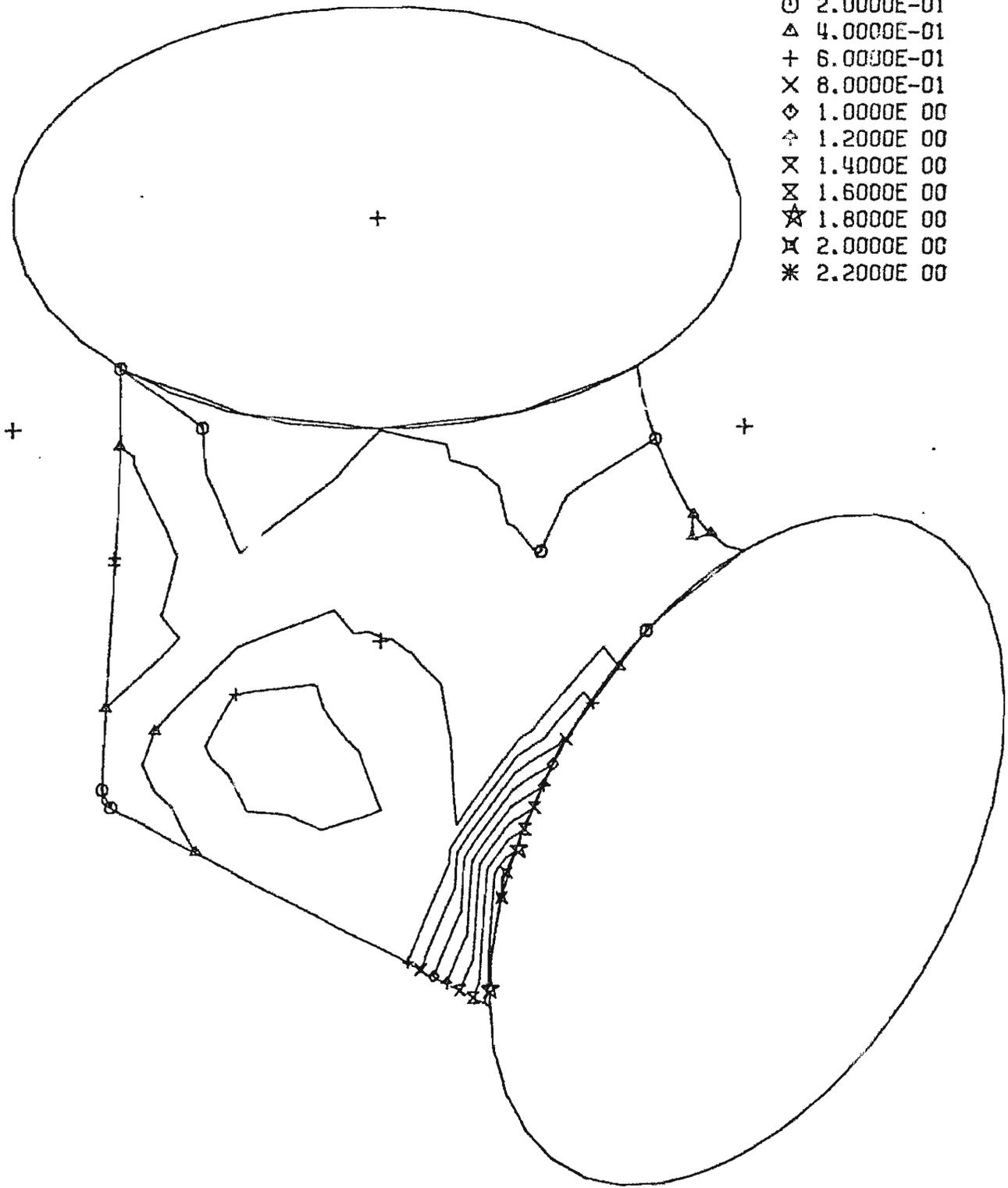
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- × 8.0000E-01
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- ⋈ 1.2000E 00
- ⊗ 1.4000E 00
- ⊗ 1.6000E 00
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- ⊗ 2.0000E 00
- * 2.2000E 00



C.E. B16.9 T-16, M2Y
Bottom Outside Surface

CONTOUR VALUES

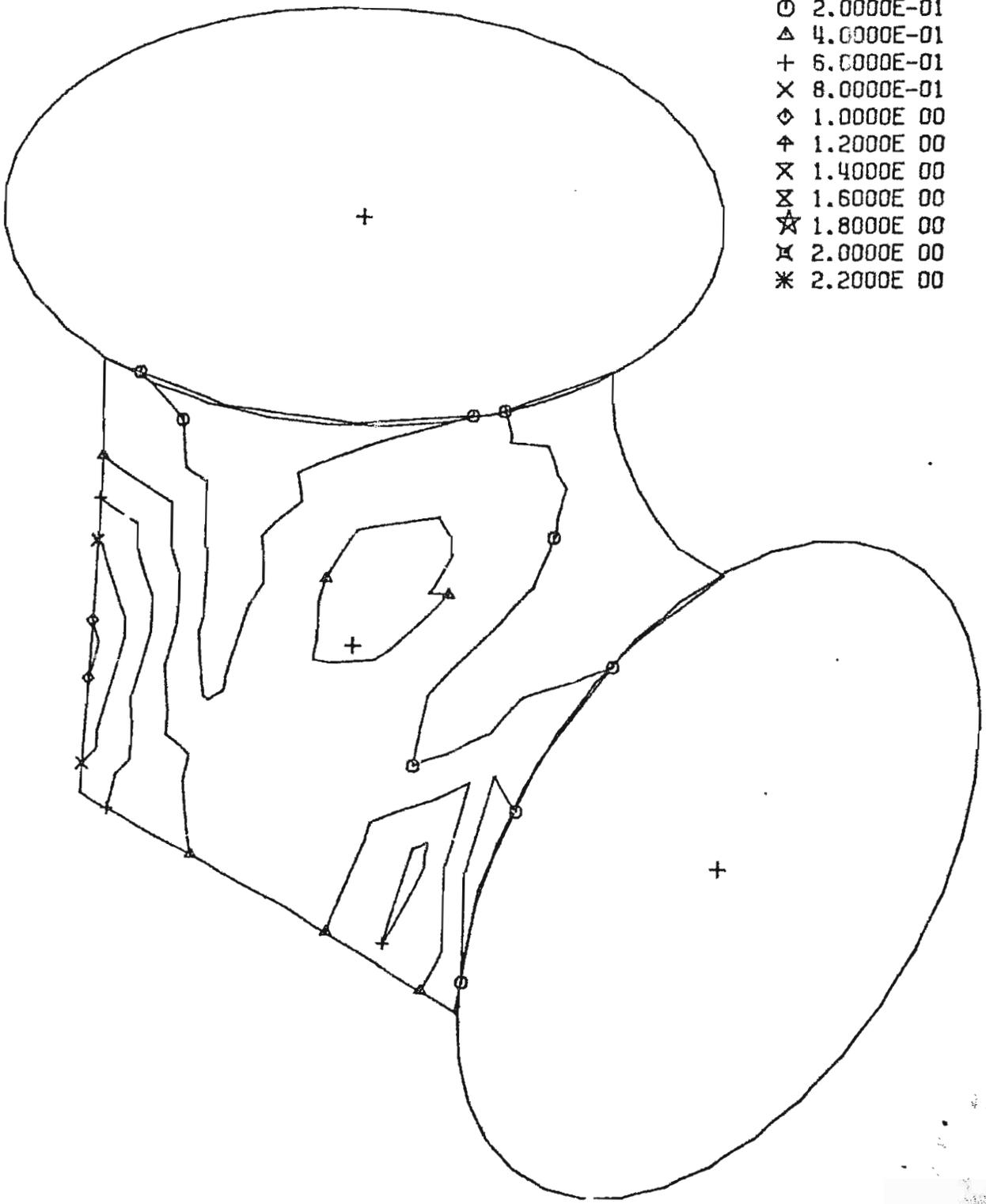
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- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
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- * 2.2000E 00



C.E. B16.9 T-16, M2Y
Top Inside Surface

CONTOUR VALUES

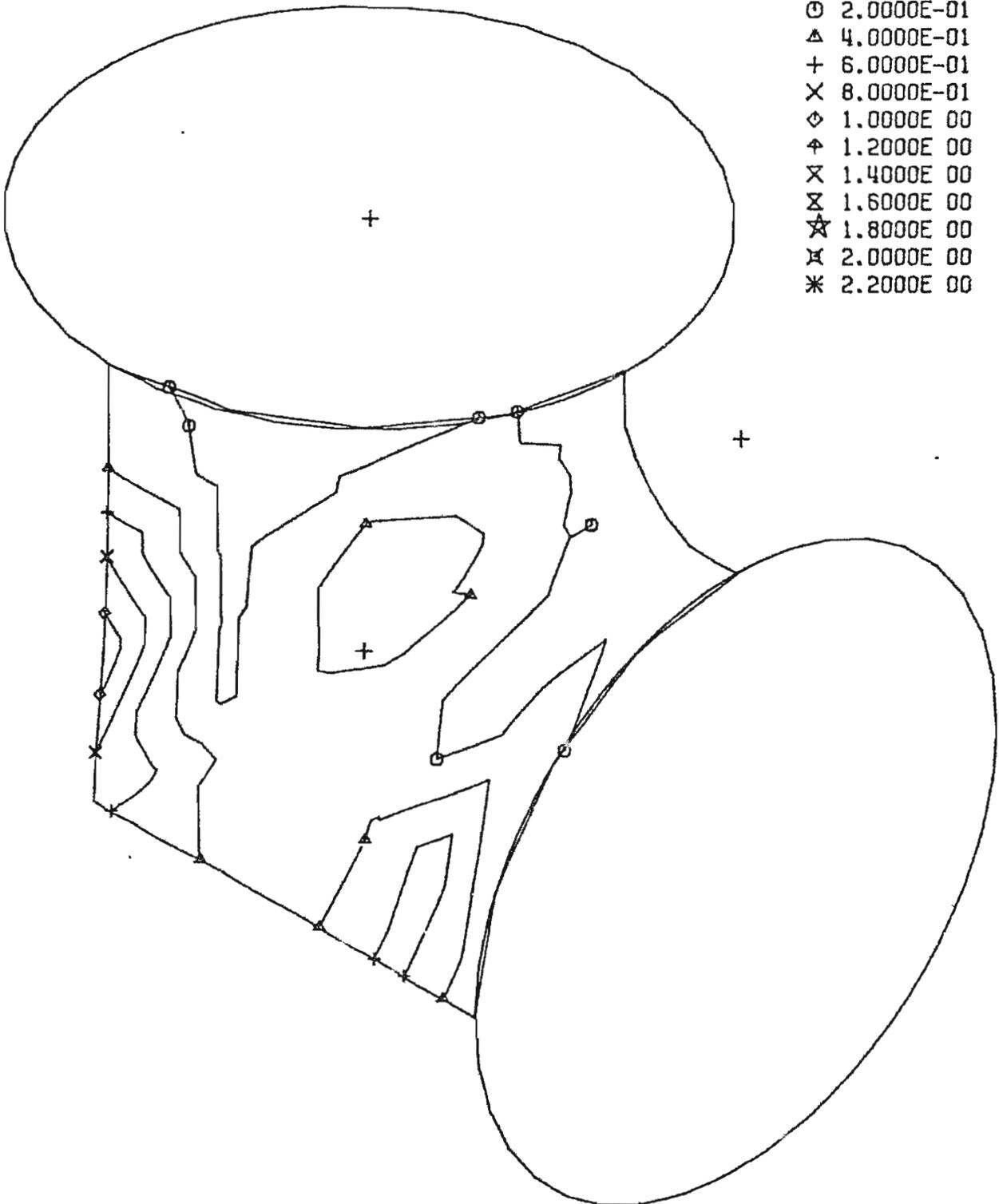
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- ⊗ 1.4000E 00
- ⊘ 1.6000E 00
- ☆ 1.8000E 00
- ⊚ 2.0000E 00
- * 2.2000E 00



C.E. B16.9 T-16, M2Y
Bottom Inside Surface

CONTOUR VALUES

- 0.0
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- △ 4.0000E-01
- + 6.0000E-01
- × 8.0000E-01
- ◇ 1.0000E 00
- ⊕ 1.2000E 00
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- * 2.2000E 00

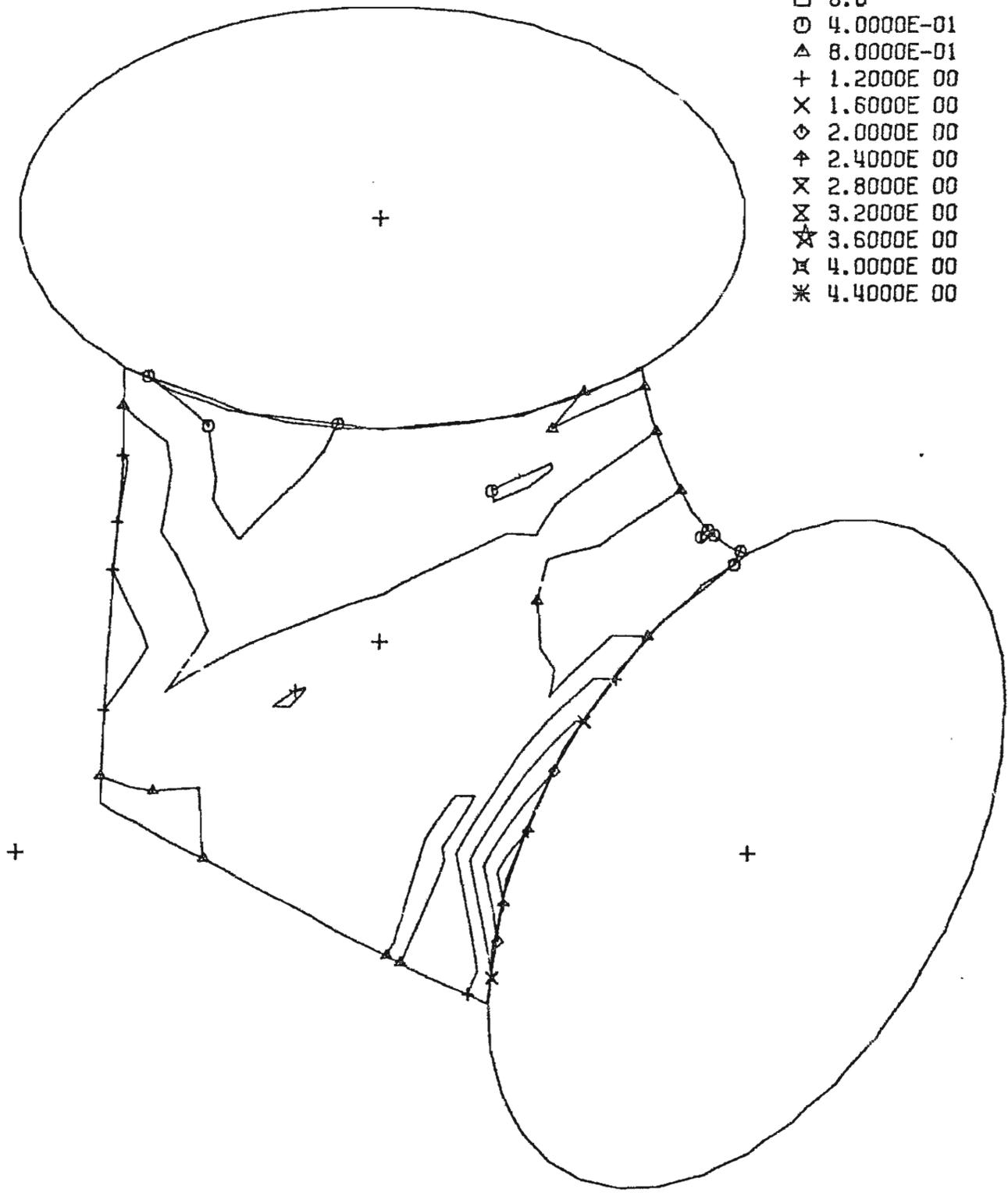


C.E. B16.9 T-16, M2Z

Top Outside Surface

CONTOUR VALUES

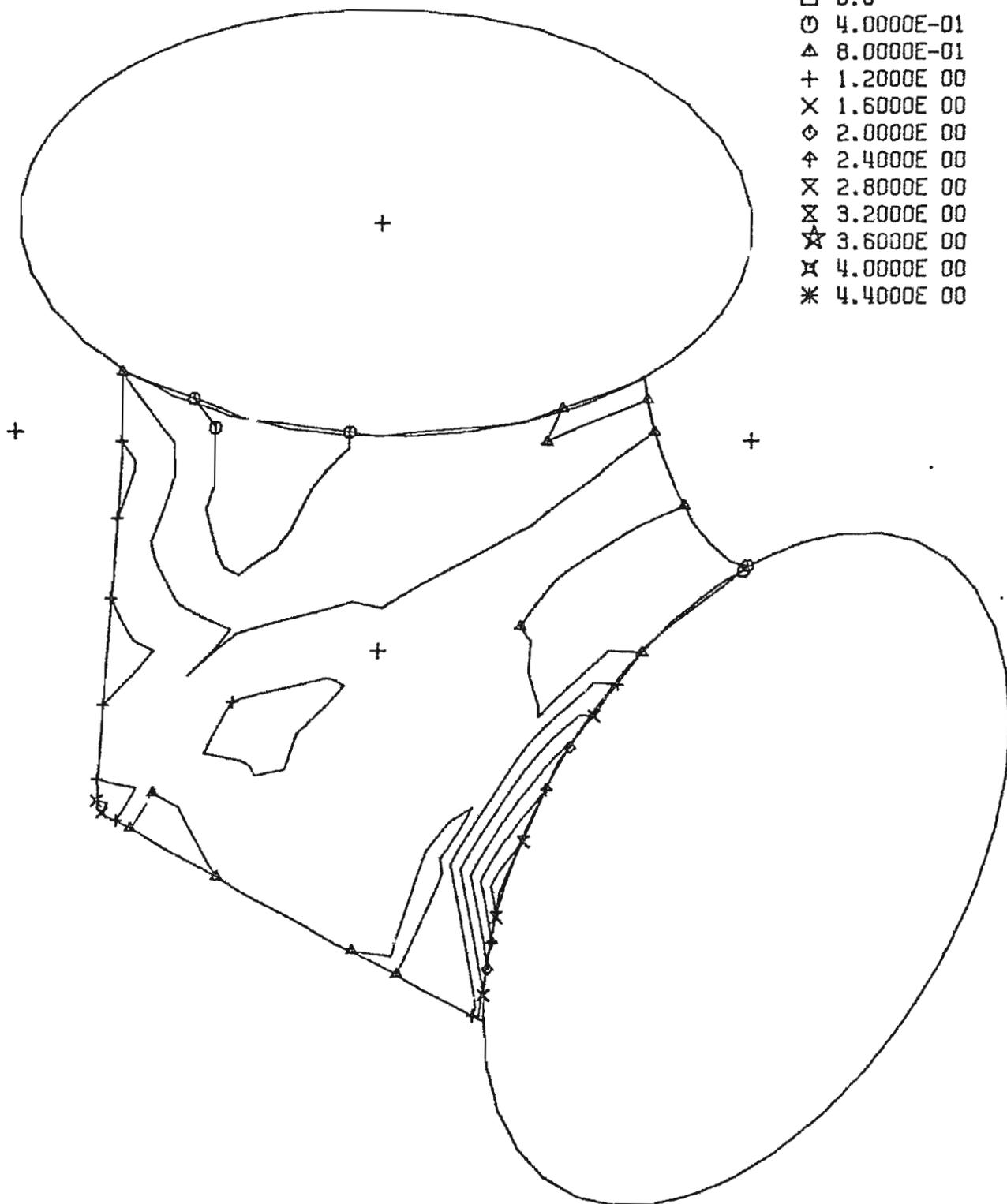
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- ⊗ 2.8000E 00
- ⊘ 3.2000E 00
- ☆ 3.6000E 00
- ⊚ 4.0000E 00
- * 4.4000E 00



C.E. B16.9 T-16, M2Z
Bottom Outside Surface

CONTOUR VALUES

- 0.0
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- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
- ⊕ 2.4000E 00
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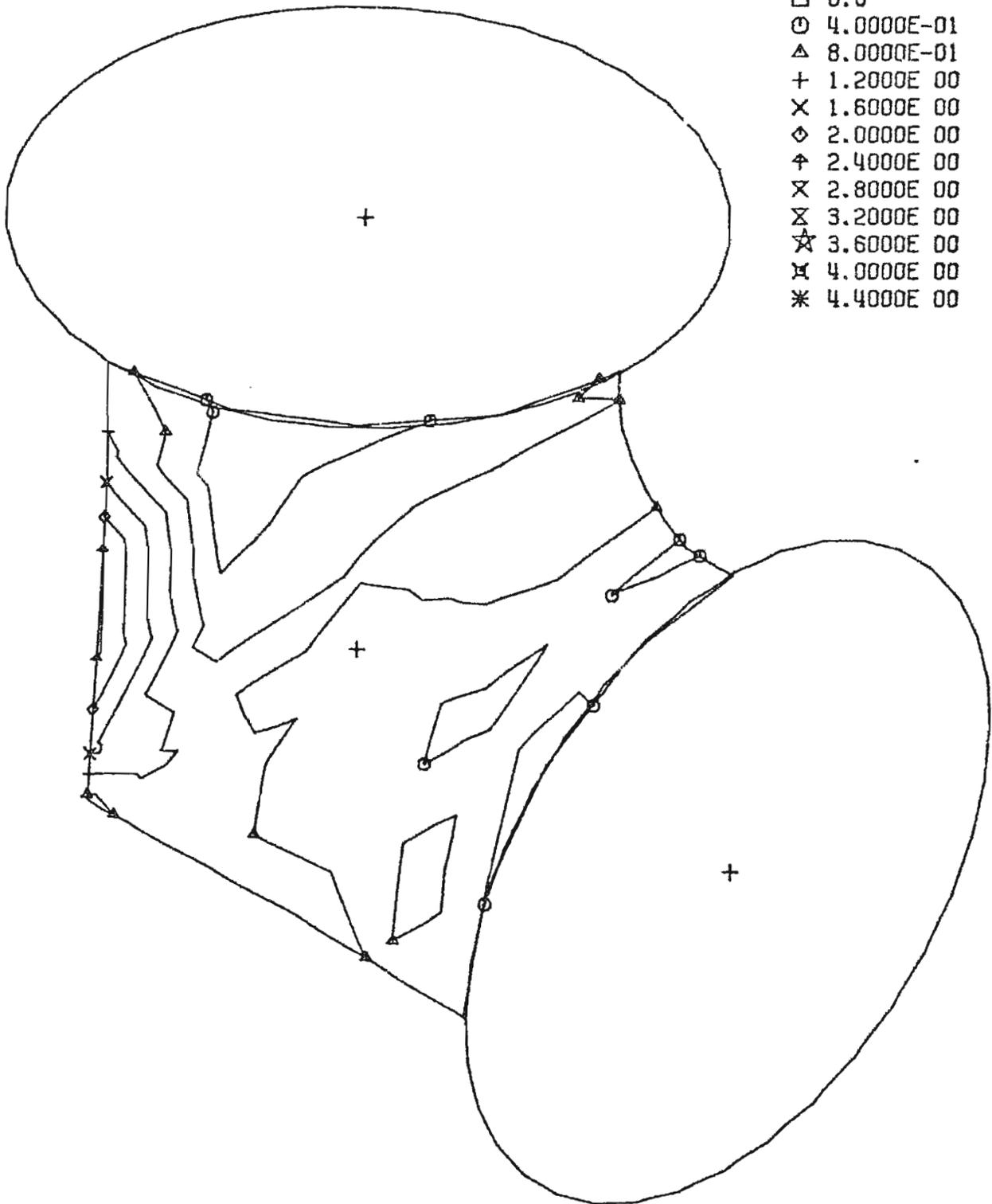


C.E. B16.9 T16, M2Z

Top Inside Surface

CONTOUR VALUES

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- △ 8.0000E-01
- + 1.2000E 00
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- ◇ 2.0000E 00
- † 2.4000E 00
- × 2.8000E 00
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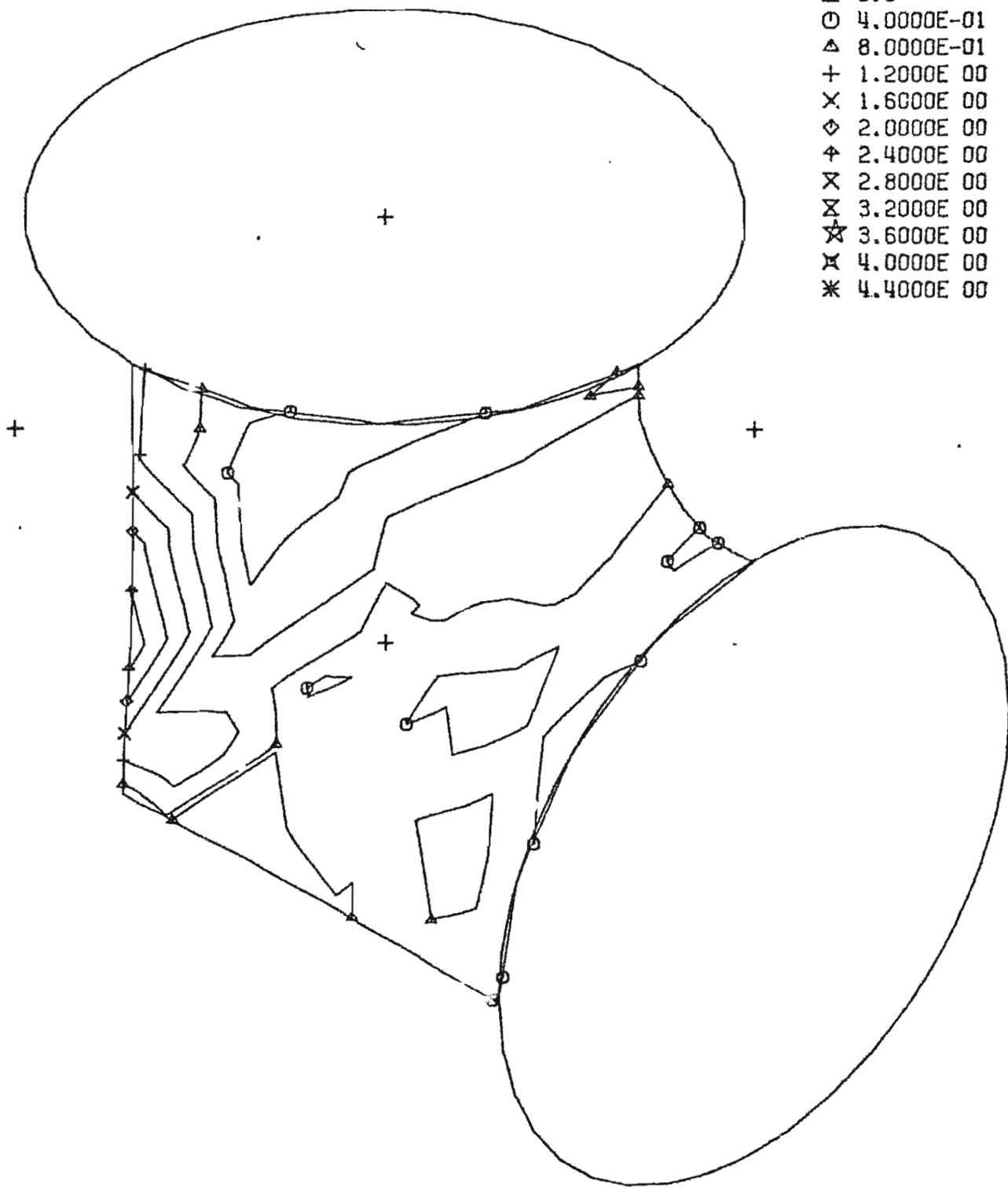


C.E. B16.9 T-16, M2Z

Bottom Inside Surface

CONTOUR VALUES

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- 4.0000E-01
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- + 1.2000E 00
- × 1.6000E 00
- ◇ 2.0000E 00
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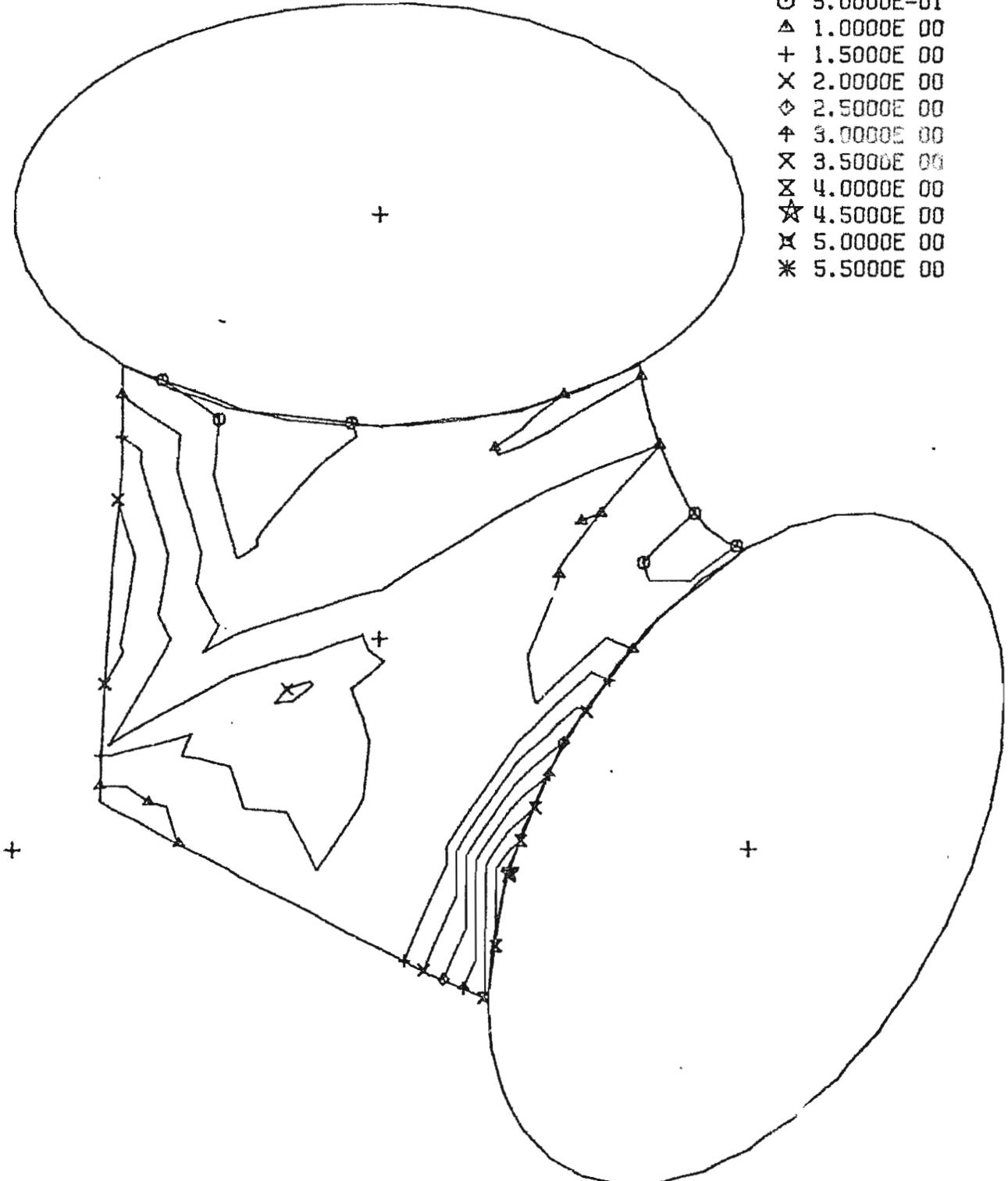


C.E. B16.9 T-16, F2X

Top Outside Surface

CONTOUR VALUES

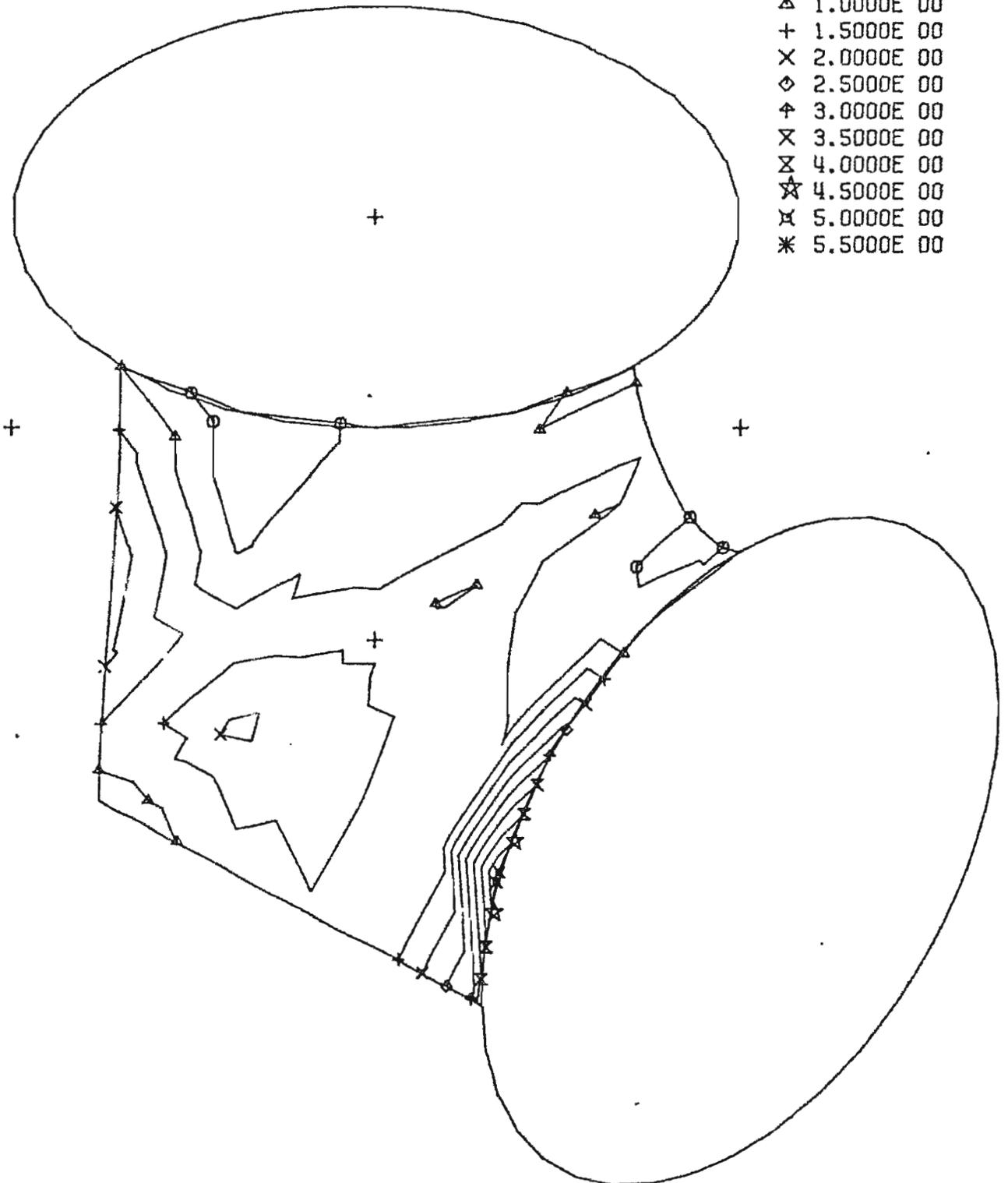
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- ⊘ 4.0000E 00
- ☆ 4.5000E 00
- ⊗ 5.0000E 00
- * 5.5000E 00



C.E. B16.9 1-16, F2X
Bottom Outside Surface

CONTOUR VALUES

- 0.0
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- △ 1.0000E 00
- + 1.5000E 00
- × 2.0000E 00
- ◇ 2.5000E 00
- ⊕ 3.0000E 00
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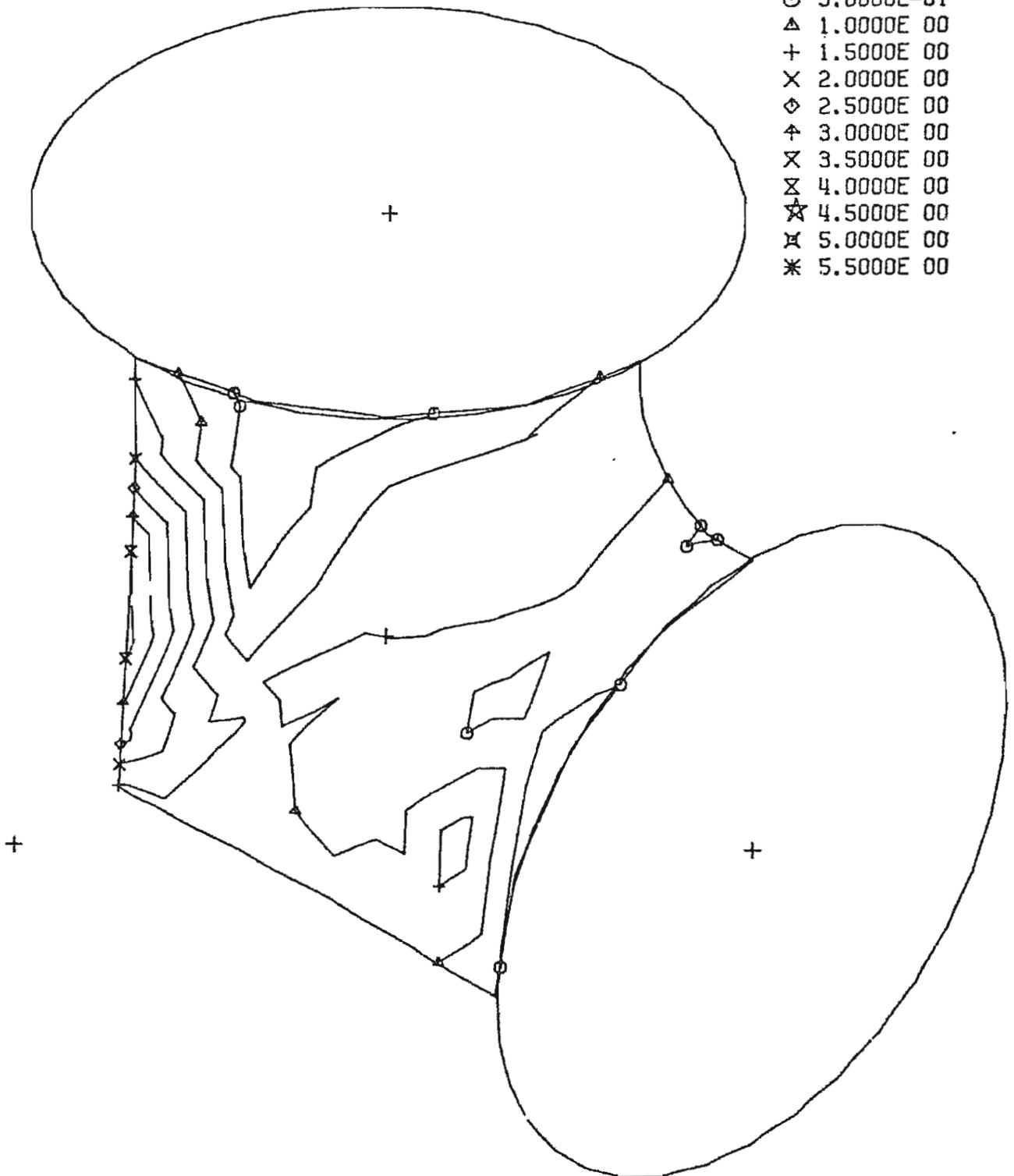


C.E. B16.9 T-16, F2X

Top Inside Surface

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- ◇ 2.5000E 00
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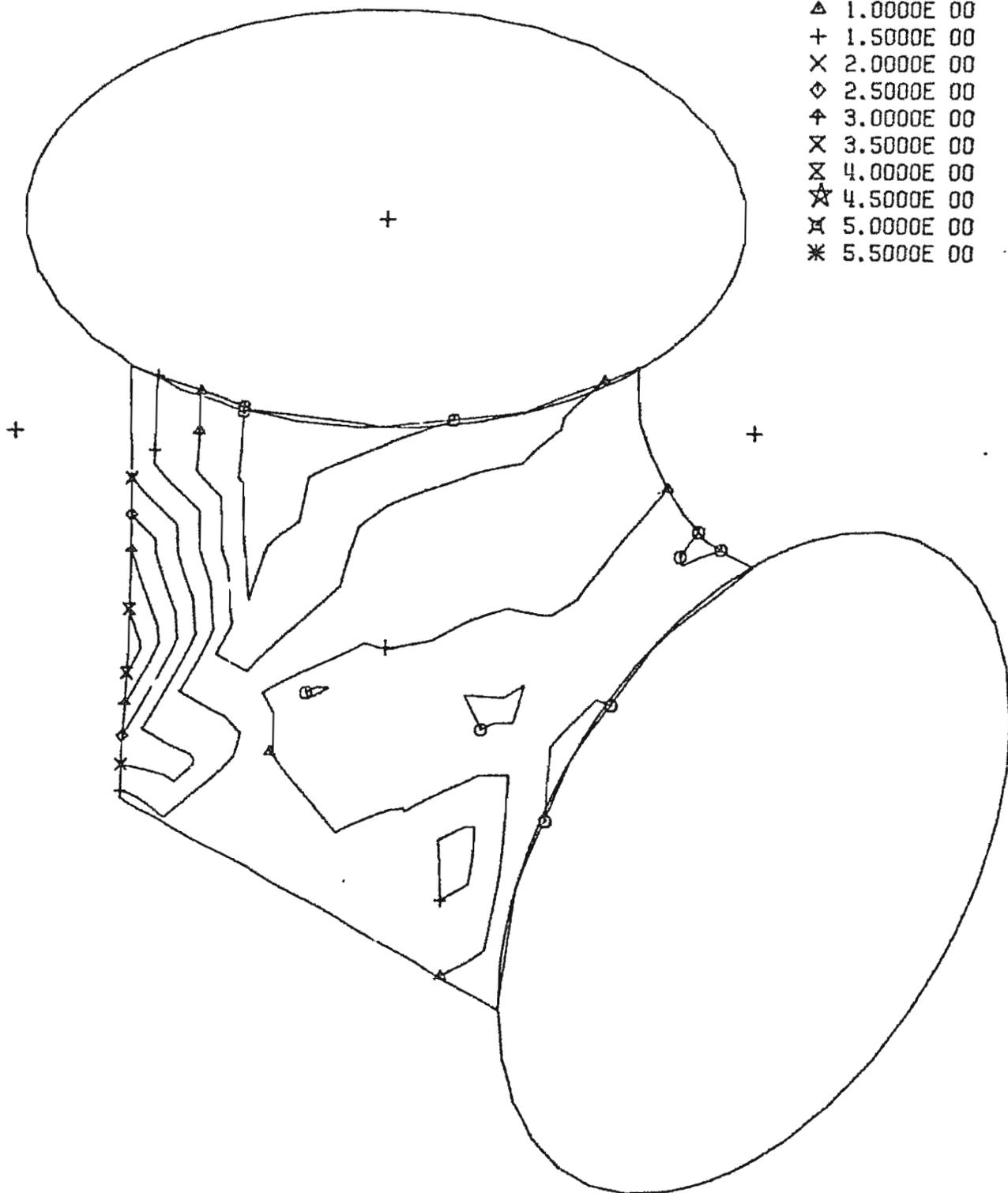


C.E. B16.9 T-16, F2X

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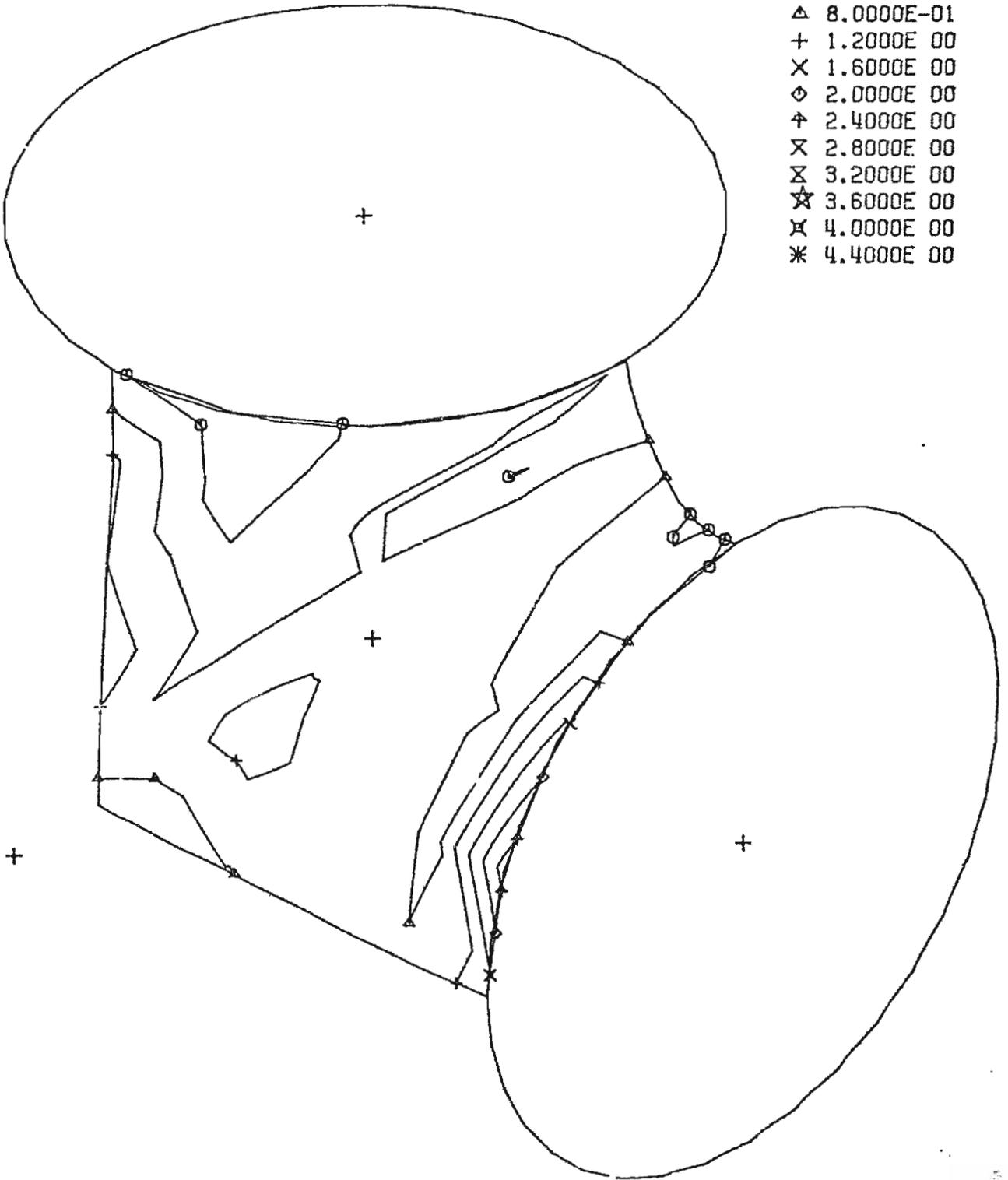
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- ⊗ 3.5000E 00
- ⊘ 4.0000E 00
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- ⊗ 5.0000E 00
- * 5.5000E 00



C.E. B16.9 T-16, F2Y
Top Outside Surface

CONTOUR VALUES

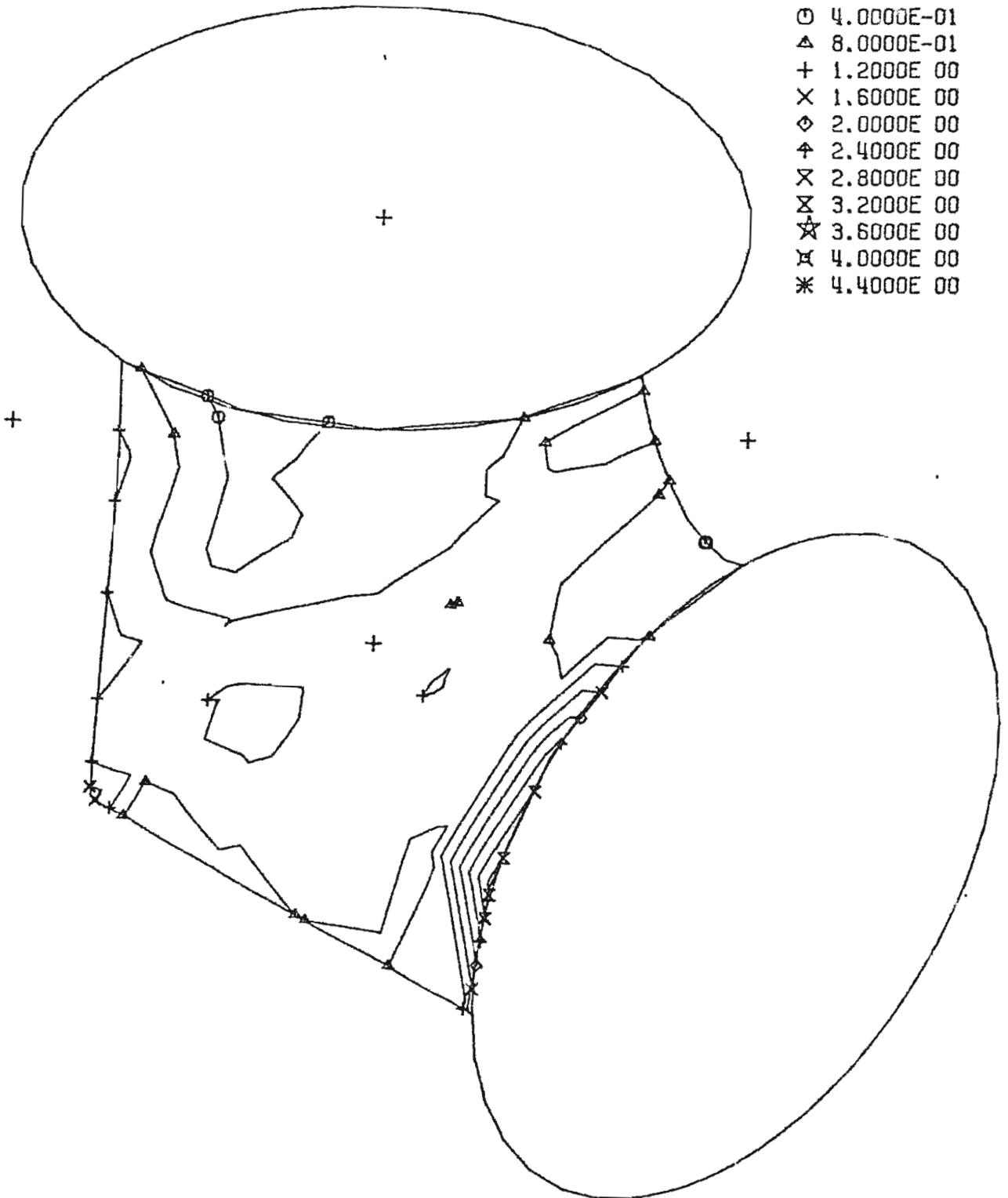
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- ⊗ 2.8000E 00
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- ☆ 3.6000E 00
- ⊗ 4.0000E 00
- * 4.4000E 00



C.E. B16.9 T-16, F2Y
Bottom Outside Surface

CONTOUR VALUES

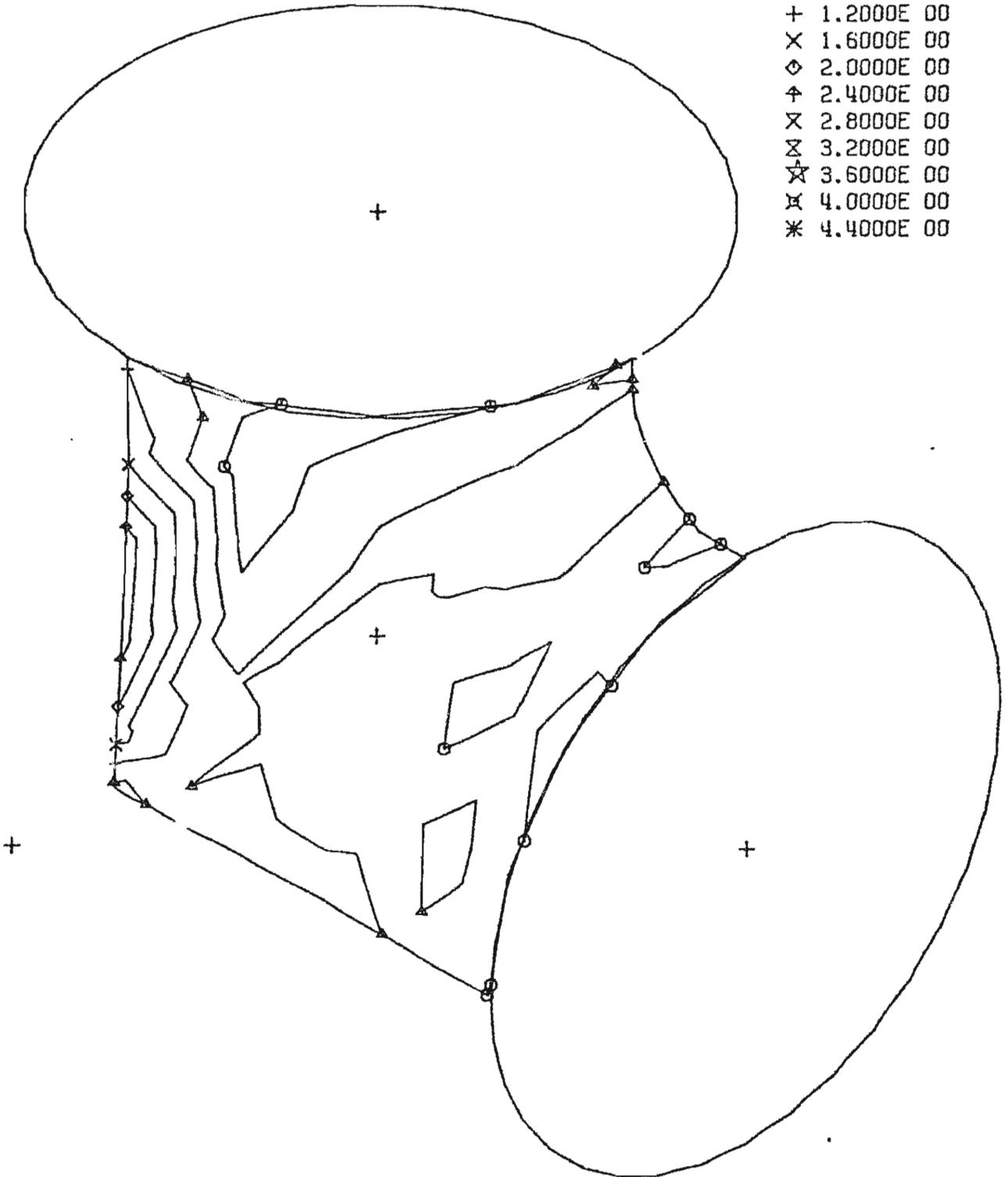
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- ⊗ 2.8000E 00
- ⊘ 3.2000E 00
- ☆ 3.6000E 00
- ⊠ 4.0000E 00
- * 4.4000E 00



CONTOUR VALUES

C.E. B16.9 T-16, F2Y
Top Inside Surface

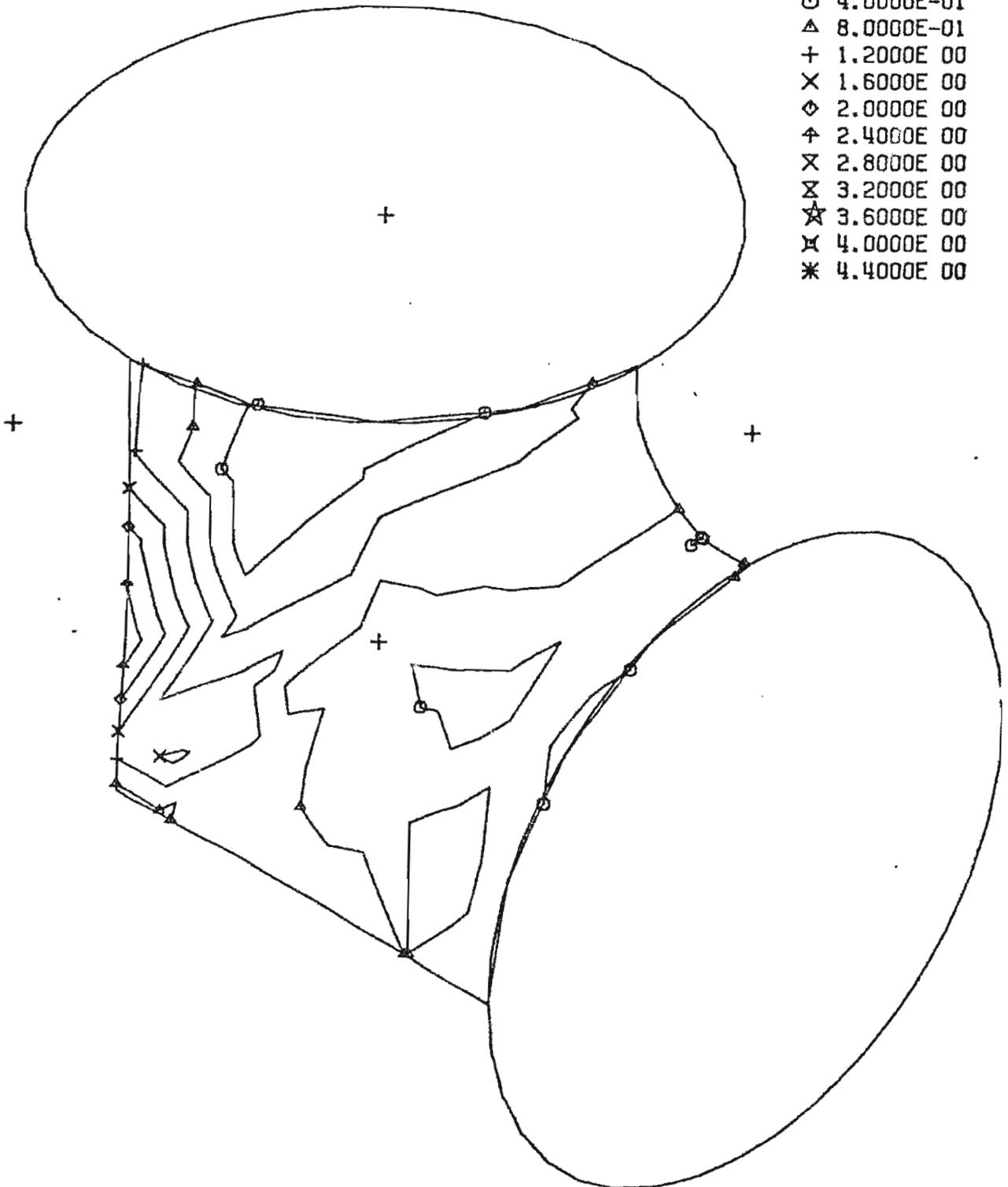
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- ⋈ 3.2000E 00
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- ⋈ 4.0000E 00
- * 4.4000E 00



C.E. B16.9 T-16, F2Y
Bottom Inside Surface

CONTOUR VALUES

- 0.0
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- △ 8.0000E-01
- + 1.2000E 00
- × 1.6000E 00
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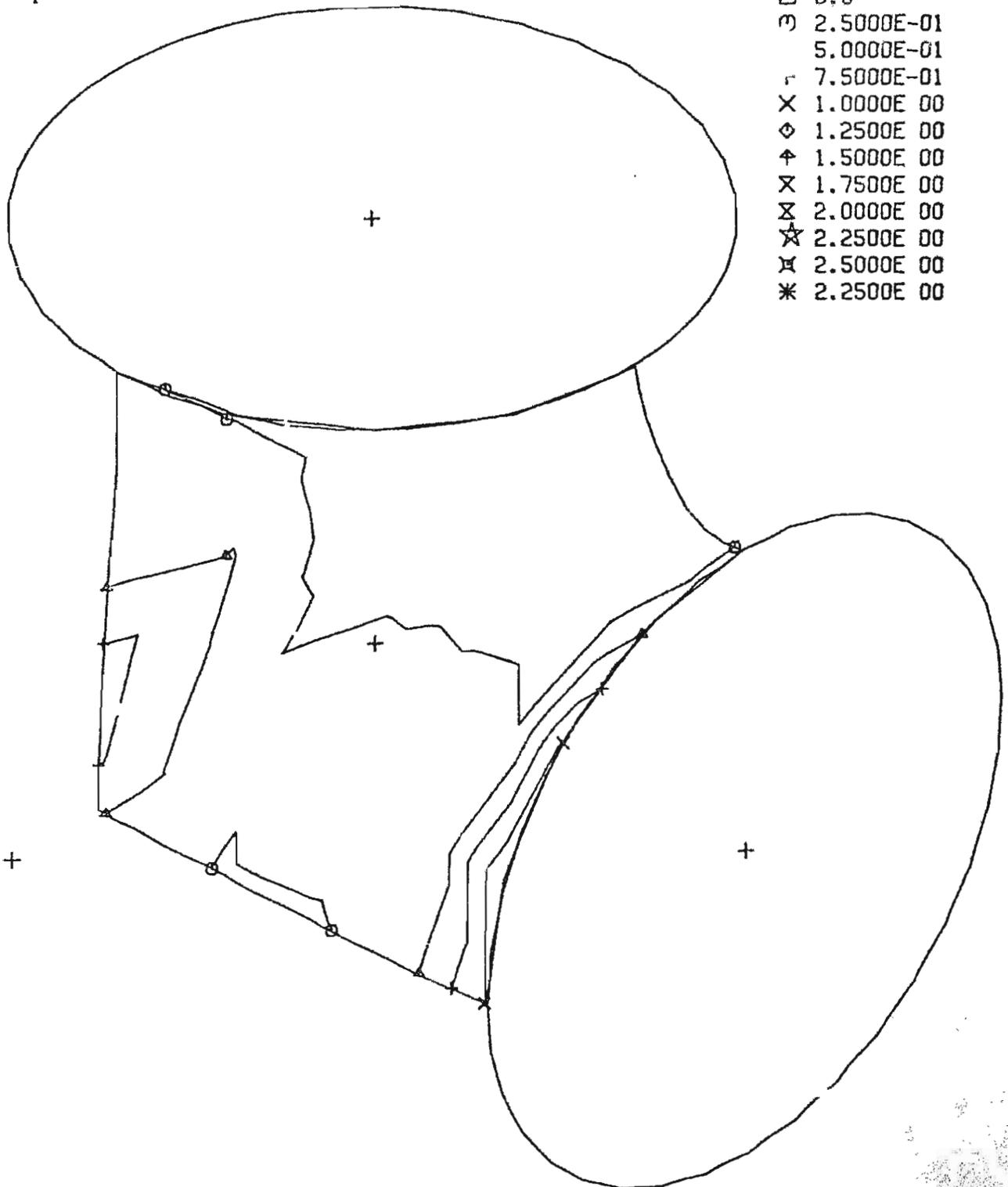


C.E. B16.9 T-16, F2Z

Top Outside Surface

CONTOUR VALUES

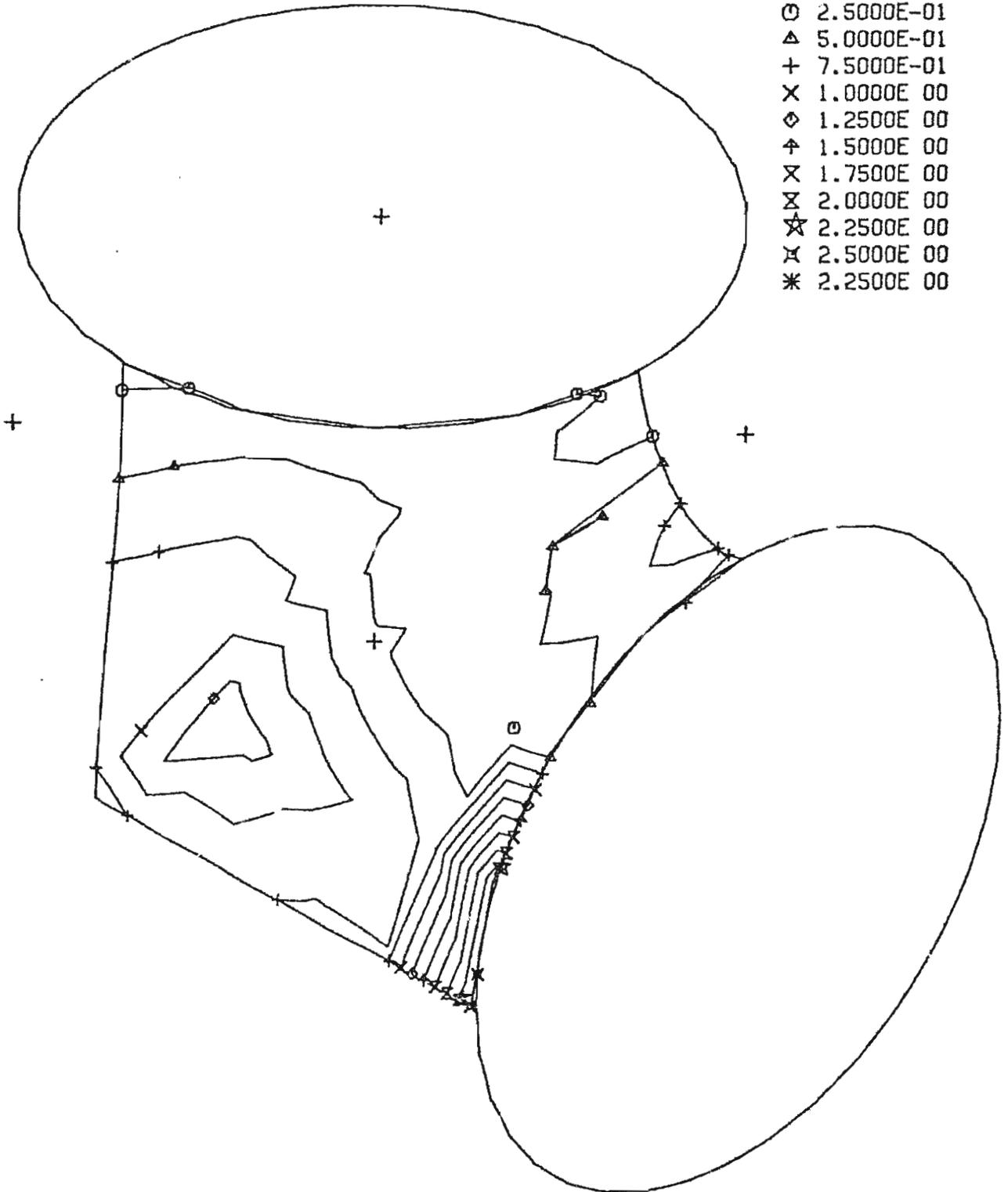
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- ⊗ 2.0000E 00
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- ⊗ 2.5000E 00
- * 2.2500E 00



C.E. B16.9 T-16, F2Z
Bottom Outside Surface

CONTOUR VALUES

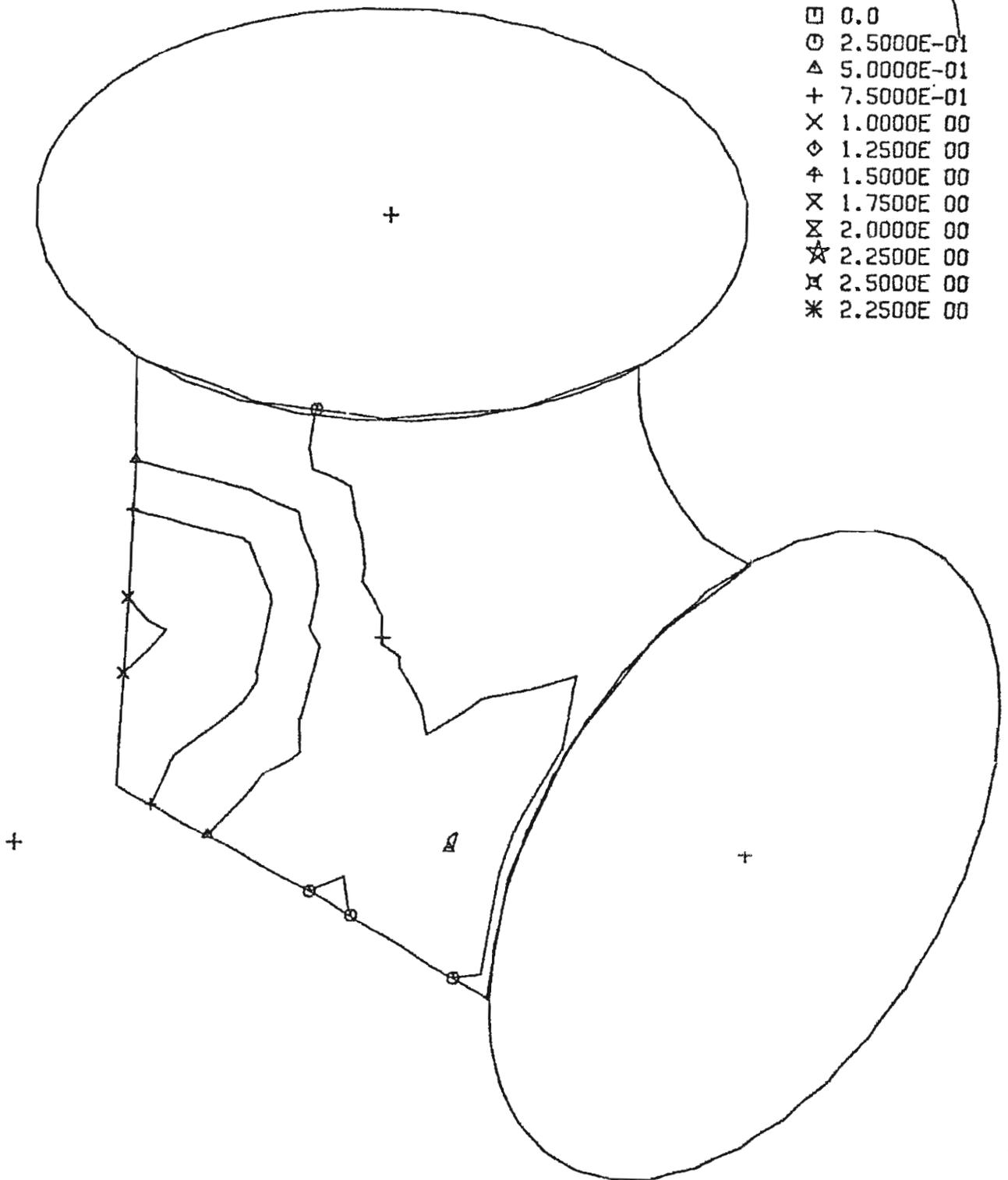
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- * 2.2500E 00



C.E. B16.9 T-16, F2Z
Top Inside Surface

CONTOUR VALUES

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- △ 5.0000E-01
- + 7.5000E-01
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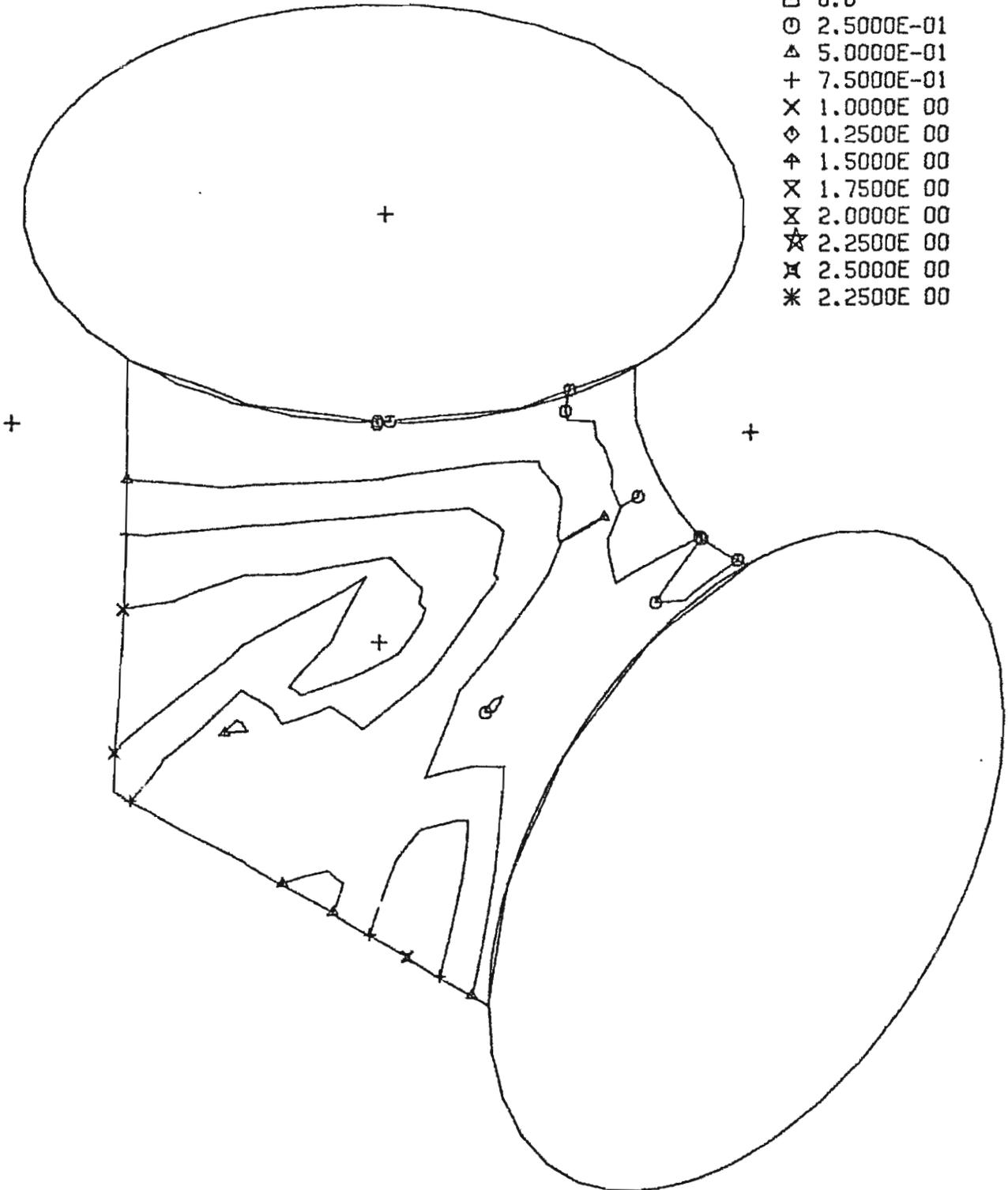


C.E. B16.9 T-16, F2Z

Bottom Inside Surface

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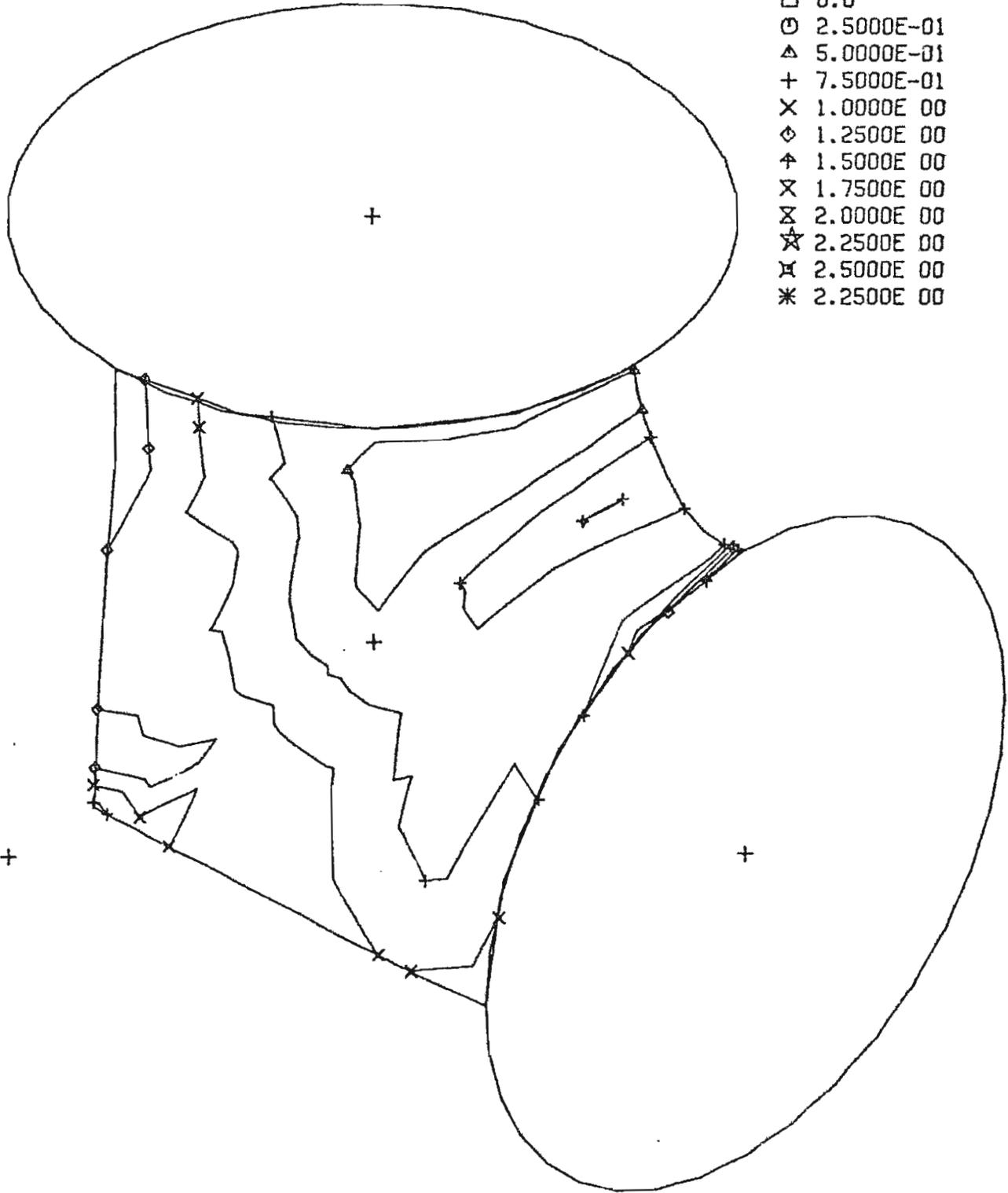


C.E. B16.9 T-16, PRESSURE

Top Outside Surface

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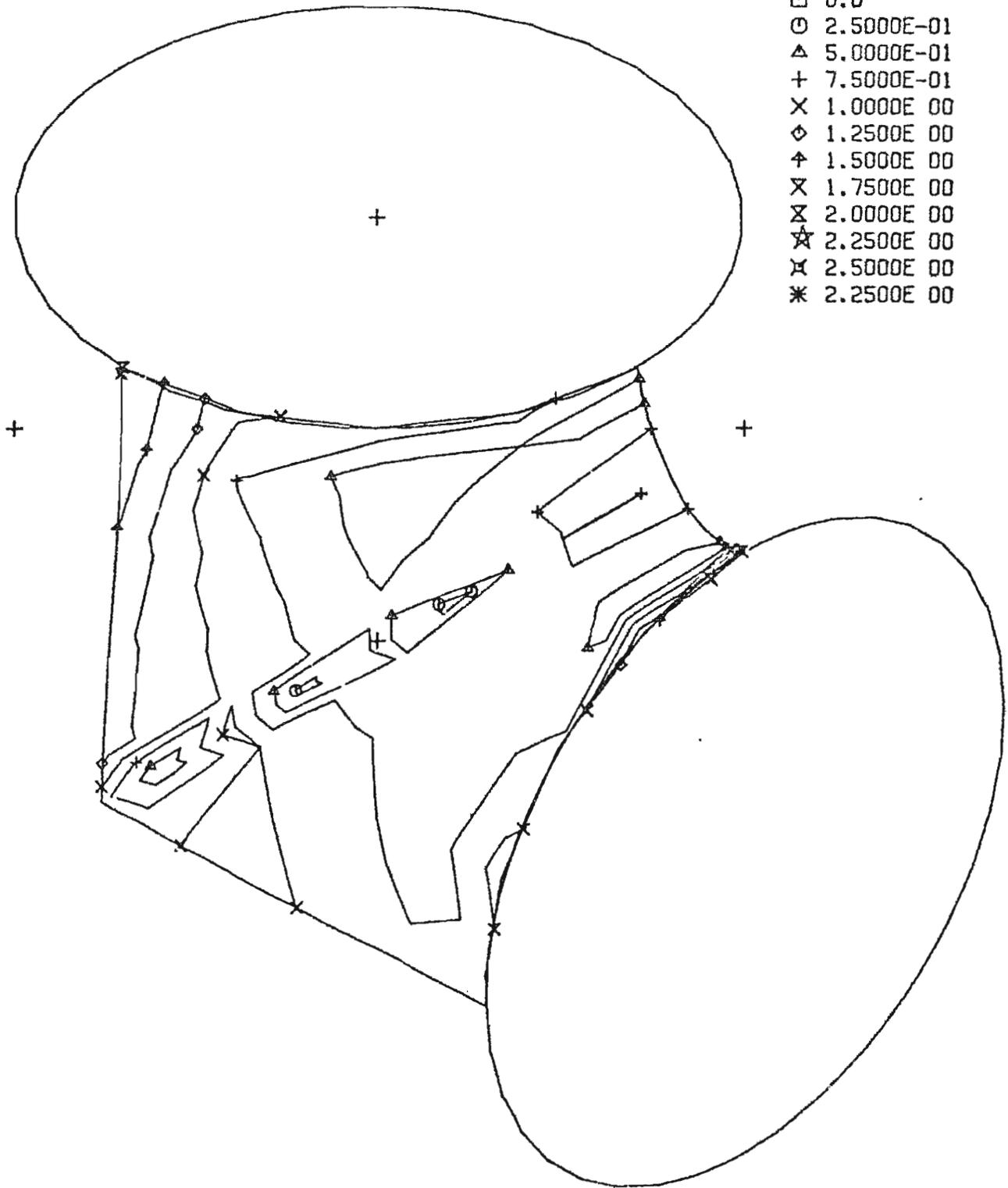


C.E. B16.9 T-16, PRESSURE

Bottom Outside Surface

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- ⋈ 1.5000E 00
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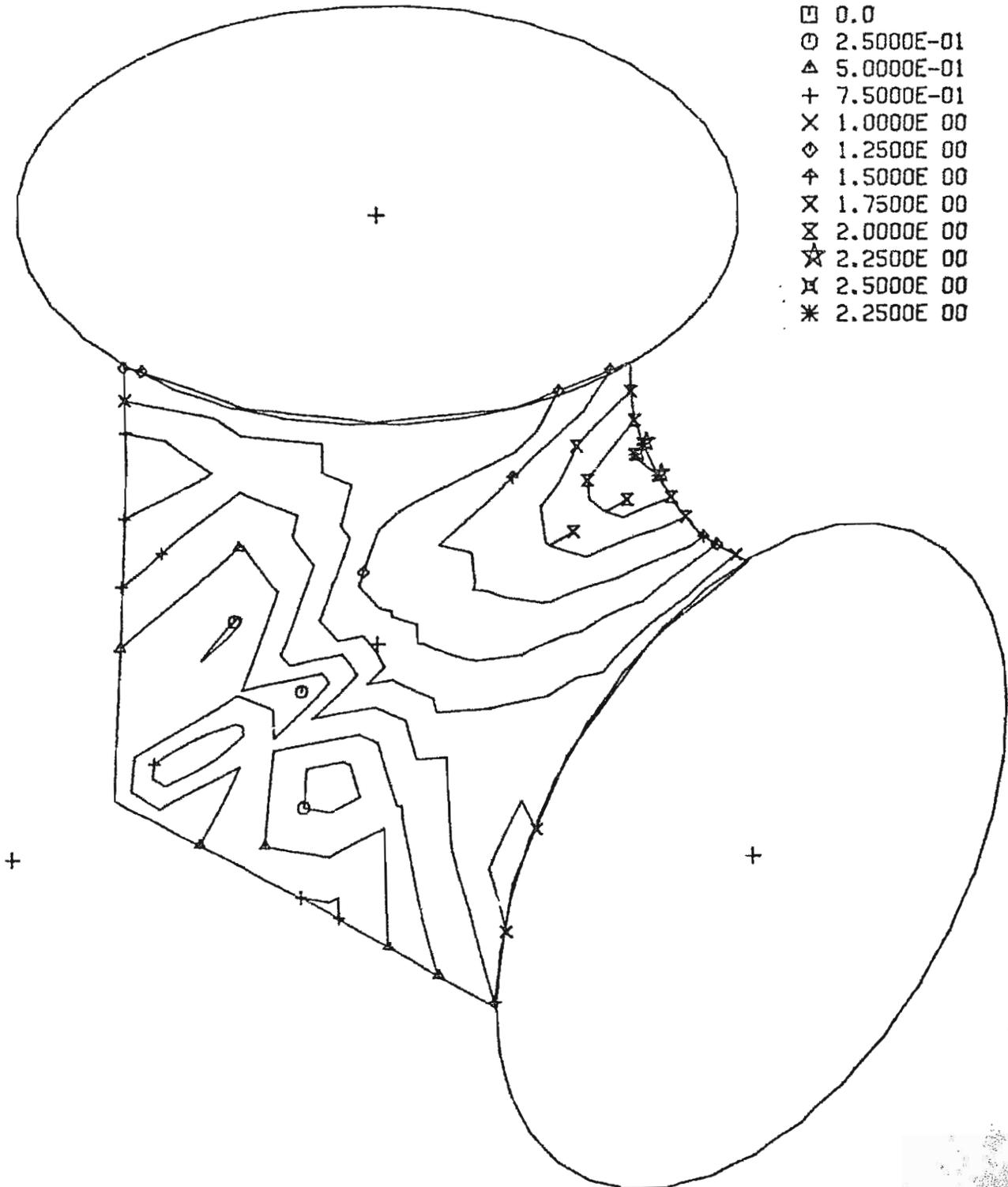


C.E. B16.9 T-16, PRESSURE

Top Inside Surface

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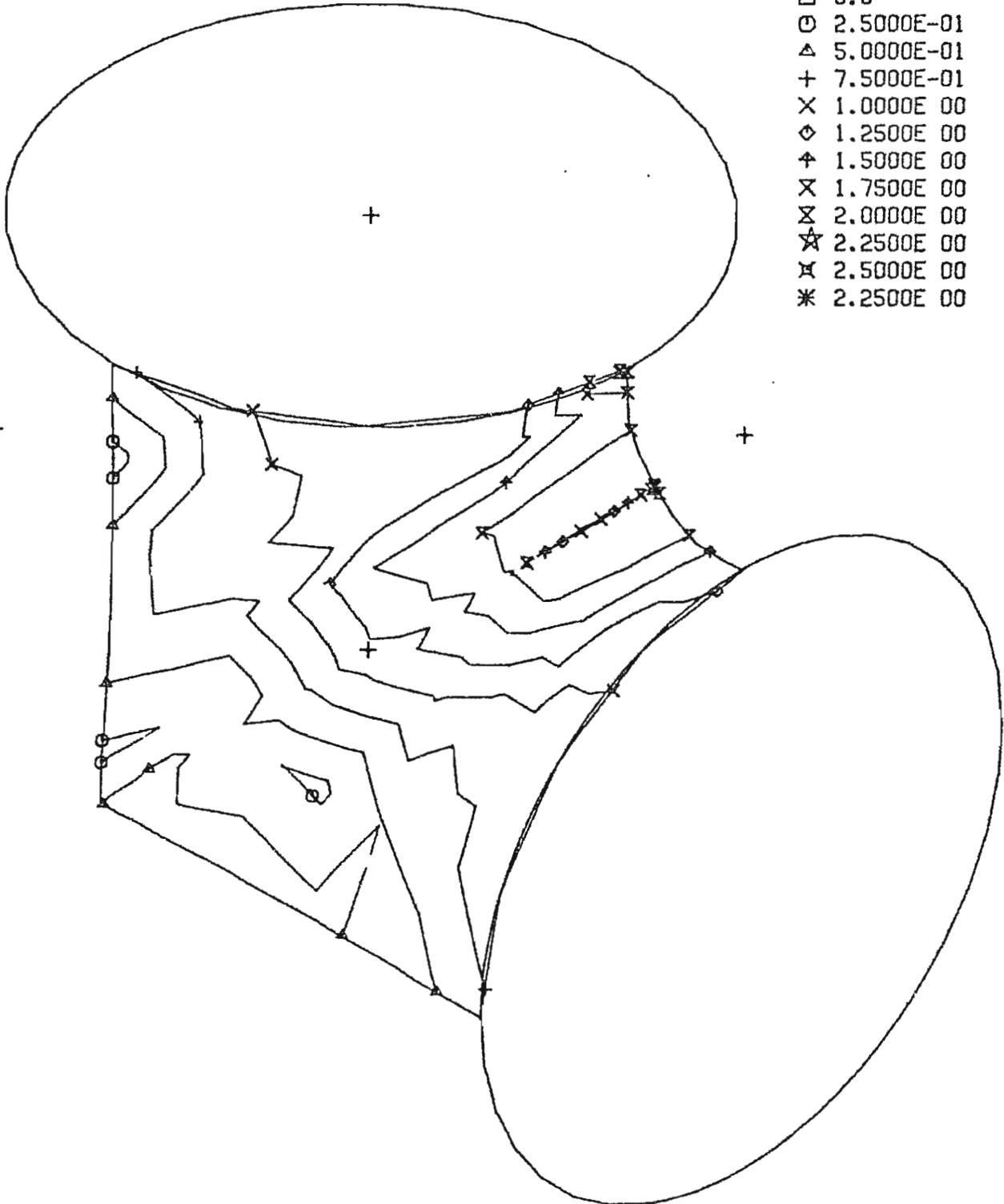


C.E. B16.9 T-16, PRESSURE

Bottom Inside Surface

CONTOUR VALUES

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- × 1.0000E 00
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- ⋈ 1.5000E 00
- ⊗ 1.7500E 00
- ⊠ 2.0000E 00
- ☆ 2.2500E 00
- ⊠ 2.5000E 00
- * 2.2500E 00



APPEN IX VIII

SUPPLEMENTARY FATIGUE TEST DATA

Appendix VIII contains the following sub-appendices.

VIII.1 Investigation of ORNL T-11 Tee Fatigue Test

VIII.2 T-12 Fatigue Test Sheets

VIII.3 Metallographic Examination of ORNL B16.9 T-13

APPENDIX VIII.1

INVESTIGATION OF ORNL T-11 TEE FATIGUE TEST

INVESTIGATION ORNL T-11 TEE FATIGUE FAILURE

INTRODUCTION

Sections of T-11 tee that failed in fatigue were submitted to the Metallurgical Research and Development Laboratory for evaluation. Figure 1 shows the section as received in the Laboratory. Figure 2 shows the I.D. surface with the crack plainly visible.

PROCEDURE AND RESULTS

Fracture surface was revealed by cutting the section to a size slightly larger than the crack length and carefully pulling it apart. Halves of the section are shown in Figure 3. Note discoloration due to oxidation and contamination. The top side (Figure 3) was used for metallography and bottom side, for tensile tests.

METALLOGRAPHY

Figure 4 shows the metallographic half of the section after cutting of samples. Macrosections were cut parallel to and perpendicular to the fracture face. The parallel cut shown in Figure 5 is a longitudinal section of the tee. Figure 6 is the perpendicular cut and is a transverse section of the tee. Nothing abnormal was noted in these figures other than the material was dirtier than would be expected. Figure 7 shows 100X photomicrographs of longitudinal and transverse sections unetched. Note amount and distribution of inclusions present. Figure 8 shows similar areas at higher magnifications in the etched condition. Electron microprobe analysis of inclusions, shown in Figure 9, proved them to be manganese sulfides. The rest of the microstructure is quite normal in appearance.

Examination of the fracture surface revealed no evidence of fatigue. The fibrous structure is similar in appearance to others of same material that broke under non-cyclic stress. Also, contamination of fracture surface made scanning (SEM) and transmission electron microscope (TEM) investigation seem unprofitable. Therefore, this avenue of study was not pursued.

The chemical analysis is given below in Table I. Nothing abnormal was noted in this analysis.

METALLOGRAPHY - (Continued)

TABLE I

Chemical Analysis (Wt. %)

Si	S	P	Mn	C	Cr	Ni	Mo	V	Al	N ₂
0.22	0.034	0.002	0.75	0.26	0.03	0.06	0.01	0.001	0.023	0.006

MECHANICAL TESTS

Tensile test bars were cut in longitudinal and transverse directions and results are tabulated below in Table II.

TABLE II

Mechanical Properties

Sample Orientation	Yield Strength	Tensile Strength	Elongation	Reduction in Area	Hardness
Transverse	40-42KSI	70-72KSI	21-25%	28-34%	75-78R _B
Longitudinal	40KSI	73KSI	31%	63%	75-78R _B

Figure 10 shows the tensile bars after test. The transverse sample exhibited low ductility with the fracture and a number of cracks opening up along lines of weakness in the material. Figure 11 shows a cross-section of the transverse sample. Note the lines of stringers not parallel to tensile bar axis.

DISCUSSION AND CONCLUSIONS

No evidence of fatigue was found by the methods used. The chemistry, hardness, yield strength, and tensile strength were normal and gave no information as to the reason for fatigue failures. The sulfide stringers found metallographically (Figures 7 and 8) appear to have a great effect on ductility. Poor ductility and inclusions of the form found have been shown to be detrimental to fatigue properties* as they are stress risers.

* Grover, H. J., Gordon, S. H., and Jackson, L. R. Fatigue of Metals and Structures, Battelle, 1954, NAVR 00-25-534.

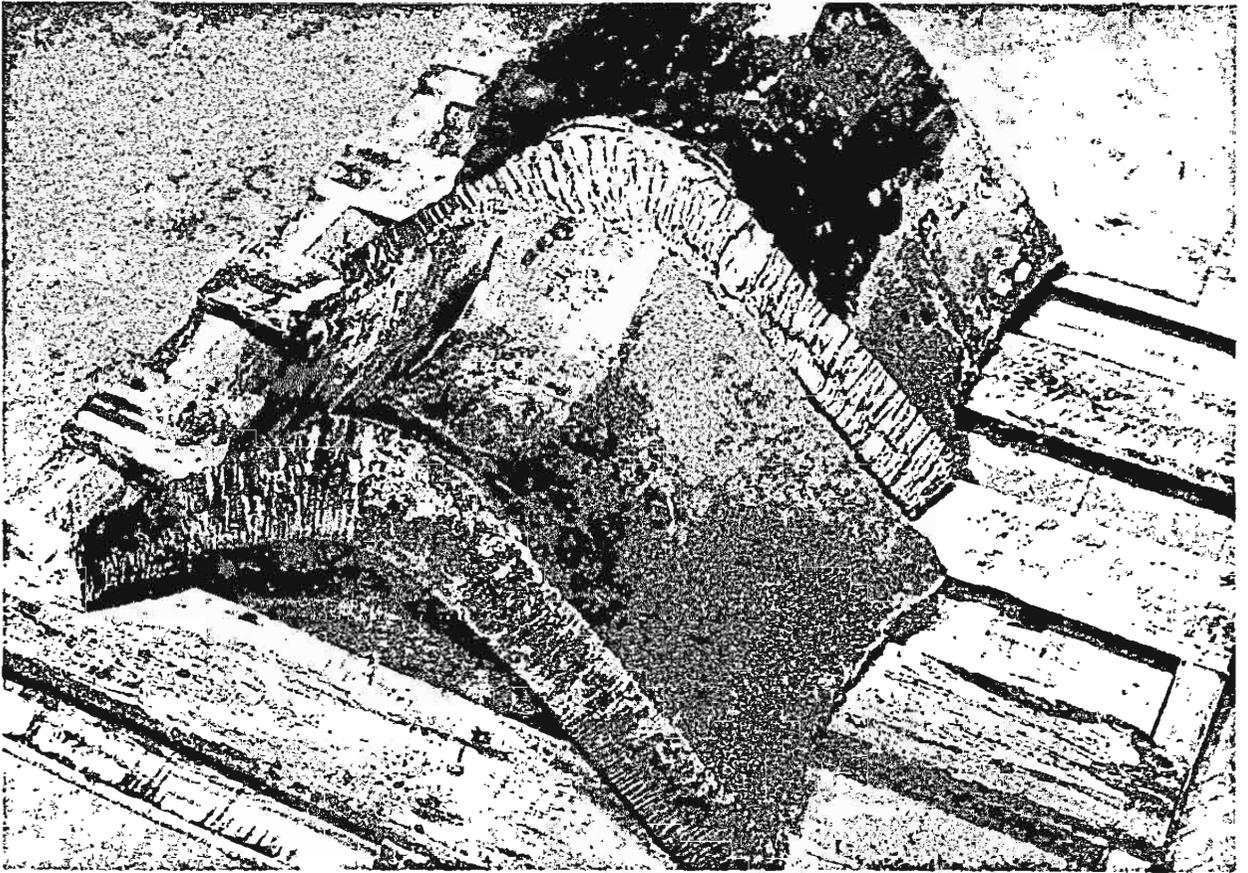


Figure 1

Sections From Failed T-11 Tee

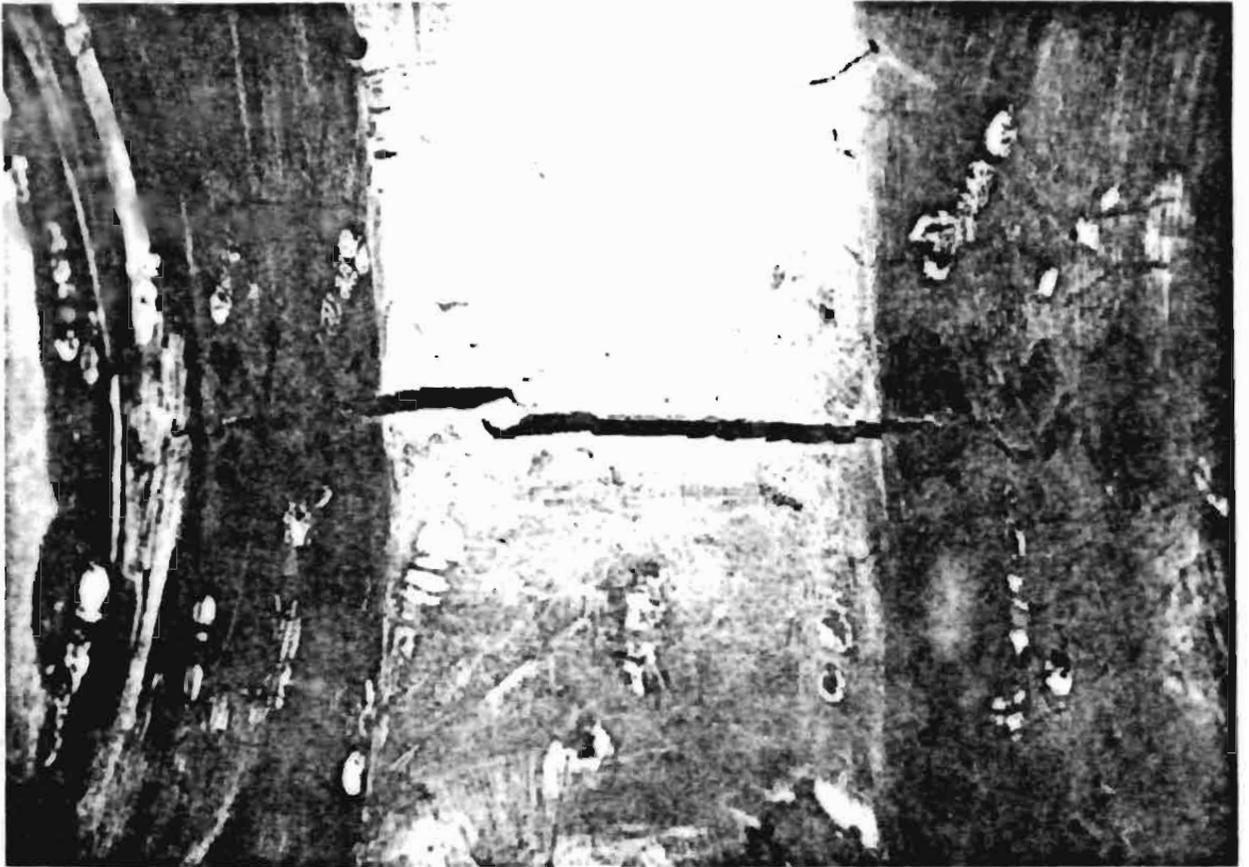


Figure 2

ID Surface of Section with Crack



Figure 3
Fracture Surfaces

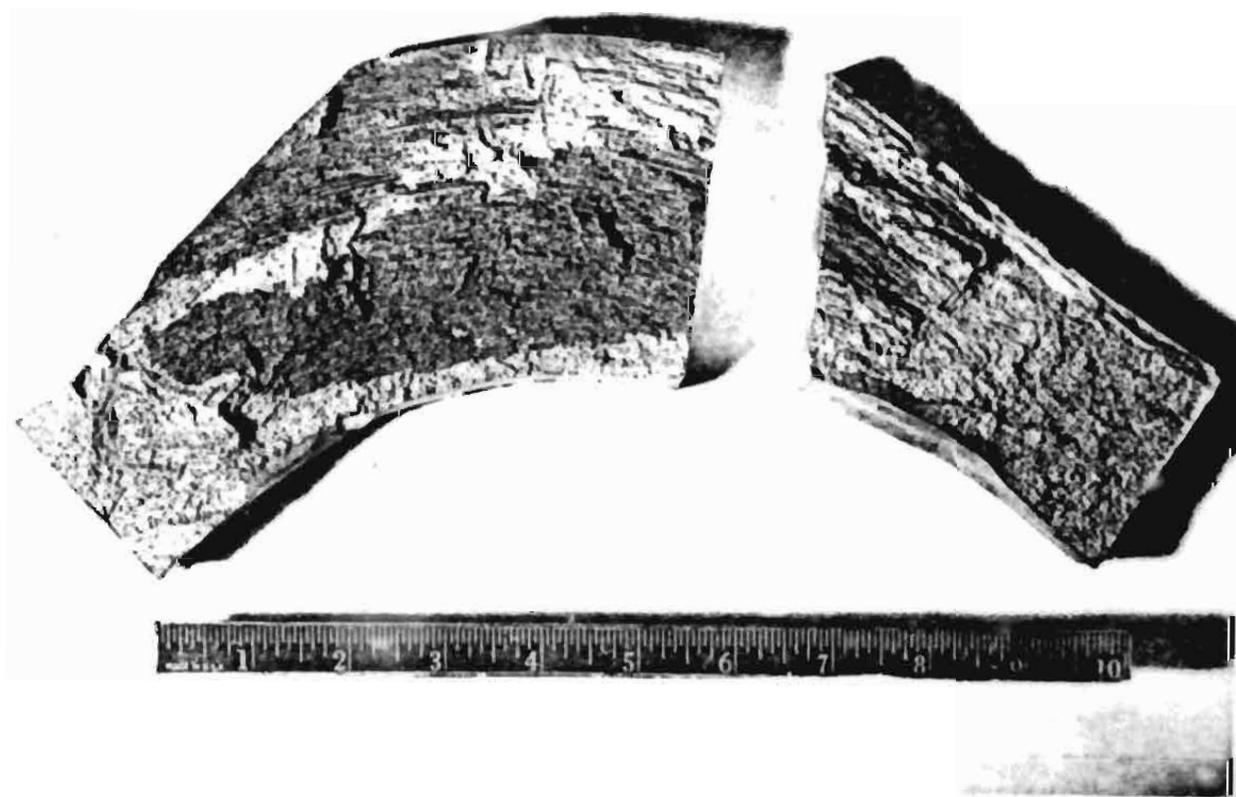


Figure 4
Metallographic Side of Fracture
Macro and micro samples removed

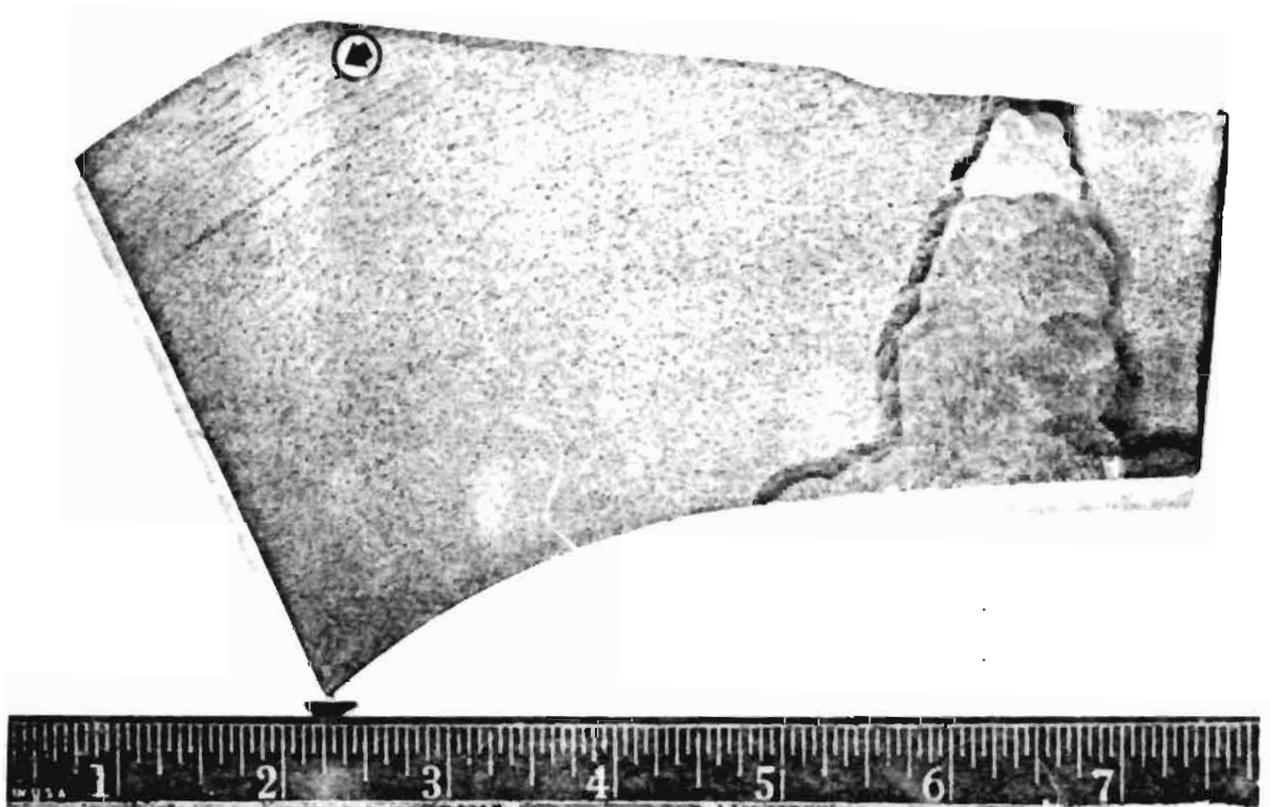


Figure 5

Longitudinal Macro Section
Parallel to fracture face
Note lines of stringers

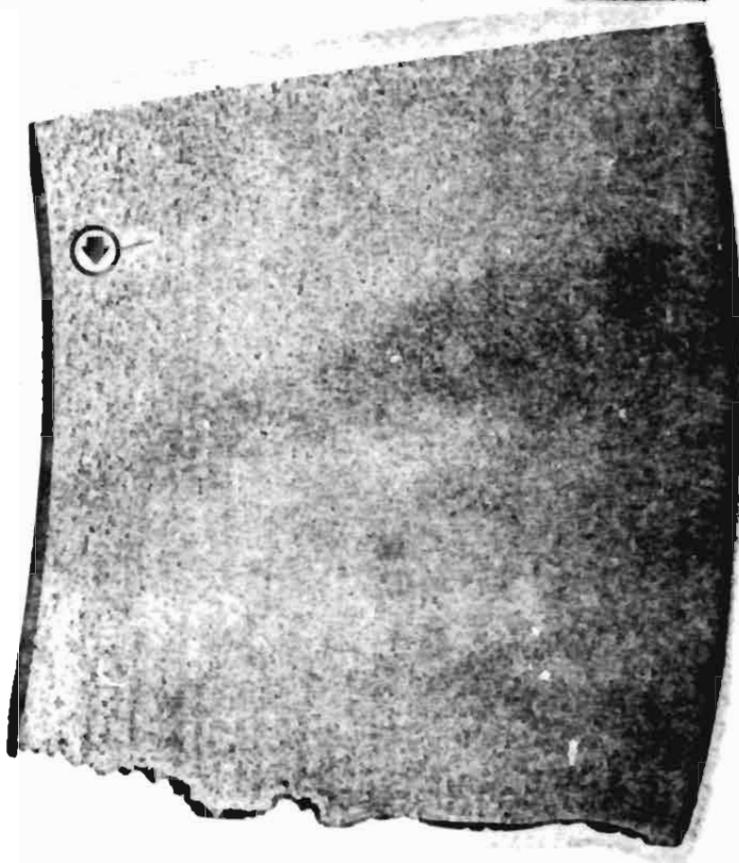
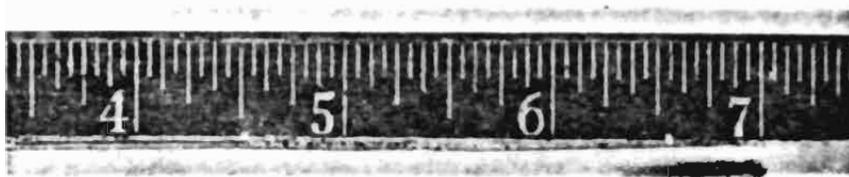


Figure 6

Transverse Macro Section
Perpendicular to fracture face
Note lines of stringers

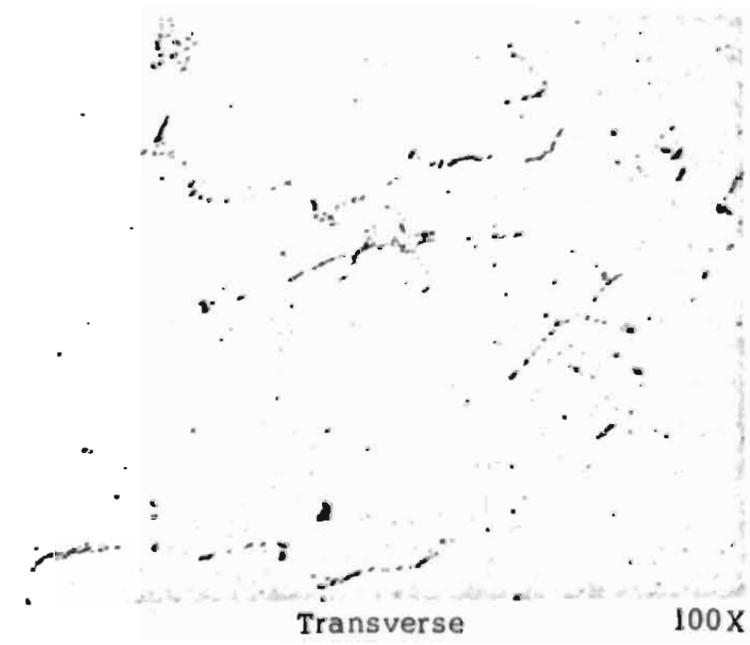
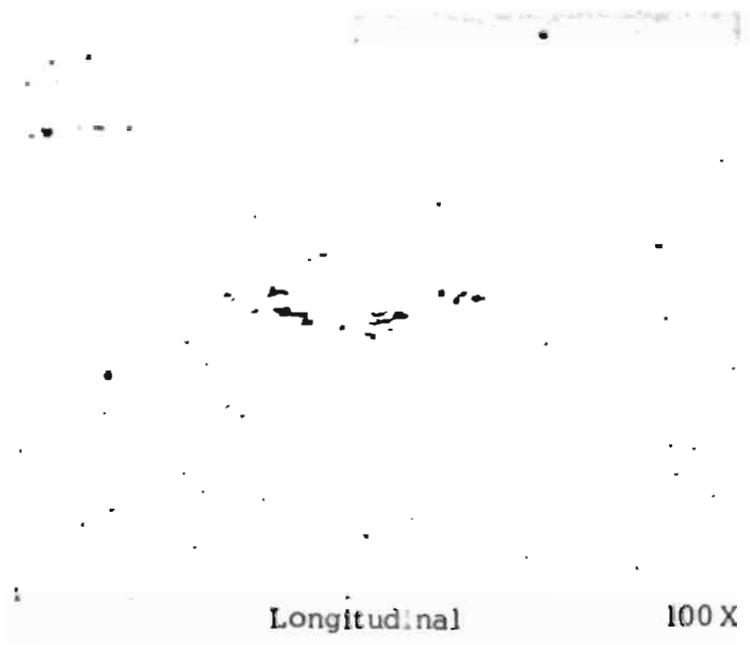
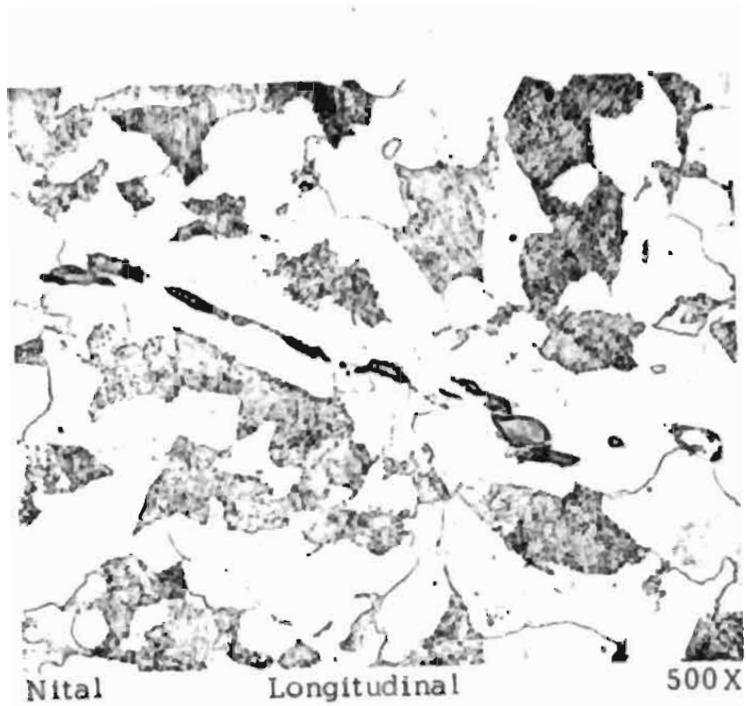


Figure 7

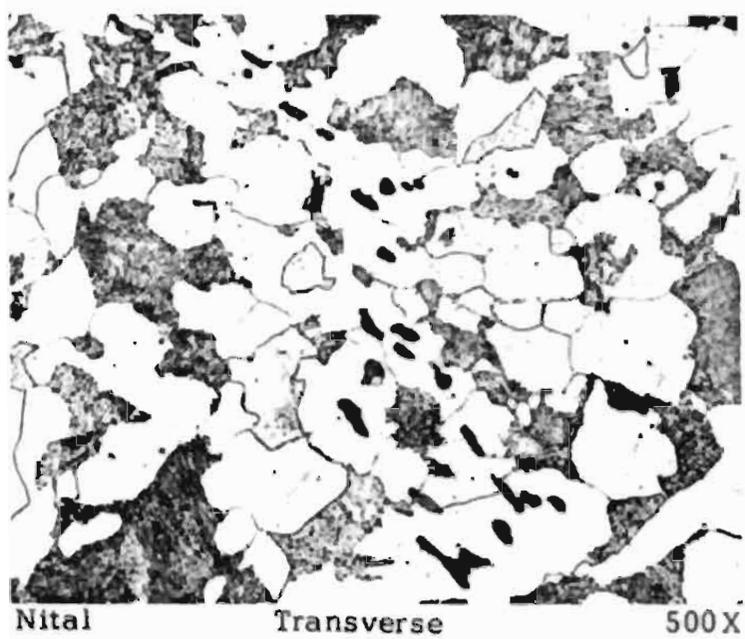
Inclusions in Longitudinal and Transverse Sections



Nital

Longitudinal

500X



Nital

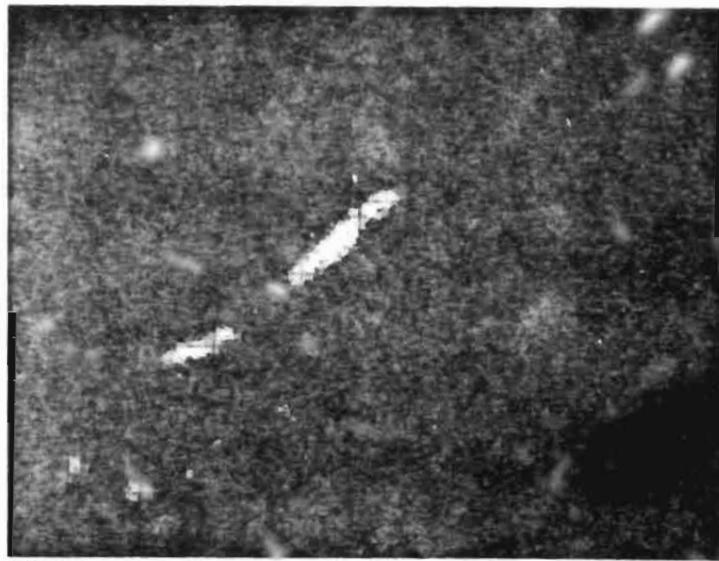
Transverse

500X

Figure 8

Typical Microstructures of Sections
Note inclusions





Manganese X-Ray

400 X

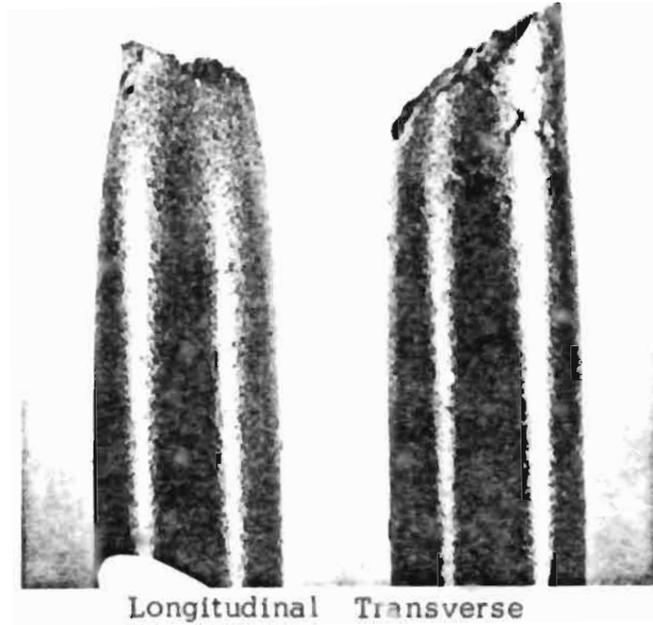


Sulfur X-Ray

400 X

Figure 9

Inclusion Identification
Manganese sulfide



Longitudinal Transverse

Figure 10
Tensile Bars after Test





20X

Figure 11

Cross-section of Transverse Tensile Bar
Note stringers

APPENDIX VIII.2

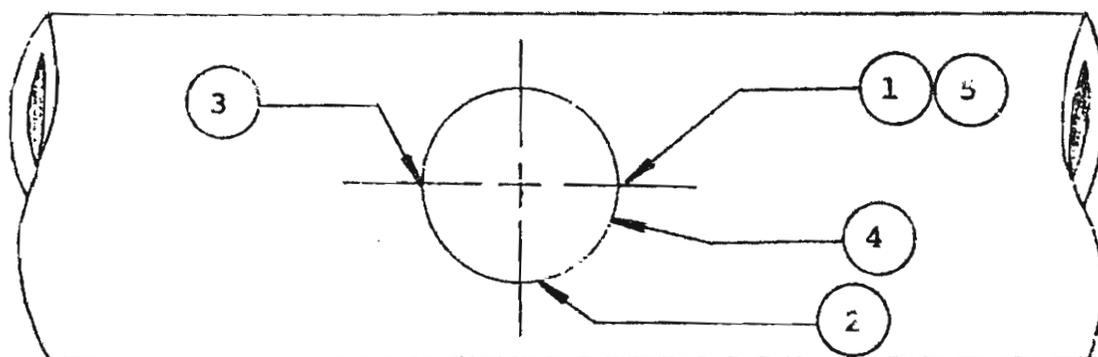
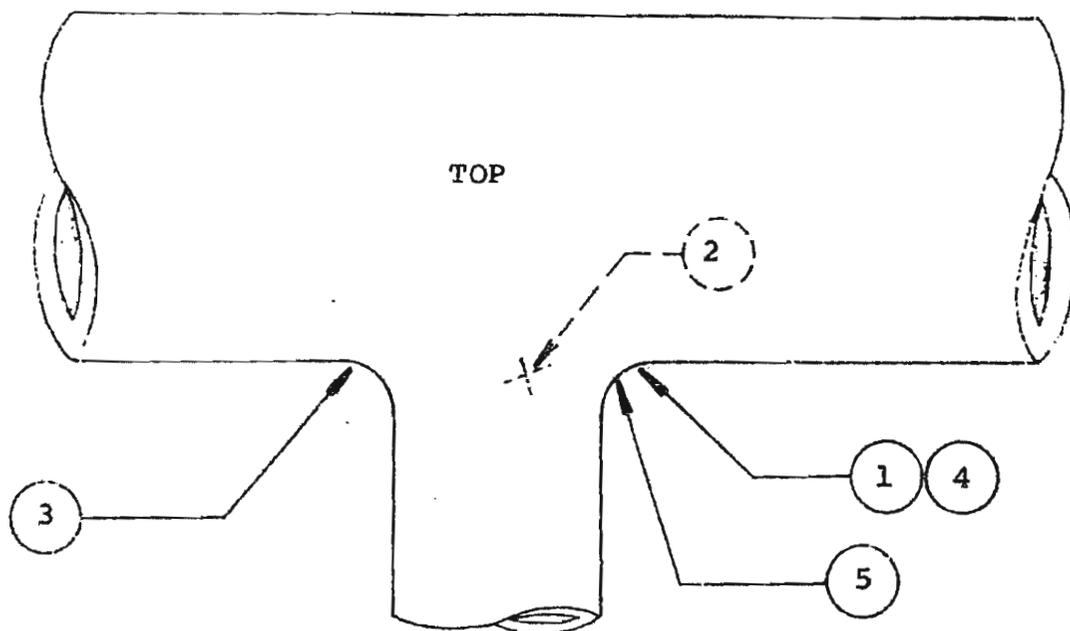
FATIGUE TEST LOG SHEETS FOR T-12

T-12 Fatigue Test Data Sheets

<u>Date</u>	<u>Cycles</u>	<u>Comments</u>
4/24/73	600-----	Ultra Sonic base exam with no indication
4/25/73	3,005	
4/26/73	3,707	
4/27/73	5,320-----	Limit on 921, not on 922 set 932
4/30/73	6,252-----	Stopped
5/1/73	6,992	
5/2/73	8,909	
5/4/73	10,895	
5/8/73	11,900-----	Ultra Sonic exam with no indication
	12,682	
5/11/73	13,655	
5/14/73	14,554	
5/15/73	15,635	
5/16/73	16,341	
5/17/73	16,931	
5/18/73	18,102	
5/21/73	18,735	
5/22/73	19,088-----	Ultra Sonic exam with no indication
5/23/73	20,000-----	Cut off - end of counts. Add 20,000 to preset and 742 to totalizer
5/25/73	20,261-----	Cycling 50 psi to 1825 psi
5/29/73	20,645	
5/30/73	21,535	
6/7/73	22,357-----	Started back after repair to "A" end hemi. head to pipe weld. "B" end was magnifluxed about 5/16 deep with no indications.
6/8/73	23,612	
6/13/73	24,250-----	Repaired "B" end for crack. Same problem as had occurred at "A" end.
6/14/73	25,021	
6/15/73	25,347-----	0.036 Hz changed to .030 Hz
6/18/73	27,883-----	Crack in "B" end again.
8/8/73	27,939-----	Flanges have been removed from runs and branch and hemi. heads welded back on. Only one nozzle is now in tee.
8/9/73	28,494	
8/10/73	29,132	
8/13/73	31,735	

Date	Cycles	Comments
8/14/73	32,913	
8/16/73	34,139	
8/17/73	34,396	
8/18/73	36,087	-----Turned off.
8/20/73	36,091	
8/22/73	36,667	-----Ultra Sonic exam with no indication.
	37,273	
8/23/73	37,673	
8/24/73	38,916	
8/28/73	39,691	
8/29/73	40,130	
8/30/73	41,042	
8/31/73	41,879	
9/4/73	42,715	
9/5/73	43,690	
9/6/73	43,690	-----Ultra Sonic exam with no indication.
	44,324	
9/7/73	45,772	
9/10/73	46,700	
9/11/73	47,828	
9/12/73	47,890	-----Tee removed to repair hēmi. heads.
1/4/74	47,890	-----Ultra Sonic exam with no indication.
1/7/74	47,972	-----Freq set at .025 Hz
1/9/74	48,671	
1/10/74	49,775	
1/11/74	52,812	
1/12/74	54,015	
1/14/74	55,217	
1/15/74	56,760	
1/16/74	58,085	
1/17/74	60,121	
1/18/74	62,103	
1/21/74	63,273	
1/22/74	63,367	-----Ultra Sonic exam with no indication.
1/23/74	65,940	
1/24/74	67,851	
1/25/74	67,851	-----Ultra Sonic exam (see Fig. on next page) found ind. ① ②
	67,852	-----Freq. set at .0240 Hz
	67,951	-----Ultra Sonic exam - same as previous exam
	68,051	

UT INDICATION DIAGRAM



Date	Cycles	Comments
1/28/74	68,251-----	Ultra Sonic exam (see figure on preceding page) Found ④. Others were no larger.
	68,451-----	① has an amp of ~18% and Multi. Peak looks approximately $\frac{1}{4}$ " deep. Found ③
1/29/74	68,651-----	① has an amp of ~20% and length $\approx \frac{1}{4}$ ". ③ has not changed.
	68,851-----	No new indications.
1/30/74	69,251-----	④ now ~20% amp. ① no change. Found ⑤.
	69,651-----	Ultra Sonic exam same as last one.
	70,051	
2/11/74	70,051-----	Ultra Sonic exam ⑤ has increased.
2/12/74	70,451-----	① changed to $\approx \frac{3}{8}$ " length, all others same.
2/12/74	70,651-----	Ultra Sonic exam same as last one.
2/12/74	70,851-----	Ultra Sonic inspection same as previous.
2/13/74	71,051-----	Ultra Sonic indication ④ is 25% with $\frac{1}{8}$ " length
2/13/74	71,351-----	Ultra Sonic indication same as previous.
2/13/74	71,571-----	Ultra Sonic indication same as previous.
2/14/74	71,971-----	Ultra Sonic indication ① now is 35% with $\frac{1}{2}$ " length.
2/14/74	72,171-----	Ultra Sonic indication ④ now is 40% with $\frac{1}{8}$ " length.
2/14/74	72,371-----	Ultra Sonic indication same as previous.
2/15/74	72,571-----	Ultra Sonic indication ④ now is 60%, Multi. Peak, with 1" length. Indication ⑤ now is 40% with $\frac{3}{8}$ " length. Calibration factor had to be re-adjusted. Maximum pressure was only 1500 psi. Calibration factor set to 5.48.
2/15/74	72,632-----	U.T. Indication - No change.
2/15/74	72,682-----	U.T. Indication - No change.
2/15/74	72,782-----	U.T. Indication #1 now 50% $\approx \frac{3}{8}$ " length. U.T. Indication #4 now 80% peak & 1" length. All others same as before.
2/15/74	72,833-----	Same U.T. Indication.
2/18/74	72,933-----	U.T. Indication #1 now 55% $\approx \frac{3}{8}$ " long. All others same as before.
2/18/74	73,003-----	U.T. Indication #4 now 90% & 1" long. U.T. Indication #2 now 20%, spot. All others same.
2/18/74	73,103-----	U.T. Indication #4 now 90% & $\approx 1\frac{1}{2}$ " long. All others same.

Date	Cycles	Comments
2/19/74	73,203-----	U.T. Indication #4 Multi. Peak (3) $\approx 1\frac{1}{2}$ " long. All others same.
2/22/74	73,303-----	U.T. Indication #4 now 100% $\approx 1\frac{1}{2}$ " long. U.T. Indication #1 now 60% $\approx \frac{1}{2}$ " long.
2/22/74	73,403-----	U.T. Indication #1 same; U.T. Indication #4 now ≈ 2 " long; U.T. Indication #5 $\approx 35-40\%$ $\frac{3}{8}$ " long.
2/26/74	73,503-----	U.T. Indication same.
2/26/74	73,603-----	U.T. Indication same but small indications appearing between #1 & 4.
2/26/74	73,703-----	U.T. same.
2/26/74	73,803-----	U.T. same.
2/27/74	74,003-----	Indication #5 now 80% $\approx \frac{3}{8}$ " long. All others same.
2/27/74	74,173-----	#5 now 90% & $\frac{3}{4}$ " long. #1 35% $\frac{3}{8}$ " long. #4 (less 6dB) 60% same length.
2/27/74	74,373-----	Indication #1 $\approx 60\%$ & $\approx \frac{1}{2}$ way thru wall - Indication #5 (-6dB) 60% no growth in length. #4 same.
2/27/74	74,473-----	U.T. Indication same but #1 $> \frac{1}{2}$ thru wall
2/27/74	74,573-----	U.T. Indication #5 6dB 70% same length. Both Multi. Peak #4 70% (-6dB). All others same.
2/27/74	74,673-----	No change.
2/28/74	74,873-----	No change.
2/28/74	75,073-----	Indication #5 80% amp, all others same.
2/28/74	75,234-----	#5 (-6dB) 95% same length. #4 2" long 80% (-6dB)
2/28/74	75,434-----	#'s 1 & 4 appear to have joined total length $2\frac{1}{4}$ " (Multi. Peak 4-5). #1 amp (-6dB) 100%. All others same.
3/1/74	75,634-----	No change.
3/1/74	75,834-----	#5 50% (-14dB) #4 60% (-14dB) $2\frac{1}{2}$ "
3/1/74	76,034-----	Same, but #4 appears to be getting deeper over most of its length.
3/1/74	76,134-----	No change.
3/4/74	76,334-----	#5 & #1 now connected with strong signal at $\frac{1}{4}$ " T deep and same amp but 2" long & $\approx \frac{3}{4}$ " T deep. #4 now $2\frac{3}{4}$ " long same amp.
3/4/74	76,434-----	#1-5 $\approx \frac{7}{8}$ " thru wall (looks like where it will fail) #4 80% (-14dB) $2\frac{3}{4}$ " long.

Date	Cycles	Comments
3/4/74	76,523-----	No noticable change.
3/5/74	76,534-----	Not UT'd.
3/5/74	76,620-----	Failure.

APPENDIX VIII.3

METALLOGRAPHIC EXAMINATION OF ORNL B16.9 T-13

INTRODUCTION

The crotch section of a failed T-13 tee was submitted to the Met Lab for evaluation to determine the cause of premature failure during fatigue testing. The tee was fabricated from an ASTM A-105, Grade 2 forging approximately 3.5 inches thick. Testing consisted of a cyclic internal pressure ranging from 100 psi to 7,000 psi at room temperature, with a predicted failure at 20,000 cycles. Failure occurred after 15,084 cycles.

CONCLUSIONS

- 1) Cracking originated at shallow ID forging defects. No major defects were found.
- 2) No evidence of fatigue crack propagation prior to final failure was detected.
- 3) Material properties and composition were within specifications.

PROCEDURE

A portion containing the entire tee crack as well as the weld crack was burned out from the as-received section to facilitate cutting and handling. Photographs in Figures 1 and 2 show the crack at the OD and ID surfaces. A second crack was noted in the heat affected zone of a girth weld which connected the tee body to the nozzle. The removed section was then cut transverse to the crack into three parts with each part containing a portion of the crack. The resulting pieces were utilized as follows: (1) Macroetch cross section of crack, (2) areas at OD and ID of tee mounted and polished for microscopic examination, (3) section separated at crack to reveal fracture surfaces for SEM and low magnification examination. In addition to the above, the area containing the crack at the girth weld was examined as shown in Figure 3.

Tensile specimens were removed from an area near one end of the fracture at the ID surface perpendicular to the face of the fracture. A section for chemical analysis was also taken from this area.

METALLOGRAPHY

The sections shown in Figure 4 were deep etched with a solution of HCl, H₂O₂ and water to reveal the macrostructure. The upper photograph shows a section through the crack while the lower photograph shows a view of a section cut one inch away and parallel with the fracture. Although the inclusion stringers revealed in the parallel view are rather numerous, the amount was not considered unusual

for this material. On a macroscopic scale, the inclusions are parallel to the ID surface.

Fracture surface examination was accomplished by carefully separating the fracture faces and examining them visually and with the Scanning Electron Microscope. Selected areas at the ID, midwall and OD were studied and photographed as shown in Figures 5 and 6. These areas primarily exhibited a structure typical of a ductile fracture. A low magnification photograph in Figure 7 shows an area on the fracture surface at the ID at approximately mid-length of the crack, that appeared to be a source of crack initiation. This apparent initiation point was located at the "peak" of the ID surface shown in Figure 1. The pattern radiating from this point indicates crack initiation from this area. However, examination by both SEM and transmission electron microscopy failed to reveal evidence of crack propagation by fatigue.

Examination of the ID surface of the tee at low magnification revealed some stringer type indications which appeared to be a result of the forging operation (Figure 8). A section approximately one inch square and one-eighth inch thick was removed and bent with the ID surface in tension. The indications at first appeared to be a shallow surface condition but opened up quite readily when stressed. The lower photomicrograph in Figure 8 shows an ID stringer viewed with the SEM after stressing. Although it may be coincidental, it is worth noting that the area shown in Figure 7 of the fracture surface at the ID is approximately the same length (1/8" to 3/16") as the stringer indications found on the ID surface of the tee.

Sections transverse to the fracture at the OD and ID were removed for study with the optical microscope. The microstructure revealed by polishing and etching (Figure 9) was typical for normalized A-105 material. A longitudinal section (parallel to fracture) was removed and polished to show the extent of stringer inclusions. Most of the inclusions were of the type previously identified as Mn S (ref: ORNL T-11 Tee Fatigue Failure) and in some cases approached the ID surface at an angle, resulting in the shallow surface defects shown in Figure 10.

CHEMICAL ANALYSIS

Chemical analysis was performed on a section of the tee near the fracture. The results were within specified limits for A-105 Grade 2 as shown below (% wt.).

	<u>Si</u>	<u>S</u>	<u>P</u>	<u>Mn</u>	<u>C</u>	<u>Cr</u>	<u>Ni</u>	<u>Al</u>
Specified	0.35 Max	0.05 Max	0.05 Max	0.90 Max	0.35 Max			
Measured	0.22	0.023	0.003	0.72	0.28	0.01	0.06	0.040

MECHANICAL PROPERTIES

The following table shows the results of mechanical tests on specimens taken at the ID perpendicular to fracture:

	<u>Yield Strength (KSI)</u>	<u>Tensile Strength (KSI)</u>	<u>Elongation (%)</u>	<u>Reduction of Area (%)</u>
Specified	36 min	70 min	22 min	30 min
Measured #1	44.5	71.0	26.0	38.8
Measured #2	45.5	69.5	27.5	41.3

Mechanical properties were within the specified range with the exception of tensile strength on #2 which was slightly below the required minimum.

SUMMARY

No evidence of fatigue was found either with the SEM or optical metallography. Chemical analysis showed the material to be within the specified limits and mechanical properties appeared to be adequate. Examination of the ID surface near the fracture revealed suspect stringer indications, attributed to the forging operation, which apparently served as initiation points for failure. The intersection of these defects with the ID surface during forging can produce minor surface defects, which in this tee were quite shallow.

Don Crisp

D. D. Crisp



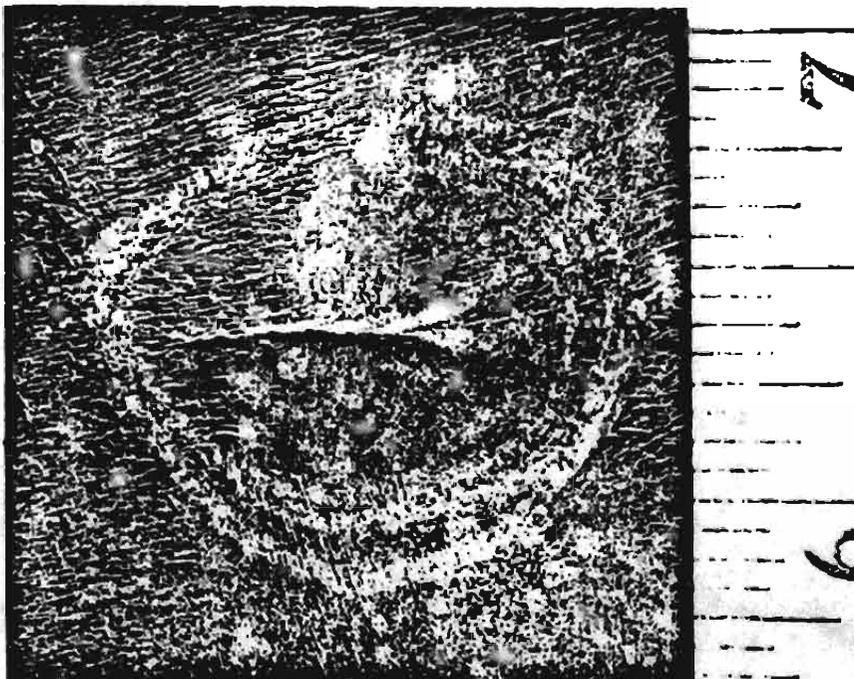
2631-3-3

Figure 1

Overall view of the crack on ID surface. The elliptical mark to the left of the major crack shows the outline of the shallow cracking shown in Figure 3.



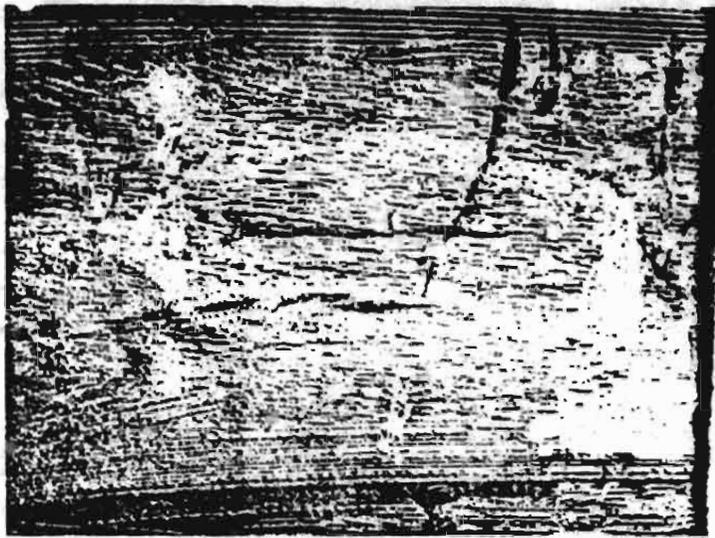
2631-3-4



2631-3-1

Figure 2

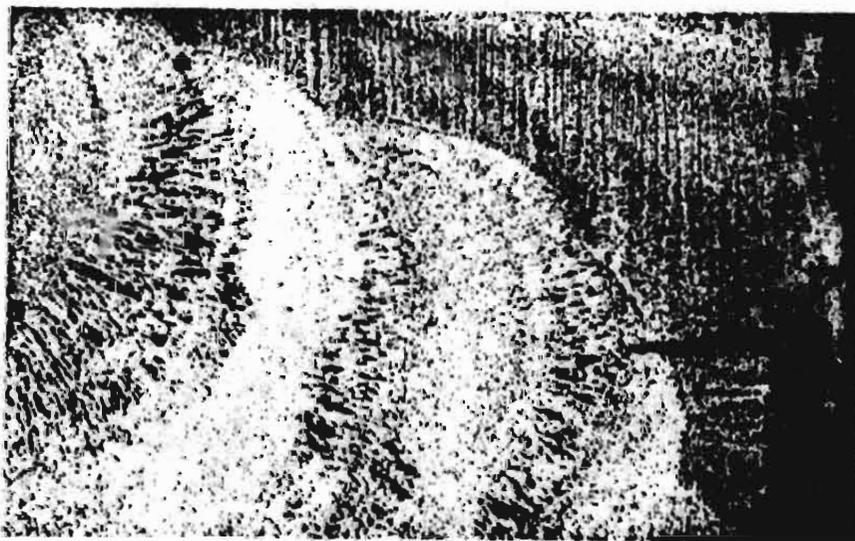
Same crack as shown in Figure 1 as it appeared on OD surface of tee.



2631-3-2



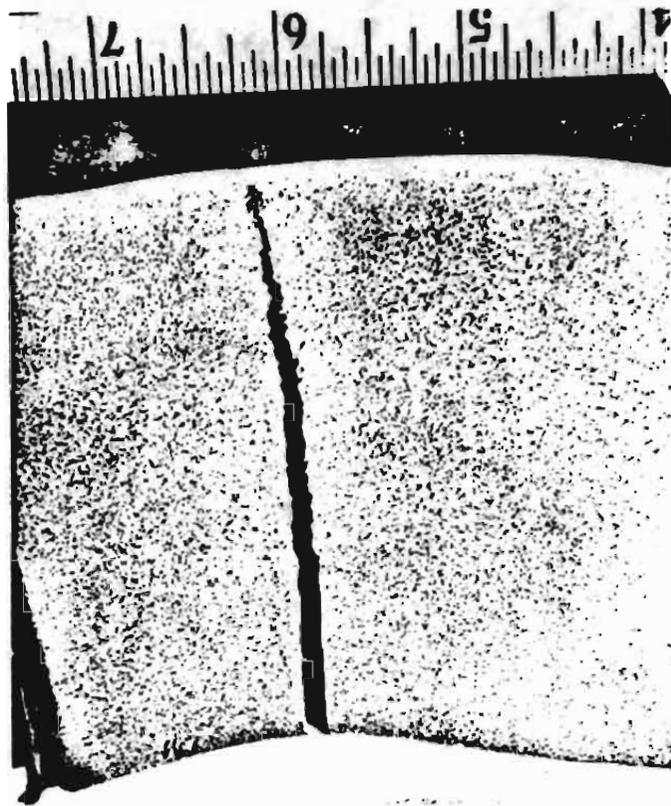
2631-4-1



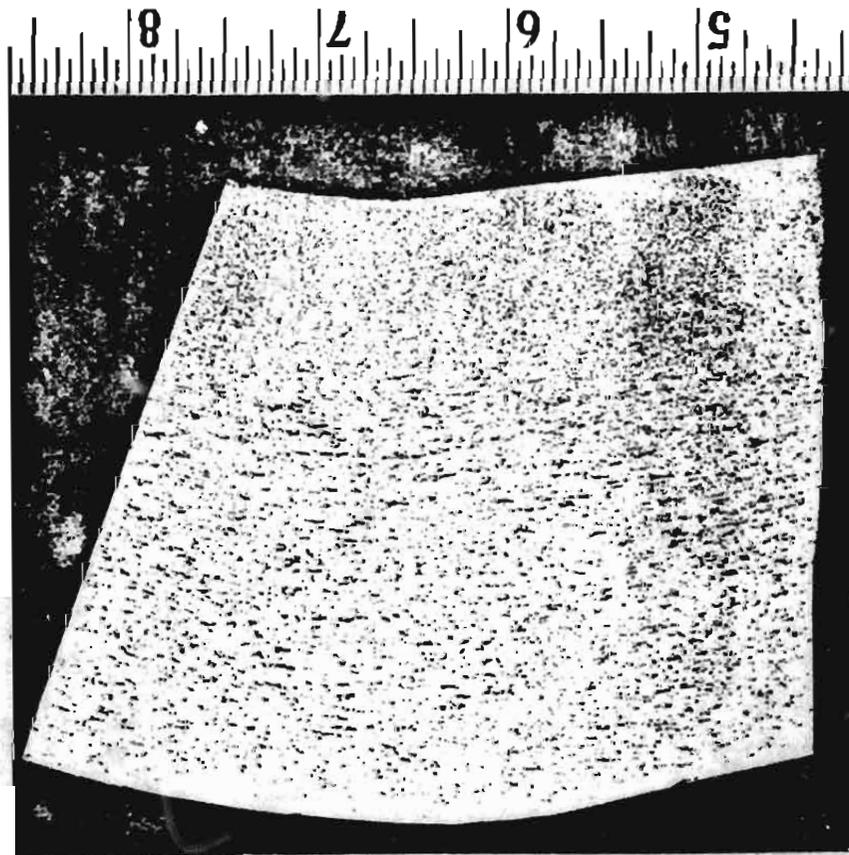
8027-RQ
10X
Nital Etch

Figure 3

HAZ crack found in the girth weld which connected the tee body to the nozzle.



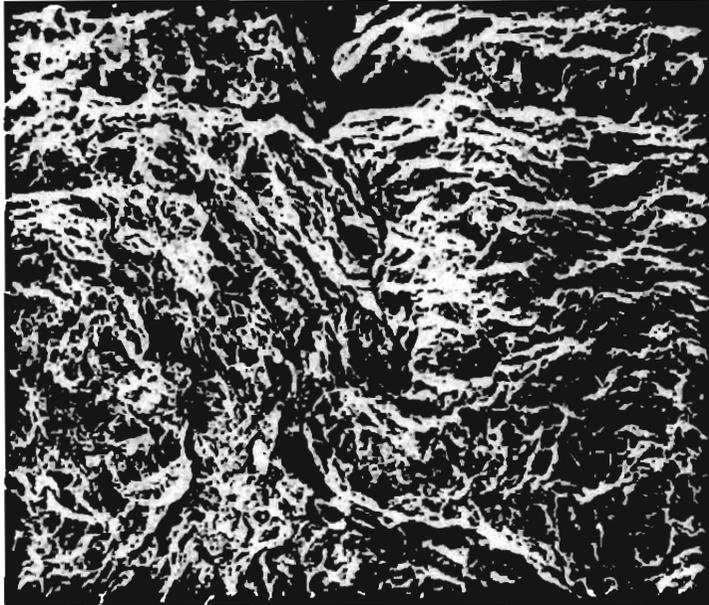
2631-4-1



2631-5

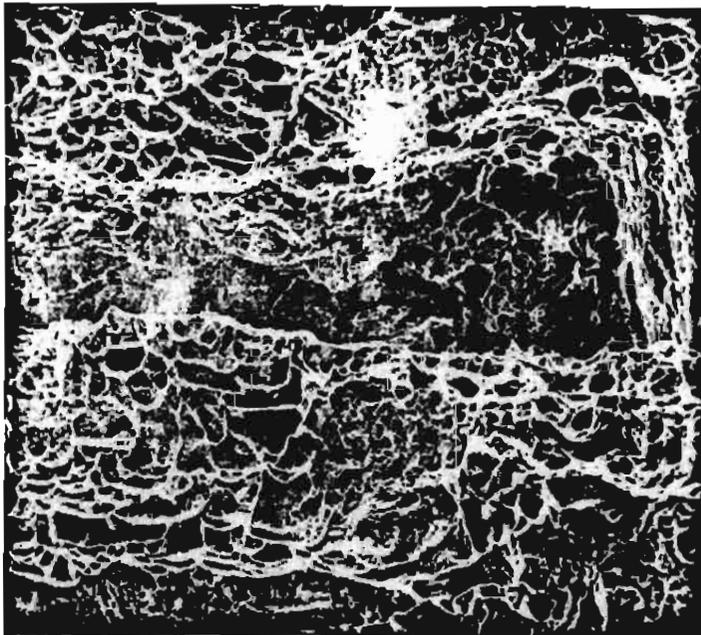
Figure 4

Macroetched sections showing view parallel with crack (upper) and transverse to crack (lower). ID is at bottom in both photographs.



SEM - OD

150X

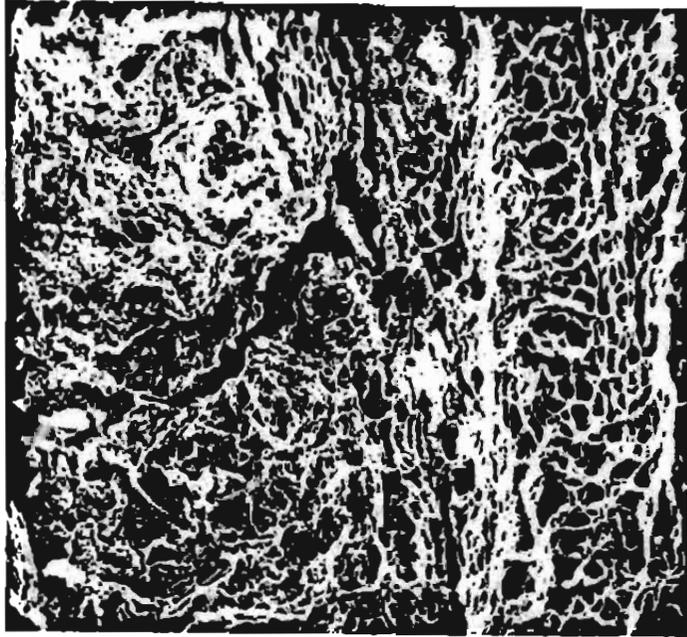


SEM - OD

300X

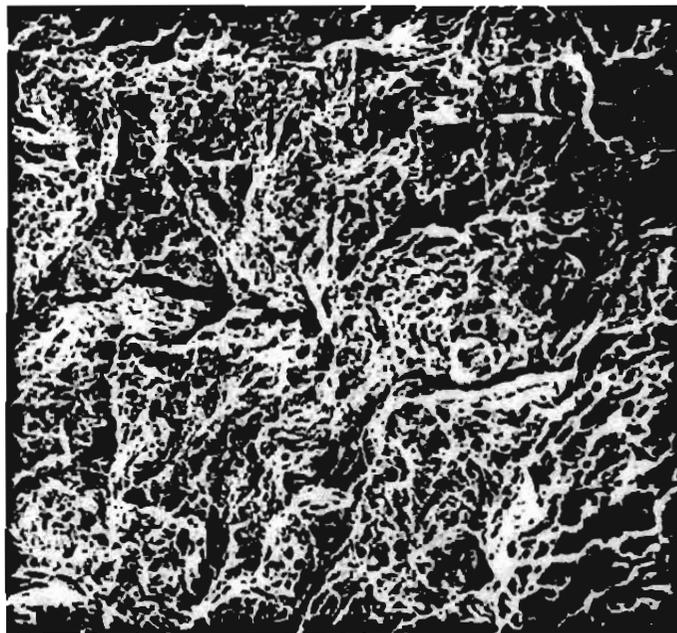
Figure 5

SEM photomicrographs of fracture surface at OD.



SEM - Midwall

300X

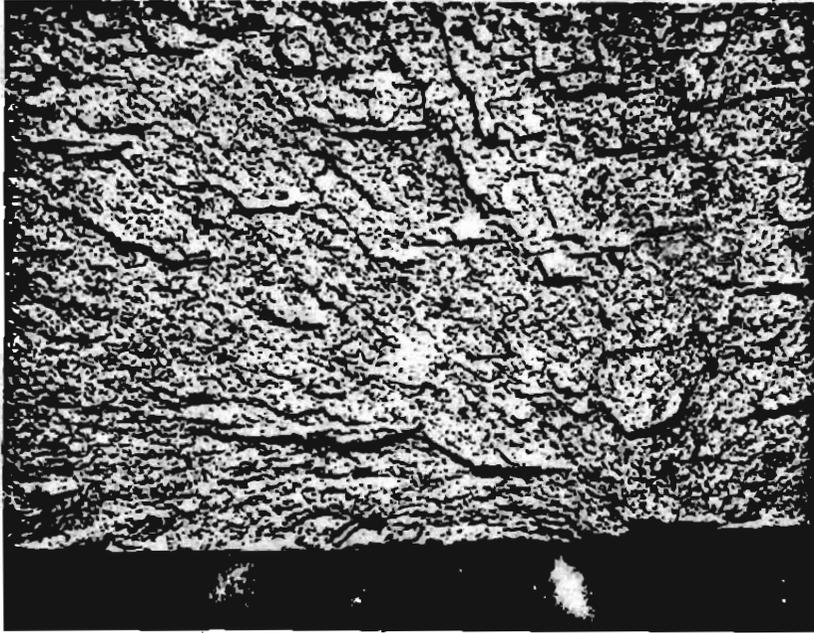


SEM - ID

500X

Figure 6

SEM photomicrographs of fracture surface at midwall and ID,
Structure is typical of a ductile fracture.



Fracture - ID

6X

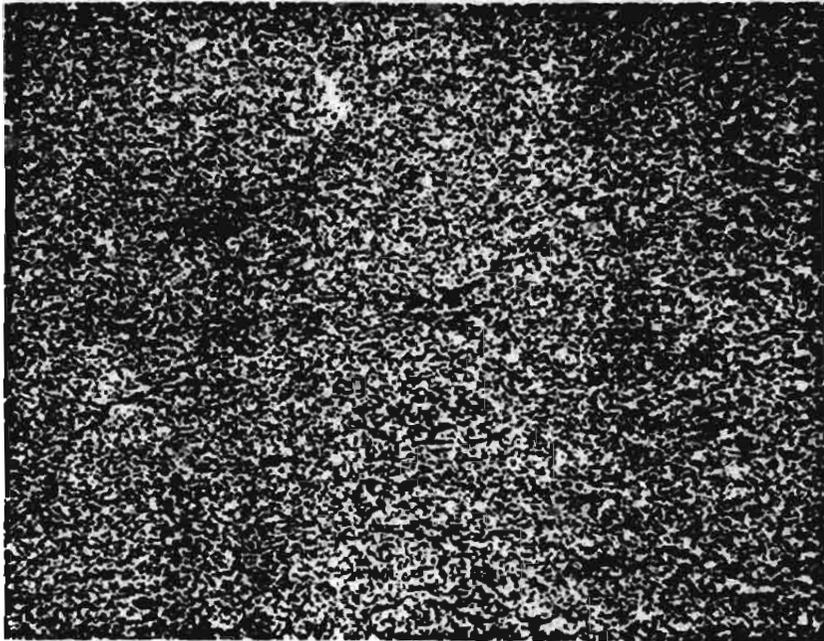


Fracture - ID

10X

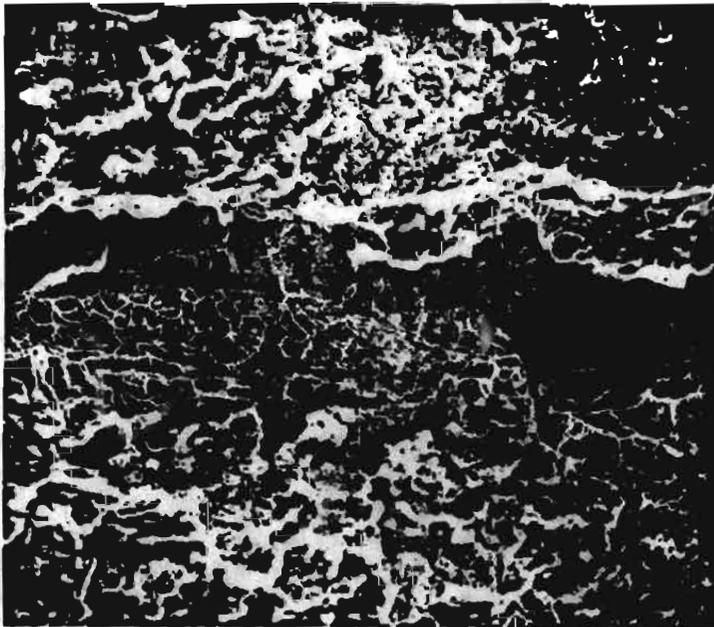
Figure 7

Low magnification photographs of fracture surface at ID showing suspected point of crack initiation.



ID Surface

15X

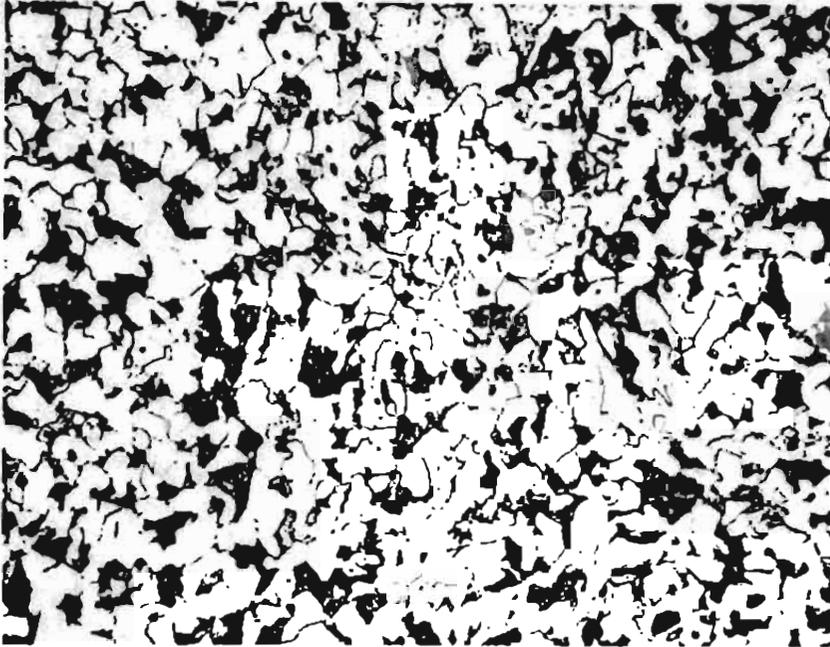


SEM - ID

300X

Figure 8

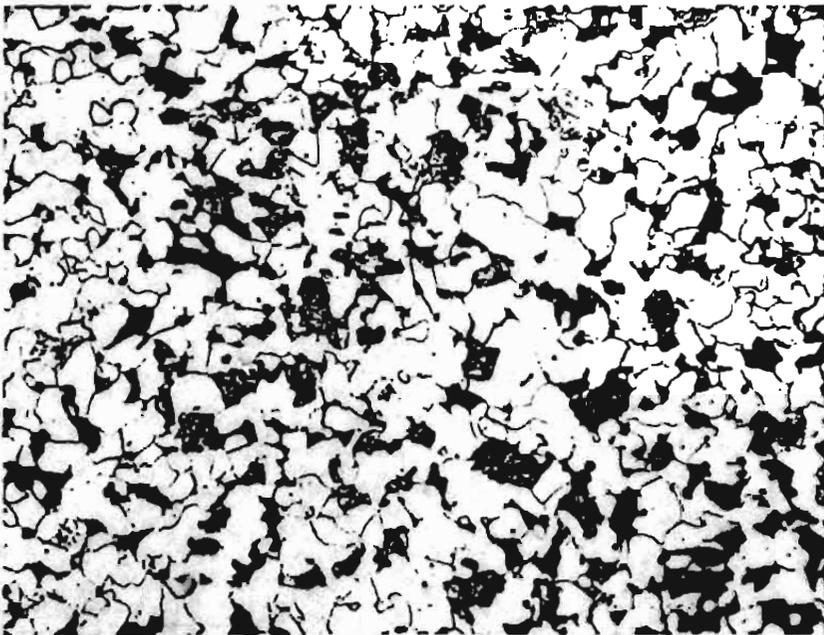
Stringer type indications on ID surface of tee. Lower photomicrograph shows similar stringer shown in upper photo with SEM after stressing.



8027 RS - OD

200X

Nital Etch



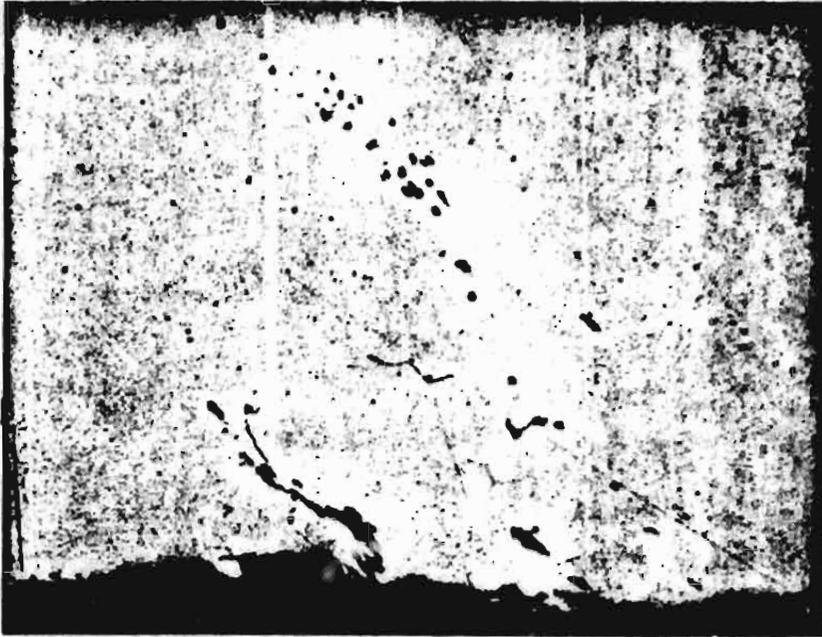
8027-RR - ID

200X

Nital Etch

Figure 9

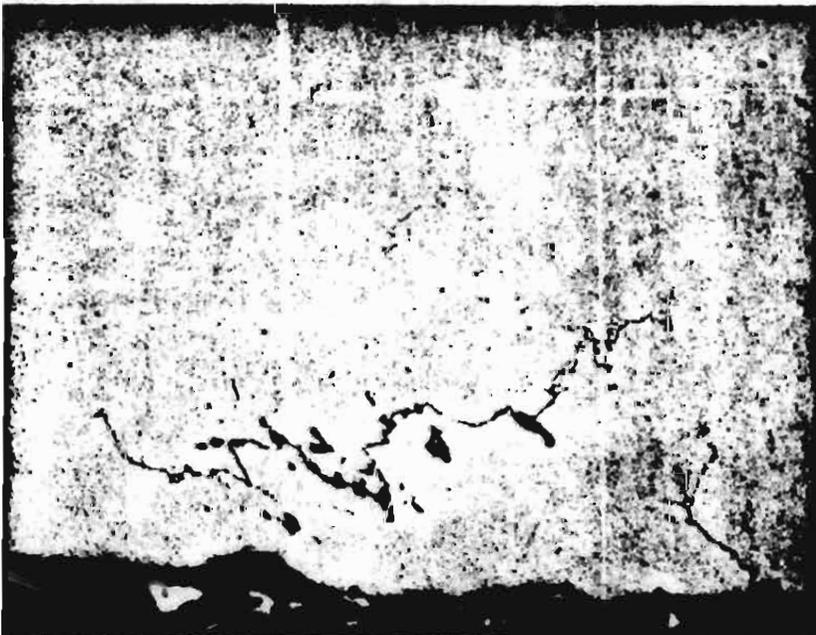
Microstructure of tee material near OD and ID surfaces. This appears typical for normalized A-105, Grade 2, T-13.



8027-RR

200X

Unetched



8027-RR

200X

Unetched

Figure 10

Inclusions and defects attributed to the forging operation at the ID surface of tee.