

1964

ORNL-5044
Vol. 3

**Stress Analyses of Flat Plates
With Attached Nozzles**
**Vol. 3. Experimental Stress Analyses
of a Flat Plate With Two Closely
Spaced Nozzles of Equal Diameter Attached**

J. W. Bryson W. F. Swinson



OAK RIDGE NATIONAL LABORATORY

OPERATED BY UNION CARBIDE CORPORATION • FOR THE U.S. ATOMIC ENERGY COMMISSION

BLANK PAGE

Printed in the United States of America. Available from
National Technical Information Service
U.S. Department of Commerce
5285 Port Royal Road, Springfield, Virginia 22161
Price: Printed Copy \$10.60. Microfiche \$2.25

This report was prepared as an account of work sponsored by the United States Government. Neither the United States nor the Energy Research and Development Administration, nor any of their employees, nor any of their contractors, subcontractors, or their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product or process disclosed, or represents that its use would not infringe privately owned rights.

Contract No. W-7405-eng-26

REACTOR DIVISION

STRESS ANALYSES OF FLAT PLATES WITH ATTACHED NOZZLES
VOL. 3. EXPERIMENTAL STRESS ANALYSES OF A FLAT PLATE
WITH TWO CLOSELY SPACED NOZZLES
OF EQUAL DIAMETER ATTACHED

J. W. Bryson
Oak Ridge National Laboratory

W. F. Swinson
Auburn University

Work funded by the Nuclear Regulatory Commission
under Interagency Agreement 40-495-75

DECEMBER 1975

NOTICE
This report was prepared as an account of work sponsored by the United States Government. Neither the United States nor the United States Energy Research and Development Administration nor any of their employees make any warranty, express or implied, or assumes any legal liability for the accuracy, completeness, or usefulness of any information appearing hereon. It is also understood that any individual who may be named herein does not necessarily represent the United States Government.

Subcontract No. 2670
for
OAK RIDGE NATIONAL LABORATORY
Oak Ridge, Tennessee 37830
operated by
UNION CARBIDE CORPORATION
for the
U.S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION

TABLE OF CONTENTS

	<u>Page</u>
FOREWORD	v
ABSTRACT	1
1. INTRODUCTION	1
Purpose and Scope	1
Nomenclature	2
Equations and Constants Used in Calculating Stresses	4
2. FLAT PLATE WITH TWO NOZZLES ATTACHED (MODEL 7i)	5
Dimensions and Characteristics	5
Instrumentation and Measuring	5
3. LOADING SYSTEMS FOR FLAT-PLATE MODELS	11
Plate Biaxial Loading	11
Nozzle Thrust and Moment Loadings	13
4. DISCUSSION OF DATA	14
Biaxial Loadings on Plate	14
Thrust and Moment Loadings on Nozzle 1	15
Thrust and Moment Loadings on Nozzle 2	16
5. ACKNOWLEDGMENTS	17
6. REFERENCES	17
Appendix A. STRESS-VS-PROFILE DRAWINGS	19
Appendix B. EXPERIMENTAL DATA: STRESSES AND STRAINS IN A FLAT PLATE WITH TWO CLOSELY SPACED NOZZLES OF EQUAL DIAMETER ATTACHED	157

7

FOREWORD

The work reported here was performed for the Oak Ridge National Laboratory (ORNL) at Auburn University under Union Carbide Corporation, Nuclear Division, subcontract No. 2670 as part of the ORNL Design Criteria for Piping and Nozzles program, S. E. Moore, Manager. This program is funded by the Office of Nuclear Regulatory Research of the U.S. Nuclear Regulatory Commission under the Division of Reactor Safety Research (RSR) as part of a cooperative effort with industry to develop and verify analytical methods for assessing the safety of pressure-vessel and piping-system design. The cooperative effort is coordinated through the Pressure Vessel Research Committee of the Welding Research Council. The cognizant RSR project engineer is E. K. Lynn.

The study described in this report was conducted under the general direction of J. W. Bryson and W. L. Greenstreet, Solid Mechanics Department, Reactor Division, ORNL; and is a continuation of work supported in prior years by the Division of Reactor Research and Development, U.S. Energy Research and Development Administration (formerly the USAEC).

Previous reports in this series are:

J. W. Bryson, J. P. Callahan, and R. C. Gwaltney, Stress Analyses of Flat Plates with Attached Nozzles, Vol. 1. Comparison of Stresses in a One-Nozzle-to-Flat Plate Configuration and in a Two-Nozzle Configuration with Theoretical Predictions, ORNL-5044, Vol. 1 (July 1975).

R. L. Battiste et al., Stress Analyses of Flat Plates with Attached Nozzles, Vol. 2. Experimental Stress Analyses of a Flat Plate with One Nozzle Attached, ORNL-5044, Vol. 2 (July 1975).

BLANK PAGE

STRESS ANALYSES OF FLAT PLATES WITH ATTACHED NOZZLES

VOL. 3. EXPERIMENTAL STRESS ANALYSES OF A FLAT PLATE WITH TWO CLOSELY SPACED NOZZLES OF EQUAL DIAMETER ATTACHED

J. W. Bryson
W. F. Swinson

ABSTRACT

Volume 1 of this report compares experimental results with theoretical stress distributions for a flat plate with one nozzle configuration and for a flat plate with two closely spaced nozzles attached. Volume 2 contains the complete test results for a flat plate with one nozzle attached that was subjected to 1:1 and 1:2 biaxial planar loadings on the plate, to a thrust loading on the nozzle, and to a moment loading on the nozzle. The present volume contains the complete test results for a flat plate with two closely spaced nozzles attached. Test loadings were 1:1, 1:2, and 2:1 biaxial planar tension loadings on the plate, axial thrust loadings applied separately to the nozzles, and bending moment loadings applied to the nozzles both within and normal to the plane of symmetry containing the nozzle axes. The test plate was $36 \times 36 \times 0.375$ in., and the attached nozzles had outer diameters of 2.625 in. and wall thicknesses of 0.250 in. The nozzles were located in the center of the plate with their centers 3.0 in. apart and were considered to be free of weld distortions and irregularities in the junction region.

Key words: Stress analysis, flat plate, nozzles, pressure-vessel code, ORNL Nozzles Analysis Program, penetrations, nozzle clusters, holes.

1. INTRODUCTION

Purpose and Scope

The Mechanical Engineering Department of Auburn University, in cooperation with the Solid Mechanics Department of the ORNL Reactor Division, is conducting studies of flat plates and hemispherical shells having closely spaced clusters of holes or nozzles. The objectives of these studies are to develop a better understanding of the interaction of closely spaced holes or nozzles under applied loads and to develop reliable experimental data to be used for verification of theoretical stress analyses.

In the case of relatively small nozzles attached to large-diameter cylindrical or spherical vessels, it is often assumed that the effect of curvature can be neglected. Consequently, flat plates with attached nozzle clusters are convenient models for studying these particular configurations. The models being studied in the overall project are listed in Table 1. Flat-plate models 1P, 3P, 4P, and 5P were tested at The University of Tennessee,^a and the unpierced flat-plate model 2P was tested at both Auburn University and The University of Tennessee. Test results for model 6P, which was tested at Auburn University, are given in Refs. 5 and 6. This report contains the results from testing a flat plate with two nozzles attached (model 7P). Model 10P will be tested at a later date.

Stress-strain responses under nine loadings were measured on both surfaces of the plate and of the nozzle. The loadings included 1:1, 1:2, and 2:1 biaxial planar tension on the plate, thrust loadings applied separately to the nozzles, and bending moment loads applied to the nozzles both within and normal to the plane of symmetry containing the nozzle axes.

Table 1. Experimental investigations of hole and nozzle clusters in shells

Specimen type	Dimensions (in.)		Opening	Model number	Hole diameter (in.)	Nozzle dimensions (in.)			
	Hole diameter	Thickness				Outer diameter	Wall thickness		
Flat plate ($\frac{1}{8}$ in.)	0.375		Unpierced	1P ^a	2.625				
			Unpierced	2P ^{a,b}					
			One hole	3P1 ^a					
			Two holes	3P2 ^a					
			Three holes	4P ^a					
			Five holes	5P ^a					
			One nozzle	6P ^b				2.625	0.250
			Two nozzles	7P ^b				2.625	0.250
			Five nozzles	10P ^c				2.625	0.250
Hemisphere	40.90	0.500	Two holes	AUI	1.572				
			Three holes	AUI	1.572				
			Four holes	AUI	1.572				
			Five holes	AUI	1.572				
	41.19	0.500	Two nozzles	AUII	7.002	0.333			
			Four nozzles	AUII	7.002	0.333			
			Five nozzles	AUII	7.002	0.333			

^aModels tested at The University of Tennessee.

^bModels tested at Auburn University.

^cFlat-plate model to be tested.

The nomenclature and the mathematical equations used in the data reduction are listed in the remainder of this chapter. The geometry of the test specimen and its instrumentation are described in Chap. 2; the manner in which the various loads were imposed and some of the characteristics of the applied loads are detailed in Chap. 3; and the test results are briefly discussed in Chap. 4. The actual test data are given in Appendices A and B.

Nomenclature

The symbols used in this report are as follows:

- E = modulus of elasticity (psi)
- F = force (lb)
- M = moment (in.-lb)
- P = pressure (psi)
- SI = stress intensity
- ϵ = strain (lin./in.)
- ν = Poisson's ratio
- σ = normal stress (psi)
- τ = shear stress (psi)
- θ = principal stress angle (referenced to the stringer line or axial direction in degrees)

The symbols used as subscripts or superscripts are:

- B = bending stress
- i = inner surface of plate or nozzle
- m = meridional direction (along the stringer)
- M = membrane stress
- o = outer surface of plate or nozzle
- p = direction of maximum stress
- q = direction of minimum stress
- t = tangential direction (normal to the stringer)
- T = total stress

Equations and Constants Used in Calculating Stresses

Total stresses on the outside and inside surfaces for meridional (along the stringer) and tangential (normal to the stringer) directions are calculated by

$$\sigma_{\text{m}}^{\text{I}} = \frac{E}{3(1-\nu^2)} [(3-\nu)\epsilon_1 + 2\nu(\epsilon_2 + \epsilon_3)] \quad (1)$$

and

$$\sigma_{\text{t}}^{\text{I}} = \frac{E}{3(1-\nu^2)} [(3\nu-1)\epsilon_1 + 2(\epsilon_2 + \epsilon_3)] . \quad (2)$$

The membrane stresses for meridional and tangential directions are

$$\sigma_{\text{m}}^{\text{M}} = \frac{1}{2} (\sigma_{\text{mo}}^{\text{I}} + \sigma_{\text{mi}}^{\text{I}}) \quad (3)$$

and

$$\sigma_{\text{t}}^{\text{M}} = \frac{1}{2} (\sigma_{\text{to}}^{\text{I}} + \sigma_{\text{ti}}^{\text{I}}) . \quad (4)$$

The bending stresses for the outside surface are

$$\sigma_{\text{mo}}^{\text{B}} = \sigma_{\text{mo}}^{\text{I}} - \sigma_{\text{m}}^{\text{M}} \quad (5)$$

and

$$\sigma_{\text{to}}^{\text{B}} = \sigma_{\text{to}}^{\text{I}} - \sigma_{\text{t}}^{\text{M}} . \quad (6)$$

The equations for the principal stresses are

$$\tau_{\text{max}} = \frac{E\sqrt{2}}{3(1+\nu)} [(\epsilon_1 - \epsilon_2)^2 + (\epsilon_1 - \epsilon_3)^2 + (\epsilon_2 - \epsilon_3)^2]^{1/2} ,$$

$$\sigma_{\text{p}} = \frac{E(\epsilon_1 + \epsilon_2 + \epsilon_3)}{3(1-\nu)} + \tau_{\text{max}} ,$$

and

$$\sigma_{\text{q}} = \frac{E(\epsilon_1 + \epsilon_2 + \epsilon_3)}{3(1-\nu)} - \tau_{\text{max}} ;$$

and the principal stress angle (referenced to the stringer line) is

$$\phi_p = \frac{1}{2} \tan^{-1} \left[\frac{\sqrt{3} (\epsilon_2 - \epsilon_3)}{2\epsilon_1 - \epsilon_2 - \epsilon_3} \right].$$

The stress intensity, which is defined as twice the maximum shear stress in three dimensions, is taken as the largest of the following three expressions:

$$SI = 2\tau_{\max},$$

$$SI = \sigma_p - \text{pressure normal to surface},$$

or

$$SI = \text{pressure normal to surface} - \sigma_q,$$

where E = modulus of elasticity = 30×10^6 psi and ν = Poisson's ratio = 0.28.

2. FLAT PLATE WITH TWO NOZZLES ATTACHED (MODEL 7P)

Dimensions and Characteristics

The dimensions of this model (noted in Table 1) include a flat plate (36 × 36 × 0.375 in.) with two centrally located nozzles (2.625-in. OD with 0.250-in. walls) whose centers are 3.0 in. apart (Figs. 1 and 2). The plate was machined at ORNL from a large 2.5-in.-thick plate with the nozzle junction region as an integral part of the plate. This approach gave an ideal junction free of weld distortions and irregularities. The 8.5-in.-long nozzles were made by welding extensions to the integral nozzle stubs as noted in Fig. 1. The mechanical properties of the material are the modulus of elasticity $E = 30 \times 10^6$ psi and Poisson's ratio $\nu = 0.28$.

Instrumentation and Measuring

Micro-Measurements type EA-06-030YB-120, option SE, strain gages were mounted on the plate and nozzle in the junction region; there were 480 gages



PHOTO 3083-75

Fig. 2. Flat plate with two nozzles attached.

(or 160 rosettes) located as shown in Figs. 3 through 5. The model was instrumented with 20 stringers of gages at 0, 45, 90, 135, and 180° from the reference axis (see Fig. 6): five stringers on each surface of the nozzle and five on each surface of the plate. Because of model and loading symmetry, only one nozzle was gaged, identified in this report as nozzle 1. Figure 3 also illustrates the strain-gage identification system used. The strain-gage rosettes consisted of three gages, each with a 0.030-in. gage length arranged in a "y" configuration; the total rosette grid area is enclosed in a 0.11-in.-diam circle. Figures 3 through 5 show the typical gage alignment. For future reference, note is made of the assigned coordinate axes in Fig. 6.

For data collection, a half-bridge circuit was used. A dummy gage was used for compensating temperature effects. The dummy gage was insulated, as were the active gages, from air currents and other temperature influences.

ORNL-DWG 74-13203R

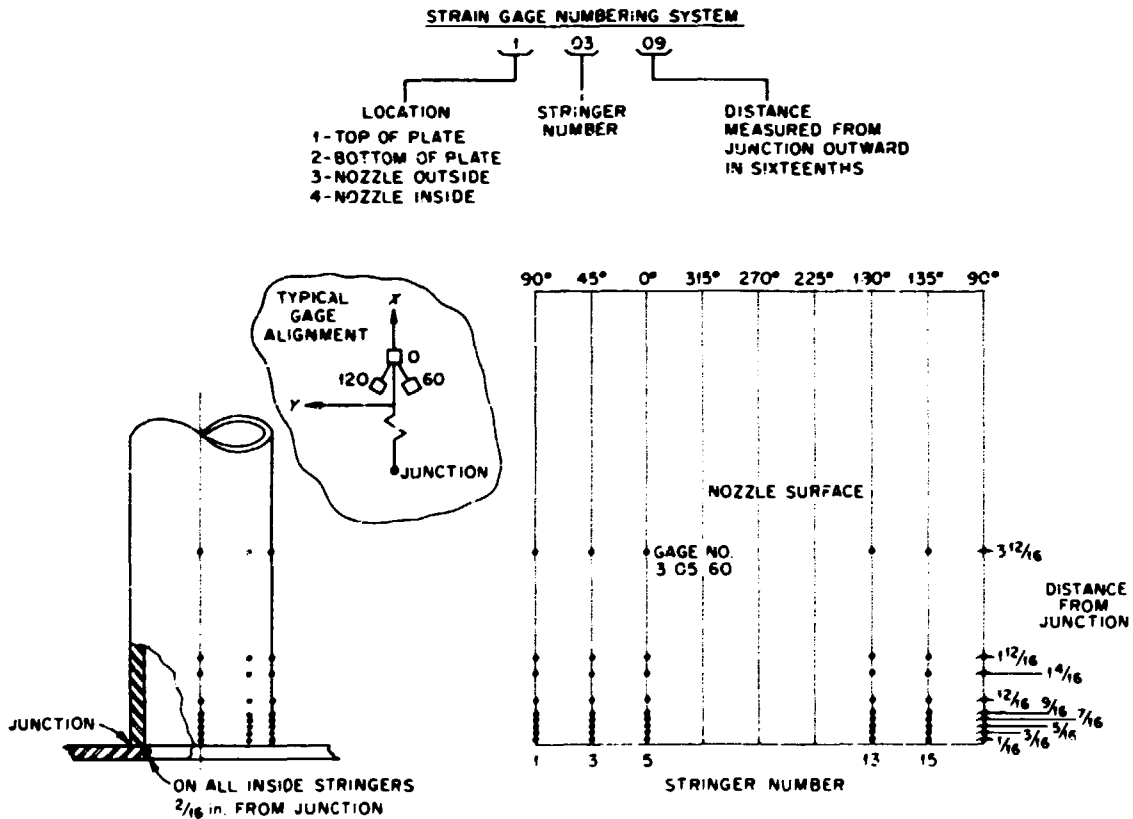


Fig. 3. Nozzle gage location and numbering system.

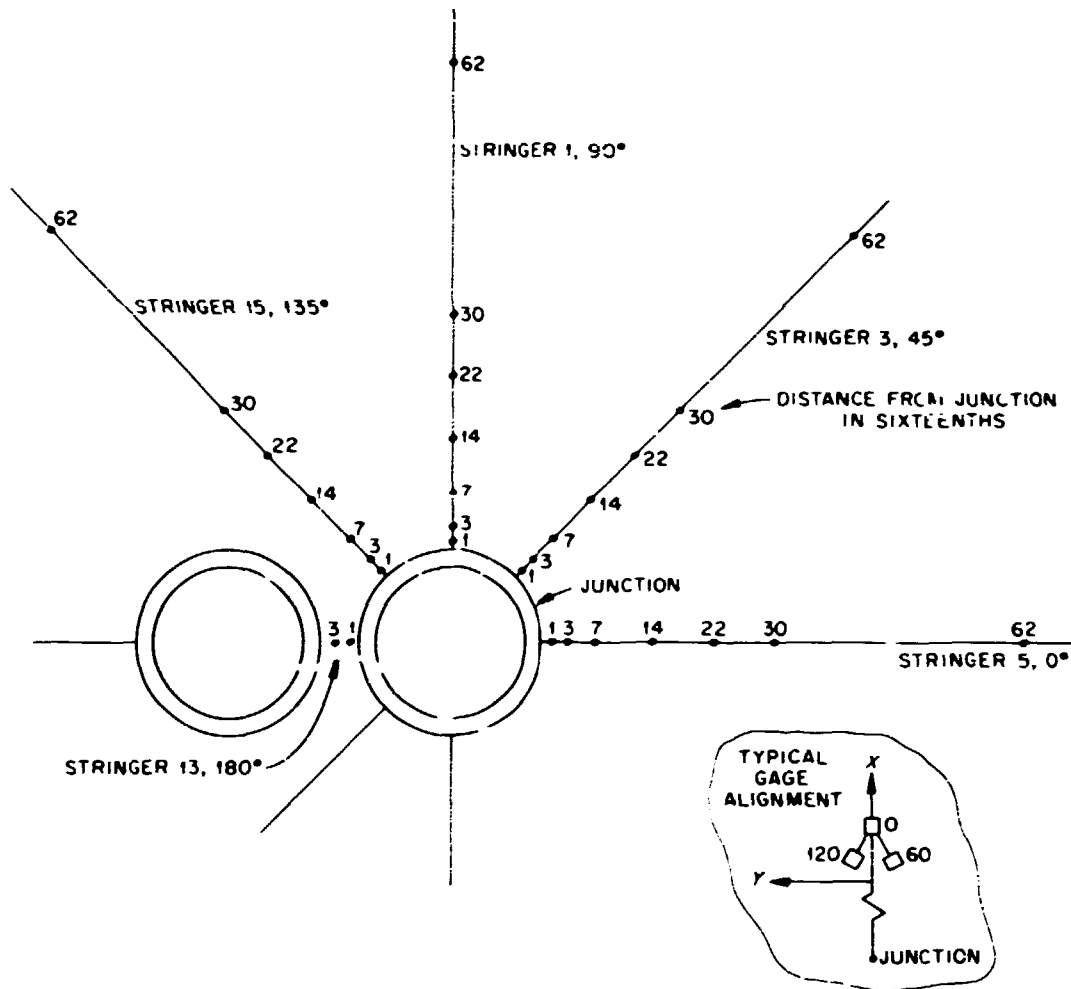


Fig. 4. Gage locations on nozzle side of plate.

At the beginning of each test, a small preload was applied to the model. Two stringers of strain gages, which was the maximum capacity of the data-collecting equipment, were then read. The model was then fully loaded, and the strain gages were read again. The change in strain-gage readings was correlated with the change in load. The model was then unloaded to the preload level, and the operation was repeated to check for gage repeatability. Acceptability was based on a tolerance of $\pm 8 \mu\text{in./in.}$ The two recorded strains were then averaged. All repeatable experimental data points are reported in Appendices A and B. It is possible that some of these data points may reflect any or all of the following: undetected

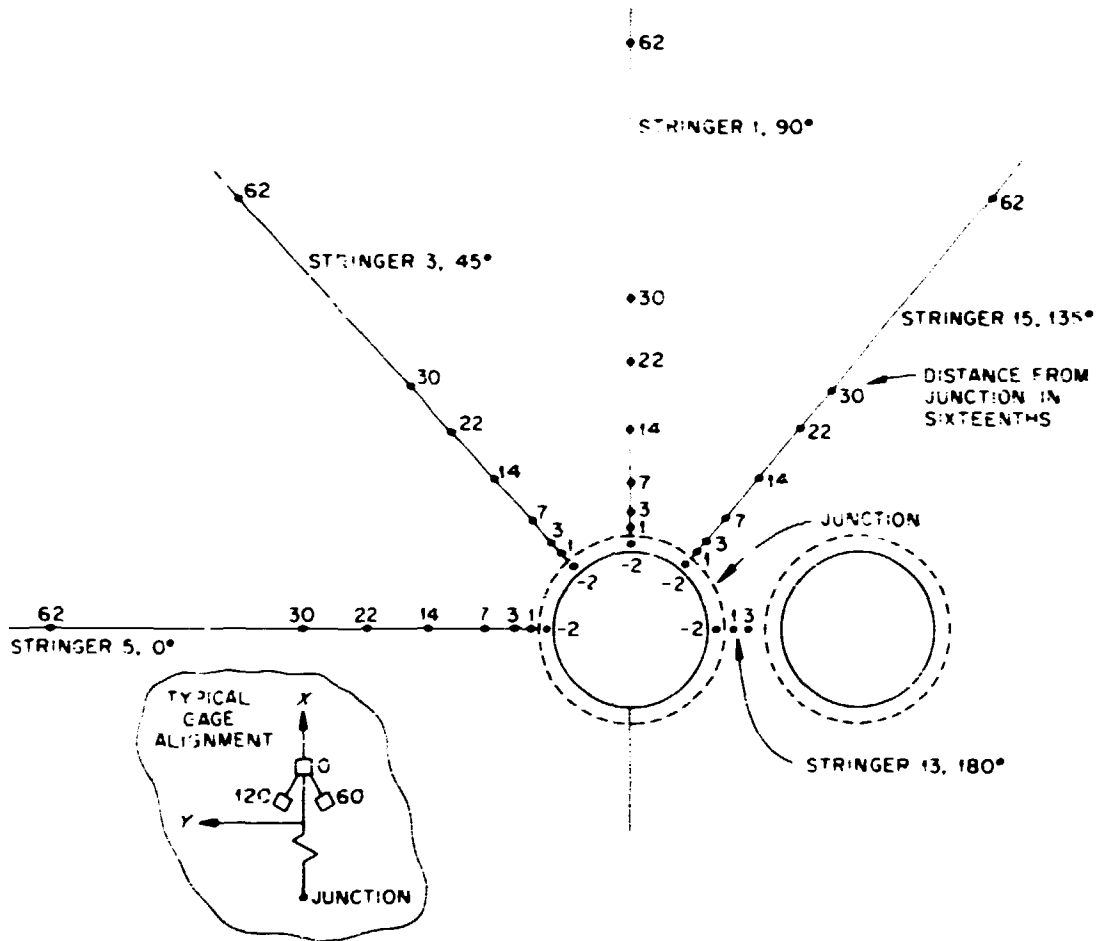


Fig. 5. Gage locations opposite nozzle side of plate.

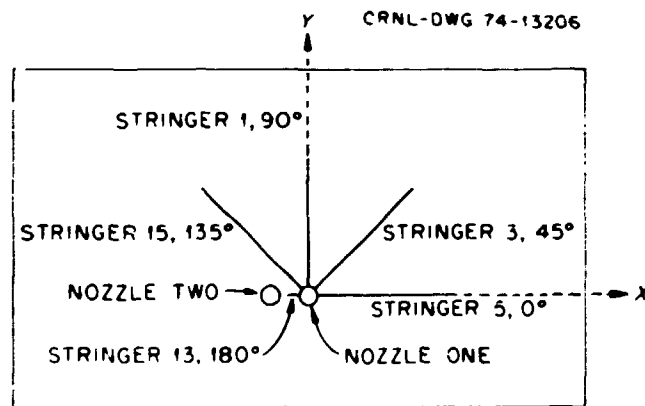


Fig. 6. Stringer lines for flat plate with two nozzles attached.

influences of a faulty gage, a nonhomogeneous material in the vicinity of the gage, peculiarities in model loadings, and possible instrumentation irregularities. The cause of this type of erratic behavior is not always practical to determine.

3. LOADING SYSTEMS FOR FLAT-PLATE MODELS

Since the model was gaged about nozzle 1 only (see Fig. 6), a total of nine loading conditions were required to examine both the effect of nozzle 2 on the stress behavior near nozzle 1 for loadings applied to nozzle 1 and the stresses developed near nozzle 1 for loadings applied to nozzle 2. The test loadings consisted of three biaxial loadings on the plate and a thrust and two moment loadings on each of the nozzles. The loadings on the plate were a 1:1 biaxial tension, a 1:2 biaxial tension (1 in the x direction and 2 in the y direction, see Fig. 7), and a 2:1 tension. The loadings on nozzle 1 were a thrust loading; a moment loading about the y axis, subsequently referred to as M1-1; and a moment loading about the x axis, M2-1. Similar loadings were applied to nozzle 2; that is, a thrust loading, a moment loading M1-2 about the y axis, and a moment loading M2-2 about the x axis.

Plate Biaxial Loading

For applying the biaxial load to the plate, the plate was mounted vertically in the loading frame to minimize bending of the plate due to its own weight. Thirty-two hydraulic cylinders (eight pulling on each side of the plate) allowed the plate to "float" and applied a uniform load on each edge that was aligned with the plane of the plate. Each load cylinder was positioned on the loading frame through a specially made self-aligning washer positioned in the plane of the plate.

Since the hydraulic pressure in the cylinders must overcome a certain amount of friction between the O-ring and the cylinder wall, the hydraulic pressure inside the cylinders is not equal to the force exerted on the specimen. It was therefore necessary to increase the hydraulic pressure until the desired force was attained. Once the correction factor was

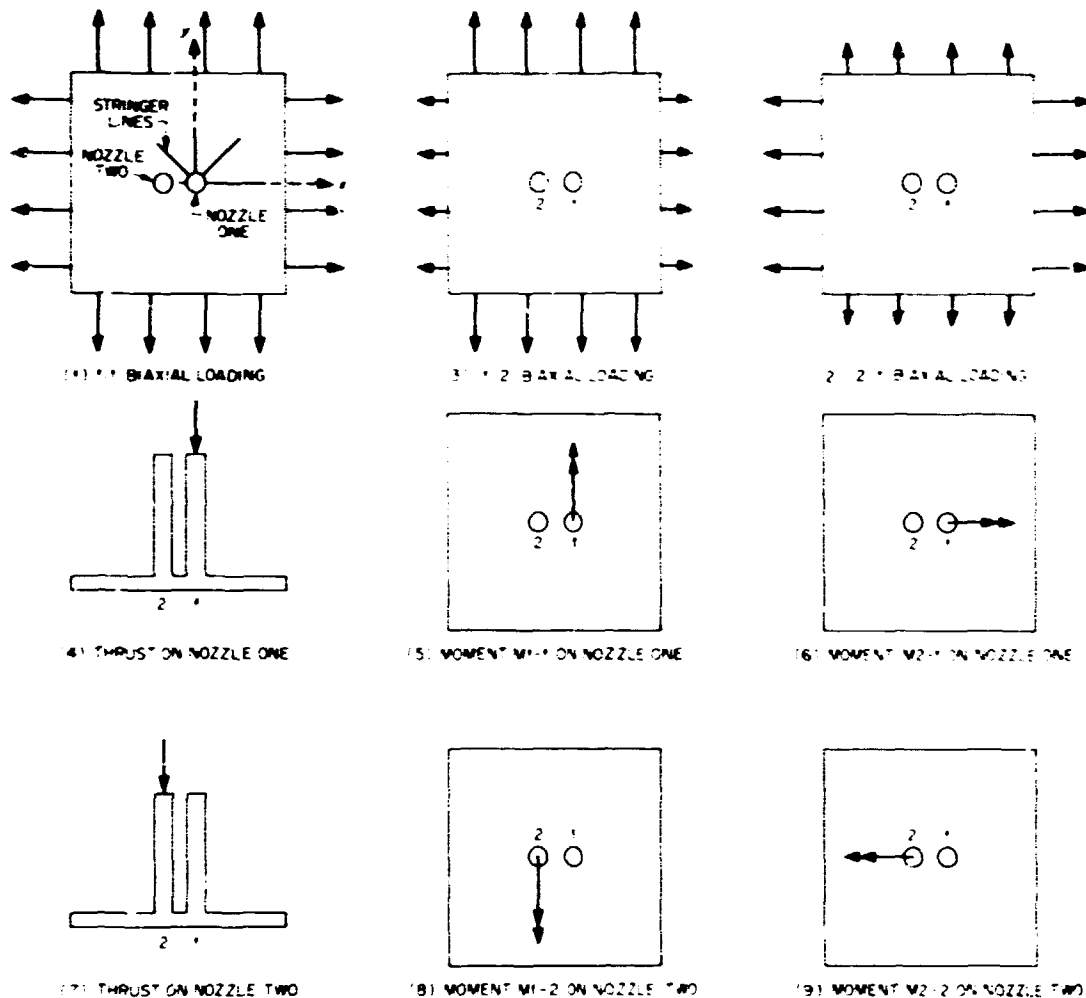


Fig. 7. Loadings applied to the flat-plate model with two nozzles attached.

determined, the cylinder forces were accurate to ± 50 lb, and, when compared with approximately 10,000 lb of force on each cylinder at 2000 psi pressure, this represents an accuracy of about 0.5%.

Different stress states could be induced in the plate by varying the pressures in the hydraulic cylinders. Of particular interest was simulating the membrane stresses that occur in spherical and cylindrical shells due to internal pressure loading. This was done by producing in the plate 1:1, 1:2, and 2:1 planar biaxial stresses respectively. For the 1:1 biaxial

load, a pressure of 2000 psi in each hydraulic cylinder was selected because it gave reasonable magnitudes of strains without causing yielding in the models; the corresponding stress in the plate was 6151 psi. For the 1:2 (2:1) test, the pressure was 1000 (2000) psi in one group of parallel cylinders and 2000 (1000) psi in the other group. The corresponding stresses in the plate were 3075 (6151) and 6151 (3075) psi, respectively.

A calibration procedure was developed to examine the biaxial stress field produced by this biaxial loading system. First, a flat plate (model 2P) was mounted in the load frame. The central area of the plate was strain-gaged, and equal loads were applied to the plate. The strain readings increased linearly with the applied load. Further, an area 14 in. in diameter in the central portion of the plate was determined to be essentially in an equibiaxial state of stress. Biaxial gage readings in this area had a nominal value of 147 $\mu\text{in./in.}$ and varied by about $\pm 4 \mu\text{in./in.}$ The variation was considered primarily due to instrumentation errors and temperature changes, since it appeared to be randomly distributed. This biaxial strain condition corresponded to a biaxial stress field of 6151 psi for a 2000-psi pressure in the hydraulic loading cylinders.

When model 7P (reported herein) was tested, it was noted that the strain readings from zero load to full load were not linear in the low-load region. This was attributed to several factors, including a small amount of bending induced in the plate by the weight of the nozzle, the fact that the plate was not exactly vertical, and possible other small alignment difficulties. Since this nonlinearity did not exist at higher loads, a preload of 500 psi pressure in the hydraulic-cylinders was applied to the plate before the desired load was superimposed. This procedure generated linear and repeatable data within $\pm 8 \mu\text{in./in.}$

Nozzle Thrust and Moment Loadings

For applying the axial and bending loads to the end of the nozzles, the load frame was turned so that the plate was horizontal. The hydraulic cylinders were removed, and the plate was bolted to the load frame with angle-iron supports. A 1/8-in. rubber gasket separated the plate from the angle-iron supports to prevent the plate from warping.

For the axial loads, a hydraulic cylinder was positioned on the loading frame to apply a compressive thrust force (through a mechanical load cell) to the nozzle along its center line. The magnitude of the load was read from a load cell having an accuracy of ± 25 lb. The full axial thrust load was 1750 lb.

For the bending loads, a 50.44-in.-long T-shaped arm was centered and attached to the nozzle with a threaded joint. Cables were attached to the ends of the T-bar's arms, one pulling down and the other pulling up and over a pulley, and weights were then hung on the cables. This technique allowed an unrestrained deflection of the nozzle for the maximum applied moment of 5508 $\pm 1\%$ in.-lb.

4. DISCUSSION OF DATA

Biaxial Loadings on Plate

Figures A1 through A90 and Tables B1 through B150 of Appendices A and B give the results for the 1:1, 1:2, and 2:1 biaxial loadings applied to the plate. Examination of the total normalized stresses for each of these loadings (Figs. A1-A5 for the 1:1 loading, Figs. A31-A60 for the 1:2 loading, and Figs. A61-A90 for the 2:1 loading) reveals that stress distributions expected along stringers 1, 3, and 5 were obtained. For the 1:1 loading, the normalized stresses σ_x (along the stringer line) and σ_y (normal to the stringer line) on both the inside and outside surfaces of the plate approach a value of 1.0 for regions removed from the nozzle junctures. For the 1:2 loading, the σ_x stresses on both the inside and outside surfaces of the plate approach a normalized value of 0.5 along stringer 5 (0°) and 1.0 along stringer 1 (90°) in regions removed from the junction. The σ_y stresses approach a normalized value of 1.0 along stringer 5 (0°) and 0.5 along stringer 1 (90°). For the 2:1 loading, the σ_x stresses on both the inside and outside surfaces of the plate approach a normalized value of 1.0 along stringer 5 and 0.5 along stringer 1 away from the junction region. The σ_y stresses approach a normalized value of 0.5 along stringer 5 and 1.0 along stringer 1.

For each of the biaxial loadings, the maximum normalized stresses were obtained on the inside surface of the plate at the rosettes located nearest the opening. These stresses occurred on stringer 13 (180°) for the 1:1 and 1:2 loadings and on stringer 1 (90°) for the 2:1 loading. In each case, the maximum stress was a σ_y stress normal to the stringer line. The normalized values for the 1:1, 1:2, and 2:1 loadings were 2.740, 2.938, and 2.131, respectively. It might be noted at this point that the stress concentration factors for a large flat plate with a small single hole are 2.0 for a 1:1 biaxial loading and 2.5 for a 1:2 biaxial loading.⁷

Upon comparing the normalized stress values obtained along stringers 1, 3, and 5 with those obtained for a similar plate having a single attached nozzle,⁶ it can be concluded that the addition of the second closely spaced nozzle has little effect along these particular stringers. However, along stringer 13 (180°) between the nozzles, the transverse stresses were 10 to 25% higher for the two-nozzle configuration.

Thrust and Moment Loadings on Nozzle 1

The results for the thrust and two moment loadings applied to nozzle 1 (M1-1 and M2-1) are given in Figs. A91 through A180 and Tables B151 through B300. Recall that the model was instrumented about nozzle 1 only; hence, the results of these loadings demonstrate the stress behaviors in the immediate vicinity of nozzle 1 for loadings applied to nozzle 1.

Figures A91-A95, A121-A125, and A151-A155 show that, as might be expected, the longitudinal (σ_x) stresses on the nozzle approach a normalized value of 1.0 (or -1.0 for thrust loadings) for rosettes positioned away from the junction. Figures A121-A125 for moment loading M1-i (moment vector normal to the plane of symmetry of the model containing the nozzle axes) show peculiar stress behaviors on the nozzle at approximately 1.8 in. from the junction. This can be attributed to the fact that these rosettes are located on or very near the weld (see Fig. 1). The weld tends to act as a stress raiser for the two moment loadings, particularly for moment loading M1-1. These stress values for the rosettes located on the weld were not shown in Vol. 1 of this report⁵ in the comparisons of theoretical and experimental stress distributions. The intent there was to examine and

verify an analytical method by comparing calculated stresses with experimental values for an integral attachment region, etc., neglecting the effects of the weld.

The experimental results on the inside surface of the nozzle for all three loadings on nozzle 1 indicate that the material in the base of the nozzle (that is, at the gage position 2/16 in. below the outside juncture point of the nozzle and plate; see Fig. 3) acts as part of the plate for these loading conditions rather than as part of the nozzle. Note that this behavior is not indicated by the stresses on the outside of the nozzle near the juncture since the rosette nearest the junction region is clearly on the "nozzle."

The maximum stresses obtained for the thrust and moment loadings on nozzle 1 were all longitudinal (σ_x) stresses on the nozzle at the gage positions 1/16 in. from the junction. For the thrust loading, the maximum stress occurred on the inside of the nozzle along stringer 15 (135°) and had a normalized value of 20.375. Moment loading M1-1 gave a maximum normalized stress of 5.069 on the outside surface of the nozzle along stringer 13 (180°) located between the nozzles, while moment loading M2-1 gave a maximum normalized stress of 4.783 on the outside surface of the nozzle along stringer 1 (90°).

Thrust and Moment Loadings on Nozzle 2

Figures A181 through A270 and Tables B301 through B450 show the results for the thrust loading and the moment loadings M1-2 and M2-2 applied to nozzle 2. These tables and figures show the stress behaviors in the region around nozzle 1 for loadings applied to nozzle 2.

Again the results for the inside surface of the nozzle for all three loadings indicate that the material in the base of the nozzle acts as a part of the plate for these loading conditions rather than as a part of the nozzle. However, the weld effects alluded to earlier for the loadings applied on nozzle 1 are not evident for the loadings applied to nozzle 2. It can be concluded that for this model the effects of the weld are significant only for the nozzle on which the load is applied.

The maximum stress obtained for the thrust loading was a longitudinal stress on the inside surface of the nozzle along stringer 15 (135°) 1/16 in. from the junction, and had a normalized value of 14.956. Moment loading M1-2 gave a maximum normalized stress of 3.380 on the outside surface of the plate along stringer 13 3/16 in. from the junction; it was also a longitudinal stress. The highest stress obtained from moment loading M2-2 was a longitudinal stress with a normalized value of 2.047 22/16 in. from the junction on the inside surface of the plate along stringer 15 (135°).

5. ACKNOWLEDGMENTS

The authors wish to express their gratitude to R. L. Battiste, W. H. Fetters, and W. F. Ranson, all present or former graduate students at Auburn University, for their assistance in the planning and execution of the experimental study reported here.

The editorial assistance of F. M. O'Hara, Jr., of ORNL in preparing this report is also gratefully acknowledged.

6. REFERENCES

1. A. Matthews, Experimental Stress Analysis of Clusters of Holes of Equal Diameters in Flat Plates, Part I: A Single Hole, EM-69-2, The University of Tennessee (April 1969).
2. A. Matthews and R. B. Michaels, Experimental Stress Analysis of Clusters of Holes of Equal Diameters in Flat Plates, Part II: Two Holes, EM-70-2, The University of Tennessee (June 1970).
3. A. Matthews, R. B. Michaels, and R. J. Warmack, Experimental Stress Analysis of Clusters of Holes of Equal Diameters in Flat Plates, Part III: Three Holes, EM-70-3, The University of Tennessee (October 1970).
4. A. Matthews, R. B. Michaels, and R. J. Warmack, Experimental Stress Analysis of Clusters of Holes of Equal Diameters in Flat Plates, Part IV: Five Holes, EM-71-3, The University of Tennessee (June 1971).

5. J. W. Bryson, J. P. Callahan, and K. C. Gwaltney, Stress Analyses of Flat Plates with Attached Nozzles, Vol. 1. Comparison of Stresses in a One-Nozzle-to-Flat-Plate Configuration and in a Two-Nozzle Configuration with Theoretical Predictions, ORNL-5044 (vol. 1) (July 1975).
6. R. L. Battiste et al., Stress Analyses of Flat Plates with Attached Nozzles, Vol. 2. Experimental Stress Analyses of a Flat Plate with One Nozzle Attached, ORNL-5044 (vol. 2) (July 1975).

Appendix A

STRESS-VS-PROFILE DRAWINGS

The stress data are graphically displayed in the 270 stress-vs-profile drawings in this appendix. The drawings can be grouped into 9 series of 30 graph plots each. The first three series are for the 1:1, 1:2, and 2:1 biaxial loadings, the next three are for the thrust and bending moment loadings on nozzle 1, and the last three are for the thrust and bending moment loadings on nozzle 2.

Each series shows the total stress, the principal stress, the shear stress, the stress intensity, the membrane stress, and the bending stress, as registered by stringers 1, 3, 5, 13, and 15. These values are displayed as functions of the various positions on the plate/nozzle surfaces. In the drawings, the plate cross section at the given stringer is shown in the vertical position, and the cross section of the nozzle wall is shown in the horizontal position (as if the observer were looking at the model from the side when it was set up in the vertical load frame). The ordinate lines in the plots indicate the positions on the shell for which the stress values were determined.

The symbols used in the drawings are as follows: except for principal stresses, the round data points are for σ_x , and the triangular data points are for σ_y . For principal stresses, the round and triangular data points are the maximum and minimum principal stresses, respectively. Also, N1 is an in-plane load on the plate applied parallel to stringer 1, and N13 is an in-plane load on the plate applied parallel to stringer 13.

All of the stress values shown in these plots are for normalized stresses based on the following three methods. For the biaxial planar loadings the experimental value was divided by the larger of the biaxial stress components parallel to stringer 1 or 13 in a similar but unperforated plate under a similar loading condition. For the thrust loading on the nozzle, the experimental value was divided by the axial force (itself) divided by the cross-sectional area of the nozzle (i.e., $\sigma_{nom} = \frac{F}{A}$). For the moment loading on the nozzle, the experimental value was divided by the product of the moment

and the nozzle midsurface radius divided by the nozzle moment of inertia (i.e., $\sigma_{\text{nom}} = \frac{Mr}{I}$).

In the figures, the data points are connected with straight lines for clarity. The precise values for these data points are given in the tables of Appendix B.

ORNL DWG 75 14186

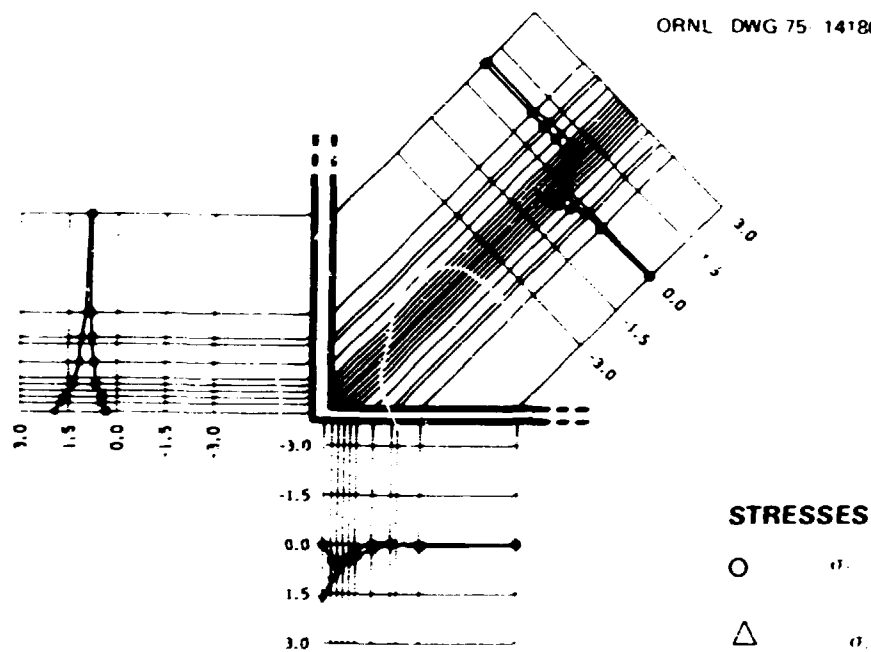


Fig. A1. Normalized total stress along stringer 1 for 1:1 biaxial stress on plate.

ORNL DWG 75 14187

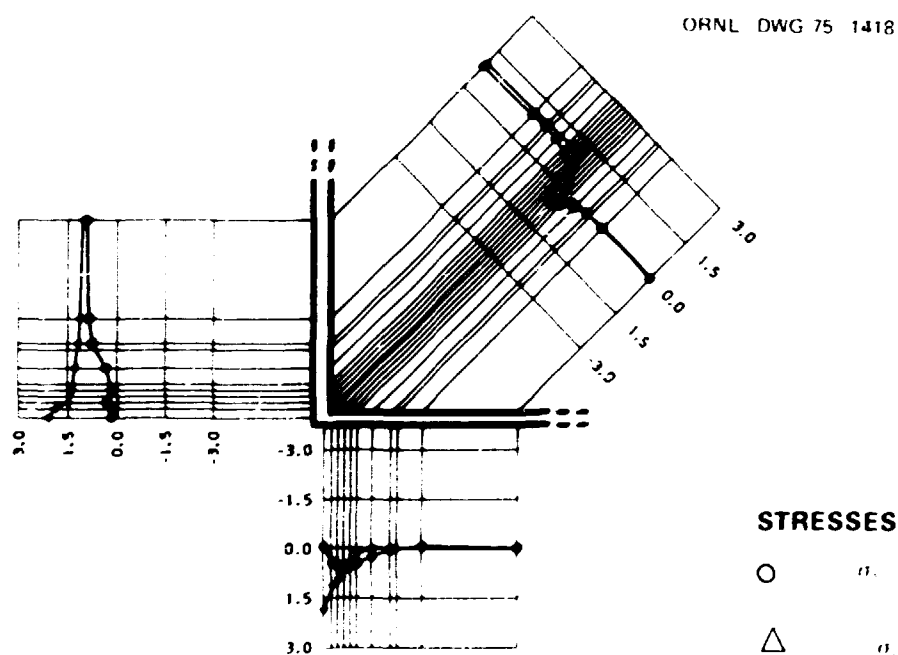


Fig. A2. Normalized total stress along stringer 3 for 1:1 biaxial stress on plate.

ORNL DWG 75-14188

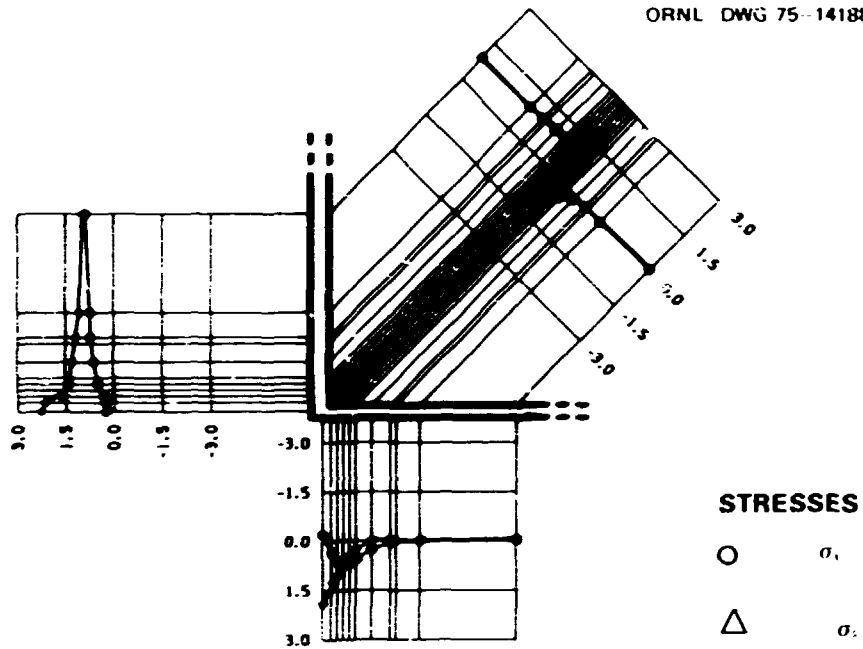


Fig. A3. Normalized total stress along stringer 5 for 1:1 biaxial stress on plate.

ORNL DWG 75 14189

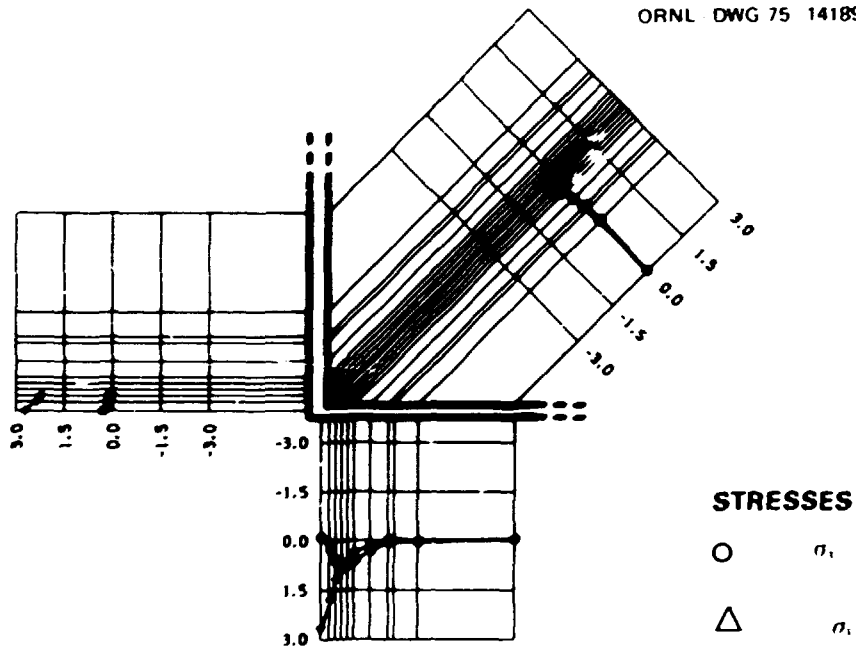


Fig. A4. Normalized total stress along stringer 13 for 1:1 biaxial stress on plate.

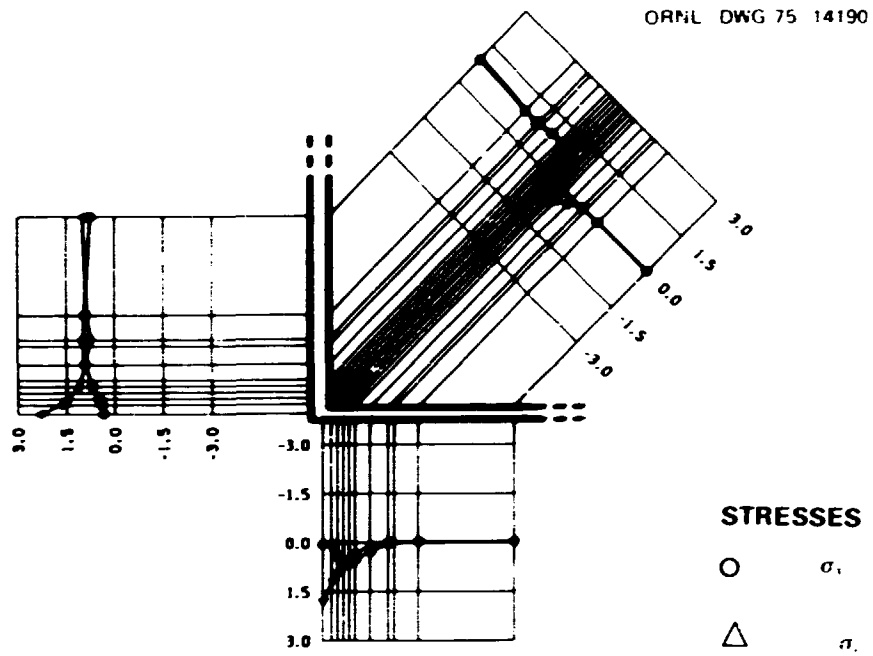


Fig. A5. Normalized total stress along stringer 15 for 1:1 biaxial stress on plate.

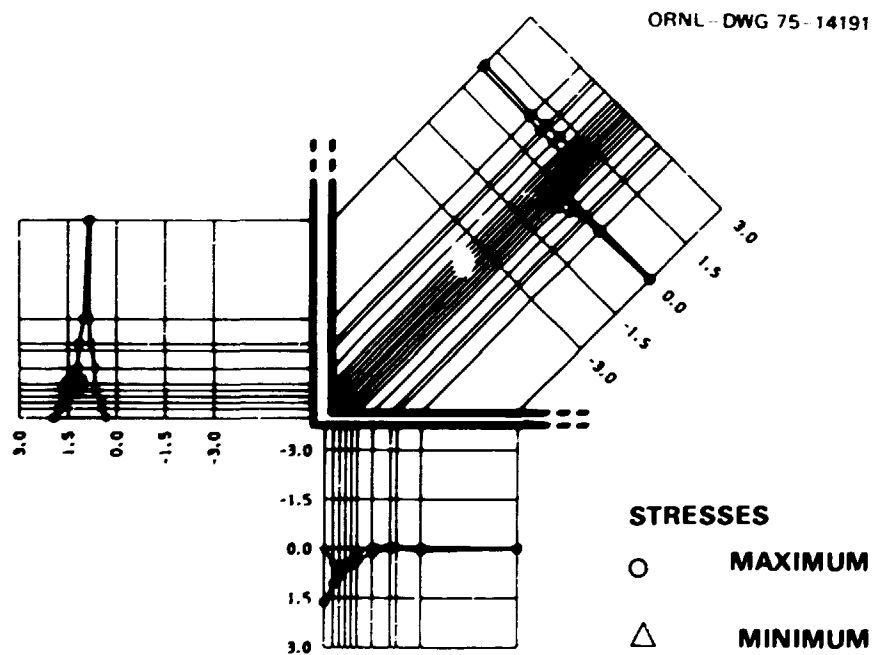


Fig. A6. Normalized principal stress along stringer 1 for 1:1 biaxial stress on plate.

ORNL DWG 75 14192

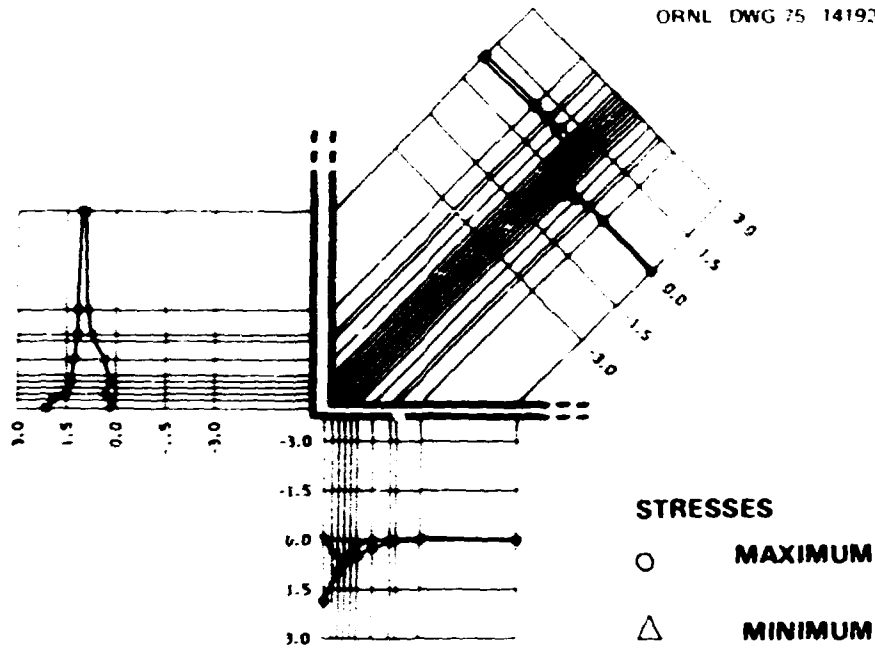


Fig. A7. Normalized principal stress along stringer 3 for 1:1 biaxial stress on plate.

ORNL DWG 75 14193

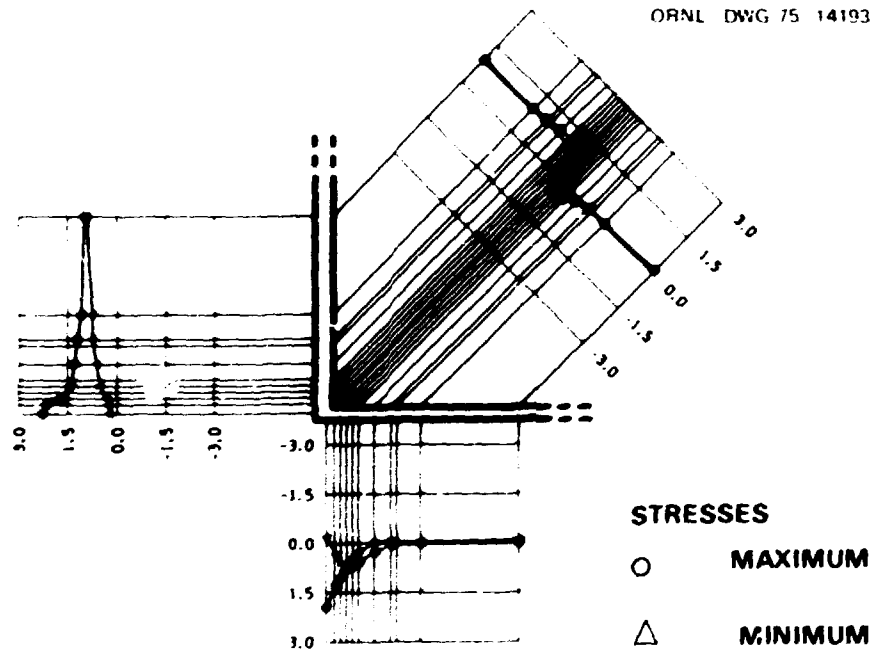


Fig. A8. Normalized principal stress along stringer 5 for 1:1 biaxial stress on plate.

ORNL DWG 75 14194

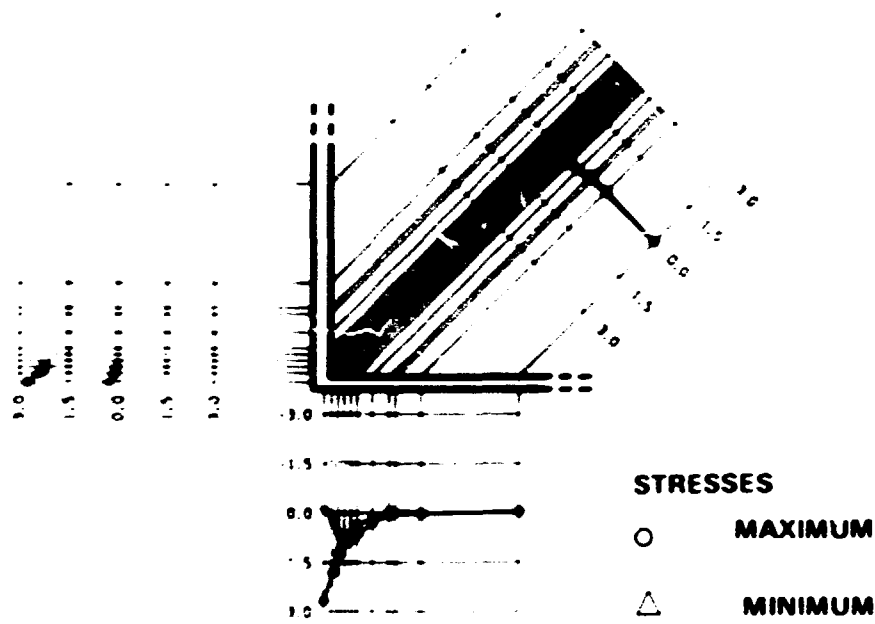


Fig. A9. Normalized principal stress along stringer 13 for 1:1 biaxial stress on plate.

ORNL DWG 75 14195

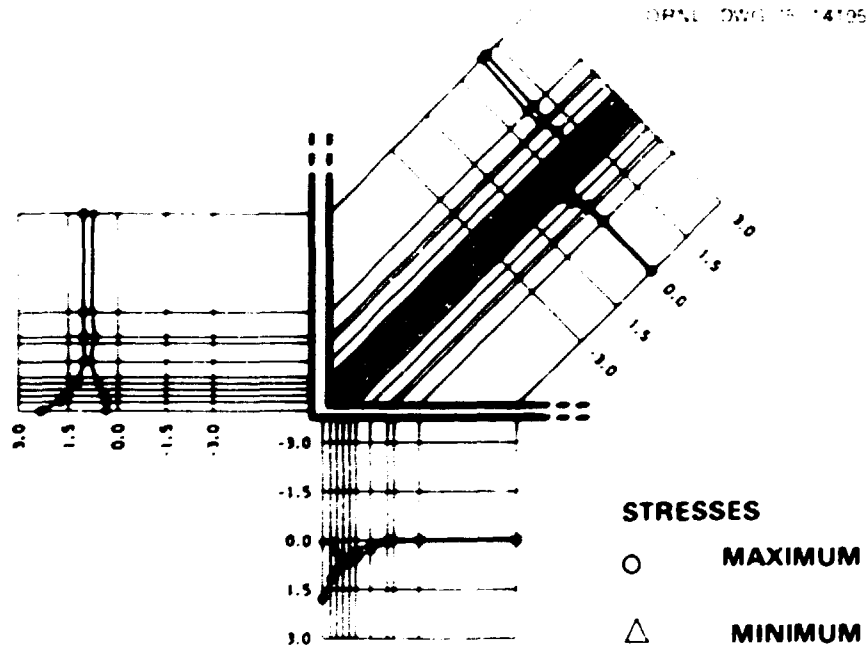


Fig. A10. Normalized principal stress along stringer 15 for 1:1 biaxial stress on plate.

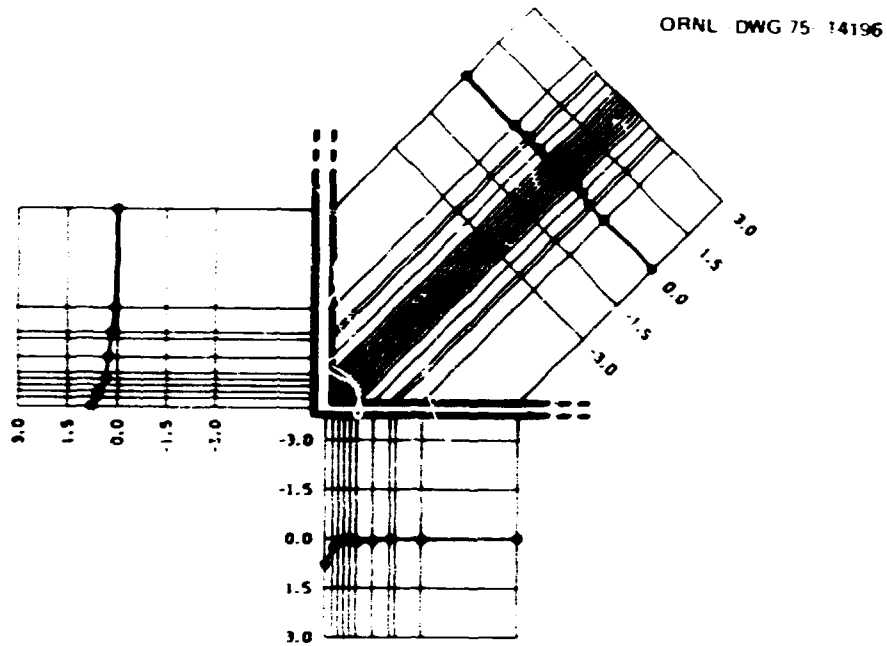


Fig. A11. Normalized shear stress along stringer 1 for 1:1 biaxial stress on plate.

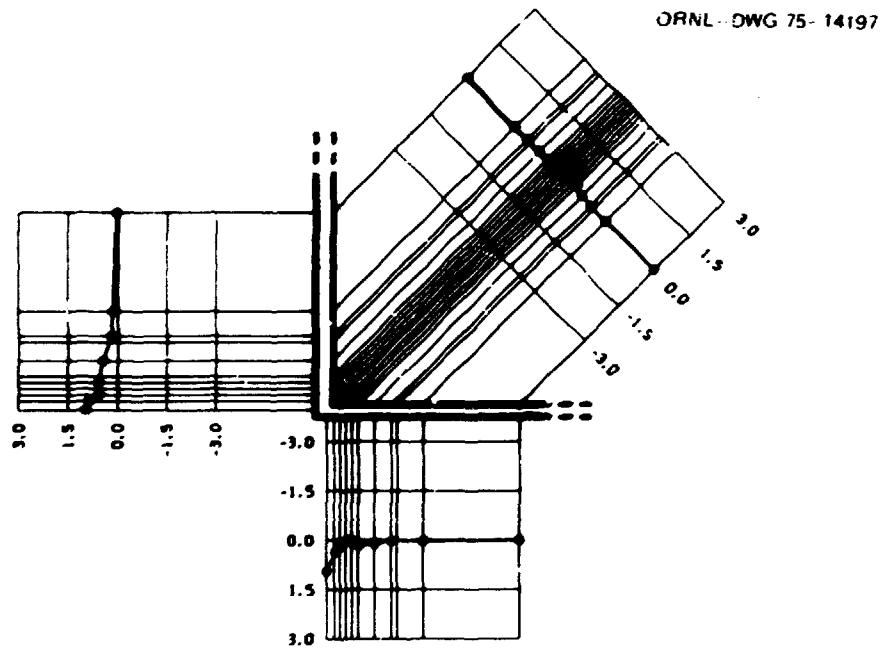


Fig. A12. Normalized shear stress along stringer 3 for 1:1 biaxial stress on plate.

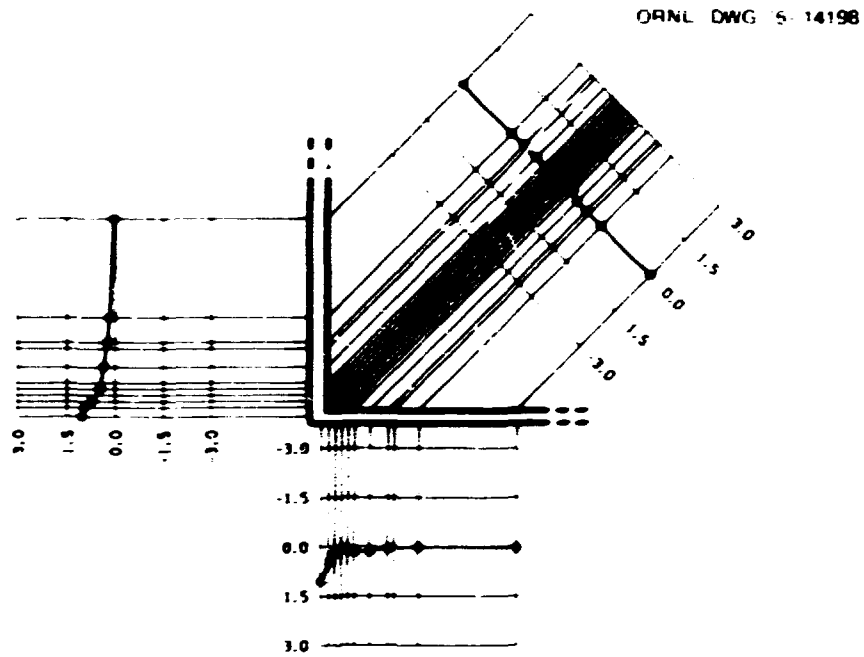


Fig. A13. Normalized shear stress along stringer 5 for $i:l$ biaxial stress on plate.

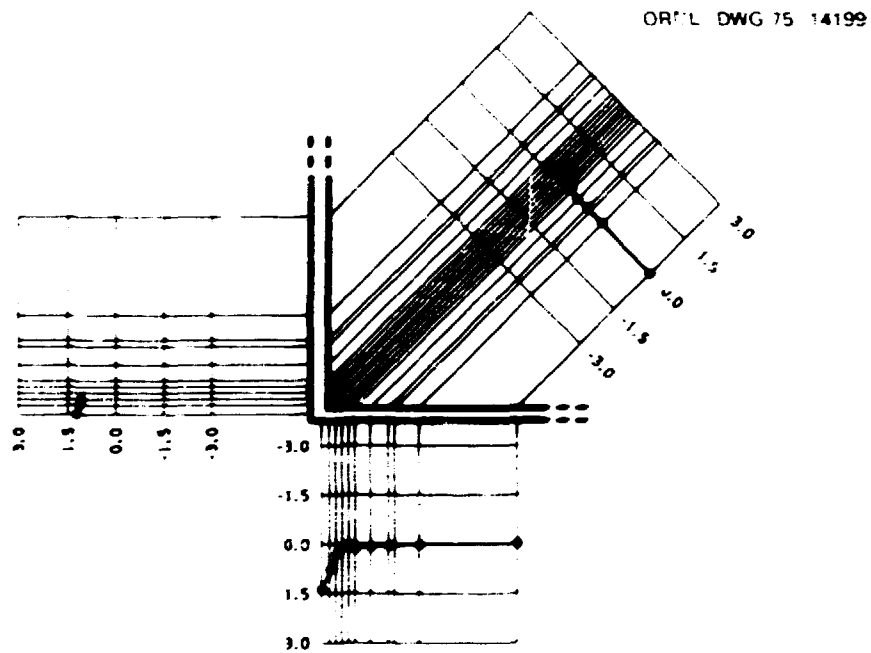


Fig. A14. Normalized shear stress along stringer 13 for $1:l$ biaxial stress on plate.

ORNL DWG 75 14200

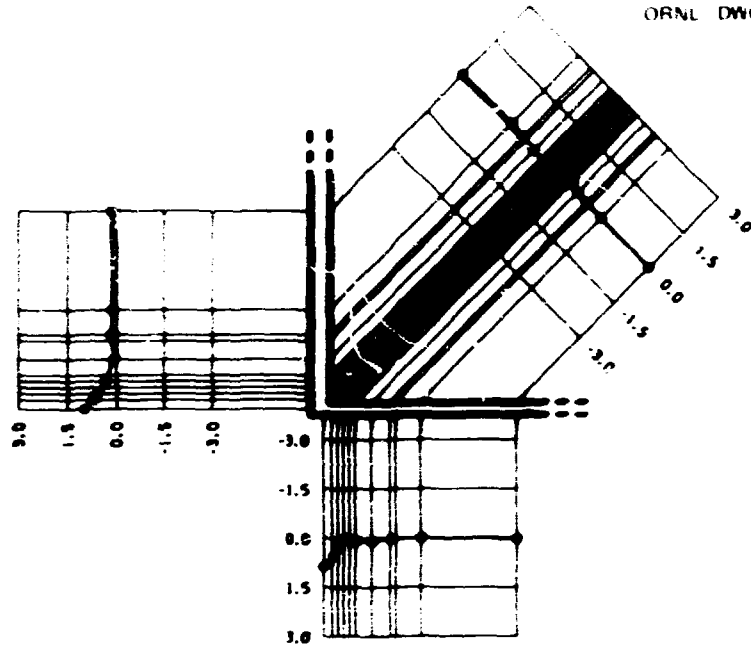


Fig. A15. Normalized shear stress along stringer 15 for 1:1 biaxial stress on plate.

ORNL DWG 75 14201

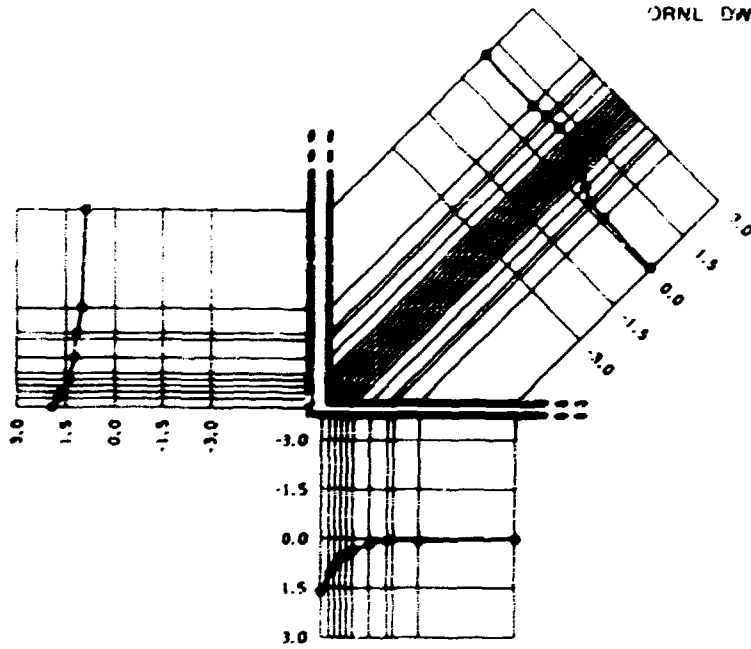


Fig. A16. Normalized stress intensity along stringer 1 for 1:1 biaxial stress on plate.

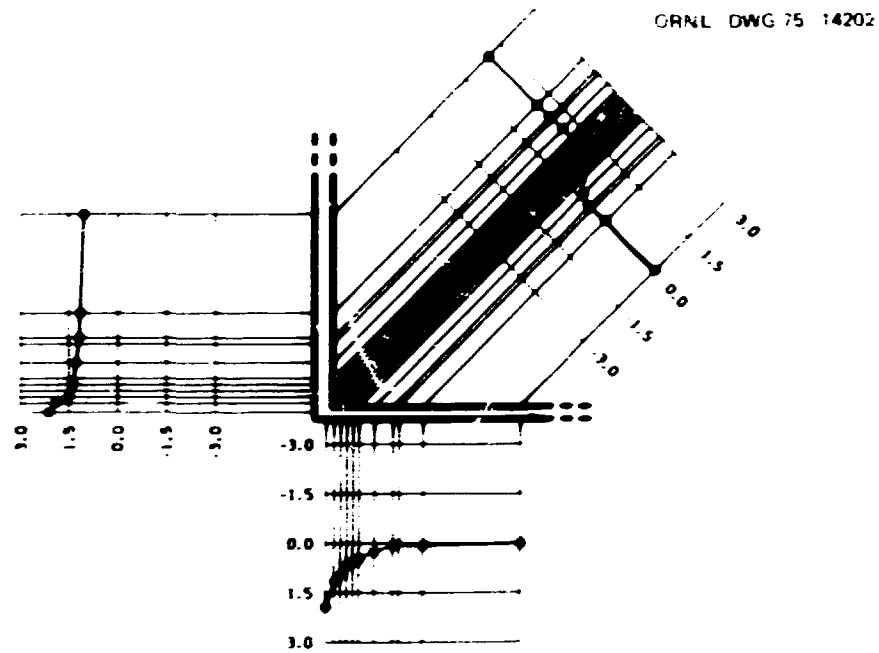


Fig. A17. Normalized stress intensity along stringer 3 for 1:1 biaxial stress on plate.

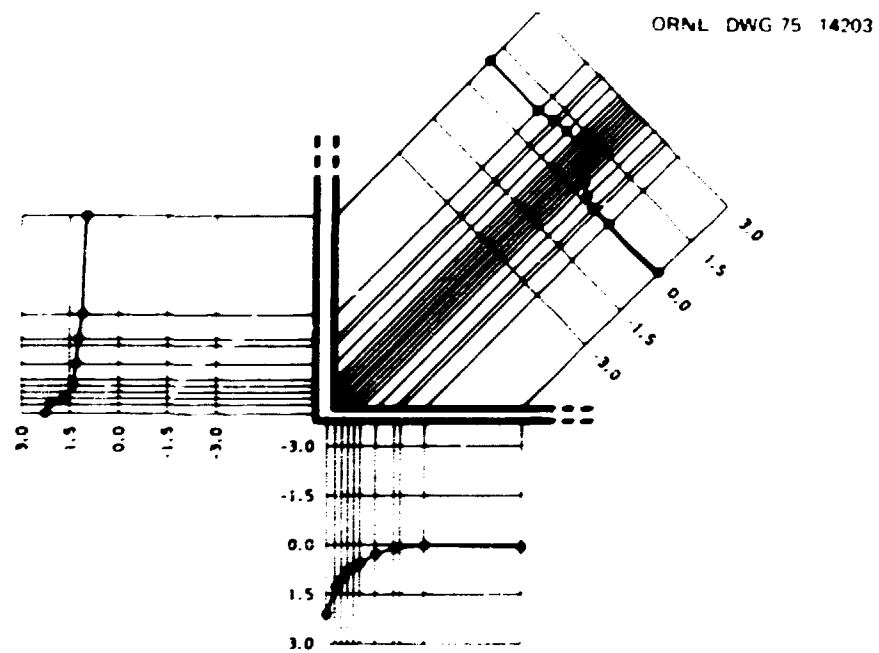


Fig. A18. Normalized stress intensity along stringer 5 for 1:1 biaxial stress on plate.

ORNL DWG 75 14204

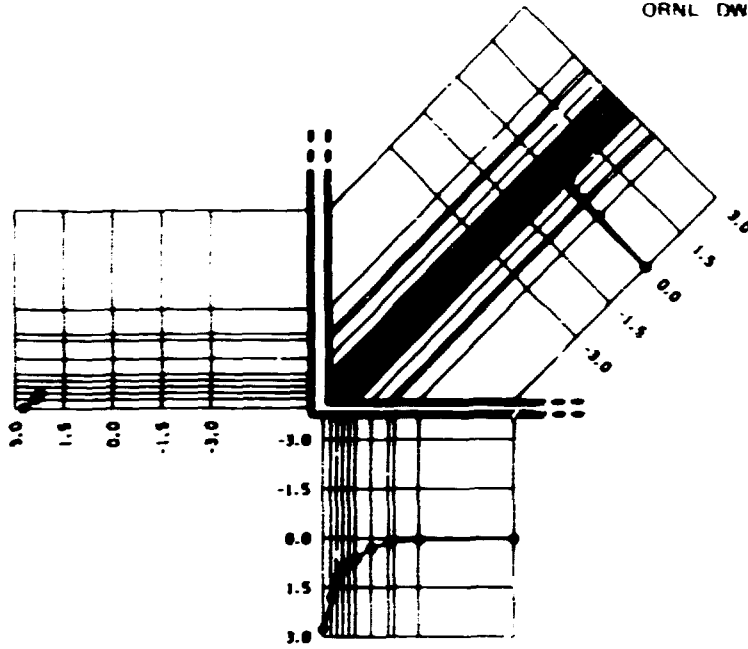


Fig. A19. Normalized stress intensity along stringer 13 for 1:1 biaxial stress on plate.

ORNL DWG 75 14205

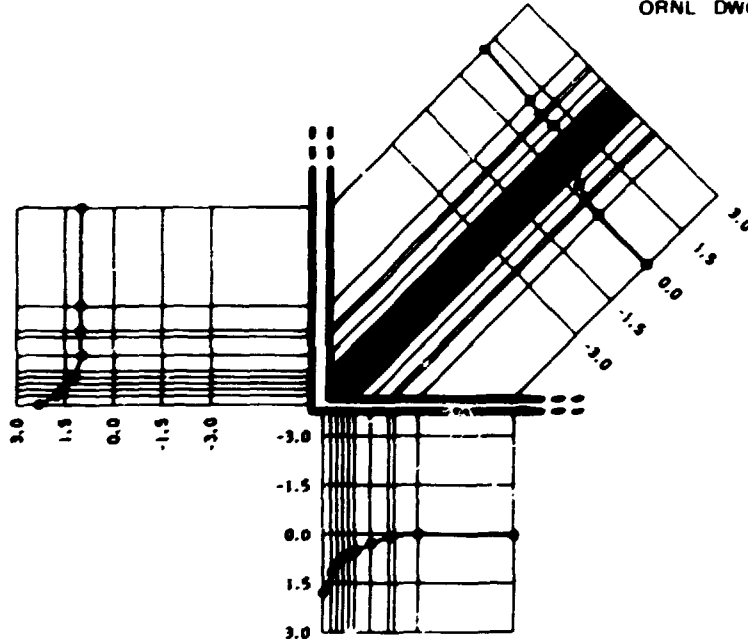


Fig. A20. Normalized stress intensity along stringer 15 for 1:1 biaxial stress on plate.

ORNL DWG 75 14206

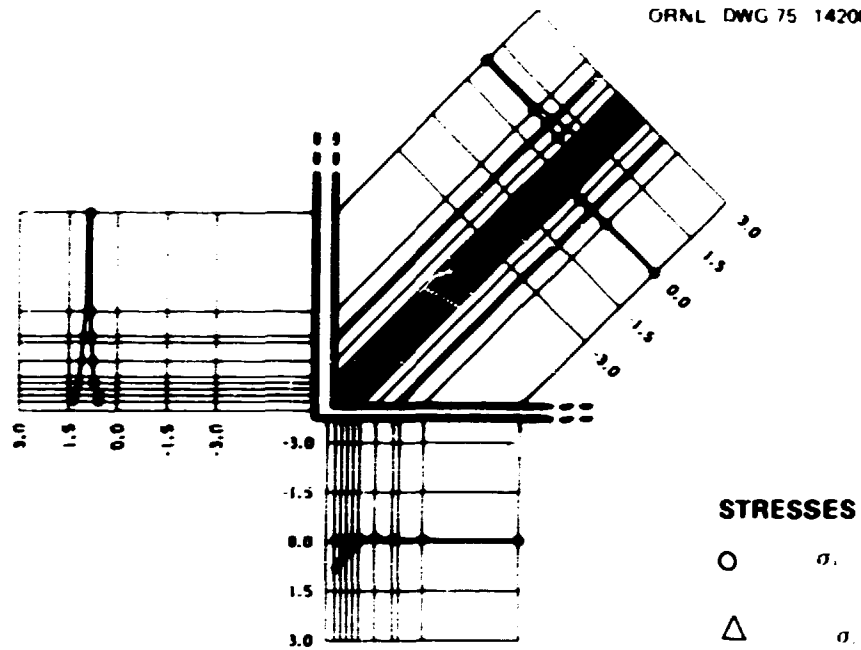


Fig. A21. Normalized membrane stress along stringer 1 for 1:1 biaxial stress on plate.

ORNL-DWG 75-14207

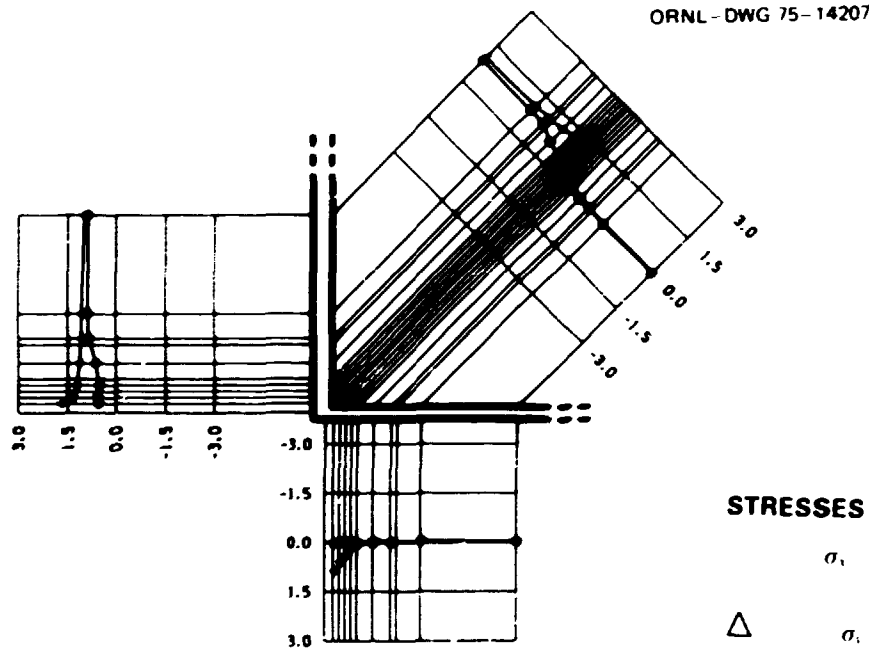


Fig. A22. Normalized membrane stress along stringer 3 for 1:1 biaxial stress on plate.

ORNL DWG 75 14208

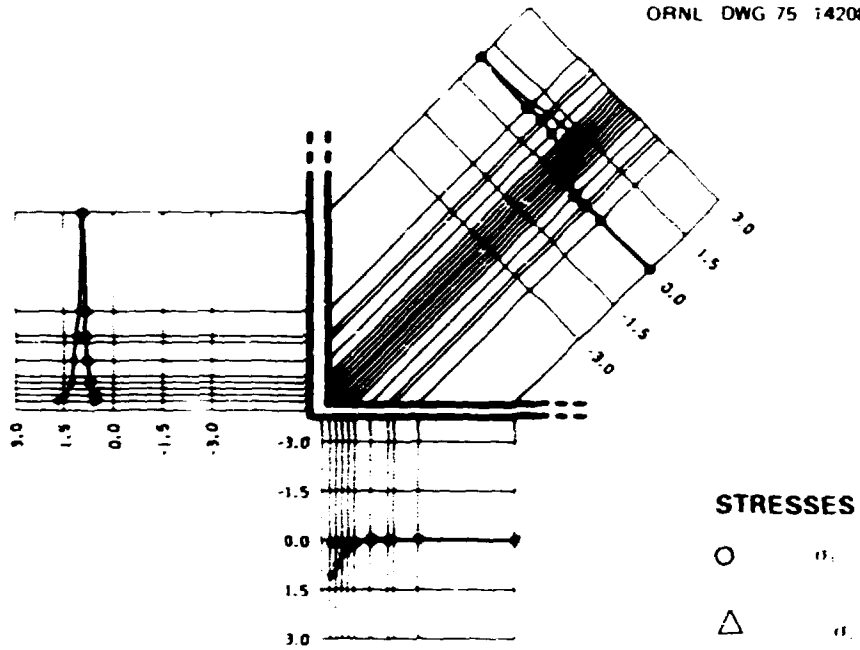


Fig. A23. Normalized membrane stress along stringer 5 for 1:1 biaxial stress on plate.

ORNL DWG 75 14209

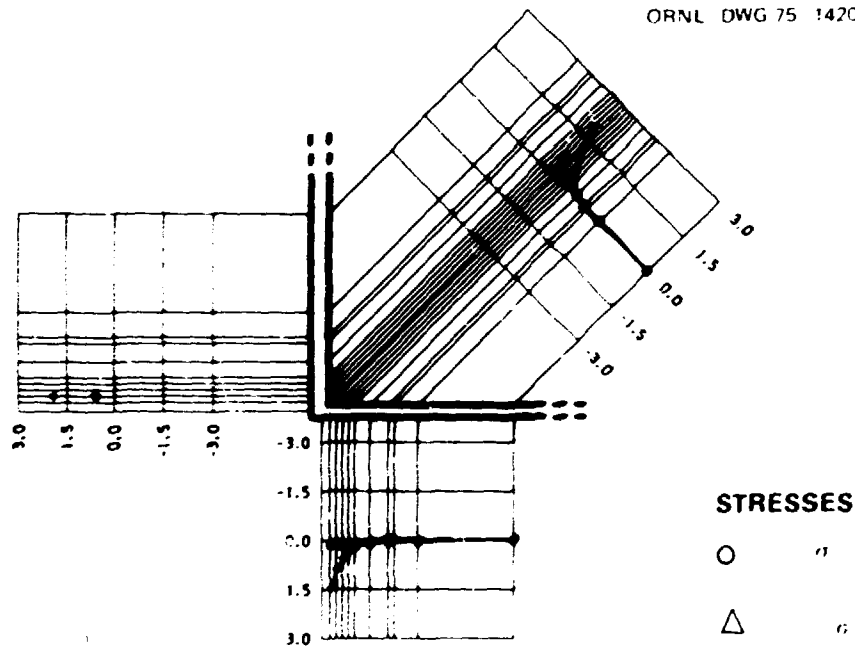


Fig. A24. Normalized membrane stress along stringer 13 for 1:1 biaxial stress on plate.

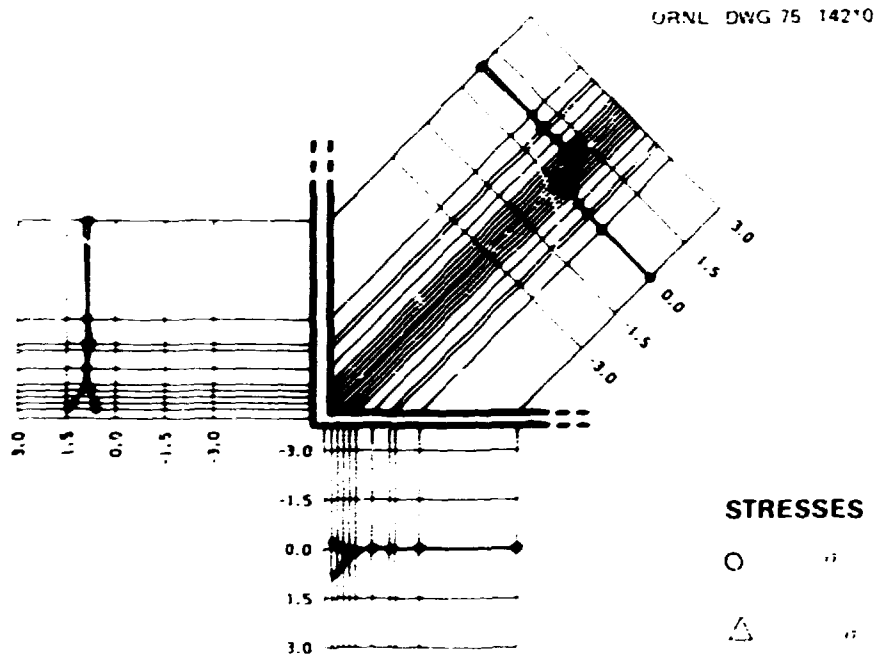


Fig. A25. Normalized membrane stress along stringer 15 for 1:1 biaxial stress on plate.

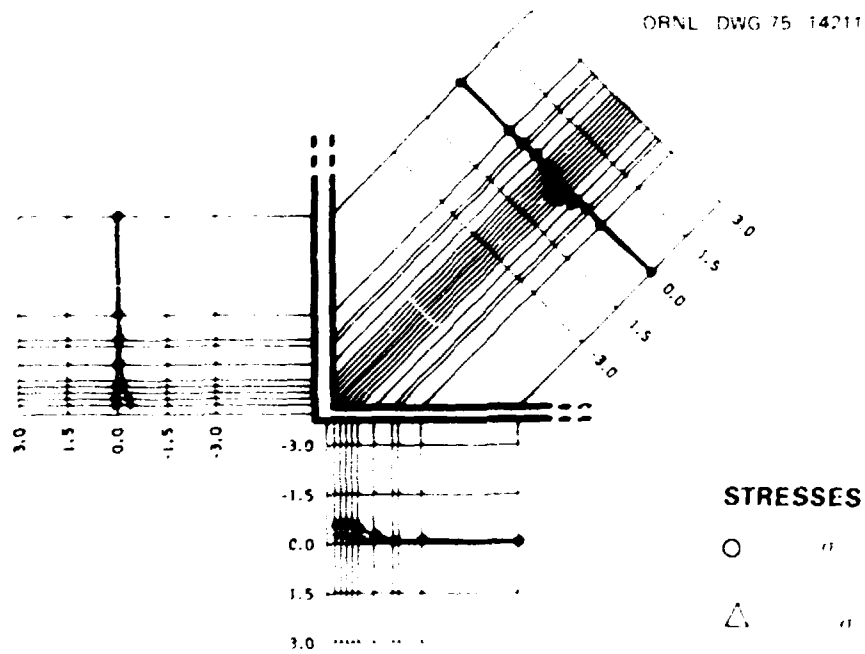


Fig. A26. Normalized bending stress along stringer 1 for 1:1 biaxial stress on plate.

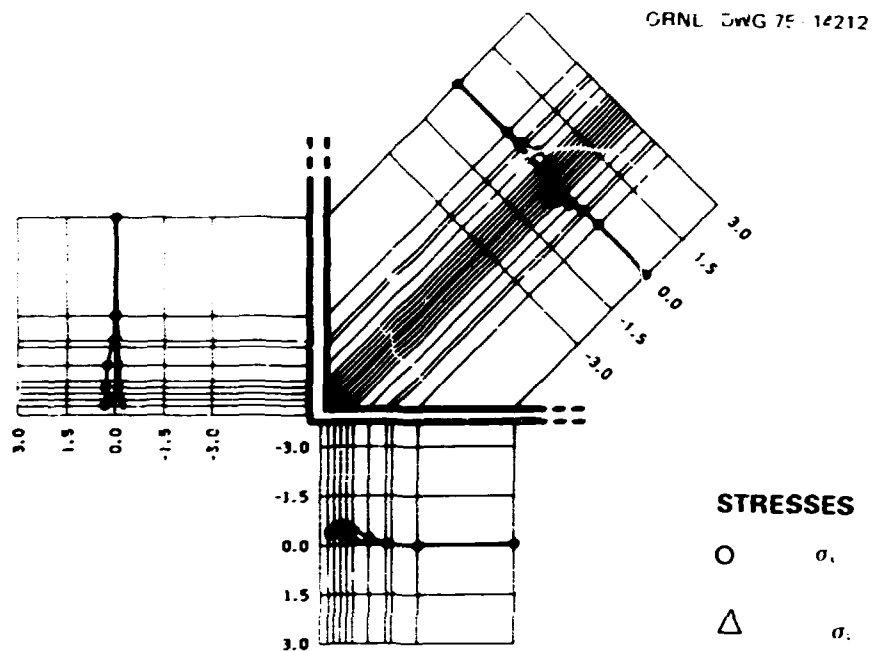


Fig. A27. Normalized bending stress along stringer 3 for 1:1 biaxial stress on plate.

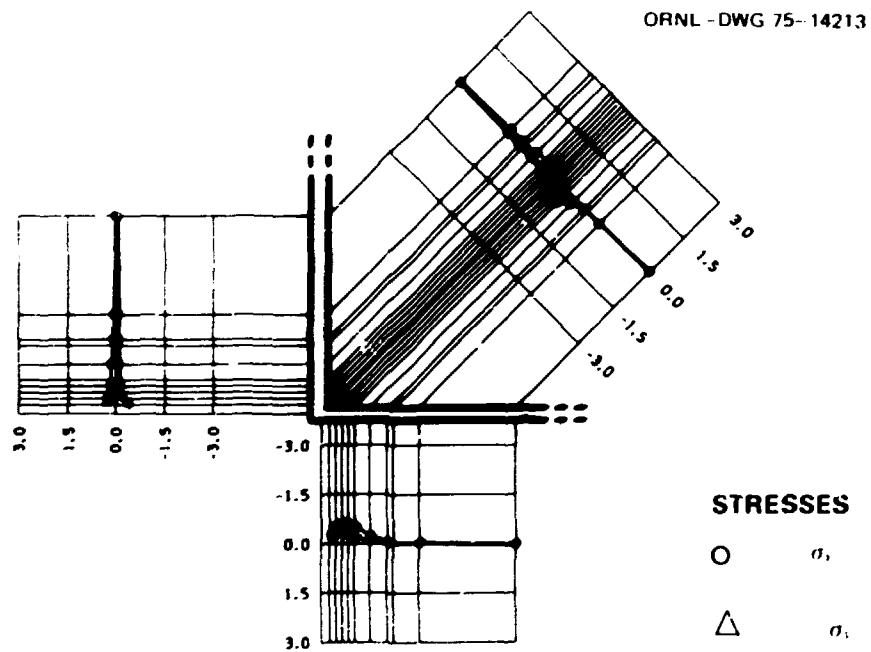


Fig. A28. Normalized bending stress along stringer 5 for 1:1 biaxial stress on plate.

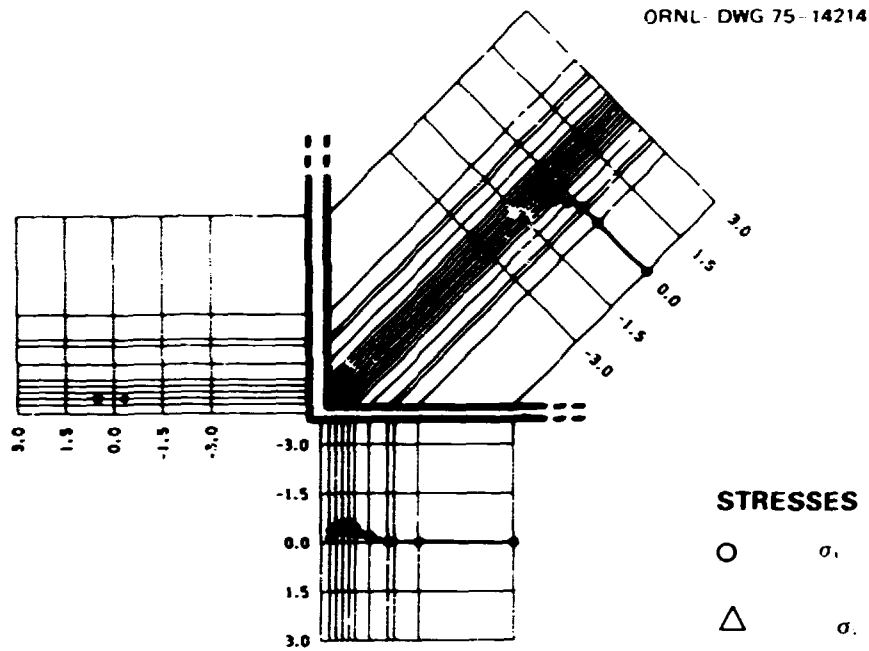


Fig. A29. Normalized bending stress along stringer 13 for 1:1 biaxial stress on plate.

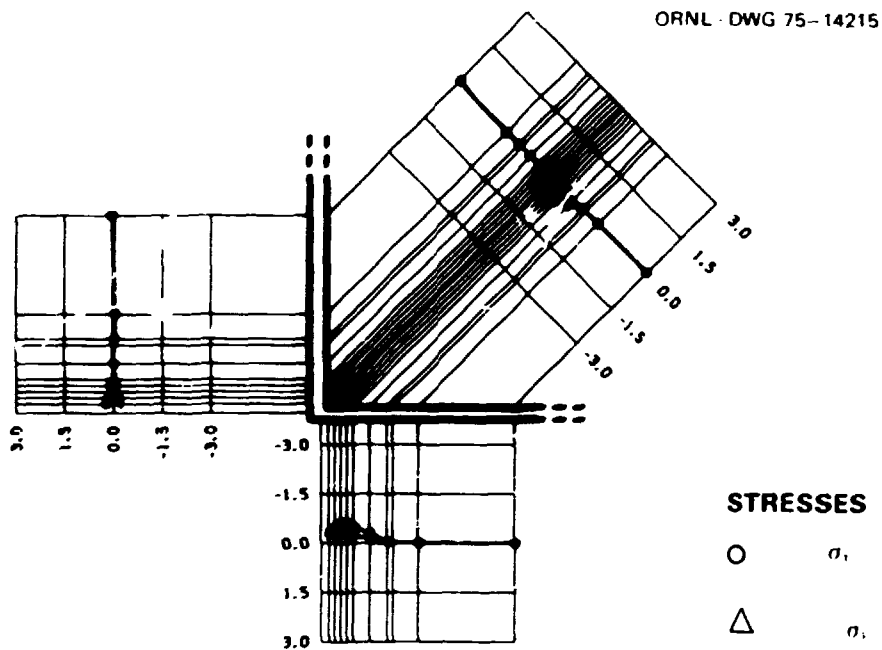


Fig. A30. Normalized bending stress along stringer 15 for 1:1 biaxial stress on plate.

ORNL DWG 75 14216

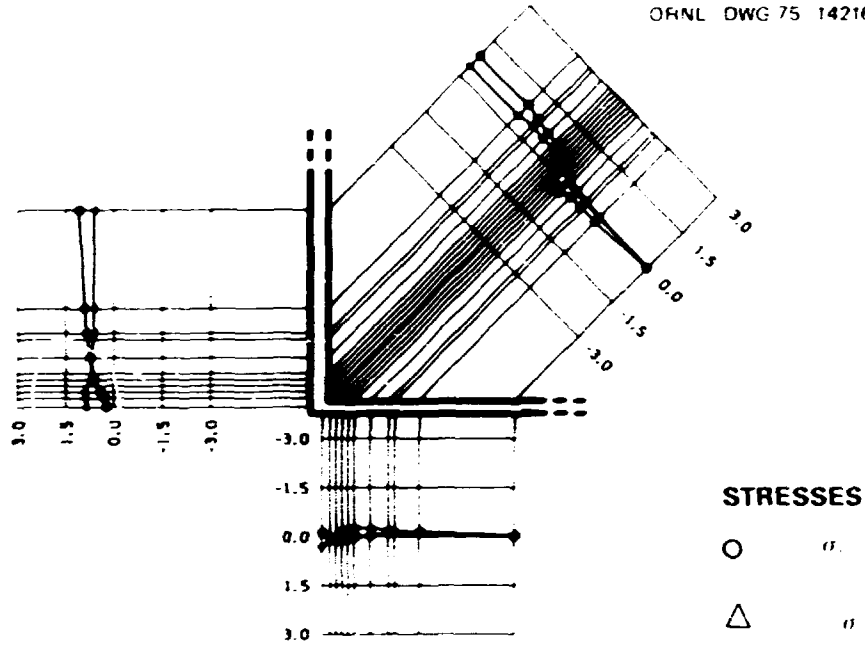


Fig. A31. Normalized total stress along stringer 1 for 1:2 biaxial stress on plate.

ORNL DWG 75 14217

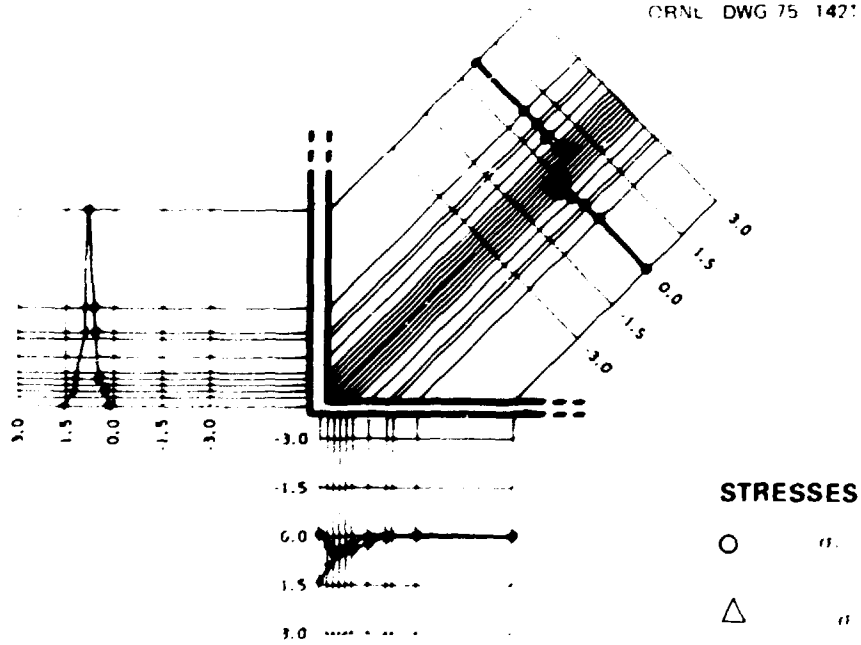


Fig. A32. Normalized total stress along stringer 3 for 1:2 biaxial stress on plate.

ORNL DWG 75 14218

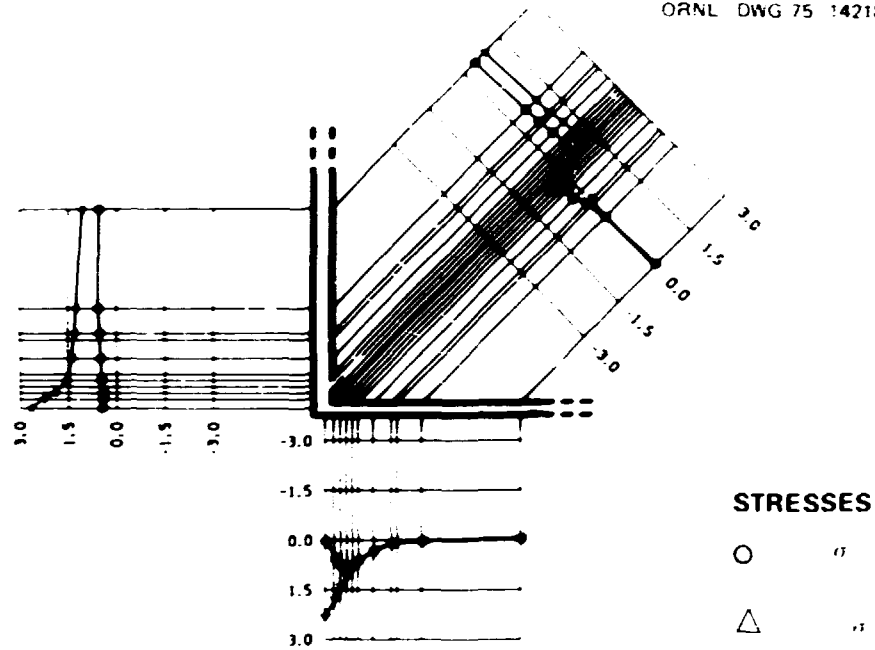


Fig. A33. Normalized total stress along stringer 5 for 1:2 biaxial stress on plate.

ORNL DWG 75 14219

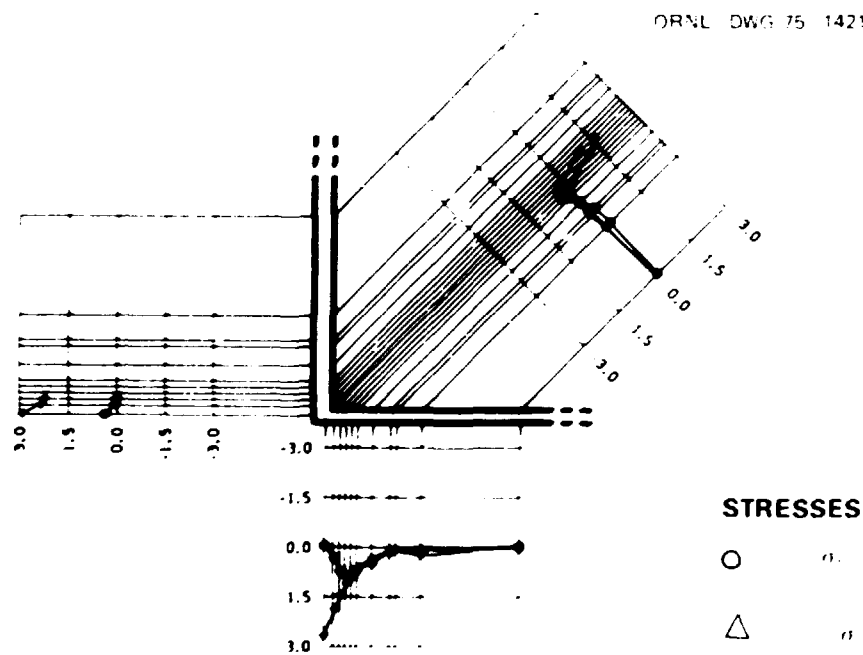


Fig. A34. Normalized total stress along stringer 13 for 1:2 biaxial stress on plate.

ORNL DWG 75 14220

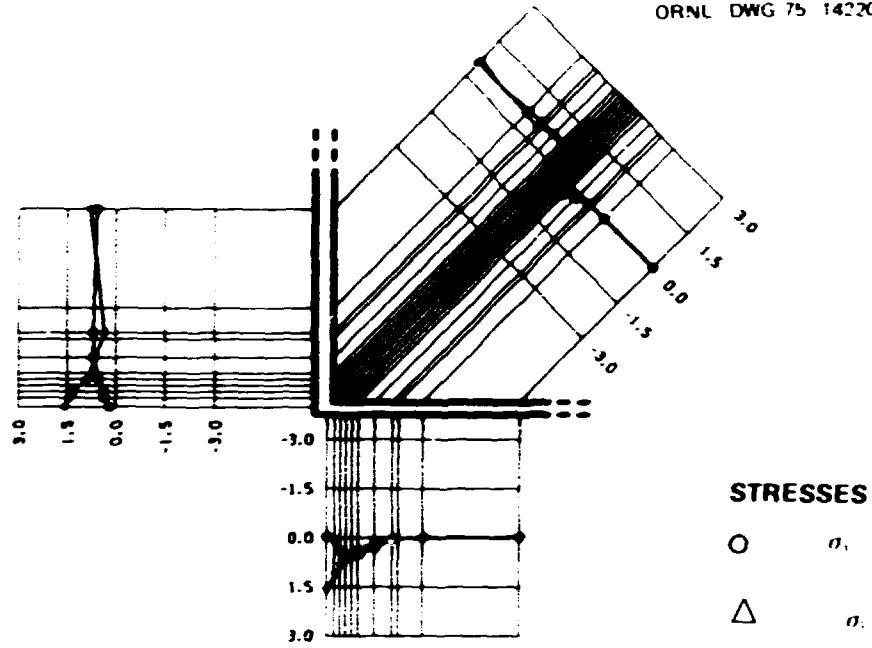


Fig. A35. Normalized total stress along stringer 15 for 1:2 biaxial stress on plate.

ORNL - DWG 75- 14221

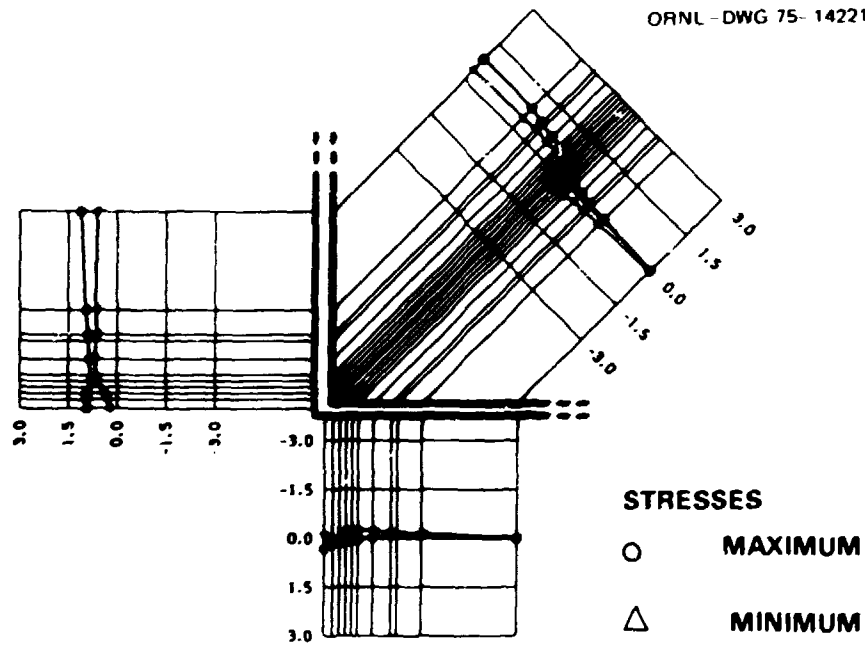


Fig. A36. Normalized principal stress along stringer 1 for 1:2 biaxial stress on plate.

ORNL DWG 75-14222

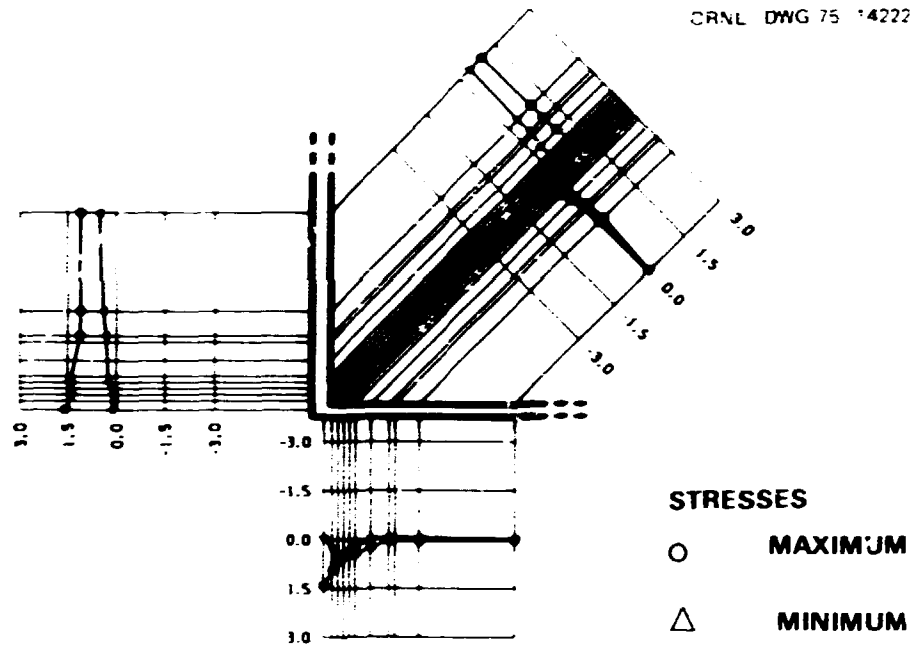


Fig. A37. Normalized principal stress along stringer 3 for 1:2 biaxial stress on plate.

ORNL DWG 75-14223

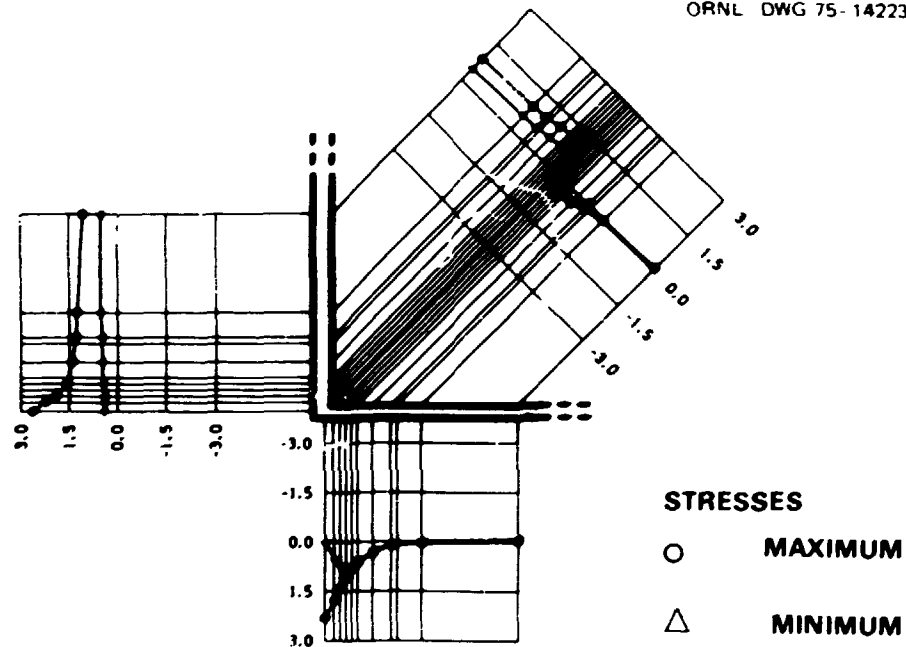


Fig. A38. Normalized principal stress along stringer 5 for 1:2 biaxial stress on plate.

ORNL DWG 75 14224

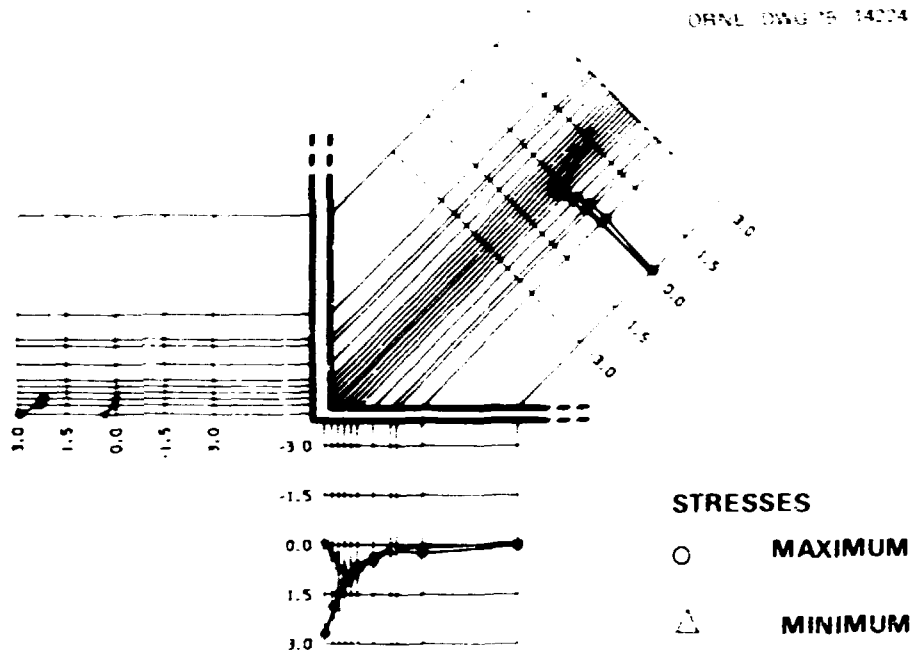


Fig. A39. Normalized principal stress along stringer 13 for 1:2 biaxial stress on plate.

ORNL DWG 75 14225

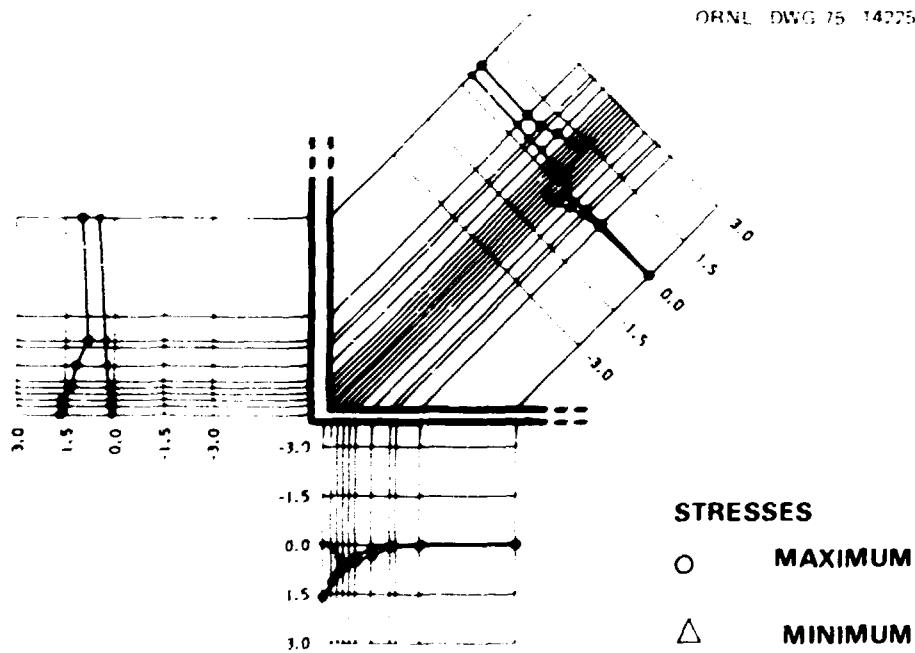


Fig. A40. Normalized principal stress along stringer 15 for 1:2 biaxial stress on plate.

ORNL DWG 75-14206

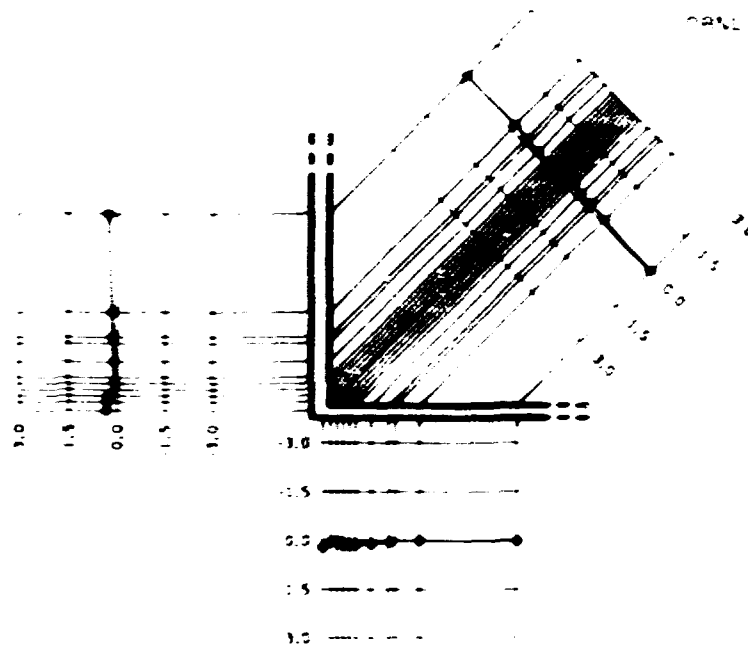


Fig. A41. Normalized shear stress along stringer 1 for 1:2 biaxial stress on plate.

ORNL DWG 75-14207

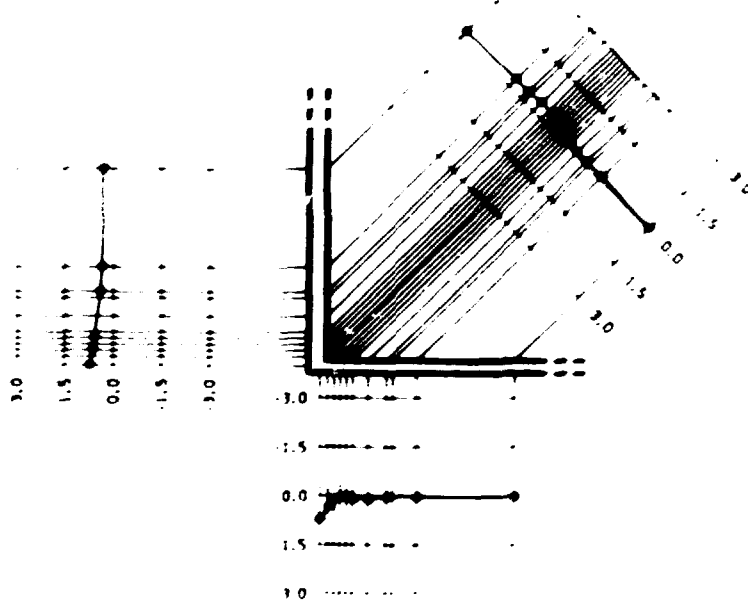


Fig. A42. Normalized shear stress along stringer 3 for 1:2 biaxial stress on plate.

ORNL DWG 75 14228

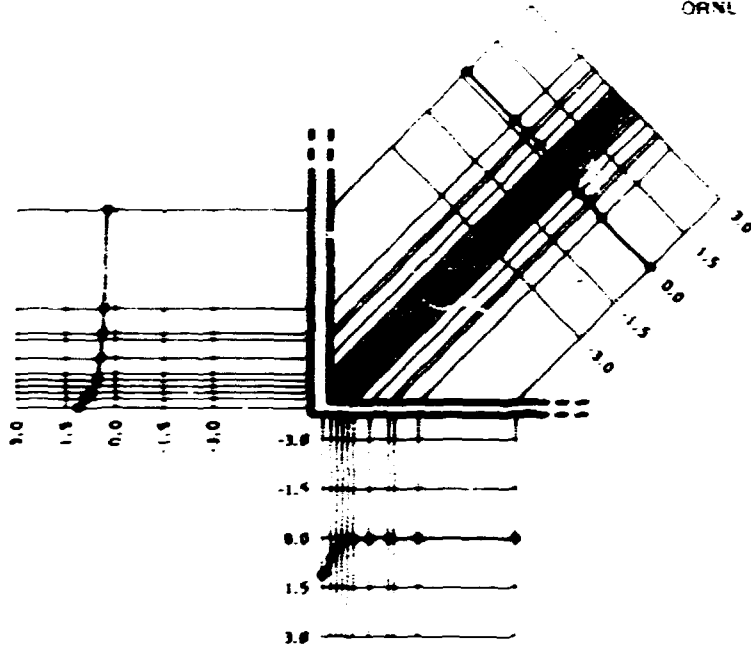


Fig. A43. Normalized shear stress along stringer 5 for 1:2 biaxial stress on plate.

ORNL DWG 75 14229

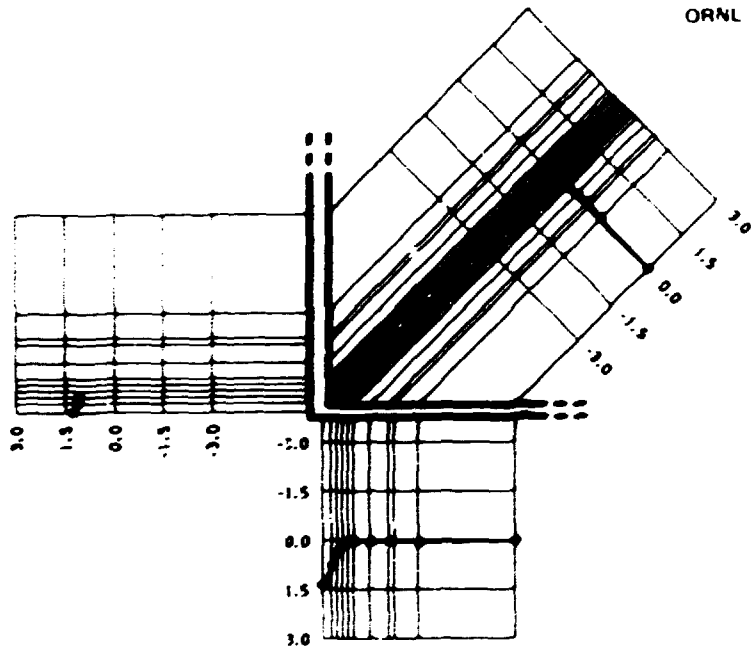


Fig. A44. Normalized shear stress along stringer 13 for 1:2 biaxial stress on plate.

ORNL DWG 75 14230

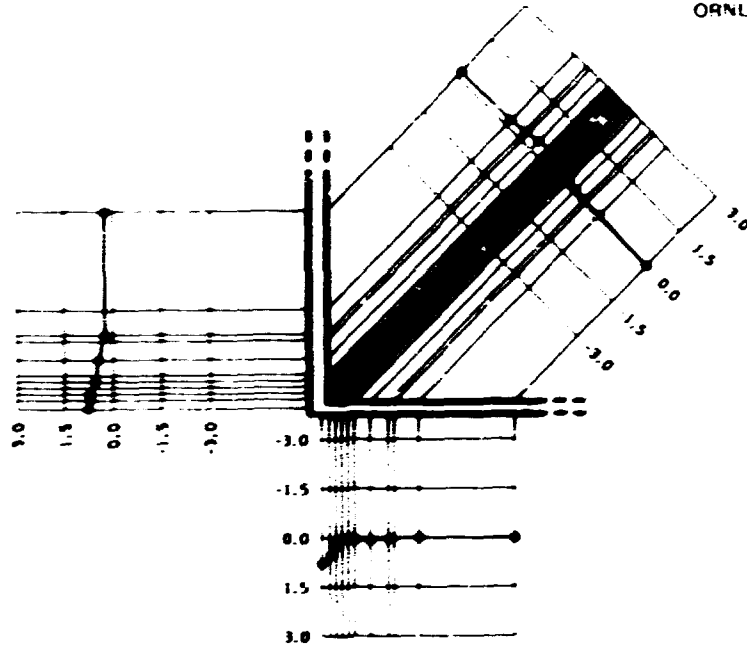


Fig. A45. Normalized shear stress along stringer 15 for 1:2 biaxial stress on plate.

ORNL DWG 75 14231

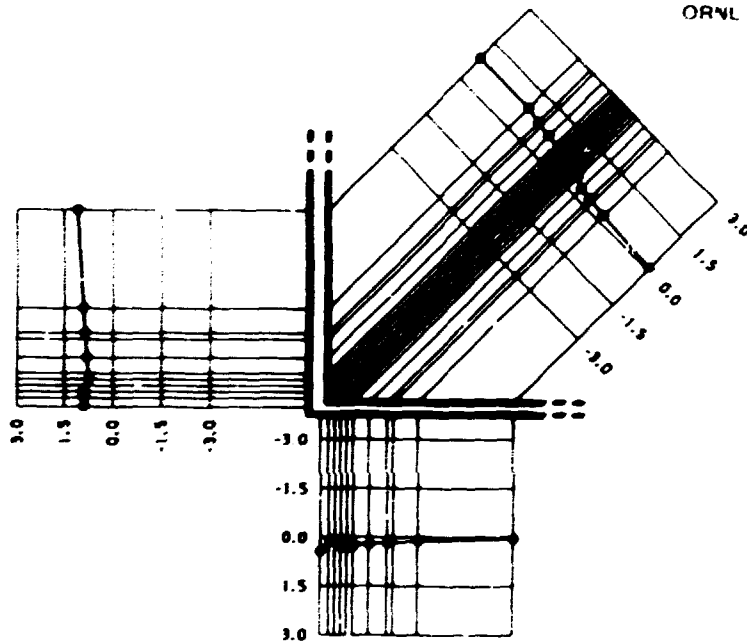


Fig. A46. Normalized stress intensity along stringer 1 for 1:2 biaxial stress on plate.

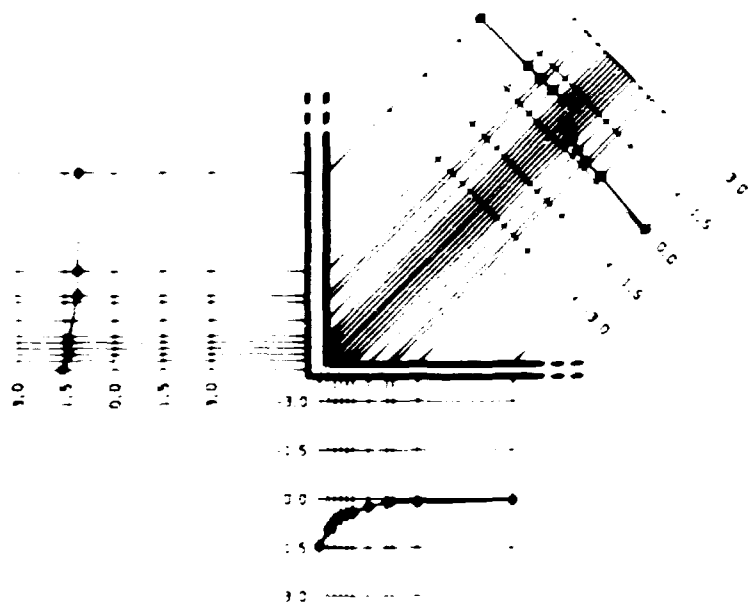


Fig. A47. Normalized stress intensity along stringer 3 for 1:2 biaxial stress on plate.

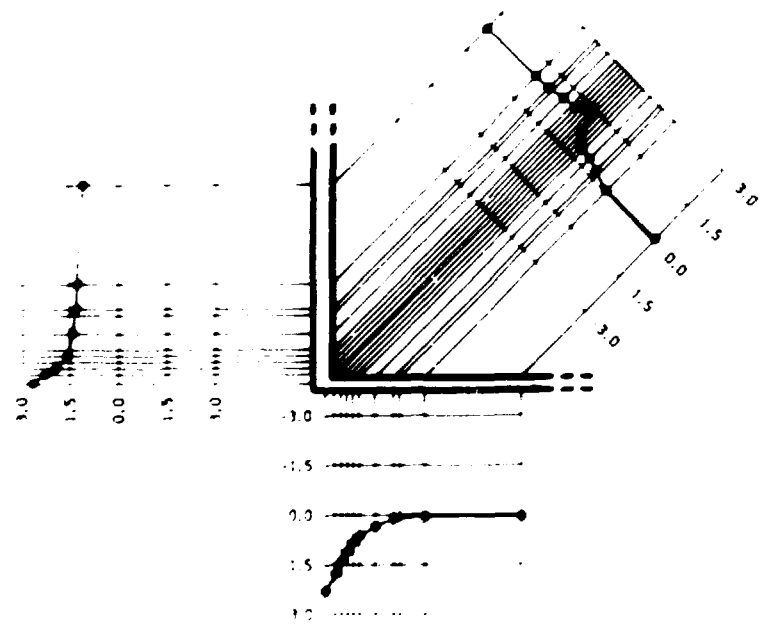


Fig. A48. Normalized stress intensity along stringer 5 for 1:2 biaxial stress on plate.

ORNL DWG 75 14234

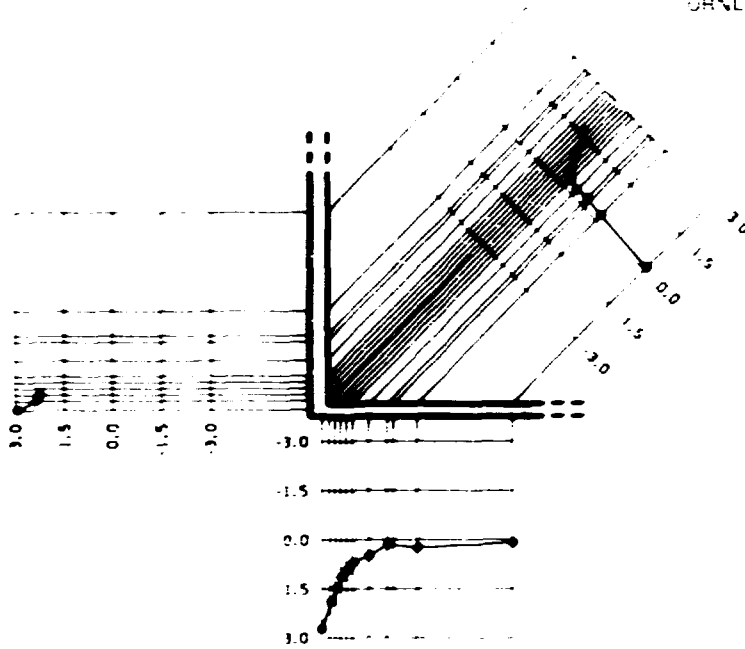


Fig. A49. Normalized stress intensity along stringer 13 for 1:2 biaxial stress on plate.

ORNL DWG 75 14235

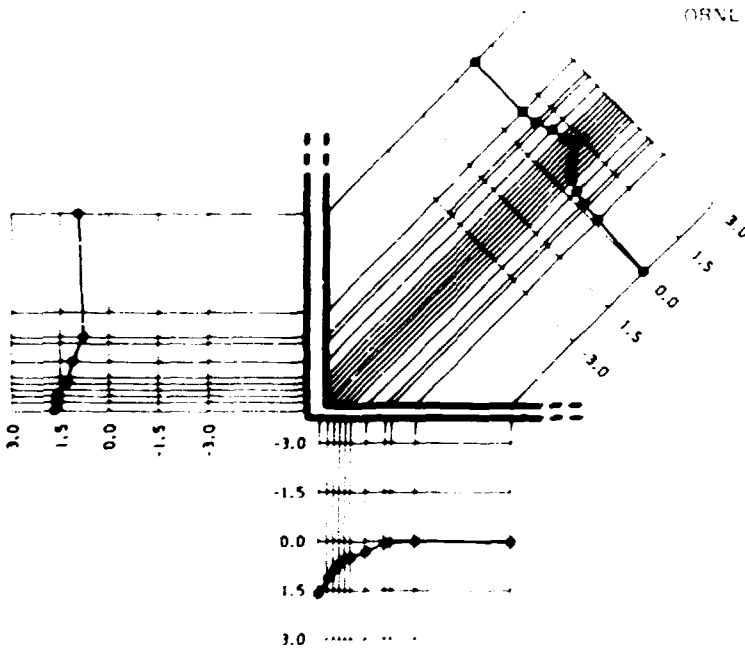


Fig. A50. Normalized stress intensity along stringer 15 for 1:2 biaxial stress on plate.

ORNL DWG 75 14236

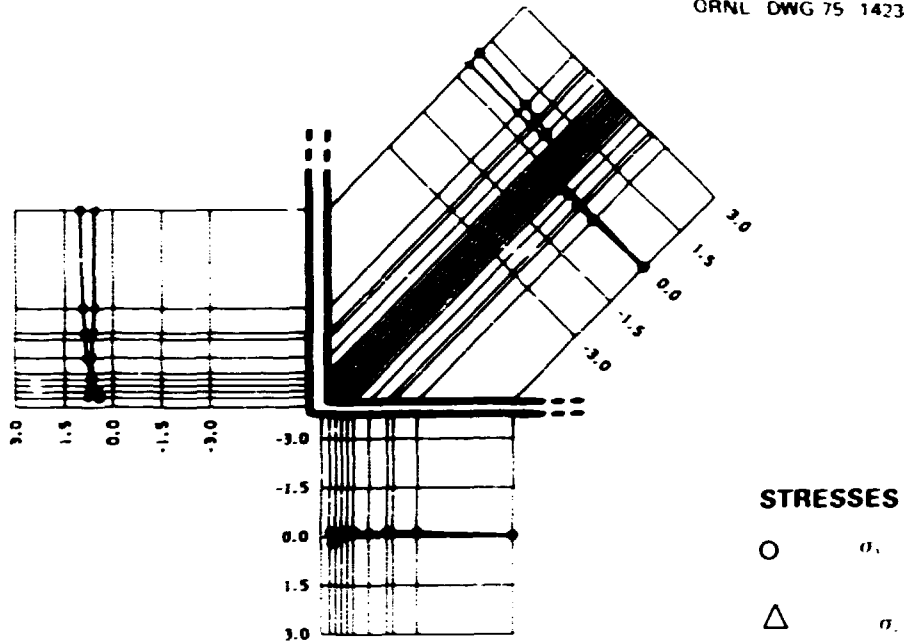


Fig. A51. Normalized membrane stress along stringer 1 for 1:2 biaxial stress on plate.

ORNL DWG 75-14237

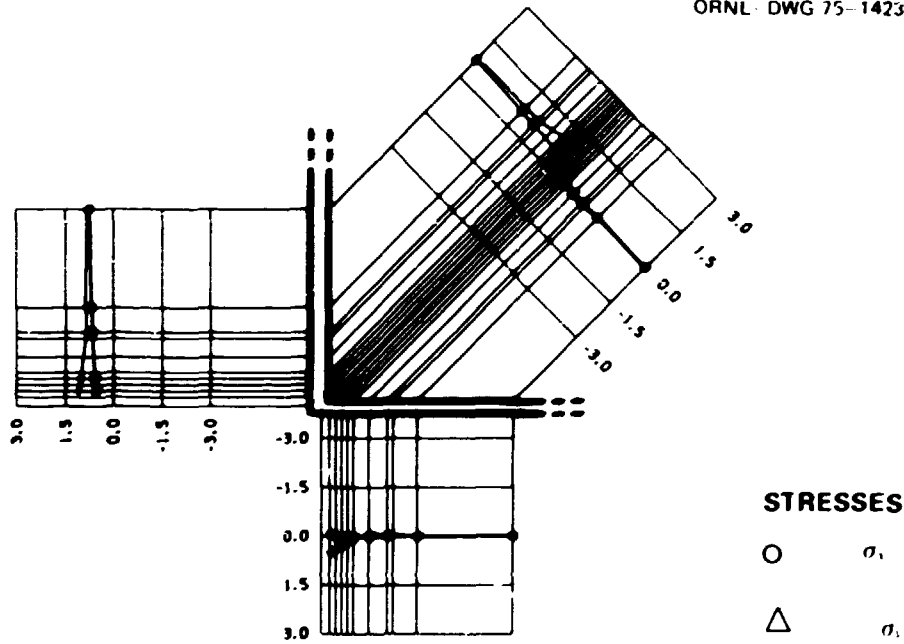


Fig. A52. Normalized membrane stress along stringer 3 for 1:2 biaxial stress on plate.

ORNL DWG 75 14238

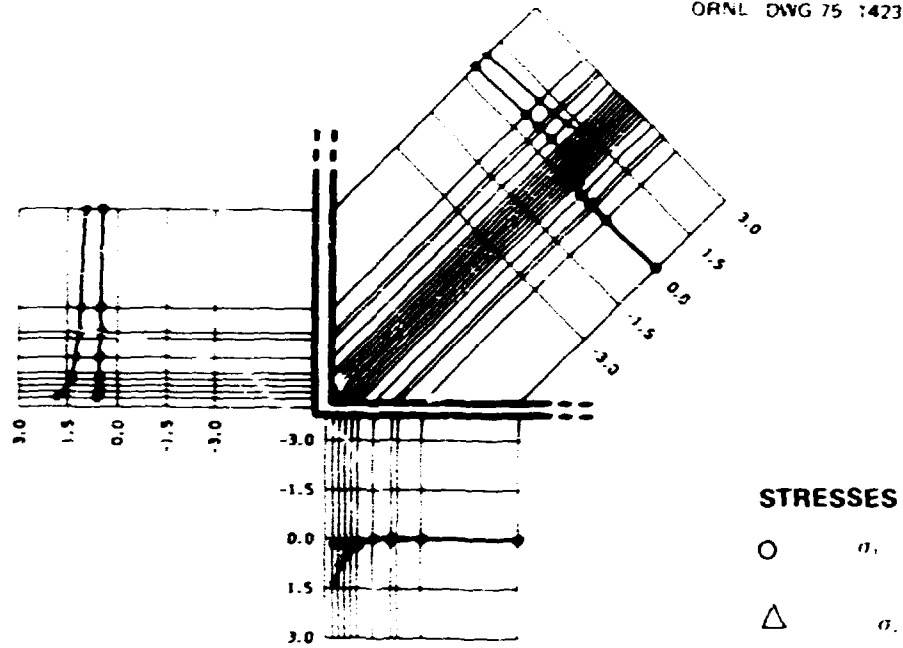


Fig. A53. Normalized membrane stress along stringer 5 for 1:2 biaxial stress on plate.

ORNL DWG 75 14239

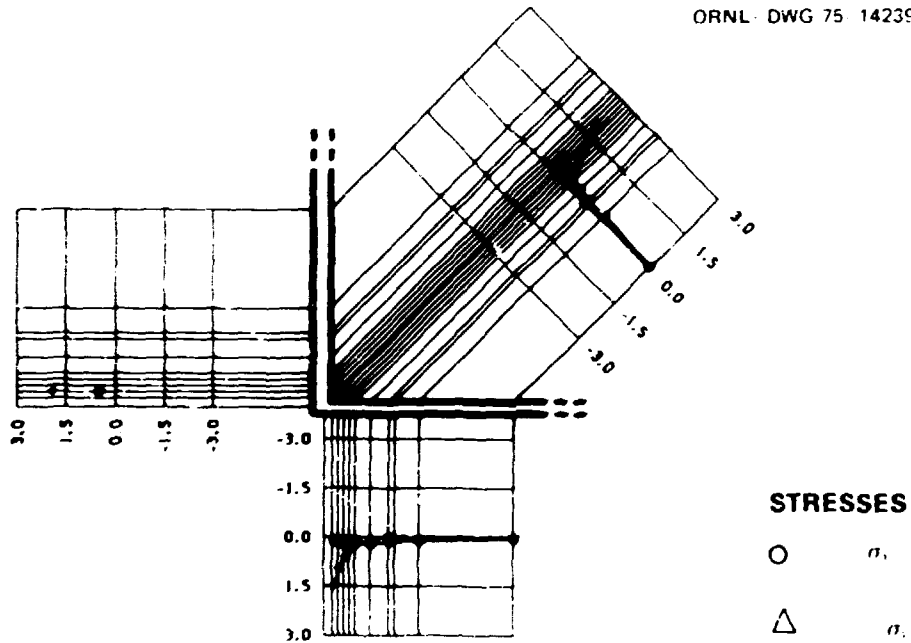


Fig. A54. Normalized membrane stress along stringer 13 for 1:2 biaxial stress on plate.

ORNL DWG 75 14240

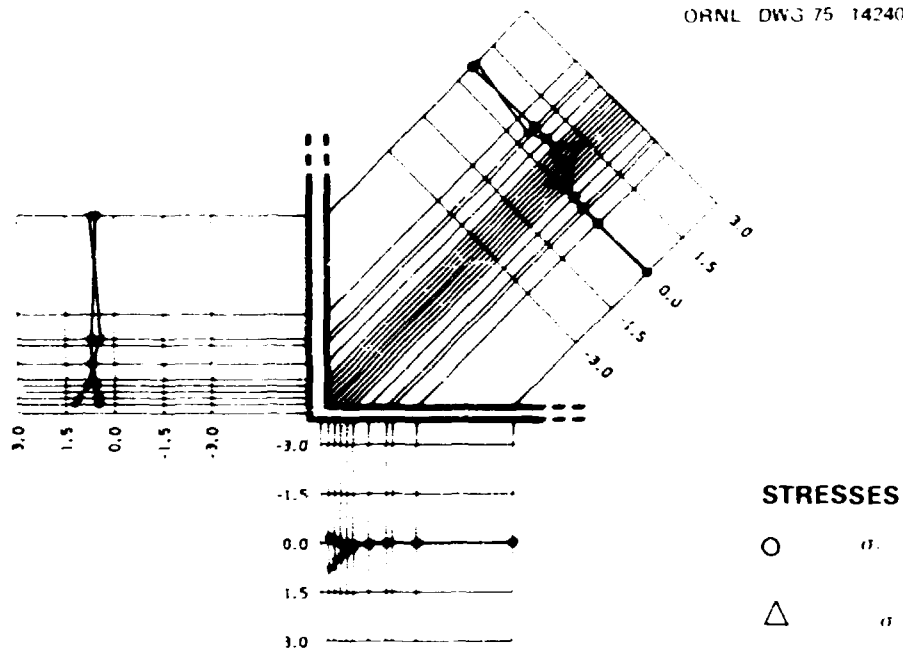


Fig. A55. Normalized membrane stress along stringer 15 for 1:2 biaxial stress on plate.

ORNL DWG 75 14241

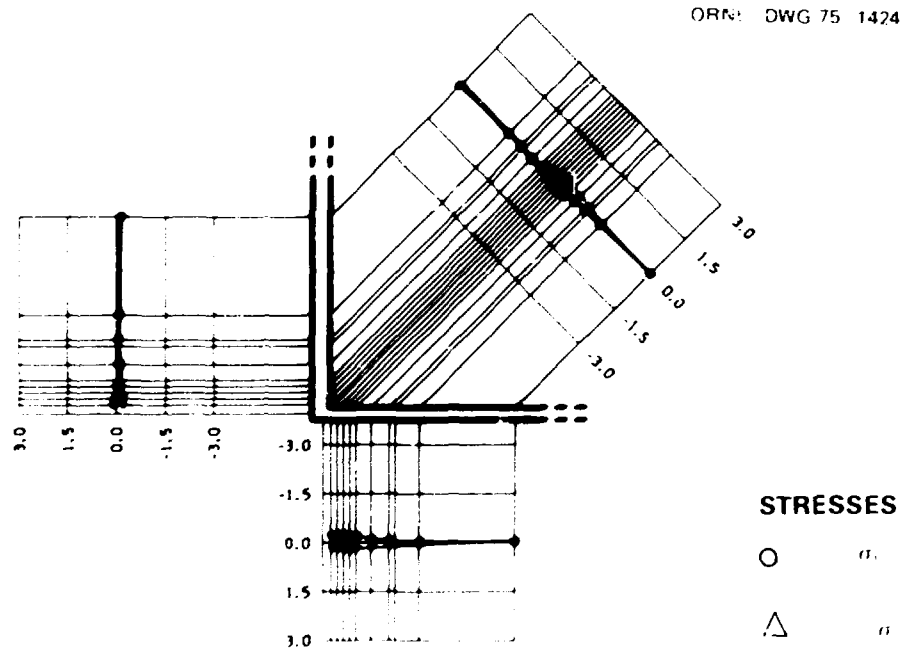


Fig. A56. Normalized bending stress along stringer 1 for 1:2 biaxial stress on plate.

ORNL DWG 75-14242

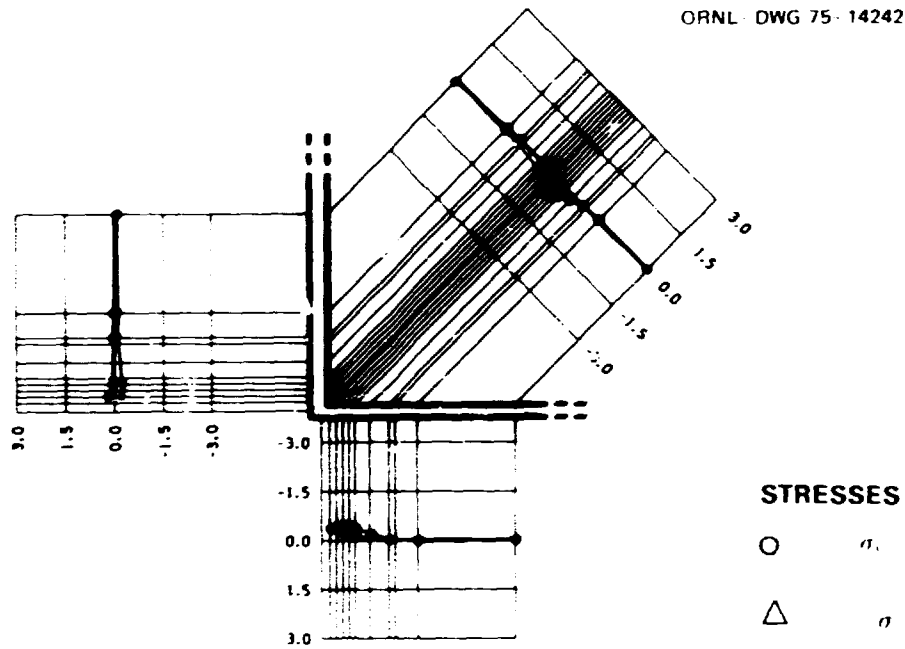


Fig. A57. Normalized bending stress along stringer 3 for 1:2 biaxial stress on plate.

ORNL DWG 75-14243

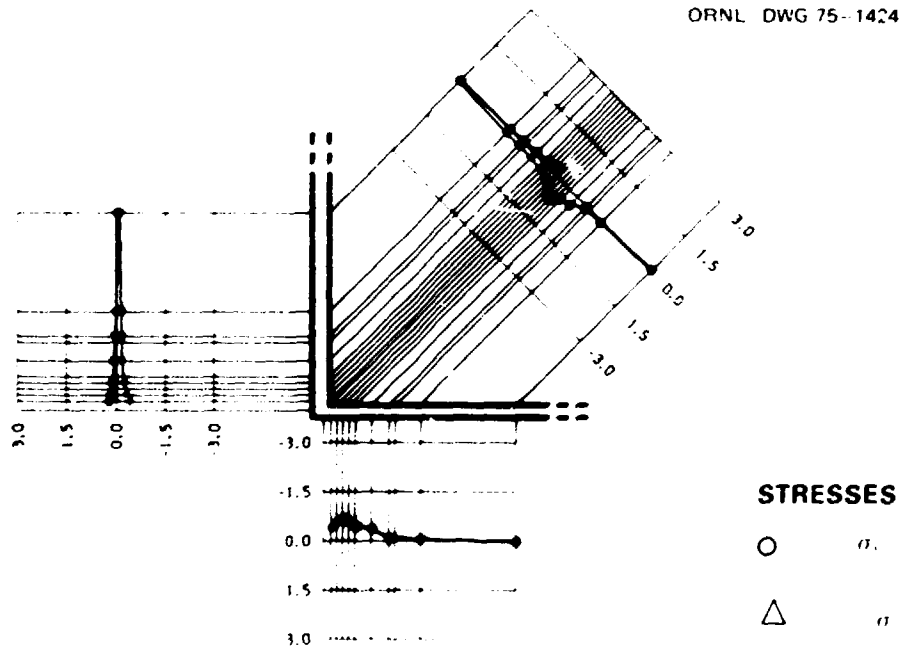


Fig. A58. Normalized bending stress along stringer 5 for 1:2 biaxial stress on plate.

ORNL DWG 75 14244

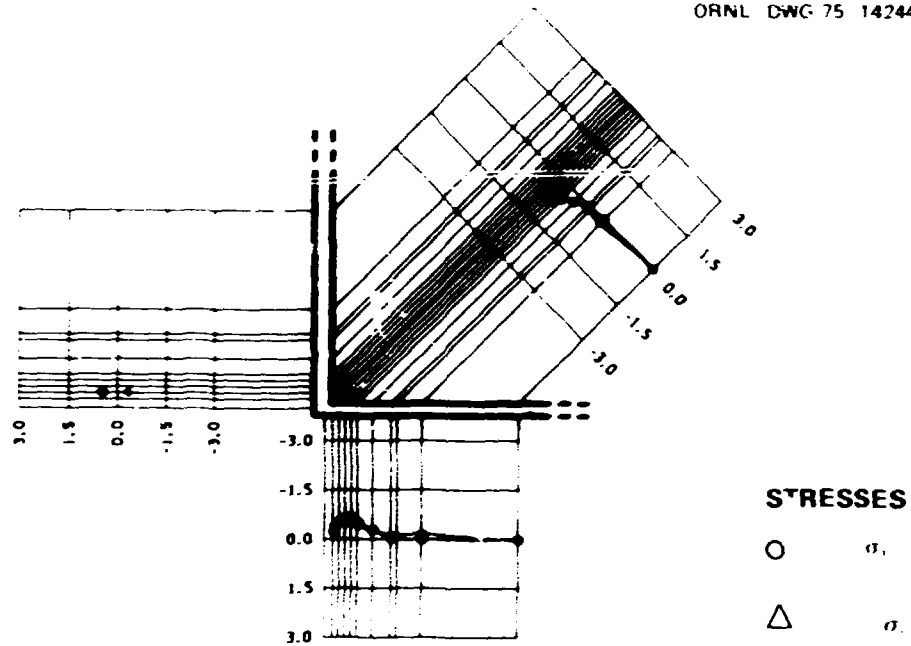


Fig. A59. Normalized bending stress along stringer 13 for 1:2 biaxial stress on plate.

ORNL-DWG 75-14245

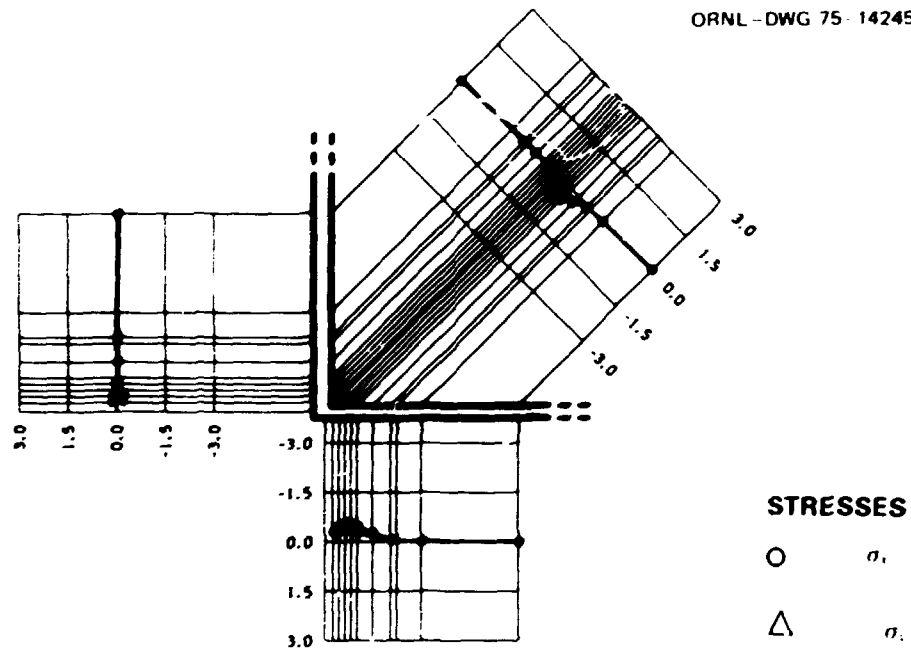


Fig. A60. Normalized bending stress along stringer 15 for 1:2 biaxial stress on plate.

ORNL DWG 75-14246

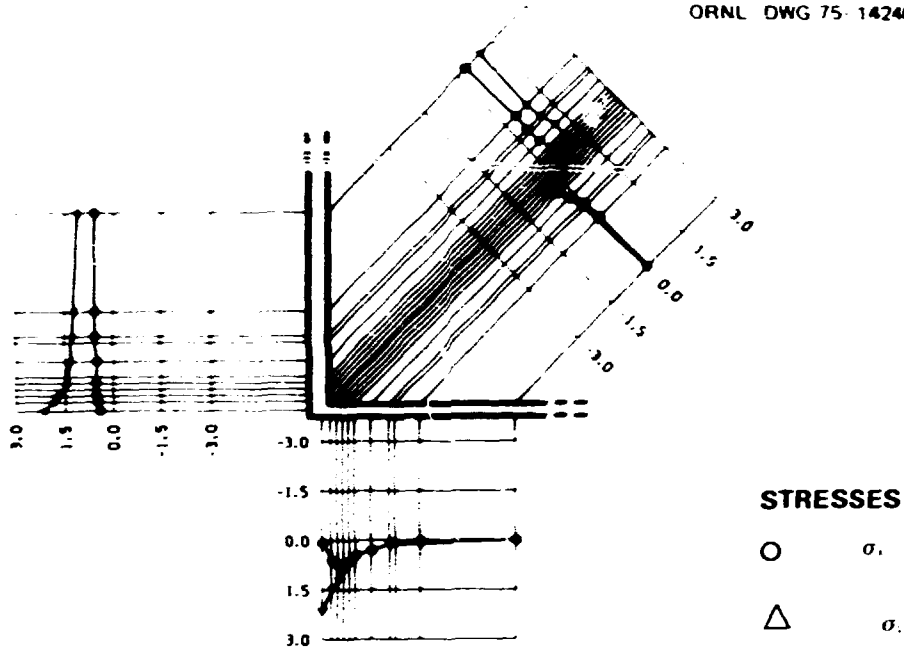


Fig. A61. Normalized total stress along stringer 1 for 2:1 biaxial stress on plate.

ORNL-DWG 75-14747

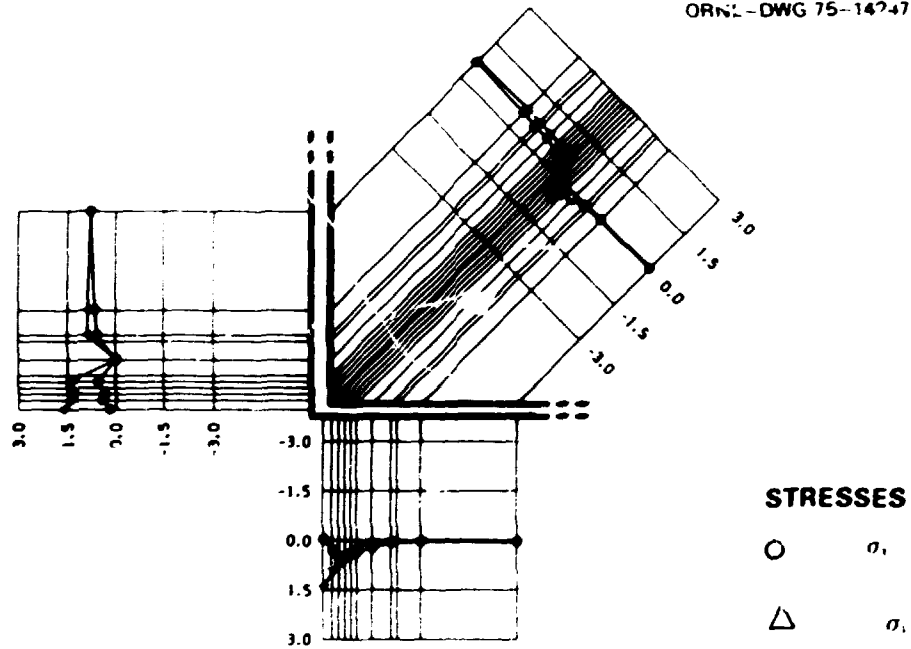


Fig. A62. Normalized total stress along stringer 3 for 2:1 biaxial stress on plate.

ORNL DWG 75 14248

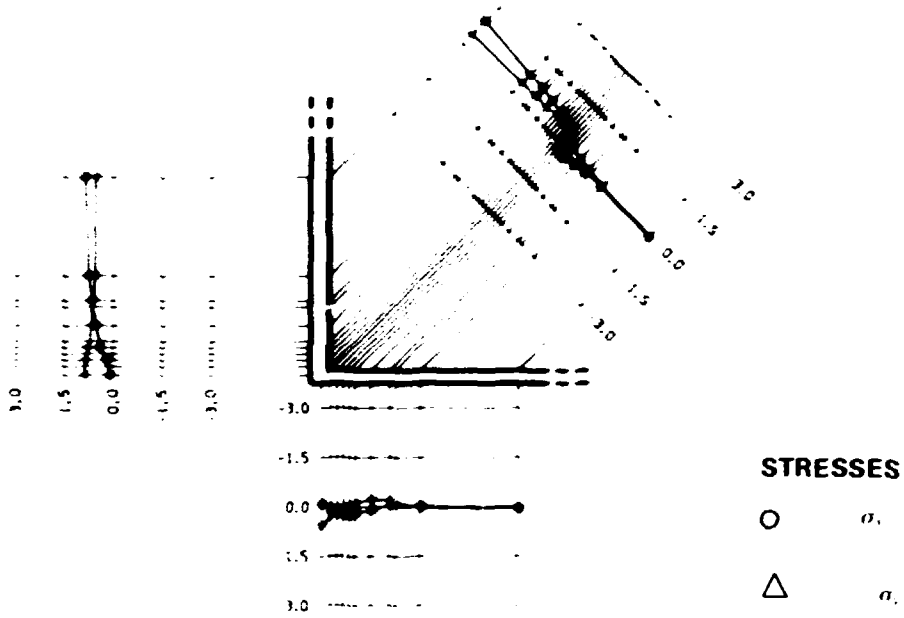


Fig. A63. Normalized total stress along stringer 5 for 2:1 biaxial stress on plate.

ORNL DWG 75 14249

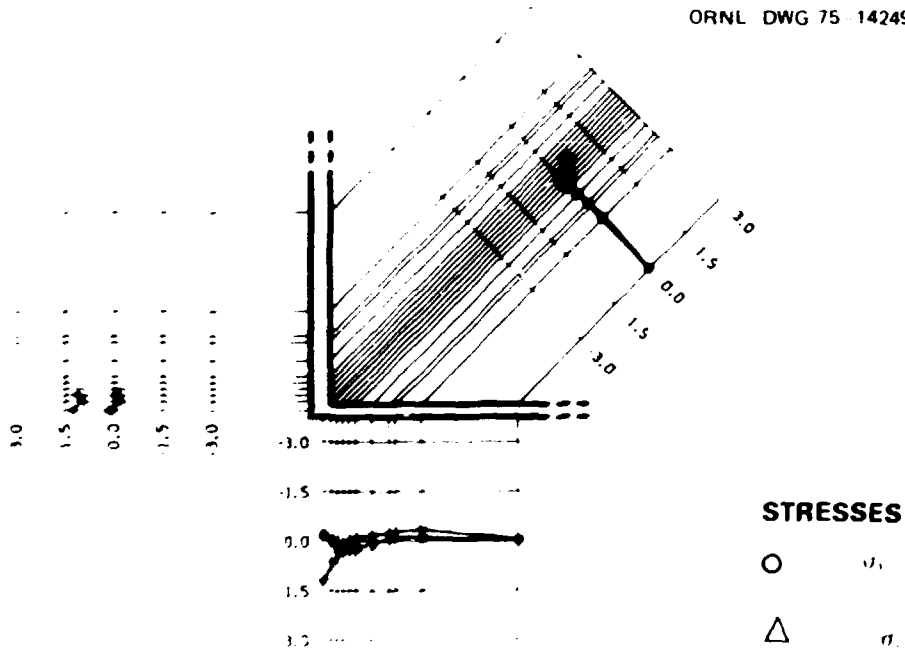


Fig. A64. Normalized total stress along stringer 13 for 2:1 biaxial stress on plate.

ORNL DWG 75 14750

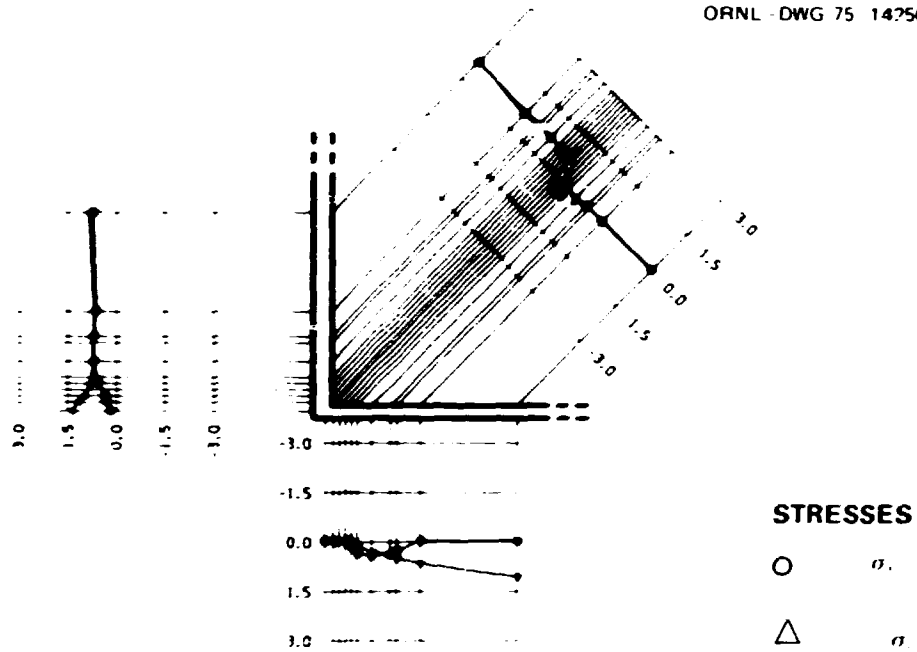


Fig. A65. Normalized total stress along stringer 15 for 2:1 biaxial stress on plate.

ORNL DWG 75-14251

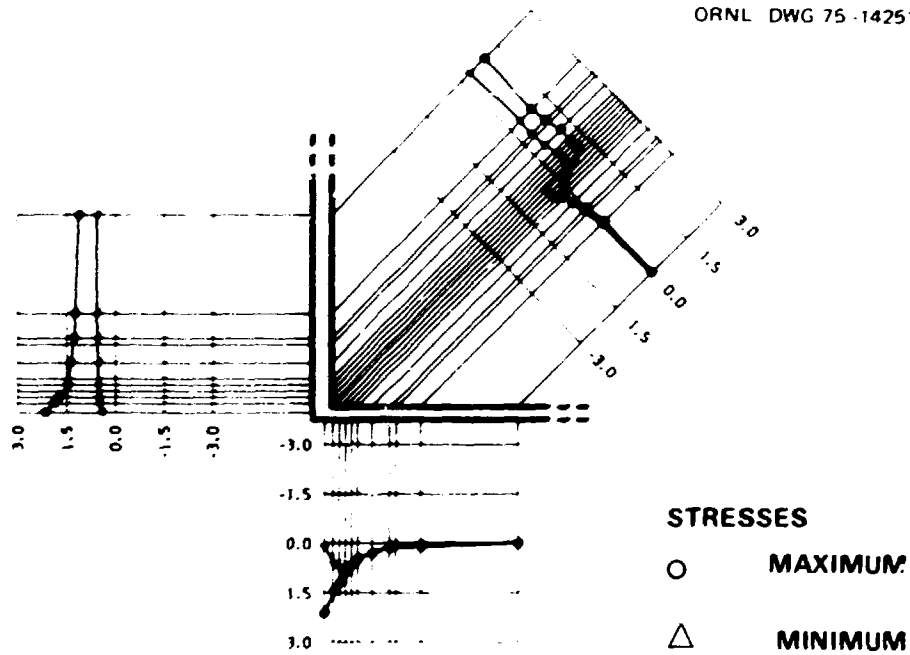


Fig. A66. Normalized principal stress along stringer 1 for 2:1 biaxial stress on plate.

ORNL DWG 75 14252

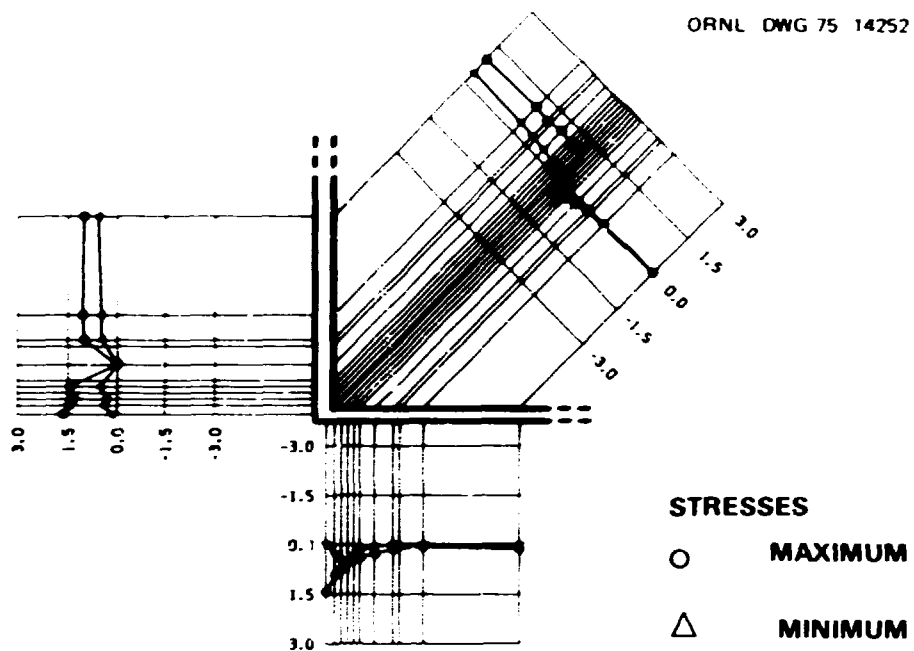


Fig. A67. Normalized principal stress along stringer 3 for 2:1 biaxial stress on plate.

ORNL-DWG 75-14253

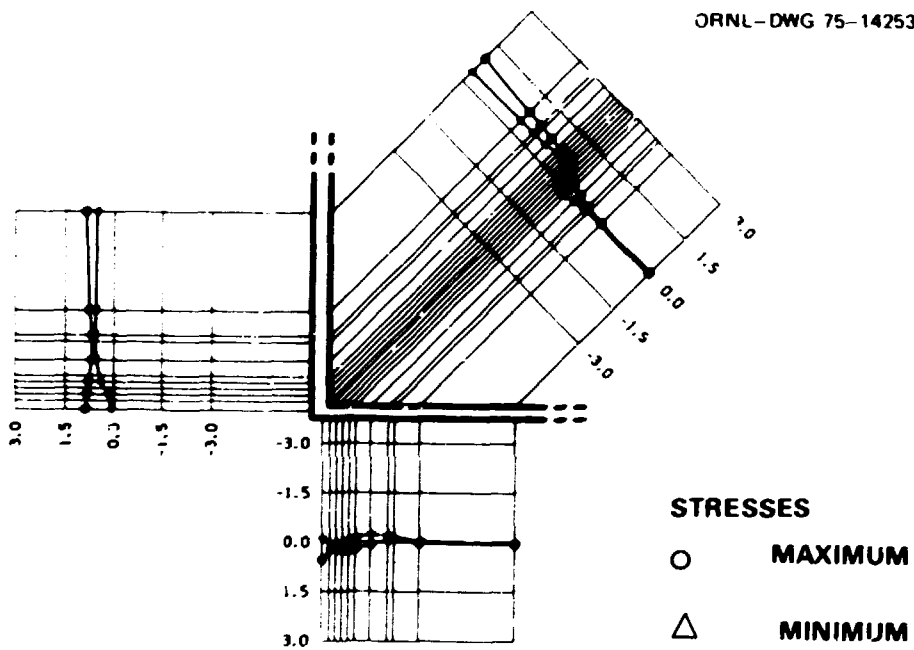


Fig. A68. Normalized principal stress along stringer 5 for 2:1 biaxial stress on plate.

ORNL DWG 75-14254

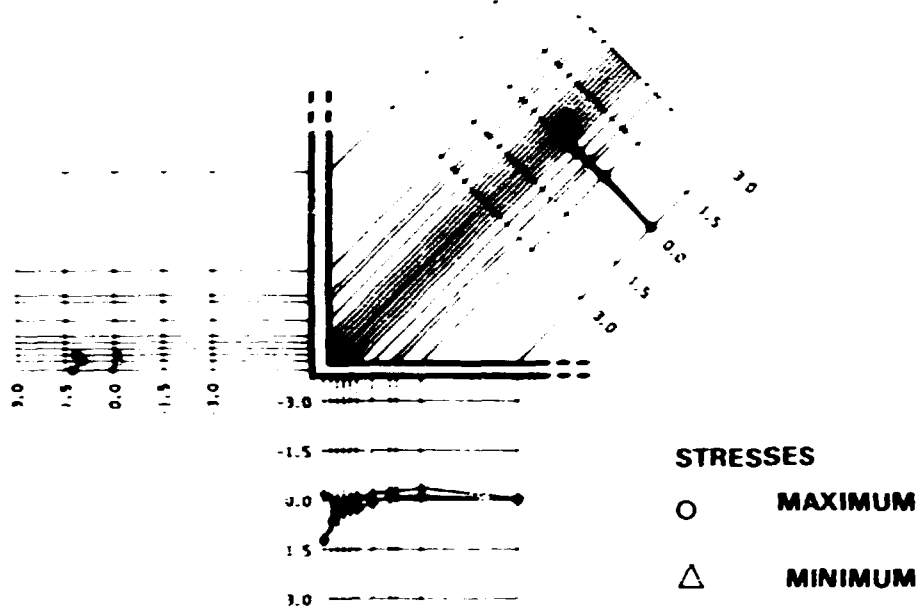


Fig. A69. Normalized principal stress along stringer 13 for 2:1 biaxial stress on plate.

ORNL-DWG 75-14255

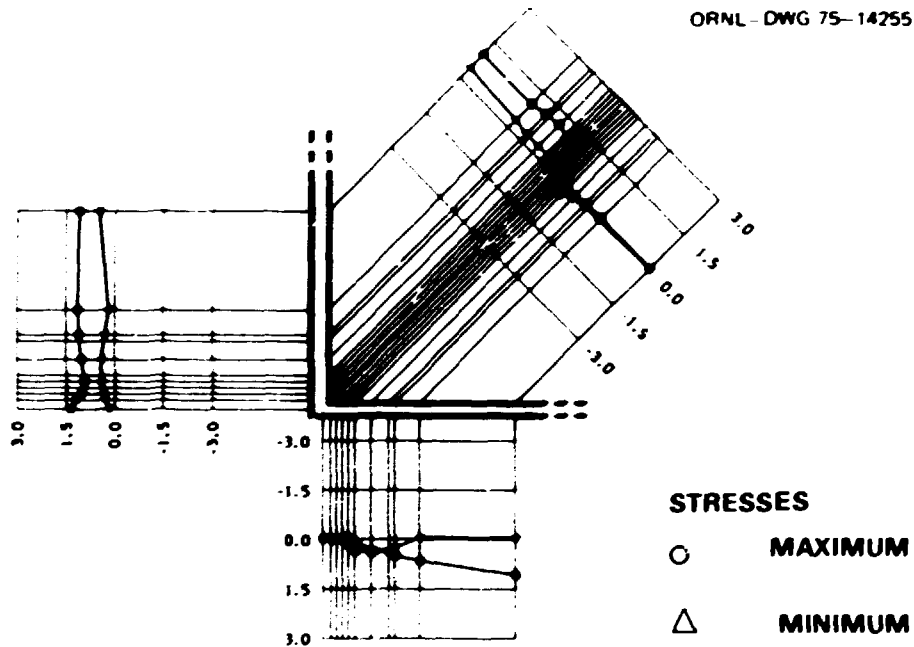


Fig. A70. Normalized principal stress along stringer 15 for 2:1 biaxial stress on plate.

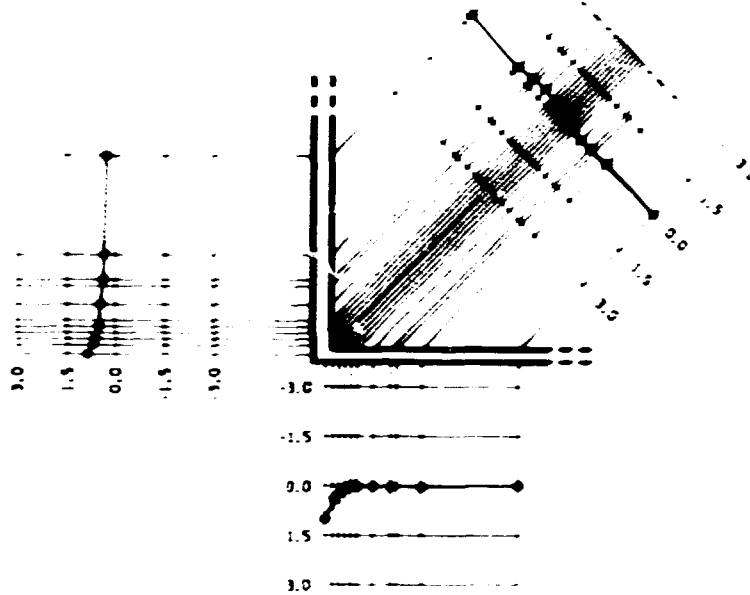


Fig. A71. Normalized shear stress along stringer 1 for 2:1 biaxial stress on plate.

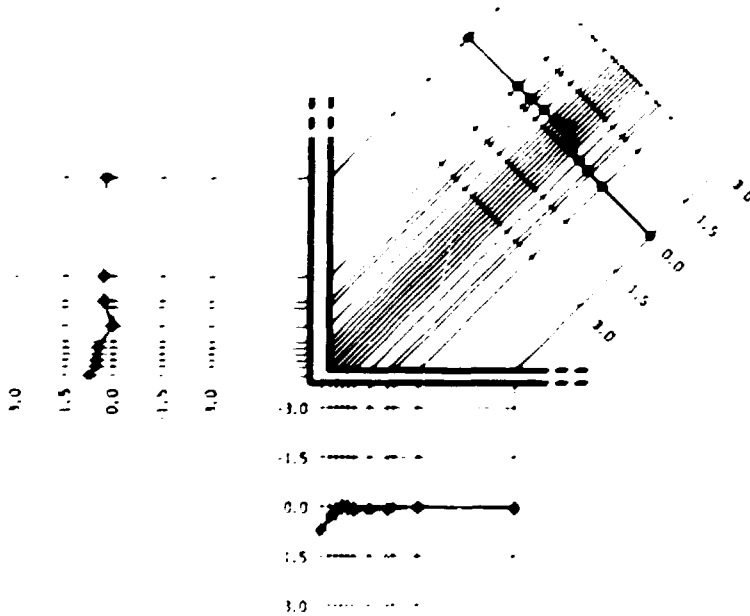


Fig. A72. Normalized shear stress along stringer 3 for 2:1 biaxial stress on plate.

ORNL DWG 75-14258

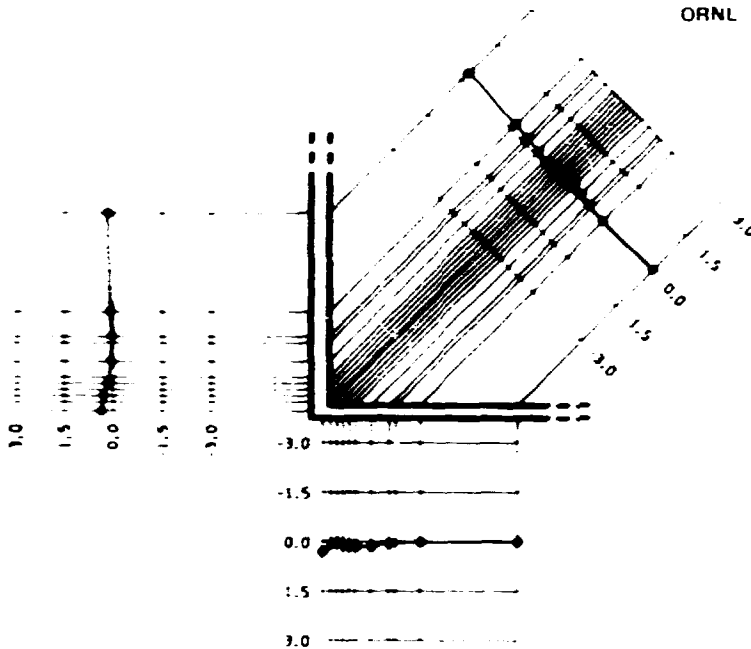


Fig. A73. Normalized shear stress along stringer 5 for 2:1 biaxial stress on plate.

ORNL DWG 75-14259

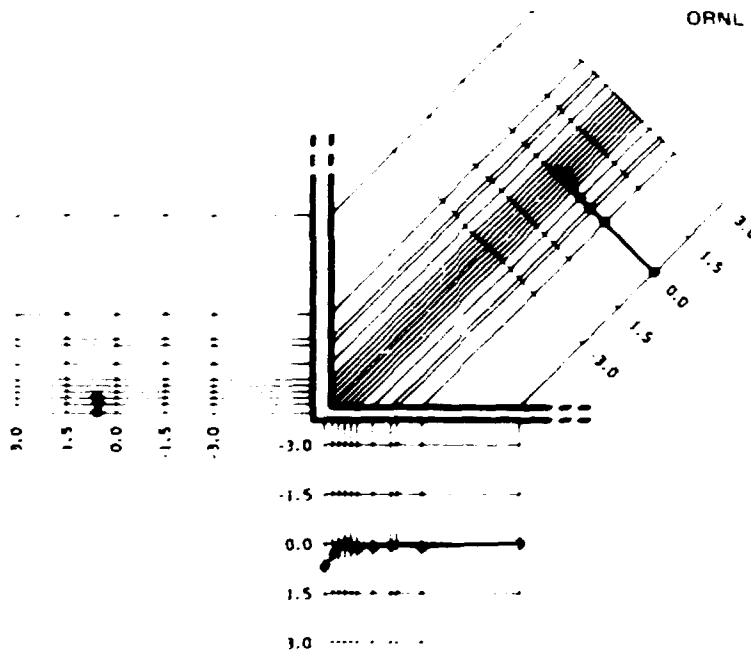


Fig. A74. Normalized shear stress along stringer 13 for 2:1 biaxial stress on plate.

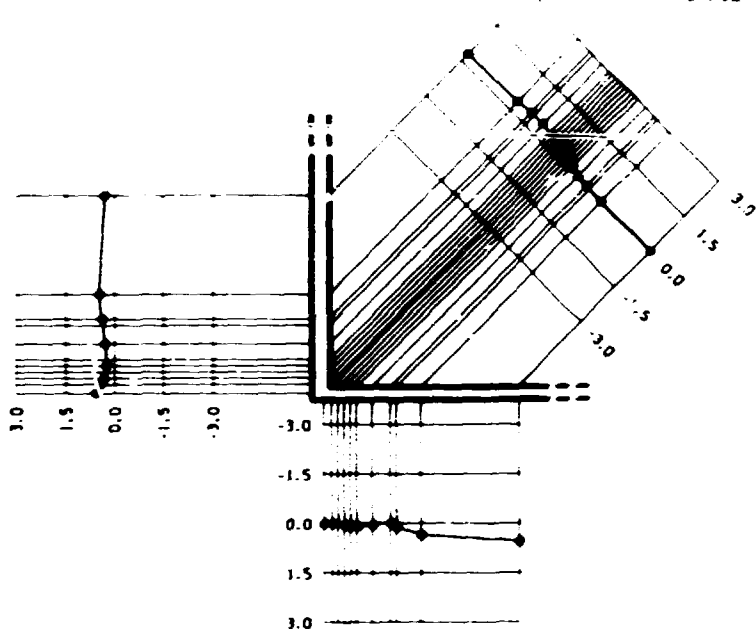


Fig. A75. Normalized shear stress along stringer 15 for 2:1 biaxial stress on plate.

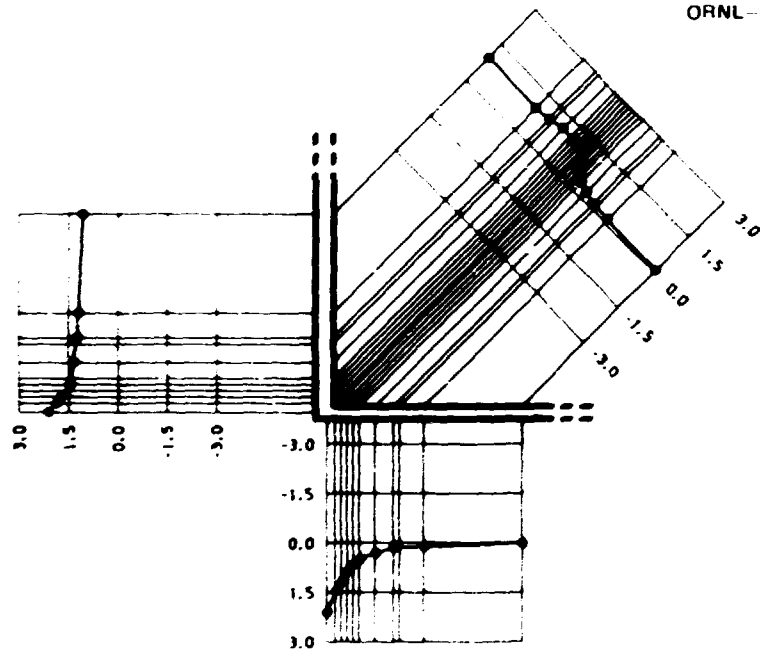


Fig. A76. Normalized stress intensity along stringer 1 for 2:1 biaxial stress on plate.

ORNL-DWG 75-14262

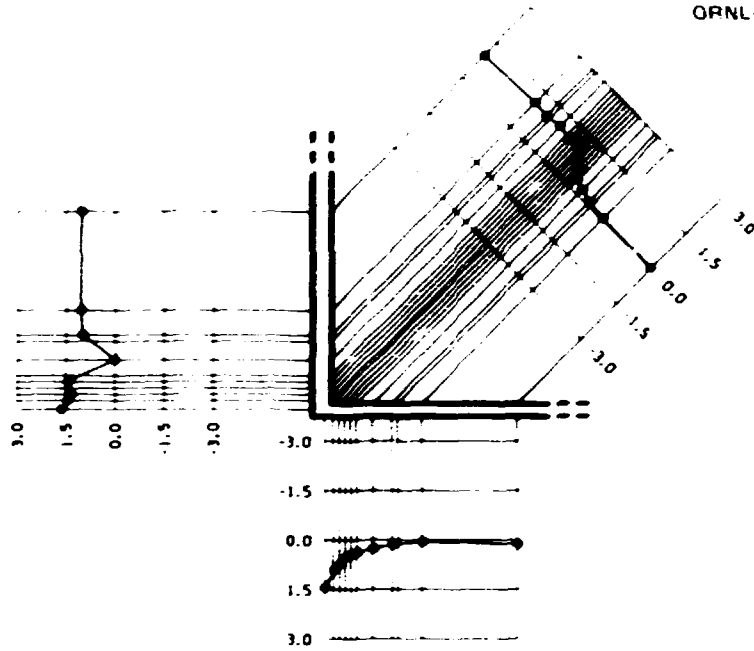


Fig. A77. Normalized stress intensity along stringer 3 for 2:1 biaxial stress on plate.

ORNL-DWG 75-14263

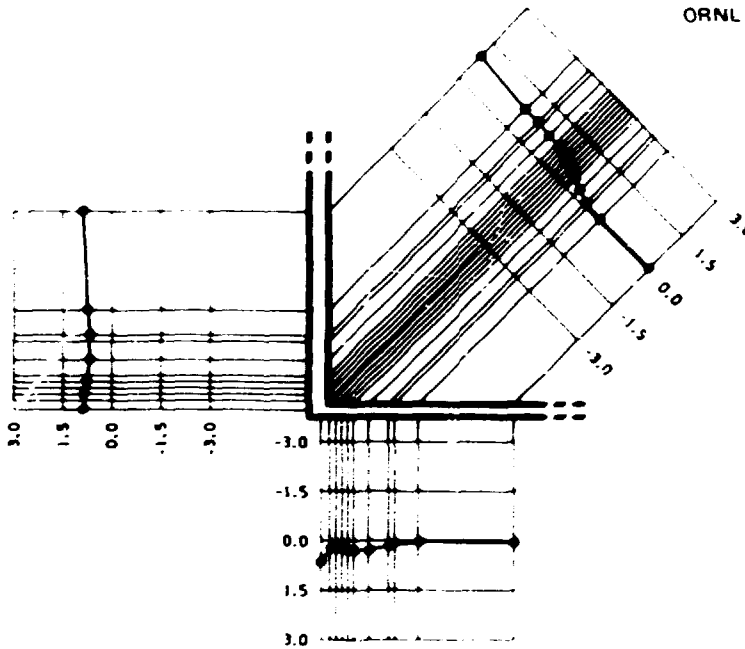


Fig. A78. Normalized stress intensity along stringer 5 for 2:1 biaxial stress on plate.

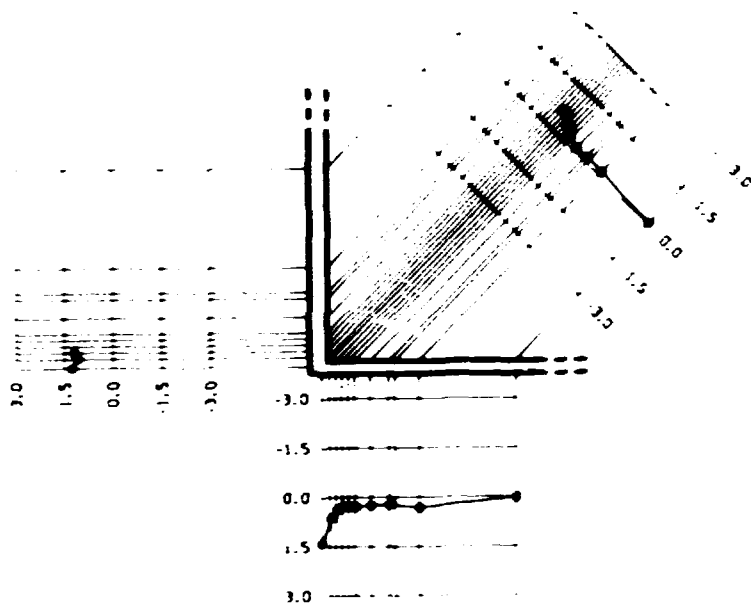


Fig. A79. Normalized stress intensity along stringer 13 for 2:1 biaxial stress on plate.

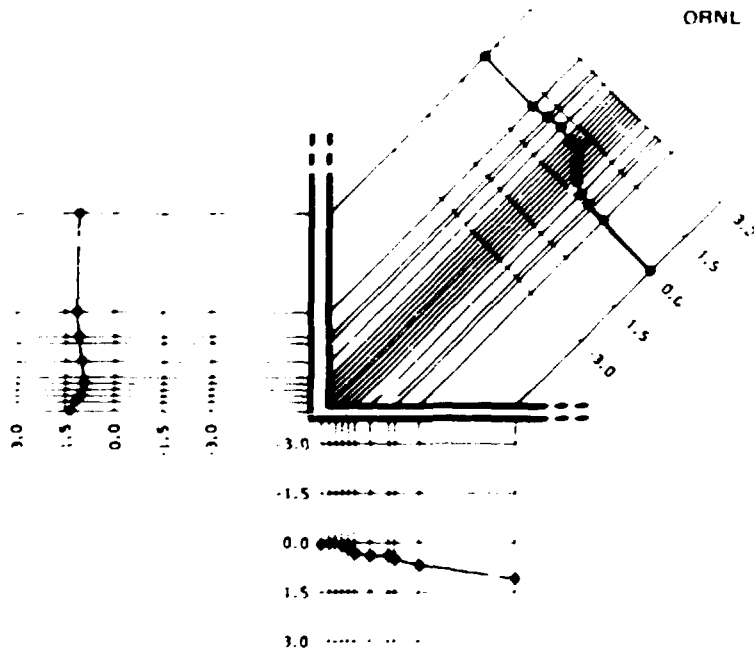


Fig. A80. Normalized stress intensity along stringer 15 for 2:1 biaxial stress on plate.

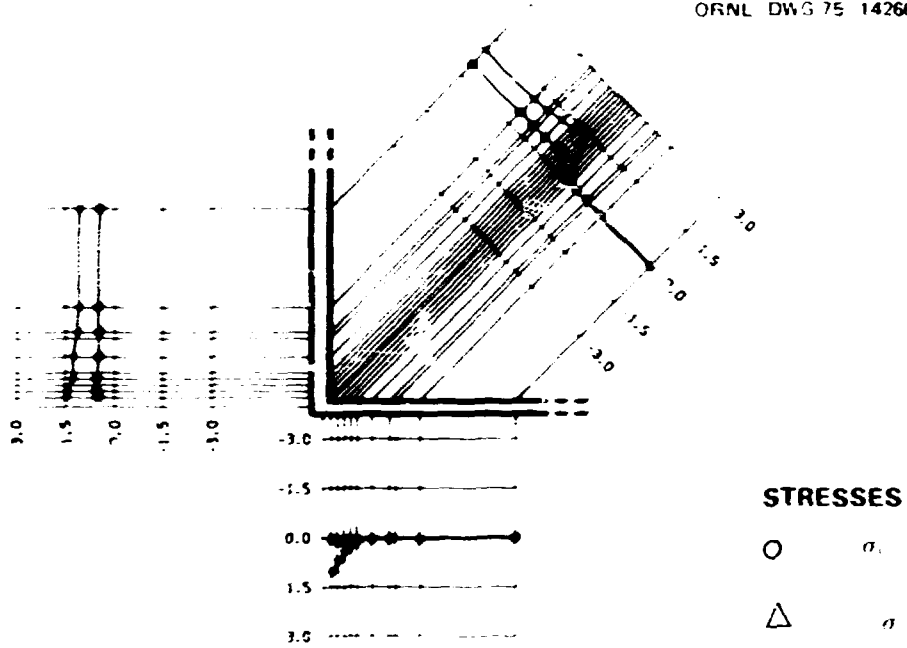


Fig. A81. Normalized membrane stress along stringer 1 for 2:1 biaxial stress on plate.

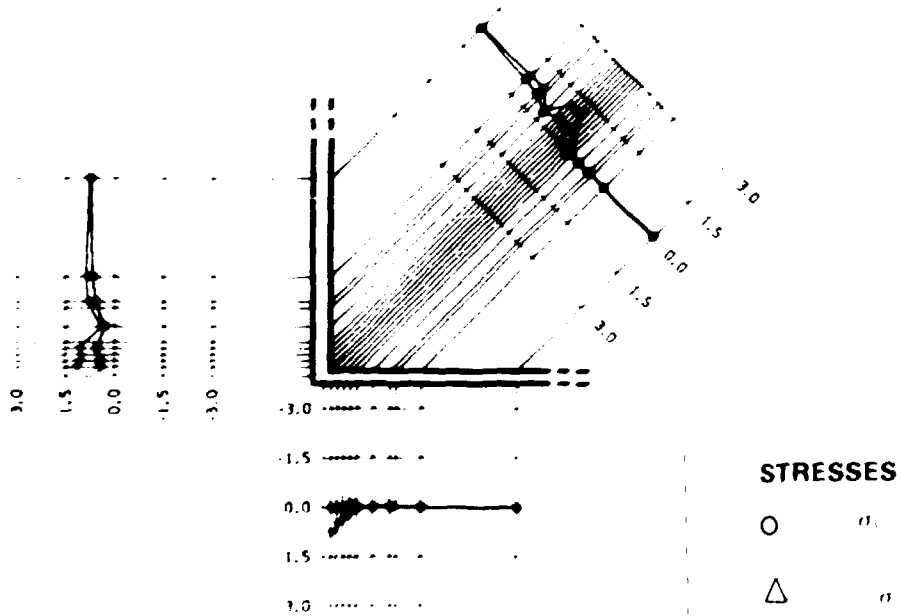


Fig. A82. Normalized membrane stress along stringer 3 for 2:1 biaxial stress on plate.

ORNL-DWG 75-14268

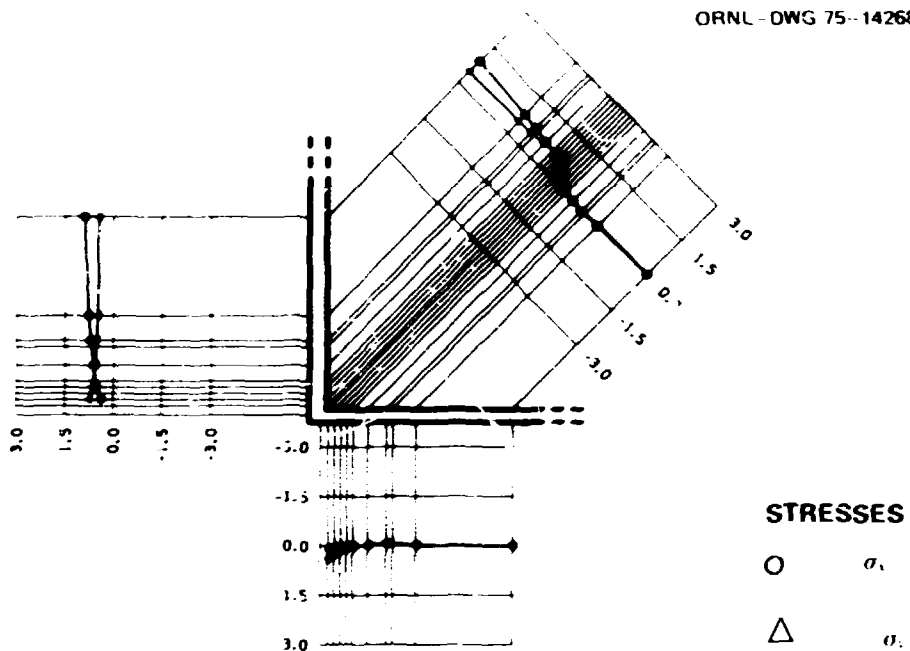


Fig. A83. Normalized membrane stress along stringer 5 for 2:1 biaxial stress on plate.

ORNL-DWG 75-14269

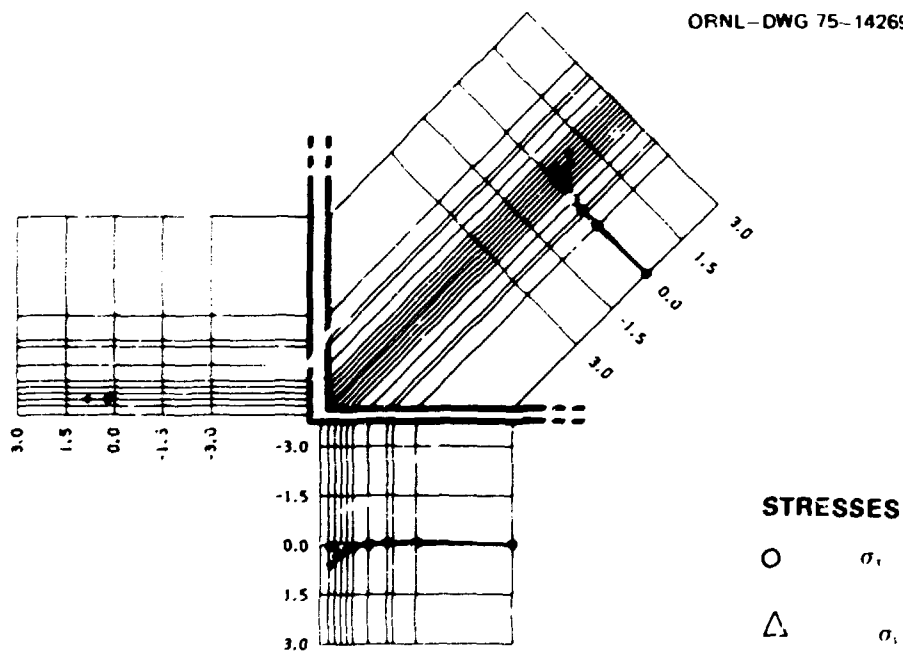


Fig. A84. Normalized membrane stress along stringer 13 for 2:1 biaxial stress on plate.

ORNL-DWG 75-14270

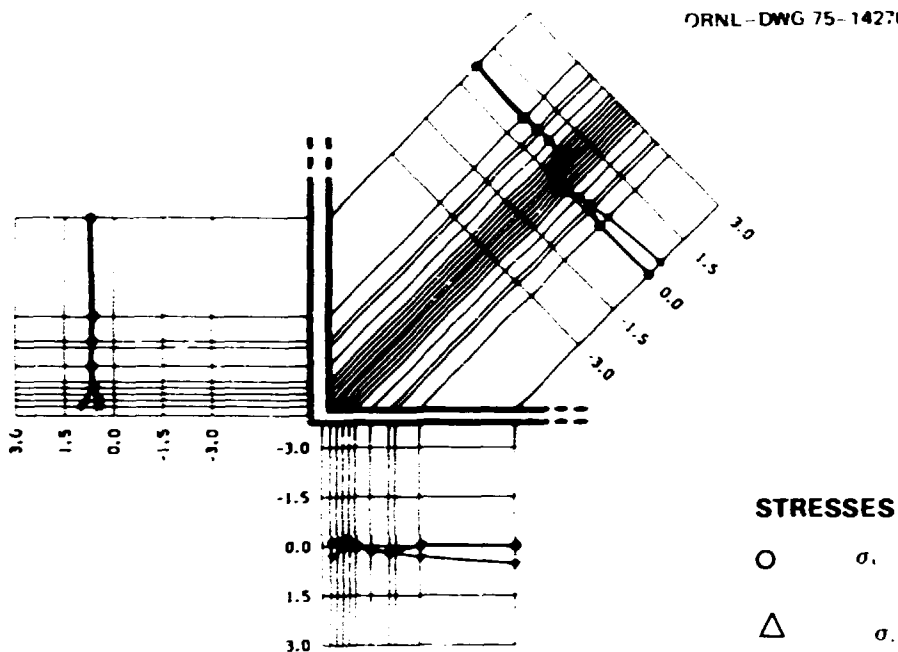


Fig. A85. Normalized membrane stress along stringer 15 for 2:1 biaxial stress on plate.

ORNL-DWG 75-14271

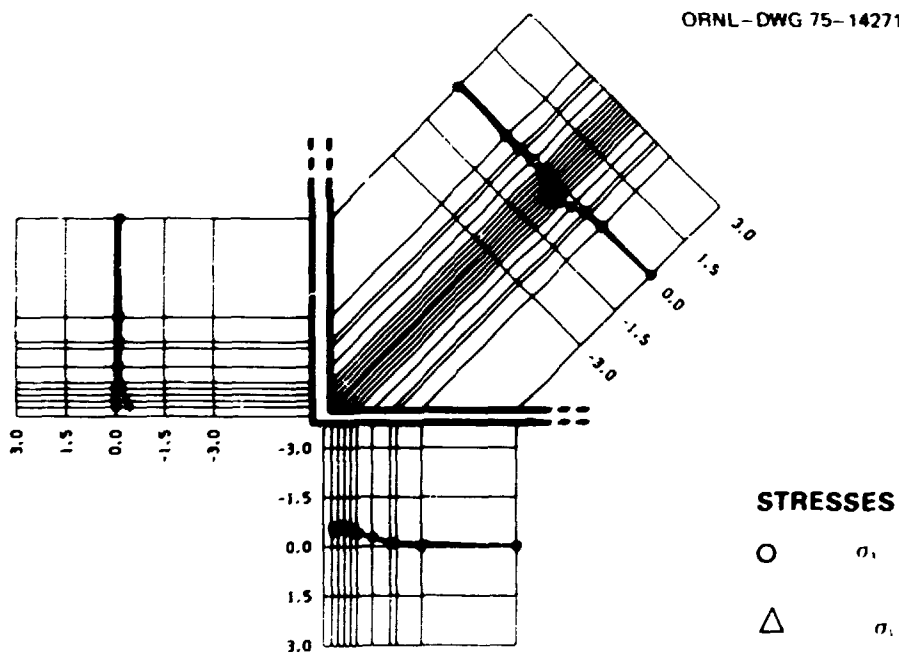


Fig. A86. Normalized bending stress along stringer 1 for 2:1 biaxial stress on plate.

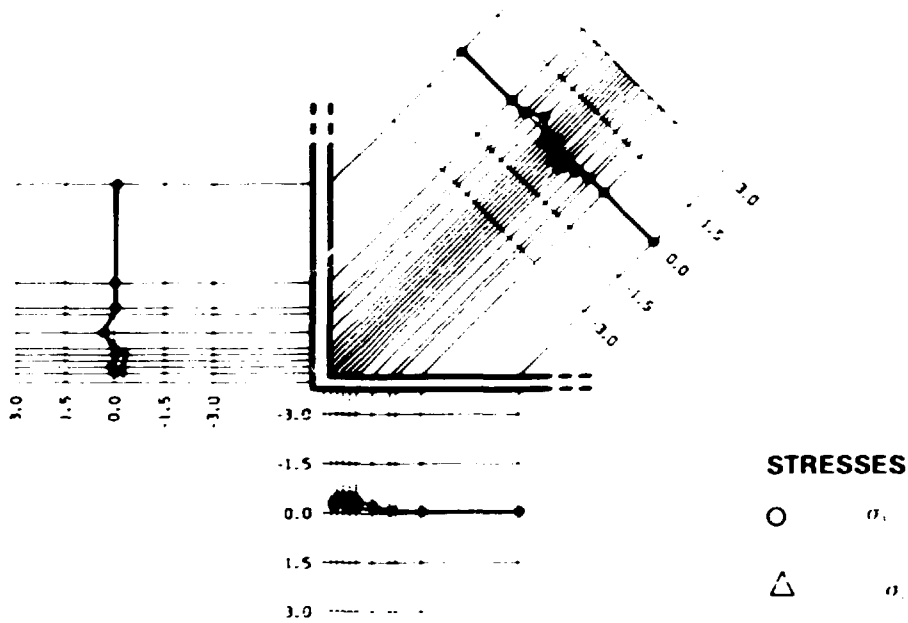


Fig. A87. Normalized bending stress along stringer 3 for 2:1 biaxial stress on plate.

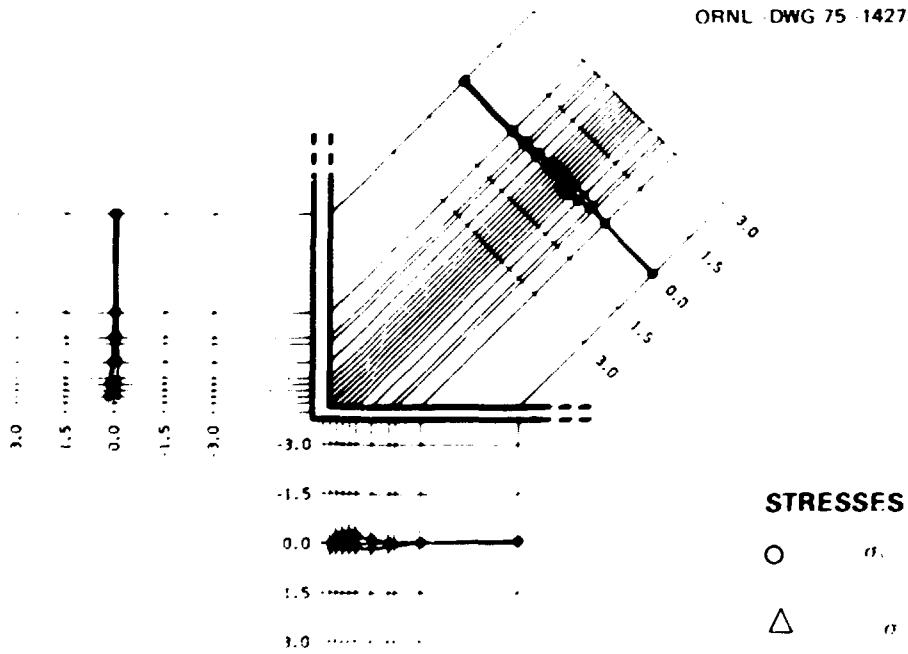


Fig. A88. Normalized bending stress along stringer 5 for 2:1 biaxial stress on plate.

ORNL DWG 75 14274

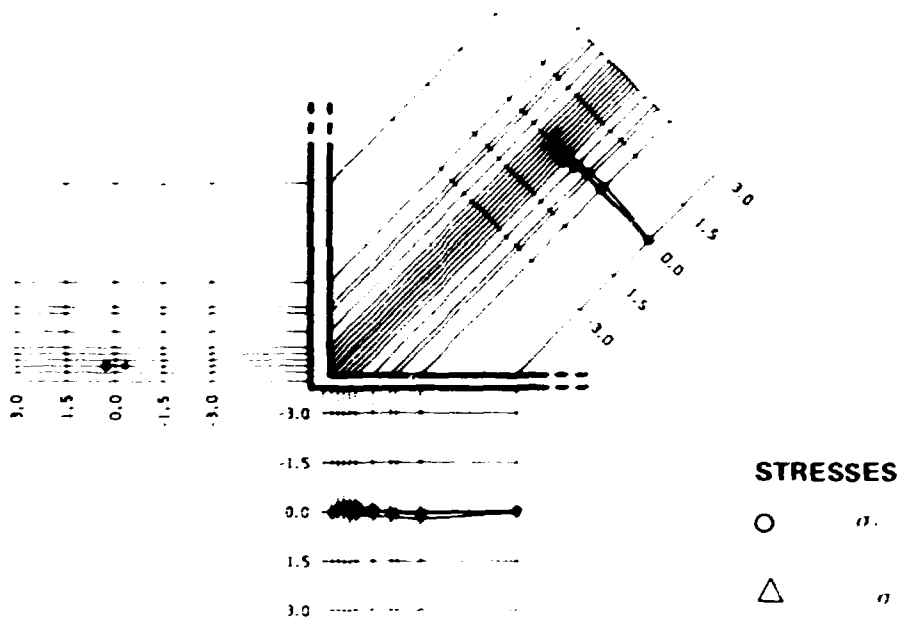


Fig. A89. Normalized bending stress along stringer 13 for 2:1 biaxial stress on plate.

ORNL DWG 75 14275

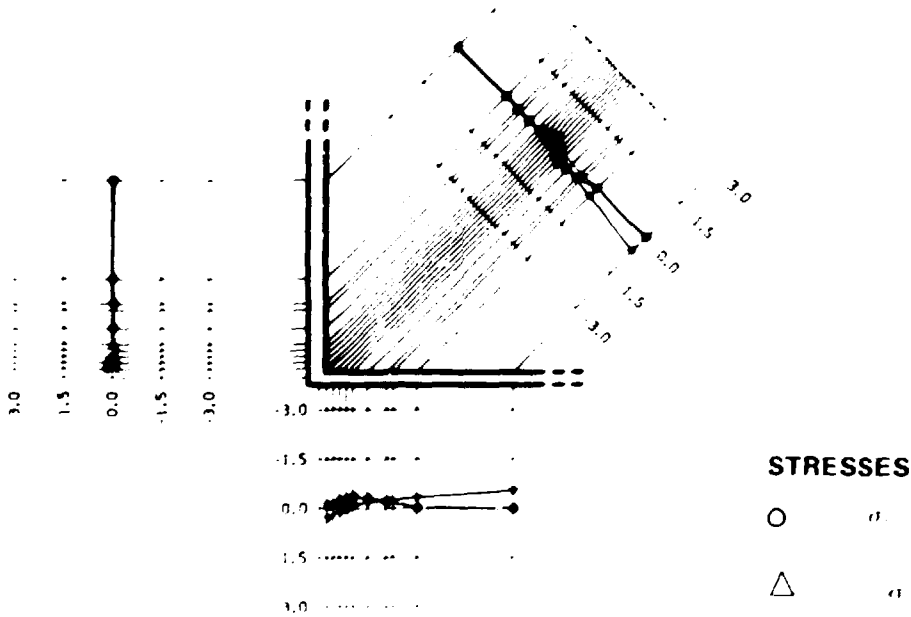


Fig. A90. Normalized bending stress along stringer 15 for 2:1 biaxial stress on plate.

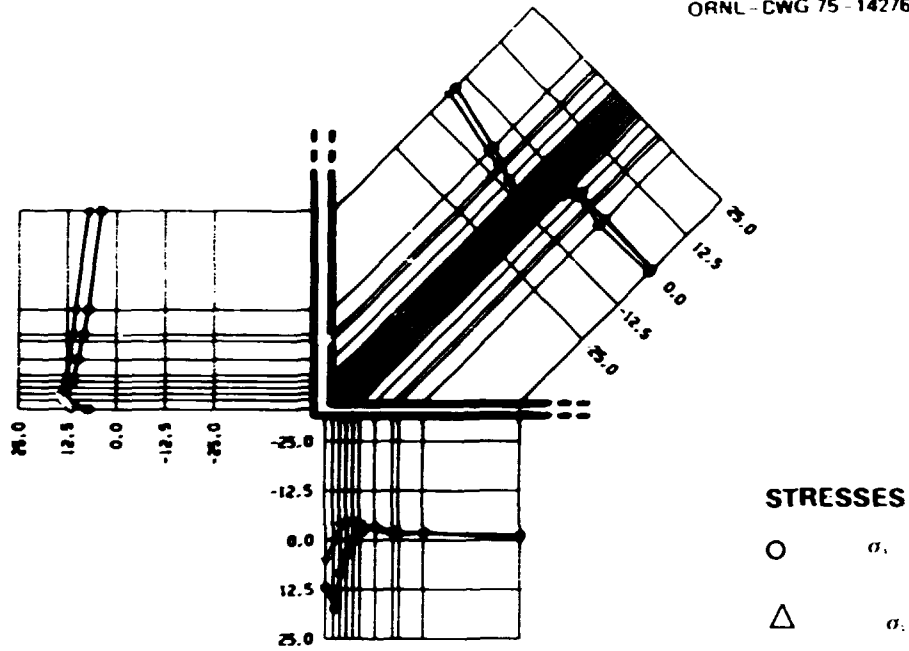


Fig. A91. Normalized total stress along stringer 1 for axial load on nozzle 1.

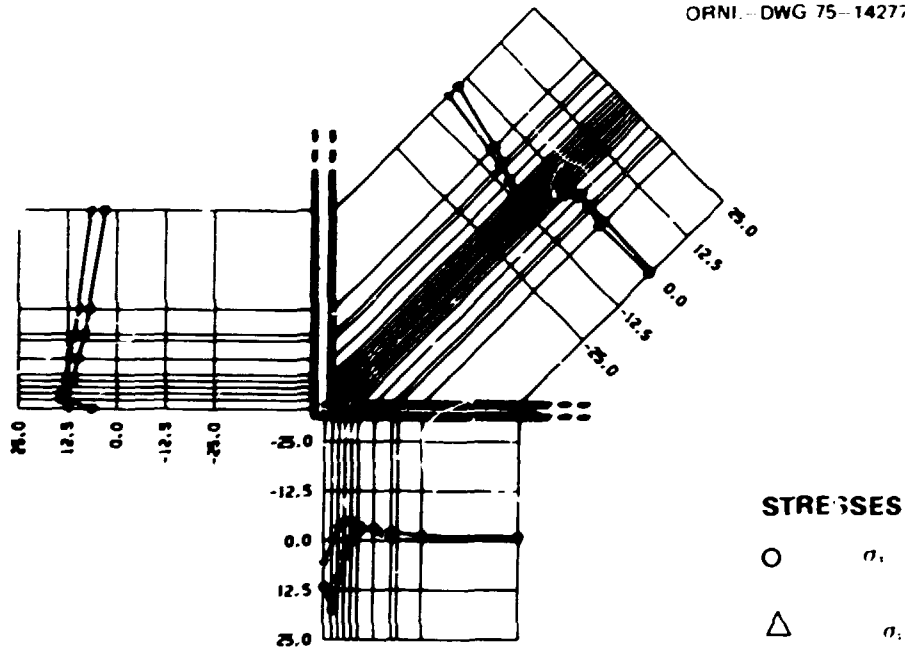


Fig. A92. Normalized total stress along stringer 3 for axial load on nozzle 1.

ORNL-DWG 75-14278

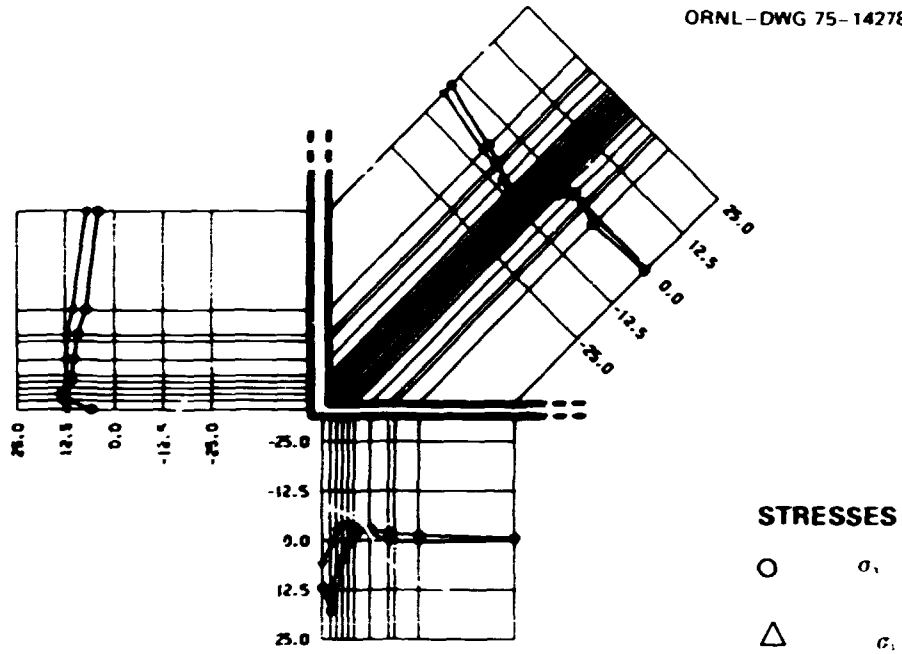


Fig. A93. Normalized total stress along stringer 5 for axial load on nozzle 1.

ORNL-DWG 75-14279

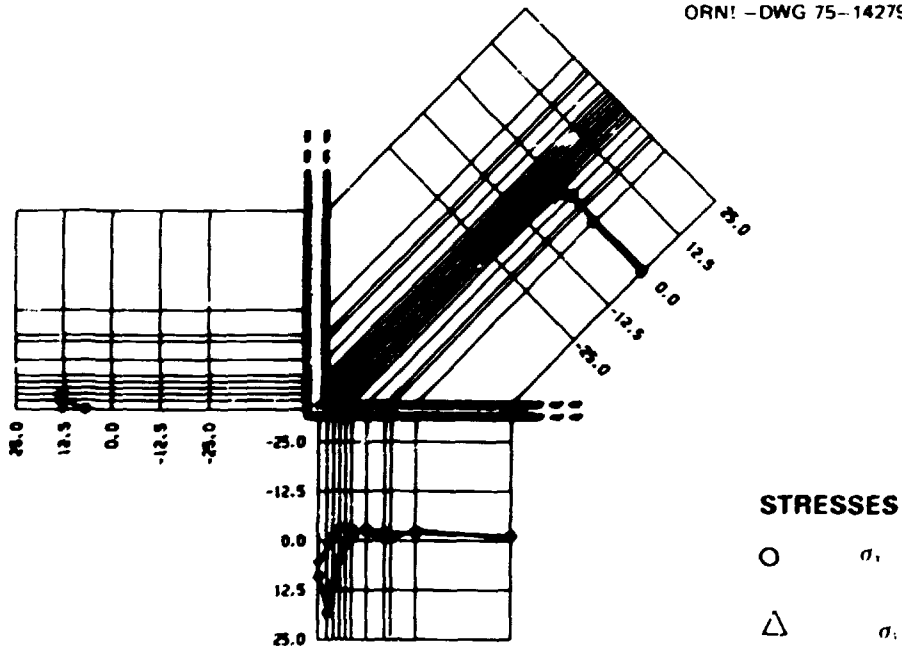


Fig. A94. Normalized total stress along stringer 13 for axial load on nozzle 1.

ORNL DWG 75 14280

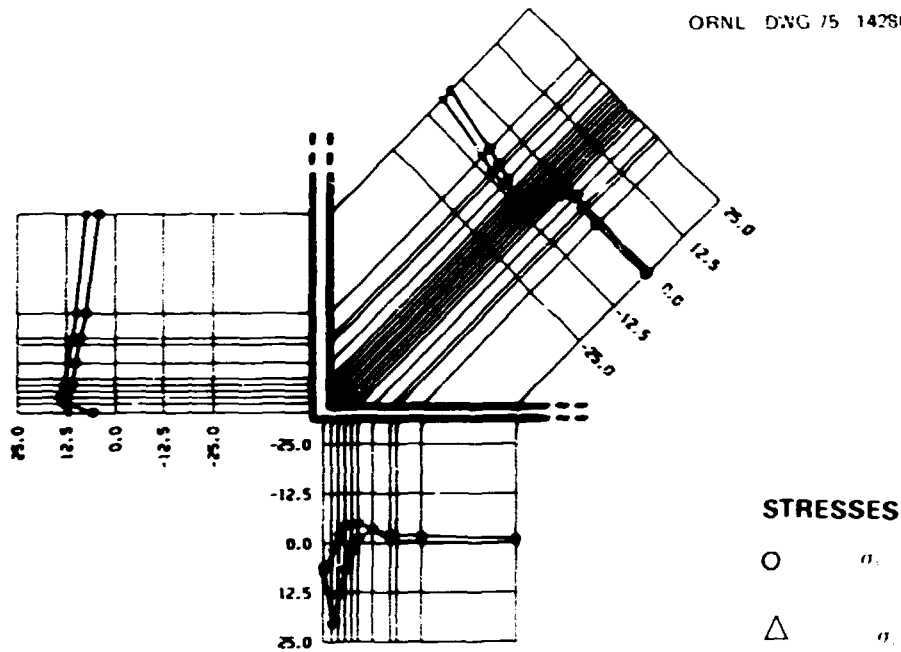


Fig. A95. Normalized total stress along stringer 15 for axial load on nozzle 1.

ORNL DWG 75 14281

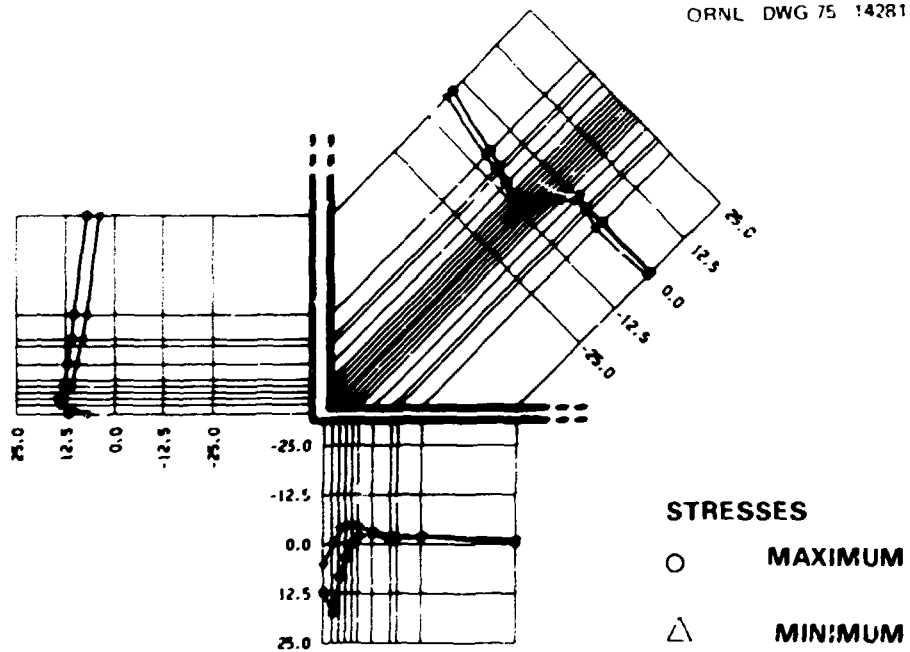


Fig. A96. Normalized principal stress along stringer 1 for axial load on nozzle 1.

ORNL DWG 75 14282

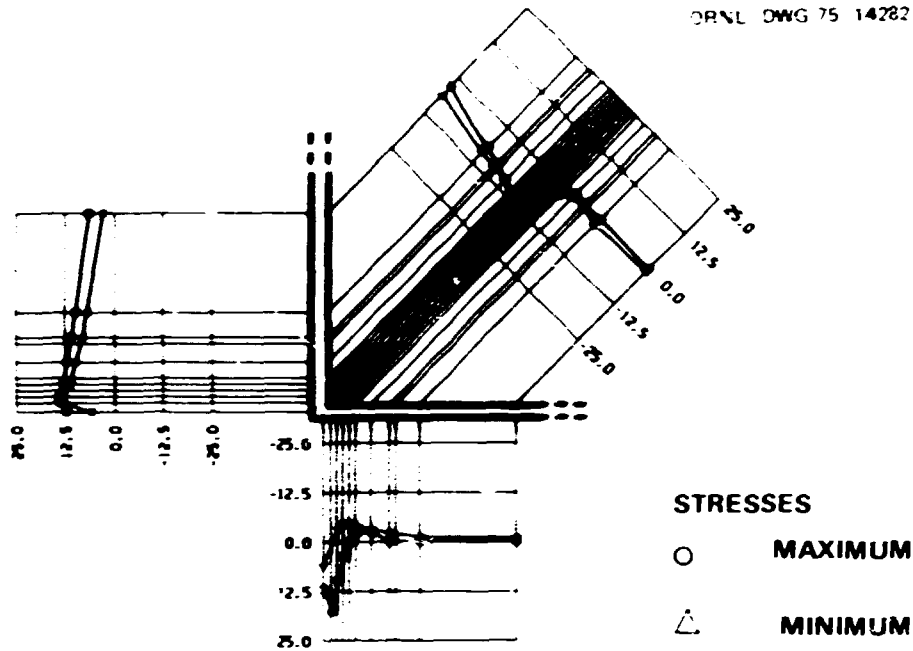


Fig. A97. Normalized principal stress along stringer 3 for axial load on nozzle 1.

ORNL DWG 75 14283

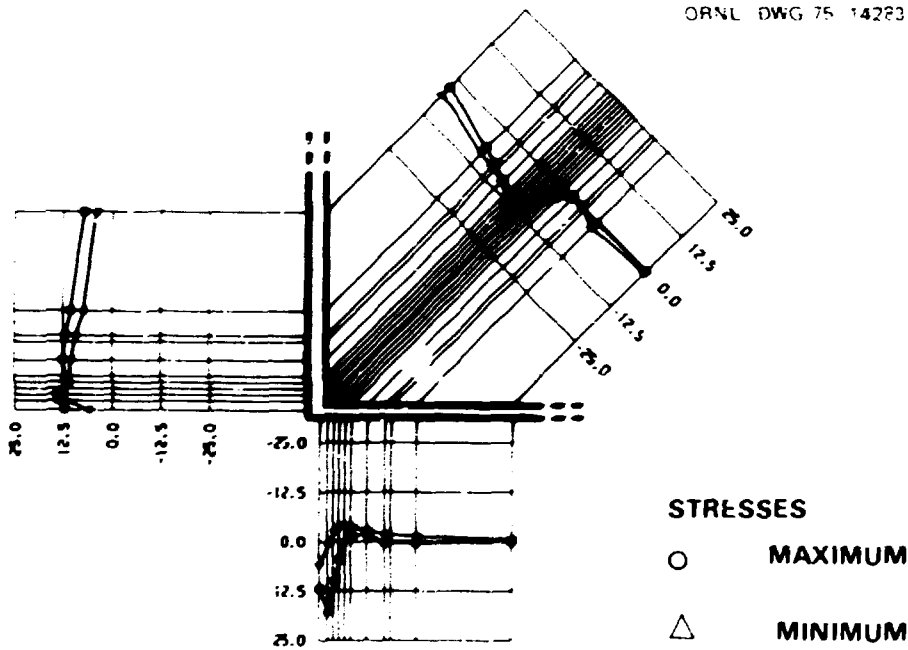


Fig. A98. Normalized principal stress along stringer 5 for axial load on nozzle 1.

ORNL DWG 75 14284

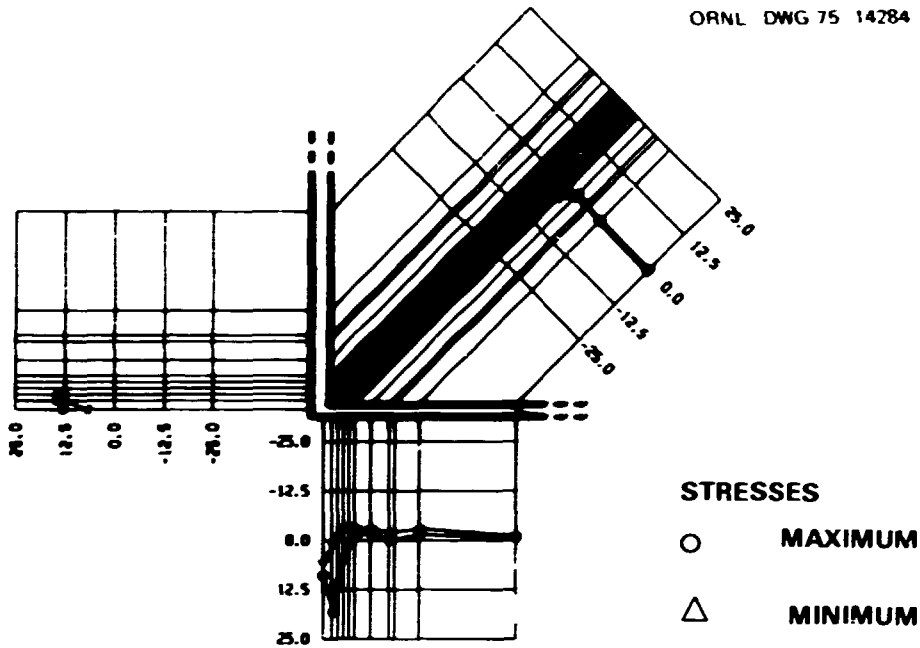


Fig. A99. Normalized principal stress along stringer 13 for axial load on nozzle 1.

ORNL-DWG 75-14285

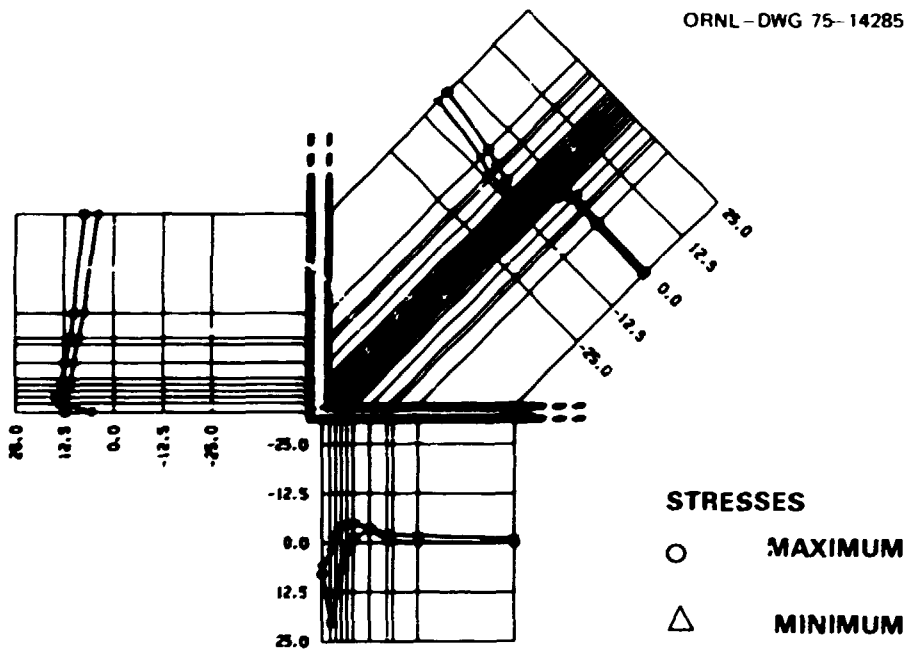


Fig. A100. Normalized principal stress along stringer 15 for axial load on nozzle 1.

ORNL-DWG 75 14286

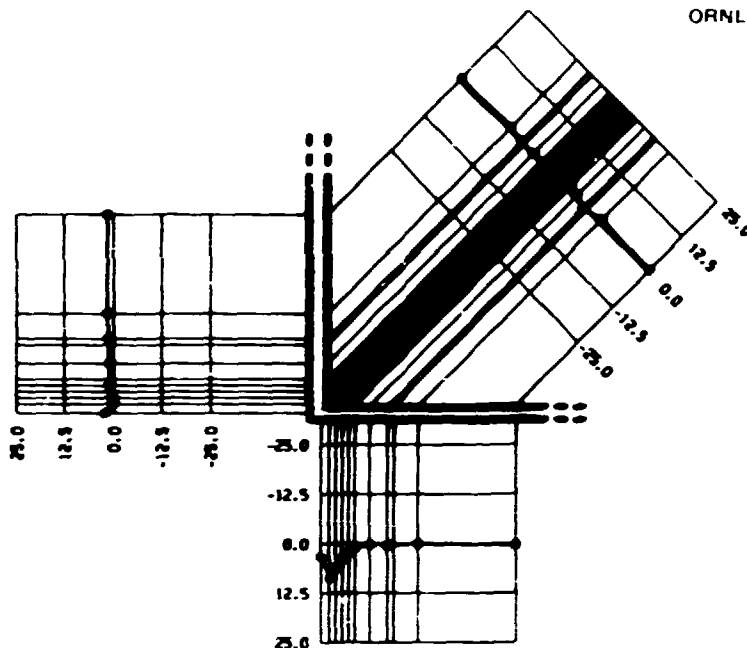


Fig. A101. Normalized shear stress along stringer 1 for axial load on nozzle 1.

ORNL-DWG 75-14287

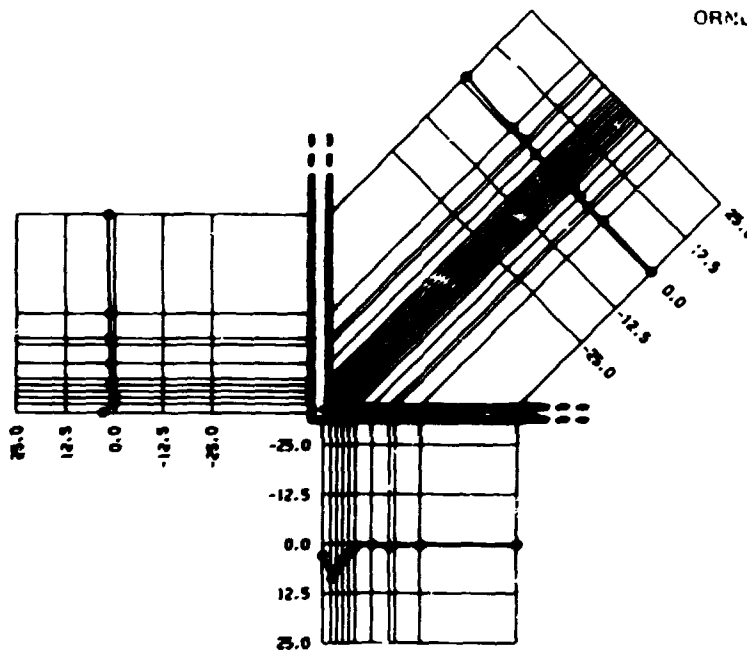


Fig. A102. Normalized shear stress along stringer 3 for axial load on nozzle 1.

ORNL DWG 75 14288

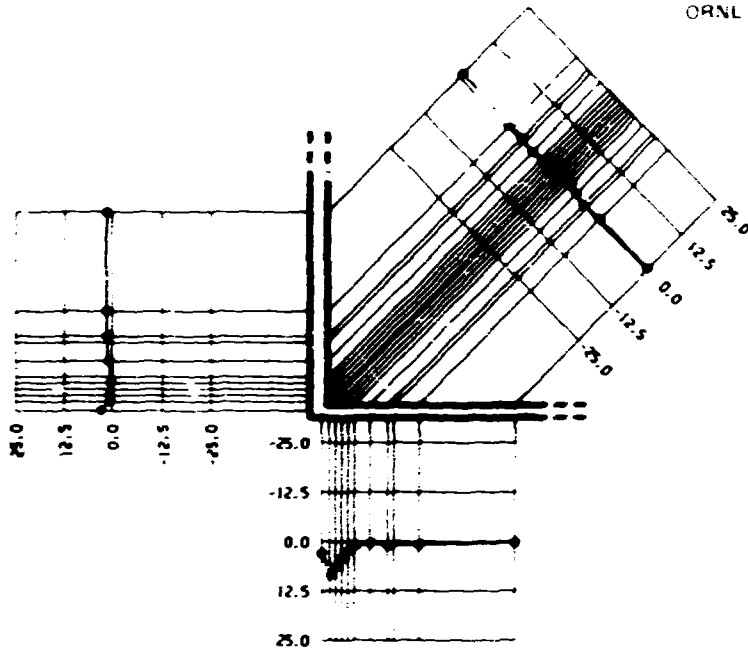


Fig. A103. Normalized shear stress along stringer 5 for axial load on nozzle 1.

ORNL DWG 75 14289

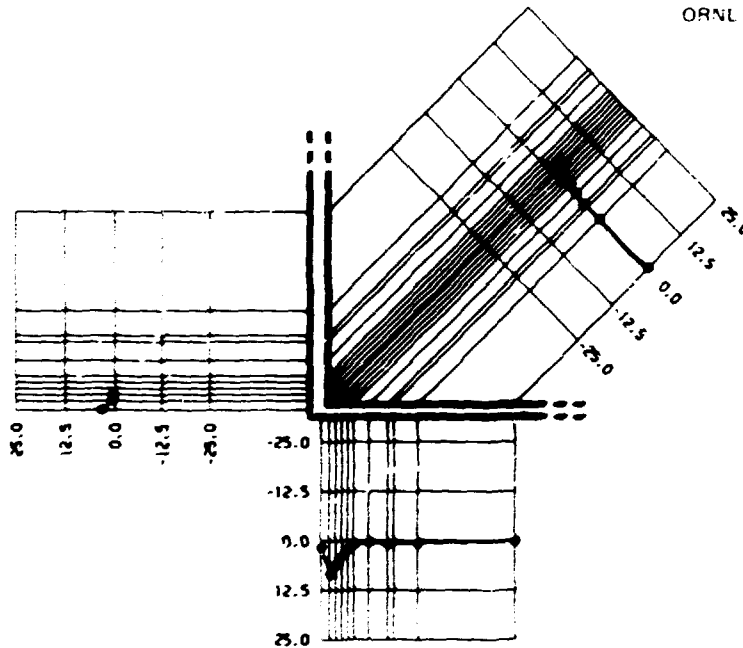


Fig. A104. Normalized shear stress along stringer 13 for axial load on nozzle 1.

ORNL DWG 75 14290

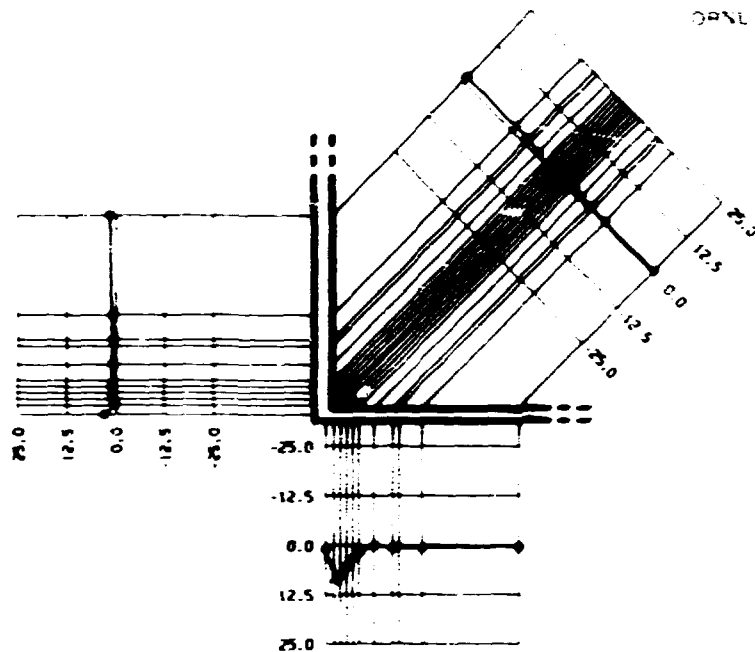


Fig. A105. Normalized shear stress along stringer 15 for axial load on nozzle 1.

ORNL DWG 75 14291

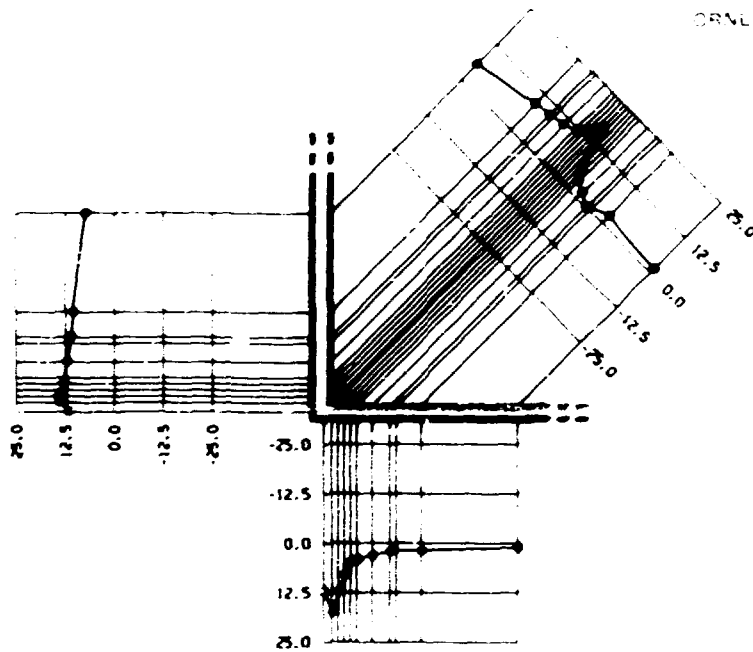


Fig. A106. Normalized stress intensity along stringer 1 for axial load on nozzle 1.

ORNL DWG 75 14292

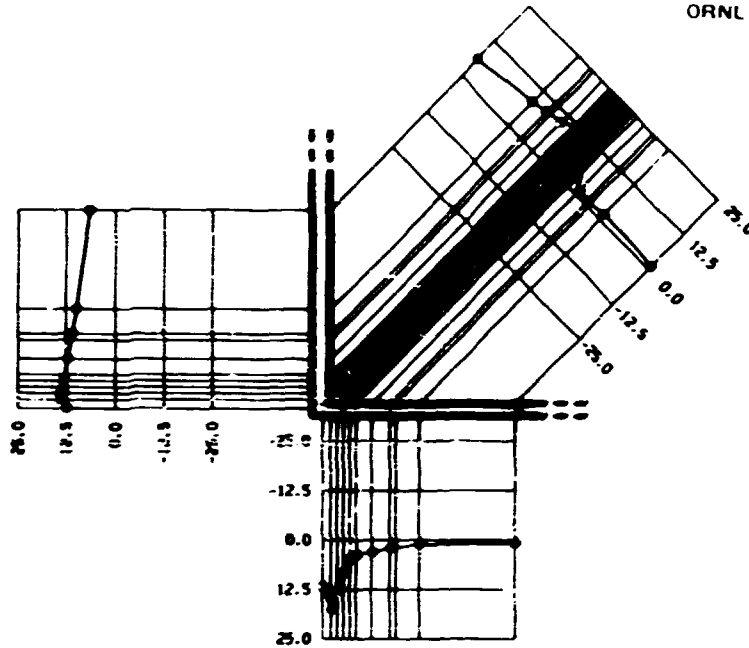


Fig. A107. Normalized stress intensity along stringer 3 for axial load on nozzle 1.

ORNL - DWG 75-14293

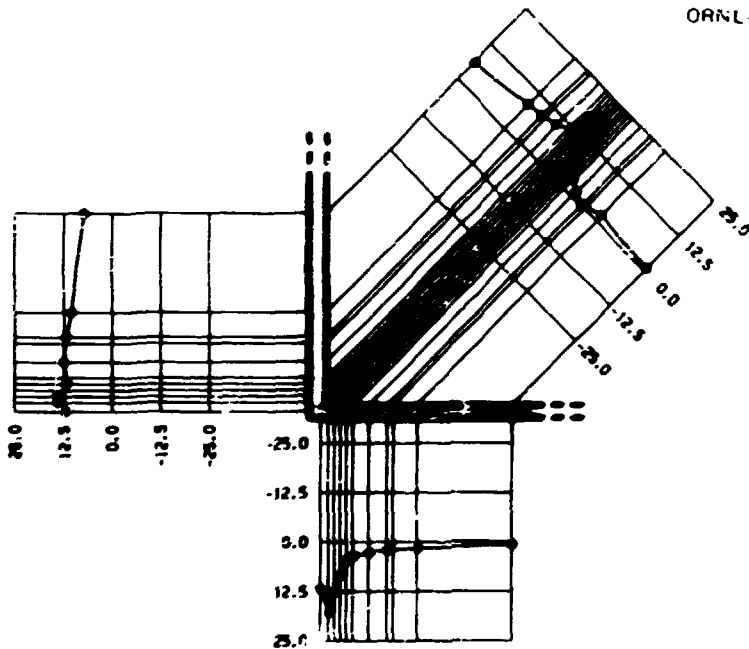


Fig. A108. Normalized stress intensity along stringer 5 for axial load on nozzle 1.

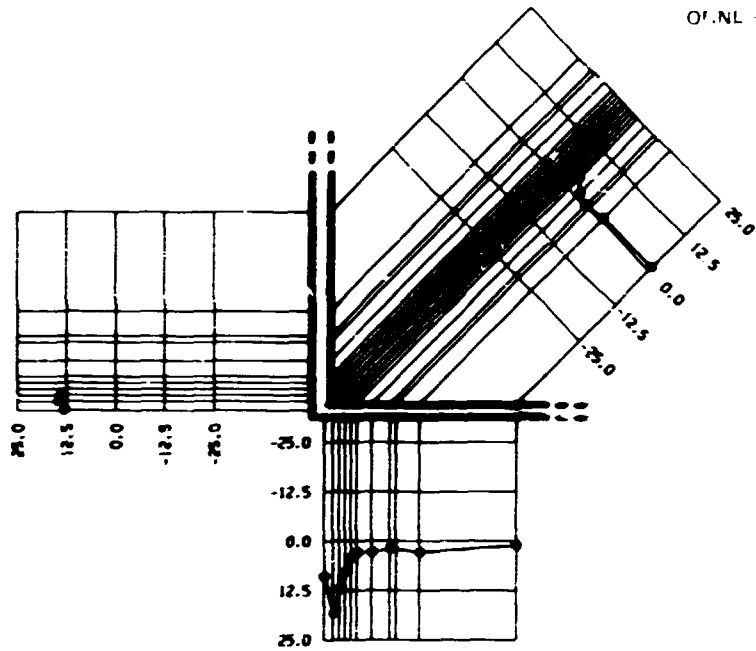


Fig. A109. Normalized stress intensity along stringer 13 for axial load on nozzle 1.

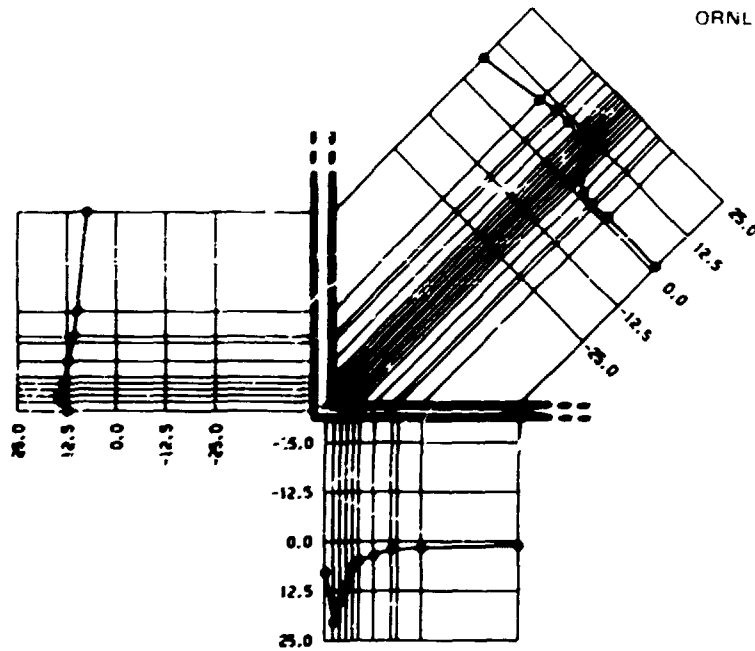


Fig. A110. Normalized stress intensity along stringer 15 for axial load on nozzle 1.

ORNL DWG 75 14296

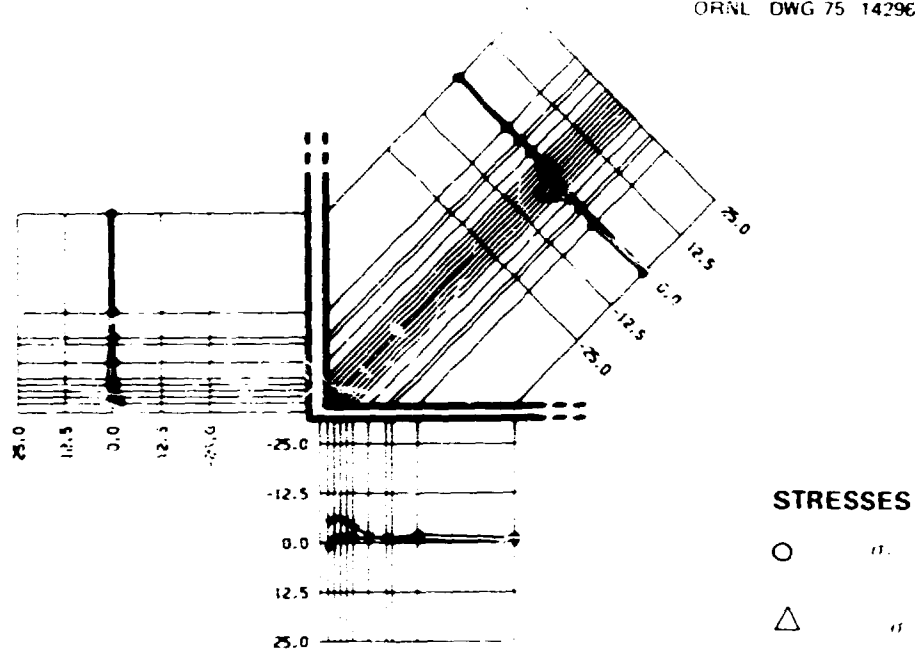


Fig. All1. Normalized membrane stress along stringer 1 for axial load on nozzle 1.

ORNL DWG 75 14297

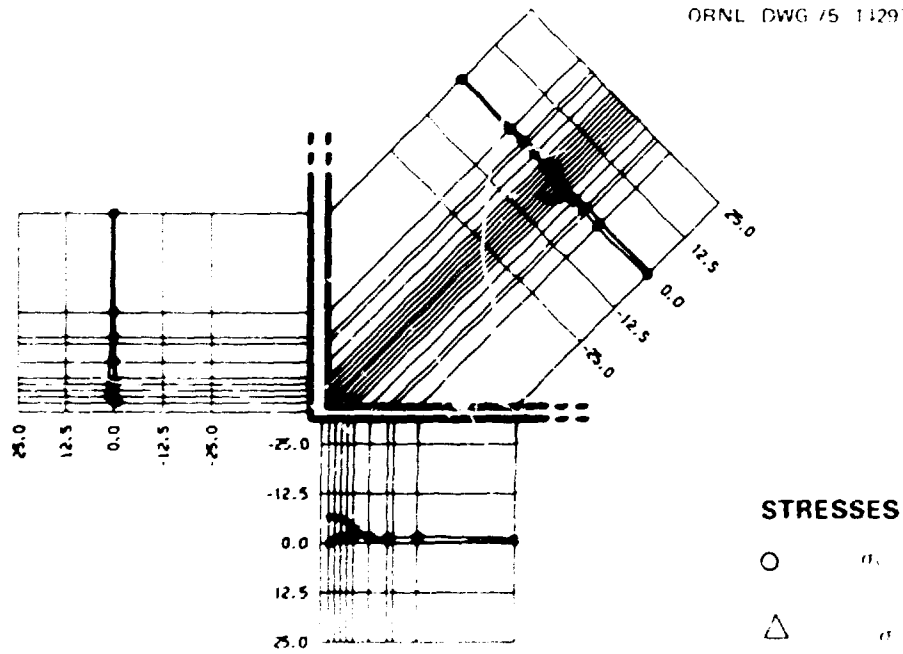


Fig. All2. Normalized membrane stress along stringer 3 for axial load on nozzle 1.

ORNL DWG 75 14298

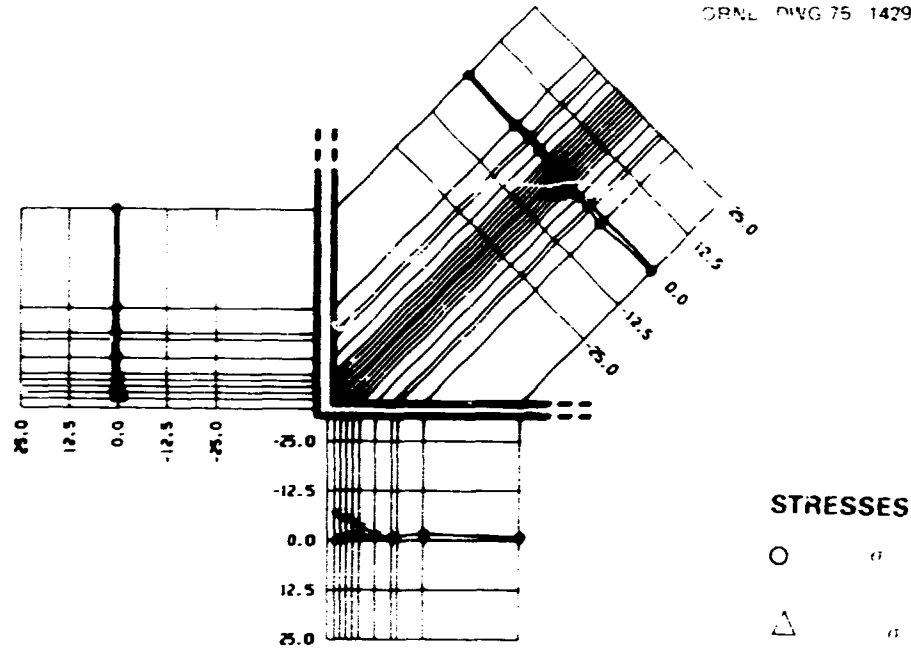


Fig. A113. Normalized membrane stress along stringer 5 for axial load on nozzle 1.

ORNL DWG 75 14299

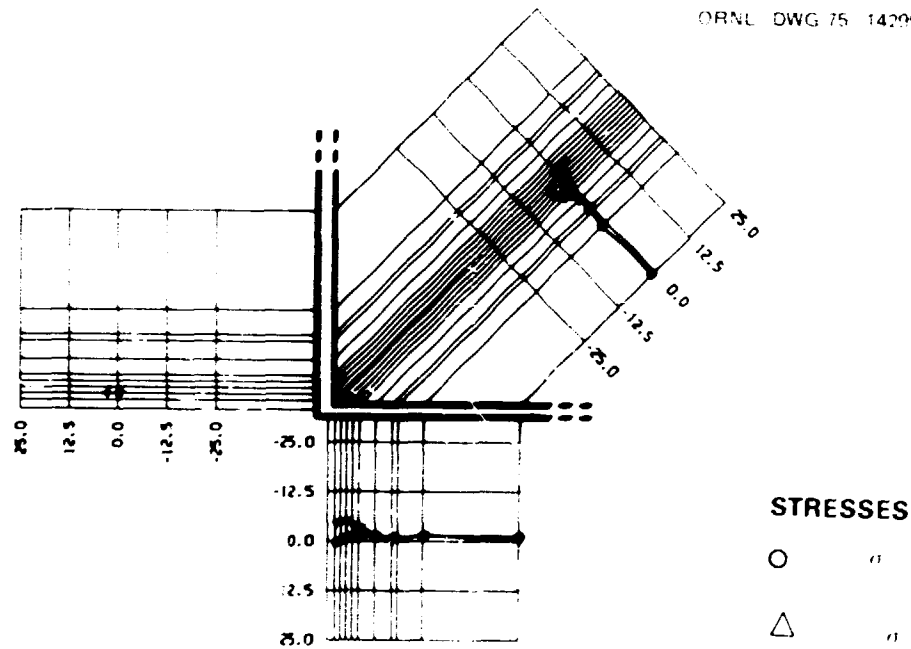


Fig. A114. Normalized membrane stress along stringer 13 for axial load on nozzle 1.

ORNL - DWG 75 - 14300

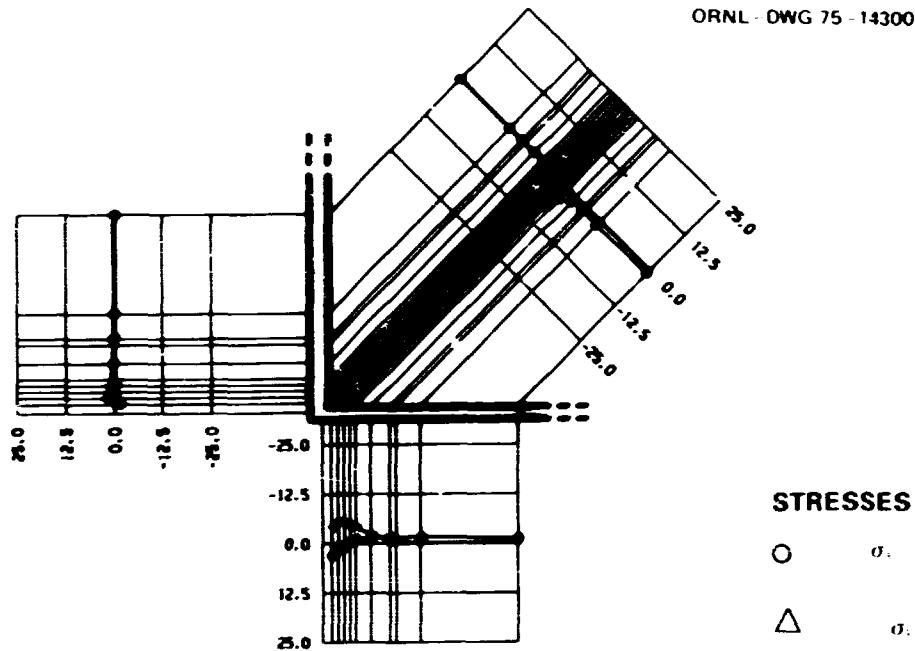


Fig. A115. Normalized membrane stress along stringer 15 for axial load on nozzle 1.

ORNL - DWG 75 - 14301

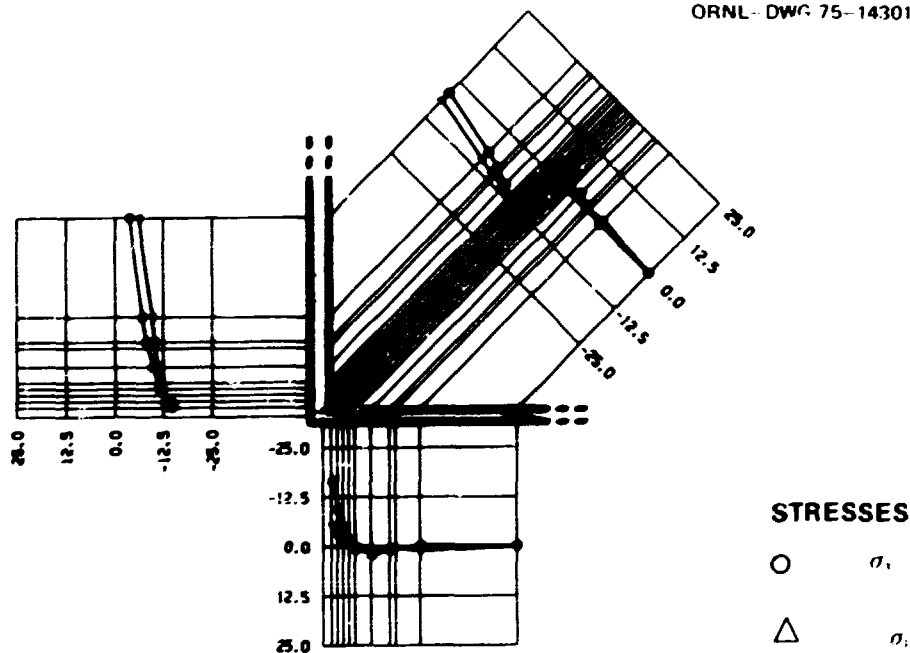


Fig. A116. Normalized bending stress along stringer 1 for axial load on nozzle 1.

ORNL-DWG 75-14302

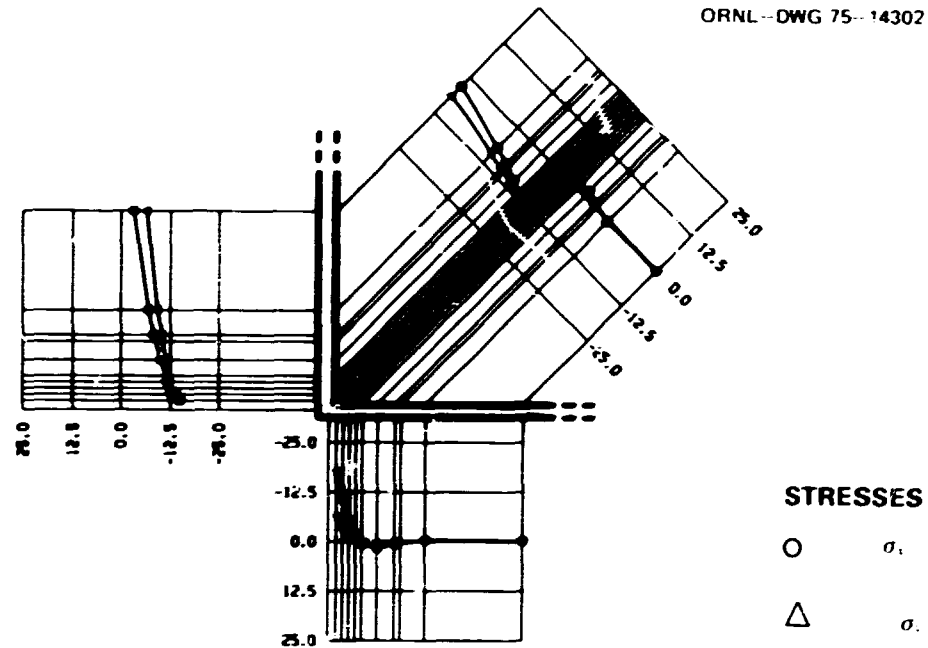


Fig. A117. Normalized bending stress along stringer 3 for axial load on nozzle 1.

ORNL-DWG 75-14303

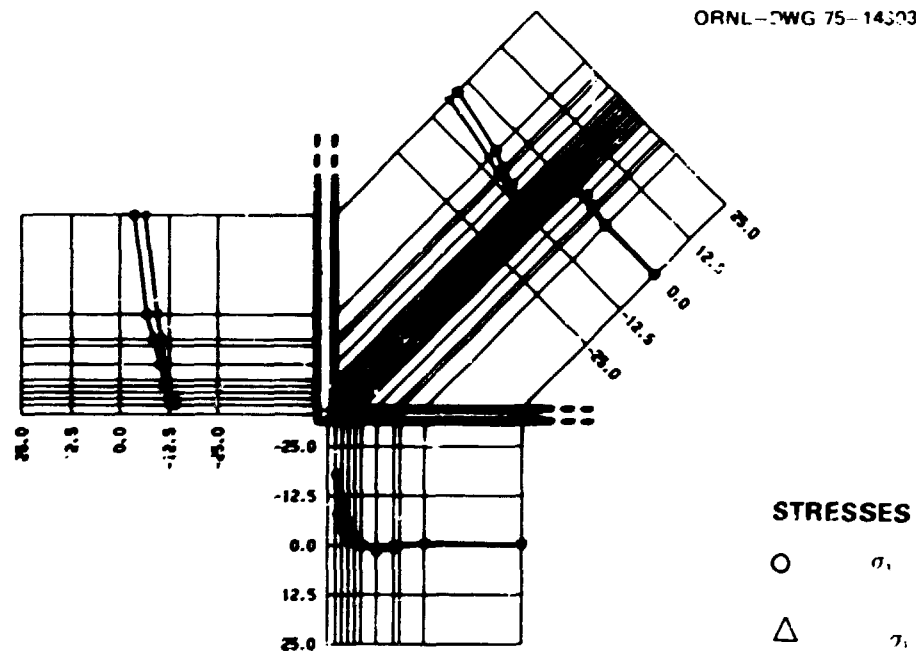


Fig. A118. Normalized bending stress along stringer 5 for axial load on nozzle 1.

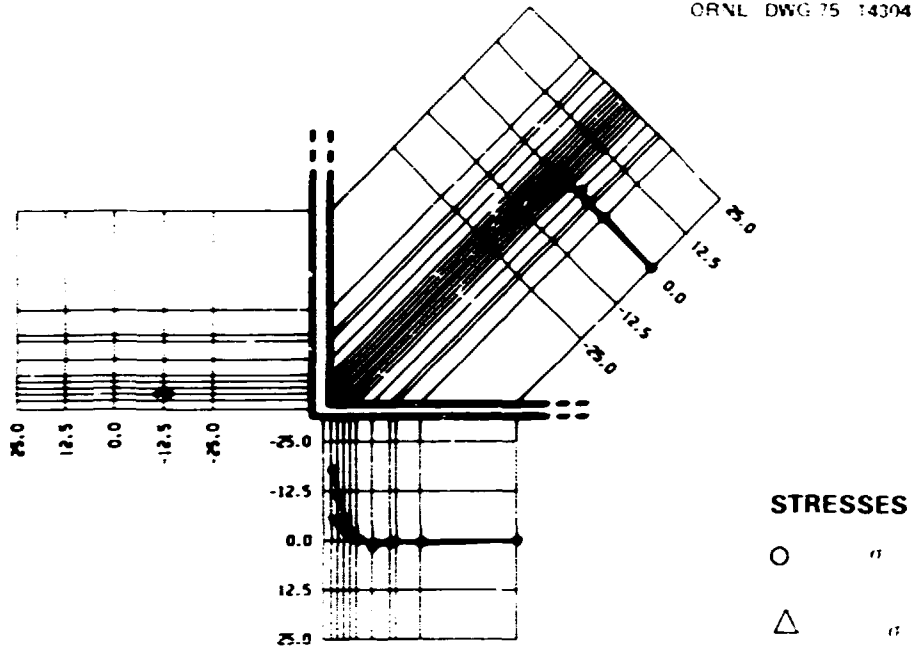


Fig. A119. Normalized bending stress along stringer 13 for axial load on nozzle 1.

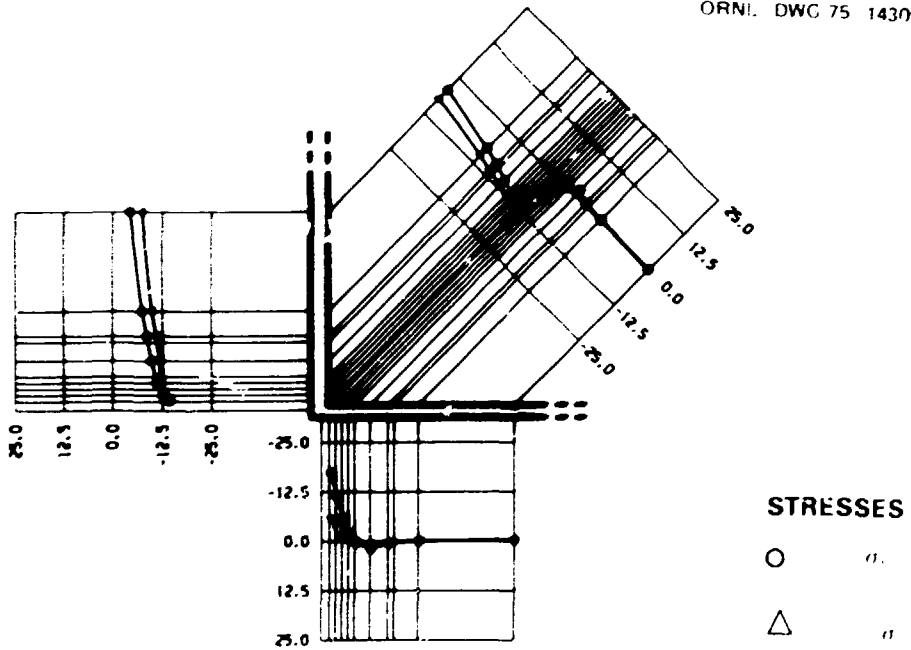


Fig. A120. Normalized bending stress along stringer 15 for axial load on nozzle 1.

ORNL DWG 75 14306

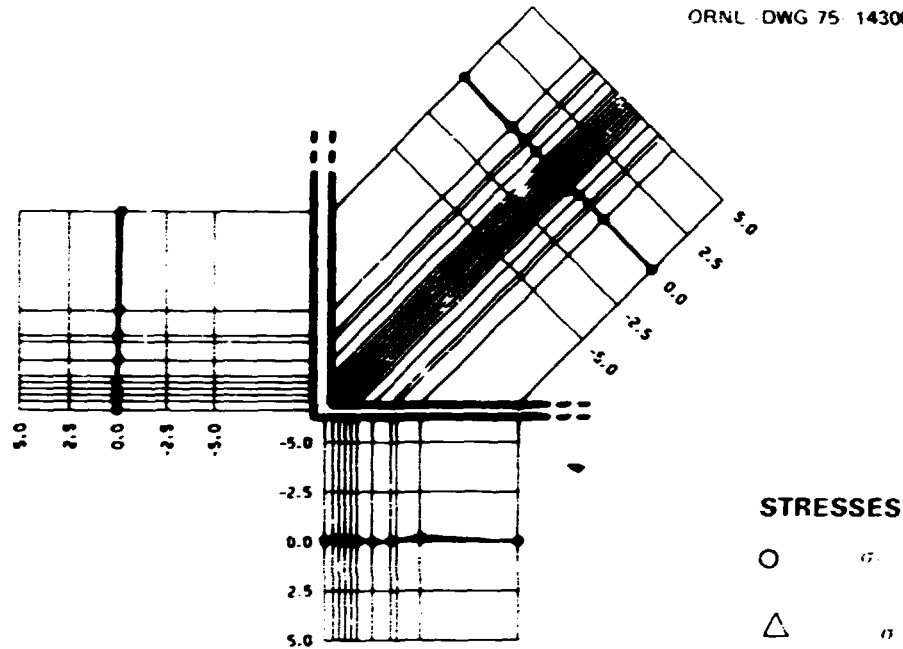


Fig. A121. Normalized total stress along stringer 1 for bending moment loading M1-1.

ORNL DWG 75 14307

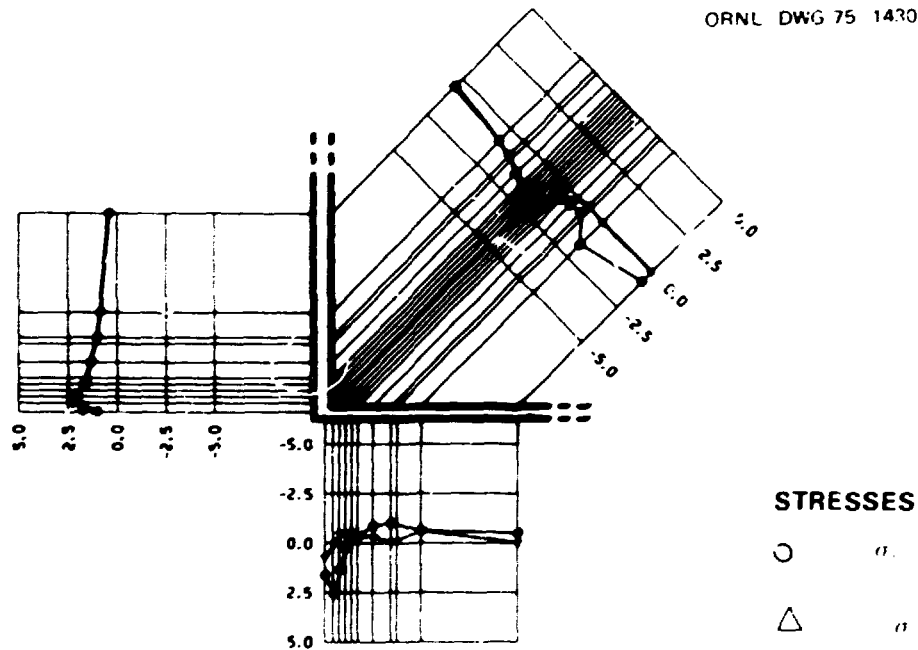


Fig. A122. Normalized total stress along stringer 3 for bending moment loading M1-1.

ORNL-DWG 75-14508

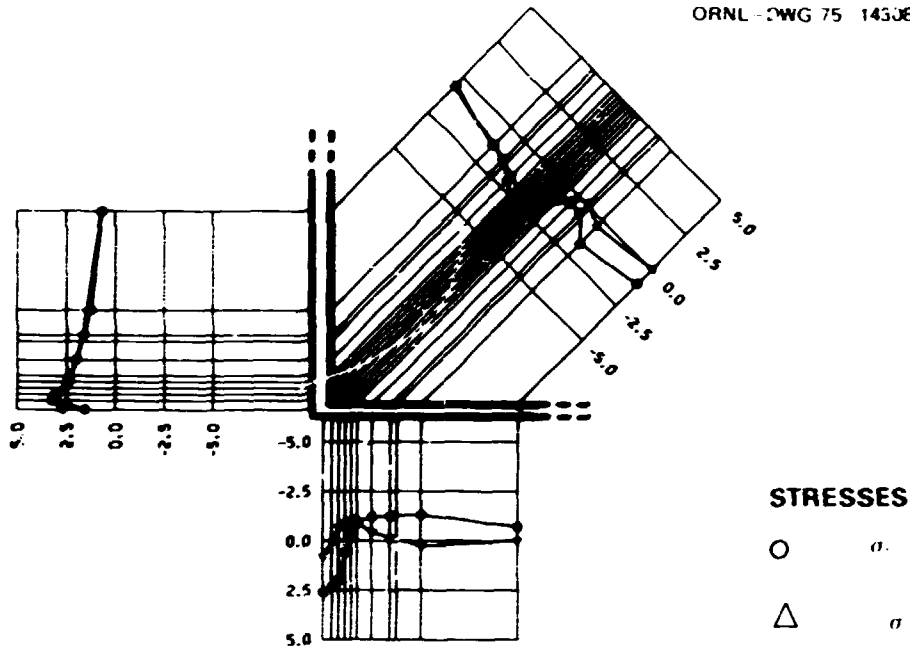


Fig. A123. Normalized total stress along stringer 5 for bending moment loading M1-1.

ORNL-DWG 75-14309

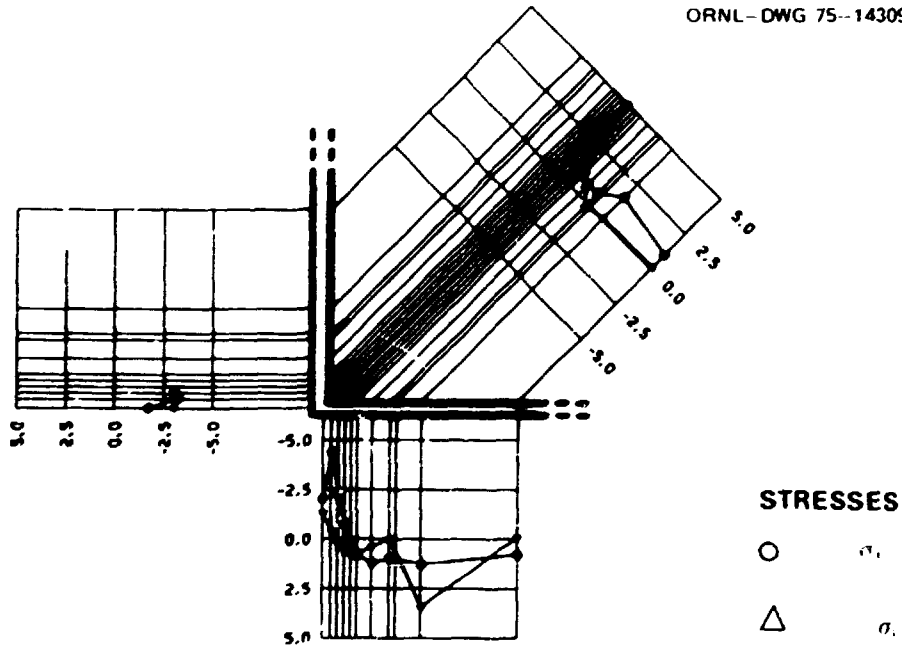


Fig. A124. Normalized total stress along stringer 13 for bending moment loading M1-1.

ORNL DWG 75-14310

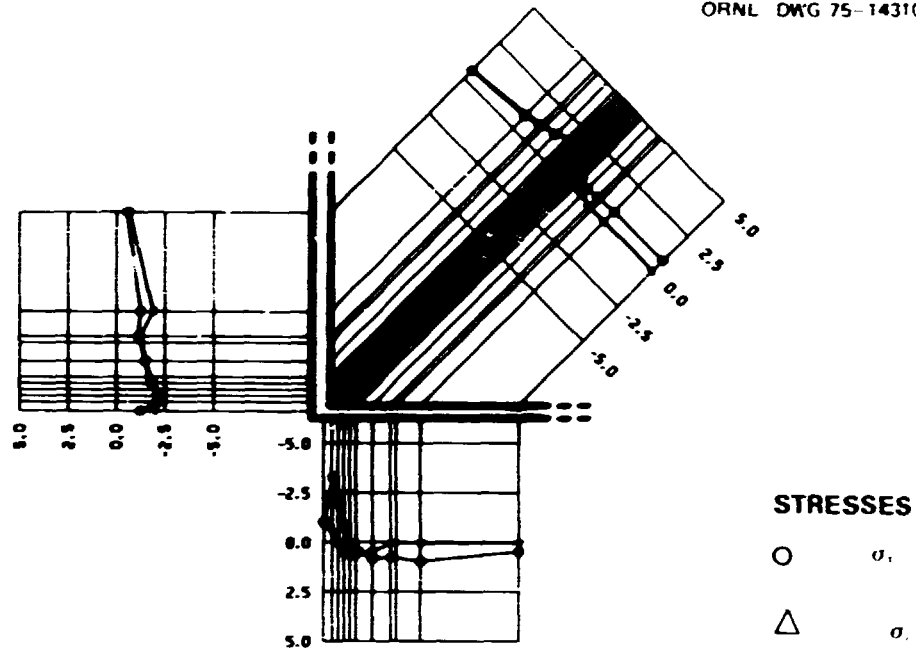


Fig. A125. Normalized total stress along stringer 15 for bending moment loading M1-1.

ORNL-DWG 75-14311

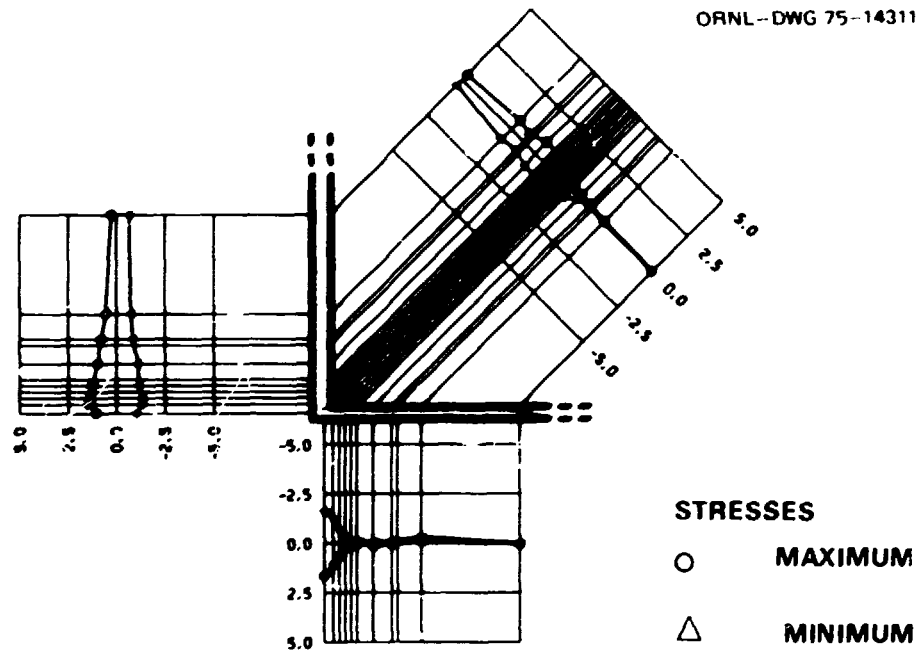


Fig. A126. Normalized principal stress along stringer 1 for bending moment loading M1-1.

ORNL DWG 75 14312

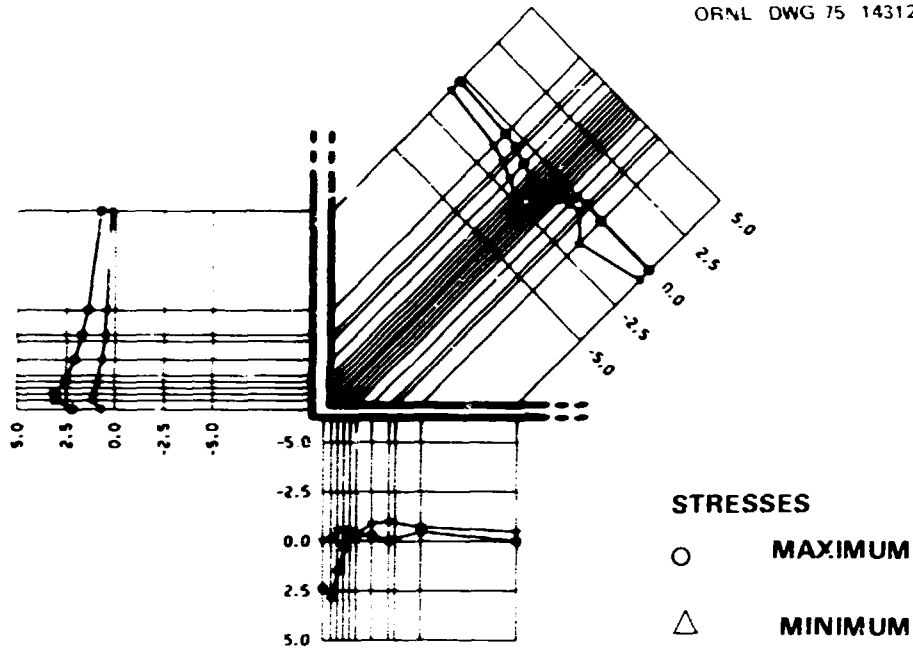


Fig. A127. Normalized principal stress along stringer 3 for bending moment loading M1-1.

ORNL DWG 75 14313

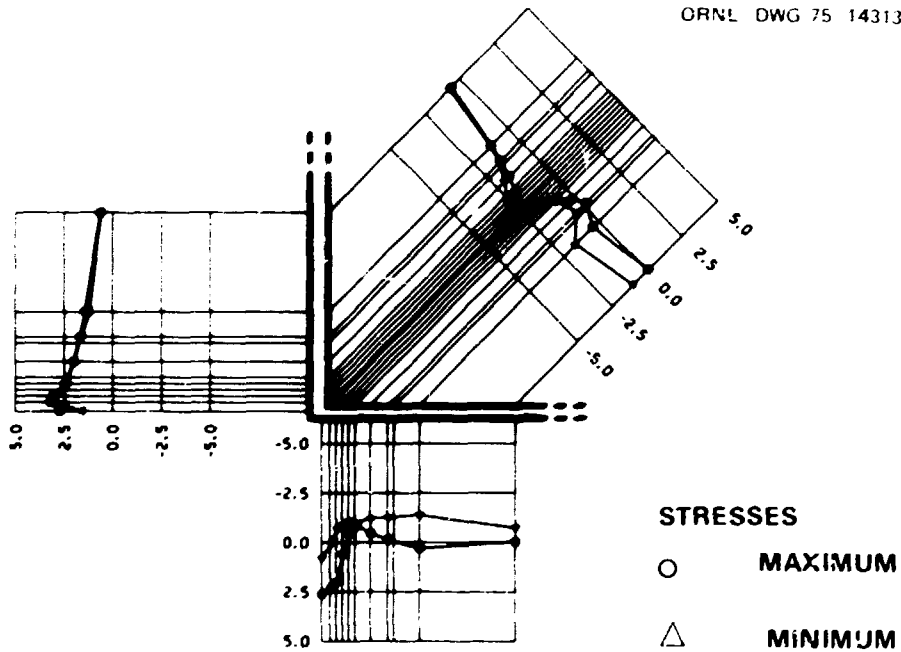


Fig. A128. Normalized principal stress along stringer 5 for bending moment loading M1-1.

ORNL DWG 75 14314

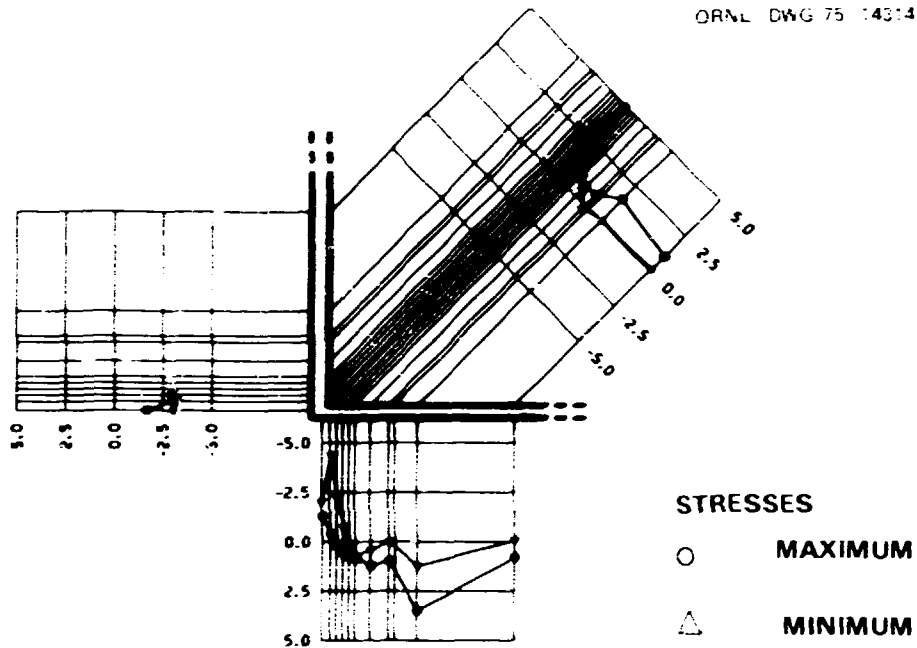


Fig. A129. Normalized principal stress along stringer 13 for bending moment loading M1-1.

ORNL DWG 75 14315

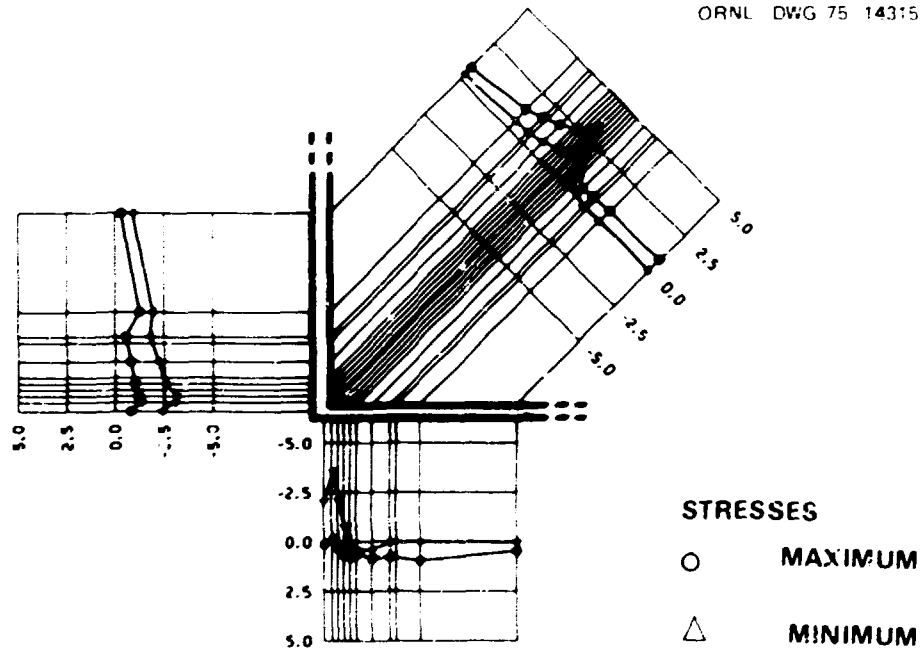


Fig. A130. Normalized principal stress along stringer 15 for bending moment loading M1-1.

ORNL DWG 75-14316

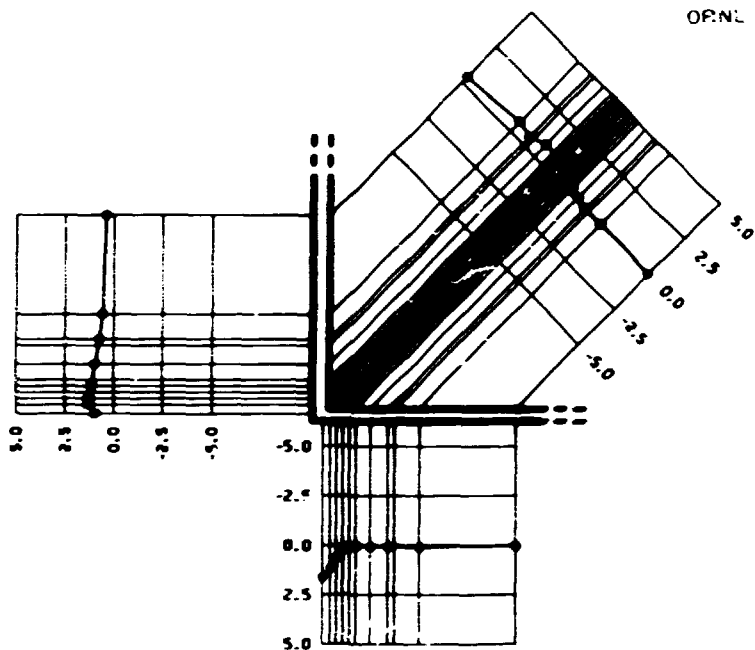


Fig. A131. Normalized shear stress along stringer 1 for bending moment loading M1-1.

ORNL DWG 75-14317

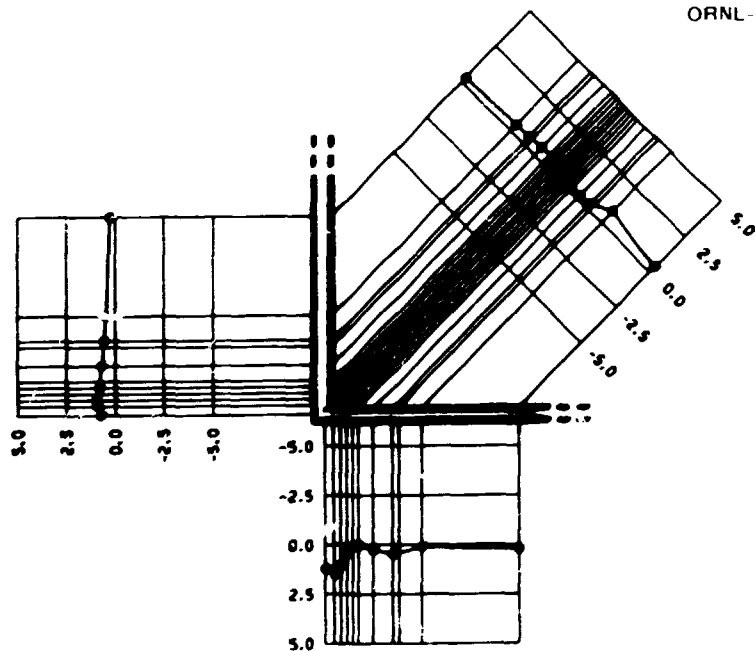


Fig. A132. Normalized shear stress along stringer 3 for bending moment loading M1-1.

ORNL DWG 75 14318

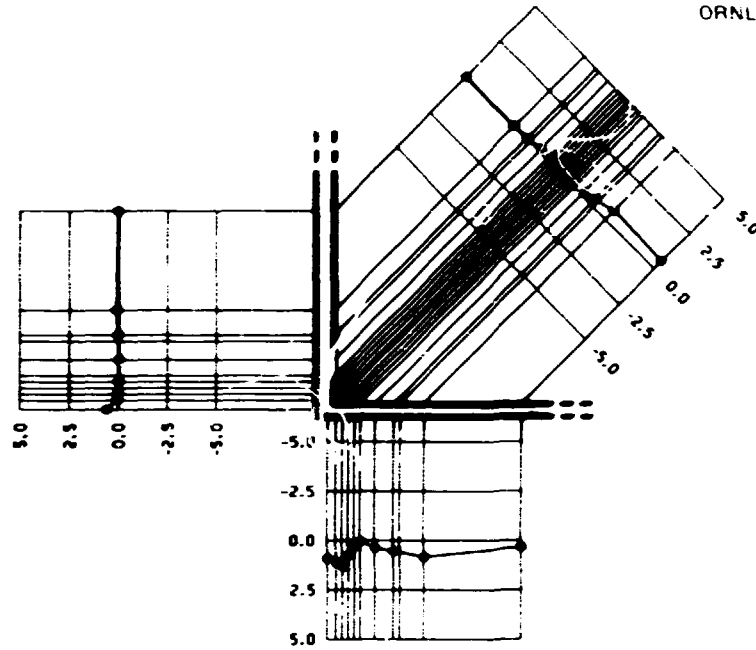


Fig. A133. Normalized shear stress along stringer 5 for bending moment loading M1-1.

ORNL DWG 75-14319

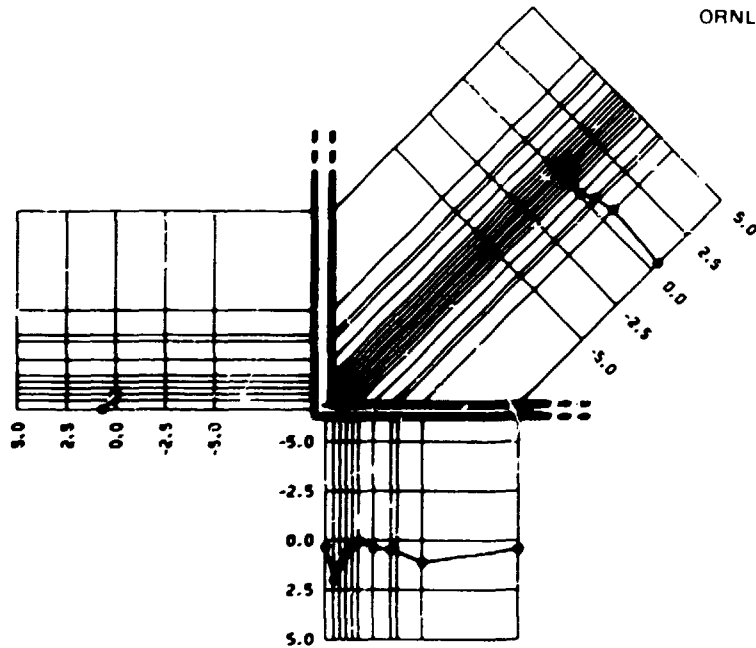


Fig. A134. Normalized shear stress along stringer 13 for bending moment loading M1-1.

ORNL DWG 75 14320

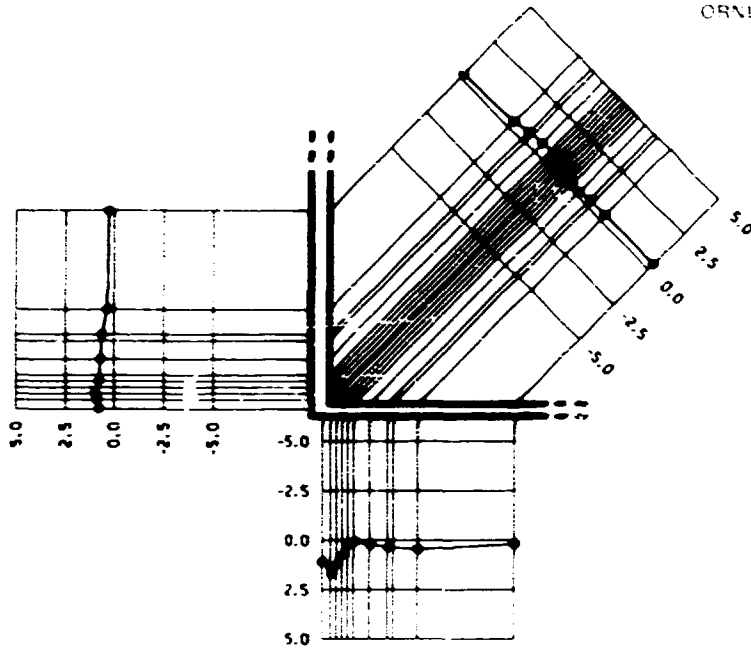


Fig. A135. Normalized shear stress along stringer 15 for bending moment loading M1-1.

ORNL DWG 75 14321

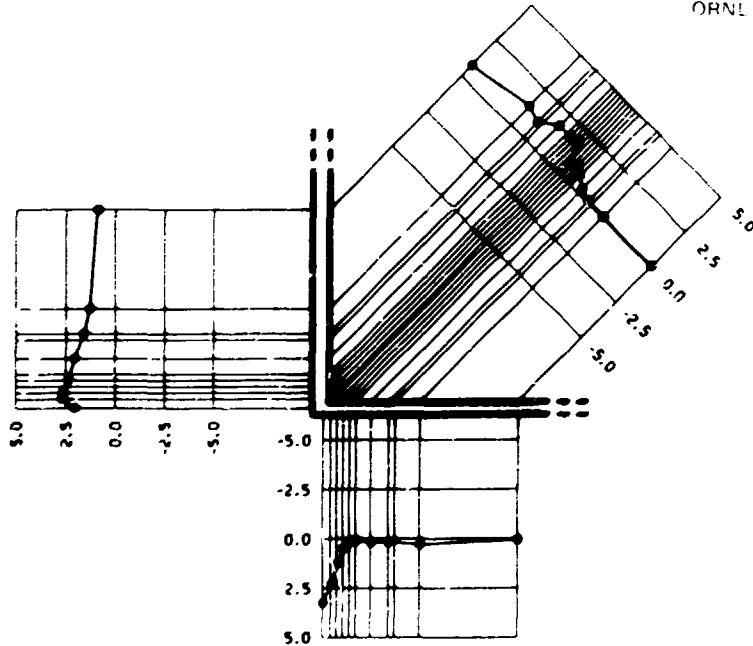


Fig. A136. Normalized stress intensity along stringer 1 for bending moment loading M1-1.

GENL DWG 75 14002

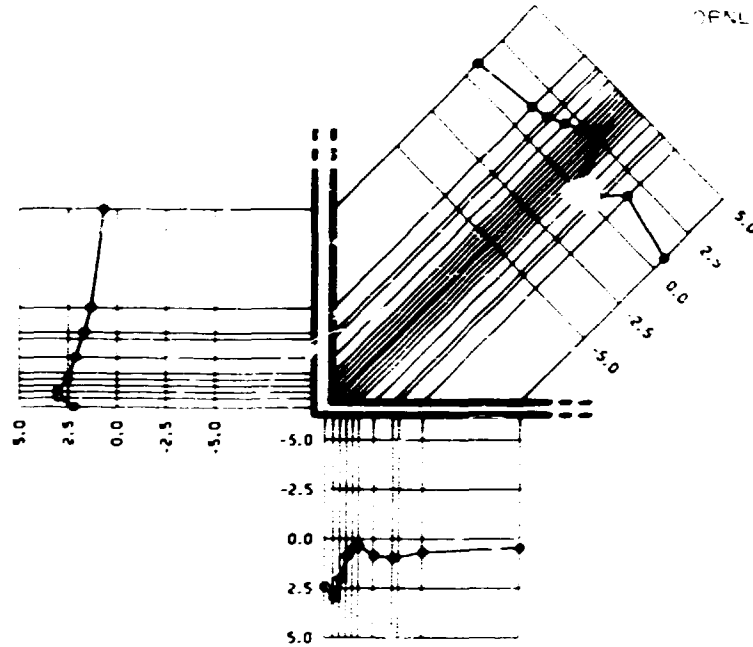


Fig. A137. Normalized stress intensity along stringer 3 for bending moment loading $M1-1$.

GENL DWG 75 14003

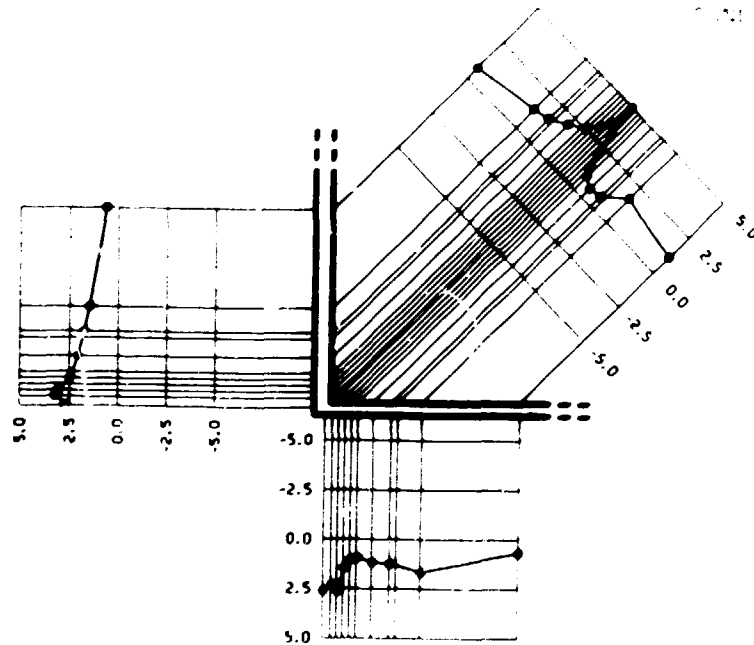


Fig. A138. Normalized stress intensity along stringer 5 for bending moment loading $M1-1$.

ORNL DWG 75 14324

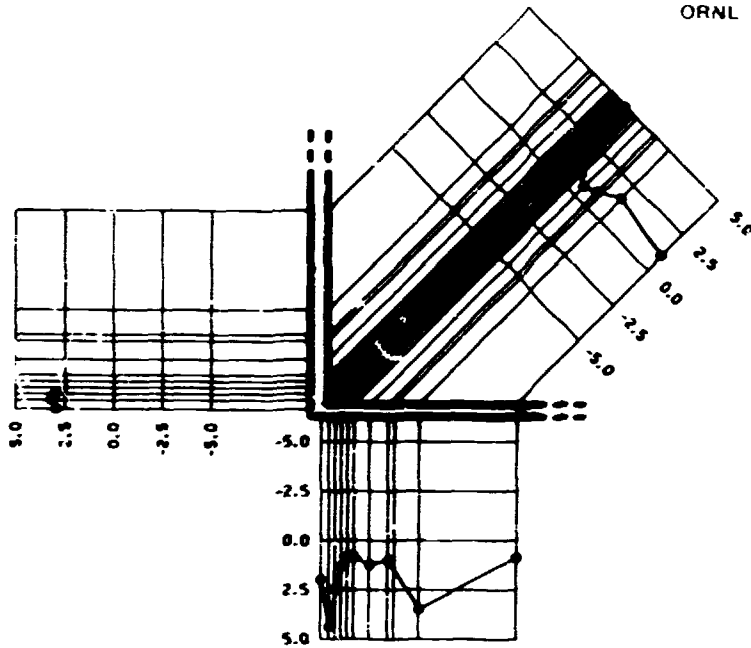


Fig. A139. Normalized stress intensity along stringer 13 for bending moment loading M1-1.

ORNL-DWG 75-14325

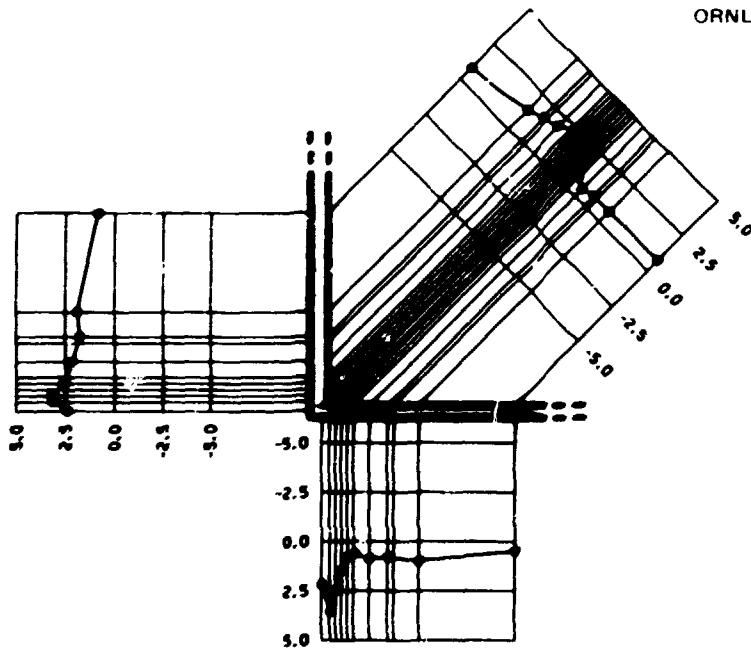


Fig. A140. Normalized stress intensity along stringer 15 for bending moment loading M1-1.

ORNL - DWG 75 14326

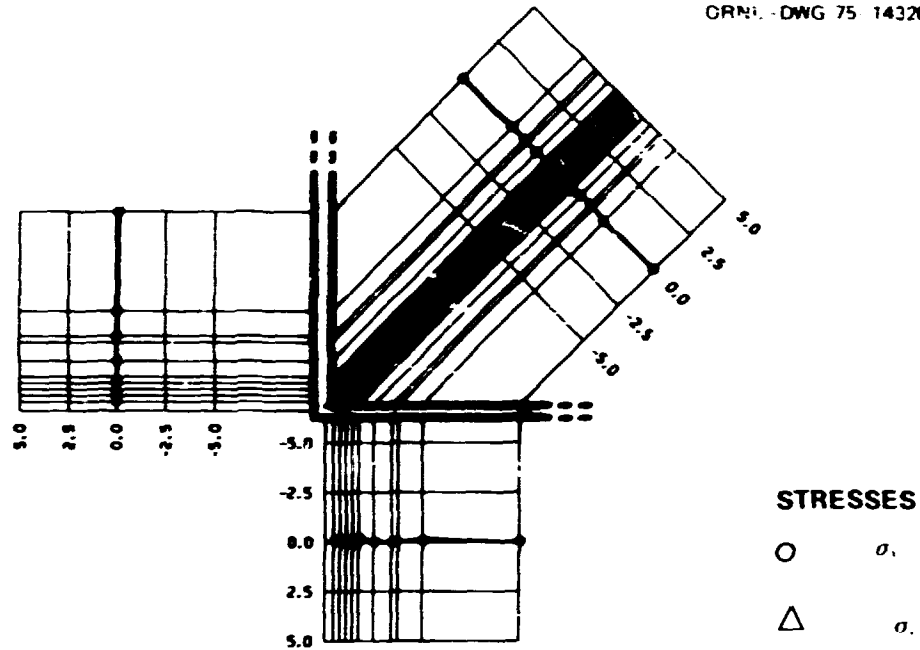


Fig. A141. Normalized membrane stress along stringer 1 for bending moment loading M1-1.

ORNL - DWG 75-14327

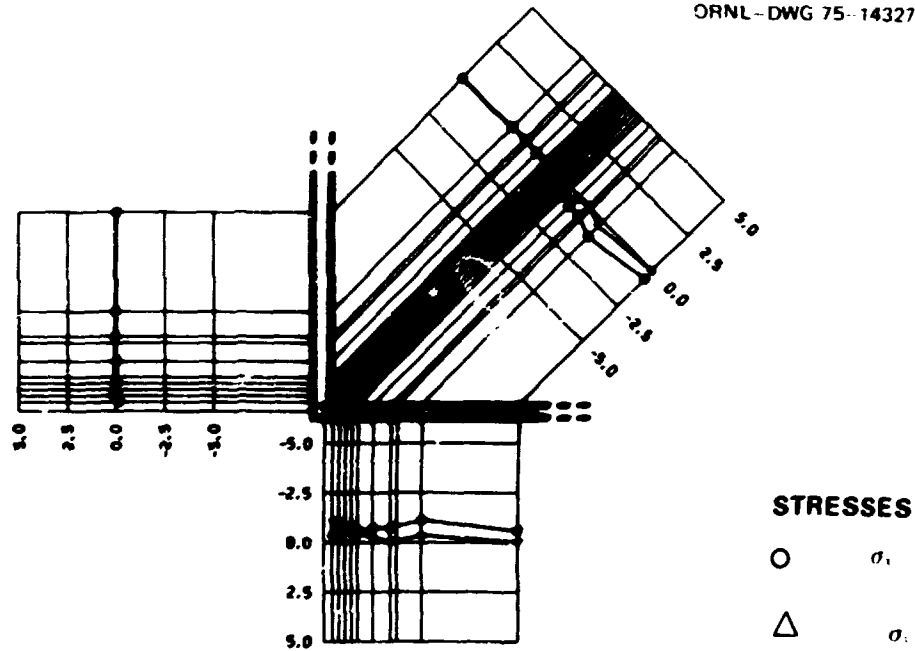


Fig. A142. Normalized membrane stress along stringer 3 for bending moment loading M1-1.

ORNL DWG 75 14328

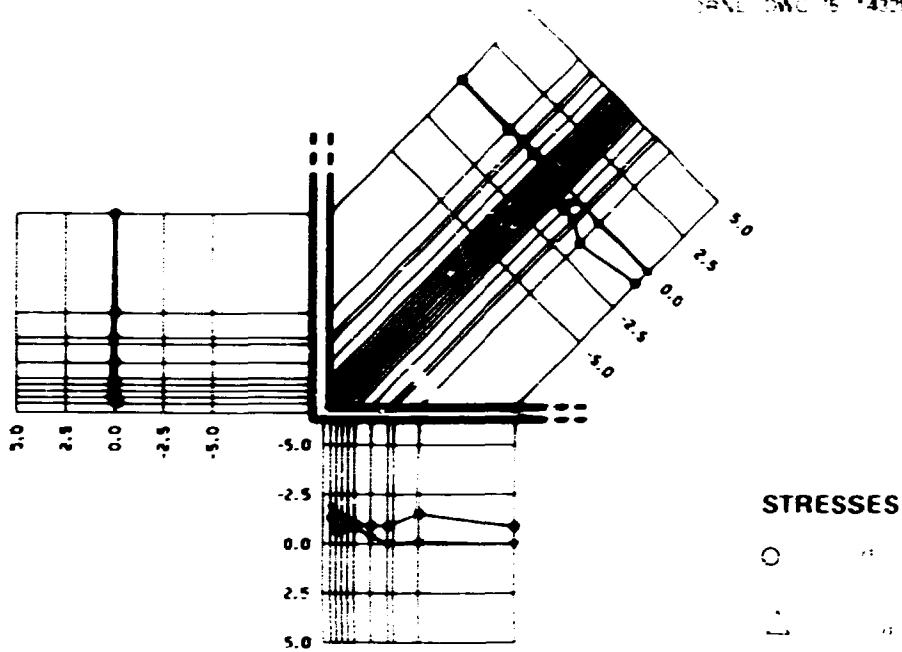


Fig. A143. Normalized membrane stress along stringer 5 for bending moment loading M1-1.

ORNL DWG 75 14329

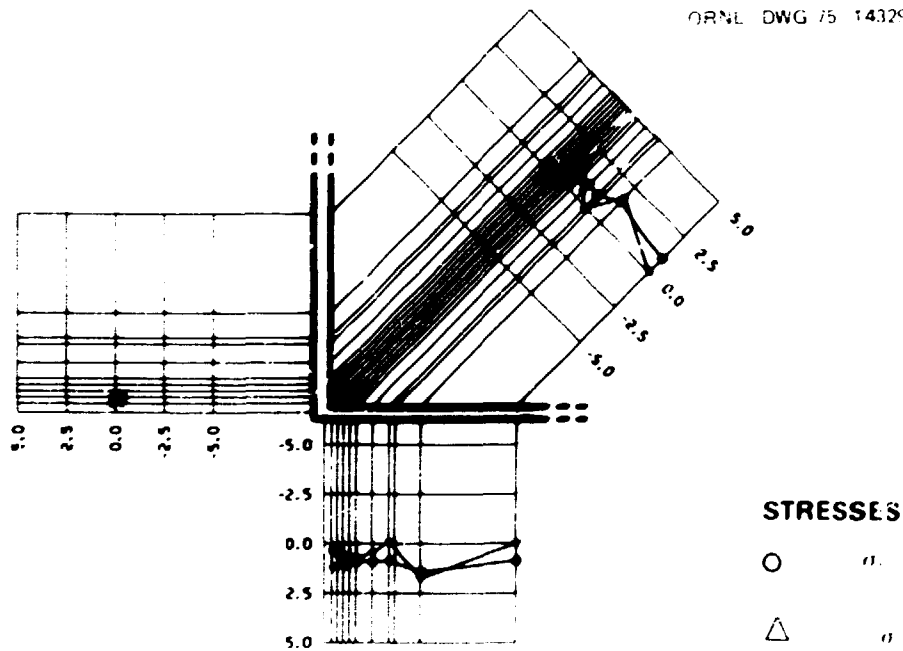


Fig. A144. Normalized membrane stress along stringer 13 for bending moment loading M1-1.

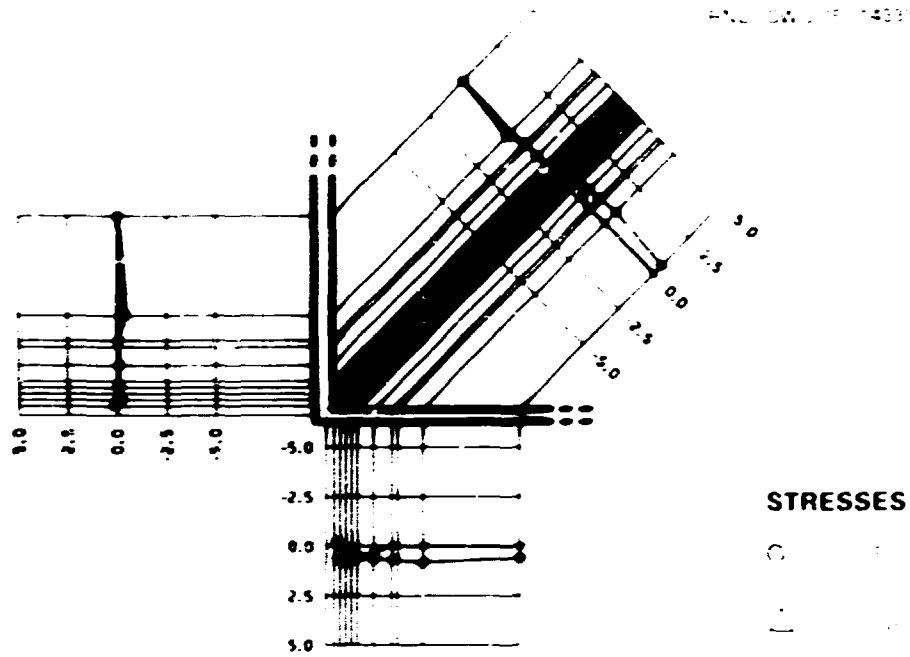


Fig. A145. Normalized membrane stress along stringer 15 for bending moment loading M_1-1 .

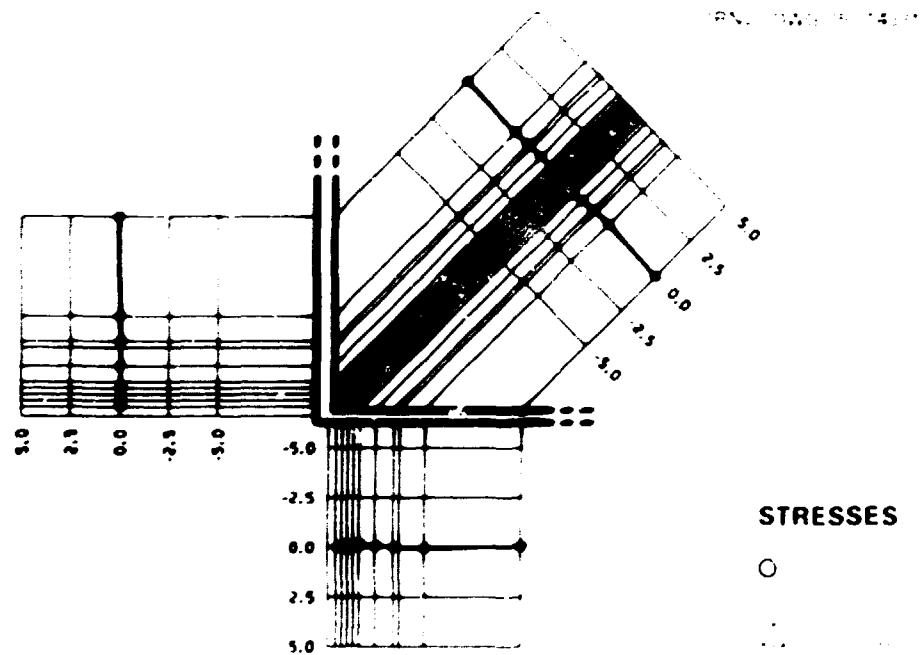


Fig. A146. Normalized bending stress along stringer 1 for bending moment loading M_1-1 .

ORNL DWG 75 14332

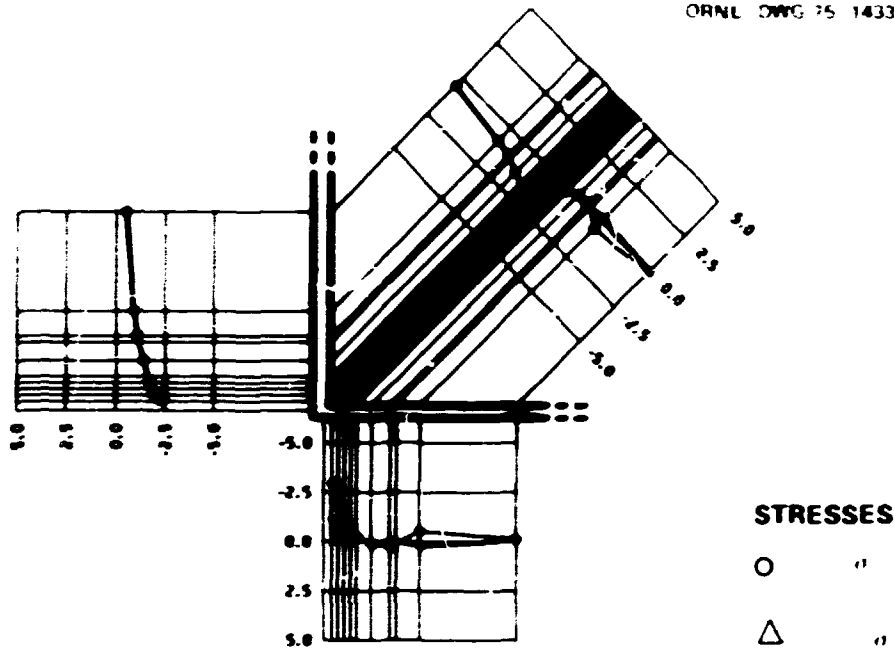


Fig. A147. Normalized bending stress along stringer 3 for bending moment loading M1-1.

ORNL DWG 75 14333

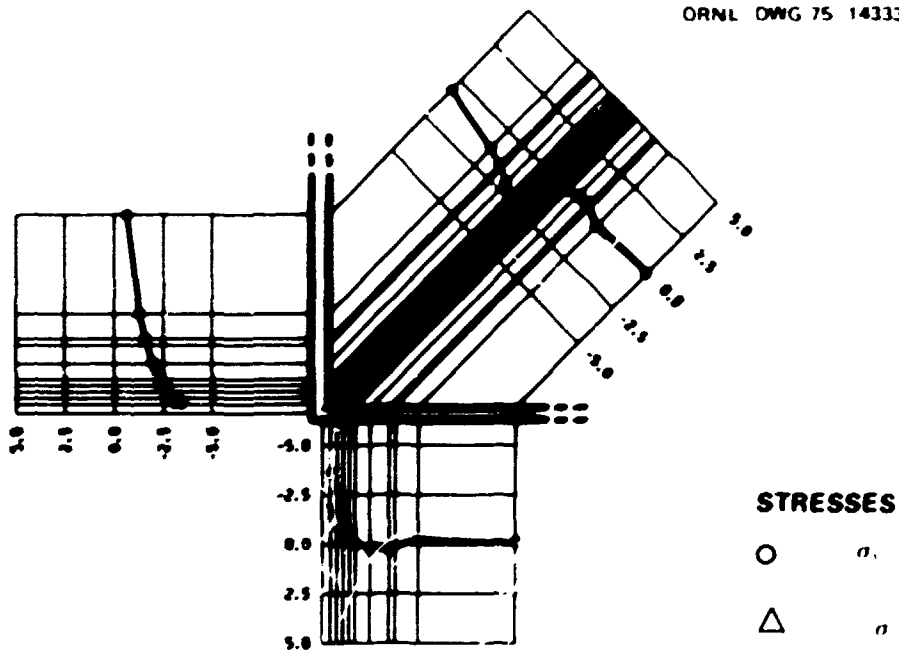


Fig. A148. Normalized bending stress along stringer 5 for bending moment loading M1-1.

ORNL DWG 75 14334

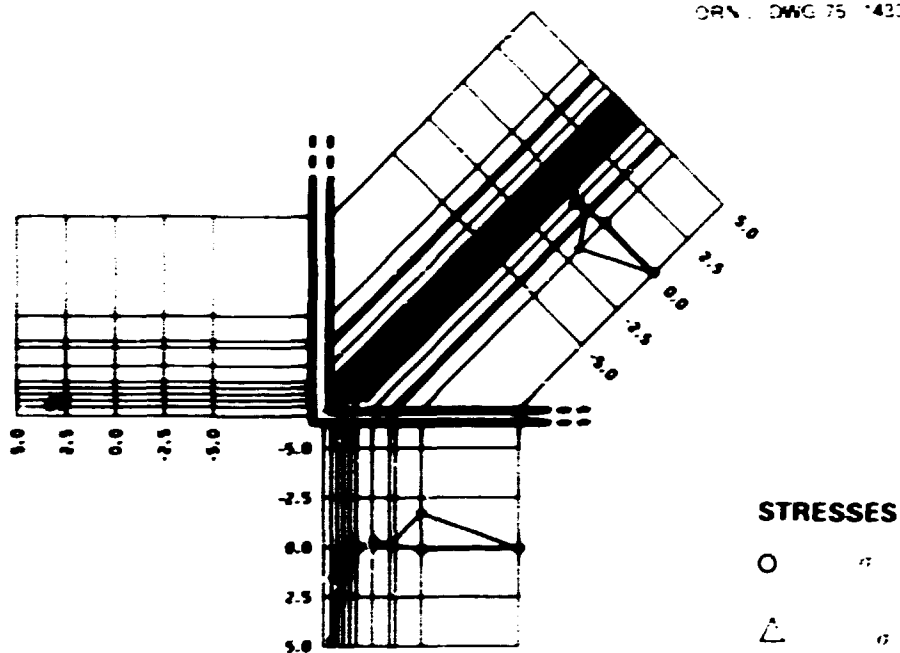


Fig. A149. Normalized bending stress along stringer 13 for bending moment loading M1-1.

ORNL DWG 75 14335

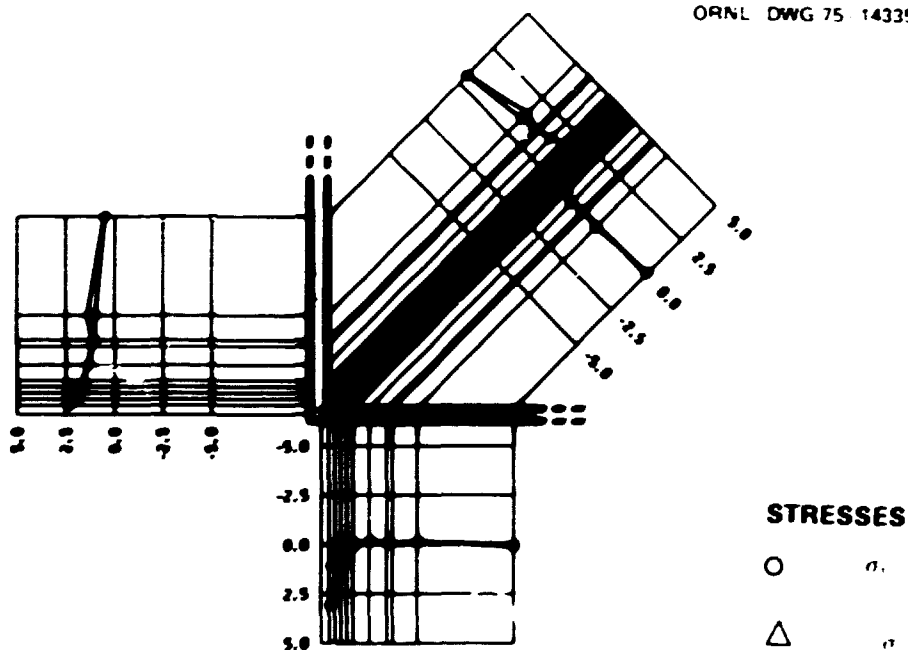


Fig. A150. Normalized bending stress along stringer 15 for bending moment loading M1-1.

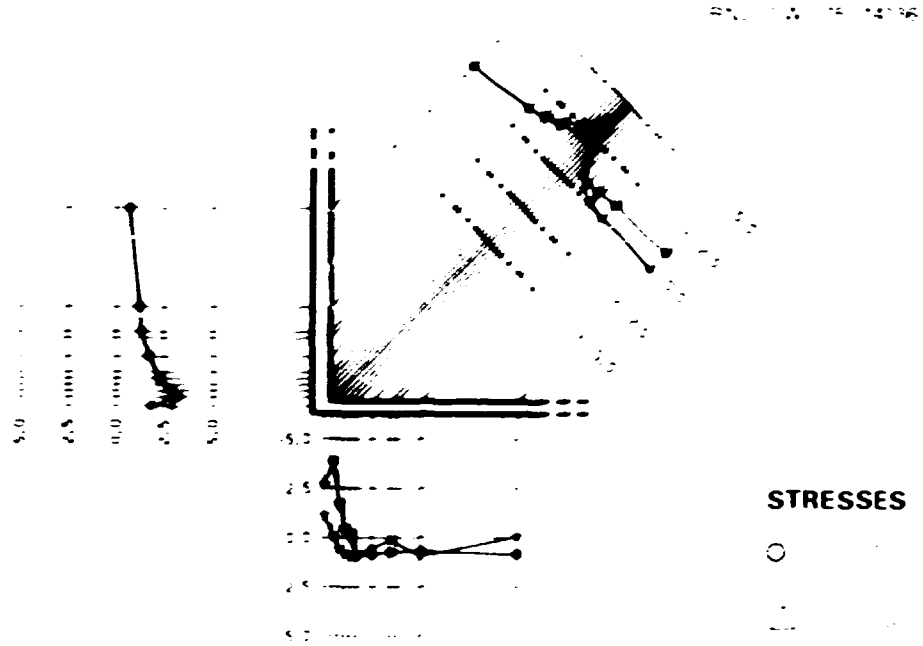


Fig. A151. Normalized total stress along stringer 1 for bending moment loading M2-1.

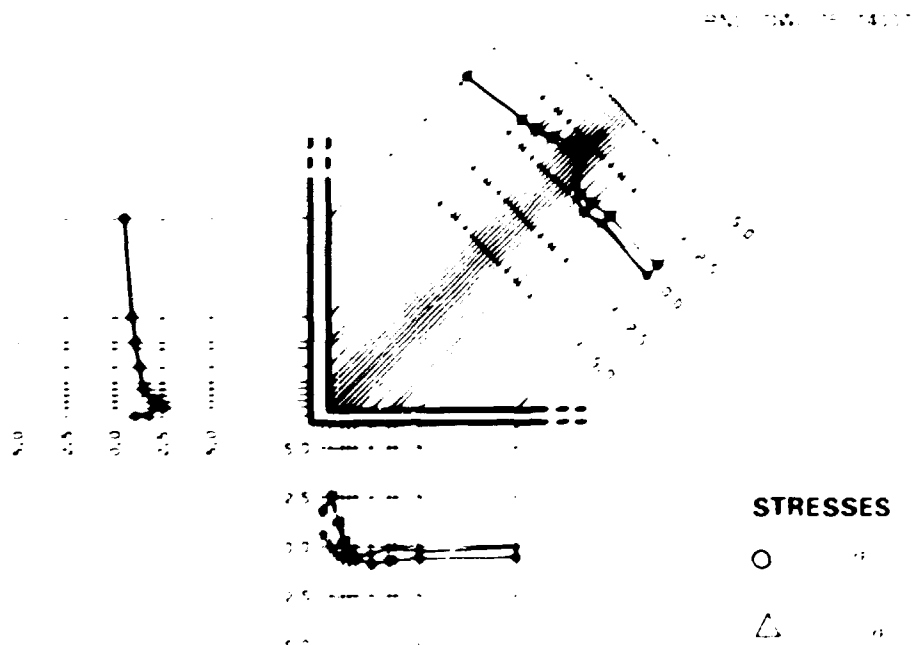


Fig. A152. Normalized total stress along stringer 3 for bending moment loading M2-1.

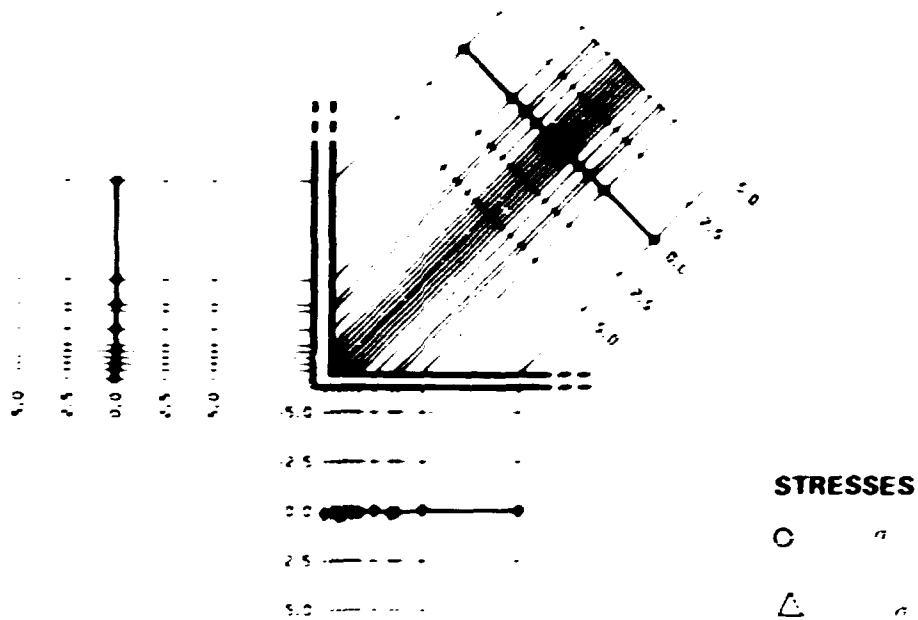


Fig. A153. Normalized total stress along stringer 5 for bending moment loading M2-1.

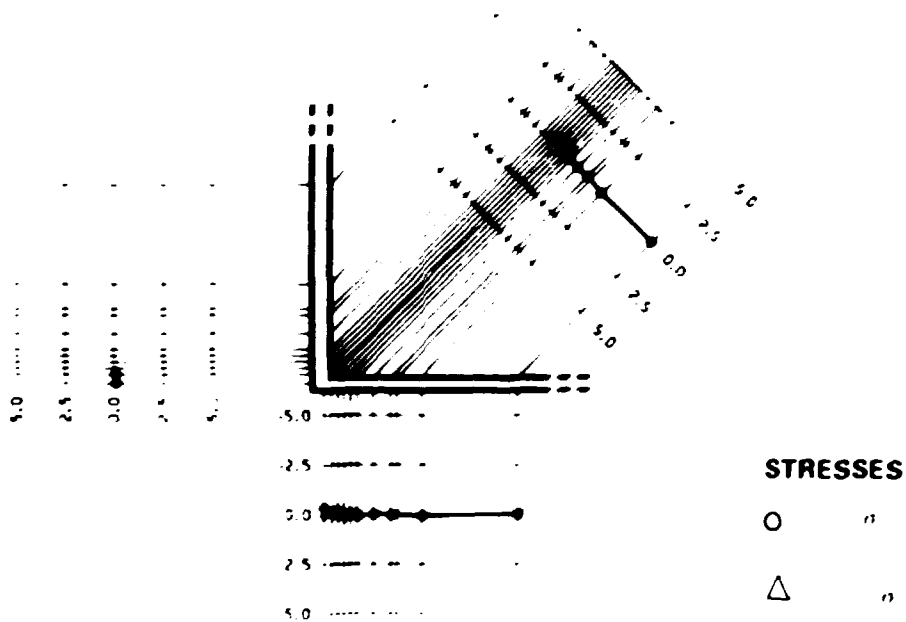


Fig. A154. Normalized total stress along stringer 13 for bending moment loading M2-1.

ORNL DWG 75 14340

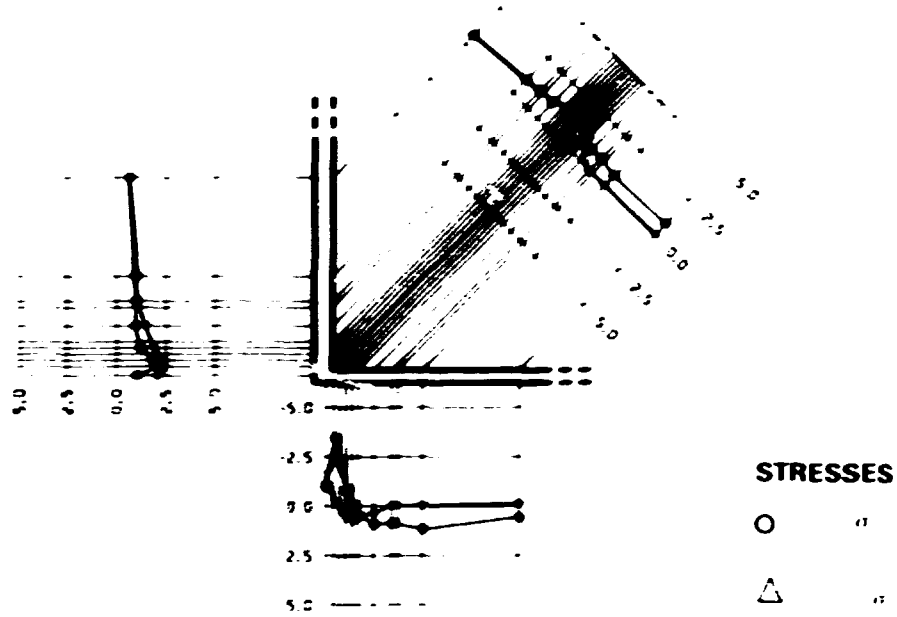


Fig. A155. Normalized total stress along stringer 15 for bending moment loading M2-1.

ORNL DWG 75 14341

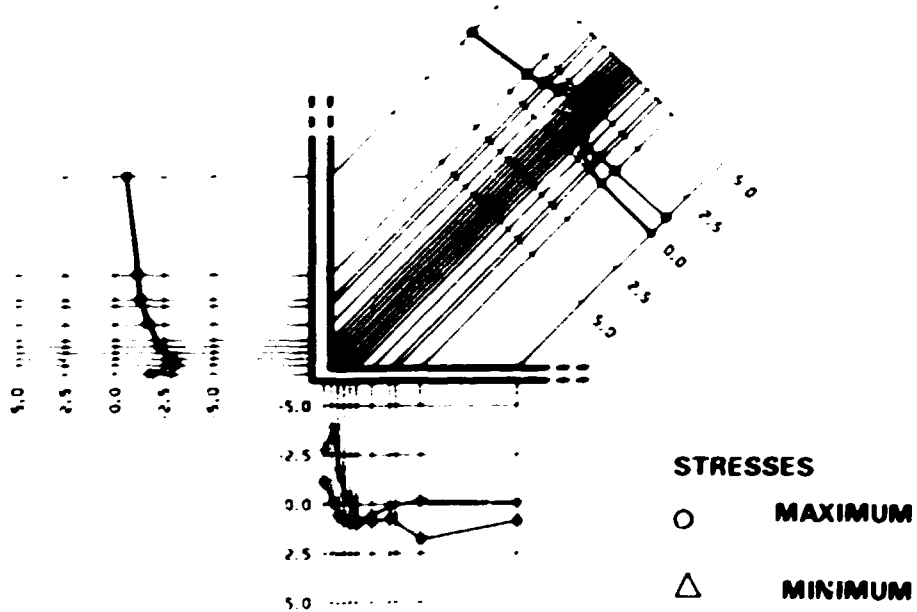


Fig. A156. Normalized principal stress along stringer 1 for bending moment loading M2-1.

ORNL DWG 75 14342

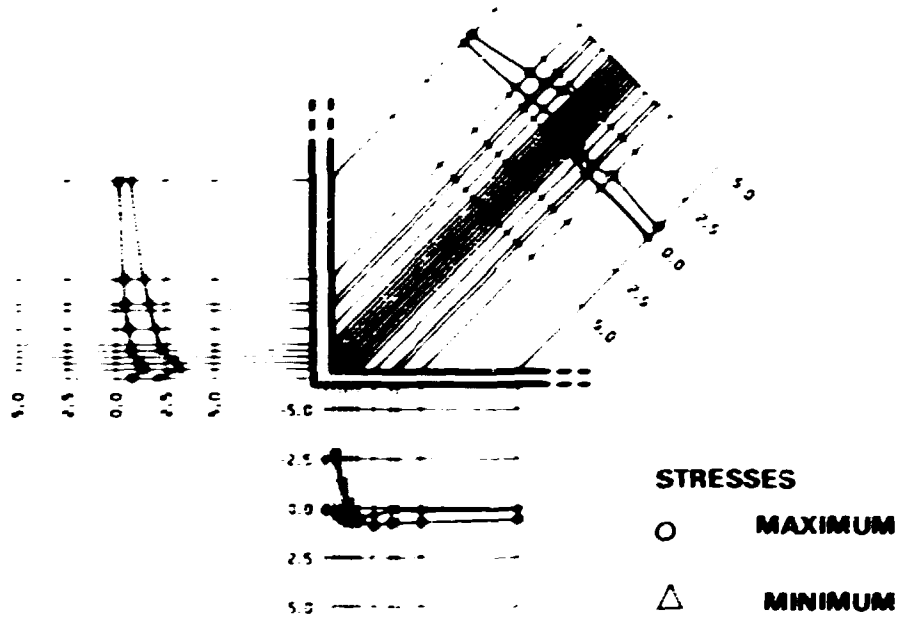


Fig. A157. Normalized principal stress along stringer 3 for bending moment loading M2-1.

ORNL DWG 75 14343

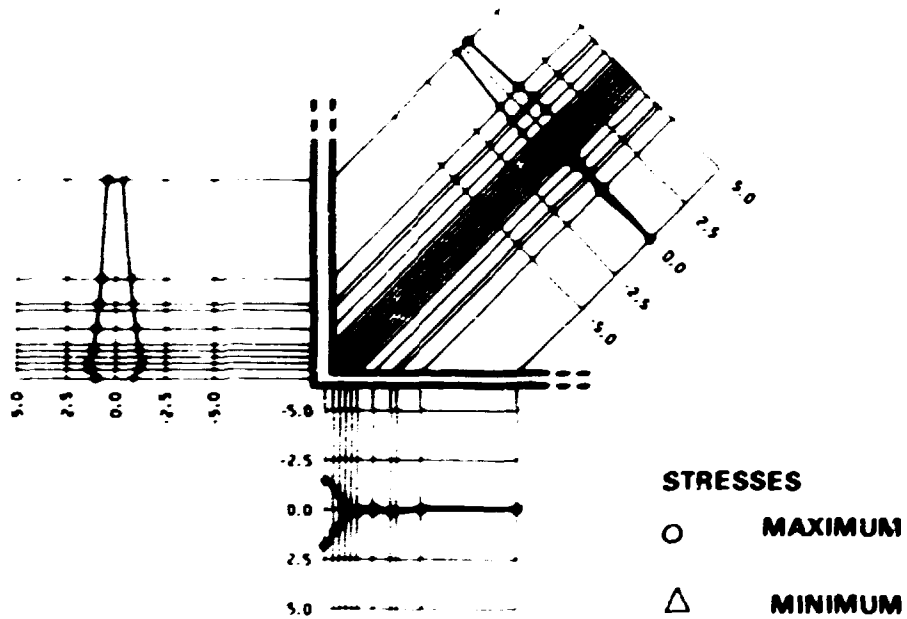


Fig. A158. Normalized principal stress along stringer 5 for bending moment loading M2-1.

ORNL DWG 75 14344

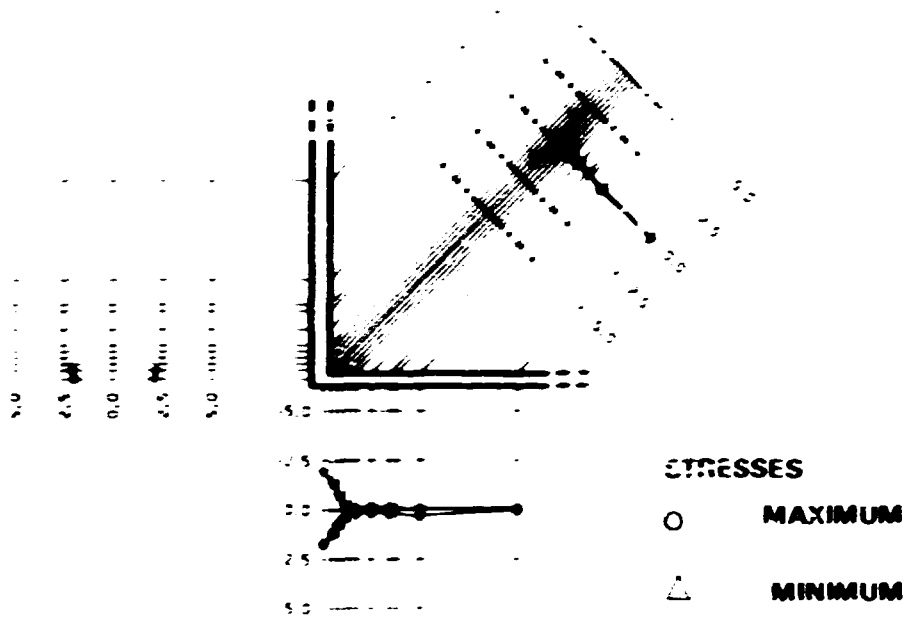


Fig. A159. Normalized principal stress along stringer 13 for bending moment loading M2-1.

ORNL DWG 75 14345

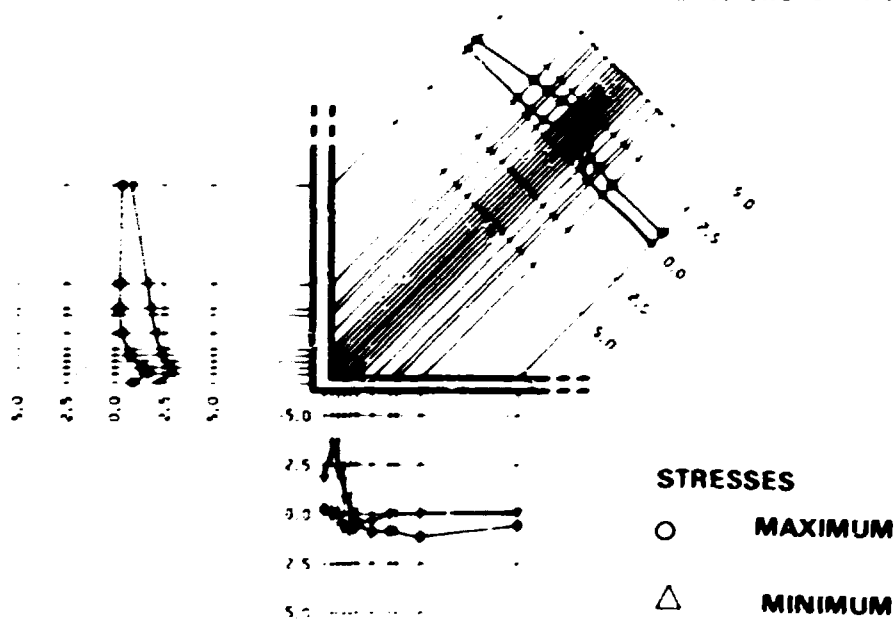


Fig. A160. Normalized principal stress along stringer 15 for bending moment loading M2-1.

ORNL DWG 75-14346

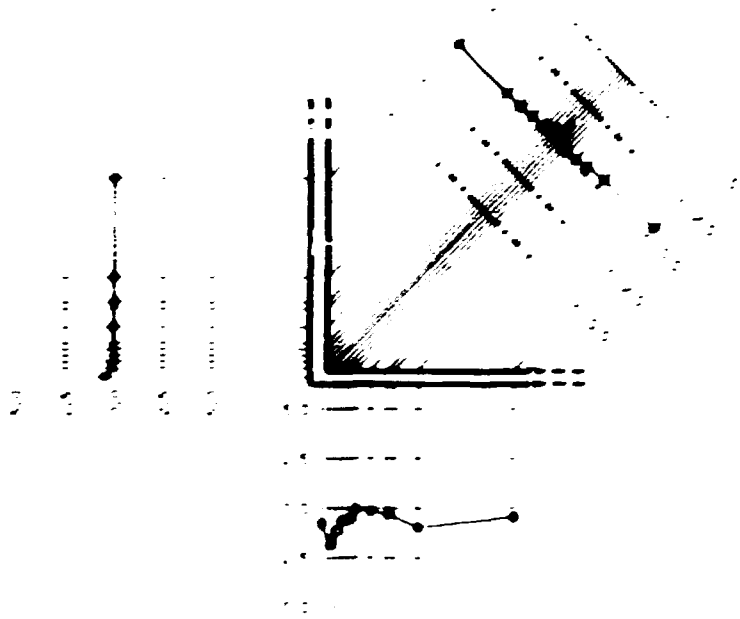


Fig. A161. Normalized shear stress along stringer 1 for bending moment loading M2-1.

ORNL DWG 75-14347

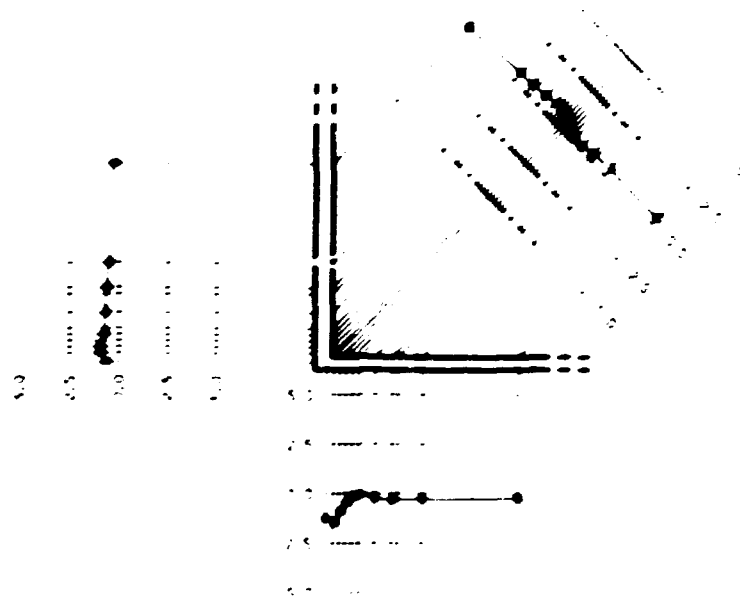


Fig. A162. Normalized shear stress along stringer 3 for bending moment loading M2-1.

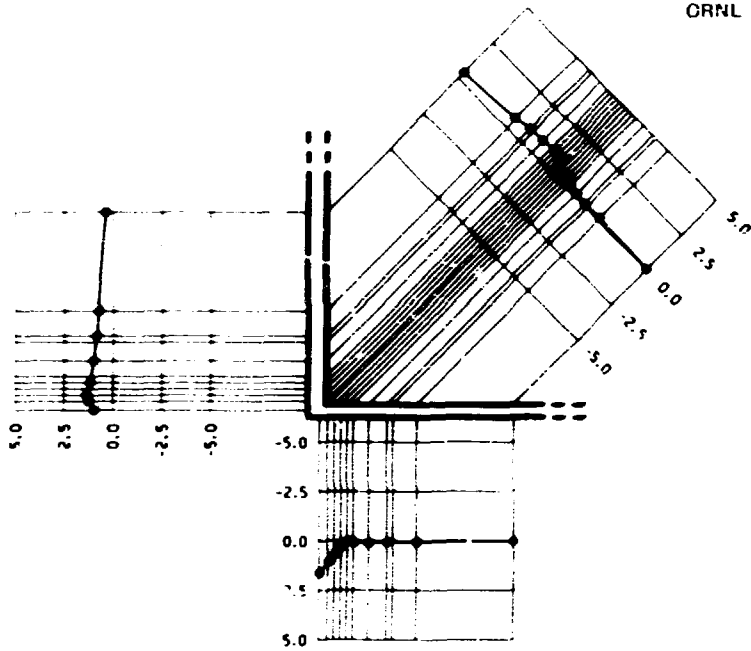


Fig. A163. Normalized shear stress along stringer 5 for bending moment loading M2-1.

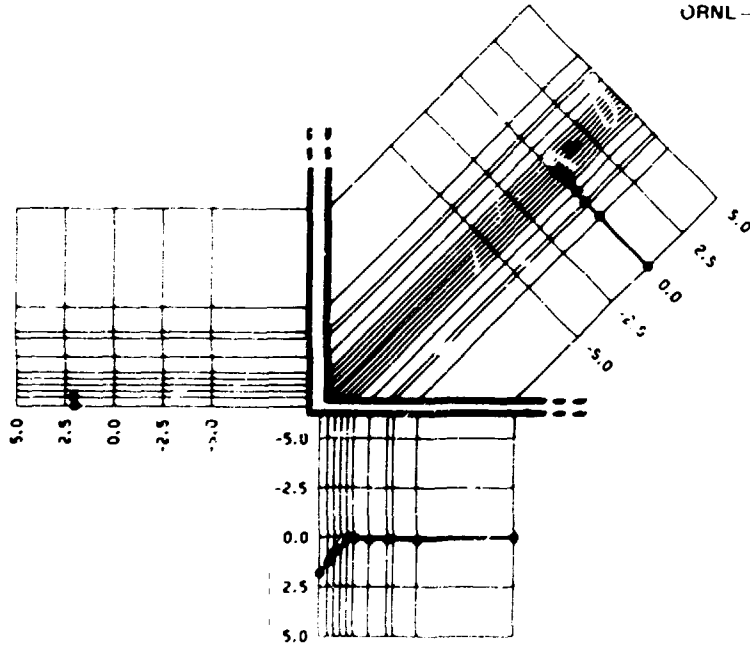


Fig. A164. Normalized shear stress along stringer 13 for bending moment loading M2-1.

ORNL DWG 75 14350

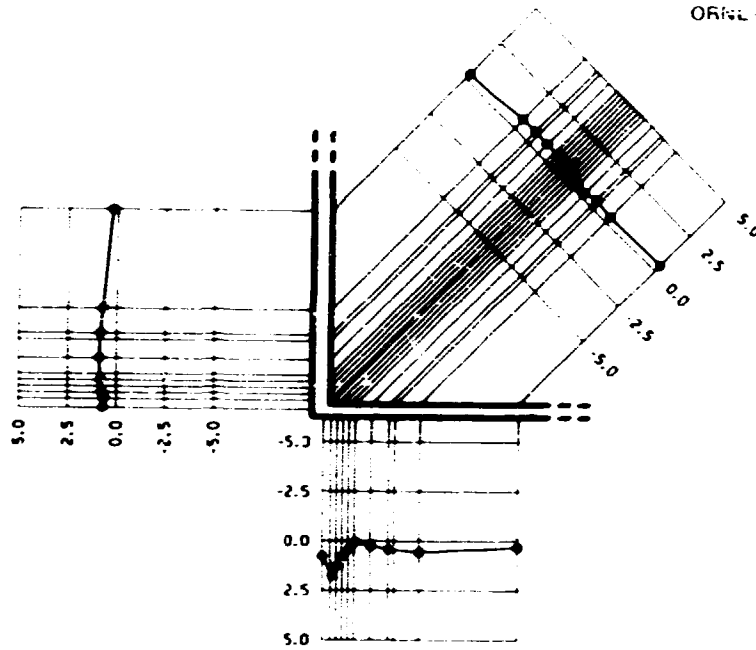


Fig. A165. Normalized shear stress along stringer 15 for bending moment loading M2-1.

ORNL DWG 75 14351

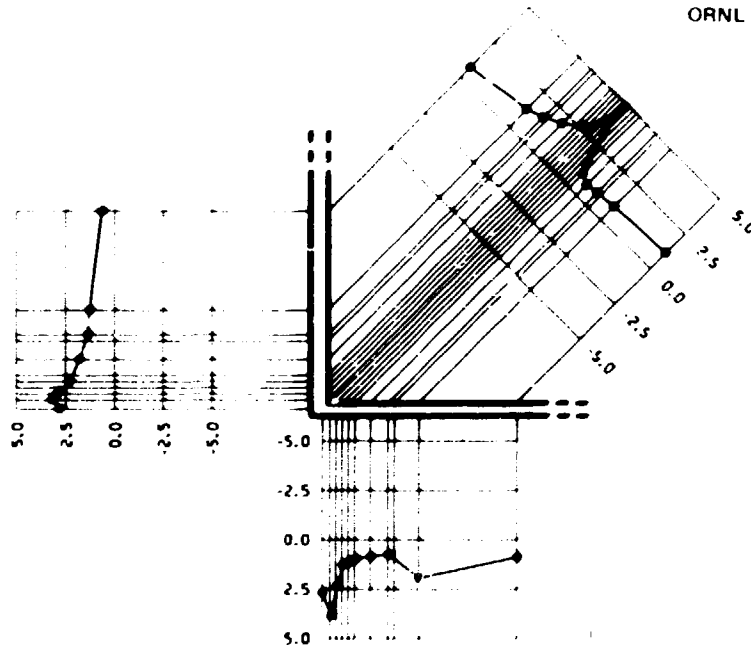


Fig. A166. Normalized stress intensity along stringer 1 for bending moment loading M2-..

OPNL DWG 75 14352

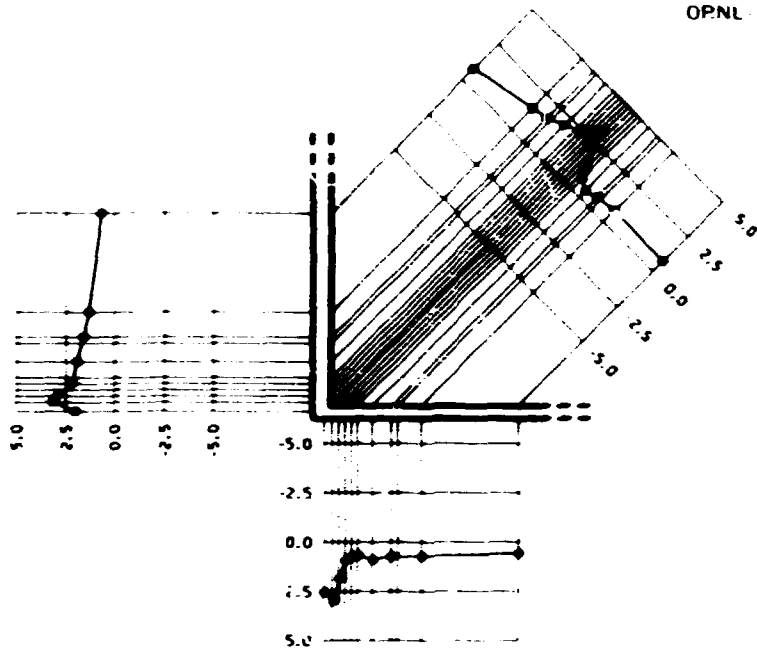


Fig. A167. Normalized stress intensity along stringer 3 for bending moment loading M2-1.

ORNL DWG 75 14353

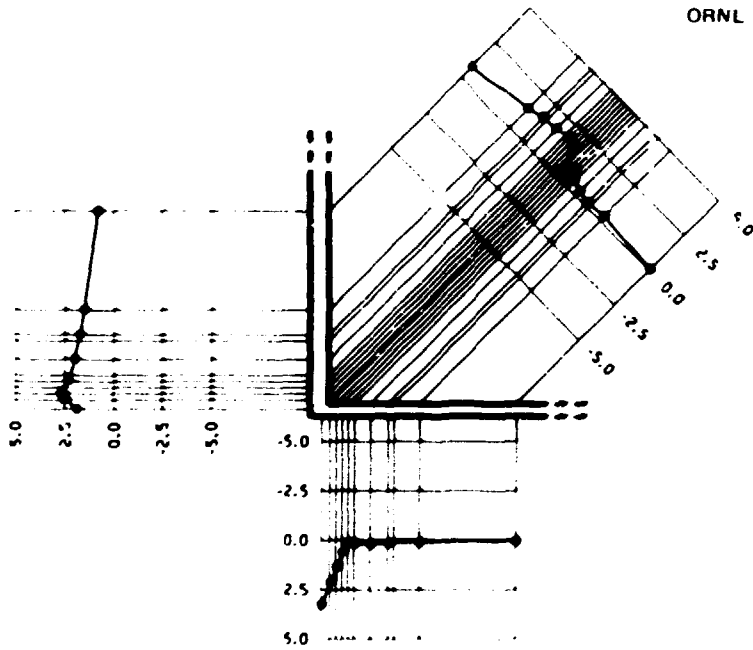


Fig. A168. Normalized stress intensity along stringer 5 for bending moment loading M2-1.

ORNL - DWG 75-14354

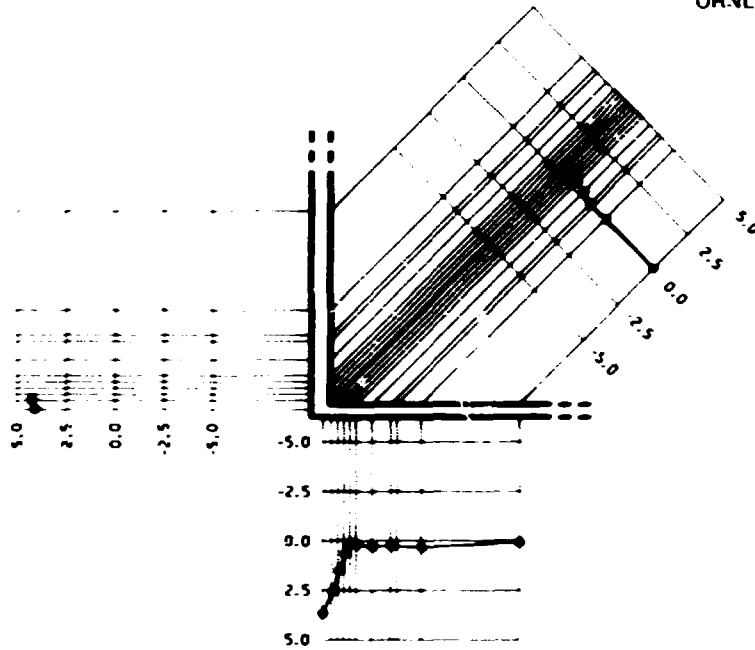


Fig. A169. Normalized stress intensity along stringer 13 for bending moment loading M2-1.

ORNL DWG 75 14355

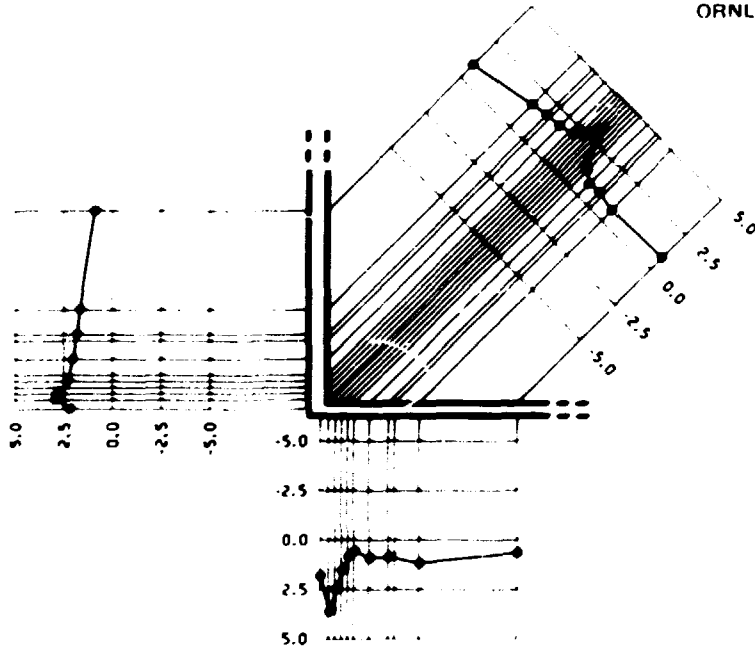


Fig. A170. Normalized stress intensity along stringer 15 for bending moment loading M2-1.

ORNL DWG 75-14356

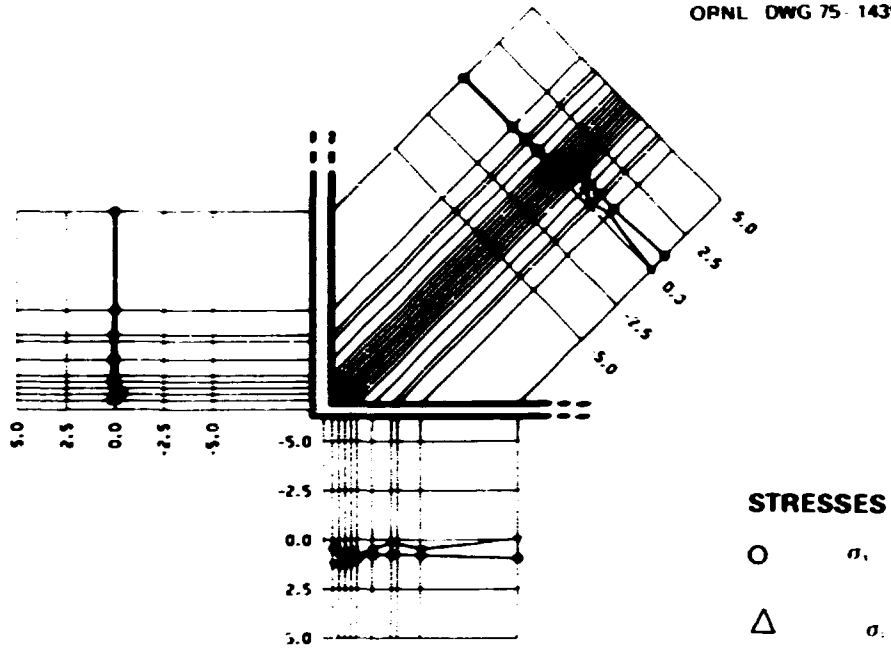


Fig. A171. Normalized membrane stress along stringer 1 for bending moment loading M2-1.

ORNL-DWG 75-14357

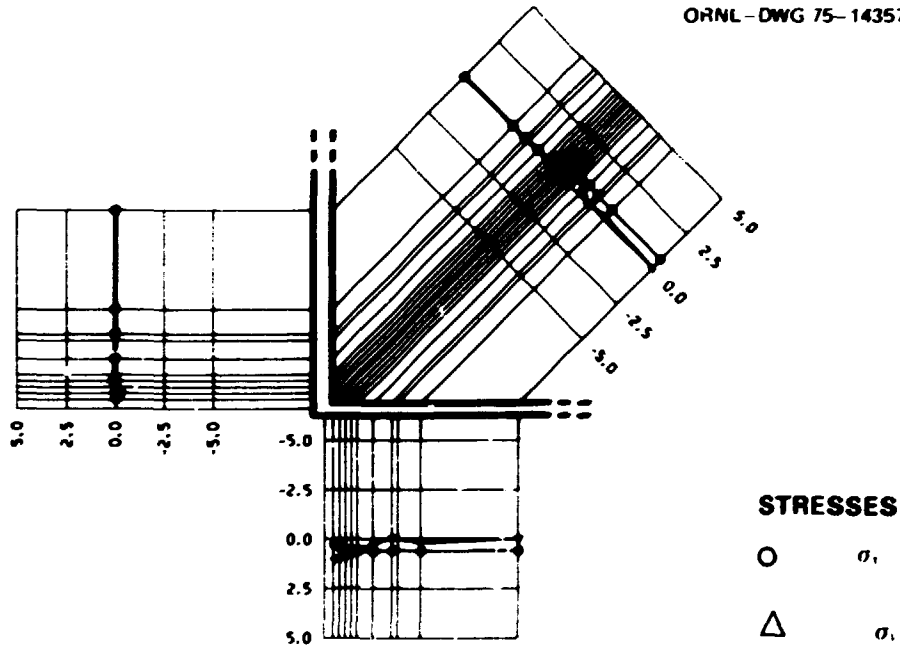


Fig. A172. Normalized membrane stress along stringer 3 for bending moment loading M2-1.

ORNL DWG 75-14358

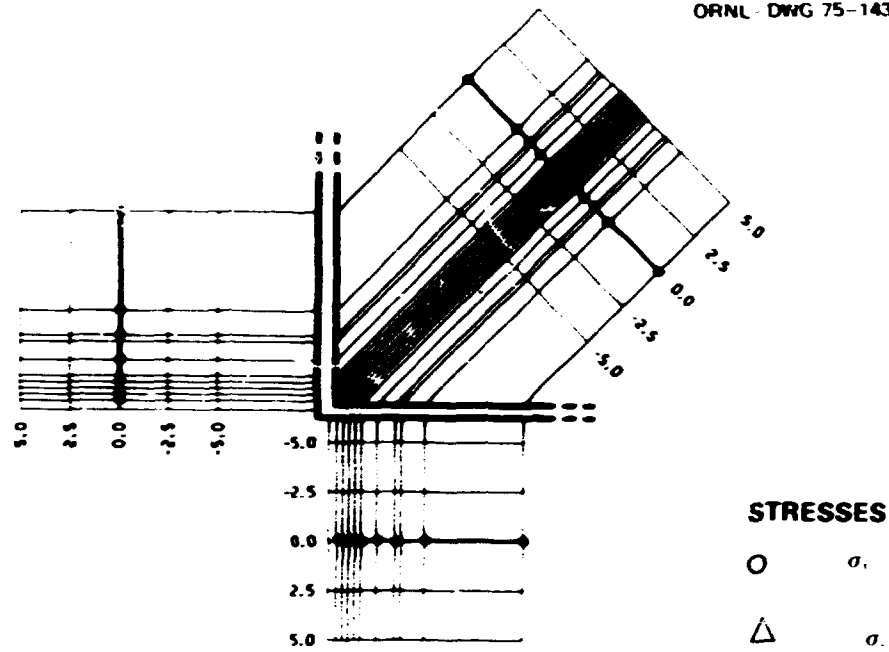


Fig. A173. Normalized membrane stress along stringer 5 for bending moment loading M2-1.

ORNL-DWG 75-14359

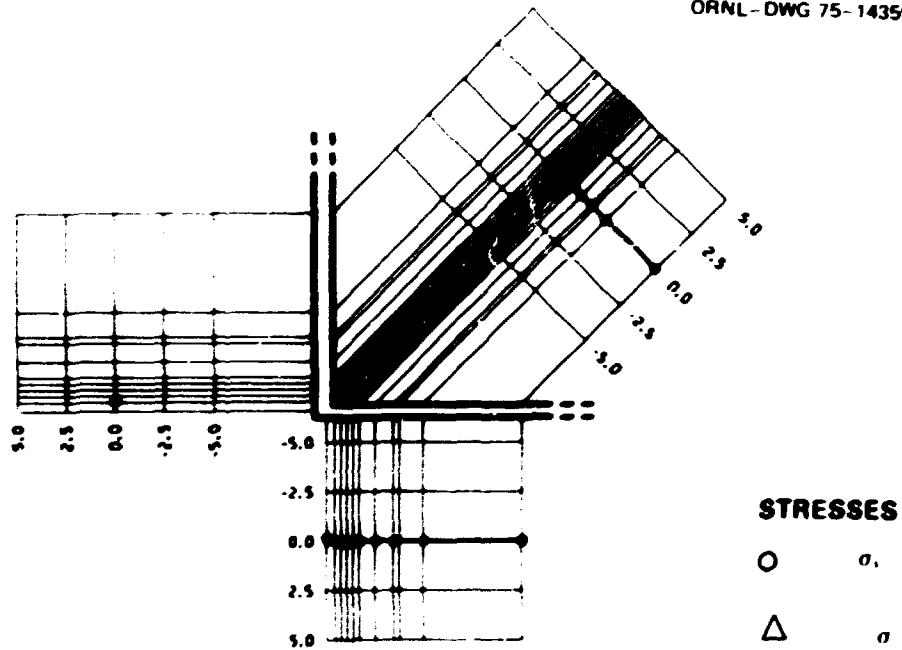


Fig. A174. Normalized membrane stress along stringer 13 for bending moment loading M2-1.

ORNL-DWG 75-14360

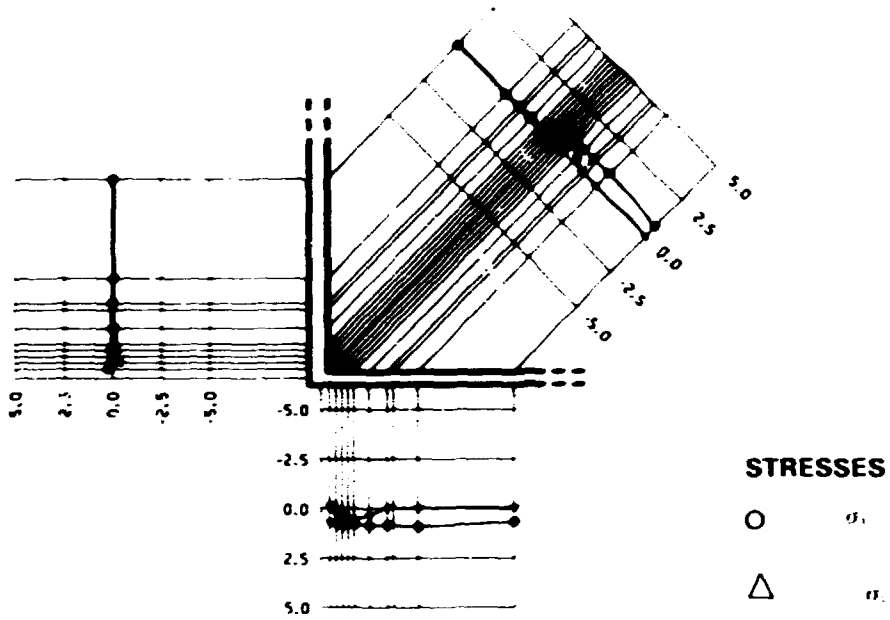


Fig. A175. Normalized membrane stress along stringer 15 for bending moment loading M2-1.

ORNL-DWG 75 14361

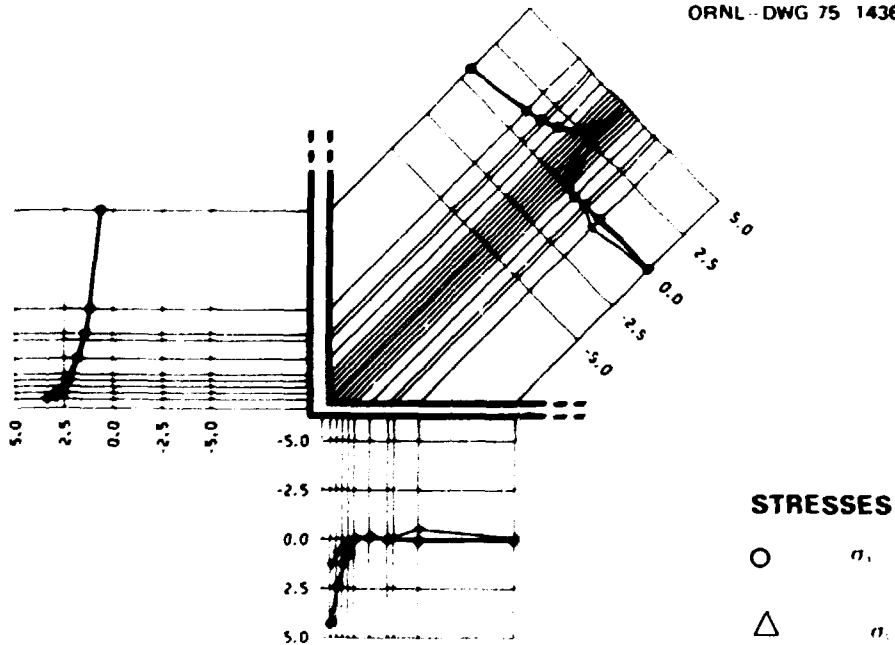


Fig. A176. Normalized bending stress along stringer 1 for bending moment loading M2-1.

ORNL DWG 75-14362

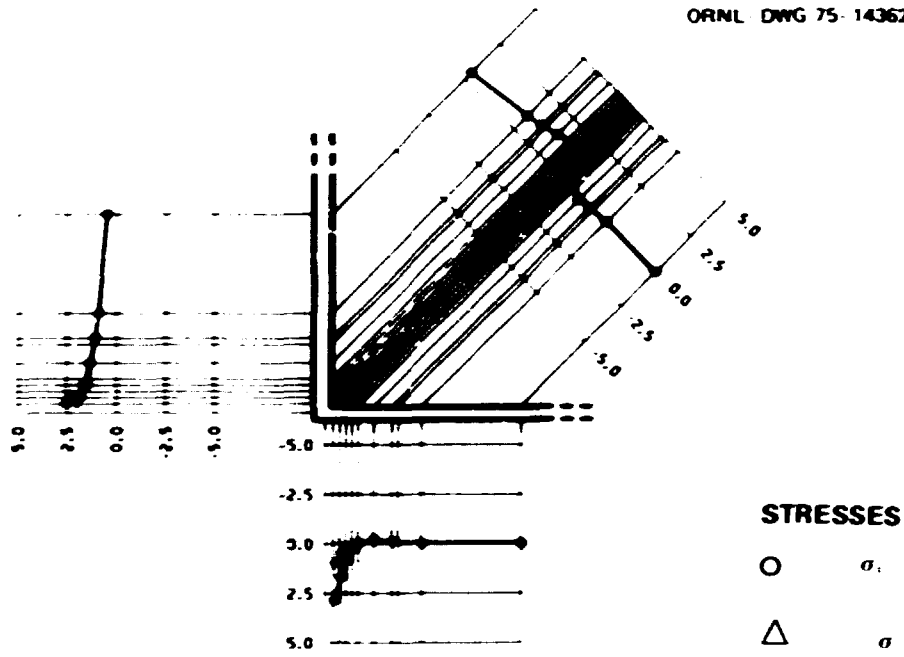


Fig. A177. Normalized bending stress along stringer 3 for bending moment loading M2-1.

ORNL DWG 75-14363

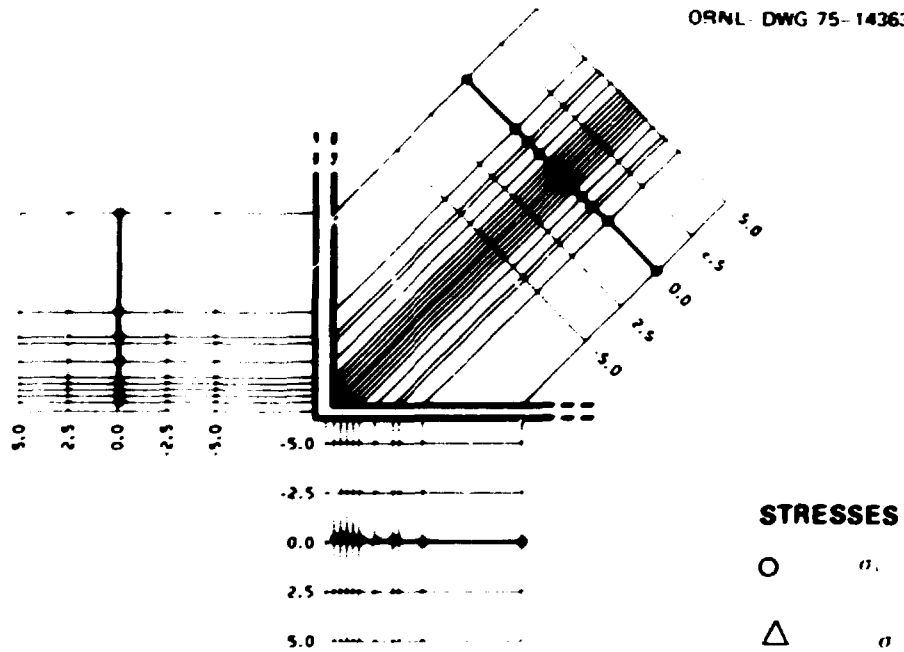


Fig. A178. Normalized bending stress along stringer 5 for bending moment loading M2-1.

ORNL - DWG 75-14364

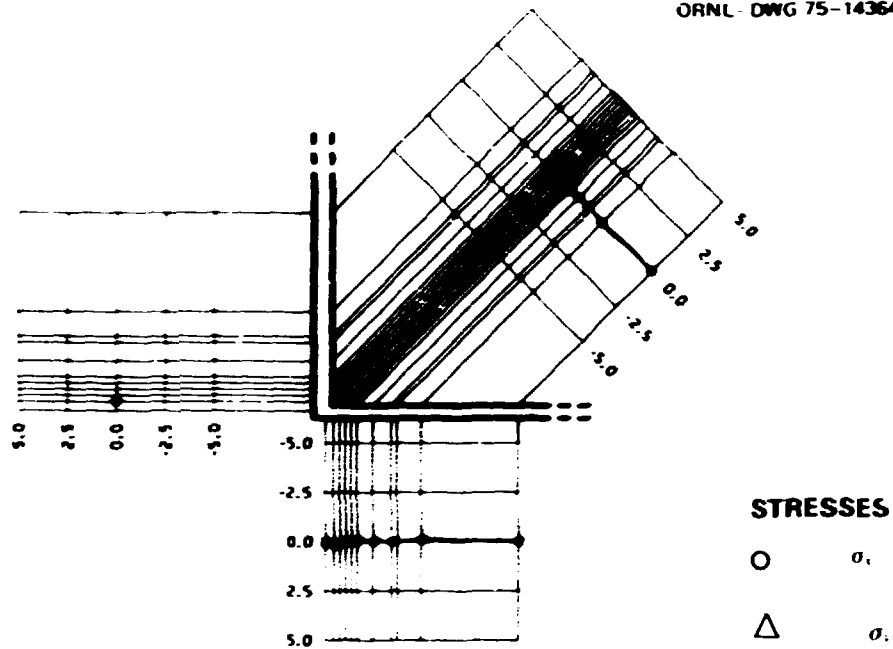


Fig. A179. Normalized bending stress along stringer 13 for bending moment loading M_z-1 .

ORNL - DWG 75-14365

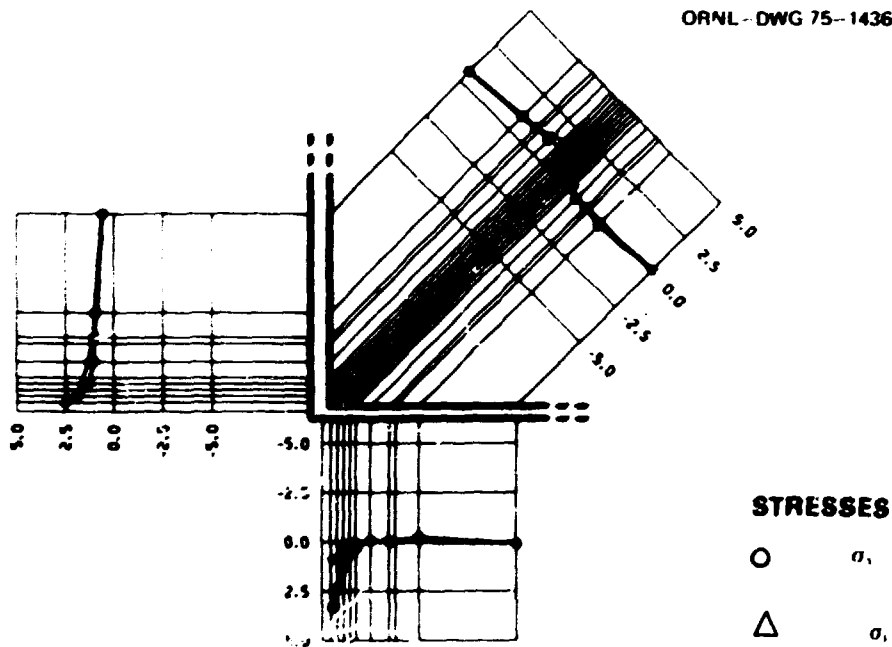


Fig. A180. Normalized bending stress along stringer 15 for bending moment loading M_2-1 .

ORNL DWG 75 14366

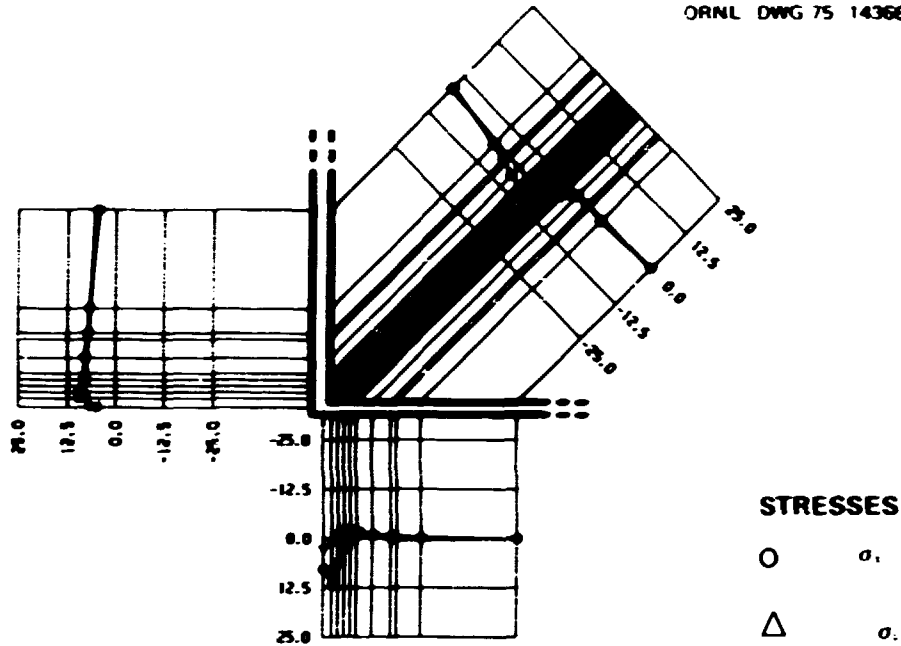


Fig. A181. Normalized total stress along stringer 1 for axial load on nozzle 2.

ORNL-DWG 75-14367

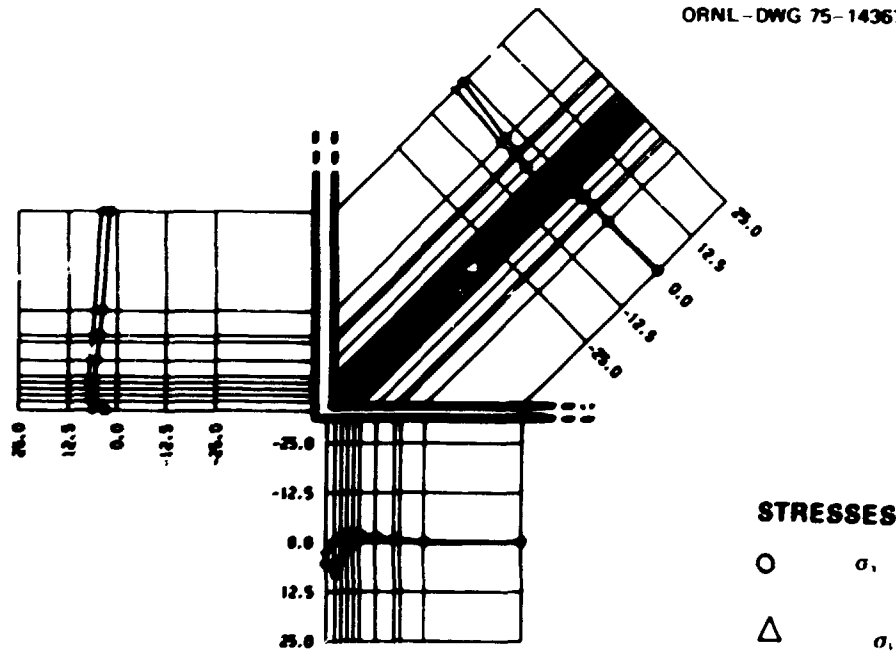


Fig. A182. Normalized total stress along stringer 3 for axial load on nozzle 2.

ORNL DWG 75 14368

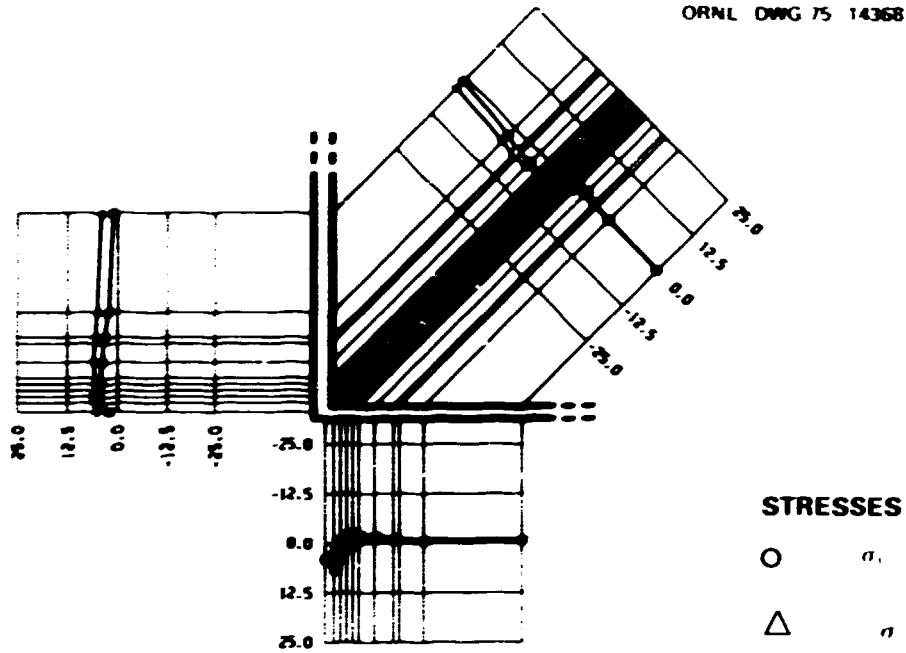


Fig. A183. Normalized total stress along stringer 5 for axial load on nozzle 2.

ORNL DWG 75 14369

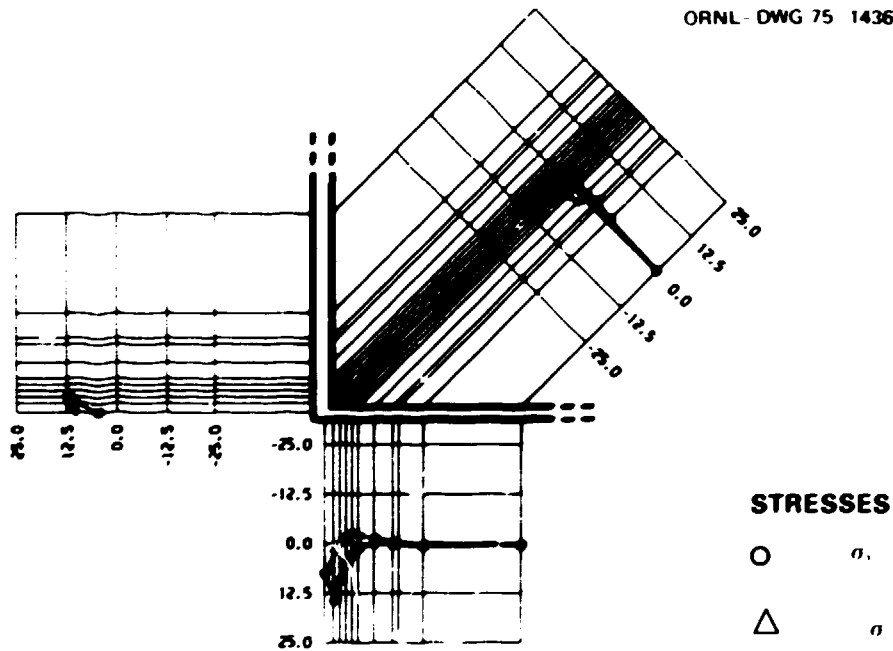


Fig. A184. Normalized total stress along stringer 13 for axial load on nozzle 2.

ORNL DWG 75 14370

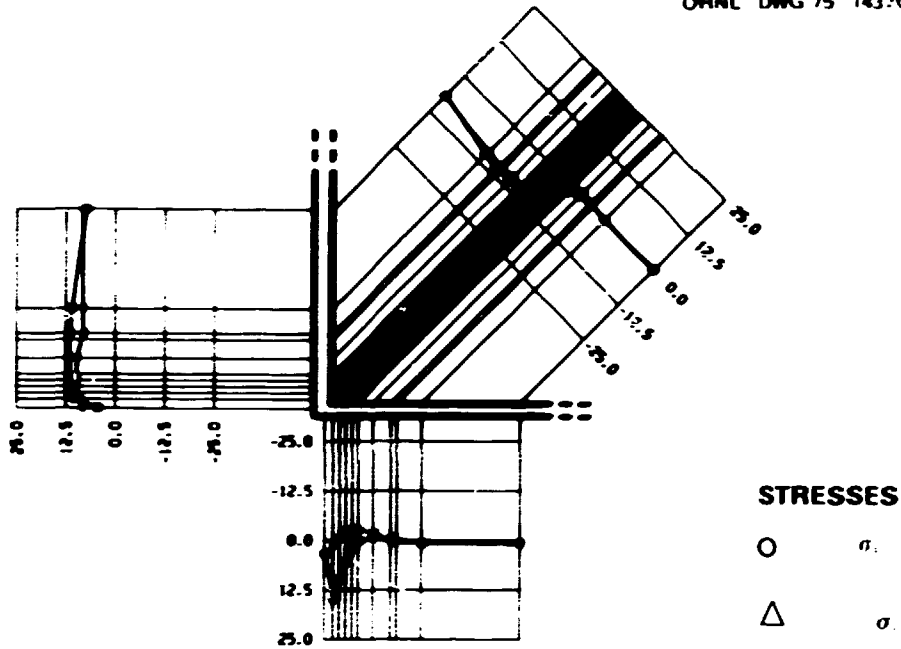


Fig. A185. Normalized total stress along stringer 15 for axial load on nozzle 2.

ORNL DWG 75-14371

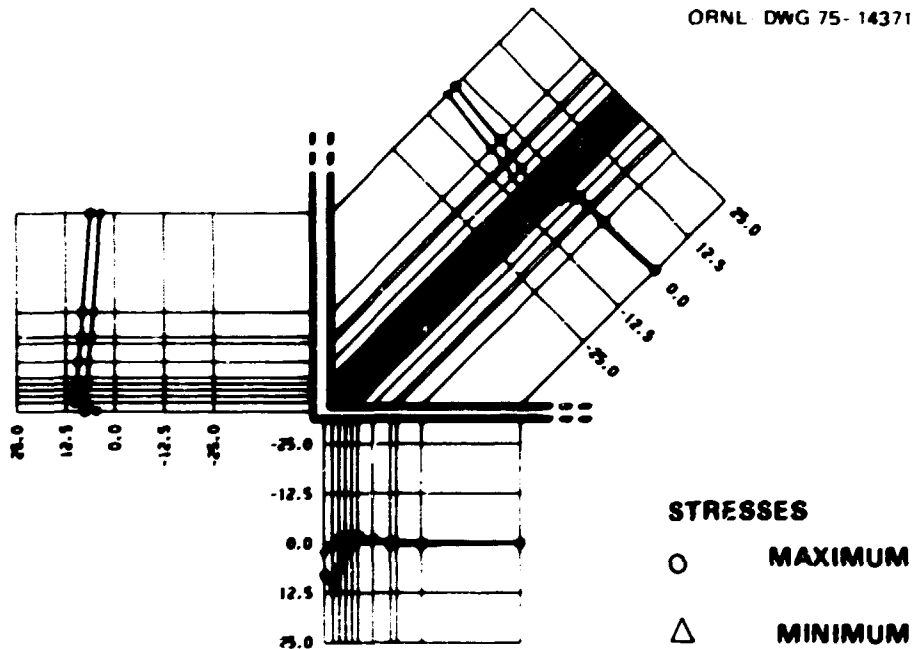


Fig. A186. Normalized principal stress along stringer 1 for axial load on nozzle 2.

ORNL DWG 75-4372

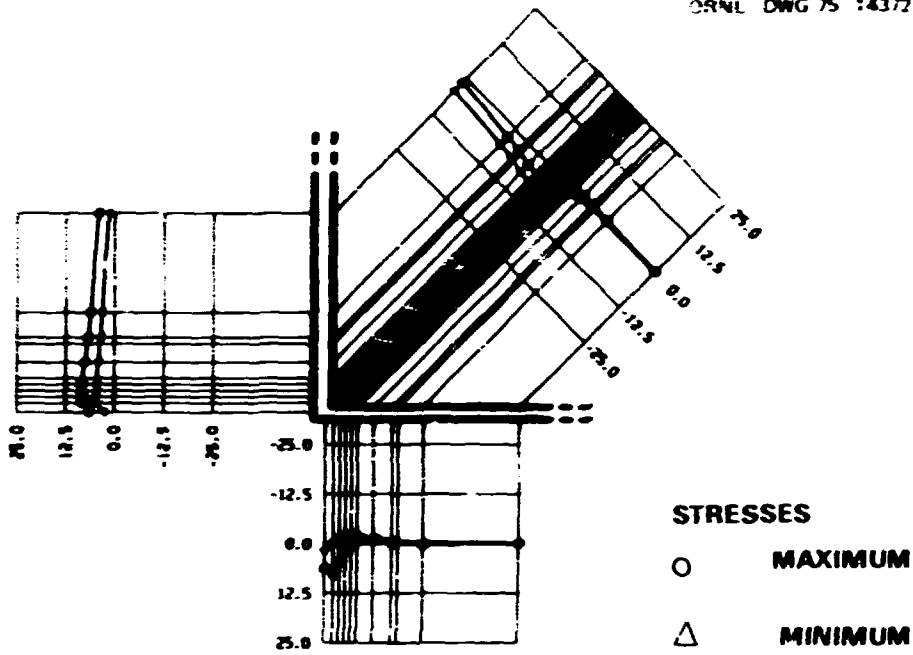


Fig. A187. Normalized principal stress along stringer 3 for axial load on nozzle 2.

ORNL-DWG 75-14373

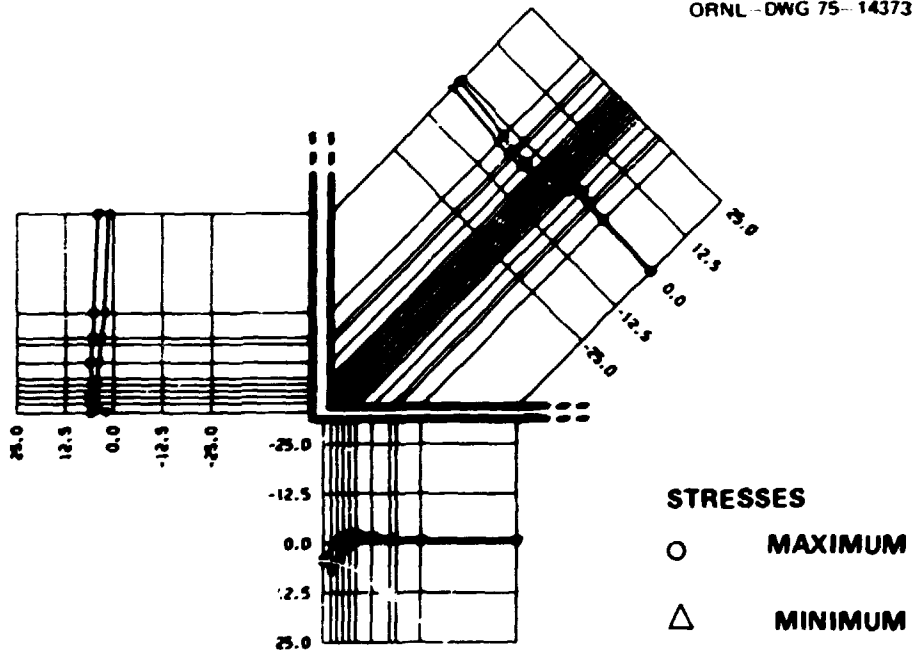


Fig. A188. Normalized principal stress along stringer 5 for axial load on nozzle 2.

ORNL DWG 75-14374

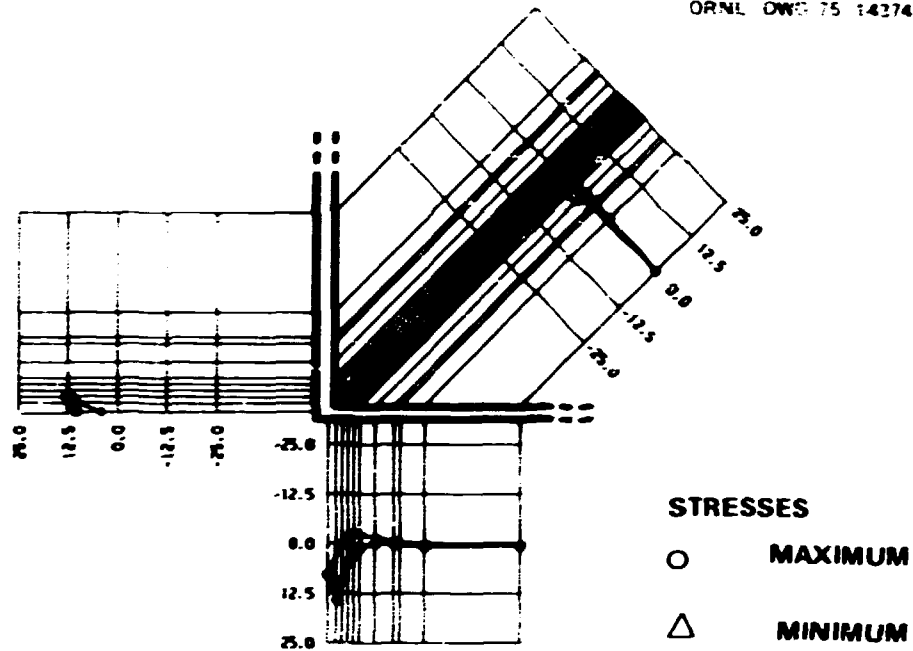


Fig. A189. Normalized principal stress along stringer 13 for axial load on nozzle 2.

ORNL-D'YG 75-14375

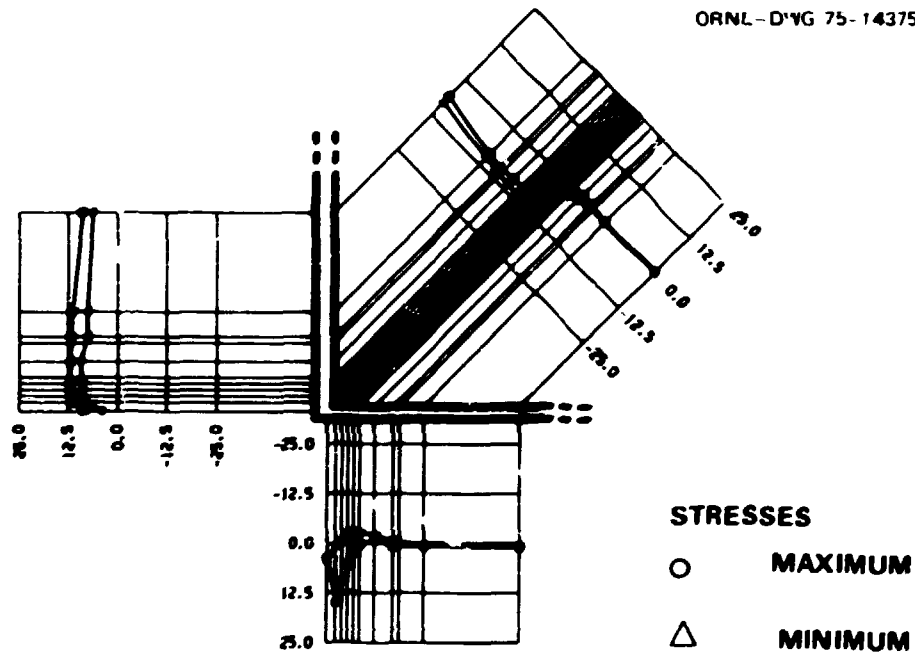


Fig. A190. Normalized principal stress along stringer 15 for axial load on nozzle 2.

ORNL DWG 75 14376

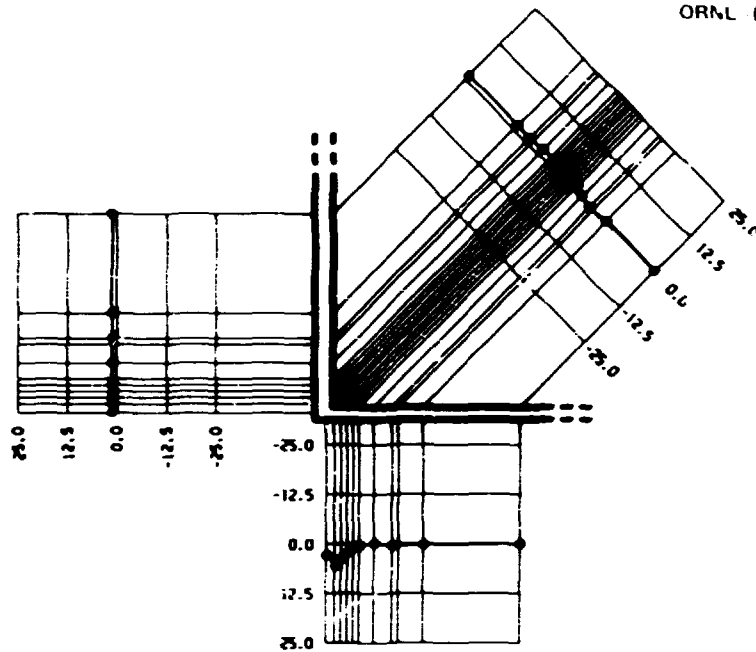


Fig. A191. Normalized shear stress along stringer 1 for axial load on nozzle 2.

ORNL-DWG 75-14377

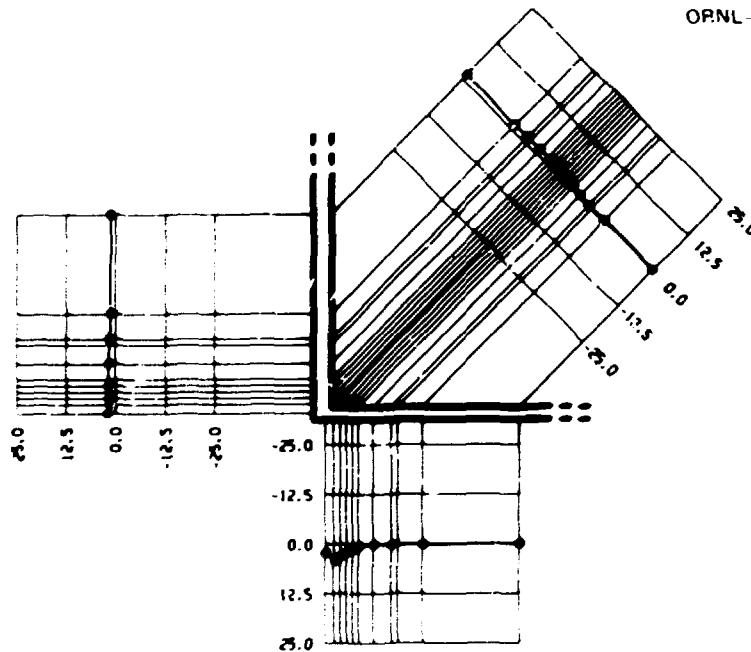


Fig. A192. Normalized shear stress along stringer 3 for axial load on nozzle 2.

ORNL - DWG 75-14378

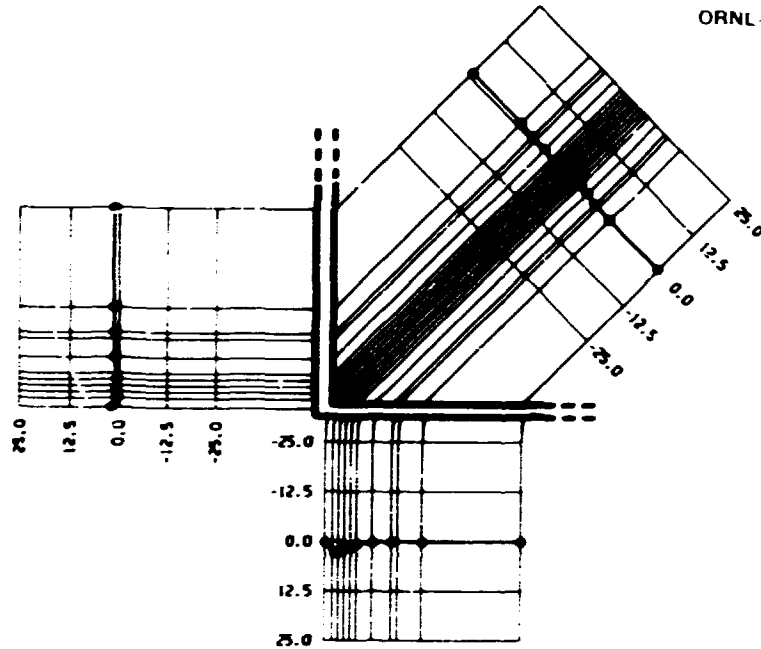


Fig. A193. Normalized shear stress along stringer 5 for axial load on nozzle 2.

ORNL - DWG 75 14379

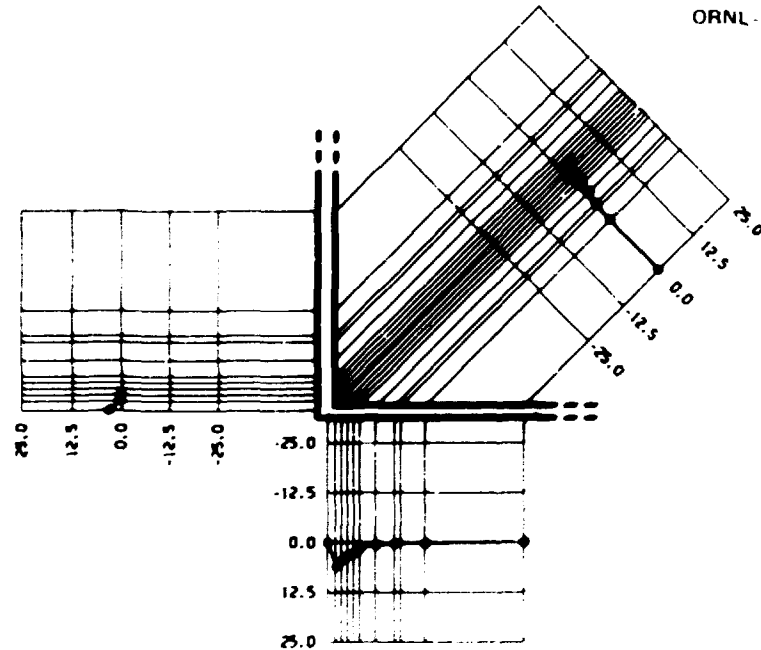


Fig. A194. Normalized shear stress along stringer 13 for axial load on nozzle 2.

ORNL-DWG 75-14380

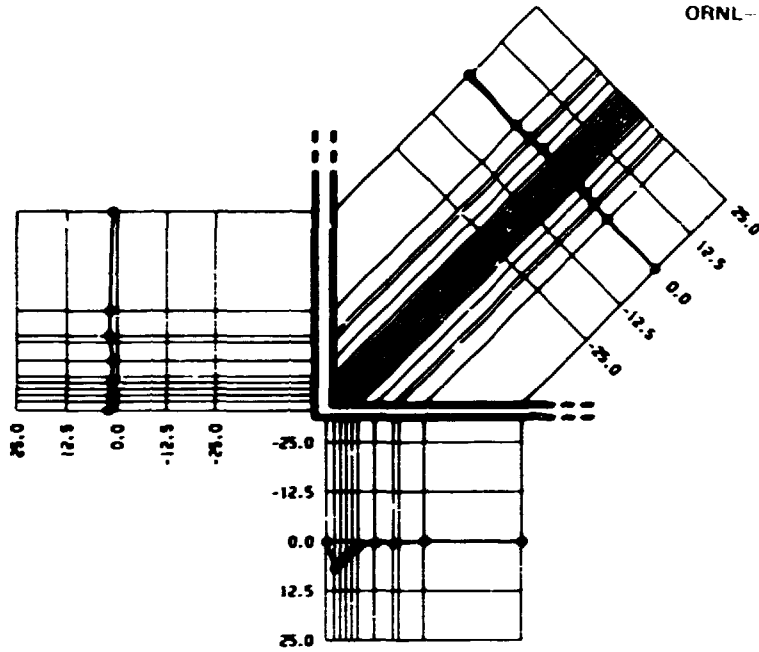


Fig. A195. Normalized shear stress along stringer 1^s for axial load on nozzle 2.

ORNL-DWG 75-14381

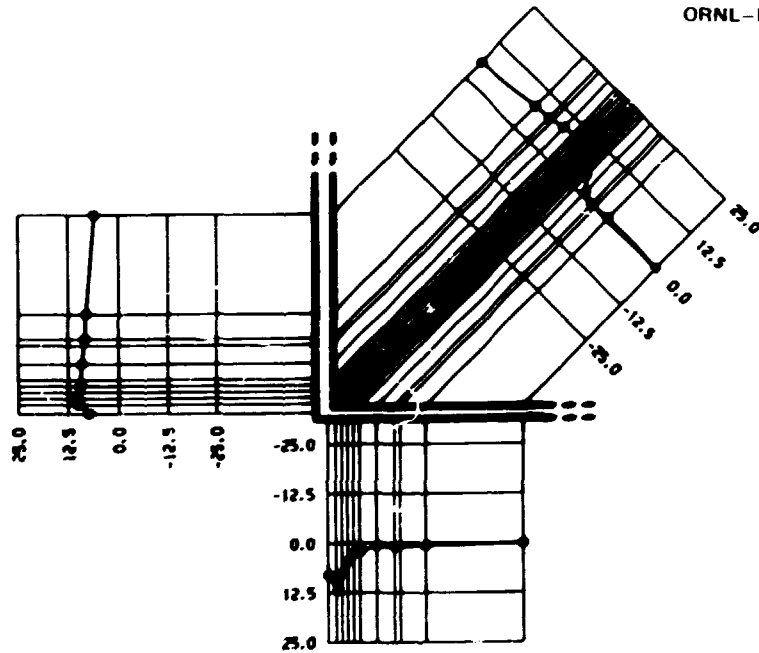


Fig. A196. Normalized stress intensity along stringer 1 for axial load on nozzle 2.

ORNL DWG 75-14382

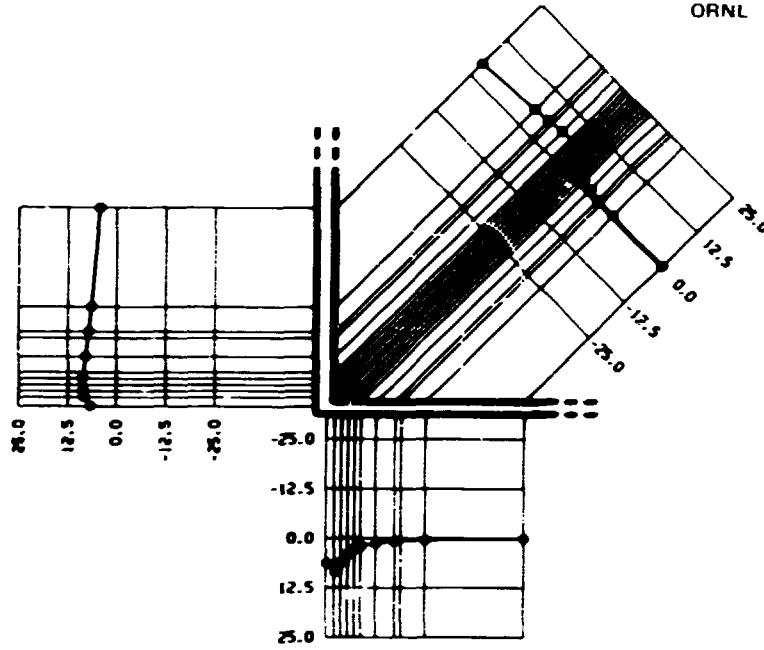


Fig. A197. Normalized stress intensity along stringer 3 for axial load on nozzle 2.

ORNL-DWG 75-14383

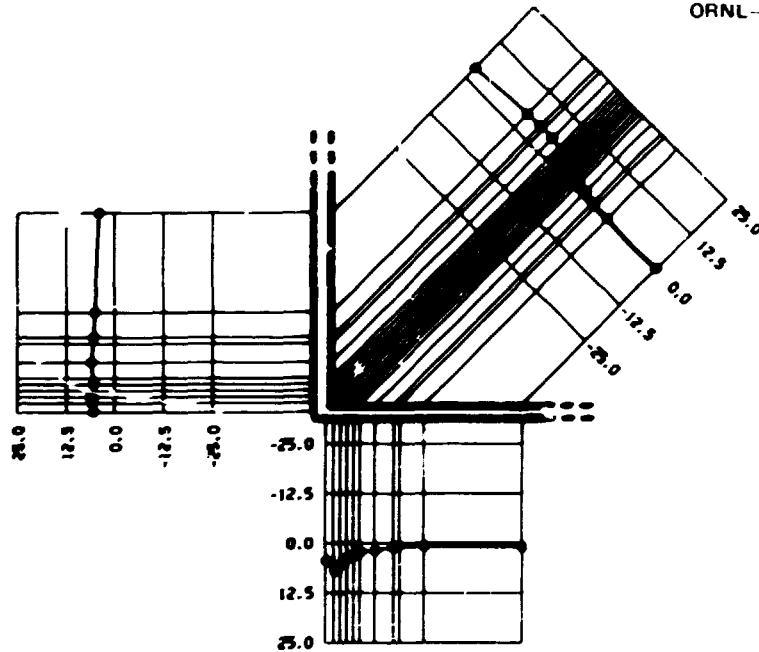


Fig. A198. Normalized stress intensity along stringer 5 for axial load on nozzle 2.

ORNL DWG 75 14384

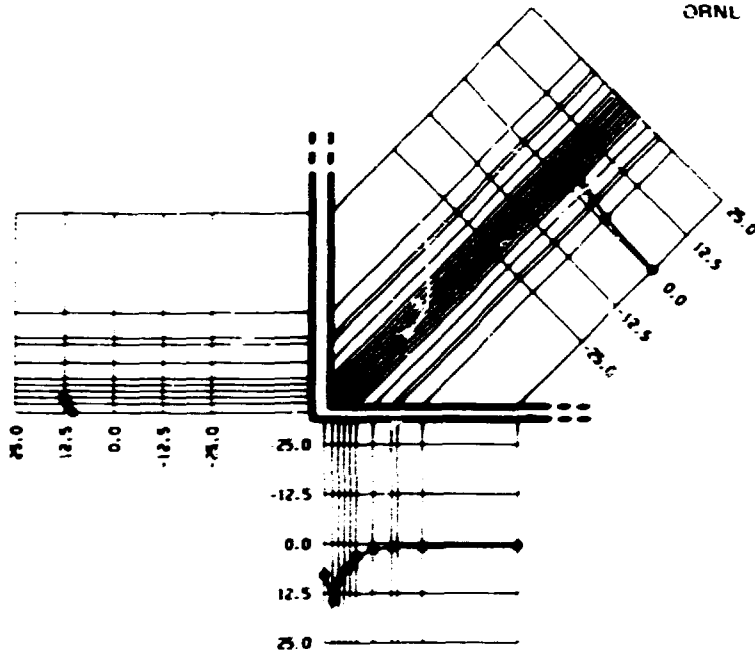


Fig. A199. Normalized stress intensity along stringer 13 for axial load on nozzle 2.

ORNL DWG 75 14385

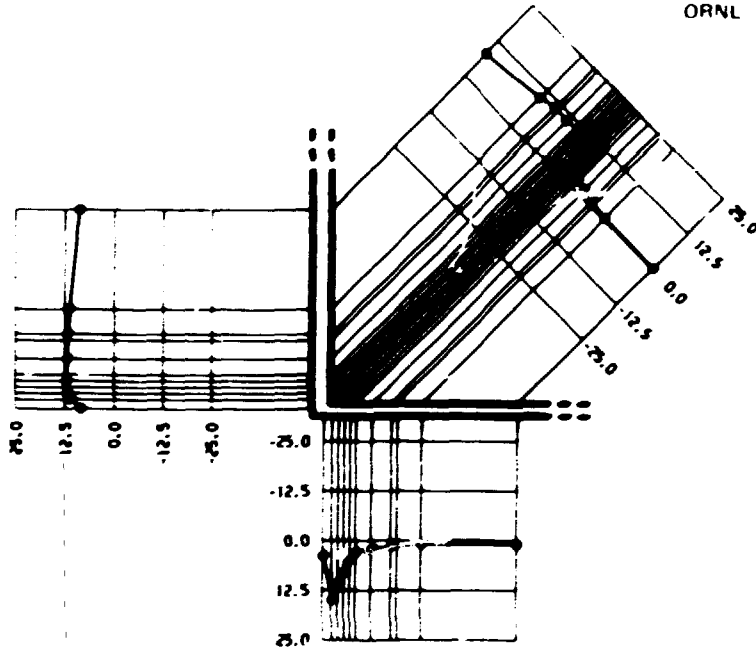


Fig. A200. Normalized stress intensity along stringer 15 for axial load on nozzle 2.

ORNL DWG 75 14386

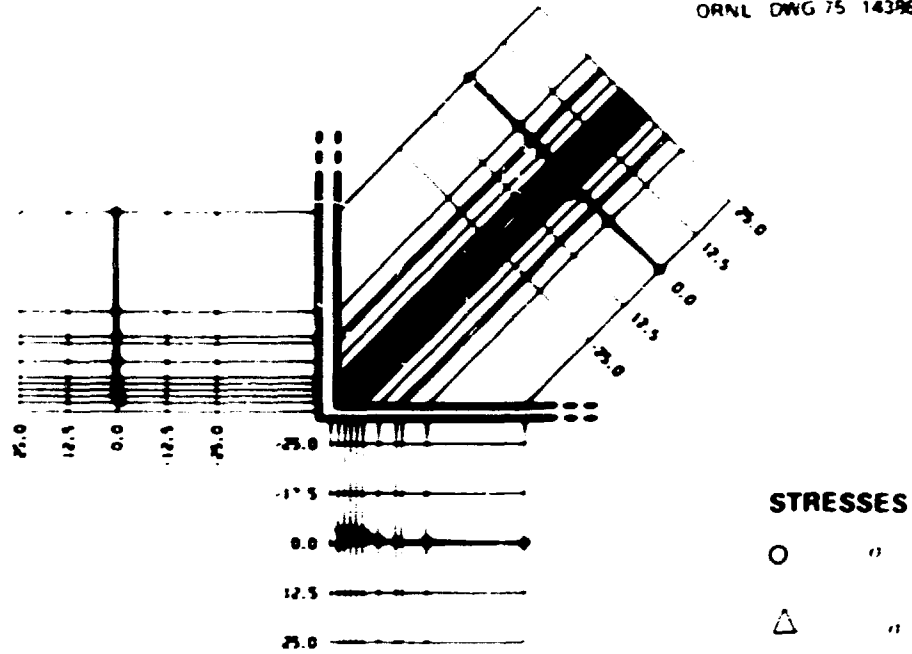


Fig. A201. Normalized membrane stress along stringer 1 for axial load on nozzle 2.

ORNL DWG 75 14387

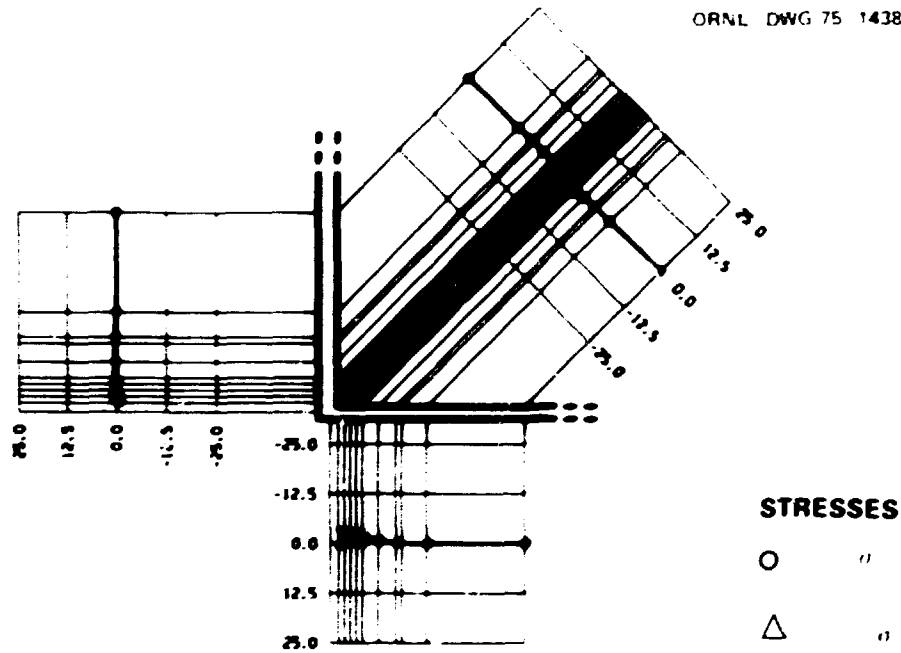


Fig. A202. Normalized membrane stress along stringer 3 for axial load on nozzle 2.

ORNL DWG 75-14388

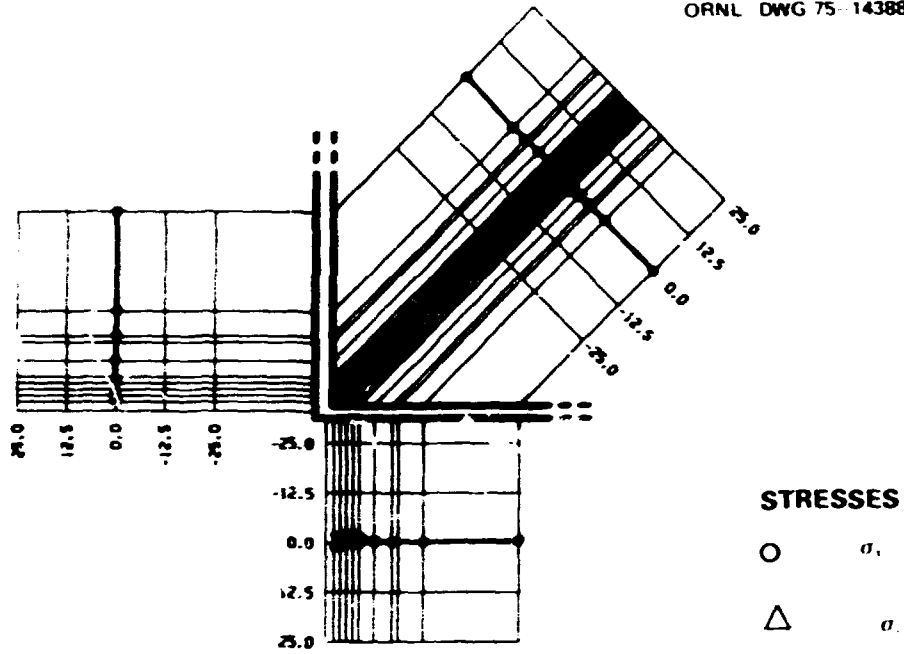


Fig. A203. Normalized membrane stress along stringer 5 for axial load on nozzle 2.

ORNL-DWG 75-14389

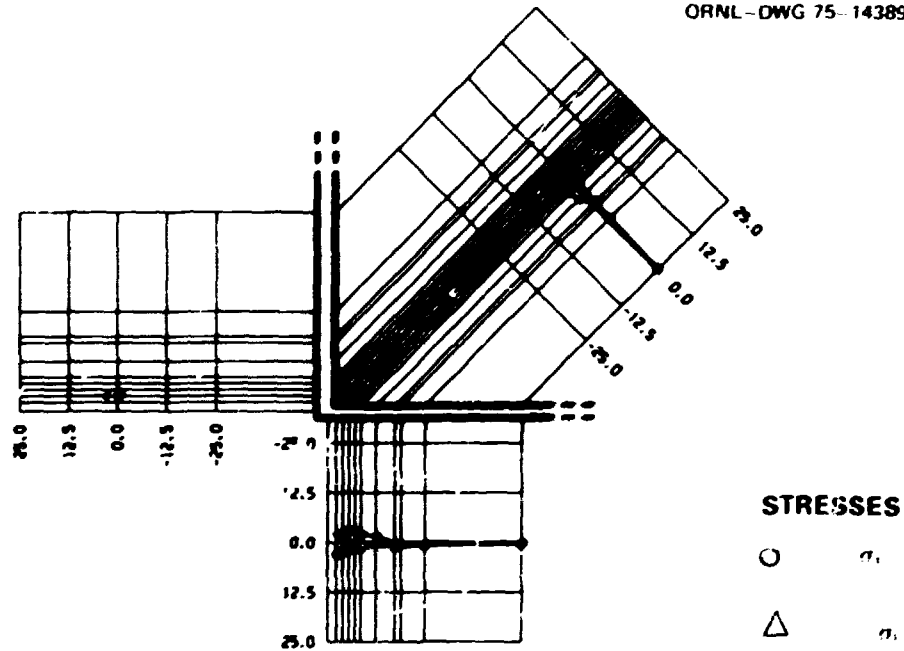


Fig. A204. Normalized membrane stress along stringer 13 for axial load on nozzle 2.

ORNL-DWG 75-14390

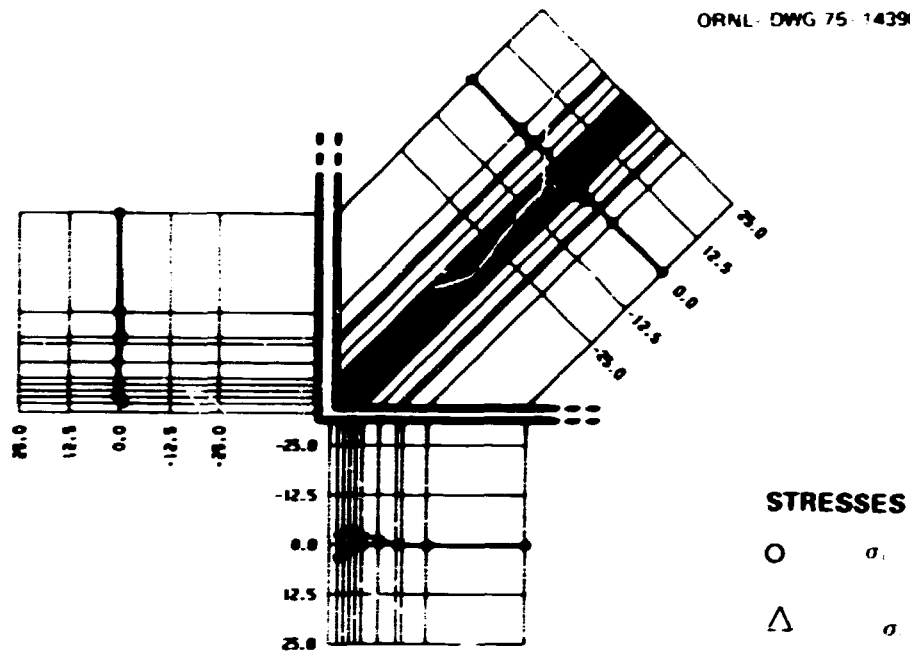


Fig. A205. Normalized membrane stress along stringer 15 for axial load on nozzle 2.

ORNL-DWG 75-14391

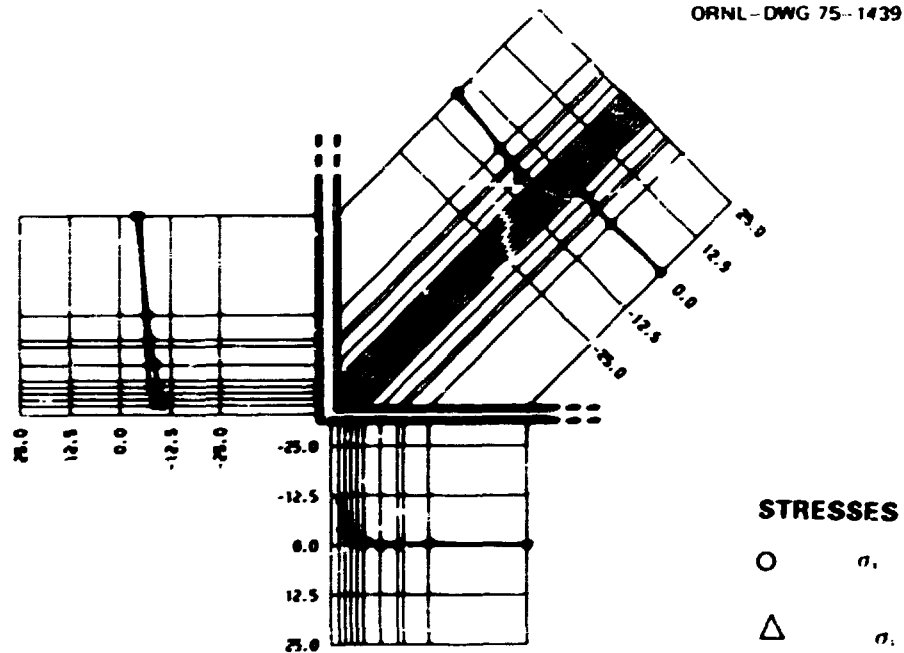


Fig. A206. Normalized bending stress along stringer 1 for axial load on nozzle 2.

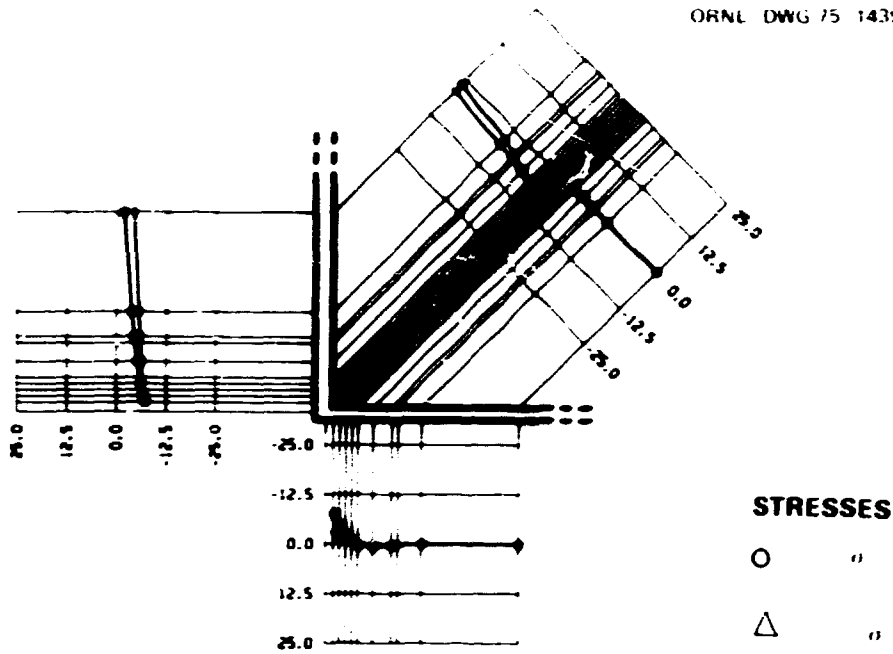


Fig. A207. Normalized bending stress along stringer 3 for axial load on nozzle 2.

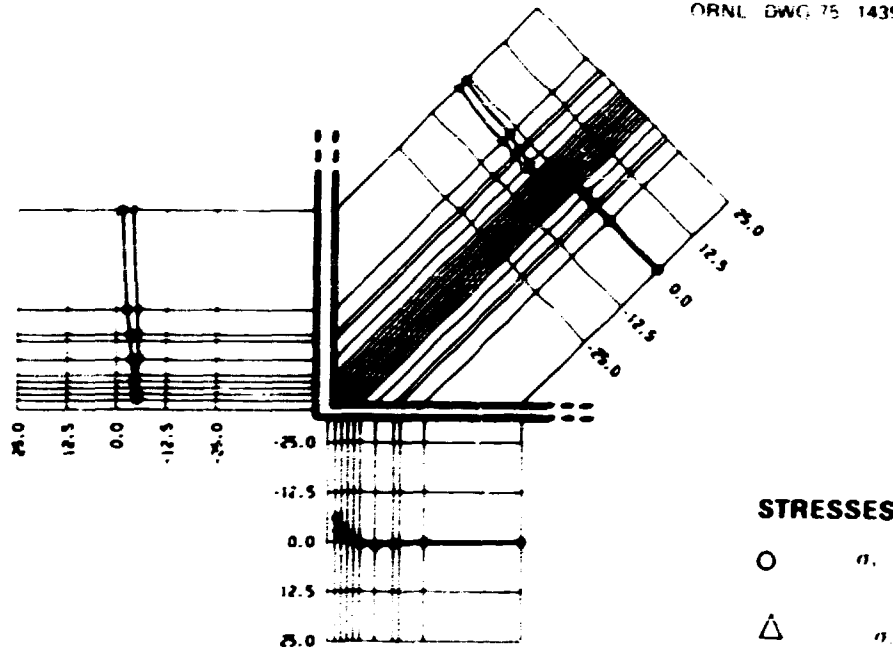


Fig. A208. Normalized bending stress along stringer 5 for axial load on nozzle 2.

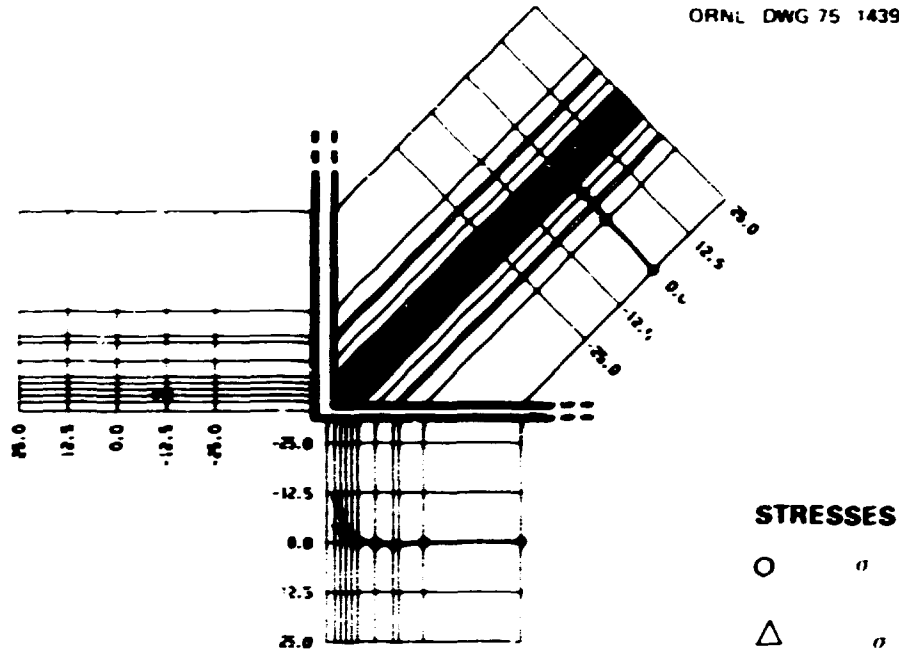


Fig. A209. Normalized bending stress along stringer 13 for axial load on nozzle 2.

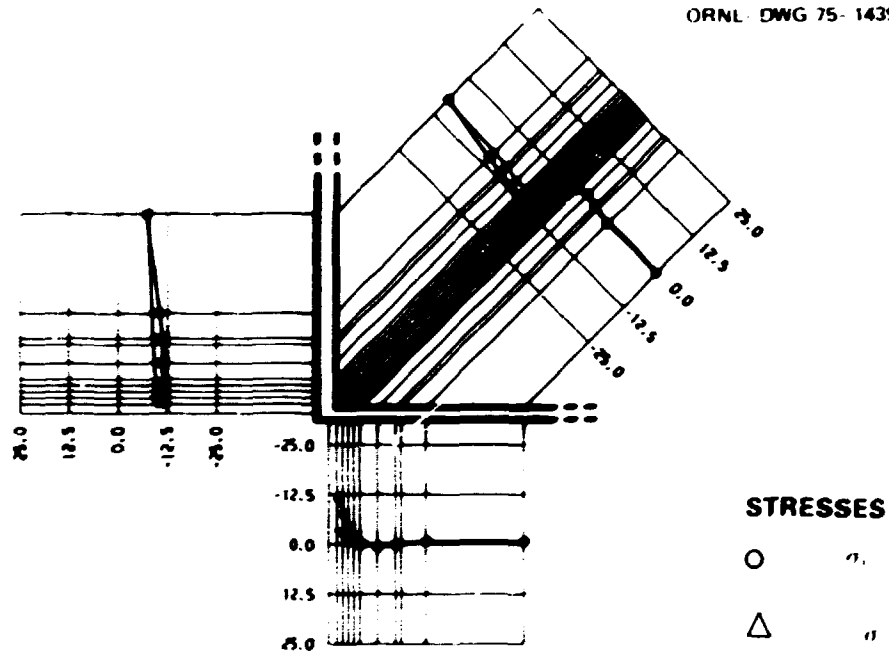


Fig. A210. Normalized bending stress along stringer 15 for axial load on nozzle 2.

ORNL DWG 75 14396

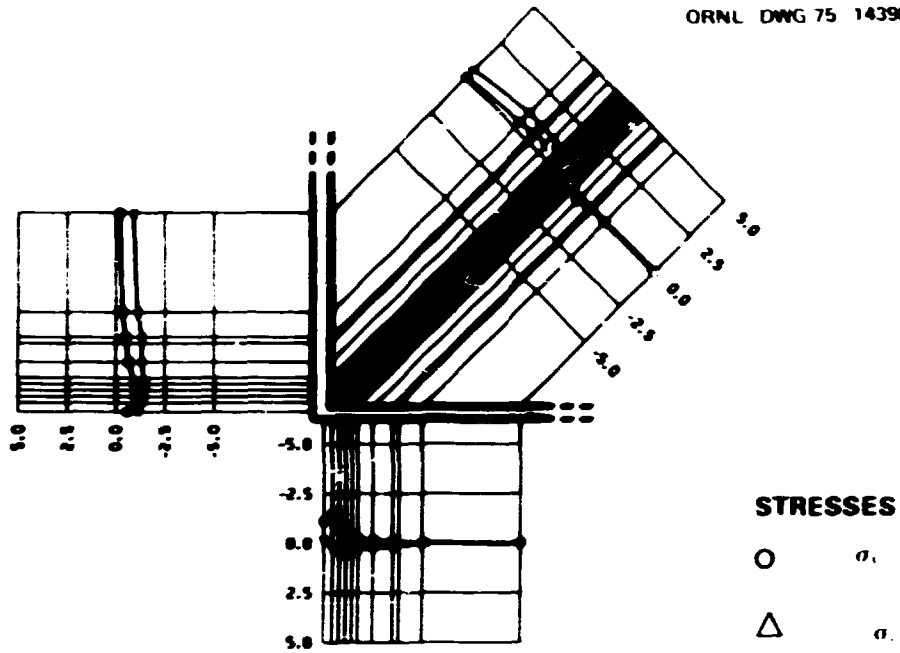


Fig. A211. Normalized total stress along stringer 1 for bending moment loading M1-2.

ORNL - DWG 75-14397

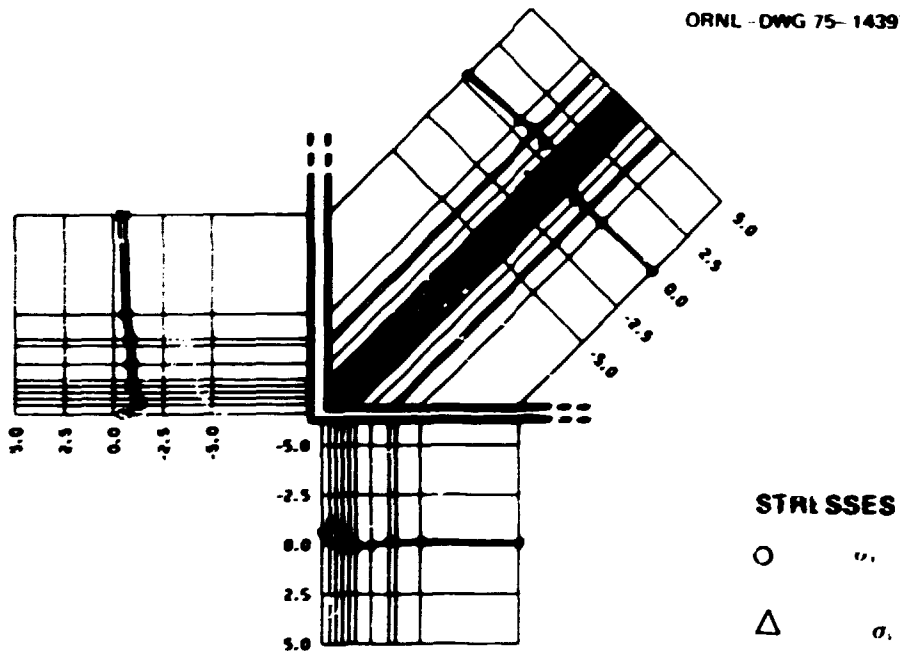


Fig. A212. Normalized total stress along stringer 3 for bending moment loading M1-2.

ORNL DWG 75-14398

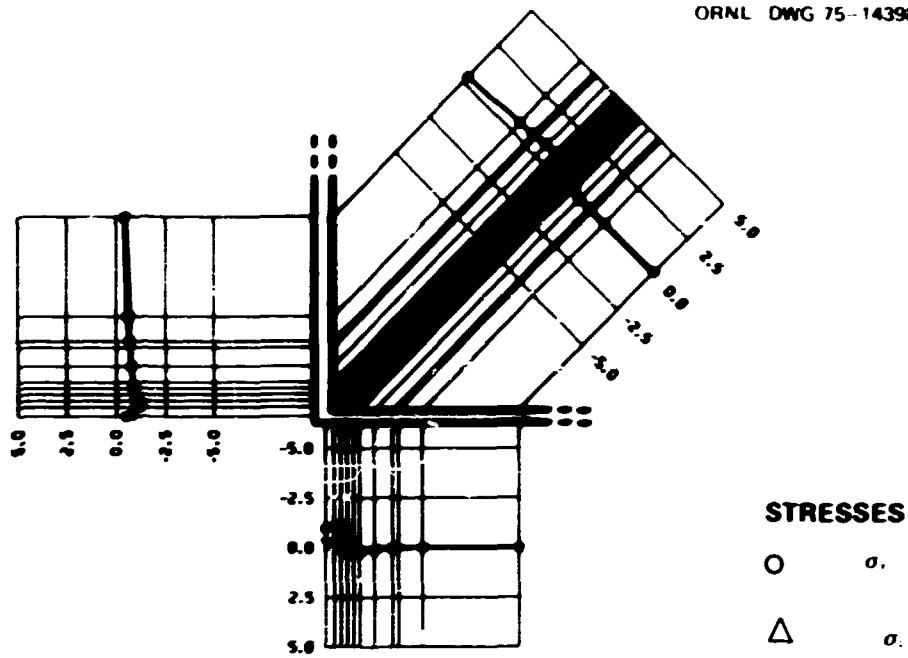


Fig. A213. Normalized total stress along stringer 5 for bending moment loading M1-2.

ORNL-DWG /5-14399

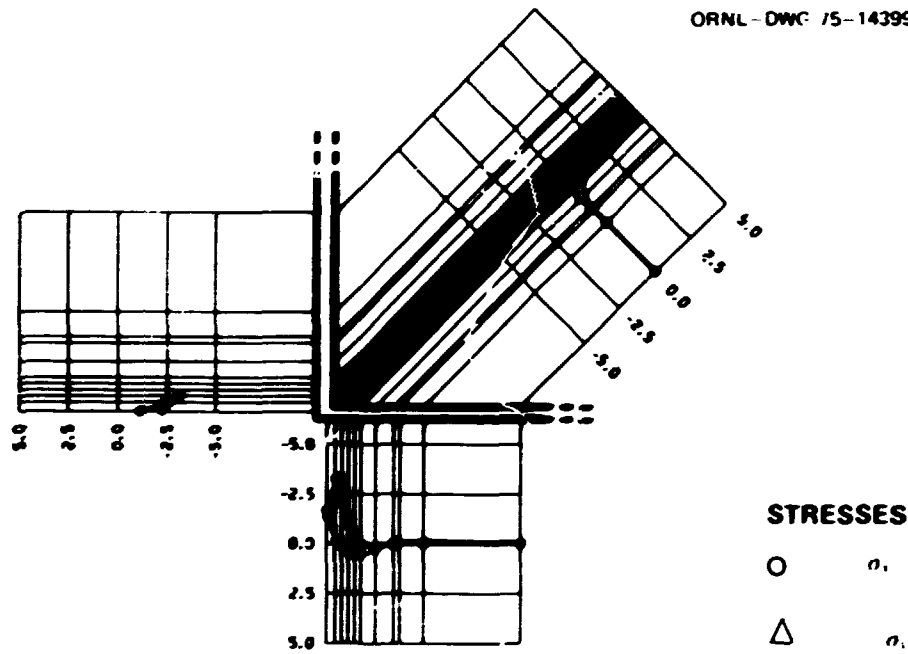


Fig. A214. Normalized total stress along stringer 13 for bending moment loading M1-2.

ORNL DWG 75 14400

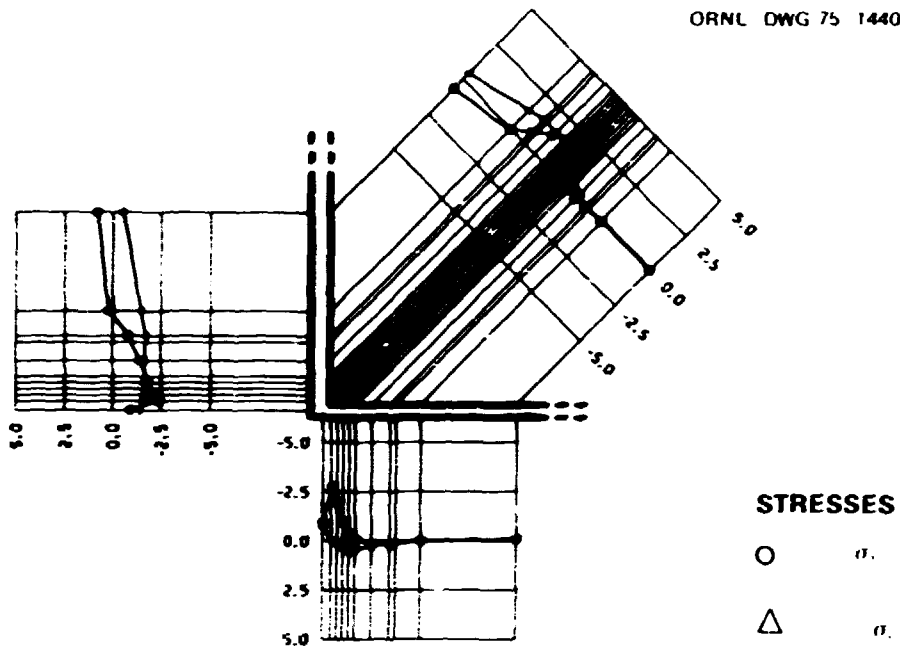


Fig. A215. Normalized total stress along stringer 15 for bending moment loading M1-2.

ORNL DWG 75 14401

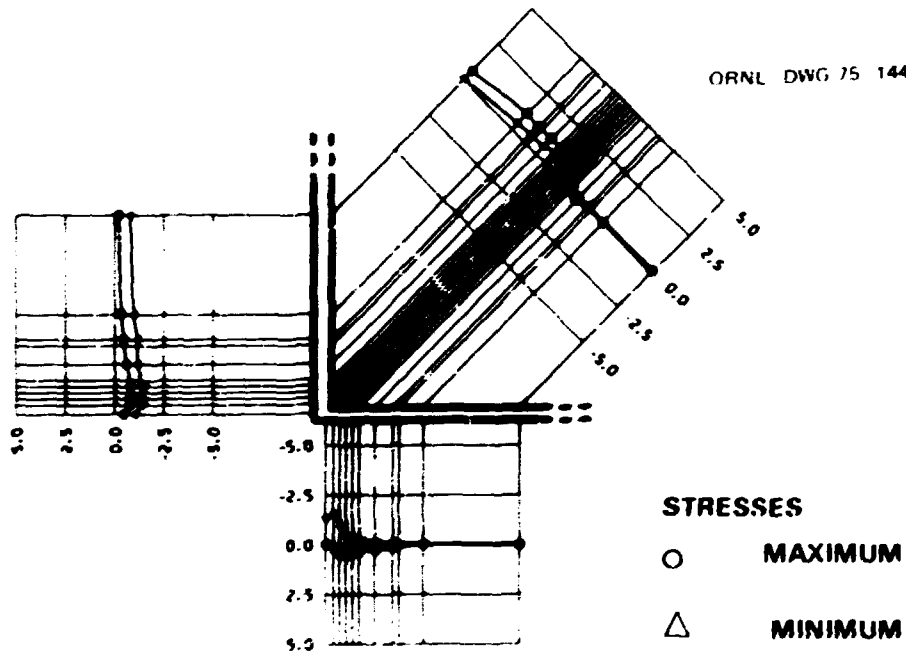


Fig. A216. Normalized principal stress along stringer 1 for bending moment loading M1-2.

ORNL - DWG 75 - 14402

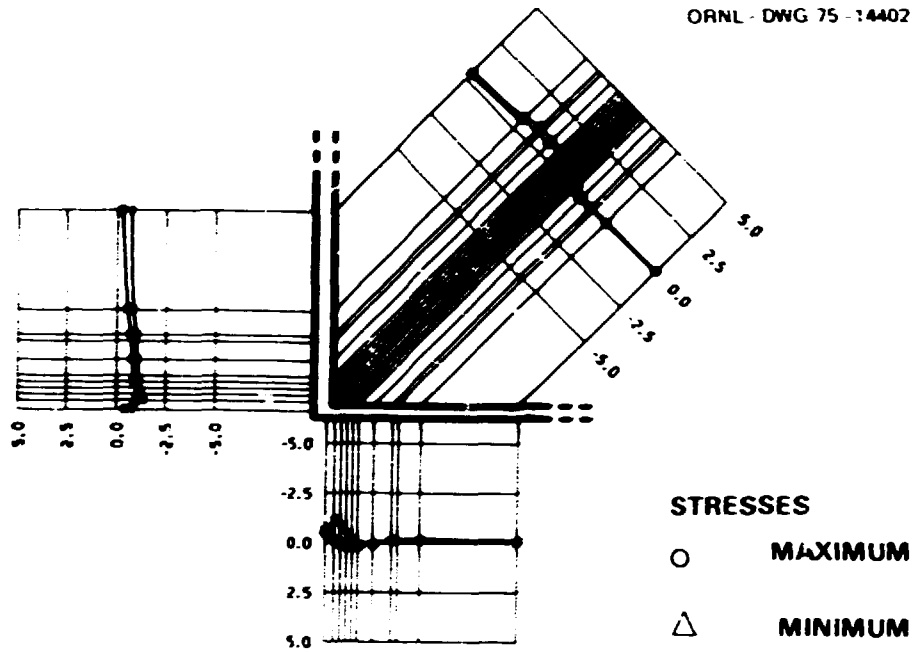


Fig. A217. Normalized principal stress along stringer 3 for bending moment loading M1-2.

ORNL DWG 75 14403

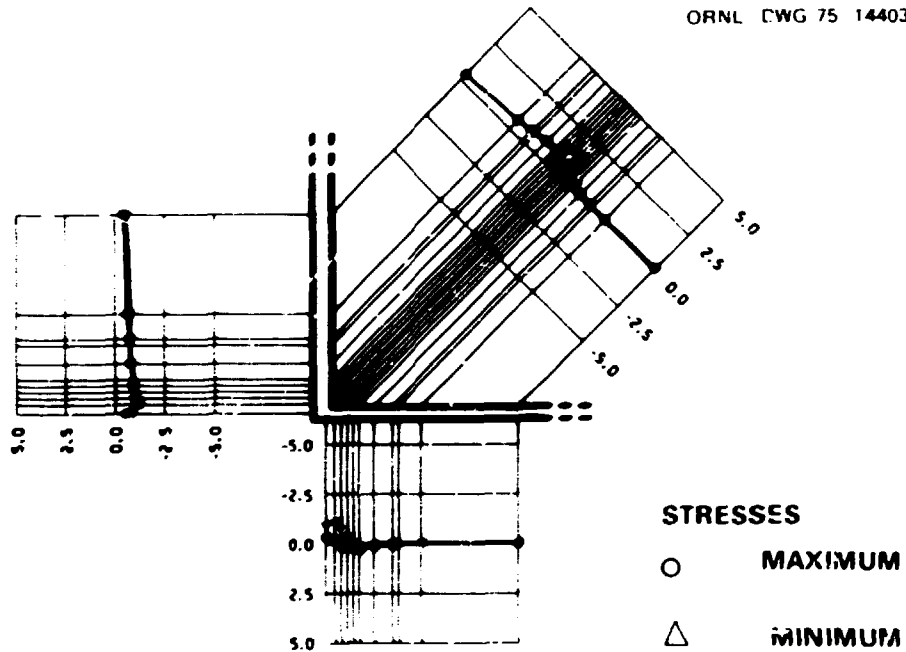


Fig. A218. Normalized principal stress along stringer 5 for bending moment loading M1-2.

ORNL-DWG 75-14404

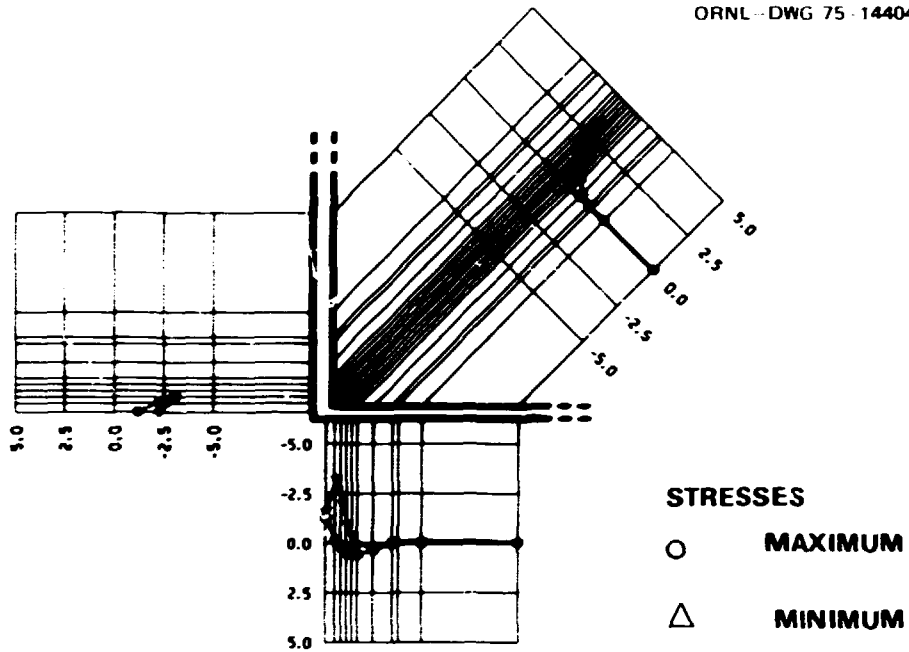


Fig. A219. Normalized principal stress along stringer 13 for bending moment loading M1-2.

ORNL-DWG 75-14405

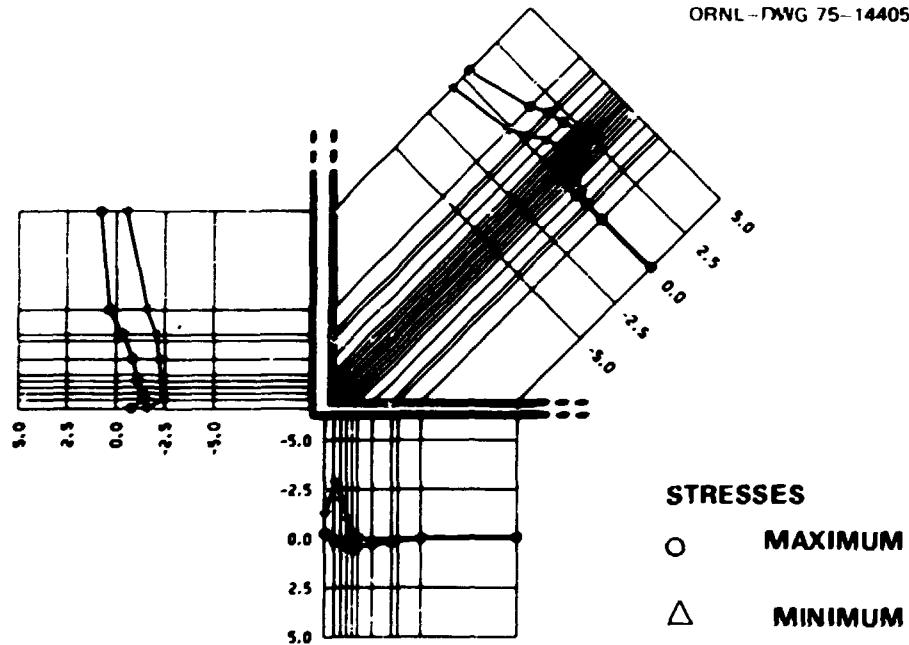


Fig. A220. Normalized principal stress along stringer 15 for bending moment loading M1-2.

ORNL-DWG 75-14406

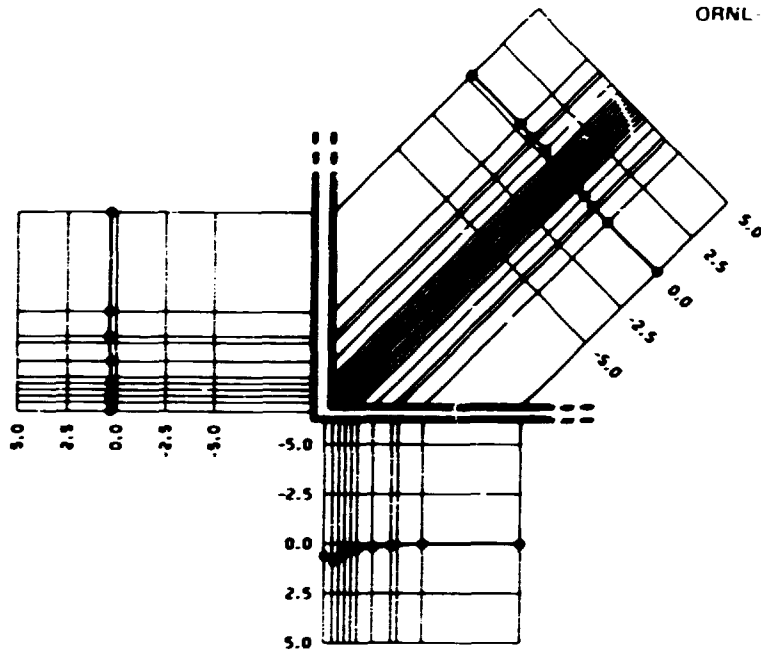


Fig. A221. Normalized shear stress along stringer 1 for bending moment loading M1-2.

ORNL-DWG 75-14407

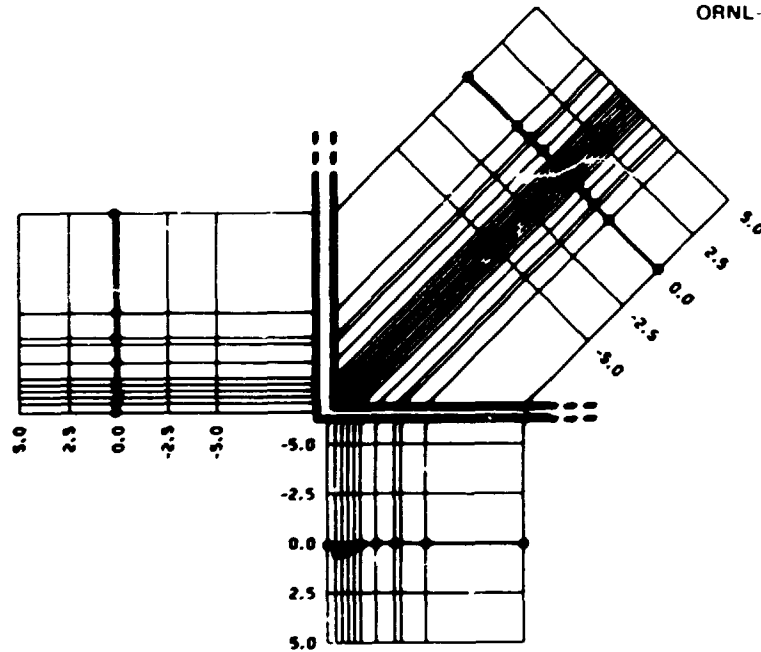


Fig. A222. Normalized shear stress along stringer 3 for bending moment loading M1-2.

ORNL DWG 75 14408

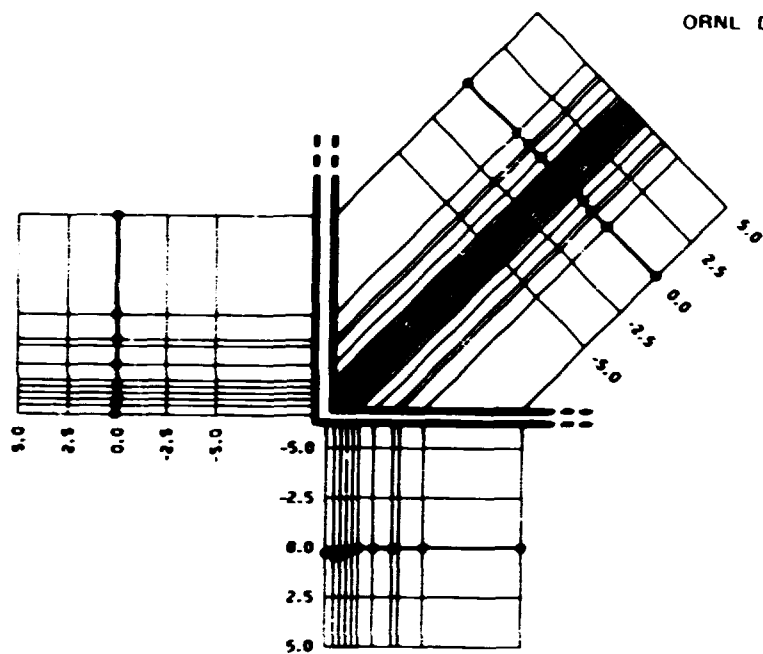


Fig. A223. Normalized shear stress along stringer 5 for bending moment loading M1-2.

ORNL DWG 75-14409

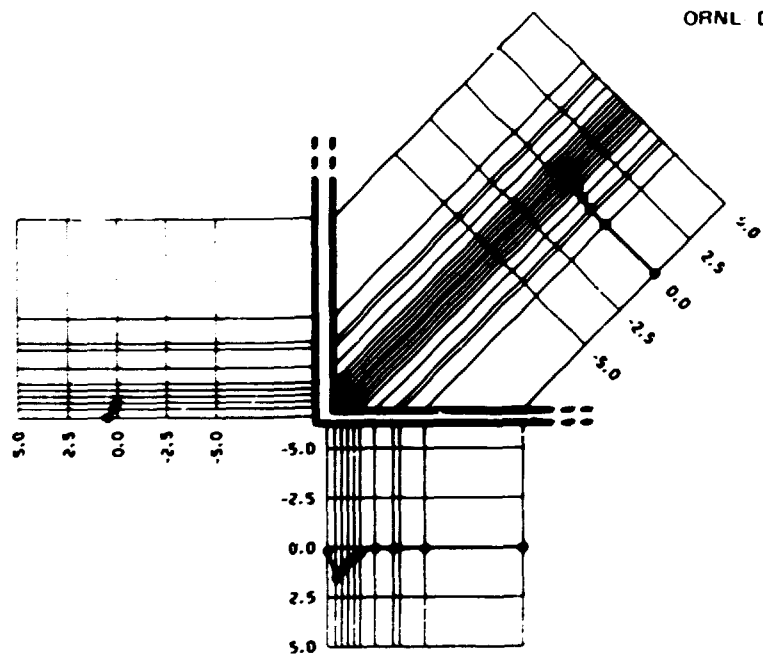


Fig. A224. Normalized shear stress along stringer 13 for bending moment loading M1-2.

ORNL - DWG 75 - 14410

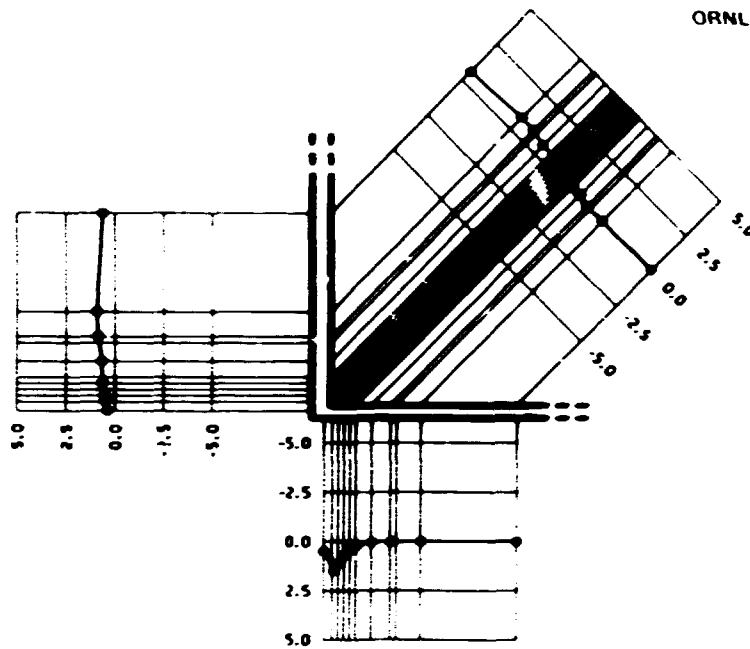


Fig. A225. Normalized shear stress along stringer 15 for bending moment loading M1-2.

ORNL DWG 75 14411

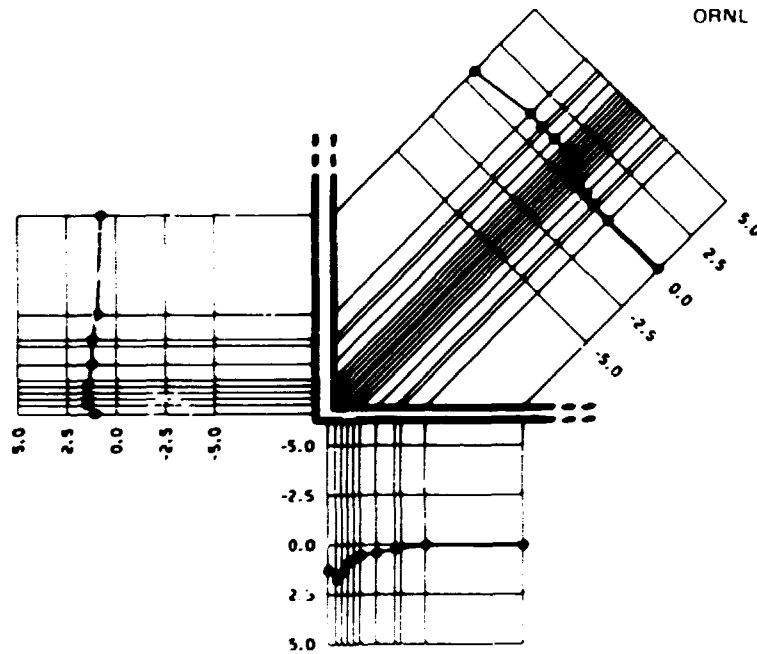


Fig. A226. Normalized stress intensity along stringer 1 for bending moment loading M1-2.

ORNL DWG 75 14417

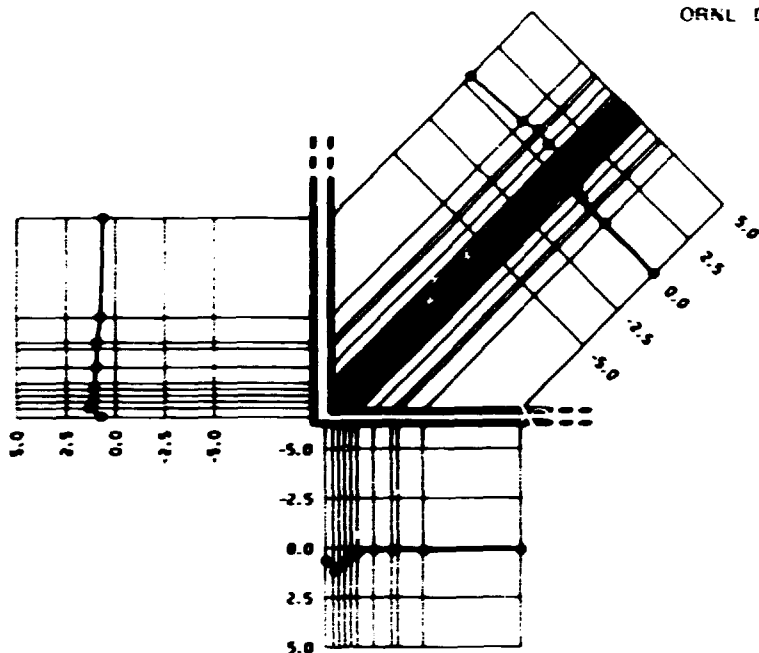


Fig. A227. Normalized stress intensity along stringer 3 for bending moment loading M1-2.

ORNL - DWG 75 - 14413

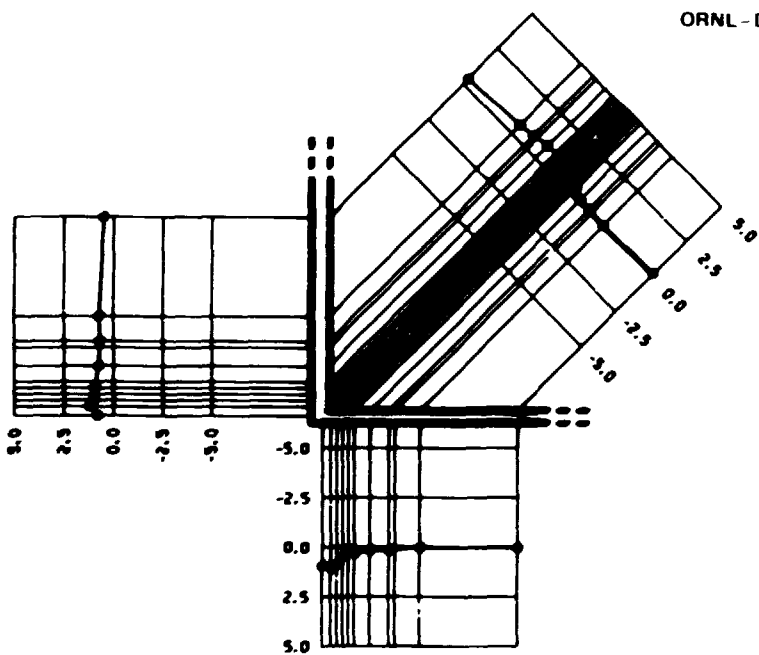


Fig. A228. Normalized stress intensity along stringer 5 for bending moment loading M1-2.

ORNL DWG 75 14414

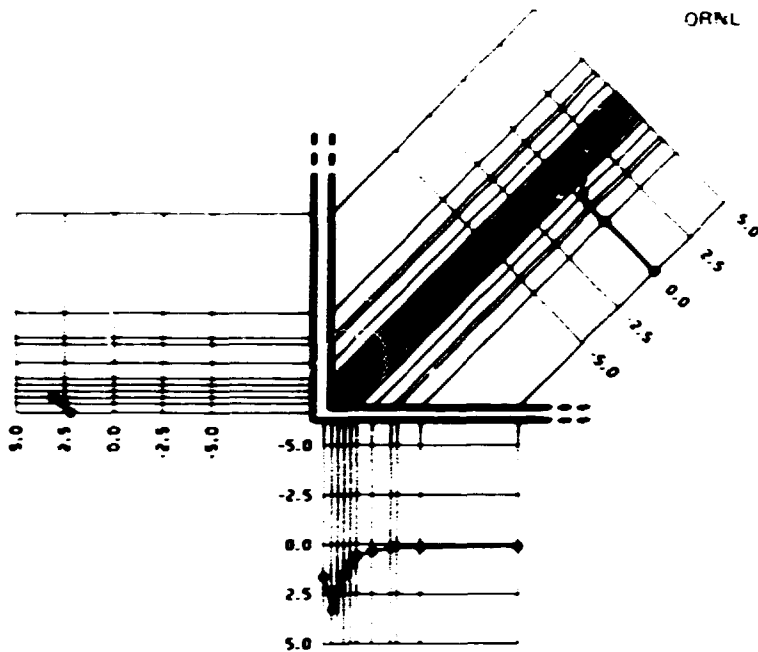


Fig. A229. Normalized stress intensity along stringer 13 for bending moment loading M1-2.

ORNL DWG 75 14415

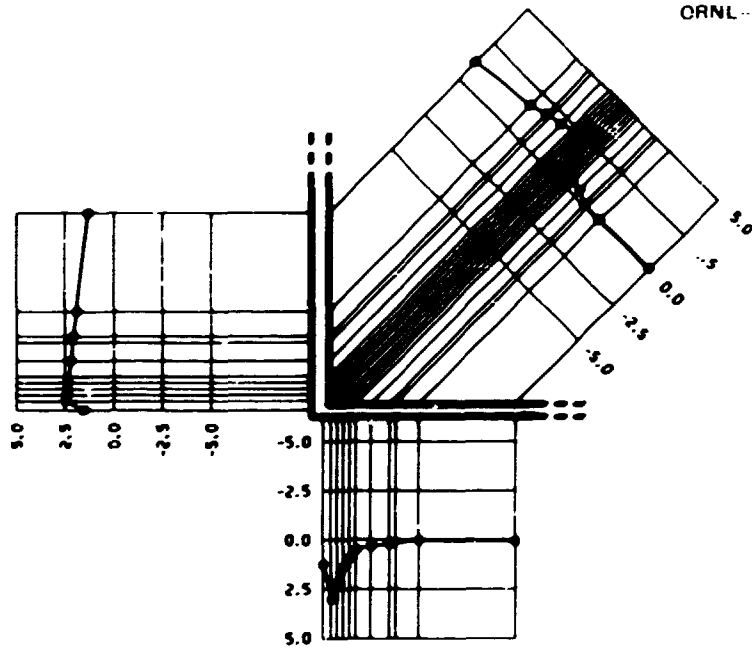


Fig. A230. Normalized stress intensity along stringer 15 for bending moment loading M1-2.

ORNL DWG 75 14416

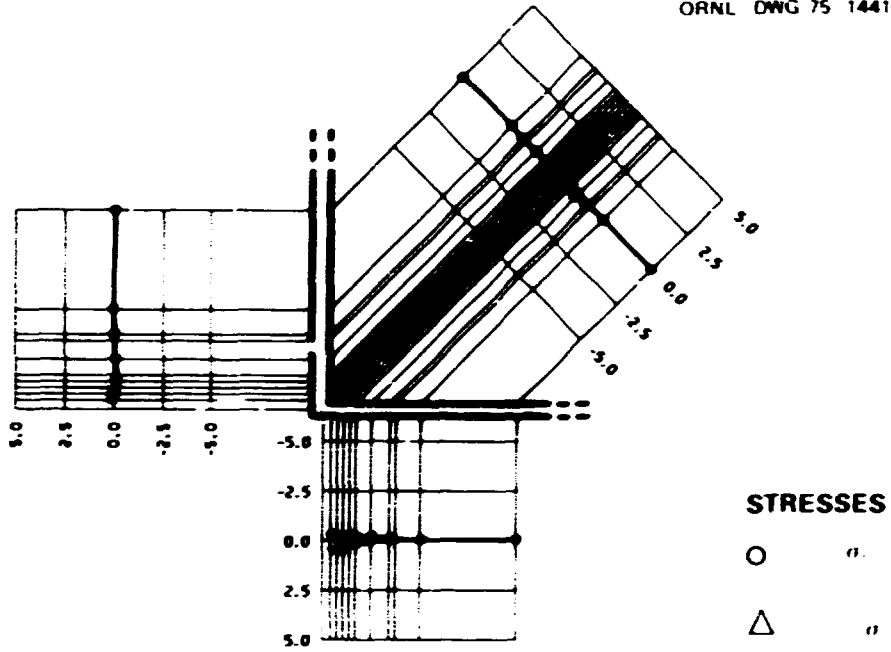


Fig. A231. Normalized membrane stress along stringer 1 for bending moment loading M1-2.

ORNL DWG 75 14417

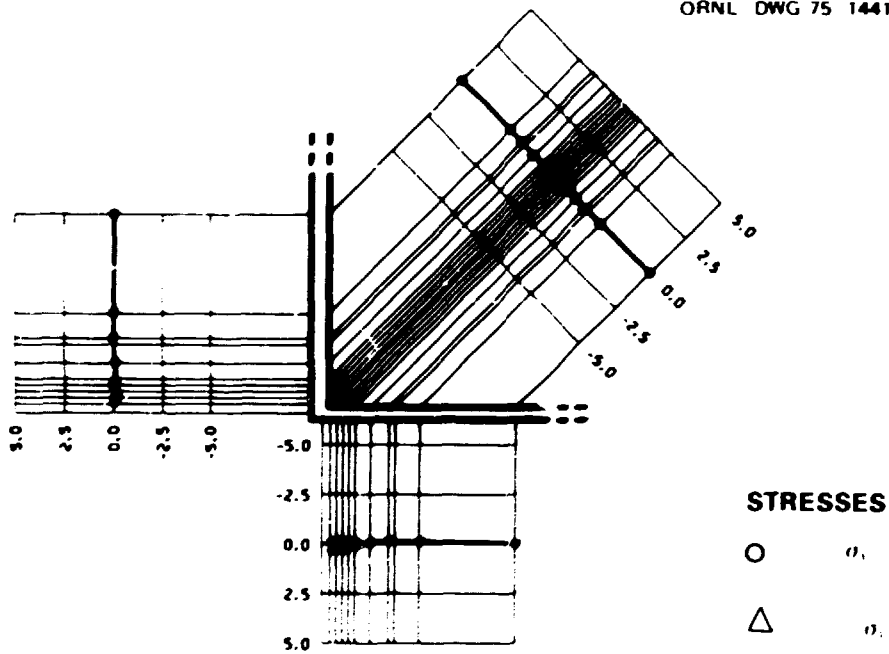


Fig. A232. Normalized membrane stress along stringer 3 for bending moment loading M1-2.

ORNL DWG 75-14418

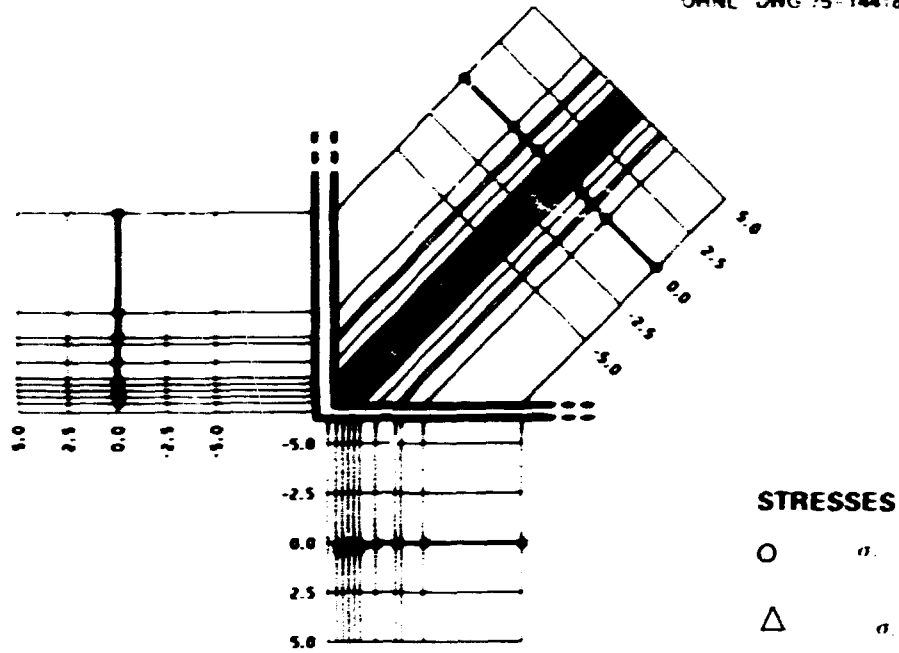


Fig. A233. Normalized membrane stress along stringer 5 for bending moment loading M1-2.

ORNL DWG 75 14419

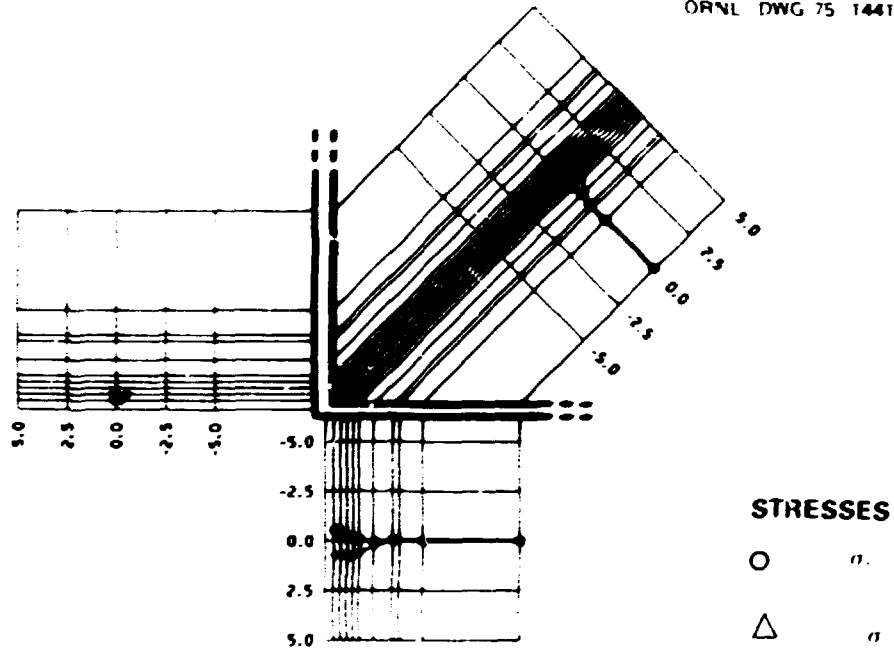


Fig. A234. Normalized membrane stress along stringer 13 for bending moment loading M1-2.

ORNL DWG 75 14420

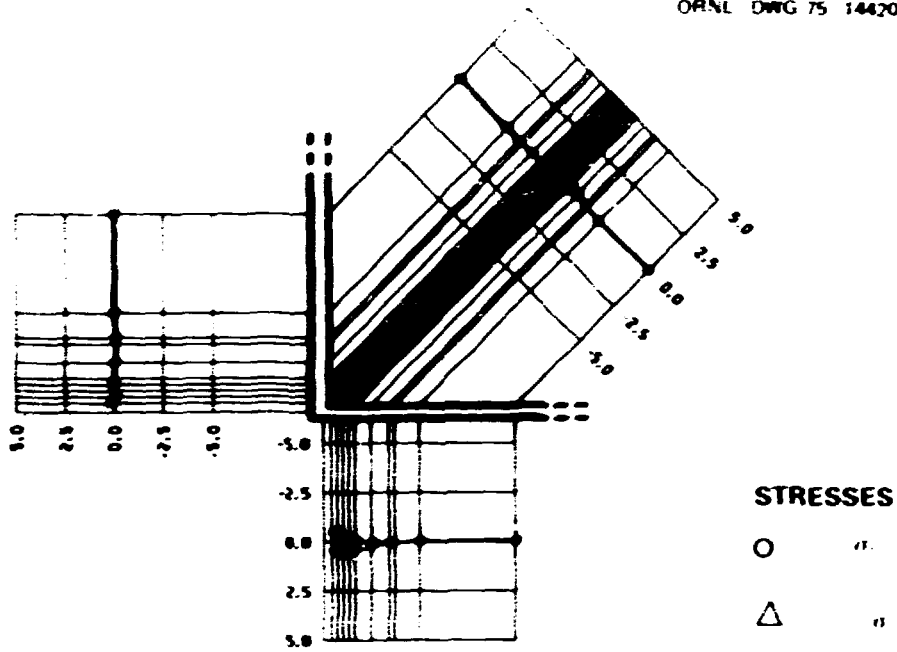


Fig. A235. Normalized membrane stress along stringer 15 for bending moment loading M1-2.

ORNL DWG 75 14421

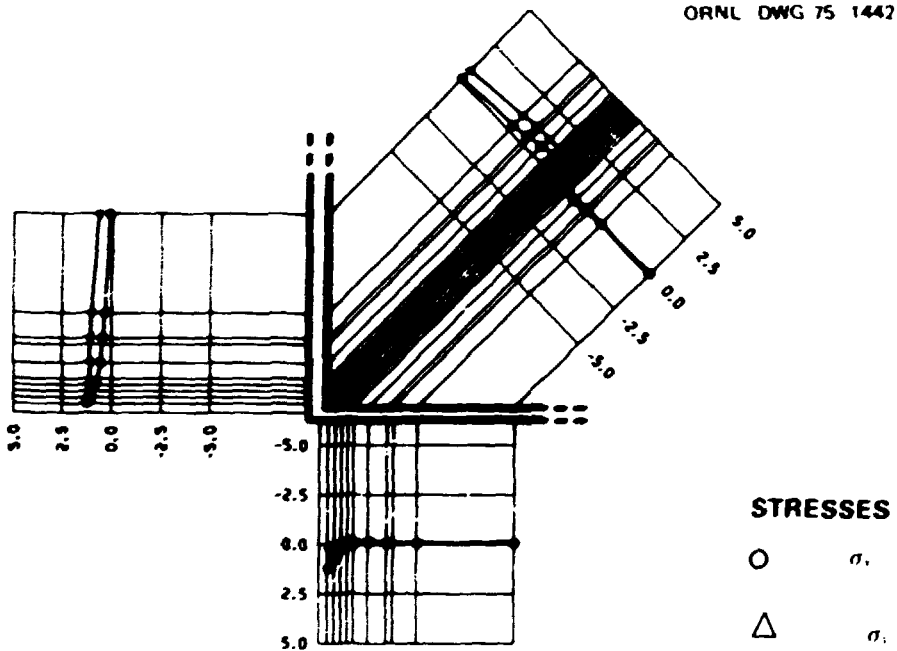


Fig. A236. Normalized bending stress along stringer 1 for bending moment loading M1-2.

ORNL DWG 75 14422

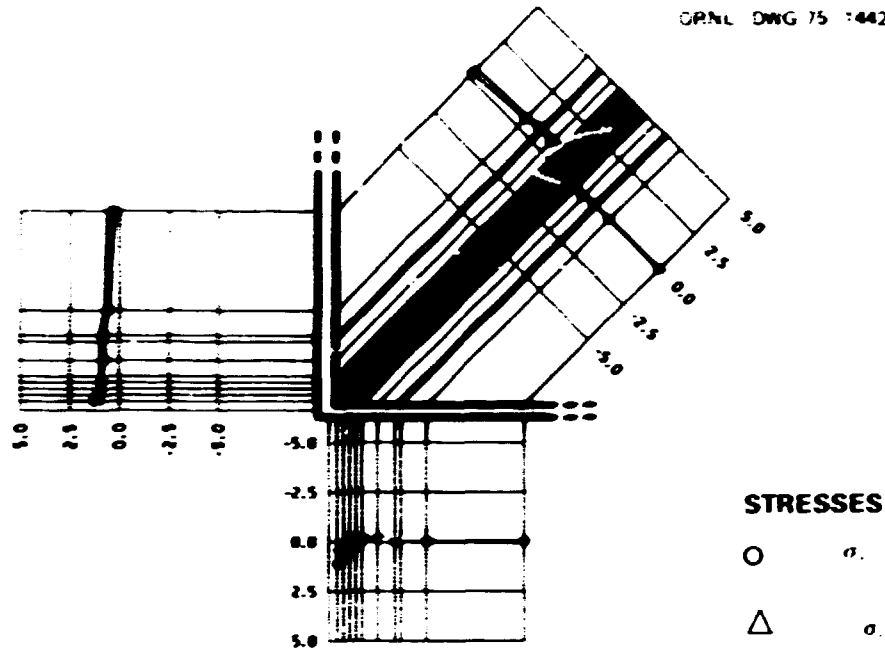


Fig. A237. Normalized bending stress along stringer 3 for bending moment loading M1-2.

ORNL DWG 75 14423

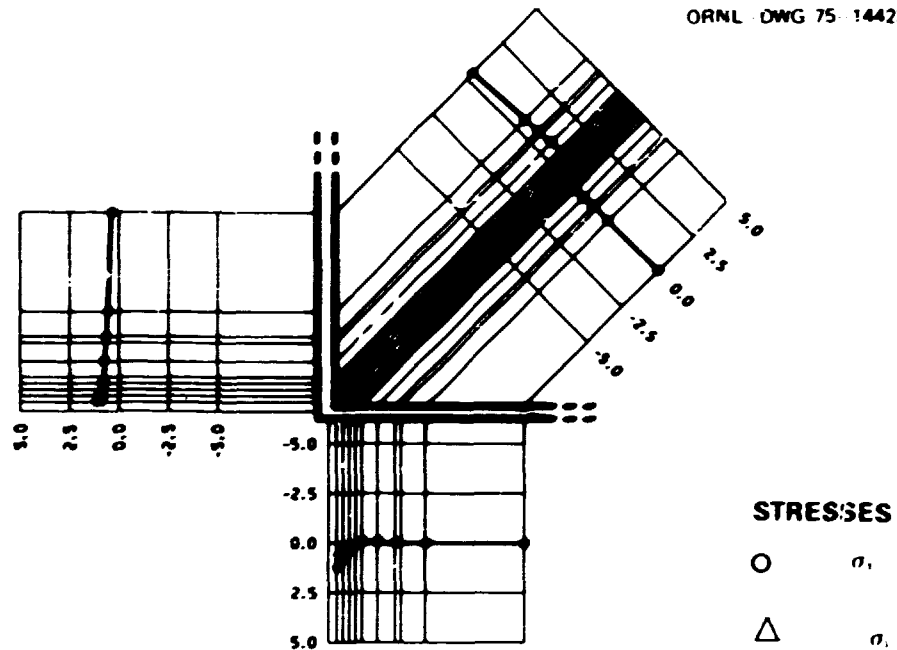


Fig. A238. Normalized bending stress along stringer 5 for bending moment loading M1-2.

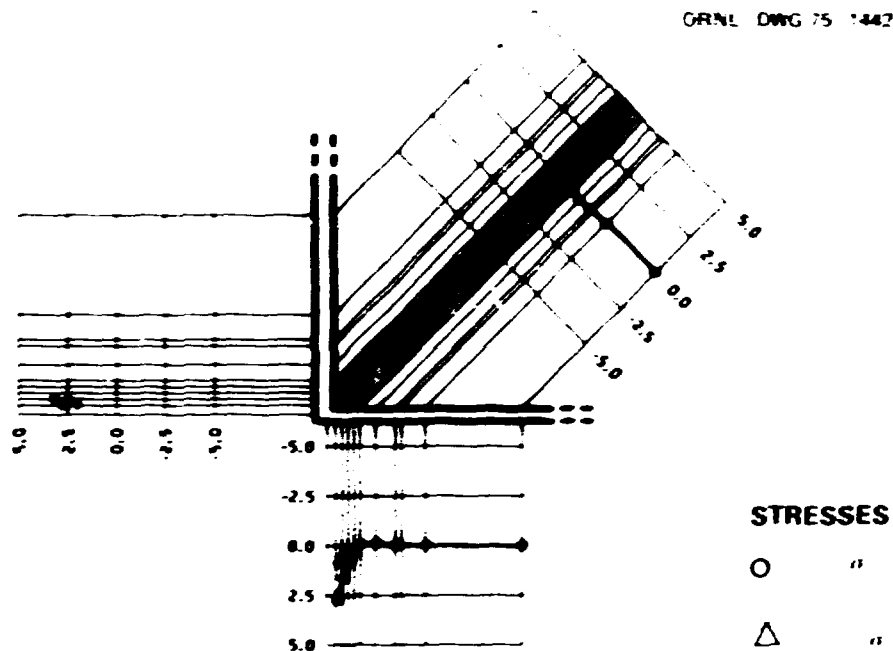


Fig. A239. Normalized bending stress along stringer 13 for bending moment loading M1-2.

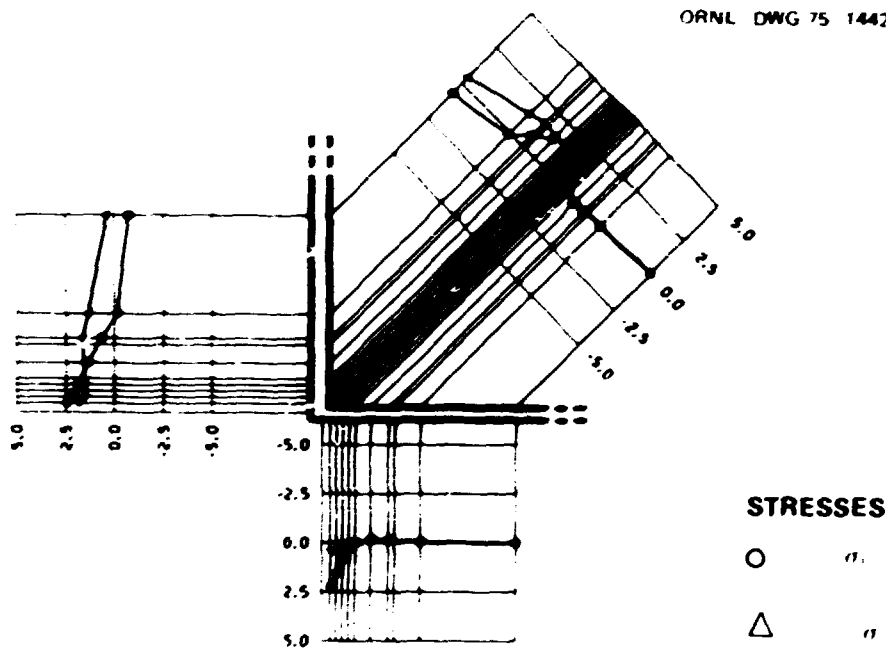


Fig. A240. Normalized bending stress along stringer 15 for bending moment loading M1-2.

ORNL DWG 75 14426

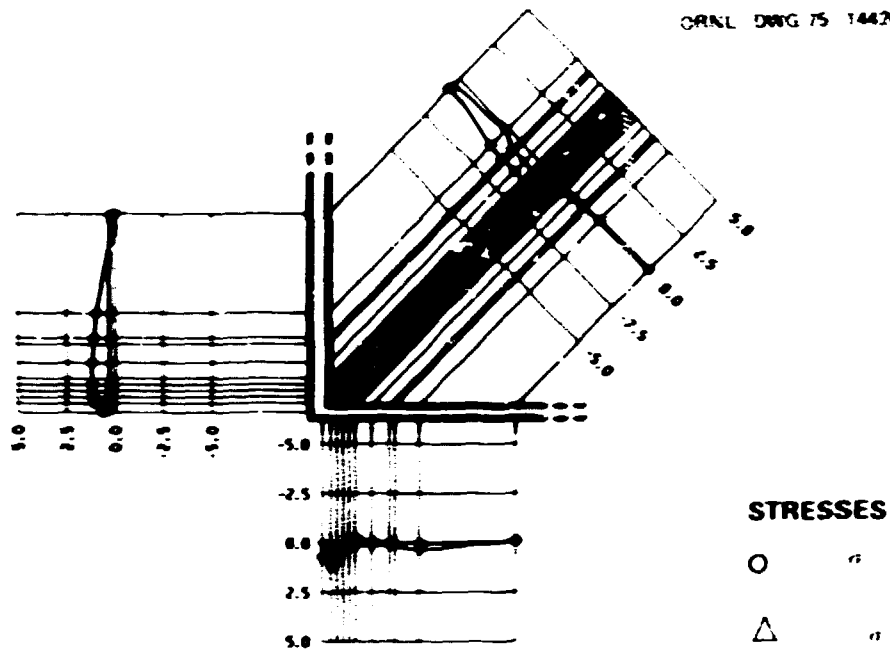


Fig. A241. Normalized total stress along stringer 1 for bending moment loading M2-2.

ORNL DWG 75 14427

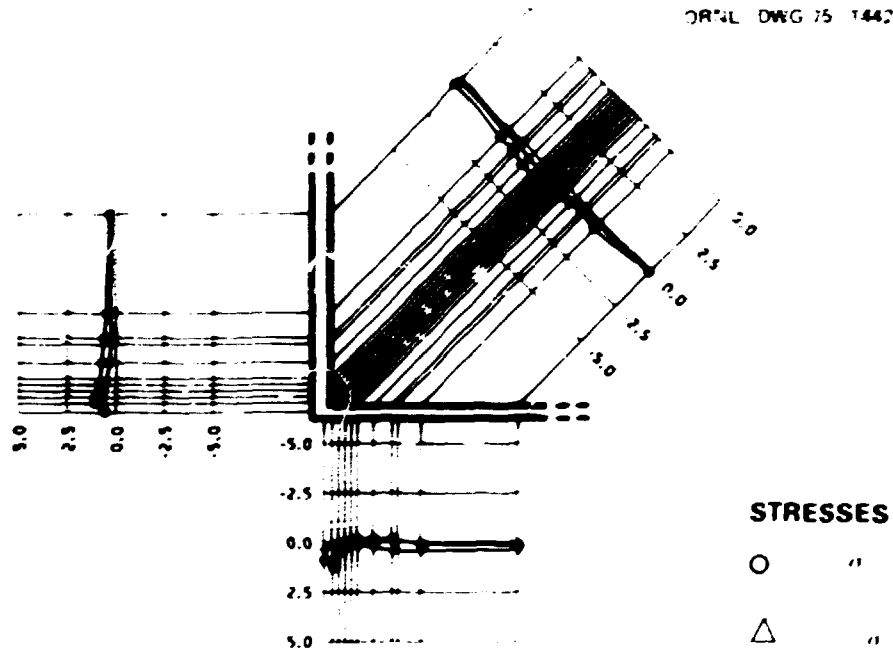


Fig. A242. Normalized total stress along stringer 3 for bending moment loading M2-2.

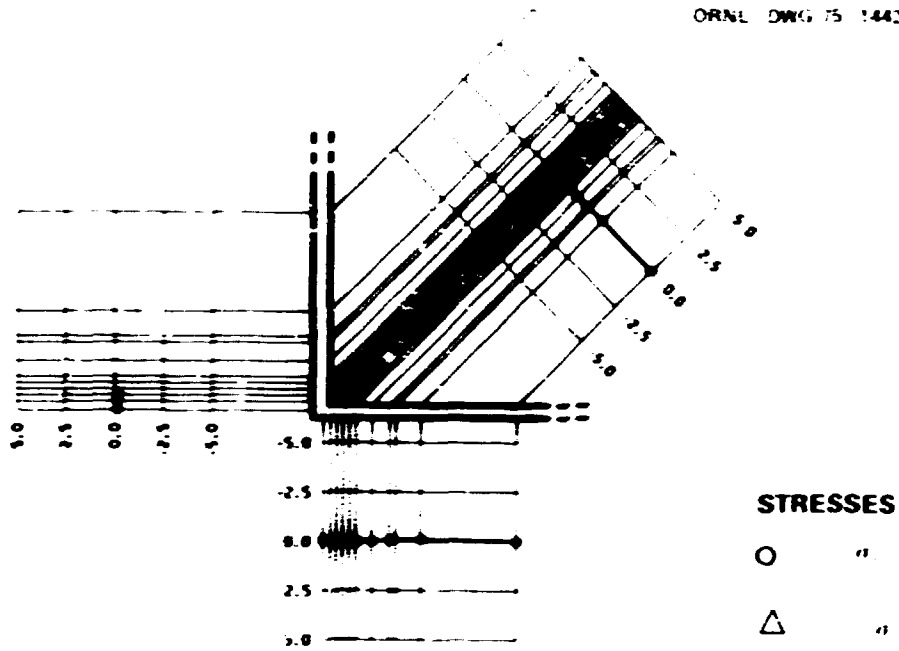


Fig. A243. Normalized total stress along stringer 5 for bending moment loading M2-2.

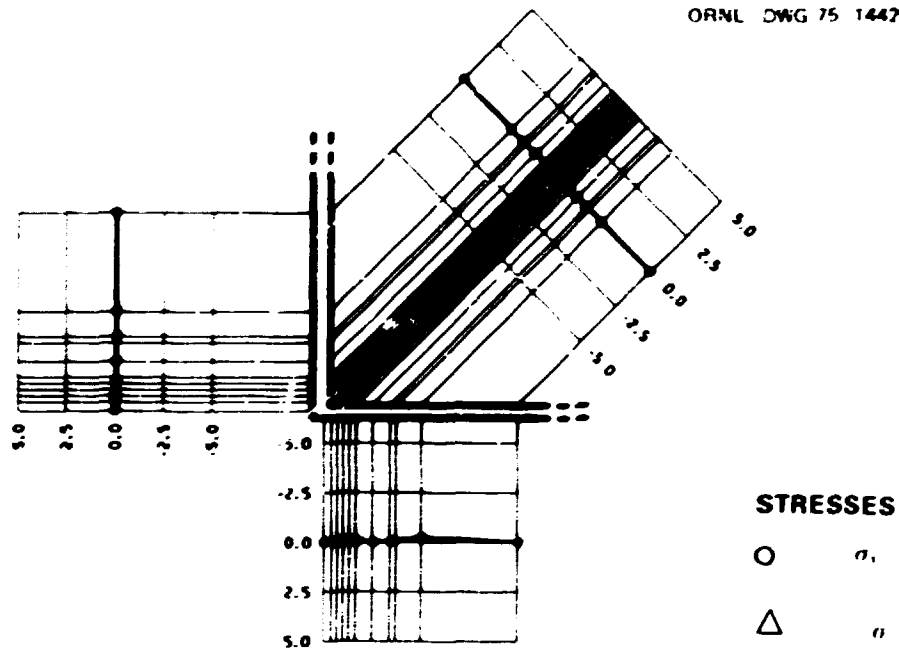


Fig. A244. Normalized total stress along stringer 13 for bending moment loading M2-2.

ORNL DWG 75 14430

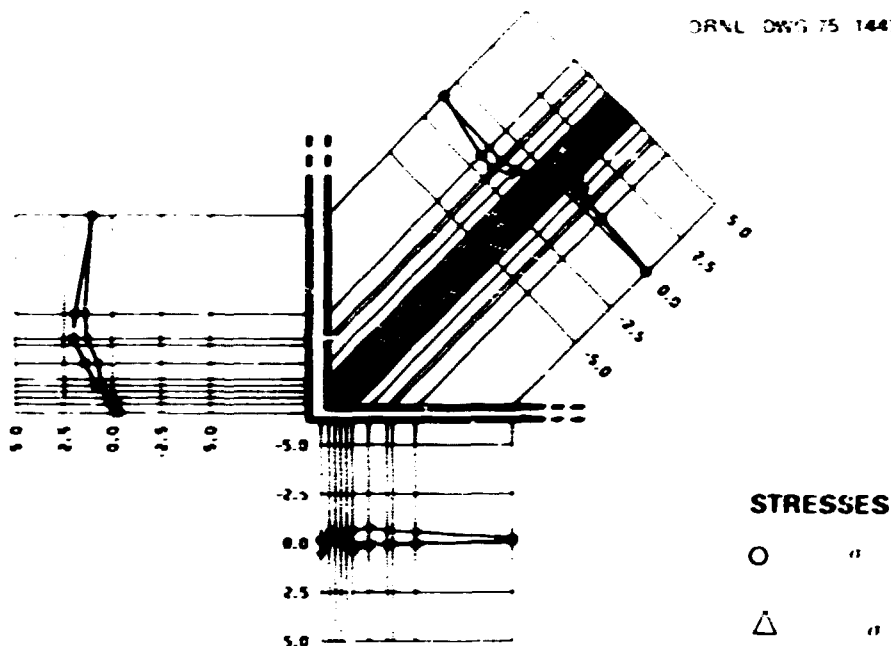


Fig. A245. Normalized total stress along stringer 15 for bending moment loading M2-2.

ORNL DWG 75 14431

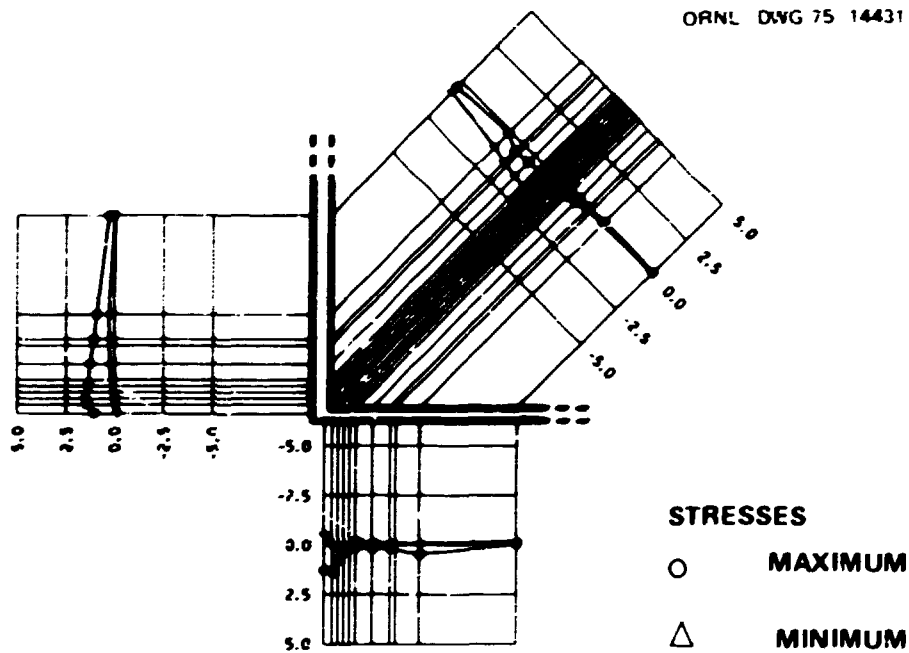


Fig. A246. Normalized principal stress along stringer 1 for bending moment loading M2-2.

ORNL DWG 75-14432

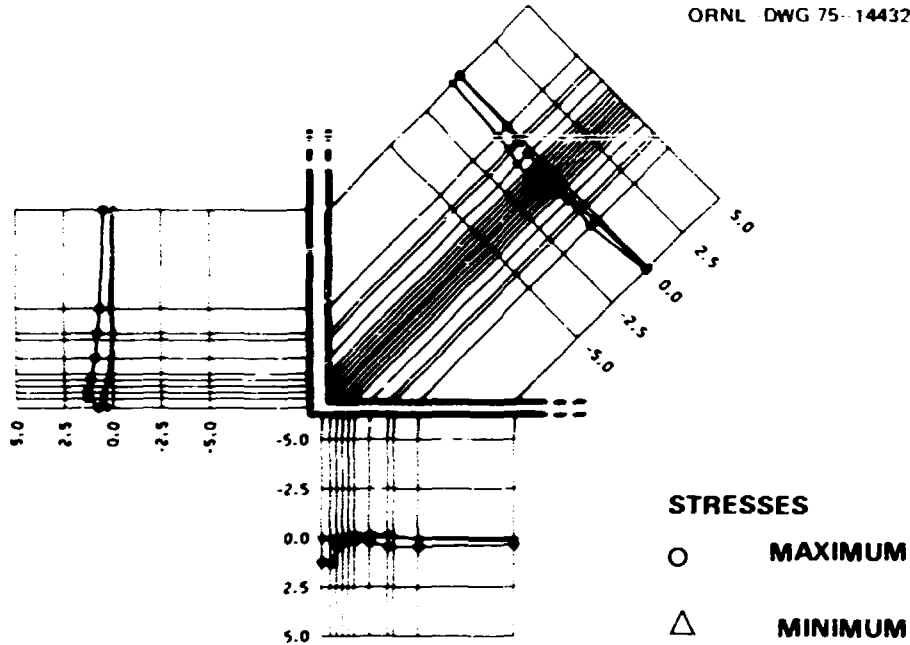


Fig. A247. Normalized principal stress along stringer 3 for bending moment loading M2-2.

ORNL DWG 75 14433

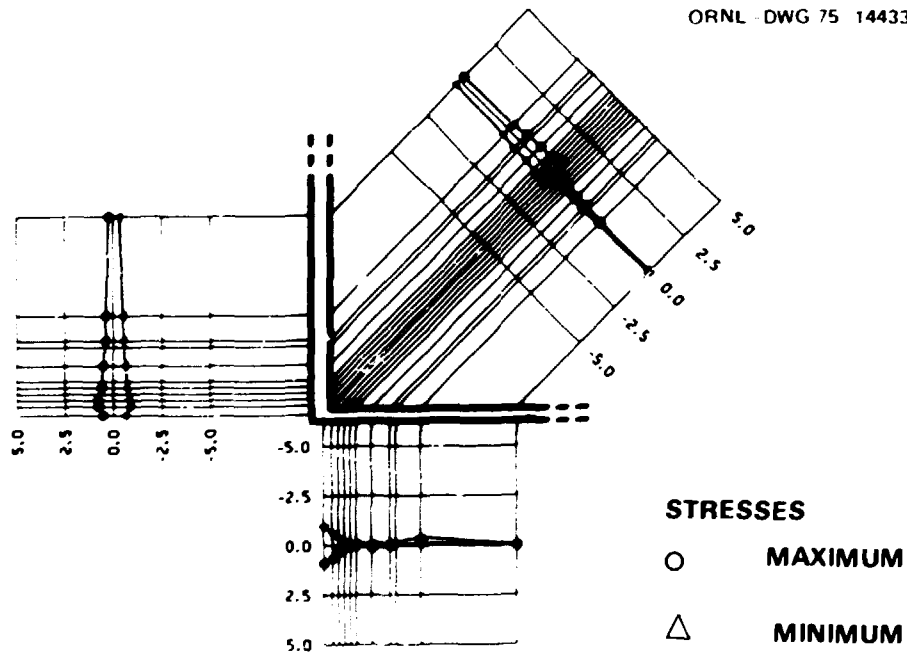


Fig. A248. Normalized principal stress along stringer 5 for bending moment loading M2-2.

ORNL-DWG 75-14434

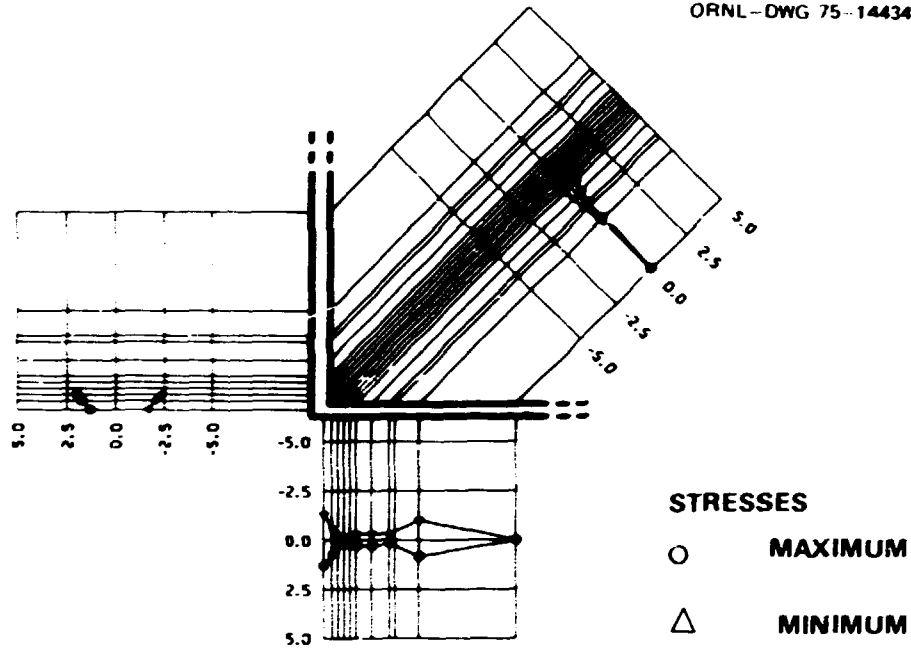


Fig. A249. Normalized principal stress along stringer 13 for bending moment loading M2-2.

ORNL-DWG 75-14435

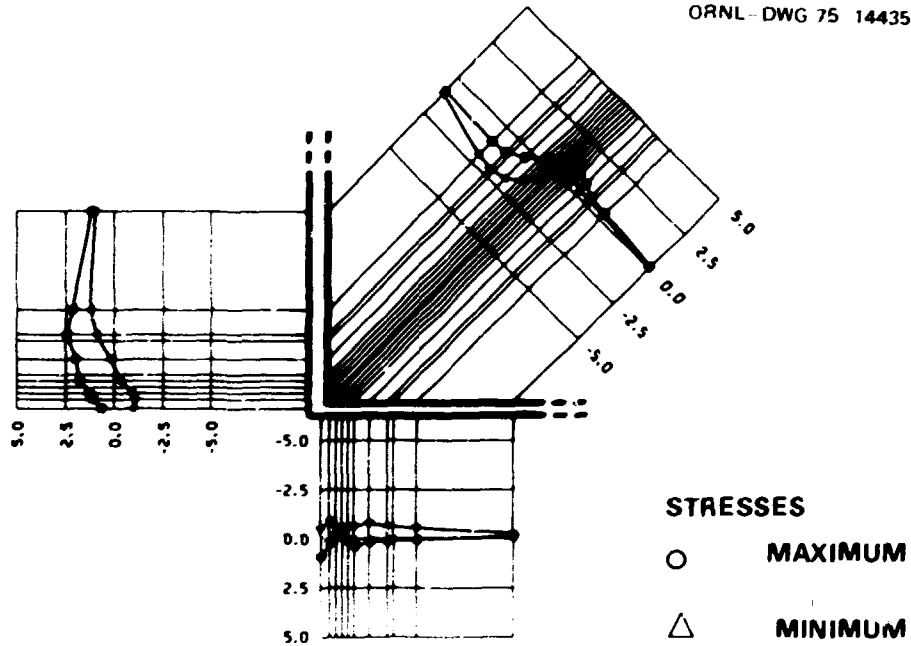


Fig. A250. Normalized principal stress along stringer 15 for bending moment loading M2-2.

ORNL-DWG 75-14436

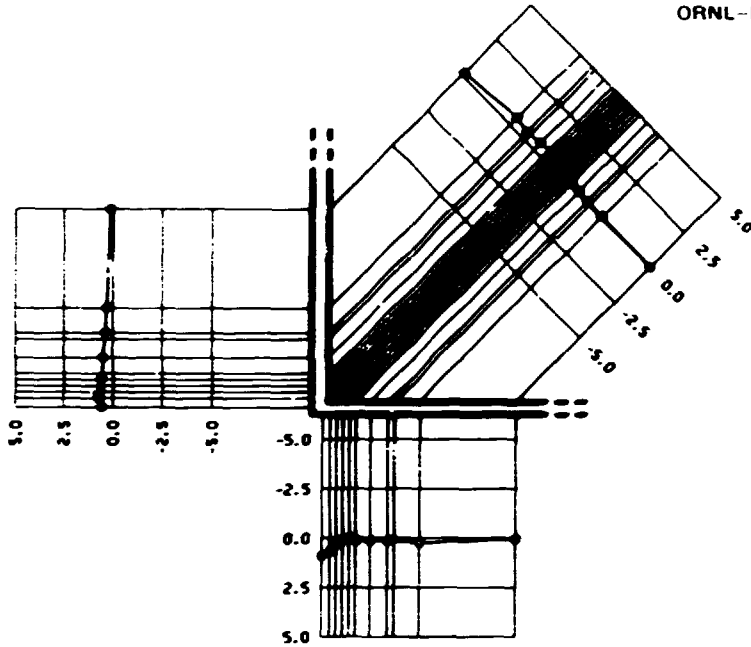


Fig. A251. Normalized shear stress along stringer 1 for bending moment loading M2-2.

ORNL-DWG 75-14437

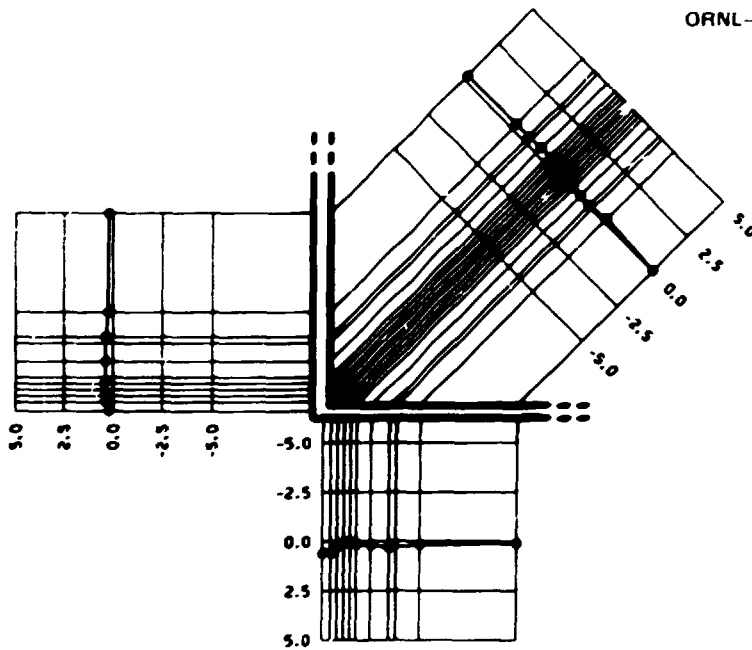


Fig. A252. Normalized shear stress along stringer 3 for bending moment loading M2-2.

ORNL-DWG 75-14438

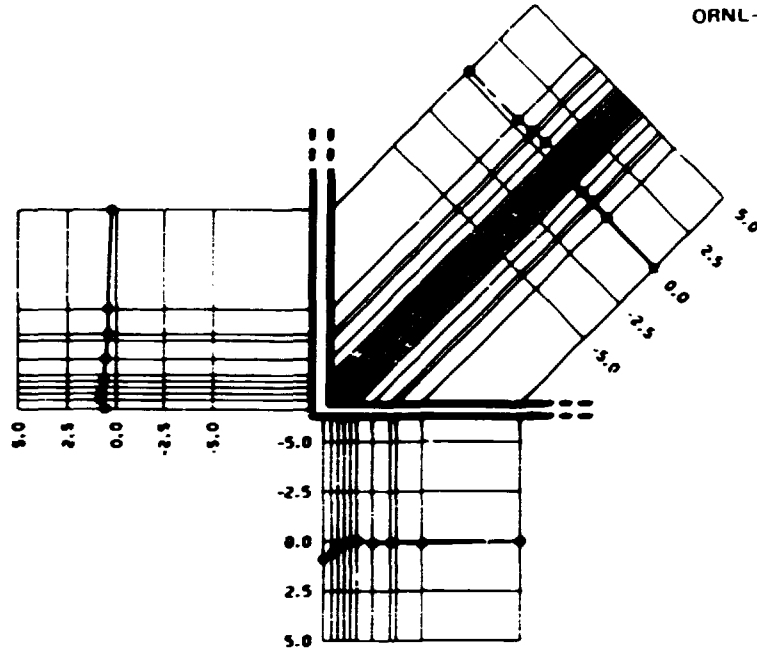


Fig. A253. Normalized shear stress along stringer 5 for bending moment loading M2-2.

ORNL-DWG 75-14439

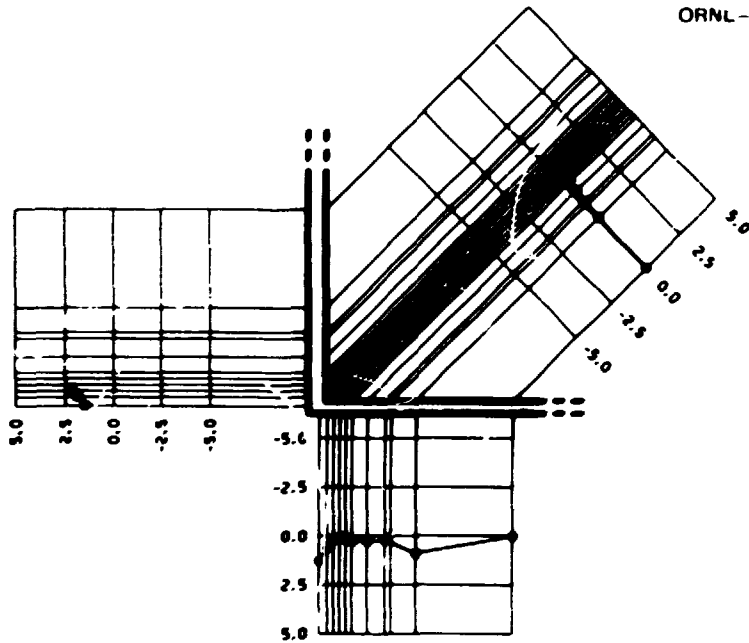


Fig. A254. Normalized shear stress along stringer 13 for bending moment loading M2-2.

ORNL-DWG 75-14440

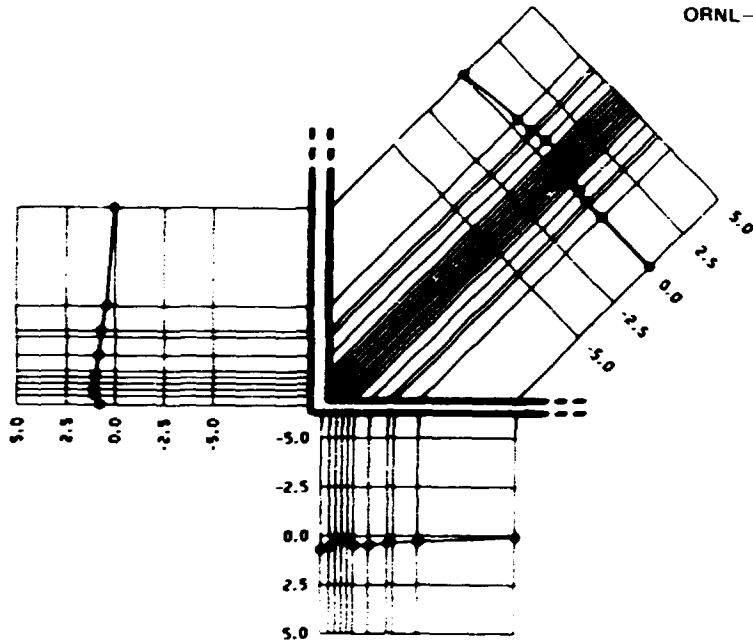


Fig. A255. Normalized shear stress along stringer 15 for bending moment loading M2-2.

ORNL-DWG 75-14441

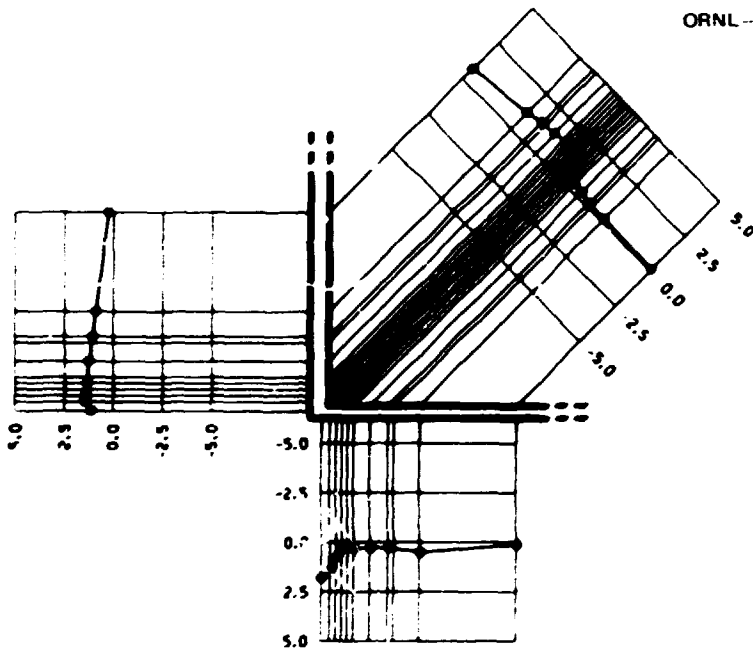


Fig. A256. Normalized stress intensity along stringer 1 for bending moment loading M2-2.

ORNL-DWG 75-14442

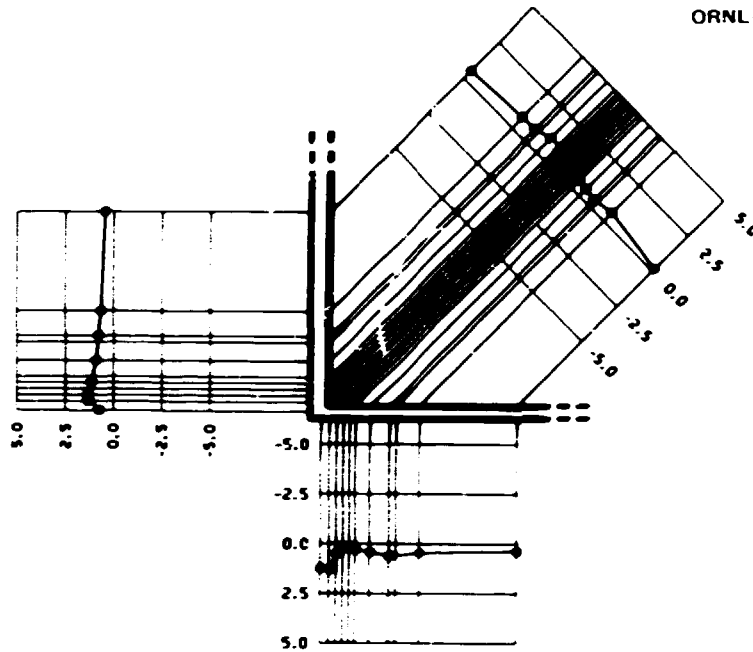


Fig. A257. Normalized stress intensity along stringer 3 for bending moment loading M2-2.

ORNL-DWG 75-14443

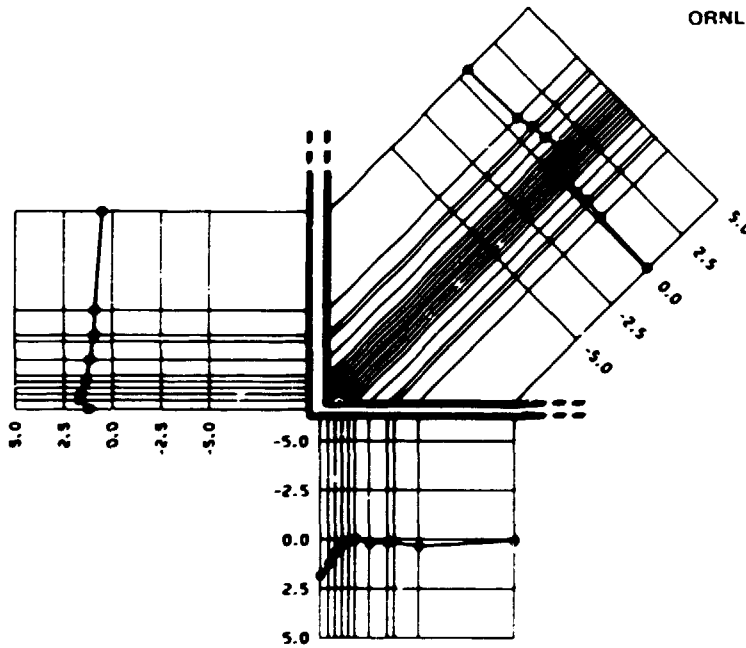


Fig. A258. Normalized stress intensity along stringer 5 for bending moment loading M2-2.

ORNL-DWG 75-14444

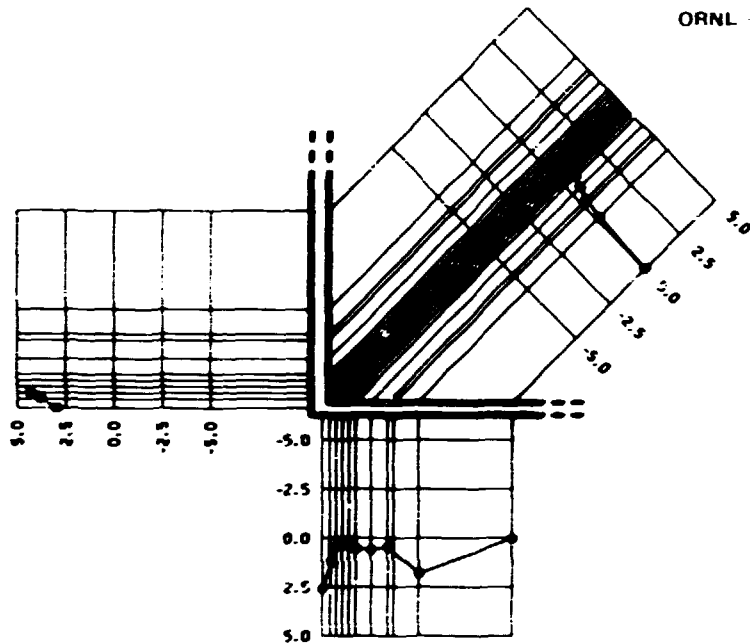


Fig. A259. Normalized stress intensity along stringer 13 for bending moment loading M2-2.

ORNL-DWG 75-14445

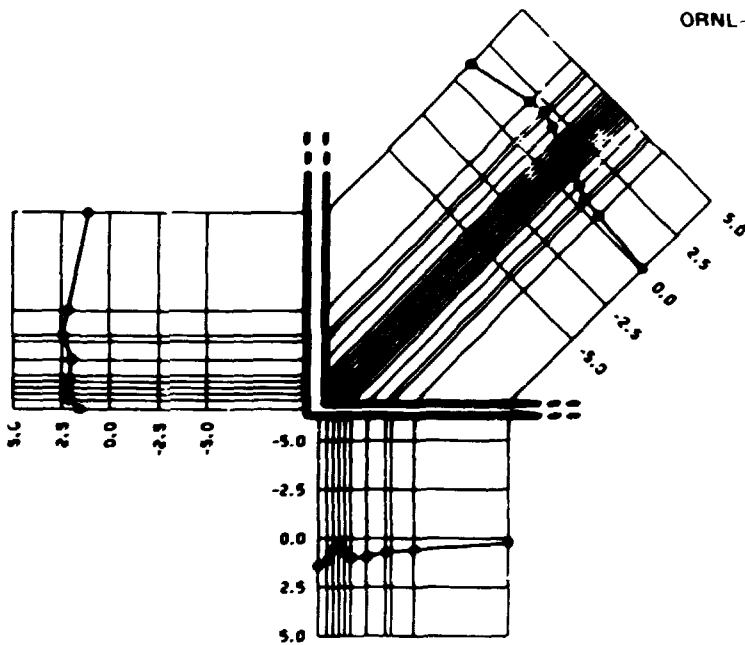


Fig. A260. Normalized stress intensity along stringer 15 for bending moment loading M2-2.

ORNL-DWG 75-14446

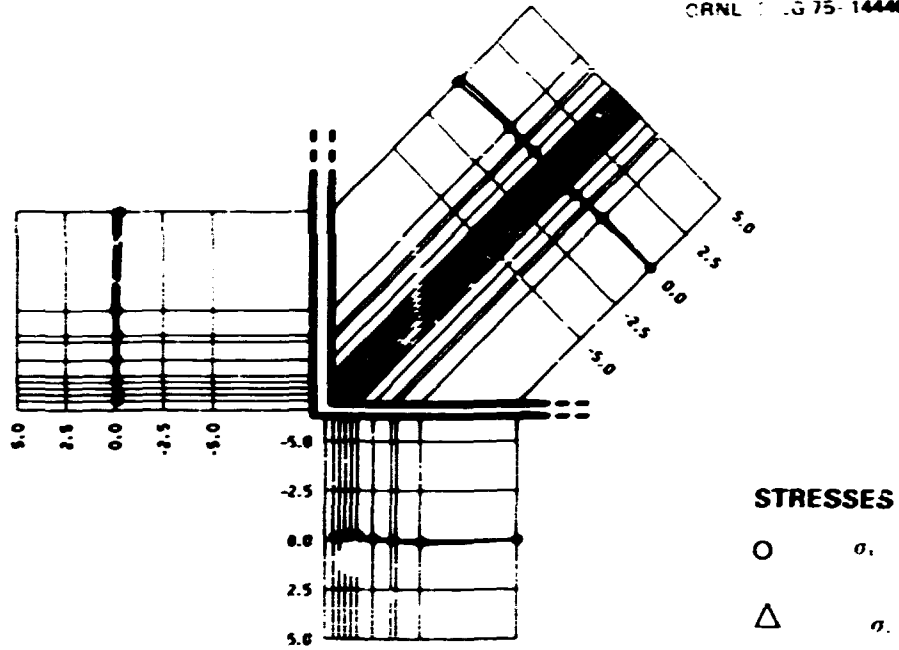


Fig. A261. Normalized membrane stress along stringer 1 for bending moment loading M2-2.

ORNL-DWG 75-14447

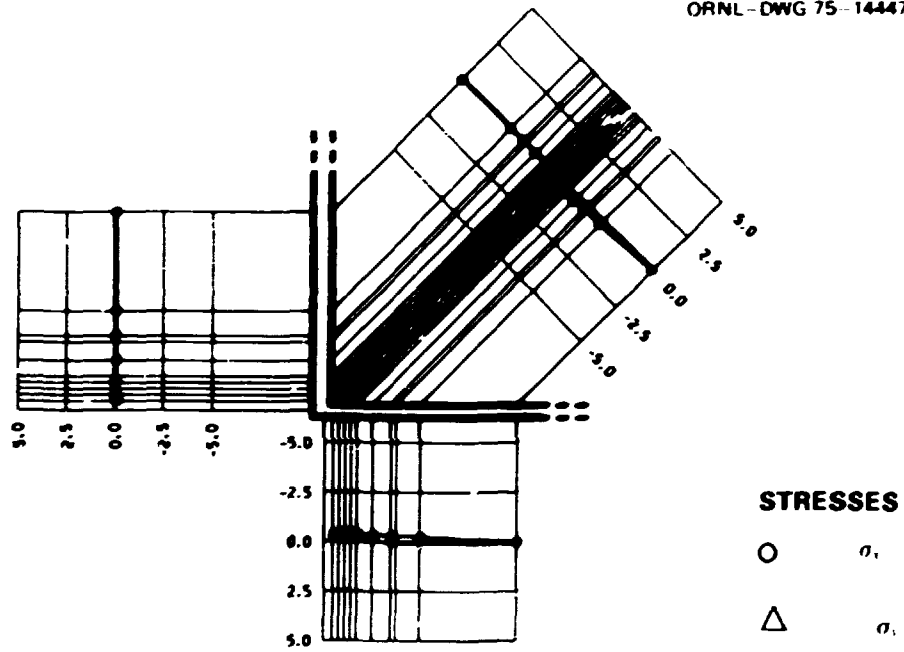


Fig. A262. Normalized membrane stress along stringer 3 for bending moment loading M2-2.

ORNL-DWG 75 14448

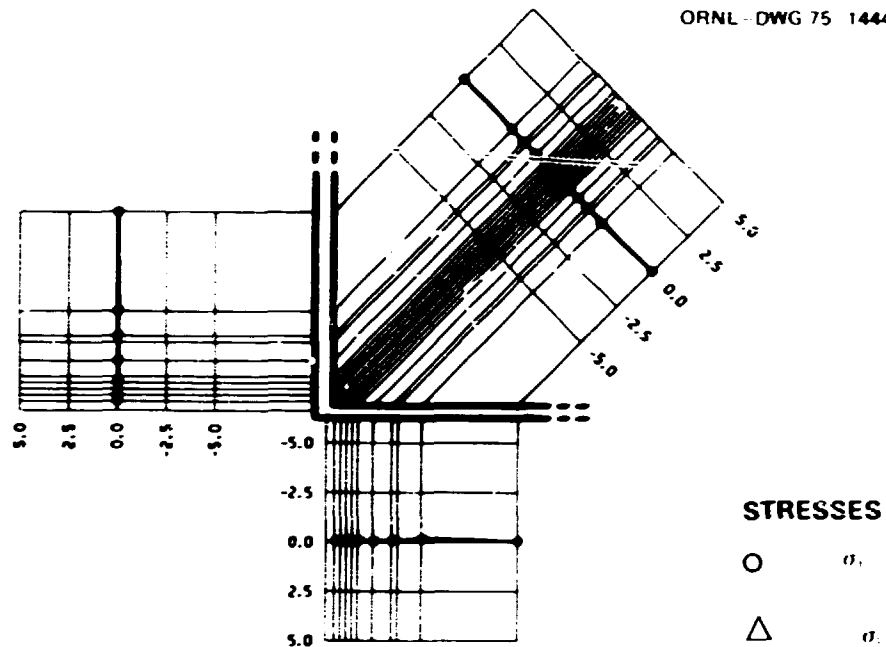


Fig. A263. Normalized membrane stress along stringer 5 for bending moment loading M2-2.

ORNL-DWG 75-14449

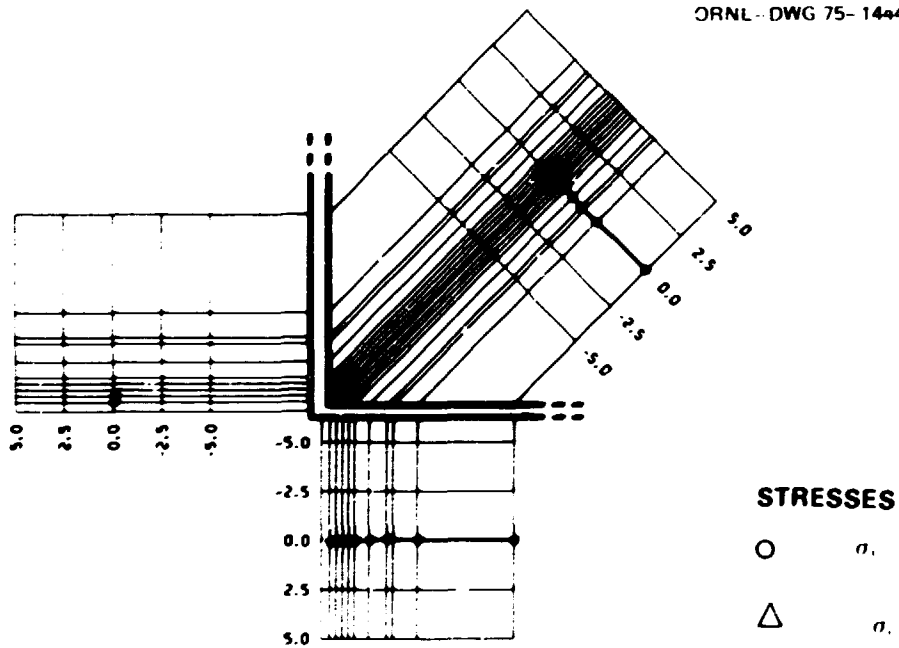


Fig. A264. Normalized membrane stress along stringer 13 for bending moment loading M2-2.

ORNL-DWG 75-14450

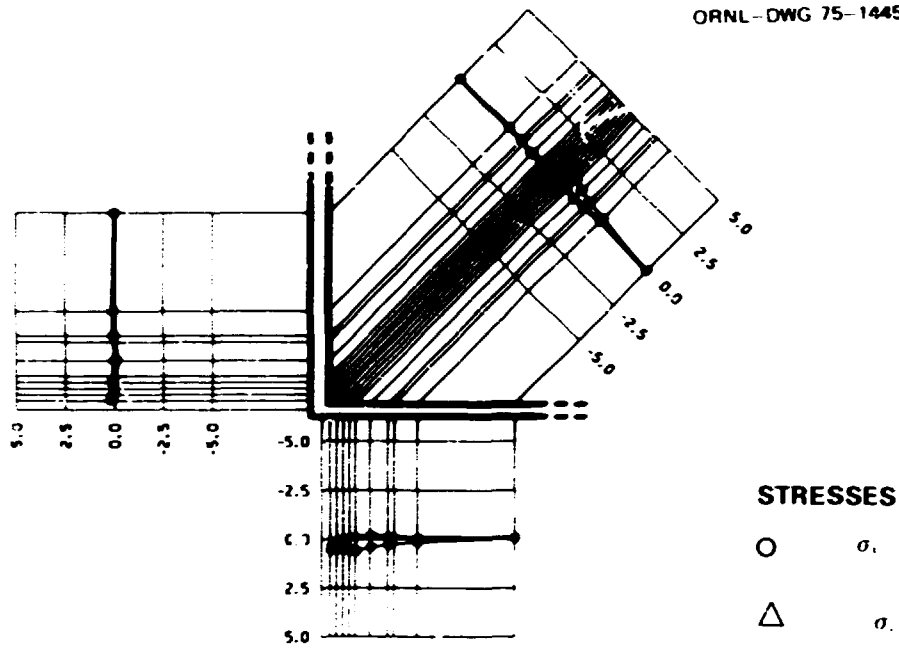


Fig. A265. Normalized membrane stress along stringer 15 for bending moment loading M2-2.

ORNL DWG 75-14451

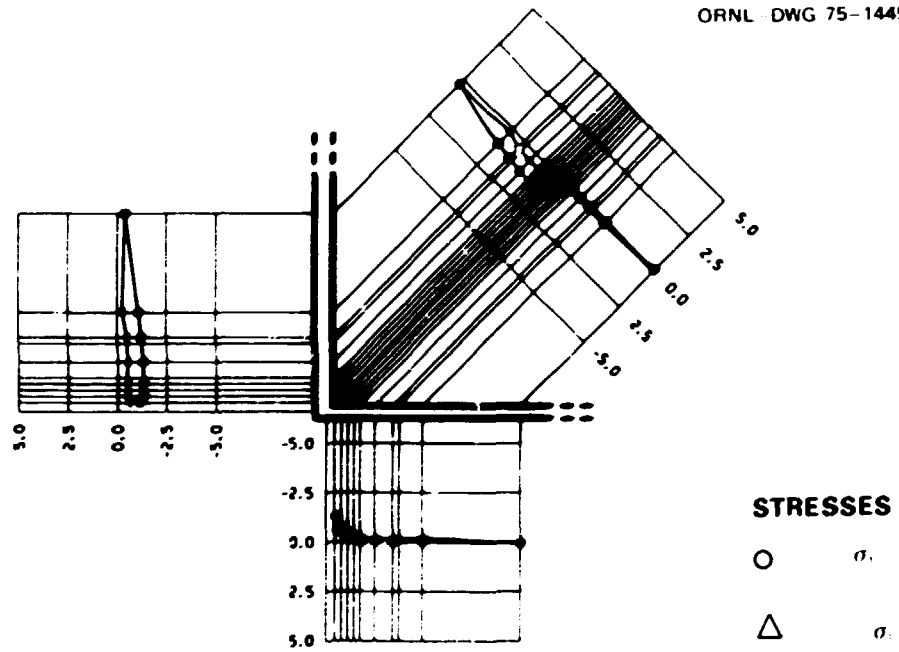


Fig. A266. Normalized bending stress along stringer 1 for bending moment loading M2-2.

ORNL DWG 75 14452

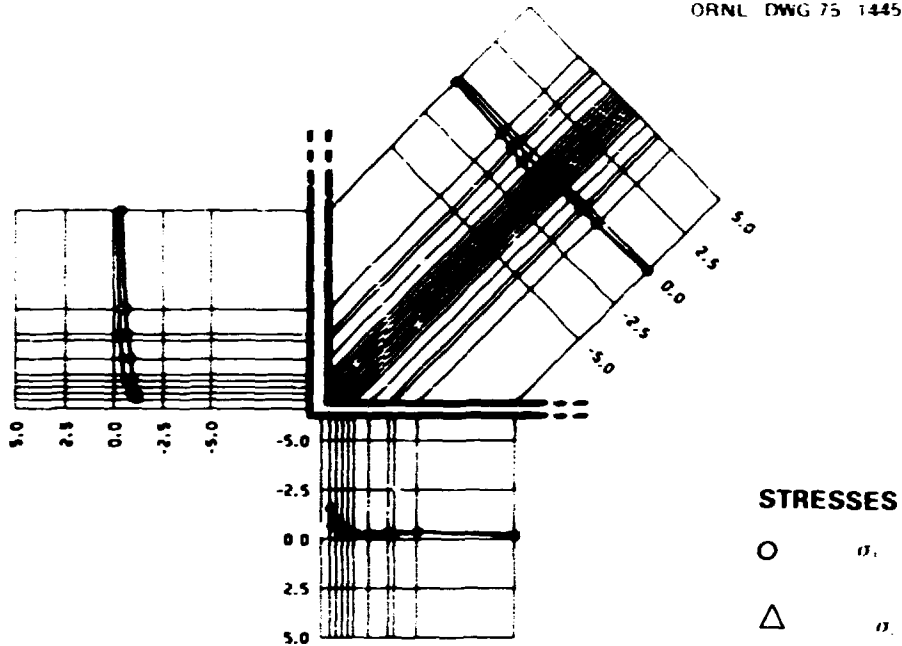


Fig. A267. Normalized bending stress along stringer 3 for bending moment loading M2-2.

ORNL DWG 75-14453

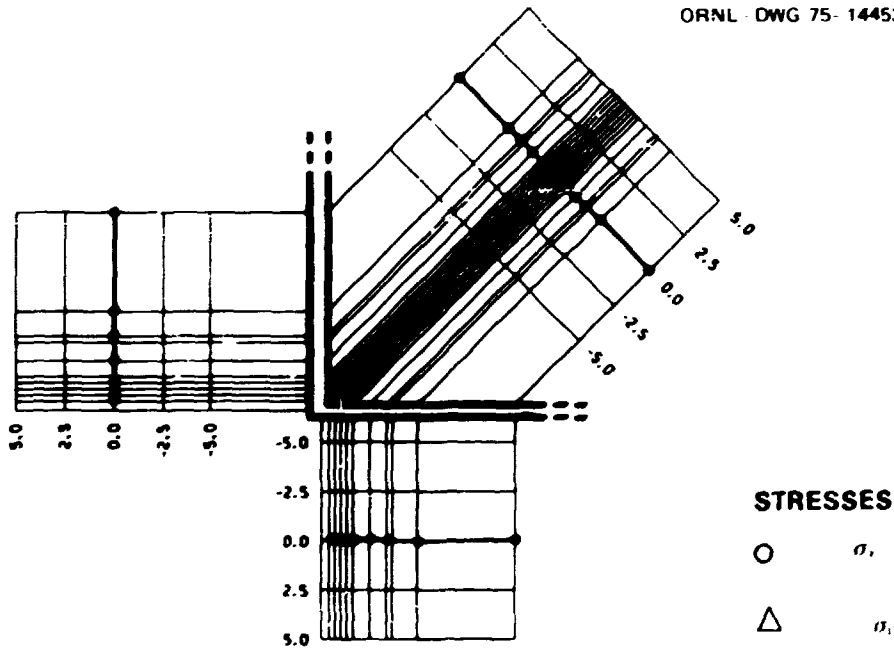


Fig. A268. Normalized bending stress along stringer 5 for bending moment loading M2-2.

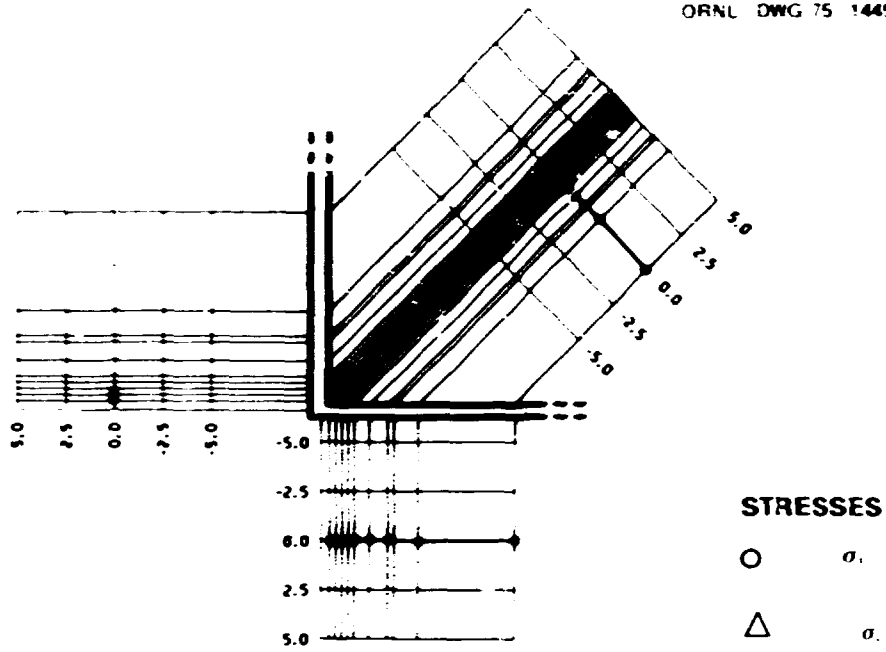


Fig. A269. Normalized bending stress along stringer 13 for bending moment loading M2-2.

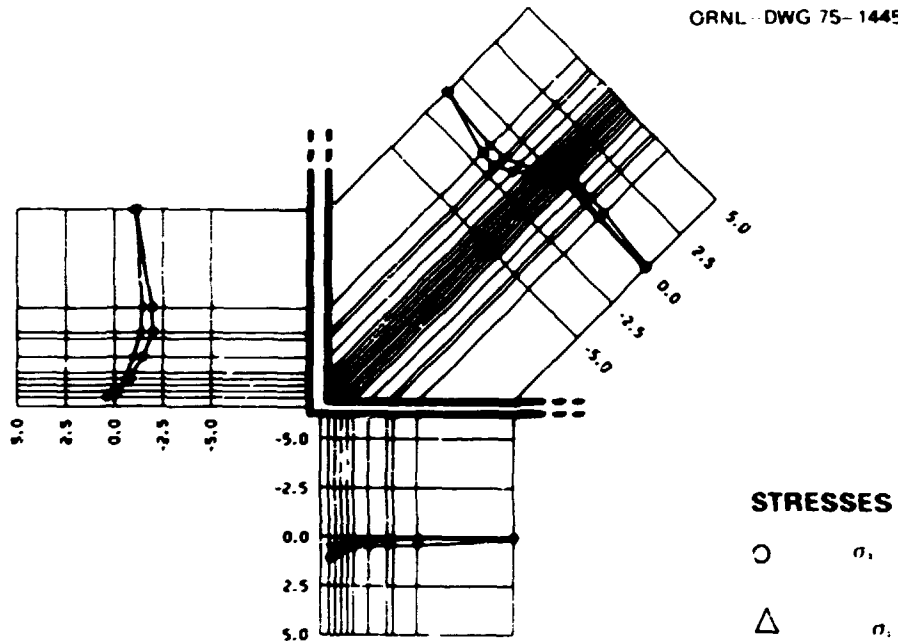


Fig. A270. Normalized bending stress along stringer 15 for bending moment loading M2-2.

BLANK PAGE

Appendix B

EXPERIMENTAL DATA: STRESSES AND STRAINS IN A FLAT PLATE WITH
TWO CLOSELY SPACED NOZZLES OF EQUAL DIAMETER ATTACHED

The stress and strain data for the experiments described here are presented in the 450 tables of this appendix. The data for the three bi-axial loadings are presented in the first 150 tables, the data for the thrust and bending moment loadings on nozzle 1 in the next 150 tables, and the data for the thrust and bending moment loadings on nozzle 2 in the last 150 tables. Within each of these groups of 50 tables, 10 tables of data for stringer 1 appear first, followed by similar data for stringers 3, 5, 13, and 15 (see Fig. 6 in the text for stringer identification). For each of these stringers, stress and strain data are given for first the plate and then the nozzle (5 tables each). These data consist of the strains, total stresses, principal stresses, maximum shear stress, angles of principal stress, and stress intensity. Normalized membrane stresses and bending stresses are presented for both the "inner" and "outer" sides where appropriate.

The recorded strains are in microinches per inch, the principal angles are in degrees, and all other values in the tables are normalized (see the discussion of normalization in the beginning of Appendix A).

The rosette positions are given in a five-digit code: the first digit indicates the surface on which the rosette was located (1 = nozzle side of plate, 2 = opposite side of plate, 3 = outside of nozzle, and 4 = inside of nozzle), the second and third digits indicate the stringer number, and the fourth and fifth give the distance from the rosette to the junction in sixteenths of an inch (e.g., "62" would indicate that the rosette was 62 sixteenths or 3.875 in. from the junction). An entry of "3000" in the tables indicates that no data were available for that location.

TABLE B1

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE

UNIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, #1=6151 PSI #13=6151 PSI

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
	3000.	3000.	3030.		
10101	63.	148.	148.	0.623	1.028
10103	68.	144.	144.	0.615	1.000
	3000.	3000.	3000.		
10107	83.	160.	144.	0.727	1.051
	3000.	3000.	3000.		
10114	100.	160.	144.	0.784	1.048
	3000.	3000.	3000.		
10122	104.	160.	132.	0.791	1.004
10130	112.	144.	128.	0.810	0.932
10167	112.	144.	136.	0.818	0.960

TABLE B2

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE

UNIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, #1=6151 PSI #13=6151 PSI

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
10101	1.028	0.623	0.203	0.0	1.028
10103	1.000	0.615	0.193	0.0	1.000
	NO DATA AVAILABLE				
10107	1.055	0.723	0.166	-6.1	1.055
	NO DATA AVAILABLE				
10114	1.052	0.780	0.136	-7.5	1.052
	NO DATA AVAILABLE				
10122	1.021	0.775	0.123	-15.0	1.021
10130	0.941	0.800	0.070	-15.0	0.941
10162	0.962	0.816	0.073	-6.9	0.962

TABLE B3

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13 , N1=6151 PSI N13=6151 PSI

PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	ADDITIONAL	TANGENTIAL
201-2	-40.	256.	284.	0.348	1.919
20101	0.	228.	264.	0.492	1.739
20103	4.	220.	244.	0.483	1.639
	3000.	3000.	3000.		
20107	60.	188.	212.	0.688	1.398
	3000.	3000.	3000.		
20114	80.	140.	204.	0.728	1.195
	3000.	3000.	3000.		
20122	100.	152.	180.	0.812	1.147
20130	116.	148.	144.	0.849	1.001
20162	120.	128.	128.	0.832	0.873

TABLE B4

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13 , N1=6151 PSI N13=6151 PSI

PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
201-2	1.922	0.346	0.788	2.2	1.922
20101	1.744	0.487	0.628	3.6	1.744
20103	1.641	0.481	0.580	2.6	1.641
	NO DATA AVAILABLE				
20107	1.402	0.684	0.359	4.2	1.402
	NO DATA AVAILABLE				
20114	1.234	0.689	0.272	15.5	1.234
	NO DATA AVAILABLE				
20122	1.159	0.801	0.178	10.1	1.158
20130	1.002	0.849	0.077	-3.3	1.002
20162	0.873	0.832	0.020	0.0	0.873

TABLE B5

MEMBRANE AND BENDING STRESSES - PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=6151$ PSI

PLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 1

COS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
201-2	NO DATA AVAILABLE			
20101	0.557	1.384	0.065	-0.355
20103	0.549	1.319	0.066	-0.320
	NO DATA AVAILABLE			
20107	0.707	1.224	0.019	-0.173
	NO DATA AVAILABLE			
20114	0.756	1.121	0.028	-0.073
	NO DATA AVAILABLE			
20122	0.802	1.076	-0.010	-0.071
20130	0.829	0.966	-0.020	-0.035
20162	0.825	0.916	-0.007	0.043

TABLE B6

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=6151$ PSI

PLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 1

COS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
30160	-8.	-12.	-4.	-0.054	-0.054
30128	-24.	-8.	-16.	-0.139	-0.078
	3000.	3000.	3000.		
30120	-16.	-20.	-20.	-0.117	-0.137
30112	-64.	-36.	-20.	-0.363	-0.181
30109	-96.	-24.	-26.	-0.505	-0.130
30107	-120.	-4.	-4.	-0.584	0.004
30105	-132.	12.	24.	-0.598	0.162
30103	-144.	44.	40.	-0.607	0.335
30101	-156.	80.	80.	-0.589	0.607
	3000.	3000.	3000.		

TABLE B7

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=6151$ PSI

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 1

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
30160	-0.037	-0.072	0.018	45.0	0.072
30128	-0.074	-0.144	0.035	-15.0	0.144
NO DATA AVAILABLE					
30120	-0.117	-0.137	0.010	0.0	0.137
30112	-0.174	-0.370	0.098	10.5	0.370
30109	-0.130	-0.505	0.188	1.3	0.505
30107	0.004	-0.584	0.294	0.0	0.588
30105	0.163	-0.599	0.381	2.0	0.762
30103	0.335	-0.607	0.471	-0.5	0.943
30101	0.607	-0.589	0.598	0.0	1.196
NO DATA AVAILABLE					

TABLE B8

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=6151$ PSI

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 1

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
40160	0.	0.	4.	0.004	0.014
40128	16.	-4.	0.	0.073	-0.018
	3000.	3000.	3000.		
40120	4.	-8.	-8.	0.003	-0.058
40112	32.	-8.	0.	0.146	-0.037
40109	64.	28.	16.	0.351	0.138
40107	40.	52.	60.	0.496	0.375
40105	80.	68.	84.	0.536	0.516
40103	72.	112.	124.	0.582	0.815
40101	44.	136.	168.	0.515	1.063
401-2	-88.	228.	228.	0.034	1.635

TABLE B9

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE
 BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=6151$ PSI

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 1

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
40160	0.019	-0.001	0.010	30.0	0.020
40128	0.074	-0.019	0.046	-5.4	0.093
NO DATA AVAILABLE					
40120	0.003	-0.058	0.030	0.0	0.061
40112	0.147	-0.038	0.093	-5.4	0.186
40109	0.355	0.135	0.110	6.9	0.355
40107	0.499	0.372	0.063	-8.1	0.499
40105	0.563	0.490	0.037	-37.0	0.563
40103	0.818	0.579	0.119	6.4	0.818
40101	1.072	0.507	0.283	7.2	1.072
401-2	1.635	0.034	0.801	0.0	1.635

TABLE B10

MEMBRANE AND BENDING STRESSES - NOZZLE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=6151$ PSI

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 1

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MEMBRIDIONAL	TANGENTIAL	MEMBRIDIONAL	TANGENTIAL
40160	-0.025	-0.020	-0.023	-0.034
40128	-0.033	-0.048	-0.106	-0.030
NO DATA AVAILABLE				
40120	-0.057	-0.097	-0.060	-0.040
40112	-0.109	-0.109	-0.254	-0.072
40109	-0.077	0.004	-0.428	-0.134
40107	-0.044	0.189	-0.540	-0.185
40105	-0.031	0.339	-0.567	-0.177
40103	-0.013	0.575	-0.595	-0.240
40101	-0.037	0.835	-0.552	-0.228
401-2	NO DATA AVAILABLE			

TABLE B11

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, M1=6151 PSI M13=6151 PSI

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
	3000.	3000.	3000.		
10301	88.	208.	204.	0.835	1.433
10303	92.	164.	172.	0.778	1.163
	3000.	3000.	3000.		
10307	100.	160.	160.	0.800	1.104
	3000.	3000.	3000.		
10314	120.	152.	156.	0.884	1.057
	3000.	3000.	3000.		
10322	132.	148.	156.	0.938	1.039
10330	124.	144.	156.	0.895	1.027
10362	116.	144.	148.	0.849	1.001

TABLE B12

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, M1=6151 PSI M13=6151 PSI

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS. POS.	MIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
10301	1.433	0.835	0.299	-0.8	1.433
10303	1.164	0.777	0.193	2.6	1.164
	NO DATA AVAILABLE				
10307	1.104	0.800	0.152	0.0	1.104
	NO DATA AVAILABLE				
10314	1.057	0.884	0.087	2.9	1.057
	NO DATA AVAILABLE				
10322	1.042	0.935	0.054	9.6	1.042
10330	1.032	0.890	0.071	10.9	1.032
10362	1.002	0.849	0.077	3.3	1.002

TABLE 813

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\epsilon_1=6151$ PSI $\epsilon_{13}=6151$ PSI

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS. PCS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
203-2	-84.	292.	308.	0.197	2.143
20301	-72.	250.	280.	0.194	1.928
20303	-16.	208.	220.	0.351	1.517
	3000.	3000.	3000.		
20307	-40.	194.	200.	0.192	1.368
	3000.	3000.	3000.		
20314	0.	168.	192.	0.360	1.272
	3000.	3000.	3000.		
20322	89.	152.	194.	0.759	1.164
20330	112.	148.	180.	0.866	1.129
20362	128.	144.	156.	0.915	1.026

TABLE 814

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\epsilon_1=6151$ PSI $\epsilon_{13}=6151$ PSI

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
203-2	2.144	0.196	0.974	1.0	2.144
20301	1.929	0.193	0.868	1.4	1.929
20303	1.518	0.351	0.583	1.3	1.518
	NO DATA AVAILABLE				
20307	1.369	0.191	0.589	1.7	1.369
	NO DATA AVAILABLE				
20314	1.275	0.357	0.459	3.3	1.275
	NO DATA AVAILABLE				
20322	1.176	0.707	0.215	9.6	1.176
20330	1.147	0.848	0.149	14.0	1.147
20362	1.032	0.909	0.062	12.6	1.032

TABLE B15

MEMBRANE AND BENDING STRESSES - PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=6151$ PSI

PLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 3

POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MEMBRANE	TANGENTIAL	MEMBRANE	TANGENTIAL
203-2	NO DATA AVAILABLE			
20301	0.515	1.680	0.320	-0.188
20303	0.565	1.380	0.213	-0.177
	NO DATA AVAILABLE			
20307	0.496	1.236	0.304	-0.132
	NO DATA AVAILABLE			
20314	0.622	1.165	0.262	-0.108
	NO DATA AVAILABLE			
20322	0.888	1.132	0.090	-0.062
20330	0.881	1.078	0.015	-0.051
20362	0.982	1.014	-0.033	-0.013

TABLE B16

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=6151$ PSI

PLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 3

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MEMBRANE	TANGENTIAL
30360	-8.	0.	-12.	-0.031	-0.041
30328	0.	8.	-8.	0.008	0.018
	3000.	3000.	3000.		
30320	0.	0.	0.	0.0	0.0
30312	-28.	-20.	-16.	-0.170	-0.120
30309	-72.	-16.	-12.	-0.378	-0.080
30307	-108.	-16.	-12.	-0.527	-0.071
30305	-132.	28.	16.	-0.590	0.191
30303	-128.	40.	40.	-0.515	0.316
30301	-112.	88.	88.	-0.362	0.652
	3000.	3000.	3000.		

TABLE 817

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $E1=6151$ PSI $E13=6151$ PSI

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

NOS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
30360	-0.009	-0.063	0.027	39.6	0.063
30328	0.036	-0.018	0.027	-39.6	0.054
NO DATA AVAILABLE					
30320	0.0	0.0	0.0	0.0	0.0
30312	-0.118	-0.172	0.027	9.6	0.172
30309	-0.080	-0.374	0.147	1.7	0.374
30307	-0.071	-0.528	0.228	1.1	0.528
30305	0.192	-0.591	0.391	-1.9	0.782
30303	0.316	-0.515	0.416	0.0	0.831
30301	0.652	-0.362	0.507	0.0	1.014
NO DATA AVAILABLE					

TABLE 818

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $E1=6151$ PSI $E13=6151$ PSI

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

NOS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
40360	0.	0.	4.	0.004	0.014
40328	-12.	4.	-4.	-0.058	0.003
	3000.	3000.	3000.		
40320	12.	-4.	0.	0.054	-0.017
40312	52.	0.	8.	0.258	0.014
40309	88.	28.	24.	0.475	0.160
40307	88.	64.	64.	0.551	0.429
40305	88.	96.	96.	0.615	0.655
40303	60.	136.	136.	0.560	0.945
40301	24.	140.	184.	0.439	1.139
403-2	-120.	236.	284.	-0.056	1.870

TABLE B19

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE
 BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, S1=6151 PSI S13=6151 PSI

PLAT PLATE TWO NOZZLS
 NOZZLE ONE STRINGER NO. 3

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
40360	0.019	-0.001	0.010	30.0	0.020
40328	0.008	-0.062	0.035	-15.0	0.070
NO DATA AVAILABLE					
40320	0.055	-0.018	0.037	-6.9	0.073
40312	0.259	0.013	0.123	-4.1	0.259
40309	0.475	0.160	0.157	1.6	0.475
40307	0.551	0.429	0.061	0.0	0.551
40305	0.655	0.615	0.020	0.0	0.655
40303	0.945	0.560	0.193	0.0	0.945
40301	1.152	0.426	0.363	7.7	1.152
403-2	1.876	-0.062	0.969	3.1	1.937

TABLE B20

MEMBRANE AND BENDING STRESSES - NOZZLE
 BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, S1=6151 PSI S13=6151 PSI

PLAT PLATE TWO NOZZLS
 NOZZLE ONE STRINGER NO. 3

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
40360	-0.014	-0.014	-0.016	-0.028
40328	-0.027	0.009	0.031	0.005
NO DATA AVAILABLE				
40320	0.027	-0.009	-0.027	0.009
40312	0.044	-0.053	-0.214	-0.067
40309	0.050	0.040	-0.424	-0.120
40307	0.012	0.179	-0.539	-0.250
40305	0.012	0.423	-0.602	-0.232
40303	0.022	0.631	-0.538	-0.315
40301	0.039	0.895	-0.401	-0.243
403-2	NO DATA AVAILABLE			

TABLE B21

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE
 BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=6151$ PSI

FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 5

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	AXIDIONAL	TANGENTIAL
	3000.	3000.	3000.		
10501	72.	192.	192.	0.826	1.333
10503	104.	188.	180.	0.867	1.273
	3000.	3000.	3000.		
10507	120.	160.	160.	0.896	1.099
	3000.	3000.	3000.		
10514	132.	160.	160.	0.954	1.096
	3000.	3000.	3000.		
10522	132.	136.	160.	0.930	1.011
10530	136.	132.	136.	0.921	0.911
10562	144.	128.	128.	0.948	0.866

TABLE B22

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=6151$ PSI

FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 5

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
10501	1.333	0.826	0.253	0.0	1.333
10503	1.274	0.867	0.203	-2.5	1.274
	NO DATA AVAILABLE				
10507	1.099	0.896	0.101	0.0	1.099
	NO DATA AVAILABLE				
10514	1.096	0.954	0.071	0.0	1.096
	NO DATA AVAILABLE				
10522	1.037	0.904	0.066	26.2	1.037
10530	0.926	0.906	0.010	-30.0	0.926
10562	0.948	0.866	0.041	0.0	0.948

TABLE B23

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=6151$ PSI

PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	AXIDIONAL	TANGENTIAL
205-2	-84.	324.	312.	0.233	2.270
20501	-72.	300.	300.	0.254	2.140
20503	-76.	240.	240.	0.307	1.706
	3600.	3000.	3000.		
20507	24.	188.	212.	0.515	1.407
	3000.	3000.	3000.		
20514	52.	192.	184.	0.626	1.315
	3000.	3000.	3000.		
20522	84.	180.	176.	0.759	1.236
20530	92.	152.	168.	0.762	1.107
20562	132.	148.	144.	0.926	0.997

TABLE B24

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=6151$ PSI

PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
205-2	2.271	0.233	1.019	-0.7	2.271
20501	2.140	0.255	0.943	0.0	2.140
20503	1.706	0.307	0.699	0.0	1.706
	NO DATA AVAILABLE				
20507	1.410	0.512	0.449	3.4	1.410
	NO DATA AVAILABLE				
20514	1.316	0.625	0.305	-1.5	1.316
	NO DATA AVAILABLE				
20522	1.236	0.759	0.238	-1.1	1.236
20530	1.110	0.758	0.176	5.8	1.110
20562	0.998	0.925	0.037	-6.9	0.998

TABLE P25

MEMBRANE AND BENDING STRESSES - PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, N1=6151 PSI N13=6151 PSI

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
205-2	NO DATA AVAILABLE			
20501	0.540	1.736	0.286	-0.404
20503	0.587	1.490	0.280	-0.217
	NO DATA AVAILABLE			
20507	0.706	1.253	0.190	-0.154
	NO DATA AVAILABLE			
20514	0.790	1.295	0.164	-0.110
	NO DATA AVAILABLE			
20522	0.805	1.123	0.085	-0.112
20530	0.841	1.009	0.080	-0.098
20562	0.937	0.932	0.011	-0.065

TABLE P26

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, N1=6151 PSI N13=6151 PSI

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
30560	0.	16.	8.	0.024	0.085
30528	-8.	-4.	0.	-0.042	-0.012
	3000.	3000.	3000.		
30520	0.	-8.	-4.	-0.012	-0.042
30512	-24.	-24.	-20.	-0.159	-0.149
30509	-76.	-16.	-12.	-0.393	-0.079
30507	-92.	0.	0.	-0.442	0.025
30505	-112.	32.	16.	-0.470	0.200
30503	-124.	64.	76.	-0.455	0.528
30501	-88.	120.	132.	-0.170	0.914
	3000.	3000.	3000.		

TABLE B27

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=6151$ PSI

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
30560	0.090	0.019	0.035	-15.0	0.090
30528	-0.010	-0.045	0.018	15.0	0.045
NO DATA AVAILABLE					
30520	-0.010	-0.045	0.018	-15.0	0.045
30512	-0.164	-0.164	0.010	30.0	0.164
30509	-0.078	-0.393	0.157	1.6	0.393
30507	0.025	-0.442	0.233	0.0	0.456
30505	0.201	-0.492	0.346	-2.9	0.693
30503	0.529	-0.456	0.492	1.5	0.985
30501	0.915	-0.171	0.543	1.4	1.086
NO DATA AVAILABLE					

TABLE B28

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=6151$ PSI

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
40560	0.	0.	-16.	-0.016	-0.057
40528	0.	-4.	4.	0.0	0.0
	3000.	3000.	3000.		
40520	16.	-8.	-4.	0.065	-0.047
40512	50.	8.	-8.	0.269	-0.015
40509	100.	32.	48.	0.560	0.256
40507	112.	68.	76.	0.682	0.479
40505	104.	120.	96.	0.715	0.736
40503	76.	152.	148.	0.665	1.000
40501	0.	188.	176.	0.364	1.287
405-2	-148.	256.	284.	-0.171	1.940

TABLE B 29

PRINCIPAL STRESS DATA - INFER SURFACE OF NOZZLE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, M1=6151 PSI M13=6151 PSIPLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
40560	0.062	-0.077	0.041	30.0	0.081
40528	0.018	-0.018	0.018	45.0	0.035
NO DATA AVAILABLE					
40520	0.066	-0.047	0.056	-4.5	0.113
40512	0.273	-0.019	0.146	6.9	0.292
40509	0.564	0.252	0.156	-6.5	0.564
40507	0.683	0.478	0.103	-4.9	0.683
40505	0.774	0.672	0.054	-39.6	0.779
40503	1.040	0.665	0.188	-1.3	1.040
40501	1.287	0.363	0.462	-1.6	1.287
405-2	1.950	-0.172	1.061	1.7	2.122

TABLE B 30

MEMBRANE AND BENDING STRESSES - NOZZLE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, M1=6151 PSI M13=6151 PSIPLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
40560	0.004	0.014	0.004	0.071
40528	-0.021	-0.006	-0.021	-0.006
NO DATA AVAILABLE				
40520	0.026	-0.045	0.038	0.002
40512	0.055	-0.082	-0.214	-0.067
40509	0.084	0.089	-0.477	-0.167
40507	0.120	0.252	-0.562	-0.227
40505	0.113	0.468	-0.602	-0.268
40503	0.105	0.784	-0.560	-0.256
40501	0.277	1.100	-0.267	-0.186
405-2	NO DATA AVAILABLE			

TABLE B35

MEMBRANE AND BENDING STRESSES - PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13 , $\sigma_1=6151$ PSI $\sigma_{13}=6151$ PSI

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 13

NOS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
213-2	NO DATA AVAILABLE			
21301	NO DATA AVAILABLE			
21303	0.505	1.928	0.521	-0.295
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			

TABLE B36

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13 , $\sigma_1=6151$ PSI $\sigma_{13}=6151$ PSI

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 13

NOS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
31360	8.	0.	0.	0.019	-0.001
31328	16.	-8.	-8.	0.069	-0.033
	3000.	3000.	3000.		
31320	20.	-12.	-8.	0.076	-0.076
31312	-8.	-16.	-16.	-0.070	-0.11
31309	-88.	-8.	-8.	-0.227	-0.045
31307	-72.	0.	0.	-0.346	0.019
31305	-88.	36.	36.	-0.351	0.278
31303	-100.	76.	80.	-0.324	0.578
31301	-60.	160.	156.	0.628	1.133
	3000.	3000.	3000.		

TABLE B17

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $E1=6151$ PSI $E13=6151$ PSI

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 13

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
31360	0.019	-0.001	0.010	0.0	0.020
31328	0.069	-0.033	0.051	0.0	0.101
NO DATA AVAILABLE					
31320	0.077	-0.077	0.077	-3.3	0.153
31312	-0.070	-0.111	0.020	0.0	0.111
31309	-0.045	-0.227	0.091	0.0	0.227
31307	0.019	-0.346	0.182	0.0	0.375
31305	0.278	-0.350	0.314	0.0	0.628
31303	0.578	-0.324	0.451	0.6	0.902
31301	1.133	0.028	0.552	-0.5	1.133
NO DATA AVAILABLE					

TABLE B18

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $E1=6151$ PSI $E13=6151$ PSI

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 13

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MEMORIAL	TANGENTIAL
41360	-8.	-8.	-8.	-0.027	-0.027
41328	8.	8.	-8.	0.038	-0.002
	3000.	3000.	3000.		
41320	16.	-12.	-8.	0.057	-0.075
41312	56.	20.	20.	0.309	0.126
41309	108.	48.	60.	0.627	0.353
41307	120.	96.	92.	0.764	0.632
41305	96.	128.	132.	0.721	0.893
41303	60.	180.	168.	0.636	1.214
41301	-52.	248.	260.	0.258	1.009
413-2	-176.	384.	360.	-0.101	2.677

TABLE B39

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE

BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, $E1=6151$ PSI $E13=6151$ PSI

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 13

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
41360	-0.027	-0.027	0.0	0.0	0.027
41328	0.045	-0.009	0.027	20.4	0.054
NO DATA AVAILABLE					
41320	0.057	-0.076	0.066	-3.8	0.133
41312	0.309	0.126	0.091	0.0	0.309
41309	0.629	0.350	0.139	-5.4	0.629
41307	0.765	0.632	0.066	3.8	0.765
41305	0.894	0.721	0.087	2.9	0.894
41303	1.215	0.635	0.290	-2.6	1.215
41301	1.810	0.258	0.776	1.0	1.810
413-2	2.677	-0.192	1.390	-1.1	2.779

TABLE B40

MEMBRANE AND BENDING STRESSES - NOZZLE

BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, $E1=6151$ PSI $E13=6151$ PSI

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 13

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
41360	-0.004	-0.014	0.023	0.013
41328	0.054	-0.017	0.015	-0.015
NO DATA AVAILABLE				
41320	0.066	-0.075	0.010	-0.001
41312	0.119	0.008	-0.190	-0.119
41309	0.200	0.154	-0.427	-0.190
41307	0.209	0.326	-0.555	-0.307
41305	0.185	0.586	-0.536	-0.308
41303	0.156	0.896	-0.480	-0.318
41301	0.143	1.471	-0.115	-0.338
413-2	NO DATA AVAILABLE			

TABLE B41

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, W1=6151 PSI W13=6151 PSI

PLAT PLATE TWO NOZZLS
NOZZLE ONE STRINGER NO. 15

G.S. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
	3000.	3000.	3000.		
11501	96.	184.	184.	0.829	1.275
11503	104.	148.	176.	0.823	1.117
	3000.	3000.	3000.		
11507	120.	136.	152.	0.864	0.986
	3000.	3000.	3000.		
11514	136.	140.	140.	0.933	0.953
	3000.	3000.	3000.		
11522	144.	116.	112.	0.920	0.767
11530	120.	160.	104.	0.846	0.901
11562	132.	168.	128.	0.930	1.011

TABLE B42

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, W1=6151 PSI W13=6151 PSI

PLAT PLATE TWO NOZZLS
NOZZLE ONE STRINGER NO. 15

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
11501	1.275	0.829	0.223	0.0	1.275
11503	1.130	0.811	0.159	11.3	1.130
	NO DATA AVAILABLE				
11507	0.995	0.855	0.070	15.0	0.995
	NO DATA AVAILABLE				
11514	0.953	0.933	0.010	0.0	0.953
	NO DATA AVAILABLE				
11522	0.920	0.767	0.077	3.3	0.920
11530	0.997	0.744	0.127	-38.1	0.997
11562	1.067	0.874	0.097	-32.6	1.067

TABLE B43

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, F1=6151 PSI F13=6151 PSIFLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 15

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
215-2	-60.	320.	320.	0.360	2.306
21501	-12.	300.	160.	0.415	1.672
21503	20.	200.	132.	0.512	1.465
	3000.	3000.	3000.		
21507	80.	220.	100.	0.798	1.124
	3000.	3000.	3000.		
21510	100.	150.	112.	0.940	0.910
	3000.	3000.	3000.		
21522	150.	80.	100.	0.973	0.750
21530	100.	100.	160.	0.952	0.801
21562	100.	120.	160.	0.768	0.991

TABLE B44

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, F1=6151 PSI F13=6151 PSIFLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 15

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
215-2	2.306	0.360	0.973	0.0	2.306
21501	1.739	0.307	0.696	-12.7	1.739
21503	1.570	0.407	0.582	-17.5	1.570
	NO DATA AVAILABLE				
21507	1.205	0.587	0.329	-25.4	1.205
	NO DATA AVAILABLE				
21510	1.023	0.827	0.098	80.5	1.023
	NO DATA AVAILABLE				
21522	1.001	0.682	0.179	-25.8	1.001
21530	1.052	0.780	0.136	-37.5	1.052
21562	1.033	0.725	0.153	21.7	1.033

TABLE 245

MEMBRANE AND BENDING STRESSES - PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13 , M1=6151 PSI M13=6151 PSI

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

NOS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
215-2	NO DATA AVAILABLE			
21501	0.622	1.473	0.207	-0.198
21503	0.668	1.291	0.156	-0.174
	NO DATA AVAILABLE			
21507	0.786	1.055	0.078	-0.069
	NO DATA AVAILABLE			
21514	0.937	0.932	-0.004	0.622
	NO DATA AVAILABLE			
21522	0.946	0.759	-0.027	0.009
21530	0.896	0.891	-0.056	0.010
21562	0.849	1.001	0.081	0.010

TABLE 246

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13 , M1=6151 PSI M13=6151 PSI

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

NOS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
31560	4.	0.	0.	0.019	-0.001
31528	0.	8.	-4.	0.004	0.014
	3000.	3000.	3000.		
31520	0.	12.	-12.	0.0	0.0
31512	-84.	-16.	-28.	-0.255	-0.144
31509	-80.	-4.	-20.	-0.408	-0.063
31507	-108.	4.	4.	-0.511	0.057
31505	-128.	28.	20.	-0.567	0.204
31503	-132.	56.	60.	-0.518	0.445
31501	-120.	56.	56.	-0.464	0.428
	3000.	3000.	3000.		

TABLE B87

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $E1=6151$ PSI $E13=6151$ PSI

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

WOS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
31560	0.019	-0.001	0.010	0.0	0.020
31528	0.016	-0.018	0.027	-39.6	0.054
NO DATA AVAILABLE					
31520	0.053	-0.053	0.053	45.0	0.105
31512	-0.138	-0.261	0.062	-12.6	0.264
31509	-0.060	-0.412	0.176	-5.8	0.412
31507	0.057	-0.511	0.234	3.0	0.568
31505	0.204	-0.567	0.386	-1.3	0.771
31503	0.445	-0.518	0.482	0.5	0.963
31501	0.428	-0.464	0.446	0.0	0.892
NO DATA AVAILABLE					

TABLE B88

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $E1=6151$ PSI $E13=6151$ PSI

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

ROS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
41560	-8.	-8.	4.	-0.023	-0.013
41528	-8.	0.	0.	-0.019	0.001
	3000.	3000.	3000.		
41520	12.	-8.	0.	0.050	-0.031
41512	56.	12.	16.	0.297	0.084
41509	88.	52.	48.	0.523	0.330
41507	100.	72.	80.	0.632	0.511
41505	92.	104.	104.	0.650	0.711
41503	40.	140.	120.	0.452	0.908
41501	-52.	192.	136.	0.078	1.173
415-2	-92.	264.	236.	0.058	1.792

TABLE B49

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $E_1=6151$ PSI $E_{13}=6151$ PSI

FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 15

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	HAX.	MIN.			
41560	0.009	-0.045	0.027	39.6	0.054
41528	0.001	-0.019	0.010	0.0	0.020
NO DATA AVAILABLE					
41520	0.053	-0.035	0.044	-11.7	0.088
41512	0.297	0.084	0.107	-2.4	0.297
41509	0.523	0.330	0.097	2.6	0.523
41507	0.635	0.508	0.063	-8.1	0.635
41505	0.711	0.650	0.030	0.0	0.711
41503	0.912	0.448	0.232	-5.4	0.912
41501	1.187	0.065	0.561	-6.3	1.187
415-2	1.794	0.056	0.869	-2.0	1.794

TABLE B50

MEMBRANE AND BENDING STRESSES - NOZZLE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $E_1=6151$ PSI $E_{13}=6151$ PSI

FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO 15

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MEMBRANE	TANGENTIAL	MEMBRANE	TANGENTIAL
41560	-0.002	-0.007	0.021	0.006
41528	-0.008	0.008	0.012	0.007
NO DATA AVAILABLE				
41520	0.025	-0.016	-0.025	0.014
41512	0.021	-0.030	-0.276	-0.114
41509	0.057	0.133	-0.465	-0.197
41507	0.061	0.284	-0.571	-0.227
41505	0.042	0.457	-0.608	-0.253
41503	-0.033	0.677	-0.485	-0.232
41501	-0.193	0.801	-0.271	-0.373
415-2	NO DATA AVAILABLE			

TABLE B51

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=3075$ PSI

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 1

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	AXIATIONAL	TANGENTIAL
	3000.	3000.	3000.		
10101	64.	80.	80.	0.471	0.563
10103	76.	80.	80.	0.525	0.545
	3000.	3000.	3000.		
10107	104.	72.	76.	0.647	0.495
	3000.	3000.	3000.		
10114	116.	68.	72.	0.697	0.464
	3000.	3000.	3000.		
10122	128.	80.	76.	0.771	0.517
10130	152.	72.	64.	0.866	0.440
10162	152.	68.	64.	0.852	0.426

TABLE B52

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=3075$ PSI

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 1

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
10101	0.563	0.471	0.046	5.4	0.563
10103	0.545	0.525	0.010	0.0	0.545
	NO DATA AVAILABLE				
10107	0.648	0.495	0.077	-3.3	0.648
	NO DATA AVAILABLE				
10114	0.697	0.464	0.117	-2.2	0.697
	NO DATA AVAILABLE				
10122	0.771	0.517	0.127	2.0	0.771
10130	0.867	0.439	0.214	2.4	0.867
10162	0.862	0.426	0.218	1.2	0.862

TABLE B51

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, N1=6151 PSI N13=3075 PSI

PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SEMI-DIRECTIONAL	TANGENTIAL
201-2	-4.	120.	136.	0.237	0.906
20101	8.	120.	140.	0.298	0.917
20103	32.	120.	144.	0.422	0.939
	3000.	3000.	3000.		
20107	84.	96.	120.	0.619	0.741
	3000.	3000.	3000.		
20114	116.	88.	120.	0.773	0.733
	3000.	3000.	3000.		
20122	144.	80.	108.	0.880	0.626
20130	156.	86.	104.	0.941	0.637
20162	192.	80.	104.	1.110	0.613

TABLE B50

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, N1=6151 PSI N13=3075 PSI

PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
201-2	0.908	0.235	0.336	3.0	0.908
20101	0.920	0.295	0.312	4.0	0.920
20103	0.942	0.418	0.262	4.8	0.942
	NO DATA AVAILABLE				
20107	0.761	0.600	0.080	20.4	0.761
	NO DATA AVAILABLE				
20114	0.843	0.663	0.090	-38.5	0.843
	NO DATA AVAILABLE				
20122	0.894	0.612	0.141	-12.9	0.894
20130	0.945	0.633	0.156	-6.5	0.945
20162	1.117	0.606	0.254	-6.9	1.117

TABLE B55

MEMBRANE AND BENDING STRESSES - PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=3075$ PSI

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
201-2	NO DATA AVAILABLE			
20101	0.385	0.740	0.086	-0.177
20103	0.473	0.742	0.052	-0.197
	NO DATA AVAILABLE			
20107	0.633	0.618	0.014	-0.123
	NO DATA AVAILABLE			
20114	0.735	0.598	-0.038	-0.134
	NO DATA AVAILABLE			
20122	0.825	0.572	-0.054	-0.054
20130	0.904	0.539	-0.038	-0.099
20132	0.966	0.521	-0.124	-0.094

TABLE B56

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=3075$ PSI

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
30160	-4.	-4.	-12.	-0.035	-0.055
30128	-36.	8.	4.	-0.161	0.052
	3000.	3000.	3000.		
30120	-44.	8.	12.	-0.191	0.082
30112	-44.	8.	24.	-0.179	0.125
30109	-76.	16.	24.	-0.325	0.162
30107	-80.	24.	32.	-0.328	0.219
30105	-92.	28.	40.	-0.374	0.265
30103	-88.	36.	56.	-0.331	0.349
30101	-96.	40.	76.	-0.345	0.436
	3000.	3000.	3000.		

TABLE B57

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, E1=6151 PSI E13=3075 PSIFLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 1

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
30160	-0.025	-0.066	0.020	30.0	0.066
30128	0.052	-0.161	0.107	-2.4	0.210
NO DATA AVAILABLE					
30120	0.083	-0.192	0.137	1.0	0.270
30112	0.129	-0.183	0.156	6.5	0.312
30109	0.162	-0.326	0.240	2.1	0.488
30107	0.220	-0.329	0.270	1.0	0.500
30105	0.265	-0.375	0.320	2.0	0.601
30103	0.351	-0.333	0.302	3.7	0.685
30101	0.403	-0.353	0.398	5.7	0.796
NO DATA AVAILABLE					

TABLE B58

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, E1=6151 PSI E13=3075 PSIFLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 1

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	LONGITUDINAL	TANGENTIAL
40160	-4.	8.	0.	-0.011	0.029
40128	-16.	-20.	-16.	-0.113	-0.123
	3000.	3000.	3000.		
40120	-8.	-20.	-20.	-0.090	-0.182
40112	12.	-32.	-32.	-0.006	-0.229
40109	20.	-28.	-36.	0.032	-0.232
40107	28.	-32.	-36.	0.066	-0.200
40105	32.	-36.	-20.	0.098	-0.206
40103	28.	0.	0.	0.138	0.007
40101	16.	0.	70.	0.101	0.081
401-2	-40.	36.	56.	-0.100	0.336

TABLE B59

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=3075$ PSIFLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 1

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
40160	0.036	-0.018	0.027	-20.4	0.054
40128	-0.108	-0.128	0.010	-30.0	0.128
NO DATA AVAILABLE					
40120	-0.090	-0.182	0.046	-5.4	0.182
40112	-0.006	-0.229	0.111	0.0	0.229
40109	0.033	-0.233	0.133	3.8	0.266
40107	0.067	-0.248	0.157	1.6	0.315
40105	0.102	-0.210	0.156	-6.5	0.312
40103	0.139	0.006	0.066	-3.8	0.139
40101	0.127	0.054	0.037	-37.0	0.127
401-2	0.340	-0.104	0.222	5.7	0.445

TABLE B60

MEMBRANE AND BENDING STRESSES - NOZZLE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=3075$ PSIFLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 1

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
40160	-0.023	-0.013	-0.012	-0.042
40128	-0.137	-0.035	-0.024	0.087
NO DATA AVAILABLE				
40120	-0.141	-0.050	-0.050	0.132
40112	-0.093	-0.052	-0.086	0.177
40109	-0.146	-0.035	-0.178	0.197
40107	-0.131	-0.014	-0.197	0.234
40105	-0.138	0.029	-0.236	0.236
40103	-0.095	0.178	-0.238	0.171
40101	-0.122	0.258	-0.223	0.178
401-2	NO DATA AVAILABLE			

TABLE 361

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, N1=6151 PSI N13=3075 PSI

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 3

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	AXIDIONAL	TANGENTIAL
	3000.	3000.	3000.		
10301	72.	220.	00.	0.610	0.920
10303	00.	216.	00.	0.603	0.896
	3000.	3000.	3000.		
10307	80.	192.	36.	0.612	0.785
	3000.	3000.	3000.		
10310	60.	100.	20.	0.539	0.731
	3000.	3000.	3000.		
10322	96.	172.	00.	0.673	0.720
10330	96.	172.	00.	0.673	0.720
10362	00.	160.	00.	0.635	0.726

TABLE 362

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, N1=6151 PSI N13=3075 PSI

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 3

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
10301	1.196	0.306	0.425	-30.2	1.196
10303	1.101	0.397	0.392	-37.1	1.101
	NO DATA AVAILABLE				
10307	1.051	0.305	0.353	-37.9	1.051
	NO DATA AVAILABLE				
10310	0.990	0.279	0.356	-37.1	0.990
	NO DATA AVAILABLE				
10322	0.909	0.400	0.291	-02.5	0.909
10330	0.909	0.400	0.291	-02.5	0.909
10362	0.939	0.422	0.259	-39.9	0.939

TABLE 863

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE
 BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $E1=6151$ PSI $E13=3075$ PSI
 FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	ADDITIONAL	TANGENTIAL
203-2	-40.	100.	256.	0.156	1.505
	3000.	3000.	3000.		
20303	-16.	80.	272.	0.279	1.263
	3000.	3000.	3000.		
20307	20.	72.	276.	0.463	1.220
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		
20322	60.	80.	212.	0.563	0.808
20330	72.	60.	200.	0.610	0.910
20362	116.	52.	180.	0.797	0.817

TABLE 860

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE
 BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $E1=6151$ PSI $E13=3075$ PSI
 FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS. POS.	PRINC. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRINC. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
203-2	1.601	0.101	0.730	5.9	1.601
	NO DATA AVAILABLE				
20303	1.013	0.129	0.642	20.0	1.013
	NO DATA AVAILABLE				
20307	1.031	0.250	0.507	20.0	1.031
	NO DATA AVAILABLE				
	NO DATA AVAILABLE				
	NO DATA AVAILABLE				
20322	1.120	0.323	0.403	33.1	1.120
20330	1.113	0.411	0.351	32.2	1.113
20362	1.106	0.509	0.299	60.0	1.106

TABLE 065

MEMBRANE AND BENDING STRESSES - PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=3075$ PSIFLAT PLATE TWO HOLES
HOLE ONE STRINGER NO. 3

POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MEMBRANE	TANGENTIAL	MEMBRANE	TANGENTIAL
20302	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
20303	0.487	1.079	0.202	-0.104
	NO DATA AVAILABLE			
20307	0.532	1.004	0.074	-0.220
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
20322	0.618	0.806	0.055	-0.002
20330	0.641	0.819	0.032	-0.095
20362	0.716	0.772	-0.091	-0.006

TABLE 066

STRAINS AND STRESSES - OUTER SURFACE OF HOLE 2

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=3075$ PSIFLAT PLATE TWO HOLES
HOLE ONE STRINGER NO. 3

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MEMBRANE	TANGENTIAL
30360	4.	-8.	0.	0.011	-0.029
30328	16.	20.	-20.	0.073	-0.010
	3000.	3000.	3000.		
30320	4.	-20.	12.	0.003	-0.050
30312	-20.	-40.	0.	-0.155	-0.135
30309	-60.	-24.	0.	-0.331	-0.060
30307	-84.	-8.	0.	-0.611	-0.006
30305	-90.	20.	16.	-0.387	0.151
30303	-92.	20.	12.	-0.610	0.138
30301	-88.	20.	20.	-0.393	0.165
	3000.	3000.	3000.		

TABLE 847

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=3075$ PSIFLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 3

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
30360	0.018	-0.036	0.027	-20.4	0.050
30320	0.130	-0.000	0.107	32.4	0.210
NO DATA AVAILABLE					
30320	0.066	-0.120	0.093	-35.4	0.186
30312	-0.057	-0.233	0.088	81.7	0.233
30309	-0.050	-0.301	0.102	10.9	0.301
30307	-0.005	-0.412	0.203	2.5	0.412
30305	0.151	-0.307	0.269	-0.9	0.537
30303	0.130	-0.410	0.270	-1.8	0.508
30301	0.165	-0.302	0.270	0.0	0.507
NO DATA AVAILABLE					

TABLE 860

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=3075$ PSIFLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 3

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SHEDIONAL	TANGENTIAL
00360	0.	0.	-0.	0.000	0.018
00320	-0.	-0.	16.	-0.026	0.045
	3000.	3000.	3000.		
00320	0.	-16.	0.	0.026	-0.005
00312	00.	12.	-0.	0.230	0.001
00309	72.	20.	40.	0.410	0.207
00307	72.	00.	56.	0.006	0.330
00305	72.	64.	00.	0.090	0.090
00303	60.	00.	100.	0.076	0.608
00301	0.	100.	152.	0.290	0.917
003-2	-92.	100.	212.	-0.006	1.020

TABLE B69

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL TO STRINGER 1 AND 13, $S_1=6151$ PSI $S_{13}=3075$ PSIFLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 3

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
00360	0.036	-0.018	0.027	-32.6	0.050
00328	0.066	-0.007	0.056	25.5	0.113
NO DATA AVAILABLE					
00320	0.007	-0.066	0.056	-25.5	0.113
00312	0.202	-0.007	0.125	19.3	0.209
00309	0.016	0.201	0.107	-9.6	0.016
00307	0.052	0.320	0.062	-12.6	0.052
00305	0.525	0.055	0.035	05.0	0.525
00303	0.652	0.072	0.090	0.5	0.652
00301	0.932	0.200	0.320	0.7	0.932
003-2	1.027	-0.000	0.737	2.0	1.075

TABLE B70

MEMBRANE AND BENDING STRESSES - NOZZLE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL TO STRINGER 1 AND 13, $S_1=6151$ PSI $S_{13}=3075$ PSIFLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 3

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MEMBRANE	TANGENTIAL	MEMBRANE	TANGENTIAL
00360	0.000	-0.030	0.000	-0.022
00328	0.023	0.013	0.050	-0.031
NO DATA AVAILABLE				
00320	0.015	-0.051	-0.010	-0.007
00312	0.000	-0.067	-0.195	-0.060
00309	0.039	0.070	-0.371	-0.137
00307	0.017	0.160	-0.029	-0.170
00305	0.052	0.320	-0.030	-0.170
00303	0.033	0.393	-0.003	-0.255
00301	-0.002	0.507	-0.301	-0.176
003-2	NO DATA AVAILABLE			

TABLE B71

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE
 BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=3075$ PSI

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
	3000.	3000.	3000.		
10501	84.	272.	212.	0.827	1.476
10503	76.	204.	168.	0.737	1.295
	3000.	3000.	3000.		
10507	74.	164.	160.	0.689	1.125
	3000.	3000.	3000.		
10514	58.	156.	156.	0.639	1.085
	3000.	3000.	3000.		
10522	60.	148.	136.	0.572	0.988
10530	56.	140.	136.	0.545	0.961
10562	44.	128.	128.	0.467	0.893

TABLE B72

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE
 BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=3075$ PSI

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
10501	1.476	0.828	0.324	0.0	1.476
10503	1.306	0.726	0.290	-7.9	1.306
	NO DATA AVAILABLE				
10507	1.125	0.689	0.218	-1.2	1.125
	NO DATA AVAILABLE				
10514	1.085	0.639	0.223	0.0	1.085
	NO DATA AVAILABLE				
10522	0.988	0.571	0.209	-3.6	0.988
10530	0.961	0.545	0.208	-1.2	0.961
10562	0.893	0.467	0.213	0.0	0.893

TABLE 37a

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL TO STRINGER 1 AND 13, $H1=6151$ PSI $H13=3075$ PSIPLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SEMI-DIRECTIONAL	TANGENTIAL
205-2	-68.	376.	368.	0.819	2.608
20501	-88.	316.	316.	0.802	2.287
20503	-28.	276.	268.	0.806	1.916
	3000.	3000.	3000.		
20507	9.	228.	220.	0.808	1.569
	3000.	3000.	3000.		
20518	16.	200.	260.	0.877	1.810
	3000.	3000.	3000.		
20522	24.	188.	188.	0.887	1.308
20530	36.	192.	168.	0.533	1.263
20562	88.	160.	188.	0.519	1.077

TABLE 37b

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL TO STRINGER 1 AND 13, $H1=6151$ PSI $H13=3075$ PSIPLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

POS. POS.	PRINC. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRINC. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
205-2	2.608	0.818	1.115	-0.5	2.608
20501	2.287	0.802	0.922	0.0	2.287
20503	1.916	0.805	0.756	-1.7	1.916
	NO DATA AVAILABLE				
20507	1.569	0.809	0.563	-0.8	1.569
	NO DATA AVAILABLE				
20518	1.809	0.877	0.866	0.0	1.809
	NO DATA AVAILABLE				
20522	1.308	0.887	0.811	-0.6	1.308
20530	1.267	0.529	0.369	-8.1	1.267
20562	1.078	0.518	0.280	-2.7	1.078

TABLE 375

MEMBRANE AND BENDING STRESSES - PLATE
 BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=3075$ PSI
 PLAT PLATE TWO HOZELS
 HOZZLE ONE STRINGER NO. 5

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MEMBRANAL	TANGENTIAL	MEMBRANAL	TANGENTIAL
20500	NO DATA AVAILABLE			
20501	0.615	1.061	0.213	-0.305
20503	0.571	1.605	0.166	-0.311
	NO DATA AVAILABLE			
20507	0.567	1.307	0.122	-0.222
	NO DATA AVAILABLE			
20510	0.550	1.207	0.081	-0.162
	NO DATA AVAILABLE			
20521	0.530	1.108	0.042	-0.160
20530	0.539	1.112	0.006	-0.151
20542	0.493	0.985	-0.026	-0.092

TABLE 376

STRAINS AND STRESSES - OUTER SURFACE OF HOZZLE
 BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=3075$ PSI
 PLAT PLATE TWO HOZZEL
 HOZZLE ONE STRINGER NO. 5

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MEMBRANAL	TANGENTIAL
30560	12.	0.	12.	0.370	0.053
30528	0.	0.	-0.	-0.000	-0.020
	3000.	3000.	3000.		
30520	20.	-20.	-32.	0.044	-0.189
30509	-56.	-80.	-80.	-0.353	-0.202
30512	-12.	-56.	-80.	-0.162	-0.360
30507	-72.	-20.	-32.	-0.390	-0.165
30505	-100.	0.	0.	-0.503	0.010
30503	-100.	80.	80.	-0.400	0.309
30501	-100.	132.	132.	-0.235	0.961
	3000.	3000.	3000.		

TABLE D77

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE
 BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=3075$ PSI

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
30560	0.000	0.003	0.020	-30.0	0.000
30520	0.002	-0.030	0.020	30.0	0.001
NO DATA AVAILABLE					
30520	0.047	-0.192	0.119	6.4	0.239
30509	-0.201	-0.350	0.037	-6.9	0.350
30512	-0.160	-0.366	0.103	-0.9	0.366
30507	-0.162	-0.401	0.119	-6.4	0.401
30505	0.014	-0.503	0.259	1.0	0.517
30503	0.309	-0.400	0.355	0.0	0.709
30501	0.961	-0.235	0.598	0.0	1.196
NO DATA AVAILABLE					

TABLE D78

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE
 BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=3075$ PSI

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SPRINDIAL	TANGENTIAL
40560	0.	-12.	-4.	-0.016	-0.057
40520	12.	0.	0.	0.050	-0.003
	3000.	3000.	3000.		
40520	20.	8.	12.	0.116	0.065
40512	56.	40.	40.	0.353	0.202
40509	96.	80.	80.	0.633	0.502
40507	108.	120.	120.	0.759	0.819
40505	112.	156.	160.	0.850	1.101
40503	80.	212.	180.	0.700	1.392
40501	12.	208.	260.	0.562	1.770
405-2	-124.	208.	356.	0.049	2.309

TABLE B79

PRINCIPAL STRESS DATA - LOWER SURFACE OF NOZZLE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=3075$ PSI

FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 5

NCS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	HOR.	VER.			
40560	-0.009	-0.063	0.327	-29.4	0.043
40520	0.958	-0.003	0.358	0.0	0.361
NO DATA AVAILABLE					
40520	0.118	0.368	0.327	-9.6	0.118
40512	0.354	0.281	0.037	6.9	0.354
40509	0.634	0.581	0.327	-9.6	0.634
40507	0.819	0.759	0.030	0.0	0.819
40505	1.102	0.657	0.123	8.1	1.102
40503	1.397	0.780	0.309	-8.5	1.397
40501	1.779	0.561	0.609	1.7	1.779
405-2	2.319	0.039	1.180	3.8	2.319

TABLE B80

MEMBRANE AND BENDING STRESSES - NOZZLE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=3075$ PSI

FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 5

NCS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	HORIZONTAL	TANGENTIAL	HORIZONTAL	TANGENTIAL
40560	0.029	-0.002	0.045	0.055
40520	0.025	-0.016	-0.002	-0.013
NO DATA AVAILABLE				
40520	0.080	-0.062	-0.036	-0.127
40512	0.0	0.0	-0.353	-0.202
40509	0.236	0.109	-0.397	-0.473
40507	0.180	0.327	-0.578	-0.492
40505	0.177	0.557	-0.601	-0.500
40503	0.192	0.851	-0.592	-0.582
40501	0.163	1.370	-0.399	-0.809
405-2	NO DATA AVAILABLE			

TABLE 883

STRAINS AND STRESSES--OPPOSITE NOZZLE SIDE OF PLATE
 BIAxIAL STRESS APPLIED TO PLATE DIRECTED PARALLEL
 TO STRINGER 1 AND 13 , N1=6151 PSI N13=3075 PSI

FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 13

ROS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
213-2	-96.	428.	396.	0.363	2.938
21301	-120.	340.	316.	0.080	2.351
21303	-124.	312.	312.	0.029	2.239
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		

TABLE 884

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13 , N1=6151 PSI N13=3075 PSI

FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 13

ROS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
213-2	2.940	0.362	1.289	-1.6	2.940
21301	2.352	0.079	1.136	-1.3	2.352
21303	2.239	0.029	1.105	0.0	2.239

NO DATA AVAILABLE

NO DATA AVAILABLE

NO DATA AVAILABLE

NO DATA AVAILABLE

NO DATA AVAILABLE

NO DATA AVAILABLE

NO DATA AVAILABLE

NO DATA AVAILABLE

TABLE B85

MEMBRANE AND BENDING STRESSES - PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=3075$ PSI

FLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 13

POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
213-2	NO DATA AVAILABLE			
21301	NO DATA AVAILABLE			
21303	0.498	1.933	0.469	-0.306
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			

TABLE B86

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=3075$ PSI

FLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 13

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
31360	16.	12.	8.	0.097	0.066
31328	40.	-4.	-4.	0.184	-0.039
	3000.	3000.	3000.		
31320	40.	-20.	-12.	0.160	-0.124
31312	0.	-40.	4.	-0.036	-0.127
31309	-48.	-24.	-24.	-0.278	-0.157
31307	-72.	-12.	-16.	-0.374	-0.080
31305	-88.	24.	20.	-0.379	0.179
31303	-100.	68.	80.	-0.332	0.550
31301	-84.	160.	156.	-0.087	1.139
	3000.	3000.	3000.		

TABLE 887

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, $E_1=6151$ PSI $E_{13}=3075$ PSIFLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 13

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
31360	0.099	0.064	0.019	15.0	0.099
31328	0.184	-0.039	0.111	0.0	0.223
NO DATA AVAILABLE					
31320	0.161	-0.125	0.143	-3.5	0.205
31312	0.025	-0.128	0.107	-32.4	0.214
31309	-0.157	-0.278	0.061	0.0	0.278
31307	-0.080	-0.374	0.147	-1.7	0.374
31305	0.179	-0.379	0.279	-0.9	0.558
31303	0.551	-0.333	0.442	1.7	0.883
31301	1.129	-0.087	0.613	-0.4	1.227
NO DATA AVAILABLE					

TABLE 888

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, $E_1=6151$ PSI $E_{13}=3075$ PSIFLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 13

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
41360	8.	-12.	0.	0.026	-0.045
41328	8.	44.	28.	0.110	0.252
	3000.	3000.	3000.		
41320	28.	16.	8.	0.158	0.077
41312	80.	52.	52.	0.448	0.346
41309	108.	88.	92.	0.699	0.607
41307	132.	128.	136.	0.898	0.898
41305	116.	168.	160.	0.885	1.128
41303	68.	220.	204.	0.751	1.481
41301	-40.	268.	268.	0.344	1.905
413-2	-164.	376.	376.	-0.035	2.702

TABLE 889

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE
 BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, N1=6151 PSI N13=3075 PSI

PLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 13

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
41360	0.035	-0.053	0.044	-18.3	0.088
41328	0.261	0.102	0.079	-13.2	0.261
NO DATA AVAILABLE					
41320	0.162	0.074	0.084	11.7	0.162
41312	0.488	0.386	0.071	0.0	0.488
41309	0.699	0.607	0.046	-5.4	0.699
41307	0.915	0.800	0.018	45.0	0.915
41305	1.130	0.884	0.122	-4.1	1.130
41303	1.482	0.789	0.367	-2.7	1.482
41301	1.905	0.384	0.780	0.0	1.905
413-2	2.702	-0.035	1.368	0.0	2.737

TABLE 890

MEMBRANE AND BENDING STRESSES - NOZZLE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, N1=6151 PSI N13=3075 PSI

PLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 13

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MEMBRIDIONAL	TANGENTIAL	MEMBRIDIONAL	TANGENTIAL
41360	0.062	0.011	0.035	0.055
41328	0.147	0.107	0.037	-0.146
NO DATA AVAILABLE				
41320	0.159	-0.023	0.001	-0.101
41312	0.226	0.110	-0.262	-0.237
41309	0.210	0.225	-0.489	-0.382
41307	0.262	0.409	-0.636	-0.482
41305	0.253	0.654	-0.632	-0.475
41303	0.209	1.015	-0.541	-0.465
41301	0.128	1.522	-0.216	-0.383
413-2	NO DATA AVAILABLE			

TABLE B91

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13 $E1=6151$ PSI $E13=3075$ PSI
 PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	AXIDIONAL	TANGENTIAL
	3000.	3000.	3000.		
11501	64.	12.	296.	0.615	1.072
11503	76.	32.	228.	0.625	0.899
	3000.	3000.	3000.		
11507	76.	24.	212.	0.601	0.814
	3000.	3000.	3000.		
11514	104.	24.	184.	0.707	0.707
	3000.	3000.	3000.		
11522	112.	12.	132.	0.682	0.879
11530	100.	32.	124.	0.636	0.525
11562	72.	56.	144.	0.546	0.688

TABLE B92

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13 , $E1=6151$ PSI $E13=3075$ PSI
 PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
11501	1.507	0.180	0.664	35.0	1.507
11503	1.213	0.311	0.451	36.2	1.213
	NO DATA AVAILABLE				
11507	1.133	0.201	0.426	37.8	1.133
	NO DATA AVAILABLE				
11514	1.059	0.356	0.351	45.0	1.059
	NO DATA AVAILABLE				
11522	0.863	0.298	0.282	-34.5	0.863
11530	0.794	0.371	0.209	-37.3	0.790
11562	0.822	0.411	0.206	34.9	0.822

TABLE B93

STRAINS AND STRESSES--OPPOSITE NOZZLE SIDE OF PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13 , N1=6151 PSI N13=3075 PSIFLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 15

DOC. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SHRINKAGE	TANGENTIAL
215-2	-88.	308.	140.	0.218	1.596
21501	-8.	316.	92.	0.399	1.443
21503	8.	320.	56.	0.415	1.327
	3000.	3000.	3000.		
21507	64.	256.	8.	0.571	0.916
	3000.	3000.	3000.		
21514	112.	204.	-4.	0.738	0.677
	3000.	3000.	3000.		
21522	128.	100.	16.	0.731	0.376
21530	3000.	3000.	3000.		
21562	80.	172.	68.	0.624	0.827

TABLE B94

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13 , N1=6151 PSI N13=3075 PSIFLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 15

DOC. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
215-2	1.689	0.125	0.782	-14.1	1.689
21501	1.637	0.195	0.721	-21.5	1.637
21503	1.608	0.133	0.737	-25.9	1.608
	NO DATA AVAILABLE				
21507	1.315	0.173	0.571	-36.2	1.315
	NO DATA AVAILABLE				
21514	1.165	0.250	0.457	43.1	1.165
	NO DATA AVAILABLE				
21522	0.809	0.297	0.256	23.1	0.809
21530	NO DATA AVAILABLE				
21562	0.975	0.476	0.250	-33.0	0.975

TABLE 295

MEMBRANE AND BENDING STRESSES - PLATE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=3075$ PSI
 PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	ADDITIONAL	TANGENTIAL	ADDITIONAL	TANGENTIAL
215-2	NO DATA AVAILABLE			
21501	0.502	1.257	0.113	-0.106
21503	0.520	1.113	0.105	-0.214
	NO DATA AVAILABLE			
21507	0.506	0.065	0.015	-0.051
	NO DATA AVAILABLE			
21514	0.723	0.692	-0.015	0.015
	NO DATA AVAILABLE			
21522	0.706	0.427	-0.024	0.052
21530	NO DATA AVAILABLE			
21562	0.505	0.757	-0.039	-0.070

TABLE 296

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=6151$ PSI $\sigma_{13}=3075$ PSI
 PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	ADDITIONAL	TANGENTIAL
31560	4.	0.	0.	0.019	-0.001
31528	4.	16.	-16.	0.019	-0.001
	3000.	3000.	3000.		
31520	-4.	12.	-24.	-0.031	-0.001
31512	-32.	4.	-44.	-0.194	-0.133
31509	-72.	-4.	-32.	-0.302	-0.100
31507	-96.	4.	-8.	-0.467	0.011
31505	-108.	8.	12.	-0.499	0.100
31503	-116.	4.	56.	-0.497	0.263
31501	-108.	24.	100.	-0.395	0.467
	3000.	3000.	3000.		

TABLE B97

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $E_1=6151$ PSI $E_{13}=3075$ PSI

PLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 15

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
31560	0.019	-0.001	0.010	0.0	0.020
31528	0.080	-0.062	0.071	40.9	0.142
NO DATA AVAILABLE					
31520	0.043	-0.115	0.079	43.2	0.152
31512	-0.054	-0.273	0.110	-37.0	0.273
31509	-0.095	-0.395	0.150	-12.1	0.395
31507	0.013	-0.466	0.240	-3.2	0.479
31505	0.100	-0.499	0.299	0.8	0.598
31503	0.260	-0.514	0.387	4.4	0.774
31501	0.498	-0.426	0.462	10.6	0.924
NO DATA AVAILABLE					

TABLE B98

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $E_1=6151$ PSI $E_{13}=3075$ PSI

PLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 15

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	AXIAXIAL	TANGENTIAL
31560	-4.	-4.	4.	-0.019	0.001
31528	0.	0.	4.	0.004	0.014
	3000.	3000.	3000.		
31520	12.	12.	-4.	0.066	0.025
31512	60.	24.	20.	0.332	0.140
31509	84.	52.	52.	0.507	0.305
31507	84.	72.	72.	0.547	0.407
31505	84.	104.	96.	0.607	0.604
31503	40.	144.	96.	0.437	0.838
31501	-44.	148.	124.	0.105	1.115
315-2	-96.	216.	228.	-0.617	1.595

TABLE B93

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGERS 1 AND 13, $E1=6151$ PSI $E13=3075$ PSI

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	HAY.	MIN.			
#1560	0.011	-0.029	0.020	30.0	0.041
#1528	0.019	-0.001	0.010	30.0	0.020
NO DATA AVAILABLE					
#1520	0.086	0.005	0.041	30.0	0.086
#1512	0.333	0.139	0.097	2.6	0.333
#1509	0.507	0.345	0.081	0.0	0.507
#1507	0.547	0.487	0.030	0.0	0.547
#1505	0.608	0.600	0.044	-11.7	0.608
#1503	0.863	0.406	0.228	-13.7	0.863
#1501	1.134	0.082	0.526	-7.7	1.134
#15-2	1.595	-0.017	0.806	0.0	1.612

TABLE B107

MEMBRANE AND BENDING STRESSES - NOZZLE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, $E1=6151$ PSI $E13=3075$ PSI

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
#1560	0.0	0.0	0.019	-0.001
#1528	0.012	0.007	0.008	-0.008
NO DATA AVAILABLE				
#1520	0.017	-0.008	-0.008	-0.033
#1512	0.069	0.003	-0.263	-0.136
#1509	0.063	0.119	-0.445	-0.227
#1507	0.041	0.249	-0.506	-0.238
#1505	0.052	0.392	-0.551	-0.292
#1503	-0.032	0.540	-0.465	-0.297
#1501	-0.147	0.791	-0.240	-0.324
#15-2	NO DATA AVAILABLE			

TABLE B101

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, S1=3075 PSI S13=6151 PSIFLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 1

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
	3000.	3000.	3000.		
10101	36.	156.	108.	0.477	1.065
10103	40.	160.	156.	0.507	1.108
	3000.	3000.	3000.		
10107	48.	156.	152.	0.539	1.076
	3000.	3000.	3000.		
10114	24.	160.	156.	0.431	1.111
	3000.	3000.	3000.		
10122	24.	156.	120.	0.391	0.969
10130	36.	132.	120.	0.433	0.909
10162	12.	144.	132.	0.334	0.972

TABLE B102

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, S1=3075 PSI S13=6151 PSIFLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 1

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
10101	1.065	0.476	0.294	-1.7	1.065
10103	1.108	0.506	0.279	-0.9	1.108
	NO DATA AVAILABLE				
10107	1.076	0.538	0.269	-0.9	1.076
	NO DATA AVAILABLE				
10114	1.111	0.431	0.340	-0.7	1.111
	NO DATA AVAILABLE				
10122	0.980	0.381	0.299	-7.6	0.980
10130	0.910	0.433	0.238	-1.1	0.910
10162	0.973	0.333	0.320	-2.4	0.973

TABLE B103

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE

BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, N1=3075 PSI N13=6151 PSI

PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

NOS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	NORMAL	TANGENTIAL
201-2	-40.	300.	300.	0.408	2.131
20101	-8.	248.	280.	0.490	1.868
20103	8.	224.	268.	0.531	1.737
	3000.	3000.	3000.		
20107	24.	192.	224.	0.531	1.864
	3000.	3000.	3000.		
20114	28.	180.	212.	0.527	1.378
	3000.	3000.	3000.		
20122	40.	172.	192.	0.556	1.276
20130	44.	168.	184.	0.563	1.232
20162	52.	152.	168.	0.570	1.117

TABLE B104

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE

BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, N1=3075 PSI N13=6151 PSI

PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

NOS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
201-2	2.131	0.408	0.862	0.0	2.131
20101	1.872	0.486	0.693	2.9	1.872
20103	1.744	0.523	0.611	4.5	1.744
	NO DATA AVAILABLE				
20107	1.469	0.526	0.871	4.3	1.469
	NO DATA AVAILABLE				
20114	1.384	0.521	0.831	4.7	1.384
	NO DATA AVAILABLE				
20122	1.279	0.554	0.362	3.5	1.279
20130	1.234	0.562	0.736	3.0	1.234
20162	1.119	0.568	0.276	3.7	1.119

TABLE B105

MEMBRANE AND BENDING STRESSES - PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, N1=3075 PSI N13=6151 PSI

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
201-2	NO DATA AVAILABLE			
20101	0.483	1.467	-0.006	-0.402
20103	0.539	1.420	0.008	-0.316
	NO DATA AVAILABLE			
20107	0.535	1.270	0.004	-0.194
	NO DATA AVAILABLE			
20114	0.479	1.244	-0.048	-0.134
	NO DATA AVAILABLE			
20122	0.474	1.123	-0.002	-0.153
20130	0.498	1.071	-0.065	-0.162
20162	0.452	1.045	-0.118	-0.072

TABLE B106

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, N1=3075 PSI N13=6151 PSI

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
30160	8.	0.	-4.	0.034	-0.016
30128	20.	-4.	-8.	0.084	-0.048
	3000.	3000.	3000.		
30120	8.	-16.	-16.	0.006	-0.115
30112	-24.	-36.	-28.	-0.179	-0.220
30109	-56.	-32.	-28.	-0.329	-0.197
30107	-84.	-24.	-20.	-0.447	-0.133
30105	-108.	-4.	-4.	-0.527	0.001
30103	-116.	32.	28.	-0.497	0.243
30101	-148.	100.	84.	-0.527	0.690
	3000.	3000.	3000.		

TABLE P10⁸
 PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, H1=3075 PSI H13=6151 PSI

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 1

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
30160	0.036	-0.018	0.027	9.6	0.054
30128	0.085	-0.048	0.066	3.8	0.133
NO DATA AVAILABLE					
30120	0.006	-0.115	0.061	0.0	0.122
30112	-0.173	-0.226	0.027	-20.4	0.226
30109	-0.197	-0.329	0.066	3.8	0.329
30107	-0.133	-0.438	0.157	1.6	0.448
30105	0.001	-0.527	0.264	0.0	0.527
30103	0.243	-0.497	0.370	-0.7	0.740
30101	0.691	-0.526	0.609	-1.7	1.218
NO DATA AVAILABLE					

TABLE P10⁹
 STRAINS AND STRESSES - INNER SURFACE OF NOZZLE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, H1=3075 PSI H13=6151 PSI

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 1

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
40160	4.	0.	0.	0.019	-0.001
40128	0.	20.	12.	0.032	0.113
	3000.	3000.	3000.		
40120	8.	28.	16.	0.082	0.153
40112	48.	48.	40.	0.315	0.284
40109	68.	64.	76.	0.467	0.477
40107	96.	96.	92.	0.649	0.639
40105	96.	132.	124.	0.717	0.879
40103	88.	172.	172.	0.767	1.192
40101	84.	200.	216.	0.627	1.459
401-2	-104.	300.	292.	0.093	2.120

TABLE B109

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=3075$ PSI $\sigma_{13}=6151$ PSI

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 1

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
40160	0.019	-0.001	0.010	0.0	0.020
40128	0.117	0.028	0.044	-11.7	0.117
NO DATA AVAILABLE					
40120	0.162	0.074	0.044	-18.3	0.162
40112	0.317	0.282	0.018	15.0	0.317
40109	0.496	0.445	0.027	39.6	0.498
40107	0.654	0.634	0.010	30.0	0.654
40105	0.881	0.715	0.083	-6.1	0.881
40103	1.192	0.767	0.213	0.0	1.192
40101	1.460	0.626	0.417	2.4	1.460
401-2	2.120	0.093	1.014	-0.5	2.120

TABLE B110

MEMBRANE AND BENDING STRESSES - NOZZLE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=3075$ PSI $\sigma_{13}=6151$ PSI

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 1

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
40160	0.027	-0.009	0.008	-0.008
40128	0.058	0.033	0.026	-0.080
NO DATA AVAILABLE				
40120	0.044	0.019	-0.038	-0.134
40112	0.068	0.032	-0.247	-0.252
40109	0.049	0.140	-0.398	-0.337
40107	0.101	0.253	-0.548	-0.244
40105	0.095	0.440	-0.622	-0.439
40103	0.135	0.718	-0.632	-0.475
40101	0.050	1.074	-0.577	-0.384
401-2	NO DATA AVAILABLE			

TABLE B111

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE
 BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=3075$ PSI $\sigma_{13}=6151$ PSI

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
	3000.	3000.	3000.		
10301	36.	28.	240.	0.441	0.938
10303	60.	28.	200.	0.516	0.790
	3000.	3000.	3000.		
10307	60.	20.	192.	0.500	0.733
	3000.	3000.	3000.		
10314	80.	28.	200.	0.612	0.785
	3000.	3000.	3000.		
10322	72.	40.	180.	0.570	0.773
10330	84.	40.	192.	0.629	0.812
10362	92.	40.	168.	0.650	0.711

TABLE B112

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE
 BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=3075$ PSI $\sigma_{13}=6151$ PSI

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
10301	1.217	0.162	0.527	31.0	1.217
10303	1.071	0.235	0.418	35.4	1.071
	NO DATA AVAILABLE				
10307	1.012	0.222	0.395	36.4	1.012
	NO DATA AVAILABLE				
10314	1.086	0.311	0.387	38.6	1.086
	NO DATA AVAILABLE				
10322	1.003	0.339	0.332	36.1	1.003
10330	1.062	0.390	0.336	37.6	1.062
10362	0.963	0.329	0.283	41.7	0.963

TABLE B113

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13 , N1=3075 PSI N13=6151 PSIFLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 3

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SUBDIONAL	TANGENTIAL
203-2	-56.	268.	192.	0.191	1.641
20301	8.	244.	160.	0.443	1.426
20303	-4.	228.	140.	0.349	1.302
	3000.	3000.	3000.		
20307	32.	240.	160.	0.554	1.405
	3000.	3000.	3000.		
20314	4.	0.	0.	0.019	-0.001
	3000.	3000.	3000.		
20322	68.	180.	76.	0.583	0.887
20330	84.	188.	68.	0.659	0.882
20362	120.	168.	64.	0.806	0.784

TABLE B114

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13 , N1=3075 PSI N13=6151 PSIFLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 3

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
203-2	1.660	0.172	0.744	-6.5	1.660
20301	1.459	0.409	0.525	-10.3	1.459
20303	1.339	0.311	0.514	-11.0	1.339
	NO DATA AVAILABLE				
20307	1.440	0.519	0.460	-11.2	1.440
	NO DATA AVAILABLE				
20314	0.019	-0.001	0.010	0.0	0.020
	NO DATA AVAILABLE				
20322	1.009	0.460	0.274	-28.2	1.009
20330	1.057	0.485	0.286	-33.5	1.057
20362	1.027	0.570	0.228	43.7	1.027

TABLE B115

MEMBRANE AND BENDING STRESSES - PLATE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=3075$ PSI $\sigma_{13}=6151$ PSI

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
203-2	NO DATA AVAILABLE			
20301	0.842	1.182	-0.001	-0.288
20303	0.833	1.086	0.088	-0.256
	NO DATA AVAILABLE			
20307	0.527	1.069	-0.027	-0.336
	NO DATA AVAILABLE			
20318	0.316	0.392	0.296	0.393
	NO DATA AVAILABLE			
20322	0.576	0.830	-0.006	-0.057
20330	0.649	0.847	-0.010	-0.035
20361	0.729	0.749	-0.079	-0.039

TABLE B116

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=3075$ PSI $\sigma_{13}=6151$ PSI

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
30360	0.	8.	0.	0.008	0.018
30328	-8.	8.	-8.	-0.019	0.001
	3000.	3000.	3000.		
30320	-8.	-16.	-16.	-0.051	-0.112
30312	-36.	-8.	-28.	-0.205	-0.103
30309	-60.	-8.	-28.	-0.320	-0.097
30307	-120.	-8.	-8.	-0.588	-0.010
30305	-96.	8.	16.	-0.437	0.110
30303	-104.	12.	52.	-0.435	0.258
30301	-92.	8.	168.	-0.270	0.632
	3000.	3000.	3000.		

TABLE B117

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE
 BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=3075$ PSI $\sigma_{13}=6151$ PSI
 PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

NOS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
30360	0.019	-0.001	0.010	-30.0	0.020
30320	0.011	-0.029	0.020	-30.0	0.061
NO DATA AVAILABLE					
30320	-0.051	-0.112	0.030	0.0	0.112
30312	-0.093	-0.216	0.062	-17.4	0.216
30309	-0.092	-0.325	0.117	-8.7	0.325
30307	-0.010	-0.500	0.209	-0.9	0.500
30305	0.111	-0.837	0.274	1.8	0.500
30303	0.265	-0.846	0.356	7.1	0.711
30301	0.748	-0.305	0.566	10.6	1.132
NO DATA AVAILABLE					

TABLE B118

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE
 BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=3075$ PSI $\sigma_{13}=6151$ PSI
 PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

NOS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
40360	8.	24.	-4.	0.050	0.069
40328	8.	12.	-4.	0.046	0.026
	3000.	3000.	3000.		
40320	16.	20.	-12.	0.005	0.020
40312	88.	-4.	32.	0.239	0.087
40309	64.	88.	16.	0.367	0.195
40307	68.	60.	80.	0.427	0.335
40305	76.	76.	76.	0.517	0.517
40303	64.	104.	108.	0.519	0.732
40301	12.	116.	140.	0.318	0.902
403-2	-88.	176.	220.	-0.026	1.423

TABLE 311

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE
 BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $E_1=3075$ PSI $E_{13}=6151$ PSI

FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 3

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
00360	0.125	0.002	0.062	-82.6	0.125
00328	0.073	-0.009	0.037	37.0	0.073
NO DATA AVAILABLE					
00320	0.131	-0.022	0.077	33.3	0.153
00312	0.273	0.054	0.110	-23.1	0.273
00309	0.307	0.175	0.106	17.7	0.307
00307	0.003	0.310	0.063	22.0	0.000
00305	0.517	0.517	0.0	0.0	0.517
00303	0.733	0.549	0.107	2.0	0.733
00301	0.906	0.309	0.299	5.1	0.906
003-2	1.029	-0.033	0.731	3.0	1.062

TABLE 4120

MEMBRANE AND BENDING STRESSES - NOZZLE
 BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $E_1=3075$ PSI $E_{13}=6151$ PSI

FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 3

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MEMBRANE	TANGENTIAL	MEMBRANE	TANGENTIAL
00360	0.031	0.041	-0.027	-0.027
00320	0.010	0.010	-0.033	-0.013
NO DATA AVAILABLE				
00320	0.017	-0.008	-0.060	-0.060
00312	0.017	-0.008	-0.222	-0.095
00309	0.020	0.009	-0.300	-0.106
00307	-0.001	0.162	-0.507	-0.173
00305	0.000	0.310	-0.077	-0.202
00303	0.002	0.093	-0.077	-0.239
00301	0.022	0.767	-0.292	-0.135
003-2	NO DATA AVAILABLE			

TABLE B121

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE
 BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13 , N1=3075 PSI N13=6151 PSI
 FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SEMI-DIRECTIONAL	TANGENTIAL
	3000.	3000.	3000.		
10501	84.	52.	108.	0.563	0.543
10503	76.	92.	100.	0.557	0.658
	3000.	3000.	3000.		
10507	112.	80.	92.	0.710	0.578
	3000.	3000.	3000.		
10514	124.	72.	72.	0.739	0.476
	3000.	3000.	3000.		
10522	136.	68.	72.	0.793	0.459
10530	140.	60.	72.	0.804	0.429
10562	172.	60.	64.	0.950	0.392

TABLE B122

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE
 BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13 , N1=3075 PSI N13=6151 PSI
 FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
10501	0.677	0.430	0.123	-42.6	0.677
10503	0.661	0.554	0.054	9.6	0.661
	NO DATA AVAILABLE				
10507	0.715	0.573	0.071	-10.9	0.715
	NO DATA AVAILABLE				
10514	0.739	0.476	0.132	0.0	0.739
	NO DATA AVAILABLE				
10522	0.793	0.458	0.167	-1.5	0.793
10530	0.806	0.427	0.189	-4.0	0.806
10562	0.950	0.392	0.279	-0.9	0.950

TABLE B121

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL TO STRINGER 1 AND 13, $\sigma_1=3075$ PSI $\sigma_{13}=6151$ PSIFLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 5

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	LONGITUDINAL	TANGENTIAL
205-2	-32.	116.	132.	0.094	0.885
	3000.	3000.	3000.		
20503	-8.	116.	124.	0.202	0.950
	3000.	3000.	3000.		
20507	40.	104.	120.	0.416	0.781
	3000.	3000.	3000.		
20514	76.	96.	104.	0.565	0.687
	3000.	3000.	3000.		
20522	100.	88.	104.	0.668	0.638
20530	124.	80.	88.	0.763	0.561
20562	188.	72.	96.	0.879	0.554

TABLE B122

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL TO STRINGER 1 AND 13, $\sigma_1=3075$ PSI $\sigma_{13}=6151$ PSIFLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 5

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
205-2	0.887	0.093	0.397	2.5	0.887
	NO DATA AVAILABLE				
20503	0.851	0.201	0.325	1.5	0.851
	NO DATA AVAILABLE				
20507	0.784	0.413	0.186	5.4	0.784
	NO DATA AVAILABLE				
20514	0.689	0.563	0.063	8.1	0.689
	NO DATA AVAILABLE				
20522	0.699	0.607	0.046	-35.8	0.699
20530	0.765	0.559	0.103	-8.9	0.765
20562	0.887	0.586	0.171	-9.0	0.887

TABLE B125

MEMBRANE AND BENDING STRESSES - PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, $\sigma_1=2075$ PSI $\sigma_{13}=6151$ PSIPLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

NOS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	SEMI-DIRECTIONAL	TANGENTIAL	SEMI-DIRECTIONAL	TANGENTIAL
205-2	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
20503	0.379	0.750	0.170	-0.096
	NO DATA AVAILABLE			
20507	0.563	0.600	0.147	-0.102
	NO DATA AVAILABLE			
20514	0.652	0.501	0.027	-0.105
	NO DATA AVAILABLE			
20522	0.731	0.500	0.062	-0.090
20530	0.700	0.095	0.020	-0.066
20562	0.910	0.073	0.036	-0.081

TABLE B126

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, $\sigma_1=2075$ PSI $\sigma_{13}=6151$ PSIPLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

NOS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SEMI-DIRECTIONAL	TANGENTIAL
30560	-8.	0.	-12.	-0.046	-0.026
30520	-8.	0.	0.	-0.030	0.030
	3000.	3000.	3000.		
30520	-16.	0.	0.	-0.061	0.061
30512	-32.	16.	20.	-0.110	0.150
30509	-40.	20.	20.	-0.170	0.197
30507	-60.	32.	32.	-0.220	0.202
30505	-56.	00.	00.	-0.105	0.312
30503	-52.	60.	60.	-0.130	0.030
30501	-12.	00.	00.	0.110	0.617
	3000.	3000.	3000.		

TABLE B127

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, $\sigma_1=3075$ PSI $\sigma_{13}=6151$ PSIFLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 5

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
30560	0.000	-0.073	0.037	-37.0	0.073
30520	0.030	-0.030	0.030	0.0	0.061
NO DATA AVAILABLE					
30520	0.061	-0.061	0.061	0.0	0.122
30512	0.151	-0.115	0.133	3.0	0.266
30509	0.197	-0.179	0.100	-1.3	0.375
30507	0.202	-0.220	0.233	0.0	0.466
30505	0.312	-0.185	0.200	1.0	0.497
30503	0.430	-0.130	0.200	0.0	0.560
30501	0.611	0.110	0.200	1.0	0.611
NO DATA AVAILABLE					

TABLE B128

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, $\sigma_1=3075$ PSI $\sigma_{13}=6151$ PSIFLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 5

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	BIAXIAL	TANGENTIAL
30560	0.	0.	12.	0.050	0.050
30520	-0.	0.	0.	-0.007	0.003
	3000.	3000.	3000.		
30520	0.	-20.	-20.	-0.052	-0.100
30512	32.	-20.	-20.	0.090	-0.206
30509	40.	-16.	-15.	0.190	-0.126
30507	56.	-8.	0.	0.261	-0.063
30505	52.	0.	0.	0.262	0.020
30503	36.	16.	29.	0.217	0.146
30501	0.	32.	32.	0.003	0.225
305-2	-40.	60.	80.	-0.070	0.560

TABLE B12)

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $H1=3075$ PSI $H13=6151$ PSI
 FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGL. OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
40560	0.072	0.037	0.010	45.0	0.072
40528	0.045	-0.009	0.027	-9.6	0.054
NO DATA AVAILABLE					
40520	-0.051	-0.100	0.066	-3.8	0.100
40512	0.090	-0.206	0.152	0.0	0.300
40509	0.190	-0.126	0.162	0.0	0.320
40507	0.262	-0.044	0.153	-3.3	0.306
40505	0.262	0.020	0.117	-2.2	0.262
40503	0.226	0.137	0.340	-10.3	0.226
40501	0.225	0.003	0.071	0.0	0.225
405-2	0.567	-0.077	0.322	3.9	0.605

TABLE B13)

MEMBRANE AND BENDING STRESSES - NOZZLE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $H1=3075$ PSI $H13=6151$ PSI
 FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
40560	0.300	0.010	-0.050	-0.000
40528	-0.019	0.037	-0.012	-0.007
NO DATA AVAILABLE				
40520	-0.056	-0.061	-0.000	0.122
40512	-0.000	-0.028	-0.106	0.170
40509	0.010	0.035	-0.100	0.161
40507	0.018	0.100	-0.202	0.143
40505	0.030	0.170	-0.223	0.142
40503	0.040	0.292	-0.173	0.146
40501	0.099	0.010	0.016	0.193
405-2	NO DATA AVAILABLE			

TABLE B133

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13 , 81-3075 PSI 813-6151 PSI
 FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 13

NOS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	NORMAL	TANGENTIAL
213-2	-52.	100.	100.	0.110	1.206
21301	-00.	136.	136.	-0.112	0.903
21303	-00.	152.	160.	-0.068	1.152
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		

TABLE B134

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13 , 81-3075 PSI 813-6151 PSI
 FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 13

NOS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
213-2	1.206	0.111	0.500	0.0	1.206
21301	0.903	-0.112	0.507	0.0	1.095
21303	1.153	-0.065	0.609	1.7	1.150

NO DATA AVAILABLE

NO DATA AVAILABLE

NO DATA AVAILABLE

NO DATA AVAILABLE

NO DATA AVAILABLE

NO DATA AVAILABLE

NO DATA AVAILABLE

NO DATA AVAILABLE

TABLE D135

MEMBRANE AND BENDING STRESSES - PLATE
 BIAXIAL STRESS APPLIED TO PLATE, DEDUCTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=3075$ PSI $\sigma_{13}=6151$ PSI
 FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 13

POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
213-2	NO DATA AVAILABLE			
21301	NO DATA AVAILABLE			
21303	0.214	0.093	0.278	-0.260
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			

TABLE D136

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE
 BIAXIAL STRESS APPLIED TO PLATE, DEDUCTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=3075$ PSI $\sigma_{13}=6151$ PSI
 FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 13

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
31360	-4.	0.	0.	-0.011	0.029
31328	0.	20.	20.	0.080	0.181
	3000.	3000.	3000.		
31320	0.	20.	0.	0.032	0.113
31312	-12.	12.	12.	-0.034	0.080
31309	-24.	16.	16.	-0.083	0.120
31307	-28.	24.	44.	-0.066	0.240
31305	-40.	36.	44.	-0.112	0.213
31303	-32.	52.	52.	-0.050	0.376
31301	-16.	80.	92.	0.095	0.612
	3000.	3000.	3000.		

TABLE B137

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, $\sigma_1=3075$ PSI $\sigma_{13}=6151$ PSIFLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 13

POS. NOS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
31360	0.029	-0.011	0.020	0.0	0.041
31328	0.141	0.040	0.051	0.0	0.141
NO DATA AVAILABLE					
31320	0.126	0.019	0.054	-20.4	0.126
31312	0.088	-0.034	0.061	0.0	0.122
31309	0.119	-0.083	0.101	0.0	0.203
31307	0.254	-0.072	0.163	7.8	0.326
31305	0.294	-0.113	0.203	2.5	0.407
31303	0.376	-0.050	0.213	0.0	0.426
31301	0.614	0.094	0.260	2.9	0.614
NO DATA AVAILABLE					

TABLE B139

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, $\sigma_1=3075$ PSI $\sigma_{13}=6151$ PSIFLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 13

POS. NOS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	AXIDIONAL	TANGENTIAL
41360	0.	-4.	-4.	-0.008	-0.028
41328	0.	-52.	-40.	-0.092	-0.325
	3000.	3000.	3000.		
41320	-4.	-24.	-36.	-0.083	-0.225
41312	28.	-20.	-24.	0.090	-0.163
41309	52.	-8.	-4.	0.238	-0.056
41307	52.	-12.	12.	0.250	-0.014
41305	40.	36.	36.	0.264	0.244
41303	20.	56.	52.	0.204	0.376
41301	-36.	92.	88.	0.007	0.646
413-2	-104.	172.	172.	-0.155	1.244

TABLE B139

PRINCIPAL STRESS DATA - INPP2 SURFACE OF NOZZLE
 BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=3325$ PSI $\sigma_{13}=6151$ PSI

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 13

NOS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
41360	-0.008	-0.028	0.010	0.0	0.028
41328	-0.089	-0.328	0.119	-6.4	0.379
NO DATA AVAILABLE					
41320	-0.081	-0.227	0.073	6.9	0.227
41312	0.091	-0.163	0.127	2.0	0.254
41309	0.238	-0.057	0.147	-1.7	0.294
41307	0.260	-0.024	0.142	-10.9	0.284
41305	0.264	0.244	0.010	0.0	0.264
41303	0.377	0.204	0.087	-2.9	0.377
41301	0.646	0.007	0.319	-0.8	0.646
413-2	1.244	-0.155	0.699	0.0	1.399

TABLE B140

MEMBRANE AND BENDING STRESSES - NOZZLE
 BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=3075$ PSI $\sigma_{13}=6151$ PSI

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 13

NOS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
41360	-0.010	0.001	-0.002	0.029
41328	-0.026	-0.092	0.066	0.233
NO DATA AVAILABLE				
41320	-0.026	-0.056	0.058	0.169
41312	0.028	-0.037	-0.062	0.126
41309	0.077	0.032	-0.160	0.088
41307	0.092	0.117	-0.158	0.131
41305	0.076	0.269	-0.188	0.025
41303	0.077	0.376	-0.127	-0.000
41301	0.051	0.629	0.044	-0.017
413-2	NO DATA AVAILABLE			

TABLE B101

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=3075$ PSI $\sigma_{13}=6151$ PSI

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

POS. NOS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
	3000.	3000.	3000.		
11501	76.	240.	24.	0.629	0.913
11503	84.	188.	28.	0.619	0.781
	3000.	3000.	3000.		
11507	56.	180.	4.	0.645	0.625
	3000.	3000.	3000.		
11514	96.	208.	8.	0.677	0.738
	3000.	3000.	3000.		
11522	88.	200.	12.	0.635	0.726
11530	84.	180.	28.	0.611	0.713
11562	108.	168.	40.	0.727	0.706

TABLE B102

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=3075$ PSI $\sigma_{13}=6151$ PSI

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

POS. NOS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
11501	1.266	0.276	0.495	-36.7	1.266
11503	1.037	0.324	0.356	-40.1	1.037
	NO DATA AVAILABLE				
11507	1.021	0.249	0.386	44.3	1.021
	NO DATA AVAILABLE				
11514	1.107	0.268	0.440	-43.0	1.107
	NO DATA AVAILABLE				
11522	1.095	0.265	0.415	-41.8	1.095
11530	0.999	0.325	0.337	-40.7	0.999
11562	0.998	0.435	0.281	44.0	0.998

TABLE B143

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, $\sigma_1=3075$ PSI $\sigma_{13}=6151$ PSI

PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MEMIDIONAL	TANGENTIAL
215-2	-80.	180.	200.	0.188	1.354
21501	-8.	152.	180.	0.313	1.175
21503	20.	116.	164.	0.376	0.984
	3000.	3000.	3000.		
21507	72.	64.	164.	0.574	0.787
	3000.	3000.	3000.		
21514	104.	36.	172.	0.707	0.707
	3000.	3000.	3000.		
21522	104.	16.	192.	0.707	0.707
21530	92.	-8.	204.	0.642	0.682
21562	100.	56.	188.	0.724	0.836

TABLE B144

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE

BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
TO STRINGER 1 AND 13, $\sigma_1=3075$ PSI $\sigma_{13}=6151$ PSI

PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
215-2	1.355	0.186	0.584	2.2	1.355
21501	1.179	0.309	0.435	4.1	1.179
21503	1.002	0.358	0.322	9.6	1.002
	NO DATA AVAILABLE				
21507	0.924	0.436	0.244	32.1	0.924
	NO DATA AVAILABLE				
21514	1.006	0.409	0.298	45.0	1.006
	NO DATA AVAILABLE				
21522	1.094	0.321	0.386	45.0	1.094
21530	1.119	0.205	0.457	43.7	1.119
21562	1.075	0.485	0.295	39.6	1.075

TABLE B145

MEMBRANE AND BENDING STRESSES - PLATE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=3075$ PSI $\sigma_{13}=6151$ PSI
 FLAT PLATE TWO BOZZLE
 BOZZLE ONE STRINGER NO. 15

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MEMBRANE	TANGENTIAL	MEMBRANE	TANGENTIAL
215-2	NO DATA AVAILABLE			
21501	0.871	1.004	0.150	-0.131
21503	0.498	0.863	0.122	-0.122
	NO DATA AVAILABLE			
21507	0.609	0.706	0.036	-0.081
	NO DATA AVAILABLE			
21514	0.692	0.723	-0.015	0.015
	NO DATA AVAILABLE			
21522	0.671	0.717	-0.036	0.009
21530	0.627	0.698	-0.015	0.015
21562	0.725	0.771	0.001	-0.065

TABLE B146

STRAINS AND STRESSES - OUTER SURFACE OF BOZZLE
 BIAxIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=3075$ PSI $\sigma_{13}=6151$ PSI
 FLAT PLATE TWO BOZZLE
 BOZZLE ONE STRINGER NO. 15

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MEMBRANE	TANGENTIAL
31560	8.	0.	8.	0.023	0.013
31528	-8.	-8.	12.	-0.011	0.029
	3000.	3000.	3000.		
31520	8.	-12.	8.	0.011	-0.029
31512	-28.	-8.	-8.	-0.150	-0.049
31509	-68.	-8.	-8.	-0.319	-0.025
31507	-72.	8.	8.	-0.338	0.062
31505	-88.	28.	8.	-0.387	0.151
31503	-88.	68.	28.	-0.331	0.349
31501	-68.	116.	88.	-0.162	0.598
	3000.	3000.	3000.		

TABLE B147

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE
 BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=3075$ PSI $\sigma_{13}=6151$ PSI

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

NOS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	HAX.	MIN.			
31560	0.028	0.008	0.010	-30.0	0.028
31528	0.050	-0.031	0.041	30.0	0.051
NO DATA AVAILABLE					
31520	0.031	-0.050	0.041	-30.0	0.081
31512	-0.049	-0.150	0.051	0.0	0.150
31509	-0.025	-0.320	0.187	-1.7	0.320
31507	0.062	-0.338	0.198	-1.3	0.396
31505	0.154	-0.390	0.272	-8.6	0.544
31503	0.362	-0.388	0.353	-7.9	0.706
31501	0.626	-0.191	0.408	-10.7	0.817
NO DATA AVAILABLE					

TABLE B148

STRAINS AND STRESSES - LOWER SURFACE OF NOZZLE
 BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13, $\sigma_1=3075$ PSI $\sigma_{13}=6151$ PSI

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

NOS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
415-2	-68.	168.	132.	-0.026	1.079
41501	-48.	112.	72.	-0.027	0.662
41503	28.	76.	72.	0.263	0.517
41505	60.	56.	56.	0.400	0.380
41507	68.	88.	88.	0.423	0.321
41509	68.	20.	28.	0.351	0.138
41512	36.	-12.	16.	0.177	0.005
41520	8.	-16.	-8.	0.018	-0.073
	3000.	3000.	3000.		
41528	-8.	0.	8.	-0.015	0.015
41560	0.	-8.	-12.	-0.016	-0.057

TABLE B149

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE
 BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13 , W1=3075 PSI W13=6151 PSI

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

NOS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
415-2	1.062	-0.032	0.558	-4.1	1.116
41501	0.673	-0.038	0.356	-7.1	0.711
41503	0.517	0.263	0.127	-2.0	0.517
41505	0.400	0.380	0.010	0.0	0.400
41507	0.423	0.321	0.051	0.0	0.423
41509	0.352	0.138	0.107	-2.4	0.352
41512	0.197	-0.015	0.106	-17.7	0.212
41520	0.025	-0.080	0.053	-15.0	0.105
NO DATA AVAILABLE					
41528	0.018	-0.018	0.018	15.0	0.035
41560	-0.009	-0.063	0.027	20.4	0.063

TABLE B150

MEMBRANE AND BENDING STRESSES - NOZZLE
 BIAXIAL STRESS APPLIED TO PLATE, DIRECTED PARALLEL
 TO STRINGER 1 AND 13 , W1=3075 PSI W13=6151 PSI

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

NOS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MEMBRIDIONAL	TANGENTIAL	MEMBRIDIONAL	TANGENTIAL
415-2	-0.002	0.546	0.025	-0.533
41501	-0.019	0.346	0.008	-0.316
41503	NO DATA AVAILABLE			
41505	0.206	0.175	-0.194	-0.205
41507	0.136	0.136	-0.286	-0.185
41509	0.016	0.057	-0.335	-0.082
41512	-0.078	0.033	-0.255	0.029
41520	-0.104	0.039	-0.202	0.112
NO DATA AVAILABLE				
41528	-0.089	0.307	-0.074	0.291
41560	NO DATA AVAILABLE			
INCO021 STOP 00000				

TABLE B151

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 1

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	HERIDIONAL	TANGENTIAL
	3000.	3000.	3000.		
10101	-452.	-352.	-352.	-16.509	-13.598
10103	-416.	-300.	-300.	-14.919	-11.502
	3000.	3000.	3000.		
10107	-320.	-268.	-276.	-12.060	-10.507
	3000.	3000.	3000.		
10114	-260.	-236.	-272.	-10.309	-9.902
	3000.	3000.	3000.		
10122	-200.	-204.	-252.	-8.506	-9.750
10130	-172.	-236.	-220.	-7.306	-9.074
10162	-60.	-100.	-100.	-3.530	-5.702

TABLE B152

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 1

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
10101	-13.599	-16.509	1.055	0.0	16.509
10103	-11.503	-10.919	1.600	0.0	10.919
	NO DATA AVAILABLE				
10107	-10.500	-12.067	0.763	-3.0	12.067
	NO DATA AVAILABLE				
10114	-9.600	-10.603	0.497	-32.9	10.603
	NO DATA AVAILABLE				
10122	-8.577	-9.759	0.591	0.9	9.759
10130	-7.373	-9.000	0.050	-5.1	9.000
10162	-3.525	-5.707	1.111	2.6	5.707

TABLE B153

STRAINS AND STRESSES—OPPOSITE NOZZLE SIDE OF PLATE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 1

BOS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	LONGITUDINAL	TANGENTIAL
201-2	180.	296.	292.	7.239	11.722
20101	300.	300.	300.	13.005	13.602
20103	320.	360.	360.	13.220	10.276
	3000.	3000.	3000.		
20107	260.	300.	320.	11.095	13.075
	3000.	3000.	3000.		
20110	232.	316.	300.	9.937	12.109
	3000.	3000.	3000.		
20122	100.	200.	276.	0.291	11.006
20130	152.	260.	260.	7.225	10.005
20162	76.	176.	100.	0.160	7.191

TABLE B154

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 1

BOS. POS.	PRINC. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRINC. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
201-2	11.722	7.239	2.242	-0.6	11.722
20101	13.602	13.005	0.050	0.0	13.602
20103	10.285	13.210	0.534	-5.0	10.285
	NO DATA AVAILABLE				
20107	13.120	11.050	1.035	-0.5	13.120
	NO DATA AVAILABLE				
20110	12.167	9.919	1.124	-5.2	12.167
	NO DATA AVAILABLE				
20122	11.009	0.200	1.001	-2.1	11.009
20130	10.005	7.225	1.630	0.0	10.005
20162	7.195	0.161	1.517	1.9	7.195

TABLE B155

MEMBRANE AND BENDING STRESSES - PLATE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 1

POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	HORIZONTAL	TANGENTIAL	HORIZONTAL	TANGENTIAL
201-2	NO DATA AVAILABLE			
20101	-1.512	0.002	-10.997	-13.600
20103	-0.006	1.367	-10.073	-12.909
	NO DATA AVAILABLE			
20107	-0.003	1.260	-11.570	-11.011
	NO DATA AVAILABLE			
20110	-0.106	1.120	-10.123	-11.025
	NO DATA AVAILABLE			
20122	-0.107	0.660	-8.430	-10.010
20130	-0.000	0.706	-7.326	-9.700
20162	0.317	0.725	-3.007	-6.067

TABLE B156

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 1

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	HORIZONTAL	TANGENTIAL
30160	-0.	0.	0.	-1.057	0.220
30120	-72.	16.	0.	-1.071	0.516
	3000.	3000.	3000.		
30120	-0.	-0.	-0.	-0.156	-0.155
30112	00.	-20.	-16.	1.090	-0.006
30109	20.	-76.	-00.	-0.257	-3.205
30107	-00.	-120.	-120.	-2.520	-0.973
30105	-120.	-160.	-192.	-5.590	-7.112
30103	-200.	-220.	-200.	-10.226	-0.022
30101	-000.	-320.	-200.	-15.595	-10.763
	3000.	3000.	3000.		

TABLE 815

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE

AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

NOS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	HAI.	TIV.			
30160	0.224	-1.057	0.640	0.0	1.281
30120	0.526	-1.000	1.203	-3.6	2.406
NO DATA AVAILABLE					
30120	-0.156	-0.156	0.0	0.0	0.156
30112	1.699	-0.892	0.995	-2.9	1.909
30109	-0.254	-3.200	1.517	1.9	3.200
30107	-2.524	-8.977	1.227	2.4	8.977
30105	-5.549	-7.170	0.015	10.9	7.170
30103	-8.387	-10.261	0.937	7.8	10.261
30101	-10.500	-15.777	2.599	10.8	15.777
NO DATA AVAILABLE					

TABLE 815A

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE

AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

NOS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
40160	-36.	-4.	-8.	-1.062	-0.188
40120	-40.	-48.	-52.	-1.670	-1.969
	3000.	3000.	3000.		
40120	-64.	-32.	-16.	-2.041	-0.876
40112	-80.	-68.	-72.	-3.231	-2.707
40109	-24.	-108.	-100.	-1.057	-8.186
40107	88.	-116.	-116.	-0.009	-8.703
40105	172.	-104.	-100.	3.525	-8.567
40103	340.	-80.	-80.	8.434	-3.850
40101	624.	24.	24.	17.404	0.018
401-2	384.	152.	132.	12.221	5.177

TABLE B159

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 1

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
00160	-0.106	-1.065	0.439	3.3	1.065
00120	-1.669	-1.977	0.154	9.6	1.977
NO DATA AVAILABLE					
00120	-0.002	-2.075	0.616	9.6	2.075
00112	-2.702	-3.236	0.267	-5.0	3.236
00109	-1.053	-0.190	1.169	-2.5	0.190
00107	-0.609	-4.703	2.307	0.0	0.703
00105	3.525	-4.567	0.006	0.0	0.092
00103	0.033	-3.050	6.102	0.2	12.203
00101	17.003	0.019	0.732	0.0	17.003
001-2	12.230	5.169	3.531	2.0	12.230

TABLE B160

RESIDUAL AND BENDING STRESSES - NOZZLE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 1

POS. POS.	BENDING STRESSES (NORMALIZED)		RESIDUAL STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
00160	-1.059	6.010	0.002	0.206
00120	-1.774	-0.726	-0.097	1.203
NO DATA AVAILABLE				
00120	-1.090	-0.516	0.902	0.360
00112	-1.069	-1.796	2.103	0.911
00109	-1.057	-3.735	0.000	0.450
00107	-1.260	-4.070	-1.259	-0.095
00105	-1.036	-5.039	-0.962	-1.272
00103	-0.096	-6.136	-9.330	-2.206
00101	0.905	-5.372	-16.539	-5.390
001-2	NO DATA AVAILABLE			

TABLE 3157

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SECTIONAL	TANGENTIAL
	3000.	3000.	3000.		
10301	-240.	-300.	-300.	-16.133	-13.052
10303	-209.	-260.	-260.	-10.041	-10.024
	3000.	3000.	3000.		
10307	-372.	-260.	-200.	-12.201	-19.530
	3000.	3000.	3000.		
10314	-264.	-252.	-256.	-10.199	-9.900
	3000.	3000.	3000.		
10322	-290.	-240.	-240.	-8.319	-9.600
10330	-160.	-216.	-220.	-7.059	-8.601
10362	-80.	-160.	-152.	-2.906	-6.266

TABLE 3162

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
10301	-13.055	-16.132	1.339	0.0	16.132
10303	-10.024	-10.042	2.009	-0.7	10.042
	NO DATA AVAILABLE				
10307	-10.511	-12.300	0.896	-6.5	12.300
	NO DATA AVAILABLE				
10314	-9.899	-10.207	0.150	-9.6	10.207
	NO DATA AVAILABLE				
10322	-8.311	-9.600	0.600	0.5	9.600
10330	-7.048	-8.607	0.821	3.5	8.607
10362	-3.003	-6.269	1.633	-1.8	6.269

TABLE B'63

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

SEC. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	LONGITUDINAL	TANGENTIAL
203-2	160.	320.	200.	6.297	12.351
20301	360.	360.	356.	10.001	13.903
20303	100.	156.	360.	13.756	10.160
	3000.	3000.	3000.		
20307	260.	330.	332.	11.110	13.156
	3000.	3000.	3000.		
20314	232.	316.	300.	9.937	12.109
	3000.	3000.	3000.		
20322	100.	272.	200.	0.135	10.930
20330	152.	252.	200.	7.001	9.036
20362	00.	156.	176.	3.231	6.666

TABLE B'64

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

SEC. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
203-2	12.393	6.255	3.069	-0.7	12.393
20301	10.070	13.950	0.050	30.0	10.070
20303	10.210	13.706	0.250	19.3	10.210
	NO DATA AVAILABLE				
20307	13.157	11.117	1.020	-1.0	13.157
	NO DATA AVAILABLE				
20314	12.167	9.919	1.120	-5.2	12.167
	NO DATA AVAILABLE				
20322	10.933	0.132	1.001	2.1	10.933
20330	9.039	7.030	1.001	-2.1	9.039
20362	6.600	3.213	1.736	8.2	6.600

TABLE P165

MEMBRANE AND BENDING STRESSES - PLATE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
203-2	NO DATA AVAILABLE			
20301	-1.046	0.244	-15.087	-13.719
20303	-0.143	2.070	-13.899	-12.094
	NO DATA AVAILABLE			
20307	-0.591	1.311	-11.699	-11.325
	NO DATA AVAILABLE			
20314	-0.131	1.121	-10.068	-11.028
	NO DATA AVAILABLE			
20322	-0.092	0.665	-8.227	-10.265
20330	-0.005	0.578	-7.046	-9.258
20362	0.113	0.200	-3.118	-6.466

TABLE B166

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
30360	-36.	-8.	-4.	-1.062	-0.188
30328	-64.	-8.	0.	-1.788	0.017
	3000.	3000.	3000.		
30320	-16.	16.	4.	-0.326	0.431
30312	32.	-12.	-24.	0.653	-0.861
30309	16.	-76.	-76.	-0.432	-3.110
30307	-4.	-116.	-136.	-2.551	-5.054
30305	-144.	-176.	-180.	-6.016	-7.006
30303	-304.	-232.	-232.	-11.049	-8.953
30301	-492.	-296.	-360.	-17.337	-12.563
	3000.	3000.	3000.		

TABLE B167

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE

AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 3

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
30360	-0.186	-1.065	0.839	3.3	1.065
30328	0.018	-1.789	0.900	1.6	1.807
NO DATA AVAILABLE					
30320	0.460	-0.355	0.407	-10.9	0.815
30312	0.679	-0.887	0.783	7.5	1.566
30309	-0.432	-3.110	1.339	0.0	3.110
30307	-2.526	-5.079	1.277	5.7	5.079
30305	-6.014	-7.009	0.497	2.9	7.009
30303	-8.953	-11.049	1.088	0.0	11.049
30301	-12.430	-17.469	2.519	-9.3	17.469
NO DATA AVAILABLE					

TABLE B168

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE

AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 3

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
40360	-32.	0.	-4.	-0.905	-0.032
40328	-40.	0.	-12.	-1.172	-0.182
	3000.	3000.	3000.		
40320	-72.	-4.	-4.	-2.032	-0.052
40312	-88.	-56.	-64.	-3.116	-2.301
40309	-40.	-96.	-92.	-2.183	-3.755
40307	44.	-108.	-120.	-0.096	-4.696
40305	176.	-108.	-108.	3.613	-4.655
40303	380.	-64.	-68.	9.721	-3.262
40301	628.	40.	4.	17.571	-0.069
403-2	364.	160.	156.	11.854	5.857

TABLE B169
 PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
40360	-0.029	-0.908	0.839	-3.3	0.908
40328	-0.160	-1.195	0.517	-8.5	1.195
NO DATA AVAILABLE					
40320	-0.052	-2.031	0.990	0.0	2.031
40312	-2.289	-3.128	0.420	-6.9	3.128
40309	-2.182	-3.757	0.787	-1.8	3.757
40307	-0.092	-4.700	2.304	1.9	4.700
40305	3.612	-4.654	4.133	0.0	4.266
40303	9.726	-3.261	6.491	0.2	12.982
40301	17.582	-0.080	8.831	1.5	17.661
403-2	11.854	5.857	2.998	0.5	11.854

TABLE B170
 MEMBRANE AND BENDING STRESSES - NOZZLE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
40360	-0.984	-0.110	-0.078	-0.078
40328	-1.480	-0.083	-0.308	0.100
NO DATA AVAILABLE				
40320	-1.179	0.199	0.853	0.241
40312	-1.232	-1.581	1.884	0.720
40309	-1.308	-3.433	0.876	0.322
40307	-1.324	-4.875	-1.227	-0.179
40305	-1.202	-5.830	-4.815	-1.176
40303	-0.664	-6.108	-10.385	-2.846
40301	0.117	-6.316	-17.454	-6.247
403-2	NO DATA AVAILABLE			

TABLE B171

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

NOS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
	3000.	3000.	3000.		
10501	-836.	-292.	-200.	-15.310	-10.983
10503	-396.	-208.	-260.	-18.046	-10.836
	3000.	3000.	3000.		
10507	-328.	-268.	-240.	-11.964	-9.810
	3000.	3000.	3000.		
10514	-264.	-252.	-248.	-10.153	-9.745
	3000.	3000.	3000.		
10522	-196.	-236.	-224.	-8.048	-9.038
10530	-152.	-220.	-212.	-6.674	-8.537
10562	-88.	-144.	-144.	-2.978	-5.773

TABLE B172

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

NOS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
10501	-10.938	-15.315	2.188	2.0	15.315
10503	-10.811	-18.071	1.830	8.8	18.071
	NO DATA AVAILABLE				
10507	-9.753	-12.020	1.133	9.1	12.020
	NO DATA AVAILABLE				
10514	-9.739	-10.159	0.210	6.9	10.159
	NO DATA AVAILABLE				
10522	-8.025	-9.060	0.517	-8.5	9.060
10530	-6.668	-8.542	0.937	-3.1	8.542
10562	-2.978	-5.773	1.397	0.0	5.773

TABLE B173

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE
AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	CAGE 1	CAGE 2	CAGE 3	HORIZONTAL	TANGENTIAL
205-2	84.	292.	312.	5.706	12.132
20501	320.	332.	368.	12.806	13.720
20503	312.	349.	376.	12.763	14.219
	3000.	3000.	3000.		
20507	276.	312.	292.	11.081	11.838
	3000.	3000.	3000.		
20514	240.	320.	320.	10.295	12.624
	3000.	3000.	3000.		
20522	204.	304.	304.	9.119	12.030
20530	148.	264.	264.	7.115	10.492
20562	80.	172.	184.	5.251	7.104

TABLE B174

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE
AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
205-2	12.142	5.777	3.183	2.3	12.142
20501	13.913	12.653	0.630	23.1	13.913
20503	14.300	12.683	0.809	12.9	14.300
	NO DATA AVAILABLE				
20507	11.914	11.005	0.455	-16.8	11.914
	NO DATA AVAILABLE				
20514	12.624	10.295	1.164	0.0	12.624
	NO DATA AVAILABLE				
20522	12.029	9.119	1.455	0.0	12.029
20530	10.491	7.115	1.688	0.0	10.491
20562	7.112	4.244	1.434	3.0	7.112

TABLE 2175

MEMBRANE AND BENDING STRESSES - PLATE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
205-2	NO DATA AVAILABLE			
20501	-1.232	1.388	-14.078	-12.331
20503	-0.641	1.891	-13.405	-12.328
	NO DATA AVAILABLE			
20507	-0.441	1.014	-11.523	-10.824
	NO DATA AVAILABLE			
20514	0.071	1.439	-10.224	-11.185
	NO DATA AVAILABLE			
20522	0.535	1.496	-8.583	-10.534
20530	0.221	0.977	-6.894	-9.514
20542	0.637	0.666	-3.615	-6.438

TABLE 2176

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
30560	-28.	-4.	-4.	-0.818	-0.119
30528	-64.	-8.	-16.	-1.903	-0.389
	3000.	3000.	3000.		
30520	0.	4.	8.	0.069	0.244
30512	32.	-16.	-20.	0.676	-0.780
30509	16.	-76.	-80.	-0.455	-3.191
30507	-36.	-112.	-132.	-2.395	-4.898
30505	-144.	-172.	-192.	-6.062	-7.168
30503	-288.	-224.	-220.	-10.516	-4.653
30501	-488.	-392.	-350.	-17.772	-14.518
	3000.	3000.	3000.		

TABLE B177

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE

AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
30560	-0.120	-0.818	0.349	0.0	0.818
30528	-0.383	-1.909	0.763	-3.8	1.909
NO DATA AVAILABLE					
30520	0.257	0.055	0.101	15.0	0.257
30512	0.677	-0.781	0.729	2.0	1.459
30509	-0.454	-3.192	1.369	1.1	3.192
30507	-2.370	-4.923	1.277	5.7	4.923
30505	-6.008	-7.223	0.608	12.3	7.223
30503	-8.648	-10.521	0.937	3.1	10.521
30501	-14.865	-17.827	1.69	6.9	17.827
NO DATA AVAILABLE					

TABLE B178

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE

AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
40560	-20.	3.	4.	-0.506	0.193
40528	-48.	20.	0.	-1.209	0.480
	3000.	3000.	3000.		
40520	-64.	8.	8.	-1.673	0.423
40512	-80.	-48.	-48.	-2.758	-1.826
40509	-8.	-88.	-92.	-1.255	-3.642
40507	68.	-104.	-88.	0.662	-3.996
40505	204.	-92.	-80.	4.638	-3.804
40503	388.	-56.	-36.	10.172	-2.462
40501	632.	16.	72.	17.934	0.818
405-2	368.	144.	176.	11.987	5.932

TABLE B174
 PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

NOS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
40560	0.193	-0.506	0.385	0.0	0.699
40528	0.516	-1.246	0.881	-8.3	1.762
NO DATA AVAILABLE					
40520	0.423	-1.673	1.048	0.0	2.096
40512	-1.826	-2.758	0.466	0.0	2.758
40509	-1.258	-3.643	1.194	1.2	3.643
40507	0.670	-4.004	2.337	-2.5	4.674
40505	4.640	-3.806	4.223	-1.0	8.446
40503	10.176	-2.466	6.321	-1.1	12.642
40501	17.962	0.790	8.586	-2.4	17.962
405-2	12.013	5.906	3.054	-3.8	12.013

TABLE B180
 MEMBRANE AND BENDING STRESSES - NOZZLE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

NOS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MEMBRANE	TANGENTIAL	MEMBRANE	TANGENTIAL
40560	-0.662	0.037	-0.156	-0.156
40528	-1.556	0.045	-0.347	-0.434
NO DATA AVAILABLE				
40520	-0.802	0.333	0.871	-0.090
40512	-1.041	-1.303	1.717	0.523
40509	-0.855	-3.417	0.400	0.225
40507	-0.866	-4.447	-1.528	-0.451
40505	-0.712	-5.486	-5.350	-1.682
40503	-0.1.2	-5.558	-10.344	-3.095
40501	0.078	-6.850	-17.856	-7.648
405-2	NO DATA AVAILABLE			

NO DATA AVAILABLE
 NO DATA AVAILABLE
 NO DATA AVAILABLE
 NO DATA AVAILABLE
 NO DATA AVAILABLE
 NO DATA AVAILABLE
 NO DATA AVAILABLE
 NO DATA AVAILABLE

11303 -7.501 -13.752 3.126 -6.1 13.752
 NO DATA AVAILABLE
 NO DATA AVAILABLE

NOS. POS.	PRIN. STRESSES (NORMALIZED)	MAX. MIN.	STRESS (NORMALIZED)	ANGLE OF STRESS	PRIN. STRESS INTENSITY (NORMALIZED)
11303	-7.501	-13.752	3.126	-6.1	13.752

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 13

AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.
 PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE

TABLE B182

NOS. POS.	STRESSES (MICROINCHES PER INCH)	GAGE 1	GAGE 2	GAGE 3	TOTAL STRESSES (NORMALIZED)
11303	3000.	3000.	3000.	3000.	-7.570
	3000.	3000.	3000.	3000.	-13.603
	3000.	3000.	3000.	3000.	
	3000.	3000.	3000.	3000.	
	3000.	3000.	3000.	3000.	
	3000.	3000.	3000.	3000.	
	3000.	3000.	3000.	3000.	
	3000.	3000.	3000.	3000.	
	3000.	3000.	3000.	3000.	
	3000.	3000.	3000.	3000.	
	3000.	3000.	3000.	3000.	
	3000.	3000.	3000.	3000.	
	3000.	3000.	3000.	3000.	
	3000.	3000.	3000.	3000.	

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 13

STRESSES AND STRESSES - NOZZLE SIDE OF PLATE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

TABLE B181

TABLE B195

MEMBRANE AND BENDING STRESSES - PLATE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 13

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
213-2	NO DATA AVAILABLE			
21301	NO DATA AVAILABLE			
21303	-0.285	3.150	-13.348	-10.720
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			

TABLE B196

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 13

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
31360	-36.	4.	4.	-0.947	0.218
31328	-24.	4.	-16.	-0.731	-0.207
	3000.	3000.	3000.		
31320	-4.	4.	4.	-0.064	0.169
31312	32.	-16.	-20.	0.676	-0.780
31309	4.	-92.	-92.	-0.947	-3.741
31307	-56.	-124.	-108.	-2.877	-4.624
31305	-148.	-180.	-164.	-6.058	-6.756
31303	-308.	-216.	-224.	-11.022	-8.460
31301	-520.	-264.	-260.	-17.351	-9.840
	3000.	3000.	3000.		

TABLE B187

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE

AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 13

NOS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
31360	0.217	-0.947	0.582	0.0	1.164
31328	-0.105	-0.832	0.364	-22.0	0.832
NO DATA AVAILABLE					
31320	0.169	-0.064	0.116	0.0	0.233
31312	0.677	-0.781	0.729	2.0	1.459
31309	-0.947	-3.741	1.597	0.0	3.741
31307	-2.854	-4.647	0.896	-6.5	4.647
31305	-6.004	-6.710	0.403	-15.0	6.810
31303	-8.456	-11.025	1.285	-2.3	11.025
31301	-9.840	-17.350	3.755	0.4	17.350
NO DATA AVAILABLE					

TABLE B188

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE

AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 13

NOS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
41360	-36.	-12.	-20.	-1.177	-0.594
41328	-36.	-88.	-40.	-1.728	-2.543
	3000.	3000.	3000.		
41320	-68.	-8.	4.	-1.898	0.023
41312	-84.	-52.	-48.	-2.891	-1.901
41309	-4.	-76.	-72.	-0.961	-2.998
41307	64.	-72.	-84.	0.869	-3.265
41305	200.	-72.	-68.	4.711	-3.149
41303	408.	-16.	-12.	10.980	-1.188
41301	640.	60.	44.	18.247	1.130
413-2	264.	148.	148.	8.981	5.604

TABLE B19
 PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
41360	-0.577	-1.194	0.308	-9.6	1.194
41328	-1.406	-2.865	0.729	-28.0	2.865
NO DATA AVAILABLE					
41320	0.035	-1.910	0.972	4.5	1.945
41312	-1.899	-2.893	0.497	2.9	2.893
41309	-0.959	-2.999	1.020	-1.4	2.999
41307	0.874	-3.270	2.072	2.1	4.144
41305	4.711	-3.148	3.930	-0.4	7.859
41303	10.980	-1.187	6.023	-0.2	12.167
41301	18.248	1.129	8.559	0.7	18.248
413-2	8.981	5.604	1.688	0.0	8.981

TABLE B190
 MEMBRANE AND BENDING STRESSES - NOZZLE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
41360	-1.062	-0.188	0.115	0.406
41328	-1.229	-1.375	0.499	1.168
NO DATA AVAILABLE				
41320	-0.981	0.096	0.917	0.073
41312	-1.108	-1.341	1.783	0.561
41309	-0.954	-3.370	0.007	-0.372
41307	-1.004	-3.944	-1.873	-0.679
41305	-0.673	-4.952	-5.384	-1.804
41303	-0.021	-4.824	-11.001	-3.636
41301	0.448	-4.355	-17.799	-5.485
413-2	NO DATA AVAILABLE			

TABLE B191

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
	3000.	3000.	3000.		
11501	-408.	-274.	-323.	-15.457	-14.234
11503	-344.	-292.	-272.	-12.612	-10.516
	3000.	3000.	3000.		
11507	-288.	-280.	-284.	-11.182	-11.008
	3000.	3000.	3000.		
11514	-224.	-268.	-300.	-9.440	-11.187
	3000.	3000.	3000.		
11522	-188.	-248.	-304.	-8.356	-10.917
11530	-160.	-216.	-276.	-7.239	-9.742
11562	-76.	-164.	-196.	-4.164	-7.191

TABLE B192

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
11501	-13.709	-15.982	1.136	28.7	15.982
11503	-10.401	-12.727	1.163	12.8	12.727
	NO DATA AVAILABLE				
11507	-10.994	-11.196	0.101	-15.0	11.196
	NO DATA AVAILABLE				
11514	-9.352	-11.276	0.962	12.8	11.276
	NO DATA AVAILABLE				
11522	-8.174	-11.099	1.462	14.4	11.099
11530	-7.028	-9.953	1.462	15.6	9.953
11562	-4.111	-7.244	1.566	7.5	7.244

TABLE B193
 STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	BIBIDIONAL	TANGENTIAL
215 2	84.	304.	308.	5.832	12.295
21501	320.	352.	352.	12.869	13.801
21503	300.	380.	356.	12.547	14.643
	3000.	3000.	3000.		
21507	260.	352.	320.	11.031	13.243
	3000.	3000.	3000.		
21514	240.	328.	296.	10.203	12.299
	3000.	3000.	3000.		
21522	208.	280.	272.	8.907	10.887
21530	168.	260.	248.	7.551	10.055
21562	76.	188.	188.	4.256	7.516

TABLE B194
 PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
215-2	12.295	5.832	3.231	0.4	12.295
21501	13.801	12.869	0.466	0.0	13.801
21503	14.718	12.471	1.123	-10.5	14.718
	NO DATA AVAILABLE				
21507	13.314	10.960	1.177	-10.0	13.314
	NO DATA AVAILABLE				
21514	12.374	10.129	1.123	-10.5	12.374
	NO DATA AVAILABLE				
21522	10.892	8.902	0.995	-2.9	10.892
21530	10.064	7.542	1.261	-3.4	10.064
21562	7.516	4.256	1.630	0.0	7.516

TABLE B195
MEMBRANE AND BENDING STRESSES - PLATE
AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
215-2	NO DATA AVAILABLE			
21501	-1.294	-0.217	-14.163	-14.017
21503	-0.032	2.064	-12.580	-12.580
	NO DATA AVAILABLE			
21507	-0.076	1.118	-11.107	-12.125
	NO DATA AVAILABLE			
21514	0.381	0.556	-9.822	-11.743
	NO DATA AVAILABLE			
21522	0.276	-0.015	-8.632	-10.902
21530	0.156	0.156	-7.395	-9.899
21562	0.046	0.162	-4.210	-7.354

TABLE B196
STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE
AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
31560	-44.	-16.	-4.	-1.328	-0.339
31528	-44.	-4.	-12.	-1.305	-0.257
	3000.	3000.	3000.		
31520	-26.	0.	-4.	-0.795	-0.038
31512	32.	-16.	-20.	0.676	-0.780
31509	12.	-88.	-60.	-0.519	-3.023
31507	-36.	-124.	-104.	-2.303	-4.573
31505	-116.	-164.	-140.	-4.945	-5.993
31503	-252.	-240.	-220.	-9.592	-8.917
31501	-408.	-276.	-240.	-14.216	-9.845
	3000.	3000.	3000.		

TABLE B197
 PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
31560	-0.216	-1.351	0.517	8.5	1.351
31528	-0.248	-1.315	0.532	-5.4	1.315
NO DATA AVAILABLE					
31520	-0.035	-0.798	0.382	-3.8	0.798
31512	0.677	-0.781	0.729	2.0	1.459
31509	-0.471	-3.071	1.300	-7.9	3.071
31507	-2.275	-4.601	1.163	-6.3	4.601
31505	-4.864	-6.074	0.605	-15.0	6.074
31503	-8.864	-9.679	0.407	19.1	9.679
31501	-9.803	-14.262	2.230	5.9	14.262
NO DATA AVAILABLE					

TABLE B199
 STRAINS AND STRESSES - INNER SURFACE OF NOZZLE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	BI-DIRECTIONAL	TANGENTIAL
41560	-36.	4.	-4.	-0.993	0.055
41528	-60.	-4.	-4.	-1.701	-0.070
	3000.	3000.	3000.		
41520	-68.	-20.	-16.	-2.082	-0.627
41512	-84.	-84.	-96.	-3.351	-3.525
41509	12.	-116.	-124.	-1.048	-4.890
41507	112.	-112.	-108.	1.825	-4.638
41505	280.	-92.	-100.	6.619	-4.327
41503	484.	-40.	-24.	12.980	-2.041
41501	708.	80.	68.	20.375	1.919
415-2	136.	176.	220.	6.026	7.830

TABLE B19^a
 PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
41560	0.065	-1.002	0.534	-5.4	1.067
41528	-0.071	-1.700	0.815	0.0	1.700
NO DATA AVAILABLE					
41520	-0.625	-2.084	0.729	2.0	2.084
41512	-3.263	-3.613	0.175	30.0	3.613
41509	-1.045	-4.893	1.924	1.5	4.893
41507	1.825	-4.638	3.231	-0.4	6.462
41505	6.519	-4.327	5.473	0.5	10.946
41503	12.981	-2.043	7.512	-0.8	15.024
41501	20.375	1.919	9.228	0.5	20.375
415-2	7.987	5.859	1.059	15.8	7.987

TABLE B20^a
 MEMBRANE AND BENDING STRESSES - NOZZLE
 AXIAL LOAD APPLIED TO NOZZLE ONE - 1750 LB.

PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
41560	-1.161	-0.142	-0.168	-0.197
41528	-1.503	-0.164	0.198	-0.093
NO DATA AVAILABLE				
41520	-1.439	-0.332	0.643	0.294
41512	-1.337	-2.153	2.013	1.373
41509	-0.784	-3.957	0.274	0.934
41507	-0.239	-4.605	-2.064	0.032
41505	0.437	-5.160	-5.782	-0.833
41503	1.654	-5.896	-11.286	-3.455
41501	3.080	-3.965	-17.296	-5.884
415-2	NO DATA AVAILABLE			

TABLE 3201

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 1

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
	3000.	3000.	3000.		
10101	0.	148.	-148.	0.0	0.0
10103	4.	176.	-176.	0.023	-0.001
	3000.	3000.	3000.		
10107	0.	160.	-168.	-0.010	-0.038
	3000.	3000.	3000.		
10114	-4.	164.	-160.	-0.018	0.018
	3000.	3000.	3000.		
10130	8.	92.	-112.	0.022	-0.087
10122	8.	112.	-140.	0.017	-0.103
10162	4.	64.	-76.	0.013	-0.035

TABLE 3202

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 1

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
10101	0.772	-0.772	0.772	45.0	1.544
10103	0.929	-0.907	0.918	44.6	1.836
	NO DATA AVAILABLE				
10107	0.834	-0.877	0.855	44.6	1.711
	NO DATA AVAILABLE				
10114	0.845	-0.845	0.845	-44.4	1.690
	NO DATA AVAILABLE				
10130	0.502	-0.567	0.535	42.1	1.069
10122	0.627	-0.713	0.670	42.4	1.340
10162	0.365	-0.387	0.376	43.2	0.752

TABLE B203

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	HER)DIONAL	TANGENTIAL
201-2	8.	200.	-192.	0.255	0.031
20101	0.	276.	-244.	0.038	0.134
20103	8.	256.	-256.	0.046	-0.003
	3000.	3000.	3000.		
20107	8.	236.	-220.	0.065	0.065
	3000.	3000.	3000.		
20114	-8.	192.	-200.	-0.032	-0.032
	3000.	3000.	3000.		
20122	-8.	152.	-152.	-0.023	0.001
20130	-8.	112.	-132.	-0.061	-0.081
20162	-16.	60.	-112.	-0.153	-0.213

TABLE B204

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
201-2	1.065	-0.979	1.022	44.7	2.044
20101	1.443	-1.270	1.357	-44.0	2.712
20103	1.357	-1.314	1.335	44.5	2.670
	NO DATA AVAILABLE				
20107	1.254	-1.124	1.189	45.0	2.378
	NO DATA AVAILABLE				
20114	0.990	-1.054	1.022	45.0	2.044
	NO DATA AVAILABLE				
20122	0.782	-0.803	0.793	-44.6	1.585
20130	0.561	-0.712	0.636	44.7	1.272
20162	0.246	-0.633	0.449	43.1	0.899

TABLE 2205

MEMBRANE AND BENDING STRESSES - PLATE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 1

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
201-2	NO DATA AVAILABLE			
20101	0.019	0.067	-0.019	-0.067
20103	0.034	-0.002	-0.011	0.001
	NO DATA AVAILABLE			
20107	0.028	0.016	-0.037	-0.049
	NO DATA AVAILABLE			
20114	-0.025	-0.007	0.007	0.025
	NO DATA AVAILABLE			
20122	-0.000	-0.043	0.022	-0.044
20130	-0.026	-0.092	0.043	-0.011
20162	-0.070	-0.124	0.083	0.089

TABLE 2206

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 1

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
30160	-4.	-4.	0.	-0.028	-0.016
30128	4.	8.	-4.	0.028	0.016
	3000.	3000.	3000.		
30120	4.	4.	16.	0.047	0.083
30112	-4.	-28.	32.	-0.014	0.018
30109	-48.	-68.	56.	-0.288	-0.035
30107	-20.	-12.	64.	-0.052	0.225
30105	28.	-92.	80.	0.145	-0.059
30103	-16.	-92.	68.	-0.120	-0.096
30101	-4.	-56.	48.	-0.032	-0.032
	3000.	3000.	3000.		

TABLE B207

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, M1=5500 IN.-LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
30160	-0.010	-0.030	0.012	30.0	0.030
30120	0.053	-0.010	0.032	39.6	0.064
NO DATA AVAILABLE					
30120	0.101	0.029	0.036	30.0	0.101
30112	0.157	-0.157	0.157	41.7	0.315
30109	0.106	-0.509	0.307	38.3	0.690
30107	0.320	-0.156	0.202	27.5	0.400
30105	0.503	-0.117	0.460	-30.6	0.920
30103	0.310	-0.525	0.417	40.2	0.835
30101	0.239	-0.303	0.271	45.0	0.502
NO DATA AVAILABLE					

TABLE B210

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, M1=5500 IN.-LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
40160	0.	8.	12.	0.019	0.067
40120	-4.	-16.	-40.	-0.099	-0.268
	3000.	3000.	3000.		
40120	0.	-16.	16.	0.0	0.0
40112	0.	-8.	28.	0.024	0.084
40109	-4.	-8.	8.	-0.023	0.001
40107	-8.	20.	12.	-0.008	0.137
40105	-12.	52.	-40.	-0.054	0.054
40103	-4.	120.	-116.	-0.013	0.035
40101	-12.	220.	-220.	-0.068	0.064
401-2	-20.	320.	-296.	-0.076	0.101

TABLE B209

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
40160	0.075	0.011	0.032	20.4	0.075
40128	-0.065	-0.302	0.119	22.4	0.302
NO DATA AVAILABLE					
40120	0.083	-0.083	0.083	45.0	0.167
40112	0.152	-0.045	0.099	36.1	0.197
40109	0.033	-0.054	0.043	37.0	0.067
40107	0.140	-0.011	0.075	-8.1	0.150
40105	0.246	-0.246	0.246	-38.6	0.492
40103	0.637	-0.615	0.626	-43.9	1.252
40101	1.115	-1.180	1.140	-44.1	2.296
401-2	1.663	-1.598	1.631	-43.1	3.261

TABLE B210

MEMBRANE AND BENDING STRESSES - NOZZLE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
40160	-0.004	0.026	-0.023	-0.041
40128	-0.036	-0.126	0.063	0.142
NO DATA AVAILABLE				
40120	0.023	0.041	0.023	0.041
40112	0.003	0.051	-0.021	-0.033
40109	-0.155	-0.017	-0.133	-0.018
40107	-0.030	0.181	-0.022	0.044
40105	0.046	-0.003	0.100	-0.057
40103	-0.067	-0.030	-0.053	-0.065
40101	-0.050	-0.014	0.018	-0.018
401-2	NO DATA AVAILABLE			

TABLE B211

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SEMI-DIRECTIONAL	TANGENTIAL
	3000.	3000.	3000.		
10301	-320.	-212.	-356.	-2.524	-2.283
10303	-300.	-88.	-320.	-2.196	-1.618
	3000.	3000.	3000.		
10307	-232.	-72.	-300.	-1.770	-1.535
	3000.	3000.	3000.		
10314	-180.	-60.	-260.	-1.412	-1.304
	3000.	3000.	3000.		
10322	-116.	-40.	-220.	-0.971	-1.055
10330	-100.	-28.	-192.	-0.855	-0.891
10362	-52.	-16.	-132.	-0.473	-0.605

TABLE B212

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
10301	-2.009	-2.797	0.394	-36.1	2.797
10303	-1.237	-2.578	0.670	-32.2	2.578
	NO DATA AVAILABLE				
10307	-1.019	-2.257	0.619	-38.8	2.257
	NO DATA AVAILABLE				
10314	-0.823	-1.892	0.535	-42.1	1.892
	NO DATA AVAILABLE				
10322	-0.542	-1.488	0.471	42.4	1.488
10330	-0.445	-1.301	0.428	43.8	1.301
10362	-0.229	-0.808	0.310	38.8	0.808

TABLE B213

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, 81-5508 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 3

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MEMORIAL	ESSENTIAL
203-2	100.	300.	100.	1.098	1.833
20301	276.	436.	80.	2.108	2.079
20303	260.	452.	68.	2.124	2.100
	3000.	3000.	3000.		
20307	200.	376.	60.	1.659	1.768
	3000.	3000.	3000.		
20314	168.	316.	44.	1.386	1.459
	3000.	3000.	3000.		
20322	136.	256.	24.	1.109	1.133
20330	112.	208.	20.	0.919	0.956
20362	52.	116.	8.	0.444	0.504

TABLE B214

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, 81-5508 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 3

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
203-2	2.200	0.731	0.735	-30.0	2.200
20301	3.063	1.204	0.930	43.3	3.063
20303	3.113	1.111	1.001	44.7	3.113
	NO DATA AVAILABLE				
20307	2.539	0.888	0.826	-43.1	2.539
	NO DATA AVAILABLE				
20314	2.133	0.712	0.710	-43.5	2.133
	NO DATA AVAILABLE				
20322	1.726	0.516	0.605	-44.4	1.726
20330	1.407	0.468	0.470	-42.9	1.407
20362	0.757	0.191	0.293	-42.0	0.757

TABLE B215

MEMBRANE AND BENDING STRESSES - PLATE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, M1=5508 IN.-LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 3

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
203-2	NO DATA AVAILABLE			
20301	-0.168	-0.102	-2.356	-2.181
20303	-0.036	0.241	-2.160	-1.859
	NO DATA AVAILABLE			
20307	-0.056	0.131	-1.715	-1.637
	NO DATA AVAILABLE			
20314	-0.013	0.077	-1.399	-1.381
	NO DATA AVAILABLE			
20322	0.069	0.039	-1.040	-1.094
20330	0.032	0.032	-0.897	-0.923
20362	-0.014	-0.050	-0.458	-0.555

TABLE B216

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, M1=5508 IN.-LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 3

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
30360	-120.	-4.	-12.	-0.704	-0.029
30328	-276.	-4.	12.	-1.613	-0.047
	3000.	3000.	3000.		
30320	-76.	20.	-16.	-0.429	0.041
30312	-88.	22.	-4.	-0.545	-0.123
30309	-96.	-96.	-80.	-0.709	-0.541
30307	-152.	-164.	-64.	-1.138	-0.909
30305	-204.	-200.	-72.	-1.447	-1.078
30303	-332.	-248.	-136.	-2.350	-1.507
30301	-464.	-280.	-268.	-3.298	-2.154
	3000.	3000.	3000.		

TABLE B217

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, M=5508 IN. LB.PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 3

POS. WOS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
30360	-0.029	-0.708	0.338	-1.8	0.708
30328	-0.033	-1.626	0.796	5.3	1.626
NO DATA AVAILABLE					
30370	0.059	-0.907	0.253	-10.9	0.506
30310	-0.111	-0.557	0.223	9.6	0.557
30309	-0.456	-0.798	0.169	30.0	0.798
30307	-0.739	-1.308	0.285	33.2	1.308
30305	-0.891	-1.678	0.392	29.2	1.678
30303	-1.816	-2.887	0.513	17.8	2.882
30301	-2.153	-3.299	0.573	1.6	3.299

NO DATA AVAILABLE

TABLE B218

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, M=5508 IN. LB.PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 3

POS. WOS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
40360	-80.	0.	-8.	-0.461	0.039
40328	-72.	-52.	-96.	-0.587	-0.599
	3000.	3000.	3000.		
40320	-168.	8.	-28.	-0.982	-0.031
40312	-132.	-28.	-52.	-0.888	-0.298
40309	-88.	-88.	-36.	-0.386	-0.322
40307	-40.	-60.	-64.	-0.376	-0.508
40305	72.	-28.	-96.	0.263	-0.588
40303	256.	48.	-136.	1.351	-0.868
40301	448.	168.	-128.	2.603	0.026
403-2	248.	312.	-120.	1.683	0.728

TABLE B219

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 3

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
40360	0.009	-0.461	0.235	-1.5	0.470
40328	-0.478	-0.708	0.115	43.5	0.708
NO DATA AVAILABLE					
40320	-0.025	-0.988	0.481	-4.4	0.988
40312	-0.287	-0.855	0.294	-6.4	0.855
40309	-0.310	-0.358	0.024	30.0	0.358
40307	-0.375	-0.509	0.067	4.5	0.509
40305	0.301	-0.581	0.481	11.9	0.881
40303	1.465	-0.581	1.023	13.7	2.046
40301	2.817	-0.187	1.502	15.5	3.004
403-2	2.401	-0.070	1.216	33.9	2.432

TABLE B220

MEMBRANE AND BENDING STRESSES - NOZZLE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 3

POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
40360	-0.562	-0.910	-0.121	-0.019
40328	-1.100	-0.321	-0.513	0.276
NO DATA AVAILABLE				
40320	-0.706	0.005	0.217	0.036
40312	-0.696	-0.209	0.152	0.085
40309	-0.528	-0.431	-0.182	-0.109
40307	-0.757	-0.709	-0.381	-0.201
40305	-0.612	-0.811	-0.875	-0.267
40303	-0.500	-0.987	-1.851	-0.520
40301	-0.348	-1.064	-2.951	-1.090
403-2	NO DATA AVAILABLE			

TABLE E221

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 1, M1=5508 IN.LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SEMI-AXIAL	TANGENTIAL
	3000.	3000.	3000.		
10501	-400.	-356.	-360.	-3.599	-2.855
10503	-412.	-324.	-296.	-3.087	-2.473
	3000.	3000.	3000.		
10507	-344.	-256.	-244.	-2.557	-1.391
	3000.	3000.	3000.		
10514	-268.	-212.	-208.	-2.028	-1.679
	3000.	3000.	3000.		
10522	-176.	-184.	-192.	-1.451	-1.523
10530	-154.	-152.	-156.	-1.302	-1.281
10562	-64.	-88.	-78.	-0.574	-0.719

TABLE E222

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 1, M1=5508 IN.LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
10501	-2.855	-3.590	0.367	-0.2	3.590
10503	-2.465	-3.096	0.316	6.7	3.096
	NO DATA AVAILABLE				
10507	-1.989	-2.558	0.295	3.2	2.558
	NO DATA AVAILABLE				
10514	-1.679	-2.028	0.175	1.7	2.028
	NO DATA AVAILABLE				
10522	-1.445	-1.529	0.042	15.0	1.529
10530	-1.240	-1.303	0.032	-9.6	1.303
10562	-0.574	-0.719	0.072	0.0	0.719

TABLE B223

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, M1=5508 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
205-2	180.	336.	324.	1.583	2.727
20501	400.	392.	376.	3.195	3.092
20503	376.	380.	364.	3.029	3.005
	3000.	3000.	3000.		
20507	304.	304.	304.	2.457	2.457
	3000.	3000.	3000.		
20514	252.	252.	252.	2.037	2.037
	3000.	3000.	3000.		
20522	200.	212.	212.	1.645	1.717
20530	180.	176.	176.	1.217	1.434
20562	80.	80.	84.	0.651	0.613

TABLE B224

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, M1=5508 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
205-2	2.728	1.582	0.573	-1.6	2.728
20501	3.210	3.083	0.064	20.4	3.210
20503	3.061	2.974	0.043	37.0	3.061
	NO DATA AVAILABLE				
20507	2.457	2.457	0.0	0.0	2.457
	NO DATA AVAILABLE				
20514	2.037	2.037	0.0	0.0	2.037
	NO DATA AVAILABLE				
20522	1.717	1.645	0.036	0.0	1.717
20530	1.434	1.217	0.108	0.0	1.434
20562	0.669	0.645	0.012	30.0	0.669

TABLE B225

MEMBRANE AND BENDING STRESSES - PLATE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 1, M1=5500 IN.LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
205-2	NO DATA AVAILABLE			
20501	-0.197	0.122	-3.392	-2.977
20503	-0.029	0.266	-3.058	-2.739
	NO DATA AVAILABLE			
20507	-0.050	0.233	-2.507	-2.228
	NO DATA AVAILABLE			
20510	0.008	0.179	-2.032	-1.858
	NO DATA AVAILABLE			
20522	0.097	0.097	-1.548	-1.620
20530	-0.042	0.096	-1.253	-1.338
20562	0.039	-0.028	-0.613	-0.691

TABLE B226

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 1, M1=5500 IN.LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
30560	-176.	-4.	4.	-1.004	0.056
30528	-258.	-48.	-72.	-1.672	-0.419
	3000.	3000.	3000.		
30520	-96.	20.	12.	-0.510	0.163
30512	-88.	-28.	-28.	-0.569	-0.207
30509	-120.	-96.	-88.	-0.903	-0.735
30507	-166.	-152.	-152.	-1.320	-1.223
30505	-280.	-212.	-216.	-2.106	-1.709
30503	-444.	-276.	-288.	-3.199	-2.211
30501	-672.	-496.	-448.	-4.956	-3.751
	3000.	3000.	3000.		

TABLE B227

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

GGS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
30560	0.056	-1.004	0.530	1.1	1.061
30528	-0.416	-1.675	0.629	-2.9	1.675
NO DATA AVAILABLE					
30520	0.165	-0.510	0.338	-1.8	0.676
30512	-0.207	-0.569	0.181	0.0	0.569
30509	-0.732	-0.906	0.087	6.9	0.906
30507	-1.223	-1.320	0.048	0.0	1.320
30505	-1.708	-2.106	0.199	-1.5	2.106
30503	-2.211	-3.199	0.494	-1.2	3.199
30501	-3.739	-4.969	0.615	5.9	4.969

NO DATA AVAILABLE

TABLE B228

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

GGS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
40560	-120.	0.	-12.	-0.699	-0.012
40528	-240.	80.	-32.	-1.312	0.278
	3000.	3000.	3000.		
40520	-208.	-4.	-48.	-1.248	-0.152
40512	-184.	-56.	-60.	-1.188	-0.429
40509	-120.	-116.	-96.	-0.937	-0.852
40507	-28.	-136.	-116.	-0.459	-1.049
40505	144.	-104.	-96.	0.584	-0.586
40503	376.	-72.	-64.	1.987	-0.690
40501	396.	8.	36.	2.312	0.059
405-2	416.	124.	100.	2.640	0.809

TABLE B229

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, M1=5500 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
40560	-0.011	-0.700	0.345	-2.6	0.700
40528	0.330	-1.364	0.847	-10.1	1.694
NO DATA AVAILABLE					
40520	-0.141	-1.260	0.560	-5.9	1.260
40512	-0.429	-1.188	0.379	-0.8	1.188
40509	-0.827	-0.961	0.067	25.5	0.961
40507	-0.455	-1.054	0.300	-5.0	1.054
40505	0.584	-0.886	0.735	-0.8	1.079
40503	1.983	-0.690	1.337	-0.4	2.674
40501	2.314	0.057	1.128	-1.9	2.314
405-2	2.642	0.807	0.917	2.0	2.642

TABLE B231

MEMBRANE AND BENDING STRESSES - NOZZLE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, M1=5500 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
40560	-0.851	0.022	-0.153	0.034
40528	-1.492	-0.071	-0.180	-0.348
NO DATA AVAILABLE				
40520	-0.879	0.006	0.369	0.159
40512	-0.878	-0.308	0.309	0.111
40509	-0.920	-0.793	0.017	0.059
40507	-0.889	-1.136	-0.430	-0.087
40505	-0.761	-1.297	-1.345	-0.412
40503	-0.608	-1.451	-2.591	-0.760
40501	-1.321	-1.846	-3.634	-1.905
405-2	NO DATA AVAILABLE			

TABLE B233

STRAINS AND STRESSES—OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, M1=5508 IN.-LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 13

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
213-2	-140.	-368.	-352.	-1.654	-2.979
21301	-400.	-392.	-364.	-3.181	-3.048
21303	-376.	-364.	-372.	-3.020	-2.972
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		

TABLE B234

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, M1=5508 IN.-LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 13

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
213-2	-1.653	-2.981	0.664	-1.8	2.981
21301	-3.076	-3.213	0.099	23.9	3.213
21303	-2.964	-3.028	0.032	-20.4	3.028

NO DATA AVAILABLE

NO DATA AVAILABLE

NO DATA AVAILABLE

NO DATA AVAILABLE

NO DATA AVAILABLE

NO DATA AVAILABLE

NO DATA AVAILABLE

NO DATA AVAILABLE

TABLE B235

MEMBRANE AND BENDING STRESSES - PLATE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 1, M=5500 IN.LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 13

POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
213-2	NO DATA AVAILABLE			
21301	0.155	-0.273	3.335	2.775
21303	0.080	-0.414	3.100	2.558
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			

TABLE B236

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 1, M=5500 IN.LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 13

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
31360	164.	20.	16.	0.978	0.099
31328	268.	24.	12.	1.572	0.066
	3000.	3000.	3000.		
31320	136.	-28.	-12.	0.728	-0.211
31312	88.	60.	60.	0.645	0.476
31309	132.	92.	96.	0.977	0.748
31307	188.	188.	132.	1.383	1.118
31305	288.	224.	216.	2.166	1.756
31303	476.	264.	248.	3.319	1.982
31301	736.	368.	364.	5.069	2.841
	3000.	3000.	3000.		

TABLE B237

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, M=5500 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 13

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
31360	0.978	0.099	0.440	0.7	0.978
31328	1.572	0.066	0.753	1.2	1.572
NO DATA AVAILABLE					
31320	0.730	-0.213	0.472	-2.5	0.943
31312	0.645	0.476	0.084	0.0	0.645
31309	0.977	0.747	0.115	-2.6	0.977
31307	1.389	1.111	0.139	8.7	1.389
31305	2.167	1.755	0.206	2.9	2.167
31303	3.321	1.981	0.670	2.2	3.321
31301	5.069	2.041	1.114	0.3	5.069
NO DATA AVAILABLE					

TABLE B238

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, M=5500 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 13

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
41360	144.	-8.	0.	0.812	-0.079
41328	56.	476.	356.	1.308	3.476
	3000.	3000.	3000.		
41320	172.	16.	4.	1.005	0.029
41312	192.	60.	56.	1.233	0.426
41305	112.	88.	100.	0.862	0.754
41307	4.	96.	96.	0.251	0.805
41305	-152.	80.	48.	-0.715	0.586
41303	-400.	24.	0.	-2.254	0.222
41301	-740.	-72.	-68.	-4.388	-0.353
413-2	-284.	-156.	-172.	-2.010	-1.287

TABLE B239

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 13

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
41360	0.812	-0.090	0.446	-1.3	0.692
41328	3.520	1.264	1.128	-8.1	3.520
NO DATA AVAILABLE					
41320	1.006	0.029	0.489	1.8	1.006
41312	1.233	0.426	0.404	0.7	1.233
41309	0.871	0.746	0.063	-15.0	0.871
41307	0.805	0.251	0.277	0.0	0.805
41305	0.591	-0.720	0.656	-3.7	1.311
41303	0.229	-2.255	1.242	-1.4	2.434
41301	-0.354	-4.388	2.017	0.1	4.388
413-2	-1.285	-2.012	0.364	-3.3	2.012

TABLE B240

MEMBRANE AND BENDING STRESSES - NOZZLE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 13

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
41360	0.895	0.010	0.083	0.189
41328	1.440	1.771	0.132	-1.705
NO DATA AVAILABLE				
41320	0.867	-0.091	-0.138	-0.120
41312	0.939	0.451	-0.294	0.025
41309	0.919	0.751	0.057	-0.003
41307	0.817	0.961	0.566	0.156
41305	0.725	1.171	1.441	0.585
41303	0.533	1.105	2.786	0.877
41301	0.340	1.244	4.729	1.597
413-2	NO DATA AVAILABLE			

TABLE B241

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.
 FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
	3000.	3000.	3000.		
11501	320.	436.	164.	2.539	2.418
11503	288.	360.	72.	2.157	1.723
	3000.	3000.	3000.		
11507	236.	336.	68.	1.827	1.622
	3000.	3000.	3000.		
11514	160.	288.	64.	1.331	1.428
	3000.	3000.	3000.		
11522	128.	248.	48.	1.077	1.186
11530	96.	196.	48.	0.838	0.998
11562	68.	116.	24.	0.554	0.566

TABLE B242

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.
 FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
11501	3.190	1.767	0.712	42.6	3.190
11503	2.721	1.158	0.782	37.0	2.721
	NO DATA AVAILABLE				
11507	2.430	1.018	0.706	40.8	2.430
	NO DATA AVAILABLE				
11514	1.965	0.793	0.586	-42.6	1.965
	NO DATA AVAILABLE				
11522	1.666	0.597	0.535	-42.1	1.666
11530	1.310	0.522	0.394	-39.3	1.310
11562	0.800	0.320	0.240	-44.3	0.800

TABLE B243

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
215-2	-112.	-104.	-372.	-1.205	-1.963
21501	-264.	-96.	-840.	-2.183	-2.167
21503	-272.	-72.	-852.	-2.175	-2.114
	3000.	3000.	3000.		
21507	-232.	-50.	-364.	-1.828	-1.707
	3000.	3000.	3000.		
21514	-180.	-84.	-316.	-1.455	-1.455
	3000.	3000.	3000.		
21522	-132.	-28.	-268.	-1.105	-1.201
21530	-116.	-240.	-220.	-1.238	-1.895
21562	-60.	-20.	-132.	-0.523	-0.619

TABLE B244

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
215-2	-0.789	-2.379	0.795	30.8	2.379
21501	-1.258	-3.052	0.897	44.6	3.052
21503	-1.153	-3.136	0.991	-44.1	3.136
	NO DATA AVAILABLE				
21507	-0.972	-2.562	0.795	-42.8	2.562
	NO DATA AVAILABLE				
21514	-0.746	-2.164	0.709	45.0	2.164
	NO DATA AVAILABLE				
21522	-0.525	-1.781	0.628	42.8	1.781
21530	-1.205	-1.899	0.387	-4.3	1.899
21562	-0.275	-0.867	0.296	40.3	0.867

TABLE B245

MEMBRANE AND BENDING STRESSES - PLATE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, 81-5508 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
215-2	NO DATA AVAILABLE			
21501	0.190	0.126	2.301	2.293
21503	-0.009	-0.196	2.166	1.919
	NO DATA AVAILABLE			
21507	-0.000	-0.043	1.827	1.668
	NO DATA AVAILABLE			
21514	-0.062	-0.014	1.393	1.441
	NO DATA AVAILABLE			
21522	-0.014	-0.008	1.091	1.193
21530	-0.185	-0.050	1.023	1.005
21542	0.016	-0.026	0.539	0.593

TABLE B246

SPRAINS AND STRESSES - OUTER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, 81-5508 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
31560	128.	8.	4.	0.745	0.010
31528	120.	-8.	12.	0.689	-0.021
	3000.	3000.	3000.		
31520	112.	-12.	4.	0.629	-0.069
31512	80.	8.	40.	0.513	0.176
31509	100.	16.	96.	0.704	0.439
31507	112.	52.	152.	0.881	0.821
31505	184.	88.	200.	1.392	1.151
31503	280.	136.	248.	2.054	1.524
31501	408.	172.	288.	2.874	1.802
	3000.	3000.	3000.		

TABLE B247

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
31560	0.745	0.010	0.367	0.8	0.745
31528	0.693	-0.025	0.359	-4.2	0.718
NO DATA AVAILABLE					
31520	0.632	-0.072	0.352	-3.4	0.703
31512	0.522	0.157	0.198	-13.2	0.533
31509	0.218	0.324	0.247	-28.8	0.818
31507	0.114	0.589	0.262	-41.7	1.114
31505	1.587	0.956	0.315	-33.8	1.587
31503	2.183	1.395	0.394	-23.9	2.183
31501	2.954	1.723	0.615	-18.7	2.954
NO DATA AVAILABLE					

TABLE B249

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
41528	80.	12.	8.	0.480	0.059
41528	168.	4.	24.	0.992	0.064
	3000.	3000.	3000.		
41520	132.	-4.	32.	0.786	0.076
41512	124.	36.	84.	0.850	0.455
41509	52.	76.	80.	0.482	0.639
41507	32.	116.	56.	0.387	0.712
41505	-156.	128.	16.	-0.724	0.637
41503	-340.	132.	-116.	-1.921	0.175
41501	-540.	116.	-264.	-3.257	-0.450
415-2	-140.	108.	-316.	-1.051	-0.846

TABLE F249

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
41560	0.480	0.058	0.211	1.4	0.480
41528	0.995	0.061	0.467	-3.2	0.995
NO DATA AVAILABLE					
41520	0.798	0.062	0.367	-7.4	0.798
41512	0.887	0.428	0.230	-16.5	0.887
41509	0.639	0.481	0.079	3.8	0.639
41507	0.775	0.324	0.226	-22.0	0.775
41505	0.693	-0.779	0.736	-11.2	1.473
41503	0.358	-2.104	1.231	-15.8	2.462
41501	-0.136	-3.571	1.718	-17.6	3.571
415-2	0.152	-2.088	1.100	-42.3	2.200

TABLE F250

MEMBRANE AND BENDING STRESSES - NOZZLE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
41560	0.612	0.034	0.132	-0.024
41528	0.841	0.022	-0.151	-0.083
NO DATA AVAILABLE				
41520	0.708	0.003	-0.078	-0.072
41512	0.682	0.320	-0.168	-0.144
41509	0.593	0.539	0.111	-0.100
41507	0.634	0.767	0.247	0.055
41505	0.334	0.894	1.058	0.257
41503	0.067	0.849	1.987	0.674
41501	-0.191	0.676	3.066	1.126
415-2	NO DATA AVAILABLE			

TABLE B251

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 5, M5=5500 IN.LB.
 FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 1

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SERIDIONAL	TANGENTIAL
	3000.	3000.	3000.		
10101	480.	360.	360.	3.594	2.872
10103	412.	272.	272.	2.997	2.154
	3000.	3000.	3000.		
10107	348.	268.	268.	2.600	2.142
	3000.	3000.	3000.		
10114	260.	220.	208.	1.992	1.715
	3000.	3000.	3000.		
10122	196.	176.	192.	1.556	1.483
10130	152.	160.	188.	1.233	1.285
10162	88.	92.	80.	0.706	0.694

TABLE B252

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 5, M5=5500 IN.LB.
 FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 1

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
10101	3.594	2.872	0.361	0.0	3.594
10103	2.997	2.154	0.421	0.0	2.997
	NO DATA AVAILABLE				
10107	2.600	2.142	0.229	0.0	2.600
	NO DATA AVAILABLE				
10114	1.995	1.712	0.142	6.4	1.995
	NO DATA AVAILABLE				
10122	1.575	1.464	0.055	-24.6	1.575
10130	1.271	1.207	0.032	-39.6	1.271
10162	0.732	0.669	0.032	39.6	0.732

TABLE B253

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 5, 95=5500 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

NOS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SEMI-DIONAL	TANGENTIAL
201-2	-176.	-308.	-340.	-1.822	-2.834
20101	-396.	-368.	-388.	-3.158	-3.049
20103	-352.	-360.	-364.	-2.869	-2.929
	3000.	3000.	3000.		
20107	-272.	-284.	-276.	-2.217	-2.266
	3000.	3000.	3000.		
20114	-200.	-208.	-224.	-1.654	-1.751
	3000.	3000.	3000.		
20122	-164.	-160.	-156.	-1.311	-1.275
20130	-140.	-156.	-144.	-1.155	-1.215
20162	-80.	-76.	-76.	-0.637	-0.613

TABLE B254

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 5, 95=5500 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

NOS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
201-2	-1.821	-2.834	0.506	-1.2	2.834
20101	-3.028	-3.179	0.075	-22.0	3.179
20103	-2.867	-2.931	0.032	9.6	2.931
	NO DATA AVAILABLE				
20107	-2.210	-2.273	0.032	-20.4	2.273
	NO DATA AVAILABLE				
20114	-1.639	-1.766	0.064	20.4	1.766
	NO DATA AVAILABLE				
20122	-1.272	-1.314	0.021	15.0	1.314
20130	-1.142	-1.229	0.044	-23.1	1.229
20162	-0.613	-0.637	0.012	0.0	0.637

TABLE #255

MEMBRANE AND BENDING STRESSES - PLATE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 5, M5-5500 IN. LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 1

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MEMBRANE	TANGENTIAL	MEMBRANE	TANGENTIAL
201-2	NO DATA AVAILABLE			
20101	0.218	-0.099	3.376	2.960
20103	0.064	-0.307	2.933	2.501
	NO DATA AVAILABLE			
20107	0.191	-0.062	2.408	2.204
	NO DATA AVAILABLE			
20114	0.169	-0.010	1.823	1.733
	NO DATA AVAILABLE			
20122	0.122	0.104	1.433	1.379
20130	0.039	0.015	1.194	1.230
20142	0.055	0.041	0.672	0.654

TABLE #256

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 5, M5-5500 IN. LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 1

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MEMBRANE	TANGENTIAL
30160	184.	0.	-8.	1.054	-0.042
30120	160.	0.	12.	0.927	-0.000
	3090.	3000.	3006.		
30120	132.	24.	20.	0.815	0.177
30112	164.	48.	44.	0.703	0.353
30109	131.	100.	104.	0.996	0.815
30107	180.	188.	152.	1.431	1.371
30105	284.	216.	224.	2.143	1.750
30103	448.	276.	288.	3.179	2.059
30101	702.	384.	280.	4.783	2.567
	3000.	3000.	3000.		

TABLE 1253

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 5, 95-5500 IN. LB.PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	REL.	TAN.			
30160	1.055	-0.002	0.549	1.6	1.050
30128	3.928	-0.001	0.465	-1.9	0.929
NO DATA AVAILABLE					
30120	0.815	0.176	0.319	-0.9	0.815
30112	0.703	0.351	0.175	5.7	0.703
30109	0.996	0.818	0.091	-3.3	0.996
30107	1.409	1.302	0.099	36.1	1.409
30105	2.188	1.757	0.198	-3.1	2.188
30103	1.191	2.050	0.565	3.7	3.183
30101	4.815	2.538	1.181	6.9	4.815

NO DATA AVAILABLE

TABLE 1254

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 5, 95-5500 IN. LB.PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SEMI-DIAGONAL	TANGENTIAL
40160	152.	-8.	8.	0.872	-0.031
40128	72.	-69.	300.	0.691	0.968
	1000.	3000.	3000.		
40120	120.	20.	20.	0.755	0.129
40112	120.	76.	60.	0.879	0.545
40109	120.	96.	116.	0.959	0.851
40107	-80.	112.	112.	-0.190	0.966
40105	-116.	96.	92.	-0.438	0.826
40103	-320.	60.	56.	-1.729	0.608
40101	-660.	-20.	-80.	-3.874	-0.092
401-2	-400.	-180.	160.	-2.689	-1.131

TABLE 825:

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 5, 95-5500 IN LB.
 PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 1

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
40160	0.873	-0.032	0.453	-2.0	0.905
40128	1.810	-0.150	0.990	48.9	1.959
NO DATA AVAILABLE					
40126	0.755	0.129	0.313	0.0	0.755
40112	0.880	0.548	0.158	3.8	0.880
40105	0.990	0.839	0.175	-22.6	0.990
40107	0.966	-0.190	0.579	0.0	1.156
40105	0.826	-0.438	0.632	-0.4	1.265
40103	0.608	-1.729	1.168	-0.5	2.337
40101	-0.091	-3.875	1.992	-0.9	3.875
401-2	-1.129	-2.486	0.778	-1.9	2.686

TABLE 826:

MEMBRANE AND BENDING STRESSES - NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 5, 95-5500 IN LB.
 PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 1

POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
40160	0.963	-0.036	0.091	-0.005
40128	0.809	0.488	0.118	-0.488
NO DATA AVAILABLE				
40120	0.785	0.153	0.030	0.028
40112	0.791	0.459	-0.088	-0.106
40109	0.977	0.833	0.018	-0.018
40107	0.620	1.168	0.811	0.202
40105	0.852	1.292	1.291	0.866
40103	0.725	1.333	2.454	0.725
40101	0.454	1.237	4.328	1.329
401-2	NO DATA AVAILABLE			

TABLE B261

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 5, 45-55C IN IN.PLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 3

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SERIODIAL	TANGENTIAL
	3000.	3000.	3000.		
10301	336.	336.	172.	2.521	2.027
10303	296.	328.	64.	2.155	1.552
	3000.	3000.	3000.		
10307	248.	320.	36.	1.815	1.416
	3000.	3000.	3000.		
10314	188.	288.	40.	1.462	1.318
	3000.	3000.	3000.		
10322	156.	236.	24.	1.199	1.042
10330	120.	224.	24.	0.979	1.003
10362	68.	108.	12.	0.531	0.482

TABLE B262

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 5, 45-5500 IN IN.PLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 3

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
10301	2.768	1.780	0.494	30.0	2.768
10303	2.405	1.102	0.751	33.2	2.405
	NO DATA AVAILABLE				
10307	2.383	0.850	0.747	37.5	2.383
	NO DATA AVAILABLE				
10314	2.041	0.739	0.451	41.8	2.041
	NO DATA AVAILABLE				
10322	1.679	0.542	0.558	41.0	1.679
10330	1.513	0.470	0.522	-44.3	1.513
10362	0.752	0.255	0.251	42.3	0.758

TABLE B263

STRAINS AND STRESSES—OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 5, 45-5500 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 3

BOS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
203-2	-92.	-129.	-312.	-1.638	-1.785
20301	-336.	-92.	-832.	-2.540	-2.094
20303	-256.	-90.	-832.	-2.069	-2.069
	3000.	3000.	3000.		
20307	-192.	-84.	-323.	-1.528	-1.468
	3000.	3000.	3000.		
20314	-164.	-32.	-298.	-1.316	-1.292
	3000.	3000.	3000.		
20322	-132.	-16.	-248.	-1.067	-1.067
20330	-104.	-24.	-212.	-0.874	-0.958
20362	-52.	-8.	-120.	-0.444	-0.521

TABLE B264

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 5, 45-5500 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 3

BOS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
203-2	-0.787	-2.036	0.624	26.6	2.036
20301	-1.403	-3.231	0.914	-37.9	3.231
20303	-1.151	-2.987	0.918	45.0	2.987
	NO DATA AVAILABLE				
20307	-0.778	-2.218	0.720	-43.8	2.218
	NO DATA AVAILABLE				
20314	-0.636	-1.971	0.655	-44.5	1.971
	NO DATA AVAILABLE				
20322	-0.462	-1.672	0.605	45.0	1.672
20330	-0.424	-1.408	0.492	42.5	1.408
20362	-0.191	-0.779	0.294	41.5	0.779

TABLE B264

MEMBRANE AND BENDING STRESSES - PLATE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 5, 45-5500 IN. LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	SEMI-DIRECTIONAL	TANGENTIAL	SEMI-DIRECTIONAL	TANGENTIAL
203-2	NO DATA AVAILABLE			
20301	-0.010	-0.034	2.530	2.060
20303	0.043	-0.254	2.112	1.811
	NO DATA AVAILABLE			
20307	0.104	-0.025	1.472	1.443
	NO DATA AVAILABLE			
20314	0.073	0.013	1.389	1.305
	NO DATA AVAILABLE			
20322	0.066	-0.012	1.113	1.055
20330	0.053	0.023	0.927	0.981
20362	0.041	-0.019	0.890	0.502

TABLE B266

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 5, 45-5500 IN. LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SEMI-DIRECTIONAL	TANGENTIAL
30360	112.	-8.	0.	0.629	-0.069
30324	104.	80.	-36.	0.646	0.152
	1000.	3000.	3000.		
30320	92.	-24.	0.	0.496	-0.130
30312	69.	0.	36.	0.431	0.130
30309	74.	28.	100.	0.586	0.513
30307	112.	52.	188.	0.877	0.804
30305	188.	84.	196.	1.405	1.116
30303	300.	136.	232.	2.149	1.450
30301	440.	200.	324.	3.133	2.061
	3000.	3000.	3000.		

TABLE 9.6

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 5, M5=5500 IN.LB.PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 3

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
00360	3.630	-0.070	0.350	-1.7	0.700
00328	0.799	0.009	0.390	25.8	0.789
NO DATA AVAILABLE					
00320	0.592	-0.136	0.319	-5.7	0.639
00312	0.454	0.103	0.177	-16.0	0.458
00309	0.781	0.359	0.191	-39.6	0.781
00307	1.043	0.588	0.253	-40.9	1.093
00305	1.547	0.935	0.326	-31.8	1.587
00303	2.229	1.370	0.430	-17.8	2.229
00301	3.223	1.971	0.626	-15.6	3.223
NO DATA AVAILABLE					

TABLE 9.6A

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 5, M5=5500 IN.LB.PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 3

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
00360	100.	16.	12.	0.608	0.086
00328	96.	-8.	80.	0.638	0.289
	3000.	3000.	3000.		
00320	124.	4.	28.	0.745	0.095
00312	136.	64.	80.	0.899	0.398
00309	88.	56.	80.	0.668	0.583
00307	32.	88.	88.	0.387	0.712
00305	-72.	104.	88.	-0.235	0.688
00303	-236.	116.	-24.	-1.237	0.461
00301	-448.	128.	-148.	-2.580	0.058
003-2	-276.	136.	-296.	-1.765	-0.588

TABLE 8264

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 5, MS=5508 IN. LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 3

NOS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
40360	0.608	0.206	0.259	1.2	0.608
40328	0.783	0.183	0.290	-25.7	0.783
NO DATA AVAILABLE					
40320	0.751	0.009	0.331	-5.8	0.751
4032	0.907	0.396	0.261	6.9	0.907
40309	0.690	0.517	0.987	-23.1	0.690
40307	0.712	0.387	0.163	-1.8	0.712
40305	0.671	-0.262	0.867	-9.8	0.933
40303	0.536	-1.312	0.928	-11.6	1.888
40301	0.281	-2.763	1.592	-18.3	3.008
403-2	0.097	-2.886	1.272	-31.2	2.583

TABLE 8270

MEMBRANE AND BENDING STRESSES - NOZZLE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 5, MS=5508 IN. LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 3

NOS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MEMBRANE	TANGENTIAL	MEMBRANE	TANGENTIAL
40360	0.617	0.008	0.013	-0.077
40328	0.682	0.720	0.008	-0.068
NO DATA AVAILABLE				
40320	0.621	-0.017	-0.125	-0.113
40312	0.665	0.262	-0.238	-0.132
40309	0.625	0.528	-0.039	-0.015
40307	0.632	0.758	0.285	0.086
40305	0.585	0.880	0.820	0.236
40303	0.456	0.956	1.693	0.495
40301	0.277	1.060	2.856	1.002
403-2	NO DATA AVAILABLE			

TABLE #276

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 5, M5=5500 IN.LB.
 PLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 5

NOS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SEMI-CIRCULAR	TANGENTIAL
	3000.	3050.	3099.		
10501	-16.	136.	-152.	-0.110	-0.062
10503	-12.	169.	-160.	-0.060	0.000
	3000.	3000.	3000.		
10507	-29.	109.	-176.	-0.109	0.023
	3000.	3000.	3000.		
10510	-20.	160.	-160.	-0.119	-0.010
	3000.	3000.	3000.		
10522	-16.	156.	-152.	-0.087	0.022
10530	-8.	120.	-180.	-0.069	-0.081
10562	-8.	76.	-76.	-0.046	0.003

TABLE #277

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 5, M5=5500 IN.LB.
 PLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 5

NOS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
10501	0.665	-0.837	0.751	-43.1	1.503
10503	0.803	-0.067	0.835	-43.8	1.670
	NO DATA AVAILABLE				
10507	0.887	-0.974	0.931	-43.0	1.861
	NO DATA AVAILABLE				
10510	0.782	-0.911	0.846	-43.2	1.693
	NO DATA AVAILABLE				
10522	0.773	-0.837	0.805	-43.1	1.610
10530	0.602	-0.753	0.678	44.7	1.356
10562	0.375	-0.419	0.397	-43.3	0.794

TABLE B273

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 5, M5=5508 IN.-LB.PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SEMI-DIRECTIONAL	TANGENTIAL
205-2	9.	188.	-176.	0.060	0.088
20501	4.	252.	-228.	0.051	0.100
20503	0.	264.	-252.	0.014	0.050
	3000.	3000.	3000.		
20507	0.	224.	-224.	0.0	0.0
	3000.	3000.	3000.		
20514	4.	192.	-192.	0.023	-0.001
	3000.	3000.	3000.		
20522	4.	164.	-164.	0.027	-0.061
20530	0.	144.	-144.	0.0	0.0
20562	-4.	80.	-72.	-0.013	0.035

TABLE B274

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 5, M5=5508 IN.-LB.PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
205-2	1.003	-0.895	0.949	44.8	1.858
20501	1.327	-1.176	1.252	-44.5	2.503
20503	1.378	-1.313	1.345	-44.6	2.691
	NO DATA AVAILABLE				
20507	1.168	-1.168	1.168	45.0	2.336
	NO DATA AVAILABLE				
20514	1.012	-0.990	1.001	44.7	2.003
	NO DATA AVAILABLE				
20522	0.865	-0.845	0.855	44.6	1.711
20530	0.751	-0.751	0.751	45.0	1.502
20562	0.408	-0.386	0.197	-43.3	0.794

TABLE 2075

MEMBRANE AND BENDING STRESSES - PLATE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 5, MS=5503 IN. LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

ROS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
205-2	NO DATA AVAILABLE			
20501	-0.029	0.019	-0.081	-0.081
20503	-0.027	0.027	-0.081	-0.023
	NO DATA AVAILABLE			
20507	-0.055	0.012	-0.055	0.012
	NO DATA AVAILABLE			
20514	-0.046	-0.006	-0.071	-0.005
	NO DATA AVAILABLE			
20522	-0.032	0.010	-0.055	0.012
20530	-0.035	-0.041	-0.035	-0.041
20562	-0.029	0.019	-0.016	-0.016

TABLE 2076

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 5, MS=5508 IN. LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

ROS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
30560	0.	0.	8.	0.010	0.034
30528	0.	28.	-28.	0.0	0.0
	1000.	3000.	3000.		
30520	-8.	20.	-4.	-0.004	0.068
30512	-8.	-36.	20.	-0.065	-0.065
30509	-8.	-56.	48.	-0.037	-0.049
30507	-12.	-72.	80.	-0.059	0.037
30505	-20.	-92.	48.	-0.166	-0.178
30503	-32.	-14.	52.	-0.221	-0.124
30501	-28.	-56.	8.	-0.217	-0.190
	3000.	3000.	3000.		

TABLE B277

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 5, M5=5508 IN.LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

NO. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
30560	0.046	-0.003	0.024	30.0	0.046
30528	0.146	-0.146	0.146	45.0	0.292
NO DATA AVAILABLE					
30520	0.105	-0.040	0.072	-30.0	0.145
30512	0.081	-0.211	0.146	45.0	0.292
30509	0.218	-0.304	0.261	-44.3	0.522
30507	0.388	-0.410	0.399	41.5	0.798
30505	0.153	-0.537	0.365	-44.5	0.730
30503	0.185	-0.530	0.358	41.1	0.716
30501	-0.037	-0.372	0.167	42.9	0.372
NO DATA AVAILABLE					

TABLE B278

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 5, M5=5508 IN.LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

NO. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SEMI-DIRECTIONAL	TANGENTIAL
40560	0.	-12.	0.	-0.014	-0.050
40528	-8.	12.	-12.	-0.046	0.003
	3000.	3000.	3000.		
40520	28.	8.	0.	0.169	0.025
40512	-4.	-16.	24.	-0.013	0.035
40509	16.	-12.	24.	0.105	0.045
40507	16.	16.	8.	0.120	0.096
40505	16.	60.	-52.	0.101	0.029
40503	44.	136.	-124.	0.265	0.036
40501	16.	208.	-200.	0.191	0.029
405-2	8.	344.	-284.	0.117	0.249

TABLE B273

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 5, M5-5508 IN.LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

NOS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
40560	0.708	-0.068	0.036	-30.0	0.072
40528	0.045	-0.089	0.067	-38.5	0.134
NO DATA AVAILABLE					
40520	0.172	0.022	0.075	8.1	0.172
40512	0.118	-0.096	0.197	38.5	0.214
40509	0.174	-0.023	0.099	-36.1	0.197
40507	0.132	0.084	0.024	30.0	0.132
40505	0.359	-0.230	0.294	41.5	0.588
40503	0.838	-0.537	0.687	40.2	1.375
40501	1.129	-1.000	1.064	44.0	2.129
405-2	1.272	-1.456	1.639	-43.8	3.277

TABLE B280

MEMBRANE AND BENDING STRESSES - NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 5, M5-5508 IN.LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

NOS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
40560	-0.002	-0.008	0.012	0.042
40528	-0.023	0.001	0.023	-0.001
NO DATA AVAILABLE				
40520	0.083	0.047	0.087	0.022
40512	-0.039	-0.015	-0.026	-0.050
40509	0.034	-0.002	-0.071	-0.047
40507	0.030	0.067	-0.089	-0.029
40505	-0.033	-0.075	-0.134	-0.103
40503	0.022	-0.044	-0.243	-0.080
40501	-0.058	-0.082	-0.159	-0.111
405-2	NO DATA AVAILABLE			

TABLE B205

MEMBRANE AND BENDING STRESSES - PLATE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 5, 45=5508 IN.LB.
 PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 13

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
21301	NO DATA AVAILABLE			
21303	0.003	0.051	0.035	0.083
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			

TABLE B206

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 5, 45=5508 IN.LB.
 PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 13

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
31360	8.	-8.	0.	0.018	-0.018
31328	-8.	-16.	8.	-0.037	-0.089
	3000.	3000.	3000.		
31320	12.	8.	8.	0.087	0.063
31312	6.	28.	-28.	0.028	0.016
31309	0.	40.	-32.	0.010	0.038
31307	8.	52.	-36.	0.065	0.065
31305	12.	56.	-40.	0.087	0.063
31303	20.	56.	-28.	0.147	0.111
31301	40.	8.	28.	0.271	0.139
213-2	-8.	-268.	268.	-0.023	0.001

TABLE B2A7

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 5, MS=5500 IN.LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 13

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
31360	0.021	-0.021	0.021	-15.0	0.042
31328	0.009	-0.096	0.052	-81.7	0.105
NO DATA AVAILABLE					
31320	0.087	0.063	0.012	0.0	0.087
31312	0.157	-0.110	0.136	43.7	0.271
31309	0.210	-0.167	0.188	-43.2	0.376
31307	0.290	-0.165	0.229	45.0	0.459
31305	0.326	-0.175	0.251	43.6	0.501
31303	0.309	-0.090	0.220	42.6	0.440
31301	0.289	0.120	0.088	-19.1	0.289
213-2	1.366	-1.387	1.377	44.8	2.753

TABLE B219

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 5, MS=5500 IN.LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 13

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
41360	8.	-8.	-8.	0.031	-0.053
41328	9.	52.	-12.	0.093	0.165
	3000.	3000.	3000.		
41320	12.	28.	-24.	0.073	0.013
41312	8.	28.	-28.	0.023	-0.001
41309	16.	28.	-12.	0.106	0.045
41307	0.	-8.	16.	0.014	0.050
41305	0.	-48.	80.	0.042	0.151
41303	-16.	-132.	156.	-0.065	0.106
41301	-36.	-236.	256.	-0.182	0.095
413-2	-56.	-380.	368.	-0.291	0.119

TABLE 824

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 5, M5=5500 IN. LB.
 FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 13

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
41360	0.033	-0.054	0.043	-6.9	0.087
41328	0.300	-0.041	0.171	-38.9	0.301
NO DATA AVAILABLE					
41320	0.102	-0.096	0.139	38.7	0.278
41312	0.157	-0.136	0.147	42.6	0.293
41309	0.174	-0.023	0.099	36.1	0.157
41307	0.088	-0.023	0.055	35.4	0.110
41305	0.425	-0.231	0.328	40.2	0.656
41303	0.777	-0.734	0.756	41.8	1.511
41301	1.247	-1.333	1.290	41.9	2.580
413-2	1.761	-1.933	1.837	41.8	3.694

TABLE 825

MEMBRANE AND BENDING STRESSES - NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 5, M5=5500 IN. LB.
 FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 13

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MEMBRANAL	TANGENTIAL	MEMBRANAL	TANGENTIAL
41360	0.025	-0.035	-0.007	0.017
41328	0.028	0.058	-0.065	-0.107
NO DATA AVAILABLE				
41320	0.080	0.038	0.007	0.025
41312	0.025	0.007	0.002	0.008
41309	0.058	0.039	-0.048	-0.006
41307	0.039	0.058	0.025	0.007
41305	0.065	0.107	0.022	-0.044
41303	0.042	0.109	0.105	0.003
41301	0.045	0.117	0.226	0.022
413-2	-0.157	0.060	0.104	-0.059

TABLE B291

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 5, M5=5500 IN.LB.
 PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
	3000.	3000.	3000.		
11501	356.	272.	390.	2.806	2.625
11503	268.	108.	308.	2.014	1.628
	3000.	3000.	3000.		
11507	176.	60.	300.	1.832	1.856
	3000.	3000.	3000.		
11514	128.	12.	290.	1.078	1.271
	3000.	3000.	3000.		
11522	180.	-8.	256.	1.098	1.014
11530	128.	-8.	228.	0.992	0.983
11562	80.	12.	128.	0.618	0.506

TABLE B292

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 5, M5=5500 IN.LB.
 PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
11501	3.011	2.420	0.296	-36.1	3.011
11503	2.377	1.265	0.556	-38.9	2.377
	NO DATA AVAILABLE				
11507	2.070	0.818	0.626	48.5	2.070
	NO DATA AVAILABLE				
11514	1.828	0.521	0.658	40.8	1.828
	NO DATA AVAILABLE				
11522	1.735	0.377	0.675	-43.2	1.735
11530	1.555	0.320	0.618	-42.5	1.555
11562	0.876	0.288	0.294	-41.5	0.876

TABLE B293

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 5, M5=5508 IN.-LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
215-2	-84.	-332.	-156.	-1.059	-2.023
21501	-284.	-400.	-168.	-2.295	-2.295
21503	-204.	-416.	-152.	-1.839	-2.321
	3000.	3000.	3000.		
21507	-116.	-364.	-84.	-1.194	-1.845
	3000.	3000.	3000.		
21514	-96.	-332.	-20.	-0.966	-1.448
	3000.	3000.	3000.		
21522	-120.	-280.	20.	-0.994	-1.054
21530	-136.	-240.	20.	-1.037	-0.881
21562	-84.	-120.	-28.	-0.655	-0.595

TABLE B294

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 5, M5=5508 IN.-LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
215-2	-0.876	-2.206	0.665	-21.8	2.206
21501	-1.690	-2.900	0.605	45.0	2.900
21503	-1.351	-2.809	0.729	-35.4	2.809
	NO DATA AVAILABLE				
21507	-0.720	-2.319	0.799	-33.0	2.319
	NO DATA AVAILABLE				
21514	-0.359	-2.055	0.848	-36.8	2.055
	NO DATA AVAILABLE				
21522	-0.241	-1.826	0.783	-43.9	1.806
21530	-0.277	-1.641	0.682	41.7	1.641
21562	-0.583	-0.867	0.242	41.4	0.867

TABLE B295

MEMBRANE AND BENDING STRESSES - PLATE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 5, M5=5500 IN.LB.

FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 15

POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
215-2	NO DATA AVAILABLE			
21501	0.255	0.165	2.551	2.860
21503	0.087	-0.346	1.926	1.975
	NO DATA AVAILABLE			
21507	0.119	-0.194	1.313	1.650
	NO DATA AVAILABLE			
21514	0.056	-0.088	1.022	1.359
	NO DATA AVAILABLE			
21522	0.052	-0.020	1.046	1.034
21530	-0.023	0.091	1.015	0.882
21562	-0.019	-0.025	0.637	0.570

TABLE B296

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 5, M5=5500 IN.LB.

FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 15

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
31560	136.	12.	16.	0.809	0.074
31528	120.	8.	8.	0.704	0.029
	3000.	3000.	3000.		
31520	148.	0.	0.	0.844	-0.047
31512	120.	60.	20.	0.780	0.298
31509	160.	128.	40.	1.112	0.655
31507	164.	156.	48.	1.178	0.805
31505	224.	224.	88.	1.649	1.239
31503	340.	276.	140.	2.434	1.639
31501	480.	280.	140.	3.238	1.612
	3000.	3000.	3000.		

TABLE 8287

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 5, M5=5508 IN.LB.
 PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
31560	2.809	0.074	0.357	-0.8	0.809
31528	0.704	0.029	0.337	0.0	0.704
NO DATA AVAILABLE					
31520	0.644	-0.047	0.446	0.0	0.891
31512	0.801	0.276	0.262	11.7	0.801
31509	1.208	0.560	0.324	22.5	1.208
31507	1.329	0.654	0.338	28.2	1.329
31505	1.853	1.035	0.409	30.0	1.853
31503	2.569	1.504	0.533	20.9	2.569
31501	3.316	1.534	0.891	12.1	3.316
NO DATA AVAILABLE					

TABLE 8290

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE ONE AND
 DIRECTED PARALLEL TO STRINGER 5, M5=5508 IN.LB.
 PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
31560	104.	-8.	-12.	0.570	-0.117
31528	204.	0.	8.	1.173	-0.031
	3000.	3000.	3000.		
31520	152.	4.	4.	0.877	-0.015
31512	144.	52.	44.	0.936	0.358
31509	60.	52.	76.	0.494	0.519
31507	-32.	40.	128.	0.017	0.716
31505	-164.	-8.	132.	-0.788	0.573
31503	-376.	-108.	104.	-2.150	0.102
31501	-584.	-200.	104.	-3.446	-0.218
315-2	-112.	-292.	16.	-0.967	-1.124

TABLE B-99

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 5, M=5508 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
41560	0.570	-0.117	0.343	0.9	0.687
41528	1.174	-0.031	0.602	-1.0	1.205
NO DATA AVAILABLE					
41520	0.877	-0.015	0.446	0.0	0.891
41512	0.936	0.357	0.290	2.1	0.936
41509	0.570	0.443	0.064	39.6	0.570
41507	0.784	-0.051	0.418	16.7	0.836
41505	0.664	-0.280	0.772	18.1	1.564
41503	0.231	-2.278	1.254	13.1	2.509
41501	-0.034	-3.630	1.798	13.1	3.630
415-2	-0.238	-1.852	0.807	-42.2	1.952

TABLE B-100

MEMBRANE AND BENDING STRESSES - NOZZLE

BENDING MOMENT APPLIED TO NOZZLE ONE AND
DIRECTED PARALLEL TO STRINGER 5, M=5508 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
41560	0.699	-0.021	0.120	0.096
41528	0.938	-0.001	-0.235	0.030
NO DATA AVAILABLE				
41520	0.867	-0.031	-0.016	-0.016
41512	0.858	0.328	-0.078	-0.030
41509	0.803	0.567	0.309	0.068
41507	0.598	0.760	0.580	0.045
41505	0.430	0.906	1.219	0.333
41503	0.142	0.871	2.292	0.768
41501	-0.102	0.697	3.382	0.915
415-2	NO DATA AVAILABLE			

TABLE B301

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE

AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

FLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 1

ROS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SEMI-DIRECTIONAL	TANGENTIAL
	3000.	3000.	3000.		
10101	-312.	-280.	-196.	-11.109	-8.373
10103	-308.	-212.	-160.	-10.631	-7.080
	3000.	3000.	3000.		
10107	-268.	-192.	-140.	-9.298	-6.329
	3000.	3000.	3000.		
10114	-248.	-188.	-116.	-8.586	-5.791
	3000.	3000.	3000.		
10122	-200.	-196.	-108.	-7.262	-5.865
10130	-176.	-196.	-80.	-6.439	-5.333
10162	-80.	-168.	-64.	-3.649	-4.581

TABLE B302

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE

AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

FLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 1

ROS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
10101	-6.265	-11.217	1.476	11.0	11.217
10103	-6.963	-10.748	1.893	10.1	10.748
	NO DATA AVAILABLE				
10107	-6.191	-9.436	1.623	11.9	9.436
	NO DATA AVAILABLE				
10114	-5.522	-8.854	1.666	16.5	8.854
	NO DATA AVAILABLE				
10122	-5.253	-7.874	1.311	28.9	7.874
10130	-4.323	-7.449	1.563	38.6	7.449
10162	-2.724	-5.506	1.391	-35.2	5.506

TABLE B303

STRAINS AND STRESSES--OPPOSITE NOZZLE SIDE OF PLATE
AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

FLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 1

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
201-2	104.	156.	208.	8.959	7.230
20101	260.	164.	248.	9.537	7.965
20103	252.	180.	280.	9.592	8.952
	3000.	3000.	3000.		
20107	228.	148.	252.	8.586	7.771
	3000.	3000.	3000.		
20114	220.	148.	244.	8.319	7.620
	3000.	3000.	3000.		
20122	188.	132.	232.	7.276	7.101
20130	180.	116.	228.	6.940	6.707
20162	104.	88.	180.	4.408	5.281

TABLE B304

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE
AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

FLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 1

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
201-2	7.405	4.784	1.311	15.0	7.405
20101	10.070	7.433	1.318	-26.7	10.070
20103	10.572	7.972	1.300	-37.9	10.572
	NO DATA AVAILABLE				
20107	9.551	6.805	1.373	-36.4	9.551
	NO DATA AVAILABLE				
20114	9.229	6.710	1.259	-37.0	9.229
	NO DATA AVAILABLE				
20122	8.452	5.925	1.263	-43.0	8.452
20130	8.240	5.407	1.416	-42.6	8.240
20162	6.093	3.605	1.239	34.7	6.093

TABLE B305

MEMBRANE AND BENDING STRESSES - PLATE
AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
201-2	NO DATA AVAILABLE			
20101	-0.786	-0.208	-10.323	-8.169
20103	-0.519	0.936	-10.112	-8.016
	NO DATA AVAILABLE			
20107	-0.356	0.721	-8.982	-7.950
	NO DATA AVAILABLE			
20118	-0.133	0.915	-8.852	-6.706
	NO DATA AVAILABLE			
20122	0.007	0.618	-7.269	-6.483
20130	0.250	0.687	-6.690	-6.020
20162	0.379	0.350	-8.028	-8.931

TABLE B306

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE
AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
30160	8.	0.	-8.	0.198	-0.093
30128	-28.	0.	0.	-0.662	0.037
	3000.	3000.	3000.		
30120	0.	-8.	-8.	-0.046	-0.162
30112	16.	-20.	-28.	0.165	-0.999
30109	-8.	-56.	-180.	-1.387	-3.967
30107	-80.	-88.	-96.	-1.930	-2.862
30105	-100.	-116.	-132.	-4.182	-4.881
30103	-192.	-184.	-136.	-6.903	-5.390
30101	-328.	-196.	-168.	-11.026	-6.893
	3000.	3000.	3000.		

TABLE B 107

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE
AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

ROS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
30160	0.206	-0.102	0.154	9.6	0.306
30128	0.037	-0.662	0.349	0.0	0.699
NO DATA AVAILABLE					
30120	-0.046	-0.162	0.058	0.0	0.162
30112	0.174	-1.007	0.591	4.9	1.182
30109	-0.972	-4.341	1.694	19.5	4.341
30107	-1.633	-3.160	0.763	26.2	3.160
30105	-4.128	-4.935	0.403	15.0	4.935
30103	-5.343	-6.910	0.767	3.8	6.910
30101	-6.863	-11.056	2.096	4.8	11.056
NO DATA AVAILABLE					

TABLE B 104

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE
AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

ROS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
40160	4.	4.	9.	0.133	0.075
40128	-12.	12.	12.	-0.193	0.506
	3000.	3000.	3000.		
40120	-24.	12.	12.	-0.524	0.524
40112	-20.	-20.	-20.	-0.781	-0.781
40109	-20.	-48.	-52.	-1.126	-1.999
40107	32.	-52.	-49.	0.308	-2.079
40105	108.	-48.	-40.	2.473	-1.052
40103	232.	-40.	-16.	6.076	-1.492
40101	420.	4.	60.	11.950	0.655
401-2	256.	16.	108.	7.897	2.531

TABLE 8103

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE

AXIAL LOAD APPLIED TO NOZZLE TUB - 1750 LB.

PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
40160	0.162	0.046	0.058	30.0	0.162
40128	0.506	-0.193	0.349	0.0	0.699
NO DATA AVAILABLE					
40120	0.524	-0.524	0.524	0.0	1.048
40112	-0.781	-0.781	0.0	0.0	0.781
40109	-1.123	-2.002	0.839	3.3	2.002
40107	0.309	-2.080	1.194	-1.2	2.399
40105	2.475	-1.954	2.214	-1.3	4.429
40103	6.088	-1.504	3.796	-2.3	7.592
40101	11.993	0.612	5.690	-3.6	11.993
401-2	8.036	2.382	2.827	-9.4	8.036

TABLE 8110

MEMBRANE AND BENDING STRESSES - NOZZLE

AXIAL LOAD APPLIED TO NOZZLE TUB - 1750 LB.

PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
40160	0.165	-0.009	0.032	-0.084
40128	-0.427	0.271	-0.234	-0.234
NO DATA AVAILABLE				
40120	-0.285	0.181	0.239	-0.343
401	-0.308	-0.890	0.473	-0.109
40109	-1.236	-2.983	-0.110	-0.984
40107	-0.811	-2.470	-1.119	-0.391
40105	-0.855	-3.417	-3.328	-1.465
40103	-0.414	-3.441	-6.490	-1.949
40101	0.462	-3.119	-11.488	-3.774
401-2	NO DATA AVAILABLE			

TABLE B11

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE
 AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SECTORIAL	TANGENTIAL
	3000.	3000.	3000.		
10301	-220.	-216.	-96.	-7.859	-5.994
10303	-196.	-189.	-60.	-6.784	-4.572
	3000.	3000.	3000.		
10307	-160.	-180.	-80.	-5.906	-4.037
	3000.	3000.	3000.		
10314	-120.	-188.	-84.	-4.872	-5.338
	3000.	3000.	3000.		
10322	-84.	-180.	-72.	-3.764	-4.987
10330	-72.	-168.	-92.	-3.479	-5.168
10362	-8.	-128.	-68.	-1.347	-3.967

TABLE B12

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE
 AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
10301	-5.152	-8.704	1.776	29.2	8.704
10303	-3.804	-7.551	1.874	26.9	7.551
	NO DATA AVAILABLE				
10307	-4.136	-6.803	1.334	35.4	6.803
	NO DATA AVAILABLE				
10314	-3.774	-6.436	1.331	-40.0	6.436
	NO DATA AVAILABLE				
10322	-2.883	-5.868	1.492	-32.9	5.868
10330	-3.577	-5.600	1.277	-24.0	5.600
10362	-1.144	-4.169	1.512	-15.0	4.169

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE
 AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 3

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SEMI-DIRECTIONAL	TANGENTIAL
203-2	40.	128.	196.	2.964	6.516
20301	160.	120.	244.	6.504	7.184
20303	152.	112.	256.	6.306	7.237
	3000.	1000.	3000.		
20307	136.	120.	264.	5.957	7.587
	3000.	3000.	3000.		
20314	120.	112.	240.	5.331	6.962
	3000.	3000.	3000.		
20322	96.	104.	216.	4.486	6.349
20330	76.	104.	192.	3.819	5.973
20362	24.	72.	132.	1.834	4.104

TABLE B114

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE
 AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 3

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
203-2	6.712	2.769	1.971	12.9	6.712
20301	8.419	5.228	1.595	39.2	8.419
20303	8.645	4.898	1.874	37.8	8.645
	NO DATA AVAILABLE				
20307	8.761	4.782	1.989	32.9	8.761
	NO DATA AVAILABLE				
20314	7.954	4.339	1.807	31.6	7.954
	NO DATA AVAILABLE				
20322	7.108	3.726	1.691	28.3	7.108
20330	6.407	3.386	1.510	22.3	6.407
20362	4.333	1.605	1.364	16.8	4.333

TABLE B315

MEMBRANE AND BENDING STRESSES - PLATE
 AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	RESIDUAL	TANGENTIAL	RESIDUAL	TANGENTIAL
203-2	NO DATA AVAILABLE			
20301	-0.676	0.578	-7.181	-6.570
20303	-0.239	1.333	-6.585	-5.908
	NO DATA AVAILABLE			
20307	0.925	1.277	-5.931	-6.310
	NO DATA AVAILABLE			
20314	0.230	0.812	-5.102	-6.150
	NO DATA AVAILABLE			
20322	0.361	0.681	-8.125	-5.668
20330	0.170	0.803	-3.689	-5.571
20362	0.288	0.769	-1.590	-8.035

TABLE B316

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE
 AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	RESIDUAL	TANGENTIAL
30360	8.	8.	0.	0.267	0.150
30328	8.	20.	-8.	0.202	0.319
	1000.	1000.	1000.		
30320	16.	-8.	16.	0.510	0.219
30312	28.	-20.	-8.	0.611	-0.611
30309	28.	-88.	-32.	0.336	-1.586
30307	-8.	-76.	-68.	-0.938	-2.917
30305	-60.	-88.	-98.	-2.683	-3.800
30303	-112.	-112.	-100.	-8.858	-8.101
30301	-196.	-168.	-180.	-7.129	-5.790
	1000.	1000.	1000.		

TABLE B117

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE
 AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
30360	0.325	0.092	0.116	30.0	0.325
30328	0.568	-0.002	0.308	-39.6	0.616
NO DATA AVAILABLE					
30320	0.656	0.074	0.291	-30.0	0.656
30312	0.630	-0.630	0.630	-6.9	1.259
30309	0.347	-1.597	0.972	-8.5	1.945
30307	-0.933	-2.922	0.995	-2.9	2.922
30305	-2.639	-3.403	0.392	-3.8	3.403
30303	-4.072	-4.887	0.407	10.9	4.887
30301	-5.744	-7.174	0.715	10.3	7.174
NO DATA AVAILABLE					

TABLE B118

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE
 AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MEMBRANAL	TANGENTIAL
40360	0.	0.	-4.	-0.023	-0.081
40328	-4.	16.	0.	-0.018	0.331
	3000.	3000.	3000.		
40320	-24.	8.	-12.	-0.685	-0.044
40312	-28.	-40.	-24.	-1.140	-1.256
40309	-8.	-35.	-60.	-0.772	-1.937
40307	40.	-56.	-52.	0.483	-2.254
40305	88.	-60.	-40.	1.852	-2.165
40303	176.	-52.	-12.	4.486	-1.569
40301	288.	-36.	40.	7.965	-0.360
403-2	168.	4.	144.	5.506	2.828

TABLE B 311

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE

AXIAL LOAD APPLIED TO NOZZLE TUB - 1750 LB.

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 3

POS. NOS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
40360	0.000	-0.110	0.058	30.0	0.116
40328	0.423	-0.110	0.267	-28.6	0.530
NO DATA AVAILABLE					
40320	0.043	-0.772	0.407	-19.1	0.815
40312	-0.908	-1.408	0.210	-37.0	1.408
40309	-0.638	-2.010	0.656	13.7	2.010
40307	0.483	-2.254	1.369	-1.1	2.730
40305	1.868	-2.180	2.024	-3.6	4.048
40303	4.527	-1.610	3.069	-4.7	6.137
40301	8.073	-0.468	4.271	-6.5	8.542
403-2	6.422	1.912	2.255	-26.8	6.422

TABLE B 323

MEMBRANE AND BENDING STRESSES - NOZZLE

AXIAL LOAD APPLIED TO NOZZLE TUB - 1750 LB.

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 3

POS. NOS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MEMBRANE	TANGENTIAL	MEMBRANE	TANGENTIAL
40360	0.122	0.034	0.185	0.116
40328	0.092	0.325	0.110	-0.006
NO DATA AVAILABLE				
40320	-0.087	0.007	0.598	0.132
40312	-0.264	-0.934	0.876	0.322
40309	-0.218	-1.761	0.554	0.175
40307	-0.227	-2.585	-0.710	-0.332
40305	-0.395	-2.782	-2.248	-0.617
40303	-0.186	-2.835	-4.672	-1.266
40301	0.419	-3.075	-7.587	-2.715
403-2	NO DATA AVAILABLE			

TABLE B321

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE
AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MEMBRANAL	TANGENTIAL
	3000.	3000.	3000.		
10501	-152.	-112.	-100.	-5.810	-8.071
10503	-128.	-112.	-108.	-8.660	-8.195
	3000.	3000.	3000.		
10507	-108.	-108.	-92.	-8.017	-3.901
	3000.	3000.	3000.		
10514	-72.	-128.	-116.	-3.387	-8.883
	3000.	3000.	3000.		
10522	-72.	-128.	-132.	-3.456	-5.086
10530	-88.	-128.	-120.	-2.615	-8.986
10562	0.	-80.	-98.	-0.965	-3.810

TABLE B322

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE
AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
10501	-8.058	-5.826	0.686	6.8	5.426
10503	-8.178	-8.681	0.258	11.7	8.681
	NO DATA AVAILABLE				
10507	-3.789	-8.169	0.210	37.0	8.169
	NO DATA AVAILABLE				
10514	-3.372	-8.859	0.783	-5.9	8.858
	NO DATA AVAILABLE				
10522	-3.450	-5.093	0.821	3.5	5.093
10530	-2.618	-8.887	1.136	-1.3	8.887
10562	-0.961	-3.818	1.227	2.8	3.818

TABLE B121

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE

AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SEMI-DIRECTIONAL	TANGENTIAL
205-2	12.	12.	100.	1.871	5.422
20501	116.	140.	152.	4.876	5.750
20503	108.	156.	156.	4.771	6.168
	3000.	3000.	3000.		
20507	100.	136.	136.	4.320	5.368
	3000.	3000.	3000.		
20514	76.	152.	152.	3.842	6.055
	3000.	3000.	3000.		
20522	60.	136.	136.	3.217	5.430
20530	28.	128.	129.	2.243	5.154
20542	4.	100.	100.	1.259	4.054

TABLE B122

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE

AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
205-2	5.428	1.864	1.782	2.4	5.428
20501	5.775	4.851	0.462	9.6	5.775
20503	6.168	4.771	0.699	0.0	6.168
	NO DATA AVAILABLE				
20507	5.368	4.320	0.524	0.0	5.368
	NO DATA AVAILABLE				
20514	6.055	3.842	1.106	0.0	6.055
	NO DATA AVAILABLE				
20522	5.429	3.217	1.136	0.0	5.429
20530	5.154	2.243	1.455	0.0	5.154
20542	4.054	1.259	1.197	0.0	4.054

TABLE B 325

MEMBRANE AND BENDING STRESSES - PLATE
 AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
205-2	NO DATA AVAILABLE			
20501	-0.267	0.800	-5.103	-0.910
20503	0.055	0.987	-0.716	-5.181
	NO DATA AVAILABLE			
20507	0.152	0.730	-0.169	-0.630
	NO DATA AVAILABLE			
20514	0.228	0.606	-3.615	-5.009
	NO DATA AVAILABLE			
20522	-0.120	0.172	-3.337	-5.258
20530	-0.186	0.130	-2.029	-5.020
20562	0.107	0.322	-1.112	-3.732

TABLE B 326

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE
 AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
30560	-8.	0.	-9.	-0.267	-0.150
30520	4.	12.	0.	0.225	0.000
	3000.	3000.	3000.		
30520	20.	12.	9.	0.777	0.169
30512	52.	8.	20.	1.595	0.000
30509	00.	-20.	-16.	1.117	-0.000
30507	20.	-00.	-00.	0.200	-1.911
30505	-8.	-00.	-56.	-0.705	-2.010
30503	-00.	-50.	-72.	-2.105	-2.607
30501	-120.	-116.	-96.	-0.630	-0.110
	3000.	3000.	3000.		

TABLE B 327

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE

AXIAL LOAD APPLIED TO NOZZLE TUB - 1750 LB.

PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
30560	-0.092	-0.325	0.116	-30.0	0.325
30528	0.413	0.212	0.101	-15.0	0.413
NO DATA AVAILABLE					
30520	0.783	0.363	0.210	6.9	0.783
30512	1.615	0.468	0.573	-7.6	1.615
30509	1.119	-0.806	0.962	-1.5	1.928
30507	0.245	-1.912	1.078	1.3	2.156
30505	-0.777	-2.036	0.630	6.9	2.036
30503	-2.088	-2.704	0.308	9.6	2.704
30501	-4.012	-4.739	0.364	22.0	4.739
NO DATA AVAILABLE					

TABLE B 328

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE

AXIAL LOAD APPLIED TO NOZZLE TUB - 1750 LB.

PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
40560	-8.	-24.	-24.	-0.496	-0.962
40528	0.	-20.	-24.	-0.253	-0.893
	3000.	3000.	3000.		
40520	-12.	-28.	-32.	-0.676	-1.200
40512	-16.	-52.	-48.	-1.016	-2.005
40509	4.	-60.	-52.	-0.423	-2.286
40507	44.	-64.	-60.	0.501	-2.585
40505	76.	-48.	-52.	1.521	-2.146
40503	164.	-28.	-16.	4.270	-1.145
40501	240.	16.	44.	6.963	0.450
405-2	120.	92.	194.	4.435	3.745

TABLE B110

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE

AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

FLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 5

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
40560	-1.496	-0.962	0.233	0.0	0.962
40528	-0.249	-0.997	0.324	4.5	0.997
NO DATA AVAILABLE					
40520	-0.671	-1.204	0.267	5.4	1.204
40512	-1.013	-2.008	0.497	-2.9	2.008
40509	-0.819	-2.291	0.937	-3.1	2.291
40507	0.502	-2.585	1.543	-0.9	3.087
40505	1.522	-2.147	1.834	0.8	3.669
40503	4.274	-1.148	2.711	-1.6	5.422
40501	6.982	0.930	3.076	-3.3	6.982
405-2	4.469	3.761	0.354	-12.6	4.869

TABLE B111

MEMBRANE AND BENDING STRESSES - NOZZLE

AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

FLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 5

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
40560	-0.381	-0.556	0.115	0.406
40528	-0.013	-0.247	0.239	0.647
NO DATA AVAILABLE				
40520	0.051	-0.415	0.726	0.784
40512	0.290	-0.758	1.305	1.237
40509	0.347	-1.545	0.770	0.741
40507	0.372	-2.248	-0.129	0.337
40505	0.363	-2.082	-1.158	0.064
40503	1.082	-1.916	-3.187	-0.771
40501	1.163	-1.632	-5.800	-2.482
405-2	NO DATA AVAILABLE			

TABLE B333

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE
 AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 13

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
213-2	56.	244.	280.	4.555	10.551
21301	264.	280.	316.	10.704	11.694
21303	312.	308.	340.	12.327	12.676
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		

TABLE B334

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE
 AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 13

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
213-2	10.585	4.521	3.032	4.3	10.585
21301	11.871	10.528	0.671	21.3	11.871
21303	12.941	12.062	0.439	33.3	12.941

NO DATA AVAILABLE

NO DATA AVAILABLE

NO DATA AVAILABLE

NO DATA AVAILABLE

NO DATA AVAILABLE

NO DATA AVAILABLE

NO DATA AVAILABLE

NO DATA AVAILABLE

TABLE B335

MEMBRANE AND BENDING STRESSES - PLATE
AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 13

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
213-2	NO DATA AVAILABLE			
21301	NO DATA AVAILABLE			
21303	-0.308	3.069	-12.635	-9.607
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			

TABLE B336

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE
AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 13

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
31360	8.	8.	8.	0.313	0.313
31328	32.	28.	16.	1.112	0.763
	3000.	3000.	3000.		
31320	64.	28.	40.	2.156	1.282
31312	64.	-32.	-36.	1.374	-1.478
31309	64.	-44.	-48.	1.236	-1.966
31307	48.	-64.	-56.	0.634	-2.510
31305	-12.	-108.	-104.	-1.549	-4.285
31303	-116.	-132.	-120.	-4.647	-4.938
31301	-240.	-156.	-140.	-8.319	-5.641
	3000.	3000.	3000.		

TABLE B317

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE

AXIAL LOAD APPLIED TO NOZZLE TWJ - 1750 LB.

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 13

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
31360	0.313	0.313	0.0	0.0	0.313
31328	1.139	0.736	0.202	15.0	1.139
NO DATA AVAILABLE					
31320	2.181	1.257	0.462	-9.6	2.181
31312	1.375	-1.479	1.427	1.0	2.854
31309	1.237	-1.966	1.602	0.9	3.203
31307	0.637	-2.513	1.575	-1.8	3.150
31305	-1.548	-4.286	1.369	-1.1	4.286
31303	-4.582	-5.002	0.210	-23.1	5.002
31301	-5.626	-8.334	1.354	4.3	8.334

NO DATA AVAILABLE

TABLE B314

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE

AXIAL LOAD APPLIED TO NOZZLE TWJ - 1750 LB.

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 13

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
41360	16.	16.	8.	0.579	0.463
41328	24.	20.	-4.	0.754	0.288
	3000.	3000.	3000.		
41320	20.	-12.	-12.	0.414	-0.518
41312	16.	-28.	-40.	0.051	-1.405
41309	60.	-52.	-40.	1.126	-1.960
41307	128.	-64.	-56.	2.841	-2.632
41305	192.	-40.	-36.	4.858	-1.837
41303	332.	16.	20.	9.253	0.222
41301	496.	64.	76.	14.483	2.082
413-2	188.	204.	204.	7.528	7.994

TABLE B 111

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE

AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 13

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
41360	0.637	0.404	0.116	30.0	0.637
41328	0.903	0.139	0.392	26.2	0.903
NO DATA AVAILABLE					
41320	0.414	-0.518	0.466	0.0	0.491
41312	0.066	-1.420	0.743	5.9	1.484
41309	1.133	-1.967	1.550	-2.6	2.100
41307	2.442	-2.634	2.738	-1.1	5.476
41305	4.858	-1.837	3.348	-0.4	6.695
41303	9.362	0.222	4.570	-0.3	9.362
41301	14.484	2.081	6.291	-0.7	14.484
413-2	7.994	7.529	0.233	0.0	7.994

TABLE B 112

MEMBRANE AND BENDING STRESSES - NOZZLE

AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 13

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
41360	0.446	0.388	-0.133	-0.075
41328	0.933	0.525	0.179	0.217
NO DATA AVAILABLE				
41320	1.285	0.382	0.871	0.909
41312	0.712	-1.442	0.662	-0.037
41309	1.181	-1.963	0.055	-0.003
41307	1.737	-2.571	-1.103	0.061
41305	1.655	-3.061	-3.203	-1.224
41303	2.358	-2.358	-7.005	-2.580
41301	3.042	-1.780	-11.401	-3.861
413-2	NO DATA AVAILABLE			

TABLE B301

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE
 AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 15

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
	3000.	3000.	3000.		
11501	-336.	-248.	-296.	-12.391	-10.528
11503	-300.	-188.	-224.	-10.640	-7.904
	3000.	3000.	3000.		
11507	-308.	-208.	-256.	-11.159	-8.947
	3000.	3000.	3000.		
11514	-288.	-208.	-256.	-10.608	-8.978
	3000.	3000.	3000.		
11522	-292.	-236.	-264.	-10.925	-9.702
11530	-268.	-220.	-240.	-10.033	-8.927
11562	-172.	-224.	-144.	-6.857	-7.207

TABLE B302

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE
 AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 15

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
11501	-10.349	-12.570	1.111	-16.5	12.570
11503	-7.831	-10.713	1.441	-9.2	10.713
	NO DATA AVAILABLE				
11507	-8.753	-11.314	1.261	-14.3	11.314
	NO DATA AVAILABLE				
11514	-8.778	-10.808	1.015	-18.3	10.808
	NO DATA AVAILABLE				
11522	-9.608	-11.020	0.706	-15.0	11.020
11530	-8.873	-10.088	0.608	-12.3	10.088
11562	-6.009	-8.055	1.023	-40.1	8.055

TABLE B301

STRAINS AND STRESSES—OPPOSITE NOZZLE SIDE OF PLATE
AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	RESIDUAL	TANGENTIAL
215-2	72.	200.	160.	8.352	8.253
21501	200.	200.	192.	10.856	9.230
21503	202.	300.	216.	11.063	10.190
	3000.	3000.	3000.		
21507	300.	300.	200.	11.277	9.765
	3000.	3000.	3000.		
21514	320.	272.	220.	11.800	9.653
	3000.	3000.	3000.		
21522	332.	160.	256.	11.569	8.017
21530	308.	160.	260.	10.930	8.135
21562	100.	160.	252.	7.331	8.000

TABLE B302

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE
AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
215-2	8.522	8.084	2.219	-14.2	8.522
21501	11.156	8.534	1.311	31.1	11.156
21503	11.865	9.387	1.239	30.7	11.865
	NO DATA AVAILABLE				
21507	12.036	9.003	1.513	30.0	12.036
	NO DATA AVAILABLE				
21514	11.942	9.519	1.211	13.6	11.942
	NO DATA AVAILABLE				
21522	11.913	7.672	2.121	-16.6	11.913
21530	11.381	7.684	1.800	-20.4	11.381
21562	8.929	6.870	1.220	36.0	8.929

TABLE 13.

MEMBRANE AND BENDING STRESSES - PLATE
 AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
215-2	NO DATA AVAILABLE			
21501	-0.967	-0.647	-11.424	-9.881
21503	0.211	1.143	-10.952	-9.087
	NO DATA AVAILABLE			
21507	0.060	0.339	-11.219	-9.156
	NO DATA AVAILABLE			
21514	0.600	0.338	-11.208	-9.316
	NO DATA AVAILABLE			
21522	0.322	-0.883	-11.247	-8.860
21530	0.449	-0.396	-10.402	-8.531
21562	0.237	0.430	-7.094	-7.647

TABLE 14.

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE
 AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
31560	-8.	0.	0.	-0.221	0.012
31528	-8.	8.	-8.	-0.244	-0.069
	3000.	3000.	3000.		
31520	20.	20.	-12.	0.598	0.132
31512	36.	8.	-36.	0.809	-0.705
31509	28.	-28.	-54.	0.267	-1.829
31507	-8.	-48.	-108.	-1.117	-3.155
31505	-52.	-76.	-128.	-2.606	-4.061
31503	-132.	-112.	-148.	-5.134	-5.076
31501	-244.	-128.	-152.	-4.337	-5.310
	3000.	3000.	3000.		

TABLE B143

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE
 AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX	MIN.			
31500	0.012	-0.221	0.116	0.0	0.233
31520	0.030	-0.231	0.175	-30.0	0.249
NO DATA AVAILABLE					
31520	1.430	-7.101	0.866	30.0	0.931
31512	0.961	-0.857	0.939	16.2	1.819
31509	0.381	-1.908	1.163	12.9	2.326
31507	-0.867	-3.404	1.269	10.3	3.404
31505	-2.358	-8.313	0.979	21.0	4.313
31503	-4.650	-5.559	0.455	-43.2	5.559
31501	-5.290	-8.367	1.543	-5.7	8.367
NO DATA AVAILABLE					

TABLE B144

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE
 AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
41560	20.	32.	16.	0.827	0.988
41528	20.	20.	16.	0.869	0.698
	3000.	3000.	3000.		
41520	-20.	0.	36.	-0.385	0.761
41512	-12.	-56.	-88.	-0.905	-2.012
41509	36.	-72.	-49.	0.303	-2.491
41507	100.	-76.	-52.	2.022	-2.752
41505	220.	-68.	-88.	5.887	-2.530
41503	368.	-6.	0.	9.992	-0.720
41501	528.	88.	40.	18.556	0.983
415-2	88.	100.	100.	3.865	3.931

TABLE 934

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE

AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
41560	1.095	0.676	0.210	-37.0	1.695
41528	0.882	0.681	3.101	15.0	0.882
NO DATA AVAILABLE					
41520	0.924	-0.507	0.715	19.7	1.431
41512	-0.885	-2.032	0.573	-7.6	2.032
41509	0.336	-2.523	1.429	-6.1	2.859
41507	2.041	-2.770	2.406	-3.6	4.812
41505	5.454	-2.517	3.995	-1.8	7.991
41503	9.992	-0.720	5.356	-0.5	10.713
41501	14.956	0.984	6.986	0.4	14.956
415-2	3.931	3.466	0.233	0.0	3.931

TABLE 935

MEMBRANE AND BENDING STRESSES - NOZZLE

AXIAL LOAD APPLIED TO NOZZLE TWO - 1750 LB.

PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MEMBRANE	TANGENTIAL	MEMBRANE	TANGENTIAL
41560	0.303	0.478	-0.524	-0.466
41528	0.313	0.313	-0.556	-0.381
NO DATA AVAILABLE				
41520	0.126	0.447	0.471	-0.315
41512	-0.048	-1.358	0.857	0.653
41509	0.285	-2.160	-0.018	0.331
41507	0.453	-2.953	-1.570	-0.201
41505	1.420	-3.296	-4.026	-0.766
41503	2.429	-2.898	-7.563	-2.178
41501	3.309	-2.163	-11.647	-3.147
415-2	NO DATA AVAILABLE			

TABLE B35

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 1, 81-5508 IN. LB.

PLAT PLATE TWO NOZZLE/
 NOZZLE ONE STRINGER NO. 1

NOS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	CAGE 1	CAGE 2	CAGE 3	MEMBRANAL	TANGENTIAL
	3000.	3000.	3000.		
10101	176.	192.	120.	1.390	1.271
10103	160.	168.	96.	1.227	1.058
	3000.	3000.	3000.		
10107	92.	100.	100.	0.815	0.996
	3000.	3000.	3000.		
10114	48.	152.	100.	0.578	1.060
	3000.	3000.	3000.		
10122	36.	120.	120.	0.500	1.030
10130	16.	100.	120.	0.505	1.100
10162	-12.	80.	96.	0.098	0.592

TABLE B352

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 1, 81-5508 IN. LB.

PLAT PLATE TWO NOZZLE/
 NOZZLE ONE STRINGER NO. 1

NOS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
10101	1.511	1.100	0.185	36.5	1.511
10103	1.308	0.936	0.206	32.9	1.308
	NO DATA AVAILABLE				
10107	1.051	0.759	0.106	-25.9	1.051
	NO DATA AVAILABLE				
10114	1.090	0.500	0.271	-13.7	1.090
	NO DATA AVAILABLE				
10122	1.030	0.500	0.265	0.0	1.030
10130	1.106	0.403	0.352	-3.4	1.106
10162	0.626	0.063	0.282	10.4	0.626

TABLE B153

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 1, M=5568 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
201-2	-88.	-88.	-168.	-0.546	-1.020
20101	-136.	-88.	-209.	-1.128	-1.205
20103	-100.	-92.	-212.	-0.977	-1.282
	3000.	3000.	3000.		
20107	-86.	-128.	-208.	-0.901	-1.383
	3000.	3000.	3000.		
20114	-88.	-180.	-156.	-0.603	-1.228
	3000.	3000.	3000.		
20122	-16.	-136.	-156.	-0.838	-1.221
20130	0.	-116.	-124.	-0.285	-1.008
20152	12.	-96.	-96.	-0.160	-0.810

TABLE B154

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
201-2	-0.868	-1.105	0.319	20.4	1.105
20101	-0.889	-1.479	0.315	41.7	1.479
20103	-0.770	-1.450	0.340	33.5	1.450
	NO DATA AVAILABLE				
20107	-0.824	-1.461	0.319	20.4	1.461
	NO DATA AVAILABLE				
20114	-0.600	-1.232	0.316	3.8	1.232
	NO DATA AVAILABLE				
20122	-0.835	-1.225	0.305	3.8	1.225
20130	-0.285	-1.008	0.362	1.7	1.008
20162	-0.160	-0.810	0.325	0.0	0.810

TABLE B-15a

MEMBRANE AND BENDING STRESSES - PLATE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 1

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MEMBRANAL	TANGENTIAL	MEMBRANAL	TANGENTIAL
201-2	NO DATA AVAILABLE			
20101	0.126	0.036	1.254	1.236
20103	0.125	-0.092	1.102	1.150
	NO DATA AVAILABLE			
20107	-0.043	-0.194	0.858	1.189
	NO DATA AVAILABLE			
20114	-0.012	-0.095	0.590	1.143
	NO DATA AVAILABLE			
20122	0.031	-0.096	0.469	1.126
20130	0.060	0.048	0.345	1.356
20162	-0.031	-0.109	0.129	0.707

TABLE B-15b

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 1

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MEMBRANAL	TANGENTIAL
30160	-8.	-20.	-8.	-0.056	-0.116
30128	-8.	-8.	-12.	-0.069	-0.081
	3000.	3000.	3000.		
30120	-16.	-8.	-8.	-0.110	-0.062
30112	-44.	-12.	-8.	-0.275	-0.070
30109	-32.	12.	12.	-0.154	0.111
30107	-32.	-32.	44.	-0.168	0.061
30105	8.	44.	60.	0.169	0.434
30103	76.	72.	84.	0.619	0.631
30101	120.	104.	84.	0.913	0.764
	3000.	3000.	3000.		

TABLE B357

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 1, M=5508 IN. LB.

FLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 1

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
30160	-0.043	-0.130	0.043	-23.1	0.130
30128	-0.063	-0.087	0.012	30.0	0.097
NO DATA AVAILABLE					
30120	-0.062	-0.110	0.024	0.0	0.110
30112	-0.070	-0.275	0.103	2.9	0.275
30109	0.111	-0.154	0.132	0.0	0.265
30107	0.175	-0.283	0.229	30.0	0.458
30105	0.441	0.163	0.139	8.7	0.441
30103	0.657	0.593	0.032	39.6	0.657
30101	0.936	0.745	0.096	20.4	0.936

NO DATA AVAILABLE

TABLE B354

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 1, M=5508 IN. LB.

FLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 1

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
40160	-4.	4.	8.	-0.009	0.052
40128	-4.	4.	4.	-0.013	0.035
	3000.	3000.	3000.		
40120	-24.	16.	24.	-0.089	0.176
40112	-40.	36.	32.	-0.147	0.298
40109	-52.	44.	36.	-0.202	0.352
40107	-72.	52.	40.	-0.301	0.409
40105	-92.	72.	44.	-0.387	0.516
40103	-176.	80.	24.	-0.880	0.893
40101	-276.	52.	-20.	-1.537	0.222
401-2	-180.	60.	-124.	-1.103	-0.212

TABLE B359

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 1, 51-5508 IN.-LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
40160	0.053	-0.010	0.032	9.6	0.064
40128	0.035	-0.013	0.024	0.0	0.048
NO DATA AVAILABLE					
40120	0.177	-0.091	0.134	4.5	0.268
40112	0.299	-0.148	0.223	-1.3	0.446
40109	0.353	-0.202	0.278	-2.2	0.556
40107	0.411	-0.303	0.357	-2.5	0.713
40105	0.522	-0.393	0.457	-4.6	0.915
40103	0.508	-0.896	0.702	-5.0	1.404
40101	0.242	-1.556	0.899	-6.0	1.798
401-2	-0.003	-1.312	0.655	-23.6	1.312

TABLE B360

MEMBRANE AND BENDING STRESSES - NOZZLE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 1, 51-5508 IN.-LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
40160	-0.032	-0.032	-0.024	-0.084
40128	-0.041	-0.023	-0.028	-0.058
NO DATA AVAILABLE				
40120	-0.100	0.057	-0.010	-0.119
40112	-0.211	0.114	-0.064	-0.184
40109	-0.178	0.232	0.024	-0.121
40107	-0.235	0.235	0.067	-0.174
40105	-0.109	0.475	0.278	-0.041
40103	-0.131	0.562	0.750	0.069
40101	-0.312	0.495	1.225	0.273
401-2	NO DATA AVAILABLE			

TABLE P-17

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 1, 51-5500 IN.LB.
 PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MEMORIAL	TANGENTIAL
	3000.	3000.	3000.		
10301	180.	120.	120.	1.312	0.951
10303	144.	60.	112.	1.026	0.677
	3000.	3000.	3000.		
10307	124.	88.	170.	0.955	0.834
	3000.	3000.	3000.		
10314	72.	84.	120.	0.653	0.834
	3000.	3000.	3000.		
10322	84.	140.	100.	0.764	0.981
10330	68.	64	100.	0.583	0.667
10362	24.	52.	64.	0.275	0.480

TABLE P-18

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 1, 51-5500 IN.LB.
 PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
10301	1.312	0.951	0.181	0.0	1.312
10303	1.072	0.630	0.221	-18.9	1.072
	NO DATA AVAILABLE				
10307	0.997	0.792	0.103	-27.1	0.997
	NO DATA AVAILABLE				
10314	0.874	0.613	0.130	23.1	0.874
	NO DATA AVAILABLE				
10322	1.023	0.722	0.150	-22.0	1.023
10330	0.728	0.522	0.103	32.9	0.728
10362	0.444	0.270	0.107	8.5	0.444

TABLE B161

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 1, 81-5588 IN.LB.

PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 3

NOS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SEMI-DIRECTIONAL	TANGENTIAL
203-2	-80.	-104.	-72.	-0.437	-0.726
20301	-180.	-180.	-116.	-1.331	-1.018
20303	-180.	-180.	-136.	-1.131	-1.131
	3000.	3000.	3000.		
20307	-92.	-132.	-136.	-0.843	-1.096
	3000.	3000.	3000.		
20314	-84.	-132.	-112.	-0.769	-0.998
	3000.	3000.	3000.		
20322	-76.	-132.	-92.	-0.700	-0.917
20330	-52.	-104.	-76.	-0.511	-0.739
20362	-20.	-104.	-40.	-0.285	-0.598

TABLE B164

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 1, 81-5508 IN.LB.

PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 3

NOS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
203-2	-0.415	-0.749	0.167	-15.0	0.749
20301	-1.000	-1.343	0.169	10.9	1.343
20303	-1.111	-1.152	0.021	45.0	1.152
	NO DATA AVAILABLE				
20307	-0.843	-1.097	0.127	2.4	1.097
	NO DATA AVAILABLE				
20314	-0.758	-1.009	0.126	-12.0	1.009
	NO DATA AVAILABLE				
20322	-0.658	-0.959	0.150	-22.0	0.959
20330	-0.489	-0.761	0.136	-16.3	0.761
20362	-0.213	-0.671	0.229	-23.4	0.671

TABLE 2165

MEMBRANE AND BENDING STRESSES - PLATE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 1, 21-5500 IN. LB.

FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 3

POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
203-2	NO DATA AVAILABLE			
20301	-0.010	-0.036	1.322	0.908
20303	-0.053	-0.227	1.079	0.908
	NO DATA AVAILABLE			
20307	0.956	-0.131	0.899	0.965
	NO DATA AVAILABLE			
20314	-0.058	-0.082	0.711	0.916
	NO DATA AVAILABLE			
20322	0.032	0.032	0.732	0.949
20330	0.036	-0.036	0.547	0.703
20362	-0.005	-0.059	0.280	0.539

TABLE 2166

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 1, 21-5500 IN. LB.

FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 3

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
30360	-8.	8.	0.	-0.018	0.018
30328	-8.	-12.	-12.	-0.078	-0.098
	2000.	3000.	3000.		
30320	-20.	-12.	-8.	-0.133	-0.061
30312	-40.	-8.	8.	-0.233	-0.008
30309	-36.	8.	32.	-0.158	0.179
30307	-8.	12.	36.	0.011	0.204
30305	24.	40.	76.	0.275	0.480
30303	60.	52.	96.	0.632	0.596
30301	144.	92.	132.	1.088	0.895
	3000.	3000.	3000.		

TABLE B167

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 1, 81-5508 IN. LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 3

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
30360	0.021	-0.021	0.021	-15.0	0.042
30328	-0.073	-0.098	0.072	0.0	0.090
NO DATA AVAILABLE					
30320	-0.055	-0.139	0.042	15.0	0.139
30312	0.000	-0.237	0.119	7.6	0.237
30309	0.191	-0.169	0.180	10.2	0.360
30307	0.223	-0.007	0.115	16.5	0.230
30305	0.516	0.238	0.139	21.3	0.516
30303	0.730	0.498	0.116	-40.5	0.730
30301	1.133	0.869	0.142	-23.6	1.133
NO DATA AVAILABLE					

TABLE B163

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 1, 81-5508 IN. LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 3

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
30360	8.	-8.	-16.	-0.006	-0.102
30328	-8.	-16.	-24.	-0.093	-0.165
	3000.	3000.	3000.		
30320	-20.	-8.	-16.	-0.143	-0.094
30312	8.	8.	20.	0.074	0.098
30309	8.	24.	32.	0.089	0.234
30307	-36.	28.	28.	-0.139	0.247
30305	-88.	28.	28.	-0.435	0.263
30303	-152.	8.	8.	-0.848	0.115
30301	-200.	-16.	-16.	-1.179	-0.071
303-2	-88.	-72.	-88.	-0.645	-0.476

TABLE B164

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.-LB.PLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 3

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
40360	-0.001	-0.106	0.052	11.7	0.106
40328	-0.088	-0.171	0.042	15.0	0.171
NO DATA AVAILABLE					
40320	-0.087	-0.150	0.032	-20.4	0.150
40312	0.130	0.043	0.043	37.0	0.130
40309	0.237	0.096	0.075	8.1	0.237
40307	0.247	-0.159	0.193	0.0	0.345
40305	0.263	-0.435	0.349	0.0	0.698
40303	0.115	-0.848	0.482	0.0	0.963
40301	-0.071	-1.179	0.554	0.0	1.179
403-2	-0.455	-0.665	0.105	18.3	0.665

TABLE B173

MEMBRANE AND BENDING STRESSES - NOZZLE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.-LB.PLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 3

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
40360	-0.012	-0.042	-0.076	0.060
40328	-0.084	-0.132	0.010	0.034
NO DATA AVAILABLE				
40320	-0.138	-0.078	0.005	0.017
40312	-0.079	0.047	-0.154	-0.051
40309	-0.034	0.207	-0.124	-0.027
40307	-0.064	0.225	0.075	-0.021
40305	-0.080	0.371	0.355	0.108
40303	-0.108	0.356	0.740	0.240
40301	-0.046	0.412	1.133	0.463
403-2	NO DATA AVAILABLE			

TABLE B171

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.
 PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SEMI-CIRCULAR	TANGENTIAL
	3000.	3000.	3000.		
10501	164.	109.	116.	1.192	0.855
10503	160.	98.	96.	1.132	0.722
	3000.	3000.	3000.		
10507	120.	84.	88.	0.935	0.682
	3000.	3000.	3000.		
10514	111.	76.	88.	0.880	0.736
	3000.	3000.	3000.		
10522	96.	76.	76.	0.728	0.608
10530	72.	76.	72.	0.587	0.599
10562	44.	44.	44.	0.356	0.356

TABLE B172

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.
 PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
10501	1.197	0.850	0.174	-6.9	1.197
10503	1.133	0.721	0.206	-2.9	1.133
	NO DATA AVAILABLE				
10507	0.935	0.681	0.127	-2.4	0.935
	NO DATA AVAILABLE				
10514	0.883	0.733	0.075	8.1	0.883
	NO DATA AVAILABLE				
10522	0.728	0.608	0.060	0.0	0.728
10530	0.605	0.581	0.012	-30.0	0.605
10562	0.356	0.356	0.0	0.0	0.356

TABLE B373

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 1, 21-5500 IN.LB.PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SHEDIONAL	TANGENTIAL
205-2	-88.	-100.	-92.	-0.502	-0.791
20501	-160.	-120.	-129.	-1.212	-1.008
20503	-128.	-116.	-128.	-1.015	-0.967
	3000.	3000.	3000.		
20507	-104.	-100.	-120.	-0.855	-0.891
	3000.	3000.	3000.		
20514	-96.	-88.	-92.	-0.757	-0.709
	3000.	3000.	3000.		
20522	-80.	-88.	-88.	-0.666	-0.714
20530	-60.	-88.	-88.	-0.551	-0.720
20560	-88.	-56.	-68.	-0.398	-0.507

TABLE B374

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 1, 21-5500 IN.LB.PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
205-2	-0.501	-0.793	0.146	-8.1	0.793
20501	-1.007	-1.213	0.103	-2.9	1.213
20503	-0.950	-1.023	0.032	-20.4	1.023
	NO DATA AVAILABLE				
20507	-0.818	-0.928	0.055	35.4	0.928
	NO DATA AVAILABLE				
20514	-0.701	-0.765	0.032	-20.4	0.765
	NO DATA AVAILABLE				
20522	-0.666	-0.714	0.024	0.0	0.714
20530	-0.551	-0.720	0.084	0.0	0.720
20560	-0.390	-0.515	0.063	15.0	0.515

TABLE B 375

MEMBRANE AND BENDING STRESSES - PLATE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
205-2	NO DATA AVAILABLE			
20501	-0.010	-0.016	1.292	0.931
20503	0.058	-0.123	1.073	0.845
	NO DATA AVAILABLE			
20507	0.040	-0.105	0.895	0.786
	NO DATA AVAILABLE			
20514	0.062	0.314	0.819	0.722
	NO DATA AVAILABLE			
20522	0.011	-0.053	0.697	0.661
2053C	0.018	-0.061	0.569	0.659
20560	-0.021	-0.076	0.377	0.431

TABLE B 376

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
30560	20.	4.	12.	0.133	0.061
30528	12.	8.	8.	0.087	0.063
	3000.	3000.	3000.		
30520	8.	20.	12.	0.084	0.132
30512	-4.	20.	16.	0.020	0.152
30509	-4.	36.	56.	0.087	0.388
30507	8.	64.	56.	0.188	0.501
30505	44.	76.	68.	0.422	0.591
30503	120.	88.	92.	0.899	0.718
30501	184.	152.	136.	1.392	1.151
	3000.	3000.	3000.		

TABLE 8177

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 1, 11-5508 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
30560	0.139	0.055	0.082	-15.0	0.139
30528	0.087	0.063	0.312	0.0	0.087
NO DATA AVAILABLE					
30520	0.140	0.076	0.332	-25.4	0.140
30512	0.153	0.019	0.067	-3.5	0.153
30509	0.396	0.078	0.119	9.6	0.396
30507	0.503	0.187	0.158	-3.8	0.503
30505	0.593	0.420	0.087	-6.9	0.593
30503	0.899	0.717	0.091	-3.3	0.899
30501	1.395	1.144	0.127	9.6	1.399
NO DATA AVAILABLE					

TABLE 8179

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 1, 11-5508 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SEMI-DIAGONAL	TANGENTIAL
40560	4.	4.	-4.	0.023	-0.001
40528	4.	-4.	4.	0.023	-0.001
	3000.	3000.	3000.		
40520	24.	-8.	-4.	0.123	-0.058
40512	28.	4.	4.	0.169	0.025
40509	24.	48.	32.	0.232	0.328
40507	-12.	32.	24.	-0.002	0.239
40505	-56.	20.	28.	-0.262	0.219
40503	-124.	28.	8.	-0.665	0.191
40501	-188.	-32.	-12.	-1.102	-0.126
405-2	-148.	-36.	-52.	-0.949	-0.323

TABLE B374

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 1, 51-5508 IN. LB.PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
40560	0.935	-0.013	0.024	30.0	0.008
40520	0.035	-0.013	0.024	-30.0	0.048
NO DATA AVAILABLE					
40520	0.123	-0.059	0.091	-3.3	0.182
40512	0.169	0.025	0.072	0.0	0.169
40509	0.344	0.216	0.064	-20.4	0.344
40507	0.241	-0.004	0.122	-4.9	0.274
40505	0.220	-0.263	0.242	2.5	0.408
40503	0.194	-0.660	0.431	-3.5	0.861
40501	-0.124	-1.105	0.391	3.1	1.105
405-2	-0.320	-0.952	0.716	-3.8	0.952

TABLE B375

MEMBRANE AND BENDING STRESSES - NOZZLE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 1, 51-5508 IN. LB.PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MEMBRANE	TANGENTIAL	MEMBRANE	TANGENTIAL
40560	0.078	0.030	0.055	0.031
40520	0.055	0.031	0.032	0.032
NO DATA AVAILABLE				
40520	0.103	0.037	-0.019	0.095
40512	0.095	0.089	-0.075	0.071
40509	0.159	0.358	-0.073	0.030
40507	0.093	0.370	0.095	0.131
40505	0.080	0.405	0.342	0.186
40503	0.117	0.454	0.782	0.264
40501	0.145	0.512	1.247	0.639
405-2	NO DATA AVAILABLE			

TABLE B343

STRAINS AND STRESSES--OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 13

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SEMI-DIRECTIONAL	TANGENTIAL
213-2	-98.	-250.	-264.	-1.125	-2.173
21301	-336.	-296.	-268.	-2.587	-2.262
21303	-398.	-364.	-380.	-3.075	-3.003
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		
	3000.	3000.	3000.		

TABLE B384

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 13

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
213-2	-1.125	-2.173	0.524	0.6	2.173
21301	-2.286	-2.603	0.178	12.1	2.503
21303	-2.984	-3.094	0.055	-24.6	3.094

NO DATA AVAILABLE

NO DATA AVAILABLE

NO DATA AVAILABLE

NO DATA AVAILABLE

NO DATA AVAILABLE

NO DATA AVAILABLE

NO DATA AVAILABLE

NO DATA AVAILABLE

TABLE B185

MEMBRANE AND BENDING STRESSES - PLATE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 13

RO: POS	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
213-2	NO DATA AVAILABLE			
21301	0.133	-0.197	2.720	2.075
21303	0.153	-0.444	3.228	2.559
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			

TABLE B186

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 13

RO. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
31360	4.	8.	8.	0.042	0.066
31328	4.	8.	-4.	0.028	0.016
	1000.	3000.	3000.		
31320	-12.	4.	4.	-0.059	0.037
31312	-24.	24.	24.	-0.080	0.269
31309	-44.	72.	72.	-0.080	0.619
31307	-8.	100.	100.	0.192	0.842
31305	56.	132.	152.	0.657	1.175
31303	164.	156.	140.	1.292	1.208
31301	304.	212.	212.	2.238	1.684
	3000.	3000.	3000.		

TABLE B-127

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 1, 31*5508 IN.LB.PLAT PLATF TWO NOZZLE
NOZZLE ONE STRINGER NO. 13

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
31360	0.066	-0.082	0.012	3.0	0.066
31328	0.057	-0.010	0.032	39.6	0.064
NO DATA AVAILABLE					
31320	0.037	-0.056	0.048	0.0	0.096
31312	0.209	-0.080	0.145	0.0	0.299
31309	0.619	-0.080	0.349	0.0	0.698
31307	0.842	0.192	0.325	0.0	0.862
31305	1.190	0.652	0.264	5.7	1.180
31303	1.303	1.198	0.352	18.3	1.307
31301	2.238	1.694	0.277	0.0	2.238

NO DATA AVAILABLE

TABLE B-128

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 1, 31*5508 IN.LB.PLAT PLATF TWO NOZZLE
NOZZLE ONE STRINGER NO. 13

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SEMI-DIRECTIONAL	TANGENTIAL
41360	8.	-4.	-12.	0.027	-0.070
41328	12.	-8.	-16.	0.040	-0.105
	3000.	3000.	3000.		
41320	16.	-4.	-16.	0.068	-0.089
41312	20.	8.	44.	0.219	0.363
41309	-16.	76.	64.	0.075	0.593
41307	-96.	76.	60.	-0.386	0.602
41305	-192.	60.	60.	-0.953	0.565
41303	-164.	24.	12.	-2.034	0.267
41301	-556.	-36.	-40.	-3.262	-0.143
413-2	-224.	-168.	-152.	-1.658	-1.273

TABLE B390

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 1, M=5506 IN.LB.PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 13

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLP OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
41360	0.031	-0.074	0.052	11.	0.105
41328	0.043	-0.108	0.075	8.1	0.150
NO DATA AVAILABLE					
41320	0.074	-0.095	0.084	10.9	0.169
41312	0.363	0.219	0.072	0.0	0.363
41309	0.595	0.073	0.261	-3.4	0.595
41307	0.603	-0.388	0.496	-2.4	0.991
41305	0.565	-0.953	0.759	0.0	1.517
41303	0.267	-2.034	1.150	-0.8	2.301
41301	-0.143	-3.262	1.560	-0.2	3.262
413-2	-1.268	-1.663	0.197	6.1	1.663

TABLE B390

MEMBRANE AND BENDING STRESSES - NOZZLE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 13

POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
41360	0.034	-0.002	0.008	0.068
41328	0.034	-0.045	-0.006	0.060
NO DATA AVAILABLE				
41320	0.004	-0.026	-0.063	0.063
41312	0.044	0.246	-0.149	-0.077
41309	-0.002	0.606	-0.077	0.013
41307	-0.097	0.722	0.289	0.120
41305	-0.148	0.870	0.805	0.305
41303	-0.371	0.737	1.663	0.471
41301	-0.512	0.771	2.750	0.914
413-2	NO DATA AVAILABLE			

TABLE B391

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
	3000.	3000.	3000.		
11501	332.	360.	180.	2.536	2.163
11503	292.	280.	104.	2.122	1.520
	3000.	3000.	3000.		
11507	264.	300.	76.	1.953	1.495
	3000.	3000.	3000.		
11514	160.	304.	72.	1.360	1.528
	3000.	3000.	3000.		
11522	36.	312.	64.	0.652	1.568
11530	-72.	244.	68.	-0.040	1.333
11562	-140.	4.	24.	-0.689	0.431

TABLE B392

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
11501	2.854	1.844	0.505	24.2	2.854
11503	2.370	1.272	0.549	28.4	2.370
	NO DATA AVAILABLE				
11507	2.351	1.097	0.627	34.3	2.351
	NO DATA AVAILABLE				
11514	2.055	0.833	0.611	-41.0	2.055
	NO DATA AVAILABLE				
11522	1.902	0.318	0.792	-27.4	1.902
11530	1.472	-0.179	0.826	-16.9	1.651
11562	0.472	-0.731	0.601	10.7	1.203

TABLE 8133

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 1, M=5508 IN. LB.PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SEMI-CIRCULAR	TANGENTIAL
215-2	-80.	-108.	-210.	-0.846	-1.352
21501	-332.	-136.	-252.	-2.355	-1.524
21503	-298.	-108.	-298.	-2.114	-1.572
	3000.	3000.	3000.		
21507	-236.	-72.	-320.	-1.812	-1.571
	3000.	3000.	3000.		
21514	-152.	-69.	-328.	-1.338	-1.615
	3000.	3000.	3000.		
21522	-36.	-68.	340.	-0.686	-1.685
21530	104.	-69.	-256.	0.208	-1.348
21562	156.	-88.	-4.	0.781	-0.436

TABLE 8134

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 1, M=5508 IN. LB.PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
215-2	-0.713	-1.495	0.386	24.6	1.495
21501	-1.426	-2.453	0.514	-18.0	2.454
21503	-1.301	-2.385	0.542	-30.0	2.385
	NO DATA AVAILABLE				
21507	-1.038	-2.350	0.658	-39.7	2.350
	NO DATA AVAILABLE				
21514	-0.738	-2.168	0.632	39.2	2.168
	NO DATA AVAILABLE				
21522	-0.309	-2.062	0.876	27.6	2.062
21530	0.346	-1.532	0.939	11.7	1.878
21562	0.819	-0.874	0.636	-9.9	1.293

STRESS AND BENDING STRESSES - PLATE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTION PARALLEL TO STRINGER 1, STRESS IN LB.

PLATE PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

NO. NO.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MEMBRANAL	TANGENTIAL	MEMBRANAL	TANGENTIAL
21502	NO DATA AVAILABLE			
21503	0.036	0.119	2.806	1.443
21504	0.034	-0.026	2.711	1.054
	NO DATA AVAILABLE			
21507	0.077	-0.079	1.493	1.533
	NO DATA AVAILABLE			
21514	0.011	-0.023	1.349	1.171
	NO DATA AVAILABLE			
21521	-0.007	-0.059	1.669	1.111
21530	0.098	-0.030	-0.106	0.143
21562	0.045	-0.007	-0.085	0.143

STRESS AND STRESS - PLATE STRAIN OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTION PARALLEL TO STRINGER 1, STRESS IN LB.

PLATE PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

NO. NO.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESS (NORMALIZED)	
	MEMBRANAL	TANGENTIAL	TORSIONAL	MEMBRANAL	TANGENTIAL
21503	41	91	121	-0.001	0.001
21504	41	41	41	-0.001	0.001
	1001	1001	1001		
21507	41	41	41	-0.001	0.001
21512	161	161	401	-0.004	0.023
21506	201	121	641	-0.007	0.041
21507	41	661	901	0.030	1.607
21506	901	901	1201	0.609	1.407
21503	1601	1201	1401	1.169	1.107
21503	2101	2101	1701	1.107	1.107
	3001	3101	3001		

TABLE B397

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
31560	0.074	-0.009	0.042	15.0	0.083
31528	0.013	-0.035	0.024	30.0	0.048
NO DATA AVAILABLE					
31520	-0.031	-0.055	0.012	30.0	0.055
31512	0.276	-0.147	0.212	10.1	0.423
31509	0.426	-0.038	0.232	10.1	0.465
31507	0.640	0.179	0.231	12.0	0.640
31505	0.875	0.634	0.124	30.0	0.875
31503	1.204	1.059	0.072	-30.0	1.204
31501	1.921	0.752	0.585	22.8	1.921
NO DATA AVAILABLE					

TABLE B399

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 1, M=5508 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
31560	-4.	-16.	-4.	-0.047	-0.083
31528	4.	4.	-4.	0.023	-0.001
	3000.	3000.	3000.		
31520	32.	12.	20.	0.221	0.124
31512	24.	24.	48.	0.222	0.295
31509	-32.	56.	46.	-0.059	0.447
31507	-76.	84.	10.	-0.262	0.629
31505	-180.	72.	24.	-0.913	0.460
31503	-340.	64.	-36.	-1.906	0.275
31501	-476.	100.	-124.	-2.744	0.050
315-2	-124.	16.	-172.	-0.916	-0.615

TABLE B399

PRINCIPAL STRESS DA A - INNER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 1, 51-5500 IN. LB.FLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 15

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
41560	-0.029	-0.107	0.036	-30.0	0.101
41528	0.035	-0.013	0.024	30.0	0.048
NO DATA AVAILABLE					
41520	0.225	0.120	0.052	-11.7	0.225
41512	0.331	0.106	0.072	30.0	0.331
41509	0.448	-0.060	0.254	-2.4	0.508
41507	0.633	-0.267	0.450	-8.0	0.900
41505	0.471	-0.924	0.698	-5.2	1.395
41503	0.257	-1.938	1.097	-6.9	2.194
41501	0.167	-2.861	1.514	-11.3	3.028
415-2	-0.252	-1.278	0.513	-36.5	1.278

TABLE B400

MEMBRANE AND BENDING STRESSES - NOZZLE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 1, 51-5500 IN. LB.FLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 15

POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MEMBRANE	TANGENTIAL	MEMBRANE	TANGENTIAL
41560	-0.025	-0.007	0.021	0.076
41528	0.0	0.0	-0.023	0.001
NO DATA AVAILABLE				
41520	0.092	0.038	-0.129	-0.087
41512	0.044	0.279	-0.178	-0.016
41509	-0.041	0.429	0.018	-0.018
41507	-0.032	0.625	0.231	-0.004
41505	-0.109	0.637	0.803	0.177
41503	-0.369	0.660	1.537	0.435
41501	-0.499	0.488	2.245	0.438
415-2	NO DATA AVAILABLE			

STRESS AND STRAIN - MIDDLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
 LOAD NOT AVAILABLE TO CORNER 5, MS=5508 IN.LB.

MID PLATE TWO NOZZLES
 MIDDLE ONE THROUGH NO. 1

NODE	STRESS			TOTAL STRESS	
	MEMBRANE	BENDING	INCL	(NORMALIZED)	TANGENTIAL
	MAX.	MIN.	MAX.		
1000	1000	1000	1000		
1001	1000	1000	1000	-1.147	-1.751
1002	1000	1000	1000	-1.408	-1.57
1003	1000	1000	1000		
1004	1000	1000	1000	-1.131	-1.614
1005	1000	1000	1000		
1006	1000	1000	1000	-1.141	-1.594
1007	1000	1000	1000		
1008	1000	1000	1000	-1.141	-1.594
1009	1000	1000	1000		
1010	1000	1000	1000	-1.149	-1.524
1011	1000	1000	1000		
1012	1000	1000	1000	-1.644	-1.409

PRINCIPAL STRESS DATA - MIDDLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
 LOAD NOT AVAILABLE TO CORNER 5, MS=5508 IN.LB.

MID PLATE TWO NOZZLES
 MIDDLE ONE THROUGH NO. 1

NODE	PRIN. STRESS		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
1000	NO DATA AVAILABLE				
1001	1.147	-1.751	0.742	-26.5	1.731
1002	1.408	-1.57	0.715	-26.7	1.696
1003	NO DATA AVAILABLE				
1004	1.131	-1.614	0.744	-25.9	1.654
1005	NO DATA AVAILABLE				
1006	1.141	-1.594	0.436	-22.5	1.424
1007	NO DATA AVAILABLE				
1008	1.141	-1.594	0.436	-22.5	1.424
1009	NO DATA AVAILABLE				
1010	1.149	-1.524	0.513	-21.7	1.549
1011	NO DATA AVAILABLE				
1012	1.644	-1.409	0.179	23.1	0.752

TABLE 3411

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 5, M5=5508 IN.LB.

PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

POS. POS.	STRAINS (THOUSANDS PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SEEDIONAL	TANGENTIAL
201-2	92.	152.	-63.	0.625	0.324
20101	160.	180.	-72.	1.041	0.403
20103	180.	168.	-63.	1.146	0.363
	3000.	3000.	3000.		
20107	192.	132.	-40.	1.205	0.325
	3000.	3000.	3000.		
20114	196.	100.	-4.	1.230	0.341
	3000.	3000.	3000.		
20122	172.	72.	16.	1.086	0.315
20130	148.	64.	28.	0.949	0.323
20162	-12.	44.	24.	0.017	0.306

TABLE 3412

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 5, M5=5508 IN.LB.

PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
201-2	1.067	-0.119	0.593	31.7	1.196
20101	1.452	-0.006	0.730	32.0	1.461
20103	1.494	0.025	0.729	28.9	1.490
	NO DATA AVAILABLE				
20107	1.393	0.137	0.629	22.8	1.393
	NO DATA AVAILABLE				
20114	1.308	0.265	0.522	15.7	1.368
	NO DATA AVAILABLE				
20122	1.113	0.288	0.412	10.4	1.113
20130	0.966	0.306	0.330	9.2	0.966
20162	0.312	0.011	0.150	-8.1	0.312

TABLE B405

MEMBRANE AND BENDING STRESSES - PLATE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 5, M5=5508 IN.LB.PLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 1

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
201-2	NO DATA AVAILABLE			
20101	-0.073	-0.175	-1.114	-0.578
20103	-0.131	-0.095	-1.277	-0.458
	NO DATA AVAILABLE			
20107	-0.063	-0.142	-1.268	-0.467
	NO DATA AVAILABLE			
20114	-0.024	-0.127	-1.257	-0.468
	NO DATA AVAILABLE			
20122	-0.097	-0.140	-1.183	-0.455
20130	-0.099	0.099	-1.048	-0.223
20162	-0.316	-0.051	-0.333	-0.357

TABLE B406

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 5, M5=5508 IN.LB.PLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 1

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
30160	12.	12.	16.	0.102	0.114
30128	16.	-8.	20.	0.106	0.045
	3000.	3000.	3000.		
30120	12.	4.	-25.	0.049	-0.071
30112	-8.	20.	-44.	-0.074	-0.098
30109	-24.	8.	-60.	-0.199	-0.211
30107	-48.	-32.	-84.	-0.412	-0.472
30105	-76.	-8.	-88.	-0.548	-0.379
30103	-116.	-28.	-88.	-0.800	-0.450
30101	-200.	-44.	-132.	-1.350	-0.676
	3000.	3000.	3000.		

TABLE B407

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 5, 45-5509 IN.-LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 1

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
30160	0.120	0.096	0.012	30.0	0.120
30128	0.154	-0.004	0.079	-33.8	0.158
NO DATA AVAILABLE					
30120	0.076	-0.098	0.087	23.1	0.174
30112	0.081	-0.254	0.167	42.9	0.335
30109	-0.027	-0.382	0.177	44.6	0.382
30107	-0.303	-0.581	0.139	38.7	0.581
30105	-0.238	-0.668	0.225	-34.0	0.688
30103	-0.394	-0.859	0.234	-20.9	0.859
30101	-0.605	-1.421	0.408	-17.1	1.421
NO DATA AVAILABLE					

TABLE B404

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 5, 45-5508 IN.-LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 1

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
40160	-8.	-20.	4.	-0.065	-0.065
40128	-4.	4.	88.	0.087	0.388
	3000.	3000.	3000.		
40120	-8.	0.	88.	0.087	0.187
40112	-12.	-8.	80.	-0.026	0.155
40109	-40.	8.	20.	-0.195	0.130
40107	8.	12.	20.	0.088	0.132
40105	48.	24.	4.	0.307	0.102
40103	92.	88.	-16.	0.606	0.256
40101	192.	144.	-44.	1.214	0.359
401-2	124.	172.	-152.	0.731	0.045

TABLE B-10

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 5, M5=5508 IN. LB.PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
40160	-0.002	-0.127	0.063	45.0	0.127
40128	0.503	-0.329	0.266	27.8	0.532
NO DATA AVAILABLE					
40120	0.243	-0.049	0.146	25.9	0.292
40112	0.211	-0.081	0.146	25.9	0.292
40109	0.123	-0.138	0.166	5.8	0.331
40107	0.140	0.076	0.092	20.4	0.140
40105	0.320	0.090	0.115	13.5	0.320
40103	0.745	0.117	0.314	29.1	0.745
40101	1.437	0.136	0.650	24.0	1.437
401-2	1.300	-0.524	0.912	33.9	1.624

TABLE B-11

MEMBRANE AND BENDING STRESSES - NOZZLE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 5, M5=5508 IN. LB.PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 1

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
40160	0.019	0.025	0.083	0.089
40128	0.096	0.216	0.010	-0.171
NO DATA AVAILABLE				
40120	0.028	0.058	0.021	-0.129
40112	-0.050	0.028	-0.024	-0.127
40109	-0.197	-0.040	-0.002	-0.171
40107	-0.164	-0.170	-0.248	-0.302
40105	-0.120	-0.138	-0.427	-0.241
40103	-0.097	-0.097	-0.703	-0.353
40101	-0.068	-0.158	-1.282	-0.517
401-2	NO DATA AVAILABLE			

TABLE B-11

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 5, 45=5508 IN.LB.

PLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 3

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	AXIAL	TANGENTIAL
	3000.	3000.	3000.		
10301	-140.	-96.	-54.	-1.227	-1.058
10303	-157.	-152.	-20.	-1.095	-0.677
	3000.	3000.	3000.		
10307	-184.	-96.	-4.	-0.940	-0.374
	3000.	3000.	3000.		
10314	-132.	-108.	8.	-0.877	-0.395
	3000.	3000.	3000.		
10322	-96.	-88.	16.	-0.633	-0.272
10330	-92.	-84.	20.	-0.601	-0.280
10362	-56.	-64.	28.	-0.362	-0.133

TABLE B-12

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 5, 45=5508 IN.LB.

PLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 3

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
10301	-0.798	-1.486	0.344	37.9	1.486
10303	-0.480	-1.287	0.404	29.7	1.287
	NO DATA AVAILABLE				
10307	-0.286	-1.028	0.371	20.1	1.028
	NO DATA AVAILABLE				
10314	-0.257	-1.014	0.379	25.2	1.014
	NO DATA AVAILABLE				
10322	-0.127	-0.778	0.326	28.2	0.778
10330	-0.094	-0.746	0.326	28.2	0.746
10362	0.018	-0.514	0.266	32.3	0.532

TABLE B413

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 5, M5=5508 IN.LB.PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 3

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	LONGITUDINAL	TANGENTIAL
203-2	72.	32.	108.	0.577	0.565
20301	160.	32.	156.	1.136	0.739
20303	100.	24.	172.	1.054	0.777
	3000.	3000.	3000.		
20307	128.	-8.	148.	0.897	0.547
	3000.	3000.	3000.		
20314	112.	-20.	112.	0.748	0.351
	3000.	3000.	3000.		
20322	96.	-36.	100.	0.624	0.238
20330	72.	-8.	88.	0.506	0.313
20362	48.	-20.	72.	0.313	0.204

TABLE B414

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 5, M5=5508 IN.LB.PLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 3

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
203-2	0.769	0.373	0.198	-44.1	0.769
20301	1.317	0.558	0.379	-29.2	1.317
20303	1.326	0.506	0.410	-35.1	1.326
	NO DATA AVAILABLE				
20307	1.165	0.279	0.443	-33.4	1.165
	NO DATA AVAILABLE				
20314	0.947	0.152	0.397	-30.0	0.947
	NO DATA AVAILABLE				
20322	0.835	0.027	0.404	-30.7	0.835
20330	0.678	0.141	0.268	-34.5	0.678
20362	0.505	0.113	0.246	-38.6	0.505

TABLE B415

MEMBRANE AND BENDING STRESSES - PLATE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 5, M5=5508 IN.-LB.
 FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 3

POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
203-2	NO DATA AVAILABLE			
20301	-0.045	-0.160	-1.181	-0.876
20303	-0.020	0.052	-1.074	-0.725
	NO DATA AVAILABLE			
20307	-0.022	0.087	-0.919	-0.461
	NO DATA AVAILABLE			
20314	-0.064	-0.022	-0.812	-0.373
	NO DATA AVAILABLE			
20322	-0.005	-0.017	-0.629	-0.255
20330	-0.048	0.037	-0.553	-0.276
20362	-0.025	0.035	-0.338	-0.169

TABLE B416

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 5, M5=5508 IN.-LB.
 FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 3

POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
30360	-12.	-20.	-12.	-0.106	-0.131
30328	-84.	-52.	-8.	-0.551	-0.225
	3000.	3000.	3000.		
30320	-52.	-28.	-40.	-0.377	-0.269
30312	-68.	-40.	-44.	-0.488	-0.331
30309	-76.	-52.	-52.	-0.557	-0.413
30307	-100.	-64.	-68.	-0.727	-0.523
30305	-124.	-80.	-84.	-0.902	-0.649
30303	-180.	-112.	-108.	-1.288	-0.867
30301	-268.	-148.	-124.	-1.829	-1.059
	3000.	3000.	3000.		

TABLE H-17

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 5, 45=5508 IN.LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
30360	-0.094	-0.143	0.024	-30.0	0.143
30328	-0.199	-0.587	0.199	17.6	0.587
NO DATA AVAILABLE					
30320	-0.261	-0.386	0.063	-15.0	0.386
30312	-0.331	-0.489	0.079	-3.8	0.488
30309	-0.413	-0.557	0.072	0.0	0.557
30307	-0.522	-0.728	0.103	-2.9	0.728
30305	-0.649	-0.903	0.127	-2.4	0.903
30303	-0.867	-1.289	0.211	1.4	1.289
30301	-1.054	-1.834	0.390	4.6	1.834
NO DATA AVAILABLE					

TABLE H-18

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 5, 45=5508 IN.LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
40360	9.	48.	44.	0.155	0.384
40328	0.	72.	32.	0.124	0.447
	3000.	3000.	3000.		
40320	-48.	60.	52.	-0.141	0.446
40312	-40.	28.	32.	-0.157	0.265
40309	-32.	24.	16.	-0.135	0.178
40307	-20.	20.	0.	-0.090	0.090
40305	36.	4.	8.	0.220	0.039
40303	80.	-12.	24.	0.471	0.025
40301	216.	-8.	64.	1.299	0.167
403-2	116.	-52.	160.	0.904	0.410

TABLE 421

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 5, M5=5508 IN.-LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
40360	0.384	0.155	0.115	-2.6	0.384
40328	0.468	0.092	0.188	-16.8	0.468
NO DATA AVAILABLE					
40320	0.486	-0.141	0.318	-1.9	0.628
40312	0.265	-0.157	0.211	1.4	0.422
40309	0.179	-0.126	0.158	-3.8	0.316
40307	0.137	-0.104	0.104	-15.0	0.209
40305	0.220	0.038	0.091	-3.3	0.220
40303	0.490	0.006	0.242	-11.4	0.490
40301	1.329	0.136	0.596	-9.2	1.329
403-2	1.263	0.052	0.605	-33.0	1.263

TABLE 422

MEMBRANE AND BENDING STRESSES - NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 5, M5=5508 IN.-LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 3

POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MEMBRANE	TANGENTIAL	MEMBRANE	TANGENTIAL
40360	0.024	0.127	-0.131	-0.257
40328	-0.213	0.106	-0.337	-0.331
NO DATA AVAILABLE				
40320	-0.259	0.108	-0.118	-0.377
40312	-0.322	-0.033	-0.165	-0.298
40309	-0.346	-0.117	-0.211	-0.295
40307	-0.409	-0.216	-0.319	-0.306
40305	-0.341	-0.305	-0.561	-0.344
40303	-0.409	-0.421	-0.880	-0.446
40301	-0.265	-0.446	-1.564	-0.613
403-2	NO DATA AVAILABLE			

TABLE B021

STRAINS AND STRESSES - NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 5, 85-5508 IN.LB.PLATE PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	RESIDUAL	TANGENTIAL
	3000.	3000.	3000.		
10501	0.	-132.	156.	0.005	0.017
10503	0.	-112.	128.	0.019	0.067
	3000.	3000.	3000.		
10507	0.	-124.	134.	0.022	-0.087
	3000.	3000.	3000.		
10514	-8.	-84.	112.	-0.012	0.120
	3000.	3000.	3000.		
10522	4.	-92.	88.	0.018	-0.018
10530	4.	-76.	60.	0.004	-0.068
10562	4.	-60.	52.	0.013	-0.035

TABLE B022

PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 5, 85-5508 IN.LB.PLATE PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 5

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
10501	0.710	-0.688	0.699	44.8	1.398
10503	0.669	-0.583	0.626	43.9	1.252
	NO DATA AVAILABLE				
10507	0.565	-0.629	0.597	-42.4	1.194
	NO DATA AVAILABLE				
10514	0.569	-0.461	0.515	41.3	1.031
	NO DATA AVAILABLE				
10522	0.470	-0.470	0.470	-43.9	0.939
10530	0.324	-0.309	0.354	-42.1	0.713
10562	0.282	-0.304	0.293	-42.6	0.586

TABLE B421

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 5, 45-5500 IN.LB.

FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 5

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	AXIATIONAL	TANGENTIAL
205-2	0.	-112.	112.	0.0	0.0
20501	0.	-160.	160.	0.0	0.0
20503	4.	-152.	152.	0.023	-0.001
	3000.	3000.	3000.		
20507	0.	-126.	120.	-0.019	-0.067
	3000.	3000.	3000.		
20514	4.	-120.	100.	-0.001	-0.085
	3000.	3000.	3000.		
20522	-12.	-48.	88.	-0.068	0.004
20530	0.	-96.	76.	-0.024	-0.084
20562	-4.	-56.	52.	-0.028	-0.016

TABLE B424

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 5, 45-5500 IN.LB.

FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 5

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
205-2	0.584	-0.584	0.584	45.0	1.168
20501	0.834	-0.834	0.834	45.0	1.669
20503	0.807	-0.782	0.793	-44.6	1.595
	NO DATA AVAILABLE				
20507	0.625	-0.711	0.669	-44.0	1.336
	NO DATA AVAILABLE				
20514	0.532	-0.618	0.575	-42.9	1.150
	NO DATA AVAILABLE				
20522	0.428	-0.493	0.460	42.8	0.921
20530	0.396	-0.503	0.449	-43.1	0.899
20562	0.260	-0.303	0.282	44.4	0.563

TABLE 3423

MEMBRANE AND BENDING STRESSES - PLATE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 5, N5=5508 IN.LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
205-2	NO DATA AVAILABLE			
20501	0.092	0.008	0.002	0.008
20503	0.021	0.033	-0.002	0.038
	NO DATA AVAILABLE			
20507	0.001	-0.077	0.020	-0.010
	NO DATA AVAILABLE			
20514	-0.007	0.017	-0.006	0.103
	NO DATA AVAILABLE			
20522	-0.025	-0.007	0.043	-0.011
20530	-0.010	-0.076	0.014	0.008
20562	-0.007	-0.025	0.020	-0.010

TABLE 3424

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 5, N5=5508 IN.LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
30560	-8.	-4.	-8.	-0.037	-0.049
30528	-8.	-24.	0.	-0.074	-0.098
	3000.	3000.	3000.		
30520	-12.	-32.	20.	-0.093	-0.047
30512	-8.	-24.	12.	-0.060	-0.048
30509	-4.	-24.	8.	-0.042	-0.066
30507	-8.	-16.	8.	-0.055	-0.031
30505	-8.	-8.	8.	-0.046	0.003
30503	4.	-20.	-4.	-0.006	-0.102
30501	-12.	-56.	40.	-0.087	-0.063
	3000.	3000.	3000.		

TABLE B427

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 5, M5=5548 IN.-LB.

PLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 5

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
30560	-0.031	-0.055	0.012	30.0	0.055
30528	-0.022	-0.150	0.064	-39.6	0.150
NO DATA AVAILABLE					
30520	0.072	-0.201	0.137	41.2	0.274
30512	0.040	-0.148	0.094	43.2	0.188
30509	0.030	-0.138	0.084	-40.9	0.169
30507	0.021	-0.107	0.064	39.6	0.127
30505	0.027	-0.079	0.048	30.0	0.096
30503	0.010	-0.116	0.064	-20.4	0.127
30501	0.175	-0.326	0.251	43.6	0.501

NO DATA AVAILABLE

TABLE B423

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 5, M5=5508 IN.-LB.

PLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 5

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
40560	4.	8.	-4.	0.028	0.016
40528	-24.	-4.	-56.	-0.208	-0.244
	3000.	3000.	3000.		
40520	0.	8.	-20.	-0.014	-0.050
40512	4.	24.	-16.	0.032	0.032
40509	-4.	0.	0.	-0.023	0.001
40507	-4.	-4.	8.	-0.023	0.001
40505	-8.	-24.	24.	-0.046	0.003
40503	0.	-60.	64.	0.005	0.017
40501	0.	-112.	124.	0.014	0.050
405-2	8.	-180.	172.	0.036	-0.036

TABLE B413

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 5, MS=5508 IN.LB.

PLAT FLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
40560	0.053	-0.010	0.037	39.6	0.064
40528	-0.090	-0.063	0.137	41.2	0.167
NO DATA AVAILABLE					
40520	0.043	-0.108	0.175	38.1	0.150
40512	0.137	-0.072	0.104	45.0	0.209
40509	0.001	-0.023	0.012	0.0	0.024
40507	0.033	-0.054	0.043	37.0	0.097
40505	0.106	-0.149	0.127	39.6	0.255
40503	0.334	-0.113	0.143	44.5	0.647
40501	0.648	-0.583	0.616	44.2	1.231
405-2	0.918	-0.918	0.918	-43.9	1.837

TABLE B414

MEMBRANE AND BENDING STRESSES - NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 5, MS=5508 IN.LB.

PLAT FLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 5

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
40560	-0.005	-0.017	-0.032	-0.032
40528	-0.141	-0.171	0.067	0.073
NO DATA AVAILABLE				
40520	-0.048	-0.048	-0.034	0.002
40512	-0.014	-0.006	-0.046	-0.040
40509	-0.032	-0.032	-0.010	-0.034
40507	-0.039	-0.015	-0.016	-0.016
40505	-0.046	0.003	-0.000	0.000
40503	-0.000	-0.043	-0.005	-0.059
40501	-0.037	-0.006	-0.051	-0.057
405-2	NO DATA AVAILABLE			

TABLE 8435

MEMBRANE AND BENDING STRESSES - PLATE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 5, N5=5508 IN.LB.FLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 1.

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
213-2	NO DATA AVAILABLE			
21301	-0.048	0.037	0.086	0.098
21303	-0.082	-0.004	0.088	0.106
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			
	NO DATA AVAILABLE			

TABLE 8436

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 5, N5=5508 IN.LB.FLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 13

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MERIDIONAL	TANGENTIAL
31360	4.	4.	0.	0.028	0.016
31328	8.	-12.	20.	0.055	0.031
	3000.	3000.	3050.		
31320	-8.	-36.	28.	-0.055	-0.031
31312	-8.	-48.	56.	-0.036	0.036
31309	-4.	-60.	34.	0.006	0.102
31307	24.	-76.	96.	0.161	0.076
31305	24.	-100.	104.	0.142	0.009
31303	24.	-116.	148.	0.175	0.127
31301	28.	-228.	248.	0.184	0.075
	3000.	3000.	3000.		

TABLE B417

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 5, M5=5508 IN.LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 13

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGL. OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
31360	0.034	0.010	0.012	30.0	0.034
31328	0.127	-0.041	0.044	-40.9	0.169
NO DATA AVAILABLE					
31320	0.124	-0.210	0.167	42.9	0.335
31312	0.274	-0.274	0.274	41.2	0.547
31309	0.432	-0.325	0.379	41.7	0.757
31307	0.569	-0.332	0.450	-41.7	0.901
31305	0.611	-0.461	0.536	-41.5	1.072
31303	0.940	-0.534	0.699	-44.0	1.177
31301	1.372	-1.113	1.242	-43.8	2.485

NO DATA AVAILABLE

TABLE B418

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 5, M5=5508 IN.LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 13

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	AX. DIR. STRESS	TANGENTIAL
41360	4.	4.	-4.	0.023	-0.001
41328	-12.	168.	-134.	-0.087	-0.06.
	3000.	3000.	3000.		
41320	-8.	40.	-48.	-0.055	-0.031
41312	8.	56.	-60.	0.041	-0.019
41309	16.	52.	-56.	0.087	-0.022
41307	4.	36.	-40.	0.018	-0.018
41305	8.	20.	-16.	0.050	0.014
41303	-8.	-28.	48.	-0.027	0.087
41301	-12.	-96.	140.	-0.016	0.189
413-2	-28.	-212.	264.	-0.122	0.143

TABLE B439

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 5, M5=5508 IN.LB.

FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 13

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
41360	0.035	-0.013	0.024	30.0	0.048
41328	0.842	-0.993	0.918	-37.6	1.836
NO DATA AVAILABLE					
41320	0.187	-0.273	0.230	-43.5	0.460
41312	0.315	-0.293	0.304	42.2	0.608
41309	0.179	-0.254	0.287	39.6	0.574
41307	0.199	-0.199	0.199	42.4	0.338
41305	0.128	-0.063	0.056	39.6	0.191
41503	0.238	-0.173	0.200	37.4	0.411
41301	0.710	-0.538	0.624	40.3	1.248
413-2	1.311	-1.289	1.300	42.1	2.600

TABLE B440

MEMBRANE AND BENDING STRESSES - NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 5, M5=5508 IN.LB.

FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 13

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MERIDIONAL	TANGENTIAL	MERIDIONAL	TANGENTIAL
41360	0.025	0.007	0.002	0.008
41328	-0.016	-0.016	0.071	0.047
NO DATA AVAILABLE				
41320	-0.055	-0.031	-0.000	0.0
41312	0.002	0.008	-0.039	0.028
41309	0.046	0.040	-0.040	0.062
41307	0.089	0.029	0.071	0.047
41305	0.096	0.012	0.046	-0.003
41303	0.077	0.107	0.098	0.020
41301	0.084	0.132	0.100	-0.057
413-2	NO DATA AVAILABLE			

TABLE 143
 STRAINS AND STRESSES - NOZZLE SIDE OF PLATE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 5, 85=5509 IN.LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	LONGITUDINAL	TANGENTIAL
	3000.	3000.	3000.		
11501	76.	280.	-129.	0.567	0.886
11503	29.	140.	-156.	0.095	-0.074
	3000.	3000.	3000.		
11507	-68.	76.	-215.	-0.554	-0.566
	3000.	3000.	3000.		
11514	-190.	12.	-260.	-1.322	-0.988
	3000.	3000.	3000.		
11522	-252.	-56.	-256.	-1.909	-1.230
11530	-248.	-88.	-224.	-1.781	-1.215
11562	-109.	-124.	-144.	-0.935	-1.099

TABLE 144
 PRINCIPAL STRESS DATA - NOZZLE SIDE OF PLATE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 5, 85=5509 IN.LB.

PLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
	NO DATA AVAILABLE				
11501	1.868	-0.855	0.961	43.2	1.923
11503	0.787	-0.766	0.776	41.9	1.553
	NO DATA AVAILABLE				
11507	0.201	-1.322	0.761	44.8	1.523
	NO DATA AVAILABLE				
11514	-0.420	-1.882	0.729	-38.3	1.882
	NO DATA AVAILABLE				
11522	-0.923	-2.116	0.596	-30.5	2.116
11530	-1.036	-1.960	0.462	-26.1	1.960
11562	-0.919	-1.107	0.094	16.8	1.107

TABLE B443

STRAINS AND STRESSES-OPPOSITE NOZZLE SIDE OF PLATE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 5, M5=5500 IN.LB.

FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 15

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SEMI-AXIAL	TANGENTIAL
215-2	-52.	188.	-169.	-0.311	-0.038
21501	-88.	228.	-176.	-0.189	0.232
21503	8.	288.	-180.	0.122	0.266
	3000.	3000.	3000.		
21507	128.	276.	-128.	0.906	0.551
	3000.	3000.	3000.		
21514	216.	260.	-56.	1.875	0.788
	3000.	3000.	3000.		
21522	288.	300.	80.	2.047	1.337
21530	268.	260.	112.	1.971	1.277
21562	128.	128.	156.	1.063	1.135

TABLE B444

PRINC STRESS DATA - OPPOSITE NOZZLE SIDE OF PLATE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 5, M5=5500 IN.LB.

FLAT PLATE TWO NOZZLES
 NOZZLE ONE STRINGER NO. 15

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
215-2	0.642	-0.987	0.815	-40.1	1.630
21501	1.096	-1.053	1.078	-39.3	2.148
21503	1.302	-0.918	1.108	-43.1	2.216
	NO DATA AVAILABLE				
21507	1.809	-0.322	1.066	40.6	2.132
	NO DATA AVAILABLE				
21514	2.024	0.239	0.493	33.7	2.024
	NO DATA AVAILABLE				
21522	2.457	0.927	0.765	31.2	2.457
21530	2.182	1.266	0.458	28.7	2.182
21562	1.190	1.008	0.091	33.3	1.190

MEMBRANE AND BENDING STRESSES - PLATE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 5, MS-5508 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MEMBRIONAL	TANGENTIAL	MEMBRIONAL	TANGENTIAL
215-2	NO DATA AVAILABLE			
21501	0.189	0.339	0.378	0.107
21503	0.193	0.346	-0.313	-0.170
	NO DATA AVAILABLE			
21507	0.176	0.337	-0.730	-0.578
	NO DATA AVAILABLE			
21514	0.977	-0.399	-1.398	-0.886
	NO DATA AVAILABLE			
21522	0.119	0.353	-1.928	-1.233
21530	0.085	0.131	-1.876	-1.386
21562	0.066	0.022	-0.899	-1.113

STRAINS AND STRESSES - OUTER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 5, MS-5508 IN.LB.FLAT PLATE TWO NOZZLE
NOZZLE ONE STRINGER NO. 15

POS. POS.	STRAINS (MICROINCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	MEMBRIONAL	TANGENTIAL
21560	4.	16.	8.	0.001	0.085
21529	32.	52.	40.	0.292	0.376
	3000.	3000.	3000.		
21520	68.	40.	36.	0.455	0.299
21512	112.	32.	48.	0.734	0.300
21509	128.	68.	52.	0.873	0.463
21507	168.	76.	36.	1.069	0.418
21505	180.	88.	52.	1.193	0.531
21503	204.	112.	48.	1.389	0.590
21501	248.	140.	30.	1.676	0.845
	3000.	3000.	3000.		

TABLE 3-4*

PRINCIPAL STRESS DATA - OUTER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 5, 45-5500 IN. LB.PLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 15

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
31500	0.096	-0.009	0.052	-10.3	0.105
31520	0.197	0.262	0.052	-10.3	0.307
NO DATA AVAILABLE					
31523	0.456	0.298	0.079	3.6	0.456
31512	0.738	0.297	0.221	-5.0	0.738
31509	0.877	0.459	0.209	5.0	0.877
31507	1.095	0.402	0.341	9.0	1.095
31505	1.206	0.510	0.340	7.9	1.206
31503	1.344	0.551	0.419	12.5	1.344
31501	1.735	0.617	0.488	19.3	1.735
NO DATA AVAILABLE					

TABLE 3-5*

STRAINS AND STRESSES - INNER SURFACE OF NOZZLE

BENDING MOMENT APPLIED TO NOZZLE TWO AND
DIRECTED PARALLEL TO STRINGER 5, 45-5500 IN. LB.PLAT PLATE TWO NOZZLES
NOZZLE ONE STRINGER NO. 15

POS. POS.	STRAINS (MICRO-INCHES PER INCH)			TOTAL STRESSES (NORMALIZED)	
	GAGE 1	GAGE 2	GAGE 3	SEMI-CIRCULAR	TANGENTIAL
31500	-8.	-24.	-32.	-0.089	-0.230
31520	40.	-60.	-64.	0.081	-0.533
	1000.	3000.	3000.		
31520	52.	-76.	-64.	0.130	-0.608
31512	60.	-120.	-48.	0.130	-0.781
31509	96.	-92.	-88.	0.381	-0.610
31507	52.	-92.	-44.	0.135	-0.500
31505	12.	-68.	-56.	-0.079	-0.525
31503	-40.	-12.	-90.	-0.302	-0.190
31501	-68.	40.	-120.	-0.532	-0.150
315-2	-52.	100.	-56.	-0.145	0.550

TABLE 9-44

PRINCIPAL STRESS DATA - INNER SURFACE OF NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 5, 85-5500 IN. LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

POS. POS.	PRIN. STRESSES (NORMALIZED)		MAX. SHEAR STRESS (NORMALIZED)	ANGLE OF PRIN. STRESS (DEGREES)	STRESS INTENSITY (NORMALIZED)
	MAX.	MIN.			
01560	-0.006	-0.237	0.075	0.1	0.237
01520	0.101	-0.530	0.307	1.0	0.615
NO DATA AVAILABLE					
01512	0.132	-0.606	0.369	-2.0	0.737
01512	0.100	-0.700	0.402	-12.1	0.960
01509	0.390	-0.671	0.513	-6.5	1.026
01507	0.156	-0.609	0.302	-9.6	0.765
01505	-0.077	-0.527	0.225	-0.0	0.527
01503	-0.177	-0.556	0.189	01.3	0.556
01501	0.210	-0.909	0.560	-35.3	1.127
015-2	0.921	-0.512	0.717	-30.0	1.033

TABLE 9-45

MEMBRANE AND BENDING STRESSES - NOZZLE
 BENDING MOMENT APPLIED TO NOZZLE TWO AND
 DIRECTED PARALLEL TO STRINGER 5, 85-5500 IN. LB.

FLAT PLATE TWO NOZZLE
 NOZZLE ONE STRINGER NO. 15

POS. POS.	MEMBRANE STRESSES (NORMALIZED)		BENDING STRESSES (NORMALIZED)	
	MEMBRANE	TANGENTIAL	MEMBRANE	TANGENTIAL
01560	-0.000	-0.070	0.005	0.160
01520	0.106	-0.079	0.106	0.455
NO DATA AVAILABLE				
01520	0.293	-0.153	0.163	0.452
01512	0.036	-0.220	0.290	0.521
01509	0.627	-0.070	0.206	0.501
01507	0.602	-0.005	0.067	0.501
01505	0.557	0.003	0.636	0.520
01503	0.503	0.100	0.006	0.090
01501	0.572	0.300	1.100	0.502
015-2	NO DATA AVAILABLE			