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Prepared under Contract No. NAS 8-20073 by
Jon J. Spano

BROWN ENGINEERING - A TELEDYNE COMPANY

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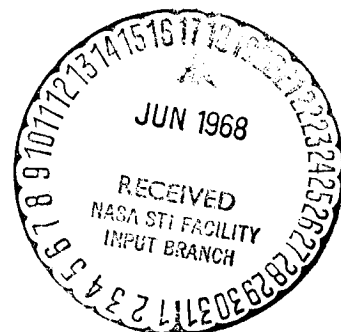
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For

NASA-GEORGE C. MARSHALL SPACE FLIGHT CENTER
Huntsville, Alabama



200 INCH MULTI-CELL
(PRESSURE TEST)

By

Jon J. Spano

Brown Engineering Company, Inc.
NAS8-20073

CI-SER-030B

ABSTRACT

This test was conducted in order to evaluate certain aspects of the multi-cell tank configuration.

The principal requirement of the pressure test was to provide basic stress information.

The major specific requirement was the determination of discontinuity effects.

The other main points of investigation were as follows:

- (a) Lag effects in the radial web and waffle skin curved segments.
- (b) The elastic distribution of stresses through the radial tension web.
- (c) The clarification of basic load paths.

Due to many deviations from manufacturing drawings, the data obtained from this test should be examined very closely before comparison with multi-cell theory. The most obvious of these deviations are listed on Page 11.

May 1968

(First published Sept. 1965)

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BROWN ENGINEERING
A TELEDYNE COMPANY

For

Propulsion and Vehicle Engineering Laboratory

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NASA-GEORGE C. MARSHALL SPACE FLIGHT CENTER

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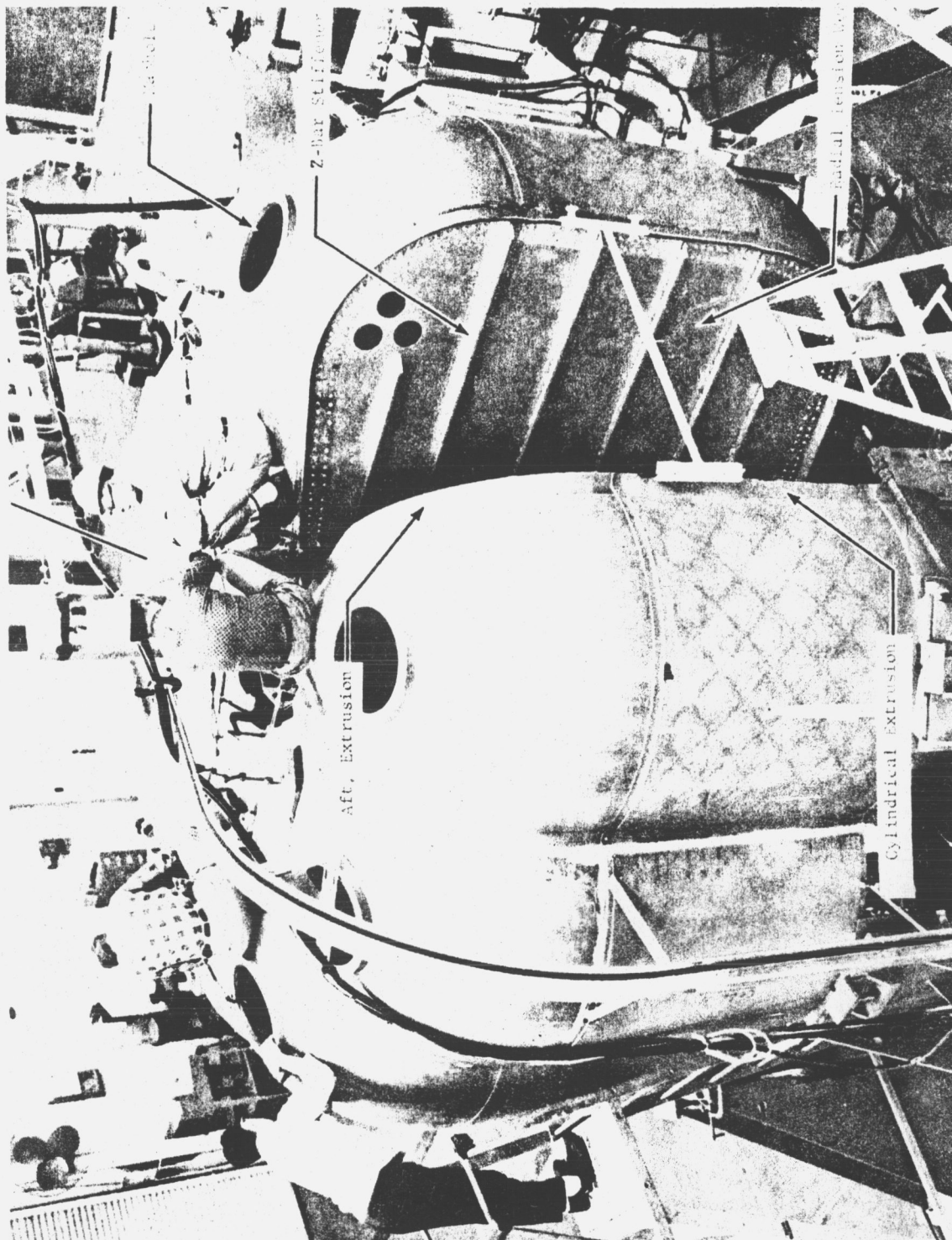
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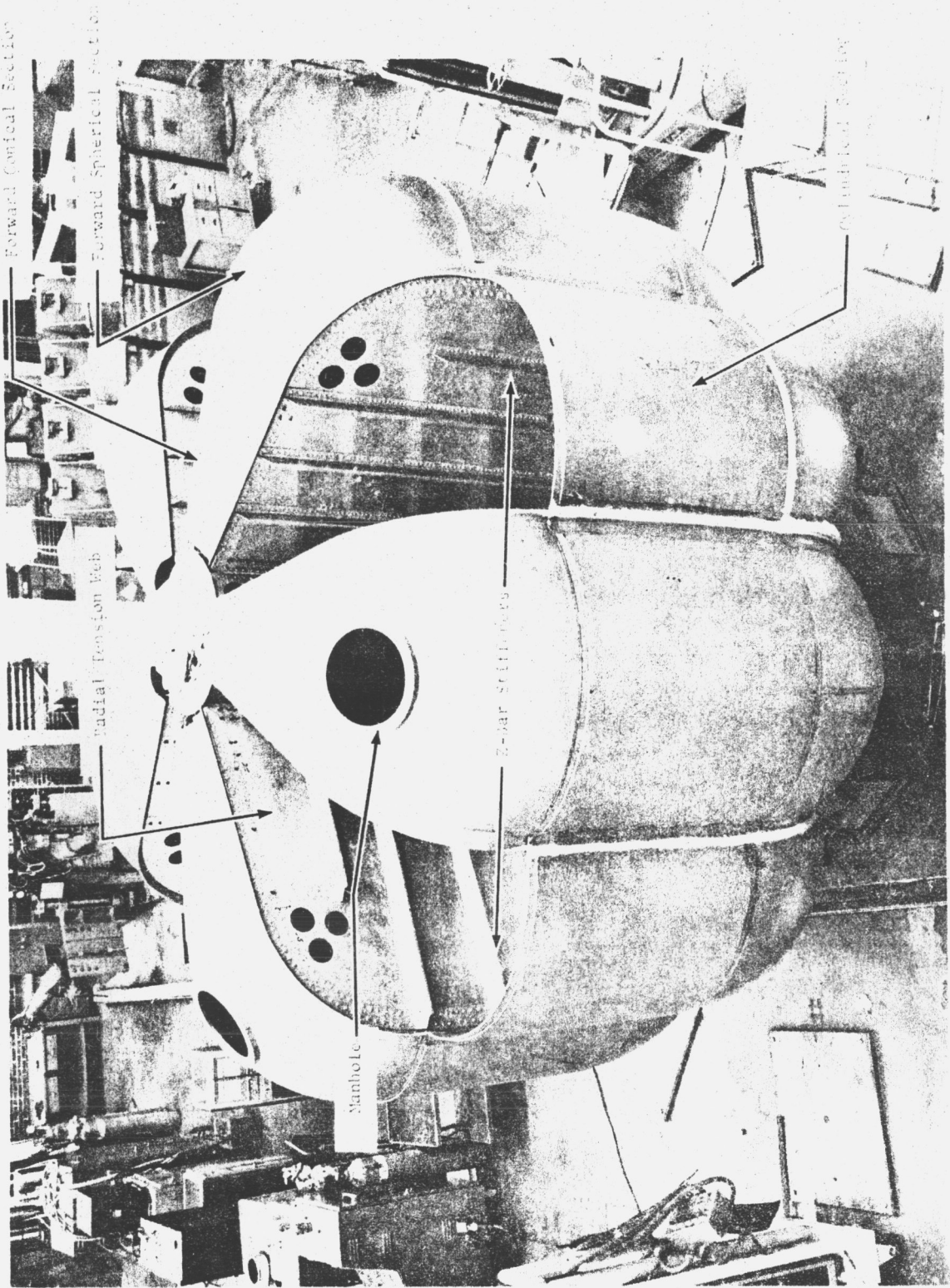
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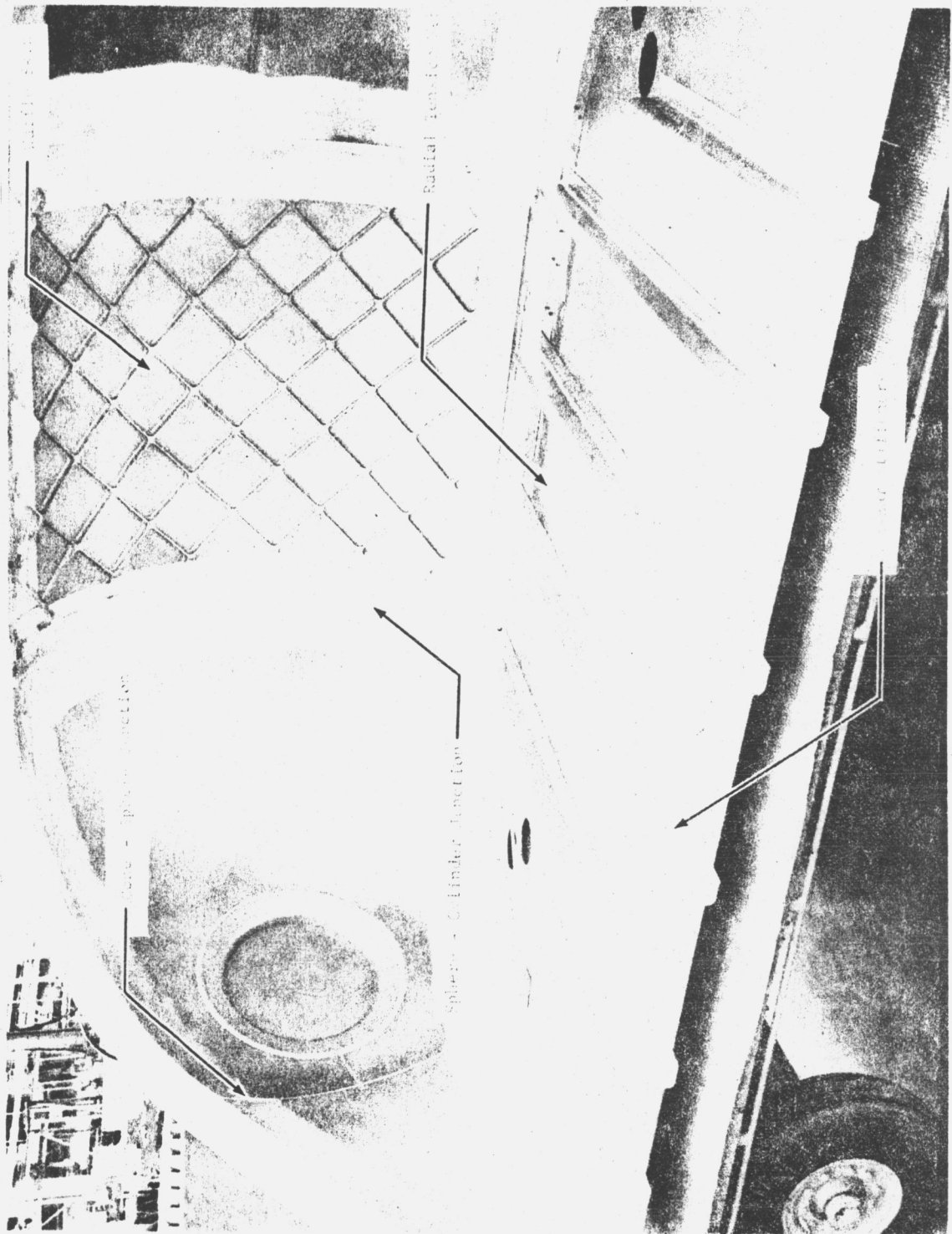
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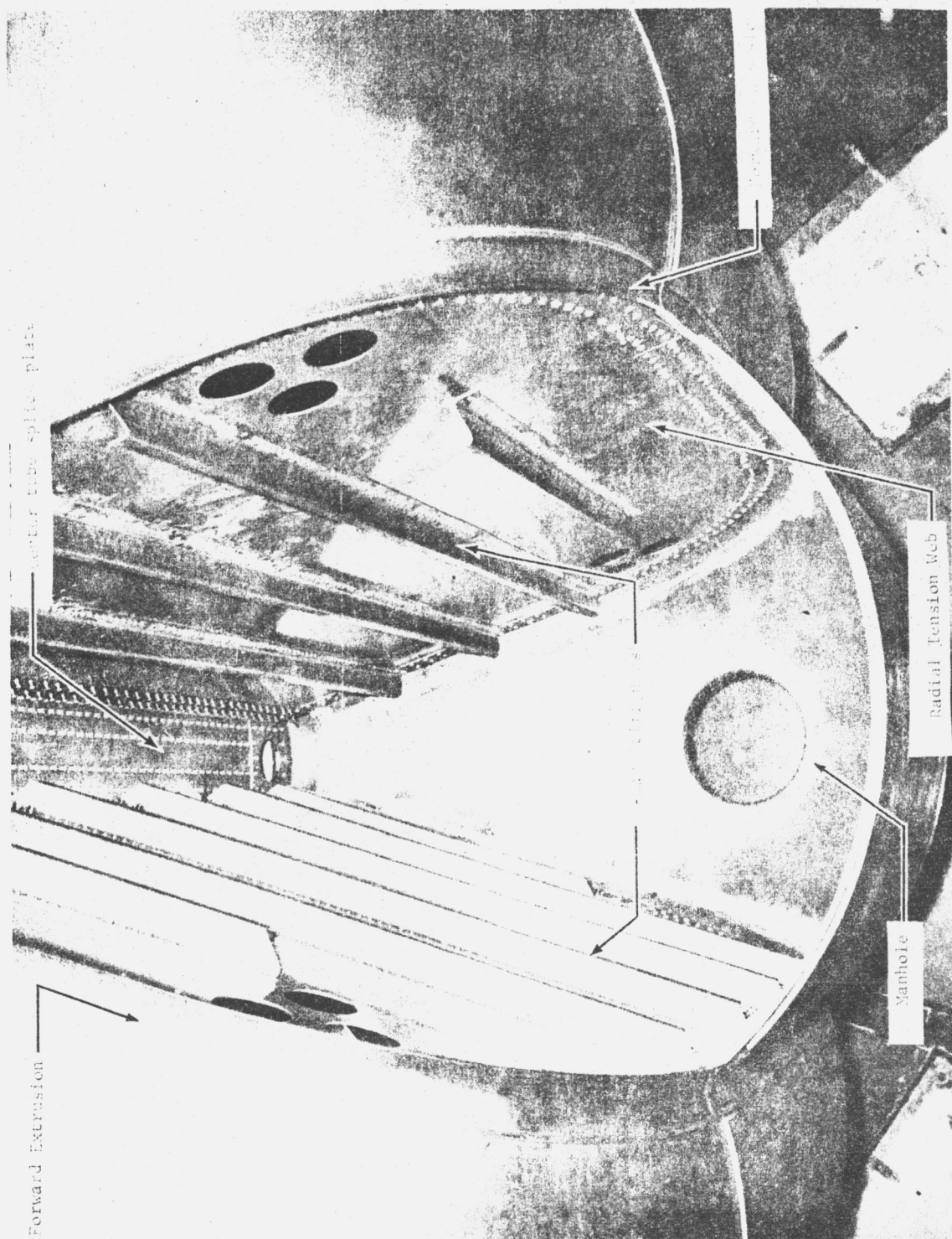
GENERAL INFORMATION PHOTOGRAPHS

The following Photographs show the 200 inch multi-cell test tank in various Stages of Construction. These photographs are inserted for general information and better understanding of component parts.









SUMMARY

This report presents the results obtained from a pressure test conducted on the 200 Inch Multi-Cell Test Tank under a maximum pressure of 30 psi bottom bulkhead pressure.

Detailed descriptions of the test set-up and test procedures are presented along with the test results and complete strain gage computer printout data.

The 200 Inch Multi-Cell Test Tank was subjected to 30 psi water pressure (bottom bulkhead) for the purpose of obtaining basic stress information. This pressure test also provided information concerning the discontinuity effects in the tank in addition to the lag effects in the waffle skin, elastic distribution of stresses through the radial tension web and the clarification of basic load paths.

No structural failures were experienced during the pressure testing of this tank.

INTRODUCTION

The first of a series of tests to be conducted on the 200 Inch Multi-Cell Test Tank was a pressure test. An overall view of the test setup is shown in Fig. 1. The test was conducted in order to evaluate certain aspects of the multi-cell tank configuration.

The principle requirement of the pressure test was to provide basic stress information.

The major specific requirement was the determination of discontinuity effects.

The other main points of investigation were as follows:

- (a) Lag effects in the radial web and waffle skin curved segments.
- (b) The elastic distribution of stresses through the radial tension web.
- (c) The clarification of basic load paths.

*General Information:

1.1 "Introduction. Segmented pressure vessels have been advantageously employed for over 50 years, especially in the field of large storage tanks.

The recommendation to utilize segmented tanks for space vehicle construction can be found in Hermann Oberth's basic rocketry book written in the early twenties, entitled "Wege zur Raumschiffahrt," Chapter 7; The Massratio.

Recent advanced design studies show that the intersecting or segmented pressure vessel principle provides many advantages, especially for large space vehicles. This configuration is called integral cluster, scallops, or multi-cell construction.

*General Information. From Manufacturing Plan (EP-6007) Title, "Integrated Manufacturing Plan 200-Inch Multi-Cell Test Tank," dated 21 December, 1962, Pages 7, 8, and 9.

1.2 Multi-Cell Configuration From the Pressure Vessel Point Of View. In theory, multi-cell is like any other pressure vessel and not relatively lighter. The ratio of pressure vessel weight versus enclosed volume is constant (assuming similar geometry and equal pressure). Therefore, the number of tanks selected to store a given amount of propellants, does not change the weight of the tank structure. This also holds true for intersecting pressure vessels, where at each intersecting plane an internal tension wall is required to prevent the internal pressure from blowing the inverted corners of the outer shell outward. These internal tension walls do not increase the ideal pressure vessel weight, because the contraction of the outer shell under the pull of the internal walls decreases the bending radius of the skin. The required skin gage, in turn, decreases proportionally to the radius, compensating exactly for the weight of the internal walls.

In conclusion, the multi-cell configuration does not offer weight savings as an improved pressure vessel. In addition, it cannot presently be built to the high standards of space vehicle technology without special development, respectively a "couple of break throughs" in manufacturing techniques.

All advantages of multi-cell pressure vessels are solely in the specific adaptability to many other space vehicle requirements.

1.3 Advantages of Multi-Cell Configuration Within the Overall Space Vehicle Structure. Analytical and design studies comparing multi-cell vehicle configurations with classic cylindrical vehicles for identical missions, thrust and staging requirements show that the multi-cell will be approximately 23 percent lighter and 10 percent shorter in length for large space boosters. Multi-cell configurations combine and utilize the specific advantages inherent to the cluster or to the single tank arrangements as follows:

a. One specific advantage of the cluster is its flexibility in selection of tank diameters, thereby considering available tools and facilities, while a large size single multi-cell tank would require all new facilities. The multi-cell can retain the advantage by shifting the main workload into complete cell subassemblies, each of moderate size to adapt to present facilities.

b. The cluster needs propellant interconnect lines pressurization manifolds and parallel systems in each of the clustered tanks, while a large single tank does not. The multi-cell acts like one integral tank and also does not need the above systems.

c. The multi-cell offers a much larger flexibility in feasible bulkhead or enclosure arrangements than any other configuration, allowing for significant gains in four major areas:

(1) Shorter intertank and interstage structures. It may be mentioned, that the multi-cell can be even shorter than a common dome single tank configuration.

(2) Suction line locations can be optimized to any engine arrangement.

(3) Residuals can be optimized beyond the performance of the clustered or single tank configurations.

(4) Shorter and lighter thrust structure.

d. The multi-cell provides a flexibility which no other configuration can offer; namely, to distribute the basically needed material for a given pressure vessel into the outer shell and the internal tension wall system. This "Material distribution ratio" depends on the selected number of cells and curvature of the outer shell segments. Essential gains can be realized in the following areas:

(1) Welding. A requirement for welding exists only for the outer shell portion of the tank, where the propellant must be sealed from the environment. The inner tension walls are attached by mechanical means, and sealing from one cell to another is not required. The tension walls are perforated to maintain equal pressure and liquid level in all cells. The gage for the outer shell now can be adapted to the optimum gage suitable for welding any given material by any desired procedure, such as single or multipass welds.

For example, the highest strength weldable aluminum alloy 2014 for large space vehicles of single tank configuration, where the tank skin in weld areas is 1.0 inch or greater. The multi-cell can utilize thin gage aluminum and single pass welds independent of overall tank dimension.

(2) Materials. The inner tension walls, representing a large portion of the pressure vessel material, can utilize the highest strength alloy of the non-weldable class material.

e. The multi-cell tank does not require the additional slosh baffle systems of large single tanks, but utilizes the inner tension wall system with very slight weight penalty.

f. The multi-cell principle can be readily adapted to lifting-body shapes (tank wing design) as required for recoverable vehicles, without violating the pressure vessel laws, which means without the otherwise extremely high weight penalties."

UNITS, ABBREVIATIONS, AND STRAIN GAGE DEFINITION

Load Cells Results are in pounds.

Deflection potentiometer readings are in inches.

Multiply pounds per square inch by 6.894×10^3 to obtain newtons per square meter.

Rosette Strain Gage Definition

On the instrumentation drawings, Figures 4 through 10, the symbol  represents a 3-leg rosette with legs. Leg 1 is the reference leg from which the angle "Theta" is measured. Positive angles are measured from the lowest numbered leg toward the highest numbered leg.

The numbers in parenthesis indicate the "back up" gage or inside gage.

The symbol  represents a 2-leg rosette (Biaxial) with legs. It should be understood that the biaxial strain gage results which follow are the stress in the direction of orientation of the Biaxial gage and not necessarily the maximum principle stresses. Leg 1 is the reference leg.

The symbol  represents a single element gage and measures stress in the direction of orientation.

All strain gages were wired to terminal blocks and cabled from the terminal block to the acquisition system.

INSTRUMENTATION

A. Strain

Figures 4 thru 10 show strain gage locations for the 200 Inch Multi-Cell Pressure Test.

1. Top Bulkheads.

Fig. 4 shows gage locations on the top bulkheads in cells 3 and 4 which consisted of 34 biaxial rosettes and 32 rectangular rosettes.

Sections through the top bulkhead are shown in Fig. 9.

2. Bottom Bulkheads.

Fig. 5 shows gage location on bottom bulkheads in cells 5 and 6 which consisted of 26 biaxial rosettes and 38 rectangular rosettes.

Sections through the bottom bulkhead are shown in Fig. 9.

3. Radial Tension Web.

Fig. 6 shows gage locations on the radial tension web between cells 3 and 4 which utilized 48 rectangular rosettes and 27 single element gages.

4. Skirt Sections.

Each aft skirt section was instrumented with a single element strain gage along the skirt centerline (15 inches below top of aft skirt weld as shown on Fig. 6 typical skirt section).

5. Extrusions.

(1) Aft extrusion gages are shown in Section C-C of Fig. 6.

(2) Forward extrusion gages are shown in Section E-E of Fig. 6.

Each of these extrusions were instrumented with 16 rectangular rosettes and 24 biaxial rosettes.

(3) Cylindrical extrusion gages between cells 3 and 4 are shown in Section D-D of Fig. 6 and consisted of 24 biaxial rosettes.

6. Z-Bar Stiffeners.

Sections A-A and B-B of Fig. 6 show location of single element gages on Z-Bar stiffeners on radial tension web.

7. Cylindrical Skin.

Fig. 7 shows gage locations on the cylindrical portion of cells 3 and 4 which consisted of 44 rectangular rosettes on the skin portion of the tank and 6 single element gages located on the inside of the tank on the waffle ribs. A secondary instrumentation system of photostress was placed on the outside of the waffle skin of cell 3 and along the extrusion between cells 2 and 3 as shown in Fig. 7.

Sections through the skin portion are shown in Fig. 8.

B. Deflection.

Deflection of the test tank was measured at six (6) locations. Linear displacement potentiometers (± 2 inches) were used to measure horizontal and vertical displacement at the positions shown in Fig. 10.

C. Pressure.

Pressure was monitored during testing through the utilization of two (2) electrical pressure transducers and two (2) Heise pressure gages. The pressure transducers were connected to Type "N" indicators and the Heise gages were used for visual comparison. One pressure transducer and one Heise pressure gage were mounted on each the top and bottom bulkheads of the tank as shown in Fig. 10.

D. Load Cells.

The 200-Inch Multi-Cell Test Tank was mounted on ten (10) 20-kip Baldwin Load Cells which were provided with provisions for vertical adjustments by means of screw threads. Fig. 11 shows load cells mounted on pipe ring and supporting the load ring and test tank.

E. Computer Program.

All strain gages, load cells and deflection potentiometers were read and recorded by a trailer-mounted low-level computer control data acquisition system, which was controlled by a GE 235 Electronic computer utilizing a high-speed on-line printer.

TEST SET-UP

An overall view of the test set-up is shown in Fig. 1. The 200-Inch Multi-Cell Tank was attached to a 200 inch load ring which was provided with a Epo-cost base to compensate for any irregularities in the mating surfaces. The load ring was in turn supported on a ten (10) post pipe ring. Each post supported a twenty (20) kip load cell with provisions for vertical adjustments by means of screw threads. This vertical adjustment was necessary in order to provide equal loads in each load cell and balanced loading during testing.

Loading of water into the tank was accomplished by the utilization of an industrial water supply which was passed through a water measurement meter in order to establish water level in the tank by volume of water passed through meter.

Each manhole cover on the aft bulkheads was provided with a one (1) inch valve and drain line for draining tank as shown in Fig. 2. Fig. 3 shows a two (2) inch mechanical vent valve which was installed on the top of the tank and an electrically operated relief valve which was utilized as a safety device during pressurization.

TEST PROCEDURE

Before the tank was mounted to the load ring and attached to the pipe support ring the load cells were checked and the zero condition for each load cell was recorded using a Baldwin Type "N" indicator. The load ring was weighed by means of a load cell and the tank weight was furnished by R-P&VE-SA. The load cells were then mounted on the pipe ring and the load ring was placed on top of the load cells. Fig. 11 shows the load cell and bearing plate for attachment to the load ring. The 200-Inch Multi-Cell Test Tank was then bolted atop the load ring as per R-P&VE-SA drawings 09-D-X-530 and 09-D-X-531.

The total load of the load ring and tank was then balanced on the ten (10) 20-kip load cells, by means of the vertical adjustment provision on the load cells, until each load cell carried an equal load within $\pm 10\%$ accuracy.

A zero load condition was recorded at this point using the low level computer control data acquisition system which was controlled by a GE 235 Electronic computer, utilizing a high speed on line printer.

Filling of the tank was accomplished through the use of an industrial water supply, passed through a water measurement meter. Water level in the tank had been precalculated using a volume of water as a basis. The tank was filled at a rate of approximately 80 gallons per minute until the tank was full, which was evident by the spillage of water through the vent valves located on the top of the tank. Figure 3 shows the locations of these vents on the top of the tank.

The water supply was shut off and the mechanical vent valve was closed. The electronic vent valve remained open as a safety feature while the load was being balanced on the load cells.

Thru the utilization of the screw thread adjustments, the load cells were adjusted until the total load was equally distributed on the ten (10) 20-kip load cells. This balancing procedure was accomplished by adjusting the micro-inch change from the original zero condition in each load cell. The load cells were adjusted until equal load was obtained within $\pm 10\%$ accuracy.

The pressure transducer and the Heise pressure gage on the bottom bulkhead were read and recorded for the full condition.

The Heise pressure gage and pressure transducer on the top bulkhead were then re-zeroed to match the reading of the bottom bulkhead. This was done in order to eliminate the necessity of having different pressure readings for top and bottom pressure and each set of pressure readings would serve as a check on the actual over-pressure exerted to the tank.

After the tank was balanced and pressure readings recorded the electrical vent valve was closed and a zero reading for the full condition at 4.4 psi (pressure on bottom bulkhead) was recorded.

The 200 Inch Multi-Cell Test Tank was then pressurized by opening the water supply valve and allowing water to enter the tank. The pressure was increased to 8.0 psi and then in steps of 4.0 psi to 16 psi and in steps of 2.0 psi from 16 psi to 30 psi. At each increment of pressure the pressure was held long enough to allow the computer system to record the stress level of all gages and for a check of stress reading by personnel of R-P&VE-SE, R-P&VE-SA, and R-P&VE-SS. At each increment of pressure, the photostress material was observed and photographed if any significant stresses were noted.

After the 30 psi pressure reading had been recorded, the pressure in the tank was released by the electrically operated vent valve. After the pressure had been released, a full condition was recorded by the GE 235 computer.

The tank was allowed to stay in the full condition over night with both vent valves open. The following day another reading for full condition was recorded in order to check gage drift.

The tank was drained using the 1 inch drain valves in the bottom manholes. Readings were taken during the draining operation at the 3/4, 1/2, 1/4, and empty levels. These conditions were determined by monitoring the pressure transducer and Heise pressure gage located in the bottom bulkhead.

After the tank was completely drained a final zero reading was recorded by the GE 235 computer.

DEVIATIONS FROM MANUFACTURING DRAWINGS

Because of the experimental nature of the manufacturing processes employed during manufacture of the test specimen, many deviations from production drawings resulted. The most obvious of these deviations are as follows:

(1) A mis-match exists in one of the forward conical head segments at the junction with the forward center tube cover ring.

(2) An oval shaped weld exists in one of the corner extrusions of the test tank wall.

(3) At time of delivery of test tank the skirt stiffeners were touching the forward and aft spherical bulkheads. This situation was corrected by ME Lab, by removing the skirt stiffeners, and cutting 3/16" from their length and redrilling the stiffeners for attachment to the forward and aft skirt sections.

(4) The hole patterns in the Radial webs to allow for fluid equalization are not symmetrical.

(5) Several of the forward and aft skirt sections have very bad grinding marks and dents.

(6) Several cells have mis-matched welds along the conical and spherical segments where they join the extrusions.

(7) A number of welds were ground flush where others were left in their original shape.

(8) There are loose rivets in some of the Radial web splice plates. And in one case, a bolt and nut was used in place of a rivet.

(9) A double weld exists in one aft conical segment near the junction with the aft center tube cover ring.

(10) Grinding or rolling marks exists on some of the waffle skin segments.

In addition, configuration measurements were taken by ME Lab in order to establish any deviations which were not visually evident. These measurements were forwarded to R-P&VE-SA for incorporation in a contour comparison study.

TEST RESULTS

The information obtained from the strain gage results of the pressure test of the 200-Inch Multi-Cell Tank shows that generally the data is of a linear nature and the reliability of the data is very good. It was necessary in some cases to print legs of the rosette gages out separately because of malfunction of one or more legs of the rosette.

a. Load Cells

Table I shows the results of the 10 load cells during the pressure test.

b. Deflection Potentiometers

Results of the linear potentiometer readings are shown in Table II. Figure 12 shows the plotted results of Gages 21 and 23 which indicates that the horizontal displacement (bulge) of the tank was linear during the pressurization of the tank from its full condition of 4.4 psi to 30.0 psi (bottom bulkhead).

The results for gage 25, located vertically in the center of the aft center tube cover, are shown in Fig. 13. The results of this gage show very little change due to pressure. In order to show vertical displacement relationship during the unloading of the test tank Gage 25 and Gage 24 were plotted for the 1/4, 1/2, 3/4 and full condition as shown in Figure 14.

The results of Gage 26 show that the tank experienced no lateral movement during testing.

c. Aft Skirt Sections

Table III shows the reduced stress readings for the ten (10) single gages located on the skirt sections. These gages were used as a check on load distribution during the filling operations.

d. Radial Tension Web and Stiffeners

The results of the single element gages located on the radial tension web stiffeners, and center tube splice plates are given in Table IV.

Table V gives reduced rosette gage results for the Radial Tension Web.

Table VI lists the individual legs of those rosettes that were printed as single element gages due to malfunction of one or more legs of the rosette.

Figure 15 shows the principle stresses on the radial tension web for the full condition (4.4 psi at the bottom bulkhead). The effects of the water weight on the lower portion of the tension web is evident in this diagram.

Figure 16 shows the principle stresses on the radial tension web at the highest pressure of test, which was 30 psi at the bottom bulkhead. The change due to pressurization can be noted when compared to the fluid weight alone which was shown in Fig. 15. Fig. 16 shows the max stress trajectory patterns to be from the junction of the tension web with the forward and aft center tube to a point approximately at the center of the tension web at the junction with the cylindrical extrusion.

e. Waffle Skin

The reduced single gage results for gages located on the waffle skin ribs are given in Table VII. A plot of these gages is shown in Fig. 17 from the full condition to 30 psi, measured at the bottom bulkhead. The gages show relatively good linearity with the exception of gages 111 and 116 which tend to indicate that these two gages experienced a gage shift during pressurization as shown by the dotted lines on the plot.

Table VIII contains the reduced Rosette gage results for the waffle skin.

Figures 18 thru 27 show maximum, minimum, and shear results of typical gages located on the inside and outside of waffle skin. Table IX gives reduced rosette gage results which were printed as single element gages.

Figure 28 shows principle stresses on the waffle skin resulting from the maximum pressure obtained during testing at 30 psi (bottom bulkhead). As would be expected the principle stresses are generally at right angles and parallel to the extrusions near the middle of the panel. The deviation from this expectation can be attributed to the effects which the waffle ribs have on the skin portion of the section. In the upper and lower portion of the waffle skin, at the junction of the cylinder - sphere, the principle stresses are parallel and perpendicular to the junction near the center of the cell. Again the deviation from this can generally be attributed to the waffle ribs, and the existing end conditions.

In order to separate the bending stresses from the membrane stresses in the waffle skin, the line of gages at the middle of the section in cells 3 and 4 were reduced and plotted as shown in Fig. 29 and 30.

The bending stresses diminish very rapidly outside the limits of the extrusion as shown in Fig. 29, whereas the membrane stresses increase proportionately as shown in Fig. 30.

f. Top Bulkhead

Table X lists the reduced rosette gage results located on the top bulkhead of cell 3.

Table XI tabulates the results of the biaxial gages which were located on the top bulkhead of cell 4.

Figures 31 thru 38 are plots of typical rosette gages showing maximum, minimum, and shear stresses for the increments of pressure. Fig. 39 is a graphical representation of the maximum bending stresses for the line of gages, which were located on a radial arc 29.75 inches from the center of the test tank on the top bulkhead of cells 3 and 4. Fig. 40 shows the maximum bending stresses on a line 48.75 inches from the center and Fig. 41 is a plot of the maximum bending stresses for the line of gages located 1 inch behind and parallel with the junction of the conical and spherical segments. (See Fig. 4 for gage locations). It should be noted that a higher magnitude of bending stress exist on the side of the extrusion that have the radial tension web stiffeners located in a vertical position.

The maximum bending stresses again diminish very rapidly outside the limits of the extrusion as shown by Figs. 39 thru 41. It is also interesting to note that the bending stresses on either side of the extrusion becomes more symmetrical in the vicinity of the cone-sphere junction. This may be attributed to the influence of the spherical segments inherent resistance to bending, in addition to the spherical segments being outside the influence of the radial tension web stiffeners.

Figure 42 shows principle stresses on the top bulkhead at maximum pressure of 30 psi. This diagram shows the principle stresses to be generally parallel and perpendicular to the junctions of segments except in the area around the manhole opening which shows the discontinuity effects resulting from the opening.

g. Bottom Bulkhead

The reduced rosette strain gage results for those rosette located in cell 5 of the bottom bulkhead are shown in Table XII. The rosettes located in cell 6 are shown in Table XIII and the biaxial strain gages in cell 6 are tabulated in Table XIV.

Figures 43 thru 50 show maximum, minimum, and shear stresses of typical rosette gages located on the bottom bulkhead. See Fig. 5 for gage locations. The maximum bending stresses along the line of gages located 29.75 inches from the centerline of the test tank are shown in Fig. 51.

Figure 52 shows the maximum bending stresses along a line located 48.75 inches from the centerline of the tank and Fig. 53 is a plot of the maximum bending stresses at a line 1 inch behind and parallel with the cone-sphere junction. For gage locations refer to Fig. 5.

As was the case on the top bulkhead, the bending stress diminishes very rapidly outside the limits of the extrusion. Figure 54 is a plot of the maximum principle stress on the bottom bulkhead resulting from the weight of the water alone. The principle stresses are generally parallel and perpendicular to the junctions of the sections except in the area around the manhole opening which is due to the discontinuity effects. Figure 55 shows the principle stresses on the bottom bulkhead which resulted from exerting the maximum pressure of 30 psi on the bottom bulkhead.

h. Cylindrical Extrusion

The biaxial gages located on the cylindrical extrusion are shown in Table XV.

The highest stress recorded during the test was by gage number 432, a plot of which is shown in Figure 56. A tensile stress reading of 16,105 pounds per square inch was recorded at 30 psi (bottom bulkhead).

See Figure 6, Section D-D for gage location.

i. Aft Extrusion

Table XVI lists reduced biaxial gage results for those gages located on the aft extrusion. For gage location, see Fig. 6 Section View C-C.

The results of rosette gages located on the aft extrusion are tabulated in Table XVII and those rosettes that were printed as single element gages are found in Table XVIII.

j. Forward Extrusion

Reduced rosette gage results located on the forward extrusion are listed in Table XIX with those printed as single element gages in Table XX.

The results of the biaxial gages are given in Table XXI with those printed as single gages in Table XXII.

k. Photo Stress

The photo stress photographs taken during testing did not show any significant amount of stress and are therefore omitted from this report.

STRAIN GAGE RESULTS

The following tables contain a complete computer print out for the load cells, deflection potentiometers and strain gages utilized during the pressure testing of the 200 Inch Multi-Cell Test Tank.

The pressures indicated on the print out correspond to the bottom bulkhead pressure. The % marking were used only for identification of accepted readings during the testing program. For example, 004% was the accepted reading for the initial full condition of 4.4 psi. The full condition of 4.4 psi after the pressure was released is identified by 301%. The reading identified by 144% is the reading taken for the full condition the day following the test program. The readings taken during the draining operation are self evident in the tables.

Several gages exhibited a discontinuity in the range of the readings. Therefore the readings recorded on the following gages should be examined carefully before drawing any conclusions.

Gage	Type	Location	Table
111	Single	Waffle Rib	VII
116	Single	Waffle Rib	VII
298	Biaxial	Top Bulkhead	XI
885	Rosette	Bottom Bulkhead	XII
960 (Draining Oper. Only)	Rosette	Bottom Bulkhead	XII
987 (Draining Oper. Only)	Rosette	Bottom Bulkhead	XII
1011	Rosette	Bottom Bulkhead	XII
326	Biaxial	Bottom Bulkhead	XIV

Readings on the following tables marked with an asterisk * mean that the reading was considered out of tolerance by the computer and should not be used during the analysis.

200" MULTICELL TEST TANK

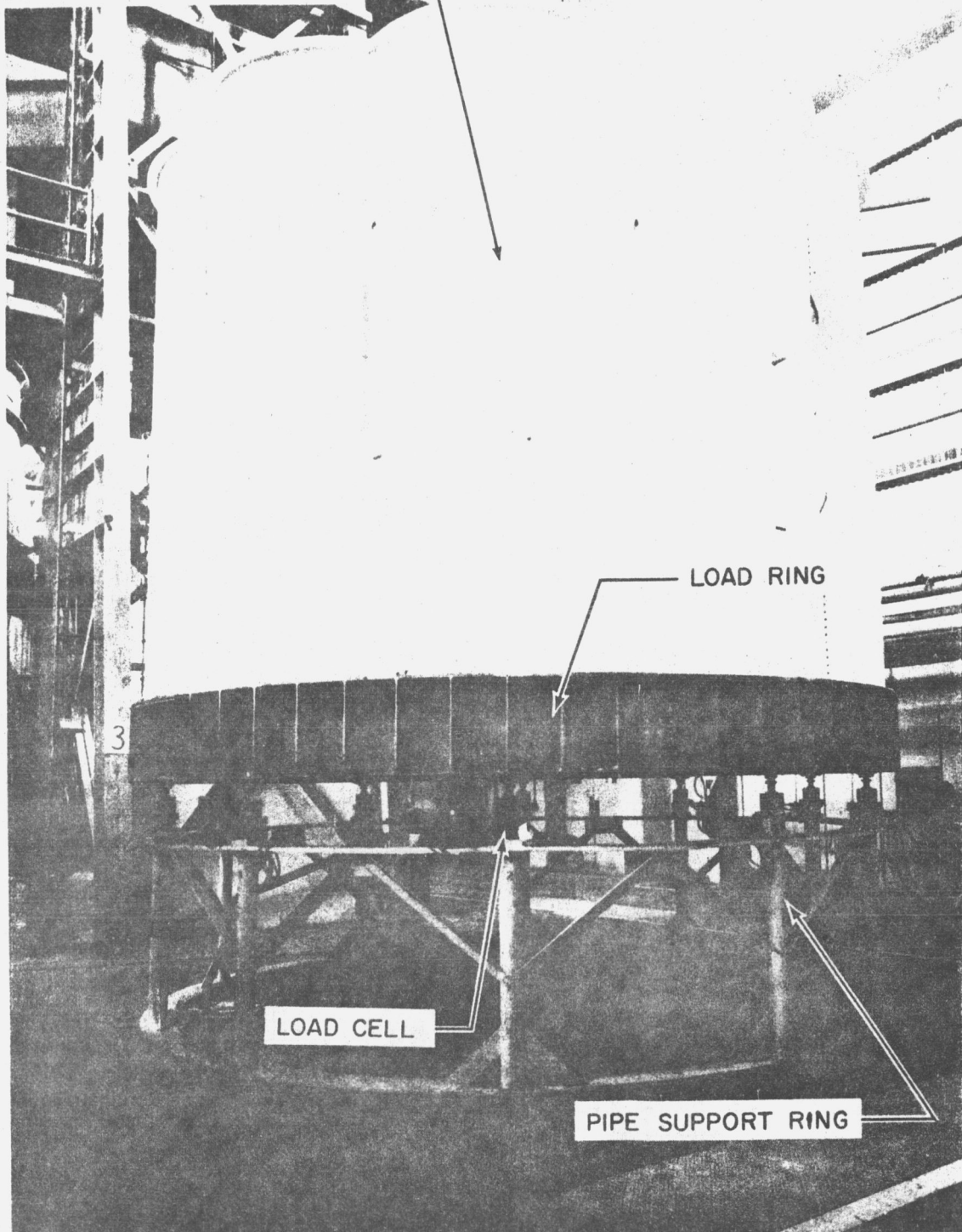


FIGURE 1 OVERALL VIEW TEST SET - UP

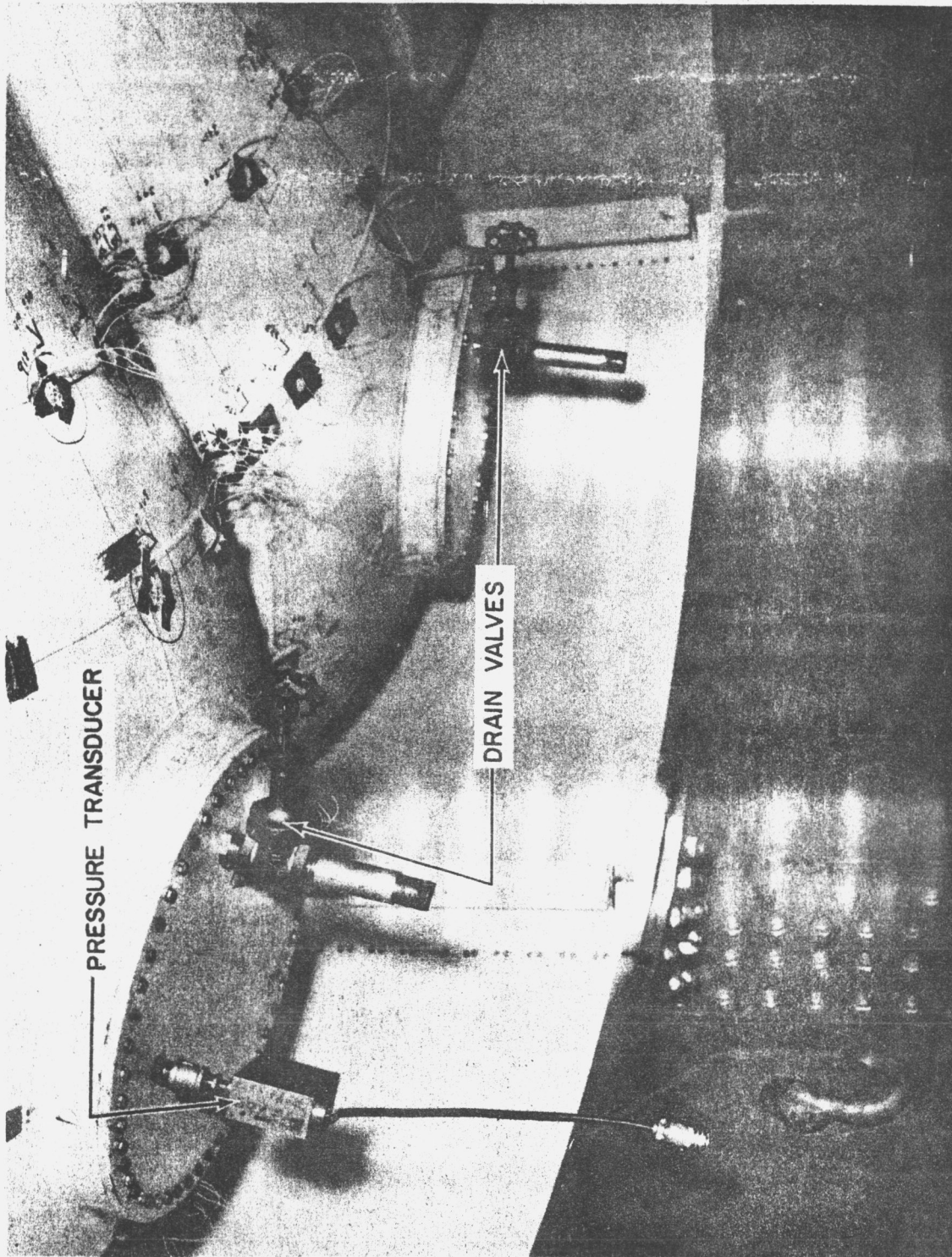


**FIGURE 2 DRAIN VALVE
BOTTOM BULKHEAD**

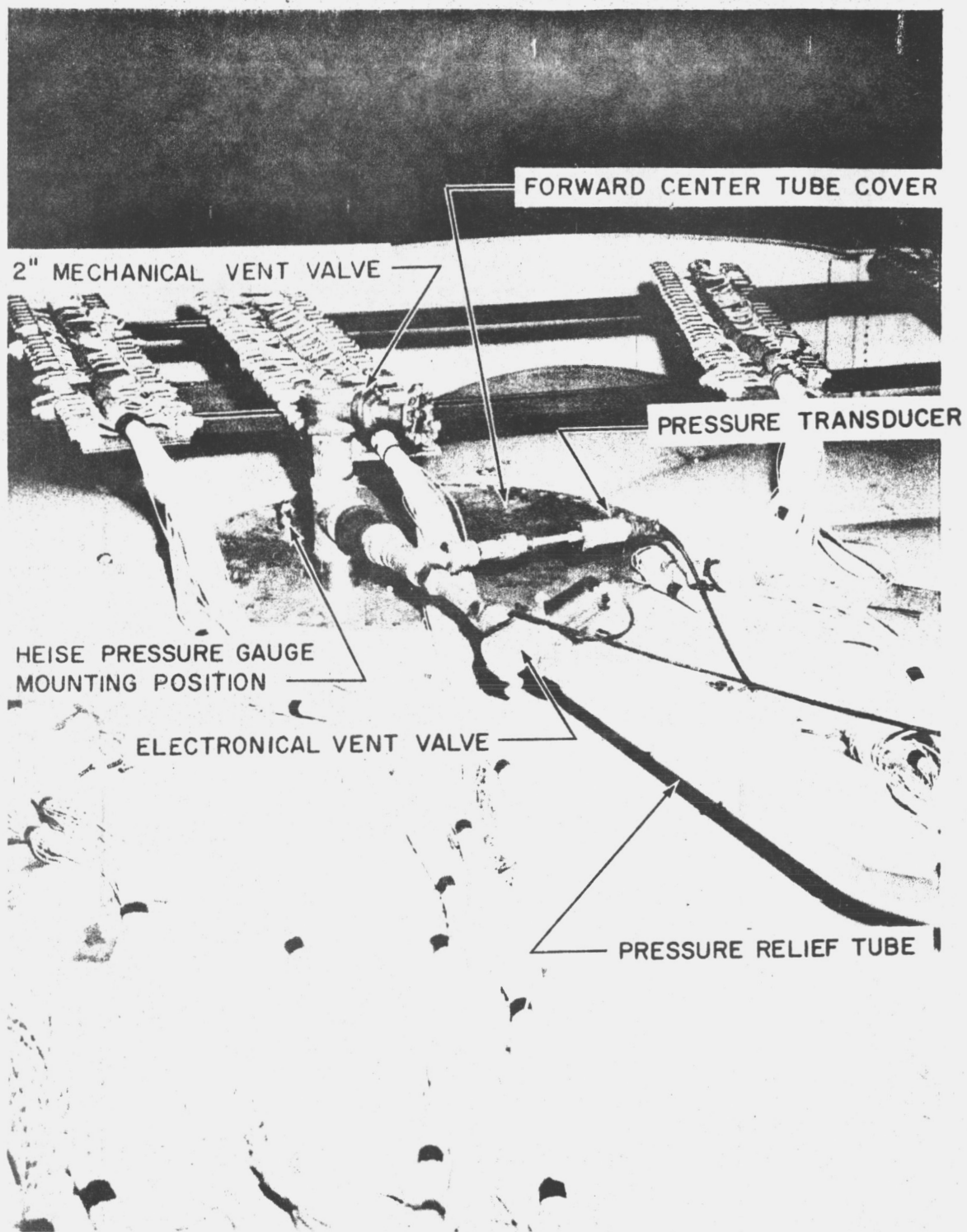
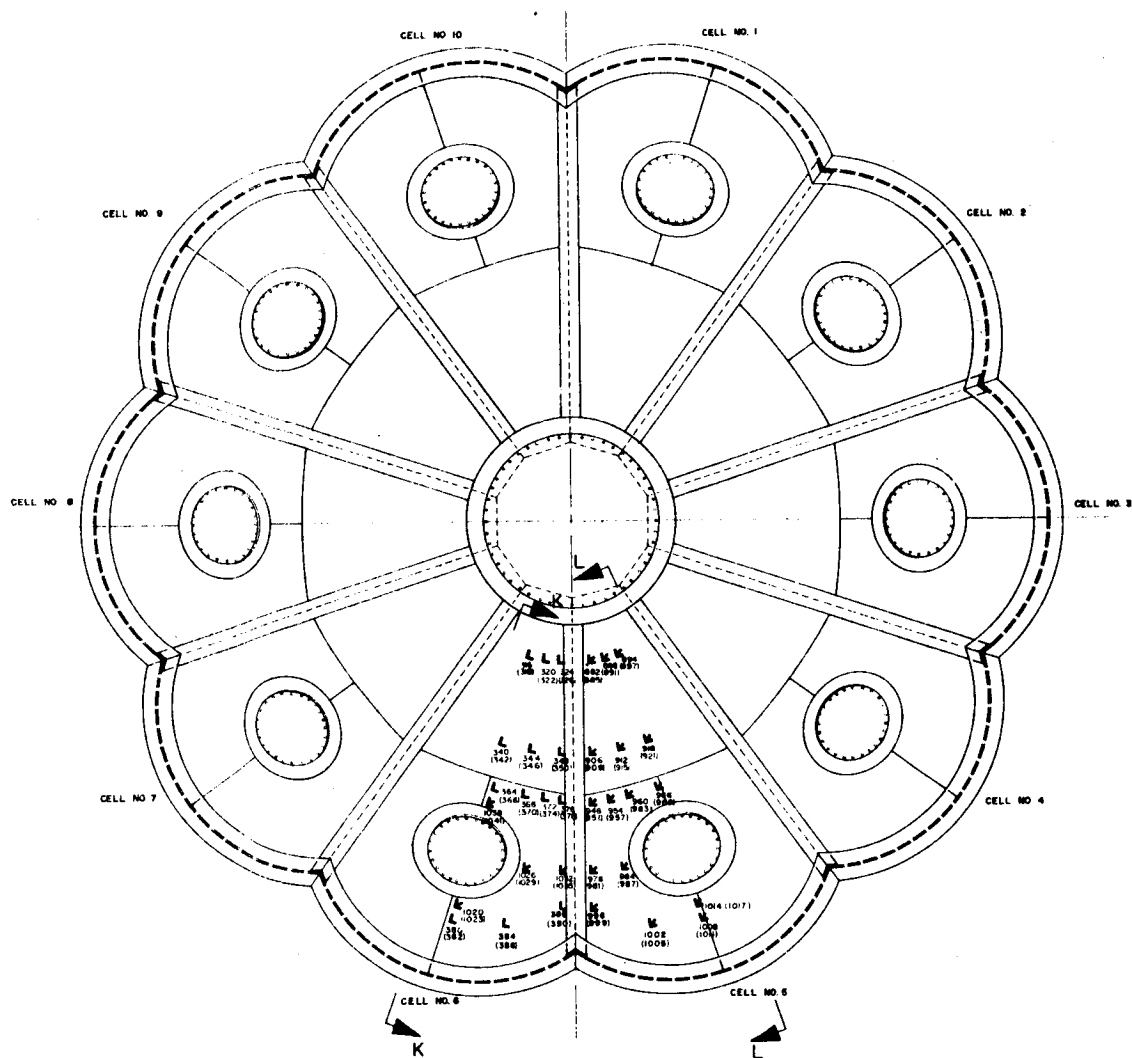
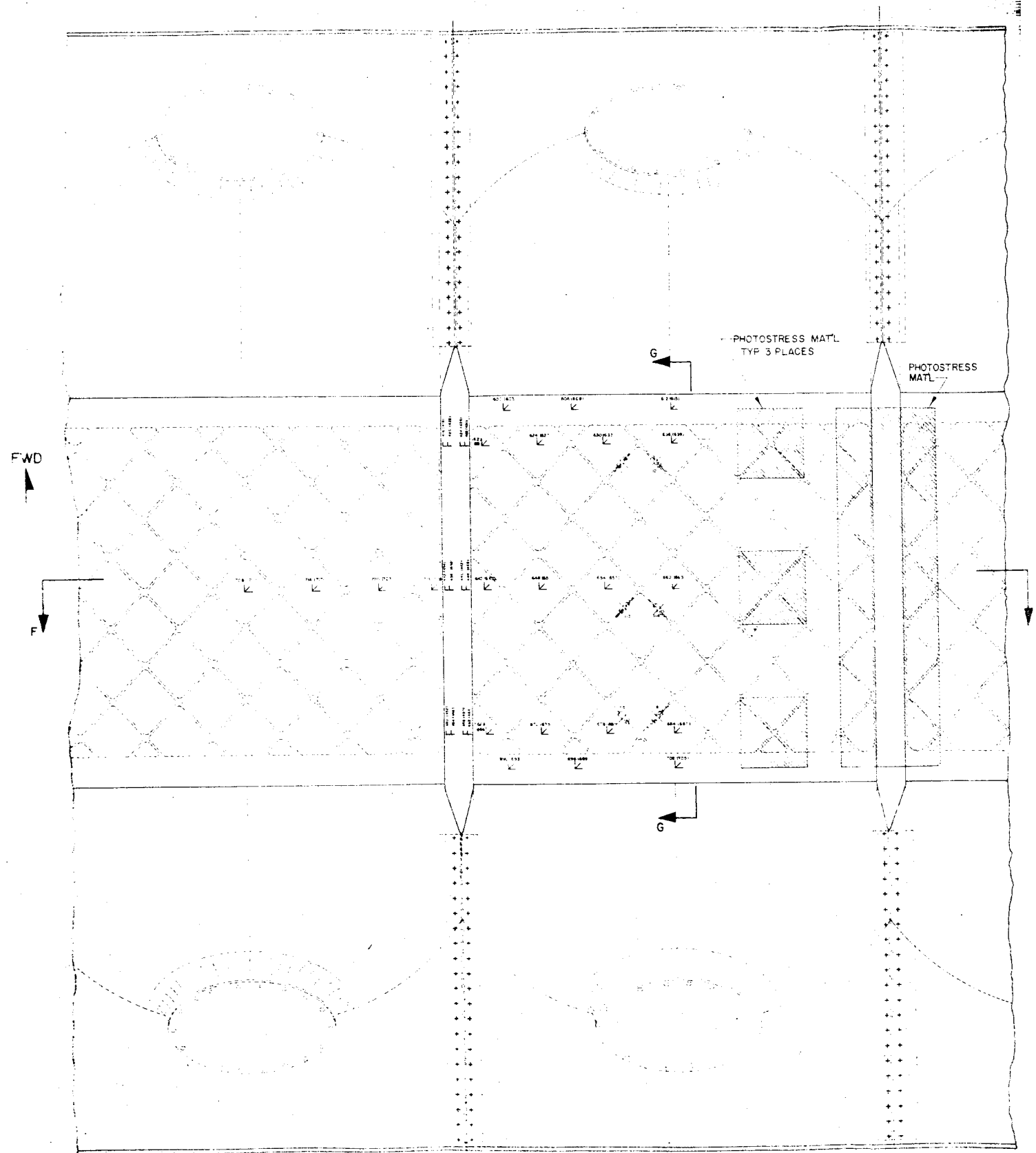


**FIGURE 3 VENT VALVES AND PRESSURE RECORDERS
TOP BULKHEAD**

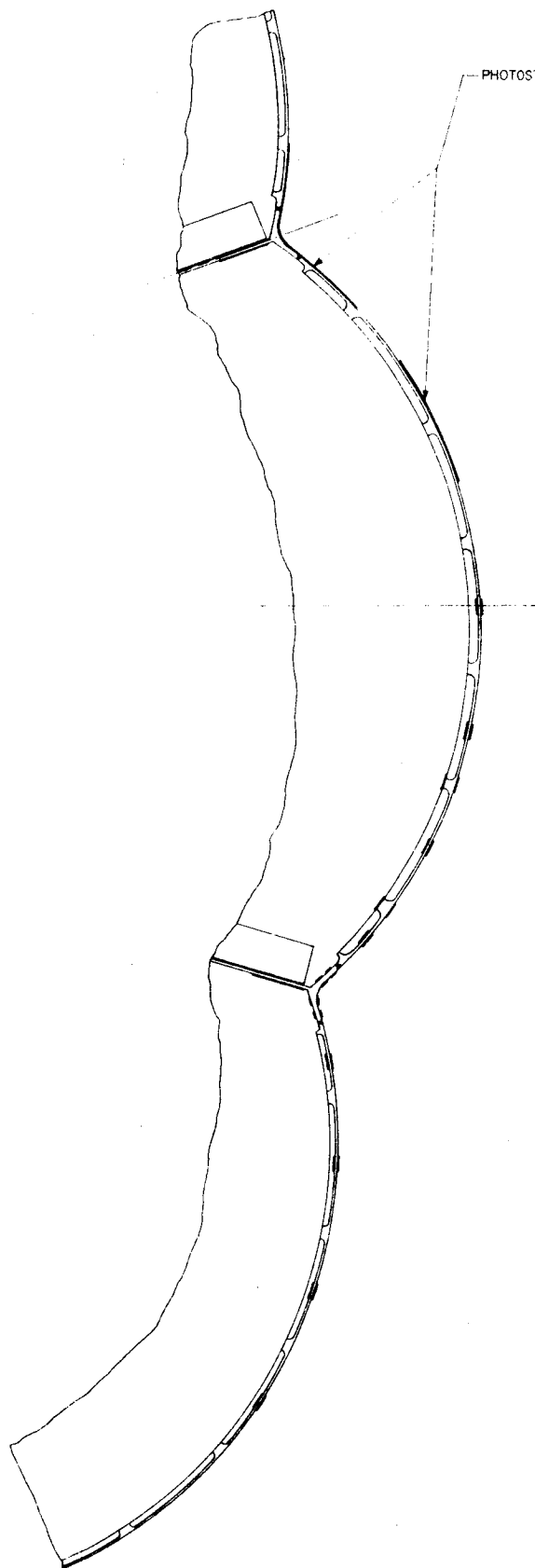


INSTRUMENTATION ON BOTTOM BULKHEAD
FIGURE 5

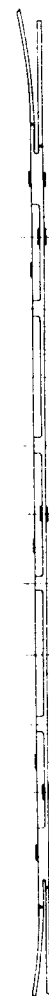


VIEW N-N

FIGURE 7 INSTRUMENTATION ON SKIN



PHOTOSTRESS MATERIAL



VIEW G-G

VIEW F-F

FIGURE 8 INSTRUMENTATION ON SKIN

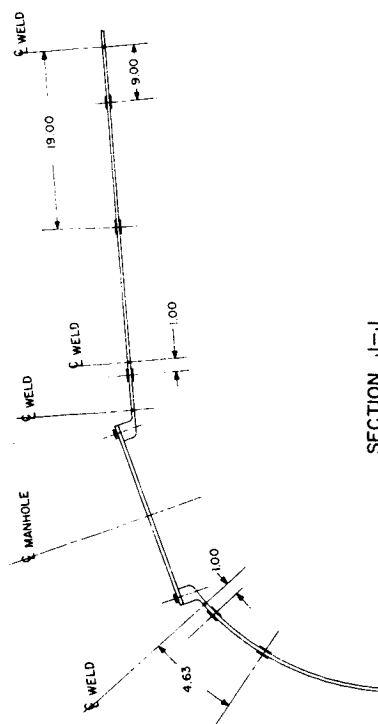
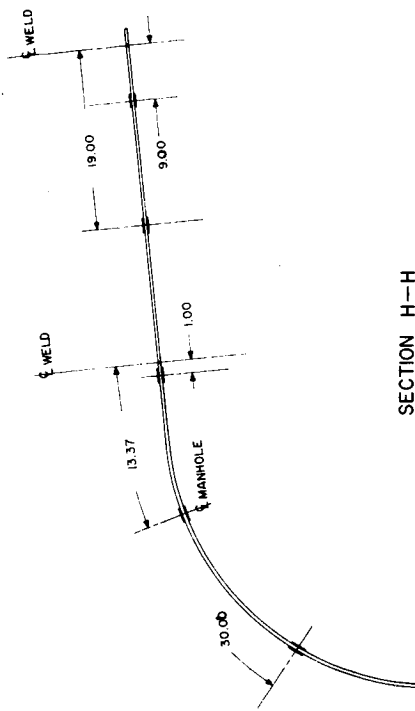
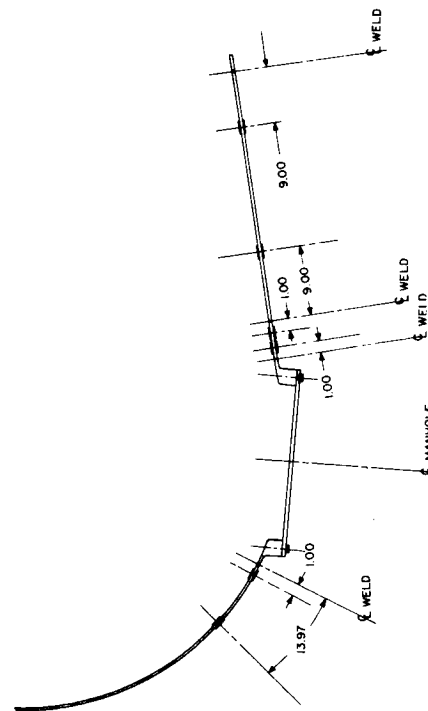
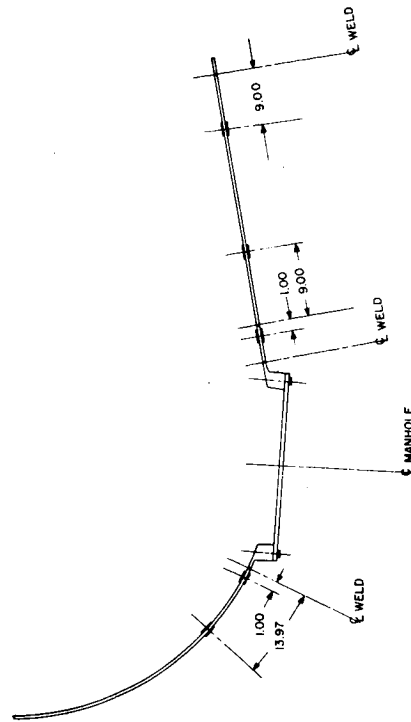
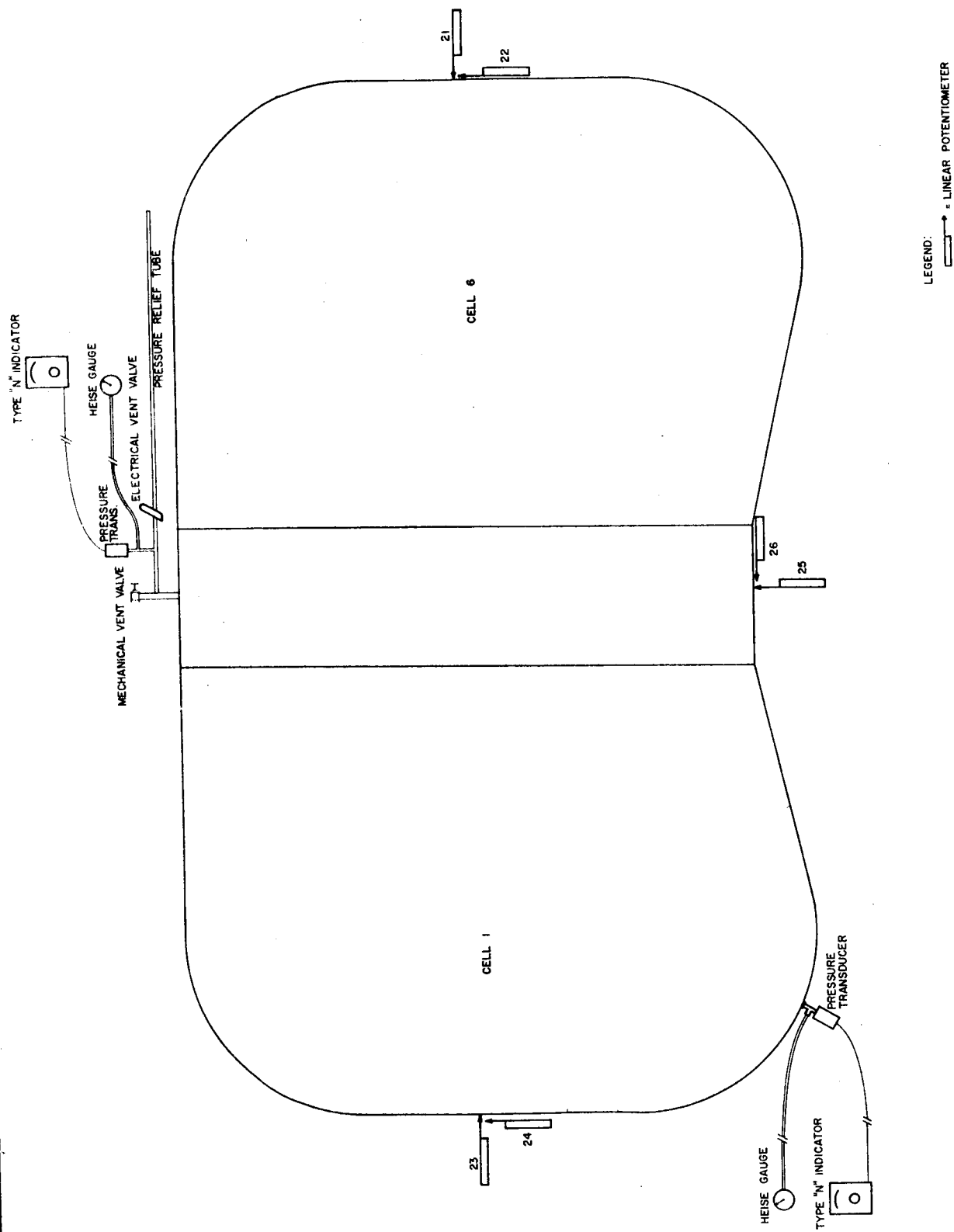


FIGURE 9 INSTRUMENTATION, SECTIONS



DEFLECTION AND PRESSURE INSTRUMENTATION

FIGURE 10

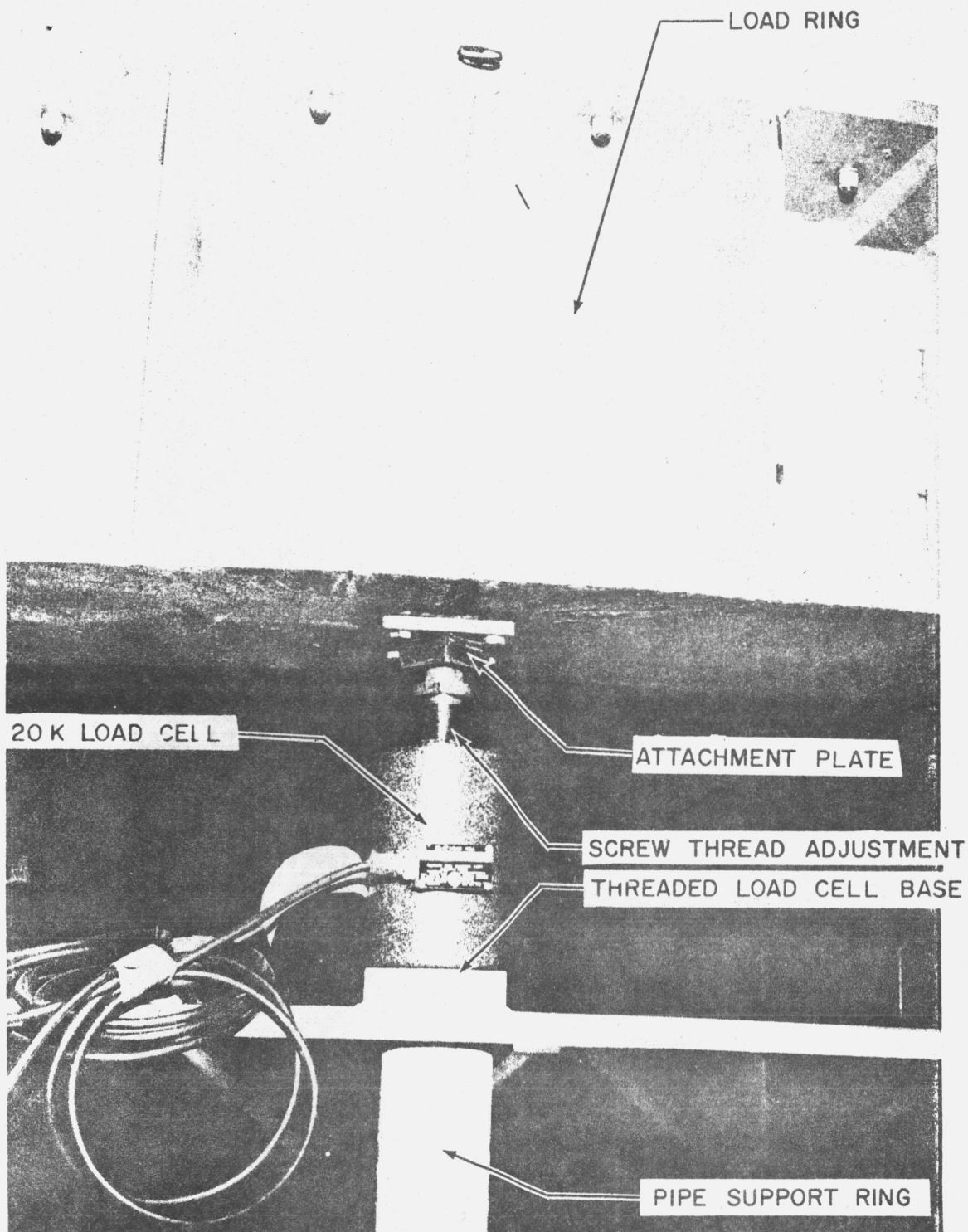


FIGURE 11 LOAD CELL MOUNTING

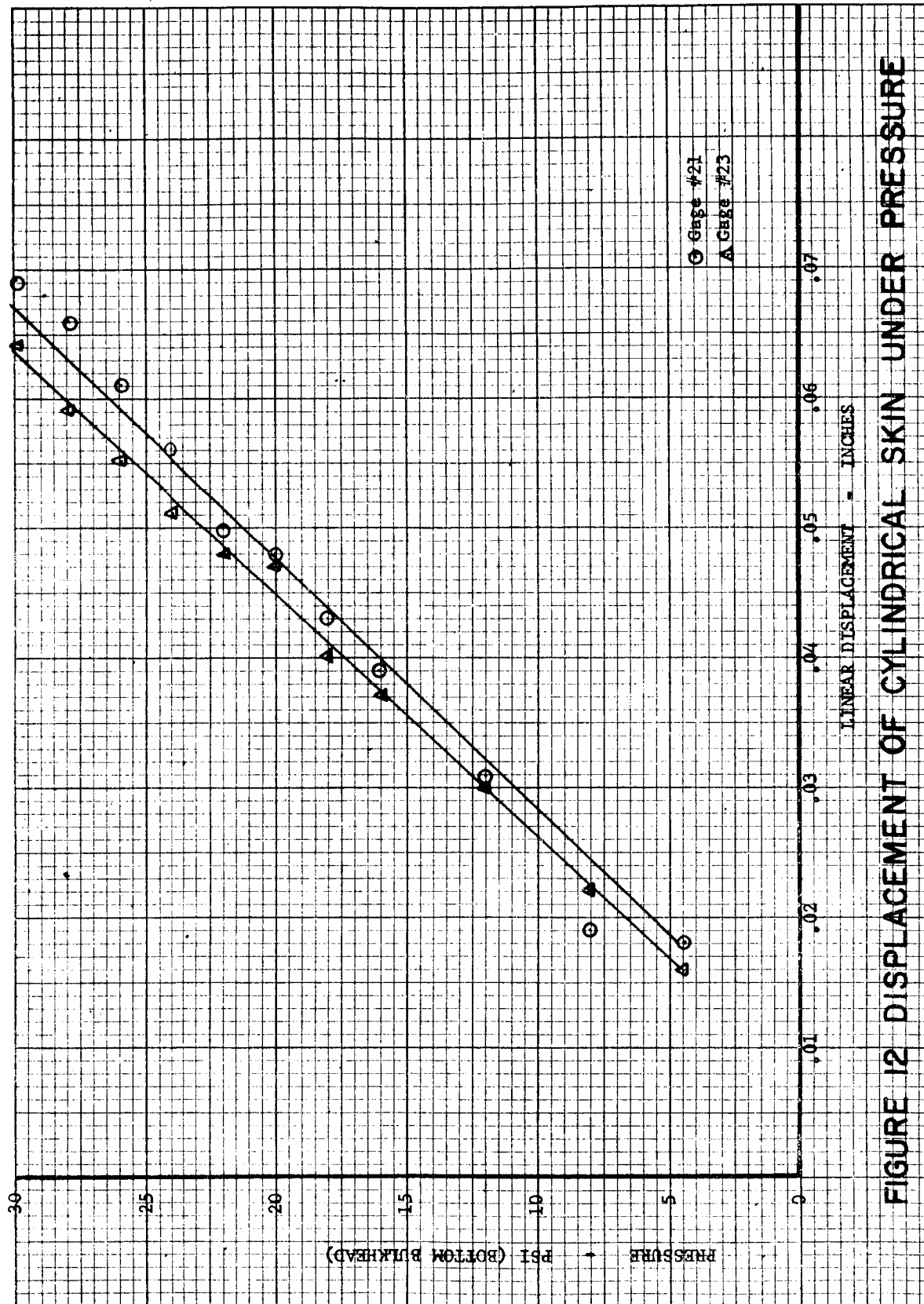


FIGURE 12 DISPLACEMENT OF CYLINDRICAL SKIN UNDER PRESSURE

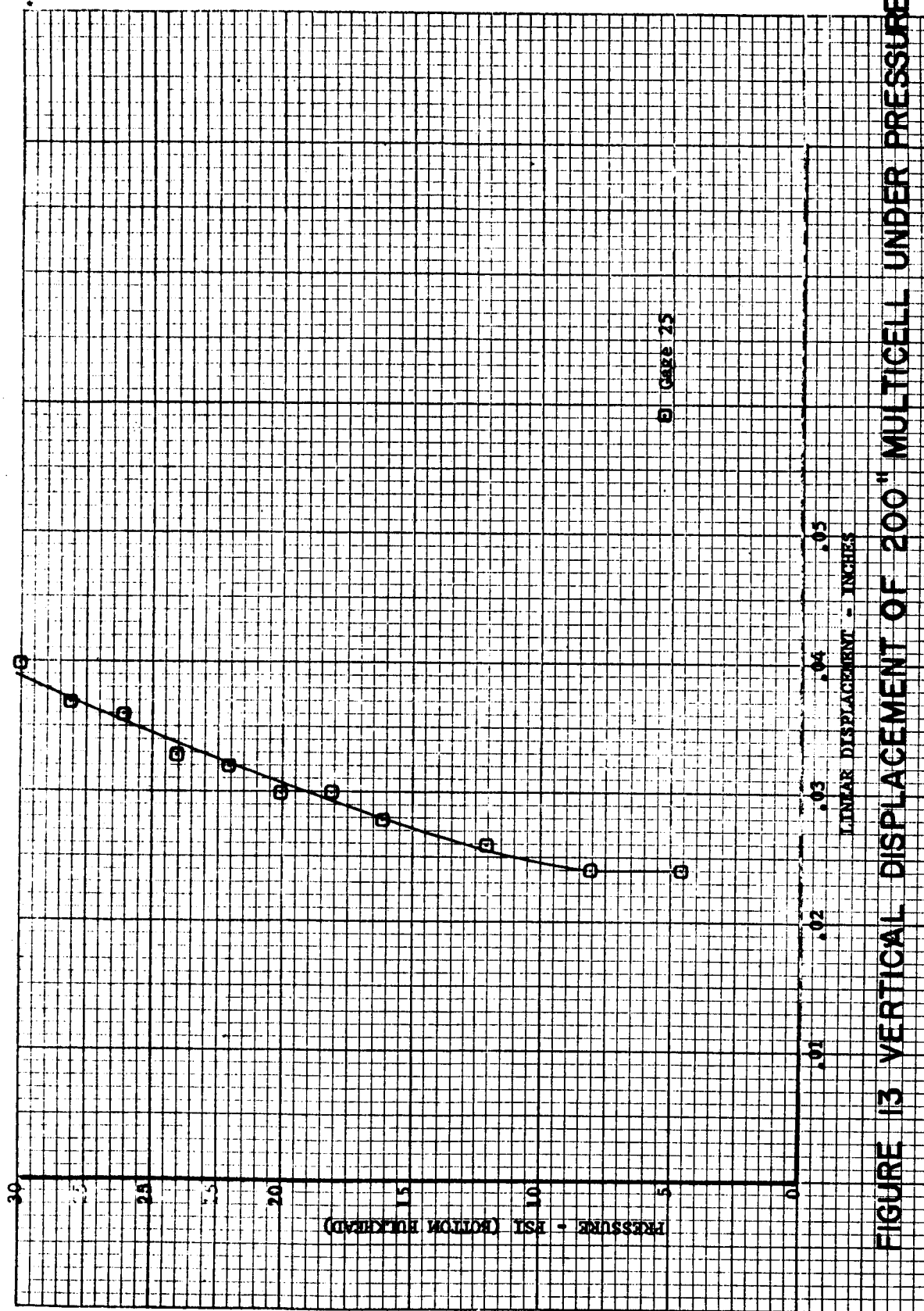


FIGURE 13 VERTICAL DISPLACEMENT OF 200" MULTICELL UNDER PRESSURE

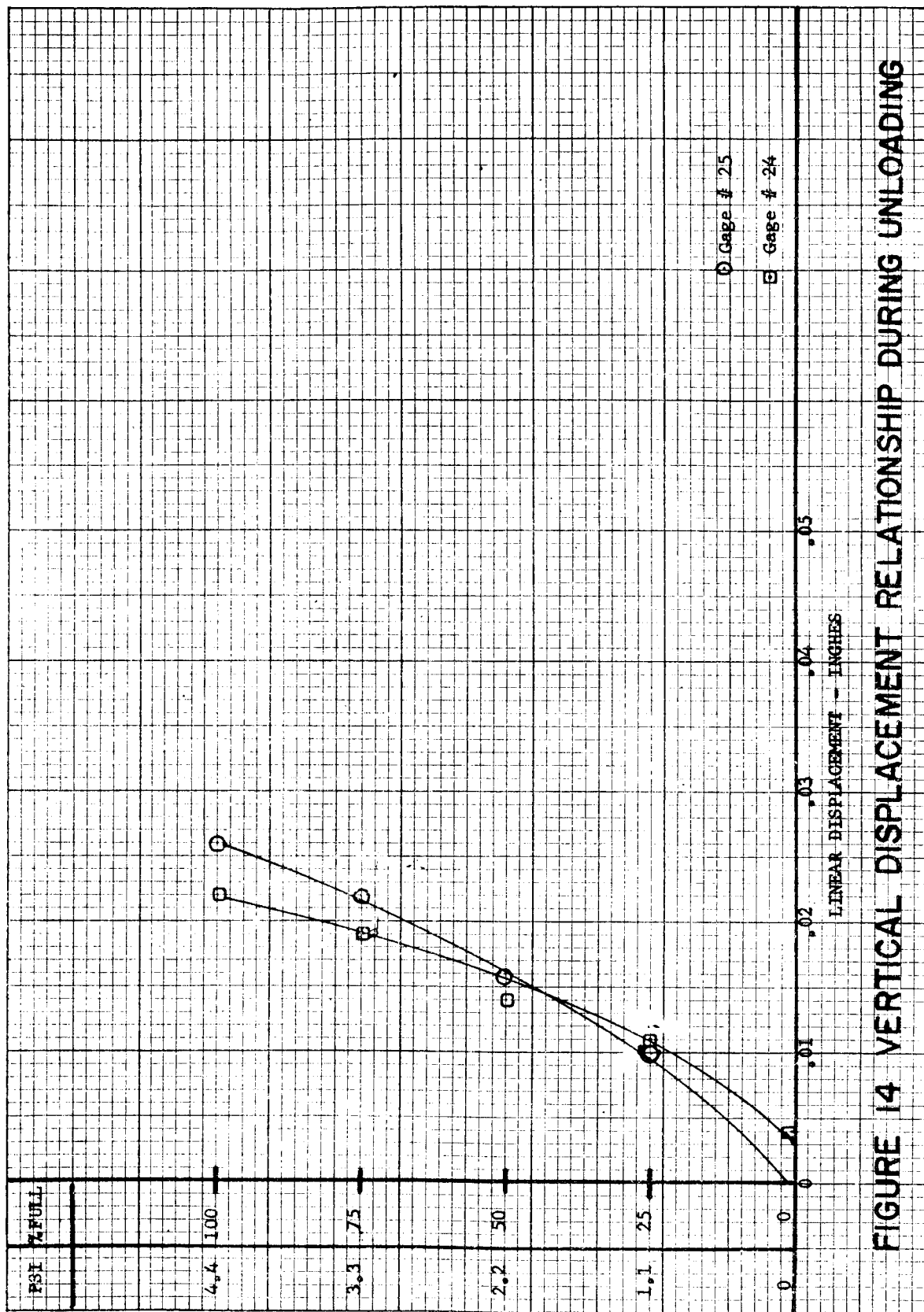


FIGURE 14 VERTICAL DISPLACEMENT RELATIONSHIP DURING UNLOADING

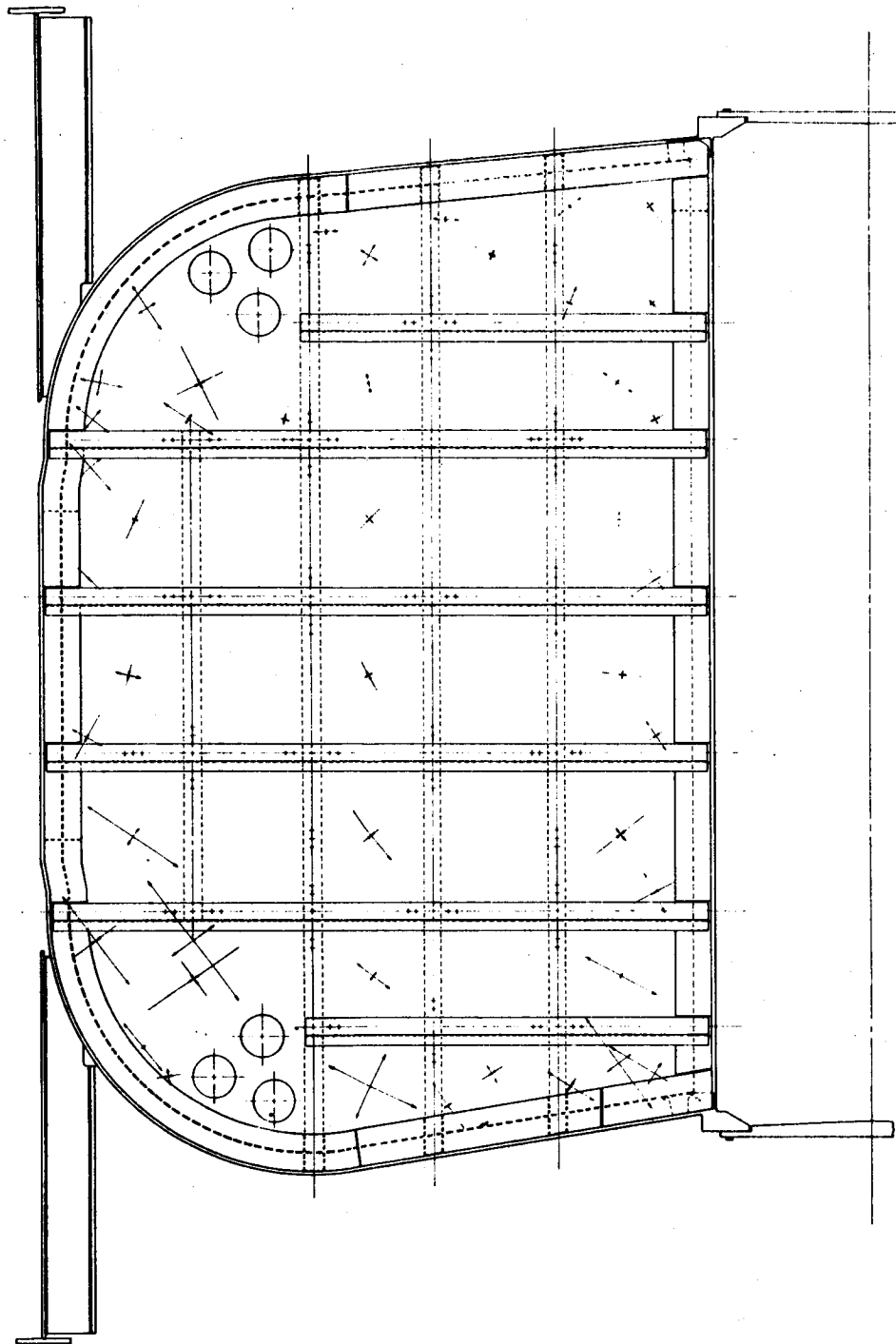


FIGURE 15 PRINCIPLE STRESSES
RADIAL TENSION WEB
FOR FULL CONDITION

NOTE:
SEE FIGURE 6 FOR GAGE NUMBER

SCALE:
1" = 10"

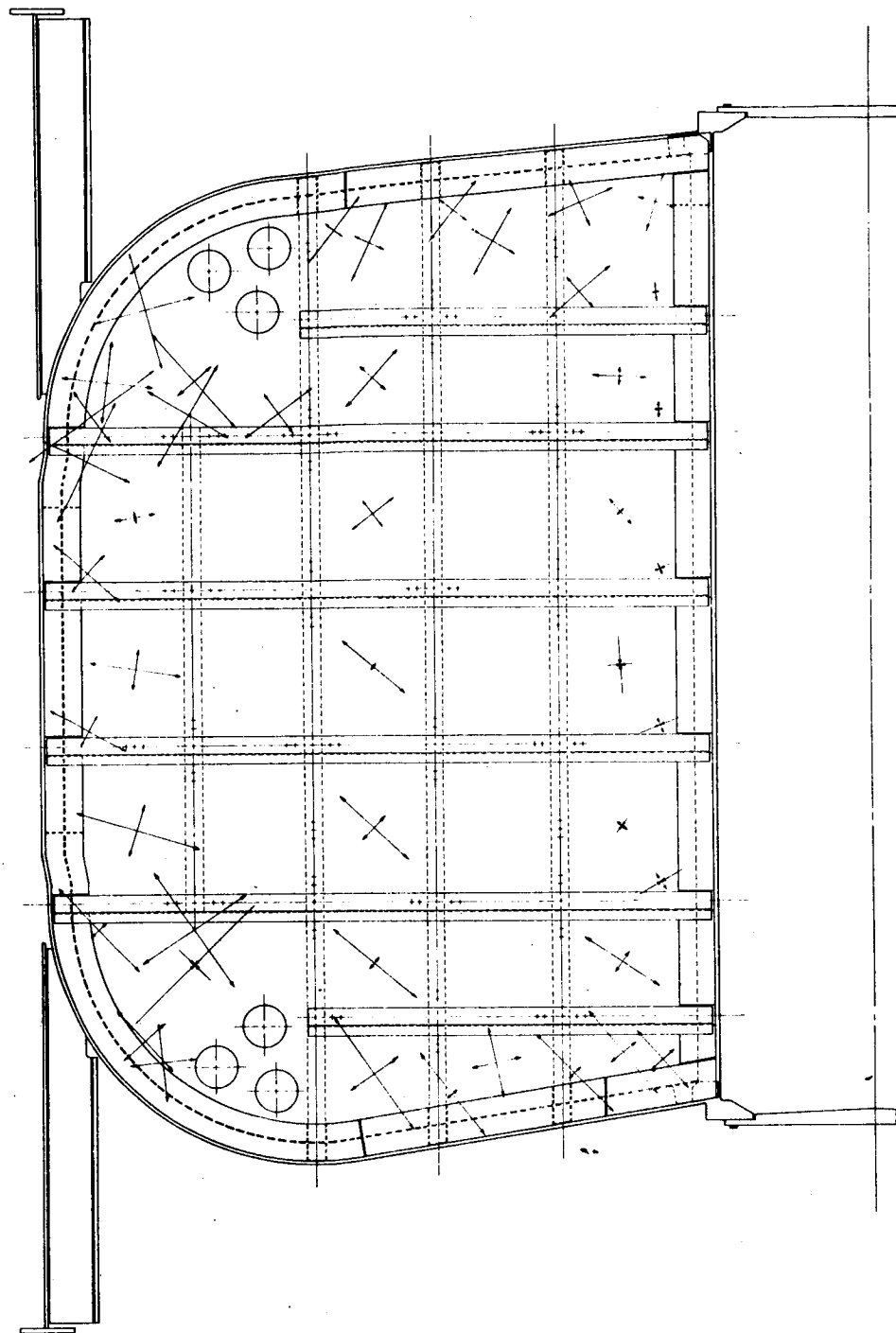


FIGURE 16 PRINCIPLE STRESSES
RADIAL TENSION WEB
AT 30 PSI

NOTE:
SEE FIGURE 6 FOR GAGE NUMBER
SCALE:
1/2" = 1'

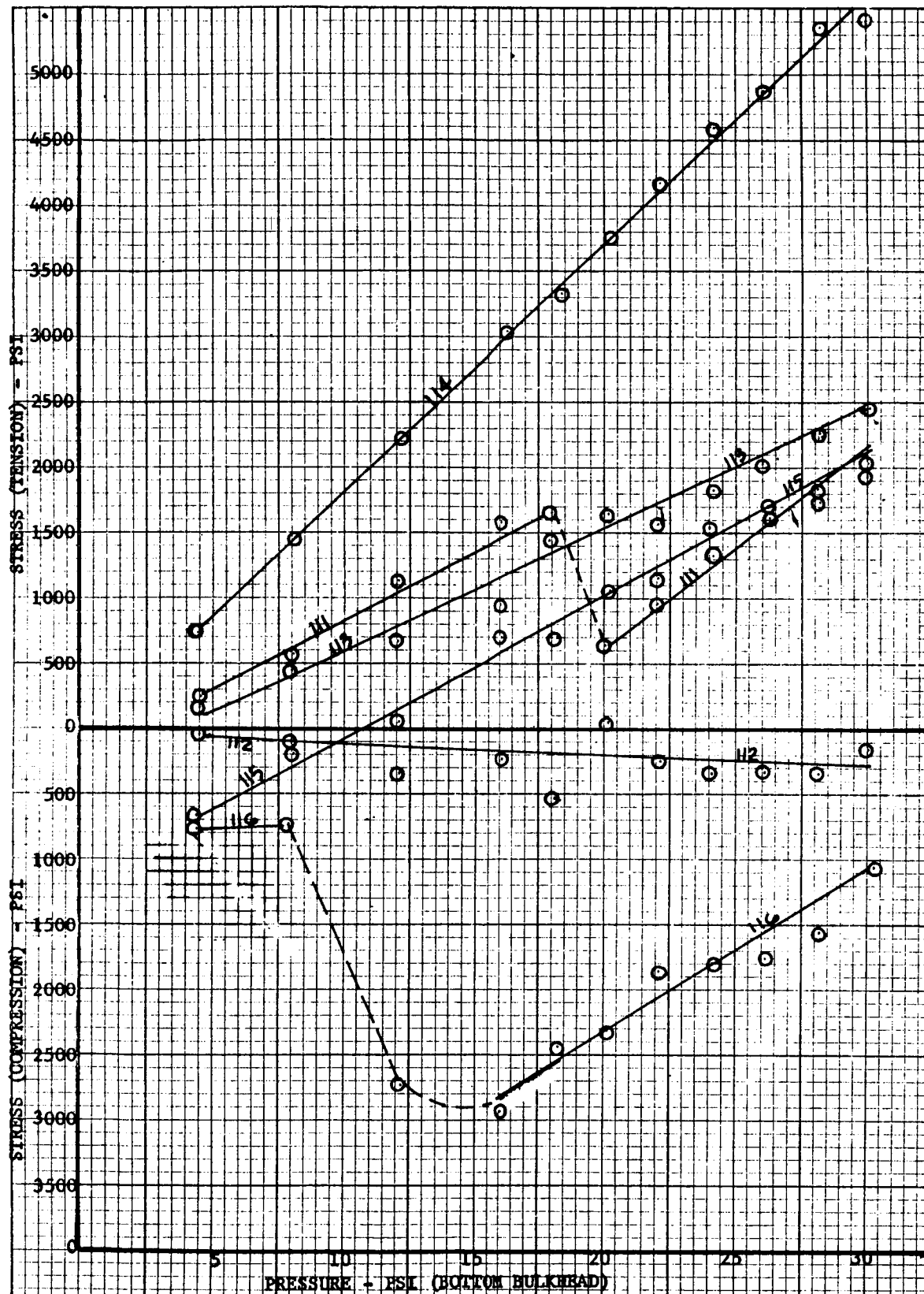


FIGURE 17 SINGLE GAGES LOCATED ON WAFFLE SKIN RIBS

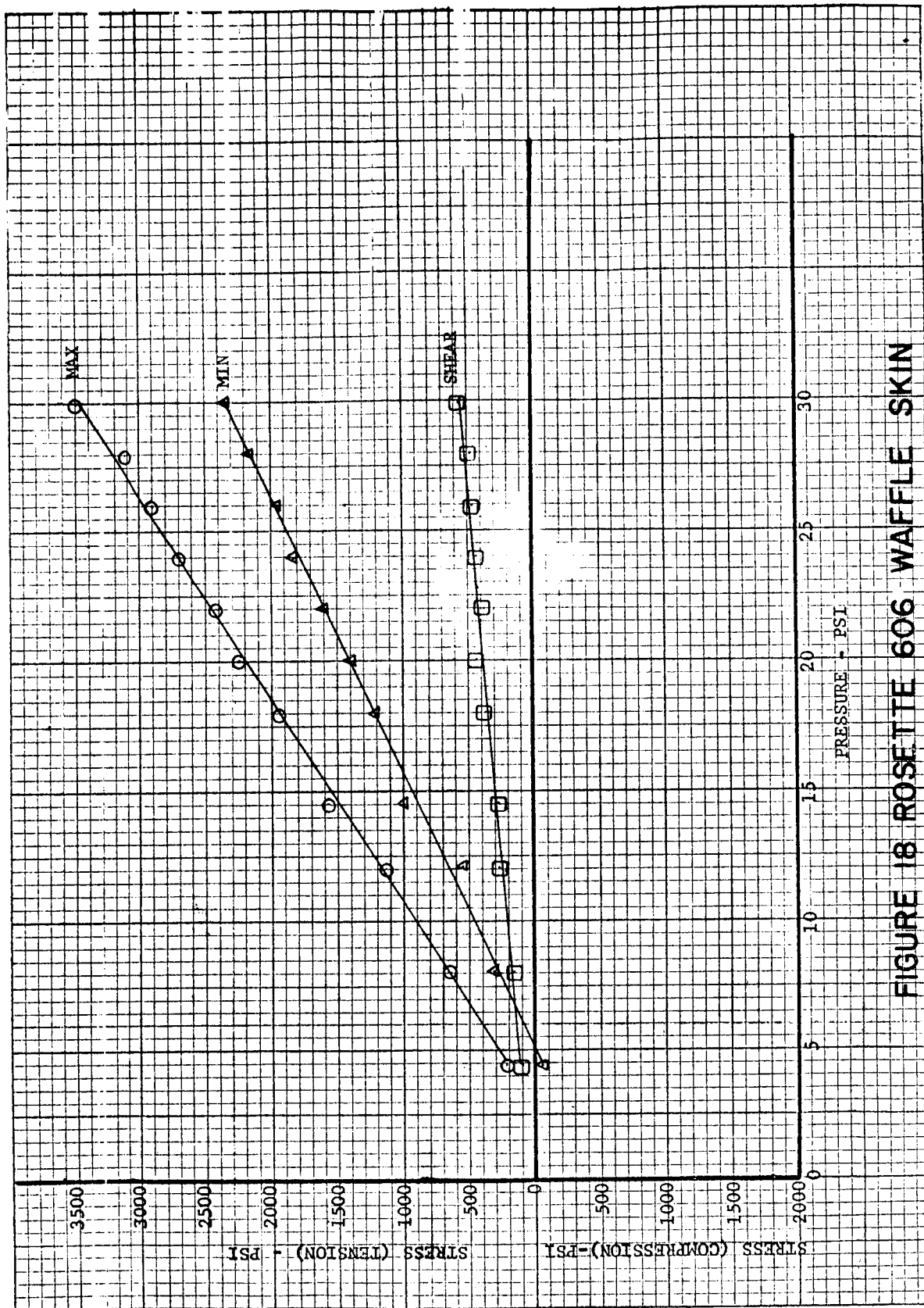


FIGURE 18 ROSETTE 606 WAFFLE SKIN

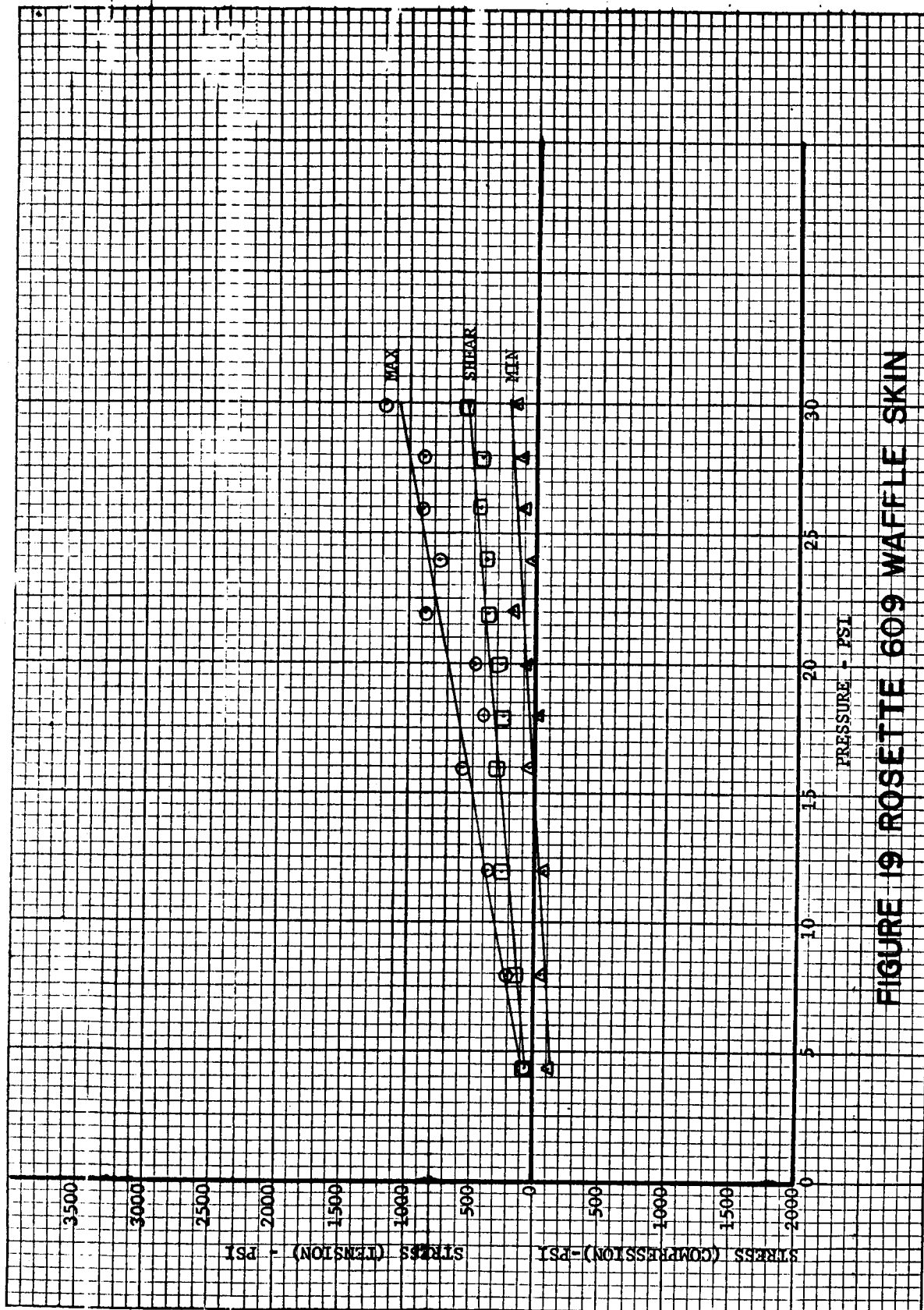


FIGURE 19 ROSETTE 609 WAFFLE SKIN

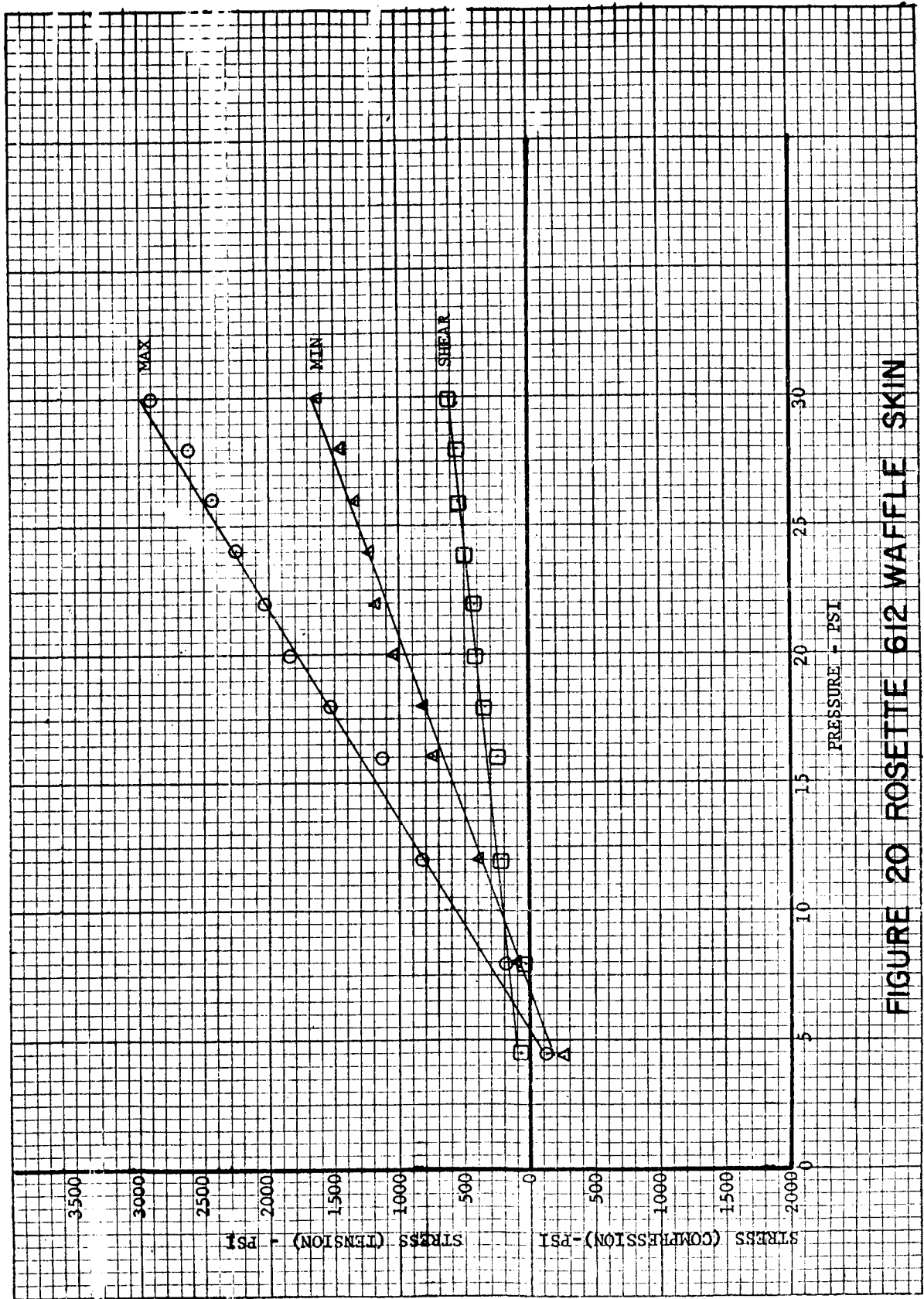


FIGURE 20 ROSETTE 612 WAFFLE SKIN

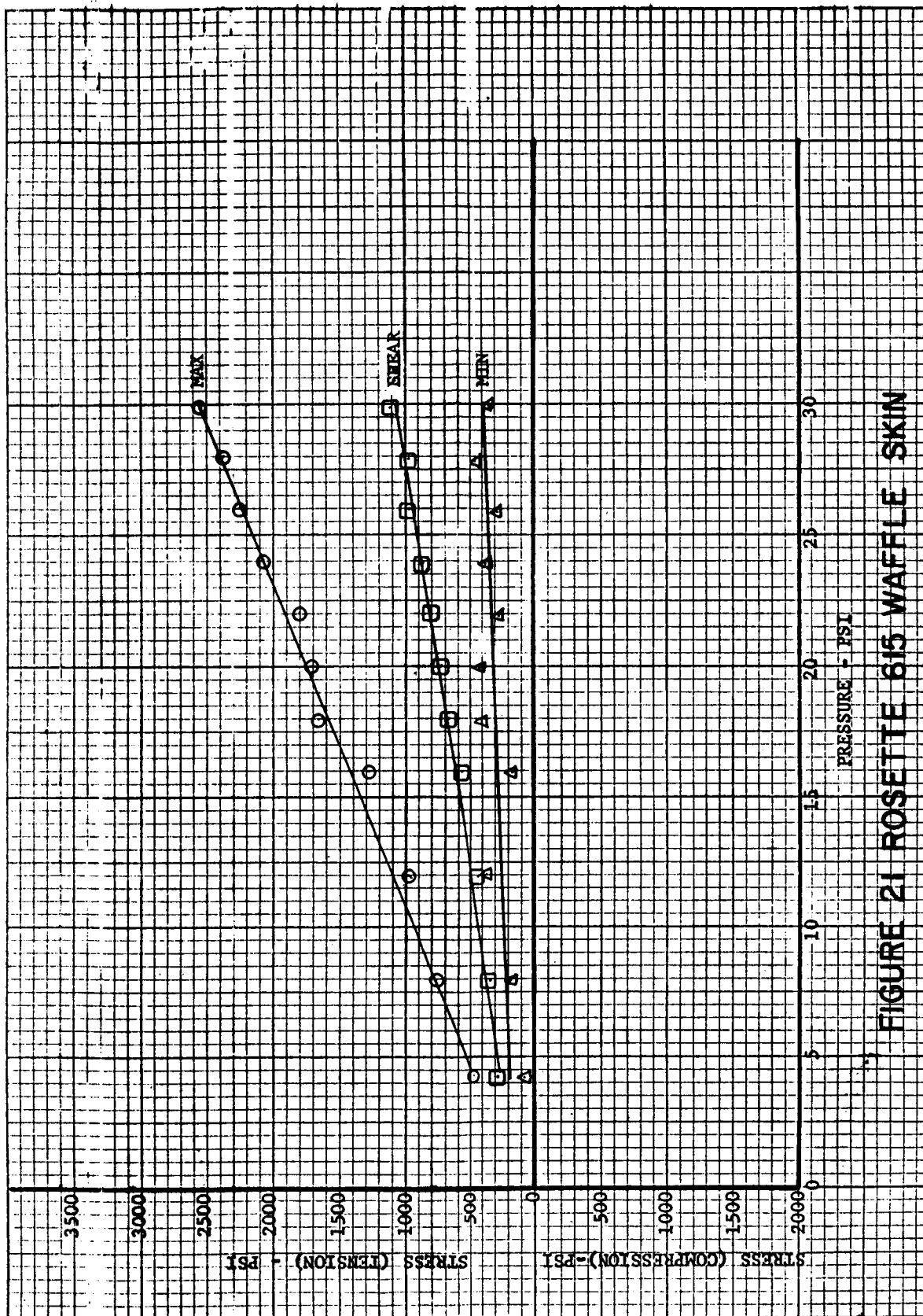


FIGURE 21 ROSETTE 615 WAFFLE SKIN

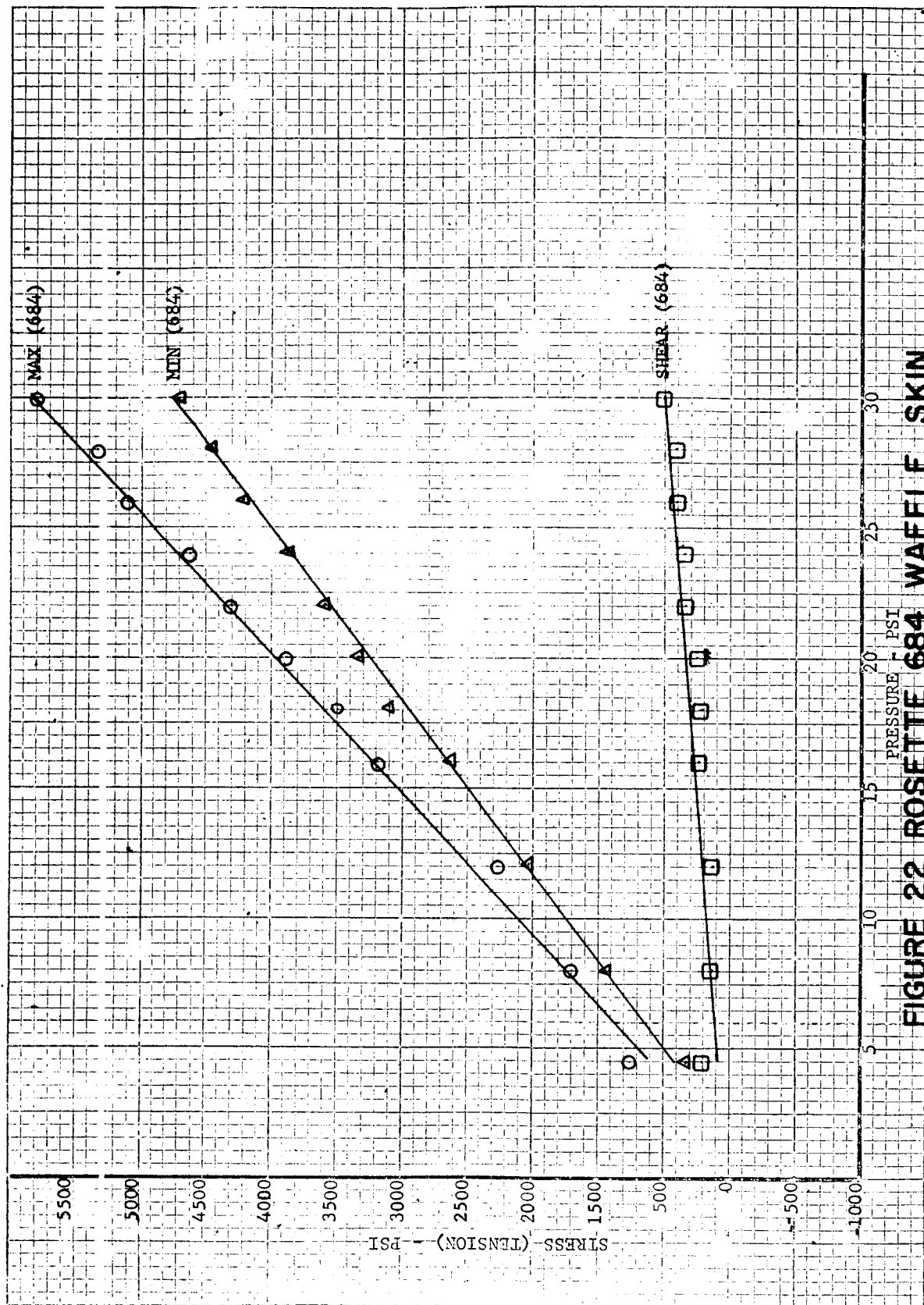


FIGURE 22 ROSETTE 684 WAFFLE SKIN

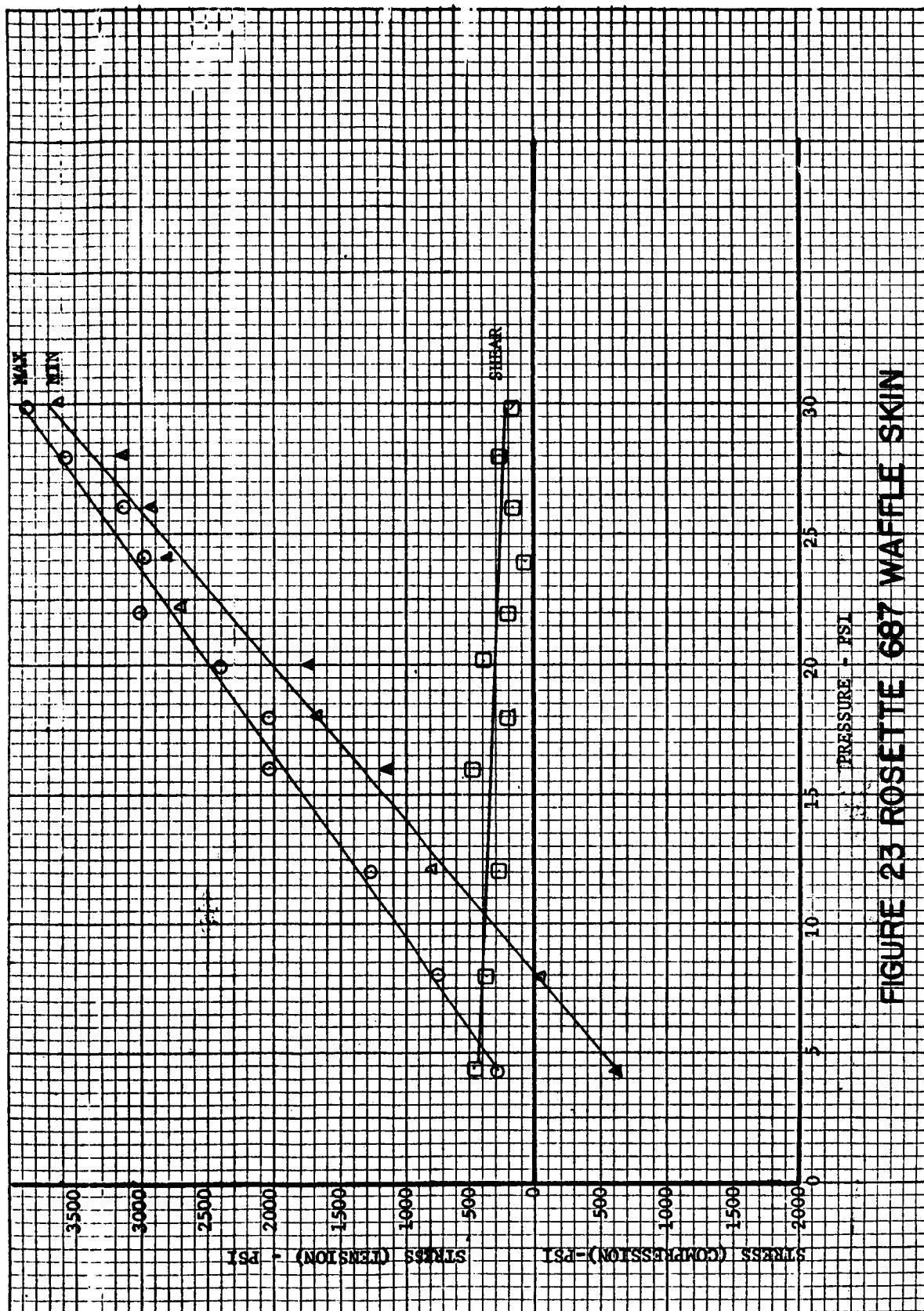


FIGURE 23 ROSETTE 687 WAFFLE SKIN

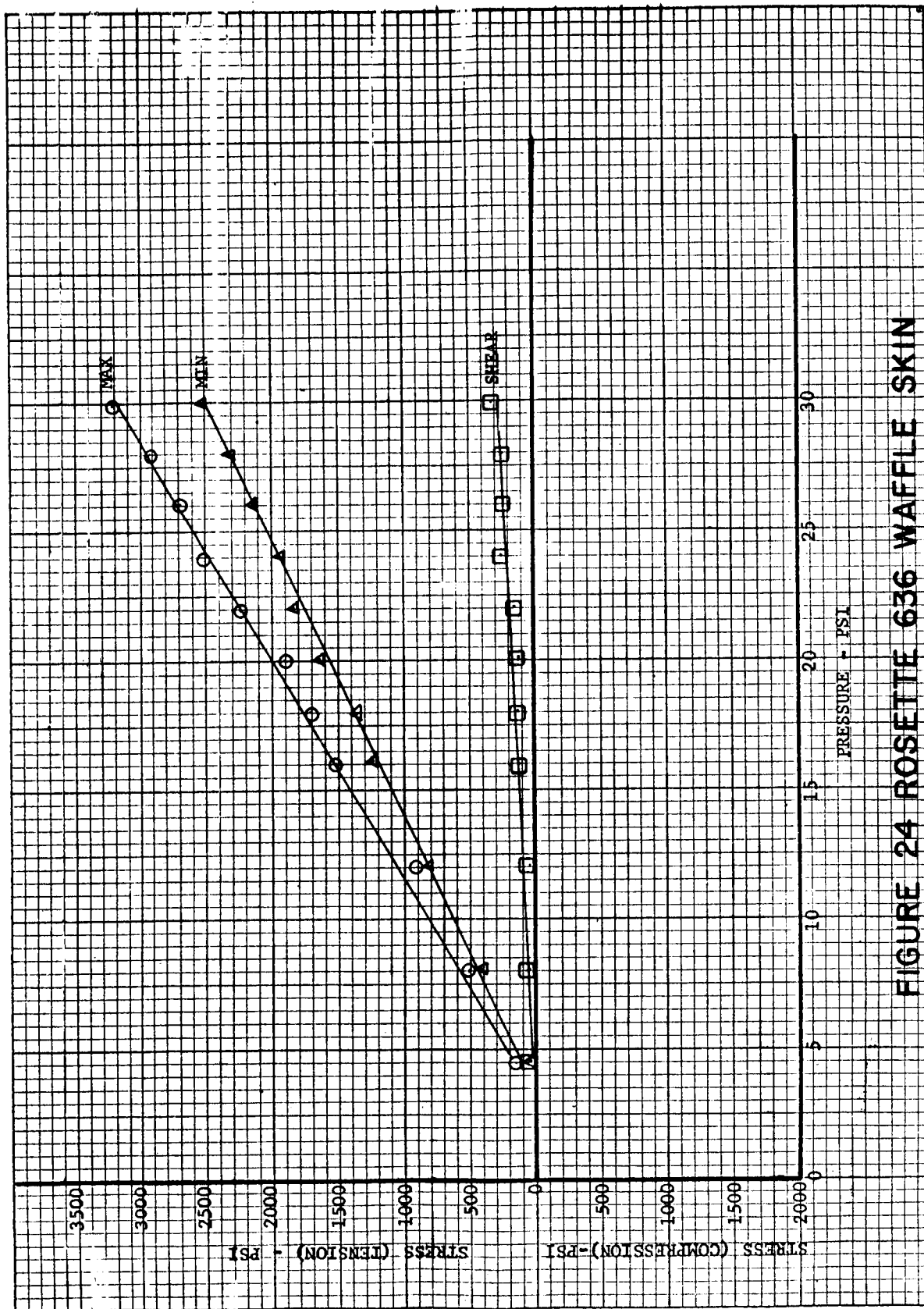


FIGURE 24 ROSETTE 636 WAFFLE SKIN

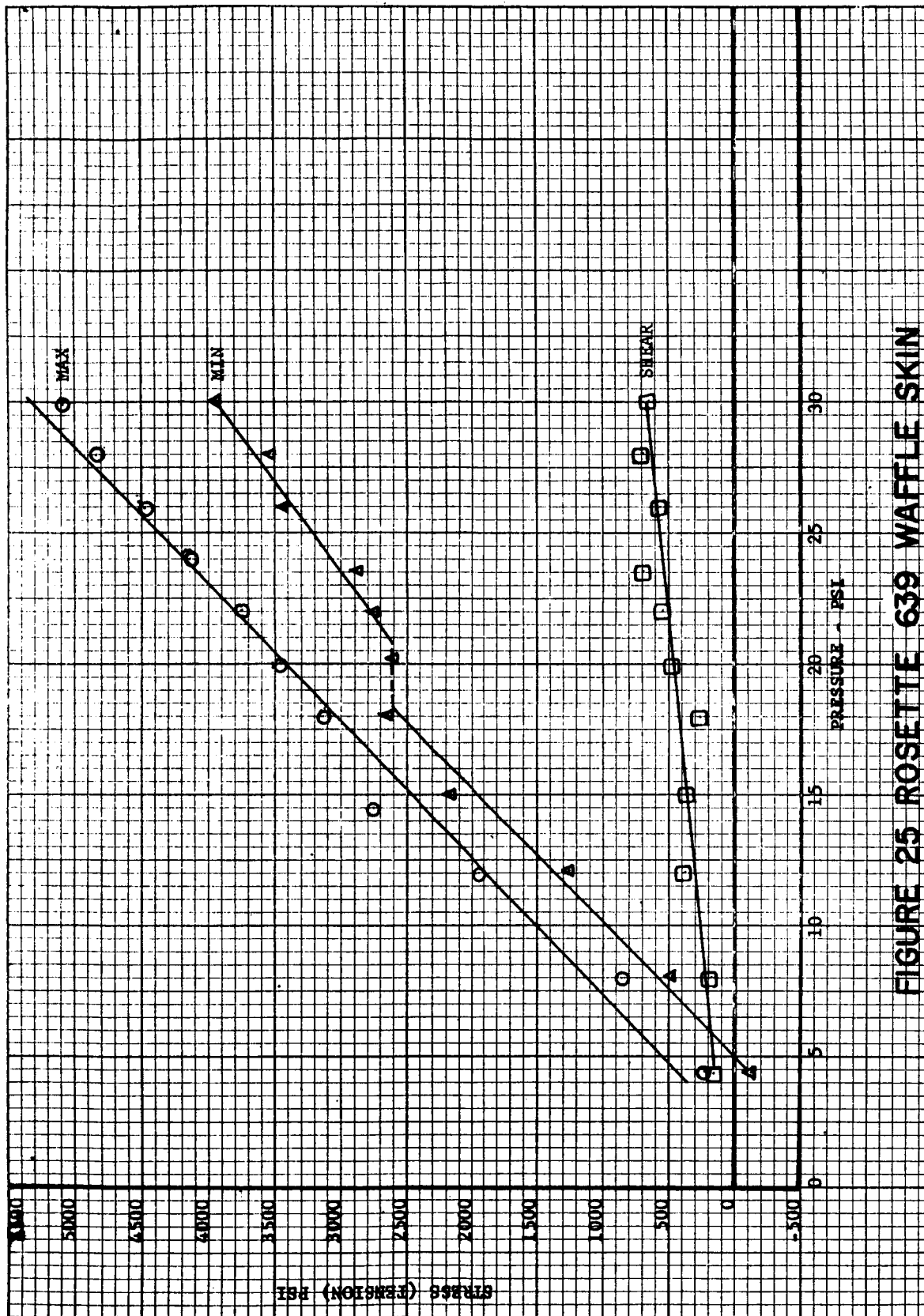


FIGURE 25 ROSETTE 639 WAFFLE SKIN

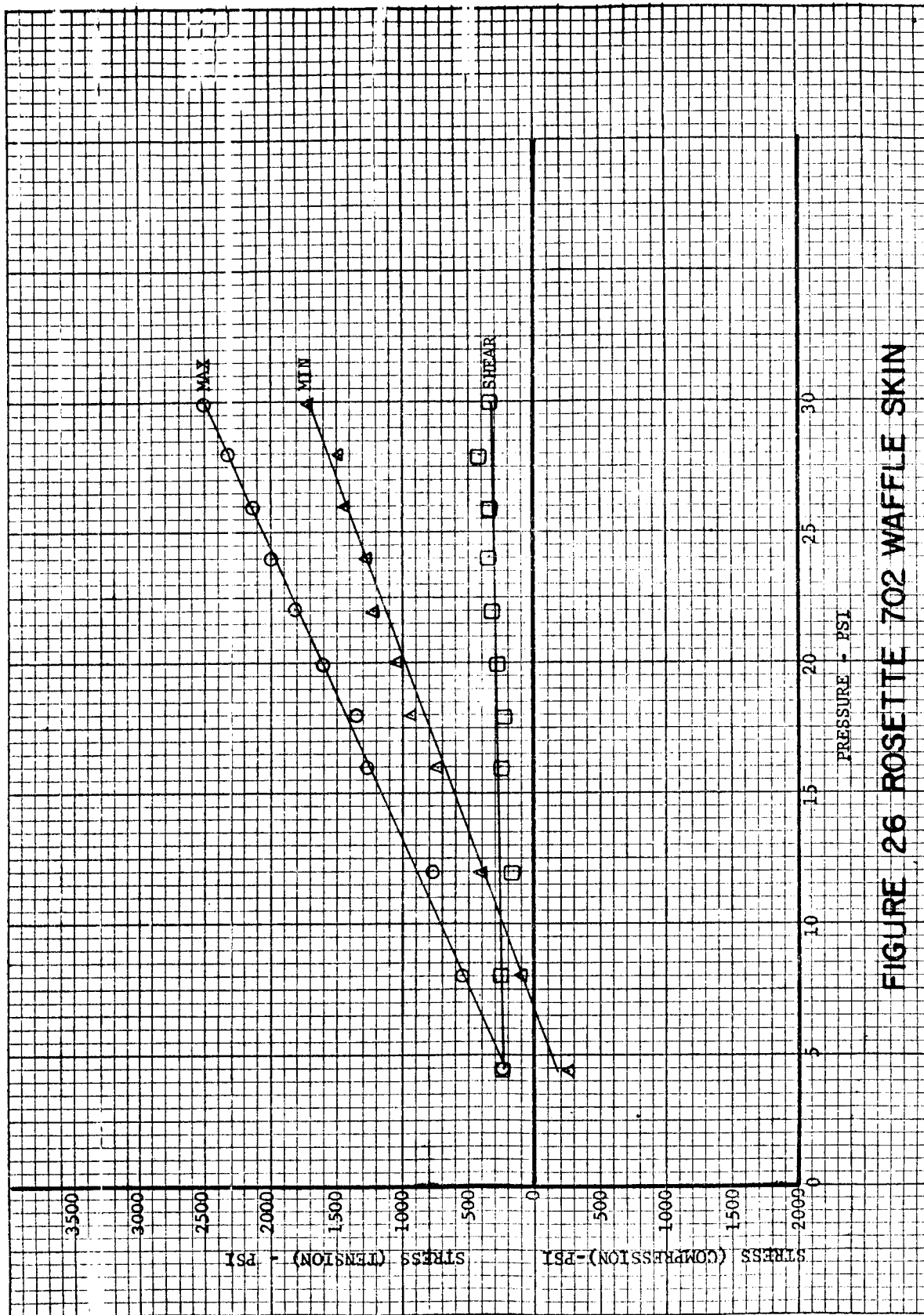


FIGURE 26 ROSETTE 702 WAFFLE SKIN

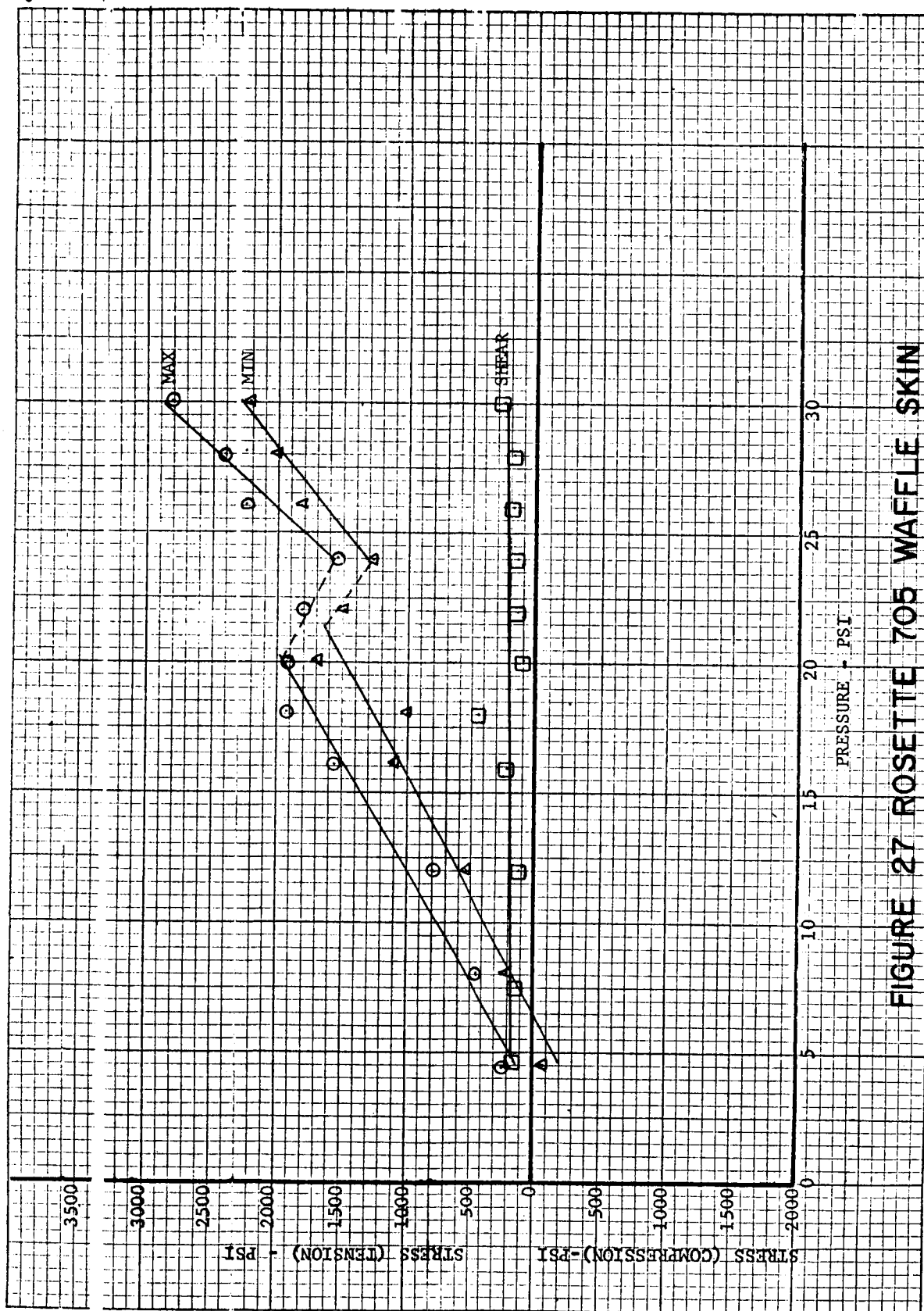


FIGURE 27 ROSETTE 705 WAFFLE SKIN

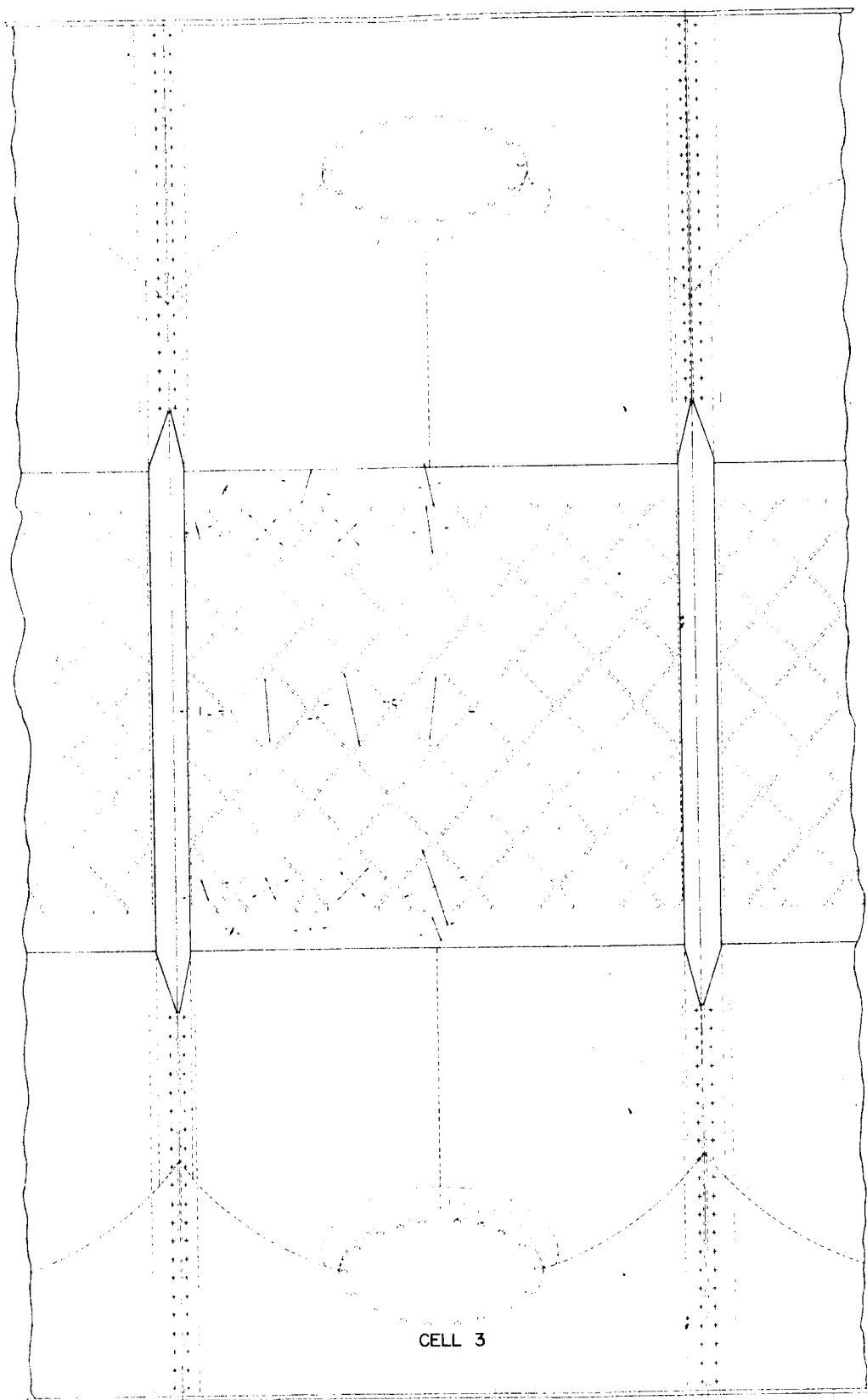


FIGURE 28 PRINCIPLE STRESSES
WAFFLE SKIN
30 PSI

NOTE
SEE FIGURE 7 FOR GAS FLOW

SCALE
1" = 1"

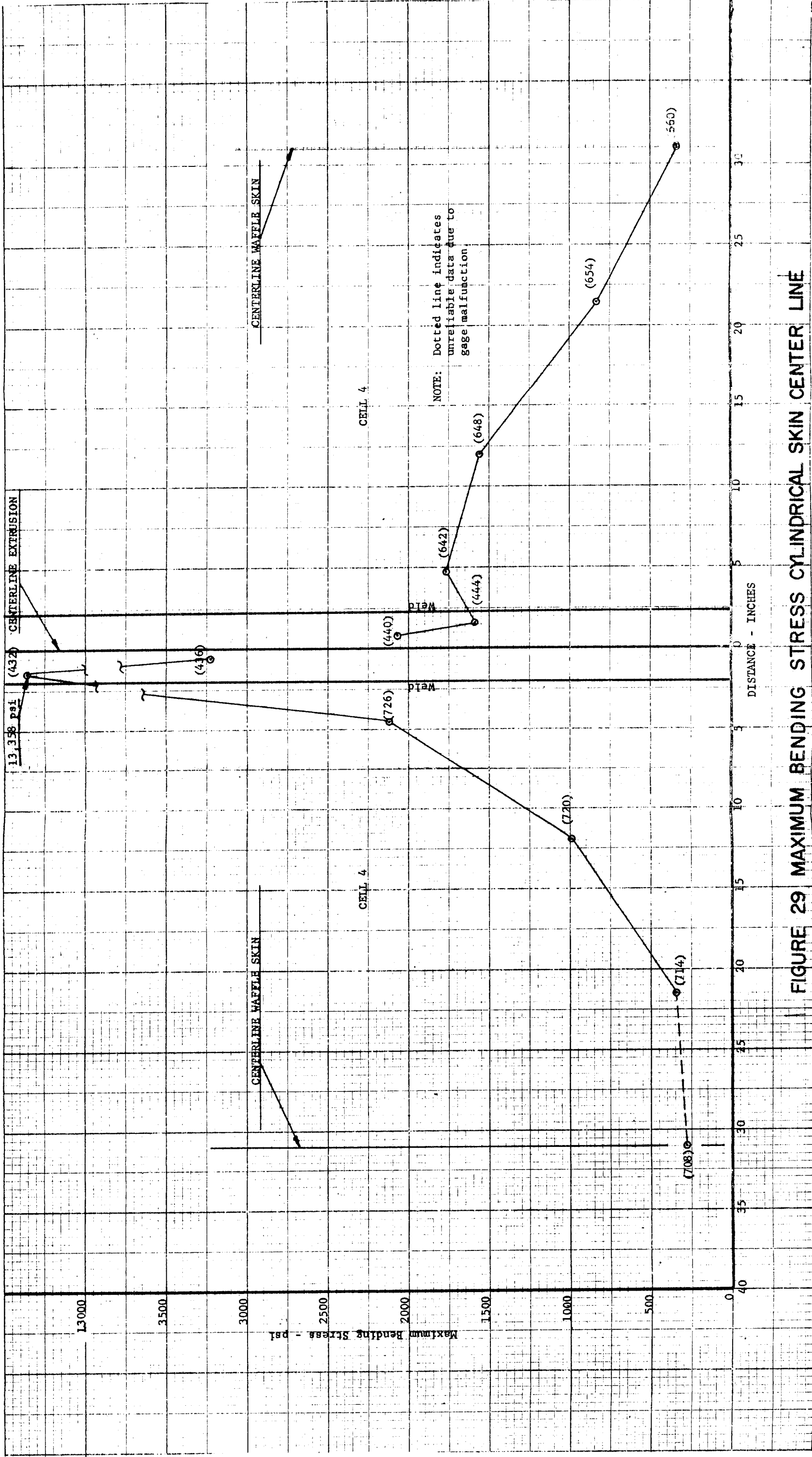


FIGURE 29 MAXIMUM BENDING STRESS CYLINDRICAL SKIN CENTER LINE

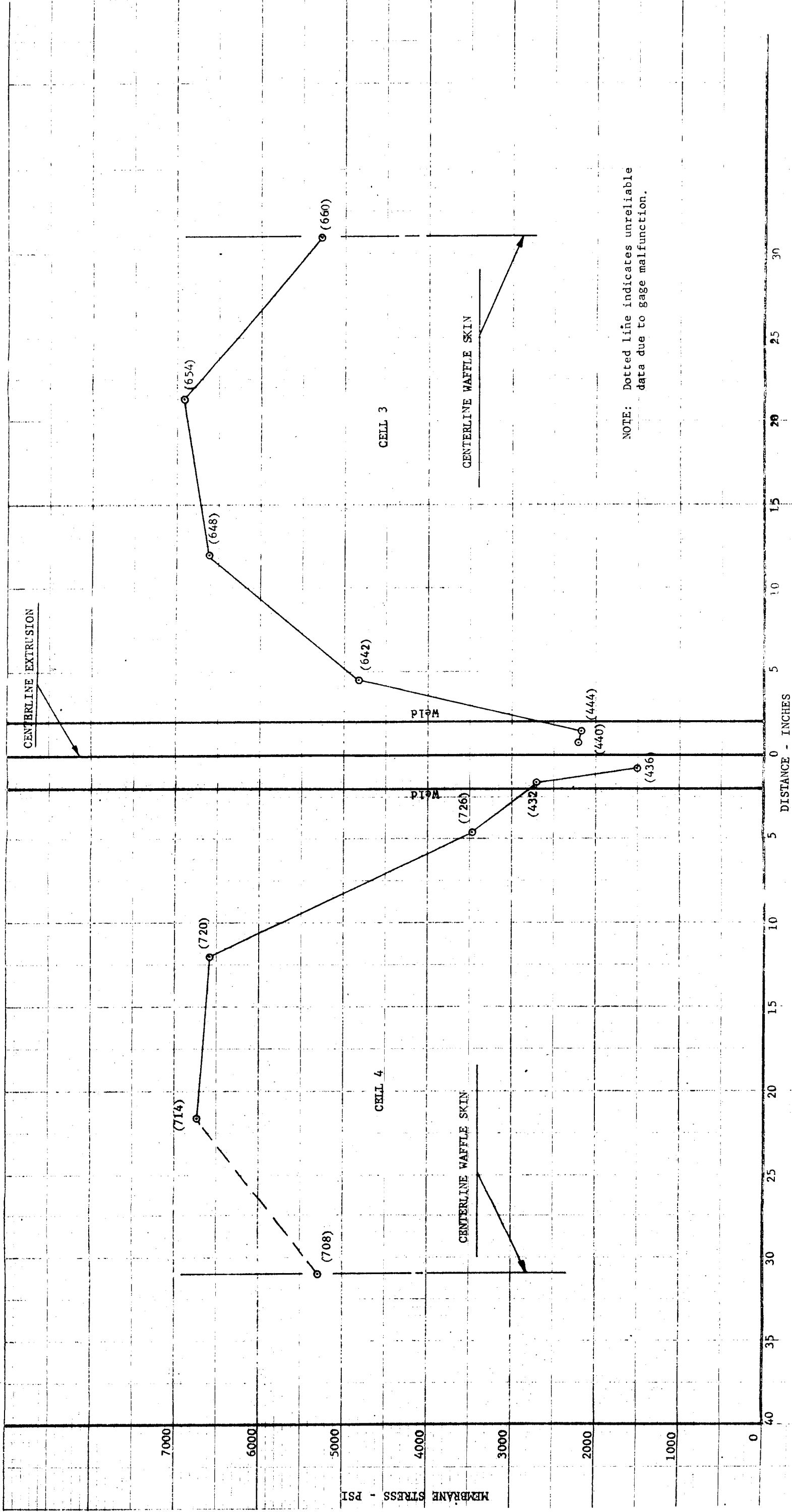


FIGURE 30 MEMBRANE STRESS CYLINDRICAL SKIN CENTER LINE

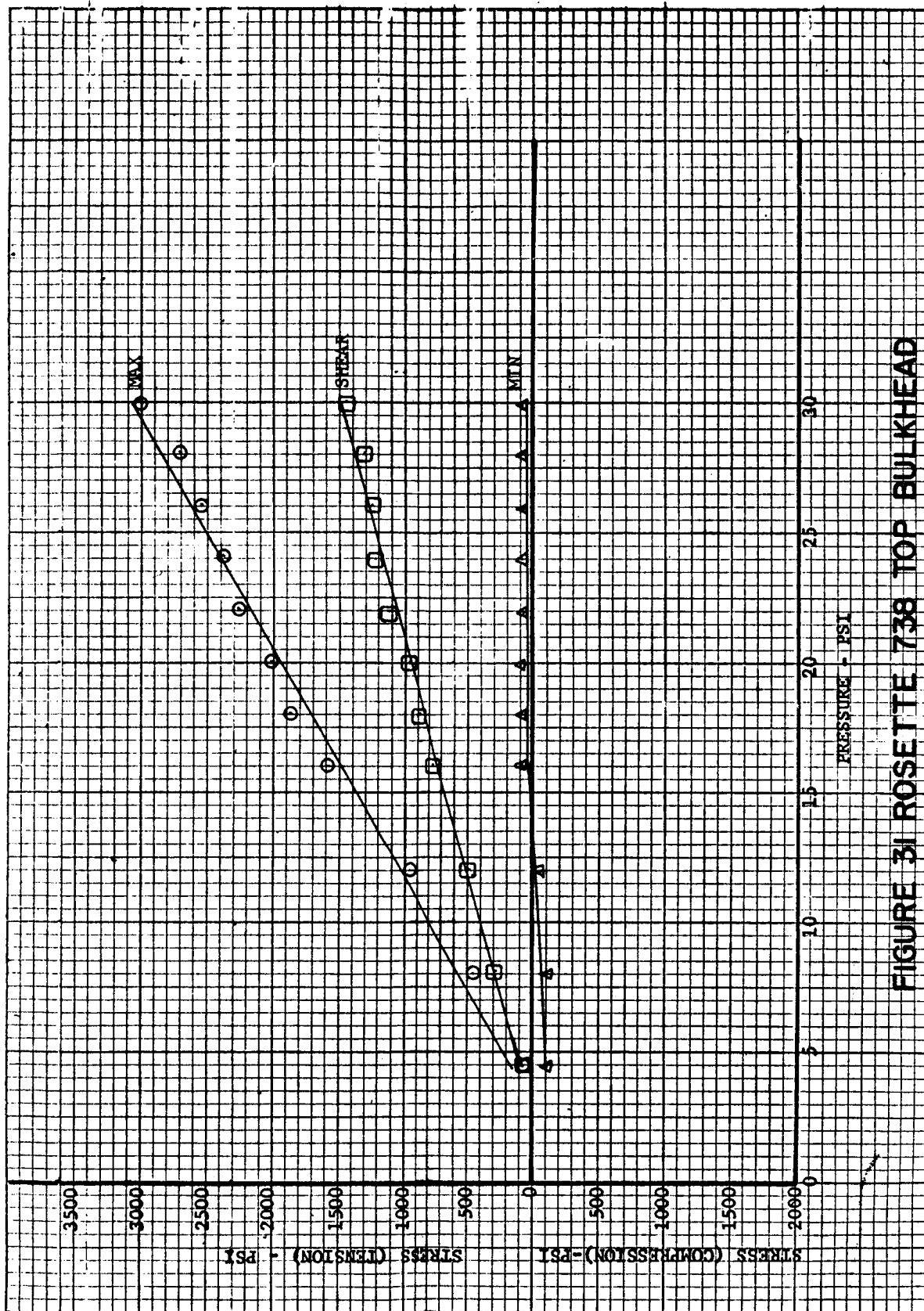


FIGURE 31 ROSETTE 738 TOP BULKHEAD

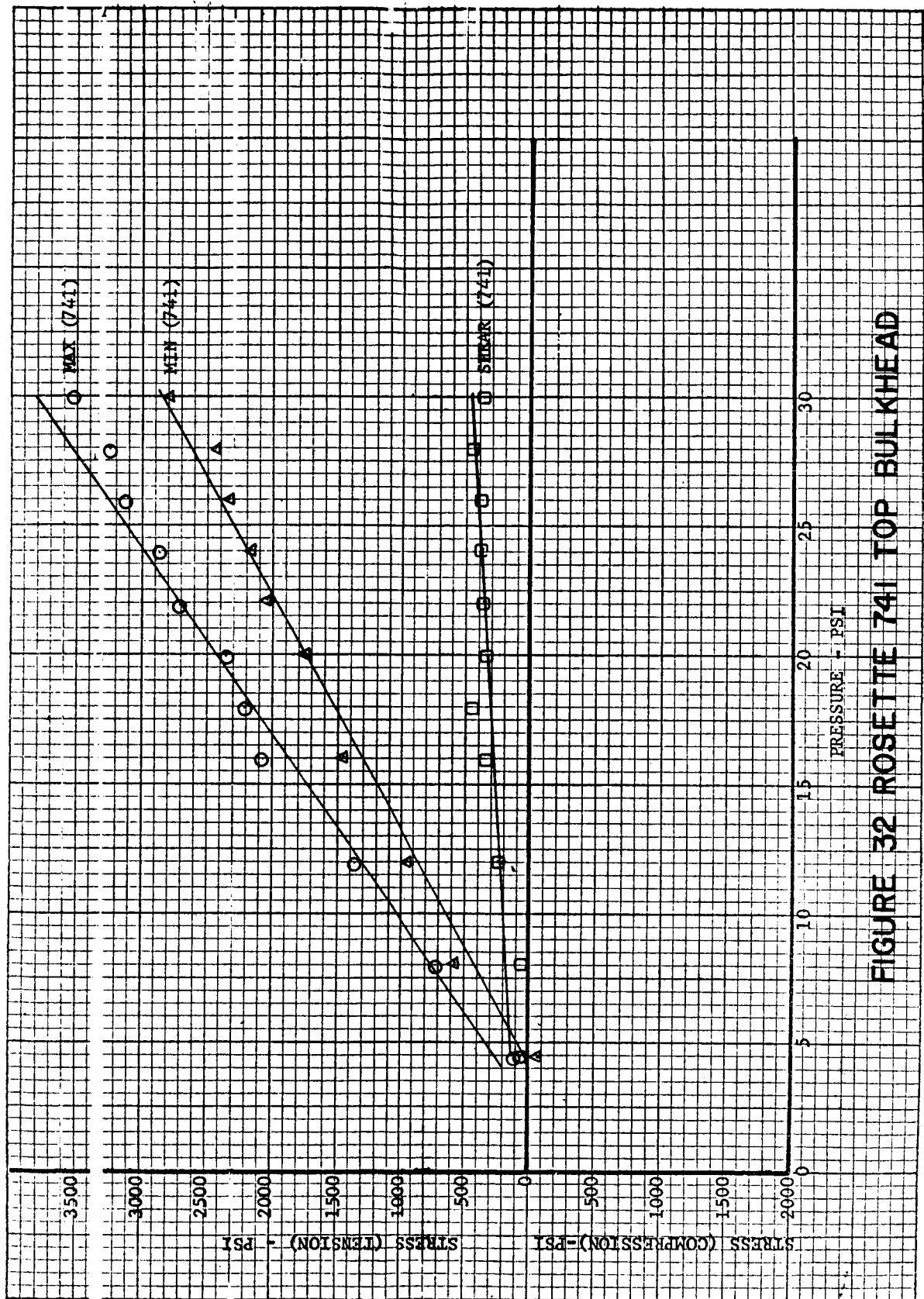


FIGURE 32 ROSETTE 741 TOP BULKHEAD

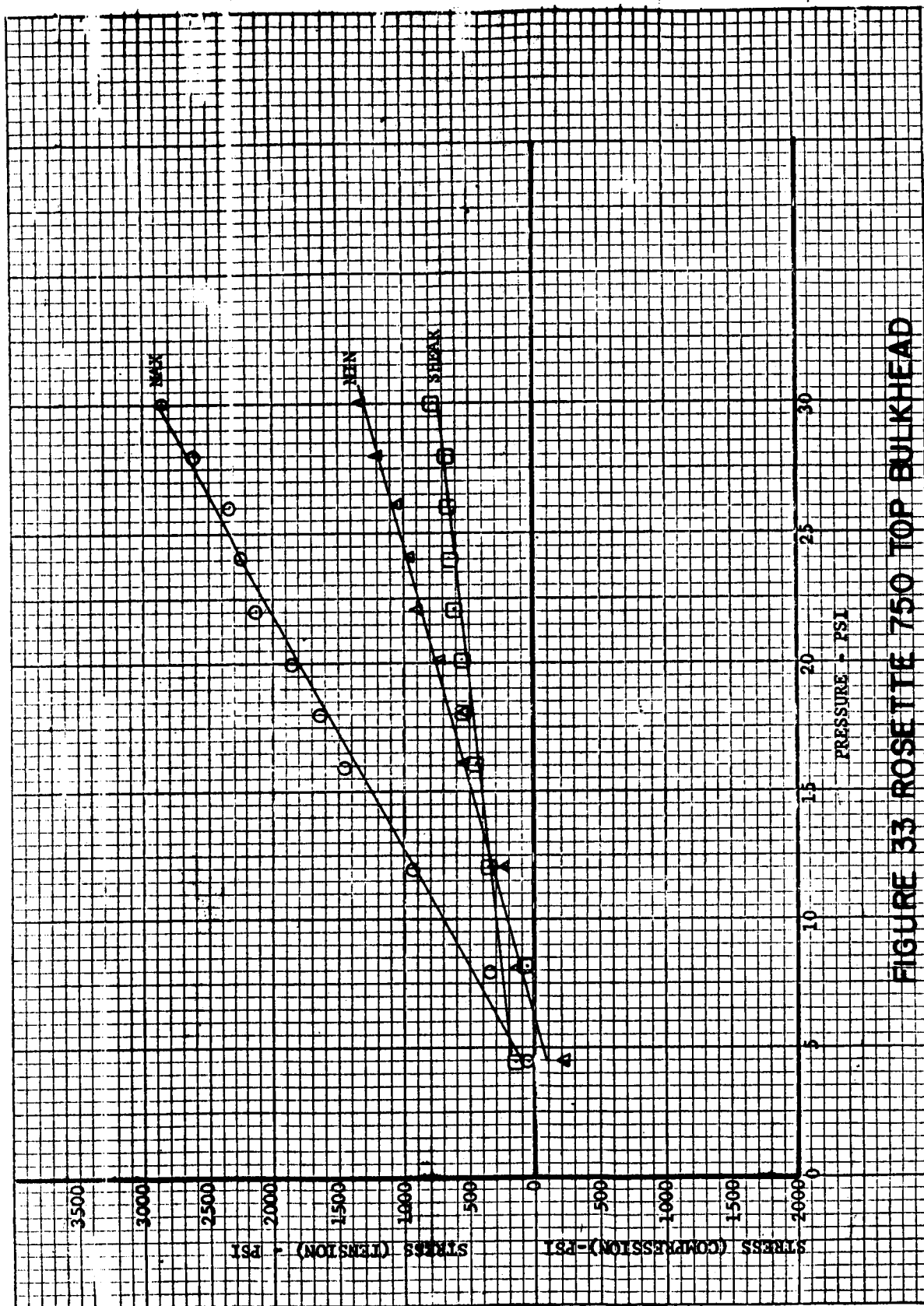


FIGURE 33 ROSETTIE 750 TOP BULKHEAD

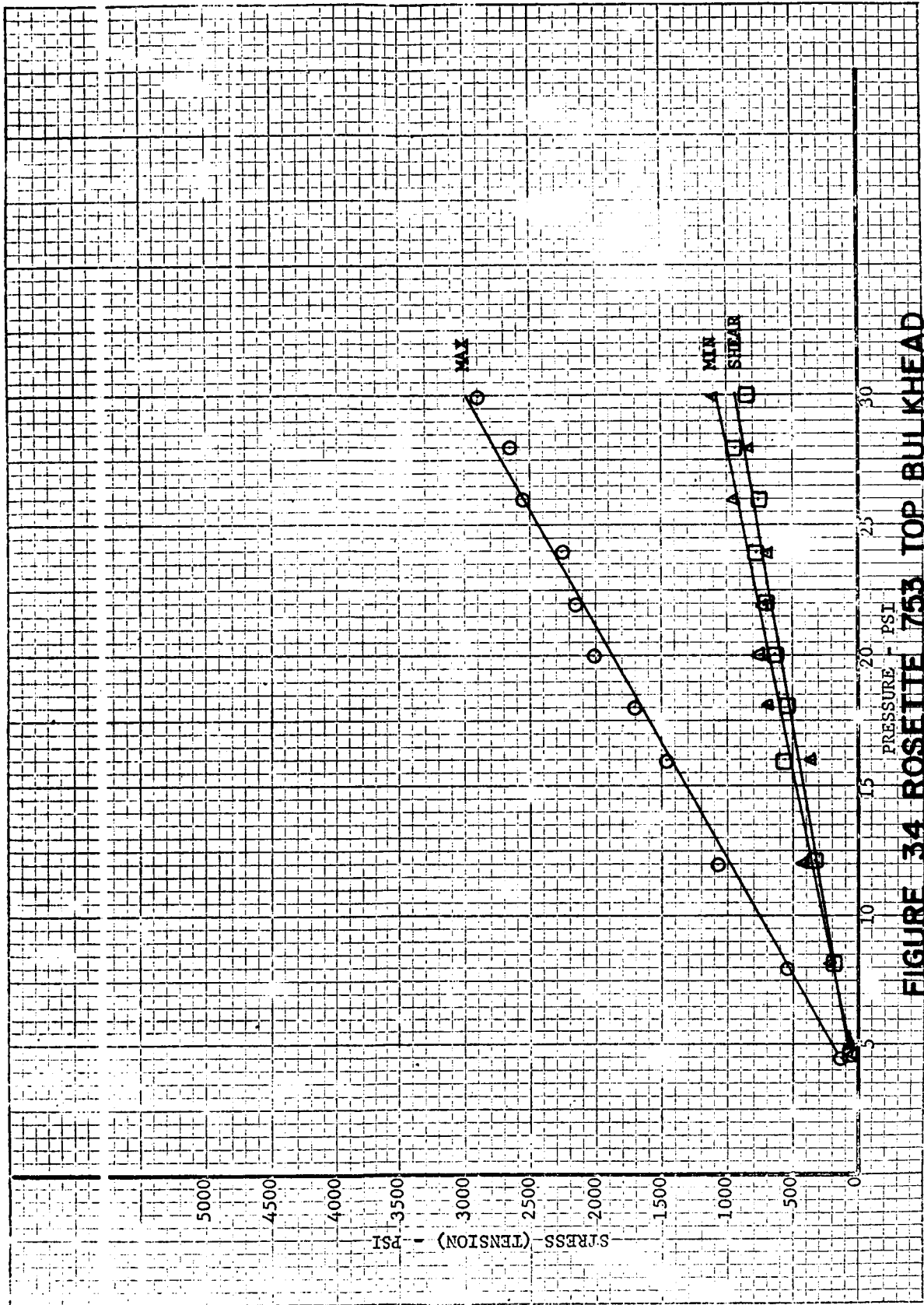


FIGURE 34 ROSETTE 753 TOP BULKHEAD

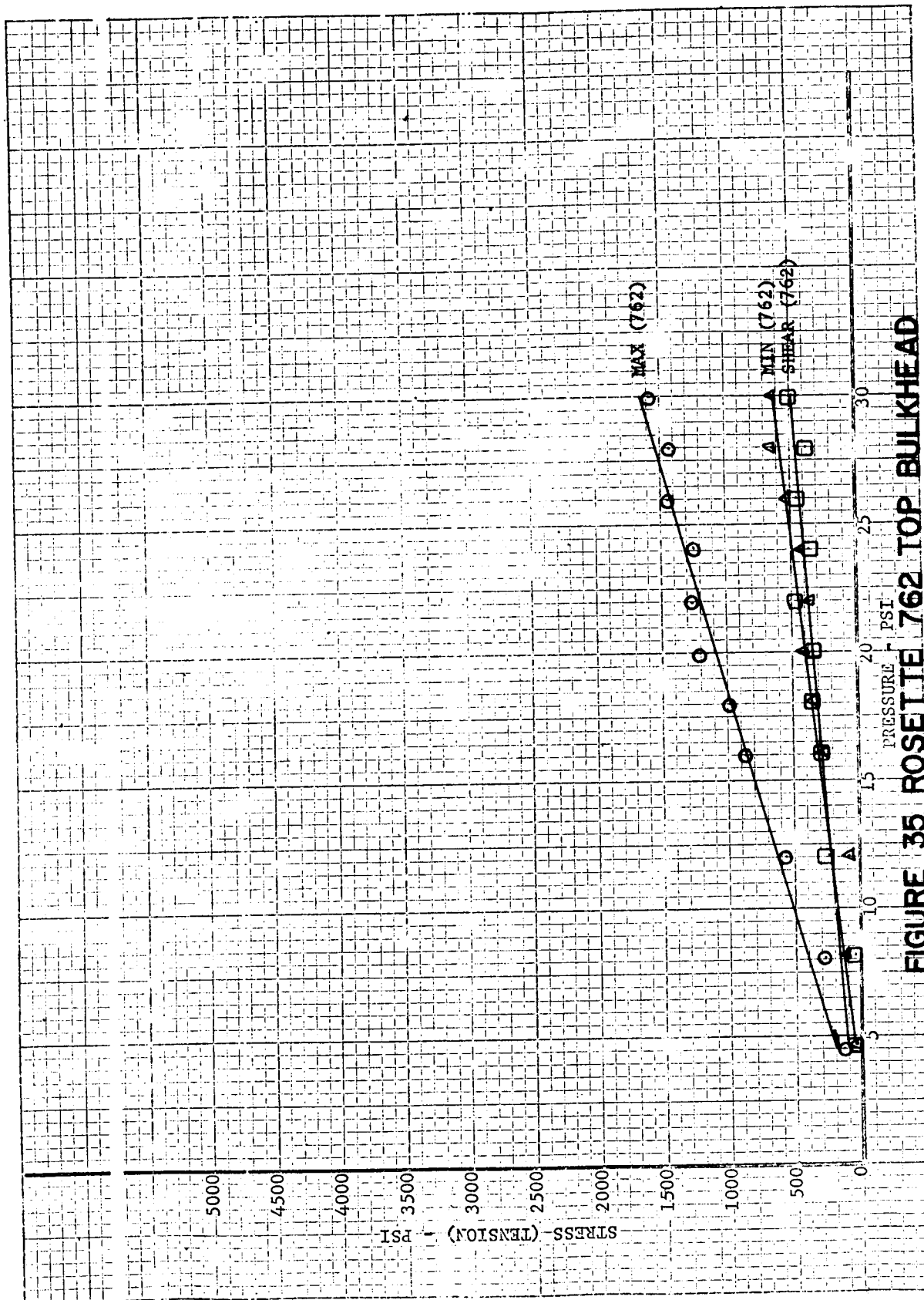


FIGURE 35 ROSETTE 762 TOP BULKHEAD

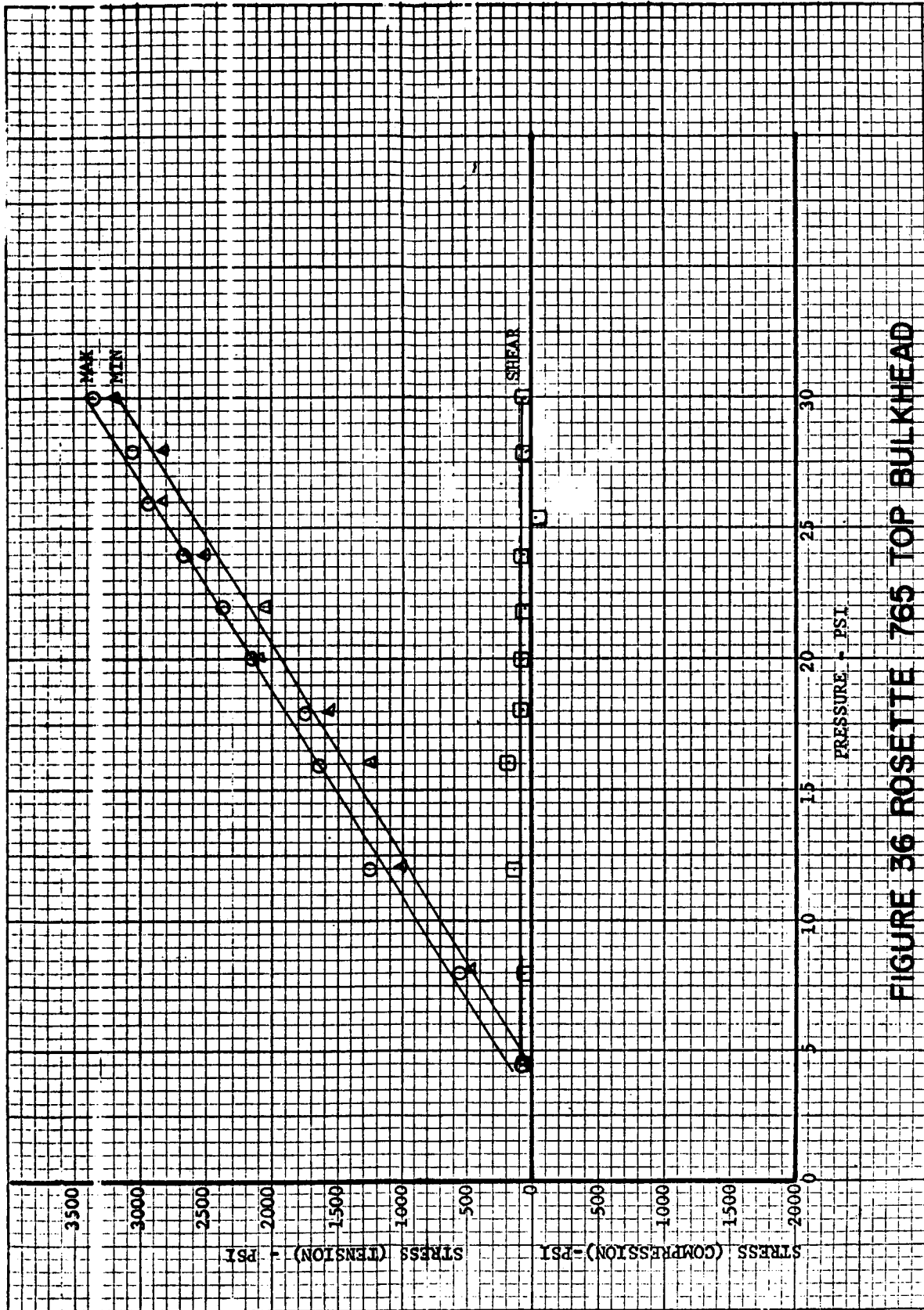


FIGURE 36 ROSETTE 765 TOP BULKHEAD

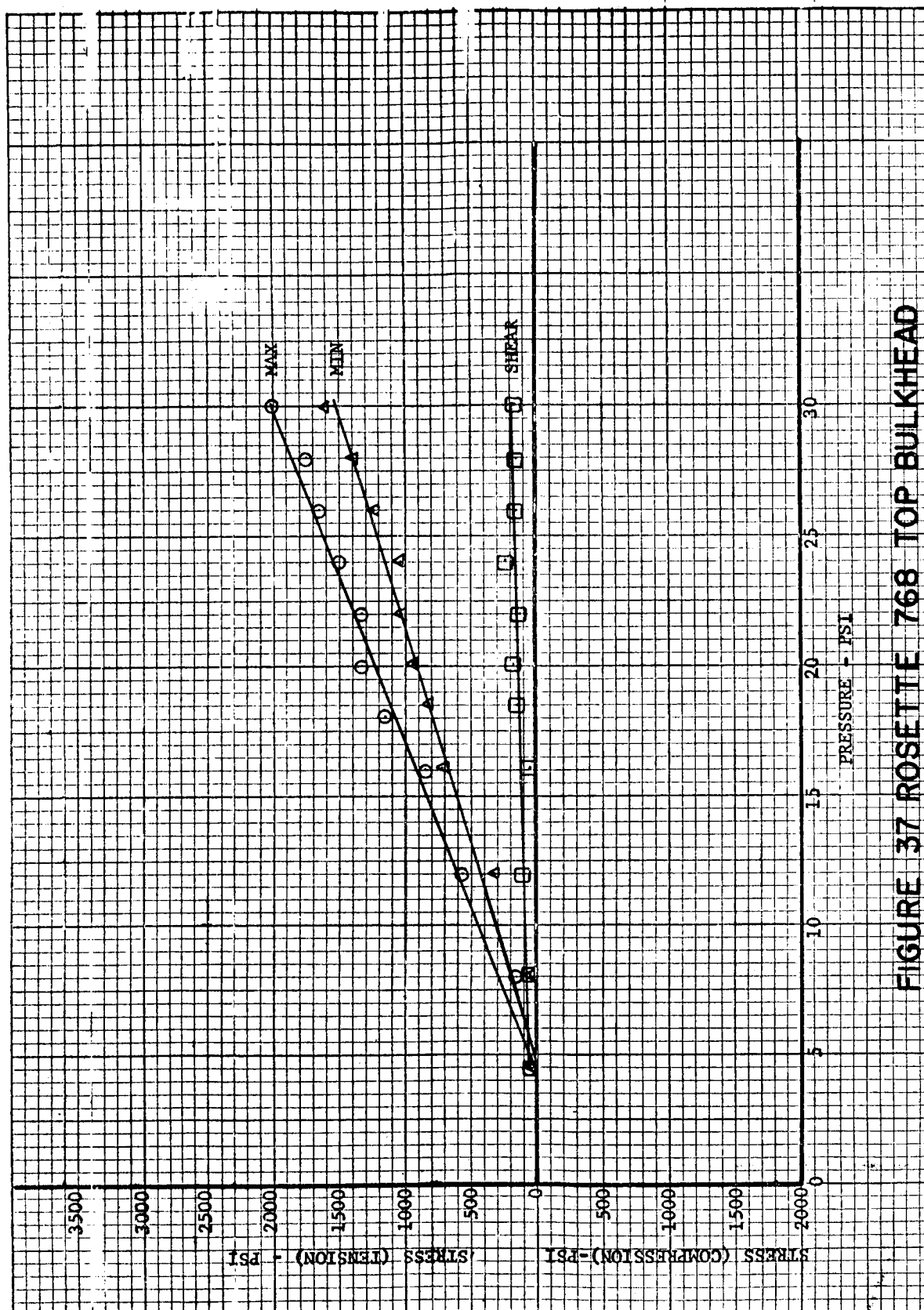


FIGURE 37 ROSETTE 768 TOP BULKHEAD

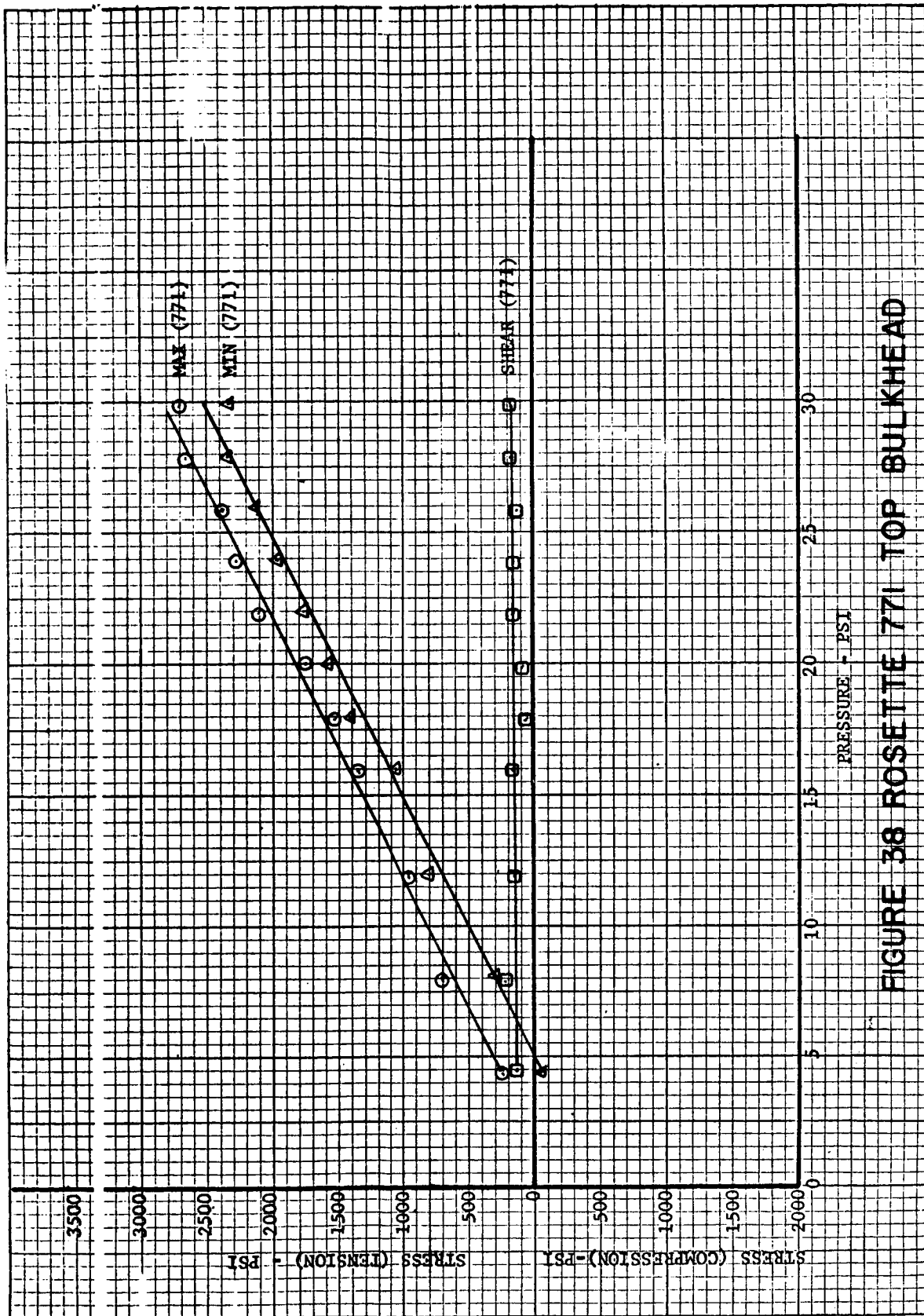


FIGURE 38 ROSETTE 771 TOP BULKHEAD

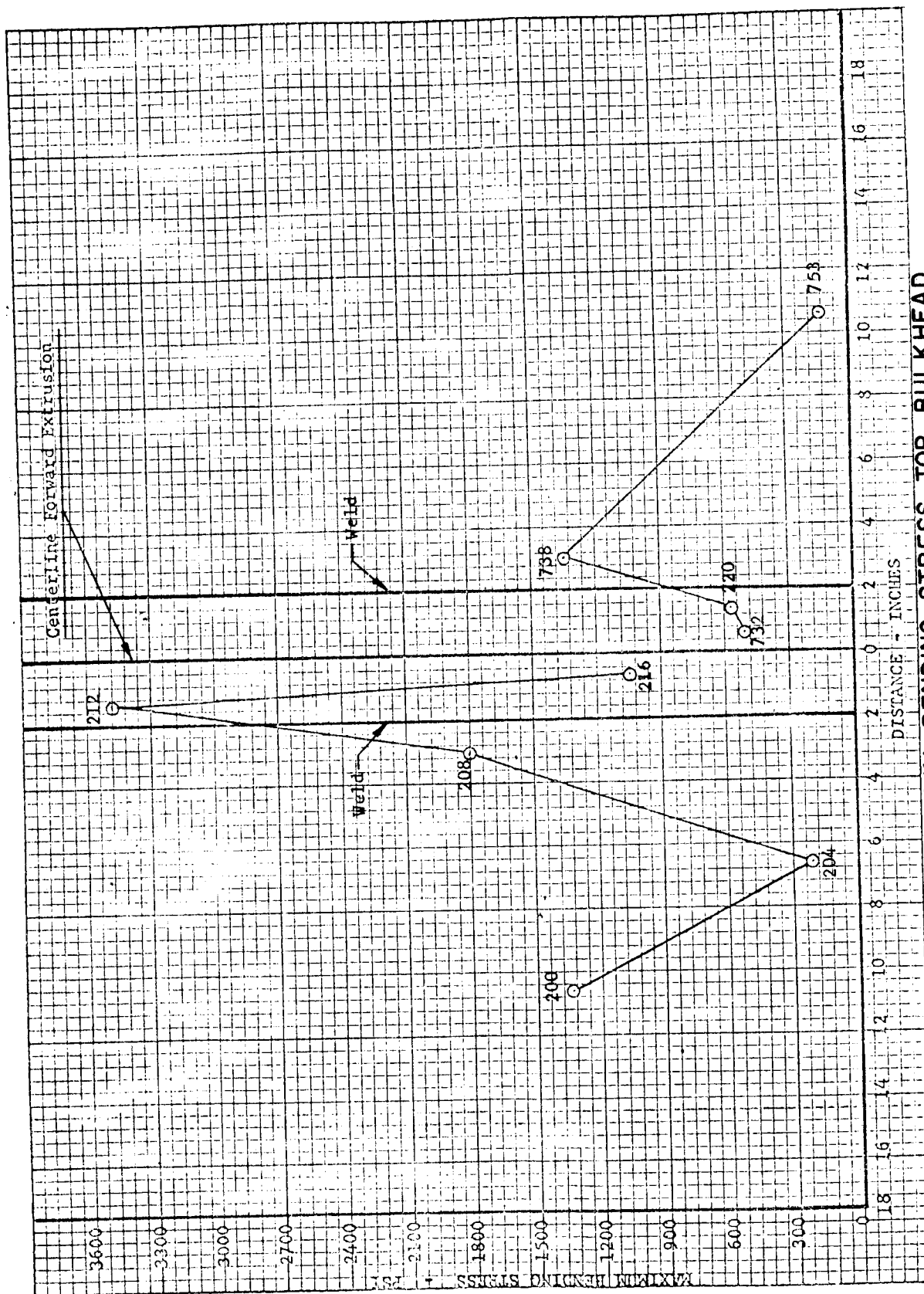


FIGURE 39 MAXIMUM BENDING STRESS TOP BULKHEAD
GAGE LINE 29.75 INCHES FROM CENTER LINE TANK

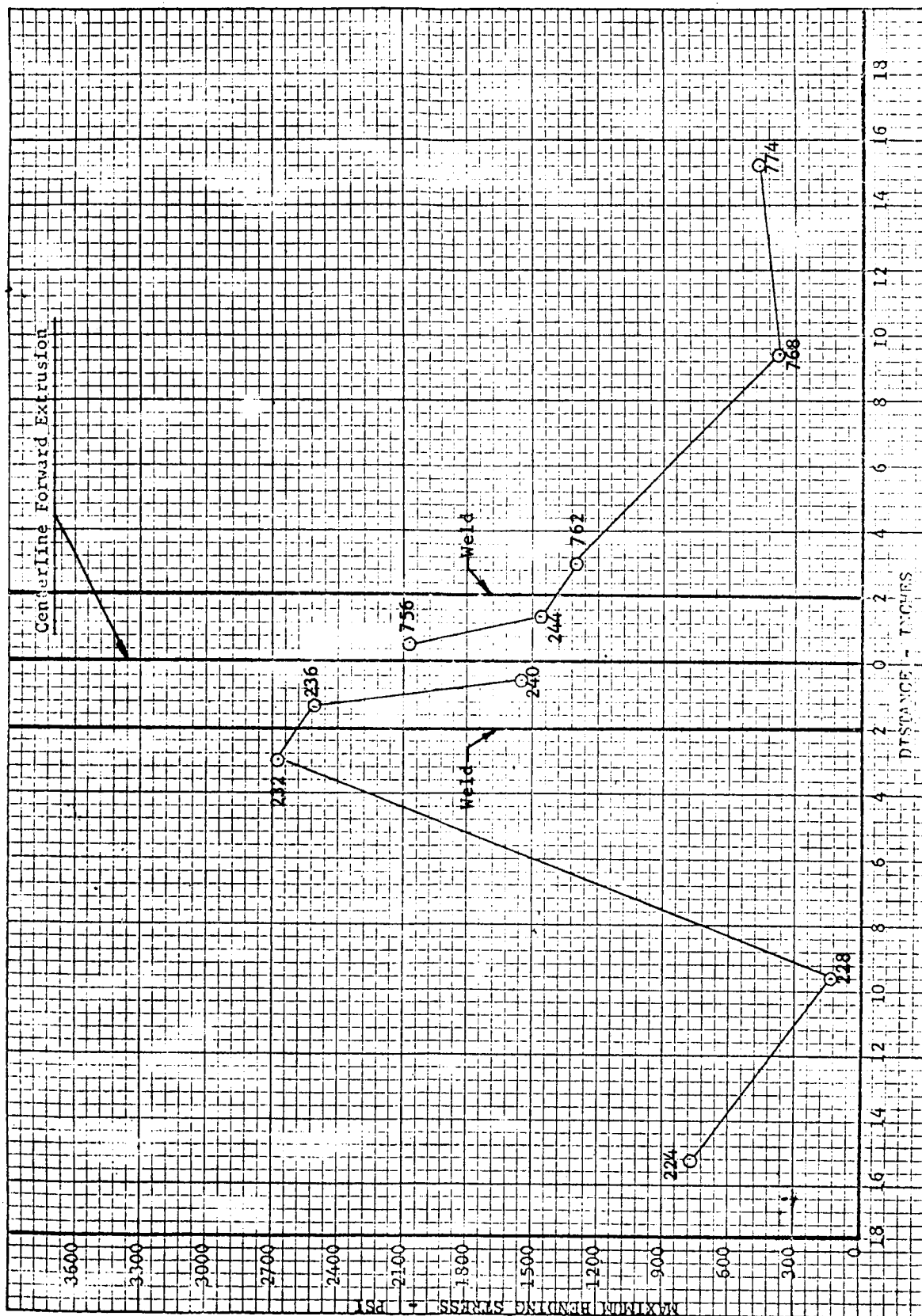


FIGURE 40 MAXIMUM BENDING STRESS TOP BULKHEAD
GAGE LINE 48.75 INCHES FROM CENTER LINE TANK

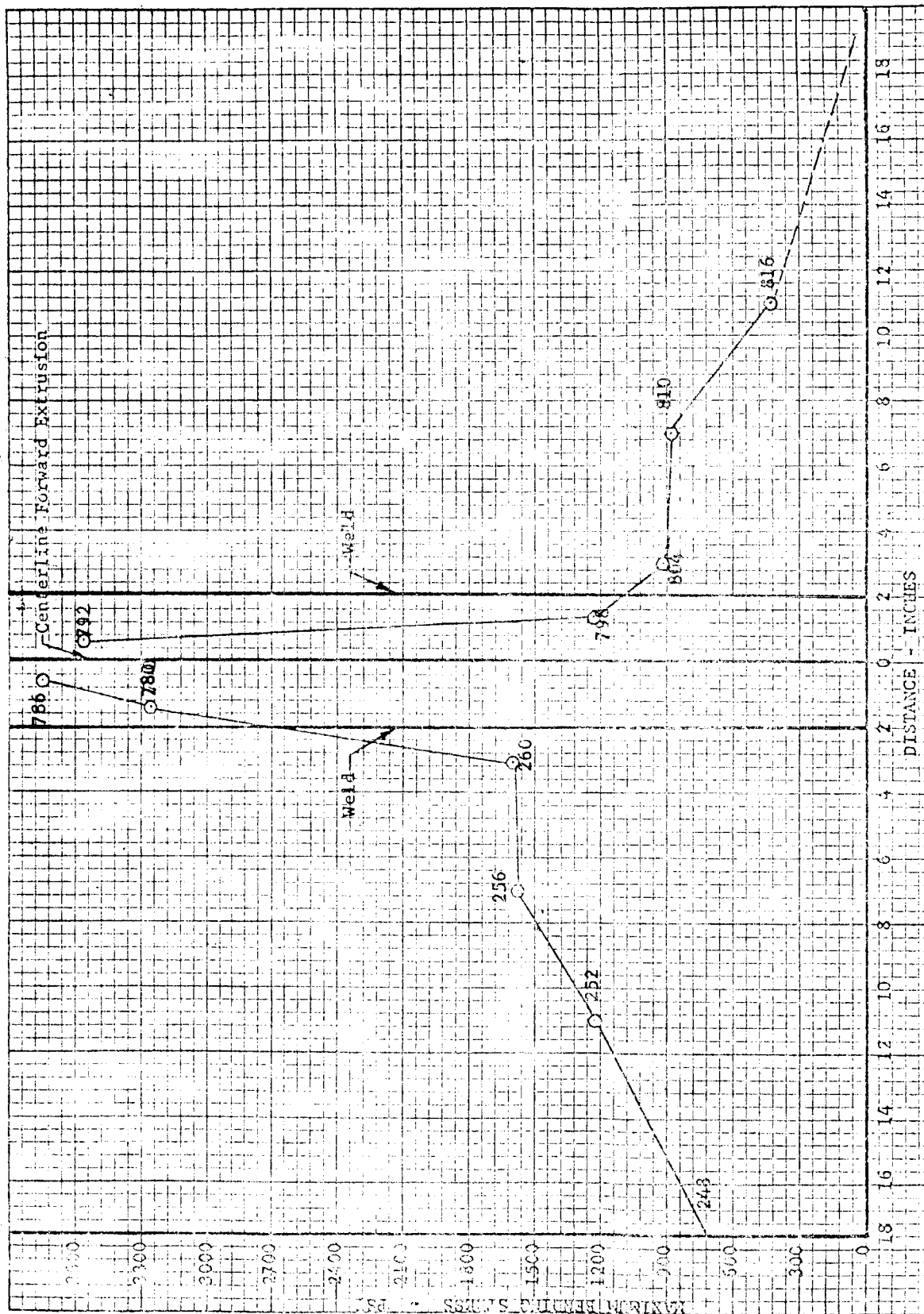


FIGURE 4I MAXIMUM BENDING STRESS TOP BULKHEAD
GAGE LINE 1 INCH BEHIND AND PARALLEL WITH CONE SPHERE JUNCTION



FIGURE 42 PRINCIPLE STRESSES
TOP BULKHEAD
30 PSI

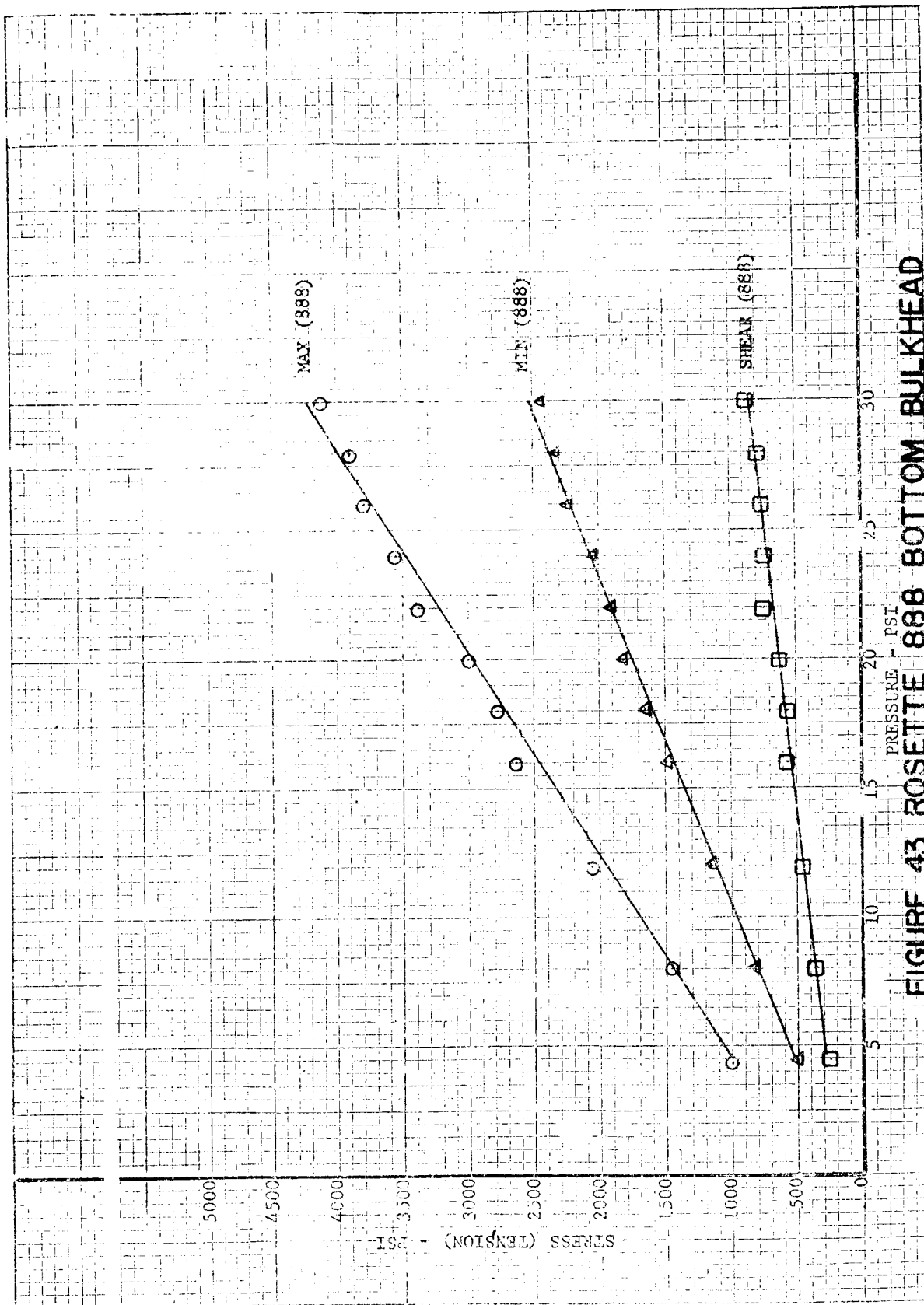


FIGURE 43 ROSETTE 888 BOTTOM BULKHEAD

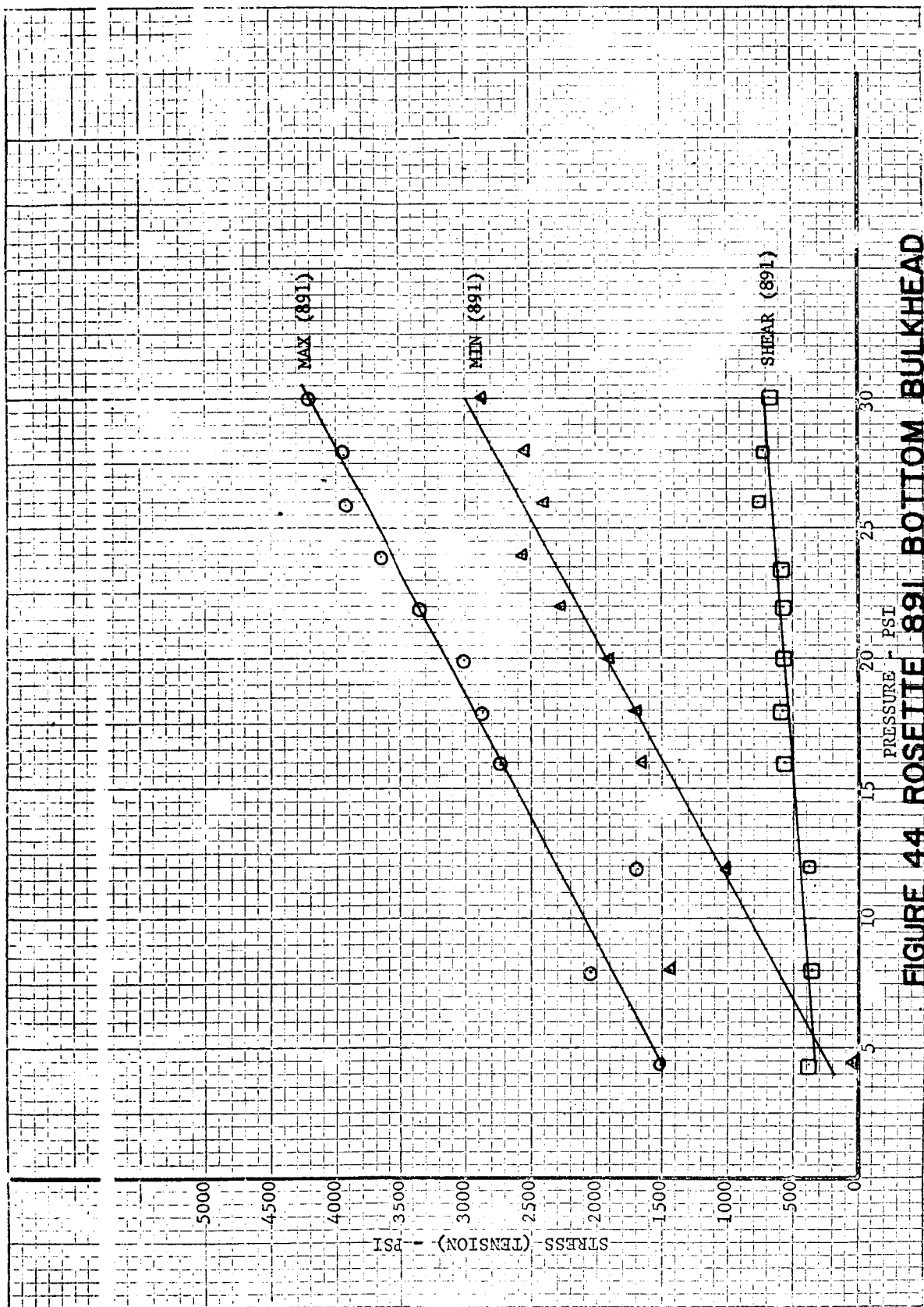


FIGURE 44 ROSETTE 891 BOTTOM BULKHEAD

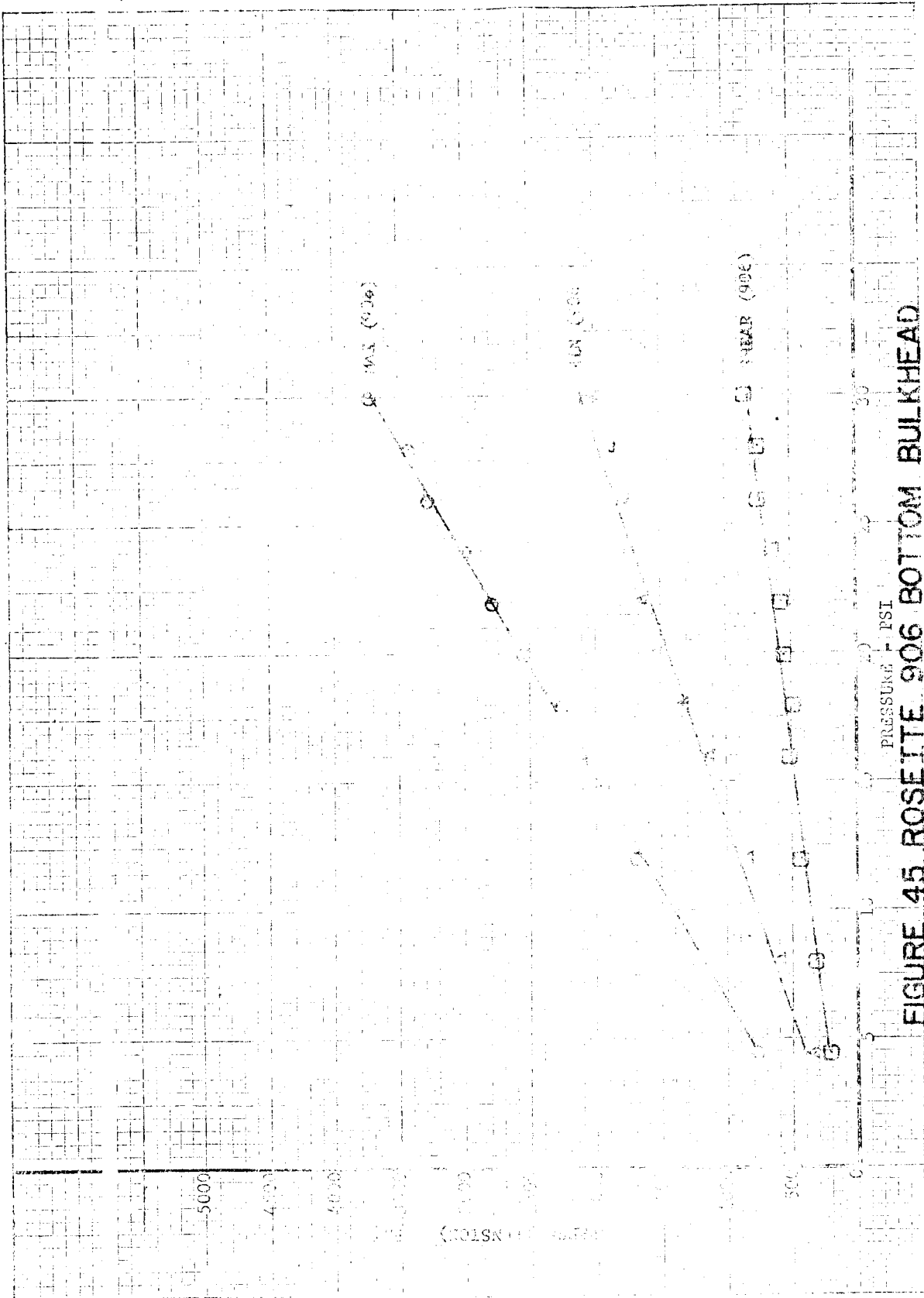


FIGURE 45 ROSETTE 906 BOTTOM BULKHEAD

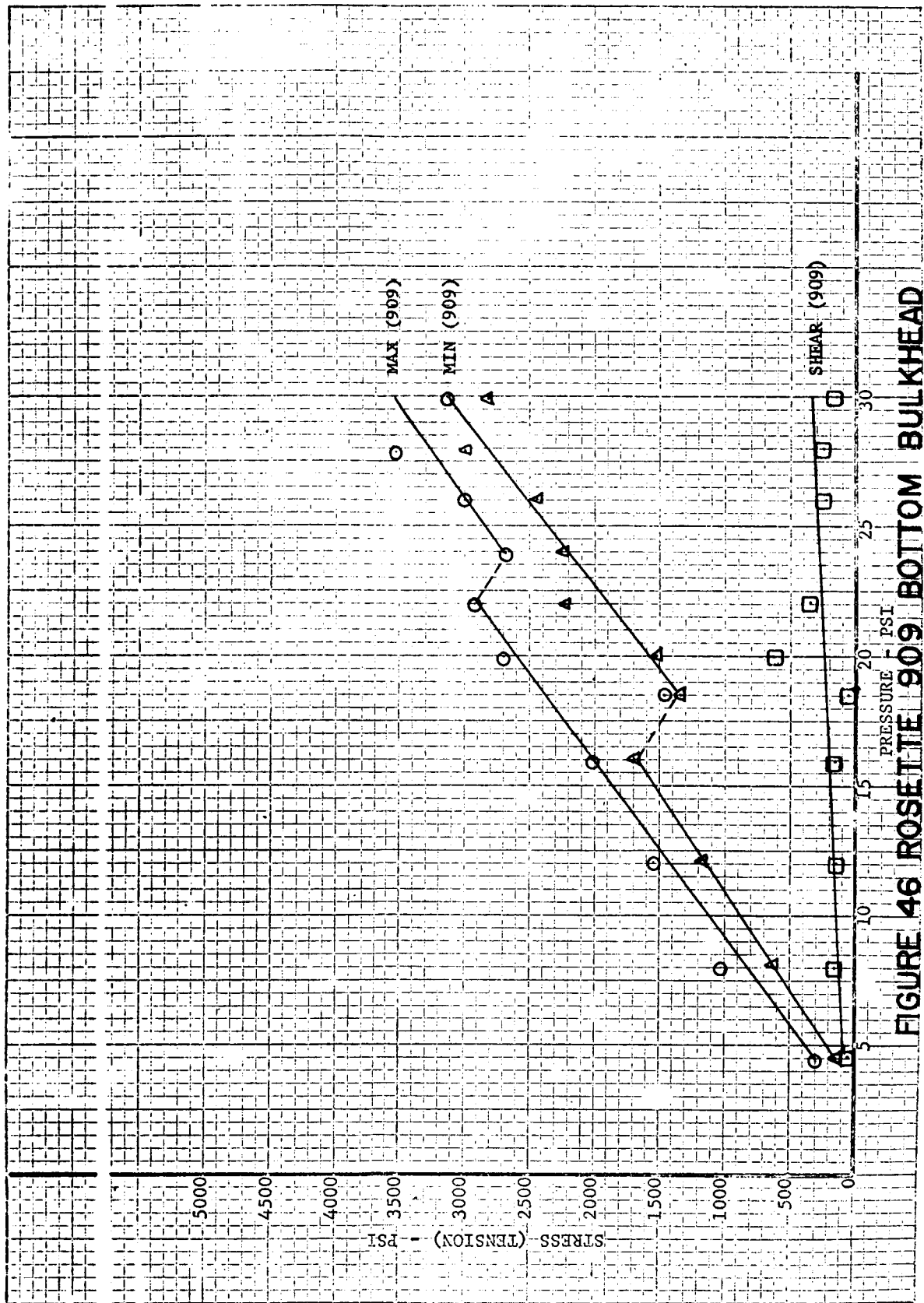


FIGURE 46 ROSETTE 909 BOTTOM BULKHEAD

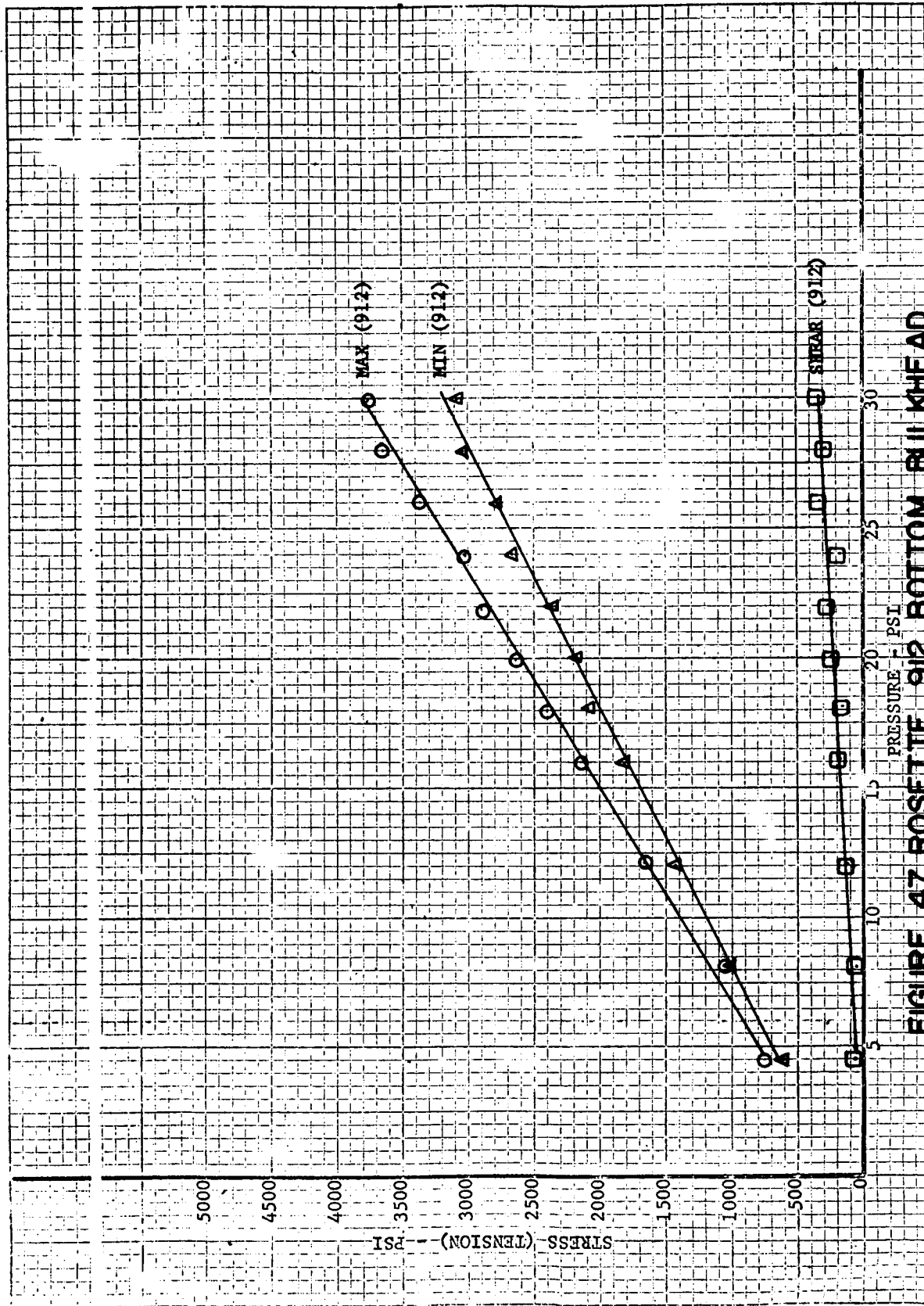


FIGURE 47 ROSETTE 912 BOTTOM BULMHEAD

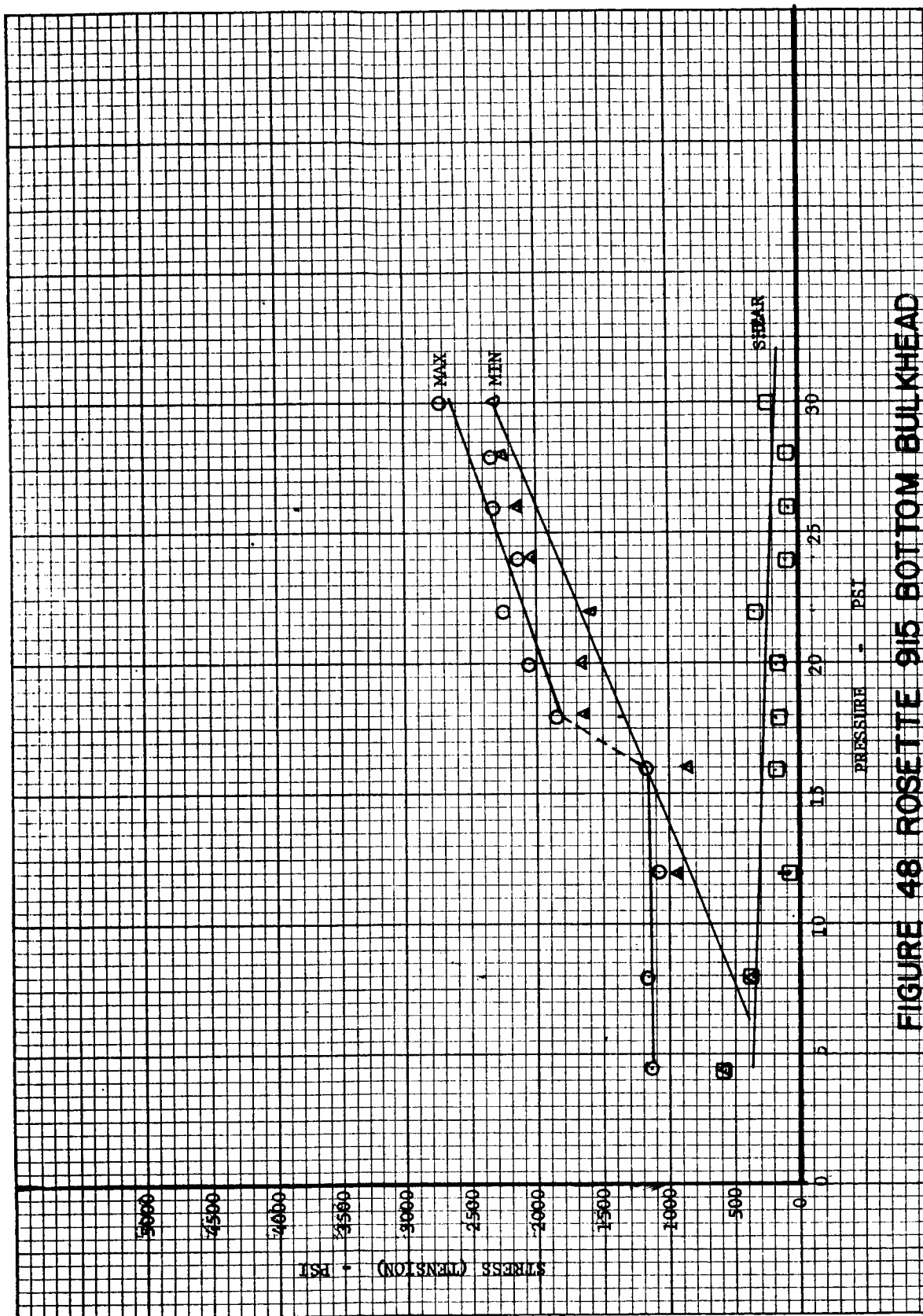


FIGURE 48 ROSETTE 915 BOTTOM BULKHEAD

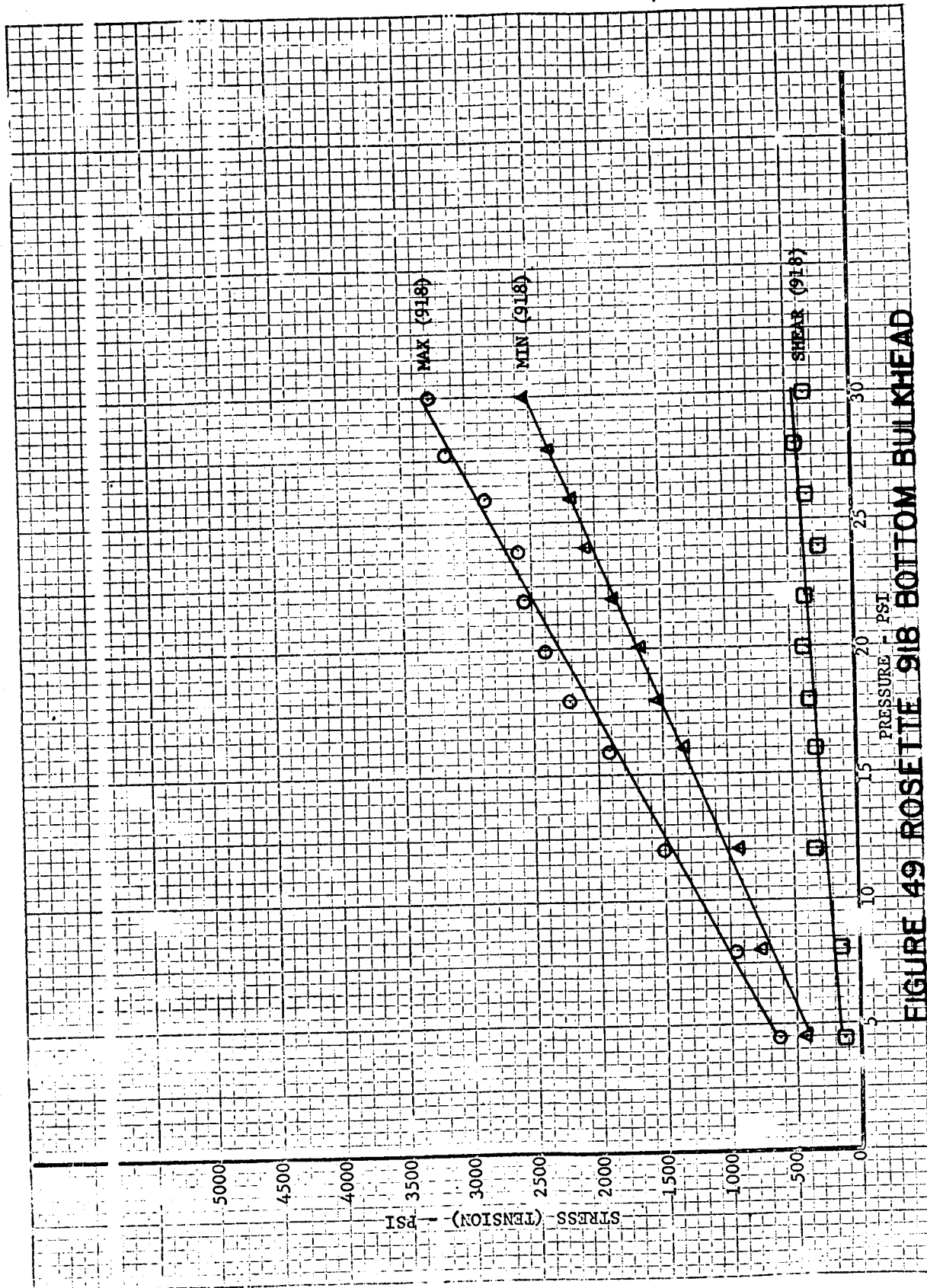


FIGURE 49 ROSETTE 918 BOTTOM BULKHEAD

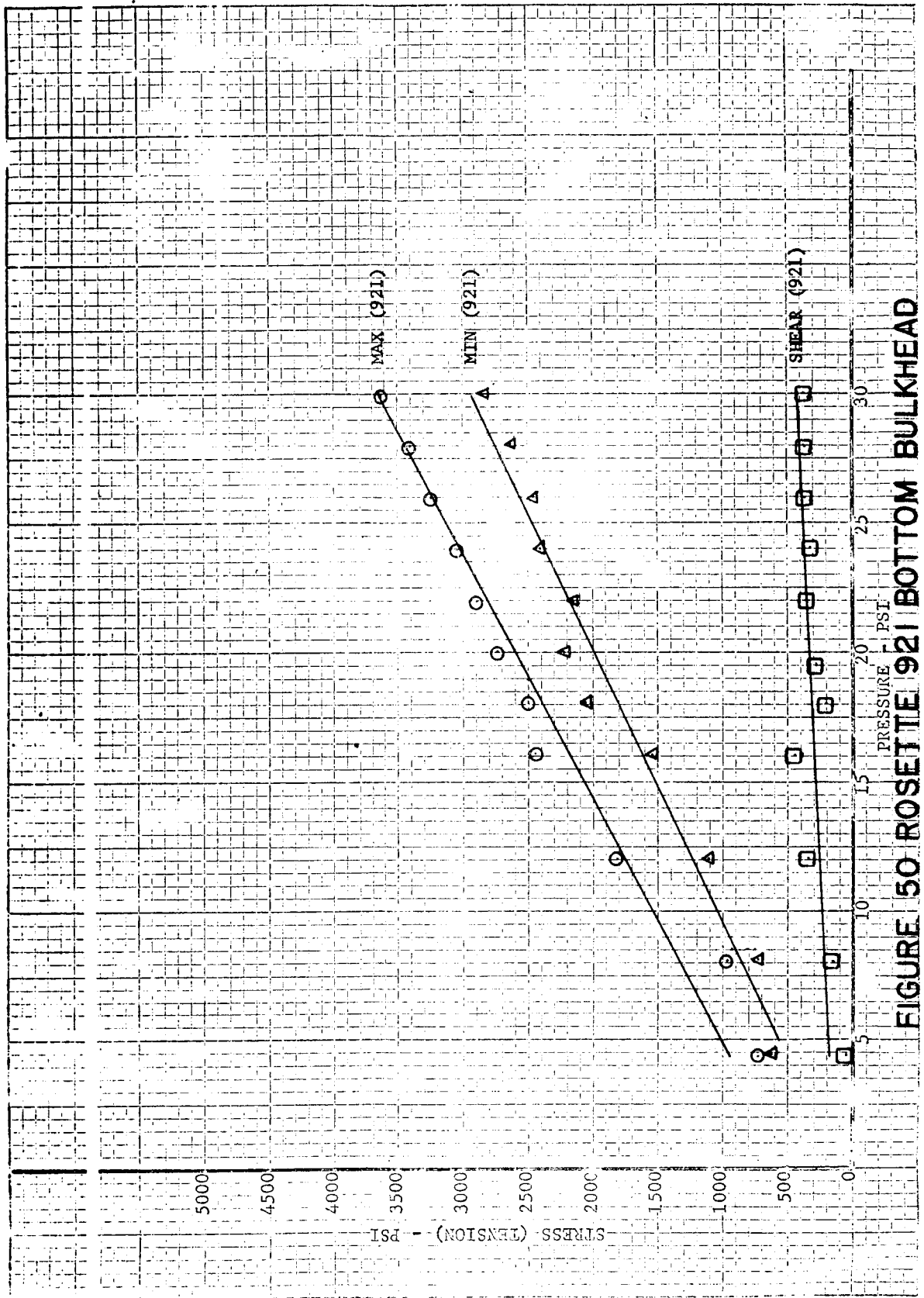
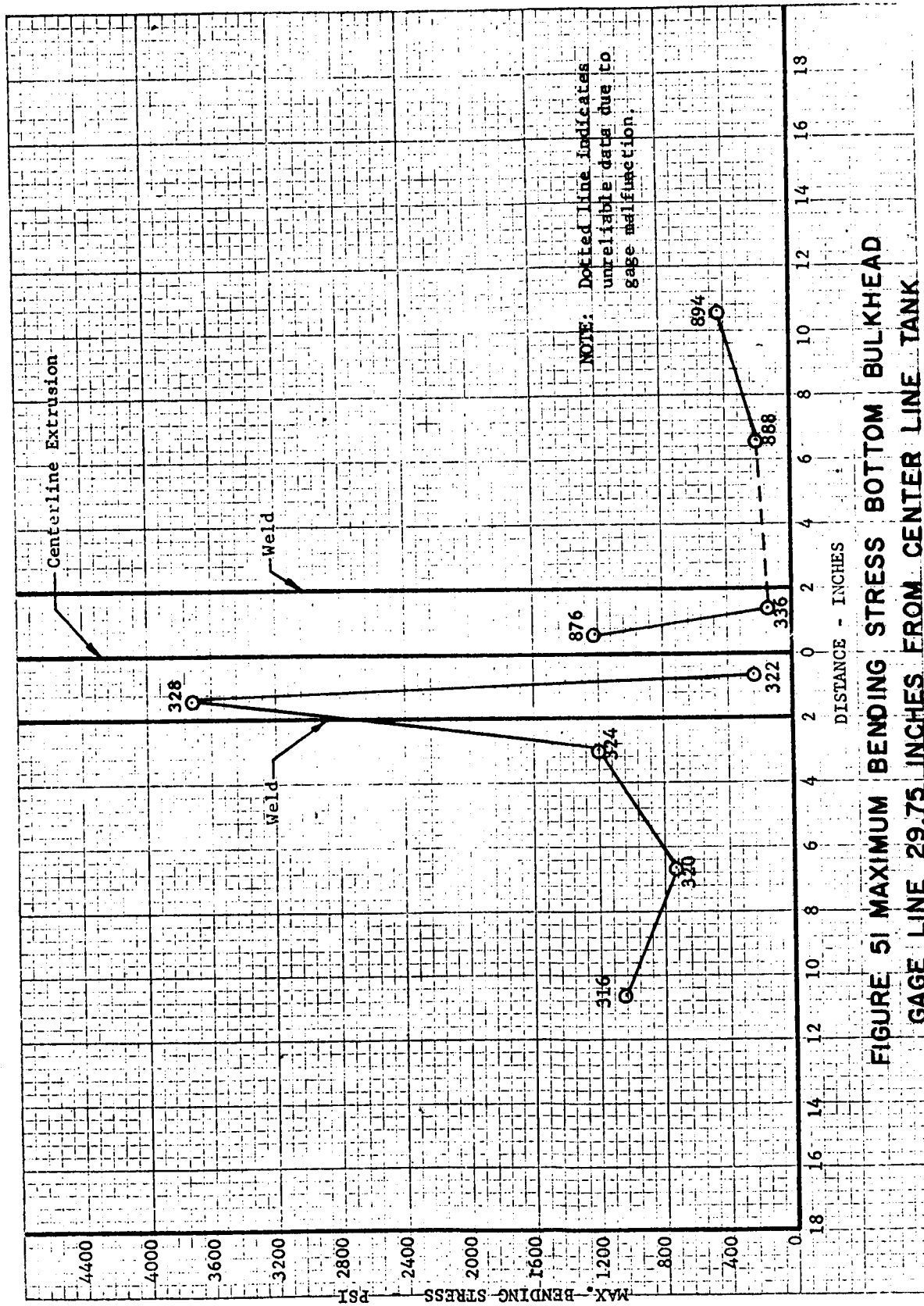


FIGURE 50 ROSETTE 921 BOTTOM BULKHEAD



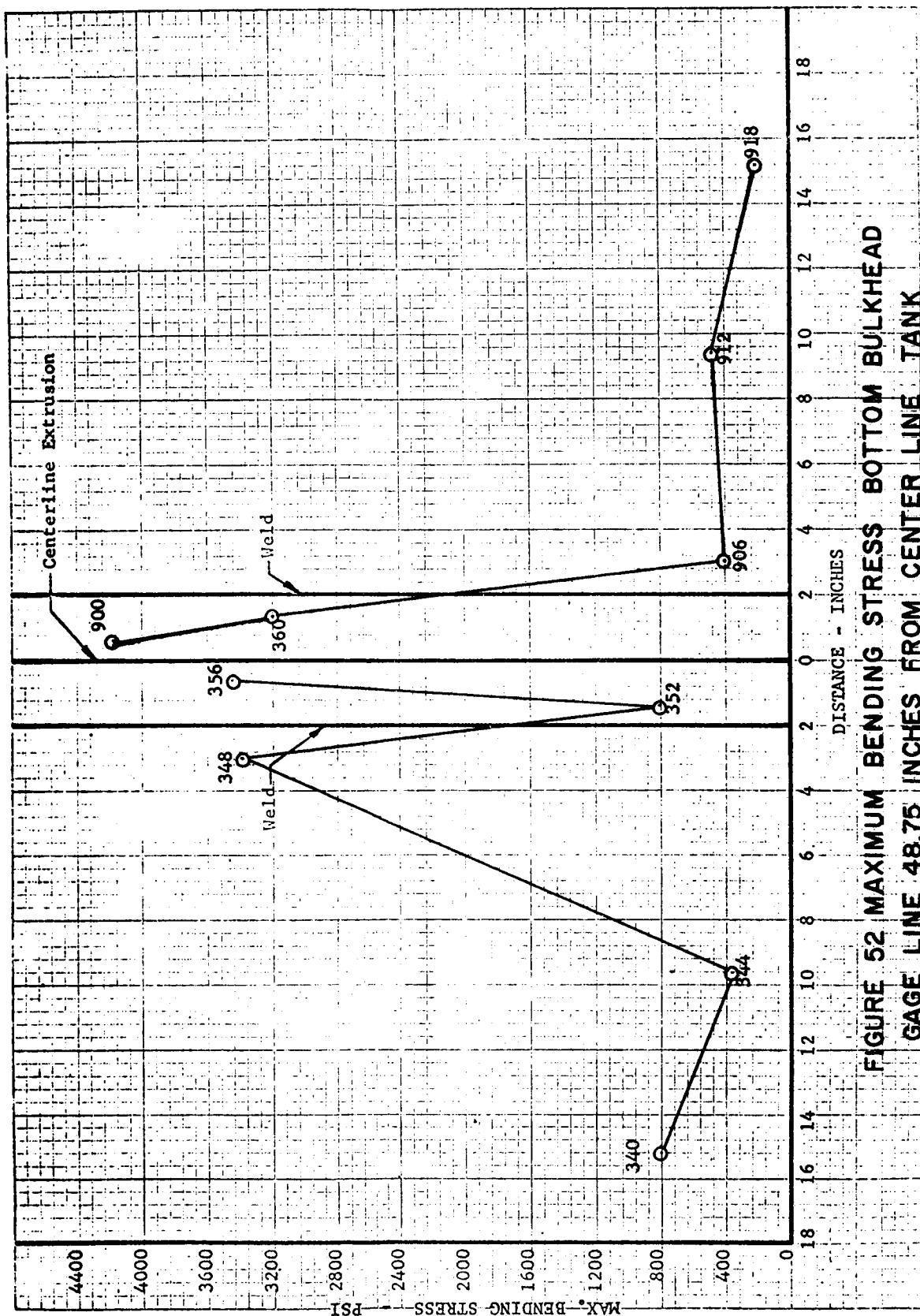


FIGURE 52 MAXIMUM BENDING STRESS BOTTOM BULKHEAD
GAGE LINE 48.75 INCHES FROM CENTER LINE TANK

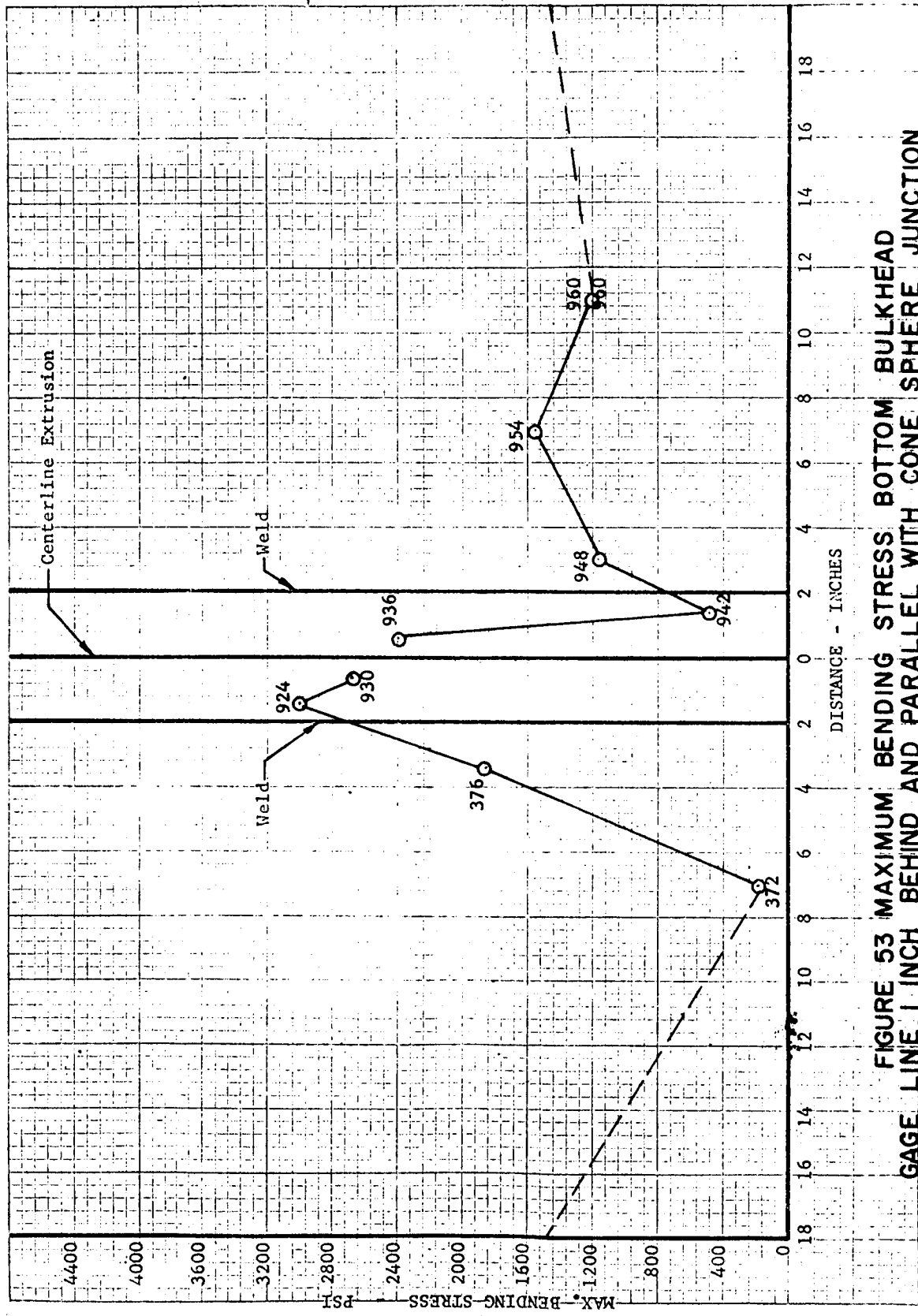


FIGURE 53 MAXIMUM BENDING STRESS BOTTOM BULKHEAD
GAGE LINE 1 INCH BEHIND AND PARALLEL WITH CONE SPHERE JUNCTION

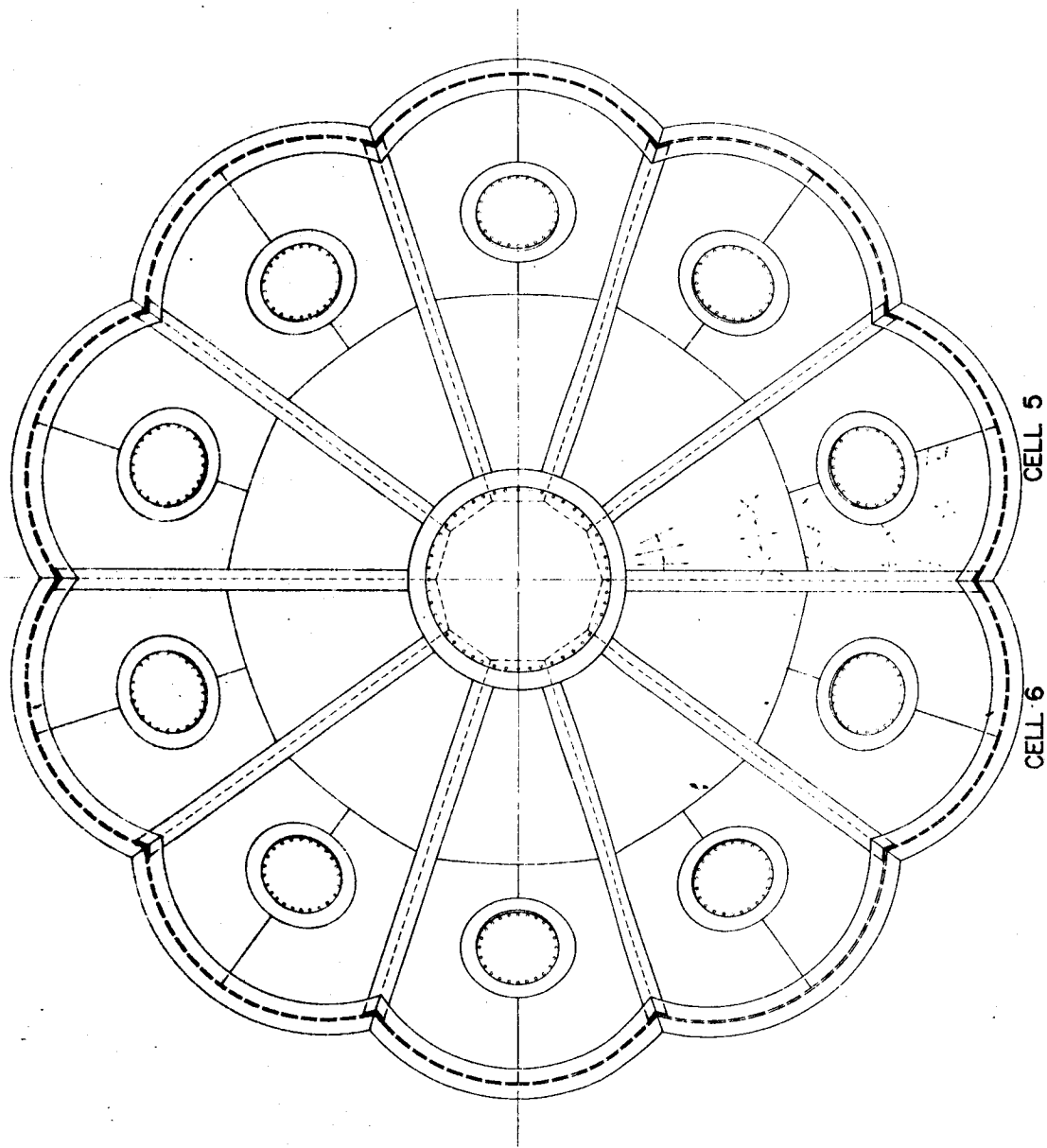


FIGURE 54 PRINCIPLE STRESSES
 BOTTOM BULKHEAD
 FULL CONDITIONS

NOTE
 SEE FIGURE 5 FOR GAGE NUMBER

SCALE



NOTE:
SEE FIGURE 5 FOR GAGE NUMBER
SCALE:
1/4" = 1"

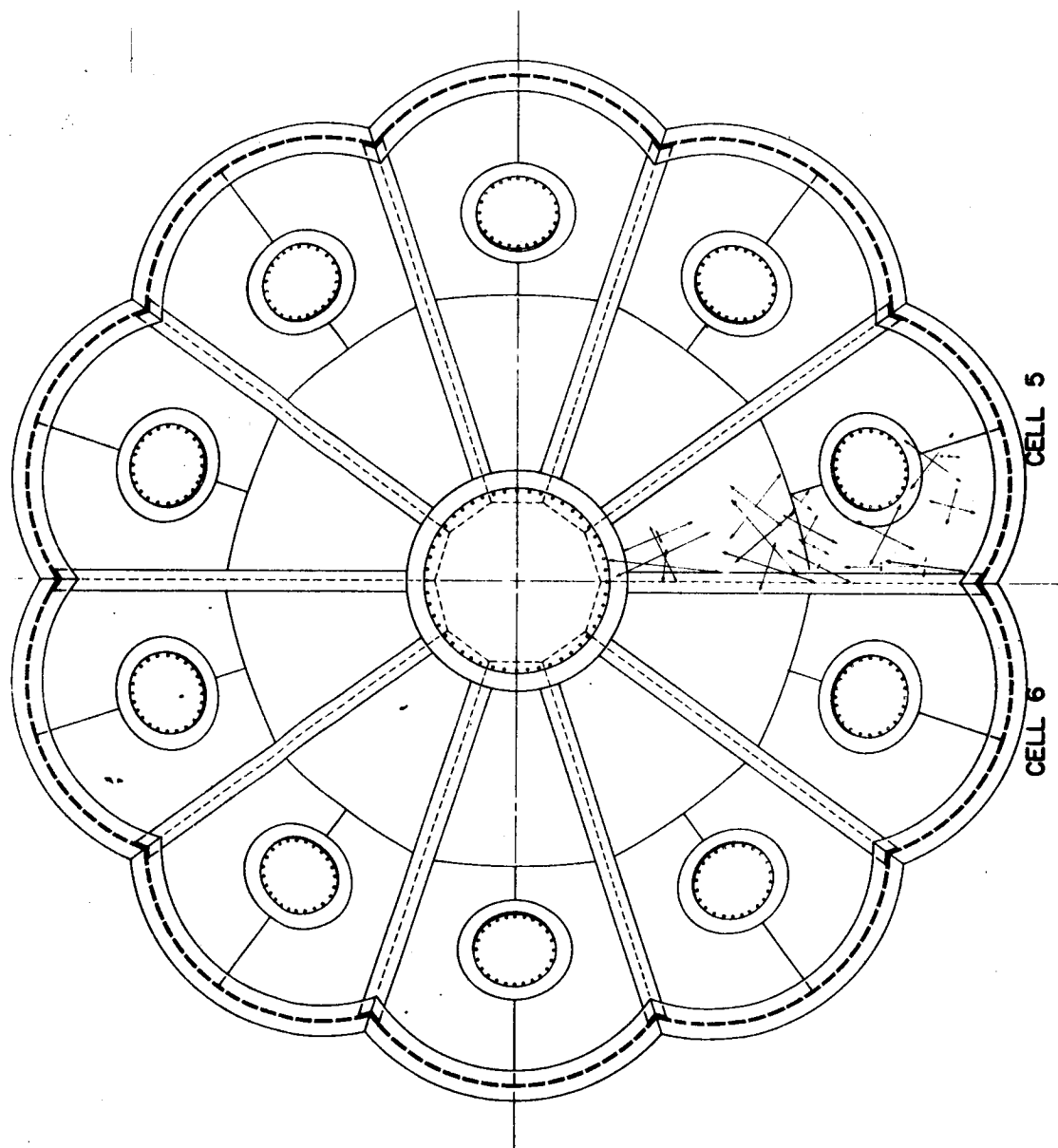


FIGURE 55 PRINCIPLE STRESSES
BOTTOM BULKHEAD
30 PSI

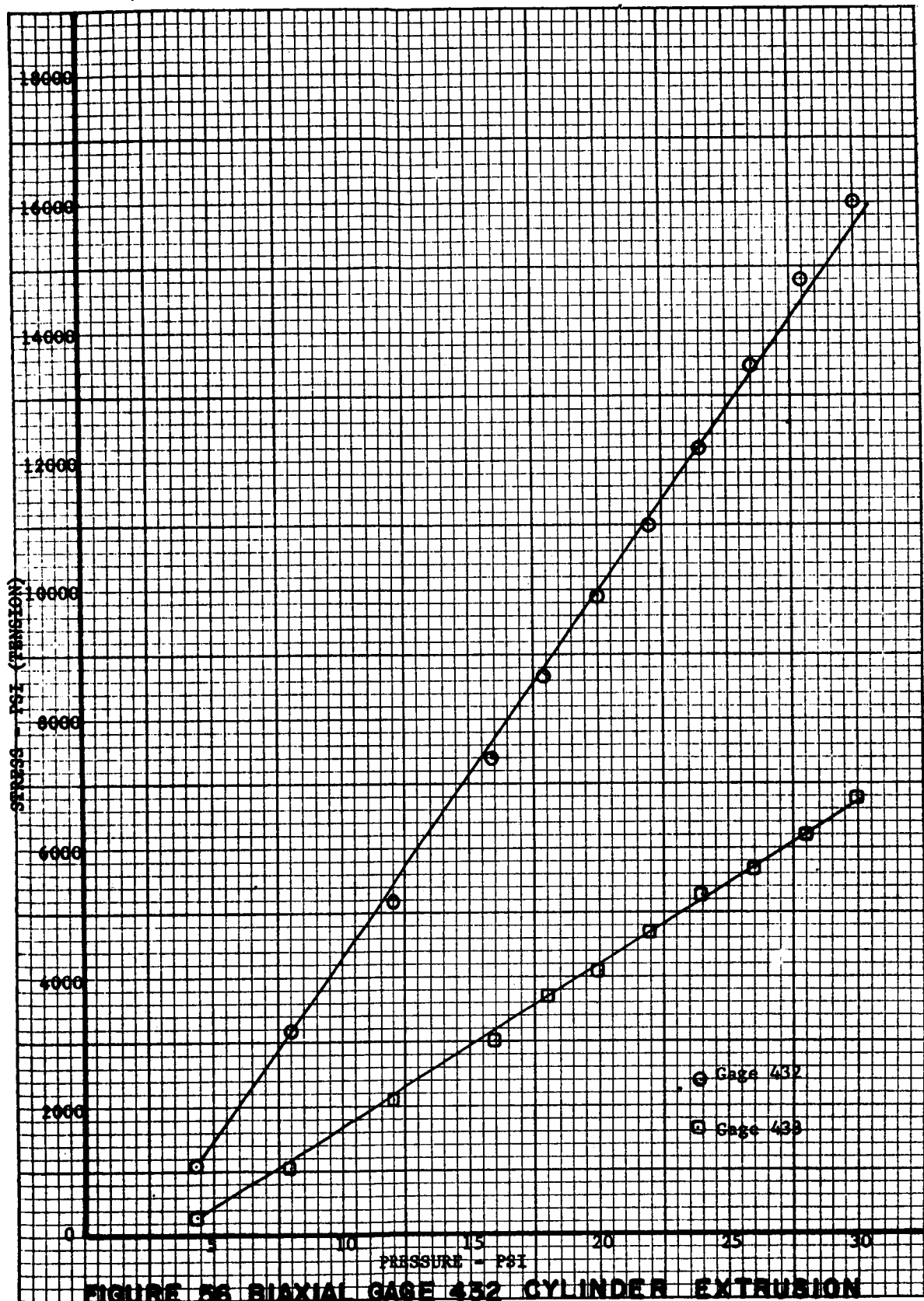


FIGURE 56 BIAXIAL GAGE 432 CYLINDER EXTRUSION

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TABLE II
Linear Deflection Transducers

556880 200 INCH MULTICELL		26 JULY 1965		n U= 0.000			
DISPLACEMENT GAGES		INCHES		E=			
GAGE	004 % 04.4 PSI(Full)	040 % 08.0 PSI	080 % 16.0 PSI	120 % 16.0 PSI	180 % 18.0 PSI	200 % 20.0 PSI	220 % 22.0 PSI
0021	0.018	0.019	0.031	0.039	0.043	0.048	0.050
0022	0.002	0.000	0.002	0.001	0.001	0.002	0.000
0023	0.016	0.022	0.030	0.037	0.040	0.047	0.048
0024	0.019	0.018	0.019	0.019	0.018	0.018	0.017
0025	0.024	0.024	0.026	0.028	0.030	0.030	0.032
0026	0.048	0.044	0.044	0.043	0.044	0.043	0.044
GAGE	240 % 24.0 PSI	260 % 26.0 PSI	280 % 28.0 PSI	300 % 30.0 PSI	301 % 4.4 PSI(Full)	044 % 04.4 PSI(Full)	033 % 03.3 PSI (1/4 Full)
0021	0.056	0.061	0.066	0.069	0.025	0.022	0.018
0022	0.002	0.002	0.003	0.001	0.001	0.004	0.003
0023	0.051	0.055	0.059	0.064	0.021	0.017	0.011
0024	0.018	0.018	0.016	0.014	0.018	0.022	0.019
0025	0.033	0.036	0.037	0.040	0.026	0.026	0.022
0026	0.044	0.044	0.043	0.043	0.044	0.044	0.043
GAGE	022 % 02.2 PSI (1/2 Full)	011 % 01.1 PSI (1/4 Full)	000 % (Final Zero)				
0021	0.016	0.017	0.012				
0022	0.001	0.001	0.001				
0023	0.008	0.008	0.008				
0024	0.014	0.011	0.004				
0025	0.016	0.010	0.000				
0026	0.036	0.019	0.000				

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000 N (Final Zero)	011 N PSI (1/4 Full)	022 N PSI (1/2 Full)	033 N PSI (3/4 Full)	044 N PSI (Full)
21	14	207		
143	20	203		
104	37	91		
104	104	184		
188	178	321		
223	151	43		
296	73	32		
94	47	324		
240	102	408		
91	79	162		

TABLE IV
Reduced Single Gage Results
Tension Web & Stiffeners

556880		200 INCH MULTICELL		26 JULY 1965			
SINGLE STRAIN GAGES		PSI		E = 10,400,000 US 0.000			
GAGE	004 K 04.4 PSI (Full)	040 K 00.0 PSI	080 K 08.0 PSI	120 K 12.0 PSI	160 K 16.0 PSI	200 K 20.0 PSI	220 K 22.0 PSI
0117	31	112	366	214	508	71	285
0118	134	190	250	264	679	479	372
0119	212	182	125	310	251	224	369
0120	17	33	524 *	253	50	126	340
0121	165	276	73	445	527	415	457
0122	371	577	712	1,047	1,488	933	1,360
0123	478	284	769	1,147	1,174	1,333	1,505
0124	270	626	909	1,783	1,668	1,854	1,843
0125	603	975	1,941	2,125	2,465	2,515	2,920
0126	543	932	1,602	2,157	2,752	2,727	2,750
0127	612	934	849	996	1,174	1,395	1,470
0128	233	236	441	222	543	603	704
0129	90	121	229	197	40	270	48
0130	164	28	254	294	45	377	318
0131	384	421	224	211	263	292	497
0132	97	7	25	271	233	221	370
0133	37	42	277	429	28	289	73
0134	51	10	218	178	10	511	309
0135	241	108	228	398	324	348	318
0136	10	290	303	269	97	41	219
0137	28	48	213	197	166	217	787
0138	20	142	78	26	173	235	156
0139	117	286	775	993	787	1,281	1,359
0140	750	1,040	1,501	1,936	2,379	2,480	2,829
0141	262	477	813	1,364	1,098	1,068	1,453
0142	388	582	1,011	868	1,090	820	898
0143	464	653	801	993	1,204	1,218	1,368

556880 200 INCH MULTICELL 26 JULY 1965
 SINGLE STRAIN GAGES PSI E= 10,400,000 US 0.000

GAGE	240 K 24.0 PSI	260 K 26.0 PSI	280 K 28.0 PSI	300 K 30.0 PSI	301 K 4.4 PSI(Full)	044 K 04.4 PSI(Full)	033 K 03.3 PSI(1/2 Full)
0117	326	326	366	183	183	285	349
0118	364	382	321	22	22	70	3
0119	216	349	463	409	107	129	43
0120	312	214	169	165	22	11	49
0121	827	871	1,001	1,079	158	102	141
0122	1,578	1,274	1,724	1,877	436	364	383
0123	1,679	1,697	1,746	1,737	194	190	205
0124	2,344	2,308	2,472	2,474	366	181	40
0125	2,981	3,354	3,309	3,355	438	548	415
0126	2,909	3,184	3,289	3,341	700	413	205
0127	1,768	1,706	1,844	1,497	433	732	523
0128	635	777	752	781	236	153	93
0129	66	57	81	99	222	13	60
0130	215	206	95	221	70	28	13
0131	587	587	783	877	68	44	282
0132	628	504	718	742	94	65	122
0133	62	347	318	248	151	149	172
0134	428	134	342	522	105	207	42
0135	468	468	388	514	132	82	306
0136	134	61	54	89	81	95	135
0137	73	47	116	27	178	31	126
0138	203	159	162	174	21	13	132
0139	1,307	1,564	1,512	1,615	441	924	362
0140	2,893	3,071	3,331	3,446	494	527	146
0141	1,253	1,297	1,257	1,278	51	360	59
0142	1,150	1,425	1,224	1,204	380	18	59
0143	1,413	1,440	1,274	1,633	234	239	98

GAGE	022 K 02.2 PSI(1/2 Full)	011 K 01.1 PSI(1/2 Full)	000 K (Find Zero)
0117	508	112	508
0118	13	139	112
0119	92	226	83
0120	156	51	145
0121	102	9	147
0122	245	167	77
0123	74	53	77
0124	124	15	168
0125	247	15	309
0126	25	228	43
0127	358	117	198
0128	73	120	11
0129	65	94	22
0130	9	159	9
0131	41	110	86
0132	141	238	61
0133	129	113	54
0134	63	82	152
0135	67	150	138
0136	97	371	53
0137	139	5	384
0138	217	187	128
0139	583	484	361
0140	135	986	28
0141	64	83	303
0142	109	112	170
0143	290	201	47

TABLE V
Reduced Rosette Gage Results
Tension Web

556880 200 INCH MULTICELL										26 JULY 1965									
RECTANGULAR ROSETTE										E = 10,400,000 U = 0.000									
GAUGE		004 % 04.4 PSI (F ₁₁₁)		040 % 04.0 PSI		080 % 42.0 PSI		120 % 120.0 PSI		160 % 160.0 PSI		200 % 200.0 PSI		220 % 220.0 PSI					
1044	MAX	106	495	1,185	1,724	1,880	2,081	2,299											
1045	MIN	455	74	116	519	922	664	984											
1046	SHEAR	280	285	534	608	479	709	658											
	THETA	39	49	64	66	69	67	64											
1047	MAX	302	939	1,808	2,185	2,395	2,523	2,854											
1048	MIN	33	500	723	1,026	1,463	1,593	1,897											
1049	SHEAR	135	220	443	580	466	465	498											
	THETA	38	33	26	29	32	17	20											
1053	MAX	50	178	344	447	356	566	593											
1054	MIN	240	126	168	524	443	174	454											
1055	SHEAR	95	126	256	485	400	370	523											
	THETA	44	77	90	82	89	85	87											
1056	MAX	370	1,087	1,423	2,413	2,689	3,063	3,199											
1057	MIN	69	335	642	794	504	719	1,096											
1058	SHEAR	150	376	591	810	1,093	1,172	1,051											
	THETA	67	53	45	43	43	44	44											
1059	MAX	105	789	1,433	2,003	2,408	2,728	2,864											
1060	MIN	403	625	565	1,366	1,164	1,554	1,924											
1061	SHEAR	254	82	434	319	622	587	470											
	THETA	66	53	46	57	59	56	59											
1062	MAX	259	581	1,456	2,199	2,217	2,628	2,959											
1063	MIN	50	405	444	710	449	881	1,292											
1064	SHEAR	104	88	506	744	884	874	833											
	THETA	3	30	48	48	49	49	49											
1065	MAX	258	811	1,412	2,113	2,528	2,831	3,231											
1066	MIN	205	419	802	728	882	1,127	1,183											
1067	SHEAR	26	196	305	693	823	852	1,024											
	THETA	59	64	64	63	59	63	64											
1068	MAX	256	784	1,322	1,928	2,300	2,730	3,057											
1069	MIN	67	505	488	575	514	648	861											
1070	SHEAR	95	140	417	677	893	1,041	1,098											
	THETA	3	41	42	49	45	46	50											
1071	MAX	535	1,274	2,325	3,359	3,886	4,273	4,620											
1072	MIN	192	824	1,949	2,717	3,042	3,473	3,899											
1073	SHEAR	171	225	288	321	422	400	360											
	THETA	57	67	67	71	73	74	74											

TABLE V (Continued)

556880 200 INCH MULTICELL		26 JULY 1965									
RECTANGULAR ROSETTE		PSI		E= 10,400,000		U= 0.000					
GRADE		240 K 24.0 PSI	240 K 24.0 PSI	260 K 26.0 PSI	300 K 30.0 PSI	301 K 30.1 PSI(Full)	044 K 04.4 PSI(Full)	033 K 03.3 PSI(%Full)			
1044	MAX	2,520	2,757	2,996	3,272	170	-	56	-	175	
1045	MIN	1,062	1,248	1,086	1,909	486	-	745	-	638	
1046	SHEAR	729	755	655	682	328	-	345	-	232	
1048	THETA	62	70	77	74	65	-	70	-	86	
1047	MAX	2,982	3,147	3,350	3,595	537	-	188	-	154	
1048	MIN	1,992	1,862	2,486	2,552	247	-	298	-	418	
1049	SHEAR	495	643	432	521	145	-	243	-	286	
1049	THETA	25	31	12	24	33	-	52	-	43	
1053	MAX	-	718	723	937	92	-	131	-	196	
1054	MIN	-	207	139	28	372	-	643	-	596	
1055	SHEAR	-	463	432	455	232	-	246	-	200	
1055	THETA	-	89	88	85	74	-	87	-	77	
1056	MAX	3,620	3,661	3,913	4,121	450	-	249	-	293	
1057	MIN	1,311	1,488	1,392	2,012	118	-	118	-	49	
1058	SHEAR	1,155	1,087	1,260	1,055	166	-	65	-	171	
1058	THETA	44	43	42	41	40	-	67	-	57	
1059	MAX	3,179	3,334	3,536	3,915	386	-	260	-	184	
1060	MIN	1,766	2,216	2,185	2,509	304	-	195	-	103	
1061	SHEAR	707	559	675	793	41	-	32	-	143	
1061	THETA	60	64	62	61	78	-	74	-	45	
1062	MAX	3,346	3,445	3,698	3,860	335	-	124	-	111	
1063	MIN	1,028	1,383	1,336	1,765	179	-	173	-	246	
1064	SHEAR	1,159	1,031	1,181	1,047	178	-	148	-	178	
1064	THETA	50	50	52	52	26	-	39	-	42	
1065	MAX	3,526	3,733	4,039	4,346	301	-	147	-	122	
1066	MIN	1,527	1,528	1,708	1,891	226	-	70	-	81	
1067	SHEAR	1,000	1,103	1,166	1,328	38	-	38	-	101	
1067	THETA	64	64	64	65	48	-	35	-	67	
1068	MAX	3,311	3,544	3,773	4,191	331	-	280	-	329	
1069	MIN	1,000	1,821	944	1,150	7	-	176	-	156	
1070	SHEAR	1,155	1,262	1,415	1,520	162	-	228	-	227	
1070	THETA	50	49	48	52	17	-	13	-	14	
1071	MAX	4,083	5,454	5,737	6,066	626	-	686	-	988	
1072	MIN	4,074	4,682	4,981	5,184	578	-	121	-	47	
1073	SHEAR	454	426	418	441	24	-	283	-	283	
1073	THETA	77	76	71	75	49	-	44	-	47	

TABLE V (Continued)

556880		200 INCH MULTICELL		26 JULY 1965	
RETANGULAR ROSETTE		PSI		E = 10,400,000 U = 0.000	
GAGE		022 X 02.2 PSI (1/2 Full)	011 X 01.1 PSI (1/4 Full)	000 X 00.0 PSI (Final Zero)	
1044	MAX	40	61	58	
1045	MIN	499	632	386	
1046	SHEAR	244	285	222	
	THETA	78	75	83	
1047	MAX	132	152	221	
1048	MIN	342	302	323	
1049	SHEAR	237	227	272	
	THETA	44	42	38	
1053	MAX	86	35	145	
1054	MIN	517	396	552	
1055	SHEAR	215	216	204	
	THETA	88	76	83	
1056	MAX	367	366	287	
1057	MIN	28	5	95	
1058	SHEAR	169	181	96	
	THETA	64	80	82	
1059	MAX	363	354	323	
1060	MIN	24	24	94	
1061	SHEAR	194	165	114	
	THETA	58	36	43	
1062	MAX	194	11	5	
1063	MIN	287	146	53	
1064	SHEAR	241	64	24	
	THETA	48	15	41	
1065	MAX	172	311	294	
1066	MIN	14	10	30	
1067	SHEAR	79	161	162	
	THETA	40	60	40	
1068	MAX	401	460	416	
1069	MIN	71	92	43	
1070	SHEAR	165	184	186	
	THETA	13	17	7	
1071	MAX	561	472	478	
1072	MIN	34	57	134	
1073	SHEAR	308	265	172	
	THETA	42	37	41	

26 JULY 1965

556880 200 INCH MULTICELL

RETANGULAR ROSETTE

0.000

E= 10,400,000

PSI

3

RETAGLI

GAGE	004 % 04.4 PSI (F-H)	040 % 08.0 PSI	080 % 16.0 PSI	120 % 16.0 PSI	160 % 18.0 PSI	200 % 20.0 PSI	220 % 22.0 PSI
1074	MAX	481	1,199	1,798	2,421	3,193	3,526
1075	MIN	268	1,491	1,491	2,274	2,408	3,178
1076	SHEAR	107	154	154	74	392	174
1077	THETA	11	30	42	52	36	27
1078	MAX	521	914	1,477	1,926	2,133	2,351
1079	MIN	838	1,826	2,764	4,380	5,113	5,659
1080	SHEAR	159	456	644	1,227	1,365	1,654
1081	THETA	26	42	40	45	41	43
1082	MAX	429	1,156	2,414	3,447	3,881	4,693
1083	MIN	236	775	1,281	1,451	1,748	1,995
1084	SHEAR	97	192	564	998	1,067	1,349
1085	THETA	39	38	39	36	39	37
1086	MAX	594	1,114	2,455	3,071	3,680	4,323
1087	MIN	129	1,052	1,742	2,449	3,113	3,401
1088	SHEAR	232	31	206	311	284	561
1089	THETA	33	22	66	59	72	58
1090	MAX	82	638	1,171	1,945	2,138	2,946
1091	MIN	116	244	624	1,113	1,529	1,834
1092	SHEAR	99	197	274	416	304	656
1093	THETA	14	19	47	45	34	36
1094	MAX	199	625	1,171	1,880	2,297	2,812
1095	MIN	15	223	575	786	788	1,111
1096	SHEAR	92	201	298	547	755	851
1097	THETA	88	60	50	51	53	48
1098	MAX	375	633	708	1,139	1,345	1,882
1099	MIN	58	206	22	196	335	543
1100	SHEAR	139	214	313	517	506	670
1101	THETA	34	17	12	18	13	3
1102	MAX	142	133	439	381	205	333
1103	MIN	303	449	517	746	1,153	974
1104	SHEAR	223	291	478	563	678	853
1105	THETA	63	73	87	88	87	86
1106	MAX	638	1,483	2,408	3,406	4,119	4,887
1107	MIN	260	1,125	1,938	2,751	3,065	3,452
1108	SHEAR	189	179	235	328	527	717
1109	THETA	49	74	66	81	78	71
1110	MAX	33	275	115	169	416	531
1111	MIN	430	659	1,381	1,808	885	849
1112	SHEAR	199	192	633	599	642	808
1113	THETA	24	5	11	3	5	6

TABLE V (Continued)

550800 200 INCH MULTICELL		26 JULY 1965		E= 10,400,000 U= 0.000		PSI		300 S		301 S		044 S		033 S	
RECTANGULAR ROSETTE		24.0 PSI		26.0 PSI		28.0 PSI		30.0 PSI		30.4 PSI (F _{ULL})		04.4 PSI (F _{ULL})		03.3 PSI (F _{ULL})	
GRADE		240 S	260 S	280 S	300 S	300 S	300 S	300 S	300 S	300 S	300 S	300 S	300 S	300 S	300 S
1074	MAX	3,789	3,915	4,177	4,666	4,666	4,666	4,666	4,666	4,666	4,666	4,666	4,666	4,666	4,666
1075	MIN	3,448	3,655	3,677	4,185	4,185	4,185	4,185	4,185	4,185	4,185	4,185	4,185	4,185	4,185
1076	SHEAR	170	130	250	241	241	241	241	241	241	241	241	241	241	241
	THETA	6	17	21	7	7	7	7	7	7	7	7	7	7	7
1077	MAX	2,334	2,345	2,329	2,276	2,276	2,276	2,276	2,276	2,276	2,276	2,276	2,276	2,276	2,276
1078	MIN	5,854	6,185	6,327	6,401	6,401	6,401	6,401	6,401	6,401	6,401	6,401	6,401	6,401	6,401
1079	SHEAR	1,760	1,910	1,999	2,062	2,062	2,062	2,062	2,062	2,062	2,062	2,062	2,062	2,062	2,062
	THETA	42	41	41	41	41	41	41	41	41	41	41	41	41	41
1080	MAX	5,126	5,533	5,835	6,297	6,297	6,297	6,297	6,297	6,297	6,297	6,297	6,297	6,297	6,297
1081	MIN	2,266	2,323	2,612	2,579	2,579	2,579	2,579	2,579	2,579	2,579	2,579	2,579	2,579	2,579
1082	SHEAR	1,430	1,605	1,612	1,859	1,859	1,859	1,859	1,859	1,859	1,859	1,859	1,859	1,859	1,859
	THETA	36	36	37	36	36	36	36	36	36	36	36	36	36	36
1083	MAX	4,850	5,162	5,495	5,997	5,997	5,997	5,997	5,997	5,997	5,997	5,997	5,997	5,997	5,997
1084	MIN	3,983	4,204	4,598	4,736	4,736	4,736	4,736	4,736	4,736	4,736	4,736	4,736	4,736	4,736
1085	SHEAR	433	479	450	631	631	631	631	631	631	631	631	631	631	631
	THETA	61	57	66	59	59	59	59	59	59	59	59	59	59	59
1086	MAX	3,370	3,690	3,959	4,218	4,218	4,218	4,218	4,218	4,218	4,218	4,218	4,218	4,218	4,218
1087	MIN	1,764	2,187	2,194	2,485	2,485	2,485	2,485	2,485	2,485	2,485	2,485	2,485	2,485	2,485
1088	SHEAR	803	752	883	867	867	867	867	867	867	867	867	867	867	867
	THETA	39	35	37	36	36	36	36	36	36	36	36	36	36	36
1089	MAX	3,137	3,386	3,568	3,843	3,843	3,843	3,843	3,843	3,843	3,843	3,843	3,843	3,843	3,843
1090	MIN	1,164	1,498	1,589	1,741	1,741	1,741	1,741	1,741	1,741	1,741	1,741	1,741	1,741	1,741
1091	SHEAR	987	944	990	1,051	1,051	1,051	1,051	1,051	1,051	1,051	1,051	1,051	1,051	1,051
	THETA	49	48	48	48	48	48	48	48	48	48	48	48	48	48
1092	MAX	2,064	2,311	2,497	2,707	2,707	2,707	2,707	2,707	2,707	2,707	2,707	2,707	2,707	2,707
1093	MIN	681	528	769	905	905	905	905	905	905	905	905	905	905	905
1094	SHEAR	692	891	864	901	901	901	901	901	901	901	901	901	901	901
	THETA	1	12	1	3	3	3	3	3	3	3	3	3	3	3
1095	MAX	477	520	688	711	711	711	711	711	711	711	711	711	711	711
1096	MIN	880	705	568	399	399	399	399	399	399	399	399	399	399	399
1097	SHEAR	679	613	628	555	555	555	555	555	555	555	555	555	555	555
	THETA	85	88	90	90	90	90	90	90	90	90	90	90	90	90
1098	MAX	5,425	5,855	6,259	6,817	6,817	6,817	6,817	6,817	6,817	6,817	6,817	6,817	6,817	6,817
1099	MIN	3,788	4,192	4,114	4,795	4,795	4,795	4,795	4,795	4,795	4,795	4,795	4,795	4,795	4,795
1100	SHEAR	818	831	1,072	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011
	THETA	66	66	62	64	64	64	64	64	64	64	64	64	64	64
2001	MAX	1,151	1,528	1,665	2,050	2,050	2,050	2,050	2,050	2,050	2,050	2,050	2,050	2,050	2,050
2002	MIN	876	691	768	592	592	592	592	592	592	592	592	592	592	592
2003	SHEAR	1,013	1,109	1,217	1,321	1,321	1,321	1,321	1,321	1,321	1,321	1,321	1,321	1,321	1,321
	THETA	9	5	10	10	10	10	10	10	10	10	10	10	10	10

TABLE V (Continued)

556880		200 INCH MULTICELL		26 JULY 1965	
RETANGULAR ROSETTE		E= 10,400,000 U= 0.000		PSI	
GRADE		022 % 02.2 PSI (1/2 Full)	011 % 01.1 PSI (1/4 Full)	000 % (Final Zero)	
1074	MAX	789	595	955	
1075	MIN	83	208	315	
1076	SHEAR	353	194	320	
	TWETA	-	-	35	
1077	MAX	-	581	384	
1078	MIN	-	1,144	848	
1079	SHEAR	246	281	232	
	TWETA	-	89	86	
1080	MAX	-	19	183	
1081	MIN	-	81	13	
1082	SHEAR	31	140	85	
	TWETA	-	31	70	
1083	MAX	273	220	284	
1084	MIN	142	97	199	
1085	SHEAR	207	62	3	
	TWETA	-	57	2	
1086	MAX	124	76	174	
1087	MIN	174	96	185	
1088	SHEAR	149	86	180	
	TWETA	-	34	43	
1089	MAX	72	170	2	
1090	MIN	166	320	264	
1091	SHEAR	47	75	131	
	TWETA	-	67	38	
1092	MAX	133	154	166	
1093	MIN	119	32	58	
1094	SHEAR	126	93	112	
	TWETA	-	4	19	
1095	MAX	175	66	11	
1096	MIN	284	362	334	
1097	SHEAR	230	214	133	
	TWETA	73	66	75	
1098	MAX	262	327	283	
1099	MIN	39	65	48	
1100	SHEAR	151	196	108	
	TWETA	-	69	73	
2001	MAX	-	10	22	
2002	MIN	-	189	254	
2003	SHEAR	27	100	116	
	TWETA	-	78	30	

TABLE V (Continued)

550880		200 INCH MULTICELL		26 JULY 1965			
RETANGULAR ROSETTE		PSI		E= 10,400,000	U= 0.000		
GAGE	004 X 04.4 PSI(Full)	040 X 06.0 PSI	080 X 12.0 PSI	120 X 16.0 PSI	160 X 18.0 PSI	200 X 20.0 PSI	220 X 22.0 PSI
2004	MAX	113	467	1,255	1,141	1,426	1,779
2005	MIN	306	216	435	117	766	936
2006	SHEAR	209	342	233	512	330	420
	THETA	45	47	58	63	39	36
2007	MAX	173	85	29	514	838	867
2008	MIN	24	324	661	581	350	314
2009	SHEAR	99	311	316	548	594	591
	THETA	87	76	60	49	48	53
2010	MAX	253	71	57	212	169	281
2011	MIN	569	700	1,627	1,584	1,507	1,617
2012	SHEAR	411	385	842	688	838	1,049
	THETA	56	78	74	72	73	73
2013	MAX	18	417	2,454	2,552	3,219	3,046
2014	MIN	331	222	1,267	1,277	1,520	1,563
2015	SHEAR	156	97	593	636	849	742
	THETA	36	33	42	44	46	46
2016	MAX	244	756	2,027	2,720	2,399	2,954
2017	MIN	214	43	774	879	955	922
2018	SHEAR	229	356	627	921	722	1,016
	THETA	26	17	16	17	10	9
2019	MAX	83	306	1,639	2,303	2,518	3,074
2020	MIN	361	206	340	557	323	251
2021	SHEAR	139	256	989	1,430	1,421	1,662
	THETA	29	36	49	44	43	43
2022	MAX	104	464	1,372	1,542	1,668	1,791
2023	MIN	429	620	2,111	2,058	2,999	2,897
2024	SHEAR	162	78	319	258	666	553
	THETA	84	58	17	6	9	7
2025	MAX	358	556	284	110	390	536
2026	MIN	156	699	2,125	2,613	2,624	2,847
2027	SHEAR	257	627	921	1,361	1,507	1,691
	THETA	56	63	73	72	71	67
2028	MAX	345	800	2,276	2,329	2,945	3,156
2029	MIN	531	219	762	1,000	1,093	1,341
2030	SHEAR	438	510	747	664	926	907
	THETA	29	25	31	26	29	30
2031	MAX	1,100	1,766	3,938	4,220	4,402	4,627
2032	MIN	191	507	1,339	1,693	1,802	1,900
2033	SHEAR	455	630	1,310	1,264	1,300	1,363
	THETA	34	30	20	22	16	1A

TABLE V (Continued)

556880 200 INCH MULTICELL		26 JULY 1965		E= 10,400,000 U= 0.000		PSI		300 S		301 S		034 S		033 S	
RECTANGULAR ROSETTE		240 S		260 S		280 S		300 PSI		4.4 PSI (F _{UH})		04.4 PSI (F _{UH})		03.3 PSI (¾ F _{UH})	
DATE		24.0 PSI	26.0 PSI	28.0 PSI	30.0 PSI	30.0 PSI	30.0 PSI	30.0 PSI	30.0 PSI	4.4 PSI (F _{UH})	4.4 PSI (F _{UH})	04.4 PSI (F _{UH})	04.4 PSI (F _{UH})	03.3 PSI (¾ F _{UH})	03.3 PSI (¾ F _{UH})
2004	MAX	2,114	2,233	2,499	2,639	2,499	2,639	158	158	85	85	130	130	33	33
2005	MIN	1,227	1,314	1,497	1,686	1,497	1,686	37	37	37	37	88	88	14	14
2006	SHEAR	444	460	501	517	501	517	37	37	34	34	2	2	67	67
	THEYA	36	40	35	35	35	35								
2007	MAX	1,079	1,200	1,493	1,720	1,493	1,720	292	292	292	292	305	305	323	323
2008	MIN	50	127	200	432	200	432	452	452	452	452	517	517	719	719
2009	SHEAR	565	536	647	644	647	644	80	80	80	80	106	106	196	196
	THEYA	53	50	50	49	50	49	39	39	39	39	59	59	69	69
2010	MAX	414	519	632	681	632	681	21	21	21	21	100	100	245	245
2011	MIN	1,684	1,405	1,384	1,201	1,384	1,201	439	439	439	439	375	375	354	354
2012	SHEAR	1,049	982	1,008	991	1,008	991	209	209	209	209	238	238	299	299
	THEYA	69	69	69	67	69	67	71	71	71	71	84	84	69	69
2013	MAX	3,697	3,814	4,169	4,419	4,169	4,419	101	101	101	101	174	174	97	97
2014	MIN	1,867	2,049	2,293	2,473	2,293	2,473	670	670	670	670	763	763	788	788
2015	SHEAR	915	882	938	921	938	921	386	386	386	386	294	294	316	316
	THEYA	43	44	43	42	43	42	41	41	41	41	45	45	48	48
2016	MAX	3,511	3,904	4,309	4,674	4,309	4,674	356	356	356	356	503	503	460	460
2017	MIN	1,371	1,595	1,786	2,024	1,786	2,024	234	234	234	234	310	310	230	230
2018	SHEAR	1,070	1,195	1,261	1,325	1,261	1,325	295	295	295	295	407	407	345	345
	THEYA	10	9	9	9	9	9	21	21	21	21	42	42	55	55
2019	MAX	3,055	3,569	4,185	4,135	4,185	4,135	388	388	388	388	4	4	234	234
2020	MIN	332	355	384	364	384	364	36	36	36	36	138	138	50	50
2021	SHEAR	1,653	1,862	2,145	1,915	2,145	1,915	212	212	212	212	67	67	92	92
	THEYA	41	41	42	40	42	40	42	42	42	42	45	45	44	44
2022	MAX	1,553	1,947	1,326	1,272	1,326	1,272	220	220	220	220	471	471	221	221
2023	MIN	2,790	3,243	2,949	3,008	2,949	3,008	1,255	1,255	1,255	1,255	1,023	1,023	739	739
2024	SHEAR	619	648	612	868	612	868	517	517	517	517	278	278	259	259
	THEYA	2	15	7	4	7	4	14	14	14	14	35	35	80	80
2025	MAX	306	502	340	795	340	795	250	250	250	250	303	303	903	903
2026	MIN	2,844	2,535	2,756	2,474	2,756	2,474	724	724	724	724	444	444	226	226
2027	SHEAR	1,605	1,918	1,948	1,635	1,948	1,635	487	487	487	487	373	373	565	565
	THEYA	70	71	71	68	71	68	68	68	68	68	73	73	78	78
2028	MAX	3,305	3,771	3,995	4,354	3,995	4,354	1,100	1,100	1,100	1,100	623	623	381	381
2029	MIN	1,477	1,649	1,828	1,858	1,828	1,858	36	36	36	36	259	259	332	332
2030	SHEAR	914	1,061	1,083	1,248	1,083	1,248	532	532	532	532	441	441	306	306
	THEYA	27	30	29	29	29	29	46	46	46	46	47	47	54	54
2031	MAX	5,265	9,692	6,147	6,517	6,147	6,517	1,345	1,345	1,345	1,345	1,217	1,217	937	937
2032	MIN	2,169	2,338	2,525	2,769	2,525	2,769	8	8	8	8	266	266	166	166
2033	SHEAR	1,548	1,677	1,811	1,874	1,811	1,874	668	668	668	668	741	741	551	551
	THEYA	18	18	18	17	18	17	36	36	36	36	35	35	34	34

TABLE V (Continued)

556800		200 INCH MULTICELL		PSI		E= 10,400,000 U= 0.000		26 JULY 1965	
RECTANGULAR ROSETTE									
ORGE		022 S		011 S		000 S			
		02.2 PSI (1/2 Full)		01.1 PSI (1/4 Full)		(Final Zero)			
2004	MAX	•	89	•	47	•	25		
2005	MIN	•	176	•	267	•	47		
2006	SHEAR	•	43	•	110	•	36		
	THETA	•	32	•	33	•	72		
2007	MAX	•	45	•	119	•	502		
2008	MIN	•	240	•	38	•	94		
2009	SHEAR	•	98	•	79	•	204		
	THETA	•	54	•	75	•	47		
2010	MAX	•	534	•	491	•	70		
2011	MIN	•	65	•	424	•	38		
2012	SHEAR	•	235	•	34	•	54		
	THETA	•	55	•	37	•	60		
2013	MAX	•	59	•	11	•	37		
2014	MIN	•	705	•	361	•	560		
2015	SHEAR	•	412	•	186	•	299		
	THETA	•	48	•	55	•	61		
2016	MAX	•	109	•	317	•	135		
2017	MIN	•	240	•	36	•	42		
2018	SHEAR	•	174	•	140	•	89		
	THETA	•	71	•	78	•	85		
2019	MAX	•	190	•	183	•	216		
2020	MIN	•	42	•	8	•	591		
2021	SHEAR	•	116	•	88	•	404		
	THETA	•	69	•	90	•	47		
2022	MAX	•	151	•	33	•	362		
2023	MIN	•	1,453	•	592	•	292		
2024	SHEAR	•	651	•	312	•	327		
	THETA	•	39	•	71	•	79		
2025	MAX	•	394	•	525	•	130		
2026	MIN	•	231	•	55	•	254		
2027	SHEAR	•	312	•	235	•	192		
	THETA	•	80	•	83	•	70		
2028	MAX	•	487	•	432	•	161		
2029	MIN	•	124	•	63	•	453		
2030	SHEAR	•	305	•	248	•	307		
	THETA	•	66	•	84	•	84		
2031	MAX	•	468	•	157	•	370		
2032	MIN	•	237	•	123	•	27		
2033	SHEAR	•	353	•	140	•	172		
	THETA	•	38	•	61	•	11		

TABLE V (Continued)

556860		200 INCH MULTICELL		26 JULY 1965		E = 10,400,000 U = 0.000		PSI		180 K		200 K		220 K	
RETANGULAR ROSETTE		004 K		040 K		080 K		120 K		160 K		200 K		220 K	
		04.4 PSI		08.0 PSI		12.0 PSI		16.0 PSI		20.0 PSI		24.0 PSI		28.0 PSI	
OROE															
2034	MAX	649	1,397	1,510	2,550	2,623	2,899	3,482							
2035	MIN	201	151	166	265	678	750	993							
2036	SHEAR	425	623	672	1,142	973	1,075	1,244							
2037	THETA	51	44	43	47	48	43	44							
2038	MAX	163	480	178	340	215	239	389							
2039	MIN	620	1,040	1,016	1,179	1,557	1,428	1,410							
2040	SHEAR	395	760	597	759	671	833	900							
2041	THETA	51	47	50	47	49	43	42							
2042	MAX	445	647	897	716	574	1,175	845							
2043	MIN	478	750	1,552	2,035	2,021	2,262	2,492							
2044	SHEAR	461	699	1,225	1,385	1,298	1,718	1,669							
2045	THETA	62	61	52	56	58	55	59							
2046	MAX	1,135	1,469	2,934	3,485	3,441	4,229	4,714							
2047	MIN	538	558	6	168	99	137	439							
2048	SHEAR	836	1,013	1,464	1,658	1,770	2,036	2,137							
2049	THETA	53	51	53	53	56	55	55							
2050	MAX	1,529	1,803	3,489	3,971	4,753	5,021	5,300							
2051	MIN	654	1,064	2,343	2,768	3,690	3,584	4,273							
2052	SHEAR	438	369	573	602	532	718	514							
2053	THETA	53	32	45	55	45	52	56							
2054	MAX	432	214	118	533	1,162	1,207	1,078							
2055	MIN	1,130	1,856	2,834	4,500	4,927	5,274	6,317							
2056	SHEAR	349	821	1,358	1,984	1,882	2,833	2,620							
2057	THETA	55	44	47	45	44	45	44							
2058	MAX	433	2,389	2,028	3,175	4,093	3,542	3,955							
2059	MIN	83	527	145	357	399	173	332							
2060	SHEAR	258	1,458	942	1,409	1,647	1,685	1,811							
2061	THETA	37	40	38	42	38	39	39							
2062	MAX	838	1,175	2,563	2,742	2,654	3,238	3,459							
2063	MIN	48	134	323	438	648	635	736							
2064	SHEAR	395	520	1,120	1,152	1,003	1,302	1,361							
2065	THETA	29	23	34	33	29	35	36							
2066	MAX	661	1,292	1,913	2,127	1,424	3,472	3,107							
2067	MIN	35	528	501	1,134	687	1,376	2,046							
2068	SHEAR	313	382	706	497	369	1,048	531							
2069	THETA	51	58	52	67	88	53	53							
2070	MAX	165	784	1,962	1,861	2,643	2,654	3,114							
2071	MIN	254	119	1,018	1,488	1,525	1,760	2,110							
2072	SHEAR	218	332	472	197	559	447	582							
2073	THETA	81	78	88	73	68	73	87							

TABLE V (Continued)

556880		200 INCH MULTICELL		26 JULY 1965				
RECTANGULAR ROSETTE		PSI		E= 10,400,000 U= 0.000				
GAGE		240 N 24.0 PSI	260 N 26.0 PSI	280 N 28.0 PSI	300 N 30.0 PSI	301 N 44.4 PSI(Full)	044 N 04.4 PSI(Full)	033 N 03.3 PSI (%Full)
2034	MAX	3,633	4,339	4,702	4,723	744	219	56
2035	MIN	1,004	1,143	1,479	1,677	1	245	191
2036	SHEAR	1,314	1,598	1,611	1,523	372	232	123
	THETA	45	45	45	43	56	49	87
2037	MAX	172	583	859	664	471	671	975
2038	MIN	1,146	1,078	1,046	859	404	216	67
2039	SHEAR	659	831	953	761	438	444	454
	THETA	42	40	37	36	62	48	56
2040	MAX	912	1,029	1,102	952	132	143	64
2041	MIN	2,486	2,589	2,542	2,392	713	817	565
2042	SHEAR	1,699	1,809	1,822	1,672	422	480	315
	THETA	58	58	58	59	59	59	62
2046	MAX	4,939	4,777	5,289	5,917	561	101	60
2047	MIN	475	408	642	1,551	237	350	725
2048	SHEAR	2,232	2,185	2,324	2,433	399	325	332
	THETA	52	50	51	47	41	21	13
2049	MAX	5,839	6,434	6,777	7,122	1,230	863	585
2050	MIN	4,889	5,287	5,900	6,289	746	379	44
2051	SHEAR	475	573	439	417	242	242	315
	THETA	51	52	53	56	61	64	98
2052	MAX	1,554	1,747	2,113	2,264	290	244	931
2053	MIN	6,874	7,417	8,048	8,442	1,047	1,174	1,107
2054	SHEAR	2,660	2,835	2,967	3,059	669	709	1,019
	THETA	45	44	44	45	55	47	45
2055	MAX	4,091	4,545	5,051	5,491	841	332	100
2056	MIN	787	557	602	744	192	134	360
2057	SHEAR	1,652	1,994	2,224	2,373	517	233	130
	THETA	38	40	41	40	41	39	21
2058	MAX	3,783	4,030	4,225	4,456	765	643	444
2059	MIN	914	921	1,100	1,273	155	424	382
2060	SHEAR	1,435	1,554	1,562	1,591	305	110	31
	THETA	32	34	35	34	25	7	48
2061	MAX	3,589	3,577	3,824	4,173	911	176	329
2062	MIN	2,124	2,554	2,656	2,841	320	391	1,132
2063	SHEAR	733	511	584	666	295	284	401
	THETA	55	51	54	48	39	59	85
2064	MAX	3,512	3,542	3,913	4,006	434	257	841
2065	MIN	2,442	2,558	2,951	3,290	216	232	584
2066	SHEAR	535	492	481	358	139	244	712
	THETA	61	83	86	54	45	32	45

TABLE V (Continued)

556880 200 INCH MULTICELL		26 JULY 1965		E= 10,400,000 U= 0.000	
RECTANGULAR ROSETTE		PSI			
GAGE		022 %	011 %	000 %	
		02.2 PSI (1/2 Full)	01.1 PSI (1/4 Full)	(Final Zero)	
2034	MAX	40	17	332	
2035	MIN	197	42	780	
2036	SHEAR	119	29	224	
	THETA	68	48	19	
2037	MAX	968	504	1,101	
2038	MIN	118	208	107	
2039	SHEAR	425	148	497	
	THETA	48	4	50	
2040	MAX	87	39	8	
2041	MIN	420	248	195	
2042	SHEAR	166	144	94	
	THETA	70	69	44	
2046	MAX	47	44	71	
2047	MIN	672	1,280	994	
2048	SHEAR	360	618	461	
	THETA	13	16	24	
2049	MAX	346	634	575	
2050	MIN	12	7	142	
2051	SHEAR	167	314	358	
	THETA	57	78	53	
2052	MAX	480	816	149	
2053	MIN	529	322	241	
2054	SHEAR	485	569	46	
	THETA	56	43	30	
2055	MAX	129	70	57	
2056	MIN	60	242	127	
2057	SHEAR	94	86	92	
	THETA	64	73	78	
2058	MAX	362	417	345	
2059	MIN	214	91	113	
2060	SHEAR	74	163	116	
	THETA	15	49	7	
2061	MAX	57	200	255	
2062	MIN	317	99	474	
2063	SHEAR	130	150	110	
	THETA	87	36	68	
2064	MAX	49	593	142	
2065	MIN	340	398	7	
2066	SHEAR	194	476	75	
	THETA	25	47	58	

TABLE V (Continued)

556880		200 INCH MULTICELL		26 JULY 1965			
RECTANGULAR ROSETTE				E= 10,400,000 U= 0.000			
		PSI					
GAGE	004 X 04.4 PSI (Full)	040 X 04.0 PSI	080 X 42.0 PSI	120 X 16.0 PSI	180 X 18.0 PSI	200 X 20.0 PSI	220 X 22.0 PSI
2067	MAX	1,028	1,591	2,874	3,947	4,880	4,936
2068	MTN	723	997	1,104	1,587	1,913	1,983
2069	SHEAR	153	297	885	1,180	1,484	1,452
	THETA	25	54	52	52	49	53
							54
2070	MAX	194	400	1,118	1,498	1,932	2,278
2071	MIN	255	213	465	938	1,234	1,969
2072	SHEAR	225	94	326	280	349	154
	THETA	32	15	72	88	64	86
							75
2073	MAX	1,143	1,840	2,700	3,039	3,395	4,008
2074	MTN	307	526	718	1,047	1,029	1,127
2075	SHEAR	418	657	991	996	1,183	1,441
	THETA	54	51	52	49	49	49
							49
2076	MAX	1,082	1,770	2,016	2,173	3,454	3,038
2077	MIN	262	351	620	655	1,052	1,017
2078	SHEAR	410	709	698	759	1,201	1,010
	THETA	31	37	42	36	36	45
							45
2079	MAX	562	1,004	2,134	3,190	3,095	3,166
2080	MTN	204	488	355	545	504	337
2081	SHEAR	383	658	889	1,322	1,296	1,415
	THETA	32	48	46	45	46	47
							44
2082	MAX	562	1,399	1,702	3,144	3,414	3,392
2083	MIN	80	64	437	293	564	316
2084	SHEAR	241	668	632	1,426	1,425	1,538
	THETA	56	49	51	48	53	51
							51
							52

TABLE V (Continued)

556880		200 INCH MULTICELL		26 JULY 1965				
RETANGULAR ROSETTE		E= 10,400,000 U= 0.000						
GRADE		240 X 24.0 PSI	260 X 26.0 PSI	280 X 28.0 PSI	300 X 30.0 PSI	301 X 30.1 PSI (Full)	304 X 30.4 PSI (Full)	305 X 30.5 PSI (Full)
2067	MAX	5,496	6,112	6,961	7,050	1,542	955	817
2068	MIN	2,497	2,658	2,667	2,898	717	27	127
2069	SHEAR	1,500	1,727	2,147	2,076	413	491	472
	THETA	55	55	56	55	44	47	57
2070	MAX	2,863	2,904	3,471	3,595	505	430	317
2071	MIN	2,236	2,133	2,056	2,634	18	286	642
2072	SHEAR	314	385	407	480	261	358	479
	THETA	81	86	74	78	49	54	60
2073	MAX	4,771	4,617	5,251	5,470	2,059	439	355
2074	MIN	1,229	1,240	1,554	1,621	674	439	653
2075	SHEAR	1,771	1,688	1,849	1,924	693	439	504
	THETA	50	51	52	51	37	83	75
2076	MAX	3,648	3,634	3,720	3,886	934	283	584
2077	MIN	1,259	1,305	1,374	1,489	256	153	187
2078	SHEAR	1,194	1,164	1,173	1,199	339	68	198
	THETA	43	47	46	49	53	51	80
2079	MAX	4,774	4,491	5,068	5,449	1,663	507	284
2080	MIN	528	669	644	732	198	41	82
2081	SHEAR	2,123	1,911	2,212	2,349	737	233	143
	THETA	46	45	46	46	38	37	6
2082	MAX	4,394	4,646	4,688	5,341	1,017	623	326
2083	MIN	490	382	598	651	106	19	333
2084	SHEAR	1,952	2,132	2,045	2,355	455	321	330
	THETA	53	53	53	52	48	49	79

TABLE V (Continued)

536880		200 INCH MULTICELL		26 JULY 1965	
RECTANGULAR ROSETTE		PSI		E= 10,400,000 US 0.000	
GAGE		022 K 02.2 PSI (1/2 Full)	011 K 01.1 PSI (1/4 Full)	000 K (Final Zero)	
2067	MAX	324	654	325	
2068	MIN	206	26	234	
2069	SHEAR	265	340	279	
	THETA	48	51	35	
2070	MAX	277	129	163	
2071	MIN	306	636	413	
2072	SHEAR	292	382	225	
	THETA	48	54	63	
2073	MAX	201	3	163	
2074	MIN	707	1,117	802	
2075	SHEAR	454	557	319	
	THETA	84	79	74	
2076	MAX	364	370	32	
2077	MIN	173	40	227	
2078	SHEAR	96	165	129	
	THETA	79	48	39	
2079	MAX	141	159	220	
2080	MIN	72	194	514	
2081	SHEAR	35	177	117	
	THETA	4	29	38	
2082	MAX	8	48	132	
2083	MIN	510	502	290	
2084	SHEAR	251	275	79	
	THETA	80	81	77	

TABLE VI
Reduced Rosette Gage Results Printed
As Single Element Gages
Tension Web

556880 200 INCH MULTICELL		26 JULY 1965									
SINGLE STRAIN GAGES		E = 10,400,000 U = 0.000									
GAGE	004 K 00.4 PSI	040 K 04.0 PSI	080 K 08.0 PSI	120 K 12.0 PSI	160 K 16.0 PSI	200 K 20.0 PSI	220 K 22.0 PSI	044 K 04.4 PSI	033 K 03.3 PSI		
1050	127	175	-	158	-	32	235	-	-	2	
1052	265	383	-	577	-	570	-	194	-	27	
2043	90	537	413	1,633	1,759	1,974	2,280	500	-	90	
2045	272	739	1,013	1,570	1,956	2,259	2,639	1,168	-	1,256	
2085	483	1,739	2,113	2,817	3,176	3,283	4,264	820	-	700	
2086	31	73	141	72	395	571	621	132	-	233	

GAGE	240 K 24.0 PSI	260 K 26.0 PSI	280 K 28.0 PSI	300 K 30.0 PSI	301 K 30.1 PSI	304 K 30.4 PSI	303 K 30.3 PSI				
1050	642	513	962	887	32	50	-				
1052	519	428	527	385	326	194	-				
2043	2,413	2,475	2,724	2,656	467	500	-				
2045	2,068	3,259	3,579	4,066	1,220	1,168	-				
2085	4,264	4,547	4,898	5,210	906	820	-				
2086	625	860	931	956	260	132	-				

GAGE	022 K 02.2 PSI	011 K 01.1 PSI	000 K								
1050	20	191	-	11							
1052	71	32	-	71							
2043	270	197	-	197							
2045	1,154	1,070	-	1,011							
2085	243	205	-	7							
2086	362	650	-	20							

TABLE VII
Reduced Single Gage Results
Waffle Skin

556880		200 INCH MULTICELL		26 JULY 1965		E = 10,400,000 U = 0.000	
SINGLE STRAIN GAGES		PSI		PSI		U = 0.000	
GAGE	004 X 4.4 PSI(Full)	040 X 08.0 PSI	080 X 12.0 PSI	120 X 16.0 PSI	160 X 20.0 PSI	200 X 24.0 PSI	220 X 28.0 PSI
0111	221	573	1,191	1,591	1,681	636	956
0112	31	112	366	214	508	71	285
0113	192	423	689	988	1,440	1,656	1,984
0114	716	1,463	2,208	3,056	3,513	3,796	4,182
0115	682	146	84	706	702	1,074	1,146
0116	732	740	2,717	2,964	2,445	2,336	1,877

GAGE	240 X 24.0 PSI	260 X 26.0 PSI	280 X 28.0 PSI	300 X 30.0 PSI	301 X 4.4 PSI(Full)	044 X 04.4 PSI(Full)	033 X 03.3 PSI(Full)
0111	1,371	1,623	1,857	2,046	79	9,370	20,195
0112	326	326	366	183	183	283	349
0113	1,845	2,067	2,275	2,433	4	233	246
0114	4,389	4,843	5,316	5,374	501	50	97
0115	1,555	1,697	1,725	1,957	684	392	242
0116	1,800	1,764	1,953	1,893	2,738	2,917	1,382

GAGE	022 X 02.2 PSI(Full)	011 X 01.1 PSI(Full)	000 X FINAL ZERO
0111	54,606	62,566	65,307
0112	508	112	508
0113	340	191	313
0114	85	130	137
0115	214	299	862
0116	1,291	1,176	84

TABLE VIII
Reduced Rosette Gage Results
Waffle Skin

556880		200 INCH MULTICELL		26 JULY 1965		E = 10,400,000 U = 0.080	
RECTANGULAR ROSETTE		PSI		E = 10,400,000 U = 0.080			
GAGE	004 X 04.4 PSI (F _{0.1})	040 X 08.0 PSI	080 X 16.0 PSI	120 X 24.0 PSI	160 X 32.0 PSI	200 X 40.0 PSI	220 X 44.0 PSI
0600	MAX 138	136	130	314	403	474	352
0601	MIN 85	44	13	122	178	41	30
0602	SHEAR 112	90	72	218	290	258	191
	THETA 59	61	82	58	67	64	70
0603	MAX 602	854	1,316	1,880	1,851	2,351	2,668
0604	MIN 46	30	14	122	385	337	393
0605	SHEAR 278	412	651	1,001	1,118	1,344	1,511
	THETA 38	17	3	5	4	7	5
0606	MAX 230	636	1,125	1,596	1,984	2,245	2,407
0607	MIN 26	301	588	1,061	1,223	1,409	1,538
0608	SHEAR 128	168	269	268	381	418	384
	THETA 2	4	18	14	10	12	11
0609	MAX 80	199	333	537	393	445	847
0610	MIN 117	87	99	0	52	9	141
0611	SHEAR 89	143	216	269	222	218	353
	THETA 82	79	65	63	71	82	71
0612	MAX 122	185	804	1,147	1,576	1,833	2,028
0613	MIN 260	112	389	724	809	1,028	1,170
0614	SHEAR 69	36	208	212	383	403	429
	THETA 13	71	87	83	78	76	77
0615	MAX 430	722	971	1,246	1,627	1,699	1,781
0616	MIN 27	144	304	135	338	361	238
0617	SHEAR 201	289	333	555	645	689	771
	THETA 29	20	9	22	13	18	22
0618	MAX 129	325	490	656	974	1,092	1,118
0619	MIN 63	281	513	783	932	977	1,025
0620	SHEAR 96	303	501	720	953	1,035	1,071
	THETA 32	21	11	14	16	14	15
0621	MAX 673	562	1,019	1,535	1,809	2,088	2,211
0622	MIN 361	135	627	899	873	952	965
0623	SHEAR 156	213	196	333	468	568	623
	THETA 49	87	49	38	42	43	36
0624	MAX 233	480	781	1,382	1,612	1,836	2,091
0625	MIN 8	234	585	943	971	1,199	1,334
0626	SHEAR 121	123	98	269	320	318	378
	THETA 8	4	47	37	44	47	40
0628	MAX 351	530	894	1,232	1,374	1,558	1,666
0631	MIN 42	178	544	906	947	1,082	1,262
0632	SHEAR 197	176	75	163	213	238	202
	THETA 16	21	32	38	46	46	53

TABLE VIII (Continued)

556880		200 INCH MULTICELL		26 JULY 1965		E= 10,400,000 U= 0.000		PSI		300 K		301 K		04.4 PSI(Full)		04.4 K		03.3 PSI (3/4 Full)		03.3 K	
RECTANGULAR ROSETTE		240 K		260 K		280 K		300 K		301 K		04.4 PSI(Full)		04.4 K		03.3 PSI (3/4 Full)		03.3 K			
GAGE		240 PSI	260 PSI	280 PSI	300 PSI	301 PSI	04.4 PSI(Full)	04.4 K	03.3 PSI (3/4 Full)	03.3 K											
0600	MAX	322	494	457	688	-	115	469	257												
0601	MIN	53	130	12	57	-	271	197	145												
0602	SHEAR	188	312	223	372	-	78	136	56												
0602	THETA	73	60	76	63	-	36	88	83												
0603	MAX	2,848	3,165	3,204	3,665	-	524	211	153												
0604	MIN	534	457	601	627	-	282	33	24												
0605	SHEAR	1,691	1,811	1,902	2,146	-	121	89	88												
0605	THETA	6	5	4	6	-	3	14	73												
0606	MAX	2,674	2,906	3,159	3,531	-	254	370	63												
0607	MIN	1,823	1,965	2,181	2,388	-	41	33	108												
0608	SHEAR	426	470	489	572	-	147	202	86												
0608	THETA	15	14	11	17	-	10	15	10												
0609	MAX	709	864	857	1,179	-	140	62	183												
0610	MIN	18	42	67	124	-	24	130	269												
0611	SHEAR	364	411	395	528	-	82	96	43												
0611	THETA	77	71	78	62	-	67	69	74												
0612	MAX	2,268	2,458	2,650	2,961	-	31	18	29												
0613	MIN	1,264	1,376	1,492	1,674	-	260	759	872												
0614	SHEAR	502	541	579	643	-	146	388	422												
0614	THETA	73	78	80	78	-	26	22	22												
0615	MAX	2,066	2,233	2,387	2,577	-	272	543	371												
0616	MIN	345	287	445	363	-	109	660	621												
0617	SHEAR	861	973	971	1,177	-	82	602	496												
0617	THETA	16	20	16	20	-	13	48	47												
0618	MAX	1,302	1,431	1,771	1,871	-	302	1,174	1,007												
0619	MIN	977	1,148	1,050	1,286	-	30	54	97												
0620	SHEAR	1,140	1,289	1,410	1,579	-	136	560	552												
0620	THETA	15	13	13	14	-	45	49	51												
0621	MAX	2,374	2,696	2,854	3,222	-	335	407	937												
0622	MIN	1,024	1,170	1,052	1,249	-	276	1,118	164												
0623	SHEAR	675	763	901	987	-	29	762	387												
0623	THETA	38	35	34	36	-	44	76	89												
0624	MAX	2,149	2,408	2,620	3,078	-	131	512	350												
0625	MIN	1,398	1,600	1,669	1,944	-	95	147	128												
0626	SHEAR	1,375	1,604	1,75	1,967	-	113	183	111												
0626	THETA	38	46	42	43	-	2	12	34												
0630	MAX	1,903	2,155	2,252	2,513	-	195	156	21												
0631	MIN	1,307	1,544	1,665	1,747	-	173	115	198												
0632	SHEAR	298	305	293	383	-	184	136	89												
0632	THETA	48	51	48	48	-	1	17	24												

TABLE VIII (Continued)

26 JULY 1965

E = 10,400,000 U = 0.000

200 INC- MULTICELL

556880

RECTANGULAR ROSETTE

GAGE	022 % 02.2 PSI (1/2 Full)	011 % 01.1 PSI (1/4 Full)	PSI	000 % (Final Zero)
0600	MAX 423	719	345	
0601	MIN 182	348	251	
0602	SHEAR 121	186	47	
	THETA 59	85	83	
0603	MAX 193	144	56	
0604	MIN 37	17	141	
0605	SHEAR 115	63	98	
	THETA 79	45	43	
0606	MAX 134	126	107	
0607	MIN 84	105	66	
0608	SHEAR 109	115	86	
	THETA 17	2	11	
0609	MAX 54	9	60	
0610	MIN 142	146	255	
0611	SHEAR 44	77	97	
	THETA 35	67	65	
0612	MAX 47	51	37	
0613	MIN 949	761	766	
0614	SHEAR 451	355	365	
	THETA 24	18	15	
0615	MAX 437	345	558	
0616	MIN 491	439	548	
0617	SHEAR 474	392	553	
	THETA 46	45	43	
0618	MAX 726	656	691	
0619	MIN 36	101	27	
0620	SHEAR 345	278	332	
	THETA 51	41	47	
0621	MAX 838	1,248	979	
0622	MIN 291	207	95	
0623	SHEAR 564	521	537	
	THETA 86	78	81	
0624	MAX 377	431	438	
0625	MIN 169	285	235	
0626	SHEAR 104	73	102	
	THETA 17	45	18	
0630	MAX 9	54	31	
0631	MIN 161	67	89	
0632	SHEAR 85	60	60	
	THETA 17	45	23	

TABLE VIII (Continued)

556880		200 INCH MULTICELL		26 JULY 1965		E= 10,400.000 U= 0.000	
RETANGULAR ROSETTE		PSI					
GAGE		004 % 04.4 PSI(Full)	040 % 08.0 PSI	080 % 16.0 PSI	120 % 24.0 PSI	160 % 32.0 PSI	220 % 44.0 PSI
0633	MAX	267	748	1,485	2,146	2,550	2,843
0634	MIN	177	14	1,000	1,432	1,886	2,001
0635	SHEAR	45	381	243	357	432	421
	THETA	11	74	82	85	75	87
0636	MAX	193	527	919	1,522	1,705	1,912
0637	MIN	48	427	853	1,291	1,594	1,664
0638	SHEAR	73	50	33	116	155	124
	THETA	17	74	34	67	85	86
0639	MAX	232	833	1,922	2,741	3,133	3,449
0640	MIN	128	445	1,273	2,120	2,638	2,584
0641	SHEAR	180	194	325	310	247	433
	THETA	20	38	50	56	55	59
0642	MAX	302	603	735	1,339	1,599	1,895
0643	MIN	205	65	20	336	257	420
0644	SHEAR	254	334	358	501	671	737
	THETA	14	7	8	5	1	3
0645	MAX	393	1,157	2,494	2,965	3,332	4,297
0646	MIN	331	1	240	573	492	1,124
0647	SHEAR	372	579	1,127	1,196	1,420	1,587
	THETA	14	11	22	22	11	16
0648	MAX	864	1,849	3,022	4,353	4,837	5,442
0649	MIN	174	790	1,429	2,116	2,556	2,785
0650	SHEAR	345	530	796	1,118	1,140	1,329
	THETA	8	8	10	6	5	6
0651	MAX	354	1,125	1,626	2,370	3,011	3,199
0652	MIN	199	8	500	955	1,831	1,710
0653	SHEAR	277	566	558	737	590	745
	THETA	4	27	29	25	20	24
0654	MAX	629	1,250	2,047	2,939	3,424	3,887
0655	MIN	30	561	1,503	2,312	2,619	3,063
0656	SHEAR	299	344	272	313	403	412
	THETA	14	12	8	15	10	10
0657	MAX	665	1,735	2,975	4,207	4,686	5,162
0658	MIN	139	1,270	2,223	3,480	4,211	4,270
0659	SHEAR	263	233	376	364	237	446
	THETA	9	4	16	1	9	4
0660	MAX	517	1,178	1,852	2,779	3,019	3,489
0661	MIN	136	385	1,154	1,831	2,176	2,599
0662	SHEAR	327	397	349	474	421	445
	THETA	13	11	7	4	4	8

TABLE VIII (Continued)

556880		200 INCH MULTICELL		26 JULY 1965		E= 10,400,000 U= 0.000		PSI		30.0 PSI		30.1 PSI (F ₀₁₁)		0.44 PSI (F ₀₁₁)		0.33 PSI (3/4 F ₀₁₁)	
RETANGULAR ROSETTE		240 PSI		260 PSI		280 PSI		30.0 PSI		30.1 PSI (F ₀₁₁)		0.44 PSI (F ₀₁₁)		0.44 PSI (F ₀₁₁)		0.33 PSI (3/4 F ₀₁₁)	
GAGE		MAX	MIN	SHEAR	THETA	MAX	MIN	SHEAR	THETA	MAX	MIN	SHEAR	THETA	MAX	MIN	SHEAR	THETA
0633		3,719	2,727	496	90	4,182	3,058	562	84	4,500	3,385	670	75	4,822	3,707	682	84
0635		3,719	2,727	496	90	4,182	3,058	562	84	4,500	3,385	670	75	4,822	3,707	682	84
0636		2,525	1,959	283	89	2,700	2,194	253	85	2,946	2,357	294	86	3,191	2,595	316	87
0637		2,525	1,959	283	89	2,700	2,194	253	85	2,946	2,357	294	86	3,191	2,595	316	87
0638		2,525	1,959	283	89	2,700	2,194	253	85	2,946	2,357	294	86	3,191	2,595	316	87
0639		4,180	2,851	665	57	4,466	3,411	528	60	4,874	3,503	686	60	5,296	3,972	743	61
0640		4,180	2,851	665	57	4,466	3,411	528	60	4,874	3,503	686	60	5,296	3,972	743	61
0641		4,180	2,851	665	57	4,466	3,411	528	60	4,874	3,503	686	60	5,296	3,972	743	61
0642		2,299	1,475	912	1	2,546	1,528	993	3	2,718	1,600	1,005	1	2,965	1,847	1,020	1
0643		2,299	1,475	912	1	2,546	1,528	993	3	2,718	1,600	1,005	1	2,965	1,847	1,020	1
0644		2,299	1,475	912	1	2,546	1,528	993	3	2,718	1,600	1,005	1	2,965	1,847	1,020	1
0645		5,150	1,811	19	19	5,302	1,923	18	18	5,652	2,243	17	17	6,007	2,607	20	20
0646		5,150	1,811	19	19	5,302	1,923	18	18	5,652	2,243	17	17	6,007	2,607	20	20
0647		5,150	1,811	19	19	5,302	1,923	18	18	5,652	2,243	17	17	6,007	2,607	20	20
0648		6,464	3,493	1,485	4	7,216	3,806	1,706	4	7,467	3,898	1,785	5	7,941	4,372	1,927	4
0649		6,464	3,493	1,485	4	7,216	3,806	1,706	4	7,467	3,898	1,785	5	7,941	4,372	1,927	4
0650		6,464	3,493	1,485	4	7,216	3,806	1,706	4	7,467	3,898	1,785	5	7,941	4,372	1,927	4
0651		3,962	2,129	917	24	4,355	2,498	928	24	4,744	2,763	990	22	5,134	2,980	1,073	21
0652		3,962	2,129	917	24	4,355	2,498	928	24	4,744	2,763	990	22	5,134	2,980	1,073	21
0653		3,962	2,129	917	24	4,355	2,498	928	24	4,744	2,763	990	22	5,134	2,980	1,073	21
0654		4,751	3,726	513	11	5,137	4,148	494	15	5,672	4,615	528	8	6,144	4,971	622	12
0655		4,751	3,726	513	11	5,137	4,148	494	15	5,672	4,615	528	8	6,144	4,971	622	12
0656		4,751	3,726	513	11	5,137	4,148	494	15	5,672	4,615	528	8	6,144	4,971	622	12
0657		6,345	3,495	425	3	6,761	3,706	571	4	7,209	4,148	517	5	7,799	4,615	607	6
0658		6,345	3,495	425	3	6,761	3,706	571	4	7,209	4,148	517	5	7,799	4,615	607	6
0659		6,345	3,495	425	3	6,761	3,706	571	4	7,209	4,148	517	5	7,799	4,615	607	6
0660		4,423	3,258	582	11	4,884	3,706	589	7	5,256	3,988	634	9	5,636	4,262	687	6
0661		4,423	3,258	582	11	4,884	3,706	589	7	5,256	3,988	634	9	5,636	4,262	687	6
0662		4,423	3,258	582	11	4,884	3,706	589	7	5,256	3,988	634	9	5,636	4,262	687	6

TABLE VIII (Continued)

556880		200 INCH MULTICELL		26 JULY 1965	
RETANGULAR ROSETTE		E = 10,400,000		U = 0.000	
GAGE		022 $\frac{1}{2}$ PSI ($\frac{1}{2}$ Full)	011 $\frac{1}{2}$ PSI ($\frac{1}{2}$ Full)	000 $\frac{1}{2}$ (Final Zero)	
0633	MAX	39	82	112	
0634	MIN	216	279	224	
0635	SHEAR	128	99	168	
	THETA	84	76	86	
0636	MAX	0	43	15	
0637	MIN	22	162	168	
0638	SHEAR	26	102	92	
	THETA	42	48	65	
0639	MAX	18	34	80	
0640	MIN	430	569	183	
0641	SHEAR	24	268	52	
	THETA	32	51	14	
0642	MAX	433	667	471	
0643	MIN	856	934	808	
0644	SHEAR	644	800	640	
	THETA	44	45	43	
0645	MAX	539	1,148	84	
0646	MIN	89	1,123	123	
0647	SHEAR	674	1,135	103	
	THETA	39	42	10	
0648	MAX	189	76	157	
0649	MIN	426	348	380	
0650	SHEAR	118	136	112	
	THETA	54	65	90	
0651	MAX	86	45	425	
0652	MIN	351	251	64	
0653	SHEAR	218	146	246	
	THETA	26	50	36	
0654	MAX	141	43	77	
0655	MIN	200	156	138	
0656	SHEAR	30	57	28	
	THETA	19	8	34	
0657	MAX	16	45	114	
0658	MIN	45	35	138	
0659	SHEAR	30	40	124	
	THETA	9	48	84	
0660	MAX	78	172	220	
0661	MIN	191	23	2	
0662	SHEAR	56	98	111	
	THETA	15	53	54	

TABLE VIII (Continued)

556880		200 INCH MULTICELL		26 JULY 1965			
RETANGULAR ROSETTE		PSI		E = 10,400,000 U = 0.000			
GAGE	004 X 04.4 PSI (Full)	040 X (8.0 PSI	080 X 12.0 PSI	120 X 16.0 PSI	180 X 18.0 PSI	200 X 20.0 PSI	220 X 22.0 PSI
0666	MAX	300	776	1,344	1,878	2,046	2,335
0667	MIN	471	217	11	336	486	602
0668	SHEAR	385	476	666	771	795	866
	THETA	16	19	18	20	22	22
0669	MAX	788	879	1,758	2,261	3,078	3,447
0670	MIN	861	943	581	954	62	78
0671	SHEAR	824	911	1,170	1,608	1,508	1,628
	THETA	28	34	35	32	27	34
0672	MAX	614	889	1,095	1,501	1,640	1,843
0673	MIN	54	291	648	875	963	1,210
0674	SHEAR	280	299	223	313	338	316
	THETA	11	12	18	26	17	22
0675	MAX	484	1,127	2,275	3,112	3,484	4,062
0676	MIN	442	232	57	987	1,219	1,107
0677	SHEAR	463	679	1,166	1,963	1,132	1,477
	THETA	31	33	38	36	42	40
0678	MAX	522	772	1,143	1,649	1,789	2,069
0679	MIN	63	246	449	996	1,122	1,331
0680	SHEAR	229	263	347	327	333	369
	THETA	9	17	25	26	40	36
0681	MAX	441	991	1,657	2,432	2,456	3,205
0682	MIN	262	243	818	1,450	1,231	1,951
0683	SHEAR	352	374	419	491	613	627
	THETA	13	2	32	33	39	32
0684	MAX	773	1,202	1,798	2,718	3,032	3,409
0685	MIN	331	943	1,522	2,182	2,616	2,866
0686	SHEAR	221	130	138	258	208	271
	THETA	18	21	48	64	61	66
0687	MAX	269	705	1,251	2,006	2,004	2,376
0688	MIN	602	45	779	1,106	1,657	1,691
0689	SHEAR	465	375	236	450	174	342
	THETA	26	25	6	41	20	38
0690	MAX	8	212	178	479	516	568
0691	MIN	600	596	600	541	611	559
0692	SHEAR	296	404	389	510	564	563
	THETA	16	17	15	18	24	22
0693	MAX	379	987	1,559	2,024	2,388	2,710
0694	MIN	360	602	570	714	865	711
0695	SHEAR	370	834	495	655	747	849
	THETA	21	26	23	24	15	26

TABLE VIII (Continued)

556880		200 INCH MULTICELL		26 JULY 1965		E = 10,400,000 U = 0.000		PSI		30.0 PSI		34.4 PSI (Full)		0.4 %		0.33 %	
RETANGULAR ROSETTE		240 PSI		260 PSI		280 PSI		300 PSI		34.4 PSI (Full)		0.4 %		0.33 %			
GAGE		MAX	MIN	SHEAR	THETA	MAX	MIN	SHEAR	THETA	MAX	MIN	SHEAR	THETA	MAX	MIN		
0666	MAX	2,723	1,021	851	20	3,636	1,111	1,874	31	2,989	1,107	941	21	3,475	1,412	924	19
0667	MIN	1,021	851	20	21	1,107	941	21	17	1,412	924	19	1	1,521	977	1	1
0668	SHEAR	851	20	21	21	941	21	17	17	924	19	1	1	977	19	1	1
0668	THETA	20	21	21	21	21	21	17	17	19	1	1	1	1	18	18	18
0669	MAX	3,636	1,111	1,874	31	2,989	1,107	941	21	3,475	1,412	924	19	3,01	129	235	235
0670	MIN	1,111	941	21	17	1,412	924	19	1	1,521	977	1	1	284	238	237	237
0671	SHEAR	1,874	31	21	21	941	21	17	17	924	19	1	1	292	237	237	237
0671	THETA	31	21	21	21	21	21	17	17	19	1	1	1	4	18	18	18
0672	MAX	2,307	1,314	497	24	2,728	1,759	484	25	2,574	1,605	484	26	4,382	411	492	492
0673	MIN	1,314	497	24	24	1,759	484	25	25	1,605	484	26	26	612	421	921	921
0674	SHEAR	497	24	24	24	484	25	25	25	484	26	26	26	186	215	215	215
0674	THETA	24	24	24	24	26	26	26	26	33	33	33	33	17	19	19	19
0675	MAX	4,795	1,722	1,536	39	4,975	1,013	1,981	40	5,745	2,075	1,878	40	4,216	1,571	229	229
0676	MIN	1,722	1,536	39	39	1,013	1,981	40	40	2,075	1,878	40	40	509	72	72	72
0677	SHEAR	1,536	39	39	39	1,981	40	40	40	1,878	40	40	40	414	150	150	150
0677	THETA	39	39	39	39	40	40	40	40	34	34	34	34	26	36	36	36
0678	MAX	2,282	1,634	324	37	2,641	1,812	415	39	2,783	2,179	302	41	3,022	2,449	414	414
0679	MIN	1,634	324	37	37	1,812	415	39	39	2,179	302	41	41	2,449	177	68	68
0680	SHEAR	324	37	37	37	415	39	39	39	302	41	41	41	167	241	241	241
0680	THETA	37	37	37	37	39	39	39	39	45	45	45	45	8	13	13	13
0681	MAX	3,659	2,424	618	34	4,192	2,623	784	35	4,603	2,607	998	37	4,977	3,090	326	326
0682	MIN	2,424	618	34	34	2,623	784	35	35	2,607	998	37	37	3,090	145	129	129
0683	SHEAR	618	34	34	34	784	35	35	35	998	37	37	37	320	98	98	98
0683	THETA	34	34	34	34	35	35	35	35	37	37	37	37	29	3	3	3
0684	MAX	4,145	3,416	364	72	4,644	3,749	448	71	4,895	3,999	448	78	5,366	4,240	486	486
0685	MIN	3,416	364	72	72	3,749	448	71	71	3,999	448	71	71	4,240	259	121	121
0686	SHEAR	364	72	72	72	448	71	71	71	448	71	71	71	563	156	183	183
0686	THETA	72	72	72	72	71	71	71	71	78	78	78	78	26	38	38	38
0687	MAX	2,990	2,816	87	71	3,149	2,912	119	66	3,598	3,128	235	67	3,881	3,643	1,874	1,874
0688	MIN	2,816	87	71	71	2,912	119	66	66	3,128	235	67	67	3,643	153	2,063	2,063
0689	SHEAR	87	71	71	71	119	66	66	66	235	67	67	67	119	354	1,969	1,969
0689	THETA	71	71	71	71	66	66	66	66	78	78	78	78	41	41	41	41
0690	MAX	790	749	770	21	820	640	730	22	843	738	791	22	1,097	717	58	58
0691	MIN	749	770	21	21	640	730	791	22	738	791	22	22	717	640	535	535
0692	SHEAR	770	21	21	21	730	791	22	22	791	22	22	22	339	318	296	296
0692	THETA	21	21	21	21	22	22	22	22	16	16	16	16	9	9	9	9
0693	MAX	2,959	1,258	651	19	3,317	1,035	1,141	24	3,609	1,335	1,137	21	3,702	1,310	300	300
0694	MIN	1,258	651	19	19	1,035	1,141	24	24	1,335	1,137	21	21	1,310	64	639	639
0695	SHEAR	651	19	19	19	1,141	24	24	24	1,137	21	21	21	1,196	314	469	469
0695	THETA	19	19	19	19	24	24	24	24	43	43	43	43	36	42	42	42

TABLE VIII (Continued)

556880		200 INCH MULTICELL		25 JULY 1965	
RECTANGULAR ROSETTE		E = 10,400,000 U = 0.000		PSI	
GAGE		022 % 02.2 PSI (1/2 E _{full})	011 % 01.1 PSI (1/4 E _{full})	000 % (F _{nal} Zero)	
0666	MAX	139	137	239	
0667	MIN	142	153	287	
0668	SHEAR	141	155	263	
	THETA	39	49	65	
0669	MAX	379	144	351	
0670	MIN	885	1,112	451	
0671	SHEAR	253	484	401	
	THETA	57	77	57	
0672	MAX	79	49	92	
0673	MIN	71	185	285	
0674	SHEAR	75	117	96	
	THETA	88	85	66	
0675	MAX	3	66	75	
0676	MIN	175	597	183	
0677	SHEAR	86	246	129	
	THETA	4	20	53	
0678	MAX	264	393	291	
0679	MIN	95	239	90	
0680	SHEAR	104	77	100	
	THETA	16	80	63	
0681	MAX	296	494	141	
0682	MIN	38	34	57	
0683	SHEAR	129	230	99	
	THETA	45	45	66	
0684	MAX	292	356	404	
0685	MIN	85	3	103	
0686	SHEAR	104	176	151	
	THETA	53	59	69	
0687	MAX	1,529	1,576	1,383	
0688	MIN	1,908	1,881	1,463	
0689	SHEAR	1,719	1,728	1,423	
	THETA	43	46	47	
0690	MAX	253	197	298	
0691	MIN	150	104	71	
0692	SHEAR	202	46	113	
	THETA	11	38	37	
0693	MAX	154	142	136	
0694	MIN	709	681	646	
0695	SHEAR	432	269	391	
	THETA	35	45	44	

TABLE VIII (Continued)

556880		200 INCH MULTICELL		26 JULY 1965			
RETANGULAR ROSETTE		E= 10,400,000 U= 0.000					
GAGE		004 % 04.4 PSI (F _{0H})	040 % 08.0 PSI	PSI			
				080 % 16.0 PSI			
				120 % 24.0 PSI			
				180 % 36.0 PSI			
				200 % 40.0 PSI			
				220 % 44.0 PSI			
0696	MAX	137	432	739	1,372	1,501	1,515
0697	MIN	423	295	283	133	58	18
0698	SHEAR	260	364	511	641	780	767
	THETA	11	7	0	2	6	7
0699	MAX	254	479	1,212	1,518	1,794	1,738
0700	MIN	290	198	746	755	1,242	934
0701	SHEAR	272	339	233	372	276	402
	THETA	66	68	71	49	73	70
0702	MAX	233	588	772	1,248	1,609	1,859
0703	MIN	237	103	415	733	1,044	1,225
0704	SHEAR	255	226	179	278	282	317
	THETA	4	3	21	18	21	15
0705	MAX	266	493	807	1,590	1,922	1,862
0706	MIN	84	212	557	1,141	1,719	1,513
0707	SHEAR	175	141	125	225	101	175
	THETA	13	1	86	53	14	53
0708	MAX	295	674	1,268	1,879	2,534	2,751
0709	MIN	131	227	609	1,128	1,699	1,889
0710	SHEAR	213	224	330	375	417	431
	THETA	1	5	1	1	0	1
0711	MAX	2,068	3,668	3,576	5,734	7,931	8,375
0712	MIN	915	1,953	2,477	4,431	5,828	6,370
0713	SHEAR	566	827	549	666	1,052	1,002
	THETA	33	37	19	41	51	47
0714	MAX	624	1,416	2,176	3,176	4,039	4,516
0715	MIN	76	633	1,459	2,221	2,862	3,272
0716	SHEAR	350	392	358	458	578	623
	THETA	3	5	3	6	5	9
0717	MAX	861	1,629	2,441	4,197	4,559	5,094
0718	MIN	333	995	1,474	2,507	3,189	3,708
0719	SHEAR	264	317	483	700	685	693
	THETA	7	3	9	7	11	4
0720	MAX	641	1,277	2,027	2,622	3,626	3,970
0721	MIN	55	568	1,197	1,769	2,464	2,677
0722	SHEAR	293	320	415	526	541	646
	THETA	16	16	7	6	3	2
0723	MAX	754	1,685	2,689	3,757	5,713	5,504
0724	MIN	27	416	1,731	2,338	2,397	2,717
0725	SHEAR	390	435	479	440	1,658	1,393
	THETA	23	16	15	11	33	28

TABLE VIII (Continued)

556880		200 INCH MULTICELL		26 JULY 1965				
RECTANGULAR ROSETTE		PSI		E= 10,400,000 U= 0.000				
GRADE		240 % 24.0 PSI	260 % 26.0 PSI	280 % 28.0 PSI	300 % 30.0 PSI	301 % 30.1 PSI (Full)	044 % 04.4 PSI (Full)	033 % 03.3 PSI (1/4 Full)
0696	MAX	1,665	2,001	2,041	2,220	90	78	99
0697	MIN	13	93	93	147	418	660	485
0698	SHEAR	849	954	974	1,036	254	369	193
	THETA	8	4	7	5	8	5	6
0699	MAX	1,853	2,064	2,266	2,541	381	214	399
0700	MIN	1,973	1,705	1,275	1,811	63	215	286
0701	SHEAR	440	180	496	365	222	214	342
	THETA	61	88	68	52	44	87	56
0702	MAX	2,029	2,148	2,329	2,556	252	497	373
0703	MIN	1,271	1,465	1,497	1,787	96	160	74
0704	SHEAR	379	341	416	385	174	168	149
	THETA	17	23	21	20	5	10	2
0705	MAX	1,574	2,268	2,442	2,834	304	304	236
0706	MIN	1,290	1,892	2,048	2,252	250	164	27
0707	SHEAR	142	188	197	291	27	70	105
	THETA	3	44	56	46	57	58	85
0708	MAX	3,028	3,459	3,721	4,074	306	637	464
0709	MIN	2,237	2,548	2,852	3,067	210	397	176
0710	SHEAR	396	455	434	503	258	120	142
	THETA	4	0	5	3	3	50	73
0711	MAX	9,631	10,643	11,336	12,260	2,758	1,776	1,690
0712	MIN	7,006	7,773	8,410	9,096	1,257	705	405
0713	SHEAR	1,312	1,435	1,463	1,582	750	535	643
	THETA	46	49	50	50	52	57	48
0714	MAX	5,012	5,472	5,873	6,442	576	449	158
0715	MIN	3,705	3,943	4,271	4,728	84	267	411
0716	SHEAR	653	764	801	857	246	358	285
	THETA	7	8	5	7	16	15	20
0717	MAX	5,664	6,242	6,928	7,131	716	638	487
0718	MIN	4,193	4,647	4,970	5,438	189	550	278
0719	SHEAR	735	768	979	847	283	594	383
	THETA	6	7	2	1	7	27	3
0720	MAX	4,373	4,823	5,244	5,639	535	446	227
0721	MIN	3,056	3,252	3,541	3,924	59	70	240
0722	SHEAR	658	766	852	858	297	258	233
	THETA	5	1	2	1	3	10	18
0723	MAX	6,430	6,812	7,523	7,602	2,590	1,084	558
0724	MIN	2,946	3,116	3,582	4,411	733	590	192
0725	SHEAR	1,742	1,848	1,970	1,596	1,661	827	375
	THETA	32	29	30	24	38	39	43

TABLE VIII (Continued)

556880		200 INCH MULTICELL		26 JULY 1965	
RETANGULAR ROSETTE		PSI		E= 10,400,000 U= 0.000	
GRG		022 $\frac{1}{2}$ PSI ($\frac{1}{2}$ Full)	011 $\frac{1}{2}$ PSI ($\frac{1}{4}$ Full)	000 $\frac{1}{2}$ (Final Zero)	
0696	MAX	-	-	-	16
0697	MIN	310	271	-	202
0698	SHEAR	106	125	93	
	THETA	15	19	33	
0699	MAX	119	15	-	69
0700	MIN	1,078	215	-	470
0701	SHEAR	480	115	200	
	THETA	68	88	79	
0702	MAX	286	339	387	
0703	MIN	67	253	179	
0704	SHEAR	110	43	104	
	THETA	13	41	15	
0705	MAX	579	80	114	
0706	MIN	22	227	82	
0707	SHEAR	278	153	98	
	THETA	62	47	46	
0708	MAX	547	616	712	
0709	MIN	110	243	117	
0710	SHEAR	218	187	298	
	THETA	70	57	73	
0711	MAX	960	1,001	1,018	
0712	MIN	27	210	302	
0713	SHEAR	467	396	358	
	THETA	53	58	54	
0714	MAX	70	48	64	
0715	MIN	507	225	338	
0716	SHEAR	219	137	137	
	THETA	27	1	10	
0717	MAX	13	83	50	
0718	MIN	373	449	304	
0719	SHEAR	180	183	127	
	THETA	10	6	24	
0720	MAX	116	140	16	
0721	MIN	238	24	74	
0722	SHEAR	177	82	55	
	THETA	23	19	17	
0723	MAX	677	516	524	
0724	MIN	567	369	408	
0725	SHEAR	622	443	466	
	THETA	45	47	48	

TABLE VIII (Continued)

556880

200 INCH MULTICELL

26 JULY 1965

RECTANGULAR ROSETTE

PSI

E = 10,400,000 U = 0.000

GAGE		004 K 04.4 PSI (F _{Full})	040 K 08.0 PSI	120 K 16.0 PSI	180 K 20.0 PSI	200 K 20.0 PSI	220 K 22.0 PSI
0726	MAX	246	389	755	879	1,013	954
0727	MIN	97	40	348	216	338	296
0728	SHEAR	171	174	203	330	337	329
	THETA	16	6	12	4	7	5
0729	MAX	22	798	2,500	2,833	3,722	3,948
0730	MIN	593	1,174	1,229	1,558	2,163	2,785
0731	SHEAR	286	304	636	837	779	581
	THETA	58	59	50	36	44	31

GAGE		240 K 24.0 PSI	260 K 26.0 PSI	280 K 28.0 PSI	300 K 30.0 PSI	301 K 04.4 PSI (F _{Full})	044 K 04.4 PSI (F _{Full})	033 K 03.3 PSI (3/4 F _{Full})
0726	MAX	1,099	1,216	1,246	1,418	-	49	-
0727	MIN	338	386	309	398	-	457	-
0728	SHEAR	380	415	469	510	-	204	-
	THETA	1	2	4	2	-	10	-
0729	MAX	4,259	4,713	5,162	5,620	-	283	-
0730	MIN	2,508	2,860	3,285	3,339	-	985	-
0731	SHEAR	875	926	939	1,140	-	634	-
	THETA	41	39	38	38	-	46	-

GAGE		022 K 02.2 PSI (1/2 F _{Full})	011 K 01.1 PSI (1/4 F _{Full})	000 K (Final Zero)
0726	MAX	341	7	190
0727	MIN	430	368	353
0728	SHEAR	45	181	81
	THETA	2	33	13
0729	MAX	168	71	57
0730	MIN	1,040	904	1,024
0731	SHEAR	436	417	541
	THETA	35	34	32

TABLE IX
Reduced Rosette Gage Results Printed
As Single Gages
Waffle Skin

556860		200 INCH MULTICELL		26 JULY 1965	
SINGLE STRAIN GAGES		PSI		E= 1,000,000 U= 0.000	
GAGE	004 % 04.4 PSI(Full)	040 % 08.0 PSI	080 % 16.0 PSI	120 % 24.0 PSI	200 % 40.0 PSI
0628	107	15	287	44	132
0663	863	1,348	2,129	2,976	3,515
0665	366	147	896	1,574	2,067
					2,272

GAGE	240 % 48.0 PSI	260 % 52.0 PSI	280 % 56.0 PSI	300 % 60.0 PSI	304 % 60.8 PSI(Full)	044 % 8.8 PSI(Full)	033 % 6.6 PSI(Full)
0628	51	44	72	25	12	148	151
0663	4,613	4,942	4,480	4,970	460	524	293
0665	2,606	2,829	2,942	2,923	34	15	64

GAGE	022 % 04.4 PSI (1/2 Full)	011 % 02.2 PSI (1/4 Full)	000 % (Final Zero)
0628	97	89	118
0663	3	0	150
0665	202	133	192

TABLE X
Reduced Rosette Gage Results
Top Bulkhead - Cell 3

556880		200 INC= MULTICELL		26 JULY 1965		E= 10,400,000 U= 0.000		PSI		U= 0.000	
RECTANGULAR ROSETTE											
GAGE		004 % 4.4 PSI (F ₀₁₁)	040 % 8.0 PSI	080 % 16.0 PSI	120 % 24.0 PSI	160 % 32.0 PSI	200 % 40.0 PSI	220 % 44.0 PSI			
0738	MAX	16	431	922	1,578	1,852	2,301	2,265			
0739	MIN	103	111	52	64	75	93	56			
0740	SHEAR	60	271	487	757	894	954	1,105			
	THETA	58	89	90	-	86	85	84			
0741	MAX	108	730	1,397	2,090	2,210	2,384	2,716			
0742	MIN	84	586	967	1,474	1,860	1,741	2,046			
0743	SHEAR	95	72	215	308	455	321	336			
	THETA	33	46	72	87	77	78	80			
0744	MAX	16	400	933	1,599	1,630	1,980	2,172			
0745	MIN	218	23	4	162	244	392	322			
0746	SHEAR	117	188	465	719	693	794	925			
	THETA	44	79	89	88	89	88	90			
0750	MAX	28	325	923	1,433	1,626	1,846	2,121			
0751	MIN	219	128	212	527	554	703	906			
0752	SHEAR	123	99	356	453	536	571	607			
	THETA	18	71	86	82	86	87	86			
0793	MAX	125	555	1,088	1,493	1,702	2,035	2,170			
0794	MIN	29	208	445	681	781	781	735			
0795	SHEAR	48	173	322	556	505	627	717			
	THETA	16	78	79	88	90	83	87			
0762	MAX	147	289	574	898	986	1,204	1,265			
0763	MIN	33	122	104	295	347	437	386			
0764	SHEAR	57	83	235	302	320	383	439			
	THETA	44	86	87	79	87	90	81			
0765	MAX	86	541	1,283	1,672	1,745	2,198	2,384			
0766	MIN	44	465	1,011	1,292	1,584	2,107	2,072			
0767	SHEAR	21	38	136	190	90	48	156			
	THETA	45	44	50	76	31	50	60			
0768	MAX	41	184	542	850	1,160	1,322	1,325			
0769	MIN	89	118	327	713	815	980	1,039			
0770	SHEAR	65	33	108	68	173	171	143			
	THETA	45	84	53	75	77	79	73			
0771	MAX	257	700	972	1,357	1,521	1,767	2,105			
0772	MIN	74	266	802	1,074	1,401	1,590	1,733			
0773	SHEAR	166	217	85	141	60	88	186			
	THETA	7	22	24	17	33	33	9			
0774	MAX	115	421	799	1,290	1,578	1,727	2,024			
0775	MIN	205	205	707	1,223	1,414	1,551	1,895			
0776	SHEAR	160	108	46	34	82	88	79			
	THETA	16	17	6	53	9	12	30			

TABLE X (Continued)

556880 200 INCH MULTICELL		26 JULY 1965									
RETANGULAR ROSETTE		E= 10,400,000 U= 0.060									
GAUGE		240 X 24.0 PSI	260 X 26.0 PSI	280 X 28.0 PSI	300 X 30.0 PSI	301 X 4.4 PSI (Full)	044 X 04.4 PSI (Full)	044 X 04.4 PSI (Full)	033 X 03.3 PSI (3/4 Full)	033 X 03.3 PSI (3/4 Full)	
0738	MAX	2,393	2,543	2,711	3,029	-	93	4	-	75	
0739	MIN	44	49	53	88	-	139	141	-	214	
0740	SHEAR	1,219	1,247	1,329	1,473	-	23	72	-	144	
	THETA	85	86	86	85	-	2	9	-	29	
0741	MAX	2,896	3,145	3,286	3,538	-	257	-	-	234	
0742	MIN	2,171	2,374	2,475	2,612	-	43	-	-	509	
0743	SHEAR	363	385	406	363	-	150	231	-	137	
	THETA	85	80	82	78	-	25	39	-	31	
0744	MAX	2,297	2,570	2,732	2,941	-	119	-	-	133	
0745	MIN	461	533	505	722	-	271	-	-	365	
0746	SHEAR	918	1,018	1,114	1,109	-	78	149	-	116	
	THETA	89	89	88	90	-	61	63	-	60	
0750	MAX	2,233	2,342	2,625	2,845	-	177	-	-	124	
0751	MIN	952	1,037	1,229	1,354	-	415	-	-	295	
0752	SHEAR	640	653	698	746	-	119	106	-	86	
	THETA	88	87	86	89	-	29	30	-	22	
0753	MAX	2,242	2,570	2,682	2,910	-	144	-	-	20	
0754	MIN	708	999	854	1,112	-	137	-	-	697	
0755	SHEAR	767	786	914	899	-	141	307	-	338	
	THETA	87	83	89	87	-	17	45	-	50	
0762	MAX	1,249	1,456	1,439	1,594	-	64	159	-	2	
0763	MIN	452	536	659	606	-	18	154	-	207	
0764	SHEAR	398	460	390	494	-	41	157	-	105	
	THETA	79	81	82	82	-	65	53	-	41	
0765	MAX	2,683	2,963	3,071	3,381	-	119	227	-	225	
0766	MIN	2,515	2,875	2,808	3,207	-	56	73	-	50	
0767	SHEAR	84	44	131	87	-	88	77	-	138	
	THETA	72	1	39	56	-	67	61	-	51	
0768	MAX	1,518	1,647	1,736	2,014	-	21	52	-	43	
0769	MIN	1,038	1,259	1,406	1,629	-	150	148	-	136	
0770	SHEAR	240	194	165	193	-	86	48	-	46	
	THETA	74	69	81	77	-	8	33	-	39	
0771	MAX	2,295	2,358	2,668	2,883	-	439	241	-	334	
0772	MIN	1,963	2,117	2,313	2,300	-	40	129	-	217	
0773	SHEAR	166	121	177	191	-	200	185	-	275	
	THETA	13	29	20	20	-	19	9	-	2	
0774	MAX	2,197	2,342	2,589	2,913	-	86	-	-	10	
0775	MIN	1,956	2,270	2,272	2,586	-	300	-	-	106	
0776	SHEAR	121	36	158	163	-	107	84	-	58	
	THETA	5	3	11	2	-	21	41	-	26	

TABLE X (Continued)

556880 200 INCH MULTICELL		26 JULY 1965		E= 10,400,000 U= 0.000	
RETANGULAR ROSETTE		PSI			
GAGE	022 X 02,2 PSI (1/2 Full)	011 X 01,1 PSI (1/4 Full)	000 X (Final Zero)		
0738 MAX	10	140	222		
0739 MIN	223	27	112		
0740 SHEAR	106	57	55		
0740 THETA	24	29	62		
0741 MAX	158	202	190		
0742 MIN	491	592	465		
0743 SHEAR	167	195	137		
0743 THETA	49	60	82		
0744 MAX	121	61	14		
0745 MIN	229	142	67		
0746 SHEAR	54	102	26		
0746 THETA	55	67	67		
0750 MAX	22	1	111		
0751 MIN	208	22	58		
0752 SHEAR	93	11	85		
0752 THETA	34	21	61		
0753 MAX	58	8	278		
0754 MIN	370	54	39		
0755 SHEAR	214	23	119		
0755 THETA	40	14	42		
0762 MAX	118	121	197		
0763 MIN	54	1	17		
0764 SHEAR	86	60	107		
0764 THETA	37	55	44		
0765 MAX	281	389	386		
0766 MIN	205	165	273		
0767 SHEAR	38	112	56		
0767 THETA	37	25	58		
0768 MAX	41	65	122		
0769 MIN	45	9	20		
0770 SHEAR	43	28	51		
0770 THETA	10	1	66		
0771 MAX	435	320	645		
0772 MIN	129	104	149		
0773 SHEAR	282	108	248		
0773 THETA	16	14	21		
0774 MAX	45	244	121		
0775 MIN	19	61	6		
0776 SHEAR	32	92	58		
0776 THETA	59	26	32		

TABLE X (Continued)

556880		200 INCH MULTICELL		PSI		E = 10,400,000 U = 0.000		26 JULY 1965	
RECTANGULAR ROSETTE									
GRADE		004 PSI (F _{avg})	040 PSI	080 PSI	120 PSI	160 PSI	200 PSI	220 PSI	
		9	285	524	1,031	1,287	1,264	1,591	
0777	MAX	9	285	524	1,031	1,287	1,264	1,591	
0778	MIN	79	126	449	685	838	973	1,057	
0779	SHEAR	44	80	38	173	225	146	267	
0779	THETA	13	68	73	-	88	82	-	66
0804	MAX	33	308	753	990	1,258	1,506	1,951	
0805	MIN	132	69	33	77	77	5	20	
0806	SHEAR	82	120	360	534	667	751	765	
0806	THETA	43	81	76	75	78	79	78	
0807	MAX	198	513	1,299	1,772	1,949	2,414	2,739	
0808	MIN	146	443	924	403	482	972	1,182	
0809	SHEAR	172	35	187	684	733	721	779	
0809	THETA	44	36	62	61	61	58	55	
0810	MAX	73	221	258	437	569	582	744	
0811	MIN	18	13	54	45	19	38	92	
0812	SHEAR	45	117	102	196	294	310	326	
0812	THETA	76	72	77	68	54	54	62	
0813	MAX	85	357	997	1,184	1,562	1,922	2,005	
0814	MIN	136	265	724	896	986	1,174	1,477	
0815	SHEAR	25	46	137	144	288	374	264	
0815	THETA	63	79	84	70	61	60	69	
0816	MAX	91	339	517	787	801	991	1,199	
0817	MIN	96	134	405	614	622	707	843	
0818	SHEAR	93	102	56	66	89	142	178	
0818	THETA	12	30	52	42	65	57	51	
0819	MAX	198	423	786	1,122	1,334	1,606	1,774	
0820	MIN	4	280	570	643	943	1,080	929	
0821	SHEAR	101	71	108	259	195	263	423	
0821	THETA	8	49	81	80	75	89	81	
0822	MAX	44	101	130	195	243	233	303	
0823	MIN	92	12	35	90	8	6	156	
0824	SHEAR	68	56	82	57	126	114	74	
0824	THETA	43	62	8	14	19	17	8	

TABLE X (Continued)

554880		200 INCH MULTICELL		26 JULY 1965		E= 10,400,000 U= 0.000	
RECTANGULAR ROSETTE		PSI		E= 10,400,000 U= 0.000		0.000	
CAGE		240 PSI	260 PSI	280 PSI	300 PSI	301 PSI (Full)	033 PSI (Full)
		24.0 PSI	26.0 PSI	28.0 PSI	30.0 PSI	4.4 PSI (Full)	04.4 PSI (Full)
0777	MAX	1,624	1,661	1,879	2,158	55	113
0778	MIN	1,099	1,244	1,300	1,621	106	308
0779	SHEAR	278	208	289	268	106	98
	THETA	82	83	79	86	25	80
0804	MAX	1,839	1,934	2,145	2,457	41	49
0805	MIN	120	16	124	239	117	245
0806	SHEAR	859	975	1,010	1,109	79	137
	THETA	79	76	80	78	54	34
0807	MAX	2,876	3,302	3,543	3,751	223	336
0808	MIN	1,576	1,858	1,712	2,080	204	392
0809	SHEAR	650	722	916	836	213	28
	THETA	56	53	52	53	40	57
0810	MAX	861	974	1,103	1,116	36	57
0811	MIN	108	180	186	289	110	726
0812	SHEAR	377	397	459	413	73	392
	THETA	60	59	57	61	45	79
0813	MAX	2,253	2,498	2,711	2,910	259	516
0814	MIN	1,373	1,627	1,509	1,981	65	110
0815	SHEAR	440	435	601	464	162	313
	THETA	60	65	60	64	25	45
0816	MAX	1,222	1,424	1,510	1,574	78	106
0817	MIN	1,077	1,033	1,244	1,376	155	31
0818	SHEAR	72	195	133	99	117	68
	THETA	66	55	56	52	25	11
0819	MAX	2,017	2,162	2,336	2,473	204	389
0820	MIN	1,287	1,364	1,353	1,531	53	82
0821	SHEAR	365	399	491	471	128	235
	THETA	84	90	84	88	4	27
0822	MAX	296	272	441	441	42	70
0823	MIN	107	129	245	140	93	144
0824	SHEAR	95	71	98	150	67	107
	THETA	35	9	18	35	9	33

TABLE X (Continued)

556000		200 INCH MULTICELL		26 JULY 1965	
RETANGULAR ROSETTE		PSI		E= 10,400,000 U= 0.000	
GAGE		011 $\frac{1}{4}$ PSI ($\frac{1}{4}$ Full)			000 $\frac{1}{8}$ PSI (Final Zero)
		022 $\frac{1}{2}$ PSI ($\frac{1}{2}$ Full)	011 $\frac{1}{4}$ PSI ($\frac{1}{4}$ Full)	000 $\frac{1}{8}$ PSI ($\frac{1}{8}$ Full)	
0777	MAX	72	113	232	
0778	MIN	57	28	64	
0779	SHEAR	65	42	84	
	THETA	66	57	82	
0804	MAX	135	183	68	
0805	MIN	338	344	284	
0806	SHEAR	237	263	176	
	THETA	22	32	35	
0807	MAX	68	37	499	
0808	MIN	202	211	41	
0809	SHEAR	67	124	270	
	THETA	42	58	34	
0810	MAX	43	22	42	
0811	MIN	732	772	731	
0812	SHEAR	387	397	386	
	THETA	77	81	74	
0813	MAX	678	756	724	
0814	MIN	17	29	112	
0815	SHEAR	348	363	306	
	THETA	35	38	38	
0816	MAX	64	21	38	
0817	MIN	96	66	47	
0818	SHEAR	80	22	5	
	THETA	5	73	6	
0819	MAX	403	197	362	
0820	MIN	46	65	20	
0821	SHEAR	178	131	171	
	THETA	20	15	5	
0822	MAX	14	46	41	
0823	MIN	339	404	286	
0824	SHEAR	163	225	163	
	THETA	32	22	25	

TABLE X (Continued)

536880		200 INCH MULTICELL		26 JULY 1965		E = 10,400,000 LB		0.000			
RETANGULAR ROSETTE		PSI		120 °		180 °		200 °		220 °	
GRADE		004 °		040 °		080 °		120 °		180 °	
		4.4 PSI (F ₀₁)		08.0 PSI		12.0 PSI		16.0 PSI		20.0 PSI	
		MAX		MIN		SHEAR		THETA		MAX	
0834	-	53	259	646	934	1,255	1,107	1,544	1,544	1,544	1,544
0835	-	189	71	43	43	593	589	650	650	650	650
0836	-	66	140	321	445	86	87	89	89	89	89
0837	-	27	78	89	84	-	-	-	-	-	-
0838	-	381	589	1,343	1,719	2,073	2,378	2,830	2,830	2,830	2,830
0839	-	82	435	907	1,361	1,757	1,792	1,966	1,966	1,966	1,966
0840	-	149	46	218	178	158	293	432	432	432	432
0841	-	32	8	61	74	65	65	63	63	63	63
0842	-	160	313	669	1,097	1,189	1,449	1,535	1,535	1,535	1,535
0843	-	31	156	510	985	1,011	1,328	1,507	1,507	1,507	1,507
0844	-	65	59	79	56	61	61	14	14	14	14
0845	-	15	44	4	40	17	6	29	29	29	29
0846	-	92	162	550	754	961	1,102	1,158	1,158	1,158	1,158
0847	-	316	110	317	540	636	705	819	819	819	819
0848	-	112	26	117	107	163	199	169	169	169	169
0849	-	68	75	80	65	88	87	87	87	87	87
0850	-	116	254	730	1,146	1,368	1,539	1,763	1,763	1,763	1,763
0851	-	121	12	25	120	151	147	308	308	308	308
0852	-	119	133	378	513	608	696	727	727	727	727
0853	-	23	76	84	88	81	86	86	86	86	86
0854	-	4	466	806	1,442	1,720	1,803	2,137	2,137	2,137	2,137
0855	-	381	36	536	983	1,177	1,419	1,571	1,571	1,571	1,571
0856	-	189	215	135	229	271	192	263	263	263	263
0857	-	69	68	69	75	63	75	73	73	73	73

TABLE X (Continued)

556860		200 INCH MULTICELL		26 JULY 1965		E= 10,400,000 U= 0.000		PSI		301 %		044 %		033 %	
RETANGULAR ROSETTE															
GRG		240 %	260 %	280 %	300 %	301 %	044 %	033 %		301 %	044 %	033 %		301 %	033 %
		24.0 PSI	26.0 PSI	28.0 PSI	30.0 PSI	4.4 PSI(Full)	4.4 PSI(Full)	03.3 PSI (3/4 Full)		4.4 PSI(Full)	4.4 PSI(Full)	03.3 PSI (3/4 Full)		4.4 PSI(Full)	03.3 PSI (3/4 Full)
0834	MAX	1,661	1,924	2,052	2,115	-	98	-	193	-	193	-	181	-	181
0835	MIN	126	336	370	364	-	110	-	1,585	-	1,585	-	1,705	-	1,705
0836	SHEAR	768	794	841	876	-	104	-	696	-	696	-	762	-	762
	THETA	90	80	89	87	-	39	-	22	-	22	-	23	-	23
0837	MAX	3,077	3,256	3,784	3,745	-	882	-	205	-	205	-	42	-	42
0838	MIN	2,111	2,296	2,175	2,690	-	420	-	359	-	359	-	440	-	440
0839	SHEAR	483	480	805	518	-	651	-	282	-	282	-	241	-	241
	THETA	59	58	52	63	-	46	-	31	-	31	-	22	-	22
0840	MAX	1,823	2,037	2,271	2,414	-	92	-	23	-	23	-	16	-	16
0841	MIN	1,679	1,877	2,172	2,238	-	85	-	388	-	388	-	334	-	334
0842	SHEAR	72	AC	49	83	-	89	-	206	-	206	-	175	-	175
	THETA	60	21	3	17	-	3	-	43	-	43	-	54	-	54
0843	MAX	1,265	1,505	1,468	1,778	-	96	-	206	-	206	-	95	-	95
0844	MIN	781	871	976	1,190	-	253	-	657	-	657	-	242	-	242
0845	SHEAR	252	317	246	259	-	174	-	230	-	230	-	73	-	73
	THETA	88	81	85	86	-	48	-	33	-	33	-	65	-	65
0852	MAX	1,919	2,112	2,276	2,449	-	48	-	29	-	29	-	26	-	26
0853	MIN	353	360	439	435	-	44	-	59	-	59	-	109	-	109
0854	SHEAR	783	876	918	1,017	-	46	-	44	-	44	-	68	-	68
	THETA	83	80	86	84	-	2	-	49	-	49	-	15	-	15
0855	MAX	2,437	2,600	2,862	3,131	-	26	-	0	-	0	-	48	-	48
0856	MIN	1,806	2,057	2,093	2,665	-	286	-	178	-	178	-	353	-	353
0857	SHEAR	315	272	385	233	-	156	-	89	-	89	-	200	-	200
	THETA	78	86	70	55	-	59	-	78	-	78	-	64	-	64

TABLE X (Continued)

526880		200 INCH MULTICELL		26 JULY 1965			
RETANGULAR ROSETTE		P = 10,400.000		U = 0.000			
CASE		022 1/2 PSI (1/2 Full)		011 1/2 PSI (1/4 Full)		PSI	000 % (Final Zero)
		022 1/2	PSI (1/2 Full)	011 1/2	PSI (1/4 Full)		
0834	MAX	-	42	-	13	-	48
0835	MIN	-	1,493	-	1,521	-	1,393
0836	SHEAR	-	1,726	-	754	-	673
	THETA	-	20	-	24	-	25
0837	MAX	-	141	-	184	-	357
0838	MIN	-	351	-	392	-	270
0839	SHEAR	-	246	-	288	-	313
	THETA	-	30	-	33	-	34
0840	MAX	-	32	-	23	-	1
0841	MIN	-	350	-	327	-	237
0842	SHEAR	-	191	-	152	-	119
	THETA	-	70	-	64	-	70
0843	MAX	-	7	-	160	-	132
0844	MIN	-	424	-	456	-	226
0845	SHEAR	-	208	-	148	-	179
	THETA	-	77	-	49	-	84
0852	MAX	-	66	-	1	-	72
0853	MIN	-	14	-	136	-	51
0854	SHEAR	-	40	-	67	-	66
	THETA	-	10	-	60	-	39
0855	MAX	-	5	-	9	-	180
0856	MIN	-	435	-	322	-	67
0857	SHEAR	-	215	-	165	-	123
	THETA	-	58	-	69	-	72

TABLE X (Continued)

556800		200 INCH MULTICELL		26 JULY 1965			
RECTANGULAR ROSETTE		E= 10,400,000 U= 0.000					
GAUGE	004 X 4.4 PSI(F _{III})	040 X 8.0 PSI	080 X 42.0 PSI	120 X 18.0 PSI	180 X 18.0 PSI	200 X 20.0 PSI	220 X 22.0 PSI
0858 MAX	59	154	431	562	771	860	936
0859 MIN	210	156	43	408	436	402	761
0860 SHEAR	75	155	194	77	168	239	88
0860 THETA	40	48	32	42	38	39	46
0861 MAX	45	205	639	929	987	1,082	1,171
0862 MIN	53	87	500	846	806	941	1,054
0863 SHEAR	4	59	70	41	90	70	58
0863 THETA	60	50	84	72	80	72	74
0864 MAX	659	1,096	1,278	1,591	1,835	2,123	2,016
0865 MIN	134	310	403	623	567	730	936
0866 SHEAR	262	393	438	484	634	697	540
0866 THETA	26	28	34	31	29	32	30
0867 MAX	15	327	687	1,057	1,284	1,535	1,895
0868 MIN	183	144	289	363	615	795	686
0869 SHEAR	84	92	199	347	315	370	505
0869 THETA	38	84	79	85	81	87	84
0870 MAX	518	871	1,303	1,834	2,035	2,294	2,413
0871 MIN	103	344	838	1,290	1,409	1,577	1,764
0872 SHEAR	208	263	233	272	313	359	324
0872 THETA	62	67	65	60	65	64	58
0873 MAX	156	194	708	919	1,298	1,185	1,342
0874 MIN	139	301	173	325	325	331	515
0875 SHEAR	148	248	268	308	486	427	413
0875 THETA	19	43	39	31	36	41	31

TABLE 7 (continued)

556380		200 INCH MULTICELL		26 JULY 1965		E= 10,400,000 U= 0.000			
PETANGULAR ROSETTE		PSI							
CAGE		240 #	260 #	280 #	310 #	301 #	044 #	033 #	
		24.0 PSI	26.0 PSI	28.0 PSI	30.0 PSI	4.4 PSI (F ₀₁)	04.4 PSI (F ₀₁)	03.3 PSI (F ₀₁)	
0850	MAX	1,102	1,150	1,300	1,459	5	154	-	11
0850	MIN	828	892	876	997	205	247	-	392
0860	SHEAR	137	129	212	231	107	199	-	190
	THETA	50	49	44	43	7	4	-	28
0861	MAX	1,339	1,506	1,620	1,808	337	234	-	271
0872	MIN	1,237	1,233	1,223	1,447	81	384	-	382
0883	SHEAR	51	137	201	180	128	75	-	55
	THETA	69	65	64	63	40	6	-	13
0864	MAX	2,307	2,330	2,588	2,486	725	1,452	-	1,311
0865	MIN	982	1,029	1,104	1,086	132	82	-	74
0866	SHEAR	663	655	742	699	297	767	-	692
	THETA	28	27	29	28	41	50	-	50
0867	MAX	1,884	2,018	2,236	2,478	83	44	-	4
0868	MIN	946	921	1,191	1,110	205	312	-	151
0869	SHEAR	519	549	522	684	61	134	-	74
	THETA	86	86	89	84	58	57	-	52
0870	MAX	2,611	2,794	2,978	3,089	335	388	-	268
0871	MIN	1,895	2,161	2,261	2,429	77	94	-	153
0872	SHEAR	358	317	359	330	129	241	-	210
	THETA	65	61	55	64	55	61	-	58
0873	MAX	1,365	1,545	1,671	1,880	705	755	-	708
0874	MIN	530	730	821	954	365	800	-	582
0875	SHEAR	417	408	425	463	535	778	-	645
	THETA	29	36	27	28	44	34	-	34

TABLE X (Continued)

556880 200 INCH MULTICELL		26 JULY 1965	
RETANGULAR ROSETTE:		E= 10,400,000	U= 0.000
GAGE	022 % 02.2 PSI ($\frac{1}{2}F_{ult}$)	011 % 01.1 PSI ($\frac{1}{4}F_{ult}$)	000 % (Final Zero)
0858 MAX	15	170	169
0859 MIN	270	334	167
0860 SHEAR	142	252	168
0860 THETA	0	11	4
0861 MAX	118	219	179
0862 MIN	319	400	272
0863 SHEAR	100	90	47
0863 THETA	13	18	23
0864 MAX	1,204	1,115	1,207
0865 MIN	48	124	91
0865 SHEAR	626	619	649
0866 THETA	53	58	54
0867 MAX	123	21	80
0868 MIN	157	202	141
0869 SHEAR	140	112	110
0869 THETA	67	48	56
0870 MAX	140	165	155
0871 MIN	70	101	40
0872 SHEAR	35	133	98
0872 THETA	70	32	40
0873 MAX	728	656	702
0874 MIN	548	579	401
0875 SHEAR	638	618	551
0875 THETA	33	32	30

TABLE X (Continued)

556880 200 INCH MULTICELL		26 JULY 1965									
SINGLE STRAIN GAGES		E= 10,400,000 U= 0.000									
GAGE	004 % 4.4 PSI (Full)	040 % 08.0 PSI	080 % 16.0 PSI	120 % 24.0 PSI	160 % 32.0 PSI	200 % 40.0 PSI	220 % 44.0 PSI	044 % 8.8 PSI (Full)	044 % 8.8 PSI (Full)	033 % 6.6 PSI (3/4 Full)	033 % 6.6 PSI (3/4 Full)
0825	-	132	58	243	339	292	369	132	139	132	216
0826	55	25	200	656	918	995	1,184	395	229	284	284
0748	27	184	184	598	608	914	952	181	40	209	209
0749	43	177	177	18	257	479	352	96	8	79	79
GAGE	240 % 24.0 PSI	250 % 25.0 PSI	280 % 28.0 PSI	300 % 30.0 PSI	301 % 30.1 PSI (Full)	044 % 8.8 PSI (Full)	044 % 8.8 PSI (Full)	033 % 6.6 PSI (3/4 Full)	033 % 6.6 PSI (3/4 Full)	033 % 6.6 PSI (3/4 Full)	033 % 6.6 PSI (3/4 Full)
0825	354	657	639	591	591	132	139	132	139	132	216
0826	1,437	547	1,122	1,294	1,294	395	229	395	229	284	284
0748	1,177	1,305	1,388	1,300	1,300	181	40	181	40	209	209
0749	595	580	781	856	856	96	8	96	8	79	79
GAGE	022 % 02.2 PSI (1/2 Full)	011 % 01.1 PSI (1/4 Full)	000 % (Final Zero)	000 % (Final Zero)	000 % (Final Zero)	000 % (Final Zero)	000 % (Final Zero)	000 % (Final Zero)	000 % (Final Zero)	000 % (Final Zero)	000 % (Final Zero)
0825	377	341	287	287	287	287	287	287	287	287	287
0826	38	67	38	38	38	38	38	38	38	38	38
0748	209	70	27	27	27	27	27	27	27	27	27
0749	34	23	110	110	110	110	110	110	110	110	110

TABLE XI
Reduced Biaxial Gage Results
Top Bulkhead - Cell 4

556880		200 INCH MULTICELL		PSI		E= 10,400,000 U= 0.000		26 JULY 1965	
BIAXIAL ROSETTE									
GAGE		004 X 04.4 PSI (E _{II})	040 X 08.0 PSI	080 X 42.0 PSI	120 X 16.0 PSI	180 X 18.0 PSI	200 X 20.0 PSI	220 X 22.0 PSI	
0200		520	541	406	382	444	439	398	
0201	SHEAR	269	255	996	1,538	1,763	1,992	2,264	
		125	398	701	960	1,104	1,215	1,331	
0202		62	443	1,046	1,106	1,442	1,469	1,629	
0203	SHEAR	45	592	1,404	2,008	2,577	2,204	2,943	
		54	74	179	451	568	368	657	
0204		122	47	264	483	406	679	741	
0205	SHEAR	141	412	1,228	1,813	2,024	2,473	2,832	
		9	153	482	665	809	897	946	
0206		56	285	190	736	781	955	986	
0207	SHEAR	125	560	1,149	1,866	1,866	2,162	2,617	
		91	138	480	565	543	614	815	
0208		59	431	1,014	1,508	1,577	1,553	2,233	
0209	SHEAR	16	682	1,605	2,206	2,454	2,743	3,110	
		22	125	295	349	439	395	439	
0210		35	178	82	229	160	566	527	
0211	SHEAR	184	519	851	1,448	1,878	2,120	1,920	
		75	348	466	838	1,019	1,343	1,224	
0224		30	129	245	495	374	497	785	
0225	SHEAR	275	51	378	800	778	862	1,207	
		122	90	65	153	202	182	211	
0226		7	368	1,186	1,743	1,752	2,127	2,295	
0227	SHEAR	137	291	1,102	1,326	1,466	1,813	1,886	
		72	38	42	209	143	156	204	
0228		9	94	371	740	801	1,072	1,215	
0229	SHEAR	40	277	822	1,318	1,391	1,729	1,939	
		16	92	226	285	295	328	362	
0230		87	377	548	831	1,274	1,497	1,760	
0231	SHEAR	57	503	546	1,103	1,742	1,994	2,155	
		15	63	1	136	234	248	198	
0232		28	709	1,220	2,086	2,265	2,820	3,144	
0233	SHEAR	14	666	1,175	1,947	2,050	2,512	2,785	
		7	22	23	70	107	154	179	
0234		154	349	206	374	537	1,022	708	
0235	SHEAR	9	203	866	829	1,221	1,115	1,292	
		81	276	536	602	879	1,069	1,000	

TABLE XI (Continued)

556880 200 INCH MULTICELL		26 JULY 1965					
BIAXIAL ROSETTE		PSI		E= 10,400,000 U= 0.000			
GAGE	240 K 24.0 PSI	260 K 26.0 PSI	280 K 28.0 PSI	300 K 30.0 PSI	301 K 4.4 PSI(Full)	044 K 04.4 PSI(Full)	033 K 03.3 PSI (3/4 Full)
0200	-	-	-	-	-	-	-
0201	492 2,432 1,462	290 2,727 1,508	400 2,819 1,609	321 3,076 1,699	706 241 232	3,855 1,312 1,272	3,626 1,440 1,093
0202	1,847	1,965	2,234	2,367	179	223	118
0203	3,186 670	3,173 604	3,600 683	3,752 693	86 47	173 25	101 9
0204	760	1,014	1,010	1,196	54	141	254
0205	2,763	3,163	3,382	3,639	43	42	246
	1,002	1,074	1,186	1,222	6	50	4
0206	1,137	1,460	1,499	1,613	5	276	183
0207	2,856	3,305	3,394	3,649	3	200	238
	860	922	947	1,018	0	38	27
0208	2,395	2,601	2,753	3,015	193	13	61
0209	3,265	3,543	3,825	4,006	235	101	146
	435	471	536	496	21	57	42
0210	398	376	518	577	16	152	111
0211	2,178 1,288	2,535 1,456	2,580 1,549	2,493 1,535	4 6	208 28	75 18
0224	841	1,021	1,031	1,186	32	287	198
0225	1,249	1,475	1,537	1,775	213	18	122
	204	227	253	295	91	135	160
0226	2,690	2,789	2,915	2,881	26	70	129
0227	2,285 303	2,321 234	2,600 157	2,621 130	477 225	2 36	19 55
0228	1,426	1,569	1,643	1,848	114	120	140
0229	2,198 386	2,421 426	2,555 456	2,805 479	112 1	34 43	174 37
0230	1,648	1,915	2,127	2,176	235	16	176
0231	2,170	2,556	2,678	2,676	221	108	188
	261	321	275	250	7	46	28
0232	3,516	3,788	4,087	4,491	37	88	10
0233	3,050 233	3,184 302	3,443 322	3,806 343	63 23	31 25	62 26
0234	908	986	802	875	228	984	870
0235	1,452 1,180	1,373 1,180	1,685 1,244	1,788 1,331	55 142	602 111	539 65

TABLE XI (Continued)

55680		200 INCH MULTICELL		E= 10,400,000 U= 0.000		26 JULY 1965	
BIAXIAL ROSETTE		PSI		U= 0.000			
GRADE		022 % 02.2 PSI (1/4 Full)	011 % (1.1 PSI (1/4 Full))	000 % Final Zero			
0200	-	3,361	3,285	-	3,240		
0201	-	1,167	1,203	-	1,119		
	SHEAR	1,097	1,041	-	1,061		
0202	-	120	57	-	124		
0203	-	195	73	-	21		
	SHEAR	37	8	-	52		
0204	-	140	12	-	19		
0205	-	106	11	-	99		
	SHEAR	17	12	-	59		
0206	-	67	133	-	117		
0207	-	93	42	-	48		
	SHEAR	13	45	-	82		
0208	-	36	49	-	49		
0209	-	65	30	-	105		
	SHEAR	14	10	-	28		
0210	-	128	86	-	174		
0211	-	162	229	-	239		
	SHEAR	13	71	-	33		
0224	-	96	352	-	134		
0225	-	118	93	-	52		
	SHEAR	107	130	-	41		
0226	-	53	45	-	14		
0227	-	110	76	-	71		
	SHEAR	28	61	-	28		
0228	-	172	4	-	13		
0229	-	129	8	-	116		
	SHEAR	22	6	-	65		
0230	-	228	240	-	346		
0231	-	137	247	-	255		
	SHEAR	45	4	-	45		
0232	-	52	232	-	110		
0233	-	44	149	-	132		
	SHEAR	48	41	-	11		
0234	-	632	727	-	618		
0235	-	603	649	-	669		
	SHEAR	14	39	-	25		

TABLE XI (Continued)

556880		200 INCH MULTICELL		26 JULY 1965		E= 10,400,000 U= 0.000	
BIAXIAL ROSETTE		PSI					
GAGE		004 % 4.4 PSI(FULL)	040 % 8.0 PSI	080 % 12.0 PSI	120 % 16.0 PSI	160 % 20.0 PSI	200 % 22.0 PSI
0248	-	14	36	58	292	400	547
0249	-	5	126	319	544	537	751
	SHEAR	5	45	130	126	68	102
0250	-	241	47	444	913	825	914
0251	-	123	209	743	1,573	1,402	1,715
	SHEAR	59	81	150	330	289	400
0252	-	16	64	4	96	178	330
0253	-	3	169	57	293	382	511
	SHEAR	7	53	26	99	102	86
0254	-	403	642	631	721	941	1,033
0255	-	131	590	1,147	1,363	1,878	2,119
	SHEAR	136	26	258	321	468	543
0256	-	29	29	31	13	177	236
0257	-	10	9	12	120	245	262
	SHEAR	10	10	9	53	34	13
0258	-	295	6	758	941	1,064	1,194
0259	-	89	368	1,311	1,805	2,012	2,257
	SHEAR	103	181	276	432	474	531
0260	-	34	109	160	248	117	107
0261	-	35	217	391	633	887	944
	SHEAR	34	163	276	441	502	525
0262	-	398	776	840	1,240	900	1,631
0263	-	114	1,046	1,690	2,506	2,715	3,255
	SHEAR	142	135	425	633	908	832
0264	-	42	191	272	446	614	858
0265	-	11	183	289	581	789	970
	SHEAR	16	4	9	68	87	41
0266	-	193	73	453	678	151	757
0267	-	49	85	693	915	823	1,103
	SHEAR	121	79	120	119	336	174
0268	-	2	93	261	464	591	741
0269	-	8	39	28	39	211	245
	SHEAR	5	27	145	213	190	248
0270	-	281	535	415	629	803	921
0271	-	38	608	545	780	918	1,111
	SHEAR	160	36	65	76	54	95

BIAXIAL ROSETTE 200 INCH MULTICELL 356880

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TABLE XI (Continued)

556880		200 INCH MULTICELL		E= 10,400,000 U= 0.000		26 JULY 1965	
BIAXIAL ROSETTE		PSI		PSI		U= 0.000	
GAUGE		022 $\frac{1}{2}$ PS ($\frac{1}{2}$ Full)	011 $\frac{1}{2}$ PS ($\frac{1}{2}$ Full)	000 $\frac{1}{2}$ PS (Full)	000 $\frac{1}{2}$ PS (Full)	FINISH ZERO	
0248	-	972	-	790	-	812	
0249	-	493	-	304	-	300	
	SHEAR	239	-	243	-	256	
0250	-	150	-	251	-	197	
0251	-	393	-	294	-	294	
	SHEAR	121	-	22	-	49	
0252	-	50	-	5	-	24	
0253	-	43	-	8	-	35	
	SHEAR	3	-	7	-	30	
0254	-	185	-	75	-	273	
0255	-	115	-	70	-	144	
	SHEAR	35	-	3	-	64	
0256	-	67	-	79	-	25	
0257	-	62	-	27	-	50	
	SHEAR	65	-	26	-	42	
0258	-	484	-	514	-	516	
0259	-	108	-	225	-	207	
	SHEAR	188	-	145	-	155	
0260	-	194	-	196	-	46	
0261	-	132	-	212	-	108	
	SHEAR	31	-	8	-	71	
0262	-	75	-	123	-	79	
0263	-	213	-	267	-	65	
	SHEAR	69	-	72	-	7	
0264	-	89	-	60	-	110	
0265	-	204	-	79	-	53	
	SHEAR	57	-	9	-	28	
0266	-	115	-	141	-	19	
0267	-	34	-	122	-	132	
	SHEAR	40	-	10	-	57	
0268	-	93	-	28	-	96	
0269	-	58	-	36	-	68	
	SHEAR	17	-	4	-	14	
0270	-	328	-	399	-	400	
0271	-	80	-	16	-	113	
	SHEAR	124	-	208	-	144	

TABLE XI (Continued)

55680		200 INCH MULTICELL		26 JULY 1965	
BIAXIAL ROSETTE		E= 10,400,000 U= 0.000			
GAGE		PSI			
		080 X 42.0 PSI	120 X 16.0 PSI	180 X 20.0 PSI	220 X 22.0 PSI
		04.4 PSI (F _m)	040 X 06.0 PSI		
0272		7	220	578	943
0273	SHEAR	0	205	578	878
		4	8	35	32
0274		70	261	975	1,245
0275	SHEAR	355	223	714	1,027
		212	242	95	109
0276		32	64	375	511
0277	SHEAR	155	555	1,481	2,186
		61	245	371	682
0278		263	484	639	1,497
0279	SHEAR	548	1,019	1,327	2,305
		142	268	344	404
0292		38	254	529	750
0293	SHEAR	13	252	593	965
		26	1	32	107
0294		92	280	572	831
0295	SHEAR	260	59	246	449
		176	169	409	191
0296		98	241	543	701
0297	SHEAR	6	187	566	855
		52	37	12	77
0298		98	447	165	2,061 *
0299	SHEAR	2	499	535	1,079
		48	26	185	491
0300		46	92	418	524
0301	SHEAR	32	444	1,185	1,886
		7	176	383	681
0302		183	306	1,018	1,332
0303	SHEAR	265	738	1,368	2,490
		41	171	171	579
					425
					575
					914
					1,029
					1,029
					58
					929
					457
					179
					166
					1,096
					1,082
					7
					1,091
					1,353
					131
					848
					2,430
					791
					1,266
					2,415
					575

TABLE XI (Continued)

550880 200 INCH MULTICELL		26 JULY 1965									
BIAXIAL ROSETTE		E = 10,400,000 U = 0.000									
GAGE		240 PSI	260 PSI	280 PSI	300 PSI	301 PSI	4.4 PSI (F _{ULL})	04.4 PSI	04.4 PSI (F _{ULL})	03.3 PSI (3/4 F _{ULL})	03.3 PSI
		24.0 PSI	26.0 PSI	28.0 PSI	30.0 PSI	4.4 PSI (F _{ULL})	04.4 PSI (F _{ULL})	04.4 PSI (F _{ULL})	04.4 PSI (F _{ULL})	03.3 PSI (3/4 F _{ULL})	03.3 PSI
0272		1,039	1,183	1,202	1,424	42	-	380	-	-	351
0273	SHEAR	1,072	1,084	1,149	1,421	140	-	234	-	-	139
		16	49	27	2	91	-	73	-	-	106
0274		1,450	1,487	1,745	1,762	176	-	97	-	-	48
0275	SHEAR	1,555	1,253	1,495	1,463	104	-	78	-	-	146
		48	117	125	150	140	-	10	-	-	97
0276		712	839	988	1,067	123	-	36	-	-	21
0277	SHEAR	2,544	2,875	3,118	3,310	238	-	273	-	-	189
		916	1,018	1,065	1,121	97	-	154	-	-	82
0278		1,612	1,621	1,909	2,037	135	-	376	-	-	315
0279	SHEAR	2,851	3,169	3,427	3,742	371	-	728	-	-	854
		619	774	759	853	118	-	176	-	-	170
0292		1,011	1,213	1,260	1,319	205	-	180	-	-	126
0293	SHEAR	1,171	1,387	1,439	1,523	115	-	108	-	-	139
		80	87	84	103	49	-	36	-	-	7
0294		815	926	1,172	1,251	126	-	903	-	-	38
0295	SHEAR	447	519	670	822	588	-	652	-	-	285
		184	204	251	215	231	-	121	-	-	84
0296		1,213	1,412	1,438	1,572	114	-	26	-	-	188
0297	SHEAR	1,195	1,401	1,422	1,593	10	-	6	-	-	37
		9	6	8	11	62	-	10	-	-	35
0298		1,290	1,424	1,567	1,725	70	-	141	-	-	83
0299	SHEAR	1,451	1,592	1,891	1,897	124	-	41	-	-	66
		81	84	162	66	27	-	50	-	-	9
0300		627	843	978	1,159	111	-	18	-	-	177
0301	SHEAR	2,554	2,787	3,095	3,283	136	-	34	-	-	153
		864	972	1,058	1,067	12	-	26	-	-	11
0302		1,663	1,996	1,961	2,045	367	-	21	-	-	33
0303	SHEAR	2,883	3,150	3,370	3,513	314	-	55	-	-	164
		610	577	704	735	26	-	38	-	-	98

TABLE XI (Continued)

556880		200 INCH MULTICELL		26 JULY 1965	
BIAXIAL ROSETTE		PSI		E= 10,400,000 U= 0.000	
ORGE	022 K 0212 PSI (1/2 F _{ult})	011 K 0111 PSI (1/2 F _{ult})	000 K (F _{ult} Zero)		
0272	-	230	-	206	-
0273	-	123	-	24	-
	SHEAR	54	-	91	-
0274	-	11	-	91	93
0275	-	162	-	68	130
	SHEAR	85	-	11	112
0276	-	38	-	10	63
0277	-	233	-	256	165
	SHEAR	97	-	123	114
0278	-	323	-	311	284
0279	-	666	-	830	548
	SHEAR	171	-	260	132
0292	-	216	-	172	216
0293	-	194	-	111	115
	SHEAR	11	-	30	50
0294	-	133	-	111	-
0295	-	350	-	205	-
	SHEAR	108	-	47	20
0296	-	98	-	45	153
0297	-	35	-	63	45
	SHEAR	31	-	9	54
0298	-	31	-	215	168
0299	-	42	-	195	244
	SHEAR	5	-	10	38
0300	-	7	-	5	21
0301	-	130	-	163	117
	SHEAR	69	-	84	69
0302	-	19	-	22	42
0303	-	42	-	4	26
	SHEAR	30	-	13	34

TABLE XII

Reduced Rosette Gage Results

Bottom Bulkhead Cell 5

556880 200 INCH MULTICELL		26 JULY 1965									
RETANGULAR ROSETTE		E = 10,400,000 U = 0.000									
		PSI		120 X		180 X		200 X		220 X	
		04.4 PSI (Full)		08.0 PSI		12.0 PSI		16.0 PSI		20.0 PSI	
		004 X		040 X		080 X		120 X		160 X	
		04.4 PSI (Full)		08.0 PSI		12.0 PSI		16.0 PSI		20.0 PSI	
0882	MAX	1.021		1.559		2.172		2.681		3.259	
0883	MIN	263		445		580		708		779	
0884	SHEAR	379		557		796		947		1,240	
0884	THETA	88		87		86		86		84	
0885	MAX	923		1,035		129		328		1,702	
0886	MIN	5,279		7,776		3,748		4,912		15,073	
0887	SHEAR	2,178		3,370		1,939		2,620		6,995	
0887	THETA	25		25		33		29		25	

556880 200 INCH MULTICELL		26 JULY 1965									
RETANGULAR ROSETTE		E = 10,400,000 U = 0.000									
		PSI		120 X		180 X		200 X		220 X	
		04.4 PSI (Full)		08.0 PSI		12.0 PSI		16.0 PSI		20.0 PSI	
		004 X		040 X		080 X		120 X		160 X	
		04.4 PSI (Full)		08.0 PSI		12.0 PSI		16.0 PSI		20.0 PSI	
0882	MAX	1.021		1.559		2.172		2.681		3.259	
0883	MIN	263		445		580		708		779	
0884	SHEAR	379		557		796		947		1,240	
0884	THETA	88		87		86		86		84	
0885	MAX	923		1,035		129		328		1,702	
0886	MIN	5,279		7,776		3,748		4,912		15,073	
0887	SHEAR	2,178		3,370		1,939		2,620		6,995	
0887	THETA	25		25		33		29		25	

556880 200 INCH MULTICELL		26 JULY 1965									
RETANGULAR ROSETTE		E = 10,400,000 U = 0.000									
		PSI		120 X		180 X		200 X		220 X	
		04.4 PSI (Full)		08.0 PSI		12.0 PSI		16.0 PSI		20.0 PSI	
		004 X		040 X		080 X		120 X		160 X	
		04.4 PSI (Full)		08.0 PSI		12.0 PSI		16.0 PSI		20.0 PSI	
0882	MAX	1.021		1.559		2.172		2.681		3.259	
0883	MIN	263		445		580		708		779	
0884	SHEAR	379		557		796		947		1,240	
0884	THETA	88		87		86		86		84	
0885	MAX	923		1,035		129		328		1,702	
0886	MIN	5,279		7,776		3,748		4,912		15,073	
0887	SHEAR	2,178		3,370		1,939		2,620		6,995	
0887	THETA	25		25		33		29		25	

TABLE XII (Continued)

556880 200 INCH MULTICELL		26 JULY 1965									
RECTANGULAR ROSETTE		E = 10,400,000 U = 0.000									
DATE		004 X n4.4 PSI(F _{ult})	040 X c8.0 PSI	080 X 18.0 PSI	120 X 18.0 PSI	160 X 18.0 PSI	200 X 20.0 PSI	220 X 22.0 PSI			
0888	MAX	1,002	1,474	2,097	2,653	2,800	3,029	3,404			
0889	MIN	500	822	1,170	1,508	1,679	1,828	1,902			
0890	SHEAR	251	326	464	572	560	600	731			
	THETA	-	-	-	74	75	-	75			
0891	MAX	712 *	2,069	1,682	2,715	2,842	3,009	3,349			
0892	MIN	4	1,402	1,002	1,639	1,669	1,898	2,293			
0893	SHEAR	358	334	340	538	586	555	528			
	THETA	73	-	71	72	87	75	86			
0894	MAX	716	1,147	1,417	1,856	1,989	2,244	2,444			
0895	MIN	42	203	-	137	76	173	313			
0896	SHEAR	337	472	712	860	957	1,035	1,066			
	THETA	-	-	-	87	86	-	85			
0897	MAX	936	1,598	1,816	2,145	2,678	2,843	3,056			
0898	MIN	1,315	139	204	219	158	902	678			
0899	SHEAR	1,126	868	806	1,182	1,280	971	1,189			
	THETA	74	77	75	72	68	75	75			
0906	MAX	769	1,226	1,712	2,137	2,283	2,595	2,813			
0907	MIN	357	600	837	1,118	1,310	1,555	1,638			
0908	SHEAR	266	313	437	509	487	520	588			
	THETA	60	65	73	70	72	74	71			
0909	MAX	305	1,052	1,535	2,022	1,481	2,723	2,954			
0910	MIN	170	656	1,189	1,700	1,350	1,512	2,252			
0911	SHEAR	68	198	173	151	65	606	351			
	THETA	62	81	79	72	74	-	53			
0912	MAX	747	1,076	1,677	2,184	2,408	2,694	2,900			
0913	MIN	630	1,013	1,454	1,813	2,087	2,193	2,352			
0914	SHEAR	58	32	111	161	161	250	274			
	THETA	-	33	20	23	31	27	23			
0915	MAX	1,123	1,149	1,098	1,199	1,888	2,039	2,239			
0916	MIN	55	386	962	847	1,330	1,668	1,591			
0917	SHEAR	589	382	68	176	129	185	324			
	THETA	38	37	90	26	17	73	49			

TABLE XII (Continued)

556880		200 INCH MULTICELL		26 JULY 1965		E= 10,400,000 U= 0.000	
RECTANGULAR ROSETTE		PSI					
GRADE	240 X 24.0 PSI	260 X 26.0 PSI	280 X 28.0 PSI	300 X 30.0 PSI	301 X 4.4 PSI (Full)	044 X 04.4 PSI (Full)	053 X 05.3 PSI (3/4 Full)
0888	MAX	3,577	3,829	3,925	4,159	896	701
0889	MIN	2,061	2,248	2,341	2,421	363	7
0890	SHEAR	758	791	792	869	266	299
	THETA	76	73	76	74	90	75
0891	MAX	3,664	3,906	3,919	4,201	952	740
0892	MIN	2,540	2,396	2,505	2,365	595	446
0893	SHEAR	562	755	707	668	179	147
	THETA	90	78	83	84	80	81
0894	MAX	2,522	2,726	2,836	2,939	481	390
0895	MIN	310	396	476	454	224	300
0896	SHEAR	1,106	1,165	1,180	1,243	353	345
	THETA	83	84	85	85	87	89
0897	MAX	3,335	3,428	3,584	3,819	551	312
0898	MIN	823	846	1,259	972	1,446	1,574
0899	SHEAR	1,256	1,291	1,162	1,423	998	943
	THETA	74	74	75	74	68	70
0906	MAX	3,056	3,305	3,430	3,762	1,191	952
0907	MIN	1,808	1,794	1,899	2,016	124	232
0908	SHEAR	624	756	766	873	534	592
	THETA	70	71	71	72	74	69
0909	MAX	2,713	2,939	3,560	3,147	787	1,044
0910	MIN	2,252	2,488	3,045	2,818	209	98
0911	SHEAR	250	225	258	155	289	571
	THETA	72	72	55	84	77	59
0912	MAX	3,038	3,397	3,663	3,772	752	916
0913	MIN	2,697	2,791	3,066	3,092	519	340
0914	SHEAR	171	303	299	360	117	288
	THETA	32	29	31	31	59	38
0915	MAX	2,132	2,311	2,369	2,763	530	2,743
0916	MIN	2,042	2,142	2,260	2,300	418	1,830
0917	SHEAR	45	85	54	231	56	2,037
	THETA	39	28	48	49	57	44

TABLE XII (Continued)

55680 200 INCH MULTICELL		26 JULY 1965	
RECTANGULAR ROSETTE		E= 10,400,000	U= 0.0nn
GAGE	022 % 02.2 PSI (1/2 Full)	011 % 01.1 PSI (1/4 Full)	000 % (Final Zero)
0888 MAX	309	13	12
0889 MIN	244	375	462
0890 SHEAR	277	181	225
0891 THETA	71	66	55
0891 MAX	291	596	146
0892 MIN	149	226	10
0893 SHEAR	219	185	68
0893 THETA	75	63	53
0894 MAX	12	32	64
0895 MIN	220	297	155
0896 SHEAR	104	112	46
0896 THETA	80	65	69
0897 MAX	248	693	554
0898 MIN	1,931	2,786	2,125
0899 SHEAR	841	1,047	785
0899 THETA	70	67	68
0906 MAX	482	451	288
0907 MIN	330	434	379
0908 SHEAR	406	442	333
0908 THETA	67	68	72
0909 MAX	862	1,120	462
0910 MIN	45	256	414
0911 SHEAR	453	688	438
0911 THETA	65	47	50
0912 MAX	587	431	517
0913 MIN	70	40	22
0914 SHEAR	258	235	270
0914 THETA	46	37	50
0915 MAX	1,698	1,560	1,521
0916 MIN	1,456	1,377	1,387
0917 SHEAR	1,577	1,468	1,454
0917 THETA	45	43	42

TABLE XII (Continued)

356880		200 INCH MULTICELL		26 JULY 1965	
RECTANGULAR ROSETTE		E = 10,400,000 U = 0.000			
GAUGE		004 % 04.4 PSI (F _{Full})	040 % 08.0 PSI	080 % 16.0 PSI	120 % 24.0 PSI
0918	MAX	618	974	1,508	2,232
0919	MIN	403	771	1,319	1,511
0920	SHEAR	107	101	302	360
	THETA	61	55	64	59
0921	MAX	729	978	1,822	2,508
0922	MIN	679	703	1,119	2,096
0923	SHEAR	25	138	352	444
	THETA	27	24	27	25
0948	MAX	594	912	1,145	1,505
0949	MIN	72	127	114	200
0950	SHEAR	333	519	630	852
	THETA	67	65	70	68
0962	MAX	301 % 4.4 PSI (F _{Full})	300 % 30.0 PSI	301 % 4.4 PSI (F _{Full})	303 % 30.3 PSI (3/4 F _{Full})
0918	MAX	2,599	2,371	3,174	483
0919	MIN	2,094	2,154	2,325	244
0920	SHEAR	253	358	424	120
	THETA	56	60	56	67
0921	MAX	3,080	3,245	3,418	952
0922	MIN	2,436	2,471	2,650	579
0923	SHEAR	322	387	384	107
	THETA	15	4	2	24
0948	MAX	2,314	2,369	2,623	749
0949	MIN	163	182	274	325
0950	SHEAR	1,239	1,275	1,449	537
	THETA	63	64	63	59
0918	MAX	443	335	351	613
0919	MIN	152	42	12	249
0920	SHEAR	146	146	181	431
	THETA	37	41	39	61
0921	MAX	157	619	83	376
0922	MIN	40	236	75	171
0923	SHEAR	59	428	79	273
	THETA	13	44	68	57
0948	MAX	300	283	238	376
0949	MIN	15	1	61	171
0950	SHEAR	127	142	88	273
	THETA	58	63	30	57

TABLE XII (Continued)

556880 200 INCM MULTICELL									
RETANGULAR ROSETTE									
GAGE		004 %		040 %		PSI		E= 10,400,000 U= 0.000	
		04.4 PSI(Full)		08.0 PSI		080 %		120 %	
0951	MAX	1,068	1,468	2,415	2,594	2,997	3,981	4,942	
0952	MIN	280	272	431	1,548	587	966	271	
0953	SHEAR	404	598	992	1,523	1,205	1,507	1,896	
	THETA	61	53	55	59	50	55	53	
0954	MAX	61	213	524	701	729	904	971	
0955	MIN	156	285	199	219	47	135	235	
0956	SHEAR	108	249	362	388	490	520	603	
	THETA	51	48	50	47	49	47	44	
0957	MAX	974	1,302	1,653	2,037	2,509	2,474	3,008	
0958	MIN	179	150	1,234	1,489	2,148	1,670	2,711	
0959	SHEAR	397	576	210	274	181	402	148	
	THETA	37	36	37	44	5	52	48	
0960	MAX	259	353	477	655	724	743	880	
0961	MIN	91	152	255	341	343	479	416	
0962	SHEAR	84	101	111	157	190	132	232	
	THETA	54	63	66	60	51	61	54	
0963	MAX	723	1,020	1,448	2,087	2,312	2,018	2,641	
0964	MIN	257	379	355	824	1,042	954	1,195	
0965	SHEAR	490	699	546	631	635	532	723	
	THETA	84	79	62	74	84	81	89	
0966	MAX	135	226	564	660	787	840	776	
0967	MIN	51	183	330	517	524	646	735	
0968	SHEAR	42	21	117	71	132	97	21	
	THETA	62	1	87	83	67	77	72	
0969	MAX	198	551	1,446	2,270	2,270	2,700	3,193	
0970	MIN	337	112	59	915	846	1,377	1,291	
0971	SHEAR	267	219	693	712	712	662	951	
	THETA	47	60	80	89	81	88	89	
0978	MAX	317	621	1,259	1,566	1,645	1,876	2,043	
0979	MIN	140	90	123	89	72	141	151	
0980	SHEAR	228	356	568	739	786	867	946	
	THETA	86	89	81	85	84	86	88	

TABLE XII (Continued)

55680

200 INCH MULTICELL

26 JULY 1965

RECTANGULAR ROSETTE

E= 10,400,000 U= 0.000

GAGE	240 X 24.0 PSI	260 X 26.0 PSI	280 X 28.0 PSI	300 X 30.0 PSI	301 X 4.6 PSI (Full)	044 X 04.4 PSI (Full)	033 X 03.3 PSI (1/4 Full)
0951	MAX	4,214	4,556	4,834	5,020	1,429	1,327
0952	MIN	1,049	1,515	1,454	1,399	134	363
0953	SHEAR	1,582	1,520	1,690	1,810	781	845
	THETA	52	51	52	51	53	49
0954	MAX	1,108	1,217	1,254	1,334	192	16
0955	MIN	329	203	228	42	348	361
0956	SHEAR	719	710	741	688	270	172
	THETA	46	46	44	45	39	37
0957	MAX	2,890	3,130	3,367	3,646	808	763
0958	MIN	2,678	2,600	2,999	3,089	561	102
0959	SHEAR	106	265	164	279	123	330
	THETA	10	36	39	31	12	27
0960	MAX	897	968	1,091	1,185	285	167,697
0961	MIN	466	471	714	657	6	28,480
0962	SHEAR	216	249	188	259	140	69,608
	THETA	57	55	56	52	62	67
0963	MAX	2,982	3,344	3,434	3,626	699	730
0964	MIN	1,629	1,727	1,705	1,565	259	337
0965	SHEAR	676	809	865	1,030	220	197
	THETA	88	81	88	99	62	83
0966	MAX	824	1,015	1,178	1,084	155	440
0967	MIN	750	918	985	1,023	33	395
0968	SHEAR	37	49	97	31	61	418
	THETA	85	76	70	55	95	74
0969	MAX	3,169	3,415	3,705	3,990	384	89
0970	MIN	1,303	1,759	1,401	1,592	143	232
0971	SHEAR	933	828	1,152	1,198	121	161
	THETA	85	88	85	85	62	60
0978	MAX	2,180	2,369	2,499	2,670	524	403
0979	MIN	190	257	304	324	116	271
0980	SHEAR	995	1,056	1,098	1,173	320	336
	THETA	89	88	89	88	89	69

TABLE XII (Continued)

55880		200 INCH MULTICELL		26 JULY 1965	
RECTANGULAR ROSETTE				E= 10,400,000	U= 0.000
GAGE		022 X 02.2 PSI (1/2 F _{ULL})	011 X 01.1 PSI (1/4 F _{ULL})	000 X (Final Zero)	PSI
0951	MAX	968	812	373	
0952	MIN	733	-	1,096	
0953	SHEAR	850	827	715	
	THETA	46	40	39	
0954	MAX	85	12	95	
0955	MIN	361	495	337	
0956	SHEAR	138	255	121	
	THETA	34	28	30	
0957	MAX	354	757	388	
0958	MIN	515	216	104	
0959	SHEAR	434	486	206	
	THETA	25	45	43	
0960	MAX	167,443	167,816	167,538	
0961	MIN	28,445	28,483	28,539	
0962	SHEAR	69,499	69,667	69,500	
	THETA	67	67	67	
0963	MAX	395	692	368	
0964	MIN	321	104	254	
0965	SHEAR	37	294	57	
	THETA	39	58	60	
0966	MAX	333	502	412	
0967	MIN	376	322	240	
0968	SHEAR	354	412	326	
	THETA	72	66	76	
0969	MAX	287	52	53	
0970	MIN	74	141	409	
0971	SHEAR	180	96	178	
	THETA	24	19	8	
0978	MAX	185	300	229	
0979	MIN	340	238	142	
0980	SHEAR	263	269	185	
	THETA	59	50	41	

TABLE XII (Continued)

556880 200 INCH MULTICELL		26 JULY 1965									
RETANGULAR ROSETTE		E = 10,400,000 U = 0.000									
GAGE		004 %	040 %	080 %	120 %	180 %	200 %	220 %			
		04.4 PSI(FULL)	08.0 PSI	12.0 PSI	16.0 PSI	18.0 PSI	20.0 PSI	22.0 PSI			
9981	MAX	1.459	1.867	1.957	2.592	2.927	3.256	3.603			
9982	MIN	858	1.221	1.432	1.550	2.184	2.418	2.987			
9983	SHEAR	301	323	263	372	59	419	308			
	THETA	84	90	76	77	59	70	78			
9984	MAX	373	746	978	1.599	1.512	1.702	2.003			
9985	MIN	113	474	865	1.159	1.343	1.539	1.626			
9986	SHEAR	130	137	56	220	85	81	188			
	THETA	64	57	38	45	50	47	45			
9987	MAX	5.986	3.513	3.740	4.226	4.870	4.238	3.948			
9988	MIN	6.494	3.327	3.143	2.784	2.876	3.106	2.368			
9989	SHEAR	6.240	3.420	3.442	3.465	3.873	3.572	3.258			
	THETA	45	45	45	44	44	45	45			
9996	MAX	489	992	1.600	2.132	2.307	2.589	2.902			
9997	MIN	22	61	203	244	480	508	511			
9998	SHEAR	256	446	698	944	823	1.041	1.196			
	THETA	13	11	8	8	10	8	8			
9999	MAX	1.032	1.492	1.939	2.942	3.367	2.865	4.095			
1000	MIN	701	1.067	1.341	1.843	2.283	1.798	2.431			
1001	SHEAR	165	213	299	550	592	533	822			
	THETA	38	75	67	70	34	83	68			
1002	MAX	445	606	827	1.114	1.172	1.311	1.511			
1003	MIN	254	412	623	754	846	1.097	1.085			
1004	SHEAR	95	97	102	180	183	107	213			
	THETA	63	70	77	73	62	78	79			
1005	MAX	682	1.054	1.938	1.501	1.277	1.246	1.731			
1006	MIN	105	478	936	797	566	794	954			
1007	SHEAR	288	288	501	352	355	258	389			
	THETA	76	75	77	67	63	77	85			
1008	MAX	225	299	341	417	379	423	536			
1009	MIN	12	69	52	115	164	119	98			
1010	SHEAR	106	115	145	151	272	282	317			
	THETA	31	33	67	61	68	63	58			

TABLE XII (Continued)

556880		200 INCH MULTICELL		26 JULY 1965		E = 10,400,000 U = 0.000		PSI		300 X		301 X		044 X		033 X	
RETANGULAR ROSETTE										30.0 PSI		4.4 PSI(Full)		04.4 PSI(Full)		03.3 PSI (3/4 Full)	
GAGE		240 X	260 X	280 X	300 X	301 X	044 X	033 X									
		24.0 PSI	26.0 PSI	28.0 PSI	30.0 PSI	4.4 PSI(Full)	04.4 PSI(Full)	03.3 PSI (3/4 Full)									
0981	MAX	3,715	3,903	4,256	4,526	1,058	841	563									
0982	MIN	2,610	3,030	3,287	3,558	738	712	390									
0983	SHEAR	452	436	484	479	160	65	87									
	THETA	73	72	73	71	65	78	52									
0984	MAX	2,155	2,417	2,369	2,676	607	358	189									
0985	MIN	1,795	2,003	2,132	2,429	253	104	1									
0986	SHEAR	180	207	119	123	177	127	95									
	THETA	48	45	44	36	38	74	82									
0987	MAX	2,952	3,149	1,585	1,619	930	25,217	4,706									
0988	MIN	1,533	1,787	347	100	682	25,511	4,876									
0989	SHEAR	2,242	2,468	619	759	806	25,384	4,791									
	THETA	45	45	45	48	46	45	45									
0996	MAX	2,931	3,314	3,476	3,614	831	721	475									
0997	MIN	602	744	691	842	40	202	182									
0998	SHEAR	1,164	1,285	1,393	1,386	395	462	329									
	THETA	8	8	8	7	7	13	10									
0999	MAX	3,629	3,972	4,220	4,588	1,070	1,365	725									
1000	MIN	2,497	2,641	3,002	3,259	745	663	241									
1001	SHEAR	566	666	609	665	162	351	242									
	THETA	73	68	77	70	46	63	70									
1002	MAX	1,562	1,719	1,906	1,932	414	450	323									
1003	MIN	1,151	1,258	1,396	1,490	166	89	89									
1004	SHEAR	206	231	255	221	124	181	117									
	THETA	64	73	68	65	68	63	54									
1005	MAX	1,823	1,966	2,210	2,479	294	100	398									
1006	MIN	1,123	1,388	1,401	1,532	316	564	933									
1007	SHEAR	350	289	405	324	306	232	267									
	THETA	89	87	86	83	89	9	16									
1008	MAX	573	635	691	787	61	136	212									
1009	MIN	34	105	12	98	72	623	878									
1010	SHEAR	269	370	352	344	67	243	333									
	THETA	70	63	68	69	15	68	70									

TABLE XII (Continued)

55680		200 INCH MULTICELL		26 JULY 1965	
RECTANGULAR ROSETTE		E= 10,400,600		U= 0.000	
GAGE		022 K	011 K	000 K	
		02.2 PSI (1/2 Full)	01.1 PSI (1/4 Full)	(Final Zero)	
0981	MAX	640	306	337	
0982	MIN	111	658	544	
0983	SHEAR	264	482	441	
	THETA	46	51	42	
0984	MAX	135	104	38	
0985	MIN	149	102	363	
0986	SHEAR	142	103	201	
	THETA	90	75	88	
0987	MAX	23,742	23,748	22,332	
0988	MIN	24,128	24,258	22,894	
0989	SHEAR	23,935	24,003	22,613	
	THETA	45	45	45	
0996	MAX	267	201	76	
0997	MIN	243	235	79	
0998	SHEAR	255	218	77	
	THETA	6	7	10	
0999	MAX	851	840	388	
1000	MIN	317	418	240	
1001	SHEAR	267	211	74	
	THETA	48	56	34	
1002	MAX	370	265	269	
1003	MIN	107	37	6	
1004	SHEAR	238	151	138	
	THETA	48	54	51	
1005	MAX	124	595	137	
1006	MIN	546	692	642	
1007	SHEAR	211	644	252	
	THETA	0	28	2	
1008	MAX	201	212	208	
1009	MIN	903	709	883	
1010	SHEAR	351	249	338	
	THETA	68	61	70	

TABLE XII (Continued)

556880		200 INCH MULTICELL		26 JULY 1965		E= 10,400,000 U= 0.000	
RETANGULAR ROSETTE		PSI					
GAGE		004 % 04.4 PSI (Full)	040 % 08.0 PSI	120 % 16.0 PSI	180 % 18.0 PSI	200 % 20.0 PSI	220 % 22.0 PSI
1011	MAX	17,533	16,413	8,250	6,053	6,362	6,498
1012	MIN	98,197	99,521	49,790	1,353	1,439	1,573
1013	SHEAR	40,332	41,594	20,770	2,325	2,461	2,463
	THETA	68	68	69	34	34	34
1014	MAX	525	842	1,069	1,670	1,801	2,000
1015	MIN	350	667	951	1,549	1,735	1,914
1016	SHEAR	88	80	59	60	33	73
	THETA	67	80	50	68	36	53
1017	MAX	442	968	561	1,032	1,200	1,386
1018	MIN	407	127	533	258	176	468
1019	SHEAR	425	421	547	387	512	459
	THETA	4	13	12	11	8	8
GAGE		240 % 24.0 PSI	260 % 26.0 PSI	280 % 28.0 PSI	300 % 30.0 PSI	301 % 30.1 PSI (Full)	033 % 03.3 PSI (3/4 Full)
1011	MAX	6,683	6,936	7,059	7,047	8,803	5,565
1012	MIN	1,912	1,990	2,179	2,095	2,773	95
1013	SHEAR	2,386	2,473	2,440	2,476	5,768	707
	THETA	33	35	34	33	39	32
1014	MAX	2,239	2,306	2,493	2,786	457	186
1015	MIN	2,080	2,286	2,438	2,652	347	609
1016	SHEAR	79	10	28	67	55	398
	THETA	67	54	84	54	88	64
1017	MAX	1,346	1,606	1,739	2,030	346	189
1018	MIN	412	393	612	786	207	423
1019	SHEAR	467	606	563	622	276	296
	THETA	12	8	6	6	20	11
GAGE		022 % 02.2 PSI (1/2 Full)	011 % 01.1 PSI (1/4 Full)	000 % (Final Zero)			
1011	MAX	4,860	4,610	4,754			
1012	MIN	792	657	332			
1013	SHEAR	2,034	1,977	2,211			
	THETA	27	24	27			
1014	MAX	25	78	30			
1015	MIN	353	399	361			
1016	SHEAR	164	161	166			
	THETA	58	64	57			
1017	MAX	78	587	72			
1018	MIN	86	281	337			
1019	SHEAR	82	153	204			
	THETA	6	26	20			

TABLE VIII

Reduced Rosette Gage Results
Bottom Bulkhead - Cell 626 JULY 1965
E = 10,000,000 U = 0.000

596890 200 INCH MULTISELL

RECTANGULAR ROSETTE

PSI

GAGE	004 X 4.4 PSI (Gall)	010 X 68.0 PSI	080 X 49.0 PSI	120 X 16.0 PSI	180 X 16.0 PSI	200 X 20.0 PSI	220 X 22.0 PSI
1020	MAX	420	800	1,305	1,822	2,011	2,247
1021	MIN	303	703	999	1,445	1,686	2,003
1022	SHEAR	59	49	153	169	163	122
1022	THETA	77	70	95	80	85	88
1023	MAX	692	1,026	1,757	1,885	1,504	1,453
1024	MIN	434	561	73	428	891	588
1025	SHEAR	119	233	842	628	306	432
1025	THETA	86	61	35	34	4	26
1026	MAX	435	732	937	1,546	1,790	1,961
1027	MIN	284	547	879	1,352	1,610	1,688
1028	SHEAR	96	92	29	92	90	137
1028	THETA	68	86	67	63	68	77
1029	MAX	73	307	5	1,137	1,345	1,431
1030	MIN	1,237	877	1,039	1,63	424	781
1031	SHEAR	695	592	517	650	461	325
1031	THETA	67	71	50	87	84	70
1032	MAX	698	1,018	1,679	2,356	2,323	3,101
1033	MIN	341	490	680	1,051	1,148	1,268
1034	SHEAR	175	264	500	718	838	917
1034	THETA	77	65	79	77	77	78
1035	MAX	521	1,236	1,391	1,782	2,554	2,473
1036	MIN	113	517	683	1,166	1,518	1,545
1037	SHEAR	234	359	354	308	518	464
1037	THETA	72	72	65	78	61	84
1038	MAX	295	707	1,098	1,503	1,780	1,801
1039	MIN	137	453	854	1,185	1,423	1,537
1040	SHEAR	79	127	122	159	169	132
1040	THETA	58	61	58	62	60	58
1041	MAX	532	968	930	1,723	1,519	1,656
1042	MIN	119	176	548	1,360	982	982
1043	SHEAR	206	396	191	182	268	337
1043	THETA	42	49	76	61	80	66

TABLE XIII (Continued)

556880		200 INCH MULTICELL		26 JULY 1965											
RECTANGULAR ROSETTE		E= 10,400,000 U= 0.000													
GAGE		240 PSI		260 PSI		280 PSI		300 PSI		301 PSI		0.4 PSI (Full)		0.3 PSI (1/4 Full)	
		24.0 PSI		26.0 PSI		28.0 PSI		30.0 PSI		4.4 PSI (Full)		0.4 PSI (Full)		0.3 PSI (1/4 Full)	

26 JULY 1965

200 INCH POLYCELL

TABLE XIV

Reduced Biaxial Gage Results
Bottom Bulkhead Cell 6

556080		200 INCH MULTICELL		PSI		E = 10,400,000 U = 0.000		26 JULY 1965	
BIAXIAL ROSETTE									
GAGE		004 % 04.4 PSI (F ₀₁₁)	040 % 08.0 PSI	080 % 16.0 PSI	120 % 24.0 PSI	160 % 32.0 PSI	200 % 40.0 PSI	220 % 44.0 PSI	
0316		112	196	134	319	420	430	568	
0317	SHEAR	978	1,494	2,044	2,743	2,883	3,086	3,391	
		433	649	955	1,212	1,231	1,320	1,411	
0318		321	2,154 *	1,446	1,966	1,829	2,101	2,342	
0319	SHEAR	690	2,147	2,577	3,558	3,571	3,804	4,135	
		506	4	565	801	871	851	897	
0320		135	257	315	512	672	707	744	
0321	SHEAR	972	1,509	2,030	2,650	2,895	3,084	3,493	
		418	626	857	1,089	1,161	1,179	1,355	
0322		163	543	1,086	1,079	1,354	1,616	1,806	
0323	SHEAR	855	1,470	2,328	2,439	2,814	3,222	3,551	
		346	464	621	670	760	803	883	
0324		780	1,267	1,765	2,324	2,895	2,968	3,180	
0325	SHEAR	1,174	1,817	2,509	3,238	3,520	3,710	4,123	
		197	275	372	457	418	371	472	
0326		41,869	667	5,820 *	1,310	56,019 *	1,004	1,550	
0327	SHEAR	14,884	1,685	3,968	3,330	21,388	3,256	3,846	
		13,593	509	926	1,033	17,316	1,126	1,148	
0340		336	650	980	1,204	1,479	1,612	1,686	
0341	SHEAR	522	790	1,034	1,370	1,871	1,709	1,862	
		68	70	27	83	96	48	88	
0342		622	709	1,739	2,322	1,973	2,966	3,124	
0343	SHEAR	23	333	1,685	2,187	2,202	2,359	2,833	
		300	188	27	68	114	299	145	
0344		550	894	1,498	1,816	2,167	2,309	2,497	
0345	SHEAR	646	1,160	1,665	2,035	2,537	2,603	2,831	
		48	133	84	110	185	147	167	
0346		401	1,043	1,370	1,666	2,424	1,406	2,266	
0347	SHEAR	239	1,573	1,759	1,959	2,500	2,285	2,617	
		81	265	194	146	38	440	175	
0348		964	1,647	2,805	3,427	3,954	4,180	4,661	
0349	SHEAR	960	1,547	2,410	2,870	3,370	3,532	3,862	
		2	50	198	279	292	324	400	
0350		547	685	518	508	1,187	630	833	
0351	SHEAR	100	192	1,207	1,641	1,535	1,818	1,931	
		224	439	862	1,114	1,361	1,223	1,382	

TABLE XIV (Continued)

556880 200 INCH MULTICELL		26 JULY 1965									
BIAXIAL ROSETTE		E = 10,400,000 U = 0.000									
		PSI									
GAGE		240 X 24.0 PSI	260 X 26.0 PSI	280 X 28.0 PSI	300 X 30.0 PSI	301 X 30.1 PSI (Full)	304 X 30.4 PSI (Full)	304 X 30.4 PSI (Full)	303 X 30.3 PSI (3/4 Full)		
0316		700	594	769	847	91	91	146	158		
0317	SHEAR	3,734	3,866	4,074	4,318	704	704	562	229		
		1,517	1,636	1,653	1,735	397	397	354	193		
0318		2,065	2,601	2,701	2,919	642	642	491	377		
0319	SHEAR	4,165	4,544	4,650	5,034	1,152	1,152	937	783		
		1,050	971	990	1,097	260	260	238	203		
0320		911	914	908	1,044	95	95	59	187		
0321	SHEAR	3,725	3,788	4,011	4,166	608	608	569	236		
		1,407	1,437	1,552	1,561	352	352	314	211		
0322		2,434	2,298	2,337	2,543	761	761	977	984		
0323	SHEAR	3,987	4,319	4,370	4,608	935	935	1,197	1,267		
		776	1,010	1,016	1,033	87	87	260	152		
0324		3,547	3,710	3,992	4,252	830	830	859	652		
0325	SHEAR	4,371	4,600	4,907	5,142	1,120	1,120	1,124	902		
		412	445	457	445	145	145	132	125		
0326		1,719	1,764	1,835	1,748	520	520	121,688	100,148		
0327	SHEAR	4,235	4,372	4,465	4,749	1,119	1,119	40,943	33,765		
		1,258	1,304	1,315	1,590	284	284	40,372	33,192		
0340		1,918	2,085	2,227	2,483	299	299	258	311		
0341	SHEAR	2,066	2,147	2,374	2,613	323	323	480	494		
		74	31	73	65	12	12	111	92		
0342		3,611	4,321	3,919	4,092	774	774	704	714		
0343	SHEAR	2,955	3,329	3,365	3,568	737	737	782	737		
		328	496	267	262	19	19	39	27		
0344		2,789	3,008	3,196	3,430	540	540	419	520		
0345	SHEAR	3,201	3,413	3,374	3,683	756	756	411	396		
		206	203	169	226	108	108	4	62		
0346		2,772	2,952	2,935	2,756	546	546	440	520		
0347	SHEAR	3,514	3,150	3,370	3,475	948	948	665	573		
		371	249	218	359	201	201	113	27		
0348		4,071	5,250	5,573	5,878	882	882	644	447		
0349	SHEAR	4,128	4,429	4,829	5,001	1,264	1,264	951	775		
		371	411	372	438	201	201	153	164		
0350		960	860	877	915	297	297	238	472		
0351	SHEAR	1,821	2,171	2,428	2,575	596	596	761	557		
		1,391	1,525	1,652	1,745	447	447	500	515		

TABLE XIV (Continued)

556880 200 INCH MULTICELL		25 JULY 1965		E = 10,400,000 U = 0.000	
BIAXIAL ROSETTE		PSI			
GAGE	022 % 02.2 PSI (1/2 F _{ult})	011 % 01.1 PSI (1/4 F _{ult})	000 % (Final Zero)		
0316	-	-	-		
0317	145	77	95		
	3	157	243		
SHEAR	74	40	74		
0318	399	67	87		
0319	599	72	117		
	98	3	102		
SHEAR	-	-	-		
0320	172	196	239		
0321	41	131	218		
SHEAR	106	33	11		
0322	817	1,494	910		
0323	1,009	977	734		
	96	288	88		
SHEAR	-	-	-		
0324	347	281	132		
0325	526	369	219		
	69	44	43		
SHEAR	-	-	-		
0326	115,157	136,865	145,836		
0327	38,560	45,374	48,255		
	38,299	45,755	48,790		
SHEAR	-	-	-		
0340	207	107	5		
0341	359	207	167		
	76	50	86		
SHEAR	-	-	-		
0342	598	681	128		
0343	818	806	374		
	75	62	88		
SHEAR	-	-	-		
0344	436	130	153		
0345	208	118	122		
	114	124	137		
SHEAR	-	-	-		
0346	247	425	51		
0347	363	938	239		
	68	256	94		
SHEAR	-	-	-		
0348	260	108	315		
0349	498	214	3		
	119	161	159		
SHEAR	-	-	-		
0350	61	245	174		
0351	731	780	384		
	335	267	105		
SHEAR	-	-	-		

TABLE XIV (Continued)

556880		200 INCH MULTICELL		26 JULY 1965			
BIAXIAL ROSETTE				E= 10,400,000 U= 0.000			
GAGE	004 K 04.4 PSI(ϵ_{11})	040 K 08.0 PSI	080 K 16.0 PSI	120 K 24.0 PSI	180 K 36.0 PSI	200 K 40.0 PSI	220 K 44.0 PSI
0364	67	158	366	409	476	438	552
0365	183	353	578	647	820	787	824
	SHEAR	-	-	119	-	175	-
0366	34	269	977	997	1,367	1,199	1,690
0367	226	648	1,440	1,970	2,312	2,485	3,013
	SHEAR	-	-	487	-	643	-
0368	91	315	629	724	713	636	938
0369	231	439	879	855	951	877	1,092
	SHEAR	-	-	65	-	120	-
0372	67	144	206	417	456	477	708
0373	91	258	435	591	612	553	827
	SHEAR	-	-	87	-	38	-
0374	71	214	197	128	540	493	242
0375	46	55	346	52	16	159	450
	SHEAR	-	-	38	-	167	346
0376	105	45	182	16	82	64	122
0377	99	370	533	859	803	914	1,180
	SHEAR	-	-	438	-	489	-
0378	106	136	759	1,110	933	1,169	1,396
0379	1,028	1,462	2,702	2,997	3,473	3,754	3,838
	SHEAR	-	-	943	-	1,292	-
0380	161	156	104	240	302	462	456
0381	154	168	264	436	415	549	663
	SHEAR	-	-	98	-	43	-
0382	334	399	603	732	1,107	1,367	1,443
0383	732	1,055	1,196	1,384	2,002	2,549	2,662
	SHEAR	-	-	326	-	591	-
0384	208	353	419	643	718	751	914
0385	336	535	730	1,012	1,022	1,134	1,356
	SHEAR	-	-	185	-	191	-
0386	104	352	807	930	987	833	1,141
0387	340	636	1,209	1,746	1,592	1,170	1,867
	SHEAR	-	-	408	-	169	-
0388	7	111	12	45	177	174	132
0389	483	889	1,159	1,333	1,707	1,700	2,111
	SHEAR	-	-	744	-	803	-
0390	1,055	942 *	1,227	1,378	1,695	1,868	1,841
0391	762	515	1,778	1,621	2,435	2,625	2,835
	SHEAR	-	-	121	-	398	-

TABLE XIV (Continued)

556880 200 INCH MULTICELL		26 JULY 1965									
BIAXIAL ROSETTE		E = 10,400,000 U = 0.000									
		PSI									
GRADE		240 X 24.0 PSI	260 X 26.0 PSI	280 X 28.0 PSI	300 X 30.0 PSI	301 X 4.4 PSI (F _{ult})	304 X 04.4 PSI (F _{ult})	033 X 03.3 PSI (¾ F _{ult})			
0364		537	638	666	713	381	311	325			
0365	SHEAR	858	1,031	1,009	1,165	372	339	390			
		160	197	172	226	5	24	32			
0366		1,810	1,934	2,184	2,162	486	124	421			
0367	SHEAR	3,390	3,501	4,086	4,314	430	605	623			
		790	784	952	1,076	28	240	101			
0368		881	1,032	1,063	1,052	336	62	76			
0369	SHEAR	1,110	1,247	1,248	1,332	333	374	349			
		114	108	82	140	2	156	136			
0372		720	743	886	834	20	79	171			
0373	SHEAR	858	927	984	933	112	46	127			
		69	92	49	49	48	37	22			
0374		287	784	1,130	1,206	79	484	754			
0375	SHEAR	60	305	864	832	697	576	700			
		174	240	133	187	388	46	27			
0376		165	266	310	346	67	33	72			
0377	SHEAR	1,197	1,371	1,440	1,538	367	302	188			
		516	552	565	596	217	134	130			
0378		1,623	2,061	2,183	2,581	140	821	1,071			
0379	SHEAR	4,273	4,567	4,923	5,313	441	1,432	1,360			
		1,325	1,253	1,370	1,366	150	306	144			
0380		589	576	597	777	50	78	283			
0381	SHEAR	710	723	725	827	114	115	151			
		61	74	64	25	32	31	66			
0382		1,391	1,495	1,316	1,764	559	738	856			
0383	SHEAR	2,646	2,881	2,535	3,330	682	949	959			
		627	693	609	783	51	105	52			
0384		1,060	1,086	1,216	1,269	134	353	244			
0385	SHEAR	1,479	1,558	1,684	1,688	376	479	381			
		209	236	234	210	121	63	68			
0386		1,335	1,610	1,483	1,650	248	553	633			
0387	SHEAR	1,776	2,024	2,009	2,230	663	1,078	1,183			
		220	207	263	290	208	263	280			
0388		284	284	285	495	11	98	128			
0389	SHEAR	2,331	2,278	2,571	2,687	582	550	470			
		1,024	997	1,143	1,096	285	226	171			
0390		2,309	2,622	2,591	2,717	743	1,139	727			
0391	SHEAR	3,111	3,504	3,602	3,529	1,147	1,127	885			
		401	441	506	426	202	6	79			

TABLE XIV (Continued)

55680 200 INCH MULTICELL		26 JULY 1965	
BIAXIAL ROSETTE		PSI	E= 10,400,000 U= 0.000
GAGE	022 % 02.2 PSI (1/2 Full)	011 % 01.1 PSI (1/4 Full)	000 % (Final Zero)
0364	363	191	318
0365	398	215	287
	SHEAR - 18	- 12	15
0366	384	597	401
0367	632	791	550
	SHEAR - 124	- 97	75
0368	106	-	9
0369	397	- 157	142
	SHEAR - 126	- 115	66
0372	164	- 274	88
0373	152	- 423	240
	SHEAR - 6	- 75	76
0374	616	505	688
0375	613	615	698
	SHEAR - 2	- 55	5
0376	156	35	208
0377	330	28	199
	SHEAR - 87	- 4	5
0378	1,303	949	594
0379	1,067	845	562
	SHEAR - 116	52	16
0380	236	- 63	69
0381	130	- 177	75
	SHEAR - 53	- 57	3
0382	1,009	725	888
0383	1,200	900	968
	SHEAR - 96	- 88	40
0384	187	232	196
0385	313	249	290
	SHEAR - 63	- 9	47
0386	649	509	385
0387	1,017	819	720
	SHEAR - 184	- 155	168
0388	241	242	402
0389	416	169	268
	SHEAR - 87	- 36	67
0390	621	375	761
0391	504	547	664
	SHEAR - 58	- 86	49

TABLE XV
Reduced Biaxial Gage Results
Cylindrical Extrusion

26 JULY 1965

200 INCH MULTICELL

BIAXIAL ROSETTE

PSI E_a 10,400,000 U_e 0.000

	004 E 04.4 PSI (Full)	040 E 06.0 PSI	080 E 12.0 PSI	120 E 16.0 PSI	160 E 20.0 PSI	200 E 22.0 PSI
000E						
0416	1,115	2,343	3,740	5,550	6,370	7,253
0417	617	843	1,020	2,014	2,142	2,543
SHEAR	249	750	1,360	1,772	2,114	2,355
0418	-	1,093	-	2,495	-	5,346
0419	-	400	-	29	777	936
SHEAR	-	316	-	893	-	3,033

	240 E 24.0 PSI	260 E 26.0 PSI	280 E 28.0 PSI	300 E 30.0 PSI	320 E 32.0 PSI	340 E 34.0 PSI
000E						
0416	8,575	9,468	10,167	10,830	1,158	1,342
0417	2,551	3,095	3,153	3,614	243	125
SHEAR	3,012	3,107	3,517	3,656	456	609
0418	-	6,555	-	8,162	-	934
0419	-	926	-	1,059	-	42
SHEAR	-	3,741	-	4,017	-	456

	022 E 02.2 PSI	011 E 01.1 PSI	000 E
000E			
0416	133	397	507
0417	413	101	443
SHEAR	273	148	72
0418	-	54	99
0419	-	53	35
SHEAR	-	0	57

TABLE XV (Continued)

556880		200 INC- MULTICELL		26 JULY 1965		E= 10,400,000 U= 0.000	
BIAXIAL ROSETTE		PSI					
GAGE	004 % 4.4 PSI (Full)	040 % 08.0 PSI	080 % 42.0 PSI	120 % 100.0 PSI	180 % 180.0 PSI	200 % 200.0 PSI	220 % 220.0 PSI
0420	556	1,346	2,289	3,241	3,754	4,247	4,656
0421	369	1,121	1,855	2,762	3,203	3,573	3,945
	94	113	217	240	275	337	355
0422	285	37	646	1,285	1,285	1,483	1,438
0423	253	666	1,342	1,311	1,832	2,050	2,495
	16	351	994	1,298	1,558	1,766	1,961
0424	276	387	548	765	663	747	847
0425	56	105	226	533	684	714	877
	110	246	387	649	674	731	862
0426	257	897	1,864	2,372	2,477	2,815	3,181
0427	147	459	1,266	1,563	1,637	1,879	2,002
	202	219	299	405	420	468	509
0428	212	428	521	660	573	614	757
0429	2	133	292	511	756	813	847
	107	281	407	585	665	715	802
0430	576	1,120	1,578	2,054	2,344	2,544	3,004
0431	39	501	926	1,135	1,350	1,447	1,845
	269	310	326	459	497	548	579
0432	1,507	3,278	5,315	7,475	8,756	9,969	11,043
0433	392	1,308	2,111	3,070	3,693	4,184	4,665
	577	985	1,602	2,202	2,531	2,892	3,189
0434	1,487	2,046	3,538	5,091	6,599	8,014	9,514
0435	861	762	1,011	1,240	1,834	1,769	1,884
	313	642	1,264	1,925	2,383	2,522	2,615
0436	271	843	1,621	2,118	2,631	2,980	3,298
0437	51	360	794	1,150	1,524	1,754	1,825
	110	231	414	484	553	613	737
0438	330	180	597	810	560	1,162	1,228
0439	2	737 *	224	250	309	264	411
	164	278	410	538	434	713	820
0440	1	55	59	107	215	115	117
0441	149	1	155	277	362	413	546
	74	28	48	85	174	149	215
0442	374	864	1,423	2,065	1,915	2,475	3,013
0443	63	270	1,051	1,549	1,337	1,647	2,035
	156	297	186	258	289	414	489

TABLE XV (Continued)

556880		200 INCH MULTICELL		26 JULY 1965		E = 10,400,000		US		0.000		
BIAXIAL ROSETTE		PSI										
GAGE		240 °		260 °		280 °		300 °		301 °		
		24.0 PSI		26.0 PSI		28.0 PSI		30.0 PSI		4.4 PSI (F _{ult})		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31		0.31		
		0.31		0.31		0.31		0.31				

TABLE XV (Continued)

556680 200 INCH MULTICELL		26 JULY 1965	
BIAXIAL ROSETTE		E = 10,400,000	U = 0.000
GAGE	022 $\frac{1}{2}$ PSI ($\frac{1}{2} F_{\text{Full}}$)	011 $\frac{1}{2}$ PSI ($\frac{1}{4} F_{\text{Full}}$)	000 $\frac{1}{2}$ (Final Zero)
0420	218	243	299
0421	132	107	249
	56	68	25
	SHEAR		
0422	262	155	374
0423	596	490	657
	167	167	141
	SHEAR		
0424	1,161	1,130	1,147
0425	555	522	588
	303	304	280
	SHEAR		
0426	441	274	256
0427	350	148	35
	46	63	110
	SHEAR		
0428	19	163	25
0429	117	56	115
	49	54	45
	SHEAR		
0430	553	376	540
0431	417	152	192
	68	112	174
	SHEAR		
0432	1,661	1,646	1,664
0433	87	156	168
	787	745	748
	SHEAR		
0434	745	793	681
0435	54	31	107
	399	381	287
	SHEAR		
0436	624	629	583
0437	147	213	154
	238	208	215
	SHEAR		
0438	83	4	204
0439	237	9	244
	77	3	20
	SHEAR		
0440	182	118	216
0441	270	140	194
	44	11	11
	SHEAR		
0442	903	952	927
0443	653	373	263
	125	290	332
	SHEAR		

TABLE XV (Continued)

550000		200 INCH MULTICELL		26 JULY 1953			
BIAXIAL ROSETTE		PSI		E = 10,400,000 Ue 0.000			
SIZE	004 S 04.4 PSI (E ₁₁)	040 S 08.0 PSI	080 S 16.0 PSI	120 S 16.0 PSI	160 S 10.0 PSI	200 S 20.0 PSI	220 S 22.0 PSI
0444	-	545	-	389	-	232	360
0445	-	307	-	139	-	548	576
	SHEAR	119	-	125	-	154	108
0448	-	307	1,275	892	1,732	2,148	2,974
0449	-	146	872	524	1,159	1,219	1,712
	SHEAR	111	203	184	287	465	431
0450	-	1,015	3,930	2,320	5,323	6,362	8,706
0451	-	294	2,143	1,147	2,675	3,532	4,672
	SHEAR	360	894	587	1,324	1,415	2,017
0452	-	835	1,744	1,389	2,593	3,404	3,757
0453	-	525	607	207	978	517	1,179
	SHEAR	155	1,175	596	1,656	1,960	2,468
0454	-	563	3,949	1,879	5,423	6,065	7,523
0455	-	301	2,302	1,122	2,987	3,551	4,409
	SHEAR	131	824	379	1,218	1,257	1,557
0456	-	150	430	55	727	351	630
0457	-	6-6	1,016	937	1,432	1,968	2,821
	SHEAR	228	723	496	1,080	1,158	1,826
0458	-	91	741	370	913	1,094	1,258
0459	-	5	1,063	550	1,363	1,714	1,945
	SHEAR	28	161	90	225	310	354
0460	-	43	470	340	956	858	1,020
0461	-	253	853	219	1,073	604	1,547
	SHEAR	148	9	60	24	124	40
0462	-	133	948	380	1,236	1,334	1,491
0463	-	117	861	281	1,327	1,553	1,840
	SHEAR	125	34	90	46	109	179
0464	-	150	620	559	1,127	1,464	1,929
0465	-	3	409	152	738	841	1,225
	SHEAR	98	105	178	195	319	352

TABLE XV (Continued)

556800 200 INCH MULTICELL		26 JULY 1965									
BIAXIAL ROSETTE		F = 10,400,000 Lb 0.000									
GAGE	240 ° 24.0 PSI	260 ° 26.0 PSI	280 ° 28.0 PSI	300 ° 30.0 PSI	301 ° 4.4 PSI(F _{ult})	044 ° 04.4 PSI(F _{ult})	033 ° 03.3 PSI(F _{ult})				
0444	461	526	473	612	-	808	-	8,355	-	6,862	
0445	752	735	771	848	-	470	-	2,906	-	2,417	
	145	104	149	-	-	159	-	2,724	-	2,222	
SHEAR	-	-	-	-	-	-	-	-	-	-	
0448	3,002	3,110	3,533	3,792	914	914	1,456	1,425			
0449	1,957	1,967	2,180	2,249	304	304	1,060	1,180			
	522	572	677	772	305	305	199	122			
SHEAR	-	-	-	-	-	-	-	-	-	-	
0450	9,703	10,682	11,746	12,951	4,006	4,006	4,037	3,621			
0451	5,396	5,706	6,337	6,898	1,993	1,993	2,050	1,863			
	2,103	2,488	2,705	3,027	1,906	1,906	993	879			
SHEAR	-	-	-	-	-	-	-	-	-	-	
0452	4,284	4,581	5,140	5,548	-	1,345	-	1,660	-	1,304	
0453	1,163	1,316	1,049	1,475	3	3	535	-	120		
	2,723	2,948	3,094	3,412	-	674	-	562	-	592	
SHEAR	-	-	-	-	-	-	-	-	-	-	
0454	8,012	8,488	8,779	9,324	-	468	-	1,291	-	1,493	
0455	4,799	5,144	5,415	5,835	321	321	209	187			
	1,607	1,672	1,682	1,746	-	394	-	750	-	820	
SHEAR	-	-	-	-	-	-	-	-	-	-	
0456	473	568	206	222	583	583	1,091	1,167			
0457	2,912	3,285	3,564	3,763	664	664	1,290	1,343			
	1,692	1,926	1,885	1,982	-	40	-	99	-	88	
SHEAR	-	-	-	-	-	-	-	-	-	-	
0458	1,250	1,257	1,285	1,284	-	688	-	1,392	-	1,248	
0459	2,070	2,278	2,450	2,498	153	153	420	212			
	410	510	582	607	-	267	-	486	-	518	
SHEAR	-	-	-	-	-	-	-	-	-	-	
0460	1,897	1,884	2,267	2,439	811	811	525	518			
0461	1,883	1,875	1,930	2,139	549	549	47	144			
	7	4	168	150	131	131	239	187			
SHEAR	-	-	-	-	-	-	-	-	-	-	
0462	1,353	1,500	1,493	1,373	-	555	-	809	-	715	
0463	1,900	2,112	2,163	2,305	415	415	643	618			
	274	306	335	466	-	70	-	83	-	48	
SHEAR	-	-	-	-	-	-	-	-	-	-	
0464	2,375	2,478	2,858	3,180	650	650	931	997			
0465	1,522	1,545	1,903	1,955	50	50	524	598			
	428	466	477	612	300	300	204	200			
SHEAR	-	-	-	-	-	-	-	-	-	-	

TABLE XV (Continued)

55680 200 INCH MULTICELL		26 JULY 1965	
BIAXIAL ROSETTE		E= 10,400,000	U= 0.080
TIME	022 K 02.2 PSI (1/2 Full)	011 K 01.1 PSI (1/4 Full)	000 K (Final Zero)
0444	- 5,751	- 5,320	- 5,549
0445	- 1,912	- 1,834	- 1,880
	- 1,919	- 1,843	- 1,835
	SHEAR		
0448	1,255	1,108	1,393
0449	1,324	1,142	1,486
	- 34	- 17	- 46
	SHEAR		
0450	3,245	2,956	3,146
0451	1,721	1,575	1,581
	- 762	- 691	- 782
	SHEAR		
0452	- 1,088	- 867	- 811
0453	- 38	- 231	- 75
	- 563	- 318	- 443
	SHEAR		
0454	- 1,593	- 1,071	- 1,891
0455	- 106	- 117	- 222
	- 849	- 877	- 835
	SHEAR		
0456	1,290	1,373	1,422
0457	1,453	1,292	1,531
	- 81	- 41	- 55
	SHEAR		
0458	- 1,235	- 1,227	- 1,268
0459	- 225	- 246	- 434
	- 505	- 491	- 417
	SHEAR		
0460	369	474	531
0461	60	80	38
	- 154	- 197	- 246
	SHEAR		
0462	- 745	- 1,003	- 955
0463	- 498	- 548	- 511
	- 123	- 228	- 222
	SHEAR		
0464	1,123	1,149	1,262
0465	821	759	1,092
	- 151	- 195	- 85
	SHEAR		

TABLE VII
Reduced Biaxial Gage Results
After Extrusion

556800		200 INCH MULTICELL		26 JULY 1965									
BIAXIAL ROSETTE		E= 10,400,000 U= 0.000											
GAGE	004 K 04.4 PSI(Full)	PSI											
		040 K 06.0 PSI	080 K 12.0 PSI	120 K 18.0 PSI	160 K 20.0 PSI	200 K 22.0 PSI	220 K 22.0 PSI						
0328	1,007	1,574	2,213	2,883	3,449	3,889	4,150						
0329	1,278	1,936	2,620	3,354	3,847	4,050	4,421						
	135	-	203	-	199	-	135						
0330	139	-	-	-	-	-	-						
0331	940	1,403	1,656	2,375	2,405	2,801	2,949						
	401	-	1,256	1,695	1,812	1,957	2,119						
0332	516	737	992	1,052	1,466	1,465	1,551						
0333	997	1,454	1,886	2,430	2,837	3,050	3,279						
	221	-	447	689	-	685	-	792	-	864	-		
0334	-	-	-	-	-	-	-	-	-	-	-		
0335	553	343	480	115	974	815	835						
	421	-	2,078	1,914	-	2,875	3,046	-	-	3,337	-		
	487	-	-	899	-	950	-	1,115	-	1,251	-		
0336	268	325	508	661	879	1,099	1,017						
0337	1,099	1,538	2,061	2,574	2,969	3,281	3,368						
	415	-	-	957	-	1,065	-	1,091	-	1,186	-		
0338	569	827	702	1,127	1,155	1,318	1,565						
0339	881	1,470	1,864	2,588	2,752	3,155	3,354						
	156	-	-	780	-	799	-	919	-	894	-		
0352	709	1,186	1,784	2,347	2,543	2,837	2,946						
0353	785	1,251	1,735	2,137	2,488	2,809	2,870						
	38	-	24	105	22	14	36						
0354	75	516	340	597	1,192	639	1,081						
0355	992	1,545	1,525	1,875	2,251	2,248	2,684						
	439	-	-	639	-	805	-	801					
0356	-	-	-	-	-	-	-	-	-	-	-		
0357	40	83	127	275	-	443	-	601					
	718	-	-	1,487	-	1,001	-	1,760	-	1,190	-		
	379	-	-	681	-	1,048	-	1,122	-	1,190	-		
0358	220	832	1,950	2,729	2,614	3,572	3,802						
0359	139	628	1,760	2,407	2,441	2,917	2,953						
	40	102	95	161	87	328	424						
0360	4	68	53	58	111	77	119						
0361	469	676	1,127	1,354	1,515	1,691	1,812						
	233	-	-	648	-	813	-	864	-	966	-		
0362	999	1,418	1,933	2,866	3,731	3,722	4,214						
0605	1,225	979	1,795	2,471	2,747	2,832	3,398						
	113	219	69	198	742	455	429						

TABLE XVI (Continued)

55680		200 INCH MULTICELL		26 JULY 1965	
BIAXIAL ROSETTE		E = 10,400,000 Ue		0.000	
PSI	PSI	300 S	301 S	044 S	033 S
240 S	260 S	280 S	300 S	04.4 PSI(Full)	03.3 PSI (% Full)
24.0 PSI	26.0 PSI	28.0 PSI	30.0 PSI		
4,545	4,999	5,333	5,684	1,459	1,240
4,855	5,152	5,427	5,800	1,627	1,482
195	77	47	58	84	121
1,093	1,476	1,762	1,759	592	773
3,150	3,197	3,196	3,572	927	472
2,121	2,337	2,479	2,666	760	622
1,726	1,946	2,098	2,178	945	712
3,613	3,811	4,158	4,342	1,183	937
958	932	1,030	1,082	119	112
1,173	1,173	1,524	1,534	42	2,755
3,777	3,849	4,295	4,541	999	1,471
1,279	1,338	1,386	1,533	521	542
1,207	1,365	1,429	1,646	510	1,147
3,792	4,051	4,221	4,539	1,359	691
1,287	1,343	1,396	1,446	425	919
1,304	1,742	2,081	1,935	40	200
3,506	3,781	4,148	4,236	917	690
1,101	1,020	1,034	1,101	478	445
3,007	3,269	3,408	3,500	29	676
3,013	3,281	3,476	3,626	683	286
3	6	34	63	327	481
1,144	1,571	1,636	1,830	383	330
2,894	3,177	3,271	3,530	933	506
855	803	817	850	275	88
732	834	1,020	1,248	196	278
1,902	2,120	2,102	2,094	731	2,048
1,337	1,477	1,561	1,661	463	885
4,295	4,742	5,017	5,573	513	399
3,371	3,701	3,883	4,157	420	47
462	520	567	708	153	176
353	289	438	568	428	525
1,894	2,048	2,161	2,287	449	250
1,103	1,168	1,300	1,427	438	387
4,491	5,136	5,534	5,866	767	478
3,332	3,937	4,406	4,931	963	705
570	599	564	738	98	114

TABLE XVI (Continued)

55600 200 INCH MULTICELL		26 JULY 1965	
BIAXIAL ROSETTE		E = 10,400,000	U = 0.000
0000	022 S	011 S	000 S
	02.2 PSI (1/2 F ₁₁)	01.1 PSI (1/2 F ₁₁)	(Final Zero)
0320	1,015	898	993
0329	1,303	1,044	925
	SHEAR	73	186
0330	561	861	194
0331	197	42	179
	SHEAR	492	186
0332	509	463	340
0333	527	547	265
	SHEAR	42	38
0334	2,712	3,093	2,614
0335	1,591	1,372	964
	SHEAR	840	825
0336	861	838	1,142
0337	532	329	128
	SHEAR	584	639
0338	168	496	143
0339	447	174	236
	SHEAR	335	198
0342	835	1,038	1,327
0343	84	39	329
	SHEAR	499	409
0344	226	210	314
0345	529	88	482
	SHEAR	139	44
0346	222	214	171
0347	1,752	1,742	1,518
	SHEAR	764	673
0350	41	14	289
0354	118	200	241
	SHEAR	133	34
0360	467	563	764
0361	176	35	199
	SHEAR	264	282
0362	117	6	13
0363	353	18	223
	SHEAR	118	185

TABLE XVI (Continued)

55680		200 INCH MULTICELL		26 JULY 1965											
BIAXIAL ROSETTE				E= 10,400,000 U= 0.000											
GAGE		004 S		040 S		080 S		120 S		180 S		200 S		220 S	
		04.4 PSI(F _{II})		08.0 PSI		48.0 PSI		16.0 PSI		20.0 PSI		20.0 PSI		22.0 PSI	
0392		1.489	2.237	2.237		3.020		3.810		4.368		4.570		5.447	
0393		1.141	1.656	1.656		2.196		2.949		3.173		3.471		3.895	
	SHEAR	174	290	290		412		431		597		549		626	
0394		261	18	18		211		13		72		329		57	
0395		927	1,450	1,450		1,992		3,033		3,035		3,133		3,804	
	SHEAR	594	749	749		1,102		1,510		1,564		1,731		1,874	
0396		1.164	1.621	1.621		2.139		2.610		2.900		3.171		3.137	
0397		1.468	2.106	2.106		2,608		3,073		3,973		4,453		4,811	
	SHEAR	152	243	243		335		532		536		641		812	
0398		38	74	74		317		335		37		236		604	
0399		1,006	1,076	1,076		2,156		2,650		3,373		3,629		4,310	
	SHEAR	484	801	801		1,258		1,493		1,668		1,697		1,953	
0400		1.223	1.764	1.764		2,398		3,142		3,568		4,000		4,165	
0401		1.454	2,081	2,081		2,844		3,730		4,099		4,497		4,897	
	SHEAR	116	159	159		223		294		265		240		366	
0402		1.223	1.478	1.478		1,152		1,049		1,533		1,496		1,401	
0403		524	979	979		1,912		2,732		2,508		2,861		3,148	
	SHEAR	874	1,229	1,229		1,532		1,900		2,021		2,178		2,270	
0404		1.000	1,457	1,457		1,973		2,415		2,885		3,036		3,276	
0405		1.273	1,992	1,992		2,614		3,338		3,809		4,018		4,282	
	SHEAR	136	267	267		320		462		462		491		503	
0406		327	247	247		300		348		362		563		506	
0407		1,086	1,626	1,626		1,911		2,545		2,905		3,092		3,534	
	SHEAR	379	689	689		1,146		1,446		1,633		1,828		2,028	
0408		1.198	1,612	1,612		2,121		2,494		2,856		3,024		3,191	
0409		1.486	2,138	2,138		2,811		3,624		4,039		4,310		4,733	
	SHEAR	144	263	263		375		568		602		643		801	
0410		632	605	605		638		536		938		1,246		1,156	
0411		735	1,404	1,404		2,185		3,191		3,058		2,911		3,320	
	SHEAR	683	1,004	1,004		1,411		1,864		1,998		2,079		2,238	
0412		1.335	1,972	1,972		2,676		3,382		3,800		4,147		4,491	
0413		1.548	2,386	2,386		3,232		4,116		4,556		4,982		5,500	
	SHEAR	106	207	207		278		367		378		407		504	
0414		1.685	34	34		1,784		1,967		2,376		2,786		3,377	
0415		223	1,147	1,147		993		1,782		1,434		1,493		1,708	
	SHEAR	954	1,590	1,590		1,359		1,875		1,905		1,940		2,363	

TABLE XVI (Continued)

55600 200 INCH MULTICELL		26 JULY 1965									
BIAXIAL ROSETTE		E = 10,400,000 U = 0.000									
		200 X 24.0 PSI	240 X 26.0 PSI	260 X 28.0 PSI	300 X 30.0 PSI	301 X 4.4 PSI (Full)	344 X 84.4 PSI (Full)	353 X 83.3 PSI (3/4 Full)			
0392		5,505	5,899	6,476	6,845	2,218	1,967	1,750			
0393	SHEAR	4,211	4,512	4,863	5,117	1,737	1,815	1,721			
		677	693	886	864	391	476	515			
0394		128	108	88	143	58	269	178			
0395	SHEAR	3,873	4,249	4,502	5,008	1,883	1,423	1,504			
		1,996	2,179	2,207	2,428	883	846	667			
0396		3,497	3,574	3,790	3,958	956	1,157	887			
0397	SHEAR	5,221	5,455	5,894	6,136	1,889	2,038	1,537			
		882	940	1,052	1,088	367	447	368			
0398		368	945	1,327	1,508	16	79	1			
0399	SHEAR	3,946	4,024	5,368	5,851	1,321	1,288	1,287			
		1,793	1,939	2,821	2,187	788	733	683			
0400		4,649	4,956	5,222	5,483	1,284	1,144	928			
0401	SHEAR	5,332	5,591	5,883	6,283	1,451	1,211	818			
		342	368	330	488	84	33	95			
0402		1,846	1,838	1,886	2,009	909	884	672			
0403	SHEAR	3,231	3,598	3,656	3,886	551	743	441			
		2,539	2,718	2,771	2,944	778	773	596			
0404		3,523	3,895	4,149	4,584	1,281	1,524	1,237			
0405	SHEAR	4,672	5,338	5,292	5,742	1,501	1,916	1,538			
		575	571	571	619	118	196	146			
0406		433	493	690	598	787	157	488			
0407	SHEAR	3,606	3,846	3,916	4,274	1,866	1,881	1,883			
		2,020	2,178	2,383	2,436	686	722	598			
0408		3,458	3,772	3,760	4,058	1,459	1,584	1,188			
0409	SHEAR	5,119	5,414	5,710	6,083	1,529	1,893	1,462			
		831	821	975	973	85	194	137			
0410		1,163	1,120	1,263	1,848	813	141	37			
0411	SHEAR	3,647	3,984	4,079	4,465	1,871	2,038	2,073			
		2,405	2,552	2,671	2,756	942	1,088	1,055			
0412		4,790	5,049	5,304	5,684	1,688	1,396	1,118			
0413	SHEAR	5,911	6,083	6,338	6,791	1,831	1,782	1,585			
		561	517	617	683	116	193	188			
0414		3,270	3,409	3,669	3,824	1,188	974	826			
0415	SHEAR	1,693	1,714	1,790	1,973	116	378	381			
		2,482	2,592	2,729	2,899	522	675	564			

TABLE XVI (Continued)

26 JULY 1965

200 INCH MULTICELL

BIAXIAL ROSETTE

E = 10,400,000 U = 0.000

PSI

008 S
(Final Zero)011 S
01.1 PSI (1/2 F_{ult})022 S
02.2 PSI (1/2 F_{ult})

SHEAR

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TABLE XVII
Reduced Rosette Gage Results
Aft Extrusion

55680 200 INCH MULTICELL		26 JULY 1965									
RETANGULAR ROSETTE		E= 10,400,000 U= 0.000									
GAGE		004 S 04.4 PSI (F _{ult})	040 S 08.0 PSI	080 S 16.0 PSI	120 S 24.0 PSI	160 S 32.0 PSI	200 S 40.0 PSI	220 S 44.0 PSI			
0876	MAX	879	1,304	1,880	2,338	2,499	2,746	3,174			
0877	MIN	254	302	214	173	219	184	323			
0878	SHEAR	312	501	833	1,082	1,140	1,281	1,426			
	TMEAN	88	86	86	84	83	84	83			
0879	MAX	1,182	1,785	1,909	3,046	3,355	3,375	3,645			
0880	MIN	394	799	1,212	1,397	1,771	1,768	1,454			
0881	SHEAR	394	493	349	805	892	803	1,006			
	TMEAN	80	76	78	83	76	69	70			
0882	MAX	525	752	898	1,082	1,140	1,110	1,223			
0883	MIN	408	763	1,117	1,345	1,799	2,136	2,437			
0884	SHEAR	466	757	1,008	1,314	1,469	1,623	1,838			
	TMEAN	89	88	89	89	87	87	86			
0885	MAX	909	1,446	2,831	3,773	4,307	4,412	5,403			
0886	MIN	375	1,119	2,617	3,032	3,375	3,204	4,021			
0887	SHEAR	287	164	187	378	466	604	691			
	TMEAN	74	70	23	7	15	1	11			
0888	MAX	1,390	1,976	2,703	3,387	3,834	4,222	4,445			
0889	MIN	709	1,117	1,691	2,204	2,310	2,612	2,982			
0890	SHEAR	311	429	506	592	762	805	771			
	TMEAN	84	70	74	75	75	76	74			
0891	MAX	1,314	1,995	2,758	3,425	3,894	4,190	4,522			
0892	MIN	816	1,324	1,965	2,482	2,762	3,013	3,189			
0893	SHEAR	248	336	397	481	566	589	667			
	TMEAN	76	82	78	80	77	81	83			
0894	MAX	1,076	1,625	1,821	2,087	3,057	3,734	3,913			
0895	MIN	245	381	1,164	1,425	1,831	1,211	1,233			
0896	SHEAR	661	1,003	1,492	1,756	2,044	2,472	2,573			
	TMEAN	79	80	86	88	84	84	86			
0897	MAX	1,539	2,266	2,867	3,873	4,236	4,413	4,885			
0898	MIN	1,161	1,623	1,993	2,508	2,712	2,984	3,276			
0899	SHEAR	189	322	437	637	763	715	805			
	TMEAN	46	55	59	55	54	58	55			
0899	MAX	1,008	1,385	2,035	2,630	2,974	3,076	3,412			
0900	MIN	723	679	735	399	335	1,013	1,021			
0901	SHEAR	865	1,132	1,385	1,515	1,755	2,044	2,217			
	TMEAN	85	84	81	88	82	85	85			
0902	MAX	664	951	1,055	1,528	2,037	2,059	2,731			
0903	MIN	295	378	177	348	184	202	338			
0904	SHEAR	105	236	439	590	1,006	928	992			
	TMEAN	67	67	67	67	67	67	67			
0905	MAX	1,027	1,309	1,903	2,928	2,711	3,084	3,568			
0906	MIN	232	203	520	333	1,121	501	567			
0907	SHEAR	630	756	1,212	1,630	1,916	1,792	2,047			
	TMEAN	71	88	73	75	73	74	72			

TABLE XVII (Continued)

556880 200 INCH MULTICELL		26 JULY 1965		E= 10,400,000 UN 0.000		PSI		300 PSI		301 PSI (Full)		04.4 PSI (Full)		03.3 PSI (3/4 Full)	
RETANGULAR ROSETTE		240 PSI		260 PSI		280 PSI		300 PSI		301 PSI (Full)		04.4 PSI (Full)		03.3 PSI (3/4 Full)	
DATE		240 PSI	260 PSI	280 PSI	300 PSI	301 PSI (Full)	04.4 PSI (Full)	03.3 PSI (3/4 Full)							
0876	MAX	3,300	3,549	3,838	3,935	4,240	2,840	2,694							
0877	MIN	294	219	350	369	422	1,123	1,211							
0878	SHEAR	1,503	1,667	1,744	1,783	409	1,981	1,932							
	THETA	82	81	82	82	80	-	49							
0879	MAX	4,026	4,224	4,503	4,799	553	1,735	981							
0880	MIN	2,165	2,233	2,589	2,640	425	668	253							
0881	SHEAR	930	995	987	1,079	689	384	364							
	THETA	76	73	77	74	73	87	82							
0900	MAX	1,349	1,379	1,461	1,513	496	441	396							
0901	MIN	2,748	2,856	3,239	3,412	807	788	684							
0902	SHEAR	2,049	2,118	2,350	2,462	651	614	540							
	THETA	86	88	86	86	87	84	86							
0903	MAX	5,423	5,940	6,498	7,020	1,039	568	767							
0904	MIN	3,592	4,357	4,675	4,978	685	463	404							
0905	SHEAR	716	791	912	1,021	177	52	181							
	THETA	7	7	10	10	73	40	78							
0924	MAX	4,791	4,820	5,310	5,898	1,182	1,236	1,000							
0925	MIN	3,128	3,409	3,686	3,919	890	1,129	793							
0926	SHEAR	831	706	812	794	146	53	104							
	THETA	74	79	75	79	40	29	26							
0930	MAX	4,741	5,001	5,409	5,652	1,393	1,134	860							
0931	MIN	3,403	3,584	3,860	4,125	1,207	862	482							
0932	SHEAR	689	708	774	763	93	136	199							
	THETA	84	87	82	84	69	49	41							
0933	MAX	4,247	4,444	5,067	5,000	1,131	1,028	516							
0934	MIN	1,447	1,263	1,258	1,334	264	715	735							
0935	SHEAR	2,847	2,894	3,163	3,167	697	871	626							
	THETA	85	84	84	84	85	85	75							
0936	MAX	5,144	5,544	5,886	6,176	1,776	2,089	1,651							
0937	MIN	3,456	3,658	3,768	3,969	1,176	1,311	988							
0938	SHEAR	844	943	1,059	1,104	300	389	332							
	THETA	55	55	55	55	49	43	40							
0939	MAX	3,541	4,148	4,124	4,543	1,550	1,147	921							
0940	MIN	967	876	913	826	64	369	118							
0941	SHEAR	2,254	2,412	2,519	2,685	743	768	519							
	THETA	83	86	83	84	89	82	88							
0942	MAX	2,586	2,782	3,101	3,353	836	1,236	1,189							
0943	MIN	343	320	377	326	232	404	684							
0944	SHEAR	1,121	1,221	1,362	1,421	302	820	937							
	THETA	67	67	67	67	67	67	67							
0945	MAX	3,692	4,120	4,799	4,372	1,986	1,727	1,590							
0946	MIN	374	102	890	276	116	154	326							
0947	SHEAR	2,033	2,111	2,844	2,324	935	941	631							
	THETA	73	74	65	74	83	69	68							

TABLE XVII (Continued)

556880 200 INCH MULTICELL		26 JULY 1965	
RECTANGULAR ROSETTE		PSI	E= 10,400,000 U= 0.000
GAGE	022 K 02.2 PSI (1/2 Full)	011 K 01.1 PSI (1/4 Full)	000 K (Final Zero)
0876 MAX	2,571	2,782	2,660
0877 MIN	1,415	1,610	1,803
0878 SHEAR	1,993	2,196	2,231
0879 T-META	46	45	44
0879 MAX	820	696	594
0880 MIN	237	83	245
0881 SHEAR	291	307	174
0881 T-META	84	68	79
0908 MAX	348	181	101
0901 MIN	528	351	457
0902 SHEAR	438	266	279
0902 T-META	89	88	86
0903 MAX	400	25	66
0904 MIN	268	185	134
0905 SHEAR	66	80	100
0905 T-META	77	36	80
0924 MAX	837	667	548
0925 MIN	492	47	73
0926 SHEAR	173	310	237
0926 T-META	8	21	13
0930 MAX	873	219	199
0931 MIN	185	365	336
0932 SHEAR	244	292	267
0932 T-META	41	34	24
0933 MAX	319	637	301
0934 MIN	496	120	397
0935 SHEAR	408	378	349
0935 T-META	67	66	40
0938 MAX	1,272	977	564
0937 MIN	822	650	249
0938 SHEAR	225	163	157
0938 T-META	34	25	29
0939 MAX	687	449	486
0940 MIN	61	59	44
0941 SHEAR	374	254	221
0941 T-META	73	82	45
0942 MAX	1,107	1,073	1,002
0943 MIN	698	432	716
0944 SHEAR	903	752	859
0944 T-META	67	67	67
0945 MAX	1,577	1,171	980
0946 MIN	532	239	407
0947 SHEAR	523	466	287
0947 T-META	71	73	68

TABLE XVII (Continued)

55680 200 INCH MULTICELL		26 JULY 1965									
RECTANGULAR ROSETTE		E = 10,400,000 U = 0.000									
OROS		904 S	900 S	120 S	180 S	200 S	220 S	900 S	120 S	180 S	220 S
		04.4 PSI (Full)	40.0 PSI	100.0 PSI	160.0 PSI	200.0 PSI	220.0 PSI	40.0 PSI	100.0 PSI	160.0 PSI	220.0 PSI
0972	MAX	1.475	2.539	4.309	4.711	5.138	5.715	3.957	4.309	4.711	5.138
0973	MIN	1.358	2.141	3.859	4.334	4.744	5.074	3.104	3.859	4.334	4.744
0974	SHEAR	59	199	225	189	207	320	127	225	189	207
	THETA	77	76	76	86	77	73	75	76	86	77
0975	MAX	1.029	1.569	1.719	2.750	3.194	4.008	1.667	1.719	2.750	3.194
0976	MIN	185	288	2.119	1.814	1.712	1.880	1.311	2.119	1.814	1.712
0977	SHEAR	607	928	1.919	2.282	2.453	2.844	1.489	1.919	2.282	2.453
	THETA	89	89	77	83	84	89	84	77	83	84
0990	MAX	491	937	1.572	1.760	1.936	2.100	1.238	1.572	1.760	1.936
0991	MIN	112	451	645	633	1.021	1.066	653	645	633	1.021
0992	SHEAR	189	243	364	463	458	567	273	364	463	458
	THETA	12	14	22	19	16	23	9	22	19	16
0993	MAX	667	1,231	2.655	2.135	3.534	3.250	1.967	2.655	2.135	3.534
0994	MIN	848	1,077	1.818	1.948	1.816	2.094	1.535	1.818	1.948	1.816
0995	SHEAR	757	1,154	1.936	2.041	2.675	2.672	1.741	1.936	2.041	2.675
	THETA	86	85	82	84	82	83	77	82	84	83

TABLE XVII (Continued)

556880		200 INCH MULTICELL		26 JULY 1965				
RECTANGULAR ROSETTE		PSI		E = 10,400,000		U = 0.008		
GAGE		240 X 24.0 PSI	260 X 26.0 PSI	280 X 28.0 PSI	300 X 30.0 PSI	301 X 4.4 PSI(Full)	04.4 PSI(Full)	033 PSI (3/4 Full)
0972	MAX	6,069	6,342	6,848	7,125	2,035	1,304	1,489
	MIN	5,378	5,709	5,941	6,305	1,668	1,598	1,194
	SHEAR	345	316	453	410	184	137	147
0974	THETA	-	77	75	-	57	-	67
	MAX	3,886	4,120	4,397 *	4,611	1,032	937	994
	MIN	1,872	1,940	1,425	1,982	830	-	694
0977	SHEAR	2,879	3,030	2,911	3,297	931	1,023	844
	THETA	85	60	85	84	89	86	-
	MAX	2,288	2,396	2,528	2,718	300	1,343	1,353
0991	MIN	1,139	1,300	1,291	1,301	339	1,002	1,031
	SHEAR	574	548	618	709	111	231	161
	THETA	20	19	22	23	13	25	19
0993	MAX	3,803	3,552	4,143	4,393	813	1,081	977
	MIN	2,146	2,395	2,028	2,224	1,253	903	362
	SHEAR	2,974	2,973	3,086	3,309	1,033	902	778
0995	THETA	83	85	87	83	87	-	88
	MAX	-	-	-	-	-	-	-
	MIN	-	-	-	-	-	-	-

TABLE XVII (Continued)

596000 200 INCH MULTICELL		26 JULY 1965	
RECTANGULAR ROSETTE		psi	E= 10,000,000 psi 0.000
TIME	022 S 02.2 PSI(1/2 Full)	011 S 01.1 PSI(1/2 Full)	000 S (Final Zero)
0972 MAX	1,029	734	271
0973 MIN	731	332	122
0974 SHEAR	147	201	75
0974 THETA	62	55	51
0975 MAX	678	770	249
0976 MIN	896	206	440
0977 SHEAR	787	488	344
0977 THETA	85	83	82
0990 MAX	1,042	1,141	871
0991 MIN	770	804	546
0992 SHEAR	136	169	102
0992 THETA	14	24	14
0993 MAX	928	490	72
0994 MIN	295	38	93
0995 SHEAR	611	264	82
0995 THETA	78	68	84

TABLE XVIII

Reduced Rosette Gage Results
Printed As Single Gages
Aft Extrusion

200 INCH MULTICELL		26 JULY 1965	
55680		E = 10,400,000 U = 0.000	
SINGLE STRAIN GAGES			
GAGE	004 %	040 %	080 %
	04.4 PSI (Full)	08.0 PSI	12.0 PSI
0928	491	909	1,109
0929	517	1,062	2,115
			2,842
			2,911
			3,284
			3,567
GAGE	240 %	260 %	280 %
	24.0 PSI	26.0 PSI	28.0 PSI
0928	1,889	1,898	2,116
0929	3,602	3,656	4,219
			4,393
			4,772
			725
			764
			735
GAGE	022 %	011 %	000 %
	02.2 PSI (1/2 Full)	01.1 PSI (1/4 Full)	(Final Zero)
0928	285	263	258
0929	293	102	204

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26 JULY 1965

TABLE XIX (Continued)

26 JULY 1965

200 INCH MULTICELL

RETANGULAR ROSETTE

PSI E = 10,400,000 U = 0.000

GAGE	240 PSI	260 PSI	280 PSI	300 PSI	301 PSI (Full)	044 PSI (Full)	033 PSI (3/4 Full)
0732 MAX	2,640	3,004	3,047	3,363	-	10	59
0733 MIN	478	759	832	880	-	132	368
0734 SHEAR	1,081	1,122	1,208	1,241	-	71	214
0734 THETA	79	75	77	73	-	84	72
0756 MAX	1,234	1,344	1,348	1,559	-	63	36
0757 MIN	467	426	571	452	-	205	237
0758 SHEAR	851	885	959	1,006	-	134	136
0758 THETA	84	85	83	82	-	49	48
0759 MAX	3,971	4,139	4,616	4,763	-	934	3,428
0760 MIN	3,075	3,349	3,657	3,721	-	413	656
0761 SHEAR	448	395	479	521	-	271	1,388
0761 THETA	11	6	9	5	-	27	23
0780 MAX	5,200	5,571	6,175	6,494	-	485	698
0781 MIN	3,458	3,888	4,076	4,534	-	355	303
0782 SHEAR	871	842	1,049	980	-	65	197
0782 THETA	55	54	55	56	-	23	72
0783 MAX	3,505	3,561	3,718	3,870	-	398	204
0784 MIN	1,670	1,820	1,850	2,041	-	149	455
0785 SHEAR	2,587	2,691	2,784	2,955	-	273	330
0785 THETA	77	76	77	77	-	74	49
0786 MAX	4,630	5,075	5,341	5,850	-	411	1,169
0787 MIN	3,715	4,063	4,337	4,578	-	183	898
0788 SHEAR	457	508	502	648	-	114	1,034
0788 THETA	88	76	79	78	-	55	45
0789 MAX	3,016	3,222	3,396	3,797	-	220	398
0790 MIN	1,751	1,742	1,986	1,988	-	346	18
0791 SHEAR	2,383	2,482	2,691	2,889	-	283	208
0791 THETA	73	75	75	74	-	68	72

TABLE XIX (Continued)

26 JULY 1965

E= 10,400,000 U= 0.000

556000 200 INCH MULTICELL

RECTANGULAR ROSETTE

PSI

GAGE	022 S			011 S			000 S		
	02.2 PSI (%Full)			01.1 PSI (%Full)			(Final Zero)		
0732	MAX	197		149			478		
0733	MIN	544		217			163		
0734	SHEAR	178		103			157		
	TWETA	90		46			38		
0754	MAX	198		73			105		
0757	MIN	322		72			64		
0758	SHEAR	260		72			85		
	TWETA	39		7			41		
0759	MAX	3,356		3,400			3,169		
0760	MIN	724		804			729		
0761	SHEAR	1,316		1,298			1,220		
	TWETA	22		23			24		
0780	MAX	294		498			958		
0781	MIN	166		217			270		
0782	SHEAR	84		140			144		
	TWETA	82		84			69		
0793	MAX	309		235			247		
0794	MIN	584		779			618		
0795	SHEAR	446		507			433		
	TWETA	33		42			40		
0796	MAX	1,022		1,011			1,294		
0797	MIN	1,046		711			555		
0798	SHEAR	1,034		861			905		
	TWETA	47		45			46		
0799	MAX	358		378			593		
0798	MIN	237		145			142		
0791	SHEAR	61		216			225		
	TWETA	49		72			64		

TABLE XIX (Continued)

55600		200 INCH MULTICELL		26 JULY 1965		E = 10,400,000 US 0.000	
RETANGULAR ROSETTE		PSI		E = 10,400,000 US 0.000			
GAUGE		004 K 4.4 PSI (F ₀₁₁)	040 K 08.0 PSI	080 K 16.0 PSI	120 K 24.0 PSI	160 K 32.0 PSI	200 K 40.0 PSI
0792	MAX	265	937	1,629	2,310	2,775	3,243
0793	MIN	127	671	1,399	2,030	2,225	2,442
0794	SHEAR	69	133	115	130	275	400
	THETA	19	42	55	59	57	52
0795	MAX	9	77	210	428	392	337
0796	MIN	501	1,310	1,910	3,152	3,570	3,331
0797	SHEAR	246	621	650	1,362	1,589	1,497
	THETA	37	45	46	45	46	45
0798	MAX	78	606	1,448	2,163	2,584	2,887
0799	MIN	99	411	783	1,238	1,505	1,739
0800	SHEAR	89	97	332	462	539	574
	THETA	46	13	11	17	15	14
0801	MAX	96	635	1,219	1,756	2,216	2,383
0802	MIN	39	11	40	108	174	222
0803	SHEAR	67	312	590	824	1,021	1,070
	THETA	86	87	78	82	82	82
0828	MAX	292	875	1,619	2,400	2,641	3,047
0829	MIN	5	216	502	695	912	1,001
0830	SHEAR	148	319	559	853	865	1,023
	THETA	58	85	84	87	87	88
0831	MAX	216	762	1,310	2,036	2,345	2,525
0832	MIN	94	273	415	681	728	840
0833	SHEAR	155	518	962	1,359	1,537	1,683
	THETA	70	78	77	78	79	82
0846	MAX	83	846	1,723	2,655	2,953	3,339
0847	MIN	15	380	536	995	1,102	1,163
0848	SHEAR	49	233	594	830	925	1,088
	THETA	46	83	77	78	82	78

556880 200 INCH MULTICELL
RETANGULAR ROSETTE.

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TABLE XIX (continued)

55680		200 INCH MULTICELL		26 JULY 1965	
RECTANGULAR ROSETTE		E= 10,400,000 U= 0.000		PSI	
GAGE		022 % 02.2 PSI (1/2 Full)	011 % 01.1 PSI (1/4 Full)	000 % (Final Zero)	
0792	MAX	117	198	330	
0793	MIN	36	60	118	
0794	SHEAR	77	69	106	
	THETA	19	38	34	
0795	MAX	999	914	1,066	
0796	MIN	1,135	1,139	1,219	
0797	SHEAR	1,067	1,026	1,143	
	THETA	44	47	46	
0798	MAX	115	149	259	
0799	MIN	199	20	159	
0800	SHEAR	157	85	50	
	THETA	68	40	69	
0801	MAX	62	23	104	
0802	MIN	58	177	59	
0803	SHEAR	60	100	82	
	THETA	20	7	87	
0828	MAX	732	863	769	
0829	MIN	845	785	678	
0830	SHEAR	789	824	723	
	THETA	44	47	46	
0831	MAX	40	263	157	
0832	MIN	110	198	145	
0833	SHEAR	75	230	151	
	THETA	36	43	68	
0846	MAX	184	104	47	
0847	MIN	350	152	148	
0848	SHEAR	83	24	51	
	THETA	11	49	12	

TABLE IX

Reduced Rosette Gage Results
Printed as Single Gages
Forward Extrusion

556880 200 INCH MULTICELL									
SINGLE STRAIN GAGES									
PSI E= 10,400,000 U= 0.000									
GAGE									
004 % 040 % 080 % 120 % 160 % 180 % 200 % 220 %									
4.4 PSI(Full) 06.0 PSI 12.0 PSI 16.0 PSI 20.0 PSI 20.0 PSI 22.0 PSI									
0735	166	274	311	554	886	757	919		
0737	204	682	1,065	1,420	1,606	1,754	1,985		
0851	27	655	1,126	1,866	2,293	2,734	2,885		
GAGE									
240 % 260 % 280 % 300 % 301 % 4.4 PSI(Full) 044 % 033 %									
24.0 PSI 26.0 PSI 28.0 PSI 30.0 PSI 4.4 PSI(Full) 04.4 PSI(Full) 03.3 PSI (3/4 Full)									
0735	1,196	1,155	1,380	1,376	23	-	176	-	54
0737	2,295	2,366	2,497	2,659	160	-	105	-	108
0851	3,199	3,215	3,314	3,239	-	-	43	-	228
GAGE									
022 % 011 % 000 %									
12.2 PSI(1/2 Full) 01.1 PSI(1/4 Full) (Final Zero)									
0735	19	-	233	-	16				
0737	-	117	-	229	-	51			
0851	-	300	-	269	-	61			

TABLE XXI

Reduced Biaxial Gages Results
Forward Extrusion

556880		200 INCH MULTICELL		26 JULY 1965									
BIAXIAL ROSETTE		E= 10,400,000 U= 0.000											
GAGE	004 K 04.4 PSI(F ₀₁)	040 K 08.0 PSI	080 K 12.0 PSI	120 K 16.0 PSI	160 K 18.0 PSI	200 K 20.0 PSI	220 K 22.0 PSI						
0212	98	727	1,543	2,334	2,632	2,962	3,421						
0213	12	772	1,658	2,396	2,726	2,983	3,366						
	43	23	57	-	-	10	28						
	SHEAR												
0214	-	481	742	-	-	-	-						
0215	20	358	1,417	-	-	-	-						
	62	419	1,080	-	-	-	-						
	SHEAR												
0216	33	316	736	-	-	-	-						
0217	77	835	1,448	-	-	-	-						
	22	159	356	-	-	-	-						
	SHEAR												
0218	73	501	383	-	-	-	-						
0219	352	518	1,156	-	-	-	-						
	140	510	769	-	-	-	-						
	SHEAR												
0220	27	123	275	-	-	-	-						
0221	13	542	1,277	-	-	-	-						
	20	210	501	-	-	-	-						
	SHEAR												
0222	148	402	688	-	-	-	-						
0223	150	719	1,131	-	-	-	-						
	1	158	221	-	-	-	-						
	SHEAR												
0236	279	827	1,499	-	-	-	-						
0237	234	754	1,365	-	-	-	-						
	22	37	67	-	-	-	-						
	SHEAR												
0238	126	201	243	-	-	-	-						
0239	161	461	748	-	-	-	-						
	144	331	496	-	-	-	-						
	SHEAR												
0240	115	55	148	-	-	-	-						
0241	8	91	407	-	-	-	-						
	54	73	129	-	-	-	-						
	SHEAR												
0242	50	398	832	-	-	-	-						
0243	77	519	1,034	-	-	-	-						
	63	61	101	-	-	-	-						
	SHEAR												
0244	104	167	81	-	-	-	-						
0245	204	515	716	-	-	-	-						
	50	174	318	-	-	-	-						
	SHEAR												
0246	656	668	1,484	-	-	-	-						
0247	324	649	1,421	-	-	-	-						
	166	10	31	-	-	-	-						
	SHEAR												

26 JULY 1965

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TABLE XXI (Continued)

26 JULY 1965

200 INCH MULTICELL

BIAXIAL ROSETTE

E = 10,400,000 U = 0.000

PSI

GAGE	022 % 02.2 PSI ($\frac{1}{2}F_{ult}$)	011 % 01.1 PSI ($\frac{1}{4}F_{ult}$)	000 % (Final Zero)
0212	64	53	118
0213	9	110	94
SHEAR	27	82	12
0214	525	346	265
0215	150	153	255
SHEAR	187	97	5
0216	302	295	425
0217	287	281	475
SHEAR	7	7	25
0218	450	288	353
0219	852	805	820
SHEAR	201	258	234
0220	180	190	335
0221	42	44	223
SHEAR	69	117	56
0222	278	238	355
0223	303	404	510
SHEAR	12	83	78
0236	368	389	422
0237	521	557	660
SHEAR	76	84	119
0238	168	66	227
0239	346	132	313
SHEAR	89	99	43
0240	95	172	65
0241	528	53	518
SHEAR	217	112	226
0242	94	32	336
0243	56	257	180
SHEAR	75	113	78
0244	229	214	332
0245	223	209	405
SHEAR	3	2	36
0246	1,001	724	1,121
0247	843	633	788
SHEAR	79	45	167

TABLE XXI (Continued)

556880 200 INCH MULTICELL		26 JULY 1965									
BIAXIAL ROSETTE		E = 10,400,000 U = 0.000									
GAGE	004 X 04.4 PSI (Full)	040 X 08.0 PSI	080 X 12.0 PSI	PSI	120 X 16.0 PSI	160 X 18.0 PSI	200 X 20.0 PSI	220 X 22.0 PSI			
0280	252	1,079	2,111		3,041	3,501	4,000	4,342			
0281	187	1,119	2,166		3,128	3,662	4,208	4,501			
	33	20	28		43	80	104	80			
0282	-	-	-		-	-	-	-			
0283	220	449	678		823	1,293	1,515	1,124			
	338	198	1,208		1,756	1,908	2,160	2,707			
	59	324	943		1,290	1,600	1,837	1,915			
0284	101	594	1,328		1,878	2,089	2,335	2,593			
0285	185	924	1,886		2,789	3,282	3,740	4,054			
	42	165	279		456	597	702	730			
0286	189	116	901		1,508	1,133	-	1,865			
0287	522	1,135	1,452		1,982	2,568	2,421	2,899			
	166	625	1,177		1,745	1,851	2,143	2,350			
0288	180	150	686		1,064	1,202	1,501	1,649			
0289	47	500	1,293		1,896	2,271	2,734	2,823			
	66	175	304		416	534	616	587			
0290	74	38	259		16	23	159	219			
0291	31	656	1,106		1,898	1,903	2,246	2,681			
	22	309	683		941	940	1,203	1,231			
0304	20	151	173		615	417	1,214	914			
0305	152	789	1,608		2,496	2,768	3,468	3,612			
	66	319	718		941	1,176	1,127	1,349			
0306	130	398	1,037		1,090	1,400	1,302	1,430			
0307	43	615	1,199		1,920	1,873	2,198	2,778			
	86	507	1,118		1,585	1,636	1,750	2,104			
0308	43	624	1,326		2,096	2,197	2,608	2,912			
0309	88	935	2,148		3,118	3,493	3,894	4,412			
	23	155	396		511	648	643	750			
0310	4	358	510		1,437	1,189	1,832	1,808			
0311	272	926	1,929		2,009	2,789	2,286	2,980			
	134	642	1,219		1,723	1,989	2,059	2,379			
0312	-	624	173		706	1,621	1,325	1,393			
0313	1,122	768	1,443		2,188	2,703	2,910	3,192			
	307	87	635		741	541	792	900			
	408	-	-		-	-	-	-			

[illegible]

TABLE XXI (Continued)

26 JULY 1965

E= 10,400,000 U= 0.000

200 INCH MULTICELL

BIAXIAL ROSETTE

PSI

GAGE

022 % 011 % 000 %

02.2 PSI (1/2 Full) 01.1 PSI (1/4 Full) (Final Zero)

250

189

30

994

358

318

87

55

71

606

1,539

466

1,072

420

326

956

686

135

571

226

173

112

314

213

304

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TABLE XXII
Reduced Biaxial Gage Results
Printed as Single Gages
Forward Extension

556000 200 INCH MULTICELL		26 JULY 1965	
SINGLE STRAIN GAGES		PSI	U ₂ 0.000
GAGE	004	080	180
	04.4 PSI(1/2 Full)	10.0 PSI	20.0 PSI
0314	16	250	535
		146	654
<hr/>			
GAGE	240	280	301
	24.0 PSI	28.0 PSI	4.4 PSI(1/2 Full)
0314	635	1031	126
		741	281
<hr/>			
GAGE	022	011	000
	02.2 PSI(1/2 Full)	01.1 PSI(1/2 Full)	(Final Zero)
0314	374	181	246