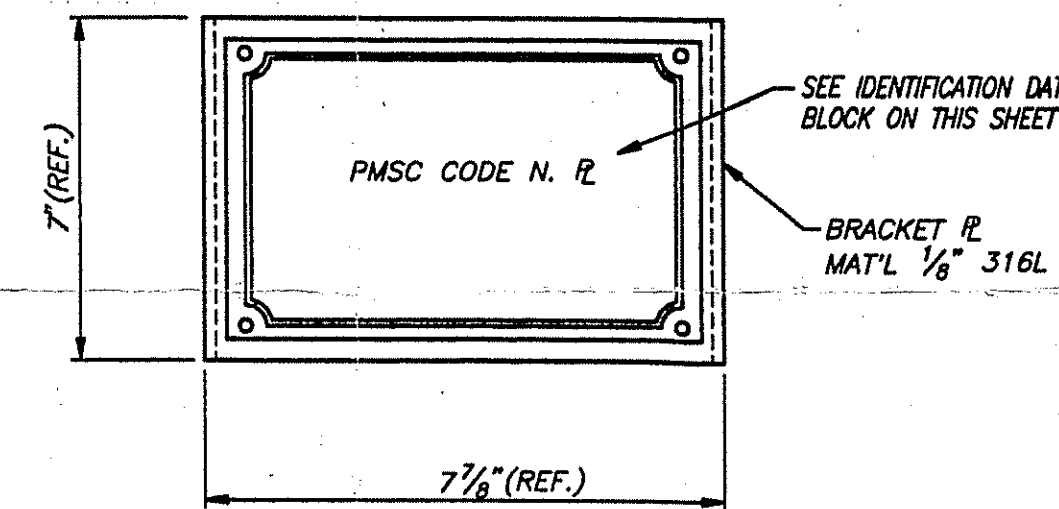
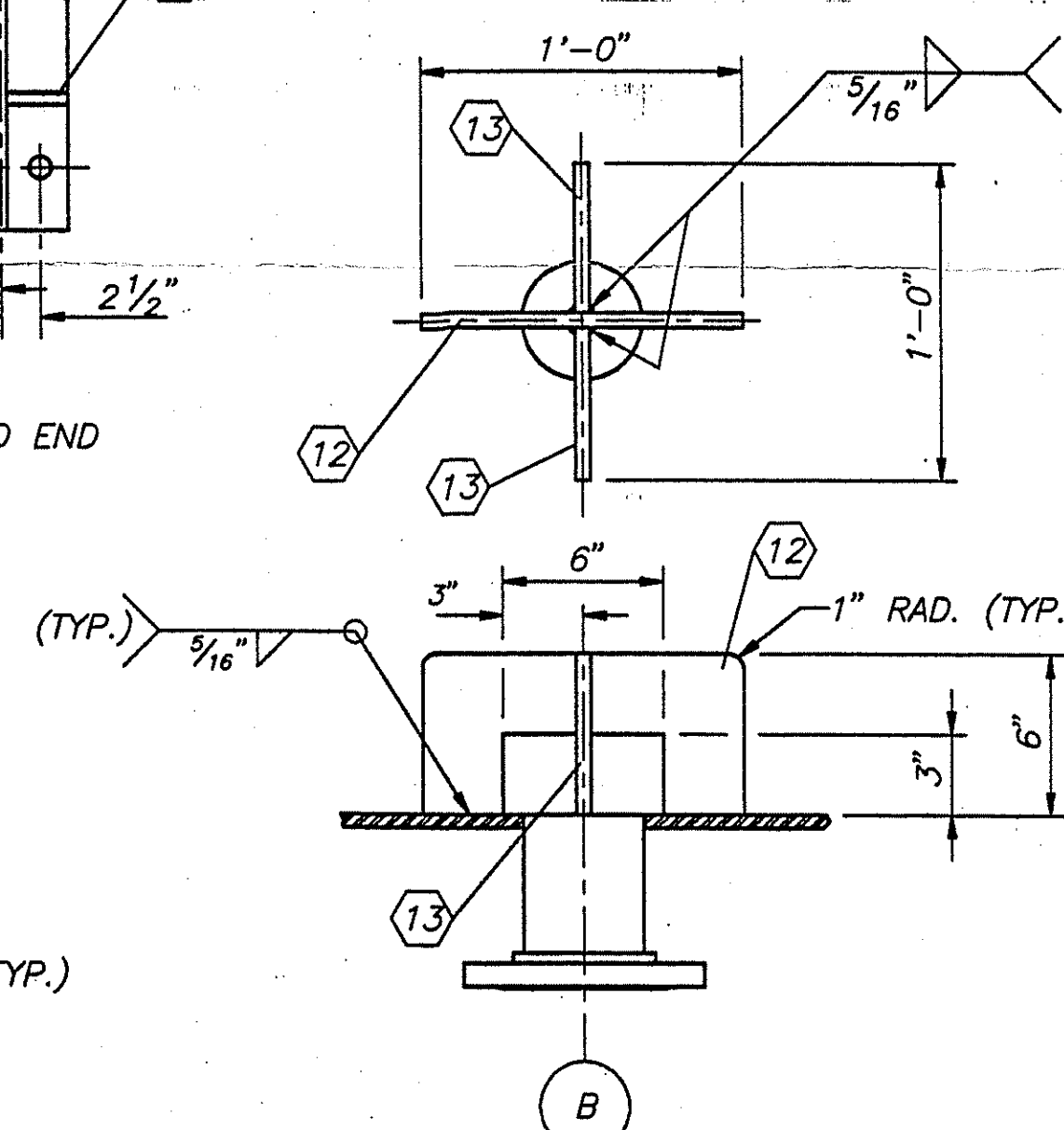
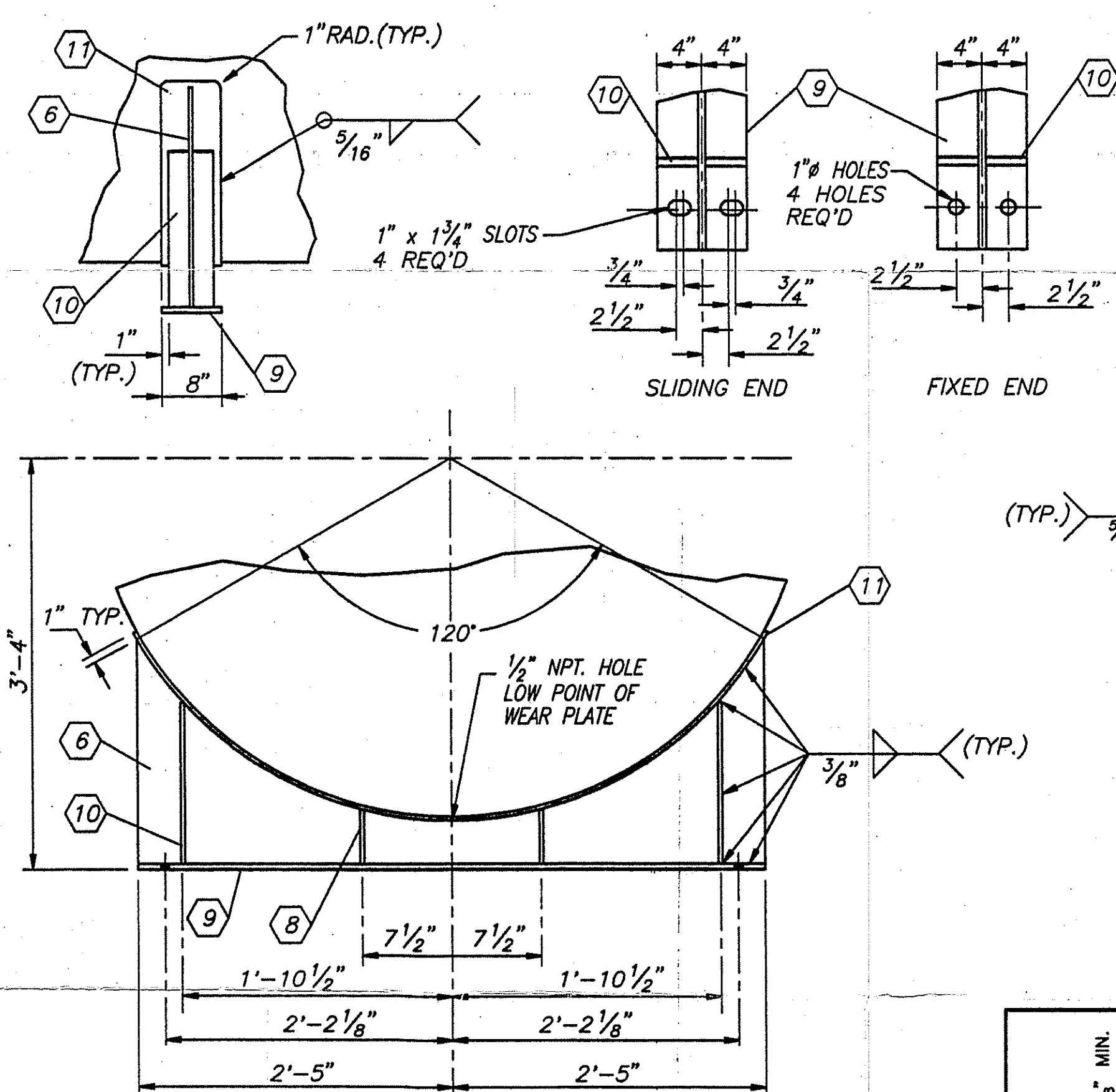
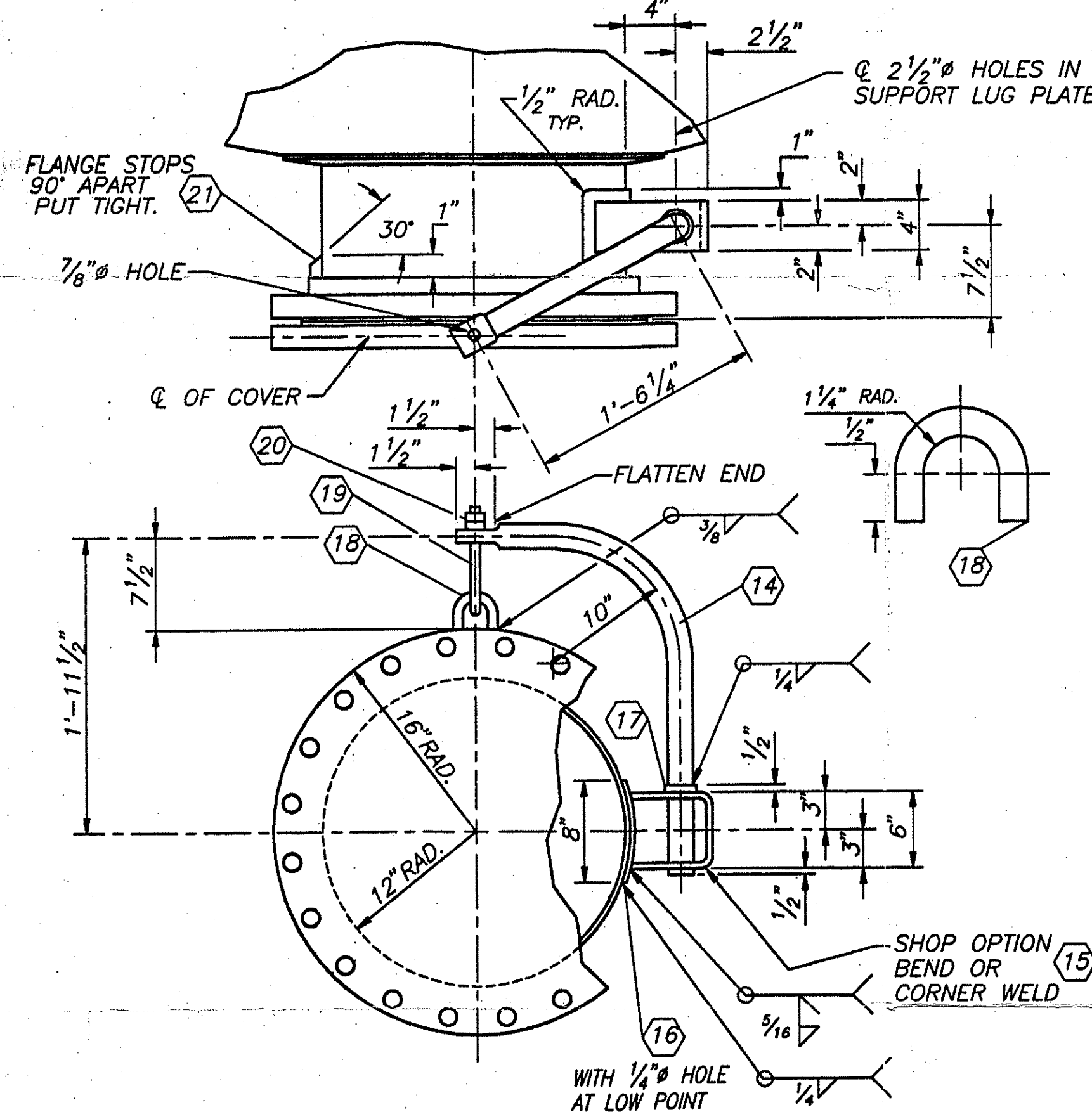
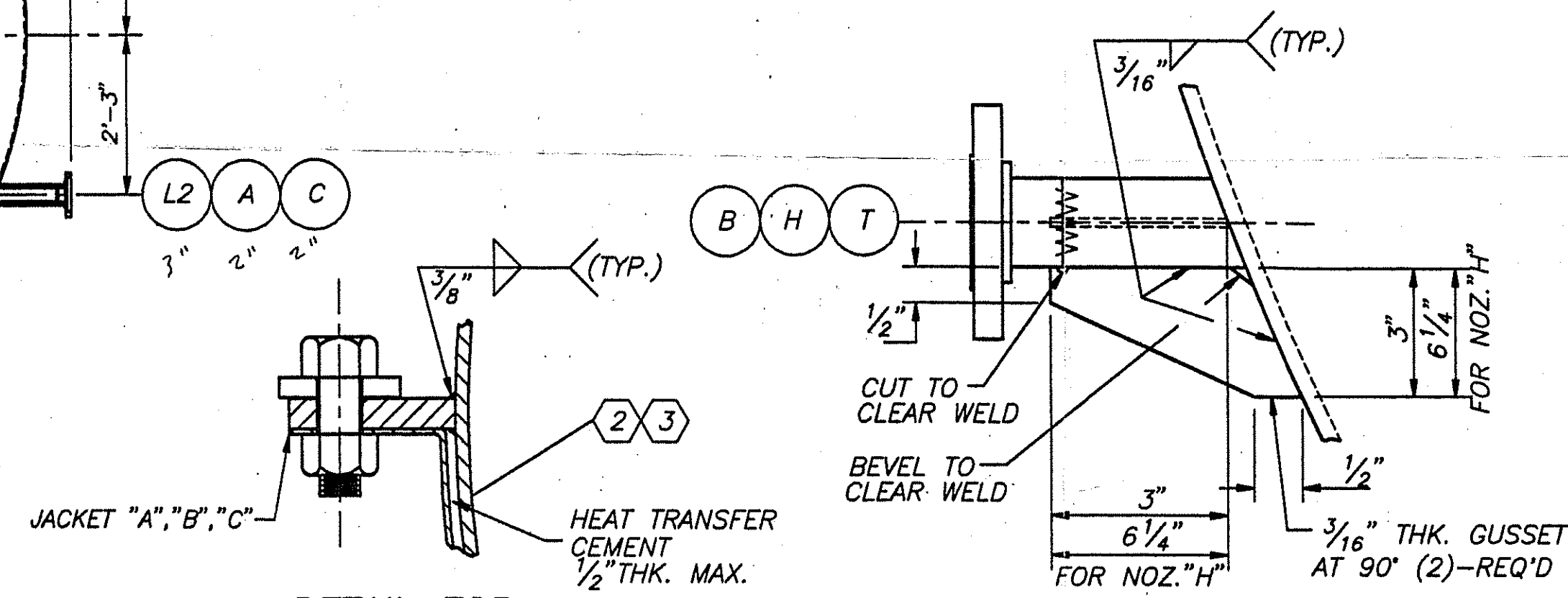
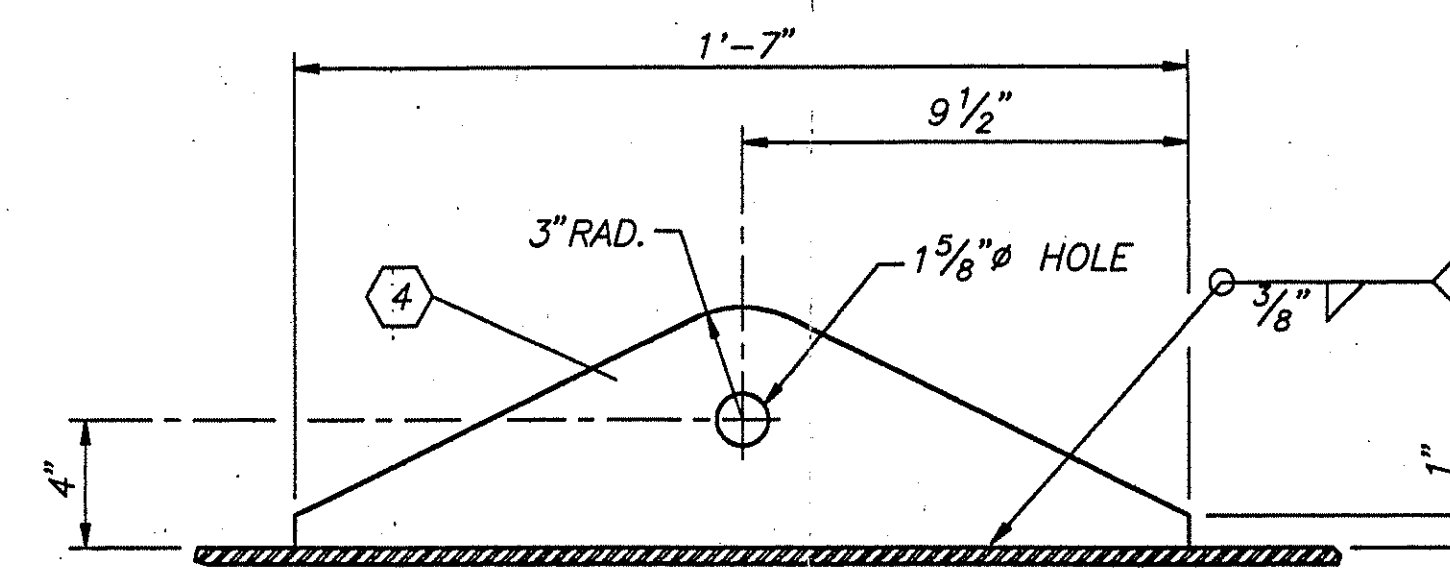
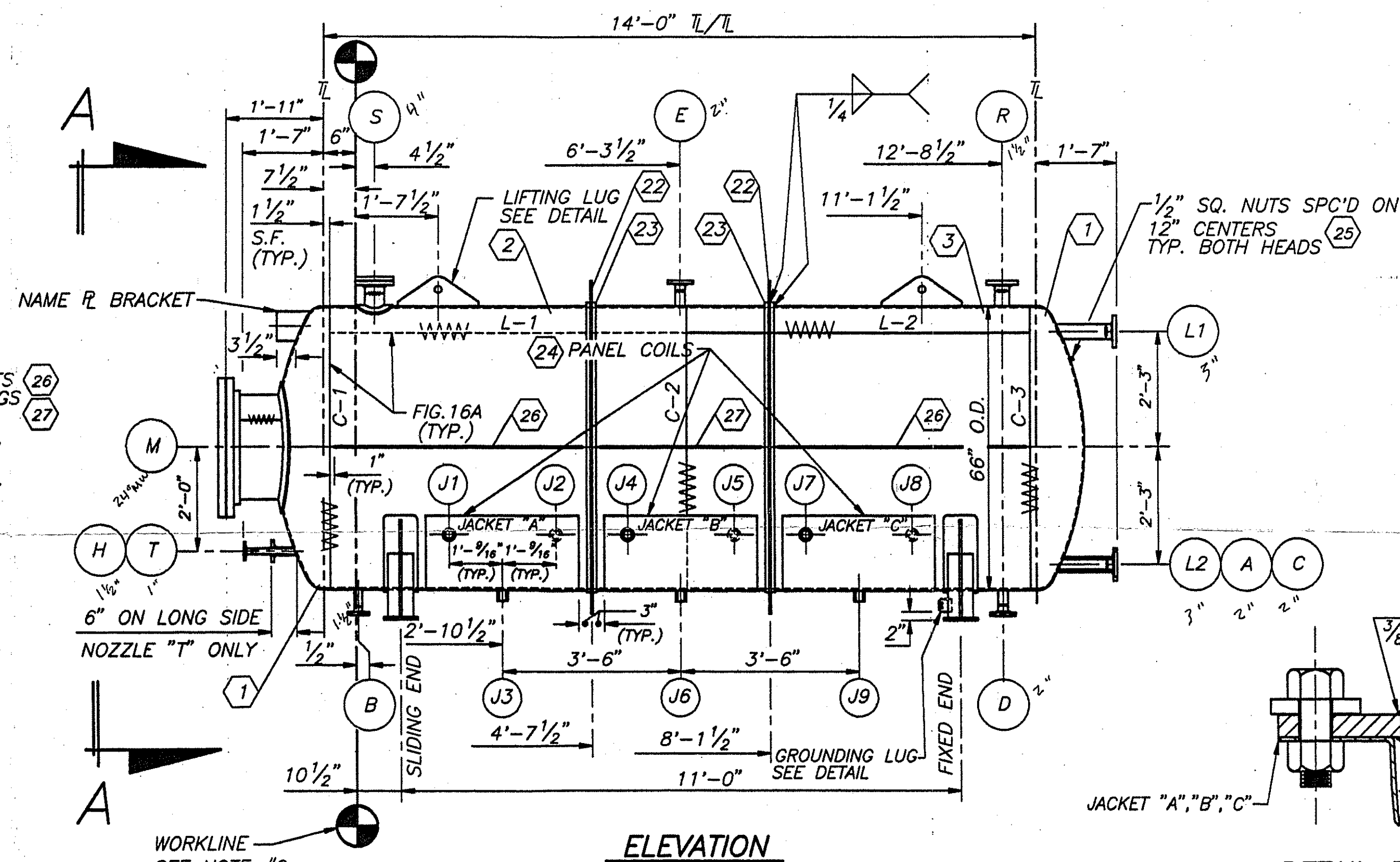
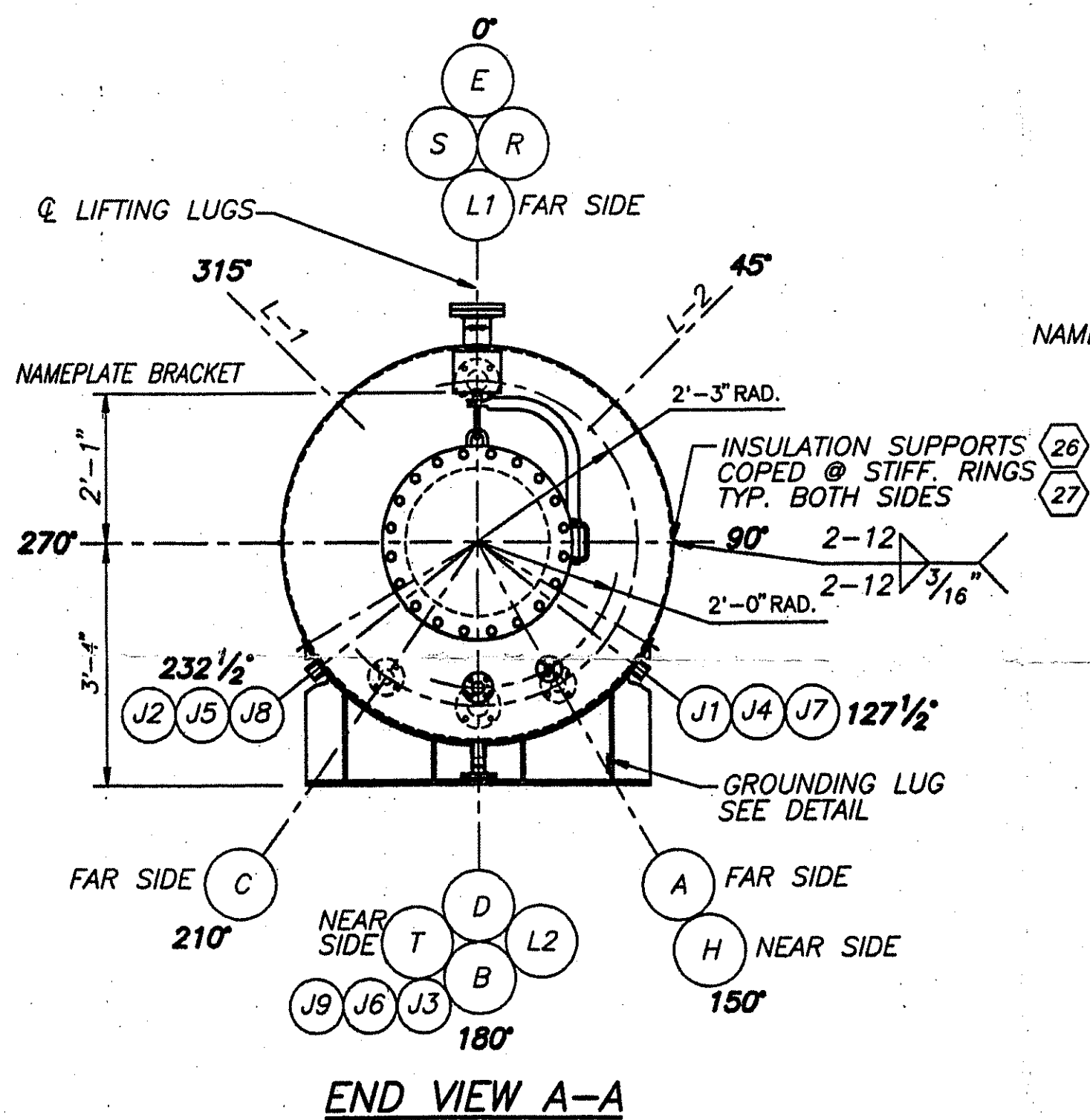
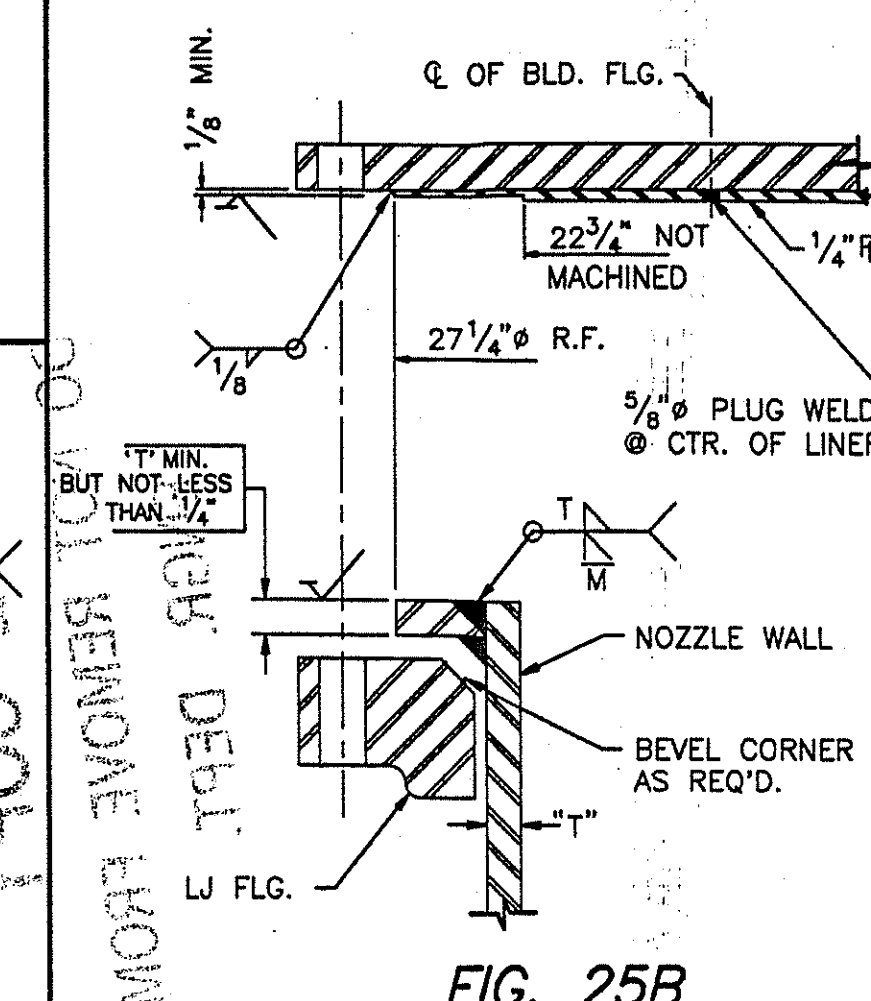
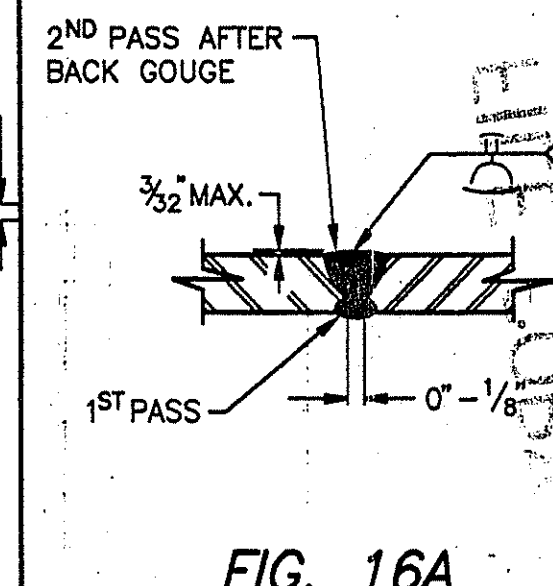
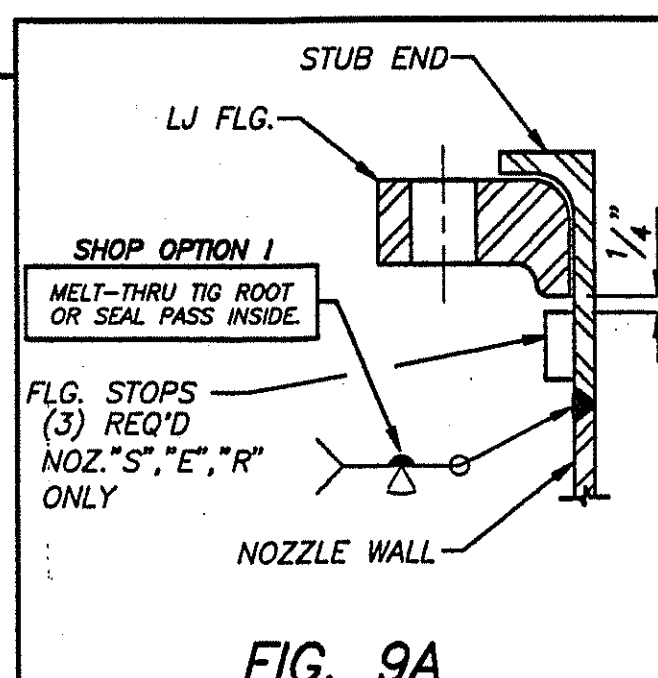
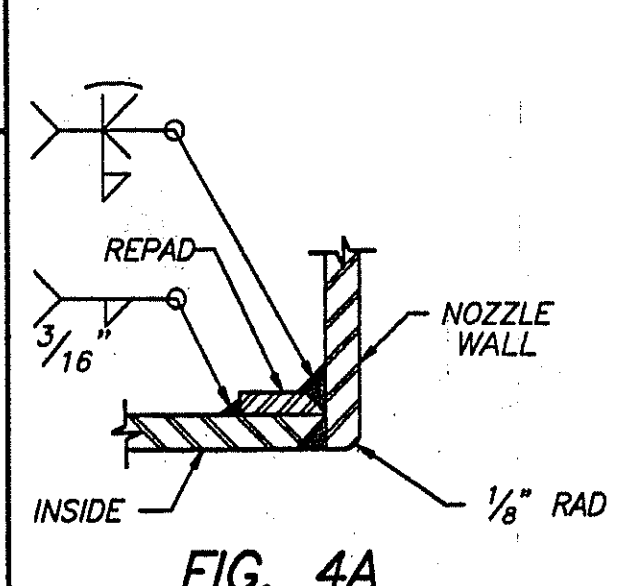
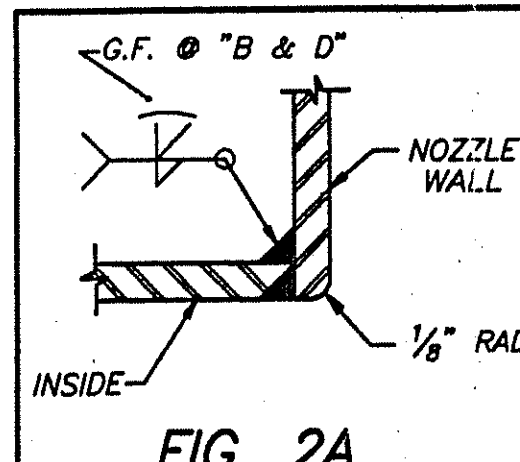
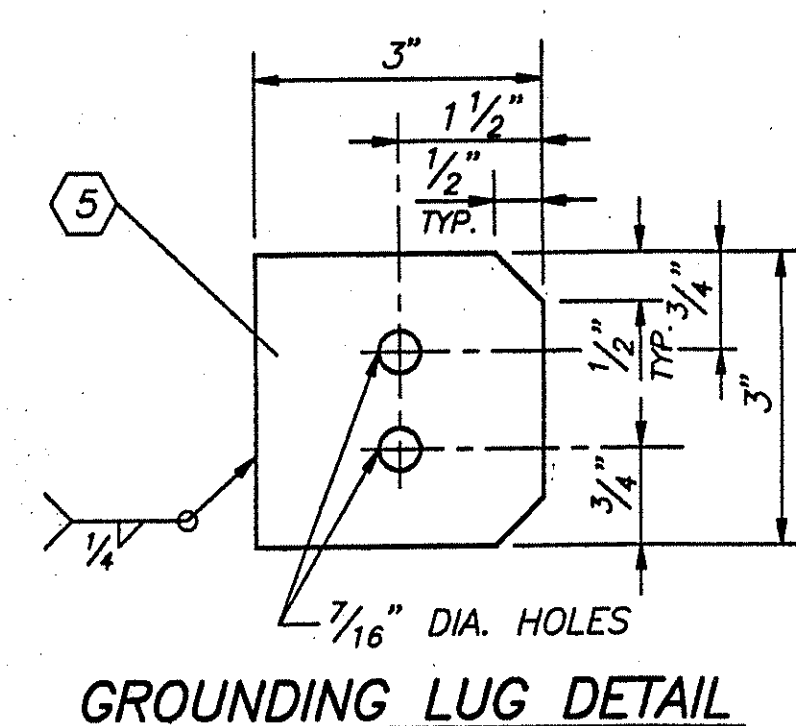


REVIEWED  
Eng R.B. Date 3/25/94  
Q.C.            Date           

**CERTIFIED** **APR 13 1994**  
**PLANT MAINTENANCE SERVICE CORP.**

| NOZZLE SCHEDULE               |   |        |       |        |       |    |            |      |      |       |      |       |                 |
|-------------------------------|---|--------|-------|--------|-------|----|------------|------|------|-------|------|-------|-----------------|
|                               |   |        |       |        |       |    |            |      |      |       |      |       |                 |
| T                             | 1 | 1 1/2" | 150#  | S.E.   | L.J.  | 0" | SEE<br>FLY | ---  | 9A   | 5/16" | 2A   |       | THERMOWELL      |
| S                             | 1 | 4"     | 150#  | S.E.   | L.J.  | 0" | 6"         | ---  | 9A   | 1/4"  | 4A   |       | SPARE W/ BLIN   |
| R                             | 1 | 1 1/2" | 150#  | S.E.   | L.J.  | 0" | 6"         | ---  | 9A   | 1/4"  | 2A   |       | PRESSURE RELIE  |
| M                             | 1 | 24"    | 150#  | PLATE  | L.J.  | 0" | ---        | ---  | 25B  | 1/4"  | 4A   |       | MANWAY W/DAN    |
| L2                            | 1 | 3"     | 150#  | S.E.   | L.J.  | 0" | SEE<br>FLY | ---  | 9A   | 5/16" | 2A   |       | LEVEL           |
| L1                            | 1 | 3"     | 150#  | S.E.   | L.J.  | 0" | SEE<br>FLY | ---  | 9A   | 5/16" | 2A   |       | LEVEL           |
| J7, J8                        | 2 | 2"     | 3000# | SCR'D. | CPLG. | 0" | ---        | ---  | ---  | ---   | ---  |       | JACKET "C" OUTL |
| J3, J6, J9                    | 3 | 2"     | 3000# | SCR'D. | CPLG. | 0" | ---        | ---  | ---  | ---   | ---  |       | JACKET INLET    |
| J4, J5                        | 2 | 2"     | 3000# | SCR'D. | CPLG. | 0" | ---        | ---  | ---  | ---   | ---  |       | JACKET "B" OUTL |
| J1, J2                        | 2 | 2"     | 3000# | SCR'D. | CPLG. | 0" | ---        | ---  | ---  | ---   | ---  |       | JACKET "A" OUTL |
| H                             | 1 | 1"     | 150#  | S.E.   | L.J.  | 0" | SEE<br>FLY | ---  | 9A   | 1/4"  | 2A   |       | PUMP RECIRCULA  |
| E                             | 1 | 2"     | 150#  | S.E.   | L.J.  | 0" | 6"         | ---  | 9A   | 1/4"  | 2A   |       | VENT            |
| D                             | 1 | 2"     | 150#  | S.E.   | L.J.  | 0" | 6"         | ---  | 9A   | 1/4"  | 2A   |       | DRAIN           |
| C                             | 1 | 2"     | 150#  | S.E.   | L.J.  | 0" | SEE<br>FLY | ---  | 9A   | 1/4"  | 2A   |       | PUMP RECYCLE IN |
| B                             | 1 | 1 1/2" | 150#  | S.E.   | L.J.  | 0" | 6"         | ---  | 9A   | 5/16" | 2A   |       | LIQUID OUTLET   |
| A                             | 1 | 2"     | 150#  | S.E.   | L.J.  | 0" | SEE<br>FLY | ---  | 9A   | 1/4"  | 2A   |       | FEED INLET      |
| Q <sub>U</sub> A <sub>N</sub> |   | SIZE   | RAT'G | FACE   | TYPE  |    | I.S.       | O.S. | SIZE | FIG.  | SIZE | FIG.  | SERVICE         |
|                               |   |        |       |        |       |    | PROL.      |      | WELD | /FLG. | WELD | /SH/L |                 |



| <b>DESIGN PRESSURE (PSIG)</b>                |            |                        |             |
|----------------------------------------------|------------|------------------------|-------------|
| <b>DESIGN TEMP. (DEG °F)</b>                 | 50/FV      | N/A                    | 150         |
| <b>HYDRO TEST</b>                            | 300        | N/A                    | 300         |
| <b>RADIOGRAPH SEE NOTE 11</b>                | 79         | N/A                    | N/A         |
| <b>CORR. ALLOW</b>                           | SPOT       | N/A                    | N/A         |
| <b>STRESS RELIEVE</b>                        | 1/8"       | N/A                    | N/A         |
| <b>APPROX. WT. EMPTY</b>                     | NONE       |                        |             |
| <b>JOINT EFFICIENCY PER CODE TABLE UW-12</b> | 8100#      |                        |             |
| <b>SPECIFICATIONS</b>                        | HEAD GIRTH | SHELL LONG             | SHELL GIRTH |
|                                              | 85 %       | 85 %                   | 85 %        |
|                                              |            | HERCULES STD. #BGS-3T5 |             |

## IDENTIFICATION DATA

|                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                 |                                            |                                                               |                                                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|--------------------------------------------|---------------------------------------------------------------|-------------------------------------------------|
| <div style="border: 1px solid black; width: 60px; height: 60px; margin: 0 auto; text-align: center; font-size: 2em; line-height: 60px;">U</div> <p style="text-align: center; margin: 5px 0;">W<br/>RT-3</p> | <div style="display: flex; justify-content: space-between;"> <span><b>NAT'L. BD. NO.</b> <span style="border: 1px solid black; display: inline-block; width: 150px; height: 20px;"></span></span> <span><b>CERTIFIED BY</b> _____</span> </div> <div style="text-align: center; margin: 10px 0;">  <p><b>PLANT B</b>                  <b>MEMPHIS, TN</b></p> </div> <table style="width: 100%;"> <tr> <td style="width: 50%;"> <b>TUBE SIDE</b>    ---<br/> <b>M.A.W.P.</b>     SHELL SIDE <b>50/FV</b> </td> <td style="width: 50%;"> <b>PSI AT</b>        ---<br/> <b>PSI</b>              <b>300</b> </td> </tr> <tr> <td> <b>TUBE SIDE</b>    ---<br/> <b>M.D.M.T.</b>     SHELL SIDE <b>-20</b> </td> <td> <b>' F AT</b>         ---<br/> <b>' F AT</b>         <b>FV/50</b> </td> </tr> </table> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 10px;"> <div> <b>SERIAL NO.</b>           Y-588<br/> <b>YEAR BUILT</b>         1994         </div> <div style="border: 1px solid black; width: 100px; height: 20px;"></div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <span><b>ITEM NO. T-1212-7</b></span> <span><b>P.O. NO. 21833</b></span> </div> | <b>TUBE SIDE</b> ---<br><b>M.A.W.P.</b> SHELL SIDE <b>50/FV</b> | <b>PSI AT</b> ---<br><b>PSI</b> <b>300</b> | <b>TUBE SIDE</b> ---<br><b>M.D.M.T.</b> SHELL SIDE <b>-20</b> | <b>' F AT</b> ---<br><b>' F AT</b> <b>FV/50</b> |
| <b>TUBE SIDE</b> ---<br><b>M.A.W.P.</b> SHELL SIDE <b>50/FV</b>                                                                                                                                              | <b>PSI AT</b> ---<br><b>PSI</b> <b>300</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                 |                                            |                                                               |                                                 |
| <b>TUBE SIDE</b> ---<br><b>M.D.M.T.</b> SHELL SIDE <b>-20</b>                                                                                                                                                | <b>' F AT</b> ---<br><b>' F AT</b> <b>FV/50</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                 |                                            |                                                               |                                                 |

## NOTES

1. ALL BOLT HOLES TO STRADDLE PRINCIPAL VESSEL CENTERLINES UNLESS OTHERWISE NOTED.
2. EACH NOZZLE & MANHOLE REINFORCING PAD OR SEGMENT THEREOF SHALL HAVE ONE (1) 1/8" M.P.T. TEST HOLE LOCATED AT LOWEST POINT.
3. VESSEL SHALL BE CLEANED INSIDE & OUTSIDE, FREE OF DIRT, GREASE, DEBRIS, LOOSE MILL SCALE, WELD SPATTER, ETC.
4. WIRE BRUSH ALL WELDS & BREAK ALL SHARP EDGES.
5. INSTALL MASONITE PROTECTORS ON ALL OPENINGS BEFORE SHIPPING.
6. PROTECT ALL MACHINED SURFACES WITH A RUST PREVENTATIVE BEFORE SHIPPING.
7. LIFTING LUGS ARE INSTALLED TO SET THIS UNIT INITIALLY WHEN EMPTY ONLY.
8. INSPECTED BY: Q.C. ✓, A.I. ✓, CUSTOMER ✓.
9. ALL TAIL DIMENSIONS ARE TO THE WORKLINE WHERE APPLICABLE. WORKLINE TO BE PERMANENTLY STAMPED ON THE BOTTOM OF VESSEL ON APPROXIMATELY 6" CENTERS.
10. SURFACE PREP. & PAINTING REQUIREMENT:
  - A) CARBON STEEL SURFACES (PER HERCULES SPEC. 11CS-698)
 

SURFACE PREPARATION: COMBUSTIBLE BLAST CLEANING PER SSPC-SP6

PRIME COAT: CARBOZINC 11 HS, 3 MILS MIN. D.F.T.

5 MIL MAX D.F.T.

MD COAT: CARBOLINE 890, 4 MILS MIN. D.F.T.

7 MIL MAX D.F.T.

TOP COAT: CARBOLINE 134 HS, 2 MILS MIN. D.F.T.

3 MILS MAX. D.F.T.

NOTE: PRIMER ZINC CONTENT TO BE 85WT% MIN.
  - B) INSULATED STAINLESS STEEL SURFACES:
 

(PER HERCULES SPEC. 11CS-674)

SURFACE PREPARATION: SOLVENT CLEANING PER SSPC-SPI, HAND POL. CLEAN PER SSPC-P2, AND

APPROPRIATE VISUAL STANDARDS FOR IR IN SSPC-V1s.1.

BASE COAT: PPG PITT-THERM 97-724.

TOP COAT: SAME AS BASE COAT.

TOTAL MIN. D.F.T. TO BE 1.5 MILS AT ANY POINT ON SURFACE
11. VESSEL SHALL BE SPOT-RADIOGRAPHED ON ALL BUTT WELDS. CATEGORY "C" & "D" WELD JOINTS SHALL BE TESTED BY DYE-PENETRANT OR ULTRASONIC MEANS.
12. ALL HEADS PREFERRED HOT FORMED. IF COLD FORMED, THEY MUST BE INSPECTED AND DYE PENETRANT CHECKED. STAINLESS HELDS MUST BE FULLY SOLUTION ANNEALED, WATER QUENCHED, AND PICKLED AFTER FORMING.
13. MTR'S REQUIRED FOR ALL PRESSURE PARTS. TRANSFER HEAT NUMBERS.
14. SEE SPEC. #5CS-375, PARA. #5.5 FOR WELD. REQ'D.
15. TOLERANCES PER SPEC. #5CS-375, PARA. #5.3.
16. VESSEL ITEM NO. SHALL BE PAINTED ON OUTSIDE SURFACE WITH 3" HIGH LETTERING.
17. ALL FLANGE GASKET SURFACES SHALL BE 125 RMS FINISH.
18. USE STD. SAE FLANGE FOR HYDRO TEST. INSTALL SERVICE GASKET ON TOP OF BOAT & SHIP ONE SPARE SERVICE GASKET FOR EACH BUNCHED #2, & MANWAY.

|     |         |                          |               |
|-----|---------|--------------------------|---------------|
| ①   | 4/12/94 | RELEASED ALL HOLDS       | DDN/<br>B.S.  |
| ①   | 3/25/94 | RELEASED FOR FABRICATION | B.B./<br>B.S. |
| ①   | 3/1/94  | FOR APPROVAL             | B.B.          |
| NO. | DATE    | REVISION                 | BY            |



#103031

**PLANT MAINTENANCE SERVICE CORP.**

3000 FITE ROAD MEMPHIS, TENN.

**JOB:** ONE (1) 66" O.D. X 14'-0" T/T

HORIZ. STRIPPER REFLUX TANK

**LOCATION:** WILMINGTON, NC.

**OWNER/USER:** CAPE INDUSTRIES

**PURCH./ENG.:** GLITSCH TECHNOLOGY CORP.

|                       |                          |
|-----------------------|--------------------------|
| <b>P.O. NO.</b> 21833 | <b>ITEM NO.</b> T-1212-7 |
| <b>SCALE</b> NONE     | <b>DWG. BY</b> B.B.      |
| <b>DATE</b> 3/1/94    | <b>CHK. BY</b> P.S.      |

**ORDER NO.** Y-588

**DWG. NO.** Y-588-D

**SHT. 1 OF 1**

**FORM U-1A MANUFACTURERS' DATA REPORT FOR PRESSURE VESSELS**  
(Alternate Form for Single Chamber, Completely Shop-Fabricated Vessels Only)

as required by the provisions of the ASME Code rules, Section VIII, Division 1

B-Shop

# 103931

- Manufactured and certified by Plant Maintenance Service Corp. 3690 Fite Rd., Memphis, TN  
(name and address of manufacturer)
- Manufactured for Glitsch Inc., Dallas TX  
(name and address of purchaser)
- Location of installation Cape Industries, Wilmington, NC  
(name and address)
- Type: Stripper Reflux TK Y-588 Y-588D 234 1994  
(horiz. or vert., tank) (mfr's serial no.) (CRN) (drawing no.) (Nat'l Bd. no.) (year built)
- The chemical and physical properties of all parts meet the requirements of material specifications of the ASME BOILER AND PRESSURE VESSEL CODE. The design, construction and workmanship conform to ASME Code, Section VIII, Division 1: 1992  
(addenda (date)) (Code Case no.) (Special service per UG-120(d))
- Shell: SA240T316L 3/8 1/8 5-5 1/4 13-9  
(mat'l (spec. no., grade)) (nom. thickness (in.)) (corr. allow. (in.)) (dia. ID (in.)) (length (overall) (ft. & in.))
- Seams: Type 1 Spot 85 NA NA Type 1 Spot 2  
(long. (welded, dbl., singl. lap, butt)) (RT (spot or full)) (eff. (%) (HT temp. (°F)) (time (hr.)) (girth (welded, dbl., singl. lap, butt)) (RT (spot, partial, or full)) (no. of courses)
- Heads: (a) SA240T316L (b) SA240T316L  
(mat'l (spec. no., grade)) (mat'l (spec. no., grade))

|     | Location (top, bottom, ends) | Minimum Thickness | Corrosion Allowance | Crown Radius | Knuckle Radius | Elliptical Ratio | Conical Apex Angle | Hemispherical Radius | Flat Diameter | Side to Pressure (convex or concave) |
|-----|------------------------------|-------------------|---------------------|--------------|----------------|------------------|--------------------|----------------------|---------------|--------------------------------------|
| (a) | End                          | .351"             | .125"               | 66"          | 6%             |                  |                    |                      |               | Both                                 |
| (b) | End                          | .351"             | .125"               | 66"          | 6%             |                  |                    |                      |               | Both                                 |

If removable, bolts used (describe other fastenings):

\*\*\* (mat'l spec. no., gr. size, no.)

- MAWP: EV/50 at max. temp. 300 Min design metal temp. -20 at EV/50 Hydro. 6000 test pressure 79  
(psig) (°F) (psig)

- Nozzles, inspection and safety valve openings: \*

| Purpose (inlet, outlet, drain, etc.) | No. | Dia. or Size | Type | Mat'l | Nom. Thickness | Reinforcement Mat'l | How Attached | Location |
|--------------------------------------|-----|--------------|------|-------|----------------|---------------------|--------------|----------|
|                                      |     |              |      |       |                |                     |              |          |
|                                      |     |              |      |       |                |                     |              |          |
|                                      |     |              |      |       |                |                     |              |          |
|                                      |     |              |      |       |                |                     |              |          |
|                                      |     |              |      |       |                |                     |              |          |

SEE U-4 FORM

- Supports: Skirt NO Lugs NA Legs NA Other 2 Saddles Attached Welded to shell  
(yes or no) (no.) (describe) (where & how)

- Remarks: Manufacturers' Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report:

(name of part, item number, mfr's name and identifying stamp)

\* Relief protection per paragraph UG-125 must be provided by customer.  
\*\* Charpy impact tests exempt per paragraphs UHA-51(A) and UCS-66 (a)(c)(d).  
Two (2) 1/2" X 67" ID X 104" OD Stiffening rings installed on shell.

**CERTIFICATE OF SHOP COMPLIANCE**

We certify that the statements made in this report are correct and that all details of design, material, construction, and workmanship of this vessel conform to the ASME Code for Pressure Vessels, Section VIII, Division 1. "U" Certificate of Authorization no. 618 expires 2-24-1995.

Date 5/16/94 Name Plant Maintenance Service Corp. Signed John H. Hinkle  
(manufacturer) (representative)

**CERTIFICATE OF SHOP INSPECTION**

Vessel constructed by Plant Maintenance Service Corp. at Memphis, TN

I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and the state or province of Tennessee and employed by Commercial Union Insurance Company

of Boston, MA have inspected the component described in this Manufacturers' Data Report on 5-16 1994 and

State that, to the best of my knowledge and belief, the manufacturer has constructed this pressure vessel in accordance with the ASME Code Section VIII, Division 1. By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in the Manufacturers' Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 5-16 1994 Signed [Signature] Commissions NB# 89092, TN# 2370  
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) state, prov. and no.)