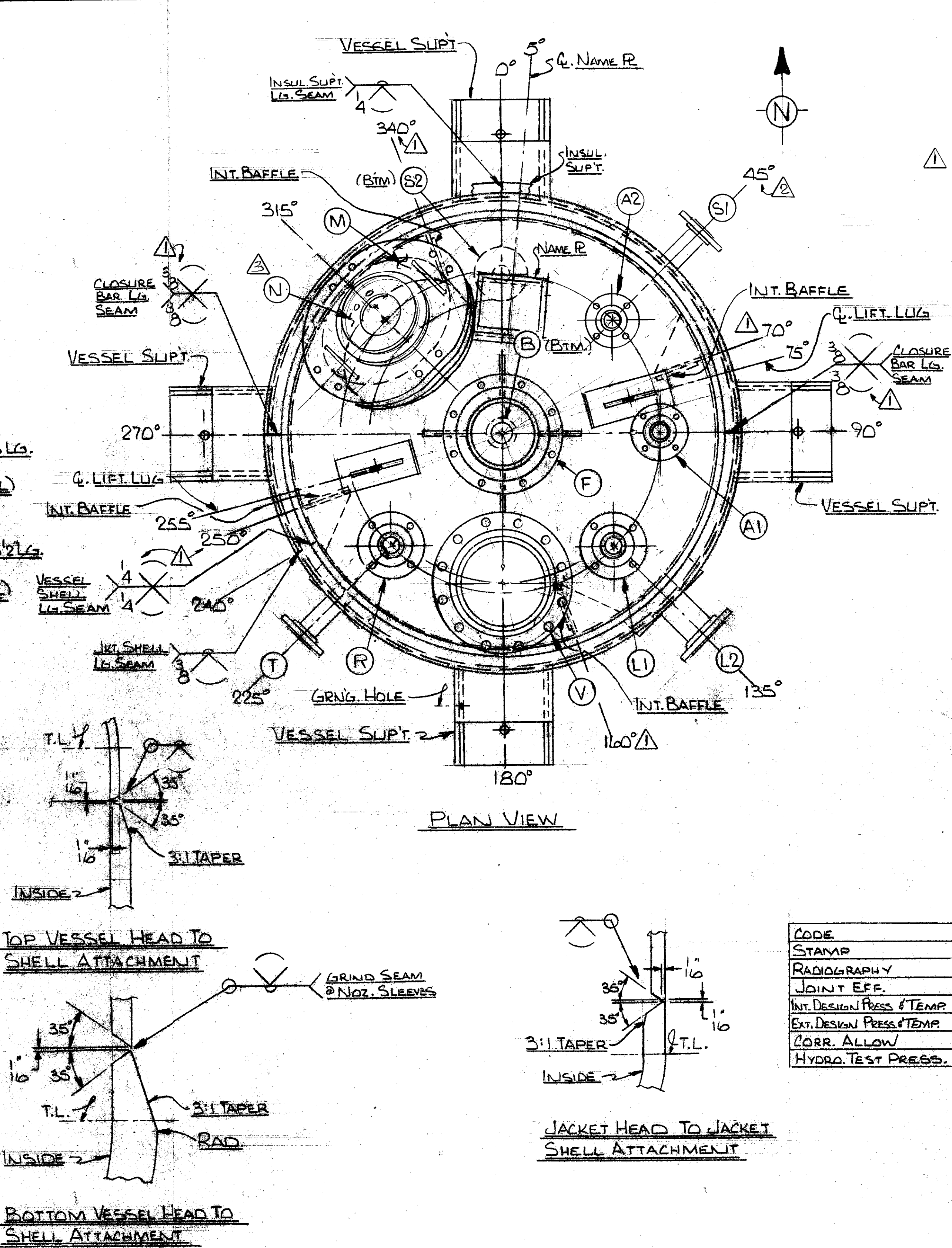




|                                                            |                                                         |                                              |                                              |
|------------------------------------------------------------|---------------------------------------------------------|----------------------------------------------|----------------------------------------------|
| <p>1/16" to 1/8" FLG</p> <p>NOZZLE</p> <p>1/8" R. TANK</p> | <p>FLG</p> <p>NOZZLE</p> <p>1/8" R. TANK</p>            | <p>NOZZLE</p> <p>"A"</p> <p>1/8" R. TANK</p> | <p>NOZZLE</p> <p>"A"</p> <p>1/8" R. TANK</p> |
| <p>NOZZLE</p> <p>"A"</p> <p>PAD</p> <p>1/8" R. TANK</p>    | <p>NOZZLE</p> <p>"A"</p> <p>PAD</p> <p>1/8" R. TANK</p> | <p>NOZZLE</p> <p>"A"</p> <p>1/8" R. TANK</p> | <p>NOZZLE</p> <p>"A"</p> <p>1/8" R. TANK</p> |

**NOZZLE WELDING ATTACHMENT DETAILS**

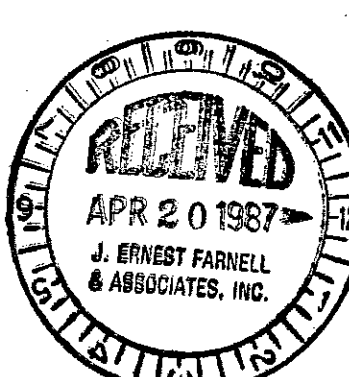
| M   | N       | 5'   | 1                          | 14" R. PAD W/ GLASS & 1" COVER | 3"   | —     | —     | DET. SH1 | 0"  | DET. SH2 | —    | —    | SEE DET. SH1 | —        | —     | SIGHT GLASS                                |
|-----|---------|------|----------------------------|--------------------------------|------|-------|-------|----------|-----|----------|------|------|--------------|----------|-------|--------------------------------------------|
| N   | 12" 1/2 | 1    | 14" R. FLG. W/ 1" BLD FLG. | 3"                             | —    | —     | —     | DET. SH1 | 0"  | DET. SH2 | —    | —    | SEE DET. SH1 | —        | —     | MANWAY                                     |
| V   | 10"     | 1    | 150" R.F. S.O. FLG.        | 3"                             | —    | —     | —     | SEE FLG. | 0"  | 14"      | —    | —    | SEE DET. SH2 | 113      | #5    | VENT (TO X-221-1)                          |
| T   | 2"      | 1    | 150" R.F. S.O. FLG.        | 40S                            | —    | —     | —     | SEE FLG. | 0"  | 3/8      | 1/4  | 3/16 | 113          | —        | —     | TEMPERATURE TRANSMITTER                    |
| E2  | 2"      | 1    | 150" R.F. S.O. FLG.        | 40S                            | —    | —     | —     | SEE FLG. | 0"  | 3/8      | 1/4  | 3/16 | 113          | —        | —     | STEAM CONDENSATE OUTLET (HEAD OUTLET)      |
| S1  | 2"      | 1    | 150" R.F. S.O. FLG.        | 40S                            | —    | —     | —     | SEE FLG. | 0"  | 3/8      | 1/4  | 3/16 | 113          | —        | —     | STEAM INLET (SHELL JACKET)                 |
| R   | 3"      | 1    | 150" R.F. S.O. FLG.        | 40S                            | —    | —     | —     | SEE FLG. | 0"  | 1/4      | —    | 1/4  | 113          | —        | —     | RELIEF NOZZLE (PSE)                        |
| L2  | 3"      | 1    | 150" R.F. S.O. FLG.        | 40S                            | —    | —     | —     | SEE FLG. | 0"  | 3/8      | 1/4  | 1/4  | 113          | —        | —     | LEVEL TRANSMITTER                          |
| L1  | 3"      | 1    | 150" R.F. S.O. FLG.        | 40S                            | —    | —     | —     | SEE FLG. | 0"  | 1/4      | —    | 1/4  | 113          | —        | —     | LEVEL TRANSMITTER                          |
| F   | 8"      | 1    | 150" R.F. S.O. FLG.        | 40S                            | —    | —     | —     | SEE FLG. | 0"  | 14       | —    | 14   | 113          | —        | —     | AGITATOR                                   |
| B   | 3"      | 1    | 150" R.F. S.O. FLG.        | 40S                            | —    | —     | —     | SEE FLG. | 0"  | 3/8      | 1/4  | 1/4  | 113          | —        | —     | OUTLET (TO P-21-B)                         |
| A2  | 2"      | 1    | 150" R.F. S.O. FLG.        | 40S                            | —    | —     | —     | SEE FLG. | 0"  | 3/8      | 1/4  | 1/4  | 113          | —        | —     | INLET (RECIRC. F.R. P-21-B)                |
| A1  | 2"      | 1    | 150" R.F. S.O. FLG.        | 40S                            | —    | —     | —     | SEE FLG. | 0"  | 3/8      | 1/4  | 1/4  | 113          | —        | —     | OUTLET (F.R. T-21-B)<br>MARK STRAP BOTTOMS |
| MK. | SIZE    | QTY. | RATING & TYPE              |                                | THK. | THK.  | WIDTH | O/S      | I/S | WELD     | WELD | WELD | ATTACH.      | FIG. NO. | NOTES | SERVICE/REMARKS                            |
|     |         |      |                            |                                | NECK | REIN. | PROJ. |          |     | "A"      | "B"  | "C"  |              |          |       |                                            |

**NOZZLE SCHEDULE**

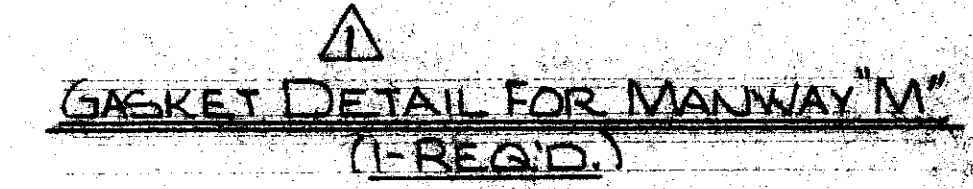
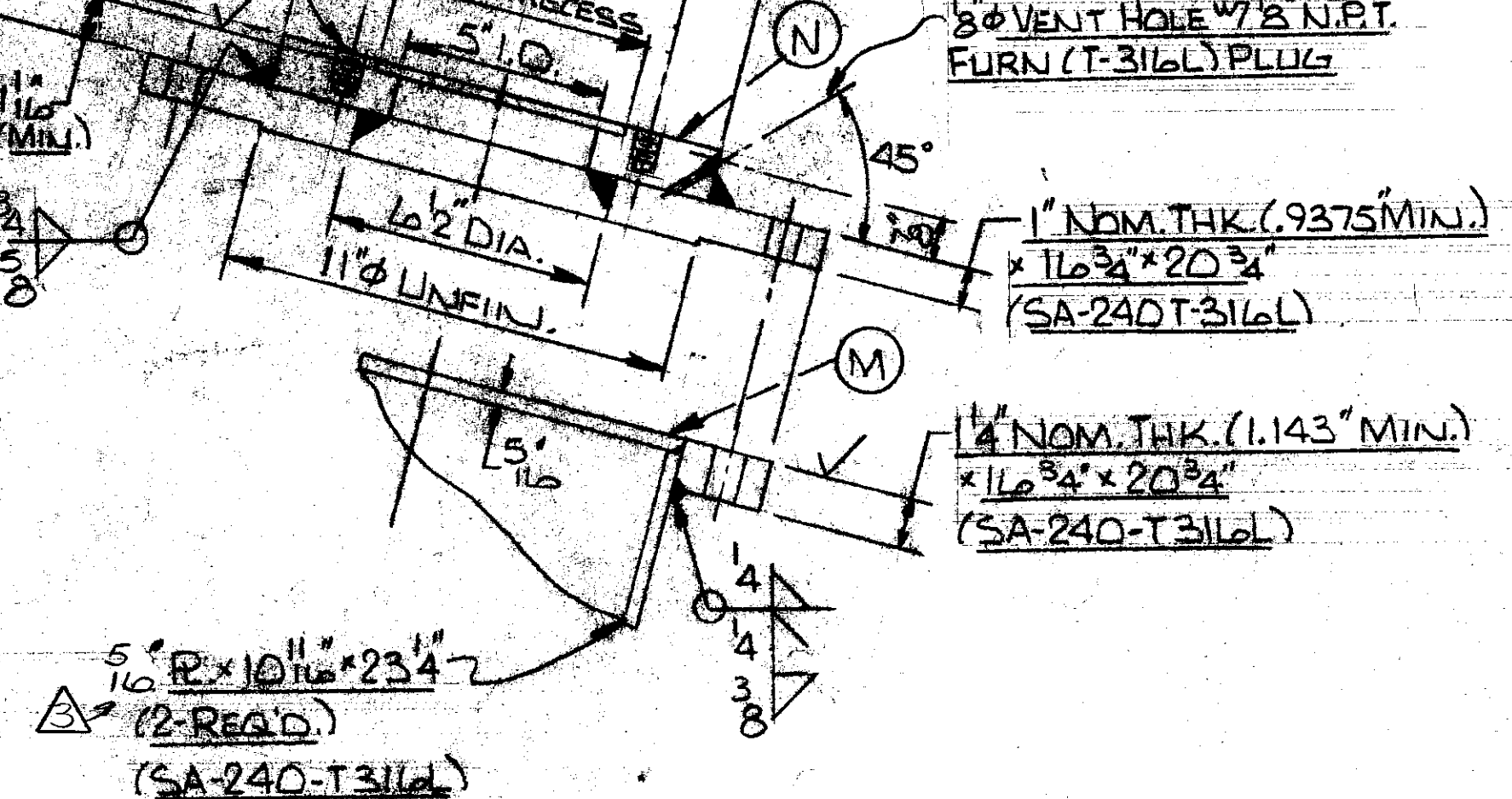
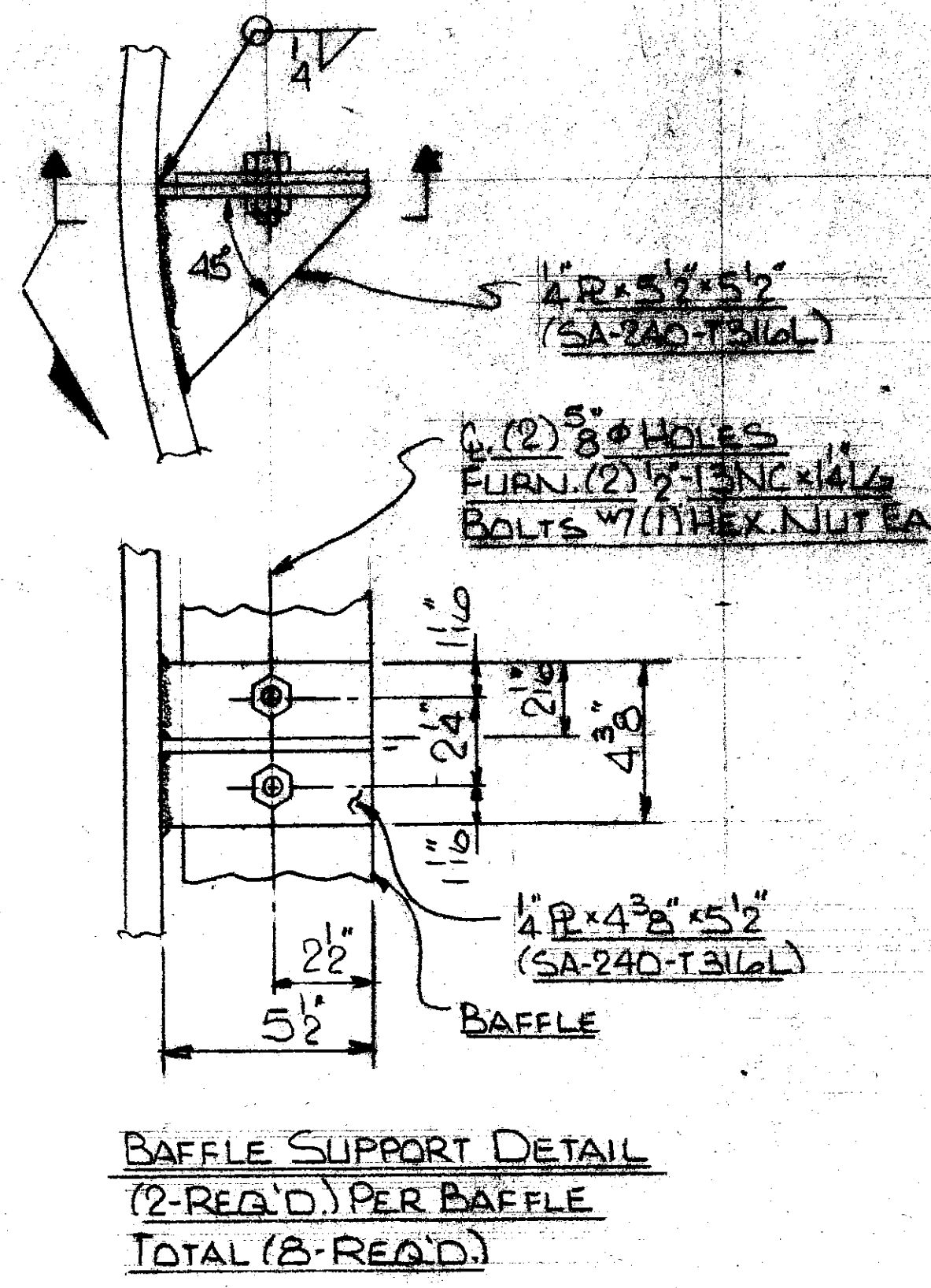
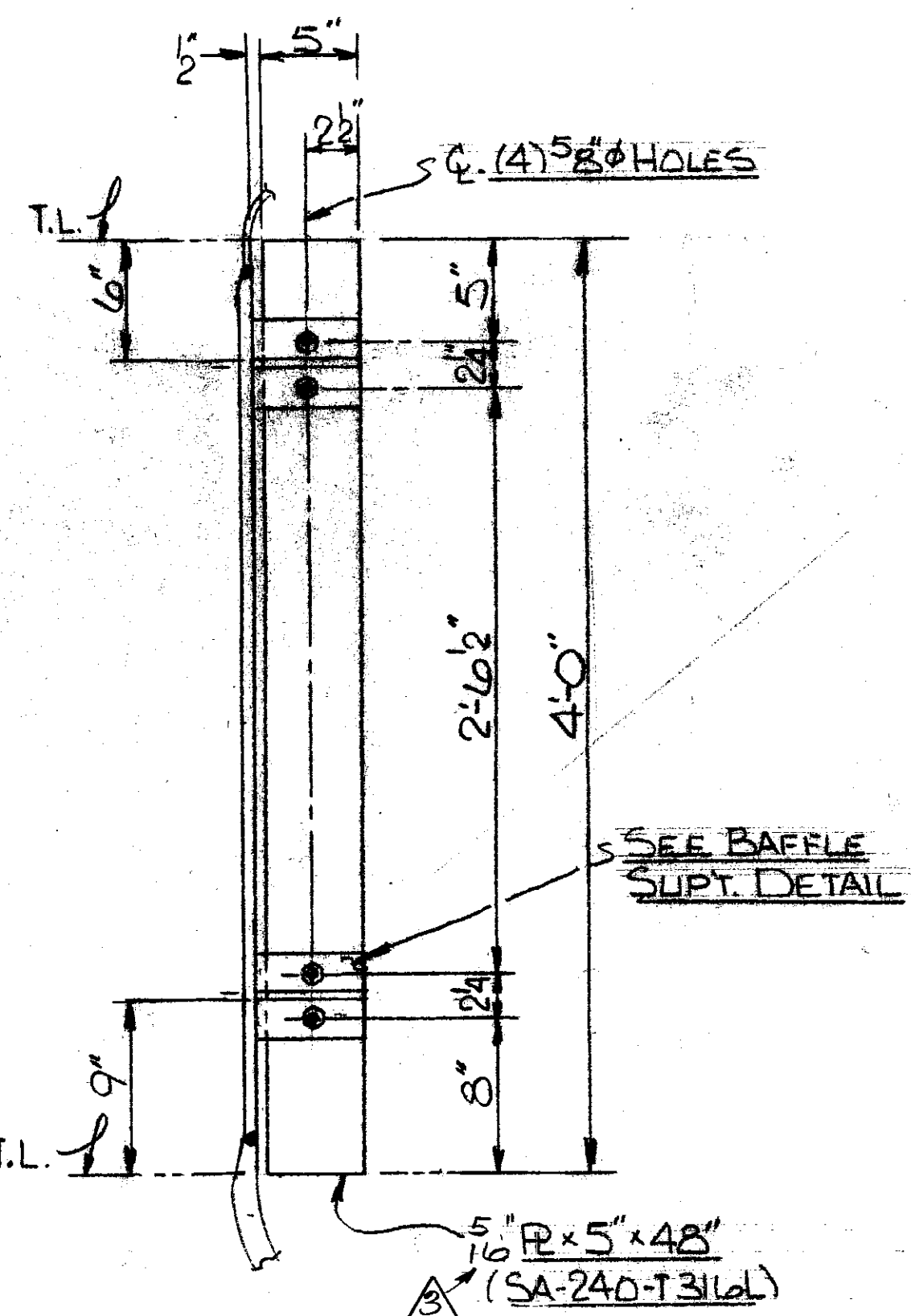
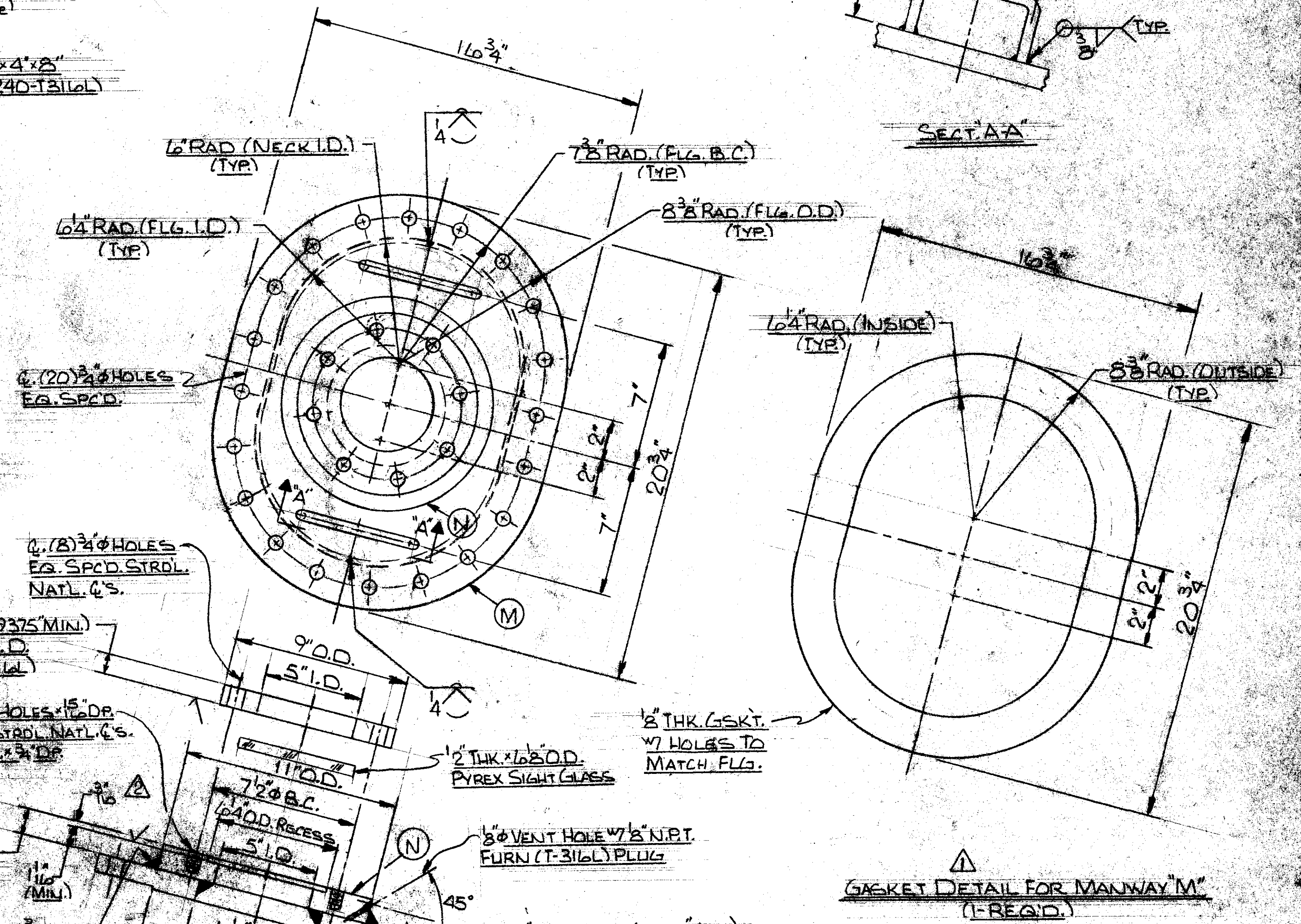
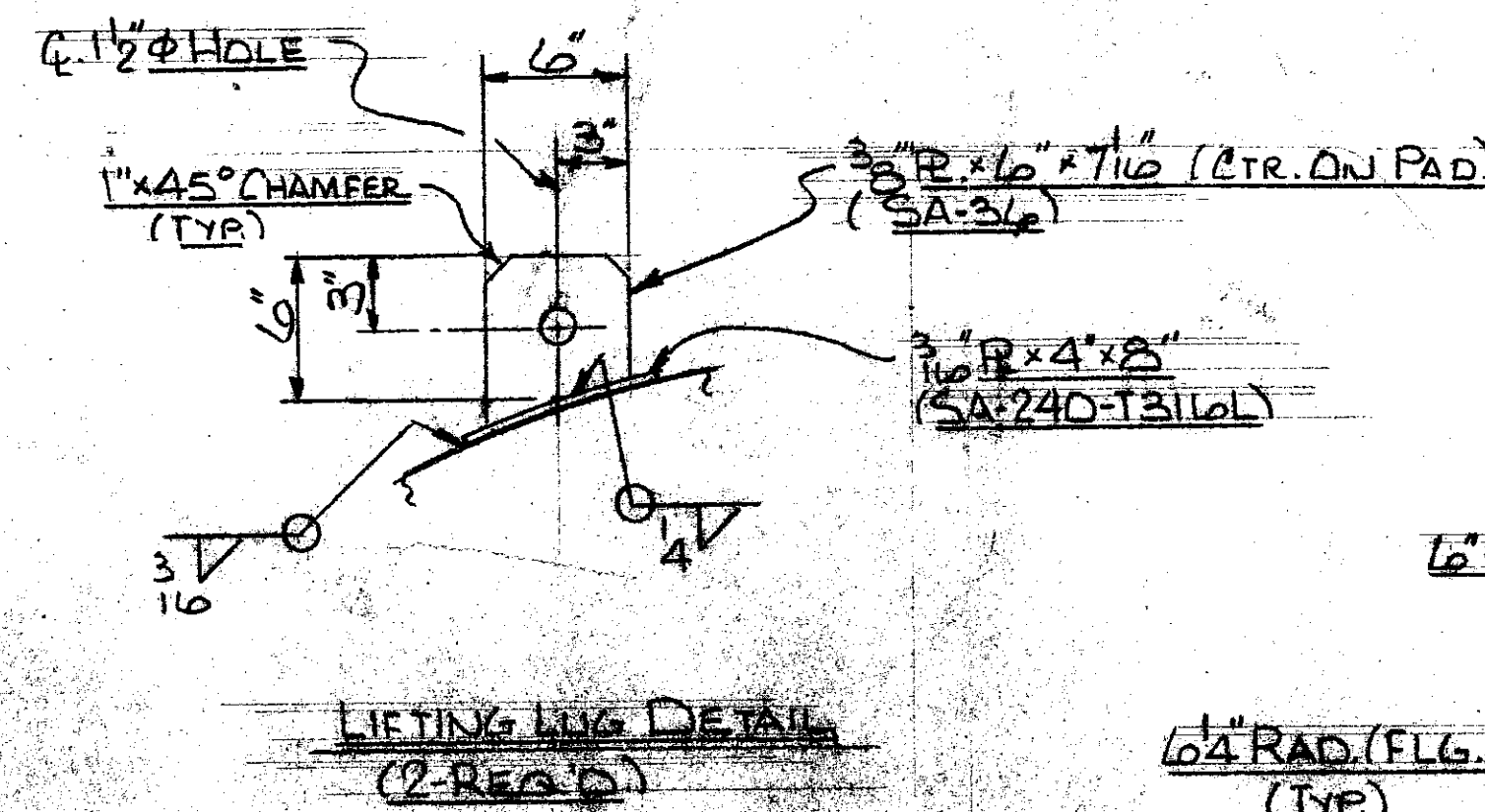
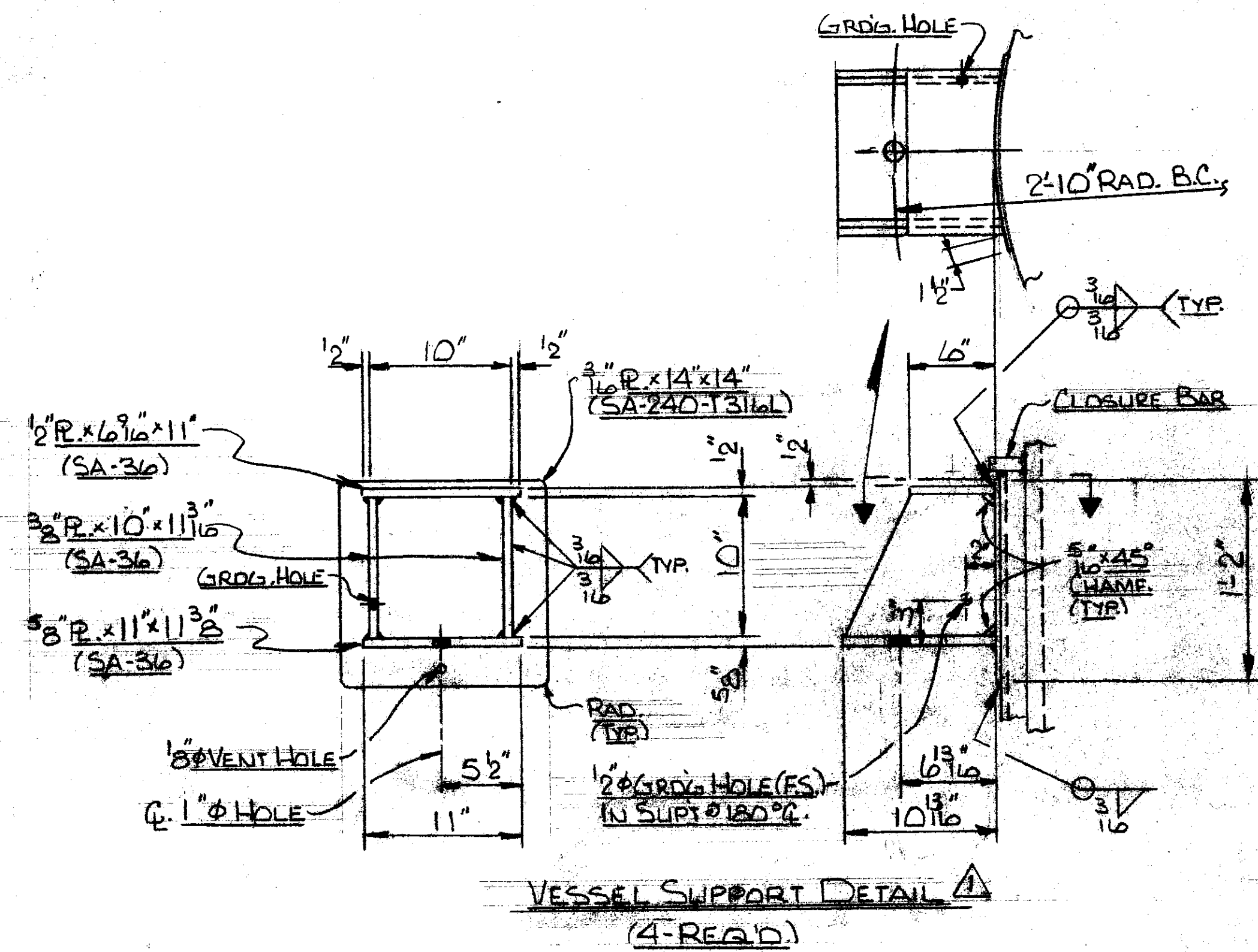
|     |     |         |                                                                                                         |
|-----|-----|---------|---------------------------------------------------------------------------------------------------------|
| 4   | JMS | 4-18-87 | REV'D. THK OF NECK OF MW'Y'M' FROM 1/4" TO 9/16" DUE TO MAT'L AVAILABILITY & ADDED NECK TO HEAD WELDING |
| 3   | JMS | 3-18-87 | ADDED SIGHT GLASS "N" & INCREASED PROJ FROM 1-2" TO 2-0" FROM T.L. PER CUST. REQUEST                    |
| 2   | JMS | 3-4-87  | REV'D ORIENT OF NOZZ A2 FS1 FROM 30° TO 45° PER CUST. REQUEST 3-4-87                                    |
| 1   | JMS | 2-24-87 | REV'D PER CUST. MK'D. PRINT DATED 2-18-87                                                               |
| NO. | BY  | DATE    | CHK'D                                                                                                   |
|     |     |         | REVISIONS (SHOWN BY Δ)                                                                                  |

- | VESSEL                                                                                                 |  | JACKET                            |  |
|--------------------------------------------------------------------------------------------------------|--|-----------------------------------|--|
| ASME SECT VIII DIV I (WINTER 85)                                                                       |  | ASME SECT VIII DIV II (WINTER 85) |  |
| YES                                                                                                    |  | YES                               |  |
| SPOT                                                                                                   |  | SPOT                              |  |
| 85%                                                                                                    |  | 85%                               |  |
| 15 PSI @ 400°F                                                                                         |  | 15 PSI @ 400°F                    |  |
| 15 PSI @ 400°F                                                                                         |  | 15 PSI @ 400°F                    |  |
| NONE                                                                                                   |  | NONE                              |  |
| 23 PSI @                                                                                               |  | 1-11 PSI @ 400°F                  |  |
| ALL WELDED CONSTRUCTION PER                                                                            |  |                                   |  |
| ALPHA PRODS: SC-1, SS-1, ASME SEC I & TS-1 G                                                           |  |                                   |  |
|                                                                                                        |  |                                   |  |
|                                                                                                        |  |                                   |  |
| WIND LOAD                                                                                              |  | SEISMIC ZONE                      |  |
| INSUL THK = 1/2"                                                                                       |  | (BY OTHERS)                       |  |
| SANDBLAST (CARBON STEEL ONLY)                                                                          |  |                                   |  |
| COMMERCIAL BLAST PER SPEC                                                                              |  |                                   |  |
| PAINT (CARBON STEEL ONLY) APPLY (1) COAT OF                                                            |  |                                   |  |
| CARBONIZING* 11 GRAY TO A TOTAL DFT OF 3 MILS.                                                         |  |                                   |  |
|                                                                                                        |  |                                   |  |
| HOW SHIPPED                                                                                            |  |                                   |  |
| <input checked="" type="checkbox"/> COMPLETE <input type="checkbox"/> IN SECTIONS (SEE SHIPPING NOTES) |  |                                   |  |

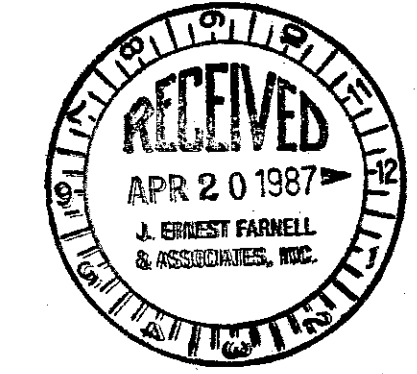
|                                                                                                                                                                                                                                                                             |              |                                       |               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------------------------------|---------------|
| CERTIFIED FOR CONST. 2/26/87 BY RC HAN                                                                                                                                                                                                                                      |              |                                       |               |
| CUST. P.O. NO. 25-501-PD 0031                                                                                                                                                                                                                                               |              | RA                                    |               |
| REF. DWGS. SK-25-501-V-821B J.E. FARNELL & ASSOC.                                                                                                                                                                                                                           |              |                                       |               |
| REF. SPEC.                                                                                                                                                                                                                                                                  |              |                                       |               |
| VESSEL ITEM NO. V-821-B                                                                                                                                                                                                                                                     |              |                                       |               |
| EST. WT. TANK EMPTY<br>6,500 LBS.                                                                                                                                                                                                                                           |              | EST. WT. FULL OF WATER<br>11,000 LBS. |               |
|                                                                                                                                                                                        |              |                                       |               |
| ALPHA TANK & METALS MFG. CO.                                                                                                                                                                                                                                                |              |                                       |               |
| ST. LOUIS, MO.                                                                                                                                                                                                                                                              |              |                                       |               |
| (1) 4'-0" I.D. VESSEL 74'-0" O.D. J.G. CYCLONIZER                                                                                                                                                                                                                           |              |                                       |               |
| <div style="display: flex; justify-content: space-between;"> <div>             (A) INDUSTRIAL DEVELOPMENT BOARD OF MOBILE, ALA.<br/>             (B) KAY-FRIES INC.<br/>             THEODORE, ALABAMA           </div> <div>             U.S. UNIT           </div> </div> |              |                                       |               |
| DRN. BY S. J. HAN                                                                                                                                                                                                                                                           | DATE 11/6/87 | EST. 7022                             | NO. D-31659-4 |
| CHKD. BY RS                                                                                                                                                                                                                                                                 | SCALE NONE   | JOB 31659                             | SHEET 1 OF 2  |



# 99065



| NO. | BY  | DATE    | CHK'D | REVISIONS (SHOWN BY)                                        |
|-----|-----|---------|-------|-------------------------------------------------------------|
| 3   | JMS | 4-14-87 | 12    | REV'D THK OF NECK OF MWY 'M' & INT. BAFFLES FROM 1/4\"      |
| 2   | JMS | 3-13-87 | 10    | ADDED SIGHT GLASS 'N' & INCREASED NECK OF MWY 'M' PER CUST. |
| 1   | JMS | 2-25-87 | 10    | REV'D PER CUST. MK'D. PRINT DATED 2-18-87                   |



|                                                                                                        |              |
|--------------------------------------------------------------------------------------------------------|--------------|
| SEE SHEET 1 FOR MATERIAL & GENERAL NOTES                                                               |              |
| SEE FOLLOWING DWG'S FOR DETAILS NOT SHOWN:                                                             |              |
| LEGEND:  PIECE MARK                                                                                    |              |
| TOTAL NO. REQ'D. PER TANK                                                                              |              |
| CODE A.S.M.E. Sect VIII Div. 1 ADDENDA WITH PER AS STAMP YES                                           |              |
| RADIOGRAPHY SPOT STRESS RELIEVE NONE                                                                   |              |
| HOW SHIPPED                                                                                            |              |
| <input checked="" type="checkbox"/> COMPLETE <input type="checkbox"/> IN SECTIONS (SEE SHIPPING NOTES) |              |
| CERTIFIED FOR CONST. 2/24/87 BY                                                                        |              |
| CUST. P.O. NO. 28-501-PO 0037 J.E. FARNELL & ASSOC.                                                    |              |
| REF. DWGS. SK-28-501-V-021-5                                                                           |              |
| REF. SPEC.                                                                                             |              |
| VESSEL ITEM NO. V-821-B                                                                                |              |
| #99065                                                                                                 |              |
| ALPHA TANK & METALS MFG. CO.                                                                           |              |
| ST. LOUIS, MO.                                                                                         |              |
| MISCELLANEOUS DETAILS FOR CYAD CONCENTRATOR                                                            |              |
| INDUSTRIAL DEVELOPMENT BOARD OF MOBILE, ALA.                                                           |              |
| A. KAY - FRIES, INC. THEODORE, ALABAMA                                                                 |              |
| DRN. BY SULLIVAN                                                                                       | DATE 1-16-87 |
| EST. 1032                                                                                              | NO. D-2119-3 |
| CHKD. BY 10                                                                                            | SCALE NONE   |
| JOB 8459                                                                                               | SHEET 2      |