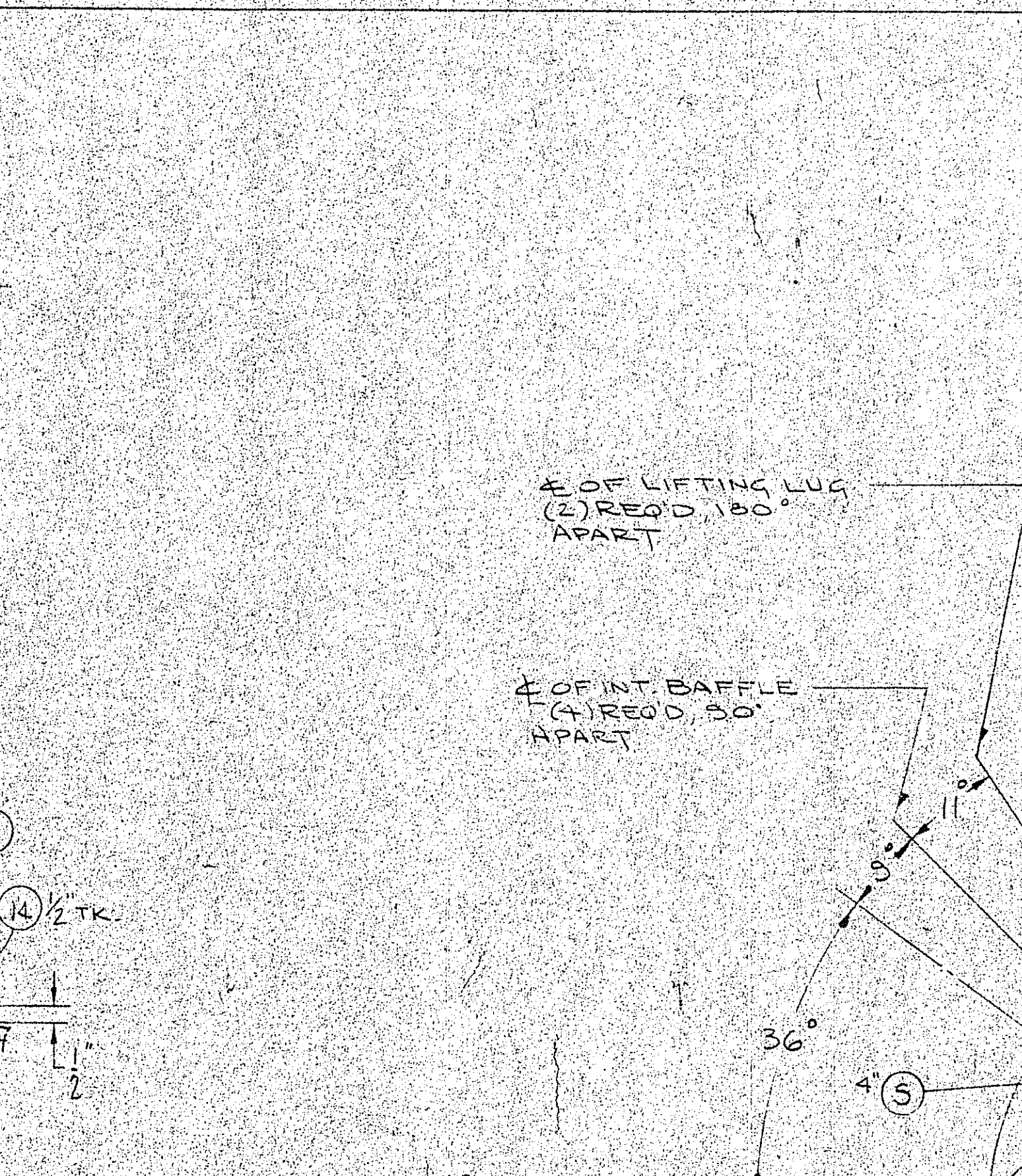
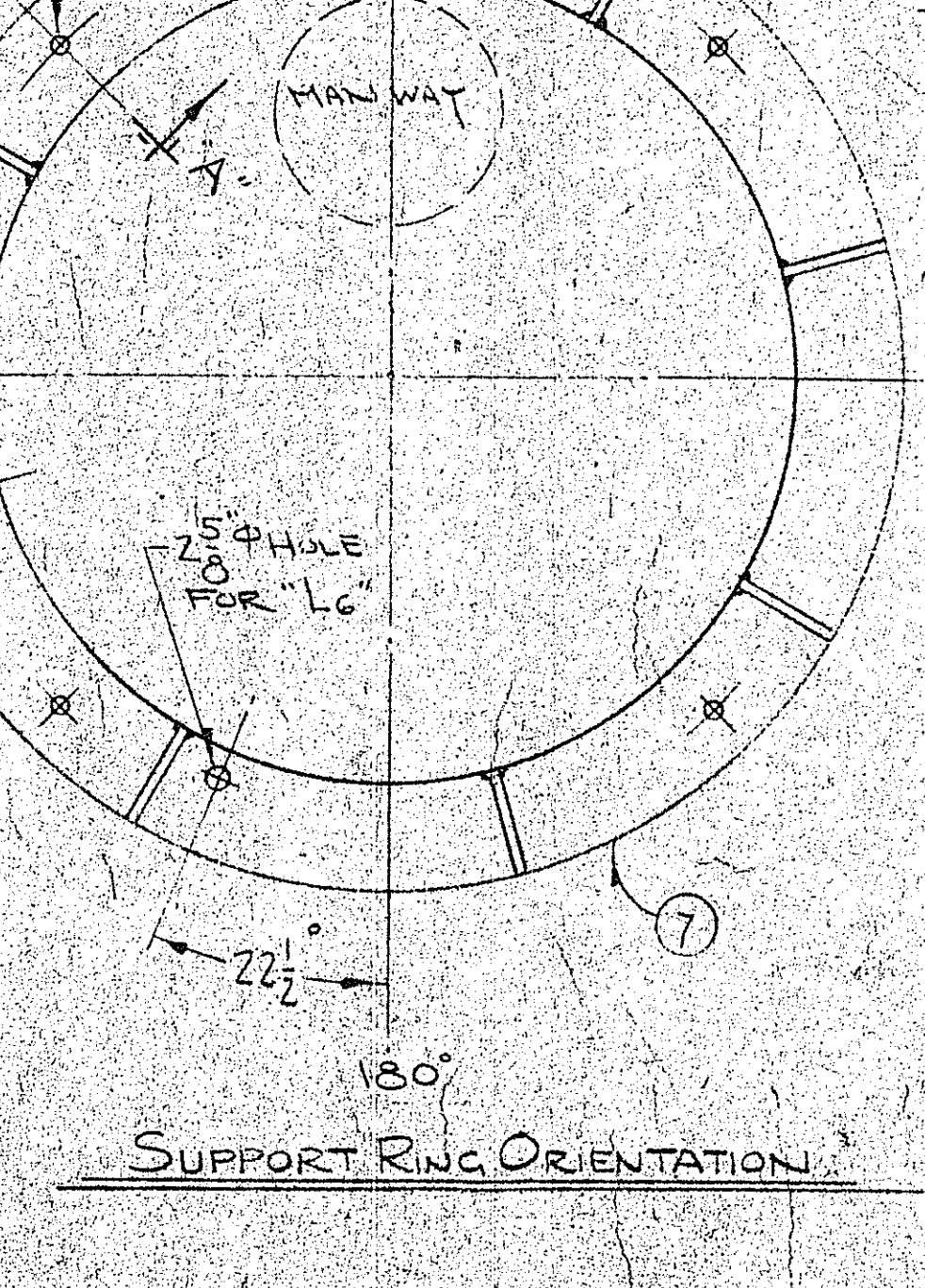
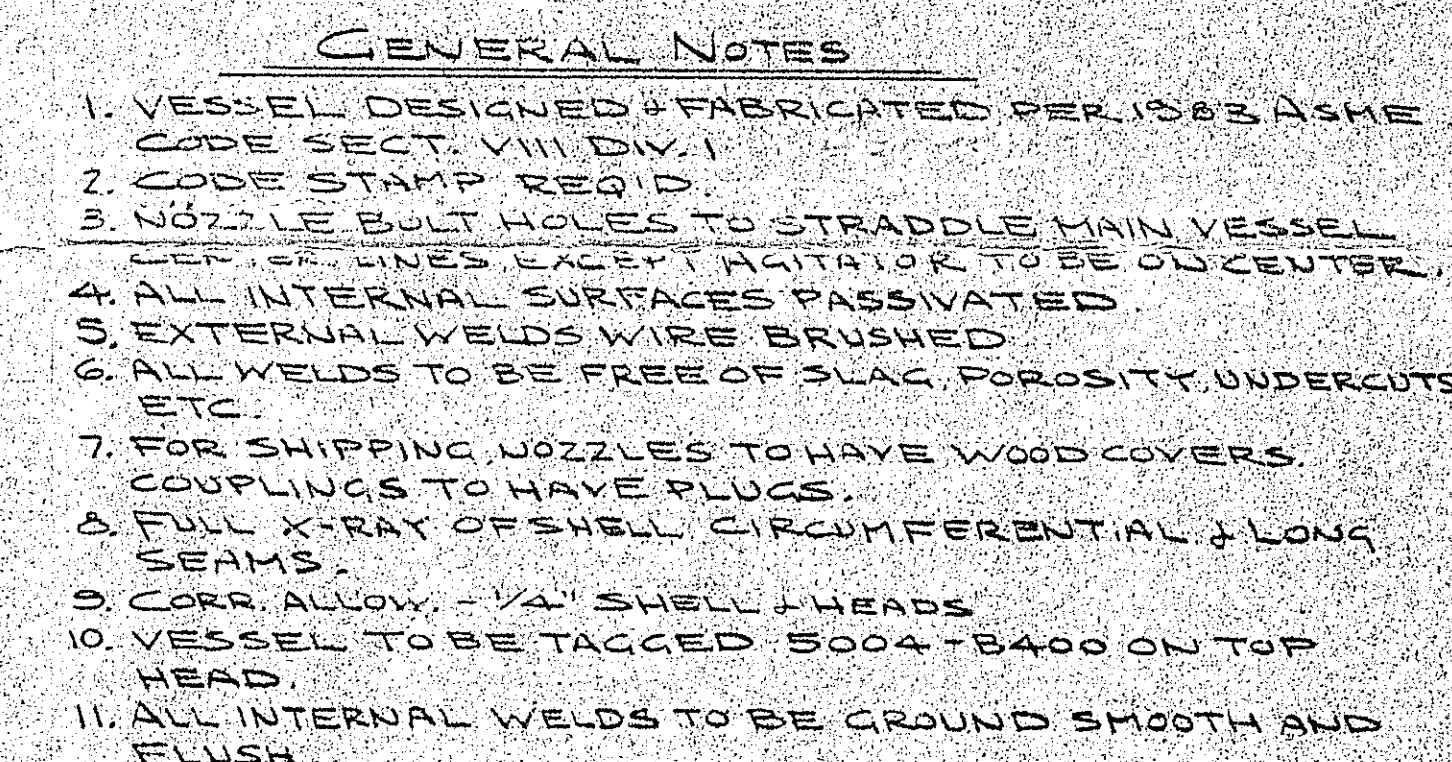




| BILL OF MATERIAL |             |              |                                         |
|------------------|-------------|--------------|-----------------------------------------|
| ITEM<br>NO.      | QTY<br>REQD | COMP<br>PART | DESCRIPTION                             |
| 1                | 2           | 2A243        | SHELL 1/2" TK X 72.0" X 100" LG         |
| 2                | 2           | 2A243        | ASME F+D HD 5/8" X 72.0" X 66.8" X 1/2" |
| 3                | 1           | 2A243        | 3" 1/2" HALF PIPE X 11.8" TK            |
| 4                | 1           | 2A243        | STM HD 3" SCH 10 HALF PIPE              |
| 5                | 4           | 2A243        | BAFFLE 1/2" TK X 6" WIDE                |
| 6                | 12          | 2A243        | BAFFLE SUPPT 3/8" TK X 2" WID           |
| 7                | 1           | 2A243        | SUPPT RING 1" TK X 2" X 72.0"           |
| 8                | 8           | 2A243        | GUSSETS 1/2" X 4 1/4" X 5 1/2" LG       |
| 9                | 2           | 2A243        | LIFTING LUG 1" DIA                      |
| 10               | 2           | C.J.         | 1/4" ISO ANSI LARGE TONGUE & GROOVE FLG |
| 11               | 2           | C.J.         | ROLLED NECT 3/8" TK X 6" X 6" D         |
| 12               | 1           | E            | 1" ISO ANSI R.F. SLIP ON FLG            |
| 13               | 1           | E            | ROLLED NECT 3/8" TK X 4" D              |
| 14               | 4           | E            | GUSSETS 1/2" TK                         |
| 15               | 1           | F            | STUD PAD 1 1/4" X 8" D X 4" T.D.        |
| 16               | 1           | C            | STUD PAD 1 1/4" X 11.8" X 6" T.D.       |
| 17               | 1           | C            | CRACKER 8" X 3 1/2" X 6" D              |
| 18               | 1           | C            | 1/4" ISO PRESS. ROD MODEL B (FLG)       |
| 19               | 8           | C            | STUDS 3/4" X 3 1/4" LG 1/2" NUT         |
| 20               | 5           | C            | 1/4" ISO ANSI R.F. SLIP ON FLG          |
| 21               | 5           | C            | 4" SCH 40 PIPE NECK                     |
| 22               | 1           | C            | 2" 3000S THD FULL COUPLING              |
| 23               | 6           | C            | WEAR PL 1/8" X 3" X 3"                  |
| 24               | 6           | C            | END PL 3/16" TK X 3" WIDE               |
| 25               | 1           | C            | 2" SCH 40 PIPE (T.O.E.)                 |
| 26               | 1           | C            | 2" SCH 40 X 90" L R WELD ELL            |
| 27               | 1           | C            | 3/4" 1" 3000S THD FULL COUPLING         |
| 28               | 1           | C            | 2" 3000S THD HALF C/P LG                |



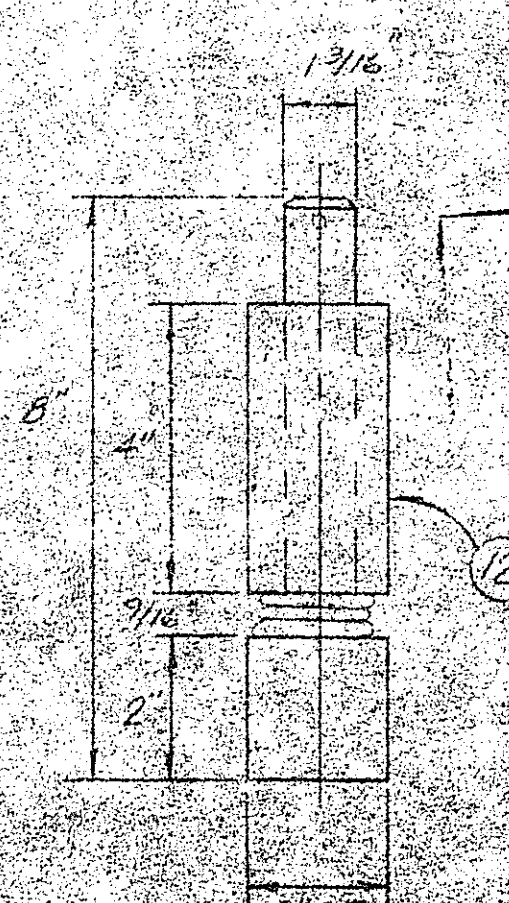
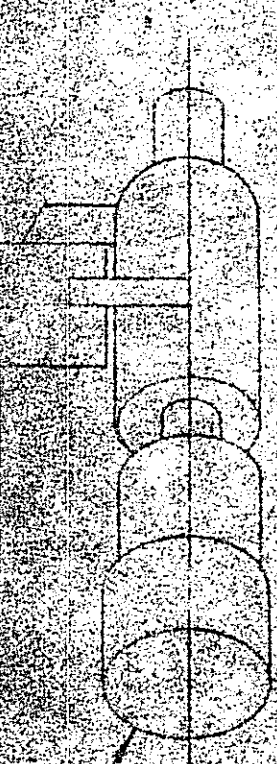
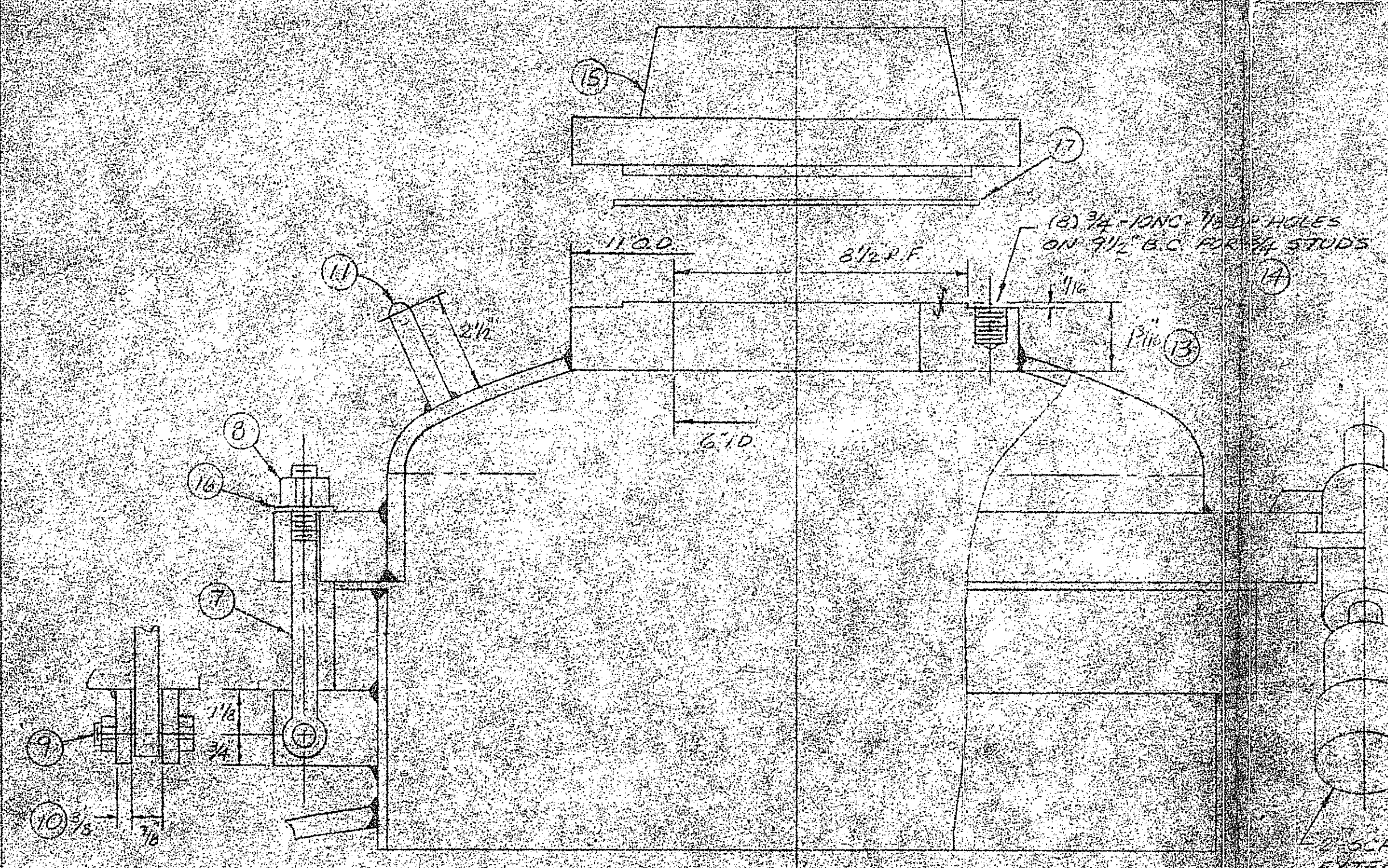
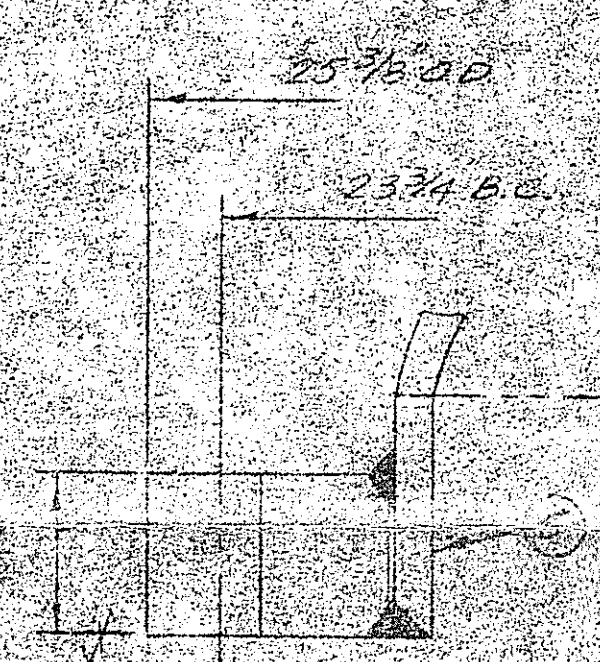
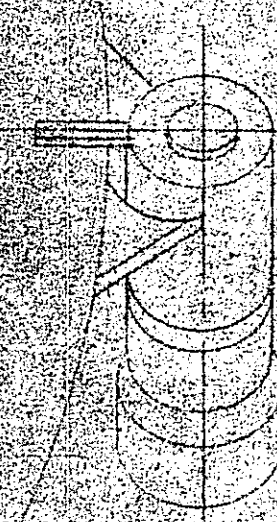
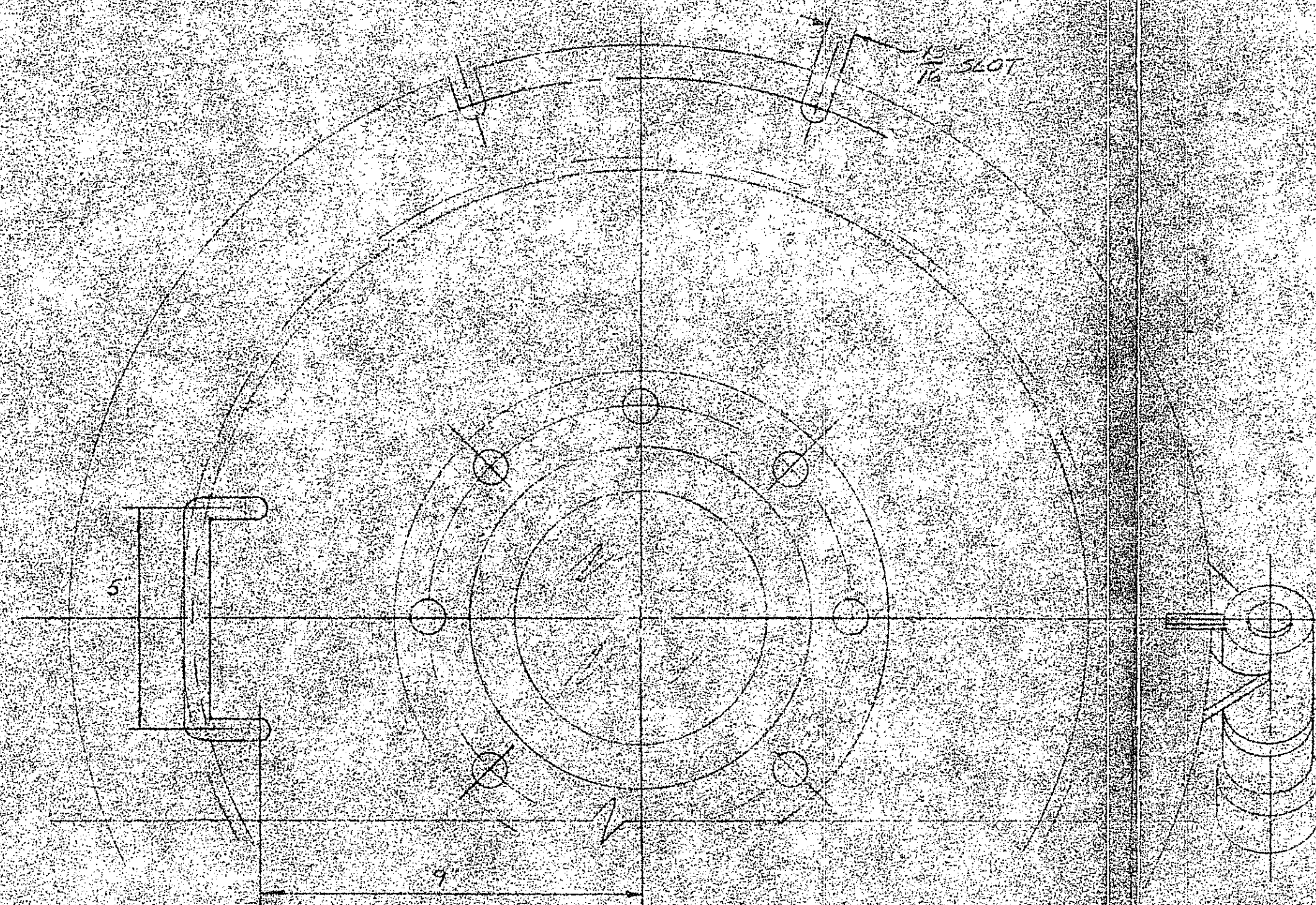
|                                                                                                                                |                                   |              |      |
|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|--------------|------|
| B                                                                                                                              | REV. JKT. & PEG<br>REV. MAT. SIZE | 3-13-86      | B.P. |
| A                                                                                                                              | REV. PER. CUST.<br>MARKED PRINT   | 2-28-86      | RK   |
| REV.                                                                                                                           | DESCRIPTION                       | DATE         | BY   |
| <p><b>ALLOY FAB INC.</b></p> <p>SOUTH PLAINFIELD, N. J.</p> <p>ONE 1/2" O.D. X 500 CAL.<br/>3/32" L.W. PCJ REACTION VESSEL</p> |                                   |              |      |
| WORK ORDER NO.                                                                                                                 | DR. BY RK                         | DATE 4-30-86 |      |
| 2888                                                                                                                           | DY. BY SP                         | D-1710-B     |      |

HYDRO TEST SHELL @ 137 P.S.I.G.  
HYDRO TEST JACKET @ 362 P.S.I.G.

| ITEM | QTY | UNIT | DESCRIPTION                                                                       |
|------|-----|------|-----------------------------------------------------------------------------------|
| 1    | 1   |      | 316L $\frac{1}{2}$ NECK $\frac{1}{4}$ TK                                          |
| 2    | 1   |      | 316L $\frac{1}{2}$ RING FLG $2\frac{1}{2}$ TK                                     |
| 3    | 1   |      | 316L $\frac{1}{2}$ GASKET $\frac{1}{8}$ $22\frac{1}{2}$ O.D. $21\frac{1}{2}$ I.D. |
| 4    | 1   |      | 316L $\frac{1}{2}$ RING FLG $\frac{1}{4}$ TK                                      |
| 5    | 1   |      | 316L $\frac{1}{2}$ ASME FWD HD $20$ O.D. $21\frac{1}{2}$ I.D.                     |
| 6    | 3   |      | 304 $\frac{1}{2}$ GASKET RETAINER $\frac{1}{16}$ $3\frac{1}{4}$ I.D.              |
| 7    | 10  |      | 304 $\frac{1}{2}$ $\frac{3}{4}$ - 10NC $\frac{1}{2}$ STUD W/ NUT                  |
| 8    | 10  |      | 304 $\frac{1}{2}$ $\frac{3}{4}$ - 10NC NUT HK HD NUT                              |
| 9    | 10  |      | 304 $\frac{1}{2}$ $\frac{1}{8}$ - 11NC $2\frac{1}{2}$ LG HK HD EOLT NUT           |
| 10   | 20  |      | 304 $\frac{1}{2}$ CLIP $\frac{3}{8}$ TK                                           |
| 11   | 1   |      | 304 $\frac{1}{2}$ $\frac{1}{2}$ F HANDLE                                          |
| 12   | 1   |      | 304 $\frac{1}{2}$ PIVOT ASSY                                                      |
| 13   | 1   |      | 316L $\frac{1}{2}$ STUD PAD $\frac{1}{16}$ TK                                     |
| 14   | 8   |      | 304 $\frac{1}{2}$ $\frac{3}{4}$ - 10NC $\frac{1}{2}$ LG STUD W/ NUT               |
| 15   | 1   |      | 316L $\frac{1}{2}$ 6" ISO PRESS PROD MODEL B FLG                                  |
| 16   | 10  |      | 304 $\frac{1}{2}$ WASHER $2$ O.D. $1\frac{1}{2}$ I.D. $\frac{1}{4}$ THK           |
| 17   | 1   |      | 316L $\frac{1}{2}$ GASKET $\frac{1}{8}$ $23\frac{1}{2}$ O.D. $22\frac{1}{2}$ I.D. |

NOTES

1) DESIGN = FM 90 PSI @ 390°F



ALLOY FAB, INC.  
CERTIFIED

| REV                    | DESCRIPTION        | DATE    | BY       |
|------------------------|--------------------|---------|----------|
| B                      | W/ 3/4 EOLT 1/2 TK | 2-23-88 | B.F.     |
| A                      | REV. 16 TO 10 BOLT | 5-20-85 | B.F.     |
| REV                    | DESCRIPTION        | DATE    | BY       |
| ALLOY FAB, INC.        |                    |         |          |
| SOUTH PLAINFIELD, N.J. |                    |         |          |
| 20" MANWAY             |                    |         |          |
| WORK ORDER NO.         | DR. BY             | DATE    | BY       |
| 2888                   | B.F.               | 4-30-88 | C-1703 B |

