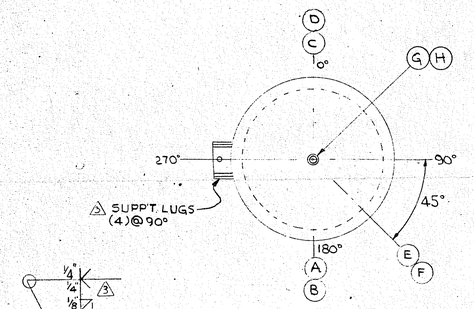
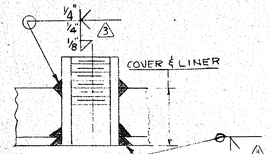
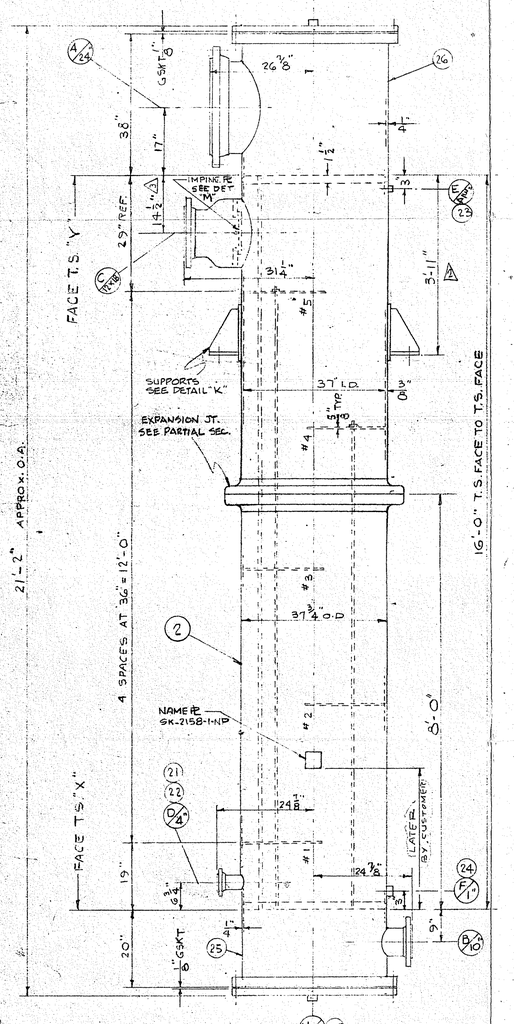
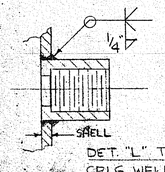


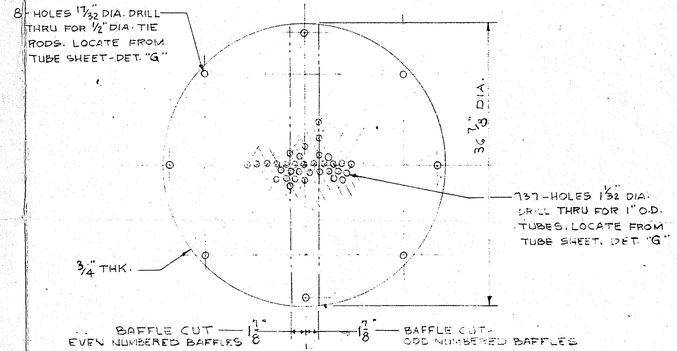

DET. "N" CPLG WELD
TYP FOR NOZ. "G" & "H"
SCALE-NONE



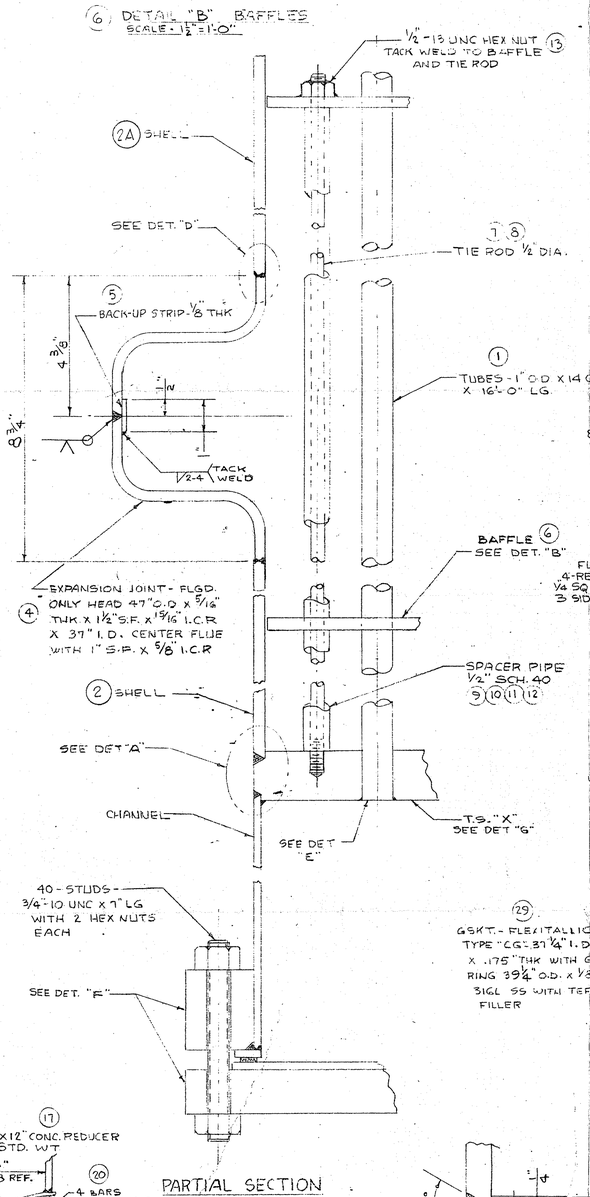

ELEVATION
SCALE- 3/4" = 1'-0"



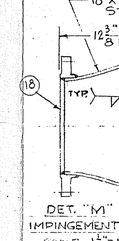

DET. "L" TYP NOZ. "E" & "F"
CPLG WELD
SCALE-NONE



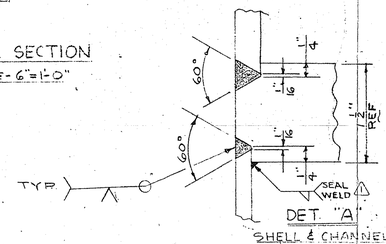

6 DETAIL "B" BAFFLES
SCALE- 1" = 1'-0"



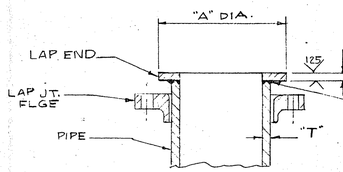

PARTIAL SECTION
SCALE- 6" = 1'-0"




DET. "M" IMPINGEMENT PL AT NOZ "C"
SCALE- 1 1/2" = 1'-0"

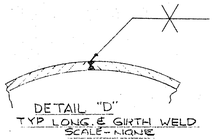


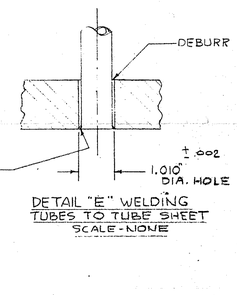

DET. "A"
SHELL & CHANNEL TO T.S.
SCALE- FULL



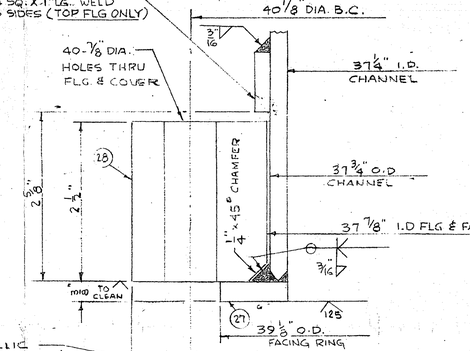

| MARK | PIPE SIZE | LAP END "A" DIA. | LAP END "T" DIM | ITEM NOS LAP END | ITEM NOS PIPE | ITEM NOS L.J. FLG |
|---|---|---|---|---|---|---|
| A | 24" | 27 1/4" | 1/8" | 38 | 36 | 37 |
| B | 10" | 12 3/4" | 3/8" | 41 | 39 | 40 |

DETAIL "C" LAP JOINT FLG. NOZZLES



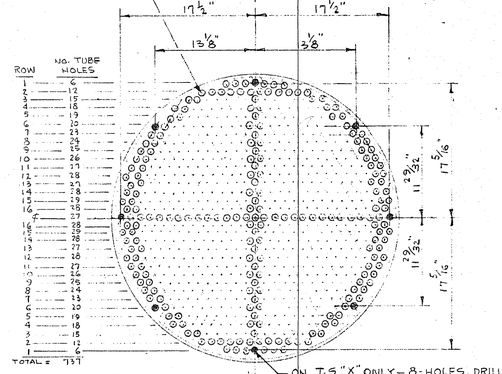

DETAIL "E" WELDING
TUBES TO TUBE SHEET
SCALE-NONE

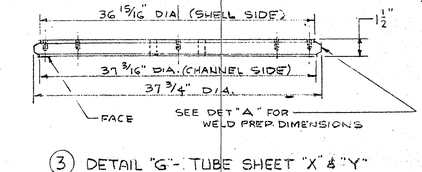



DETAIL "F" CHANNEL COVER & FLG SCALE- FULL

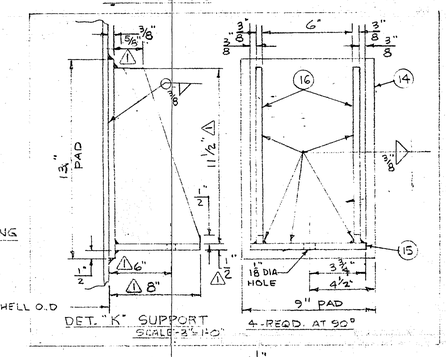
NOZZLE SCHEDULE

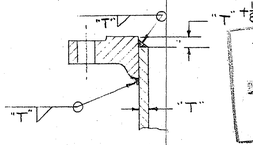
| MARK | SIZE | SCH | FLGE. TYPE | RATING | PURPOSE | REMARKS |
|---|---|---|---|---|---|---|
| A | 24" | 1/4" | L.J. | 150# | CHAN. OUT | SEE DET. "C" |
| B | 10" | 40S | L.J. | 150# | CHAN. IN | SEE DET. "C" |
| C | 12"x18" | STD S.P. | S.O.R.F | 150# | SHELL IN | SEE DET "H" |
| D | 4" | 40 | S.O.R.F | 150# | SHELL OUT | SEE DET. "H" |
| E | 3/4" | NPT | HALF CPLG | 3000# | VENT SHELL | SEE DET. "L" |
| F | 1" | NPT | HALF CPLG | 3000# | DRAIN SHELL | SEE DET. "L" |
| G | 3/4" | NPT | BAR | | VENT CHANNEL | SEE DET. "N" |
| H | 1" | NPT | FULL CPLG | 3000# | DRAIN CHANNEL | SEE DET. "N" |

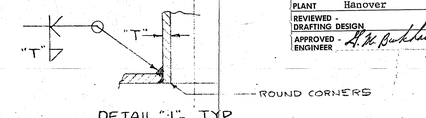



3 DETAIL "G" - TUBE SHEET "X" & "Y"
SCALE- 1 1/2" = 1'-0"




| DESIGN DATA: | SHELL SIDE | TUBE SIDE |
|---|---|---|
| DESIGN AND FABRICATION: | ASME CODE 1971 EDITION SEC. VIII | ASME CODE 1971 ITEM A-8 |
| DESIGN PRESSURE | 75 PSIG | 75 PSIG |
| DESIGN TEMPERATURE | 350° F | 350° F |
| CORROSION ALLOWANCE | 1/16" | —— |
| WELDING | UW-47 | UW-47 |
| FLANGE FACE FINISH | SEE NOTE 2 | 125 RMS |
| RADIOGRAPHIC EXAMINATION | SPOT | SPOT |
| HEAT TREATMENT | NONE | NONE |
| TEST PROCEDURE | UG-99 | UG-99 |
| FINAL TEST PRESSURE | 113 PSIG | 116 PSIG |
| MATERIAL: REDUCER | SA 106-GRA | —— |
| SHELL | SA 285-GRC | SA 240-316L |
| HEADS COVERS | —— | SA 515-GR 70 & SA 240-316L |
| SUPPORTS | SA 285-GRC | —— |
| NOZZLE NECKS | SA 53-GRB | SA 312-316L & SA 240-316L |
| MANHOLE NECK | —— | —— |
| REINFORCING PADS | —— | —— |
| NOZZLE FLANGES | SA 181-GR1 | SA 181-GR1 |
| SHELL AND HEAD FLANGES | | SA 515-GR 70 |
| BOLTS | | SA 193-B7 |
| NUTS | | SA 194-2H |
| GASKETS (SEE DET. "F") | | FLEXITALLIC |
| TUBES | SA 249-316L | —— |
| TUBE SUPPORTS | SA 285-GRC | —— |
| TIE RODS & SPACERS | CARBON STL | —— |
| TUBE SHEETS | —— | SA 240-316L |
| EXPANSION JOINT | SA 285-GRC | —— |
| COUPLINGS | SA 105-GR1 | —— |

TEST PRESSURE BASED ON 1 1/2 X DESIGN PRESSURE X STRESS RATIO

WEIGHT EMPTY 16000 LBS

WEIGHT FULL OF WATER 76000 LBS

OPERATING WEIGHT

PAINTING SEE NOTE 1.

INSPECTION HERCULES, OAT & UNDERWRITER

STAMPING A.S.M.E. CODE STAMP

ALL MANHOLE AND NOZZLE OPENINGS SHALL MEET THE REQUIREMENTS FOR REINFORCEMENT OF OPENINGS PER THE ASME CODE FOR UNFIRED PRESSURE VESSELS.

MANHOLES —— NOZZLES SEE NOZ. SCH.

UNLESS OTHERWISE NOTED: ALL BOTTOM NOZZLES SHALL BE FLUSH WITH INSIDE OF VESSEL. OTHER NOZZLES SHALL BE FLUSH

BOLT HOLES SHALL STRADDLE THE NORMAL VESSEL CENTER LINES.

1.- PAINTING - SHOP COAT RED LEAD EXTERIOR CARBON STEEL PARTS ONLY.

2.- STOCK MODIFIED. SPIRAL SERRATED.

FILE COPY
PRINT TO BE RETURNED TO VAULT

# 104296

| DATE | | REVISIONS | BY |
|---|---|---|---|
| 3-8-73 | 3 | IN PLAN VIEW ADDED ORIENTATION OF SUPPT LUGS IN ELEV. DIM 14 1/2" WAS 4 1/2" REV. WELDS IN DET "J" | JM |
| 2-27-73 | 2 | SUPPORTS RELOCATED AT 3'-11" FROM TOP T.S. PER HERCULES. | TWH |
| 1-31-73 | | ADDED ORIENTATION, NOZZ "D" WAS 3", DETAIL 'A' ADDED SEAL WELD; DETAIL 'K' 6" WAS 4, 8" WAS 6, 13" WAS 12 1/2, 1/2" WAS 3/8, 11 1/2" WAS 11 5/8" | J.M. |
| 11-12-73 | 0 | ISSUED FOR APPROVAL | RO |

VENDOR PRINT FILE 63833 DATE 8-23-73
EQUIPMENT NOS. E-6110-2
SHEET 1
PROJECT & ACCOUNT NOS. 26057
PURCHASE ORDER NO. MICROFILMED
PLANT Hanover
REVIEWED - DRAFTING DESIGN
APPROVED - ENGINEER

JOSEPH OAT & SONS, INCORPORATED
CHEMICAL ENGINEERS/DESIGNERS/FABRICATORS
ESTABLISHED 1788 CAMDEN, NEW JERSEY 08104

WASTE WATER STILL REBOILER
37" I.D. X 21-2" O.A.L.
ONE PASS CARB. STL & 316L
EQUIP. NO. E-6110-2 ASSEMBLY & DETAILS
FOR
HERCULES INCORPORATED
WILMINGTON, N.C. PLANT

PURCHASE ORDER NO. 026-57232 NO. REQ'D ONE

| JOB NO. | DRAWN: RD | DRAWING NO. | REV |
|---|---|---|---|
| J-2158-1 | DATE: 11-12-73 | 5335 | 3 |
| | SCALE: AS NOTED | | |