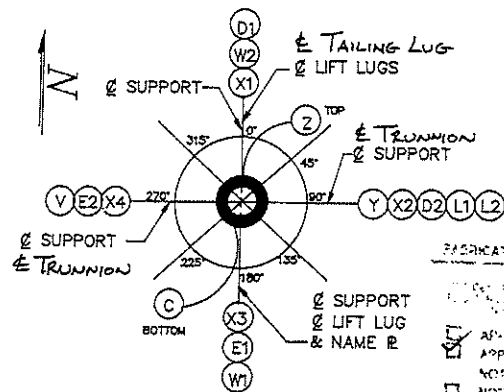
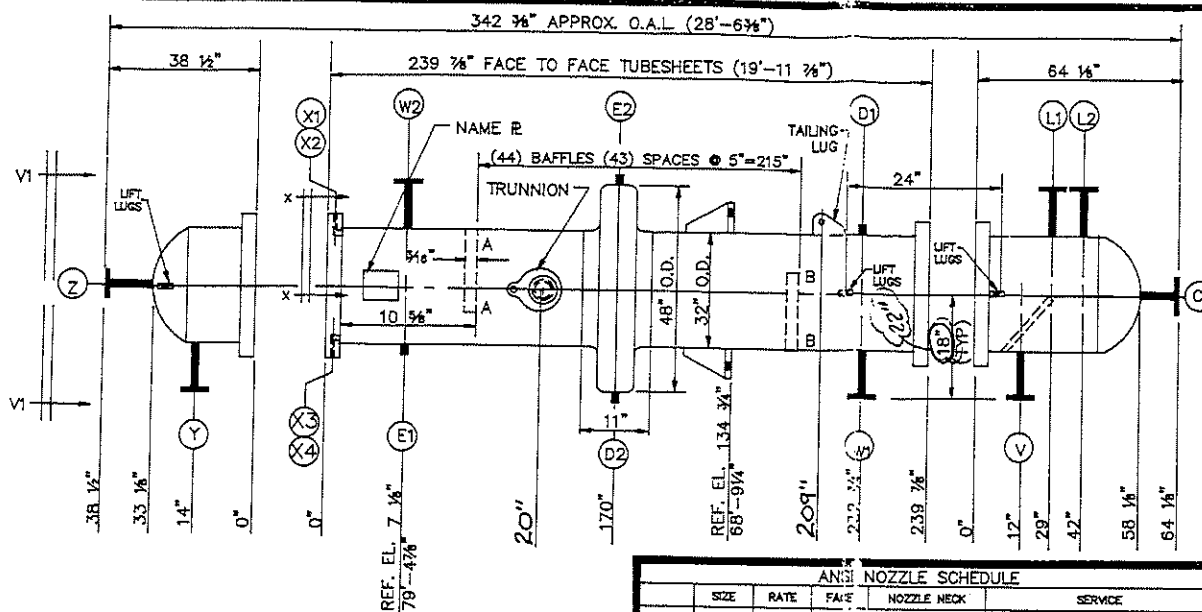


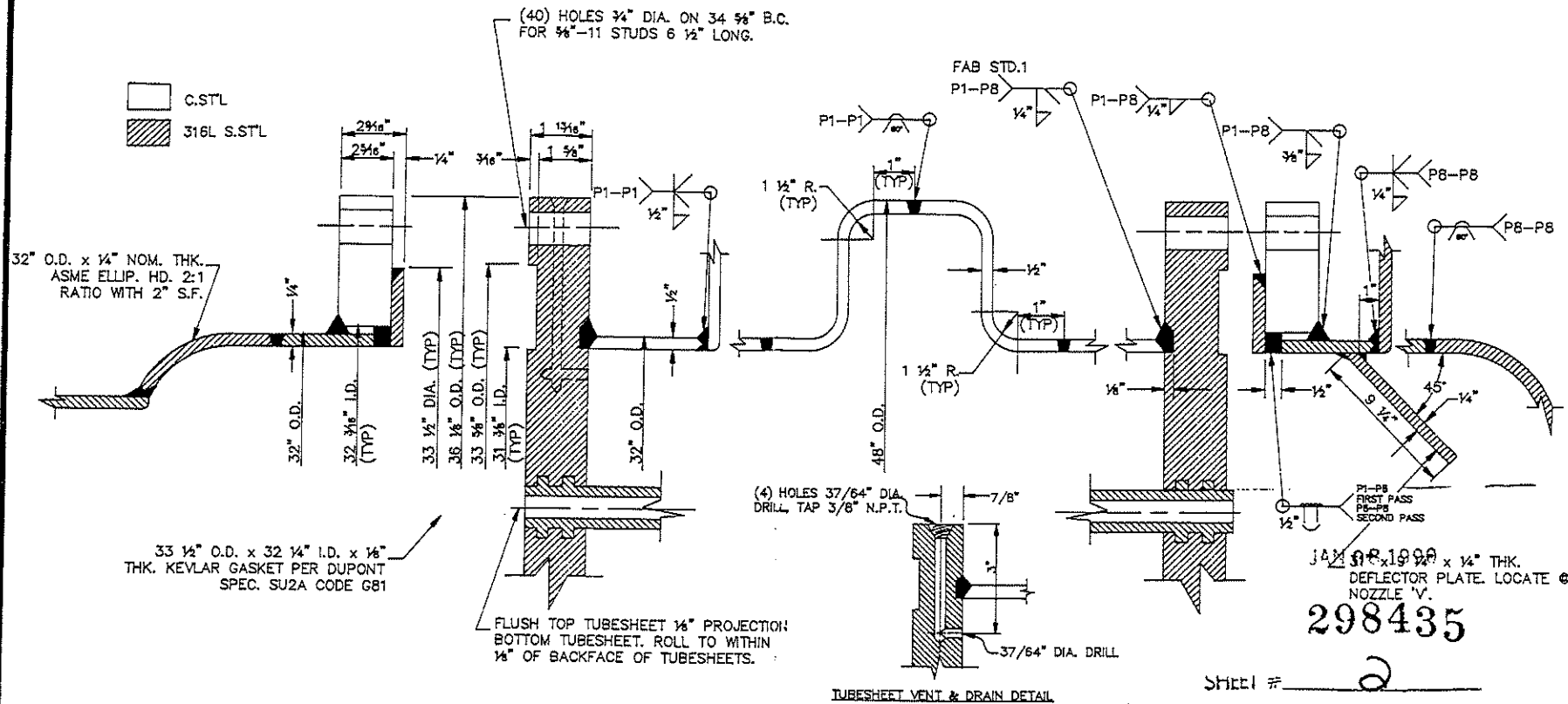


| NOZZLE SCHEDULE |      |       |             |                   |                     |
|-----------------|------|-------|-------------|-------------------|---------------------|
| SIZE            | RATE | FACE  | NOZZLE NECK | SERVICE           |                     |
|                 |      |       | TUBE SIDE   |                   |                     |
| Y               | 14"  | 150#  | L.V.        | 1/4" THK. R       | INLET               |
| C               | 3"   | 150#  | RFV         | SCH. 40           | LIQUID OUTLET       |
| V               | 4"   | 150#  | RFV         | SCH. 40           | VAPOR OUTLET        |
| L1              | 2"   | 150#  | RFV         | SCH. 40           | UPPER LEVEL ELEMENT |
| L2              | 2"   | 150#  | RFV         | SCH. 40           | LOWER LEVEL ELEMENT |
| Z               | 2"   | 150#  | RFV         | SCH. 40           | INLET               |
|                 |      |       | SHELL SIDE  |                   |                     |
| W1              | 6"   | 150#  | RFV         | STD. WT.          | INLET               |
| W2              | 6"   | 150#  | RFV         | STD. WT.          | OUTLET              |
| E1              | 3/4" | 6000# | THD.        | VOGT. CMT. PULSED | VENT                |
| D1              | 3/4" | 6000# | THD.        | VOGT. CMT. PULSED | DRAIN               |
| E2              | 3/4" | 6000# | THD.        | VOGT. CMT. PULSED | VENT                |
| D2              | 3/4" | 6000# | THD.        | VOGT. CMT. PULSED | DRAIN               |
| X1-4            | 3/8" |       | N.P.T.      |                   | SHELL VENT          |

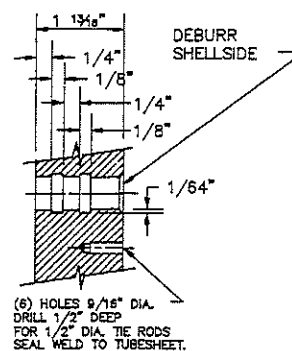
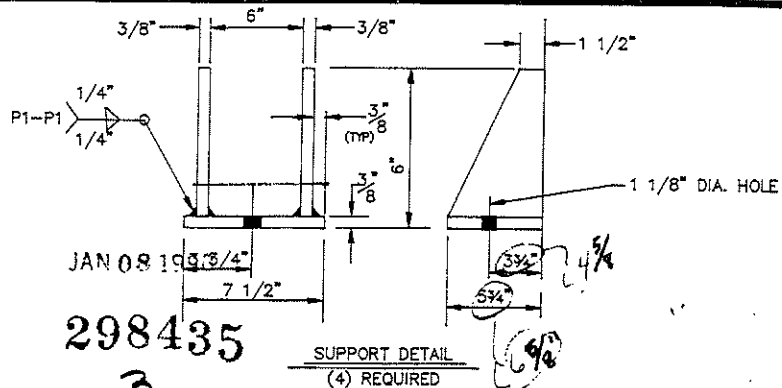
|           |            |             |            |
|-----------|------------|-------------|------------|
| WPS P1-P1 | W-42(SMAV) | W-72(FCAW)  | W-89(SAW)  |
| WPS P1-PB | W-2(SMAN)  | W-112(FCAW) | W-100(SAW) |
| WPS PB-PB | W-3(SMAR)  | W-81(FCAW)  | W-90(SAW)  |

| ASME CODE REQUIREMENTS                                         |                     |                                          |
|----------------------------------------------------------------|---------------------|------------------------------------------|
| DESIGN PRESSURE                                                | PSIG                | SHELL SIDE 75/F.V. TUBE SIDE 75/F.V.     |
| DESIGN TEMPERATURE (MAX/MIN)                                   | °F                  | 300/40 300/40                            |
| HYDRO. TEST PRESSURE                                           | PSIG                | 115 115                                  |
| CORROSION ALLOWANCE                                            | (CST-1 ONLY)        | 0.063" NONE                              |
| POSTWELD HEAT TREATMENT                                        |                     | NONE NONE                                |
| RADIOGRAPHIC EXAMINATION                                       |                     | SPOT                                     |
| METAL TEMP. (TEMA 8th ED.)                                     | °F                  | 300/87/87/70/87/70/300/120/70/121/70/274 |
| ASME CODE STAMP / NAT'L. BD. REG. IS REQUIRED.                 |                     |                                          |
| CUSTOMER INSPECTION IS REQUIRED                                |                     |                                          |
| SPECIFICATIONS: 1988 ASME CODE SECT. VIII DIV. 1 ADDENDA-A87   |                     |                                          |
| SPECIAL SERVICE NONE CODE CASE NONE PARTIAL DATA REPORTS NONE  |                     |                                          |
| TEMA (8) G1G G5G G4R S61S S61S S62S S62S S62A S6300M G111S     |                     |                                          |
| TUBES: SA-240 TP 316L PER SW300M TYPE 1 CATEGORY II WALL: AVG. |                     |                                          |
| NO. 503 O.D. 1" BWG. 16 LENGTH: 144" (12'-0")                  |                     |                                          |
| TUBESHEETS: SA-240 TP 316L                                     |                     |                                          |
| PART                                                           | SHELL SIDE          | TUBE SIDE                                |
| VESSEL                                                         | SA-516 GR. 70       | SA-240 TP 316L                           |
| COVERS                                                         |                     |                                          |
| FORMED HEADS                                                   | SA-516 GR. 70       | SA-240 TP 316L                           |
| BODY FLANGES                                                   |                     | SA-516 GR. 70                            |
| NOZZLE FLANGES                                                 | SA-105              | SA-105/SA-182 F 316L                     |
| NOZZLE PIPE                                                    | SA-106 GR. B (SMCS) | SA-240 TP 316L/SA-312 TP 316L            |
| STUDS/NUTS                                                     | SA-193-B7/SA-194-2H | SA-193-B7/SA-194-2H                      |
| GASKETS                                                        | SUZA 2H             | 1/8" THK. KEVLAR                         |
| JAN 08 1990                                                    |                     |                                          |
| REVISIONS 298435                                               |                     |                                          |
| SHEET # 1                                                      |                     |                                          |
| CERTIFIED                                                      | ENG.                |                                          |
| CUSTOMER E.I. DUPONT DE NEMOURS & COMPANY, INC.                |                     |                                          |
| CUSTOMER P.O. NO. LPBC-96110W                                  |                     |                                          |
| ITEM NO.                                                       |                     | PROJ. NO. 6432                           |
| PLANT BEAUMONT, TEXAS                                          |                     |                                          |
| EN NO. 5116-7305-15                                            |                     |                                          |
| TEMA SIZE AND TYPE                                             |                     |                                          |
| (1) 31-240 BEM TOPPING COLUMN CONDENSER                        |                     |                                          |
| SOUTHERN HEAT EXCHANGER CORP.                                  |                     |                                          |
| P.O. BOX 030008 TUSCALOOSA, AL 35403                           |                     |                                          |
| DATE 03/28/89                                                  | ORDER NO.           | DWG. NO. SP-2095-1                       |
| BY B. HUFF                                                     | 89-033              | SHEET 1 OF 5                             |

5116-7305-15

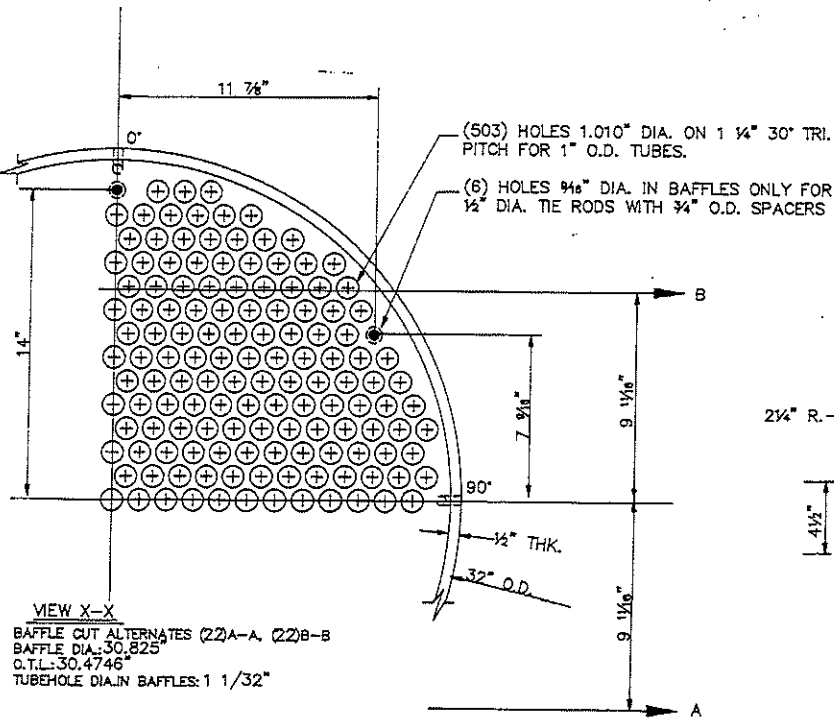


| NOTES                                                                                                                                                                                                                                                                                                            |              |      | NON-PRESSURE PARTS           |                | CERTIFIED                                       | ENG.           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------|------------------------------|----------------|-------------------------------------------------|----------------|
| 1. EST. WT. EMPTY: 10900#                                                                                                                                                                                                                                                                                        | FULL: 19800# | BOL: | SUPPORTS                     | SA-36          | CUSTOMER E.I. DUPONT DE NEMOURS & COMPANY, INC. |                |
| 2. ALL BOLT HOLES STRADDLE NORMAL CENTERLINES.                                                                                                                                                                                                                                                                   |              |      | BAFFLES / SUPPORTS           | SA-36          |                                                 |                |
| 3. WOODEN COVERS ON ALL OPEN NOZZLES. (SEE NOTE 8)                                                                                                                                                                                                                                                               |              |      | TIE RODS / SPACERS           | C.STL          | CUSTOMER P.O. NO. LPBC-96110W                   |                |
| 4. MAIN GASKET SURFACES.                                                                                                                                                                                                                                                                                         |              |      | PASS PARTITIONS              | NONE           | ITEM NO.                                        | PROJ. NO. 6432 |
| 5. PAINT: SANDBLAST EXPOSED C.STL. NEAR WHITE PER SSPC-SP-10. PRIME WITH (1) COAT DUPONT 347-Y-912 GANICH INORGANIC ZINC-RICH COATING 2 TO 4 MILS D.F.T. TOP COAT WITH (1) COAT DUPONT 812-C700 HI HEAT-RESISTANT SILICONE ALUMINUM PAINT 1 MIL D.F.T. FOR A TOTAL D.F.T. OF 3 TO 5 MILS PER DUPONT SPEC C111SL. |              |      | LIFT LUGS                    | 316L S.STL     | PLANT BEAUMONT, TEXAS                           |                |
| 6. COAT ALL EXPOSED GASKET SURFACES WITH RUST VETO HEAVY. SEAL WITH CLOTH BACKED TAPE. COVER WITH WOODEN COVERS BOLTED IN PLACE WITH A FULL COMPLIMENT OF BLACK IRON BOLTS.                                                                                                                                      |              |      | DEFLECTOR PLATE              | 316L S.STL     | EN NO. 5116-7305-15                             |                |
| 7. ALL TUBES MUST BE TESTED AND INSPECTED PER DUPONT SPECIFICATION SW300M TYPE 1 CAT. II                                                                                                                                                                                                                         |              |      |                              |                | TEMA SIZE AND TYPE                              |                |
| 8. ALL S.STL SHALL BE TESTED FOR THE PRESENCE OF MOLYBDENUM PER DUPONT SPEC. S02T.                                                                                                                                                                                                                               |              |      |                              |                | (1) 31-240 BEM TOPPING COLUMN CONDENSER         |                |
|                                                                                                                                                                                                                                                                                                                  |              |      | 9. EST. WT. EMPTY TOP BONNET | /BOTTOM BONNET | SOUTHERN HEAT EXCHANGER CORP.                   |                |
|                                                                                                                                                                                                                                                                                                                  |              |      |                              |                | P.O. BOX 030008 TUSCALOOSA, AL. 35403           |                |
|                                                                                                                                                                                                                                                                                                                  |              |      |                              |                | DATE 03/28/89                                   | ORDER NO.      |
|                                                                                                                                                                                                                                                                                                                  |              |      |                              |                | BY B. HUFF                                      | 89-033         |
|                                                                                                                                                                                                                                                                                                                  |              |      |                              |                | DWG. NO. SP-2095-1                              | SHEET 2 OF 5   |



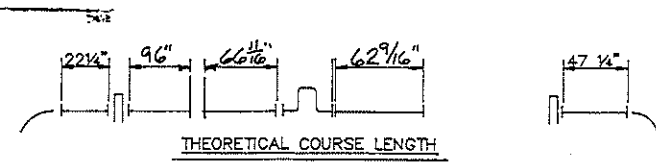
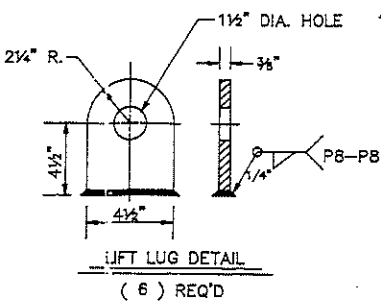
|                                               |                                                      |             |
|-----------------------------------------------|------------------------------------------------------|-------------|
| U<br>W<br>RT3                                 | NATIONAL BOARD NO. <u>LATER</u>                      |             |
|                                               | CERTIFIED BY                                         |             |
|                                               | SOUTHERN HEAT EXCHANGER CORP.<br>TUSCALOOSA, ALABAMA |             |
| SHELL SIDE                                    |                                                      |             |
| MADP                                          | 75/F.V. PSI AT                                       | 300 F.      |
| MADT                                          | 40 F. AT                                             | 75/F.V. PSI |
| TUBE SIDE                                     |                                                      |             |
| MADP                                          | 75/F.V. PSI AT                                       | 300 F.      |
| MADT                                          | 40 F. AT                                             | 75/F.V. PSI |
| SHECO SER. NO. <u>89-033</u> YEAR <u>1989</u> |                                                      |             |
| CUST. ORDER <u>LPBC-96110W</u>                |                                                      |             |
| CUST. ITEM                                    |                                                      |             |
| EN NO. <u>5116-7305-15</u> DUPONT INSP. INT'L |                                                      |             |
| BEAUMONT, TX PROJ. NO. <u>6432</u>            |                                                      |             |

|                                                                                                                                                                                                                                                                                                                                                                                                                |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| CAUTION                                                                                                                                                                                                                                                                                                                                                                                                        |  |
| THE PRESSURE AND TEMPERATURES SHOWN ON THE S.N.E. NAMEPLATE RELATE ONLY TO THE PRESSURE RETENTION CAPABILITY OF THIS HEAT EXCHANGER. COMPONENTS OF THIS HEAT EXCHANGER HAVE BEEN DESIGNED FOR SPECIFIC OPERATING CONDITIONS. A CHANGE IN SERVICE OR DEVIATION FROM THE SPECIFIED OPERATING CONDITIONS REQUIRES THAT A MECHANICAL DESIGN CHECK BE MADE IN ORDER TO AVOID POSSIBLE DAMAGE TO THE HEAT EXCHANGER. |  |

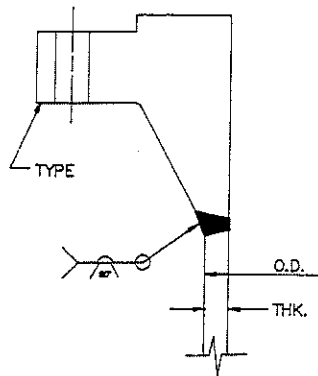


|            |                   |
|------------|-------------------|
| C.STL      | APPROVED          |
| 316L S.STL | APPROVED AS NOTED |
|            | NOT APPROVED      |

SYMBOLS FOR MATERIALS AND FINISHES TO BE USED IN FABRICATION



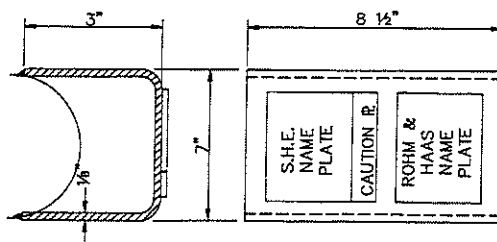
|                                                 |                |
|-------------------------------------------------|----------------|
| CERTIFIED                                       | ENG.           |
| CUSTOMER E.I. DUPONT DE NEMOURS & COMPANY, INC. |                |
| CUSTOMER P.O. NO. LPBC-96110W                   |                |
| ITEM NO.                                        | PROJ. NO. 6432 |
| PLANT BEAUMONT, TEXAS                           |                |
| EN NO. 5116-7305-15                             |                |
| ITEM SIZE AND TYPE                              |                |
| (1) 31 240 BEM TOPPING COLUMN CONDENSER         |                |
| SOUTHERN HEAT EXCHANGER CORP.                   |                |
| P.O. BOX 030008 TUSCALOOSA, AL. 35403           |                |
| DATE 03/28/89                                   | ORDER NO.      |
| BY B. HUFF                                      | 89-033         |
| DWG. NO. SP-2085-1                              |                |
| SHEET 3 OF 5                                    |                |



RFWN NOZZLE DETAIL

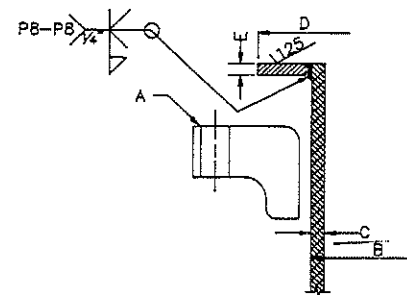
| S.H.E. MARK | TYPE    | O.D.   | THK.  | MAT'L |
|-------------|---------|--------|-------|-------|
| C           | 3"-150# | 3 1/2" | .216" | S.STL |
| V           | 4"-150# | 4 1/2" | .337" | S.STL |
| L1-2        | 2"-150# | 2 3/4" | .154" | S.STL |
| 7           | 2"-150# | 1.315" | .133" | S.STL |
| W1,W2       | 6"-150# | 6 1/4" | .280" | C.STL |

|  |            |
|--|------------|
|  | C.STL      |
|  | 304 S.STL  |
|  | 316L S.STL |



NAME PLATE BRACKET DETAIL

NOTE: NAME R MUST BE ATTACHED USING 304 S. STL DRIVE SCREWS.



LAP JOINT DETAIL

| NOZZLE Y      |
|---------------|
| A 14"-150# LJ |
| B 14"         |
| C 1/4"        |
| D 16 1/4"     |
| E 1/2"        |

JAN 08 1990

298435

SHEET 4

FOR RELEASE

FOR RELEASE

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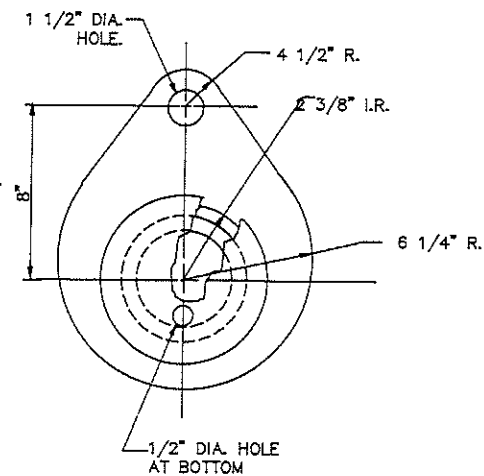
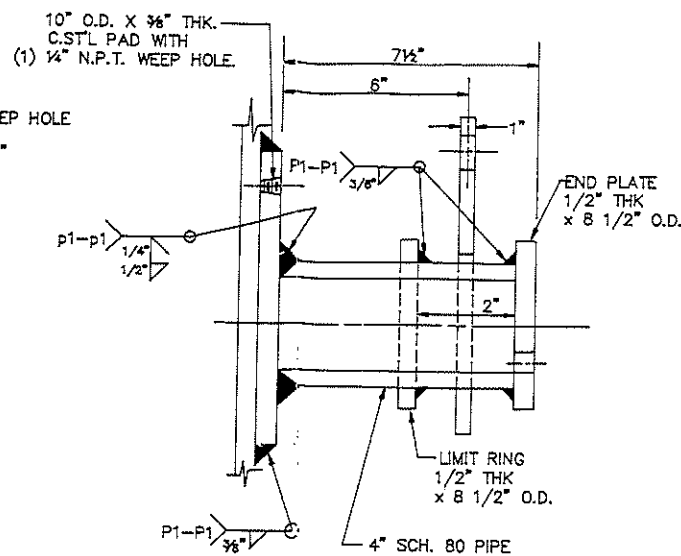
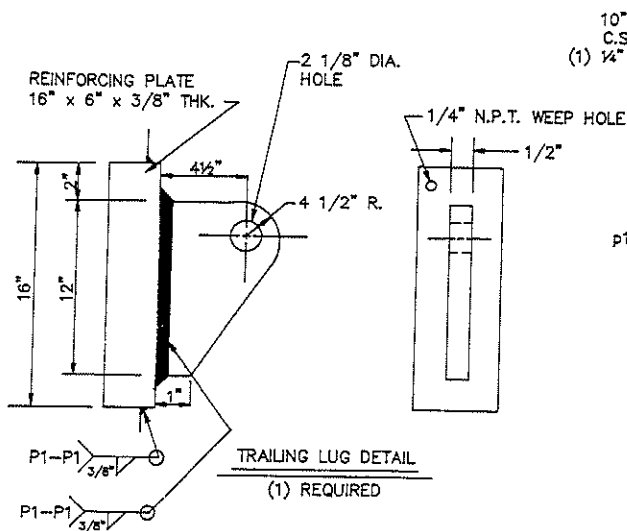
FOR RELEASE

FOR RELEASE

FOR RELEASE

FOR RELEASE

|                                              |                |
|----------------------------------------------|----------------|
| CERTIFIED                                    | ENG.           |
| CUSTOMER E.I. DUPONT NEMOURS & COMPANY, INC. |                |
| CUSTOMER P.O. NO. LPBC-96110W                |                |
| ITEM NO.                                     | PROD. NO. 6432 |
| PLANT BEAUMONT, TEXAS                        |                |
| EN. NO. 5116-7305-15                         |                |
| TEMA SIZE AND TYPE                           |                |
| (1) 31-240 BEM TOPPING COLUMN CONDENSER      |                |
| SOUTHERN HEAT EXCHANGER CORP.                |                |
| P.O. BOX 030008 TUSCALOOSA, AL. 35403        |                |
| DATE 02/08/89                                | ORDER NO.      |
| BY W. McLain                                 | 89-033         |
| DWG. NO. SP-2095-1                           | SHEET 4 OF 5   |



TRUNNION DETAIL  
(2) REQUIRED

FABRICATION RELEASE

FOR REVIEW ONLY  
NOT FOR FABRICATION  
OR CONSTRUCTION

☐ APPROVED  
☐ APPROVED AS  
NOTED  
☐ NOT APPROVED

BY: [Signature]  
DATE: [Date]  
OR: [Signature]

SIGNATURE DATE

JAN 08 1990

298435

SHEET #

6

|                                              |                |                    |
|----------------------------------------------|----------------|--------------------|
| CERTIFIED                                    | ENG.           |                    |
| CUSTOMER E.I. DUPONT NEMOURS & COMPANY, INC. |                |                    |
| CUSTOMER P.O. NO. LPBC-96110W                |                |                    |
| ITEM NO.                                     | PROJ. NO. 6432 |                    |
| PLANT BEAUMONT, TEXAS                        |                |                    |
| EN. NO. 5116-7305-15                         |                |                    |
| TEMA SIZE AND TYPE                           |                |                    |
| (1) 31-240 BEM TOPPING COLUMN CONDENSER      |                |                    |
| SOUTHERN HEAT EXCHANGER CORP.                |                |                    |
| P.O. BOX 030008 TUSCALOOSA, AL. 35403        |                |                    |
| DATE 02/08/89                                | ORDER NO.      | DWG. NO. SP-2095-1 |
| BY W. McLain                                 | 89-033         | SHEET 5 OF 5       |