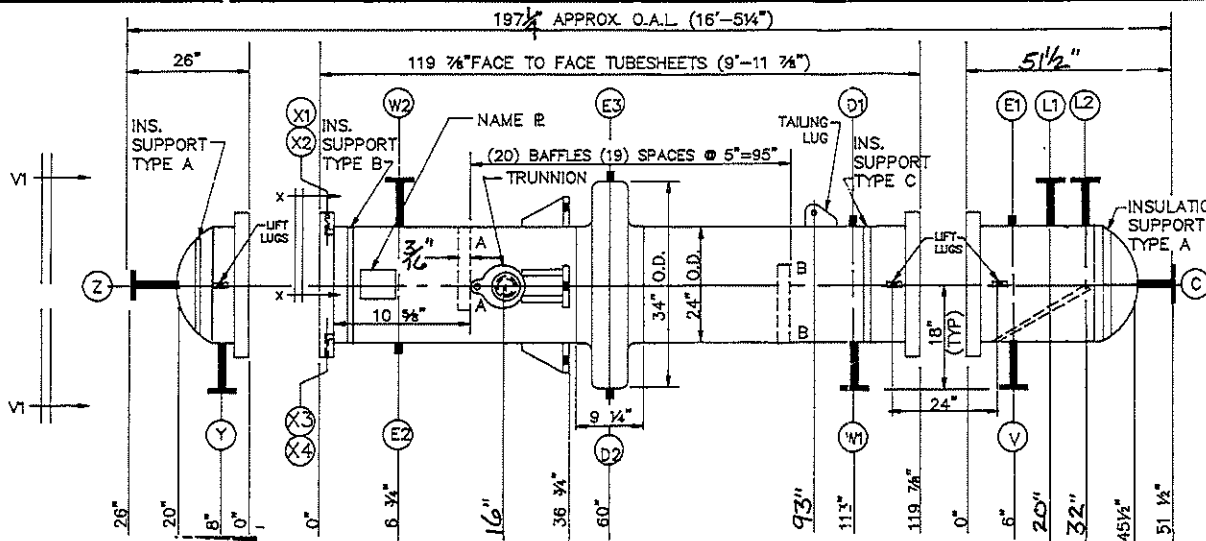
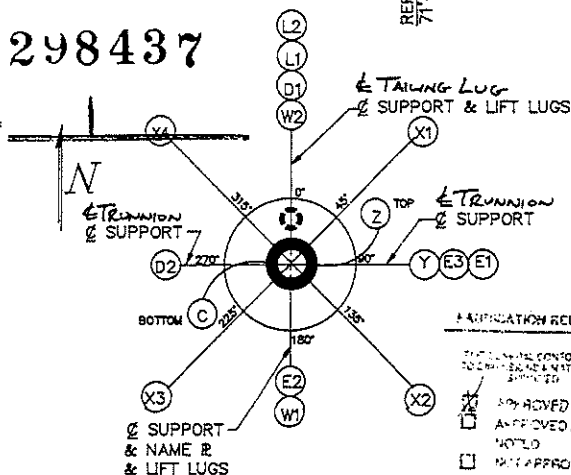




MAY 8 1990

BP 298437

Sheet #



ORIENTATION
VIEW V1-V1

ANSI NOZZLE SCHEDULE					
	SIZE	RATE	FACE	NOZZLE NECK	SERVICE
				TUBE SIDE	
Y	4"	150#	RFWN	SCH. 40	INLET
C	3"	150#	RFWN	SCH. 40	LIQUID OUTLET
V	2"	150#	RFWN	SCH. 40	VAPOR OUTLET
E1	3/4"	3000#	THD.	FULL O.D. PLUGGED	VENT
Z	2"	150#	RFWN	SCH. 40	INLET
L1-2	2"	150#	RFWN	SCH. 40	
				SHELL SIDE	
W1	3"	150#	RFWN	SCH. 80	INLET
W2	3"	150#	RFWN	SCH. 80	OUTLET
E2	3/4"	6000#	THD.	VOG. O.D. PLUGGED	VENT
D1	3/4"	6000#	THD.	VOG. O.D. PLUGGED	DRAIN
E3	3/4"	6000#	THD.	VOG. O.D. PLUGGED	VENT
D2	3/4"	6000#	THD.	VOG. O.D. PLUGGED	DRAIN
X1-4	3/4"		N.P.T.		TUBESHEET VENT

WPS P1-P1	W-42(SMAW) W-72(FCAW) W-89(SAW)
WPS P1-P8	W-2(SMAW) W-112(FCAW) W-100(SAW)
WPS P8-P8	W-3(SMAW) W-81(FCAW) W-90(SAW)

ASME CODE REQUIREMENTS

		SHELL SIDE	TUBE SIDE
DESIGN PRESSURE	PSIG	75/F.V.	75/F.V.
DESIGN TEMPERATURE (MAX/MIN)	°F	300/40	300/40
HYDRO. TEST PRESSURE	PSIG	115	115
CORROSION ALLOWANCE (ESTD ONLY)		1/16"	NONE
POSTWELD HEAT TREATMENT		NONE	NONE
RADIOGRAPHIC EXAMINATION		SPOT	
METAL TEMP. (TEMA 8th ED.)	°F	300/59/59/77/70	300/104/70/104/70/72/74

ASME CODE STAMP / NATL. BO. REG. IS REQUIRED.
 CUSTOMER INSPECTION IS REQUIRED
 SPECIFICATIONS: 1988 ASME CODE SECT. VII DIV. 1 ADDENDA-A57
 SPECIAL SERVICE: NONE CODE CASE: NONE PARTIAL DATA REPORTS: NONE
 TEMA (B) G1G; G5G; SGT1; SGT1S; SGT2S; SGT2; S2ZA; SW300M; C111S
 TUBES: SA-240 TP 316L PER SW300M TYPE 1 CATEGORY III WALL: AVG.
 NO. 280 O.D. 1" BWG 16 LENGTH 120" (10'-0")
 TUBESHEETS: SA-240 TP 316L

PART	SHELL SIDE	TUBE SIDE
VESSEL	SA-106 GR. B (SMLS)	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-182 F 316L
NOZZLE PIPE	SA-106 GR. B (SMLS)	SA-312 TP 316L
STUDS/NUTS	SA-193-B7/SA-194-2H	SA-193-B7/SA-194-2H
GASKETS SUZA CRT		1/8" THK. KEVLAR
INS. THICKNESS	1 1/2"	1 1/2"

REVISIONS

2	2/8/90	ADDED BONNET WEIGHTS, REVISED GASKET
1	1/8/90	GEN. REV.
		CERTIFIED ENG. W-4116
CUSTOMER E.I. DUPONT DE NEMOURS & COMPANY, INC.		
CUSTOMER P.O. NO. LPBC-96110W		
ITEM NO.		PROD. NO. 6432
PLANT BEAUMONT, TEXAS		
EN NO. 5115-7305-16		

TEMA SIZE AND TYPE
 (1) 23-120 BEM TOPPING COLUMN CONDENSER
SOUTHERN HEAT EXCHANGER CORP.
 P.O. BOX 030008 TUSCALOOSA, AL 35403
 DATE 03/28/89 ORDER NO. DWG. NO. SP-2096-2
 BY B. HUFF 89-034 SHEET 1 OF 5

5116-7305-16

☐ C.ST'L
☒ 316L S.ST'L

24" O.D. x 3/16" NOM. THK.
ASME ELLIP. HD. 2:1
RATIO WITH 2" S.F.

25 1/8" O.D. x 23 7/8" O.D. x 1/8"
 THK. KEVLAR GASKET PER DUPONT
 SPEC. SU2A CODE G81
 MAY 8 1990

BPF 298437

(32) HOLES 3/4" DIA. ON 26 1/4" B.C.
FOR 3/8"-11 STUDS 6" LONG.

FLUSH TOP TUBESHEET 1/8" PROJECTION
BOTTOM TUBESHEET. ROLL TO WITHIN
1/8" OF BACKFACE OF TUBESHEETS.

(4) HOLE 37/64" DIA.
DRILL, TAP 3/8" N.P.T.

TUBESHEET VENT DETAIL

INDICATED BY 1/8" DIA. DRILL

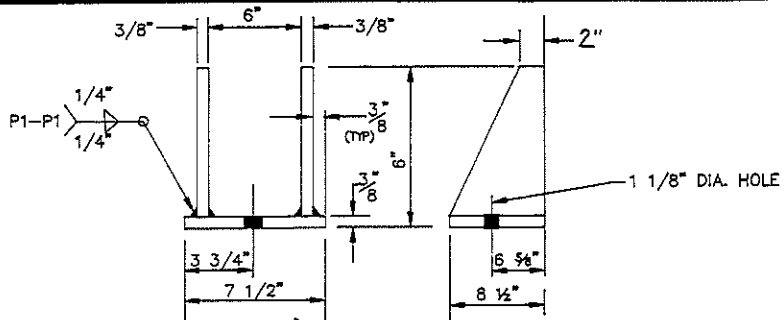
APPROVED
 NOTED
 NOT APPROVED
 BY DUPONT FOR THIS ORDER
 E.I. DUPONT DE NEMOURS & COMPANY, INC.
 DATE

23 1/2" x 7 1/4" x 1/4" THK.
DEFLECTOR PLATE. LOCATE @
NOZZLE 'V'.

NOTES		
1. EST. WT. EMPTY: 6000#	FULL: 8400#	BOL: _____
2. ALL BOLT HOLES STRADDLE NORMAL CENTERLINES.		
3. WOODEN COVERS ON ALL OPEN NOZZLES. (SEE NOTE 8)		
4. MAIN GASKET SURFACES.		
5. PAINT: SANDBLAST EXPOSED C.ST'L NEAR WHITE PER SSPC-SF-10. PRIME WITH (1) COAT DUPONT 347-Y-912 GANGLON INORGANIC ZINC-RICH COATING 2 TO 4 MILS D.F.T. TOP COAT WITH (1) COAT DUPONT 612-G706 16 HEAT-RESISTANT SILICONE ALUMINUM PAINT 1 MIL D.F.T. FOR A TOTAL D.F.T. OF 3 TO 5 MILS PER DUPONT SPEC Q111S.		
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.		
7. ALL TUBES MUST BE TESTED AND INSPECTED PER DUPONT SPECIFICATION SW300M TYPE 1 CAT. II		
8. ALL S.ST'L SHALL BE TESTED FOR THE PRESENCE OF MOLYBDENUM PER DUPONT SPEC. SQ2T.		

NON-PRESSURE PARTS	
SUPPORTS	SA-36
BAFFLES / SUPPORTS	SA-36
TIE ROOS / SPACERS	C.ST'L
PASS PARTITIONS	NONE
LIFT LUGS	316L S.ST'L
DEFLECTOR PLATE	316L S.ST'L
NOTES CONTD.	
9. EST. WT. EMPTY TOP BONNET 500#	BOTTOM BONNET 850#

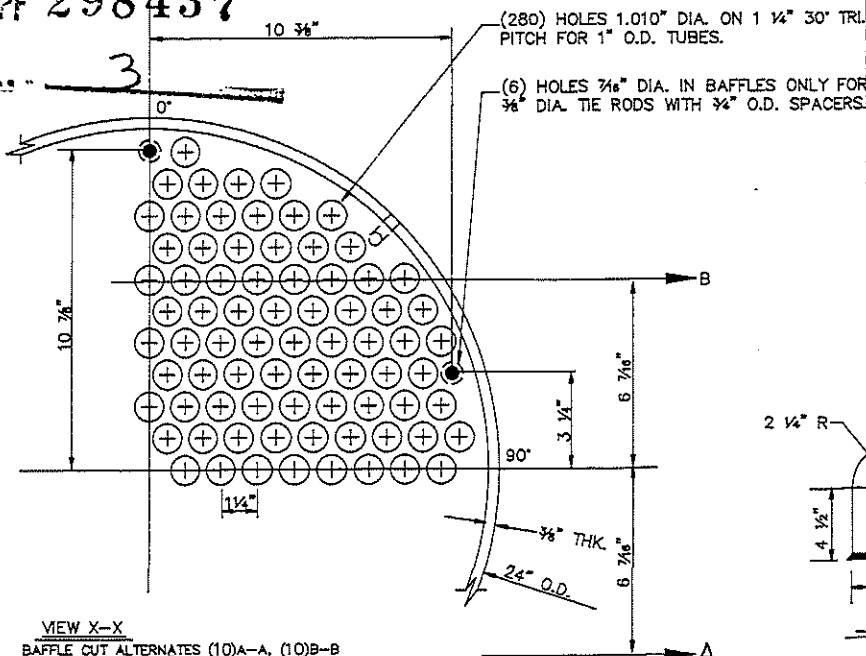
CERTIFIED	ENG. <i>KY-1/C</i>	
CUSTOMER E.I. DUPONT DE NEMOURS & COMPANY, INC.		
CUSTOMER P.O. NO. LPBC-96110W		
ITEM NO.		PROJ. NO. 6432
PLANT BEAUMONT, TEXAS		
EN. NO. 5116-7305-16		
TEMA SIZE AND TYPE		
(1) 23-120 BEM TOPPING COLUMN CONDENSER		
SOUTHERN HEAT EXCHANGER CORP.		
P.O. BOX 030008 TUSCALOOSA, AL. 35403		
DATE 03/28/89	ORDER NO.	DWG. NO. SP-2096-2
BY B. HUFF	89-034	SHEET 2 OF 5



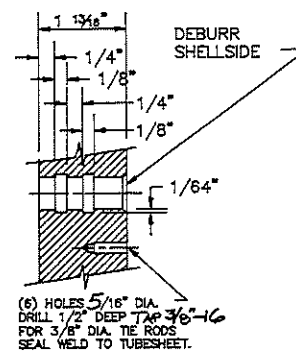
MAY 8 1990

SUPPORT DETAIL
(4) REQUIRED

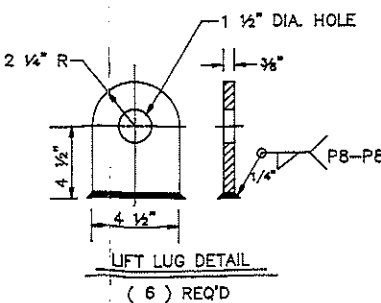
298437



VIEW X-X
BAFFLE CUT ALTERNATES (10)A-A, (10)B-B
BAFFLE DIA.: 23.100"
O.T.L.: 22.7945"
TUBEHOLE DIA. IN BAFFLES: 1 1/32"



C.S.T.L.
316L S.S.T.L.



LIFT LUG DETAIL
(6) REQ'D



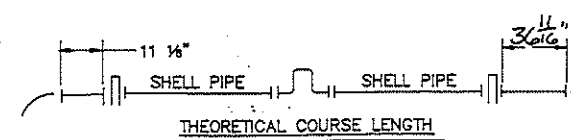
NATIONAL BOARD NO. LATER
CERTIFIED BY
SOUTHERN HEAT EXCHANGER CORP.
TUSCALOOSA, ALABAMA

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

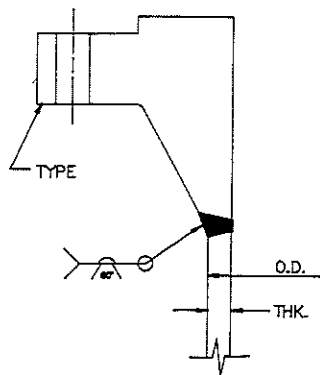
SHECO SER. NO. 89-034 YEAR 1989
CUST. ORDER LPBC-96110W
CUST. ITEM
EN NO. 5116-7305-16 DUPONT INSP. INT'L
BEAUMONT, TX PROJ. NO. 6432

CAUTION

THE PRESSURE AND TEMPERATURES SHOWN ON THE S.H.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.



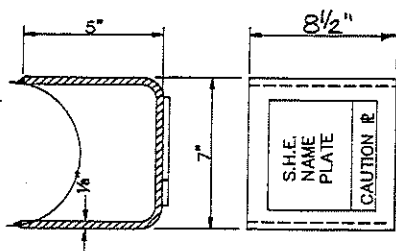
CERTIFIED	ENG. <u>W. C. J. B.</u>
CUSTOMER	E. I. DUPONT DE NEMOURS & COMPANY, INC.
CUSTOMER P.O. NO.	LPBC-96110W
ITEM NO.	PROJ. NO. 6432
PLANT	BEAUMONT, TEXAS
EN NO.	5116-7305-16
TEMA SIZE AND TYPE	
(1) 23-120 BEM TOPPING COLUMN CONDENSER	
SOUTHERN HEAT EXCHANGER CORP.	
P.O. BOX 030008 TUSCALOOSA, AL 35403	
DATE <u>03/28/89</u>	ORDER NO. <u>89-034</u>
BY <u>B. HUFF</u>	SHEET <u>3</u> OF <u>5</u>



RFWN NOZZLE DETAIL

S.H.E. MARK	TYPE	O.D.	THK.	MAT'L
C	3"-150#	3 1/2"	.216"	S.ST'L
Y	4"-150#	4 1/2"	.237"	S.ST'L
V/L1-2,Z	2"-150#	2 3/4"	.154"	S.ST'L
W1,W2	3"-150#	3 1/2"	.300"	C.ST'L

	C.ST'L
	304 S.ST'L
	316L S.ST'L



NAME PLATE BRACKET DETAIL

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

FABRICATION RELEASE

FOR GENERAL CONSTRUCTION TO OTHERS UNDER MATERIALS SECRETARY

- ☒ APPROVED
☐ APPROVED AS NOTED
☐ NOT APPROVED

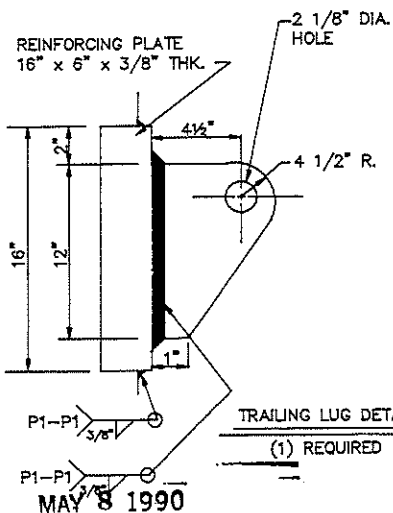
BY *W. McLain* 5/1/90
 SIGNATURE DATE

MAY 8 1990

BPF 298437

SHEET 4

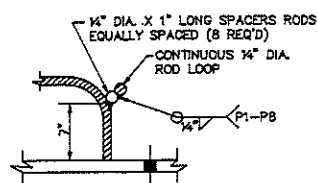
CERTIFIED	ENG. <i>W. McLain</i>
CUSTOMER E.I. DUPONT NEMOURS & COMPANY, INC.	
CUSTOMER P.O. NO. LPBC-96110W	
ITEM NO.	PROJ. NO. 6432
PLANT BEAUMONT, TEXAS	
EN NO. 5116-7305-16	
TEMA SIZE AND TYPE	
(1) 23-120 BEM TOPPING COLUMN CONDENSER	
SOUTHERN HEAT EXCHANGER CORP.	
P.O. BOX 030008 TUSCALOOSA, AL. 35403	
DATE 02/08/89	ORDER NO.
BY <i>W. McLain</i>	89-034
DWG. NO. SP-2096-2	SHEET 4 OF 5



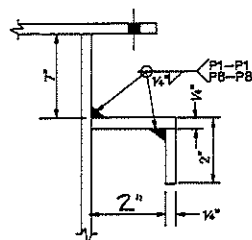
TRAILING LUG DETAIL
(1) REQUIRED

DPF 298437

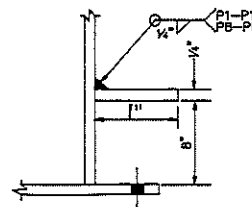
6



INSULATION SUPPORT
TYPE A



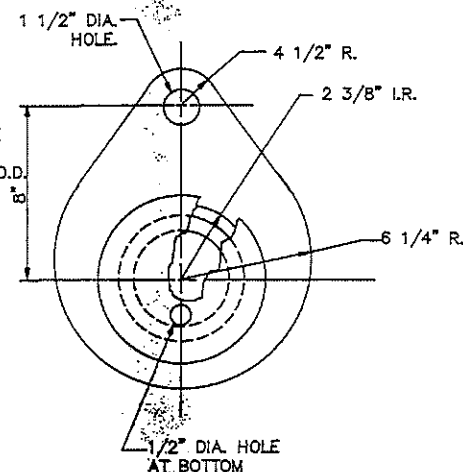
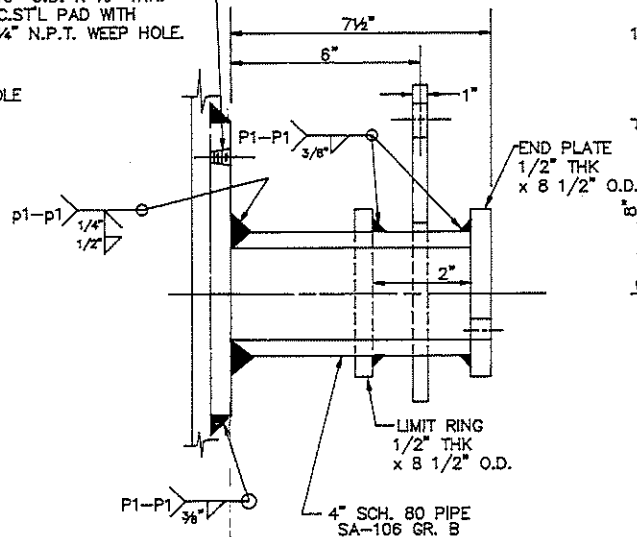
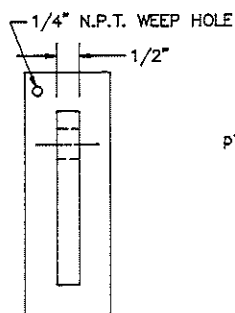
INSULATION SUPPORT
TYPE B



INSULATION SUPPORT
TYPE C

INSULATION SUPPORTS ARE MADE OF
THE SAME MATERIAL AS TO WHICH THEY
ARE ATTACHED

10" O.D. X 3/8" THK.
C.S.T'L PAD WITH
(1) 1/4" N.P.T. WEEP HOLE



TRUNNION DETAIL

(2) REQUIRED

FABRICATION RELEASE

FOR GENERAL CONFORMITY
TO DIMENSIONS & MATERIALS
SPECIFIED

C.S.T'L

- ☒ APPROVED
☐ APPROVED AS
NOTED
☐ NOT APPROVED

BY DUPONT FOR THIS ORDER
E. L. DU PONT
OF DENEMOURS & CO.

myra 5/1/90

CERTIFIED	ENG. <i>myra</i>	
CUSTOMER E.I. DUPONT DENEMOURS & CO., INC.		
CUSTOMER P.O. NO. LPBC-96110W		
ITEM NO. EN. NO. 5116-7305-16	PROJ. NO. 6432	
PLANT BEAUMONT, TEXAS		
TEMA SIZE AND TYPE		
(1) 23-120 BEM TOPPING COLUMN CONDENSER		
SOUTHERN HEAT EXCHANGER CORP.		
P.O. BOX 030008 TUSCALOOSA, AL. 35403		
DATE 11-13-89	ORDER NO.	DWG. NO. SP-2096-2
BY N.B.Y.	89-034	SHEET 5 OF 5