

ACCEPTANCE FOR ENGINEERING USE

THIS DOCUMENT IS:

ACCEPTED (AC) ✓

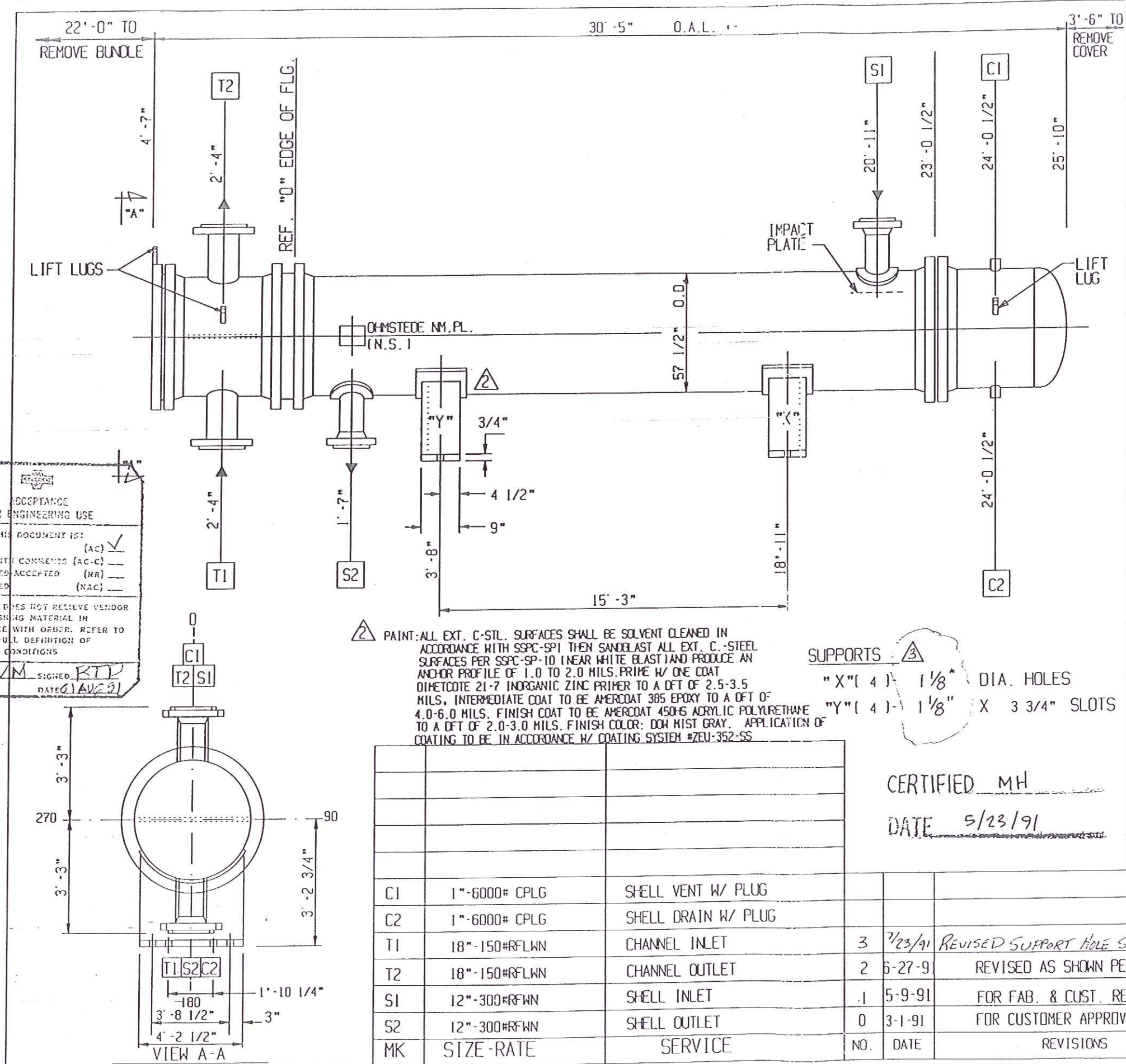
ACCEPTED WITH COMMENTS (AC-C) _____

NOT REVIEWED/ACCEPTED (NR) _____

NOT ACCEPTED (NAC) _____

ACCEPTANCE DOES NOT RELIEVE VENDOR FROM FURNISHING MATERIAL IN CONFORMANCE WITH ORDER. REFER TO VOR-1 FOR FULL DEFINITION OF ACCEPTANCE CONDITIONS

DIVISION: VM SIGNED: RTD DATE: 1 AUG 91



C1	1"-6000# CPLG	SHELL VENT W/ PLUG			
C2	1"-6000# CPLG	SHELL DRAIN W/ PLUG			
T1	18"-150#RFLWN	CHANNEL INLET	3	7/23/91	REVISED SUPPORT HOLE SIZE EMG.
T2	18"-150#RFLWN	CHANNEL OUTLET	2	5-27-91	REVISED AS SHOWN PER CUST.
SI	12"-300#RFLWN	SHELL INLET	1	5-9-91	FOR FAB. & CUST. REVIEW
S2	12"-300#RFLWN	SHELL OUTLET	0	3-1-91	FOR CUSTOMER APPROVAL
MK	SIZE-RATE	SERVICE	NO.	DATE	REVISIONS

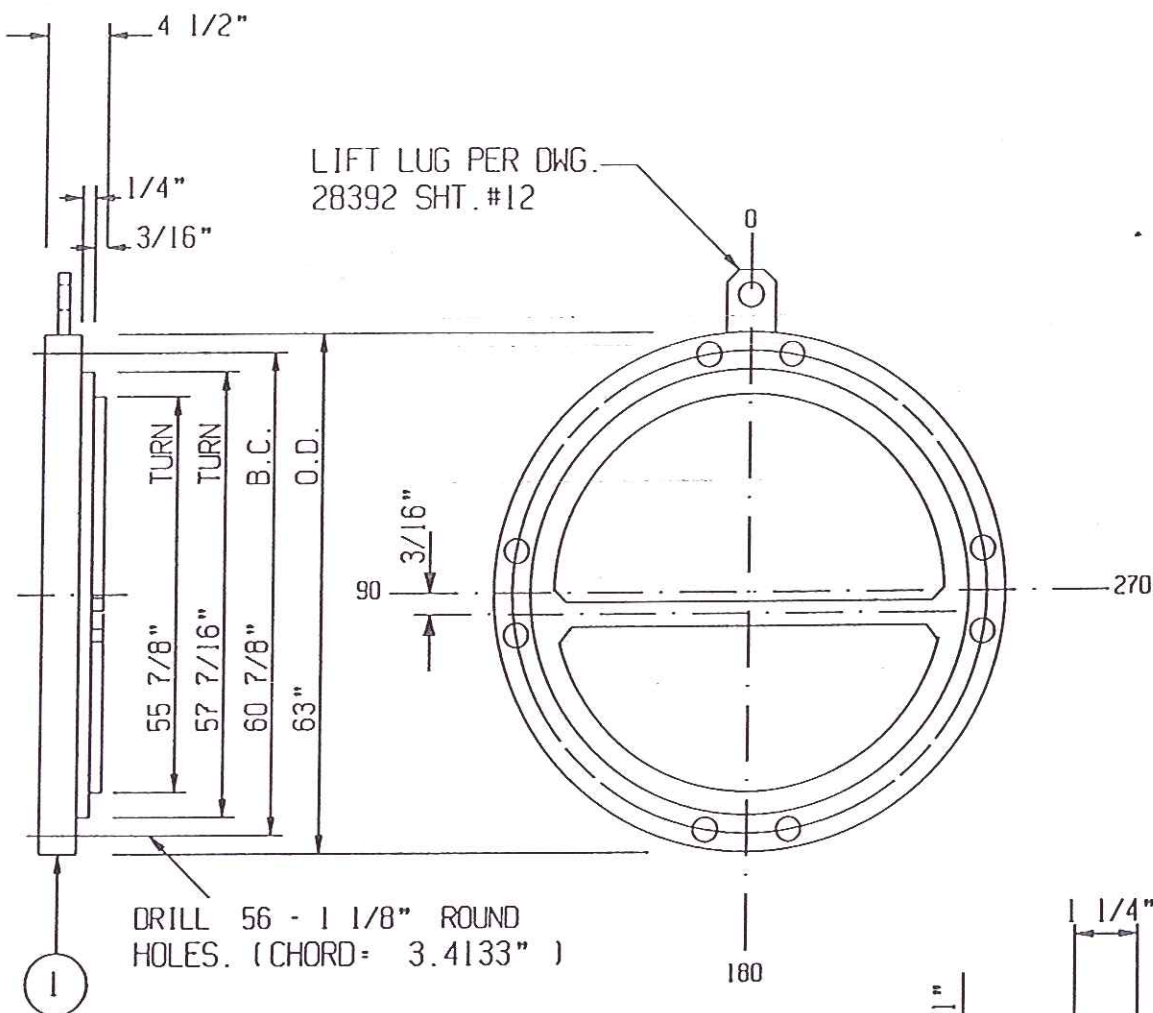
DESIGN DATA	SHELL	TUBE
DESIGN PRESSURE P.S.I.G.	382	255/FV
TEST PRESSURE P.S.I.G. SHOP/FIELD	573/573	390/383
DESIGN TEMPERATURE DEG. F.	650/ 10	200/ 10
CORROSION ALLOWANCE	.1250"	.1250"
NUMBER OF PASSES	1	2
RADIOGRAPHIC EXAMINATION	FULL (RT-1)	SPOT (RT-3)
HEAT TREAT REQUIRED	NO	*
ESTIMATED WEIGHTS, LBS.		
DRY: 63000	BUNDLE: 37500	WET: 92600
SPECIFICATIONS		
ASME CODE SECTION VIII DIV.1 STAMP YES M.W. KELLOGG SPECS.:		
TEMA CLASS R #C41-1E-6636, 4-7TS-6636		
NATIONAL BOARD REGISTRATION REQUIRED #06E-114-IFCDS, 9-4S-6636		
* FLOATING HEAD TO BE HEAT TREATED P42-ITS-6636		
MATERIAL		
CHANNEL: SA-516-70 NORM.		
SHELL: SA-516-70 NORM.		
TUBESHEETS: SA-350-LF2		
BAFFLES: SA36orEQUAL		
TUBES: SA-214 LO-FIN WITH 19 FINS PER INCH		
(1238 11" O.D.X .074" MIN. UNDER FIN X 24'-0" LG.		
TUBE PITCH 1 1/4" SURFACE 20062 SQ.FT.		
GENERAL NOTES		
ALL BOLT HOLES TO STRADDLE NATURAL CENTER LINES.		
MAX. ALLOWABLE PRESSURES:		
SHELLSIDE		
MAWP (HOT & CORR.) = 382 PSIG LIM. BY SHELL FLANGE BOLTING		
MAP (N & C) = 382 PSIG LIM. BY SHELL FLANGE BOLTING		
TUBESIDE		
MAWP (HOT & CORR.) = 255 PSIG LIM. BY CHANNEL FLANGE		
MAP (N & C) = 260 PSIG LIM. BY CHANNEL COVER		
MIN. DESIGN METAL TEMPERATURE = +10°F		
GASKETS: .1250" THK. AIDJNAF:		
FLTG. HEAD GASKET: .0625" THK. SOLID IRON. MAX. BRINELL		
HARDNESS: 120 BHN		
2 SETS OF SPARE GASKETS REQUIRED.		
CUST: M.W. KELLOGG/TENNECO		
P.O. NO.: 6636-9901-C210-01		
ITEM NO.: 06E-114		
SERVICE: DEPROPANIZER COLUMN OVHD CONDENSER		
SHIP TO: LAPORTE, TX		
OHMSTEDE JOB NO.: 28392		

ASSEMBLY AND SPECIFICATIONS FOR			
ONE 56-288 A E T			
OWN. BY	OHMSTEDE		
GEO			
DATE			
2-27-91			
CKD. BY	DRAWING NO.	SHEET NO.	REV.
DC	28392	1	3

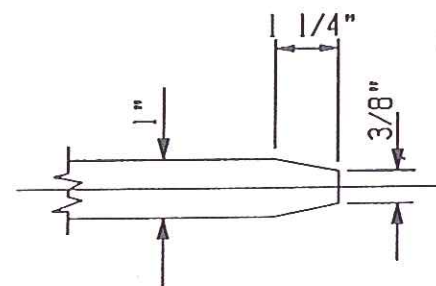
103371 LCRB

COVER NOTES:

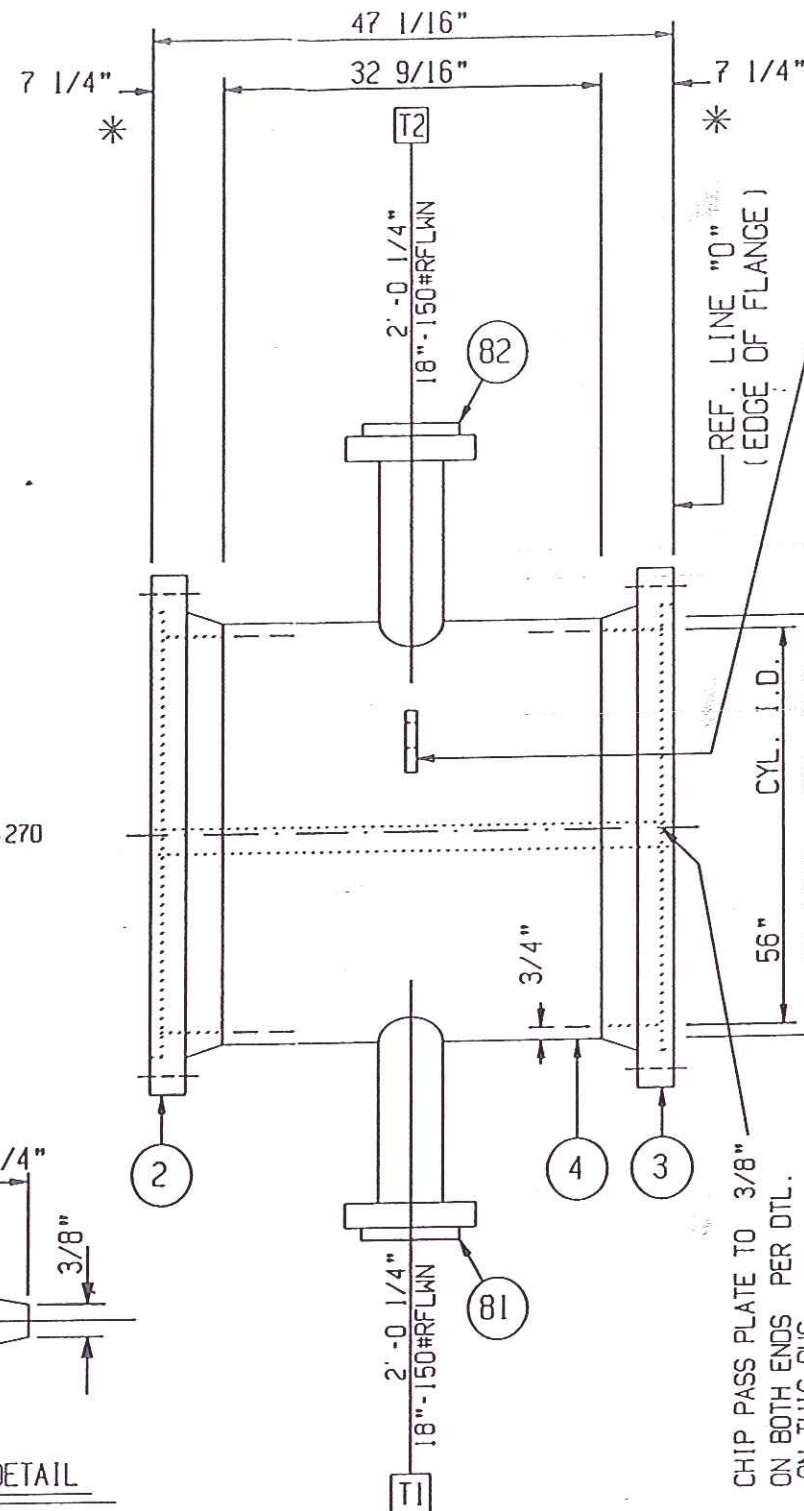
- 1) MACHINE ALL COVER GASKET SURFACES TO 125 RMS
- 2) ALL COVER PASS PLATE GROOVE WIDTHS TO BE 1/2" WIDE.
- 3) ALL COVER PASS PLATE GROOVE JUNCTIONS TO BE NOTCHED 3/8" AT 45 Deg.



CHANNEL-COVER DETAIL



PASS PL. TAPER DETAIL
(TYPICAL BOTH ENDS)



CHANNEL SIDE VIEW

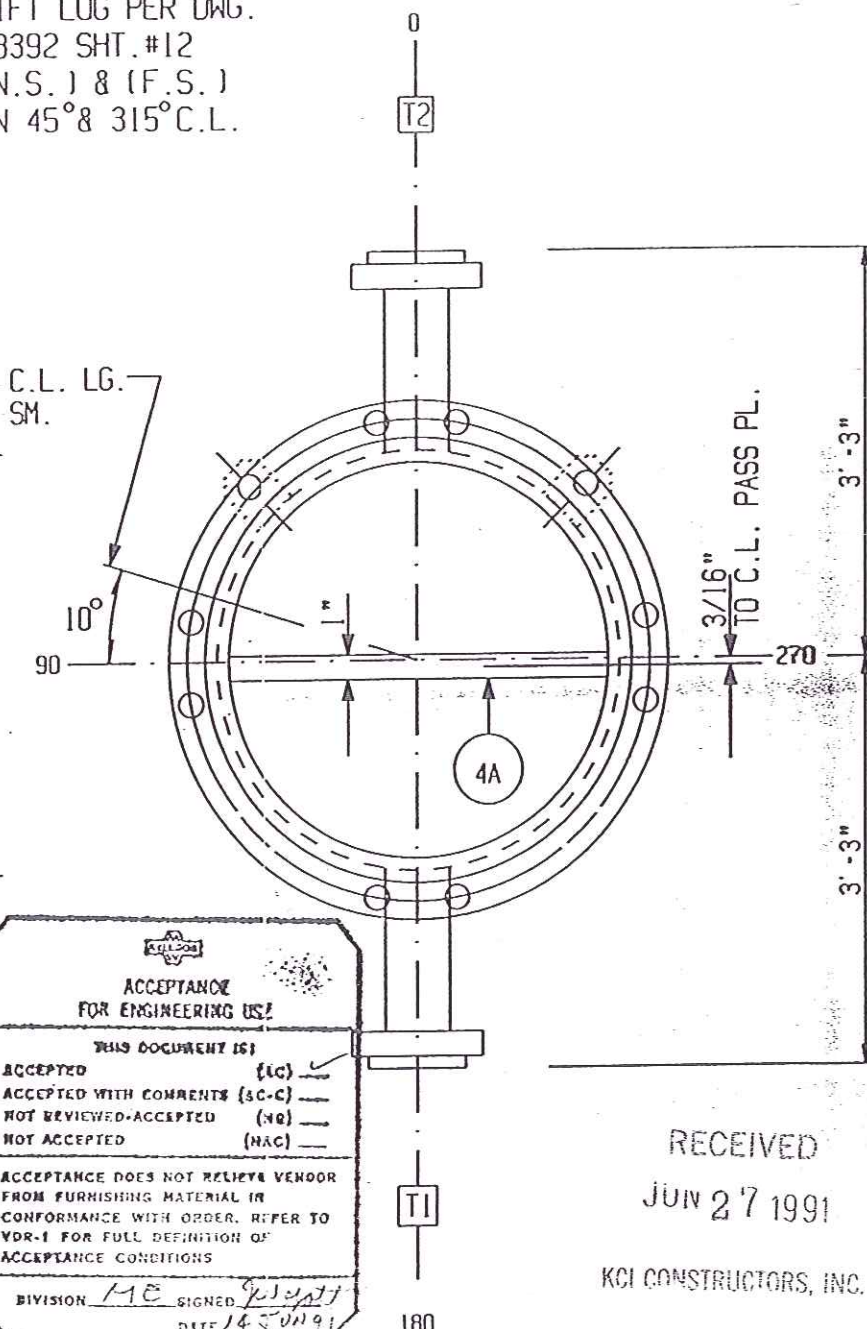
* MACHINE GASKET FACING AFTER ALL WELDING.
FOR FLANGE DETAILS SEE DWG. 28392SHT. #14

LIFT LUG PER DWG. 28392 SHT. #12 (N.S.) & (F.S.) ON 45° & 315° C.L.

C.L. LG. SM.

CHIP PASS PLATE TO 3/8" ON BOTH ENDS PER DTL. ON THIS DWG.

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ACCEPTED WITH COMMENTS (SC-C)	(SC-C)
NOT REVIEWED-ACCEPTED (NR)	(NR)
NOT ACCEPTED	(NAC)
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DIVISION	SIGNED
DATE	DATE



CHANNEL END VIEW

RECEIVED
JUN 27 1991

KCI CONSTRUCTORS, INC.

NOTES:

- 1) ALL WELDING TO BE IN ACCORDANCE W/ PROCEDURES #S/PI-1, #A/PI-1, M3TR
- 2) ALL BOLT HOLES TO STRADDLE CENTER LINES.
- 3) SEE DWG. 28392 SHT. #15 FOR WELD & BEVEL DETAILS.
- 4) SPOT RADIOGRAPHY.

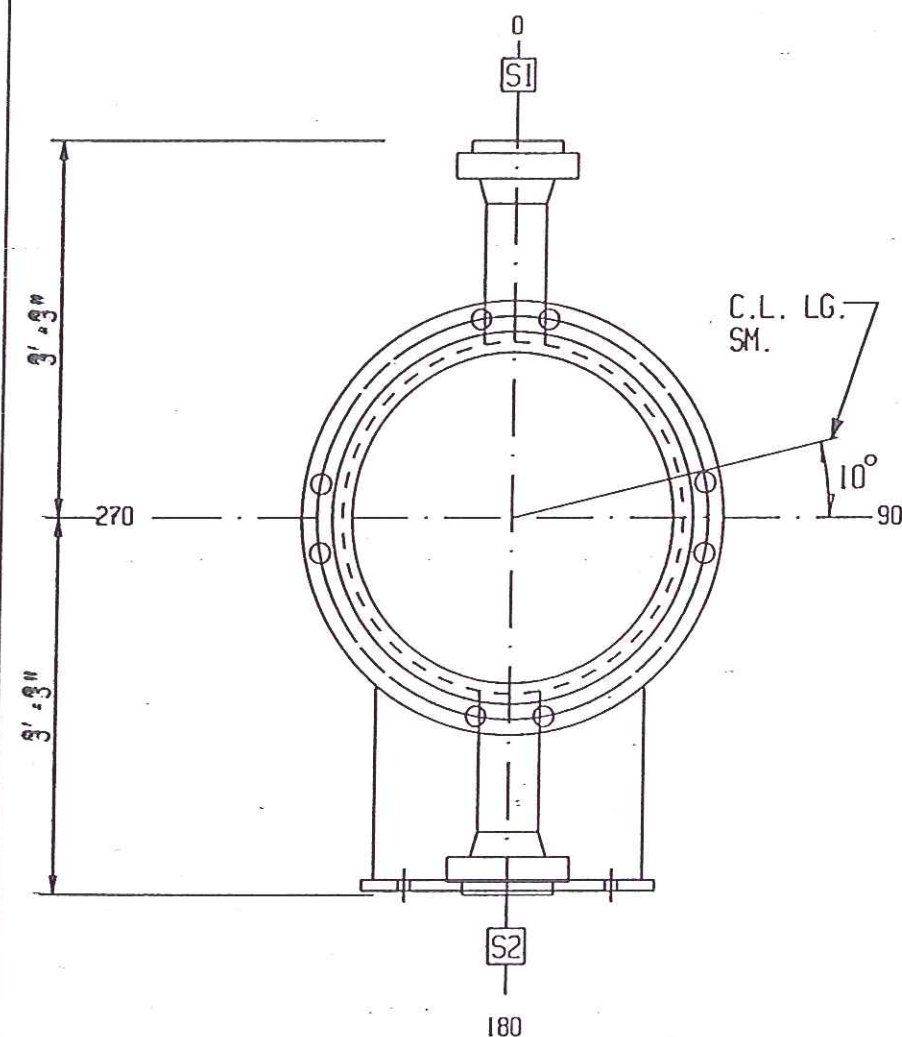
CUST: M.W. KELLOGG/TENNECO
P.O. NO.: 6636-99D1-C210-01
ITEM NO.: 06E-114
SERVICE: DEPROPANIZER COLUMN OVHD CONDENSER
SHIP TO: LAPORTE, TX
OHMSTEDE JOB NO.: 28392

FRONT CHANNEL DETAILS

OHMSTEDE

REVISIONS			OWN. BY		
NO.	DATE	REVISIONS	OWN. BY	DATE	REV.
0	5-9	FOR FAB. & CUST. REVIEW.	ERIC	5-8-91	0
			CKD. BY	DRAWING NO.	SHEET NO.
			DC	28392	3

FOR FLANGE DETAILS SEE DWG. 28392 SHT. #14 & 14A



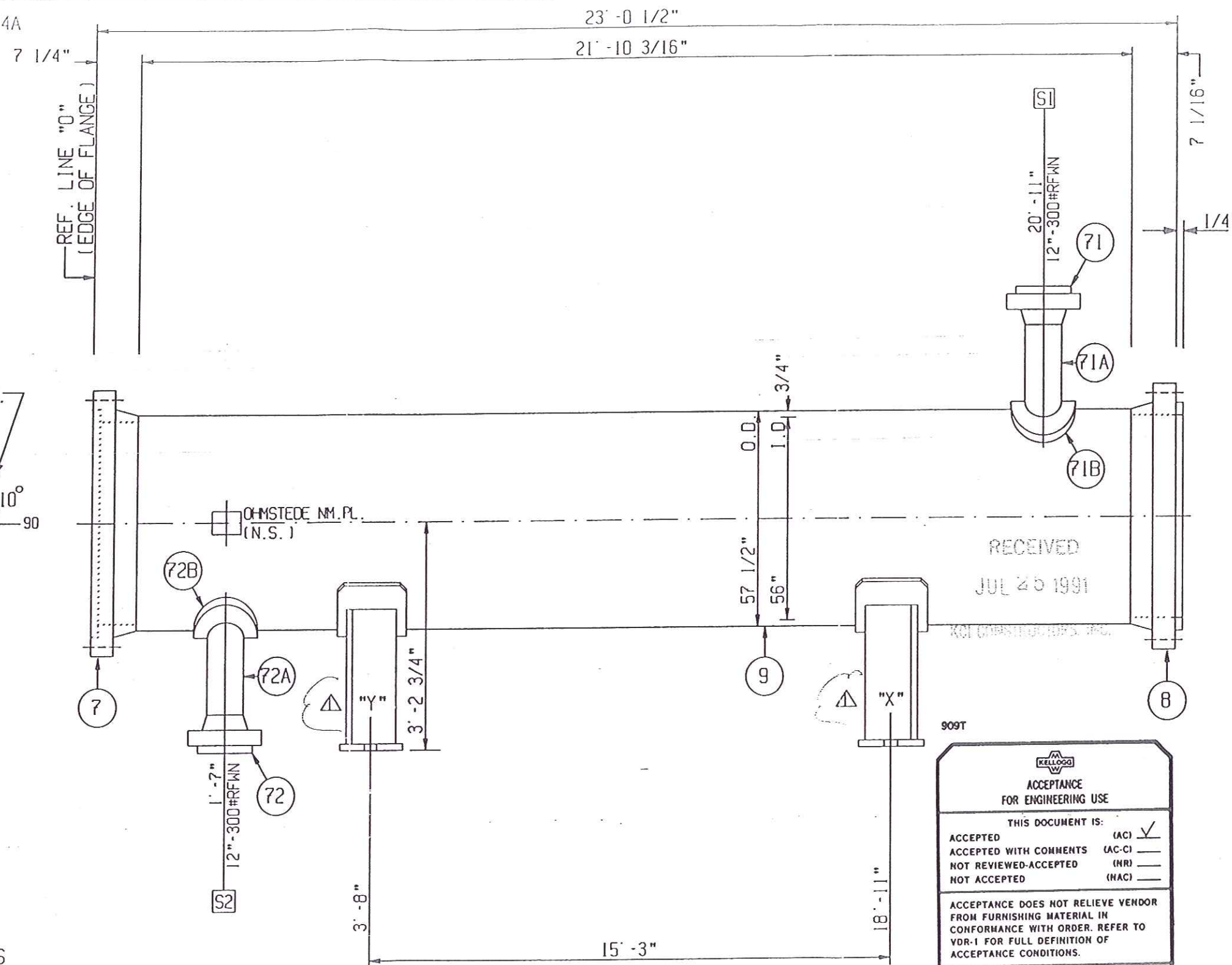
SHELL END VIEW

NOTES:

- 1) ALL WELDING TO BE IN ACCORDANCE W/ PROCEDURES #S/PI-1, #A/PI-1, #M3TR
- 2) ALL BOLT HOLES TO STRADDLE CENTER LINES.
- 3) SEE DWG. 28392 SHT. #15 FOR WELD & BEVEL DETAILS.
- 4) GRIND ALL INSIDE WELDS FLUSH.
- 5) FULL RADIOGRAPHY. (RT-1)



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P.O. NO.: 6636-9901-C210-01
ITEM NO.: 06E-114
SERVICE: DEPROPANIZER COLUMN OVHD CONDENSER
SHIP TO: LAPORTE, TX
OHMSTEDE JOB NO.: 28392



SHELL SIDE VIEW

KELLOGG	
ACCEPTANCE FOR ENGINEERING USE	
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DIVISION VM	SIGNED RTD
DATE 17 JULY 91	

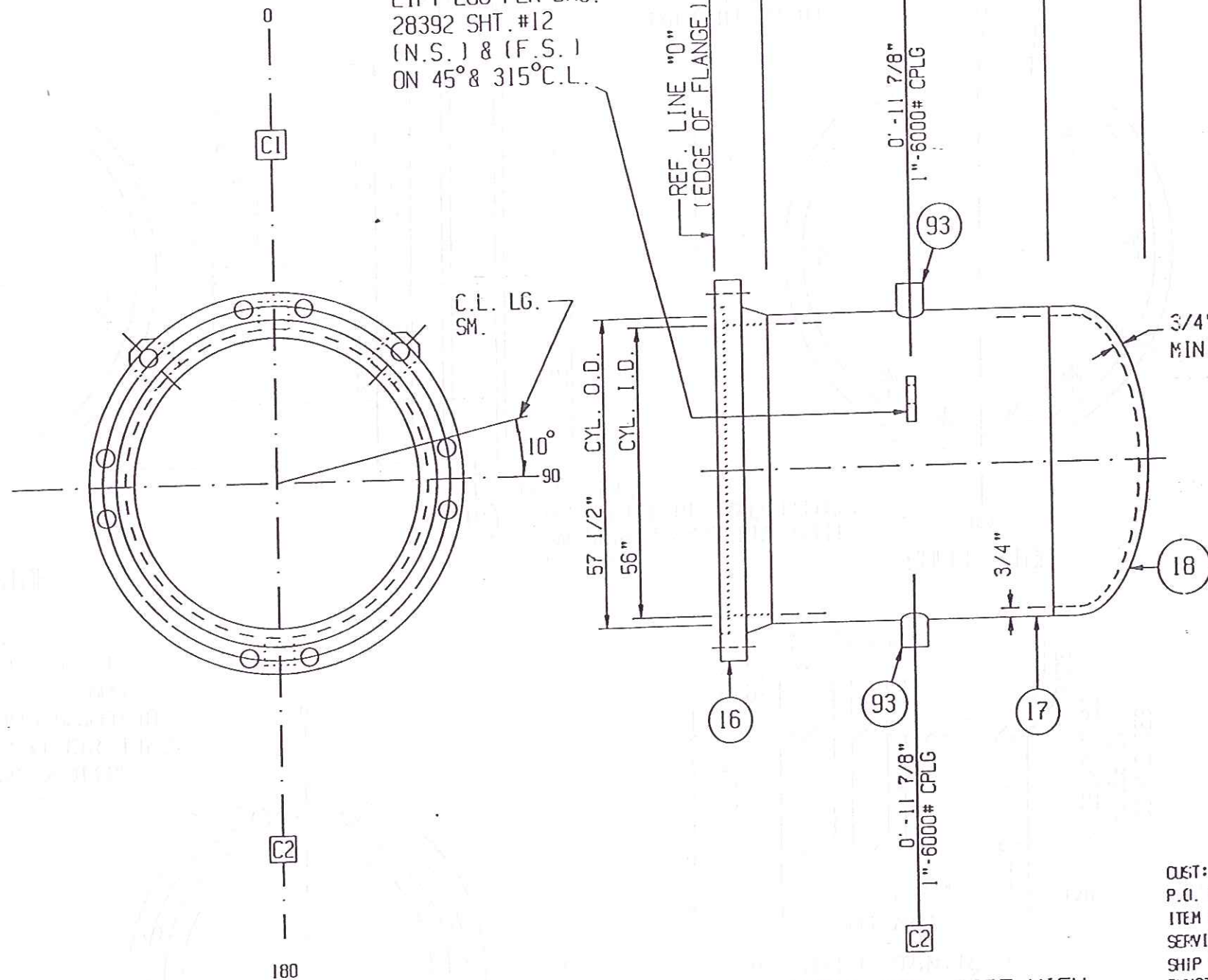
SHELL DETAILS

OHMSTEDE

REVISIONS			DRAWING NO. 28392		
NO.	DATE	REVISIONS	OWN. BY	SHEET NO.	REV.
1	6-27-91	REVISED PER CUSTOMER	ERIC	4	1
0	5-9-91	FOR FAB. & CUST. REVIEW.	DATE 5-8-91		
			CKD. BY DC		

* MACHINE GASKET FACING AFTER ALL WELDING.
FOR FLANGE DETAILS SEE DWG. 28392 SHT. #14A

LIFT LUG PER DWG. 28392 SHT. #12 (N.S.) & (F.S.) ON 45° & 315° C.L.



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DIVISION	SIGNED <i>[Signature]</i>
DATE	DATE 14 JUN 91

CUST: M.W. KELLOGG/TENNECO
P.O. NO.: 6636-9901-C210-01
ITEM NO.: 06E-114
SERVICE: DEPROPANIZER COLUMN OVHD CONDENSER
SHIP TO: LAPORTE, TX
OHMSTEDE JOB NO.: 28392

NOTES:

- 1) ALL WELDING TO BE IN ACCORDANCE W/ PROCEDURES #S/PI-1, #A/PI-1, M3TR.
- 2) ALL BOLT HOLES TO STRADDLE CENTER LINES.
- 3) SEE DWG. 28392 SHT. #15 FOR WELD & BEVEL DETAILS.
- 4) GRIND ALL INSIDE WELDS FLUSH.
- 5) FULL RADIOGRAPHY.

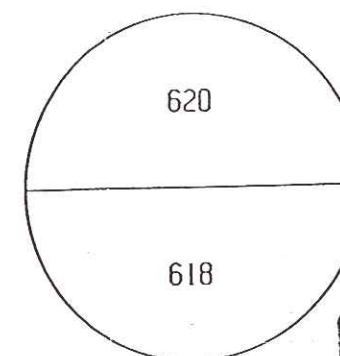
SHELL CVR. END VIEW

SHELL CVR. SIDE VIEW

SHELL COVER DETAILS				
OWN. BY ERIC	DATE 5-8-91	OHMSTEDE		
0	5-9	FOR FAB. & CUST. REVIEW.		
NO.	DATE	REVISIONS		
		CKD. BY DC	DRAWING NO. 28392	SHEET NO. 5
				REV. 0

TIE RODS.
1/2" O.D.
14 REOD. TOTAL

SEAL BAR NOTES:
1) CUT SLOTS IN BAFFLES ONLY.
2) CUT SLOTS 5/16" WIDE.
3) CUT SLOT DEPTHS, SEAL BAR WIDTH 1/16"
FROM OUTSIDE EDGE OF SLOT.



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DIVISION <i>ME</i>	SIGNED <i>[Signature]</i> DATE <i>14 JUN 91</i>

TUBE DISTRIBUTION

NOTES:

- 1) DRILL AND REAM TUBE HOLES IN TUBESHEETS TO 1.0100" $\pm$.002" DIA. FOR 1238 - 1" O.D. TUBES.
- 2) TUBE PITCH = 1 1/4" SQUARE.
- 3) NUMBER OF PASSES = 2
- 4) SEE DRAWING 28392 SHT.#6 FOR TUBE HOLE GROOVING DETAILS.
- 5) BAFFLE O.D. = 55 3/4"
- 6) O.T.L. = 51 3/16"

CUST: M.W.KELLOGG/TENNECO
P.O. NO.: 6636-9901-C210-01
ITEM NO.: 06E-114
SERVICE: DEPROPANIZER COLUMN OVHD CONDENSER
SHIP TO: LAPORTE, TX
OHMSTEDE JOB NO.: 28392

TUBE LAYOUT			
		DWN. BY ERIC	OHMSTEDE
		DATE 5-8-91	
0	5-9	FOR FAB. & CUST. REVIEW.	CKD. BY DC
NO.	DATE	REVISIONS	DRAWING NO. 28392
			SHEET NO. 7
			REV. 0

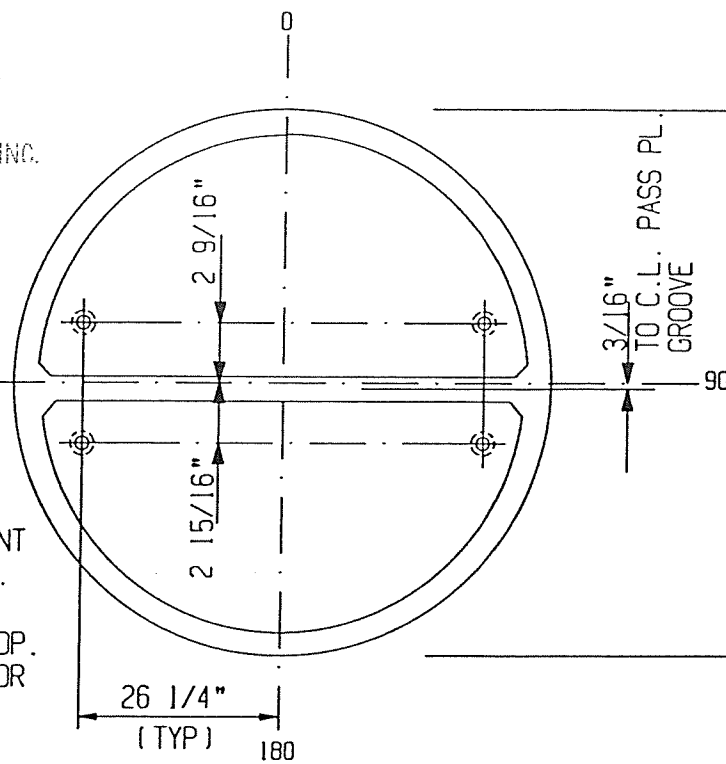
VIEW LOOKING AT SHELL SIDE OF NO. 19 TUBESHEET

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KCI CONSTRUCTORS, INC.

DRILL (4) HOLES
1 7/64" DIA. X
3 1/4" DP TO POINT
OF DRILL THEN BTM.
TAP 1 1/4" DIA. X
7UNC-28 X 2 3/4" DP.
MIN. FULL THRD. FOR
PLUGS

101



CHANNEL SIDE

4 3/8"

3/16"

3/16"
TO C.L. PASS PL.
GROOVE

O.D.

TURN

57 7/16"

55 7/8"

TURN

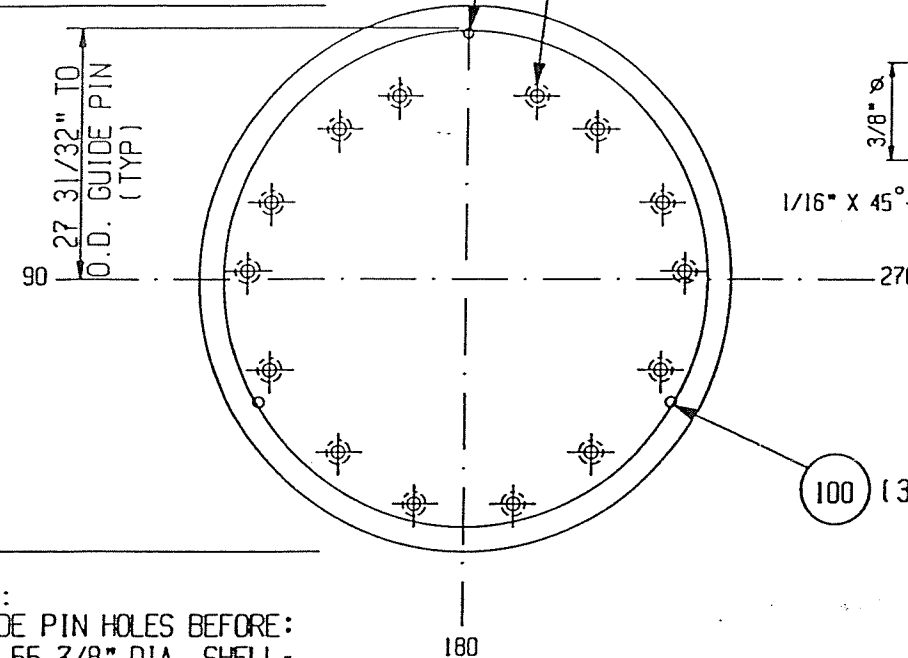
55 7/8"

19

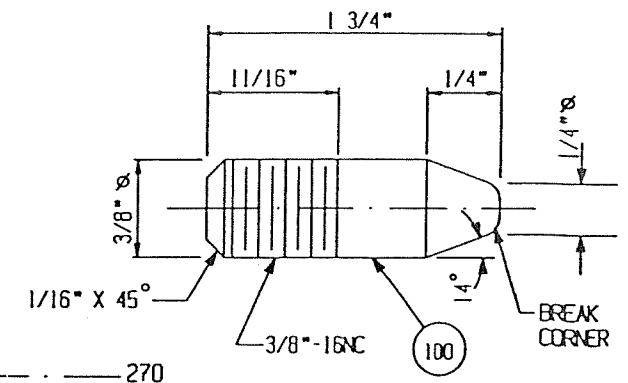
SHOP NOTE:
D & T GUIDE PIN HOLES BEFORE:
MACHINING 55 7/8" DIA. SHELL-
SIDE TURN.

STARTING POINT FOR (3) HOLES:
DRILL 5/16" DIA. X 1" DP. TO
POINT OF DRILL & TAP 3/8"-16NC
EQ. SPACED 120 DEG. APART ON
55 9/16" DIA. CIRCLE (SHELLSIDE
ONLY) SEE DETAIL GUIDE PIN.
DO NOT DRILL THRU!!

DRILL & TAP 3/4" DEEP FOR 14 - 1/2" DIA.
TIE RODS ON SHELL SIDE OF
19 TUBESHEET. DO NOT DRILL THRU!!
(SEE TUBE LAYOUT FOR LOCATIONS.)



SHELL SIDE



DETAIL GUIDE PIN

(3) REQ'D.

100 (3) PLACES

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DIVISION	MC
SIGNED	J. W. Galt
DATE	14 JUN 91

NOTES:

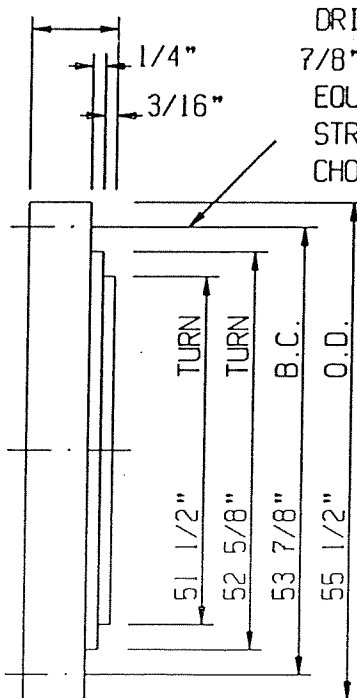
- 1) MACHINE ALL GASKET SURFACES TO 125 RMS.
- 2) ALL PASS PLATE GROOVE WIDTHS TO BE 1/2" WIDE.
- 3) ALL PASS PLATE GROOVE JUNCTIONS TO BE NOTCHED 3/8" AT 45 Deg.

CUST: M.W.KELLOGG/TENNECO
P.O. NO.: 6636-99D1-C210-01
ITEM NO.: 06E-114
SERVICE: DEPROPANIZER COLUMN OVHD CONDENSER
SHIP TO: LAPORTE, TX
OHMSTEDE JOB NO.: 28392

4 3/8"

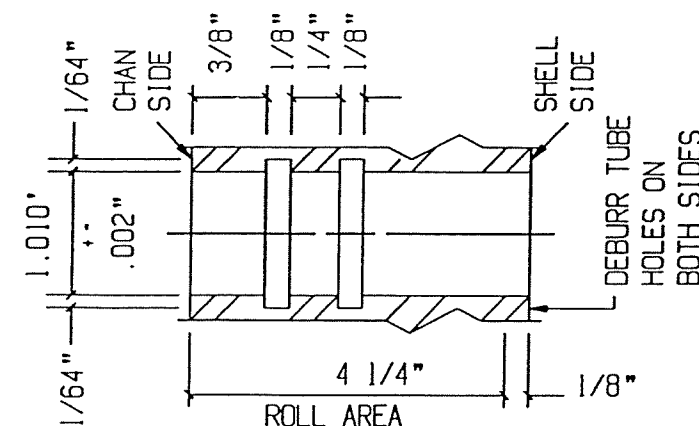
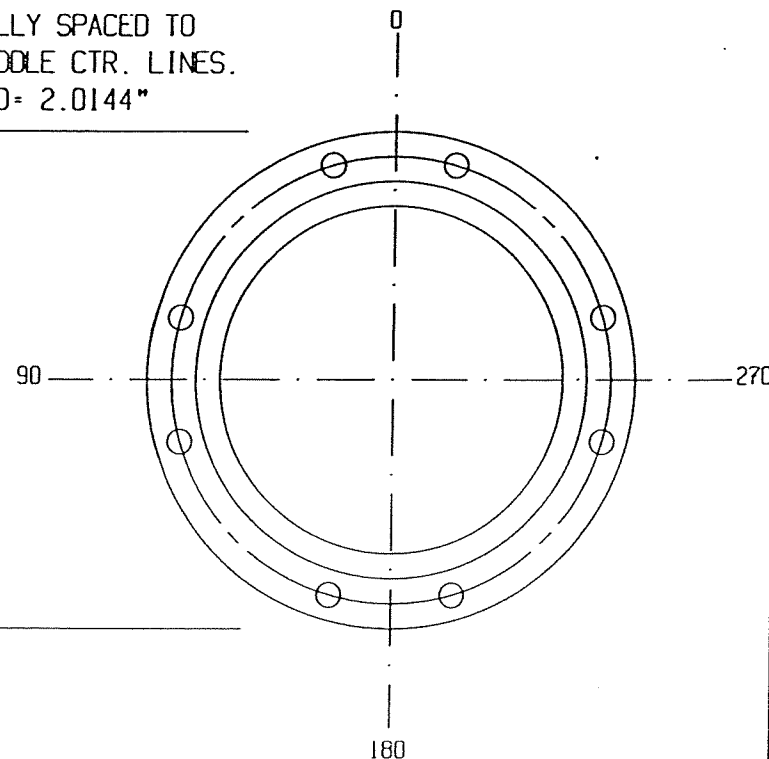
1/4"
3/16"

DRILL (84)
7/8" φ HOLES
EQUALLY SPACED TO
STRADDLE CTR. LINES.
CHORD= 2.0144"



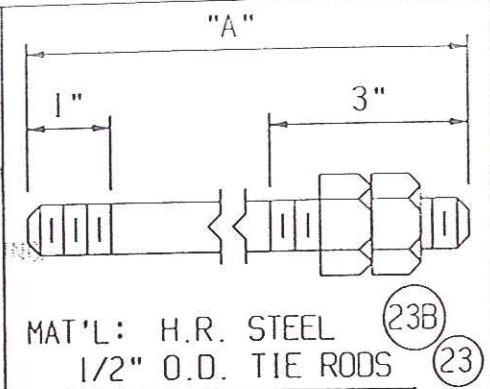
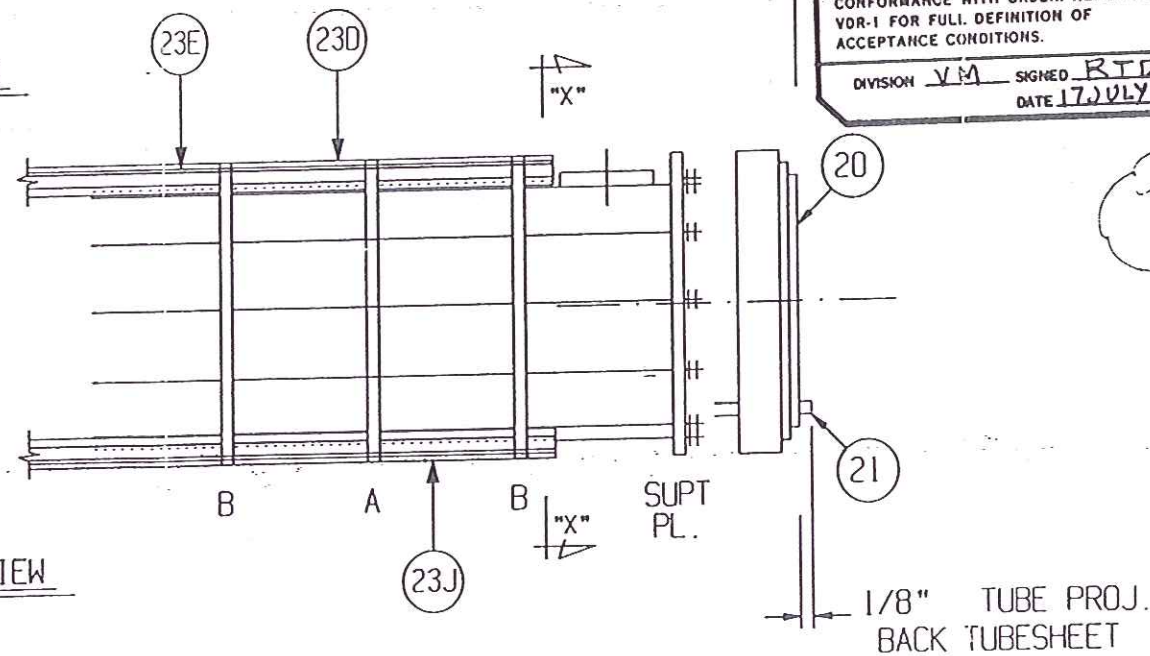
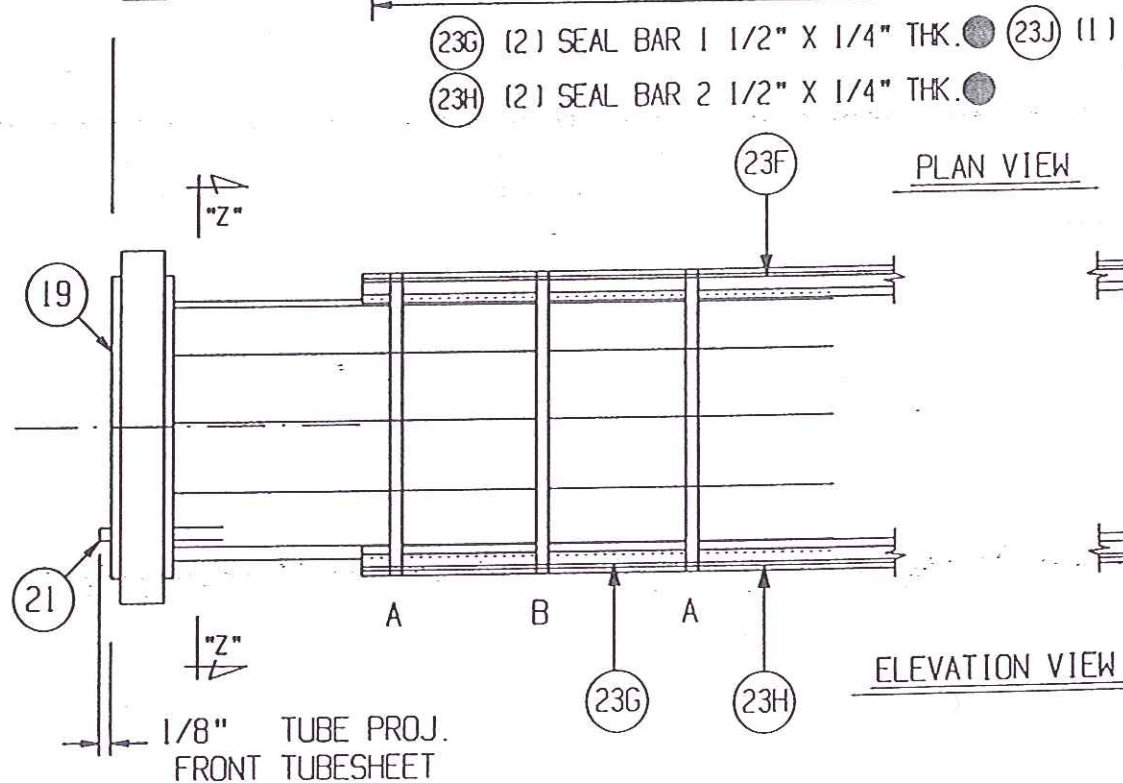
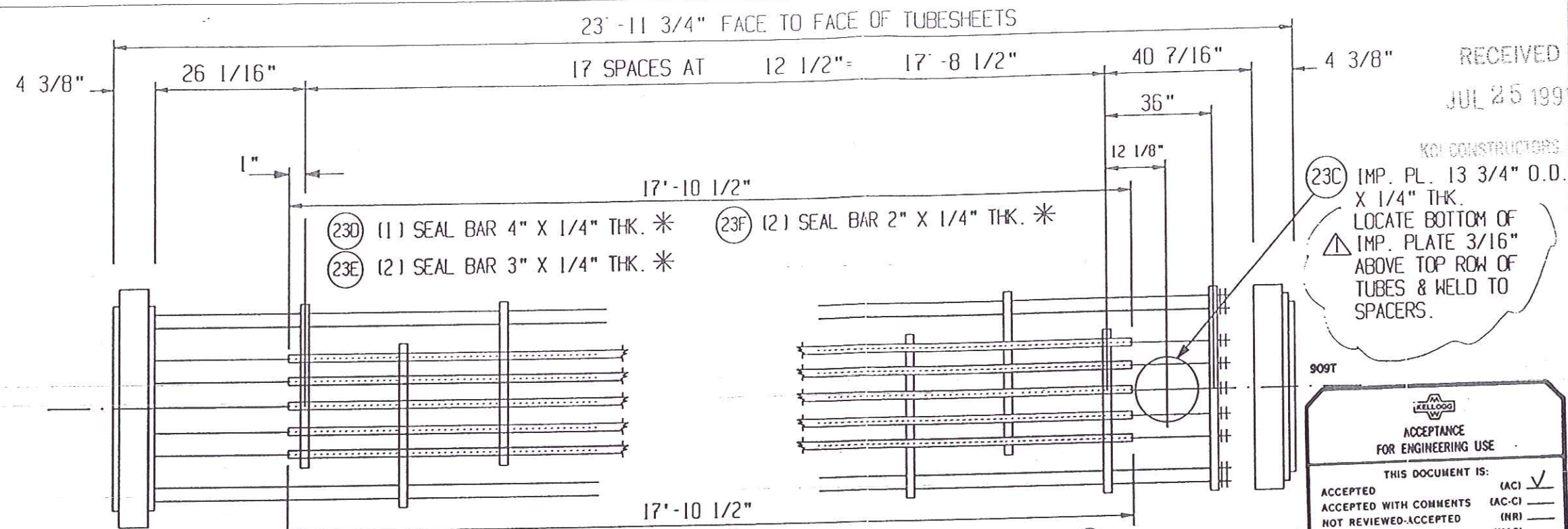
20

FLOATING TUBESHEET DETAIL

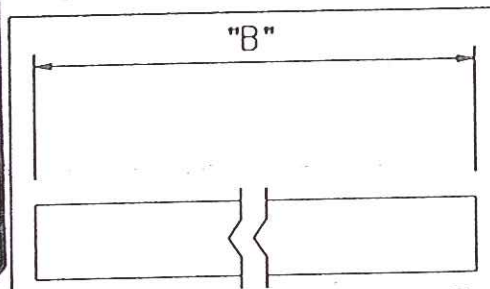


TUBE HOLE GROOVING DETAIL

TUBESHEET DETAILS			OHMSTEDE		
OWN. BY ERIC	DATE 5- 8-91	CKD. BY DC	DRAWING NO. 28392	SHEET NO. 6	REV. 0
0	5-9	FOR FAB. & CUST. REVIEW.			
NO.	DATE	REVISIONS			



REQ'D.	"A"
14	23'-1 1/8"



REQ'D.	"B"
11	25 7/8"
3	38 3/8"
136	12 1/8"
48	24 5/8"
11	35 1/2"
3	48"

909T

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DIVISION VM SIGNED RTD DATE 17 JULY 91

CUST: M.W.KELLOGG/TENNECO
 P.O. NO.: 6636-99D1-C210-01
 ITEM NO.: 06E-114
 SERVICE: DEPROPANIZER COLUMN OVHD CONDENSER
 SHIP TO: LAPORTE, TX
 OHMSTEDE JOB NO.: 28392

NOTES:
 1) SEE DWG. NO. 28392 SHT. #9 FOR SECTION AND VIEW DETAILS.
 * SEAL BARS TOP ONLY, TACK WELD TO BAFFLES.
 ● SEAL BARS BOTTOM ONLY, SEAL WELD TO BAFFLES.

			BUNDLE DETAILS ✓			
			OWN. BY ERIC	OHMSTEDE		
			DATE 5- 8-91			
1	6-27-9	REVISED PER CUSTOMER	CKD. BY EC	DRAWING NO. 28392	SHEET NO. 8	REV. 1
0	5-9-91	FOR FAB. & CUST. REVIEW.				
NO.	DATE	REVISIONS				