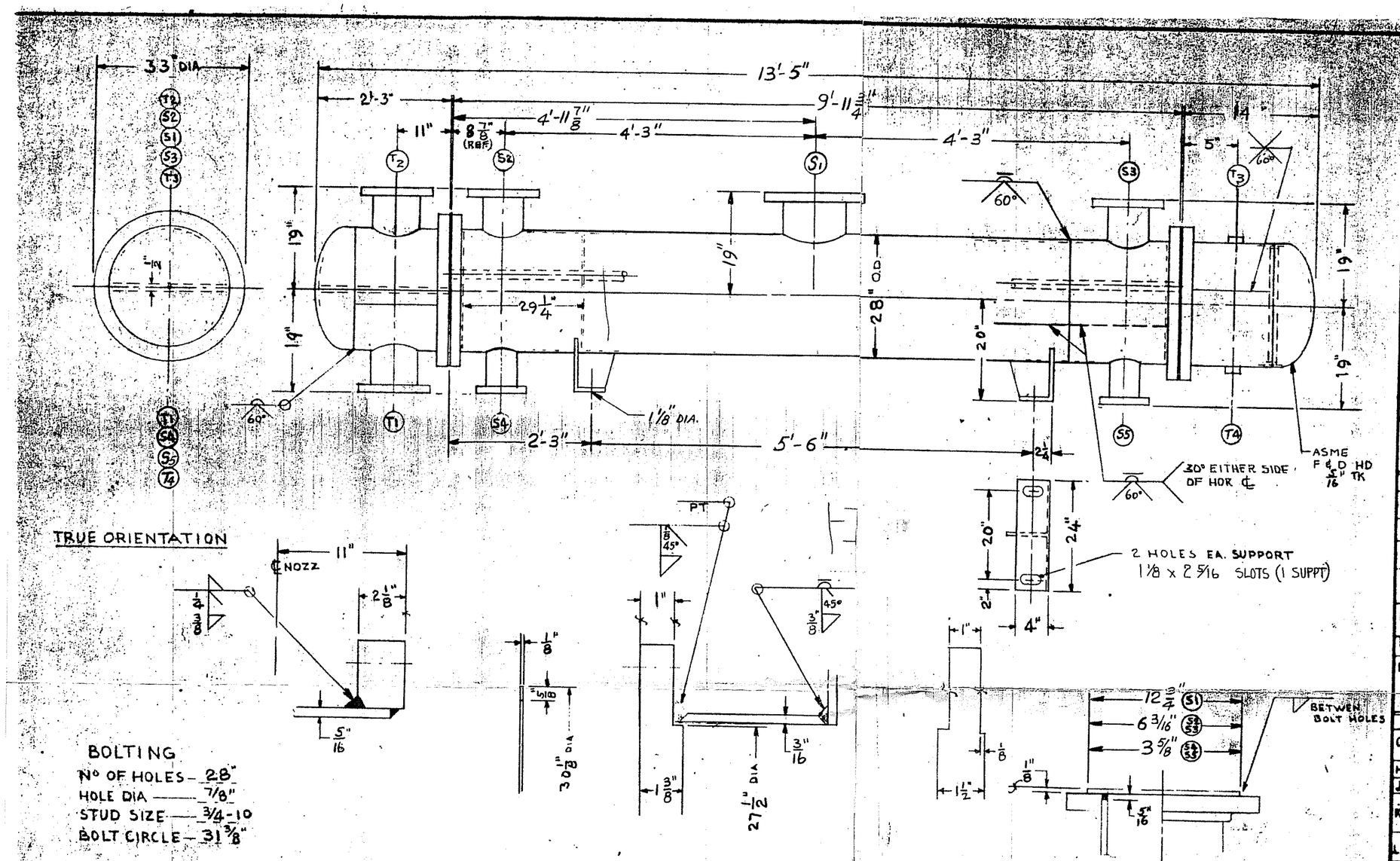

CONSTRUCTION TO COMPLY WITH ASME CODE SECT VIII 1965 ED. INCLUDING CERT AND STAMP (FORM U-1)

TEMA CL. C

FOR INSTALLATION IN STATE OF

SHELL SIDE	CONDITIONS	TUBE SIDE
75	DES. PRESS. (PSIG)	75
300	DES. TEMP. (°F)	300
136	TEST PRESS (PSIG)	113
METHANOL & INERTS	DESIGN FLUID	BRINE

0 CORR. ALLOW. (EXCEPT TUBES) MC

Low Temp. Service - See Fab. Note B

Designed per UCS-66 (NO IMPACT TEST)

Halogen Test: PSIG PER SA-7540

Dehydrate

Air and Soap Test: Reinf. Pads, Facings

WEIGHTS (lbs.)	
Empty:	5200
Flooded:	7700

FABRICATION NOTES

S=Req'd. in Shell, C=Req'd. in Channel, NR=Not Required

			S	C	N
A	X-Ray - Spot ☐ Full ☐				
B	Impact Test	Weld Metal / Base Metal			
C	Post Weld Heat Treat				
D	Sandblast C.S. After Fab. Per SSPC SEE A-11138	Ext. / Int.	☒		
E	Pickle				
F	Paint Exterior C.S. PER A-11138		☒		
		Req'd.			N
G	Tube End Welding SA-8571	Manual / Automatic			☒
H	Tube Hole Grooving SA-8480		☒		
J	Customer's Nameplate				
K	Nozzle Protection M&L Std. ☒ TEFLON TAPE ALL SCR. CONN ☒				
L	Spare Parts: 2 SETS OF GASKETS TAGGED WITH O.D., I.D., STYLE & MAT'L				
M	PAINT EQUIP. Nº ON OUTSIDE OF VESSEL WITH LETTERS AT LEAST 2" HIGH				

CARBON STEEL	A 53 B	A 106 B	A 285 C	A 212 B	A 181 I	A 105 II	STAINLESS STEEL TYPE 304	A 312	A 240	A 182	ELC
SHELL											
Barrel											
Shell Flg.											
End Plate											
Formed Hd.											
Nozzle Nk.											
Nozzle Flg.											
Exp. Joint											
Cone											
Reinf. Pad											
Weld Ftgs.											
Scr. Ftgs.											
FACING											
BONNET OR CHANNEL											
Barrel											
Chan. Flg.											
End Plate											
Formed Hd.											
Nozzle Nk.											
Nozzle Flg.											
Cover											
Cone											
Reinf. Pad											
Weld Ftgs.											
Scr. Ftgs.											

	C. STL. A 285 C	C. STL. A 212 B	S. STL. A 240	ELC
Tube Sheet				
Tubes AVG	C.S. A 214	C.S. A 179	S.S. A 249	ELC
Min.				
Plugs A193-B7				
Nuts A194-2H				

		1/8	1/16
Gaskets			
Comp. Asb.			
	CS	SS	
Nbl. Jkt. Asb. Fill			
Spiral Wound			
Packing	Neoprene		
	CS	SS	
Baffles			
Tie Rods, Spacers			
Impingement Baf.			
Pass Partitions			
Unit Supports			
Support Pad			
Sealing Strips S.S. 302			

MATERIAL NOTES

Stainless Steel is of the type shown in Column heading unless indicated otherwise

A-312 is welded pipe unless indicated by "S" (For Seamless)

The letter "F" indicates facing of material under which it appears.

Carbon Steel A53 Gr. B is Seamless Pipe

NOZZLE SCHEDULE (NZZ. FLG-ASA EXCEPT AS NOTED)

MK	SIZE	RTG#	FACE	TYPE	NECK	REMARKS	SERVICE
S1	10	150	RF	SO	1/4	SEE DET	INLET
S2	4	150			S/40S		VAP OUT
S3	4	150			S/40S		VAP OUT
S4	2	150			S/40S		WTR OUT
S5	2	150			S/40S		WTR OUT
T1	8	150	RF	S.O.	S/30	-	INLET
T2	8	150	RF	S.O.	S/30	-	OUTLET
T3	1	3000	-	H.C.	PLUG	-	VENT
T4	1	3000	-	H.C.	PLUG	-	DRAIN

BAFFLES: H=HOR. V=VERT. D=SEE DET

No.	3	Pitch	23 1/4		
Dia.	27 7/16	Cut	45 %		
Tk.	1/2"	Cut*			

TUBES: FOR U-TUBES LG.=LENGTH OVER BUNDLE

No.	661	Lg.	10'-0"
OD	3/4"	Pitch	15/16 Δ
BWG	18	Passes	2

B.P.F. NO. 37195 DATE 4/6/67

SHEET 1 APPARATUS NO. E507-6, E2507-6

PROJECT & ACCOUNT 26001 2005

ORDER NO. 336-026-01092

PLANT Wilmington

APPROVED H. G. Atkinson

REV	DESCRIPTION	BY	DATE	CK.
3	WAS (1) 28-240 CONDENSER TAG Nº E-414-5	A.G.	3-31/67	G
2	PER CUST MKD. PR 12-19-66	G	1/26/67	
1	CORRECTED Nº OF PASSES	DAR	12/6/66	G

REFERENCE DRAWINGS:

T.S. DRILLING TEMPLATE: ET-10073

Certified Correct

Date: By:

Shop	Date			3/8	4/3		
CUST	Sepia	–	–	–			
	Prints	4	4	8	8		
	Date	12/7	12/16	1/27	4/3		
Issued	Rev.	0	1	2	3	4	5

CUSTOMER: HERCULES INC.

P.O. No.: 336-026-01092-11-002-FC

ENGINEERS:

UNITS REQUIRED: 2

M&L SER. NO. 4838 5118

MAT'L. BD. NO. 2564 2622

TAG NO. E-507-6 E-2507-6

#104088

B.P.F. Nº 37195

Insp. by Customer: Req'd. ☒ NR ☐

M&L JOB NO. 16371-9

MANNING & LEWIS ENGINEERING CO.
UNION, N. J.

28-120 CRUDE SCRUBBER VENT CONDENSER

TEMA TYPE BJM

SCALE	MADE	CHK	DATE	DRAWING NO.
~	G		12-7/66	C-10072-3