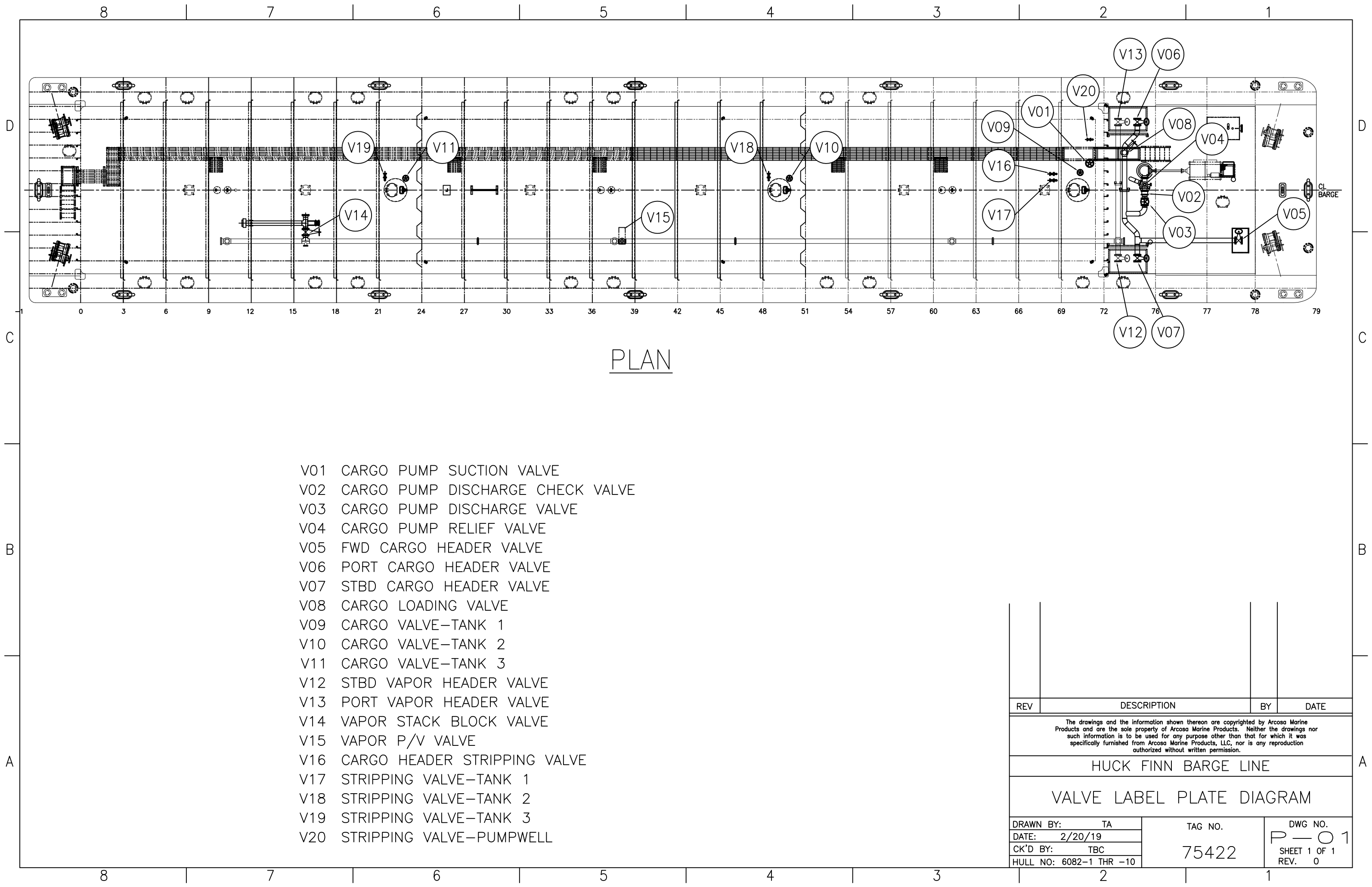


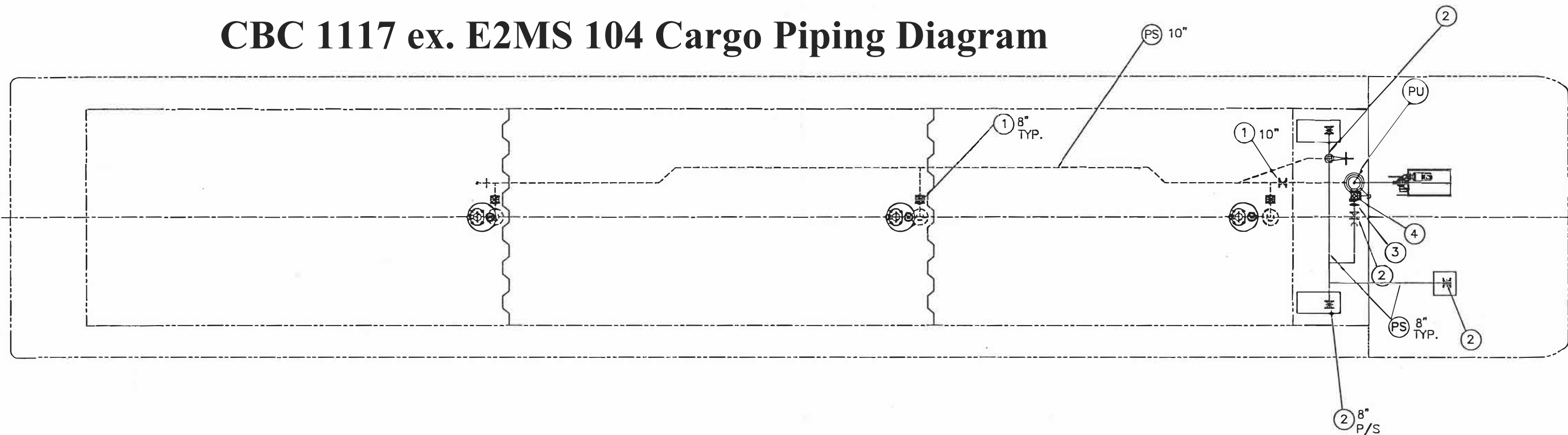


PLAN

- V01 CARGO PUMP SUCTION VALVE
- V02 CARGO PUMP DISCHARGE CHECK VALVE
- V03 CARGO PUMP DISCHARGE VALVE
- V04 CARGO PUMP RELIEF VALVE
- V05 FWD CARGO HEADER VALVE
- V06 PORT CARGO HEADER VALVE
- V07 STBD CARGO HEADER VALVE
- V08 CARGO LOADING VALVE
- V09 CARGO VALVE-TANK 1
- V10 CARGO VALVE-TANK 2
- V11 CARGO VALVE-TANK 3
- V12 STBD VAPOR HEADER VALVE
- V13 PORT VAPOR HEADER VALVE
- V14 VAPOR STACK BLOCK VALVE
- V15 VAPOR P/V VALVE
- V16 CARGO HEADER STRIPPING VALVE
- V17 STRIPPING VALVE-TANK 1
- V18 STRIPPING VALVE-TANK 2
- V19 STRIPPING VALVE-TANK 3
- V20 STRIPPING VALVE-PUMPWELL

REV	DESCRIPTION	BY	DATE
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HUCK FINN BARGE LINE			
VALVE LABEL PLATE DIAGRAM			
DRAWN BY: TA		TAG NO. 75422	DWG NO. P — 01 SHEET 1 OF 1 REV. 0
DATE: 2/20/19			
CK'D BY: TBC			
HULL NO: 6082-1 THR -10			

CBC 1117 ex. E2MS 104 Cargo Piping Diagram



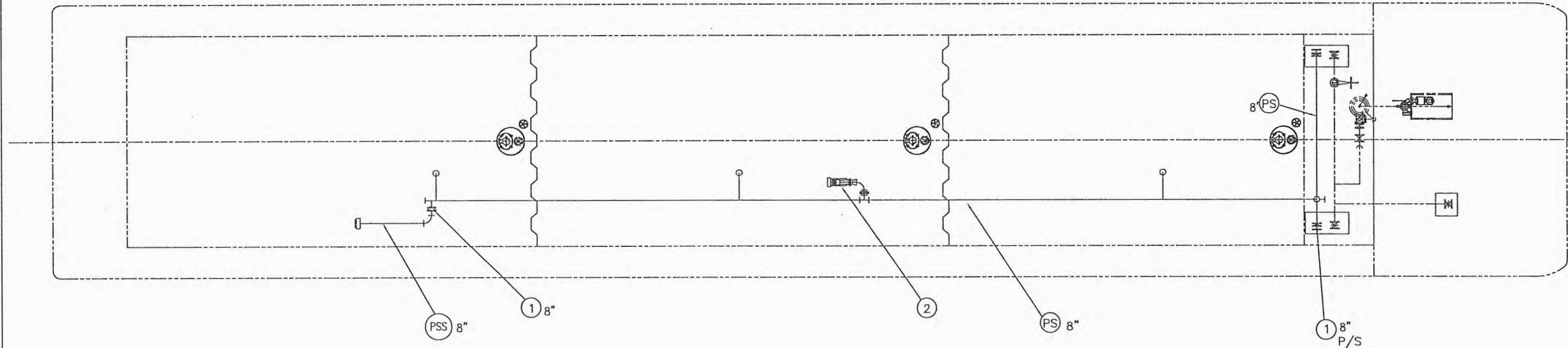
- GENERAL NOTES
1. ALL PIPING TO MEET USCG 1 REGULATIONS.
 2. BACKING RINGS SHALL BE USED AT BUTT WELD JOINTS 2" AND LARGER
 3. PIPES PASSING THROUGH WATER/OIL TIGHT BOUNDARIES TO BE WELDED BOTH SIDES.
 4. CARGO SYSTEM:
PRESSURE, WORKING 125 PSI
DESIGN 150 PSI
TEST 225 PSI
RELIEF VALVE 125 PSI
PUMP WELL TEST 15 PSI
 5. MATERIAL TO BE AS SPECIFIED OR EQUAL
 6. LABELS TO BE INSTALLED ON ALL VALVES WHERE REQUIRED TO IDENTIFY SERVICE.
 7. ENGINE SHUT DOWN SHALL BE INSTALLED INCLUDING SIGN (45 CFR 32.50-35)
 8. VALVES WHICH ARE LOCATED BELOW DECK WILL BE EQUIPPED WITH SOLID STN STEEL REACH RODS.
 9. BARGE IS DESIGNED FOR 6.0f SERVICE.

CARGO PIPING LIST OF MATERIALS

PC. NO.	PART	DESCRIPTION	MFG	NOMINAL SIZE	MATERIAL	RATING	ASTM NO.	ANSI NO.	
PU	CARGO PUMP	11X114GH 3 STAGE PUMP W/RIGHT ANGLE GEAR	BYRON JACKSON						
ENG	ENGINE	MEDCO NEF 67 MODEL	LABORDE (OFM)						
1	GATE VALVE	FIG. 15021C, FLG'D NRS	SPACE	ALL	CAST STL/CR13 TRM	150f	A-216 WCB	B16.34	
2	GATE VALVE	FIG. 15011C, FLG'D OS&Y	SPACE	ALL	CAST STL/CR13 TRM	150f	A-216 WCB	B16.34	
3	RELIEF VALVE	FIG. 260PA10L120, SET @ 125 PSI	TELEDYNE/FARRIS	4XPK6	CAST IRON	150f	A-126 CL. B	B16.34	
4	CHECK VALVE	WAFFER STYLE, 150f	DUO CHECK II	8"	CS.	150f	A-216 WCB	B16.34	
PS	PIPE	STD. WT., SEAMLESS		2" & ABOVE	STL.		A-53	B36.10	
	PIPE FLANGE	WN, SO, BLND & SW		ALL	STL.	150f	A-105	B16.5	
	JOINTS	UNION, COUPLING		2" & BLW	F.S.	3000f	A-105	B16.11	
	PIPE FITTINGS	BUTT WELD		ABV 2"	STL.	STD.WT.	A-234	B16.9	
	PIPE FITTINGS	SCRD, SW		2" & BLW	F.S.	3000f	A-105	B16.11	
	GASKETS	NON-ASBESTOS		ALL	GARLOCK				

REV		ITEM	DESCRIPTION	DATE	BY
REVISIONS					
TRINITY MARINE PRODUCTS, INC.					
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TRINITY MARINE PRODUCTS, INC.					
P.O. BOX 760 - JACKSONVILLE, LA 70407					
E SQUARED MARINE					
200'-0" X 35'-0" X 12'-6" DOUBLE SKIN TANK BARGE					
CARGO PIPING DIAGRAM					
SCALE: NTS		DATE: 12/15/16		DWG NO.	
DRAWN BY: BP		CK'D BY:		CP-02	
YARD:		TAG NO. 96273		SHT 1 OF 1	
HULL NO. E2MS 104		SHOP ORDER:		REV. 0	

CBC 1117 ex. E2MS 104 Vapor Piping Diagram



- GENERAL NOTES
- 1. ALL PIPING TO MEET USCG II REGULATIONS.
 - 2. BACKING RINGS SHALL BE USED AT BUTT WELD JOINTS 2" AND LARGER
 - 3. PIPES PASSING THROUGH WATER/OIL TIGHT BOUNDARIES TO BE WELDED BOTH SIDES.
 - 4. MATERIAL TO BE AS SPECIFIED OR EQUAL
 - 5. VAPOR HEADER EQUIPPED WITH DRAIN AT LOW POINT.
 - 6. BARGE IS DESIGNED FOR 6.0# SERVICE.

LIST OF MATERIALS									
PC. NO.	PART	DESCRIPTION	MFG	NOMINAL SIZE	MATERIAL	RATING	ASTM NO.	ANSI NO.	COMMENT
1	GATE VALVE	FIG. 15011C, FLG'D OS&Y	SPACE	ALL	CAST STL/SS TRM	150#	A-216 WCB	B16.34	
2	PRESSURE-VAC. VALVE	SUPER-AC MODEL II	ERL	6"	STN. STL				
PS	PIPE	STD. WT., ERW		8"	STEEL		A-53	B36.10	
PSS	PIPE	SCHEDULE 10, SMLS		8"	STAINLESS		A-53	B36.10	
	PIPE FLANGE	W.N., S.O., BLIND		ALL	STEEL	150#	A-181	B16.5	
	PIPE FLANGE	LAP JOINT FLANGE (SWIVEL FLANGE)		8"	STEEL	150#	A-105	B16.5	
	JOINT STUB	LAP JOINT STUB END, SCHEDULE 10, 8" LONG		8"	STAINLESS STEEL	150#	A-304	B36.10	
	JOINT STUB	LAP JOINT STUB END, STD. WT. 4" LONG		8"	STEEL	150#	A-53	B36.10	
	JOINTS	UNION, CPLG, S.W.		ALL	STEEL	3000#	A-105	B16.11	
	PIPE FITTINGS	BUTT WELD,		ALL	STEEL	STD. WT.	A-234	B16.9	
	PIPE FITTINGS	BUTT WELD,		ALL	STAINLESS STEEL	SCH. 10	A-182-F304L	B16.9	
	GASKET	RING TYPE, X 1/8" THICK FOR 150# FLG.	GARLOCK	ALL		150#			
	PRESS GAUGE	4 1/2 DIA., GLYCERIN FL'D 1/2" NPT LOWER CONN.	ASHCROFT MOD 1279		316 STN. STL.	0-200 PSI			# 45-1279-SSSL 04L-XXX-0/200 PSI

REV	ITEM	DESCRIPTION	DATE	BY
REVISIONS				
TRINITY MARINE PRODUCTS, INC.				
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TRINITY MARINE PRODUCTS, INC.				
P.O. BOX 790 - Madisonville, LA 70447				
E SQUARED MARINE				
200'-0" X 35'-0" X 12'-6" DOUBLE SKIN TANK BARGE				
VAPOR PIPING DIAGRAM				
SCALE: NTS		DATE: 12/15/16		DWG NO.
DRAWN BY: BP		CK'D BY:		CP-06
YARD: E2MS 104		TAG NO. 96273		SHT 1 OF 1
HULL NO. 5271		SHOP ORDER:		REV. 0