

MATERIAL SCHEDULE

SERVICE	SIZE	PIPE	COMPONENTS				VALVES		REMARKS
			TAKEDOWN JOINTS	FITTINGS	FLEX CONNECT	GASKETS	BODY	TRIM	
COMPRESSED AIR SERVICE PIPING MAWP: 200 PSIG	ALL	CARBON STEEL, SCH 80, SEAMLESS, ASTM A53 OR ASTM A106 GRADE B, ANSI B36.10	UNION GROUND JOINT, SOCKET WELD CARBON STEEL, ASTM A105, 3000#, MSS-SP-83	SOCKET WELD CARBON STEEL, ASTM A105, 3000#, ANSI B16.11	FLEX HOSE MEETING SAE J1942 AND J1475 FOR DIESEL SERVICE SEE NOTE 9	-	GATE CARBON STEEL, ASTM A105 SOCKET WELD OR THREADED, ANSI B16.34 BALL THREADED, CARBON STEEL, ASTM A105, SOCKET WELD OR THREADED CHECK CARBON STEEL, ASTM A105, SOCKET WELD OR THREADED, ANSI B16.34	GATE STAINLESS STEEL STEM, DISC AND SEAT BALL STAINLESS STEEL BALL, PTFE SEATS & SEALS CHECK STAINLESS STEEL DISC	

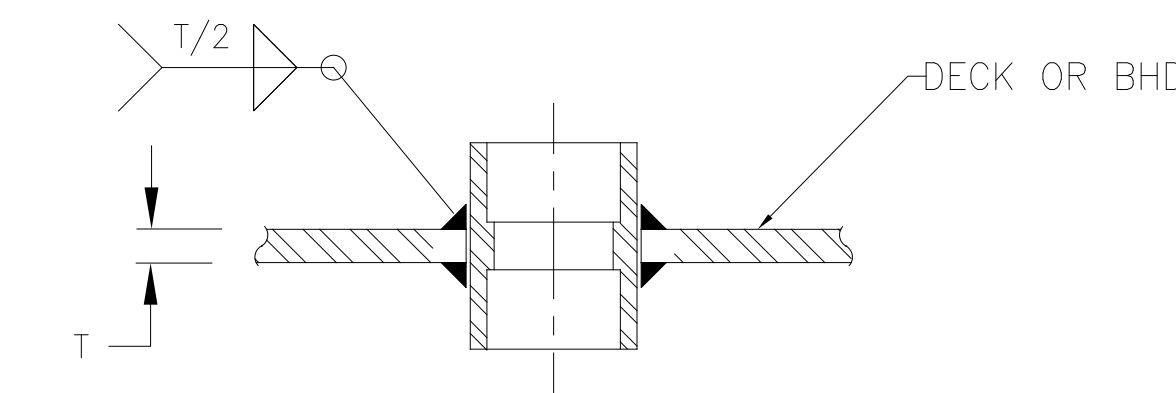
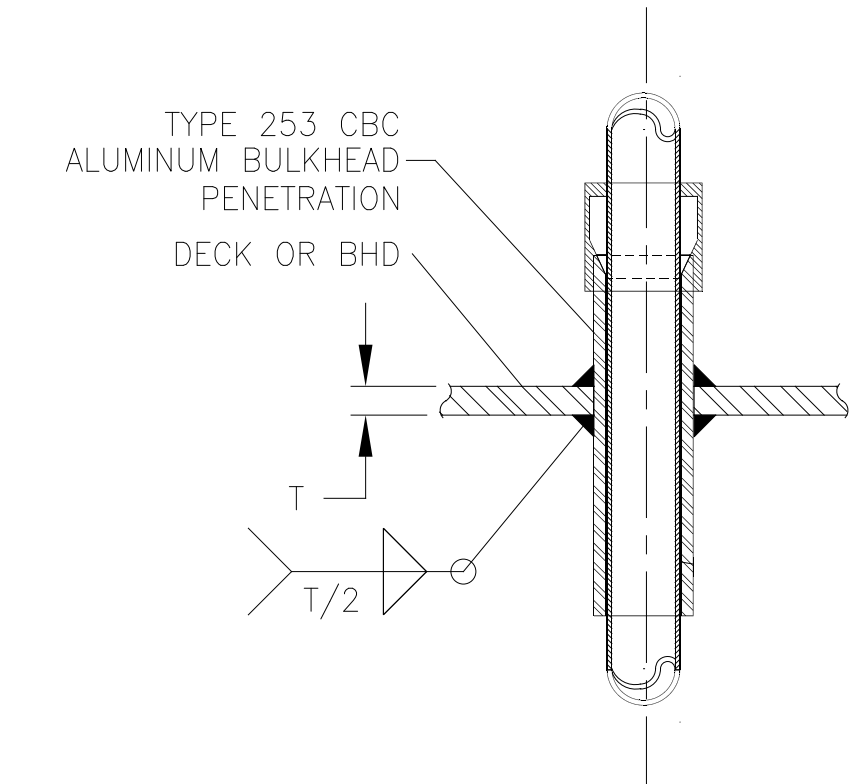


DIAGRAM 1-1A
STEEL DECK AND BULKHEAD PENETRATION

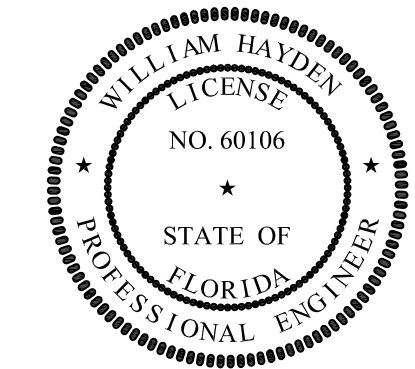
EQUEMINTMENT LIST				
ITEM	QTY	DESCRIPTION	MATERIAL SPEC.	REMARKS
1	2	AIR COMPRESSOR, 2 STAGE, 175 PSI @ 35 CFM, 208V, 3Ø ELEC MOTOR DRIVEN		SEE NOTE 7
2	2	RECEIVER, VERTICAL, 120 GALLONS, 200 PSI MAWP		SEE NOTES 6 & 7
3	1	AIR FILTER, COALESCING, 45 CFM		
4	1	AIR DRYER, 30 CFM		
5	1	HORN COMBINATION MANUAL/SOLENOID VALVE		
6	1	HORN, 29 CFM @100 PSI, 250 PSI MAX, 3/8" NPT		
7	1	1/2", 50 FT. SPRING RETURN HOSE REEL, 300 PSI		
8	AS REQ'D	3/4" QUICK DISCONNECT, MALE/FEMALE		
9	AS REQ'D	1/2" QUICK DISCONNECT, MALE/FEMALE		
10	1	AIR REGULATOR W/ GAGE, 1-1/4"		
11	1	AIR REGULATOR W/ GAGE, 3/4"		
P-1/4"	AS REQ'D	1/4" SCHDED 80 PIPE	ASTM A53 OR A106 SMLS	
P-3/8"	AS REQ'D	3/8" SCHDED 80 PIPE	ASTM A53 OR A106 SMLS	
P-1/2"	AS REQ'D	1/2" SCHDED 80 PIPE	ASTM A53 OR A106 SMLS	
P-3/4"	AS REQ'D	3/4" SCHDED 80 PIPE	ASTM A53 OR A106 SMLS	
P-1-1/4"	AS REQ'D	1-1/4" SCHDED 80 PIPE	ASTM A53 OR A106 SMLS	
V-1	1	1/4" BALL VALVE	ASTM A105	
V-2	1	3/8" BALL VALVE	ASTM A105	
V-3	4	1/2" BALL VALVE	ASTM A105	
V-4	1	3/4" BALL VALVE	ASTM A105	
V-5	1	1-1/4" BALL VALVE	ASTM A105	

SYMBOLS LIST	
	PIPE
	REDUCER
	CHECK VALVE
	BALL VALVE
	PRESSURE TRANSDUCER
	PRESSURE GAUGE
	HOSE REEL
	BULKHEAD PIPE PENETRATION
	AIR COMPRESSOR
	SAFETY RELIEF VALVE
	COMBINATION MANUAL/SOLENOID VALVE
	PRESSURE REGULATING VALVE
	QUICK DISCONNECT
	PRESSURE REGULATING VALVE
	FILTER
	AIR DRYER



DETAIL 1-2A
ALUMINUM DECK OR BULKHEAD PENETRATION
NO SCALE

- GENERAL NOTES -	
NO.	DESCRIPTION
1.	MATERIAL AND WORKMANSHIP SHALL CONFORM TO U.S. COAST GUARD REQUIREMENTS FOR SUBCHAPTER "M" VESSELS.
2.	PIPING SHALL BE RUN AS DIRECTLY AS PRACTICABLE WITH A MINIMUM NUMBER OF BENDS AND FITTINGS. PROVIDE TAKEDOWN JOINTS FOR REMOVAL, INSPECTION, SERVICING, AND REPLACEMENT OF EQUIPMENT. PIPING SHALL BE RUN TO MINIMIZE CUTTING OF THE SHIP'S STRUCTURE.
3.	WHERE PIPES PENETRATE BULKHEADS, OR DECKS, USE SOCKET WELD COUPLINGS FOR STEEL DECKS & BULKHEADS AND CSO STUFFING BOXES FOR ALUMINUM DECKS & BULKHEADS. SEE DETAIL 1-1A & 1-2A.
4.	PIPING SHALL BE SUPPORTED BY HANGERS IN ACCORDANCE WITH ASTM F708.
5.	BURSTING PRESSURE OF FLEX CONNECTIONS SHALL BE AT LEAST 5 TIMES THE WORKING PRESSURE OR 4 TIMES THE RELIEF VALVE SETTING.
6.	AIR RECEIVERS SHALL BE ASME AND USCG APPROVED & STAMPED
7.	COMPRESSORS SHALL BE SUPPLIED MOUNTED ON THE VERTICAL AIR RECEIVER



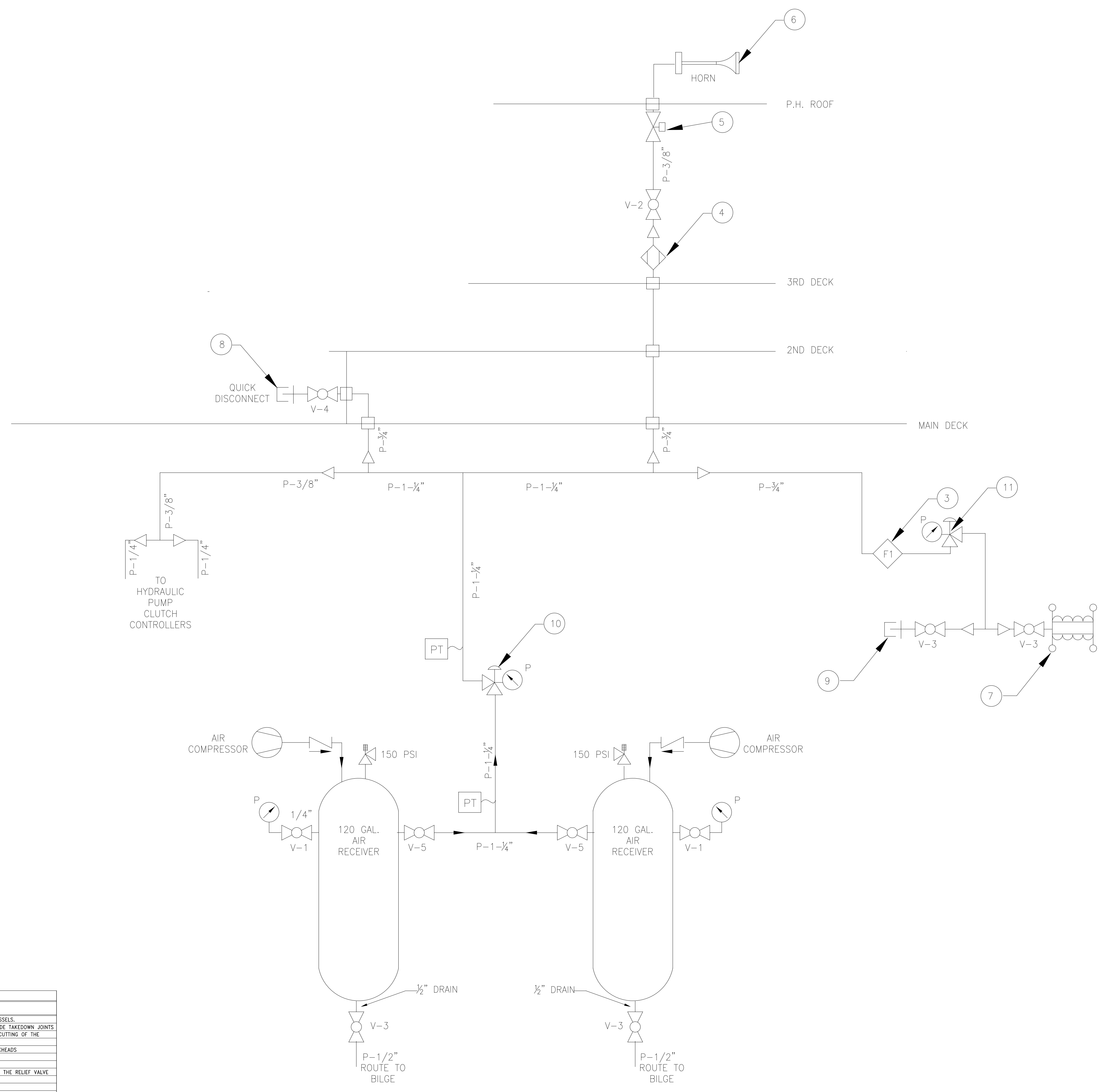
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Title: 70.5'x30'x11' NCDOT TOWBOAT
COMPRESSED AIR PIPING

Dwg. No. 17-1372-551 Alt. No. 1
Sh. 1 of 3

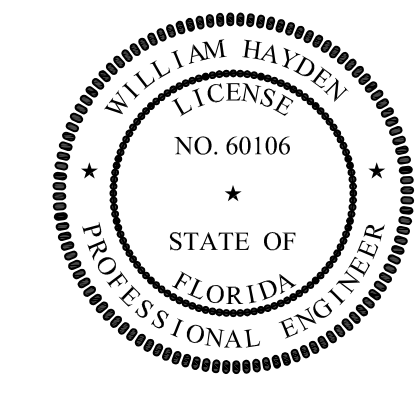
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Checked By: _____ Date: _____
App'd By: _____ Scale: NONE
ABS App'l: _____ USCG App'l: _____



COMPRESSED AIR SCHEMATIC

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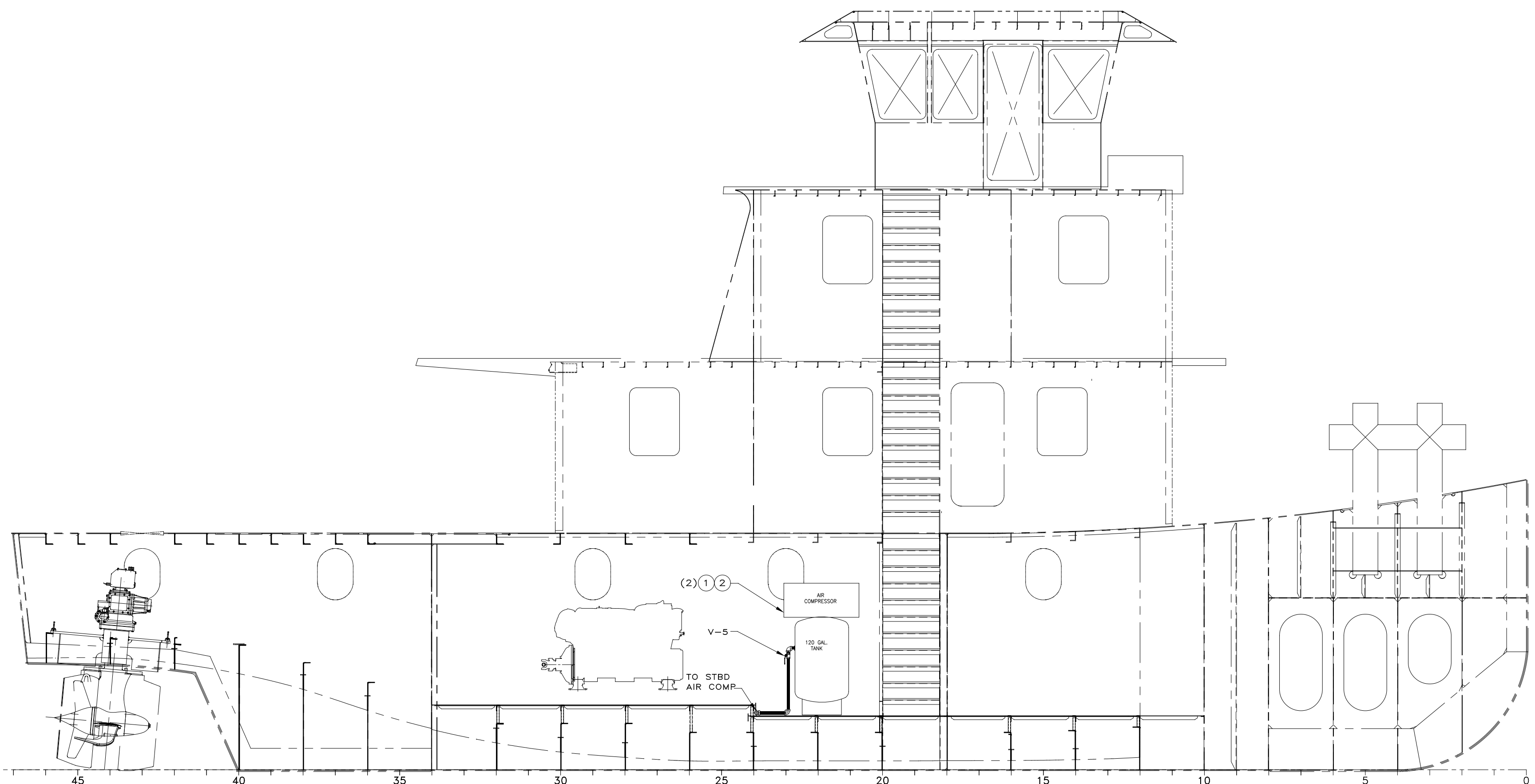
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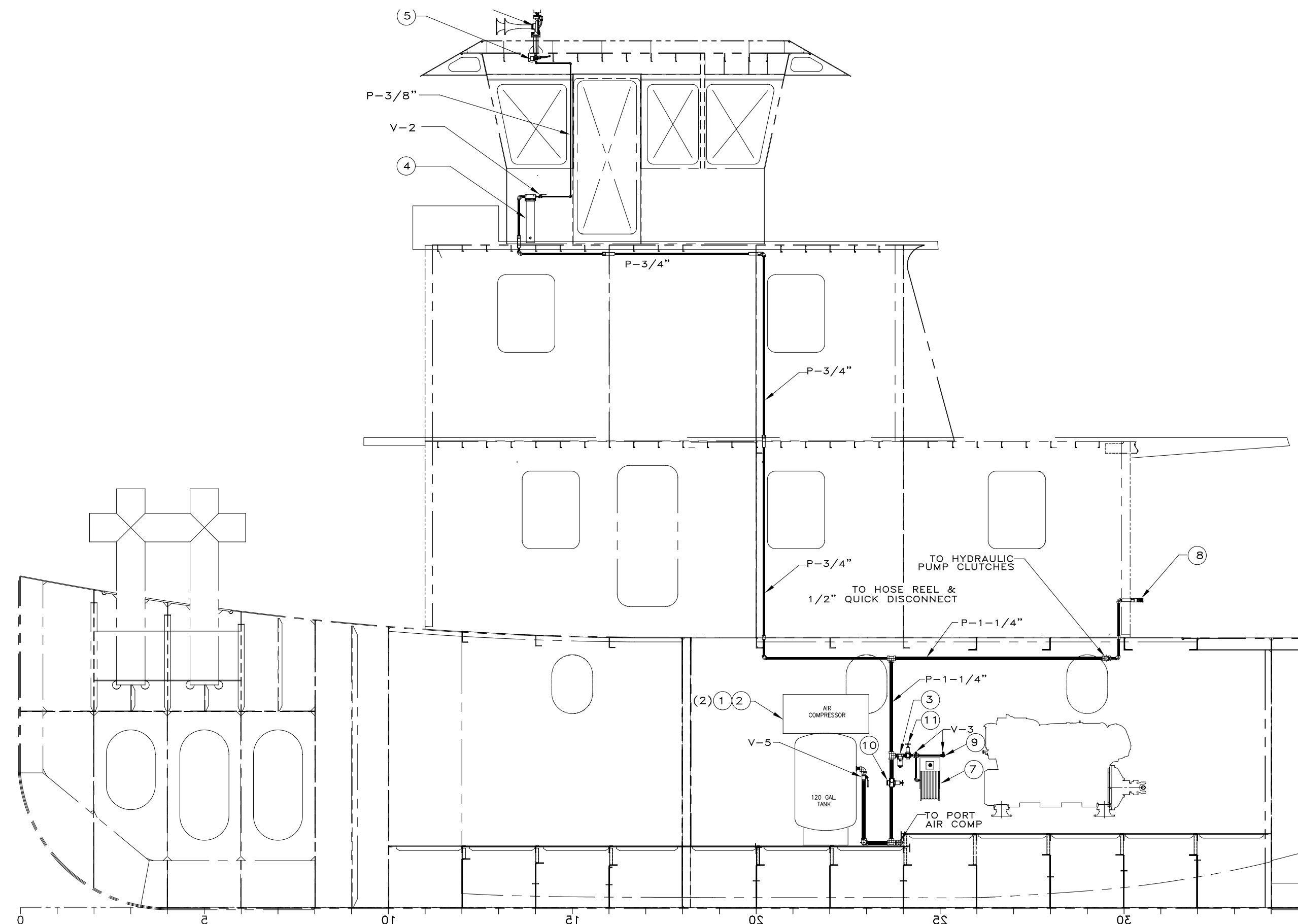
**COMPRESSED AIR
PIPING**

Dwg. No. 17-1372-551 Alt. No. 1
Sht. 2 of 3

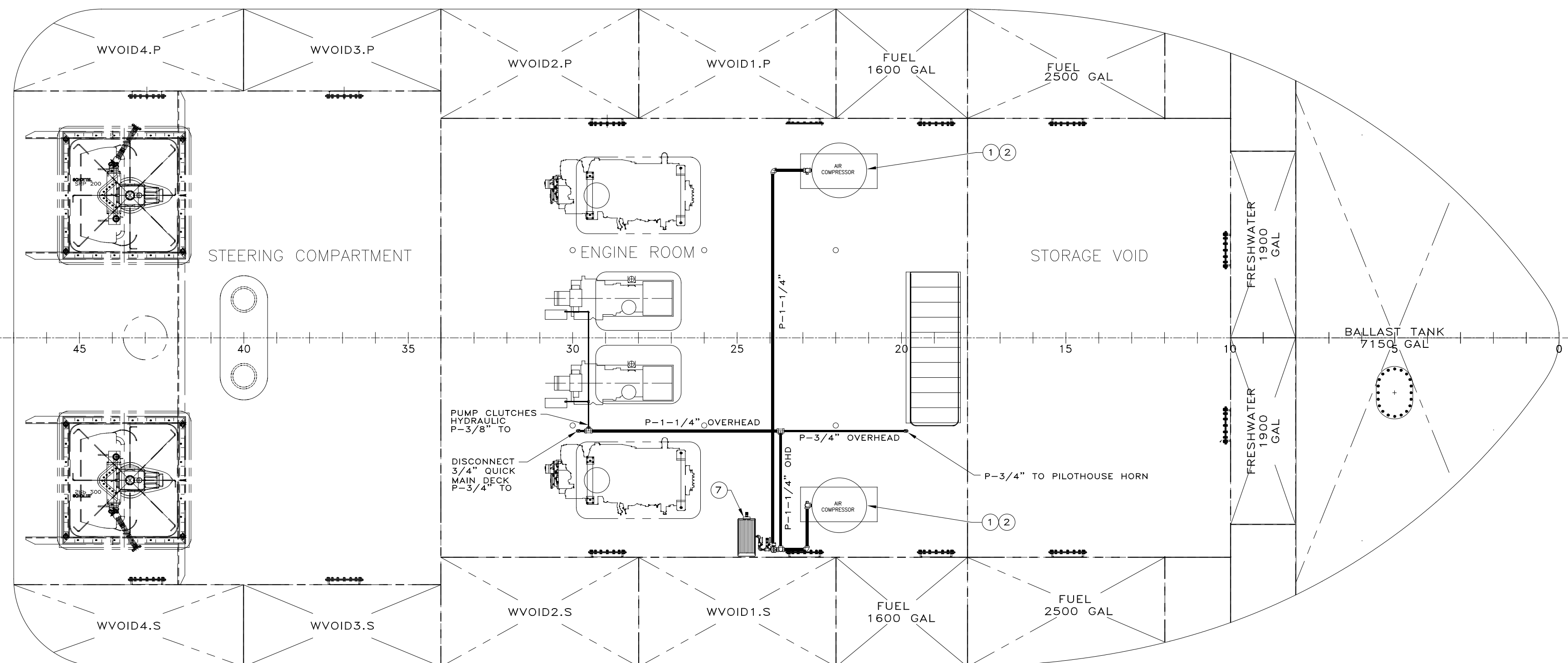
Drawn By: CHRISTOPHER DUNCAN Date: JULY 25, 2018
Checked By: _____ Date: _____
App'd By: _____ Scale: NONE
ABS App'l: _____ USCG App'l: _____



INBOARD PROFILE LOOKING PORT



INBOARD PROFILE LOOKING STARBOARD



PLAN VIEW HOLD

COMPRESSED AIR PIPING ARRANGEMENT

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Drawn By: JAH Date: OCT 9, 2018
 Checked By: _____ Date: NONE
 App'd By: _____ Scale: NONE
 ABS App'l: _____ USCG App'l: _____

