

MATERIAL SCHEDULE

SERVICE	SIZE	PIPE	TAKEDOWN JOINTS	VALVES		FITTINGS	FLEXIBLE CONNECTIONS	COMMENTS
			MATERIAL	BODY	TRIM			
FW COOLING MAWP: 35 PSIG MAX TEMP: 110°F	ALL	STAINLESS STEEL PIPE, TYPE 316L, ASTM A312 SCHEDULE 40	UNION 316 SS STEEL MSS-SP-14 ASTM A-351 ANSI B1.20.1 THREADED	<u>GATE CHECK VALVE:</u> 316 SS STEEL ASTM 16.34 ASTM A-351 ANSI B1.20.1 THREADED, 200#WOG	316 SS STEM, DISC AND SEAT	UNION 316 SS STEEL MSS-SP-14 ASTM A-351 ANSI B1.20.1 THREADED	FLEX HOSE MEETING SAE J1475	-
SEACHEST	ALL	CARBON STEEL ASTM ASTM A53 OR A106, GRADE B SEAMLESS ANSI B36.10 SCH 80		<u>BALL VALVE:</u> STAINLESS STEEL ASME B16.24 ASTM A351 TYPE CF8M THREADED 1000 PSI <u>GATE VALVE:</u> 316 SS STEEL ASTM 16.34 ASTM A-351 ANSI B1.20.1 THREADED, 200#WOG	<u>BALL VALVE:</u> STAINLESS STEEL, ASTM A276 TYPE 316 STEEL BALL PTFE SEATS <u>GATE VALVE</u> 316 SS STEM, DISC AND SEAT	CARBON STEEL ASTM A105 ANSI B16.11 3000# THREADED		

EQUIPMENT LIST

ITEM #	QTY	SERVICE	TYPE	MODEL	CAPACITY	DRIVE	NOTES
1	2	FLUSHNG PUMP	SELF PRIMING, CLUTCH DRIVEN	-	20 GPM@30 PSI	MAIN ENGINE	-
2	2	STRAINER	SIMPLEX, STAINLESS STEEL, THREADED	-	PRESSURE DROP .45 PSI @ 20 GPM	-	-
3	2	PRESSURE GAGE	2-1/2" STAINLESS STEEL, 1/4" NPT	-	0 - 30 PSI	-	-
4	2	PUMP CLUTCH	DUAL BELT DRIVEN, 24VDC, 72 WATTS	PITTS H28V200 13654	200 FT-LB	MAIN ENGINE	INSTALL TENSION IDLERS ON DRIVE BELTS

SYMBOLSLIST

Symbol	Description
—	PIPING
▷	REDUCER
⊞	BHD PENETRATION
⋈	GATE VALVE
⌒	SWING CHECK VALVE
⊘	BALL VALVE
⊗	SIMPLEX STRAINER
⌒	SEA CHEST
⊕	PUMP
⊕ ^P	PRESSURE GAUGE

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4.	AVOID POCKETS IN THE PIPE LINES. BOSSES AND VALVES OR SCREWED PLUGS SHALL BE FITTED TO ENABLE COMPLETE DRAINING OF PIPES WHERE POCKETS DO OCCUR.
5.	THE PIPING SYSTEM SHALL BE PRESSURE TESTED, CLEANED, AND FLUSHED PRIOR TO BEING PLACED IN SERVICE. PER MANUFACTURER.
6.	PIPING SHALL BE ADEQUATELY SUPPORTED BY HANGERS IN ACCORDANCE WITH ASTM F706. HANGERS SHALL BE ATTACHED TO THE TO THE BASIC SHIP STRUCTURE. HANGERS SHALL NOT BE ATTACHED BY WELDING DIRECTLY TO PIPES.
7.	WHERE PIPING PENETRATES BULKHEADS OR DECKS, THE PENETRATION SHALL MAINTAIN THE WATERTIGHT INTEGRITY OF THE SPACE PIPE PENETRATIONS SHALL BE IN ACCORDANCE WITH DETAIL 2-2A.
8.	EACH PUMP SHALL BE CAPABLE OF PROVIDING TO GALLONS PER MINUTE AT 15 PSI TO EACH SHAFT IN THE EVENT THAT THE PRIMARY SHAFT FLUSHING PUMP FAILS.

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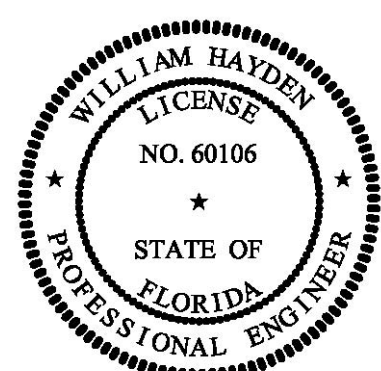
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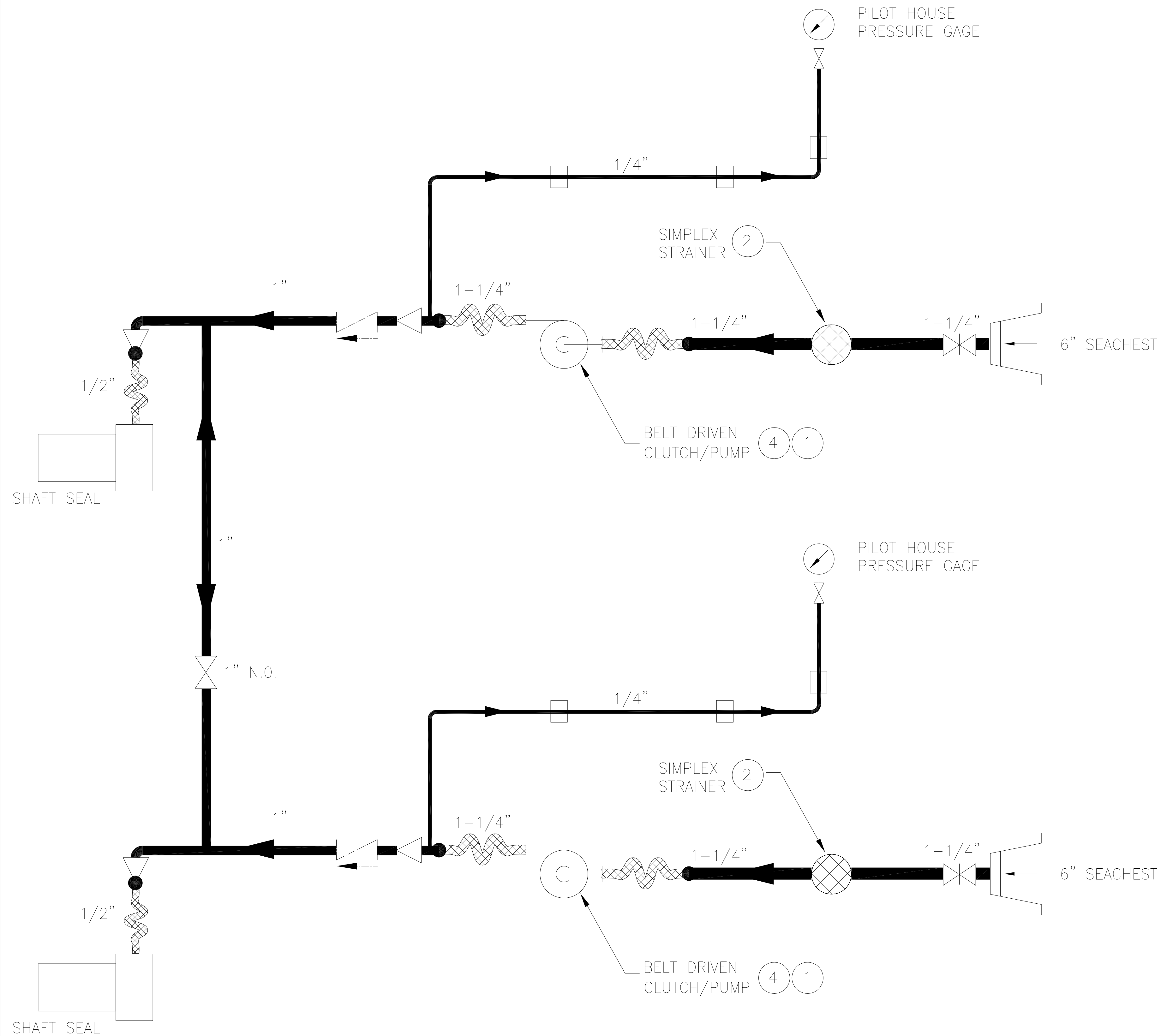
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SHAFT FLUSHING PIPING

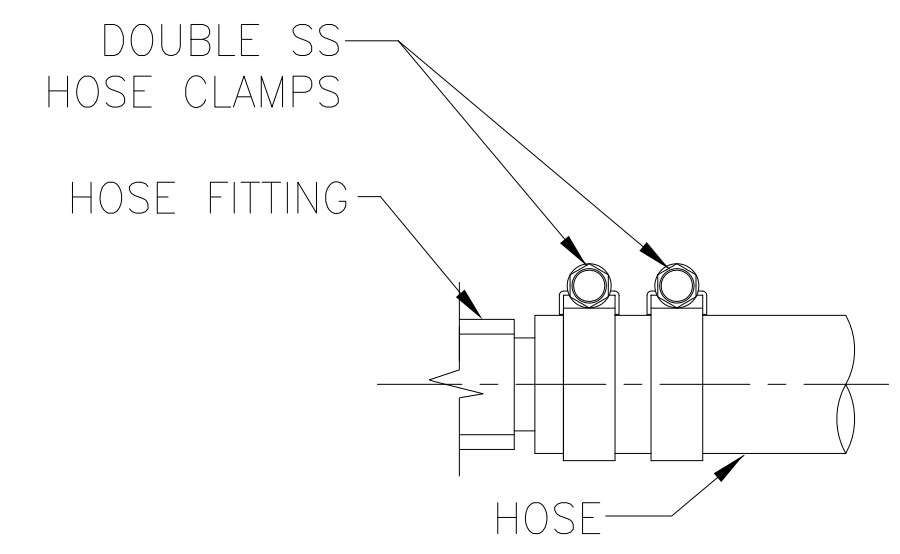
Dwg. No. 17-1393-264 Alt. No. 0
Sh. 1 of 3

Drawn By: JAH Date: NOVEMBER 16, 2018
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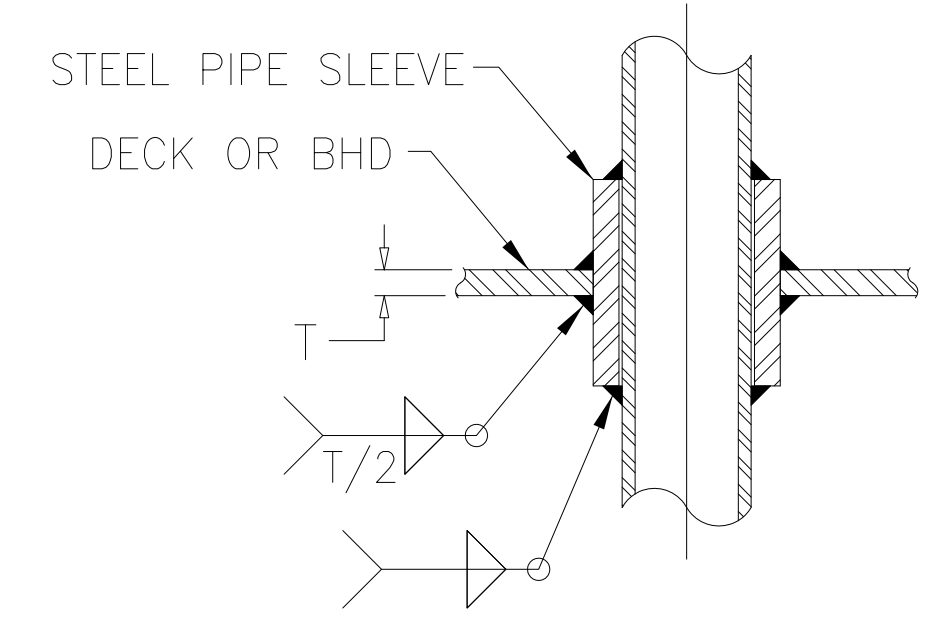




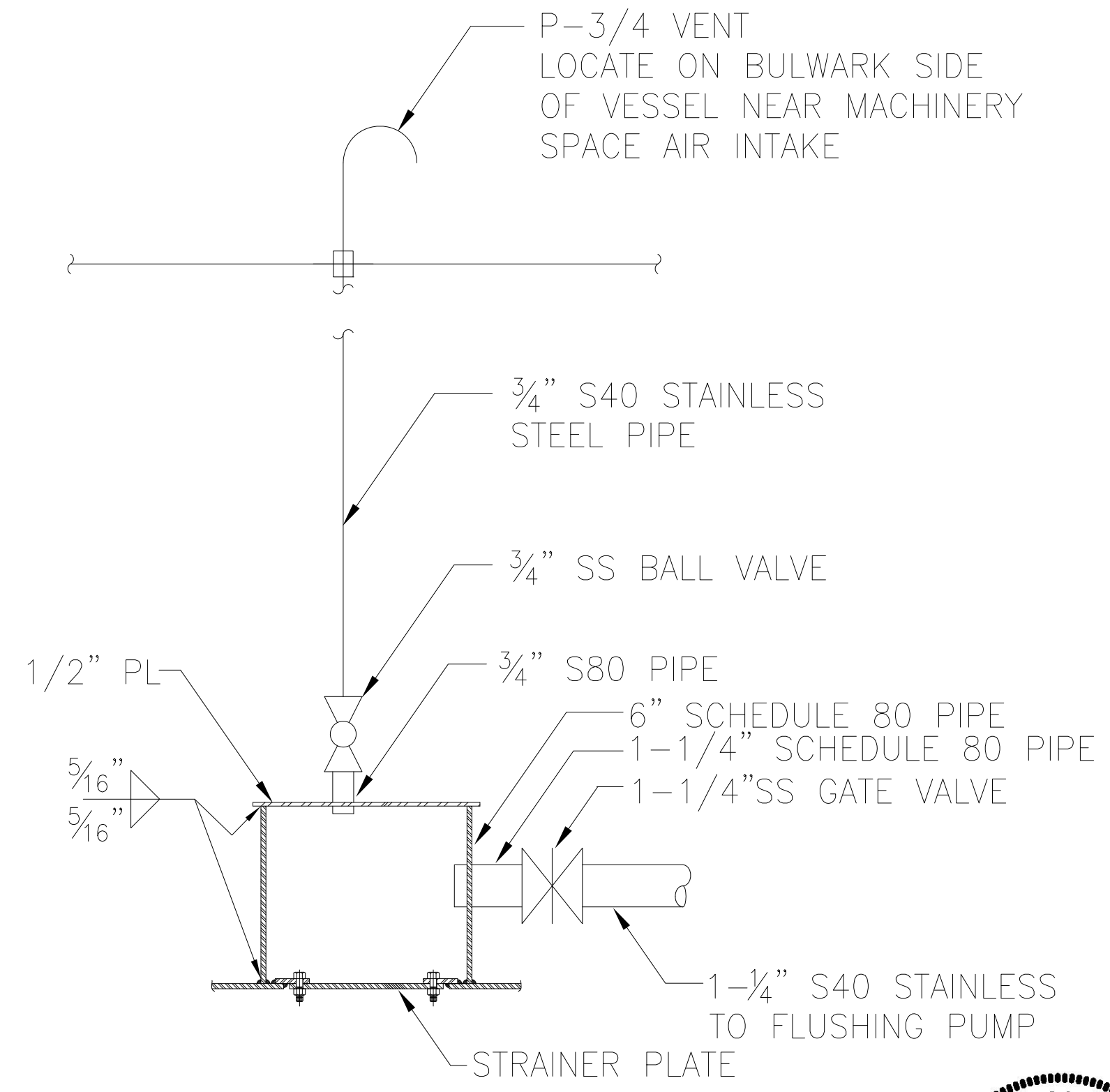
SHAFT FLUSHING PIPING DIAGRAM



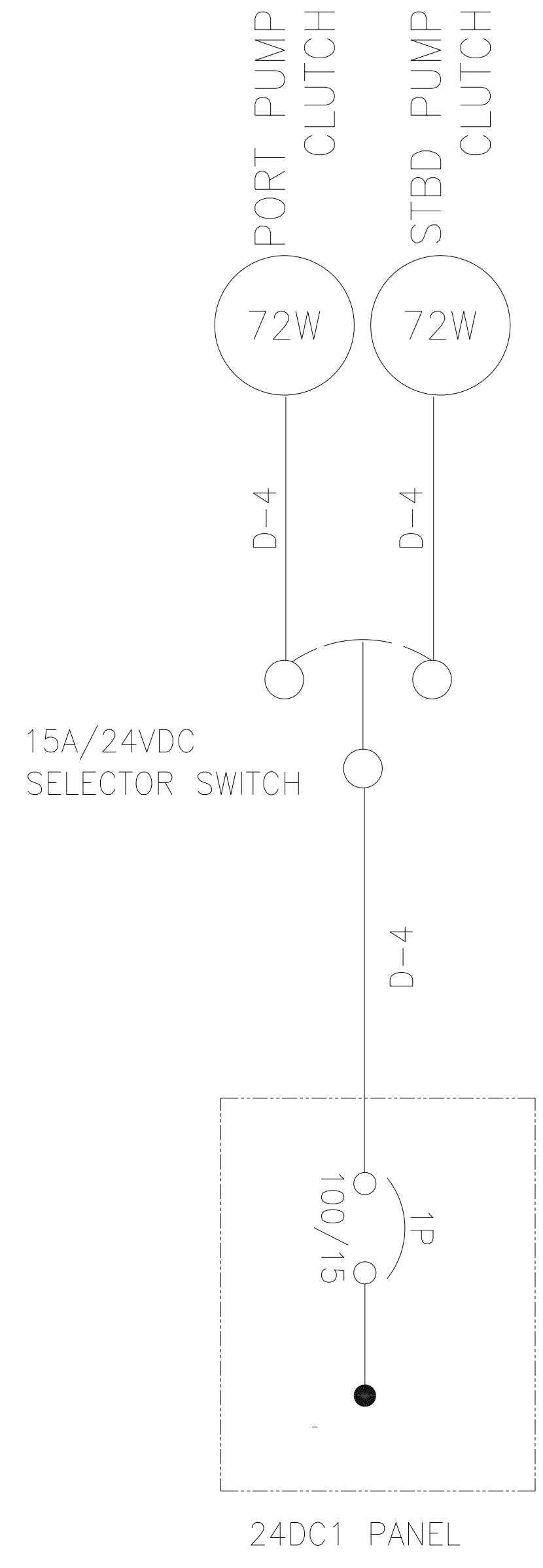
DETAIL 2-3A
TYPICAL HOSE CONNECTION
SCALE: NONE



DETAIL 2-2A
TYPICAL DECK/BULKHEAD PENETRATION
SCALE: NONE



DETAIL 2-1A
SEA CHEST
SCALE: NONE



ELECTRICAL SWITCH SCHEMATIC

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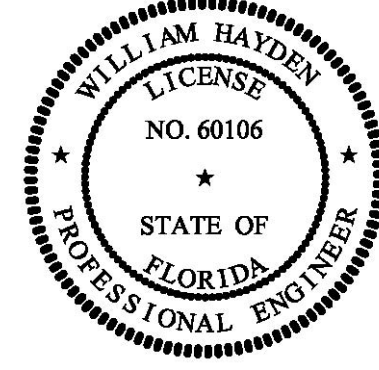
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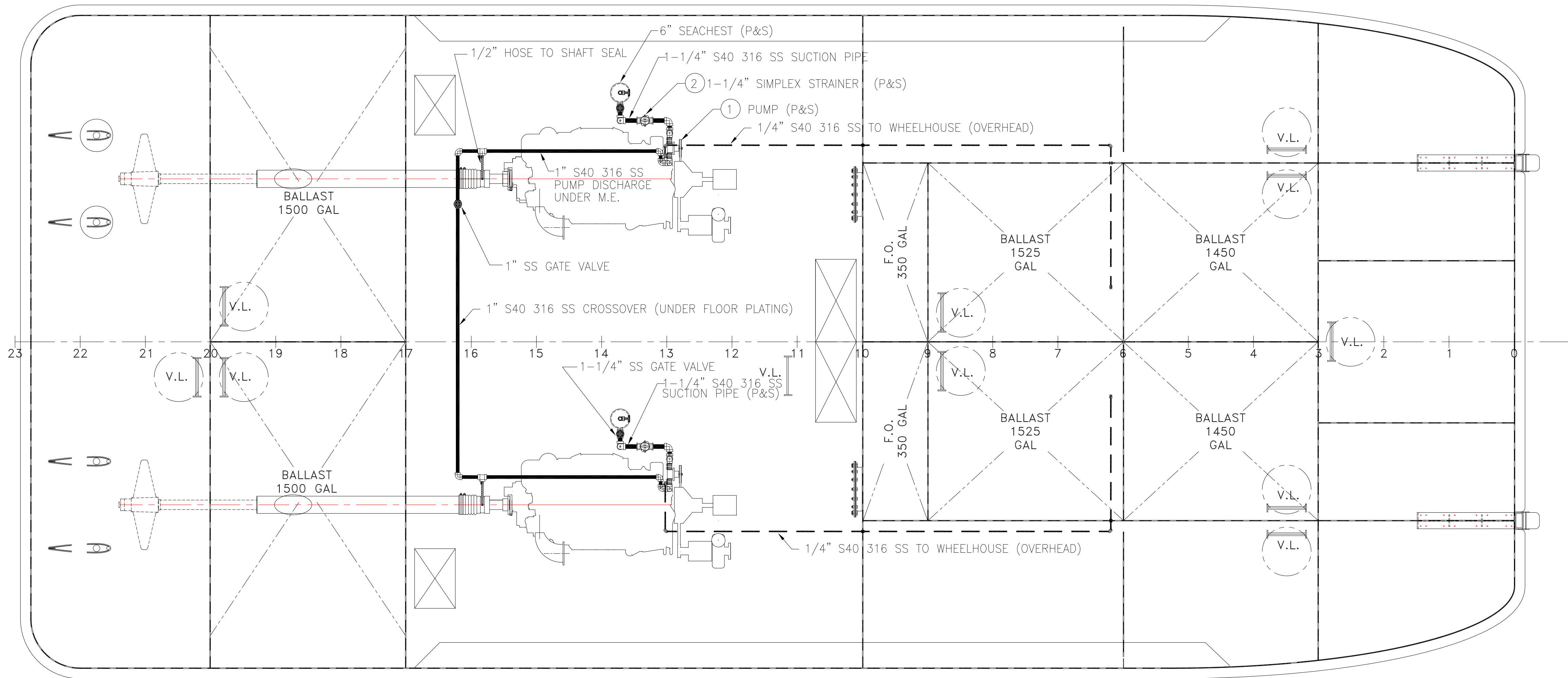
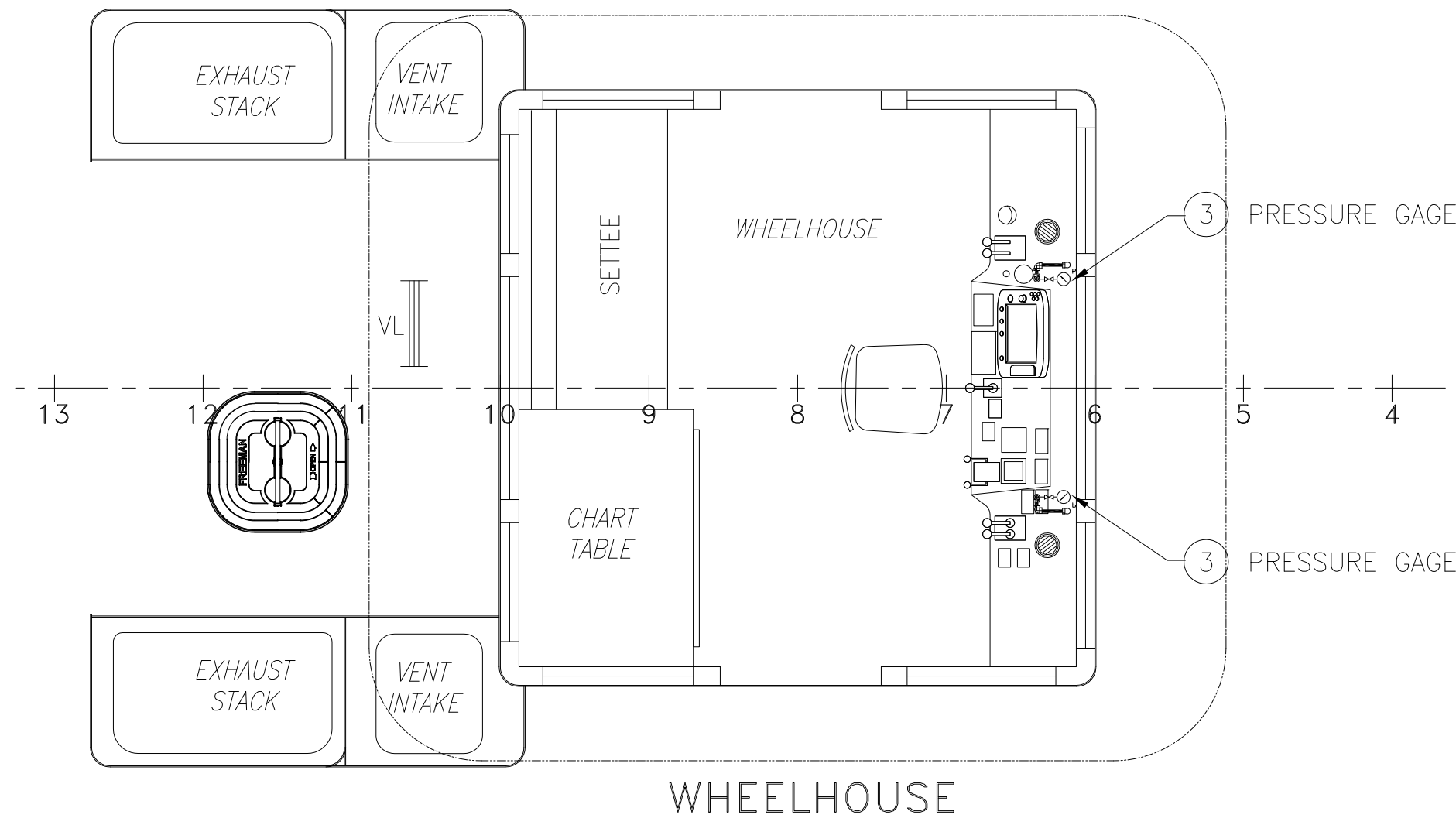
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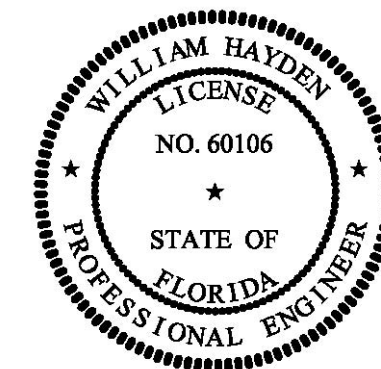


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HOLD PLAN

SHAFT FLUSHING ARRANGEMENT



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