

Skarsvaag Boats AS

Bnr 220

Bow Thruster: SH240/250TC-U14 @ 240 kg, Proportional. PVG32
Stern Thruster: SH160/215T-U8 @ 160 kg, Proportional. PVG32

Hydraulikk: 35 lpm / 200 bar. On/off. OC.
Høytykksvasker: 30 lpm / 230 bar. On/off. OC.
Nokke 1: 10 lpm / 160 bar. Proportional. OC.
Badeplattform: 2 lpm / 150 bar. Proportional. OC.

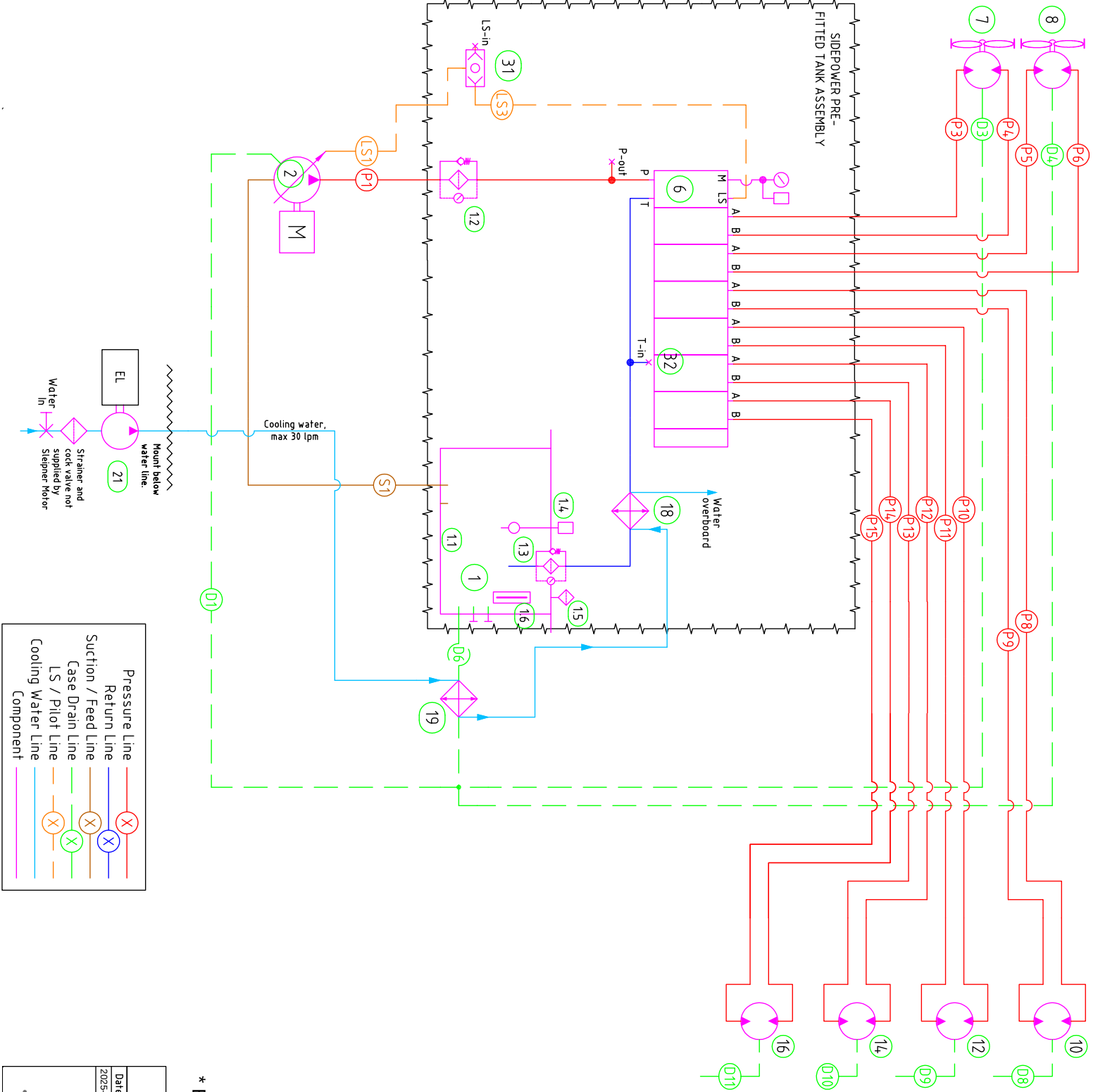
Control valve: 7032-6-2o2m2a, PVG32 6-module load sense valve
(Have external valve)

Pump #1 ERL-130-C4-E, CCW/L rotation, SAE-C 4-bolt. z=14

Tank: 90L Floor.
Coolers: EC100 3pass return oil cooler.

Control system: PHC-3, 24V

System serial no: 07252645
Sales order no: 83361



* External valve. Adjust working pressure to 270 bar

SLEIPNER hydraulic system		07252645	
Date	Name		
2025-02-11	HYDSYS	Bnr 220	
		Sleipner hydraulic system	

Hose Connections				
Hose	Min I.D	Max bar	Description	Connection point 1 Connection point 2
D1	1/2"	5	Drain from pump to tank	1.1/16"-12 SAE-J1926/L (Fm) 1/2" BSP (Fm)
D3	3/8"	5	Drain from Bow Thruster to tank	1/4" BSP (Fm) 1/2" BSP (Fm)
D4	3/8"	5	Drain from Stern Thruster to tank	1/4" BPS (Fm) 1/2" BSP (Fm)
D6	5/8"	5	Drain from cooler to tank	1/2" BSP (Fm)
LS1	3/8"	270	LS from PVG to pump	1/4" BSP (Fm) 7/16"-20 SAE-J1926/L (Fm)
P1	1"	270	Pressure from pump to filter	1.1/4" BSP (Fm) 1" BSP (Fm)
P3/P4	5/8"	250	Pressure from PVG to Bow Thruster	1/2" BSP (Fm) 3/4" BSP (Fm)
P5/P6	5/8"	230	Pressure from PVG to Stern Thruster	1/2" BSP (Fm) 1/2" BSP (Fm)
P8/P9	5/8"	230	Pressure from PVG to Hydraulikk	1/2" BSP (Fm) ---
P10/P11	5/8"	265	Pressure from PVG to Høytykksvasker	1/2" BSP (Fm) ---
P12/P13	3/8"	190	Pressure from PVG to Nokke 1	1/2" BSP (Fm) ---
P14/P15	3/8"	175	Pressure from PVG to Badeplattform	1/2" BSP (Fm) ---
S1	2"	----	Feed from tank to pump	2" BSP (Fm) 2.1/2" BSP (Fm)

Parts list			
#	Qty	Part ref	Description
1.1	1	90L Floor	Oiltank, stainless steel
1.2	1	EPF3-2-10QIBM3MG161	
1.3	1	TTF-6-10QBG1EG203S240	
1.4	1	S5-E300	
1.5	1	Filler Cap	Filler Cap
1.6	1	GKN 19723	
2	1	Dantoss ERL-130-C4-E	130ccm Variable displacement LS pump
4	1	FL-L	SAE Flange kit
6	1	Dantoss PVC32	Control valve
7	1	SH240/250TC-U14	Bow thruster
8	1	SH160/215T-U8	Stern thruster
10	1	Hydraulikk	Extra consumer
12	1	Høytykksvasker	Extra consumer
14	1	Nokke 1	Extra consumer
16	1	Badeplattform	Extra consumer
18	1	EC100 3pass	Return oil cooler
19	1		
21	1	10 2371-1-05	Cooling water, centrifugal pump kit

Spare parts list				
#	Qty	Article id	Part ref	Description Replacement interval
-	-		ISO VG 46 HV / HVL P	Hydraulic oil 2000 engine hours, max 3 years, or when needed
7	1	SM148601	250mm, Q-prop, 5-blade, composite	Propeller LH when needed
7	1	SM148600	250mm, Q-prop, 5-blade, composite	Propeller RH when needed
7	1	20 1180 A	Anode w/screw, alu (zink as option)	Thruster gearbox anode (2set per thruster) 1 year, or when needed
8	1	9 1261	215mm, Q-prop, 5-blade, composite	Propeller (2 pcs needed per thruster) when needed
8	1	20 1180 A	Anode w/screw, alu (zink as option)	Thruster gearbox anode (2set per thruster) 1 year, or when needed

SLEIPNER	07252645
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Date	Name
2025-02-11	HYDSYS



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Bnr 220

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Technical drawing of a hydraulic manifold plate (Hydraulikkøtetykksylakke 1) showing the top view and side view. The top view labels the ports: P (Pressure), T (Tank), A, and B. The side view shows the internal valve structure for each station. Red lines connect the top view labels to the corresponding ports in the side view.

Module	Port	Consumer	Max pressure	Max flow
M #1	A	Bow thruster PRT	207 Bar	43 L/min
M #1	B	Bow thruster STB	207 Bar	43 L/min
M #2	A	Stem thruster PRT	187 Bar	32 L/min
M #2	B	Stem thruster STB	187 Bar	32 L/min
M #3	A	Hydraulikk	200 Bar	35 L/min
M #3	B	Hydraulikk	200 Bar	35 L/min
M #4	A	Høyykksvasker	230 Bar	30 L/min
M #4	B	Høyykksvasker	230 Bar	30 L/min
M #5	A	Nokke 1	160 Bar	10 L/min
M #5	B	Nokke 1	160 Bar	10 L/min
M #6	A	Badeplattform	150 Bar	2 L/min
M #6	B	Badeplattform	150 Bar	2 L/min

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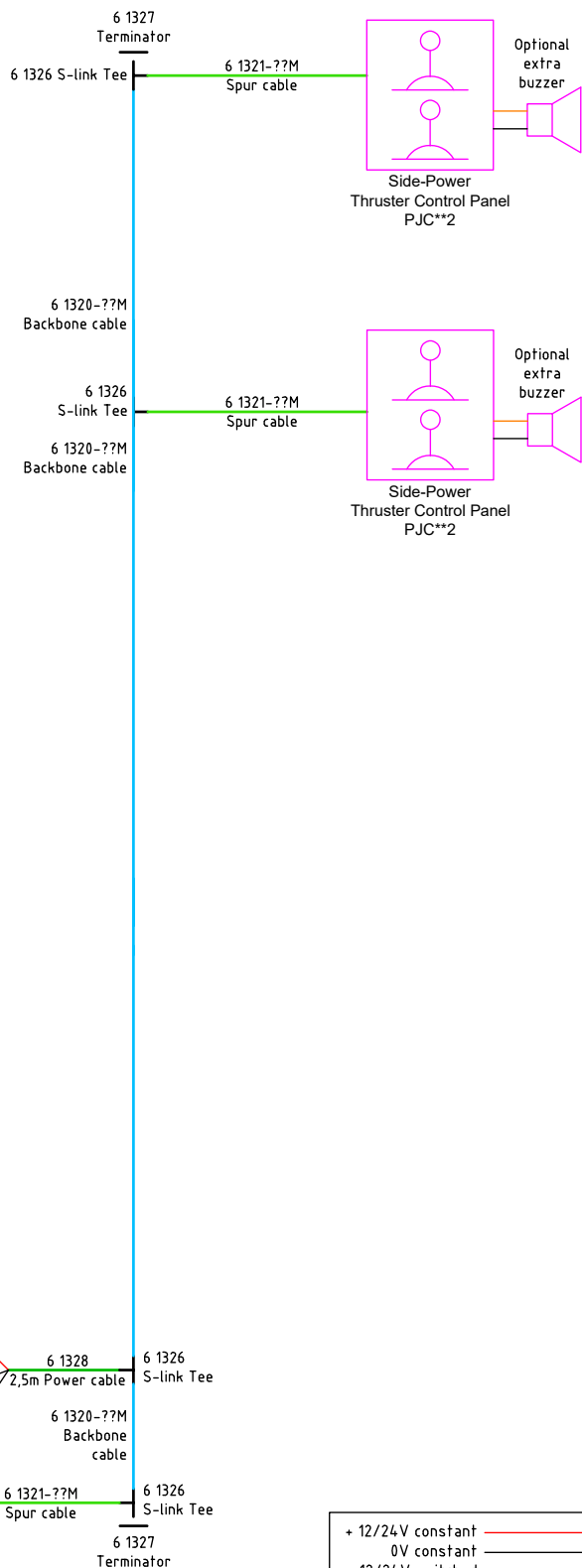
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- Low Oil level
- High Oil Temperature
- CANbus Communication error
- Emergency Stop Active

- Low Oil Level
- High Oil Temperature



+ 12/24V constant	_____
0V constant	_____
+12/24V switched	_____
wire	_____
cable	_____
El. component	_____
S-link connector	_____
S-link backbone	_____
S-link spur	_____

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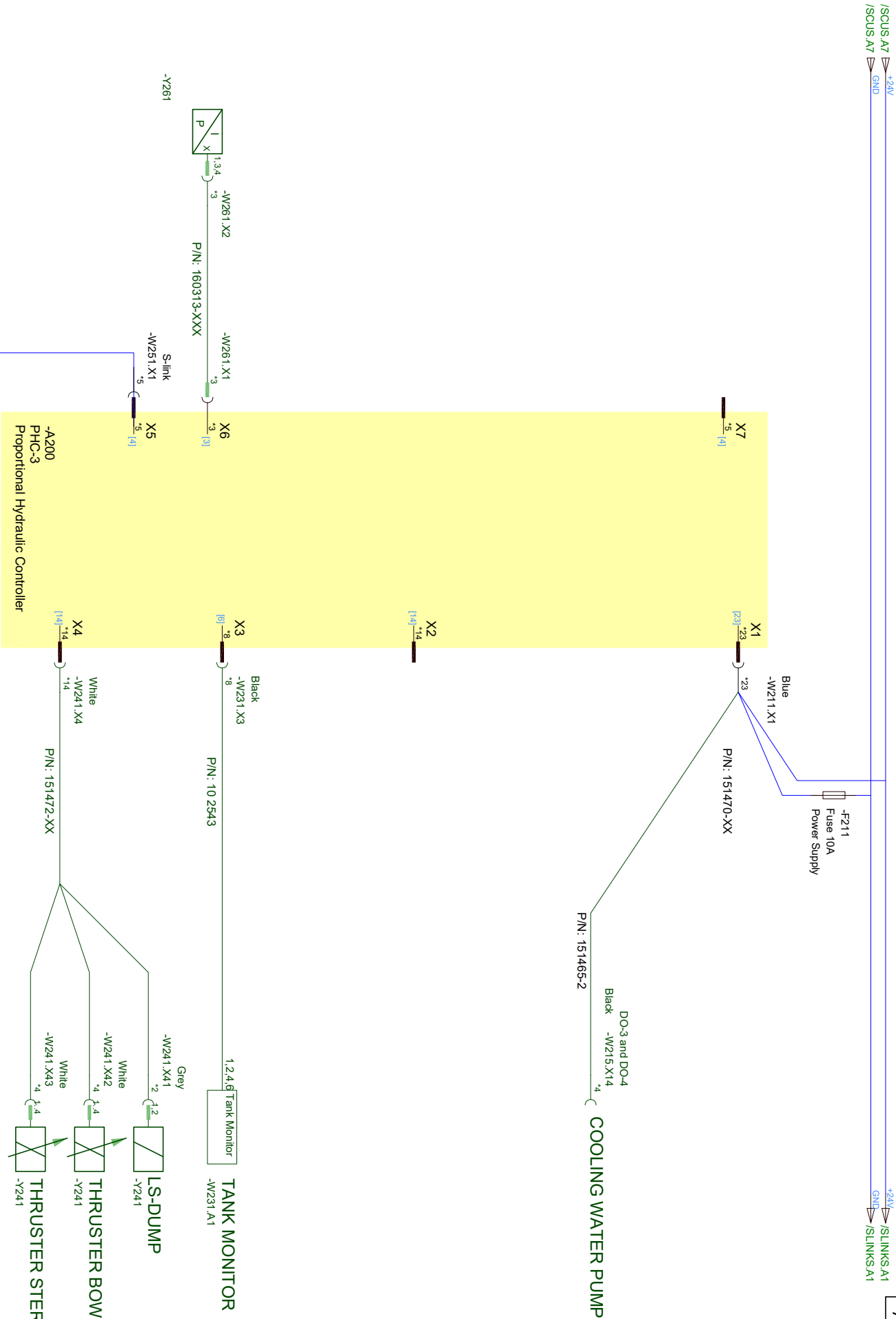


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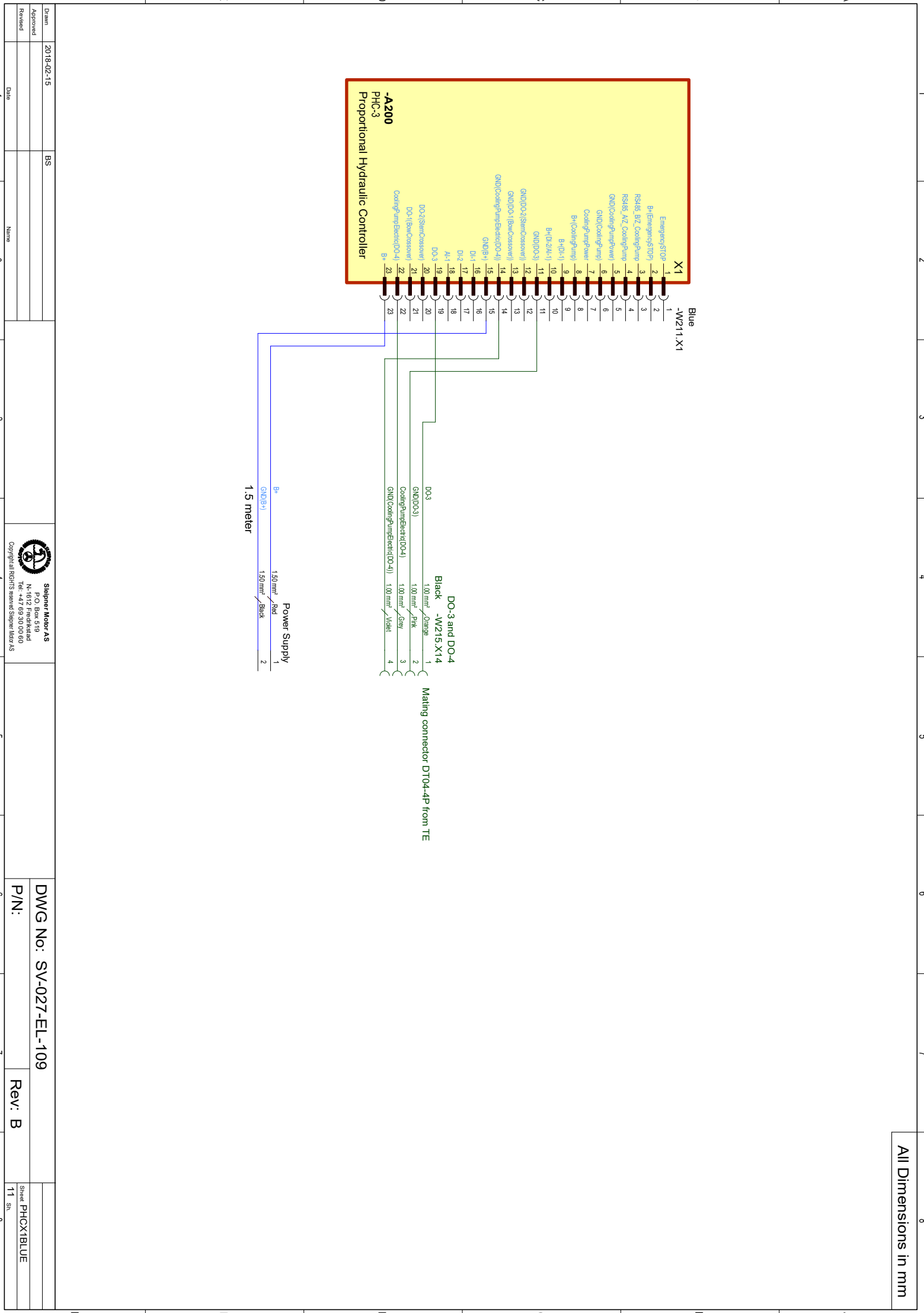
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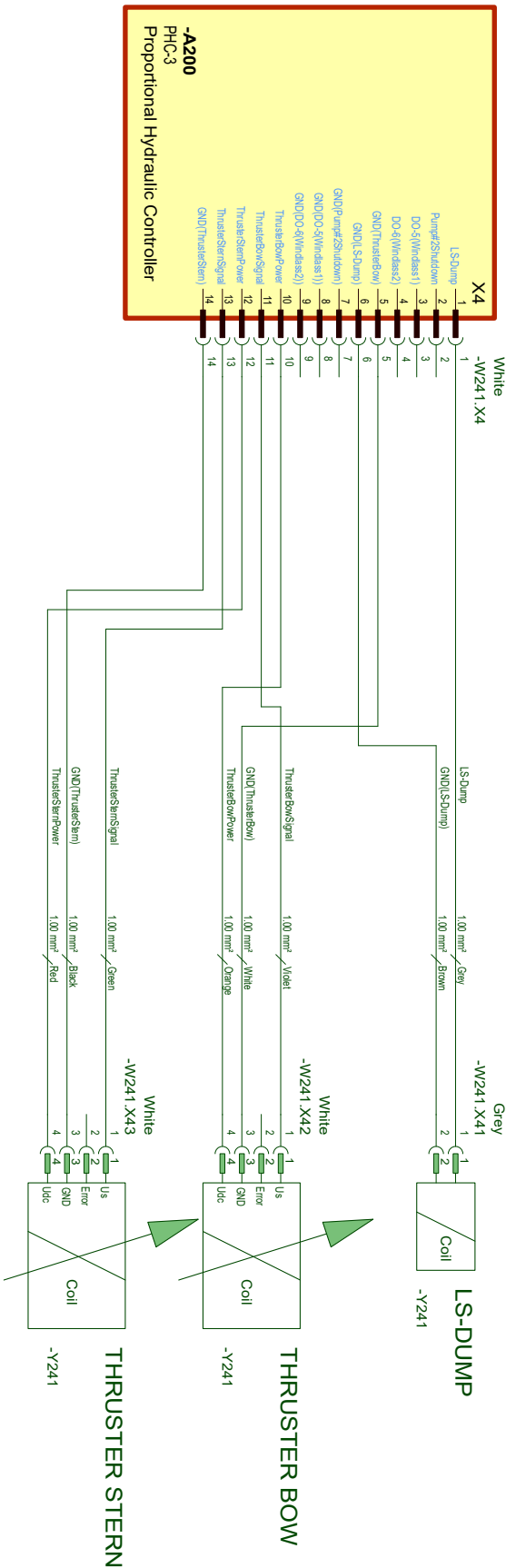


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Approved	03.10.19	SV	SV							
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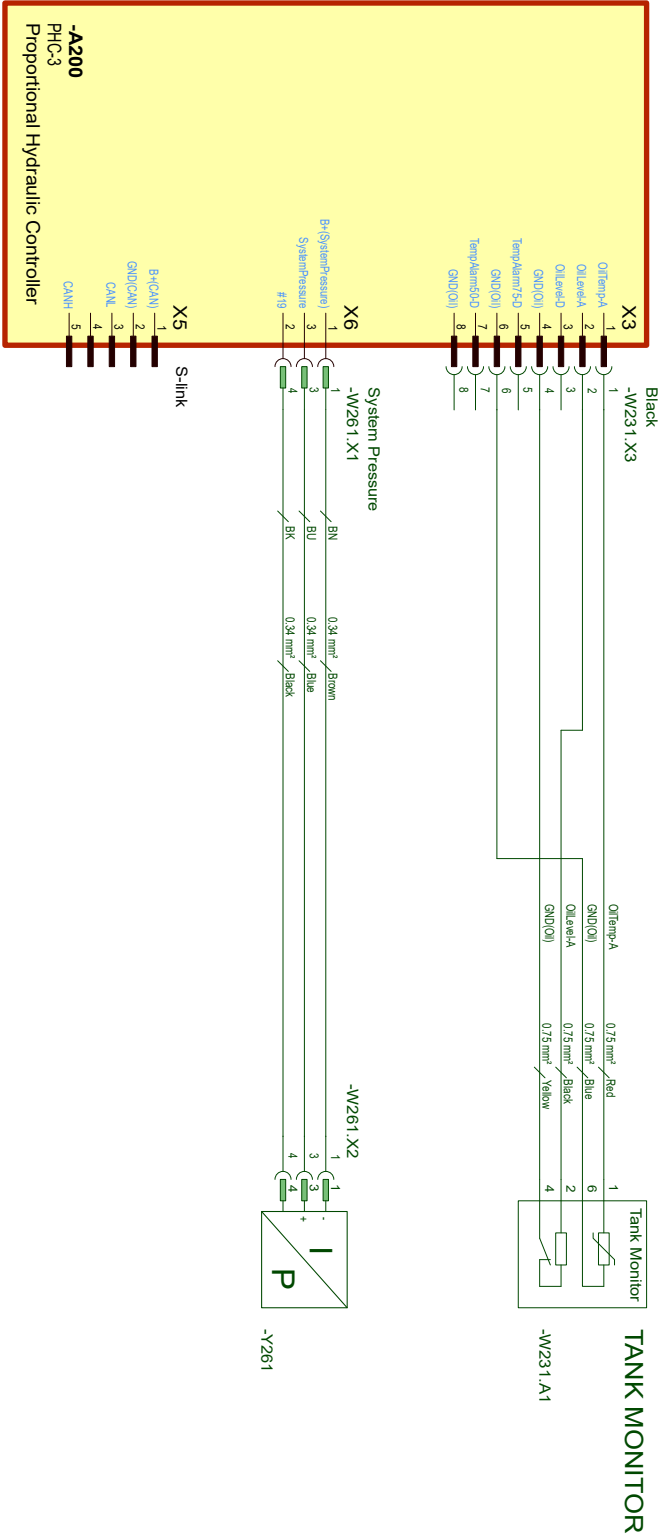


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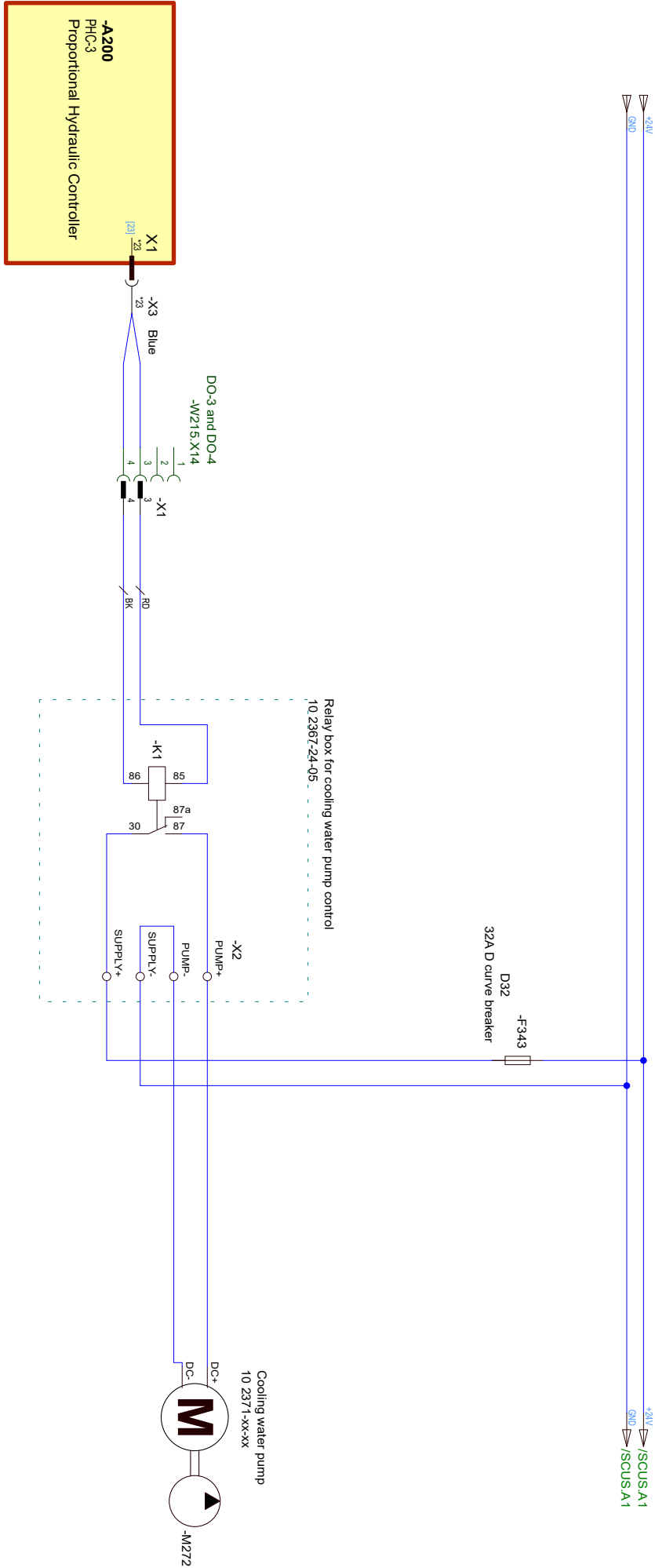




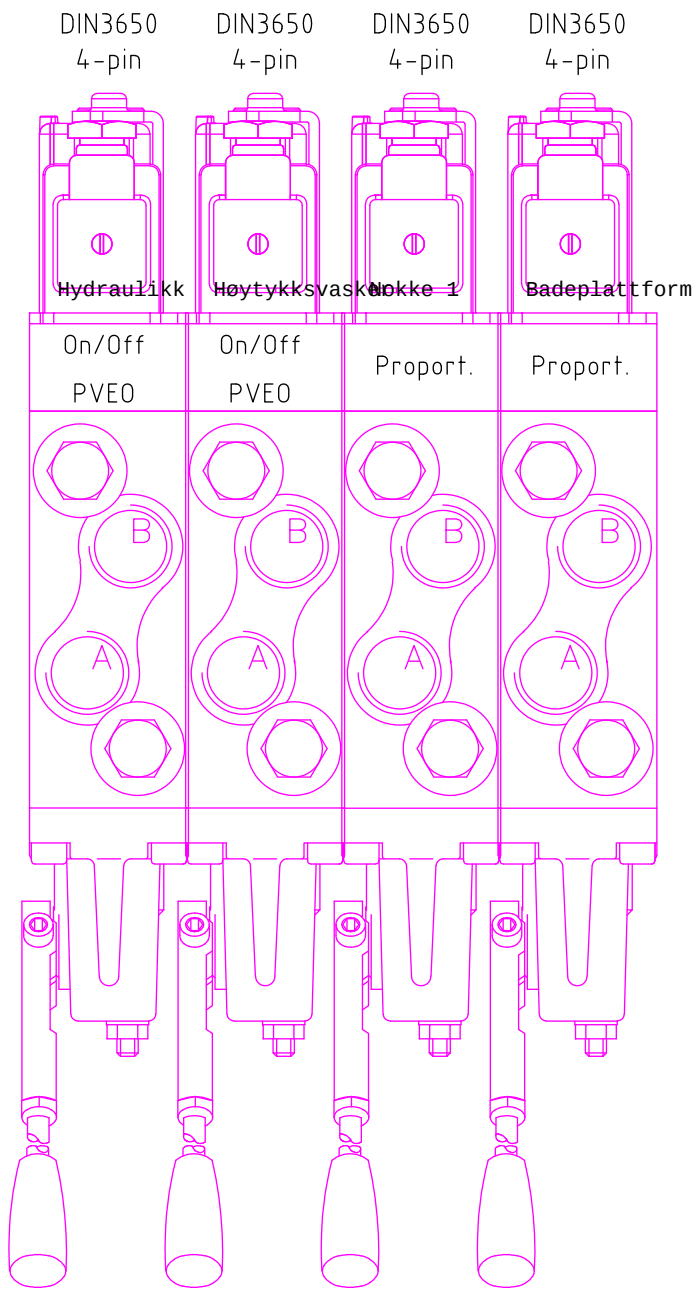
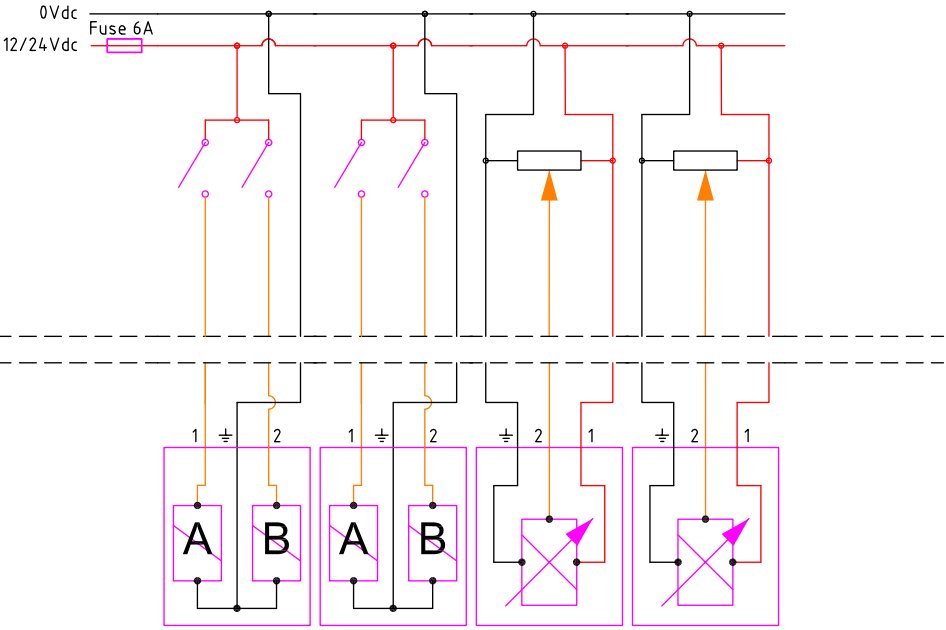
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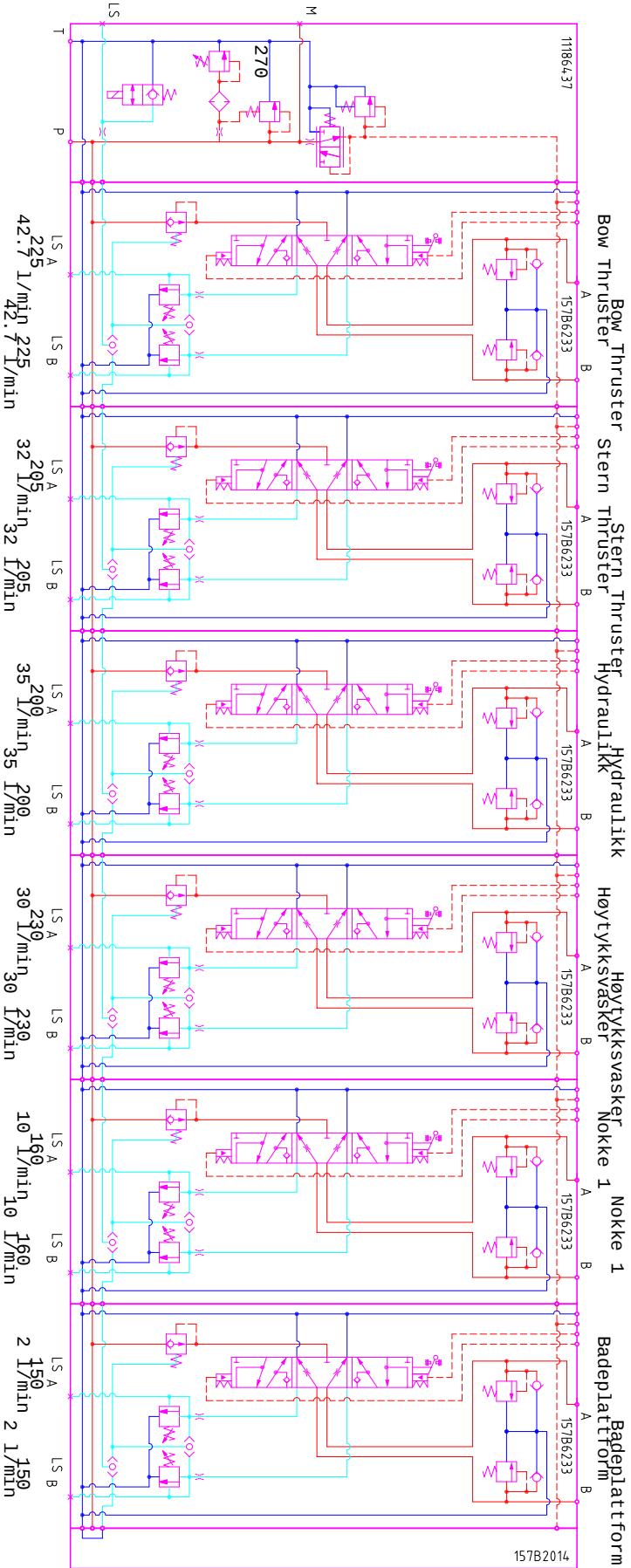
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- + 12/24V constant
- 0V constant
- +12/24V switched
- wire
- cable
- El. component
- S-link connector
- S-link backbone
- S-link spur



SLEIPNER hydraulic system	07252645
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Date	Name
2025-02-11	HYDSYS



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