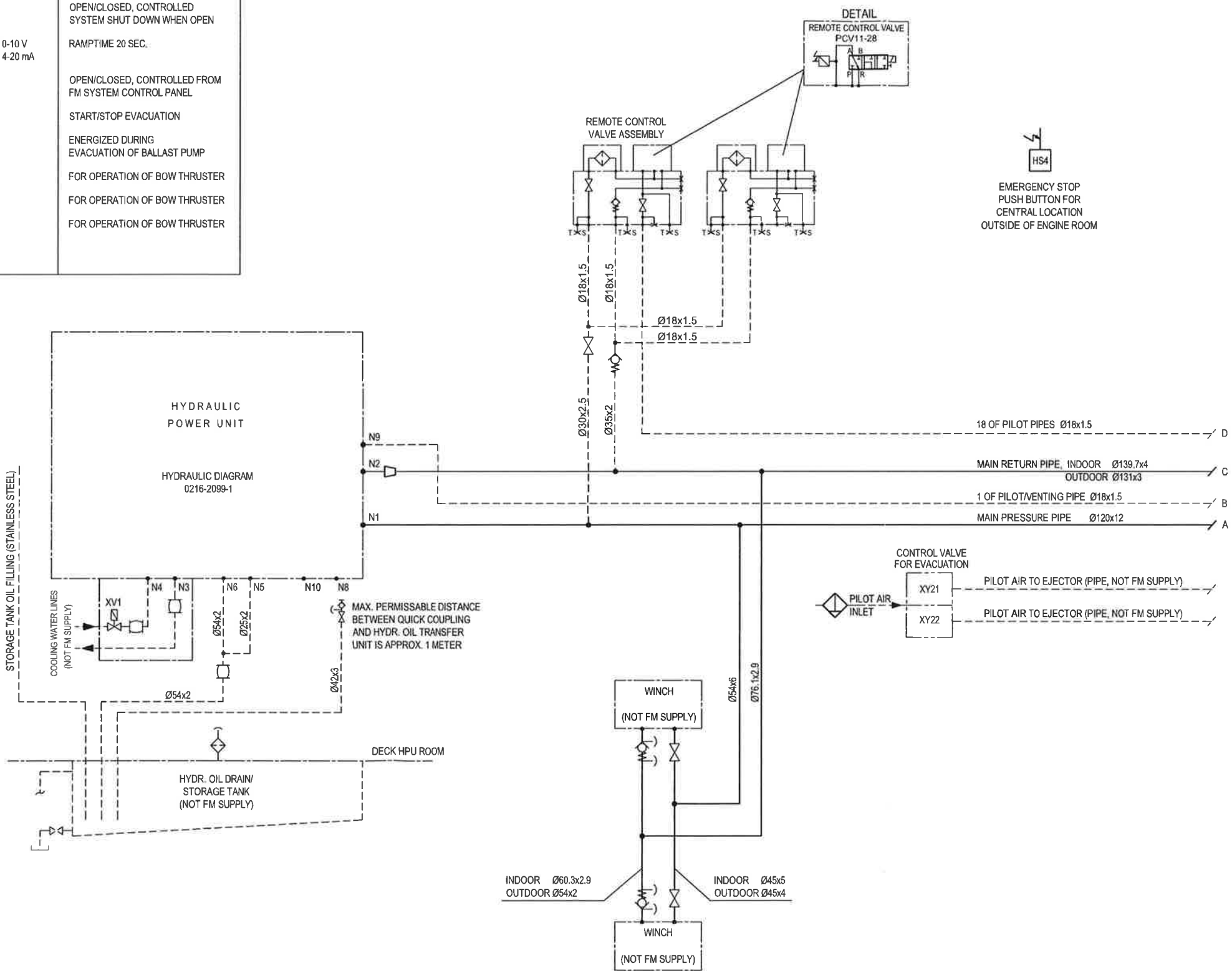


INSTRUMENT LIST					
INSTR. NO.:	APPLICATION	INSTRUMENT	RANGE/RATING	SET POINT	FUNCTION/REMARKS
HS1-3	EMERGENCY STOP, CARGO PUMPS	PUSH BUTTON			OPEN/CLOSED, STOP OF CARGO PUMPS WHEN OPEN
HS4	EMERGENCY STOP, HYDRAULIC SYSTEM	PUSH BUTTON			OPEN/CLOSED, CONTROLLED SYSTEM SHUT DOWN WHEN OPEN
PCV11-28	REGULATION OF PUMP SPEED	PROPORTIONAL VALVE W/FEED BACK	0-350 bar	0-10 V 4-20 mA	RAMP TIME 20 SEC.
XV1	COOLING WATER INLET VALVE		50/30°C		OPEN/CLOSED, CONTROLLED FROM FM SYSTEM CONTROL PANEL
LSL21-22	BALLAST SUCTION LEVEL LOW	LEVEL SWITCH			START/STOP EVACUATION
XY21-22	EJECTOR CONTROL ON/OFF	SOLENOID VALVE			ENERGIZED DURING EVACUATION OF BALLAST PUMP
XY11-13	BOW THRUSTER OPERATION	SOLENOID VALVE			FOR OPERATION OF BOW THRUSTER
PCV2	BOW THRUSTER OPERATION	PROPORTIONAL VALVE			FOR OPERATION OF BOW THRUSTER
ST1	BOW THRUSTER OPERATION	SPEED PICK UP			FOR OPERATION OF BOW THRUSTER



**PIPES:**

CALCULATIONS / DIMENSIONS FOR HYDRAULIC HIGH PRESSURE PIPING TO BE BASED UPON SYSTEM PRESSURE

HYDRAULIC RETURN PIPING IS TO HAVE PRESSURE CLASS PN16 DUE TO NOISE AND MECHANICAL STRENGTH PROPERTIES

ALL GIVEN PIPE DIMENSIONS ARE MINIMUM DIMENSIONS.

**HYDRAULIC PIPES ON OPEN DECK:**

- HIGH PRESSURE MAIN PIPES: CARBON STEEL.
- HIGH PRESSURE BRANCH PIPES: DUPLEX STAINLESS STEEL.
- LOW PRESSURE PIPES: STAINLESS STEEL AISI 316L.
- PILOT PIPES: DUPLEX STAINLESS STEEL.

**HYDRAULIC PIPES IN-DOOR:**

- HIGH PRESSURE MAIN PIPES: CARBON STEEL.
- LOW PRESSURE PIPES: CARBON STEEL.
- PILOT PIPES: DUPLEX STAINLESS STEEL.

CLASSIFICATION SOCIETY: SEE FRAMO SPECIFICATION

BACK UP VALVE SET PRESSURE : 290 BAR  
 MAX. HYDRAULIC SYSTEM PRESSURE : 275 BAR AT FULL FLOW  
 HYDRAULIC RETURN PRESSURE : SET PRESSURE 6 BAR  
 MAX. HYDRAULIC OIL TEMPERATURE : 60 °C

		Status	Sign.	Date		
		Const.	PET	14 May 13		
		Drawn by	JEOE	14 May 13		
		Checked	PET	14 May 13		
		Prod. ref.				
R	Description	Sign./Date	Prod. ref.	BHo	14 May 13	

<b>Frank Mehn AS</b>		<small>This drawing is our property. It is not to be reproduced, copied, or published without our written consent. It is to be included in any way.</small>
<b>HYDRAULIC DIAGRAM ENGINE ROOM</b>		Replaces: <b>0216-2217-101</b>
		Replaced by:



