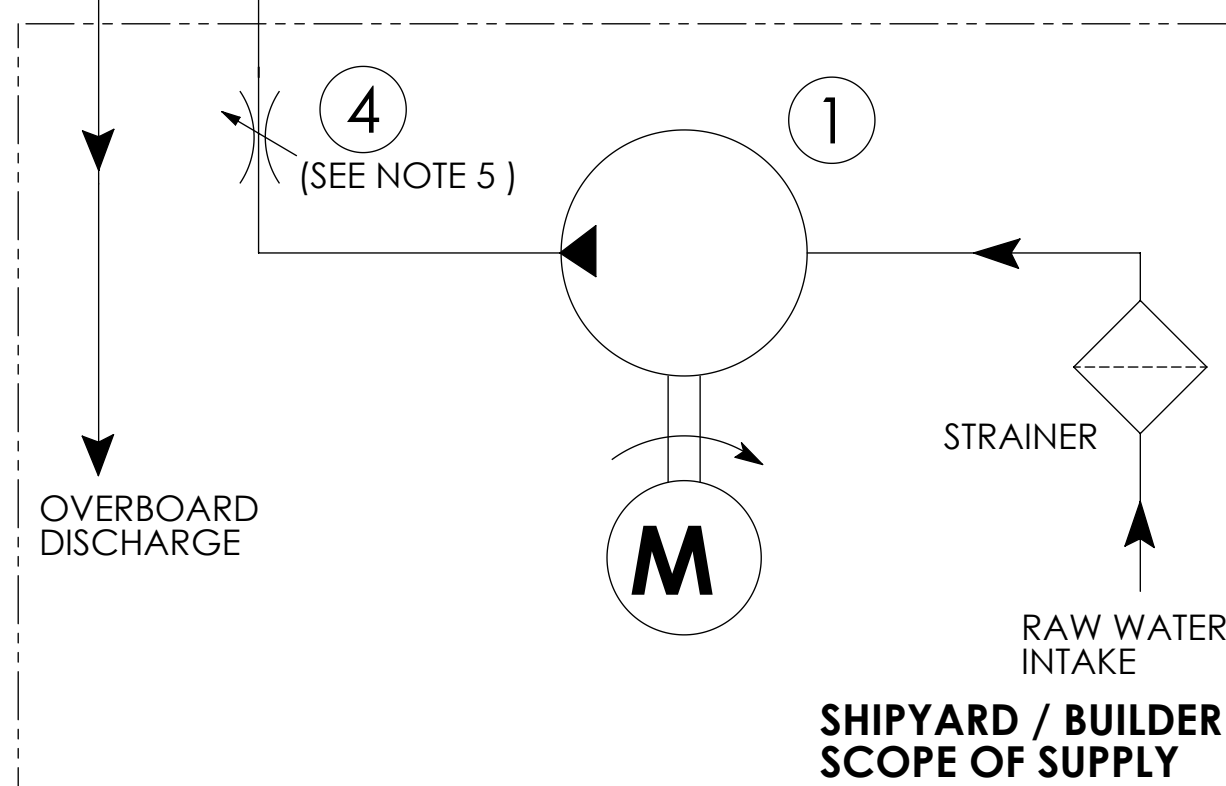
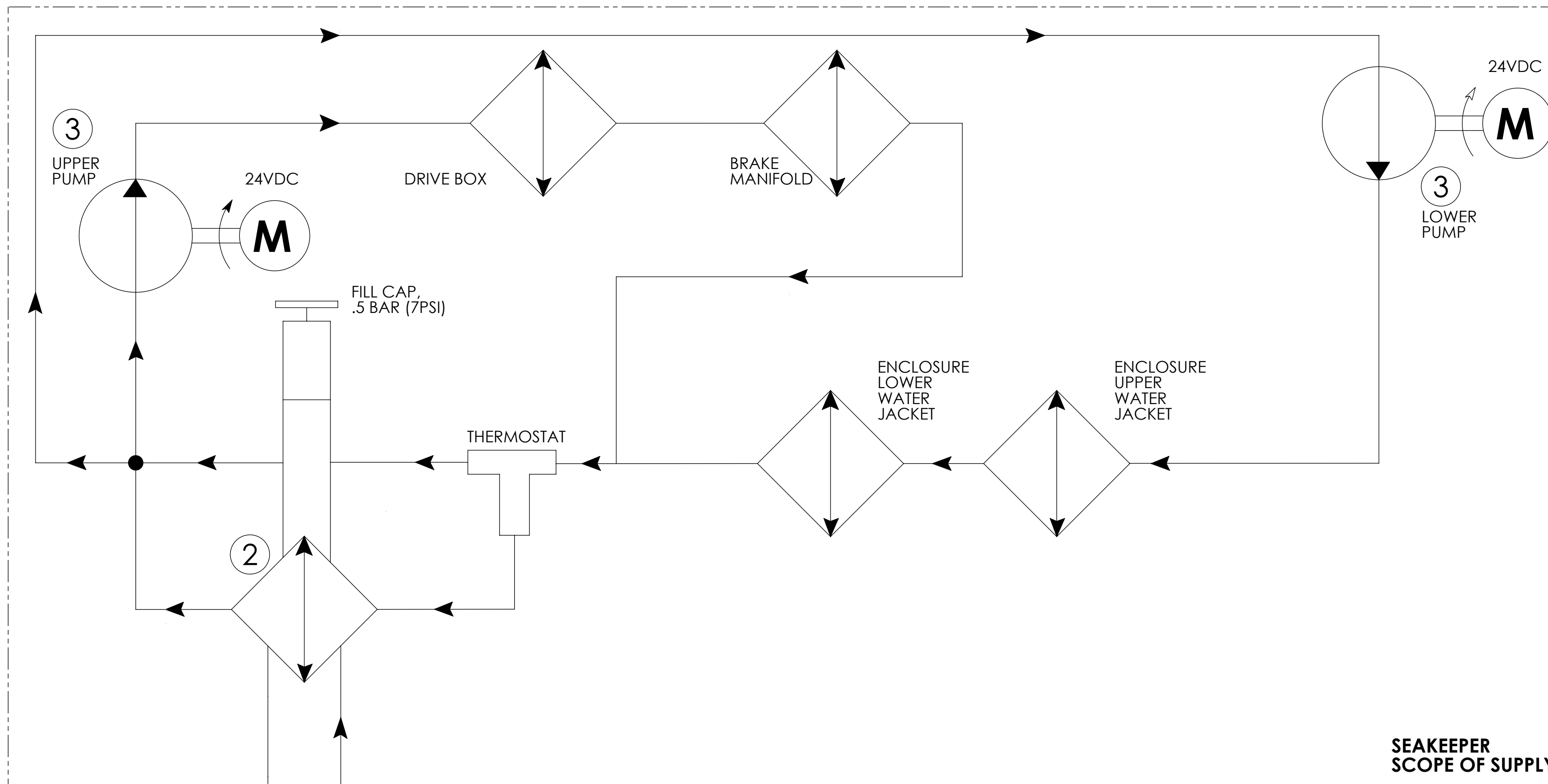



NOTES:

- 1) THE COOLANT CIRCUIT WILL BE FILLED WITH A 50% ETHYLENE GLYCOL / 50% DISTILLED WATER MIXTURE.
- 2) SEA WATER FLOW REQUIREMENT THROUGH HEAT EXCHANGER IS 10 GPM (38 LPM) MINIMUM AND 14 GPM (53 LPM) MAXIMUM UNDER **ALL OPERATING CONDITIONS OF THE BOAT**. MAXIMUM SEA WATER PRESSURE TO BE 20 PSI (1.4 BAR). WHEN SIZING SEA WATER PUMP, INSTALLER SHOULD FACTOR IN LOSSES FOR RAW WATER PLUMBING. IN ADDITION TO INITIAL OPERATION AT DOCK, NEW GYRO INSTALLATIONS SHOULD BE CHECKED FOR MINIMUM 10 GPM (38 LPM) FLOW WHILE VESSEL IS AT SPEED AND WHEN BACKING DOWN.
- 3) CONNECTIONS FOR SEA WATER INLET /OUTLET ARE 1 INCH (25.4 mm) DIAMETER HOSE BARBS.
- 4) IF USING POWER FROM GYRO DRIVE BOX TO OPERATE SEAWATER PUMP, PUMP SHOULD BE 220VAC AND DRAW 5 AMPS MAX .
- 5) IF SEA WATER FLOW RATE FROM DEDICATED PUMP OR CENTRAL SYSTEM IS HIGHER THAN MAXIMUM RECOMMENDED VALUE AN APPROPRIATE RESTRICTOR VALVE SHOULD BE INSTALLED BETWEEN THE PUMP AND THE HEAT EXCHANGER TO DECREASE THE FLOW RATE.

REVISIONS					
REV.	ECN NO.	ZONE	DESCRIPTION	DATE	APPROVED
1			1. INITIAL RELEASE	24JUL14	BRD
2	469		1. ADDED 30HD TO TITLE BLOCK 2. REPLACED PUMP 20250 WITH 40435	19OCT2016	BRD

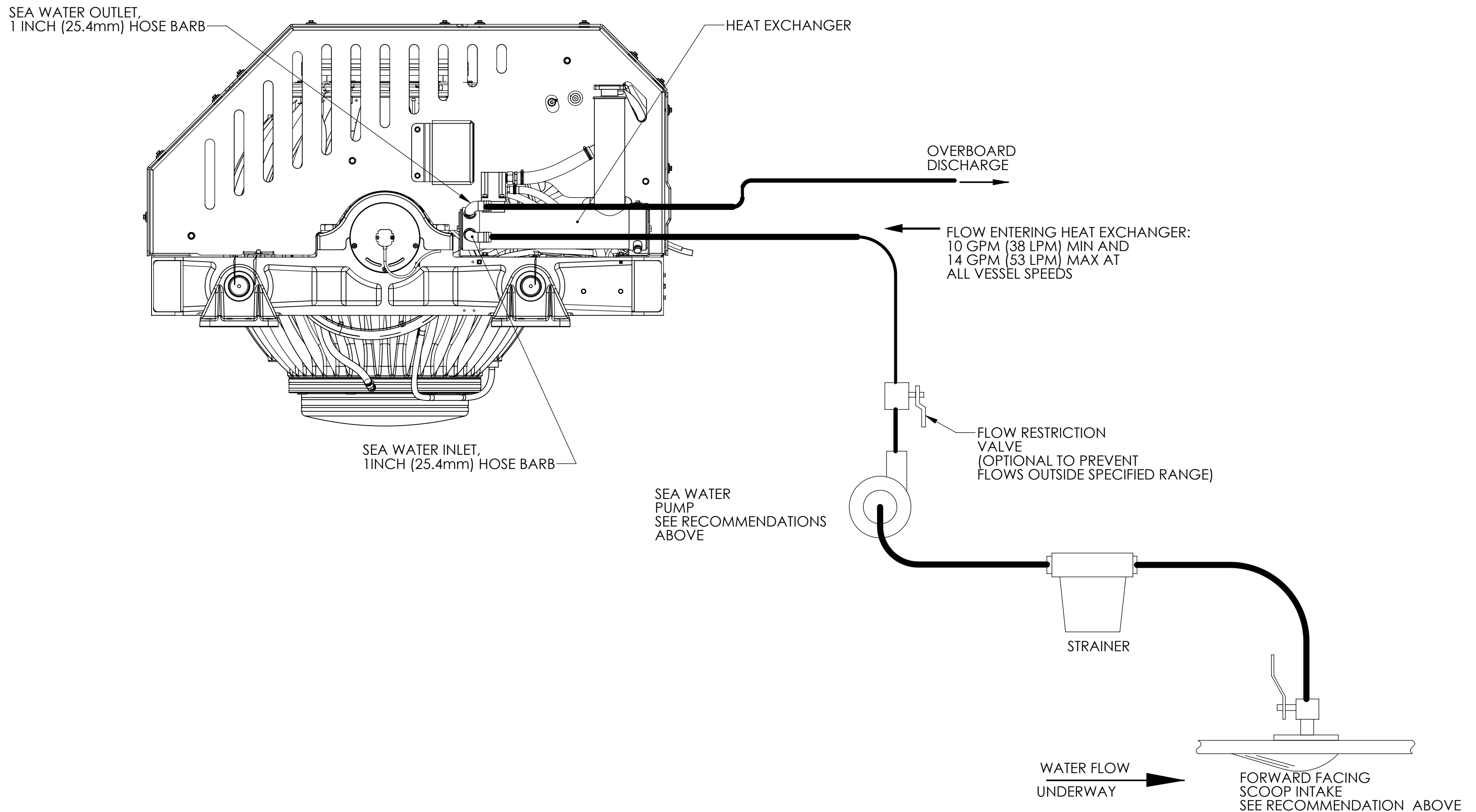


ITEM	SEAKEEPER PART NO.	DESCRIPTION	SUPPLIER
4	-	FLOW RESTRICTION VALVE	BUILDER
3	40435	COOLANT CIRCULATION PUMP	SEAKEEPER
2	40368	HEAT EXCHANGER	SEAKEEPER
1	-	SEA WATER PUMP, SEE NOTE 2 & 4	BUILDER

WEIGHT - LBS :		PROPRIETARY AND CONFIDENTIAL		 Seakeeper Inc. 44425 Pecan Court, Suite 151 California, MD 20619 NAME: SEAKEEPER 35 / 30HD GYRO COOLING WATER SCHEMATIC	
MATERIAL:		THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SEAKEEPER INCORPORATED. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SEAKEEPER IS PROHIBITED.			
DATE:	22 JUL 2014	DATE:	22 JUL 2014	DWG NUMBER	90290
ENG APPR:	BHS	DATE:		REV. NO.	2
PROD APPR:		DATE:		SHEET NO.	1 OF 2

GENERAL RECOMMENDATIONS FOR GYRO COOLING CIRCUIT:

- SEAKEEPER RECOMMENDS A CONTINUOUS DUTY CENTRIFUGAL STYLE PUMP FOR THIS APPLICATION .
- A SELF PRIMING PUMP IS NOT A REQUIREMENT IF THE LOCATION OF THE INSTALLED PUMP IS BELOW THE VESSEL WATERLINE.
- SEA WATER PUMP SHOULD BE APPROPRIATELY SIZED TO ACCOUNT FOR PLUMBING LOSSES BETWEEN PICK-UP AND GYRO HEAT EXCHANGER.
- THE PUMP MUST NOT BE AT A LOCAL HIGH POINT THAT CAN TRAP AIR AND PREVENT PROPER OPERATION.
- THE DISCHARGE HOSE OF THE PUMP SHOULD BE ROUTED CONTINUOUSLY UPHILL AS MUCH AS PRACTICAL TO ALLOW PUMP TO MAINTAIN PRIME SHOULD A SMALL AMOUNT OF AIR ENTER THE PLUMBING.
- SEA WATER PUMP SHOULD BE RATED FOR SAME MAXIMUM SEA WATER TEMP (35°C) AND AMBIENT AIR TEMPERATURE (60°C) AS GYRO.
- FOR MULTIPLE GYRO INSTALLATIONS, ONE SEA WATER PUMP PER INSTALLED GYRO IS RECOMMENDED.
- SEA WATER SCOOP INTAKE SHOULD FACE FORWARD AND SHOULD NOT BE LOCATED NEAR PROPELLERS OR BEHIND HULL PROTRUSIONS THAT WILL DISTURB FLOW.
- IF SEA WATER COOLING WATER TO GYRO IS PROVIDED FROM A MULTI-PURPOSE PUMP/CIRCUIT , AN AUTOMATIC SHUT-OFF VALVE SHOULD BE INSTALLED TO PREVENT FLOW THROUGH GYRO HEAT EXCHANGER WHEN GYRO IS NOT IN USE.
- IF MEASURED FLOW FROM DEDICATED OR CENTRAL SEA WATER PUMP IS ABOVE RECOMMENDED LIMITS, A RESTRICTOR VALVE SHOULD BE INSTALLED BETWEEN PUMP AND GYRO HEAT EXCHANGER TO LIMIT FLOW RATE AND EXTEND LIFE OF THE HEAT EXCHANGER.



TYPICAL SEAWATER COOLING PLUMBING ARRANGEMENT FOR SEAKEEPER 35 / 30HD GYRO

SIZE C	DWG. NO. 90290	REV 2
SCALE: 1:20	WEIGHT:	SHEET 2