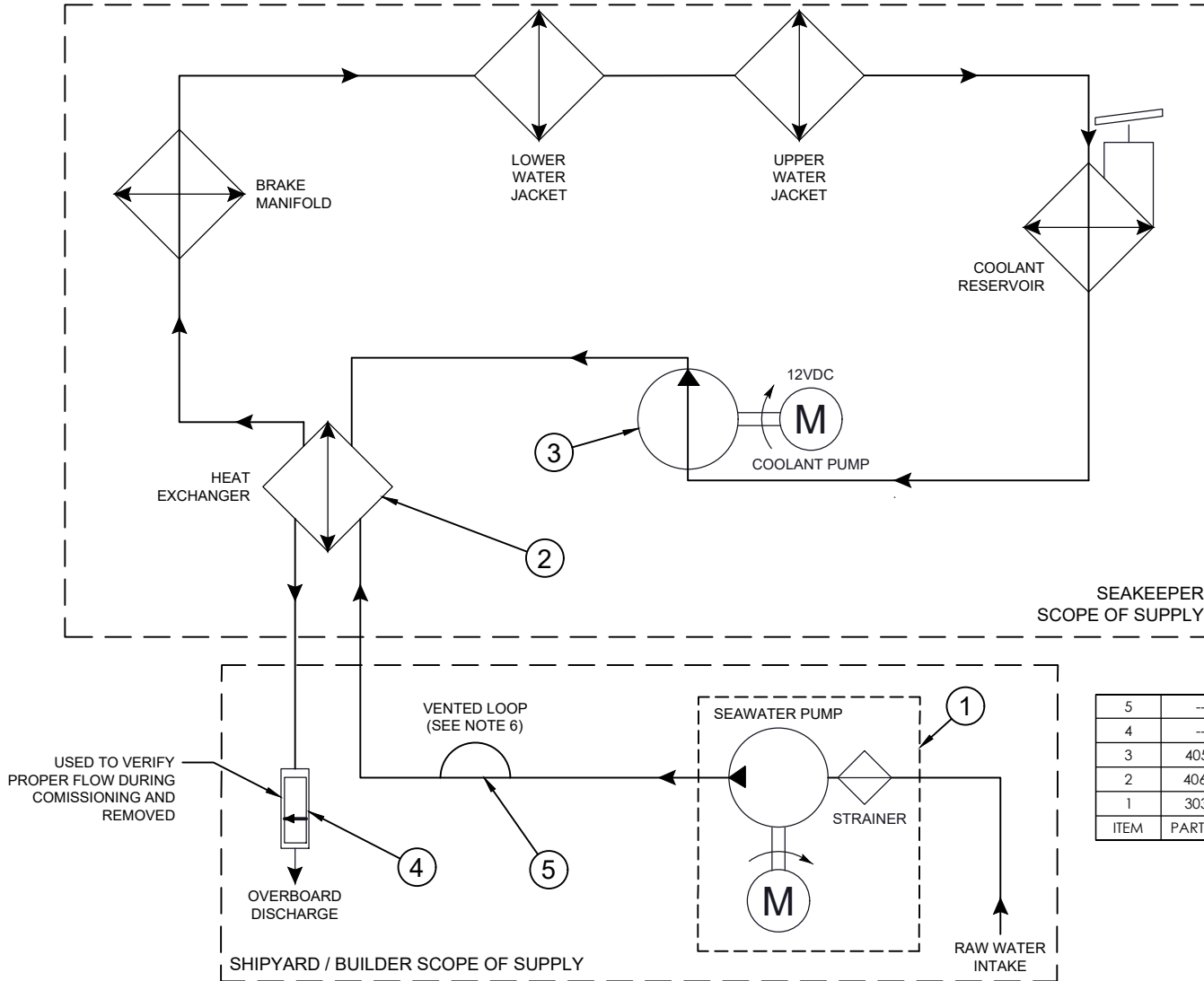


NOTES:

- 1) THE COOLANT SYSTEM WILL BE FILLED WITH A 50% ETHYLENE GLYCOL / 50% DISTILLED WATER MIXTURE.
- 2) A 50-MESH (300 MICRON) OR FINER STRAINER IS REQUIRED FOR THE SEAKEEPER STABILIZATION SYSTEM.
- 3) DC POWERED SEAWATER PUMP MUST BE PURCHASED FROM SEAKEEPER (ITEM 1) OR CUSTOMER SUPPLIED (W/ EQUIVALENT SPECIFICATIONS). SEAKEEPER DC POWERED SEAWATER PUMP REQUIRES STRAINER (PROVIDED) ON INLET SIDE. SEAWATER FLOW REQUIREMENT THROUGH HEAT EXCHANGER IS 2 GPM (7.6 LPM) MINIMUM AND 4 GPM (15.1 LPM) MAXIMUM UNDER ALL OPERATING CONDITIONS OF THE BOAT. MAXIMUM SEAWATER PRESSURE TO BE 20 PSI (1.4 BAR). WHEN SIZING SEAWATER PUMP, INSTALLER SHOULD FACTOR IN LOSSES FOR RAW WATER PLUMBING. IN ADDITION TO INITIAL OPERATION AT DOCK, NEW SEAKEEPER INSTALLATIONS SHOULD BE CHECKED FOR MINIMUM 2 GPM (7.6 LPM) AND 4 GPM (15.1 LPM) MAXIMUM FLOW WHILE VESSEL IS AT SPEED AND WHEN BACKING DOWN.
- 4) WATER CONNECTIONS FOR SEAWATER INLET /OUTLET ON SEAKEEPER DC POWERED SEAWATER PUMP AND ON HEAT EXCHANGER ARE 1/2 INCH (12.7 mm) DIAMETER HOSE BARBS. 1/2 INCH HOSE BARB ADAPTERS ARE PROVIDED WITH SEAKEEPER DC POWERED SEAWATER PUMP.
- 5) IF USING POWER FROM SEAKEEPER STABILIZATION SYSTEM TO OPERATE SEAWATER PUMP, PUMP SHOULD MATCH SEAKEEPER INPUT DC VOLTAGE AND DRAW 15 AMPS MAX. ELECTRICAL CONNECTION IS TE CONNECTIVITY DEUTSCH DT-SERIES 2-WAY RECEPTACLE. REFER TO SEAKEEPER 1 CABLE BLOCK DIAGRAM (90511).
- 6) A VENTED LOOP IS RECOMMENDED TO BE INSTALLED IN AN APPROPRIATE LOCATION TO ALLOW AIR PURGING IN THE SEAWATER SUPPLY LINE. INSTALL A FORESPAR MARELON VENTED LOOP P/N 903008 OR SIMILAR, ABOVE THE WATER LINE.

REVISIONS					
REV	ECN NO.	ZONE	DESCRIPTION	DATE	APPROVED
1			1. RELEASED FOR PRODUCTION.	23APR20	NT

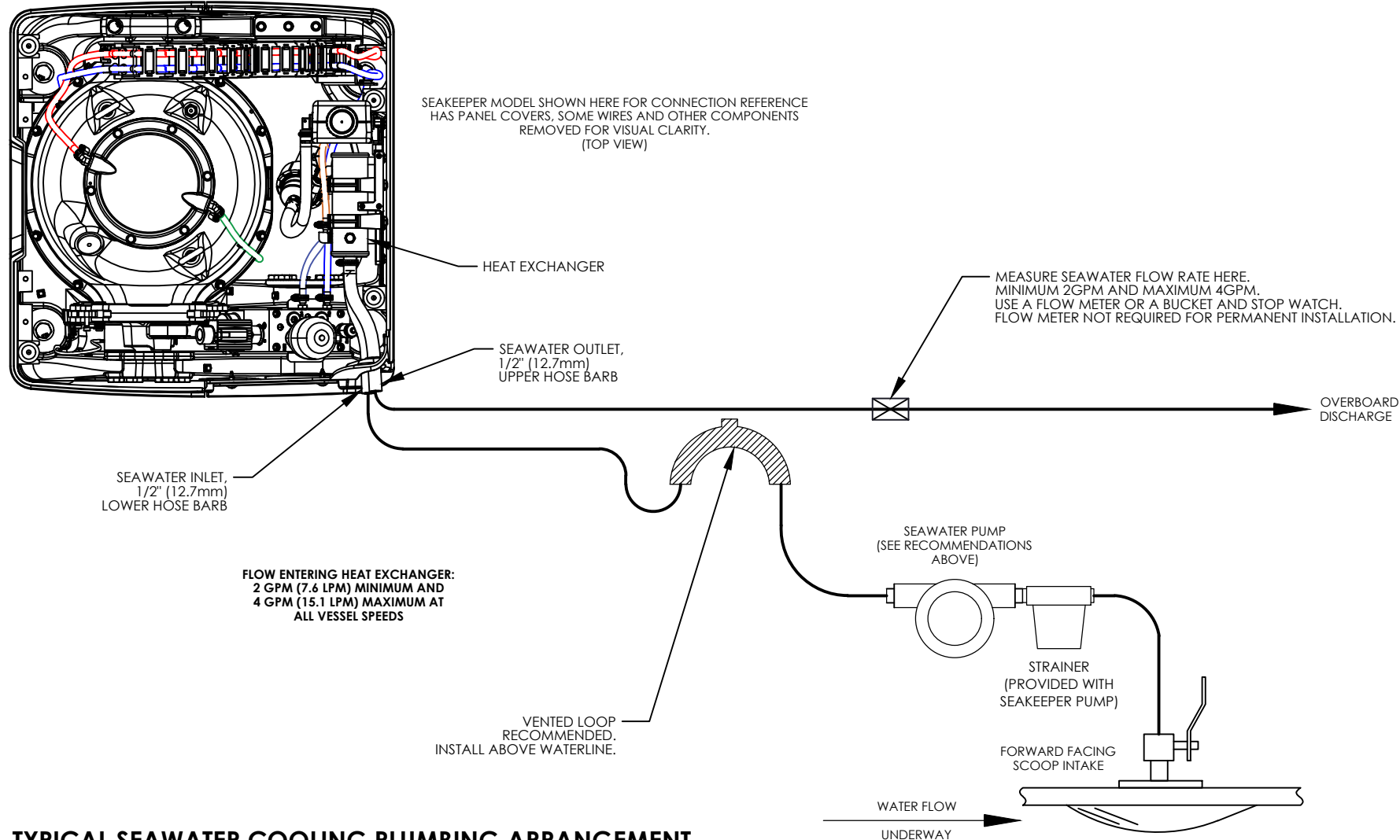


5	---	VENTED LOOP, SEE NOTE 6	INSTALLER
4	---	SEAWATER FLOW METER, SEE NOTE 3	INSTALLER
3	40501	COOLANT CIRCULATION PUMP	SEAKEEPER
2	40664	SEAKEEPER 1 HEAT EXCHANGER	SEAKEEPER
1	30331	SEAWATER PUMP, SEE NOTE 3	INSTALLER
ITEM	PART NO.	DESCRIPTION	SUPPLIED BY

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45310 AABELL HOUSE LANE, SUITE 350, CALIFORNIA, MD 20619		<b>TITLE</b> SEAKEEPER 1 COOLING WATER SCHEMATIC	
<b>WEIGHT-LBS:</b> N/A <b>MATERIAL:</b>	<b>DRAWN:</b> D. GALANTE <b>ENG APPR:</b> N. TROCHÉ <b>PROD APPR:</b> D. GALANTE	<b>DATE:</b> 29 APR 2019 <b>DATE:</b> 03 JUL 2019 <b>DATE:</b> 03 JUL 2019	<b>DWG NUMBER</b> 90512
		<b>REV</b> 1 <b>SHEET NO</b> 1 OF 2	

GENERAL RECOMMENDATIONS FOR SEAKEEPER COOLING CIRCUITS:

- HIGH SPEED VESSELS AND VESSELS THAT EXPERIENCE MOMENTARY 'AIR TIME' MAY NEED TO BE EQUIPPED WITH A SELF PRIMING PUMP.
- SEAWATER PUMP SHOULD BE APPROPRIATELY SIZED TO ACCOUNT FOR PLUMBING LOSSES BETWEEN PICK-UP AND OVERBOARD DISCHARGE.
- 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.
- SEAWATER PUMP SHOULD BE RATED FOR SAME MAXIMUM AMBIENT AIR TEMPERATURE (60 °C) AS GYRO.
- FOR MULTIPLE SEAKEEPER INSTALLATIONS, ONE SEAWATER PUMP PER INSTALLED SEAKEEPER IS RECOMMENDED.
- SEAWATER SCOOP INTAKE SHOULD FACE FORWARD AND SHOULD NOT BE LOCATED NEAR PROPELLERS OR BEHIND HULL PROTRUSIONS THAT WILL DISTURB FLOW.
- IF SEAWATER COOLING FLOW IS BEING PROVIDED FROM A MULTI-PURPOSE PUMP/CIRCUIT TO A SEAKEEPER SYSTEM, AN AUTOMATIC SHUT-OFF VALVE SHOULD BE INSTALLED TO PREVENT FLOW THROUGH SEAKEEPER'S HEAT EXCHANGER WHEN THE SEAKEEPER IS NOT IN USE.
- IF MEASURED FLOW FROM DEDICATED OR CENTRAL SEAWATER PUMP IS ABOVE RECOMMENDED LIMITS, A RESTRICTOR VALVE SHOULD BE INSTALLED BETWEEN PUMP AND SEAKEEPER'S HEAT EXCHANGER TO LIMIT FLOW RATE AND EXTEND LIFE OF THE HEAT EXCHANGER.
- SEE SEAKEEPER DRAWING #90516 FOR RECOMMENDED SEAWATER HOSE ROUTING TO SEAKEEPER STABILIZATION SYSTEM.



**TYPICAL SEAWATER COOLING PLUMBING ARRANGEMENT**

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TITLE <b>SEAKEEPER 1 COOLING WATER SCHEMATIC</b>		DWG NUMBER <b>90512</b>	
REV SHEET NO <b>1 2 OF 2</b>		DATE <b>29 APR 2019</b>	
DRAWN: <b>D. GALANTE</b>		DATE: <b>03 JUL 2019</b>	
ENG APPR: <b>N. TROCHÉ</b>		DATE: <b>03 JUL 2019</b>	
PROD APPR: <b>D. GALANTE</b>		DATE: <b>03 JUL 2019</b>	
WEIGHT-LBS: N/A	MATERIAL:		