

SEAKEEPER SEAWATER FLOW VERIFICATION



PRODUCT ALL SEAKEEPER MODELS

PURPOSE

The purpose of these instructions is to verify that the Seakeeper seawater system has proper flow and does not have unintended flow when seawater is not required. The procedure applies to all Seakeeper models with discrete DC seawater power requirements.

BACKGROUND

Seakeeper models rely on a closed-loop glycol-water circuit that is cooled by seawater through a heat exchanger. Ensuring proper seawater flow during operation is critical to maintaining the internal cooling system's performance and protecting components from overheating in ambient temperatures up to 140°F (60°C).

Unintended seawater flow through the system can result in cooling through the heat exchanger even when the seawater pump is not turned on by the Seakeeper or the unit. This condition may go unnoticed, resulting in thermal shock to internal components.

To assist technicians and installers, this verification procedure references the Cooling Water Schematic specific to each Seakeeper model, which illustrates proper flow direction, component location, and check valve placement. Model-specific schematics should be reviewed before conducting the verification process.

REFERENCES

- [Appropriate Cooling Water Schematic](#)

PREREQUISITES

1. **ENSURE** vessel in water and able to perform a sea trial.
2. **ENSURE** all seawater plumbing components accessible (e.g., seacock, strainer, pump, automatic valve, and flow meter).
3. **IF** seawater plumbing does not have an installed flow meter in discharge of Seakeeper, **THEN INSTALL** a temporary meter in discharge plumbing.
4. **ENSURE** following tools available:
 - Flashlight
 - Flow meter (if not installed) (Figure 1)
 - Appropriate hose barb fittings for seawater hose diameter
 - Hose clamps



Figure 1: Flow meter example

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5. **IF** performing flow verification when cooling required,
THEN ENSURE power available to Seakeeper, seawater pump, and automatic valve (if installed).
6. **ENSURE** seacock valve fully open.
7. **IF** more than one Seakeeper onboard,
THEN COLLECT data on all Seakeepers.

PROCEDURE

1. **ENSURE** seawater strainer clean and sealed.
2. **ENSURE** seacock valve fully OPEN.
3. **PERFORM** sea trial:
 - a. **DOCUMENT** all data on chart on next page.
 - b. **ACTIVATE** seawater override (Figure 2).
 - c. **NOTE** flow rate when boat stationary.
 - d. **MAINTAIN** steady heading during inspection steps below.
 - e. **WHILE** accelerating to maximum speed,
MONITOR seawater flow rate.
 - f. **NOTE** highest and lowest flows and corresponding speeds as accelerating (see [ATTACHMENT 1](#) for required flow rates).
 - g. **DEACTIVATE** seawater override at maximum speed or underway.
 - h. With seawater pump off, **DOCUMENT** seawater flow at various speeds.
 - i. **DOCUMENT** following information:

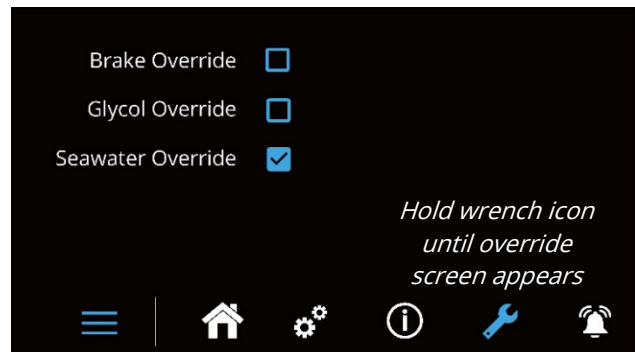


Figure 2: Override screen

Case #:	Gyro S/N:	SW Pump Make/Model:
Boat Builder:	Boat Model:	SW Pick up type:

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4. **DOCUMENT** flow rate in tables below:

Model Pump:

Knots	PSI NOT REQ'D	Flow with pump ON (GPM)	PSI NOT REQ'D	Flow with pump OFF (GPM)
Idle				
10				
20				
30				
40				
50				
60				
Max:				

Note at what speed unintended flow occurs:

5. **DOCUMENT** seawater plumbing configuration on applicable form in writing or in video file submitted with form.
6. **TRANSPOSE** results to applicable form or submit all data to serviceengineering@seakeeper.com.

******* END *******

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ATTACHMENT 1: REQUIRED DISCRETE SEAWATER FLOW RATES

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MODEL	FLOW RANGE GPM (LPM)
Seakeeper 1	2 - 4 (7.6 - 15.1)
Seakeeper 2 (2-0001 - 2-0399)	2 - 6 (7.6 - 22.7)
Seakeeper 2 (2-0400 to Current)	2 - 4 (7.6 - 15.1)
Seakeeper 3 (3-1425 to Current)	2 - 4 (7.6 - 15.1)
Seakeeper 4 / 4.5	2.5 - 4 (9.5 - 15.1)
Seakeeper 6 / 5 (6/5-2771 to Current)	2.5 - 8 (9.5 - 30.3)
Seakeeper 9 (9-3388 to Current)	4 - 8 (15.1 - 30.3)
Seakeeper 10	4.5 - 6 (17 - 22.7)
Seakeeper 14	
Seakeeper 18 / 16	4 - 8 (15.1 - 30.3)
Seakeeper 40	13 - 15 (49.2 - 56.8)