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Fuel Level Sender Accuracy

Models Affected

All vessels utilizing the SmartCraft fuel level monitoring capability.

Situation

Boat owners with SmartCraft fuel tank gauges may experience inaccurate readings. The most common source of inaccurate SmartCraft fuel level readings are:

- Utilization of fuel level senders with a non-sealed potentiometer that may have "dead" areas that arise due to oxidation and/or fuel related impurities.
- Improper fuel level sender calibration.

Correction

Select a more reliable sensor design.

The following suggestions are provided for fuel level sender selection:

- Select a sender with few or no moving parts. Sensors with capacitive or reed style sensing elements are preferred. Some of these types of senders differ for the different fluids they measure (fluid conductivity).
- SmartCraft compatible fuel level senders have a nominal operating range of 33 - 240 ohms, where 33 ohms is full and 240 ohms is empty.
- The new SmartCraft boat sensor harness will no longer have the black/orange ground wire in the harness. The negative side of the fuel tank sender must be connected directly to the negative terminal of the battery.

Re-calibrate the SmartCraft fuel levels.

Often, the fuel level sender is calibrated for the fuel tank capacity rather than the volume of fuel covered within the range of motion of the fuel level sender.

Proper calibration can be achieved by:

- Measuring or calculating the volume of fuel monitored by the fuel level sender. This amount will be less than the fuel tank capacity.
- Utilizing the measured or calculated volume during the SmartCraft calibration process.

The float style fuel level sender has "dead" areas caused by oxidation and/or fuel related impurities.

- Should this problem occur, the fuel level sender must be replaced and subsequently, re-calibrated.

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