## **Sinking Feeling**

That sinking feeling...

Bilge pumps. The chances are strong that your particular boat is equipped at least one. Most are common electric centrifugal pumps and are operated from your boats battery systems. Generally it is activated by the water level rising to a pre-determined point or by engaging a switch on the dashboard.

Too often when inspecting a vessel for condition or accident we find the bilge pumps inoperable, wired incorrectly or in generally poor condition. Keep in mind that when the pump motor runs you don't necessarily know it is actually pumping water. The tiny metal impeller shafts are prone to breaking from corrosion. In other cases, tie straps, fishing line and other debris, may easily foul the pump. Some builders, Sea Ray for example, are notorious for putting check valves in the hose: These valves will occasionally stick or become fouled.

During an inspection I look for general condition of the pump, hose, clamps and wiring connections. I try to determine that the discharge hose forms a loop above the hull fitting or is at least 12 inches above the water line to avoid a siphon effect. I check to make sure that the automatic function operates with battery switch OFF and that the unit is properly fuse protected. It is an important safety precaution to regularly inspect your own bilge pumps. Many boat owners don't think to replace or service them until they have a failure.

Maintenance tips: Even the most expensive pumps are under warrantee for only five years. Most have only one year. I would suggest new pumps and floats every two years, three years at the most. Check the hose at these intervals for brittleness and the clamps for corrosion. Clean the bilges of debris and clear any check valves fitted.

The bilge pump auto circuit and the stereo memory are the only two conductors on board which are allowed by ABYC to be energized with battery switch off. Make sure the correct size fuse is installed at the source of power. Example: Rule 1500gph 12volt: 9 amp, Rule 2000gph 12 volt: 15 amp etc. The pump manufacturers websites will all have installation instructions and fuse requirements. Electronic automatic switches such as Water Witch and Johnson have become much more reliable in recent years and are worthy of consideration when the original equipment is due for replacement. Don't let gas prices keep you high and dry. There is plenty of inshore and near shore fun to be had. Dust off those old water skis, picnic baskets and light tackle and go boating.

You may email Capt. Campbell with questions, comments and ideas for topics you would like to see him address at: Baitkiller@comcast.net or 239-389-9769 Capt. John Campbell AMS is an accredited Marine Surveyor associated with the Society of Accredited Marine Surveyors, The American Boat and Yacht Council and the Collier County Marine Trades organization.

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