Projects 2005

CV Joint, Holding Tank, Computer, Aft Steering Station, Covers, Steadying Sail

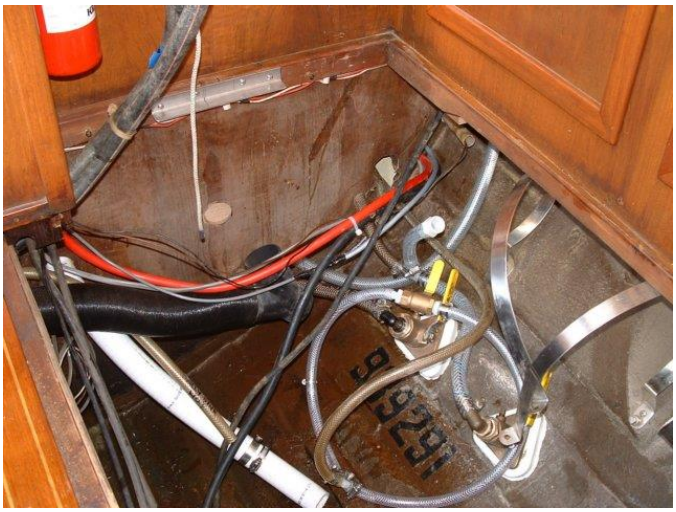
The CV joint is out of the boat again. The rubber boots had deteriorated and were leaking grease, which gets sprayed around the bilge as the joint rotates.

Disassembled CV joint

New boots and grease, cleaned up and we are back in business.

The original holding tank was nine gallons with a macerator pump. The Great Lakes are zero discharge areas, and a nine-gallon tank is way too small. The large hole for the discharge was patched and sea cocks replaced on the inlets.

New through hulls and sea cocks installed.



30 gallon holding tank installed. The stainless tank is the water heater.

A new instrument panel was built.

Interior steering station showing the computer monitor covered and folded.

Coastal Explorer is the navagation software used. If the laptop computer packs it up we can use the (very) small screen on GPS.

The keyboard hides under a wood cover when not in use.

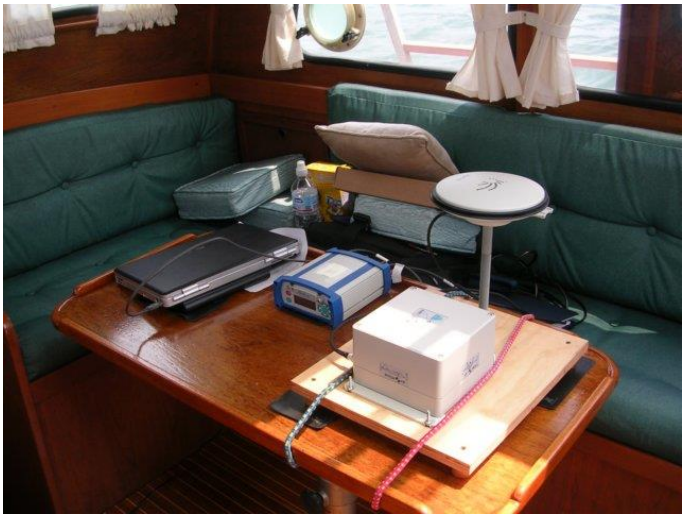
Working on the revised aft steering station.

Finished aft steering station instrument console.

Covers for the station and wheel.

Cover for the dingy.

We found the boat is invisible to fairly inexpensive radar. This is instrumentation for recording position, roll, pitch and yaw that was to be used to track the boats motion for comparison against the radar information for a Homeland Security research project. We eventually had to hoist one of the inflatable radar reflectors to track the boat. We tried one of the Davis aluminum reflectors without success.



We built the steadying sail mast from pine using the birds mouth construction technique. This enabled us to run power cables and halyards inside the mast.

Mast in the boat.

Stainless compression tubes support the spar.

While calculations showed that the compression tubes should be more than adequate for support, wire shrouds were also added as insurance.

"Temporary" steadying sail. The foot on the new sail will be shortened. We still haven't gotten around to it, but it is still on the list.

We were having problems with the dual single lever controls behaving with the "combiner" and the very stiff multi-plate clutch on the Yanmar 4jh2dte engine. This was an attempt to keep the levers under control. The levers were not the real issue in the end.

After putting a hole in the dingy, tearing out a piece of the dingy gunwale, breaking a 1/8" SS cable on the dingy bridle and tearing up the dingy cover, we realized that the only real fix for the shifting issue was to install dual lever controls. This requires a re-build of the steering stations (again).

Finished installation of the dual lever controls. We now know exactly what the engine is going to do when advancing the throttle. Note the vacuum gauge below the controls. This was one of the first instruments that we added when we got the boat, followed by the Link 1000 monitor to the left of it (behind the wheel). The Link monitors the Xantrex Freedom 10.

Dual lever controls at the aft steering station.

We also installed a gas grill on the rail at the transom. At the time we still owned the double ended ketch in the background.