- 1. The AC and DC electrical systems have been recently installed new by the owner. The systems are quite complex; and most of the system is not clearly labeled; including many of the switches; and battery disconnect switches. The wiring installations are not neat/tidy; with many wires/cables routed through work/machinery spaces. Many areas of wiring are hanging unsupported. The majority of the 12V batteries are located (uncovered)low in the engine compartment bilge spaces not an ideal arrangement; subject to flooding. Noted many uncovered wire/cable connections in the engine compartment. Noted the use of house-hold "extension cord" and household "Romex" type wiring in several installations.
- 2. The lazarette air conditioners compressor mounting platform is rotten; the units are not secured.
- 3. The lazarette and engine compartment were found very dirty and cluttered, with large amounts of diesel fuel and/or oil in the bilges and nearby hull spaces. The hull spaces do not appear to be fitted with limber holes to allow proper drainage into the main bilge spaces, thus, oil and/or fuel are trapped in many areas.
- 4. The diesel fuel system was found partially disassembled.
- 5. The electrical and plumbing systems are unnecessarily complex.

## Engines:

- The engines are not "Marine" type engines, have been "marinized" by the owner.
- Found many areas of corrosion and rust across both engines and transmissions.. Noted evidence of leakage at many areas along the cooling and exhaust systems.
- Access to the propeller shafts dripless seals is extremely limited and difficult.
- The exhaust systems are homemade, and are suspect. The sea water injection points are located low on the engine side of the riser. Could allow possible back-flooding into the turbo. Noted single clamps at engines' exhaust blue hose connections in the lazarette. All exhaust hose connections must be fitted with two hose clamps each.
- 7. The owner has refitted the interior; with new wood overhead liner and interior structures throughout. Workmanship "fit and finish" is of fair quality not "yacht" quality.

## 8. Fuel tanks:

- Noted single clamps at the tanks' fill hose connections. All fuel tank fill hose connections must be fitted with two clamps each.
- Noted "non-fuel-rated" common reinforced plastic hose used for the tanks' vent plumbing. All hose must be marked USCG approved type fuel hose.

The diesel generator has been removed from the lazarette. Found disconnected fuel, exhaust and sea water intake plumbing associated with the generator. All disconnected plumbing should be securely capped-off.

Noted single hose clamps at all generator exhaust hose connections. All exhaust hose separator is plumbed to discharge into the cockpit drain overboard pipe (wet side) and connections must be secured with two clamps each. The exhaust system's gas/water at the cabin top (dry side); both unusual and unconventional locations. May allow cockpit water to back flood into the generator.

- waterline locations on vessels in sea water. Connecting dissimilar metals in sea water is Noted the use of stainless steel seacocks or bronze seacocks with stainless steel elbows and fittings. Marine bronze is preferred material for seacocks used in below galvanic corrosion. Also noted a few galvanized steel pipe fittings used in seacock/ not a recommended practice; as this arrangement will likely result in destructive strainer installations; not advisable.
- 11. The stainless steel waste holding tank's overboard discharge pipe is broken-off at the aft side lower corner of the tank in the lazarette. The treated waste can leak/drain into the lazarette bilge compartment.

- switches in each bilge compartment, and an audible alarm that can be heard outside of Recommend a bilge high water alarm system be installed, with automatic float the vessel.
- allow a portable fire extinguisher's nozzle to be inserted/discharged in the engine space, extinguisher system - or alternatively second choice - install a nozzle opening "port" to In the engine compartment; recommend install a fixed automatic/manual fire without opening the primary access - per ABYC Standard A-4.