

# SAN JUAN FRESH WATER COOLING SYSTEMS

## 5.0/5.7 GSI VOLVO "2000"

### "Block Only" Cooling

### Kit #V-114 Installation Instructions

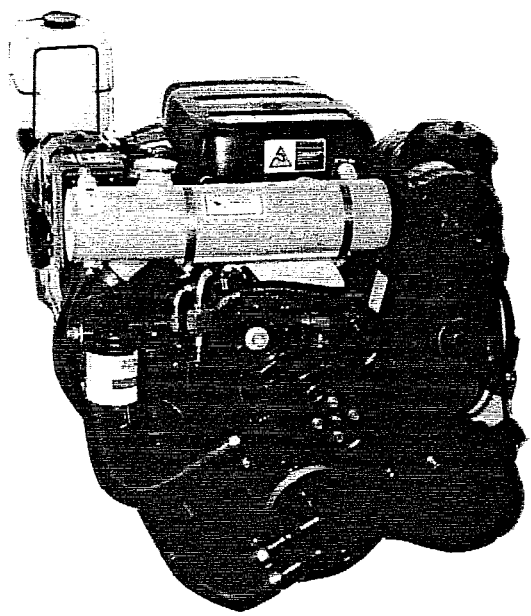
San Juan Engineering Heat Exchangers provide thermostatically controlled fresh water cooling for marine engines. This installation does not add any height, width, or length to the engine, allowing for installation in engine compartments. Designed to ensure years of satisfactory service, the entire unit is constructed of pure copper with silver alloys. This system is built by quality craftsmen that have made San Juan Engineering the leader in their field for over 42 years.

San Juan Engineering Heat Exchangers prolong engine life by preventing corrosion in the cylinder block. Anti-freeze solution can be added to the coolant if boat is used in extreme cold weather. Draining the sea water side of the heat exchanger is required when the boat is not in operation.

Installation is simple. All necessary parts are supplied and no special tools are required.

1. All instructions are given while facing the front of the engine. The alternator is on the right hand side, the fuel pump on the left hand side.

2. Disconnect the battery cables.



3. Locate the original thermostat housing assembly at the top, front, center of the engine. Remove all the hose clamps and the hoses connected to this assembly. Use care not to destroy hoses or hose clamps, they will be used later. Leave all hoses connected at their other ends. Remove the 1/4" NPT X 1/4" hose 90 degree fitting from top of housing and save for later. Disconnect temperature sending units and save for later.

4. Remove thermostat housing from engine by taking out the (2) 9/16" head bolts. Discard original thermostat housing, thermostat, lifting strap and bolts. You will replace the new parts from your SJE kit. Clean thoroughly the thermostat gasket surface on intake manifold.

5. Remove temperature sender threaded into the intake manifold and save. This is located just to the left of the thermostat housing surface. **INSTALL FIRST, THE CROSS ASSEMBLY:** 1/2" NPT nipple, 1/2" NPT special cross, 1/2" NPT to 5/8" straight hose adapter for by-pass hose then install sending units as per figure #1. Remove the 3/4" pipe plug located on the top of the fresh water pump. Thread the provided 3/4" NPT X 1/2" NPT bushing and 1/2" NPT X 5/8" Hose 90 degree adapter into the top of the fresh water pump. Retrieve (2) #10 hose clamps and the 5/8" ID 90 degree hose and plumb from the adapter in the cross to the adapter on the fresh water pump. This is your fresh water by-pass. Install senders into remaining holes on brass tee. Re-connect the wires.

6. If an auxiliary hot water heater is to be used, remove by-pass hose and run hose from the 1/2" X 5/8" hose fitting on cross to the lower fitting on your heater, and connect the top hose fitting from your heater to the other by-pass hose fitting on your fresh water pump.