

V SAN JUAN FRESH WATER COOLING SYSTEMS

HC- M 1]

3.0 LITRE MERCUISER

With or Without Power Steering



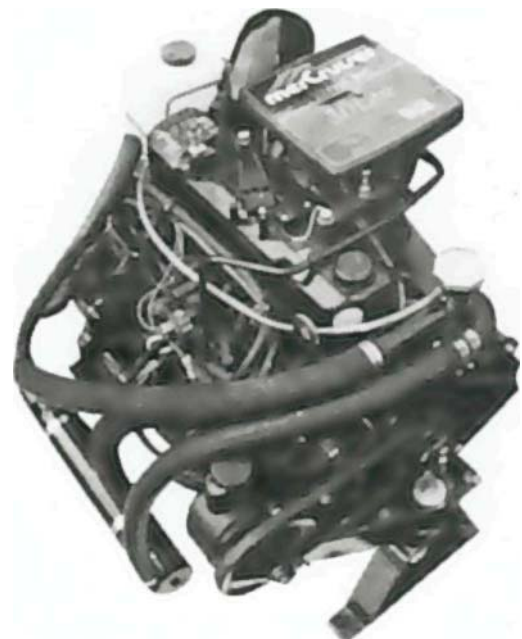
SPECIAL ADVANTAGES OF THE SAN JUAN COOLING SYSTEMS

- Longer Engine Life.
- No corrosion or harmful salt deposits.
- More uniform operating temperatures are assured for greater fuel economy and the elimination of harmful studge.
- Permanent-type Ami-freeze may be used to insure year around protection.
- Equipped with standard zinc pencil to protect against electrolytic action.
- Workmanship and material fully guaranteed.

- ◆ **COMPACT**
The San Juan fresh water cooling system does not increase the height, width or length of the engine.
- * **EFFICIENT**
Improved internal design gives generous cooling capacity. Temperatures will not surge after a hard run. Additional efficiency and protection from coolant loss is obtained through the use of a pressure cap.

NO EXTRAS TO BUY

- **DURABLE**
To insure years of satisfactory service, entire unit is constructed of pure copper with silver alloys. Also equipped with standard zinc pencil to protect against local electrolytic action.
- **QUICKLY INSTALLED**
This kit can be installed by anyone with a few common hand tools.
- **COMPLETELY ON ENGINE**
This San Juan Cooler is completely on engine, including cooler, mounting brackets, etc. Nothing in the "Bilge."



SAN JUAN ENGINEERING & MANUFACTURING CO.

766 MARINE DRIVE • BELLINGHAM, WASHINGTON 98225 • (360) 734-1910

INSTALLING

SAN JUAN FRESH WATER COOLING SYSTEM ONTO MERCUISER 2.0 LITRE ALPHA ONE - 4 CYLINDER

NOTE: R. & L. in these instructions correspond to your RIGHT & LEFT while standing at the vessels transom looking forward.

Main engine Block. Lower L, side of engine near Flywheel housing.

1.
 - a. Locate the original thermostat housing at TOP, FRONT, Center of the engine - Remove all the hoses from the housing, leaving their other ends attached. Now, remove wire from temperature sending unit and remove the sending unit. **SAVE.**
 - b. Remove and Discard the original housing. (Secured by two horizontal bolts into front of cylinder head).
 - c. Take the NEW water outlet casting from kit. Using the bushing supplied, re-install the temperature sending unit into the upper hole on the L. side. Then install new housing onto engine using one new 3/8" X 1-1/4" and 7/8" bolts and a gasket where original housing was removed. Re-connect wire. Also, install plugs supplied in remaining holes in housing assembly.
 - d. Place the new thermostat into water outlet recess. **BE SURE POINTED STUD IS UP.** Then lay gasket over thermostat and place the NEW thermostat housing, with fill cap toward the Left, Bolt housing in place.
 - e. NOW carefully CUT the large hose that connects onto the engine circulating pumps inlet approximately level with the spark plugs. Then place the copper elbow supplied into the cut hose. Point elbow back and away from the engine slightly. Clamp.
 - f. If a hot water heater is to be installed, use the pipe plug hole in elbow for heater return hose.
2.
 - a. The heat exchanger suggested location is low, along the R. side of the engine or other suitable location. Secure mounts to engine stringer or deck. NOTE: Zinc anode end Of heat exchanger forward.
 - b. The original hose from the lower unit passes through the power steering oil cooler (if equipped with power steering. Connect that hose down on to the 3/4" spud on top rear of the heat exchanger. Clamp.
 - c. Use a piece of the 1-1/4" hose. Cut to correct length to connect from the 1-1/4" spud that is about 4" from the rear, top end of the heat exchanger, to the thermostat housing.
 - d. Connect with a piece of the 1-1/4" hose between the 1-1/4" hose spud on the heat exchanger (near the front end) to the elbow installed in step 1.e.
 - e. Use the 1" X 32" hose and the 1" X 2" copper sleeve to connect the 1" spud on at the front of the heat exchanger to the original 90° elbow hose on the top, front end of the exhaust manifold. Clamp.
3.
 - a. This system uses a recovery tank for coolant expansion. Locate this tank as near as possible to the engine. Fill tank to Cold Level Mark. It is important that all the air is purged from the system before the vessel leaves the dock.
 - b. Initially fill system completely up to engines fill neck. Start engine and let is idle until the water level stabilizes. Then place fill Cap on.

NOW READ AND FOLLOW "START UP" SHEET 1.A.

DO NOT REMOVE FILL CAP WHEN ENGINE IS HOT (DANGER OF SCALDING)

NOTE 1: This cooling system contains approximately 6 Quarts U.S.

NOTE 2: Some engine parts are not protected by Anti-Freeze. In freezing weather drain the heat exchanger at its bottom rear end - 7/16" headed drain plug. Also, drain the exhaust manifold at its lower rear end. It is a 7/16" drain plug. See engine manual for other winter service. Drain oil cooler by removing water hose. **DO NOT** forget to replace all drain plugs and hoses as soon as draining is completed.

Please send these instructions with the vessel.

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