

# NO EXTRAS TO BUY

This is a complete cooling system which includes fresh water cooling of the Engine and Exhaust manifold.

## ★ COMPACT

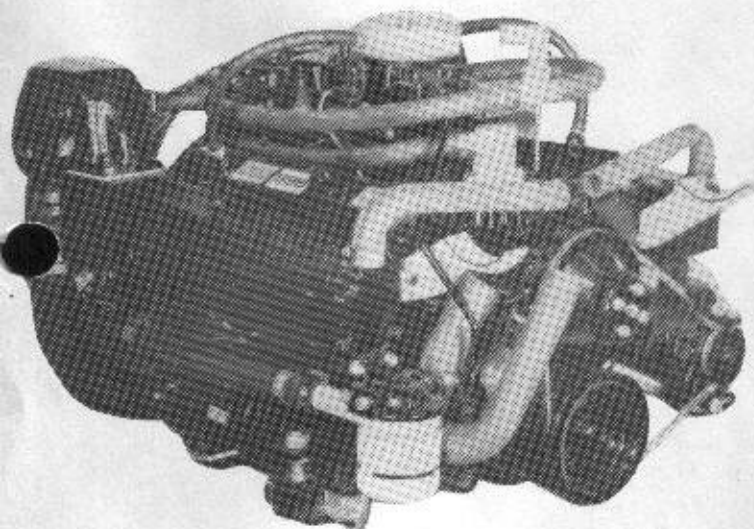
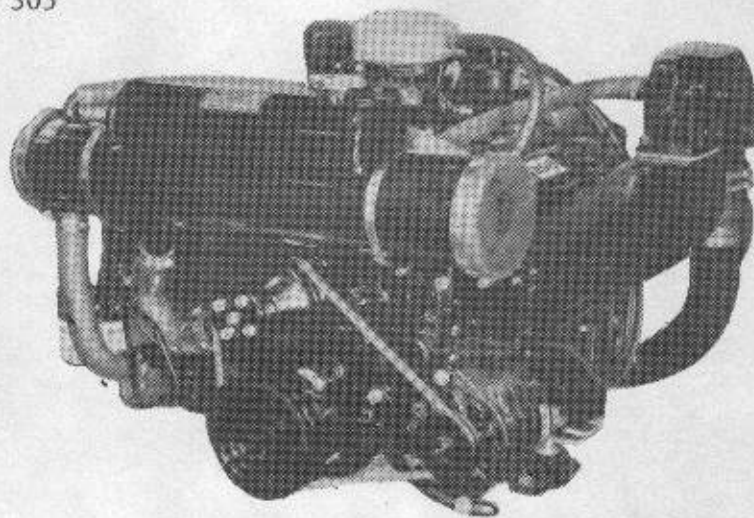
The San Juan fresh water cooling system does not increase the height, width or length of the engine.

## ★ 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.

SAN JUAN FRESH WATER  
898-228-250 MERCUISER  
COOLING SYSTEM  
# MC 305

Visit San Juan MC305 in the  
PPT Webstore



## ★ 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."

## SPECIAL ADVANTAGES

### OF THE SAN JUAN COOLING SYSTEMS

Longer Engine Life.

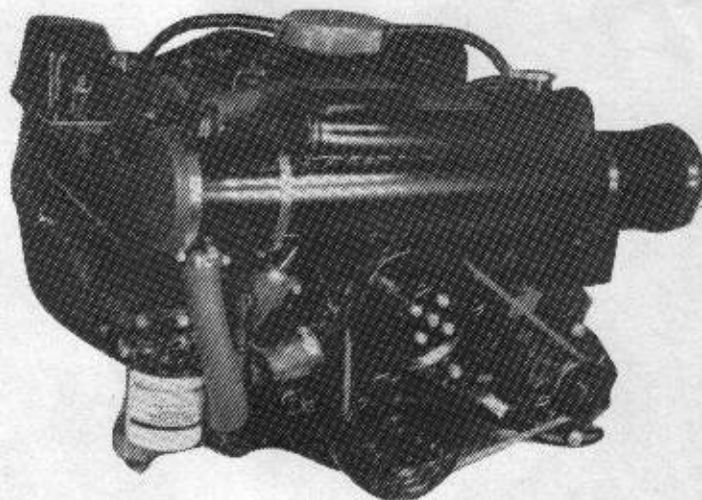
No corrosion or harmful salt deposits.

More uniform operating temperatures are assured for greater fuel economy and the elimination of harmful sludge.

Permanent-type Anti-freeze may be used to insure year around protection.

Equipped with standard zinc pencil to protect against electrolytic action.

Workmanship and material fully guaranteed.



**SAN JUAN ENGINEERING & MANUFACTURING CO.**

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

INSTRUCTIONS FOR INSTALLING THE SAN JUAN COOLING SYSTEM ONTO THE  
MERCURUISER MODELS 898-228-250 STERN DRIVE ENGINES.

1. Refer to the photos on the other side while following these instructions.  
Drain engine block, each side. The drain cocks are located approximately 4 inches back from both front motor supports.

2. PARTS TO REMOVE:

- Locate the original thermostat housing assembly at the top, front, center of the engine.
- Remove all hose clamps and hoses from this housing. (USE CARE so as not to damage the hose as they will be used again). Also leave hoses attached at their other ends.
- Remove the two long 9/16" headed bolts that fasten the thermostat housing to the engine. Discard housing and bolts. Clean the engine's gasket surface.

Supplied in the kit, is the new thermostat, thermostat housing, gasket and the two 3/8" X 7/8" long bolts.

- Place the new thermostat into the recess provided in the engine. POINTED END OF THERMOSTAT MUST BE UP. Place the new gasket and housing over the thermostat, then tighten the two bolts, evenly and firmly. The two water outlets on the new thermostat housing must point back.
- Locate the two long curving hoses, which remain connected onto the plate at the lower rear end of each exhaust manifold. Connect the forward ends of these hoses onto the two outlets of the new thermostat housing, clamp.
- Loosen the exhaust hose clamps and large hose from the exhaust riser outlet on the rear of each exhaust manifold.
- Remove the four nuts that secure each riser to the manifold. Jolt loose and remove each riser.
- Discard original gaskets and stainless steel plates. Clean all gasket surfaces to bare metal (important).
- Install new BLANK gaskets from kit over the studs. Be sure the square hole in the blank is aligned with the square hole in the exhaust manifold.
- Replace the risers, tightening the four nuts EVENLY and firmly. Reclamp the exhaust hoses.

Note the long, curved hoses remaining connected into the side of each exhaust riser. The forward ends of these two hoses connect together using the plastic Tee supplied in kit. Elbow on top of tee points to starboard side of engine. See Photo.

- Locate the largest curved hose on the front of the engine.
- Cut 9" off from its upper end. Use a flexible measuring rule placed on top of the hose. Follow an imaginary center line down around the first curve from the upper end. Use care to make this cut as even and square across the hose as possible. Also cut off brass insert wire.
- Locate the (1 1/2" inside diameter) hose which runs forward under the starboard exhaust manifold, turning up at the forward end. Notice this hose is supported by a round strap at the starboard motor mount. Measure forward 3 inches from the strap and cut the hose.
- Supplied in the kit is a copper tube 10" long. Use this tube to extend out between the fuel filter and the gas line, where the short section of the cut off curved hose is to be placed on the tube with the long end up, vertically, Clamp hoses at both ends of the tube.
- Locate the threaded hole in forward end of each cylinder head that is APPROXIMATELY 1 1/2 inches from each exhaust manifold.
- Take the two heat exchanger mounts and two 3/8" X 7/8" [REDACTED] bolts from kit. Install mount number M-898-R onto the Starboard cylinder head and mount number M-898-L onto the Port cylinder head. Hold mounts so curved section is up and even across the engine while tightening bolts firmly - See Photo.
- Place the Heat Exchanger onto the mounts with the fill cap up and to the Port side of the engine.
- Work the large hose, you cut off in Step #5, onto the large angled spud under the Heat Exchanger body.
- Place the large (size 88) clamps around the Heat Exchanger body with the worm screw under the curved section of the mounts and the screw diver slot forward.
- Center Heat Exchanger across engine, also Fill Cap should be straight up. Then tighten clamps snugly.

## CONTINUED

10. Connect and clamp all remaining hoses.
    - (a) The hose on forward end of each exhaust manifold connects to the corresponding elbow on the Heat Exchanger tank.
    - (b) Use the 3/8" X 12" hose to connect from the elbow on the plastic tee to the small elbow on the top starboard end of the heat exchanger.
    - (c) Connect the hose from the tube installed in step 7 near the fuel filter up to the 1 1/2" diameter spud under the starboard end of the heat exchanger (First cut 1/2 inch off upper end)
  11. NOW READ AND FOLLOW START UP INSTRUCTION SHEET 1A.
- NOTE 2: Cooling system capacity approximately 16 quarts, U.S. Use permanent type antifreeze. Drain Sea Water from Heat Exchanger in freezing weather or when "laying up" by removing Brass Plug (Drain) under starboard end, (plug also holds zinc anode.)