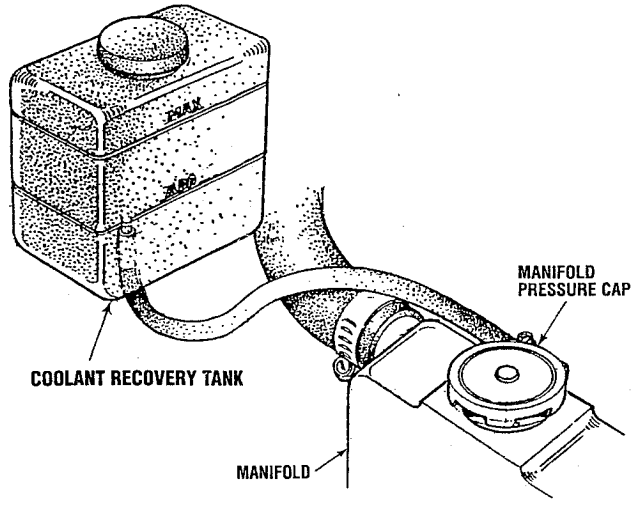
COOLING SYSTEM DESCRIPTION

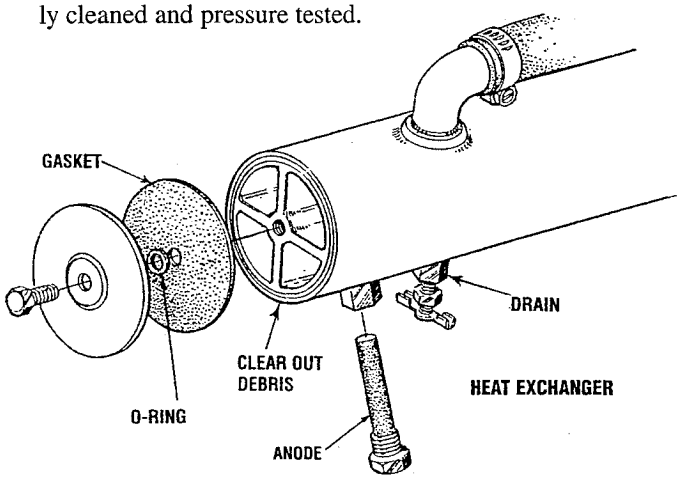
COOLANT RECOVERY TANK

A coolant recovery tank allows for engine coolant expansion and contraction during engine operation, without any significant loss of coolant and without introducing air into the cooling system. This tank is best located at or above the engine manifold level, and should be easily accessible.



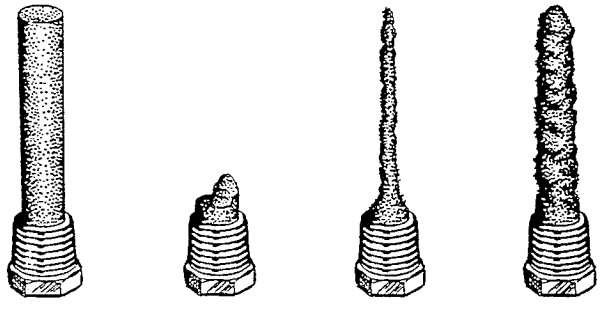
HEAT EXCHANGER

The heat exchanger is a copper tube which encloses a number of small copper tubes. Raw water is pumped through the small copper tubes and the freshwater coolant from the engine is circulated around the copper tubes. The raw water removes heat from the freshwater coolant. To keep the heat exchanger operating efficiently, it should be removed from the engine every 1000 hours to be thoroughly cleaned and pressure tested.



ZINC ANODE

A zinc anode or "pencil", is located in the raw water cooling circuit within the heat exchanger. The purpose of the zinc anode is to sacrifice itself to electrolysis action taking place in the raw water cooling circuit, thereby reducing the effects of electrolysis on other components of the system. The condition of the zinc anode should be checked monthly and the anode cleaned or replaced, as required. Spare anodes should be carried onboard. The area in the exchanger where the anode is located should periodically be cleaned of anode debris.



ZINC ANODES