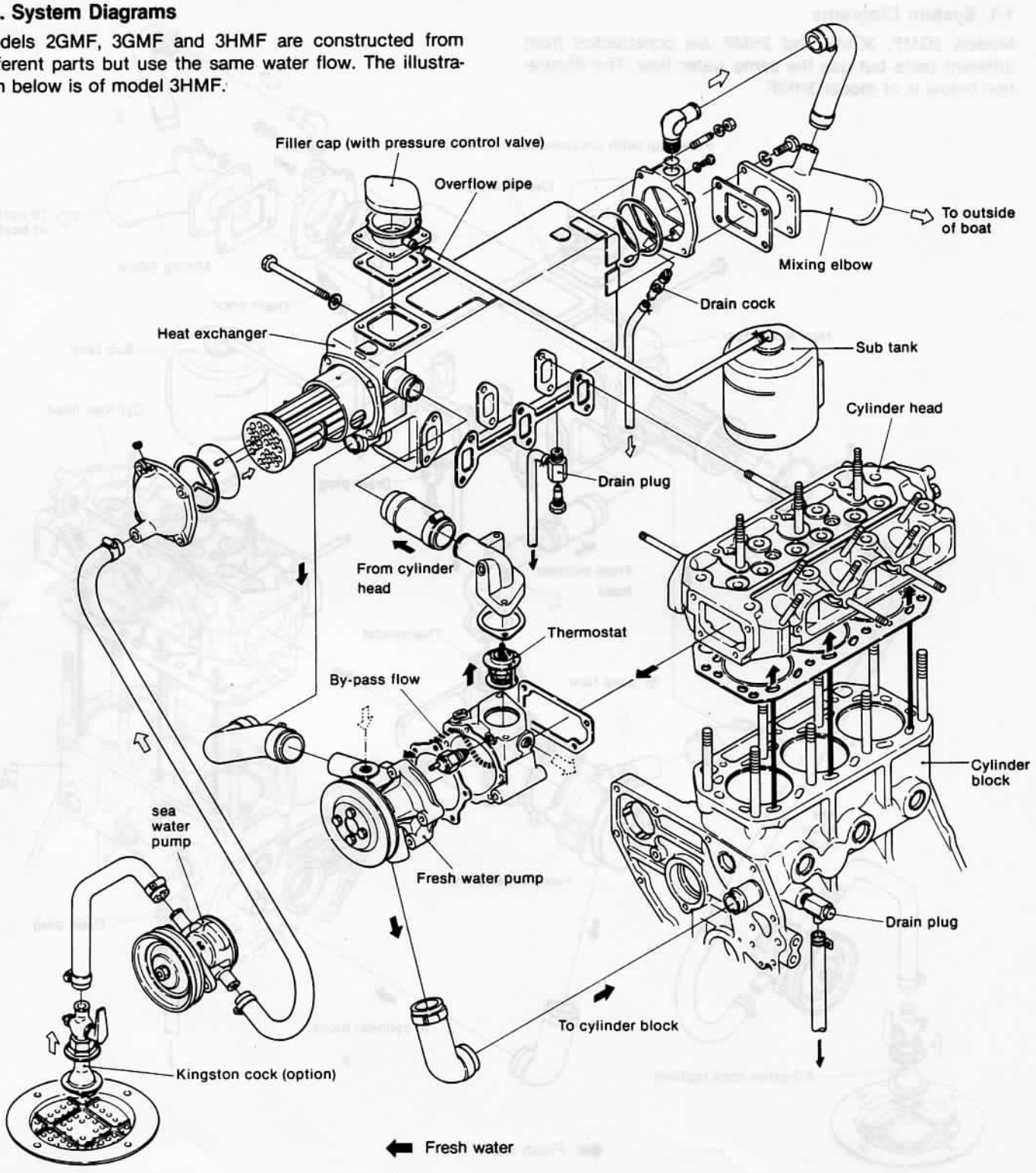
1. Cooling System (New Type)

1-1. System Diagrams

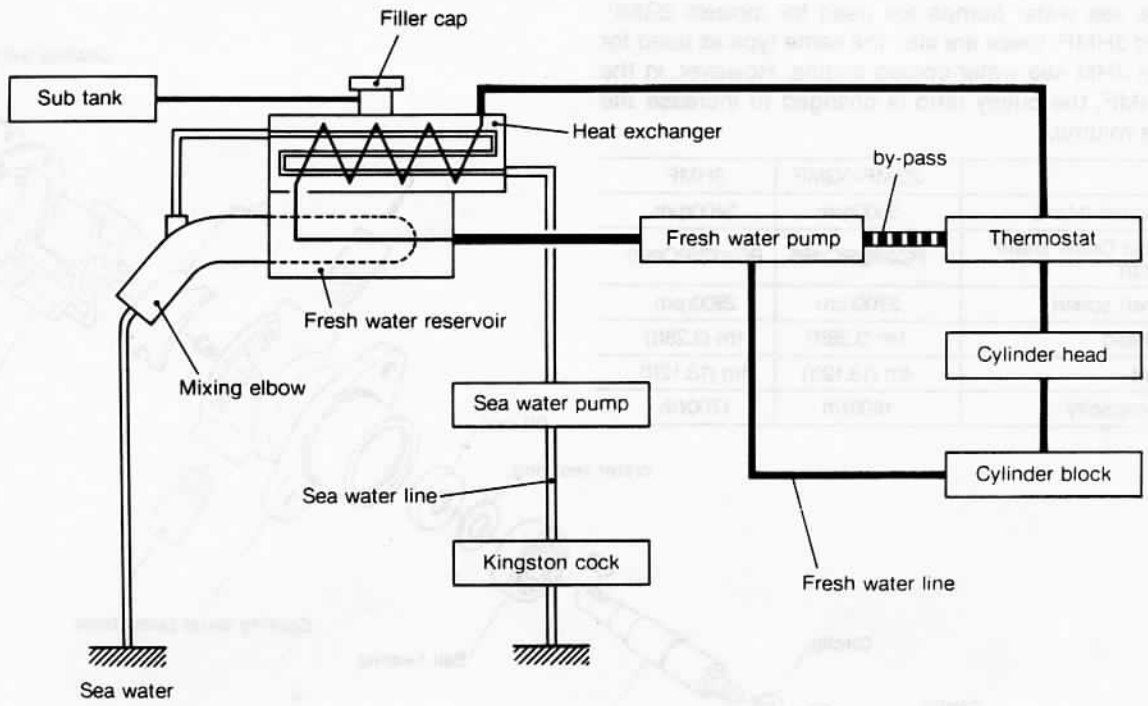
Models 2GMF, 3GMF and 3HMF are constructed from different parts but use the same water flow. The illustration below is of model 3HMF.



Applicable Engine Model & E/#

2GMF	E/# **09727** after
3GMF	E/# **05548** after
3HMF	E/# **02516** after

1-2. Cooling system diagram



1-3. Cooling system configuration

With fresh water cooled engines, fresh water from the heat exchanger is circulated around the cylinder block and cylinder head. The fresh water itself is cooled by sea water. The fresh water pump forces the fresh water through the cylinder block and cylinder head cooling passages and back to the heat exchanger. The fresh water is kept in constant circulation.

The thermostat is installed at the cylinder head cooling water outlet (fresh water pump mounting bracket). As the thermostat is closed while the fresh water temperature is low—directly after starting engine or when engine load is light—fresh water flows through the by-pass passage to the suction side of the fresh water pump, and circulates inside the engine without passing through the heat exchanger.

As the fresh water temperature rises the thermostat is opened and fresh water flows into the heat exchanger. The fresh water is cooled in the heat exchanger by sea water in the tube. So that the fresh water temperature is always kept at the proper degree by the thermostat.

Sea water is delivered by the sea water pump and fed through tubes located inside the cooling pipe to cool the fresh water.

Sea water flows into the mixing elbow from the heat exchanger, and is discharged with the exhaust gas.