

FUEL SYSTEM

FUEL ADDITIVES

If fungus or bacteria is causing fuel problems, you should have an authorized dealer correct these problems. Then use a diesel fuel biocide to sterilize the fuel (follow the manufacturer's instructions).

SPARES

While the likelihood of having to service the fuel system at sea is slim, the possibility does exist. Therefore, we recommend that banjo washers, injector seat washers, and a fuel filter be carried on board at all times. Purchase needed spares from your local UNIVERSAL dealer or distributor. If a leak should develop at a banjo washer that cannot be corrected by a simple tightening of the fitting, replace the sealing washer.

FUEL LIFT PUMP

The on-engine fuel system is virtually self priming. Under ordinary circumstances the engine's electric fuel lift pump, which is energized by the key switch/preheat button, will supply a continuous flow of fuel from the tank. This fuel is drawn through the fuel/water separator to the engine lift pump, the primary spin-on fuel filter, and the injection pump.

⚠ WARNING: Do not allow smoking or open flames near the fuel system when servicing. Also provide proper ventilation.

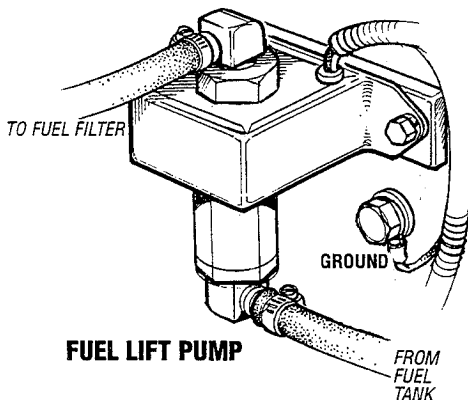
FUEL PRIMING

If it becomes necessary to bleed air from the system, use the following procedure:

Loosen all the high pressure injector lines (not injectors) and crank the engine starter motor; as fuel spurts from between the nut and the line, tighten the injector lines in sequence and then tighten the bleed screw.

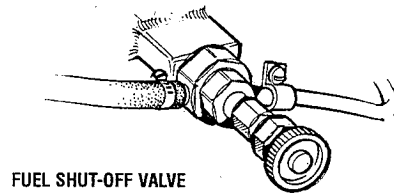
NOTE: Do not attempt this procedure on a hot engine.

⚠ WARNING: Always wear protective clothing, safety glasses and gloves when bleeding high pressure injector lines.



FUEL RETURN LINE SHUT-OFF VALVE [M-50B]

A shut-off valve is located on the fuel return line near the injection pump. **This valve must be fully open.**



Air Cleaner/Silencer

Some UNIVERSAL engines use a replaceable air filter element wrapped around a metal canister. This element can be removed and brushed off or cleaned with an air hose. When it become too contaminated it can be replaced. The canister with its interior element should also be removed and cleaned periodically. Simply wash the assembled unit in a non-flammable cleaning solvent. Use this same cleaning procedure for other UNIVERSAL air cleaners that use a similar type canister.

NOTE: To operate efficiently a diesel engine must intake a continuous volume of clear air. Hard starting, an erratic idle, and black exhaust smoke are all symptoms of a restricted air intake.

