

WARRANTY INFORMATION SERVICE INFORMATION

Fuel Injected Engine Starting Procedure

Models

All MerCruiser Hi-Performance Series Fuel Injected Engines including but not limited to the HP 377, HP 500 EFI and the HP 575 SC.

Situation

New engines and engines coming out of storage have a dry fuel system. On initial startup, the engine is often difficult to start and keep running because the system needs to be filled with fuel and purged of air. The electric fuel pump also relies on gasoline for lubrication. Engines that have had a water separating fuel filter change can also experience difficult starting.

Correction

Priming the fuel system prior to starting the engine will make it start quicker and continue to run along with lubricating the electric fuel pump.

IMPORTANT: The throttle must not be advanced until the engine idles and runs smoothly and the water temperature has reached a minimum of 130 F (54 C). Advancing the throttle prematurely while the ECM is in its rich running mode will result in poor engine starting and performance. The throttle should not be advanced during starting even if the system is primed. However, with a primed system the engine does not need to warm up before the boat can be operated.

STARTING WITHOUT PRIMING THE FUEL SYSTEM

1. Connect the main permanent fuel line to the engine.
2. Do not advance the throttle until the engine idles and runs smoothly and the water temperature has reached a minimum of 130° F (54° C).
3. Crank the engine over for a period of 10 seconds at a time and stop.
4. Repeat cranking procedure until the engine starts and runs smoothly. This may take 3 to 5 attempts. Allow engine to idle until the water temperature reaches 130° F (54° C).

PRIMING THE FUEL SYSTEM PRIOR TO STARTING

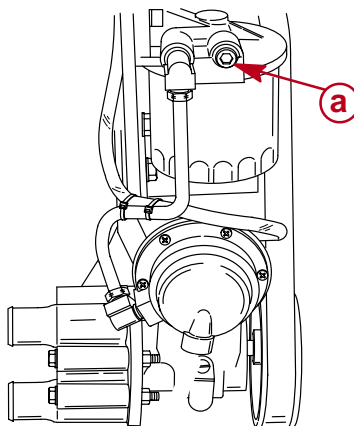
⚠ WARNING

Avoid Fire or Explosion: Gasoline is extremely flammable and highly explosive under certain conditions. Be sure ignition key is OFF. Do not smoke or allow spark or open flame in area when removing or installing any fuel components. Wipe up any spilled fuel immediately.

⚠ CAUTION

Apply Loctite Pipe Sealant with Teflon to threads of the fuel inlet connector. DO NOT USE TEFLON TAPE. To prevent cracking the casting and/or fuel leaks, turn inlet connector in by hand until finger tight, then tighten to 1-3/4 to 2-1/4 turns with wrench. DO NOT OVER TIGHTEN. Inspect for fuel leaks.

1. Remove the plug at the location shown in following illustration (a) and install a barbed fitting (PN 22-89771Q 2) into the water separating fuel filter.



2. Attach an outboard type portable fuel tank with primer bulb to the barbed fitting with a hose clamp.
3. Squeeze the primer bulb until the bulb becomes firm.

NOTE: Do not turn the key switch to the start position during the following priming procedure.

4. Cycle the ignition key switch to the "RUN" position for three seconds and then "OFF".
5. Repeat steps 3 and 4 one to two more times. The object of this procedure is to prime the fuel system but not to the point of having the system completely full and the primer bulb hard and under pressure.

⚠ WARNING

Avoid fuel spillage and fire hazard: When removing the remote fuel tank line from the engine connection, ensure that the primer bulb is soft. If the primer bulb is hard, pressurized fuel will be sprayed in the engine compartment.

6. With the primer bulb soft, remove the remote fuel line and fitting from the mechanical fuel pump.
7. Install the permanent boat fuel line to the mechanical fuel pump.
8. Attempt to start the engine by turning the key switch to the "START" position for a maximum of 15 seconds or until the engine starts and runs smoothly. **Do not advance the throttle** until the water temperature has reached a minimum of 130° F (54° C).