

FUEL SYSTEM

FAULT CONDITION	POSSIBLE CAUSE	RECOMMENDED CHECK OR CORRECTIVE ACTION
<p>LOW FUEL OIL PRESSURE</p>	<ol style="list-style-type: none"> 1. Inadequate fuel supply. 2. Stuck pressure relief valve. 3. Fuel filters need to be replaced. 4. Fuel oil leak into lubricating system. 5. Suction leak or restriction. 	<p>Check for adequate fuel supply in main or day tank.</p> <ol style="list-style-type: none"> a. On locomotive installations and installations with engine mounted fuel sight glasses, observe the 60 psi bypass sight glass to make certain that the relief valve on the sight glass assembly is not stuck open. b. On installations that have a bypass or pressure relief valve on the sight glass from the inlet side of the fuel filters to a tank return, check that the bypass or relief valve is not stuck open. <p>Observe the pressure drop across the fuel filters. If pressure drop is near or above the changeout value given for the filters, replace the filter elements and again observe fuel pressure. Use only recommended filter elements.</p> <p>Check engine oil level to determine if fuel oil might be leaking into the engine lubricating oil system. Inspect the top deck area of both cylinder banks for leakage from injectors, injector jumper lines, or top deck fuel manifolds.</p> <ol style="list-style-type: none"> a. On installations with no return fuel sight glass or with engine driven fuel pump: <ul style="list-style-type: none"> • Inspect all suction lines for air leaks into the lines. • Check pipe connections and unions for proper tightness. • Remove and inspect the screen in the suction strainer. Clean if necessary. • Check that all suction piping is the recommended diameter or larger. b. On installations with a return fuel sight glass and electric fuel pump: <p>If bubbles are seen in the fuel sight glass while the engine is running, then shut the engine down, hold the fuel prime/engine start switch in "FUEL PRIME," and continue to observe the sight glass. If the bubbles disappear after the engine is shut down, then the probable cause of the bubbles was an injector with tip leakage. If the bubbles continue after the engine is shut down, then the probable cause is a fuel suction leak. This fuel suction leak may cause air binding in the system and loss of fuel pressure. The following steps should eliminate this fuel suction leak:</p>

8. Fuel line restrictions in the fuel preheater (if applicable).
 - a. Inspect the preheater supply and bypass circuits in the fuel suction lines for partially closed valves.
 - b. If problem seems to be within the heater itself, shut off all fuel and water supply to the preheater. This can be done via cutoff and bypass valves.
 - c. Remove the body end caps and inspect the internal header bends for possible trapped material obstructing the flow of fuel through the heater. Clean or repair as required.