

1981 Fuel Systems Trouble Shooting

GASOLINE FUEL INJECTION TROUBLE SHOOTING (Cont.)

CONDITION & POSSIBLE CAUSE	CONDITION & POSSIBLE CAUSE
<p>Excessive Fuel Consumption</p> <ul style="list-style-type: none"> • Incorrect "warm" control pressure (CIS). • Cold start injector leaking. • Fuel system leak(s). • Improper idle mixture setting. • Improper fuel pressure. • Defective air flow meter potentiometer (AFC). • Defective sensors (AFC). <p>Engine Misfire at High Speed</p> <ul style="list-style-type: none"> • Loose electrical contact at fuel pump. • Primary pressure too low or too high (CIS). • Fuel system leak(s). • Defective air flow meter (AFC). • Defective fuel pump circuit (AFC). <p>Engine Backfires into Intake Manifold</p> <ul style="list-style-type: none"> • Incorrect "warm" control pressure (CIS). • Vacuum leak(s). • Improper idle mixture setting. • Defective air flow meter (AFC). 	<p>Engine "Diesels"</p> <ul style="list-style-type: none"> • Sensor plate and/or plunger stuck (CIS). • Incorrectly adjusted throttle switch (AFC). • Injectors leaking. • Faulty cold start injector. • Defective air flow meter potentiometer (AFC). • Defective sensors (AFC). <p>Idle Speed Too High; Cannot Be Lowered</p> <ul style="list-style-type: none"> • Auxiliary air valve does not close. • Faulty throttle valve (AFC). <p>Engine Backfires into Exhaust Manifold</p> <ul style="list-style-type: none"> • Incorrect "warm" control pressure (CIS). • Cold start injector leaks. • Fuel system leaking. • Improper idle mixture setting. • Defective control unit. • Improper fuel pressure.

DIESEL FUEL INJECTION TROUBLE SHOOTING

CONDITION & POSSIBLE CAUSE	CONDITION & POSSIBLE CAUSE
<p>HARD STARTING SYMPTOMS</p> <p>Engine Cranks, Will Not Start</p> <ul style="list-style-type: none"> • Incorrect fuel or no fuel. • Faulty glow plug. • Air in fuel system. • Faulty injector(s). • Faulty injection pump. • Improper injection pump timing. <p>Engine Starts, Will Not Run</p> <ul style="list-style-type: none"> • Air in fuel system. • Modulator valve out of adjustment. • Fuel lines, filter or tank plugged. • Incorrect idle speed setting. <p>LOW SPEED DRIVEABILITY SYMPTOM</p> <p>Engine Runs Rough</p> <ul style="list-style-type: none"> • Air or dirt in fuel system. • Fuel system leak(s). • Clogged or sticking injectors. • Incorrect fuel. • Governor or timing incorrect. • Incorrect injection pump timing. 	<p>Engine Idle Speed Too High</p> <ul style="list-style-type: none"> • Incorrect idle speed setting. • Jammed modulator valve. • Improperly adjusted governor. • Vacuum leak(s) in manifold. <p>Poor Acceleration</p> <ul style="list-style-type: none"> • Incorrect fuel. • Timing device stuck in idle position. • Faulty fuel pump. • Air or dirt in fuel system. • Improper injection pump timing. • Dirty or faulty injectors. <p>Engine Knocks</p> <ul style="list-style-type: none"> • Incorrect fuel. • Air in fuel system. • Incorrect injection pump timing. • Dirt in injection pump or injectors. • Incorrect idle speed setting.

DIESEL FUEL INJECTION TROUBLE SHOOTING (Cont.)

CONDITION & POSSIBLE CAUSE	CONDITION & POSSIBLE CAUSE
<p>HIGH SPEED DRIVEABILITY SYMPTOM</p> <p>Engine Smokes</p> <ul style="list-style-type: none"> ● Incorrect fuel. ● Air in fuel system. ● Incorrect injection pump adjustment. ● Incorrect injection pump timing. <p>Engine Exceeds Maximum Permissible Speed</p> <ul style="list-style-type: none"> ● Maximum speed stop misadjusted. ● Faulty governor. ● Control rod sticks open. ● Vacuum leak(s). 	<p>Engine Has Loss of Power</p> <ul style="list-style-type: none"> ● Throttle valve not fully open. ● Clogged air filter. ● Badly worn pump plungers. ● Low fuel pressure. ● Timing device stuck in idle position. ● Control rod stuck. ● Incorrect fuel. <p>Engine Will Not Stop</p> <ul style="list-style-type: none"> ● Stop cable broken or misadjusted. ● Incorrect idle speed setting. ● Faulty governor. ● Defective solenoid.

ELECTRIC FUEL PUMP TROUBLE SHOOTING

NOTE — This is a general trouble shooting guide. Not all steps will apply to all fuel pumps. Most electrical fuel pumps are sealed units and must be replaced if defective.

CAUTION — Be sure to relieve fuel pressure before opening a pressurized fuel injection system. Do not allow smoking, open flame or sparks in area while working on fuel system components. Fuel vapors may be present and danger of fire or explosion exists. Disconnect battery while working on fuel system.

CONDITION & POSSIBLE CAUSE	CONDITION & POSSIBLE CAUSE
<p>Pump Motor Not Operating; No Fuel Output</p> <ul style="list-style-type: none"> ● Faulty wiring. ● Blown fuse. ● Defective fuel pump circuit. ● Defective inertia switch. ● Damaged pump body. ● Defective fuel pump relay. <p>Pump Operating; No Fuel Output</p> <ul style="list-style-type: none"> ● No fuel supply. ● Pinched or blocked fuel line. ● Blocked fuel filter. ● Faulty fuel cut-off valve. ● Faulty fuel pump contact points. 	<p>Pump Operating; Low Fuel Output</p> <ul style="list-style-type: none"> ● Restricted fuel line, filter or damper. ● Poor fuel tank venting (may cause vacuum in tank if blocked). ● Air leak on inlet side of fuel pump. <p>Pump Noisy</p> <ul style="list-style-type: none"> ● Air leak on inlet side of fuel pump. ● Insecure fuel pump mounting. ● Metal fuel lines not secured. ● Defective insulation at pump mounting. <p>Excessive Pump Pressure</p> <ul style="list-style-type: none"> ● Defective pressure relief valve.