

2-8 1980 Fuel Systems Trouble Shooting

DIESEL FUEL INJECTION TROUBLE SHOOTING (Cont.)

CONDITION	POSSIBLE CAUSE	CORRECTION
HIGH SPEED DRIVEABILITY SYMPTOM ▶ Engine smokes:	1) Incorrect fuel 2) Air leak in fuel system 3) Injection pump misadjusted	1) Change to correct fuel 2) Repair air leak 3) Adjust to specifications
▶ Engine has power loss:	1) Throttle valve not fully open 2) Clogged air filter 3) Badly worn pump plungers 4) Low fuel pressure 5) Timing device stuck in idling position 6) Control rod stuck 7) Incorrect fuel	1) Adjust as necessary 2) Replace filter 3) Replace injection pump 4) Repair or replace fuel pump or injector pump 5) Repair 6) Repair 7) Change to correct fuel
▶ Engine exceeds maximum permissible speed:	1) Maximum speed stop misadjusted 2) Faulty governor 3) Control rod sticks open 4) Vacuum leaks	1) Adjust to specifications 2) Repair or replace 3) Repair or replace 4) Repair vacuum leaks
▶ Engine will not stop:	1) Stop cable broken or misadjusted 2) Idle speed misadjusted 3) Governor malfunction	1) Replace or Repair 2) Adjust to specifications 3) Repair or replace

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 found defective.

CAUTION — Be sure to relieve fuel pressure on systems which maintain fuel pressure at all times. Do not allow smoking, open flames or sparks in area while performing work on any 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	CORRECTION
▶ Pump motor not operating; no fuel output:	1) Check wiring to pump, check for blown pump fuse 2) Check for damaged pump body	1) Repair wiring, ensure proper electrical current to pump 2) Replace if damaged
▶ Pump operating; low fuel output:	1) Check for restricted fuel line, filter or accumulator 2) Check fuel tank venting (may cause vacuum in tank if blocked) 3) Check for air leak on inlet side of pump	1) Repair or replace 2) Repair tank venting system. Test pump output with gas cap removed to check venting. 3) Repair air leak

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ELECTRIC FUEL PUMP TROUBLE SHOOTING (Cont.)

CONDITION	POSSIBLE CAUSE	CORRECTION
▶ Pump operating; no fuel output	<ol style="list-style-type: none"> 1) Check fuel supply 2) Check for pinched or blocked fuel line from pump to carburetor 3) Check for blocked fuel filter 4) Check fuel cut-off valve 5) Check contact points in pump 	<ol style="list-style-type: none"> 1) Add fuel 2) Locate and repair 3) Replace 4) If blocked, disconnect outlet hose at valve and apply low air pressure to valve to reseal check ball. Recheck pump output. 5) Clean or replace points
▶ Pump noisy	<ol style="list-style-type: none"> 1) Check for air leak on inlet (suction) side of pump 2) Pump loose, vibrating against other parts 3) Pump lines (metal) touching body parts 4) Check foam rubber insulation at pump mounting 	<ol style="list-style-type: none"> 1) Locate and repair leak 2) Tighten pump evenly 3) Reroute lines for clearance 4) Position insulation correctly or replace
▶ Excessive pump pressure	<ol style="list-style-type: none"> 1) Defective pressure relief valve 	<ol style="list-style-type: none"> 1) Replace pump assembly

TURBOCHARGER TROUBLE SHOOTING

CONDITION	POSSIBLE CAUSE	CORRECTION
▶ Compressor noise or vibration	<ol style="list-style-type: none"> 1) Poor lubrication of turbocharger shaft bearing 2) Leakage in induction or exhaust system 3) Unbalanced turbocharger shaft due to damage 	<ol style="list-style-type: none"> 1) Check oil pressure to turbocharger 2) Tighten connections and replace gaskets or seals 3) Replace turbocharger
▶ Insufficient charge pressure	<ol style="list-style-type: none"> 1) Leakage between compressor or turbine and cylinder head 2) Incorrect setting of charge pressure 3) Charge pressure regulator stuck in open position 4) Partially clogged exhaust system 5) Clogged air cleaner 6) Binding turbocharger shaft 	<ol style="list-style-type: none"> 1) Tighten leaking connections. Replace seals and gaskets 2) Adjust charge pressure regulator spring tension 3) Overhaul regulator 4) Clean or replace exhaust system 5) Change air filter 6) Replace turbocharger
▶ Metallic noise from regulator	<ol style="list-style-type: none"> 1) Play in regulator valve 2) Spring insufficiently offset in regulator 	<ol style="list-style-type: none"> 1) Overhaul regulator 2) Adjust position of spring