

1981 Fuel Systems

CARBURETOR TROUBLE SHOOTING

CONDITION	POSSIBLE CAUSE	CORRECTION
COLD STARTING SYMPTOM		
▶ Engine cranks but will not start:	<ol style="list-style-type: none"> 1) Choke not closing (frozen) 2) Choke linkage binding 	<ol style="list-style-type: none"> 1) Inspect choke plate and coil. Free up and adjust 2) Inspect linkage. Free up and adjust if required
▶ Engine starts, then dies: Hard Start Cold Stalling	<ol style="list-style-type: none"> 1) Choke vacuum kick setting too wide 2) Fast idle RPM set too low 3) Incorrect fast idle cam index 4) Vacuum leak 5) Low fuel pump output 6) Low carburetor fuel level 	<ol style="list-style-type: none"> 1) Inspect and adjust choke diaphragm connector rod. Check choke vacuum kick and adjust 2) Adjust fast idle RPM to specifications 3) Check choke control lever. Adjust fast idle cam position 4) Inspect and correct 5) Test fuel pump. Replace as necessary 6) Set carburetor floats to correct level and drop
▶ Engine cuts off under load after starting: Kickdown Stall Pass Out Die Out	<ol style="list-style-type: none"> 1) Vacuum kick setting incorrect 2) Fast idle cam index incorrect 3) Hot fast idle speed set at incorrect RPM 	<ol style="list-style-type: none"> 1) Adjust vacuum kick 2) Check choke control lever. Set fast idle cam position 3) Adjust fast idle speed. Check choke diaphragm connector rod
▶ Engine starts, runs up, then idles slowly with black smoke: Flooding (Gas Fumes) Rough Idle Loading up	<ol style="list-style-type: none"> 1) Choke vacuum kick incorrect (too narrow) 2) Fast idle cam index incorrect 3) Hot fast idle RPM too low 	<ol style="list-style-type: none"> 1) Check choke diaphragm connector rod. Set vacuum kick 2) Inspect choke control lever for movement. Set fast idle cam position 3) Adjust fast idle RPM
▶ Engine starts but dies out when key is released:	<ol style="list-style-type: none"> 1) Choke linkage binding or frozen 	<ol style="list-style-type: none"> 1) Inspect linkage and free up
HOT STARTING SYMPTOM		
▶ Engine cranks over but will not start:	<ol style="list-style-type: none"> 1) Engine flooded. High fuel level 2) Fuel vapors in carburetor bowl 	<ol style="list-style-type: none"> 1) Adjust float drop and setting. Inspect needle and seat assembly for dirt and proper seating 2) Inspect bowl vent valve for operation and correct
COLD ENGINE DRIVEABILITY SYMPTOM		
▶ Engine stalls when transmission put in gear:	<ol style="list-style-type: none"> 1) Incorrect choke vacuum kick setting 2) Fast idle RPM incorrect 3) Fast idle cam index incorrect 	<ol style="list-style-type: none"> 1) Inspect diaphragm connector rod. Adjust choke vacuum kick 2) Adjust fast idle RPM 3) Check choke control lever. Set fast idle cam position on correctly
▶ Hesitation, stalling, sag during acceleration: Backfiring Hesitation, sag or stumble	<ol style="list-style-type: none"> 1) Defective choke control switch 2) Choke vacuum kick setting incorrect 3) Float level incorrect (too low) 4) Accelerator pump defective. Possible punctured diaphragm 5) Secondary throttles not closed. Secondary lockout adjustment incorrect 	<ol style="list-style-type: none"> 1) Test choke control switch and replace as necessary 2) Check choke diaphragm rod. Adjust choke vacuum kick 3) Adjust float drop and level 4) Inspect and adjust pump stroke, pump plunger, connector tube and check valve. Inspect diaphragm. Replace parts or pump as necessary 5) Adjust secondary throttle lockout

CARBURETOR TROUBLE SHOOTING (Cont.)

CONDITION	POSSIBLE CAUSE	CORRECTION
<p>▶ Hesitation, sag or stall after first mile of warmup:</p> <p>Backfiring Sag, Stumble, Hesitation</p>	<p>1) Defective choke control switch</p> <p>2) Defective accelerator pump (low output)</p> <p>3) Float level setting too low</p>	<p>1) Test choke control switch, replace as needed</p> <p>2) Check and adjust pump stroke, pump plunger, connector tube and check valve. Inspect diaphragm. Replace as needed</p> <p>3) Adjust float level and float drop</p>
<p>▶ Periodic backfiring with black exhaust smoke:</p> <p>Sag, Stumble, Hesitation Backfiring</p>	<p>1) Plugged heat crossover system</p>	<p>1) Inspect and clean passages in intake manifold and heads. Test heat crossover valve</p>
<p>WARM ENGINE DRIVEABILITY SYMPTOM</p> <p>▶ Hesitation with small amount of gas pedal movement:</p> <p>Sag & Stumble Backfiring</p>	<p>1) Vacuum leak. Hose off or hooked to incorrect terminal or fitting</p> <p>2) Accelerator pump weak or inoperable</p> <p>3) Float level setting too low</p> <p>4) Metering rods sticking or binding</p> <p>5) Carburetor idle or transfer system plugged or partially obstructed</p> <p>6) Frozen or binding heated air inlet (stuck in full hot or full cold position). Plugged sensor</p>	<p>1) Inspect hoses. Correct leak and route hoses properly</p> <p>2) Inspect and adjust pump stroke, connector tube, pump plunger, discharge nozzles and check valve. Inspect diaphragm. Replace pump or parts as necessary</p> <p>3) Adjust float level setting and float drop</p> <p>4) Inspect linkage, metering rod carriers. Free up or adjust as necessary</p> <p>5) Inspect and clean passages</p> <p>6) Test and correct heated air intake system</p>
<p>▶ Hesitation with heavy gas pedal movement:</p> <p>Sag & Stumble Backfiring</p>	<p>1) Defective accelerator pump</p> <p>2) Metering rod carrier sticking or binding</p> <p>3) Large vacuum leak</p> <p>4) Float level setting too low</p> <p>5) Defective fuel pump, kinked lines or plugged filter</p> <p>6) Air door setting incorrect</p>	<p>1) Inspect and adjust pump stroke, pump plunger, check valve and connector tube. Inspect diaphragm and discharge nozzles</p> <p>2) Inspect linkage and correct</p> <p>3) Locate and correct</p> <p>4) Adjust float level and float drop</p> <p>5) Test fuel pump. Replace as needed</p> <p>6) Check and adjust secondary air valve opening, check secondary air valve spring tension</p>

NOTE — For additional carburetor trouble shooting information, see the appropriate article in *COMPUTERIZED ENGINE CONTROLS* Section. Information is provided there for diagnosing fuel system problems on vehicles with feedback carburetors.