



# WEBER CARBURETOR TROUBLESHOOTING GUIDE

This guide is intended for diagnostic purposes only. Specific procedures and adjustments should be obtained from factory service manuals or carburetor specifications sheet.

Every Weber carburetor is thoroughly tested at the factory and meets high quality and performance standards.

Since other engine component problems affect the performance of the carburetor, it is strongly recommended to perform the General Engine Checks section of this guide **BEFORE** making any carburetor adjustments.

## GENERAL ENGINE CHECKS

### IGNITION SYSTEM:

1. Cracked, broken wires
2. Incorrect ignition wire location (firing order)
3. Timing improperly adjusted
4. Distributor cap cracked, arcing
5. Low coil output
6. Corroded plug terminals
7. Incorrect vacuum advance hose connection
8. Points corroded, wrong gap
9. Incorrect spark plug gap

### EMISSION SYSTEM:

1. Cracked, loose vacuum hoses
2. Improper vacuum hose connections
3. Faulty EGR valve operation
4. Air pump diverter valve, anti-backfire valve faulty
5. Faulty PCV valve operation
6. Dirty breather filters
  - Charcoal canister
  - Valve cover breather
  - PCV filter (inside air filter assembly)
7. Faulty feedback system operation
8. Vacuum delay valves (switches) faulty

### FUEL SUPPLY SYSTEM

1. Dirty fuel filter
2. Incorrect fuel pump pressure (1.5-3.5 psi)
3. Restricted, kinked fuel lines
4. Fuel lines in contact with hot surface
5. Contaminated fuel

## SPARK PLUG ANALYSIS

Normal spark plug condition is a sandy brown deposit on the insulator surface with no signs of electrode damage. The following information will help you analyze your plugs' condition.

### OIL DEPOSITS — WET FOULING

1. Worn piston rings, bearings, seals
1. Excessive cylinder wear
2. Leaking — damaged head gasket

### BLACK CARBON BUILD-UP, DRY FOULING

1. Fuel mixture too rich
2. Dirty air filter
3. Engine over heating
4. Defective ignition wires
5. Sticking valves, worn seals
6. High carburetor float level
7. Damaged, sticking needle and seat assembly
8. Incorrect fuel pump pressure (1.5-3.5 psi)
9. Spark plug heat range too cold

### BLISTERED, BURNED ELECTRODES

1. Spark plug heat range too hot
2. Timing improperly adjusted
3. Engine over heating
4. Incorrect spark plug gap
5. Burned engine valves
6. Wrong type of fuel

### INSULATORS CHIPPED

1. Incorrect spark plug gap
2. Improper spark plug installation
3. Severe detonation

### PLUG GAP BRIDGED

1. Lead deposits fused to electrodes
2. Engine over-heating
3. Spark plug heat range too hot

### GASOLINE FOULING

1. Distributor cap cracked, arcing
2. Loose, broken ignition wires
3. Low ignition coil output

**ONCE THE ABOVE CHECKS HAVE BEEN PERFORMED, THE FOLLOWING SPECIFIC PROBLEMS CAN BE ANALYZED.**

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## ENGINE WILL NOT START

**Over 90% of Engine Failure To Start Conditions are Ignition System Related**

1. Open circuit between starter and solenoid, or between ignition switch and solenoid
2. Starter motor faulty
3. Battery charge too low
4. Low ignition coil output

## ENGINE HARD TO START WHEN COLD — STARTS & STALLS

1. Incorrect choke operation (worn coil, electrical connection faulty)
2. Fast idle speed too low
3. Improper choke pull-off operation
4. Low carburetor float level
5. Timing improperly adjusted
6. Damaged, sticking needle and seat
7. Engine flooded

## ROUGH IDLE, SURGING, MISSING, STALLING

1. Incorrect idle speed and idle mixture adjustment
2. Timing improperly adjusted
3. Vacuum leak
4. Incorrect vacuum advance hose connection
5. Faulty EGR valve operation
6. Faulty PCV valve operation
7. Incorrect choke operation (coil setting)
8. Improper choke pull-off diaphragm operation
9. Improper vacuum hose connections
10. Low carburetor float level
11. Restricted, kinked fuel lines
12. Restricted fuel filter
13. Distributor cap cracked, arcing
14. Loose, corroded, or broken ignition wires
15. Damaged idle mixture adjusting screw
16. Distributor shaft worn (loose)
17. Faulty idle solenoid operation
18. Restricted carburetor jets or airbleeds
19. Restricted air, breather filters
20. Worn valves and seals
21. Incorrect spark plug gap

## ENGINE KNOCKS, PINGING

1. Timing improperly adjusted
2. Incorrect vacuum hose connections
3. Distributor malfunction
4. Carburetor jets too lean, restricted
5. Low carburetor float level
6. Poor quality fuel

## ENGINE KNOCKS, PINGING (Cont.)

7. Faulty EGR valve operation
8. Faulty feedback system operation
9. PCV system malfunction
10. Loose fan belts
11. Faulty vacuum delay valve (switch) faulty

## DIESELING, ENGINE RUN-ON

1. Faulty idle solenoid operation
2. Carburetor linkage binding
3. Incorrect idle speed and idle mixture adjustment
4. Timing improperly adjusted

## HESITATION, POOR ACCELERATION FLAT SPOT

1. Vacuum leaks
2. Improper vacuum hose connections
3. Timing improperly adjusted
4. Low carburetor float level
5. Loose, corroded or broken ignition wires
6. Low ignition coil output
7. Fouled, damaged spark plugs
8. Incorrect accelerator pump operation
9. Incorrect fuel pump pressure (1.5-3.5 psi)
10. Restricted, kinked fuel lines
11. Restricted fuel filter
12. Carburetor power enrichment system malfunction

## POOR LOW SPEED OPERATION

1. Indirect idle speed and idle mixture adjustment
2. Dirty air filter
3. Timing improperly adjusted
4. Loose, corroded, or broken ignition wires
5. Distributor cap cracked, arcing
6. Restricted idle jets, air bleeds
7. Incorrect carburetor float level

## POOR HIGH SPEED OPERATION

1. Incorrect vacuum advance hose connection
2. Incorrect distributor centrifugal advance
3. Incorrect spark plug gap
4. Incorrect carburetor main jets, air correctors
5. Incorrect vacuum hose connections
6. Dirty air and, or breather filters
7. Incorrect fuel pump pressure (1.5-3.5 psi)
8. Worn distributor shaft
9. Worn distributor shaft
10. Incorrect carburetor float level
11. Restricted, kinked fuel lines
12. Restricted fuel filter