Trouble shooting guide

WEBER CARBURETORS

Distributed by REDLINE

America's premier distributor of Genuine WEBER Carburetors for over 30 years

This guide in intended for diagnostic purpose only. Specific procedures and adjustments should be obtained from factory service manuals or the carburetor specification sheet.

Every REDLINE Conversion Kit is thoroughly tested at the factory and meets high quality and performance standards.

Since other engine components problems affect the performance of the carburetor it is strongly recommended to perform the general engine checks 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 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)
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 conditions will help you analyze your plugs condition.

OIL DEPOSITES – WET FOULING

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

BLACK CARBON BUILD-UP, DRY FOULING

1. Fuel mixture to 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)
9. Spark plug heat range to cold

BLISTERED, BURNED ELECTRODES

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

INSULATORS CHIPED

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

PLUG GAP BRIDGED

1. Lead deposits fused to electrode
2. Engine overheating
3. Spark plug heat range to hot

GASOLINE FOULING

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

Carburetor troubleshooting guide

WEBER CARBURETORS

Distributed by REDLINE

America's premier distributor of Genuine WEBER Carburetors for over 30 years

This is a guide for diagnostic purposes only

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 to low

ENGINE HARD TO START WHEN COLD
STARTS & STALLS

1. Incorrect choke operation (worn coil, electrical connection faulty)
2. Fast idle speed to 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 settings)
8. Improper choke pull off diaphragm operation
9. Improper vacuum hose connection
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
17. Faulty idle solenoid operation
18. Restricted carburetor jets or air bleeds
19. Restricted air, breather filters
20. Incorrect spark plug gap

ENGINE KNOCKS, PINGING

1. Timing improperly adjusted
2. Incorrect vacuum hose connections
3. Distributor malfunctions
4. Carburetor jets to lean, restricted
5. Low carburetor float level
6. Poor quality fuel
7. Faulty EGR valve operation
8. Faulty feedback system operation

ENGINE KNOCKS, PINGING (Cont.)

9. PCV system malfunction
10. Loose fan belts
11. Faulty vacuum delay valve (switch)

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 or damages spark plugs
8. Incorrect accelerator pump operation
9. Incorrect fuel pump pressure (1.5 – 3.5)
10. Restricted or 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 or arcing
6. Restricted idle jets or 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, or breather filters
7. Incorrect fuel pump pressure (1.5 – 3.5)
8. Worn distributor shaft
9. Incorrect carburetor float valve
10. Incorrect carburetor float level
11. Restricted or kinked fuel lines
12. Restricted fuel filter