

CARBURETOR—GENERAL

TROUBLE DIAGNOSIS AND TESTING

When carburetor troubles are encountered they can usually be corrected by making the adjustments outlined under ADJUSTMENTS ON CAR. The following list of common troubles and their causes will frequently save considerable time in locating the cause of the difficulty.

NOTE: Before any work is performed on the carburetor, make sure trouble is not due to poor compression, or in the ignition system due to improper timing, defective spark plugs, burned ignition points, etc. Always diagnose performance trouble by using the Pontiac Tune-N-Test Guide before adjusting or repairing the carburetor.

When the cause of trouble is not located by the Tune-N-Test, check for trouble in the carburetor system as follows:

POOR FUEL ECONOMY

NOTE: Before any attempt is made to improve fuel economy, the actual gasoline mileage should be determined, using a tenth of a gallon tester. If mileage obtained during this test compares favorably with that found on other normal cars, the poor mileage must be attributed to driving conditions or driving habits of the owner. Also consider factors such as dragging brakes, soft tires, improper tire size, and improper speedometer driven gear.

1. Check automatic choke to see that it operates properly and that it is correctly indexed.
2. Inspect manifold heat valve to see that it operates freely and thermostat is installed properly.
3. Check for leaks in fuel line fittings, at fuel tank, or at fuel pump bowl.
4. Check for dirty or restricted air cleaner.
5. Test for high fuel pump pressure.
6. Disassemble carburetor and check for evidence of vacuum leaks.
7. Check float level.

SURGING CONDITION WITH HOT ENGINE

1. Lean carburetor adjustment. Check idle mixture setting.
2. Check fuel pump pressure and output.
3. Check needle and seat on leak-down tester.
4. Check float adjustment.
5. Check for dirty or obstructed jets or fuel passages.
6. Check for loose cluster or jets.

FLAT SPOT OR POOR ACCELERATION

1. Check manifold heat control valve thermostat for correct operation.
2. Check accelerator pump output visually to see if operating.
3. Check accelerator pump adjustment.
4. Check accelerator pump inlet and outlet valves for leakage.
5. Check for seating of accelerator pump plunger vent ball (Carter only).
6. Check accelerator pump passages for dirt or obstructions.

ROUGH IDLE

1. Check speed and mixture adjustment.
2. Check mixture screws for wear or burrs.
3. Check for manifold gasket leaks.
4. Check vacuum choke heat connection.
5. Check operation and setting of choke system.
6. Check idle passage and throttle bore for carbon and dirt.
7. Check float adjustment.
8. Check for secondary throttle sticking (4 barrel).
9. Check engine compression.
10. Check spark plug gaps.

IMPROPER HIGH SPEED PERFORMANCE

1. Check spark plugs for correct gap and condition.
2. Check distributor points.
3. Check fuel pump output and pressure.
4. Check filter for restriction or plugging.
5. Check carburetor for evidence of internal vacuum leaks.
6. Check float level adjustment.
7. Check high speed passages for dirt or obstruction.

FLOODING OR LEAKING

1. Check for foreign material in needle and seat area.
2. Check needle and seat on leak-down tester.
3. Check float adjustment (make sure float is not binding or rubbing).
4. Check for leaking or collapsed float.
5. Check for cracked bowl or loose passage plugs.