## Diagnosing Engine Troubles

Servicemen should not be too quick in condemning carburetor operation. Poor fuel economy, loss of power, poor recovery from overload, or poor acceleration are not necessarily results of inadequate carburetion. Fuel system conditions that can affect fuel economy, while important, are relatively few in number. Make sure that none of the following conditions exist; but don't limit your investigation to the fuel system.

Fuel system conditions affecting fuel economy:

1. Float valve leakage or high fuel level.

2. Damaged or enlarged jet openings.

3. Unbalanced conditions due to bowl gasket failure or dirt-plugged air bleeds or vents.

4. Poor setting of idle adjustment to match fuel or to meet a continuing load condition.

5. Failure to return choke valve to full open position.

6. Plugged air intake and/or air cleaner.

Fuel system conditions affecting power loss:

1. Low fuel float level.

2. Obstructed fuel passages, jets or screens from dirt or fuel gum.

3. Obstructed air bleeds in carburetor.

4. Lean setting of idle adjustment.

5. Air leakage between carburetor and manifold or between manifold and intake valve ports, or cracked intake manifold.

NOTE: Conditions where engine would draw in unfiltered air will also result in rapid and excessive engine wear from dust and abrasives.

6. Carbon or coke in intake manifold, at hot spot or heated jacket, restricting the amount of air-fuel mixture available to the engine.

7. Excessive clearance between throttle shaft and throttle body.

8. Poor governor action due to wear, misalignment or binding of moving parts.

9. Plugged air intake and/or air cleaner.