

## Carburetor Seminar Part 2

The carburetor gets a lot of bad attention for problems, when in reality it is the ignition system. Spark plug gap, point gap, timing, loose wire connections and sometimes the condenser can cause a faulty running Model A engine. Henry Ford said, "Don't tinker with the carburetor unless you know there is dirt inside". So, assuming that the ignition system is in tip top shape here are 4 common problem areas to look at: fuel leaks, idling problems, low speed problems, and high-speed problems.

### Part 1 Review of Seminar 1

- A. The bottom of the float bowl has fuel passage holes (Fig.1).
  - a. Lower left non-threaded hole feeds gas to the gas adjusting needle (choke rod).
  - b. Lower left off center threaded hole (5mm x .75 pitch). This is where the compensator jet fits. This feeds gas to the secondary well which in turn feeds gas to the idling jet and cap jet. This is a metered amount of gasoline.
  - c. Lower right non-threaded hole feeds gas to the main jet.

### Part 2 Questions from the First Seminar

#### Part 3 Fuel Leaks

- A. By the inlet where the gas line attaches.
  - a. Incorrect fitting (use of one piece)
  - b. Ferrule not set correctly (1/8 inch from end of fuel line)
  - c. Fuel inlet seat pitted (hone)
- B. Out of the rear of the carburetor lower casting.
  - a. Float level is too high. Gas can leak out of the main jet and cap jet when the engine is not running. **(Turn off the gas shut-off valve when the engine is not running).**
  - b. When running the fuel mixture will be too rich.
- C. Gaskets can cause leaks if they are old, dry and not flexible. Also, if they are not properly torqued.
- D. A float valve that doesn't seal due to wear or dirt.
- E. Fuel line at sediment bowl or carburetor inlet.

- a. Incorrect fitting (Use of 1 piece fitting).
- b. Ferrule not set correctly. (1/8 inch from end of line).

#### **Part 4 Idling Problems**

- A. Air leakage is the number one problem with idling.
  - a. Wear at the accelerator shaft ends.
  - b. Check the bend of the accelerator arm where the gas rod linkage attaches so it does not come into contact with the choke rod.
  - c. Incorrect length of idle adjustment screw.
  - d. Poor gasket between carburetor and intake manifold.
  - e. Intake manifold to block
    - i. Old gasket
    - ii. Not torqued correctly
    - iii. Warped manifold
  - f. No gas bowl vent
    - i. Top right inside of lower float bowl casting. 1/8 inch below gasket surface and 1/8-inch diameter. (Fig.1, #4).
  - g. Sometimes leaks in the lines and hoses providing vacuum to the windshield wiper.

#### **Part 5 Low Speed Problems**

- A. Same problems as the idling.
- B. Throttle plate not at 18 ½ degrees. Check for light between casting and butterfly. (Fig.2)
- C. Low gas flow.
  - a. Out of gasoline in fuel tank.
  - b. Partially clogged fuel screens.
- D. Dirt in the idling jet or compensator jet.

#### **Part 6 High Speed Problems**

- A. G.A.V. (choke rod) opened more than ¼ turn.
- B. Dirt in the compensator jet or secondary well.
- C. Dirt in the main jet.

- D. Partially clogged fuel filter screens.
  - a. Fuel tank screen A-9020
  - b. Sediment bowl screen A-9155-SC
  - c. Carburetor inlet screen A-9559
  - d. After market inline filter
  - e. Shut off valve screen A-9193

### **Part 7 Aftermarket Fuel Filters**

- A. In line filters need to be made for gravity feed fuel systems.
- B. Use a small gas engine fuel filter that is clear so the inside filter can be seen.
- C. Do not use micro filters as they greatly reduce the flow of gasoline.

### **Part 8 Model B Carburetor Air Filter**

- A. If using a Model B carburetor on a Model A engine a K&N Air filter can be used. Part number **RU-2760**.

### **Part 9 Review & Questions**

- A. There could be a third seminar which would be on the Model A carburetor adjustments.