Testing pump pressure

General

The pump pressure is governed by the degree of spring compression on intake stroke. The spring tension is so calibrated that it allows the fuel to enter the carburetor only as long as the float needle valve is open. When the buoyancy of the float forces the float needle valve to shut, pressure builds up in the fuel line and pump housing causing a decrease in pump stroke. In normal operation, the diaphragm stroke amounts to only a few tenths of a milimeter.

The lower assembly is vented through two orifices in the casting. Also, should fuel leak into this part of the pump, it can drain out through the venting holes.

Testing

The pump pressure should be 0.20 to 0.24 atmospheres (ATÜ) when the float needle valve is closed and the engine running at 1,000 to 3,000 rpm. Minimum fuel delivery should be 30 liters per hour, which equals 500 cc per minute, at 4,500 rpm.

The simplest way to check the fuel pump pressure is with the aid of a pressure gauge, by inserting a T-joint into the fuel line between the pump and the carburetor. A fuel valve is built into the fuel line behind the pressure gauge.

Essential to proper pump pressure is correct spring tension and serviceable condition of diaphragm and valves.

Excessive pump pressure results in carburetor flooding and, in almost all cases, leads to oil dilution. A too low pressure results in lean mixture and, thus, a rough running engine, misfiring at high rpm, and loss of power.

Removing and installing fuel pump

Removal

1. Pull fuel hoses off at pump.

2. Remove pump shield.

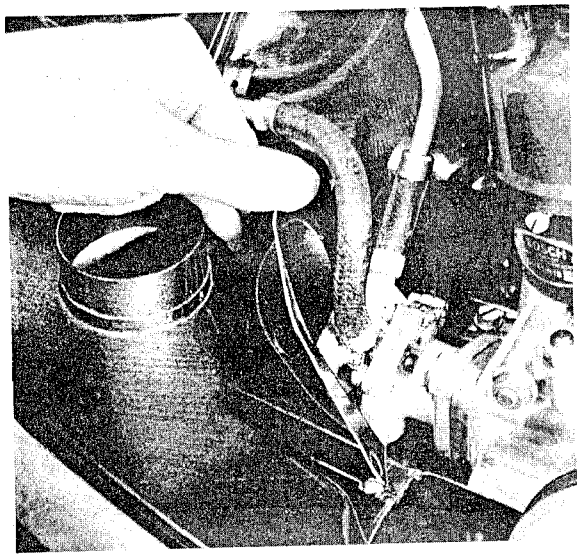

Fig. 5

3. Remove pump attaching nuts at flange.

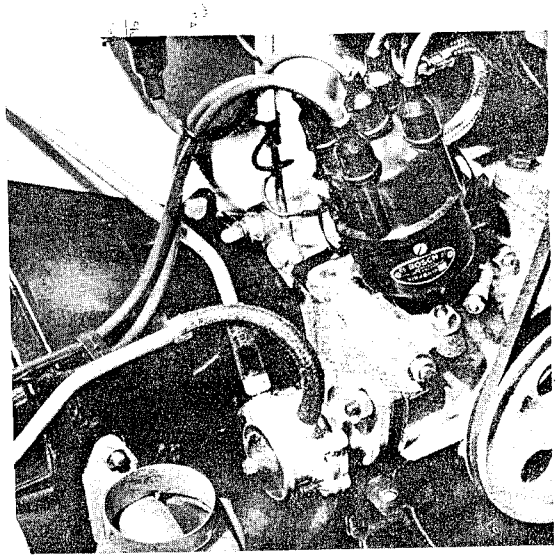

Fig. 6

4. Remove pump and insulating spacer.