

- b) In the right-hand suction canal of the carburetor at the same height as the by-pass slot or the by-pass bores as the case may be, but slightly offset to one side, there is a bore which leads to the threaded union on the throttle valve housing and which serves as a connection for the vacuum line to the distributor.
- c) Recent carburetors have a bore on the carburetor flange for the connection of a vacuum tester; the bore is closed by a grub screw.

## D. Main Carburetion System

The working principles of the main carburetion system are the same on the Solex double downdraft carburetor Type 32 PAATI as on the single downdraft carburetor.

In its standard form the double downdraft carburetor has a float and a float needle valve in the carburetor cover. The float chamber is ventilated through the tube (23) in the carburetor cover. For each of the carburetor suction canals there is an air horn, a main jet and a mixing tube holder with mixing tube and air correction jet (see Fig. 07-0/11).

From the float chamber the fuel flows into the mixing tube holder (4) through the main jet screwed into the main jet plug (2). If the throttle valve is opened beyond the idle position, phase 2, the partial vacuum moves upward and fuel is drawn from the outlet bores of the mixing tube holder and mixes with the air entering through the air intake branch of the carburetor cover.

When the vacuum effect increases at higher engine speeds the fuel level in the mixing tube holder decreases and compensating air enters through the air correction jet (3) and passes through the small bores in the mixing tubes and combines with the fuel flowing through the main jet to form a mixture. With increasing engine speed the proportion of air in the mixture increases so that overenrichment of the fuel-air mixture is prevented and the engine receives a more or less uniform mixture over the whole speed range (Fig. 07-0/18).

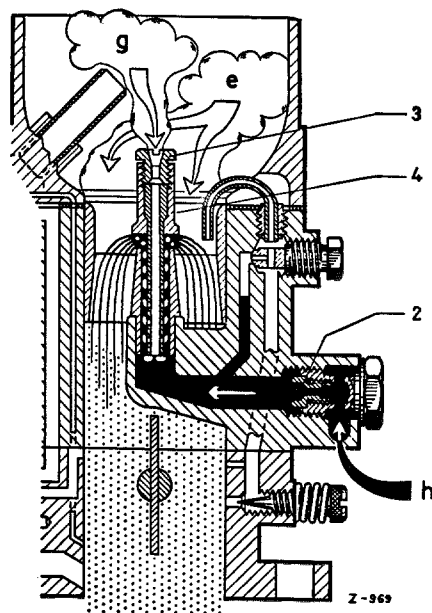


Fig. 07-0/18

Main carburetion system  
(Throttle valve in full-load position)

- e) Main air entry
- g) Entry of compensating air
- h) Fuel feed
- 2 Main jet plug with main jet
- 3 Air correction jet
- 4 Mixing tube holder with mixing tube