

E. Accelerating Pump

The accelerating pump No. 92 is a so-called "neutral" pump, i. e. the engine can draw in fuel from the pump system via the injection tubes according to the degree of depression prevailing in the suction tube.

The main purpose of the accelerating pump, however, is to spray extra fuel into the mixing chambers of the suction canals when the accelerator pedal is depressed, in order to achieve a smooth speed build-up and good acceleration.

The pump arm (10) of the accelerating pump is connected to the throttle valve shaft by the adjustable connecting rod (9). When the throttle valves are closed, the diaphragm (11) is pressed outward by the diaphragm spring (12). Since the pump chamber is connected to the float chamber via the ball valve (8), it is filled with fuel.

When the accelerator pedal is depressed, the pump arm (10) is moved by the connecting rod (9). During this operation the pump arm presses the diaphragm inward so that the fuel in front of the diaphragm is injected via the two ball valves located below the bracket for the injection tubes (14), via the fuel jets (13) and the injection tubes.

During the injection the ball valve (8), which operates as a check valve, is closed. When the accelerator pedal is released, the diaphragm spring (12) presses the diaphragm (11) back. The ball valve (8) now operates as a through-way valve, whereas the ball valves below the bracket for the injection tubes (14) operate as check valves and prevent air from the carburetor suction canals from entering the pump system. (Fig. 07-0/19).

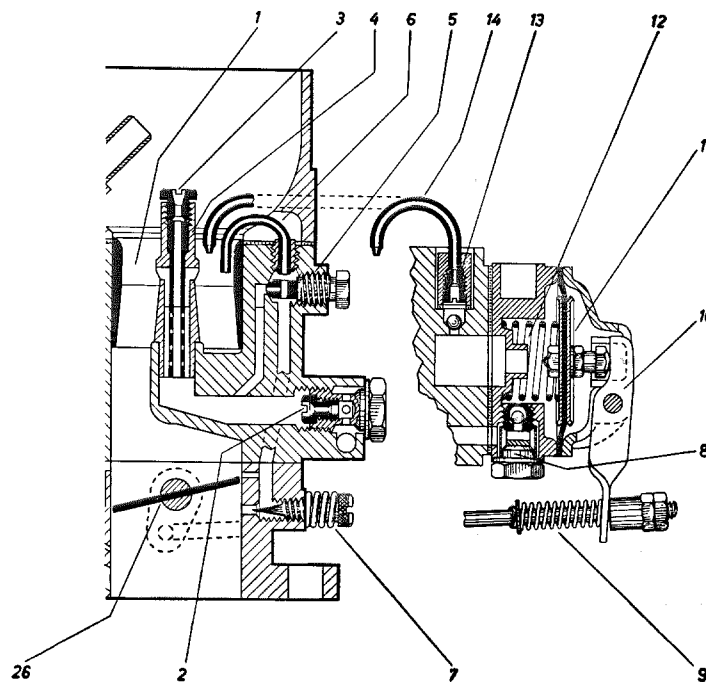


Fig. 07-0/19

- 1 Air horn
- 2 Main jet plug with main jet
- 3 Air correction jet
- 4 Mixing tube holder with mixing tube
- 5 Idle fuel jet
- 6 Idle suction tube
- 7 Idle mixture adjustment screw
- 8 Ball valve

- 9 Connecting rod with pressure spring and adjusting nuts
- 10 Pump arm
- 11 Pump diaphragm
- 12 Diaphragm spring
- 13 Fuel jet in injection tube
- 14 Injection tube
- 26 Throttle valve

Note: a) Instead of the conventional pump jets the double downdraft carburetor is provided with fuel jets (13) in injection tubes (14).

b) This version of the neutral accelerating pump carries no plate valve as a stop for the diaphragms.

Extra fuel from the pump system, in accordance with the vacuum in the air horns, is effected without operating the pump arm of the accelerating pump.

The injection amount for both injection tubes should be 1.3–1.5 cc/stroke together. Changes can be made by setting the adjusting nuts on connecting rod (9). Turning the nuts down will increase the pump stroke and thereby the injection amount, turning the nuts out will decrease stroke and amount.

The nuts may be tightened only to the point where pump arm (10) lifts from the diaphragm, because otherwise the injection will not start immediately when the throttle valves open. A change of the fuel jets (13) in the injection tubes (14) would not change the injection amount, but only the period of the injection. The connecting rod and the pump arm should move without sticking.

For adjustment of injection amount on the accelerating pump refer to Job No. 01–3, Section H.