

D. Idle System

The idle system is incorporated in Stage 1 only of the carburetor (Fig. 07 — 0/2). Stage 2 has no idle system. The appropriate bores are made in the housing but are closed with grub screws.

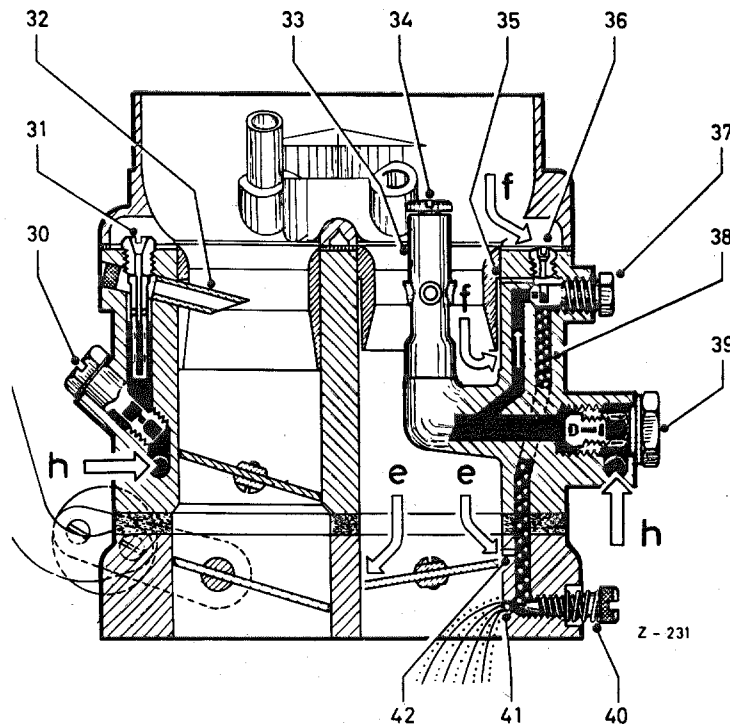


Fig. 07 — 0/12

Idle — Phase 1

- | | |
|---|--|
| e) Main air supply | 35 Idle air canal |
| f) Entry of idle air | 36 Idle air jet u |
| h) Fuel feed | 37 Idle fuel jet g |
| 30 Main jet plug with main jet Gg of Stage 2 | 38 Idle canal |
| 31 Air correction jet a with mixing tube of Stage 2 | 39 Main jet plug with main jet Gg of Stage 1 |
| 32 Exhaust tube of Stage 2 | 40 Idle mixture adjustment screw |
| 33 Mixing tube holder with mixing tube of Stage 1 | 41 Idle mixture bore |
| 34 Air correction jet a Stage 1 | 42 By-pass bores |

a) Idle — Phase 1.

The idle air supply is not only drawn in via the idle air jet (36) but also via the air canal (35) from the mixing chamber below the air horn (vacuum compensation) (Fig. 07 — 0/12). The fuel which is drawn in via the idle fuel jet (37) is mixed with the idle air supply, forming a mixture which is then conveyed into the idle canal (38). In the idle position, a further supply of air for the idle mixture enters through the by-pass bores (42) above the throttle valve and this then passes into the suction canal through the idle mixture bore (41) and combines with the air flowing past the throttle valve to form the final idle mixture. The idle mixture bore can be varied in section by the idle mixture adjustment screw (40). The final idle mixture can be attenuated by tightening the idle mixture adjustment screw and enriched by slackening it.

b) Idle — Phase 2.

Slight application of the throttle causes the mixture to flow through both by-pass bores. This now ensures a smooth speed build-up (Fig. 07 — 0/13).

At the same height as the by-pass bores, but offset to one side, there is a further bore. It leads to the vacuum union on the carburetor flange. The vacuum line to the pneumatic ignition control of the distributor is connected to this vacuum union. As of engine No. 121 920 650J286, a further bore, in addition to the vacuum union for the distributor, has been incorporated. This bore leads to the suction canal and is made for connecting a vacuum test gage. It is closed by a grub screw.

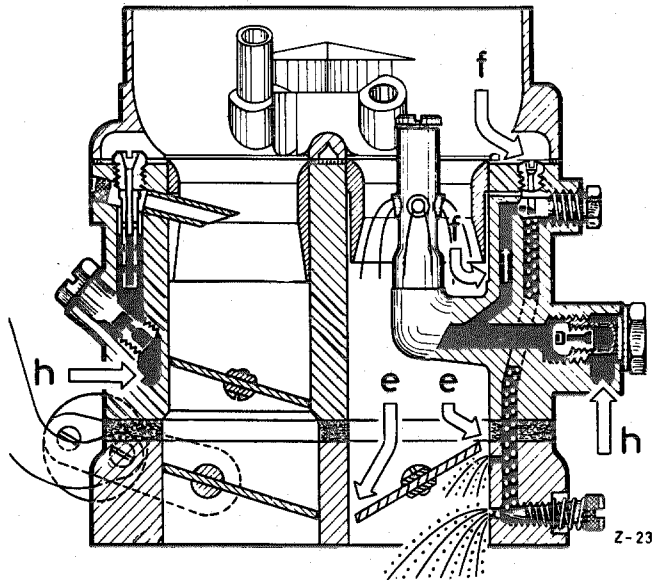


Fig. 07 — 0/13

Idle — Phase 2

- e) Main air supply
- f) Entry of idle air
- h) Fuel feed

E. Normal Running Condition (Main Carburetor System)

a) Partial load range

When the throttle is opened still further, the depression (vacuum) moves upward from the throttle valve of Stage 1 and now takes effect at the mixing tube holder, i. e., the carburetor begins to exercise its normal function in Stage 1 (Fig. 07 — 0/14). In Stage 1, the down-draft carburetor principle and arrangement of the main carburetor is retained in the form employed hitherto.

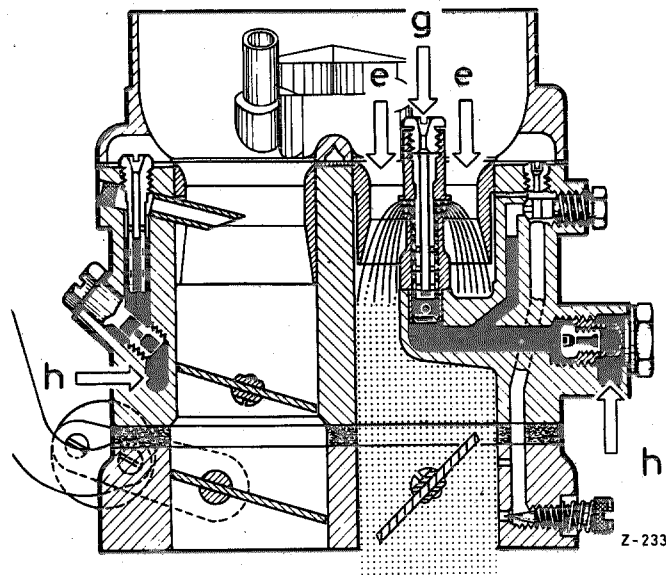


Fig. 07 — 0/14

Function in partial load range

- e) Entry of main air
- g) Entry of compensating air
- h) Fuel feed