d) Starter Mechanism Inoperative

(Starter knob pushed right in)

When the starter knob is pushed right in, the starter rotary slide valve is turned to the right to a point where both the graded bore (2) and the slot (39) in the starter flange are completely covered. The starter mixture canal (25) is also closed. The starter system is now put out of action. In order to prevent fuel from being drawn from the starter system, when the starter mechanism is inoperative, but if the starter rotary slide valve is not quite tight, a notch as described in Section a) has been made in the carburetor cover. This notch connects the float chamber with the fuel canal (4). For that reason only air and no fuel can be drawn in from the starter system, when a slight leakage is present in the starter rotary slide valve.

C. Idle System

The idle system of the carburetor consists of the idle fuel jet, the idle air jet and the idle mixture adjustment screw.

a) Idle – Phase 1

The fuel which is drawn in via the idle fuel jet (14) is mixed with the air from the idle air jet (13), forming a mixture which passes into the idle canal (40). 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 then passes into the suction canal through the idle mixture bore (41) and combines with the air streaming through the throttle valve gap to form the final idle mixture (Fig. 07-0/7).

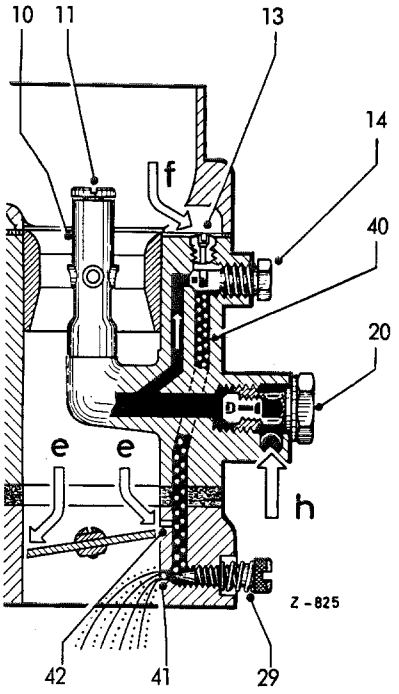

Fig. 07-0/7

Idle — Phase 1

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

10 Mixing tube holder with mixing tube
11 Air correction jet
13 Idle air jet
14 Idle fuel jet
20 Main jet plug with main jet
29 Idle mixture adjustment screw
40 Idle canal
41 Idle mixture bore
42 By-pass bores

The cross-section of the idle mixture bore (41) can be varied by moving the idle mixture adjustment screw (29). When the idle mixture adjustment screw is slackened, the mixture is enriched.

The idle speed is adjusted by means of the idle adjustment screw on the throttle valve lever (see Job No. 01-3, Section K).

b) Idle – Phase 2

When the throttle valve is being slightly opened, idle mixture flows through both the idle mixture bore (41) and the by-pass bores (42). The by-pass bores now serve to ensure a proper changeover to the main carburetion system (Figs. 07-0/7 and 07-0/8).

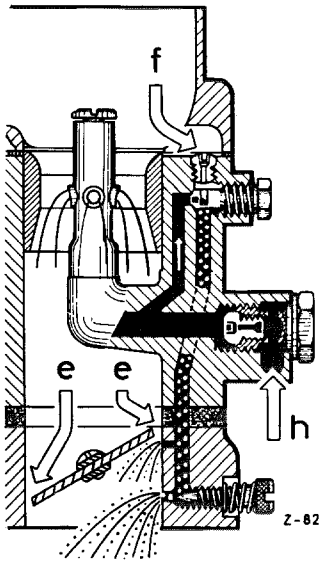

Fig. 07-0/8

Idle — Phase 2
(Throttle valve slightly open)

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

Note: a) In the suction canal of the carburetor at the same height as the by-pass bores, but offset to one side there is a further bore which leads to a threaded union in the carburetor housing and takes the distributor vacuum line.

b) The carburetor for Model 180 a as from Engine End No. 8506159 has a bore on the carburetor flange which serves as a connection for a vacuum test gage and which is closed with a grub screw.

D. Main Carburetion System

In its standard form the downdraft carburetor Type 32 PJCB has a float chamber with float and float needle valve in the carburetor cover. The float chamber is ventilated by the tube (9) in the carburetor cover. The carburetor parts for the main carburetion system are the air horn, the main jet and the air correction jet with mixing tube (see Fig. 07-0/1).