

I. Installation of Electrical Idle Cut-Out Valves

Engines with high compression ratios have a tendency to self-ignition when fuels of low anti-knock value are used and when outside temperatures are high; as a result, there is after-firing when the engine is switched off.

Fuels should have a minimum anti-knock rating of 92 according to the research method (ROZ); when fuels of a lower anti-knock rating are used and heavy after-firing occurs when the engine is switched off, electrical idle cut-out valves manufactured by the firm of Solex can be subsequently installed in the die-cast carburetors (Fig. 07-0/56).

Note: Because of the different arrangement of the idle fuel jets these electrical idle cut-out valves cannot be subsequently installed in sand-cast carburetors.

The idle cut-out valves (Part No. 000 071 02 92), together with the special idle fuel jets size 55 (Part No. 000 071 28 36) are screwed in in place of the standard idle fuel jets. When the ignition is switched on, the electro-magnet (8) in the valve moves the magnet core (2), the valve needle (9) opens up the idle fuel jet (1) and the idle system of the carburetor can fulfil its normal function.

When the ignition is switched off, the current to the electro-magnet (8) is interrupted and the valve needle (9) is forced on to the sealing cone (10) by a pressure spring (3). Now the idle system is cut off from its fuel supply and after-firing of the engine is therefore no longer possible.

If anything should happen to interrupt the electrical operation of the valve (blown fuse, burnt-out electro-magnet, etc.), it is possible to put the cut-out valve out of operation in the open position by unscrewing the threaded sleeve (4) (Fig. 07-0/55) after having removed the valve cap (5).

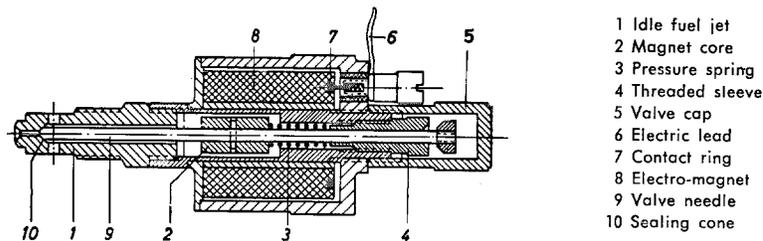


Fig. 07-0/55

In engines from Engine End No. 55 00709 (in which the die-cast carburetors were first installed) to Engine End No. 55 01822 these cut-out valves can be installed subsequently only when the mixing tube No. 43 has been installed in stage 1 and if the fuel flow to the accelerating pump is regulated by a calibrated sleeve.

As from Engine End No. 55 08123 mixing tube No. 43 has been installed in stage 1 as a standard part and the fuel line to the accelerating pump has been calibrated (see also Job. No. 01-3, Section I).

Work Involved

1. Unscrew the idle fuel jets of stage 1 on both carburetors and screw in the complete idle cut-out valves (1), together with the special jets (see Fig. 07-0/56).

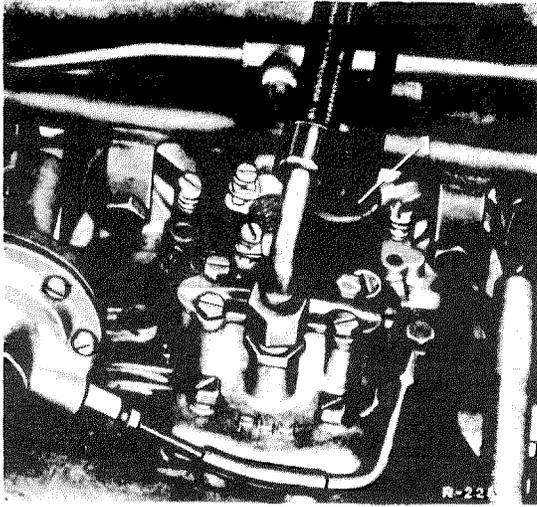


Fig. 07-0/56

1 Solex electrical idle cut-out valve,
(Part No. 000 071 02 92)
with special jet size 55
(Part No. 000 071 28 36).

Note: The standard idle fuel jets cannot be used when the idle cut-out valves are installed.

2. Connect the two idle cut-out valves by a cable 400 mm long and fasten the cable to the fuel line with a cable holder. Lay a cable 1100 mm long from the idle cut-out valve of the rear carburetor along the hot-start control cable to the cowl and then lay the cable, together with the lead of the flash signal mechanism through the rubber grommet into the interior of the car and to the fuse box. Then fix the cable to the hot-start control cable and the fuel line by four cable holders (Fig. 07-0/57).

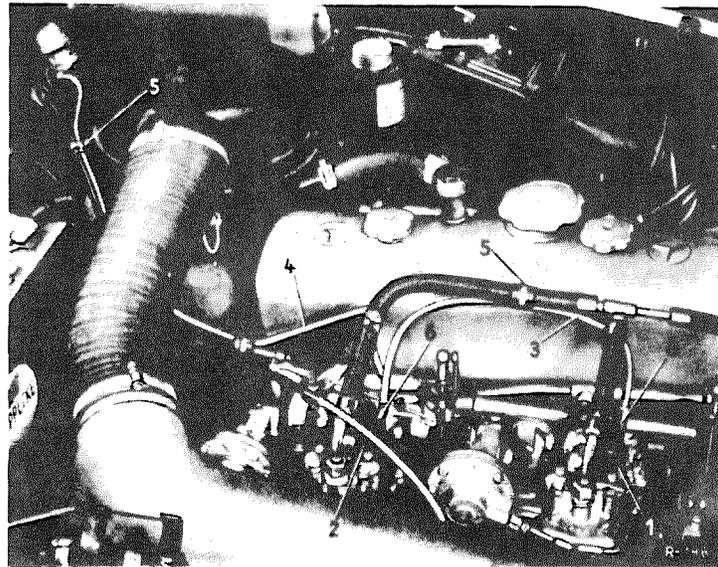


Fig. 07-0/57

1 Idle cut-out valve on front carburetor
2 Idle cut-out valve on rear carburetor
3 Cable 400 mm long

4 Cable 1100 mm long
5 Cable holder with pad
6 Rubber hose

3. Connect the cable leading from the idle cut-out valves to the fuse box to the consumer side of the 8-ampere fuse (No. 3 or No. 4), together with the horn or reversing light switch cables.

- Note:** a) The cable must have a section of at least 1 sq. mm. Cover the cable sockets on the idle cut-out valves with an oil and fuel-resistant rubber hose so that no parts are exposed. Use suitable small cable sockets (e. g. the 3.5×0.5 mm sockets produced by the firm of Noris) for connecting the cable to the idle cut out valves in order to exclude the danger of short-circuits. To prevent possible damage use a pad between the cable holder (5) and the cable (see Fig. 07-0/57).
- b) When adjusting the idle make quite sure that the idle mixture adjustment screw of stage 2 and the throttle valve of stage 2 are completely closed on both carburetors (see Job No. 01-3, Section K).