

## A. Removal and Installation of Carburetors

### Removal:

1. After releasing the vent line and the hose clips at the carburetors, take off the air intake silencer.
2. Unscrew the fuel lead, detach the connectors and unscrew the vacuum line to the distributor at the front carburetor. Then disconnect the Bowden cable for the start mechanism and unscrew the connecting rods from the angle relay lever of the start mechanism on both carburetors.
3. Unscrew the fixing nuts on both carburetors and take off the carburetors. Take off the asbestos gasket (insulation flanges) and the screening plates.

### Checking:

4. Check the insulation flanges for evenness and if necessary, re-condition them. Broken or damaged insulation flanges must be replaced.
5. Check the separating surface at the carburetor flange for evenness and inspect it for burrs. If necessary, carefully remachine the separating surface.
6. Check the starter rotary slide valve for freedom of movement.

### Installation:

7. Put on the insulation flanges and the screening plates.  
The air jet (1) in the upper insulation flange (2) must be on the manifold side of Stage 1 (Fig. M 31 S/1).

**Note:** The air jet (1) and the insulation flange (2) must be flush.

**The two insulation flanges are fitted without any sealing compound!**

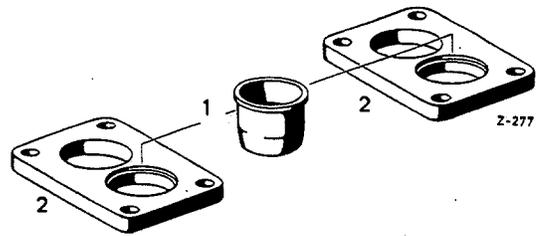


Fig. M 31 S/1

- 1 Air jet
- 2 Upper insulation flange

8. Install the hexagon nuts and lock washers for fixing the carburetors and tighten up.
- Note: Tighten up the screws evenly to avoid any distortion of the carburetor flange.**
9. Screw the connecting rod onto the two angle relay levers for actuating the starter rotary slide valves.
  10. Connect the Bowden cable to the rear angle relay lever.  
When this is done the starter rotary slide valves must be completely closed and there must be a distance of approx. 2 mm between the pull knob and the attaching plate for the control knobs.
- Note:** The distance between the pull knob and the attaching plate for the control knobs must be strictly maintained in order to ensure that the starter rotary slide valves can be closed completely.
11. Warm up the engine to its normal working temperature (70—80° C. cooling water temperature) and retighten all pipe unions, jets, screws and fixing nuts on the carburetors.

## B. Adjustment of Carburetors

### Measurement and Adjustment of Fuel Level:

**Note:** Before measuring the fuel level it is advisable to check the delivery pressure of the fuel pump. The delivery pressure must not exceed

0.20 kg/cm<sup>2</sup> = 147 mm Hg at an idling speed of approx. 800 r. p. m.

Measure delivery pressure with Fuel Pump Test Gage 000 589 30 21 and engine speed with Revolution Counter 000 589/12 21.

If the delivery pressure of the fuel pump is excessive, this may cause the float needle valves to be forced, which would result in the fuel level being too high.

Excessive delivery pressure of the fuel pump can be caused either by too long a pump stroke or by hardening of the pump diaphragm.

In both cases the delivery pressure should be reduced to the permissible amount by using shims between the fuel pump and the jointing flange.