

The channel size (4) is such that it creates an optimum vacuum in the starter valve chamber, at the emulsion tube outlet both for starting up and for the mixture required by the engine for its running and warming up. Therefore, varying the position or the size of the starter emulsion tube holes will change the amount of fuel delivered; the mixture ratio is controlled by the starter jet size and therefore a larger jet causes enrichment and vice-versa.

Difficulties in starting the engine can occur when this mixture is too rich or too lean and you can see this from the spark plugs. After some starting attempts, remove the spark plugs and, if these are wet, the mixture is too rich and you will therefore need an emulsion tube with holes higher up.

Conversely, if the spark plugs are found to be dry, the mixture is too lean and an emulsion tube with holes lower down is therefore needed.

If the engine stalls when the engine is first started from cold before it has been running for at least a minute with the starting device on, you will need to reduce the starter jet size because of an over-rich mixture or increase it if the engine stalls because of a lean mixture.

Check that the starter valve closes completely afterwards to avoid any mixture blow-by which may later disturb the carburation.

Therefore check that with the starting device off, the control lever is free to move a little on its pivot pin or that, where a remote cable control is fitted, the cable has at least 1.2 mm of free play.

3.3.3 - The flooding-plunger cold starting device

The starting device with a flooding plunger, or «licker», is shown in figure 17 and uses the normal main and idle circuits.

It is composed simply of a push button (1) which, when manually operated, holds down the float (2).

This forces the fuel inlet valve open causing an influx of fuel which raises the float chamber fuel level above normal and consequently enriches the mixture. This enrichment gradually decreases as the fuel is used up and stops when the float chamber level has returned to normal.

This device requires quite a lot of care from the operator because if the chamber fuel level is raised insufficiently, the engine may not start because the mixture is still excessively weak; alternatively, if the chamber level is raised too much, the resulting over-rich mixture may also prevent the engine starting.



fig. 17

3.4. - Idle systems

At idle the carburettor supplies only the mixture required to keep the engine running at very moderate rpm. The engine needs only a small amount of air when idling and the throttle slide should therefore be almost completely closed.

Upstream of the slide there is only a weak vacuum, insufficient to cause the main circuit to deliver any fuel emulsion, while downstream of the slide there is a stronger vacuum which activates the idle circuit; idle circuits are designed with either a mixture-adjusting screw or with an air-adjusting screw.