

At Tractor Engine Nos. :—

Petrol SC.93795E
V.O. S.235776E
L.O. SB.11045E

The 28G Carburettor was introduced in production.

28G. CARBURETTOR

Adjustments

Petrol Engine Tractor

Main Jet $1\frac{1}{2}$ turns open, $\pm \frac{1}{4}$ turn
Slow Running Jet 1 — $1\frac{1}{2}$ turns open

V.O. Engine Tractors

Main Jet $1\frac{1}{2}$ turns open, $\pm \frac{1}{4}$ turn
Slow Running Jet 1 — $1\frac{1}{2}$ turns open

L.O. Engine Tractors

Main Jet $1\frac{1}{2}$ turns open, $\pm \frac{1}{4}$ turn
Slow Running Jet 1 — $1\frac{1}{2}$ turns open

Carburettor Engine Tractors will be found to be fitted with one of the following carburettors :

C. 1488

Identification :— Stamped C. 1488

Data

Choke Tube dia. 18 mm.
Main Jet 225 cc.

Air Jet 1.2 mm.
S.R. Jet 70
Needle Seating 2.0 mm.
Fuel Level 17 m/m. at 18" head
(measured from top face of carburettor bowl).

C. 1488

Identification :— Stamped C. 1488 M.

Choke Tube dia. 18 m/m. (recessed)
Main Jet 225 cc.
Air Jet 1.4 mm.
S.R. Jet 55
Needle Seating 2.0 mm.
Fuel Level 17 m/m at 18" head
(measured from top face of carburettor bowl).

General Description

The 28G carburettor is a dustproof vertical unit of robust design and construction, capable of high angle operation.

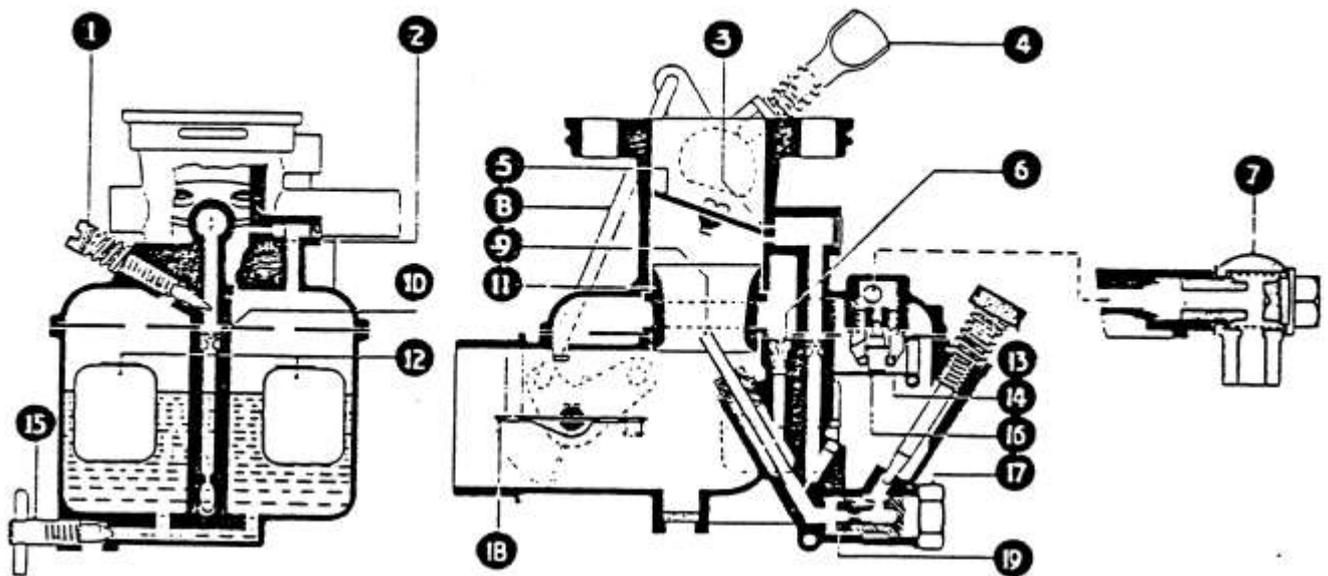


FIG. 29. CROSS SECTION OF CARBURETTOR.

Principle of Operation (Fig. 29)

Fuel enters the carburettor at the banjo union (7) and the float chamber through the needle and seating assembly (14). It will be observed that the float chamber is of special construction, embodying a dual float (12) system, so that as the fuel rises in the chamber the floats will be lifted until, at the predetermined fuel level, they will lift the needle on to its seating and thus prevent the entry of more fuel.

From the float chamber the fuel passes around the adjusting needle (13), through the main jet (19), and rises in the main discharge tube (9), slow running jet (10) passage, and the main air bleed (6) passage, to the predetermined level.

Starting from Cold

By pulling out the choke control the strangler (18) is turned on its spindle, and closes off the air intake of the carburettor. In so doing the Inter-connection mechanism automatically opens the throttle (5) to a degree found most suitable for starting

purposes. When the engine is rotated a very rich mixture passes to the engine to provide the necessary fuel for starting purposes. Once the engine fires, the extra depression on the engine side of the strangler causes the blade in the strangler, to open and close rapidly against the engine pulsations. This ensures that the engine will continue to run at a good speed without stalling itself due to lack of air. As soon as normal working temperature has been reached the strangler should be released and the fuel will then be obtained from the slow running system with the throttle back to the normal idling position.

Idling

Fuel is drawn from the well beneath the idling jet (10), is measured on passing through the jet and enters the bore of the carburettor through the drilling (3) on the engine side of the throttle. Progressive opening up from idling is ensured by the provision of a second feed hole, slightly below the first in the idling outlet near the throttle edge.

Main Carburettor

Once the throttle is opened, fuel in the channel beneath the air bleed (6) will have been taken in to the engine, and the main air bleed is now effective over the whole speed range. Fuel passing from the float chamber is measured on going through the main jet (19) and will then enter the bore of the carburettor from the main discharge tube (9). At this point the fuel is taken up by the air from the intake of the carburettor and the mixture proceeds to the engine.

ADJUSTMENTS

Slow Running Adjustment

This should be carried out when the engine is hot, the minimum running speed being set at 145 to 165 P.T.O. r.p.m. (40 to 450 engine r.p.m.) by adjustment of the throttle stop screw (4) and the mixture regulating screw (1) to ensure that the engine speed and fuel mixture is correct to obtain steadiness when idling.

Turning the regulating screw (1) in a clockwise direction provides a richer mixture for idling and vice versa. The screw should be turned until a slight hunting (i.e. richness) occurs, and then turned back slowly approximately 1 to 1½ turns until the engine runs evenly. If the screw is turned back too far the engine will stall.

The throttle stop screw (4) is turned inwards to increase and outwards to decrease idling speed.

Main Jet

The combination of choke tube, main jet and air jet should be as specified, and therefore it should not be necessary to alter any of these parts when dealing with ordinary maintenance.

Main Jet Setting

Turn needle (13) gently clockwise until seated and then unscrew requisite number of turns (see above).

The main jet setting given above is approximate only for normal work as fuels tend to vary in different countries, ¼ turn more or less is permissible for rich or weak mixture respectively or to suit fuel variations.

The use of a setting weaker than recommended is a false economy, and may result in burnt exhaust valves.

General Maintenance

As with all carburettors, the keynote of reliable and efficient service is absolute internal cleanliness. It is recommended that the float chamber drain tap (15) should be opened occasionally when the tractor is in use, in order to clear away any foreign matter collecting at the bottom of the float chamber.