

THE GRAND PRIX CARBURETTER

features

UNOBSTRUCTED BORE

for maximum power at peak R.P.M.

Because the metering needle does not pass through the choke of the Carburetter, the only restriction to flow through the Carburetter when the throttle valve is fully open, is a small one caused by the protrusion of the spray tube, and this is overcome by a slight swell in the choke at this point. A taper returns the bore to its nominal diameter on the engine side of the throttle valve.

SHORT MIXTURE TRACT

for rapid acceleration

Although the needle does not obstruct the choke, it is positioned within the throttle valve diameter, and this results in a very short tract for the mixture to traverse from the needle jet to the choke. The benefit of this is felt in rapid and consistent acceleration throughout the range, and where megaphone exhausts are used an additional advantage is cleaner entry onto the megaphone at lower R.P.M. than with previous types of racing Carburetters.

PRIMARY AIR JET

for accurate depression control

The quantity of primary air that atomises the fuel issuing from the needle jet, is controlled by making it pass through a drilled bush. Its effect is that of a depression control for the main jet, and while the air jet as fitted by the factory with due regard to the bore size of the Carburetter would normally be left unaltered, it could be changed for one of different size for special purpose tuning. It may, therefore, be regarded as an additional tuning factor in exceptional circumstances.

FIVE TUNING FACTORS

for accurate tuning throughout the range

The established Amal principles are followed by incorporating :—

Easily changeable **main jet** controlling the fuel supply at full throttle ;

changeable **needle and needle jet** and adjustable **needle position** for control at smaller throttle openings ;

changeable **throttle valve** of which the amount of cutaway controls the mixture at still smaller throttle openings ;

A taper needle for independent control of the fuel supply to the **pilot jet** to control the mixture strength for idling.

By using these tuning factors in the proper sequence, it is possible to obtain clean and consistent carburation at all throttle openings, with excellent progression throughout.

LARGE CAPACITY FLOAT CHAMBER

to ensure adequate fuel supply

The type 302 Top Feed Float Chamber will pass 10 gallons of fuel per hour at 18 inch head, and its use does away with the necessity for double float chambers. A separate float chamber for remotely mounting is recommended, but where this is not possible, rigid float chambers are available with arms cranked at up to a maximum of 20 degrees to enable the Carburetter to be fitted in a downdraught position.

FOR OPERATION AND TUNING INSTRUCTIONS, SEE LIST No. 469.