

# **Section 5**

# **Fuel System**

*Velocette*

## FUEL SYSTEM

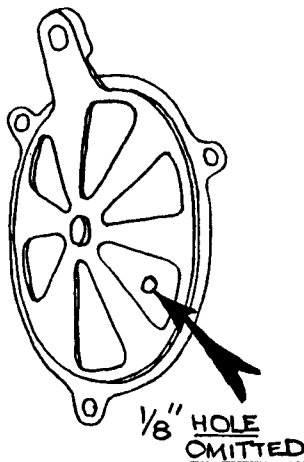
### AMAL TYPE 19/5 CARBURETTOR

Comparison tests between the three types of carburettor fitted to the LE over the years, the Multijet, Amal 363 and Amal 19/5 found that there was really not much to choose between any of them. If anything the Multijet was the best, although each has its good points.

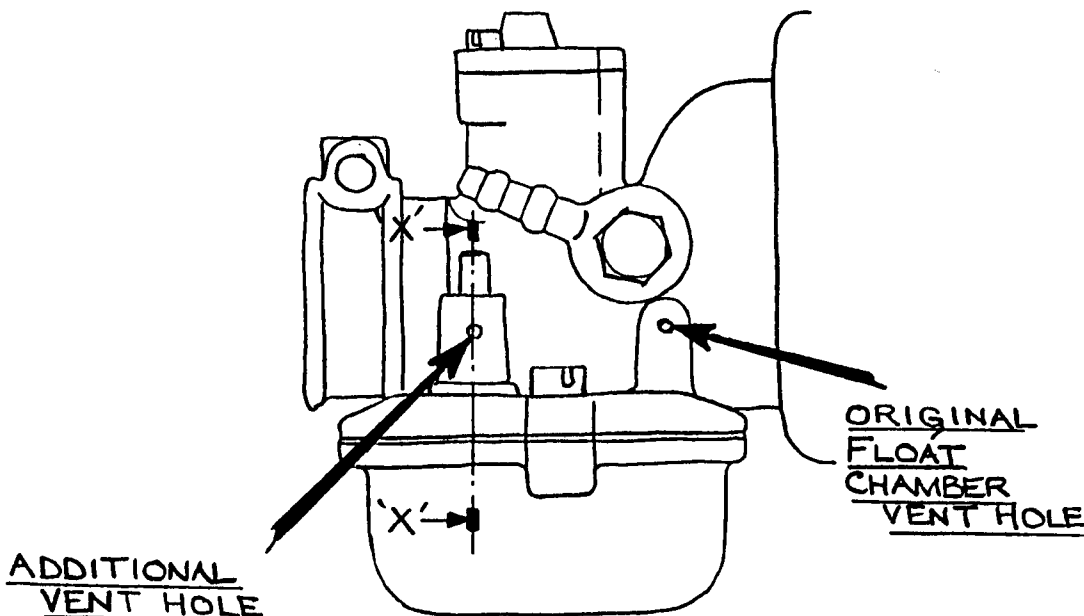
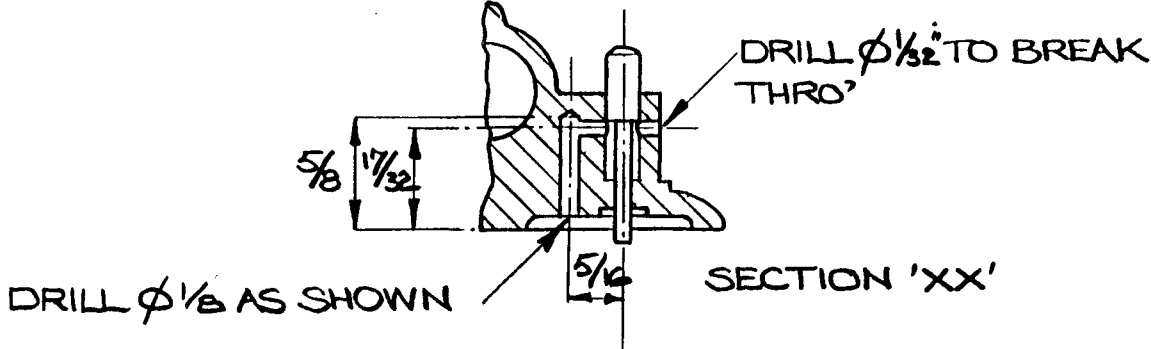
The 19/5 is not really as bad as has been made out. It is a little flimsily constructed, in that the lower portion containing the float and jets distorts easily. Not only does this lead to external fuel leakage, but internal leakage across the joint is a common cause of erratic idling. If this is suspected, use of a good quality jointing compound seems effective. Do not use too much or it will block all the jets!

In common with the Amal 363 unit, a sticking float needle can occur with long service. This is due to lacquer forming in the float needle guide where it is a fairly snug fit. On the Multijet, the needle is integral with the float. This condition will usually be indicated by flooding of the carburettor, in particular when turning the petrol on.

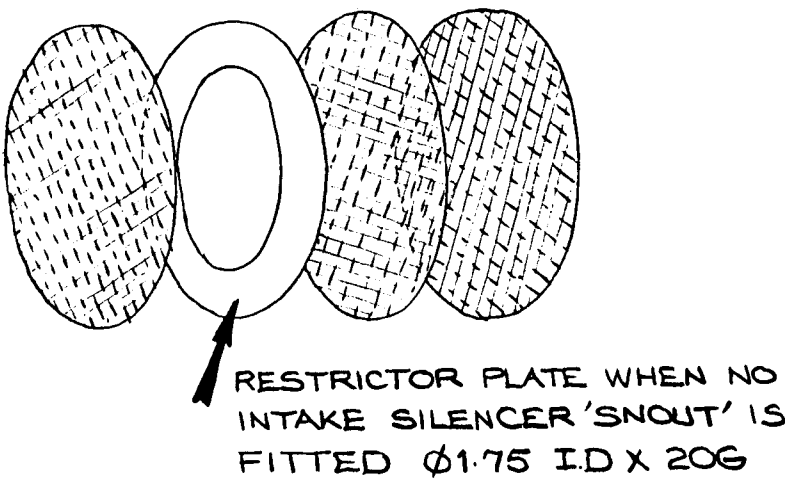
Amal carried out a few modifications to the 19/5 carburettor during the time it was fitted by Veloce. Firstly, and very early on the, the small 1/8in. hole in the choke shutter was omitted - to improve starting.



Secondly, a 1/32in. hole was added to the float chamber just below the tickler. If necessary, this can be added as shown in the accompanying sketch. This was to prevent the engine being "flooded" with petrol during hard braking, when the original breather hole at the front of the carburettor became blocked as fuel surged forward.



Thirdly, and for reasons of economy or rationalisation, the twin tube "snout" was left off, and the choke shutter altered slightly. To compensate, a restrictor plate, was inserted between the three filter gauzes.



These snouts were originally fitted to the Amal 363 to silence the air intake. Leaving them off has only a small effect when, at around 35 m.p.h., a distinct sucking noise may be heard. Failure to fit the restrictor plate however will lead to a weak mixture - manifested by all the usual symptoms, such as poor acceleration.

#### VAPOUR LOCKS

A problem that does occur with the L.E., particularly in summer, is vapour locks. This is because the petrol pipe is virtually horizontal and also needs to have a hump in it where it runs over the top of the induction pipe. The answer is to ensure that the pipe is kept to its minimum possible length. This will be about 10in. for the later MkII and III machines. Make sure the banjo connection on the Amal 19/5 carburettor is placed horizontally rather than vertically, as this will help to maintain a constant petrol flow.