

From Fig. 1 it is easy to see that the main areas of operation of the carburettor are controlled by the throttle needle position and the main jet. Very often the standard positions and sizes recommended by the manuals are correct but 'faults' introduced by careless owners mask the real effects of the tuning !

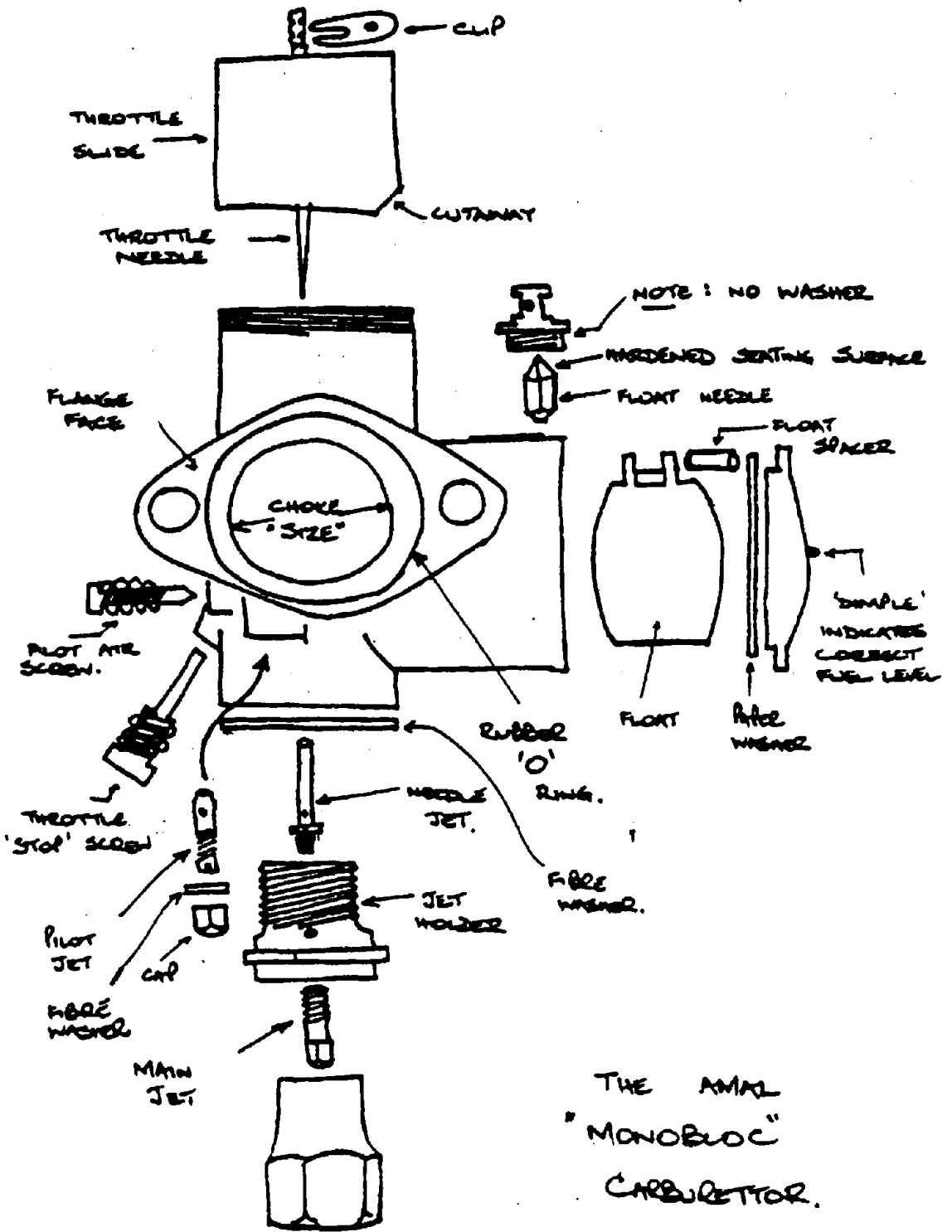
Probably the most common fault with the Monobloc carburettor of the vintage that we are likely to find on our machines will be a distorted flange face. Never be over generous and put on additional gaskets then really tighten up the fixing nuts to ensure a leakfree joint with the cylinder head. You are likely to do just the opposite when the additional gasket compresses in the area of the nuts and the flange bows. The 'O' ring will cope with some bowing but it is not really meant to cope with that. The cure, when you have put a straight-edge across the flange and proved that it is distorted is to very carefully file it as flat as you can get it with very delicate, very level filing strokes with your finest file, followed up by a session on wet 'n dry on a flat surface (yes, a mirror is good) with the carb. being moved in a firm figure of eight movement with the choke tube fully vertical all the time. It is much easier to use the shortest spanners possible on the nuts and just enough torque to tighten them comfortably. Don't be tempted to give that bit extra 'for luck' and you won't distort it in the first place !

If yours is a bike where it is difficult to get the slide assembly off the top of the carburettor with the carb. still in position a useful dodge is to take out the stud which locates the carburettor on the head and use a short bolt in it's place. When you remove the bolt and slacken the other nut the carb will tilt and allow you to get at the top.

I found another typical fault on a carburettor that I bought at a recent jumble. Some previous owner had tried to stop a leaky float needle by 'lapping in' the nylon needle with grinding paste. Well grinding paste is the last thing I would want in my carburettor, but the face of the float needle is specially treated nylon which is hardened. Grinding paste would just take off the treated skin and make it leak worse ! Once they are worn it is a case of new replacements. Some float needles stick in the seating and almost stop the flow of petrol - this can be cured by carefully filing down the ridges on the side of the float needle where it doesn't matter if you ruin the skin. It will then not stick in the closed position.

Riding in competition once I had carb. trouble and stopped in mid-course to sort it. In the hurry to reassemble after clearing the dirt which had got in to the float chamber, I just couldn't stop it flooding. In my haste I had forgotten the float spacer and the float was rubbing against the flange on the cover, leaving the needle off it's seat and in came the petrol, by the gallon.

When you come to adjust the mixture it is always easier if you actually know whether it is weak or rich in the first place, then at least you will know which way to start adjusting. Rich mixture is too much petrol and shows with the engine running heavy, lumpy and often with very black smoke from the exhaust. Don't confuse it with blue smoke which means you are burning oil. A weak mixture has too much air and has the symptoms are erratic running, often spitting back through the carburettor, often banging as it burns in the exhaust system - typically on the over-run as you are going downhill using the engine as a brake. As I said weak mixture is too much air - in other words often caused by air leaks.



THE AMAL
 "MONOBLOC"
 CARBURETTOR.

FIG. 2.

A gradual rise in fuel consumption during normal running can often be traced to a worn needle jet. The needles rarely wear - they usually have to be changed when someone bends them during careless handling of the dismantled carburettor. A sloppy fitting needle clip can allow the needle to wear the jet by a sort of vibration or rubbing action caused by the machine vibration. Some people start by putting in a new main jet, then a smaller main jet - which is daft, there is very little wear on a main jet caused by the petrol flowing through it !

If you have been working on the bike and you find that it floods whilst stationary try the pilot jet. It should be firmly screwed against it's seat, using the slots provided - but not too much force, then the cap should be put on.

I'm sure you have seen advice never to poke drills or wires through carburettor jets to clean them. WELL DON'T. The correct method is to blow them clean with an air line or tyre pump, but blow in the opposite direction to the normal petrol flow or you may just force the little piece of grit harder into place.....

Throttle slides are often bought second-hand, sometimes bead-blasted to make them look like new. That's not too bad as long as the wear is restricted to some scuffing of the slide. The usual wear is of the front edge of the cutaway against the choke tube and it can be recognised by the sharp edge of the cutaway. Slides like that are as much use as a trap-door in a canoe.....

If you are going to use your machine in trials - or on the road for that matter - and you decide to dispense with the air-slide because it will always start in cold weather with a generous flooding, then it is a good idea to block up the hole in the top of the throttle slide with a small piece of brass sheet soldered in place. Don't believe me ? Try it and then set your tickover - you'll get a far cleaner pick-up.

Another useful trials tip is to solder up the two holes in the base of the needle jet - in the side of the tube. This changes the suction effect and results in a much cleaner pick-up when you have been slowly trickling downhill against the motor and you want to blip it up a little climb or whatever. I haven't found a disadvantage - having the holes blocked - but I'm sure there must be one !

Well I hope that has helped someone, somewhere, I'm sure that Deryk will be only too pleased to pass on any comments from members who disagree with any of my thoughts - or maybe you have some tips on carburettor 'lore' that are worth passing on ?

Stu Poole.

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NEXT MONTH.

All the news from the AGM

A feature on maintenance problems.

Ted Conran reports on the state of his nation.....

Photographs galore and another old advertisement from AMC.

Section Notes Around the Club Members Adverts (have you anything to sell?)
the T C Column some more Dodges and Bodes Jampot Rally News

Sounds like another full Jampot !