5 Carburettor(s) - removal

1 Both single and twin carburettor fitments have been used, depending on the version. Early models used the Amal Monobloc carburettor(s) whilst later and now current versions use the Amal Concentric carburettor(s). Both types are described here but special emphasis is given to the concentric because it is, by now, the most usual fitment or replacement.

2 Before removing a carburettor it is first necessary to detach the mixing chamber top which is retained by two small screws and lift away the top complete with the control cables, throttle valve and air slide assemblies. The petrol pipe can then be pulled off the push connection at the float chamber (or the union complete detached) and, after detaching the two retaining nuts and shakeproof washers, the complete carburettor may be removed from the cylinder head.

6 Carburettor(s) - dismantling, examination and reassembly

Amal Concentric carburettor only

1 To remove the float chamber, unscrew the two crosshead screws on the underside of the mixing chamber. The float chamber can then be pulled away complete with float assembly and sealing gasket. Remove the gasket and lift out the horseshoe shaped float, float needle and spindle on which the float pivots.

2 When the float chamber has been removed, access is available to the main jet, jet holder and needle jet. The main jet threads into the jet holder and should be removed first, from the underside of the mixing chamber. Next unscrew the jet holder which contains the needle jet. The needle jet cannot be removed until the jet holder has been unscrewed and removed from the mixing chamber because it threads into the jet holder from the top. There is no necessity to remove the throttle stop or air adjusting screws.

3 Check the float needle for wear which will be evident in the form of a ridge worn close to the point. Renew the needle if there is any doubt about its condition, otherwise persistent carburettor flooding may occur.

4 The float itself is unlikely to give trouble unless it is punctured and admits petrol. This type of failure will be self-evident and will necessitate renewal of the float.

5 The pivot needle must be straight - check by rolling the needle on a sheet of plate glass.

6 It is important that the gasket between the float chamber and the mixing chamber is in good condition if a petrol tight joint is to be made. If it proves necessary to make a replacement gasket, it must follow the exact shape of the original. A portion of the gasket helps retain the float pivot in its correct location; if the pin rides free it may become displaced and allow the float to rise, causing continual flooding and difficulty in tracing the cause. Use Amal replacements whenever possible.

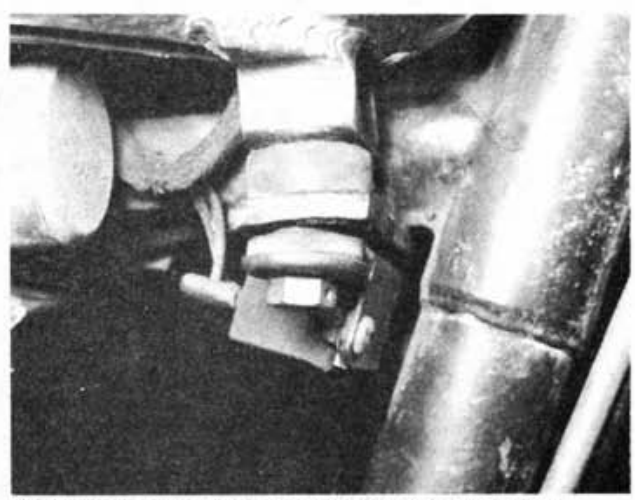
7 Remove the union at the base of the float chamber and check that the inner nylon filter is clean. All sealing washers must be in good condition.

8 Make sure that the float chamber is clean before replacing the float and float needle assembly. The float needle must engage correctly with the lip formed on the float pivot; it has a groove which must engage with the lip. Check that the sealing gasket is placed OVER the float pivot spindle and the spindle is positioned correctly in its seating.

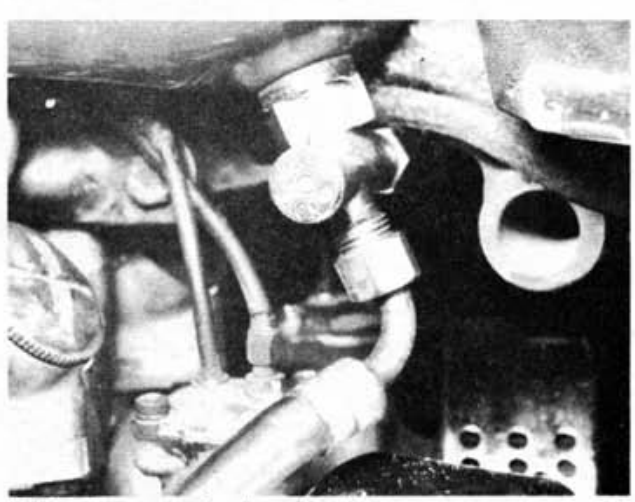
9 Check that the main jet and needle jet are clean and unobstructed before replacing them in the mixing chamber body. Never use wire or any pointed instrument to clear a blocked jet, otherwise there is risk of enlarging the orifice and changing the carburation. Compressed air provides the best means, using a tyre pump if necessary.

10 Before refitting the float chamber, check that the jet holder and main jet are tight. Do not invert the float chamber otherwise the inner components will be displaced as the retaining screws are fitted. Each screw should have a spring washer to obviate the risk of slackening.

2.1 Rear tank mounting must have insulating washers fitted correctly



2.4 Front tank mountings carry side reflectors on export models



3.1 Petrol taps are of cork push-pull type

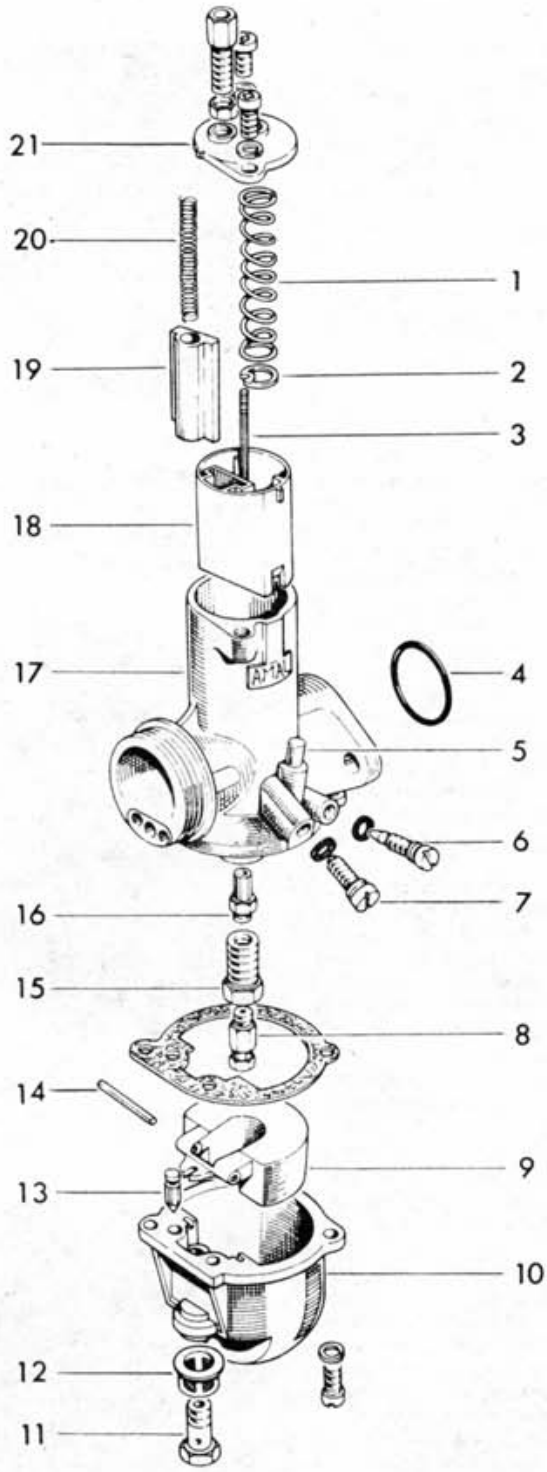


Fig. 4.1. Component parts of the Amal concentric carburettor

1 *Throttle return spring*
2 *Needle clip*
3 *Needle*
4 *"O" ring*
5 *Tickler*
6 *Pilot jet screw*
7 *Throttle stop screw*
8 *Main jet*
9 *Float*
10 *Float chamber*
11 *Banjo union bolt*
12 *Filter*
13 *Float needle*
14 *Float hinge*
15 *Jet holder*
16 *Needle jet*
17 *Mixing chamber body*
18 *Throttle valve (slide)*
19 *Air slide (choke)*
20 *Air slide return spring*
21 *Mixing chamber top*