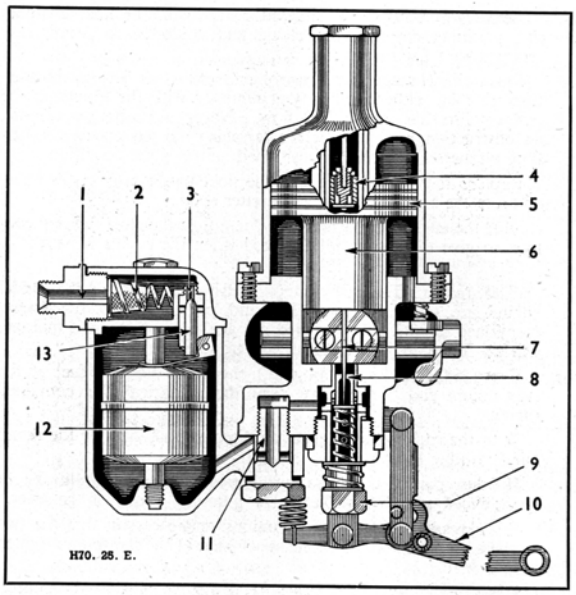
HINTS FROM AUSTIN'S MORRIS GARAGE

How about a little SU Carburetter philosophy this month? I ran across the illustration below in an old Austin A90 owner's manual and thought it was pretty good, albeit slightly different than our MGs. Have a look.



Sectional view of S.U. carburetter.

1. *Banjo union.*
2. *Strainer and spring.*
3. *Valve opening.*
4. *Hydraulic damper.*
5. *Suction disc.*
6. *Piston.*
7. *Needle.*
8. *Main jet.*
9. *Jet adjusting nut.*
10. *Choke lever.*
11. *Float chamber bolt.*
12. *Float.*
13. *Needle valve.*

Looking carefully at the illustration, one can see all working and nonworking parts, a view that cannot be seen, except in a drawing such as this.

When the ignition is on and the fuel pump works, fuel enters the float chamber lid (1), is filtered through (2) (and there should be a filter in every carb), and goes through the float valve or needle and seat (13), which is opened by the very weight of the float needle. As the fuel bowl fills, the float being sealed, rises. One can see then that the float needle is forced upward into an almost seated position (engine running) or fully seated (closed) if the engine is off with the fuel pump running.

From the float bowl, fuel enters the main carb body, being sucked in through the inlet valve by the vacuum created by the downward travel of the engine pistons during their intake stroke.

The suction chamber piston (6) rises to control the air flow (a vacuum is created above (5) through a hole in the piston), and the flow of fuel is governed by the familiar but specially calibrated, lettered or numbered needle as it rises and falls with the piston to which it is affixed.

In order that the carb piston doesn't rise too rapidly, the filled-with-oil reservoir (4), called the damper, slows it down to keep the flow of the entering mixture of air and fuel under control.

The varied amount of fuel-air mixture (now a thin vapor) then enters the engine through the throttle plate (seen below (6), depending on its position as the accelerator pedal is pressed.

We must now describe the sequence of piston movements in the four-cycle engine: Let's say that stroke #1 is the intake one. The piston is positioned at the top of its travel, even with the surface of the cylinder block. As the engine crankshaft turns, a piston joined to it through a connecting rod starts downward and sucks in the metered fuel-air mixture through the inlet valve with the vacuum its travel creates. Next, for stroke #2, the mixture is compressed as the piston wends its way back toward the top, because both inlet and exhaust valves are now closed. Again at the top, the ignition coil lets loose a spark through the distributor and the mixture is ignited. This action forces the piston downward once again for stroke #3. Now at the bottom, the piston repeats its upward movement as stroke #4. This time, with its exhaust valve open, the residue that remains from the ignition of the mixture is expelled. Each cylinder in turn repeats the same four cycles as many times as the tachometer indicates—up to some thousands per minute.

Basically, that's how the carburetter works. It delivers the fuel from the petrol tank to the engine, and that's how our MGs get down the road.

Further, the choke lever (10) allows more fuel than air to enter the engine when the iron monster is cold. Always pull the choke completely out when starting, and immediately the engine starts, adjust it in slowly so the running smoothes out. Regards to all, Jerry

Please address any questions, comments, or other correspondence to me at P.O. Box 395, Los Alamitos, CA 90720 or e-mail me at jdaustinmg@cyberhotline.com.

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