GLENN'S

MG · Morris Magnette

REPAIR AND TUNE-UP GUIDE

PERFORMANCE & MECHANICAL SPECIFICATIONS

MG: TD - TF - MGA 1500 - MGA 1600 - MGB - MG 1100 - MIDGET
MORRIS: MM - II - 1000 - Oxford 'X' - Mini-Minor MAGNETTE: Mk III & IIIC

PLUS COMPLETE ROAD & TRACK ROAD TESTS

Acknowledgments

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HAROLD T. GLENN

In many sections the reader will note step-by-step illustrated instructions. These picture series can be identified by a circled number in the lower right-hand corner of each illustration. The numbers agree with the numbered instructions in the text, and are so correlated that no legends are required.

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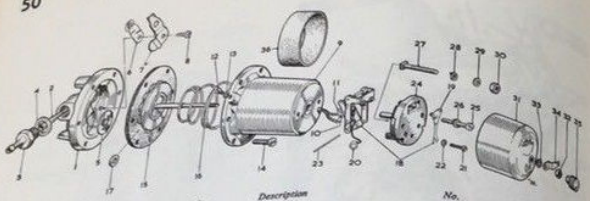


No.	Description
1.	Body.
2.	Filter.
3.	Nozzle inlet.
4.	Washer for nozzle.
5.	Valve—outlet.
6.	Valve—inlet.
7.	Retainer valve.
8.	Screw for retainer.
9.	Housing—coil.
10.	Tag—1 B.A. terminal.
11.	Tag—2 B.A. terminal.
12.	Screw—earth.
13.	Washer—spring.
14.	Screw—housing to body.
15.	Diaphragm assembly.
16.	Spring.
17.	Roller.
18.	Rocker and blade.
19.	Blade.
20.	Tag—2 B.A. terminal.
21.	Screw for blade.
22.	Washer—dished.
23.	Spindle for contact breaker.
24.	Pedestal.
25.	Screw—pedestal to housing.
26.	Washer—spring.
27.	Screw for terminal.
28.	Washer—spring.
29.	Washer—lead—for screw.
30.	Nut for screw.
31.	Cover—end.
32.	Nut for cover.
33.	Washer—shakeproof.
34.	Connector—Lucar.
35.	Knob—terminal.
36.	Sleeve—rubber.

Exploded view of the new SP electric fuel pump used on some 1963 models.

with the filter plug in the main body, and that all the rollers are still in their correct positions. *CAUTION: If a roller drops out of position, it will get trapped between the two ports and cut a hole in the diaphragm.* (5) Insert the six body screws. *CAUTION: The diaphragm must be stretched to its outermost position before tightening the screws.* To stretch the diaphragm, insert a matchstick behind one of the white fiber rollers on the outer rocker to hold the contact points together, after first repositioning the spring blade into its normal position. *NOTE: A special forked wedge is available to keep the armature in the correct position.* Now pass current through the pump to energize the magnet, which will pull the armature and the diaphragm forward. Tighten the body screws while in this position.

The following three points are repeated for emphasis: (1) The contact breaker blade must be out of contact while setting the diaphragm; (2) test the armature action by pressing firmly and steadily rather than jerking it while making the adjustment; and (3) make sure you stretch the diaphragm to its limit before tightening the body screws.

S. U. CARBURETORS

This commonly used carburetor is an air-valve type, simple in construction, and relatively trouble-free in operation. An air valve piston moves a tapered needle in or out of a metering jet to provide the correct mixture, depending on the amount of air entering the carburetor. The throttle plate position determines the air velocity, which in turn determines the position of the air valve piston—and also the metering needle. No choke is used, but some models have a solenoid-actuated valve which is opened during cold starts to let additional fuel enter the intake manifold.

OVERHAULING AN S. U. CARBURETOR

Disassembling

① Remove the cap nut and fuel line assembly. The float chamber cover (A) can now be lifted off and the float removed.

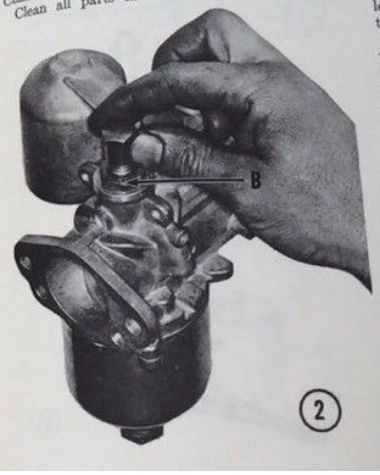
② Turn the carburetor over and remove the cap and the main jet assembly (B). There are a number of ways in which this main jet and its cover are assembled. In some cases, levers are

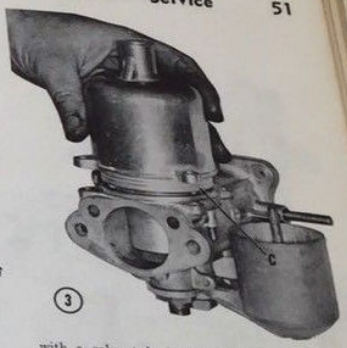
attached to provide a means for moving the jet to correspond to throttle opening and, in some cases, the main jet is attached to a diaphragm to provide a flexible means of making this adjustment.

③ Remove the three screws holding the suction chamber cover, lift off the cover, and remove the piston and spring assembly (C).

Cleaning and Inspecting

Clean all parts in carburetor cleaner. Follow





with a solvent bath and blow dry. Diaphragms and parts containing leather should be cleaned only in solvent—never in a carburetor cleaner. Blow compressed air through all passageways and jets to make sure that they are open.

Move the throttle shaft back and forth to check for wear. These carburetors are not sensitive to throttle shaft wear, but, if it is excessive, the shaft can be replaced. In some cases, cork packing glands are provided at each end. These can be replaced to minimize air leaks.

Shake the float to check for a leak. Replace the float if it has liquid in it. Check the float needle lever for a flat spot which indicates replacement to be necessary.

If the main jet was not centered, the jet needle will be worn on one side because of contact with the main jet. In such a case, replace both the needle and the jet. Check the specifications in this chapter for the correct needle, jet, and spring for the model on which you are working. Replace the suction piston spring if rust spots appear anywhere on it. This spring is color coded on the top coil.

Always replace the type of jet assembly which has a diaphragm secured to it, as the diaphragm always leaks if reused.

Assembling

④ Parts of the main jet are laid out in the order of assembly. The cork sealing ring is assembled over the seating gland nut (D), which holds the assembly in the carburetor. The jet bottom bearing (H) must be friction loaded by means of one or more brass shims (I), as shown in Step ⑤. The mixture adjusting screw (F) moves the jet (G) up or down within the jet top bearing (M).

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REPAIR AND TUNE-UP GUIDE

by Harold T. Glenn

This is a comprehensive repair and tune-up manual for MG products.

It is for the car owner interested in making his own repairs to save money, for the professional mechanic employed exclusively in servicing this company's products, and for the sportscar enthusiast who wants to squeeze that extra ounce of performance from his engine.

This Guide is organized around the familiar units of the automobile: the engine, fuel system, electrical system, and running gear. The first chapter deals with conventional troubleshooting, without specialized equipment, to enable you to isolate the trouble before beginning any disassembly. It will help you to pinpoint the trouble so that you will know what to look for as you disassemble the unit. Therefore, it will save time when making repairs.

This Guide contains comprehensive tables of specifications, wiring diagrams, and exploded views of most of the mechanical and electrical units used on MG.

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