

Marvel-Schebler/Tillotson

Division Borg-Warner Corporation, 2195 South Elwin Road, Decatur, Illinois 62525

SERVICE BULLETIN

#1-71

November 15, 1971

TO: All Registered Aircraft Manual Owners

MODEL: HA-6 Part Nos. A10-5045 and A10-5045-1;
Lycoming Part Nos. LW-10260 and LW-12175

SUBJECT: Improved Method of Securing the Cam Lever

COMPLIANCE TIME: Next Overhaul

An improved method of securing subject part during overhaul has been developed. This procedure will add service life to the carburetor, which is subject to considerable force and vibration.

SEE ILLUSTRATION ON REVERSE SIDE

Procedure to be used and added to present manual for all future overhauls:

Parts Required:

- 666-807 - Modification Kit (Available from your Marvel-Schebler/
Tillotson source of supply)

- M-520 (1) Tool
- 16-B56 (1) Cover Gasket
- 15-B120 (1) Screw - Cam Lever
- 71-37 (1) Groov-Pin
- 78-A122 (6) Cover Screw Tab Washer
- 78-A127 (1) Retaining Ring
- 78-A159 (2) Spacer Washer - (.010)
- 78-A160 (1) Spacer Washer - (.012)
- 78-A161 (1) Spacer Washer - (.015)
- 78-A110 (2) Washer - Throttle Body to Bowl Screws (used only
on No. A10-5045-1)

(continued)



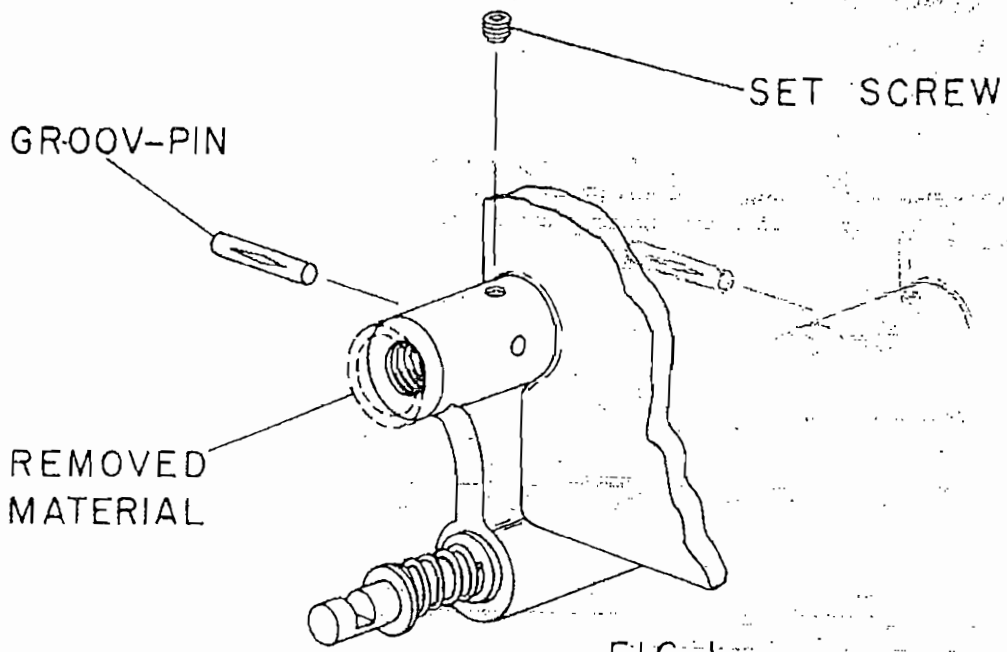


FIG. 1

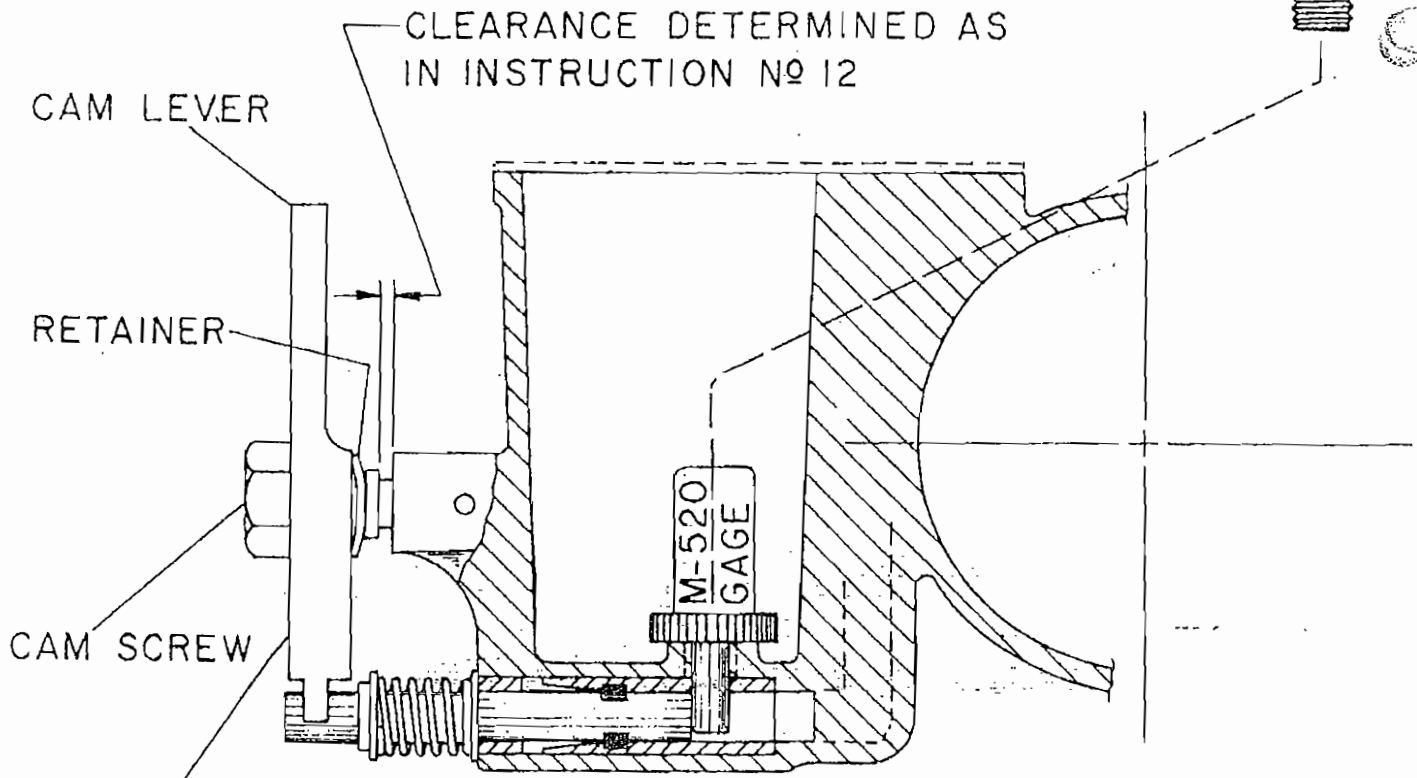


FIG. 2

PUT IN FULL RICH POSITION FOR SETTING

INSTRUCTIONS FOR HA-6 IDLE CUT-OFF REPAIR

- (1) Remove cover assembly by rapping steel fuel inlet fitting with plastic faced hammer. Discard cover gasket.
- (2) Remove power jet.
- (3) Remove #15-A260 set screw and #71-37 Groov-Pin and discard Groov-Pin. (See Fig. 1).
- (4) Remove #155-657 cam lever, retainer and screw assembly. (See Fig. 2).
- (5) Remove #78-A127 retainer ring from screw and discard.
- (6) Remove #15-B120 screw from cam lever and discard.
- (7) Clean cam screw hole and cam surface of cam lever.
- (8) Add L. P. S. Aerosol Spray lubricant or equivalent to journal of new cam screw, assemble in cam lever and lubricate cam surface.
- (9) Assemble new #78-A127 retainer ring on #15-B120 cam screw.

NOTE: Special care needs to be taken to be sure the retainer ring is properly assembled on screw and in groove, as illustrated.

- (10) Install #M-520 gage in place of power jet.
- (11) Remove casting material from boss for cam lever screw to bottom face of counterbore.

NOTE: Precaution must be taken when removing the casting material so that the squareness of the counterbore face is not disturbed. (See Fig. 1).

- (12) Assemble #155-657 cam lever assembly in carburetor by turning the cam screw until the cut-off valve contacts the M-520 gage with the cam lever in full rich position (See Fig. 2).
- (13) Measure clearance between cam screw and cam screw boss with feeler gage.

NOTE: Measure clearance at top and bottom of screw and if there is a difference, determine the average dimension.

- (14) Remove the #155-657 cam lever, screw and retainer assembly and #M-520 gage.
- (15) Assemble spacer washer(s) on cam screw equal in thickness to the average measured clearance.
- NOTE: If exact thickness of spacer washers is not possible, use slightly less thickness. DO NOT INCREASE thickness of spacer washers over measured clearance.
- (16) Assemble #155-657 cam lever screw and retainer assembly with spacer washers into carburetor and tighten the #15-B120 screw to 60-70 inch pounds.
- (17) The cut-off can be checked by moving the cam lever from full rich to cut-off position while looking in the threaded area for the power jet. The bushing orifice should be completely closed off by the mixture control valve.
- (18) Assemble #15-A260 set screw with CV Loctite applied to set screw.
- (19) Assemble power jet, gasket and cover assembly as stated in HA-6 Overhaul Manual.
- (20) Center punch and drill cam screw using previous drilling in boss for location using .089/.093 diameter drill.
- NOTE: Drill must run true in drill press and carburetor must be held firmly during drilling to prevent the original drilling in boss from becoming oversize.
- (21) Install new #71-37 Groov-Pin with CV Loctite applied to Groov-Pin.
- NOTE: Support boss while driving Groov-Pin.
- (22) NOTE: COMPLIANCE RECORD. Bolt #15-B120 IN THIS KIT will have a CM stamped on the head face.
- (23) The cut-off valve "O"-Ring requires periodic lubrication. Use L. P. S. Aerosol Spray lubricant or equivalent on this valve.
- (24) It is suggested that approximately every 25 flying hours that the L. P. S. Aerosol Spray lubricant or equivalent be applied to the cam surface and cut-off valve.