

## FOR CARTER MODEL WA-1, WE CARBURETORS

Some variations occur in shapes of parts and castings between the various carburetors in this group, although all units are basically alike. (See reverse side for index numbers.)

### I. DISASSEMBLY.

a. Using the exploded view on reverse side as a guide, disassemble the carburetor far enough to permit thorough cleaning and inspection of parts. Index numbers on the exploded drawing are in logical order of disassembly.

b. Notice the holes from which the linkage rods are removed so they can be returned to the same locations during reassembly.

### II. CLEANING.

#### NOTE

Do not soak leather, rubber or other parts of this nature in the cleaning solvent.

Soak parts long enough to soften and remove all foreign material. Use 1) a regular carburetor cleaning solvent; 2) lacquer thinner; or 3) denatured alcohol. Use a small brush to aid cleaning, if necessary. Make certain the throttle body is free of all hard carbon deposits. Blow out all passages in castings with compressed air, and check carefully to insure thorough cleaning of obscure areas.

### III. REASSEMBLY.

Reassemble the carburetor using essentially the reverse order of disassembly.

### IV. FLOAT SETTING ADJUSTMENT. (See figure 1.)

With bowl cover held upside down and level, measure from upper edge of float seam to the projection on bowl cover casting rib as shown at "A". Refer to the table and use the gage specified. Adjust by bending float lip.

### V. FLOAT DROP ADJUSTMENT.

The float should drop  $1/2 \pm 1/16$  inch when bowl cover is held upright. Adjust by bending the limiting arms on float lever.

### VI. PUMP ADJUSTMENT. (See figure 2.)

With throttle stop screw backed out and the throttle valve seated in carburetor bore, measure from the top edge of the pump link to the surface of bowl cover as shown at "B". When throttle valve is opened wide, the plunger should move down the distance shown in table. Adjust by bending the pump connector rod at the lower angle.

### VII. METERING ROD ADJUSTMENT. (See figures 3 and 4.)

Metering rods are operated manually on some carburetors (figure 3) and by vacuum on others (figure 4).

a. Manual Type. (See figure 3.) With throttle stop screw backed out and throttle valve seated in bore, insert metering rod gage supplied in the metering rod location so that tapered end of gage fits into the jet. The top of gage should just touch lower edge of metering rod pin on pump arm. Adjust by bending pump arm at location shown. Make sure the arm is not forced out of alignment. Remove gage and install metering rod.

b. Vacuum Operated Type. (See figure 4.) Seat throttle valve in bore and install metering rod gage supplied as described in step a, above. Press down on piston link until metering rod pin touches end of gage and adjust by bending the lip as shown. Remove gage and install metering rod.

### VIII. ANTI-PERCOLATOR ADJUSTMENT. (See figure 5.)

Crack throttle valve and insert a .030-inch wire gage between throttle valve and carburetor bore, on side opposite the idle adjusting screw. With gage in position, a clearance of .005 to .015 inch should exist at "C". Adjust by bending anti-percolator cap lever.

### IX. FAST IDLE ADJUSTMENT. (See figures 6 and 7.)

a. Model WA-1. (See figure 6.) With fast idle cam in normal position, rotate screw "G" until it touches the cam. Hold throttle closed and pull back on cam until end of screw "G" rests against (not on) the first (high) step on cam at "E". The distance at "D" should be as specified in table. Adjust by bending link at "F". Be sure to keep ends of link parallel after bending.

b. Model WE. (See figure 7.) Remove coil housing, gasket and baffle plate. Open throttle valve, hold choke closed, then close throttle. This will allow fast idle cam to move to fast idle position. With choke valve closed and slight finger pressure on throttle lever, clearance between throttle valve and bore should be as listed in table. To adjust, shorten or lengthen choke connector rod (screw type), or bend solid connector rod (if used) at lower angle.

### X. UNLOADER ADJUSTMENT. (See figures 7 and 8.)

a. Model WA-1. (See figure 8.) Open throttle valve wide and measure the distance at "J" which should be as listed in table. To adjust, bend arm "K" up or down as required.

b. Model WE. (See figure 7.) Open throttle valve wide and close choke as far as possible without forcing it. The distance between lower edge of choke valve and air horn wall should be as listed in table. To adjust bend lever at "H".

### XI. IDLE ADJUSTMENT. (See figure 9.)

Adjust stop screw (1) to crack valve slightly. Start engine. Adjust mixture screw (2) until engine idles smoothly. Readjust stop screw (1) to idle engine at approximately 400 rpm; then re-adjust mixture screw (2).

#### PRINCIPAL CARBURETOR ADJUSTMENTS

|                    | Float Gage | Pump Adj. | Fast Idle | Unloader |
|--------------------|------------|-----------|-----------|----------|
| 1941-50 Olds.      | B          | 16/64"    | 5/8"      | 7/16"    |
| 1946-52 Pontiac    | C          | 17/64"    | 5/8"      | 5/16"    |
| 1946-47 Studebaker | J          | 17/64"    | .054"     | 3/16"    |
| 1948 Studebaker    | D          | 17/64"    | .054"     | 3/16"    |
| 1949-52 Studebaker | D          | 14/64"    | .046"     | 3/16"    |
| 1953-58 Studebaker | D          | 14/64"    | .046"     | 3/16"    |

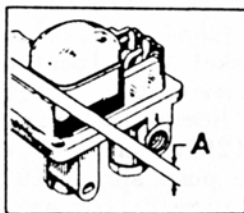


Figure 1

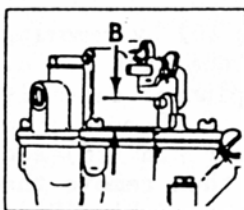


Figure 2

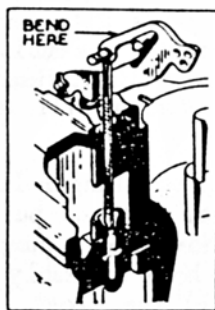


Figure 3

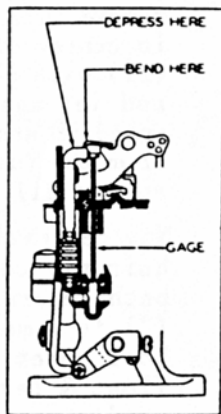


Figure 4

Figure 5

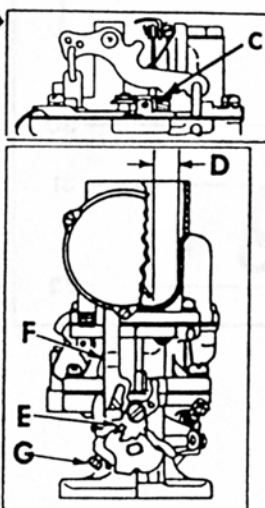


Figure 6

Figure 8

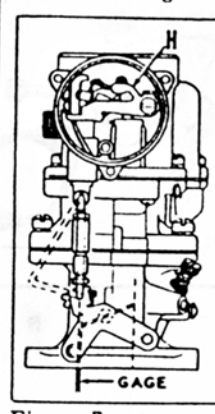


Figure 7

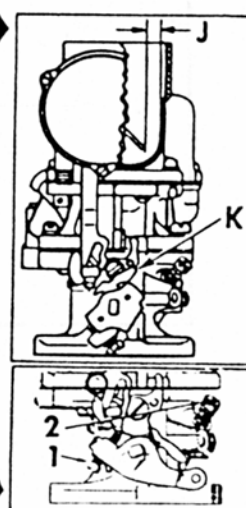


Figure 9

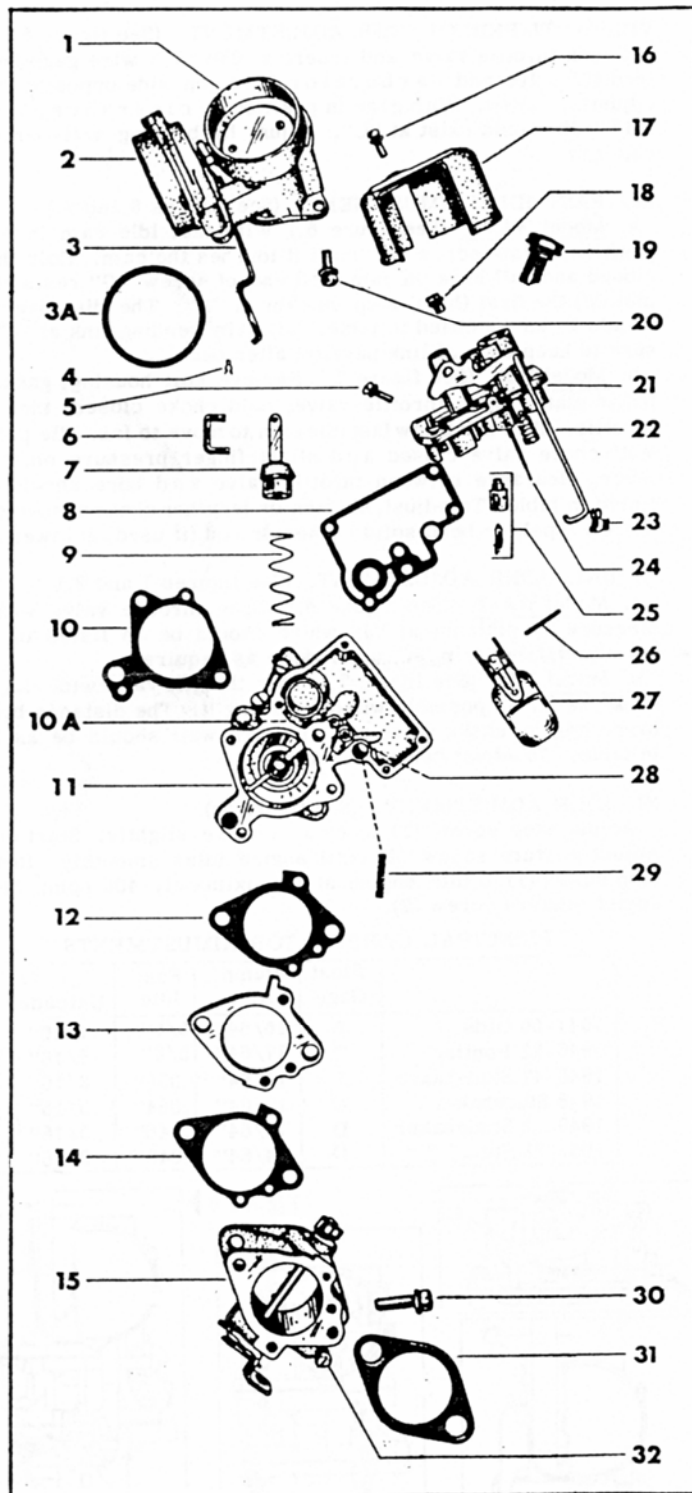
# SERVICE INSTRUCTIONS FOR CARTER WA-1 CARBURETORS AS USED ON

OLDSMOBILE 6: 1940 To 1952

PONTIAC 6: 1946 To 1951

## SYMBOL

## DESCRIPTION



1. Air Horn Assembly
2. Climatic Control Housing
3. Choke Lever & Link Ass'y
- 3A. Gasket, Climatic Control
4. Pin Spring
5. Screw, Bowl Cover
6. Pump Connector Link
7. Plunger & Rod Ass'y.
8. Bowl Gasket
9. Pump Spring
10. Air Horn Gasket
- 10A. Low Speed Jet Ass'y.
11. Main Body Ass'y.
12. Body Flange Gasket, Upper
13. Insulator
14. Body Flange Gasket, Lower
15. Body Flange Ass'y.
16. Screw, Dust Cover Attaching
17. Dust Cover
18. Idle Passage Plug & Gasket Ass'y.
19. Strainer, Nut & Gasket Ass'y.
20. Screw, Air Horn
21. Bowl Cover Ass'y.
22. Throttle Connector Rod
23. Retainer, Connector Rod
24. Metering Rod
25. Needle & Seat Ass'y.
26. Float Lever Pin
27. Float & Lever Ass'y.
28. Metering Rod Jet
29. Vacuum Piston Spring
30. Screw, Body Flange
31. Gasket, Flange
32. Idle Adjustment Screw & Spring

## Instructions For Repair

Remove carburetor and air cleaner from motor. Remove fast idle cam and pin assembly so as to allow choke lever screw and link assembly (3) to be removed from its position on throttle body flange assembly (15). Remove hair pin cotter (4). Remove dust cover screw (16); then remove dust cover (17). Remove air horn assembly (1) (with climatic choke control (2) and choke lever (3) attached) by removing air horn attaching screws and washers (20). Lift off air horn gasket (10). Disconnect throttle connector rod (22) from the lever on throttle body flange (15) by removing throttle connector rod clip (23). Remove bowl cover screws and washers (5); also remove idle passage plug and gasket (18) located in center of bowl cover. Now remove bowl cover (21) with all parts attached. Remove metering rod jet and gasket assembly (28). Remove low speed jet assembly (10A). Remove pump spring (9) from the pump plunger cylinder in main body assembly (11).

Now remove the pump plunger link (6) by removing hair pin cotter (4) and pull the link out of both levers. Now remove pump plunger assembly (7) from main body assembly (11). Remove from bowl cover (21) the float lever pin (26) and float & lever assembly (27); then remove the needle valve, seat and gasket assembly (25). Remove strainer, nut and gasket assembly (19). Remove vacuum piston spring (29) from its open-