

PACKARD

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"WGD" Carburetor

Model 728S

A new carburetor, known as the "WGD" carburetor, model 728S, now is being installed on 23rd Series Eights and Deluxe Eights.

In general, this new carburetor is serviced in practically the same manner as is the "WDO" unit previously used; however, a number of adjustments differ and these adjustments are described.

To disassemble the carburetor for cleaning and adjusting, first remove the metering rod dust cover and gasket as shown in figure 1.

Disconnect the metering rods from the vacuum link by using a scratch awl or a pointed instrument and pushing outward on the eye of the rod and then extract the rod. See figure 2.

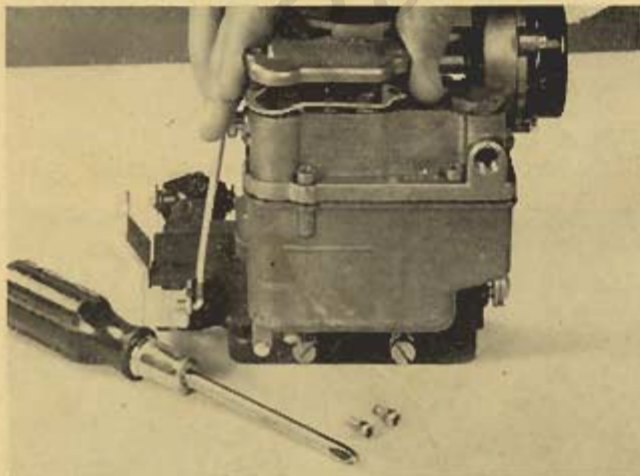
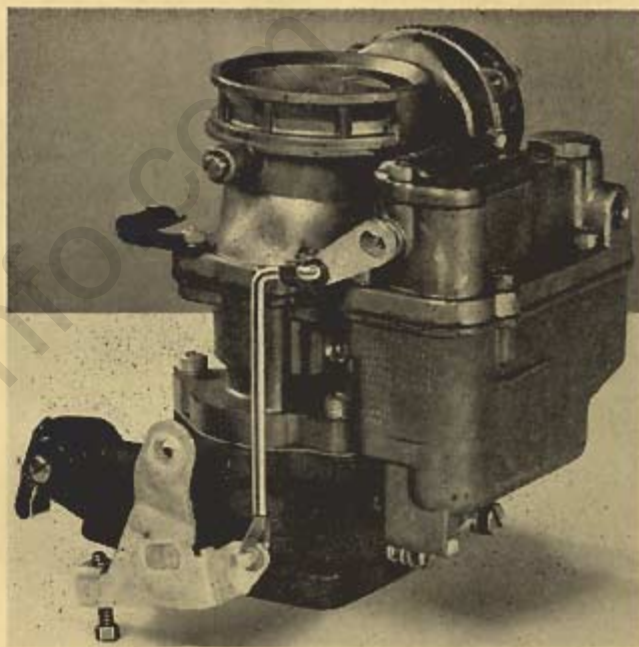


Fig. 1

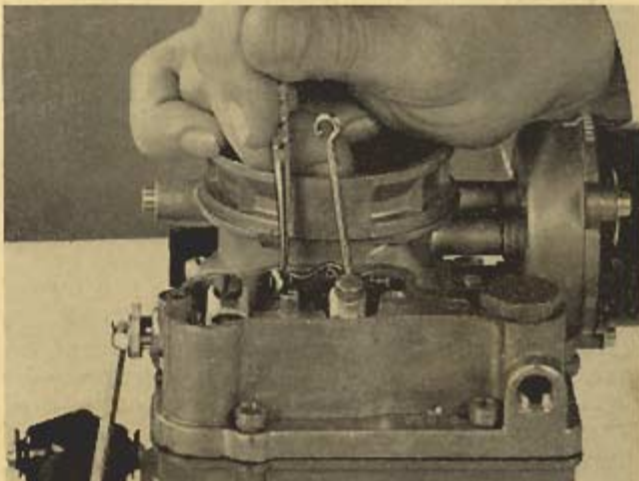


Fig. 2

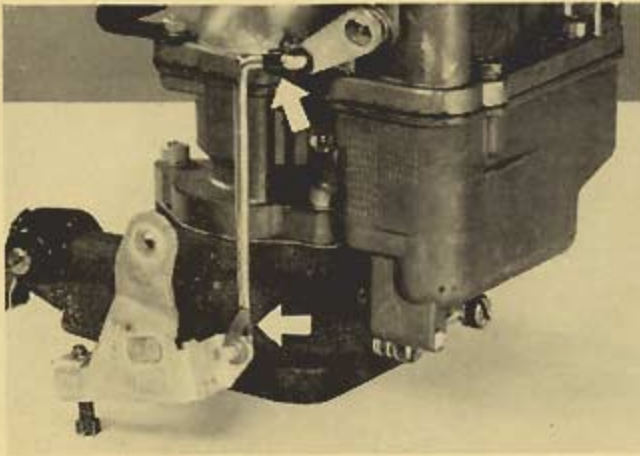


Fig. 3

Unsnap the two clips indicated in figure 3 and remove the throttle connector rod.

Unsnap the clip indicated in figure 4 and remove the choke connector rod.

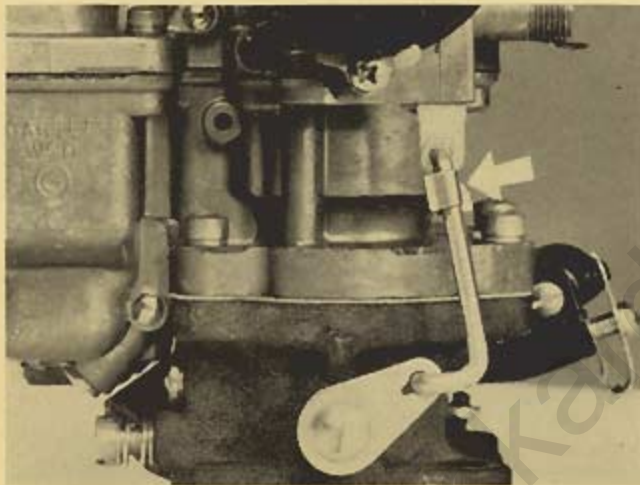


Fig. 4

Remove the eight fuel bowl cover retaining screws and separate the cover assembly from the fuel bowl assembly by lifting upward on the air horn.

Remove the pump jet and housing assembly, clean out the jets with compressed air, and reinstall using a new gasket.

NOTE

The fuel nozzles and the anti-percolating well plugs (the plugs at each side of the pump jet housing) are permanently installed and no attempt should be made to remove them.

Normally, further disassembly is unnecessary; however, if the float or the accelerating pump assemblies require replacement, the minor operations involved are quite obvious.

When assembling the carburetor, the float level first should be checked and, if necessary, set to $\frac{13}{64}$ inch using the float level gauge T109-39 as shown in figure 5. The gauge should be placed under the float at its lowest point. If adjustment is necessary, bend the small lip in the V-shaped section of the float arm near its pivot point. Do not bend the arm.

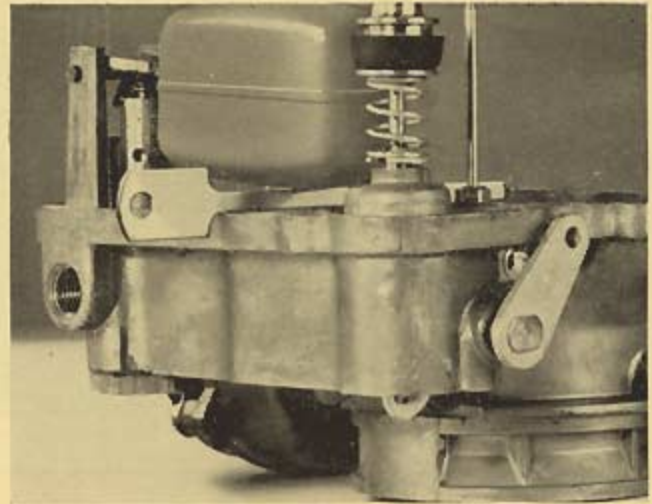


Fig. 5

The vacuometer piston should be attached to the piston link as shown in figure 6. When the piston and link are pushed toward the cover, the high shoulder on the piston should contact the boss on the bottom of the cover. Place a new large air horn or bowl cover gasket on the base of the cover before installing the piston.

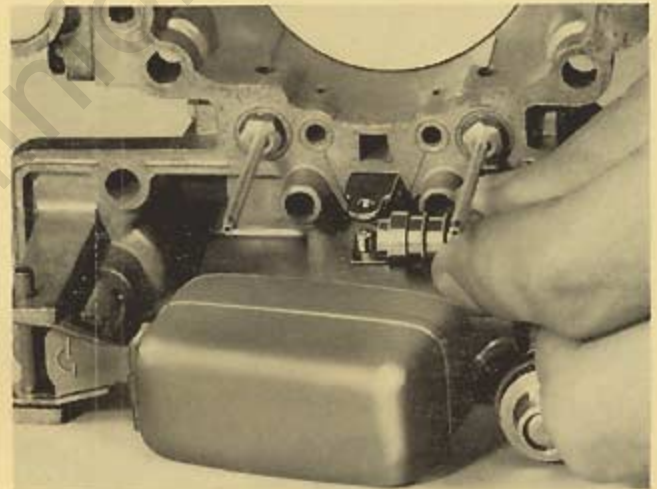


Fig. 6

Place the vacuometer piston spring in its cylinder in the fuel bowl. See figure 7. The accelerating pump

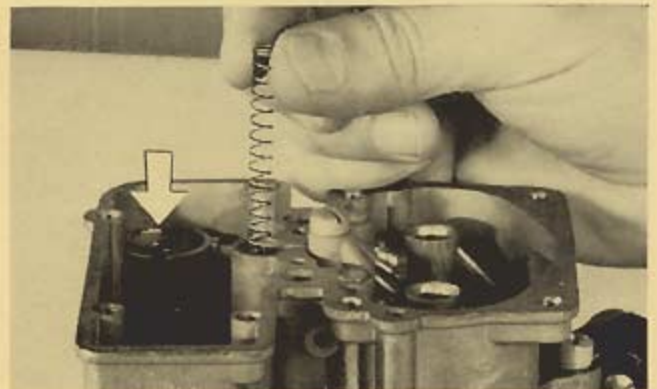
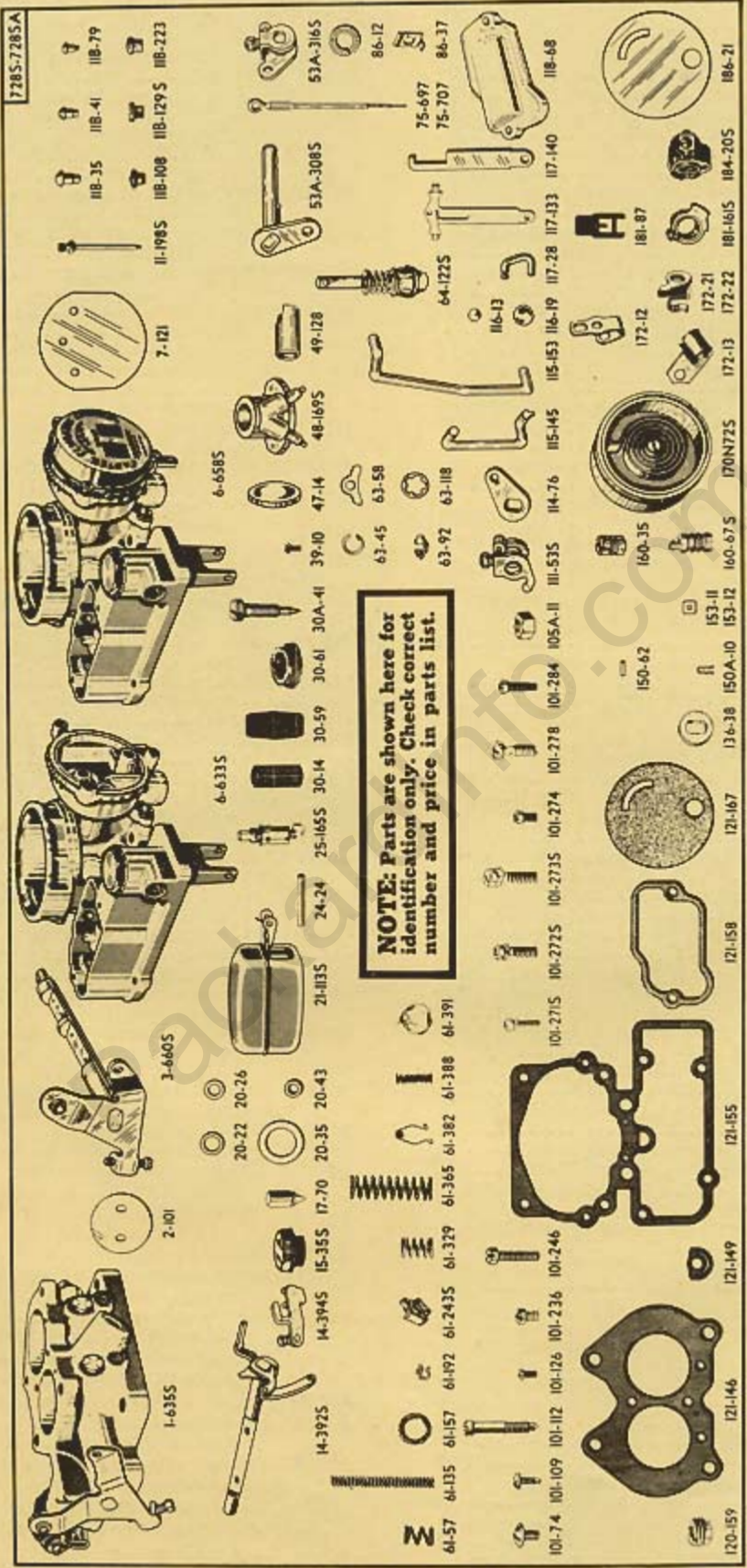


Fig. 7

Parts List

	No. Req'd.		No. Req'd.
410750 Motor carburetor body flange assembly (1-635S).....	1	410781 Motor carburetor metering rod—two sizes lean (75-710).....	2
393804 Motor carburetor throttle valve (2-101).....	2	393902 Motor carburetor flange stud lockwasher (86-12).....	4
410751 Motor carburetor throttle shaft and lever assembly (3-660S).....	1	393904 Motor carburetor terminal lockwasher (86-37)	2
410752 Motor carburetor air horn and piston housing assembly (6-633S).....	1	393912 Motor carburetor throttle shaft arm attaching screw (101-74).....	1
410753 Motor carburetor air horn assembly (6-658S).....	1	393916 Motor carburetor switch terminal screw (101-109).....	2
410754 Motor carburetor choke valve (7-121).....	1	393917 Motor carburetor terminal cap attaching screw (101-112).....	1
410755 Motor carburetor low speed jet assembly (11-198S).....	2	393920 Motor carburetor throttle valve attaching screw (101-126).....	4
410756 Motor carburetor rivet plug (11B-35).....	2	410783 Motor carburetor metering rod arm clamp screw (101-236).....	2
393822 Motor carburetor rivet plug (11B-41).....	2	410784 Motor carburetor dust cover throttle lever adjustment screw (101-246).....	1
393824 Motor carburetor rivet plug (11B-79).....	3	410785 Motor carburetor attaching screw and washer assembly (101-271S).....	2
393825 Motor carburetor idle port rivet plug (11B-108).....	2	410786 Motor carburetor air horn attaching screw and washer assembly (101-272S).....	8
410757 Motor carburetor plug and gasket assembly (11B-129S).....	1	410787 Motor carburetor body flange attaching screw and washer assembly (101-273S).....	4
410758 Motor carburetor nozzle rivet plug (11B-223)	2	410788 Motor carburetor coil housing attaching screw (101-274).....	3
410759 Motor carburetor choke piston lever, link and shaft assembly (14-392S).....	1	410789 Motor carburetor pump jet housing attaching screw (101-278).....	1
410760 Motor carburetor choke trip lever and pin assembly (14-394S).....	1	410790 Motor carburetor piston housing attaching screw (101-284).....	3
393840 Motor carburetor strainer nut and gasket assembly (15-35S).....	1	393929 Motor carburetor flange stud nut (105A-11)...	4
410761 Motor carburetor pump check needle (17-70)...	1	410791 Motor carburetor metering rod arm and screw assembly (111-53S).....	1
393842 Motor carburetor needle seat gasket (20-22)...	1	410792 Motor carburetor throttle shaft arm (114-76)...	1
393843 Motor carburetor gasket (20-26).....	1	410793 Motor carburetor choke connector rod (115-145).....	1
393844 Motor carburetor bowl strainer gasket (20-35)	1	410794 Motor carburetor throttle connector rod (115-153).....	1
98964 Motor carburetor piston housing gasket (20-43).....	1	393936 Motor carburetor pump intake check ball (116-13).....	1
410762 Motor carburetor float and lever assembly (21-113S).....	1	393937 Motor carburetor switch ball (116-19).....	1
393851 Motor carburetor float lever pin (24-24).....	1	98997 Motor carburetor pump arm link (117-28)....	1
410763 Motor carburetor needle and seat assembly (25-165S).....	1	410795 Motor carburetor vacuum piston link (117-133).....	1
393854 Motor carburetor bowl cover strainer (30-14)	1	410796 Motor carburetor fast idle link (117-140).....	1
410764 Motor carburetor strainer (30-59).....	1	410797 Motor carburetor dust cover (118-68).....	1
410682 Motor carburetor switch strainer (30-61).....	1	410798 Motor carburetor metering rod jet (120-159)	2
393859 Motor carburetor idle adjustment screw (30A-41).....	2	410799 Motor carburetor body flange gasket (121-146).....	1
393860 Motor carburetor choke valve attaching screw (39-10).....	2	410800 Motor carburetor pump jet gasket (121-149)...	1
410765 Motor carburetor choke cylinder welch plug (47-14).....	1	410801 Motor carburetor air horn gasket (121-155)...	1
410766 Motor carburetor pump jet and housing assembly (48-169S).....	1	410802 Motor carburetor dust cover gasket (121-158)	1
393862 Motor carburetor switch plunger (49-128)....	1	410803 Motor carburetor coil housing gasket (121-167).....	1
410767 Motor carburetor pump operating lever and countershaft assembly (53A-308S).....	1	393957 Motor carburetor throttle shaft washer (136-38).....	1
410768 Motor carburetor pump arm and screw assembly (53A-316S).....	1	393961 Motor carburetor choke piston pin (150-62)...	1
393870 Motor carburetor idle adjustment screw lock spring (61-57).....	2	393964 Motor carburetor pin spring (150A-10).....	1
410789 Motor carburetor vacuum piston spring (61-135).....	1	393966 Motor carburetor switch contact spring shim—.018 (153-11).....	3
410770 Motor carburetor plunger spring (61-157)....	1	393967 Motor carburetor switch contact shim—.006" (153-12).....	2
410771 Motor carburetor needle pull clip (61-192)....	1	393968 Motor carburetor choke piston (160-35)....	1
410087 Motor carburetor switch contact spring and washer assembly (61-243S).....	1	393970 Motor carburetor vacuum piston and pin assembly (160-67S).....	1
410772 Motor carburetor pump spring (upper) (61-329).....	1	410804 Motor carburetor thermostatic coil and housing assembly (170N-72S).....	1
410773 Motor carburetor pump spring (lower) (61-365).....	1	393973 Motor carburetor terminal cap hold down clamp (172-12).....	1
410774 Motor carburetor metering rod spring (61-382).....	1	410805 Motor carburetor cable clip (172-13).....	1
410684 Motor carburetor switch return spring (61-388).....	1	410806 Motor carburetor throttle connector rod retainer (172-21).....	1
410775 Motor carburetor fast idle cam spring (61-391)	1	410683 Motor carburetor throttle and choke connector rod retainer (172-22).....	2
393889 Motor carburetor pump check ball retainer ring (63-45).....	1	393976 Motor carburetor switch guide block (181-87)	1
410776 Motor carburetor coil housing retainer (63-58).....	3	410807 Motor carburetor fast idle cam assembly (181-161S).....	1
410777 Motor carburetor pump spring retainer (63-92).....	1	393980 Motor carburetor terminal cap assembly (184-20S).....	1
410088 Motor carburetor throttle shaft retaining ring (63-118).....	1	410808 Motor carburetor baffle plate (186-21).....	1
410778 Motor carburetor plunger, rod, spring and retainer assembly (64-122S).....	1	410817 Carburetor gasket set (#196).....	1
410779 Motor carburetor metering rod—standard (75-679).....	2	410819 Carburetor repair kit (#1524).....	1
410780 Motor carburetor metering rod—one size lean (75-709).....	2		



7785-7285A

CARBURETOR
NEG. F150A

NOTE: Parts are shown here for identification only. Check correct number and price in parts list.

- 1-6355
- 1-3925
- 14-3945
- 14-3925
- 61-135
- 61-157
- 61-109
- 101-74
- 101-109
- 101-112
- 101-126
- 101-236
- 101-246
- 101-271S
- 101-272S
- 101-273S
- 101-274
- 101-278
- 101-284
- 105A-11
- 111-535
- 114-76
- 115-145
- 115-153
- 116-19
- 117-28
- 117-433
- 117-140
- 118-68
- 120-159
- 121-146
- 121-149
- 121-158
- 121-167
- 136-38
- 150A-10
- 153-12
- 160-67S
- 160-35
- 170N725
- 172-12
- 172-13
- 172-21
- 172-22
- 181-67
- 181-161S
- 184-205
- 186-21
- 2-101
- 3-660S
- 21-113S
- 24-24
- 25-165S
- 30-14
- 30-59
- 30-61
- 30A-41
- 39-10
- 47-14
- 48-169S
- 49-128
- 6-658S
- 6-633S
- 63-45
- 63-58
- 63-92
- 63-118
- 53A-316S
- 86-12
- 75-697
- 75-707
- 86-37
- 7-121
- 11B-35
- 11B-41
- 11B-79
- 11-198S
- 11B-108
- 11B-129S
- 11B-223

"WGD" CARBURETOR

lower spring, indicated by the arrow, usually remains in the bowl when the cover assembly is removed; however, do not overlook installing the spring if it was removed during disassembly.

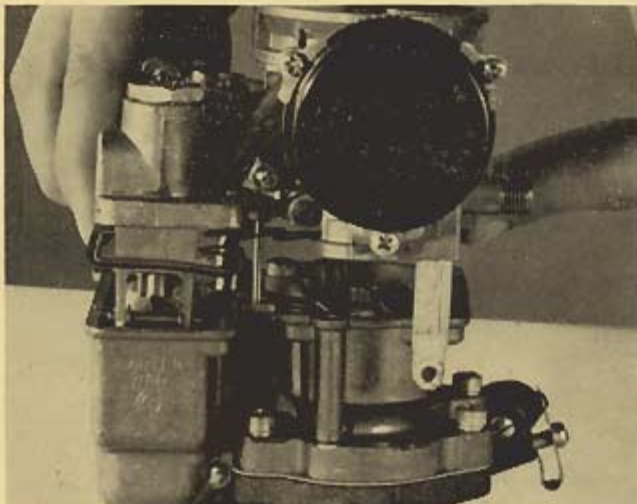


Fig. 8

Install the gasket and the cover assembly as shown in figure 8 and then install the eight retaining screws. When tightening the screws, the four screws indicated in figure 9 should be tightened first. Tightening these screws first and working outward will minimize casting distortion. Attach the throttle and the choke connector rods.

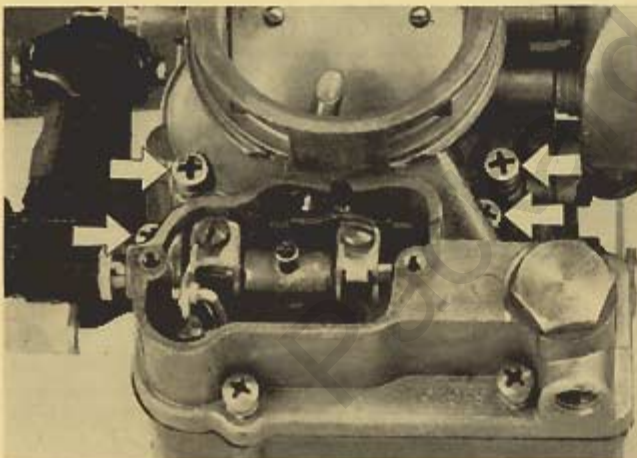


Fig. 9

Install the metering rods reversing the removal procedure. Do not overlook having the ends of the metering rod spring hooked around the shank of the rods before inserting them.

PUMP ADJUSTMENT

This adjustment must be made before the metering rods are adjusted. Back out the throttle lever adjustment screw (A, figure 10) two full turns so that the throttle valves seat in the bores of the body flange. Block the choke valve wide open using a paper wedge. Place the Universal pump travel gauge T109-117S on the edge of the dust cover flange of the bowl cover as shown in figure 11. Turn the knurled nut of the gauge until the finger at the end of the gauge extension just touches the top of the plunger shaft.

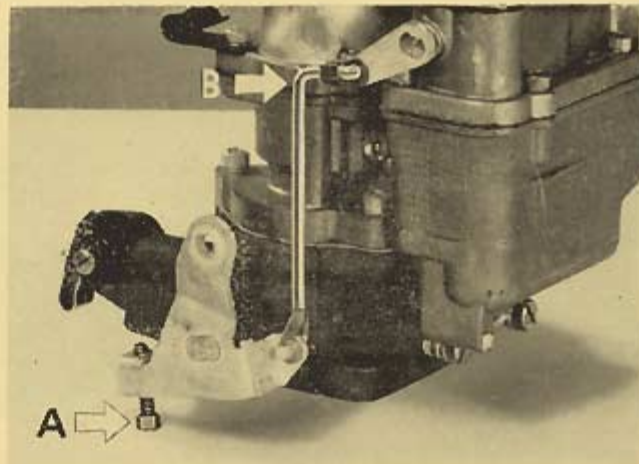


Fig. 10

The number indicated on the gauge should be "42," which represents a distance of $\frac{15}{32}$ inch from the top of the plunger shaft to the top of the flange. Adjust by bending the throttle connector rod at the upper angle (B, figure 10) using the bending tool T109-41.

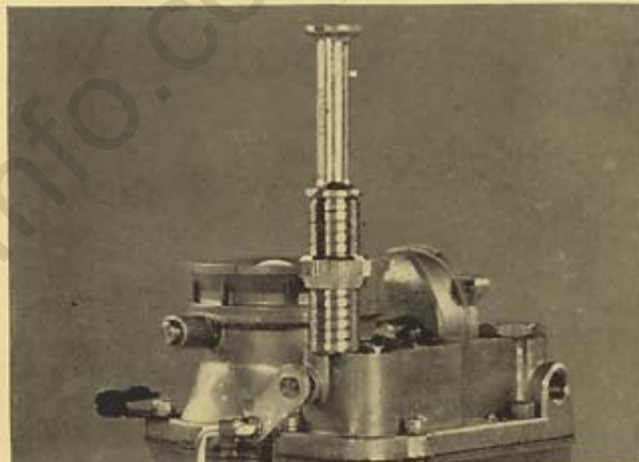


Fig. 11

METERING ROD ADJUSTMENT

The metering rods must be adjusted after the pump adjustment or when leaner than standard rods are installed. First, loosen the clamp screw indicated in figure 12. With the throttle lever adjustment screw backed out and the throttle valves seated in the bores of the body flange, press down on the vacuumeter link with a scale or small screw driver until the metering rods bottom. While holding the rods in this posi-



Fig. 12

tion, revolve the clamp forward away from the air horn and tighten the clamp screw. See figure 13. To check for proper rod adjustment, hold the vacuum meter link and rods at their bottomed position and open the throttle. There should be no lost motion before the link and rods move upward when the throttle lever is moved from its closed position. Install the dust cover using a new gasket.

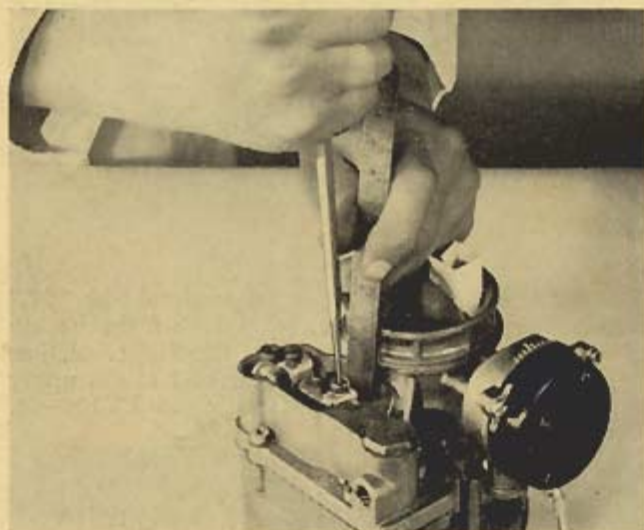


Fig. 13

FAST IDLE ADJUSTMENT

This adjustment must be made before the unloader adjustment. Remove the thermostatic coil and housing, gasket, and baffle plate. Crack the throttle valve, then close the choke valve. While holding the choke valve closed, close the throttle. Invert the carburetor and, using gauge T109-189 (.026"), check the clearance between the throttle valve and the bore on the side opposite the idle adjustment screws. If adjustment is necessary, bend the choke connector rod at the lower angle. See figure 14.



Fig. 14

UNLOADER ADJUSTMENT

The unloader adjustment must be made after the fast idle adjustment. Hold the throttle valve wide open with a rubber band. Close the choke valve as far as possible without forcing, and hold it in this position. There should be $\frac{1}{8}$ inch clearance, measured with gauge T109-36, between the top edge of

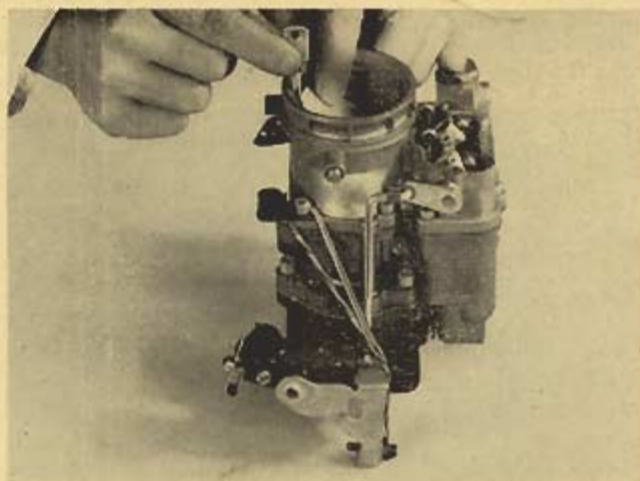


Fig. 15

the choke valve and the inner wall of the air horn. See figure 15. If adjustment is necessary, bend the choke trip lever arm, indicated in figure 16, upward to decrease the clearance and downward to increase the clearance. Use tool T109-187 to bend the arm.

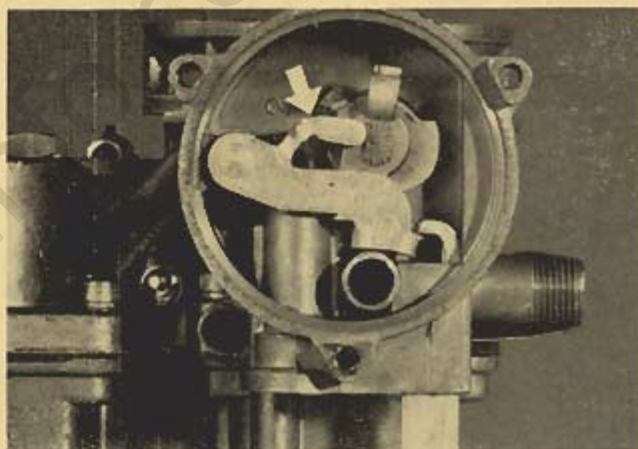


Fig. 16

When reinstalling the thermostatic coil and housing, the baffle plate should be installed ahead of the gasket as shown in figure 17.

The coil housing should be set one point lean before the retaining screws are finally tightened.

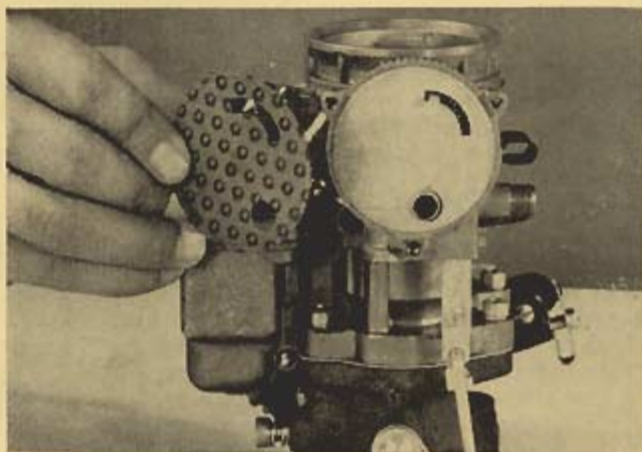


Fig. 17