

HOLLEY MODEL 2280 2-BARREL

CARBURETOR APPLICATION

CHRYSLER CORP.

Application	Chrysler Corp. Carb. No.	
	Man. Trans.	Auto. Trans.
5.2L (318")		
Federal	R-9151-A	R-9135-A, R-9136-A

CARBURETOR IDENTIFICATION

Carburetor part number is stamped on main body flange in front of lever controlled by throttle position transducer under choke vacuum diaphragm.

DESCRIPTION

The Holley model 2280 2-bbl. carburetor uses 4 basic fuel metering systems; basic idle system, accelerator pump system, main metering and power enrichment systems. The idle system provides mixture at idle and low speed engine operation. The accelerator pump system provides an additional predetermined amount of fuel for acceleration. The main metering provides an economical mixture for normal cruising. And the power enrichment system provides a richer mixture when high power output is required (full throttle operation).

ADJUSTMENTS

HOT (SLOW) IDLE RPM

See appropriate article in TUNE-UP SERVICE PROCEDURES.

IDLE MIXTURE

See appropriate article in TUNE-UP SERVICE PROCEDURES.

COLD (FAST) IDLE RPM

See appropriate article in TUNE-UP SERVICE PROCEDURES.

FLOAT LEVEL

1) Install float and hinge pin in main body. Install hinge pin retainer. Install float needle valve, seat and gasket in main body. Tighten securely. See Fig. 1.

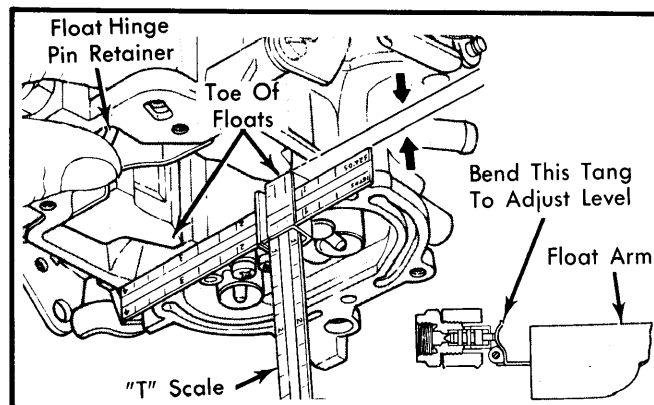


Fig. 1 Adjusting Float Level

2) Invert main body. Catch accelerator pump intake check ball if previously installed. Hold retainer in place with finger to fully seat float pin in cradle.

3) Using a "T" scale, measure float level specified clearance from air horn gasket surface on main body to toe of each float. To adjust, bend float tang. If necessary, bend either float arm to equalize float positions.

ACCELERATOR PUMP STROKE

1) Remove bowl vent cover plate and gasket.

2) With all pump links and levers installed, adjust the accelerator pump cap nut for zero clearance.

3) Check that wide open throttle can be reached without binding. Install gasket and bowl vent cover plate.

NOTE — If accelerator pump adjustment is changed, then mechanical power valve must be readjusted also.

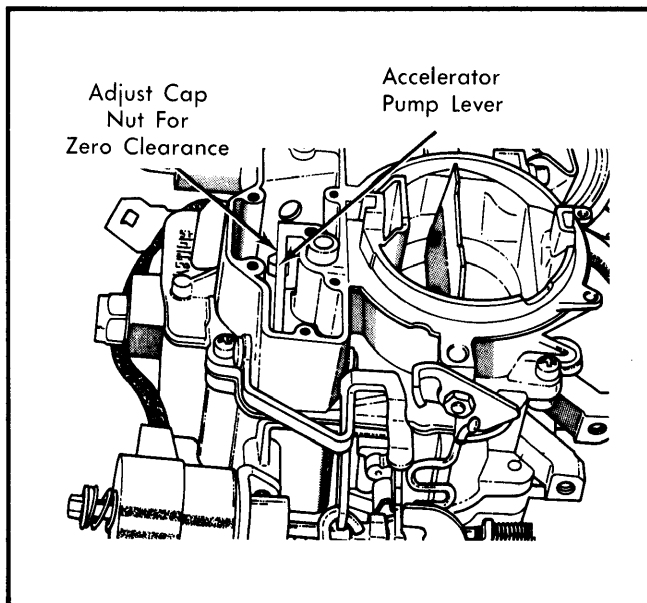


Fig. 2 Adjusting Accelerator Pump Stroke

CHOKE UNLOADER

1) Hold throttle valves in wide open position. Close choke valve by applying light closing pressure on choke control lever. See Fig. 3.

2) Measure choke unloader specified clearance between upper edge of choke valve and air horn wall. To adjust, bend choke unloader tang on accelerator pump lever.

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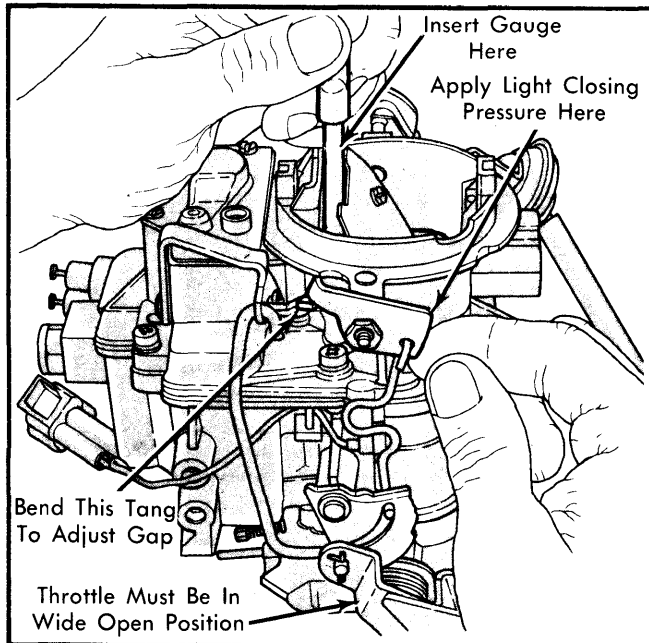


Fig. 3 Adjusting Choke Unloader

CHOKE VACUUM KICK

1) Open throttle and close choke. Now close throttle to trap fast idle cam in closed choke position. See Fig. 4.

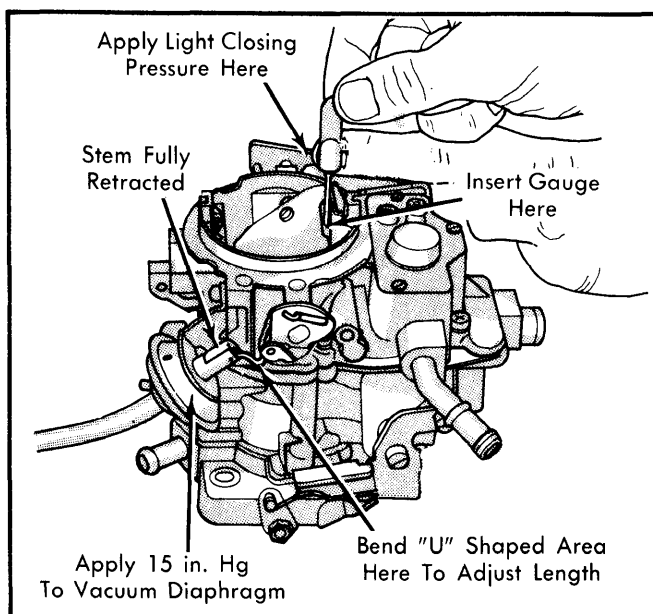


Fig. 4 Adjusting Choke Vacuum Kick

2) Connect an outside vacuum source to choke vacuum diaphragm. Apply a minimum of 15 in. Hg of vacuum. Apply enough closing force on choke valve with finger to compress spring in diaphragm without distorting linkage.

NOTE — Diaphragm stem reaches a stop as spring is compressed.

3) Measure choke vacuum kick specified clearance between upper edge of choke valve and air horn wall. Clearance can be measured using a specified drill or pin gauge.

4) To adjust, bend vacuum diaphragm rod at existing "U" bend to obtain specified clearance. Check all linkage for freedom of movement. Install vacuum hose on diaphragm.

FAST IDLE CAM POSITION

1) Position fast idle speed screw on second highest step of fast idle cam. Close choke valve by applying light pressure with finger on choke shaft lever. See Fig. 5.

2) Measure fast idle cam specified clearance between upper edge of choke valve and air horn wall. Clearance can be measured using a specified drill or pin gauge.

3) To adjust, bend fast idle cam connector rod at existing bend as shown in illustration.

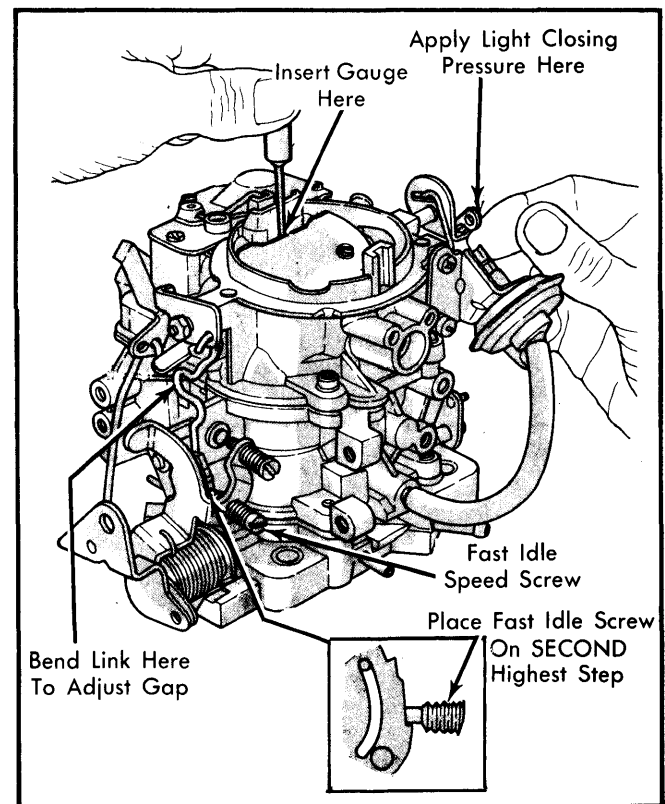


Fig. 5 Adjusting Fast Idle Cam Position

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MECHANICAL POWER VALVE

1) Remove bowl vent valve cover and hold throttle lever in wide open position. See Fig. 6.

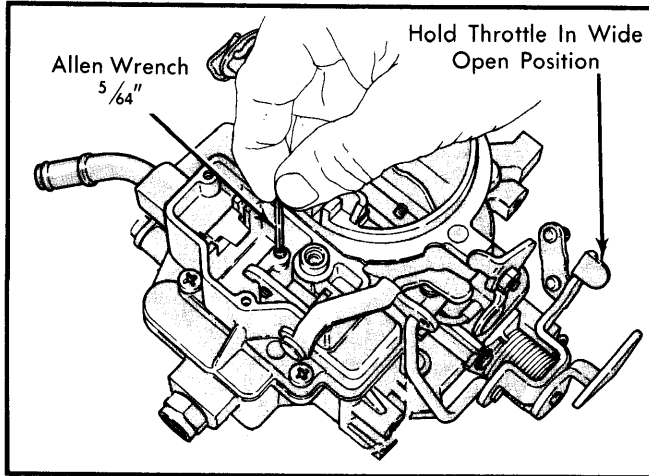


Fig. 6 Adjusting Mechanical Power Valve

2) Insert a $\frac{5}{64}$ " Allen wrench in mechanical power valve adjustment screw. Push down on screw, then release to determine if there is any clearance. If so, turn screw clockwise until there is no clearance.

3) To make final adjustment, turn screw counterclockwise 1 full turn from zero clearance. Install bowl vent valve cover plate and gasket.

NOTE — If accelerator pump adjustment is changed, mechanical power valve adjustment must be reset also.

OVERHAUL

DISASSEMBLY

1) Position carburetor on a suitable holding fixture. Remove air cleaner bolt and retainer. Remove accelerator pump link arm.

2) Remove bowl vent cover plate and bowl vent solenoid assembly. Remove choke vacuum diaphragm, linkage, and bracket. Remove electronic throttle control.

3) Remove nut and washer securing fast idle cam lever to choke valve shaft. Disconnect fast idle cam rod from lever and fast idle cam.

4) Remove 6 air horn screws. Lift air horn straight up from main body. Remove air horn gasket. Remove bowl vent valve

seal. Disconnect spring and lift valve lever, spring and pin out of air horn.

5) Remove link connecting accelerator pump plunger to operating lever. Remove accelerator pump plunger.

6) Gently pry up vacuum piston retaining ring tangs. Remove vacuum power valve piston. Remove clip securing accelerator pump operating shaft and remove shaft. Remove pump arm and internal pump lever.

7) Gently pry off mechanical power valve push rod plastic cap and remove clip. Remove mechanical power valve push rod and spring assembly.

8) Remove fuel inlet fitting and gasket. Remove float hinge pin retainer, hinge pin, float baffle and float assembly. Remove main metering jets.

9) Using special tool (C-4231) remove vacuum power valve and mechanical power valve. Make sure blade of tool is squarely seated in slots of valves to avoid damage.

NOTE — Do not get 2 power valve assemblies mixed up. Mechanical power valve needle is about .050" longer than vacuum power valve needle. Mechanical power valve is located on choke side of carburetor. Do not mix up valve seats. Assemblies must be reinstalled in original locations.

10) Remove venturi cluster screws. Lift cluster and gasket away from main body. Do not remove idle well tubes. Turn main body upside down and catch accelerator pump weight and check ball.

11) Remove 4 throttle body screws. Separate throttle body from main body and discard gasket.

12) Remove clip securing fast idle cam and slide cam off stub shaft. Carefully remove idle limiter caps from idle mixture screws. Remove mixture screws and springs from throttle body.

CLEANING & INSPECTION

- Do not soak choke diaphragm or plastic parts in solvent.
- Rinse all metal parts with HOT water after using solvent. Blow dry with compressed air.
- Do not use wire, drill or any hard parts to clean passages and orifices in carburetor.
- Be sure gasket holes match up and all parts are clean and ready for installation.

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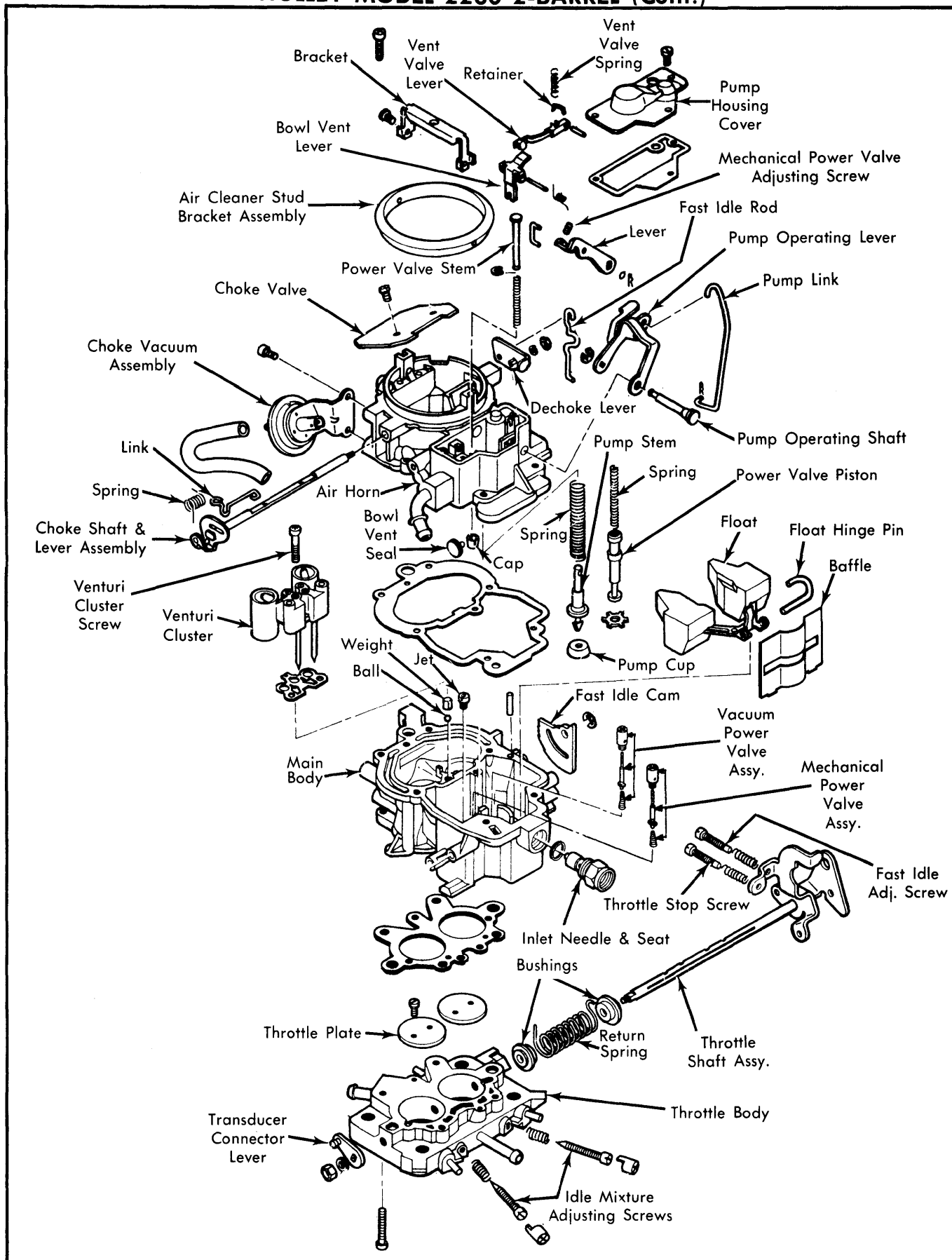


Fig. 7 Exploded View of Holley Model 2280 2-Barrel Carburetor

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REASSEMBLY

Throttle Body — Install idle mixture screws and springs. Gently seat both mixture screws by hand. Now back out 1 full turn as a preliminary idle mixture adjustment.

Main Body — 1) Install fast idle cam on shaft with steps facing fast idle speed screw. Install retaining clip.

2) Turn main body upside down. Place throttle body gasket in position. Position throttle body on main body. Install 4 attaching screws and tighten to 30 INCH lbs.

3) Install accelerator pump discharge check ball and weight. Fill fuel bowl with clean fuel and check ball and seat operation.

4) Hold ball and weight down with a brass rod. Place accelerator pump plunger in well and operate by hand. If no resistance is felt, check ball is leaking.

5) Remove weight and leave check ball in place. Use a small drift punch and lightly tap ball against seat to form a new seal. Remove old check ball and discard. Install a new ball and weight.

6) Perform fuel leak test again. If there is still no resistance felt main body must be replaced. If resistance is felt, check ball is seating correctly.

7) Install new venturi cluster gaskets. Install venturi cluster in position in main body. Install screws and tighten securely.

8) Install main metering jets. Use tool outlined during disassembly and install mechanical and vacuum power valves. Take care not to damage power valve needles. Make sure valves are installed in original positions as noted during disassembly.

9) Install hinge pin in float. Insert hinge pin through slot in float baffle. Tabs in baffle should point down. Place assembly in cradle in main body. Install hinge pin retainer.

10) Install fuel inlet fitting with new gasket. Adjust float level at this time.

Air Horn — 1) Install vacuum power piston spring and piston. Install retaining ring over piston and carefully seat in place. Check piston operation for binding or sticking. If piston binds or sticks, install new piston.

2) Install mechanical power valve push rod spring, rod and retaining clip. Install plastic cap on push rod.

3) Install accelerator pump assembly through air horn and install cap nut.

4) Install new air horn gasket. Carefully lower air horn into position on main body. Care must be taken not to damage accelerator pump plunger.

5) Install air horn screws. Starting from center and working out, tighten screws to 25 INCH lbs.

6) With pump override spring retainer contacting air horn boss, adjust cap nut for a clearance of .310" between housing surface and cap nut. Install accelerator pump lever and operating shaft.

7) Connect plain end of fast idle cam connector rod to slot in fast idle cam from inside of cam. Engage other end of link in choke lever.

8) Open choke valve wide open. Align flats and slide choke lever onto choke shaft. Install lockwasher and tighten nut.

9) Connect choke vacuum break diaphragm rod to slot in choke lever. Install diaphragm assembly and tighten screws. Install electronic throttle control.

10) Install bowl vent assembly, and using a new gasket, fit bowl vent cover plate to air horn.

11) Install accelerator pump lever using a new cotter pin. Install air cleaner bolt and retainer, and install carburetor on vehicle.

CARBURETOR ADJUSTMENT SPECIFICATIONS

Application	Float Level Setting	Accel. Pump Setting	Choke Unloader Setting	Choke Vac. Kick Setting	Fast Idle Cam Setting
R-9135-A	9/32"	Flush⊙	.310"	.130"	.070"
R-9136-A	9/32"	Flush⊙	.310"	.110"	.070"
R-9151-A	9/32"	Flush⊙	.310"	.110"	.070"

⊙ — Flush with top of bowl vent casting.