HOLLEY MODEL 1945 SINGLE BARREL

CARBURETOR APPLICATION

CHRYSLER CORP.

Application	Holley Carb. No. Man. Trans.	Auto. Trans.
3.7L (225")		
Federal	R-9152-A	R-9131-A
Calif.	R-9153-A	R-9132-A

DESCRIPTION

Holley 1945 is single venturi of concentric downdraft design. Internally, fuel bowl completely surrounds venturi. Carburetor consists of three main parts: bowl cover, main body, and throttle body. Carburetor includes four basic metering systems: idle and transfer, main metering system, accelerating system and power enrichment system. Other systems include fuel inlet and electric assist choke systems.

CARBURETOR IDENTIFICATION

Carburetor is identified by a part number stamped into main body, or by tag attached to carburetor top.

ADJUSTMENTS

HOT (SLOW) IDLE RPM

See *appropriate article in TUNE-UP SERVICE PROCEDURES.*

COLD (FAST) IDLE RPM

See *appropriate article in TUNE-UP SERVICE PROCEDURES.*

IDLE MIXTURE

See *appropriate article in TUNE-UP SERVICE PROCEDURES.*

FLOAT LEVEL

1) With air horn removed, turn main body upside down with gasket installed. Using a straightedge, check that ends of floats, away from the fuel inlet, just contact the straightedge. See *Fig. 1.*

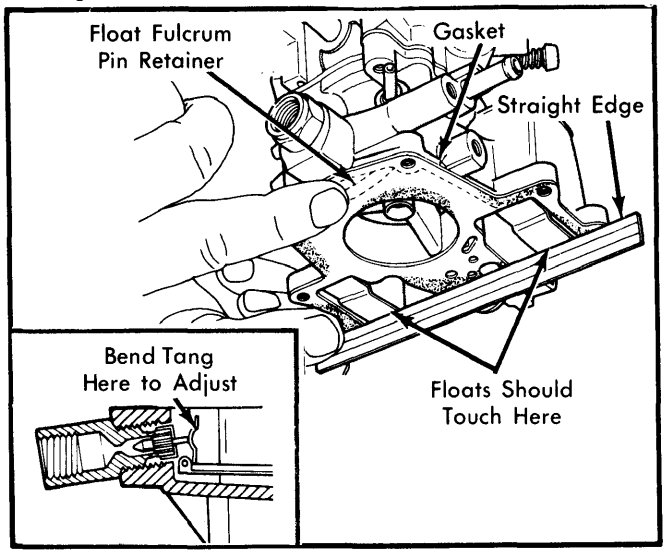

Fig. 1 Adjusting Float Level

2) To adjust, bend float tang on float arm that contacts fuel inlet needle.

ACCELERATOR PUMP STROKE

1) Place throttle lever in curb idle position. Make sure accelerator pump rod link is installed in correct hole in throttle lever. See *Fig. 2.*

2) Measure accelerator pump stroke specified distance between center of rod in throttle lever and center of rod in accelerator pump arm.

3) To adjust, bend the accelerator pump rod at the point shown in *Fig. 2.*

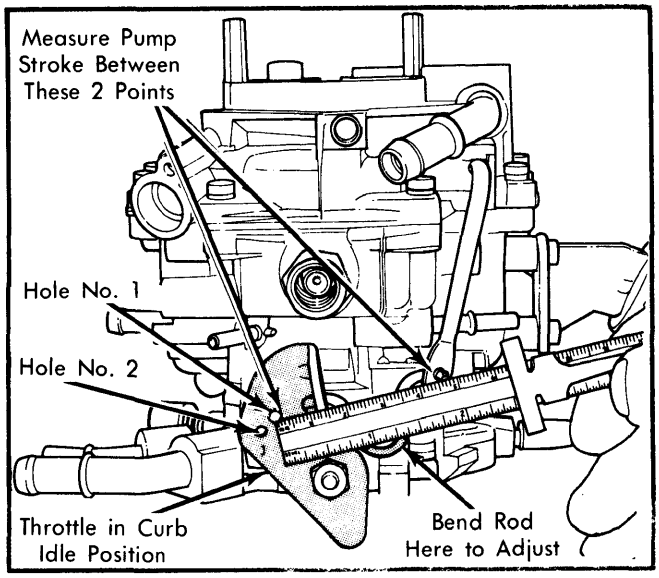

Fig. 2 Adjusting Accelerator Pump Stroke

FAST IDLE CAM POSITION

1) Position fast idle speed screw on second step of fast idle cam. Apply light finger pressure on choke shaft lever to close choke valve. See *Fig. 3.*

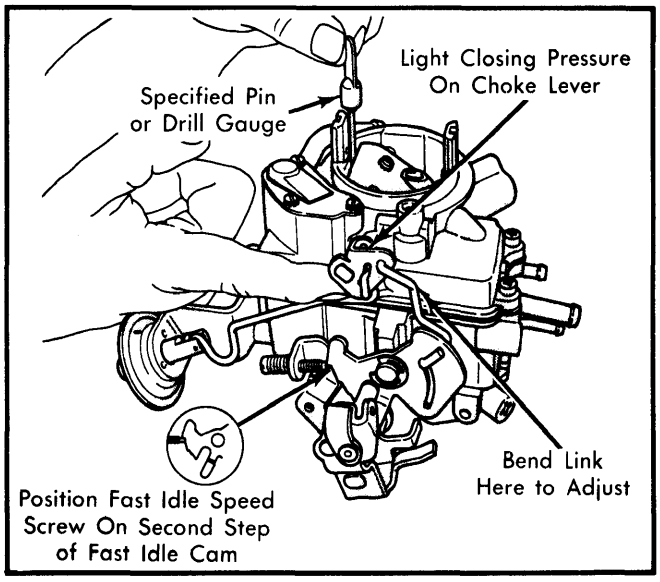

Fig. 3 Adjusting Fast Idle Cam Position

HOLLEY MODEL 1945 SINGLE BARREL (Cont.)

2) Measure fast idle cam specified clearance between top of choke valve and air horn wall at throttle lever side. Measure clearance using a suitable drill or pin gauge of specified clearance.

3) To adjust, bend fast idle cam connector rod at point shown.

CHOKE UNLOADER

1) Hold throttle valves in wide open position. Apply light finger pressure on the choke shaft lever to close choke valve. See *Fig. 4*.

2) Measure choke unloader specified clearance between top edge of choke valve and air horn wall at throttle lever side. Clearance can be checked using a specified drill or pin gauge.

3) To adjust, bend choke unloader tang on throttle lever until specified clearance is obtained.

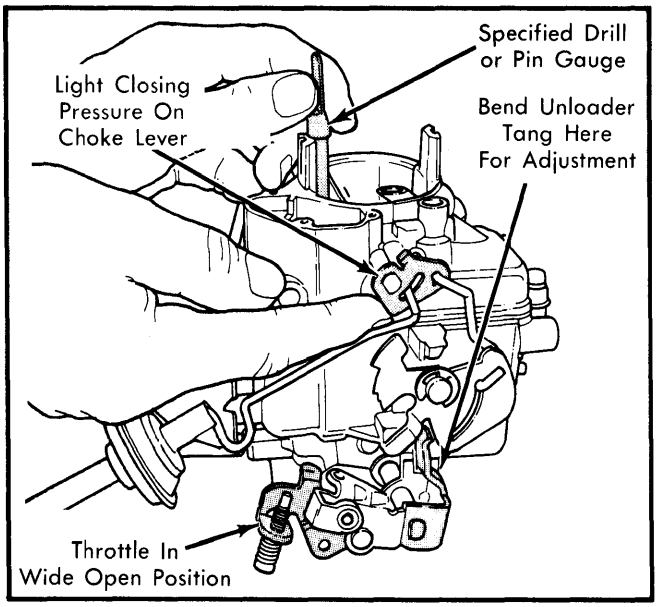

Fig. 4 Adjusting Choke Unloader

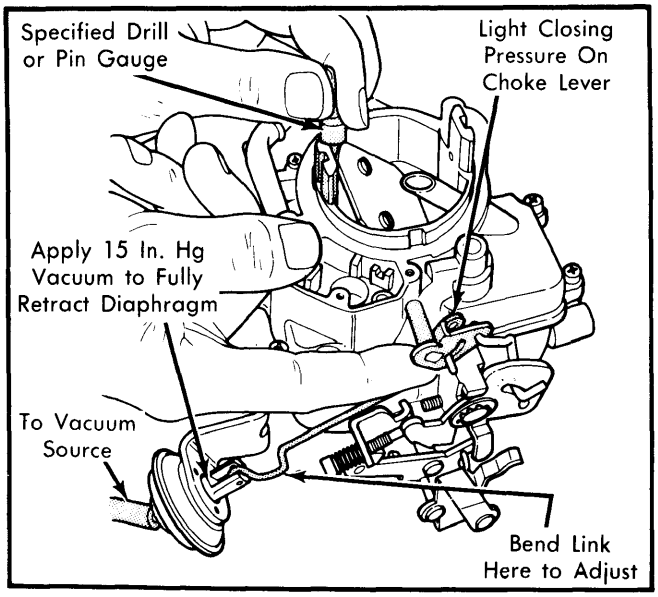

Fig. 5 Adjusting Choke Vacuum Kick

CHOKE VACUUM KICK

1) Open throttle and close choke. Now close throttle to trap fast idle cam in closed choke position. See *Fig. 5*.

2) Connect an outside vacuum source to choke vacuum diaphragm. Apply a minimum of 15 in. Hg. Apply light finger pressure on choke shaft lever 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.

OVERHAUL

DISASSEMBLY

1) Place carburetor in a suitable holding device for disassembly. Remove cover over bowl vent solenoid and solenoid idle stop (SIS).

2) Remove fast idle cam retaining clip, fast idle cam and connector rod. Remove rod from fast idle cam.

3) Remove choke vacuum diaphragm bracket screws. Disconnect diaphragm rod from slot in choke lever. Remove diaphragm and rod.

4) Remove throttle lever and link, noting hole position of lever. Remove air horn screws. Remove air horn from main body by lifting straight up until vacuum piston, accelerator pump and main well tube clears main body.

5) Remove air horn gasket. Remove accelerator pump rod retainer screw and retainer. Remove accelerator pump retainer screw and remove accelerator pump.

6) Remove accelerator pump operating rod and grommet from air horn. Remove 3 screws and remove power valve diaphragm assembly.

NOTE – *Do not attempt to remove main well tube from air horn.*

7) Remove fuel inlet fitting from main body. Remove float pin retainer, float pin and float assembly. Turn main body upside down and catch accelerator pump discharge check ball and weight.

8) Remove main jet using a screwdriver with a blade at least $\frac{3}{8}$" wide.

9) Depress power valve with a $\frac{3}{8}$" wide screwdriver until screwdriver blade fits into slot in top of valve and remove valve, needle seat, and spring.

10) Remove 3 throttle body springs and separate throttle body from main body. Remove idle speed screw from throttle body. Remove idle limiter cap from mixture screw. Remove mixture screw and spring.

HOLLEY MODEL 1945 SINGLE BARREL (Cont.)

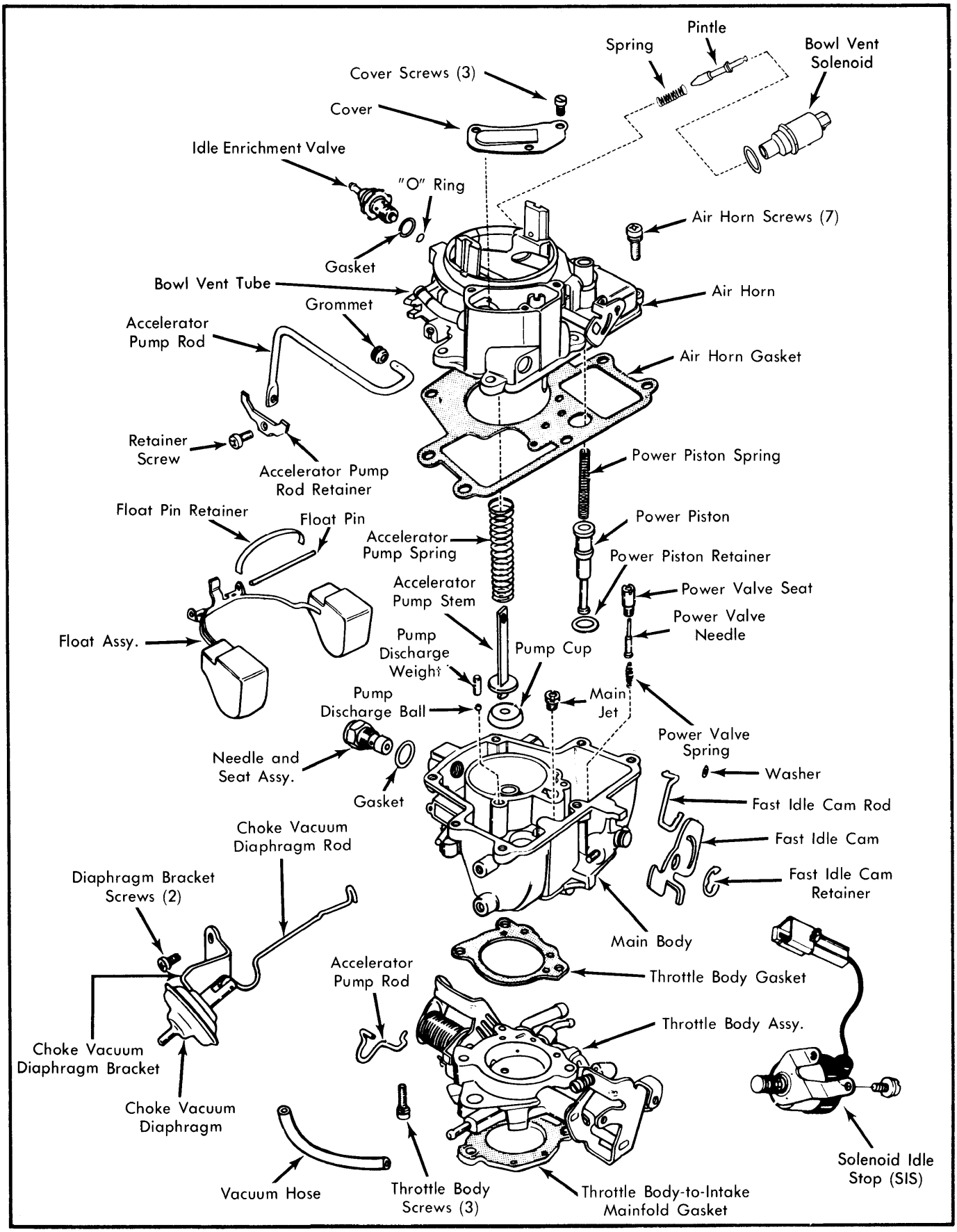

Fig. 6 Exploded View of Holley Model 1945 Single Barrel Carburetor

HOLLEY MODEL 1945 SINGLE BARREL (Cont.)

CLEANING & INSPECTION

- Use a regular carburetor cleaning solution. Soak components long enough to thoroughly clean all surfaces and passages of foreign matter.
- Do not soak any components containing rubber, leather or plastic.
- Remove any residue after cleaning by rinsing components in a suitable solvent.
- Blow out all passages with dry compressed air.

REASSEMBLY

NOTE — *Use new gaskets and seals. Make sure that new gaskets fit correctly and that all holes and slots are punched through and correctly aligned.*

1) Install idle mixture screw and spring in throttle body. Ensure tapered portion is straight and smooth.

2) Install a new throttle body gasket on main body. Place throttle body in position and tighten 3 retaining screws to 30 INCH lbs.

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

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

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

7) Install accelerator pump, pump rod, and rod retainer in air horn.

8) Install power valve assembly in bottom of fuel bowl. Tighten securely. Ensure needle valve operates freely. Install main jet in main body.

9) Install float pin in main body. Place float assembly in float shaft cradle. Install float pin retainer. Check float alignment to make sure it does not bind against main body casting.

10) Install a new gasket on fuel inlet fitting. Install fitting in main body. Tighten securely. Check float level.

11) Insert check ball and weight into accelerator pump discharge well. Position air horn gasket on air horn. Carefully install air horn on main body. Make sure accelerator pump cup is not damaged.

12 Install 7 air horn screws and tighten alternately in steps to 30 INCH lbs. Install fast idle cam and link.

13) Install choke vacuum diaphragm, solenoid idle stop (SIS), and bowl vent solenoid.

CARBURETOR ADJUSTMENT SPECIFICATIONS

Application	Float Level Setting	Accelerator Pump		Fast Idle Cam Setting	Choke Unloader Setting	Choke Vacuum Kick Setting
		Hole Setting	Stroke Setting			
R-9131-A	Flush①	No. 2	1.605-1.625"	.090"	.250"	.130"
R-9132-A	Flush①	No. 2	1.605-1.625"	.090"	.250"	.130"
R-9152-A	Flush①	No. 2	1.605-1.625"	.080"	.250"	.130"
R-9153-A	Flush①	No. 2	1.605-1.625"	.080"	.250"	.130"

① — Setting is flush with top of casting to .050" above.