## HOLLEY SINGLE BARREL MODEL 1920

**CHRYSLER CORP.**

| | Holley Carburetor No. | |
|---|---|---|
| **198" 6 Cyl. Engine** | **Man. Trans.** | **Auto. Trans.** |
| Holley 1-Bbl. | R-6447A | R-6448A |
| **225" 6 Cyl. Engine** | | |
| Holley 1-Bbl. | | |
| Except Calif. | R-6449A, R-6593A | R-6450A, R-6594A |
| California Only | R-6553A, R-6595A | R-6554A, R-6596A |

### CARBURETOR IDENTIFICATION

Holley part number stamped on top side of carburetor body just behind fuel bowl cover. Prefix letter "R" indicates complete carburetor assembly. Suffix letter "A" indicates an assembly. A suffix numeral indicates modification from original specifications.

### DESCRIPTION

Single barrel downdraft with conventional choke valve in air horn operated by remote thermostatic coil and choke rod. Choke "well" may be cast as an integral part of manifold or may be a stainless steel cup fastened over a port in manifold. Acceleration pump is a spring driven diaphragm type operated by a lever connected by linkage to throttle shaft. A two stage power valve mounted in the metering block, actuated by manifold vacuum, delivers additional fuel necessary for full power and high speed operation.

### ADJUSTMENT

#### Idle Speed & Mixture

Set the following conditions before making adjustments. Engine running at normal operating temperature, automatic transmission in NEUTRAL (not PARK), air cleaner in position, timing set to specification, A/C OFF.

**Idle Speed** – Use idle speed stop screw to obtain specified idle RPM (see Specifications).

**Idle Mixture** – Mixture adjusting screw has limiter cap installed which limits range of adjustment. Do not remove this cap. Chrysler Corp. recommends that idle mixture be adjusted only with the aid of an exhaust analyzer. *For correct procedures, see "Chrysler Corporation Tune-Up" in Exhaust Emission Manual.*

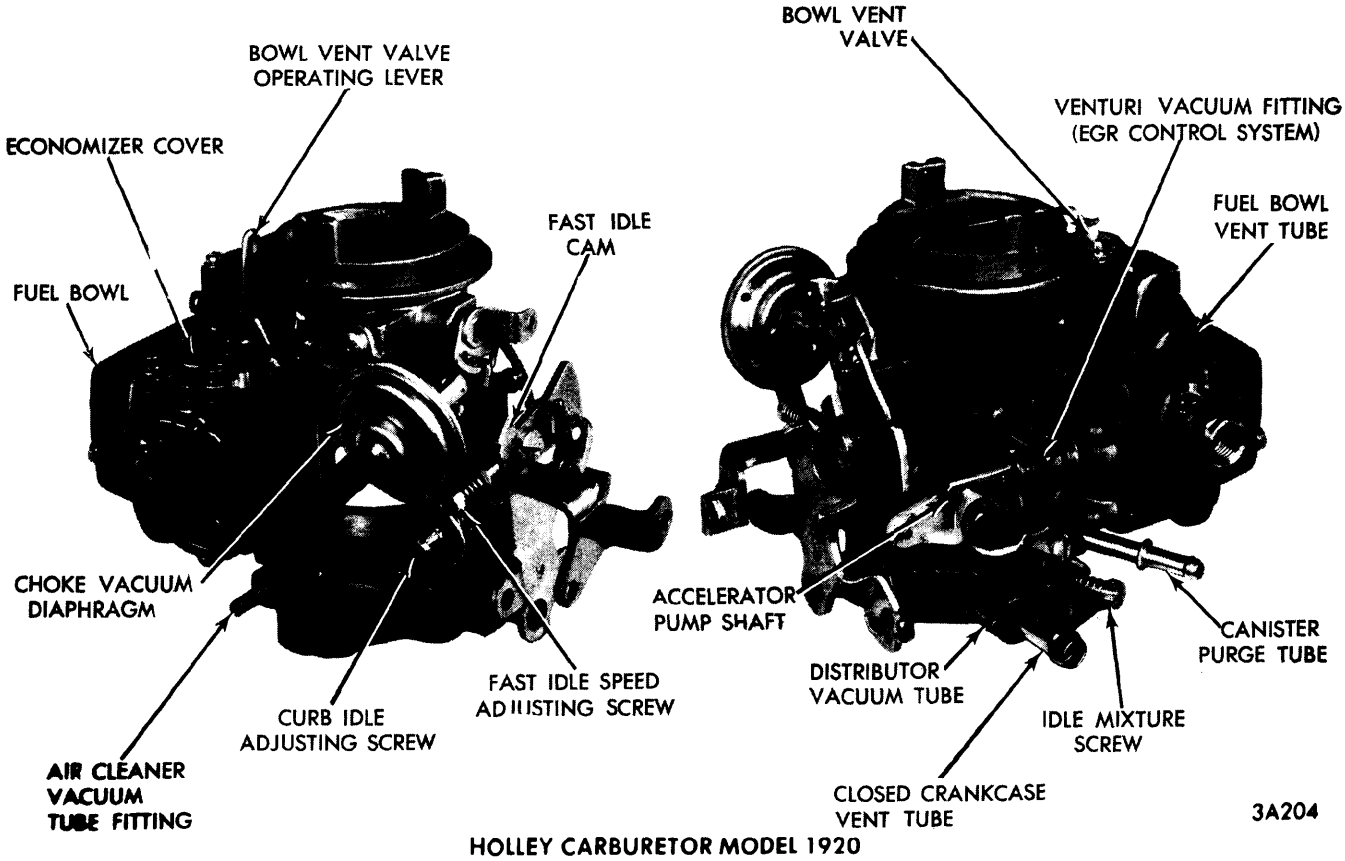
#### Fast Idle Cam Position

*NOTE – Fast Idle Cam Position must be adjusted before adjusting fast idle speed.*

Position fast idle adjusting screw on second step of fast idle cam and against shoulder of highest step (see illustration). Insert gauge or drill (see Specifications) between choke valve and air horn wall. If slight drag not felt as gauge is withdrawn, adjust by bending fast idle connector rod at lower angle.

#### Fast Idle Speed

With curb idle speed correctly adjusted, engine at normal operating temperature and transmission in Neutral or Park, position fast idle screw on second highest step of fast idle cam. Adjust fast idle screw to obtain specified (see Specifications) RPM.

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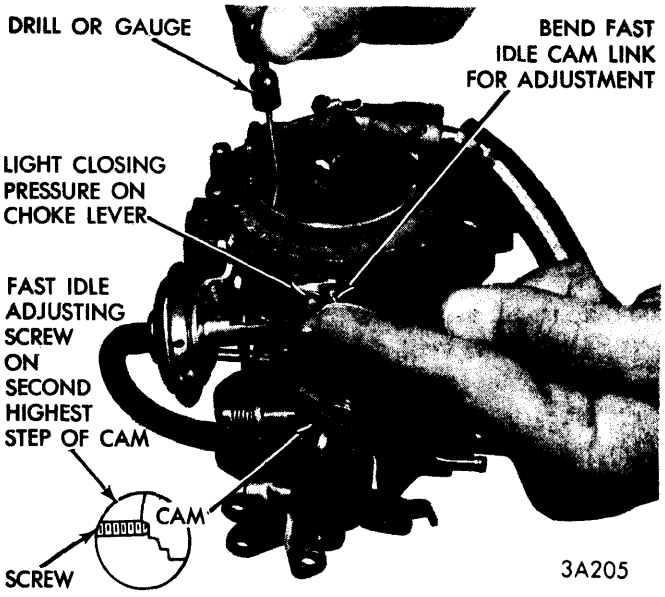
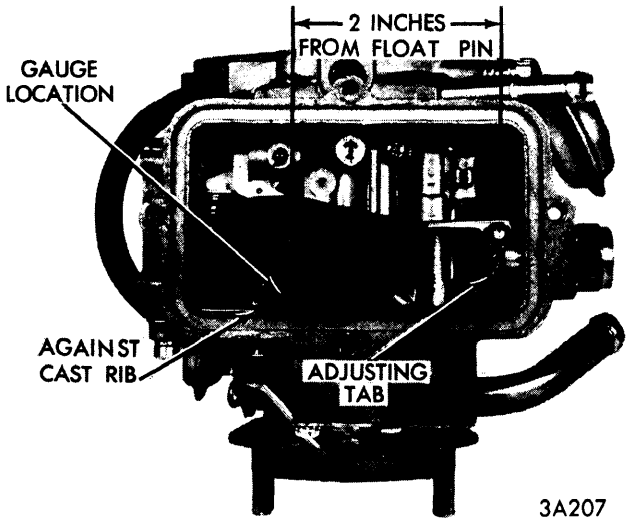
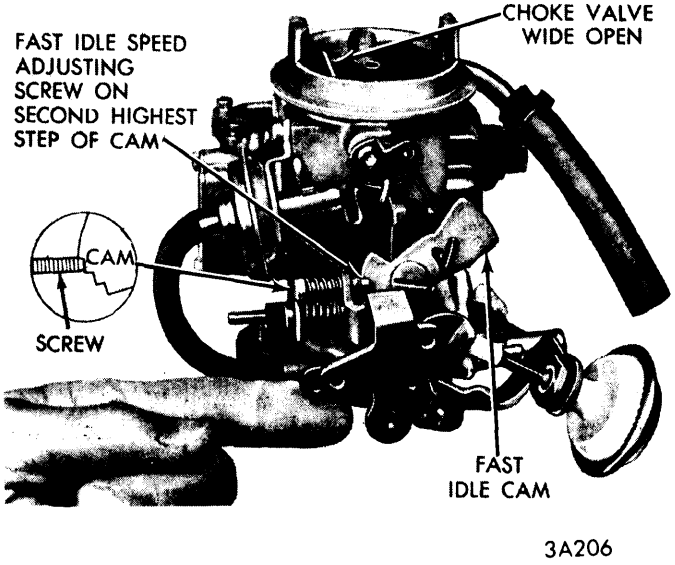



FAST IDLE CAM POSITION ADJUSTMENT



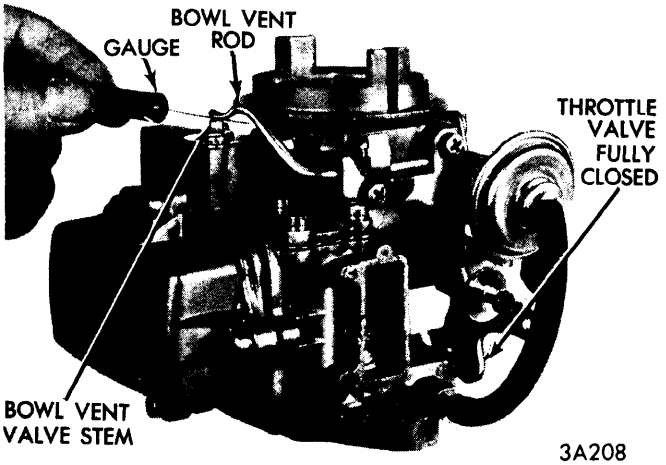

FLOAT LEVEL ADJUSTMENT




FAST IDLE SPEED ADJUSTMENT (ON VEHICLE)

### Bowl Vent

With throttle valve at curb idle position, clearance between bowl vent stem and bowl vent rod should be as specified (see Specifications). Bend vent rod at horizontal portion if adjustment required.




BOWL VENT ADJUSTMENT

### FLOAT LEVEL ADJUSTMENT

With carburetor inverted, measure from top of float to upper wall of main body with gauge against cast rib. Rib is approximately two inches from float hinge pin. Be sure gauge is parallel with top of float. (See specifications of float setting gauge diameter). *CAUTION – Do not allow float tab to contact float needle head during this operation as needle tip may be compressed, giving a false reading. Do not touch contact area of float tab with pliers.*

### Vacuum Break (Kick)

*NOTE – Adjustment can be made on or off car, using an auxiliary vacuum source (distributor test machine, or another vehicle), or on the car with engine running. When using auxiliary vacuum source, remove vacuum break hose from carburetor, NOT from vacuum break diaphragm.*

#### VACUUM BREAK (KICK) ADJUSTMENT

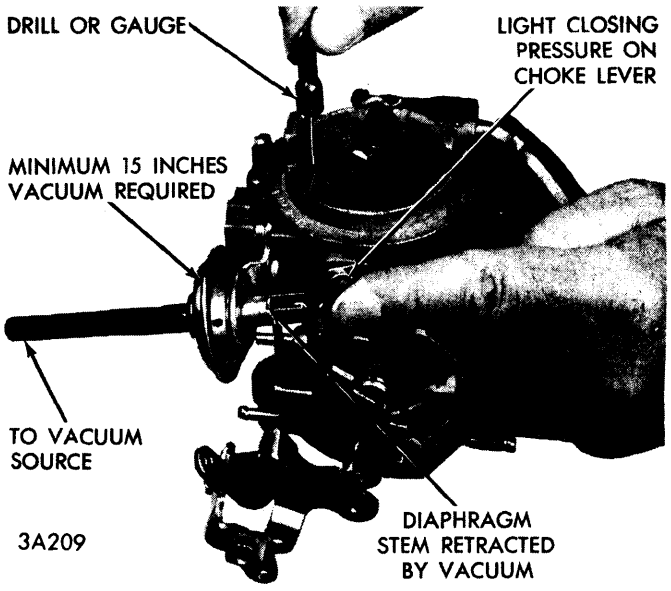
If adjustment is made with engine running, back off fast idle screw until choke will close to kick position with engine at curb idle (note number of turns, to properly reset

## HOLLEY SINGLE BARREL MODEL 1920 (Cont.)

**CARBURETOR ADJUSTMENT SPECIFICATIONS**

| Holley Carb. No. | Idle Speed (Engine RPM) | | Fast Idle Cam Position | Fuel Level Setting | Auto Choke Setting | Bowl Vent | Vacuum Break Setting |
|---|---|---|---|---|---|---|---|
| | Curb | Fast | | | | | |
| R-6447A | 800 | 2000 | .065" | .260" | Fixed | .015" | .100" |
| R-6448A | 750 | 1700 | .045" | .260" | Fixed | .015" | .080" |
| R-6593A | 750 | 2000 | .065" | .260" | Fixed | .015" | .100" |
| R-6449A | 750 | 2000 | .065" | .260" | Fixed | .015" | .100" |
| R-6594A | 750 | 1700 | .065" | .260" | Fixed | .015" | .100" |
| R-6450A | 750 | 1700 | .065" | .260" | Fixed | .015" | .100" |
| R-6595A | 750 | 2000 | .065" | .260" | Fixed | .015" | .100" |
| R-6553A | 750 | 2000 | .065" | .260" | Fixed | .015" | .100" |
| R-6596A | 750 | 1700 | .065" | .260" | Fixed | .015" | .100" |
| R-6554A | 750 | 1700 | .065" | .260" | Fixed | .015" | .100" |

fast idle after adjustment). If auxiliary vacuum source is used, open throttle valve (engine not running) and move choke to closed position. Release throttle, then release choke. Apply a minimum of 15" or more of mercury. Insert drill (see Specifications) between top of choke valve and wall of air horn. Apply sufficient pressure on choke rod lever to give minimum choke valve opening without distorting diaphragm link. *NOTE – Diaphragm internal spring must be fully compressed, as will be noted by extension of diaphragm stem.* A slight drag should be felt as drill is withdrawn, if not, adjust by opening or closing U-bend in diaphragm link. *CAUTION – Do not apply twisting or bending force to diaphragm.*




**VACUUM BREAK (KICK) ADJUSTMENT**

### Automatic Choke

Choke control unit is serviced as an assembly. DO NOT attempt to repair or change choke setting. If unit binds or does not function properly, a new unit should be installed. *CAUTION – Loosening or removing choke retainer bolts when working with the stainless steel cup type choke will allow exhaust gases to escape into engine compartment. DO NOT RUN ENGINE UNLESS CHOKE FIRMLY BOLTED TO MANIFOLD.*

### Choke Unloader

When correct Fast Idle Cam Position adjustment has been made, the Choke Unloader adjustment has also been obtained. No further adjustment is required.

## HOLLEY SINGLE BARREL MODEL 1920 (Cont.)

### OVERHAUL

#### Disassembly

1) Remove choke vacuum diaphragm, link and bracket assembly. Disconnect link from slot in choke lever and place to one side for special cleaning. *NOTE – As the vacuum diaphragm bracket is being removed, the bowl vent valve rod and spring will fall out.*

2) Remove needle and seat valve. Remove economizer retaining screws and remove economizer assembly. Remove fuel bowl attaching screws and remove fuel bowl, baffle and gasket. Slide baffle out of bowl and remove float damper spring. Remove float retaining clip, then slide float off fulcrum pin.

3) Remove screws attaching metering block and remove block. Remove pump operating link and tilt pump lever on its pivot until hook on pump diaphragm stem can be released. Slide pump diaphragm and spring from fuel bowl.

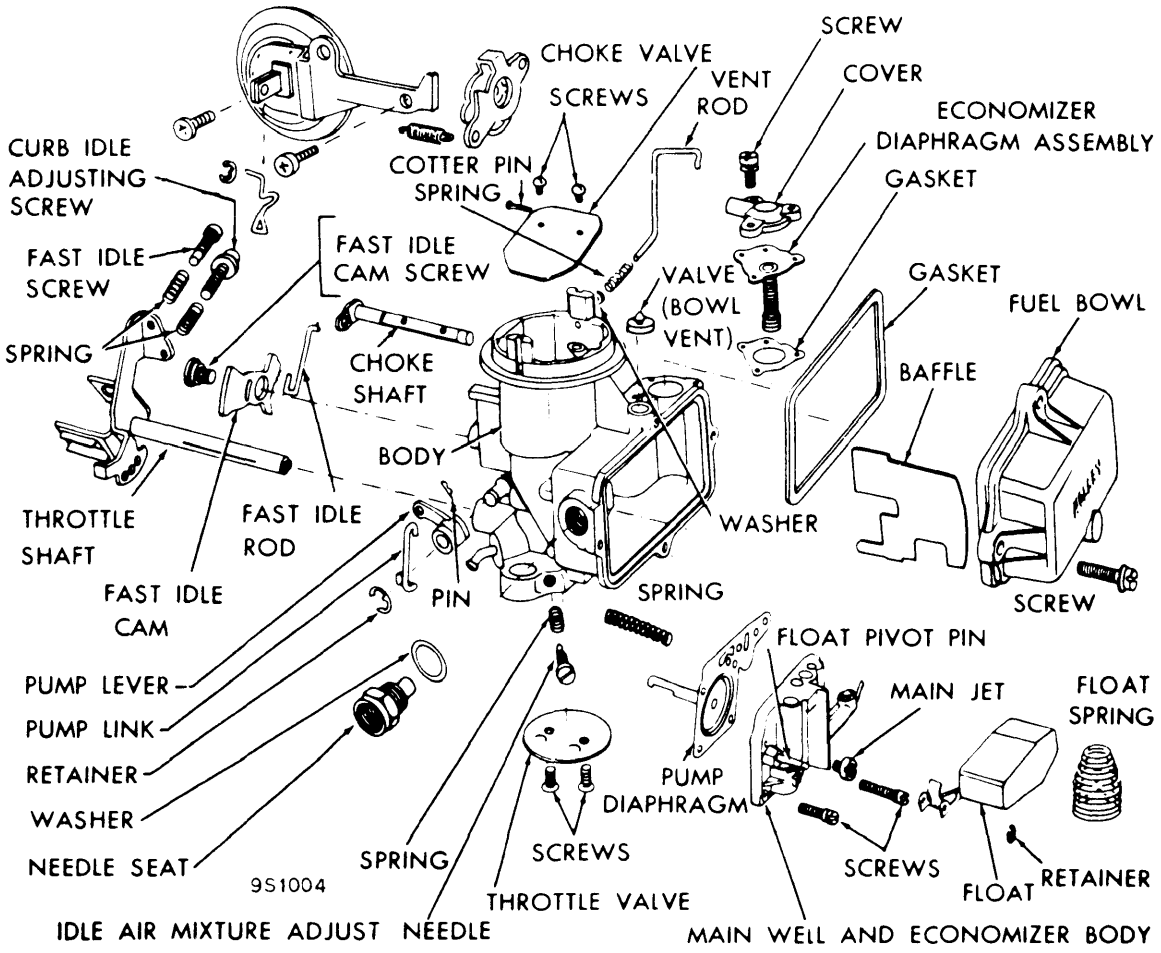
4) Remove main jet from metering block. With a suitable tool, remove pump lever retaining clip. Slide lever off pivot and disengage link from throttle lever. Remove fast idle cam and at the same time, disengage fast idle cam rod.

5) Note position of idle limiter cap stop and remove plastic cap from idle mixture screw. Count the number of turns to seat the screw, as the same number of turns (from the seat) must be maintained at installation. Remove idle mixture screw and spring. Discard the cap.

6) Remove fast idle and curb idle speed screws from throttle lever. Remove bowl vent cover screws and cover and lift out valve and spring (if so equipped). Carburetor is now disassembled as far as necessary.

#### Cleaning & Inspection

**Cleaning** – Clean all metal parts in suitable solvent-type cleaning fluid. Blow out all passages and orifices with compressed air. *CAUTION – Do not pass wires or drills through jets or orifices, since they may become enlarged.* After rinsing cleaning solvent from metal parts, dry with compressed air, making sure that no traces of moisture remain in passages. It is advisable to rinse all metal parts in gasoline or kerosene as a precaution against moisture. *CAUTION – Plastic parts or choke diaphragm can be damaged by solvents. To clean these parts, wipe with clean dry cloths only. Loose dirt may be removed with compressed air. Do not connect air blast with vacuum diaphragm fitting.*




HOLLEY SINGLE BARREL MODEL 1920 CARBURETOR ASSEMBLY

## HOLLEY SINGLE BARREL MODEL 1920 (Cont.)

**Inspection** – Inspect throttle shaft for excessive wear in body. If wear is extreme, it is recommended that the carburetor assembly be replaced rather than installing a new shaft in an old throttle body.

### Assembly

Using all new gaskets, assemble carburetor by reversing disassembly procedure. Note the following.

1) When installing idle mixture screw and spring in body, the tapered portion must be straight and smooth. If tapered portion is grooved or ridged, install a new screw to insure having correct idle mixture control. DO NOT USE A SCREWDRIVER. Turn screw lightly (with fingers) against its seat. Then back off the number of turns counted at disassembly. Install new plastic cap (red) with tab against stop.

2) Test choke valve for binding by rotating lever through extent of its full travel. When installing pump link, make sure link is in center hole of throttle lever.

3) Before installing fuel bowl, check and adjust float setting. When installing fuel bowl, tighten attaching screws alternately, tightening only enough to compress the lock washers. Screws drawn too tightly can distort the fuel bowl and cause a leak.