

## 1968-69 ROCHESTER H &amp; HV SINGLE BARREL

## 1968 MODELS

	Rochester Carburetor No.	
CORVAIR	Synchro-mesh	Auto. Trans.
95 & 110 HP Engines	.....HV 7028005	.....HV 7028004
140 HP (Primary)	.....HV 7028005	.....HV 7028004
140 HP (Secondary)	.....H 7027026	.....H 7027026

## 1969 MODELS

CORVAIR		
95 & 110 HP Engines	.....HV 7028005	.....HV 7028005
140 HP (Primary)	.....HV 7028005	.....HV 7028005
140 HP (Secondary)	.....H 7027026	.....H 7027026

## ►CHANGES, CAUTIONS, CORRECTIONS

- "A.I.R." ENGINE NOTE: All engines have air pump for air injection at exhaust ports for exhaust emission control.
- "140 HP ENGINE NOTE: This engine has four carburetors (two "HV" primary carburetors and two "H" secondary carburetors). See Description.
- MODEL H NOTE: Pump rod, Float Level, Float Drop, and Lockout adjustments only are required for this model.

## CARBURETOR IDENTIFICATION

Rochester carburetor number stamped on tag attached to carburetor by one air horn screw.

## DESCRIPTION

**HV Carburetors** - Single barrel downdraft type with separate well type automatic choke. Carburetors are same design as previous models except that Power Enrichment Device has been discontinued.

**H Carburetors** - Used as secondary carburetors on 140 HP engines (4 carburetor installation). Same design as HV carburetors except that no choke is used, fuel feed system is fixed, and pump cup is omitted from accelerating pump (pump used only as throttle return plunger). These carburetors have lockout linkage to prevent operation during engine warm-up. See adjustments.

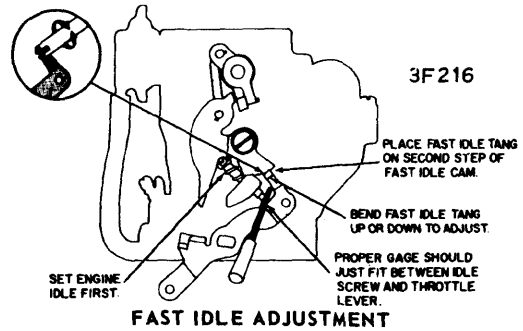
## ADJUSTMENT

## Idle Speed &amp; Mixture

For Preliminary setting to warm up engine, turn idle mixture screw on each carburetor 3 turns out from lightly seated position. With engine idling at normal operating temperature with choke valve wide open and fast idle not operating, set automatic transmission selector lever in Drive. Adjust idle speed screw on each carburetor for correct hot engine idle speed (see Specifications), adjust idle mixture screw on each carburetor (primary carburetors only) until engine speed drops off 20-30 RPM from maximum RPM point (lean roll position), then turn each screw out exactly 1/4 turn. Recheck idle speed. If necessary to readjust idle speed, repeat idle mixture adjustment.

## Fast Idle

Make this adjustment after final idle mixture and speed adjustment completed. Stop engine and place throttle lever tang on second highest step of fast idle cam. Check clearance between end of idle speed screw and throttle lever (see illustration). If clearance not correct (see Specifications), adjust by bending throttle lever tang as necessary. NOTE - This adjustment can be made with carburetor off engine by first positioning idle speed screw as follows: With throttle lever in closed position, turn idle speed screw in until firm drag secured on paper strip placed between screw and throttle lever (do not use feeler stock), then turn idle speed screw in an additional 1 1/2 turns. With idle speed screw in this position, check fast idle as above.

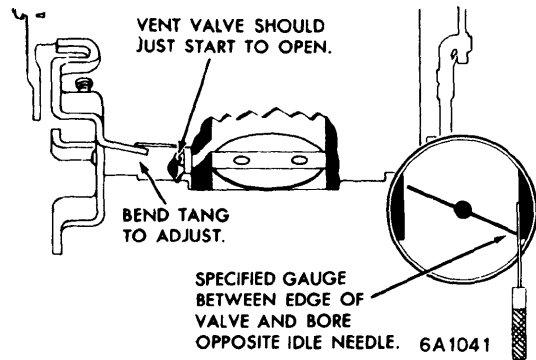


## Pump Rod

Back out the idle speed screw until the throttle valve is completely closed, then bend pump rod as necessary to align index mark on upper pump lever with sharp edge of air horn casting.

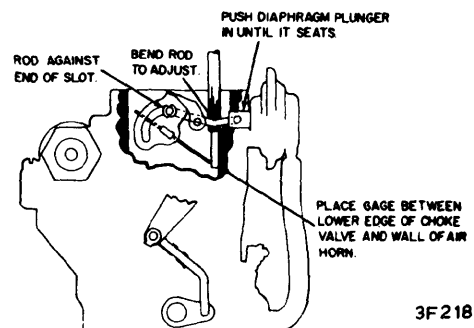
## Idle Vent Valve

Close throttle valve to point where vent valve just begins to open. At this point, measure throttle valve opening by inserting gauge of correct size (see Specifications) between edge of valve and bore directly opposite idle mixture screw. If throttle opening not correct, bend tang on throttle lever as required (see illustration). CAUTION - Do not bend vent valve spring arm (will cause distortion).



## Vacuum Break Diaphragm

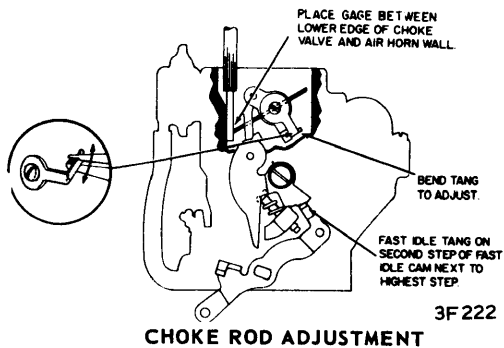
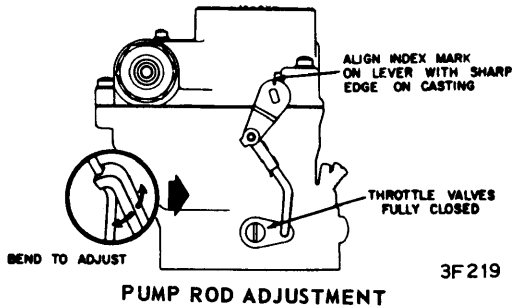
Press diaphragm plunger inward until seated, close choke valve to point where connecting link is at end of slot in choke lever (see illustration). Check choke valve opening by inserting gauge of correct size (see Specifications) between lower edge of valve and air horn wall. Adjust by bending connecting link at the angle as shown.



## 1968-69 ROCHESTER H & HV SINGLE BARREL (Continued)

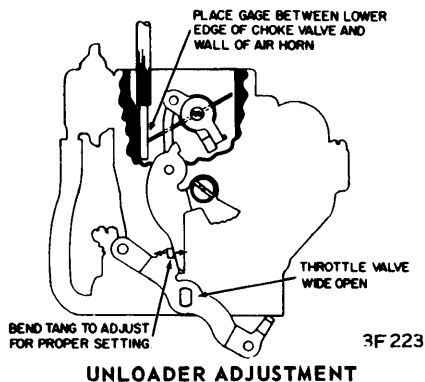
### Choke Rod

Position fast idle tang on second step of fast idle cam and against shoulder of highest step, close the valve so that trip lever on choke shaft just contacts choke tang on lever and collar assembly. Check choke valve opening by inserting gauge of correct size (see Specifications) between lower edge of valve and air horn wall. Adjust by bending tang on trip lever up or down as required (see illustration).



### Unloader

Hold throttle valve wide open and move choke valve toward closed position until contact made at unloader tang. Check choke valve opening by inserting gauge of correct size (see Specifications) between lower edge of valve and air horn wall. Adjust by bending unloader tang on throttle lever.



### Automatic Choke

This adjustment must be made with carburetors installed on engine. With choke valve completely closed, pull choke rod upward to end of travel. Bottom of rod should be even with top of hole in choke lever (see illustration). Adjust by turning rod in or out as required (CAUTION - Rotate vertical section of rod, do not "crank" rod by turning offset portion).

### Secondary Carburetor Lockout (Model H Carburetors)

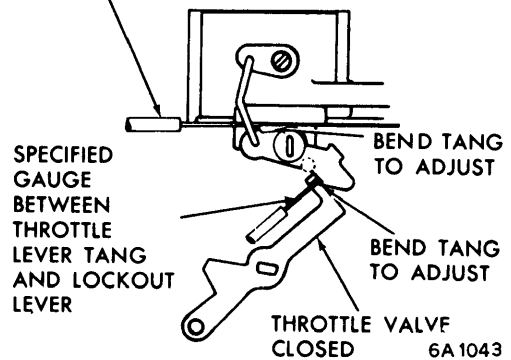
Three separate adjustments required. Adjustment (3) must be made after all carburetors installed on engine.

1) With throttle valve closed and edge of throttle lever lockout tang flush with lockout lever (see illustration), bend throttle lever tang as required for clearance of .020" between throttle lever tang and notch in lockout lever.

2) With throttle lever in locked out position, bend stop tang on lockout lever as required for clearance of .060" between stop tang and bottom surface of air horn (see illustration).

3) This is a linkage adjustment and must be made with carburetors installed on engine and linkage connected. After linkage adjusted so that all carburetors operate simultaneously, insert a .250" gauge between base of vacuum diaphragm and choke shaft actuating lever of primary carburetor, open choke valve until actuating lever contacts gauge. Bend tang on secondary carburetor so that it contacts choke shaft and fully opens choke valve. In this position, lockout lever should clear throttle lever tang.

SPECIFIED GAUGE BETWEEN STOP TANG ON LOCKOUT LEVER AND BOTTOM SURFACE OF AIR HORN



SECONDARY CARBURETOR LOCKOUT (MODEL H CARBURETOR)

### CARBURETOR ADJUSTMENT SPECIFICATIONS

Rochester Carb. No.	Idle Speed (Eng. RPM) ①	Fast Idle Setting	Idle Vent Setting	Float Level Setting	Float Drop Setting	Vacuum Break Setting	Choke Rod Setting	Unloader Setting
7027026	None	None	None	1 1/16"	1 9/16"	None	None	None
7028004	①	.075"	.015"	1 1/16"	1 9/16"	.190"	.190"	.510"
7028005	②	.075"	.015"	1 1/16"	1 9/16"	.190"	.190"	.510"

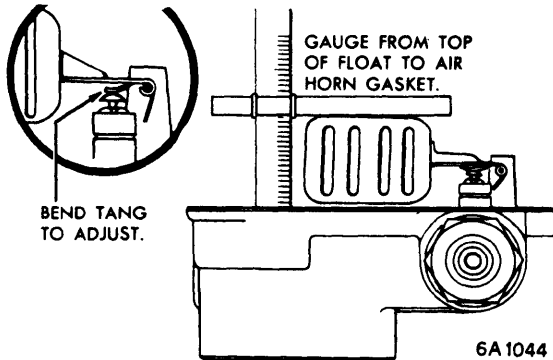
① - 600 RPM (95 & 110 HP), 550 RPM (140 HP) with automatic transmission in Drive.

② - 700 RPM (95 & 110 HP), 650 RPM (140 HP) with manual transmission.

## 1968-69 ROCHESTER H &amp; HV SINGLE BARREL (Continued)

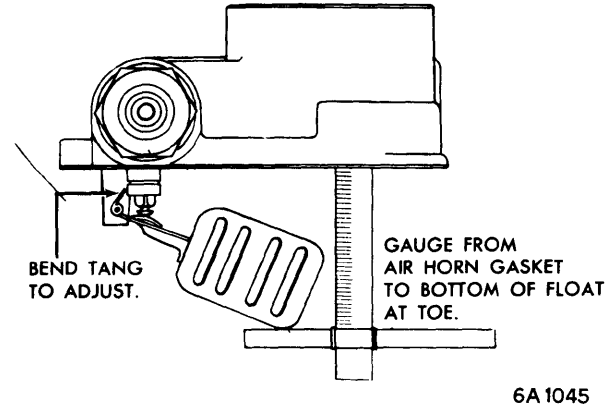
## Float Level

With air horn inverted so that weight of float is holding needle valve closed, and with gasket in place, measure from gasket surface to bottom of each float (see illustration). If float setting not correct (see Specifications), adjust by bending float lever tang which contacts inlet needle. Bottom of floats should be parallel with air horn surface. **NOTE** - Floats should be aligned to prevent interference with sides of bowl when floats installed.

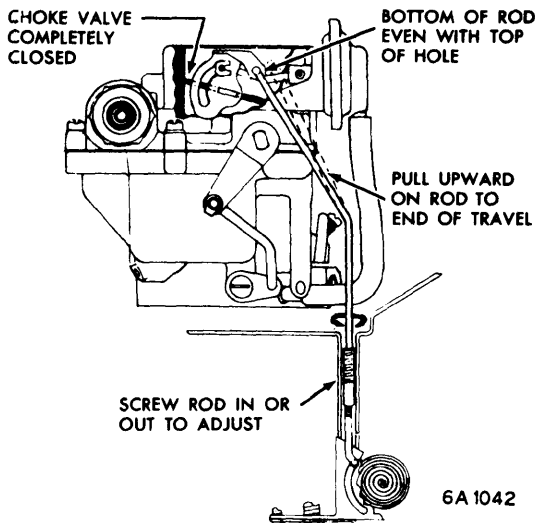


## Float Drop

With air horn upright so that floats hang freely, measure from gasket surface to bottom of float at toe or free end. If setting not correct (see Specifications), adjust by bending tang at rear of float arm.

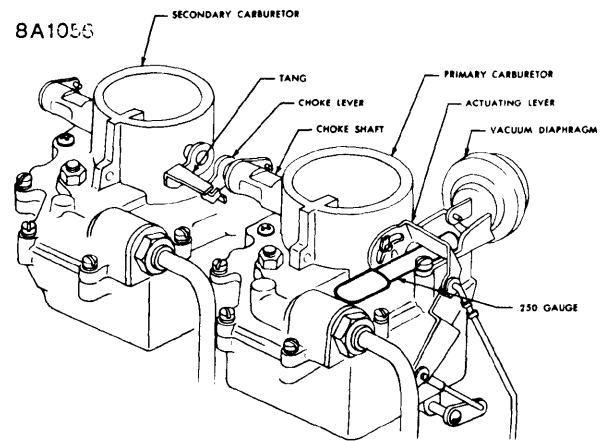


## FLOAT LEVEL ADJUSTMENT



## AUTOMATIC CHOKE ADJUSTMENT

## FLOAT DROP ADJUSTMENT



## CARBURETOR LOCKOUT LINKAGE ADJUSTMENT

## OVERHAUL

## Disassembly

► **MODEL H OVERHAUL NOTE:** On Model H carburetors, there is no choke, fuel system is fixed, and pump cup is omitted from accelerating pump (pump used only as throttle return plunger).

- 1) Disconnect accelerating pump rod from pump lever, then remove filter element and spring. Remove choke trip lever attaching screw and remove levers from choke shaft.
- 2) Remove vacuum diaphragm assembly by rotating the assembly to align notch and free it from link. Separate air horn from main body.
- 3) Remove float assembly and float needle valve, seat and gasket. Remove clip from accelerator pump and remove pump, then remove clip, shaft, and lever.
- 4) Remove screws from venturi cluster and remove cluster, gasket, and main well insert. Remove pump discharge needle and power enrichment needle located below venturi cluster (**NOTE** - Power enrichment needle not used on all carburetors).
- 5) Remove main metering jet from float bowl, remove idle mixture adjusting screw and spring. Take out attaching screw and remove vapor vent valve from side of main body. Take out attaching screw and remove fast idle cam.

- 6) If necessary to remove choke valve or throttle valve, remove valve attaching screws, lift valve out, slide shaft and lever assembly out.

## Cleaning &amp; Inspection

Clean carburetor castings and all metal parts in cleaning solution. *Do not immerse pump plunger, gaskets, or vacuum break assembly in cleaning solution.* Dry parts with air and blow out all passages and jets with air. Inspect all parts for wear or damage and replace as necessary.

## Reassembly

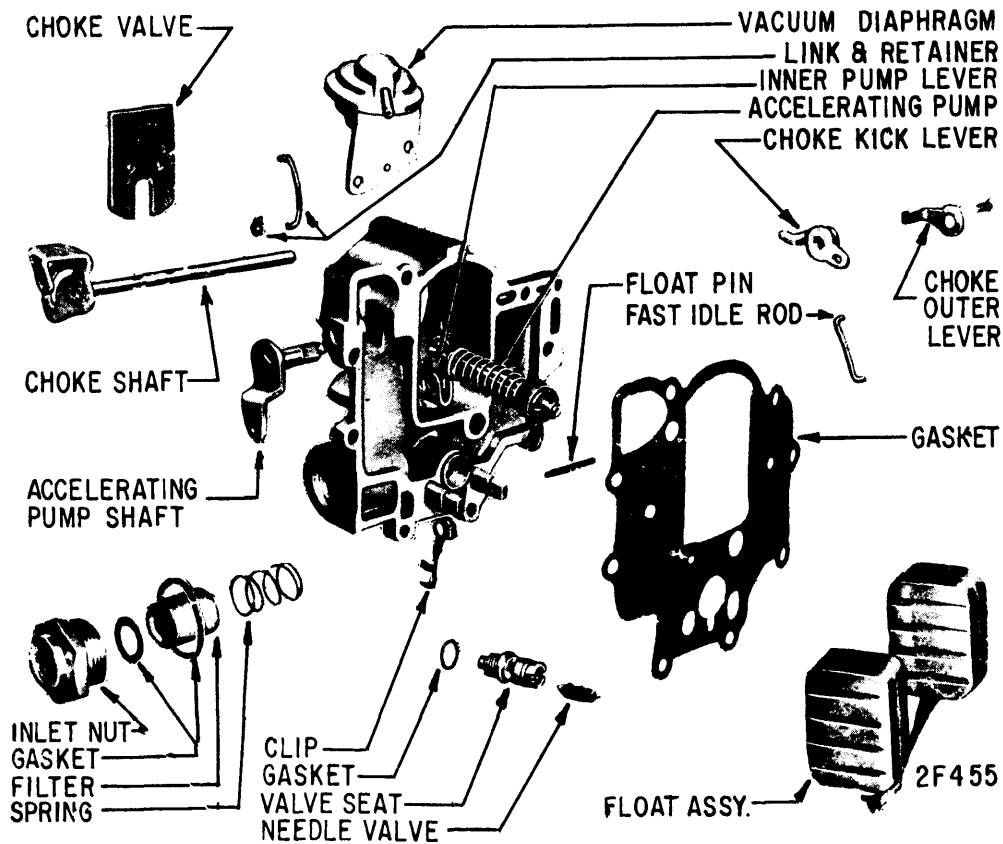
Use new gaskets and reassemble carburetor by reversing disassembly procedure. Note the following:

**Choke & Throttle Valve Installation** - Carefully center and seat valve in shaft and bore before tightening attaching screws. Check assembly for free movement and make certain valve and shaft do not bind.

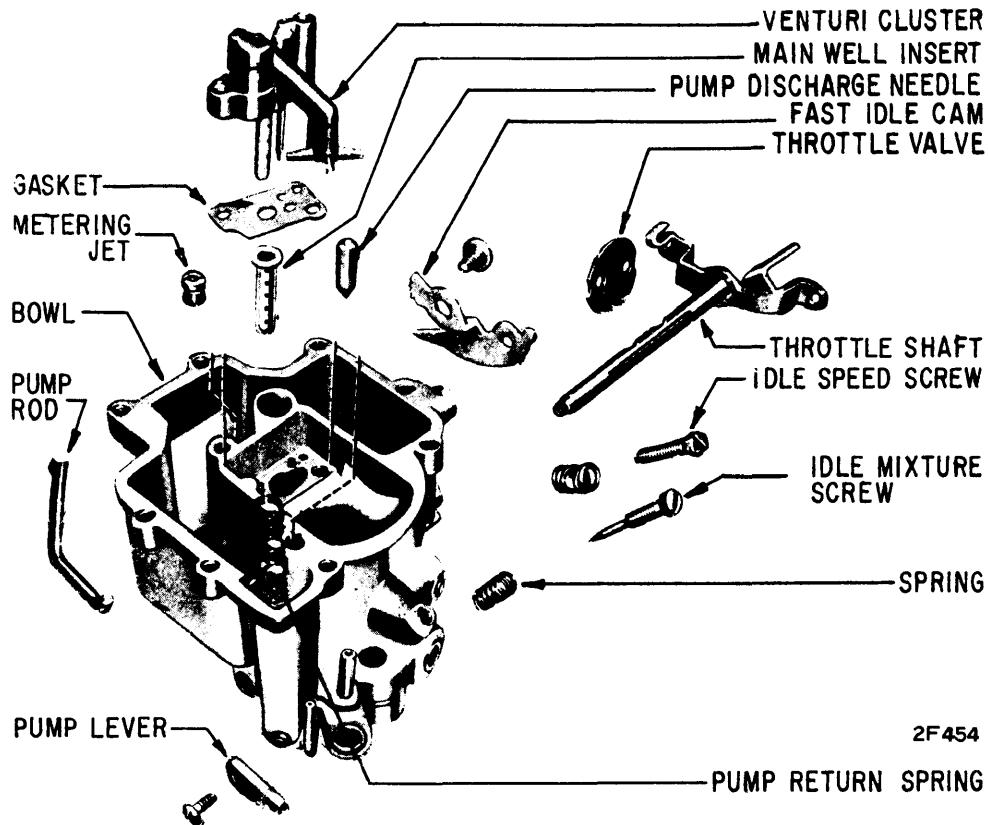
**Carburetor Adjustments** - Make all adjustments listed in ADJUSTMENT section.

# Rochester Carburetors

## 1968-69 ROCHESTER H & HV SINGLE BARREL (Continued)



### ROCHESTER MODEL HV CARBURETOR AIR HORN ASSEMBLY



### ROCHESTER MODEL HV CARBURETOR BOWL ASSEMBLY