1968 ROCHESTER BV SINGLE BARREL

1968 MODELS

TEMPEST & FIREBIRD

250" 6 Cyl. C.C.S. Eng. (Auto. Trans.) ..... BV 7028186

▶ CHANGES, CAUTIONS, CORRECTIONS

▶ *1968 C.C.S. ENGINE NOTE* – This Controlled Combustion System engine has specially designed and calibrated carburetor and distributor for exhaust emission control.

CARBURETOR IDENTIFICATION

Rochester carburetor number is stamped on tag attached to carburetor.

DESCRIPTION

The Model BV carburetor is a single barrel downdraft type, with a separate automatic choke.

ADJUSTMENT

Idle Speed & Mixture

1968 BV – Back out idle mixture adjusting screw 5 turns from lightly seated position for initial setting. Warm up engine and make adjustments exactly as follows:

1) With engine idling at normal operating temperature and idle stop solenoid energized (normal running condition), adjust solenoid stopscrew for engine idling speed of 610 RPM.

2) With stop solenoid energized, turn idle mixture adjusting screw clockwise until engine idle speed is exactly 600 RPM. *CAUTION – Do not change setting of stop solenoid screw.*

3) Disconnect stop solenoid lead to de-energize solenoid (throttle valve will close until regular stopscrew contacts low step of fast idle cam) Adjust this throttle stopscrew for engine idle sleed of 500 RPM. *CAUTION – Do not change setting of stop solenoid screw or idle mixture adjusting screws.*

Fast Idle Speed

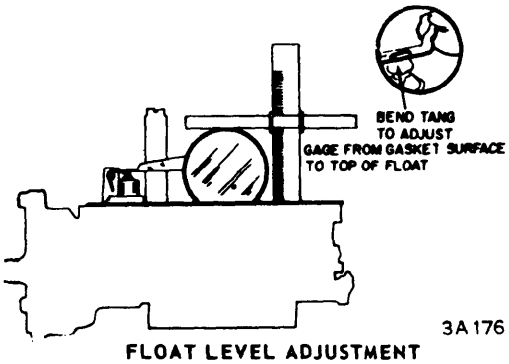
No adjustment required. Fast idle speed will be correct when hot or slow idle speed correctly adjusted.

Auto. Trans. Linkage & Throttle Return Check

See CARBURETOR on car model Tune-Up pages.

Float Level

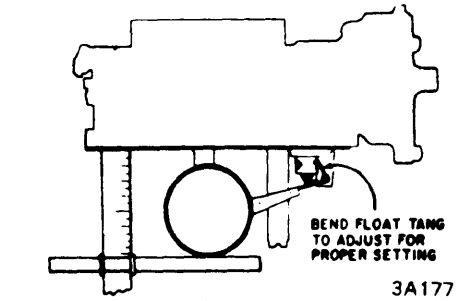
Invert air horn (gasket in place), and measure distance from air horn gasket to top of each float (see illustration). Distance should be as indicated in specifications. To adjust, bend float arm tang contacting inlet needle. *NOTE - Align floats so they are parallel and centered in air horn gasket cutout. Recheck float level if adjustment required.*



FLOAT LEVEL ADJUSTMENT

Float Drop

Hold air horn assembly upright with floats hanging free, then measure distance from surface of air horn gasket to bottom of float (see illustration). Distance should be as indicated in specifications.



FLOAT DROP ADJUSTMENT

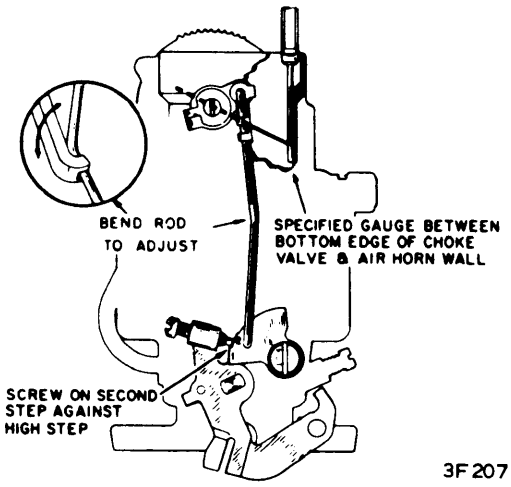
1968 CARBURETOR ADJUSTMENT SPECIFICATIONS

Rochester Carb. No.	Idle Speed (Engine RPM)		Float Level Setting	Float Drop Setting	Idle Vent Setting	Choke Rod Setting	Unloader Setting	Vacuum Break Setting
	Synchro-mesh	Auto. Trans.						
7028168	.....	① ②	1 9/32"	1 7/8"	.050"	.080"	.230"	.160"

① – Air Cond. OFF (when equipped).

② – See Adjustments for special setting.

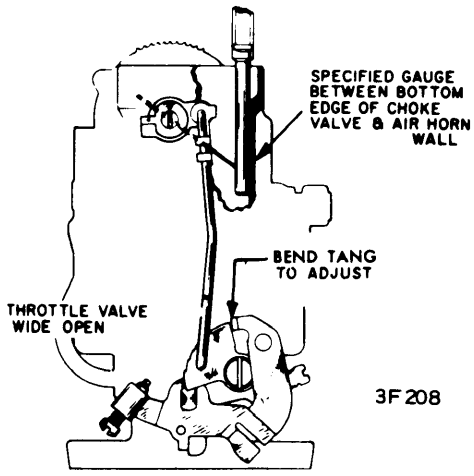
1968 ROCHESTER BV SINGLE BARREL (Cont.)



CHOKE ROD ADJUSTMENT

Choke Rod

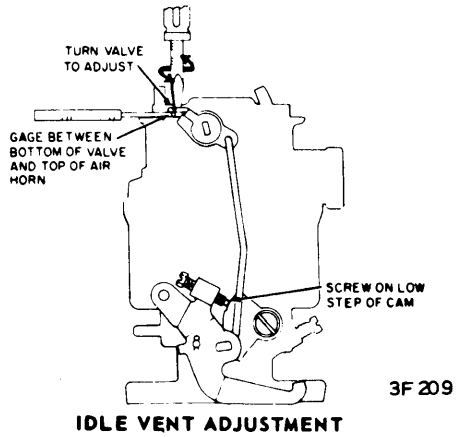
With idle screw on second step of fast idle cam and against highest step, bend choke rod as necessary to obtain proper clearance between lower edge of choke valve and wall of air horn. See specifications.



UNLOADER ADJUSTMENT

Unloader

With throttle valve wide open, clearance between lower edge of choke valve and wall of air horn should be as indicated in specifications. To adjust, bend unloader tang on throttle lever.



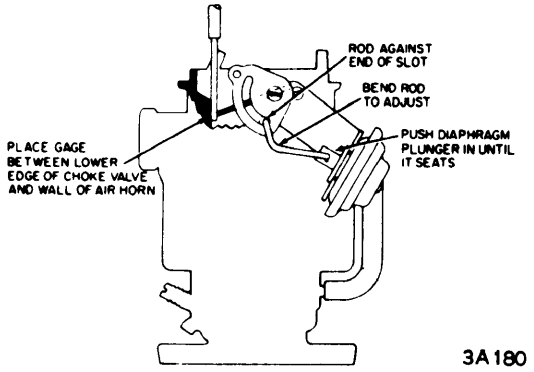
IDLE VENT ADJUSTMENT

Idle Vent

NOTE - Not used on all carburetor models. With idle speed properly adjusted and screw on low step of fast idle cam, idle vent valve should be open as shown in specification table. To adjust, turn valve on top of air horn.

Vacuum Break

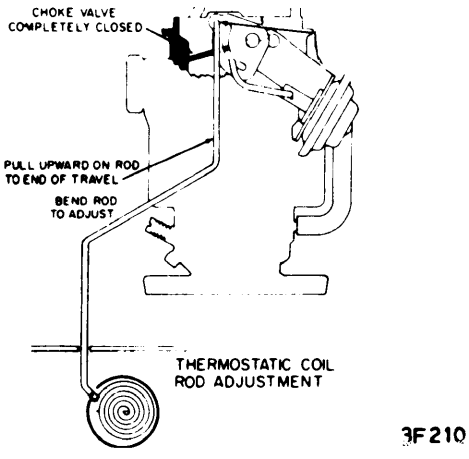
"BV" Carbs. - *NOTE - This adjustment not required on other carburetor models.* Push vacuum break diaphragm plunger in until seated, making sure that choke valve is closed so that connecting rod is at end of slot. Hold in this position and adjust rod so that clearance between lower edge of choke valve and wall of air horn is as indicated in specifications. Bend connector rod as shown in illustration.



VACUUM BREAK ADJUSTMENT ("BV" CARBURETORS)

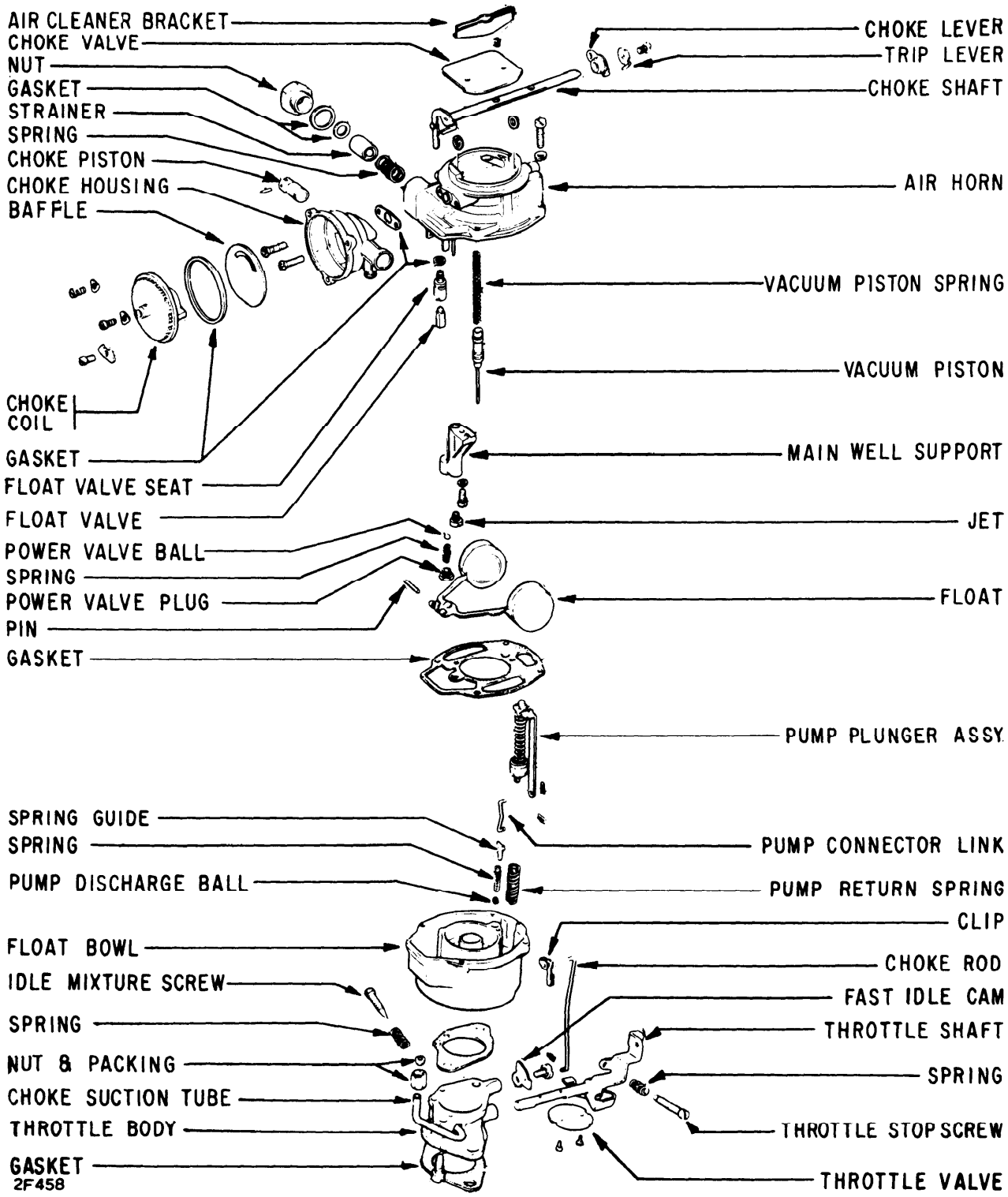
Automatic Choke

Separate Type ("BV" Carbs.) - With automatic choke rod disconnected from carburetor choke lever, hold choke valve closed and pull automatic choke rod up against stop in thermostat housing. Bottom edge of choke rod should align with top of hole in choke lever (equivalent to one rod diameter above hole). To adjust, bend at lower angle.



AUTOMATIC CHOKE ADJUSTMENT (SEPARATE "BV" TYPE)

1968 ROCHESTER BV SINGLE BARREL (Cont.)



ROCHESTER BC ASSEMBLY SHOWN (BV SIMILAR EXCEPT FOR SEPARATE CHOKE)

1968 ROCHESTER BV SINGLE BARREL (Cont.)

OVERHAUL

Disassembly

1) Disconnect choke diaphragm vacuum hose at diaphragm, then disconnect fast idle rod at choke lever. Remove choke shaft lever screw (diaphragm side), and remove diaphragm and bracket.

2) Remove attaching screws and separate air horn from main body. Remove float and float needle valve, then remove needle valve seat.

3) Remove main metering jet and power valve assembly from main well support. *NOTE — Be careful not to lose power valve spring and ball.* Remove main well support from air horn, then remove power piston and spring. *NOTE — Do not remove idle pick-up tube from air horn.*

4) Remove "O" ring seal around power piston vacuum tube at top of inner bowl parting surface, then remove pump discharge guide with long nose pliers and remove discharge and ball check.

5) Remove retainers from pump link and remove pump link from throttle lever and pump plunger rod. Remove pump plnger and return spring. Separate throttle body from main body.

6) If necessary, remove idle mixture adjusting screw and spring, and throttle stop screw. *NOTE — Do not remove throttle valve or shaft from throttle body.*

Cleaning & Inspection

Clean carburetor castings and all metal parts thoroughly in carburetor cleaning solvent. Do not immerse pump plunger, vacuum break diaphragm, or synthetic or rubber parts in solvent. Clean pump plunger in clean gasoline only, clean diaphragm unit by wiping with clean cloth. Check all parts and casting passages for carbon deposits, blow out all passages with compressed air. Inspect all parts for wear or damage.

Reassembly

Use all new gaskets. Reverse disassembly procedure and note the following:

Pump Discharge Check Ball Spring Guide - After installing pump discharge check ball and spring, position guide at right angles to pump discharge jet, tap guide lightly so that it is seated flush with top of casting.