

# 1975-79 FUEL SYSTEMS

## Rochester M4MC & M4ME 4-Barrel Carburetors

### 1975-79 General Motors

#### CARBURETOR APPLICATION

**NOTE: SERIES IDENTIFICATION:** The vehicle series numbers used in this article have been abbreviated for common reference to both Chevrolet and GMC models. Chevrolet models use numerical designations as listed; GMC models are identified as follows: 10 = 1500; 20 = 2500; 30 = 3500.

#### 1975 GENERAL MOTORS CORP.

Application	Rochester Carb. No. Man. Trans.	Rochester Carb. No. Auto. Trans.
350" V8		
C10		
Federal	7045203	7045202
California	7045203	7045202
G10		
Federal	7045219	7045218
California	7045219	7045218
454" V8		
C10		
Federal		7045220

#### 1976 GENERAL MOTORS CORP.

Application	Rochester Carb. No. Man. Trans.	Rochester Carb. No. Auto. Trans.
350" V8		
C10		
Federal	17056209	17056208
California	17056509	17056508
G10		
Federal	17056219	17056218
California	17056219	17056218
454" V8		
C10-30 & P30 Motor Home		
California	17056512	17056512
P30		
California		17056517

#### 1977 GENERAL MOTORS CORP.

Application	Rochester Carb. No. Man. Trans.	Rochester Carb. No. Auto. Trans.
350" V8		
C10		
Federal	17057209	17057202, 204
California	17057503	17057502, 504
High Altitude		17057582, 584
G10		
Federal	17057219	17057218, 222
California	17057519	17057518, 522
High Altitude		17057588, 586
403" V8		
P30		
Motor Home		17057254
454" V8		
C10		17057221
C10-30 & P30 Motor Home		
California	17057512	17057512
P30		
California		17057517

<sup>1</sup> - Rochester Model M4ME. All others use M4MC.

#### 1978 GENERAL MOTORS CORP.

Application	Rochester Carb. No. Man. Trans.	Rochester Carb. No. Auto. Trans.
350" V8		
Federal	17058201	17058202, 218
	17058219	17058204, 222
California	17058503	17058506, 518
	17058519	17058508, 522
High Altitude		17058509, 588
		17058510, 586
400" V8		
California		17058523, 527
		17058524, 528
454" V8		
Federal		17058521, 520
California		17058501, 521
		17058520

<sup>1</sup> - With air conditioning.

#### 1979 GENERAL MOTORS CORP.

Application	Rochester Carb. No. Man. Trans.	Rochester Carb. No. Auto. Trans.
350" V8		
Federal		
Without A/C	17059061, 201	17059065, 069
	17059213, 215	17059205, 209
With A/C	17059061, 201	17059066, 068
	17059213, 215	17059206, 208
		17059368, 508
California		
Without A/C	17059363, 503	17059366, 506
	17059513, 515	17059509, 508
With A/C	17059363, 503	17059368, 508
	17059513, 515	17059510, 586
400" V8		
Federal		
Without A/C		17059066, 077
		17059209, 227
		17059229
With A/C		17059069, 076
		17059208, 226
California		
Without A/C		17059527, 529
With A/C		17059528
454" V8		
Federal		
Without A/C	17059212, 501	17059212, 521
With A/C		17059520
California		
Without A/C	17059501, 512	17059512, 521
With A/C		17059520

#### CARBURETOR IDENTIFICATION

The Rochester M4MC/M4ME carburetor number is stamped on a vertical section of the float bowl, near the secondary throttle. If float bowl is replaced, follow manufacturer's instructions contained in service package to ensure part number is transferred to new float bowl.

#### DESCRIPTION

The M4MC carburetor is of a 2-stage downdraft design. The primary side has a triple venturi system. The secondary side is composed of 2 large bores using the air valve principle in which fuel is metered in direct proportion to amount of air passing through secondary bores. A baffle is attached to the secondary side of the air horn above the main well bleed tubes to deflect incoming air to improve secondary nozzle operation on heavy acceleration. This model uses the bowl-mounted choke housing with thermostatic control assembly.

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## Rochester M4MC & M4ME 4-Barrel Carburetors (Cont.)

### ADJUSTMENTS

#### HOT (SLOW) IDLE RPM

See appropriate article in TUNE-UP PROCEDURES section.

#### IDLE MIXTURE

See appropriate article in TUNE-UP PROCEDURES section.

#### COLD (FAST) IDLE RPM

**NOTE:** This is a preliminary adjustment only. It is required to ensure that other adjustments are made with fast idle speed approximately correct. Final Cold (Fast) Idle Speed adjustment must be made with carburetor installed and engine running. See appropriate article in TUNE-UP PROCEDURES section.

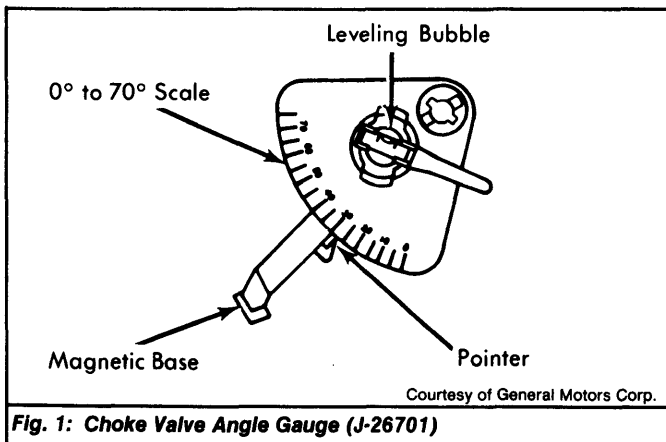
Place fast idle speed cam follower on high step of fast idle cam. Back off fast idle speed screw until throttle valves are completely closed. Now turn fast idle speed screw in until it just touches lever, then turn an additional 2 turns in.

#### CHOKE VALVE ANGLE GAUGE

Manufacturer recommends that some carburetor adjustments be performed using Choke Valve Angle Gauge (J-26701). While preparations and actual adjustments may vary with individual adjustment, the procedure for using the angle gauge to check the choke valve angle remains the same.

- 1) Rotate degree scale on angle gauge so that 0 degree mark is opposite pointer. With choke valve closed, place angle gauge magnet squarely on choke valve.
- 2) Rotate leveling bubble on angle gauge until it is centered. Rotate degree scale until specified degree mark is opposite pointer.
- 3) Now perform individual adjustment preparations as outlined in the following carburetor adjustments requiring angle gauge. If bubble is centered, adjustment is correct. If not, adjust carburetor as outlined.

**NOTE:** If choke valve angle gauge is not available, the individual adjustments will include procedure for checking clearance between choke valve and air horn wall. Both degree and decimal specifications will be given in CARBURETOR ADJUSTMENT SPECIFICATIONS table.

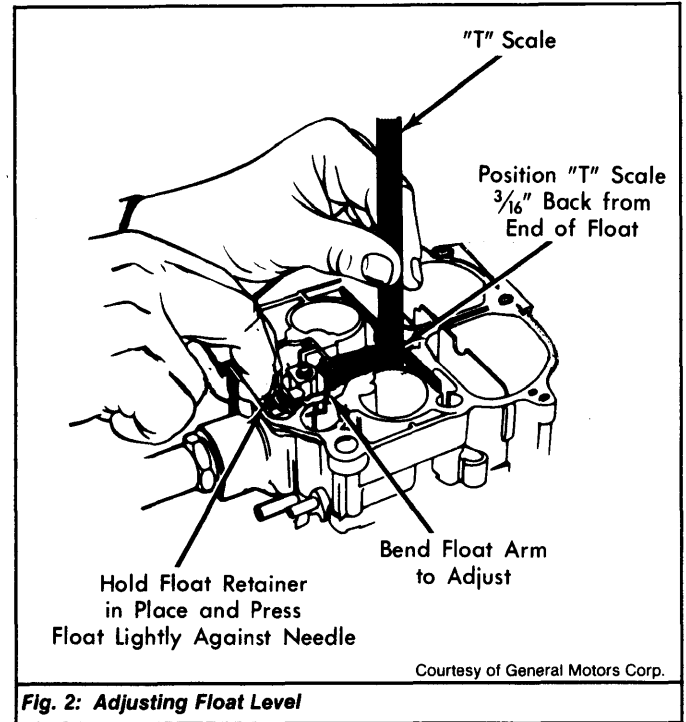


**Fig. 1: Choke Valve Angle Gauge (J-26701)**

#### FLOAT LEVEL

- 1) Remove air horn. Remove gasket from main body casting. Hold float retainer firmly in place. See Fig. 2.
- 2) Apply light finger pressure to push float gently against needle. Measure distance with "T" scale from top of casting to top of float. Gauging point should be  $\frac{3}{16}$ " back from end of float at toe.
- 3) If adjustment is needed, remove float from main body of carburetor. Bend float arm up or down. Install float and recheck float level.

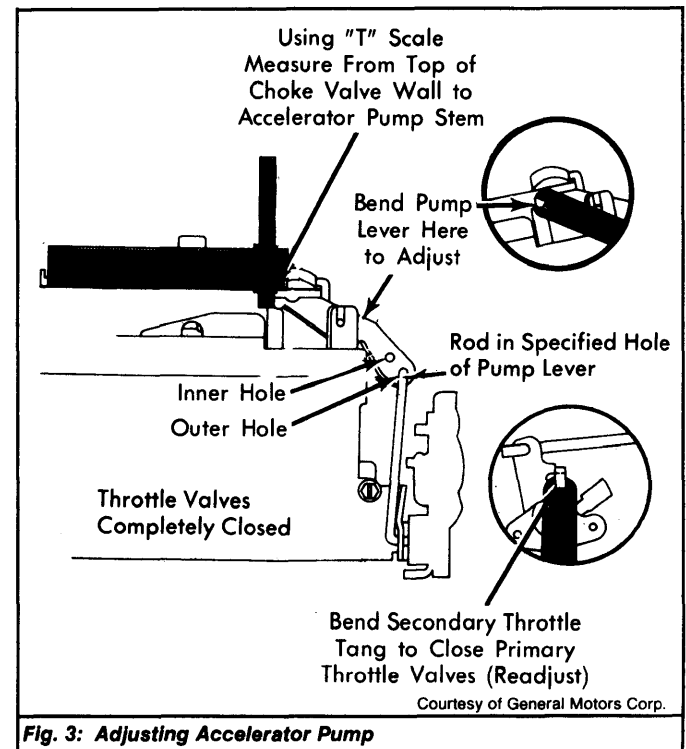
- 4) Be sure to check float alignment after adjusting operation. Install new gasket and reinstall air horn.



**Fig. 2: Adjusting Float Level**

#### ACCELERATOR PUMP ROD

- 1) Close throttle valves completely. Make sure fast idle cam follower is off fast idle cam steps. Bend secondary throttle closing tang to make sure primary throttle valves are fully closed. Readjust after accelerator pump adjustment. See Fig. 3.
- 2) Make sure accelerator pump rod is in specified hole (inner or outer) in accelerator pump lever. Using a "T" scale, measure specified distance from top of choke valve wall (next to vent stack) to top of pump stem. To adjust, bend accelerator pump lever at point shown.



**Fig. 3: Adjusting Accelerator Pump**

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## Rochester M4MC & M4ME 4-Barrel Carburetors (Cont.)

### CHOKE COIL LEVER

- 1) Loosen 3 screws retaining thermostatic cover and coil assembly and remove cover from housing. Press upward on thermostatic coil tang (counterclockwise) until choke valve is closed. See Fig. 4.
- 2) Make sure choke rod is in bottom of slot in choke lever. Insert a drill or pin gauge of specified size into hole in choke housing casting.
- 3) Lower edge of lever in choke housing should just touch drill or pin gauge. Bend choke rod at point shown to adjust. Install choke coil and cover. Adjust automatic choke.

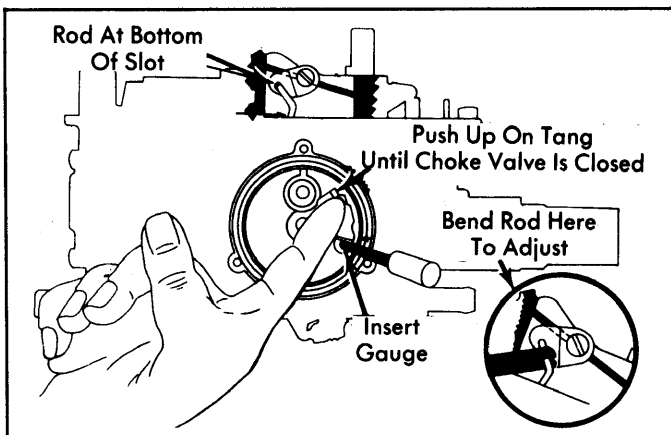


Fig. 4: Adjusting Choke Coil Lever

### AIR VALVE ROD

- Front** - 1) Using an outside vacuum source, seat primary (front) choke vacuum break diaphragm. Plug purge bleed hole (if equipped) with masking tape. Hole is found in end of diaphragm. See Fig. 6.
- 2) Make sure air valve is completely closed. Insert a .015" drill or pin gauge between rod and end of slot in lever. Bend rod at point shown to adjust clearance in slot. Remove tape and reconnect vacuum hose to diaphragm.

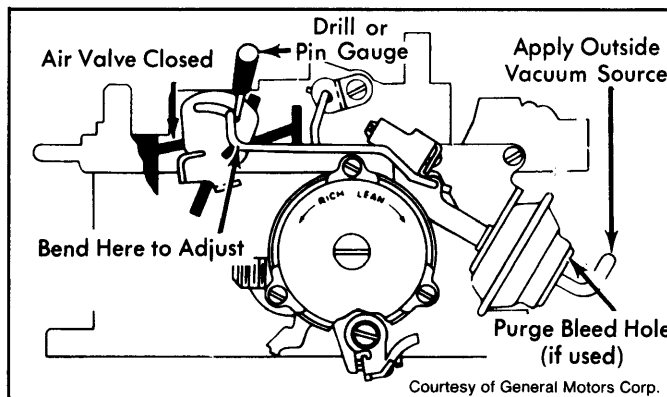


Fig. 6: Adjusting Front Air Valve Rod

- Rear** - Using an outside vacuum source, seat secondary (rear) choke vacuum break diaphragm. See Fig. 7. Make sure air valve is completely closed. Insert a .015" drill or pin gauge between rod and end of slot in lever. Bend rod at point shown to adjust clearance in slot. Reconnect vacuum hose to diaphragm.

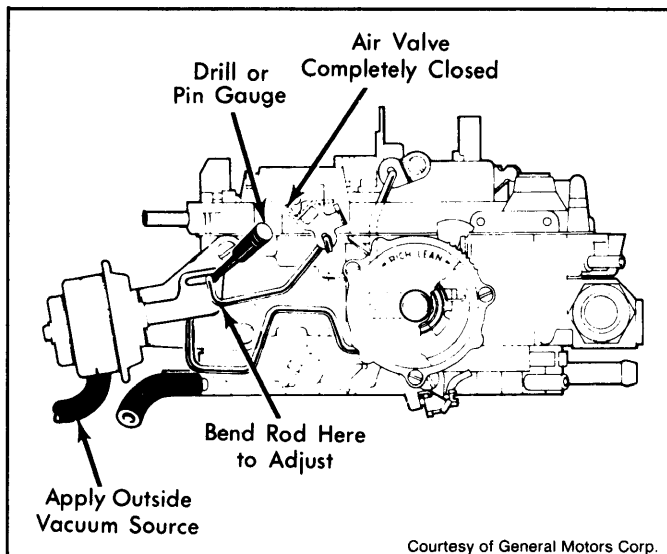


Fig. 7: Adjusting Rear Air Valve Rod

### CHOKE ROD (FAST IDLE CAM)

**NOTE: Fast idle adjustment and choke coil lever must be adjusted first. This adjustment is performed using choke valve angle gauge. See CHOKE VALVE ANGLE GAUGE in this article.**

- 1) Place fast idle speed cam follower on second step of fast idle cam against shoulder of highest step. See Fig. 5. Close choke by pushing up on choke coil lever or vacuum break lever tang. Hold choke closed with a rubber band.
- 2) Bubble on choke angle gauge should be centered with specified angle mark opposite pointer. If angle gauge is not available, measure specified clearance between upper edge of choke valve and air horn wall. To adjust, bend tang on fast idle cam until bubble on angle gauge is centered or correct clearance is obtained.

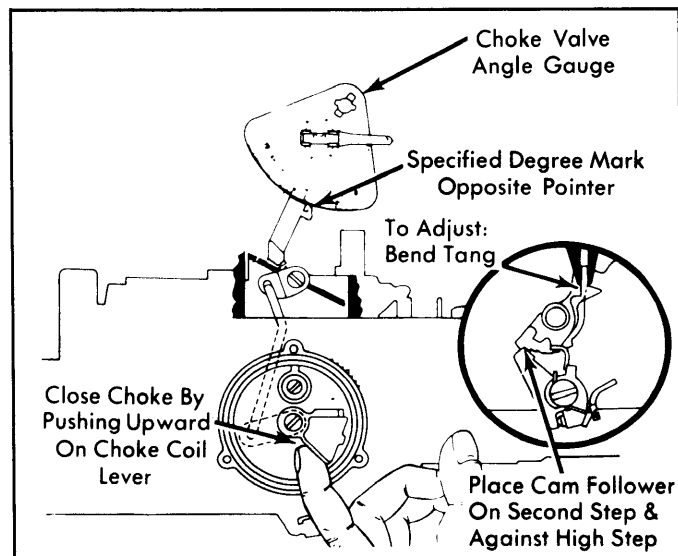


Fig. 5: Adjusting Choke Rod (Fast Idle Cam)

### FRONT VACUUM BREAK

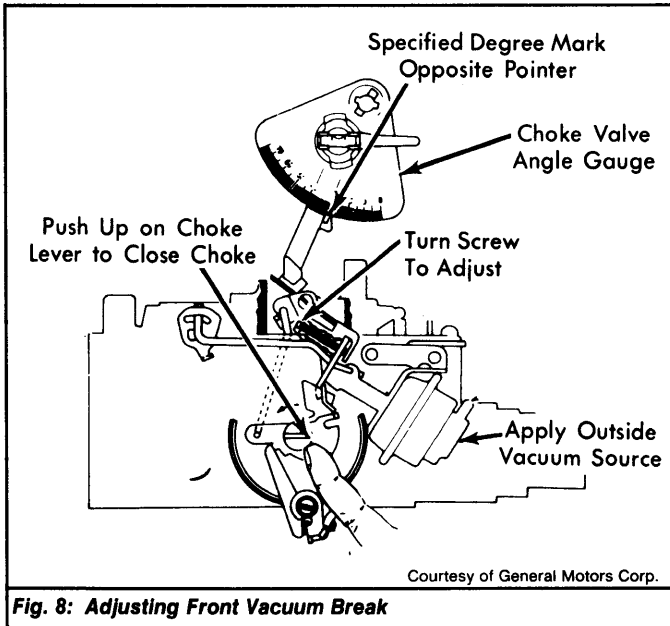
**NOTE: This adjustment is performed using choke valve angle gauge. See CHOKE VALVE ANGLE GAUGE in this article.**

- 1) Using an outside vacuum source of at least 15 in. Hg vacuum, seat front vacuum break diaphragm. See Fig. 8. Plug purge bleed hole (if equipped) with masking tape. Hold is found in end of diaphragm.
- 2) Close choke by pushing up on choke coil lever or vacuum break lever tang. Hold choke closed with a rubber band. Bubble on angle gauge should be centered with specified degree mark opposite pointer.
- 3) If angle gauge is not available, measure specified clearance between upper edge of choke valve and air horn wall. To adjust,

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## Rochester M4MC & M4ME 4-Barrel Carburetors (Cont.)

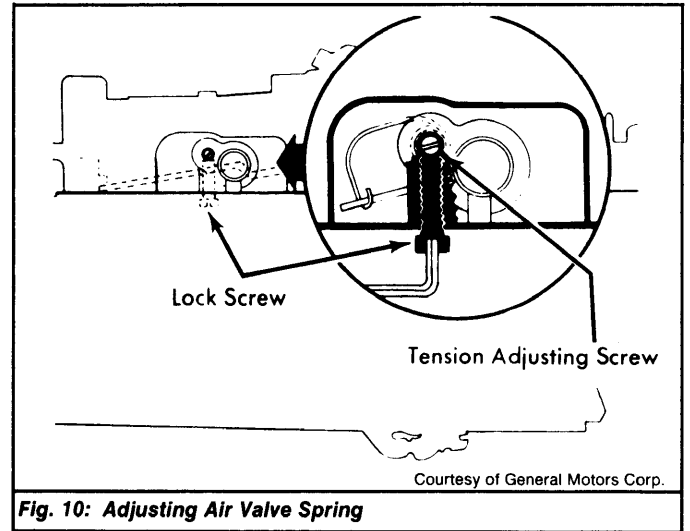
turn vacuum break adjustment screw until bubble is centered or correct clearance is obtained.



bend secondary (rear) vacuum break rod at point shown until bubble is centered or correct clearance is obtained. Do not turn screw in end of diaphragm.

### AIR VALVE SPRING

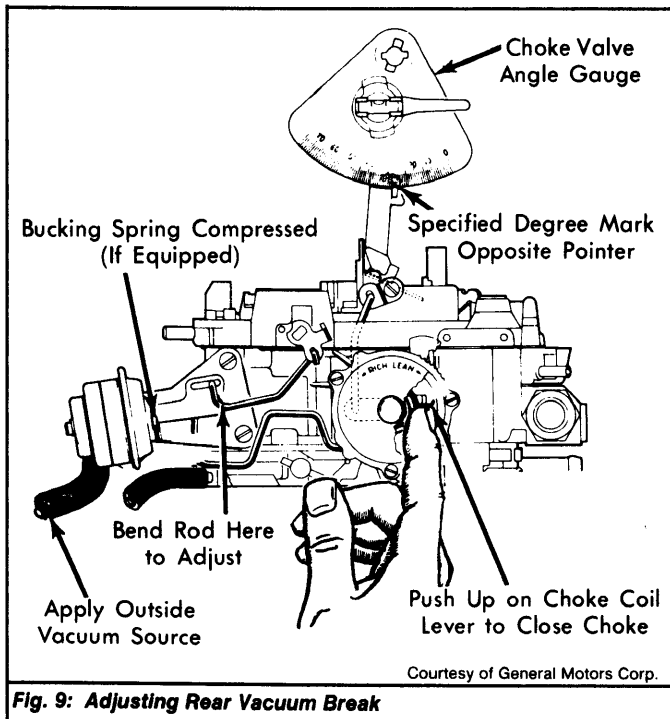
- 1) Use Allen wrench to loosen lock screw. Turn tension adjusting screw counterclockwise until air valve opens part way. See Fig. 10.
- 2) Hold air valve closed. Turn tension adjusting screw clockwise specified number after spring contacts pin. Hold adjusting screw and tighten lock screw.



### REAR VACUUM BREAK

**NOTE:** This adjustment is performed using choke valve angle gauge. See **CHOKE VALVE ANGLE GAUGE** in this article.

- 1) Using an outside vacuum source of at least 15 in. Hg vacuum, seat rear vacuum break diaphragm. See Fig. 9. Make sure bucking spring on diaphragm plunger (if equipped) is compressed and seated.
- 2) Close choke valve by pushing up on choke coil lever or vacuum break lever tang. Hold in position with a rubber band. Bubble on angle gauge should be centered with specified degree mark opposite pointer.
- 3) If angle gauge is not available, measure specified clearance between lower edge of choke valve and air horn wall. To adjust,



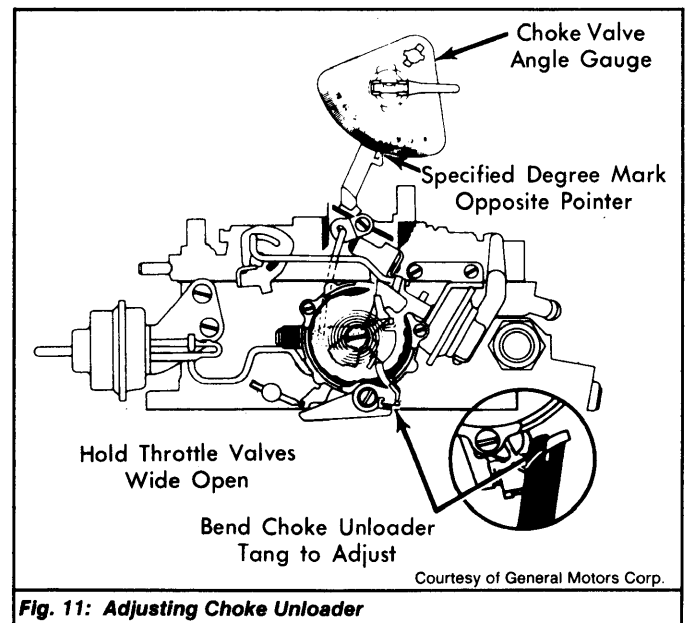
### AUTOMATIC CHOKE

Loosen 3 choke cover retaining screws. Position fast idle cam follower on high step of fast idle cam. Rotate cover in specified direction to align reference mark on cover with specified graduation in housing. Tighten cover screws.

### CHOKE UNLOADER

**NOTE:** This adjustment is performed using choke valve angle gauge. See **CHOKE VALVE ANGLE GAUGE** in this article.

- 1) Adjust automatic choke. Hold throttle valves wide open. See Fig. 11. If engine is warm, close choke valve by pushing up on vacuum break lever tang. Hold in position with a rubber band.



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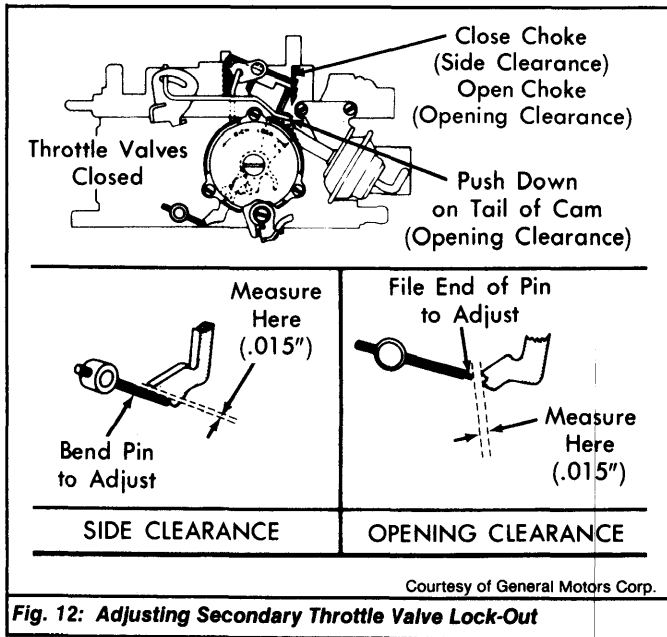
## Rochester M4MC & M4ME 4-Barrel Carburetors (Cont.)

- 2) Bubble on choke valve angle gauge should be centered with specified degree mark opposite pointer. If angle gauge is not available, measure specified clearance between upper edge of choke valve and air horn wall.
- 3) To adjust, bend choke unloader tang on throttle lever until bubble is centered or correct clearance is obtained.

### SECONDARY THROTTLE VALVE LOCK-OUT

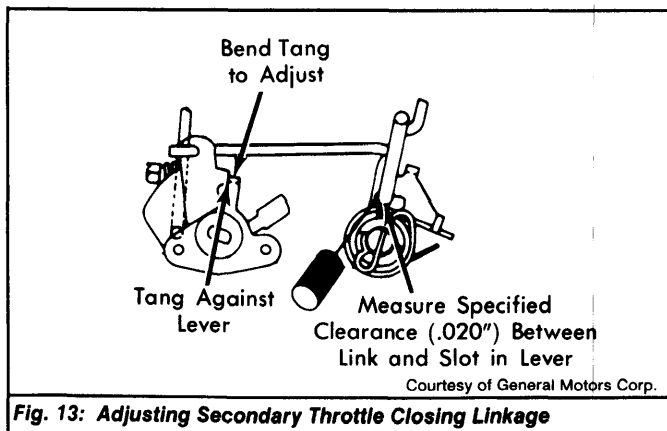
**Lock-Out Lever Side Clearance** - Hold choke valve and throttle valves closed completely. See Fig. 12. Measure secondary throttle valve lock-out specified side clearance between pin and lock-out lever. Specified clearance is .015". To adjust, bend pin.

**Lock-Out Lever Opening Clearance** - Push down on tail of fast idle cam and open choke valve completely. See Fig. 12. Measure secondary throttle valve lock-out specified opening clearance between end of pin and toe of lock-out lever. Specified clearance is .015". To adjust, file end of lock-out pin. Make sure all burrs are removed.



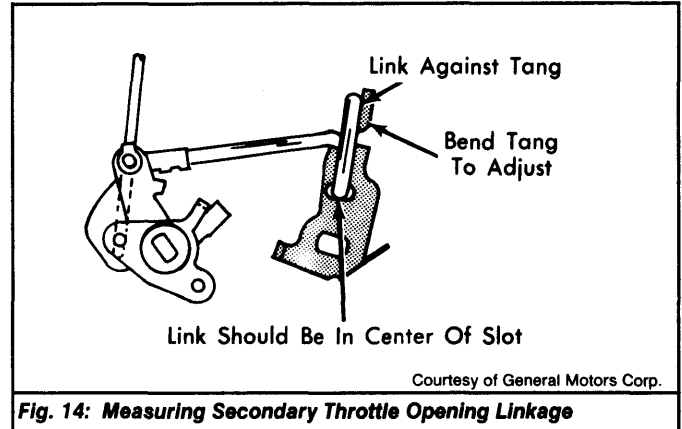
### SECONDARY CLOSING LINKAGE

- 1) Engine idle speed must be correctly adjusted. Hold choke valve wide open and make sure fast idle cam follower is off fast idle cam steps. See Fig. 13.
- 2) Make sure secondary closing lever is against tang. Measure specified clearance between secondary throttle link and slot in secondary throttle lever. Specified clearance .020". To adjust bend tang.



### SECONDARY OPENING LINKAGE

Open primary throttle valves until secondary throttle link just contacts tang on secondary throttle lever. See Fig. 14. Link should be centered in slot of secondary throttle lever. To adjust, bend tang on secondary throttle lever.



### OVERHAUL

#### CARBURETOR

**NOTE: Before performing any service on carburetor, it is essential that carburetor be placed on Holding Fixture (J-8328) to prevent damage to throttle valves.**

**Removal (Idle Stop Solenoid)** - If equipped with idle stop solenoid, remove screws securing solenoid and bracket to float bowl and remove assembly.

**Removal (Air Horn)** - 1) Remove upper choke lever from end of choke shaft by removing retaining screw. Then rotate upper choke lever to remove choke rod from slot in lever. Remove rod by holding lower lever outward with small screwdriver and twisting rod counterclockwise.

2) Remove vacuum hose from front vacuum break unit. Remove secondary metering rods by removing the small screw in top of metering rod hanger. Lift upward on metering rod hanger until secondary metering rods are completely out of air horn. Metering rods may be disassembled from hanger by rotating ends out of holes in end of hanger.

3) Drive small roll pin (pump lever pivot pin) inward until pump lever can be removed from air horn, then remove pump lever from pump rod. Remove 9 air horn-to-bowl attaching screws: 2 next to venturi, 5 short screws, and 2 countersunk screws. Remove secondary air baffle deflector, if equipped, from beneath 2 center air horn screws. Remove air horn from float bowl (using care not to bend small protruding tubes) by lifting straight up. Air horn gasket should remain on float bowl for removal later.

**Disassembly (Air Horn)** - 1) If not previously removed, remove from vacuum break bracket attaching screw. Remove diaphragm from air valve dashpot rod and remove dashpot rod from air valve lever. Further disassembly of air horn is not required or recommended for cleaning purposes, however, if part replacement is required, proceed with next step.

2) If necessary, remove staking on both choke valve attaching screws. Remove choke shaft and choke valve from air horn.

**NOTE: Air valves (secondary) and air valve shaft should not be removed. However, if it is necessary to replace air valve closing spring or center plastic eccentric cam, a repair kit is available.**

**Disassembly (Float Bowl)** - 1) Remove air horn gasket by lifting out of dowel locating pins and lifting tab of gasket from beneath power piston hanger, being careful not to distort springs holding main metering rods.

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## Rochester M4MC & M4ME 4-Barrel Carburetors (Cont.)

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2) Remove pump plunger from pump well. Remove pump return spring from pump well. Remove power piston and metering rods by depressing piston stem and allowing it to snap free. Do not remove power piston by using pliers on metering rod hanger. Remove power piston spring from well.

3) Remove metering rods from power piston by disconnecting tension spring from top of each rod. Then, rotate rod to remove from hanger.

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**NOTE: Use care when disassembling rods to prevent distortion of tension spring and metering rods. Carefully note the position of tension spring for reassembly. Remove plastic filler block over float valve.**

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4) Remove float assembly and float needle by pulling up on retaining pin. Remove float needle seat and gasket. Remove 2 cover screws and carefully lift Adjustable Part Throttle (APT) metering rod with filler spool, or aneroid, from float bowl.

5) Remove primary main metering jets. Remove pump discharge check ball retainer and check ball. Remove hose from rear vacuum break control assembly. Remove 2 screws from rear vacuum break bracket and rotate assembly to remove vacuum break rod from slot in plunger head.

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**NOTE: Do not attempt to remove APT metering jet or secondary metering orifice plates. These jets are fixed and if damaged, float bowl replacement is required.**

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6) Remove vacuum break rod by holding down on fast idle cam (hot idle position); move end of vacuum break rod away from float bowl, then disengage rod from hole in intermediate choke lever.

**Disassembly (Choke) - 1)** Remove 3 attaching screws and retainers from choke cover and coil assembly, then pull straight outward and remove cover and coil assembly from choke housing. Remove choke cover gasket.

2) It is not necessary to remove baffle plate from beneath thermostatic coil. Distortion of thermostatic coil may result if forced off center retaining post on choke cover.

3) Remove choke housing assembly from float bowl by removing retaining screw and washer inside choke housing. Complete choke assembly can be removed from float bowl by sliding outward.

4) Remove secondary throttle valve lock-out lever from float bowl and lower choke lever from inside float bowl cavity (invert bowl to remove). Remove plastic tube seal from choke housing.

5) To disassemble intermediate choke shaft from choke housing, remove coil lever retaining screw at end of shaft inside choke housing. Then remove thermostatic coil lever from flats on intermediate choke shaft. Remove intermediate choke shaft from choke housing by sliding outward. Fast idle cam can now be removed from intermediate choke shaft.

6) Remove cup seal from inside choke housing shaft hole if housing is to be immersed in carburetor cleaner. Also, remove cup seal from float bowl plastic insert for bowl cleaning purposes. DO NOT attempt to remove plastic insert.

**Disassembly (Throttle Body) - 1)** Remove accelerator pump rod from throttle lever. Invert throttle body and position on a holding fixture with manifold side up. Position a punch in between 2 locator points on manifold side of throttle body. There are 2 locator points adjacent to each mixture screw.

2) Using a hammer, drive punch against throttle body to break out portion of throttle body to gain access to idle mixture screw plugs. Drive out hardened steel plugs.

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**CAUTION: Hardened steel plugs will shatter. It is not necessary to remove plug completely. Remove just enough pieces to allow Idle Mixture Adjuster (J-28706) or a thin walled  $\frac{3}{16}$ " deep socket to be used to remove mixture screws and spring.**

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**Cleaning & Inspection -** Use a regular carburetor cleaning solution. Soak components long enough to thoroughly clean all surfaces and passages of foreign matter. Remove any residue after cleaning by

rinsing components in a suitable solvent. Do not soak any components containing rubber, leather or plastic. Blow out all passages with dry compressed air.

**Reassembly (Throttle Body) - 1)** Install idle mixture screws and springs. Lightly seat screws, then back out 2 turns as a preliminary adjustment.

2) Install accelerator pump rod in throttle lever. Align tang on rod with slot in lever. End of rod should point outward toward throttle lever.

**Reassembly (Choke Housing) - 1)** Install new cup seal into insert on side of float bowls for intermediate choke shaft. Lip of cup seal faces outward. Install secondary throttle valve lock-out lever on boss on float bowl with recess in hole in lever facing carburetor bowl. Install intermediate choke shaft (steps on fast idle cam face downward).

2) Carefully install fast idle cam and intermediate choke shaft assembly in choke housing. Install thermostatic coil lever onto flats on intermediate choke shaft. Inside thermostatic choke coil lever is properly aligned when both inside and outside levers face toward fuel inlet. Install inside lever retaining screw into end of intermediate choke shaft and tighten.

3) Install lower choke rod lever into cavity in float bowl. Install choke housing-to-bowl sliding intermediate choke shaft into lower choke lever. Install choke housing retaining screws and washers. Do not install choke cover and coil assembly until choke coil lever is properly adjusted.

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**NOTE: The intermediate choke shaft lever and fast idle cam are in correct relationship when tang on lever is beneath fast idle cam.**

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**Reassembly (Float Bowl) - 1)** Install new throttle body gasket over 2 locating dowels on bowl. Install throttle body, making certain throttle body is properly located over dowels on float bowl, then install 2 throttle body-to-bowl screws and tighten.

2) Place carburetor on holding fixture. Install fuel inlet filter spring, filter, new gasket, inlet nut and tighten inlet nut to 18 ft. lbs. Install air baffle in secondary side of float bowl with notches toward top. Top edge of baffle must be flush with bowl casting.

3) If removed, install baffle in pump well slot. Install accelerator pump discharge check ball and retainer in passage next to pump well. Tighten retainer. Install primary main metering jets. Install aneroid cavity insert into float bowl.

4) Install new needle seat assembly with gasket. To facilitate adjustment, bend float arm upward at notch in arm before assembly. Install float by sliding float lever under pull-clip from front to back. With float lever in pull-clip, hold float assembly at toe and install retaining pin from APT metering side.

5) Adjust float level. Install plastic filler block over float needle, pressing downward until properly seated. Install power piston spring in power piston well. If main metering rods were removed from hanger, reinstall, making sure tension spring is connected to top of each rod.

6) Install power piston assembly in well with metering rods properly positioned in metering jets. Press down firmly on plastic power piston retainer to make sure retainer is seated in recess in bowl and top is flush with top of bowl casting. If necessary, tap retainer lightly into place.

7) Install pump return spring in pump well. Install air horn gasket by carefully sliding tab of gasket around main metering rods and beneath power piston hanger. Position gasket over 2 dowel pins on float bowl.

8) Carefully lift one corner of air horn gasket and install pump plunger in pump well by pushing plunger to bottom of well against return spring tension. While holding in this position, align pump plunger stem with hole in gasket and press in place.

**Reassembly (Air Horn) - 1)** If removed, install choke shaft, choke valve, and 2 attaching screws. Tighten screws securely and stake lightly into place. Check choke valve for freedom of movement and proper alignment before staking screws in place.

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## Rochester M4MC & M4ME 4-Barrel Carburetors (Cont.)

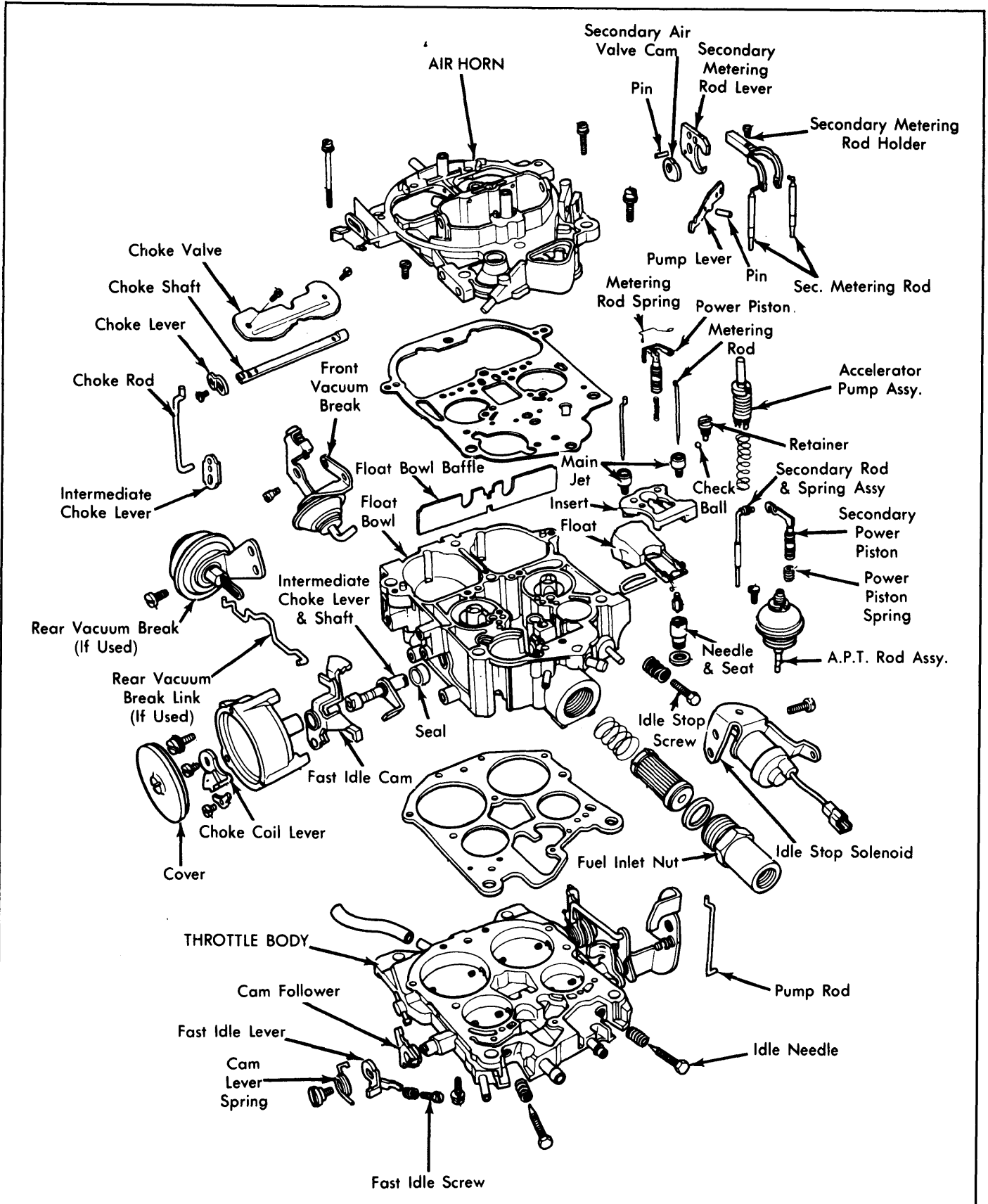


Fig. 15: Exploded View of Rochester Model M4MC 4-Barrel Carburetor

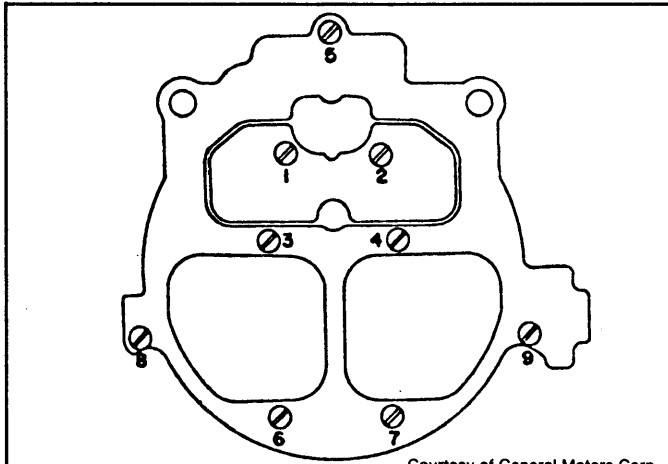
Courtesy of General Motors Corp.

## Rochester M4MC & M4ME 4-Barrel Carburetors (Cont.)

2) Holding down on air horn gasket at pump plunger location, carefully lower air horn assembly onto float bowl, making sure that bleed tubes, accelerating well tubes, pullover enrichment tubes (if used), and pump plunger stem are positioned properly through holes in air horn gasket.

**NOTE: DO NOT force air horn assembly onto bowl, but rather lower lightly into place.**

3) Install 2 long air horn screws, 5 short screws, and 2 countersunk screws into primary venturi area. If used, install secondary air baffle beneath 2 center air horn screws. All air horn screws must be tightened evenly and securely. See Fig. 16..



Courtesy of General Motors Corp.

Fig. 16: Air Horn Screw Tightening Sequence

4) Install vacuum break diaphragm rod into slot in lever on end of air valve shaft. Then, install other end of rod into hole in front vacuum break diaphragm plunger. Install front vacuum break control and bracket assembly to air horn, using 2 retaining screws through bracket. Tighten screws securely. Do not attach vacuum break hose until vacuum break adjustment is complete.

5) Connect upper end of pump rod-to-pump lever by placing rod in specified hole in lever. Align hole in pump lever with hole in air horn casting. Using small screwdriver, push pump lever roll pin back through casting until end of pin is flush with casting bosses in air horn.

6) Install 2 secondary metering rods into secondary metering rod hanger (upper end of rods point toward each other). Install secondary metering rod holder, with rods onto air valve cam follower. Install retaining screw and tighten securely. Work air valves up and down several times to ensure they are free in all positions.

7) Connect choke rod into lower choke lever inside bowl cavity. Install choke rod into slot in upper choke lever and retain choke lever to end of choke shaft with attaching screw. Make sure that flats on end of choke shaft align with flats in choke lever. Front and rear vacuum break units, fast idle cam (choke rod), and inside thermostatic choke coil lever must be adjusted properly before installing choke thermostatic coil and cover assembly and gasket.

8) After above adjustments are complete, the thermostatic coil and cover assembly and gasket should be installed and cover assembly rotated until choke valve just closes. On all models except 454" engine, tang on thermostatic coil must be installed in slot in inside choke coil lever pickup arm. At this point, index cover should be adjusted. Install 3 choke cover retainers and screws and tighten securely. If used, position and retain idle stop solenoid and bracket assembly or decel throttle stop vacuum assembly.

### 1975 CARBURETOR ADJUSTMENT SPECIFICATIONS

Rochester Carb. No. ①	Unloader	Pump Rod	Float Setting	Pump Rod Location	Choke Rod	Air Valve Dashpot	Rear Vac. Break	Front Break Setting	Air Valve Windup	Choke Coil Lever
Chev. & GMC										
5202	.325"	.275"	1 1/32"	Inner	.300"	.015"	.170"	.180"	7/8"	.120"
5203	.325"	.275"	1 1/32"	Inner	.300"	.015"	.170"	.180"	7/8"	.120"
5218	.325"	.275"	1 1/32"	Inner	.325"	.015"	.170"	.180"	3/4"	.120"
5219	.325"	.275"	1 1/32"	Inner	.325"	.015"	.175"	.180"	3/4"	.120"
5220	.325"	.275"	1 1/32"	Inner	.300"	.015"	.550"	.200"	9/16"	.120"
5512	.325"	.275"	1 1/32"	Inner	.300"	.015"	.550"	.180"	9/16"	.120"
5517	.325"	.275"	1 1/32"	Inner	.300"	.015"	.550"	.180"	9/16"	.120"

① — Basic prefix number is 704.

# 1975-79 FUEL SYSTEMS

## Rochester M4MC & M4ME 4-Barrel Carburetors (Cont.)

1976 CARBURETOR ADJUSTMENT SPECIFICATIONS										
Rochester Carb. No. ①	Idle Speed (Engine RPM)		Float Level Setting	Pump Rod Setting ②	Choke Rod Setting	Choke Unloader Setting	Rear Vacuum Break	Front Vacuum Break	Air ③ Valve Windup	Auto. Choke Setting
	Hot	Fast								
<b>M4MC</b>										
6208	600	1600	$\frac{5}{16}$ " ④	$\frac{3}{32}$ "	.325"	.325"	.....	.185"	$\frac{7}{8}$	2NL
6209	800	1600	$\frac{7}{16}$ " ④	$\frac{3}{32}$ "	.325"	.325"	.....	.185"	$\frac{7}{8}$	3NL
6218	600	1600	$\frac{5}{16}$ "	$\frac{3}{32}$ "	.325"	.325"	.....	.185"	$\frac{7}{8}$	2NL
6219	800	1600	$\frac{5}{16}$ "	$\frac{3}{32}$ "	.325"	.325"	.....	.185"	$\frac{7}{8}$	3NL
6508	800	1600	$\frac{5}{16}$ " ④	$\frac{3}{32}$ "	.325"	.325"	.....	.185"	$\frac{7}{8}$	2NL
6509	800	1600	$\frac{5}{16}$ " ④	$\frac{3}{32}$ "	.325"	.325"	.....	.185"	$\frac{7}{8}$	1NL
6512	600③	1600	$\frac{7}{16}$ "	$\frac{3}{32}$ "	.325"	.275"	.....	.185"	$\frac{7}{8}$	Index
6517	600	1600	$\frac{7}{16}$ "	$\frac{3}{32}$ "	.325"	.275"	.....	.185"	$\frac{7}{8}$	Index
6518	600	1600	$\frac{5}{16}$ "	$\frac{3}{32}$ "	.325"	.325"	.....	.185"	$\frac{7}{8}$	2NL
6519	800	1600	$\frac{5}{16}$ "	$\frac{3}{32}$ "	.325"	.325"	.....	.185"	$\frac{7}{8}$	1NL
<b>M4ME</b>										
6221	600	1600	$\frac{7}{16}$ "	$\frac{3}{32}$ "	.300"	.325"	.160"	.....	$\frac{7}{8}$	2NR

① — Prefix is 1705.

② — All adjustments made with rod in inner hole.

③ — 800 RPM if used on manual transmission.

④ —  $\frac{7}{16}$ " if needle seat has no groove at upper edge.

⑤ — Amount of turn required on tension adjusting screw.

1977 CARBURETOR ADJUSTMENT SPECIFICATIONS										
Rochester Carb. No. ①	Idle Speed (Engine RPM)		Float Level Setting	Pump Rod Setting	Choke Rod Setting	Choke Unloader Setting	Rear Vacuum Break	Front Vacuum Break	Air ② Valve Windup	Auto. Choke Setting
	Hot	Fast								
<b>M4MC</b>										
7202	500②	1600	$\frac{15}{32}$ "	$\frac{3}{32}$ " ③	.325"	.280"	.....	.160"	$\frac{7}{8}$	2 NL
7204	500②	1600	$\frac{15}{32}$ "	$\frac{3}{32}$ " ③	.325"	.280"	.....	.160"	$\frac{7}{8}$	2 NL
7209	700	1300	$\frac{7}{16}$ "	$\frac{3}{32}$ " ③	.325"	.325"	.....	.165"	$\frac{7}{8}$	3 NL
7218	500②	1600	$\frac{7}{16}$ "	$\frac{3}{32}$ " ③	.325"	.280"	.....	.160"	$\frac{7}{8}$	2 NL
7219	700	1300	$\frac{7}{16}$ "	$\frac{3}{32}$ " ③	.325"	.280"	.....	.165"	$\frac{7}{8}$	3 NL
7222	500②	1600	$\frac{7}{16}$ "	$\frac{3}{32}$ " ③	.325"	.280"	.....	.160"	$\frac{7}{8}$	2 NL
7254	④	④	$\frac{15}{32}$ "	$\frac{3}{32}$ " ③	.100"	.220"	.....	.135"	$\frac{1}{2}$	3 NR
7502	500②	1600	$\frac{15}{32}$ "	$\frac{3}{32}$ " ③	.325"	.280"	.....	.165"	$\frac{7}{8}$	2 NL
7503	700	1300	$\frac{15}{32}$ "	$\frac{3}{32}$ " ③	.325"	.280"	.....	.165"	$\frac{7}{8}$	1 NL
7504	500②	1600	$\frac{15}{32}$ "	$\frac{3}{32}$ " ③	.325"	.280"	.....	.165"	$\frac{7}{8}$	2 NL
7512	700	1700	$\frac{7}{16}$ "	$\frac{3}{32}$ " ③	.285"	.240"	.....	.165"	$\frac{7}{8}$	Index
7517	700	1700	$\frac{7}{16}$ "	$\frac{3}{32}$ " ③	.285"	.240"	.....	.165"	$\frac{7}{8}$	Index
7518	500②	1600	$\frac{7}{16}$ "	$\frac{3}{32}$ " ③	.325"	.280"	.....	.165"	$\frac{7}{8}$	2 NL
7519	700	1300	$\frac{7}{16}$ "	$\frac{3}{32}$ " ③	.325"	.280"	.....	.165"	$\frac{7}{8}$	1 NL
7522	500②	1600	$\frac{7}{16}$ "	$\frac{3}{32}$ " ③	.325"	.280"	.....	.165"	$\frac{7}{8}$	2 NL
7582	600②	1600	$\frac{15}{32}$ "	$\frac{3}{32}$ " ④	.325"	.280"	.....	.180"	$\frac{7}{8}$	2 NL
7584	600②	1600	$\frac{15}{32}$ "	$\frac{3}{32}$ " ④	.325"	.280"	.....	.180"	$\frac{7}{8}$	2 NL
7586	600②	1600	$\frac{7}{16}$ "	$\frac{3}{32}$ " ④	.325"	.280"	.....	.180"	$\frac{7}{8}$	2 NL
7588	600②	1600	$\frac{7}{16}$ "	$\frac{3}{32}$ " ④	.325"	.280"	.....	.180"	$\frac{7}{8}$	2 NL
<b>M4ME</b>										
7221	600②	1600	$\frac{3}{8}$ "	$\frac{3}{32}$ " ③	.325"	.325"	.160"	⑤	$\frac{7}{8}$	2 NR

① — Prefix for all units is #1705.

② — Transmission in DRIVE. Models with A/C — solenoid screw idle speed is 650 RPM in DRIVE.

③ — Inner hole

④ — Outer hole

⑤ — Dashpot equipped

⑥ — See Emission Control Tune-Up Decal.

⑦ — Number of turns to tension screw.

# 1975-79 FUEL SYSTEMS

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## Rochester M4MC & M4ME 4-Barrel Carburetors (Cont.)

1978 CARBURETOR ADJUSTMENT SPECIFICATIONS										
Rochester Carb. No.	Idle Speed (Engine RPM)		Float Level Setting	Pump Rod Setting	Choke Rod Setting ②	Choke Unloader Setting ②	Secondary Throttle Lockout	Front Vacuum Break ②	Air Valve Windup	Auto. Choke Setting
	Hot	Fast								
17058201	①	①	15/32"	③ 9/32"	46° .314"	42° .277"	.015"	28.5° .167"	7/8	3NL
17058218	①	①	7/16"	③ 9/32"	46° .314"	42° .277"	.015"	27° .157"	7/8	2NL
17058219	①	①	7/16"	③ 9/32"	46° .314"	42° .277"	.015"	28.5° .167"	7/8	3NL
17058222	①	①	7/16"	③ 9/32"	46° .314"	42° .277"	.015"	27° .157"	7/8	2NL
17058503	①	①	15/32"	③ 9/32"	46° .314"	42° .277"	.015"	30° .179"	7/8	1NL
17058506	①	①	15/32"	③ 9/32"	46° .314"	42° .277"	.015"	30° .179"	7/8	1NL
17058508	①	①	15/32"	③ 9/32"	46° .314"	42° .277"	.015"	30° .179"	7/8	1NL
17058519	①	①	15/32"	③ 9/32"	46° .314"	42° .277"	.015"	30° .179"	7/8	1NL
17058518	①	①	15/32"	③ 9/32"	46° .314"	42° .277"	.015"	30° .179"	7/8	1NL
17058522	①	①	15/32"	③ 9/32"	46° .314"	42° .277"	.015"	30° .179"	7/8	1NL
17058509	①	①	15/32"	④ 11/32"	46° .314"	42° .277"	.015"	30° .179"	7/8	2NL
17058510	①	①	15/32"	④ 11/32"	46° .314"	42° .277"	.015"	30° .179"	7/8	2NL
17058586	①	①	15/32"	④ 11/32"	46° .314"	42° .277"	.015"	30° .179"	7/8	2NL
17058588	①	①	15/32"	④ 11/32"	46° .314"	42° .277"	.015"	30° .179"	7/8	2NL
17058523	①	①	15/32"	③ 9/32"	46° .314"	42° .277"	.015"	30° .179"	7/8	1NL
17058524	①	①	15/32"	③ 9/32"	46° .314"	42° .277"	.015"	30° .179"	7/8	1NL
17058527	①	①	15/32"	③ 9/32"	46° .314"	42° .277"	.015"	30° .179"	7/8	1NL
17058528	①	①	15/32"	③ 9/32"	46° .314"	42° .277"	.015"	30° .179"	7/8	1NL
17058520	①	①	3/8"	③ 9/32"	46° .314"	42° .277"	.015"	28° .164"	7/8	3NL
17058521	①	①	3/8"	③ 9/32"	46° .314"	42° .277"	.015"	28° .164"	7/8	3NL
17058512	①	①	13/32"	③ 9/32"	46° .314"	40° .260"	.015"	28.5° .167"	7/8	Index
17058501	①	①	3/8"	③ 9/32"	46° .314"	42° .277"	.015"	28° .164"	7/8	3NL

- ① - See Emission Control Decal.
- ② - Both angle degree and decimal conversion are given.
- ③ - Inner hole location
- ④ - Outer hole location

# 1975-79 FUEL SYSTEMS

## Rochester M4MC & M4ME 4-Barrel Carburetor (Cont.)

1979 CARBURETOR ADJUSTMENT SPECIFICATIONS										
Application	Float Level Setting	Accelerator Pump		Choke Coil Lever Setting	Choke Rod Setting <sup>①</sup>	Vacuum Break		Air Valve Spring Setting <sup>②</sup>	Auto. Choke Setting	Choke Unloader Setting
		Stem Setting	Hole Setting			Front Setting <sup>①</sup>	Rear Setting <sup>①</sup>			
17059061	15/32"	13/32"	Inner	.120"	46°	.....	23°	7/8	Index	42°
17509065	15/32"	13/32"	Inner	.120"	46°	.....	23°	7/8	1 Lean	42°
17059066	15/32"	13/32"	Inner	.120"	46°	.....	23°	7/8	1 Lean	42°
17059068	15/32"	13/32"	Inner	.120"	46°	.....	23°	7/8	1 Lean	42°
17059069	15/32"	13/32"	Inner	.120"	46°	.....	23°	7/8	1 Lean	42°
17059076	15/32"	13/32"	Inner	.120"	46°	.....	23°	7/8	1 Lean	42°
17059077	15/32"	13/32"	Inner	.120"	46°	.....	23°	7/8	1 Lean	42°
17059201	15/32"	15/32"	Inner	.120"	46°	.....	23°	7/8	Index	42°
17059205	15/32"	15/32"	Inner	.120"	46°	.....	23°	7/8	1 Lean	42°
17059206	15/32"	15/32"	Inner	.120"	46°	.....	23°	7/8	1 Lean	42°
17059208	15/32"	15/32"	Inner	.120"	46°	.....	23°	7/8	1 Lean	42°
17059209	15/32"	15/32"	Inner	.120"	46°	.....	23°	7/8	1 Lean	42°
17059212	7/16"	9/32"	Inner	.120"	46°	24°	.....	3/4	1 Rich	40°
17059213	15/32"	9/32"	Inner	.120"	37°	23°	.....	1	1 Rich	40°
17059215	15/32"	9/32"	Inner	.120"	37°	23°	.....	1	1 Rich	40°
17059226	15/32"	15/32"	Inner	.120"	46°	.....	23°	7/8	1 Lean	42°
17059227	15/32"	15/32"	Inner	.120"	46°	.....	23°	7/8	1 Lean	42°
17059229	15/32"	9/32"	Inner	.120"	37°	23°	.....	1	1 Rich	40°
17059363	15/32"	13/32"	Inner	.120"	46°	.....	26°	7/8	1 Lean	42°
17059366	15/32"	13/32"	Inner	.120"	46°	.....	26°	7/8	1 Lean	42°
17059368	15/32"	13/32"	Inner	.120"	46°	.....	26°	7/8	1 Lean	42°
17059501	15/32"	13/32"	Inner	.120"	46°	28°	.....	7/8	3 Lean	42°
17059503	15/32"	13/32"	Inner	.120"	46°	.....	26°	7/8	1 Lean	42°
17059506	15/32"	13/32"	Inner	.120"	46°	.....	26°	7/8	1 Lean	42°
17059508	15/32"	13/32"	Inner	.120"	46°	.....	26°	7/8	1 Lean	42°
17059509	15/32"	13/32"	Inner	.120"	46°	30°	.....	7/8	2 Lean	42°
17059510	15/32"	9/32"	Inner	.120"	46°	30°	.....	7/8	2 Lean	42°
17059512	13/32"	9/32"	Inner	.120"	46°	24°	.....	3/4	1 Rich	40°
17059513	15/32"	9/32"	Inner	.120"	37°	23°	.....	1	1 Rich	40°
17059515	15/32"	9/32"	Inner	.120"	37°	23°	.....	1	1 Rich	40°
17059520	15/32"	9/32"	Inner	.120"	46°	28°	.....	7/8	3 Lean	42°
17059521	15/32"	9/32"	Inner	.120"	46°	28°	.....	7/8	3 Lean	42°
17059527	15/32"	9/32"	Outer	.120"	46°	.....	26°	7/8	1 Lean	42°
17059528	15/32"	9/32"	Outer	.120"	46°	.....	26°	7/8	1 Lean	42°
17059529	15/32"	9/32"	Inner	.120"	37°	23°	.....	1	1 Rich	40°
17059586	15/32"	13/32"	Inner	.120"	46°	30°	.....	7/8	2 Lean	42°
17059388	15/32"	13/32"	Inner	.120"	46°	30°	.....	7/8	2 Lean	42°

① — 23° = .129"; 24° = .146"; 26° = .149"; 28° = .164"; 30° = .179"; 37° = .234"; 40° = 277"; 42° = .314"

② — Amount of turns clockwise.