

1975-79 FUEL SYSTEMS

Rochester 1ME 1-Barrel Carburetor

1977-79 General Motors

CARBURETOR APPLICATION

1977 ROCHESTER CARBURETOR NUMBERS

Application	Man. Trans.	Auto. Trans.
250" Light Duty C10 & G10		
Federal	17057001	17057002
Calif.	17057303	17057302
High Alt.	17057005	17057010
250" Heavy Duty	17057007	17057006
292" Heavy Duty		
Federal	17057009	17057008
Calif.	17057309	17057308

1 - Air conditioned models use carburetor No. 7057004.

1978 ROCHESTER CARBURETOR NUMBERS

Application	Man. Trans.	Auto. Trans.
250"		
Federal	17058007	17058006
	17058021	17058022
	17058311	17058084
	17058312	17058024
	17058009	17058310
	17058081	17058008
	17058313	17058082
California	17058007	17058006
	17058311	17058310
	17058009	17058008
	17058313	17058312
High Altitude	17058015	17058015
	17058009	17058017
262"		
Federal	17058009	17058008
California	17058009	17058008
	17058309	17058308
	17058359	17058358

1979 ROCHESTER CARBURETOR NUMBERS

Application	Man. Trans.	Auto. Trans.
292"		
Federal	17059009	17059009
California		
"C" & "K" Series	17059039	17059039
"P" Series	17059359	17059359

CARBURETOR IDENTIFICATION

The carburetor model identification is stamped on a vertical portion of the float bowl, adjacent to the fuel inlet nut. If replacing float bowl, follow manufacturer's instructions contained in service package so that the identification number can be transferred to the new float bowl.

DESCRIPTION

The Rochester model 1ME carburetor is a single barrel, downdraft type carburetor using a triple venturi in conjunction with a plain tube nozzle. This model carburetor incorporates an electrically activated integral automatic choke system.

The choke vacuum diaphragm is mounted externally to carburetor air horn and is connected to thermostatic coil lever through a connector link. An electrically actuated idle stop solenoid and dual throttle return springs are used on all models.

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

See appropriate article in TUNE-UP PROCEDURES section.

FLOAT LEVEL

1) Remove air horn. Hold float pin firmly in place. Push down on end of float arm against top of float needle. See Fig. 1. With gasket removed, use a "T" scale to measure distance from top of casting to index point at toe of float.

2) If adjustment is needed, gently bend float arm up or down. Do not force needle against needle seat to avoid damage. Install new gasket, replace air horn. Start engine and check for leaks.

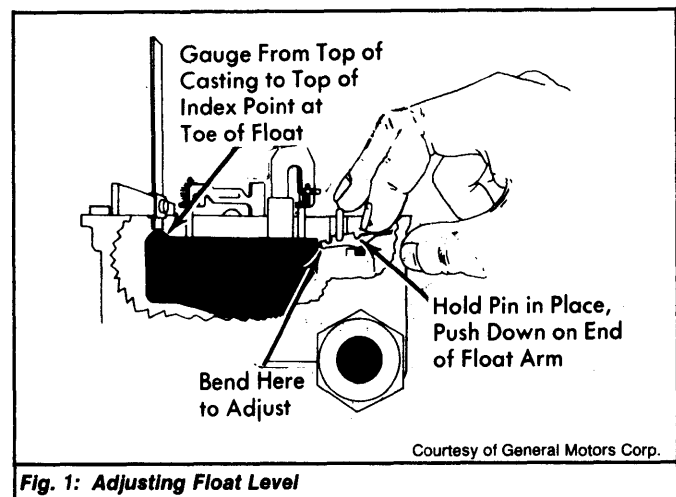


Fig. 1: Adjusting Float Level

METERING ROD

1) Remove air horn and gasket. Hold throttle valve wide open. Push down on metering rod against spring tension. See Fig. 2. Slide metering rod out of slot in holder and remove from main metering jet.

2) Back out idle stop solenoid. Hold throttle valve in fully closed position. Press down on power piston. Swing metering rod holder over flat surface of bowl casting next to bore.

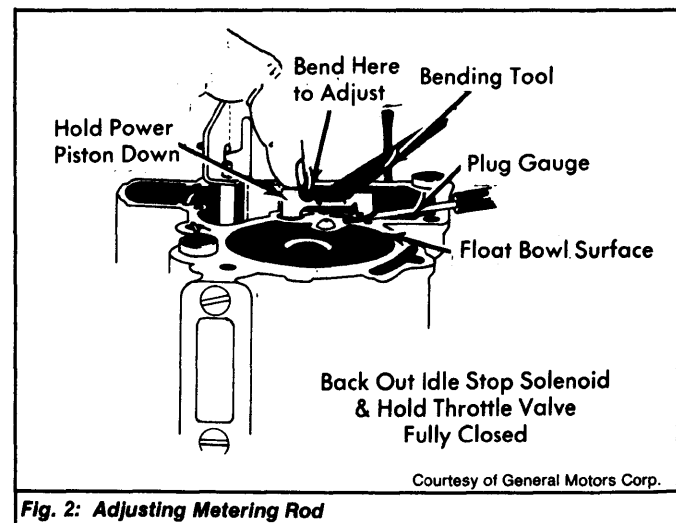


Fig. 2: Adjusting Metering Rod

1975-79 FUEL SYSTEMS

Rochester 1ME 1-Barrel Carburetor (Cont.)

3) Measure specified clearance between rod holder and carburetor surface. Measurement can be made using a drill or pin gauge. If adjustment is needed, gently bend holder arm up or down. Recheck clearance. Reassemble carburetor. Install new air horn-to-body gasket. Check for leaks.

CHOKE COIL LEVER

Place cam follower on highest step of fast idle cam. Hold choke valve closed. See Fig. 3. If adjustment is correct, specified gauge should be able to pass through hole in lever and enter hole in casting. Bend connector link to adjust. See appropriate CARBURETOR ADJUSTMENT SPECIFICATIONS table.

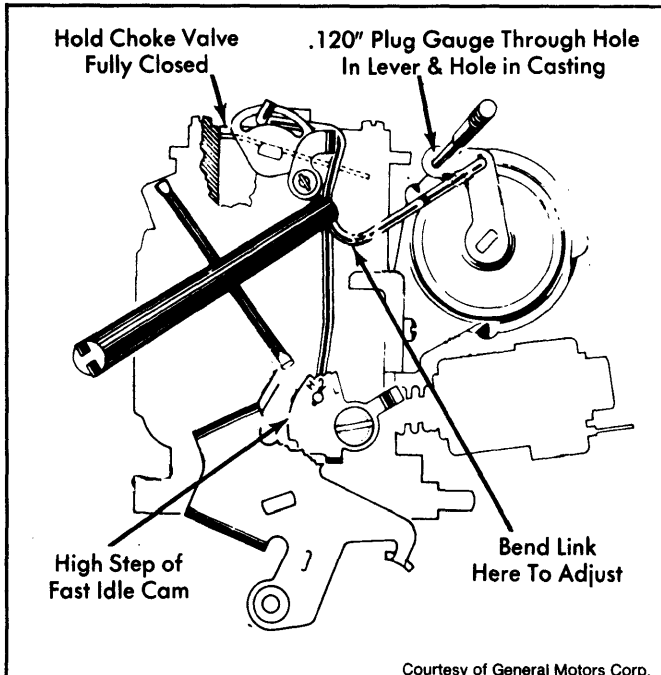


Fig. 3: Adjusting Choke Coil Lever

Courtesy of General Motors Corp.

AUTOMATIC CHOKE

Loosen choke coil cover retaining screws. Place cam follower on highest step of fast idle cam. With choke coil lever located inside

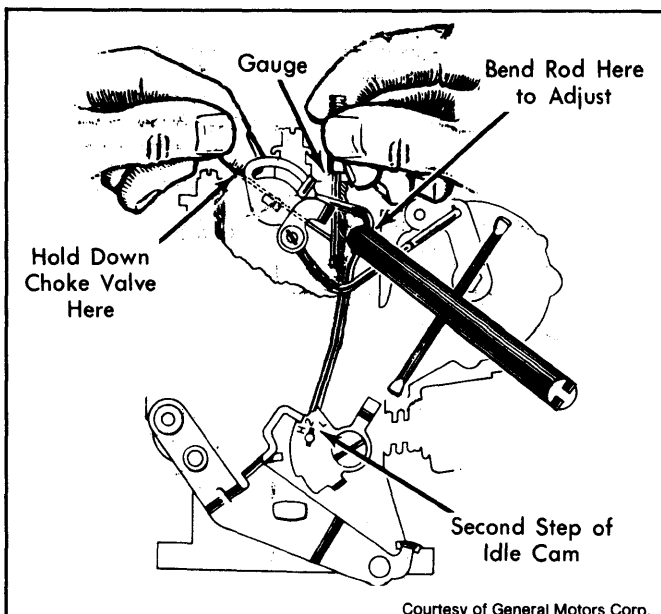


Fig. 4: Adjusting Choke Coil Rod

Courtesy of General Motors Corp.

coil tang, align mark on electric choke with index mark on choke housing. Tighten retaining screws.

CHOKE COIL ROD (FAST IDLE CAM)

- 1) Make sure fast idle speed is correctly set. Place fast idle cam follower on second step of fast idle cam, against shoulder of highest step. See Fig. 4.
- 2) Apply light closing pressure to choke valve. Measure specified clearance between lower edge of choke valve and air horn wall. Measurement can be made with a specified drill or pin gauge. To adjust, bend fast idle cam rod.

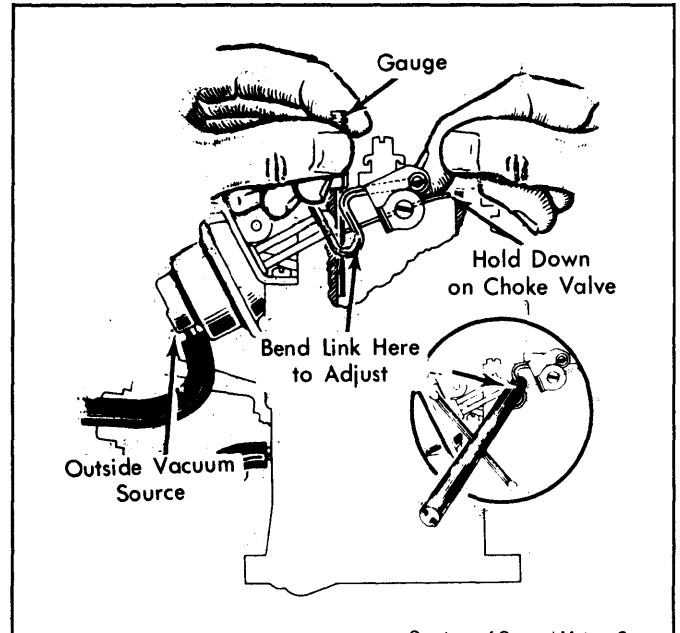


Fig. 5: Adjusting Vacuum Break

Courtesy of General Motors Corp.

VACUUM BREAK

1) Place cam follower on highest step of fast idle cam. Use outside vacuum source and apply enough vacuum to seat diaphragm. See Fig. 5. Diaphragm plunger should be fully seated. If used, bucking spring should be fully compressed.

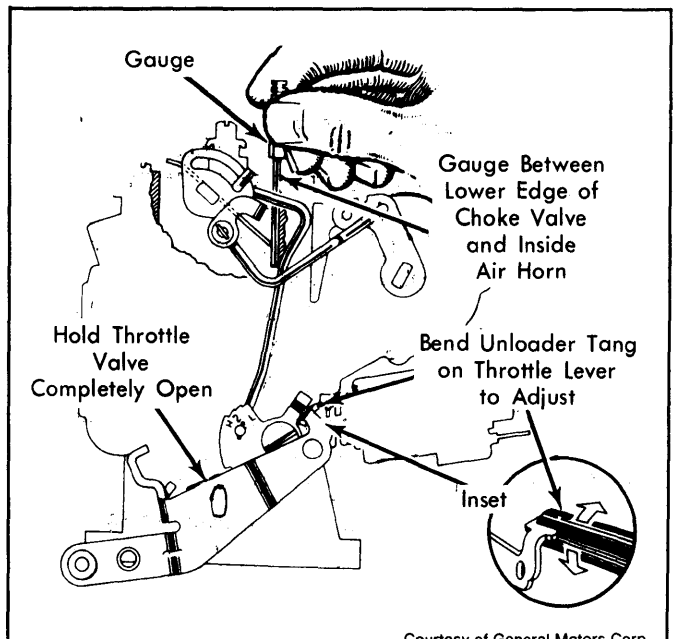


Fig. 6: Adjusting Choke Unloader

Courtesy of General Motors Corp.

1975-79 FUEL SYSTEMS

Rochester 1ME 1-Barrel Carburetor (Cont.)

2) Push up on choke coil lever. Rod should be snug in end of diaphragm plunger slot. On models equipped with delay feature, cover purge bleed hole in vacuum break end cover with masking tape.

3) Measure specified clearance between lower edge of choke valve and air horn wall. Measurement can be made with a specified drill or pin gauge. To adjust, bend "U" shaped portion of vacuum diaphragm connector link. Remove masking tape. Check linkage for binding.

CHOKE UNLOADER

Open throttle valve wide open. Apply light closing pressure to choke valve. Measure specified clearance between lower edge of choke valve and air horn wall. See Fig. 6. Measurement can be made with a specified drill or pin gauge. To adjust, bend choke unloader tang.

OVERHAUL

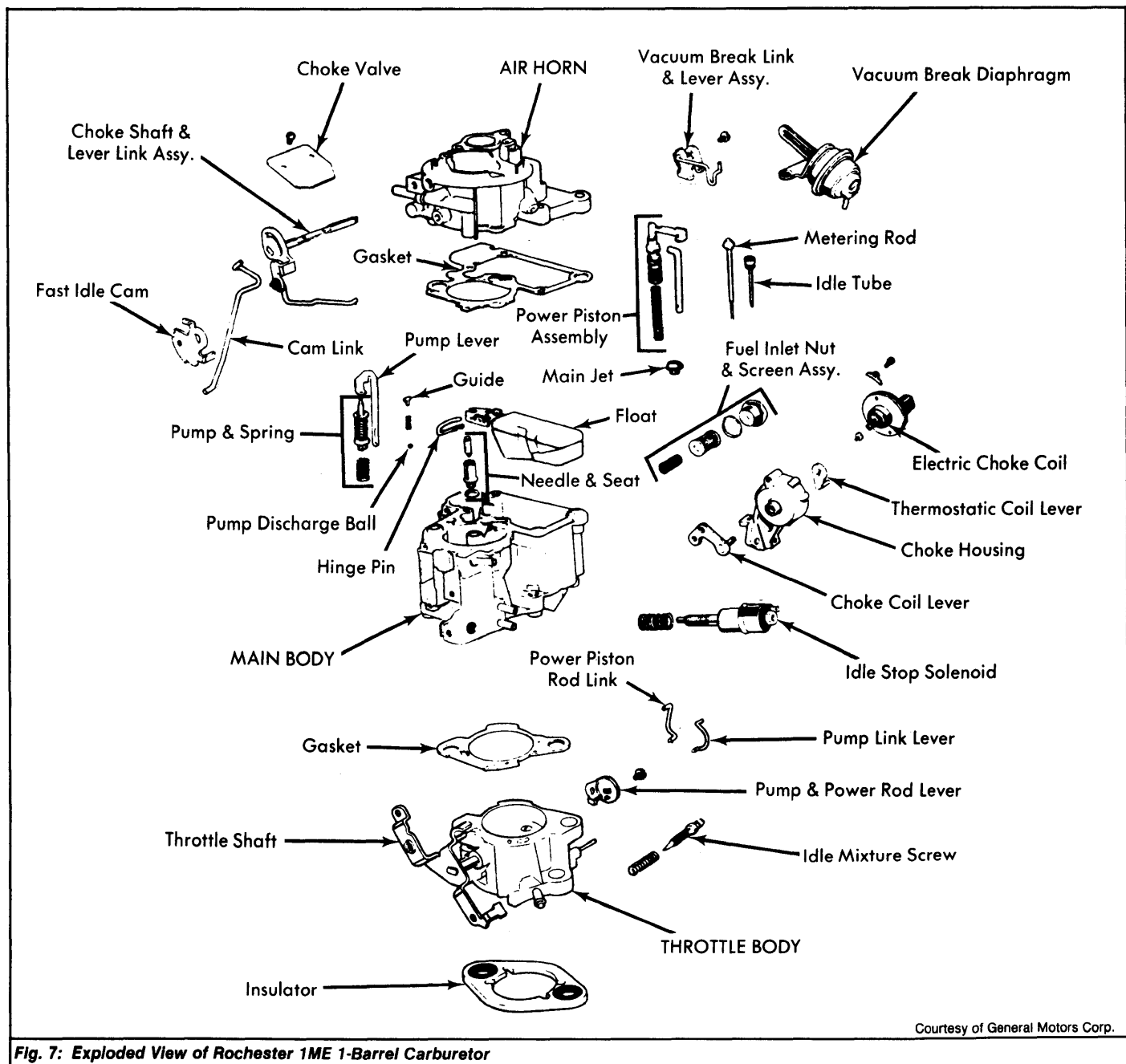
CARBURETOR

Disassembly - 1) Place carburetor on stand to prevent damaging throttle valve. Pull off vacuum break diaphragm hose. Remove diaphragm assembly from air horn (2 attaching screws). See Fig. 7.

2) Slide diaphragm plunger stem from choke lever link. Do not attempt to remove screw retaining vacuum break lever to choke shaft. Remove fast idle cam. Remove choke rod from choke coil lever. Remove electric thermostatic coil assembly from choke housing.

3) If choke housing is to be replaced, remove 3 choke housing attaching screws from float bowl. Screw facing choke housing has a tapered head for locating housing and does not use a lock washer.

NOTE: Remove choke coil housing only if replacement is required.



Courtesy of General Motors Corp.

Fig. 7: Exploded View of Rochester 1ME 1-Barrel Carburetor

1975-79 FUEL SYSTEMS

Rochester 1ME 1-Barrel Carburetor (Cont.)

4) Remove 4 remaining air horn-to-float bowl screws and lock washers. Carefully remove air horn by lifting and twisting back toward choke housing. Disengage choke coil lever link from coil lever at choke housing.

5) Turn air horn upside-down. If required, remove choke valve and choke shaft by removing screw retaining vacuum break lever to choke shaft. Remove 2 choke valve retaining screws. Choke valve retaining screws are staked in place. File off staking for removal. Remove choke valve and shaft from air horn.

6) Remove air horn gasket. Lift upward on float hinge pin to extract float assembly from float bowl. Remove hinge pin from float arm. Withdraw float needle from seat.

7) Disconnect accelerator pump and power piston actuator lever from end of throttle shaft. Hold down power piston while removing lever. Remove power piston and metering rod assembly.

8) Remove lower end of power piston link from actuator lever by rotating tang out of notch in lever. Remove actuator lever from lower end of accelerator pump link.

9) Push down on accelerator pump and remove actuator link. Remove pump assembly from float bowl. Remove pump return spring and power piston spring from float bowl.

10) Remove "T" guide and pump discharge spring. Invert float bowl and collect pump discharge ball and idle tube. Remove main metering jet from bottom of fuel bowl.

11) Remove float needle seat and gasket. Remove idle stop solenoid cam. Remove fuel inlet nut and gasket. Remove fuel filter and relief spring.

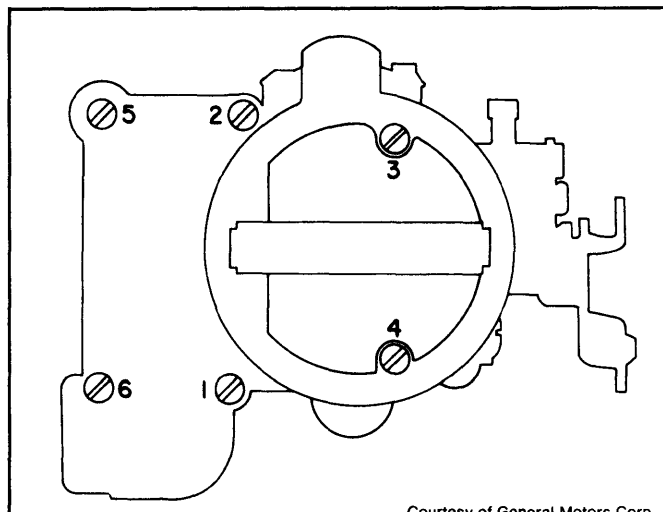
12) Invert float bowl on bench and remove 2 throttle body-to-float bowl attaching screws. Remove gasket. If necessary to remove idle mixture screws, cut tang from plastic limiter caps. Remove idle mixture screws.

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 components.

Reassembly - 1) To reassemble, reverse disassembly procedure. Be sure to apply locking compound to vacuum break lever-to-choke shaft retaining screw. Stake choke valve screws during reassembly being careful not to bend choke shaft.

2) When installing electric choke coil assembly on choke housing, DO NOT use a gasket between choke housing and electric coil. Coil is grounded through housing. Tighten air horn screws using correct tightening sequence. See Fig. 8.



Courtesy of General Motors Corp.

Fig. 8: Air Horn Tightening Sequence

1977 CARBURETOR ADJUSTMENT SPECIFICATIONS								
Carb No.	Idle Speed (Engine RPM)		Float Level Setting	Metering Rod Setting	Choke Unloader Setting	Vacuum Break	Fast Idle Cam	Choke Coil Lever
	Hot	Fast						
17057001	①	②	③	.080"	④	.150"	.125"	.120"
17057002	①	②	③	.080"	④	.135"	.110"	.120"
17057004	①	②	③	.080"	④	.135"	.110"	.120"
17057005	①	②	③	.080"	④	.180"	.125"	.120"
17057006	①	②	③	.070"	④	.180"	.150"	.120"
17057007	①	②	③	.070"	④	.180"	.150"	.120"
17057008	①	②	③	.065"	④	.180"	.150"	.120"
17057009	①	②	③	.065"	④	.180"	.150"	.120"
17057010	①	②	③	.080"	④110"	.120"
17057302	①	②	③	.080"	④	.135"	.110"	.120"
17057303	①	②	③	.090"	④	.150"	.125"	.120"
17057308	①	②	③	.065"	④	.180"	.150"	.120"
17057309	①	②	③	.065"	④	.180"	.150"	.120"

① - See Emission Control Tune-Up Decal in Engine Compartment.

② - Light Duty - 2100 RPM in NEUTRAL
Heavy Duty - 2400 RPM in NEUTRAL

③ - Light Duty - $\frac{3}{8}$ "
Heavy Duty - $\frac{5}{16}$ "

④ - Light Duty - .325" upper edge (.600" lower edge)
Heavy Duty - .275" upper edge (.500" lower edge)

1975-79 FUEL SYSTEMS

Rochester 1ME 1-Barrel Carburetor (Cont.)

1978 CARBURETOR ADJUSTMENT SPECIFICATIONS									
Rochester Carb No.	Idle Speed (Engine RPM)		Float Level Setting	Metering Rod Setting	Choke Unloader Setting	Vacuum Break Setting	Choke Coil Rod Setting	Choke Coil Lever Setting	Auto. Choke Setting
	Hot ①	Fast ②							
17058008	①	④	.313"	.065"	.520"	.275"	.275"	.120"	Index
17058009	①	④	.313"	.065"	.520"	.275"	.275"	.120"	Index
17058308	①	④	.313"	.065"	.520"	.275"	.275"	.120"	Index
17058309	①	④	.313"	.065"	.520"	.275"	.275"	.120"	Index
17058358	②	④	.313"	.065"	.520"	.275"	.275"	.120"	Index
17058359	①	④	.313"	.065"	.520"	.275"	.275"	.120"	Index
17058006	①	④	.313"	.070"	.520"	.275"	.275"	.120"	Index
17058007	①	④	.313"	.070"	.520"	.275"	.275"	.120"	Index
17058310	①	①	.313"	.080"	.600"	.250"	.190"	.120"	Index
17058022	①	②	.313"	.080"	.450"	.250"	.200"	.120"	Index
17058312	①	③	.313"	.080"	.600"	.250"	.190"	.120"	Index
17058024	①	②	.313"	.080"	.450"	.250"	.200"	.120"	Index
17058015	①	③	.313"	.080"	.600"	.250"120"	Index
17058081	①	②	.313"	.080"	.450"	.250"	.200"	.120"	Index
17058017	①	③	.313"	.080"	.600"	.250"120"	Index
17058082	①	②	.313"	.080"	.450"	.250"	.200"	.120"	Index
17058021	①	②	.313"	.080"	.450"	.250"	.200"	.120"	Index
17058084	③	②	.313"	.080"	.450"	.250"	.200"	.120"	Index
17058311	①	③	.313"	.100"	.600"	.250"	.190"	.120"	Index
17058313	①	③	.313"	.100"	.600"	.250"	.190"	.120"	Index

- ① — See Emission Control Decal.
- ② — 2000 RPM in Park or Neutral.
- ③ — 2100 RPM in Park or Neutral.
- ④ — Heavy Duty Emission 2400 RPM in Park or Neutral.

1979 CARBURETOR ADJUSTMENT SPECIFICATIONS							
Application	Float Level Setting	Metering Rod Setting	Choke Coil Lever Setting	Auto. Choke Setting	Choke Coil Rod Setting	Vacuum Break Setting	Choke Unloader Setting
All Models	5/16"	.065"	.120"	2NR	.275"	.400"	.521"