1982 Rochester Carburetors

ROCHESTER 1ME SINGLE BARREL

NOTE: **SERIES IDENTIFICATION: The vehicle 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.**

CARBURETOR APPLICATION

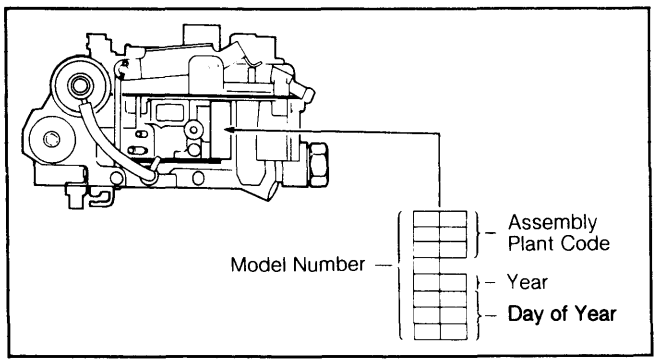
CHEVROLET & GMC (ROCHESTER) CARBURETOR NO.

Application	Man. Trans.	Auto. Trans.
4.8L		
Federal		
C, K, & P20/30	17081009	17081009
Calif.		
C & K20/30	17081309	17081309
P30	17081329	17081329

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. *See Fig. 1.*

Fig. 1: Rochester 1ME Carburetor Identification Location



If float bowl is replaced, transfer identification number to new float bowl.

DESCRIPTION

The Rochester model 1ME carburetor is a single bore downdraft type carburetor. The 1ME uses a triple venturi in conjunction with a plain tube nozzle. This 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.

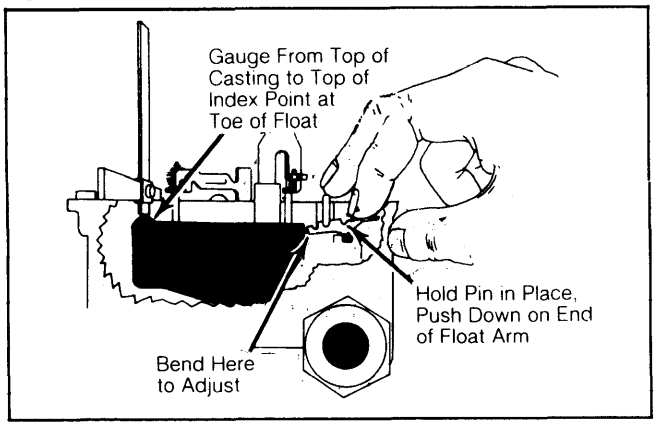
ADJUSTMENT

NOTE: **For all on vehicle adjustments, see TUNE-UP SERVICE PROCEDURES.**

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. 2.*

Fig. 2: Adjusting Float Level



Measure distance with gasket removed.

2) With gasket removed, use a depth gauge or "T" scale to measure distance from top of casting to index point at toe of float.

3) To adjust, gently bend float arm up or down. Do not force needle against needle seat to avoid damage.

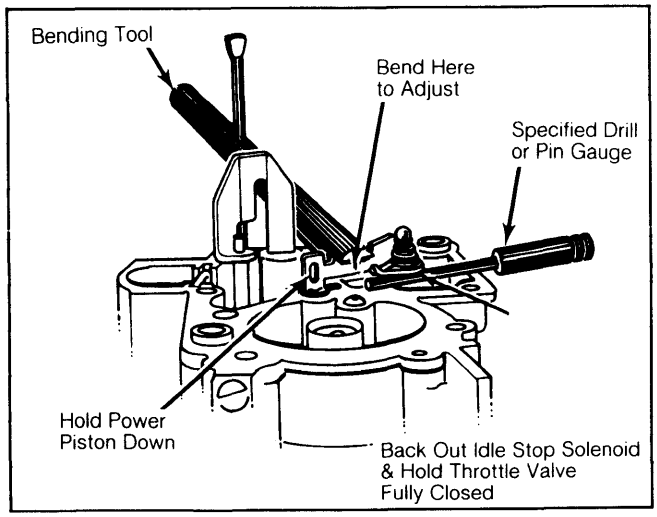
METERING ROD ADJUSTMENT

1) To remove metering rod, hold throttle valve wide open. Push down on metering rod against spring tension. Slide metering rod out of slot in holder and remove from main metering jet.

2) Hold throttle valve fully closed and back out idle stop solenoid. Hold power piston down. Swing metering rod holder over flat surface of bowl casting next to carburetor bore with gasket removed.

3) Measure specified clearance between rod holder and carburetor surface. Measurement can be made using a specified drill or pin gauge. Clearance should be a "slide" fit. *See Fig. 3.*

Fig. 3: Adjusting Metering Rod



Metering rod and idle stop solenoid must be removed prior to performing adjustment.

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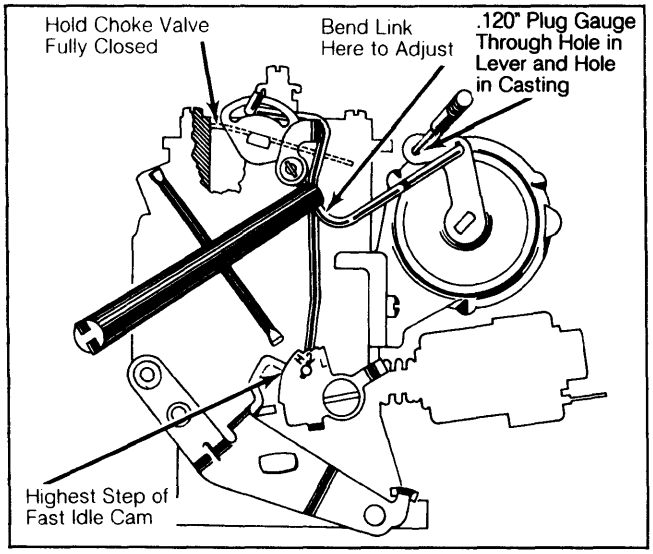
4) To adjust, gently bend holder arm up or down. Recheck clearance. Reassemble carburetor and install new air horn gasket.

CHOKE COIL LEVER

1) Place fast idle cam follower on HIGHEST step of fast idle cam. Hold choke valve closed. *See Fig. 4.*

Fig. 4: Adjusting Choke Coil Lever



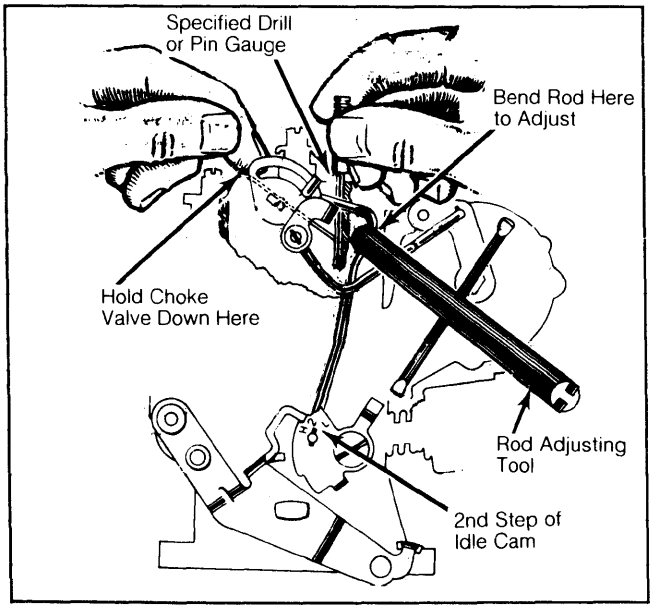
Fast idle cam follower must be on highest step of fast idle cam.

2) If adjustment is correct, specified plug gauge should pass through hole in lever and enter hole in casting. To adjust, bend connector link.

FAST IDLE CAM POSITION (CHOKE ROD)

1) Make sure fast idle speed is correctly set. Hold fast idle cam follower on 2nd step of fast idle cam, against HIGHEST step. *See Fig. 5.*

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



2) Apply light closing pressure to choke valve. Measure specified clearance between lower edge of choke valve (center) and air horn wall. Measurement can be made with a specified drill or pin gauge. To adjust, bend fast idle cam rod.

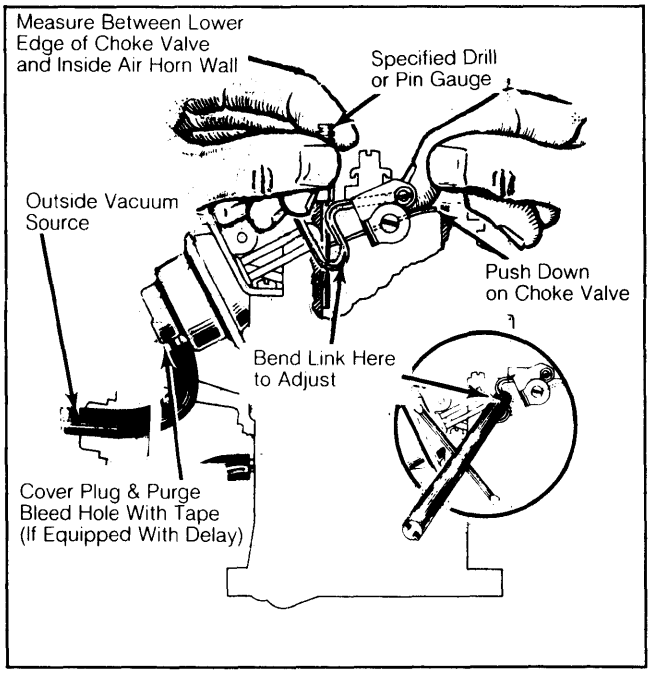
AUTOMATIC CHOKE

NOTE: Choke coil cover uses rivets in place of retaining screws. If necessary to remove choke coil cover, refer to Disassembly and Reassembly procedures in this article.

VACUUM BREAK

1) Place fast idle cam follower on HIGHEST step of fast idle cam. Using an outside vacuum source, apply enough vacuum to seat diaphragm. Push down on choke valve. Diaphragm plunger should be seated and bucking spring compressed (if used). *See Fig. 6.*

Fig. 6: Adjusting Vacuum Break



Fast idle cam follower on highest step of cam.

2) Measure clearance between lower edge of choke valve and inside air horn wall with specified drill or pin gauge. On models equipped with delay feature, cover plug and purge bleed hole in vacuum break end cover with masking tape.

3) To adjust, bend "U" shaped portion of vacuum diaphragm connector link. Remove masking tape. Check linkage for binding and freedom of movement.

CHOKE UNLOADER

1) Install choke coil in housing and index properly. If choke is warm, cool down to point where choke valve will fully close.

2) Hold throttle valve wide open. Measure clearance between lower edge of choke valve and inside air horn wall with specified drill or pin gauge. To adjust, bend choke unloader tang to achieve specified clearance. *See Fig. 7.*

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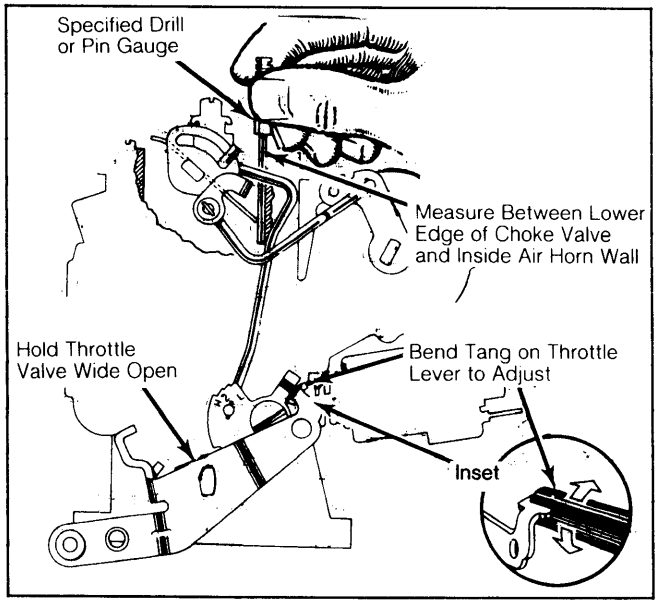
Fig. 7: Adjusting Choke Unloader



Hold throttle valve wide open.

OVERHAUL

DISASSEMBLY

Air Horn

1) Place carburetor on suitable stand to prevent damage to throttle valve. Pull off vacuum break diaphragm hose. Remove 2 diaphragm assembly attaching screws and diaphram assembly.

2) Slide diaphragm plunger stem from choke lever link. Do not attempt to remove screw that retains vacuum break lever to choke shaft. This screw is installed with thread-locking compound and should not be removed unless choke shaft replacement is required.

3) Remove fast idle cam attaching screw and cam. Remove choke rod from choke coil lever on end of choke shaft. Remove 3 choke coil housing attaching screws from float bowl; 2 screws have lock washers and screw facing choke housing has tapered head for locating housing.

4) If necessary to remove choke coil cover, drill rivet heads from cover retainer using a .159" (No. 21) drill. Using a drift and small hammer, drive remainder of rivets out of choke housing. Remove 3 retainers and cover from housing.

5) Remove 4 remaining air horn-to-float bowl screws (3 long and 1 short) and lock washers. Carefully remove air horn by lifting and twisting back toward choke housing. Disengage choke coil lever link from choke coil lever at choke housing.

6) Turn air horn upside-down. If required, remove choke valve and choke shaft by removing screw retaining vacuum break lever to choke shaft. Screw is retained with thread-locking compound; use care when removing. Remove 2 choke valve attaching screws. Remove choke valve and shaft from air horn.

NOTE: Choke valve screws are staked in place. File off staking for removal and restake during reassembly. Use care not to bend choke shaft when staking screws.

Float Bowl

1) Remove air horn gasket. Lift up on float hinge pin to remove float assembly from bowl. Remove hinge pin from float arm. Withdraw float needle from seat.

2) Disconnect accelerator pump and power piston actuator lever from end of throttle shaft by removing lever attaching screw. Hold power piston down while removing lever. Remove power piston spring and metering rod assembly.

3) Remove lower end of power piston link from actuator lever by rotating until tang on rod slides out of notch in lever. Remove actuator lever from lower end of accelerator pump link in same manner.

4) Push accelerator pump down and remove actuator link by rotating until tang on rod is aligned with slot on pump plunger lever. Remove link.

5) Remove pump assembly from float bowl. Remove pump return spring and power piston spring from float bowl. Using needle nose pliers, remove "T" guide and pump discharge spring. Invert bowl and catch pump discharge ball and idle tube.

6) Remove main metering jet from bottom of fuel bowl. Remove float needle seat and gasket. Remove idle stop solenoid. Remove fuel inlet nut, gasket, filter and relief spring.

Throttle Body

1) Invert float bowl on bench and remove 2 throttle body-to-bowl attaching screws. Remove gasket. No further disassembly of throttle body is necessary unless idle mixture needle is damaged or idle channels need cleaning.

2) If necessary to remove idle mixture needle, cut tang from plastic limiter cap. Do not install replacement. Due to close tolerance fit of throttle valve in bore of throttle body, do not remove throttle valve or shaft.

3) California models have seals built into float bowl to seal the power piston drive rod and pump lever to prevent escape of fuel vapors to the atmosphere. Remove seals and retainer prior to immersing float bowl in carburetor cleaner.

CLEANING & INSPECTION

- Use 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 by rinsing components in a suitable solvent.
- Blow out all passages with dry compressed air.

REASSEMBLY

Use new gaskets and seals. Make sure that new gaskets fit correctly and that all holes and slots are punched through and correctly located. To reassemble carburetor, reverse disassembly procedure noting the following:

1) Adjust float level and metering rod before installing air horn. All other adjustments are made with carburetor assembled.

2) Install metering rod with spring above power piston.

3) Thermostatic spring in idle compensator must hold valve closed after installation. Replace unit if spring is bent or distorted. Do not attempt to straighten or adjust spring.

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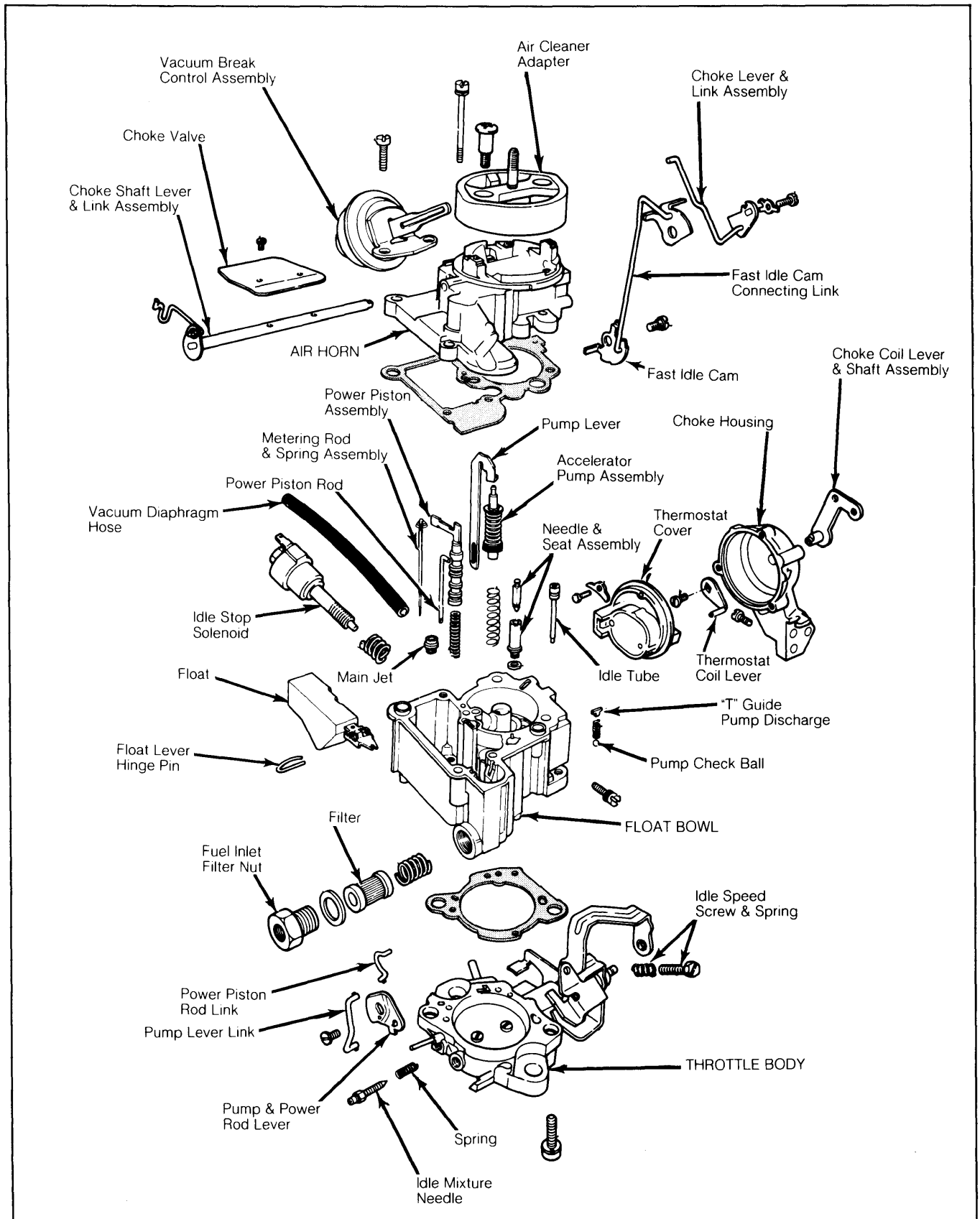
Fig. 8: Exploded View of Rochester Model 1 ME Single Barrel Carburetor



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4) Install seals in float bowl on California models to seal power piston drive rod and pump lever. These seals prevent the escape of fuel vapors.

5) Use 2 tapered head screws for mounting and locating diaphragm bracket. Install and tighten air horn screws evenly and in sequence. *See Fig. 9.*

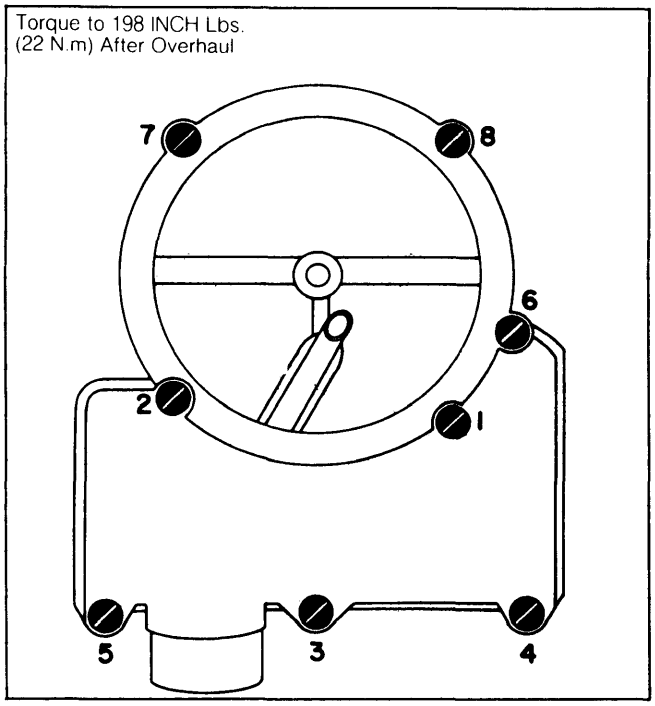
6) If choke coil cover was removed, it will be necessary to install replacement rivets supplied in service kit. Do not use a gasket between choke housing and cover; direct contact is needed to ground electric coil housing.

7) Place fast idle screw on high step of fast idle cam. Install choke coil cover, aligning notch in cover with raised boss on housing cover flange. Install self-tapping screws and tighten.

8) Install vacuum diaphragm hose to diaphragm tube and connect to vacuum extension on bowl.

9) When installing carburetor on intake manifold, install insulator, then carburetor. Tighten nuts alternately to 37 INCH lbs. (4 N.m) and then tighten to 16 ft. lbs. (22 N.m).

Fig. 9: Air Horn Tightening Sequence



Tighten bolts in clockwise direction.

CARBURETOR ADJUSTMENT SPECIFICATIONS

Application	Float Level	Metering Rod	Choke Coil Lever	Auto. Choke	Choke Coil Rod	Vacuum Break	Auto. Unloader
17081009	1 1/32"	.090"	.120"	.....	.275"	.400"	.520"
17081309	1 1/32"	.090"	.120"	.....	.275"	.400"	.520"
17081329	1 1/32"	.090"	.120"	.....	.275"	.400"	.520"