CARTER YFA SINGLE BARREL

CARBURETOR APPLICATION

FORD MOTOR CO.

Application	Ford Carb. No. Man. Trans.	Auto. Trans.
250" 6 Cyl.		
Federal		
Without A/C	E0DE-NA	E0DE-GA
With A/C	E0DE-JA	E0DE-HA

CARBURETOR IDENTIFICATION

Carburetor can be identified by a two letter suffix stamped in metal tag affixed to carburetor. Tag also contains design change revision code letter, build date code and carburetor identification prefix. *See Fig. 1.*

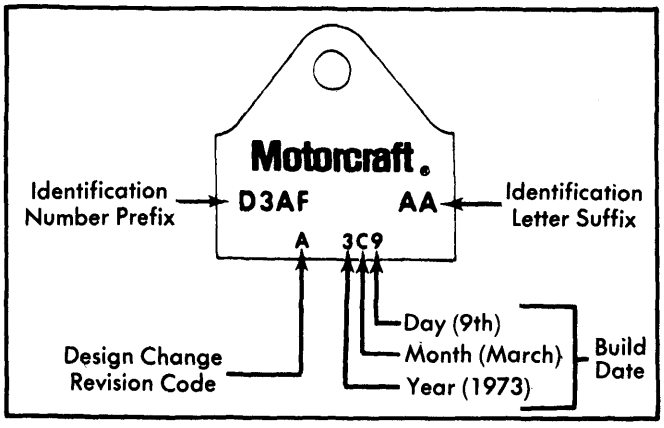

Fig. 1 Typical Ford Motor Co. Carburetor I.D. Tag

DESCRIPTION

The Carter YFA 1-Bbl. carburetor is made up of three major assemblies; air horn, main body and throttle body. The air horn contains the choke assembly, bowl vents, fuel inlet, float assembly, throttle positioner, choke hot air inlet adapter and an externally mounted choke pull-down diaphragm.

The main body consists of metering rod and jet, accelerator pump assembly, various jets and bleeds, integral hot idle compensator (some models), temperature compensator valve and main discharge nozzle.

The throttle body consists of throttle plate and shaft, curb idle and idle mixture screws, and vacuum connections. Some models, used on A/C equipped vehicles, may have a second solenoid.

ADJUSTMENT

HOT (SLOW) IDLE RPM

See appropriate article in TUNE-UP SERVICE PROCEDURES.

IDLE MIXTURE

See appropriate article in TUNE-UP SERVICE PROCEDURES.

COLD (FAST) IDLE RPM

See appropriate article in TUNE-UP SERVICE PROCEDURES.

FLOAT LEVEL

1) Remove air horn and gasket. Turn air horn assembly upside down. *See Fig. 2.*

2) Measure specified distance between top of float (at free end) and gasket surface on air horn casting.

CAUTION — *Do not apply pressure to float needle when checking float level.*

3) To adjust, bend float arm. Do not bend tab at end of float. Install gasket and air horn.

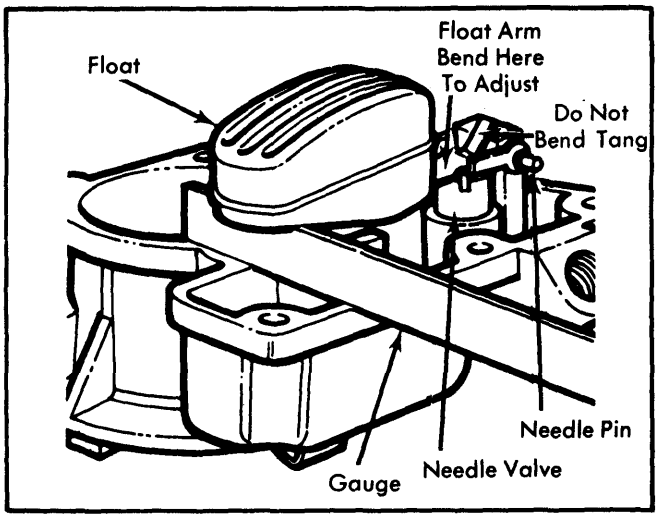

Fig. 2 Adjusting Float Level

METERING ROD

1) Remove air horn and gasket from carburetor. *See Fig. 3.*

2) Back out idle speed adjusting screw until throttle plate is tightly closed in throttle bore.

3) Press down on end of pump diaphragm shaft until assembly gently bottoms.

4) Hold diaphragm assembly down (bottomed), and turn metering rod adjustment screw counterclockwise until metering rod just bottoms.

5) Now turn metering rod adjustment screw clockwise one additional turn for final adjustment.

6) Reassemble carburetor with new air horn gasket.

CARTER YFA SINGLE BARREL (Cont.)

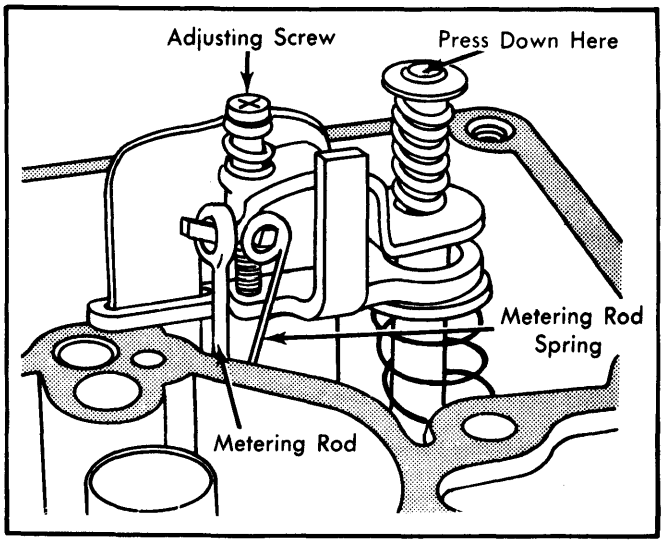

Fig. 3 Adjusting Metering Rod

CHOKE UNLOADER (DECHOKE)

1) Hold throttle valves wide open. Press choke valve toward closed position. *See Fig. 4.*

2) Measure specified clearance between lower edge of choke valve and air horn wall. Clearance can be checked using a specified drill or pin gauge.

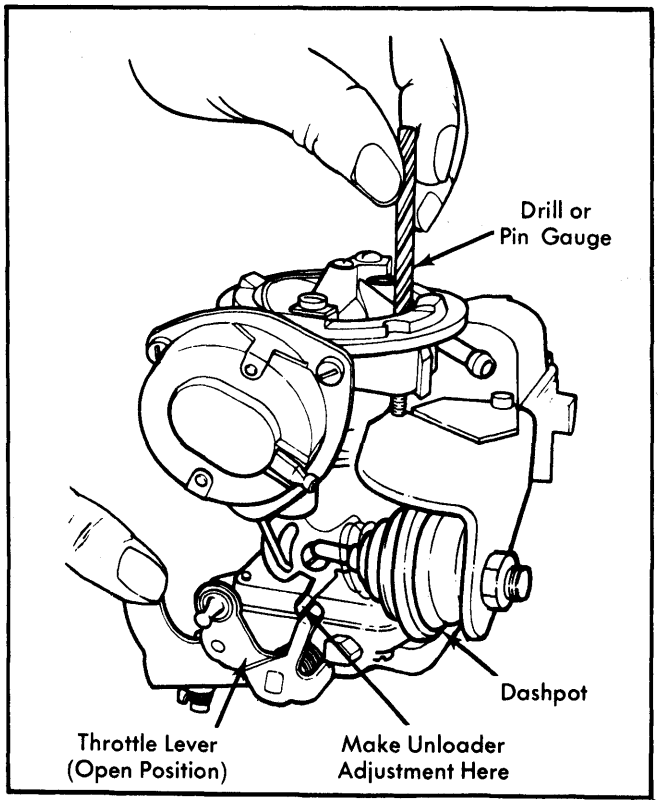

Fig. 4 Adjusting Choke Unloader (Dechoke)

3) To adjust, bend unloader tang that contacts fast idle cam. Bend tang upward to increase clearance; bend tag down to decrease clearance.

4) After adjustment, make sure choke unloader tang has at least .070" clearance with main body flange when throttle is wide open.

5) Check throttle operation for binding or sticking.

INITIAL CHOKE VALVE CLEARANCE (CHOKE VALVE PULL-DOWN CLEARANCE)

1) Position fast idle speed screw on high step of fast idle cam. Cool choke housing until choke valve is lightly closed in air horn. *See Fig. 5.*

2) Note choke housing position for readjustment. Loosen choke housing retaining screws. Rotate choke housing 90° in closing (rich) direction, closing choke valve. Tighten retaining screws.

3) Apply an outside vacuum source to choke pulldown diaphragm. Make sure diaphragm is fully seated by pushing down on choke lever, then releasing.

NOTE – *If diaphragm does not fully seat, check diaphragm for leakage. Replace diaphragm if necessary.*

4) Check specified clearance between air horn and lower edge of choke valve. Clearance can be checked using a specified drill or pin gauge.

5) To adjust, bend vacuum pulldown diaphragm linkage. Loosen retaining screw and readjust choke coil housing to position noted. Tighten retaining screws.

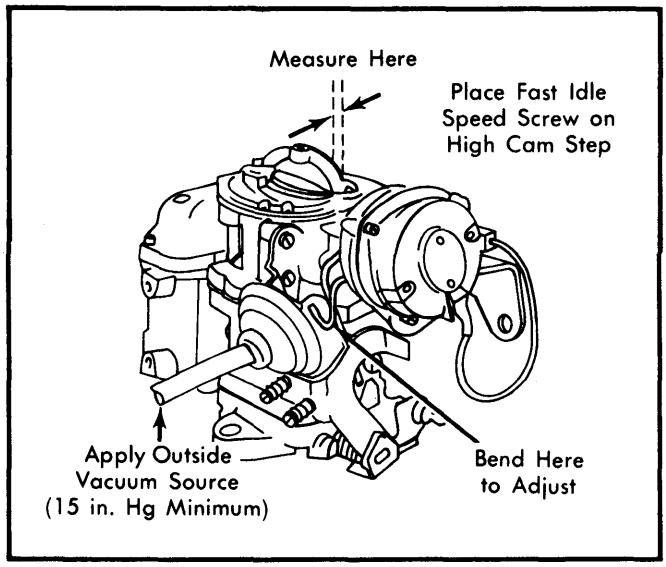

Fig. 5 Adjusting Initial Choke Valve Clearance (Choke Pull-Down)

CARTER YFA SINGLE BARREL (Cont.)

FAST IDLE CAM

1) Loosen choke coil housing retaining screws. Turn housing 90° in closing (rich) direction to lightly close choke valve. Tighten 1 screw. *See Fig. 6.*

2) Position fast idle speed screw on second step of fast idle cam against highest step.

3) Measure specified clearance between lower edge of choke valve and air horn wall. Clearance can be checked using a specified drill or pin gauge.

4) To adjust, bend choke valve rod. Loosen choke coil housing retaining screws and readjust choke housing.

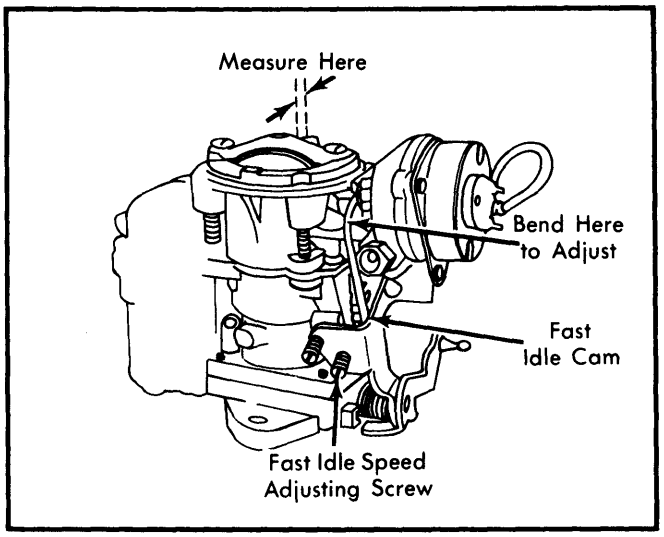

Fig. 6 Adjusting Fast Idle Cam

AUTOMATIC CHOKE

1) Loosen 3 choke coil cover retaining screws. Rotate cover in specified direction (lean or rich) to align reference mark on cover with specified graduation in choke housing.

2) Tighten choke coil cover retaining screws.

OVERHAUL

DISASSEMBLY

1) Remove carburetor from vehicle.

2) Disconnect choke pull-down link and remove pull-down diaphragm assembly. Disengage link from choke shaft lever.

3) Remove choke cover. Remove gasket, baffle plate and fast idle link.

4) Remove idle speed solenoid and bracket (if equipped).

5) Remove air horn assembly and gasket. Note location of long and short air horn screws.

6) Turn air horn upside-down and remove float pin.

7) Remove float and lever assembly.

8) Turn air horn right side up. Catch float needle pin, spring and float needle.

9) Remove needle seat and gasket.

10) Remove air cleaner bracket.

11) If necessary to remove choke valve, screws securing choke valve to choke shaft should be filed as they are staked into position. Use new screws during reassembly.

12) Remove choke valve from air horn.

13) Remove choke link lever and screw.

14) Turn main body upside down. Catch accelerator pump discharge check ball and weight. Catch hot idle compensator (if equipped).

15) Remove bowl vent lever, wave washer, actuating lever, spacer and "E" clip from end of throttle shaft.

16) Remove throttle shaft arm.

17) Remove pump connector link.

18) Remove fast idle cam and screw.

19) Remove (4) accelerator pump diaphragm housing screws and housing.

20) Lift out pump diaphragm assembly, pump lifter link, seal and metering rod as a unit.

21) Disengage metering rod arm spring from metering rod.

CAUTION – *Note location of any washers shimming either spring for reassembly.*

22) Compress upper pump spring and remove retainer.

23) Remove upper spring, metering rod arm assembly and pump lifter link from diaphragm shaft.

24) Compress pump diaphragm spring and remove retainer.

25) Remove spring and diaphragm assembly from housing.

26) Remove metering rod jet and low speed jet, using proper tool.

27) Remove temperature compensated accelerator pump bleed valve plug from main body using a sharp punch or awl. Remove bleed valve screw and bleed valve.

28) Remove throttle body screws. Separate throttle body from main body. Remove gasket.

29) Note position of idle limiter cap and remove cap. Count number of turns required to gently seat idle mixture screw. Remove idle mixture screw.

NOTE – *Further disassembly of throttle body is required only if throttle shaft is bent or throttle valve is binding.*

CARTER YFA SINGLE BARREL (Cont.)

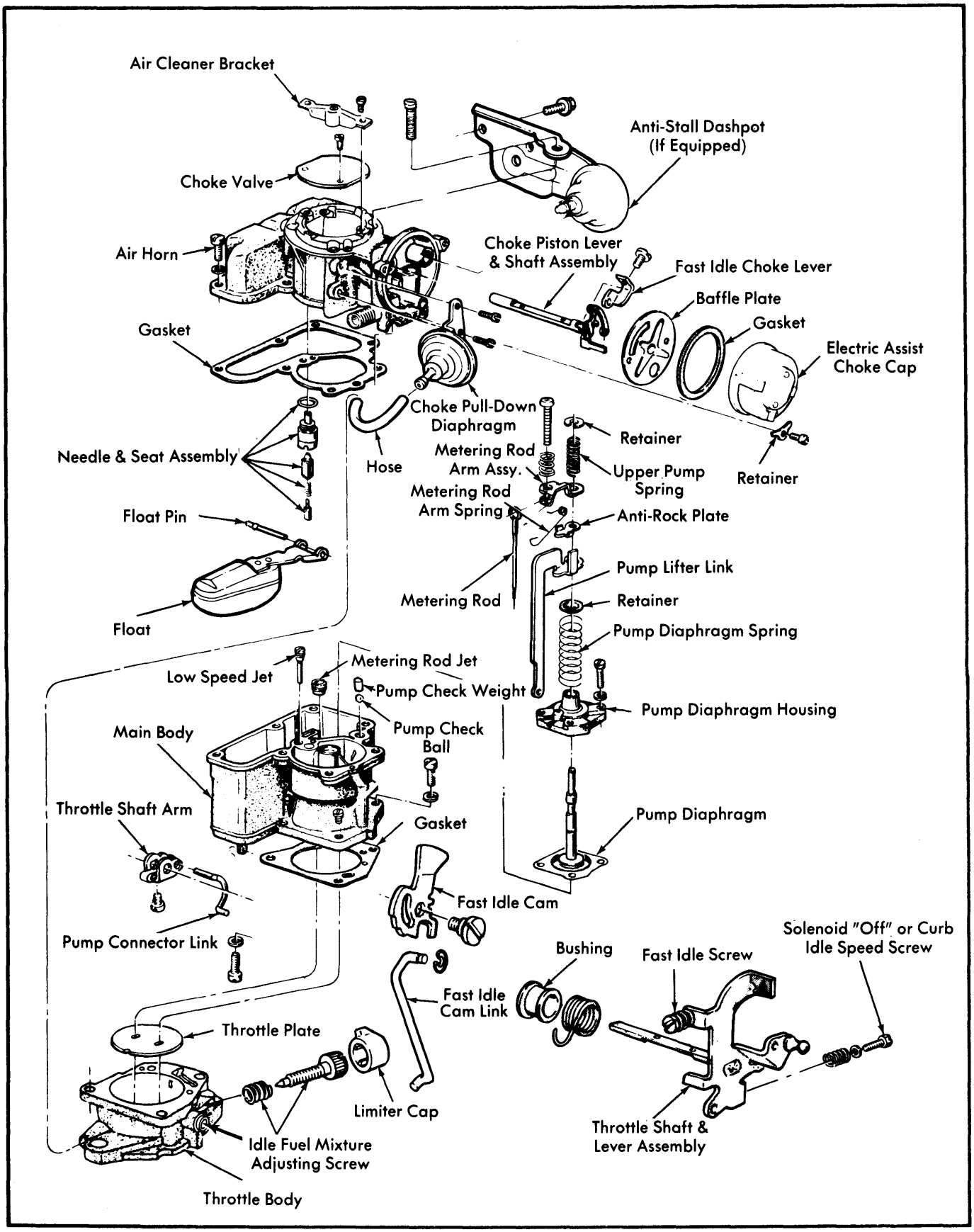

Fig. 7 Exploded View of Carter Model YFA 1-Barrel Carburetor

CARTER YFA SINGLE BARREL (Cont.)

30) If necessary to remove throttle valve, screws securing throttle valve to shaft must be filed as they are staked into position. Use new screws when reassembling.

31) Remove throttle valve and slide throttle shaft out of throttle body. Note location of ends of torsion spring on throttle shaft for reassembly.

CLEANING & INSPECTION

- Clean all parts thoroughly in suitable carburetor cleaning solvent.
- Do not place rubber diaphragms or plastic parts in solvent.
- Rinse parts in clean hot water to remove all traces of solvent. Blow parts dry with compressed air.
- Be sure all passages in carburetor are clean and clear.
- Do not use a wire brush to clean any carburetor parts. Do not use a wire or drill bit to clean openings or passages in body.
- Check parts for cracks, nicked edges, excessive wear or warping.
- Check screws for stripped threads. Replace broken or distorted springs.

REASSEMBLY

NOTE – *Use new gaskets and seals. Make sure new gaskets fit correctly and all holes are punched through and correctly located.*

To reassemble carburetor, reverse disassembly procedure and note the following:

1) If throttle valve was removed, make sure notch in valve is aligned with idle port in body flange. Make sure throttle plate does not bind or stick. Restake throttle valve screws.

2) Make sure float pin is installed with stop shoulder toward outside of carburetor.

3) Assemble accelerator pump and lifter link before installation into carburetor. During pump and lifter link assembly, place metering rod on metering rod arm and place looped end of metering rod arm spring on metering rod arm. *See Fig. 8.*

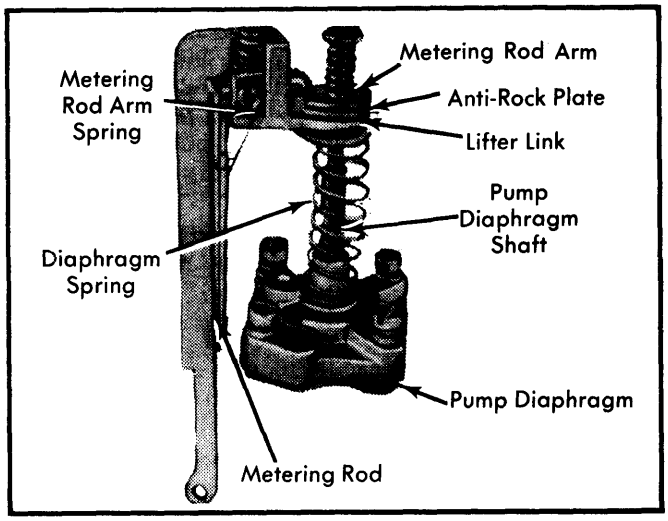

Fig. 8 Assembled View of Accelerator Pump and Lifter Link Assembly

4) Make sure vacuum passage in accelerator pump housing is aligned with vacuum passage in main body.

5) Make sure spring is correctly installed on bowl vent rod shaft. Also make sure bowl vent arm engages forked actuating lever.

6) Position pump bleed valve and washer and install retaining screw. Install a new welch plug and seat it using a ¼" flat drift.

CARBURETOR ADJUSTMENT SPECIFICATIONS

Application	Float Level Setting	Choke Unloader Setting	Initial Choke Valve Setting	Fast Idle Cam Setting	Auto Choke Setting
Ford Motor Co.					
E0DE-HA	25/32"	.250"	.260"	.140"	2 Rich
E0DE-JA	25/32"	.250"	.260"	.140"	2 Rich
E0DE-GA	25/32"	.250"	.260"	.140"	2 Rich
E0DE-NA	25/32"	.250"	.260"	.140"	2 Rich