

FUEL SYSTEM

SERVICE INSTRUCTION WORKSHEET

GF3708-10

TO REPAIR

CARTER CARBURETOR

1 BARREL - Model YFA

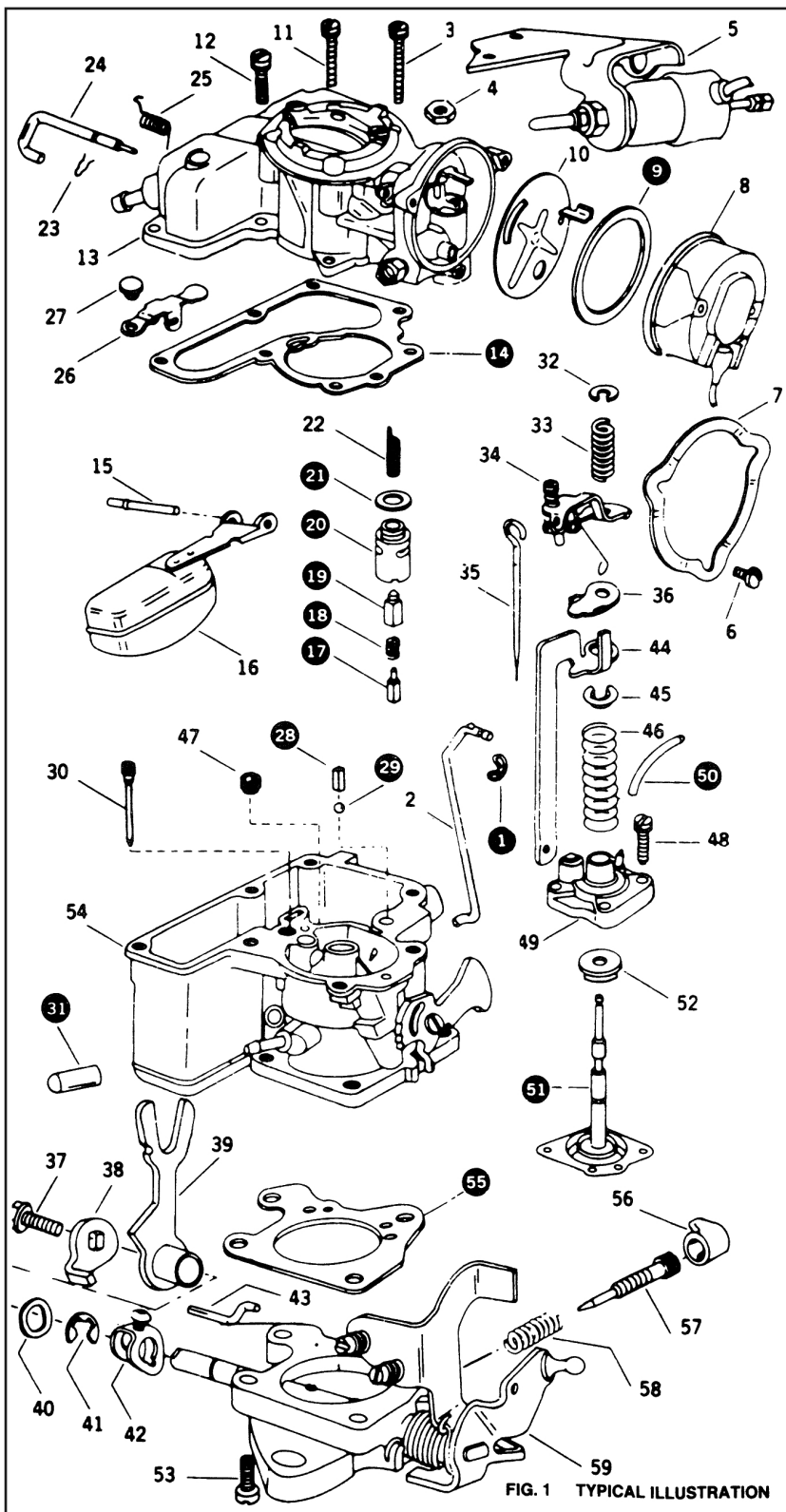


FIG. 1 TYPICAL ILLUSTRATION

1. Carefully read the text in the following paragraphs to become familiar with the contents of this worksheet before performing carburetor overhaul.
2. The exploded view shown is typical of the model carburetor this kit will service. The view may differ slightly from the actual carburetor being overhauled.
3. Use the exploded view as a guide. The numerical sequence may generally be followed to disassemble the carburetor far enough to permit cleaning and inspection.
4. Parts list shown DOES NOT reflect the contents of the kit.

CLEANING

Cleaning must be done with carburetor disassembled. Cover opening on intake manifold after carburetor is removed. Soak parts in cleaning solvent long enough to soften foreign matter.

Caution: Do not soak parts made of rubber, leather, plastic or electrical parts. Remove all loose particles and dirt using a stiff bristle brush. Do not use abrasives. Do not use a metal wire to clean out passageways and jets. Wash off in suitable solvent. Clear all passageways and jets with compressed air.

PARTS LIST

- | | |
|--|--|
| 1 Clip, Link, Connecting | 32 Retainer, Top Pump Spring |
| 2 Link, Connecting, Fast Idle | 33 Spring, Top Pump |
| 3 Screw, Bracket to Airhorn Assy.
(1 long, 1 short) | 34 Level & Metering Rod Assy. |
| 4 Nut, Bracket Screw (Some Models) | 35 Rod, Main Jet, Metering |
| 5 Bracket & Solenoid Assy. | 36 Plate, Adjusting, Anti-Rock |
| 6 Screws or Rivets, Choke Cover (3) | 37 Screw, Lock, Vent Arm Stop
(Some Models) |
| 7 Clamp, Ring Choke Cover | 38 Arm, Vent Stop (Some Models) |
| 8 Cover, Thermostat & Heater Assy. | 39 Lever, Forked, Bowl Vent
(Some Models) |
| 9 Gasket, Choke Cover | 40 Washer, Spring, Forked Lever
(Some Models) |
| 10 Shield, Hot, Choke | 41 Clip, Retaining (Some Models) |
| 11 Screw, Airhorn Assy. (2 long) | 42 Arm, Lock-On, Pump Link |
| 12 Screw, Airhorn Assy. (3 short) | 43 Link, Connector, Pump Lifter |
| 13 Airhorn Assy. | 44 Lifter, Pump |
| 14 Gasket, Airhorn to Main Body | 45 Retainer, Spring, Bottom |
| 15 Rod, Float Hinge | 46 Spring, Pump, Bottom |
| 16 Float Assy. | 47 Jet, Main Metering |
| 17 Pin, Spring, Needle | 48 Screw, Pump Cover (4) |
| 18 Spring, Pin, Needle | 49 Cover, Pump |
| 19 Needle, Fuel Inlet | 50 Tube, Pump Discharge |
| 20 Seat, Fuel Inlet | 51 Diaphragm Assy., Pump |
| 21 Gasket, Seat, Inlet | 52 Washer, Stepped, Pump
Diaphragm Inlet Valve* |
| 22 Filter, Fuel Inlet | 53 Screw, Main Body
to Throttle Body (4) |
| 23 Clip, Shaft, Vent Valve
(Some Models) | 54 Main Body |
| 24 Shaft, Bowl Vent (Some Models) | 55 Gasket, Main Body
to Throttle Body |
| 25 Spring, Vent Shaft (Some Models) | 56 Limiter Cap (Some Models) |
| 26 Arm, Vent Valve (Some Models) | 57 Screw, Idle Mixture |
| 27 Valve Seal, Vent (Some Models) | 58 Spring, Idle Mixture |
| 28 Weight, Ball, Pump Outlet | 59 Throttle Body Assy. |
| 29 Ball Check, Pump Outlet | |
| 30 Jet, Slow Speed | |
| 31 Cover, Tube (Where Used) | |

☞ PARTS LIST SHOWN DOES NOT REFLECT THE CONTENTS OF THE KIT.

NOTE: Circled parts are included in most kits. Extra parts are included for other kits.

GF3708-10-P1

I. DISASSEMBLY

Perform the following disassembly procedures as outlined below using the Exploded View (Fig. 1) and parts list as a guide. Disassemble only to the extent necessary to permit thorough cleaning and inspection of parts.

SPECIAL NOTE:

Mark positions and locations of springs, different screw lengths, connecting rods, adjusting screws, jets and brackets before removal to permit re-assembly to original locations and settings. Also save old gaskets for matching purposes.

A. AIRHORN ASSEMBLY

1. Pry off clip (1) and disengage connecting link (2) from fast idle cam.
2. Loosen but do not remove airhorn assembly screws (3,11,12) except as noted.
3. Remove screws (3), (nut 4, some models) and lift off bracket and solenoid assembly (5).
4. Mark position of thermostat cover (8) and lift off by removing three screws (6) and clamp (7). Peel off old gasket (9) and remove heat shield (10).
5. Separate airhorn assembly (13) from main body (54) by removing remaining screws (11,12) and gasket (14).
6. Invert airhorn assembly (13) and slide out rod (15) to remove float assembly (16) from casting. Turn airhorn assembly right side up to allow pin (17), spring (18), and needle (19) to fall into cupped hand. Again invert airhorn assembly and remove seat (20) gasket (21) and filter (22).
7. Some Models—Detach fuel bowl vent valve assembly by removing clip (23), shaft (24), spring (25), arm (26) and valve (27).

B. MAIN BODY

1. Note location of weight (28) and ball check (29), invert main body (54) and allow the above to fall into cupped hand.
2. Unscrew and remove slow speed jet (30). Also remove the cover (31) where used.
3. Push down on top pump spring (33), slide out retainer (32), lift off spring (33), lever and metering rod assembly (34,35) and antirock plate (36). Separate lever (34) from metering rod (35).
4. Some Models—Proceed to the Throttle Body Assembly to dismantle the fuel vent linkage as follows: Remove screw (37), arm (38), lever (39), washer (40), and clip (41). For most Models, loosen screw on arm (42) and separate link (43), and arm from lifter (44) by sliding off throttle shaft. Return to main body (54) and slide out lifter (44).
5. With spring (46) compressed, remove retainer (45), release spring and lift off from shaft of pump diaphragm (51).
6. Using proper size jet tool or screwdriver, remove main jet (47).
7. Remove screws (48), pump cover (49), discharge tube (50), diaphragm assembly (51) and stepped washer inlet valve (52).

NOTE: Use flat 1/16" thick washer found in Kit as a replacement for the stepped washer (52).

8. Separate main body (54) from throttle body (59) by removing four screws (53) and gasket (55).

C. THROTTLE BODY

1. Index limiter cap (56) position then remove straight out by inserting a No. 6 or 8 Sheet Metal Screw in cross slot and turning in until limiter cap lifts off. Alternate method: Snip off limiter cap using diagonal cutters.

NOTE: Be sure idle mixture screw (57) does not turn.

2. Mark position of mixture screw (57) then turn in until lightly seated, turn out counting number of turns or fraction thereof to index mark. Record for reassembly.
3. Remove mixture screw (57), spring (58) from throttle body (59).

II. CLEANING & INSPECTION

Follow cleaning instructions as outlined on Page 1 of this instruction sheet. Inspect all castings for damaged or burred mating surfaces, cracks, warpage and stripped screw thread holes. Badly damaged screws must be replaced. New screws considered as general hardware are available at most hardware supply dealers. Check throttle valve and choke shafts for looseness or binding. Replace all parts with applicable new items found in kit.

III. REASSEMBLY

Reverse the numerical sequence to reassemble carburetor using reference numbers as a guide. Also refer to index call out numbers for proper location and position of parts as shown in Exploded View (Fig. 1).

Note Following Instructions:

1. When adjusting float do not allow the VITON tipped fuel inlet needle to be pressed into the needle seat. Damage to tip and a false reading will result. When gauging, allow float only to touch needle.
2. Screw lengths may vary with application, be sure to reassemble to original locations.
3. Install all new applicable gaskets found in kit when re-assembling carburetor.
4. Assemble the following outside carburetor: Position pump cover (Fig. 1,49) over pump diaphragm (51). Match up screw holes and insert screws. **NOTE:** Exercise care not to damage rubber diaphragm. When installing unit into fuel bowl, be sure to tighten screws down evenly.
5. Before any adjustment is made to carburetor, check engine timing, dwell, ignition and compression for correct settings.
6. Make all adjustments as indicated in Specification Chart.

ADJUSTMENTS

FIG. 2 FLOAT LEVEL SETTING

With gasket removed, invert airhorn assembly. Measure "X", "Y" or "Z" as applicable using a scale or gauge between surface of airhorn and end of float where shown. See Specification Chart for correct setting. To adjust, bend float hinge as required.

NOTE: Allow float hinge to touch needle pin only (Fig. 1.17) without compressing spring (18). DO NOT exert pressure on resilient needle valve.

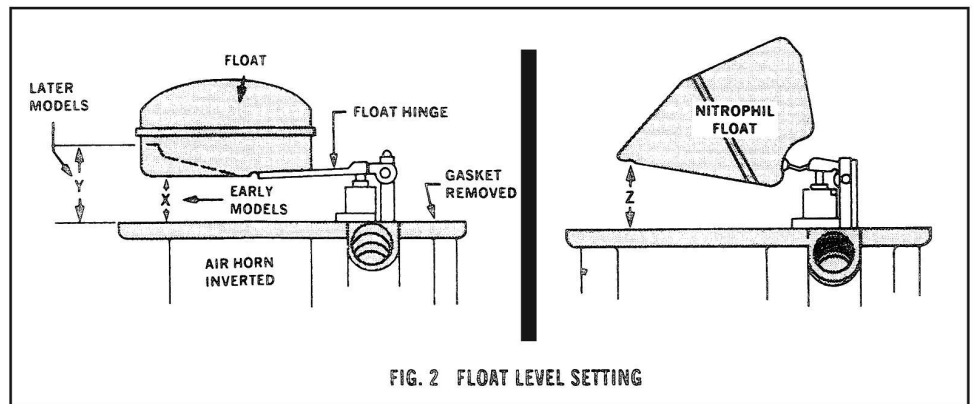


FIG. 3 FLOAT DROP SETTING

Hold airhorn in upright position without gasket. Float should hang free. Measure distance "A" (at back of radius), "B" or "C" as applicable. See Specification Chart for correct setting. To adjust, bend stop tang as necessary.

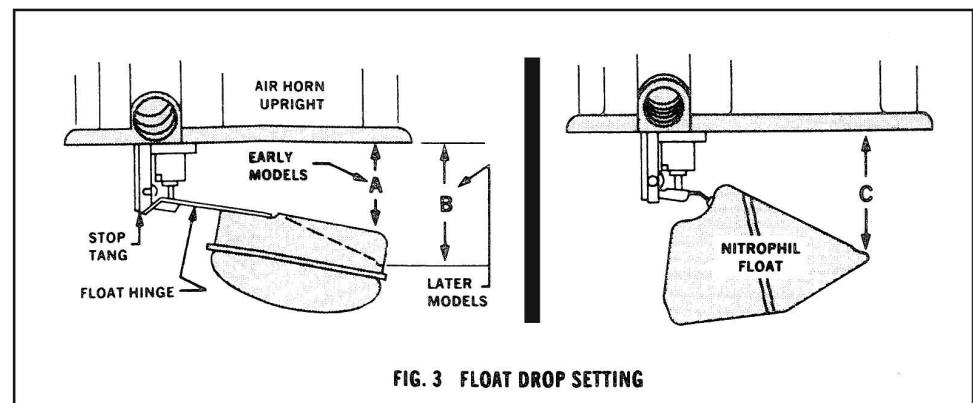


FIG. 4 METERING ROD SETTING . . . IMPORTANT

With airhorn and gasket removed, close throttle plate tight in bore by backing off idle speed screw. Push down on pump diaphragm shaft until it bottoms. To adjust metering rod, maintain pump diaphragm shaft in this position while backing out metering rod adjusting screw until rod bottoms in metering well. Then turn adjusting screw in (clockwise) one turn for final adjustment. Alternate method: Repeat above procedures to where rod bottoms in metering well, then turn adjusting screw in (clockwise) until it contacts lifter (Fig. 1,44) or anti-rock plate (36). Next, add one additional turn for final adjustment.

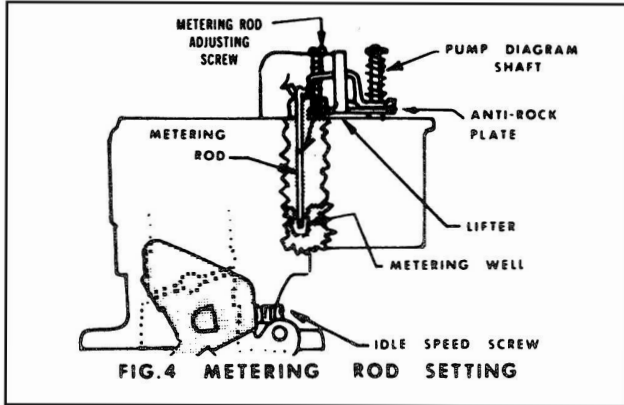


FIG. 5 FAST IDLE CAM SETTING

Position fast idle screw against shoulder of high step on fast idle cam as shown. Rotate choke valve toward maximum closed position. Measure clearance between airhorn wall and lower end of choke valve. The measured clearance must be as specified (see Specification Chart). To adjust, bend connecting link.

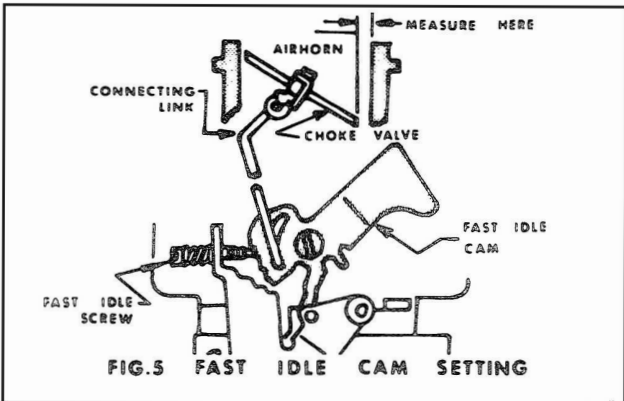


FIG. 6 CHOKE VALVE PULLDOWN SETTING

Prefabricate a wire gauge to conform to dimensions as shown. Insert bent end of gauge between choke piston slot and right hand slot in choke housing as shown. Turn choke piston arm counterclockwise until gauge is snug in piston slot. Hold gauge in slot by applying light pressure on choke piston arm then measure clearance (See Specification Chart) between lower edge of choke valve and wall of airhorn. To adjust, bend choke piston arm as required.

NOTE: Exercise caution when bending arm not to distort piston link.

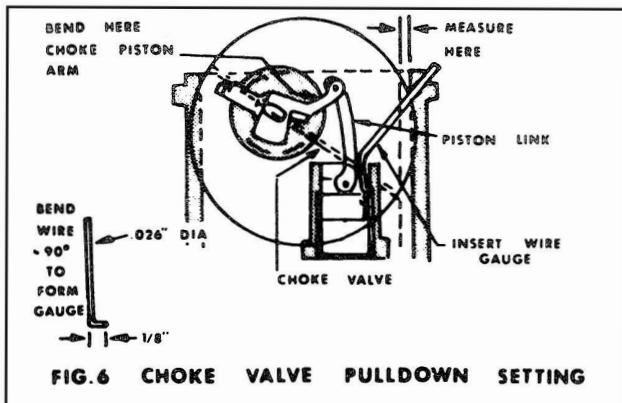


FIG. 7 UNLOADER SETTING

Move throttle valve to wide open position and fully close choke valve without forcing. Measure clearance between lower edge of choke valve and wall of airhorn. The measured clearance must be as specified (see Specification Chart). To adjust, bend tab on throttle lever.

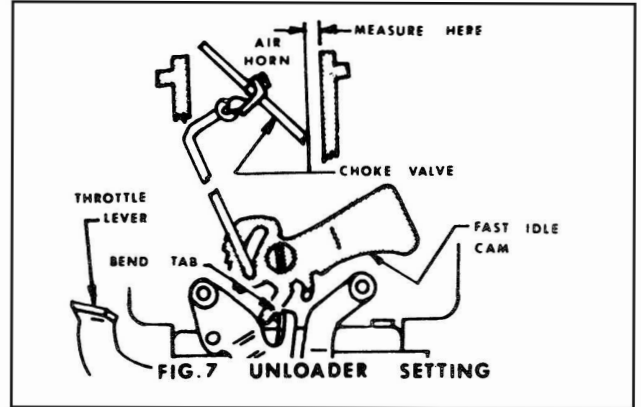


FIG. 8 AUTOMATIC CHOKE SETTING

Loosen cover clamp screws and align thermostat cover reference mark with specified raised graduation on choke housing scale. See Specification Chart for correct setting.

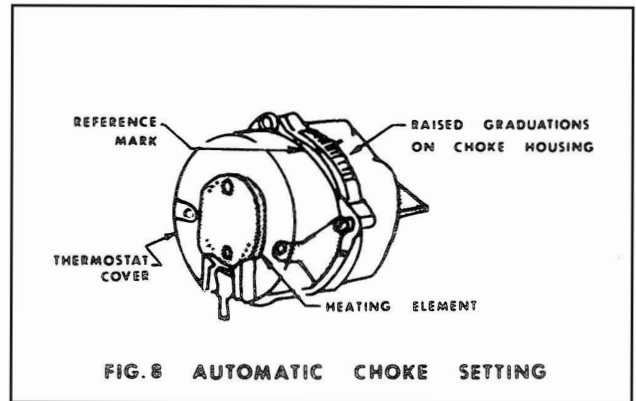
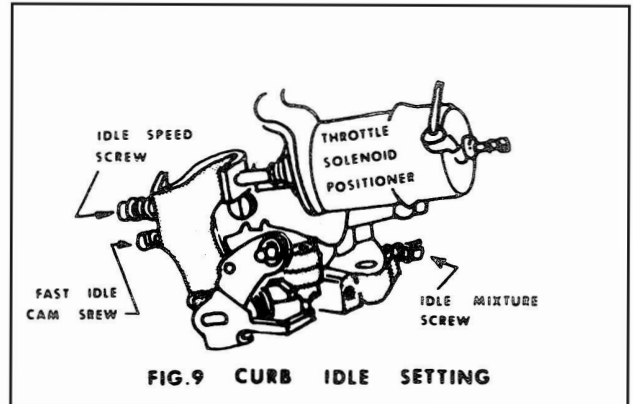


FIG. 9 CURB IDLE SETTING

Set idle adjustment in accordance with procedures set forth in Car Service Manual, also follow Specification Chart and or Engine Decal for required settings. In the event of conflicting data between Engine Decal and Specification Chart, Engine Decal must take precedence.



SPECIFICATION CHART (Cont'd)

Year	MODEL	Float Level	Float Drop	Fast Idle Cam	Choke Valve Pulldown	Unloader Setting	Auto Choke Setting	Dashpot Setting
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FORD, MERCURY — SPECIFICATION I.D.-C

1980	250 Eng. Carb. No. E0DE-LA, MA	25/32"	1-1/2"	9/64"	17/64"	1/4"	2 rich	—
		25/32"	1-1/2"	9/64"	1/4"	1/4"	2 rich	—
1979	200 Eng. 250 Eng. Carb. No. D9DE-CA, CC, DA, DC Carb. No. D9DE-UA, VA	25/32"	1-1/2"	9/64"	3/16"	1/4"	1 rich	—
		25/32"	1-1/2"	9/64"	15/64"	1/4"	2 rich ⁴	—
		25/32"	1-1/2"	9/64"	17/64"	1/4"	2 rich ⁵	—
		25/32"	1-1/2"	9/64"	3/16"	1/4"	2 rich	—
1978	200 Eng. 250 Eng.	25/32"	1-1/2"	9/64"	3/16"	1/4"	1 rich	—
		25/32"	1-1/2"	9/64"	15/64" ⁶	1/4"	2 rich	—
1977	200, 250 Eng.	3/4"	1-1/2"	9/64"	—	5/16"	Index ⁷	—
1976	200, 250 Eng.	3/4"	1-1/2"	9/64"	—	5/16"	1 rich	—
1975	200, 250 Eng.	3/8" ⁸	1-1/2"	9/64"	—	5/16"	1 rich	—

FORD TRUCK

85-80	300 Eng. Carb. No. E0TE-ABA, FA Carb. No. E0TE-ACA, ARA, ATA	11/16"	1-1/2"	9/64"	15/64"	9/32"	Index	5/64"
		11/16"	1-1/2"	9/64"	19/64"	9/32"	Index	5/64"
		11/16"	1-1/2"	9/64"	5/16"	9/32"	Index ¹²	5/64"
1979	300 Eng.	11/16" ⁹	1-1/2"	9/64"	15/64" ¹⁰	21/64"	Index	—
1978	300 Eng.	11/16" ¹¹	1-1/2"	9/64"	7/32"	5/16"	Index	1/16"
1977	300 Eng.	3/8" ⁸	1-1/2"	9/64"	—	5/16"	Index	1/16"
73-68	240, 300 Eng.	3/8"	1-3/16"	—	—	5/16"	—	—

FOOTNOTES:

* Use flat 1/16" thick washer found in kit.

¹ Carb. Nos. E2TE-MA, ANA set 2 rich.

² Carb. Nos. E1TE-DA, EA, EE, TA, TC set Index.

³ Carb. Nos. E1TE-EA, TA set 1/8".

⁴ Carb. Nos. D9DE-AA, BA, EA set 1 rich.

⁵ Carb. Nos. D9DE-CA, DA set 1 rich.

⁶ Carb. No. D8DE-EA set 13/64".

⁷ Carter Carb. Nos. 7164, 7194 set 2 rich.

⁸ Floats with slant top set 3/4".

⁹ Carter Carb. Nos. 7283, 7308 set 25/32".

¹⁰ Carter Carb. Nos. 7308, 7342, 7355, 7361 set 19/64".

¹¹ Carter Carb. Nos. 7221, 7222, 7264 set 5/8".

¹² Carb. No. E0TE-ATA set 2 rich.

ABBREVIATIONS:

T.R. - Tamper Resistant

FIG. 10 FAST IDLE SETTING

NOTE: Before setting Fast Idle, be sure idle speed and mixture adjustments are made first.

Start engine and run to operating temperature (hot), then shut down. Remove air cleaner and plug vacuum line at manifold. Disconnect and plug distributor primary diaphragm and EGR valve vacuum hoses. Hook-up Tachometer, start engine, open throttle, then manually rotate fast idle cam until fast idle screw rests on step of cam shown. To obtain specified R.P.M. (See Specification Chart) turn fast idle adjusting screw in or out as required.

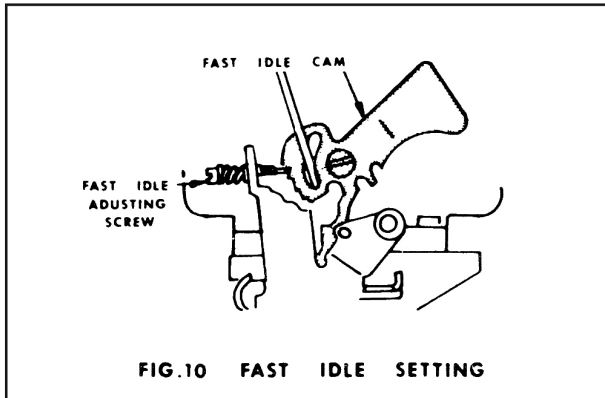


FIG. 10 FAST IDLE SETTING

FIG. 11 BOWL VENT SETTING (Some Models)

NOTE: This adjustment to be made on car and only after idle speed has been set.

Turn ignition switch "ON" to energize throttle stop solenoid without starting engine. Insert a .020" gauge between solenoid plunger and throttle lever, at which time bowl vent forked lever must just touch bowl vent shaft. To adjust, bend indentation at forked lever to obtain correct travel.

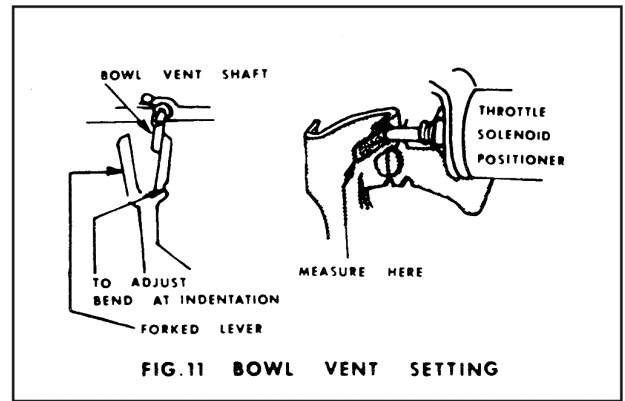


FIG. 11 BOWL VENT SETTING

FIG. 12 DASHPOT SETTING (Some Models)

NOTE: This is an "ON CAR" adjustment. Engine should be at normal operating temperature with choke valve wide open and idle speed and mixture properly set.

Position throttle at curb idle R.P.M. and fully depress dashpot plunger using a screwdriver. Measure clearance between end of plunger and throttle lever tab. The measured clearance must be as specified (See Service Manual). To adjust, loosen locknut, turn dashpot in or out of mounting bracket as needed. Then re-tighten locknut.

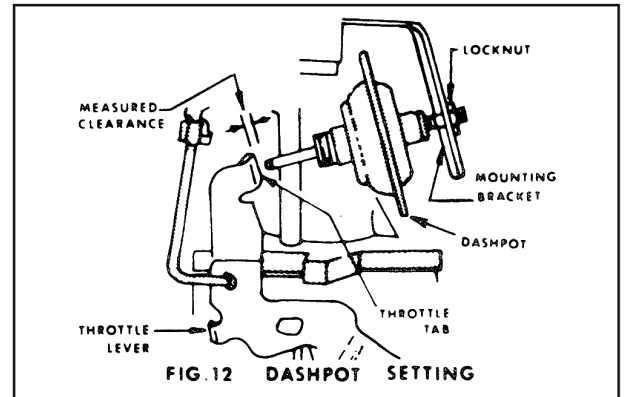


FIG. 12 DASHPOT SETTING

SPECIFICATION CHART

Year	MODEL	Float Level	Float Drop	Fast Idle Cam	Choke Valve Pulldown	Unloader Setting	Auto Choke Setting	Dashpot Setting
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FORD, MERCURY — SPECIFICATION I.D.-A

86-85	140 Eng. -E6ZE-DA, EA	21/32"	—	9/64"	17/64"	7/32"	T.R.	—
	-E5ZE-AA, CA	21/32"	—	9/64"	17/64"	17/64"	T.R.	—
1984	140 Eng. -E4ZE-DB, HC, PA, RA	21/32"	—	9/64"	17/64"	17/64"	T.R.	—
	-E4ZE-MA, NA	21/32"	—	9/64"	15/64"	17/64"	T.R.	—
1983	140 Eng.	21/32"	1-19/32"	9/64"	17/64"	7/32"	T.R.	—
	Carb. No. E3ZE-TC, UB	21/32"	1-19/32"	9/64"	15/64"	7/32"	T.R.	—

FORD TRUCK

86-85	122 Eng.	21/32"	1-19/32"	9/64"	5/16"	17/64"	Index	—
	300 Eng.	25/32"	1-19/32"	9/64"	23/64"	21/64"	—	—
	Carb. No. E6TE-HA	25/32"	—	11/64"	23/64"	13/32"	Index	—
	Carb. No. E5TE-FA	25/32"	1-19/32"	9/64"	11/32"	21/64"	Index	—
1984	122, 140 Eng.	21/32"	1-19/32"	9/64"	5/16"	7/64"	—	—
	300 Eng.	25/32"	—	9/64"	23/64"	21/64"	—	—
1983	122, 140 Eng.	21/32"	1-19/32"	9/64"	5/16"	7/32"	—	—
	300 Eng.	25/32"	1-19/32"	9/64"	17/64"	9/32"	—	5/64"
	Carb. No. E3TE-ZA, AAA, ABA, AKA, ARA, BRA	25/32"	1-19/32"	9/64"	19/64"	9/32"	—	5/64"
	Carb. No. E3TE-FA, GA, ALA, BDA, BKA, BNA	25/32"	1-19/32"	9/64"	5/16"	21/64"	—	5/64"
1982	300 Eng. -Carb. No. E2TE-ZA	11/16"	—	9/64"	19/64"	9/32"	Index	5/64"
	Carb. No. E2TE-BVA, BZA	25/32"	1-19/32"	9/64"	17/64"	9/32"	Index	5/64"
	Carb. No. E2TE-AMA; E2UE-EA	25/32"	1-19/32"	9/64"	15/64"	9/32"	Index	5/64"
	Carb. No. E2TE-MA, YA, AAA, ANA	25/32"	1-19/32"	9/64"	19/64"	9/32"	Index ¹	5/64"
	Carb. No. E2TE-JA, KA, CEA; E2UE-DA	25/32"	1-19/32"	9/64"	5/16"	21/64"	2 rich	5/64"
1981	300 Eng.	25/32"	1-19/32"	9/64"	5/16"	9/32"	2 rich ²	5/64" ³
	Carb. No. E1TE-ARA, UA	25/32"	1-19/32"	9/64"	15/64"	9/32"	Index	5/64"
	Carb. No. E1TE-AZA, GA, GC	25/32"	1-19/32"	9/64"	21/64"	21/64"	2 rich	5/64"

AMC, JEEP — SPECIFICATION I.D.-B

87-85	2.5L Eng.	19/32"	—	11/64"	9/32"	9/32"	T.R.	—
	Carb. No. 7704, 7706	19/32"	—	11/64"	9/32"	19/64"	T.R.	—
84	2.5L Eng.	19/32"	—	11/64"	15/64"	3/8"	T.R.	—
83	2.5L Eng. -Carb. No. 7452, 7454	19/32"	—	11/64"	13/64"	9/32"	T.R.	—
	Carb. No. 7453, 7455	19/32"	—	11/64"	9/32"	9/32"	T.R.	—