

1975-79 FUEL SYSTEMS

Carter YF & YFA Feedback Single Barrel

CARBURETOR APPLICATION

1975 AMERICAN MOTORS CO. (MODEL YF)

Application	American Motors No.	
	Man. Trans.	Auto. Trans.
Federal		
Gremlin, Hornet, Pacer	7074	7039
Matador	7041	7039
California		
Gremlin, Hornet, Pacer	7062	7061

1976 AMERICAN MOTORS CO. (MODEL YF)

Application	American Motors No.	
	Man. Trans.	Auto. Trans.
Federal		
Gremlin	7012	7083
Hornet, Pacer	7086	7083
Matador	7084	7083
California		
Gremlin, Hornet, Pacer	7012	7085

1977 AMERICAN MOTORS CO. (MODEL YF)

Application	American Motors No.	
	Man. Trans.	Auto. Trans.
Federal		
Gremlin	7152	7151
Hornet, Pacer	7152	7151
Matador		7151
California		
Hornet, Gremlin, Pacer	7223	7153
High Altitude		
Gremlin, Hornet, Pacer	7189	7111

1978 AMERICAN MOTORS CO. (MODEL YF)

Application	American Motors No.	
	Man. Trans.	Auto. Trans.
232" 6-Cyl.		
Federal	7229	7228
Canada	7267	7267
258" 6-Cyl.		
Federal		7228
California	7235	7201
High Altitude	7233	7232

1979 AMERICAN MOTORS CO. (MODEL YF)

Application	American Motors No.	
	Man. Trans.	Auto. Trans.
232" 6-Cyl.		
Federal	7228	7229
258" 6-Cyl.		
California		7318

1975 FORD MOTOR CO. (MODEL YFA)

Application	Ford Part No.	
	Man. Trans.	Auto. Trans.
200" 6-Cyl.	D5DE-NA	D5DE-RA
250" W/CAT.	D5DE-ZA	D5DE-YA
Federal		
250" 6-Cyl.	D5DE-EA	D5DE-GA
California	D5DE-FA, MA	D5DE-DA

1976 FORD MOTOR CO. (MODEL YFA)

Application	Ford Part No.	
	Man. Trans.	Auto. Trans.
200" 6-Cyl.		
Federal	D6BE-AA	D5BE-BB, D6BE-BB
250" 6-Cyl.		
Federal	D6DE-AB	D6BE-BB
California	D5DE-MB	D5DE-DB

1977 FORD MOTOR CO. (MODEL YFA)

Application	Ford Part No.	
	Man. Trans.	Auto. Trans.
200" 6-Cyl.		
Federal	D7BE-GA	D7BE-FA
250" 6-Cyl.		
Federal	D7BE-AA	D7BE-BA, DA
California		D7BE-HB, GC

1978 FORD MOTOR CO. (MODEL YFA)

Application	Ford Part No.	
	Man. Trans.	Auto. Trans.
200" 6-Cyl.		
Federal	D8BE-VA	
250" 6-Cyl.		
Federal		D8KE-BA
Without A/C		D8DE-EA
With A/C	D8DE-BA	
California		
Without A/C		D8KE-AA
With A/C		D8DE-DA

1979 FORD MOTOR CO. (MODEL YFA)

Application	Ford Part No.	
	Man. Trans.	Auto. Trans.
200" 6-Cyl.		
Federal		
Without A/C	D9BE-UA	
With A/C	D9BE-RA	
250" 6-Cyl.		
Federal		D9BE-BA, DB
Without A/C		D9DE-CA, CB
With A/C	D9DE-EA	
California		
Without A/C		D9DE-BA
With A/C		D9DE-AA

CARBURETOR IDENTIFICATION

A carburetor identification tag is attached to carburetor. Tag contains part number prefix and suffix, design change code, if any, and assembly date code, including year, month and day. To obtain replacement parts, it is necessary to know identification number prefix and suffix, and in some instances, the design change code.

1975-79 FUEL SYSTEMS

Carter YF & YFA Feedback Single Barrel (Cont.)

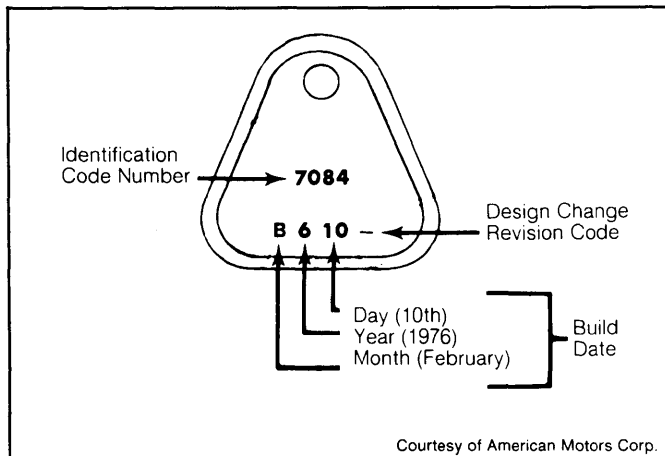


Fig. 1: American Motors Carburetor Identification Tag

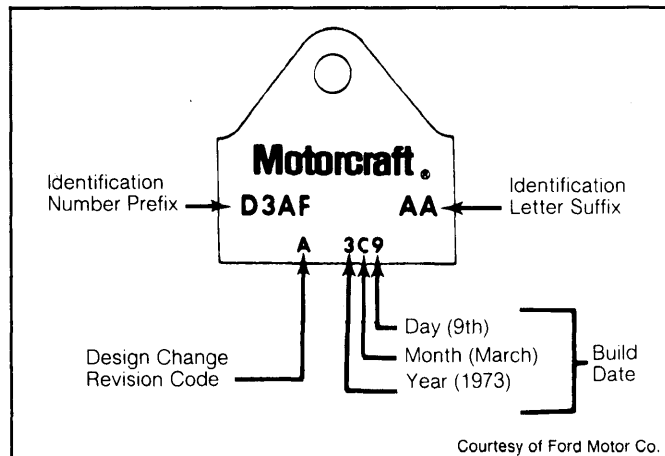


Fig. 2: Ford Motor Co. Carburetor Identification Tag

DESCRIPTION

Carter YF and YFA carburetors are made up of 3 main assemblies: air horn, main body and throttle body. YFA carburetors have an adjustment limiting vacuum diaphragm type automatic choke with an electric assist choke cap. The electric choke adds a high mileage economy application to the carburetor. The main body contains a temperature compensated accelerator pump which has a thermostatic disc designed to open and close within a specified range.

In 1978 YF carburetors installed on American Motors vehicles for use in high altitude areas are equipped with High Altitude Compensation. This system is made up of a chamber assembly, gasket and screws mounted in air horn.

Carburetors on Ford Motor Company and American Motors vehicles equipped with air conditioning or automatic transmissions (in California), use an idle speed solenoid to prevent dieseling when ignition is turned off. Some models were equipped with a throttle lever dashpot to reduce the chance of stalling when the throttle is closed quickly.

ADJUSTMENTS

NOTE: For all on-vehicle adjustments not covered in this article, see appropriate TUNE-UP PROCEDURES article.

FLOAT LEVEL

1) Remove air cleaner assembly. Remove air horn and gasket from top of carburetor.

2) Turn air horn assembly upside-down. Measure distance between top of float at free end and gasket surface of air horn.

NOTE: Do not apply pressure against needle when adjusting float.

3) Bend float arm as necessary to obtain correct clearance. DO NOT bend tab at end of float arm as this will stop float travel to bottom of fuel bowl when empty.

4) When adjustment is completed, reinstall air horn and new gasket. Start engine and check for fuel leaks. Install air cleaner.

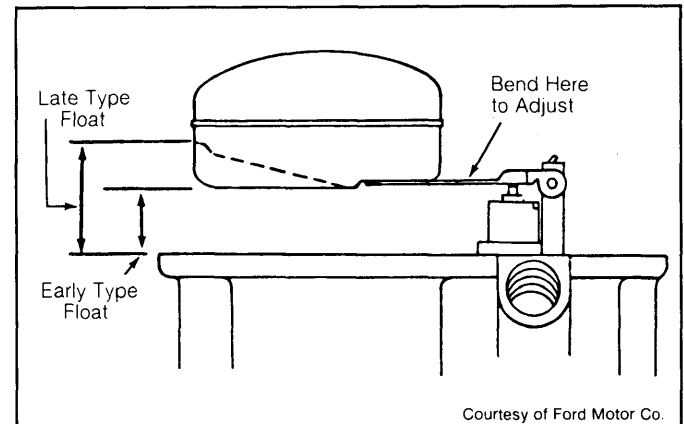


Fig. 3: Float Level Adjustment

FLOAT DROP

1) Remove air cleaner, carburetor air horn and gasket from top of carburetor.

2) Hold air horn in upright position. Allow float to hang free. Using specified gauge, measure minimum clearance from tip of float to bottom of air horn casting. See Fig. 4.

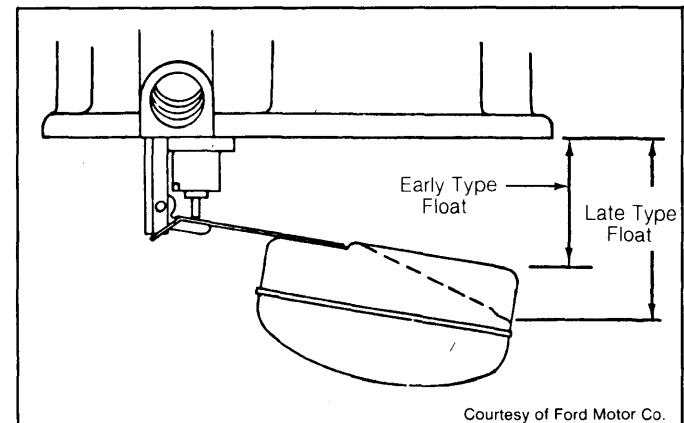


Fig. 4: Float Drop Adjustment

3) Bend tab at end of float arm to adjust. After completing adjustment, install air horn and a new gasket on carburetor. Start engine and check for fuel leaks. Install air cleaner.

METERING ROD

1) Remove air cleaner, air horn and gasket from carburetor.
2) Using a side cutter, remove the tamper proof cup covering the closed valve adjusting screw. Back out adjusting screw until it is clear of the casting.

3) Press down on top of pump diaphragm shaft until assembly bottoms. While holding diaphragm assembly in this position, turn rod adjustment screw counterclockwise until metering rod gently bottoms in body casting. See Fig. 5.

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Carter YF & YFA Feedback Single Barrel (Cont.)

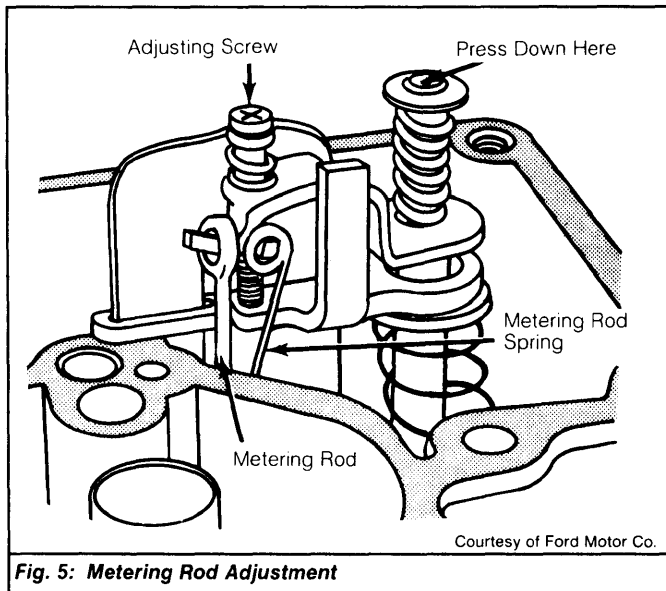


Fig. 5: Metering Rod Adjustment

4) Now turn metering rod adjustment screw clockwise (IN) one turn for final adjustment. Install air horn and new gasket on carburetor.

CHOKE UNLOADER (DECHOKE)

- 1) Remove air cleaner. Hold throttle valve in fully open position and press choke valve toward closed position.
- 2) Measure clearance between lower edge of choke valve and air horn wall.
- 3) Adjust by bending arm on choke lever of throttle lever. See Fig. 6.

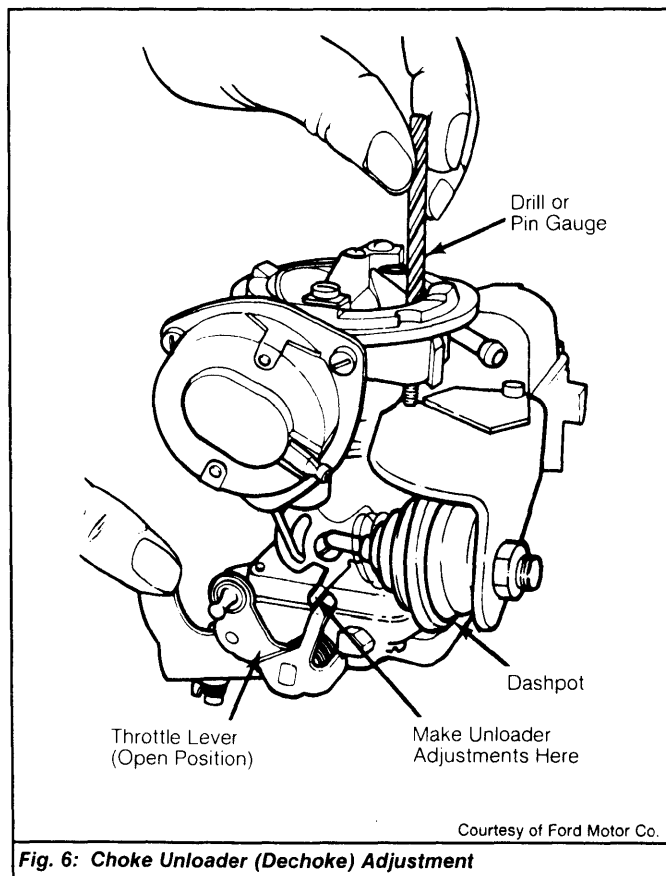


Fig. 6: Choke Unloader (Dechoke) Adjustment

- 4) Bend arm upward to increase clearance; bend downward, away from fast idle cam, to decrease clearance.
- 5) Operate throttle to check for binding or clearance interference. Install air cleaner.

CHOKE PLATE PULL-DOWN CLEARANCE

Piston Type Choke - 1) Remove air cleaner. Remove choke thermostatic spring housing and heat baffle from carburetor.

2) Fabricate a wire gauge by bending .026" diameter wire at a 90° angle approximately 1/8" from one end. Insert the bent end of the wire gauge between choke piston slot and right hand slot in the choke housing. See Fig. 7.

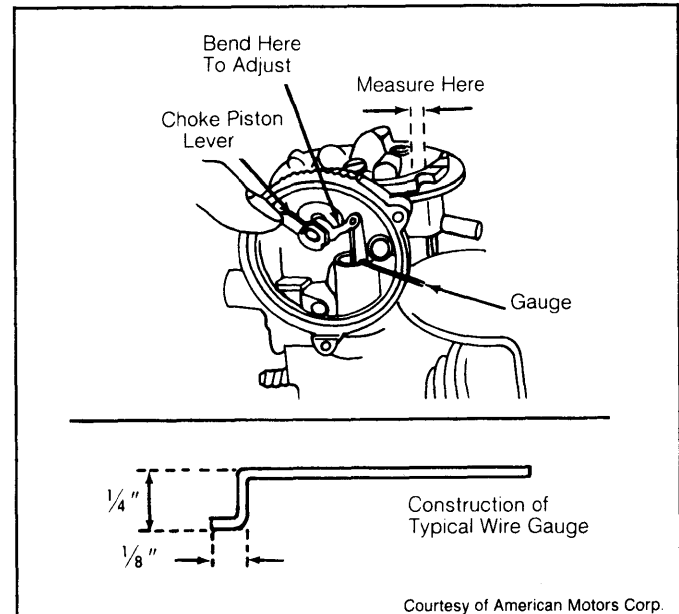


Fig. 7: Piston Type Choke Plate Pull-Down Adjustment

- 3) Rotate choke piston counterclockwise until gauge is snug in slot. Hold pressure against lever to keep gauge in place.
- 4) Measure choke plate pull-down specified clearance between lower edge of choke plate and air horn wall.
- 5) To adjust, bend choke lever. Bend lever toward piston to decrease clearance; bend lever away from piston to increase clearance.

NOTE: Do not distort piston link while adjusting or erratic choke operation will result.

Diaphragm Type Choke - 1) Disconnect vacuum tube from pull-down motor. Activate pull-down motor by applying an external vacuum source. Close choke plate as far as possible without forcing it. See Fig. 8.

2) Using specified drill, check clearance between lower edge of choke plate and air horn wall. To adjust, bend choke diaphragm link as required. Reconnect pull-down motor vacuum tube.

1975-79 FUEL SYSTEMS

Carter YF & YFA Feedback Single Barrel (Cont.)

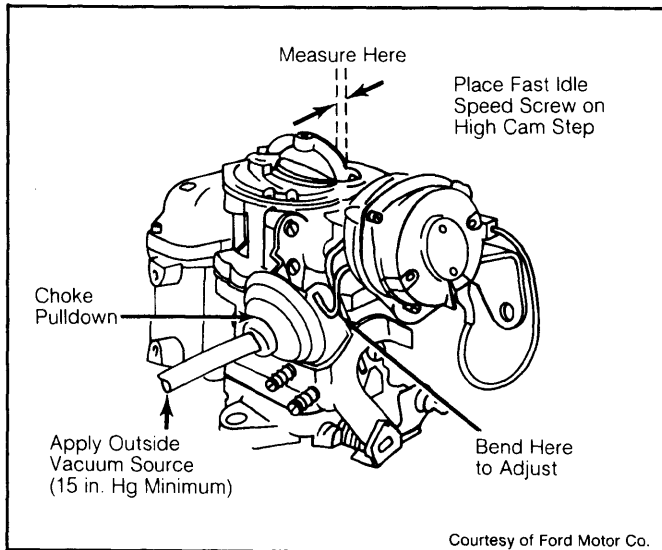


Fig. 8: Diaphragm Type Choke Plate Pull-Down Adjustment

FAST IDLE CAM POSITION

1) Place fast idle speed screw on kickdown step of fast idle cam, against shoulder of highest step. See Fig. 9.

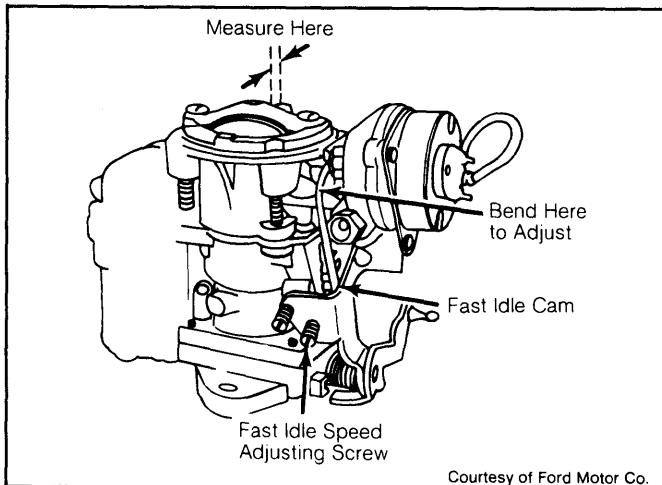


Fig. 9: Fast Idle Cam Position

- 2) Measure specified clearance between lower edge of choke plate and air horn wall.
- 3) If clearance is not to specification, adjust by bending fast idle cam link.

ALTITUDE COMPENSATION

American Motors - 1) Use screwdriver to turn slotted plug out (counterclockwise) until it seats for operation of vehicle at altitudes ABOVE 4000 feet.

2) For operation BELOW 4000 feet, turn slotted plug in (clockwise) until it seats.

DASHPOT

Ford Motor Co. - 1) Choke should be fully open and throttle lever fully closed. Depress dashpot plunger. The clearance is measured between tip of dashpot plunger and throttle lever. See CARBURETOR ADJUSTMENT SPECIFICATIONS table.

2) Loosen lock nut and turn dashpot in or out on threaded extension until clearance is as specified. Retighten lock nut.

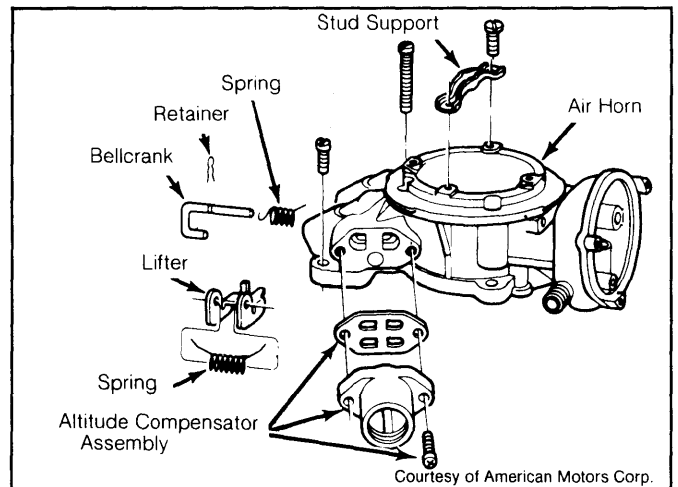


Fig. 10: Exploded View of Model YF Altitude Compensator

AUTOMATIC CHOKE

NOTE: Although automatic choke is of tamper-proof design, these steps are used if automatic choke is damaged or when carburetor is rebuilt.

Loosen choke thermostat cover. Remove 2 rivets and retaining screw. Rotate cover assembly in "Rich" or "Lean" direction to align reference mark on cover with specified scale graduation on housing. Install new rivets and screw, and tighten.

OVERHAUL

CARBURETOR

- Disassembly** - 1) Remove carburetor from engine. Remove thermostatic spring housing assembly, spring housing gasket, locking and indexing plate, and fast idle link and bushings.
- 2) Remove A/C solenoid, if equipped, and bracket. Remove throttle control device.
 - 3) Remove 2 screws disconnecting choke pull-down link. Remove pull-down motor assembly. Disengage link from choke shaft lever.
 - 4) On all carburetors, remove fuel filler inlet. Remove air horn assembly attaching screws, solenoid or solenoid, air horn assembly and gasket.
 - 5) Remove wire clip retaining the link that joins the fast idle choke lever to fast idle cam and remove link.
 - 6) On all carburetors, turn air horn upside-down and remove float pin, float and lever assembly.
 - 7) Turn air horn right-side-up and catch needle pin, spring and needle as they fall out. Remove needle seat and gasket.
 - 8) Remove choke plate attaching screws. If necessary, file staked (burred) ends of choke plate attaching screws and remove. Be sure to use new screws when assembling.
 - 9) On all carburetors, remove spring retainer from mechanical fuel bowl vent flapper valve. Remove vent shaft rod and spring and flapper valve. Note position of spring on rod for reassembly.
 - 10) Turn main body upside-down and catch accelerator pump check ball and weight. Remove bowl vent lever screw in end of throttle shaft. Remove spring washer, vent rod, actuating lever and clip.
 - 11) Loosen throttle shaft arm screw. Remove arm and accelerator pump connector link. Remove fast idle cam and screw.
 - 12) Remove accelerator pump diaphragm housing screws and pump transfer tube. Lift out pump diaphragm assembly, pump lifter link and metering rod as a unit. Remove lifter link seal.

1975-79 FUEL SYSTEMS

Carter YF & YFA Feedback Single Barrel (Cont.)

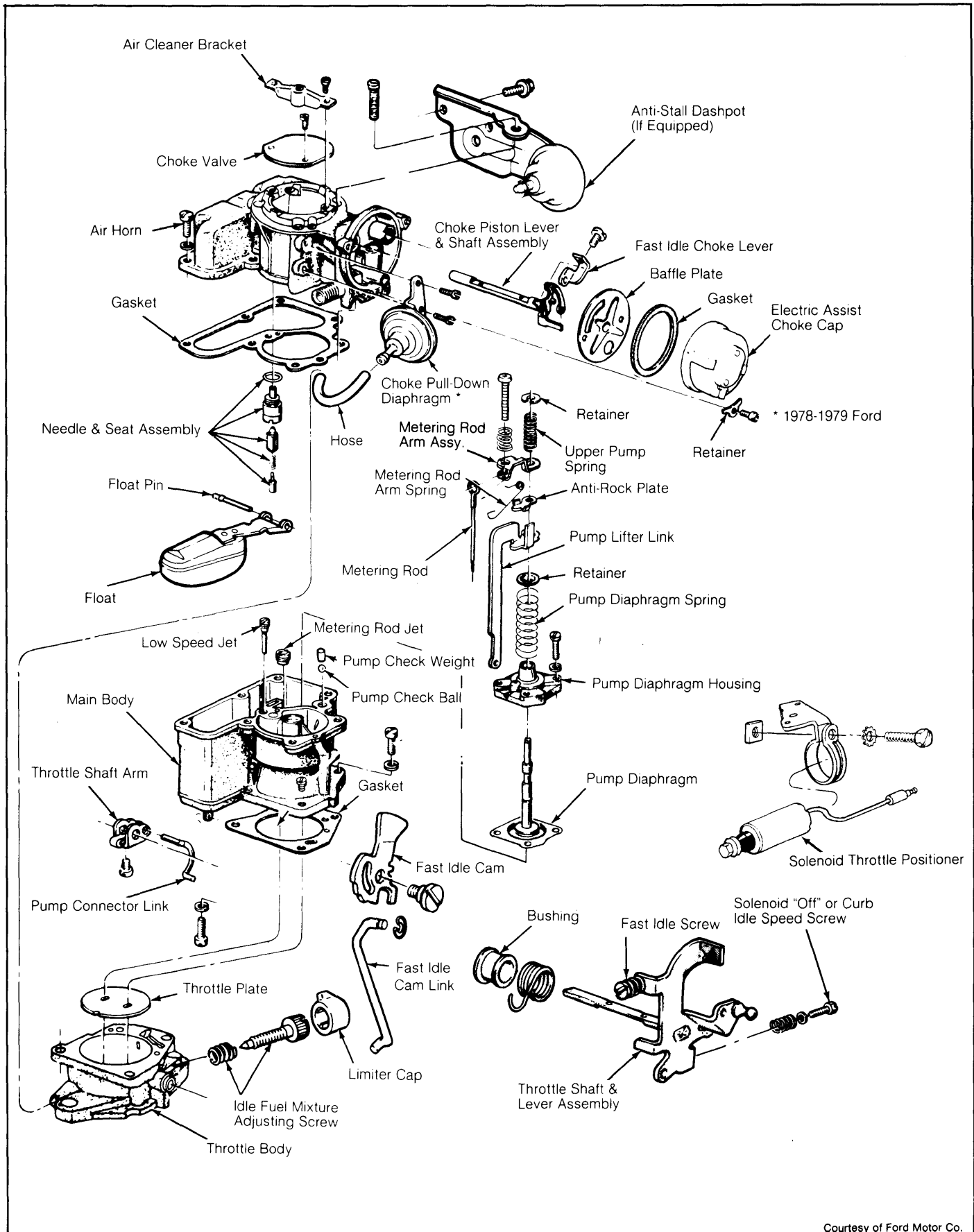


Fig. 11: Exploded View of Carter Model YFA & YFA 1-Barrel Carburetor

Courtesy of Ford Motor Co.

1975-79 FUEL SYSTEMS

Carter YF & YFA Feedback Single Barrel (Cont.)

13) Disengage metering rod arm spring from metering rod. Remove metering rod from rod arm assembly. For reassembly, be sure to note location of any washers that were used for shimming either spring.

14) Compress upper pump spring and remove spring retainer. Remove upper spring, metering rod arm assembly, and pump lifter link from pump diaphragm shaft.

15) Compress pump diaphragm spring. Remove pump diaphragm spring retainer, spring and pump diaphragm assembly from pump diaphragm housing.

16) On all carburetors, use proper size jet tool or screwdriver to remove metering rod jet and low speed jet. Remove screws and separate throttle body flange assembly from main body casting. Remove gasket.

17) Remove throttle plate retaining screws. File staked (burred) ends if necessary, and use new screws at reassembly. Slide throttle shaft and lever assembly out of throttle body. Note location of torsion spring ends on throttle shaft for reassembly.

18) Remove idle mixture screw adjustment limiting cap and cup as follows: Invert carburetor assembly and tape all vacuum and fuel connection openings.

19) Using a hacksaw, saw a slot lengthwise through thickness of cup. Be careful not to touch throttle body with saw blade. Insert screwdriver in new slot, spreading outer cup enough to remove inner cap.

19) After removing limiter cap, count number of turns to lightly seat needle for reassembly reference. Remove screw and cup. Clean metal shavings from carburetor and remove tape from openings.

CLEANING & INSPECTION

- Do not immerse air horn in any solvent. Damage to vent shaft seal could result.
- 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 or leather.
- Remove any residue after cleaning by rinsing components.
- Blow out all passages with compressed air.

REASSEMBLY

NOTE: Use new gaskets. Make sure that new gaskets fit correctly and that all holes and slots are punched through and correctly located.

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

- 1) If throttle valve was removed, make sure notch in throttle valve is aligned with idle port in body flange. Make sure throttle plate does not bind or stick. Restake or peen throttle plate screws.
- 2) Make sure vacuum passage in accelerator pump housing is aligned with vacuum passage in main body.
- 3) Make sure bowl vent rod engages forked actuating lever when air horn is installed.

1975 CARBURETOR ADJUSTMENT SPECIFICATIONS									
Carb. No.	Idle Speed (Engine RPM)		Fast Idle Cam Setting	Float Level Setting	Float Drop Setting	Choke Pulldown Setting	Unloader Setting	Dashpot Setting	Auto. Choke Setting
	Hot	Fast							
Am. Mtrs.									
7039	550	1600	.180"	.476"	1.38"	.205"	.275"	.075"	Index
7041	600	1600	.180"	.476"	1.38"	.205"	.275"	.075"	1-Rich
7061	700	1600	.180"	.476"	1.38"	.205"	.275"	.075"	1-Rich
7062	600	1600	.180"	.476"	1.38"	.205"	.275"	.075"	Index
7074	600	1600	.180"	.476"	1.38"	.205"	.275"	.075"	1-Rich
FoMoCo									
D5DE-DA	⓪	⓪	.140"	.375"	1.38"	.250"	.290"	.....	2-Rich
D5DE-EA	⓪	⓪	.140"	.375"	1.38"	.250"	.290"	.....	2-Rich
D5DE-GA	⓪	⓪	.140"	.375"	1.38"	.250"	.290"	.....	2-Rich
D5DE-MA	⓪	⓪	.140"	.375"	1.38"	.250"	.290"	.....	2-Rich
D5DE-ZA	⓪	⓪	.140"	.375"	1.38"	.250"	.290"	.....	2-Rich
D5DE-NA	⓪	⓪	.140"	.375"	1.38"	.250"	.290"	.....	2-Rich
D5DE-RA	⓪	⓪	.140"	.375"	1.38"	.250"	.290"	.....	2-Rich
D5DE-YA	⓪	⓪	.140"	.375"	1.38"	.250"	.290"	.....	2-Rich
D5DE-FA	⓪	⓪	.140"	.375"	1.38"	.250"	.290"	.....	2-Rich

⓪ — See Emission Control Tune-Up Decal.

1975-79 FUEL SYSTEMS

Carter YF & YFA Feedback Single Barrel (Cont.)

1976 CARBURETOR ADJUSTMENT SPECIFICATIONS									
Carb. No.	Idle Speed (Engine RPM)		Fast Idle Cam Setting	Float Level Setting	Float Drop Setting	Choke Pulldown Setting	Unloader Setting	Dashpot Setting	Auto. Choke Setting
	Hot	Fast							
Am. Mtrs.									
7083	550	1600	.185"	.476"	1.38"	.205"	.275"	.....	1-Rich
7084	600	1600	.185"	.476"	1.38"	.205"	.275"	.075"	2-Rich
7085	700	1600	.185"	.476"	1.38"	.205"	.275"	.....	1-Rich
7086	850	1600	.185"	.476"	1.38"	.205"	.275"	.....	2-Rich
7112	850	1600	.185"	.476"	1.38"	.205"	.275"	.....	1-Richⓐ
FoMoCo									
D5BE-BB	ⓑ	ⓑ	.140"	.781"ⓓ	ⓔ	.260"	.250"	.....	2-Rich
D5DE-DB	ⓑ	ⓑ	.140"	.719"ⓓ	ⓔ	.290"	.250"	.....	2-Rich
D5DE-MB	ⓑ	ⓑ	.140"	.719"ⓓ	ⓔ	.290"	.250"	.....	2-Rich
D6BE-AA	ⓑ	ⓑ	.140"	.781"ⓓ	ⓔ	.260"	.250"	.....	1-Rich
D6BE-BB	ⓑ	ⓑ	.140"	.781"ⓓ	ⓔ	.260"	.250"	.....	2-Rich
D6DE-AB	ⓑ	ⓑ	.140"	.781"ⓓ	ⓔ	.290"	.250"	.....	Index
D6DE-BB	ⓑ	ⓑ	.140"	.781"ⓓ	ⓔ	.230"	.250"	.....	Index

- ⓑ — See Emission Control Tune-Up Decal.
 ⓐ — 2-Rich on Pacer models.
 ⓓ — Early type straight float — .435"
 ⓔ — Early type straight float — .375"
 ⓕ — Straight float — 1.250" or tapered float — 1.625".

1977 CARBURETOR ADJUSTMENT SPECIFICATIONS									
Carb. No.	Idle Speed (Engine RPM)		Fast Idle Cam Setting	Float Level Setting	Float Drop Setting	Choke Pulldown Setting	Unloader Setting	Dashpot Setting	Auto. Choke Setting
	Hot	Fast							
Am. Motors									
7111	.....ⓑ	1600ⓑ	.201"	.476"	1.375"	.221"	.275"	.....	2 Rich
7151	550	1600ⓑ	.195"	.476"	1.375"	.215"	.275"	.....	1 Rich
7152	600	1500ⓑ	.195"	.476"	1.375"	.215"	.275"	.....	1 Rich
7153	700	1600ⓑ	.195"	.476"	1.375"	.215"	.275"	.....	Index
7189	.....ⓑ	1500ⓑ	.201"	.476"	1.375"	.215"	.275"	.....	1 Rich
7195	.....ⓑ	1600ⓑ	.195"	.476"	1.375"	.215"	.275"	.....	1 Rich
7223	850	1500ⓑ	.195"	.476"	1.375"	.215"	.275"	.....	Index
FoMoCo									
D7BE-AA	800	1700	.140"ⓓ	25/32"ⓔ	1 1/32"ⓔ	.290"ⓕ	.250"ⓖ	.....	Index
D7BE-AB	800	1700	.140"ⓓ	25/32"ⓔ	1 1/32"ⓔ	.290"ⓕ	.250"ⓖ	.....	Index
D7BE-BA	600	1700	.140"ⓓ	25/32"ⓔ	1 1/32"ⓔ	.290"ⓕ	.250"ⓖ	.....	Index
D7BE-FA	650	1700	.140"ⓓ	25/32"ⓔ	1 1/32"ⓔ	.260"ⓕ	.250"ⓖ	.....	2 Rich
D7BE-GA	650ⓑ	1700	.140"ⓓ	25/32"ⓔ	1 1/32"ⓔ	.290"ⓕ	.250"ⓖ	.....	Index
D7BE-HB	600	1700	.140"ⓓ	25/32"ⓔ	1 1/32"ⓔ	.290"ⓕ	.250"ⓖ	.....	2 Rich
D7BE-NA	600	1700	.140"ⓓ	25/32"ⓔ	1 1/32"ⓔ	.260"ⓕ	.250"ⓖ	.....	1 Rich
D7DE-DA	600	1700	.140"ⓓ	25/32"ⓔ	1 1/32"ⓔ	.260"ⓕ	.250"ⓖ	.....	1 Rich
D7DE-GB	600	1700	.140"ⓓ	25/32"ⓔ	1 1/32"ⓔ	.290"ⓕ	.250"ⓖ	.....	2 Rich
D7DE-GC	600	1700	.140"ⓓ	25/32"ⓔ	1 1/32"ⓔ	.290"ⓕ	.250"ⓖ	.....	2 Rich

- ⓑ — Hot with TCS Solenoid & EGR disconnected.
 ⓐ — See Emission Control Tune-Up Decal.
 ⓓ — ±.015"
 ⓔ — ±1/32"
 ⓕ — ±.020"
 ⓖ — Minimum
 ⓗ — Granada & Monarch — 800 RPM

1975-79 FUEL SYSTEMS

Carter YF & YFA Feedback Single Barrel (Cont.)

1978 CARBURETOR ADJUSTMENT SPECIFICATIONS									
Carb. No.	Idle Speed (Engine RPM)		Fast Idle Cam Setting	Float Level Setting	Float Drop Setting	Choke Pulldown Setting	Unloader Setting	Dashpot Setting	Auto. Choke Setting
	Hot	Fast							
AMC Model YF									
7201	①	1600②	.195"	.476"	1 3/8"	.215"	.275"③	.....	Index
7228	①	1600②	.195"	.476"	1 3/8"	.215"	.275"③	.....	1 NR
7229	①	1500②	.195"	.476"	1 3/8"	.215"	.275"③	.....	1 NR
7232	①	1600②	.201"	.476"	1 3/8"	.221"	.275"③	.....	2 NR
7233	①	1500②	.201"	.476"	1 3/8"	.221"	.275"③	.....	1 NR
7235	①	1500②	.195"	.476"	1 3/8"	.215"	.275"③	.....	Index
7267	①	1500②	.195"	.476"	1 3/8"	.215"	.275"③	.....	1 NR
Ford Model YFA									
D8DE-BA	①	①	.140"④	25/32"⑤	1 1/32"⑥	.230"⑥	.250"③	⑦	2 NR
D8DE-DA	①	①	.140"④	25/32"⑤	1 1/32"⑥	.230"⑥	.250"③	⑦	2 NR
D8DE-EA	①	①	.140"④	25/32"⑤	1 1/32"⑥	.200"⑥	.250"③	⑦	2 NR
D8KE-AA	①	①	.140"④	25/32"⑤	1 1/32"⑥	.230"⑥	.250"③	⑦	2 NR

- ① — See Emission Control Tune-Up Decal.
- ② — Engine warm with TCS Solenoid & EGR disconnected.
- ③ — Minimum
- ④ — ±.015"; @ Kickdown
- ⑤ — ± 1/32"
- ⑥ — ±.020"
- ⑦ — Information not available from manufacturer at time of publication.

1979 CARBURETOR ADJUSTMENT SPECIFICATIONS						
Application	Float Level Setting	Float Drop Setting	Choke Unloader Setting	Initial Choke Valve Setting	Fast Idle Cam Setting	Auto Choke Setting
AMC (Model YF)						
7228	3 1/64"	1 3/8"	.275"	.215"	.195"	1 Rich
7229	3 1/64"	1 3/8"	.275"	.215"	.195"	1 Rich
7318	3 1/64"	1 3/8"	.275"	.215"	.195"	1 Rich
Ford Motor Co. (Model YFA)						
D9BE-RA	25/32"	①	.250"	.180"	.140"	1 Rich
D9BE-UA	25/32"	①	.250"	.180"	.140"	1 Rich
D9DE-AA	25/32"	①	.250"	.230"	.140"	1 Rich
D9DE-BA	25/32"	①	.250"	.230"	.140"	1 Rich
D9DE-CA	25/32"	①	.250"	.260"	.140"	1 Rich
D9DE-CA	25/32"	①	.250"	.260"	.140"	1 Rich
D9DE-DA	25/32"	①	.250"	.260"	.140"	1 Rich
D9DE-DB	25/32"	①	.250"	.260"	.140"	1 Rich
D9DE-EZ	25/32"	①	.250"	.230"	.140"	1 Rich

- ① — Not available from manufacturer at time of publication.