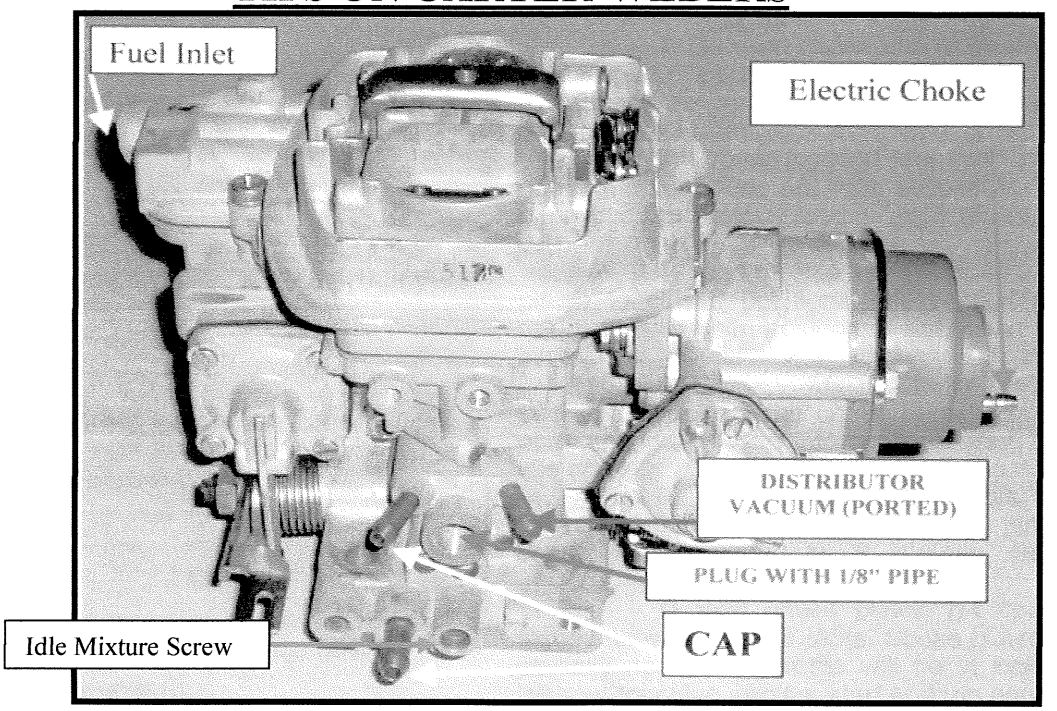
TIPS ON CARTER-WEBERS



This carburetor is a Weber design and was manufactured in the USA by Carter and Holley for the 1983 Ford Escort and other applications. It will provide adequate airflow and excellent driveability if used in dual or triple sets on inline sixes under 250 cubic inches for street applications.

The vacuum taps should be hooked up or capped as shown above. The electric choke (right side of picture) needs a 12-volt wire (14 gage) from the ignition "on" switch. This must be hooked up (as indicated) on both carbs or be mechanically blocked open. The fuel inlet (upper left of picture) is 1/8" pipe thread and should be orientated towards the front of the vehicle. Jets may be changed by removing the air cleaner mounting bridge and using a very tight fitting screw driver in the top of the jet holders. These are very tight, so heavy down force should be applied while turning the screwdriver to avoid damage to the slot.

Cap the 3/8" bowl vent, which is located next to the fuel inlet.

If you desire to experiment with jet sizing, contact us for leaner and/or richer idle and main jets.

1983 Motorcraft Carburetors

MOTORCRAFT MODEL 740 2-BARREL

CARBURETOR APPLICATION

)RD MOTOR CO. CARBURETOR NO. [1]		
Application	**Man. Trans.**	**Auto. Trans.**
1.6L Engine		
(Exc. High Output)		
With FEO [2]	E3EE-DA	.....
Without FEO [2]		
With A/C	E3EE-CA	E3EE-AA,BA
Without A/C	E3EE-EA	E3EE-JA,KA
1.6L Engine		
(High Output)		
4-Speed		
High Alt.		
With A/C	E3GE-SA	.....
Without A/C	E3GE-RA	.....
5-Speed	E3GE-PA	.....
Calif.		
With A/C		E3GE-DA
Without A/C		E3GE-HA
High Alt.		
With A/C		E3GE-FA
Without A/C		E3GE-JA

[1] — Ford basic part number is 9510.
[2] — FEO is Fuel Economy Option.

CARBURETOR IDENTIFICATION

Carburetor part number identification is stamped on a metal tag attached by a bowl cover screw.

DESCRIPTION

Motorcraft Model 740 is a 2-stage dual venturi downdraft type carburetor. It features 5 basic metering systems: choke, idle, main metering, acceleration and power enrichment. Carburetor also includes an altitude compensation system that operates between 3500-4000 feet, depending on engine calibration.

All carburetors are equipped with an idle fuel shut off solenoid. Some models incorporate a decel idle fuel shutoff circuit within the solenoid to shutoff fuel flow to idle system when directed by the computer. Some models are also equipped with a wide open throttle (WOT) A/C cutout switch to disengage air conditioning compressor clutch at wide open throttle operation.

TESTING

NOTE: Before removing air cleaner, be sure to remove No. 3 and 4 spark plug wires from clip attached to air cleaner. Disconnect vacuum, evaporative and air pump hoses and electrical connections.

AUTOMATIC ELECTRIC CHOKE

1) Start engine and warm to normal operating temperature. Turn off engine. Remove air cleaner and plug vacuum hoses to air cleaner. Check all vacuum hoses, solenoids and choke wires for proper connections. Be sure all linkage operates freely.

2) Be sure choke cap is properly aligned with index mark. Choke plates should be fully open. If not, disconnect electric choke lead from cap terminal and connect to test light.

3) Ground second test light lead. With engine running, if light does not light, suspect faulty alternator or open circuit in choke lead. If light glows, replace choke cap.

4) Hold throttle 1/4-1/2 open and move choke plates to closed position. Release plates. They should return to fully open position. If not, clean or repair choke system.

5) Use a Rotunda Choke Tester (14-0206) or similar tool to cool the choke bi-metal coil. Hold throttle open and insert tester into choke housing opening for fast idle screw.

6) Apply cool air for 8 minutes, removing tester for 10 seconds every 2 minutes. Choke plates should seat lightly. If not seated by 8 minutes, clean and repair system.

7) Hold choke plates 1/4 open and remove tester. Allow throttle to close. Choke plates should remain partially open and throttle will be in kickdown position. Without touching throttle, start and run engine.

8) Open throttle momentarily and then release it. Choke plates should be vertical and engine speed should drop to normal idle. If not, check for binding parts, broken torsion spring, or replace electric choke cap unit. Turn off engine, remove test equipment and reinstall all components.

FUEL BOWL VENT

1) Apply parking brakes and block wheels. Remove air cleaner. Remove bowl vent hose from canister. Check fuel bowl vent solenoid for external damage and electrical connections. Attach a Rotunda T75L-9487-A tool or equivalent to end of canister hose.

2) Turn ignition switch off and hold choke plates open. Force air into fuel bowl vent system by squeezing tool's rubber bulb. If no fuel is displaced through metering system, start engine and run for 2 minutes. Turn off engine, and repeat test.

3) If fuel is still not displaced, remove test lamp and reconnect solenoid electrical lead. Remove carburetor air horn. Switch ignition on and off.

4) Solenoid plunger should retract when switch is on and extend when off. If so, replace bowl vent plunger seal. If not, replace solenoid, plunger, seal and plunger spring. Reassemble carburetor.

5) With ignition switch on and tool still connected, again force air into fuel bowl vent system. If rubber bulb resists rapid squeezing (pressure build up), bowl vent is working properly. If not, disconnect electrical lead to bowl vent solenoid and connect it to test light. Ground second test light lead.

6) Turn ignition switch on. If test light does not glow and battery is okay, solenoid lead has an open circuit. Repair or replace. If light glows, remove test light and reconnect lead to solenoid.

7) Remove all test equipment and reaasemble all components. Install air cleaner and check all hose

1983 Motorcraft Carburetors

MOTORCRAFT MODEL 740 2-BARREL (Cont.)

connections. Start and run engine at 2500 RPM for 15 seconds and turn off engine.

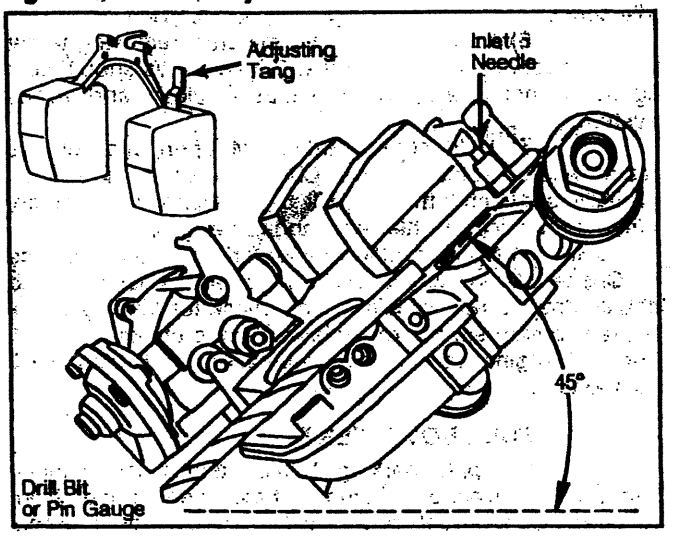
ADJUSTMENTS

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

FLOAT LEVEL

1) Hold air horn upside down at 45° angle with air horn gasket in place. Float tang should rest lightly on inlet needle. Using suitable drill bit or pin gauge, measure clearance between float toe and air horn casting. *See Fig. 1.*

Fig. 1: Float Level Adjustment



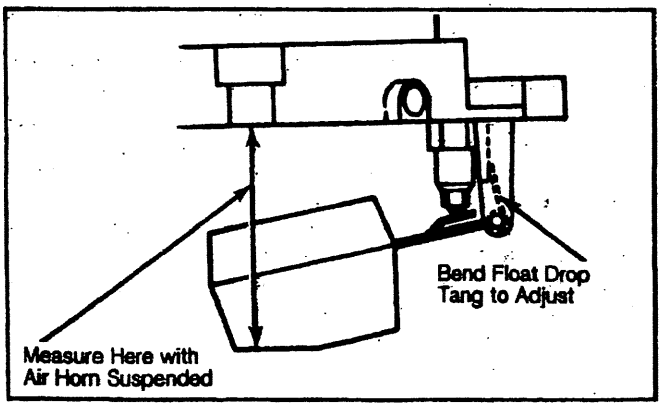
2) To adjust, remove float assembly and bend float level adjusting tang. Do not damage or scratch float tang during adjustment.

FLOAT DROP

1) Suspend air horn assembly in normal position with air horn gasket in place. Measure clearance from air horn gasket to bottom of float.

2) To adjust, remove float assembly and bend float drop tang. *See Fig. 2.*

Fig. 2: Float Drop Adjustment



FAST IDLE CAM POSITION

NOTE: Rivets are used to hold choke cap in position. Ensure mandrel is well below rivet head. Then, drive mandrel down or out with a 1/16" punch. Using a 1/8" (No. 30) drill bit, drill out rivets. Drive rivets out with a 1/8" punch. Remove standard screw, retainer and choke cap.

1) Set fast idle screw on kickdown step of cam against shoulder of high step. Manually close choke plate, and measure distance between air horn wall and lower edge of choke plate.

2) To adjust, bend right fork of choke bi-metal shaft (engages fast idle cam) up or down.

NOTE: After adjustment, choke cap and retainer must be installed with rivets (supplied in service kit) and standard screw.

CHOKE VACUUM KICK (CHOKE PULLDOWN)

1) Remove choke cap and retainer as previously described. Place fast idle adjusting screw on high step of fast idle cam by opening throttle lever and rotating choke bi-metal shaft lever counterclockwise until choke plates are fully closed.

2) Using an outside vacuum source, apply 17 in. Hg to vacuum channel next to primary bore on carburetor base. With vacuum applied, spring should not be compressed. Measure clearance between air horn wall and lower edge of choke plate with a drill bit or pin gauge.

3) To adjust, remove choke diaphragm cover and adjusting screw plug. Install cover, and turn adjusting screw in or out until specification is obtained. Remove cover and reinstall plug. Install choke cap and retainer as previously described.

SECONDARY THROTTLE STOP SCREW

The secondary throttle stop screw is preset at the factory and staked in position. No adjustment is required.

AUTOMATIC CHOKE

Adjustment is made by removing choke cap and retainer as previously described and rotating cover until specification is correct. Install choke cap, retainer and rivets.

DASHPOT

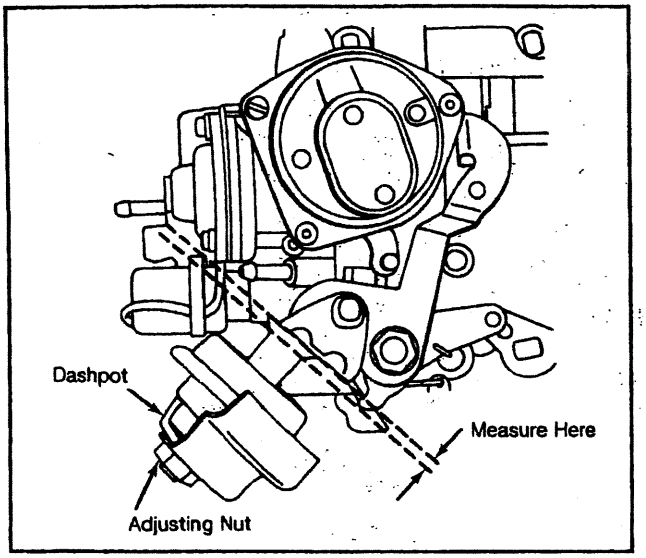
NOTE: Dashpot adjustment is to be made after the curb idle has been set or checked. See appropriate TUNE-UP article.

1) With engine off and throttle at the curb idle position, depress dashpot plunger into dashpot assembly. Plunger may be depressed below the dashpot assembly.

2) Measure distance between accelerator lever pad and dashpot. If adjustment is necessary, loosen dashpot adjusting nut and rotate the dashpot to achieve correct specification. On models E3EE-CA, DA, EA, adjust to .08" (2 mm). On all other models, adjust to .16" (4 mm). *See Fig. 3.*

MOTORCRAFT MODEL 740 2-BARREL (Cont.)

Fig. 3: Dashpot Adjustment

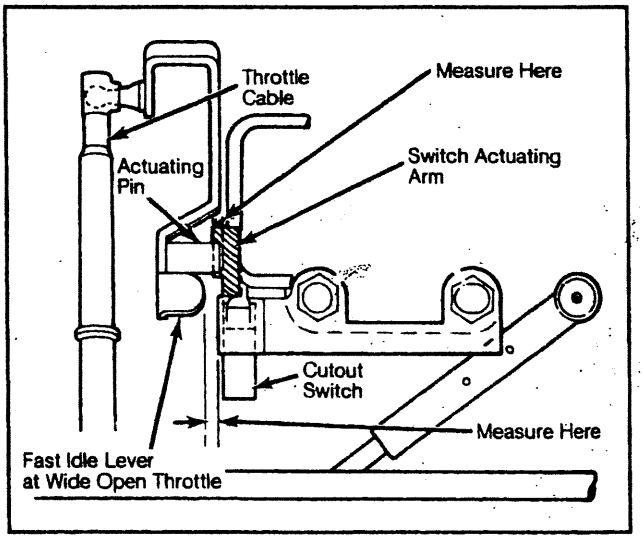


Rotate dashpot to adjust.

WIDE OPEN THROTTLE A/C CUTOUT SWITCH

1) Position fast idle lever in wide open throttle position. Using a feeler gauge, measure distance between fast idle lever actuating pin and switch actuating arm. Also measure distance between fast idle lever and cutout switch. *See. Fig. 4.*

Fig. 4: Wide Open Throttle A/C Cutout Switch Adjustment



2) If either measurement is less than .120" (3 mm), bend cutout switch support bracket until distance is correct.

OVERHAUL

DISASSEMBLY

NOTE: To prevent damage to throttle plates, install carburetor legs or four 2 1/4" bolts into base, using eight nuts. Use separate container for parts removed from various assemblies.

Air Horn

1) Remove fuel filter. Remove 6 air horn screws and washers. Open throttle enough to clear fast idle screw and carefully lift air horn with gasket off main body. Turn air horn upside down.

2) Remove float hinge pin, float and inlet needle. Remove inlet needle seat and gasket, bowl cover gasket. Remove air horn gasket.

3) Remove 3 choke housing screws. Slide housing away from air horn and disengage primary choke link. Remove "O" ring from vacuum passage.

4) Remove choke pulldown cover retaining screws, pulldown cover and spring. Disengage choke assist spring from choke housing. Remove choke bi-metal shaft nut and lock washer. Remove choke lever.

5) Slide choke bi-metal shaft and lever outward. Pull choke pulldown diaphragm assembly outward until shaft bottoms on plastic retaining collar. Depress plastic clip, and carefully slide diaphragm assembly out.

Main Body

1) Remove vacuum throttle kicker (if equipped). Remove 4 accelerator pump cover screws, pump cover, pump diaphragm and pump return spring. Using needle nose pliers, remove accelerator pump nozzle.

2) Remove idle fuel shutoff solenoid and washer. Remove 3 power valve cover screws, valve cover, spring and diaphragm. Remove dashpot (if equipped).

3) Using a 3/32" drill bit, drill through hardened steel idle mixture concealment plugs and plastic inner plug. Remove plugs with screw extractor.

4) Turn mixture screws in until lightly seated. Count number of turns required to seat screw (to nearest 1/16 turn). Remove mixture screws, springs and "O" rings.

5) Remove primary and secondary fuel discharge nozzles. Carefully mark for reassembly reference. Be sure to note top and bottom ends. Remove primary and secondary jet holder and high speed air bleeds.

NOTE: Idle jets are located in bottom of holders. The air bleeds, main well tubes and main jets are a press fit assembly, but may be removed and assembled by hand.

INSPECTION

Thoroughly clean all parts and use compressed air to clean jets and fuel ports. Do not use wire brush. Check parts for wear or damage and replace plastic or rubber parts if questionable. Check all diaphragms for cracks or other defects.

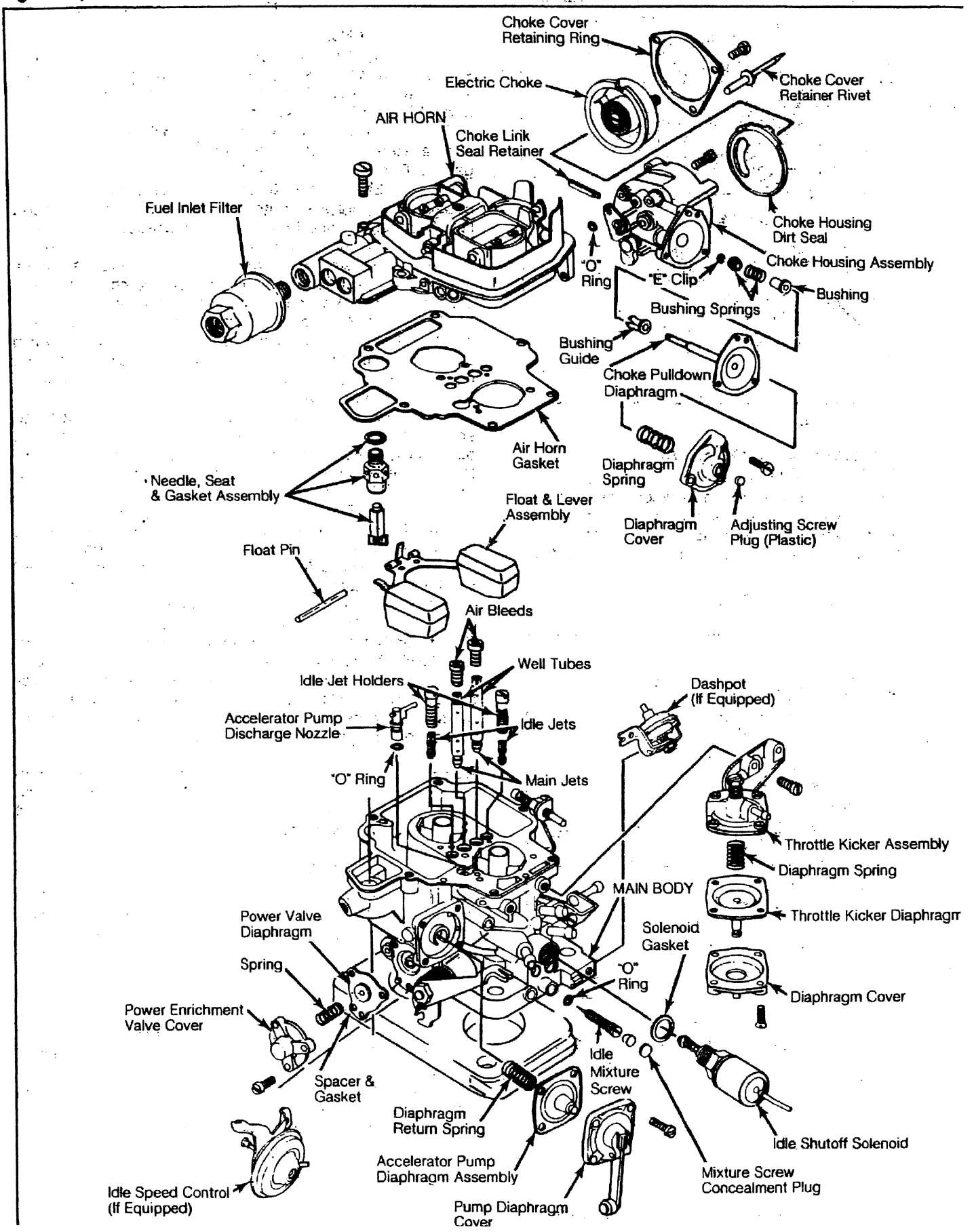
REASSEMBLY

To assemble, reverse disassembly procedure and note the following: Do not intermix parts. Replace gaskets, seals and "O" rings. Check that all linkage moves freely without binding or sticking. Do not overtighten attaching screws. After all adjustments have been completed, install choke cap rivet and idle mixture concealment plugs.

1983 Motorcraft Carburetors

MOTORCRAFT MODEL 740 2-BARREL (Cont.)

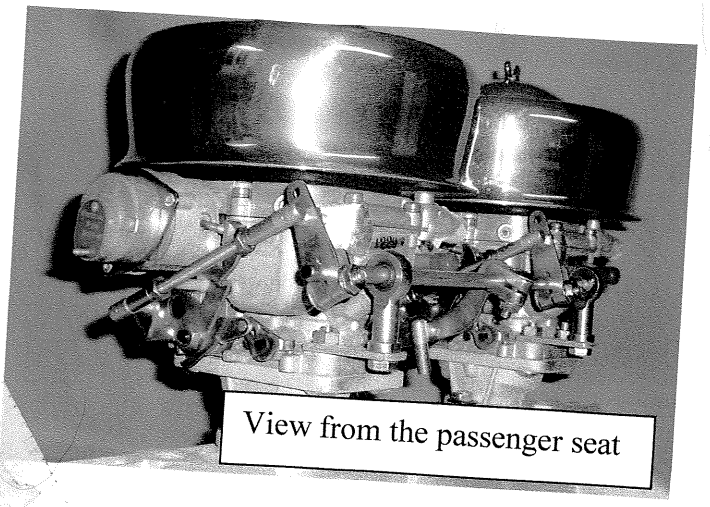
Fig. 5: Exploded View of Motorcraft Model 740 2-Bbl. Carburetor



MOTORCRAFT MODEL 740 2-BARREL (Cont.)

CARBURETOR ADJUSTMENT SPECIFICATIONS

Application	Float Level	Float Drop	Fast Idle Cam	Choke Vacuum Kick	Choke Unloader	Auto. Choke
E3EE-AA	.295"	1.69"	.079"	.138"	.138"	.....
E3EE-BA	.295"	1.69"	.079"	.138"	.138"	.....
E3EE-CA	.295"	1.69"	.079"	.315"	.138"	.....
E3EE-DA	.295"	1.69"	.079"	.335"	.138"	.....
E3EE-EA	.295"	1.69"	.079"	.315"	.138"	.....
E3EE-JA	.295"	1.69"	.079"	.138"	.138"	.....
E3EE-KA	.295"	1.69"	.079"	.138"	.138"	.....
E3GE-DA	.295"	1.69"	.079"	.167"	.138"	.....
E3GE-FA	.295"	1.69"	.079"	.167"	.138"	.....
E3GE-HA	.295"	1.69"	.079"	.167"	.138"	.....
E3GE-JA	.295"	1.69"	.079"	.167"	.138"	.....
E3GE-PA	.295"	1.69"	.079"	.256"	.138"	.....
E3GE-RA	.295"	1.69"	.079"	.256"	.138"	.....
E3GE-SA	.295"	1.69"	.079"	.256"	.138"	.....



View from the passenger seat