WEBER 740 2-BARREL

Fiesta

DESCRIPTION

The Weber Model 740 2-bbl. carburetor is a 2-stage, 2-venturi downdraft unit. Primary and secondary bores are the same size, 1.260" (32 mm). The primary throttle plate is operated directly by the throttle linkage. Secondary throttle plate is connected by linkage to primary plate.

The Model 740 has 4 basic metering systems, including idle and main metering systems, acceleration and power enrichment. Vacuum ports for distributor vacuum advance and EGR system are located in the primary bore area of the carburetor. The Model 740 is equipped with an automatic electric choke.

CARBURETOR IDENTIFICATION

Application	Carburetor No.
Federal	801F9510GA
Calif.	801F9510HB

TESTING

AUTOMATIC ELECTRIC CHOKE

1) Bring engine to normal operating temperature and 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. 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.

3) Hold throttle ¼ open and move choke plates to closed position. Release plates. They should return to fully open position. If not, clean or repair choke system.

4) Using an LRE-34618 Rotunda Choke Tester or its equivalent, cool choke bi-metal. Hold throttle open and insert tester into choke housing's fast idle speed screw opening. Apply cool air for 8 minutes or until choke plates seat themselves lightly in air horn. If seating does not occur in this time, clean and repair choke system.

5) Hold choke plates ¼ 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. Open throttle momentarily and then release it. Choke plates should be vertical and engine speed should drop to normal idle. If not, replace electric choke cap unit.

6) Turn off engine, remove test equipment and reinstall all components.

FUEL BOWL VENT

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.*

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 carburetor air horn. Switch ignition on and off. 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.

4) 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.

5) 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. Remove all test equipment and reassemble all components. Install air cleaner and check all hose connections. Start and run engine at 2500 RPM for 15 seconds and turn off engine.

ADJUSTMENTS

HOT (SLOW) IDLE RPM

See appropriate Tune-Up article in TUNE-UP section.

IDLE MIXTURE

See appropriate Tune-Up article in TUNE-UP section.

COLD (FAST) IDLE RPM

See appropriate Tune-Up article in TUNE-UP section.

CHOKE PLATE VACUUM PULL-DOWN

NOTE – *DO NOT perform this adjustment unless replacement choke pull-down adjusting screw SEAL is available.*

1) Remove carburetor from vehicle.

2) Remove (3) choke retaining screws, ring, housing and heat shield.

3) Open throttle to wide open position.

4) Close choke valve.

5) Place fast idle adjusting screw on FIRST step of fast idle cam and close throttle.

6) Using an outside vacuum source of 17 in. Hg, hook vacuum pump into vacuum channel on pump bore under base of carburetor.

7) Measure clearance between LOWER edge of choke plate and bore wall.

NOTE – *Make measurement using applied vacuum of 17 in. Hg and light thumb pressure closing choke plates.*

NOTE – *Modulator spring should NOT be compressed.*

WEBER 740 2-BARREL (Cont.)

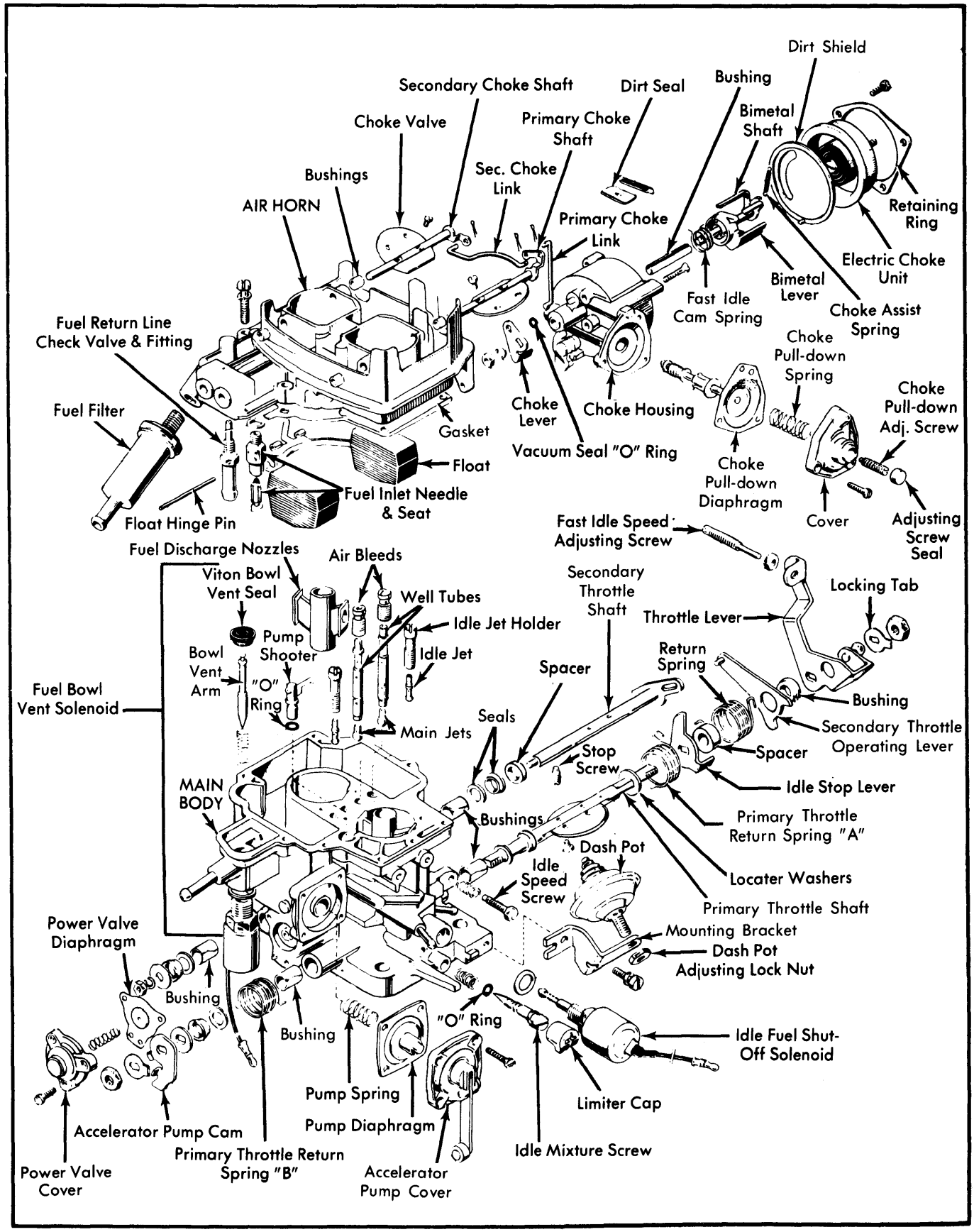

Fig. 1 Exploded View of Weber Model 740 2-Bbl. Carburetor

WEBER 740 2-BARREL (Cont.)

8) If adjustment is needed, turn vacuum diaphragm adjusting screw in or out as required.

9) When correct clearance has been obtained, install carburetor on engine.

10) Reinstall dirt shield, choke cap, ring and (3) screws.

FLOAT LEVEL

1) Remove air cleaner.

2) Remove carburetor air horn from carburetor main body.

3) Remove gasket from air horn.

4) Hold carburetor in vertical position. *See Fig. 2.*

NOTE – *Needle and seat assembly are spring loaded. Air horn must be held vertically to obtain accurate float setting.*

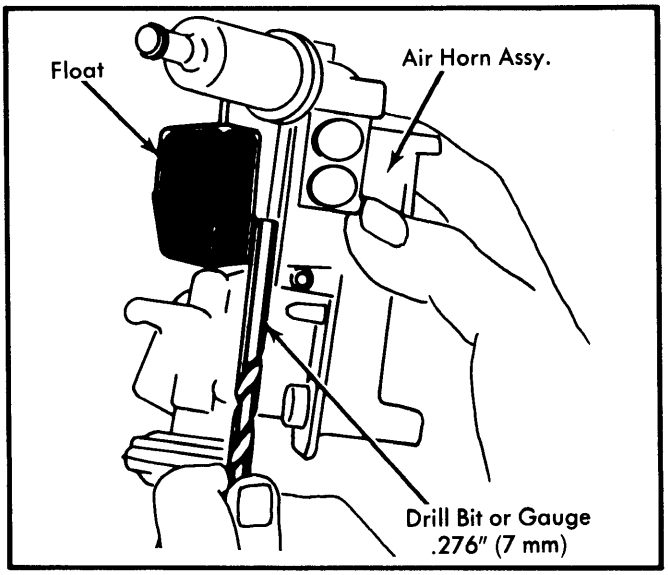

Fig. 2 Float Level Adjustment (Hold Air Horn As Shown)

5) Insert drill bit or pin gauge of correct size (.276" or 7 mm) between float and air horn casting gasket surface. To adjust, bend float arm as necessary, at float.

OVERHAUL

DISASSEMBLY

NOTE – *To prevent damage to throttle plates, install carburetor legs or four 2¼" bolts into base, using eight nuts. Use separate containers for parts removed from various assemblies.*

Bowl Cover – **1)** Remove fuel filter. Remove bowl cover screws and washers. Remove cover.

2) Remove float hinge pin, float and inlet needle. Remove inlet needle seat and gasket, bowl cover gasket and fuel return line check valve and fitting.

Automatic Electric Choke – **1)** Remove bowl cover. Open throttle plate to clear fast idle screw. Remove 3 choke cap retaining screws, retaining ring, cap unit and dirt shield.

2) Remove three screws securing choke housing to bowl cover and disengage choke link. Remove "O" ring from vacuum passage.

3) Remove three choke pull down cover screws. Remove cover, spring and diaphragm assembly.

Accelerator Pump – **1)** Remove four pump cover screws and cover, pump diaphragm and pump return spring.

2) To remove internal pump shooter, the bowl cover must be removed. Remove "O" ring with shooter.

Main Body – **1)** Remove idle fuel shut-off solenoid and washer. Remove fuel bowl vent solenoid and washer. Remove three power valve cover screws, power valve cover, spring, and diaphragm.

2) Remove dash pot (if so equipped). Remove throttle kicker (air conditioned cars only). Remove idle limiter cap, mixture screw and spring.

3) Remove fuel discharge nozzles, primary idle jet holder, secondary idle 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.*

Idle Fuel Shut-Off Solenoid – Remove solenoid, using a spanner wrench (Rotunda No. TBE). When installing, torque to 38-42 INCH lbs. (43.8-48.4 cmkg).

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 carburetor, reverse disassembly procedure, noting the following. Do not intermix parts. Replace gaskets, seals and "O" rings with new ones, and check that all linkage moves freely without binding or sticking. Do not overtighten attaching screws.

CARBURETOR ADJUSTMENT SPECIFICATIONS

Ford Carb. Number	Idle Speed (Engine RPM)		Fast Idle Cam Setting	Accel. Pump Setting	Float Level Setting	Choke Pull-Down Setting	Unloader Setting	Auto. Choke Setting
	Hot	Fast						
801F9510GA 801F9510HB	①	2000 RPM②	.....	.....	.276"③ (7 mm)	.236"④ (6 mm)	.276"⑤ (7 mm)	INDEX

① – See Emission Control Tune-Up Decal.
② – ±100 RPM.
③ – ±.031" (.8 mm).
④ – ±.020" (.5 mm).
⑤ – Minimum.