

1974-79 FUEL SYSTEMS

Hitachi DCJ & DCS 328 2-Barrel Carburetors

Ford Courier, Mazda B1800

CARBURETOR IDENTIFICATION

1978 CARBURETOR IDENTIFICATION

Application	Carburetor No.
Courier	
1800 cc	
Federal	DCJ 328-8-3879
Calif.	DCJ 328-9-3882
2300 cc	
Federal	DCJ 328-30-3877
Calif.	
Man. Trans.	DCJ 328-31-3874
Auto. Trans.	DCJ 328-32-3876

1979 CARBURETOR IDENTIFICATION

Application	Carburetor No.
Courier (2300 cc)	
Federal	DCS328-1
Calif.	
Man. Trans.	DCS328-2
Auto. Trans.	DCS38-3

DESCRIPTION

Carburetor is a 2-stage, 2-barrel downdraft type. The primary stage includes a curb idle system, a piston-type accelerator pump system, idle transfer system, main metering system and power enrichment system. The secondary stage includes an idle transfer system and main metering system.

An electric heater warms a bimetallic spring connected to the choke valve, controlling choke valve and throttle valve position automatically. Carburetor also features a costing richer (deceleration) valve, slow fuel cut valve and secondary throttle diaphragm.

ADJUSTMENTS

IDLE SPEED & MIXTURE

See appropriate TUNE-UP SERVICE PROCEDURES article.

COLD (FAST) IDLE RPM

1) See appropriate TUNE-UP SERVICE PROCEDURES article for on vehicle adjustments. For bench adjustment, close choke valve fully. Place fast idle screw on high step of fast idle cam.

2) Adjust throttle valve opening clearance by turning fast idle adjusting screw clockwise to increase or counterclockwise to decrease opening clearance. See Fig. 2. Clearance should be .058-.066" (1.47-1.67 mm).

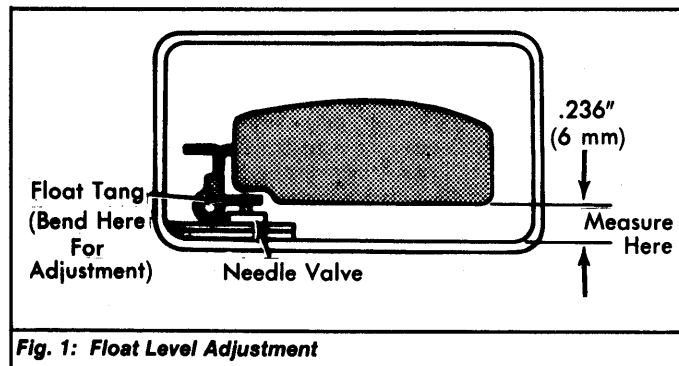


Fig. 1: Float Level Adjustment

FLOAT LEVEL

1) With engine running, check fuel level in bowl sight glass. If fuel level is not within specified range, remove carburetor from engine. Remove fuel bowl cover and invert carburetor.

2) Allow float to lower by its own weight. Measure clearance between float and edge of bowl. If clearance is not .236" (6 mm), bend float tang to achieve proper clearance. See Fig. 1.

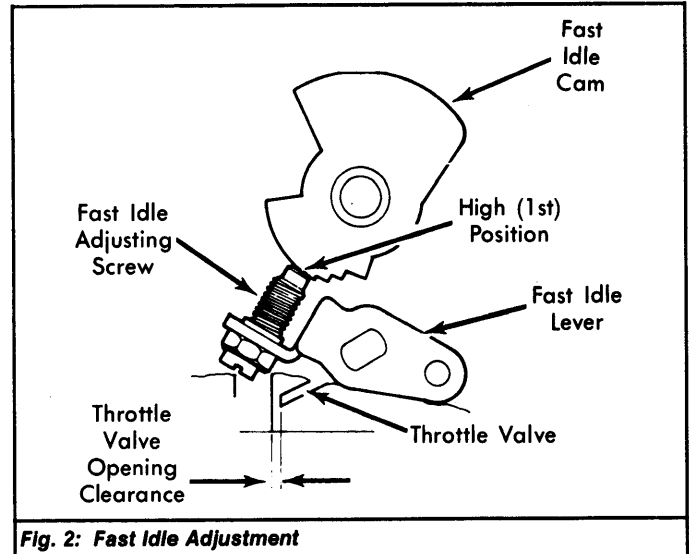


Fig. 2: Fast Idle Adjustment

FLOAT DROP

Mazda - With carburetor upright, measure clearance between lowest tip of float and fuel bowl bottom. If clearance is not correct, bend float stopper until correct clearance is obtained.

CHOKE VALVE OPENING ANGLE

Adjust fast idle cam. Position fast idle adjusting screw on 2nd step of fast idle cam. See Fig. 3. Adjust choke valve opening clearance by bending starting arm. Clearance should be .039-.051" (.99-1.29 mm). If adjustment is required, bend choke rod.

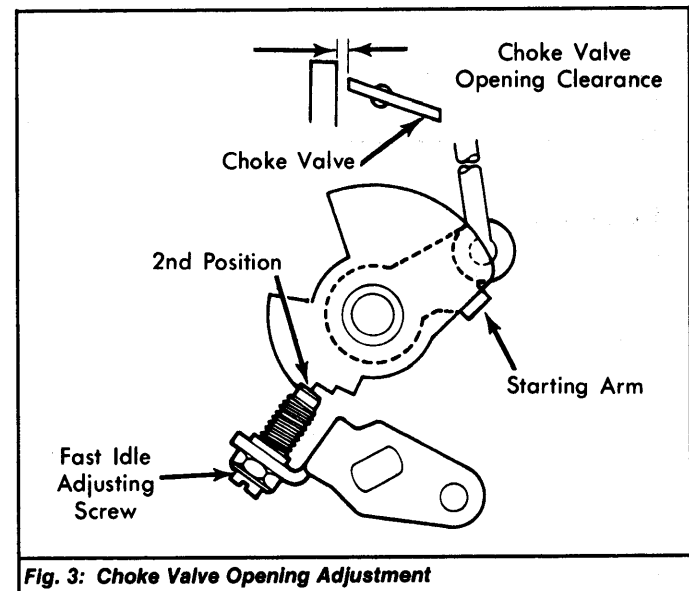


Fig. 3: Choke Valve Opening Adjustment

CHOKE DIAPHRAGM

Apply approximately 15.6 in. Hg vacuum to choke diaphragm vacuum tube. See Fig. 4. Check that fast idle cam is in high (1st) position. Press choke valve slightly, then adjust choke valve opening by bending choke lever. Clearance should be .051-.071" (1.31-1.81 mm).

CHOKE UNLOADER

Close choke valve fully. Then open primary throttle valve fully. Measure choke valve opening clearance. See Fig. 5. Bend unloader adjusting nail to obtain .090-.110" (2.29-2.79 mm) clearance.

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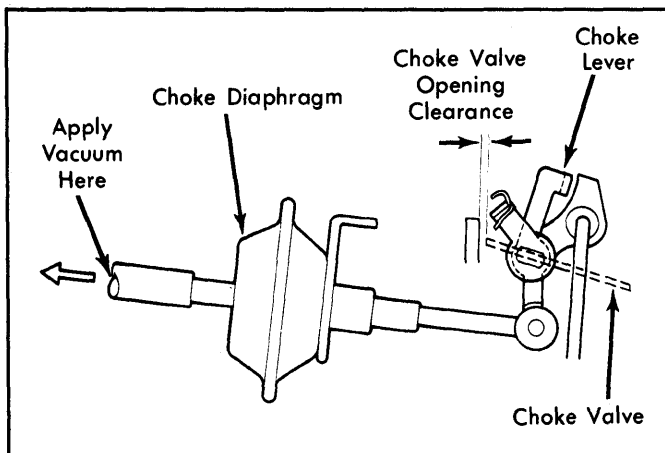


Fig. 4: Choke Diaphragm Adjustment

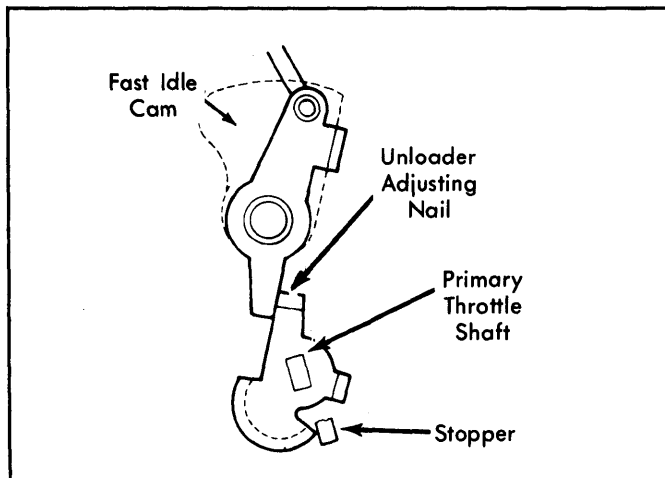


Fig. 5: Choke Unloader Adjustment

AUTOMATIC CHOKE

1979 Models - Be sure bimetallic (thermostat) cover is positioned over choke arm so spring hooks the arm. Check operation of choke valve by turning cover. To set, align index mark on cover with center mark on choke housing. Tighten attaching screws. See Fig. 6.

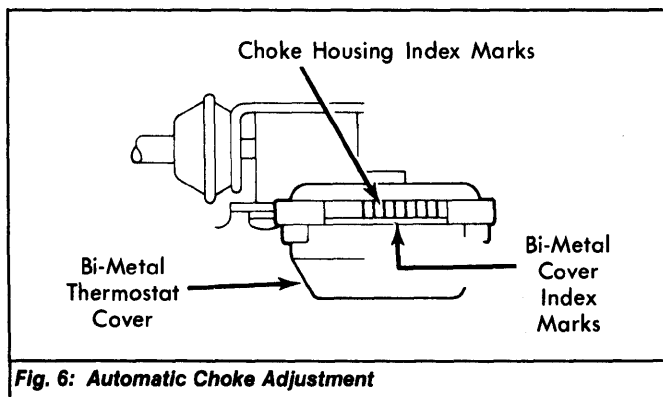


Fig. 6: Automatic Choke Adjustment

VACUUM BREAK DIAPHRAGM

1978 Models - 1) Disconnect water thermo switch and connect jumper wire to connector. With ignition on, pull choke knob to fully close choke plate. Disconnect vacuum hose from vacuum diaphragm. 2) Apply 6.7-8.3 in. Hg of vacuum to diaphragm. Choke valve should just begin to open. Now apply 11.0-13.4 in. Hg of vacuum to diaphragm. Using wire gauge, measure clearance between top of choke valve and air horn. If clearance is not correct, adjust by bending choke-to-vacuum break diaphragm connecting rod.

VACUUM BREAK DIAPHRAGM SPECIFICATIONS

Application	Choke Valve-to-Air Horn Clearance In. (mm)
1800 cc	
Federal048-.066 (1.22-1.68)
Calif.057-.075 (1.45-1.91)
2300 cc	
Federal057-.075 (1.45-1.91)
Calif.066-.084 (1.68-2.14)

OVERHAUL

DISASSEMBLY

- 1) Disconnect accelerator pump connecting rod from pump lever. Remove pump lever from main body. Disconnect throttle return spring. Disconnect fast idle rod from lever. Remove automatic choke thermostat cover, choke housing and cotter pin and washer from rod selector.
- 2) Unhook unloader return spring from unloader lever and choke diaphragm bracket. Remove coasting richer (deceleration) valve assembly. Disconnect lead at quick disconnect. Disconnect secondary throttle rod from secondary throttle shaft. Remove secondary throttle actuator from main body.
- 3) Unscrew slow fuel cut valve (solenoid) from main body. Remove left rear screw attaching air horn to body. Remove bolt lock from fuel inlet assembly. Remove two remaining air horn attaching screws and remove air horn.
- 4) Remove bolt, fuel strainer, and fuel inlet fitting. Remove fuel inlet needle valve assembly. See Fig. 7. Remove fuel bowl sight glass cover, gasket and glass assembly.
- 5) Remove float lever pin collar, then remove float. Do not lose float collar. Remove accelerating pump cover from main body and remove pump assembly. Invert carburetor and remove inlet check ball.
- 6) Remove screw retaining pump discharge weight and ball. Invert carburetor and remove weight and ball. Remove idle jets, main jets and all air bleeds from main body. Remove power valve from main body.
- 7) Remove curb idle adjusting screw and spring and idle mixture screw and spring from lower body. Remove primary and secondary discharge nozzles, retaining screws and washers. Remove air bleed screws from discharge nozzles and remove air emulsion tubes.
- 8) Remove lower body from main body. Remove retaining nut and washer from end of primary throttle shaft, and remove throttle operating lever washer and servo diaphragm operating lever, if so equipped.
- 9) Remove accelerating pump actuating lever, choke actuating lever, throttle return lever and idle adjusting lever.
- 10) Mark the primary throttle plate location in reference to its bore and to its relative position on throttle shaft. Remove throttle plate and shaft from lower body.

CLEANING & INSPECTION

Wash parts in carburetor cleaner (solvent). DO NOT soak any components containing rubber, leather, or plastic. Soak components long enough to thoroughly clean all surfaces and passages of foreign matter. Remove any residue after cleaning components in solvent. Blow out all fuel passages dry with compressed air. Inspect all parts for wear or damage and replace as necessary.

REASSEMBLY

Reassemble carburetor in reverse order of disassembly. Make sure that primary and secondary components are installed in their correct locations. When installing throttle valve or choke valve, make sure to eliminate gap between valve and wall of carburetor. When assembling float, ensure float collar is installed.

