HITACHI DCS 328 2-BARREL

Ford Courier (2300 cc)

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 bi-metal connected to the choke valve, controlling choke valve and throttle valve position automatically. Carburetor also features a coasting richer (deceleration) valve, slow fuel cut valve, secondary throttle diaphragm and dash pot (Calif. Man. Trans.).

CARBURETOR IDENTIFICATION

Application	Carburetor No.
2300 cc	
Federal	DCS328-1
Calif.	
Man. Trans.	DCS328-5
Auto. Trans.	DCS328-6

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.

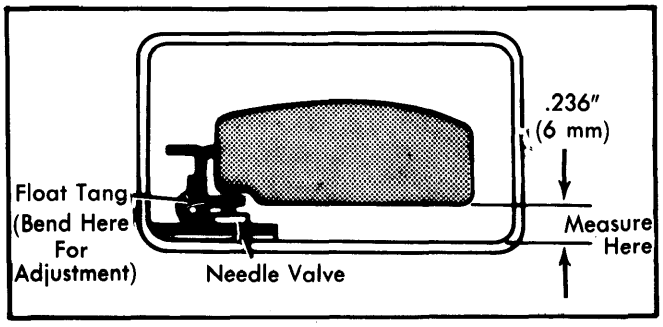

Fig. 1 Measurement for Float Level Adjustment (Carburetor Upside-Down)

FLOAT LEVEL

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. Allow float to lower by its own weight. Measure clearance between float and edge of bowl. If clearance is not to specifications, bend float tang to achieve proper clearance. *See Fig. 1.*

FAST IDLE CAM ADJUSTMENT

Close choke valve fully. Place fast idle screw on the high (1st) step of fast idle cam. Adjust throttle valve opening clearance by turning fast idle adjusting screw clockwise to increase or counterclockwise to decrease the opening clearance. *See Fig. 2.* Clearance should be .058-.066" (1.47-1.67 mm).

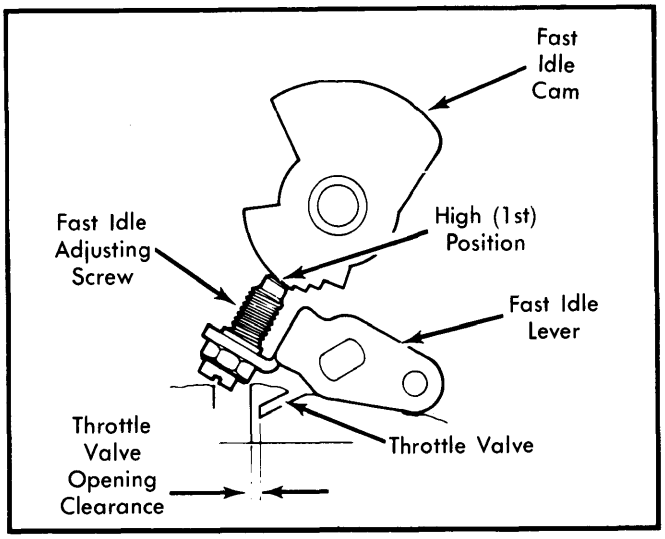

Fig. 2 Adjusting Fast Idle Cam

CHOKE VALVE OPENING ANGLE ADJUSTMENT

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 a large adjustment is required, bend choke rod.

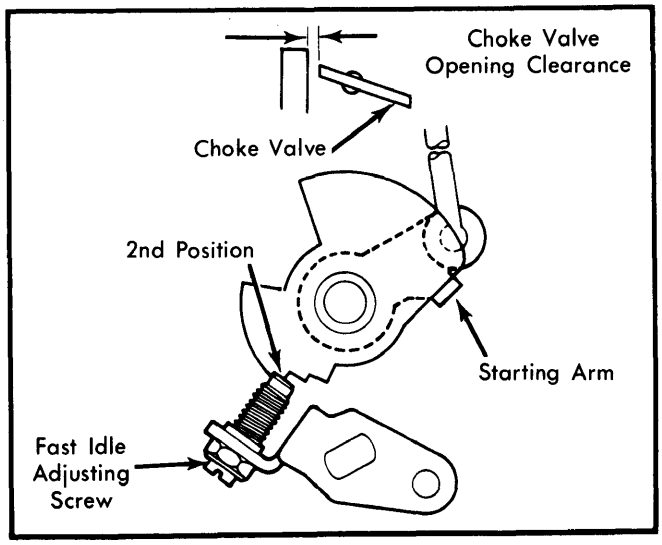

Fig. 3 Adjusting Choke Valve Opening Clearance

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CHOKE DIAPHRAGM ADJUSTMENT

Apply approximately 15.6" (400 mm) Hg vacuum to choke diaphragm vacuum tube. See *Fig. 4*. Check that fast idle cam is on 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).

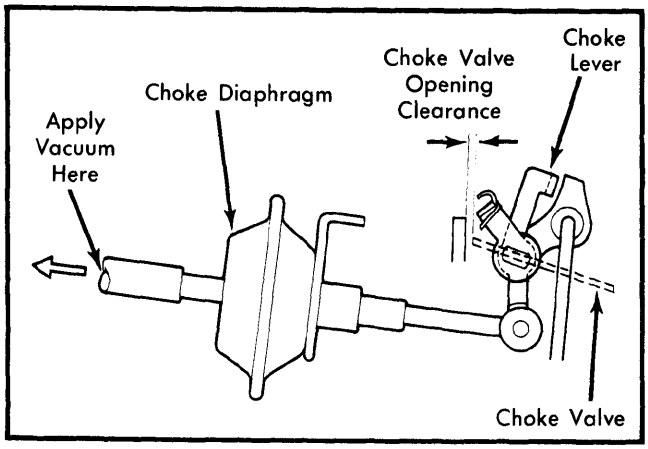

Fig. 4 Adjusting Choke Diaphragm Clearance

CHOKE UNLOADER ADJUSTMENT

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.

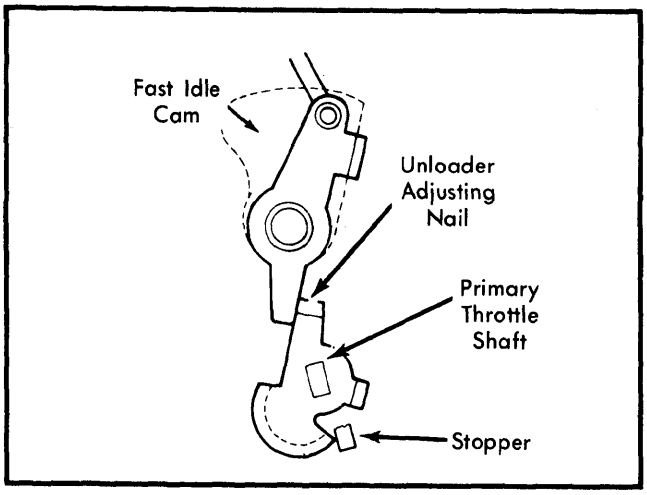

Fig. 5 Adjusting Choke Unloader

AUTOMATIC CHOKE ADJUSTMENT

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

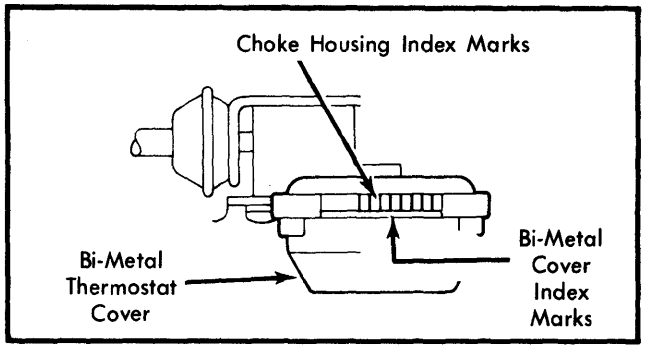

Fig. 6 Adjusting Automatic Choke

OVERHAUL

DISASSEMBLY

1) Disconnect accelerating pump connecting rod from pump lever. Remove pump lever from main body. Disconnect throttle return spring. Disconnect fast idle rod from lever. Do not lose spring and washer. 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, fuel inlet fitting, fuel inlet bolt and needle valve assembly. 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.

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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.

INSPECTION & CLEANING

Clean all parts thoroughly in solvent and check all passages and parts for wear or damage. Make sure that all jets are clear and clean. Do not attempt to clean jets by using wire or other objects which might damage calibrated orifices. Discard old gaskets and use new gaskets for assembly.

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.

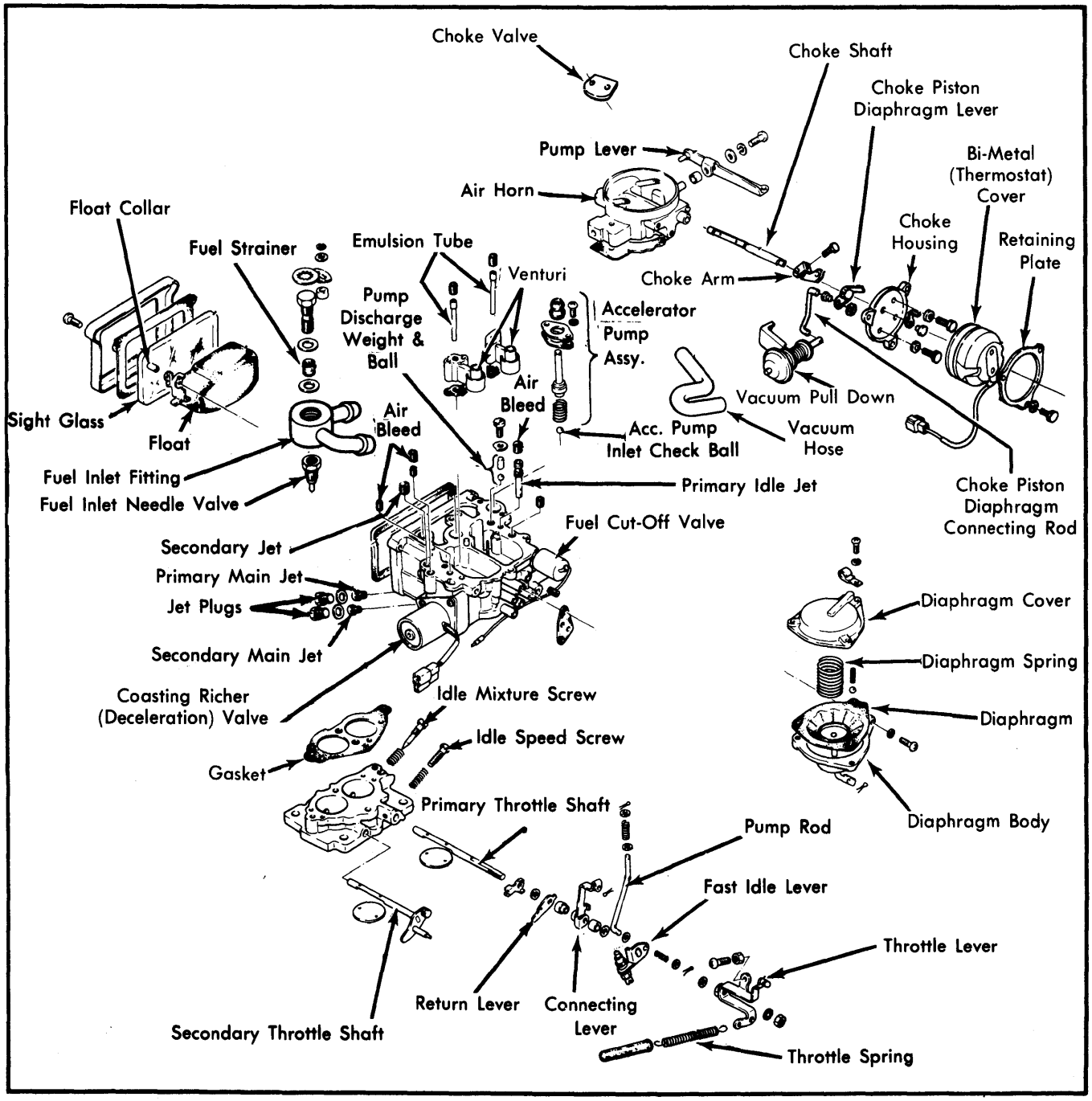

Fig. 7 Exploded View of Hitachi DCS 328 2-Barrel Carburetor (Ford Courier 2300)