

HITACHI DCS 328 2-BARREL

Courier 2300 cc Engine

DESCRIPTION

Carburetor is a 2-stage, 2-barrel down draft type. Primary stage includes curb idle system, piston-type accelerator pump system, idle transfer system, main metering system and power enrichment system. Secondary stage includes idle transfer system and main metering system.

An electric heater warms a bimetal connected to choke valve, controlling choke valve and throttle valve position automatically. Carburetor also features coasting richer (deceleration) valve, slow fuel cut valve, secondary throttle diaphragm and dashpot (Calif. Man. Trans.).

CARBURETOR IDENTIFICATION

| Application | Carburetor No. |
|------------------------|----------------|
| Courier 2300 cc Engine | |
| California | DCS328-7 |
| Federal | DCS328-8 |

ADJUSTMENTS

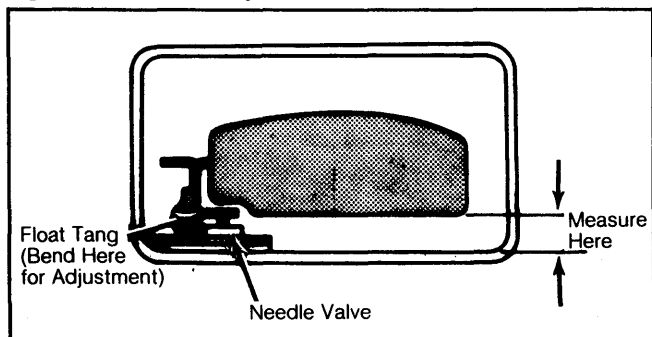
NOTE: For all on-vehicle adjustments not covered in this article, see appropriate TUNE-UP SERVICE PROCEDURES article.

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 to specifications, bend float tang to achieve proper clearance. See Fig. 1.

Fig. 1: Float Level Adjustment Measurement

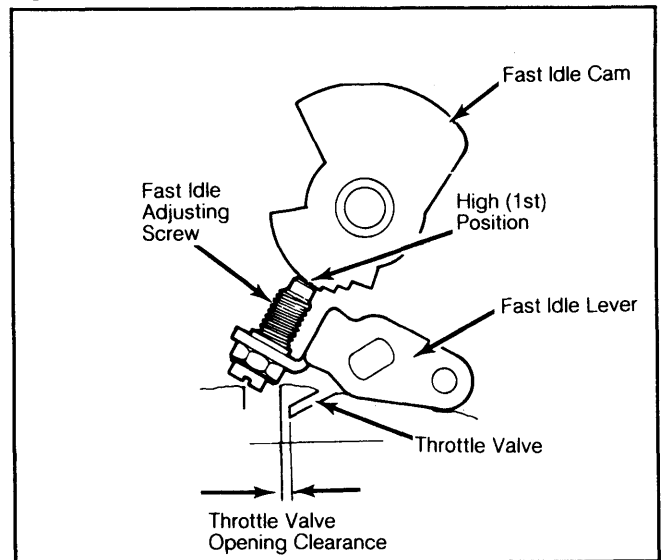


Make adjustment with carburetor upside-down.

FAST IDLE CAM

Close choke valve fully. Position fast idle adjusting 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.

Fig. 2: Fast Idle Cam Adjustment

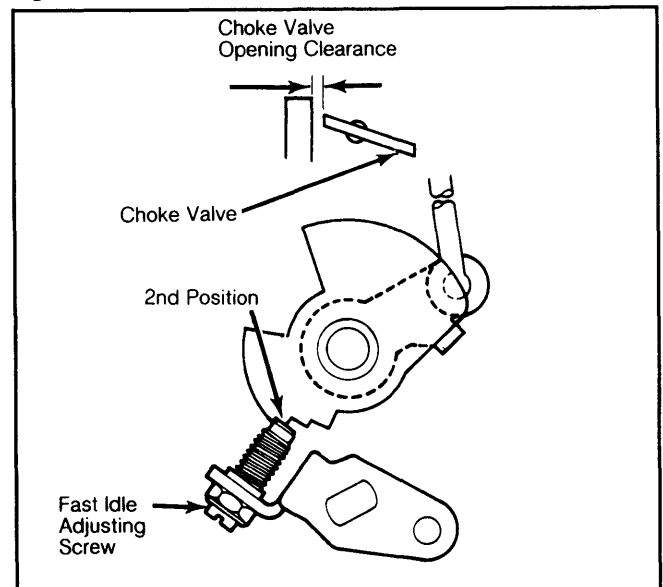


Place fast idle screw on high (1st) step of fast idle cam.

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 to specification by bending starting arm. If a large adjustment is needed, bend choke rod.

Fig. 3: Choke Valve Opening Clearance Adjustment



Place fast idle screw on 2nd step of fast idle cam.

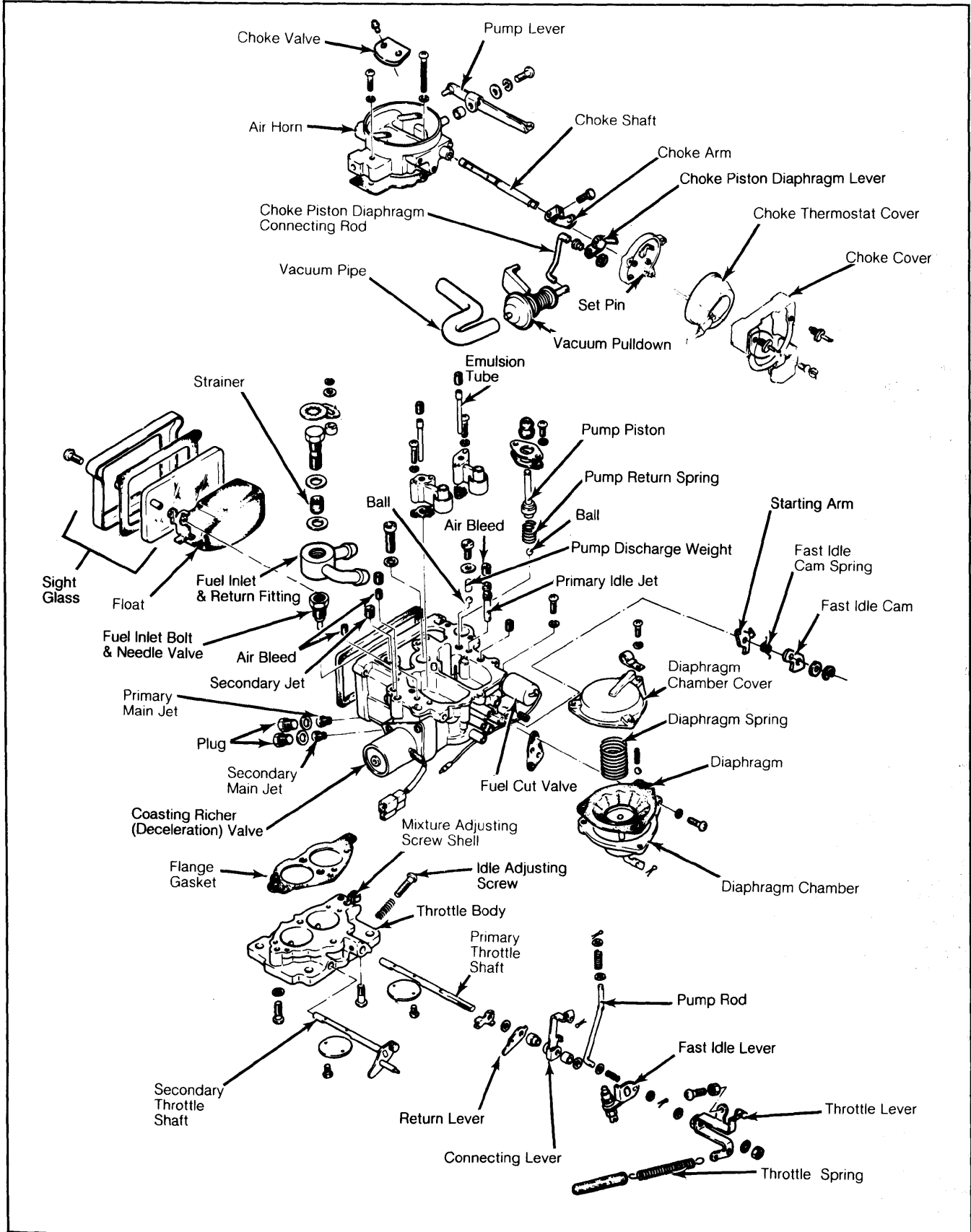
CHOKE DIAPHRAGM

Apply about 15.6 in. Hg vacuum to choke diaphragm vacuum tube. See Fig. 5. Check that fast idle cam is on high (1st) position. Press choke valve slightly, then adjust choke valve opening to specification by bending choke lever.

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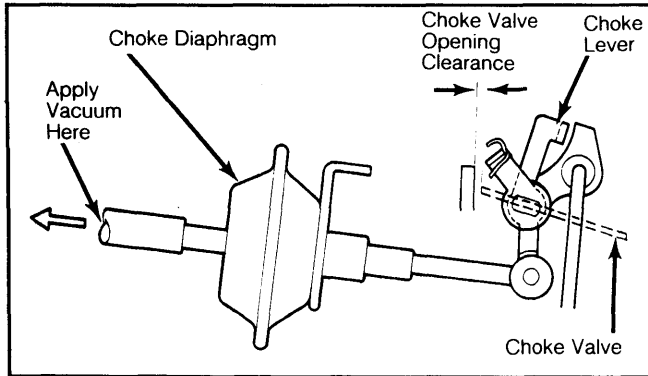
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Fig. 4: Exploded View of Hitachi DCS 328 2-Barrel Carburetor



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Fig. 5: Choke Diaphragm Clearance Adjustment

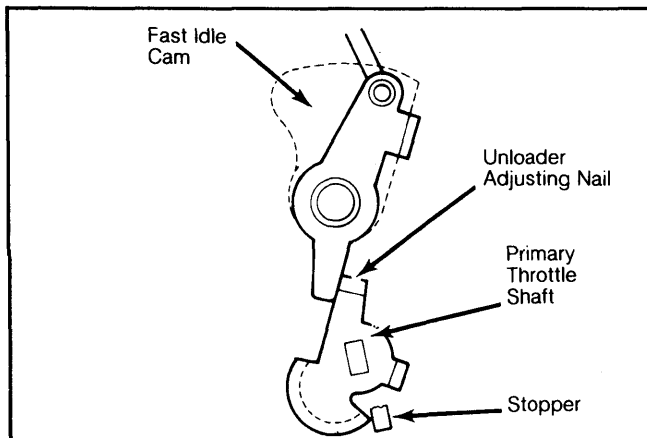


Check that fast idle cam is on high (1st) position after vacuum is applied.

CHOKE UNLOADER

Close choke valve fully. Open primary throttle valve fully. Measure choke valve opening clearance. See Fig. 6. Bend unloader adjusting nail to obtain correct specification.

Fig. 6: Choke Unloader Adjustment

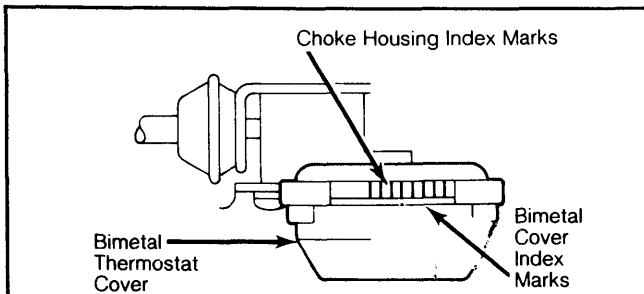


Bend adjusting nail to obtain specification.

AUTOMATIC CHOKE

Be sure bimetal (thermostat) cover is positioned over choke arm so bimetal spring hooks the arm. Check operation of choke valve by turning bimetal cover. To set, align index mark on bimetal cover with center mark on choke housing. Tighten attaching screws. See Fig. 7.

Fig. 7: Automatic Choke Adjustment



Align index mark on bimetal cover with center mark on choke housing.

OVERHAUL

DISASSEMBLY

Air Horn

1) Unhook and remove throttle return spring. Remove vacuum sensing tube from choke diaphragm. Remove clip fastening choke thermostat lead to diaphragm cover and remove lead.

2) Remove accelerator pump rod from lever. Loosen screw in pump lever. Remove pump lever.

3) Remove cotter pin, and disconnect choke rod from starting arm. Unhook choke unloader return spring. Mark position of choke thermostat cover index mark on choke housing.

4) Remove screws fastening air horn to main body. Remove air horn and choke thermostat assembly. Remove choke thermostat cover by removing screws and, drill out both rivet heads with a .12" (3 mm) drill bit.

5) Remove screws fastening choke thermostat to air horn. Remove choke thermostat housing.

6) Remove cotter pin and remove choke diaphragm rod from choke lever. Remove screws and remove choke diaphragm and bracket assembly.

Main Body

1) Remove screws fastening throttle body to main body. Remove main body and gasket from throttle body. Remove slow fuel cut valve.

2) Remove screws fastening coasting richer valve to main body. Remove coasting richer solenoid valve.

3) Remove bolt fastening fuel inlet fitting to main body and remove fitting. Remove fuel strainer, fuel inlet bolt and needle valve assembly.

4) Remove screws fastening fuel bowl sight glass cover. Remove cover gasket, glass and rubber gasket from main body. Remove float lever pin, then remove float.

5) Remove screws fastening accelerator pump plunger to main body. Remove cover, plunger and gasket.

6) Remove plunger spring. Invert carburetor and remove inlet check ball. Remove screw and washer that retain pump discharge weight and ball.

7) Invert carburetor and remove weight, spring and check ball. Remove jets, emulsion tubes, power valve and all air bleeds from main body.

8) Remove screws fastening diaphragm chamber to main body. Remove diaphragm chamber assembly.

INSPECTION & CLEANING

1) 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.

2) 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

1) Reassemble carburetor in reverse order of disassembly. Make sure that primary and secondary components are installed in their correct locations.

2) 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.

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CARBURETOR ADJUSTMENT SPECIFICATIONS

| Application | Float Level In. (mm) | Fast Idle Adjustment In. (mm) | Choke Valve In. (mm) | Choke Diaphragm In. (mm) | Choke Unloader In. (mm) |
|-----------------------------|-------------------------|----------------------------------|-------------------------|-----------------------------|----------------------------|
| Courier 2.3L Eng. Calif. | .236 (6.0) | .061-.071 (1.6-1.8) | .041-.067 (1.1-1.7) | .063-.079 (1.6-2.0) | .094-.126 (2.4-3.2) |
| Federal | .236 (6.0) | .058-.066 (1.5-1.7) | .039-.051 (1.0-1.3) | .051-.071 (1.3-1.8) | .090-.110 (2.3-2.8) |