

## NIKKI 2-BARREL

Ford Courier (2000 cc)  
Mazda B2000

### DESCRIPTION

Carburetor is a Nikki 2-barrel, downdraft type, 2-stage design. It is equipped with an electric automatic choke and a slow fuel cut valve (throttle solenoid). The primary stage includes a curb idle system, 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.

For deceleration control, Federal vehicles make use of an anti-afterburn valve and throttle positioner system; California vehicles, an air bypass valve and throttle positioner system.

### 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.

#### AUTOMATIC CHOKE SETTING

Align index mark on thermostat cover with center of choke housing index mark. See Fig. 1. Tighten attaching screws.

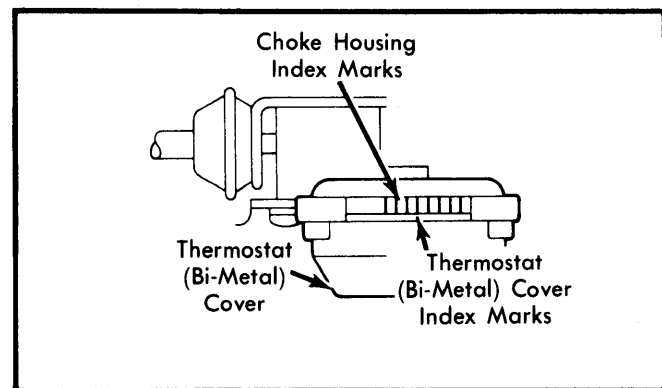


Fig. 1 Choke Thermostat Cover Index Marks

#### THROTTLE VALVE OPENING ANGLE

1) Close choke valve fully. Place fast idle screw on high (1st) step of fast idle cam. See Fig. 2. Adjust throttle valve opening clearance by turning the adjusting screw clockwise to increase or counterclockwise to decrease the opening clearance.

2) Measure throttle valve opening clearance between throttle bore wall and lower edge of throttle plate. Clearance should be .051-.059" (1.3-1.5 mm).

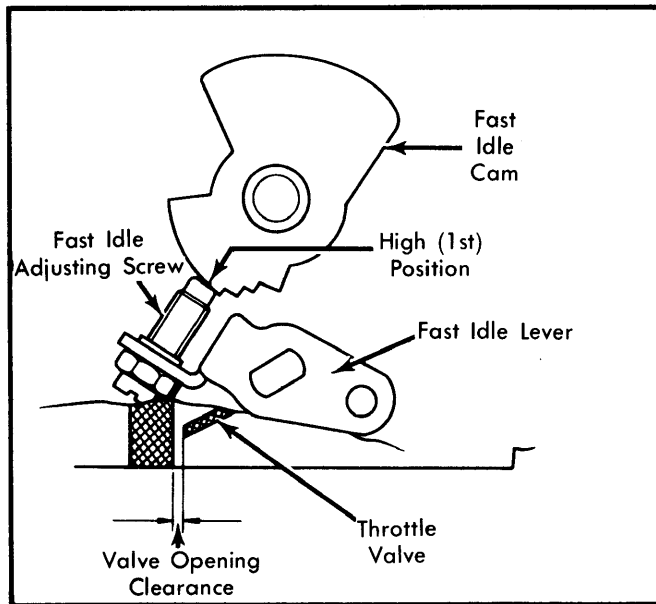


Fig. 2 Measuring Throttle Valve Opening Angle

#### CHOKE VALVE OPENING ANGLE

1) Place fast idle screw on 2nd step of fast idle cam. See Fig. 3. Adjust choke valve opening clearance by bending starting arm. If a large adjustment is necessary, bend choke rod.

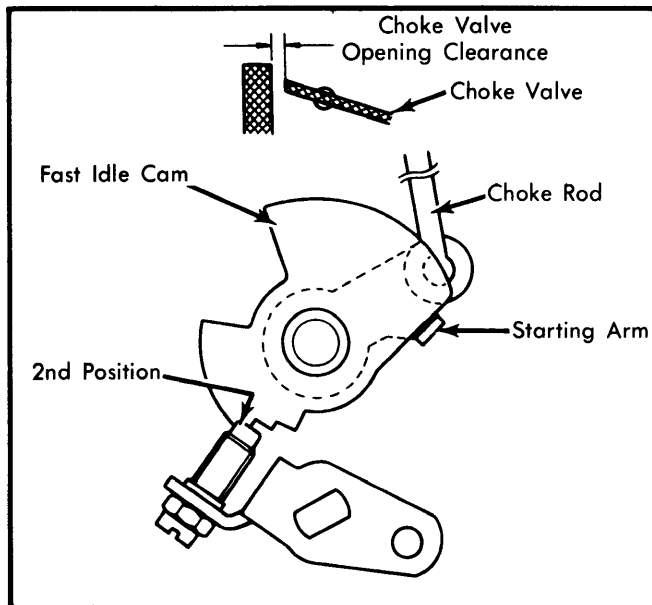


Fig. 3 Adjusting Choke Valve Opening Angle

2) Choke valve opening clearance, measured between choke valve bore and upper edge of valve, should be .016-.028" (.40-.70 mm).

## NIKKI 2-BARREL (Cont.)

## FLOAT LEVEL ADJUSTMENT

1) With the engine running, check the fuel level in the fuel bowl sight glass. If fuel level is not to the specified mark on sight glass, remove carburetor from vehicle. Remove fuel bowl cover and sight glass.

2) Invert carburetor on stand and allow float to lower by its own weight. Measure clearance as shown in Fig. 4. Clearance should be .335" (8 mm). To adjust clearance, bend float tang until proper clearance is obtained.

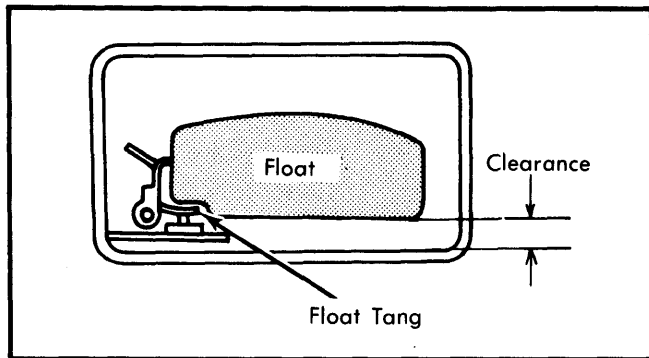


Fig. 4 Checking Float Level Adjustment

3) Turn carburetor to its normal position (not inverted). Allow float to lower by its own weight. Measure clearance between bottom of bowl and float. See Fig. 5. Clearance should be .039" (1 mm). If not, bend float stopper until proper clearance is obtained.

4) Install fuel bowl sight glass and install carburetor on engine. Operate engine and make sure fuel level is to specified mark in sight glass.

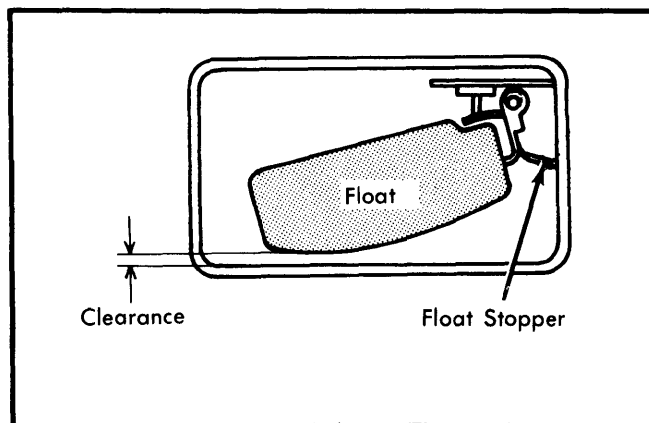


Fig. 5 Checking Float Drop Adjustment

## CHOKE UNLOADER ADJUSTMENT

Close choke valve fully and then open primary valve fully. Measure choke valve clearance between air horn and choke valve. See Fig. 6. Clearance should be .047-.067" (1.2-1.7 mm). To adjust clearance, bend throttle adjusting arm.

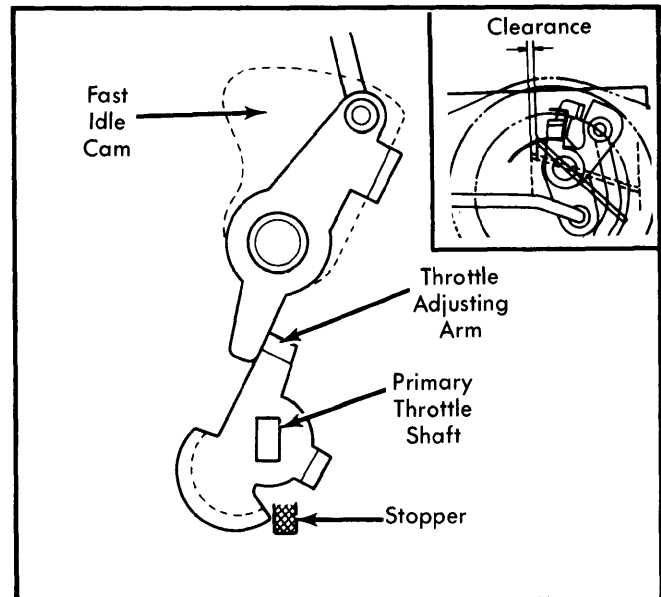


Fig. 6 Adjusting Choke Unloader

## CHOKE DIAPHRAGM ADJUSTMENT

Place fast idle screw on high (1st) step of fast idle cam. Apply approximately 15.7 in. Hg vacuum to choke diaphragm. Press choke valve slightly to closed position and measure clearance between choke valve and air horn. Adjust clearance to .047-.067" (1.2-1.7 mm) by bending choke lever. See Fig. 7.

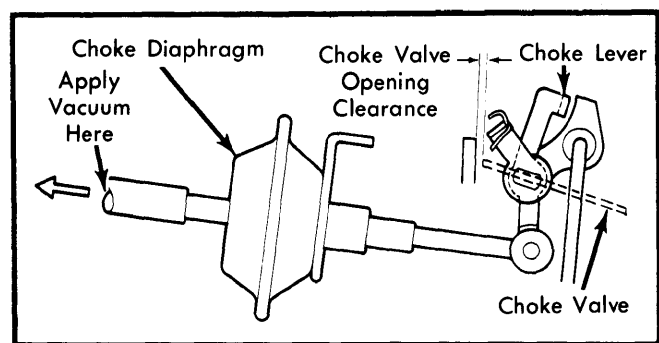


Fig. 7 Adjusting Choke Diaphragm

## ACCELERATOR PEDAL HEIGHT ADJUSTMENT

1) To adjust accelerator pedal height, loosen lock nuts on longer linkage rod ("A" in Fig. 9). Rotate rods in sockets until proper accelerator travel from idle to wide-open-throttle is obtained. Tighten lock nuts.

2) On Mazda B2000 vehicles, accelerator pedal should be 1.57-1.97" (40-50 mm) lower than brake pedal height. Throttle valves should be wide open when accelerator pedal is against the floor. No specification was available for the Courier.



## NIKKI 2-BARREL (Cont.)

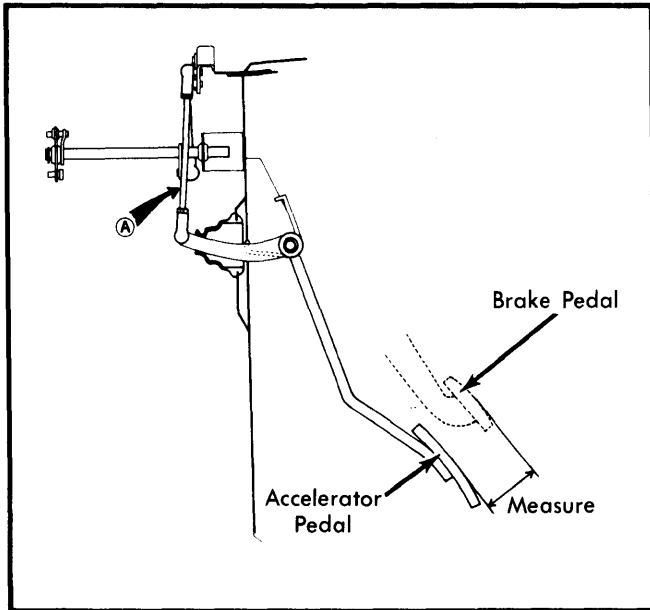


Fig. 9 Accelerator Pedal Height Adjustment

## OVERHAUL

## DISASSEMBLY

- 1) Remove carburetor and cover intake manifold port with clean shop towel to prevent dust and dirt from entering. Disconnect accelerator pump rod from lever and remove lever from main body. See Fig. 10.
- 2) Unhook throttle return spring and remove bracket. Disconnect fast idle rod from fast idle lever. Remove vacuum hose from choke diaphragm to main body. Remove slow fuel cut valve and automatic choke heater leads. Remove thermostat cover and gasket.
- 3) Remove choke housing. Remove cotter pin and washer from rod selector and unhook unloader return spring. Disconnect secondary throttle rod from shaft. Remove secondary throttle actuator from main body. Unscrew slow fuel cut valve from main body and remove it. Remove fuel inlet assembly bolt lock and spacer, and detach air horn from main body.
- 4) Remove fuel inlet fitting from main body. Remove fuel strainer, inlet bolt and needle valve assembly. Remove fuel bowl sight glass cover, gasket, glass and gasket. Remove float lever pin collar and float.
- 5) Remove accelerator pump plunger cover and gasket and plunger spring. Turn carburetor over and remove inlet check ball. Remove screw and washer holding pump discharge weight and ball, turn carburetor over and remove weight and ball.
- 6) Remove idle jets, main jets, and all air bleeds from main body. See Fig. 10. Remove power valve. Remove curb idle adjusting screw and spring from lower body. Remove primary and secondary discharge nozzles, retaining screws and washers. Remove nozzles and gaskets.

7) Remove air bleed screws from discharge nozzles and remove emulsion tubes. Remove lower body from main body. Remove accelerating pump actuating lever, choke actuating lever, throttle return lever and idle adjusting lever.

8) Mark throttle valve in relationship to bore and shaft. Remove throttle valve and slide shaft out of lower body.

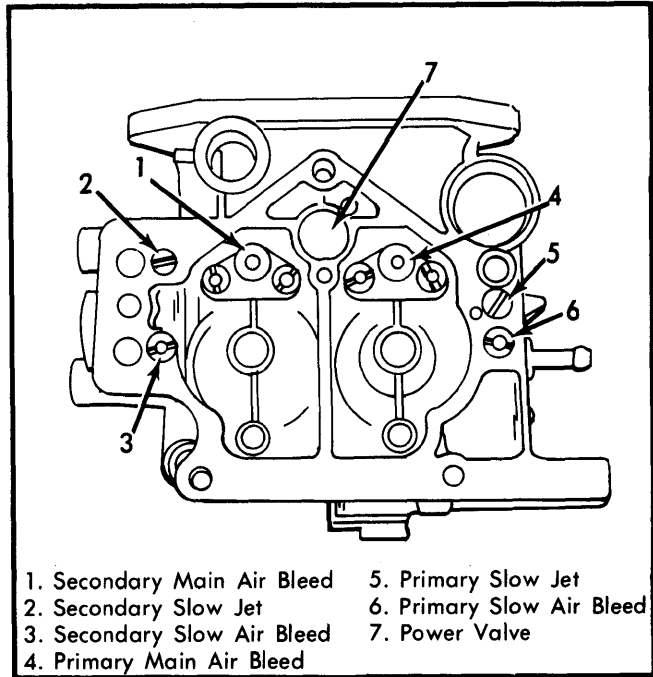


Fig. 10 Removing and Installing Jets and Air Bleeds

## CLEANING &amp; INSPECTION

- 1) Thoroughly clean all parts in clean solvent and dry with compressed air. Use care when blowing out passages in carburetor. Inspect air horn, main body and throttle body for cracks and breakage.
- 2) Inspect choke and throttle shafts for wear. Examine all jets and air bleeds. Never use wire to eliminate clogged condition. Inspect pump piston cup and replace if worn. Check accelerating pump valves for proper operation.
- 3) Examine power valve operation and check float needle and float. Inspect mixture adjusting screw for burrs or ridges. Check diaphragm and solenoid operation. Check for clogs at fuel return orifice. Discard and use all new gaskets when assembling carburetor.

## REASSEMBLY

To assemble, reverse disassembly procedure. Be careful not to mistake primary and secondary parts. When installing thermostat cover on automatic choke housing, hook choke arm to bimetal spring. Check correct operation of the choke valve by turning thermostat cover. Then align index mark on cover with center mark on choke housing. Tighten screws.