NIKKI 2-BARREL

Mazda 626

DESCRIPTION

Carburetor is a Nikki 2-barrel downdraft type. It is equipped with an electric automatic choke, fuel cut solenoid valve, an air by-pass valve for deceleration control, an idle compensator, high altitude compensator and throttle positioner system for air conditioned models. A double venturi provides for high air flow velocity at the venturi under all operating conditions, resulting in more efficient atomization of fuel for smooth combustion.

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

Before starting engine, fully depress accelerator pedal to ensure choke valve closes properly. Push choke valve with finger to check for binding. Be sure thermostat cover index mark is set at center of choke housing index mark. See *Fig.* 1. Warm engine and check that choke valve is fully open. Tighten all attaching screws after aligning index marks.

NOTE – *Do not set thermostat cover index mark at any position except center of choke housing index mark.*

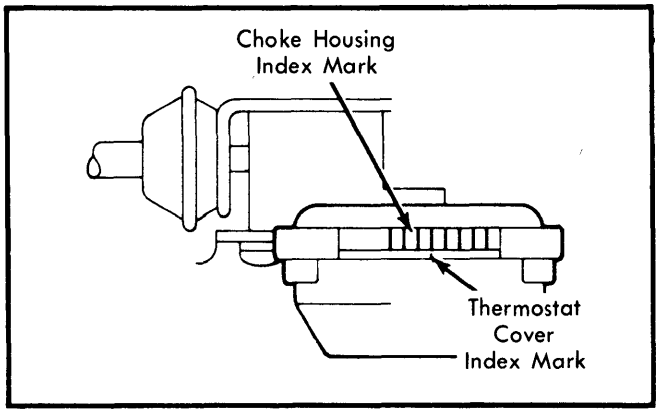

Fig. 1 Adjusting Automatic Choke

FLOAT LEVEL ADJUSTMENT

Remove air horn from carburetor. Invert air horn on stand and allow float to lower by its own weight. Measure clearance between float and air horn bowl. If clearance is not .433" (11 mm), bend float seat lip to obtain proper clearance. See *Fig.* 2.

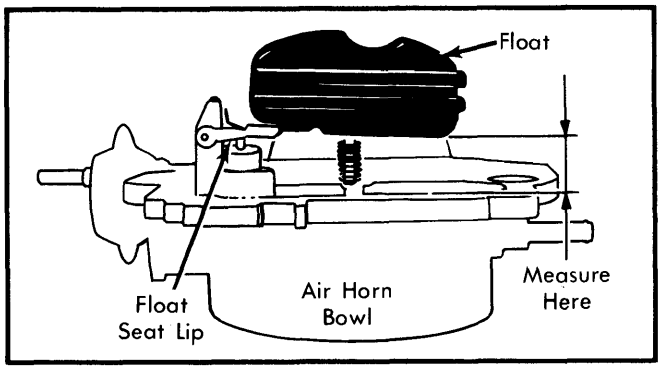

Fig. 2 Adjusting Float Level

FLOAT DROP ADJUSTMENT

Adjust float level and turn air horn over to its normal position. Make adjustment without gasket on air horn. Allow float to lower by its own weight. See *Fig.* 3. Measure distance between bottom of float and air horn bowl. If clearance is not 1.811" (46 mm), bend float stopper to obtain proper clearance.

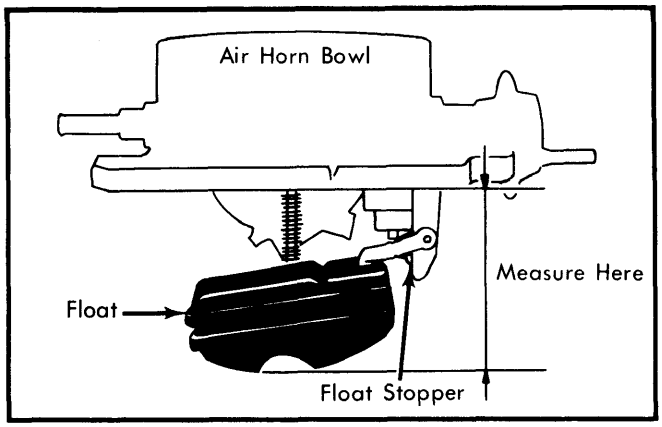

Fig. 3 Adjusting Float Drop

THROTTLE VALVE OPENING ANGLE

Close choke valve fully. Check that fast idle lever is on second position of fast idle cam. See *Fig.* 4. Adjust throttle valve opening angle or clearance by turning fast idle adjusting screw. Turn screw clockwise to make angle larger, counterclockwise to make angle smaller. Clearance should be .020-.026" (.50-.66 mm).

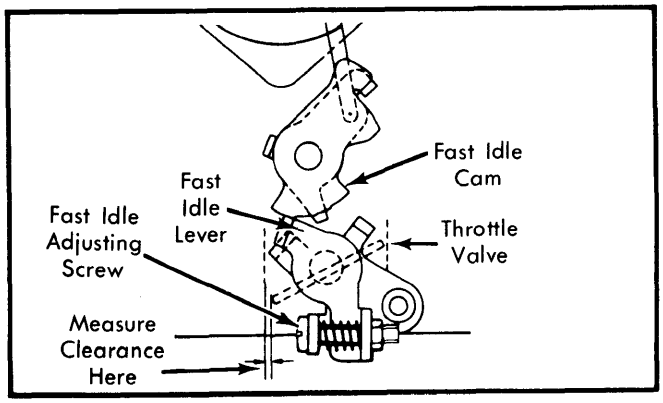

Fig. 4 Adjusting Throttle Valve Opening Angle

NIKKI 2-BARREL (Cont.)

CHOKE VALVE OPENING ANGLE

Check throttle valve opening clearance. Then place fast idle lever on 2nd step of fast idle cam. See *Fig. 5*. Adjust choke valve opening angle or clearance by bending starting arm. If large adjustment is necessary, bend choke rod. Choke valve opening angle should be 8-12° and clearance should be .024-.038" (.60-.95 mm), with a preferred clearance of .030" (.75 mm).

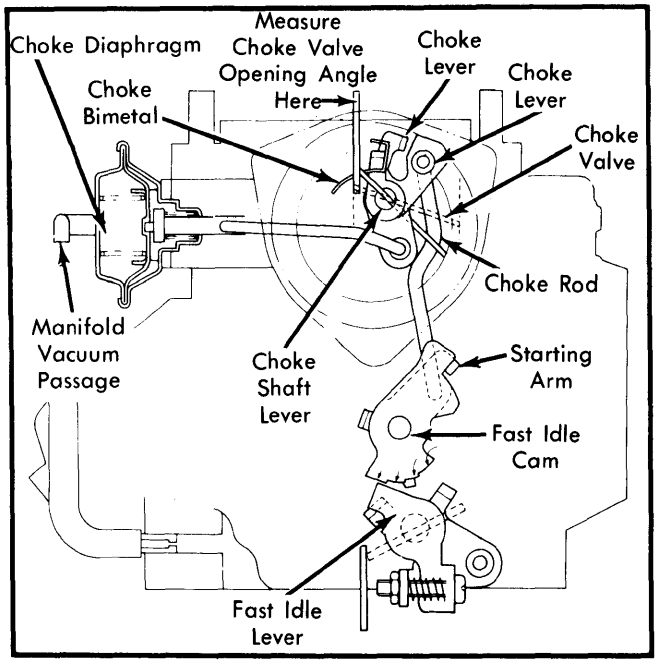

Fig. 5 Adjusting Choke Valve Opening Angle

CHOKE DIAPHRAGM ADJUSTMENT

Apply approximately 15.7 in. Hg vacuum from the choke diaphragm vacuum tube. Fast idle lever should be on high step of cam. Press choke valve slightly and check choke valve opening angle or clearance. Opening angle should be 17-21° and clearance should be .063-.079" (1.6-2.0 mm) with a preferred clearance of .071" (1.8 mm). If not within specifications, bend choke lever. See *Fig. 6*.

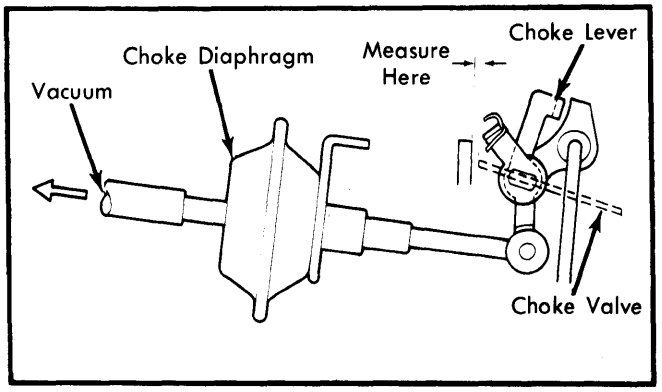

Fig. 6 Adjusting Choke Diaphragm

CHOKE UNLOADER ADJUSTMENT

Close choke valve fully and then open primary throttle valve fully. Measure choke valve opening angle or clearance. Opening angle should be 27-33° with a clearance of .102-.134" (2.6-3.4 mm). If not within specifications, adjust by bending tab. See *Fig. 7*.

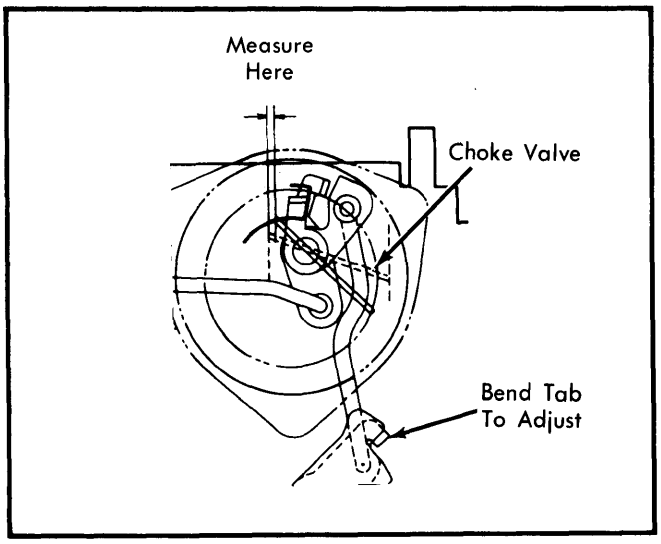

Fig. 7 Adjusting Choke Unloader

SECONDARY THROTTLE VALVE OPENING ANGLE

The secondary valve should begin to open when primary throttle valve opens 45° and should be fully open when primary valve fully opens. Check clearance of primary throttle valve and wall of throttle bore as secondary throttle valve begins to open. See *Fig. 8*. If clearance is not already to specifications, bend connecting rod to obtain .266" (6.75 mm) clearance.

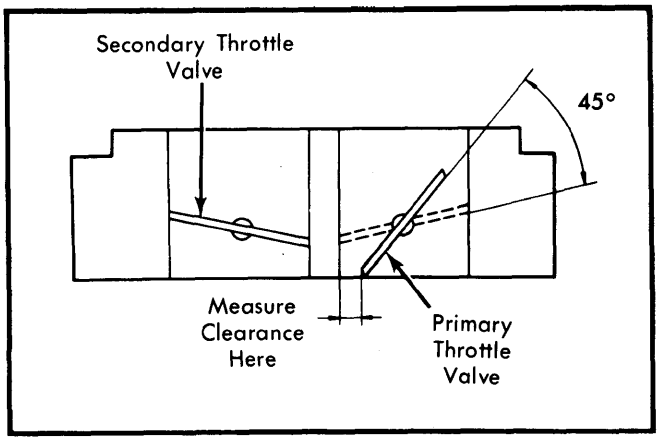

Fig. 8 Adjusting Secondary Throttle Valve Opening Clearance

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ACCELERATOR PEDAL HEIGHT ADJUSTMENT

Accelerator pedal should be 1.5-1.9" (40-50 mm) lower than brake pedal. Adjust rod "A" in *Fig. 9* to obtain correct adjustment. Cable free play at carburetor should be .04-.12" (1-3 mm). If free play is not to specifications, adjust nut "B" on cylinder head cover. As final check, press accelerator pedal all the way to floor and check that throttle valves are wide open. If necessary, adjust stopper bolt "C".

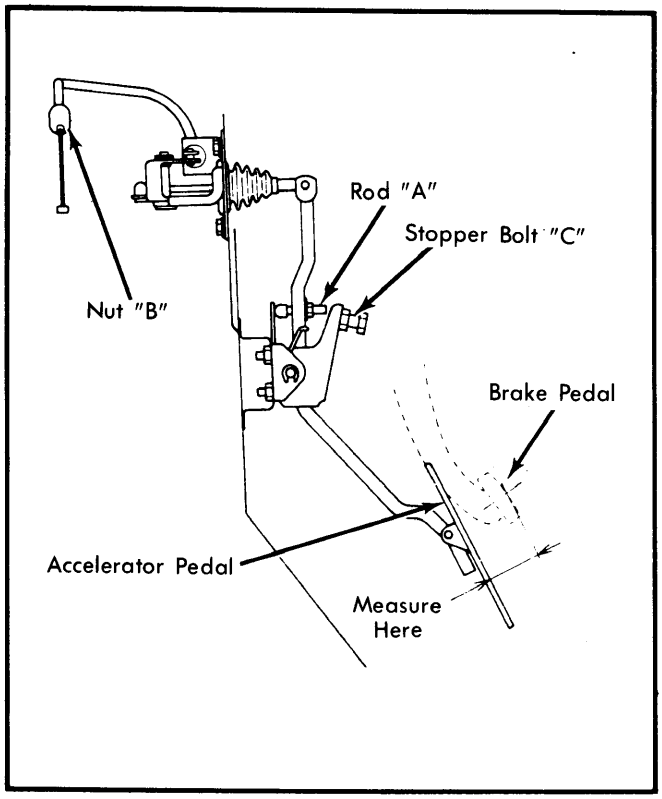

Fig. 9 Adjusting Accelerator Pedal Height

THROTTLE OPENER ADJUSTMENT (A/C MODELS ONLY)

1) Connect tachometer to engine, warm up engine and run at idle speed. See *Fig. 10*. Stop engine and remove air cleaner. Disconnect vacuum sensing tube (servo diaphragm to 3-way solenoid valve) at servo diaphragm.

2) Disconnect evaporative shutter valve vacuum hose from intake manifold. Connect servo diaphragm directly to intake manifold vacuum supply.

3) Start engine and increase speed to 2000 RPM. Turn A/C "ON". Decrease engine speed and check for 1150-1200 RPM, preferably 1200 RPM. If speed is not within specifications, turn throttle opener adjusting screw in or out to achieve 1200 RPM setting.

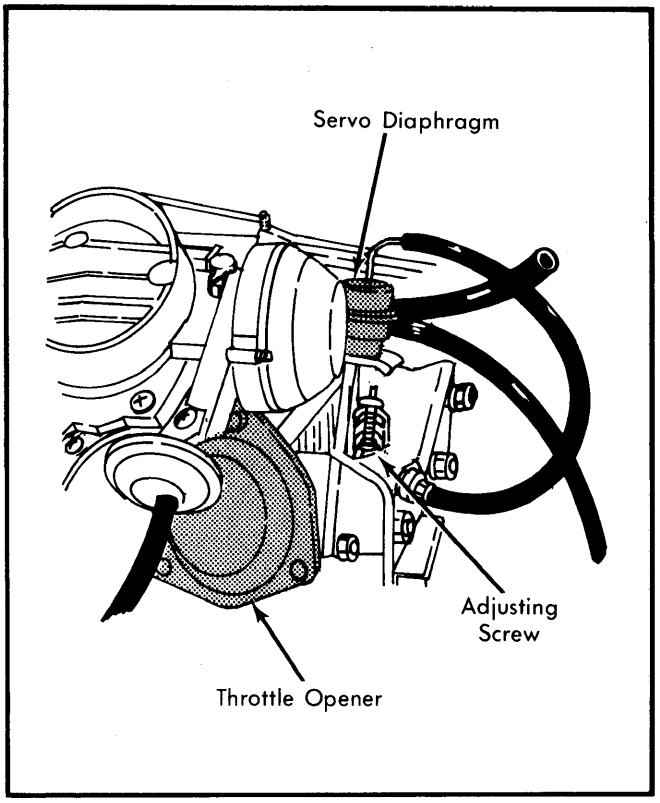

Fig. 10 Adjusting Throttle Opener (A/C Models Only)

OVERHAUL

DISASSEMBLY

1) Remove carburetor and cover intake manifold port with clean shop towel. When disassembling automatic choke and air horn, remove vacuum tube, throttle return spring, accelerator pump connecting rod and arm. Remove choke rod, air horn, automatic choke and gasket. Remove fuel inlet fitting.

2) Remove accelerator pump plunger assembly from main body. Remove retaining clip and turn main body over. Remove strainer and accelerator pump inlet check ball. Remove check valve plug and washer. Remove accelerator pump outlet check ball and spring. Remove slow fuel cut solenoid valve and gasket.

3) Disconnect throttle link and vacuum diaphragm connecting rod. Remove vacuum diaphragm and main body from throttle body.

NOTE – *One bolt attaching main body is inside the throttle body.*

4) Remove air bleeds and jets as shown in *Fig. 12*. Note the size of all jets and air bleeds so they may be reinstalled in correct position.

5) Remove throttle hanger, but do not remove throttle valve and shaft, venturi, and choke valve and shaft. Remove float and collar and needle valve assembly.

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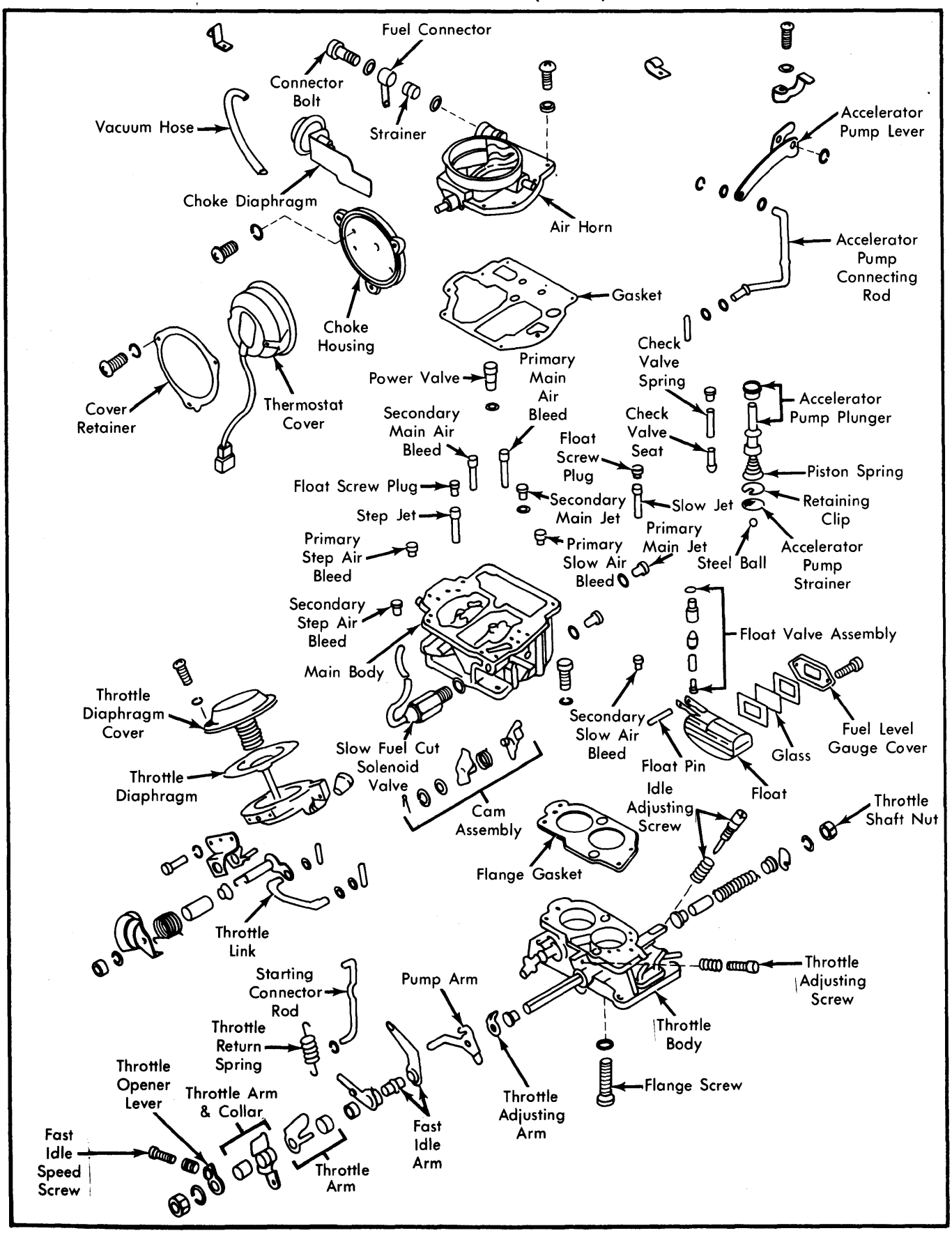
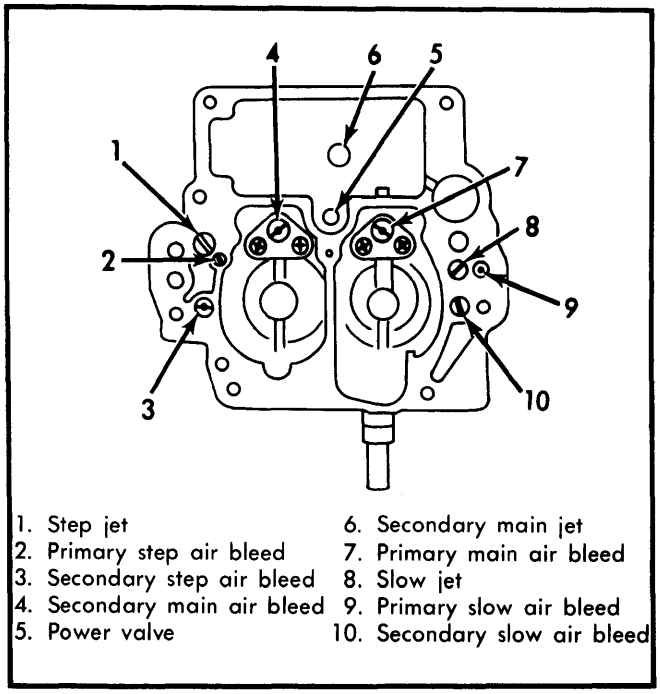


Fig. 11 Exploded View of Nikki 2-Bbl. Carburetor (Mazda 626)

NIKKI 2-BARREL (Cont.)



1. Step jet
2. Primary step air bleed
3. Secondary step air bleed
4. Secondary main air bleed
5. Power valve
6. Secondary main jet
7. Primary main air bleed
8. Slow jet
9. Primary slow air bleed
10. Secondary slow air bleed

Fig. 12 Removing Air Bleeds and Jets (Nikki 2-Bbl. Carburetor, Mazda 626)

INSPECTION

1) Wash all parts in clean gasoline and blow out fuel passages with compressed air. Never use wire for cleaning jets. Inspect air horn, main body and throttle body for cracks and breakage.

2) Check float needle and seat for wear and float for damage. Inspect choke shaft and throttle shaft for wear. Examine all jets and air bleeds for clogs. Inspect accelerator pump plunger for wear or damage. Check diaphragms and inspect mixture adjusting screws.

3) Test solenoid valve operation by grounding body while terminal is touched to battery positive post. Valve stem should pull into solenoid body.

REASSEMBLY

Use all new gaskets and use care not to mix primary and secondary barrel parts. Before attaching air horn, check float level and float drop and adjust as necessary. After carburetor is assembled, make other adjustments as necessary.