

1974-79 FUEL SYSTEMS

Nikki (Stromberg) 2-Barrel Carburetors

Ford Motor Co.: 1974-77 Courier
Mazda: 1974-77 B1600 Pickup, 808

DESCRIPTION

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

Carburetor is equipped with a cable operated, manual, butterfly valve type choke which operates on the primary barrel of the carburetor. In addition, a throttle solenoid valve is provided to cut off fuel from the carburetor when the ignition is shut off.

ADJUSTMENTS

IDLE SPEED & MIXTURE

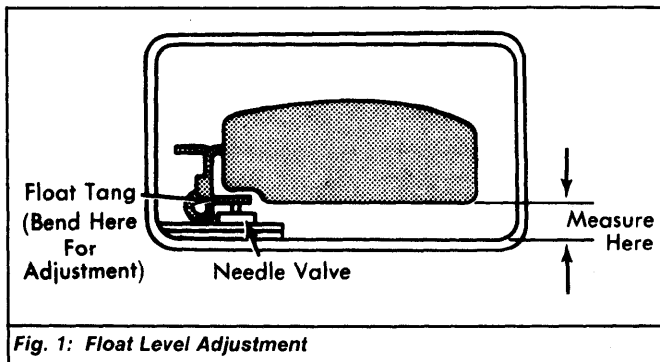
See appropriate TUNE-UP PROCEDURES article.

COLD (FAST) IDLE RPM

- 1) See appropriate TUNE-UP PROCEDURES article for on vehicle adjustment. For bench adjustment, fully close choke valve. Measure clearance between primary throttle valve lower edge and carburetor bore.
- 2) On Courier, bend fast idle lever where it touches throttle lever tang to obtain a .063-.067" (1.6-1.7 mm) clearance. On Mazda models, bend choke connecting rod to obtain a .070" (1.8 mm) clearance.

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) Lower float until tang on float just contacts needle valve. Measure clearance between float and edge of bowl. If clearance is not to specifications, bend float tang to achieve proper clearance.



FLOAT DROP

With carburetor upright, measure clearance between lowest tip of float and fuel bowl bottom. See Fig. 2. If clearance is not within specifications, bend float stopper until correct clearance is obtained.

VACUUM BREAK DIAPHRAGM

- 1) On California models, unplug water thermo switch and connect jumper wire to both connectors. On all models, pull out choke knob to fully close choke valve. Disconnect vacuum tube to vacuum break diaphragm. Use a hand-held vacuum pump and apply 5.9-7.5 in. Hg vacuum to diaphragm, choke valve should just begin to open.
- 2) Now apply 9.8-12.0 in. Hg. of vacuum to diaphragm and measure clearance between top of choke valve and air horn wall. Clearance should be .06-.08" (1.5-2.0 mm). If clearance is not to specifications, adjust by bending choke-to-vacuum break diaphragm connecting rod.

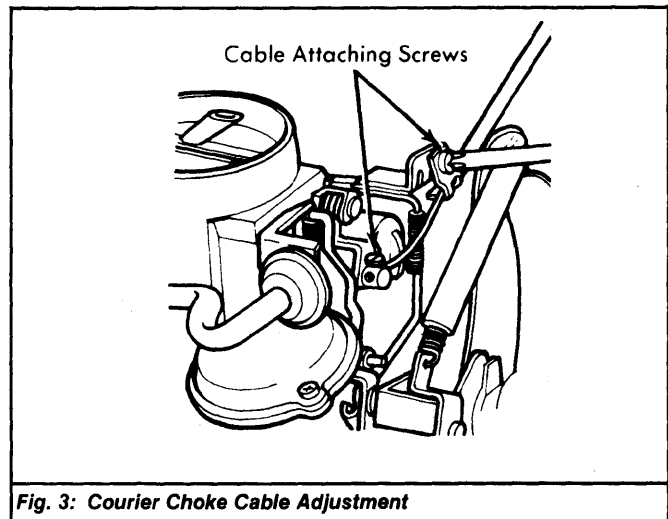
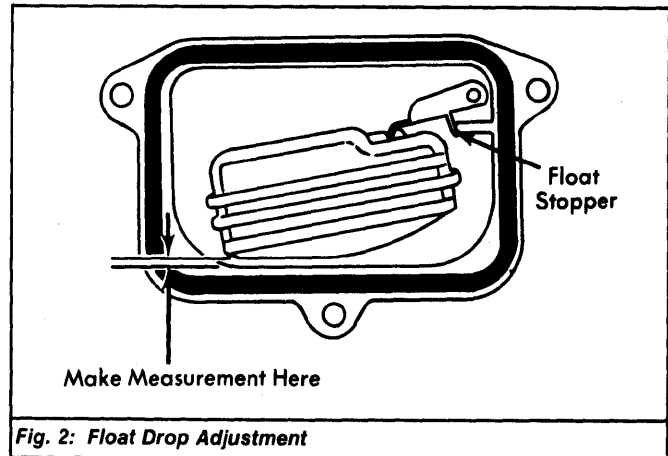
CHOKE CABLE

Courier - 1) Push choke knob all the way in. Loosen choke cable screws at the choke cable bracket and at the choke lever. With choke cable inserted into choke lever, tighten attaching screw. See Fig. 3.

2) Remove all slack between choke lever and choke cable bracket by pulling outward, and tighten attaching screws at bracket. Operate choke to make sure of smooth movement without binding of cable or choke plate.

Mazda B1600 & 808 - 1) These models are equipped with an automatic choke release system. Choke can be manually operated by knob and cable from instrument panel.

2) To prevent excessively high exhaust manifold temperatures during start-up, choke is connected to a series of switches. When engine warms and coolant temperature reaches 122-140°F (50-60°C), thermal and electromagnetic switches allow force of choke return spring to pull choke to off position.



OVERHAUL

DISASSEMBLY

- 1) Remove throttle spring. Remove split pin and washer from pump connecting rod, and separate rod from connecting lever. Remove spring and washer from rod. Remove pump lever retainer, pump lever and pump piston rod from air horn. Disconnect choke rod (fast idle rod) from lever.
- 2) On Courier, remove coasting richer valve assembly (deceleration valve), and disconnect wire at junction. Disconnect secondary throttle rod from shaft. Remove secondary throttle actuator-to-main body screws.

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- 3) Remove slow fuel cut valve lead and remove assembly from carburetor body. Remove slow fuel cut valve (throttle solenoid). Remove the screw retaining fuel inlet assembly bolt lock, remove lock and spacer.
- 4) On all models, remove air horn attaching screws and lift air horn away from main body. Remove pump plunger and pump strainer retaining clip. Invert carburetor and catch strainer and inlet check ball as they fall out.
- 5) Remove screw and washer retaining pump discharge weight, invert carburetor and catch weight and outlet check ball. Remove bolts attaching throttle body to main body. One bolt is on underside of carburetor.
- 6) Separate throttle body from main body. Remove bowl cover attaching screws and remove bowl cover and rubber gasket. Invert main body and remove collar and float from float pin. Remove needle valve assembly.
- 7) Remove fuel inlet fitting and note number of copper seat gaskets. Remove solenoid assembly, main air bleeds, slow air bleeds, and slow jets. Remove plugs from main body and remove main jets.
- 8) Remove power valve with Screwdriver (490118 870A). Remove idle adjusting needle and spring from throttle body. Remove split pin and washer from throttle lever connecting link, and separate link from primary throttle shaft arm.
- 9) Remove diaphragm cover attaching screws and remove cover and return spring. Remove throttle return lever and dust cover from diaphragm body. Remove clip, disconnect diaphragm rod, and remove diaphragm and rod assembly.

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

To reassemble, reverse disassembly procedure. 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.

1974 CARBURETOR ADJUSTMENT SPECIFICATIONS

| Application | Specifications |
|--------------------------------------|-----------------------|
| Choke Connecting Rod Clearance | .05" (1.3 mm) |
| Float Level | .236" (6.0 mm) |
| Vacuum Break Diaphragm | .06-.08" (1.5-2.0 mm) |

1975 CARBURETOR ADJUSTMENT SPECIFICATIONS

| Application | Specifications |
|--------------------------------------|-----------------------|
| Choke Connecting Rod Clearance | .07" (1.8 mm) |
| Float Level | .256" (6.6 mm) |
| Vacuum Break Diaphragm | .06-.08" (1.5-2.0 mm) |

| 1976 CARBURETOR ADJUSTMENT SPECIFICATIONS | | | | | | | | |
|---|----------------------------|------|------------------------------------|-----------------------------------|------------------------------|-----------------------------------|---------------------------------|-----------------------------|
| Application | Idle Speed (Engine RPM) | | Float Level Setting In. (mm) | Float Drop Setting In. (mm) | Choke Linkage In. (mm) | Secondary Throttle In. (mm) | Unloader Setting In. (mm) | Vacuum Break In. (mm) |
| | Hot | Fast | | | | | | |
| Courier | ① | ① | .256 (6.5) | ... | .063-.067 (1.6-1.7) | ... | ... | .06-.08 (1.45-1.95) |
| 808 (1600) | 800-850 | ... | .256② (6.5) | .047 (1.2) | .07 (1.8) | ... | ... | .06-.08 (1.45-1.95) |
| B1600 | 800-850 | ... | .256 (6.5) | ... | .07 (1.8) | ... | ... | .06-.08 (1.4g-1.95) |

① — See Emission Control Tune-Up Decal.

② — Calif. .236" (6 mm).

③ — Calif. .045-.06" (1.15-1.45 mm).

| 1977 CARBURETOR ADJUSTMENT SPECIFICATIONS | | | | | | | | |
|---|----------------------------|------------|------------------------------------|-----------------------------------|------------------------------|-----------------------------------|---------------------------------|-----------------------------|
| Application | Idle Speed (Engine RPM) | | Float Level Setting In. (mm) | Float Drop Setting In. (mm) | Choke Linkage In. (mm) | Secondary Throttle In. (mm) | Unloader Setting In. (mm) | Vacuum Break In. (mm) |
| | Hot | Fast | | | | | | |
| Courier | ① | ① | .256 (6.5) | | .063-.067 (1.6-1.7) | | | .06-.08 (1.52-2.03) |
| Mazda 808 (1600) | 800-850 | 3000-4000② | .256③ (6.5) | .047 (1.2) | | | | .06-.08④ (1.52-2.03) |

① — See Emission Control Tune-Up Decal

② — Calif. is 2500-3500 RPM

③ — Calif. is .236" (6 mm)

④ — Calif. is .06-.07" (1.6-1.9 mm)

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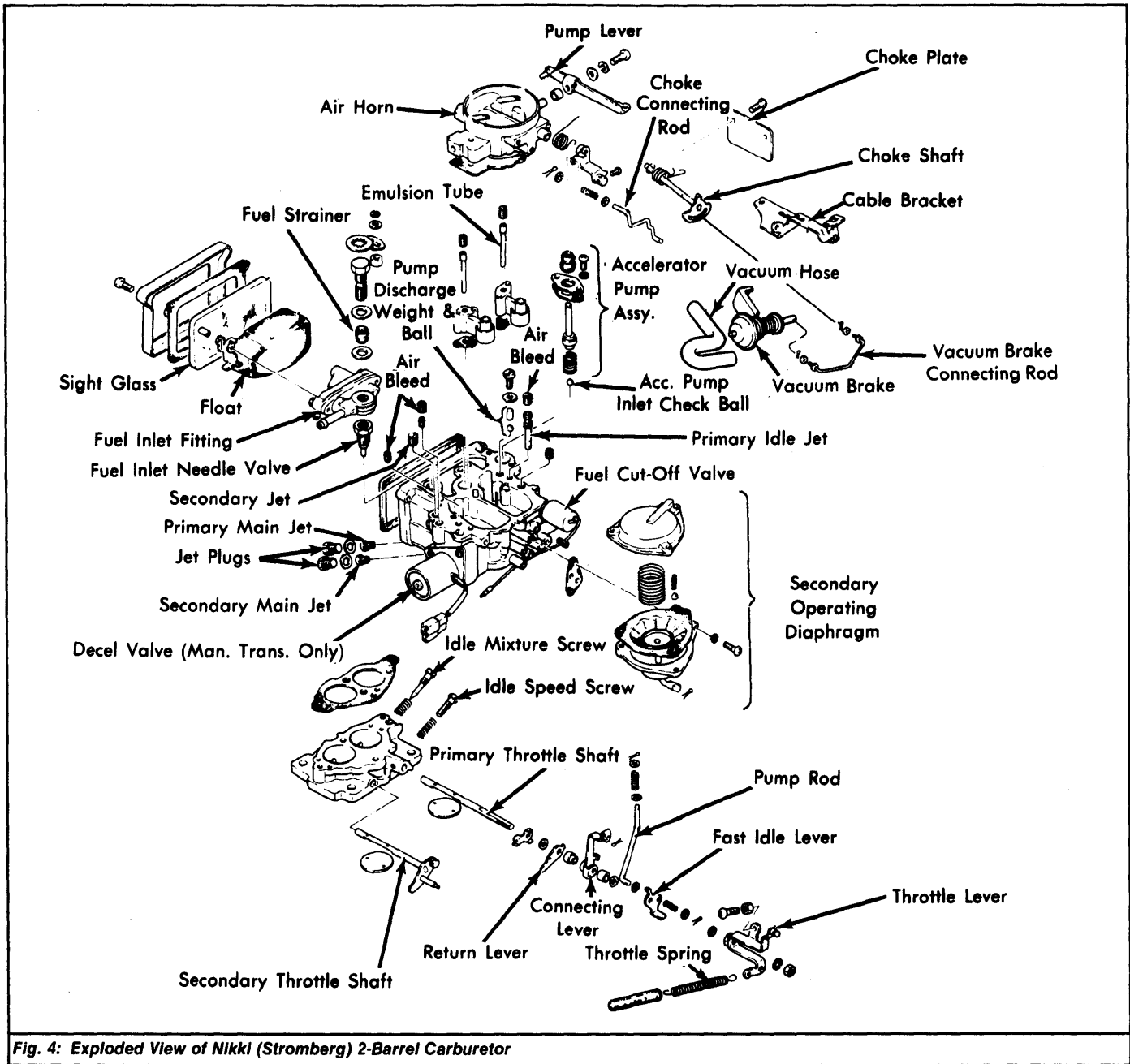


Fig. 4: Exploded View of Nikki (Stromberg) 2-Barrel Carburetor