1982 Hitachi Carburetors

HITACHI DCH 340 & DCR 342 2-BARREL

Datsun/Nissan Pickup, Datsun/Nissan Stanza, Isuzu I-Mark, Isuzu P'UP, LUV Pickup

DESCRIPTION

Carburetor is a 2-barrel downdraft type with a piston type accelerator pump. Carburetor consists of a low speed (primary) barrel and a high speed (secondary) barrel integrated into a single unit with a common fuel bowl. Secondary throttle is actuated by a vacuum diaphragm when the primary throttle is open a predetermined amount.

Additional equipment includes an anti-dieseling solenoid, an electric choke, an idle compensator (Datsun/Nissan), a dashpot (Datsun/Nissan with Auto. Trans.), and an altitude compensator (Datsun/Nissan).

CARBURETOR IDENTIFICATION

Application	Man. Trans.	Auto. Trans.
Datsun/Nissan Pickup		
California		
2WD		
Standard	DCR342-11A	DCR342-13A
Heavy Duty	DCR342-21A	-----
4WD	DCR342-17A	-----
Federal		
Standard	DCR342-14A	DCR342-16A
Heavy Duty	DCR342-23A	-----
Datsun/Nissan Stanza		
California	DCR342-31	-----
Federal	DCR342-33	-----
Isuzu I-Mark		
California	DCH340-255	DCH340-256
Federal	DCH340-253	DCH340-254
Isuzu P'UP & LUV		
California	DCH340-221	DCH340-222
Federal	DCH340-219	DCH340-220

ADJUSTMENTS

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

FLOAT LEVEL

NOTE: Fuel bowl is equipped with a sight glass. Line on sight glass indicates proper fuel level. If adjustment must be made to correct improper level, use the following procedure.

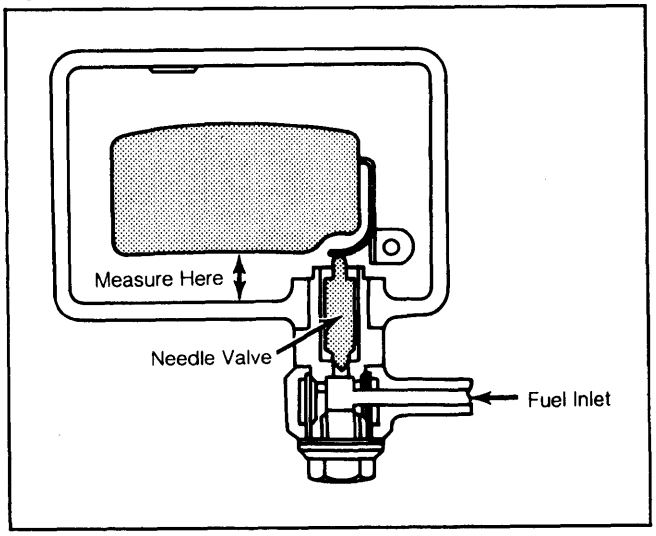
Datsun/Nissan

With sight glass removed and carburetor main body inverted, measure distance from top of float to top of float bowl. Set clearance to .283" (7.2 mm) by bending float tang. *See Fig. 1.*

Isuzu & LUV

With sight glass removed and carburetor main body inverted, bend float tang until float is parallel with top of float bowl. *See Fig. 1.*

Fig. 1: Float Level Adjustment

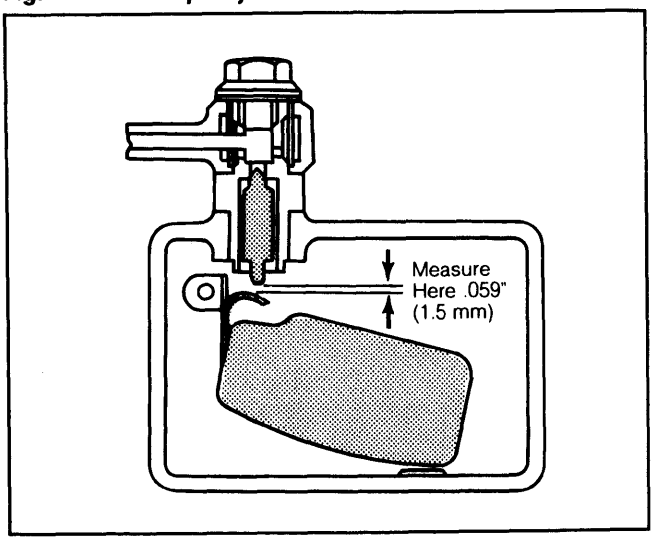


Bend float tang to adjust.

FLOAT DROP

With float bowl removed and held upright, measure clearance between needle valve and float tang. If clearance is not .059" (1.5 mm), adjustment will be necessary. Adjust by bending float tang which contacts needle valve. *See Fig. 2.*

Fig. 2: Float Drop Adjustment



Adjust by bending float tang.

VACUUM BREAK

Datsun/Nissan

1) Close choke and hold closed with rubber band stretched between choke piston and stationary part of carburetor. Grip stem of vacuum break diaphragm and pull straight outward (stem extended).

2) Adjust gap between choke plate and air horn wall to .123-.147" (3.12-3.72 mm) on Stanza and California Pickup models or .103-.127" (2.62-3.22 mm) on Federal Pickup models by bending vacuum break rod. *See Fig. 3.*

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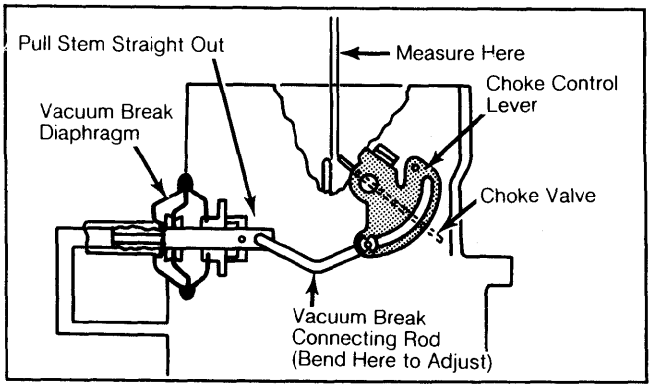
Fig. 3: Vacuum Break Adjustment



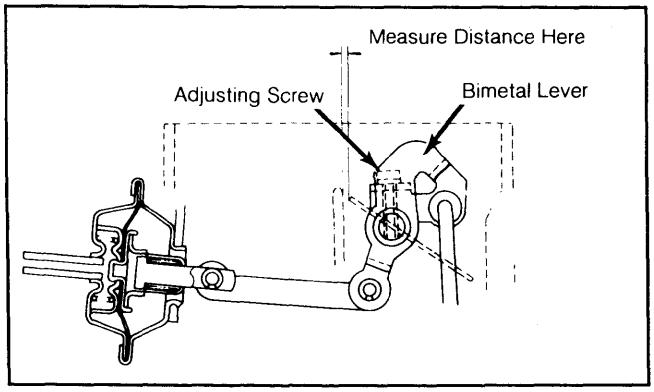
Datsun models.

Isuzu & LUV

1) Fully depress vacuum break diaphragm stem and measure clearance between choke plate and air horn wall.

2) Adjust gap to .050-.059" (1.28-1.51 mm) on Man. Trans. models or .059-.069" (1.51-1.76 mm) on Auto. Trans. models by bending vacuum break rod. *See Fig. 4.*

Fig. 4: Vacuum Break Adjustment



Isuzu & LUV models.

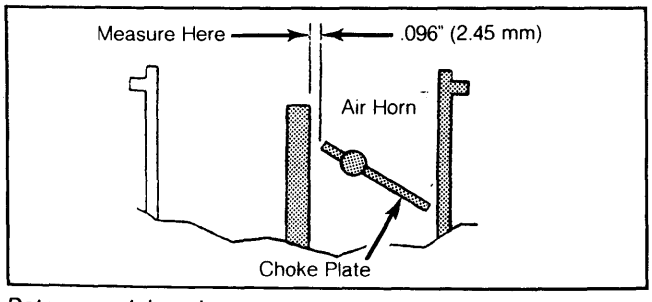
CHOKE UNLOADER

Datsun/Nissan

1) Close choke plate. Hold in position by stretching a rubber band between vacuum break lever and stationary part of carburetor. Place throttle in wide open position.

2) Measure clearance between choke plate and air horn wall. Clearance should be to specification. Bend unloader tang to adjust. *See Fig. 5.*

Fig. 5: Choke Unloader Adjustment



Datsun models only.

NOTE: It is important to check that throttle valve opens fully when carburetor is mounted on vehicle. If throttle does fail to open, unloader becomes inoperative.

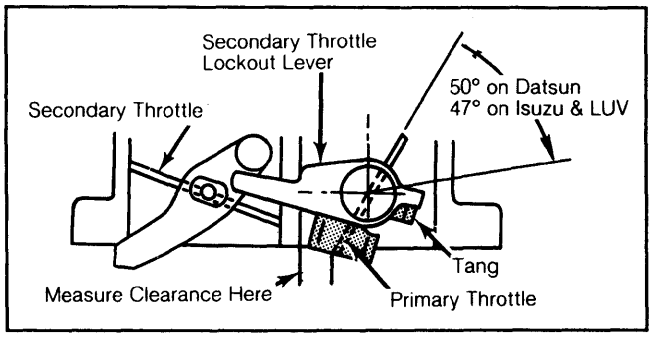
SECONDARY THROTTLE INITIAL OPENING

When primary throttle valve opens 50° (47° on Isuzu and LUV), primary throttle lever tang contacts secondary throttle lockout. Any further opening of throttle valve will force secondary throttle lockout lever to actuate secondary throttle lever and secondary throttle valve will begin to open. Check and adjust as follows:

1) Open primary throttle valve until it is observed that secondary is just beginning to open. Hold throttle in this position.

2) Measure clearance between primary throttle valve and throttle bore. If clearance is not to specifications, adjust by bending primary throttle tang. *See Fig. 6.*

Fig. 6: Secondary Throttle Initial Opening Adjustment



Bend primary throttle tang to adjust.

CHOKE LINKAGE

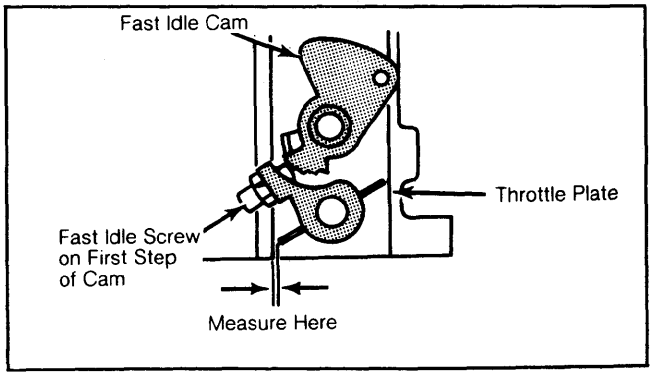
1) With fast idle screw on high (1st) step of fast idle cam, invert carburetor and close choke valve.

2) Measure clearance (angle on Isuzu and LUV) between throttle plate and throttle bore. If adjustment is necessary, turn fast idle speed screw.

3) Set clearance to .032-.037" (.81-.95 mm) on Datsun Pickup Man. Trans. models, .038-.044" (.97-1.1 mm) on Datsun Pickup Auto. Trans. models or .026-.031" (.66-.80 mm) on Datsun Stanza models.

4) Set angle to 16° on Isuzu Man. Trans. and LUV models or 18° on Isuzu Auto. Trans. models. *See Fig. 7.*

Fig. 7: Choke Linkage Adjustment



Turn fast idle speed screw to adjust.

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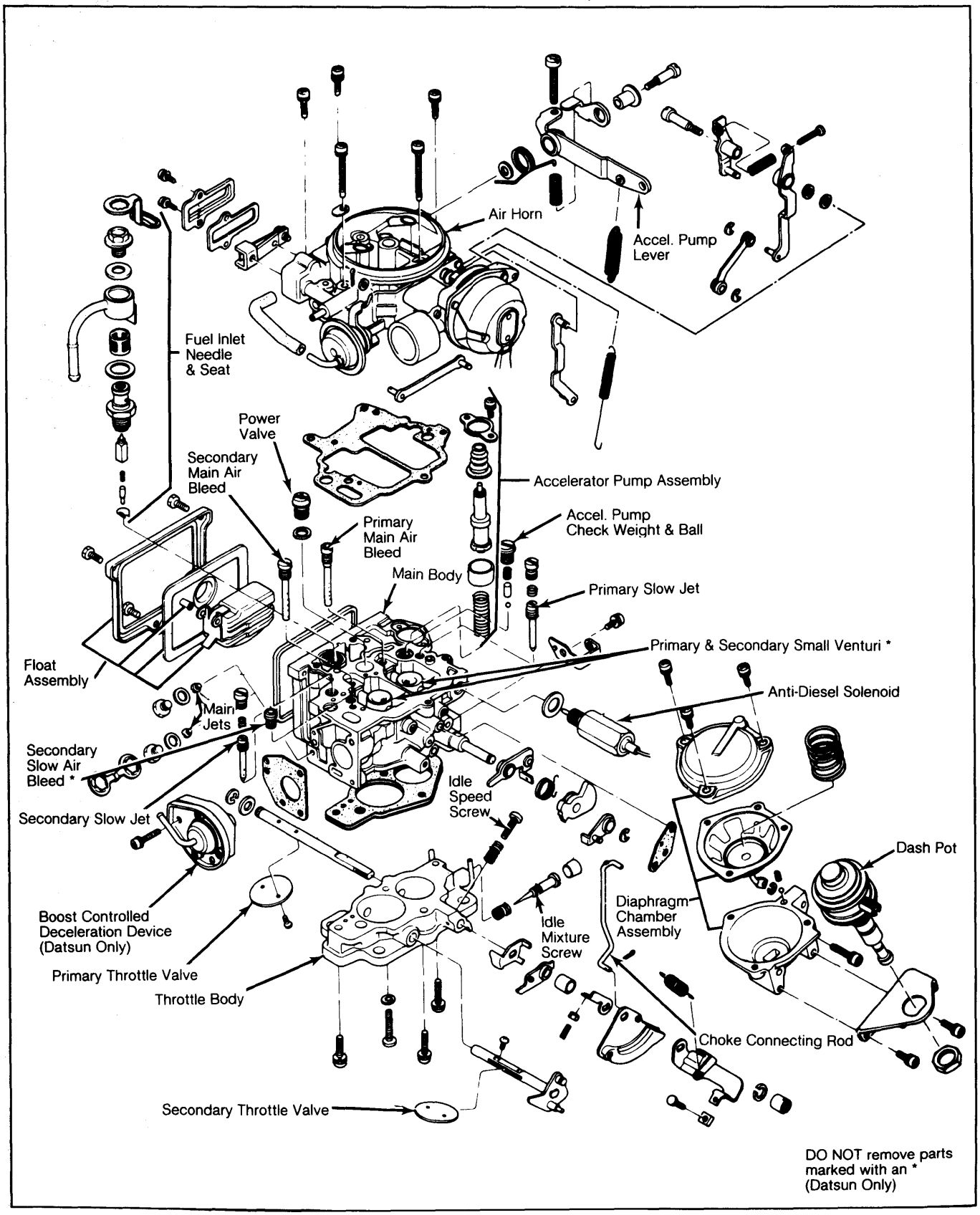
Fig. 8: Exploded View of Typical Hitachi DCH & DCR Carburetor Assembly



Datsun/Nissan Pickup carburetor is shown, others are similar.

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OVERHAUL

DISASSEMBLY

1) Remove carburetor from engine. Disconnect accelerator pump lever. Remove throttle return spring, choke thermostat housing and wire.

2) Remove fuel pipe nipple, strainer, and screw attaching choke lever to choke shaft. Move choke lever toward choke chamber. Remove choke connecting rod from counter lever.

3) Disconnect vacuum hose from float chamber. Remove choke chamber from float chamber, and cotter pin between diaphragm rod and secondary throttle lever. Separate lever and diaphragm.

4) Remove 2 solenoid valve harness clips, diaphragm attaching screws and diaphragm assembly. Carefully remove 1 screw from upper part and 3 screws from lower part of float chamber-to-throttle valve body. Separate float chamber from throttle valve body.

5) Remove accelerator pump plunger attaching screws. Invert float chamber and remove plunger assembly. Remove float needle valve assembly, and float level gauge. Do not lose the float collar.

6) Remove screws attaching diaphragm cover, diaphragm cover, spring and diaphragm. Do not lose ball and small spring. Remove all jets from upper part of float chamber.

7) Invert float chamber. Remove small venturi from both primary and secondary venturi. Remove injector weight plug, weight and ball.

8) Remove power jet, main jet plugs, main jets, and primary vacuum jet. Do not remove throttle valves or choke valve unless components are damaged.

INSPECTION

Choke Chamber

Inspect chamber for cracks and damage particularly on joining face of chamber. Inspect choke shaft holes for wear, and vacuum piston and choke valve for smoothness of operation.

Float Chamber

Inspect body for cracks, joining surfaces and threaded holes for damage. Check power valve for leaks and smoothness of operation. Inspect float needle valve and float pin hole for wear. Check accelerator pump plunger for damage, wear and smoothness of operation.

Throttle Chamber

Check throttle valves and shafts for wear and slow and idle ports for clogging. Inspect mixture screw seating and mixture screw for step wear.

REASSEMBLY

Reverse disassembly procedures and note the following:

1) Ensure jets are installed in correct positions. If choke and throttle valve have been removed, install valves making necessary adjustments and seal screws.

2) Check accelerator pump operation by filling cylinder with gasoline and operating plunger by hand.

CARBURETOR ADJUSTMENT SPECIFICATIONS

Application	Float Level In. (mm)	Float Drop In. (mm)	Choke Linkage In. (mm)	Secondary Throttle In. (mm)	Unloader Setting In. (mm)	Vacuum Break In. (mm)
Datsun/Nissan Pickup						
Man. Trans.						
Calif.	.283 (7.20)	.059 (1.50)	.032-.037 (0.81-0.95)	.291-.330 (7.40-8.40)	.081-.112 (2.10-2.90)	.123-.147 (3.12-3.72)
Federal	.283 (7.20)	.059 (1.50)	.032-.037 (0.81-0.95)	.291-.330 (7.40-8.40)	.081-.112 (2.10-2.90)	.103-.127 (2.62-3.22)
Auto. Trans.						
Calif.	.283 (7.20)	.059 (1.50)	.038-.044 (0.97-1.10)	.291-.330 (7.40-8.40)	.081-.112 (2.10-2.90)	.123-.147 (3.12-3.72)
Federal	.283 (7.20)	.059 (1.50)	.038-.044 (0.97-1.10)	.291-.330 (7.40-8.40)	.081-.112 (2.10-2.90)	.103-.127 (2.62-3.22)
Stanza	.283 (7.20)	.059 (1.50)	.026-.031 (0.66-0.80)	.291-.330 (7.40-8.40)	.081-.112 (2.10-2.90)	.123-.147 (3.12-3.72)
Isuzu & LUV						
Man. Trans.	[1]	.059 (1.50)	16°	.240-.300 (6.10-7.60)	.....	.050-.059 (1.28-1.51)
Auto. Trans.	[1]	.059 (1.50)	18°	.240-.300 (6.10-7.60)	.....	.059-.069 (1.51-1.71)

[1] — Float parallel with top of float bowl. See adjustment procedure.