HITACHI DCH 340 2-BARREL

Datsun Pickup
LUV Pickup

DESCRIPTION

Carburetor is a 2-barrel downdraft type equipped with piston type accelerator pump. Carburetor consists of low speed (primary) barrel and high speed (secondary) barrel integrated into a single unit with common fuel bowl. Secondary throttle is actuated by vacuum diaphragm when primary throttle is opened a predetermined amount. Additional equipment includes an anti-dieseling solenoid, electric choke, by-pass air control valve (Datsun), coasting richer solenoid (LUV), idle compensator (Datsun), dashpot (Calif. Auto. Trans. Datsun), and an altitude compensator (Calif. Datsun).

CARBURETOR IDENTIFICATION

Application	Carburetor No. Man. Trans.	Auto. Trans.
Datsun Pickup		
Federal	DCH340-113	DCH340-114
Calif.	DCH340-111	DCH340-112
LUV Pickup		
Federal	DCH340-207	DCH340-208
Calif.	DCH340-209	DCH340-210

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.

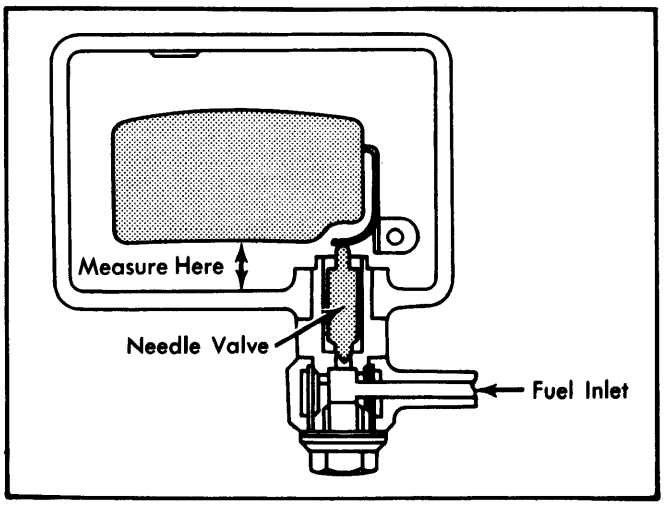

Fig. 1 Float Level Measurement Point

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 following procedure.*

Datsun – 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.*

LUV – With sight glass removed and carburetor main body inverted, bend float tang until float is parallel with top of float bowl.

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.*

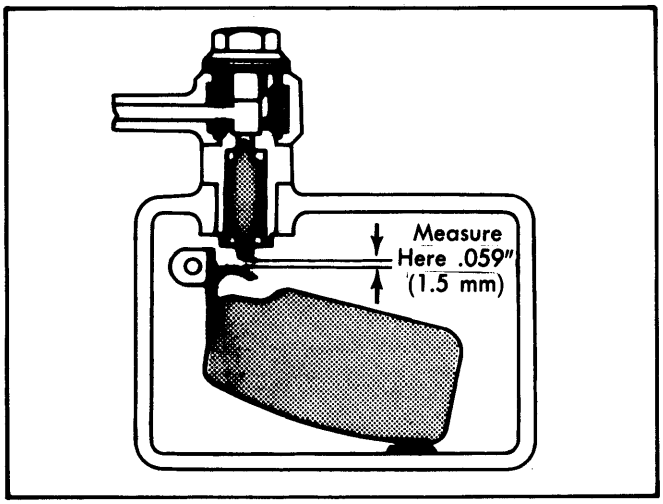

Fig. 2 Float Drop Measurement Point

VACUUM BREAK

Datsun – Close choke and hold closed with rubber band stretched between choke piston and stationary part of car-

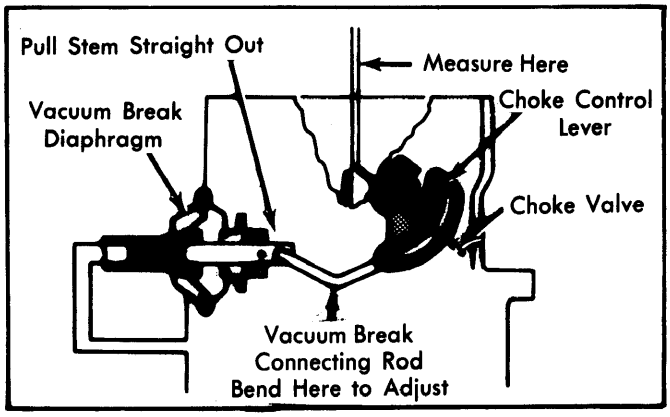

Fig. 3 Vacuum Break Adjustment for Datsun Models

HITACHI DCH 340 2-BARREL (Cont.)

buretor. Grip stem of vacuum break diaphragm and pull straight outward (stem extended). Adjust gap between choke plate and air horn wall to .109" (2.76 mm) by bending vacuum break rod. See *Fig. 3*.

LUV – Fully depress vacuum break diaphragm stem and measure distance between choke plate and air horn wall. Adjust gap to .11-.29" (2.7-3.5 mm) by bending vacuum break rod. See *Fig. 4*.

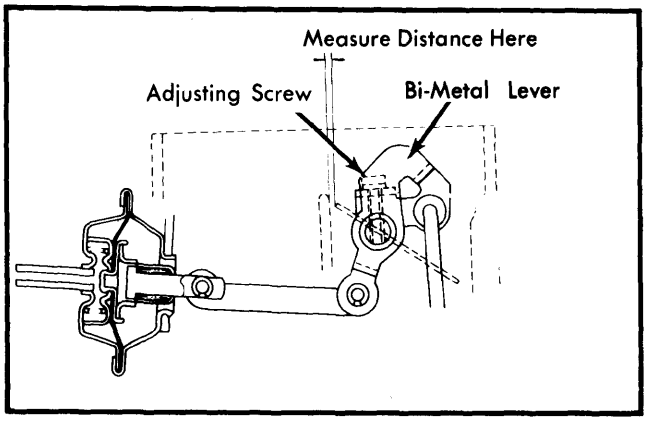

Fig. 4 Vacuum Break Adjustment for LUV Models

CHOKE UNLOADER

Datsun – 1) Close choke plate. Hold in position with a rubber band. Place throttle in wide open position.

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

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.*

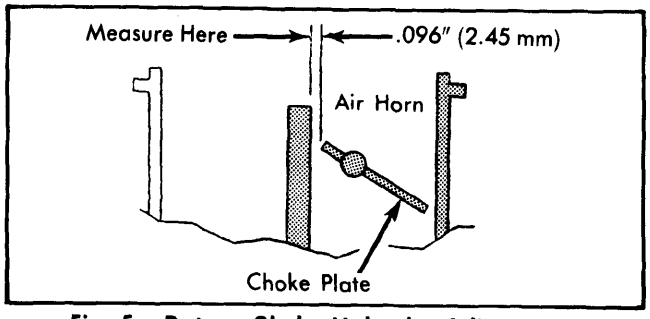

Fig. 5 Datsun Choke Unloader Adjustment

SECONDARY THROTTLE INITIAL OPENING

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

Open primary throttle valve until it is observed that secondary is just begining to open. Hold throttle in this position and measure clearance between primary throttle valve and throttle bore. If clearance is not to specifications, adjust by bending primary throttle tang. See *Fig. 6*.

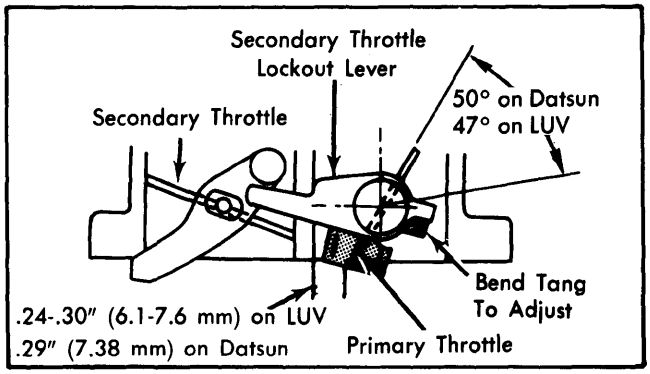

Fig. 6 Secondary Throttle Initial Opening Adjustment

CHOKE LINKAGE (FAST IDLE BENCH)

With fast idle speed screw on 1st step of fast idle cam (2nd on Datsun), invert carburetor and close choke valve. Measure clearance (angle) between throttle plate and throttle bore. If adjustment is necessary, turn fast idle speed screw. Set clearance to .032-.037" (.81-.95 mm) on Datsun Man. Trans. or .040-.046" (1.02-1.17 mm) on Datsun Auto. Trans. Set angle to 16-18° on LUV. See *Fig. 7*.

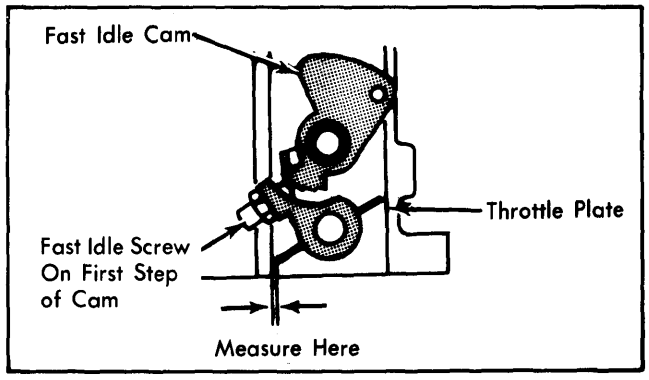

Fig. 7 Choke Linkage Adjustment

OVERHAUL

DISASSEMBLY

1) With carburetor removed, perform the following steps:

- Disconnect accelerator pump lever.
- Remove throttle return spring.
- Remove choke thermostat housing and wire.
- Remove fuel pipe nipple and strainer.
- Remove screw attaching choke lever to choke shaft.
- Move choke lever toward choke chamber.
- Remove choke connecting rod from counter lever.
- Disconnect vacuum hose from float chamber.

HITACHI DCH 340 2-BARREL (Cont.)

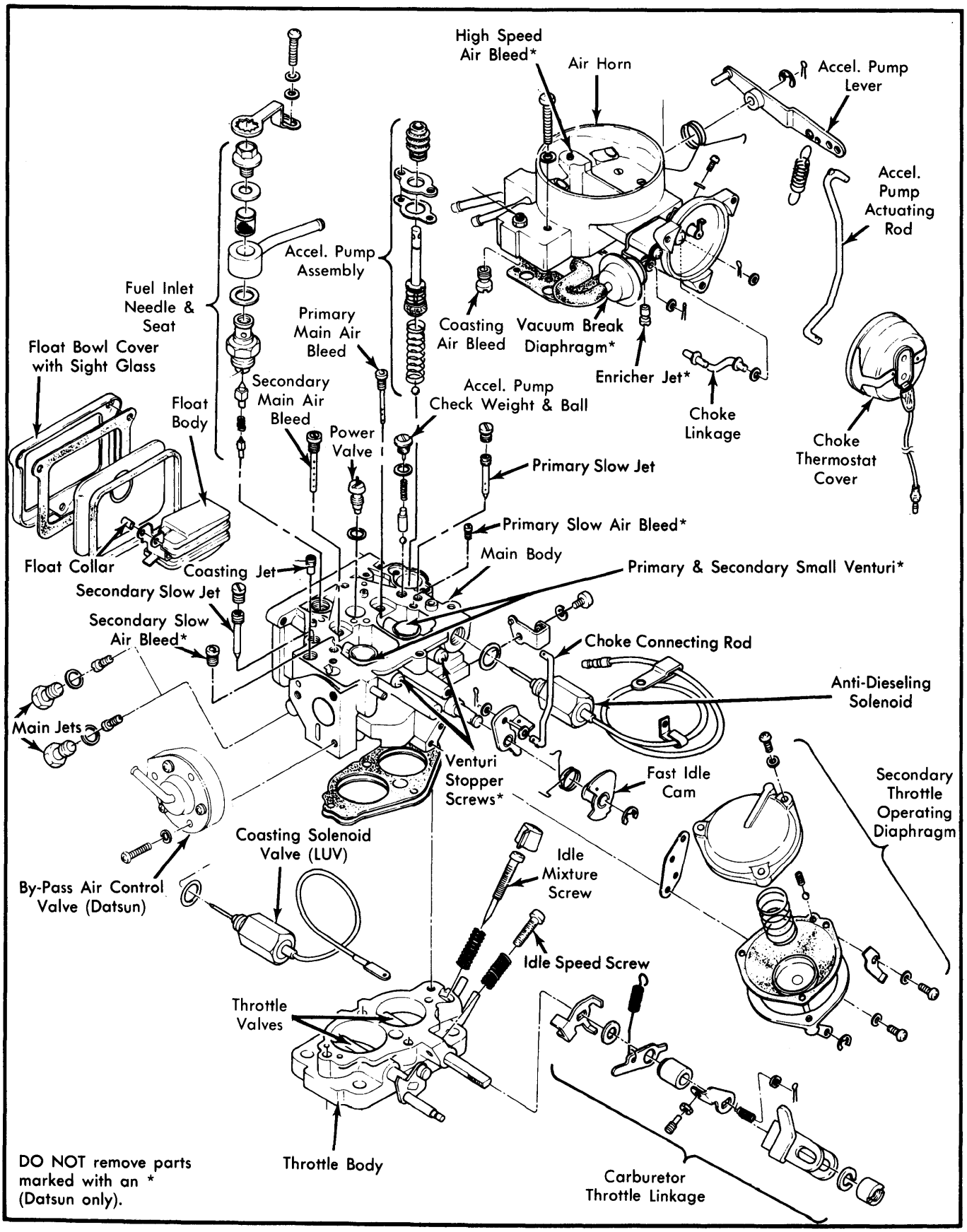

Fig. 8 Exploded View of Hitachi DCH Carburetor Assembly

HITACHI DCH 340 2-BARREL (Cont.)

2) Remove bolts attaching choke chamber from float chamber. Remove choke chamber from float chamber, then perform the following steps:

- Remove cotter pin between diaphragm rod and secondary throttle lever.
- Separate lever and diaphragm.
- Remove the two solenoid valve harness clips.
- Remove diaphragm attaching screws.
- Remove diaphragm assembly.

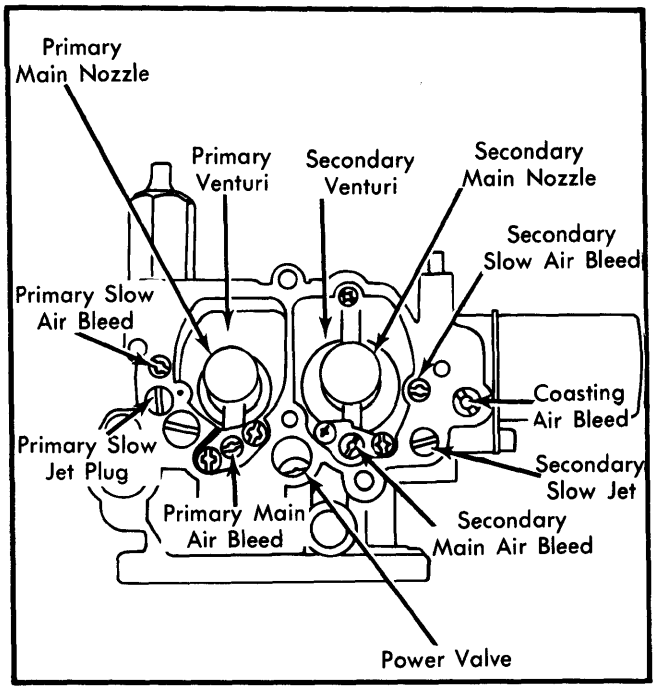

Fig. 9 Location of Jets and Small Venturi in Float Chamber

3) Separate float chamber from throttle valve body. These parts are attached by one screw on the upper part and three screws on the lower part. One of the three lower screws is used to remove the negative pressure developed in the venturi. Remove this screw carefully.

4) Remove accelerator pump plunger attaching screws. Invert float chamber and remove plunger assembly. Then perform the following:

- Remove float needle valve assembly.
- Remove float level gauge cover. Do not lose the float collar.

CAUTION — *DO NOT remove automatic choke body or vacuum break diaphragm from Datsun models.*

5) To disassemble rest of carburetor, proceed as follows:

- Remove screws attaching diaphragm cover.
- Remove diaphragm cover, spring and diaphragm. Do not lose ball and small spring.
- Remove all jets from upper part of float chamber.
- Remove small venturi from both primary and secondary venturi (on Federal models only).
- Invert float chamber.
- Remove small venturi from both primary and secondary venturi (LUV only).
- Remove injector weight plug.
- Invert float chamber and remove injector weight and ball.
- Remove power jet, main jet plugs and main jets.
- Remove primary vacuum jet.

NOTE — *Do not remove throttle valves or choke valve unless components are damaged.*

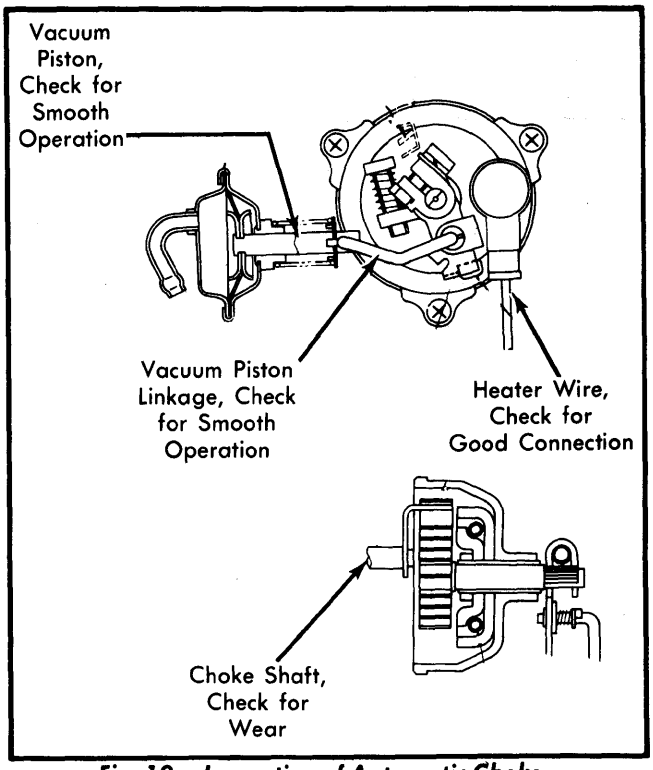

Fig. 10 Inspection of Automatic Choke

INSPECTION

Choke Chamber — Inspect choke shaft holes for wear, vacuum piston and choke valve for smoothness of operation. See *Fig. 10.*

Float Chamber — Inspect body for cracks, jointing 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, slow and idle ports for clogging. Inspect mixture screw seating and mixture screw for step wear.

REASSEMBLY

Reverse disassembly procedures and note following: Make sure jets are installed in correct positions. If choke and throttle valves have been removed, install valves making necessary adjustments and seal screws with a suitable sealer. Check accelerator pump operation by filling cylinder with gasoline and operating plunger by hand.

HITACHI DCH 340 2-BARREL (Cont.)

CARBURETOR ADJUSTMENT SPECIFICATIONS

Application	Idle Speed (Engine RPM)		Float Level Setting In. (mm)	Float Drop Setting In. (mm)	Choke Linkage Setting In. (mm)	Secondary Throttle In. (mm)	Unloader Setting In. (mm)	Vacuum Break In (mm)
	Hot	Fast						
Datsun	600①	1900-2800②	.283 (7.2)	.059 (1.5)	.032-.037③ (.81-.95)	.291 (7.4)	.096 (2.5)	.109 (2.8)
LUV	850④	3400⑤	⑥	.059 (1.5)	16-18°	.24-.30 (6.1-7.6)	.....	.11-.29 (2.7-3.5)

① — Auto. Trans. in "D" range.
② — Auto. Trans. in neutral — 2200-3200 RPM.
③ — Auto. Trans. — .040-.046" (1.02-1.17 mm).
④ — Federal Auto. Trans. — 950 RPM; All Calif. models — 900 RPM.
⑤ — Auto. Trans. — 3200 RPM.
⑥ — Float parallel with top of float bowl. See adjustment procedure.