# 1982 Hitachi Carburetors

## HITACHI DCH 340 2-BARREL

### CARBURETOR APPLICATION

*CHEVROLET & GMC CARBURETOR NO.*

| Application | Man. Trans. | Auto. Trans. |
|---|---|---|
| 1.9L 4-Cyl. "S" Truck | | |
| Federal | 8942273760 | 8942273780 |
| Calif. | 8942273700 | 8942273770 |

### DESCRIPTION

Carburetor is a 2-barrel downdraft type with piston type accelerator pump. Carburetor consists of low speed (primary) barrel and high speed (secondary) barrel integrated into a single unit with a common fuel bowl. Secondary throttle is actuated by a vacuum diaphragm when primary throttle is opened a pre-determined amount. Additional equipment includes a slow cut solenoid (all models), power valve (Federal models) and main and slow actuators (Calif. models).

The main and slow actuators on Calif. models are operated by a vacuum control solenoid. The vacuum control solenoid is controlled by an electronic control module (computer). The main and slow actuators receive vacuum signals from the vacuum control solenoid, in response to the computer. In this manner, the air/fuel ratio can be maintained close to 14.7:1.

### ADJUSTMENT

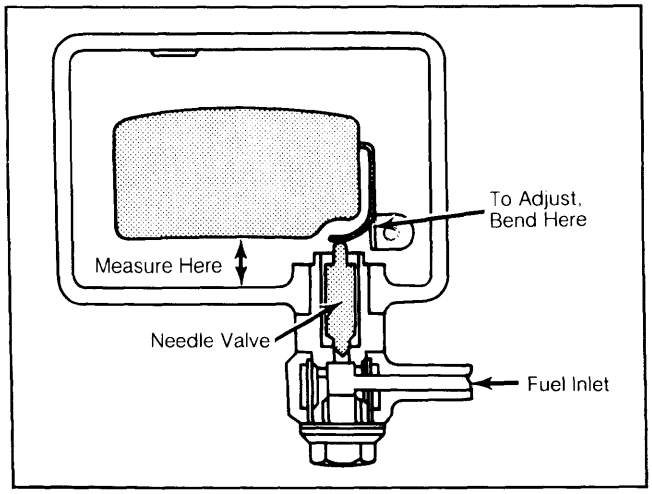
**NOTE: For all on-vehicle adjustments, see TUNE-UP SERVICE PROCEDURES.**

#### FLOAT LEVEL

**1)** Fuel bowl is equipped with a sight glass (Federal models). Line on sight glass indicates proper fuel level. If adjustment must be made to correct improper level, use following procedure.

**2)** With float bowl removed and held upright, bend float tang until float is parallel with top of float bowl.

***Fig. 1: Float Level Adjustment***



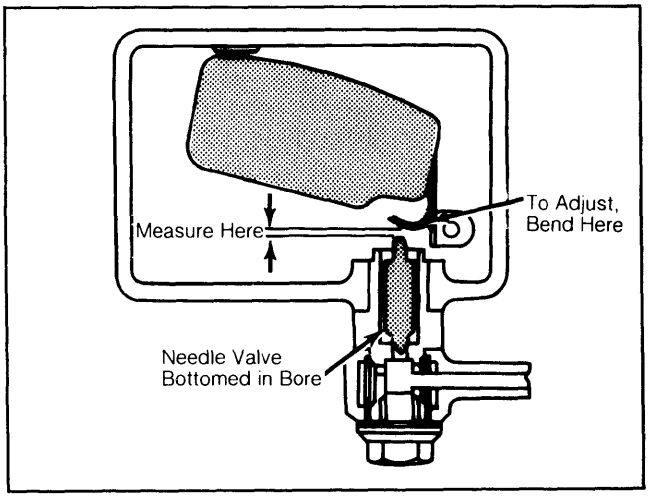

*Perform adjustment only if fuel level is not at line on sight glass.*

#### FLOAT DROP

**1)** With sight glass removed and carburetor main body inverted, fully raise float. Measure clearance between float seat and needle valve stem. Needle valve should be bottomed in bore. *See Fig. 2.*

**2)** If clearance is not as specified, adjust by bending float stopper.

***Fig. 2: Float Drop Adjustment***



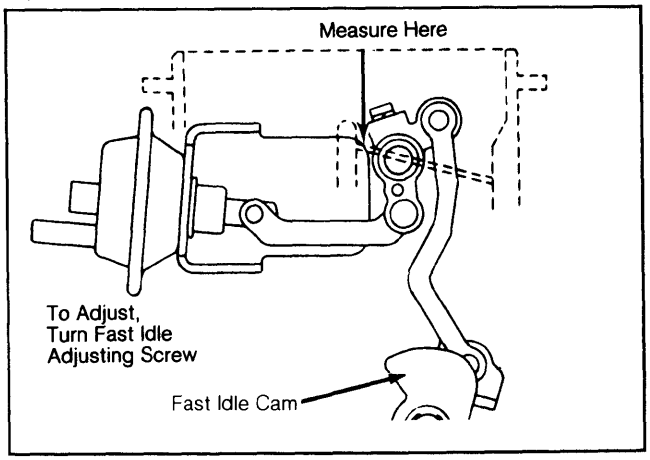

*Raise float to measure clearance.*

#### VACUUM BREAK

**1)** Fully depress vacuum break diaphragm stem and completely close choke valve. Turn throttle stop screw all the way in.

**2)** Measure clearance between choke plate and air horn wall. If clearance is not as specified, adjust by turning fast idle adjusting screw. *See Fig. 3.*

***Fig. 3: Vacuum Break Adjustment***




*Close choke and depress vacuum break diaphragm stem.*

#### SECONDARY THROTTLE INITIAL OPENING

**1)** When primary throttle valve opens 47°, 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. Secondary throttle valve will begin to open. Check and adjust as follows:

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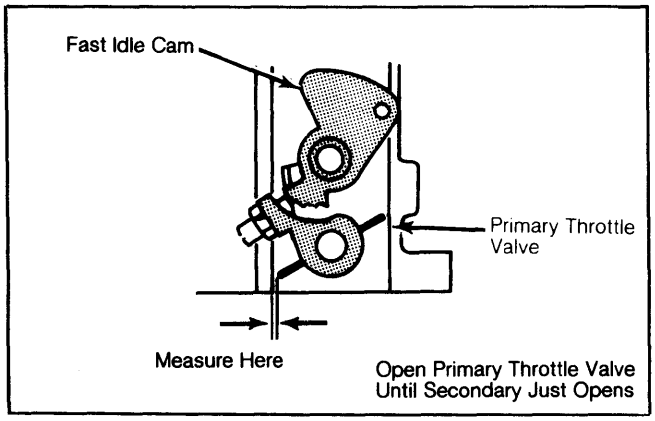
**2)** Open primary throttle valve until secondary is just beginning to open. Hold throttle in this position. Measure clearance between center of primary throttle valve and throttle bore. If clearance is not to specification, adjust by bending primary throttle tang. *See Fig. 4.*

***Fig. 4: Secondary Throttle Initial Opening Adjustment***



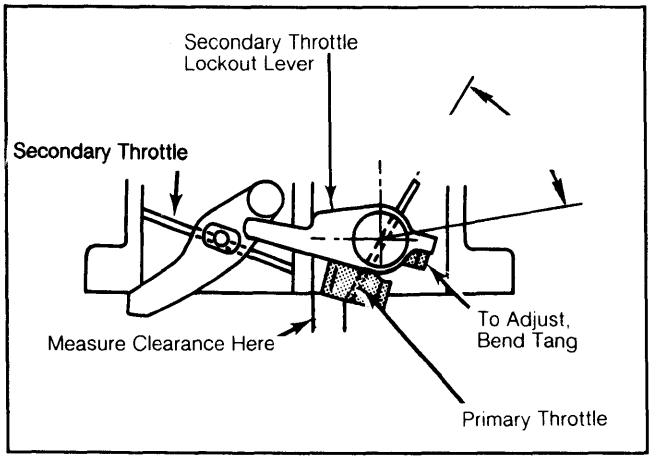

*Measure clearance between center of primary throttle valve and throttle bore.*

### SECONDARY LOCKOUT

**1)** Close primary throttle valve by turning throttle adjusting screw out.

**2)** With throttle valve completely closed, loosen lock nut on lockout lever screw. Turn screw until it contacts return plate. Tighten lock nut. *See Fig. 5.*

***Fig. 5: Secondary Lockout Adjustment***




*Perform adjustment with primary throttle valve completely closed.*

## OVERHAUL

### DISASSEMBLY

**1)** With carburetor removed, remove main and assist throttle return springs. Disconnect accelerator pump lever. Remove slow cut solenoid assembly.

**2)** On Calif. models, disconnect rubber tube from the slow actuator.

**3)** Remove throttle return springs. Flatten harness clips under choke housing at air horn. Remove leads from clips.

**4)** If equipped, disconnect automatic choke connector from the support. Disconnect choke wire from the connector.

**5)** Remove fuel inlet and filter assembly. Disconnect vent valve switch wire from the connector. Remove circlip connecting choke connecting rod to counter lever. Disconnect choke connecting rod.

**6)** Disconnect automatic choke vacuum hose. Remove 4 choke-to-air horn screws. Remove choke assembly. Remove circlip connecting vacuum break diaphragm to secondary throttle lever. Remove vacuum break diaphragm.

**7)** On Calif. models, separate main body from throttle body. Remove slow actuator.

**8)** On all models, remove accelerator pump plunger assembly. Remove float needle valve assembly.

**9)** On Federal models, remove 3 float level cover screws. Remove cover, gasket and float assembly. Do not damage rubber seal or lose float collar.

**10)** On Calif. models, remove 4 main actuator screws. Carefully remove actuator and float. Do not damage rubber seal or lose float collar.

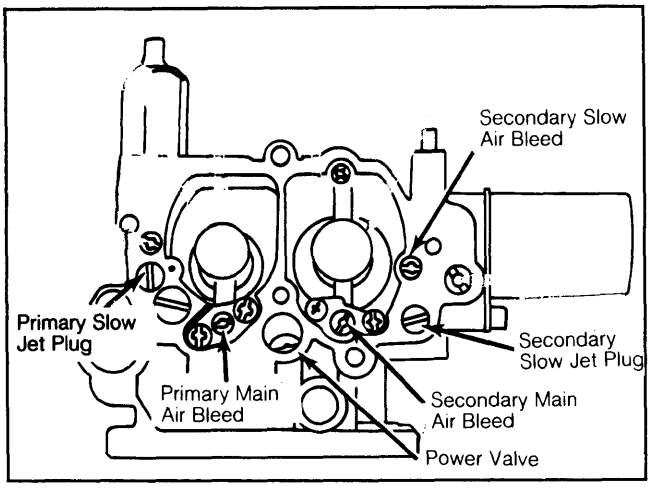
**11)** On all models, remove diaphragm cover retaining screws. Separate diaphragm cover, spring and diaphragm. Do not lose ball and spring.

**12)** Remove check ball plugs. Invert air horn assembly and catch weight, ball and spring (Calif. models) in hand. Remove all jets from upper part of main body. Remove power jet. *See Fig. 6.*

**13)** Remove main jet plugs and primary and secondary main jets. Remove primary slow air bleed from air horn.

**14)** Further disassembly is not required. Primary and secondary throttle valves, and choke valve screws are staked in position. No attempt should be made to remove screws.

***Fig. 6: Location of Jets in Main Body***




*Make sure jet wrench or screwdriver fits securely in slots of jets.*

### INSPECTION

#### Air Horn

**1)** Inspect air horn for cracks and damage. Pay particular attention to mating surfaces. Check shaft holes for wear. Check choke valve for smooth operation.

**2)** On Federal models, check vacuum piston for smooth operation.

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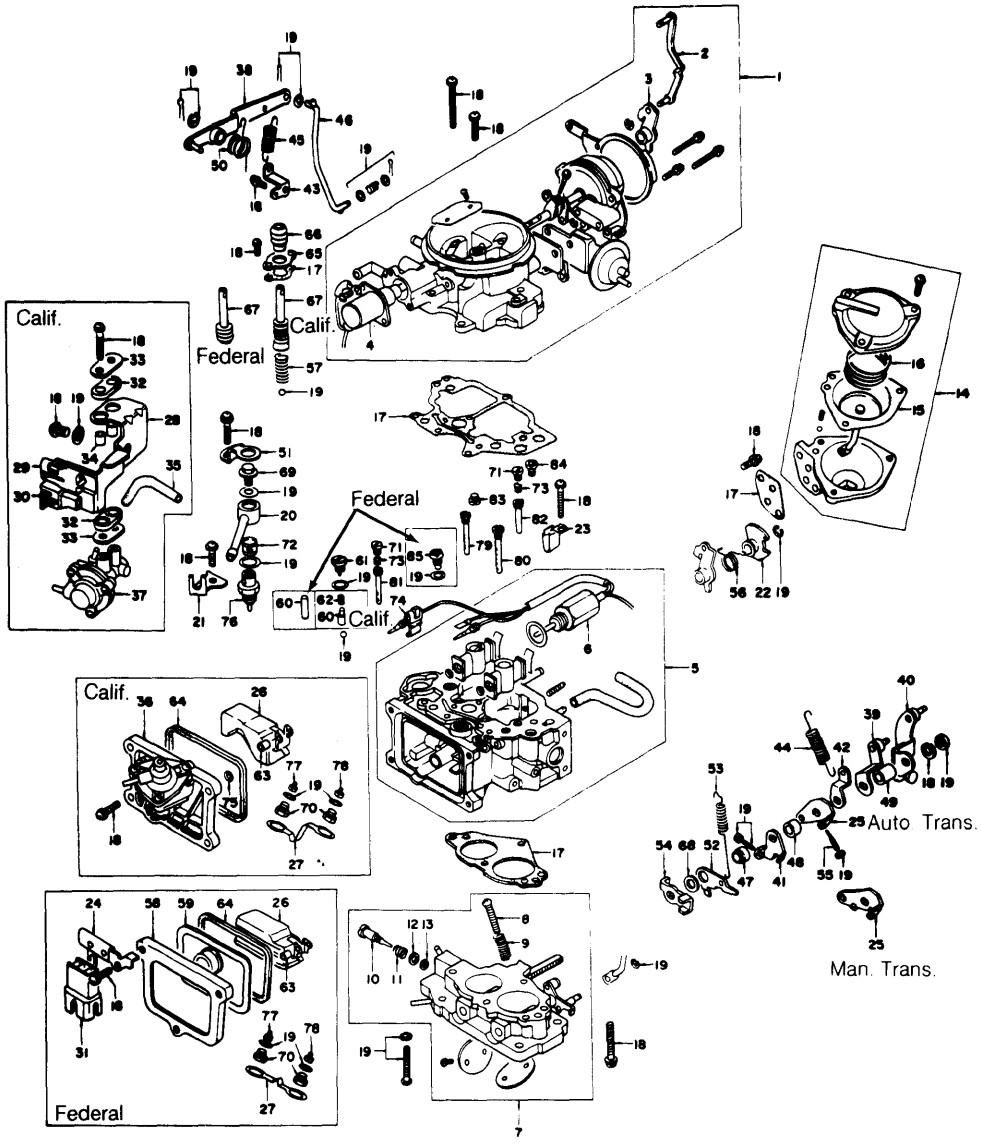
## HITACHI DCH 340 2-BARREL Cont.)

*Fig 7: Exploded View of Hitachi DCH Carburetor Assembly*




1. Air Horn Assembly
2. Choke Connecting Rod
3. Choke Counter Lever
4. Switch Vent Solenoid
5. Main Body
6. Slow Cut Solenoid
7. Throttle Body
8. Throttle Adjusting Screw
9. Throttle Adjusting Spring
10. Idle Mixture Screw
11. Idle Mixture Spring
12. Idle Mixture Washer
13. Idle Mixture Seal
14. Vacuum Break Diaphragm
15. Diaphragm
16. Diaphragm Spring
17. Gasket Kit
18. Screw & Washer Kit
19. Screw & Washer Kit
20. Fuel Inlet
21. Stop Plate
22. Fast Idle Cam
23. Wire Holder
24. Connector Hanger
25. Fast Idle Adjusting Lever
26. Float
27. Drain Plug Lock Plate
28. Connector Hanger
29. Connector
30. Connector
31. Connector
32. Rubber Mount
33. Plate
34. Collar
35. Rubber Hose
36. Main Actuator
37. Slow Actuator
38. Pump Lever
39. Accelerator Lever
40. Cruise Lever
41. Secondary Lockout Lever
42. Spring Hanger
43. Spring Hanger
44. Main Spring
45. Assist Spring
46. Pump Rod
47. Sleeve
48. Collar
49. Collar
50. Pump Lever Spring
51. Lock Lever
52. Return Plate
53. Throttle Spring
54. Adjusting Lever
55. Fast Idle Screw
56. Cam Spring
57. Piston Return Spring
58. Level Gauge Cover
59. Level Gauge
60. Weight
61. Pump Set Screw
62. Spring
63. Collar
64. Seal
65. Plate
66. Dust Cover
67. Piston
68. Throttle Shaft Washer
69. Fuel Inlet Set Screw
70. Drain Plug
71. Taper Plug
72. Filter
73. Slow Jet Spring
74. Lead Wire Connector
75. "O" Ring
76. Needle Valve
77. Primary Main Jet
78. Secondary Main Jet
79. Primary Main Air Bleed
80. Secondary Main Air Bleed
81. Primary Slow Jet
82. Secondary Slow Jet
83. Primary Slow Air Bleed
84. Secondary Slow Air Bleed
85. Power Valve

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## HITACHI DCH 340 2-BARREL (Cont.)

**Main Body**

**1)** Inspect and remove carbon deposits from inside main body. Inspect for cracks and damage, particularly on mating surfaces. Inspect threaded portion and head slots of jets for damage.

**2)** On Federal models, check power valve for leaks. Check power valve rod for bending and smooth operation.

**3)** On all models, inspect accelerator pump plunger for damage and distortion. Check for smooth plunger movement within cylinder bore.

**Throttle Body**

**1)** Check all ports for clogging. Inspect throttle valves for carbon deposits and wear. Check throttle shaft holes for wear.

**2)** Check mixture adjusting screw seating face for step wear. Check vacuum break diaphragm for deterioration and damage.

### REASSEMBLY

Reverse disassembly procedures and note the following:

**1)** On Federal models, be careful not to bend rod when installing power jet valve.

**2)** On California models, apply grease to main actuator "O" ring during assembly. Carefully tighten the screws to prevent cracking "O" ring.

**3)** On all models, fill accelerator pump cavity with fuel after assembly. Depress accelerator pump and ensure fuel is injected smoothly. Do not bend piston connecting rod during assembly.

### *CARBURETOR ADJUSTMENT SPECIFICATIONS*

| Application | Float Level | Float Drop | Choke Linkage | Secondary Throttle | Secondary Lockout | Vacuum Break |
|---|---|---|---|---|---|---|
| 8942273700 | [1] | .059" | 16-18° | .240-.300" | [2] | .050-.059" |
| 8942273760 | [1] | .059" | 16-18° | .240-.300" | [2] | .050-.059" |
| 8942273770 | [1] | .059" | 16-18° | .240-.300" | [2] | .059-.069" |
| 8942273780 | [1] | .059" | 16-18° | .240-.300" | [2] | .059-.069" |

[1] — Float parallel with top of float bowl.
[2] — Adjusting screw contacting return plate with throttle valve closed.