

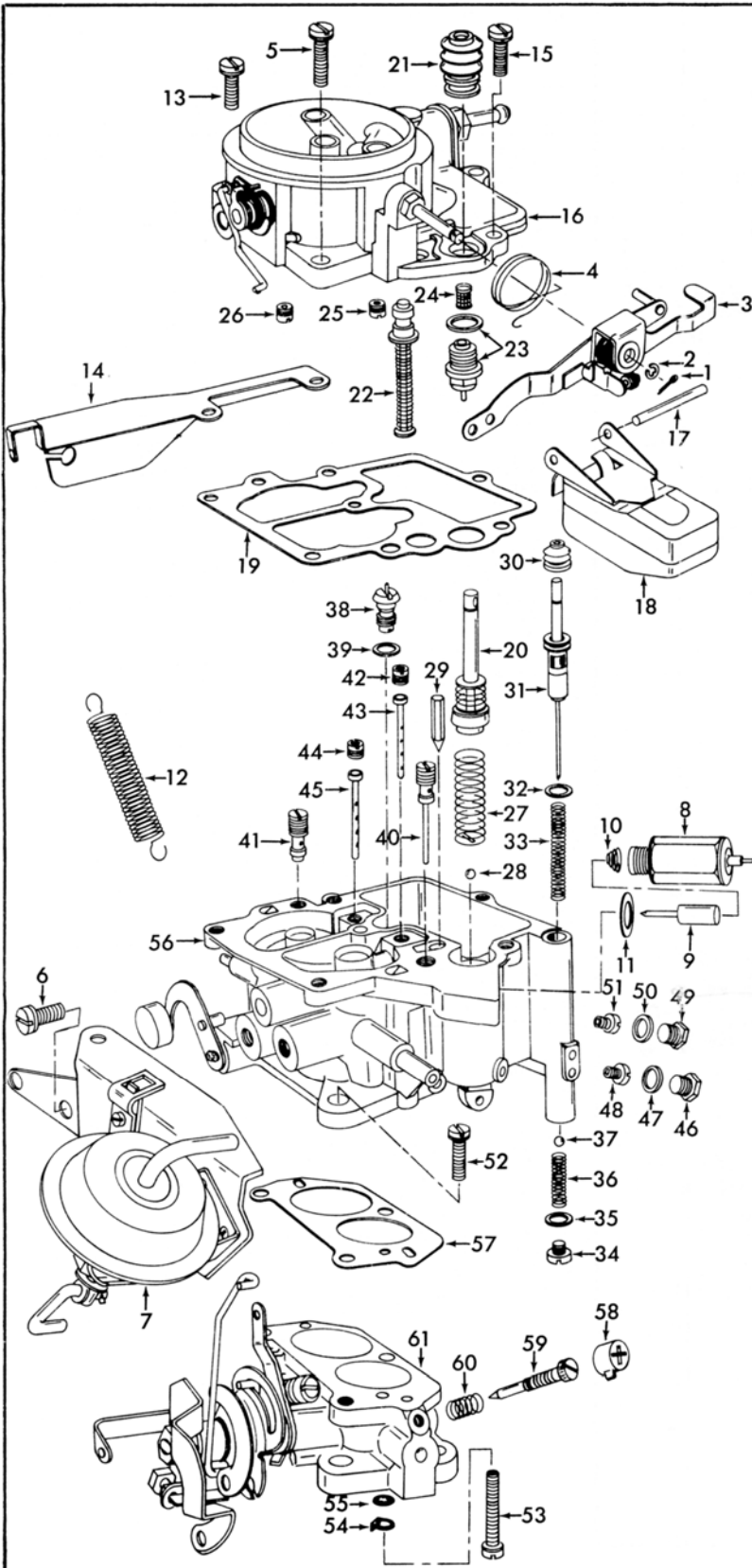
INSTRUCTION SHEET

HITACHI CARBURETOR — MODEL DCG-306

50-427-5

GENERAL EXPLODED VIEW

THE GENERAL DESIGN AND PARTS SHOWN WILL VARY TO
INDIVIDUAL UNITS COVERED ON THIS INSTRUCTION SHEET



DISASSEMBLY

USE EXPLODED VIEW AS A GUIDE. THE NUMERICAL SEQUENCE MAY GENERALLY BE FOLLOWED TO DISASSEMBLE UNIT FAR ENOUGH TO PERMIT CLEANING AND INSPECTION. REMOVE STAKING FROM BOWL COVER FOR EASY REMOVAL OF POWER PISTON ASSY. (22). SECONDARY FUEL VALVE PLUNGER ASSY. (31) IS PRESSED IN CAREFULLY PRY OUT. **CAUTION:** NOTE SIZES OF JETS AND THEIR LOCATION FOR PROPER ASSY. (RECORD SIZES BELOW.)

NOMENCLATURE

REF. NO.	REF. NO.
1. COTTER PIN - PUMP LEVER ASSY.	31. PLUNGER ASSY. - SECONDARY FUEL VALVE
2. E CLIP - PUMP LEVER ASSY.	32. GASKET - PLUNGER ASSY.
3. LEVER ASSY. - PUMP	33. SPRING - PLUNGER RETURN
4. SPRING - PUMP LEVER	34. PLUG - SECONDARY FUEL VALVE
5. SCREW & LOCKWASHER (1) - SERVO DIAPHRAGM ASSY.	35. GASKET - PLUG
6. SCREW & LOCKWASHER (2) - SERVO DIAPHRAGM ASSY.	36. SPRING - SECONDARY VALVE BALL
7. SERVO DIAPHRAGM ASSY.	37. BALL - SECONDARY FUEL VALVE
8. SOLENOID ASSY. - ANTIDIESELING	38. POWER VALVE
9. PLUNGER - SOLENOID	39. GASKET - POWER VALVE
10. SPRING - SOLENOID PLUNGER	40. JET - PRIMARY SLOW
11. GASKET - SOLENOID ASSY.	41. JET - SECONDARY SLOW
12. SPRING - THROTTLE RETURN	42. JET - PRIMARY MAIN AIR BLEED
13. SCREW & LOCKWASHER (2) - BOWL COVER	43. TUBE - PRIMARY EMULSION (LARGE)
14. BRACKET - THROTTLE CABLE	44. JET - SECONDARY MAIN AIR BLEED
15. SCREW & LOCKWASHER (2) - BOWL COVER	45. TUBE - SECONDARY EMULSION (SMALL)
16. BOWL COVER ASSY.	46. PLUG - PRIMARY MAIN JET
17. PIN - FLOAT	47. GASKET - PLUG
18. FLOAT & LEVER ASSY.	48. JET - PRIMARY MAIN JET
19. GASKET - BOWL COVER	49. PLUG - SECONDARY MAIN JET
20. PUMP ASSY.	50. GASKET - PLUG
21. BOOT - PUMP	51. JET - SECONDARY MAIN JET
22. POWER PISTON ASSY.	52. SCREW & LOCKWASHER (2) - THROTTLE BODY
23. NEEDLE, SEAT & GASKET ASSY.	53. SCREW (HOLLOW) - THROTTLE BODY
24. SCREEN - FUEL FILTER	54. BAFFLE WASHER - HOLLOW SCREW
25. JET - PRIMARY SLOW AIR BLEED	55. LOCKWASHER - HOLLOW SCREW
26. JET - SECONDARY SLOW AIR BLEED	56. BOWL ASSY.
27. SPRING - PUMP RETURN	57. GASKET - THROTTLE BODY
28. BALL - PUMP INTAKE CHECK (SMALL)	58. CAP - IDLE LIMITER (WHEN USED)
29. NEEDLE - PUMP DISC. CHECK	59. NEEDLE - IDLE ADJUSTING
30. BOOT - SECONDARY FUEL VALVE PLUNGER	60. SPRING - IDLE ADJ. NEEDLE
	61. THROTTLE BODY ASSY.

CLEANING

CLEANING MUST BE DONE WITH CARBURETOR DISASSEMBLED. SOAK PARTS LONG ENOUGH TO SOFTEN AND REMOVE ALL FOREIGN MATERIAL. USE A CARBURETOR CLEANING SOLVENT. MAKE CERTAIN THE THROTTLE BODY IS FREE OF ALL CARBON DEPOSITS. WASH OFF IN SUITABLE SOLVENT. BLOW OUT ALL PASSAGES IN CASTINGS WITH COMPRESSED AIR AND CHECK CAREFULLY TO INSURE THOROUGH CLEANING OF OBSCURE AREAS. **CAUTION:** BE VERY CAREFUL NOT TO LEAVE FUEL BOWL ASSY. (56) IN CLEANING SOLVENT TO LONG BECAUSE OF THE GLASS WINDOW RUBBER SEAL WHICH IS NOT REPLACEABLE. DO NOT SOAK ASSEMBLYS WITH ATTACHED PLASTIC PARTS FOR A LONG PERIOD OF TIME. DO NOT SOAK ANY PARTS CONTAINING RUBBER OR DIAPHRAGM AND SOLENOID ASSEMBLYS.

REASSEMBLY

REASSEMBLE IN REVERSE ORDER OF DISASSEMBLY. NOTE SPECIAL INSTRUCTIONS AND FOLLOW NUMERICAL OUTLINE IN MAKING ADJUSTMENTS NECESSARY FOR CARBURETOR BEING SERVICED.

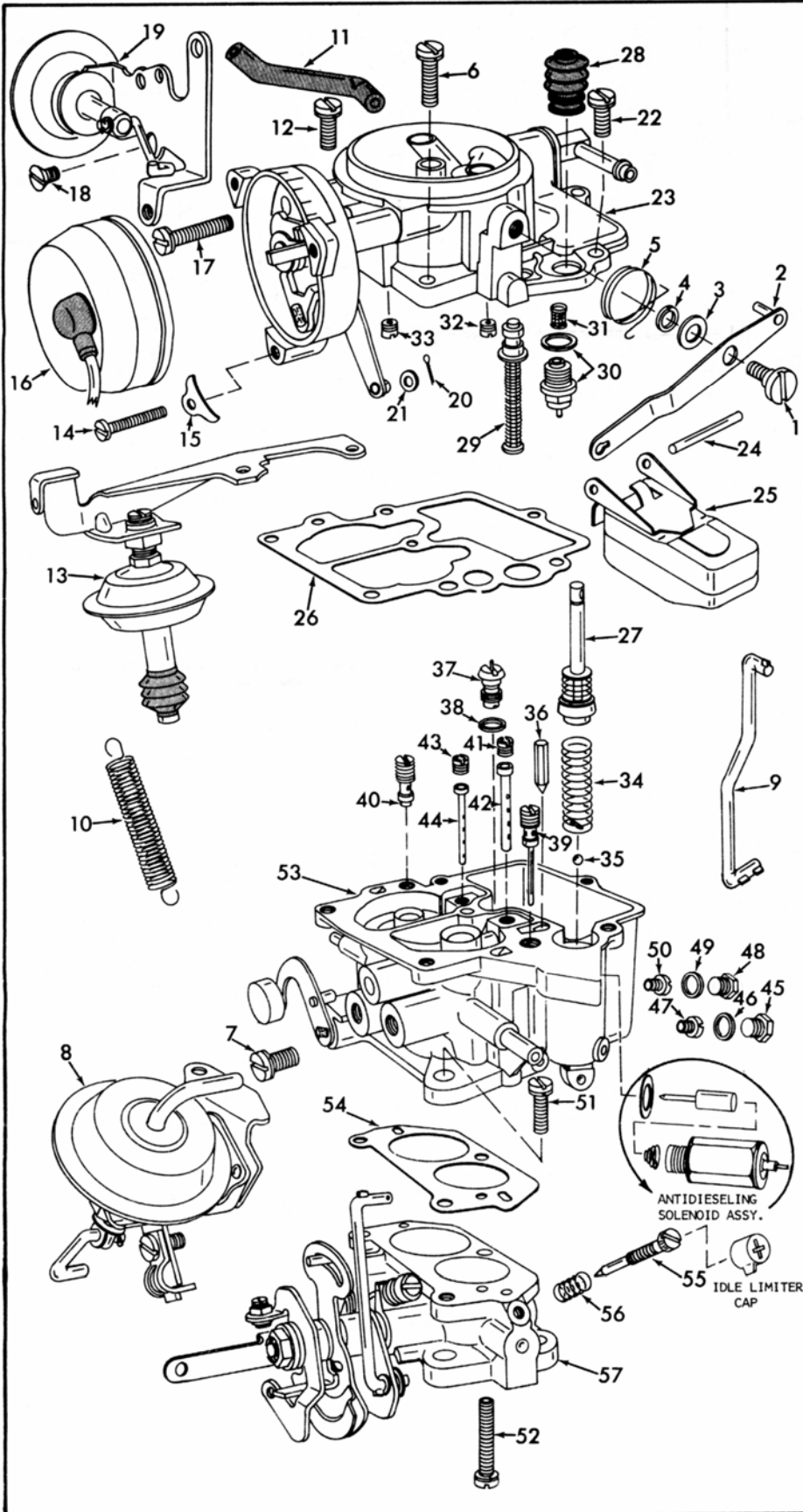
SPECIAL INSTRUCTIONS

- IDLE ADJUSTING NEEDLE (59) - TURN NEEDLE IN UNTIL LIGHTLY SEATED THEN BACK OUT 2 TURNS. (DO NOT INSTALL IDLE LIMITER CAPS AT THIS TIME.)
- BAFFLE WASHER (54) - WHEN INSTALLING, BAFFLE BLOCKS PRIMARY SIDE OF PASSAGE.
- SECONDARY FUEL VALVE PLUNGER ASSY. (31) - WHEN INSTALLING ALINE OPENING IN SLEEVE WITH PASSAGE IN FUEL BOWL.
- PUMP RETURN SPRING (27) - INSTALL WITH CROSS WIRE TO THE BOTTOM OF PUMP CYLINDER.
- POWER PISTON (22) - AFTER INSTALLING LIGHTLY RESTAKE CASTING AROUND WASHER.
- PUMP PLUNGER (20) - BEFORE INSTALLING FLEX LEATHER OUTWARD SLIGHTLY. SOAK CUP IN GASOLINE, KEROSENE OR OIL FOR A FEW MINUTES PRIOR TO PLACING IN CARBURETOR.
- PUMP LEVER (3) - HOOK PUMP ROD IN INNER HOLE OF LEVER.

INSTRUCTION SHEET HITACHI CARBURETOR — MODEL DCH-306

GENERAL EXPLODED VIEW

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DISASSEMBLY

USE EXPLODED VIEW AS A GUIDE. THE NUMERICAL SEQUENCE MAY GENERALLY BE FOLLOWED TO DISASSEMBLE UNIT FAR ENOUGH TO PERMIT CLEANING AND INSPECTION. REMOVE STAKING FROM BOWL COVER FOR EASY REMOVAL OF POWER PISTON ASSY. (29). CAUTION: NOTE SIZES OF JETS AND THEIR LOCATION FOR PROPER ASSY. (RECORD SIZES BELOW.)

NOMENCLATURE

REF. NO.	REF. NO.
1. SCREW - PUMP LEVER	30. NEEDLE, SEAT & GASKET ASSY.
2. PUMP LEVER	31. SCREEN - FUEL FILTER
3. WASHER - PUMP LEVER SCREW	32. JET - PRIMARY SLOW AIR BLEED
4. LOCKWASHER - PUMP LEVER SCREW	33. JET - SECONDARY SLOW AIR BLEED
5. SPRING - PUMP LEVER SPEED UP CONTROL	34. SPRING - PUMP RETURN
6. SCREW & LOCKWASHER (1) - SPEED UP CONTROL	35. BALL - PUMP INTAKE CHECK
7. SCREW & LOCKWASHER (2) - SPEED UP CONTROL	36. NEEDLE - PUMP DISCHARGE CHECK
8. SPEED UP CONTROL ASSY.	37. POWER VALVE
9. ROD - PUMP LEVER	38. GASKET - POWER VALVE
10. SPRING - THROTTLE RETURN	39. JET - PRIMARY SLOW
11. HOSE - VAC. BREAK	40. JET - SECONDARY SLOW
12. SCREW & LOCKWASHER (2) - DASHPOT BRACKET	41. JET - PRIMARY MAIN AIR BLEED
13. DASHPOT & BRACKET ASSY.	42. TUBE - PRIMARY EMULSION (LARGE)
14. SCREW (3) - CHOKE COVER RETAINER (2SHORT, 1 LONG)	43. JET - SECONDARY MAIN AIR BLEED
15. RETAINER (3) - CHOKE COVER	44. TUBE - SECONDARY EMULSION (SMALL)
16. CHOKE COVER ASSY.	45. PLUG - PRIMARY MAIN JET
17. SCREW & LOCKWASHER (2) - CHOKE HOUSING	46. GASKET - PLUG
18. SCREW - VACUUM BREAK BRACKET	47. JET - PRIMARY MAIN
19. VACUUM BREAK ASSY.	48. PLUG - SECONDARY MAIN JET
20. COTTER PIN - CHOKE ROD	49. GASKET - PLUG
21. WASHER - CHOKE ROD	50. JET - SECONDARY MAIN
22. SCREW & LOCKWASHER (2) - BOWL COVER	51. SCREW & LOCKWASHER (2) - THROTTLE BODY
23. BOWL COVER ASSY.	52. SCREW & LOCKWASHER (HOLLOW) - THROTTLE BODY
24. PIN - FLOAT	53. BOWL ASSEMBLY
25. FLOAT & LEVER ASSY.	54. GASKET - THROTTLE BODY
26. GASKET - BOWL COVER	55. NEEDLE - IDLE ADJUSTING
27. PUMP ASSY.	56. SPRING - IDLE ADJ. NEEDLE
28. BOOT - PUMP	57. THROTTLE BODY ASSEMBLY
29. POWER PISTON ASSY.	

CLEANING

CLEANING MUST BE DONE WITH CARBURETOR DISASSEMBLED. SOAK PARTS LONG ENOUGH TO SOFTEN AND REMOVE ALL FOREIGN MATERIAL. CAUTION: BE VERY CAREFUL NOT TO LEAVE FUEL BOWL ASSY. (53) IN CLEANING SOLVENT TOO LONG BECAUSE OF GLASS WINDOW RUBBER SEAL WHICH IS NOT REPLACEABLE. USE A CARBURETOR CLEANING SOLVENT. MAKE CERTAIN THE THROTTLE BODY IS FREE OF ALL CARBON DEPOSITS. WASH OFF IN SUITABLE SOLVENT. BLOW OUT ALL PASSAGES IN CASTINGS WITH COMPRESSED AIR AND CHECK CAREFULLY TO INSURE THOROUGH CLEANING OF OBSCURE AREAS. DO NOT SOAK RUBBER OR PLASTIC PARTS IN SOLVENTS. BEING CAREFUL OF DIAPHRAGM ASSY'S (8)(13)(19) AND CHOKE COVER ASSY. (16).

REASSEMBLY

REASSEMBLE IN REVERSE ORDER OF DISASSEMBLY. NOTE: SPECIAL INSTRUCTIONS AND ADJUSTMENTS.

SPECIAL INSTRUCTIONS

IDLE ADJUSTING NEEDLE (55) - TURN NEEDLE IN UNTIL LIGHTLY SEATED THEN BACK OUT 2 TURNS.

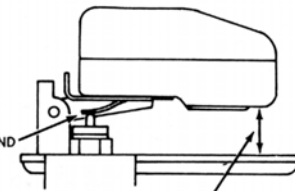
PUMP RETURN SPRING (34) - INSTALL WITH CROSS WIRE TO THE BOTTOM OF PUMP CYLINDER.

PUMP PLUNGER (27) - REMOVE PAPER SLEEVE FROM LEATHER CUP IF USED. FLEX LEATHER OUTWARD SLIGHTLY. SOAK CUP IN GASOLINE, KEROSENE OR OIL FOR A FEW MINUTES PRIOR TO PLACING IN CARBURETOR.

POWER PISTON (29) - AFTER INSTALLATION LIGHTLY RESTAKE CASTING AROUND WASHER.

ADJUSTMENTS

① BOWL COVER INVERTED, RAISE FLOAT AND THEN LOWER IT SLOWLY UNTIL FLOAT SEAT MAKES CONTACT WITH STEM OF NEEDLE VALVE. (DO NOT COMPRESS SPRING LOADED NEEDLE.)



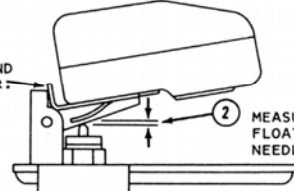
③ TO ADJUST BEND FLOAT SEAT.

② MEASURE DISTANCE BETWEEN END OF FLOAT AND BOWL COVER. (SEE DATA TABLE)

CAUTION: DO NOT EXERT PRESSURE ON RESILIENT NEEDLE VALVE.

DRY FLOAT LEVEL ADJUSTMENT FIG. 1

① BOWL COVER INVERTED, RAISE FLOAT UNTIL FLOAT STOPPER CONTACTS CARBURETOR BODY.




③ TO ADJUST BEND FLOAT STOPPER.

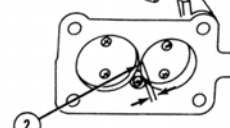
② MEASURE DISTANCE BETWEEN FLOAT SEAT AND STEM OF NEEDLE VALVE.

CLEARANCE ALL .051"-.067" 1.30-1.70 MM

FLOAT DROP ADJUSTMENT FIG. 2



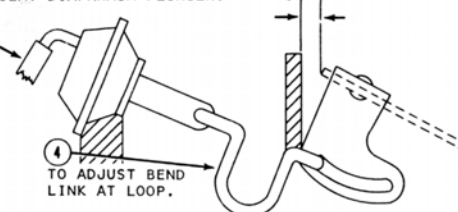
① PLACE FAST IDLE ARM ON SECOND STEP OF FAST IDLE CAM.



③ TO ADJUST TURN FAST IDLE SCREW.

② MEASURE CLEARANCE BETWEEN LOWER EDGE OF PRIMARY VALVE AND THROTTLE BORE. (SEE DATA TABLE)

FAST IDLE ADJUSTMENT (BENCH) FIG. 3



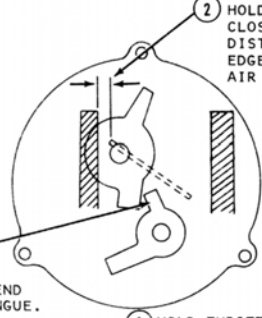
③ MEASURE DISTANCE BETWEEN UPPER EDGE OF CHOKE VALVE AND AIR HORN WALL. (SEE DATA TABLE)

② APPLY OUTSIDE VACUUM SOURCE TO FULLY SEAT DIAPHRAGM PLUNGER.

④ TO ADJUST BEND LINK AT LOOP.

① HOLD CHOKE VALVE COMPLETELY CLOSED. (OPEN THROTTLE TO RELEASE FAST IDLE CAM.)

VACUUM BREAK ADJUSTMENT FIG. 4



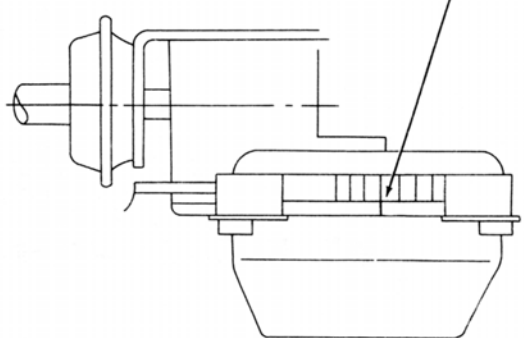
② HOLD CHOKE VALVE TOWARD CLOSED POSITION. MEASURE DISTANCE BETWEEN UPPER EDGE OF CHOKE VALVE AND AIR HORN WALL. (SEE DATA TABLE)

③ TO ADJUST BEND UNLOADER TONGUE.

① HOLD THROTTLE VALVE IN WIDE OPEN POSITION.

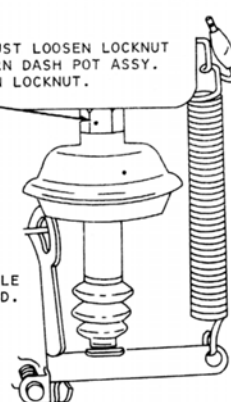
CHOKE UNLOADER ADJUSTMENT FIG. 5

ROTATE CHOKE COVER TO ALIGN COVER INDEX MARK WITH CENTER INDEX MARK ON CHOKE HOUSING.



AUTOMATIC CHOKE ADJUSTMENT FIG. 6

③ TO ADJUST LOOSEN LOCKNUT AND TURN DASH POT ASSY. TIGHTEN LOCKNUT.



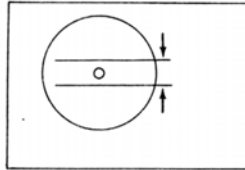
② OPEN THROTTLE BY HAND, SLOWLY RETURN THROTTLE UNTIL THROTTLE LEVER JUST TOUCHES DASH POT PLUNGER. CHECK R.P.M. AT THIS POINT.

① CURB IDLE ADJUSTED.

1972-74	1900 - 2000 R.P.M.
1975-78	M/T 2300 - 2400 R.P.M.
Calif.	M/T 1900 - 2000 R.P.M.
All	A/T 1900 - 2000 R.P.M.

DASH POT ADJUSTMENT FIG. 7

ON COMPLETION OF CARBURETOR ADJUSTMENTS, VEHICLE SETTING LEVEL WITH ENGINE RUNNING AT CURB IDLE. CHECK WET FUEL LEVEL AT SIGHT WINDOW OF CARBURETOR BOWL. NORMAL VARIATION IS 1 MM, .039" ABOVE OR BELOW INDICATOR POINT. (ALTER FLOAT LEVEL IF NECESSARY.)



(ON CAR) FUEL LEVEL CHECK FIG. 8

ADJUSTMENT DATA TABLE

Application	Float Level Setting		Fast Idle Adjustment		Vacuum Break Adjustment		Unloader	
	Decimal	MM	Decimal	MM	Decimal	MM	Decimal	MM
DATSUN								
1970-71	.413"	10.50MM	-----	-----	-----	-----	-----	-----
1972-74	M/T .413"	10.50MM	.031"-.034"	.80-.88MM	.044"-.049"	1.14"-1.26MM	.085"	2.17MM
	A/T .413"	10.50MM	.042"-.046"	1.07-1.17MM	.047"-.053"	1.20-1.33MM	.085"	2.17MM
1975-77	M/T .590"	15.MM	.031"-.034"	.80-.88MM	.053"-.058"	1.36-1.48MM	.085"	2.17MM
	A/T .590"	15.MM	.042"-.046"	1.07-1.17MM	.056"-.061"	1.44-1.56MM	.085"	2.17MM
1978	.590"	15.MM	.028-.038"	.73-.84MM	.078"-.085"	1.98-2.16MM	.085"	2.17MM
1979 5sp. H/B Fed.	M/T .590"	15.MM	.029"-.034"	.73-.87MM	.079"-.085"	1.98-2.17MM	.093"	2.36MM
1979	A/T .590"	15.MM	.039"-.045"	1.-1.14MM	.071"-.078"	1.80-1.98MM	.094"	2.36MM
1979-80	M/T .590"	15.MM	.029"-.034"	.74-.87MM	.071"-.078"	1.80-1.98MM	.093"	2.36MM
HONDA								
1973-75	.440"	11.10MM	.032"	.80MM	-----	-----	-----	-----
MAZDA								
1976-78	Fed. .440"	11.10MM	.052"	1.32MM	.044"-.056"	1.15-1.45M	-----	-----
	Calif. .440"	11.10MM	.052"	1.32MM	.063"-.077"	1.61"-1.95MM	-----	-----
1979	.440"	11.10MM	.054"	1.37MM	.050"	1.27MM	.090"	2.28MM