



General Instructions

- Take lots of pictures as you take your carburetor apart. This will give you a reference of where things go.
- Using a cookie sheet with folded up sides will help keep parts from falling on the floor.
- We suggest not removing the throttle shaft, valves, or choke shaft unless they are corroded, or very dirty. These parts can be easily damaged and are difficult to re-assemble.
- Instruction sheets that come with our carburetor kits are somewhat generic. It may not match your parts exactly.
- Do NOT use WD-40 around your carburetor. It reacts with ethanol.
- Using Silicon Spray Lubricant on the gaskets will help with sticking in case you need to take the carburetor apart again.
- Be careful after taking the top of the carburetor off. Turning the carburetor upside down may cause parts to fall out and you won't know where they were.
- Screws and jets that are frozen can often be removed after heating outside the screw or jet.
- Stuck check balls can be removed by heating the outside of where the check ball resides and tapping the carburetor on the work bench.
- Do not discard any parts until complete done. You may have to refer for size, or matching.

Cleaning:

- Clean with carburetor dis-assembled.
- Soak all parts except rubber & electrical in Simple Green for 2 hours. Aluminum parts will get discolored if left longer.
- Wash parts with hot water if available to remove all chemicals.
- Blow out each passage way taking special notice of the smaller ones. Test each passage that air goes through the entire passage.
- Blow out the idle mixture hole.

- Check any hole above the idle mixture hole (inside the bore). This is the idle discharge and often becomes plugged.
- A tooth brush can facilitate cleaning parts.
- Soda blasting, then washing again will make the carburetor look good any will clean any minor deposits.
- Any corrosion, or deposits that are hard to remove may indicate the passages are also corroded and the carburetor should be replaced.
- If your engine has been sitting for 6 months or more, the gas has probably turned, and the gas tank will need to be cleaned as well as the fuel lines. Flushing new gas through the tank will not be enough.

Assembly:

- Do NOT apply any gasket sealant on any of the gaskets. Gas will break sealant part and the particles will clog the small passages.
- Test your float.
 - Brass floats should be immersed into hot water. As the air inside expands any leak will be noticeable with air bubbles.
 - Plastic, or Nitrophyl floats should be weighed. The weight is in grams. Check our technical pages for any weight specification that we may have.
- Most gaskets will fit as expected, but you may have to trim some, especially under the venturis.
- Your kit may include multiple gaskets in order to get better coverage out of the kit. Use the one that fits the best. Look for any opening the gasket may leave allowing air into the carburetor. Some holes may be casting holes that don't lead to anything and do not have to be covered.
- Mounting gaskets for multiple bore carburetors do not have to have matching holes. Example a four-barrel gasket can be open in the middle instead of 4 holes as long as the carburetor has some kind of passage between bores. The passage is between primary, or secondary, not both.
- When adjusting the float be careful not to put any pressure on the needle. The viton tip is easily damaged.
- Most idle mixture screws can be cleaned using a soft wire wheel. Inspect for any scoring, which would indicate over tightening. Screw with scoring should be replaced.

Accelerator Pumps:

- On leather cups run your finger around the inside of the cup to break any manufacturer sealant.
- Apply 2 drops of oil to cups (leather, or rubber) before inserting into carburetor. Do not soak the cup in oil. The swelling of the cup needs to happen inside the carburetor. Allow the 2 drops of oil and the gas to do its job naturally.
- Twist the pump as you are inserting to help keep the cup from curling or folding over.
- Test your accelerator pump circuit before putting the top of the carburetor back on. Our technical pages have instructions on how to do this for most carburetor types.
- Pump wells are usually slight tapered, and the pump will not seal until it gets towards the bottom.

INSTRUCTION SHEET

OFF VEHICLE CARBURETOR SERVICE

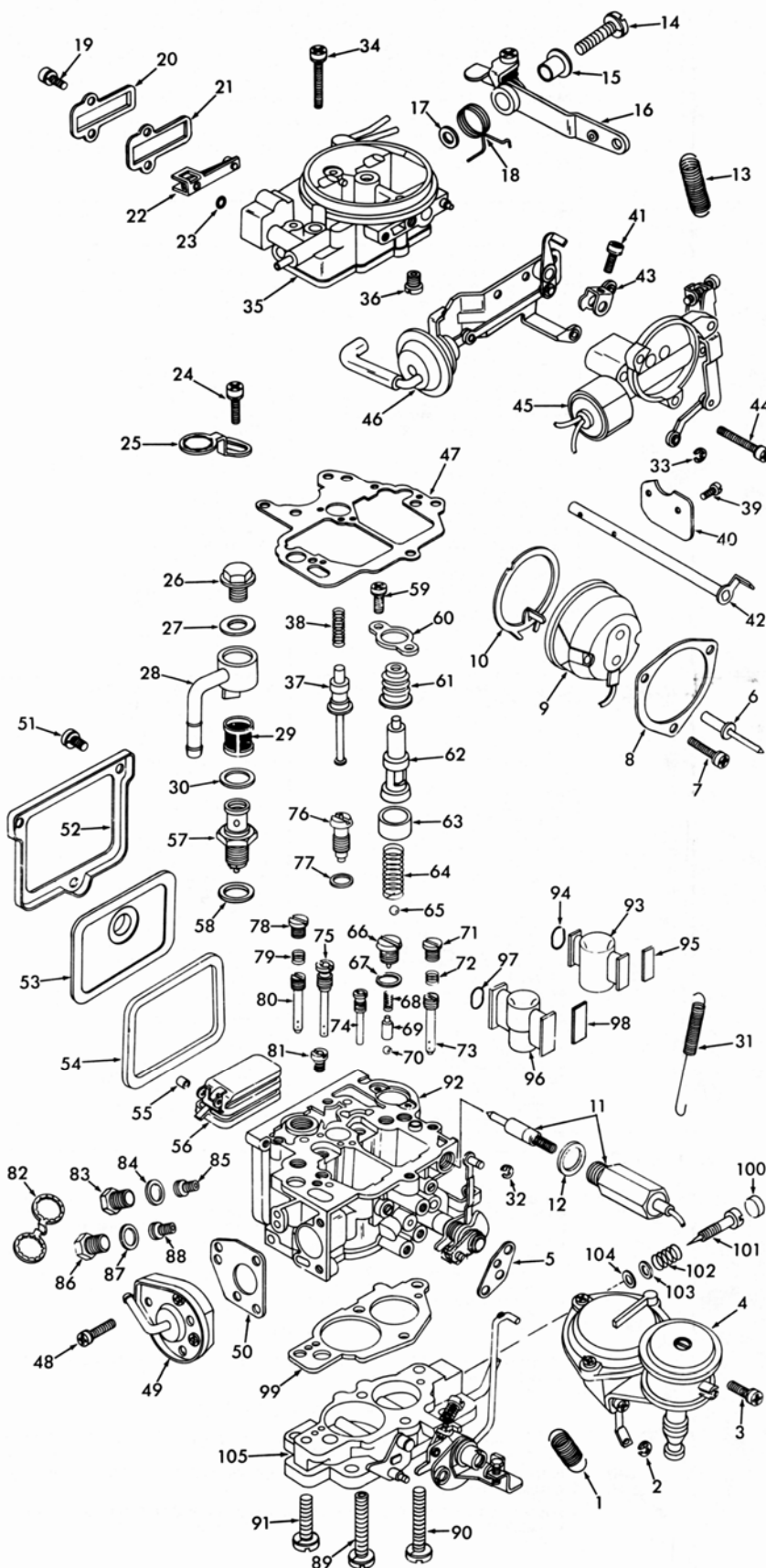
HITACHI-MODEL DCR 360,342

Z20S, Z22 ENGINE

50-601-3

GENERAL EXPLODED VIEW

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



DISASSEMBLY

USE THE EXPLODED VIEW AS A GUIDE. THE NUMERICAL SEQUENCE MAY GENERALLY BE FOLLOWED TO DISASSEMBLE UNIT FAR ENOUGH TO PERMIT CLEANING AND INSPECTION. CAUTION: ORIGINALLY SCREWS HAVE LOCK TIGHT APPLIED TO THEM TAKE EXTRA CARE IN REMOVING THEM. USE PROPER TOOLS. DRILL OR CUT OFF POP RIVET HEADS TO REMOVE CHOKE COVER (9). REMOVE STAKING FROM AIR HORN FOR EASY REMOVAL OF POWER PISTON ASSY. (37). NOTE SIZES OF ALL JETS AND THEIR LOCATION FOR PROPER ASSEMBLY. RECORD SIZES BELOW. CAREFULLY DRILL HOLE IN PLUG (100) COVERING IDLE ADJ. NEEDLE. USING A PULLER REMOVE PLUG. BEFORE REMOVING IDLE ADJUSTING NEEDLE, TURN IN COUNTING THE NUMBER OF TURNS IT TAKES TO LIGHTLY SEAT THE NEEDLE. RECORD FOR ASSEMBLY.

NOMENCLATURE

REF. NO.	REF. NO.
1. SPRING-THROTTLE RETURN	52. CLAMP-WINDOW
2. E-CLIP-SEC. DIAPHRAGM STEM	53. WINDOW-FUEL BOWL
3. SCREW & LOCKWASHER (3)-SEC. DIAPHRAGM ASSY.	54. GASKET-WINDOW
4. SECONDARY THROTTLE DIAPHRAGM ASSY.	55. SLEEVE-FLOAT RETAINER
5. GASKET-SEC. DIAPHRAGM ASSY.	56. FLOAT ASSY.
6. POP RIVET (2)-CHOKE RETAINER	57. NEEDLE & SEAT ASSY.
7. SCREW & LOCKWASHER-CHOKE RETAINER	58. GASKET (SERVICE)-NEEDLE SEAT
8. RETAINER-CHOKE COVER	59. SCREW & LOCKWASHER (2)-PUMP PLATE
9. CHOKE COVER ASSY.-ELECTRIC	60. PLATE-BOOT
10. PLATE-STOPPER	61. BOOT-PUMP
11. SOLENOID ASSY.-ANTI-DIESELING	62. PUMP ASSY.
12. GASKET-SOLENOID	63. SLEEVE-PUMP CYL
13. SPRING-THROTTLE RETURN (PUMP LEVER)	64. SPRING-PUMP
14. SCREW & LOCKWASHER-PUMP LEVER	65. BALL-PUMP INTAKE CHECK
15. SLEEVE-PUMP LEVER	66. PLUG-PUMP CHECK
16. LEVER ASSY.-PUMP	67. GASKET-PLUG
17. WASHER-LEVER SPACER	68. SPRING-PUMP CHECK
18. SPRING-LEVER RETURN	69. WEIGHT-PUMP CHECK
19. SCREW & LOCKWASHER (2)-COVER	70. BALL-PUMP DISC. CHECK
20. COVER-IDLE COMPENSATOR	71. PLUG-PRI. SLOW JET
21. GASKET-COVER	72. SPRING-PRI. SLOW JET
22. VALVE-IDLE COMPENSATOR	73. JET-PRI. SLOW
23. O-RING-IDLE COMP. VALVE	74. JET-PRI. MAIN AIR BLEED
24. SCREW & WASHERS-LOCK LEVER	75. JET-SEC. MAIN AIR BLEED
25. LEVER-LOCK	76. POWER VALVE ASSY.
26. SCREW-FILTER SET	77. GASKET-POWER VALVE
27. GASKET-SCREW	78. PLUG-SEC. SLOW JET
28. NIPPLE-FUEL	79. SPRING-SEC. SLOW JET
29. SCREEN-FUEL FILTER	80. JET-SEC. SLOW
30. GASKET-NIPPLE	81. JET-AIR BLEED
31. SPRING-SEC. THROTTLE RETURN	82. RETAINER-MAIN JET PLUGS
32. E-CLIP-FAST IDLE ROD (UPPER)	83. PLUG-PRI. MAIN JET
33. E-CLIP-CONNECTING LINK	84. GASKET-PLUG
34. SCREW & LOCKWASHER-AIR HORN (4 DIFF. LENGTHS)	85. JET-PRI. MAIN
35. AIR HORN ASSY.	86. PLUG-SEC. MAIN JET
36. JET-SLOW AIR BLEED	87. GASKET-PLUG
37. PISTON-POWER VALVE	88. JET-SEC. MAIN
38. SPRING-POWER VALVE PISTON	89. SCREW & LOCKWASHER (1)-THROTTLE BODY (HOLLOW)
39. SCREW (2)-CHOKE VALVE	90. SCREW & LOCKWASHER (1)-THROTTLE BODY (LONG)
40. VALVE-CHOKE	91. SCREW & LOCKWASHER (2)-THROTTLE BODY
41. SCREW & LOCKWASHER- FAST IDLE LEVER	92. BOWL ASSEMBLY
42. SHAFT-CHOKE	93. VENTURI-PRIMARY
43. LEVER-FAST IDLE ROD	94. O-RING-PRI. VENTURI SEAL
44. SCREW & LOCKWASHER (2)-CHOKE HOUSING	95. RETAINER-PRI. VENTURI
45. HOUSING-CHOKE & THERMO UNIT	96. VENTURI-SECONDARY
46. CHOKE PULLOFF DIAPHRAGM ASSY.	97. O-RING-SEC. VENTURI SEAL
47. GASKET-AIR HORN	98. RETAINER-SEC. VENTURI
48. SCREW & LOCKWASHER (3)-BYPASS VALVE	99. GASKET-THROTTLE BODY
49. VALVE ASSY.-BY PASS AIR CONTROL	100. PLUG-IDLE NEEDLE
50. GASKET-BY PASS VALVE	101. NEEDLE-IDLE ADJUSTING
51. SCREW (3)-CLAMP	102. SPRING-IDLE ADJ. NEEDLE
	103. WASHER-NEEDLE SEAL
	104. SEAL-IDLE ADJ. NEEDLE
	105. THROTTLE BODY ASSY.

CLEANING

CLEANING MUST BE DONE WITH CARBURETOR DISASSEMBLED. SOAK PARTS LONG ENOUGH TO SOFTEN AND REMOVE ALL FOREIGN MATERIAL. CAUTION: DO NOT EXTEND CLEANING PERIOD OF PARTS WITH ATTACHED PLASTIC COMPONENTS. 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 PARTS SUCH AS (4), (9), (11), (22), (29), (45), (48), (49), (53), (56), (61) IN ANY TYPE OF CLEANING SOLVENTS.

REASSEMBLY

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

SPECIAL INSTRUCTIONS

IDLE ADJUSTING NEEDLE (101)-TURN NEEDLE IN UNTIL LIGHTLY SEATED THEN BACK OUT NUMBER OF TURNS RECORDED ON DISASSEMBLY.

PUMP RETURN SPRING (64)-INSTALL WITH CROSS WIRE TO THE BOTTOM OF PUMP CYLINDER AND IN SLOT

POWER PISTON (37)-AFTER INSTALLATION LIGHTLY RESTAKE CASTING AROUND WASHER.

INSTRUCTION SHEET

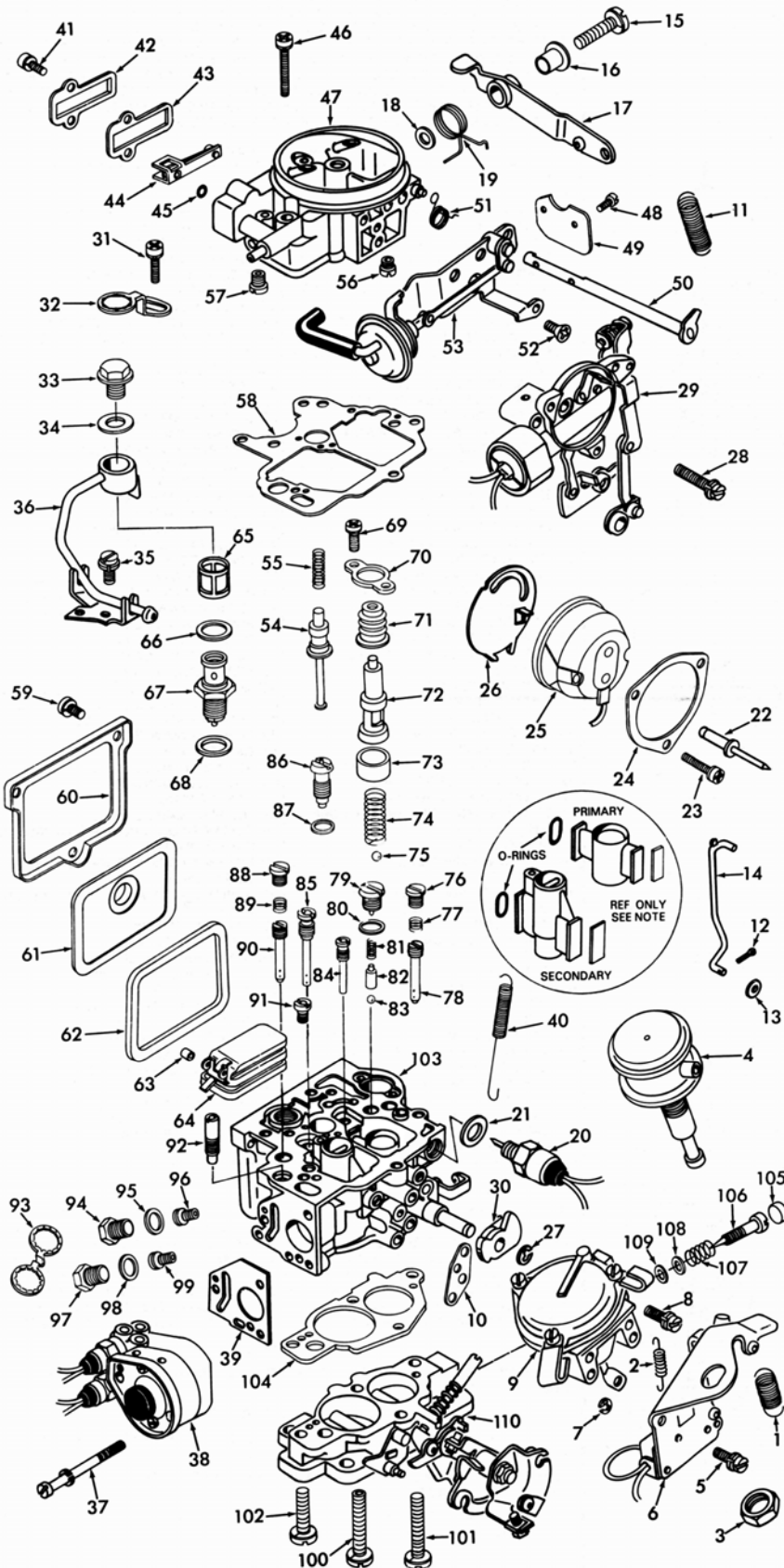
OFF VEHICLE CARBURETOR SERVICE

HITACHI MODEL-DCR-342

CA20 ENGINE

GENERAL EXPLODED VIEW

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



DISASSEMBLY

USE THE EXPLODED VIEW AS A GUIDE. THE NUMERICAL SEQUENCE MAY GENERALLY BE FOLLOWED TO DISASSEMBLE UNIT FAR ENOUGH TO PERMIT CLEANING AND INSPECTION. CAUTION: SOME SCREWS HAVE LOCK TIGHT APPLIED TO THEM. TAKE EXTRA CARE IN REMOVING THEM. USE PROPER TOOLS. CHOKE PLATE SCREWS MAY BE PEENED OVER, CUT OR FILE OFF PEENED END BEFORE REMOVING SCREWS. DRILL OR CUT OFF POP RIVET HEADS TO REMOVE CHOKE COVER (25). REMOVE STAKING FROM AIR HORN FOR EASY REMOVAL OF POWER PISTON ASSEMBLY (54). NOTE SIZES OF ALL JETS AND THEIR LOCATION FOR PROPER ASSEMBLY. RECORD SIZES BELOW. CAREFULLY DRILL HOLE IN PLUG (105) COVERING IDLE ADJ. NEEDLE. USING A PULLER REMOVE PLUG. BEFORE REMOVING IDLE ADJUSTING NEEDLE, TURN IN COUNTING THE NUMBER OF TURNS IT TAKES TO LIGHTLY SEAT THE NEEDLE. RECORD FOR ASSEMBLY.

NOTE: IF NECESSARY TO REMOVE VENTURI'S, REMOVE STAKING LOCKING VENTURI LOCK SCREW, LOOSEN SCREW. VENTURI CAN BE REMOVED TO INSTALL A NEW O-RING SEAL. INSTALL A NEW O-RING THEN HOLDING VENTURI FIRMLY IN PLACE, TIGHTEN LOCK SCREW. (RETAKE).

NOMENCLATURE

REF. NO.	REF. NO.
1. SPRING-THROTTLE RETURN	54. PISTON-POWER VALVE
2. SPRING-THROTTLE SWITCH LEVER	55. SPRING-POWER VALVE PISTON
3. NUT-VAC. DASHPOT	56. JET-PRI. SLOW AIR BLEED
4. VAC. DASHPOT ASSY.	57. JET-AIR BLEED
5. SCREW & LKWSHR. (2)-THROTTLE SWITCH	58. GASKET-AIR HORN
6. THROTTLE SWITCH ASSY.	59. SCREW (3)-CLAMP
7. E-CLIP-SEC. DIAPHRAGM STEM	60. CLAMP-WINDOW
8. SCREW & LKWSHR. (3)-SEC. DIAPHRAGM ASSY.	61. WINDOW-FUEL BOWL
9. SEC. THROTTLE DIAPHRAGM ASSY.	62. GASKET-WINDOW
10. GASKET-SEC. DIAPHRAGM ASSY.	63. SLEEVE-FLOAT RETAINER
11. SPRING-PUMP LEVER, THROTTLE RETURN	64. FLOAT ASSY.
12. COTTER PIN-PUMP ROD	65. SCREEN-FUEL FILTER
13. WASHER-PUMP ROD	66. GASKET-NIPPLE
14. PUMP ROD	67. NEEDLE & SEAT ASSY
15. SCREW & LKWSHR.-PUMP LEVER	68. GASKET-NEEDLE SEAT (SERVICE ITEM)
16. SLEEVE-PUMP LEVER	69. SCREW & LKWSHR. (2)-PUMP BOOT PLATE
17. LEVER-PUMP	70. PLATE-BOOT
18. WASHER-LEVER SPACER	71. BOOT-PUMP
19. SPRING-LEVER RETURN	72. PUMP ASSY.
20. SOLENOID ASSY.-ANTI DIESELING	73. SLEEVE-PUMP CYL.
21. GASKET-SOLENOID ASSY.	74. SPRING-PUMP
22. POP RIVET (2)-CHOKE RETAINER	75. BALL-PUMP INTAKE CHECK
23. SCREW & LKWSHR.-CHOKE RETAINER	76. PLUG-PRI. SLOW JET
24. RETAINER-CHOKE COVER	77. SPRING-PRI. SLOW JET
25. CHOKE COVER ASSY.-ELECTRIC	78. JET-PRI. SLOW
26. PLATE-STOPPER	79. PLUG-PUMP CHECK
27. E-CLIP-FAST IDLE CAM & LINKAGE	80. GASKET-PLUG
28. SCREW & LKWSHR. (2)-CHOKE HOUSING	81. SPRING-PUMP CHECK
29. HOUSING-CHOKE & THERMO LINKAGE ASSY.	82. WEIGHT-PUMP CHECK
30. CAM-FAST IDLE	83. BALL-PUMP DISC. CHECK
31. SCREW & WASHERS-LOCK LEVER	84. JET-PRI. MAIN AIR BLEED
32. LEVER-LOCK	85. JET-SEC. MAIN AIR BLEED
33. SCREW-FILTER SET	86. POWER VALVE ASSY.
34. GASKET-SCREW	87. GASKET-POWER VALVE
35. SCREW & LKWSHR. (2)-PIPE BRACKET	88. PLUG-SEC. SLOW JET
36. FUEL NIPPLE, LINE & BRACKET	89. SPRING-SEC. SLOW JET
37. SCREW & LKWSHR. (3)-B.C.D.D. (BIG HEADS)	90. JET-SEC. SLOW
38. BOOST CONTROLLED DECELERATION DEVICE ASSY.	91. PLUG-PASSAGE
39. GASKET-B.C.D.D. ASSY.	92. JET-FUEL
40. SPRING-SEC. THROTTLE RETURN	93. RETAINER-MAIN JET PLUGS
41. SCREW & LKWSHR. (2)-IDLE COMPENSATOR COVER	94. PLUG-PRI. MAIN JET
42. COVER-IDLE COMPENSATOR	95. GASKET-PLUG
43. GASKET-COVER	96. JET-PRI. MAIN
44. IDLE COMPENSATOR VALVE	97. PLUG-SEC. MAIN JET
45. O-RING-IDLE COMP. SEAL	98. GASKET-PLUG
46. AIR HORN ASSY.	99. JET-SEC. MAIN
47. AIR HORN ASSY.	100. SCREW & LKWSHR. (1)-THROTTLE BODY (HOLLOW)
48. SCREW (2)-CHOKE VALVE	101. SCREW & LKWSHR. (1)-THROTTLE BODY (LONG)
49. VALVE-CHOKE	102. SCREW & LKWSHR. (2)-THROTTLE BODY
50. SHAFT-CHOKE	103. BOWL ASSEMBLY
51. SPRING-CHOKE SHAFT	104. GASKET-THROTTLE BODY
52. SCREW-CHOKE PULL OFF BRACKET	105. PLUG-IDLE NEEDLE
53. CHOKE PULL OFF DIAPHRAGM ASSY.	106. NEEDLE-IDLE ADJUSTING
	107. SPRING-IDLE ADJ. NEEDLE
	108. WASHER-NEEDLE SEAL
	109. SEAL-IDLE ADJ. NEEDLE
	110. THROTTLE BODY ASSY

CLEANING

CLEANING MUST BE DONE WITH CARBURETOR DISASSEMBLED. SOAK PARTS LONG ENOUGH TO SOFTEN AND REMOVE ALL FOREIGN MATERIAL. CAUTION DO NOT EXTEND CLEANING PERIOD OF PARTS WITH ATTACHED PLASTIC COMPONENTS 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 PARTS SUCH AS (4), (6), (9), (20), (25), (29), (38), (44), (53), (61), (64), (71), (72), (73).

REASSEMBLY

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

SPECIAL INSTRUCTIONS

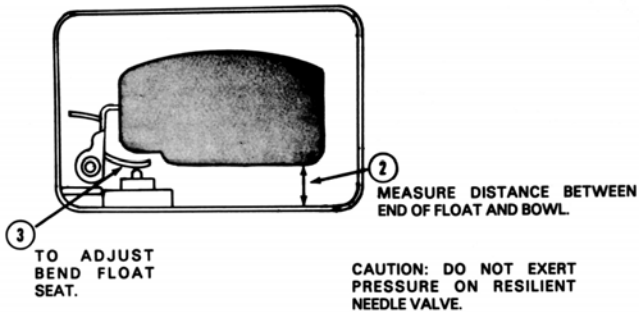
IDLE ADJUSTING NEEDLE (106)-TURN NEEDLE IN UNTIL LIGHTLY SEATED THEN BACK OUT NUMBER OF TURNS RECORDED ON DISASSEMBLY.

PUMP RETURN SPRING (74)-INSTALL WITH CROSS WIRE TO THE BOTTOM OF PUMP CYLINDER AND IN SLOT.

POWER PISTON (54)-AFTER INSTALLATION LIGHTLY RESTAKE CASTING AROUND WASHER.

ADJUSTMENTS

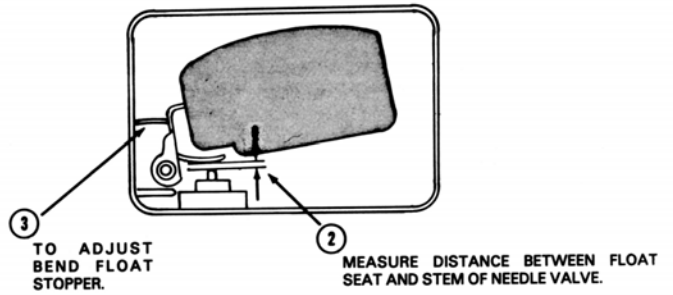
- ① FLOAT BOWL INVERTED, RAISE FLOAT AND THEN LOWER IT SLOWLY UNTIL FLOAT SEAT MAKES CONTACT WITH STEM OF NEEDLE VALVE. (DO NOT COMPRESS SPRING LOADED NEEDLE).



DRY FLOAT LEVEL ADJUSTMENT

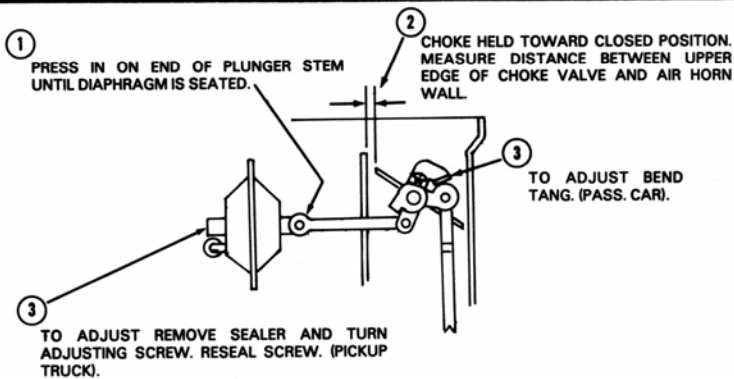
FIG. 1

- ① FLOAT BOWL INVERTED RAISE FLOAT UNTIL FLOAT STOPPER CONTACTS CARBURETOR BODY.



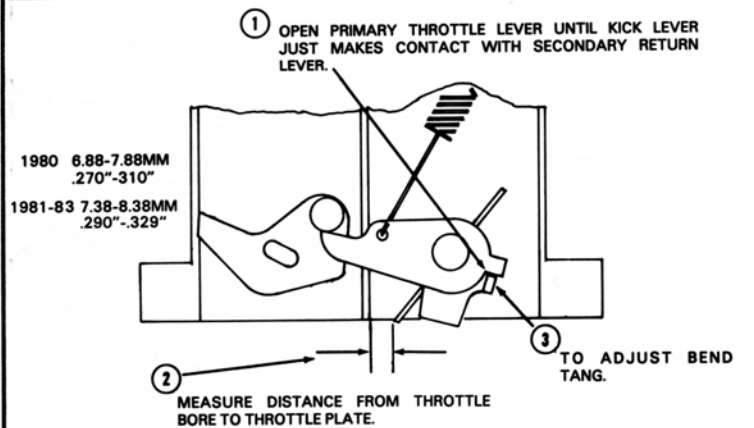
FLOAT DROP ADJUSTMENT

FIG. 2



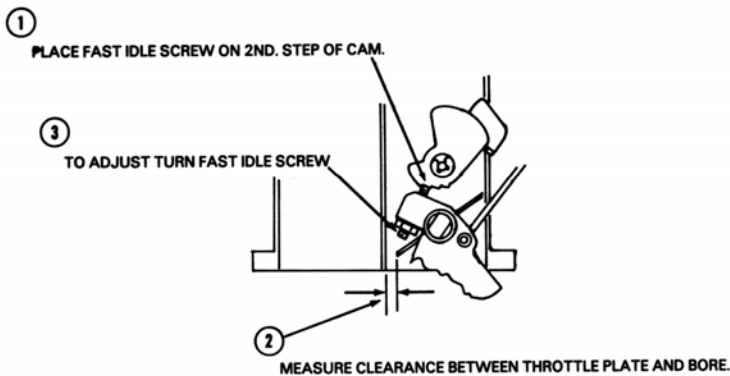
VACUUM BREAK ADJUSTMENT

FIG. 3



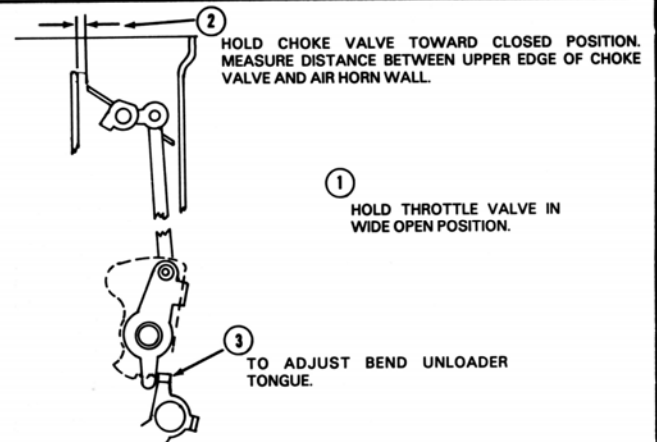
SECONDARY THROTTLE START TO OPEN ADJUSTMENT

FIG. 4



FAST IDLE ADJUSTMENT (BENCH)

FIG. 5



UNLOADER ADJUSTMENT

FIG. 6

ADJUSTMENT DATA TABLE

APPLICATION	FLOAT LEVEL	FLOAT DROP	VACUUM BREAK	FAST IDLE BENCH	UNLOADER AJD.
1980-81 DATSUN 510	7.2MM .295"	1.3-1.7MM .051"-.067"	2.62-3.22MM .103"-.127" FED. 3.12-3.72MM .123"-.147" CALIF.	.76-.90MM .030"-.035" M/T .96-1.10MM .038"-.043" A/T	2.05-2.85MM .081"-.112"
1981-85 PICKUP	7.2MM .295"	1.3-1.7MM .051"-.067"	2.62-3.22MM .103"-.127" FED./CAN. 3.12-3.72MM .123"-.147" CALIF.	.81-.95MM .031"-.037" M/T .98-1.12MM .039"-.043" A/T	2.05-2.85MM .081"-.112"
1982-86 NISSAN STANZA	7.2MM .295"	1.3-1.7MM .051"-.067"	3.12-3.72MM .123"-.147"	.66-.80MM .026"-.031" M/T .81"-.95"MM .032"-.037" A/T	2.05-2.85MM .081"-.112"