



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

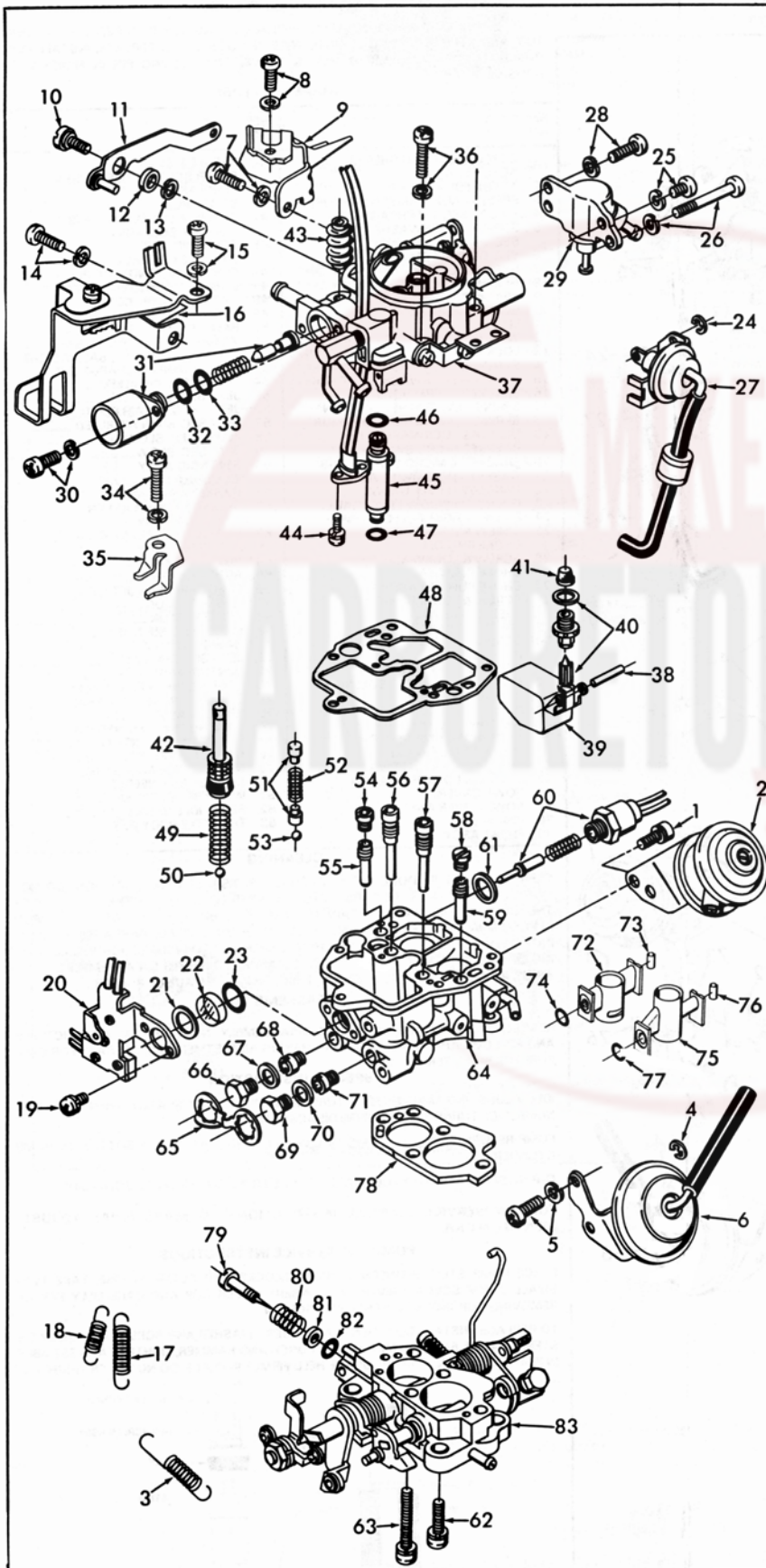
OFF VEHICLE CARBURETOR SERVICE

HITACHI MODEL DFB 306

50-705-2

3 CYL. SPRINT FED. FEED BACK A/T
4 CYL. SUZUKI

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. REMOVE WIRES FROM CARBURETOR HARNESS CONNECTOR USING PROPER TOOL AND IDENTIFY WIRE LOCATION FOR PROPER REASSEMBLY. CAUTION: SOME ORIGINAL SCREWS HAVE LOCK TIGHT APPLIED TO THEM. TAKE EXTRA CARE IN REMOVING THEM. USE PROPER TOOLS. NOTE SIZES OF ALL JETS AND THEIR LOCATION FOR PROPER REASSEMBLY. RECORD SIZES BELOW. TO REMOVE IDLE ADJUSTING NEEDLE PIN, USE A 4 - 4.5MM DRILL AND DRILL OUT PIN OR WORK OUT WITH A PUNCH. BEFORE REMOVING IDLE MIXTURE NEEDLE, TURN IN COUNTING THE NUMBER OF TURNS IT IS FROM THE SEATED POSITION (RECORD).

NOTE: IF VENTURIS ARE REMOVED TO REPLACE O-RING SEALS, CAREFULLY TAP VENTURI FROM THE BOTTOM SIDE UNTIL FREE OF HOUSING. TO REPLACE, INSTALL NEW O-RING. HOLDING VENTURI FIRMLY IN PLACE, TAP LOCKING PIN IN FLUSH WITH HOUSING.

NOMENCLATURE

REF. NO.	REF. NO.
1. SCREW & LOCKWASHER (2) - ACTUATOR	40. NEEDLE & SEAT ASSY.
2. ACTUATOR - IDLE UP	41. FILTER SCREEN - NEEDLE SEAT
3. SPRING - AUX. THROTTLE RETURN	42. PUMP ASSY.
4. E-CLIP - SEC. DIAPHRAGM ROD	43. BOOT - PUMP
5. SCREW & LOCKWASHER (2) - SEC. DIAPHRAGM ASSY.	44. SCREW & LOCKWASHER (3) - MIXTURE SOLENOID
6. SEC. DIAPHRAGM ASSY.	45. SOLENOID ASSY. - MIXTURE CONTROL
7. SCREW & LOCKWASHER - BRACKET	46. O-RING - SOLENOID (UPPER)
8. SCREW & LOCKWASHER - BRACKET	47. O-RING - SOLENOID (LOWER)
9. BRACKET - CABLE	48. GASKET - BOWL COVER
10. SCREW - PUMP LEVER	49. SPRING - PUMP RETURN
11. LEVER - PUMP	50. BALL - PUMP INTAKE CHECK
12. WASHER - PUMP LEVER SCREW	51. WEIGHT (2) - PUMP DISC BALL
13. LOCKWASHER - PUMP LEVER SCREW	52. SPRING - PUMP DISC BALL WEIGHT
14. SCREW & LOCKWASHER - BRACKET	53. BALL - PUMP DISCHARGE CHECK
15. SCREW & LOCKWASHER - BRACKET	54. JET - SLOW AIR BLEED
16. BRACKET - TERM HOLDER	55. JET - SLOW
17. SPRING - SWITCH RETURN (LONG)	56. JET - PRI. MAIN AIR BLEED
18. SPRING - SWITCH RETURN (SHORT)	57. JET - SEC. MAIN AIR BLEED
19. SCREW & LOCKWASHER (2) - BRACKET MICRO SWITCH	58. PLUG - SEC. SLOW JET
20. BRACKET & MICRO SWITCH ASSY.	59. JET - SEC. SLOW
21. GASKET - WINDOW LEVEL	60. SOLENOID ASSY. - IDLE SHUT-OFF
22. WINDOW - LEVEL GAUGE	61. GASKET - SOLENOID
23. O-RING - WINDOW LEVEL GAUGE	62. SCREW & LOCKWASHER - THROTTLE BODY
24. E-CLIP - CHOKE PULLOFF LINK	63. SCREW & LOCKWASHER (3) - THROTTLE BODY
25. SCREW & LOCKWASHER - CHOKE PULLOFF	64. BOWL ASSY.
26. SCREW & LOCKWASHER - CHOKE PULLOFF	65. RETAINER - PLUG
27. CHOKE PULLOFF ASSY.	66. PLUG - PRI. MAIN JET
28. SCREW & LOCKWASHER (2) - THERMO ELEMENT	67. GASKET - PLUG
29. THERMO ELEMENT ASSY.	68. JET - PRI. MAIN
30. SCREW & LOCKWASHER (2) - BOWL VENT SOLENOID	69. PLUG - SEC. MAIN JET
31. BOWL VENT SOLENOID ASSY.	70. GASKET - PLUG
32. O-RING - BOWL VENT SOLENOID (INNER)	71. JET - SEC. MAIN
33. O-RING - BOWL VENT SOLENOID (OUTER)	72. VENTURI ASSY. - PRI.
34. SCREW & LOCKWASHER - FUEL FITTING BRACKET	73. LOCKING PIN - PRI. VENTURI
35. BRACKET - FUEL FITTING	74. O-RING - PRI. VENTURI SEAL
36. SCREW & LOCKWASHER (2) - BOWL COVER	75. VENTURI ASSY. - SEC.
37. BOWL COVER ASSY.	76. LOCKING PIN - SEC. VENTURI
38. PIN - FLOAT	77. O-RING - SEC. VENTURI SEAL
39. FLOAT ASSY.	78. GASKET - THROTTLE BODY
	79. NEEDLE - IDLE ADJUSTING
	80. SPRING - IDLE NEEDLE
	81. WASHER - IDLE NEEDLE
	82. SEAL - IDLE NEEDLE
	83. THROTTLE BODY ASSY.

CLEANING

CLEANING MUST BE DONE WITH CARBURETOR DISASSEMBLED. CAUTION: DO NOT SOAK. USE A SPRAY TYPE CARBURETOR CLEANER TO CLEAN ALL THE PASSAGES OF THE CARBURETOR. 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 USE CLEANING SOLVENTS ON ASSEMBLIES SUCH AS (2), (6), (20), (27), (29), (31), (39), (45), (60) OR PARTS MADE OF RUBBER.

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 (79) - TURN IN UNTIL LIGHTLY SEATED, THEN BACK OUT NUMBER OF TURNS RECORDED ON DISASSEMBLY.

PUMP RETURN SPRING (49) - INSTALL WITH CROSS WIRE TO THE BOTTOM OF PUMP CYLINDER.

O-RING SEALS - LIGHTLY LUBRICATE FOR EASIER INSTALLATION OF SOLENOIDS.

FOLLOW SERVICE MANUAL INSTRUCTIONS TO MAKE FINAL ADJUSTMENTS ON CAR.

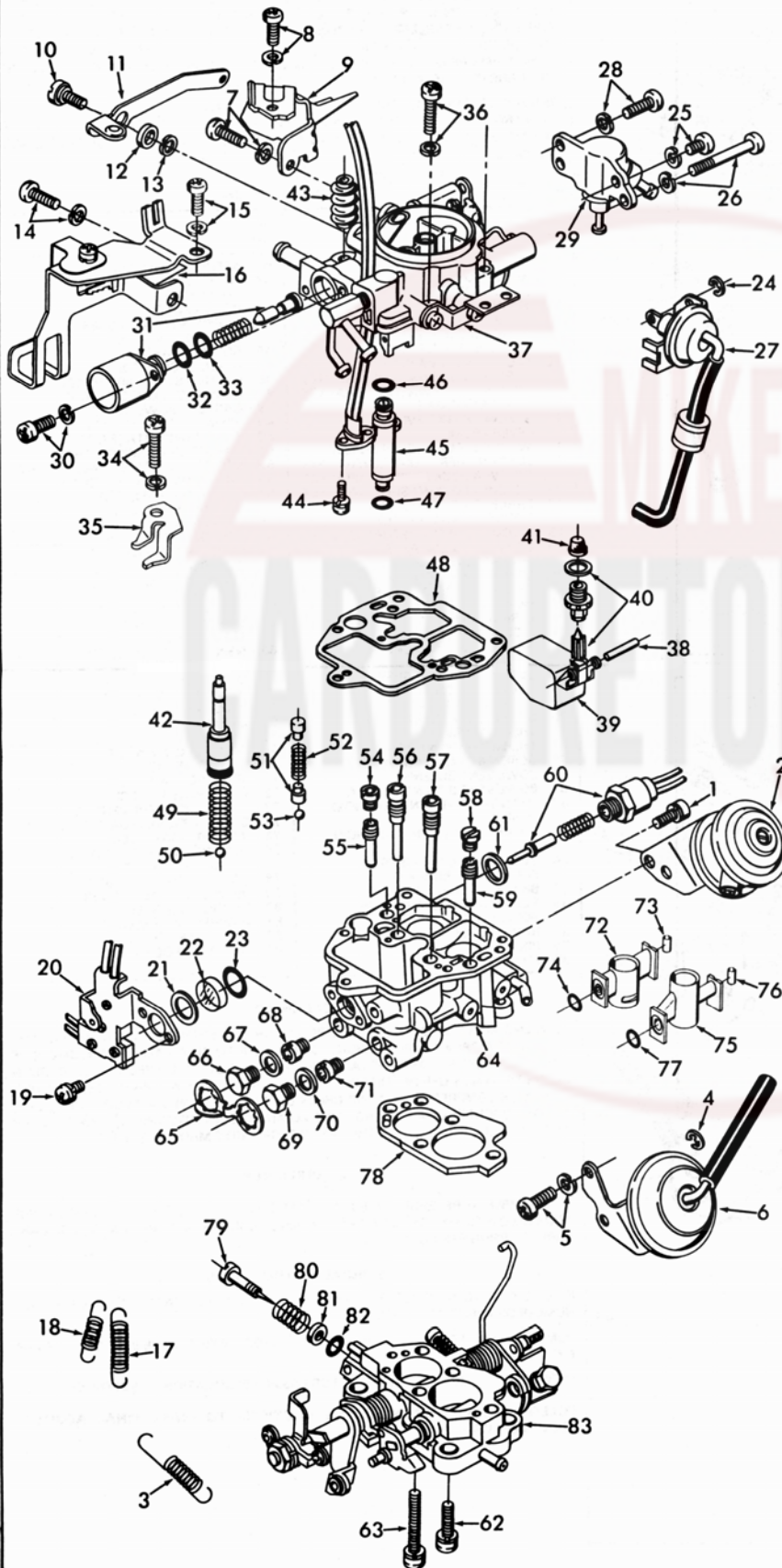
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3 CYL. SPRINT FED. FEED BACK M/T

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NOTE: IF VENTURI ARE REMOVED TO REPLACE O-RING SEALS, CAREFULLY TAP VENTURI FROM THE BOTTOM SIDE UNTIL FREE OF HOUSING. TO REPLACE, INSTALL NEW O-RING. HOLDING VENTURI FIRMLY IN PLACE, TAP LOCKING PIN IN FLUSH WITH HOUSING.

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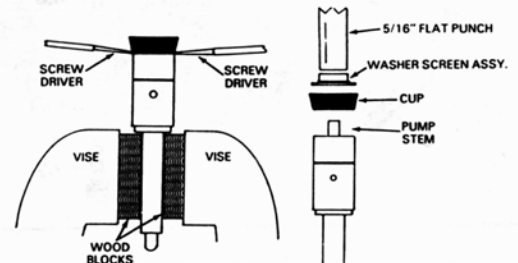
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PUMP CUP SERVICE INSTRUCTIONS

PLACE PUMP STEM BETWEEN WOODEN BLOCKS AND CLAMP IN VISE. TAKE TWO SMALL BLADE SCREW DRIVERS AND INSERT UNDER CUP AND CAREFULLY PRY UP REMOVING CUP, INSERT WASHER AND SCREEN.

TO REPLACE: INSTALL CUP THEN PLACE INSERT WASHER AND SCREEN ASSEMBLY ON STEM. USING A 5/16" DIAMETER FLAT PUNCH AND HAMMER, LIGHTLY TAP ASSEMBLY IN PLACE. CAUTION: CUP SHOULD BE HELD FIRMLY IN PLACE. DO NOT OVER TIGHTEN.



ADJUSTMENTS

