



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.

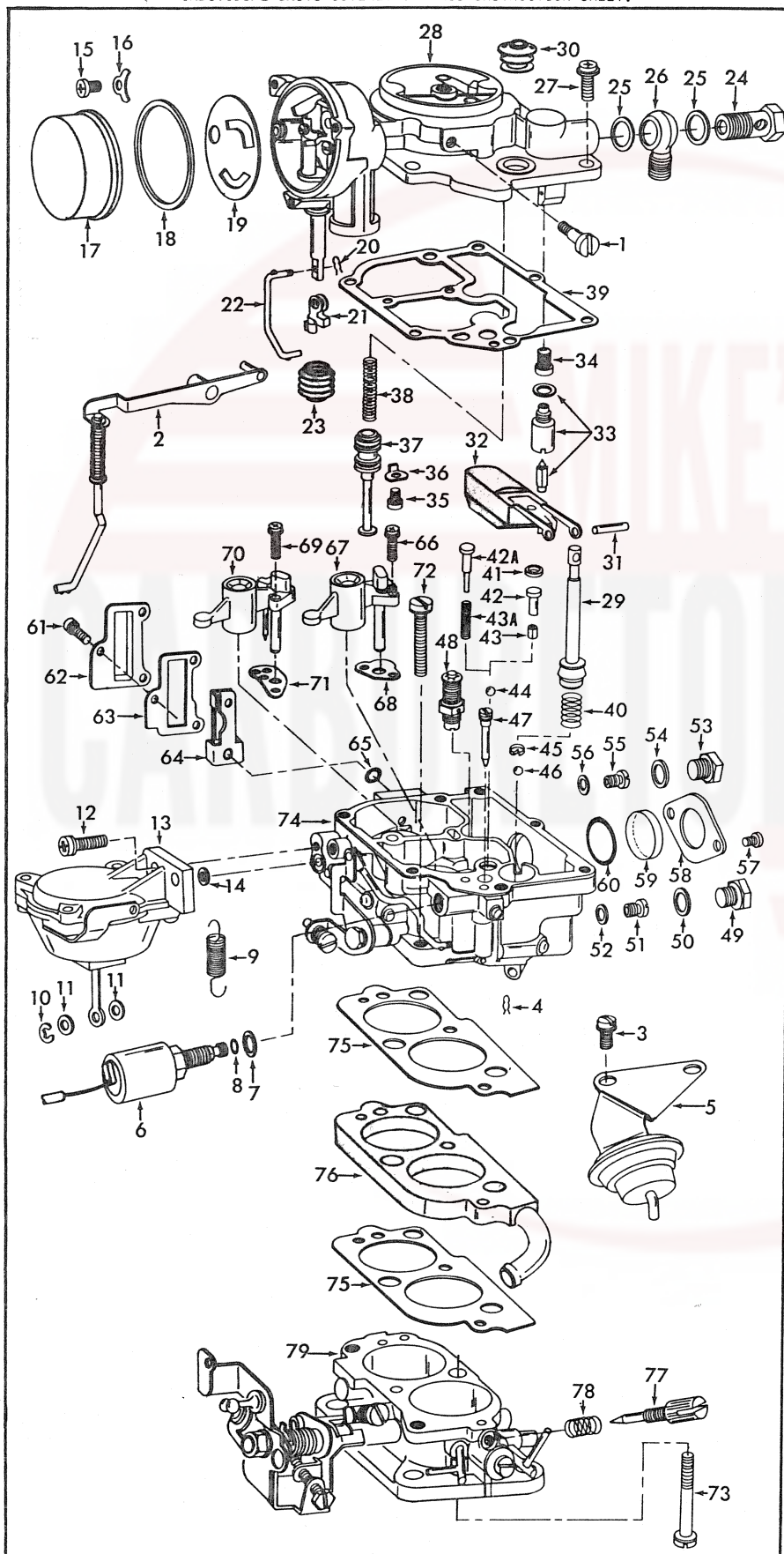
INSTRUCTION SHEET

AISAN CARBURETOR

50-493

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. NOTE: DISASSEMBLY OF SECONDARY VACUUM UNIT MAY NOT BE NECESSARY UNLESS DIAPHRAGM IS BEING REPLACED. MODELS USING INSULATOR BLOCK (76) IT WILL BE NECESSARY TO CAREFULLY SCRAPE OFF OLD GASKETS FROM BLOCK BEFORE REASSEMBLY.

NOMENCLATURE

REF. NO.	REF. NO.
1. SCREW - PUMP LEVER	42. STOPPER - PUMP PASSAGE
2. LEVER & CONNECTING ROD ASSY. - PUMP	42A. STOPPER - PUMP PASSAGE (LATE)
3. SCREW & LOCKWASHER (2) - THROTTLE POSITIONER	43. WEIGHT - DISC. BALL
4. RETAINER - CONNECTOR LINK	43A. SPRING - PUMP DISC. BALL (LATE)
5. THROTTLE POSITIONER ASSY.	44. BALL - PUMP DISC. (LARGE)
6. SOLENOID - IDLE CUT OFF	45. RETAINER - INTAKE BALL
7. GASKET - SOLENOID	46. BALL - PUMP INTAKE (SMALL)
8. O-RING - SOLENOID SEAL	47. JET - IDLE
9. SPRING - SEC. RETURN	48. POWER VALVE ASSY.
10. RETAINER - SEC. DIAPHRAGM LINK	49. PLUG - PRI. JET
11. WASHER (2) - DIAPHRAGM LINK PIN	50. GASKET - PLUG
12. SCREW, LOCK & FLAT WASHER (2) - SEC. VACUUM UNIT	51. JET - PRI. MAIN (BRASS)
13. SECONDARY VACUUM UNIT	52. GASKET - PRI. JET
14. GASKET - SEC. VAC. UNIT	53. PLUG - SEC. JET
15. SCREW (3) - CHOKE COVER RETAINER	54. GASKET - PLUG
16. RETAINER (3) - CHOKE COVER	55. JET - SEC. MAIN (CHROME)
17. CHOKE COVER & COIL ASSY.	56. GASKET - SEC. JET
18. GASKET - CHOKE COVER	57. SCREW (2) - WINDOW RETAINER
19. PLATE - CHOKE BAFFLE	58. RETAINER - WINDOW
20. RETAINER - FAST IDLE LINK	59. WINDOW - FUEL BOWL
21. CLIP - FAST IDLE LINK	60. GASKET - WINDOW
22. LINK - FAST IDLE	61. SCREW & LOCKWASHER (3) - IDLE COMP. COVER
23. BOOT - FAST IDLE ROD	62. COVER - IDLE COMPENSATOR
24. BOLT - FUEL INLET	63. GASKET - COVER
25. GASKET (2) - INLET BOLT	64. VALVE ASSY. - IDLE COMPENSATOR
26. BANJO FITTING - FUEL INLET	65. GASKET - IDLE COMP. VALVE
27. SCREW & LOCKWASHER (6) - BOWL COVER	66. SCREW & LOCKWASHER (2) - PRI. VENTURI
28. BOWL COVER ASSY.	67. VENTURI - PRIMARY
29. PUMP PLUNGER ASSY.	68. GASKET - PRI. VENTURI
30. BOOT - PUMP	69. SCREW & LOCKWASHER (2) - SEC. VENTURI
31. PIN - FLOAT LEVER	70. VENTURI - SECONDARY
32. FLOAT & LEVER ASSY.	71. GASKET - SEC. VENTURI
33. NEEDLE, SEAT & GASKET ASSY.	72. SCREW & LOCKWASHER (2) - BOWL TO THROTTLE BODY
34. SCREEN - FUEL FILTER	73. SCREW & LOCKWASHER - THROTTLE BODY TO BOWL
35. SCREW & LOCKWASHER - PISTON RETAINER	74. BOWL ASSY.
36. RETAINER - PISTON	75. GASKET (2) - INSULATOR BLOCK
37. PISTON - POWER VALVE	76. INSULATOR BLOCK
38. SPRING - POWER PISTON	77. NEEDLE - IDLE ADJUSTING
39. GASKET - BOWL COVER	78. SPRING - IDLE NEEDLE
40. SPRING - PUMP RETURN	79. THROTTLE BODY ASSY.
41. GASKET - STOPPER	

CLEANING

CLEANING MUST BE DONE WITH CARBURETOR DISASSEMBLED. USE A CARBURETOR CLEANING SOLVENT. SOAK PARTS LONG ENOUGH TO SOFTEN AND REMOVE ALL FOREIGN MATERIAL. MAKE CERTAIN THE THROTTLE BORES ARE 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: DO NOT SOAK RUBBER OR PLASTIC PARTS IN CLEANING SOLVENTS, BEING CAREFUL OF DIAPHRAGM ASSY'S (5) (13) SOLENOID (6), FLOAT (32) AND IDLE COMPENSATOR VALVE (64) WHICH HAVE RUBBER COMPONENTS.

REASSEMBLY

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

SPECIAL INSTRUCTIONS

IDLE ADJUSTING NEEDLE (77) - TURN NEEDLE IN UNTIL LIGHTLY SEATED, THEN BACK OUT 2 TURNS.

PUMP PLUNGER (29) - REMOVE PAPER SLEEVE FROM LEATHER CUP, FLEX LEATHER OUTWARD SLIGHTLY. SOAK CUP IN LIGHT OIL A FEW MINUTES PRIOR TO PLACING IN CARBURETOR.

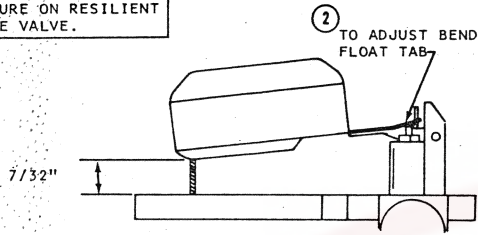
WINDOW (59) - INSTALL WITH DOT TO THE INSIDE OF FUEL BOWL.

CHOKE COVER (17) - ROTATE CHOKE COVER AGAINST SPRING TENSION ALIGN MARK ON COVER WITH INDEX MARK ON HOUSING.

THROTTLE BODY GASKET (75) - WHERE INSULATOR BLOCK IS NOT USED ONLY ONE GASKET IS NEEDED.

ADJUSTMENTS

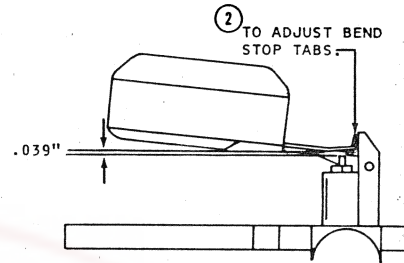
CAUTION: DO NOT EXERT
PRESSURE ON RESILIENT
NEEDLE VALVE.



- ① BOWL COVER INVERTED, FLOAT RESTING ON NEEDLE OF ITS OWN WEIGHT. MEASURE DISTANCE BETWEEN FLOAT AT TOE END AND CASTING SURFACE.

DRY FLOAT LEVEL ADJUSTMENT

FIG. 1



- ① BOWL COVER INVERTED. RAISE FLOAT BY HAND UNTIL IT CONTACTS FLOAT HANGER. MEASURE DISTANCE BETWEEN NEEDLE VALVE AND FLOAT TAB.

FLOAT DROP ADJUSTMENT

FIG. 2

INSTRUCTION SHEET

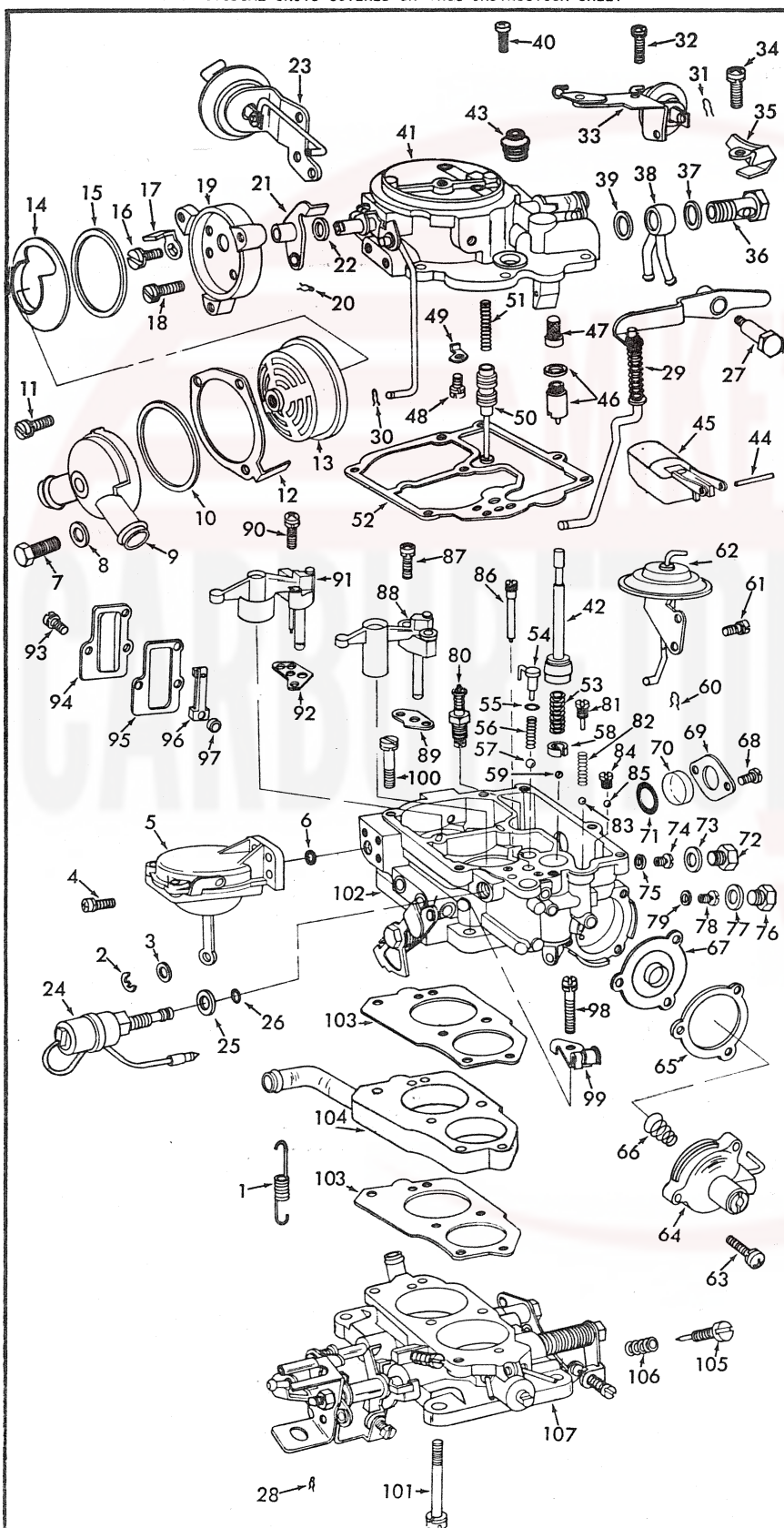
AISAN CARBURETOR

(20 R ENGINE)

50-518-2

GENERAL EXPLODED VIEW

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DISASSEMBLY

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NOMENCLATURE

REF. NO.	REF. NO.
1. SPRING- SEC. THROTTLE RETURN.	54. JET- PUMP.
2. RETAINER- SEC. DIAPHRAGM LINK.	55. O-RING- PUMP JET.
3. WASHER- SEC. DIAPHRAGM LINK.	56. SPRING- PUMP DISC. BALL.
4. SCREW, LOCK & FLAT WASHER (2)- SEC. DIAPH. ASSY.	57. BALL- PUMP DISC. (LARGE).
5. SECONDARY DIAPHRAGM ASSY.	58. RETAINER- INTAKE BALL.
6. GASKET- SEC. DIAPHRAGM ASSY.	59. BALL- PUMP INTAKE CHECK (SMALL).
7. BOLT- CHOKE WATER COVER.	60. RETAINER- THROTTLE POSITIONER LINK.
8. GASKET- BOLT	61. SCREW & LOCKWASHER (2)- THROTTLE POSITIONER.
9. COVER- CHOKE WATER HSG.	62. THROTTLE POSITIONER ASSY.
10. GASKET- COVER.	63. SCREW & LOCKWASHER (3)- AUX. PUMP COVER.
11. SCREW & LOCKWASHER (3)- CHOKE COIL RETAINER.	64. COVER- AUX. PUMP.
12. RETAINER- CHOKE COIL ASSY.	65. GASKET- COVER.
13. CHOKE COIL ASSY.	66. SPRING- AUX. PUMP DIAPHRAGM.
14. SHIELD- CHOKE COIL.	67. DIAPHRAGM- AUX. PUMP.
15. GASKET- SHIELD.	68. SCREW (2)- RETAINER SIGHT GLASS.
16. SCREW, FLAT & LOCK WASHER- CHOKE SHAFT ARM.	69. RETAINER- SIGHT GLASS.
17. ARM- CHOKE SHAFT.	70. SIGHT GLASS.
18. SCREW & LOCKWASHER (3)- CHOKE HOUSING.	71. O-RING- SIGHT GLASS SEAL.
19. HOUSING- CHOKE	72. PLUG- SEC. MAIN JET.
20. RETAINER- CHOKE PULL OFF LINK.	73. GASKET- PLUG.
21. LEVER- CHOKE PULL OFF LINK.	74. JET- SEC. MAIN (CHROME).
22. WASHER- LEVER SPACER.	75. GASKET- SEC. MAIN JET.
23. CHOKE PULL OFF ASSY.	76. PLUG- PRI. MAIN JET.
24. SOLENOID- IDLE CUT OFF.	77. GASKET- PLUG.
25. GASKET- SOLENOID.	78. JET- PRI. MAIN. (BRASS).
26. O-RING- SOLENOID.	79. GASKET- PRI. MAIN JET.
27. BOLT- PUMP LEVER.	80. POWER VALVE ASSY.
28. RETAINER- PUMP ROD.	81. PLUG- AUX. PUMP CHECK BALL SPRING.
29. LEVER & CONNECTING ROD ASSY- PUMP.	82. SPRING- AUX. PUMP CHECK BALL.
30. RETAINER- FAST IDLE ROD.	83. BALL- AUX. PUMP DISC. CHECK.
31. RETAINER- AUX. PULL OFF LINK.	84. PLUG- AUX. PUMP CHECK BALL.
32. SCREW & LOCKWASHER (2)- AUX. PULL OFF ASSY.	85. BALL- AUX. PUMP INTAKE CHECK.
33. AUX. PULL OFF ASSY.	86. JET- IDLE.
34. SCREW & LOCKWASHER- FUEL PIPE STOP.	87. SCREW & LOCKWASHER (2)- PRI. VENTURI.
35. STOP- FUEL INLET PIPE.	88. PRIMARY VENTURI ASSY.
36. BOLT- FUEL INLET PIPE.	89. GASKET- PRI. VENTURI.
37. GASKET- BOLT.	90. SCREW & LOCKWASHER (2)- SEC. VENTURI.
38. FUEL INLET PIPE.	91. SECONDARY VENTURI ASSY.
39. GASKET- FUEL PIPE.	92. GASKET- SEC. VENTURI.
40. SCREW & LOCKWASHER (4)- BOWL COVER.	93. SCREW & LOCKWASHER (3)- COVER.
41. BOWL COVER ASSY.	94. COVER- IDLE COMPENSATOR.
42. PUMP PLUNGER ASSY.	95. GASKET- COVER.
43. BOOT- PUMP PLUNGER.	96. VALVE- IDLE COMPENSATOR.
44. PIN- FLOAT.	97. GASKET- IDLE COMPENSATOR VALVE.
45. FLOAT ASSY.	98. SCREW & LOCKWASHER- WIRE CLAMP.
46. NEEDLE & SEAT ASSY.	99. CLAMP- WIRE.
47. SCREEN- NEEDLE SEAT FILTER.	100. SCREW & LOCKWASHER- THROTTLE BODY.
48. SCREW & LOCKWASHER- PISTON RETAINER.	101. SCREW & LOCKWASHER- THROTTLE BODY (HOLLOW).
49. RETAINER- POWER PISTON.	102. FLOAT BOWL ASSY.
50. PISTON- POWER VALVE.	103. GASKET (2)- THROTTLE BODY.
51. SPRING- POWER PISTON.	104. INSULATOR- THROTTLE BODY.
52. GASKET- BOWL COVER.	105. NEEDLE- IDLE ADJUSTING.
53. SPRING- PUMP RETURN.	106. SPRING- IDLE ADJ. NEEDLE.
	107. THROTTLE BODY ASSY.

CLEANING

CLEANING MUST BE DONE WITH CARBURETOR DISASSEMBLED. USE A CARBURETOR CLEANING SOLVENT. SOAK PARTS LONG ENOUGH TO SOFTEN AND REMOVE ALL FOREIGN MATERIAL. MAKE CERTAIN THE THROTTLE BORES ARE 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: DO NOT SOAK RUBBER PARTS IN CLEANING SOLVENTS, BEING VERY CAREFUL OF DIAPHRAGM ASSY'S (5), (23), (33), (62), SOLENOID (24), FLOAT (45) AND IDLE COMPENSATOR VALVE (96) WHICH HAVE RUBBER COMPONENTS.

REASSEMBLY

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

ADJUSTMENTS

SPECIAL INSTRUCTIONS

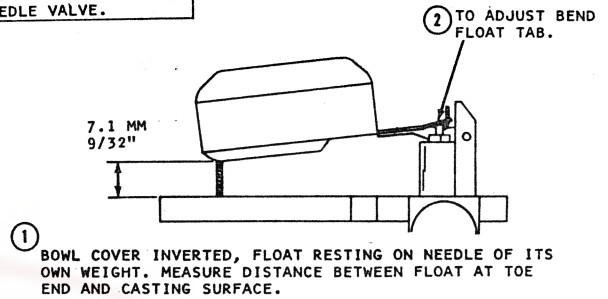
IDLE ADJUSTING NEEDLE (105)-TURN NEEDLE IN UNTIL LIGHTLY SEATED, THEN BACK OUT 2 1/4 TURNS.

PUMP PLUNGER (42)-REMOVE PAPER SLEEVE FROM LEATHER CUP, FLEX LEATHER OUTWARD SLIGHTLY. SOAK CUP IN LIGHT OIL A FEW MINUTES PRIOR TO PLACING IN CARBURETOR.

SIGHT GLASS (70)-INSTALL WITH DOT TO THE INSIDE OF FUEL BOWL.

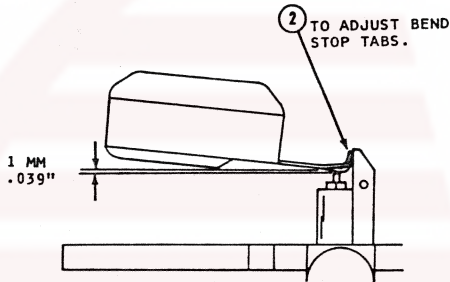
CHOKE COIL COVER (13)-WHEN INSTALLING BE SURE LOOP ON COIL SPRING IS PLACED ON ARM OF CHOKE SHAFT. ROTATE CHOKE COVER AGAINST SPRING TENSION. ALIGN MARK ON COVER WITH INDEX MARK ON HOUSING.

CAUTION: DO NOT EXERT PRESSURE ON RESILIENT NEEDLE VALVE.



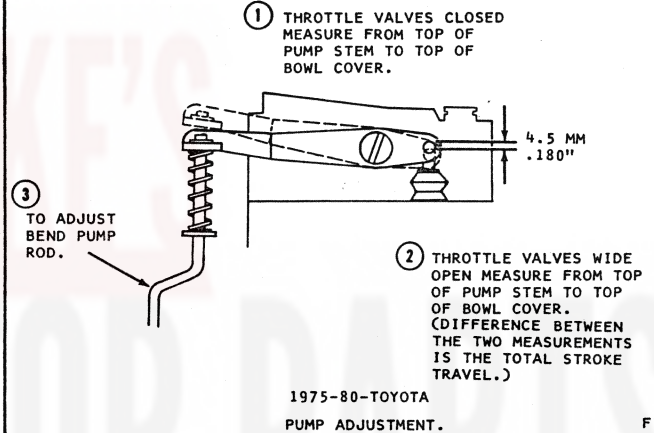
1975-80-TOYOTA
DRY FLOAT LEVEL ADJUSTMENT.

FIG. 1.



1975-80-TOYOTA
FLOAT DROP ADJUSTMENT.

FIG. 2.



1975-80-TOYOTA
PUMP ADJUSTMENT.

FIG. 3.

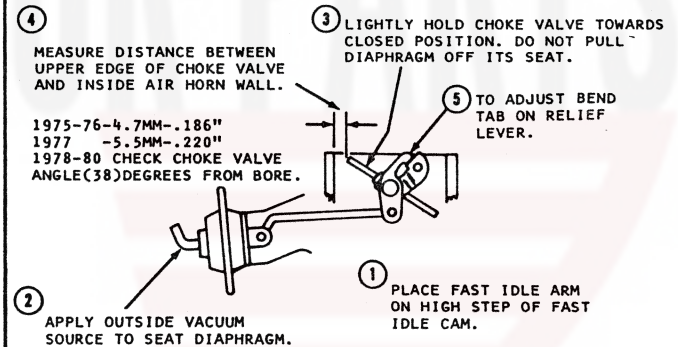
1975-80-TOYOTA



ROTATE CHOKE COVER AGAINST SPRING TENSION. SET MARK ON CHOKE COVER TO INDEX MARK ON CHOKE HOUSING:

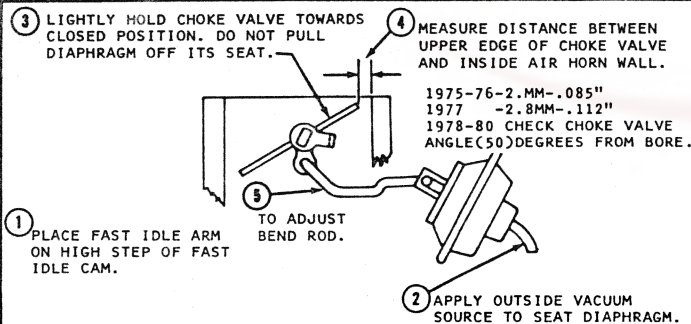
AUTOMATIC CHOKE ADJUSTMENT

FIG. 4



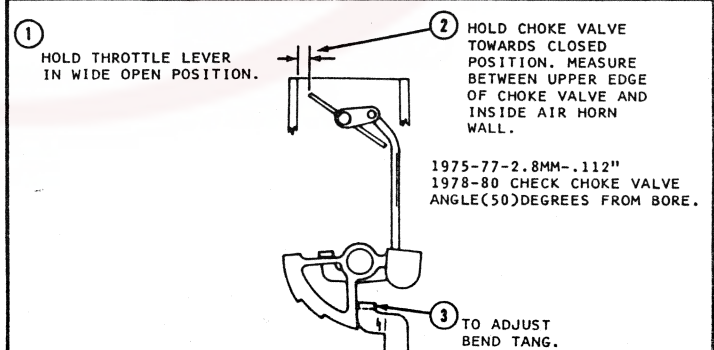
VACUUM BREAK ADJUSTMENT

FIG. 5



AUXILIARY CHOKE OPENER ADJUSTMENT

FIG. 6



UNLOADER ADJUSTMENT

FIG. 7