



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.
- 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.

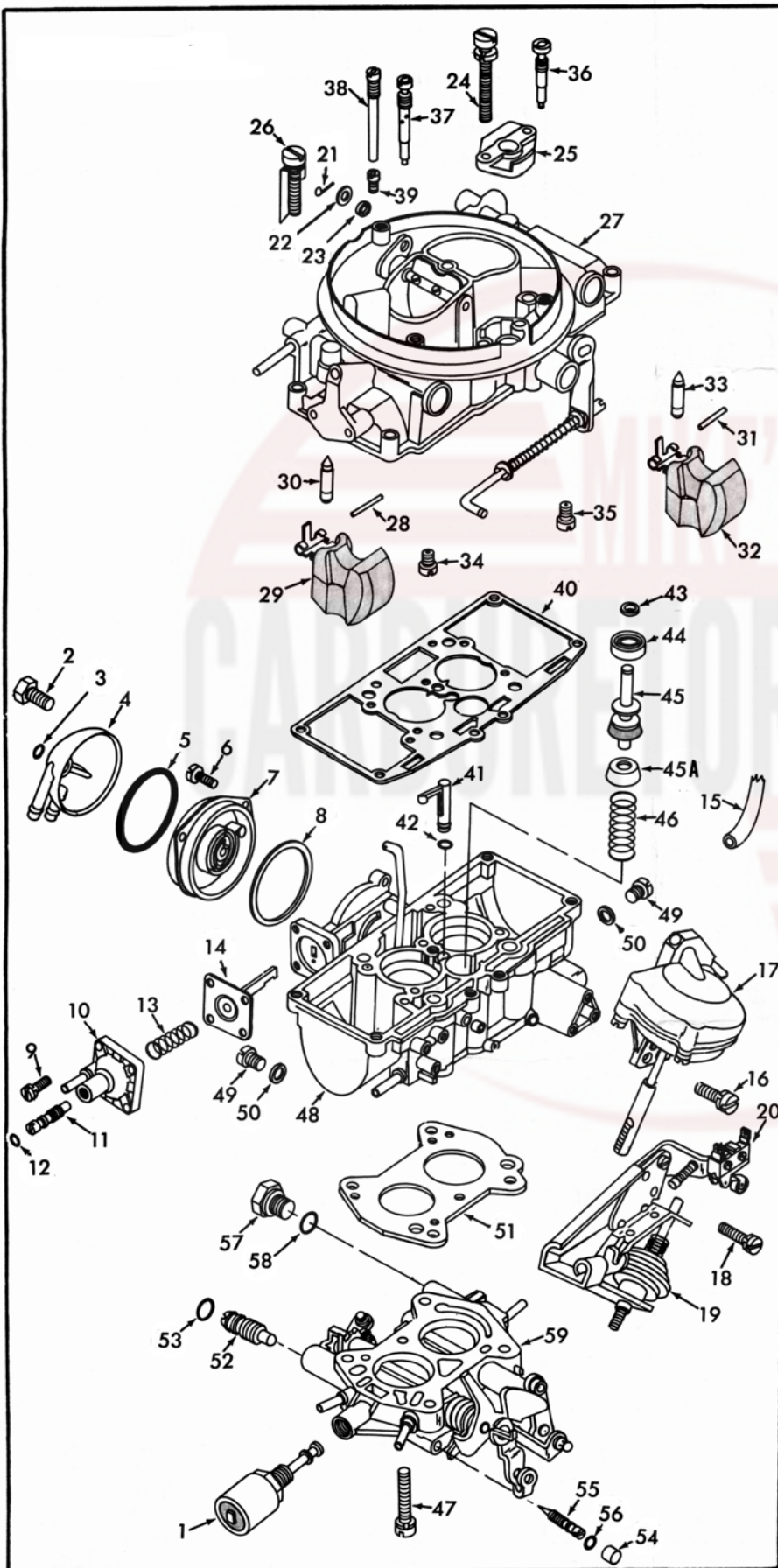
INSTRUCTION SHEET

ZENITH CARBURETOR MODEL 32/32-2B2

50-522-1

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. CAUTION: NEEDLE SEATS AND AIR CORRECTION JETS ARE PRESSED INTO BOWL COVER, THEY OR NOT REMOVABLE. HOSE CONNECTION TUBES HAVE COLOR CODED PLASTIC RINGS DO NOT REMOVE. DO NOT DISASSEMBLY SECONDARY DIAPHRAGM ASSY. UNLESS NEW DIAPHRAGM IS NEEDED. RECORD SIZES OF JETS BELOW FOR REASSEMBLY REFERENCE.

NOMENCLATURE

REF. NO.	REF. NO.
1. SOLENOID- IDLE SHUT OFF	31. PIN- SECONDARY FLOAT
2. BOLT- CHOKE WATER HOUSING	32. SECONDARY FLOAT ASSY.
3. O RING- BOLT	33. NEEDLE- SECONDARY
4. WATER HOUSING- CHOKE	34. JET- PRIMARY MAIN
5. O-RING-WATER HOUSING	35. JET- SECONDARY MAIN
6. SCREW (3)- COVER RETAINING RING	36. JET- SECONDARY IDLE
7. CHOKE COVER, COIL & RETAINING RING	37. JET- PRIMARY IDLE
8. GASKET- CHOKE COVER	38. JET- AUX. AIR
9. SCREW & LOCKWASHER (4)- COVER	39. JET- AUX. FUEL
10. COVER- DIAPHRAGM	40. GASKET- BOWL COVER
11. ADJ. SCREW	41. NOZZLE- PUMP
12. O RING- ADJ. SCREW	42. O RING- PUMP NOZZLE
13. SPRING- DIAPHRAGM	43. FELT RING- PUMP STEM
14. DIAPHRAGM ASSY.- CHOKE VACUUM	44. RETAINER- PUMP
15. HOSE- SECONDARY	45. PUMP ASSY.
16. SCREW & LOCKWASHER (3)- SEC. VAC. UNIT	45A. PUMP CUP
17. SECONDARY VAC. UNIT ASSY.	46. SPRING- PUMP RETURN
18. SCREW & LOCKWASHER (3)- DASHPOT, RELAY SWITCH BRACKETS	47. SCREW & LOCKWASHER- THROTTLE BODY
19. DASHPOT & BRACKET ASSY. RELAY SWITCH & BRACKET ASSY.	48. BOWL ASSY.
20. COTTER PIN- CHOKE ROD	49. PLUG (2)- BOWL DRAIN
21. WASHER- CHOKE ROD BUSHING- CHOKE SHAFT LEVER (PLASTIC)	50. GASKET (2)- DRAIN PLUG
22. SCREW & LOCKWASHER (2)- BOWL COVER & PLATE	51. GASKET- THROTTLE BODY
23. PLATE- BOWL COVER	52. SCREW- IDLE SPEED
24. SCREW & LOCKWASHER (4)- BOWL COVER	53. O RING- IDLE SPEED SCREW
25. BOWL COVER ASSY.	54. CAP- IDLE ADJUSTING. SCREW
26. PIN- PRIMARY FLOAT	55. SCREW- IDLE MIXTURE ADJ.
27. PRIMARY FLOAT ASSY.	56. O RING- IDLE ADJ. SCREW
28. NEEDLE- PRIMARY	57. PLUG- THROTTLE BODY
29. NEEDLE- PRIMARY	58. GASKET- PLUG
30. NEEDLE- PRIMARY	59. 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: DO NOT SOAK SOLENOIDS, SWITCHES, FLOATS, CHOKE COVER OR RUBBER PARTS IN SOLVENTS.

REASSEMBLY

USING ESSENTIALLY THE REVERSE ORDER OF DISASSEMBLY GIVING SPECIAL ATTENTION TO THE FOLLOWING SPECIAL INSTRUCTIONS.

SPECIAL INSTRUCTIONS

MAKE SURE ALL JET ORIFICES ARE CLEAN AND OPEN. CLEAN WITH COMPRESSED AIR. DO NOT USE WIRE TO CHECK FOR CLOGGED ORIFICES.

IDLE ADJUSTING SCREW (55)- TURN SCREW IN UNTIL LIGHTLY SEATED THEN BACK OUT 1 3/4 TURNS.

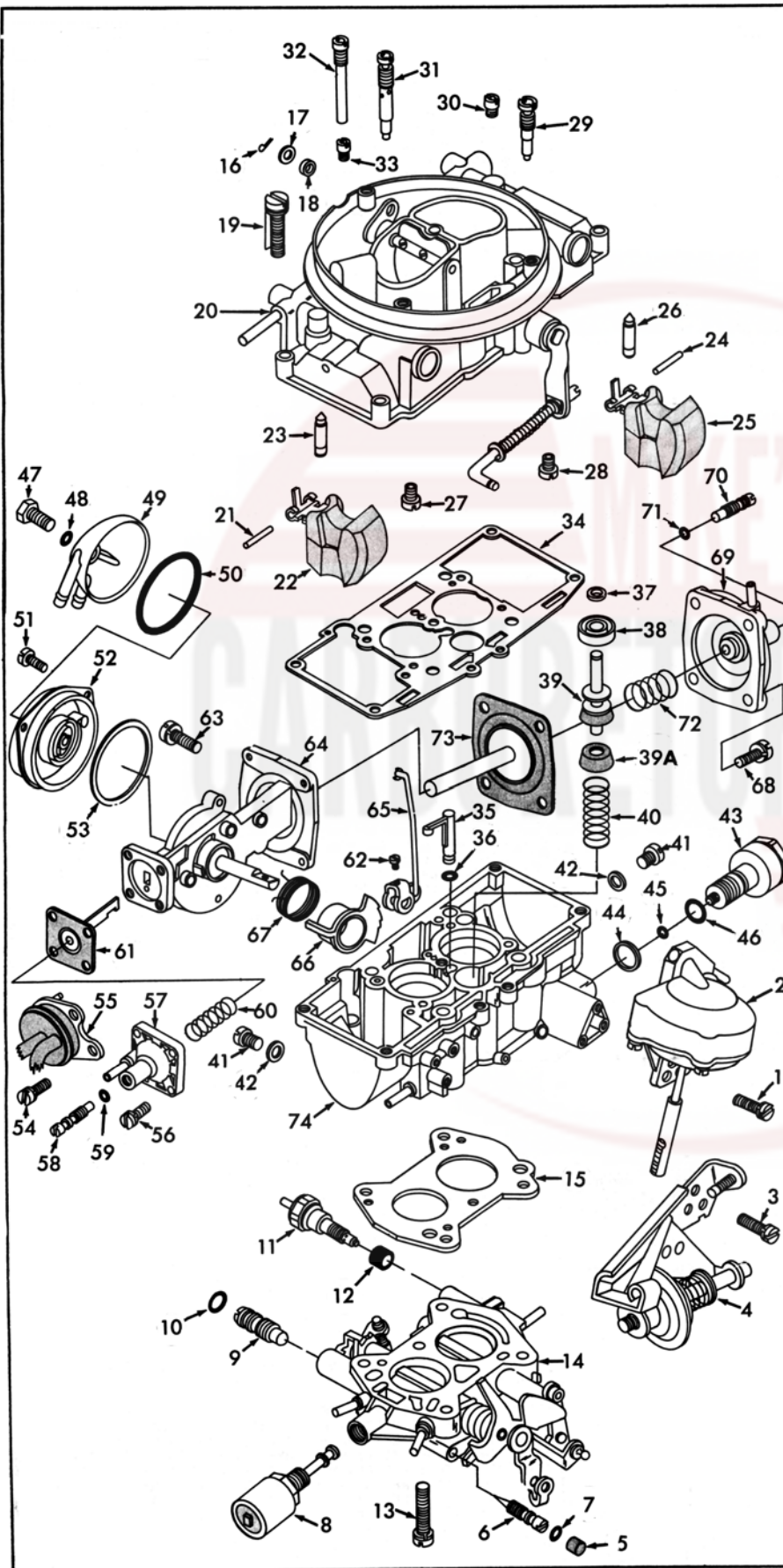
IDLE SPEED SCREW (52)- TURN SCREW IN UNTIL LIGHTLY SEATED, THEN BACK OUT 3 1/4 TURNS.

CHECK THE THERMOSTATIC SPRING IN HOUSING (ITEM #7) FOR DAMAGE. IF IT IS DISTORTED OR "KINKED", REPLACE THE ASSEMBLY. MAKE SURE THE ELECTRICAL HEATING ELEMENT IS NOT BROKEN. THIS CAN BE CHECKED WITH AN OHMMETER OR CONNECTED TO A CORRECT VOLTAGE BATTERY FOR A FEW MINUTES TO SEE IF IT WARMS UP. (BE SURE TO GROUND THE METAL PART OF THE HOUSING IN ORDER TO COMPLETE THE CIRCUIT.) WHEN INSTALLING ASSEMBLY WITH SPRING AND HEATER ELEMENT, CAREFULLY ROTATE ASSEMBLY COUNTERCLOCKWISE, BEING SURE THE LOOP ON COIL END ENGAGES WITH THE LEVER ON CHOKE SHAFT. CONTINUE ROTATING UNTIL INDEX MARKS ALIGN, THEN TIGHTEN SCREWS SECURELY.

ZENITH CARBURETOR MODEL 32/32-2B2

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NOMENCLATURE

REF. NO.	REF. NO.
1. SCREW & LOCKWASHER (3)- SEC. VAC. UNIT.	39A. PUMP CUP
2. SECONDARY VAC. UNIT ASSY.	40. SPRING- PUMP RETURN
3. SCREW & LOCKWASHER (3)- DASHPOT BRACKET	41. PLUG (2)- BOWL DRAIN
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5. CAP- IDLE ADJUSTING SCREW	43. VAC. VALVE ASSY.
6. SCREW- IDLE MIXTURE ADJ.	44. GASKET- VAC. VALVE
7. O-RING- IDLE ADJ. SCREW	45. O-RING- VAC. VALVE
8. SOLENOID- IDLE SHUT OFF	46. O-RING- VAC. VALVE
9. SCREW- IDLE SPEED	47. BOLT- CHOKE WATER HOUSING
10. O-RING- IDLE SPEED SCREW	48. O-RING- BOLT
11. AUX. AIR/FUEL JET	49. WATER HOUSING- CHOKE
12. GASKET- AUX. AIR/FUEL JET	50. O-RING- WATER HOUSING CHOKE
13. SCREW & LOCKWASHER- THROTTLE BODY	51. SCREW (3)- COVER RETAINING RING
14. THROTTLE BODY ASSY.	52. CHOKE COVER, COIL & RETAINING RING
15. GASKET- THROTTLE BODY	53. GASKET- CHOKE COVER
16. COTTER PIN- CHOKE ROD	54. SCREW & LOCKWASHER (2)- VAC. VALVE
17. WASHER- CHOKE ROD	55. VALVE ASSY.- VAC. DELAY
18. BUSHING- CHOKE SHAFT LEVER (PLASTIC)	56. SCREW & LOCKWASHER (2)- COVER
19. SCREW & LOCKWASHER (4)- BOWL COVER	57. COVER- DIAPHRAGM
20. BOWL COVER ASSY.	58. ADJUSTING SCREW
21. PIN- PRIMARY FLOAT	59. O-RING- ADJ. SCREW
22. PRIMARY FLOAT ASSY.	60. SPRING- DIAPHRAGM
23. NEEDLE- PRIMARY	61. DIAPHRAGM ASSY.- CHOKE VAC.
24. PIN- SECONDARY FLOAT	62. SCREW- LEVER
25. SECONDARY FLOAT ASSY.	63. SCREW & LOCKWASHER (3)- CHOKE DIAPH. HOUSING
26. NEEDLE- SECONDARY	64. CHOKE DIAPHRAGM HOUSING
27. JET- PRIMARY MAIN	65. LEVER & ROD ASSY.
28. JET- SECONDARY MAIN	66. FAST IDLE CAM
29. JET- SECONDARY IDLE	67. SPRING- FAST IDLE CAM
30. JET- AIR	68. SCREW & LOCKWASHER (4)- COVER
31. JET- PRIMARY IDLE	69. COVER DIAPHRAGM
32. JET- AUX. AIR	70. ADJUSTING SCREW
33. JET- AUX. FUEL	71. O-RING- ADJ. SCREW
34. GASKET- BOWL COVER	72. SPRING- DIAPHRAGM
35. NOZZLE- PUMP	73. DIAPHRAGM ASSY.- CHOKE (LARGE)
36. O-RING- PUMP NOZZLE	74. BOWL ASSY.
37. SEAL- PUMP STEM	
38. RETAINER- PUMP	
39. PUMP ASSY.	

CLEANING

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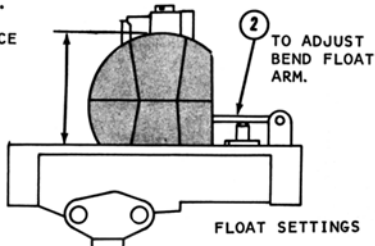
IDLE ADJUSTING SCREW (6)- TURN SCREW IN UNTIL LIGHTLY SEATED THEN BACK OUT 1 1/4 TURNS.

IDLE SPEED SCREW (9)- TURN SCREW IN UNTIL LIGHTLY SEATED, THEN BACK OUT 3 1/4 TURNS.

CHECK THE THERMOSTATIC SPRING IN HOUSING (ITEM 52) FOR DAMAGE. IF IT IS DISTORTED OR "KINKED", REPLACE THE ASSEMBLY. MAKE SURE THE ELECTRICAL HEATING ELEMENT IS NOT BROKEN. THIS CAN BE CHECKED WITH AN OHMMETER OR CONNECTED TO A CORRECT VOLTAGE BATTERY FOR A FEW MINUTES TO SEE IF IT WARMS UP. (BE SURE TO GROUND THE METAL PART OF THE HOUSING IN ORDER TO COMPLETE THE CIRCUIT.) WHEN INSTALLING ASSEMBLY WITH SPRING AND HEATER ELEMENT, CAREFULLY ROTATE ASSEMBLY COUNTERCLOCKWISE, BEING SURE THE LOOP ON COIL END ENGAGES WITH THE LEVER ON CHOKE SHAFT. CONTINUE ROTATING UNTIL INDEX MARKS ALIGN, THEN TIGHTEN SCREWS SECURELY.

ADJUSTMENTS

- 1 BOWL COVER INVERTED. FLOAT RESTING ON NEEDLE OF ITS OWN WEIGHT. MEASURE DISTANCE BETWEEN BOTTOM OF FLOAT AND GASKET SURFACE OF BOWL COVER.



FLOAT SETTINGS

CAUTION: DO NOT EXERT PRESSURE ON RESILIENT NEEDLE VALVE.

PRIMARY SIDE (1ST STAGE)	28 MM
	1 7/64"
SECONDARY SIDE (2ND STAGE)	30 MM
	1 3/16"

DRY FLOAT LEVEL ADJUSTMENT

FIG. 1.

- 1 REMOVE PLASTIC CAP. TURN STOP SCREW ANTICLOCKWISE UNTIL THERE IS A GAP BETWEEN THROTTLE LEVER & SCREW.
- 2 TURN SCREW IN CLOCKWISE UNTIL IT JUST TOUCHES LEVER THEN TURN AN ADDITIONAL 1/4 TURN.

THROTTLE VALVE, BASIC ADJUSTMENT.

FIG. 2.

- 3 MEASURE GAP BETWEEN LOWER EDGE OF THROTTLE VALVE & BORE OF CARB. SETTING 0.45 - 0.5 MM .018" - .020"
- 4 TO ADJUST TURN FAST IDLE SCREW.
- 1 CHOKE VALVE COMPLETELY CLOSED.
- 2 OPEN & CLOSE THROTTLE TO PROPERLY SEAT FAST IDLE SCREW ON FAST IDLE CAM.

THROTTLE VALVE GAP. (FAST IDLE ADJUSTMENT).

FIG. 3.

- 1 OPEN CHOKE AND CLOSE PRIMARY THROTTLE VALVE.
- 3 BACK OUT ADJUSTING SCREW 1/4 TURN. (CHECK TO MAKE SURE THERE IS A NOTICEABLE CLEARANCE AT LEVER).
- 5 TO ADJUST LOOSEN LOCKNUT AND TURN DIAPHRAGM ROD.
- 4 DISCONNECT SECONDARY DIAPHRAGM ROD. DIAPHRAGM COMPLETELY RELEASED, CHECK THAT ROD END IS CENTERED ON BALL.
- 2 CAREFULLY TURN ADJUSTING SCREW IN UNTIL ALL CLEARANCE IS REMOVED FROM LEVER.

SECOND STAGE ADJUSTMENT

FIG. 4.

- 1 OPEN THROTTLE, HOLD CHOKE VALVE COMPLETELY CLOSED.
 - 3 MEASURE DISTANCE BETWEEN LOWER EDGE OF CHOKE VALVE AND AIR HORN WALL.
 - 4 TO ADJUST TURN SCREW IN DIAPHRAGM COVER.
 - 2 PUSH IN ON DIAPHRAGM ROD UNTIL IT IS SEATED.
- SETTING. 4.2 MM .172"

ONE VACUUM UNIT CARB. CHOKE VALVE GAP. (CHOKE PULL OFF ADJ.)

FIG. 5.

- 1 OPEN THROTTLE, HOLD CHOKE VALVE COMPLETELY CLOSED. ADJUST FIRST STAGE (FIRST).
 - 3 MEASURE DISTANCE BETWEEN LOWER EDGE OF CHOKE VALVE AND AIR HORN WALL.
 - 4 TO ADJUST TURN SCREW IN DIAPHRAGM COVER.
 - 5 TO ADJUST TURN SCREW IN DIAPHRAGM COVER.
 - 2 PUSH IN ON DIAPHRAGM ROD UNTIL IT IS SEATED.
- REPEAT STEPS 1, 2, 3, 5, FOR STAGE 2.
- FIRST STAGE 3.5 MM .140"
SECOND STAGE 5.00 MM .203"

TWO VACUUM UNIT CARB. CHOKE VALVE GAP. (CHOKE PULL OFF ADJ.)

FIG. 6.

- 1 FILL FUEL BOWL TO PROPER LEVEL.
 - 2 HOLD FUNNEL AND MEASURING GLASS UNDER CARBURETOR.
 - 3 FULLY OPEN THROTTLE VALVE SLOWLY 5 TIMES.
 - 4 DIVIDE AMOUNT OF FUEL IN MEASURING GLASS BY 5.
 - 5 COMPARE WITH NOMINAL VALUE. 0.75 CM³ TO 1.05 CM³ PER STROKE
 - 6 TO ADJUST TURN ADJUSTER ON END OF ACTUATING ROD.
- TURN IN -- QUANTITY INCREASED
TURN OUT -- QUANTITY DECREASED

FUEL INJECTION QUANTITY. (PUMP ADJUSTMENT). (CARBURETOR REMOVED)

FIG. 7.

- 1 OPEN CHOKE AND CLOSE PRIMARY THROTTLE VALVE
 - 3 MEASURE DISTANCE BETWEEN END OF ROD & THROTTLE LEVER
 - 2 PUSH DASHPOT ROD IN ALL THE WAY
 - 4 TO ADJUST LOOSEN LOCKNUT & TURN DASHPOT
- 3 MM (1/8")

(MANUAL TRANSMISSION) DASHPOT ADJUSTMENT

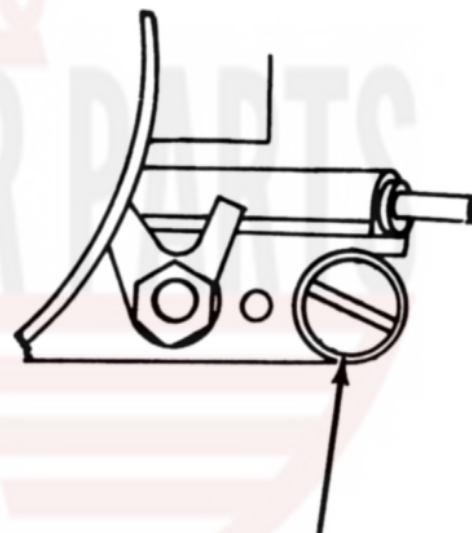
FIG. 8.

ADJUSTMENT

SET CURB IDLE BY FOLLOWING
CAR MANUFACTURES SERVICE
MANUAL PROCEDURE, AND
ENGINE DECAL FOR
SPECIFICATIONS.



IDLE MIXTURE ADJ.



IDLE SPEED ADJ.

IDLE ADJUSTMENT

FIG. 9