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:

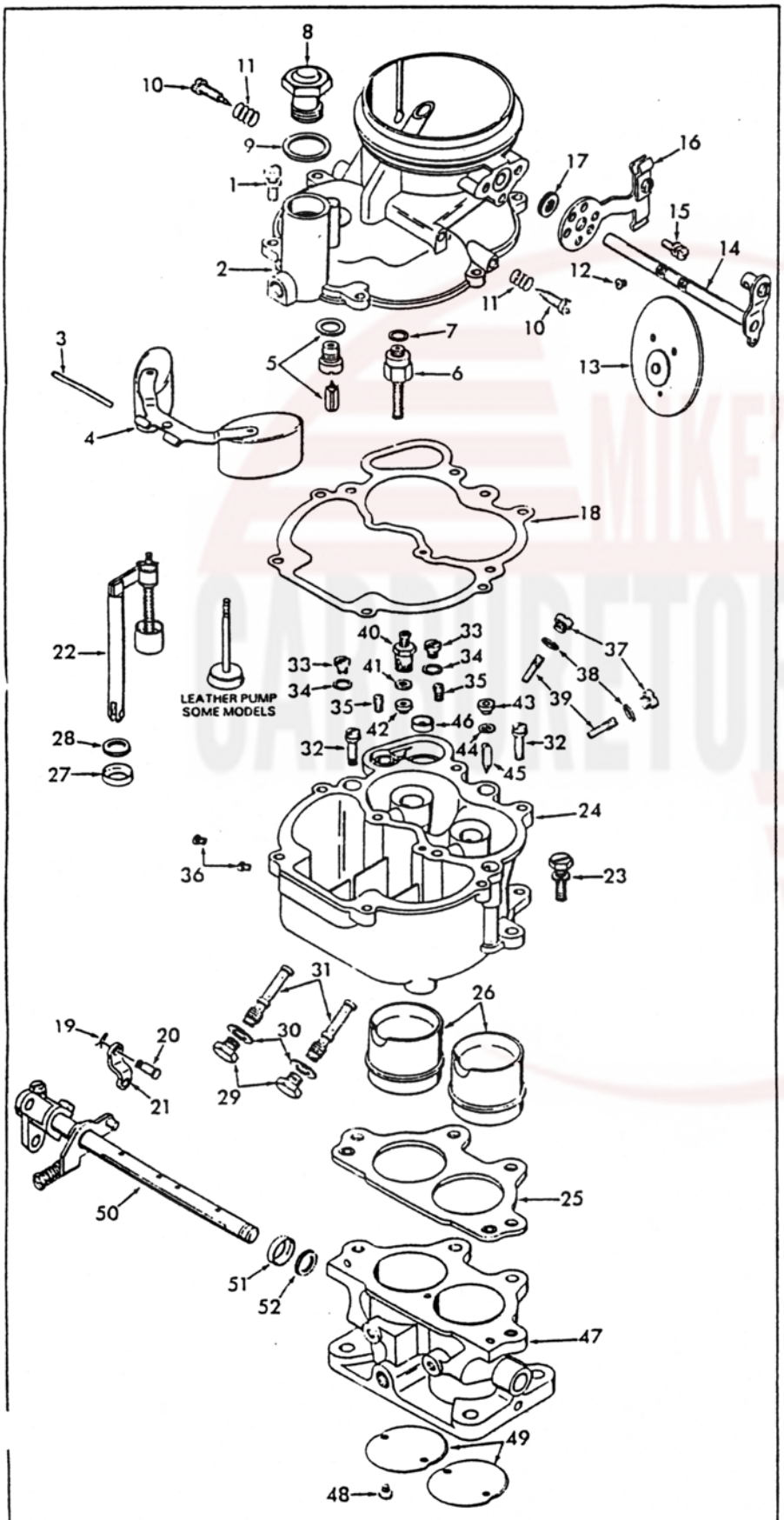
- On leather cups run your finger around the inside of the cup to break any manufacturer sealant.
- Apply 2 drops of oil to cups (leather, or rubber) before inserting into carburetor. Do not soak the cup in oil. The swelling of the cup needs to happen inside the carburetor. Allow the 2 drops of oil and 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
ZENITH-MODEL 28ADA10

50-687

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: SOME CARBURETORS IT IS NECESSARY TO FILE PEENED END OF CHOKE AND THROTTLE VALVE SCREWS OFF BEFORE REMOVING

NOMENCLATURE

REF. NO.

1. SCREW & LOCKWASHER (6)- BOWL COVER
2. BOWL COVER ASSEMBLY
3. AXLE-FLOAT
4. FLOAT ASSEMBLY
5. NEEDLE & SEAT ASSEMBLY
6. POWER PISTON ASSEMBLY
7. GASKET-POWER PISTON ASSY.
8. PLUG-FUEL INLET
9. GASKET-PLUG
10. NEEDLE (2)-IDLE ADJUSTING
11. SPRING (2)-IDLE NEEDLE
12. SCREW (2)-CHOKE VALVE
13. CHOKE VALVE
14. SHAFT-CHOKE
15. SCREW & LOCKWASHER (2)- CABLE BRACKET
16. BRACKET-CABLE
17. DUST SEAL-CHOKE SHAFT
18. GASKET-BOWL COVER
19. RETAINER-PIN
20. PIN-PUMP LINK
21. LINK-PUMP
22. PUMP ASSY (METAL PUMP USE OVER)
23. SCREW & LOCKWASHER (4)- THROTTLE BODY TO BOWL
24. BOWL ASSEMBLY
25. GASKET-THROTTLE BODY
26. VENTURI (2)
27. RETAINER-SEAL
28. SEAL-PUMP ROD
29. PLUG (2)-MAIN NOZZLE
30. GASKET (2)-PLUG
31. NOZZLE (2)-MAIN
32. JET (2)-IDLE
33. JET (2)-MAIN
34. GASKET (2)-MAIN JET
35. JET (2)-WELL VENT
36. JET OR PLUG (2)- IDLE COMPENSATOR
37. PLUG (2)-PUMP JET
38. GASKET (2)-PLUG
39. JET (2)-PUMP
40. POWER VALVE ASSEMBLY
41. WASHER-POWER JET
42. JET-POWER
43. CHECK VALVE-PUMP VENT
44. RETAINER-NEEDLE
45. NEEDLE-PUMP CHECK
46. CHECK VALVE-PUMP INTAKE
47. THROTTLE BODY ASSEMBLY
48. SCREW (4)-THROTTLE VALVE
49. VALVE (2)-THROTTLE
50. SHAFT ASSY -THROTTLE
51. RETAINER-SEAL
52. SEAL-THROTTLE SHAFT

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.

REASSEMBLY

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

SPECIAL INSTRUCTIONS

PUMP PLUNGER-CARBURETORS WITH METAL PUMP, USE OLD PUMP OVER (LEATHER PUMP DOES NOT REPLACE IT)

LEATHER PUMP-BEFORE INSTALLING LIGHTLY OIL LEATHER BEFORE ASSEMBLY

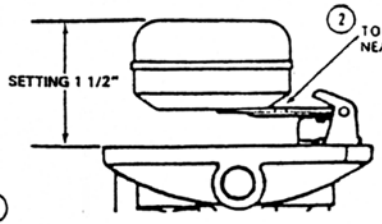
IDLE ADJUSTING NEEDLES-TURN NEEDLES IN UNTIL LIGHTLY SEATED THEN BACK OUT 1 TURN.

PUMP VENT CHECK VALVE (43)-INSTALL WITH FLAT SURFACE UP

PUMP INTAKE CHECK VALVE (46)-INSTALL WITH FLAT SURFACE DOWN

(1) FLOAT LEVEL ADJUSTMENT

BOWL COVER INVERTED, MEASURE FROM GASKET SURFACE TO FLOAT AT TOE END (CHECK BOTH FLOAT BODIES).



(3) CHECK THAT FLOAT BODIES ARE CENTERED AND AT RIGHT ANGLES TO MACHINED SURFACES AT FREE END OF FLOAT BODIES.