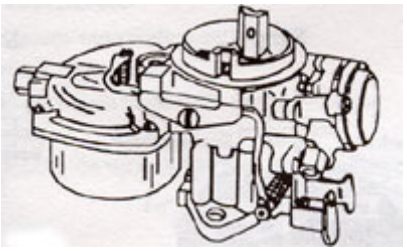
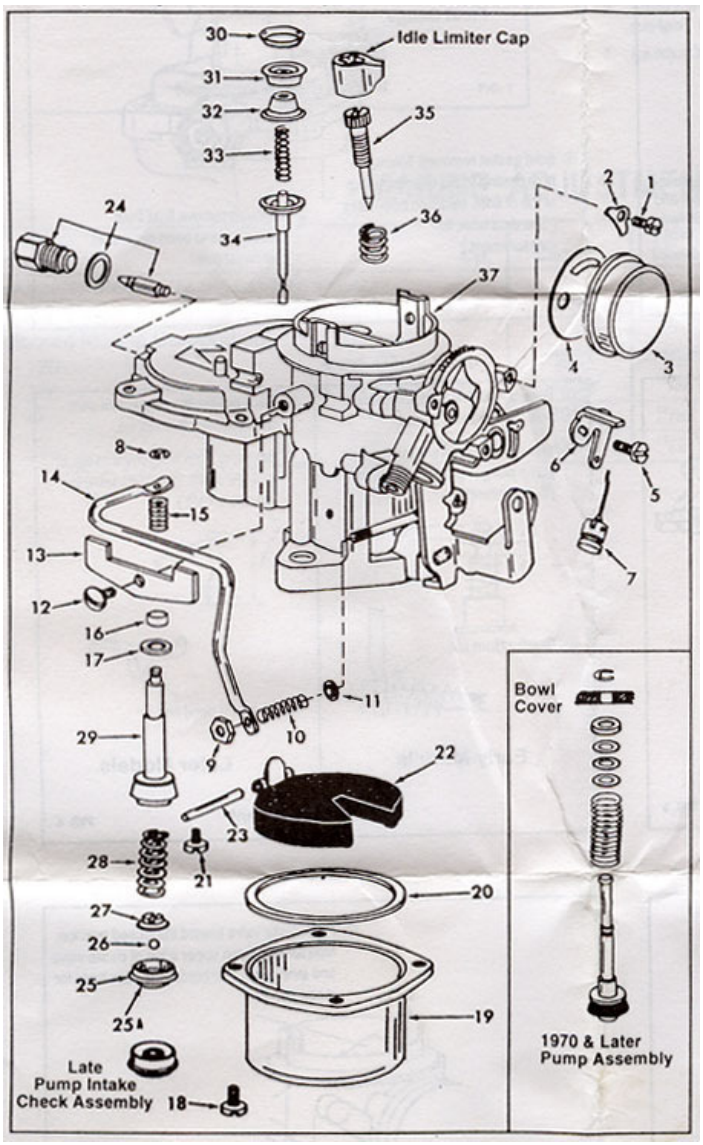
INSTRUCTION SHEET

Carter – Model RBS



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. **Note:** Pump plunger (29) removal. Press to bottom of pump cylinder then tap lightly on pump shaft to remove parts (25), (26), (27), (28), (29). To remove step up rod and diaphragm (34). Pry out washer (30) then pierce diaphragm cover (31) near outer edge with small punch or screwdriver and pry out cover (31).
Note: Remove rubber vent valve on 1968-69 models before cleaning.

Nomenclature

Ref.No.
1. Screw – Stat Cover (3)
2. Retainer – Stat Cover
3. Stat Cover
4. Gasket Stat Cover
5. Screw – Choke Piston Lever
6. Lever – Choke Piston
7. Piston & Link – Choke
8. Retainer – Pump Rod
9. Nut – Pump Arm Connector Link
10. Spring – Pump Arm Connector Link
11. Retainer – Pump Arm Connector Link Spring
12. Screw – Pump Arm Retainer
13. Retainer – Pump Arm
14. Pump Arm
15. Spring – Pump (Upper)
16. Bushing – Pump Plunger Shaft (Some Models)
17. Washer – Pump
18. Screw – Bowl Attaching (4)
19. Bowl – Fuel
20. Gasket – Fuel Bowl
21. Screw – Float Pin (2)

Ref.No.
22. Float & Lever Assembly
23. Pin – Float Lever
24. Needle, Seat & Gasket Assembly
25. Seat – (with hole) Intake Ball Check (Some Models)
25a. Retainer (solid) Pump Cylinder
26. Ball – Intake Check (Some Models)
27. Retainer – Intake Check Ball (Some Models)
28. Spring – Pump (Lower)
29. Plunger – Pump
30. Washer – Conical
31. Cover – Step Up Rod
32. Diaphragm Retainer – Step Up
33. Rod Diaphragm Spring – Step Up Rod
34. Step Up Rod & Diaphragm Assembly
35. Needle – Idle Adjusting
36. Spring – Idle Adjusting Needle
37. Main Body Assembly

Cleaning

Cleaning must be done with carburetor disassembled. Soak parts long enough to soften and remove all foreign material. Use a carburetor cleaning solvent, lacquer thinner or denatured alcohol. Make certain the throttle bore is free of all hard carbon deposits. Wash off in suitable solvent. Blow out all passages in casting with compressed air and check carefully to insure thorough cleaning of obscure areas.
Caution: Do not soak rubber, leather or plastic parts in solvent.

Reassembly

Reassemble in reverse order of disassembly. Note special instructions and follow numerical outline in making adjustments necessary for carburetor being serviced.

Special Instructions

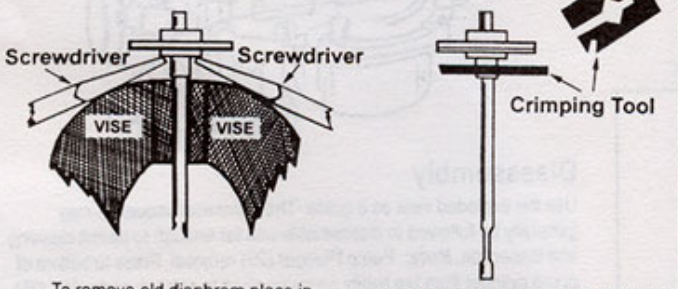
Idle adjusting needle (35). Lightly bottom then back out 1 ¼ turns.

a. Step up rod to diaphragm assembly (34) See Fig. 1

b. Place step up rod and diaphragm assembly (34) in position. Using hat shaped retainer (32). Press diaphragm down in place against gasket ledge in casting. Remove retainer and examine for even assembly. Install (33), (32) and new diaphragm cover (31) using a 5/8” socket as a drift and tap in place with a hammer. Next install conical washer (30) with small opening down using a ½” socket as a drift tap with hammer until washer is driven into cover 3/32” to 1/8” below top edge of cover. Caution: Do not strike center of cover or drive conical washer in beyond 1/8”.

Pump plunger (29) – Remove paper sleeve from leather cup if used. Flex leather cup outward slightly. Soak cup in gasoline, kerosene or oil for a few minutes prior to placing in carburetor.

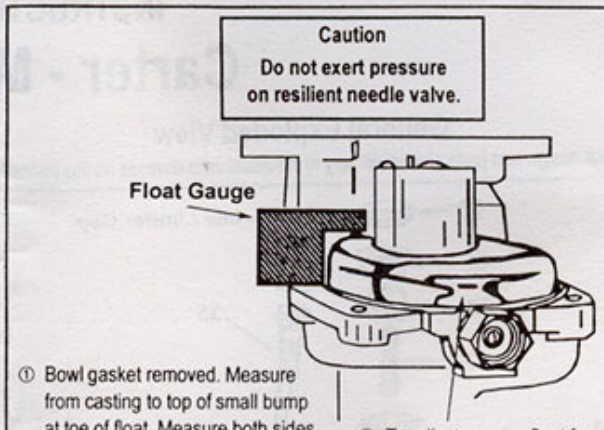
ADJUSTMENTS



To remove old diaphram place in vise and pry upward with two screwdrivers. (Being careful not to bend step up rod)

Place original rod into new diaphragm until it bottoms in hole. Take tool and place on diaphragm stem as shown, squeeze tool in vise to crimp diaphragm stem to step up rod.

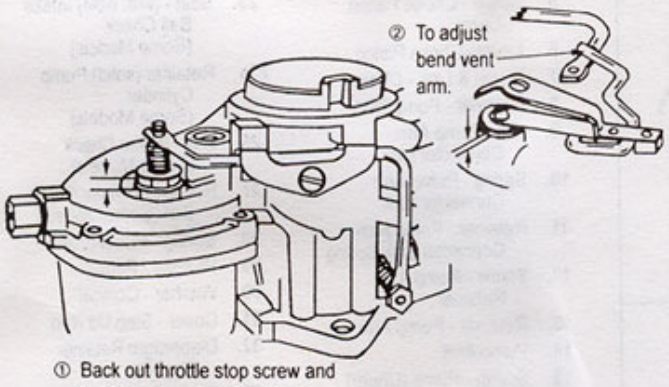
New Diaphragm to Step Up Rod Assembly FIG. 1



① Bowl gasket removed. Measure from casting to top of small bump at toe of float. Measure both sides (See data table for measurement.)

② To adjust remove float from carburetor and bend bracket at narrowest point.

Dry Float Level Adjustment FIG. 2

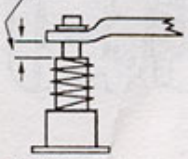


① Back out throttle stop screw and hold throttle valve closed.

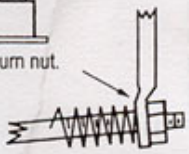
Bowl Vent Adjustment FIG. 3

① Back out throttle stop screw and hold throttle valve closed.

② Measure between shoulder on pump plunger and connector rod. (1/64" clearance).



③ To adjust turn nut.



Early Models

① Back out throttle stop screw and hold throttle valve closed.

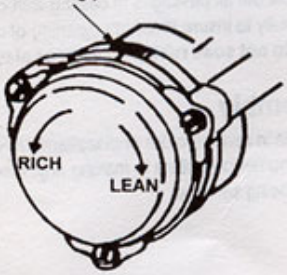
② Measure from bowl cover to top of plunger shaft. (See data table for measurement.)

③ To adjust bend link.

Later Models

Pump Adjustment FIG. 4

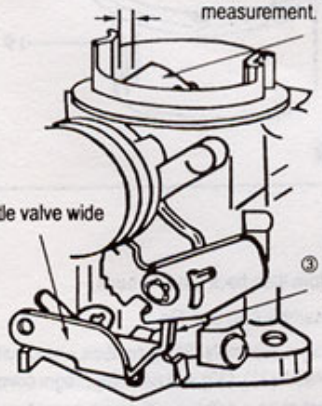
Rotate stat cover against spring tension. Set mark on cover to specified point on choke housing. (See data table for setting.)



Allowable variation 2 notches either way from index.

Automatic Choke Adjustment FIG. 5

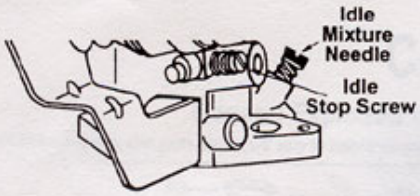
② Hold choke valve toward the closed position. Measure between upper edge of choke valve and inner wall of air horn. (See data table for measurement.



① Hold throttle valve wide open.

③ To adjust bend unloader tang on throttle lever.

Unloader Adjustment FIG. 6



Slow Idle Adjustment FIG. 7

Supplement

1. Set ignition timing per manufacturer's specifications and procedure.
2. Engine at operating temperature, choke fully open.
3. Adjust throttle stop screw to specified idle speed. R.P.M. using a tachometer.
4. Air cleaner installed.
5. Adjust idle mixture needle to obtain the highest R.P.M. at the leanest best idle setting.
6. Re-adjust idle speed if necessary.

MARINE ADJUSTMENTS

O.E.M.	Cyl.	Carb No.	Float Level	Pump Adj.	Unloader	Chok Setting	Slow Idle R.P.M.
Kiekhaefer Mercury Marine (Stern drive)							
MCM 80	4 cyl. 89.7"	4394	3/8"	.015"	7/64"	4 Lean	650
Outboard Marine Corporation							
120	4 cyl. (Dual Carb.)	3971	15/32"	.015"	7/64"	Index	600
120	4 cyl. (Dual Carb.)	4208	15/32"	.015"	7/64"	Index	600
150	V6 cyl.	3951	15/32"	.015"	7/64"	Index	600
150	V6 cyl.	4207	15/32"	.015"	7/64"	Index	600