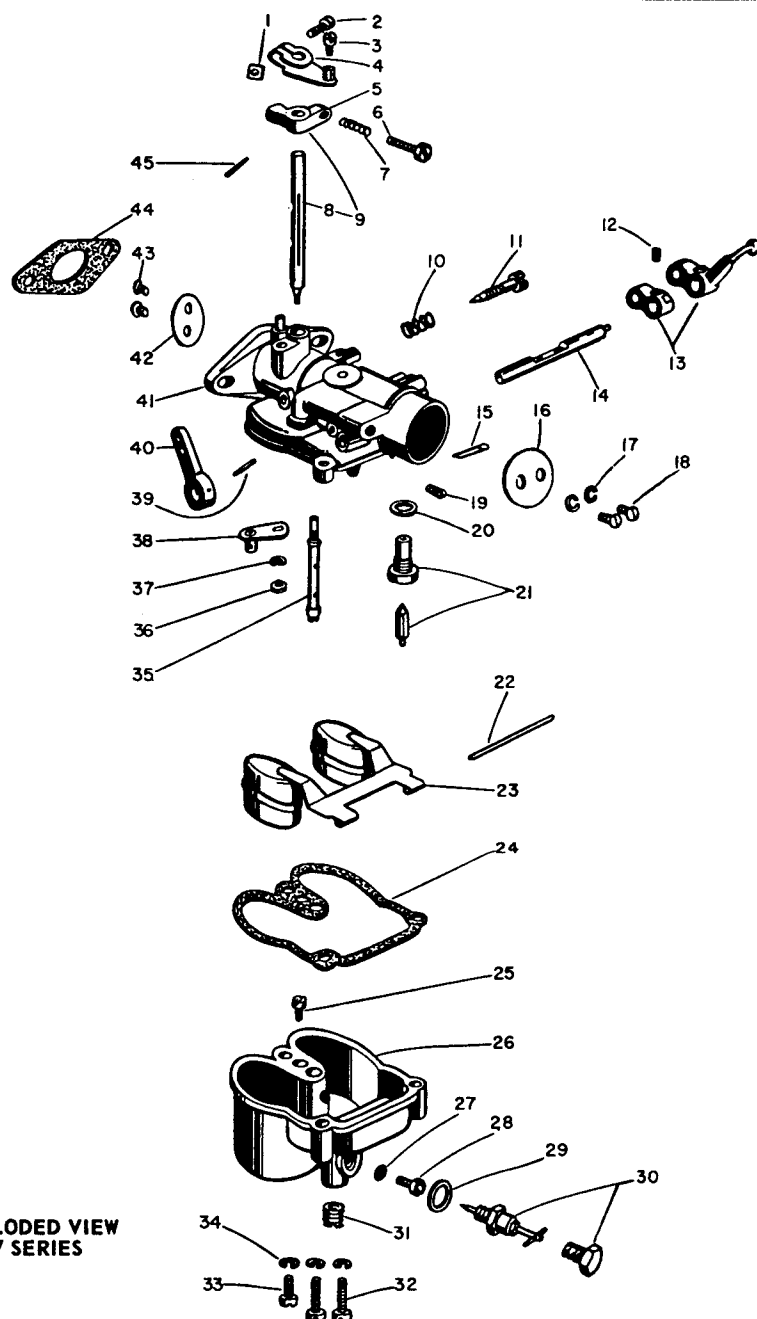


ZENITH CARBURETOR DETAIL SHEET

87 SERIES



KEY. NO.	PART NAME
1	NUT-Clamp
2	SCREW-Lever Clamp
3	SCREW-Swivel
4	CLAMP-Throttle Lever
5	LEVER-Throttle
6	SCREW-Throttle Stop
7	SPRING-Stop Screw
8	SHAFT-Throttle
9	LEVER & SHAFT-Throttle
10	SPRING-Idle Adjusting Needle
11	NEEDLE-Idle Adjusting
12	SET SCREW-Choke Lever
13	LEVER ASSEMBLY-Choke
14	SHAFT-Choke
15	TUBE-Pitot
16	PLATE-Choke
17	LOCKWASHER-Choke Plate Screw
18	SCREW-Choke Plate
19	SET SCREW-Pitot
20	WASHER-Fuel Valve Seat
21	VALVE & SEAT-Fuel
22	AXLE-Float
23	FLOAT
24	GASKET-Bowl to Body
25	JET-Idle
26	BOWL-Fuel
27	WASHER-Main Jet
28	JET-Main
29	WASHER-Main Passage Plug
30	PLUG-Main Passage
31	PLUG-Bowl Drain
32	SCREW-Bowl to Body Assembly
33	SCREW-Bowl to Body Assembly
34	PLUG OR ADJUSTMENT-Main
35	JET-Discharge
36	NUT-Throttle Shaft
37	LOCKWASHER-Throttle Shaft Nut
38	LEVER-Throttle
39	TAPER PIN-Choke Lever
40	LEVER-Choke
41	BODY-Throttle
42	PLATE-Throttle
43	SCREW-Throttle Plate
44	GASKET-Flange
45	PIN-Taper

1. DISASSEMBLY

Disassembly consists of separating the carburetor into two basic groups: fuel bowl and air intake-throttle body and the disassembly of each of these groups. Use exploded illustration above as a guide for disassembly and reassembly.

2. CLEANING AND INSPECTION

Thoroughly clean all metal parts in Bendix Metalclene or Speedclene. Blow out all parts and channels with air pressure. Inspect housing for damage, excessive wear, burrs or warpage. DO NOT CLEAN NON-METALLIC PARTS in Bendix Metalclene or Speedclene.

3. REASSEMBLY

When reassembling carburetor use essentially the reverse order from disassembly.

ASSEMBLY OF FUEL BOWL

1. Install main jet (28) and fiber washer (27), using C161-83 jet wrench.

2. Install main passage plug (30) and gasket (29) in threaded hole near bottom of fuel bowl, using a 9/16" wrench; or, if main jet adjustment is used, back out adjusting needle several turns before assembling main jet adjustment in fuel bowl.

3. Install idle jet (25) in recessed threaded hole of fuel bowl casting, using small screwdriver.

4. Install fuel bowl drain plug (31) in bottom of casting.

ASSEMBLY OF THROTTLE BODY

1. To install choke shaft seal and retainer, insert seal in open side of retainer, then place seal and retainer on C161-72-1 bushing driver. Insert small end of driver in choke shaft hole. Start retainer in counter-bore of body and lightly drive retainer into body flush with shaft boss.

2. Install choke shaft and lever assembly (13 and 14) and rotate shaft so that cut section faces out.

3. Slide choke plate into position and align hole in plate with holes in shaft. Then start choke plate screws (18) with lockwashers (17), leaving screws loose.

4. Close choke and center for best closing. Tighten screws securely.

5. On units which include choke lever (40), assemble lever to choke shaft in same position as lever was in originally, using taper pin (39).

6. Install pitot tube (15) in same position as before removal and secure with set screw (19).

7. On 87A8 Models - Install seal in throttle shaft counter-bore with lip side out and then install seal retainer flush with machined surface of throttle shaft boss.

8. Install throttle shaft and lever assembly (9) in throttle body and rotate shaft to open position.

9. Insert throttle plate (42) in milled slot of shaft. Align holes in plate with holes in shaft and start throttle plate screws (43). Make sure throttle plate is in same position as before disassembly.

10. Close throttle several times to center throttle plate. Hold throttle plate closed and tighten screws.

11. On carburetors which include throttle lever (38), assemble lever on shaft in same position lever was in before disassembly and attach to shaft with lockwasher (37) and nut (36).

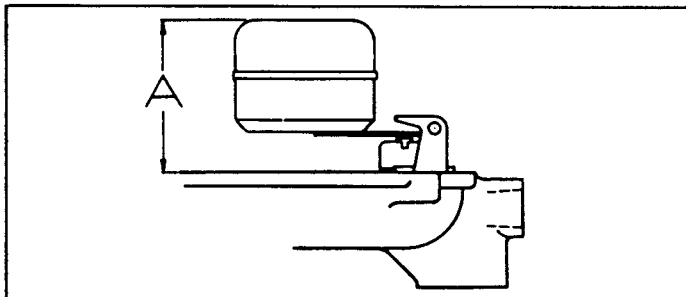
12. With throttle plate fully closed, turn throttle stop screw (6) in to the point of initial contact with the throttle stop; then turn stop screw IN (clockwise) one-half to three-quarters of a turn as a preliminary idle speed setting.

13. Install idle adjusting needle (11) and spring (10). Turn needle in lightly against its seat and then back needle OUT (counter-clockwise) one full turn as a preliminary idle adjustment.

14. Install fuel valve seat (21) and fiber washer (20), using C161-85 wrench.

15. Install main discharge jet (35), using a small screwdriver.

16. Install fuel valve needle (21) in seat and position float assembly in hinge bracket. Insert tapered end of float axle (22) into float bracket at side opposite slot in bracket. Push float axle through slotted end of the bracket until centered in bracket, using handle of screwdriver.



17. To insure correct fuel level in float chamber, check distance "A" from top center of float bodies to machined surface (no gasket). This dimension should be as follows:

<u>Carburetor Model</u>	<u>Dimension "A"</u>
87 Series with C81-17 Fuel Valve and Seat	31/32"
87 Series with C81-50 Fuel Valve and Seat	23/32"

To increase or decrease distance between top of float bodies and machined surface, use long nose pliers and bend lever close to float body.

NOTE: Do not bend, twist or apply pressure on the float bodies. The float bodies when viewed from the free end of the bodies must be centered and at right angles to the machined surface and must move freely on the float axle.

ASSEMBLY OF BOWL TO THROTTLE BODY

1. Place bowl to body gasket (24) on machined surface of throttle body.

2. Position bowl assembly on throttle body, being careful not to damage floats, and align holes in bowl with holes in gasket and throttle body.

3. Install two long and one short bowl to body screws (32) and (33) with lockwashers (34) and tighten screws evenly and securely.

ADJUSTMENTS

Final adjustments should be made on the engine with the specified air cleaner in place and the engine at normal operating temperature.

If carburetor is equipped with main jet adjustment, turn main jet adjustment, turn main jet adjusting needle IN (clockwise) until needle is just seated, then back needle OUT (counter-clockwise) two full turns as a preliminary adjustment.