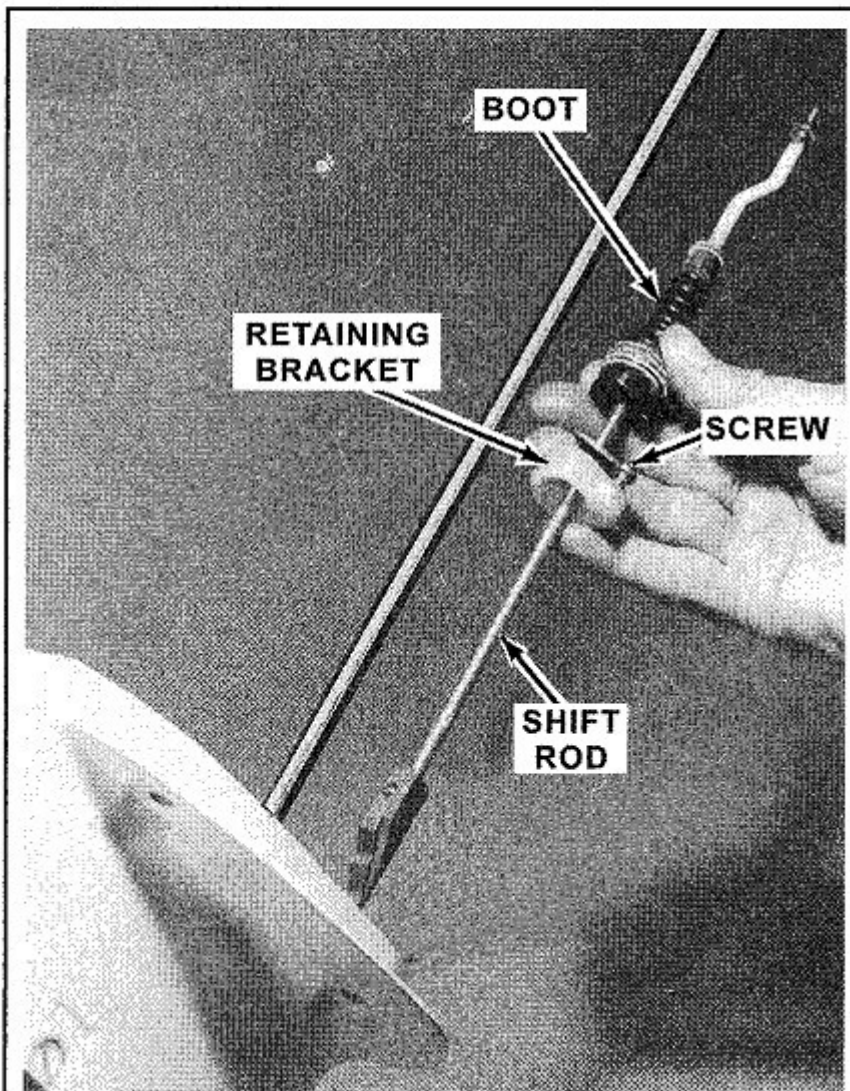


78. Install the insert cartridge over the driveshaft. Rotate the cartridge counterclockwise over the impeller to tuck in the blades. Install another gasket and finally the water pump housing over the driveshaft. Check to be sure all parts are indexed over the two dowel pins.

79. On 4/5 hp, 6/8 hp, 9.9 hp and 15 hp models, position the left and right side plates over the water pump housing and secure them in place with the four washers and bolts. Tighten the bolts to 5.8 ft. lbs. (8 Nm).

9.9 hp and 15 hp models have an extra retaining plate on top of the water pump housing. This extra plate is secured in place with two Phillips head screws.

80. On 4/5 hp, 6/8 hp, 9.9 hp and 15 hp models, install the shift rod and retaining bracket into the lower unit with the cam lobe facing toward the propeller shaft. Secure the rod in place by tightening the Phillips head screws into the retaining bracket. Fit the boot over the bracket.



## 3-4 Cylinder Inline, V4 and V6 Powerheads

### DISASSEMBLY

#### Water Pump



◆ See Figures 127, 128 and 129

1. Remove the four bolts and washers securing the water pump housing. Slide the water pump housing upward and free of the driveshaft. Pull out the water tube grommet from atop the water pump housing. Slide the impeller upward and free of the driveshaft. Remove and save the small Woodruff key.

2. Pull out the insert cartridge from the water pump housing. Remove and discard the O-ring.

3. Remove the outer plate and then the gasket beneath the plate. Slide both pieces upward and off the driveshaft.

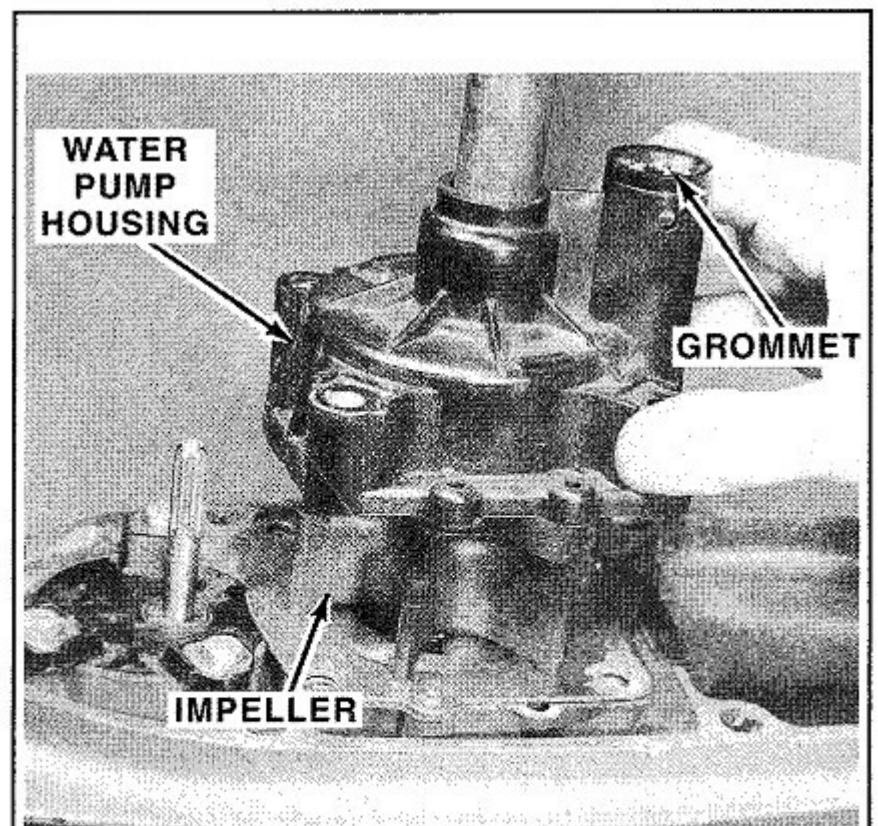


Fig. 127 Step 1

Fig. 126 Step 80

**Carburetor Set-Up Specifications**

Model (Hp)	No. of Cyl	Engine Type	Year	Displace cu. in. (cc)	Pilot Screw Initial Low Speed Setting	Float Drop Setting In. (mm)	Valve Seat Size In. (mm)
50	3	IL 2-stroke	1984-87	43 (698)	1 3/8 - 1 7/8	0.47-0.63 (12-16)	0.055 (1.4)
	3	IL 2-stroke	1988-92	43 (698)	1 5/8 - 2 1/8	0.55-0.63 (14-16)	0.05 (1.2)
	3	IL 2-stroke	1993-96	43 (698)	1 3/8 - 1 7/8 ⑧	0.55-0.63 (14-16)	0.05 (1.2)
50	3	IL 2-stroke	1994-96	52 (849)	1 1/8 - 1 5/8	0.55-0.63 (14-16)	0.05 (1.2)
60	3	IL 2-stroke	1991	52 (849)	1 - 1 1/2	0.47-0.63 (12-16)	0.055 (1.4)
	3	IL 2-stroke	1992-96	52 (849)	1 1/4 - 1 3/4 ⑨	0.51-0.59 (13-15)	0.055 (1.4)
70	3	IL 2-stroke	1984-91	52 (849)	1 1/8 - 1 5/8	0.47-0.63 (12-16)	0.055 (1.4)
	3	IL 2-stroke	1992-96	52 (849)	1 - 1 1/2	0.51-0.59 (13-15)	0.055 (1.4)
65J	3	IL 2-stroke	1987-96	70 (1140)	1 1/8 - 1 5/8	0.51-0.59 (13-15)	0.06 (1.6)
75	3	IL 2-stroke	1994-96	70 (1140)	1 1/8 - 1 5/8	0.51-0.59 (13-15)	0.06 (1.6)
80	3	IL 2-stroke	1994-96	70 (1140)	1 1/8 - 1 5/8	0.51-0.59 (13-15)	0.06 (1.6)
85	3	IL 2-stroke	1989-96	70 (1140)	7/8 - 1 3/8	0.65-0.89 (19.2-19.8)	0.06 (1.6)
90	3	IL 2-stroke	1984-87	70 (1140)	1 5/8 - 2 1/8	0.65-0.89 (19.2-19.8)	0.06 (1.6)
	3	IL 2-stroke	1988	70 (1140)	1 1/4 - 1 3/4	0.65-0.89 (19.2-19.8)	0.06 (1.6)
	3	IL 2-stroke	1989-91	70 (1140)	1 1/8 - 1 5/8	0.65-0.89 (19.2-19.8)	0.06 (1.6)
	3	IL 2-stroke	1992-96	70 (1140)	1 - 1 1/2	0.51-0.59 (13-15)	0.06 (1.6)
45	4	4-stroke	1996	58 (935)	not adjustable	0.37-0.41 (9.5-10.5)	n/a
50	4	4-stroke	1995-96	58 (935)	1 3/4 - 2 3/4	0.37-0.41 (9.5-10.5)	n/a
80J	4	90 LV 2-st	1987-96	106 (1730)	3/8 - 7/8	0.61-0.65 (15.5-16.5)	0.05 (1.2)
115	4	90 LV 2-st	1984-86	106 (1730)	1 1/4 - 1 3/4 ⑩	0.47-0.51 (12-13)	0.08 (2.0)
	4	90 LV 2-st	1987-96	106 (1730)	3/8 - 7/8	0.61-0.65 (15.5-16.5)	0.05 (1.2)
130	4	90 LV 2-st	1988-96	106 (1730)	5/8 - 1 1/8	0.61-0.65 (15.5-16.5)	0.05 (1.2)
140	4	90 LV 2-st	1984-86	106 (1730)	1 5/8 - 2 1/8	0.47-0.51 (12-13)	0.08 (2.0)
	4	90 LV 2-st	1987-96	106 (1730)	5/8 - 1 1/8	0.61-0.65 (15.5-16.5)	0.05 (1.2)
105J	6	90 LV 2-st	1996	158 (2596)	3/4 - 1 1/4	0.61-0.65 (15.5-16.5)	0.05 (1.2)
140J	6	90 LV 2-st	1987-95	158 (2596)	see 200 hp motor	0.61-0.65 (15.5-16.5)	0.05 (1.2)
150	6	90 LV 2-st	1984-86	158 (2596)	1 - 1 1/4 ⑪	0.47-0.51 (12-13)	0.08 (2.0)
	6	90 LV 2-st	1987-89	158 (2596)	1 - 1 1/4 ⑫	0.61-0.65 (15.5-16.5)	0.05 (1.2)
	6	90 LV 2-st	1990-93	158 (2596)	1 - 1 1/4 ⑬	0.61-0.65 (15.5-16.5)	0.05 (1.2)
	6	90 LV 2-st	1994-95	158 (2596)	3/4 - 1 1/4 ⑭	0.61-0.65 (15.5-16.5)	0.05 (1.2)
	6	90 LV 2-st	1996	158 (2596)	3/4 - 1 1/4 ⑮	0.61-0.65 (15.5-16.5)	0.05 (1.2)
175	6	90 LV 2-st	1984-86	158 (2596)	1 - 1 1/4 ⑯	0.47-0.51 (12-13)	0.08 (2.0)
	6	90 LV 2-st	1987-89	158 (2596)	1 1/8 - 1 5/8	0.61-0.65 (15.5-16.5)	0.05 (1.2)
	6	90 LV 2-st	1990-91	158 (2596)	1 1/4 - 1 3/4	0.61-0.65 (15.5-16.5)	0.05 (1.2)
	6	90 LV 2-st	1992-95	158 (2596)	1 1/8 - 1 5/8 ⑰	0.61-0.65 (15.5-16.5)	0.05 (1.2)
	6	90 LV 2-st	1996	158 (2596)	13/16 - 1 5/16 ⑱	0.61-0.65 (15.5-16.5)	0.05 (1.2)
200	6	90 LV 2-st	1984-86	158 (2596)	1 1/8 - 1 5/8 ⑲	0.47-0.51 (12-13)	0.08 (2.0)
	6	90 LV 2-st	1987-89	158 (2596)	1 3/8 - 1 7/8 (port) ⑳	0.61-0.65 (15.5-16.5)	0.05 (1.2)
	6	90 LV 2-st	1990-91	158 (2596)	1 - 1 1/2 (port) ㉑	0.61-0.65 (15.5-16.5)	0.05 (1.2)
	6	90 LV 2-st	1992-95	158 (2596)	1 - 1 1/2 ㉒	0.61-0.65 (15.5-16.5)	0.05 (1.2)
	6	90 LV 2-st	1996	158 (2596)	7/8 - 1 3/8 ㉓	0.61-0.65 (15.5-16.5)	0.05 (1.2)
220	6	90 LV 2-st	1984-86	158 (2596)	㉔	0.47-0.51 (12-13)	0.08 (2.0)
	6	90 LV 2-st	1987	158 (2596)	3/4 - 1 1/4	0.61-0.65 (15.5-16.5)	0.05 (1.2)
225	6	90 LV 2-st	1987-93	158 (2596)	3/4 - 1 1/4	0.61-0.65 (15.5-16.5)	0.05 (1.2)
	6	90 LV 2-st	1994-95	158 (2596)	7/8 - 1 3/8	0.61-0.65 (15.5-16.5)	0.05 (1.2)
	6	90 LV 2-st	1996	158 (2596)	1/2 - 1 ㉕	0.61-0.65 (15.5-16.5)	0.05 (1.2)
225	6	76 V 2-st	1994	191 (3130)	3/8 - 7/8	0.59-0.63 (15-16)	0.05 (1.2)
	6	76 V 2-st	1995	191 (3130)	3/4 - 1 1/4	0.59-0.63 (15-16)	0.05 (1.2)
	6	76 V 2-st	1996	191 (3130)	7/8 - 1 3/8	0.59-0.63 (15-16)	0.05 (1.2)