



# **Johnson**

## **OUTBOARDS**

# **SERVICE MANUAL**

**4 HP models**

**4R79, 4RL79, 4W79**

**INTRODUCTION**

**GENERAL  
SERVICE  
INFORMATION**

**FUEL  
SYSTEM**

**IGNITION  
SYSTEM**

**POWER  
HEAD**

**LOWER  
UNIT**

**MANUAL  
STARTER**

**1**

**2**

**3**

**4**

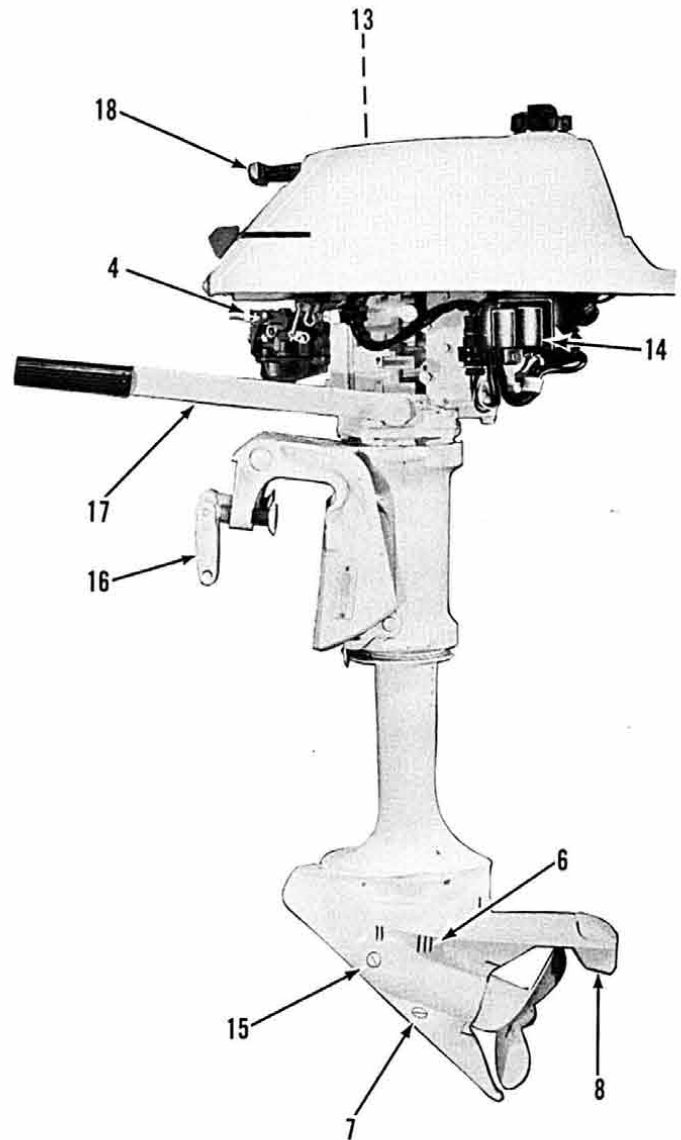
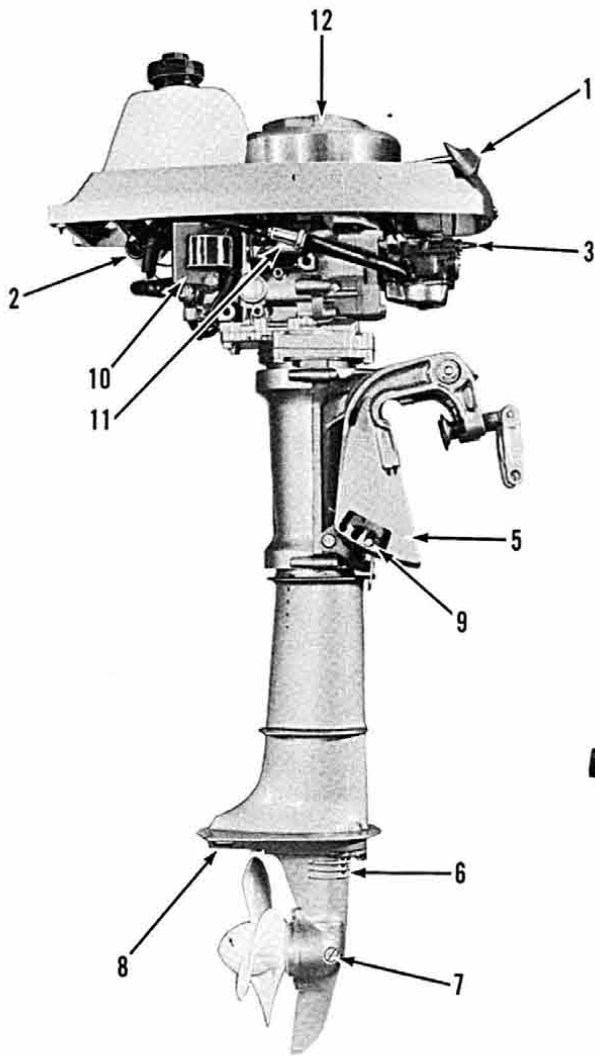
**5**

**6**

**7**

**THE LOOK OF WORLD LEADERSHIP**





93001

1. Speed control
2. Power pack
3. Low speed needle
4. Choke lever
5. Stern bracket
6. Water intake
7. Oil drain and fill plug
8. Exhaust outlet
9. Tilt adjustment rod
10. No. 2 ignition coil
11. Fuel filter
12. Flywheel
13. Rewind starter
14. No. 1 ignition coil
15. Oil level plug
16. Clamp screws
17. Steering handle
18. Starter handle

*Weedless Gearcase - Port Side*

93332

*Figure 1-1. Standard Gearcase - Starboard Side*

# SPECIFICATIONS

Models	4W79 Weedless gearcase, standard length 4R79 standard gearcase, standard length 4RL79 standard gearcase, long shaft	
<b>POWERHEAD</b>		
*Horsepower (B.I.A. - certified)	4 hp (2.8 kW) at 4500 rpm	
Full throttle operating range	4000 to 5000 rpm	
Test tank rpm with test wheel	3800 rpm Part No. 316021 for Weedless 4550 rpm Part No. 317738 for Standard	
Idle rpm	600 rpm	
Engine type	2-cylinder, 2 stroke cycle alternate firing	
Bore and stroke	1-9/16" (39.69 mm) bore x 1-3/8" (34.93 mm) stroke	
Piston displacement	5.28 cubic inches (87 cm <sup>3</sup> )	
Piston ring sets (2 per set)	standard Part Number 383920 0.030" Part Number 384312 oversize	
Width of ring	0.0625-0.0615 in. (1.588 - 1.562 mm)	
Piston assembly	standard Part Number 388726 0.030" oversize Part Number 388728 0.020" oversize Part Number 388727	
Crankshaft size		
top journal	0.751 - 0.7505 in. (19.075 - 19.063 mm)	
center journal	0.6690 - 0.6685 in. (16.993 - 16.980 mm)	
bottom journal	0.7502 - 0.7498 in. (19.055 - 19.045 mm)	
Crank pin size	0.6700 - 0.6695 (17.018 - 17.005 mm)	
<b>FUEL SYSTEM</b>		
Carburetion	Single barrel float feed, with fixed high and adjustable low-speed jet, manual choke	
Float level setting	Between steps on gage 324891	
Inlet needle seat	0.063 - 0.060 (1.60 - 1.52 mm) Use a 1/16 drill as gage.	
Fuel tank capacity	1.35 quarts (1,28 litres)	
<b>LOWER UNIT</b>		
Cooling system	Combination positive displacement and centrifugal pump.	
Propeller gear ratio	17:28 Weedless 12:25 Standard	
Propeller drive pin	Part Number 316558	
Propeller	Standard - 7-1/2" dia x 6" pitch, 3 blade plastic	
Propeller	Weedless - 6-1/4" dia x 6" pitch, 2 blades plastic	
<b>MISCELLANEOUS</b>		
Speed control	Single lever, synchronized throttle and spark	
Weight	Weedless - 38.0 lbs. (17.2 kg) Standard - 38.0 lbs. (17.2 kg)	
Starter	Automatic rewind - nylon rope	
<b>IGNITION SYSTEM</b>		
Ignition	Flywheel magneto, breakerless C.D.	
Spark plug	AC-M40FFX Champion L77J4, - 14 mm	
Spark plug gap	.040 inch (1.0 mm)	
Spark plug torque	17-1/2 - 20-1/2 foot-pounds (24 - 27 N.m)	
Ignition Coil	Part No. 581998	
<b>IGNITION COIL TEST SPECIFICATIONS</b>		
Stevens Model ST-75		
Reverse Polarity (Switch Setting CD)	1.2	
Stevens Tester Model M.A.-75 or M.A.-80		
<u>Switch</u> **A	<u>Index Adjustment</u> 20	
Merc-O-Tronic with Capacitor Discharge Adapter Model 55-980		
Operating Amperage	Primary Resistance	**Secondary Continuity
1.4	0.1 Ohm OR LESS	275 ± 10
**Use Model CD-1 Adapter Red test clip to orange/black Black test clip to orange		
Graham Tester Model 51 Maximum Secondary . . . . . 1,000 ohms Maximum Primary . . . . . 0.5 ohm Coil Index . . . . . 50 Coil Test Minimum AMPLIFIED . . . . . 17 (With secondary circuit "open," Hi tension lead disconnected)		
Gap Index . . . . . 50 (Coil must fire spark gap on tester at this setting.)		
<b>IGNITION COIL OHMMETER TEST</b>		
Primary (Low Ohms)		Secondary (High Ohms)
0.1 ± 0.05		275 ± 50