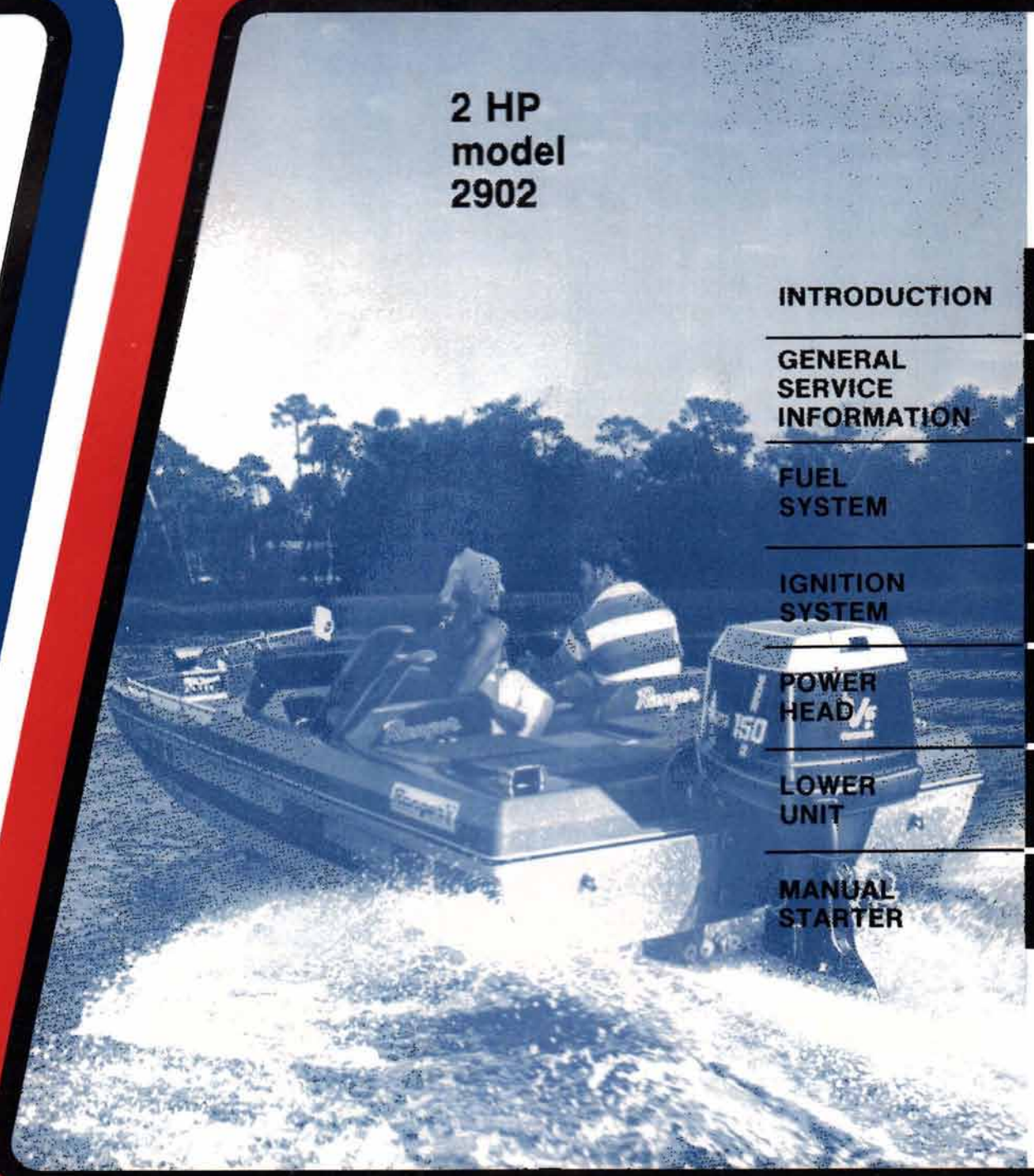
1979 EVINRUDE SERVICE MANUAL



2 HP model 2902

ITEM NO. 5423

LITHO U.S.A.

SPECIAL SERVICE TOOLS

OMC has specially-designed tools to simplify some of the disassembly and reassembly operations. These tools are illustrated in this Service Manual, in many cases in actual use. Refer to the Special Service Tool Catalog for a description and ordering instructions for these tools. Individual purchasers of Service Manuals must order Special Tools from an authorized dealer.

OUTBOARD MOTOR NOMENCLATURE

Sometimes the words "right" and "left" are very confusing when referring to the sides of an outboard motor. Therefore, the sides are referred to as STARBOARD or PORT sides. STARBOARD means on the right hand while facing the bow (FRONT) of the boat; PORT means left hand. See Figures 1-1 and 1-2.

Service required for the motor is generally one of three kinds . . .

1. NORMAL CARE AND MAINTENANCE, which includes putting a new motor into operation, storing motors, lubrication, and care under special operating conditions such as salt water and cold weather.

2. OPERATING MALFUNCTIONS due to improper motor mounting, propeller condition or size, boat condition, or the malfunction of some part of the motor. This includes motor tune-up procedures to keep the motor in prime operating condition.

3. COMPLETE DISASSEMBLY and overhaul, such as inspecting a motor that has been submerged, or rebuilding trade-in units.

It is important to you as the service man to determine before disassembly just what the trouble is, and how to correct it quickly and with minimum expense to the owner. Refer to the Trouble Check chart in Section 2 to help you diagnose motor malfunctions.

1. Flywheel
2. Speed control
3. Choke
4. High speed knob
5. Reverse lock
6. Steering friction screw
7. Exhaust housing
8. Water pump
9. Oil drain and fill plug
10. Exhaust relief and water outlet
11. Pivot brg. retainers
12. Fuel valve
13. Filler cap and air vent screw
14. Rewind Starter
15. Motor rest
16. Model and serial number plug
17. Swivel bracket
18. Exhaust outlet
19. Propeller
20. Skeg
21. Water intake port and starboard
22. Tilt rod
23. Clamp screw
24. Model and serial number plate
25. Steering handle
26. Low speed needle

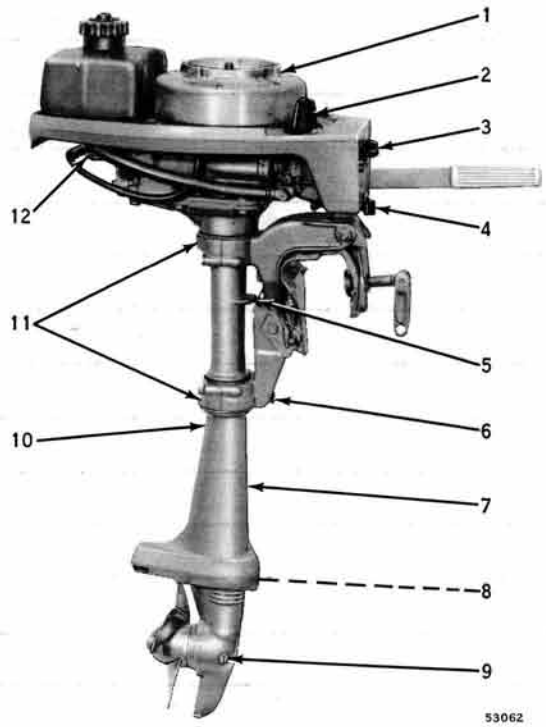


Figure 1-1. Starboard View Less Starter

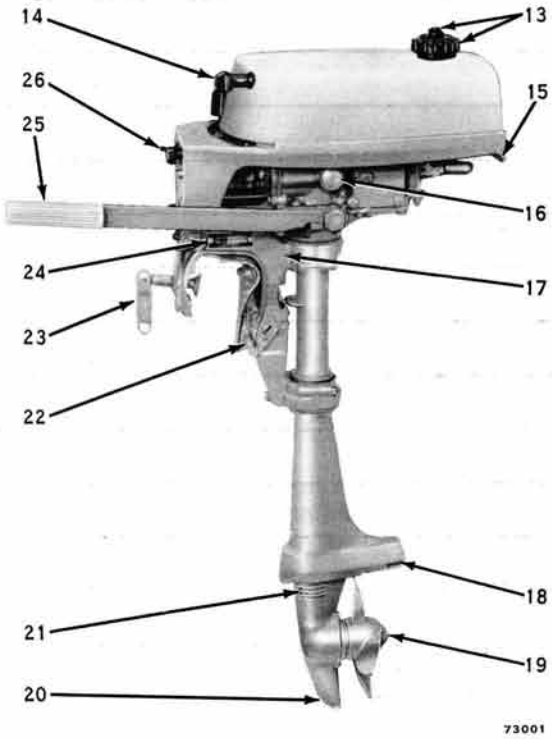


Figure 1-2. Port Side View with Starter

SPECIFICATIONS

Model Number	2902
*Horsepower (B.I.A.-certified)	2 HP (1.4 kW) at 4500 rpm
Full throttle operating range	4200 to 4800 rpm
Test tank with test wheel	3900 rpm
Test wheel	Part Number 316021
Idle rpm	650 rpm
Engine type	Single cylinder, 2 stroke cycle
Bore and stroke	1-9/16" bore x 1-3/8" stroke (39.69 x 34.93 mm)
Piston displacement	2.64 cubic inches (43 cm^3)
Piston ring sets (2 per set)	
Standard	Part Number 383920
0.030" (0.76 mm) oversize	Part Number 384312
Width of ring	0.0625 - 0.0615 in. (1.588 - 1.562 mm)
Piston assembly - standard	Part Number 384651
0.030" (0.76 mm) oversize piston less rings	Part Number 384666
Crankshaft size	
Top journal	0.7502 - 0.7497 in. (19.055 - 19.042 mm)
Bottom journal	0.7502 - 0.7497 in. (19.055 - 19.042 mm)
Connecting rod crank pin	0.6700 - 0.6695 in. (17.018 - 17.005 mm)
Carburetion	Single barrel float feed, with high and low speed adjustments
Float level setting	Flush with casting @ 0.620" (15.7 mm)
Inlet needle seat	0.050-0.053 (1.27 - 1.35 mm) Use a #55 drill as gage
Cooling system	Centrifugal pump
Propeller gear ratio	12:25
Propeller drive pin	Part Number 316558
Propeller	7-1/4 x 4-1/2
Speed control	Single lever, synchronized throttle and spark
Weight	24 lbs. (10.9 kg)
Fuel capacity	Gravity feed integral tank 1 qt. (0.95 litre)
Starter	Manual self rewinding
Ignition	Flywheel magneto
Spark plug	AC-M44C, Champion J6J - 14 mm
Spark plug gap	0.030 inch (0.8 mm)
Spark plug torque	17-1/2 - 20-1/2 foot-pounds (24-27 N·m)
Breaker point gap	0.020 inch (0.5 mm)
Condenser	Part Number 580321
Capacity	0.18 to 0.22 Mfd.
Coil	Part Number 580971

COIL TEST SPECIFICATIONS

Stevens Tester Model ST-75

Normal Polarity (Switch Setting Standard)	2.2

Stevens Tester Model No. M.A. -75 or 80

Switch	Index Adjustment
B	22

Merc-O-Tronic

Operating Amperage	Primary Resistance		Secondary Continuity	
	Min.	Max.	Min.	Max.
1.6	0.5	0.7	35	45

Graham Tester Model 51

Maximum Secondary	Maximum Primary	Coil Index	Minimum Coil Test	Max. Gap Index
5500	1.2	75	33	75

* Horsepower established at sea level. Allow 2% reduction per 1000' (300 m) above sea level.