

1979 **EVINRUDE** **SERVICE MANUAL**

**55 HP
models
55974, 55975**

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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 through 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 55 HP motor is generally one of three kinds . . .

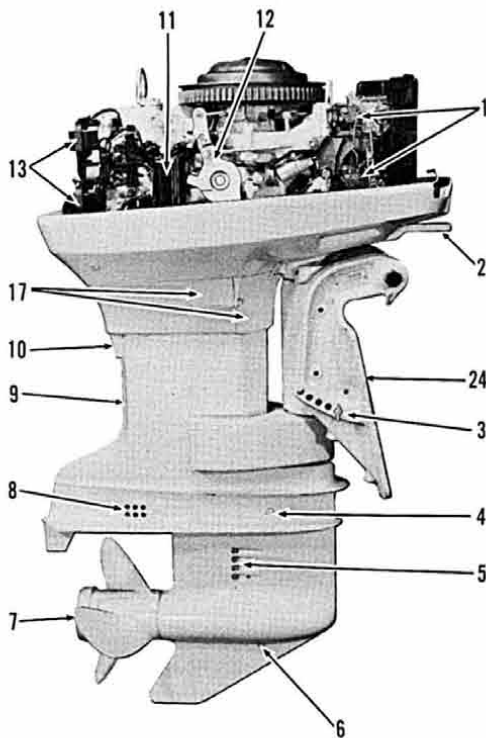
1. **NORMAL CARE AND MAINTENANCE**, which includes putting a new motor into operation, storing motors, lubrication, and care under special operating conditions such as salt water and cold weather.

NOTE

When installing sound blanket, use OMC adhesive "M".

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.

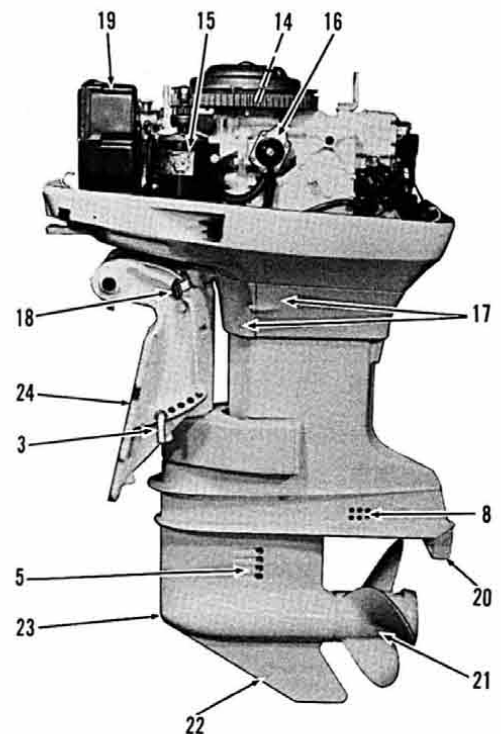
It is important to you as the service man to determine before disassembly just what the trouble is, and how to correct it quickly and with minimum expense to the owner.



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Figure 1-1. Starboard View

1. Carburetors
2. Steering arm
3. Tilt adjustment rod
4. Oil level plug
5. Water intake
6. Oil drain and fill plug
7. Exhaust outlet
8. Water outlet
9. Exhaust housing
10. Exhaust relief
11. Power pack
12. Throttle and shift lever
13. Ignition coils
14. Alternator
15. Electric starter
16. Fuel pump and filter
17. Exhaust covers
18. Tilt and reverse lock lever
19. Air silencer
20. Trim tab
21. Propeller
22. Skeg
23. Gearcase
24. Stern bracket



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Figure 1-2. Port Side View

SPECIFICATIONS

Model Numbers	55974 (standard length) 55975 (5" (127 mm) longer)	Idle orifice plug	
*Horsepower (B.I.A.-certified) . . .	55 hp (38.9 kW) at 5500 rpm	Top carburetor (Standard length	Part no. 325829 0.042" (1.06 mm)
Full throttle operating range . . .	5000 to 6000 rpm	Top carburetor (Long shaft	Part no. 325827 0.044" (1.12 mm)
		Bottom carburetor	Part no. 325825 (Both models) 0.043" (1.09 mm)
	NOTE	Off-idle orifice plug	
The recommended full power operating		Top carburetor	Part no. 324698 0.037" (0.94 mm)
range for this outboard motor is from 5000 -		Bottom carburetor	Part no. 323703 0.036" (0.91 mm)
6000 rpm. In order to get the best per-		Inlet needle set .	0.065" - 0.062" (1.65 - 1.57 mm)
formance, the upper end of this range, from		Use a #52 drill as gage.	
5500 - 6000 rpm is the engine speed to use		Cooling system	Temperature and pressure controlled system
selecting the proper propeller. The rpm		Propeller gear ratio	12:29
should be measured with your expected aver-		Propeller supplied with motor	(Aluminum) 3 blade 11-3/4 dia. x 17" pitch
age load in the boat.		Alternate propellers	(Aluminum) 3 blade, 13" dia. x 11" pitch
Tank test with test wheel		(Aluminum) 3 blade, 12-1/2" dia. x 13" pitch	
Part No. 387635	5300 rpm	(Aluminum) 3 blade, 11-3/4" dia. x 17" pitch	
Idle speed	1000-1100 rpm (neutral) 700-750 rpm (in gear)	(Aluminum) 3 blade, 11-1/2" dia. x 19" pitch	
Engine type	2 cycle, 2 cylinders in line	(SST) 3 blade, 12-1/2" dia. x 13" pitch	
Bore and stroke	3.1875" bore x 2.820" stroke (80.96 x 71.63 mm)	(SST) 3 blade, 12-1/4" dia. x 15" pitch	
Piston displacement	45.0 cu. in. (737 cm ³)	(SST) 3 blade, 11-3/4" dia. x 17" pitch	
Piston ring sets		(SST) 3 blade, 11-1/4" dia. x 19" pitch	
(2 per set) standard	Part No. 385798	Speed control	Remote control synchronized throttle and spark
0.030" oversize	Part No. 385799	Gear shift control	Forward, neutral, reverse - remote control
Diameter of ring	3.1875" (standard)	Weight	(without fuel tank) . . Standard - 180 lbs. (81.6 kg), Long - 187 lbs. (84.8 kg)
Width of ring		(Fuel tank weight 11 lbs. (5.0 kg) net)	
Upper, Part No. 318411	0.0900" - 0.0895" (2.286 - 2.273 mm)	Fuel capacity	6 gallons (22.7 litres)
Lower, Part No. 318412	0.0625" - 0.0615" (1.588 - 1.562 mm)	Starter	Electric with emergency rope
Piston without rings		Electrical system	5 amp alternating current generator
Standard	Part No. 386094	Starter amp draw when cranking	
0.030" oversize	Part No. 386097	(Prestolite)	160 amperes maximum
Crankshaft size		(Bosch)	110 amperes maximum
Top journal	1.4979" - 1.4974" (38.047 - 38.034 mm)	Ignition (Magneto breakerless C.D.)	CD-2
Center journal	1.3752" - 1.3748" (34.930 - 34.920 mm)	Timing	19° @ 3500 minimum rpm in gear
Bottom journal	1.1815" - 1.1810" (30.010 - 29.997 mm)	Spark plug	Champion L77J4 or AC M40FFX
Connecting rod crank pin	1.1828" - 1.1823" (30.043 - 30.030 mm)	Spark plug torque	17-1/2 - 20-1/2 ft.-lbs. (24-27 N·m)
Carburetion	2 carburetors - Float feed. Manual and remote control choke	Spark plug gap	0.040" (1.0 mm)
Float level setting	Between notches on gage No 324891	Ignition coil	Part No. 581997
High speed orifice plug	Part No. 319831		
Hole size 0.059" (1.50 mm)			

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

IGNITION COIL TEST SPECIFICATIONS

Stevens Model ST-75	Primary Resistance	0.1 Ohm or less
Reverse Polarity (Switch Setting CD)	Secondary Continuity	5-6
Stevens Tester Model M.A.-75 or M.A.-80	Graham Tester Model 51	
Switch A (Use Model CD-1 Adapter - Red	Maximum Secondary	1,000 ohms
test clip to orange/black -	Maximum Primary5 ohm
Black test clip to orange	Coil Index	50
Index Adjustment	Coil Test Minimum Amplified	17
	(With secondary circuit "open")	
Merc-O-Tronic with	Hi tension lead disconnected	
Capacitor Discharge Adapter Model 55-980	Gap Index	50 (Coil must fire sprak gap on tester at this setting)
Operating Amperage		