



**EVINRUDE**

**SERVICE**

**MANUAL  
1976**

**9.9 HP**

MODEL 10624  
10625  
10654  
10655

INTRODUCTION

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GENERAL  
SERVICE  
INFORMATION

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FUEL  
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SYSTEM

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POWER  
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LOWER  
UNIT

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ELECTRICAL  
SYSTEM

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MANUAL  
STARTER

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1. Low speed adjusting knob
2. Choke knob
3. Starter handle
4. Shift lever
5. Start button (electric start)
6. Clamp screws
7. Tilt lever
8. Stern brackets
9. Thrust rod (tilt adjustment)
10. Shallow water drive bracket
11. Oil level plug
12. Water intake, port and starboard
13. Oil drain/fill plug
14. Water discharge, port and starboard
15. Exhaust relief
16. Fuel pump and filter

17. Flywheel
18. Armature plate assembly
19. Electric starter
20. Ignition coils
21. Latch, motor cover
22. Idle speed adjusting knob
23. Propeller and converging ring
24. Gearcase
25. Battery cable (electric start)
26. Swivel bracket
27. Model and serial number plate
28. Safety chain link
29. Steering handle and twist grip
30. Stop button
31. Air silencer
32. Re-wind starter

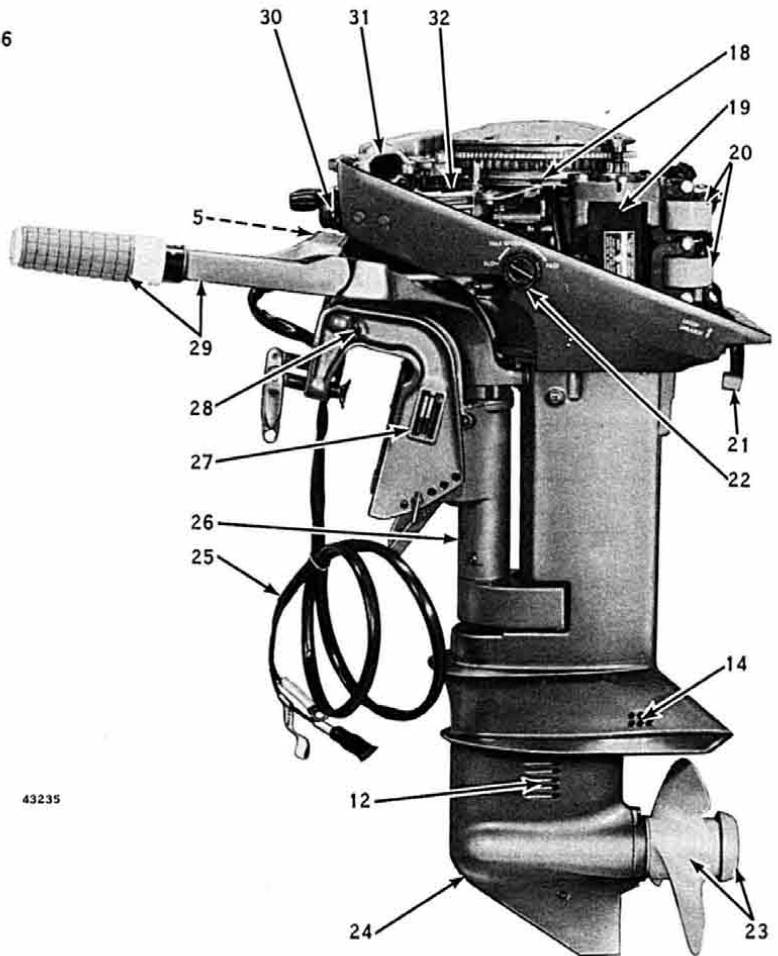
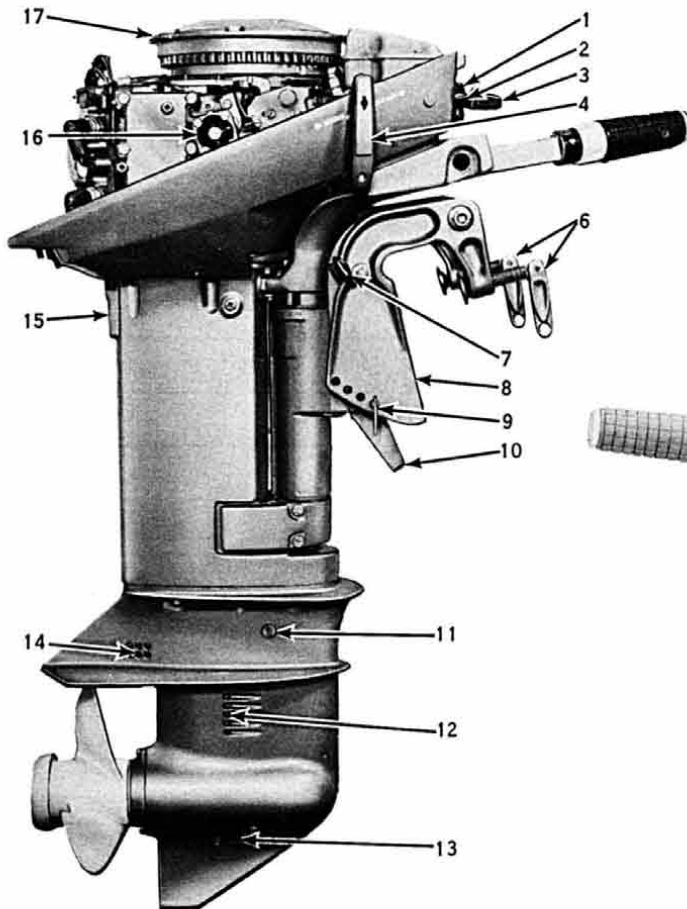


Figure 1-1. Starboard  
(Manual Start)

Figure 1-2. Port Side  
(Electric Start)



## SPECIFICATIONS

Model Numbers 10624 - Standard length (15" transom) 10625 - 5" longer (20" transom) 10654 - Standard length (15" transom) 10655 - 5" longer (20" transom)	Gear shift control	Forward, neutral, and reverse		
Horsepower (B.I.A. certified) 9.9 hp at 5000 rpm Full throttle operating range 4500 to 5500 rpm Tank test with test wheel 5400 rpm Part Number 386537	Weight (without fuel tank)	Model 10624 - 65 lbs. Model 10625 - 66 lbs. Model 10654 - 73 lbs. Model 10655 - 74 lbs. (Fuel tank weight 11 pounds net)		
Engine type 2 cyl., 2 cycle, alternate firing Bore and stroke 2.188" bore x 1.760" stroke Piston displacement 13.20 cubic inches	Fuel capacity	6 gallons		
Piston ring sets (2 per set) standard Part Number 386279 .030" oversize Part Number 386280	Electrical system (Electric start models only)	5 amp flywheel alternator		
Diameter of ring 2.1875 in. (standard)	Starter	Manual - Self-rewind Electric - 12 volt and self-rewind		
Width of ring Upper - .0700 - .0695 in. Lower - .0615 - .0625 in.	Starter amperage draw while cranking	55 AMPS Max.		
Lbs. compression recommended when compressed Upper - .25 - 2.0 lbs. Lower - 2.5 - 5.0 lbs.	Ignition	Low tension magneto		
Piston less rings standard Part Number 386012 .030" oversize Part Number 386013	Spark plug	Champion L7J, 14mm		
Crankshaft size Top journal .8762 - .8757 Center journal .8125 - .8120 Bottom journal .8125 - .8120	Spark plug gap	.030 inch		
Connecting rod crank pin 1.06350 - 1.06300 in.	Spark plug torque	17-1/2 - 20-1/2 foot-pounds		
Carburetion Single barrel, float feed, fixed high speed adjustable low-speed, manual choke	Breaker point	Gap .020 inch		
High speed orifice plug Part Number 319016 Identification Number 51 Check with #.051 dia. drill	Condenser Capacity	Part Number 581419 .25 - 29 Mfd.		
Float level setting Flush with rim of casting	Driver coil resistance	Rope 1.45 ± .4 ohm Electric 2.70 ± .7 ohm		
Inlet needle seat .065 - .062 Use #52 drill as gage.	Ignition coil	Part No. 581407		
Cooling system Centri-matic (combination positive displacement and centrifugal pump) Thermostatically controlled	<b>IGNITION COIL TEST SPECIFICATIONS</b>			
Propeller gear ratio 12:29	Stevens Model ST-75			
Propeller supplied with motor 3 blade, 9-1/2" dia. x 10" pitch	Reversed Polarity-(switch setting standard) 1.3			
Propeller options 3 blade, 10" dia. x 5" pitch 2 blade weedless 9" dia. x 10" pitch	Stevens Tester Model M.A.-75 or M.A.-80 with M.A.-14 Adapter in Series with High Tension Lead			
Speed control On steering handle Remote control available	Switch		Index Adjustment	
	B		25	
	Merc-O-Tronic with 55-980 CDA Adapter			
	Operating Amperage	Primary Resistance Min. Max.	Secondary Continuity Min. Max.	
	1.7	0.8 - 1.2	60 - 70	
	Graham Tester Model			
	Maximum Secondary	Maximum Primary	Coil Index	Minimum Coil Test
	20,000 ohms	14.0 ohms	50	24
	COIL OHMMETER TEST			
	Primary (Low Ohms)		Secondary (High Ohms)	
	1.35 ± .3		13,500 ± 1500	

\*Horsepower established at sea level. Allow 2% reduction per 1000' above sea level.