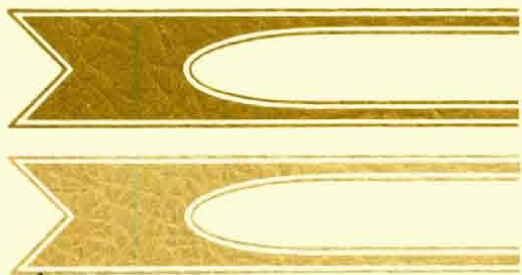


# 1968 EVINRUDE SERVICE MANUAL

**BIG TWIN  
BIG TWIN ELECTRIC  
LARK  
40 HP**



## MODELS

40802 40803

40852 40853

40872 40873

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# SPECIFICATIONS

Model Numbers	40802 (Big Twin, standard length) 40803 (Big Twin, 5" longer) 40852 (Big Twin Electric, standard length) 40853 (Big Twin Electric, 5" longer) 40872 (Lark; standard length) 40873 (Lark; 5" longer)	Propeller gear ratio	12.21															
*Horsepower (O.B.C.-certified)	40 hp at 4500 rpm	Propeller drive pin	Part No. 304575, 1/4" x 1-15/32" stainless steel															
Full throttle operating range	4000 to 5000 rpm	Propeller	10-1/2" diameter x 12" pitch, 3-blade															
Tank test with test wheel	4300 rpm	Alternate propellers	10-3/8" x 11-1/2" pitch 10-3/8" x 14" pitch															
Engine type	2 cylinder, 2 cycle, alternate firing	Speed control	Big Twin - Rope Only Knob on steering bracket or remote control Big Twin Electric and Lark - Remote control Synchronized throttle and spark															
Bore and stroke	3-3/16" bore x 2-3/4" stroke	Gear shift control	Forward, neutral, reverse - Lark - Selectric push-button remote control															
Piston displacement	43.9 cubic inches	Weight (without fuel tank)	Model 40802 - 132 lbs. Model 40803 - 138 lbs. Model 40852 - 143 lbs. Model 40853 - 149 lbs. Model 40872 - 154 lbs. Model 40873 - 159 lbs. (Fuel tank weight 11 lbs. net)															
Piston ring sets (3 per set) standard	Part Number 380108	Fuel capacity	6 gallons, suction type tank															
.025" oversize	Part Number 380109	Starter	Big Twin - Simplex self-rewinding Big Twin Electric and Lark - Electric															
Diameter of ring	3.1875 in. (standard)	Starter amp draw when cranking	120 amperes maximum															
Width of ring	.0935 - .0925 in.	Ignition	Flywheel magneto															
Lbs. Compression recommended when compressed	7 to 10.4 lbs.	Spark plug	AC-M42K, Champion J4J, Auto-Lite A21X - 14mm															
Piston less rings standard	Part Number 380567	Spark plug gap	.030 inch															
.025" oversize	Part Number 381005	Spark plug torque	17-1/2 - 20-1/2 foot-pounds															
Crankshaft size top journal	1.2500 - 1.2495 in.	Breaker point gap	.020 inch															
center journal	1.000 - .9995 in.	Condenser	Part No. 580422															
bottom journal	1.000 - 9.995 in.	Capacity	.25 - .29 mfd.															
Connecting rod crank pin	1.1828 - 1.1823 in.	Part No. 580416 Coil Test Specifications Old Stevens Tester																
Carburetion	Float feed with low-speed adjustment. Spring-loaded choke (Big Twin) or automatic choke and manual lever (Big Twin Electric and Lark)	<table border="1"> <thead> <tr> <th>Switch</th> <th>Index Reading</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>2.0 - 2.5</td> </tr> </tbody> </table>		Switch	Index Reading	A	2.0 - 2.5											
Switch	Index Reading																	
A	2.0 - 2.5																	
Float level setting	Remove float bowl, turn it upside down so weight of float closes needle; float should now be even with rim of casting.	<table border="1"> <thead> <tr> <th colspan="2">New Stevens Tester Model No. M.A. - 75</th> </tr> <tr> <th>Switch</th> <th>Index Adjustment</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>24</td> </tr> </tbody> </table>		New Stevens Tester Model No. M.A. - 75		Switch	Index Adjustment	A	24									
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Carburetor orifice plug	Hole size .064"	<table border="1"> <thead> <tr> <th rowspan="2">Operating Amperage</th> <th colspan="2">Merc-O-Tronic</th> <th colspan="2">Secondary Continuity</th> </tr> <tr> <th>Primary Resistance Min.</th> <th>Max.</th> <th>Min.</th> <th>Max.</th> </tr> </thead> <tbody> <tr> <td>1.6</td> <td>.45</td> <td>.55</td> <td>30</td> <td>45</td> </tr> </tbody> </table>		Operating Amperage	Merc-O-Tronic		Secondary Continuity		Primary Resistance Min.	Max.	Min.	Max.	1.6	.45	.55	30	45	
Operating Amperage	Merc-O-Tronic		Secondary Continuity															
	Primary Resistance Min.	Max.	Min.	Max.														
1.6	.45	.55	30	45														
Inlet needle seat	.065 - .062 Use a #52 drill as gage.	<table border="1"> <thead> <tr> <th colspan="5">Graham Tester Model 51</th> </tr> <tr> <th>Maximum Secondary</th> <th>Maximum Primary</th> <th>Coil Index</th> <th>Minimum Coil Test</th> <th>Gap Index</th> </tr> </thead> <tbody> <tr> <td>4000</td> <td>1.2</td> <td>75</td> <td>33</td> <td>75</td> </tr> </tbody> </table>		Graham Tester Model 51					Maximum Secondary	Maximum Primary	Coil Index	Minimum Coil Test	Gap Index	4000	1.2	75	33	75
Graham Tester Model 51																		
Maximum Secondary	Maximum Primary	Coil Index	Minimum Coil Test	Gap Index														
4000	1.2	75	33	75														
Cooling system	Thermostatically controlled recirculating system																	

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

# LUBRICATION POINTS ELECTRIC SHIFT

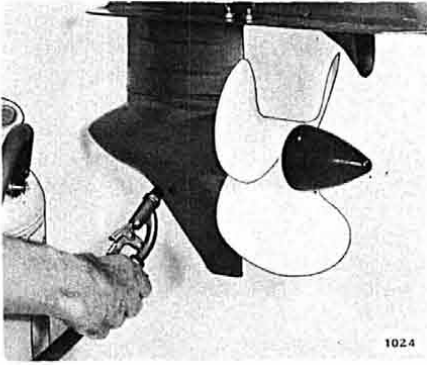


Figure 2-16. Gearcase

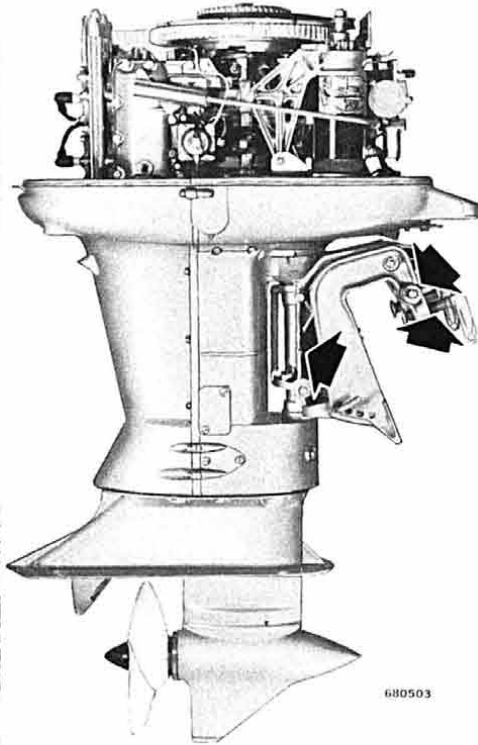


Figure 2-14. Starboard Side

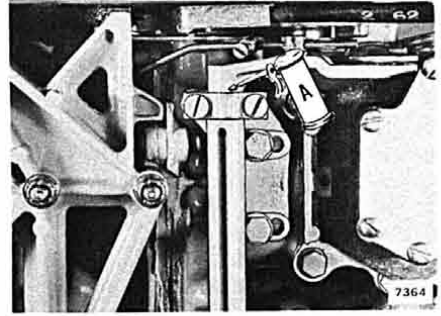


Figure 2-20. Throttle Shaft Bearing

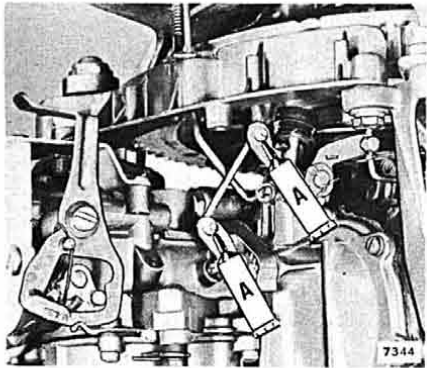


Figure 2-18. Cam Follower, Carburetor & Magneto Linkage

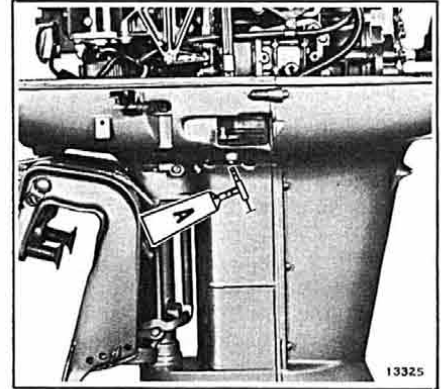


Figure 2-21. Throttle Shaft Bushing

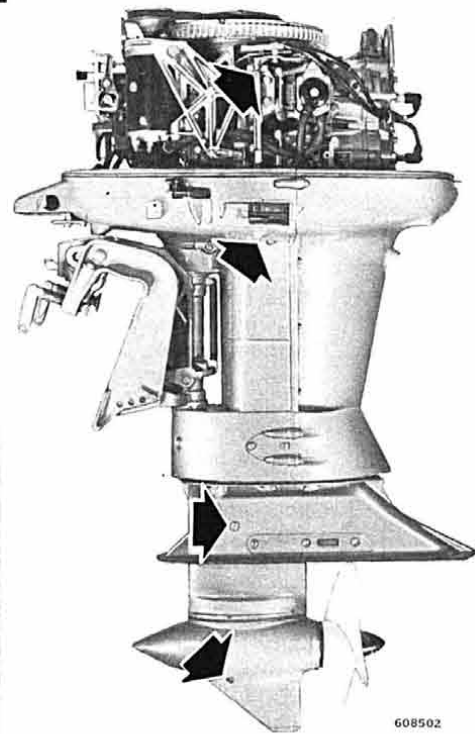


Figure 2-15. Port Side

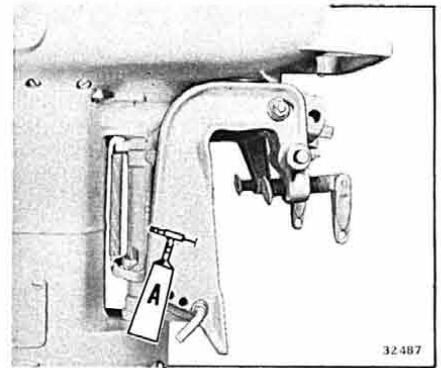


Figure 2-22, Swivel Bracket Fitting

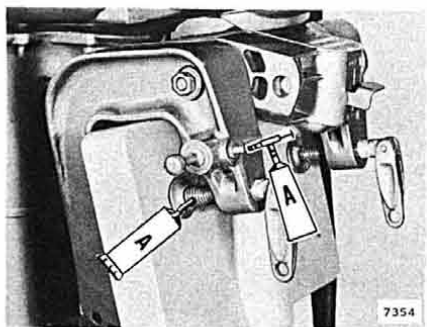


Figure 2-19. Clamp Screws, Stern Bracket and Tilt Lock

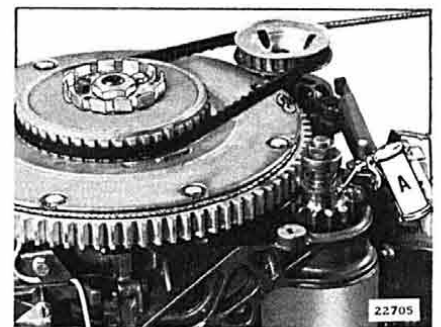


Figure 2-23. Starter Pinion Gear Shaft