1966
EVINRUDE
SERVICE MANUAL

SKI-TWIN
SKI-TWIN ELECTRIC
33 HP

MODELS
33602 33603
33652 33653

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OUTBOARD MARINE CORPORATION 1966

SPECIFICATIONS

Model Numbers	33602 - Standard length (15" transom) 33603-5" longer (20" transom) 33652 - Standard length (15" transom) 33653-5" longer (20" transom)
*Horsepower (O.B.C.-certified)	33 hp at 4500 rpm
Full throttle operating range	4000 to 5000 rpm
Engine type	2 cylinder, 2 cycle
Bore and stroke	3-1/16" bore x 2-3/4" stroke
Piston displacement	40.5 cubic inches
Piston ring sets (3 per set)	
standard	Part Number 378436
.020" oversize	Part Number 378437
.040" oversize	Part Number 378438
Diameter of ring	3.0625 in. (standard)
Width of ring	.0935 - .0925 in.
Lbs. compression recommended when compressed	6 to 9 lbs.
Piston less rings	
standard	Part Number 380039
.020" oversize	Part Number 380557
.040" oversize	Part Number 380558
Crankshaft size	
top journal	1.2500 - 1.2495
center journal	1.0000 - .9995
bottom journal	1.0000 - .9995
Connecting rod crank pin	1.1828 - 1.1823 in.
Cooling system	Centri-matic (combination positive displacement and centifugal)
Propeller gear ratio	12:21
Propeller drive pin	Part Number 304575, 1/4" x 1-15/32" stainless steel
Propeller	10-3/8" diameter x 12-1/2" pitch, 3 blade
Speed control	Knob on steering bracket or remote control. Synchronized throttle and spark
Gear shift control	Forward, neutral, and reverse
Weight (without fuel tank)	Model 33602 - 127 lbs. Model 33603 - 131 lbs. Model 33652 - 140 lbs. Model 33653 - 144 lbs. (Fuel tank weight 12 pounds net)
Fuel capacity	6 gallons, suction type tank
Starter	Ski-Twin - Simplex self-winding Ski-Twin Electric - Electric
Ignition	Flywheel magneto
Spark plug	AC-M42K, Champion J4J, Auto-Lite A21X - 14mm
Spark plug gap	.030 inch
Spark plug torque	20 - 20-1/2 foot-pounds
Breaker point gap	.020 inch
Condenser capacity	.25 - .29 mfd.
Carburetion	Single barrel, float feed, high - and low-speed adjustments, manual choke or electric choke
Float level setting	Flush with rim of casting
Inlet needle seat	.065 - .062 Use #52 drill as gage

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

LUBRICATION POINTS

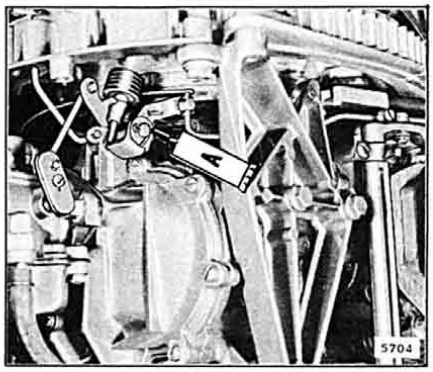

Figure 2-3. Cam Follower Linkage and Locking Lever

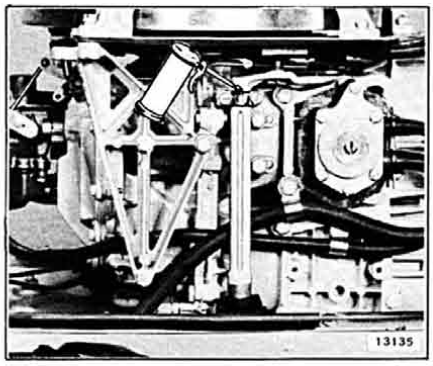

Figure 2-4. Throttle Shaft Bearing and Magneto Linkage

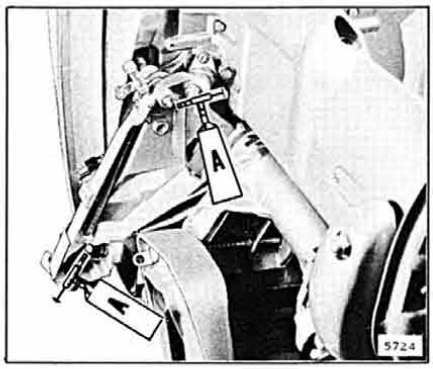

Figure 2-5. Throttle Shaft Bushings and Gears

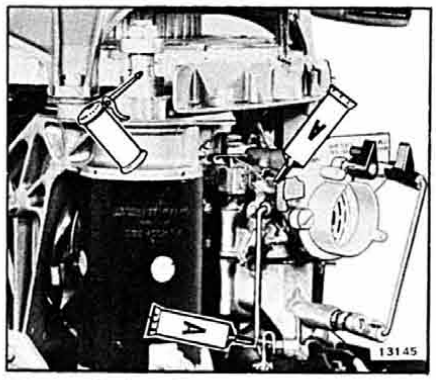

Figure 2-6. Choke Linkage and Starter Pinion Gear Shaft

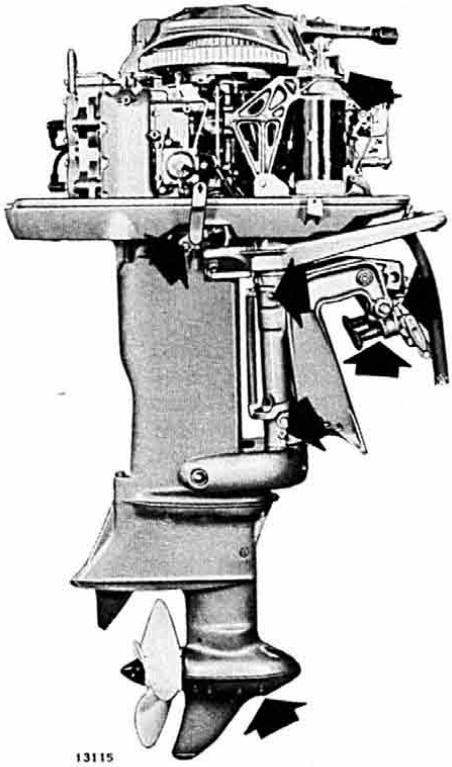

Figure 2-1. Starboard Side, Ski-Twin Electric

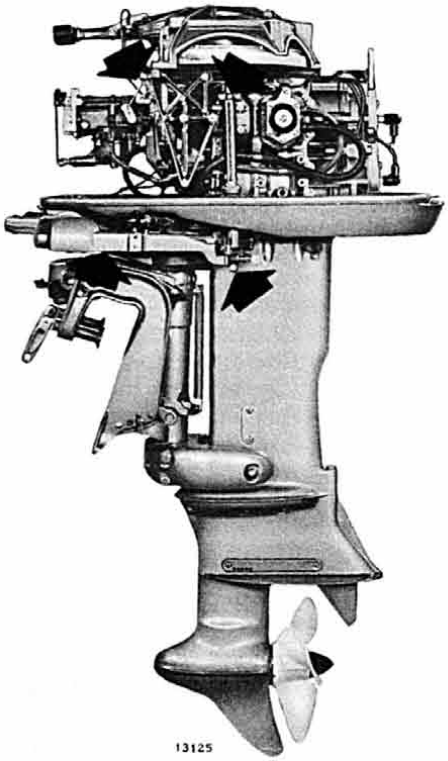

Figure 2-2. Port Side, Ski-Twin

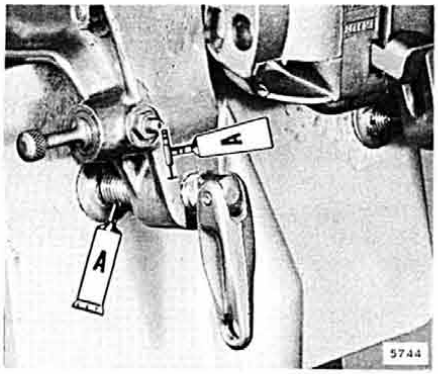

Figure 2-7. Tilt Lock Pin and Clamp Screws

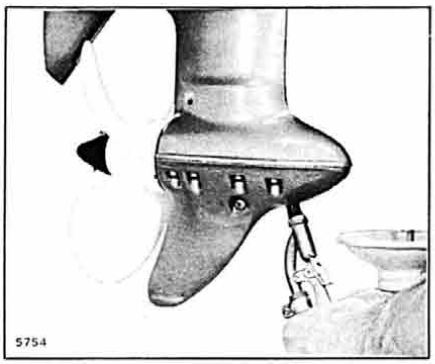

Figure 2-8. Gearcase

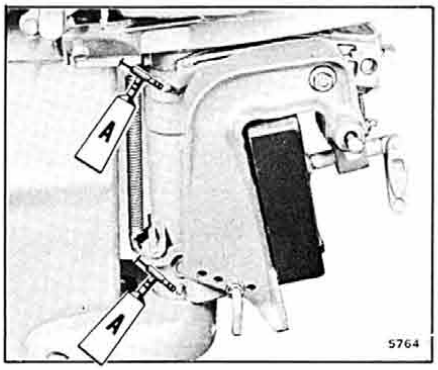

Figure 2-9. Swivel Bracket Fittings and Reverse Lock

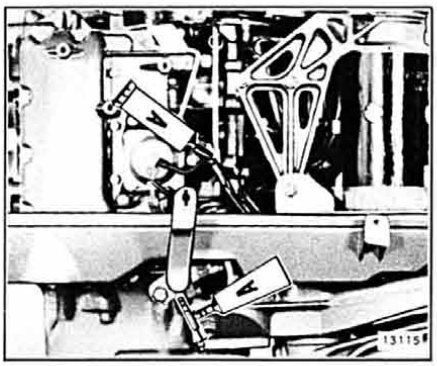

Figure 2-10. Gear Shift Lever Shaft and Lockout