

SPECIAL TOOLS AND SERVICE SPECIFICATIONS
TECHNICAL DATA

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40, 50 HP Models		
ENGINE	Full Throttle Operating Range RPM	40 HP – 4500 to 5500 RPM 50 HP – 4800 to 6000 RPM
	Power	40 HP (30 kw) @ 5000 RPM 50 HP (37 kw) @ 5500 RPM
	Idle RPM in Gear	800 ± 50 EMM Controlled
	Idle RPM in Neutral	750 ± 50 EMM Controlled
	Test Propeller	P/N 382861
	Weight (may vary depending on model)	(L) Models: 235 lbs. (107 kg)
	Lubrication	<i>Evinrude/JohnsonXD100, XD50, XD30, or NMMA TC-W3RL certified</i>
	Engine Type	In-line, 2 Cylinder, Two-Cycle, E-TEC
	Displacement	52.7 cu. in. (864 cc)
	Bore	3.601 in (91.47 mm)
	Stroke	2.588 in. (65.74 mm)
	Standard Bore	3.6005 to 3.6015 in. (91.45 to 91.48 mm) To bore oversize, add piston oversize dimension to standard bore
	Top Crankshaft Journal	2.1870 to 2.1875 in. (55.55 to 55.56 mm)
	Center Crankshaft Journal	2.1870 to 2.1875 in. (55.55 to 55.56 mm)
	FUEL	Bottom Crankshaft Journal
Rod Crankpin		1.3757 to 1.3762 in. (34.94 to 34.96 mm)
Piston Ring End Gap, Both		0.011 to 0.023 in. (0.28 to 0.58 mm)
Fuel/Oil Control		EMM Controlled
Starting Enrichment		EMM Controlled
Minimum (High) Fuel Pressure		24 to 28 psi (165 to 193 kPa)
Minimum Fuel Lift Pump Pressure		4 psi (28 kPa)
Maximum Fuel Inlet Vacuum	4 in. Hg.	
Minimum Octane	87 AKI (R+M)/2 or 90 RON	
Additives	<i>2+4 Fuel Conditioner, Fuel System Cleaner</i> Use of other additives may result in engine damage. See FUEL REQUIREMENTS on p. 52 for additional information	

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ELECTRICAL	Minimum Battery Requirements	640 CCA (800 MCA)
	Alternator	25-Amp fully regulated
	Tachometer Setting	6 pulse (12 pole)
	Engine Fuse	P/N 967545 – 10 A
COOLING	Thermostat	143°F (62°C)
	Maximum Temperature	190°F (88°C)
	Water pressure	11 psi minimum @ 5000 RPM
IGNITION	Type	Capacitor Discharge
	Firing Order	1-2
	Ignition Timing	<i>EMM</i> Controlled
	RPM Limit in Gear	6250
	RPM Limit in Neutral	1800
	Crankshaft Position Sensor Air Gap	Fixed
	Spark Plug	Refer to Emission Control Information Label <i>Champion</i> [†] QC12PEP @ 0.025 ± .003 in. (0.65 mm)
GEARCASE	Gear Ratio	12:32 (.375)
	Lubricant	<i>Ultra-HPF Gearcase Lube</i>
	Capacity	22 fl. oz. (650 ml)
	Shift Rod Height	20 in. (L) Models: 21.38 (543 mm) ± one-half turn
	Shift Cable Stroke	1.125 to 1.330 in. (28.6 to 33.8 mm) measured between NEUTRAL and FORWARD
POWER TRIM/TILT	Lubrication	<i>Power Trim/Tilt & Power Steering Fluid</i> ; or GM Dexron II Automatic Transmission Fluid
	Fluid Capacity	15 fl. oz. (450 ml)
	Trim Range	0° to 15°
	Tilt Range	16° to 65°