

TECHNICAL DATA

60° Models		
HP	75, 90, 115	135, 150, 175
Full Throttle Operating Range RPM	75: 4750–5250 90/115: 5250–5750	135/150: 4750–5250 175: 5250–5750
Power	75 HP (56/67.2 kw) @ 5000 RPM 90/115 HP (85.8 kw) @ 5500 RPM	135/150 HP (100.8/112 kw) @ 5000 175 HP (131 kw) @ 5500
Idle RPM in Gear	650 ± 50	650 ± 50
Test Propeller	Standard Rotation Models: P/N 387388 V4 20 in. (L) Models: P/N 386246 or P/N 433068 Counter Rotation Models: P/N 398673	
Weight (may vary depending on model)	75/90 (L) Models: 369 lbs. (167 kg) 115 20 in. (L) Models: 419 lbs. (190 kg) 115 25 in. (X) Models: 427 lbs. (194 kg)	20 in. (L) Models: 419 lbs. (190 kg) 25 in. (X) Models: 427 lbs. (194 kg)
Lubrication	<i>Evinrude Ficht Ram</i> Injection Oil Refer to Engine Lubricant	
Engine Type	60° V 4-Cyl Loop-Charged	60° V 6-Cyl Loop-Charged
Displacement	105.4 cu. in. (1726 cm ³)	158 cu. in. (2589 cm ³)
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 Journals	2.1870 to 2.1875 in. (55.55 to 55.56 mm)	
Bottom Crankshaft Journal	1.5747 to 1.5752 in. (40.0 to 40.01 mm)	
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 Ratio	<i>EMM</i> Controlled	
Starting Enrichment	<i>EMM</i> Controlled	
Preferred Fuel	Regular unleaded gasoline	
Acceptable Fuel	See FUEL REQUIREMENTS	
Minimum (High) Fuel Pressure @ IDLE RPM – 650 ± 50	22 to 28 psi (152 to 193 kPa)	
Minimum Fuel Lift Pump Pressure @ IDLE RPM – 650 ± 50	4 psi (28 kPa)	
Minimum Oil Lift Pump Pressure @ IDLE RPM – 650 ± 50	15 psi (103 kPa)	
Maximum Fuel Inlet Vacuum	4 in. Hg.	
Maximum Oil Inlet Vacuum	15 in. Hg. @ 60°F (15.6°C) OIL TEMP	
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 for additional information	

SPECIAL TOOLS AND SERVICE SPECIFICATIONS
TECHNICAL DATA

60° Models			
	HP	75, 90, 115	135, 150, 175
ELECTRICAL	Minimum Battery Requirements	V4 Models: 500 CCA (620 MCA) 60 amp-hr minimum; or 675 CCA (845 MCA) below 32°F (0°C) V6 Models: 675 CCA (845 MCA); or 750 CCA (940 MCA) below 32°F (0°C) (Use a 107 amp-hr battery for extreme applications)	
	Alternator	Dual Voltage 60 Amp with Voltage Regulator and Battery Isolation	
	Tachometer Setting	6 pulse (12 pole)	
	Charging Isolator	Integral, Terminal on Power Distribution Panel	
	Engine Fuses	P/N 514766 – 10 A (7) P/N 514768 – 20 A (1)	
COOLING	Thermostat opens	143°F (62°C)	135°F (57°C)
	Thermostat fully opened	170°F (77°C)	160°F (71°C)
IGNITION	Type	Capacitor Discharge	
	Firing Order	1-2-3-4	1-2-3-4-5-6
	Ignition Features	EMM Controlled	
	RPM Limit	6500	
	Crankshaft Position Sensor Air Gap	0.035 to 0.055 in. (0.9 to 1.4 mm)	
	Spark Plug	Refer to Emission Control Information Label Use of non-suppression spark plugs will cause ignition problems. Spark plugs MUST be replaced at least every 100 hrs. Failure to follow this schedule could result in poor performance or engine damage.	
GEARCASE	Gear Ratio	20 in. (L) Models: 13:26 (.500) 25 in. (X) Models: 12:27 (.440)	13:24 (.542)
	Lubricant	Ultra-HPF Gearcase Lube	
	Capacity	20 in. (L) Models: 26 fl. oz. (770 ml) 25 in. (X) Models: 42 fl. oz. (1250 ml)	44 fl. oz. (1300 ml) Standard Rotation 40.2 fl. oz. (1190 ml) Counter Rotation
	Shift Rod Height	20 in. (L) Models: 21 3/4 (552.5 mm) ± one-half turn 25 in. (X) Models: 26 3/4 (679.5 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	Power Trim/Tilt & Power Steering Fluid or GM Dexron II Automatic Transmission Fluid	
	Fluid Capacity	21 fl. oz. (622 ml)	
	Trim Range	0° to 21°	
	Tilt Range	22° to 75°	
	Tilt UP Stall Pressure	1500 psi (10342 kPa)	
	Tilt IN Stall Pressure	800 psi (5516 kPa)	

SPECIAL TOOLS AND SERVICE SPECIFICATIONS
TECHNICAL DATA

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90° Models					
HP	200	200 FHL	225	225 FHL	250
Full Throttle Operating Range RPM	5000–6000	5000–6000	5500–6000	5500–6000	5500–6000
Power	200 HP (149.2 kw) @ 5500 RPM	Factory Tuned for High Performance	225 HP (167.8 kw) @ 5750 RPM	Factory Tuned for High Performance	250 HP (186.5 kw) @ 5750 RPM
Idle RPM in Gear	650 ± 50				
Test Propeller	Standard Rotation Models: P/N 436080 or P/N 396277 Counter Rotation Models: P/N 436081 or P/N 398674				
Weight (may vary depending on model)	20 in. (L) Models: 500 lbs. (227 kg) 25 in. (X) Models: 504 lbs. (229 kg) 30 in. (Z) Models: 509 lbs. (231 kg)				
Lubrication	<i>Evinrude Ficht Ram</i> Injection Oil Refer to Engine Lubricant				
Engine Type	90° V 6-Cyl Loop-Charged				
Displacement	200.1 cu. in. (3279 cm ³)				
Bore	3.854 in. (97.89 mm)				
Stroke	2.858 in. (72.6 mm)				
Standard Bore	3.8535 to 3.8545 in. (97.87 to 97.90 mm) To bore oversize, add piston oversize dimension to standard bore				
Top Crankshaft Journal	1.6199 to 1.6204 in. (41.15 to 41.16 mm)				
Center Crankshaft Journals	2.1870 to 2.1875 in. (55.55 to 55.56 mm)				
Bottom Crankshaft Journal	1.5747 to 1.5752 in. (40.00 to 40.01 mm)				
Rod Crankpin	1.4995 to 1.5000 in. (38.09 to 38.10 mm)				
Piston Ring End Gap, Both	0.022 to 0.028 in. (0.57 to 0.72 mm)				
Fuel/Oil Ratio	<i>EMM</i> Controlled				
Starting Enrichment	<i>EMM</i> Controlled				
Preferred Fuel	Regular unleaded gasoline				
Acceptable Fuel	See FUEL REQUIREMENTS				
Minimum (High) Fuel Pressure @ IDLE RPM – 650 ± 50	22 to 28 psi (152 to 193 kPa)				
Minimum Fuel Lift Pump Pressure @ IDLE RPM – 650 ± 50	4 psi (28 kPa)				
Minimum Oil Lift Pump Pressure @ IDLE RPM – 650 ± 50	15 psi (103 kPa)				
Maximum Fuel Inlet Vacuum	4 in. Hg.				
Maximum Oil Inlet Vacuum	15 in. Hg. @ 60°F (15.6°C) OIL TEMP				
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 for additional information				

SPECIAL TOOLS AND SERVICE SPECIFICATIONS
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90° Models						
	HP	200	200FHL	225	225 FHL	250
ELECTRICAL	Minimum Battery Requirements	675 CCA (845 MCA); or 750 CCA (940 MCA) below 32°F (0°C) (Use a 107 amp-hr battery for extreme applications)				
	Alternator	Dual Voltage 60 Amp with Voltage Regulator and Battery Isolation				
	Tachometer Setting	6 Pulse (12 Pole)				
	Charging Isolator	Integral, Terminal on Power Distribution Panel				
	Engine Fuses	P/N 514766 – 10 A (7) P/N 586521 – 20 A (1)				
COOLING	Thermostat opens	135°F (57°C)				
	Thermostat fully opens	160°F (71°C)				
IGNITION	Type	Capacitor Discharge				
	Firing Order	1-2-3-4-5-6				
	Ignition Features	EMM Controlled				
	RPM Limit	6250				
	Crankshaft Position Sensor Air Gap	0.040 to 0.080 in. (1.0 to 2.0mm)				
Spark Plug	Refer to Emission Control Information Label					
	Use of non-suppression spark plugs will cause ignition problems. Spark plugs MUST be replaced at least every 100 hrs. Failure to follow this schedule could result in poor performance or engine damage.					
GEARCASE	Gear Ratio	13:24 (.542)	14:25 (.538)	13:24 (.542)	14:25 (.538)	13:24 (.542)
	Lubricant	Ultra-HPF Gearcase Lube				
	Capacity	44 fl. oz. (1300ml) Standard Rotation 40.2 fl. oz. (1190ml) Counter Rotation	34.3 fl. oz. (1015ml)	44.0 fl. oz. (1300ml) Standard Rotation 40.2 fl. oz. (1190ml) Counter Rotation	34.3 fl. oz. (1015ml)	44.0 fl. oz. (1300ml) Standard Rotation 40.2 fl. oz. (1190ml) Counter Rotation
	Shift Rod Height	20 in. (L) Models: 21 29/32 ± one-half turn 25 in. (X) Models: 26 29/32 ± one-half turn 30 in. (Z) Models: 31 29/32 ± 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	Power Trim/Tilt & Power Steering Fluid or GM Dexron II Automatic Transmission Fluid				
	Fluid Capacity	21 fl. oz. (622 ml)				
	Trim Range	0° to 21°				
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	Tilt UP Stall Pressure	1500 psi (10342 kPa)				
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