



M250H13L

250 kW (60 Hz, 1800 rpm)
200 kW (50 Hz, 1500 rpm)

FEATURES AND BENEFITS

Engine Block - Luggier six cylinder, four cycle, inline, liquid cooled, overhead valve, marine diesels based on heavy-duty industrial engine blocks. Balanced, forged crankshaft with induction hardened journals and rolled fillets for long life. Replaceable wet liners for low rebuild costs. Bimetallic valves have chrome stems and rotates. Replaceable valve seats and guides. Three ring aluminum alloy pistons with Ni-Resist insert for the top ring. Keystone piston ring reduces carbon buildup under light loads. Torsional crankshaft dampers help ensure smooth operation. A single poly-vee drive belt powers the alternator and jacket-water pump.

Fuel System - High pressure common rail fuel injection for smooth, clean delivery. Direct fuel injection systems. Canister fuel filters include drain and sensors for low fuel pressure and water-in-fuel. Electric fuel transfer pump with automatic priming.

Air System - Dry air filter silences intake noise. Turbocharger with jacket-water cooled turbine housing for safety. Seawater aftercooler provides optimized combustion and output.

Cooling System - Heat exchanger cooling: copper-nickel, tube type heat exchanger with removable ends for easy cleaning. Gear driven, belt-less, flexible impeller, seawater pump is bronze and stainless steel. Cast expansion tank with brass filler neck. Two thermostats for quick warm-ups and safety. Cast-iron exhaust manifold for even temperature control. Heat exchange configuration standard.

ESP and DC Electrical System - Electronic System Profiler (ESP) supplies an SAE J1939 data stream through a CANbus plug. Optional engine monitor screen. Negative ground, 24 volt DC system has circuit breaker, starter motor and alternator with regulator. Generator mounted start/stop switches are standard. Optional S-3C remote control panel with engine hour meter, coolant temperature gauge, oil pressure gauge, DC voltage meter, start-stop and shutdown bypass switches. Additional optional panels help you specify the amount and type of information delivered. Reliable, relay based DC system is easy to troubleshoot and repaired. Up to six panels can be used to 110 feet from set. Low oil pressure and high coolant temperature safety shutdown system.

AC Generator - Direct coupled, single bearing, 12 lead, re-connectable AC generator. Maintenance free brushless design. All NL generators meet or exceed class society standards with Class "H" insulation, accessible diodes, oversized ball bearings, marine grade shafts and heat rise rating. Automatic voltage regulator, $\pm 1\%$ regulation over the entire range from no load to full load. Configured for isochronous frequency control with ECU electronic governor control.

AC Output	M250H13L	M250H13L
60 Hz, 1800 RPM, kW	250 kW	
50 Hz, 1500 RPM, kW		200 kW
Voltage Regulation	1%	1%
Frequency Droop Control	Isochronous 0%	
Phase and Power Factor	Three Phase 0.8 Power Factor std.	
Generator Full Load Temp. Rise	90°C Temperature Rise at 50°C Ambient	
Luggier Diesel Engine Data		
Inline Cylinders/Aspiration/Operating Cycle	I-6/Turbo & Seawater Aftercooled/4	
Displacement - in ³ (ltr)	549 (9.0)	549 (9.0)
Bore/Stroke - in (mm)	4.6/5 (118/127)	4.6/5 (118/127)
Oil Fill Capacity - gal (ltr)	8.3 (31)	8.3 (31)
Cooling System		
Standard Cooling Type	Heat Exchanger	Heat Exchanger
Heat Rejection to Jacket Water - BTU min	15289	13302
Freshwater Pump Capacity - gpm (lpm)	78 (297)	64 (243)
Heat Exchanger Approx. Cooling Capacity - gal (ltr)	10 (38)	10 (38)
Seawater Pump Capacity - gpm (lpm)	89 (336)	78 (295)
Max. Seawater Pump Suction Head Lift - ft (m)	9.8 (3)	9.8 (3)
Seawater Pump Inlet Hose ID - in (mm)	2.5 (63.5)	2.5 (63.5)
Min. Seawater Inlet/Discharge Thru-Hull - in (mm)	2.5 (63.5)	2.5 (63.5)
DC Electrical		
DC Starting Voltage - standard	24	24
Min. Battery Capacity - amp	750	750
Starter Rolling Amps @ 0°C	300	300
24 Volt Battery Cable Size Up to 10ft (3m)	2/0	2/0
Air		
Air Consumption - cfm/ (m ³ /m)	830 (23.5)	522 (14.8)
Approximate Heat Radiated to Air - BTU/min	1018	1619
Generator Cooling Air Flow 1&3Ø - cfm	880	730
Exhaust Gas Volume - cfm (m ³ /m)	1812 (51.3)	1285 (36.4)
Exhaust Gas Temp. - F° (C°)	756° (402°)	891 (477)
Max. Exhaust Back Pressure - in H ₂ O (mm H ₂ O)	30 (762)	30 (762)
Wet Exhaust Elbow OD - in (mm)	6 (152)	6 (152)
Dry Exhaust Elbow - in (mm)	4 (102)	4 (102)
Fuel		
Fuel Injection Pump type and Control	Electronic (HPCR)	Electronic (HPCR)
Min. Suction - in (mm)	3/8 (10)	3/8 (10)
Max. Fuel Transfer Pump Suction Lift - in (m)	95 (2.4)	95 (2.4)
Specific Fuel Consumption Max. Load RPM - lbs. hp. hr	0.367	0.357
Approx. Fuel Rate at RPM Fuel Load - gph (lph)	18.8 (71.3)	14.4 (54.5)
Max Engine Operating Angle		
Continuous (with Separate Expansion Tank)	20°	20°
Intermittent (2 Minutes)	30°	30°
Dimensions and Weight - Low Profile; Do not use for installation. Contact Factory for installation drawings and info.		
Length - in (mm)	106 (2692)	106 (2692)
Width - in (mm)	42 (1067)	42 (1067)
Height - in (mm)	49.5 (1258)	49.5 (1258)
Weight - lbs (kg)	5740 (2604)	5740 (2604)

