

## M844LW3 - 20 kW/16 kW

### AC Output<sup>1</sup>

<b>20 kW</b>	60 Hz, 1800 RPM, 1 Ph, 1.0 PF, 120-240 V/66.6 A, 120 V/133 A
<b>16 kW</b>	50 Hz, 1500 RPM, 1 Ph, 1.0 PF, 220 V/54.4 A
Optional	Three Phase with 0.8 PF
Voltage regulation	±1%

### Lugger L844L3 Engine

Type	Vertical inline 4 cylinder diesel
Displacement	135 in <sup>3</sup> (2.2 ltr)
Bore/Stroke	3.30/3.90 in (84/100 mm)
HP @ RPM	32/1800 25.6/1500

### Approximate fuel use

1800 RPM @ full load <sup>2</sup>	1.70 gph (6.50 lph)
1800 RPM @ half load <sup>2</sup>	1.00 gph (3.90 lph)
1500 RPM @ full load <sup>2</sup>	1.36 gph (5.20 lph)
1500 RPM @ half load <sup>2</sup>	0.80 gph (3.00 lph)

### Installation Data & Weight

Wet exhaust elbow	2 inch (51 mm) OD
Raw water inlet	3/4 inch (19 mm) OD
Fuel inlet and return	1/4 inch NPT
Approximate dry weight	973 lbs (441 kg)

1. Based on SAE J1995 and ISO 3046.  
2. Actual fuel consumption will vary depending on operating conditions

### Engine Block

- Four cycle, 4 cylinder, liquid cooled, naturally aspirated, overhead valve diesel.
- Swirl combustion chambers improve fuel efficiency and reduce smoke.
- Glow plugs for quick cold starting.

### Cooling System

- Freshwater cooling system in heat exchanger or keel cooled configuration.
- One-piece heat exchanger, expansion tank and liquid cooled exhaust manifold. Fewer troublesome hoses and gaskets. Cast iron to resist corrosion and electrolysis.
- Heat exchanger cooling is standard. Cupro-nickel tube-type heat exchanger has removable ends for easy cleaning. Rubber impeller seawater pump of bronze and stainless steel is gear driven; no belt.

### Fuel System

- Fuel system is self-venting.
- Injection pump with 5% mechanical governor for close AC frequency control.
- Pintle injectors with replaceable tips.
- Mechanical lift pump with hand primer. No electric pump to fail.
- Large spin-on fuel filter.
- Flexible fuel lines routed to fuel manifold.
- Stop solenoid controls the fuel rack, not the throttle, to eliminate speed variances and linkage problems.

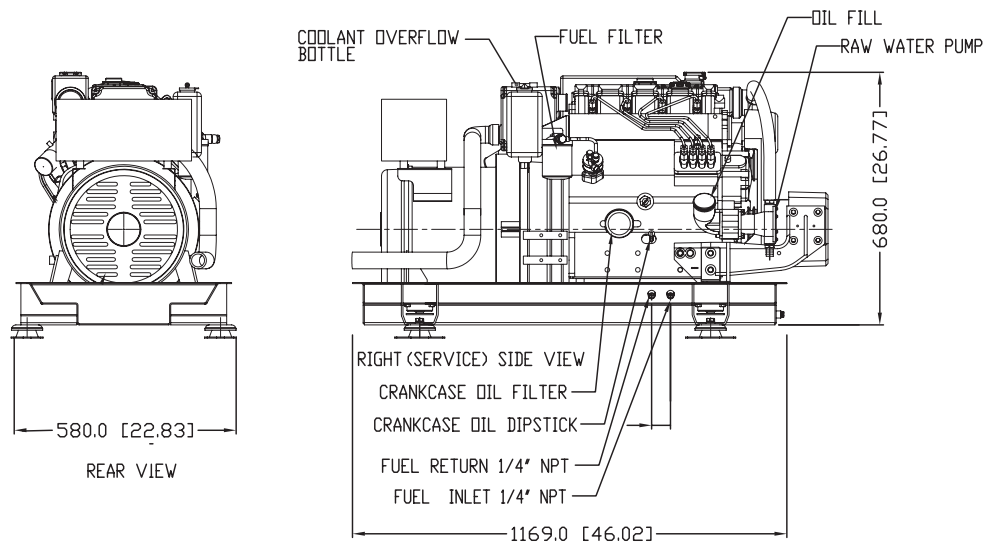
### Intake and Exhaust

- Meets US EPA Tier III emission standards at date of manufacture.
- Washable air cleaner in cast intake manifold reduces intake noise.
- Cast iron, wet exhaust elbow for safety.

### Lubrication System

- Full flow, spin-on oil filter with bypass.
- 8.6 qt (8.2 ltr) oil capacity for better lubrication. 200 hour oil change intervals.
- Oil drain for quick, clean oil changes.
- Closed crankcase vent system traps oil vapor and keeps engine room clean.

## Dimensional Drawing



**M844LW3 Overall Dimensions L x W x H:** 46.0 x 22.8 x 27.5 inch (1169 x 580 x 697 mm)

**Sound Enclosure Dimensions L x W x H:** 46.0 x 22.8 x 28.1 inch (1169 x 580 x 714 mm)

**Sound Enclosure Weight:** 125.0 lbs. (57.0 kg)

Dimensions given in inches (mm). Dimensions subject to change without notice. Contact dealer or visit [www.northern-lights.com](http://www.northern-lights.com) for most current installation drawings.

## M844LW3 Features and Benefits

### DC Electrical System

- DC system uses reliable relays instead of an unrepairable printed circuit board.
- 12 volt starter motor and battery charging alternator with regulator and belt guard.
- Standard panel: Remote mount S-1B has hour meter, stop-start switch with run light and preheat switch.
- Expandable to six panels up to 110 feet from the set.
- 20 foot (6m) plug-in panel harness lets you mount your panel anywhere onboard. Better than inaccessible unit mount panels that are prone to vibration problems.
- Low oil pressure, high coolant temp and high exhaust temp safety shutdowns standard.

### AC Generator

- Northern Lights, direct coupled, brushless AC generator is maintenance free. 4 lead, 1 phase, 50 or 60 Hz output standard. 12 lead, 3 phase optional. Conservative heat rise rating: 95°F/50°C ambient.
- Automatic voltage regulator (AVR) is powered by dedicated AC winding for true 300% short circuit capability and circuit breaker protection. Quick ±1% RMS no load to full load voltage regulation.
- Generator features high quality, Class "H" epoxy insulation, accessible diodes, over-sized bearings and junction box for wiring.



### Special Equipment

- Welded steel base frame with drip pan.
- Four platform mounts isolate vibration.
- White, long-life polyurethane paint.
- Operator's and parts manuals standard.

### Classification Standards

- Consult factory for details.

Lloyd's Register



[www.northern-lights.com](http://www.northern-lights.com)

### Dealer

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Information and dimensions subject to change without notice.

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