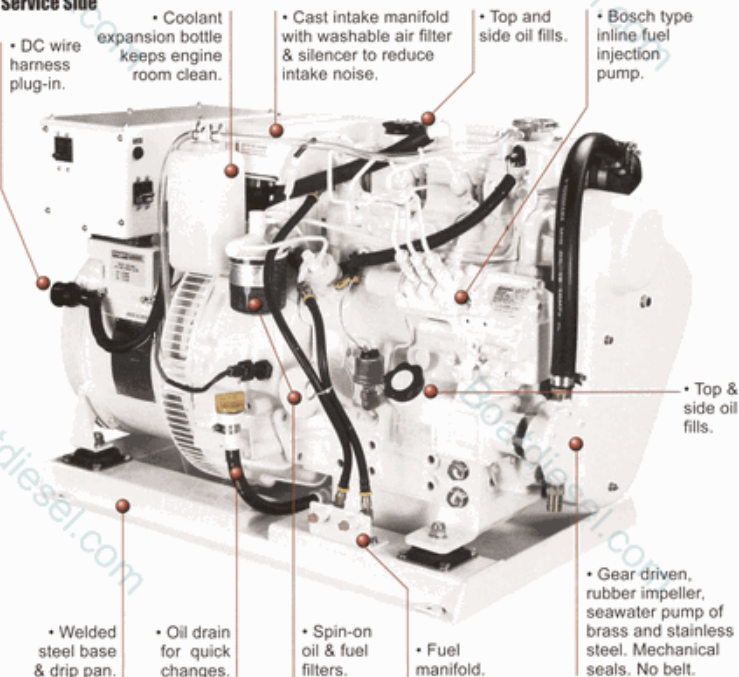
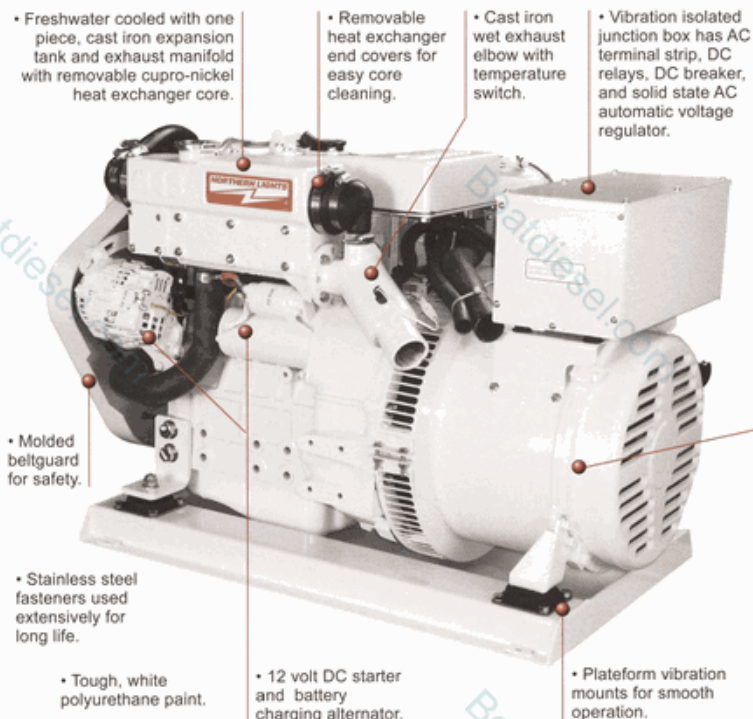


## Service Side



- DC wire harness plug-in.
- Coolant expansion bottle keeps engine room clean.
- Cast intake manifold with washable air filter & silencer to reduce intake noise.
- Top and side oil fills.
- Bosch type inline fuel injection pump.
- Top & side oil fills.
- Gear driven, rubber impeller, seawater pump of brass and stainless steel. Mechanical seals. No belt.
- Welded steel base & drip pan.
- Oil drain for quick changes.
- Spin-on oil & fuel filters.
- Fuel manifold.

## Non-Service Side



- Freshwater cooled with one piece, cast iron expansion tank and exhaust manifold with removable cupro-nickel heat exchanger core.
- Removable heat exchanger end covers for easy core cleaning.
- Cast iron wet exhaust elbow with temperature switch.
- Vibration isolated junction box has AC terminal strip, DC relays, DC breaker, and solid state AC automatic voltage regulator.
- Molded beltguard for safety.
- Stainless steel fasteners used extensively for long life.
- Tough, white polyurethane paint.
- 12 volt DC starter and battery charging alternator.
- Platform vibration mounts for smooth operation.

## 10 kW

60 Hz / 1800 RPM

## 8 kW

50 Hz / 1500 RPM

### Need a powerful, feature packed, marine generator set in a compact size?

Then the M843JW is made just for you. This reliable set offers you the world-class quality and unmatched performance of a Northern Lights in a simple, dependable package.

At 1800 rpm (60 Hz) or 1500 rpm (50 Hz), the 843's naturally aspirated, 81 cubic inch, Luger diesel engine provides the torque necessary to start the larger motor loads on today's vessels.

Strong and simple. The M843JW has a combined cast-iron exhaust manifold, expansion tank, and heat exchanger housing that eliminates unnecessary gaskets, hoses, and clamps. The seawater pump is gear driven eliminating a drive belt. The Northern Lights' DC electrical system is simple too. It uses reliable, interchangeable and economical relays instead of expensive printed circuit boards.

Maintenance is quick and easy. The single-side servicing feature places all regular maintenance points right at your fingertips. Look how the freshwater pump is placed for easy impeller changes. The self-venting fuel system and mechanical fuel lift pump make messy bleeding procedures a thing of the past.

The M843JW is large enough to have the full benefit of the extensive Northern Lights optional equipment list. Choices include Northern Lights' super attenuated sound enclosure, additional instrument panels, 24 volt electrical system, even an aluminum base frame for the performance boat enthusiast. Let your dealer work with you to order the perfect M843JW for your boat.

### Featuring new W-Series generator

The new W-Series generator end is a major step in our constant quest to give you the best generator set on the market. It features an auxiliary stator winding that supplies separate and stable power to the Automatic Voltage Regulator (AVR). The results are impressive:

- Classification society compliance.
- Real 300% short circuit capability.
- Improved AC circuit breaker performance.

See your dealer for more information.

## M843JW Specifications and Dimensions

M843JW - 10 kW/8 kW

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

10 kW ..... 60 Hz, 1800 RPM, 1 Ph, 1.0 PF,  
120-240 V/41.6A, 120 V/83.3A

8 kW ..... 50 Hz, 1500 RPM, 1 Ph, 1.0 PF,  
220 V/36.3A

Optional ..... Three Phase with 0.8 PF  
Voltage regulation ..... ±1%

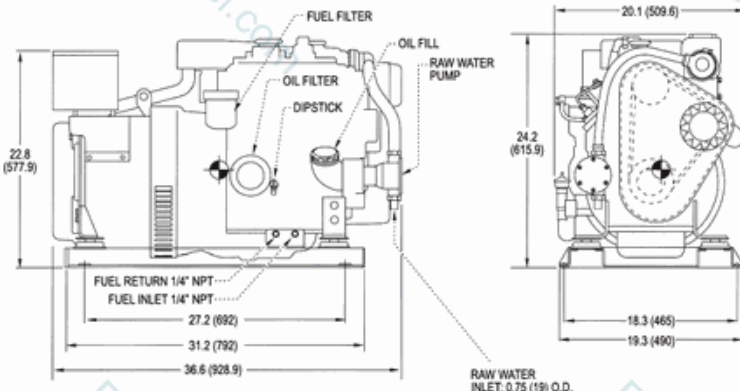
### Lugger L843J Engine

Type ..... Vertical inline 3 cylinder diesel  
Displacement ..... 81 in<sup>3</sup> (1.33 ltr)  
Bore/Stroke ..... 3.30/3.20 in (84/80 mm)  
HP @ RPM ..... 17.5/1800 14/1500  
Approx. fuel use  
1800 RPM @ full load<sup>2</sup> ..... 1.1 gph (4.2 lph)  
1800 RPM @ half load<sup>2</sup> ..... 0.56 gph (2.1 lph)  
1500 RPM @ full load<sup>2</sup> ..... 0.88 gph (3.33 lph)  
1500 RPM @ half load<sup>2</sup> ..... 0.45 gph (1.70 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 ..... 659 lbs (299 kg)  
1. Based on SAE J1995 and ISO 3046. 2. Actual fuel consumption will vary depending on operating conditions.

## M843JW Dimensional Drawing



**Overall Dimensions L x W x H: 36.6 x 20.1 x 24.2 inch (928.9 x 509.6 x 615.9 mm)**

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.

## M843JW Features and Benefits

### Engine Block

- Four cycle, 3 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 cooling 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 has tube-type, cupro-nickel heat exchanger with removable ends for easy cleaning. Easily accessible 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 throttle, to eliminate speed variance and linkage problems.

### Intake and Exhaust

- Meets US EPA emission requirements 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.
- 5.8 qt. (5.5 ltr) oil capacity for better lubrication. 200 hour oil change intervals.
- Oil drain for quick, clean oil changes.

### DC Electrical System

- DC system uses reliable relays instead of 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 (6 m) plug-in panel harness lets you mount your panel anywhere onboard. Better than a inaccessible unit mount panel that is prone to vibration problems.
- Low oil pressure, high coolant temperature and high exhaust temperature 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°C/50°C ambient.
- Automatic Voltage Regulator is powered by dedicated AC winding for true 300% short circuit capability. Quick ±1% RMS no load to full load voltage regulation. AVR has circuit breaker protection.

- Generator features high quality, Class "H" epoxy insulation, accessible diodes, oversized 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

- Contact factory for details.



### Optional Equipment

- Control panels with DC gauges.
- AC and DC control panels.
- 24 volt isolated ground DC system.
- Wire harness extensions and "Y" harness.
- 2 inch wet exhaust muffler.
- Exhaust / water separator.
- Dry exhaust elbow.
- Keel cooling configuration.
- Onboard parts kits.
- Fuel filter-water separators.
- Shorepower switches.
- Alarms/shutdowns for low coolant level, low oil level, raw water flow and overspeed.
- Sound enclosure has powder coated aluminum panels lined with sound barrier foam to dampen noise. Trigger latches for easy access.



LxWxH: 43.59 x 27.3 x 27.42 in  
(1107 x 693 x 696.5 mm)  
Weight: 100 lbs (45 kg)

### Dealer

4420 14th Ave. NW., Seattle WA 98107  
Tel: (206) 789-3880 • 1-800-762-0165  
Fax: (206) 782-5455

Information and dimensions subject to change without notice.  
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