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Big displacement, naturally aspirated Lugger diesels make the 844s prime power sets for large boats.

A vessel that needs 16 to 20 kW is large enough that continuous power is critical to its operation. Unfortunately, most 20 kW sets have small displacement, light duty diesels that can't stand up to heavy use. Some even need turbochargers to compensate for their small displacement.

The M844K and M844LK are different. Powered by naturally aspirated, four cylinder diesels, these sets have the low end torque needed to start big electric motors. Yet they are compact and light weight.

Smooth and quiet. Vibration isolation mounts, intake silencers and cast valve covers make the sets remarkably smooth and quiet. Sound enclosures offer even more comfort afloat.

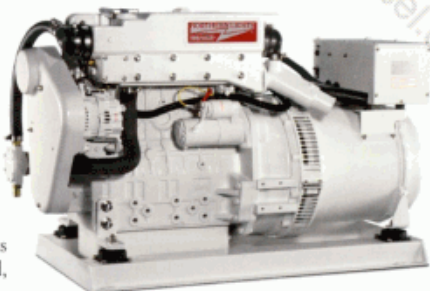
Simple to operate and maintain. The sets come with a 20 foot long wire harness and control panel that lets you operate it from your boat's bridge.

No service points on this side lets you install the set close to a bulkhead. Features: Liquid cooled, cast iron exhaust elbow. One-piece, cast iron heat exchanger, expansion tank and exhaust manifold. 12 volt starter and alternator.

The M844s are simple to maintain. All service points are on one side within easy reach. To reduce troublesome gaskets and hoses, the cast iron exhaust manifold, heat exchanger and expansion tank are combined into a single component, freshwater cooling system. The raw water pump's location makes impeller changes a snap and it is gear-driven so there is no pump drive belt to fail.

The engine's DC electrical system and safety shutdowns use reliable relays instead of delicate, unrepairable printed circuit boards. If a failure should occur, the operator can simply plug in a new, inexpensive relay.

Heavy-duty generator end, The K-Series brushless generators are manufactured for the rigors of marine operation. They feature automatic AC voltage regulators that protect your electrical equipment by minimizing power surges.



Need hydraulic power? Add an optional front PTO with an electric clutch. At the touch of a button you have power for your bowthrustrer, winches and other hydraulics.

Thorough testing. Your set is load-tested at the factory. This full function testing is just one of the quality control checks every Northern Lights must pass. It eliminates "in-boat debugging" and assures years of owner satisfaction.



- Junction box contains AC terminal strip, solid state AC automatic voltage regulator with circuit breaker and engine's DC circuit breaker.

- Coolant recovery bottle.

- Loomed DC wire harness with panel plug-in.

- Northern Lights brushless, 50 or 60 Hz, 95°C, direct coupled generator end.

- Spin-on oil filter.

- Oil drain for quick, clean oil changes.

- Cast valve cover with oil fill and washable air filter/silencer. Reduces valve train and air intake noise.

- Fuel lift pump with hand primer. Spin-on fuel filter.

- Freshwater cooling. One-piece, cast iron heat exchanger, expansion tank and exhaust manifold.

M844K, M844LK have all routine maintenance points grouped on one side for quick and easy service.

- Removable heat exchanger end covers for easy cleaning.

- Beltguard for battery charging 12 volt alternator

- Bosch-type injection pump

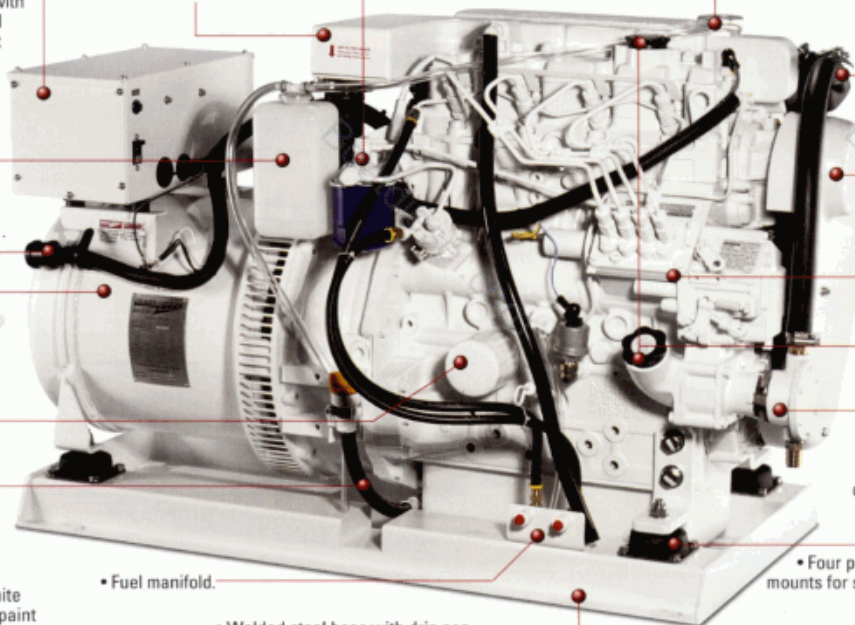
- Top and side oil fills

- Gear driven Jabsco sea water pump with ceramic seals. No drive belt.

- Four platform vibration mounts for smooth operation.

- Sparkling white Polyurethane paint for high visibility

- Welded steel base with drip pan keeps engine room clean. Stronger than rail-type base.

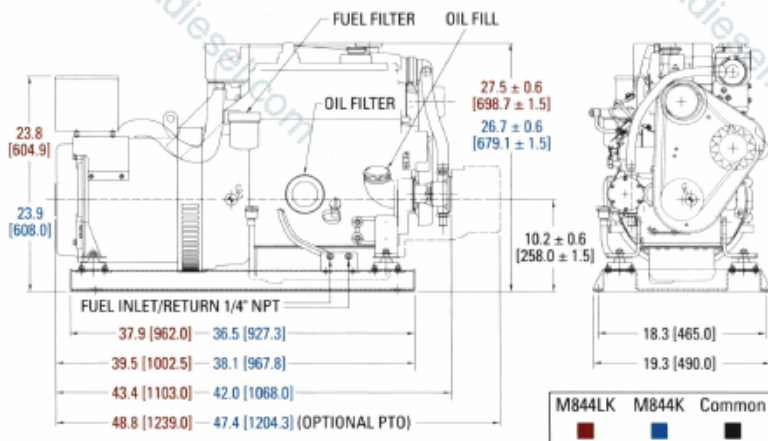


Specifications

Model	M844K	M844LK
60 Hz, 1800 rpm ¹	16 kW	20 kW
Amps 120-240V	66.6 A	83 A
120V	133 A	166 A
50 Hz, 1500 rpm ¹	12 kW	16 kW
Amps 220V	54.5 A	72.7 A
Voltage regulation	+1%	+1%
Phase Std. (Opt.)	1 (3)	1 (3)
Power Factor	1.0	1.0
Cylinders	4	4
Displace. cid (litr)	121 (1.9)	135 (2.2)
Bore/Stroke mm	84/90	84/100
HP @ 1800 RPM	26	32
Fuel use at 1800 rpm ²		
full load USg (litr)/hr	1.4 (5.2)	1.7 (6.5)
half load USg (litr)/hr	83 (3.1)	1 (3.9)
Wet exhaust elbow OD	2 in (51mm)	
Raw water inlets ODs	0.75 in (20mm)	
Fuel inlet-return	1/4 in. NPT	
Dry weight lbs (kg)	890 (405)	970 (440)

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

Dimensional Data



Features and Benefits

Engine Block.

- Lugger, 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 in heat exchanger or keel cooled configuration.
- One piece heat exchanger, expansion tank and exhaust manifold. Minimal hoses and gaskets. The cast iron construction resists corrosion, electrolysis and overheating.
- Heat exchanger cooling includes:
 - Easy to clean, tube-type heat exchanger.
 - Jabsco-type raw water pump of bronze and stainless steel. Pump is mounted for easy access and is gear driven. No belts to fail.
 - Coolant recovery bottle.

Fuel System.

- Fuel system is self venting.
- Bosch type injection pump with 3-5% mechanical governor for close AC output frequency control.
- Pintle injectors with replaceable tips.
- Mechanical fuel lift pump with primer.
- Large spin-on fuel filter.
- Flexible fuel lines routed to manifold on base for easy connection to fuel system.
- Stop solenoid controls fuel rack, not throttle. Eliminates speed variance.

Intake and Exhaust.

- Cleanable dry-type air cleaner in cast intake manifold silences intake noise.

- Cast iron, wet exhaust elbow for safety.
- Options: Dry exhaust elbow. 2" water lift muffler. Exhaust/water-separator.

Lubrication System.

- Full flow, spin-on oil filter with bypass.
- 8.6 quart, 8.1 liter oil capacity.
- 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 integrated regulator and belt guard.
- Standard panel: Remote mount S-1B with hour meter, stop-start switch with run light and preheat switch.
- 20' (6 meter) plug-in panel harness lets you monitor your set from the bridge.
- Low oil pressure and high water temperature safety shutdowns standard.



AC Generator.

- Northern Lights direct coupled, brushless AC generator is maintenance free.
- 4 lead/1 phase 50 or 60 hertz AC power output standard. 12 lead/3 phase optional.
- Generator features: high quality Class H insulation, accessible diodes, oversized bearings and junction box for AC wiring.
- Automatic voltage regulator gives quick response to load changes. Voltage regulated to ± 1% RMS no load to full load.
- AVR circuit breaker overload protection.

Special Equipment.

- Steel base frame with drip pan. Easy to mount. Keeps engine room clean.
- Four point vibration mounts isolate vibration for smooth, quiet operation.
- White polyurethane paint for a long-life finish and service visibility.
- Operator's and parts manuals standard.

Classification Standards.

- Built to major classification society standards.
- Call factory for details.



Optional Equipment.

- See options brochure for additional control panels, shutdowns, mufflers, fuel filters, wire harness and more.
- Front PTO electric clutch mounting pad is for SAE-B spline, 2 or 4 bolt pump.
- Northern Lights sound enclosures have powder coated marine aluminum panels lined with foam to deaden noise yet allow easy access.



M844K/M844LK sound enclosure weight and dimensions:
 165 lbs (75 kg) L: 50.38 (1280)
 W: 25.75 (654) H: 29.5 (749)

Dealer:



Manufactured by: **Alaska Diesel Electric, Inc.**
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