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 lightweight.

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 aboard.

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.

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

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

- Junction box contains AC terminal strip, solid state AC automatic voltage regulator with circuit breaker and engine’s DC circuit breaker.
- Coolant recovery bottle.
- Leaded DC wire harness with panel plug-in.
- Northern Lights breakers. 60 or 60 Hz, 80°C, direct coupled generator end.
- Spin-on oil filter.
- Oil drain for quick, clean oil changes.
- Sparkling white Polyethylene paint for high visibility.
- Fuel manifold.
- Welded steel base with drip pan keeps engine room clean. Stronger than rail-type base.

M844K, M844LK are simple to maintain. All service points are on one side and easily reached. 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 is gear-driven so there is no pump drive belt to fail.

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

Heavy-duty generator ends. 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.
Features and Benefits

**Engine Block.**
- Long life, four stroke, 4-cylinder liquid cooled, naturally aspirated, overhead valve diesel.
- Swirl combustion chambers improve fuel efficiency and reduce smoke.
- Glow plugs for quick cold starting.

**Cooled 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, electromagnetics and overheating.
- Heat exchanger cooling includes an easily clean, tube-type heat exchanger. Johnson-type raw water pump of bronze and stainless steel. Pump is mounted for easy access and is geared driven. No belts to fail. Cooling recovery bottle.

**Fuel System.**
- Fuel system is self venting.
- Bosch type injection pump with 3-9% mechanical governor for close AC output frequency control.
- Fixed injectors with replaceable tips.
- Mechanical fuel lift pump with primer.
- Large spin-on fuel filters.
- Flexible fuel lines routed to manifold for ease of connection to fuel system.
- Stop solenoid controls fuel rack, not throttle. Eliminates speed variances.

**Intake and Exhaust.**
- Cleanable dry-type air cleaner in cast intake manifold sleeves to intake noise.
- Cast intake, rear exhaust elbow for safety.
- Optional Dry exhaust elbow, 2" water life muffler. Exhaust water separator.

**Lubrication System.**
- Full flow, spin-on oil filter with bypass, 6.6 quart, 8 liter of capacity.
- Oil drain for quick, clean oil changes.

**DC Electrical System.**
- DC system uses reliable relay instead of unrepairable printed circuit board.
- 12 volt unit requires new and factory charging alternator with integrated regulator and belt guard.
- Standard panel: Remote mount S-13 with hour meter, stop-start switch with run light and preheat switch.
- 220V (60) plug-in panel harness lets you monitor output 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 load/1 phase 50 or 60 hertz AC power output standard. 12 load/3 phase optional.
- Generator features high quality Class H insulation, 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 Brock frame with drive gear. Easy to mount. Keeps engine room clean.
- Four point vibration mounts isolate vibration for smooth, quiet operation.
- White piano finish point for a long-lasting finish and service viability.
- Operator's end parts mounted standard.

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

**Optional Equipment.**
- See options brochure for additional control panels, shut downs, mufflers, fuel filters, wire harness and more.
- Front PTO electric clutch mounting plates is for SAR-B splines, 2 or 4 bolt pumps.
- Northern Lights sound enclosures have powder coated marine aluminum panels lined with foam to deaden noise yet allow easy access.

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Manufactured by: Alaska Diesel Electric, Inc.
Box 2945, Seward, AK 99664 (907) 726-1503 • Fax: (907) 726-1015 • E-Mail info@northern-light.com
Web: www.northern-light.com

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**Specifications**

<table>
<thead>
<tr>
<th>Model</th>
<th>M844K</th>
<th>M844LK</th>
</tr>
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<tbody>
<tr>
<td>50 Hz, 1500 rpm</td>
<td>16 kW</td>
<td>20 kW</td>
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<tr>
<td>Amps</td>
<td>125</td>
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<tr>
<td>Dry weight lbs (kg)</td>
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</table>

1. Based on SAE J1995 and ISO 8846. Actual fuel consumption will vary depending on operating conditions.

**Dimensional Data**

- Fuel filter 1/4" NPT
- Oil filter 5/8" NPT
- 1/2" NPT
- 1/2" NPT

**Dealer:**

M844K/M844LK sound enclosure weight and dimensions: 165 lbs (75 kg), L: 50 3/8, (1280), W: 25 7/8, (654), H: 29 5/16 (749)