

NORTHERN LIGHTS



Melreni
Two 55 kW Northern Lights MP445T Generators

Reliability. Durability. Simplicity.

Ask any boat owner what they look for in a generator set or a propulsion engine and more than likely, they will mention one of the above factors. Engines have to run clean and efficiently. Generators must be failsafe and quiet. If any component of these systems so much as hiccups, a cruise, a vacation or a livelihood can be in jeopardy.

Is there a simple solution to the demands sea-going puts on its generator and engine? For many operators, the answer is an emphatic "Yes". They rely on the long-life, easily maintained reliability of Northern Lights generator sets and Lugger propulsion engines.

For over forty years, Northern Lights has manufactured generator sets and Lugger propulsion engines. Headquartered in Seattle, WA, the company began by producing propulsion systems for the demanding rigors of Alaskan commercial fishermen. Over time, other mariners took notice of Lugger and Northern Lights remarkable quality, and began seeking these products out for their own uses.



POWER WITHOUT COMPROMISE

NORTHERN LIGHTS



78' Wendon Yacht

Two 16 kW M844K Northern Lights generators



▲ M843W
10 - 12 kW

SPECIAL FEATURES

- Three and four cylinder, liquid cooled, naturally aspirated, overhead valve diesel engine block.
- Freshwater cooling in heat exchanger or keel cooled configuration.
- One piece exhaust manifold, expansion tank, and heat exchanger housing.
- Cooling with cupro-nickel tube-type heat exchanger. Gear-driven raw water pump.
- Reliable mechanical fuel lift pump with hand primer.
- Cleanable dry-type air cleaner in cast aluminum, noise attenuating intake manifold.
- Cast-iron wet exhaust elbow.
- Full flow, spin-on oil filter with bypass. Oil drain for quick, clean oil changes.
- DC Logic System.
- 12-volt starter motor and battery charging alternator with integrated regulator and belt guard.
- Remote mount control panel with safety shutdowns.
- Brushless 50 or 60 Hz direct coupled AC generator rated at 90° C rise. 4 lead/1 phase, 50 or 60 Hz AC power output. Voltage regulated to $\pm 1\%$ no load to full load. AVR circuit breaker overload protection.

Marine Diesel Generators

Models range from 4.5 kW to 520 kW

When it comes to marine power systems, Northern Lights is a favorite with vessel operators worldwide. Built to meet the toughest standards, these rugged marine diesel generators respond with ease to rigorous demands and have no equal in their class.

At 1800 rpm (60 Hz) or 1500 rpm (50 Hz), the Northern Lights generator's Luger diesel engine provides the torque and efficiency necessary for today's loads. A smooth-running diesel operating at a lower rpm means less wear and tear for longer engine life with the trusted reliability of the Northern Lights name.

It's the meticulous craftsmanship that makes Northern Lights power the industry's most reliable. High copper content within the brushless generator end enhances motor starting. The hand-wound, skewed stator makes electricity with a symmetrical sine wave for today's sensitive electrical equipment. And a corrosion-resistant epoxy coating ensures protection against the harsh marine elements.

Maintenance is quick and easy. The single-side servicing feature places all regular maintenance points right at your fingertips on one side of the engine. The self-venting fuel system and mechanical fuel lift pump provide ultimate reliability without depending on electrical components.

Did you know?

1. No zinc anode required on 6-20 kw models. To reduce troublesome gaskets and hoses, Northern Lights' cast-iron exhaust manifold, expansion tank, and heat exchanger housing are combined into a single component, freshwater cooling system. The raw water pump's convenient location makes impeller changes a snap, and it is gear-driven so there is no pump drive belt to fail.
2. Northern Lights' hassle-free DC Logic System continuously controls and monitors vital engine functions to provide unmatched reliability, protection, and easy, inexpensive service for technicians or crew. Low oil pressure, high exhaust temperature, and high coolant temperature safety shutdowns come standard.
3. Durable stainless steel fasteners are used to ensure easy service over the long life of your Northern Lights Generator.
4. Northern Lights use vibration isolation mounts to eliminate 98% of vibration. Along with intake silencers, and cast valve covers, Northern Lights generators are remarkably smooth and quiet. For added luxury, install an optional Northern Lights sound enclosure – the industry leader in noise attenuation technology.
5. Northern Lights 6 - 33 kW generator sets feature auxiliary stator winding. This unique innovation provides a number of benefits, including real 300% short circuit capability, improved AC breaker performance and classification society compliance.



Deelarryus
One 8 kW M753K Northern Lights Generator
One 16 kW M844K Northern Lights Generator

LUGGER


Marine Propulsion Engines Models range from 67HP to 900HP

When it comes to performing unforgiving jobs, few marine diesel engines compare to Lugger by Northern Lights. Equipped with a comprehensive list of features to increase performance and keep your operating and maintenance costs low, no detail has been overlooked. It's no wonder Lugger engines are recognized industry-wide as the most reliable marine propulsion engines available.

Lugger's design philosophy has been its strength from the beginning. Most hoses and leak points have been engineered away. Most service points are grouped on one side of the engine and are easily accessible. Fresh and raw water pumps are gear-driven to eliminate belts. And the jacket-water cooled turbocharger has been placed low and at the rear of the engine for ease of installation and service. Many Luggers now feature electronic controls. The steadfast reliability of Lugger's mechanical engines are only enhanced by greater electronic control. A wide range of options, means that your Lugger can be customized to be as unique as your vessel.

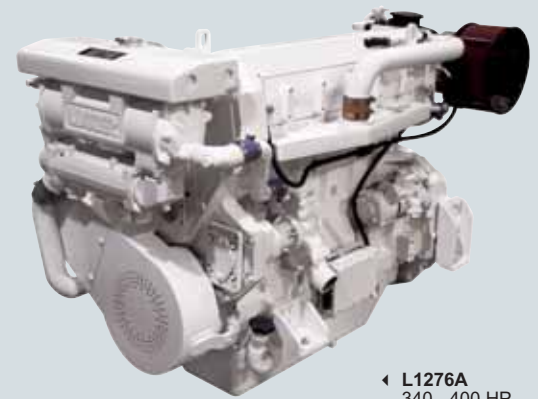
Lugger has long been known for providing power without compromise to a wide array of marine applications. From trawlers to tugs; passenger vessels to sportsfishers, Luggers are the clean, efficient and reliable power producing solution.

Did you know?

1. Lugger starts with heavy duty industrial and off-highway base engine – no truck engines here! Low rpm, high torque, durable engines designed for long life and customized for marine use.
2. Every Lugger features simple cooling system designs with gear driven pumps, and use minimal hoses and clamps reducing parts and service needs. All Luggers can be configured for keel cooling or heat exchange.
3. Each Lugger is custom built to exact customer specification. This allows for factory installed options like PTOs, accessory drives, and multiple alternators to be installed and tested before delivery.
4. Each Lugger is dyno tested after marinization is complete. The marine gear is installed and it's run again.
5. Horsepower is further maximized thanks to Lugger's superefficient aftercooler. A liquid-cooled turbocharger and replaceable air filter allow the engine to "breathe" and increase its service life. The optional Air-Sep® further enhances the engines capabilities.
6.  Luggers are designed to meet IMO and Tier II EPA Marine requirements. Rest assured that your diesel engine is safe and environmentally friendly.



Windrose
One 425 HP Lugger L6125A Engine
Two 33 kW Northern Lights MP445D Generators



◀ L1276A
340 - 400 HP

SPECIAL FEATURES

- Two-pass jacket water cooled exhaust manifold.
- Replaceable wet-type cylinder liners.
- Gear driven overhead camshaft with oversized bearings.
- Engine mounted electronic control unit (ECU).
- CAN Bus interface.
- Gear driven jacket water and raw water pumps.
- Freshwater cooled gear oil cooler.
- Turbo is rear mounted to back of wet manifold.
- Two thermostats for safety and fast warm-ups.
- Keel cooled unit has pads for both SAE-A and SAE-B pumps.
- Customizable with a full-line of options and accessories.
- Modern 4 valves-per-cylinder design places electronic unit injector in the center of the combustions chamber.



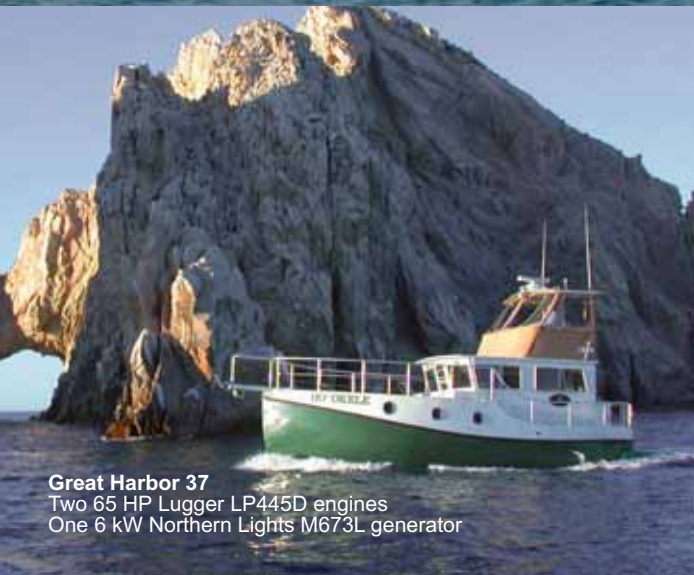
Nordhavn 40
135 - 170 HP L1066T Lugger engine standard



Nordhavn 40
135 - 170 HP L1066T Lugger engine standard



Scully 56'
One Northern Lights M753K 8 kW generator set
One Northern Lights M844LK 20 kW generator set



Great Harbor 37
Two 65 HP Lugger LP445D engines
One 6 kW Northern Lights M673L generator

OPTIONS AND ACCESSORIES



To meet the various demands of boat owners, Lugger propulsion engines and Northern Lights generator sets are designed to be easily customizable. Contact your sales representative or local dealer for more information.

Customize your power system with:

- Sound Enclosure
- Front PTO
- Additional Control Panels
- Wire Harness Extensions
- Wet Exhaust Muffler
- Exhaust / Water Separator
- Dry Exhaust
- Onboard Parts Kits
- 24-Volt System
- Isolated Ground DC Electrical Systems
- Fuel Filter / Water Separators
- Fuel Line Kits for Inspected Vessels
- Shorepower Switches
- Overspeed Shutdowns



LUGGER

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