

# NORTHERN LIGHTS



## M843JK Marine Diesel Generator

If it's a powerful, feature-packed generator in an efficient, compact package you need, then the Northern Lights M843JK is for you. This reliable marine diesel generator offers you the world-class quality and unmatched performance of Northern Lights in a powerful, dependable configuration.

At 1800 rpm (60 Hz) or 1500 rpm (50 Hz), the M843JK's naturally aspirated 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.

With a combined cast-iron exhaust manifold, expansion tank, and heat exchanger housing, the M843JK is engineered to eliminate unnecessary gaskets, hoses, and clamps. Moreover, Northern Lights' advanced DC Logic System is the reliable, robust, and hassle-free engine control and monitoring system – it features four interchangeable and inexpensive relays that make repairs effortless.

The brushless generator end includes class H insulation throughout and an epoxy coating to endure harsh marine elements. A 90° C heat rise rating ensures consistent power delivery even in the warmest environments. And an automatic voltage regulator keeps voltage to  $\pm 1\%$  to protect sensitive instruments and electronics.

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.

The M843JK comes with a 12-volt electrical system, rigid steel base with drip pan, and control panel with 20-foot wire harness extension. Other standard features include low oil pressure, high exhaust temperature, and high coolant temperature safety shutdowns. Options include Northern Lights' industry leading sound enclosure, additional instrument panels, and many other accessories to make it perfect for any vessel.

**10 kW**  
60 Hz / 1800 RPM

**8 kW**  
50 Hz / 1500 RPM

### STANDARD FEATURES

#### ■ Engine Block

Three-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 exhaust manifold, expansion tank, and heat exchanger housing. Cooling with cupro-nickel tube-type heat exchanger. Jabsco gear-driven raw water pump. Standard coolant recovery bottle.

#### ■ Fuel System

Self-venting fuel system. Bosch-type injection pump with 5% mechanical governor. Pintle injectors with replaceable tips. Reliable mechanical fuel lift pump with hand primer. Large spin-on fuel filter. Flexible fuel lines routed to base. Fuel shut-off solenoid.

#### ■ Intake and Exhaust

Cleanable dry-type air cleaner in cast aluminum, noise attenuating intake manifold. Cast-iron wet exhaust elbow.

#### ■ Lubrication System

Full flow, spin-on oil filter with bypass. 5.8 quart, 5.5 liter oil capacity. Oil drain for quick, clean oil changes.

#### ■ DC Electrical System

DC Logic System. 12-volt starter motor and battery charging alternator with integrated regulator and belt guard. Remote mount S-1B panel with hourmeter, stop-start switch with run light, and preheat switch. 20-foot (6 meter) plug-in wire harness. Low oil pressure, high exhaust temperature, and high coolant temperature safety shutdowns.

#### ■ AC Generator

Reliable and robust 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. Skewed stator, accessible diodes, and oversized bearing. Voltage regulated to  $\pm 1\%$  no load to full load. AVR circuit breaker overload protection.



# M843JK Marine Diesel Generator



**10 kW**  
60 Hz / 1800 RPM

**8 kW**  
50 Hz / 1500 RPM

## OPTIONS & ACCESSORIES

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

## PROVEN QUALITY



Lloyd's Register Type Approval is a rigorous testing process and design review, which confirms the M843JK is built to the

highest design, manufacturing, materials, and quality control standards.

## WARRANTY & SUPPORT

This generator is backed by an unmatched, transferable global warranty. Northern Lights' worldwide dealer network is more than 300 strong, and Northern Lights' helpful dealers offer parts, accessories, and service in more than 40 countries. Visit our web site at [www.northern-lights.com](http://www.northern-lights.com) to locate the dealer nearest you.

60 Hz / 1800 rpm <sup>1</sup>	<b>10 kW</b>
50 Hz / 1500 rpm <sup>1</sup>	<b>8 kW</b>
Phase	<b>1 standard (3 optional)</b>
Power Factor	<b>1.0 standard (0.8 @ 3 phase)</b>
Volts/Amps	<b>120-240V / 41.6A (60 Hz)</b> <b>120V / 83.3A (60 Hz)</b> <b>220V / 36.3A (50 Hz)</b>
Voltage Regulation	<b>±1%</b>

## ENGINE DATA

Type	<b>Vertical Inline Diesel</b>
Aspiration	<b>Natural</b>
Cylinders	<b>3</b>
Bore	<b>3.30 in (84 mm)</b>
Stroke	<b>3.20 in (80 mm)</b>
Displacement	<b>81 cid (1.33 ltr)</b>
Horsepower	<b>17.5 hp @ 1800 rpm</b> <b>14.0 hp @ 1500 rpm</b>

## APPROX. FUEL RATE

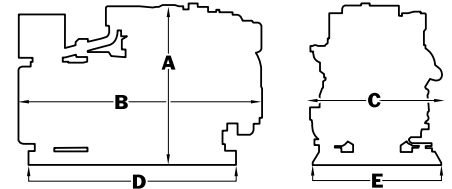
1800 rpm / full load <sup>2</sup>	<b>1.1 gph (4.2 lph)</b>
1800 rpm / half load <sup>2</sup>	<b>0.56 gph (2.1 lph)</b>
1500 rpm / full load <sup>2</sup>	<b>0.88 gph (3.33 lph)</b>
1500 rpm / half load <sup>2</sup>	<b>0.45 gph (1.70 lph)</b>

## NOTES:

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

## DIMENSIONAL DATA

A - Height	<b>24.2 in (616 mm)</b>
B - Length	<b>36.6 in (929 mm)</b>
C - Width	<b>19.3 in (490 mm)</b>
D - Base Length	<b>31.2 in (792 mm)</b>
E - Base Width	<b>19.3 in (490 mm)</b>
Approx. Dry Weight	<b>659 lbs (299 kg)</b>



## INSTALLATION DATA

Wet Exhaust Elbow	<b>2 in (51 mm) OD</b>
Raw Water Inlet	<b>3/4 in (20 mm) OD</b>
Fuel Inlet & Return	<b>1/4 in NPT</b>

**Standard Panel:**  
Remote mount S-1B includes hourmeter, stop-start switch with run light, and preheat switch.



**Sound Enclosure Dimensions – Length x Width x Height:**  
43.6 in x 27.3 in x 27.4 in (1107 mm x 693 mm x 697 mm)

## ENGINEERED FOR SILENCE

With a newly refined line-up of sound enclosures, experience why Northern Lights continuously raises marine industry standards. Dual sound-dampening barriers ensure optimum sound absorption, and damper-sheet-coated internal air ductings keep your generator quiet and cool. Easy-to-use trigger latches allow quick access and easy maintenance. The construction features rigid, powder-coated aluminum for an extraordinarily robust, corrosion-resistant enclosure that compliments any engine room. For the quietest and most reliable power in the marine industry, choose Northern Lights.



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