For Your Convenience: This Northern Lights File Is Shared By Diesel Parts Direct



## YOUR ONE STOP SUPERSTORE FOR DIESEL ENGINE PARTS

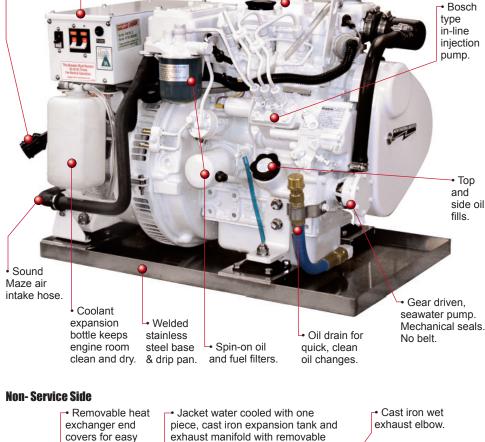


## **NORTHERN LIGHTS**

# M673L2



 DC wire harness plug-in.  Vibration isolated junction box has AC terminal strip, DC breaker, 30 amp AC breaker and solid state AC automatic voltage regulator. • Cast valve cover/intake manfold with oil fill and washable air filter. Sound Maze air intake has an acoustic chamber and formed hose to reduce valve train and intake pulsation noise.



cupro-nickel heat exchanger core.

Tough, white polyurethane paint.

• Beltguard for safety.

core cleaning.

 12 volt starter and battery charging alternator.

 Stainless steel fasteners used for long life. • Plateform vibration mounts for smooth operation.

 Northern Lights reconnectable direct coupled generator with auxillary winding to power the AVR.



The ideal 6kW generator set is small and lightweight. The M673L2 certainly qualifies. But it stands apart through its remarkable long-life reliability. The reason? The M673L2 runs at 1800 rpm (1500 rpm for 50 Hz), instead of 3600 rpm.

Consider that during only 2000 hours of operation the 1800 rpm M673L2 will turn 216 million fewer revolutions than a 3600 rpm set. Its pistons will travel 38,522 fewer miles. Its cylinders will withstand 108 million fewer detonations. Which engine do you think will give more years of reliable service? We couldn't agree more.

The M673L2 has a balanced Lugger three cylinder diesel instead of a rough two banger. Four plateform isolation mounts reduce vibration transmission even more.

For maximum comfort afloat the new

M673L2 has a Sound Maze air intake system. Air enters through a molded rubber



hose and an acoustic dampening chamber. Air goes in but much less noise gets out. For maximum sound attenuation, specify a sound enclosure. It is only 32.5 inches long and has powder-coated aluminum panels with trigger latches for easy service access.

The generator's automatic voltage regulator is powered by an auxiliary AC stator winding that isolates it from the main windings. The AVR always has clean power to provide excitation for faster load response and better motor starting. Your air conditioner and other motor driven equipment will love being matched with the 673.

A 30 amp AC circuit breaker in the junction box protects your wiring. Safety shutdowns for low oil pressure, high coolant temperature and high exhaust temperature protect your engine.

The M673L2 meets US EPA Tier II emission standards. You, your moorage neighbors and the environment will all benefit.



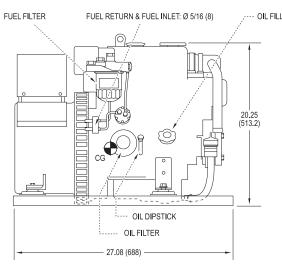
1800 rpm reliability, low emissions, quiet operation and strong motor starting. Good things do come in small packages.

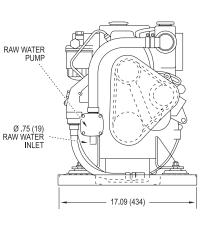


## M673L2 Specifications and Dimensions

| AC Output <sup>1</sup>                   |                      |                                  |
|--|----------------------|----------------------------------|
|  | ) Hz, 180            | 00 RPM, 1 Ph, 1.0 PF,            |
| 120-240 V/25 A, 120 V/50                 |                      |                                  |
| <b>5 kW</b> 50 Hz, 1500 RPM, 1 Ph, 1.0 I |                      | 00 RPM, 1 Ph, 1.0 PF,            |
|  |                      | 220 V/22.7 A                     |
| Voltage regulation                       |                      | ±5%                              |
| Lugger L673L Engine                      |                      |                                  |
| Туре                                     | Vertical i           | nline 3 cylinder diesel          |
| Displacement                             |                      | 46.4 in <sup>3</sup> (0.761 ltr) |
| Bore/Stroke                              | 2.                   | 64/2.83 in (67/72 mm)            |
| HP @ RPM                                 |                      | 10.1/1800 8.4/1500               |
| Approx. fuel use                         |                      |                                  |
| 1800 RPM @ full load <sup>2</sup>        |                      | 0.59 gph (2.2 lph)               |
| 1800 RPM @ half load <sup>2</sup>        |                      | 0.32 gph (1.2 lph)               |
| 1500 RPM @ full load <sup>2</sup>        |                      | 0.50 gph (1.9 lph)               |
| 1500 RPM @ ha                            | If load <sup>2</sup> | 0.28 gph (1.1 lph)               |
| Installation Data & Weight               |                      |                                  |
| Wet exhaust elbow                        |                      | 1.5 inch (38 mm) OD              |
| Raw water inlet                          |                      | 3/4 inch (19 mm) OD              |
| Fuel inlet and return                    |                      | 5/16 inch ID Hose                |
| Approximate dry weight                   |                      | 362 lbs (164 kg)                 |

## M673L2 Dimensional Drawing





M673L2 Overall Dimensions L x W x H: 27.08 x 17.09 x 20.25 inch (688 x 434 x 513.2 mm) Dimensions given in inches (mm). Dimensions subject to change without notice. Contact dealer or visit www.northern-lights.com for most current installation drawings.

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

### M673L2 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 with siphon break.
- Heat exchanger or keel cooled.
- 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 is standard. Cupronickel, tube-type heat exchanger has removable ends for easy cleaning. 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.
- Steel fuel lines.
- Stop solenoid acts directly on the fuel rack eliminating linkage problems.

#### **Intake and Exhaust**

Dealer

- Meets US EPA Tier II emission standards.
- Washable air cleaner.
- Cast aluminum intake manifold with Sound Maze air intake reduces intake noise.
- Cast iron, wet exhaust elbow for safety.

#### Lubrication System

- Full flow, spin-on oil filter with bypass.
- 3.1 qt (3 ltr) oil capacity for better lubrication and 200 hour oil change intervals.
- Oil drain for quick, clean oil changes.
- Closed crankcase vent system traps oil vapor and keeps engine room clean.

#### **DC Electrical System**

- DC system uses reliable relays instead of an 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 (6m) plug-



in panel harness

lets you mount your panel anywhere onboard. Better than inaccessible unit mount panels that are prone to vibration problems.

 Low oil pressure, high coolant temp and high exhaust temp safety shutdowns standard.

#### **AC Generator**

- Northern Lights, direct coupled, four pole, revolving field, four lead reconnectable generator with Class "H" insulation and prelubricated bearing. Conservative heat rise rating: 95°C/50°C ambient.
- External automatic voltage regulator gives you ±5% voltage regulation. AVR powered by dedicated AC winding for improved motor starting. AVR circuit breaker.
- 30 amp mainline circuit breaker protects generator from AC overloads and shorts.

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. Northern Lights and Lugger are registered trademarks of Alaska Diesel Electric, Inc. © 2007 All rights reserved. Litho USA. L680 05/07

#### **Special Equipment**

- Stainless steel base frame with drip pan. Easy to mount. Keeps vessel clean.
- · Four plateform mounts isolate vibration.
- White, long-life polyurethane paint.
- Operator's and parts manuals standard.

#### Classification Standards

 Contact factory for details.

#### **Optional Equipment**

- See accessory brochure for complete list of customizing equipment.
- DC gauge control panels.
- AC and DC control panels.
- Wire harness extensions and "Y" harness.
- Dry exhaust elbow.
- Dry exhaust muffler.
- 1.5 inch wet exhaust muffler.
- Exhaust / water separator.
- Keel cooling configuration.
- Onboard parts kits.
- Fuel filter-water separators.
- Shorepower switches.Sound enclosure

has powder coated marine aluminum panels lined with sound barrier foam to dampen noise. Trigger latches allow easy service access.



LxWxH: 32.53 x 21.2 x 21.73 in (826.3 x 538.4 x 552 mm) Weight: 85 lbs (38 kg)



#### www.northern-lights.com