

**The Little Genset
With Big Features**

Five kW diesel gensets are asked to perform a lot like larger sets. They're expected to run reliably year after year, start electric motors and provide power clean enough for electronics. Yet many small generators are built only to be small and light. The Northern Lights M673D is different. Running at 1800 rpm, not 3600, and equipped with an automatic voltage regulator and cast valve cover, it works a lot more like a "big" set.

The slower rpms mean longer life. During 2000 hours of operation the M673D will turn over 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. Now, which engine do you think will last longer? So do we.

The M673D meets your power requirements and meets the current EPA

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

emissions standards. It's naturally efficient, burning fuel completely and cleanly. You, your moorage neighbors and the environment will all benefit.

Smooth and quiet, too. The M673D has a balanced Luger three cylinder diesel instead of a rough two banger. Four plateform isolation mounts reduce vibration transmission even more.

The M673D is so quiet many owners do without a soundshield; but for maximum comfort there is an optional powder coated aluminum soundshield.

The cast-iron, freshwater cooling system and gear driven seawater pump minimize troublesome belts, hoses and gaskets.

The new generator end has a broad voltage capability in both 50 and 60 Hz operation. The automatic voltage regulator gives clean power and is powered by a special AC winding for faster response



and better motor starting. Your air conditioner will love being matched with the M673D.

A 30 amp AC circuit breaker in the junction box protects the system. Safety shutdowns for low oil pressure, high water temperature and high exhaust temperature are standard.

Everything you want in a set. 1800 rpm reliability, low emissions, quiet operation and strong motor starting. Everything in one small package, the M673D.

- Junction box contains AC terminal strip, DC breaker, 30 amp AC circuit breaker and solid state AC automatic voltage regulator.
- Cast valve cover with oil fill and washable air filter/silencer. Reduces valve train noise.
- Bosch-type in-line injection pump.
- Freshwater cooled with one piece, cast iron heat exchanger, expansion tank and exhaust manifold.
- Removable heat exchanger end covers for easy cleaning.
- Beltguard
- Battery charging 12 volt alternator
- Top and side oil fills
- Gear driven, Jabsco seawater pump. No drive belt. Ceramic seals.
- Oil drain for quick, clean oil changes.
- Sparkling white Polyurethane paint for high visibility
- Welded stainless steel base with integral drip pan.
- Northern Lights reconnectable direct coupled generator.
- DC wire harness with plug-ins protected by plastic loom.
- Spin-on oil and fuel filters.
- Four plateform vibration mounts for smooth operation.

M673D Specifications

AC Output¹

5.0 kW.....	60 Hz, 1800 RPM, 1 Ph, 1.0 PF, 120-240 V/20.8 A, 120 V/41.6 A
4.5 kW.....	50 Hz, 1500 RPM, 1 Ph, 1.0 PF, 220 V/20.5 A

Voltage regulation±5%

Lugger L673 Engine

Type	Vertical inline 3 cylinder diesel
Displacement	41.1 in ³ (.676 ltr)
Bore/Stroke	2.64/2.52 in (67/64mm)
HP @ 1800 RPM	9.25
Approx. fuel use @ full load ²	0.6 gph (2.4 lph)
@ half load ²	0.4 gph (1.4 lph)

Installation Data

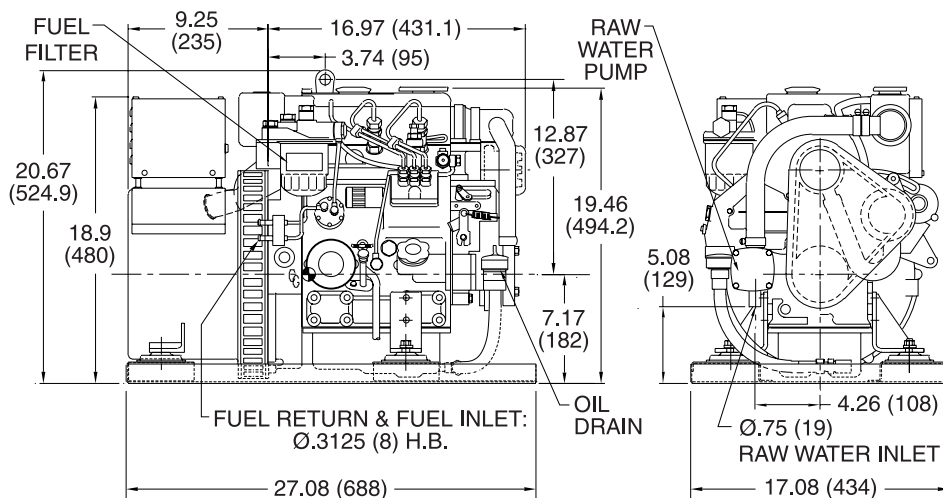
Wet exhaust elbow	1.5" (38mm) OD
Raw water inlets	0.75" (20mm) OD
Fuel inlet and return	5/16" ID Hose

Weight

Approx. wet weight350 lbs (164 kg)

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

Dimensional Data



Main dimensions given in inches (mm). Dimensions subject to change without notice.

M673D Features and Benefits

Engine Block

- Lugger, 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 system.
- 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. Tube-type heat exchanger has removable ends for easy cleaning. Jabsco seawater pump of brass and stainless steel is gear driven; no belts to break.
- Keel cooling configuration optional.

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 controls the fuel rack, not throttle, to eliminate speed variance and linkage problems.

Intake and Exhaust

- Meets EPA Tier One emission requirements.
- Cleanable air cleaner in cast intake manifold reduces intake noise.

- 1-1/2 inch water lift muffler and exhaust water separator are optional.
- Cast iron, wet exhaust elbow for safety. Dry exhaust elbow is optional.

Lubrication System

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

DC Electrical System

- 12 volt starter motor and battery charging alternator with integrated regulator. Belt guard.
- Standard panel: Remote mount S-1B has hour meter, stop-start switch with run light and preheat switch.
- Optional: Remote mount S-3C panel has gauges for oil pressure, water temperature, hours and DC volts. S-4 panel has engine gauges and AC meters.
- 20 foot plug-in panel harness lets you mount your panel anywhere onboard. Better than inaccessible unit mount panels that are prone to vibration problems. Harness extensions and Ys for multi-panel systems are available.
- Low oil pressure, high water temperature and high exhaust temperature safety shutdowns standard. Shutdowns and alarms for low oil level, low water level and overspeed are optional.



AC Generator

- Northern Lights direct coupled, 4 pole, revolving field, 4 lead reconnectable generator with Class H insulation and prelubricated bearing. Conservative 95°C/50°C ambient heat rise rating.
- External automatic voltage regulator gives you ±5% voltage regulation. This "clean" power protects sensitive electronic equipment. AVR powered by dedicated AC winding for improved motor starting.
- AVR and mainline circuit breakers protect generator from AC overloads and shorts.
- 30 Amp circuit breaker for AC system short circuit protection.

Special Equipment

- Stainless steel base frame with drip pan. Easy to mount. Keeps engine room clean.
- Four platform mounts isolate vibration.
- White polyurethane paint for long-life finish and service visibility.
- Operator's and parts manuals standard.

Sound Enclosure

Powder coated marine aluminum panels lined with barrier foam deaden noise yet allow easy service access.

Weight:
51 lbs (23 kg).
L 28.52 (724) x W 18.64 (474) x H 21.26 (540).



Dealer:



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

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