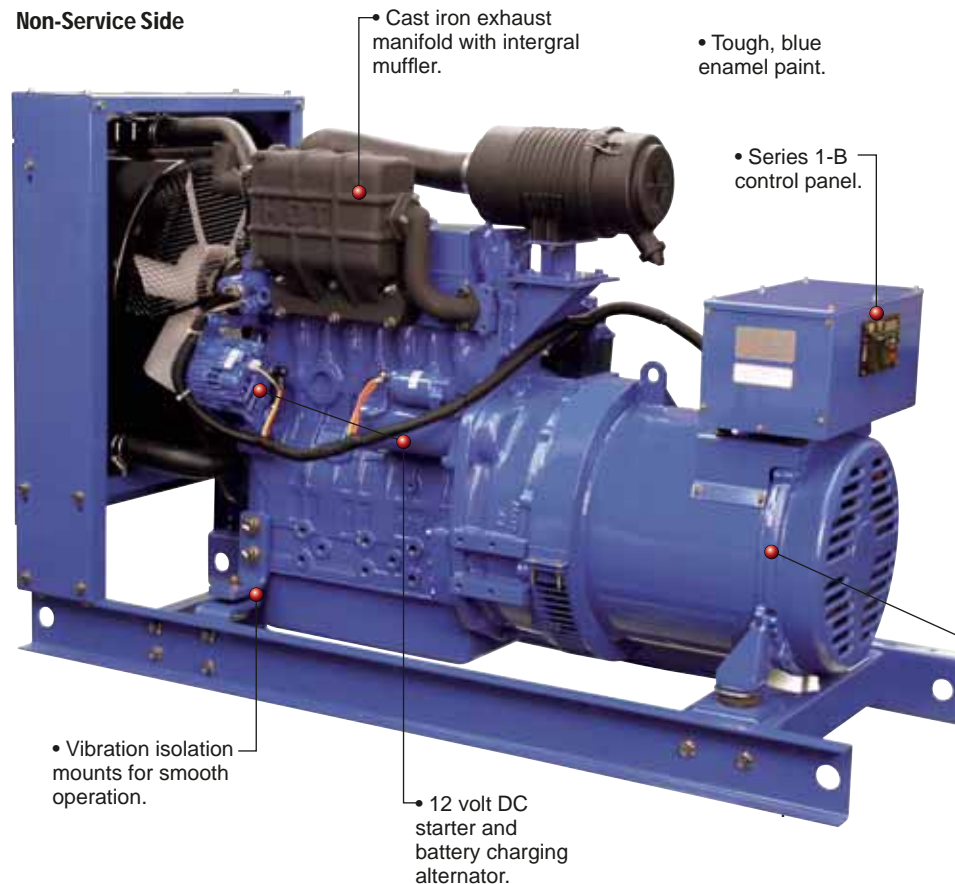


## Service Side



## Non-Service Side



**20 kW**  
60 Hz / 1800 RPM

**16 kW**  
50 Hz / 1500 RPM

### Prime power experience.

You'll find Northern Lights generators wherever prime power is needed. We began building Northern Lights sets to power the Alaskan bush country in 1963. Today our sets and dealers are at work worldwide.

### Tractor-tough, 2.2 liter diesel.

Twenty kilowatts of reliable power. That is enough juice to power the big jobs and the NL844LW2 is built to produce it 24 hours a day if necessary. It is powered by a 135 cubic inch, four cylinder industrial diesel with the cubes and torque it needs to start big electric motors. Power that comes from engine displacement, not a turbocharger.

### Clean and quiet operation.

This set meets US EPA Tier II emissions standards for clean air. The built-in muffler reduces exhaust noise so well that an additional muffler is often not needed.



### Fuel Economy.

Economical operation is a necessity in remote areas where fuel is expensive. Swirl combustion design improves fuel efficiency and reduces smoke. At full load it uses only 1.7 gallons of safe, economical diesel per hour.

### We keep it simple.

Northern Lights are easy to install, operate and maintain. It comes ready for connection to your electrical distribution system. Just add a battery and fuel, and you have power at the touch of the start button on the unit mounted control panel.

Service is easy, too. All the maintenance points are on one side. The fuel system is self venting. Low oil pressure and high coolant temperature shutdowns protect your investment even when you are away.

### Thorough testing.

Every Northern Lights has been fully load tested before shipment. This is part of a quality control program that assures your satisfaction and years of service.

### Customize with pre-engineered options.

See your Northern Lights dealer. They will show you the control panels, enclosures, trailers and a wide range of pre-engineered options available to turn this rugged generator set into a complete power system for your prime power or standby application.

## Featuring new W-Series generator

The new W-Series brushless generator features an auxiliary stator winding that supplies separate and stable power to the Automatic Voltage Regulator. The result:

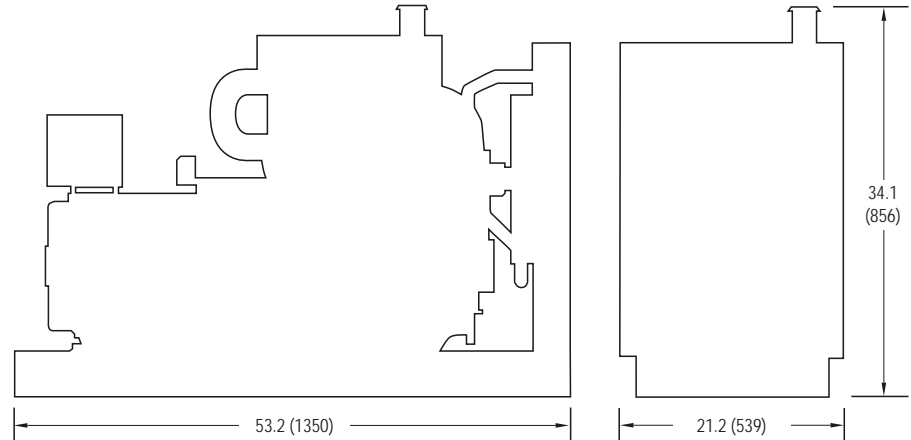
- Real 300% short circuit capability.
- Improved AC breaker performance.
- 1% no load to full load voltage regulation.
- Low 95°C/50°C temperature rise rating.

See your dealer for more information.



<b>AC Output<sup>1</sup></b>	
<b>20 kW</b>	60 Hz, 1800 RPM, 1 Ph, 1.0 PF, 120-240 V/83A, 120 V/166A
<b>16 kW</b>	50 Hz, 1500 RPM, 1 Ph, 1.0 PF, 220 V/73A
Optional	Three Phase with 0.8 PF
Voltage regulation	±1%
<b>Lugger L844L Engine</b>	
Type	Vertical inline 4 cylinder diesel
Displacement	135 in <sup>3</sup> (2.2 ltr)
Bore/Stroke	3.30/3.9 in (84/100 mm)
HP @ RPM	32/1800 25.6/1500
<b>Approx. fuel use</b>	
1800 RPM @ full load <sup>2</sup>	1.7 gph (6.5 lph)
1800 RPM @ half load <sup>2</sup>	1.0 gph (3.9 lph)
1500 RPM @ full load <sup>2</sup>	1.36 gph (5.2 lph)
1500 RPM @ half load <sup>2</sup>	0.8 gph (3.0 lph)
<b>Installation Data &amp; Weight</b>	
Exhaust outlet	1.38 inch (35 mm)
Fuel inlet and return	1/4 inch NPT
Approximate dry weight	965 lbs (439 kg)

## NL844LW2 Dimensional Drawing



**NL844LW2 Overall Dimensions L x W x H:** 53.2 x 21.2 x 34.1 inch (1350 x 539 x 856 mm)

**Base Length:** 53.1 in (1349mm) **Base Width:** 21.21 in (540mm)

Dimensions given in inches (mm). Dimensions subject to change without notice. Contact dealer or visit [www.northern-lights.com](http://www.northern-lights.com) for most current installation drawings.

- Based on 1.0 unity power factor. Deratings: 3% per 1000 ft. over 500 feet above sea level. 1.5% for every 10° over 77°F
- Actual fuel consumption will vary depending on operating conditions.

## Features and Benefits

### Engine Block

- Four cycle, 4 cylinder, liquid cooled, naturally aspirated, overhead valve, industrial-duty diesel.
- Swirl combustion design improves fuel efficiency, reduces smoke and noise.
- Glow plugs for fast cold weather starting.

### Cooling System

- Liquid-cooled with radiator and pusher cooling fan. Steel radiator shroud and fan guard protects the radiator and operator.

### Self-Venting Fuel System

- Bosch-type in-line injection pump.
- Stop solenoid controls the fuel rack, not throttle, to eliminate speed variance and linkage problems.
- Engine speed governed to 5% or close AC frequency control.
- Pintle fuel injectors have replaceable tips for lower service costs.
- Mechanical fuel pump with hand primer.
- Large spin-on fuel filter.
- Fuel line manifold and flexible fuel lines for easy fuel tank connection.

### Lubrication System

- Full flow, spin-on oil filter with bypass.
- 8.6 qt. (8.2ltr) oil capacity.

### Intake and Exhaust

- Large replaceable air filter protects engine in dusty environments.
- Residential muffler built into the exhaust manifold saves installation time and costs.
- Meets US EPA Tier II emission requirements for cleaner exhaust.



### DC Electrical System

- 12 volt system includes starter motor, battery charging alternator with solid state voltage regulator and DC circuit breaker.
- Standard, unit mount S-1 B control panel has engine hour meter, start-stop switch with run light and preheat switch.
- Dual panel relays and quick disconnect harness plug-ins. With optional Y-harness and 10, 20 or 40 foot harness extensions, you can have up to six remote control panels, up to 100 feet from the set.
- Safety shutdown system for low oil pressure and high coolant temperature.



### AC Generator

- Northern Lights, direct coupled, brushless AC generator end is maintenance free. 4 lead, 1 phase, 1.0 pf, 50 or 60 Hz output. 12 lead-3 phase is optional. Low, 95°C/50°C ambient heat rise rating for long generator life. Compare to 130° C ratings on light-duty stand-by sets.
- Automatic Voltage Regulator is powered by dedicated AC winding for true 300% short circuit capability. Quick ±1% RMS no load to full load voltage regulation. AVR has circuit breaker protection.
- Generator features high quality, Class "H" epoxy insulation, accessible diodes, over-sized bearings and junction box for wiring.
- High air flow from integral fan keeps generator running cool.

### Special Equipment

- Welded steel skid frame gives rigid support and makes installation easy.
- Flexible mounts isolate engine vibration for smooth operation.
- Long life, blue enamel paint finish.
- Operator's and parts manuals.
- Rigorous quality control includes a test run with load.
- Shipping crate protects set.

### Accessories and Optional Equipment



Let your dealer help you custom design a set that matches your special application using the complete line of Northern Lights accessories:

- Unit enclosures and mobile units
- AC and DC control panels
- Exhaust system components
- Fuel filter-water separators
- Wire harness extensions
- Alarms and safety shutdown systems
- Heaters
- Air ducts
- Dry sump units
- Batteries... and much more.

### Dealer

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[www.northern-lights.com](http://www.northern-lights.com)