OPTIONS

Use these options to make the best even better for your vessel.

This is a partial list of the optional equipment you can use to customize your set. Your dealer has more information.

Control Panels

Your set comes with a Series 3 panel. Start, stop and monitor your set from multiple stations by adding additional panels. Relays for dual panel installation are standard equipment so you can have two panels with instruments and as many stop-start panels as you require. Shown from the top down are:

Series-1 stop-start panel.

Series 1-B stop-start panel with hour meter.

Series-3 engine panels. Monitor your engine's operating conditions. Available in enclosure mount 3-B, (shown on page 4) or compact 3-C flush mount (shown here).

Series-4 engine and generator panel. Monitor your DC engine plus AC voltage, frequency and amperage output. Available in enclosure (shown) or flush mount.

Paralleling & Autostart Panels

Choose Northern Lights custom panels for your vessel's power control system. These autostart, manual and auto paralleling panels are designed, tested and backed by the people who know your set and your application best.

DC Electrical Systems

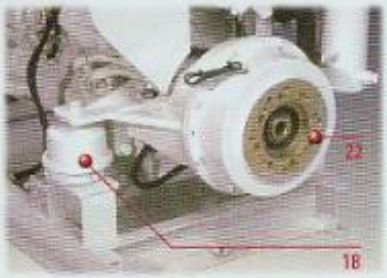
12V standard ground, 12V isolated ground, 24V standard ground and 24V isolated ground systems are available. Oversized DC battery charging alternators and special alternators for gel-cell batteries are available in various output capacities.

Safety Shutdowns

For protection beyond the standard shutdown system. Low water level (top) and low oil level (bottom) switches shut down your set before the fluid levels reach a critical stage. LOP/HWT pre-alarms warn you before the shutdowns are activated. Overspeed shutdown protects against "over-rev" damage.

Power Take Offs

22. ADE pioneered front PTOs, so a Northern Lights can give you more than just electrical power. Add a front PTO with electric clutch and your set will run your shipboard hydraulics. With a flip of a switch you have power for bow thrusters and deck equipment. Choose a 12 or 24 volt clutch with either a H36 B or C-splined pump mount pad.

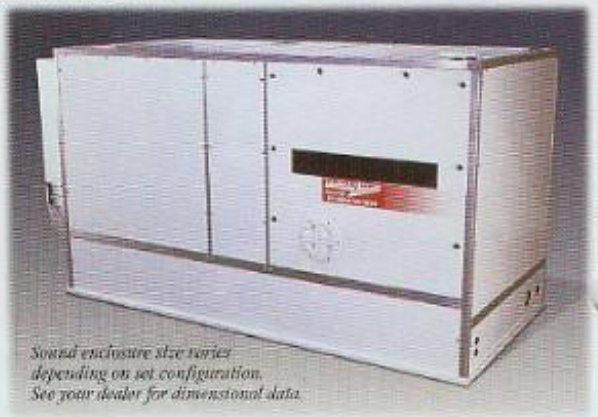


Hydrolastic Mounts

18. For silky smooth operation, specify hydrolastic mounts that put a damper of fluid between the generator and base frame. The transfer of vibration to your vessel, and the harmonic noise it can cause, is dramatically reduced. The metal shelled mounts require no service and are extremely durable. For maximum isolation, choose a compound installation that puts a second set of mounts between the base frame and your vessel (see photo on page 2).

Sound Enclosures

For the owner who wants the ultimate in comfort afloat. Northern Lights enclosures consist of a 5052 aluminum framework, powder coated aluminum panels and dual layer polyether foam with a sound barrier. Half twist ports and quick release fasteners on the service side panel ease access. The entire unit can be disassembled for installation in existing vessels. Holes for exhaust, front PTOs, seawater, power leads etc., are pre-cut at the factory.



Sound enclosure size varies depending on set configuration. See your dealer for dimensional data.

Electronic Governor

21. The ultimate in frequency control. Used on sets powering sensitive electronic equipment and parallel set installations. Governor has start fuel limit function that decreases start-up smoke.

Exhaust Systems

13. Water jacketed wet exhaust elbows are cast iron for long life.

Dry exhaust elbows have bolt flanges. Wet and dry exhaust mufflers are available.

STARS Exhaust Soot Trap System

Manufactured by Alaska Diesel Electric, this unique system acts as a load bank, exhaust filter and muffler. Works on any brand set from 50 to 200 kW. A must for vessels operating in environmentally sensitive harbors.

Other Options

- Aluminum base frames.
- Alternator winding space heaters.
- Air starting systems.
- Custom paint and chrome packages.
- On-Board Spare Parts kits.

Special Needs and Classification

Northern Lights application engineers are available to answer questions and make recommendations. They are also experienced in guiding projects through the most stringent Lloyds or ABS classification processes.