

L6125H 350-470 Hp

Features and Benefits

Engine Block

- Komatsu six cylinder, four cycle, four overhead valve, heavy duty industrial engine block.
- Replaceable wet cylinder liners for heat dissipation, enhanced life expectancy and lower rebuild costs.
- Single piece forged steel crankshaft with induction hardened journals. Rigid seven bearing crankshaft support.
- Robust forged steel connecting rods.
- Roller cam followers reduce friction and extend life of valve train.
- Four valves per cylinder for superior "breathing." Double valve springs. Replaceable valve seats and guides. Intake valve rotators provide even wear.
- Nodular cast iron pistons

Cooling System

- Jacket water heat exchanger has flexible impeller-type seawater pump. Heat exchanger housing has removable end caps. Cupro-nickel tube bundle can be removed for cleaning without disturbing other cooling system components.
- Centrifugal jacket-water pump is gear driven, eliminating issues caused by drive belt failures.
- One piece, cast iron exhaust manifold is jacket-water cooled. No welds to fail. No gasketed connections between water and exhaust passages reduce chances of water entering the cylinders.
- Coolant connections are pipe with o-ring seals to eliminate hoses.
- Two thermostats for safety, quick warm-ups and even temperature control.
- Zinc anodes help prevent electrolysis in heat exchanger cooling system.

Lubrication System

- Gear type high capacity oil pump.
- Internal oil passages to prevent leaks.
- Plate type, jacket water oil cooler with thermostat. Cooler controls oil temperature. Cooler is integrated into block to eliminate hoses.
- Full flow, spin on oil filter.

Options and Accessories

Use these components to make your Lugger into an integrated power system that fits your vessel's special requirements.

- Flybridge and auxiliary instrument panels with wire harness plug-ins are easy to install.
- · Engine mount stop-start panel.
- 10, 20 and 40 foot wiring harness extensions.
- High output primary alternators: 24V-75A and 24V-100A.
- Add a second alternator:
- 12V-65A, 12V-140A, 24V-35A, 24V-75A.
- DC electrical systems. 24V isolated ground.
- Wet Exhaust: 6" and 8" stainless steel wet exhaust elbow. Rotate 0-15° and 15/75° from vertical.
- Dry exhaust: 5" and 6" dry exhaust elbows. 5" and 6" stainless exhaust flex. Turbo outlet weld flange.

Air System

Large capacity aftercooler uses seawater to cool the intake air compressed

by the turbocharger. This dense, cool air provides more efficient combustion, increases horsepower, and meets emissions regulations.

- Turbocharger is liquid cooled for safety. No need to carry heat blankets that can become oil soaked and combustible.
- Large capacity air filter and closed crankcase breather (Airsep® system).

Fuel System

- HPCR for better fuel atomization. Centrally mounted electronic injectors for improved fuel economy and faster starts.
- Fuel system design is self-venting
- · Large spin-on fuel filter elements.
- Gear driven, positive displacement mechanical fuel transfer pump.
- Engine mounted primary fuel filter.

Electrical System

- 24 volt, negative ground, marine grade electrical system includes starter and 24V/40A battery charging alternator. See Accessories column for more alternator options.
- The Engine Control Unit (ECU) is housed in a water resistant module, and controls the electronic fuel injection system. The ECU supplies a SAE J1939 engine information data stream that is accessible through a CANbus plug for the Electronic System Profiler (ESP) monitor screen. Service diagnostics and error codes are automatically stored.

Special Features

- White polyurethane paint for long life finish and service visibility.
- Operator's and parts manuals standard.

- Oil change pump for engine and gear.
- Duplex Racor primary fuel filters.
- Spare parts kit.
- Twin Disc or ZF gears.

Trolling valves. Shaft couplings.

- Coolant level sensor.
- Chrome valve covers.
- Vibration isolating flexible engine mounts. Sets of 4 or 6.
- · Crankshaft pulleys: 8" 4-A/B or A grooves.
- Front PTO with 12 or 24V electric clutch and SAE C splined,
- 2 or 4 bolt pump mount pad. Provides up to 1,000 ft-lbs of torque for hydraulics.

Dealer

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 Northern Lights, Inc. © 2013 All rights reserved. Litho USA. S132a 1/13



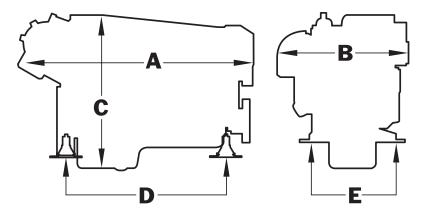
www.northern-lights.com

L6125H

General Specifications and Dimensions

Output rating	High Output	Medium Duty	Continous Duty	
FWHP (kW)	470 (350)	440 (328)	350 (261)	
Maximum RPM	2300	2200	1800	
Cylinders/Configuration/Cycle		All: 6 / Inline / 4		
Displacement CID (ltr)		All: 674 (11)		
Aspiration	All: Turbocharged - Aftercooled			
Bore x Stroke in (mm)		All: 4.92 x 5.91 (125 x 150)		
Cooling (Heat Exchanger)				
Seawater pump flow - US gpm (lpm)	74 (280)	71 (269)	58 (219)	
Heat rejection to sea water - BTU-min	13390	11350	8040	
Freshwater system capacity - US gal (ltr)		All: 9 (34)		
Raw water intake dia in (mm)		All: 2 (51)		
Raw water discharge dia in (mm)		All: 2 (51)		
Max. raw water temp. at inlet -°F (°C)		All: 86° (30°)		
Electrical				
Voltage		All: 24V standard ground		
Min. battery capacity		All: 200 amp hours - 800 CCA		
Battery cable size up to 10 ft run		All: 00		
Standard panel harness length - ft (m)		All: 20 ft (6m)		
Air and Exhaust				
Engine air consumption - cfm (m ³ /min)	1024 (29)	936 (26.5)	590 (16.7)	
Exhaust gas flow at - cfm (m ³ /min)	2508 (71)	2323 (66)	1715 (49)	
Exhaust gas temperature -°F (°C)	759 (404)	777 (414)	961 (516)	
Max. exhaust back pressure - in (mm) H_2^0		All: 30 (762)		
Suggested dry exhaust I.D in (mm)		All: 6		
Suggested wet exhaust I.D in (mm)		All: 8		
Fuel and Oil				
Minimum fuel suction line - in (mm)		All: 0.5 (12)		
Minimum fuel return line - in (mm)		All: 0.38 (10)		
Maximum fuel pump head - in (m)		All: 39 (1)		
Crankcase oil capacity - US qts (ltr)		All: 34 (32)		
Other Data				
Engine rotation (facing flywheel)		All: Counter-Clockwise		
Flywheel housing size		All: #1 SAE		
Optional front PTO size SAE # - inch		All: 4 -8", 4 -10" or 3 -11.5"		
Maximum operating angle any direction		All: 35° for less than 2 minutes		
Maximum installed operating angle		All: 10° rear down - 0° front down		
Heat Exchanger Weight - without gear		2867 lbs (1300 kg)		

Dimensions NOT intended for installation. Contact factory for installation drawings.



Dimensions	inch (mm)	
Alength	69 (1758)	
B width	33.0 (840)	
C height	45.0 (1143)	
D mounts	44 (1115)	
E mounts	26.5 (673)	

Weights do not include gear or options. Dimensions subject to change without notice.