

## FEATURES & BENEFITS Powered by Lugger

- Designed for the smallest possible footprint without sacrificing serviceability
- Minimal belts and hoses for longer life
- Reliable cast-iron, gear-driven freshwater and silicon bronze raw water pump

## **ENGINE BLOCK**

- Four cylinder, four cycle, inline, liquid cooled, overhead valve marine diesels with replaceable wet liners
- Forged crankshaft
- Individual cylinder heads for ease of service
- Heavy-duty, plate-type oil cooler
- Shaker pistons with oil gallery for improved cooling and performance

## WORLD CLASS FEATURES

- Belt guard for operator safety
- Cast-iron thermostat housing for long life
- Closed loop crank case vent keeps oil vapor inside the engine
- Jacket-water cooled, cast iron exhaust manifold for operator safety and temperature control
- Jacket-water cooled turbocharger turbine housing for safety
- Copper-nickel heat exchanger with removable end covers for easy cleaning
- Sparkling white two-part polyurethane paint
- Operator and parts manual
- Optional stainless steel, wet exhaust elbow rotates for easy installation

## Northern Lights, Inc. 4420 14th Ave NW, Seattle, WA 98107 Tel: (206) 789-3880 | (800) 762-0165 www.northern-lights.com info@northern-lights.com



	L4105A / L4105H			
Dimensions and Weight				
Length - in (mm)	45 (1143)			
Width - in (mm)	37.6 (955)			
Height - in (mm)	40 (1014)			
Weight - lbs (kg)	1390 (630)			
Lugger Diesel Engine Data				
Inline Cylinder / Aspiration / Operating Cycle	I-4/Turbo-Aftercooled/4-Stroke			
Displacement - in <sup>3</sup> (ltr)	293 (4.8)			
Bore / Stroke - in (mm)	4.13 (105) / 5.39 (137)			
Flywheel Housing Size / Flywheel Size	SAE #3 / 11.5			
	L4105A1	L4105A2	L4105H1	L4105H2
Duty Factor	Continuous Duty	Medium Duty	High Output	Pleasure Craft
Power - FWHP (KW) @ RPM	174 (130) @ 2100	220 (164) @ 2250	270 (201) @2400	300 (224) @2500
Cooling System - Heat Exchanger Standard (Keel-	Cooling Optional)			
Aftercooling Type	Jacket-Water	Jacket-Water	Raw Water	Raw Water
Freshwater Pump Capacity - gpm (lpm)	67 (255)	71 (270)	77 (290)	77 (290)
Heat Exchanger Approx. Cooling Capacity - gal (ltr)	9.77 (37)	9.77 (37)	9.11 (34.5)	9.11 (34.5)
Engine Only Approx. Cooling Capacity - gal (ltr)	8.3 (31.3)	8.3 (31.3)	7.6 (28.8)	7.6 (28.8)
Raw Water Pump Capacity - gpm (lpm)	56 (211)	61 (231)	62 (235)	63 (238)
Max. Raw Water Pump Suction Head Lift - in (mm)	39 (1000)	39 (1000)	39 (1000)	39 (1000)
Raw Water Pump Inlet Hose ID - in (mm)	2 (51)	2 (51)	2 (51)	2 (51)
Min. Raw Water Inlet/ Discharge Thru-Hull - in (mm)	2 (51)	2 (51)	2 (51)	2 (51)
DC Electrical				
DC Starting Voltage Standard (Optional)	12 (24)	12 (24)	12 (24)	12 (24)
Min. Battery Capacity - amp hr	90	90	90	90
Min. Battery Size - CCA	750	750	750	750
Starter Rolling Amps - 12V (24V)	420 (225)	420 (225)	420 (225)	420 (225)
12 Volt Battery Cable Size Up to 5ft (1.5m) - mm <sup>2</sup>	50	50	50	50
Air				
Air Consumption - m <sup>3</sup> /m (cfm)	11.3 (396)	16 (564)	15.5 (547)	17.2 (609)
Approx. Heat Radiated to Air - BTU/min	1131	1430	1755	1950
Exhaust Gas Volume - kg/hr (lbs/min)	787 (28.9)	1076 (39.5)	1053 (38.7)	1185 (43.5)
Exhaust Gas Temp C°(F°)	418° (784°)	404° (759°)	492° (918°)	509° (948°)
Max. Exhaust Back Pressure - in H <sup>2</sup> O (mm H <sup>2</sup> O)	30 (765)	30 (765)	30 (765)	30 (765)
Wet Exhaust Elbow OD - in (mm)	5 (127)	5 (127)	5 (127)	5 (127)
Dry Exhaust Elbow - in (mm)	4 (102)	4 (102)	4 (102)	4 (102)
Fuel				
Approx. Fuel Rate at Full Load - gph (lph)	10.5 (39.7)	13.5 (51.1)	15.5 (56.7)	17.6 (66.6)
Fuel Injection Pump Type and Control		Electronic	(HPCR)	
Min. Suction Line Size - in (mm)	0.375 (9.525)			
Min. Return Line Size - in (mm)	0.375 (9.525)			
Max. Fuel Transfer Pump Suction Lift - ft (m)	3.28 (1)			
Max. Fuel Flow to Transfer Pump - gph	C/F			
Max. Fuel Return Line - psi	5			
Max Engine Operating Angle				
Continuous - Fore/Aft	10°			
	22.5°			