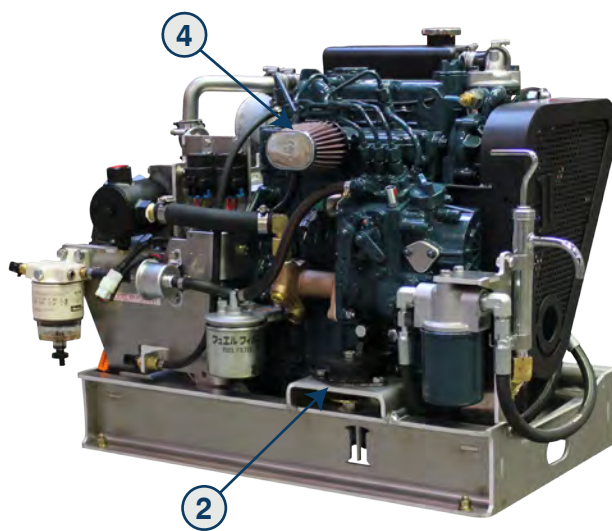
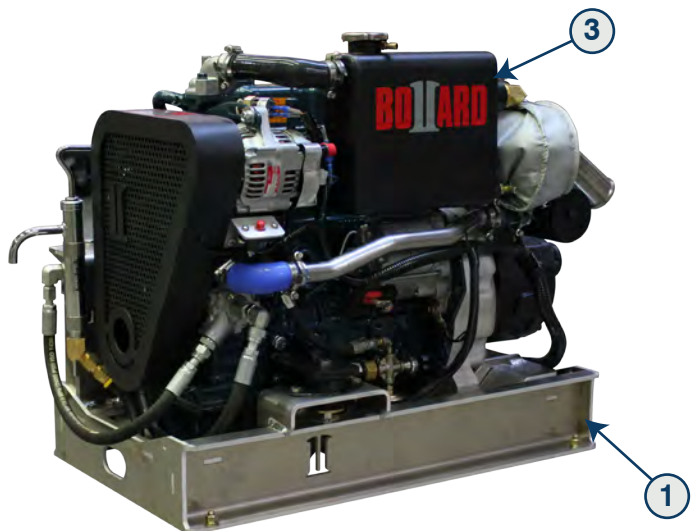


BOLLARD™ MH22 Series

22HP Marine Hydraulic Power Unit Specifications

22HP



Drawings or pictures may show non-standard equipment

Features and Benefits

Unsurpassed Quality & Reliability

- BOLLARD™ Hydraulic Power Units are designed and built in the USA specifically for the rugged conditions of commercial use. The expected time between overhauls on the BOLLARD™ packaged HPU set is 20 to 30 thousand hours.

Emissions

- Final Tier 4 EPA Certified. CARB, EU and MOC Certified. The MH22 HPU offers a seamless transition from Tier 3 to Interim Tier 4 by maintaining the same footprint and hard mounting points with only the slight performance changes from the Tier 3 engine without exhaust after treatments.

Radiator, Heat Exchanger Or Keel Cooling Compatibility

- Flexible cooling systems for reliability in any adverse condition or application.

Anti-Rust Primer - Black & White Industrial Enamel

- We use industrial grade premium primer & enamel on our engines. Providing excellent corrosion resistance and visibility in your engine room. Other colors available on request.

1: Heavy Duty Structural Steel or Aluminum Base Frame

- For ease of installation, added structural integrity, superior vibration dampening, safety and durability.

2: Reduced Noise

- Low vibration & noise due to high mass flywheel, crank-center mounted vibration isolators, mass loaded & stiffened skids, and de noised engine.

3: Water Jacketed Exhaust Manifold and Expansion Tank

- Provides low engine room temperatures and greatly reduces fire hazard

4: Heavy Duty Air Intake Filtration

- For increased performance and extended engine life.

Controls, Gauges & Instrumentation

- Customizable with a wide variety of sender & control options as well as custom in house fabrication. HPU packages can be tailor made to fit any application.

Optional SEADRIVE™ Front Power Take Off System

- The ultimate PTO. Ultra short heavy duty housing, pre aligned, easy to install, service friendly and available with or without a clutch. Integrated torsional coupling eliminates vibration and extends engine life.

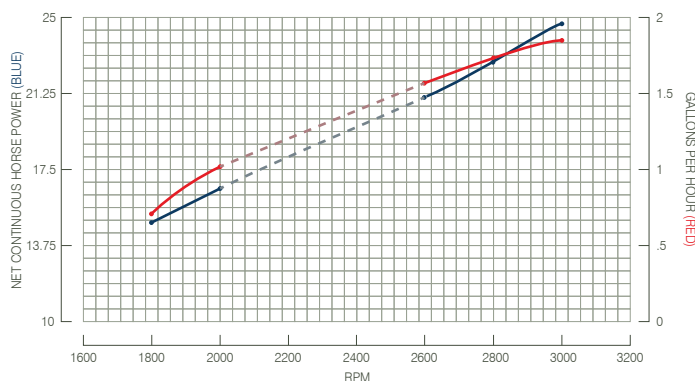
Optional SCOR™ Oil Regeneration System

- Keeps your oil cleaner and performing better than when it came out of the bottle. With SCOR™, engines constantly run on clean oil with good chemical balance and run longer between overhauls, oil and filter changes. Saves time and money.

General Specifications

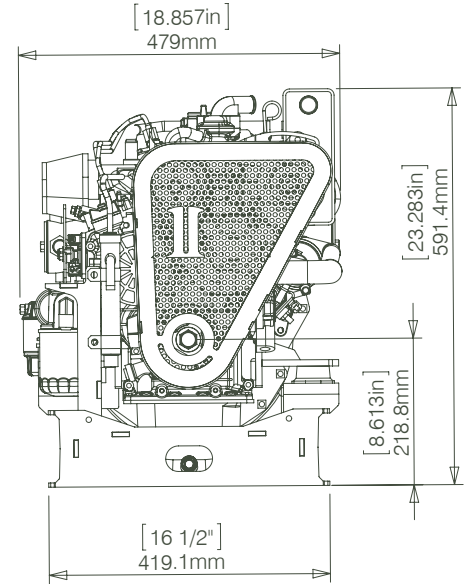
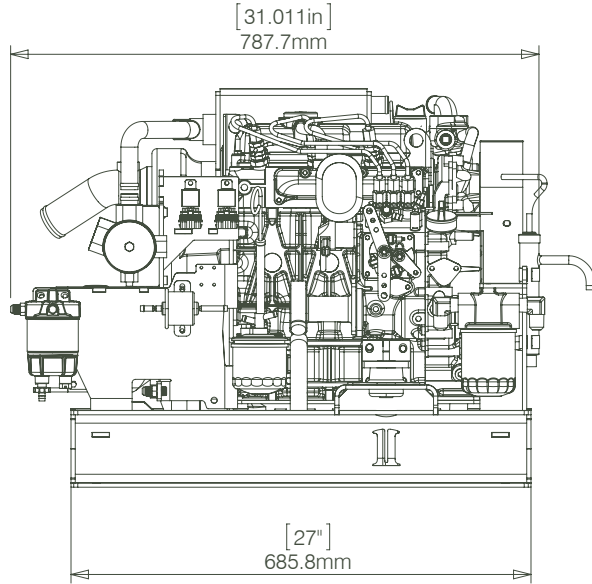
Engine Model	D1305-E4B
Engine Type	In-Line 4 Cycle 4 Cylinder Diesel
Displacement - L (cu.in)	1.261 (76.95)
Bore x Stroke - mm (in)	78 (3.07) x 88 (3.46)
Aspiration	Naturally Aspirated
Combustion System	Indirect Injection
Oil Sump Capacity - qts (L)	5.7 (1.51)
Emission Regulation	EPA Tier 4
Cooling Compatibility	Radiator, Heat Exchange, Keel Cooling
Power - HP (kW)	22 hp (16.4) @ 2000 RPM
Maximum Speed - RPM	3000
Starter	12v 1.2 kW
Alternator	12v 40 Amp
MAX Operating Angle	20° (Constant) 30° (Intermittent)
Dry Weight - lbs (kg)	209.4 (95) (engine only)
Length x Width x Height - inches	38.5-48.5" x 21.5" x 29.0" (Details on Back)

Fuel Performance



BOLLARD
ENGINES & GENERATORS

Dimensions



Drawings or pictures may show non-standard equipment

Dimensions are subject to change without notice and or with the use of alternate generators and cooling systems.

Please confirm exact configuration if dimensions are critical.

Fuel Performance	1800	2000	2200	2400	2600	2800	3000	3200
Gross Intermittent - HP (kW)	21.2 (15)	22.6 (16.5)	-	-	25.2 (18.8)	27.1 (20.2)	29.1 (21.7)	-
Net Intermittent - HP (kW)	19.5 (14)	21.7 (15.4)	-	-	24.5 (18.2)	26.2 (19.6)	28.1 (21.0)	-
Net Continuous - HP (kW)	14.8 (11)	16.4 (12.2)	-	-	21.2 (15.8)	22.8 (17.0)	24.4 (18.2)	-
Brake Horse Power - HP (kW)	19.5 (14)	21.7 (15.4)	-	-	24.5 (18.2)	26.2 (19.6)	28.1 (21)	-
Fuel Consumption - lb/HPh	.400	.403	-	-	.450	.466	.467	-
Fuel Consumption - kg/kWh	.244	.246	-	-	.274	.283	.284	-
Fuel Consumption - Gal/hr	.88	1.09	-	-	1.55	1.72	1.85	-

Customizable Options and Accessories

Engine	Controls & Instrumentation	DC Electrical System	Exhaust	Additional Options
Single Circuit Keel Cooling Package	Control Panel	Battery: 12v	SS Wet Exhaust Mixing Elbow	Sea Trial Start Up
Single Circuit Heat Exchange Package	Custom Harness Length	Battery Rack & Cables	Dry Exhaust Matching Flange	MER Site Start-Up w/ Load Bank
Single Circuit Marine Radiator Package	Auxiliary Start Panel	Battery Isolation Switch	SUPERFLEX™ Exhaust Bellows	Custom Frame / Skid
	Auto Start/Stop		Cowl & EM Exhaust Silencers	Crank Vent Filtration Kit
	Pre-Alarm Senders	Fuel-Lube Oil System	Heat Recovery Silencer	Dual Vibration Isolation Mounts
Air Intake & Filtration	AC Meter Panel	SCOR™ Oil Regeneration System		Custom Sound Enclosure
K&N Air Filters	Low Coolant Level Shutdown	Oil Drain Extension W/ Valve	Power Take Off	Galvanized or Powder Coated
Donaldson Air Silencer	High Water Temp. Shutdown	Oil Drain Pump To Engine	SEADRIVE™ Clutched Front PTO	Skids & Accessories
Closed Crank Case Vent Loop	Low Oil Pressure Shutdown	Move Dipstick To Opposite Side	Clutch: Air Oil Electric	Racor Fuel Water Separator
	Low Oil Level Gauge/Shutdown	High/Low Oil Level Shut Down	SEADRIVE™ Direct Drive Front PTO	
	Overspeed Shutdown	Custom Oil Drain Hose Length	Aux. A/B 2 Sheave Universal Pulley	
		Single Side Service	Aux. A/B 4 Sheave Universal Pulley	
		Lube Oil Drip Pan	Additional Belts	