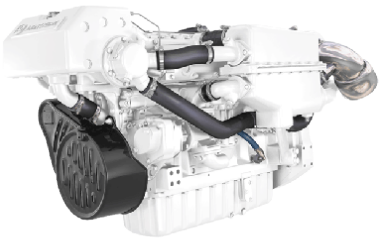
PowerTech Diesel Engine

Propulsion Engine Specifications



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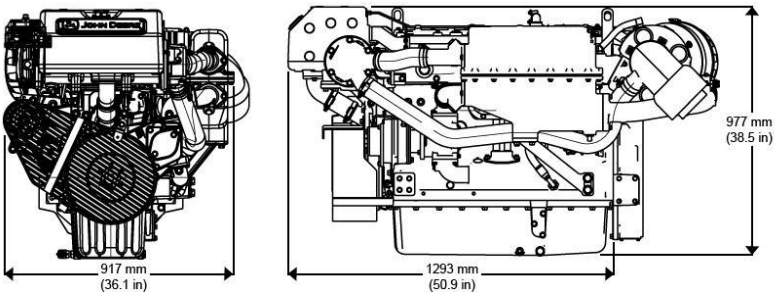
Dimensions



Certifications

IMO MARPOL Annex VI
IWT (2004/26/EC)
RCD (2003/44/EC)
US EPA Marine Tier 2 Compliant

General data

Model	
Number of cylinders	6
Displacement - L (cu in)	9.0 (549)
Bore and Stroke-- mm (in)	118 x 127 (4.65 x 5.00)
Compression Ratio	16.0 : 1
Engine Type	In-line, 4- Cycle
Aspiration	Air-to-sea water

Length - mm (in)	1293 (50.9)	
Width - mm (in)	917 (36.1)	
Height, Centerline to Top-- mm. (in)	658 (25.9)	
Height, Centerline to Bottom-- mm. (in)	319 (12.6)	
Weight, dry-- kg (lb)	1066 (2350)	
Maximum Installed Angle	Front Up – degrees	12
	Front Down – degrees	0

Features and benefits

Watercooled Turbocharger and Exhaust Manifold

- Cooler and quieter environment for vessel and crew
- Reduced external connections eliminates hoses and fittings that can leak or break

Directed Top-liner Cooling

- Reduces upper liner temperature by as much as 100 degrees Fahrenheit (54 degrees Celsius)
- Durable and reliable power cylinder components

Replaceable Wet-type Cylinder Liners

- Hardened and precision machined for long life

Gear Auxiliary Drive

- Optional auxiliary drive for wash-down pumps, hydraulic oil pumps, and air compressors

Front or Side Service

- Oil and fuel filter combinations
- Application and service flexibility to provide installation convenience plus fast and easy maintenance

Heat Exchanger Cooled

- High-capacity heat exchanger designed for reliable operation in adverse conditions
- Seawater aftercooler for increased power and efficiency

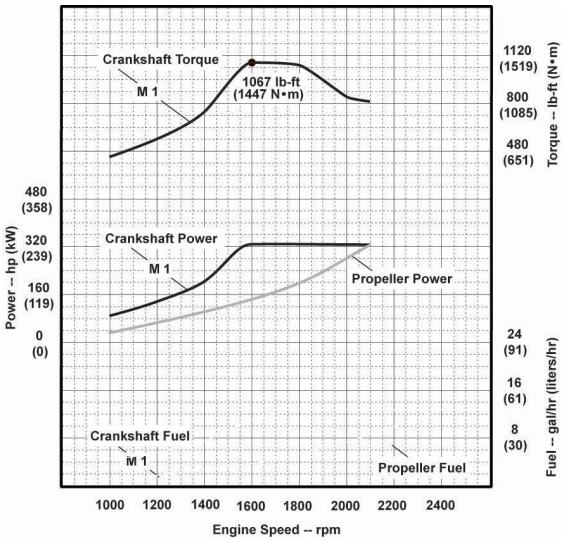
High Torque and Low Rated RPM

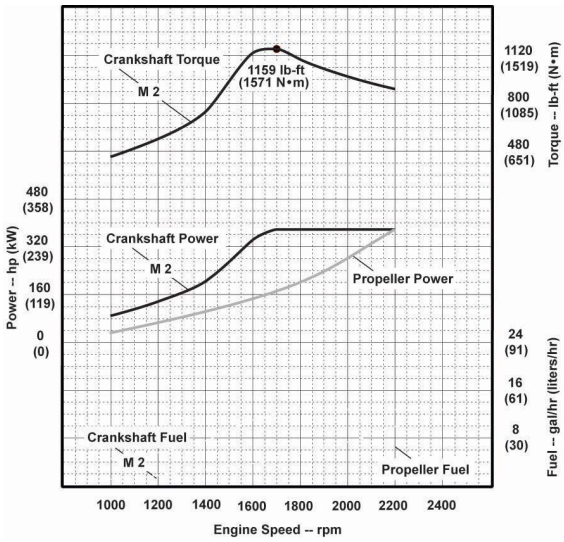
- Excellent vessel control and maneuvering
- Lower rated rpm limits vibration and noise for better crew comfort

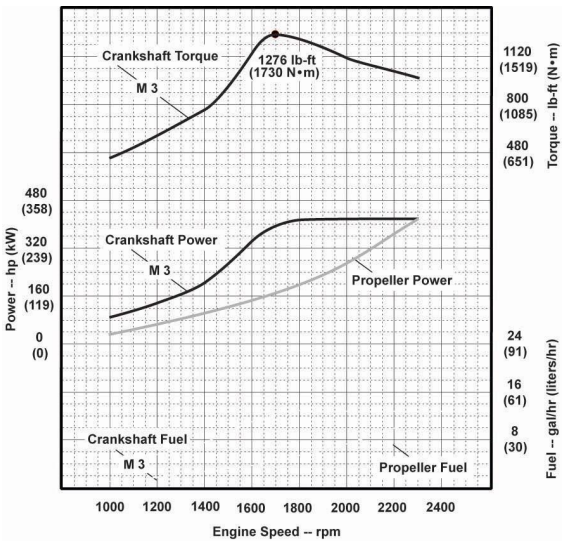
Fuel System

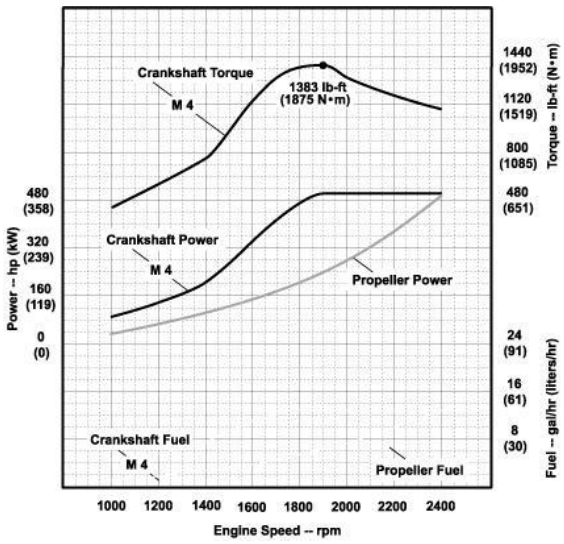
- Electronically controlled high pressure common rail fuel system provides precise fuel delivery with variable timing resulting in excellent fuel economy and performance
- Self diagnostics and protection

Performance curve









Performance data	M4	M3	M2	M1
Rated Power - kW (hp)	373 (500)	317 (425)	280 (375)	242 (325)
Rated Speed - rpm	2400	2300	2200	2100
Low Idle Speed - rpm	600	600	600	600
Peak Torque - Nm (ft-lb)	1875 (1383)	1730 (1276)	1571 (1159)	1447 (1067)
Peak Torque Speed - rpm	1900	1700	1700	1600
Fuel Consumption - L/h (gal/hr)	94.0 (24.8)	80.4 (21.2)	70.9 (18.7)	62.7 (16.6)

M rating	M4	M3	M2	M1
Typical load factor	40 %	50 %	65 %	> 65 %
Typical annual usage (hr)	800	2000	3000	> 3000
Typical full-power operation (hr)	1 of each 12	4 of each 12	16 of each 24	24 Uninterrupted

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Preliminary Information
All values at rated speed and power with standard options unless otherwise noted.
Specifications and design subject to change without notice.