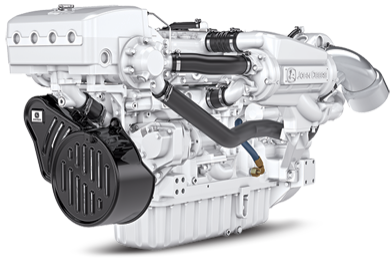


PowerTech™

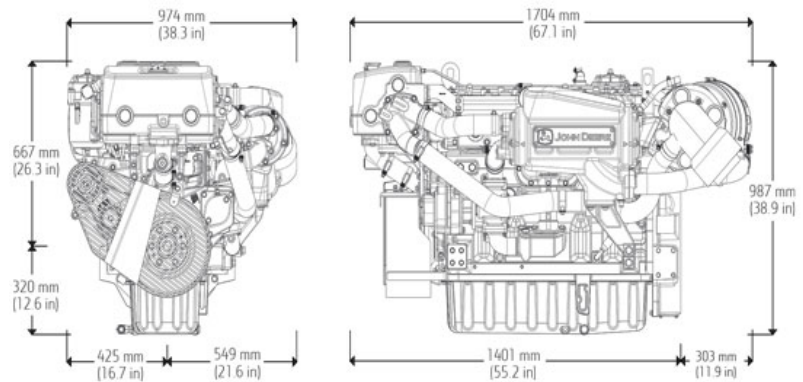
6090SFM85 Diesel Engine

Propulsion Engine Specifications



6090SFM85 shown

Dimensions



Certifications

- EPA Commercial Marine Tier 3
- IMO MARPOL Annex VI Compliant
- NRMM (97/68/EC) as amended

General data

Model	6090SFM85	Length - mm (in)	1704 (67.1)
Number of cylinders	6	Width - mm (in)	974 (38.3)
Displacement - L (cu in)	9.0 (549)	Height, Centerline to Top-- mm. (in)	667 (26.3)
Bore and Stroke-- mm (in)	118.4 x 136 (4.66 x 5.35)	Height, Centerline to Bottom-- mm. (in)	320 (12.6)
Compression Ratio	16.3 : 1	Weight, dry-- kg (lb)	1056 (2328)
Engine Type	In-line, 4- Cycle	Maximum Installed Angle	Front Up – degrees 12 Front Down – degrees 0
Aspiration	Air-to-sea water		

Features and benefits

High Torque and Low Rated RPM

- High torque provides excellent vessel control and maneuverability. Lower rated propulsion RPM reduces vibration and noise for improved crew comfort.

4-Valve Cylinder Head

- Excellent airflow through 4-valve cylinder head delivers greater low-speed torque and better transient response time.

High-pressure Common-rail (HPCR)

- The HPCR fuel system provides variable common-rail pressure, multiple injections, and controls fuel injection timing and provides precise control for the start, duration, and end of injection.

Water-cooled Exhaust Manifold

- Integrated components eliminate external hoses and fittings that can leak or break. Wet exhaust manifold creates a cooler and quieter environment for passengers and crew.

Turbocharged with Air-to-Seawater Aftercooling

- Cooler turbocharger operation enables higher ratings and efficiencies for applications that require high power or speed.

Replaceable Cylinder Liners

- Replaceable wet-type cylinder liners are precision-machined and hardened for long life. Allows engine to be rebuilt to original specifications.

Electronic Engine Control Unit (ECU)

- Advanced fault code diagnostics and customizable engine protections ensure reliability and uptime. Provides highly customizable features and trim to integrate your vessel.

Heat Exchanger

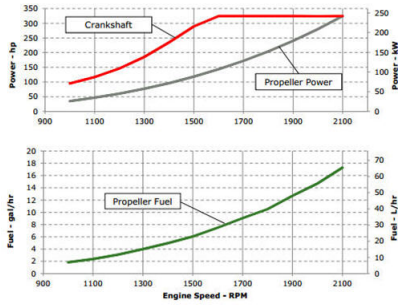
- High-capacity heat exchanger provides reliable operation in adverse conditions.

Multiple Service Options

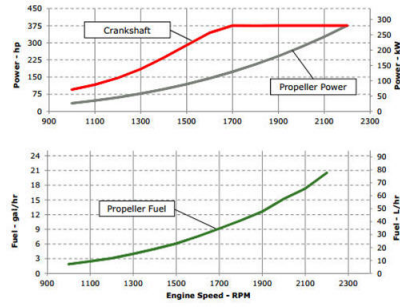
- Either-side oil fill/dipstick combinations and remote oil and fuel filter options are available for easier service access.

Performance curve

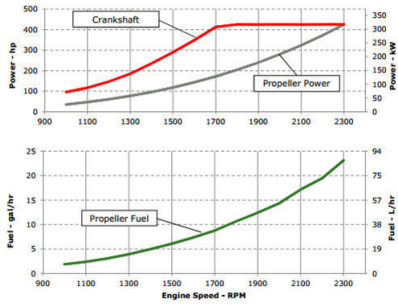
M1 Rating



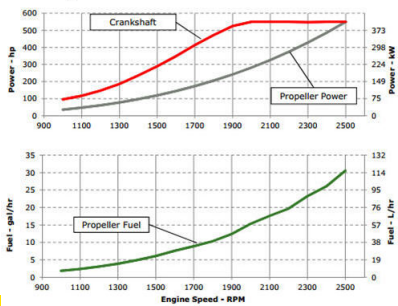
M2 Rating



M3 Rating



M5 Rating



Performance data	M5	M4	M3	M2	M1
Rated Power - kW (hp)	410 (550)	373 (500)	317 (425)	280 (375)	242 (325)
Rated Speed - rpm	2500	2400	2300	2200	2100
Low Idle Speed - rpm	650	650	650	650	650
Peak Torque - Nm (ft-lb)	1966 (1450)	1869 (1379)	1730 (1276)	1573 (1160)	1444 (1065)
Peak Torque Speed - rpm	1900	1900	1700	1700	1600
Fuel Consumption - L/h (gal/hr)	115.6 (30.5)	107.1 (28.3)	87.4 (23.1)	77.6 (20.5)	65.4 (17.3)

M rating	M5	M4	M3	M2	M1
Typical load factor	< =35%	< =40%	< =50%	< =65%	> 65%
Typical annual usage (hr)	300-1,000 hr	1,000-3 ,000 hr	2,000-4,000 hr	3,000-5,000 hr	Unrestricted
Typical full-power operation (hr)	0.5 of each 8 hr	1 of each 12 hr	4 of each 16 hr	16 of each 24 hr	Uninterrupted

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