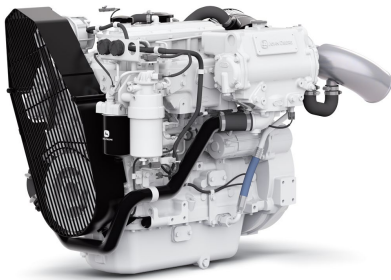


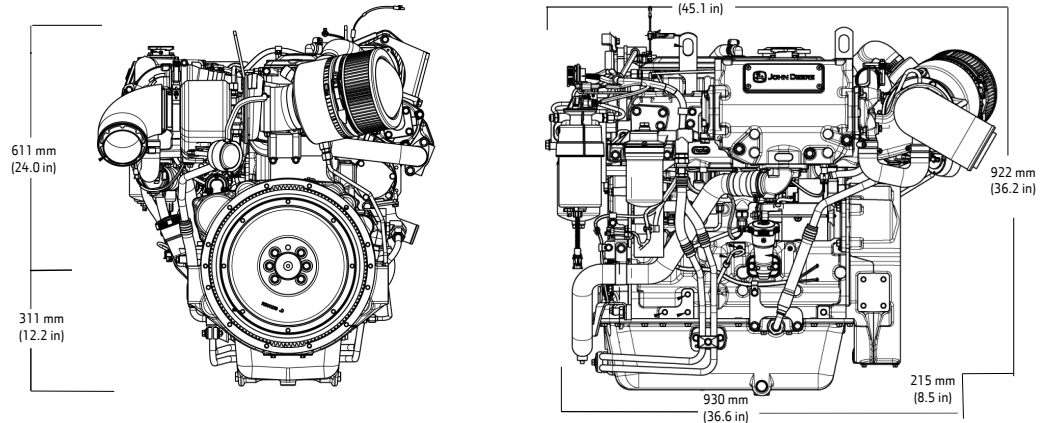
PowerTech™

4045SFM85 Diesel Engine

Marine Propulsion Engine Specifications



Dimensions



Dimensions shown in mm (in) may vary according to options selected. Contact your distributor for more information.

Emissions

- EPA Commercial Marine Tier 3
- IMO MARPOL Annex VI Tier II
- NRMM (97/68/EC) as amended
- Recreational Craft Directive II (2013/53/EU)

General Data (Based on Standard Option Configuration)

Model	4045SFM85	Length maximum - mm (in)	1145 (45.1)
Number of cylinders	4	Length to rear face of flywheel housing - mm (in)	900 (35.4)
Displacement - L (cu in)	4.5 (275)	Flywheel housing SAE	2, 3
Bore and Stroke-- mm (in)	107 x 127 (4.21 x 5.00)	Height - mm (in)	922 (36.2)
Engine Type	In-line, 4- Cycle	Height, crankshaft centerline to top - mm (in)	611 (24.0)
Aspiration	Turbocharged and air-to-seawater aftercooled	Height, crankshaft centerline to bottom - mm (in)	311 (12.2)
		Weight, (with oil, no coolant - includes engine, flywheel, and electronics) - kg (lb)	558 (1230)

Classification Societies

ABS,BV,DNV-GL,LR

*SOLAS and other accessories available. Contact your distributor for details.

Engine Specifications

Performance ratings	Power kW (bhp)	Rated Speed (rpm)	Rated fuel consumption L/hr (gal/hr)
M4	205 (275)	2600	54 (14)
M5	235 (315)	2800	62 (16)

M rating	M4	M5
Typical load factor	<=40%	<=35%
Typical annual usage (hr)	1,000-3,000 hr	300-1,000 hr
Typical full-power operation (hr)	1 of each 12 hr	0.5 of each 8 hr

Ratings are based on ISO 8655 standard power rating and the SAE J1 228 crank shaft power rating.

Flexibility of installation due to range of options.

See your John Deere Power Systems engine distributor or marine dealer for more detailed performance information.

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.

Turbocharged with air-to-seawater aftercooling

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

Multiple Service Options

- Standard front fuel service, optional left-hand or right-hand oil filter options for twinengine applications

Water-cooled exhaust manifold

- Integrated components eliminate external hoses and fitting
- Wet exhaust manifold creates a cooler and quieter environment for passengers and crew

High-pressure Common-rail (HPCR)

- The HPCR fuel system provides variable common-rail pressure, multiple injections, and higher injection pressures. It also controls fuel injection timing and provides precise control for the start, duration, and end of injection. Electronic transfer pump is self-priming for ease of maintenance. Provides high performance, excellent fuel economy, and low emissions.

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.

Replaceable Cylinder Liners

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

4-Valve Cylinder Head

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

Integrated Heat Exchanger

- Integrated expansion tank, heat exchanger, and exhaust manifold reduce the chance of leaks. High-capacity heat exchanger provides reliable operation in adverse conditions.

Internal Balancers

- Internal balancers reduce engine noise and vibration for crew comfort.
NOTE: John Deere 4045 engines only.