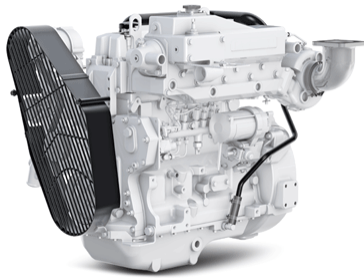


PowerTech™

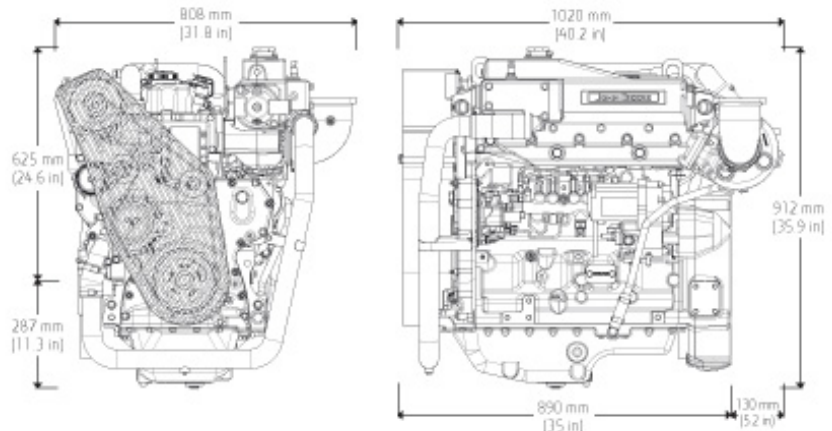
4045TFM85 Diesel Engine

Marine Generator Drive Engine Specifications



4045TFM85 shown

Dimensions



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

Emissions

EPA Commercial Marine Tier 3 @ 1800 rpm / 60Hz

IMO MARPOL Annex VI Tier II Compliant

Marine China Stage I †

EU Inland Waterway Stage V *

† Available on 61 kW (82 hp) generator drive

* Available on 61 kW (82 hp) prime generator

General Data (Based on Standard Option Configuration)

Model	4045TFM85	Length maximum - mm (in)	1032 (40.6)
Number of cylinders	4	Height - mm (in)	908 (35.7)
Displacement - L (cu in)	4.5 (275)	Height, crankshaft centerline to top - mm (in)	621 (24.4)
Bore and Stroke-- mm (in)	106 x 127 (4.17 x 5.00)	Height, crankshaft centerline to bottom - mm (in)	287 (11.3)
Engine Type	In-line, 4-Cycle	Weight, dry - kg (lb)	507 (1118)
Aspiration	Turbocharged		

Classification Societies

ABS,BV,CCS,DNV-GL,LR

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

Features and Benefits

Optional Low RPM Operation

- A lower speed option provides the user the ability to start the engine without going to the gen-set rated speed and allows the user to clutch in an accessory that may be driven by the engine.

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.

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.

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.

Keel-cooled or Heat Exchanger

- Closed cooling system in keel-cooled engine option eliminates the need for a sea strainer, seawater pump, or anodes. Heat exchanger option offers a lighter, more compact, and simpler engine installation.

Internal Balancers

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

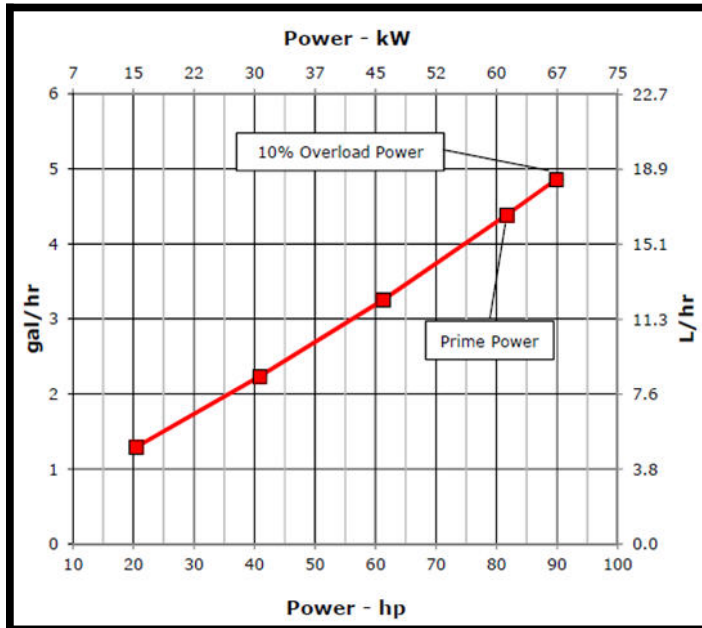
Multiple Service Options

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

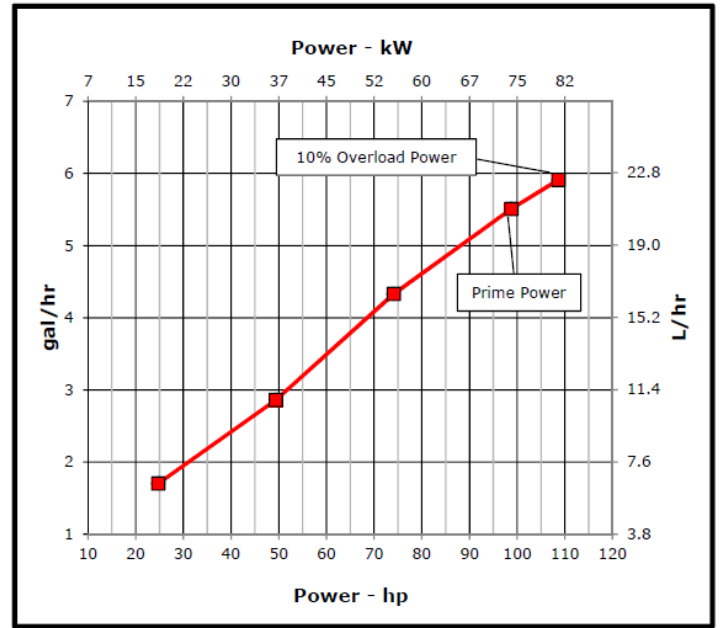
Photographs may show non-standard equipment.

Performance Curves

50Hz (1500 rpm)



60Hz (1800 rpm)



Performance data points shown at 25%, 50%, 75%, 100% (prime), and 110% (overload) power.

Calculated Generator-Set Rating

Rated speed Hz (rpm)	Generator efficiency %	Engine power		Power factor	Calculated generator set rating	
		Prime*			Prime*	
		kW	hp		kWe	kVA
50 (1500)	88-92	61	82	0.8	54-56	68-70
60 (1800)	88-92	74	99	0.8	65-68	81-85

*Prime power is the normal power an engine is capable of delivering with a variable load for an unlimited number of hours per year. This rating conforms to ISO 3046 and SAE J1995. This rating incorporates a 10 percent overload capability, and conforms to ISO 8528 prime power.

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