# PowerTech ™ 6090AFM85 Diesel Engine

Marine Propulsion Engine Specifications



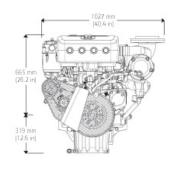


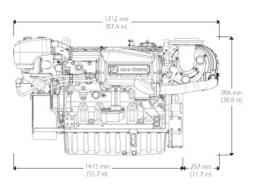
6090AFM85 shown

#### **Emissions**

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

#### **Dimensions**





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

# **General Data (Based on Standard Option Configuration)**

Model	6090AFM85		
Number of cylinders	6		
Displacement - L (cu in)	9.0 (549)		
Bore and Stroke mm (in)	118 x 136 (4.65 x 5.35)		
Engine Type	In-line, 4- Cycle		
Aspiration	Turbocharged and air-to-coolant aftercooled		

#### **Classification Societies**

ABS,BV,CCS,DNV-GL,LR

Length maximum - mm (in)	1712 (67.4)
Length to rear face of flywheel housing - mm (in)	1415 (55.7)
Flywheel housing SAE	2
Height - mm (in)	984 (38.8)
Height, crankshaft centerline to top - mm (in)	665 (26.2)
Height, crankshaft centerline to bottom - mm (in)	319 (12.6)
Weight, dry - kg (lb)	1055 (2326)

## **Engine Specifications**

Performance ratings	Power kW (bhp)	Rated Speed (rpm)	Rated fuel consumption L/hr (gal/hr)
M1	213 (286)	2100	64.6 (17.1)
M2	242 (325)	2200	71.4 (18.9)
M3	280 (375)	2300	80.9 (21.4)
M4	317 (425)	2400	91.2 (24.1)

Metric hp = Brake hp x 1.01387

<sup>\*</sup>SOLAS and other accessories available. Contact your distributor for details.

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

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

#### 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.

## 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.

### Multiple Service Options

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

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