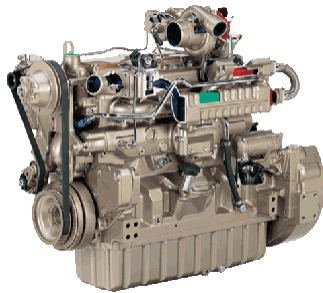


PowerTech™ Plus

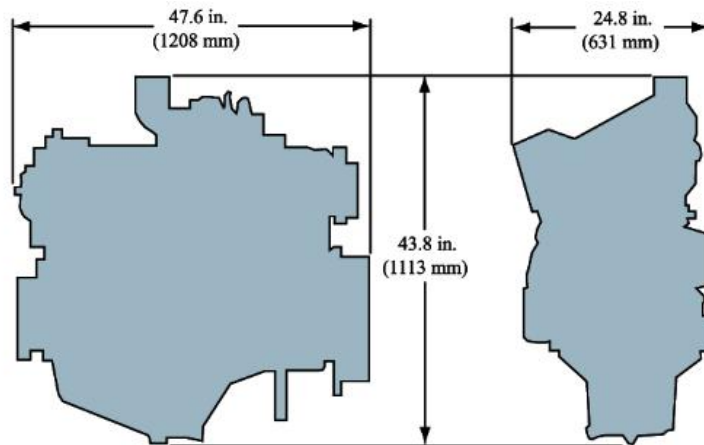
6090HF485 Diesel Engine

Industrial Engine Specifications



6090HF485 shown

Engine dimensions



Dimensions may vary according to options selected. Call your distributor for more information.

Certifications

CARB
EPA Tier 3
EU Stage III A

General data

Model	6090HF485	Length - mm (in)	1208 (47.6)
Number of cylinders	6	Width - mm (in)	630 (24.8)
Displacement - L (cu in)	9 (549)	Height-- mm (in)	1113 (43.8)
Bore and Stroke-- mm (in)	118.4 x 136.0 (4.66 x 5.35)	Weight, dry-- kg (lb)	901 (1986)
Compression Ratio	16.0 : 1		
Engine Type	In-line, 4-Cycle		
Aspiration	Turbocharged and air-to-air aftercooled		

Performance data range

Application ratings	Intermittent	Heavy Duty	Continuous
Rated power/Rated speed	242-298 kW (325-400 hp) @2000-2200rpm	224-242 kW (300-325 hp) @2000-2200rpm	168-224 kW (225-300 hp) @2000-2200rpm
Peak power	261-298 kW (350-400 hp) @1800-2200rpm	243 kW (326 hp) @1800-2200rpm	187-224 kW (251-300 hp) @1800-2200rpm
Power bulge	0-8% @ 1800rpm	0-8% @ 1800rpm	0-11% @ 1800rpm
Peak torque	1530-1550 N.m (1128-1143ft-lb) @1500-1800rpm	1421 N.m (1048ft-lb) @1500rpm	1095-1313 N.m (808-968ft-lb) @1500rpm
Torque rise	20-32%	33-35%	35-36%

The Industrial Intermittent engine power rating is for applications that operate at varying loads and speeds, and do not fit the Industrial Heavy-Duty rating information.

Some applications require Industrial Heavy-Duty engine power ratings. Please contact your John Deere Power Systems engine distributor for more information.

The Industrial Continuous engine power rating is for applications that operate with constant load and speed, except for short periods during startup or shutdown.

Power output is within + or - 5% at standard SAE J 1995 and ISO 3046.

Features and benefits

4-Valve Cylinder Head

- The 4-valve cylinder head provides excellent airflow resulting in greater low-speed torque and better transient response. New 4-valve U-flow head design

High-Pressure Common-Rail (HPCR) and Engine Control Unit (ECU)

- The HPCR fuel system provides variable common-rail pressure, multiple injections, and higher injection pressures, up to 1600 bar (23,000 psi). It also controls fuel injection timing and provides precise control for the start, duration, and end of the injection

Cooled Exhaust Gas Recirculation (EGR)

- EGR cools and mixes measured amounts of cooled exhaust gas with incoming fresh air to lower peak combustion temperatures, thereby reducing NOx

Variable Geometry Turbocharger (VGT)

- Varies exhaust pressure based on load and speed to insure proper EGR flow; greater low-speed torque, quicker transient response, higher peak torque, and best-in-class fuel economy.

Air-to-Air Aftercooled

- This is the most efficient method of cooling intake air to help reduce engine emissions while maintaining low-speed torque, transient response time, and peak torque. It enables an engine to meet emissions regulations with better fuel economy and the lowest installed costs

Compact Size

- Horsepower/displacement ratio is best-in-class
- Lower installed cost
- Mounting points are the same as Tier 2/Stage II engine models

John Deere Electronic Engine Controls

- Electronic engine controls monitor critical engine functions, providing warning and/or shutdown to prevent costly engine repairs and eliminate the need for add-on governing components all lowering total installed costs. Snapshot diagnostic data that can be retrieved using commonly available diagnostic service tools
- Controls utilize new common wiring interface connector for vehicles or available OEM instrumentation packages; new solid conduit and "T" connectors to reduce wiring stress and provide greater durability and improved appearance
- Factory-installed, engine mounted ECU or remote-mounted ECU comes with wiring harness and associated components. Industry-standard SAE J1939 interface communicates with other vehicle systems, eliminating redundant sensors and reducing vehicle installed cost

Additional Features

- Gear-driven auxiliary drives; 500-hour oil change; self-adjusting poly-vee fan drive; single-piece low friction piston; optional rear PTO; low-pressure fuel system with "au to-prime" feature; directed top-liner cooling