

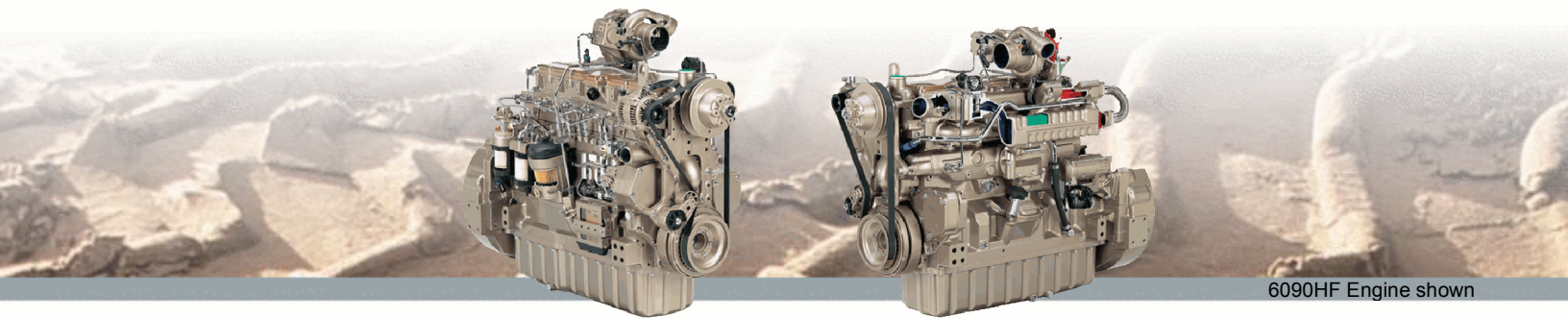


# JOHN DEERE

## PowerTech™ Plus

# 6090H Diesel Engine

### Specifications



6090HF Engine shown

#### General Data

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

Rated BHP is the power rating for variable speed and load applications where full power is required intermittently.

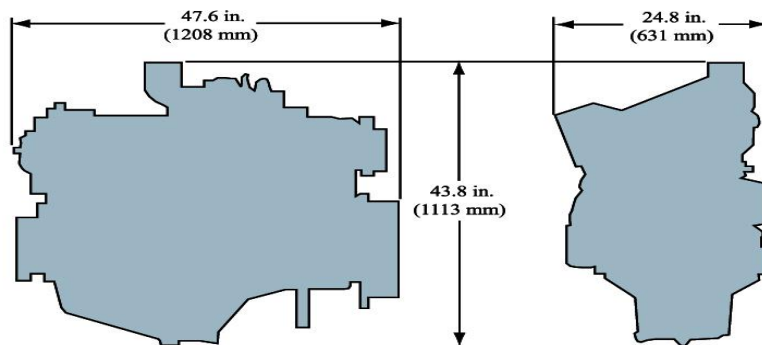
Continuous BHP is the power rating for applications operating under a constant load and speed for long periods of time.

Heavy duty - see application ratings/definitions, engine performance curves. Power output is within + or - 5% at standard SAE J 1995 and ISO 3046.

#### Certifications

- CARB
- EPA Tier 3
- EU Stage III A

#### Dimensions



#### Performance data

##### Rated Speed

Intermittent 187 kW (251 hp) @ 2200 rpm

##### Peak power

205 kW (275 hp) @ 2000 rpm

Power bulge %

10% @ 2000 rpm

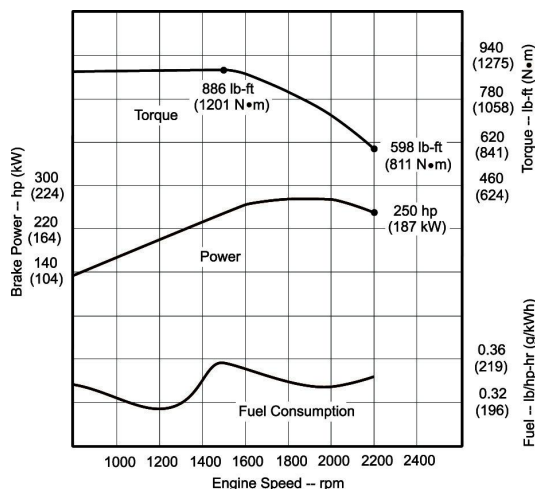
##### Peak torque

1201 N-m ( 886 ft-lb) @ 1500 rpm

Torque Rise %

48% @ 1500 rpm

**Performance curve**



**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

**Engine Performance**

- Multiple rated speeds to further reduce noise and improve fuel economy
- New higher peak torque ratings
- Better transient response time
- Greater levels of low speed torque
- Higher levels of power bulge

**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 "auto-prime" feature; directed top-liner cooling



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