PowerTech ™ PVX 6068HFG94 Diesel Engine

Generator Drive Engine Specifications





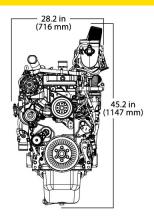
6068HFG94 shown

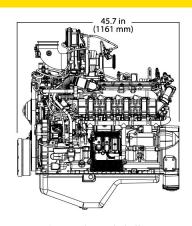
Emissions

CARB

EPA Interim Tier 4

Engine dimensions





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

General data

| Model | 6068HFG94 |
|--------------------------|---|
| Number of cylinders | 6 |
| Displacement - L (cu in) | 6.8 (415) |
| Bore and Stroke mm (in) | 106 x 127 (4.17 x 5.00) |
| Compression Ratio | 17.2:1 |
| Engine Type | In-line, 4-cycle |
| Aspiration | Turbocharged and air-to- air aftercooled |

| Length - mm (in) to rear of block | 1161 (45.7) |
|-----------------------------------|-------------|
| Width - mm (in) | 716 (28.2) |
| Height mm (in) | 1147 (45.2) |
| Weight, dry - kg (lb) | 767 (1691) |

Performance data range Rated fan power Calculated generator set output Engine power Rated Generator Power Prime Standby speed efficiency factor kW hp k₩e kVA Hz(rpm) 60(1800) 137-164 183-220 201-241 89-93 9-10.8 12.1-14.5 0.8 114-143 143-17 9 125-157 157-197

Prime power is the nominal power an engine is capable of delivering with a variable load for an unlimited number of hours per year when applied in conformance with ISO 8528-1. This rating conforms to ISO3046 and SAE J1995.

Standby power is the maximum engine power available at varying load factors for up to 200 hours per year when applied in conformance with ISO 8528-1. This rating conforms to ISO 3046 and SAE J1995. The calculated generator set rating range for standby applications is based on minimum engine power (nominal -5 percent) to provide 100 percent meet-or-exceed performance for assembled standby gen-sets.

*Electrical power is calculated from the typical generator efficiency and fan power percentages shown. Applications may vary.

| DOC/DPF Dimensions | |
|--------------------|--------------|
| Size | 5 |
| Diameter - mm (in) | 320.5 (12.6) |
| Length - mm (in) | 891.9 (35.1) |
| Weight - kg (lb) | 30 (66.1) |

See your John Deere Power Systems engine distributor for more information on available filter size options.

Features and Benefits

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

 The HPCR fuel system provides variable common – rail pressure and higher injection pressures up to 1,975 bar (29,000 psi). It also controls fuel injection timing and provides precise control for the start, duration, and end of injection.

4-Valve Cylinder Head

 The 4 – valve cylinder head provides excellent airflow by utilizing a cross – flow design.

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 ensure proper EGR flow.
 The combination of the cooled EGR and VGT provide low – speed torque, quicker transient response, higher – peak torque, and world – class fuel economy.

Air-to-Air Aftercooled

 This is the most efficient method of cooling intake air to help reduce engine emissions. It enables an engine to meet emissions regulations with better fuel economy and the lowest installed costs.

Exhaust Filters

These engines utilize an exhaust filter that contains a diesel oxidation catalyst (DOC) and a diesel particulate filter (DPF). The DOC reacts with exhaust gases to reduce carbon monoxide, hydrocarbons, and some particulate matter (PM). The downstream DPF traps and holds the remaining PM. Trapped particles are oxidized within the DPF through a cleaning process called passive regeneration. Passive regeneration occurs during normal operating conditions when heat from the exhaust stream and catalysts the DOC within the exhaust filter trigger the oxidation of the trapped PM. If passive regeneration cannot be achieved due to temperature, load, or speed, then PM is removed using active regeneration — an automatic cleaning process controlled by the exhaust temperature management system.

John Deere Electronic Engine Controls

 Faster engine control unit (ECU) manages both the engine and the exhaust filter; full authority electronic controls; four times the memory, twice the RAM, and double the processing speed; the input/output capability has increased 40%.

Additional Features

Compact size: lower installed cost; mounting points are the same as previous
engine models; glow plugs; 500 – hour oil change; self – adjusting poly – vee
fan drive; variable – speed fan drive increases fuel economy and decreases
noise levels; R.H. and L.H. engine-mounted fi nal fuel filters; aluminum piston
with integrated oil cooled gallery; low – pressure fuel system with electrical
transfer pump and "auto – prime" feature.

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