

PowerTech™ E

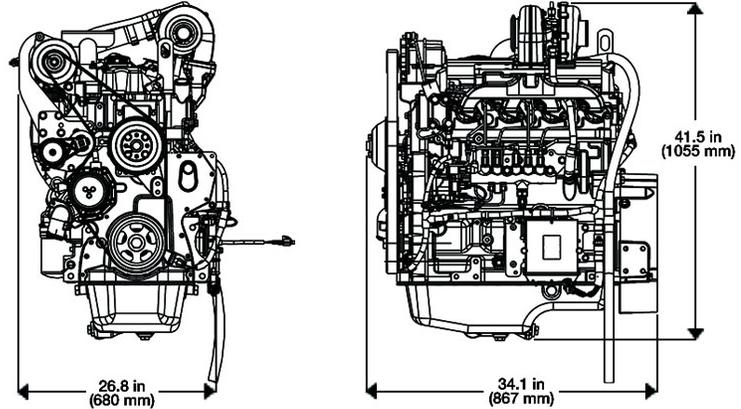
4045TF285 Diesel Engine

Industrial Engine Specifications



4045TF285 shown

Engine dimensions



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

Emissions

CARB
EPA Tier 3
EU Stage III A
MSHA

General data

Model	4045TF285
Number of cylinders	4
Displacement - L (cu in)	4.5 (275)
Bore and Stroke-- mm (in)	106 x 127 (4.17 x 5.00)
Compression Ratio	19.0:1
Engine Type	In-line, 4-Cycle
Aspiration	Turbocharged

Length - mm (in)	867 (34.1)
Width - mm (in)	680 (26.8)
Height-- mm (in)	1055 (41.5)
Weight, dry - kg (lb)	491 (1082)

Performance data range

Application ratings	Heavy Duty
Rated power/Rated speed	63-74 kW (84-99 hp) @2200-2400rpm
Peak power	65-74 kW (87-99 hp) @2000-2400rpm
Power bulge	0-3% @ 1900rpm
Peak torque	353-354 N.m (260-261ft-lb) @1600rpm
Torque rise	20-29%

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

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

Features and Benefits

2-Valve Cylinder Head

- Cross flow head design that provides excellent breathing from a lower cost two-valve cylinder head

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

Fixed Geometry Turbocharger

- Fixed geometry turbochargers are sized for a specific power range and optimized to provide excellent performance across the entire torque curve. They are also designed to maximize fuel economy between the engine's rated speed and peak torque.

Turbocharged

- In turbocharged engines, the air is pre-compressed. Due to the higher pressure, more air is supplied into the combustion chamber allowing a corresponding increase in fuel injection which results in greater engine output.

Multiple Injection Strategy

- The new HPCR fuel system and engine control unit (ECU) allow for multiple fuel injections. The number of fuel injections, based on speed and load, help contribute to lower combustion temperatures, which reduce the formation of NOx and particulates. The multiple injection strategy also provides an added benefit of noise reduction

John Deere Electronic Engine Controls

- PowerTech E engines offer electronically controlled fuel systems with improved cold-start performance, precise engine speed control, torque curve shaping and more. Because these systems have less need for redundant sensors, add-on electronic governors, and shutdown devices - they result in a lower total installed cost.

Compact Size

- Mounting points are the same as Tier 2/Stage II engine models

Additional Features

- Self-adjusting poly-vee fan drive
- Forged-steel connecting rods
- Replaceable wet-type cylinder liners
- Either-side service
- 500-hour oil change
- Standard gear auxiliary drive