JOHN DEERE

PowerTech™ E

4045T Diesel Engine

Specifications

4045TF Engine shown

General Data

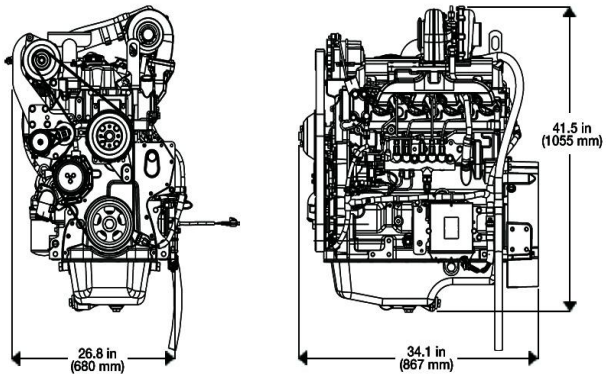
Model	4045TF285
Number of cylinders	4
Displacement-- L (cu in)	4.5 (275)
Bore and Stroke-- mm (in)	106 x 127 (4.17 x 5.00)
Compression Ratio	19.0:1
Engine Type	In-line, 4-Cycle
Aspiration	Turbocharged
Length-- mm (in)	867 (34.1)
Width-- mm (in)	680 (26.8)
Height-- mm (in)	1055 (41.5)
Weight, dry-- kg (lb)	491 (1082)

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



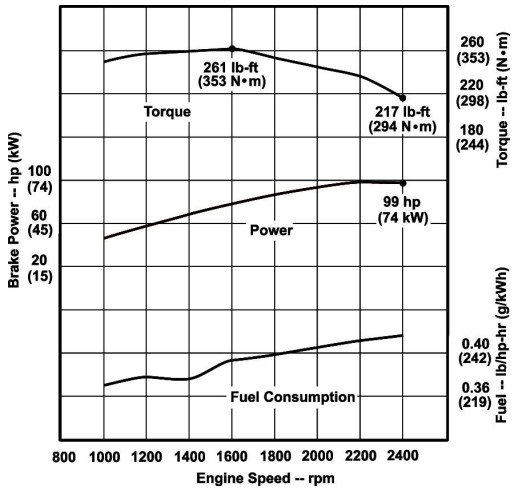
Performance data

Rated Speed	
Intermittent	74 kW (99 hp) @ 2400 rpm
Peak power	74 kW (99 hp) @ 2400 rpm
Power bulge %	0% @ NA rpm
Peak torque	353 N·m (260 ft-lb) @ 1600 rpm
Torque Rise %	20% @ 1600 rpm

Photographs may show non-standard equipment.

Specifications

Performance curve



Features and Benefits

High-Pressure Common Rail Fuel System
- Higher injection pressures, up to 1600 (23,500 PSI), variable injection pressure, variable timing control, multiple injections

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

Fixed Geometry Turbocharger
- Fixed geometry turbochargers are precisely matched to the power level and application

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

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

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
- 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, wiring harness and associated components; industry standard SAE J1939 interface which communicates with other vehicle systems, eliminating redundant sensors and reducing vehicle total installed cost

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

Engine Performance
- New power bulge feature
- Increased low-speed torque
- New higher-peak torque speed
- Faster torque rise
- Lower-rated speeds available for reduced noise and improved fuel economy

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

John Deere Power Systems
3801 John Deere Road
PO Box 5100
Waterloo, IA 50704-5100
Phone: 319.292.5400
Fax: 319.292.5075

John Deere Power Systems
Usine de Saran
La Foulonnerie - B.P. 11.13
45401 Fleury les Aubrais Cedex
France
Phone: 33.2.38.82.61.19
Fax: 33.2.38.82.60.00

All values at rated speed and power with standard options unless otherwise noted.
Specifications and design subject to change without notice.