

# PowerTech™ E

## 4045TF285 Diesel Engine

Industrial Auxiliary Engine with US EPA Marine Tier 3 Emissions Certification for US Waterways



**JOHN DEERE**

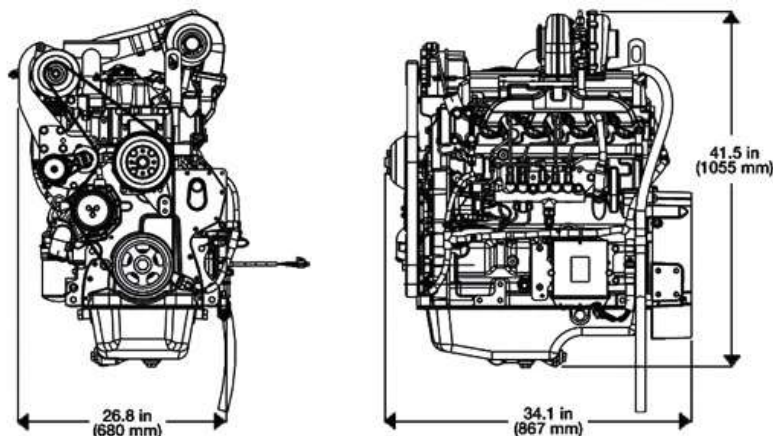


4045T shown

### Certifications

EPA Marine Tier 3

### Engine dimensions



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

### General data

|                           |                        |                                   |             |
|---------------------------|------------------------|-----------------------------------|-------------|
| Model                     | 4045TF285              | Length – mm (in) to rear of block | 867 (34.1)  |
| Number of cylinders       | 4                      | Width – mm (in)                   | 680 (26.8)  |
| Displacement – L (cu in)  | 4.5 (275)              | Height – mm (in)                  | 1055 (41.5) |
| Bore and Stroke – mm (in) | 106 x 127 (4.17 x 5.0) | Weight, dry – kg (lb)             | 491 (1082)  |
| Engine Type               | In-line, 4-cycle       |                                   |             |
| Aspiration                | Turbocharged           |                                   |             |

See your John Deere marine dealer or engine distributor for complete specifications on our full line of auxiliary drive engines.

### Performance Data

|                     |                               |
|---------------------|-------------------------------|
| Application Ratings | Variable Speed                |
| Rated Power         | 74 kW (99 hp) @ 2200 rpm      |
| Peak Power          | 74 kW (99 hp) @ 2200 rpm      |
| Power Bulge         | 0% @ NA rpm                   |
| Peak Torque         | 370 Nm (273 ft-lb) @ 1600 rpm |
| Torque Rise         | 15% @ 1600 rpm                |

## 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 (VGT)

- 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