PERFORMANCE DATA

Rated Power
Intermittent 173 hp (129 kW) @ 2400 rpm
Continuous 156 hp (116 kW) @ 2400 rpm

Peak Torque
Intermittent 476 lb-ft (645 N.m) @ 1400 rpm

Fuel Economy
BSFC 0.355 lb/hp-hr (216 g/kWh) @ 2400 rpm

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.
POWER OUTPUT is within + or - 5% at standard SAE J 1995 and ISO 3046.
TIER 2 EMISSION CERTIFICATIONS: CARB, EPA, and EU.

PERFORMANCE CURVE

Photographs may show non-standard equipment
**GENERAL DATA**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>4045HF475</td>
</tr>
<tr>
<td>Number of Cylinders</td>
<td>4</td>
</tr>
<tr>
<td>Displacement - L (cu.in)</td>
<td>4.5 (276)</td>
</tr>
<tr>
<td>Bore and Stroke - in. (mm)</td>
<td>4.19 x 5.00 (106 x 127)</td>
</tr>
<tr>
<td>Compression Ratio</td>
<td>17.0:1</td>
</tr>
<tr>
<td>Engine Type</td>
<td>In-line, 4-Cycle</td>
</tr>
<tr>
<td>Aspiration</td>
<td>Turbocharged</td>
</tr>
<tr>
<td>Length - in. (mm)</td>
<td>33.9 (862)</td>
</tr>
<tr>
<td>Width - in. (mm)</td>
<td>23.8 (605)</td>
</tr>
<tr>
<td>Height - in. (mm)</td>
<td>40.3 (1025)</td>
</tr>
<tr>
<td>Weight - lb. (kg)</td>
<td>994.3 (451)</td>
</tr>
</tbody>
</table>

**DIMENSIONS**

![Dimensions Diagram]

**FEATURES AND BENEFITS**

**High Power Density**
- High power density allows an OEM to use engines of a smaller displacement, reducing total install cost

**Improved Fuel Economy**
- Up to 5% better than like two-valve engines or larger displacement engines

**Glow Plugs**
- Glow plugs provide superior cold weather starting

**Noise Reduction**
- Up to 2dB(A) reduction

**Exhaust Port Liners**
- Exhaust port liners provide best-in-class heat rejection allowing for a smaller cooling package and a lower total installed cost

**4-Valve Cylinder Head**
- New cylinder head with 4-valve design provides increased air flow resulting in higher low speed torque and better transient response time

**Centered, Vertical Injectors**
- Engines burn cleaner, resulting in lower emission and improved fuel economy with the aid of vertical injectors

**High-Pressure Common Rail Fuel System**
- Higher (33%) injection pressures, up to 1600 bar (23,000 psi)
- Variable injection pressure and timing control

**John Deere Electronic Controls**
- John Deere electronically controlled fuel systems monitor critical engine functions and either derates or shuts down (override capability provided) an engine to prevent costly engine repairs
- Built in controls eliminate the need for costly add-on engine warning/shutdown systems and associated components
- Service diagnostics and error codes automatically stored for later retrieval, increasing machine uptime
- Performance connector part of engine wiring harness which allows for programming of multiple power curves and droop or isochronous governor regulation

**500-Hour Oil Change**
- Customers save significant costs on oil, filters and labor with a 500-hour oil change interval

*Specifications and design subject to change without notice*