**JD646 COMPACTOR**

**ENGINE PERFORMANCE**

<table>
<thead>
<tr>
<th>RPM</th>
<th>Horsepower</th>
<th>Torque (lb-ft)</th>
<th>Fuel Consumption (gpm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1500</td>
<td>131 SAE net hp (133 PS)</td>
<td>250</td>
<td>1.5</td>
</tr>
<tr>
<td>1750</td>
<td>120 SAE net hp (123 PS)</td>
<td>220</td>
<td>1.4</td>
</tr>
<tr>
<td>2000</td>
<td>100 SAE net hp (103 PS)</td>
<td>190</td>
<td>1.2</td>
</tr>
<tr>
<td>2250</td>
<td>80 SAE net hp (82 PS)</td>
<td>160</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**FEATURES**

- 131 SAE net hp (133 PS)
- Protective guards:
  - Rear bottom
  - Hydraulic lines
  - Engine
  - Transmission
  - Articulation
  - Radiator
  - Front drive line
- 4-wheel drive
- Choice of 3 landfill buckets
- Torque converter w/Power Shift transmission
- Power steering, articulated frame
- 4-wheel, wet-disk brakes and parking brake
- Inboard planetary final drives
- Single-lever control w/automatic return to dig
- No-Spin front axle differential
- Vandal protection
- Roll-over protective structure (ROPS) w/cab

*SAE Standard*
Horsepower (at 2,200 engine rpm):

<table>
<thead>
<tr>
<th>Specification</th>
<th>SAE</th>
<th>PS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross</td>
<td>141</td>
<td>143</td>
</tr>
<tr>
<td>Net</td>
<td>131</td>
<td>133</td>
</tr>
</tbody>
</table>

*Net engine flywheel horsepower is for an engine equipped with fan, air cleaner, water pump, lubricating oil pump, fuel pump, alternator, and muffler. The gross engine horsepower is without fan. Gross and net flywheel horsepower ratings are under SAE standard conditions of 569-h. altitude and 85°F. temperature and DIN 70 020 (non-corrected). Engine maintains rated horsepower up to 10,000 feet (3000 m) altitude.

Engine: John Deere diesel, vertical 6-cylinder, valve-in-head, 4-stroke cycle—Turbo Built with turbocharger.

Bore and stroke: 4.25x4.75 in. (108x121 mm)

Piston displacement: 404 cu. in. (6620 cm)

Compression ratio: 16.5 to 1

Maximum torque @ 1,600 rpm: 348 lb-ft (48,1 kg-m)


Torque Multiplication Ratio: 3.2 to 1

Differentials:
- Front: No-Spin
- Rear: Standard

Drive Axles:
- 4-wheel drive with inboard-mounted planetary gears to each wheel. Front axle fixed. Rear axle oscillates 22 degrees total. 15.3 in. (339 mm) vertical travel at center of tire

Recommended Travel Speeds:
- Forward and reverse: 4.5 mph (7.2 km/h) maximum

Brakes:
- Service: Power actuated, 4-wheel, inboard-mounted wet disk.
- Foot-operated by either right or left pedal.
- Parking: 10x1.5-in. (254x38 mm) expanding shoe on transmission output shaft. Adjustable, hand operated with warning light on dash.

Steering:
- Full power steering. Frame articulated 80 degrees by two hydraulic cylinders. Turning radius of 15 ft. 6.7 in. (4.74 m).
- Turning clearance is 36 ft. 10.8 in. (11.25 m).

Hydraulic Systems:
- Loader functions: Live, transmission-driven, vane pump delivers 60 gpm (227 lpm) at 2,200 engine rpm and 2,250 psi (156.2 kg/cm²) relief-ve valve pressure setting.
JD646 COMPACTOR DIMENSIONS

9 ft. 11 in. (3.06 m)

10 ft. 3.4 in. (3.13 m)

3 ft. 10.8 in. (1.14 m)

12 ft. (3.66 m)

8 ft. 5.75 in. (2.68 m)

32 in. (0.81 m)

20 ft. 8 in. (6.30 m)

2 in. (51 mm)