Funk™ Series 1600 Axle
Industrial Drivetrain Specifications

General data
- Peak vertical load: 395,000 N (88,000 lb)
- Peak axle torque: 67,700 Nm (600,000 in-lb)
- Oil capacity: 45 L (48 qt)
- Flange to flange narrow: 1994 mm (78.50 in)
- Flange to flange standard: 2094 mm (82.40 in)
- Flange to flange wide: 2198 mm (86.54 in)
- Approximate dry weight: 1270 kg (2800 lb)

Dimensions

Axle reduction ratios

<table>
<thead>
<tr>
<th>Spiral bevel reduction</th>
<th>Final drive reduction</th>
<th>Total reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.364</td>
<td>3.714</td>
<td>16.208</td>
</tr>
<tr>
<td>5.273</td>
<td>3.714</td>
<td>19.584</td>
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<tr>
<td>5.818</td>
<td>3.714</td>
<td>21.608</td>
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<tr>
<td>4.364</td>
<td>5.143</td>
<td>22.444</td>
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<tr>
<td>5.273</td>
<td>5.143</td>
<td>27.119</td>
</tr>
<tr>
<td>5.818</td>
<td>5.143</td>
<td>29.922</td>
</tr>
</tbody>
</table>

Differential options

- Standard
- Hydraulic DIF-LOK

Specifications and design subject to change without notice. Ratings may vary depending on application and service. Application and installation are subject to review by John Deere.
Performance data

### Performance data

![Graph showing performance data for John Deere Power Systems.](image)

- **Custom features**
  - Inboard planetary final drive design
  - Increases tire size flexibility since the planetary does not compete for wheel space
  - Enables a wider variety of acceptable track widths than outboard designs
  - One integral oiling and cooling system
  - Reduces heat transfer to tires
  - Independent or dual-service brake actuation
  - Spiral bevel gear set design allows bidirectional operation
  - Input housings designed for use with oscillation hardware
  - Spring-applied hydraulic release or manually applied parking brakes on fixed mounted axles
  - Inboard wet brakes increase reliability and provide spark-free operation for regulatory compliance in hazardous environments
  - One oil supply for all planetary, brake, and differential components for better cooling

- **Cost-effectiveness**
  - John Deere can custom build an axle to your specific torque and load requirements. Our building-block design consists of 12 modules of varying sizes, load capacities, ratios, and specifications. The best torque and load carrying capacity will be selected based on your application.
  - Three axle families to better match your requirements
  - Gray or ductile iron axle housings for improved load-matching
  - Standard or heavy-duty wheel bearings
  - Standard or extra-wide planetaries for better torque, shock, and reverse load-matching

- **Long axle life**
  - Final drives, spiral bevel gear set, and structural components designed for extreme applications
  - Planetaries not packaged into the wheel, allowing for larger size, making torque and forward-reverse transitions reliable
  - Sliding tooth contact spiral bevel gear set is minimized for longer life
  - Large oil sump ensures cool operation, prolonging life of the spiral bevel gear set, final drives, differential bearings, and pinion bearings
  - Inboard wet disc brakes protected from contaminants and last up to four times longer than dry disc brakes
  - Inboard wet disc brakes operate cooler and last longer due to large sump
  - No brake lines at the wheel end that require protection
  - Inboard wet brakes provide spark-free operation for regulatory compliance in hazardous environments

- **Reliability**
  - Application engineers ensure axle specifications meet your vehicle torque, load, and operating performance requirements

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**Features and benefits**

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**Cost-effectiveness**

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All values at rated speed and power with standard options unless otherwise noted.
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