

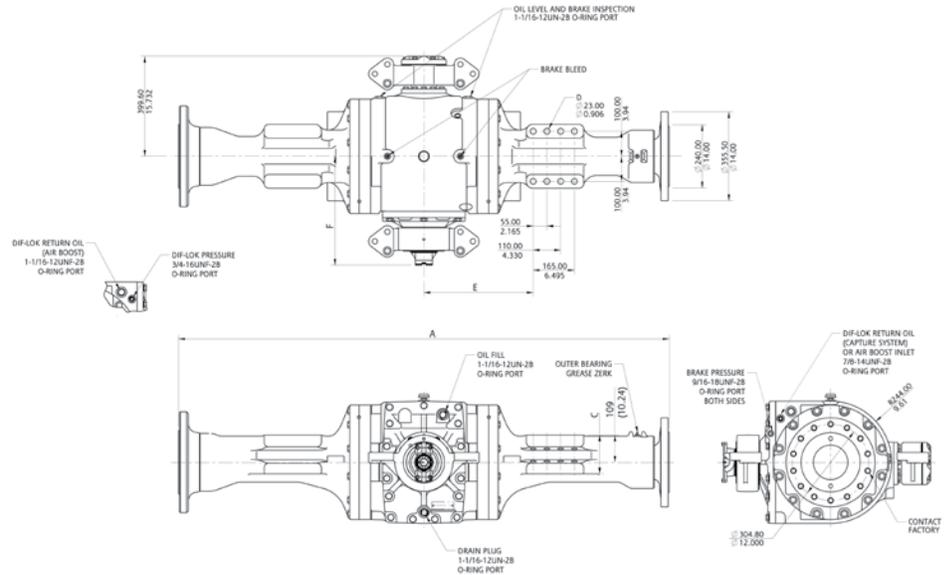
Funk™ Series 1400 Axle

Industrial Drivetrain Specifications



JOHN DEERE

Dimensions



General data

Peak vertical load	300,000 N (67,000 lb)
Peak axle torque	47,400 Nm (420,000 in-lb)
Oil capacity	28 L (30 qt)
Flange to flange narrow	1700 mm (66.93 in)
Flange to flange standard	1953 mm (76.89 in)
For 6.4 final drive ratio	110 mm (4.33 in)
Approximate dry weight	862 kg (1900 lb)

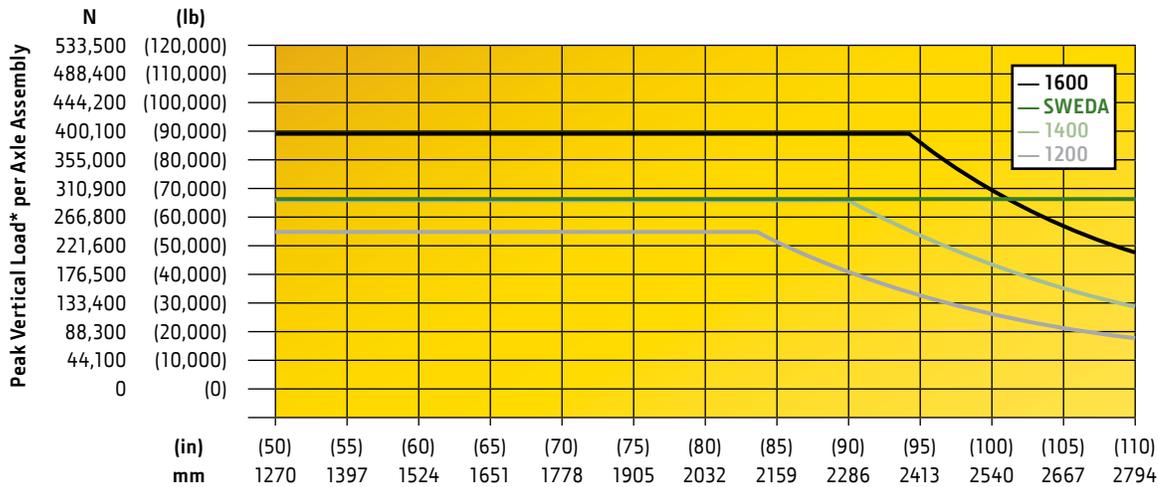
Axle reduction ratios

Spiral bevel reduction	Final drive reduction	Total reduction
4.364	3.714	16.208
4.778	3.714	17.746
5.143	3.714	19.102
4.364	4.800	20.945
4.778	4.800	22.933
5.143	4.800	24.686
4.364	6.000	26.182
4.778	6.000	28.667
5.143	6.000	30.857

Differential options

- Standard
- No-spin DIF-LOK
- Hydraulic DIF-LOK

Performance data



Flange to Flange

*Peak load level (fixed axle) assuming traction-limited condition, 0.5 traction coefficient, and a specified loaded tire rolling radius.

Features and benefits

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