

Spicer® Heavy-Duty Tandem Drive Axles



SPICER®
Drivetrain Products

Stronger and More Durable All Day. Every Day.

Rugged. Durable. Strong.



Efficient. Reliable. Economical.

Spicer® Single-Reduction Heavy-Duty Tandem Drive Axles

Patented axle breather design allows unrestricted air flow and minimizes maintenance

Stronger integral pinion cage and carrier eliminates leak path

Integrated electromagnetic retarder mount for improved safety and brake life

Asymmetric housing fade for added strength

D170 Series Drive Axle

For 40,000, 46,000, and 50,000 lb. applications

Best-in-class inter-axle driveline angles enhance durability and reduce noise, vibration, and harshness

One-piece carrier design with patented power rib on both front and rear axles for enhanced reliability

D190 Series Drive Axle

For applications from 52,000-60,000 lb. gross axle weight



Patented, on-demand lube pump with no-maintenance filter standard on D190 series, optional on D170 series

Learn more about Spicer® Heavy-Duty Tandem Drive Axles at www.dana.com.

Drive Axles for the Toughest Applications

Outworking the Competition		
DRIVE AXLE FEATURE	SPICER® D46-170	MERITOR® RT-46-160*
Wide face width hypoid gearing for greater strength	Yes	No
Integrated systems design resulting in 50% fewer parts for enhanced reliability	Yes	No
Unitized ring gear bolting system with 20 mm bolts for maximum joint retention	Yes	No
Optional, on-demand lube pump for optimum lubrication and efficient operation resulting in lower sump temperatures	Yes	No
Heat-treated steel differential cases minimize gear deflection and wear under heavy loads	Yes	No
Optional, extra heavy wall 16 mm housing for maximum durability	Yes	Yes
Full axle ratio coverage from 3.07 to 7.17:1	Yes	Yes
Patented, flow-thru lubrication system in power divider unit	Yes	No
Patented, differential hypoid offsets to minimize drivetrain vibration	Yes	No
Threaded input bearing adjuster to minimize end play for maximum seal life	Yes	No
One-piece carrier design for both front and rear axles for enhanced reliability	Yes	No
Asymmetric housing fade for added strength	Yes	No
Optional, integrated driver-controlled wheel differential lock	Yes	Yes
Best standard warranty coverage	Yes	No

Durability is critical in your business. Dana's Spicer® single-reduction heavy-duty tandem drive axles are built for high horsepower, high torque performance under the toughest conditions.

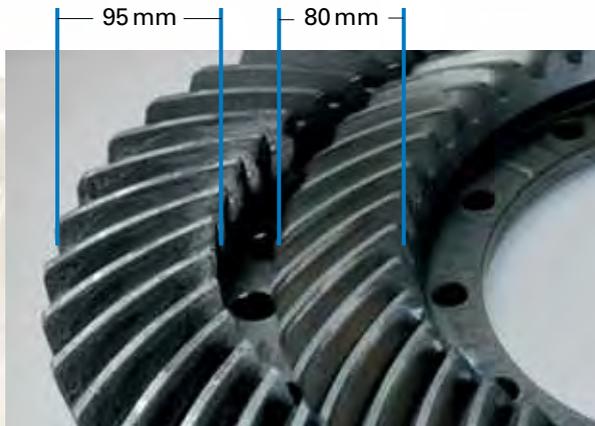
Spicer D170 and D190 series axles deliver exceptional reliability and value for construction, logging, heavy hauling, oil field, refuse, and other demanding applications.

With patented technology, significantly larger and stronger gearing and bearing systems, and forged, heat-treated steel differential cases, these heavy-duty tandem axles deliver world-class reliability while reducing overall component count by more than 50%.

**Up to
60,000 lbs.
gross axle weight
rating (D190)**

**Broad Ratio
Coverage**
3.07 to 7.17:1 (D170)
3.42 to 7.17:1 (D190)

Spicer® D170/D190 Single-Reduction Heavy-Duty Tandem Drive Axles: Strength and Durability with Superior Economy



SPICER® RING GEAR VS. MERITOR® RING GEAR

Spicer gearing is 19% wider, which makes Spicer tandems stronger, more durable, and longer lasting.



**19%
Wider
Gearing**

The robust design of these Spicer® axles exceeds the current powertrain needs of the industry, offering greater reliability at reduced operating cost. More power density is generated without a significant increase in weight. Spicer axles feature 19% wider gearing, ensuring more reliable performance at higher horsepower and torque loads.

Larger wheel differential gearing enhances reliability and strength. Differential cases are made of forged heat-treated steel and are significantly stronger than ductile iron casing to extend gear and bearing life.

Use of an integrated ring gear and wheel differential mounting system improves reliability by eliminating a bolted joint. Sixteen large, fine-pitch, M20 bolt ring gear fasteners provide a high clamp load for reliable performance under stress. The integral pinion cage and carrier eliminates a potential leak path and contributes to the added strength of the system.

**50%
Longer Life
than the nearest
competitor**

Based on Dana's accelerated-life testing.

Broad Ratio Range for a Variety of Vocations

The D170 series for 40,000, 46,000, and 50,000 lbs. GAWR offers ratio coverage from 3.07 through 7.17:1.

The D190 series for 52,000 to 60,000 lbs. GAWR offers ratio coverage from 3.42 through 7.17:1. The strongest axle housing box section in its class gives D190 axles added strength with less deflection. Dana integral welded suspension brackets increase the strength and durability of the D190 series.



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Spicer® Patented Performance Features



SPICER® PINION BEARING VS. MERITOR® PINION BEARING

A higher capacity, large tapered roller bearing system adds durability, reliability, and longevity.

Spicer® D170 and D190 series heavy-duty tandem drive axles feature patented technology and a range of options that ensure optimal performance with less required maintenance.

Patent-pending threaded input cage

Eliminates shims and leak paths to provide improved bearing adjustment.

Patented precision differential bearings

Ensures precise bearing adjustment and eliminates bearing adjusters and locks. The threaded premium bearing cup prevents cups from spinning.

Patented on-demand lube pump

Standard on D190, optional on D170, this pump operates only when needed, in forward or reverse, to avoid excess fuel consumption. No external filters are utilized, so maintenance costs are reduced. With lower operating temperatures, fuel economy is enhanced and uptime is improved, because the axles run up to 12% cooler.



Patented driver-controlled differential lock option for maximum traction

The Spicer design uses fewer parts to improve reliability and eliminate adjustment. Available as an option on both forward and rear axles, this option can be retrofitted in the field throughout the life of the vehicle.

Differential lock-ready carriers are available on some models for easy upgrade at the dealership. Contact your Dana representative for details.

Every Spicer axle features the quality construction and attention to detail that ensures world-class durability and performance for your operation. The Spicer D170 and D190 series axles are supported by an experienced team of expert drivetrain consultants dedicated to providing you with the most comprehensive customer support offerings in the business.





Dana Service and Support

For superior drivetrain solutions and technical support, you can depend on Dana. Through a unique combination of under-the-vehicle knowledge and advanced electronic tools, our experts can respond to customer sales and service requests quickly and help you make the most efficient use of your vehicles.

Find out about warranty coverage, parts and vehicle specifications, repair strategies, and more from an experienced team dedicated to keeping your business moving forward. For more information and assistance, contact the Dana Call Center at 1-877-777-5360.



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