

Spicer® Axles Featuring AdvanTEK® Gearing

A Full Range of Quiet, Lightweight, and Reliable Drive Axles for
Light- and Light-Commercial Vehicle Applications



SPICER®
Drivetrain Products



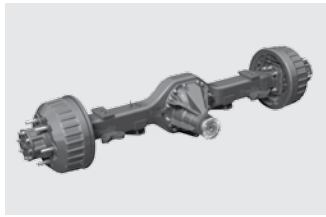
The Axle Advantage

Dana's line of innovative Spicer® axles featuring AdvanTEK® gearing provides best-in-class noise, vibration, and harshness (NVH) performance and greater power density in a lightweight, compact package.

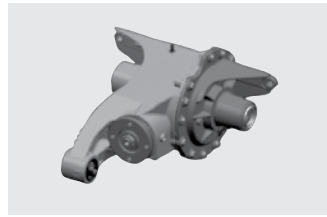


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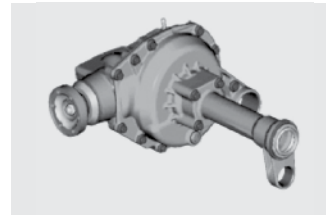
A Complete Line of Quiet, Lightweight, and Reliable Drive Axles Designed for Today's Light-Vehicle Buyers



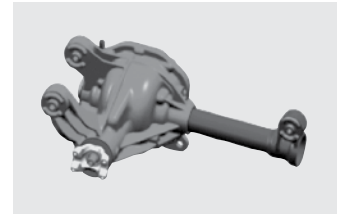
Salisbury or Banjo beam axle designs



Rear Independent Suspension split-case design



Front Independent Suspension split-case design



Front Independent Suspension Salisbury design

Beam-style axles are offered in Salisbury and Banjo construction, while independent axle styles include split-case and Salisbury designs.

Light-Vehicle Driveline AdvanTEK Gearing Product Range

Product – Standard Features		Manufacturing – Standard Features	
Offers smaller gears than traditional products due to highest power density		Build to pattern	
2 or 3 axis gearing, ranging from 140 mm to 300 mm		3-point backlash	
Banjo, Salisbury, or split-case designs		Torque to rotate build on bearings	
Differential gear backlash control		40 MTE (motion transmission error) audit gears	
Fuel-efficient tapered roller bearings			
Options	Benefits	Options	Benefits
Aluminum carrier	8–20 Kg mass reduction	Axle dynamic backlash	Reduced backlash
Synthetic lubricants	Efficiency and durability improvement	Build to preload vs. TTR (total torque rotate)	+/- 500 N vs. +/- 1500 N (preload control)
Hydrodynamic shaft support in differential	Removes shaft support in carrier	Build to position vs. pattern	Objective measurement vs. subjective
Laser welding gear to differential	1.5-5.0 Kg mass reduction	Less than 25 gear MTE	25 MTE 100% check
Angular contact ball bearing with lube restriction	95.64% average efficiency (energy loss ~253 W)	End of line NVH 100% torque fluctuation testing	Objective axle NVH to vehicle correlation check
Ultra-low viscosity oil design	97.87% average efficiency (energy loss ~ 121W)	Super finished gears	Higher friction efficiency and 20°C lower break in temperature
Energy Loss is calculated over New European Driving Cycle. Baseline AdvanTEK® Average Efficiency is 94% with 350 W of Energy Loss. Median axle size used.		Pinion and/or differential balancing	Pinion imbalance capable to 60 g-mm
		Companion flange pilot machined as axle assembly	Pilot run-out to 0.05 mm

Specifications

Ring Gear Size	Typical Torque Capacity	Minimum Gear Ratio	Ring Gear Size	Typical Torque Capacity	Minimum Gear Ratio
140 mm	2,100 Nm	2.35:1	210 mm	6,500 Nm	2.69:1
150 mm	2,700 Nm	2.41:1	220 mm	7,400 Nm	2.69:1
160 mm	3,300 Nm	2.69:1	235 mm	8,700 Nm	3.07:1
170 mm	3,700 Nm	2.69:1	250 mm	11,500 Nm	3.31:1
180 mm	4,300 Nm	3.07:1	275 mm	13,600 Nm	3.58:1
190 mm	5,000 Nm	2.69:1	300 mm	19,000 Nm	3.58:1
200 mm	5,700 Nm	2.69:1			

Dana Holding Corporation
3939 Technology Drive
Maumee, Ohio, USA 43537
T: 419.887.3000
F: 419.887.5961
www.dana.com



SPICER®
Drivetrain Products

Application Policy

Capacity ratings, features, and specifications vary depending upon the model and type of service. Application approvals must be obtained from Dana; contact your representative for application approval. We reserve the right to change or modify our product specifications, configurations, or dimensions at any time without notice.