



SPICER® | **BREVINI®**

Drive and Motion Systems
**Surface and Underground
Mining Applications**



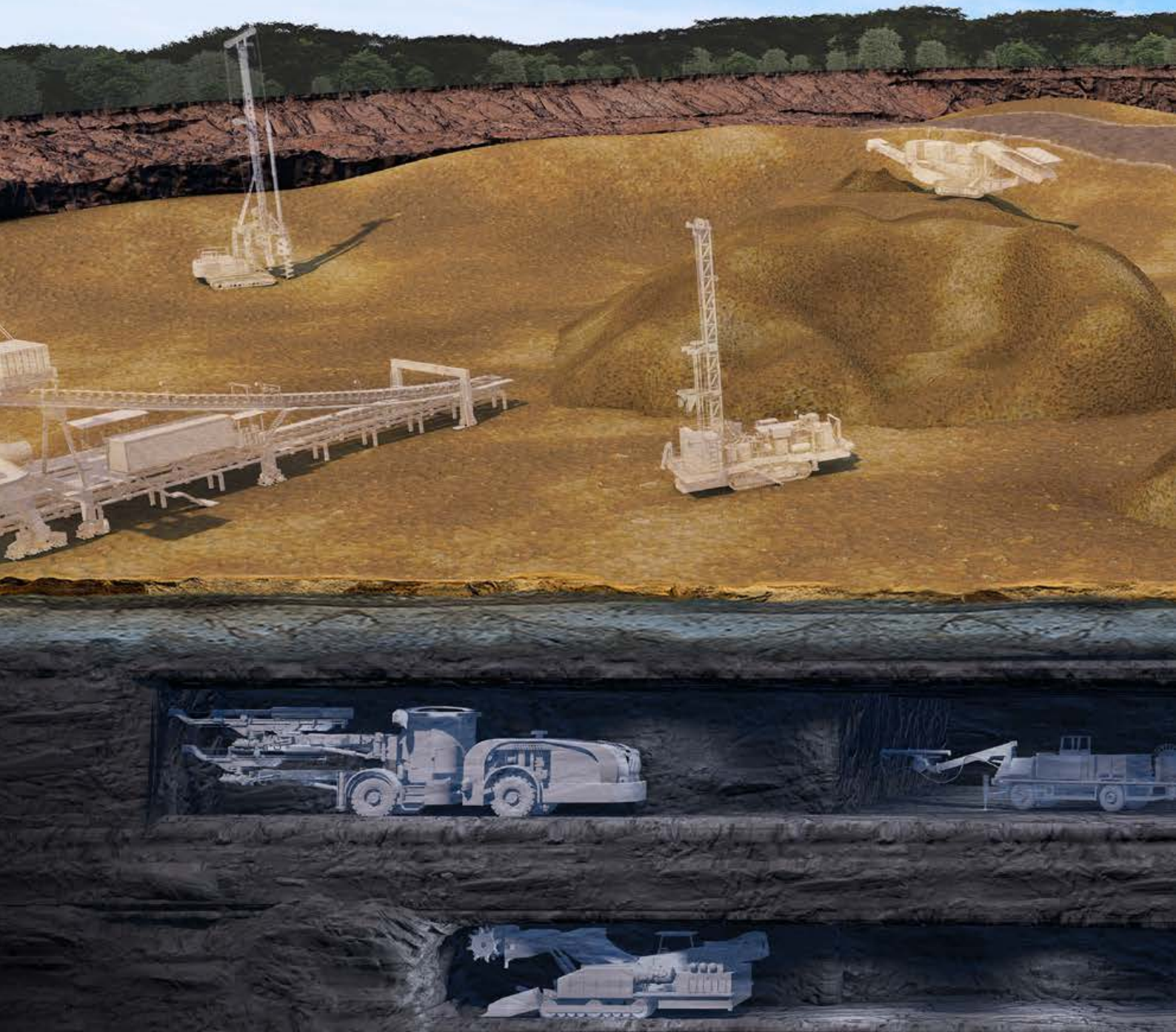
A Full Offering of Drive and Motion Systems for **Surface and Underground Mining Vehicles**

The expanded Dana family of products now includes solutions for both underground and surface mobile applications, as well as industrial surface mining.

**Vertical Drilling
Machines**

**Blast Hole
Drills**

**Self-Propelled
Crushers**



Drill Rigs

Road Headers

Wet Sprayers



SPICER®

BREVINI®

**Mining
Shovels**

**Stack
Reclaimers**

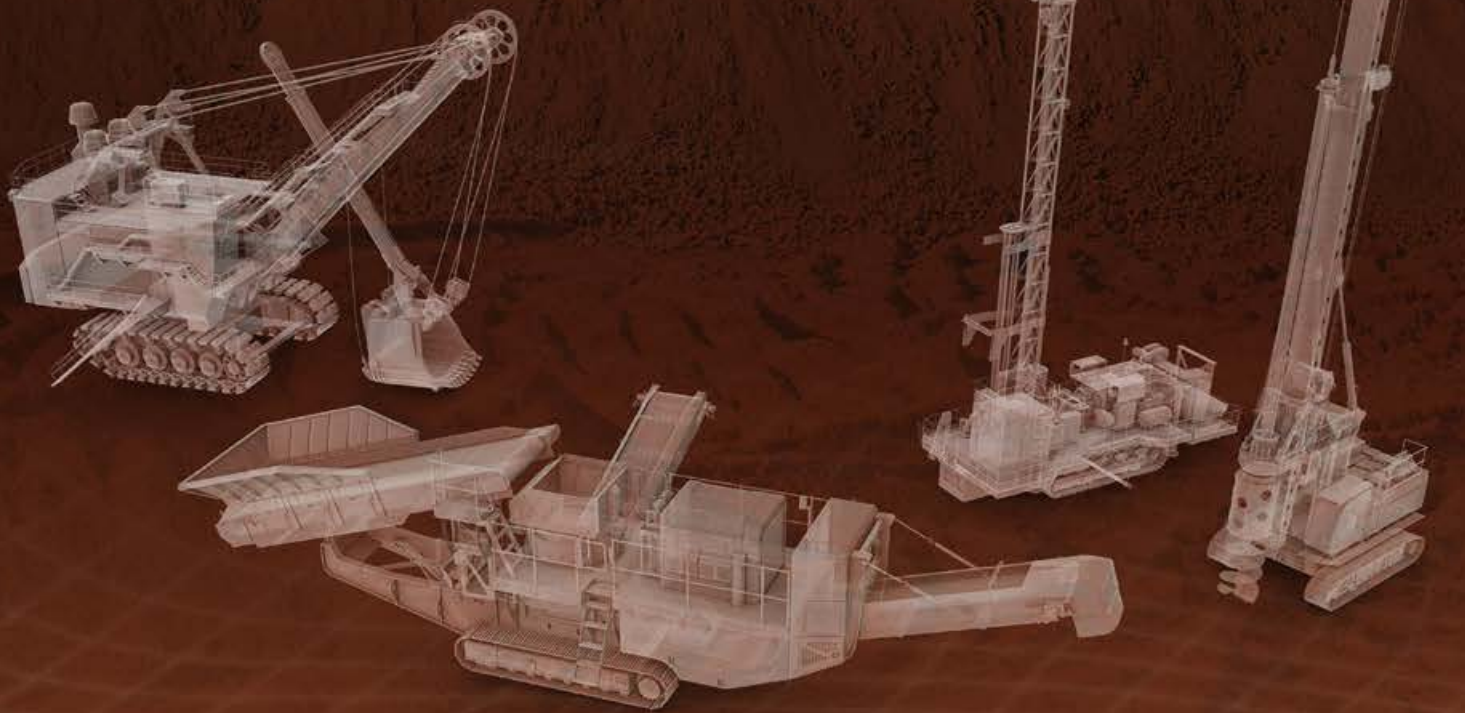
**Conveyors and
Apron Feeders**



Mining Trucks

**Load Haul
Dumpers**

Surface Mining **Mobile Applications**



Drive and Motion Systems



Brevini® Proportional Directional Valves

Oil flow up to 1000 l/min.
High modularity and ATEX certification.
Remotely controlled electronic operation.
Smooth controls to improve operation functionality and accuracy.



Brevini® Orbital Motors

Available in gerotor and geroller set versions.
Three timing system options: spool type, disc type, and disc type with separate driving link.



Spicer® Torque-Hub® Track Drives

Wide range of ratios in combination with Dana Brevini® hydraulic motor and motion control valves.
Compact design solution.
Manual disengagement device for towing.
Hub and spindle made of high-strength material.
Dedicated sealing system designed for severe environmental conditions.
Electric motor version available.



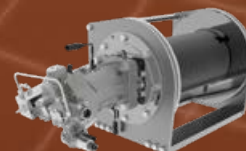
Brevini® Piston Motors and Pump Systems

Displacement up to 226 cc in medium- and high-pressure options.
Fixed and variable displacement available.
Open or closed loop circuits.



Brevini® Planetary Gearboxes

Improved thermal capacity.
Robust design.
Reliable operation, engineered for harsh conditions.
Spheroidal graphite cast iron housing for low temperature applications.
Custom-made output support and pinion.



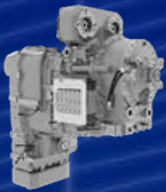
Brevini® Winches

Winches for auxiliary hoist system.
Line pull up to 30 tons.
Wide range of safety controls.
Equipped with Brevini® high-speed axial piston motor.

Underground Mining **Mobile Applications**



Drivetrain Systems



Spicer® Transmissions

Full powershift options with or without lockup. Advanced electronic controls. Highly efficient aluminum-cast converter.



Spicer® Heavy Axles

Designed for high efficiency and ease of service. Provides stable torque performance under the most severe duty cycles.



Spicer® Axles

State-of-the-art design tools, rigorous program management, and comprehensive testing ensure efficient, reliable field performance.



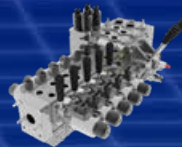
Spicer® Driveshafts

Handles added input torque and heavy loads. Designed for longer life, minimal maintenance, and lower operating cost.



Spicer® Electronic Controls and Sensors

Best-in-class controls optimize productivity, maximize life, and reduce maintenance. Support for OEM movement in digitalization and automation. Capability to combine drive and motion on one platform.



Brevini® Proportional Directional Valves

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Brevini® Orbital Motors

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Brevini® Piston Motors and Pump Systems

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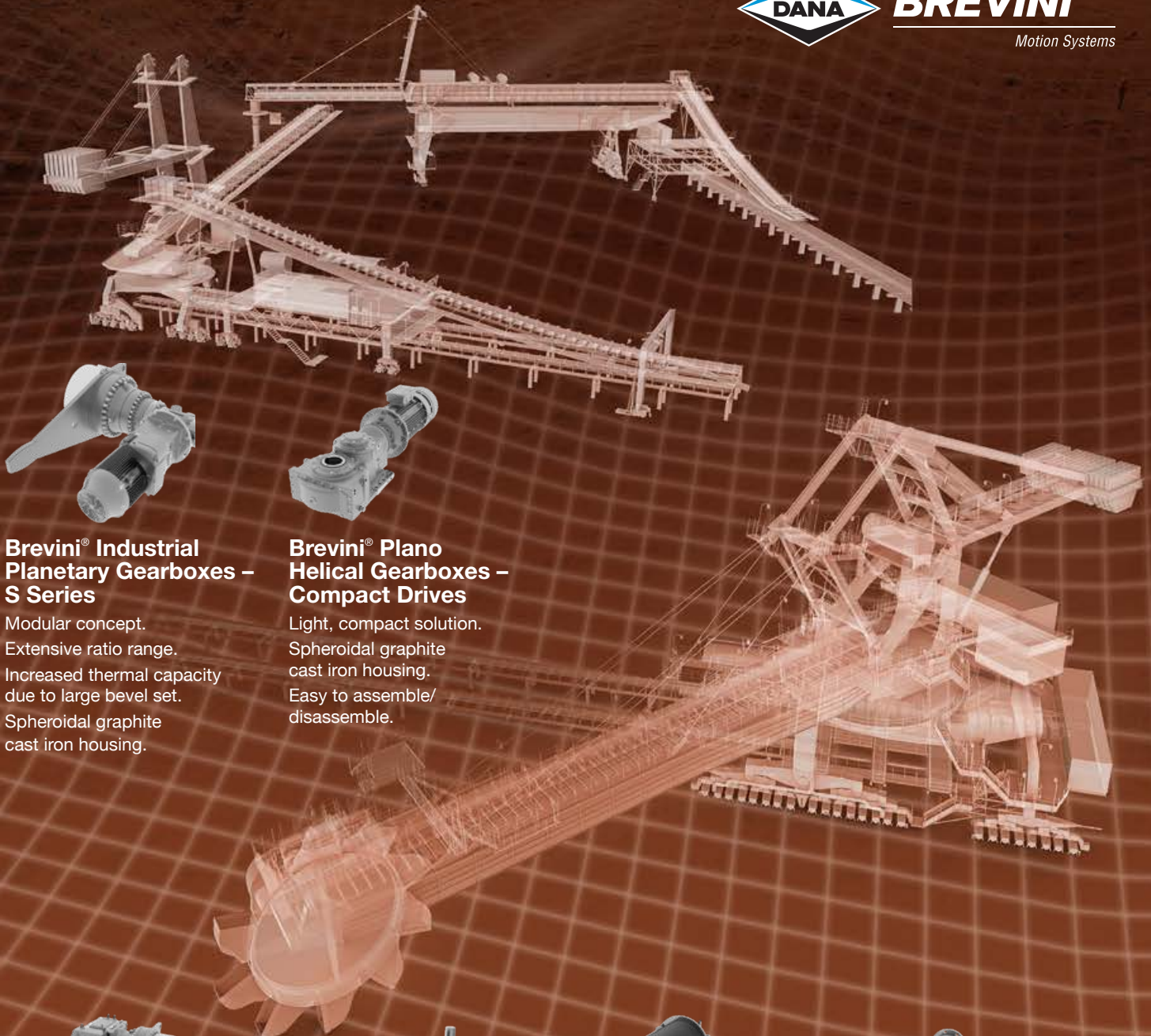
Surface Mining **Industrial Applications**

Dana offers a wide range of Brevini® products for industrial applications and self-propelled machines – from planetary gearboxes to helical and bevel helical gearboxes to winches. Whether you require standard products or individual solutions engineered specifically for their needs – Dana can deliver a customized drive and motion system solution.



BREVINI®

Motion Systems

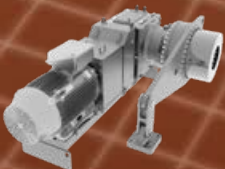


Brevini® Industrial Planetary Gearboxes – S Series

Modular concept.
Extensive ratio range.
Increased thermal capacity due to large bevel set.
Spheroidal graphite cast iron housing.

Brevini® Plano Helical Gearboxes – Compact Drives

Light, compact solution.
Spheroidal graphite cast iron housing.
Easy to assemble/disassemble.

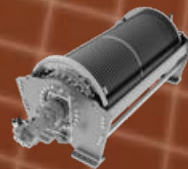


Brevini® Plano Helical Gearboxes – High Power Series

Extensive ratio range.
Increased thermal capacity due to shared oil chamber.
Spheroidal graphite cast iron housing.

Brevini® Helical Bevel Helical Gearboxes – Posired 2 Series

Extensive ratio range.
Increased thermal capacity.
Spheroidal graphite cast iron housing available.
Diverse low-speed shaft options.



Brevini® Winches and Winch Drives

Configurations capable of lifting up to 35 tons.
Suitable for hydraulic or electric motors.
Integrated hydraulic motor for compact solution.
Certified for marine applications.



GWB® Cardan Shafts

Complete product range featuring flange/swing diameters from 120 to 1300 mm.
Designed for ease of maintenance with service-free option.
Engineered to withstand harsh conditions.

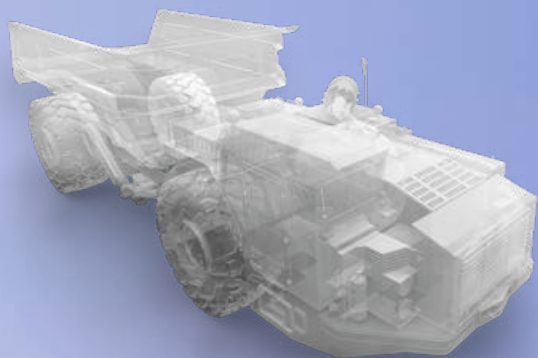
The Only Supplier Delivering Complete Fully Integrated e-Drive Systems

Today, Dana offers a full product portfolio for electrification needs. Through our market-proven brands, we can provide solutions for low- and high-voltage applications ranging from 24 to 800 V. Our product offering includes solutions for both drive and motion systems.



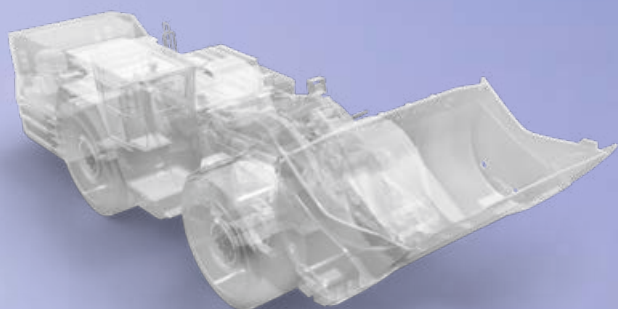
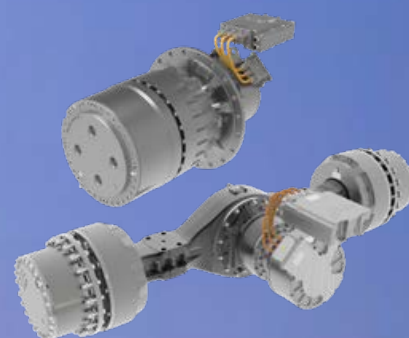
SPICER®
ELECTRIFIED

e-Drive Systems



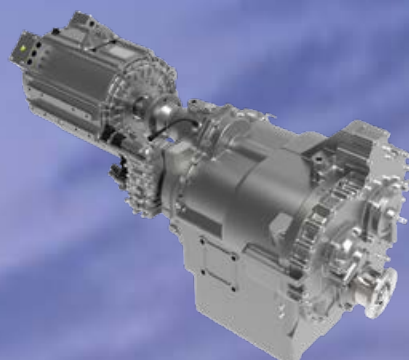
Spicer® Electrified e-Hub Drive and e-Axle

Two high-efficiency driveline options: e-Hub drive is available in wet- and dry-disc brake options, while the e-Axle minimizes impact on vehicle frame.



Spicer® Electrified e-Powershift Transmission

Compatible with IC-engine vehicle architecture with minimal impact on vehicle frame.



Spicer® Electrified e-Gearbox

Based on a concept for a new propulsion system for drills, this e-gearbox joins drilling and driving operations with the same main electric motor.



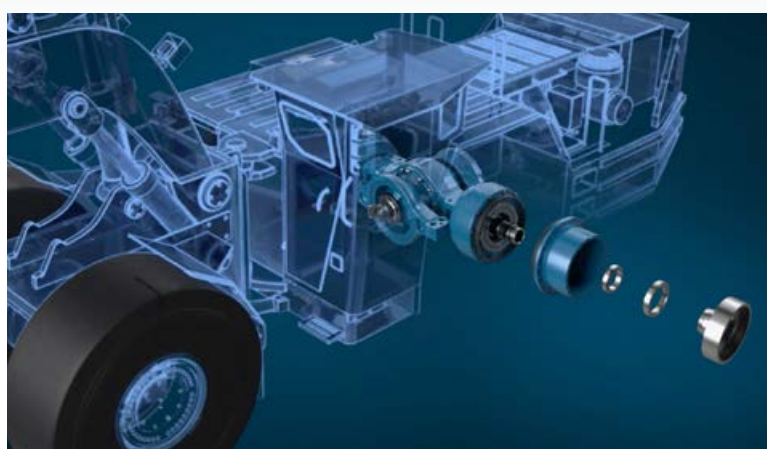


Technologies Customized to **Every Part of the Globe**

With a global presence in 33 countries, Dana Incorporated boasts more than 100 engineering, manufacturing, and distribution facilities. With a worldwide network of local service centers, each customer is assured of the local proximity and responsiveness they need.

About Dana Incorporated

Dana is an integral partner for virtually every major vehicle and engine manufacturer worldwide. We are a leading supplier of drivetrain, sealing, and thermal technologies to the global automotive, commercial-vehicle, and off-highway markets. Founded in 1904, we employ thousands of people across six continents.



Unmatched serviceability while mounted on the vehicle.

About Dana Off-Highway Drive and Motion Technologies

Dana delivers fully optimized Spicer® drivetrain systems and individual product solutions to customers in construction, agriculture, material-handling, underground-mining, and forestry markets, plus Brevini® motion systems for machine working functions. We bring our global expertise to the local level with technologies customized to individual requirements through a network of strategically located technology centers, manufacturing locations, and distribution facilities.

Learn more about Dana's axles and wheel drives for surface and underground mining applications at dana.com/offhighway.

Dana.com/oh/contact

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.



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