



# Surface and Underground Mining

## Off-Highway Drive and Motion Systems



Market-leading Off-Highway  
solutions delivering  
performance throughout  
the complete mining process.

# Off-Highway Drive and Motion Systems

As an innovative leader, we continuously improve the performance and efficiency of vehicles and machines worldwide. We aim to be the global pacesetter in efficient power conveyance and energy-management solutions.

## Mobile



 AGRICULTURE



 MINING



 MATERIAL HANDLING



 CONSTRUCTION AND FORESTRY



 COMMERCIAL TURF CARE

## Industrial



 BULK MATERIAL AND MINING



 ONSHORE AND OFFSHORE MARINE



 INDUSTRIAL AND STATIONARY EQUIPMENT



 HEAVY INDUSTRY: STEEL, SUGAR, AND CEMENT



 WASTE MANAGEMENT AND RENEWABLE ENERGY



 PLASTIC AND RUBBER

# Off-Highway Brand Portfolio

Supported by a legacy of innovation in conventional drivetrains, we are at the forefront of integrating mechanical and electrical components for alternative propulsion applications. We embrace evolution to be a step ahead in supporting new applications as they emerge and collaborating with customers as they develop tomorrow's vehicles.

## Drivetrain and e-Drive Systems

**SPICER™**

## Motion and e-Motion Systems

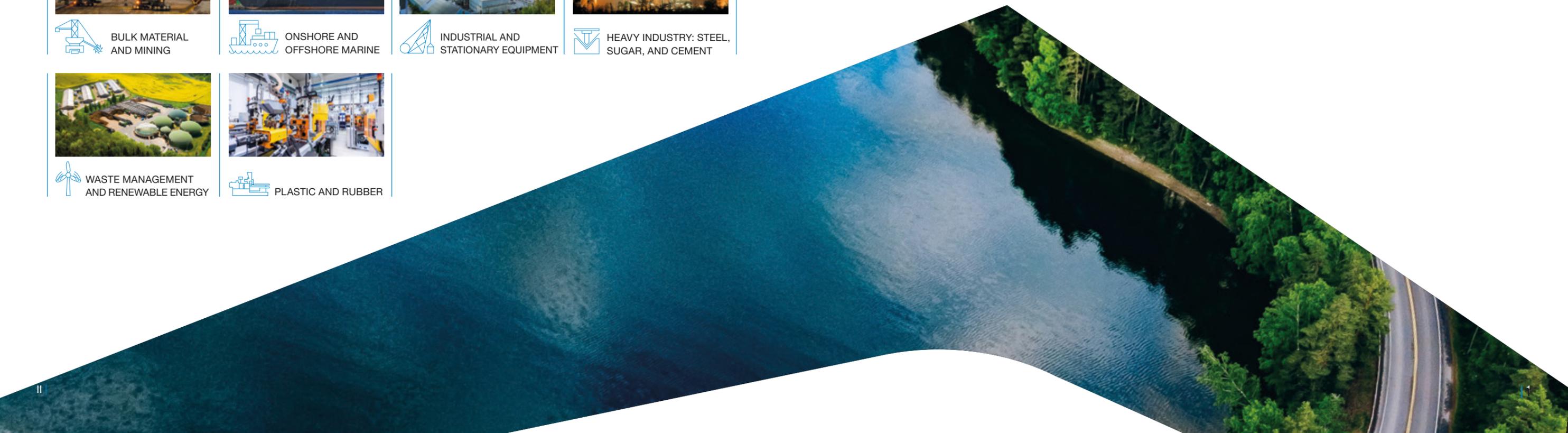
**BREVINI™**

**FAIRFIELD™**

**PIV™** **GLB™**

## Gears and Shifting Solutions

**GRAZIANO™**



## Drive and Motion Innovations

### Propelling Transformations in Mining

The mining industry is facing an unprecedented transformation including accelerating demand for minerals, decarbonization initiatives, the predictive insights available through digitization, and the movement toward autonomous vehicle operation.

From field-proven systems for traditional equipment designs to next-generation hybrid and electric technologies, we offer a wide portfolio of drive and motion solutions to help boost the performance and profitability of mining operations.

Every mine is unique, which is why our global team designs, engineers, and manufactures systems for mobile and industrial applications customized for regional, regulatory, vehicle, application, duty cycle, supply chain, and operator requirements.

Whatever your strategy, our goals remain the same: helping mining enterprises improve efficiency, reduce fuel consumption, promote safety, simplify maintenance, extend life cycles, support sustainability initiatives, and optimize the total return on investment.

## Mobile Solutions

### We Keep Mines Moving

High-productivity mining operations employ a broad spectrum of mobile equipment to promote process efficiency and maximize throughput.

Successful mining operations are defined by their ability to be highly productive and efficient. The evolution of mobile equipment to meet these needs has been constantly accelerating, needing to work together in harmony whilst each with a specific function innovated over decades.

We have over 60 years of crafting advanced solutions, each robustly engineered to satisfy the mining industry's ever-increasing demands.

Recognizing that every application is distinct, we offer a versatile range of Spicer® Drivetrains, Spicer Torque-Hub™ track drives, and Brevini™ motion solutions, designed to help move more material, more efficiently. Our newly certified remanufacturing program breathes new life into your existing transmissions and axles. This not only extends their lifecycles but also enhances the return on investment.

As pioneers in technology, we're spearheading efforts to decarbonize mining. Our low and zero-emission driveline solutions are testament to our commitment to a greener future.



**We're helping OEM's lead the decarbonisation of mines with advanced electrified and hybrid drivetrain solutions**

# Load Haul Dumper



**Spicer® Planetary Rigid Axle**  
20D

- Single piece, cast iron housings withstands the most severe working conditions
- Upgraded sealing solutions specified for the extreme requirements of underground mining



**Spicer® Powershift Transmission**  
TE32

- Seamless gear shifting with proven proportional TE powershift transmission control technology
- 4-speed symmetrical gearing for exceptional performance in both driving directions



**Spicer® Powersplit Transmission**  
HVT2

- CVT powersplit technology providing increased productivity with maximum fuel savings
- Stepless drive with no interrupted acceleration enhances operator comfort



**Spicer® e-Transmission**  
eSP502

- Highly-integrated, zero-emission driveline solution for loader and truck applications
- Dual motor architecture allows for flexibility between high-performance or high efficiency operations

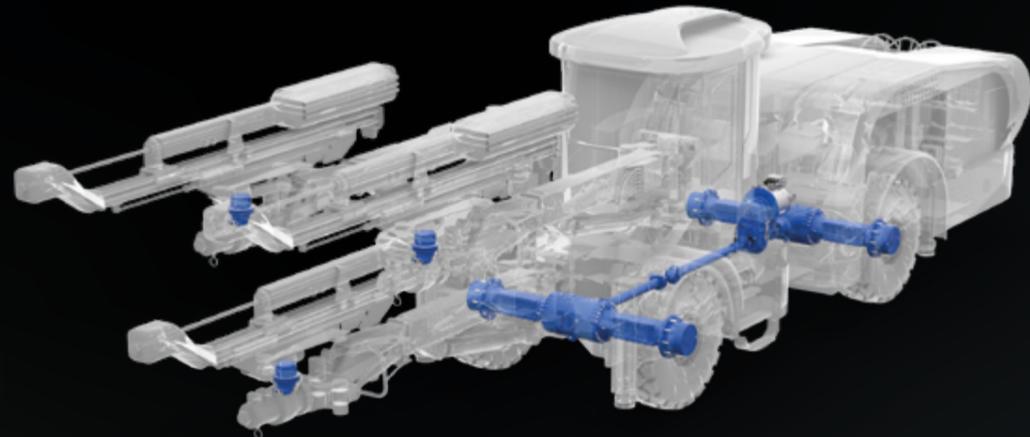


**Spicer® Driveshaft**  
8.5C Series

- A century of quality and innovation
- Multiple driveshaft and end-fitting combinations

We offer customized solutions to meet a range of customer needs, including modular designs and add-on accessories.

# Drill Rig



**Spicer® Planetary Rigid Axle**  
113

- Compact, high-strength axle designs maximise tramming capacity in modern drilling applications
- Integrated positive wet discs brake with negative parking function (SAHR) for safety in operation



**Spicer® Powershift Transmission**  
T14

- Industry-leading powershift transmission, available in both reliable mechanical version to full electronic control system
- 3 or 4 speed fully symmetric gearing for maximum performance in both driving directions



**Spicer Torque-Hub™**  
CTM Series

- Integrated hydraulic motor and gearing system for precise positioning of drilling boom
- Minimised backlash of internal gears stabilizes boom for maximum drilling accuracy



**Spicer® Driveshaft**  
7C Series

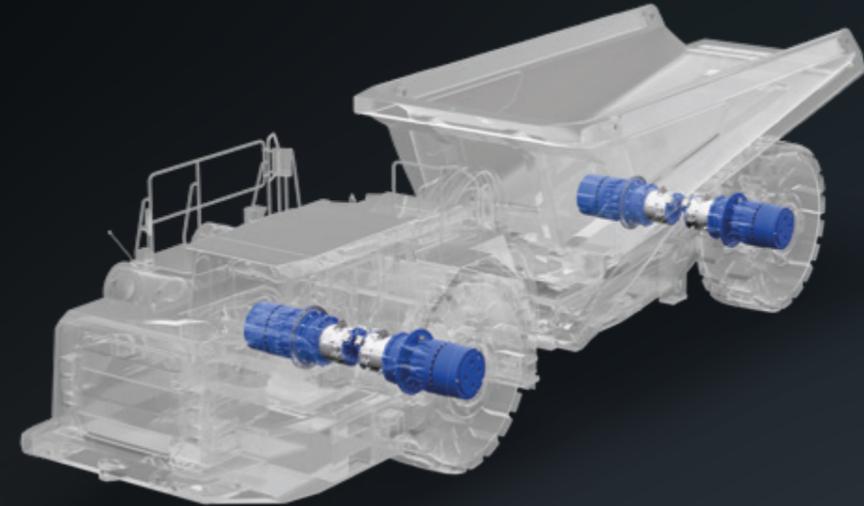
- A century of quality and innovation
- Multiple driveshaft and end-fitting combinations



**Spicer™ e-Gearbox**  
eSG101

- Single speed transmissions' range (3 sizes) designed for input speed up to 12K rpms
- 40% efficiency improvement at double speed compared to a conventional comparable product

# Mining Truck



**Spicer® Planetary Rigid Axle**  
53R

- Single piece, cast iron housings withstands the most severe working conditions
- Upgraded sealing solutions specified for the extreme requirements of underground mining



**Spicer® Powershift Transmission**  
TE50

- Seamless gear shifting with proven TE powershift transmission control technology
- Integrated hydraulic retarder for unparalleled downgrade speed control



**Spicer® Driveshaft**  
9C Series

- A century of quality and innovation
- Multiple driveshaft and end-fitting combinations



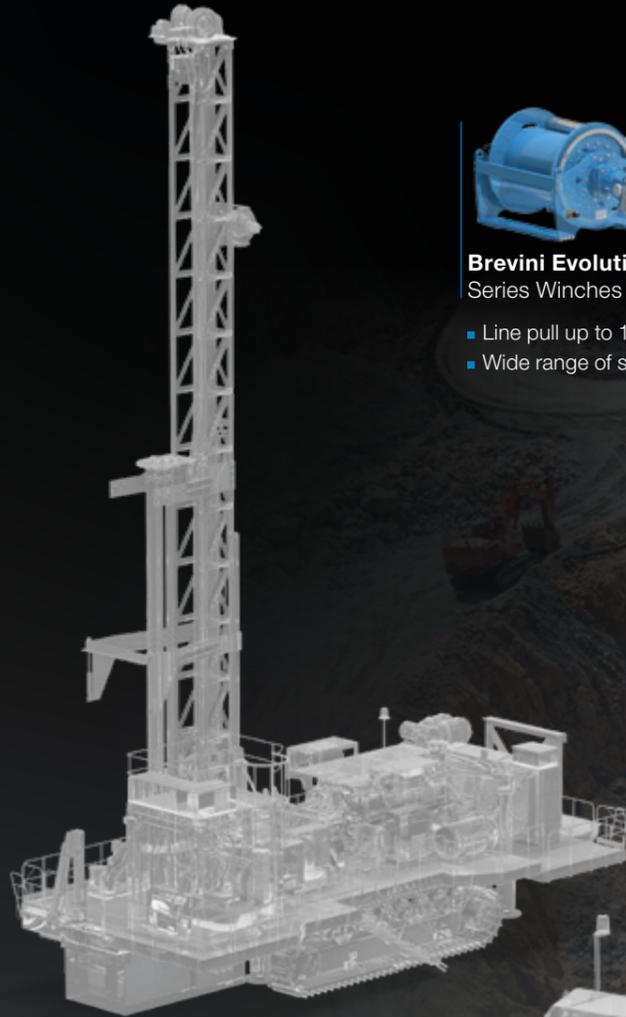
**Spicer Torque-Hub™**  
eSH801

- A fully integrated, electrified wheel drive solution
- Each wheel drive includes a 3-phase, 215kW 750V traction motor

Underground applications

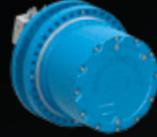
We offer customized solutions to meet a range of customer needs, including modular designs and add-on accessories.

# Surface Drill Rig



**Brevini Evolution™**  
Series Winches

- Line pull up to 16 tons
- Wide range of safety controls



**Spicer Torque-Hub Track Drives™**  
RCT Series

- Compact design solution
- Manual disengagement device for towing

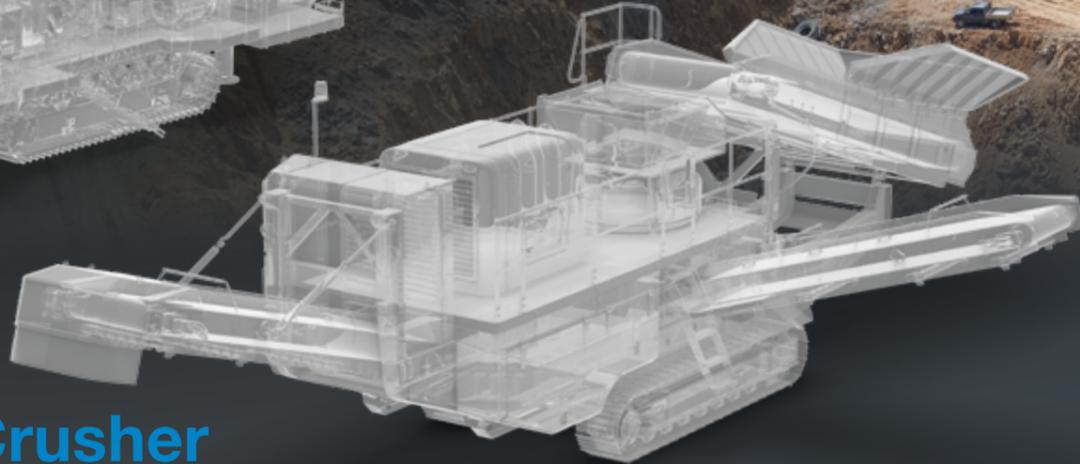
# Surface Dump Truck



**Spicer® Driveshaft**

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

# Mobile Crusher



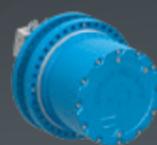
**Brevini™ Industrial Planetary**  
Gearbox

- In line and right angled configurations
- Compact design



**Brevini™ Winch Drive**  
Series

- Compact design
- Hydraulic / electric motor interface



**Spicer Torque-Hub Track Drives™**  
RCT Series

- Compact design solution
- Manual disengagement device for towing

# Wheel Loader



**Spicer® e-Transmission**  
eSP502

- Highly-integrated, zero-emission driveline solution for loader and truck applications
- Dual motor architecture allows for flexibility between high-performance or high efficiency operations



**Spicer® Driveshaft**

- Handles added input torque and heavy loads
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We offer customized solutions to meet a range of customer needs, including modular designs and add-on accessories.

# Market-Driven Off-Highway Innovation

## About Dana Incorporated

Over 40,000 Dana dreamers in over 30 countries drive mobility and transportation forward — wherever the road, or offroad, takes our customers and communities.

A leader in the design and manufacture of propulsion and energy-management solutions, Dana powers vehicles and machines in all mobility markets across the globe.

Delivering groundbreaking drive systems. Advancing revolutionary motion technologies. Championing leading-edge power management innovations across thermal technologies for e-Propulsion; controls and software; battery management systems; and fuel cell plates.

With a balanced portfolio — including complete in-house electrification capabilities — Dana provides class-leading products and systems supporting traditional, hybrid, and EV manufacturers. **Everywhere.**



## About Dana Off-Highway Drive and Motion Systems

Dana delivers fully optimized solutions to customers in the construction, agriculture, material handling, mining, and industrial markets.

[Dana.com/oh](https://www.dana.com/oh)  
[Dana-industrial.com](https://www.dana.com/industrial)

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.

