Founded in 1904, Dana Incorporated is a world leader in highly engineered solutions for improving the efficiency, performance, and sustainability of powered vehicles and machinery. Dana supports the passenger vehicle, commercial truck, and off-highway markets, as well as industrial and stationary equipment applications.

We maintain a competitive advantage in the marketplace with a commitment to delivering on the five dimensions of our enterprise strategy – leveraging the core, strengthening customer centricity, expanding global markets, commercializing new technology, and accelerating hybridization and electrification.

Employing thousands of people in 33 countries, on six continents, our people work tirelessly to deliver long-term value to customers around the world. We have earned our position as a trusted, top-tier supplier by collaborating with customers to develop, integrate, and support the innovations required to improve vehicle performance and efficiency.

Each day, in both large and small ways, Dana is defined as People Finding A Better Way®.

Dana serves global light vehicle, medium/heavy vehicle, and off-highway markets through four business units – Light Vehicle Driveline Technologies (Light Vehicle), Commercial Vehicle Driveline Technologies (Commercial Vehicle), Off-Highway Drive and Motion Technologies (Off-Highway), and Power Technologies, which is the center of excellence for sealing and thermal management technologies that span all customers in our on-highway and off-highway markets.

Corporate Business Units

Dana’s Business Units

Light Vehicle Drive Systems

Commercial Vehicle Drive and Motion Systems

Off-Highway Drive and Motion Systems

Power Technologies

Off-Highway Brands

Off-Highway Sectors

MOBILE

Agricultural

Our products are engineered to support increased crop yields, optimize harvesting operations, lower emissions, improved operator safety and comfort, and reduced total cost of ownership, while complying with evolving emissions standards.

Construction

Integrating drive and motion systems from Dana enhances construction equipment performance, efficiency, and productivity with a range of solutions for vehicles ranging from 3 to 700+ tons. Spicer® axles, wheel drives, transmissions, and Brevini® motion products are integrated with the most advanced technologies on improved machine operation on any job site, in any condition.

Mining and Forestry

Dana designs complete drive and motion systems to meet increasing industry demands for automation and productivity, coupled with high safety standards. Our solutions are specially engineered to maximize vehicle performance in extremely harsh environments.

Material Handling

Our custom drive and motion systems enhance material handling and surface-mining vehicle performance, productivity, and power. Spicer® transmissions, axles, and driveshafts are designed to work seamlessly in any vehicle to allow operators to engage, lift, and transport heavy loads with more precision.

INDUSTRIAL

Dana’s portfolio of advanced motion technologies has been engineered to support increased productivity and reliability, lower emissions, improved operator safety and comfort, and reduced total cost of ownership.
The port equipment market evolves according to the constant growth of global needs and to the different goods that must be handled. Dana has a complete range of advanced drive and motion products for port handling equipment that address the market trends. We design and manufacture fully integrated drive and motion products for all types of equipment used within the port handling sector.

**Rubber-Tire Gantry Cranes**
We offer a customized solution to meet a range of OEM needs, including modular design and add-on accessories, for both driving and lifting functions.

**Reach Stackers**
Dana provides the most diverse range of drive, motion, and control technologies to cover all container handling applications. Our solutions are focused on improved productivity and reduced emissions to meet customer requirements today, as well as anticipated future needs.

**Automated Guided Vehicles**
New electric-driven solutions for autonomous ports support the trend toward electrification and zero-emission targets.

**Forklift Trucks**
Our new selection of electrified drive and motion technologies are available for Class 1-5 forklift trucks. We also offer industry-proven mechanical drivetrain products for applications ranging from 1.5 tonnes to 55 tonnes.
Full-System Solutions for Forklift Trucks

We precision engineer each product to meet customer preferences, regional needs and required duty cycles, all to lower operating cost and emissions while providing ultimate reliability. Our products allow operator to expertly maneuver vehicle with more precision, while enhancing comfort.

Spicer® Planetary Non-Steering Axles
- Scalable modular solutions uniquely designed for industrial lift trucks
- Built to carry heavy loads while offering durability, reliability and ease of maintenance
- Proven modular design and technology expertise
- Maintenance-free brakes and high-integrity sealing
- Many configurations and options available

Spicer® Hydrodynamic Transmissions
- Best-in-Class Efficiency
- Full powershift options with or without lockup
- Advanced electronic controls
- Highly efficient aluminum-cast converter

Spicer® Hydromechanical Variable Transmission
- Stepless drive with no interrupted acceleration enhances comfort
- Precise, dynamic and adjustable tractive effort
- Provide optimal handling and the highest possible throughput with maximum fuel savings

Brevini® Digital Inclinometers TAC Series
- Waterproof robust plastic body
- 1 or 2 axis measurement
- Dual-redundant outputs available for PLd EN13849 safety systems
- Optional thermal compensation available
- Customizable signal filtration
- Customizable hardness on demand

Brevini® Fan Drive Gear Motor
- Cast iron body for improved efficiency especially at high oil temperature
- High volumetric and mechanical efficiencies
- Low noise level
- Built-in proportional relief valve for fan speed control
- Built-in air by-pass valves

Spicer® Driveshafts
- A century of quality and innovation
- Ideal for the rigorous demand of most off-highway applications
- Multiple driveshaft and end-fitting combinations
- Designed for minimal maintenance, longer life and reduced operating cost

Brevini® Proportional Directional Valve - HPV Series
- Wide range: regulated flow up to 600l/m – 370 bar working pressure
- High flexibility with valve and block combinations
- Remote, electronic operation
- Smooth control to improve work function performance
- Available with MSB CANbus module

Brevini® Angle – Transducer TLx and Asx Series
- Waterproof, robust and compact body
- 1 or 2 axis, integrated inclinometer available
- Dual-redundant outputs available for PLd EN13849 safety systems
- Optional thermal compensation available
- Length up to 12.5 meter

Brevini® Shear Beam Load Sensor
- Waterproof robust and compact body
- Dual-redundant output available for PLd EN13849 safety systems
- Optional thermal compensation available

Spicer® Electronic Controls
- Enables communication between driveline components
- Built-in diagnostics and mobile diagnostic application
- Individual functional controls
- Capability to optimize drive and motion on one platform

Brevini® Graphic Display Opus Series
- Large size panel up to 12”
- Bright 1.8k screen for outdoor usage
- Waterproof robust plastic body
- With and without touchscreen and/or physical keyboard

Spicer® Electronic Controls
- Enables communication between driveline components
- Built-in diagnostics and mobile diagnostic application
- Individual functional controls
- Capability to optimize drive and motion on one platform
Full-System Solutions
for Reach Stackers

Dana is a leading supplier of Spicer® Drive and Brevini® Motion products for material handling vehicles that are designed to work seamlessly and allow operators to engage, lift, and transport heavy loads with speed and precision. Our technologies improve the performance, fuel efficiency, safety, and durability.

**Spicer® Planetary Non-Steering Axles**
- Deliver maximum performance and offer easy, low-cost service
- Modular design on several heavy axles and all medium axles
- Proven technology expertise
- Maintenance-free brakes and high-integrity sealing
- Many configurations and options available

**Spicer® Hydrodynamic Transmissions**
- Best-in-Class Efficiency
- Full powershift options with or without lock-up
- Advanced electronic controls
- Highly efficient aluminum-cast converter

**Spicer® Driveshafts**
- A century of quality and innovation
- Ideal for the rigorous demand of most off-highway applications
- Multiple driveshaft and end-fitting combinations
- Designed for minimal maintenance, longer life and reduced operating cost

**Brevini® Joystick BJ200**
- Waterproof robust plastic Body
- Ergonomic grip
- Customizable button options
- Available in both analogue and CANbus versions

**Brevini® Boom Angle/Length Extension Sensor AS Series**
- Draw-wire length sensor robustly designed
- Available with sealed and drip-oil output for PLd EN13849 compliance
- Voltage: 4-20mA or CANbus output
- From 5 to 12.5m length range

**Brevini® Tilt Sensor IDXY Series**
- Continuously measures vehicle tilt
- Single and double axis measurement
- Dual Output
- Waterproof

**Brevini® Shear Beam Load Sensor**
- Waterproof robust and compact body
- Dual/Redundant output available for PLd EN13849 safety systems
- Optional thermal compensation available

**Spicer® Electronic Controls**
- Enables communication between driveline components
- Best in class controls optimize productivity, maximize life, and reduce maintenance
- Support for OEM movement in digitalization and automation
- Individual functional controls
- Capable to combine drive and motion on one platform

**Brevini® Graphic Display Opus Series**
- Large size panel up to 12''
- Bright TFT screen for outdoor usage
- Waterproof robust plastic body
- Visual and without touchscreen and / or physical keyboard

**Brevini® Slewing Drives**
- Nominal torques up to 26,000 Nm
- Inline and right-angle configurations available
- Suitable for both hydraulic and electric motors
- Integrated motor adaptor
- Negative multidisc brake

**Brevini® Proportional Directional Valve - HPV Series**
- Wide range, regulated flow up to 600l/m – 370 bar working pressure
- High flexibility with valve and block combinations
- Remote, electronic operation
- Smooth control to improve work function performance
- Available with MSB CANbus module

**Spicer® Driveshaft Gear Motor**
- Cast iron body for improved efficiency especially at high temperature
- High volumetric and mechanical efficiencies
- Low noise level
- Built-in proportional relief valve for fan speed control
- Built-in 30x30 cast iron cavitating valves

**Brevini® Fan Drive Gear Motor**
- Cast iron body for improved efficiency
- Especially at high temperature
- High volumetric and mechanical efficiencies
- Low noise level
- Built-in proportional relief valve for fan speed control
- Built-in 30x30 cast iron cavitating valves

**Brevini® Electronic Controls**
- Enables communication between driveline components
- Best in class controls optimize productivity, maximize life, and reduce maintenance
- Support for OEM movement in digitalization and automation
- Individual functional controls
- Capable to combine drive and motion on one platform
Full-System Solutions for Rubber-Tire Gantry (RTG) Crane

Dana offers customized solutions for Rubber-Tire Gantry Cranes to meet a range of OEM needs, including modular design and add-on accessories, for both driving and lifting functions.

**Brevini® Industrial Planetary Gearboxes – S Series**
- Anti-sway drive
- New concept design with bevel set on second stage
- High efficiency
- Low noise
- Drum winch directly fixed on the output shaft

**Brevini® Winch Drives**
- Main hoist, innovative pure planetary solution
- Plug-in planetary solution
- More space for easy access to maintenance and service components
- Lighter weight and easier installation
- Mechanical efficiency improved

**Brevini® Helical Bevel Helical Gearboxes**
- Extensive torque range
- High efficiency
- Diverse low speed shaft options
- Low noise
- GG20-22 housing

**Spicer® Torque-Hub® Wheel Drives**
- Wheel drive and driven
- Customized solution
- Developed for highly efficient electric drivetrain
- Benefit in cost in the electric consumption

**GWG® Industrial Driveshafts**
- Complete product range featuring range/swing diameter from 120 to 1300 mm
- Superior bearing life
- High torque capacity
- Designed for ease of maintenance with service-free option
- Engineered to withstand harsh conditions, proven with a 70-year history on the market
- Minimized total cost of ownership

**Brevini® Industrial Planetary Gearboxes – Posired 2 Series**
- Main hoist
- Dedicated design for single-drum drive
- Shape and cost customization
- Auxiliary drive system on board
- Marine painting
- Extensive ratio range
- Supports torque range up to 1300 kNm
- Spheroidal graphite cast iron housing
- High efficiency
- Diverse low speed shaft options
- Premium sealing
- Reliable operation
- Low noise

**Brevini® Helical Bevel Helical Gearboxes – Posired 2 Series**
- Main hoist
- Dedicated design for single-drum drive
- Shape and cost customization
- Auxiliary drive system on board
- Marine painting
- Extensive ratio range
- Supports torque range up to 1300 kNm
- Spheroidal graphite cast iron housing
- High efficiency
- Diverse low speed shaft options
- Premium sealing
- Reliable operation
- Low noise
Drive and Motion Systems
Your Single-Source Provider for Cranes

Dana provides drive and motion systems for tracked and wheeled cranes with a wide range of lift capacities. Our full line of Spicer® and Brevini® solutions features the latest technologies to keep cranes running efficiently, reliably and safely even in the most demanding environments.

Crawler Crane
Our new selection of Spicer Torque-Hub Track Drives and Brevini Motion technologies are engineered to deliver performance, durability and reliability to meet manufacturer preferences. Move freely, swivel smoothly, lift easily with Dana.

Rough Terrain Crane
Dana engineers and manufactures advanced drive and motion systems that are fully customizable with additional features and configuration options to achieve the highest levels of fuel efficiency and productivity.
Full-System Solutions for Crawler Crane

Dana is ideally positioned to provide drive and motion systems for high performance crawler cranes. Our product offering is engineered to deliver performance, reliability, durability and safety to support manufacturer’s needs worldwide.

**Spicer® Torque-Hub® RCT Series Track drive**
- Product range specifically designed for tracked applications
- Torque ratings from 80 kNm to 450 kNm
- High Torque Density for High-performance machines
- High Strength material engineered for low temperature
- Best-in-class efficiency package with hydraulic or electric motor

**Brevini® Torque-Hub® Evolution Series Winches BWE**
- Line pull up to 16 Tons
- High-speed axial piston motor variable displacement
- Wide range of safety controls available
- Motor drum option available
- Embedded torque sensor

**Brevini® Slewing Drive Series**
- Designed for a variety of Off-Highway applications
- Several sizes, with different output torques up to 80 kNm
- Compact design delivers high performances and zero noise operations
- Available in a wide range of brake settings
- Integer shaft pinions available

**Brevini® Hydraulic Pump HD1 100**
- Designed for use in closed circuit hydrostatic transmissions
- 2 built-in pressure relief valves to protect the circuit from pressure overloads
- Maximum pressure up to 450 bar (6500 psi)

**Brevini® Fan Drive Gear Motor**
- Cast iron body for improved efficiency especially at high oil temperature
- High volumetric and mechanical efficiencies
- Low noise level
- Built-in proportional relief valve for fan speed control
- Built-in anti-cavitation valves

**Brevini® Proportional Directional Valve - HPV Series**
- Wide range: regulated flow up to 600 l/m – 370 bar working pressure
- High flexibility with valve and block combinations
- Remote, electronic operation
- Smooth control to improve work function performance
- Available with MSB CANbus module
Full-System Solutions for Rough Terrain Crane

OEMs and operators can rely on Dana to deliver premium drivetrain products, with over 50-year history of developing successful rough-terrain crane applications. Our full line of Spicer® and Brevini® solutions features the latest technologies to keep rough-terrain cranes running efficiently and reliably, even in the most demanding environments.

Spicer® Torque Converters
Designed for reliability in many off-highway applications
Offer flexible options to match most engine requirements
Engineered to maximize machine performance and efficiency
Can be matched to Spicer remote transmissions

Spicer® Hydrodynamic Transmissions
Lift capacities up to 120 tonnes
Flexible options for performance, layout, and controls
Full reversing range shift and full Powershift options
Exclusive gear ratios significantly improve gradability and travel speed
Multiple mounting configurations: Integral, Mid-mount and Remote

Spicer® Planetary Steering Axles
State-of-the-art design offers structural integrity
Robust modular axle platforms leveraging proven components
2 or 4 caliper dry disc brakes per axle
Viton® rotating radial lip seals ensure high-integrity sealing

Spicer® Driveshafts
A century of quality and innovation ideal for the rigorous demand of most off-highway applications
Multiple driveshaft and end-fitting combinations
Designed for minimal maintenance, longer life and reduced operating cost

Brevini® Slewing Drives
Designed for a variety of Off-Highway applications
Several sizes, with different output torques up to 48 kNm
Compact design delivers high performance and zero backlash operations
Available in a wide range of brake settings
Integral shaft as well as loose pinions available

Brevini® Slewing Drives BWE
Line pull up to 16 Tons
High speed axial piston motor variable displacement
Wide range of safety controls available
Motordrum option available
Embedded torque sensor

Brevini® Evolution™ Series Winches BWE

Brevini® Proportional Directional Valve HPV Series
Wide range, regulated flow up to 600l/m – 370 bar working pressure
High flexibility with valve and block combinations
Remote electronic operation
Smooth control to improve work function performance
Available with MSB CANbus module

Spicer® Electronic Controls
Enables communication between steering components
Best-in-class controls optimize productivity, minimize fuel and reduce maintenance
Support for OEM movement in digitalization and automation
Individual functional controls
Capability to combine drive and motion on one platform

OEMs and operators can rely on Dana to deliver premium drivetrain products, with over 50-year history of developing successful rough-terrain crane applications. Our full line of Spicer® and Brevini® solutions features the latest technologies to keep rough-terrain cranes running efficiently and reliably, even in the most demanding environments.
Fully Integrated e-Drive and e-Motion Systems

Today we can proudly say that we are the only supplier with the capability to help manufacturers bring electric-driven vehicles to market through our collaborative, system-oriented approach and decades of expertise.

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

Pioneering Electrification, Protecting the Environment.

Dana offers electrified solutions tailored to the voltage needs of your applications.
Technologies Customized to Every Part of the Globe

With a presence in 33 countries, Dana Incorporated boasts more than 145 engineering, manufacturing, and distribution facilities. Our worldwide network of local service centers provides assurance that each customer will benefit from our proximity and responsiveness.

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.

About Dana Off-Highway Drive and Motion Systems

Dana delivers fully optimized Spicer® drivetrain and Brevini® motion systems to customers in construction, agriculture, material handling, mining, and industrial markets. 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 drivetrain and motion systems 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.

©2020 Dana Limited. All rights reserved. DOH_SC00003_022020