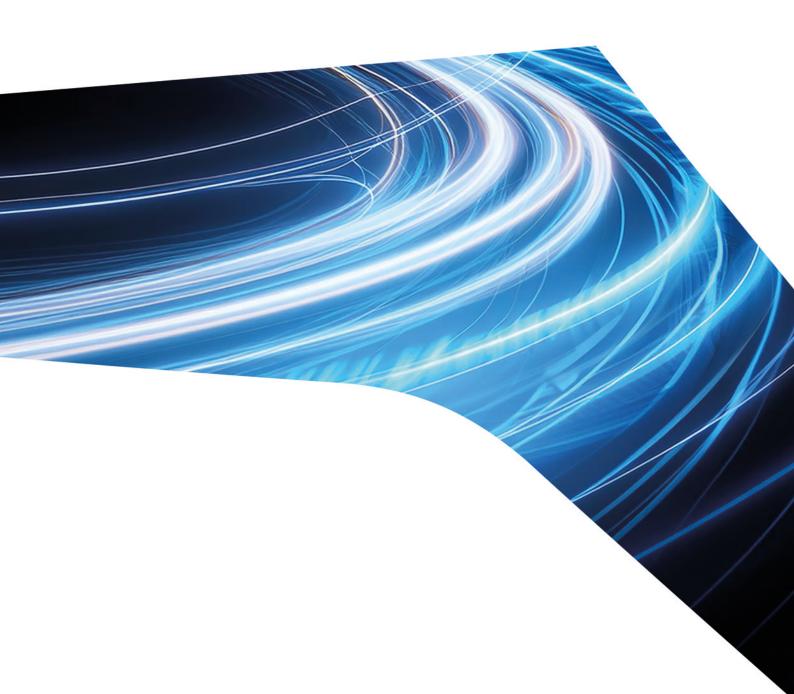


Off-Highway
Drive and Motion Systems

# **Mobile and Industrial Business**



# **Off-Highway** Drive and Motion Systems



As an innovative leader, Dana Off-highway continuously improves 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**















# Off-Highway **Brand Portfolio**

Supported by a legacy of innovation in conventional drivetrains, Dana Off-Highway is 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** 



**Motion and e-Motion Systems** 









**Gears and Shifting Solutions** 



**GRAZIANO** 





> LONG





**VICTOR REINZ** 









COMMERCIAL TURF CARE

**BULK MATERIAL** 



ONSHORE AND OFFSHORE MARINE



INDUSTRIAL AND STATIONARY EQUIPMENT



HEAVY INDUSTRY: STEEL, SUGAR, AND CEMENT



WASTE MANAGEMENT AND RENEWABLE ENERGY





# **Drive and Motion**Solutions

The drivetrain solutions you need, backed by global expertise and support.

#### Spicer<sup>™</sup> Axles and Drives

Spicer<sup>™</sup> axles are engineered to improve performance, tractive effort, and operator comfort in harsh working environments while also supporting on-road mobility through high torque density, high reliability, and robustness.

Our power-dense designs deliver maximum performance in a compact package that improves reliability, durability, stability, and safety.

Dana has a broad range of dedicated solutions matching the different application needs like torque density, specific duty cycle, braking performances, safety standard and robustness.



#### **Spicer**<sup>™</sup> **Driveshafts**

Built to withstand the roughest terrains and heaviest loads, Spicer driveshafts efficiently and reliably manage input torque to improve productivity, reduce operating costs, and simplify maintenance. They can be customized with a complete set of end fittings, flanges, and service options for any requirement.



#### **Spicer**<sup>™</sup> **Transmissions with Electronic Controls**

From basic gearboxes to leading-edge powersplit configurations, Dana supplies a wide range of powerful, efficient transmissions and electronic controls that improve fuel efficiency, handling, tractive effort, and operator comfort while reducing noise and ensuring easy maintenance.

Our advanced electronic controls provide multiple smart operating modes that optimize productivity, monitoring and efficiency at every stage of the work cycle.



#### **Graziano™ Custom Gears and Shifting Solutions**

Our custom-designed high-precision gears and shafts improve the performance, reliability, and durability of final reduction components. We also support technically challenging and complex vehicle applications by leveraging our engineering expertise to supply customized crown wheel and pinion sets.

We offer a range of heavy-duty synchronizers and other shifting solutions that help vehicle and transmission manufacturers overcome the limited availability of engineering resources while giving vehicle operators better control, shifting performance and improved productivity.

Additionally, we leverage our in-house design, prototype, and validation capabilities to produce custom drive assemblies for highly specialized applications with accelerated development timelines.





#### **Brevini™ Motion Systems**

We serve OEMs as a single supplier for the wide variety of components that maximize the productivity and efficiency of vehicle work functions.

Our comprehensive selection of Brevini™ motion products includes gearboxes, slewing drives, winches and hydraulic solutions.



#### e-Drive and e-Motion Solutions

We leverage our complete portfolio of e-Propulsion Systems — e-Axles, e-Drive Units, and e-Hub Drives — as well as e-Powertrains, e-Motion Systems, and electrodynamic modules to enable vehicles to meet the highest standards for efficiency, reliability, and performance.

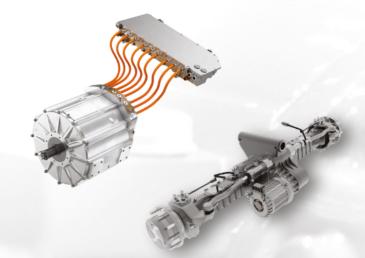
We can help OEMs adapt current ICE-driven applications with effective, low-risk, quick-to-market drive solutions today as we plan for future vehicle configurations with fully integrated systems that deliver superior productivity while reducing manufacturing complexity and total cost of ownership.

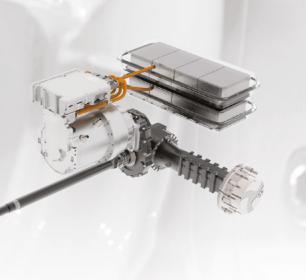


#### **System Solutions**

Vehicle intelligence, autonomous driving systems, Al, electrodynamics, telematics, cybersecurity, and other digital innovations are enabling quantum leaps in vehicle performance and efficiency.

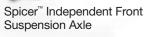
Dana's multi-disciplinary team of system solutions engineers provides turnkey solutions for electric vehicle integration by collaborating with customers. Our holistic approach helps OEMs seamlessly integrate transformative digital technologies with Dana's proven drive and motion systems for the next generation of vehicles.





# **Spicer**<sup>™</sup> **Axles**





Range		
970	980	990



Spicer<sup>™</sup> Standard Suspension Axle

Range					
730	740	750	770		



Spicer<sup>™</sup> Portal Axle

Range		
P71	P72	P73



Spicer<sup>™</sup> Modular Axle

Range						
M20	M30	M40	M50	M60	770	

#### **Combines and Harvesters**



Spicer<sup>™</sup> Front Axle

Range	
N07	N09



Spicer™ Rear Standard Suspension Axle

١	Range		
ſ	730	740	750



Range
733



Spicer<sup>™</sup> Rear Adjustable Axle

Range
733

Rang	е				
M20	M30	M40	M50	M60	770

#### **Telehandlers**



Spicer<sup>™</sup> Planetary Steering Axle

Range				
211	212	223	213	214

# **Material Handling**



#### **Small Forklifts & AGVs**



Spicer<sup>™</sup> Planetary Steering Axle



**Rough Terrain Cranes** 



Spicer<sup>™</sup> Planetary Steering Axles



**Container Handlers** 



Spicer<sup>™</sup> Planetary Non-Steering Axle

Range	
145	147

#### **Ground Support Equipments**



Spicer<sup>™</sup> Planetary Non-Steering Axle

Range			
111	112	123	113

**Forklift Trucks** 



Spicer™ Planetary Non-Steering Axle

Range			
137	138	139	144



Spicer<sup>™</sup> Planetary Steering Axle

Range					
211	212	213	223	214	246

### **Mining**



the state of the s	Planetary
14011-21	eering Axle

1	Non-Steering Axle
	Range

Non-Steering Axle 182 183 17D 20D 53R

182 183 17D 20D 53R

**Mining Trucks** 

Spicer<sup>™</sup> Planetary



Spicer<sup>™</sup> Planetary

Non-Steering Axle

**Drill Rigs** 

111 112 113 114 115 116 123 125 126



Spicer<sup>™</sup> Planetary

213 223

**Single Drum Rollers** 

Spicer<sup>™</sup> Planetary Non-Steering Axle

192 193 194

Range

Steering Axle

# **Forestry**

**Construction and** 



**Compact Wheel Loaders** 

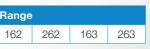
Spicer<sup>™</sup> Planetary Non-Steering Axle

Range					
109	111	112	123	113	114

#### **Wheeled Excavators**



Spicer<sup>™</sup> Planetary Steering Axle



Spicer<sup>™</sup> Planetary Non-Steering Axle

Range			
111	211	112	212

**Motor Graders** 



Spicer™ Bogie Axle

Range					
GA10	GA14	GA17	GA15	GA20	FG65

**Large Wheel Loaders** 



Spicer<sup>™</sup> Planetary Non-Steering Axle

è	Range			
	115	116	125	126

### **Telehandlers**



Spicer<sup>™</sup> Planetary Steering Axle

Rang	е			
211	212	223	213	214

**Forestry Applications** 



Spicer<sup>™</sup> Rear Axle

Range					
113	114	115	116	125	126

# Drive Systems

# **Spicer™ Wheel and Track Drives**

Spicer Torque-Hub™

C0 Series





# **Construction and Forestry**



#### **Sprayers**



Spicer Torque-Hub™

Range					
CT11	C016(*)	C021	C024	C030(*)	C036

(\*) = under development

#### Windrowers



Spicer Torque-Hub™ C0 Series



Spicer Torque-Hub™ HW5 Series



### **Compact Track Loaders**



Spicer Torque-Hub™ CT Series

Range			
CT05	CT07	CT11	CT17

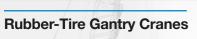
**Forestry Applications** 



Spicer Torque-Hub™ RCT Series

Range		
RCT9083	RCT9103	RCT9133

# **Material Handling**





Spicer Torque-Hub™ RCT Series

Ri	ange		
R	CT9083	RCT9103	RCT9133



Spicer Torque-Hub™ PHC and TH Series

Range	
PHC3850	TH510

#### **Crawler Cranes**



Spicer Torque-Hub™ CTU Series

Range	
CTU3500.1	CTU3700.1



Spicer Torque-Hub™ **RCT Series** 

Range					
RCT9083	RCT9103	RCT9133			

#### **MEWPs**



Spicer Torque-Hub™ H Series Hydraulic

Rang	Range							
4H	7H	8H	11H	13H	18H			



Spicer Torque-Hub™ eS-AW Series Electric

		1	2.	1.2	
Ra	ange				
eS	SAW04	eSAW07	eSAW11	eSAW13	eSAW17



Spicer Electrified™ e-Drive Drop Box, Spindle and Hub Output

	Range				
	eS04D	eS05D	eS08D	eS10S	eS10H

### **Mining**



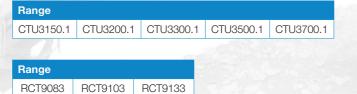
#### **Drill Rigs / Mobile Crushers and Screeners**



Spicer Torque-Hub™ **CTU Series** 



Spicer Torque-Hub™ **RCT Series** 



#### **Road Equipment**



Spicer Torque-Hub™ **RCT Series** 





Range

Spicer Torque-Hub™ CTU Series

CTU3150.1 CTU3200.1 CTU3300.1

#### **Track Undercarriages**



CTU Series



Spicer Torque-Hub™

Spicer Torque-Hub™ **RCT Series** 

		Range		
CTU3500.1	CTU3700.1	RCT9083	RCT9103	RCT9133

### **Drive Systems**

# **Spicer**<sup>T</sup> Transmissions







Transmission



Powersplit Transmission

Range

HVT2

**Container Handlers** 

Powershift

T/TE14 TE17 TE30

Range

Transmission



**Rough-Terrain Cranes** 

Powershift Transmission

Powershift Transmission

Range		F
T20000	24000	

Range T/TE14

# **Mining**

Powershift

Range

Transmission

### **Underground Mining Loaders and Trucks**

Transmission

C8000 + 8000



Powershift

Range

Transmission

T20000 36000





Powershift

Range

T/TE14

TE32

Transmission



Powershift

Transmission

TE50

Powershift Transmission

**Utility Vehicles** 

Powershift Transmission

Range

T12000 T20000 24000

Range

T/TE14

#### **Underground Mining Drill Rigs**



Range

Powershift Transmission

T20000 24000



T/TE14

Powershift Electrified

Transmission

**Mining Electrified** 

Range



Long Drop **Powershift Transmission** 

eRTE14 eRTE32



Range eSP502

### **Telehandlers**



**Mobile Elevated** 

**Work Platforms** 

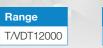
Hydrostatic Transmission



Transmission

Powershift

Transmission





Powersplit

Range

HVT1

Hydrostatic Transmission

Transmission Range





Hydrostatic Transmission

Range 319



Hvdrostatic **Two-Speed Transmission** 

Range				
358	367	368		

#### **Motor Graders**



Range TMG14

Powershift

#### **Forestry Equipments Wheeled Excavators**





358 367



Transmission

Range	
342	343
042	040

Transmission

# **Drive Systems**

# **Graziano™ Custom Gears** and Shifting Solutions

#### **Synchronizers**



Graziano™ Synchronizer DC 95/100



Graziano<sup>™</sup> Synchronizer



TC 102/110/118



Graziano™ Synchronizer

#### **Gears and Shafts**



Graziano™ Gears



Graziano™ Shaft

#### **Ring Gears**



Graziano™ Ring Gears

#### **Powershift Clutches**



Graziano™ Powershift Clutches



Graziano™ Powershift Units

#### **Bevel Sets**



Graziano™ Crown Wheel and Pinion



Graziano™ Bevel Gear

#### **Custom Gears**



Fairfield™ Custom Gears

# Drive Systems

# **Spicer™ Driveshafts**

#### **Tractors**



Spicer<sup>™</sup> SPL55



Spicer<sup>™</sup> Wing<sup>™</sup> Series 8.5C



Spicer<sup>™</sup> Centered Double Cardan

# **Combine Harvesters**



Spicer<sup>™</sup> Double

Universal Joint 93B35 Wing<sup>™</sup> Series 7C

#### **Reach Stackers**



Spicer<sup>™</sup> Wing<sup>™</sup> Series Spicer<sup>™</sup> Wing<sup>™</sup> S



Wing<sup>™</sup> Series 7C

#### **AGVs**



Spicer<sup>™</sup> Wing<sup>™</sup> Series 5C

#### **Forklifts**



Spicer™ Wing™ Series 5C

#### **Telehandlers**



Spicer<sup>™</sup> Double

**Large Wheel Loaders** 

Spicer<sup>™</sup> Wing<sup>™</sup> Series Spicer



Spicer<sup>™</sup> 10-Series Universal Joint 82B30

#### **Motor Graders**



Spicer<sup>™</sup> Wing<sup>™</sup> Series 7C

**Wheeled Excavators** 

#### **Compact Wheel Loaders**



Spicer<sup>™</sup> Centered



Double Cardan 2015-CDC

SPL55

#### **Forestry Applications**



Spicer<sup>™</sup> 10-Series 1410









7C with Bearing Support

Spicer<sup>™</sup> Wing<sup>™</sup> Series Spicer<sup>™</sup> Wing<sup>™</sup> Series

#### **Drill Rigs**



 $\mathsf{Spicer}^{^{\scriptscriptstyle{\mathsf{TM}}}}\,\mathsf{Wing}^{^{\scriptscriptstyle{\mathsf{TM}}}}\,\mathsf{Series}$ 

#### **Mining Trucks**



Spicer<sup>™</sup> Wing<sup>™</sup> Series 14C

# **Underground Mining Loaders**

Compact Plus

2045+



 $\mathsf{Spicer}^{^{\scriptscriptstyle{\mathsf{TM}}}}\,\mathsf{Wing}^{^{\scriptscriptstyle{\mathsf{TM}}}}\,\mathsf{Series}$ 



# Motion Systems

With global expertise in the design and manufacturing of high-efficiency technologies for industrial and stationary equipment applications, Motion Systems fully integrates into Dana offer Brevini™ gearboxes, winches and hydraulic solutions, PIV™ extruders drives, GWB™ industrial driveshafts, Fairfield™ custom gears. Supported applications include on- and offshore equipment, green technologies, mining, heavy industries, and earthmoving.



#### Brevini<sup>™</sup> Planetary Gearboxes



S-Range

Range	Nominal Torque [Nm]
S300-S20000	34,000-2,170,000



Industrial Slewing Drives

Range	Nominal Torque [Nm]
RPR030-RPR2050	5,000-24,000
SLS300-SLS850	34.000-200.000



Industrial and E-Range Planetary Gearboxes

Range	Nominal Torque [Nm]
E10-E260	1,300-25,000
EM1010-EM1320	1,000-24,000

#### Brevini<sup>™</sup> Helical and Bevel Helical Gearboxes



Brevini EvoMax™ Gearbox

Range	Nominal Torque [Nm]
E2H-E3H- E4H-E3B- E4B-E3C- E4C	10,000-290,000



Posired<sup>™</sup> 2

Range	Nominal Torque [Nm]		Range	Nominal Torque [N
E2H-E3H- E4H-E3B- E4B-E3C- E4C	10,000-290,000		PC-PD-PE-PLC-PLD 60 - 91	340,000-1,100,000
		ı	PB / PLB 16 - 45	5,700-113,000



Posired<sup>™</sup>TS

Range	Nominal Torque [Nm]	
TS18 - TS63	8,200-400,000	



Range	Nominal Torque [Nm]	
ILC14 - ILC25	3.100-22.800	



 $\mathsf{Posired}^{^{\scriptscriptstyle{\mathsf{M}}}}\mathsf{N}$ 

Gearboxes

Range	Nominal Torque [Nm]
ND-NE 18 - 56	8,200-286,000

#### Brevini<sup>™</sup> Gearboxes



Range	Power [Kw
ML32 - 52	10-100
B585 - 602	30-55
RD33 -52	6-12

#### Brevini<sup>™</sup> Plano Helical Gearboxes





High Power

Range Nomina SL2PLB85016 SL2PLB200031 90,000

Posiplan

l Torque [Nm]	Range	Nominal Torque [Nm
0-2.170.000	PH, BPH 13-28	3,900-35,000
, ,		

#### **Brevini** Gearmotors



Gearmotors

Range	Nominal Torque [Nm
M, N, K, D 00-97	50-18,000

#### Brevini<sup>™</sup> Winches





Range	Max Line Pull at First Layer [kg]	
DW 050-090	500-900	
BWE 015-160	1,500-16,000	



Recovery Winches

Range	Max Line Pull at First Layer [kg]
BWT 10.000-30.000	10,000-30,000



Winch Drives

Range	Max Output Torque [Nm]
PWD 2100-31100	10,000-110,000
SLW 300-850	85,000-190,000
SMW 1200-3500	300,000-850,000
RCW 908-913	80,000-130,000

#### **GWB**<sup>™</sup> Industrial Driveshaft





Driveshafts for Industrial Applications

Range	Torque Range Tcs [Nm]	Flange Diameter [mm]
687/688-598	35 up to 21,500	00-225 / 600-1,300
687-688	2,400-35,000	100-225
587	43,000-57,000	225-285
390/392/ 393/492	60,000-1,170,000	225-550
498/598	210,000-15,000,000	600-1,200

Keep Driveshaft - Special Design super short coupling, tunnel shaft, high speed design, carbon fiber tube electrical insulation, remote lubrication, automatic lubrication,

**Brevini**<sup>™</sup> Pump Drives



Range	Nominal Power [Kw]	
BZ265	110-130	
BZ290	170-190	
BZ340	220-240	
BZ470	380-480	

#### **PIV**<sup>™</sup> Extruder Drives





Range	Nominal Torque [Nm]
XC-XD-XE 16 - 80	5,100-720,000



Positwin

Special Gearboxes for Plastic & Rubber

Range	Centre Distance	Torque / Shaft [Nm]
15B2N 146B2N	15-146	40-35,000

# Motion Systems

#### Brevini<sup>™</sup> Pumps



Axial Piston Pumps, Variable Displacement, Closed Loop

Range	Displacement [cc/rev]	Max Pressure [bar]
HD1	55	450
S6CV	75-128	400



Axial Piston Pumps, Variable Displacement, Open Loop

Range	Displacement [cc/rev]	Max Pressure [bar]	
H1V	54.8-225.1	350	



Axial Piston Pumps, Fixed Displacement, Open Loop

Range	Displacement [cc/rev]	Max Pressure [bar]
H1C	6.1-225.1	350
SH11C	10.3-178.1	430



Gear Pumps, Fixed displacement, Open Loop

Range	Displacement [cc/rev]	Max Pressure [bar]
OT groups 1 - 2 -3	0.73 – 90	270
Hercules group 2	4.1 – 30	270
Silent plus group 2	4.1 – 30	250

#### Brevini<sup>™</sup> Valves



Pre-Compensated Directional Control Valves

Range	Inlet Flow [I/min]:	Max Pressure [bar]	
HPV 41- 77-310	160-250-600 <sup>(*)</sup>	370-370-370	





Bankable Valves

Range	Max Flow [I/min]	Туре
CDC3 - CD3M - CD3 - CDH3 - CD5	80	ON/OFF
CX3 - CXQ3 - CXDH3 - CFS3	55	Proportional



**CETOP Valves** 

Range	Inlet Flow	Max Pressure [bar]
Size 2 (NG4) – Size 8 (NG25)	up to 600	up to 400

#### Brevini<sup>™</sup> Motors



Axial Piston Motors, Variable Displacement, Bent Axis

Range	Displacement [cc/rev]	Max Pressure [bar]	
SH7V/VR	61-216	430	
SH9V	62-216	430	



Axial Piston Motors, Fixed Displacement, Bent Axis

Range	Displacement [cc/rev]	Max Pressure [bar]
H1C	6.1-225.1	350
SH11C/CR	10.3-178.1	430



Orbital Motors, Gerotor and Roller

Range	Displacement [cc/rev]	Max Pressure [bar]
BGM, BG	13-400	225 / 165
AR, BR, BRZV	50-400	175
HR, HT	80-500	210



Gear Motors, Fixed Displacement

Range	Displacement [cc/rev]	Max Pressure [bar]
OT groups 1 - 2 - 3	0.73 – 90	260
Hercules gr 2	4.1 – 30	270

#### **Brevini**<sup>™</sup> Power Units



Mini Powerpacks

Range	Туре
MC	With 4 cavities for single and double acting circuits
FP	With flexible design thanks to multiple valve seats. Several circuits layout available
DTR	Custom Mini Powerpacks for telescopic dock levellers
MK	Custom Mini Powerpack for hanged/swing lip dock levellers



Motorpumps

Range	Туре
EP	With Ø115 motors and gr. 1 gear pumps
MP	With Ø80 motors and gr. 0.5 gear pumps



Micro Powerpacks

Range	Туре
FR	Micro Powerpack for space demanding applications, 4 cavities for single and double acting circuits
FW	Micro Powerpacks for double acting circuits with reversible pump

#### Fairfield Custom Drives



Jacking System Drives



Tram System Drives



T ( 0



Transfer Case

**Custom Drive Components** 

15

Range	Max Jacking Torque [Nm]
S60A-S2000	82,000-2,260,00

# **Electrification** Capabilities

Dana's comprehensive portfolio of drive and motion technologies helps OEMs efficiently transition toward electrification.

Our multi-disciplinary team of engineers develops turnkey solutions ranging from plug-and-play components to fully integrated systems.

#### **EV** Components









Low-Voltage Motors

Low-Voltage Inverters

On-engine Generators

High-Voltage Traction Systems

#### e-Drive















High Efficiency Transmission High Efficiency Transmission

e-Powershift Transmission

e-Powershift Transmission

High-Voltage Motors High-Voltage Inverters

e-Software





e-Axle Heavy





e-Hub Drive Compact

e-Hub Drive Heavy

# Electronics and Mechatronics

#### e-Motion

e-Axle Compact

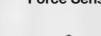


e-Slew Drive



**EHPS System** 

**Electronic Control Units** 





Inclinometer





**Force Sensors Position Sensors** 





CTIS

Angle Transducer

# **System Solutions**

Dana is a world-class collaborator with OEMs in delivering innovative, best-in-class engineering solutions.

With resources located near our customers, we can leverage our core competencies in systems development to produce ground-breaking technologies that boost business performance.

Our systems approach is combined with our industry-leading portfolio of advanced technologies to help OEMs maximize the value of their offerings and find a better way forward.

#### **System Thinking**

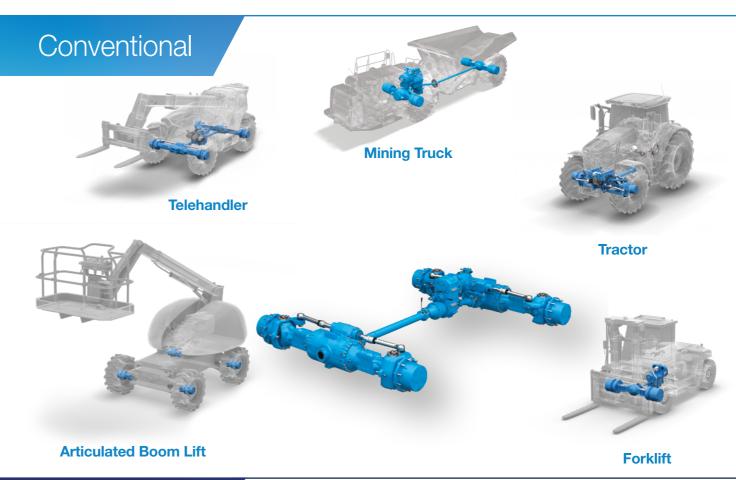
We adopt a **holistic perspective** to systems that fortifies our offerings

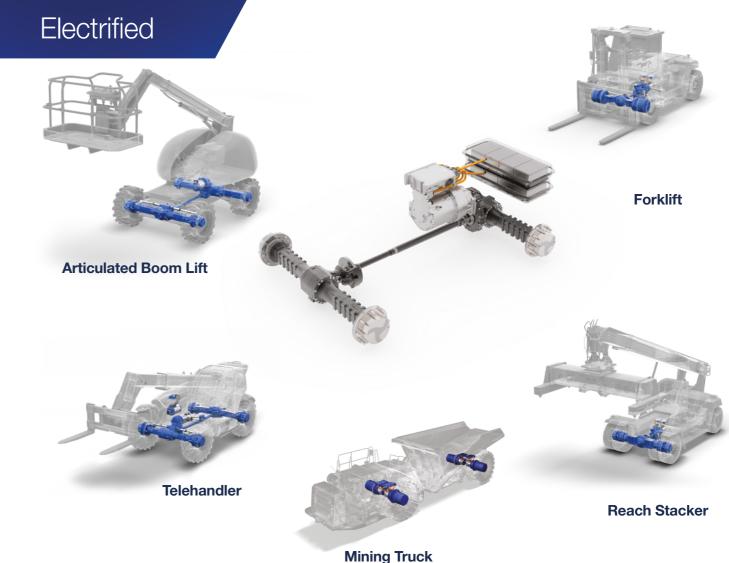
#### **System Contents**

We develop
systems
by using our
deep portfolio
of innovations
to address our
customers'
needs

#### **Knowledge sharing**

Our culture
of continuous
improvement
enables our
systems
engineering
teams to share
best practices
across markets
and geographies





| 19

Think Why, Think Wider, Think Systems

# Global Strength

One of the ways we create value is by **positioning** our technical and manufacturing resources where customers need us globally.

### Today, that's **30 countries** on **six continents**.

To help customers achieve success, top-tier suppliers must have a global perspective that can be adapted to meet local requirements and end-user expectations.

Dana's worldwide leadership is the key to serving clients around the world. We bring our global expertise to the local level with technologies customized to individual requirements through a network of strategically placed technology centers, manufacturing locations, service and assembly centers and distribution facilities.



Our strength is being over six continents thanks to our global logistic network.

### **Aftermarket Services**

Our global expertise is delivered to customers at a local level through a constantly growing and improving aftermarket network.

Strategically placed service centers provide solutions tailored to individual specifications by an experienced on-the-ground support team. We meet customer needs in every region, on every platform.



### Genuine parts

Dana service parts are manufactured by Dana to the same high standards as original equipment (OE), because they are OE genuine parts.

When a part is replaced a complete interchangeability with existing parts provides total product compatibility, with no change in part numbers.

A non-original component can lead to significant vehicle costs down the road. We protect your vehicle durability and performance.

### Dana Distribution Centers

Dana's global network of distribution centers, located in Europe, America, Asia and Australia, offer efficient service points supporting regional customer service, inventory, logistics and packaging operations.

### DanaAftermarket.com

#### **E-Commerce Platform**

A technology enabled e-commerce platform that brings Dana's global off-highway network of distribution centers, products, services and premium brands to your device 24/7 to make better decisions, speed up your operations and ease doing business with Dana.

Using DanaAftermarket.com you can quickly:

- Search for part level detail
- View global availability in real time
- Place orders from your phone, desktop or tablet
- Access educational brochures, videos and training
- Order management documentation communicated in real time
- API developer portal enables cross platform integration and real time data exchange

#### **Spicer™ Drivetrain catalog**

The online Spicer™ product catalog features the extensive off-highway axles and driveshaft portfolio. Quickly and conveniently locate products by model type or part number through the search functionality and access to usage descriptions and technical details to select optimal products for every aftermarket need. The product database is always updated as new technologies become available.



### Market-Driven

### **Off-Highway Innovation**

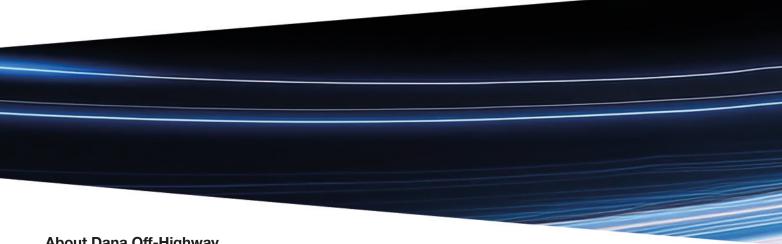
#### **About Dana Incorporated**

Over 39,000 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 Dana-industrial.com/contact-us

#### 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.

