



## **Dana Demonstrates Comprehensive Selection of Off-Highway Drivetrain Solutions at Bauma China 2014**

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SHANGHAI, Nov. 25, 2014 /PRNewswire/ -- Dana Holding Corporation (NYSE: DAN) is demonstrating its full range of drivetrain solutions for the construction, mining, and material-handling markets that will be exhibited this week at Bauma China 2014.

This year in hall N5, stand 210, Dana is presenting a variety of transmission, axle, and driveshaft offerings for Chinese equipment manufacturers to use in domestic and export applications. Dana will also supply details on the company's market-leading aftermarket capabilities, including remanufacturing services now available in the region.

These products and services exemplify Dana's ability to deliver efficiency through innovation by responding to technological and total-cost-of-ownership demands across the entire market. Dana supports local equipment manufacturers through products targeted for the domestic market that deliver reliable performance, as well as drivetrain solutions for the export market that meet higher demands for fuel efficiency, productivity, longer equipment life, and stringent emissions regulations.

"With 10 facilities, a world-class technology center, and approximately 7,000 employees working for us and our joint ventures in China, Dana is uniquely positioned to support equipment manufacturers with advanced engineering services; an extensive product line engineered, sourced, and produced locally; and responsive service support for vehicle purchasers well after the sale," said Aziz Aghili, president of Dana Off-Highway Driveline Technologies. "Bauma China presents an excellent opportunity for us to demonstrate our leadership today and our plans to evolve with the changing market in the years ahead."

### **Comprehensive Lineup of Front-End Loader Solutions**

Dana offers a wide selection of complete drivetrain solutions for front-end loaders from 4 to 50 tonnes (4 to 55 tons), starting with basic, durable designs engineered for the local Chinese market that feature an optimized blend of product features, performance, dependability, and total cost of ownership, and ranging up to premium configurations with advanced technologies for maximizing productivity and fuel efficiency.

Exemplifying Dana's focus on listening to customer feedback and addressing local requirements, Spicer® Rui Ma™ drivetrain solutions offer a range of transmissions and axles engineered and produced in Wuxi, Jiangsu Province, China, for the Chinese market.

At Bauma China, Dana will showcase its Spicer Rui Ma TZL16 RM transmission, which in recent tests demonstrated up to a 25 percent improvement in fuel economy.

Engineered for premium domestic and export machines, Spicer TZL Series powershift transmissions are specifically engineered for Chinese-made front-end loaders where the emphasis is on fuel efficiency, productivity, longer equipment life, and stringent emissions regulations. These transmissions are also produced in Wuxi.

Featuring the most advanced technology, Spicer TE Series powershift transmissions deliver superior shift quality through high-energy-capacity forward and reverse clutches, adaptive clutch modulation, and helical gears. They will be available with an optional technology package that includes a five-speed gearbox with lock up, which enables direct drive even at low speeds, and reduces fuel consumption by up to 10 percent.

Spicer TE Series transmissions will be managed by Dana's new series of lead-free electronic transmission controls, which offer wider systems integration through upgraded software and enhanced hardware capacity, flexibility, and expandability. These improvements will enable Spicer transmissions to offer the latest features such as eco-drive, power drive, and next-generation overlap control.

While not commonly used on off-highway equipment made in China today, hydrostatic transmission technology is drawing increasing interest from Chinese manufacturers of small front-end loaders and other off-highway applications due to its enhanced efficiency and performance characteristics.

Dana is the market leader in hydrostatic transmission technology and offers options that supply excellent ratio coverage and enhanced vehicle performance, including hydrostatic continuously variable transmissions (CVT), basic two-speed gearboxes with stand-still shifting, and shift-on-fly hydrostatic transmissions.

At the top end of the technology spectrum, visitors to Bauma China may view the Dana Rexroth hydromechanical variable transmission (HVT), a powersplit configuration that integrates hydrostatic and mechanical travel drives to leverage the advantages of both technologies.

The first product of the 50-50 joint venture between Dana Holding Corporation and Bosch Rexroth AG, the HVT R2 is a modular platform that delivers a full suite of configuration options and software controls. Bosch Rexroth is exhibiting the HVT R2 in hall N4, stand 430/448.

Spicer axles are designed to deliver maximum performance for front-end loaders, offering features and specifications to accommodate defined application needs. Customizable to meet local market preferences, these axles are engineered to provide reliable performance and easy, low-cost service.

Dana has re-engineered and upgraded its Spicer 37R and 43R rigid planetary axles, which offer the same performance as previous versions produced by Dana while reducing axle weight by up to 25 percent. These axles have load capacities from 20 to 50 tons and feature a modular design with a differential carrier, as well as a planetary and service-free brakes positioned inbound.

Dana has commenced production of the new Spicer 37R axle in Wuxi, with plans to start production of Spicer 43R axles in early 2015. The Spicer 37R axle will be shown at Bauma China.

### **Wheeled Excavator Systems Improve Productivity**

Dana delivers a market-leading mix of technologies that improve the performance and maneuverability of wheeled excavators from 8 to 22 tonnes (8.5 to 24 tons) while reducing maintenance requirements.

Dana's drivetrain solutions for wheeled excavators include hydrostatic continuously variable transmissions (CVT), basic two-speed gearboxes, and shift-on-fly hydrostatic transmissions.

Spicer axles for wheeled excavators offer proven performance and durability, featuring wet disc brakes mounted inboard for small applications and outboard for medium and large equipment configurations. Outboard brake designs eliminate jerking while the vehicle digs to ensure smooth operation.

In 2015, Dana will launch the production of axles for smaller wheeled excavators in Wuxi. These axles are engineered to optimize the performance of these applications in the tight work spaces that are increasingly common in Chinese construction environments.

### **Solutions for Enhancing Material-Handling Precision, Efficiency**

Dana's durable drivetrain systems for material-handling vehicles with lift capacities from 3 to 45 tonnes (3 to 50 tons) perform under a variety of working conditions, allowing operators to expertly maneuver vehicles with more precision while enhancing comfort.

Earlier this year, Dana unveiled a four-tier technology powershift transmission platform customized to meet regional requirements and preferences for forklift trucks, reach stackers, and other material-handling vehicles.

Dana will offer a wide range of capabilities across the four tiers by building on a common transmission platform suitable for all markets. This strategy allows machine designers to configure a series of vehicles in the same power range with a wide selection of features that require minimal alterations to the packaging envelope.

The tiers include a full range of options from basic transmission configurations for China that supply proven performance and long-term durability, up to high-feature transmissions for export markets incorporating cutting-edge technologies such as hybridization for maximizing fuel efficiency and productivity. Dana has thoroughly tested these features to determine the efficiency gains of these options and help OEMs quantify the total cost of ownership benefits for equipment buyers.

Dana also offers Spicer planetary axles, which deliver maximum performance and offer easy, low-cost service. The full line features maintenance-free brakes and high-integrity sealing with several other custom options. Spicer axles are available with a lightweight, durable design in both rigid and steer versions.

### **Best-in-Class Aftermarket Support**

Dana offers convenience to customers as the single source for drivetrain replacement parts and service under the Spicer® brand umbrella, which includes Clark™, Clark-Hurth™, Spicer®GWB®, as well as Victor Reinz® sealing products. Dana subjects all genuine Spicer service parts to rigorous original-equipment quality standards to assure consistent quality and exceptional durability resulting in maximum machine up-time.

Leveraged by a global network of 13 distribution centers and supported regionally by a facility located in Wuxi, Dana's dedicated aftermarket team provides technical service, customer support, high fill rates, and on-time delivery to customers around the globe.

Dana also has more than 60 Authorized Spicer Off-Highway Service Centers around the world – including three in China – to provide complete after-sales support for both OEMs and the aftermarket through repairs and spare parts distribution. To learn more, visit [www.dana.com/aftermarket](http://www.dana.com/aftermarket).

This year, Dana began offering complete driveline system remanufacturing services in China for construction, mining, and material-handling applications, and the company will expand these capabilities throughout 2015. Technicians use quality Spicer brand replacement parts to restore transmissions, axles, and driveshafts to like-new condition, delivering substantial performance improvements, cost savings, and environmental benefits.

### **About Dana Holding Corporation**

Dana is a global leader in the supply of highly engineered driveline, sealing, and thermal-management technologies that improve the efficiency and performance of vehicles with both conventional and alternative-energy powertrains. Serving three primary markets – passenger vehicle, commercial truck, and off-highway equipment – Dana provides the world's original-equipment manufacturers and the aftermarket with local product and service support through a network of nearly 100 engineering, manufacturing, and distribution facilities. Founded in 1904 and based in Maumee, Ohio, the company employs 23,000 people in 26 countries on six continents. In 2013, Dana generated sales of \$6.8 billion. *Forbes* magazine selected Dana as one of America's 100 Most Trustworthy Companies in 2014. For more information, please visit [dana.com](http://dana.com).

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Jeff Cole, +1-419-887-3535, [jeff.cole@dana.com](mailto:jeff.cole@dana.com)