Dana Outlines Performance, Positioning Improvements Following Field Tests of VariGlide™ Continuously Variable Planetary Technology

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PARIS, Jan. 23, 2015 /PRNewswire/ -- Dana Holding Corporation (NYSE: DAN) today unveiled the results of ongoing field tests of the company's VariGlide™ technology, a revolutionary new transmission design that incorporates continuously variable planetary (CVP) technology.

Dana engineers have confirmed performance and positioning improvements following hundreds of hours of functional evaluation and dynamometer testing on a standard-sized 2.2-tonne (2.5-ton) forklift truck equipped with VariGlide technology operating in a typical pick-and-place duty cycle. High-fidelity drive-cycle simulations have indicated fuel economy improvements exceeding 20 percent in certain duty cycles. The improvement in fuel economy and performance resulting from the use of this patented, planetary traction drive would enable a payback period in fewer than 18 months.

"VariGlide technology shows considerable promise for delivering substantial gains in fuel economy while supporting superior performance in real-world working environments," said Aziz Aghili, president of Dana Off-Highway Driveline Technologies. "Our testing has led us to begin collaborating with original-equipment manufacturers to validate the performance of VariGlide technology in their individual equipment configurations."

Developed through a strategic licensing relationship with Fallbrook Technologies Inc., VariGlide technology can replace the torque converter in some transmission configurations to decouple engine speed from the vehicle's travel or working speed. Ideal for the rapid acceleration, deceleration, and precise positioning required by material-handling applications, it also eliminates the need for forward and reverse clutches while reducing overall engine speeds, allowing the engine to operate at its optimum efficiency level and reduce noise levels.

VariGlide technology will be offered as a pre-assembled module providing a standard powersplit configuration for forklift truck transmissions produced by original-equipment manufacturers. Dana will also implement VariGlide technology in a premium configuration optimized to supply further fuel efficiency and productivity gains in select Spicer® powershift transmissions.

Through a unique variator design configuration that delivers unparalleled power-path flexibility and no abrupt ratio changes, VariGlide technology provides an infinite number of gear ratios for improved shifting, driver comfort, durability, scalability, and efficiency when compared with conventional continuously variable transmissions (CVTs).

Dana is also developing its VariGlide CVP technology for the light-vehicle market. Incorporated into the existing packaging space of a standard automatic transmission, this configuration is an enhanced alternative to dual clutch and conventional CVTs. VariGlide technology provides today's light vehicles with up to 20 percent fuel savings, improved NVH, smoother shifting, high performance, and responsive engine operation.

The CVP technology used by VariGlide has undergone more than 70,000 hours of durability testing, and leverages more than 700 U.S. and international patents and patent applications. In addition to forklift trucks, it is optimal for telescopic boom handlers, front-end loaders, skid steer loaders, and compact utility tractors.

Dana will present VariGlide technology at Intermat in stand 5A K 064 at the Paris Nord Villepinte exhibition center. To learn more, visit www.dana.com/offhighway.

About Fallbrook Technologies

Fallbrook Technologies is the developer of the patented NuVinci® continuously variable planetary (CVP) technology, which can improve the performance and efficiency of machines that use a transmission, including bicycles, electric vehicles, automobiles, off-highway vehicles, stationary equipment, wind turbines and others. Fallbrook has built an extensive portfolio of over 700 patents and patent applications worldwide. For more information, visit www.fallbrooktech.com.

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. Dana announced preliminary sales of $6.6 billion in 2014. *Forbes* magazine selected Dana as one of America's 100 Most Trustworthy Companies in 2014. For more information, please visit dana.com.

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