

Continental Teves ISAD System Chosen by General Motors for Hybrid Truck Project: Project Signals Move Towards 42-Volt Battery and Electrical System

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AUBURN HILLS, Mich., Jan. 7 /PRNewswire/ -- Automotive systems supplier Continental has been selected to provide an advanced crankshaft starter alternator damper including the electric energy system for an upcoming gasoline-electric hybrid version of the General Motors full-size pickup truck. Beginning with the 2004 model year, the Chevy Silverado and GMC Sierra trucks will offer an optional hybrid propulsion package featuring Continental's Integrated Starter Alternator Damper system, known as ISAD. According to General Motors, the ISAD system will help the trucks gain fuel economy improvements of up to 15 percent.

The ISAD system replaces the conventional starter, generator and flywheel with one electronically controlled unit providing instant starts, high- efficiency 42-volt electrical power and active damping of the power-train system. A key feature in the GM truck installation will be the ability to convert braking energy into electricity, a process known as regenerative braking. Also, the ISAD system will power 42-volt accessories in the vehicle such as power steering. This saves energy, parts and weight by eliminating individual components and the traditional belt drive system.

In the GM application, the ISAD system will help save fuel by allowing the engine to shut down when the vehicle comes to a stop. It supplies power to accessories while the vehicle is stationary, restarting the engine immediately when the driver presses on the accelerator. The entire process is instant,

smooth and virtually transparent to the driver.

A unique feature of the GM hybrid system will be a pair of 20 amp, 110- volt AC outlets, allowing the system to operate as a generator suitable for uses such as running power tools and recreational equipment.

According to General Motors, the ISAD system will allow the truck's 285- horsepower hybrid V-8 to haul and tow just as much as its conventional counterpart. "Unlike our competitors who use the electric motor as a power assist in a small power-train but give up some utility, we will give you all the acceleration, towing and hauling capability that you've come to expect from a truck V-8 engine," said Tom Stephens, vice president of GM Vehicle Integration. "That means people can tow boats, haul a full load or climb steep grades and still have improved fuel economy.

"We believe hybrids are going to make the most sense in higher fuel consumption vehicles, including pickup trucks," Stephens added. "You can save significantly more total fuel converting a 20 mpg vehicle into a hybrid than you would converting a 30 mpg vehicle, especially if it's a vehicle that sells in large volumes."

Continental AG, headquartered in Hanover, Germany, had 2001 sales of approximately \$10 billion (US). Continental is a world leader in the design, development and supply of critical brake and chassis systems that contribute to driving safety and comfort. For additional information, visit this website:

www.conti-online.com