

Bonfiglioli launches ECGenius, its Continuously Variable Transmission, at Bauma 2019

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High-power, efficient and cost-effective, ECGenius is dedicated to telehandler applications

ECGenius is a high-power, efficient and cost-effective continuously variable transmission dedicated to telehandler vehicles, and also suitable for other equipment. The Patented Mechanical Variator (Europe, United States and Asia) at the core of this product is the result of over 15 years of development at CVTCORP, Bonfiglioli's Canadian partner. It enables OEMs to downsize engine while providing unmatched operational ease, and overall vehicle performance improvements in the 20-30% range. Torque and power are transferred seamlessly through 6 actuated rollers, thanks to the electrohydrodynamic lubrication, which prevents metal to metal contact while ensuring the correct torque transfer without slippage.

Thanks to its special technical features, ECGenius is the highest reliable and efficient Continuously Variable Transmission on the market.

The robust design is conceived to handle typical application shock loads, while the precise and stable control system is not at all affected by load variations, all tested by experience with over 500,000 cumulative test hours completed in the lab and by OEMs in real life applications.

The Transmission Control Unit algorithm use, engine and transmission data ensure maximum vehicle efficiency and overall system optimization. The software is easy to integrate and to include special operating modes for specific applications resulting in maximum productivity. The open architecture and customizable software allows maximum flexibility, to adjust to different geographic requirements.

The traction drive mechanical CVT architecture offers smooth, seamless shifting with no steps through an infinite number of effective forward speeds. And the innovative transmission design with advanced control and clutch reduces the number of mechanical components, therefore reducing mechanical and viscous losses. Seamless shifting allows the engine to operate at its optimal operating point translating into fuel efficiency.

ECGenius is the result of an exclusive licensing agreement between Bonfiglioli and CVTCORP, a world leader in the design and development of revolutionary, high-efficiency mechanical Continuously Variable Transmissions (mCVT) for the off-highway market. Included in this licensing agreement are the production transfer of the **ECGenius150**, along with the CVTCORP current sales pipeline with commercialization volume anticipated at the beginning of 2020.

Source: Bonfiglioli