

Press Release

Torotrak-Allison transmission project progresses to next stage

Concept proven, timing to market could meet new legislation for truck fuel economy

Leyland, 24 November 2011 – Gearless traction drive company Torotrak PLC (LSE: TRK) is progressing to the next stage in its programme with Allison Transmissions Inc, the world's largest supplier of automatic gearboxes for mid- to large-size commercial vehicles. The programme has moved through an important milestone that has proved the transmission's required performance on concept hardware. The next phase of the multi-stage programme will develop prototypes of a fully representative production design.

Having completed an extensive process of knowledge transfer to Allison personnel, Allison Transmissions will lead the programme towards production of transmissions while Torotrak provides ongoing specialist technical support and engineering consultancy.

"Torotrak's completion of a substantial proof-of-concept programme with Allison allows the programme to enter the next phase, proceeding to production-representative hardware," said Jeremy Deering, Commercial Director, Torotrak. "Torotrak has re-shaped its engineering delivery structure over the last six months to provide the most relevant support as programmes such as Allison's move closer towards commercialisation. Helping develop the production supply chain for important variable drive components, such as the discs, rollers and traction fluid, is as important to success as is the disciplined engineering staged approach and forensic attention to detail in planning. We are engaged with a number of suppliers with a view to establishing relationships to support Torotrak licensees."

The timing of the programme means Torotrak's technology could be part of the commercial vehicle industry's response to the growing legislative pressure to improve fuel economy. In the US, new regulations from the National Highway Traffic Safety Administration (NHTSA) and the Environmental Protection Agency require heavy trucks to achieve fuel consumption and CO₂ emissions savings of around 20 percent from the 2018 model year onwards. Affecting vehicles built and sold in 2017, commercial vehicle manufacturers must move quickly to ensure they have solutions in place.

“The new US regulations signal a change of priority from the legislators, shifting the emphasis from reductions in noxious emissions to improvements in fuel economy,” commented Torotrak Chief Executive Dick Elsy. “Torotrak’s variable drive technology can help manufacturers to improve commercial vehicle fuel-efficiency and emissions. We know from the work to date that Torotrak technology is most effective at saving fuel in vehicles with stop-start duty cycles, a big part of the commercial vehicle market. We have a proven technology with an appropriate timescale for introduction which can be implemented cost-effectively.”

Part of Torotrak’s strategy is to offer technology that can be implemented at a significantly lower cost of investment and can sit alongside more conventional transmission arrangements. Torotrak technology is being developed for use in a number of other vehicle systems that reduce CO₂ emissions. The company’s compact continuously variable transmission (CVT) is a key part of mechanical flywheel hybrid systems for cars and commercial vehicles. Work is underway with industry partners including Ricardo, Prodrive, Jaguar Land Rover and Optare in pre-competitive research projects that examine the viability of the technology for premium vehicles and buses. Volvo Cars is engaged in a development programme that incorporates a Torotrak CVT with a Flybrid flywheel.

Torotrak’s Rotrak joint venture is developing a variable supercharger that will ensure the more economical, downsized engines, which form a significant part of CO₂ strategies, still provide the driveability car buyers expect. Testing of the system is underway at Torotrak and talks with vehicle manufacturers and Tier One suppliers are in progress.

Torotrak’s technologies are based around the concept of simple variable devices that help recover and reduce waste energy or that enable more radical engine downsizing,” said Deering. “This is helping position Torotrak in new markets and we are currently engaged with a number of Tier One suppliers and vehicle manufacturers that are looking for ways to meet stricter environmental targets.”

The company’s commercial progress is reflected in its improved financial position. Torotrak recently announced half-year results showed a cash balance of £8.8m, up from £8.3m in 2010, strengthened by a £3.5m licence payment from Allison Transmissions.

Torotrak continues to conduct extensive testing and evaluation work for an unnamed European truck and bus manufacturer and has an ongoing licence agreement with Tata Motors.

Link to NHTSA press release:

<http://www.nhtsa.gov/About+NHTSA/Press+Releases/2011/White+House+Announces+First+Ever+Oil+Savings+Standards+for+Heavy+Duty+Trucks,+Buses>

ABOUT TOROTRAK

Torotrak is the global innovator in gearless traction drive technology which increases efficiency and reduces CO₂ emissions in vehicles. The company's variable-drive technology is also being developed for superchargers, engine auxiliary applications and enables energy to be recovered efficiently through flywheels, substantially improving fuel economy.

Torotrak is taking gearless traction drive technology from the test track to the road, putting its proven innovations into mass-production. The company has shown how its transmission technology can reduce CO₂ emissions, conserve energy, save costs and significantly boost efficiency.

The company's engineers deliver world-class technology to its customers that include major vehicle manufacturers and tier-one suppliers. Development has led to customers working on production-ready designs for mass production. The company is fully listed on the London Stock Exchange (LSE: TRK).

www.torotrak.com.

Images



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Prepared by Market Engineering

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