Leoni will continue to expand its commercial vehicles business with innovative products and related technologies

Weight and cost saving technologies to be displayed at IAA 2014

Nuremberg, 16 July 2014 – Leoni, the leading European provider of cables and cable systems to the automotive sector and other industries, will display a variety of innovative products at IAA 2014 (booth C37, hall 13). Under the banner of “Leoni beyond harness”, the company will show the commercial vehicles (CV) industry not only its proven wiring harness capability, but also brand new solutions for weight and cost savings as well as electromechanical components and the latest developments in foaming techniques. Thanks to its strong technology portfolio and global footprint, Leoni will continue to expand its business in the commercial vehicles sector.

“We have developed several new solutions, which can provide clear weight and cost saving opportunities to manufacturers of such [commercial vehicles](http://www.leoni-wiring-systems.com/?L=1&id=12088) as trucks, buses as well as agricultural, industrial and construction equipment”, stated Dr Andreas Brand, member of Leoni AG’s Management Board with responsibility for the Wiring Systems Division. “We are confident that we will grow our business with the CV industry by more than five per cent per year until 2025.”

Alternative conductors save weight and cost

In terms of weight optimisation, Leoni can reduce the harnesses’ weight by replacing conventional wires. Alongside copper wires with smaller cross-sections, the Company provides the CV market with a range of wires made of aluminium for the power segment, i.e. with a cross-section between 10 mm2 and 110 mm2 and even larger. Although the aluminium conductors have a larger cross-section in order to deliver the same electrical conductivity, aluminium technology results in a noticeable weight reduction. On its booth, Leoni will show its busbar, a solid aluminium conductor, which can be bent in three dimensions and weighs only about half as much as the conventional copper component.

Leoni will also show various conductor solutions based on copper. These can be used where mechanical strength as well as electrical conductivity is required. For example, a copper wire with a cross-section of 0.75 mm² could potentially be replaced by a smaller wire cross section, such as a 0.50 mm² or a 0.35 mm². Thanks to the use of less conductor material, Leoni’s customers can not just reduce the weight of their vehicles, but also benefit in terms of cost savings.

Solutions for sensor and multimedia applications

Furthermore, visitors will be able to see developments in sensor applications and tailor-made harnesses, like an over-moulded sensor harness. This combines the harness with temperature detection in a very efficient and reliable way. Also on display will be a sub-assembly for electronic damping control units, demonstrating the integration of electronics in an underbody environment. Moreover, Leoni will display its next generation gearbox interconnection system. This is a sensor to electronic connection solution, which can operate in the harsh environment of gearbox oil operating at very high temperatures.

In terms of multimedia technology, Leoni is working on bus-system applications and antenna cabling. For example, the Company is developing an unjacketed twisted pair cable without a shield, which will be suitable for Ethernet connections. Its single wires will be glued after the twisting process to ensure a better wire geometry. The gluing will prevent any untwisting resulting from mechanical stresses such as bending or torsional force.

Customer-specific electro-mechanical components

Leoni has further expanded its portfolio of [electromechanical components](http://www.leoni-wiring-systems.com/?L=1&id=12092) to support the specific requirements of the CV industry. At the IAA, the Company will display several of these products including fuse, relay and junction boxes for low-voltage applications and hard-wired fuse units. For example, a pre-fuse box with integrated jumpstart and a main fuse and relay box will be on display.

Special exhibit: pre-formed engine harness

With regard to its leading foaming technology, which facilitates production of very robust pre-formed harnesses, Leoni will have a special exhibit on its booth: a EURO-6 engine harness with an integrated power distribution unit (PDU). One of the key features of this pre-formed engine harness involves the integrated fixing elements that prevent rattling, vibration and mechanical stress. This enables a quicker and more secure mounting process at the OEM’s site, ensures full cable protection against chemical and mechanical influences and allows easier fitting in the tightest of spaces.

ECU device for special vehicles

Additionally, Leoni is going to present a main Electric-Electronic Control Unit (ECU) for [special vehicles](http://www.leoni-special-vehicles.com/2615.0.html?&L=1). It represents a compact power distribution solution for all devices with printed circuit boards for the detection of blown fuses. This product acts as the main unit for various control systems and includes a diagnostic plug to connect a laptop to the vehicle’s bus system.

Connectivity: vehicle inlet and cylinder head connector

Leoni will also display an engine harness with cylinder head connector developed in-house, which permits secure and steady transmission of signals from the engine to the sensors and actuators via a cable feedthrough. The housing comprises 12 integrated cable adapters, a fixing insert and a polyurethane foam jacket. Moreover, the robust product comes with two O rings, which assure absolute oil-tight safety. The cylinder head connector is made of a small number of parts and allows quick assembly to the engine.

Leoni is also going to present its power port solution. The power port connector represents the vehicle side plug-in point for charging the batteries of electric vehicles and plug-in hybrids. The SAE version (applicable for the US market) and the GB version (applicable for the Chinese market) of the inlet were developed as a modular system. An ECE version (applicable for the European market) is planned. The start of serial production of the SAE version will be later in 2014.

*(6,134 characters incl. blanks)*

☞ *Related illustration material can be downloaded from
https://www.leoni.com/en/press/releases/details/leoni-will-continue-to-expand-its-commercial-vehicles-business-with-innovative-products-and-related/*

About the Leoni Group

Leoni is a global supplier of wires, optical fibers, cables and cable systems as well as related services for the automotive sector and further industries. Leoni develops and produces technically sophisticated products from single-core automotive cables through to complete wiring systems. Leoni’s product range also comprises wires and strands, standardised cables, special cables and cable system assemblies for various industrial markets. The group of companies, which is listed on the German MDAX, employs more than 64,000 people in 33 countries and generated consolidated sales of EUR 3.92 billion in 2013.

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