

December 19th, 2017

Rheinmetall Automotive at NAIAS 2018

Change Driven: Technology for the drivelines of today and tomorrow

Tier-one automotive supplier Rheinmetall Automotive and its brands KS Kolbenschmidt and Pierburg are exhibiting from January 15 to 18 at NAIAS – North American International Auto Show. On 140 sq. meters, the Company is showcasing its latest technologies for gasoline and diesel engines, and electric motors. The product display is supported by a virtual product app. Rheinmetall Automotive is embracing changing mobility trends and stricter emission regulations under the theme “Change Driven.”

Among the exhibits under Rheinmetall Automotive's Pierburg brand are a heat pump module and coolant pumps to improve thermal management – the control of heat flow. The exhibition features the Liteks-4 design piston technology and bearings under the Kolbenschmidt brand, metal 3D printing technology by Solidteq and a virtual tour through Rheinmetall Automotive's components for electric vehicles.

E-mobility/electrification

Within its product portfolio, the company addresses the change to increasing driveline electrification design with technologies such as a recently developed modular battery pack and a 90-kW electric traction system. Both are currently installed in a test/demonstration vehicle based a subcompact car.

Thermal management

Thermal management in the sense of the complex control of heat flow from various sources is of growing importance on today's engines since it is one way of reducing fuel consumption and emissions. With this in mind, Rheinmetall Automotive is displaying a new kind of solenoid valve that, if needed, will stop the piston crown from being cooled.

Emission reduction through lighter weight and less friction

Within the EU, emissions are required to shrink to as low as 95 g/km by 2020 and the urge to reduce emissions is growing in megacities and emerging countries. The development of lightweight components such as KS Kolbenschmidt's Liteks-4 piston technology, contributes to the reduction of emissions in conventional engines and hence helps to fulfill stricter emission standards. Liteks-4, a lightweight piston specifically for gasoline engines, was only recently developed ready for series production.

Exhaust-gas recirculation

Another part of this year's show presentation is devoted to exhaust-gas recirculation on gasoline engines. The exhibits comprise types of valves for turbo-chargers including an extremely compact exhaust-gas recirculation valve which helps save fuel on both normally aspirated and, especially, turbocharged engines. This valve is already in series production in the USA. Other significant exhibits are oil, water and vacuum pumps which, electrically driven, act independently of the engine load and hence lower fuel consumption and emissions.

About Rheinmetall Automotive

Rheinmetall Automotive AG is the management company of the Automotive sector of Germany's Rheinmetall Group. Sales amounted to around € 2.6 billion in 2016, including around 15 percent from the companies located in NAFTA. This first-tier supplier has been operating on the international auto markets for more than a century. It has a worldwide workforce of about 11,000. Over 1,800 employees work in the USA and Mexico. Other plants are located in Europe, Brazil, Japan, India, and China.