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Rheinmetall Automotive at the International Motor Show 2017

## Change driven, coping with challenges

**This year's International Motor Show (IAA) Cars takes place in Frankfurt from September 14 to 24. As at the previous event, first-tier auto-industry supplier Rheinmetall Automotive AG with its Kolbenschmidt and Pierburg brands will be displaying on an over 500-square meter stand F26 in Hall 8. Under the motto "Change Driven", the stand highlight is a large exhibit dedicated to electric mobility.**

In its current product range the auto-industry supplier is addressing the challenge of increasing driveline electrification with developments including a new kind of modular battery pack and a 90-kW electric traction unit. The new systems are currently being integrated into a test/demonstration vehicle built around a subcompact car. A special exhibit on the stand will focus on the Company's contributions to electric mobility.

The Mechatronics division (Pierburg brand) is displaying a world premiere in the form of its vapor pump. The compact pump purges a vehicle's activated carbon canister without the intake pipe vacuum needed until now. Electric and the first of its kind, it is remarkable for its light weight and rapid reaction times. Among the other products on show are an innovative valve for shutting off piston cooling and a blower for the particle filters on gasoline engines. The latter reduces both energy consumption and vehicle emissions. Another new product is a hot/cold wastegate actuator for improved charge pressure control.

The Hardparts division (Kolbenschmidt brand) is displaying very low-friction alternatives for today's lightweight pistons. Liteks-4, a lightweight piston specifically for gasoline engines, was only recently developed ready for series production. The same piston is also available with ring carrier and coolant passage for high-performance engines. Test bench measurements followed by vehicle simulations have shown a CO<sub>2</sub> reduction of around 1.7 percent (NEDC).

Also among the product-line newcomers are innovative polymers for bearings specially adapted to the tougher mixed-friction conditions resulting from hybridization and the increasing use of low-viscosity oils. The periods in which hybrids or all-electric cars are simply running on electric power and hence with a barely audible driveline, give rise to a heightened noise sensitivity on the part of the driver. The exhibited plain bearings for car interiors allow very quiet adjustments of such parts as seats and backrests.

The origin of the International Motor Show (IAA) goes back over a century: in 1897, eight motorized carriages were presented to the general public at Berlin's Bristol hotel. The event developed into a regular exhibition and, to meet growing interest on the part of the public, was split into two shows, one for cars and another for commercial vehicles as from 1991. IAA Cars is held in Frankfurt in the years ending with an uneven number such as this year, IAA Commercial Vehicles takes place in Hannover in the even-number years.