

Press Information

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Lightweight Forging TechDays Continue their Success – this time at GETRAG FORD in Cologne

Since 2013, a total of 35 steel manufacturers and forging companies as well as an engineering service provider have joined forces to work together on the megatrend of automotive lightweight design. This project is referred to as The Lightweight Forging Initiative. During Phase I, which took place in 2013 and 2014 with 24 participating companies, a medium-sized passenger car was analysed and the lightweight design potential of forged components identified. In total, a weight-saving potential of 42 kg was achieved in the powertrain and chassis. The Initiative entered Phase II in 2015 and 2016 with 28 companies and focussed this time on a light commercial vehicle up to 3.5 t. Phase II was able to build on the success of Phase I by identifying a feasible lightweight design potential of 99 kg in the powertrain and chassis. The results of both phases not only enable a reduction in weight, energy consumption and CO₂ emissions, but also reveal competitive advantages with respect to rival production processes and materials.

Since autumn 2016, The Lightweight Forging Initiative has been offering inhouse events directly at automotive companies. Here, experts from the Initiative speak to designers, developers and purchasers at the relevant companies and outline the results of the lightweight forging study carried out on a passenger car and a light commercial vehicle. The first event took place in autumn 2016 in Rüsselsheim; the second TechDay was held on 18.10.2017 at GETRAG FORD Transmissions GmbH in Cologne.

Several employees from GETRAG FORD Transmissions, FORD and Magna took up the invitation from The Lightweight Forging Initiative and attended both the accompanying exhibition of forging companies and steel manufacturers, which was held in the atrium, as well as the varied lecture program. Keynote speeches covered topics relating to the powertrain, chassis and transmission. In a total of 15 presentations, the speakers outlined the results of The Lightweight Forging Initiative Phases I and II and demonstrated the potential of forged steel components for achieving lightweighting in the powertrain, chassis and transmission. In the atrium, which forms the heart of the headquarters of GETRAG FORD Transmissions, 16 project partners presented their successful results from the Initiative. "Thanks to the collaboration among our high-tech partners, we can show automotive companies how steel forgings can contribute to lightweight design," says Dr. Hans-Willi Raedt, Chairman of the consortium of forging companies in the Initiative.

The broad innovation spectrum of the lightweighting project partners was shown in several hands-on discussions during the exhibition, where comprehensive lightweight design ideas and approaches were explained. "We are delighted about the success of this event. The results show the outstanding advantages generated through the collaboration between forging companies and steel manufacturers," says Tobias Hain, General Manager of the German Forging Association (Industrieverband Massivumformung e. V.).

Additional TechDays are scheduled for 2018, for example at VW in Wolfsburg and at other automotive companies in Germany. Phase III of The Lightweight Forging Initiative commenced in July 2017, with studies on the lightweight design potential in a hybrid passenger car and in the transmission of a truck. Further information may be found at www.massiverLEICHTBAU.de/en/startseite.

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Caption to the enclosed picture:

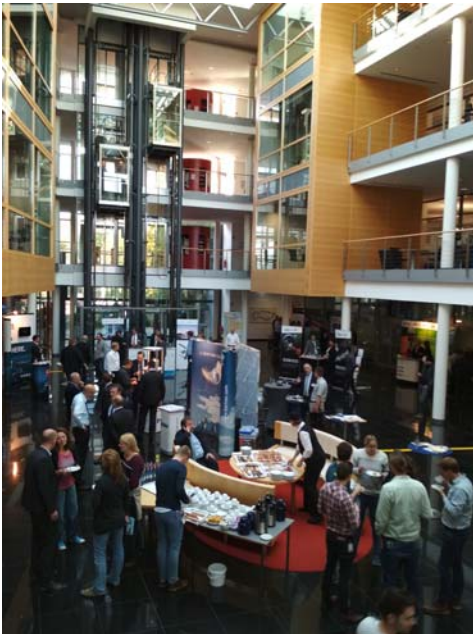


Image: Exhibition of The Lightweight Forging Initiative at the company headquarters of GETRAG FORD Transmissions GmbH in Cologne

The Lightweight Forging Initiative

Since 2013, a total of 35 steel manufacturers, forging companies and an engineering service provider have joined forces under the auspices of the German Forging Association (Industrieverband Massivumformung e. V.) and the Steel Institute VDEh (Stahlinstitut VDEh) to form The Lightweight Forging Initiative. The goal of this Initiative, which is unparalleled worldwide, is to achieve weight-savings in cars and light commercial vehicles using innovative components made of steel. During Phase I, which took place in 2013 and 2014 with 24 participating companies, a medium-sized passenger car was analysed and the lightweight design potential of forged components identified. In total, a weight-saving potential of 42 kg was achieved in the powertrain and chassis. The Initiative entered Phase II in 2015 and 2016 with 28 companies and focussed this time on a light commercial vehicle up to 3.5 t. Phase II was able to build on the success of Phase I by identifying a feasible lightweight design potential of 99 kg in the powertrain and chassis. Phase III of the Initiative kicked off at international level in January 2017. Further information may be found at: www.massiverLEICHTBAU.de/en/startseite

Press Contact:

The Lightweight Forging Initiative
Dorothea Bachmann Osenberg
Goldene Pforte 1, 58093 Hagen
Telephone: +49 (0) 23 31 / 95 88 30
Email: info@massivumformung.de
www.massiverLEICHTBAU.de/en/startseite

Industrieverband Massivumformung e. V. (German Forging Association)

Industrieverband Massivumformung e.V., with its 120 members, represents the interests of the industry with sales of 6.7 billion euros and almost 30,000 employees. A core task is organising collaboration across the member companies, most of which are medium-sized businesses, with the aim of working together to increase the competitiveness of the individual firms. Germany is the technology leader when it comes to forging and, after China, is the world's largest producer of forged parts.

Steel Institute VDEh (Stahlinstitut VDEh)

The association promotes technical, technical/scientific and scientific cooperation among engineers during the further development of steel technology and steel as a material. The Steel Institute VDEh achieves this with joint research projects and exchange of know-how. System manufacturers and suppliers are also involved in the international collaborative projects. Today, the Steel Institute VDEh has around 6,600 members with a university degree in technical, scientific and business management subjects or with a leading position in industry and trade. Furthermore, 150 companies from the area of iron, steel and related materials have joined the association.