

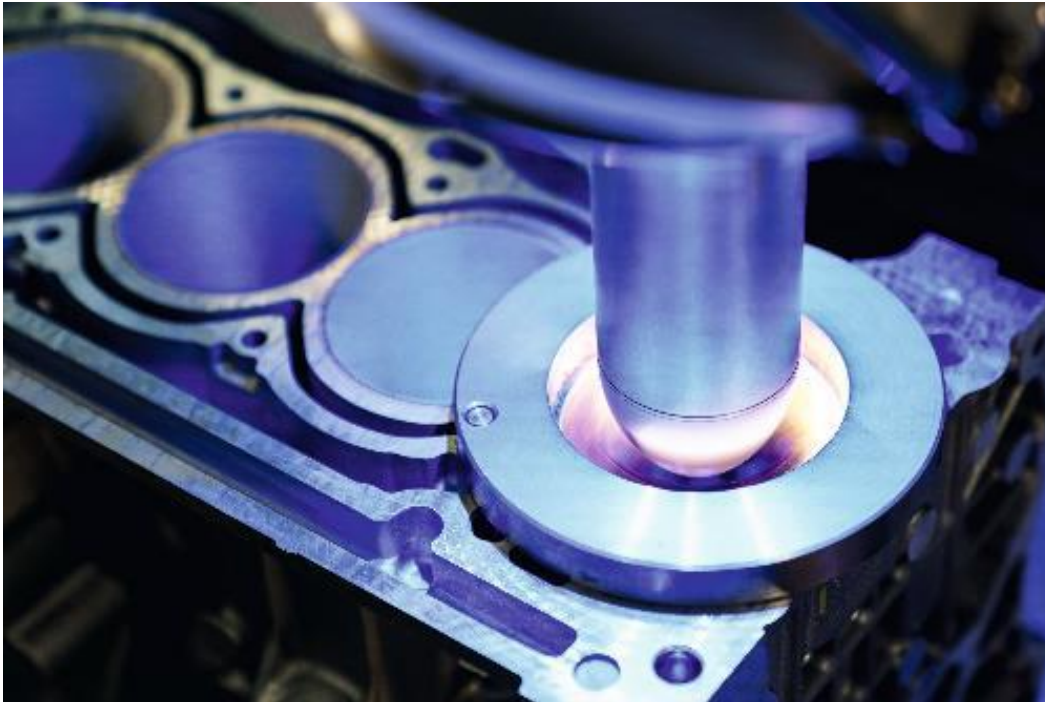
VW orders new laser technology from Gehring for high-efficiency gasoline engine

Hanover, September 16, 2019: After intensive cooperation in process and technology development, Gehring will equip the Volkswagen Group not only in North America with the latest laser and honing technology for the production of coated EA 211 evo engines, but also from now on the first plants in China. With this success story, Gehring once again demonstrates its competence and technological leadership in the field of cylinder machining to increase the efficiency of internal combustion engines.

The VW engine named EA211 evo has been equipped with the latest technologies to increase efficiency and is also available for natural gas models and plug-in hybrids. It thus plays a strategically important role worldwide in the further development of conventional drives and is one of the most efficient engines on the market. The coating of the cylinder liner is one of the important levers. VW will now install the corresponding production lines in China. For these lines, Gehring received the order to supply the laser roughening and honing machines. Dr. Sebastian Schöning, CEO of the Gehring Group, sees the development strategy confirmed: „We are happy that we were able to achieve concrete environmental improvements together with our customers.”

The thermal coating of cylinder bores is a highly sought-after technology for increasing the efficiency of internal combustion engines. Gehring is focusing on optimizing the process chain laser roughening - coating - honing. In order to produce a strong bond between the coating and the engine block, efficient roughening processes are required to ensure overall functionality. Gehring's laser roughening technology brings operative advantages. Apart from cost savings and an improved working environment, there is also a positive effect on the overall engine design. In addition to high adhesive tensile strengths with low roughness, economic advantages take effect in mass production, since no wearing tools are needed and coating material is saved. Both aluminum and cast iron can be pre-machined with the laser refining process. The Gehring laser roughening machines have two spindles with innovative rotation optics for the simultaneous machining of two cylinder liners. The coordinated process steps roughening - coating - honing lead to low-friction and wear-resistant cylinder liners, which contribute to more compact and more efficient internal combustion engines.

Press information



The process for pre-machining cylinder liners by means of laser, industrialized by Gehring, before coating and honing brings decisive advantages in terms of operating costs, working environment and above all friction and heat dissipation. Thus, the method contributes to the optimization of engine efficiency.

About the Gehring Group:

With the Gehring and copperING brands, the Gehring Group offers innovative production solutions for highly efficient conventional and electrified power trains. In the field of fine machining, the company has been shaping the development of honing technology for more than 90 years and provides the automotive industry with the processes of laser roughening, coating and honing answers to the current challenges around the combustion engine. The production technology for e-mobility expands the Group's portfolio and sets new standards in the flexible series production of electric motors.

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