

## **PRESS RELEASE**

## DEUTZ takes next step toward volume production of hydrogen engines

- DEUTZ chooses automotive supplier MAHLE to supply hydrogen engine components
- DEUTZ to start full production of hydrogen engines for stationary applications in 2024
- Further applications in the off-highway segment planned, including agricultural and construction equipment

Cologne, July 11, 2023 – DEUTZ is taking a major step toward volume production of hydrogen engines for the commercial vehicle sector with its decision to source components from MAHLE in future. The automotive supplier has been awarded a volume contract to develop and deliver power cell units. These will be built into the production engines scheduled to enter the market at the end of 2024. The DEUTZ engines will initially be used in stationary applications such as generators, with plans in place to extend their use to mobile applications in the future.

Dr. Sebastian C. Schulte, CEO of DEUTZ: "We need a range of technical options in order to keep the world moving. It remains uncertain what a carbon-neutral excavator or combine harvester might look like. Drive systems that are constantly in use and move large loads could be based on a number of different technologies. One of them is the hydrogen engine, and the success of our pilot projects shows their potential for use in commercial vehicles. In MAHLE, we have a strong partner at our side who will help us to start volume production of our hydrogen engines at the end of 2024."

The design of the hydrogen engine is based on conventional combustion engine technology, but it runs on hydrogen instead of fossil fuels. As the hydrogen combustion process does not generate any CO2, the engine meets the EU's zero-emissions requirements.

MAHLE has been working on components for hydrogen engines for many years and has considerable expertise in combustion engines and alternative fuels. The power cell units consist of a piston, piston rings, and piston pin, which the Stuttgart-based technology company has adapted from conventional diesel technology. The components have already proven their reliability in the company's own test center for hydrogen applications.

The engine company.

DEUTZ ®

"We believe that hydrogen is a key element of sustainable mobility, especially in the commercial vehicle sector. This project with DEUTZ is both a milestone and a beacon, as it shows that there are technological alternatives to electrification for achieving climate neutrality," says Arnd Franz,

CEO and Chairman of the Management Board of the MAHLE Group.

Both companies are united by the belief that mobility can only be transformed through innovation and an open approach to new technologies. Using hydrogen to make the combustion engine

more climate-friendly unlocks the potential of all available technologies.

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About DEUTZ AG

DEUTZ AG, a publicly traded company headquartered in Cologne, Germany, is one of the world's leading manufacturers of innovative drive systems. Its core competencies are the development, production, distribution, and servicing of drive solutions in the power range up to 620 kW for off-highway applications. The current portfolio extends from diesel, gas, and hydrogen engines to hybrid and all-electric drives. DEUTZ drives are used in a wide range of applications including construction equipment, agricultural machinery, material handling equipment such as forklift trucks and lifting platforms, commercial vehicles, rail vehicles, and boats used for private or commercial purposes. DEUTZ has around 5,000 employees worldwide and almost 900 sales and service partners in more than 130 countries. It generated revenue of more than

€1.9 billion in 2022. Further information is available at www.deutz.com.

**About MAHLE** 

MAHLE is a leading international development partner and supplier to the automotive industry, with customers in the passenger car and commercial vehicle sectors. Founded in 1920, the technology company focuses on the future of climate-neutral mobility, particularly on the strategic areas of electric vehicles and thermal management, as well as on other technologies for reducing carbon emissions, including fuel cells and clean and highly efficient combustion engines that can run on synthetic fuels or hydrogen. Half of all vehicles worldwide use MAHLE components.

MAHLE generated more than €12 billion in revenue in 2022. The company employs around 72,000 people at 152 production sites and twelve large research and development centers in 30 countries. (As at December 31, 2022)

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