

Metier Technologies and MAHLE Powertrain to reveal hydrogen combustion technology demonstrator at Cenex Expo

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At the Cenex Expo in September, Metier Technologies and MAHLE Powertrain will present a DAF LF220 fitted with a 6.7-litre, six-cylinder hydrogen engine. The demonstrator is designed to showcase the partnership's powertrain solution to convert existing diesel trucks to run on hydrogen.

James Budgett, managing director of Metier Technologies said: "This project will demonstrate what can be achieved when engineering expertise meets urgent environmental needs. Working with MAHLE Powertrain's established control technology, we've proven that existing diesel trucks can be rapidly converted to hydrogen power, offering depot-based fleet operators a practical, commercially viable pathway to zero-emission transport without waiting for entirely new vehicle platforms."

The hydrogen internal combustion engine (ICE) solution uses MAHLE Powertrain's ECU. Its control system takes care of the mapping and calibration needed for hydrogen ICE and the ECU optimises performance and safety.

Compared to more expensive powertrain options like battery electric and hydrogen fuel cell, Metier's hydrogen engine is designed to offer lower total cost of ownership, longer duty cycles and the ability to support heavier payloads. The engine features specialist hydrogen injectors to suit the gas.

In preparation for the Cenex Expo, the hydrogen ICE system has undergone testing at MAHLE Powertrain's Northampton heavy-duty hydrogen test bed facility. Here, the team worked on engine mapping and performance optimisation to prove the reliability of the technology.

Mike Bassett, engineering director at MAHLE Powertrain, is due to present the technology demonstrator at Cenex and discuss the hydrogen ICE design and its technical features.

After Cenex, Metier plans to start working towards proof of concept vehicles with initial deployments by mid-2026. Early 2027, Metier is targeting volume deployments which will be supported by relationships with hydrogen suppliers, fleet operators and leasing companies. At this stage, Metier is focusing on a regional approach, identifying existing hydrogen ecosystems in places like Scotland and the south west.

<https://www.commercialmotor.com/news/article/metier-technologies-and-mahle-powertrain-to-reveal-hydrogen-combustion-technology-demonstrator-at-cenex-expo>