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Title: MAHLE Modular Hybrid Powertrain

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Abstract

Vehicle manufacturers are facing increasing pressure by legislation and economics to reduce vehicle emissions and deliver improved fuel economy. By 2025 significant reductions in tailpipe carbon dioxide (CO₂) emissions will need to be achieved to meet these requirements, increasing the interest in hybrid and electric vehicle technologies.

Building on previous research projects, focused on the design of a dedicated range extender (REx), heavily downsized internal combustion engines and pre-chamber combustion system developments, MAHLE Powertrain propose a possible hybrid technology pathway for powertrains. This has been optimised for the future global automotive market and is targeted to meet emissions and CO₂ targets for 2030 and beyond.