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A New 3 Cylinder 1.2l Advanced Downsizing Technology Demonstrator Engine

Dave Hancock, Neil Fraser, Mike Jeremy, Richard Sykes, Hugh Blaxill
MAHLE Powertrain Ltd.

ABSTRACT

This paper introduces the new 3 cylinder 1.2l downsizing technology demonstrator engine from MAHLE. The purpose of the paper is to describe the design approach and technologies applied. Emphasis is given to the low speed torque and transient response issues associated with advanced downsized engines. An overview of the design of all engine systems is provided, including the predictive analysis results used to validate, guide and optimize the design process. The design targets outstanding levels of performance, fuel consumption & drivability.