

TITLE

Alive and Kicking: The Premature Burial of Internal Combustion

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ABSTRACT

Media stories declaring the death of the internal combustion engine have become commonplace in the last year and a half. Recently several automotive companies have pledged an electric future, and governments have proposed bans on gasoline- and diesel-powered vehicles. Since the dieselpgate scandal of 2015, the demonization of diesel engines in particular has spread from on-road to off-road, despite ever-increasing efficiency and significantly reduced emissions. Indeed, the European emissions standards for non-road mobile machinery have become progressively stringent from the Stage I regulations of the late 1990s to the Stage V regulations (effective next year), which limit carbon monoxide, hydrocarbons, nitrogen oxides, particulate matter, and even particle number emissions.

This talk will untangle the myths of internal combustion and will argue that, although the use of electrification will continue to grow, the IC engine holds a firm place in future transportation needs as well as in various industrial sectors. Specifically, for off-road applications, the diesel engine provides a unique combination of durability, performance, and convenience that is unmatched by other technologies. With continued research and development, internal combustion will get even cleaner and should remain at the heart of off-road power systems for years to come.

KEYWORDS

Media, internal combustion, off-road applications, emissions, electrification