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现代乘用车柴油机技术

韩志玉

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摘　要

市场需求、排放法规、燃油经济性、客户满意度和成本是影响车用发动机技术发展的主要因素。与汽油机相比，现代柴油机在上述方面大都具有一定的优势，因此现代柴油机技术已成为乘用车发动机技术发展的一个重要方向。目前我国乘用车柴油机与国际先进水平仍存在很大的差距，亟需突破包括高效清洁燃烧技术、电子控制燃油喷射系统、发动机管理及标定技术等技术难点。建议自主开发低油耗、低污染物排放的高效清洁乘用车柴油动力，以满足我国未来乘用车大市场的需求。

Abstract

There are some dominant factors which affect the technology development of diesel engines, including market requirement, emission regulation, fuel economy, customer satisfaction and cost. In the above aspects, modern diesel engines have advantages over gasoline engines, therefore advanced diesel technology is an important direction for passenger car engines. At present there is a visible gap in the diesel engine technology for passenger cars between China and foreign developed countries. In order to realize independent development of advanced diesel engines with low fuel consumption and pollutant emissions, and meet the need of the future passenger car market in China, it becomes urgent to break through the difficulties in the technology of modern diesel engines, such as high-efficient and clean combustion, electronic controlled fuel injection, engine management, engine and vehicle calibration, etc.