18SKSAE_A095

Improvement in operating performance of an electric regulator applied on CNG fueled vehicles

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Key words : Electric regulator, CNG, Structural parameter, Maxwell

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The purpose of this study is to study and develop a high operating performance electric regulator applied on CNG fueled vehicles.

This study is conducted based on specifications of a real electric regulator and then develop it following the change of structural parameters. To execute this simulation study, Maxwell tool is used as a solver with input parameters imported from the specifications of the electric regulator.

In order to provide information for this study, the effects of designed parameters such as plunger shape, core shape and plunger materials on the operating performance of the electric regulator are investigated. The studied results show that a high operating performance could be obtained for the electric regulator if the designed parameters are suitably adjusted.