

Evaluation of Wear in Aftermarket Brake Pads for Enhancing Braking Performance in a Passenger Vehicle

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Abstract

Nowadays, due to the high demands from the independence automotive service centers; there are many aftermarket brake pads available at spare parts shops and sold at reasonable prices. Several types of brake pads are available in the market such as semi-metallic and Non-Asbestos brake pads. The purpose of this study is to evaluate the wear of after-market brake pad performance under the normal driving conditions (highway and non-highway). Three types of aftermarket brake pads that mainly used and sold by independent service shop were selected in this study. The data of the wear in thicknesses losses and weight percentage losses were recorded. The results show that brake pad of non- Asbestos Organic type gives the highest wear loss and create a lot of dust. For semi-metallic brake pad type, the result shows the lowest mass loss. Therefore, it is important to select the suitable type of aftermarket brake pads in order to get balance between cost and quality.

Author keywords

Brake disc; Brake pad; Brake pad material; Friction materials; Thickness; Wear

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