TYRES WEAR, HARMFUL EFFECT ON HUMAN AND MEASUREMENTS FOR IT REDUCTION: A REVIEW

Nadica Stojanović[1], Ivan Grujić[2], Milan Ivković[3], Danijela Miloradović[4], Suzana Petrović Savić[5]

[1]University of Kragujevac, Faculty of Engineering, Department for Motor Vehicles and Motors, Sestre Janjić 6, Kragujevac, Serbia, nadica.stojanovic@kg.ac.rs
[2]University of Kragujevac, Faculty of Engineering, Department for Motor Vehicles and Motors, Sestre Janjić 6, Kragujevac, Serbia, ivan.grujic@kg.ac.rs
[3]University of Kragujevac, Faculty of Engineering, Department for Production Engineering, Sestre Janjić 6, Kragujevac, Serbia, milan.ivkovic@kg.ac.rs
[4]University of Kragujevac, Faculty of Engineering, Department for Motor Vehicles and Motors, Sestre Janjić 6, Kragujevac, Serbia, neja@kg.ac.rs
[5]University of Kragujevac, Faculty of Engineering, Department for Production Engineering, Sestre Janjić 6, Kragujevac, Serbia, petrovic.savic@kg.ac.rs

ABSTRACT

The tires are the acting organs of the vehicle by which it achieves its movement. During the vehicle movement/drive it comes to the friction between the tires and road, which causes the tires wear. The particles formed due to the tires wear, are harmful for human and its environment. In the paper is conducted the review of existing literature, where firstly are presented factors which contribute to the tires wear. After, it is given the representation, how these particles enter into human organism, and how this further influence on human health. Further are presented measurements for wear reduction. On the basis of the comprehensive analysis of the observed papers from the subject field, have come to the very useful conclusions as well as propositions to what should give attention during the future researches, as well as during the development of new tires, in order to reduce their wear.

Keywords: particles, tires wear, environment, human health.