

# <sup>1</sup> EMISSIONS CHARACTERISTICS OF TRACTORS DIESEL ENGINE FUELLED WITH THE BLENDS OF MINERAL DIESEL-BIODIESEL FUELS

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## **Abstract**

The growth in the number of vehicles worldwide has led to increase fuel consumptions, and air pollution and CO<sub>2</sub> emission. It is fact that millions of dollars are currently being channeled in the direction to find ways to reduce CO<sub>2</sub> emissions, instead of to reduce the harmful PM and NO<sub>x</sub> emissions.

Currently practically 97% of transportation fuels are produced from crude oil.

The growing fuel consumption can not be covered only by conventional and limited fossil sources. Alternative fuels offer the potential to stretch the resources of conventional fossil fuels. These fuels are free of sulfur and aromatics, they have high cetane numbers and they offer advantages for engine emissions.

From this aspect paper deal with the influence of fuel blends mineral diesel – biodiesel on diesel exhaust emissions.

**Key words:** biodiesel, emissions, diesel engine.

## **KARAKTERISTIKE EMISIJE TRAKTORSKIH DIZEL MOTORA KOJI KAO GORIVO KORISTE MEŠAVINE MINERALNIH BIO-DIZEL GORIVA**

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**Rezime:** Stalni rast broja vozila širom sveta doveo je do povećanja potrošnje goriva, povećanja emisije CO<sub>2</sub> i zagađenja vazduha. Činjenica je da se danas troše milioni dolara za iznalaženje puteva za smanjenje emisije CO<sub>2</sub>, umesto na smanjenje štetnih emisija NO<sub>x</sub> i PM. Danas se praktično 97% goriva za transport proizvodi iz sirove nafte.

Rastuća potrošnja goriva ne može biti pokrivena samo iz ograničenih konvencionalnih fosilnih izvora. Alternativna goriva nude mogućnost produženja resursa konvencionalnih fosilnih goriva. Ova goriva su bez sumpora i policikličnih aromata, ona imaju visoke vrednosti cetanskog broja a u motorima daju izduvne emisije sa manje štetnih gasova.

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Sa tog aspekta rad se bavi uticajem mešavine mineralnog dizela sa biodizelom na emisije izduvnih gasova traktorskog dizel motora.

**Ključne reči:** biodizel, emisije, dizel motor.