

Effect of EGR on Performance of Diesel Engine Fueled by Mauha Oil and It's Blends

Rajendra K Patil

Professor Department of Mechanical Engineering
TSSM's PVPIT Bavdhan, Pune
Savitribai Phule Pune University
Pune, India
rkvpit@gmail.com

Mohan Khond

Department of Mechanical Engineering
College of Engineering
Pune, India
mpk.mech@coep.ac.in

Abstract

The invention of internal combustion engine and subsequent developments in engine technology led to wide spread exploitation of the petroleum reserves, which are being depleted at a rapid rate there is a need to search for an alternative fuel that can substitute diesel. EGR is proved to be one of the most efficient methods of NO_x reduction in diesel engines. The proposed work is concerned with experimental set up for effect of EGR on performance of diesel engine fueled by mahua oil & its blends. The objective of the present work is to find out the brake thermal efficiency for various biodiesel blends. Various problems are associated with vegetable oils. The best solution to the problems is Transesterification. Mahua oil after transesterification is used in diesel engine and results can be compared with diesel fuel used in diesel engine.

Keywords

Diesel Engine, EGR (Exhaust Gas Recirculation), Mauha Oil, Alternative Fuels