

Vibration Analysis on Palm Oil Methyl Ester with The Additional of Butanol

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Abstract:

With the development of alternative fuel to replace the usage of petroleum-derivatives, the noise and vibration in the diesel engine has become one of the main focus by researchers recently. The biodiesel has been investigated numerously since the application does not need any modification of the engine and with the different fuel properties, the biodiesel can enhance or deteriorates the engine. Hence, this study will be carried out to investigate the effect of different biodiesel blends usage in diesel engine by using noise and vibration analysis. The noise level will be obtained by using sound level meter and the vibration level will be evaluated in acceleration term by using uniaxial accelerometer. The results are predicted to show a higher noise and vibration level in high blend ratio, speed and load. All the findings from this study can be used as a reference for further research.

Keywords: Palm Oil; Petroleum-Derivatives; Biodiesel Blends

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