

Performance Test Of A 4 Stroke Motorcyle Against The Addition Of Turpentine Oil Bioadditive As A Peralite Mixture

by

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ABSTRACT

This research report entitled "Performance Test of a 4 stroke Motorcycle Against the Addition of Turpentine Oil Bioadditive as a Peralite Mixture". This research was conducted in the RAT Sport Racing Sidoarjo laboratory. The purpose of this research is to add turpentine oil bioadditive as a mixture of peralite to create perfect combustion in the combustion chamber. As well as knowing the performance of 4-stroke motorcycle with the addition of turpentine oil bioadditive as a mixture of peralite fuel (torque, power, and specific fuel consumption). The method used in this research is experimental method. Peralite fuel will be mixed with turpentine oil bioadditive, then will be used on motorbikes. With the percentage of fuel mixture peralite and turpentine oil bioadditive 10%, 20%, and 30%. The engine speed used in this study was at 3000 - 8000 rpm. Data collection is based on the results of motorcycle testing in the form of changes in performance (power and torque) using the dynotest tool and specific fuel consumption measurements. Based on the research results, it shows that the fuel mixture of peralite and turpentine oil can improve motorcycle performance. The maximum torque produced in the 30% mixture is 25.5 n.m at 3000 rpm and the maximum power produced in a 30% mixture is 12.1 hp at 4000 rpm. Meanwhile, the best specific fuel consumption for pure peralite is 0.34 kg / hour. hp at 3000 rpm.

Keywords: *Turpentine Oil, Torque, Power, Specific Fuel Consumption.*