ANALYSIS OF STANDARD AND IRIDIUM SPARKPLUG GAP RAGES ON EXHAUST GAS (CO) AND (HC) EMISSIONS WITH VARIATIONS OF SPARK GAP AND FUEL ON 4 STROKE MOTORCYCLES

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ABSTRACT

The increasing number of motorized vehicles every year causes an increase in air pollution, one of which comes from vehicle exhaust emissions. The purpose of this research is to find out more about exhaust emissions, especially CO (Carbon Monoxide) and HC (Hydrocarbon) resulting from combustion in the engine by using standard spark plug types and iridium spark plugs by changing the size of the spark plug gap and using different types of fuel. In this study using spark plug variations of standard and iridium types with each gap of 0.7 mm, 0.9 mm, and 1.1 mm using fuel variations of pertamax and pertamax turbo with testing at 1500 Rpm. The results showed that the lowest CO levels were obtained when using standard spark plugs with a gap of 0.7 mm (CO = 0.15%) and iridium spark plugs with a gap of 0.9 mm (CO = 0.17%) on pertamax turbo fuel. While the lowest HC levels were obtained using iridium spark plugs with a gap of 0.9 mm (HC = 59ppm) using pertamax fuel.

Keywords: *Exhaust Gas Emissions, Iridium Spark Plug, Standard Spark Plug*