Pengaruh Variasi Diameter *Turbo Cyclone* Pada *Intake Manifold* Terhadap Emisi Gas Buang Motor Bensin 4 Langkah

Effect Of Variation Diameter Turbo Cyclone In The Intake Manifold For Gas Emissions 4 Stroke Gasoline Motorcycle

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ABSTRACT

The aim of this research is to create a turbulent flow in a mixture of air and fuel into the combustion chamber by adding a turbo cyclone in the intake manifold. Gas Emissions that a comparison between the standard intake manifold and intake manifold with turbo cyclone. Experimental method will be use during this research. The research at State Polytechnic of Jember during 10 April – 10 December 2016. This experiment focuses on the percentage of the exhaust gas is then calculated Reynolds number of each tool added. Results from this study is that with the addition of turbo cyclone exhaust emissions produced more higher. Can be seen at 1500 rpm the exhaust gases produced standard intake manifold is HC=208ppm, CO=1,68%, CO_2=1,34%, O_2=17,49%. Turbo cyclone 18 mm HC=236ppm, CO=1,85%, CO_2=1,53%, O_2=17,34%. Turbo cyclone 22mm HC=388ppm, CO=12,12%, CO_2=1,49%, O_2=17,04% and constantly changing to suit the graph exhaust emissions standard.

Keywords: *Turbo Cyclone, Gasoline Motorcycle, Reynold Number, Gas Emissions.*

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