

## **Abstrak**

# **PENGARUH PENGGUNAAN BERBAGAI MACAM ZAT ADITIF BAHAN BAKAR TERHADAP KINERJA MOTOR EMPAT LANGKAH 125 CC BERBAHAN BAKAR PERTAMAX95**

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Today the people of Indonesia has a very large dependence on primary energy sources of fossil origin. Fossil fuels are the main energy source in industry, transport and households. demand for energy resources its use it is very important to note. Seeing such conditions arise innovation of the few manufacturers that offer a wide range of fuel additives, the additive is believed to save fuel. interconnect with it is necessary to do research on the effects of various kinds of fuel additives to motor performance four-stroke 125 cc fuel made from pertamax 95.

This research uses experimental methods and a quantitative research. Free variable that is adding fuel additives Nitrox Hot Shot was 33 ml / l, fuel additives Prestone of 8 ml / l, additive Mygreenoil of 1 ml / l, fuel-saving devices, and fuel pertamax 95. Variable bound ie fuel consumption, power, torque, emissions and use of fuel additives and fuel saving devices

Results of the analysis showed that fuel at a speed of 40 km / h pertamax 95 pure without additives mixture results obtained 48.93 km / liter. Torque and power the highest average for fuel pertamax 95 purely on the results obtained 4000 rpm 19.9 Nm. Then the mixture pertamax 95 + Nitrox shot Hor 5000 rpm 8.5 Nm results obtained and the fuel mixture pertamax 95 + Femax at 4000 rpm rotation results obtained 5,33 kW. Pertamax 95 + additives Prestone the CO emission levels of 3.1736% in volume, 14.54% by volume CO<sub>2</sub>, HC 264.8 ppm by volume, O<sub>2</sub> 1.722%.  
Keywords: fuel-saving device, the fuel pertamax 95, additives

## **PRELIMINARY**

Fuel plays an important role in transportation. The high mobility of the people of Indonesia to make increased fuel needs. The impact necessities of life is also more expensive. By because it fuels should be used sparingly. There are several methods to save fuel consumption is check the air pressure in the tires motorcycle, do not heat up the motor