

## **ABSTRACT**

*Depletion of petroleum and increasing population in humans are very contradictory to the needs of transportation facilities and industrial activities. This results in an increase in the need and consumption of fuel oil which is a non-renewable natural resource. This study aims to examine experimentally the effect of the use of a mixture of pyrolysis oil mixture on pertalite on torque, power, and fuel consumption of the 110cc Honda Beat gasoline motor.*

*The pyrolysis oil is mixed with Pertalite with percentage volume of pyrolytic oil; 0%, 5%, 10%, 20%, and 30%. The method that used in this research is to use dynotest tool kit and fuel consumption test. Parameters measured are torque, power and fuel consumption. The parameters measured are the amount of torque, power and fuel consumption used.*

*The results of the study showed that pure pertalite produced the highest torque and power compared to variations of the pertalite mixture with other pyrolytic oil. This is due to the low viscosity value of pure pertalite. While the lowest fuel consumption is found in variations of pertalite 70 vol% mixed fuels and 30 vol pyrolytic oil which produce fuel consumption of 41.66 km / l so it can be concluded that the savings in fuel consumption are almost twice that of pure pertalite.*

**Key words :** *Pyrolytic Oil, Pertalite, Honda Beat, torque, power, and fuel consumption.*

