UJI ANGKA CETANE BAHAN BAKAR SAMPAH PLASTIK POLYPROPILENE HASIL PYROLISIS DENGAN CAMPURAN BIODIESEL

(Test the Cetane Number of Pyrolisis Plastic Polypropylene Waste Fuel with Biodiesel Mixture) Commision Guide, Aditya Wahyu Pratama, ST,MT

> Ivan Maulana Assafiri Automotive Engine Study Program Engineering Department Program Studi Mesin Otomotif Jurusan Teknik

ABSTRACT

At this time the amount of plastic waste in Indonesia is very large and the number of fossils on earth has begun to thin out, this makes it strong in the background of this research. This study aims to minimize the amount of plastic waste in Indonesia by distillation to produce environmentally friendly fuels, but the majority of Indonesian people still doubt this plastic waste fuel, therefore this research is intended to convince the public to use this plastic waste fuel with mixing waste plastic fuel and biodiesel, with the hope that the content of cetane numbers can be higher than Pertamina standards.

The method used in this study is an experimental method with the dependent variable is the cetane number and the independent variable along with the results of the research are polypropylene plastic fuel Pure Equivalent Solar 90°C: 70.3, Pure Biodiesel 90°C: 68.2, polypropylene plastic fuel + 15% Biodiesel 90°C: 68.7, polypropylene plastic fuel + 25% Biodiesel 90°C: 68.7, polypropylene plastic fuel + 30% Biodiesel 90°C: 68.5, Pure polypropylene plastic fuel Solar Equivalents 110°C: 69.0, Pure Biodiesel 110°C: 68.2, polypropylene plastic fuel + 15% Biodiesel 110°C: 68, 6, polypropylene plastic fuel + 25% Biodiesel 110°C: 68.7, and the best results are a mixture of Pure Solar Equivalent polypropylene plastic fuel 90°C.

Key words: Plastic Trash, Polypropylene, Cetane Figures, Biodiesel