

ABSTRACT

Ariyanto, Romy. 2018. *The Maintenance and Repairing of Engine Used in "OSCAR" Energy Efficient Car*. The Final Project, National Institute Of Technology Malang, Faculty Of Industrial Tecnology, Mechanical Engineering Diploma III.

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Energy efficient car is a vehicle that designed to minimize fuel usage and produces low exhaust emission. As fossil fuel for energy source decreases a lot while the energy demand constantly rising makes energy becomes a real problem in most countries of the world including Indonesia.

"OSCAR" Energy Efficient Car constructed from 4 strokes Supra X 125 cc engine, SOHC, single cylinder, 124.89 cc capacity with 7.40 kW (10.1 PS) / 8.000 rpm as maximum power and 9.30 Nm (0.95 kgf.m)/4.000 rpm for maximum torsion. This final project discusses calculation of engine specifications, maintenance, and repairing for the engine of OSCAR Energy Efficient Car. Regular maintenance is required to protect and lengthen the components age while doing check to every components must be done before starting maintenance process and repairing process to seek whether there is any broken component that must be repaired or replaced by new component.

The purpose from "OSCAR" Energy Efficient Car creation are as requirement for passing the final project and expected to compete in *Kontes Mobil Hemat Energi (KMHE)*.

Keywords: Engine Specification, Maintenance, Repairing