

ANALYSIS OF THE EFFECT OF MIXING PREMIUM FUEL AND MESRANIA SUPER 2T OIL ON 2 STROKE ENGINE

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ABSTRACT

Motorized vehicles have long been known to be a source of air pollution. Many big cities in the world use this type of 2 stroke motorbike, poisonous gases that are emitted by millions of exhausts, for some reason causing serious problems for human health. For this reason, it is necessary to solve the problem of how the effect of mixing premium fuel with side oil on exhaust gas emissions so that the 2 stroke motorbike, which is considered the highest polluter, does not need to be limited for its production. Besides that, exhaust gas is also very dangerous for health. There are four main emissions produced by vehicles, namely: CO₂, CO, HC and O₂. This research was conducted using premium fuel and mesrania super 2T side oil by using an experimental method using the basic concept of the variable that corresponds to the mixing of the fuel. This study aims to obtain the value of exhaust gas emissions from mixing premium with mesrania super 2T side oil on a 2 stroke motor vehicle in the mix ratio (95% premium : 5% side oil) CO value 1.64%, HC 4241 ppm, O₂ 1.0%, CO₂ 12.00%. (93% premium : 7% side oil) CO value 1.59%, 4388 ppm HC, O₂ 1.0%, CO₂ 17.42%, (90% premium: 10% side oil) CO value 1.51%, HC 3974 ppm, O₂ 1.0%, CO₂ 14.81%, (88% premium: 12% side oil) CO value 1.45%, HC 3504 ppm, O₂ 1.1%, CO₂ 14.81% , which was carried out on a 2-step motorbike of the Yamaha RX King 135 cc at 3500 RPM using a Gas Analyzer. The results of the study are compared, get a good emission value for 2 stroke motorized vehicles in a mixture of 93%: 7% with a CO value of 1.59%. CO₂ 17.42%, HC 4388 ppm and O₂ 1%.

Keywords: Exhaust Gas, Premium, Mesrania Super 2T, Exhaust Emissions.