MODIFICATION OUTLET DIAMETER OF GAS FUEL MIXER CONVERSION KIT (Ø = 3 mm; Ø = 4 mm; and Ø = 5 mm) IN ORDER TO FIND THE MAXIMUM TORQUE

Student Name : MUHAMMAD JIBRIL
Student Number : 2104 100 050
Department : Teknik Mesin FTI-ITS
Academic Advisor : Dr.Eng. HARUS L.G., ST. M.Eng.

Abstrak

Due to the shortage supply of world oil reserves, and the effect of pollution caused by the Liquid Fuel, this encourages people to find alternative energy sources. One of the possible energy sources that can be used in vehicles is Gas Fuels. However, the use of Gas Fuels in vehicles need a set of tools called Conversion Kit.

Mixer conversion kit is a tool that functions to mix Gas Fuels with air before entering the combustion chamber. A test will be run on by varying the outlet diameter of Gas Fuels outlets for 3 mm, 4 mm and 5 mm. This can be done using the conversion tool kit (zebra taxi) to get the maximum torque.

Results from the Modified Mixer Conversion Kit show a maximum torque of 1117.272 Kg.cm for 3 mm diameter, 1160.244 Kg.cm for 4 mm in diameter, and 1203.216 Kg.cm for 5 mm in diameter. The maximum torque obtained at a cycle of 2500 rpm.

Keywords: Gas Fuel, Conversion Kit, Mixer, outlet diameter, the maximum torque.