## Effect of Addition of Dry Cell Type HHO Generator With 304 Stainless Steel Electrodes on Performance and Exhaust Gas Injection Motorcycles

By:

## Wahyu Ardy Saputra

Department Of Machine Engineering Faculty Of Engineering

## ABSTRACT

The HHO gas is a fuel produced from the electrolysis of water in an HHO generator. The HHO gas produced can help increase performance and reduce exhaust emissions in vehicles. This study aims to determine the effect of adding a dry cell type HHO generator with 304 stainless steel electrodes on injection motorcycles. The addition of the HHO generator to injection motorcycles provides a power increase of 6.25% from 9.2 Hp to 9.8 Hp at 7561 Rpm and a torque increase of 8.19% from 10.86 Nm to 11.75% at 5290 Rpm. Furthermore, the addition of an HHO generator to injection motorcycles also affects exhaust emission levels, namely reducing carbon dioxide  $(CO_2)$  levels and increasing hydrocarbon (HC) levels, this is possible because injection motorcycle engines with an EFI system are different from motorcycles with a carburetor system so that injection motorcycles experience ECU malfunctions that do not recognize fuel supplements that are put into the engine.

Keywords: electrolysis, HHO generator, performance, exhaust emission