

***Analysis of Spark Plug Variations on Performance and Specific Fuel
Consumption***
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ABSTRACT

This study aims to analyze the comparison of the effect of spark plug variations on performance and specific fuel consumption. Data retrieval using experimental methods where each variation of spark plugs including standard spark plugs, iridium spark plugs, and racing spark plugs are tested using a dynotest tool to determine the resulting performance. And for specific fuel consumption using a tachometer and burette. The results showed that the best torque and power were produced by standard spark plugs, where from 4000 to 7000 rpm the torque and power increased, but at 8000 rpm the engine performance decreased. For the lowest engine performance produced by racing spark plugs. In the test of fuel consumption, the lowest consumption is produced by iridium spark plugs with the best SFC value for each engine speed variable. The highest fuel consumption is produced by standard spark plugs, with the lowest SFC value for each engine speed variable. In the use of standard spark plugs, the temperature of the sparks produced is the lowest, but the resulting performance is quite high and fuel consumption is also high. In the use of iridium spark plugs and racing spark plugs, the spark temperature is very high, and the spark is more focused and blue, but the resulting performance is low or decreased, and the fuel consumption is also low.

Keywords: *Standard Spark Plugs, Iridium Spark Plugs, Racing Spark Plugs, Performance, Fuel Consumption.*