

ABSTRACT

Analysis of Variation of Coils to Power, Torque and Consumption of Beat 110cc Fuel

Mochamad Irwan Nari ST., MT (*First Supervisor*)
Azamataufiq Budiprasojo ST., MT (*Second Supervisor*)

Dodik Dwi Rimbodo
Automotive Engineering Programs
Departemen Of Engineering

ABSTRACT

Coil is an ignition that converts a low voltage source from a 12 volt battery into a high voltage of thousands of volts. The disadvantage of the carburetor motor system is that the fuel is more wasteful than using a more efficient injection system. Therefore it is necessary to increase at least one of the 3 elements. One of them is by improving the ignition system, it is hoped that in addition to being able to increase torque power, fuel consumption can also be achieved. The research was carried out research in the state polytechnic of Jember and the Pasuruan mili workshop. The results of this study were obtained from the standard coil at 8000 rpm 8.1 hp power, 6.8 Nm of torque and sfc min 0.032 kg / hp.h at 7000 rpm, the variation of the standard coil at 8000 rpm was 8.3 hp, 7 torque , 2 Nm and 0.023 kg sfc min / hp.h at 3000 rpm, the power coil of 8000 rpm is 8.4 hp, torque of 7.2 Nm and 0.042 kg sfc min / hp.h at 5000 rpm, ktc 8000 rpm at 8, 1 hp, 7.6 Nm of torque, sfc min 0.042 kg / hp.j at 7000 rpm. It can be concluded that by using a racing coil, the power and torque values are higher than the standard at 8000 rpm, and the minimum sfc value of the lower standard coil in other words is more efficient than the racing coil at 3000 rpm.

Key words: Standard coil, racing coil, torque, power and motorcycle consumption