Designing CDI Module for ECU iquteche And Performance Comparison Module CDI and TCI At Honda Motorcycle Specifications SupraX 125 MP1

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ABSTRACT

One of the supporting components in the electrical system of the motor gasoline is CDI. CDI types are offered in a variety of industry types including types of CDI racing with a variety of brands. But the market CDI does not have the ability to be controlled by the ECU, because there are units mikrokontrol governing ignition system. Therefore, the design of the CDI to raise the performance of the engine needs to be supported by replacement ignition components. Based on the above, it is necessary to study to get a solution in order to obtain design of electronic systems for ECU ignition module.

CDI hardware designing is done by comparing the performance of the CDI hardware that is controlled by the ECU iquteche SupraX 125 Honda motor specifications MP1. Tests carried out using an inertia dynamometer to obtain maximum engine power at each level of speed and the desired speed setting by regulating the magnitude of the load. At each change of engine rotation (5000, 6000, 7000, 8000, 9000, 10000, 11000 and 12000 rpm) is recording the data from round the roller dynamometer that torque, power and rpm.

The results of this thesis are getting Capacitor Discharge Ignition hardware design that can work round the engine to optimize performance and maximum power specifications on the Honda SupraX MP1 on lap 125 above 12000 RPM. Besides testing get ignition mapping corresponding to the engine rev and the influence of the amount of energy that ignites the spark plug ignition, where the highest number of power gain of 15.0 hp at 9456 rpm rotation and torque gains of 11.56 in the 8836 round.

Keywords: Capacitor Discharge Ignition, racing CDI, Engine Control Unit, ECU iquteche, Honda SupraX 125 specifications MP1.