EXPERIMENTAL STUDY OF THE INFLUENCE OF VARIATION ECU (ENGINE CONTROL UNIT) ON PERFORMANCE BURNING MOTORS 4 STEP 150cc FUELED PERTAMAX

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Abstract

Automotive developments currently very repidly, a veriety of technologies developed to improve performance and efficiency motorcycle of them are variations ECU (Engine Control Unit) on motorcycle injection. ECU (Engine Control Unit) serves to receive and count all the data and information received from each signal a sensor which there are in a machine. Information obtained from sensors include temperature information, the temperature oil machine, the temperature cooling water, stresses or quantities air in, the position of the throttle valve, round of postion cranckshaft, and other information. By the absence of variation ECU in the market believed to increase performance and can also increase fuel efficiency. Research is aimed to determine the impact of the use of ECU Standards and ECU BRT Juken 3 Dualband to torque, power, and consumption fuel on Honda CB150R SF 150cc. After conducted replacement ECU (Engine Control Unit) expected to improve performance motorcycle Honda CB 150R SF 150cc.

The methodology performance the engine involved was experimental methods and performed at speeds play (rpm) changed, namely by starting the engine and detained throttle at rpm 4000 after stable then throttle played spontaneously to 11500 rpm, while for research consumption of fuel used recording the consumption of fuel with an average distance as far as 6 km in idle rpm to 5000 rpm.

Of testing performance machine, can be conclude that largest power obtained by the use of ECU BRT Map (performance) with of power uqual to 16,4 HP in round a 11325 rpm. Torque the largest obtained also by ECU BRT map (performance) with 12,64 Nm in round 8514 rpm. Of testing consumption of fuel, can be conclude that fuel consumption the most economizes by using ECU BRT map (efficiency). Fuel consumption fell by 33% compered to the ECU standard of factory.

Keyword: Injection, ECU, Power, Torque, Consumption of Fuel