

Effects of System Modification of Fuel Importers and Change of Compression Ratio to Torque and Power Petrol Engine Combustion 4 Stroke
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ABSTRACT

The fuel atomizer system that is widely applied to vehicles is Injection and Carburetor, the difference in Compression Ratio can increase the Torque and Power of a 4-stroke Fuel Motor, this study aims to determine the difference in Torque and Power in the Injection and Carburetor atomizer system and increase the Compression Ratio. This research method is an experimental analysis to determine the difference in torque and power of the carburetor and injection atomizer systems and compression ratio. The result of this research is that converting the atomizer system requires adjustment of the ignition timing on the rotor to the position of the CKP sensor. In the Carburetor system with the Injection system, in the 9:1 Compression Ratio comparison, there is an increase in Torque of 8.5% and Power of 15.7%. In the 10:1 compression ratio, there is an increase in torque of 14.9% and power of 18.3%. Comparison of the Compression Ratio from 9:1 to 10:1, with the Carburetor system an increase in Torque of 0.25% and Power of 8.5%, and the Injection system an increase in Torque of 6.1% and Power of 11%.

Keywords: *Injection, Carburetor, Compression Ratio, Torque, Power*