

***Analysis of Viscosity Value and Temperature of Lubricant  
on Performance of 125 cc Matic Motorcycles***

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**ABSTRACT**

*This research is an analysis of the performance of 125 cc automatic motorbikes as seen from the viscosity and temperature values. The purpose of this study was to determine the effect of varying the viscosity and temperature values of 2 different types of oil on a 125 cc automatic motorcycle which was tested at a distance of 50 km, 100 km and 150 km. The results showed that in lubricant A the maximum torque effect was 9.79 N.m, at a lubricant viscosity value of 71.35 cp, while in lubricant B the maximum torque effect was 11.02 N.m, at a lubricant viscosity value of 97.84 cp. In lubricant A the maximum power effect is 8.4 HP, at a viscosity value of 62.17 cp, while in lubricant B the maximum power effect is 9.0 HP, at a viscosity value of 87.42 cp. The higher the viscosity value of the lubricant will result in a higher torque on the motorcycle. Lubricant B has a higher maximum performance against temperature than lubricant A.*

**Keywords:** *Viscosity, temperature of Lubricant, Matic Motorcycle*