

**ANALYSIS OF THE EFFECT OF THE USE OF VARIATION OF CVT  
SPRINGS AND PRIMARY PULLEY ANGLE ON TORQUE AND POWER ON  
4 STROKE MOTORCYCLES 150 CC**

by

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**ABSTRACT**

*Based on observations made to users of automatic motorcycles, there are several complaints that are felt, the thing that is usually complained about is the performance of automatic motorcycles that are less responsive. One way is to change the tilt angle of the primary pulley on the CVT component. This study aims to determine the effect on the power and torque that will be generated from a 4 stroke motorcycle on a CVT system that uses a primary pulley with angles of 13.5°, 13.8° and 14° with CVT springs having sizes of 1200 rpm, 1500 rpm. and 2000 rpm. This research was conducted at the Yamaha Anugrah Sejahtera workshop. The research method used is an experiment that will be carried out on a Honda All New Vario 150 cc motorcycle. In this study, a dynamometer will be used to find out how much torque and power is produced. The results showed that the torque value at the standard 14° primary pulley angle on a motorcycle with a standard 1300 rpm CVT spring built by a motorcycle could produce a torque value of 11.7 Nm. While the highest torque is found in the primary pulley test using an angle of 13.5° and using a CVT spring with a standard size of 1300 rpm for a motorcycle that gets a torque value of 16.57 Nm at the 4500 rpm. While the highest power value is found in the test using a primary pulley using an angle of 13.5° and using a CVT spring with a size of 1300 rpm CVT spring built by a motorcycle which produces a power value of 16,1 HP. While the standard 14° primary pulley angle on the motorcycle and using the standard 1300 rpm CVT spring built by the motorcycle produces a power of 11,3 HP with the same engine speed of 6500 rpm in the test.*

**Keywords :** *Torque and Power, Primary Pulley Angle, CVT . Spring*