

***THE EFFECT OF CLUTCH CARRIER FRICTION AREA
VARIATION AND ROLLER WEIGHT ON CONTINUOUSLY
VARIABLE TRANSMISSION (CVT) ON THE PERFORMANCE
OF 4 STROKE 110 CC ENGINE.***

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ABSTRACT

The rapid development of technology has a big impact on the world of technology in the automotive field, especially on motorbikes. One of the latest products from motorcycle manufacturers is a scooter, which is a motorcycle with automatic transmission system technology or can be known as Continously Variable Transmission (CVT). Continously Variable Transmission (CVT) is an automatic transmission system that does not use gears as a power distribution replaced by using a Pulley and V-belt system. This study aims to determine the effect of the clutch carrier area using Scoopy and N-max with roller weight variations of 13, 14 and 15 grams on torque and power with a chassis dynamometer test tool on a 110cc motorcycle. For data collection starting from 4000-9000 RPM do 3 times testing each variation and then averaged. For the highest torque results using the Scoopy clutch carrier with a 13 gram roller which is 9 N.m at 6000 RPM and the lowest using the Scoopy clutch carrier with a 15 gram roller which is 8.5 N.m at 6000 RPM. As for the highest power using the N-max clutch carrier with a 15 gram roller, it is 7.9 Hp at 6000 RPM and the lowest using the Scoopy clutch carrier with a 13 gram roller, which is 7.6 Hp at 7000 RPM. For the best torque using a 13 gram roller with a clutch carrier friction area of 3739,8 mm² (Scoopy), while for the best power using a 15 gram roller with a clutch carrier friction area of 4850,7 mm² (N-max).

Keywords: Torque and Power