Analisa Pengaruh Penggunaan Variasi Pegas Dan *Roller* Terhadap Torsi Dan Daya Pada Motor Vario Nc 110 Cc Non Fi

Pembimbing Cahyaning Nur Karimah. S.pd., M.T.

Rifal Fajri Hidayatullah

Program Studi Mesin Otomotif, Jurusan Teknik Politeknik Negeri Jember

ABSTRACT

Vehicle is a means of transportation used by every human being to travel between regions, cities, and between provinces. Vehicles and means of transportation are distinguished from the terrain in which they pass, namely land, sea, and air vehicles. The means of transportation have made it easier for humans to help with daily activities, especially motorbikes. Motor vehicles are divided into two, namely manual transmission and automatic transmission. The manual transmission system uses gear ratios and shifts them manually. In the automatic motor, there is no need to transfer the force, because the rotation of the engine is used to move the primary - secondary - transmission - wheel pully. The research method used is qualitative by analyzing the data obtained and then drawing conclusions from the data that has been obtained by analyzing the data. The results obtained from the standard roller spring and the variation roller spring show that the standard is only capable of low to medium rotation, while the variation has a relatively constant performance at low to high rotation. Standard springs and rollers and variations of springs and rollers used are for standard 1000rpm and 13gram rollers, for variations, namely 1500rpm and 9 gram springs and the data taken are torque and power. For the fuel consumption test using 90 octane pertalite fuel and the test is carried out from 50 -10 ml which means that fuel consumption is calculated in minutes. Consumption used is 40 ml. The test results indicate that the variation is superior because the variation has a relatively constant speed and because the speed is relatively constant it can make fuel consumption relatively economical than the standard component combination.

Keywords: Spring and Roller, Torque and Horse power