

Studi Eksperimental Laju Keausan *Disc Brake Lining* Bahan Asbestos Dan Bahan Non Asbestos Berpenguat Serat Pisang Abaka Dan Matriks Alumunium (*Experimental Study of Wear Rate of Disc Brake Lining Asbestos And Non Asbestos Material Reinforced Abaka Banana Fiber And Aluminum Matrix*).

As chief counselor (Aditya Wahyu Pratama ST. MT)

Alfian Kurnia Wahyudi
Study Program of Automotive Engineering
Majoring of Engineering
Program Studi Mesin Otomotif
Jurusan Teknik

ABSTRACT

Brakes are a system on a vehicle that serves to stop the vehicle. Discussing the braking system can not be separated from the type of brake itself. Basically, there are 2 types of brakes, namely drum brakes and disc brakes. This disc brake is a popular type for modern era vehicles. Brake pads are the most important part of this transmission system, because if the brake pads used are of poor quality, they can only withstand temperatures of $\pm 250^{\circ}$ c, if they exceed this temperature, fading or friction will occur, causing the brakes to fail, while good brake pads will last up to a temperature of $\pm 400^{\circ}$ c. The purpose of this study was to determine the results of the wear rate of asbestos and non-asbestos brake linings reinforced with abaca banana fiber. Research using experimental methods. The result of this research is that the highest wear rate value on this brake lining is 2.32×10^{-6} gram/s.mm² at 3,000 rpm. Meanwhile, from the testing of non-asbestos brake linings, the wear rate from the highest to the lowest at 3,000 rpm starts at mixture 10, which is 9.73×10^{-7} gram/s.mm², mixture 8 is 8.89×10^{-7} gram/s.mm², mixture 6 is 7.19×10^{-7} gram/s.mm², mixture 4 is 5.50×10^{-7} gram/s.mm², and the lowest in mixture 2 is 2.54×10^{-7} gram/s.mm².

Key words: wear rate, disc brakelinings, asbestos, abacá, aluminum matrix