SETSCI Conference Indexing System,
Volume 2 (2018), 66-66

ISAS 2018
I^st International Symposium on Innovative Approaches in Scientific Studies
April 11-13, 2018, Kemer-Antalya, Turkey

Precise Measurement of Wear Rate Method for ASTM G-99 Wear Test

Esad Kaya[1+], Koray Kılıçay[1*], İsmail Bayar[1] and Mustafa Ulutan[1]
[1]*Mechanical Engineering Department, ESOGU, Turkey*
[*]*Corresponding author: kkilicay@ogu.edu.tr*
[+]*Speaker: esatkaya@ogu.edu.tr*
Presentation/Paper Type: Oral / Abstract

Abstract- ASTM G99 also known as pin-on-disk method is widely used to determine the tribological behavior of materials. But in general, there is always uncertainties in the results of wear test method. Different attempts have been made by scientists to eliminates these uncertainties such as calculation of worn surface area and wear rate. In this study, the effect of worn surface profile measurement factor to the uncertainty of the wear rate is researched. A wear test had been done in accordance with ASTM G99 norm under the 3 different wear loads. Exact measurement of wear rates according to norm had been showed. Results are discussed respectively for all control groups.

Keywords- Wear Experiment, Surface Profile measurement, Wear Rate Calculation