



Development of Gear Efficiency Measuring Device by New Principle

Kohei TERAJIMA¹ and Tatsuhito AIHARA²

¹ Hosei University, Graduate school of Mechanical Engineering
3-7-2 Kajino-cho, Koganei-shi, Tokyo, 184-8584, Japan

² Hosei University, Department of Mechanical Engineering
3-7-2 Kajino-cho, Koganei-shi, Tokyo, 184-8584, Japan

* Corresponding Author: E-mail: kohei.terajima.7a@stu.hosei.ac.jp, Telephone Number: +81-42-387-6333

Abstract

In recent years, improvement of fuel efficiency of vehicles and improvement of vehicle range of electric vehicles are required from environmental problems. From this background, it is necessary to further improve the efficiency of the gear. However, current gear efficiency measuring devices are large and expensive, therefore, it is not easy to measure gear efficiency by actual measurement. Hence, in this study, we aim to develop the downsizing and low cost of the gear efficiency measuring device. As a method, the efficiency is calculated by using the new principle of measuring the loss from the thrust force generated when driving the helical gear. The results are compared with the efficiency of the 1DCAE model to clarify the usefulness of the device.

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