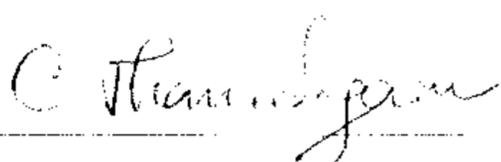


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Thesis Title : Development of the Fixture on CNC. Machine Tool to Retain
Workpiece Zero Point (G54-G59)
Major Field : Production Engineering
Thesis Advisors : Assoc.Prof. Cham Thanadngarn, Mr. Tawee Achintharungkoon
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Abstract

The purpose of this study is to design and develop the fixture fixed on the CNC Machine Tool so as to retain the work piece's zero point (G54-G59). In addition, this study also aimed to evaluate the validity of the fixture by dividing the evaluation process into 3 main parts as follows: an evaluation of the machine condition, an evaluation of the fixture while fixing the workpiece, and an evaluation of the working process of the fixture towards the workpiece by measuring the outcomes obtained from each stroke with the degree of 0.010 mm. in 300 mm.

The results obtained from the study showed that the degree gained miscalculation occurred on the workpiece was not higher than 0.010 mm. Besides, after measuring the total degree set from the fixture, and the evaluation process, it indicated that there were some errors in Z axis $\pm 59 \mu m$, X axis $\pm 35.5 \mu m$, and Y axis $\pm 28 \mu m$, due to the procedure in fixture production process was not gain to the standardization and also because of old CNC milling machine utilized.

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..... Committee Chairperson.