IMPROVEMENT OF REINFORCEMENT FLOOR FRONT UNDER LEFT/RIGHT IN SMALL PRESS LINE THROUGH LINE BALANCING

NUR AIN NABILAH BINTI ITHNIN

(2013656828)

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Faculty of Mechanical Engineering

Universiti Teknologi MARA (UiTM)

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"I declared that this thesis is the result of my own work except the ideas and summaries which I have clarified their sources. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any degree."

Signed

Date

Nur Ain Nabilah binti Ithnin

2013656828

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ABSTRACT

Standardized Work (SW) is one of the vital tools in line balancing in achieving stability and consistency of work element for the production line. It is important to fulfill customer's demand on time without delay. The benefits of line balancing in the production system are high productivity, cost reduction and delivering best quality to the customers. Autokeen Sendirian Berhad (AKSB) is a manufacturer of automotive parts in Shah Alam, Selangor. Some of production lines in AKSB have been reported as inconsistent conditions due to the inaccurate cycle time and improper Standard Operation Procedure (SOP). Thus, the objectives of the project are to identify the problems and to improve the production line by increasing the productivity and efficiency. The focused production line has been selected by using Pareto chart which through analysis of the critical parts based on the monthly production volumes. Thus, the Time Measurement Sheet (TMS) and Standardized Work Combination Table (SWCT) have been used as tools to record more accurate cycle time and to improve the work elements. Then, Operator Balance Chart (OBC) has been used to visualize the workloads in each workstation to show the distribution of required time for all work elements. The outcome of this project is to establish more standardized process flow with accurate cycle time and to prepare proper documentation such as standard operating procedure (SOP) for the production line. Thus, the production can be planned effectively without having backlog or overproduction.

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