Improvement of Overall Equipment Effectiveness (OEE) through Implementation of Total Productive Maintenance (TPM) in Manufacturing Industries

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ABSTRACT

Today competitive manufacturing requires innovative approaches in the production management, as well as for customer satisfaction. Production management requires an effective and efficient maintenance management system. One approach to improve the performance of the maintenance system is through the implementation of Total Productive Maintenance (TPM). The key performance index to measure the effectiveness of TPM implementation is Overall Equipment Effectiveness (OEE). The TPM activities will eliminate equipment losses related to availability, performance rate, and quality rate. Hence, the TPM implementation will increase the OEE value. This paper outlines the theories of TPM and OEE. The paper also presents the studies carried out by different authors to show the improvement of OEE through implementation of TPM in manufacturing, such as electronic industry, steel manufacturer, as well as locomotive components manufacturer.

KEYWORDS: Equipment Losses; Implementation; Manufacturing; Overall EquipmentEffectiveness; Total Productive Maintenance

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