ABSTRACT

PT Komatsu Indonesia is a company engaged in heavy equipment manufacturing. The production process at PT. Komatsu Indonesia is very complex so it is very important to always maintain the maintenance of the machines at PT. Komatsu Indonesia, one of which is the 60 Ton Continous Mixer machine. Where it is necessary to evaluate the increase in engine performance on the 60 Ton Continous Mixer machine. To evaluate the 60 Ton Continous Mixer machine in this study using the Overall Equipment Effectiveness (OEE) method and then continued with Overall Throughput Effectiveness (OTE) analysis. The purpose of this study is to measure the effectiveness and overall performance of the 60 Ton Continuous Mixer machine, determine the losses generated in the production process with six big losses, and create a simple application that will assist in the production process using the 60 Ton Continuous Mixer machine. Based on calculations, the OEE and OTE values of the 60 Ton Continuous Mixer machine from April 2019 to March 2020 are 45.49% and 47.61%, respectively. Both values are still below the JIPM standard and company standards. The low value of OEE is influenced by the value of the most dominant losses, namely reduce speed losses by 46%. Based on the cause-and-effect diagram, the high value of these losses affects the performance efficiency of the machine caused by human, machine, material, and method factors. Based on the application design that has been made this application aims to simplify the calculation of the OEE, OTE, and six big losses methods. This application uses Microsoft excel to make it more accessible and simpler.

Keywords: *Overall Equipment Effectiveness (OEE), Overall Throughput Effectiveness (OTE), six big losses*