

ABSTRACT

PT. AMP Plantation is part of the Wilmar International Limited entity that focuses on the palm oil plantation sector. This company faces several challenges, such as machine component damage and decreased palm oil production. One of the machines used continuously is the Screw Press machine. Therefore, an evaluation is needed to improve the performance of the Screw Press machine in order to increase efficiency and product quality. The evaluation of the Screw Press machine performance is carried out by applying the Total Productive Maintenance (TPM) method, Overall Equipment Effectiveness (OEE), and analysis of the Six Big Losses factors. This study aims to determine the Overall Equipment Effectiveness (OEE) value of the Screw Press machine. After obtaining the OEE value, a comparison is made with the global OEE standard to improve machine performance. OEE is a systematic approach to measuring the effectiveness of a machine or equipment in the production process. Generally, the OEE value is influenced by six factors known as the Six Big Losses. By calculating OEE, we can determine the amount of OEE and the main factors that influence the low performance of the machine or equipment. The research results show that the factor influencing machine effectiveness is the availability rate, with an average percentage ranging from January to December 2022 between 96.41% and 99.41%. The performance rate reached 7.85%, and the rate of quality product reached 99.70%.

Keywords — *Effectiveness, Screw Press Machine, Total Productive Maintenance (TPM), Overall Equipment Effectiveness (OEE).*