

ABSTRACT

Overall equipment effectiveness (OEE) is a measuring instrument that can be used to evaluate performance at the equipment level. The activity of evaluating equipment performance is one of the important things that companies do to achieve an effective and efficient production system. Measurement of machine performance using OEE at PT Dirgantara Indonesia can be said to be still not optimal, because this measurement is only applied in 2020 and is still in the development stage to determine the right formula formulation based on the many parameters measured from the machine used production activities, especially in CNC Millac machines. Therefore, in this study will be used OEE method in measuring the level of effectiveness of the machine to evaluate the performance of the machine. However, OEE measurement has limitations, which cannot identify the type of loss in depth, only analyzing the overall loss. Thus, ORE measurements are used to improve OEE methods in measuring the effectiveness of machines that can evaluate repairs in a focused manner. In addition, an analysis of six big losses is performed to determine the most dominant types of losses that can affect the productivity of machine performance. Based on damage history data in 2016 - 2018, Millac-5H 2P (B) engine has the highest number of damage frequencies, which is 31 times, so that the machine will be used as the object of the machine to be studied. The results showed that OEE value was obtained by 52.20% and ORE value of 49.19%. The value indicates a low level of machine effectiveness because it is below the World Class value standard set by Vorne Industrial Inc. 85%. Based on the analysis of six big losses, the most dominant type of loss affects the productivity of machine performance, namely reduced speed losses. This can be influenced by several factors including human aspects, machines, materials, methods, environment, and machine life that are no longer economical.

Keywords: Effectiveness, Overall Equipment Effectiveness, Overall Resource Effectiveness, Six Big Losses