

**ANALISIS METODE *OVERALL EQUIPMENT*
EFFECTIVENESS PADA MESIN *MOLINS MARK 9N*
DI PT DJITOE INDONESIAN TOBACCO**

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ABSTRAK

Mesin *Molins Mark 9N* merupakan mesin yang digunakan untuk membuat rokok dari tembakau yang digulung menggunakan kertas sigaret, penyatuan dengan kapas filter hingga menjadi rokok batangan. Dari data yang diperoleh diketahui terjadi beberapa kali *breakdown* yang mengakibatkan *downtime* yaitu pada bulan Oktober 2022 terjadi *downtime* selama 1284 menit, bulan November 2022 terjadi *downtime* selama 1439 menit, bulan Desember 2022 terjadi *downtime* selama 984 menit, bulan Januari 2023 terjadi *downtime* selama 2034 menit dan bulan Februari 2023 terjadi *downtime* selama 2119 menit. Penelitian ini menggunakan metode *Overall Equipment Effectiveness* (OEE) dan *Fault Tree Analysis* (FTA) dengan tujuan untuk mengetahui tingkat nilai efektivitas dari mesin *Molins Mark 9N* serta mengetahui penyebab rendahnya nilai OEE. Berdasarkan hasil pengolahan data didapatkan rata-rata nilai OEE dari bulan Oktober-Februari sebesar 84%. Berdasarkan pengolahan data *Six Big Losses* diketahui bahwa yang menjadi penyebab utama rendahnya hasil nilai OEE adalah *Quality defect and rework* dengan presentase sebesar 44%. Berdasarkan hasil analisis FTA diketahui terdapat tiga penyebab utama antara lain adanya batangan yang keropos, sigaret yang tidak terlem dengan maksimal dan batangan yang tidak ada filter.

Kata Kunci : *Overall Equipment Effectiveness, Six Big Losses, Fault Tree Analysis, Mesin Molins Mark 9N*

***ANALYSIS OF OVERALL EQUIPMENT
EFFECTIVENESS METHOD ON MOLINS MARK 9N
MACHINE AT PT DJITOE INDONESIAN TOBACCO***

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ABSTRACT

The Molins Mark 9N machine is a machine used to make cigarettes from rolled tobacco using cigarette paper, blending it with filter cotton to become a cigarette bar. From the data obtained, it is known that there were several breakdowns which resulted in downtime, namely in October 2022 there was 1284 minutes of downtime, in November 2022 there was 1439 minutes of downtime, in December 2022 there was 984 minutes of downtime, in January 2023 there was 2034 minutes of downtime and in February 2023 there was a downtime of 2119 minutes. This study uses the Overall Equipment Effectiveness (OEE) and Fault Tree Analysis (FTA) methods with the aim of knowing the level of effectiveness of the Molins Mark 9N engine and knowing the causes of the low OEE value. Based on the results of data processing, the average OEE value from October to February was 84%. Based on the Six Big Losses data processing, it is known that the main cause of the low OEE score is Quality defects and rework with a percentage of 44%. Based on the results of the FTA analysis, it is known that there are three main causes, namely the presence of porous bars, cigarettes that do not stick to the maximum and bars without filters.

Keywords: Overall Equipment Effectiveness, Six Big Losses, Fault Tree Analysis, Molins Mark 9N Machine

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