

## **ABSTRACT**

*The research objective was to analyze the application of Total Productive Maintenance (TPM) with measurements of Overall Equipment Effectiveness (OEE) and Six Big Losses. The company that was used as the object of research was a manufacturing company with output in the form of motorized tires. The research was conducted by examining four machines. The measurement results obtained OEE value did not reach the management set target, which is <60% with the average value of OEE DDT-6 machines at 35.2%, DDT-7 at 27%, DDT-10 at 23.33% and DDT-11 at 6.54% due to the low availability rate value of DDT-7 is 37.26% and the low performance rate value in the DDT-11 calculation is 14.47%. Then an analysis is carried out to determine the cause of the OEE <60% value with the six big losses and the biggest losses are in the idling & minor stoppage losses with the average machine losses DDT-6: 49.95%, DDT-7: 35.28%, DDT-10 : 59.53%, and DDT-11: 55.94%. That is, machine losses are caused by the machine being idle. The main cause of the machine is idle because of the limited number of test support devices and the limited number of tire wheels.*

*Keywords: Total Productive Maintenance, Overall Equipment Effectiveness, Six Big Losses*



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## ABSTRAK

Tujuan penelitian untuk menganalisis penerapan *Total Productive Maintenance* (TPM) dengan pengukuran *Overall Equipment Effectiveness* (OEE) dan *Six Big Losses*. Perusahaan yang dijadikan objek penelitian merupakan perusahaan manufaktur dengan *ouput* berupa ban kendaraan bermotor. Penelitian dilakukan dengan meneliti empat buah mesin. Hasil pengukuran didapatkan nilai OEE tidak mencapai target yang ditetapkan manajemen yaitu  $< 60\%$  dengan nilai rata-rata OEE mesin DDT-6 sebesar 35.2%, DDT-7 sebesar 27%, DDT-10 sebesar 23.33% dan DDT-11 sebesar 6.54% dikarenakan rendahnya nilai *availability rate* pada DDT-7 sebesar 37.26% dan rendahnya nilai *performance rate* pada perhitungan DDT-11 yaitu 14.47%. Lalu dilakukan analisis untuk mengetahui penyebab nilai OEE  $< 60\%$  dengan *six big losses* dan didapatkan *losses* terbesar ada pada *idling & minor stoppage losses* dengan nilai rata-rata *losses* mesin DDT-6 : 49.95%, DDT-7 : 35.28%, DDT-10: 59.53%, dan DDT-11: 55.94%. Artinya, *losses* mesin disebabkan karena mesin banyak menganggur. Penyebab utama mesin menganggur karena alat pendukung uji yang terbatas jumlahnya serta jumlah *velg* ban yang terbatas.

Kata kunci: *Total Productive Maintenance, Overall Equipment Effectiveness, Six Big Losses*

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