ABSTRAK

Nama	:	Eko Risdiyanto
NIM	:	41619310064
Program Studi	:	Teknik Industri
Judul Laporan Skripsi	:	Evaluasi Penerapan *Total Productive Maintenance* Untuk Meningkatkan Efektivitas Mesin Slitting di Perusahaan Pipa Baja
Pembimbing	:	Novera Elisa Triana S.T., M.T.

Perkembangan jaman dan kemajuan teknologi informasi saat ini yang semakin pesat, sehingga untuk mendapatkan kelancaran proses produksi membutuhkan dukungan mesin-mesin dan peralatan yang baik. Perusahaan Pipa Baja telah melakukan penerapan *Total Productive Maintenance*, tetapi hasil dari proses pemeliharaan ini belum dapat dikatakan maksimal karena *Total Productive Maintenance* yang baru dijalankan belum mendapatkan evaluasi. Salah satu metode mengukur tingkat keberhasilan penerapan TPM adalah melalui pengukuran nilai *Overall Equipment Effectiveness* (OEE). Perusahaan Pipa Baja merupakan perusahaan yang bergerak di bidang industri manufaktur yaitu produk pipa baja. Permasalahan terbesar yang dihadapi perusahaan saat ini ialah tingginya *downtime* mesin *Slitting*. Efek dari *downtime* tersebut adalah menurunnya performa mesin sehingga menyebabkan rendahnya OEE. Untuk itulah penelitian ini dilakukan, data dikumpulkan berdasarkan data historis lapangan selama satu tahun. Langkah selanjutnya adalah menghitung nilai OEE diikuti dengan analisa *six big losses* serta dianalisa dengan menggunakan *pareto chart*, *fishbone diagram*. Dari hasil penelitian didapatkan bahwa nilai rata nilai *Availability Rate* sebesar 64,44% (standar dunia 90%), *Performance Rate* sebesar 64,05% (standar dunia 95%), *Quality Rate* sebesar 97,70% (standar dunia 99,9%), dan *Overall Equipment Effectiveness* periode Januari sampai Desember 2022 sebesar 40,32% dimana nilai ini masih jauh dibawah standar dunia sebesar 85%. Faktor *Six Big Losses* yang menjadi faktor dominan rendahnya nilai *Overall Equipment Effectiveness* mesin Slitting adalah *Reduced Speed Loss* dengan total *time loss* sebesar 23,16% atau 36.197 menit.

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

ABSTRACT

Name	:	Eko Risdiyanto
NIM	:	41619310064
Study Program	:	Industrial Engineering
Title Thesis Report	:	Evaluation of the Implementation of Total Productive Maintenance to Increase the Effectiveness of Slitting Machines in Steel Pipe Companies
Counsellor	:	Novera Elisa Triana S.T., M.T.

Time development and the advance of information in technology are currently increasing rapidly so to get effective production process requires the support of good machines and equipment. Perusahaan Pipa Baja has implemented Total Productive Maintenance, but the results cannot be said to be optimal because the Total Productive Maintenance that has just been implemented has not received an evaluation. One method to measuring the success rate of TPM implementation is by measuring the Overall Equipment Effectiveness (OEE) value. Steel Pipe Company is a company in the manufacturing industry, namely steel pipe products. The biggest problem facing the company today is the high downtime of the slitting machine. The effect of this downtime is decreased engine performance, causing low OEE. For this reason, this research was conducted, and the data was collected based on field historical data for one year. Next is to calculate OEE value followed with analysis of six big losses, using Pareto chart, and fishbone diagram. The result was that the average value of the Availability Rate was 64.44% (world standard 90%), the Performance Rate was 64.05% (world standard 95%), the Quality Rate was 97.70% (world standard 99,9%), and the Overall Equipment Effectiveness for the January to December 2022 period was 40.32% which is still far below from the world standard of 85%. The Six Big Losses factor that became the dominant factor for the low Overall Equipment Effectiveness score of the slitting machine was Reduced Speed Loss with a total time loss of 23.16% or 36,197 minutes.

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