

USULAN PENERAPAN TOTAL PRODUCTIVE MAINTENANCE (TPM) UNTUK MENINGKATKAN EFEKTIVITAS DAN EFISIENSI MESIN BROWN CRAPE (BR CR) DI PTPN.IX KEBUN MERBUH

WISNU ARY WICAKSONO

Program Studi Teknik Industri - S1, Fakultas Teknik,

Universitas Dian Nuswantoro Semarang

URL : <http://dinus.ac.id/>

Email : she_white@ymail.com

ABSTRAK

Tidak berfungsinya mesin "mesin menimbulkan kerugian pada perusahaan, karena selain dapat menurunkan efektifitas dan efisiensi mesin juga mengakibatkan adanya biaya tambahan yang dikeluarkan akibat kerusakan tersebut. PTPN IX Kebun Merbuh merupakan perusahaan yang bergerak dibidang perkebunan karet dengan produksi latek menjadi Ribbed Smoke Sheet (RSS). Permasalahan perusahaan dalam hal produktifitas adalah menurunnya efektifitas dan efisiensi mesin. Ini disebabkan usia mesin yang sudah cukup tua, dimana rata-rata umur mesin adalah 5,78 bulan sebelum rusak. Oleh karena itu diperlukan langkah-langkah yang efektif dan efisien dalam pemeliharaan mesin untuk menanggulangi dan mencegah masalah tersebut. Salah satu upaya yang dilakukan adalah dengan penerapan Total productive Maintenance (TPM) pada perusahaan. Pada penelitian ini diusulkan penerapan TPM dan hasil pengolahan data yang didapat yaitu OEE terbesar dicapai pada bulan Juni sebesar 99,52% dan terendah dicapai pada bulan November sebesar 73,23% dengan tingkat availability, performance efficiency dan rate of quality terendah selama periode Februari 2011-Januari 2012, MTBF terendah pada bulan januari yaitu 40,80 jam, frekuensi breakdown tertinggi yaitu 15, MTTR bulan November paling tinggi yaitu 11 jam, berarti maintenabililty rendah. Berdasarkan perhitungan six big losses kerugian terbesar disebabkan oleh breakdown losses, defect losses, reduce speed losses dan Idling Time and Minor stoppages, masing-masing presentase sebesar : 26,10%, 25,45%, 24,91%, dan 23,42%. Hal tersebut disebabkan breakdown mesin Brown Crape sering terjadi, sedangkan perawatan dilakukan hanya secara prediktif. Pada usulan TPM dilakukan eliminasi six big losses, preventive maintenance, pemeliharaan dan perawatan menjadi tanggung jawab semua pihak dan sosialisasi TPM mulai dari top manajemen sebagai pelaku dan motivator.

Kata Kunci : TPM, Six Big Losses, OEE, perawatan

Kata Kunci : TPM, Six Big Losses, OEE, perawatan

PROPOSED APPLICATION TOTAL PRODUCTIVE MAINTENANCE (TPM) TO INCREASE THE EFFECTIVENESS AND EFFICIENCY OF MACHINES BROWN CRAPE (BR CR) DI PTPN.IX KEBUN MERBUH

WISNU ARY WICAKSONO

Program Studi Teknik Industri - S1, Fakultas Teknik,

Universitas Dian Nuswantoro Semarang

URL : <http://dinus.ac.id/>

Email : she_white@ymail.com

ABSTRACT

Malfunction of the machines cause harm to the company, because in addition to lowering the effectiveness and efficiency of the engine also results in additional costs incurred due to such defects. PTPN IX Kebun Merbuh is a company engaged in the production of latex rubber with a Ribbed Smoke Sheet (RSS). Problems of the company in terms of productivity is declining effectiveness and efficiency of the engine. This caused the machine age that is quite old, with an average age of 5.78 months before the machine is broken. Therefore we need measures of effective and efficient in the maintenance of the machine to cope with and prevent the problem. One of the efforts is the implementation of Total Productive Maintenance (TPM) in the company. In this study proposed the implementation of TPM and the processing of the data obtained is the biggest OEE reached in June by 99.52% and the low reached in November with a rate of 73.23% availability, performance efficiency and lowest rate of quality during the period February 2011 -January 2012, the lowest MTBF in January is 40.80 hours, the highest frequency of breakdown is 15 November, highest MTTR is 11 hours, meaning low maintainability. Based on the calculation of six big losses caused by the breakdown of the largest losses losses, defect losses, reduce losses and idling speed Time and Minor stoppages, each amounting to a percentage: 26.10%, 25.45%, 24.91%, and 23.42 %. This is due to machinery breakdown Brown Crape often the case, while the treatment is done only as predictive. On TPM proposal made ??six big losses of elimination, preventive maintenance, maintenance and curing the responsibility of all parties and socializing TPM ranging from top management as an actor and motivator.

Keywords: TPM, Six Big Losses, OEE, care

Keyword : TPM, Six Big Losses, OEE, perawatan