

ABSTRAK

PT. X. merupakan salah satu perusahaan yang bergerak di bidang pembuatan jembatan rangka baja, salah satu jenis produk yang di hasilkan dari sebuah mesin *bending hydraulic* adalah *clamp*. Mesin yang bekerja secara terus menerus dapat menyebabkan kerusakan. Masalah kerusakan ini terjadi pada mesin *bending hydraulic* PT. X. Oleh karena itu pemeliharaan mesin secara tepat dapat mencegah mesin *bending* PT. X. dari kerusakan. Kerusakan dapat menyebabkan banyak kerugian. Sebab itu PT. X. harus menerapkan *Total Productive Maintenance*, dengan cara menghitung nilai *Overall Equipment Effectiveness* mesin *bending*. Hasil perhitungan rata-rata *OEE* mesin *bending* bulan Februari-April 2021 sebesar 70,85%, nilai *OEE* tersebut tergolong rendah. Standar nilai *OEE* berdasarkan *JIPM* sebesar 85%. Penyebab rendahnya nilai *OEE* adalah terdiri dari tingginya nilai *reduce speed losses* sebesar 1384,3 menit, *idling and minor stoppage* sebesar 1081 menit, *breakdown losses* sebesar 663 menit. Setelah dilakukan perhitungan *six big losses* maka dicari akar penyebab tingginya nilai *reduce speed losses, idling and minor stoppage, breakdown losses* dengan cara analisis diagram *fishbone*. Perbaikan yang dilakukan, yaitu menerapkan *Total Productive Maintenance* dengan membuat *checksheet daily preventive maintenance* sehingga dapat meningkatkan nilai rata-rata *OEE* mesin *bending*. Nilai *OEE* mesin *bending* bulan Mei-Juli 2021 sebesar 76,75% signifikan sebesar 5,09%.

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

ABSTRACT

PT. X. is a company engaged in the manufacture of steel frame bridges, one type of product produced from a hydraulic bending machine is a clamp. Machines that work continuously can cause damage. This damage problem occurs in PT. X. Therefore proper maintenance of the machine can prevent PT. X. from damage. Damage can cause a lot of loss. Because of that PT. X. must apply Total Productive Maintenance, by calculating the value of the Bending machine's Overall Equipment Effectiveness. The results of the calculation of the average OEE for bending machines for February-April 2021 are 70.85%, this OEE value is relatively low. The standard OEE value based on JIPM is 85%. The cause of the low OEE value consists of the high value of reduced speed losses of 1384.3 minutes, idle and minor stoppage of 1081 minutes, breakdown losses of 663 minutes. After calculating the six big losses, the root cause of the high value of reduced speed losses, idling and minor stoppage, breakdown loss is sought by means of fishbone diagram analysis. Improvements made are implementing Total Productive Maintenance by making a daily preventive maintenance checksheet so that it can increase the average OEE value of the bending machine. The OEE value of the bending machine for May-July 2021 is 76.75%, which is significant at 5.09%.

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