

ABSTRAK

PT MII adalah sebuah perusahaan yang bergerak dalam bidang manufaktur komponen dan ekspor suku cadang Berdasarkan observasi lapangan yang telah dilakukan, permasalahan utama pada department *machining case bearing* periode bulan Januari-Juni 2018 yaitu dalam proses produksi tingkat kerusakan pada mesin cukup tinggi (*breakdown*) sehingga *downtime* akibat mesin maupun peralatan proses produksi menjadi besar, pada bulan Mei tercatat mencapai angka 8,5% dari target *downtime* perbulan sebesar 2% dan banyaknya produk *defect* proses yang disebabkan hasil proses tidak sesuai dengan standar kualitas tercatat periode Januari-Juni 2018 presentase *defect* proses tertinggi pada bulan Mei sebesar 15,7% dari target yang ditentukan sebesar 2%.

Dalam penelitian ini, akan dilakukan identifikasi efektivitas mesin menggunakan metode *Overall Equipment Effectiveness* (OEE). OEE adalah metode pengukuran yang digunakan untuk menentukan performansi suatu mesin atau peralatan guna menjaga mesin atau peralatan tersebut pada kondisi yang baik. Dengan semakin tinggi nilai *overall equipment effectiveness* (OEE) maka biaya produksi akan lebih rendah namun kualitasnya tetap terjaga. Untuk mengidentifikasi OEE perlu menghitung *availability*, *performance rate* dan *quality rate*.

Berdasarkan hasil perhitungan yang telah dilakukan rata – rata nilai *availability* 95,11%, *performance rate* 86,98% dan *quality rate* 90,53%, dari hasil tersebut dapat diketahui bahwa kinerja bagian *maintenance* cukup baik karena waktu *breakdown* ataupun *downtime* mesin yang ada tidak terlalu mempengaruhi nilai rata – rata *availability* bulan Januari – Juni 2018 yaitu 95,11%. Namun pada variabel *performance rate* dan *quality rate* masih kurang dari standar yang ada. Rata – rata hasil perhitungan *Overall Equipment Effectiveness* adalah 74,88%. Nilai ini masih jauh dibawah standar dunia yaitu 85%. Meskipun *availability* cukup tinggi namun *performance rate* dan *quality rate* masih kurang sehingga nilai OEE rendah.

Keywords : *Case Bearing*, *OEE*, *availability*, *performance efficiency*, dan *quality rate*

ABSTRACT

PT MII is a company engaged in component manufacturing and spare parts exports. Based on field observations that have been made, the main problem in the machining case bearing department for the period of January-June 2018 is that in the production process the level of damage to the engine is quite high (breakdown) so that downtime due to machinery and production process equipment becomes large, in May it was recorded at 8.5% of the monthly target of downtime of 2% and the number of product defect processes caused by the process results not in accordance with the recorded quality standards for the period January-June 2018 the highest defect percentage in May was 15.7% of target set at 2%.

In this study, the identification of machine effectiveness will be carried out using the Overall Equipment Effectiveness (OEE) method. OEE is a measurement method used to determine the performance of a machine or equipment to keep the machine or equipment in good condition. With the higher overall equipment effectiveness (OEE), the production costs will be lower but the quality will be maintained. To identify OEE, it is necessary to calculate availability, performance rate and quality rate.

Based on the results of calculations that have been done on average the availability value is 95.11%, the performance rate is 86.98% and the quality rate is 90.53%, From these results it can be seen that the performance of the maintenance section is quite good because the existing breakdown or downtime of the engine does not significantly affect the average value of availability in January - June 2018, which is 95.11%. But the performance rate and quality rate variables are still less than the standard. The average calculation result of Overall Equipment Effectiveness is 74.88%. This value is still far below the world standard of 85%. Although availability is quite high, the performance rate and quality rate are still lacking, so the OEE value is low.

Keywords: Case Bearing, OEE, availability, performance rate, and quality rate