EVALUASI PENGARUH *AUTONOMOUS MAINTENANCE* TERHADAP KINERJA MESIN BUBUT DALAM PENERAPAN *TOTAL PRODUCTIVE MAINTENANCE* DI PT INDUSTRY MESIN LAUNDRY INDONESIA

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ABSTRAK

Adanya persaingan pada industri manufaktur, akan mendorong perusahaan untuk melakukan peningkatan secara berkelanjutan pada lantai produksi, untuk menjaga performa mesin agar dapat meminimalkan nilai *breakdown* yang terjadi. Seperti dalam proses produksi di PT XYZ merasakan penurunan pada kinerja mesin bubut, mesin bubut yang beroperasi selama 5 jam kerja kadang kala, di tengah proses produksinya mengalami *downtime* hingga *breakdown*, seperti diketahui pada tanggal 24 Februari 2024 hingga 27 Februari 2024, kendala dihadapi saat proses produksi dimana mesin mengalami hambatan hingga berhenti total dan terulang selama 3 hari berturut. Pengukuran awal telah dilakukan menggunakan *Overall Equipment Effectivenes* dan *Six Big Losses*, yang memberikan hasil bahwa nilai *Availability* yang dimiliki mesin bubut mencapai 88,97%, nilai *performance* diketahui berada pada presentase 98,07%, sedangkan untuk *Quality* berada pada prsentase sebesar 93,81%, dan diketahui pula hasil Analisa Six Big Losses menunjukan bahwa faktor yang mempengaruhi efektivitas mesin adalah *reduced speed losses, defect losses* dan *breakdown losses*. Maka dilakukanlah perbaikan menggunakan pilar *Total Productive Maintenance* yaitu *Autonomous Maintenance,* yang dikembangkan menggunakan metode 5S yang memberikan hasil peningkatan pada nilai *availability* menjadi 90,36%, *performance* 87,57% dan *Quality* menjadi 99,02%.

Kata Kunci : *OEE, TPM, Autonomous Maintenance*.

EVALUATION OF THE EFFECT OF AUTONOMOUS MAINTENANCE ON THE PERFORMANCE OF LATHE MACHINES IN IMPLEMENTING THE TOTAL PRODUCTIVE MAINTENANCE AT PT INDUSTRY LAUNDRY MACHINE INDONESIA

ABSTRACT

The presence of competition in the manufacturing industry encourages companies to implement continuous improvements on the production floor to maintain machine performance and minimize breakdown occurrences. At PT XYZ, for instance, there has been a decline in lathe performance. The lathe, which operates for five hours each working day, occasionally experiences downtime due to breakdowns. Notably, from February 24 to February 27, 2024, the production process faced significant challenges as the machine completely stopped for three consecutive days. Initial measurements were conducted using Overall Equipment Effectiveness (OEE) and the Six Big Losses framework. The results indicated that the lathe's Availability value was 88.97%, the Performance value was 98.07%, and the Quality value was 93.81%. Furthermore, the Six Big Losses analysis revealed that the factors affecting machine effectiveness include reduced speed losses, defect losses, and breakdown losses. Then, improvements were made using the Total Productive Maintenance pillar, namely Autonomous Maintenance, which was developed using the 5S method, which increased availability values to 90.36%, performance to 87.57% and Quality to 99.02%.

Keywords: OEE, TPM, Autonomous Maintenance.

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