

## ABSTRAK

### **Penerapan *Total Productive Maintenance* Pada Mesin Kiln II Untuk Peningkatan Efisiensi Produksi Dengan Metode *Overall Equipment Effectiveness* Di PT. Maha Keramindo Perkasa ( Masterina )**

PT. Maha Keramindo Perkasa (Masterina) bergerak dibidang industri manufaktur dengan hasil produksinya berupa keramik dengan berbagai jenis untuk kebutuhan dalam negeri dan ekspor. Dalam mempertahankan kualitas produk dan efektivitas dan efisiensi kinerja mesin/peralatan, PT. Maha Keramindo Perkasa (Masterina) melakukan pemeriksaan dan perbaikan secara periodik dan pada saat yang tepat untuk semua mesin dan fasilitas produksi.

Salah satu bagian penting dalam proses produksi keramik adalah bagian Kiln (Pembakaran). Di mana terdapat beberapa mesin seperti mesin T. Car , Kiln, Sortir, Cutting Tile, QABJ, QA-GLAZE dan LGV. Namun pada mesin Kiln II (pembakaran) sering terjadi permasalahan dalam proses produksi sehingga membuat keramik hasil pembakaran menjadi cacat atau berkurang kualitasnya. Hal ini dapat mengurangi produktivitas dan mengakibatkan kerugian untuk perusahaan sehingga kegiatan maintenance perlu difokuskan pada mesin Kiln II.

Berdasarkan hasil perhitungan OEE di mesin Kiln II selama periode Maret 2011 – Februari 2012 diperoleh nilai *Overall Equipment Effectiveness* (OEE) berkisar antara 68,30% - 84,65% dengan rata-rata nilai OEE adalah 76,25%, kondisi ini menunjukkan bahwa kemampuan mesin Kiln II dalam mencapai target dan dalam pencapaian efektivitas penggunaan mesin/peralatan belum mencapai standar *World Class* karena nilai OEE kurang dari 85%.

Faktor *six big losses* yang memberikan kontribusi terbesar terhadap nilai OEE pada mesin Kiln II adalah *Idling and Minor Stoppage Losses* dengan rata-rata nilai sebesar 18,75%, diikuti dengan *Breakdown Losses* sebesar 9,22%, *Reduce Speed Losses* sebesar 6,58%, *Set up/Adjustment Losses* sebesar 4,39% dan *Reduced Yield Losses* sebesar 3,56%.

Kata kunci : Mesin Kiln II, OEE, OEE *six big losses*.

## **ABSTRACT**

### ***Application of Total Productive Maintenance at Kiln Machine II to Increase Production Efficiency With Overall Equipment Effectiveness Methods In PT. Maha Keramindo Perkasa (Masterina)***

*PT. Maha Keramindo Perkasa (Masterina) is engaged in the manufacturing industry with its products in the form of tiles with different types to meet domestic demand and export. In maintaining the product quality and the effectiveness and efficiency of performance of machinery / equipment. PT. Maha Keramindo Perkasa (Masterina) conduct periodic inspections and repairs, and at the right time for all machines and production facilities.*

*One important part of the production process is part of Kiln ceramics (Burning). Where there are multiple machines such as T. Car, Kiln, Sort, Tile Cutting, QABJ, QA-glaze and LGV. But in Kiln II engine (combustion) are common problems in the production process so as to make pottery from burning a disability or reduced quality. This can reduce productivity and result in losses for the company so that maintenance activities need to be focused on the machine Kiln II.*

*Based on the calculation of OEE in Kiln II engines during the period March 2011 - February 2012 Overall Equipment Effectiveness values obtained (OEE) ranged between 68.30% - 84.65% with an average value of OEE is 76.25%, this condition indicates that the Kiln II engine capabilities in achieving their goals and in achieving effective use of machinery / equipment has not reached the standard for World Class OEE value is less than 85%.*

*Six big losses factor that contributes most to the value of OEE in Kiln II engine is idling and Minor Stoppage Losses with an average value of 18.75%, followed by Breakdown Losses at 9.22%, Reduce Speed Losses at 6.58% , Set up / Adjustment Losses Reduced by 4.39% and 3.56% Yield Losses.*

*Keywords: Kiln Machine II, OEE, OEE six big losses.*