PENENTUAN EFEKTIVITAS PERAWATAN *CRANE* BONGKAR MUAT DENGAN PENDEKATAN PERHITUNGAN *PERFOMANCE MAINTENANCE* MENGGUNAKAN METODE *OVERALL EQUIPMENT EFFECTIVENESS* (STUDI KASUS KM. SINABUNG PT. PELNI)

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ABSTRAK

Pelabuhan sebagai ranah yang memiliki fasilitas utama guna transportasi laut yang kini sebagai sarana perdistribusian pokok. Di Surabaya, PT. PELNI menjadi suatu perusahaan pokok untuk dominan kapal guna diambilnya angkutan ke ranah Timur Indonesia khususnya Pelabuhan Tanjung Perak. Pada saat KM. Sinabung melakukan proses bongkar muat sedang berjalan, terdapat kendala yakni terjadinya *crane* macet. Hal tersebut menunjukan bahwa untuk perawatan mesin *crane* yang kurang optimal. Terdapat target penelitian ini berupa mengamati prosedur pelaksanaan perawatan peralatan pada KM. Sinabung dan untuk mengetahui solusi alterntif yang terbaik untuk perawatan peralatan bongkar muat pada KM. Sinabung, maka dilaksanakan pada penelitian ini dengan memakai metode *Overall Equipment Effectiveness*. Metode *Overall Equipment Effectiveness* adalah metrik sederhana yang menunjukkan status proses produksi. Berdasarkan hasil pengolahan data menggunakan perhitungan *Overall Equipment Effectiveness* didapatkan nilai OEE selama 6 bulan sebesar 78% dan memperoleh rata-rata MTBF 132,23 jam, MTTR 3,7 jam, serta interval waktu peratawatan sebesar 259,5 jam atau setiap 32 hari. Sehingga dapat disimpulkan bahwa dengan menggunakan perhitungan OEE dan interval waktu perawatan mampu mengetahui tingkat kinerja *crane* kapal dan menentukkan interval waktu perawatan *crane* kapal.

Kata Kunci: Pelabuhan, Bongkar Muat, *Crane*, *Overall Equipment Effectiveness*, Perawatan

DETERMINATION EFFECTIVENESS OF MAINTENANCE LOADING CRANE USING THE PERFOMANCE MAINTENANCE CALCULATIONS APPROACH USING OVERALL EQUIPMENT EFFECTIVENES METHOD (CASE STUDY KM. SINABUNG PT. PELNI)

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ABSTRACT

The port as an area that has the main facilities for sea transportation which is now the main means of distribution. In Surabaya, PT. PELNI has become a principal company for the majority of ships to take transportation to Eastern Indonesia, especially the Port of Tanjung Perak. When KM. Sinabung is carrying out the loading and unloading process underway, there is an obstacle, namely the crane jammed. This shows that for crane machine maintenance that is less than optimal. There is a research target in the form of observing the procedures for carrying out equipment maintenance on KM. Sinabung and to find out the best alternative solutions for the maintenance of loading and unloading equipment at KM. Sinabung, then carried out in this study using the Overall Equipment Effectiveness method. The Overall Equipment Effectiveness method is a simple metric that shows the status of the production process. Based on the results of data processing using the Overall Equipment Effectiveness calculation, the OEE value for 6 months was 78% and obtained an average MTBF of 132,23 hours, MTTR of 3,7 hours, and a maintenance time interval of 259,5 hours or every 32 days. So it can be concluded that by using OEE calculations and maintenance time intervals it is possible to determine the performance level of ship cranes and determine the time interval for ship crane maintenance.

Keyword: *Loading and Unloading, Cranes, Overall Equipment Effectiveness, Ports, Maintenance*