ANALISIS POSTUR PEKERJA GUDANG MENGGUNAKAN METODE WORKPLACE ERGONOMIC RISK ASSESSMENT (WERA) DAN JOB STRAIN INDEX (JSI) DI PT. XYZ

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ABSTRAK

PT. XYZ merupakan perusahaan penyedia layanan logistik dan transportasi global di Indonesia terkhusus sektor pergudangan salah satunya *customer* bahan baku makanan yang berlokasi di Kawasan Industri Widya Sakti Kusuma Blok F, Bekasi. Penelitian ini berfokus pada proses penerimaan barang (*inbound*). Proses penerimaan barang dikerjakan manual dengan tenaga manusia seperti membongkar barang, memindahkan barang dengan *handpallet*, *wrapping* barang, dan memindahkan barang ke dalam lokasi rak dengan *forklift*. Pada proses *wrapping* barang, pekerja dalam posisi yang tidak baik sehingga dapat mengakibatkan risiko cidera jika dilakukan secara menerus. Metode yang digunakan dalam penelitian adalah *Nordic Body Map* (NBM), *Workplace Ergonomic Risk Assessment* (WERA), dan *Job Strain Index* (JSI) untuk mengurangi tingkat keluhan sakit yang pekerja rasakan. Hasil pengolahan data dengan metode WERA dan JSI menunjukan bahwa pekerja pada proses *wrapping* barang memiliki tingkat risiko tinggi, hasil kuesioner NBM pekerja mengalami keluhan sakit pada beberapa bagian tubuh. Usulan perbaikan yang dilakukan yaitu merancang alat bantu *wrapping* berdasarkan perhitungan antropometri. Hasil perbandingan antara NBM, WERA, dan JSI sebelum dan sesudah perbaikan mengalami penurunan tingkat risiko cidera dimana NBM dengan skor 73 kategori tinggi menjadi 31 kategori rendah, pada WERA dan JSI dengan skor 45 dan 20,25 kategori *high* menjadi 33 dan 6,75 kategori *medium*.

Kata kunci: Ergonomi, Postur Kerja, WERA, JSI

WAREHOUSE WORKER POSTURE ANALYSIS USING THE WORKPLACE ERGONOMIC RISK ASSESSMENT (WERA) AND JOB STRAIN INDEX (JSI) METHOD AT PT. XYZ

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ABSTRACT

PT. XYZ is a global logistics and transportation service provider in Indonesia, especially in the warehousing sector, one of which is the customer of food raw materials located in the Widya Sakti Kusuma Industrial Estate Blok F, Bekasi. This research focuses on the process of receiving goods (inbound). The process of receiving goods is carried out manually with human power, such as unloading, moving goods with hand pallets, wrapping goods, and moving goods to shelf locations with a forklift. While wrapping goods, workers are in a bad position which can result in the risk of injury if done continuously. The methods used in the research were the Nordic Body Map (NBM), Workplace Ergonomic Risk Assessment (WERA), and Job Strain Index (JSI) to reduce the level of pain complaints experienced by workers. The results of data processing using the WERA and JSI methods show that workers in the goods wrapping process have a high level of risk. The results of the NBM questionnaire, workers experienced complaints of pain in several parts of the body. The proposed improvement is to design a wrapping tool based on anthropometric calculations. The results of the comparison between NBM, WERA, and JSI before and after enhancements showed a decrease in the level of risk of injury where NBM with a score of 73 in the high category became 31 in the low category, WERA and JSI with scores of 45 and 20.25 in the high category became 33 and 6.75 in the category medium.

Keywords: Ergonomic, Work Posture, WERA, JSI