ABSTRAK

Pekerjaan pengangkatan secara *Manual Material Handling* (MMH) merupakan jenis pekerjaan yang memiliki risiko cedera kerja yang tinggi, terutama jika dilakukan secara berulang-ulang. Aktivitas produksi di Industri Genteng Pak Sudyono dimulai dari proses pembuatan, pemindahan dan *finishing* bagian dari rutinitas pekerjaan yang dilakukan setiap hari. Proses pemindahan (pengeringan dan pengiriman) menjadi keluhan terbesar berdasarkan hasil kuesioner *Nordic Body Map* (NBM) yang telah disebarkan.

Risiko ergonomis yang mungkin dialami oleh para pekerja menjadi hal yang dipertimbangkan pada penelitian ini dengan menerapkan metode NIOSH. Pengukuran postur kerja tubuh dihitung menggunakan Metode NIOSH dengan mencari *Recommended Weight Limit* (RWL) dan *Lifting Index* (LI). Nilai postur kerja berdasarkan RWL dan LI kemudian diolah hingga menjadi *Composite Lifting Index* (CLI). Penggunaan troli sebagai fasilitas penunjang menjadi alternatif dalam upaya memperbaiki postur kerja yang ada di Industri Genteng Pak Sudyono. Troli dirancang sesuai dengan dimensi tubuh pekerja dan kebutuhan genteng yang akan dipindahkan agar mengurangi risiko cidera pada postur tubuh pekerja.

Hasil penelitian menunjukkan bahwa nilai postur pekerja untuk 3 pekerja sebelum perbaikan berdasarkan RWL sebesar 8,24; 10,40; dan 7,50; berdasarkan LI sebesar 1,21; 1,73; dan 4,00; serta berdasarkan CLI sebesar 4,74; sedangkan nilai postur pekerja setelah perbaikan berdasarkan RWL sebesar 13,09; 17,92; dan 16,31; berdasarkan LI sebesar 0,76; 1,00; dan 1,84; serta berdasarkan CLI sebesar 2,03. Nilai postur kerja setelah perbaikan menunjukkan bahwa rekomendasi perbaikan mampu meningkatkan efisiensi postur kerja dan menurunkan risiko cidera.

Kata kunci: NIOSH, *Manual Material Handling*, *Recommended Weight Limit Lifting Index, Composite Lifting Index*

ABSTRACT

Manual Material Handling (MMH) is a type of lifting work that has a high risk of work injury, especially if done repeatedly. Production activities in Pak Sudyono's roof tile industry start from the manufacturing, moving and finishing processes, part of the routine work carried out every day. The moving process (drying and shipping) is the biggest complaint based on the results of the Nordic Body Map (NBM) questionnaire that has been distributed.

Ergonomic risks that may be experienced by workers are considered in this research by applying the NIOSH method. Body work posture measurements are calculated using the NIOSH method by looking for the Recommended Weight Limit (RWL) and Lifting Index (LI). Working posture values based on RWL and LI are then processed to become a Composite Lifting Index (CLI). The use of trolleys as supporting facilities is an alternative in an effort to improve work posture in Pak Sudyono's roof tile industry. The trolley is designed according to the worker's body dimensions and the needs of the tiles to be moved in order to reduce the risk of injury to the worker's body posture.

The research results showed that the worker posture value for 3 workers before repairs based on RWL was 8,24; 10.40; and 7.50; based on LI of 1.21; 1.73; and 4.00; and based on CLI of 4.74; while the worker's posture value after improvement based on RWL was 13,09; 17.92; and 16,31; based on LI of 0.76; 1.00; and 1.84; and based on CLI of 2,03. The value of working posture after improvement shows that recommended improvements are able to increase the efficiency of working posture and reduce the risk of injury.

Keywords: *NIOSH, Manual Material Handling, Recommended Weight Limit, Lifting Index, Composite Lifting Index*