

Rapid Entire Body Assessment (REBA) at Pesaka Terengganu Berhad: Relationship between Ergonomic Hazard and Sawmill

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Structured Abstract

Background: The growth of the sawmill industry gives numerous benefits worldwide especially in Malaysia. The sawmill industry has contributed highly to Malaysia's economy since logs can be seen everywhere in Malaysia. Wood products are categorized as the highest demand in various sectors. However, the sawmill operations are not as easy as seeing logs in Malaysia. It requires a lot of force to obtain wood to be supplied and processed to furniture or houses. Processing a log needs a lot of heavy operations imposed on the musculoskeletal system like slice logs and bundling. By frequently encountered those heavy operations may lead to Work-Related Musculoskeletal Disorders (WMSDs) to the sawmill worker.

Methods: The research was done by assessing ergonomic risk factors around the work unit of Slice logs, Bandsaw, Cross-cut and Bundling at the selected sawmill industry, Pesaka Terengganu Berhad using ache, pain and discomfort of musculoskeletal questionnaire and Initial ERA form. Level of MSDs risk towards 3 selected sawmill worker in each work unit are evaluated by REBA Score using REBA method.

Results: From the observation, sawmill workers at Pesaka Terengganu Berhad experienced ache, pain or discomfort on their musculoskeletal system. This study shows that ergonomic risk factors of awkward postures, static and sustained postures, forceful exertion, repetitive motion, temperature, vibration and noise were found as ergonomic hazards in the work area at Pesaka Terengganu Berhad. All work unit also obtained a REBA Score for more than 11, showing that workers were at a very high risk level to get MSDs.

Conclusion: In conclusion, all objectives in this study were achieved successfully. The findings of this study indicated that there is a strong relationship between sawmill workers and ergonomic hazards where ergonomic risk factors were found around Pesaka Terengganu Berhad's workers in each work unit. Sawmill workers also have the highest potential to get MSDs in future based on the result from REBA assessment at Pesaka Terengganu Berhad.

Keywords: Ergonomic Hazard, Sawmill Industry, Musculoskeletal Disorders, Ergonomic Risk Assessment, Rapid Entire Body Assessment

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