"ANALYSIS OF WORK POSTURE OPERATOR DEPARTMENT OF TIRE PRODUCTION (TRP) AT PT. XYZ USES WERA AND JSI METHODS"

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ABSTRACT

PT. XYZ is a heavy equipment component remanufacturing industry to support all mining sites. PT data recorded. XYZ in 2022 regarding Occupational Diseases (PAK), namely complaints of Musculoskeletal Disorders (MSDs) of 3,373 cases in the TRP department. This is evidenced by the results of the Nordic Body Map (NBM) questionnaire which said that operators experienced MSDs complaints. The purpose of this study was to analyze the operator's body posture using the Workplace Ergonomic Risk Assessment (WERA) method and to analyze the level of problem action risk in the operator's work activities using the JSI method and then provide recommendations for improvements to reduce MSDs. These two methods were produced for work improvement in the TRP department of PT. XYZ. This research was conducted on all operators, namely a total of 25 people. The sampling technique uses a probability sampling technique, which provides equal opportunities for all populations to be selected as a sample. The results of the assessment using the WERA method showed that 28% of operators experienced high risk and 72% of other operators experienced medium risk. Furthermore, using the JSI method, it was obtained that 16% of operators experienced level 2 risk, 28% of operators experienced level 3 risk and 56% of other operators experienced level 4 risk. Recommendations for improvements were given to PT. XYZ is an adjustable stand design for brushing out, building tire and curing processes then improving the company's working hours system in accordance with Law Number 11 of 2020 concerning Job Creation and Law Number 13 of 2003 concerning Manpower.

Keywords: *Job Strain Index, Musculoskeletal Disorders, Occupational Diseases, Remanufacturing, Workplace Ergonomic Risk Assessment*