

Identification of Ergonomic Issues Among Malaysian Automotive Assembly Workers by Using the Nordic Body Map Method

Nelfiyanti Nelfiyanti, Nik Mohamed, and Nurul Aqilah Jazatul Azhar

College of Engineering, Universiti Malaysia Pahang, 26600 Pekan, Pahang, Malaysia

ABSTRACTS

Continuous productivity improvements strongly influence human performance in the workforce. One of the key barriers to increasing productivity is the comfort that workers feel while at work. Workers are continually working on the same workload by standing up for a long time in their regular activities. The workers will felt the risk of muscular injury when the activities are related to ergonomics. In order to identify issues related to ergonomic, a specific study was conducted at JKL Company, which is a four-wheel-drive automotive product manufacturer based in Malaysia. There are four stages of manufacturing processes in JKL; namely Body shop, Painting shop, Assembly and Final shop. Out of these four processes, the assembly process uses 95% workforce in the manual process. This study used the Nordic Body Map (NBM) method to identify work complaints experienced by 51 workers during the assembly process. Based from the worker's answer, a score of "64" was obtained, which means the risk of muscle injury in the "Medium" category. Workers complained most about the limbs, especially in the neck, shoulders, arms, hands, back, waist, foot and ankle. In this case, the proper ergonomic condition is required to minimize the muscle injury experienced by the worker during the work process.

KEYWORDS: Automotive, Ergonomics body map, Musculosketel

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