AN ASSESSMENT OF OCCUPATIONAL HAZARDS AND ERGONOMICS RISK FACTORS ON YOUNG MALE WORKERS IN MALAYSIA

A Shukor* Correspondence: Universiti Industri Selangor, Block JAD, Jalan Zirkon A7/A, Section 7, Shah Alam, 40000 Selangor 40000, Malaysia

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Work-related musculoskeletal disorders (WMSD) are one of the occupational safety and health problems reported at the Driveshaft Assembly Line of an automotive manufacturer. During the study session, more than 20 workers on a single shift participated and each were interviewed, observed and measured. Risk assessment code and the rapid upper limb assessment method were used to estimate the hazards and risks levels respectively.

Results show that the workers spend on average, about 109.24 s (or 1.82 min) to completely assemble one piece of drive shaft. Out of this, 33.18 s (about 30.3%) was allocated for lifting and carrying the driveshaft from one station to another. This activity is identified as one of the main cause for the development of WMSD. Another crucial cause of the pain from the waist/hip upward is the fact that these workers have to perform their task in a standing posture for about 2 h to 2.5 h per session in one shift. It was calculated that for each shift, about 2200 pieces of drive shaft that weights at least 7.244 kg each were assembled.

Based on the study, it is clearly shown that these workers were suffering from poor working conditions, manual lifting and insertion activities. Overall, the results of this study suggest that these young workers need to be provided with proper work techniques and engineering administration in order to reduce the risks of developing severe WMSD in the future as well as physiological and psychological stresses.