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Manual Material Handling Assessments Towards the Working Comfort in an Automotive Manufacturing Company

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Abstract:

Musculoskeletal disorders remain one of the most prevalent occupational injuries in the manufacturing sector. This study was performed to determine the types of working postures that cause discomfort to workers at a selected tooling plant in an automotive manufacturing company. The working postures of the co-workers were assessed while performing manual material handling activities such as stamping die, grinding, operating machines, assembling jigs, and polishing to reduce the possibility of developing musculoskeletal disorders. Data collections were done through direct observation while the Rapid Upper Limb Assessment was utilized to assess the ergonomic risk state of the working positions. The assessment showed that the assembling process and try-out chores are contributed to the most pain and anguish with the RULA score of seven which indicated in red. It was captured that the body areas such as muscles, neck, torso, legs, and arms are more prone to experience pain and discomfort as they are part of the musculoskeletal system. The critical processes could be intervened by implementing some improvements such as adjusting the angular limitation, preferred angles and reduce the duration of work. By doing this, the risk of MSDs could be reduced.