

Developing Ergonomic Prototype Testing Method for Manual Material Handling

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Abstract : There is no ergonomic prototype testing method for manual material handling yet. This study has been carried out to demonstrate the comprehensive ergonomic assessment. The ergonomic assessment is important to improve safety of products and to ensure usefulness of the product. The prototype testing is conducted by involving few intended users and ordinary people. In this study, there are four operators who participated in several tests. Also, there are 30 ordinary people who joined the usability test. All the ordinary people never do material handling activity nor use material handling device. The methods used in the tests are Rapid Entire Body Assessment (REBA), Recommended Weight Limit (RWL), and Cardiovascular Load (%CVL) other than usability test and questionnaire. The proposed testing methods cover comprehensive ergonomic aspects, i.e. physical aspect, mental aspect, emotional aspects of human.

Keywords : ergonomic, manual material handling, prototype testing, assessment

Conference Title : ICADME 2015 : International Conference on Advanced Design and Manufacturing Engineering

Conference Location : Bali, Indonesia

Conference Dates : October 11-12, 2015