

# STUDY OF LIFT STRENGTH CAPABILITY OF THAI INDUSTRIAL WORKERS

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## Abstract

The objective of this study was to determine lift strength profile in workspace of industrial workers. Lift strengths were recorded using the isometric strength measurement system. Five heights (floor, knee, knuckle, elbow and shoulder), two reaches (normal and full reaches), and three horizontal angles (0, 45, and 90 degrees) were used to define 30 measurement locations in the workspace. The results showed that the maximum strength was 498.49 Newton (N). This value was recorded in the maximum reach at the knuckle height and 0 degree horizontal angle. The minimum lift strength of 78.03 N was found in the maximum reach at the shoulder height and 45 degree horizontal angle. The results of this study can be used to design industrial tasks and workstation in such as manner that the industrial workers can work effectively and safely.

**Keywords:** lift strength, isometric strength, workspace, industrial workers

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