UNIVERSITI TEKNOLOGI MARA

HYDRAULIC LIFTING TABLE

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ABSTRACT

The hydraulic lifting table is a versatile mechanical device widely employed across industries to lift heavy objects. The current design of the hydraulic lifting table lacks adaptability to accommodate the height requirements of female workers, impeding their ability to work comfortably and efficiently. The objective of this study is to design a hydraulic lifting table with a flexible workspace and adjustable height to address the height problem faced by female workers. The study will involve research study of anthropometric measurements of female workers to determine the range of height adjustments required. The expected result is a hydraulic lifting table that provides a flexible workspace with adjustable height options. This innovation will allow female workers to work comfortably, aligning with their anthropometric measurements and promoting optimal posture.

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CHAPTER ONE
INTRODUCTION

1.1   Background of Study

Tables have been used for centuries as a flat surface to support objects. There are many innovative that appeal from just a basic table such as lifting tables that have a hydraulic system. Hydraulic lifting tables are designed to easily adjust height of table. They are often used in conference rooms, lab rooms, workshop and other areas where flexible furniture is needed.

Hydraulic lifting tables are made with a variety of materials, including wood, metal, and plastic. They come in a range of sizes and shapes, from small round tables to large rectangular tables. Some models are designed to be modular, allowing multiple tables to be combined to create larger workspaces. Hydraulic lifting tables are also available with a variety of features, such as locking casters, built-in power outlets, and adjustable height settings.

1.2   Problem Statement

Nowadays context, the hydraulic lifting table currently faces several issues that need to be addressed. These problems from the product's design and its impact on the posture of workers, particularly considering anthropometry and the height of female students.

One of the main problems is that the hydraulic lifting table does not accommodate a wide range of student heights, particularly shorter individuals. This poses a significant challenge for female students, as they tend to have a comparatively lower average height than males. The average height of female by referring anthropometry