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DESIGN AND FABRICATION FOR A BOX LIFTER

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ABSTRACT

A trolley or box lifter is the device used for carrying loads or to transport the material from one place to another. For different types of application various types of trollies or box lifters are available in the market. Depending upon the specific use the one will select the box lifter, but it is limited to do a specific work. To overcome this problem, a new box lifter was designed which could be used for multiple purposes. There are many types of trolley or box lifter available in the market for various fields like airport, shopping malls, industries, hospitals etc. to carry the heavy or light loads. This paper contains the development of trolley, which includes design based on creativity skills and fabrication, which can be used for more than one type of task. The trolley or box lifter designed is the integration of factory or any manufacturing to lift their boxes or heavy loads.

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TABLE OF CONTENTS

CHAPTER ONE
INTRODUCTION

1.1 Background of Study

Box lifters handle all types of boxes and cartons. Lifting unsealed boxes or lifting boxes above shoulder level. No matter what type of boxes we work with, we still can find a solution that will make our box handling efficient and safe. Box lifter is the most versatile and efficient tilt-free container delivery system that available.

When someone lift a box, they must make sure they keep a good posture when do it. It is because that will helps keep our upper back straight while having a slight arch in our lower back. This is why box lifter was created just for human to make them easier lifting the boxes or anything else. Or else it can helps reduce the need for manual movement of heavy packages and parcels.

With everlasting development of science and technology, more and more new technologies are applied to lifting appliance design just to make our life much easier. The main aim to design and analysis and construct multi-utility equipment for workers so that can carry their activities efficiently.

Research carried out in the automobile industry reveals that one of the heaviest components of the automobile car is the car engine which is of average weight of 272 kg. By this factor, the control weight would be 150 kg for safer design of the scissor lift table platform for assembly purposes in the automobile industry. The design was selected from an already made product in the market with more modification in various parts and section to further enhance the functionality of the design. (1)

1.2 Problem Statement

In today life human being do not want to take any risk so they are using cranes, hooks, chain-pulley system for lifting the heavy thing or any boxes. When they use their body to lifting boxes, they can get a back pain from doing that. Machines used to raise loads are referred to as lifting machines. Some typical examples of lifting machinery are the pulley used to raise water from a well and the screw jacks used to lift buses.