Design and Development of a Mounted Corn Picker

A Final Year Project Report

Presented to

SCHOOL OF MECHANICAL & MANUFACTURING ENGINEERING

Department of Mechanical Engineering

NUST

ISLAMABAD, PAKISTAN

_____

In Partial Fulfillment

of the Requirements for the Degree of

Bachelor of Mechanical Engineering

_____

by

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June 2022

EXAMINATION COMMITTEE

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Titled: *DESIGN and DEVELOPMENT of MOUNTED CORN PICKER* be accepted in partial fulfillment of the requirements for the award of B.S. Mechanical Engineering degree with grade ___

Supervisor: Dr. Rehan Zahid, Associate Professor, SMME, NUST	Dated:
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Dated: _____ _____

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ABSTRACT

This report aptly presents the work done on the Design and Development of the mounted Corn picker. Corn production is one of Pakistan's major businesses which is very widespread. Owing to lack of technological advancements, automation has not been done in this field and it still stands on manual labor. To start with the project, an extensive literature review is done to comb all the resources and the previous work done in the pursuit of creating an efficient design for a corn picker. Although both corn picker and harvester are used in the industry our epitome of attention has been the corn picker because it is convenient to make and manage. It provides a relatively simpler design. The literature review contributes to the pre-design created. The resources combed to get to the design are research papers, books, and product catalogues. The principle in the working of corn picker is to hold the stem of the plant in the design part that only allow to pass stem through it but does not allow corn or ear of the plant to pass through it. Sufficient pulling force is applied by the specific mechanism that separate the corn from the stem and stored it in specific container. The design of the assembly is created in SolidWorks and relevant calculations are done to validate the model. The prototype is created using Manufacturing principles and processes.

ACKNOWLEDGEMENTS

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