

HIGHER TECHNICAL INSTITUTE

MECHANICAL ENGINEERING COURSE

DIPLOMA PROJECT

DESIGN OF AN APPLE
CRATE CONVEYOR

Design by

XENOPHONTOS KYRIAKOS

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DESIGN OF AN APPLE CRATE CONVEYOR SYSTEM

Project Report Submitted by

XENOPHONTOS KYRIACOS

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Technical engineer in Mechanical Engineering of Higher
Technical Institute, Cyprus.

Project Supervisor: Mr N. Papanastasiou
Lecturer in Mechanical
Engineering, H.T.I.

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Abstract

This project deals with the design of an apple crate conveyer which is in an inclination and it is 30 m long.

Chapter 1 deals with the conveyer describing the use of it and its operation.

Chapter 2 deals with the design and the selection of the wire rope.

Chapter 3 deals with the force analysis exerted on the crate in different cases.

Chapter 4 deals with the selection of the crate.

Chapter 5 deals with the Design of the railway.

Chapter 6 deals with the Design of the columns.

Chapter 7 deals with the Design of the Bolts and the welds.

Chapter 8 deals with the power transmission and the selection of the motor and the gear reducer.

Chapter 9 deals with the Bending moment and shear force analysis of the railway.

Chapter 10 deals with the cost analysis of the system and the maintenance of it.

Chapter 11 covers the drawings related with the conveyer.

The appendices at the end include tables used for the design and selection procedures.

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