DESIGN OF AN ELEVATING DEVICE FOR BULKY MATERIALS

Project Report Submitted by
PAPAMICHAEL MICHALIS

In part satisfactory of the award of Diploma
of Technician Engineer in Mechanical Engineering
of the Higher Technical Institute, Cyprus

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

External Assessor : St. Nicolaides

Type of Project : Individual ☑

Group ☐

JUNE 1989

ABSTRACT

The aim of this project is to design an Elevating device for bulky material.

The special requirements governing the design of a conveyor, made this project difficult than performing the design of simple mechanical elements.

Drawings have been constructed and the design of the conveyor based in selected mechanisms and dimensions.

In general terms this project deals with the design of the Apron chain conveyor, used to lift bulky materials up to a height of ten metres, having an inclination of twenty degrees.

This project is divided into chapters, each chapter, being fully explained in the contents.

Procedure Followed:
The most important part in an Apron chain conveyor is the chain. Is the most critical element, due to the fact that is the element which actually carries and pull the load. Therefore, a lot of attention requires, when calculating the load - chain pull-of the chain. Before chain calculations and selection, conveyor length, speed and width should be calculated.

C O N T E N T S