

HIGHER TECHNICAL INSTITUTE

MECHANICAL ENGINEERING DEPARTMENT

DIPLOMA PROJECT

“DESIGN OF A HYDRAULIC  
PRESS - BENDING TOOL”

M/964

BY: HOUTRIS YIANNAKIS

JUNE 2003

HIGHER TECHNICAL INSTITUTE

MECHANICAL ENGINEERING DEPARTMENT

***DIPLOMA PROJECT***

*“ Design of a Hydraulic Press-Bending Tool ”*

No. M/964

*By : Houtris Yiannakis 3M*

June 2003

HIGHER TECHNICAL INSTITUTE	PROJECT NO.  3439
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# “ Design of a Hydraulic Press-Bending Tool ”

By : *Houtris Yiannakis*

Project Report  
Submitted to

The Department of Mechanical Engineering

of the

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in

**Mechanical Engineering**

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Project supervisor : Dr. Lazaros Lazari



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- As far as the hydraulic design is concerned I would like to thank the Antreou Bross Company (Mr. Epthimios Paphitis) for its information given during this project.

## **PREFACE**

The purpose of this project is to design a hydraulic press-bending tool.

This bending tool is to be designed for construction in order to used in my fathers company Spyros Houtris and Sons LTD.

The aim of the author is to get familiar with all the aspects concerning the knowledge upon press-bending tools, the way for design and constructions.

**HIGHER TECHNICAL INSTITUTE  
NICOSIA – CYPRUS  
MECHANICAL ENGINEERING DEPARTMENT**

**DIPLOMA PROJECT 2002/2003**

**Project Number: M/964**

**Title: "Design of a Hydraulic Press-Bending Tool"**

**Objectives:**

1. Study the theory Press-Metal-Working (Production Engineering/Production Technology).
2. Carry out a survey of the various types of industrial Press-Bending tools available today.
3. Design a hydraulic press-bending capable of bending various steel sections in short lengths.
4. Carry out stress analysis on critical joints and supports of the press.
5. Produce design calculations regarding the mechanics of the press.
6. Produce detailed drawings of all the components of the press.
7. Select materials and components of the shelf.

**Terms and conditions:**

8. Drawings must be constructed to ISO standards.

Student : Houtris Yiannakis (3M)

Supervisor : Dr Lazaros Lazari

LL/AEP

Objectives02-03(77)

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