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MECHANICAL ENGINEERING COURSE

DIPLOMA PROJECT

DESIGN OF DIES

FOR A

DEEP DRAWING OPERATION

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Design of Dies for a Deep Drawing Operation

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Project Report

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Preface

The purpose of this project is to design dies for a deep drawing operation. This means the creation of a series of methods and calculations for producing a product. The product selected is a shaker most commonly used in bars for mixing drinks. The shaker is made of metal, in specific stainless - steel and it consists of three different parts, which are tightened together for further use.

To be able to construct the dies for producing this product it is essential to follow a series of calculations that will provide the necessary information for the design of dies and also a proper selection of a press machine. The calculations required are for determining the blank diameters, the number of draws, the maximum force of all processes, etc. Some of the processes required for the manufacture of this product are blanking, piercing, deep drawing, trimming and rolling.

Some further research is done for the selection of work material as well as the die material.

The conclusions of the report are about the methods used for producing cans of different shapes, mostly conical, the methods of designing a die and also the methods for selecting a press machine.

CONTENTS

PAGES

ACKNOWLEDGMENTS

PREFACE

CHAPTER 1-INTRODUCTION

1.1 Need Identification	1
1.2 Introduction to Metal Forming	2
1.3 Metal Forming Processes	2
-Blanking	2
-Piercing	2
-Trimming	2
-Deep Drawing	3
-Spin Forming	4

CHAPTER 2-DESIGN CONSIDERATIONS

2.1 Process Plan	6
2.2 Selection of Material	6
2.3 Blank Sizing	8
- Blank Sizing of Part A	9
- Blank Sizing of Part B	10
- Blank Sizing of Part C	11
2.4 Determination for the Numbers of Draws Required	12

CHAPTER 3-FORCE ANALYSIS

3.1 Press Selection	14
3.2 Force Analysis for Each Operation	15

CHAPTER 4-DIE DESIGN AND MANUFACTURING

4.1 Introduction to Die Design and Manufacturing	19
4.2 Carbide Dies	19
4.3 Selection of Carbide Grade	19
4.4 Manufacture of Carbide Dies	21
4.5 Pressure for Blank-Holders	21
4.6 Design of Dies	21
- Blanking Set of Part A	23
- Blanking Punch	24
- Blanking Die	25
- Blanking and Piercing Set of Part B	26
- Blanking and Piercing Punch	27
- Blanking and Piercing Die	28
- Blanking Set of Part C	29
- Blanking Punch	30
- Blanking Die	31
- 1 st Drawing Die Set of Part A	32
- 1 st Drawing Punch	33
- 1 st Drawing Die	34
- 2 nd Drawing Die Set of Part A	35
- 2 nd Drawing Punch	36
- 2 nd Drawing Die	37

(contents continued)

- 3 rd Drawing Die Set of Part A	38
- 3 rd Drawing Punch	39
- 3 rd Drawing Die	40
- Final Drawing Die Set of Part A	41
- Final Drawing Punch	42
- Final Drawing Die	43
- 1 st Drawing Die Set of Part B	44
- 1 st Drawing Punch	45
- 1 st Drawing Die	46
- 2 nd Drawing Die Set of Part B	47
- 2 nd Drawing Punch	48
- 2 nd Drawing Die	49
- Final Drawing Die Set of Part B	50
- Final Drawing Punch	51
- Final Drawing Die	52
- 1 st Drawing Die Set of Part C	53
- 1 st Drawing Punch	54
- 1 st Drawing Die	55
- 2 nd Drawing Die Set of Part C	56
- 2 nd Drawing Punch	57
- 2 nd Drawing Die	58
- Final Drawing Die Set of Part C	59
- Final Drawing Punch	60
- Final Drawing Die	61
- Trimming Die Set of Part A	62
- Trimming Punch	63
- Trimming Die	64
- Trimming Die Set of Part B	65
- Trimming Punch	66
- Trimming Die	67
- Trimming Die Set of Part C	68
- Trimming Punch	69
- Trimming Die	70
- The Spinning Set	71
- The Mandrel and Forming Bar	72
- The Mandrel	73
- The Forming Bar	74
- The Complete Die Set	75
- The Upper Shoe	76
- The Lower Shoe	77
CHAPTER 5- THE RESULTS	
5.1 Justifications	78
5.2 Conclusions	78
5.3 Suggestions For Further Work	79
REFERENCES	
PROJECT TERMINOLOGY	