

CONTENTS

<b>1</b>	<b>INTRODUCTION</b>	<b>1</b>
<b>2</b>	<b>COMPRESSION AND DISPLACEMENT MOULDS</b>	<b>4</b>
2.1	Positive moulds	4
2.2	Open flash type moulds	5
2.3	Semi-positive moulds	7
2.4	Multi tools	15
2.5	Self-contained tools	18
2.6	Methods of extraction	23
2.7	Core pins and loose parts	24
2.8	Keyways	28
2.9	Location dowels	28
2.10	Large moulds	29
2.11	Mounting compression moulds tools	34
2.12	Split moulds	38
2.13	Summary of procedure in compression moulds design	45
2.14	Mould charging	45
2.15	Examples for drawing practice	47
<b>3</b>	<b>TRANSFER MOULDS</b>	<b>54</b>
3.1	Principles of transfer moulding	54
3.2	Bottom transfer with auxiliary ram	56
3.3	Transfer moulds for standard presses	59
3.4	Separate pot transfer moulds	62
3.5	Tapered split moulds	65
3.6	Continuous process transfer moulding	71
3.7	Feeds and air vents	71
3.8	Examples for drawing practice	74
<b>4</b>	<b>HOBGING OF MOULDS</b>	<b>79</b>
4.1	Some Considerations of hobbing conditions	79
4.2	Hob materials	81
4.3	Hobbing blanks	83
4.4	Hobbing bolsters	84
4.5	Hobs	86
4.6	Engraving and embossing	93

4.7 Hobbing procedure	98
4.8 Method of hob removal	99
4.9 Conclusion	100
<b>5 FERROUS METALS FOR MOULD MAKING</b>	<b>101</b>
5.1 Cast iron	101
5.2 Steel	102
5.3 Heat treatment of steel	104
5.4 Mould materials	108
5.5 Factors governing the choice of mould steels	118
5.6 Non-ferrous metals	118
INDEX	121