



## **FINAL PROJECT REPORT**

# **DIE DESIGN FOR BRACE INSTRUMENT PANEL FOR PERODUA**

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# CONTENTS

## CHAPTER 1

1.0 INTRODUCTION	1
1.2 WHAT IS BRACE INSTRUMENT PANEL.	1
-COMPONENT DRAWING	2

## CHAPTER 2

2.1 INTRODUCTION OF SHEET METAL OPERATION.	7
2.2 PRESS TOOL OPERATION	7
2.3 SHEARING ACTION	9
2.4 THE FUNDAMENTAL PRESS OPERATIONS	11
2.4.1) PLAIN BLANKING	11
2.4.2) PIERCING	12
2.4.3) BENDING OR FORMING	12
2.5 THE COMPLETE DESIGN PLAN OF BRACE INSTRUMENT PANEL.	13
2.6.1 BLANKING	14
2.6.2 PIERCING 1	16
2.6.3 BENDING AND FORMING	19
2.6.4 PIERCING 2	22
2.6.5 BENDING 7°	22
2.6.6 BEND AND RE STRIKE	26

## CHAPTER 3

3.0 BLANKING DESIGN FOR BRACE INSTRUMENT PANEL	29
3.1 TOP PLATE	30
3.2 BOTTOM PLATE	34
3.3. UPPER THRUST AND LOWER THRUST PLATE	35
3.4. STRIPPER PLATE	36

3.5 PUNCH HOLDER BLOCKS.	40
3.6 PUNCH BLOCK	42
3.7 PUNCH INSERT BLOCK	45
3.8 DIE BLOCK	46
- DRAWING	
<b>CHAPTER 4</b>	
4.0 FORM & BEND 2 PROCESS.	48
4.1 BENDING CONCEPT.	48
4.2 ALLOWANCE FOR BENDING	49
4.3 BENDING PROCESS	50
4.3.1 DISPLACEMENT OF NEUTRAL AXIS AT A BENDING PROCESS.	51
4.4 BENDING TOOLS	52
4.5 COMPONENT OF FORM AND BEND 2 DIE FOR BRACE INSTRUMENT	54
PANEL :	
4.5.1) TOP PLATE	54
4.5.2) UPPER AND LOWER THRUST PLATE	56
4.5.3 )PUNCH BLOCK	57
4.5.4) DIE BLOCK	57
4.5.5) BOTTOM PLATE	58
4.5.6) CUSHION PLATE	59
4.5.7) GUIDE PLATE	60
4.5.8) CUSHION BLOCK	61
4.6) STANDARD PART USE ON PLATE	62
4.7) COSTING OF COMPONENT FOR FORM & BEND DIES	62

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## 1.1 INTRODUCTION

*Manufacturing* is the act of transforming raw material into usable products.

Manufacturing *Process* are the special operations by which these material transforming are achieved by cutting, forming, assembling and finishing. In this research will show the operation of manufacturing the *BRACE INSTRUMENT PANEL* of vehicle component for PERODUA KANCIL.

## 1.2 WHAT IS BRACE INSTRUMENT PANEL.

Brace instrument panel is for PERODUA KANCIL car. The original component drawing comes from DAIHATSU CO. LTD of Japan. The use of this Brace Instrument Panel is as a panel to locate the speedometer, engine speed in rpm and other important indicator like the temperature meter and also the fuel meter.

It is designed to be  $90^\circ + 7^\circ$  because it would be easier for it to be assembled. The thickness of this brace instrument panel is only 1.4mm with tensile strength 38 kg/mm<sup>2</sup> and shear stress: 30 kg/mm<sup>2</sup>). The material used is SHP-28C-OD which is HOT ROLLED COMMERCIAL QUALITY (BLACK SHEET).