

## DIE DESIGN FOR OIL SEPERATOR PLATES USED IN GEN-2 CAMPRO ENGINE

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v

### ABSTRACT

In this report, chapter 1 addresses the introduction to the project. It deals with the brief definition of pressworking and die. Apart from that, the objectives of this project are described as well as the scope of project. Chapter 2 introduces the pressworking design. It includes the operations of the pressworking and its basic process. The type of dies and its components is presented in chapter 3. All of the components described are based on the generally used components in the designing of die for pressworking. Chapter 4 puts forward the die design procedures. In this chapter, all the relevant equations that are important to be considered in designing die are defined. The way of locating die components also described in this chapter. Chapter 5 presents the design die for oil separator plates. It relates what have been discussed in previous chapters and hence the design of die for the parts is shown. The design of the inspection jig for oil separator plate is presented in chapter 6. It includes the consideration taken and thus the design of the jig for the part. The conclusion is provided in chapter 7.

Here

# TABLE OF CONTENTS

	CONTENTS		PAGE
	AUT	THOR DECLARATION	j.
	CER	TIFICATION	
		SUPERVISOR	ii
		COURSE TUTOR	iii
	PAG	ETITLE	iv
	ACK	NOWLEDGEMENT	Y
	ABS	TRACT	vi
	TAB	LE OF CONTENTS	vii
	LIST	T OF TABLE	xii
	LIST	T OF FIGURE	xiii
LIST OF ABREVIATIONS			xvi
CHAPTER I		INTRODUCTION	
	1.0	Introduction	
	1.1	Project Objectives	2
	1.3	Scope of Project	2
	1.4	Methodology	3
CHAPTER II		PRESSWORKING	
	2.0	Introduction to Pressworking	4
	2.1	Type of Press Machine	5
		2.1.1 Frame	6

-1.

### CHAPTER I

#### **INTRODUCTION**

### **1.0 INTRODUCTION**

Pressworking is a method that makes desirable products by giving permanent transformation to the material with a press machine. Generally, cutting, bending, drawing, compressing, and special processing are often used. Pressworking is suitable for making a great number of the same product with a short cycle time. The medium that has been used in the pressworking is die.

Die is a tool that processes the material, putting great energy on it between the lower die and upper die. There are various kinds of dies depending on the type of process such as blanking, bending, and drawing. Generally, the bottom parts are called dies and the upper parts are called punches regardless of the type of process.

Tool and die design is a specialized area of manufacturing engineering. It consists of comprises the analysis, planning, design, application of tools, methods, and procedures necessary to increase manufacturing activity. The process of designing tools and dies is very complicated since it has a lot of consideration that should be taken care before a designer can come out with an effective die design.

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