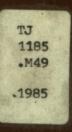
SWING LATCH JIG

Md. Zaimarudin B. Ngah Nik Zainal Rashed B. Nik Zainal Abidin





PTAR

ACKNOWLEDGEMENT.

We wish to thank Mr Shafiul Karim our priject advisor for his advise, guidance and assistance in completing the design and fabrication of the project assigned.

We would also like to thank the staffs of Engineering Workshop, School of Engineering for helping and providing us expert advice in fabrication of the project.

Finally we render our gratitude to those who involved in assigning and giving suggestion regarding our project, without their assistance, the project would not be a successful one.

Preface.

The purpose of this report is to provide the imformations, on how the project was done, its working procedure and design features of the project done. It also provide the general principles of designing the jig.

The report is dividing into 4 chapters. In first chapter it involved the principles of designing the jig, examples of jigs and the advantages of latch jigs. Second chapter explain on how we designed our project assigned and it also includes component drawings of the project. Third chapter we explain on how the project is fabricated and lastly, in four chapter it includes on confusion, discussion and recommendation about the project.

TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENT	. (ii)
PREFACE	. (iii)
TABLE OF CONTENTS	-
CHAPTER 1 : GENERAL	
1.1 Introduction	·I
I.2 Principles of Jigs	2
I.2.I Economic Principles	2
1.2.2 Principles of Location	4
1.2.3 Principles of Clamping	10
1.2.4 Other principles relating to details of Design	11
1.3. Jig Latch	13
1.3.1 Uses and Advantages of the Latch Jig	14
1.4 Types of jig	15
1.4.1 Plate Drill Jig	16
1.4.2 Pot Jig	16
1.4.3 Box Jig or Tanble Jig	17
1.4.4 Latch Jig	17
1.4.5 Solid Jig	17
1.4.6 Channed Jig	17
1.4.7 Angular Post Jig	17
1.4.8 Rotary Jig	17
1.4.9 Piller Jig	17

CHAPTER 2: PROJECT AND COMPONENT DESIGN

2.1	Introduction	. 18
2.2	Working principles and Design features the jig	19
2.3	Component Drawing	21
2.4 2.4.1	Design Project	22 22
2.4.2	Base Plate	
2.4.3	· · · · · · · · · · · · · · · · · · ·	23
2.4.4	Column	
2.4.5	Bush	
2.4.6	Latch Plate	24
2.4.7	Clamp Screw	
2.4.8	Guide Rod	
2.4.9	Pivot Rod (Bolt)	25
2.4.10	Hollow bar and Bush	25