



**FAILURE ANALYSIS ON KRISS MOTORCYCLES HANDLE LOCKING  
MECHANISM**

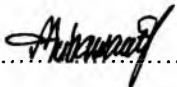
**MUHAMMAD BIN ALI @ HARUN  
(2000215942)**

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**Faculty of Mechanical Engineering  
Universiti Teknologi MARA (UiTM)**

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"I declared that this thesis is the result of my own work except the ideas and summaries which I have clarified their sources. The thesis hat not been accepted for any degree and is not concurrently submitted in candidature of any degree."

Signed :  .....

Date : 19/5/03 .....

**Muhammad Bin Ali @ Harun**

UiTM No : 2000215942

## ABSTRACT

Repeat cases of stolen motorcycle has been on the rise for the past few years. One of the main causes attributing to this increase is due to the failure in the locking mechanism. This thesis is about the failure analysis on the *Kriss* motorcycles handle-locking mechanism. The objectives of the study are to identify the types of failure, to determine the required or maximum load that causes a failure, and finally to propose a way to improve the strength of the locking-mechanism. Tensile testing machine is used to determine the load at failure and its mode. The analysis is then continued by using Finite Element Analysis in order to understand the overall distributions of stresses in the locking components so that an improvement can be made accordingly. In the final phase of the project, we provide some suggestion to improve our design of the locking mechanism in order to enhance the safety aspect by providing much needed security to the owners of the motorcycles.

## TABLES OF CONTENTS

<b>CONTENTS</b>	<b>PAGE</b>
PAGE TITLE	i
ACKNOWLEDGEMENT	ii
ABSTRACT	iii
TABLES OF CONTENTS	iv
LIST OF TABLES	v
LIST OF FIGURES	vi
LIST OF ABBREVIATIONS	vii
<b>CHAPTER 1 INTRODUCTION</b>	
1.1 Problem Statement	1
1.2 Objectives of Analysis	2
1.3 Scope of Analysis	2
<b>CHAPTER 2 LITERATURE REVIEW AND THEORETICAL BACKGROUND</b>	
2.1 Introduction	3
2.2 Result of Previous Work	4
2.3 Finite Element Method (FEM)	
2.3.1 Introduction	6
2.3.2 Finite Element Analysis (FEA)	7
2.3.3 Element of Discretization	7
2.3.4 Stress, Strain and Stiffness Relationship	11
2.3.5 Modeling of Finite Element Method	12
2.3.6 Application of Finite Element Method	13

2.4	Theory of Failure	
2.4.1	Crack Propagation	14
2.4.2	Tensile Failure	14

### **CHAPTER 3 EXPERIMENTAL METHODOLOGY**

3.1	Determination of Mechanical Properties	15
3.2	Hardness Test	16
3.3	Compression Test	17
3.4	Bending Test	18
3.5	Tensile Test	19

### **CHAPTER 4 EXPERIMENTAL ANALYSIS**

4.1	Analysis of Handle Locking Mechanism and Tool Hardness	
4.1.1	Experimental Background	21
4.1.2	Experimental Apparatus and Procedure	21
4.2	Analysis of Handle-Locking Mechanism Mechanical Properties	
4.2.1	Experimental Background	23
4.2.2	Experimental Apparatus and Procedure	23
4.3	Analysis of Handle-Locking Mechanism Failure	
4.3.1	Experimental Background	25
4.3.2	Experimental Apparatus and Procedure	25
4.4	Finite Element Analysis of Handle-Locking Mechanism	
4.4.1	Problem Description	29
4.4.2	Modeling of The Handle-Locking Mechanism	29
4.5	Finite Element Analysis of New Handle-Locking Mechanism	
4.5.1	Problem Description	32
4.5.2	Modeling of New Design Using Finite Element Analysis	33