FINAL YEAR PROJECT REPORT DIPLOMA IN MECHANICAL ENGR. FACULTY OF MECHANICAL ENGR. UITM SHAH ALAM

CHASSIS AND DESIGN § ROOFING FABRICATION

NORSHAHRIZAL NORDIN SHAZALI ASHAARY ISMAIL MASLAN MOHD NASIR ISMAIL

MAY 2000

Design & Chassis Properties

CONTENT

- 1. OBJECTIVES
- 2. PREFACE
- 3. CODE OF ETHICS OF ENGINEERS
- 4. ETHICS OF ENGINEERING DESIGN
- 5. OBJECTIVES OF PROJECT TO BE ACHIEVED
- 6. WORK DIVISION AND PROJECT ORGANIZATION
- 7. WORK FLOW AND ORGANIZATION PLANNING
- 8. ARTISTIC IMPRESSION
- 9. STATISTICAL REPORTS
- 10. MATERIAL SUGGESTION AND SELECTION THROUGH PROPERTIES REQUIRED
- 11. BASIC STRENGTH PROPERTIES
- 12. DESIGN CRITERIA AND MODIFICATION
- **13. FUTURE SUGGESTION**

STUDY ON THE IMPROVEMENT OF DESIGN OF TODAYS MOTORCYCLE. OBJECTIVES OF THE PROJECT

* To make a full study through statistical result and record on the disadvantages that could and should be improve.

- a) Random statistical result on marketing and customers demand on improvement.
- b) Statistic result on fatal accident by Malaysia Traffic Police Contingent.

* Improvement suggestion made based on the statistical analogy and fact obtained.

- a) Improving base structure.
- b) Additional structure. To modify an existing chassis by implementing the result's of the study.
- c) Material choosing.

2.PREFACE

2.1. The main idea.

This study is just the first step to reveal and rediscover the one most precious invention in the past. It was started when Harley and Davidson invented the first 2-wheeled engine vehicle in mid 18's using Daimler's engine. Until it became so popular now as it was the time and space savers.

At that time the American was the biggest and the best selling motorbike in the world. Today Japan had become the challenger of the pioneer itself. All this was caused by the lack of R&D by the pioneer and the attitude of static engineer (fully satisfied with what they achieved) that clung to the European engineers which made them nearly incompetent with the Japanese perfectionist.

This project is a first ever research and redeveloping the motorcycle in today's everyday use. Not to be critical but ideal working in today's conditions which is different from the past.

Yesterdays motorcycle is to be labeled as the most practical kind of transportation for the middle class community and still not much improvement have been made in order to cope with the rapid change of global transportation. Yesterday also indicate that traffic on the road is not as much as today's ever since he development of automotive technology.

The basic theory is simple. In any movement, there are always friction and coalition and the probability to collide is bigger if there are more body in a given border of area. Here the study will be limited only on how far the results of impact in severity and fatality.

This is the point to be reduce since there re so many traffics nowadays and so little space provided for movement. It is not the mater of attitude or rod conditions because the bigger the road is the heavier traffics it will be.

3.CODE OF ETHICS OF ENGINEERS

3.1 The Fundamental Principles

Engineer upholds and advances the integrity, honor and dignity of the engineering profession by :

- 1. Using their knowledge and skill for the enhancement of human welfare
- 2. Being honest and impartial, and serving with fidelity the public, their employers and clients
- Striving to increase the competence and prestige of the engineering profession Supporting the professional and technical societies of their disciplines

3.2 The Fundamental Canons

- 1. Engineers shall hold paramount the safety, health and welfare of the public in the performance of their professional duties
- 2. Engineers shall perform services only in the areas of their competence
- 3. Engineers shall issue public statements only in an objective and truthful manner
- 4. Engineers shall act in professional matters for each employer or client as faithful agents or trustees, and shall avoid conflicts of interest
- 5. Engineers shall build their professional reputation on the merit of their services and shall not complete unfairly with others
- 6. Engineers shall act in such a manner as to uphold and enhance the honor, integrity and dignity of the profession
- 7. Engineers shall continue their professional development throughout their careers and shall provide opportunities for the professional development of those engineers under their supervision.