

Design of a 'Water Resistance' testing machine for leather

by

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Project Report

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SUMMARY

Design of a water 'Water Resistance' testing machine for leather, by Evangelos Evangelou

This testing apparatus employs a method for testing any boot or shoe upperleather. It is according to BS 3144:1968 and the method is based on SLP 22 and IUP/10 of the Society of Leather Chemists' Societies. Using this apparatus the following measurements can be made:

1. Duration of flexing which is just sufficient to cause water to penetrate through the sample from one face to the other.
2. The percentage gain of weight of the specimen due to water absorption during one or more specified intervals from the beginning of flexing and
3. The mass of water which is transmitted from one face to the other during one or more specified time intervals.

Once the need has been identified, several techniques are used in order to have the best solution. Design follows and iteration is employed, which is a dynamic procedure used in design, in order to make improvements.

Certainly this results in a design which requires no further refinement or changes so that it can operate with success.

<u>Contents</u>	<u>Pages</u>
Title page	I
Acknowledgements	II
Notation	III
Summary	IV
Introduction	V, VI
1.1 Need Identification	1
1.2 Creativity-Divergent Thinking	1
1.3 Decision making and Optimization	2
1.4.1 Questions asked	3
1.4.2 Answers to Questions	4
1.5 Aims and Objectives	5
1.6 Constraints and Trade Offs	5, 6
1.7 Questionnaire	6, 7
1.8 Solutions and Selection	8-12
2.1 Selection of motor and design of rear motor support	13, 14
2.2 Design of cams, cam shaft, key, cam casings, cover and rods	14-17
2.3 Design of rockers, main shaft, bearing casings, sockets and bearing selection	17-19
2.4 Design of water reservoir, guides, oval shaped parts, cylinders and clip selection	19, 20
2.5 Selection of electric parts and wiring	20, 21
2.6 Design of table	21, 22
Assembly Instructions	23, 24
Operation and Safety	25
Mass and Cost estimate	26
Conclusion	27
References	28
Appendices	29-40
Drawings	