

HIGHER TECHNICAL INSTITUTE

MECHANICAL ENGINEERING DEPARTMENT

DIPLOMA PROJECT

DESIGN OF A MECHANISM FOR THE
PLACEMENT OF PAVEMENT SLABS

M/925

ANGELIDES MICHAEL

JUNE 2001

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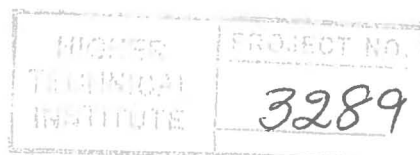


TABLE OF CONTENTS

1.Study existing methods for the placement of slabs and select pavements that can be automated.

Methods of laying slabs/flags
How to place the slabs/flags
Guide Rail Supports
Setting Out
Working lines and Levels
Boning Rods and Sight-rails
Automatic and Laser Levels
Pavements that can be automated

2.The Designing Process

Generation of ideas
Morphological Chart
Listing of the ideas and selection
Operating Instructions of the chosen idea
Order of placement

3.Selection of components and materials of the device

4.Analysis of the mechanics and evaluation of the stresses generated in the system.

Moments involved while lifting/loading slabs
Forces acting on the body
Forces acting on the plate
Determination of coefficient of friction

5. Engineering Drawings of the device.

6.Conclusions

7. Tables for the properties of materials

8.APPENDIX A

Sketches from the morphological chart