



“COMPUTATIONAL ANALYSIS OF CONNECTING ROD”

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ABSTRACT

Computational analysis of connecting rod is a method that we are analysis of connecting rod and find the information from solid work software. Typically, three result of analysis are used:

1. Stress result
2. Displacement result
3. Deformation result

For our project, we have studied about this method and try to apply it by using data that we have collect from the real product. From these data we draw in solid work and find the analysis from using a cosmos express. We also learn how to draw in this software and get more knowledge from doing this project.

COSMOSXpress design analysis results are based on linear static analysis and the material is assumed isotropic. Linear static analysis assumes that:

- 1) the material behavior is linear complying with Hooke's law,
- 2) induced displacements are adequately small to ignore changes in stiffness due to loading, and
- 3) loads are applied slowly in order to ignore dynamic effects.

1.0 INTRODUCTION

We had choose “Computational Analysis of Connecting Rod” as our study for final project. It is compulsory for a final semester students of Mara University of Technology to complete our project.

1.1 PROJECT OVERVIEW:

We choose study on “Computational Analysis of Connecting Rod” after studying the solid work programming. Connecting Rod is a component in the engine to connect the piston and camshaft. Connecting Rods also have many shapes and sizes. In our project we will to analysis these connecting rods with their real dimension using the cosmos express in solid work software.

1.2 OBJECTIVE OF PROJECT:

The objectives of this project have been identified as:-

- ◊ To Study the method how to draw using the solid work.
- ◊ Measure the two Concepts dimension of connecting rod.
- ◊ To Computational Analysis the connecting rods with using the cosmos express in the solid work.