CTU CZECH TECHNICAL UNIVERSITY IN PRAGUE

THESIS SUPERVISOR'S REPORT

I. IDENTIFICATION DATA

Thesis title: Design of a Safety Shutter for Laser Beam

Author's name: Ebrar Yucel Odabas.

Type of thesis: master

Faculty/Institute: Faculty of Mechanical Engineering (FME)

Department: The Department of Instrumentation and Control Engineering.

Thesis reviewer: Ing. Jiří Čáp, Ph.D.

Reviewer's department: CTU in Prague, Faculty of Mechanical Engineering, The Department of

Instrumentation and Control Engineering.

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment ordinarily challenging

The complexity of the work is medium, it assumes basic physical knowledge, medium design skills and FEM computational skills in the field of temperature transfer.

Fulfilment of assignment

fulfilled with major objections

The student presents the source research part, the mechanical design of the device and FEM analysis of the heat transfer. The mechanical design is a weaker part of the work because it remained in the form of a design studies and not a completed final manufacturable design.

Activity and independence when creating final thesis

D - satisfactory.

The elaboration of the work fell into the period of distance learning, so the consultations was realized mainly electronically. The student was more independent in solving the computational part than the design part. He did not always accept the recommended solution.

Technical level E - sufficient.

Unfortunately, the student's work showed that he probably had no design experience, even at a relatively low level. For this reason, the mechanical design can only be considered as a preliminary conceptual design suitable for the verification of basic spatial and kinematic schemes.

Formal level and language level, scope of thesis

C - good.

The formal text arrangement is logical, it is provided with enough pictures. Images are not always referenced in the text. A suitable editor is not used to write formulas in the calculations, and only standard typography is used to write them, which makes them less clear.

Selection of sources, citation correctness

C - good.

The work is provided with a list of used and cited literature to which it is referred in the text.

Additional commentary and evaluation (optional)



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III. OVERALL EVALUATION, QUESTIONS FOR THE PRESENTATION AND DEFENSE OF THE THESIS, SUGGESTED GRADE

The main disadvantage of the work is its incomplete in the precise mechanical design. This is characterized by considerable schematicity. For many parts, the student apparently do not thinking about the possible manufacturability but also with any optimization of the function, such as rigidity, the use of suitable joining techniques, optimization of the installation space.

The grade that I award for the thesis is **E** - **sufficient**.

Date: **28.1.2022** Signature: