

MASTER'S THESIS ASSIGNMENT

I. Personal and study details

Student's name:

Roulin Dylan

Personal ID number:

498162

Faculty / Institute:

Faculty of Mechanical Engineering

Department / Institute: Department of Automotive, Combustion Engine and Railway Engineering

Study program:

Master of Automotive Engineering

Specialisation:

Advanced Powertrains

II. Master's thesis details

Master's thesis title in English:

Manufacturing and control of engine sealing rings and its improvements

Master's thesis title in Czech:

Výroba a kontrola motorového těsnění a možnosti zlepšení

Guidelines:

Make a literature overview of used engine sealing rings and their fabrication procedures. Accomplish a study of Valgate technology and prepare a portfolio designed to help the maintenance technicians. Describe the process of control check of produced sealings. Investigate the high wear of the shock absorber on the robotic arm. Propose new solutions. Document them appropriately, choose the best solution and prepare assembly of manufacturing drawings of the improved design. Make all necessary calculations.

Bibliography / sources:

Name and workplace of master's thesis supervisor:

doc. Dr. Ing. Gabriela Achtenová Department of Automotive, Combustion Engine and Railway **Engineering FME**

Name and workplace of second master's thesis supervisor or consultant:

Yannick Prodhon Freudenberg Sealing Technologies

Date of master's thesis assignment: 30.04.2022

Deadline for master's thesis submission: 12.08.2022

Assignment valid until:

doc. Dr. Ing.

Gabriela Achtenová Datum: 2022.07.20 15:16:58 +02'00

doc. Dr. Ing. Gabriela Achtenová Supervisor's signature

doc. Ing. Oldřich Vítek, Ph.D.

Head of department's signature

doc. Ing. Miroslav Španiel, CSc.

III. Assignment receipt

The student acknowledges that the master's thesis is an individual work. The student must produce his thesis without the assistance of others, with the exception of provided consultations. Within the master's thesis, the author must state the names of consultants and include a list of references.

01/08/2022

Date of assignment receipt

Student's signature