THESIS SUPERVISOR'S REPORT

I. IDENTIFICATION DATA

Thesis title:	**Modeling and Sizing of Static GMP hybrid and electric seals**
Author's name:	**Antoine Lanos**
Type of thesis :	master
Faculty/Institute:	Faculty of Mechanical Engineering (FME)
Department:	Automotive, Combustion Engine and Railway Engineering
Thesis reviewer:	Gabriela Achtenová
Reviewer's department:	Automotive, Combustion Engine and Railway Engineering

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment   **challenging**
How demanding was the assigned project?

The subject can be treated with all the knowledge acquired during the master studies. Anyhow I treat the project as challenging, while it speaks about one "small" particular part of the whole powertrain. It is not a topic which will be treated in textbooks. The approach, the decisions needed to be done with help of engineering guess of Antoine or advices acquired with help of his communication skills from his company colleagues and/or the supervisor.

Fulfilment of assignment   **fulfilled**
How well does the thesis fulfil the assigned task? Have the primary goals been achieved? Which assigned tasks have been incompletely covered, and which parts of the thesis are overextended? Justify your answer.

The assignment is fulfilled.

Activity and independence when creating final thesis   **B - very good.**
Assess that student had positive approach, time limits were met, conception was regularly consulted and was well prepared for consultations. Assess student's ability to work independently.

Student had positive approach and tried to solve the problems as fast as they occurred. The main review to this point is the evaluation sheet from the company supervisor.

Technical level   **D - satisfactory.**
Is the thesis technically sound? How well did the student employ expertise in the field of his/her field of study? Does the student explain clearly what he/she has done?

The master thesis is very hard to read. For someone who is not working everyday with powertrain sealing, to go through and understand the amount of work which was done, was very difficult. The orientation in the problem was even worse with respect to the fact, that the terminology is not consistent. There is missing a simple scheme which will define, the used terms for different length. The term "length" is used very often, although in reality it correspond to values projected in different planes; e.g. covering length and chamfer length, p. 45.
On p. 37, Fig. 38 is not clear about which dimension is spoken. The figure is not split the case for E-PWH and Th-PWT, although in the paragraph below is taken the conclusion from the graph about different in geometry between E-PWT and Th_PWT.
p. 57 – wrong derivation of equation
Very weak drawing.

THESIS SUPERVISOR'S REPORT

Formal and language level, scope of thesis	**C - good.**
Are formalisms and notations used properly? Is the thesis organized in a logical way? Is the thesis sufficiently extensive? Is the thesis well-presented? Is the language clear and understandable? Is the English satisfactory?	

The list and explications of terms and symbols is completely missing. In the text are the symbols explained only on some places. On some places not very clear statements, e.g. p. 40, the last but one paragraph.

Selection of sources, citation correctness	**C - good.**
Does the thesis make adequate reference to earlier work on the topic? Was the selection of sources adequate? Is the student's original work clearly distinguished from earlier work in the field? Do the bibliographic citations meet the standards?	

Some Figures are apparently not from Antoine, but nowhere can be found citation; e.g. fig. 3, 4, 5, 6, 7, 13, 14, 18 – 21, 23, etc. The bibliography is composed mainly from the company literature.

Additional commentary and evaluation (optional)
Comment on the overall quality of the thesis, its novelty and its impact on the field, its strengths and weaknesses, the utility of the solution that is presented, the theoretical/formal level, the student's skillfulness, etc.

None

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

Summarize your opinion on the thesis and explain your final grading.

The grade that I award for the thesis is **C - good.**

Date: **7.9.2020**   Signature: Gabriela Achtenová