

## DIPLOMA THESIS EVALUATION

**Student's name and surname:** Huluka Feben Tereffe

**Name of the diploma thesis:** Application of nano-layers for the improvement of the cavitation resistance

**Supervisor of the thesis:** Ing. Miloš Müller, Ph.D.

### 1. Diploma thesis evaluation

Evaluation	excellent	excellent minus	very good	very good minus	good	failed
Meeting the goal and fulfilling task of the thesis	x					
Quality of conducted survey		x				
Methodology of solutions	x					
Expert level of the thesis	x					
Merit of the thesis and its potential applicability of results		x				
Formal and graphic level of the thesis	x					
Student's personal approach	x					

*Mark x in the corresponding box.*

*Supervisor's final evaluation is based on his/her overall subjective evaluation.*

*Grading is stated literally in the article no. 5, neither by a number, nor by a letter.*

### 2. Comments and remarks on diploma thesis:

The thesis fulfils all the tasks and goals given in the assignment.

Within the conducted survey or the theoretical part, it would be valuable to include some information on the mechanical response of the materials used in the form of stress-strain curves for various strain rates.

In the charts it would be better to use the same colours for the same sample composition. In some charts unit gm/sec instead of mg/sec is used.

Although the contribution of the nano-layers application to the improvement of the cavitation resistance has not been proved, the performed work introduced the methods for the testing and evaluations of the resistance of material with integrated nano-layers. Other improvements in the selection of layers and their depositions are to be expected in the future research.

I very much appreciate the student's personal approach to the evaluation of the experimental data and her explanation of their physical meaning.

### 3. Questions about diploma thesis:

How will the change of the sample core material influence the cavitation resistance?

Is there any information concerning dependence of the nano-layers resistance on the strain rate?



**4. Supervisor's statement on results of the inspection carried out by the anti-plagiarism program in the STAG system:**

The anti-plagiarism system included in STAG indicates no similarities with other documents.

**5. Supervisor's grading of the diploma thesis: Excellent**

The diploma thesis meets the academic title requirements and I recommend this thesis for the defense.

Date: 18.6.2020, in Liberec

  
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*Supervisor's signature*

