

# Master's Thesis Assessment Reviewer's Report

Student's name: Bc. Josef Biernát MT Reviewer: Ing. Roman Novák Acad. year: 2012 / 2013

MT topic:

Optimization of Serviceability of Vulcanizing Presses of Commercial Tires in Continental Barum s. r. o.

Assessment criteria		Points (0 – 10)
1	Thesis Topic Difficulty	7
2	Meeting Thesis Objectives	9
3	Theoretical Background	9
4	Practical Application (Analysis)	8
5	Practical Application (Solution)	8
6	Formal Level	9
	TOTAL POINTS (0 – 60)	50

#### **Definition of assessment criteria:**

POINTS	VERBAL DESCRIPTION
0 points	unsatisfactory
	corresponds to an "F" on the ECTS grading scale
1-2 points	sufficient - meeting basic requirements only
	corresponds to an "E" on the ECTS grading scale
3 – 4 points	satisfactory - with significant but not crucial insufficiencies
	corresponds to a "D" on the ECTS grading scale
5 – 6 points	good - insufficiencies do not substantially affect the entire work, especially the results corresponds to a "C" on the ECTS grading scale
7 – <b>8</b> points	very good - fulfilled without reserve
(See )	corresponds to a "B" on the ECTS grading scale
9 – 10 points	excellent - outstanding performance
	corresponds to an "A" on the ECTS grading scale

## **Assessment instructions:**

## Criterion 1. Thesis Topic Difficulty (0 – 10 points)

This criterion assesses the originality of the topic, its relation to the given degree course, the complexity of the analyzed issue, the demand on theoretical and practical information sources, absence of usual solution, unavailability of solution for the conditions studied.

## Criterion 2. Meeting the Thesis Objectives (0-10 points)

Criterion 2 assesses the fulfilment of thesis assignment based on defined objectives, which must be included in the introduction. The defined objective shall correspond to the required demand factor of the thesis.

## **Criterion 3. Theoretical Background (0 – 10 points)**

This part assesses primarily the choice of theoretical disciplines and their possible application in the solution, share of knowledge gained during the study as well as study of special literature and other information resources. It also reviews the level of quotations. The theoretical background shall not include knowledge which is not used in the practical application. Extent of literature, its topicality, use of foreign literature and pivotal works, application in the thesis, discussion of alternative views, analysis of the quotations used, synthesis of theoretical knowledge and consequences for the work. Literary review shall be duly processed both methodically and formally, including proper quotations and references to bibliography.

## **Criterion 4. Practical Application (Analysis) (0 – 10 points)**

It assesses the level of topic analysis, the connection of analysis to the set aims, the use of theoretical knowledge for the problem analysis. This evaluation will take into account the difficulty of obtaining information, student's approach and his/her ability to draw logical conclusions from the analysis as the standing point for resolving part. The Master's thesis contains an accurate description of the methodology used, whereas this methodology is appropriate for meeting the objective. Discussion on the chosen methods and comparison with other approaches, the possibility to verify the methods outcomes, application accuracy of chosen methods, adequate sampling, treatment of errors and shortcomings of methods, comparison of findings using multiple methods, rationale for deviations.

#### Criterion 5. Practical Application (Solution) (0-10 points)

This criterion assesses the factual level of problem solving, achievement of set objectives, addressing the continuity of the resolving part with the analytical one. Further, the logical structure of problem solving or preconditions for its verification is evaluated. Criterion 5 is also aimed at the overall level of cohesion of the theoretical background and practical application, the accuracy of the conclusions derived, unambiguous wording, adequacy, generalization of findings, applicability of recommendations, reasons for suggestions and their impacts.

#### Criterion 6. Formal Level (0 - 10 points)

This part assesses the level of graphic design, grammatical level, chosen wording, and the overall level of expression. Further is evaluated the appropriate structure, logical sequence of text, correct terminology, definiteness and clarity of graphic layout, the language level.

#### **Comments:**

Presented Bc. Josef Biernát diploma thesis "Optimization of Serviceability of Vulcanizing Presses of Commercial Tires in Continental Barum s. r. o." describes in practical application current situation at curing hall - concentrating on utilization of operators time. Mr Biernát very quickly twigged submission and focused on job description of all operators at curing hall through all shifts. For getting the results were used different methods that are defined by author.

After detailed realization of snapshots proposed various activities, that could be automated. Due to this automatization could be saved time of operators and this free available time could be used for serving another presses. Snapshots also show currently idle time of operators that could be used too. Mr Biernát proposed several rationalization proposals that could lead with automatization to better utilization of operators and to reduction of losses.

Conclusion of the thesis is saving of 2 operators per shift – it means saving 8 operators in all, that quide for higher efficiency and better productivity. This saving was confirmed by cross-checking of the results.

The thesis is very good level and meet all the appurtenances for elaboration.

## Questions for the defence:

- 1. What influence will have your proposed optimization for tiredness of operators? According the measuring and findings from snapshots do you thing, that operation "Curing CVT" is suitable for workers all age?
- 2. What steps will you propose after realization of your optimization (reduction of headcount 5 operators per shift) in case of high reduction of curing times, without increasing demands and regarding to keep the same productivity?

The thesis meets the criteria for the defence of the MT.	$\checkmark$
The thesis does not meet the criteria for the defence of the MT. (At least one criterion assessed by 0 points.)	
Zlín: 10-th May 2013	
MT Reviewer's signature	