



Review of Master thesis

Students name: Venkatesh S
Name of the thesis: Design of Mobile Jack for Lifting Clay Model of Cars
Thesis supervisor: Ing. Petr Zelený, Ph.D., Ing. Paed. IGIP
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Aspects of the thesis	Level			
	Excellent	Very good	Good	Unsatisfactory
Fulfilling scope of thesis	X			
Professional level of the work			X	
Applicability in practice			X	
Use of the gained knowledge		X		
Initiative to solve problems	X			
Conceptual approach			X	
Level of the language and format		X		

The presented master's thesis is in the range of 70 pages. The thesis has 7 annexes (technical papers, technical drawings and CD). The author divided the work into 13 main chapters.

The main aim of this master's thesis was to design a jack for lifting actual scale clay model of cars.

Theoretical part

This section lists various types of jacks along with their technical parameters. There is a comparison between them using a graph. The author defines the lift requirements according to the study of the lifted object. Text is supplemented by a number of photos and figures. There are a number of references to literature. Links to resources are missing for some images. The author demonstrated the ability to analyze obtained information and to process it clearly.

Practical part

The author describes 3 possible variants of the jack design. He then decides for a variant using hydraulics and further elaborates this variant. Based on a series of calculations, it proposes individual elements (hydraulic cylinder, cylinder attachment). The author suggests a way of moving around the floor using air bearings. He further proposes the other parts of the jack. At the end is a summary of the technical parameters of the proposed solution and pricing. The text is completed with images from CAD software and many equations. The weakness of the design is in the use of more media and therefore more expensive operation and maintenance.

It is not designed to connect the jack with a hydraulic pump, compressed air and a power source.

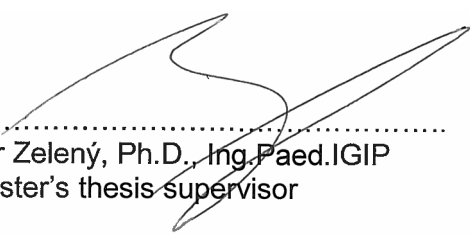




Overall, the work is comprehensible and clear. The author fulfilled the requirements of the thesis.
Master's thesis meets the requirements for granting the academic title Ing.

I propose to evaluate the grade **- good -**

Liberec, Czech Republic: 6. 6. 2018



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Ing. Petr Zelený, Ph.D., Ing. Paed.IGIP
Master's thesis supervisor

