



Makina Teorisi Derneği (MAKTED) Turkish Machine Theory Association

March 15, 2020

Report on the Thesis

“Development and Simulation of Crank Press on The Basis of Six-Linkage Mechanisms Stephenson II”

PhD Candidate: Moldir Z. KUATOVA

To Whom It May Concern,

The thesis deal with design, analysis and manufacturing of a crank press that is based on Stephenson II mechanism. The thesis aimed to improve crank presses' efficiency based on the development of a crank press with a KWM (Key Working Mechanism) based on the Stephenson II linkage using software systems for modeling physical and technical objects and systems. By this purpose, the tasks are kinematic modeling, kinematic synthesis and analysis, dynamic modeling (by the kinetostatic method), dynamic analysis, 3D design, manufacturing of a prototype, experimental studies were considered in this study. The one of the most important advantages of the used mechanism is precision in manufacturing. This thesis study is also included theoretical and experimental studies.

During the thesis, Ms. Moldir Z. KUATOVA continued her studies under my consultancy (as a foreign supervisor). She also visited Turkey for improvement of the thesis studies. During her visit, we did intensive theoretical studies together and she learned new subjects.

I have also some comments about the thesis formal template:

- Because the thesis supported by a foreign supervisor, it should also include English title page, English abstract, and English Conclusion (include recommendation for future works)
- The English title of the thesis should be corrected.

In my opinion, this thesis fulfils necessary requirements for a doctoral dissertation, so I recommend that Ms. Moldir Z. KUATOVA be awarded the PhD degree.

Yours sincerely...

Dr. Recep HALICIOGLU

Member of Turkish Machine Theory Association, Turkey