## ACADEMICIA: An International Multidisciplinary Research Journal

ISSN: 2249-7137 Vol. 12, Issue 05, May 2022 SJIF 2022 = 8.252 A peer reviewed journal

## THEORETICAL JUSTIFICATION OF THE HARROW WITH THE ACTIVE TEETH

O. P. Auezov\*; B. K. Utepbergenov\*\*; B. N. Ramazanov\*\*\*

\*Professor.

Doctor of Technical Sciences, Departmentof Mechanization of agriculture, Karakalpak Institute of Agriculture and Agrotechnology, Nukus, Republic of UZBEKISTAN

\*\*Associate Professor,

Candidate of Technical Sciences, Department of Mechanization of agriculture, Karakalpak Institute of Agriculture and Agrotechnology, Nukus, Republic of UZBEKISTAN

\*\*\*Senior Teacher,

Department of Mechanization of agriculture, Karakalpak Institute of Agriculture and Agrotechnology, Nukus, Republic of UZBEKISTAN Email id: b.ramazanov@mail.ru

DOI: 10.5958/2249-7137.2022.00535.3

## **ABSTRACT**

The article presents theoretical studies of the harrow with active teeth. The kinematic scheme of a tooth harrow with a crank mechanism is presented. The impact process of one tooth on a soil lump and its destructive speed were studied. The parameters of the crank mechanism of the harrow are determined.

**KEYWORDS:** Tooth Harrow, A Crank Mechanism, Soil Lump, The Rate Of Destruction.

## **REFERENCES**

- **1.** Recompaction of arable soils: consequences, ways of reduction. Proceedings of the Institute of soil science and photosynthesis. Moscow: Nauka, 1987. 216p.
- **2.** V. M. Zabrodsky, A.M. Finleib, L. N. Kutin et al.Running systems of tractors: (Device, operation, repair): Handbook. M.: Agropromizdat, 1986. 271 p.
- 3. Tooth harrow. Patent of the Republic of Uzbekistan No.IAP 04446. 2011, Byull., No. 12.
- **4.** Abramov B. M. Oscillations of hinge mechanisms. H., "V-school" 1977. 168 p.
- **5.** Belyanchikov N. N., Belekhov I. P., Kozhevnikov G. N., Turgiev A. K. Mechanization of technological processes. Moscow: Agropromizdat, 1989.400 p.
- **6.** Kolchin A. I., Demidov V. P. Calculation of automobile and tractor engines. Moscow: Higher school. 1980. 400 PP.
- **7.** Abdurakhmonov U. N. Substantiation of the parameters of the tool for surface tillage to tilled tractors, Abstract Diss. Cand. technical Sciences. Yangiyul, 1996. 16 p.