

**METHODS OF IMPROVEMENT OF OPERATION SYSTEMS
TECHNICAL ASSETS IN AGRICULTURAL PRODUCTION**

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Анотація. В роботі розглянуті сучасні технології підвищення точності розрахунку рівня тертя та зношування деталей для збільшення якості функціонування технічних і транспортних систем.

Modern tribology has multidirectional directions of development, consisting in the development of new and improvement of existing methods and software and hardware in biotribology and other related scientific fields. One of the most important areas of tribology is the improvement of lubricant technology to minimize friction coefficients and wear of parts and mechanisms in technical and transportation systems [1, 2]. For example, diamond-like carbon film provides high wear resistance of the protective surface of parts [3]. Scientific developments in biotribology indicate the rapid development of tribological mechanisms related to the medical industry. This branch of science is reflected in the research of natural-artificial joint systems in the areas of improving the methods of wear resistance of various materials for joint implants.

A lot of research has been done on indicators of force interaction between moving surfaces subjected to significant deformation under high temperatures. Their main focus is the development of materials for machining, pressure hardening, or hot stamping. Many scientists have paid special attention to solving the problem of creating lightweight materials to reduce fuel consumption and develop other components of machinery and vehicles, which will increase their performance [2]. At the same time, tribological modeling is becoming increasingly popular, as innovative tools for calculating atomic relationships using quantum mechanics equations and multivariate analysis are emerging that are quite capable of providing realistic results. In addition, computer modeling is used to monitor and predict tool wear systems or artificial joints of parts.

Modern tribology allows us to solve urgent issues of our time, thanks to the latest achievements in this field, the level of performance and durability of technical and transport vehicles and parts increases. A special place is occupied by the use of various lubricants and greases in the operation of technical equipment and machines. There is a need to highlight the problems of biotribology, in which considerable attention should be paid to the creation of a modern system of natural-artificial joints. Therefore, solving the problems of modern tribology is an important and priority task, the implementation of which will allow the development of new and improvement of existing technical and transport systems to improve the quality of the functioning of the modeled processes.

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