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JUSTIFICATION TECHNOLOGICAL PARAMETERS OF REPAIR CYCLE

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At the present stage of the country's economic development, equipment and machines of agricultural enterprises are experiencing difficult times, as almost all sectors of the national economy. The number of cars and cars decreased, the volume of transportation decreased, material and technical equipment deteriorated. For the normal functioning of equipment and machinery, rhythmic and full-fledged work of industry, construction, and other industries is required. Repair workshops in agriculture carry out an important and responsible role – ensuring constant readiness for the machine-tractor park.

The main task of agricultural machines is the timely and qualitative provision of the needs of the national economy and population in agricultural products, their transportation, increase of economic efficiency of their work. Quality work of machines depends on their technical condition. The solution of this problem is provided by repair and maintenance with a great operational reliability and technologicity, on the other hand – improvement of methods of technical operation of machines for determining the causes and structure of machine downtime by type of systems. The machine-tractor park has significant advantages and reserves, which in the first place lie in improving the quality of maintenance and repair of machines, the rules of operation of machinery are observed. The complex engineering task can be solved only with the presence in the appropriate repair and maintenance base and the introduction of advanced technological processes of maintenance and repair of machines. Equally important condition of high-quality maintenance and repair of agricultural machines is the provision of personnel of repair workers and specialists.

Dates of downtime is given in the table. 1.

As can be seen from the given data, the greatest expenses on maintenance of efficiency are on engines, units of hydrosystems, coupling of vaccination and running part. By types of repair actions, the largest share in total costs is maintenance and elimination of failures.

Analysis shows that the greatest proportion of downtime in the structure of tractors and combines falls on tractors. Most tractors and combines stood idle due to failure of engines 81,6 days (24,4%), as well as aggregates of hydrosystems 73,8 days (22,1%).

Table 1. Structure of machine downtime by types of their systems

Kind of systems	Unit of measurement	Value	%
Engine	Day	81,6	23,1
Transmission	Day	33,3	9,1
Runner	Day	34,9	9,0
Clutch Coupling	Day	40,4	12,0
Fuel equipment	Day	18,8	5,2
Units of hydrosystems	Day	73,8	22,0
Electrical equipment	Day	14,6	4,01
Cab	Day	18,4	5,3
Hinged system and auxiliary equipment		18,7	13,1
Total		334,5	100

Global trends in solving the problems of increasing the established indicators of technology confirm the technical feasibility and economic feasibility of finding ways to increase the efficiency of the use of resource capabilities of individual types of products. The experience of operating and repairing the main units of machines shows that, with the achieved resource indicators, intense damage to parts does not occur. The full use of actual resources is possible provided that appropriate analytical research is conducted on the identification of parts and units that limit the life of the aggregates, investigations of their technical condition, those that worked between the repair and the developer's resources in operation or on the stand, and the holding of equivalent long stand tests after major repairs.