

VOLODYMYR DAHL
EAST UKRAINIAN NATIONAL UNIVERSITY
Department "Logistics management
and traffic safety in transport»

PJSC «UKRZALIZNYTSIA»
Regional branch «Donetsk railway»

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IN LUHANSKAYA REGION

**GLOBALIZATION OF SCIENTIFIC
AND EDUCATIONAL SPACE.
INNOVATIONS OF TRANSPORT.
PROBLEMS, EXPERIENCE, PROSPECTS**

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PROVISION OF THE MAINTENANCE SERVICE OF THE DEPOT WITH THE OPTIMAL SIZE OF REPAIR STOCKS

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The traditional system of technical maintenance, current repairs of rolling stock provides for the mandatory provision of the maintenance service with turnover stock of nodes and units. In the modern conditions, the linked capital in the form of stocks requires economic justification in terms of reduction in traffic volumes and aging of locomotives and rolling stock. Further operation of the maintenance service can be considered effective when it is based on up-to-date research, and various innovations will be used in business.

In UkrSURT and a number of research organizations and universities, research was conducted to study the optimal operation of the technical maintenance of optimal maintenance, current repairs of rolling stock. Analysis of trends, in particular, shows that research is focused on the features of infrastructure development in order to form the rolling stock maintenance system. Much attention is paid to the optimization of the rolling stock operation system, the introduction of diagnostic software, automation and information technology in the technical maintenance, current repairs, the optimization of life cycle, including the possibility of its extension beyond the normal period.

In terms of market relations, it is necessary to ensure a balanced system of production and operation of the maintenance service.

In Ukraine and abroad the rolling stock maintenance strategy is aimed at reducing all costs of technical maintenance, current repairs throughout the life cycle.

So, in order to ensure the operation of the maintenance service of the depot, industrial activities are divided into operational and repair components. This, in turn, implies that the repair plants along with the implementation of "major" renovations will provide locomotive and railroad depots with spare parts. At the same time, analysis of domestic and international experience shows that the most appropriate model is where the primary responsibility for the technical condition of locomotives and cars for the whole life cycle should be borne by the plant. This makes it possible to invest efforts in improving their design, increasing reliability, providing modern repair equipment, organizing a flexible connection between different branches of the repair and production services.

Our studies allow the following conclusions:

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1 Achievement of the minimum expected order costs depends in varying degrees on the following factors: the probability of detecting a faulty unit, the size of ordered batch of products and additional costs when reordering by the customer.

2 The greatest impact on the cost of the order is made by the value of additional costs for the execution of a reorder, also affecting the value of the order.

3 The value of guarantee payments to suppliers for the quality of products is also dependent on additional costs for ordering products and the value of the order, determined by a decrease in the probability of detection of a faulty unit.

4 In the transition to the principles of the service maintenance, one should take into account the impact of these factors on the value of the costs of providing the depot maintenance service with the necessary stock of components, quality management and there is a possibility to provide flexible impact on the optimization of maintenance units.

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