

Victor Sribniy
A.M. Korolev, research supervisor
O. D. Shvets, language adviser
SHEI “National Mining University:”, Dnipropetrovsk

Mining Trucks: Problem and Solution

One of the most important links in the comprehensive mechanization of underground ore mining is the process of moving the ore from the bottom to the surface, including the operations of production, loading and delivering it within the loading and transport through the main workings to the mine shaft. In addition, transportation of ore accounts for about 50% of the cost of production.

At the enterprises of the mining industry, depending on the destination and mining geological conditions using different types of transport vehicles. In modern machines mining transport contains such basic requirements as a high level of quality, reliability, durability, standardization and unification of the assemblies to ensure the assembly of multi-purpose transport vehicles, compliance with health standards for noise, vibration and dust, the automation of the microprocessor technology and remote drive motor vehicles.

Depending on the operating conditions for underground mining locomotives transport imposed the basic requirements: technical - the right choice and the minimum number of transport used on one of the mining enterprise and uninterrupted supply of auxiliary materials production units; mining and engineering - the reconciliation process flow diagrams mining transport to geological conditions of field development options and opening systems development; economic - to ensure high technical and economic indicators due to the minimal number of staff , reduce capital and operating costs , remote and automated control of transport vehicles .

One of the main goals for the underground mining of coal production is to further the implementation of high-performance mobile equipment with an electric drive for the transport of minerals, ancillary goods and people. The current direction of the electric locomotive haulage is aimed at the introduction of continuous technology trolleys to transport ore special ceiling and bottom discharge, providing a continuous process of loading and unloading. For example, this allows to increase the performance for electric haulage by 1.5-2 times and increase the capacity of the loading points by 5-6 times. Further development of mining transport is aimed at better utilization of locomotives and traction units with more towing weight, increasing capacity of the wagons.

In conclusion, it should be noted that the main direction of improvement of the mining industry is to increase productivity through modernization of the enterprises on the basis of a new high-technology and the introduction of advanced mining technology. The development of technology for the extraction of ores is based on the use of complex machinery and equipment, providing mechanization and automation of production processes.