

Annotation

Theme of the thesis "Automated electric drive of conveyor belt". The structure of the work is shown by the introduction, the main computed part, the economic part, the section on life safety, the conclusion and the list of literature.

The introduction sets out the main goals and tasks of the thesis. In the main part, the conveyor line and its drive are calculated, the frequency converter is selected, and the electrical equipment is selected. The classification, the device, the technological process of operation of belt conveyors are given. The task of optimization of the electric drive control system of the belt conveyor is solved with the help of the computer simulation program MATLAB. Graphs of transients, qualitative characteristics are given and, by comparison, an optimized electric drive control system is chosen that meets the basic technological requirements, such as reliability, continuity of operation, transient stability, and the need for regular repairs.

In the economic part, the choice of drive and frequency converter is justified.

In the section of Belarusian Railways, an analysis is made of the working conditions of one of the workshops using a conveyor line in the production cycle and a number of measures have been developed to improve them.