

Annotation

The purpose of the degree project is the comparative analysis of control systems of the main electric drives of the ladle EKG-5I excavator. In the degree project it has been designed the automated electric drive of the career EKG-5I excavator. The project consists of the following main sections: main part, health and safety, economic part.

In the main part the main settlement and design works have been carried out. Thyristor and converting engines of a pressure, rise and turn which are used in the electric drive of the career excavator have been chosen and comparative calculations are carried out.

In the section health and safety measures safety of workers have been carried out. Calculations for electrical safety and fire safety have been carried out.

In economic part the salary of workers, depreciation, material and expenses on the electric power is calculated. It has been calculated efficiency of use of the thyristor and converting engine in the electric drive of the career EKG-5I excavator.