ANNOTATION

This graduation project considers a frequency-controlled electric pump drive of an oil pumping station. The electric drive system of the frequency converter - asynchronous motor (IF-HELL) was selected.

The paper describes the technological features of the operation of pumps in an oil refinery. As a traction motor, an asynchronous motor with a squirrel-cage rotor was selected, the characteristics of an asynchronous motor are given. TP-AD model selected. A study of transients in the environment of MATlab.

In the section of life safety, issues of safety measures for the tower crane driver and safety measures during the operation of the crane are considered. Work conditions at the workplace were also analyzed.

In the economic part of the thesis, a new electric drive system based on a thyristor frequency converter for a frequency-controlled drive of the main movement of the model is considered. The economic efficiency of the new electric drive system based on an asynchronous motor - a frequency converter was calculated.