

Annotation

The objective of this graduation project is the development and calculation of an ultrasonic system for monitoring the rolling surface wheelsets of railway wagons.

To date, the issue of control of wheel sets is very relevant, since rail transportation plays a very important role in the transport system of the country. Acquires special significance is the increase in train speed. The wheelset is a critical element affecting the safety of trains.

This project is dedicated to the development of ultrasound systems with Piezoelectric converter, which uses longitudinal waves. Was calculated the acoustic path, selected the best materials and design of the sensor considered several methods of control of wheel sets, represented algorithm, functional, structural and electrical schemes of ultrasonic system for monitoring the running surface of wheel sets of railway wagons, as well as provide guidance on the control methods object.