

Summary

In the bachelor thesis project developed a device to control the head rails of ultrasonic method. The state of railway safety depends on a person's life and ensure the normal circulation of industry and agriculture.

Diploma project contains an explanatory note, drawings and schematics. The explanatory note examined methods of acoustic control rails head, types of defects arising heads rails during production and operation and methods control this defects, analyzed sounding scheme rails head. Make calculated angle input, directivity characteristic, geometric dimension piezoelectric transducer. Designed the structural and functional scheme of the device. It was also designed electric circuit and conducted fundamental rationale for the choice of circuit elements.