

Abstract

The diploma project consists of 56 pages, 15 drawings, 9 literary sources.

In the diploma project the task of designing a ferrosonde flaw detector for control of the rail head was set and solved. The project provides calculations: the number of turns of the measuring winding, the total active and reactive power spent on the excitation of the ferroprobe. The graphic part of the diploma project shows a block diagram of a flaw detector made on an A3 sheet, a functional diagram on an A3 sheet, an assembly drawing of a ferroprobe on an A1 sheet, an electrical schematic on an A1 sheet, and a specification on an electrical schematic.

Purpose: to design a device that can control the head of the railway rails for defects.

Subject of research: the head of the railway.

Scientific novelty: the presence of GPS for spatial navigation of defects.

Key words: ferrosonde flaw detector, contact fatigue, rail head defects, inductor trolley.