Annotation

The volume of the master's dissertation is 100 pages. The work consists of an essay, an introduction, 6 main sections, and contains 46 figures, 24 tables.

The number of links listed is 26.

The object of the study is a fuel injection control system with E-PPN series valves, for diesel engines.

The subject of research is the electromagnetic valve as the basic element of the executive body of the intellectual system of pulsed injection of diesel fuel.

The purpose of the work is to study and optimize the parameters of the actuator E-PPN valve-coil of an electromagnet, experimental studies of its characteristics, the development of an intelligent fuel injection control system with valves of the E-PPN series.

Objectives of the study:

- perform a theoretical calculation of the coil of an electromagnet;
- perform a theoretical calculation of the return spring for a coil electromagnet;
- conduct experimental studies of an electromagnet with a designed coil on the conformity of a mathematical model.

Key words: intelligent system, fuel injection control system, electromagnetic valve, electromagnet.