

## Annotation

The thesis was performed on the subject of “Designing a traction engine”. The task of the diploma is to design a DC motor with improved characteristics, the dimensions of which are slightly smaller than the analogue.

For this purpose, a compensation winding is used to reduce the influence of the armature reaction. To increase the stability of the engine, a stabilizing winding was introduced.

The sizes, resistance of the stator and rotor windings, steel losses and mechanical losses are calculated. Based on the results of the work done, performance charts are built.

In addition to this, a feasibility study was given when choosing a DC motor, and payback periods were calculated.

The section on life safety considers the issue of protective grounding in networks with an insulating neutral voltage of up to 1000 volts.