

ABSTRACT

Development of the Technological Process for Manufacturing the Steel Casting “Movable Bearing Housing” and Organization of the Work of the Sand Preparation Department

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Diploma project: 108 pages, 20 tables, 8 figures.

The object of the project is the development of the manufacturing technology for a steel casting “Movable Bearing Housing” weighing 17.4 kg using disposable sand-clay molds, the design of a sand preparation department for a foundry with an annual capacity of 6000 tons of good castings, and the design of a roller-type mixer model 1A-12.

The subject of the project includes casting technology, formulation and preparation of molding and core mixtures, equipment selection, and organization of the department’s workflow.

The proposed technological solutions ensure efficient preparation of high-quality mixtures with moderate costs, making the process suitable for serial production.

Economic calculations confirm the feasibility of the proposed design solutions. Working conditions were analyzed, and occupational and fire safety measures were developed.

CASTING, STEEL, SAND-CLAY MOLD, SAND PREPARATION DEPARTMENT, ROLLER MIXER