

**Anotation**

**Course work**

**Discipline:**

**"Thermal engineering of foundry"**

**Student groups FL-31**

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**On theme:**

**"Heating installation charge for the steelmaking 45L in DSP-6"**

The coursework was calculated heating installation charge. Course work is contained in the 31 pages of handwriting and a drawing A1.

Explanatory note consists of the entry, seven sections, the list of literature references and contains a figure.

The first section of the explanatory note is determined by the required amount of carbon charge, the amount of pig iron in the charge, the amount of steel scrap in the charge, calculation of ferroalloys for steel alloying and deoxidation.

The second section presents the calculation of the main space of the tub heating installation charge.

The third section presents the calculation gozobraznogo burning fuel. Which defines the amount of gaseous fuel natural gas is the heating of the charge air and the temperature inside the unit, and the temperature to which heat the charge.

The fourth section is a calculation of the thermal installation, which includes calculating the arrival of heat, heat consumption, heat balance calculation and fuel per hour operation.

The fifth section describes the calculation of technical and economic parameters of the installation.

The sixth section presents the calculation of the burner, which define the type of burner GNP-4A, which operates at a pressure of 3.92 kPa with a nominal air pressure of 1.96 kPa.

The seventh section presents calculations aerodynamics installations where size calculated flues, the flue gas flow rate, the amount of flue gases discharged from one channel and expense in friction in the pipe.

**Keywords:** heating installation charge, charge, the tub