

ABSTRACT

The work contains 72 pages, 16 pictures, 10 tables, 30 literature sources

The purpose of the work: the production of high-strength titanium pseudo- β alloys.

Research methods: the research begins with the determination of the phase composition samples of the VT-22 alloy. Phase analysis on a cast alloy VT22 after surface treatment was performed on a Ultima IV diffractometer in copper radiation.

The subject of the research: to reveal the effect of machining on the mechanical properties of the alloy VT-22.

Object of the research: Optical and X-ray methods were used to study the effects of treatment on residual stresses and the morphology of the phase state of a two-component titanium alloy VT-22.

Practical significance: the results of scientific and practical researches are an important contribution to the improvement of the technology of manufacturing fastening parts from pseudo-titanium alloys.

Keywords: PSEUDO ALLOYS, TITANIUM ALLOYS VT-22, INDUCTION, RESIDUAL STRESSES.