

SUMMARY

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Mel'nyk A.I. Master thesis: "Research of precision characteristic of the high-speed grinding of cylindrical surfaces in the centers". ___ pages, ___ Fig. ___ Tables, source of graphic (___ sheets of A1).

The thesis deals with the mathematical model of precision of the turning lathe by use of a variation method which will allow defining the factors which are most influencing accuracy.

The information and patent researches are presented as well as optimization of schemes of shape forming. The optimized schemes of shaping are developed. The general matrix of configuration and optimal one is defined. The technological calculation for the purpose of definition of type of production is carried out. The drive of the main motion calculation is carried out.

The variation method of calculation allowed to receive the mathematical model of a shape forming of the turning lathe and the cutting tool. Geometrical errors of knots of the turning lathe and balance of accuracy are calculated.

KEYWORDS: VARIATION METHOD, TURNING LATHE, BALANCE OF ACCURACY, ERROR, MATHEMATICAL MODEL.