

Summary

MAZEPA ANDRII. Qualification master's work on "The influence of clamping mechanism duplex vertical CNC lathe for error form thin-walled products," pages 158, formula 57, Table 42, rysunkiv35, 1 application, applied literature sources 80.

The object of study of the cause of the error in the form of a clip on the processing of thin-walled workpieces, while securing them in lathe chucks.

Objective: To improve performance turning vertical duplex lathe by increasing the frequency of rotation of the spindle unit and improve the accuracy of processing it thin-walled products through the use of mechanized drive clamp with special clamping cartridges and adjustable clamping force.

In this Master's Work, an analysis similar purpose machines showed that almost all of them have a linear layout with movable along two coordinates spindle can be equipped motorshpyndelyamy and produced under conditions of the customer. Analyzed design drives clamping vertical CNC lathes. The analysis shows that in osnovnou machines equipped with hydraulic and pneumatic drives with power clamp circuit; Vaybrano rational layout of the machine on the basis of the terms of reference conditions for selection; Your technological, kinematic and force characteristics of the drive head movement and by the choice of the engine; The set of applications to model reactions at the cam action of the cutting force on the error after the form has been processed. With this package modeling conducted for certain processing conditions circular pieces; There are measures of labor protection, life safety, ecology and environmental protection; A feasibility study adopted design decisions.

Keywords: clamping mechanism, vertical CNC lathe, error form