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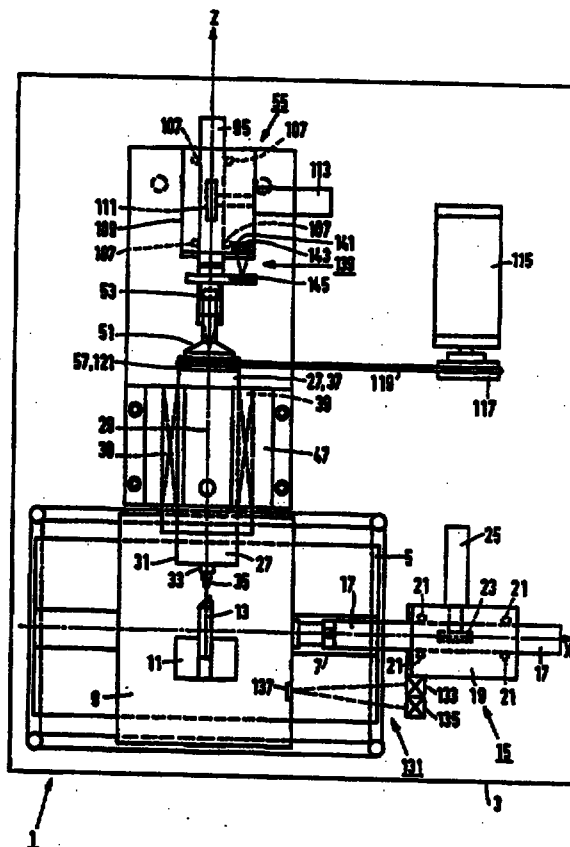
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(54) Title: MACHINE TOOL FOR AND METHOD OF PROVIDING A SURFACE WHICH IS NOT ROTATIONALLY SYMMETRICAL ON A WORKPIECE, AND CONTROL FOR SUCH A MACHINE TOOL

(57) Abstract

A machine tool (1, 227) with a spindle (27, 229) which extends parallel to Z-direction, is rotatable about an axis of rotation (29, 231) which runs parallel to the Z-direction, and is provided with a holder (33, 235) for a workpiece (35, 237) to be manufactured. The machine tool (1, 227) has a holder (11) for a tool (13) which is displaceable in an X-direction perpendicular to the Z-direction. The spindle (27, 229) and the holder (11) for the tool (13) are mutually displaceable parallel to the Z-direction as a function of the X-position of the tool (13) and an angle of rotation of the spindle (27, 229), so that the workpiece (35, 237) is provided with a surface which is not rotationally symmetrical relative to the axis of rotation (29, 231). According to the invention, the spindle (27, 229) and the holder (11) are mutually displaced parallel to the Z-direction in that exclusively the spindle (27, 229) is displaced parallel to the Z-direction. The workpiece (35, 237) is thus provided with a desired basic surface and a desired correction which is not rotationally symmetrical, while a series of workpieces having different basic surfaces and corrections can be manufactured by means of only a single tool.



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