

Title (en)
CYLINDRICAL GRINDING METHOD FOR PRODUCING HARD METAL TOOLS AND CYLINDRICAL GRINDING MACHINE FOR GRINDING CYLINDRICAL STARTING BODIES DURING THE PRODUCTION OF HARD METAL TOOLS

Title (de)
VERFAHREN ZUM RUNDSCHLEIFEN BEI DER HERSTELLUNG VON WERKZEUGEN AUS HARTMETALL UND RUNDSCHLEIFMASCHINE ZUM SCHLEIFEN VON ZYLINDRISCHEN AUSGANGSKÖRPERN BEI DER HERSTELLUNG VON WERKZEUGEN AUS HARTMETALL

Title (fr)
PROCEDE DE RECTIFIAGE D'UNE SURFACE CYLINDRIQUE LORS DE LA PRODUCTION D'OUTILS EN METAL DUR ET RECTIFIEUSE CYLINDRIQUE POUR LE RECTIFIAGE DE CORPS DE DEPART CYLINDRIQUES LORS DE LA PRODUCTION D'OUTILS EN METAL DUR

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Application
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Abstract (en)

[origin: WO2004076124A1] The invention relates to a grinding method and to a cylindrical grinding machine, in which a sintered hard metal round rod (6) is completely pushed through a chuck (4) of a workpiece spindle head, said chuck having chuck jaws (5). Two backrest seats (35, 36) are ground on the freely projecting end area (23) of the round rod (6), and two backrests (11, 12) are then placed on the round rod (6) in directions (13, 14). The resulting secure support of the end area (23) enables a front cone (37) to be ground with a high level of precision with regard to the concentricity at the end of the round rod (6) facing the quill (8) of a tailstock. A multiple grinding wheel (21), which is comprised of two differently designed individual wheels (31, 32) that directly rest against one another in an axial manner, serves to grind the front cone (37) and is advanced toward the round rod (6) in the X-direction. The multiple grinding wheel (21) is mounted in a grinding spindle (18). The individual wheels (31, 32) have different grinding areas (33, 34). After the front cone (37) has been ground, it is lodged in a hollow punch (10) at the front end of the quill (8), whereby the quill is displaced toward the front cone (37) in the direction of arrow (9). The end area (23) of the round rod (6) is hereby optimally fixed at both ends without the first fixing of the chuck (4) having to be released. In this state, the desired cylindrical grinding final contour of the end area (23) can be produced by cylindrical grinding. This procedure is particularly advantageous for producing hard metal tools. By working the rod with a single chucking, machining can be carried out both economically and without the risk of radial deviations. The different individual wheels (31, 32) of the multiple grinding wheel (21) can serve additional different grinding tasks. When the end area (23) has reached the desired concentric final contour, it is cut off from the round rod (6) by the individual wheel (32).

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