

Title (en)
Tool with burnishing rolls.

Title (de)
Werkzeug mit Glattwalzkopf.

Title (fr)
Outil à galeter à rouleaux.

Publication
EP 0503109 B1 19950125 (DE)

Application
EP 91103818 A 19910313

Priority
EP 91103818 A 19910313

Abstract (en)
[origin: EP0503109A1] The invention relates to a tool with a smoothing (burnishing) roll head for machining surfaces on workpieces (25, 116) having a generated surface which is circular in cross-section. In the case of such tools the hysteresis is to be reduced and an improved non-positive smoothing (burnishing) with a precisely controlled smoothing (burnishing) force is to be obtained. This is achieved in that a support element (9, 46, 97, 63) having a surface (10, 98, 47) which is concentric with respect to the conical path (30, 59, 111, 84) and which is cylindrically curved so as to be rotatable and axially mobile on a holder (1, 43, 95, 120) with a corresponding cylindrically curved surface (122, 121, 98), support element and holder being linked by means of a slaving which consists of at least one groove (33, 34; 60, 61; 115, 114), which is formed in at least one corresponding cylindrically curved surface and which runs at a gradient (which is non-self-locking) with respect to its longitudinal axis, and of at least one driver (32, 113), which interacts with at least one groove and which engages in at least one groove, the gradient direction of the groove and the cone angle of the conical path being matched to each other in such a way that the smoothing (burnishing) rolls (8, 45, 112, 83) rest against the workpiece surface to be machined under the action of the positioning force (29, 51, 90). <IMAGE>

IPC 1-7
B24B 39/02

IPC 8 full level
B23B 29/03 (2006.01); **B24B 39/02** (2006.01); **B24B 39/04** (2006.01)

CPC (source: EP)
B24B 39/023 (2013.01)

Cited by
CN102198631A; EP2962808A1; CN105269419A; US9827648B2

Designated contracting state (EPC)
AT BE CH DE ES FR GB IT LI SE

DOCDB simple family (publication)
EP 0503109 A1 19920916; EP 0503109 B1 19950125; AT E117616 T1 19950215; CS 351091 A3 19920916; DE 59104421 D1 19950309; ES 2067071 T3 19950316; HU 207962 B 19930728; HU 913596 D0 19920228; HU T60651 A 19921028; JP H068135 A 19940118; JP H0747264 B2 19950524

DOCDB simple family (application)
EP 91103818 A 19910313; AT 91103818 T 19910313; CS 351091 A 19911120; DE 59104421 T 19910313; ES 91103818 T 19910313; HU 359691 A 19911118; JP 32781791 A 19911211