

Title (en)
ROLLER GRINDER FOR TARGETED PREVENTION OF QUARTER WAVES

Title (de)
WALZENSCHLIFF ZUR GEZIELTEN VERMEIDUNG VON VIERTELWELLEN

Title (fr)
MEULE DE CYLINDRE DESTINEE A L'EVITEMENT CIBLE DE QUARTS D'ONDE

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Application
EP 16721836 A 20160512

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Abstract (en)
[origin: WO2017016695A1] The invention relates to a roller stand (1) that has a roller stand frame (3) in which working rollers (4, 5), or working rollers (4, 5) and support rollers (8, 9), or working rollers (4, 5), intermediate rollers (10, 11), and support rollers (8, 9) are mounted. The rollers (4, 5, 8, 9, 10, 11) can be rotated about a respective rotational axis (6, 7). In a roller stand (1) without intermediate rollers (10, 11), the working rollers (4, 5) can be moved relative to one another in the direction of the respective rotational axis (6, 7), i.e. axially. In a roller stand (1) with intermediate rollers (10, 11), the same applies to the working rollers (4, 5) or the intermediate rollers (10, 11). Each of the axially movable rollers (4, 5 or 10, 11) has an effective barrel length (L) and a curved contour (R1, R2) which extends over the entire effective barrel length (L). Each of the axially movable rollers (4, 5 or 10, 11) has a contour (R1, R2) made by superimposing a respective base function (B1, B2) with a respective additional function (Z1, Z2). The base functions (B1, B2) and the additional functions (Z1, Z2) are functions of the location (x) in the direction of the respective rotational axis (6, 7). The base functions (B1, B2) are determined so as to complement each other in a specified relative axial position in an unloaded state of the axially movable rollers (4, 5 or 10, 11) and form a convex or concave roller gap profile depending on a movement direction upon being moved from the axial position. The sum of the additional functions (Z1, Z2) is a symmetrical function, which is monotonous on both sides, with respect to the barrel center of the axially movable rollers (4, 5 or 10, 11) in the unmoved state.

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