

Title (en)

Method for producing components for the mechanical processing of aqueous papermaking pulp

Title (de)

Verfahren zur Herstellung von Garnituren für das mechanische Bearbeiten von wasserhaltigem Papierfaserstoff

Title (fr)

Procédé pour la fabrication des garnitures pour le traitement mécanique de la pâte à papier aqueuse

Publication

EP 1055772 B1 20051207 (DE)

Application

EP 00106187 A 20000322

Priority

DE 19923865 A 19990525

Abstract (en)

[origin: EP1055772A1] To produce the clothing for grinders, to grind paper fiber suspensions, a body (3) of a hard material is shaped according to structure of the grinder, penetrated by a bonding agent (4) such as solder. The assembly gives a bond between the grinder and the base body (1). The body (3) of hard material is bonded to the base body (1) by the penetration of the bonding agent, after the bodies (1,3) have been fitted together. The grinder and the base body (1) are of different materials. The hard material body (3) and the bonding agent (4) are bonded together at a temp. of at least 600 degrees C or at least 1000 degrees C. The body (3) of hard material can have grooves which extend to the base body (1). The bonding agent (4) is a metallic solder, applied in a layer on the hard material body (3) before penetration, where the shape of the layer matches the outline of the body (3). The outline shape of the hard material body (3) and the layer of bonding agent is formed before penetration, in a single-stage and common action. The bonding agent layer is also applied to any grooves in the body (3). The grooves are prepared to give no bond between the solder (4) and the base body (1). The hard material body (3) is of hard particles in a granule size of 3-100 micrometers. The granules have edges or are round on all sides. The granules are of a hard metal. The granules are embedded in a matrix of an easily-melted material which is removed before or during penetration, so that the free zones between the granules are wholly filled by the solder. The hard material body (3) can be a porous pack, compressed and solidified by pressing. The grinder shape matches the dimensions and outline of the hard material body (3). The grinder clothing is produced in a number of stages, where the clothing height is increased in steps at right angles to the base body, using a number of hard material bodies (3) for the same section of the grinder. A number of hard material bodies (3), in contact with each other, are bonded together through the penetration of the bonding agent. The grinder can be structured so that a number of lands are formed on the base body (1) as narrow bars at right angles to the base, with grooves between them. Or tooth projections can be formed on the base body. A base body (1) is used, already prepared with projections, which have the same outline shape as the grinder to be made. The base body (1) can be one which has already been used, and the clothing has been worn away.

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