Title (en)

Method and device for fixing at least one shaped body provided with abrasive body on a support

Title (de)

Verfahren und Anordnung zur Befestigung von mindestens einem mit einem Verschleisskörper versehenen Formkörper auf einem Trägerkörper

Title (fr)

Procédé et dispositif pour fixer au moins un corps moulé pourvu d' un corps d' usure sur un support

Publication

EP 1209284 A2 20020529 (DE)

Application

EP 01126375 A 20011107

Priority

DE 10057553 A 20001121

Abstract (en)

[origin: DE10057553A1] To mount a shaped body (2) at a carrier (5), at a papermaking or cardboard or tissue production machine, both bodies are locked together by a clamp (12), with no play between them through their manufactured tolerances. The mounting allows a rapid exchange of the fitted body at the carrier. The two bodies are sealed against each other to prevent the entry of fibers or soiled process water. The mounting for a shaped body at a carrier, has a clamping action which dampens and prevents vibrations, and the foil angle is unchanged during the clamping action. For the clamping effect, two defined clamping lines in addition to the main clamping line give the mounted body an unambiguous lie between it and the carrier. An Independent claim is included for a mounting, to secure a shaped body to a carrier, which has an inner contour (6) along the length of the under side of the shaped body and a complementary outer contour (9) is along the length of the carrier, at its upper side. At least one clamp, which can be operated, is between the two contours. The shaped body can have half a T-groove at one side, and half a swallowtail groove at the other side, to accommodate matching ribs at the carrier. with the clamp at the swallowtail contour. It can have a complete T-groove at one side, to be engaged by a T-rib of the carrier, with the clamp at the groove base, and clamps at each of the short end sides. The inner contour of the shaped body can be a swallowtail groove (8), with a recess at the base, and the carrier has a swallowtail body with a parallel plug, with clamps at both swallowtail sides. The clamp can be between the T-rib of the carrier and a clamping rail at it, preferably with an integrated and central V-groove. The clamp can also be between the T-rib of the carrier and the groove base at the shaped body. The T-rib at the carrier can have chamfers at the ends of the T-bar, for clamps to be fitted under them. The clamp can also be at the center of the swallowtail groove. The upright of the T-rib at the carrier can be shorter on one side, and the clamp is an eccentric which is rotated by a cam disk or electromotor. The clamp can also be an elastomer hose, with a controlled inner pressure of 0.5-5.0 bar and preferably 2.0-3.5 bar. The hose pressure is set by a pressure supply with a control unit. The pressure supply is linked to at least two clamps, and preferably all the clamps. The clamp is resistant to acid and alkali process water, preferably in a pH range of 2.5-12.0, and is also resistant to all cleaning agents and chemicals used in the production of paper and cardboard. The clamp is resistant to hydrolysis, without swelling. The cover for the shaped body is of a ceramic or thermoplastic material. The shaped body is of ceramics, or a heat-setting plastics e.g. glass fiber reinforced plastics, or a thermoplastic. The shaped body and its cover can form a body unit of the same material, of ceramics or thermoplastics. The carrier is of metal or a heat-setting plastics with glass fibers.

Abstract (de)

Die Erfindung betrifft ein Verfahren und eine Anordnung zur Befestigung von mindestens einem mit einem Verschleißkörper (4) versehenen Formkörper (2), insbesondere eine Baugruppe wie Entwässerungsleiste, Deflektor oder Schlitzsauger für eine Papier-, Karton- oder Tissuemaschine, auf einem Trägerkörper (5), wobei der Formkörper (2) und der Trägerkörper (5) ineinandergreifen. Das Verfahren ist dadurch gekennzeichnet, dass die beiden Körper (2, 5) mittels mindestens einer Klemmvorrichtung (12) derart miteinander verklemmt werden, dass ein Betriebsspiel aufgrund fertigungstechnischer Toleranzen weitestgehend, vorzugsweise vollständig, verhindert wird, dass ein schneller und zerstörungsfreier Austausch des Formkörpers (2) ermöglicht wird und dass eine gegenseitige Abdichtung der beiden Körper (2, 5) ermöglicht wird, so dass keine Faser und/oder kein schmutzbeladenes Prozesswasser zwischen sie eintreten kann. Weiterhin betrifft die Erfindung verschiedene Anordnungen (1) zur Durchführung des erfindungsgemäßen Verfahrens. <IMAGE>

IPC 1-7

D21F 1/48

IPC 8 full level

D21F 1/48 (2006.01)

CPC (source: EP US)

D21F 1/483 (2013.01 - EP US)

Cited by

EP2202355A3; AT526435A4; AT526435B1

Designated contracting state (EPC)

AT DE FI IT SE

DOCDB simple family (publication)

EP 1209284 A2 20020529; **EP 1209284 A3 20030108**; DE 10057553 A1 20020523; US 2002060041 A1 20020523; US 6746576 B2 20040608

DOCDB simple family (application)

EP 01126375 A 20011107; DE 10057553 A 20001121; US 99702601 A 20011120