

Title (en)  
"Carding apparatus, particularly for preparing webs for non-woven fabrics"

Title (de)  
Kardiervorrichtung, insbesondere zur Vorbereitung von Vliesen für Faserverbundmaterialien

Title (fr)  
Appareil de cardage, en particulier pour la préparation de naps pour de produits non-tissé

Publication  
**EP 1046731 A1 20001025 (EN)**

Application  
**EP 00108417 A 20000418**

Priority  
IT TO990311 A 19990420

Abstract (en)

Carding apparatus comprises a final swift (1) with which two output combing cylinders (2, 3) cooperate, the combing cylinders (2, 3) being situated at different heights and picking up an upper web of fibres (V1) and a lower web of fibres (V2), respectively. Each of these webs (V1, V2) is supplied, possibly with the interposition of a randomizer cylinder (22, 24) - to a respective doffer cylinder (4, 4a); the doffer cylinders (4, 4a) deposit the upper web (V1) on an upper conveyor belt (5) having a downwardly-inclined final active portion (5b), and the lower web (V2) on a lower, substantially horizontal conveyor belt (15) on which the upper web (V1) is deposited by the above-mentioned inclined final portion of the upper conveyor in order to form a web (V3) with two superimposed layers. At the critical points of the path of each web (V1, V2, V3) at which - during high-speed operation - an undesired alteration in the orientation of the fibres may occur, there are control cylinders (6, 16, 11, 19, 23, 25) which have closely-packed peripheral sets of fins of limited height and which accompany and control the webs and convey the air-flows produced by the rotating members.

<IMAGE>  
The carding apparatus comprises the combing cylinders (2,3) which are engaged with final swift (1) at different heights. Upper and lower doffer cylinders (4,4a) supply web respectively to conveyor belts (5,15). The belts are driven by separate variable speed motors through control rollers (6,16,11,19) with peripheral fins. The rollers are arranged at different sections of conveyor belts. Randomizing rollers (22,24) are arranged in between the combing cylinders and doffer cylinders. Finned control rollers are provided to cooperate with randomizing rollers and doffer cylinders. Each finned roller consists of cylindrical tube with spacer rings or helical fins. The finned cylinders are supported in a movable frame which moves between working position and rest position. A regulating roller (13) controls the movement of conveyor belts. The support frame includes longitudinal arms (2) connected to cross arm. The longitudinal arms support to control rollers. The frame is provided with the locking device which consists of pneumatic jacks. Pivoting of each frame is carried out by hydraulic jacks. The regulator which includes support plates in the outer recess, adjust the position of control rollers.

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**D01G 15/46** (2013.01)

Citation (search report)

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