

Title (en)  
Inlet carriage of a cross layer with grooved web reversal roller

Title (de)  
Eingangs wagen eines Vlieslegers mit strukturierter rolle

Title (fr)  
Chariot mobile d'entrée d'étaleur-nappeur comportant un rouleau de détour avec cannelures ou annelures

Publication  
**EP 2365113 B2 20160518 (FR)**

Application  
**EP 11305142 A 20110210**

Priority  
FR 1051643 A 20100308

Abstract (en)  
[origin: EP2365113A1] The front and back movable carriage comprises a forward movable belt (2), a rear movable belt (4) associated with the forward movable belt, and a returning unit (18) to return a textile fiber web (1) during transfer of the forward belt to the rear belt. The returning unit comprises a non-sucking deflecting roller and a veneer wall for compressing the textile fiber veil against the deflecting roller in a curved portion of the deflecting roller. The deflecting roller is provided on its periphery with longitudinal grooves that bind to the surface of the deflecting roller. The front and back movable carriage comprises a forward movable belt (2), a rear movable belt (4) associated with the forward movable belt, and a returning unit (18) to return a textile fiber web (1) during transfer of the forward belt to the rear belt. The returning unit comprises a non-sucking deflecting roller and a veneer wall for compressing the textile fiber veil against the deflecting roller in a curved portion of the deflecting roller. The deflecting roller is provided on its periphery with longitudinal grooves that bind to the surface of the deflecting roller of longitudinal channels, or circumferential corrugations that bind to the surface of deflecting roller of circumferential channels. The longitudinal or circumferential channels are adapted to contain and canalize the air, which is ejected from veil when it is compressed between the deflecting roller and the veneer wall. The deflecting roller is air impermeable. The veneer wall is formed by a portion of the rear endless belt, which matches the curvature of deflecting roller in the reversal area of the veil, and an additional endless belt, which is different from rear belt and matches the curvature of the deflecting roller in the reversal area of the veil. The height of the grooves of the deflecting roller is 20 mm. The deflecting roller comprises 36 equidistant longitudinal grooves. The spacing between the peaks of two adjacent grooves is 16 mm. The cross-sectional area of each longitudinal channel is 70 mm<sup>2</sup>. The height of the corrugations of the deflecting roller is 20 mm. The spacing between the peaks of two adjacent corrugations is 20 mm. The cross-sectional area of each circumferential channel is 250 mm<sup>2</sup>. The cladding wall is air impermeable. An independent claim is included for a crosslapper in which a textile fiber web arrives continuously on a belt.

IPC 8 full level  
**D01G 25/00** (2006.01)

CPC (source: EP)  
**D01G 25/00** (2013.01)

Citation (opposition)  
Opponent :

- EP 1367166 A1 20031203 - ASSELIN [FR]
- FR 2219100 A1 19740920 - JOHNS MANVILLE [US]

Cited by  
WO2018162369A1; FR3063741A1; EP3239371B1

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