

Title (en)

Weaving device for making a structure for a composite article

Title (de)

Webvorrichtung zur Herstellung einer Struktur für Verbundmaterial

Title (fr)

Dispositif de tissage pour la réalisation d'une structure pour pièce de matière composite

Publication

EP 0922798 B1 20020605 (FR)

Application

EP 98402990 A 19981130

Priority

FR 9715608 A 19971210

Abstract (en)

[origin: EP0922798A1] The composite fabric weaving has a longitudinal cam to move the warps, and a structured weft insertion system. The assembly for weaving a composite material has a system (5) to give different displacement movement speeds to the warps (FC) which rotates round a longitudinal axis (X-X). Its profile is set as a function of at least one lateral edge of the woven material, in a cam shape. The cam (5) has a flat surface and a profile which is defined by a variable lateral width, at right angles to the axis (X-X), where the axis is generally orthogonal to the direction (D) of the warps (FC). The cam profile is defined so that the lateral width (h_i) is at a point (P_i) along the axis (X-X) to meet the equation: $L_i = n(P_j) + F_1(h_i, \theta_2) - F_2(h_i, \theta_1)$ where: L_i is the required length of the warp in the woven fabric at the point (P_i) on the longitudinal axis (X-X); n is the number of wefts in the fabric; $n P_j$ is the displacement of the warps in each step; F_1 and F_2 are the distance functions of the lateral width (h_i) and the extreme rotation angles (θ_1 , θ_2) of the cam. The weft insertion system gives a variable number of superimposed wefts of different weft thicknesses. The length of warp displacement, with longitudinal displacement by steps for the insertion of the wefts, is set for each step.

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