

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 ( $\theta_1$ ,  $\theta_2$ ) 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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**D03D 13/00**

IPC 8 full level

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CPC (source: EP US)

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