

Title (en)

Conical cross-wound bobbin and method for winding the yarn package of a conical cross-wound bobbin

Title (de)

Konische Kreuzspule und Verfahren zur Bildung des Wickelkörpers einer konischen Kreuzspule

Title (fr)

Bobine conique à enroulement croisé et procédé pour la formation du paquet de fil d'une telle bobine conique

Publication

EP 1321412 A3 20030917 (DE)

Application

EP 02025845 A 20021119

Priority

DE 10162778 A 20011220

Abstract (en)

[origin: EP1321412A2] The process creates a crossing angle between 15-28 degrees in the middle zone (30), which is produced with this angle across more than 50% of the total winding width. The crossing angle in the middle section is at least 8 degrees smaller than the maximum angle in the edge zones (28,29). Yarn tension is reduced as the package diameter increases. <??>An Independent claim is made for the resulting crosswound package.

IPC 1-7

B65H 55/04; **B65H 54/38**

IPC 8 full level

B65H 54/38 (2006.01); **B65H 55/04** (2006.01)

CPC (source: EP US)

B65H 54/385 (2013.01 - EP US); **B65H 55/04** (2013.01 - EP US); **B65H 2701/31** (2013.01 - EP US)

Citation (search report)

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Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

DOCDB simple family (publication)

EP 1321412 A2 20030625; **EP 1321412 A3 20030917**; **EP 1321412 B1 20060405**; CN 1269711 C 20060816; CN 1426947 A 20030702; DE 10162778 A1 20030703; DE 50206302 D1 20060518; US 2003116673 A1 20030626; US 6886771 B2 20050503

DOCDB simple family (application)

EP 02025845 A 20021119; CN 02157599 A 20021220; DE 10162778 A 20011220; DE 50206302 T 20021119; US 32513102 A 20021220