

Title (en)  
CROSS-WIND BOBBIN

Title (de)  
KREUZWICKELSPULE

Title (fr)  
BOBINE A BOBINAGE CROISE

Publication  
**EP 1358120 B1 20070117 (DE)**

Application  
**EP 02701234 A 20020125**

Priority  
• DE 0200250 W 20020125  
• DE 10104463 A 20010201

Abstract (en)  
[origin: WO02060800A1] The invention relates to a cross-wind bobbin (1) wherein the helical lines in which the yarn (4) is wound have a different pitch in adjacent positions. The winding ratios are selected in such a way that the amount which is drawn off is greater when the draw-off point is displaced from the draw-off side to the base than the amount which is drawn off when the draw-off point is moved from the base to the draw-off side.

IPC 8 full level  
**B65H 55/04** (2006.01)

CPC (source: EP KR US)  
**B65H 54/06** (2013.01 - KR); **B65H 55/04** (2013.01 - EP US); **B65H 2701/31** (2013.01 - EP US)

Cited by  
DE102013003286A1

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)  
**WO 02060800 A1 20020808**; CN 1254428 C 20060503; CN 1500060 A 20040526; DE 10104463 A1 20020912; DE 50209280 D1 20070308; EP 1358120 A1 20031105; EP 1358120 B1 20070117; JP 2004533981 A 20041111; JP 4323168 B2 20090902; KR 20030076639 A 20030926; US 2004104290 A1 20040603; US 7246764 B2 20070724

DOCDB simple family (application)  
**DE 0200250 W 20020125**; CN 02807447 A 20020125; DE 10104463 A 20010201; DE 50209280 T 20020125; EP 02701234 A 20020125; JP 2002560959 A 20020125; KR 20037010053 A 20030730; US 46703504 A 20040108