

Title (en)  
CROSS-WINDING DEVICE

Publication  
**EP 0294408 B1 19910502 (DE)**

Application  
**EP 87907934 A 19871208**

Priority  
• DE 3641847 A 19861208  
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Abstract (en)  
[origin: WO8804273A1] Known cross-winding devices have a strap that moves back and forth a support (5) with a thread guide (7). The support (5) has hydraulically or pneumatically driven clamping means. To obtain cross-wound bobbins, the gripper shuttle drive is provided with a spring (18) that goes through its dead centre when the gripper shuttles (10.L, 10.R) are moved. The gripper shuttle drive is actuated in the stroke reversal areas by fixed stops (23.L, 23.R). The fixed stops can be moved in the direction of the stroke, effecting an aspiration and an oscillation. The strap (1) can extend over several winding stations connected each to a support (5) and thread guide (7).

IPC 1-7  
**B65H 54/28**; **B65H 54/38**; **F16H 19/06**

IPC 8 full level  
**B65H 54/28** (2006.01); **B65H 54/36** (2006.01); **B65H 54/38** (2006.01); **F16H 19/06** (2006.01)

CPC (source: EP KR US)  
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**B65H 2701/31** (2013.01 - EP US)

Citation (examination)  
IBM Technical Disclosure Bulletin, Band 16, Nr. 1, Juni 1973, IBM Corporation, (US) G. Beaujeu: "Reciprocating mechanism", Seiten 239-240, siehe das ganze Dokument

Designated contracting state (EPC)  
CH DE FR GB IT LI

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**WO 8804273 A1 19880616**; EP 0294408 A1 19881214; EP 0294408 B1 19910502; JP H01501703 A 19890615; KR 880007344 A 19880826;  
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