

Title (en)  
METHOD TO WIND UP THREADS

Publication  
**EP 0256411 B1 19891011 (DE)**

Application  
**EP 87111210 A 19870804**

Priority  
• DE 3627879 A 19860816  
• DE 3636151 A 19861024

Abstract (en)  
[origin: DE3627879A1] For producing cylindrical cross-wound bobbins by the step-precision traversing method, provision is made, according to European Patent Application 86103045, for the upper and lower limits to be shifted parallel to one another. The method is performed especially advantageously if the increase in the traversing speed takes place by the random-winding method, particularly at the start of the winding run, whereas otherwise step-precision winding with constant or equidirectional varied upper and lower limits is adopted.

IPC 1-7  
**B65H 59/38**

IPC 8 full level  
**B65H 54/06** (2006.01); **B65H 54/02** (2006.01); **B65H 54/28** (2006.01); **B65H 54/38** (2006.01); **B65H 55/04** (2006.01); **B65H 59/38** (2006.01)

CPC (source: EP KR US)  
**B65H 54/02** (2013.01 - KR); **B65H 54/06** (2013.01 - KR); **B65H 54/28** (2013.01 - KR); **B65H 54/38** (2013.01 - EP US);  
**B65H 55/04** (2013.01 - EP US); **B65H 2701/313** (2013.01 - EP US)

Citation (examination)  
EP 0256383 A1 19880224 - BARMAG BARMER MASCHF [DE]

Cited by  
US4917319A; EP0992445A1; DE3636151A1; DE3636151C2; EP2493798A4

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

DOCDB simple family (publication)  
**EP 0256411 A1 19880224**; **EP 0256411 B1 19891011**; CN 1008995 B 19900801; CN 87105666 A 19880622; DE 3627879 A1 19880225;  
DE 3627879 C2 19950928; DE 3636151 A1 19880428; DE 3636151 C2 19980205; DE 3760736 D1 19891116; KR 880002733 A 19880511;  
KR 900006649 B1 19900915; US 4798347 A 19890117

DOCDB simple family (application)  
**EP 87111210 A 19870804**; CN 87105666 A 19870815; DE 3627879 A 19860816; DE 3636151 A 19861024; DE 3760736 T 19870804;  
KR 870008991 A 19870817; US 8584987 A 19870814