

Title (en)  
WINDING DEVICE.

Title (de)  
HASPELANLAGE.

Title (fr)  
BOBINEUSE.

Publication  
**EP 0435883 B1 19941005**

Application  
**EP 89909712 A 19890914**

Priority  
• DE 3831855 A 19880920  
• DE 8900589 W 19890914

Abstract (en)  
[origin: WO9003328A1] When metal strips are wound and unwound, use is made of expanding winding spindles (1) with a cover (4) to prevent the hard winding spindle sections (6) from damaging fragile metal strips (3). Since the maximum yield strength of the elastomeric spindle cover is often exceeded as the winding spindles (1) expand, resulting in permanent deformation, the cover (4) may remain expanded and become undesirably detached with the coil (3) from the winding spindle (1). To prevent the winding spindle cover (4) from being stressed beyond its yield strength, a slit (5) is made in it, running approximately spirally from one end of the winding spindle cover (4) to the other.

IPC 1-7  
**B65H 75/24; B65H 75/18**

IPC 8 full level  
**B65H 75/18** (2006.01); **B65H 75/24** (2006.01)

CPC (source: EP US)  
**B65H 75/18** (2013.01 - EP); **B65H 75/245** (2013.01 - EP US); **B65H 2701/514** (2013.01 - EP)

Designated contracting state (EPC)  
AT BE CH DE FR GB IT LI LU NL SE

DOCDB simple family (publication)  
**WO 9003328 A1 19900405**; AT E112535 T1 19941015; DE 3831855 A1 19900329; DE 58908479 D1 19941110; EP 0435883 A1 19910710;  
EP 0435883 B1 19941005

DOCDB simple family (application)  
**DE 8900589 W 19890914**; AT 89909712 T 19890914; DE 3831855 A 19880920; DE 58908479 T 19890914; EP 89909712 A 19890914