

Title (en)  
Wrapping apparatus

Title (de)  
Wickelvorrichtung

Title (fr)  
Dispositif à banderoler

Publication  
**EP 1489004 B1 20060816 (DE)**

Application  
**EP 04013509 A 20040608**

Priority  
DE 20309382 U 20030616

Abstract (en)  
[origin: EP1489004A2] The winding device winds objects (30) on a pallet (28) in foil, and has a base body (10) and a winding arm (20) connected to it by a holding arm (14). The winding arm has a roll holder (24) to take the foil roll (26). The winding arm turns on the holding arm. The base body has a fixing element (12) to fix the winding device to the resting elements of a lifting trolley.

IPC 8 full level  
**B65B 11/02** (2006.01); **B66F 9/18** (2006.01)

CPC (source: EP KR US)  
**B65B 11/025** (2013.01 - EP US); **B66F 9/18** (2013.01 - KR); **B65B 2210/20** (2013.01 - EP US)

Cited by  
EP2256081A1; ES2351906A1; US8474223B2; WO2013096263A1; WO2010111298A1; US8979466B2; US9908648B2; US11479378B2; US10005581B2; US11111046B2; US11174056B2; US9932137B2; US11208225B2; US10239645B2; US10717554B2; US11407538B2; US11518558B2; US11912445B2; US10227152B2; US11597554B2; US11667416B2; US11685567B2; US10005580B2; US10053253B2; US10435191B2; US10926906B2; US10934034B2; US11034470B2; US11104464B2; US11111045B2; US11505343B2; US11518557B2; US11731793B2

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**EP 1489004 A2 20041222; EP 1489004 A3 20050330; EP 1489004 B1 20060816**; AT E336426 T1 20060915; AU 2004202632 A1 20050106; AU 2004202632 B2 20060406; CA 2470939 A1 20041216; CN 100361871 C 20080116; CN 1572656 A 20050202; DE 20309382 U1 20041028; DE 502004001182 D1 20060928; ES 2271738 T3 20070416; JP 2005008278 A 20050113; KR 20040108591 A 20041224; MX PA04005894 A 20050107; NZ 533479 A 20050225; US 2005016135 A1 20050127; US 2006185330 A1 20060824; US 7040071 B2 20060509; US 7168222 B2 20070130

DOCDB simple family (application)  
**EP 04013509 A 20040608**; AT 04013509 T 20040608; AU 2004202632 A 20040616; CA 2470939 A 20040614; CN 200410046574 A 20040611; DE 20309382 U 20030616; DE 502004001182 T 20040608; ES 04013509 T 20040608; JP 2004178614 A 20040616; KR 20040040303 A 20040603; MX PA04005894 A 20040616; NZ 53347904 A 20040611; US 41023106 A 20060425; US 86721104 A 20040615