

Title (en)  
CARRIER ELEMENT

Title (de)  
MITNEHMERELEMENT

Title (fr)  
ELEMENT D'ENTRAINEMENT

Publication  
**EP 1509468 B1 20061122 (DE)**

Application  
**EP 03756950 A 20030526**

Priority  
• DE 0301694 W 20030526  
• DE 10224839 A 20020605

Abstract (en)  
[origin: EP1731464A2] The mandrel (01) extends from the shaft of a motor with roller bearings. It has a support element (03) shaped as a plug which extends into the end of the hollow spindle for the roll of paper (04). The motor is mounted in a mechanism for changing the roll (02). Pins with sharpened chisel-shaped ends are accommodated in pockets with their axes parallel to the axis of the mandrel and dig into the end of the spindle for the roll of paper, to assist in transmission of drive torque from the motor.

IPC 8 full level  
**B65H 18/00** (2006.01); **B65H 16/10** (2006.01); **B65H 19/12** (2006.01)

CPC (source: EP US)  
**B65H 16/10** (2013.01 - EP US); **B65H 19/12** (2013.01 - EP US); **B65H 2301/4181** (2013.01 - EP US); **B65H 2405/454** (2013.01 - EP US); **B65H 2511/51** (2013.01 - EP US)

C-Set (source: EP US)  
**B65H 2511/51 + B65H 2220/01**

Designated contracting state (EPC)  
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**WO 03104118 A2 20031218; WO 03104118 A3 20040408; WO 03104118 B1 20040527**; AT E346004 T1 20061215; AU 2003232159 A1 20031222; AU 2003232159 A8 20031222; DE 10261967 A1 20040108; DE 10261968 A1 20040115; DE 10261968 B4 20070322; DE 50305759 D1 20070104; EP 1509468 A2 20050302; EP 1509468 B1 20061122; EP 1731464 A2 20061213; US 2005211820 A1 20050929; US 7258300 B2 20070821

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