

Title (en)
Friction element

Title (de)
Friktionselement

Title (fr)
Élément de friction

Publication
EP 1655258 A3 20070509 (DE)

Application
EP 05022187 A 20051012

Priority
DE 102004053397 A 20041105

Abstract (en)
[origin: EP1655258A2] The friction unit has a ring (10), which fits on a winding shaft in a mounted condition, and a clamping unit (12) pressed against a hub (30) by a rotary motion relative to the ring (10) by a clamping surface. The clamping unit has a ring shaped, radially expandable holder, which fits on an outer circumferential surface of the ring. The holder presides with a projection radially over an inner diameter of the hub in a relaxed condition.

IPC 8 full level
B65H 75/08 (2006.01)

CPC (source: EP US)
B65H 75/246 (2013.01 - EP US)

Citation (search report)

- [XA] US 1327445 A 19200106 - RIDER ERNEST G
- [DA] EP 0863101 A2 19980909 - ESSERT HERMANN [DE]
- [A] GB 1242822 A 19710811 - KAMPF MASCHF ERWIN [DE]
- [DA] US 4551010 A 19851105 - MIYASHITA KIYOSHI [JP], et al
- [DA] JP H02132043 A 19900521 - KATAOKA KIKAI SEISAKUSHO KK

Cited by
US8998122B2; DE102011010378A1; EP2484613A3; DE102011010378B4

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

Designated extension state (EPC)
AL BA HR MK YU

DOCDB simple family (publication)
EP 1655258 A2 20060510; EP 1655258 A3 20070509; EP 1655258 B1 20110504; AT E508087 T1 20110515; DE 102004053397 A1 20060518; DE 502005011323 D1 20110616

DOCDB simple family (application)
EP 05022187 A 20051012; AT 05022187 T 20051012; DE 102004053397 A 20041105; DE 502005011323 T 20051012