

Title (en)

ROLLER CLOSING DEVICE WITH AN INNER AND OUTER PART AND A SEAL MEMBRANE

Title (de)

WALZENSCHLÖSSER MIT EINEM INNENTEIL, EINEM AUSSENTEIL UND EINER DICHTMEMBRAN

Title (fr)

SERRURES A CYLINDRES DOTEES D'UN ELEMENT INTERNE ET D'UN ELEMENT EXTERNE

Publication

EP 1628829 B1 20091104 (DE)

Application

EP 04732994 A 20040514

Priority

- EP 2004050807 W 20040514
- DE 10323555 A 20030526
- DE 10343580 A 20030918

Abstract (en)

[origin: WO2004103704A2] The invention relates to a roller closing device having an inner and an outer part, wherein the inner part and the outer part are arranged at least partially in a coaxial manner and the inner part can be radially deflected relative to the outer part by means of at least one elastic body that is arranged between the inner part and the outer part, wherein said elastic body is configured as a rolling membrane. A seal is configured between the inner part and the outer part, wherein said seal seals off a gap between the inner part and the outer part to prevent impurities from entering the roller closing device when any radial deflection of the inner part takes place.

IPC 8 full level

B41F 13/40 (2006.01); **B41F 7/40** (2006.01); **B41F 31/36** (2006.01); **F16C 13/00** (2006.01)

CPC (source: EP US)

B41F 7/40 (2013.01 - EP US); **B41F 13/40** (2013.01 - EP US); **B41F 31/36** (2013.01 - EP US)

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)

WO 2004103704 A2 20041202; WO 2004103704 A3 20050825; WO 2004103704 B1 20051006; AT E447483 T1 20091115;
DE 502004010320 D1 20091217; EP 1628829 A2 20060301; EP 1628829 B1 20091104; EP 2130675 A1 20091209; EP 2130675 B1 20121219;
ES 2333795 T3 20100301; US 2007006756 A1 20070111; US 7448322 B2 20081111

DOCDB simple family (application)

EP 2004050807 W 20040514; AT 04732994 T 20040514; DE 502004010320 T 20040514; EP 04732994 A 20040514; EP 09168606 A 20040514;
ES 04732994 T 20040514; US 55848505 A 20051128