

Title (en)

Drive to operate the leaf of a door or window

Title (de)

Antrieb für einen Flügel einer Tür oder eines Fensters

Title (fr)

Entraînement pour un battant de porte ou de fenêtre

Publication

**EP 2388421 A3 20131204 (DE)**

Application

**EP 11166148 A 20110516**

Priority

DE 102010029024 A 20100517

Abstract (en)

[origin: EP2388421A2] The unit (1) has a piston (3) arranged in a housing (2) and impacted with a spring (5) i.e. shutter spring. The piston co-acts with a driven shaft (4) for opening and/or closing a leaf. A pressure balance device (8) is arranged in the housing that is filled with hydraulic fluid (9). The pressure balance device has an input cabinet, whose inner space stands in contact with an inner space of the housing of the unit via a collet. The collet passes till to a volume middle point of the cabinet, and is closed via a stopper such that vacuum filling of the unit is enabled.

IPC 8 full level

**E05F 3/10** (2006.01)

CPC (source: EP)

**E05F 3/10** (2013.01); **E05F 3/102** (2013.01); **E05F 3/12** (2013.01); **E05F 3/227** (2013.01); **E05F 15/53** (2015.01); **E05Y 2201/10** (2013.01); **E05Y 2201/448** (2013.01); **E05Y 2800/00** (2013.01); **E05Y 2800/172** (2013.01); **E05Y 2800/414** (2013.01); **E05Y 2900/132** (2013.01)

Citation (search report)

- [XA] DE 4101640 A1 19920723 - DORMA GMBH & CO KG [DE]
- [XD] EP 2075398 A2 20090701 - GEZE GMBH [DE]

Cited by

EP3173561A1; CN106812404A; EP3243991A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 2388421 A2 20111123**; **EP 2388421 A3 20131204**; **EP 2388421 B1 20160803**; DE 102010029024 A1 20111117;  
DE 102010029024 B4 20160428

DOCDB simple family (application)

**EP 11166148 A 20110516**; DE 102010029024 A 20100517