

Title (en)  
Built-in door closer

Title (de)  
Einbautürschliesser

Title (fr)  
Ferme-porte encastrable

Publication  
**EP 1518989 B1 20090121 (FR)**

Application  
**EP 04104658 A 20040924**

Priority  
FR 0311175 A 20030924

Abstract (en)  
[origin: EP1518989A1] The door-closer has a drive shaft (4) rotatably moving along an axis oriented along a direction, and projecting outside a case. A set of rollers (5, 6) cooperates with the drive shaft and pistons. The pistons move along an axis oriented along another direction. An elastic unit separating two hydraulic chambers includes a Belleville spring washer (10) mounted coaxially along the latter direction. Independent claims are also included for the following: (a) a door including a door closer (b) a process of manufacturing a door-closer.

IPC 8 full level  
**E05F 3/10** (2006.01)

CPC (source: EP)  
**E05F 3/104** (2013.01); **E05F 3/227** (2013.01); **E05Y 2900/132** (2013.01)

Cited by  
CN110965883A; FR2901567A1; EP2253788A1; EP2256275A1; WO2007135341A1

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 1518989 A1 20050330; EP 1518989 B1 20090121**; AT E421629 T1 20090215; DE 602004019170 D1 20090312; ES 2321096 T3 20090602; FR 2860027 A1 20050325; FR 2860027 B1 20060127; PT 1518989 E 20090428

DOCDB simple family (application)  
**EP 04104658 A 20040924**; AT 04104658 T 20040924; DE 602004019170 T 20040924; ES 04104658 T 20040924; FR 0311175 A 20030924; PT 04104658 T 20040924