Title (en)

Automatic door closer

Title (de)

Automatischer Türschließer

Title (fr)

Ferme-porte automatique

Publication

EP 2138662 B1 20130626 (EN)

Application

EP 09163898 A 20090626

Priority

TW 97124352 A 20080627

Abstract (en)

[origin: EP2138662A2] An automatic door closer comprises a casting 10, a sliding assembly 20, a drive assembly 30, a tube shaped piston 41 and a first resilient member 51. The casting 10 has a front chamber 111, a rear chamber 113, a middle chamber 112 in communication with the front chamber 111 and the rear chamber 113, a shaft hole 12 penetrating the middle chamber 112 and a first oil passage 13. The first oil passage 13 has an oil inlet 13a in communication with the front chamber 111 and an oil outlet 13b in communication with the rear chamber 113. The sliding assembly 20 disposed within the middle chamber 112 of the casting 10 comprises a slider 21 disposed between the oil inlet 13a and the oil outlet 13b, a first roller 22 and a second roller 23, wherein the first and second rollers 22, 23 arc disposed within the slider 21 respectively. The drive assembly 30 comprises a shaft 31 and an eccentric cam 32 coupled to the shaft 31, the shaft 31 is pivotally disposed within the shaft hole 12 of the casting 10, the eccentric cam 32 is located within the slider 21 and contacts against the first and second rollers 22, 23 of the sliding assembly 20. The tube shaped piston 41 disposed within the rear chamber 113 of the casting 10 has a first end portion 411 and a second end portion 412 opposite to the first end portion 411, the first end portion 411 is connected with the first roller 22. The first resilient member 51 is disposed within the front chamber 111 of the casting 10 serving for pushing the slider 21 of the sliding assembly 20 to move.

IPC 8 full level

E05F 15/04 (2006.01); **E05F 3/06** (2006.01); **E05F 3/10** (2006.01)

CPC (source: EP)

E05F 3/06 (2013.01); **E05F 3/104** (2013.01); **E05F 15/53** (2015.01); E05F 3/12 (2013.01); E05Y 2800/22 (2013.01); E05Y 2900/132 (2013.01)

Cited by

EP3029252A1; CN109930936A; CN105583620A; AU2012101498B4; CN108868428A; KR102383839B1; KR102177949B1; EP3034750A1; CN105715136A; CN1034467C; CN102454326A; EP2360337A1; EP2426300A1; US9790723B2; WO2012032039A1; US8443487B2; US8677560B2; JP2014190101A

Designated contracting state (EPC)

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 SE SI SK TR

DOCDB simple family (publication)

EP 2138662 A2 20091230; **EP 2138662 A3 20100728**; **EP 2138662 B1 20130626**; EP 2623699 A1 20130807; ES 2429218 T3 20131113; TW 201000741 A 20100101; TW I345607 B 20110721

DOCDB simple family (application)

EP 09163898 A 20090626; EP 13166246 A 20090626; ES 09163898 T 20090626; TW 97124352 A 20080627