

Title (en)
Door closer

Title (de)
Türschliesser

Title (fr)
Ferre-porte

Publication
EP 1734213 B1 20090211 (EN)

Application
EP 06012560 A 20060619

Priority
GB 0512348 A 20050617

Abstract (en)
[origin: EP1734213A2] An apparatus (10) is described for controlling angular movement of a door (11), the apparatus (10) including a housing (17) and a piston (20), having a longitudinal axis (22), slidable in a cylinder (18) in the housing (17). The piston (20) has a transverse opening (24) therethrough, with an inwardly facing wall (26) of the opening (24) provided with a rack gear (28) having a plurality of teeth (29) which are substantially transverse to the longitudinal axis (22) of the piston (20). The apparatus (10) also includes a pinion gear (30) supported for rotation about its longitudinal axis (34) by the housing (17) and extending through the transverse opening (24) in the piston (20), the pinion gear (30) having a plurality of teeth (32) which engage with the teeth (29) of the rack gear (28), such that rotation of the pinion gear (30) about its longitudinal axis (34) effects sliding movement of the piston (20) through the cylinder (18). A top land of each tooth (32) of the pinion gear (30) has two portions (53, 54) each of which extends towards the longitudinal axis (34) of the pinion gear (30) at a homogenous gradient as it extends away from the other side portion (53, 54). Alternatively, the top land of each tooth (32) of the pinion gear (30) has a substantially central portion (52), which is substantially parallel to the longitudinal axis (34) of the pinion gear (30), and is provided between the two side portions (53, 54).

IPC 8 full level
E05F 3/04 (2006.01); **E05F 3/10** (2006.01)

CPC (source: EP)
E05F 3/102 (2013.01); **E05Y 2400/454** (2013.01); **E05Y 2900/132** (2013.01)

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

DOCDB simple family (publication)
EP 1734213 A2 20061220; **EP 1734213 A3 20071205**; **EP 1734213 B1 20090211**; AT E422596 T1 20090215; DE 602006005102 D1 20090326; GB 0512348 D0 20050727; GB 2427247 A 20061220

DOCDB simple family (application)
EP 06012560 A 20060619; AT 06012560 T 20060619; DE 602006005102 T 20060619; GB 0512348 A 20050617