

Title (en)
Hydraulic control system of floor hinge

Title (de)
Hydraulisches Steuersystem für Bodentürschliesser

Title (fr)
Système hydraulique de commande pour ferme-porte

Publication
EP 0407150 B1 19971001 (EN)

Application
EP 90307272 A 19900703

Priority
JP 8048189 U 19890706

Abstract (en)
[origin: EP0407150A1] A floor hinge includes a hydraulic control system attaining first and second speed function, a back check function, a latching action function, and a delayed action function in accordance with the position of the door in the respective door open or close angle regions. These functions are performed by the respective adjusting valves (18, 21, 22, 24, 27) which are disposed in the first and second oil passage (34, 35) of the hydraulic oil which flows into the piston front chamber (B) from the piston rear chamber (A) of a cylinder portion (9) of the floor hinge or vice versa in response to the movement of the piston (7) located in the cylinder portion (9).

IPC 1-7
E05F 3/12; **E05F 3/10**

IPC 8 full level
E05F 3/10 (2006.01); **E05F 3/12** (2006.01); **E05F 3/20** (2006.01); **E05D 7/08** (2006.01)

CPC (source: EP)
E05F 3/104 (2013.01); **E05F 3/12** (2013.01); **E05D 7/081** (2013.01); **E05F 3/225** (2013.01); **E05Y 2201/20** (2013.01); **E05Y 2201/254** (2013.01); **E05Y 2600/41** (2013.01); **E05Y 2600/452** (2013.01); **E05Y 2900/132** (2013.01)

Cited by
EP2397635A1; WO2011016000A1; EP2505755A3; EP0545624A3; EP1329581A3; CN104110190A; CN110965885A; GB2580014B; EP0606168A1; AU666058B2; EP3243990A1; AU2011202070B2; ITVI20090211A1; EA019451B1; WO2015049672A1; CN109072655A; EP3483373A1; CN109779435A; ITUA20162264A1; WO2017175129A1; WO2014054028A1; IT201900006586A1; TWI801444B; US8191206B1; US8943652B2; WO2015111027A1; EP3640421A1; EP2426300A1; WO2012032039A1; EP2746508A1; DE202010018608U1; WO2012137042A1; WO2012143812A2; WO2014054029A1; WO2015111026A1; EP3054072A1; EP3054073A1; EP3067500A1; EP3067501A1; EP3067502A1; US9416578B2; EP3730729A1

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