

Title (en)  
FLOOR HINGE

Publication  
**EP 0545624 A3 19930922 (EN)**

Application  
**EP 92310782 A 19921125**

Priority  
• JP 10598791 U 19911129  
• JP 10912991 U 19911210

Abstract (en)  
[origin: EP0545624A2] A floor hinge may independently perform a back check action, a delayed action, a first speed door closing action, a second speed door closing action and a latching action. When the door is fully opened, a back check piston (16) abuts against a rotational motion-linear motion converting mechanism (A) to stop or decelerate the opening motion of the door. A returning motion of a piston (3) is classified into four-speed modes. The closing motion of an output shaft (1) is changed in the four-speeds. In the door closing action, the working oil within a piston rear chamber (5) flows into a piston front chamber (4) through a first hydraulic passage (7). In the delayed action, the working oil within the piston front chamber (4) will flow into the piston rear chamber (5) only through a second hydraulic passage (11) and delayed action adjusting valve (9). In the first speed door closing action, the working oil within the piston front chamber (4) will flow into the piston rear chamber (5) only through the second hydraulic passage (11) and a first speed adjusting valve (10). In the second speed door closing action, the working oil within the piston front chamber (4) will flow into the piston rear chamber (5) only through a third hydraulic passage (15) and a second speed adjusting valve (13). In the latching action, the working oil within the piston front chamber (4) will flow into the piston rear chamber (5) only through the third hydraulic passage (15) and a latching action adjusting valve (14). <IMAGE>

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

IPC 8 full level  
**E05F 3/10** (2006.01); **E05F 3/12** (2006.01)

CPC (source: EP)  
**E05F 3/10** (2013.01); **E05F 3/12** (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 2800/414** (2013.01); **E05Y 2900/132** (2013.01)

Citation (search report)  
• [YD] EP 0407150 A1 19910109 - RYOBI LTD [JP]  
• [Y] EP 0409445 A1 19910123 - RYOBI LTD [JP]  
• [A] FR 2164149 A5 19730727 - DORMA BAUBESCHLAG

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