

Title (en)
Floor hinge.

Title (de)
Fussbodentürschliesser.

Title (fr)
Ferme-porte de sol.

Publication
EP 0545624 A2 19930609 (EN)

Application
EP 92310782 A 19921125

Priority
• JP 10598791 U 19911129
• JP 10912991 U 19911210

Abstract (en)
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)
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Cited by
CN108505864A; CN112377064A; CN111502460A; GB2580013A; GB2580013B; EP3483373A1; US2011139806A1; US8769770B2; EP3875719A1; US11396768B2; WO2010033044A1; EP2746508B1

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