

Title (en)  
Door closer.

Title (de)  
Türschliesser.

Title (fr)  
Ferre-porte.

Publication  
**EP 0409445 A1 19910123 (EN)**

Application  
**EP 90307271 A 19900703**

Priority  
JP 18958989 A 19890721

Abstract (en)  
A door closer has a main shaft (2) connected to a door, a piston (11) reciprocally moved in a case (1) in response to the movement of the door, a first and a second pressure chamber (A, B) operated by the piston (11), and four hydraulic oil passages (P1, P2 --- P4) for communicating and stopping communicating the two pressure chambers (A, B) with each other. A door stop releasing angle adjusting mechanism (15) for adjusting an angle at which the door is kept open is provided between the piston (11) and the end position (14) of the case (1).

IPC 1-7  
**E05F 3/10**; **E05F 3/12**; **E05F 3/22**

IPC 8 full level  
**E05F 3/10** (2006.01); **E05F 3/12** (2006.01); **E05F 3/20** (2006.01); **E05F 3/22** (2006.01)

CPC (source: EP)  
**E05F 3/104** (2013.01); **E05F 3/12** (2013.01); **E05F 3/223** (2013.01); **E05Y 2900/132** (2013.01)

Citation (search report)  
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• [A] GB 672432 A 19520521 - ERNST BILLETER  
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