

Title (en)  
Soft close hinge system

Title (de)  
Scharniersystem mit Dämpfer

Title (fr)  
Système de charnière à amortissement

Publication  
**EP 1486154 B1 20061129 (EN)**

Application  
**EP 03404003 A 20030520**

Priority  
EP 03404003 A 20030520

Abstract (en)  
[origin: EP1486154A1] Soft-close hinge system for softening the motion of respectively a seat or a cover of a toilet seat by the help of a spring (8) said system comprising: an axis (6) and at least one hinge mechanism associated to said axis (6) said hinge mechanism comprising: a first strap (3) mounted respectively, to the seat or the cover, a second strap (4) mounted respectively, to the cover or the seat, a hinge translator (5) and said spring (8), which spring (8) is installed between the second strap (4) and the hinge translator (5), said hinge translator (5) being rotationally fixed while being free to move linearly along the axis (6), whereby said axis (6) has a slot, said slot being used for said fixing for rotational movement of said hinge translator (5); and said hinge translator (5) has a helical end fitted to a helical edge of the first strap (3), whereby in use the dropping velocity of respectively, the seat or the cover is decreased as said helical end in connection with said helical edge translates the rotational movement of the first strap (3) into linear motion such that the spring (8) is squeezed by the hinge translator (5). <IMAGE>

IPC 8 full level  
**A47K 13/12** (2006.01)

CPC (source: EP)  
**A47K 13/12** (2013.01)

Cited by  
WO2008151678A1; RU2711156C1; KR100986861B1; CN112971578A; CN107569162A

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

Designated extension state (EPC)  
AL LT LV MK

DOCDB simple family (publication)  
**EP 1486154 A1 20041215; EP 1486154 B1 20061129; EP 1486154 B8 20070228**; AT E346535 T1 20061215; DE 60310045 D1 20070111; DE 60310045 T2 20070621

DOCDB simple family (application)  
**EP 03404003 A 20030520**; AT 03404003 T 20030520; DE 60310045 T 20030520