

Title (en)

Fixing device for toilet seats and/or covers

Title (de)

Befestigungsvorrichtung für Toilettenbrillen und/oder -deckel

Title (fr)

Dispositif de fixation de lunettes et/ou de couvercles de cuvettes de toilettes

Publication

EP 0997097 B1 20040218 (DE)

Application

EP 99121201 A 19991023

Priority

DE 29819469 U 19981031

Abstract (en)

[origin: EP0997097A2] A system for securing a toilet seat to a toilet pan without separate nuts, washers and screws has fastening shafts with their lower ends threaded and fitted with expanding grips (8) which are located between captive nuts (10) and the bottom of the shafts and fixed thrust washers (6) which are aligned on the top surface of the pan. By rotating the shafts the grips are spread to grip inside the mounting holes.

IPC 1-7

A47K 13/26; **F16B 13/06**

IPC 8 full level

A47K 13/26 (2006.01); **F16B 13/06** (2006.01)

CPC (source: EP)

A47K 13/26 (2013.01)

Citation (examination)

JP H10243894 A 19980914 - AISIN SEIKI, et al

Cited by

DE10255087A1; EP3456230A1; GB2552629A; GB2552629B; US10612223B2

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

EP 0997097 A2 20000503; **EP 0997097 A3 20010530**; **EP 0997097 B1 20040218**; AT E259619 T1 20040315; DE 29819469 U1 19990218; DE 59908565 D1 20040325; DK 0997097 T3 20040628; ES 2219977 T3 20041201

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EP 99121201 A 19991023; AT 99121201 T 19991023; DE 29819469 U 19981031; DE 59908565 T 19991023; DK 99121201 T 19991023; ES 99121201 T 19991023