

Title (en)
SPRING-EFFECT HINGE ARRANGEMENT, FOR EXAMPLE FOR ONE-PIECE INJECTED PLASTIC CLOSURES

Title (de)
FEDERNDE SCHARNIERANORDNUNG, Z.B. FÜR EINTEILIG GESPRITZTE KUNSTSTOFFVERSCHLÜSSE

Title (fr)
SYSTEME DE CHARNIERE A EFFET RESSORT, PAR EX. POUR SYSTEMES DE FERMETURE EN PLASTIQUE INJECTES EN UNE SEULE PIECE

Publication
EP 0836576 B1 19990901 (DE)

Application
EP 96923931 A 19960626

Priority
• CH 193395 A 19950701
• EP 9602780 W 19960626

Abstract (en)
[origin: WO9702189A1] The invention pertains to a spring-effect hinge arrangement without a main hinge with at least two hinge parts. One or more tilting stages (1) are arranged in series between the hinge parts. These tilting stages (1) each have at least two connecting elements formed in each case by one rigid pressure element (2, 2.2) and an elastic traction element (3, 3.2). The connecting elements are each secured by flexible connections (10) to intermediate limbs (20.1, 21.1) or directly to the hinge parts. At least one associated shear element (4.1, 4.2) ensures that the pressure and traction elements are positioned against each other so as to at least nearly provide shear resistance.

IPC 1-7
B65D 47/08; **E05D 1/02**

IPC 8 full level
B65D 43/16 (2006.01); **B65D 47/08** (2006.01); **E05D 1/02** (2006.01)

CPC (source: EP US)
B65D 47/0814 (2013.01 - EP US); **E05D 1/02** (2013.01 - EP US); **E05Y 2999/00** (2024.05 - EP US); **Y10S 16/13** (2013.01 - US)

Citation (examination)
WO 9523097 A1 19950831 - CREANOVA AG [CH], et al

Cited by
EP1889791A1; US8733566B2; US8794460B2; EP4353118A1; WO0044639A1; WO2005007526A1; US9969535B2

Designated contracting state (EPC)
AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
WO 9702189 A1 19970123; AR 002660 A1 19980325; AT E183979 T1 19990915; AU 6416496 A 19970205; AU 702212 B2 19990218; BR 9609647 A 19990629; CA 2225856 A1 19970123; CA 2225856 C 20070821; CN 1071689 C 20010926; CN 1189805 A 19980805; CZ 295839 B6 20051116; CZ 393397 A3 19990512; DE 59602960 D1 19991007; DK 0836576 T3 20000327; DK 0836576 T4 20021111; EP 0836576 A1 19980422; EP 0836576 B1 19990901; EP 0836576 B2 20020724; ES 2139369 T3 20000201; ES 2139369 T5 20030216; HU 220958 B1 20020729; HU P9802739 A2 19990201; HU P9802739 A3 19990329; JP 4021480 B2 20071212; JP H11508522 A 19990727; MX 9800018 A 19980731; NO 313233 B1 20020902; NO 976117 D0 19971229; NO 976117 L 19980226; NZ 312679 A 19981223; PL 178867 B1 20000630; PL 324084 A1 19980511; SK 169497 A3 19980805; SK 283326 B6 20030603; TW 326431 B 19980211; US 6041477 A 20000328; ZA 965584 B 19970131

DOCDB simple family (application)
EP 9602780 W 19960626; AR 10341296 A 19960701; AT 96923931 T 19960626; AU 6416496 A 19960626; BR 9609647 A 19960626; CA 2225856 A 19960626; CN 96195233 A 19960626; CZ 393397 A 19960626; DE 59602960 T 19960626; DK 96923931 T 19960626; EP 96923931 A 19960626; ES 96923931 T 19960626; HU P9802739 A 19960626; JP 50477997 A 19960626; MX 9800018 A 19980107; NO 976117 A 19971229; NZ 31267996 A 19960626; PL 32408496 A 19960626; SK 169497 A 19960626; TW 85107878 A 19960629; US 98161998 A 19980316; ZA 965584 A 19960701