

Title (en)  
Constant force device

Title (de)  
Konstantkraftvorrichtung

Title (fr)  
Dispositif à force constante

Publication  
**EP 1319997 B1 20100526 (DE)**

Application  
**EP 01129893 A 20011215**

Priority  
EP 01129893 A 20011215

Abstract (en)  
[origin: EP1319997A1] Constant force device for precise working regulation of mechanical clocks by means of a balanced force transfer from the anchor wheel to the clock regulation organ. Said constant force device is integrated in the tourbillon mechanism. The constant force device works by balancing the decreasing force available from the drive spring (10). As a result a constant torque is applied to the clock regulation organ.

IPC 8 full level  
**G04B 1/22** (2006.01); **G04B 15/10** (2006.01); **G04B 17/28** (2006.01)

CPC (source: EP US)  
**G04B 15/10** (2013.01 - EP US); **G04B 17/285** (2013.01 - EP US)

Cited by  
EP2397920A1; WO2011157797A1; CN104423241A; DE102005058321A1; DE102005058321B4; EP1795976A3; US6997602B2; EP1772783A1; US7473027B2; EP2397921A1; WO2011157591A1; EP2506091A2; US9052692B2

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

DOCDB simple family (publication)  
**EP 1319997 A1 20030618; EP 1319997 B1 20100526**; AT E469378 T1 20100615; CN 100356279 C 20071219; CN 1427316 A 20030702; DE 50115494 D1 20100708; HK 1052979 A1 20031003; HK 1052979 B 20101015; JP 2003194963 A 20030709; JP 4105941 B2 20080625; US 2003112709 A1 20030619; US 6863434 B2 20050308

DOCDB simple family (application)  
**EP 01129893 A 20011215**; AT 01129893 T 20011215; CN 02156322 A 20021213; DE 50115494 T 20011215; HK 03105162 A 20030717; JP 2002364097 A 20021216; US 30484902 A 20021127