

Title (en)  
MECHANICAL TIMEPIECE WITH TIMED ANNULAR BALANCE POWER GENERATING CONTROL MECHANISM

Title (de)  
MECHANISCHE UHR MIT ENERGIEERZEUGUNGSSTEUERMECHANISMUS DER REGULIERTEN UNRUH

Title (fr)  
DISPOSITIF D'HORLOGERIE MECANIQUE POURVU D'UN MECANISME DE COMMANDE GENERATEUR DE PUISSANCE DU BALANCIER ANNULAIRE REGLE

Publication  
**EP 1241538 A4 20050615 (EN)**

Application  
**EP 00902142 A 20000208**

Priority  
• JP 0000679 W 20000208  
• JP 9907290 W 19991224

Abstract (en)  
[origin: WO0148565A1] A mechanical timepiece comprises a quartz-crystal oscillator (210) constituting an oscillation source, an IC (212) including a divider (214) receiving an output signal produced by the oscillation of the quartz oscillator (210) and dividing the signal to deliver a signal concerning time, a power source (220) for operating the IC, a time counter for counting time, a train wheel operation detector (124p, 232) for detecting the rotating state of the train wheel, a train wheel operation controller (252, 254) for controlling the operation of the train wheel on the basis of a count signal produced by the time counter and an operation state signal indicating the train wheel operation state detected by the train wheel operation detector, whereby the rate of the timepiece is regulated. The mechanical timepiece is of a high degree of precision.

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CPC (source: EP)  
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Citation (search report)  
• [A] US 4091302 A 19780523 - YAMASHITA SHIRO  
• [A] US 2921252 A 19600112 - SCHIAVONE EDWARD L  
• See references of WO 0148567A1

Cited by  
EP3502796A1; EP3502797A1; EP3502798A1; CN110520802A; CN109946948A; CN109991834A; CN109946949A; EP3339982A1; CN108241281A; EP4414793A1; EP3629104A1; CN110955139A; EP3584645A1; US10386791B2; US11300929B2; US11480925B2; US11599065B2; US11327440B2; WO2018177774A1; WO2018177779A1; US11422510B2; US11868092B2

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