Title (en)

Method for the transmission of mechanical energy pulses from a driving source to an oscillating regulator

Title (de)

Verfahren zur Übertragung von mechanischen Energieimpulsen von einer Antriebsquelle zu einem Schwingungsregler

Title (fr)

Procédé pour transmettre des impulsions d'énergie mécanique d'une source motrice à un régulateur oscillant

Publication

EP 0964319 A1 19991215 (FR)

Application

EP 98810518 A 19980608

Priority

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Abstract (en)

The pulses are transmitted by means of a spring (L) which is susceptible to store energy through elastic deformation between two pulses and transmitting this to a regulator on each pulse. A leaf spring (L) is compressed to elastically deform to a first position corresponding to a first fundamental buckling mode. During a half period oscillation of regulator (R), energy in the spring (L) is stored by using a fraction of the energy from the source (S) to elastically deform the spring (L) into a second position close to an unstable position corresponding to a greater buckling mode. Again the spring is deformed to an unstable position using a fraction of the kinetic energy from the oscillating regulator (R), so that spring deforms to a third stable position corresponding to a fundamental mode which is the inverse of the first position. The energy liberated in this transformation is transmitted to the oscillating regulator (R). This sequence is repeated during the inverse half period of the regulator (R) so as to complete the period of oscillation.

IPC 1-7

G04B 17/04

IPC 8 full level

G04B 17/04 (2006.01)

CPC (source: EP)

G04B 17/045 (2013.01)

Citation (search report)

- [A] CH 504028 A 19701113 - LONGINES MONTRES COMP D [CH]
- [A] CH 28393 A 19040430 - GRASSET ISAAC [CH]

Cited by

US11442408B1; CN110531604A; CN106471429A; WO2023192269A1

Designated contracting state (EPC)

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DOCDB simple family (publication)

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