

Title (en)  
Regulator device

Title (de)  
Einstellvorrichtung

Title (fr)  
Dispositif régulateur

Publication  
**EP 2887156 A1 20150624 (FR)**

Application  
**EP 13199425 A 20131223**

Priority  
EP 13199425 A 20131223

Abstract (en)  
[origin: CN104730907A] The invention concerns a magnetic device for regulating the relative angular velocity of a wheel and of at least one magnetic dipole integral with an oscillating device, said wheel or said dipole being driven by a driving torque, said wheel including a periodic, ferromagnetic pole path which alternates according to a center angle and said at least one dipole being arranged to permit magnetic coupling with said ferromagnetic path and oscillation of said dipole at the natural frequency of the oscillating element during the relative motion of the wheel and of the magnetic dipole to regulate said relative angular velocity, said device being characterized in that said wheel further includes means for dissipating the kinetic energy of said at least one dipole when it moves away from said ferromagnetic path.

Abstract (fr)  
L'invention concerne un dispositif régulateur magnétique de la vitesse angulaire relative d'une roue et d'au moins un dipôle magnétique solidaire d'un élément oscillant, ladite roue ou ledit dipôle étant entraînée par un couple moteur, ladite roue comprenant un chemin ferromagnétique polaire périodique et alterné en fonction d'un angle au centre et ledit au moins un dipôle étant agencé pour permettre un couplage magnétique avec ledit chemin ferromagnétique et une oscillation dudit dipôle à la fréquence propre de l'élément oscillant lors du mouvement relatif de la roue et du dipôle magnétique pour réguler ladite vitesse angulaire relative. Ladite roue comprend en outre des moyens de dissipation d'énergie cinétique dudit au moins un dipôle lorsqu'il s'écarte dudit chemin ferromagnétique.

IPC 8 full level  
**G04C 3/10** (2006.01); **G04C 5/00** (2006.01)

CPC (source: EP US)  
**G04C 3/105** (2013.01 - EP US); **G04C 5/005** (2013.01 - EP US)

Citation (applicant)  
US 276222 A 18830424

Citation (search report)  
• [A] US 3208287 A 19650928 - KAZUO ISHIKAWA, et al  
• [A] GB 698406 A 19531014 - HORSTMANN MAGNETICS LTD, et al  
• [A] GB 838430 A 19600622 - HORSTMANN MAGNETICS LTD  
• [A] US 2750730 A 19560619 - WALTER KOHLHAGEN  
• [A] FR 987840 A 19510820 - HORSTMANN MAGNETICS LTD

Cited by  
GB2533960A; EP3128380A1; EP4386490A1; US9785116B2; EP3757685A1; EP3757684A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
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DOCDB simple family (application)  
**EP 13199425 A 20131223**; CN 201410815422 A 20141223; HK 15112382 A 20151216; JP 2014258525 A 20141222; RU 2014152041 A 20141222; US 201414564581 A 20141209