

Title (en)  
Rail vehicle with variable axel geometry

Title (de)  
Schienenfahrzeug mit variabler Achsgeometrie

Title (fr)  
Véhicule sur rails doté d'une géométrie d'essieu variable

Publication  
**EP 2371656 A1 20111005 (DE)**

Application  
**EP 10158173 A 20100329**

Priority  
EP 10158173 A 20100329

Abstract (en)  
The vehicle (S) has axles (A1) i.e. wheel sets, rotatably supported around a rotating point, and actuators (AKT1, AKT2) connected to sides of the axles, respectively, where ends of the actuators are connected with a frame of the vehicle. Horizontal angle positions ( $\alpha_1$ ,  $\alpha_2$ ) of the respective axles opposite to the frame are adjusted by modulation of lengths of the actuators during the operation of the vehicle, such that a preset transverse displacement and a preset shaft angle ( $\delta$ ) are achieved, where the displacement and the angle are determined by a model-based method.

Abstract (de)  
Schienenfahrzeug (S) mit variabler Achsgeometrie mit mindestens zwei Achsen (A1, A2), wobei die horizontale Winkellage ( $\pm$ ) jeder Achse gegenüber dem Fahrzeugrahmen veränderbar ist, und, dass die Winkellage ( $\pm$ ) jeder Achse während des Betriebs des Schienenfahrzeugs kontinuierlich so eingestellt wird, dass eine vorgegebene Querverschiebung ( $\delta$ ) und ein vorgegebener Achsenwinkel ( $\delta$ ) erzielt wird.

IPC 8 full level  
**B61F 5/38** (2006.01)

CPC (source: EP RU US)  
**B61F 5/38** (2013.01 - EP RU US)

Citation (applicant)  

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- DE 4413805 A1 19951026 - ABB PATENT GMBH [DE]
- EP 1609691 A1 20051228 - SIEMENS TRANSPORTATION SYSTEMS [AT]

Citation (search report)  

- [X] DE 576284 C 19340728 - FRANZ KRUCKENBERG DIPL ING, et al
- [X] WO 2007006528 A1 20070118 - EVOINVENT AG [AT], et al
- [A] DE 4142255 A1 19930701 - ABB HENSCHEL LOKOMOTIVEN [DE]
- [A] JP H09226575 A 19970902 - TOSHIBA TRANSPORT ENG KK, et al

Cited by  
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Designated contracting state (EPC)  
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 SE SI SK SM TR

Designated extension state (EPC)  
AL BA ME RS

DOCDB simple family (publication)  
**EP 2371656 A1 20111005**; CA 2794789 A1 20111006; CA 2794789 C 20200107; CN 102947162 A 20130227; CN 102947162 B 20180306; EP 2552761 A1 20130206; EP 2552761 B1 20200617; JP 2013523515 A 20130617; RU 2012145886 A 20140510; RU 2603176 C2 20161120; US 2013019775 A1 20130124; US 8833267 B2 20140916; WO 2011120915 A1 20111006

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**EP 10158173 A 20100329**; CA 2794789 A 20110328; CN 201180016942 A 20110328; EP 11714719 A 20110328; EP 2011054719 W 20110328; JP 2013501786 A 20110328; RU 2012145886 A 20110328; US 201113636364 A 20110328