

Title (en)
SELF-STEERING FLATCAR AND RAILROAD VEHICLE USING HAVING THIS SELF-STEERING FLATCAR APPLIED THERETO

Title (de)
SELBSTLENKUNGSFLACHWAGEN UND SCHIENENFAHRZEUG, AN DEM DIESER SELBSTLENKUNGSFLACHWAGEN ANGEBRACHT IST

Title (fr)
ESSIEU A AUTOGUIDAGE ET WAGON L'UTILISANT

Publication
EP 1652746 A4 20081126 (EN)

Application
EP 04747484 A 20040714

Priority
• JP 2004010018 W 20040714
• JP 2003197912 A 20030716

Abstract (en)
[origin: EP1652746A1] There is provided a self-steering truck in which travel stability and turning performance are improved, and a railroad vehicle to which the self-steering truck is applied. An active steering damper 10 is extended or shrunk as a whole by driving a DC motor 13 so as to rotate a ball screw 15 and allow a nut 16 into which the ball screw is engaged to spiral back and forth, and thereby wheel axles 2 are steered through a steering link 6. This steering is performed by the active function of the active steering damper 10. The active function can solve the response delay of the self-steering which occurs while moving from a straight line to a steady curve through a transition curve. The active steering damper 10 also has a passive function. The passive function serves as a rigid body with respect to vibration at a frequency of hunting which occurs at the time of moving along a straight line, and exerts a buffering function as a non-rigid body with respect to vibration at another frequency. With this, high-speed travel in a straight line and moving performance along a steady curve can be improved.

IPC 8 full level
B61D 1/06 (2006.01); **B61F 3/16** (2006.01); **B61F 5/00** (2006.01); **B61F 5/38** (2006.01); **B61F 5/42** (2006.01); **B61F 5/46** (2006.01)

CPC (source: EP)
B61D 1/06 (2013.01); **B61F 3/16** (2013.01); **B61F 5/38** (2013.01)

Citation (search report)
• [X] DE 4040303 A1 19920625 - WAGGON UNION GMBH [DE]
• [Y] EP 0308720 A2 19890329 - DUEWAG AG [DE], et al
• [Y] DE 4216726 A1 19931125 - REXROTH MANNESMANN GMBH [DE]
• [A] EP 0282738 A1 19880921 - WAGGON UNION GMBH [DE]
• See references of WO 2005007480A1

Cited by
CN108515978A; EP2184214A4; CN108423024A; CN108001475A; CN102947162A; GB2486272A; US8833267B2; WO2008006329A3; WO2011120915A1; US8234022B2; WO2012076893A1

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