

Title (en)

Load-bearing one piece bogie center pivot

Title (de)

Lasttragendes einstückiges Drehgestell-Mittelpunktgelenk

Title (fr)

Pivot central de chariot d'un seul tenant de support de charge

Publication

EP 2631149 A1 20130828 (EN)

Application

EP 12001218 A 20120224

Priority

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Abstract (en)

A one-piece, load-bearing bogie center pivot (10) consisting of an element made of suitable elastomeric material (15) (such as a rubber sandwich). This element is fitted between two parallel end plates (11,12). The upper end plate (11) is firmly attached to the underside of the underframe of the railway vehicle and the lower end plate (12) is firmly attached to the top of the crossbar (bolster) of the bogie frame. Due to the flexibility of the elastomeric material (15) the elastic element has a low resistance to torsion about its vertical axis thus allowing the bogie to rotate virtually freely relatively to the vehicle body. By virtue of the horizontal flexibility of the elastomeric material (15) the bogie center pivot (10) also allows the vehicle body to move laterally in an elastically controlled manner relatively to the bogie frame. This controlled lateral motion gives the vehicle a significantly better riding quality than the rigid lateral connection between the bogie frame and the vehicle body resulting from the existing two-piece bogie center bearing. In order to ensure the effective transmission of longitudinal traction and braking forces the upper and lower end plates (11,12) of the bogie center pivot (10) are provided with suitable vertical walls which deactivate the flexibility of the elastic element in the fore and aft direction. For direct interchangeability the one-piece bogie center pivot (10) has the same height as the standard two-piece bogie center bearing and its upper and lower end plates (11,12) are fixed to the underside of the vehicle underframe and the top of the crossbar (bolster) of the bogie frame, respectively, in the same manner as the standard two-piece bogie center bearing.

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

- [X] DE 1605076 A1 19700723 - KLOECKNER HUMBOLDT DEUTZ AG
- [X] US 4362109 A 19821207 - PANAGIN ROMANO

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