

Title (en)

RAIL VEHICLE WITH DEFORMATION ZONE

Title (de)

SCHIENENFAHRZEUG MIT VERFORMUNGSZONE

Title (fr)

VÉHICULE FERROVIAIRE COMPRENANT UNE ZONE DE DÉFORMATION

Publication

EP 3003816 B1 20180103 (DE)

Application

EP 14729621 A 20140527

Priority

- AT 4522013 A 20130604
- EP 2014060883 W 20140527

Abstract (en)

[origin: WO2014195177A1] Rail vehicle (1) comprising at least one deformation zone which is arranged at the end side in each case, wherein the deformation zone comprises a collision frame (2), a multiplicity of deformation elements (3) and two A pillars (4), wherein the deformation elements (3) are oriented radially about the front structure of the wagon body (5) and are respectively connected at one of their ends to the wagon body (5), and wherein the collision frame (2) connects the ends, facing away from the wagon body (5), of the deformation elements (3) and is arranged about the front structure of the wagon body (5) in an arcuate fashion, and wherein the A pillars (4) each extend between the wagon body (5) and the collision frame (2) and are permanently connected to the collision frame (2)

IPC 8 full level

B61D 1/00 (2006.01); **B61D 15/06** (2006.01); **B61D 17/06** (2006.01)

CPC (source: AT EP RU US)

B61C 17/04 (2013.01 - AT); **B61D 1/00** (2013.01 - US); **B61D 15/06** (2013.01 - AT EP RU US); **B61D 17/06** (2013.01 - EP RU US)

Citation (examination)

US 2009058109 A1 20090305 - MATTSCHULL VOLKER [DE]

Cited by

EP3415397B1

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

DOCDB simple family (publication)

WO 2014195177 A1 20141211; AT 514375 A1 20141215; AT 514375 B1 20150215; AU 2014277110 A1 20151126; AU 2014277110 B2 20160908; CA 2910968 A1 20141112; CA 2910968 C 20170523; CN 105263781 A 20160120; CN 105263781 B 20200221; DK 3003816 T3 20180312; DK 3003816 T5 20180326; EP 3003816 A1 20160413; EP 3003816 B1 20180103; ES 2664301 T3 20180419; NO 3003816 T3 20180602; PL 3003816 T3 20180530; RU 2015151875 A 20170717; RU 2657600 C2 20180614; SA 515370229 B1 20190828; US 2016096534 A1 20160407; US 9988061 B2 20180605

DOCDB simple family (application)

EP 2014060883 W 20140527; AT 4522013 A 20130604; AU 2014277110 A 20140527; CA 2910968 A 20140527; CN 201480032230 A 20140527; DK 14729621 T 20140527; EP 14729621 A 20140527; ES 14729621 T 20140527; NO 14729621 A 20140527; PL 14729621 T 20140527; RU 2015151875 A 20140527; SA 515370229 A 20151202; US 201414892706 A 20140527