

Title (en)

Front carriage of a train equipped with a front structure that absorbs energy in case of collision

Title (de)

Frontwagen eines Zuges mit einer energieabsorbierenden Struktur

Title (fr)

Véhicule de tête de train, doté d'une structure qui absorbe de l'énergie en cas de choc

Publication

**EP 1930226 B1 20120905 (EN)**

Application

**EP 07122184 A 20071203**

Priority

IT TO20060863 A 20061204

Abstract (en)

[origin: EP1930226A1] A front carriage (2) of a train (1) is equipped with an automatic coupler (6), which extends longitudinally (3) and is connected to a load-carrying frame (5) of the front carriage (2); the front carriage (2) is also provided with a front structure (24), which is carried by the frame (5) to absorb energy in case of collision and has a substantially vertical and relatively rigid support plate (16); a first absorber (9) constitutes part of the coupler (6) and is plastically deformable to absorb energy in a first stage during a head-on collision, while second absorbers (27,29) are carried by the support plate (16), project from the front of the support plate (16) and are plastically deformable to absorb energy in a second stage during the collision after the first stage has terminated.

IPC 8 full level

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

CPC (source: EP)

**B61D 15/06** (2013.01); **B61D 17/06** (2013.01)

Citation (examination)

EP 1927524 A1 20080604 - ANSALDOBREDA SPA [IT]

Cited by

CN110667618A; CN112298257A; RU174223U1; CN109063304A; CN111845834A; GB2588401A; GB2588401B; EP3415396A1; EP3456602A1; US11167778B2; WO2022001387A1; WO2022088780A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

**EP 1930226 A1 20080611**; **EP 1930226 B1 20120905**; ES 2396149 T3 20130219; IT TO20060863 A1 20080605; PL 1930226 T3 20130329

DOCDB simple family (application)

**EP 07122184 A 20071203**; ES 07122184 T 20071203; IT TO20060863 A 20061204; PL 07122184 T 20071203