

Title (en)

Railway vehicle with energy absorbing structure

Title (de)

Schienenfahrzeug mit Energieverzehreinrichtung

Title (fr)

Véhicule ferroviaire doté d'une structure absorbeuse d'énergie

Publication

EP 1854694 A3 20080312 (EN)

Application

EP 06256332 A 20061213

Priority

JP 2006131260 A 20060510

Abstract (en)

[origin: EP1854694A2] For a transportation machine such as a railway vehicle, a space for a driver is secured while collision energy is absorbed at a time of collision with a large obstacle, and entry of a flying object into a driving cab is prevented by a rigid structure at a time of collision with the flying object. Windows (40) are provided in a flying object barrier plate (50) provided at a tip end portion of a driving cab (25), and energy absorbing members (100) are penetrated through the windows to be disposed in a form extending outward of the flying object barrier plate from an inside of the driving cab. The energy absorbing members of a large absorbing capacity can be efficiently disposed by utilizing a space of the driving cab provided in a vehicle body. A beam member of a crushable zone (11a) including the flying object barrier plate is firmly placed and can be connected to a survival zone (10).

IPC 8 full level

B61D 15/06 (2006.01); **B61D 17/06** (2006.01); **B62D 21/15** (2006.01)

CPC (source: EP KR US)

B61D 15/06 (2013.01 - EP US); **B61D 17/06** (2013.01 - EP US); **B61F 19/04** (2013.01 - KR)

Citation (search report)

- [X] EP 1215098 A1 20020619 - ALSTOM [FR]
- [XY] EP 0795450 A2 19970917 - DEUTSCHE WAGGONBAU AG [DE]
- [Y] EP 1422118 A1 20040526 - SIEMENS AG [DE]
- [X] EP 0802100 A1 19971022 - ALSTOM DDF [FR]
- [A] US 3899047 A 19750812 - MAEDA TERUO, et al
- [A] EP 0655565 A1 19950531 - GEC ALSTHOM TRANSPORT SA [FR]

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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 NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK RS

DOCDB simple family (publication)

EP 1854694 A2 20071114; **EP 1854694 A3 20080312**; **EP 1854694 B1 20120523**; CN 100457520 C 20090204; CN 101070073 A 20071114; JP 2007302081 A 20071122; JP 4712604 B2 20110629; KR 100836089 B1 20080609; KR 20070109782 A 20071115; US 2007283843 A1 20071213

DOCDB simple family (application)

EP 06256332 A 20061213; CN 200610163734 A 20061204; JP 2006131260 A 20060510; KR 20060123640 A 20061207; US 63849506 A 20061214