

Title (en)

ENERGY ABSORPTION DEVICE FOR THE FRONT FACE OF RAIL VEHICLES

Title (de)

ENERGIEVERZEHREINRICHTUNG FÜR DIE STIRNSEITE VON SCHIENENFAHRZEUGEN

Title (fr)

DISPOSITIF D'ABSORPTION D'ENERGIE POUR LA FACE FRONTALE DE VEHICULES SUR RAILS

Publication

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Application

EP 02745097 A 20020528

Priority

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- DE 10126483 A 20010531

Abstract (en)

[origin: WO02096734A1] The invention relates to an energy absorption device for the front face of rail vehicles. The aim of the invention is to reduce in particular the adjustment and balancing work between the vehicle manufacturers and the suppliers of the energy absorption device and couplings (3), in addition to reducing the construction and/or quality risks. To achieve this, the energy absorption device has a base support (1), whose front region bears all the elements provided for energy absorption and which is fixed as a compact, complete pre-assembled module in the defined interface junction on the underframe (9).

IPC 8 full level

B61D 15/06 (2006.01); **B61F 1/10** (2006.01); **B61G 7/08** (2006.01); **B61G 11/00** (2006.01)

CPC (source: EP KR US)

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Citation (opposition)

Opponent :

- EP 0264605 A1 19880427 - WAGGON UNION GMBH [DE]
- DE 4006811 A1 19910912 - BERGISCHE STAHLINDUSTRIE [DE]
- US 4576294 A 19860318 - FORSTER HILMAR [DE]
- EP 0009737 A2 19800416 - WAGGON UNION GMBH [DE]

Cited by

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WO 02096734 A1 20021205; AT E365662 T1 20070715; AU 2002317168 B2 20060803; CN 100425489 C 20081015; CN 1463235 A 20031224; DE 10126483 A1 20021205; DE 50210383 D1 20070809; DK 1390245 T3 20070924; DK 1390245 T4 20121015; EP 1390245 A1 20040225; EP 1390245 B1 20070627; EP 1390245 B2 20120808; ES 2288191 T3 20080101; ES 2288191 T5 20121126; KR 100847157 B1 20080717; KR 20030022875 A 20030317; MX PA03000871 A 20040405; PL 201652 B1 20090430; PL 358612 A1 20040809; PT 1390245 E 20070905; US 2002178967 A1 20021205; US 6685040 B2 20040203

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