

Title (en)
FRONT END FOR A RAIL VEHICLE

Title (de)
FRONTEND FÜR EIN SCHIENENFAHRZEUG

Title (fr)
EXTRÉMITÉ AVANT DE VÉHICULE FERROVIAIRE

Publication
EP 3812232 A1 20210428 (EN)

Application
EP 20199652 A 20201001

Priority
GB 201915238 A 20191022

Abstract (en)
A front end (13) for a rail vehicle (10) the front end (13) comprising a deformable structure (30), including a frame (31) movable on a chassis (11) and a mechanical protective device (33) mechanically connecting the frame (31) to the vehicle's chassis (11). The mechanical protective device (33) is adapted to break if a predetermined force F is exceeded, so that the frame (31) may move on the chassis (11).

IPC 8 full level
B61D 15/06 (2006.01); **B61D 17/06** (2006.01); **B61G 11/14** (2006.01)

CPC (source: EP GB)
B61D 15/06 (2013.01 - EP GB); **B61D 17/06** (2013.01 - EP GB); **B61G 11/14** (2013.01 - EP); **B61G 11/14** (2013.01 - GB)

Citation (applicant)
EP 2720924 A1 20140423 - BOMBARDIER TRANSP GMBH [DE]

Citation (search report)

- [XA] WO 2005028275 A1 20050331 - SIEMENS TRANSPORTATION SYSTEMS [US], et al
- [A] US 6820759 B1 20041123 - SCHINDLER CHRISTIAN [DE], et al
- [A] EP 2277762 A2 20110126 - BOMBARDIER TRANSP GMBH [DE]
- [A] WO 02096734 A1 20021205 - SCHARFENBERGKUPPLUNG GMBH & CO [DE]
- [A] US 2008250965 A1 20081016 - CLARK PETER [US], et al

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

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
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