Title (en)

DAMPING DEVICE

Title (de)

DÄMPFUNGSVORRICHTUNG

Title (fr)

DISPOSITIF D'AMORTISSEMENT

Publication

EP 3366841 A1 20180829 (EN)

Application

EP 16906418 A 20161114

Priority

- RU 2016124324 A 20160620
- RU 2016124955 A 20160622
- RU 2016000776 W 20161114

Abstract (en)

The claimed damping device belongs to a group of safety devices that help to decelerate and stop a vehicle The damping device containing a front deflector representing a movable support installed on a guide with possibility of movement, sections of mass dampers and sectional side beams designed to provide the telescopic insertion of the front section of the side beam into the next one behind it. Each pair of sections of right and left side beams is limited by a horizontally oriented rectangular frame on a vertical base entering into a guide and fixed between relevant sections of right and left side beams. Ultimate rectangular frame of the damping device serves as a rear block, which is equipped with a rear fastening device rigidly connected to the guide. Damping device may contain mass dampers of the first and the second types. Each section of the mass damper of the first type is formed by twin vertical non-contacting sheet elements with zigzag shaped bends oriented towards each other, whereas each end of each element with zigzag shaped bend is bent outwards forming a through channel parallel to the centre line of the damping device. Each section of the mass damper of the second type represents a perforated end-to-end duct oriented horizontally relative to a through opening and perforation is made on each of four duct walls and at bends, with perforation at bends coming to both adjacent sides of the duct. Each section is limited by vertical plates, while several vertical plates rest on a lower bar of each rectangular frame. Front and rear vertical plates are fixed at front deflector and rear fastening, respectively. Sections of mass dampers of two types may be located in series. Sections of mass dampers of two types may be located alternately.

IPC 8 full level

E01F 15/00 (2006.01); **E01F 15/14** (2006.01)

CPC (source: EP)

E01F 15/146 (2013.01)

Citation (third parties)

Third party : anonymous

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CN109537498A

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)

EP 3366841 A1 20180829; **EP 3366841 A4 20190424**; **EP 3366841 B1 20210714**; ES 2882038 T3 20211201; HR P20211556 T1 20220107; HR P20211556 T8 20220218; HU E055883 T2 20211228; MA 45371 A 20210526; PL 3366841 T3 20211108; PT 3366841 T 20210813; RS 62417 B1 20211029; SI 3366841 T1 20211130; WO 2017222412 A1 20171228

DOCDB simple family (application)

EP 16906418 A 20161114; ES 16906418 T 20161114; HR P20211556 T 20161114; HU E16906418 A 20161114; MA 45371 A 20161114; PL 16906418 T 20161114; PT 16906418 T 20161114; RS P20211226 A 20161114; RU 2016000776 W 20161114; SI 201631352 T 20161114