

Title (en)
Underride protection

Title (de)
Unterfahrschutz

Title (fr)
Protection anti-encastrement

Publication
EP 2397610 A3 20140604 (DE)

Application
EP 11170104 A 20110616

Priority
DE 202010009161 U 20100616

Abstract (en)
[origin: EP2397610A2] The arrangement (1) has a post (4) fixed to a base, and a guard rail (2) detachably fastened to an upper region at the post. An under-ride protection device (5) is detachably fastened between a roadway (6) and the guard rail at a distance to the post. A spacer (13) is detachably fastened between the under-ride protection device and the post. The spacer has a wall holder and a post holder with U-shaped cross-section. The wall holder and the post holder are coupled to the under-ride protection device and the post, respectively. A spacer unit made of plastic is arranged between the holders.

IPC 8 full level
E01F 15/04 (2006.01)

CPC (source: EP)
E01F 15/043 (2013.01); **E01F 15/0438** (2013.01)

Citation (search report)
• [XI] EP 1777346 A1 20070425 - VOEST ALPINE KREMS FINALTECH [AT]
• [XI] EP 1947245 A1 20080723 - SEC ENVEL [FR]
• [I] EP 1710353 A1 20061011 - HIERROS Y APLANACIONES S A HIA [ES]
• [I] WO 2006123864 A1 20061123 - KUMDONG STEEL CONSTRUCTION CO [KR], et al
• [X] DE 202008009832 U1 20081009 - STUDIENGESELLSCHAFT FUER STAHL [DE]
• [XI] US 2056858 A 19361006 - IRONS ROBERT H, et al
• [XI] US 2078704 A 19370427 - BAXTER WILLIAM R
• [I] US 2071863 A 19370223 - GLEASON GEORGE A

Cited by
US10648142B2; US10895048B2

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)
DE 202010009161 U1 20100826; EP 2397610 A2 20111221; EP 2397610 A3 20140604; EP 2397610 B1 20171227; EP 3190232 A1 20170712;
EP 3190232 B1 20200401; ES 2663559 T3 20180413; ES 2794576 T3 20201118

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