

Title (en)

VEHICLE FLOOR PAN COMPRISING ADDITIONAL ARMOURING

Title (de)

BODENWANNE EINES FAHRZEUGS MIT ZUSATZPANZERUNG

Title (fr)

CARÉNAGE DE DESSOUS DE CAISSE D'UN VÉHICULE, MUNI D'UN BLINDAGE SUPPLÉMENTAIRE

Publication

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Application

EP 11733555 A 20110415

Priority

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Abstract (en)

[origin: WO2011131184A1] The invention relates to a floor pan of a vehicle, in particular of an armoured military vehicle, having a lateral floor wall (1) which is connected to a second floor wall (5) via a connecting point (9). In a first embodiment, additional armouring (4) for anti-mine protection, in particular an armour plate, is detachably fastened to the lateral floor wall (1), said additional armouring at least partially covering the second floor wall (5) that adjoins the lateral floor wall (1) and at least partially covering the interposed connecting point (9). In a second embodiment, an additional protective module (6) is detachably fastened to the lower floor wall (5), and the lower floor wall (5) and the additional protective module (6) are extended beyond the connecting point between the lower floor wall (5) and lateral floor wall (1) so as to form a projection (19) in the region of the fastening (12), wherein the fastening point is situated in said projection (19).

IPC 8 full level

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CPC (source: EP US)

F41H 5/013 (2013.01 - US); **F41H 5/04** (2013.01 - US); **F41H 7/042** (2013.01 - EP US)

Citation (examination)

- EP 1564520 A2 20050817 - STEYR DAIMLER PUCH AG [AT]
- EP 1566607 A1 20050824 - STEYR DAIMLER PUCH AG [AT]

Citation (opposition)

- Opponent : Rheinmetall Landsysteme GmbH
- EP 1182420 A1 20020227 - SW SCHWEIZERISCHE UNTERNEHMUNG [CH]
 - EP 1566607 A1 20050824 - STEYR DAIMLER PUCH AG [AT]
 - EP 1564520 A2 20050817 - STEYR DAIMLER PUCH AG [AT]
 - WO 2008127272 A1 20081023 - PROTECTED VEHICLES INC [US]
 - DE 10134394 A1 20030130 - RHEINMETALL LANDSYSTEME GMBH [DE]
 - DE 102007005707 A1 20070809 - ACS ARMOURED CAR SYSTEMS GMBH [DE]
 - US 4167889 A 19790918 - BOHNE HANS, et al
 - DE 19734950 C2 19990527 - KELLNER GERD DR ING [DE]
 - DE 202004007765 U1 20050922 - AH WORLDWIDE LP EDINBURGH [GB]
 - GB 2390888 A 20040121 - FORD GLOBAL TECH LLC [US]
 - DE 202005000198 U1 20060524 - KRAUSS MAFFEI WEGMANN GMBH & C [DE]
 - DE 10045685 A1 20020411 - FFG FLENSBURGER FAHRZEUGBAU GM [DE]
 - WO 2004038320 A1 20040506 - GEKE TECHNOLOGIE GMBH [DE], et al
 - EP 2138801 A2 20091230 - PLASAN SASA LTD [IL]
 - DE 4331079 A1 19940526 - TRASCO EXPORT GMBH [DE]
 - WO 0239048 A2 20020516 - VICKERS OMC PROPRIETARY LTD [ZA], et al
 - US 6082240 A 20000704 - MIDDIONE MARK ALBERT [US], et al
 - DE 7801915 U1 19791128
 - US 5747721 A 19980505 - SPEAKES DALE M [US], et al
 - US 5663520 A 19970902 - LADIKA MICHAEL D [US], et al
 - US 4326445 A 19820427 - BEMISS JAMES M
 - US 4351558 A 19820928 - MUELLER FREDERICK N
 - DE 2324724 C3 19840209
 - DE 2730826 C1 19851010 - THYSSEN IND AG MASCHB
 - DE 20201005 U1 20020704 - KRAUSS MAFFEI WEGMANN GMBH & C [DE]
 - DE 19605230 A1 19970814 - KELLNER GERD DR ING [DE]
 - DE 2927381 A1 19890105 - BLOHM VOSS AG [DE]
 - US 5533781 A 19960709 - WILLIAMS CHARLES A [US]
 - DE 827904 C 19520114 - BELA BARENYI
 - DE 3730371 A1 19900322 - THYSSEN INDUSTRIE [DE]

Cited by

WO2021073689A1; DE102019127617A1; AU2020366653B2

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