



(11) **EP 4 736 692 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
08.07.2026 Bulletin 2026/28

(51) International Patent Classification (IPC):
A42B 3/12 (2006.01) **A42B 3/22** (2006.01)
A42B 3/32 (2006.01)

(43) Date of publication A2:
06.05.2026 Bulletin 2026/19

(52) Cooperative Patent Classification (CPC):
A42B 3/223; A42B 3/063; A42B 3/124; A42B 3/18;
A42B 3/205; A42B 3/221; A42B 3/222;
A42B 3/227; A42B 3/326

(21) Application number: **25213505.8**

(22) Date of filing: **04.11.2025**

(84) Designated Contracting States:
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 ME MK MT NL
NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA
Designated Validation States:
GE KH LA MA MD TN

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(30) Priority: **05.11.2024 US 202463716482 P**

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(54) **HELMET**

(57) A helmet (100) for a rider of an on-road or off-road vehicle protects the rider's head. The helmet includes a face shield (114) configured to be slidable and rotatable relative to a shell (102) of the helmet. The helmet may also include a chin bar (124) that is slidable

and rotatable relative to the shell. Additionally, the helmet may include a peak (208) that provides for toolless adjustment of position of the peak relative to the shell. An inner construction provides a multi-layer system in which at least one layer is an impact layer (242).

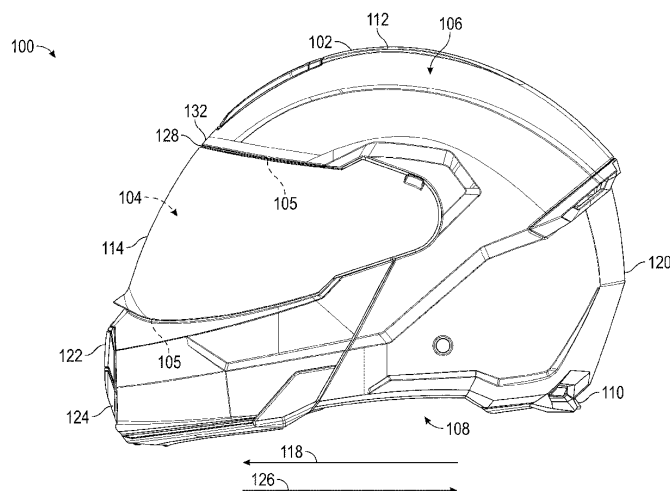


FIG. 1A



EUROPEAN SEARCH REPORT

Application Number

EP 25 21 3505

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 2022/346488 A1 (WHITESELL SCOTT S [US] ET AL) 3 November 2022 (2022-11-03) * paragraphs [0121] - [0123]; figures 14, 15, 27 *	1-6	INV. A42B3/12 A42B3/22 A42B3/32
X	US 2024/130460 A1 (PARK GYEONG JUN [KR]) 25 April 2024 (2024-04-25) * paragraphs [0034] - [0045]; figure 1.7 *	1-6	
X	US 2014/352020 A1 (ISOBE EIJI [JP]) 4 December 2014 (2014-12-04) * paragraphs [0081] - [0084]; figures 1,2,9 *	1-6	
X	US 2013/191976 A1 (PIZZI VLADIMIRO [IT]) 1 August 2013 (2013-08-01) * paragraphs [0027], [0028]; figures 1,2 *	1-3,7,8	
X	GB 1 521 205 A (SOLE SPA) 16 August 1978 (1978-08-16) * page 2, lines 8-34; figure 1 *	1,7,8	TECHNICAL FIELDS SEARCHED (IPC) A42B
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 24 February 2026	Examiner D'Souza, Jennifer
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			



Application Number

EP 25 21 3505

CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☒ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

1-8

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



LACK OF UNITY OF INVENTION
SHEET B

Application Number

EP 25 21 3505

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-8

A helmet comprising: a helmet shell enclosing a cavity configured to receive the head of an operator, the helmet shell includes: an exterior surface; a front opening extending through the exterior surface; and a face shield socket recessed from the exterior surface and extending around the front opening; and a face shield rotatably coupled with the helmet shell, the face shield having a plurality of configurations including at least a closed configuration and an open configuration: in the closed configuration the face shield is in a closed position, covers the front opening, and the face shield is seated within the face shield socket; and in the open configuration the face shield is in an open position with the face shield displaced forward and rotated relative to the closed position, the face shield is unseated from the face shield socket, and at least a portion of the front opening is uncovered.

2. claims: 9, 10

A chin bar rotatably coupled with the helmet shell, the chin bar having a plurality of configurations including at least a closed chin bar configuration and an open chin bar configuration: in the closed chin bar configuration the chin bar is in a down position; and in the open chin bar configuration the chin bar is rotated relative to the down position with the chin bar displaced forward.

3. claims: 11-13

A helmet comprising a peak visor rotatably coupled with the helmet shell, the peak visor includes: a peak body; arms extending from the peak body to pivot joints, the pivot joints rotatably coupled the peak visor with the helmet; and an attachment end extending from the peak body toward a peak adjustment track of the helmet shell, the attachment end includes a head slidably received in the adjustment track, wherein the head and peak adjustment track translationally couple the attachment end with the helmet shell.

4. claims: 14, 15

A helmet, wherein the helmet shell includes: a shock absorbing stacked composite, the shock absorbing stacked composite includes: an inner shell proximate the cavity, the inner shell having an exterior facing profile; an outer shell

**LACK OF UNITY OF INVENTION
SHEET B**

Application Number

EP 25 21 3505

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

extending over the inner shell, the outer shell having an interior facing profile; a pliable tube array mat having a plurality of polymer tubes interconnected along tube lengths, the pliable tube array mat is interposed between the inner shell and the outer shell; and wherein the exterior facing profile of the inner shell and the interior facing profile of the outer shell deform the pliable tube array mat into a dome profile complementary to the exterior and interior facing profiles.

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 25 21 3505

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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24-02-2026

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