

Title (en)
MOBILE TARGET AND METHOD OF HIT DETECTION

Title (de)
BEWEGLICHES ZIEL UND TREFFERERFASSUNGSMETHODE

Title (fr)
CIBLE MOBILE ET MÉTHODE DE DÉTECTION D'IMPACTE

Publication
EP 3919853 A1 20211208 (EN)

Application
EP 21177882 A 20210604

Priority
• PL 43422420 A 20200605
• PL 43422520 A 20200605

Abstract (en)
The shooting target includes a chassis (1), mannequin (3) placed on this chassis and means of detecting a bullet hit on the mannequin (3). The mannequin (3) has the form of a thin-walled rigid curvilinear dome shell (5,6) with an open base (4) facing the drive chassis (1). This shell has a part closer (5) to the chassis (1), symbolising the torso, and a part farther away (6), symbolising the head. Inner surface of the shell is generally smooth and has an uniform colour, advantageously black. Each subsequent cross-section of the inner surface of the mannequin (3) onto the plane of its base (4) along a plane parallel to this base (4), starting from the base (4) of the mannequin (3) towards its top, fits within the area of an analogous cross-section of the said surface along the previous plane. Means for hit detection on the mannequin (3) and for the recognition of the hit area consist in the image analysis system with the image sensor and the illuminator (8), working in infrared. The lens (7) of the image sensor and the illuminator (8) are located at the base (4) of the mannequin (3) and directed at its interior. The method of detection takes advantage of the change to optical properties of the interior of the mannequin (3) described above. The image analysis system is used to continuously record a view of the inner surface of the mannequin (3) reduced to its projection on plane (10) and are identified sudden and essentially local changes (P1, P2) in the recorded image this image as well as time when these changes (P1, P2) occurred.

IPC 8 full level
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Citation (applicant)
• CN 107218848 A 20170929 - UNIT 73653 OF PLA, et al
• EP 3504506 B1 20190925 - TACTICALTRIM E K [DE]
• US 2017370683 A1 20171228 - GHANI ROD [US]
• PL 227256 B1 20171130 - WOJSKOWY INST TECHNICZNY UZBROJENIA [PL]

Citation (search report)
• [IA] GB 2123125 A 19840125 - AUSTRALASIAN TRAINING AIDS PTY
• [IA] GB 2216996 A 19891018 - SECTOR LIMITED [GB]
• [IA] CN 110470183 A 20191119 - NO 60 INST HEADQUARTERS GENERAL STAFF PLA
• [IA] CN 106871730 A 20170620 - BEIJING JUNSHI TECH CO LTD
• [IA] WO 2018060752 A1 20180405 - TACTICALTRIM E K [DE]
• [IA] US 2016010958 A1 20160114 - LESSNICK MIKE [US]
• [A] US 8925925 B2 20150106 - HODGE BRUCE [US]

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