

Title (en)

Active armour protection system for armoured vehicles

Title (de)

Reaktive Panzerung für Panzerfahrzeuge

Title (fr)

Blindage réactif pour véhicules blindés

Publication

EP 1605225 A1 20051214 (EN)

Application

EP 04253379 A 20040607

Priority

EP 04253379 A 20040607

Abstract (en)

A sensor system (1) for defending armoured vehicles (2) against projectiles through the use of active armour. A thermal sensor detects a projectile's presence, and a laser proximity sensor determines its location. A doppler sensor distinguishes between threatening and nonthreatening projectiles by measuring the projectile's velocity. The sensors are positioned in a housing (23) with a segmented spherical window (25), wherein each sensor can detect the projectile through a window segment having a filtering characteristic which is matched to its associated sensor. An eyelid shutter (27) which can open and close, protects the window from small arms fire and shrapnel. A conical deflector (29) protects the sensor system from objects such as tree branches. Heater elements are used to clear ice and snow from the window, and the eyelid shutter removes other material through the use of a cleaning liquid delivery system and rubber wipers.

IPC 1-7

F41H 11/02; **F42C 13/00**; **F42C 13/04**

IPC 8 full level

F41H 5/007 (2006.01); **F41H 11/02** (2006.01); **F42C 13/00** (2006.01); **F42C 13/02** (2006.01); **F42C 13/04** (2006.01)

CPC (source: EP)

F41H 5/007 (2013.01); **F41H 11/02** (2013.01); **F42C 13/02** (2013.01); **F42C 13/04** (2013.01)

Citation (applicant)

- US 3592148 A 19710713 - MANIS JOHN R
- GB 1421379 A 19760114 - BOELKOW GMBH, et al

Citation (search report)

- [XY] DE 4426014 A1 19960125 - DIEHL GMBH & CO [DE]
- [Y] KR 960012781 B1 19960924 - LG ELECTRONICS INC [KR]
- [Y] DE 1903951 A1 19770127 - PORSCHE AG
- [XA] DE 10247350 A1 20040422 - KRAUSS MAFFEI WEGMANN GMBH & C [DE]
- [X] WO 2004003455 A1 20040108 - DIEHL MUNITIONSSYSTEME GMBH [DE], et al
- [XA] DE 10050479 A1 20020418 - BODENSEEWERK GERAETETECH [DE]
- [A] US 4960995 A 19901002 - NEUMANN ADALBERT [DE], et al
- [A] EP 0717292 A2 19960619 - ABB PATENT GMBH [DE]
- [A] US 5977902 A 19991102 - MAGNE FRANCOIS [FR], et al

Cited by

EP2851647A1; US8098191B1; US9346427B2; EP2942597B1; EP2150836B1

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