

## ECLA EUROPEAN CLASSIFICATION

- F41H** **ARMOUR; ARMoured TURRETS; ARMoured OR ARMED VEHICLES; MEANS OF ATTACK OR DEFENCE, e.g. CAMOUFLAGE, IN GENERAL**
- F41H1/00** **Personal protection gear** (shields for personal use [F41H5/08](#); [N: footwear for use in minefields [A43B3/00M](#)]; for protection against chemical warfare [A62B](#)) [C0311]
- F41H1/02 . Armoured or projectile- or missile-resistant garments; Composite protection fabrics [N: ([F41H5/04](#) takes precedence)]
- F41H1/04 . Protection helmets (crash helmets [A42B3/00](#))
- F41H1/06 . . of steel; Steel head-shields
- F41H1/08 . . of plastics; Plastic head-shields
- F41H3/00** **Camouflage, i.e. means or methods for concealment or disguise** (for vessels [B63G8/34](#), [B63G13/02](#); [N: sound camouflage, i.e. simulating gun fire noise, [F41A33/00B](#); dummy or decoy targets [F41J](#); chaff per se [F41J2/00](#); ammunition for dispensing chaff [F42B5/15](#), [F42B12/70](#); radar absorbing fabrics [H01Q17/00E](#)) [C0403]
- F41H3/02 . [N: Flexible, e.g. fabric] covers, e.g. screens, nets [N: characterised by their material or structure] (making thereof, see the relevant classes, e.g. [D04](#))
- F41H5/00** **Armour; Armour plates**(processes for manufacturing or treating [B21](#), [C21](#), [N: heat treatment [C21D9/42](#); wall or panel structure for safes [E05G1/024](#)])
- F41H5/007 . Reactive armour; Dynamic armour
- F41H5/013 . Mounting or securing armour plates
- F41H5/02 . Plate construction
- F41H5/02B . . [N: Armour plate, or auxiliary armour plate mounted at a distance of the main armour plate, having cavities at its outer impact surface, or holes, for deflecting the projectile] [N0608]
- F41H5/02B2 . . . [N: Slat armour; Nets] [N1204]
- F41H5/04 . . composed of more than one layer [N: (outerwear resistant to mechanical aggressions [A41D31/00C10](#); layered products [B32B](#); shaping reinforced articles [B29C67/00](#))]
- F41H5/04B . . . [N: Transparent bullet-proof laminates] [N: informative reference: layered products essentially comprising glass in general [B32B17/06](#), e.g. [B32B17/10C](#); manufacture or composition of glass, e.g. joining glass to glass [C03](#); permanent multiple-glazing windows, e.g. with spacing therebetween, [E06B3/66](#)]
- F41H5/04C . . . [N: Layered armour containing ceramic material]
- F41H5/04C2 . . . . [N: Ceramic layers in combination with metal layers]
- F41H5/04C4 . . . . [N: Ceramic layers in combination with additional layers made of fibres, fabrics or plastics]

- F41H5/04C4B . . . . . [N: the additional layers being only fibre- or fabric-reinforced layers]
- F41H5/04D . . . . . [N: Layered armour containing metal(in combination with ceramic layers F41H5/04C2; heat treatment of armour plate C21D9/42)][C9801]
- F41H5/04D2 . . . . . [N: all the layers being metal layers]
- F41H5/04D4 . . . . . [N: Metal layers in combination with additional layers made of fibres, fabrics or plastics]
- F41H5/04D4B . . . . . [N: the additional layers being only fibre- or fabric-reinforced layers]
- F41H5/04F . . . . . [N: Layered armour containing fibre- or fabric-reinforced layers (in combination with ceramic layers F41H5/04C4, with metal layers F41H5/04D4)]
- F41H5/04F2 . . . . . [N: Fibre- or fabric-reinforced layers in combination with plastics layers]
- F41H5/04F4 . . . . . [N: all the layers being only fibre- or fabric-reinforced layers]
- F41H5/04H . . . . . [N: Layered armour containing hard elements, e.g. plates, spheres, rods, separated from each other, the elements being connected to a further flexible layer or being embedded in a plastics or an elastomer matrix]
  
- F41H5/06 . . . Shields (in ships B63G9/00; in aircraft B64D7/00) [N: blasting mats F42D5/04B2]
- F41H5/08 . . . for personal use,[N: i.e. hand held shields]
- F41H5/10 . . . Spade bayonets, i.e. usable as a spade, bayonet or cover against rifle fire [N: (not used; see F41C27/04)]
- F41H5/12 . . . for smallarms; for light-rocket launchers [N: (shields attached to smallarms F41C27/04)]
- F41H5/14 . . . Wheeled armoured shields
- F41H5/16 . . . for ordnance [N: or tanks (F41H5/18 takes precedence)]
- F41H5/18 . . . Rotating shields
  
- F41H5/20 . . . Turrets [N: (on vehicles F41H7/04)] [C9604]
  
- F41H5/22 . . . Manhole covers, e.g. on tanks; [N: Doors on armoured vehicles or structures] [C1110]
- F41H5/22B . . . [N: Manhole covers specially adapted for armoured or fighting vehicles] [N1110]
- F41H5/22D . . . [N: Doors on armoured vehicles or structures (F41H5/26B takes precedence)] [N1110]
  
- F41H5/24 . . . for stationary use, e.g. fortifications [N: Shelters, Guard Booths (air-raid shelters E04H9/04)]
  
- F41H5/26 . . . Peepholes; Windows; [N: Loopholes] (manufacture or composition of glass C03; Covers therefor) [N: informative reference: transparent bullet-proof laminates F41H5/04B; layered products essentially comprising glass B32B17/06] [C0608]
- F41H5/26B . . . [N: Mounting of transparent armoured panels, e.g. bulletproof windows on vehicles] [N1110]
- F41H5/26D . . . [N: Periscopes for fighting or armoured vehicles] [N1110]
  
- F41H7/00** **Armoured or armed vehicles** (general vehicle aspects B60; armoured or armed ships B63G; armoured or armed aircraft B64D; mounting guns, e.g. machine guns, on vehicles F41A23/00)
  
- F41H7/00B . . . [N: Unmanned ground vehicles, i.e. robotic, remote controlled or autonomous, mobile platforms carrying equipment for performing a military or police role, e.g. weapon systems or reconnaissance sensors (F41H11/16 takes precedence)] [N1102]

- F41H7/02 . Land vehicles with enclosing armour, e.g. tanks ([endless-track vehicles, steering thereof B62D](#); [N: vehicles for placing portable or sectional bridges [E01D15/127](#); vehicles carrying floating bridges [E01D15/22](#)]) [C0403]
- F41H7/03 . . Air-pressurised compartments for crew; Means for preventing admission of noxious substances, e.g. combustion gas from gun barrels, in crew compartments; Sealing arrangements
- F41H7/03B . . . [N: Gratings for ventilation openings]
- F41H7/04 . . Armour construction ([in general F41H5/00](#))
- F41H7/04B . . . [N: Floors or base plates for increased land mine protection] [N0411]
- F41H7/04D . . . [N: Hull or cab construction other than floors or base plates for increased land mine protection ([mounting of armoured plates F41H5/013](#))] [N1110]
- F41H7/04F . . . [N: Shock resilient mounted seats for armoured or fighting vehicles] [N1110]
- F41H7/04G . . . [N: Vehicles having separate armoured compartments, e.g. modular armoured vehicles] [N1110]
  
- F41H7/10 . Minelaying land vehicles
  
- F41H9/00** **Equipment for attack or defence by spreading flame, gas or smoke** [N: or leurre]; **Chemical warfare equipment** ([protection against chemicals A62B](#))
  
- F41H9/02 . Flame-throwing apparatus ([for destroying vegetation A01M15/00](#))
- F41H9/04 . Gas-blowing apparatus, e.g. for tear gas ([F41H9/10](#) takes precedence)
- F41H9/06 . Apparatus for generating artificial fog or smoke screens ([N: for producing special effects on stages [A63J5/00](#)]; [smoke-pot projectors, e.g. arranged on vehicles, F42B5/155](#))
- F41H9/08 . . Smoke-pots without propulsive charge, i.e. stationary
- F41H9/10 . Hand-held or body-worn self-defence devices using repellent gases or chemicals
  
- F41H11/00** **Defence installations; Defence devices** ([constructional aspects see Section E, e.g. \[N: air-raid shelters\] E04H9/04](#); [N: protective arrangements for buildings [E04B1/92](#); extinguishing or preventing the spread of fire from, incendiary bombs [A62C3/06](#) ; dynamic armour [F41H5/007](#); ballistically deployed systems for restraining persons or animals [F41H13/00B](#); [electronic countermeasures G01S](#)]) [C0403]
  
- F41H11/02 . Anti-aircraft or anti-guided missile [N: or anti-torpedo] defence installations or systems ([cartridges or missiles for producing smoke or for dispensing radar chaff or infra-red material F42B5/15, F42B12/48, F42B12/70](#); [N: informative reference: details of radar or sonar systems [G01S7/00](#); [jamming or electronic countermeasures G01S7/38, G01S7/495, H04K3/00](#)]) [C0608]
- F41H11/04 . . Aerial barrages
- F41H11/05 . Net barriers for harbour defence [N: ([arrangement of mines F42B22/24](#); [protective nets used with ships B63G9/04](#))]
- F41H11/06 . Guntraps [N: ([devices specially adapted for the protection against criminal attack in airplanes B64D45/00H](#); [burglar traps or the like, on safes E05G5/02](#); [identifying, scaring or incapacitating burglars, thieves, or intruders G08B15/00](#))]

- F41H11/08 . Barbed-wire obstacles; Barricades; Stanchions; Tank traps; Vehicle-impeding devices; Caltrops [N: (making barbed wire [B21F25/00](#); barbed-wire fencing [E04H17/04](#); road barricades, obstructing passage of vehicles or pedestrians [E01F13/00](#))]
- F41H11/10 . . Dispensing-apparatus therefor, e.g. devices for dispensing or reeling barbed wire
- F41H11/11 . . Clearing or neutralising barbed wire obstacles ([N: devices mounted on vehicles for cutting wire-type obstructions [B60R19/54B](#)]; smallarm attachments for wire cutting [F41C27/20](#)) [C9806]
- F41H11/12 . Means for clearing land minefields; Systems specially adapted for detection of landmines [C1108]
- F41H11/13 . . Systems specially adapted for detection of landmines [N1108]
- F41H11/132 . . . Biological systems, e.g. with detection by animals or plants [N1108]
- F41H11/134 . . . Chemical systems, e.g. with detection by vapour analysis [N1108]
- F41H11/136 . . . Magnetic, electromagnetic, acoustic or radiation systems, e.g. ground penetrating radars or metal-detectors [N1108]
- F41H11/138 . . . Mechanical systems, e.g. prodding sticks for manual detection [N1108]
- F41H11/14 . . Explosive line charges, e.g. snakes [M1108]
- F41H11/16 . . Self-propelled mine-clearing vehicles; Mine-clearing devices attachable to vehicles [C1108]
- F41H11/16B . . . [N: with ground impacting means, e.g. flails or stamping elements] [N0102]
- F41H11/16D . . . [N: with ground penetrating elements ([F41H11/16B](#) takes precedence)] [N0102]
- F41H11/16D2 . . . . [N: the elements being ploughs] [N0102]
- F41H11/16D4 . . . . [N: the elements being rotary ground penetrating elements] [N0102]
- F41H11/16F . . . [N: with surface dosering, brushing or sweeping means or with collecting means] [N0102]
- F41H11/16H . . . [N: with rollers] [N0102]
- F41H11/18 . . . with ground-impacting means for activating mines by the use of mechanical impulses, e.g. flails or stamping elements [N1108]
- F41H11/20 . . . with ground-penetrating elements, e.g. with means for removing buried landmines from the soil ([F41H11/18](#) takes precedence) [N1108]
- F41H11/22 . . . . the elements being excavation buckets [N1108]
- F41H11/24 . . . . the elements being ploughs [N1108]
- F41H11/26 . . . . the elements being rotary ground-penetrating elements [N1108]
- F41H11/28 . . . using brushing or sweeping means or dozers to push mines lying on a surface aside; using means for removing mines intact from a surface [N1108]
- F41H11/30 . . . with rollers creating a surface load on the ground, e.g. steadily increasing surface load, for triggering purposes [N1108]
- F41H11/32 . . . Decoy or sacrificial vehicles; Decoy or sacrificial devices attachable to vehicles [N1108]
- F41H13/00** . **Means of attack or defence not otherwise provided for** [N: (details of radar or sonar systems [G01S7/00](#))] [C0403]
- F41H13/00B . [N: Ballistically deployed systems for restraining persons or animals, e.g. ballistically deployed nets] [N0009]
- F41H13/00D . [N: Electrical discharge weapons, e.g. for stunning, such as tasers] [N1004]

- F41H13/00D2 . . N: for nearby electrical discharge, i.e. the electrodes being positioned on the device and the device brought manually or otherwise into contact with a nearby target (batons with electric discharge capability [F41B15/04](#); electric shock devices for animals [A01K15/02](#)) [N1004]
- F41H13/00D4 . . [N: for remote electrical discharge via conducting wires, e.g. via wire-tethered electrodes shot at a target] [N1004]
- F41H13/00D6 . . [N: for remote electrical discharge by means of a wireless projectile] [N1004]
- F41H13/00D8 . . [N: for remote electrical discharge via liquid jets (details of the gun for generating the liquid jets [F41B9/00](#))] [N1004]
- F41H13/00F . [N: Directed energy weapons, i.e. devices that direct a beam of high energy content toward a target for incapacitating or destroying the target] [N1004]
- F41H13/00F2 . . [N: the high-energy beam being a laser beam] [N1004]
- F41H13/00F2B . . . [N: for blinding or dazzling, i.e. by overstimulating the opponent's eyes or the enemy's sensor equipment] [N1004]
- F41H13/00F2D . . . [N: causing structural damage to the target] [N1004]
- F41H13/00F4 . . [N: the high-energy beam being of microwave type, e.g. for causing a heating effect in the target] [N1004]
- F41H13/00F6 . . [N: the high-energy beam being a radiofrequency beam] [N1004]
- F41H13/00F8 . . [N: the high-energy beam being acoustic, e.g. sonic, infrasonic or ultrasonic] [N1004]
- F41H13/00F10 . . [N: the high-energy beam being a bright light, e.g. for dazzling or blinding purposes ([F41H13/00F2B](#) takes precedence)] [N1004]
- F41H13/00H . [N: Devices generating an electromagnetic pulse, e.g. for disrupting or destroying electronic devices] [N1004]