PERFORMING OPERATIONS; TRANSPORTING

TRANSPORTING

VEHICLES IN GENERAL

VEHICLES, VEHICLE FITTINGS, OR VEHICLE PARTS, NOT OTHERWISE PROVIDED FOR

NOTE

Attention is drawn to the Note following the title of class B60

WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

1/00 Optical viewing arrangements ([house mirrors and spies A47G 1/00]; antiglare equipment, e.g. polarising, for windscreens or windows B60J 3/00; [visual aids for tractors B62D 49/0614]; devices see G02B)

1/001 [integrated in the windows, e.g. Fresnel lenses]

1/002 [specially adapted for covering the peripheral part of the vehicle, e.g. for viewing tyres, bumpers or the like (integrated in the windows B60R 1/001; combined with rear-view mirrors B60R 1/08)]

1/003 [for viewing trailer hitches]

1/005 [specially adapted for viewing traffic-lights]

1/006 [Side-view mirrors, e.g. V-shaped mirrors located at the front or rear part of the vehicle (combined with rear-view mirrors B60R 1/08; side-view periscopes B60R 1/10)]

1/007 [specially adapted for covering the lateral blind spot not covered by the usual rear-view mirror]

1/008 [allowing the driver to see passengers, e.g. for busses (combined with rear-view mirrors B60R 1/08)]

1/02 Rear-view mirror arrangements (periscope arrangements B60R 1/10)

1/025 [comprising special mechanical means for correcting the field of view in relation to particular driving conditions, e.g. change of lane; scanning mirrors]

1/04 [mounted inside vehicle ([B60R 1/025, B60R 1/08 take precedence])]

1/06 [mounted on vehicle exterior ([B60R 1/025, B60R 1/08 take precedence])]

1/0602 [comprising means for cleaning or deicing]

1/0605 [specially adapted for mounting on trucks, e.g. by C-shaped support means]

1/0607 [with remote position control adjustment]

1/061 [by manually actuated mechanical means, e.g. push-pull cables]

1/0612 [by electrically actuated means]

1/0615 [by hydraulically or pneumatically actuated means]

1/0617 [foldable along the vehicle, e.g. in case of external force applied thereon]

1/062 [with remote control for adjusting position ([B60R 1/0607 takes precedence])]

1/0625 [by hydraulically or pneumatically powered actuators]

1/064 [by manually powered actuators]

1/066 [for adjusting the mirror relative to its housing]

1/068 [using cables]

1/07 [by electrically powered actuators]

1/072 [for adjusting the mirror relative to its housing]

1/074 [for retracting the mirror arrangements to a non-use position alongside the vehicle]

1/076 [yieldable to excessive external force and provided with an indexed use position ([B60R 1/0617, B60R 1/074 take precedence])]

1/078 [easily removable; mounted for bodily outward movement, e.g. when towing]

1/08 [involving special optical features, e.g. avoiding blind spots, e.g. convex mirrors; Side-by-side associations of rear-view and other mirrors (B60R 1/025, B60R 1/10 take precedence)]

1/081 [avoiding blind spots, e.g. by using a side-by-side association of mirrors]

1/082 [using a single wide field mirror or an association of rigidly connected mirrors]

1/083 [Anti-glare mirrors, e.g. "day-night" mirrors]

1/084 [using a removable filtering or hiding screen (associated with windows or windscreens B60J 3/00)]

1/085 [using a combination of interchangeable reflecting surfaces, e.g. reversible mirrors]

1/086 [using a mirror angularly movable between a position of use and a non-glare position reflecting a dark field to the user, e.g. situated behind a transparent glass used as low-reflecting surface; Wedge-shaped mirrors]
arrangements for stowing spare wheels B62D 43/00
suit-cases, or the like intended or sufficiently spacious for trunks,
Compartments within vehicle body primarily
(especially adapted for covering the peripheral part of the vehicle B60R 1/002); Periscope arrangements
i.e. optical devices using combinations of mirrors, lenses, prisms or the like (specially adapted for covering the peripheral part of the vehicle B60R 1/002; for viewing traffic-lights B60R 1/005);
Other mirror arrangements giving a view from above or under the vehicle
arrangements giving a view under the vehicle, e.g. using periscopes
Mirror assemblies combined with other articles, e.g. clocks
Arrangements of steps { or ladders facilitating access to or on the vehicle, e.g. running-board ([construction of steps for railway vehicles B61D 23/00]; ladders E06C)
[Running boards (for vehicle tops B60R 3/005; at the sides of the vehicle for carrying loads B60R 9/02)]
[Catwalks, running boards for vehicle tops, access means for vehicle tops; Handrails therefor]
Removable steps or ladders, e.g. foldable (as access means for vehicle tops B60R 3/005)
Retractable steps (or ladders, e.g. movable under shock (B60R 3/005 takes precedence))
with provisions for shoe scraping
Compartments within vehicle body primarily intended or sufficiently spacious for trunks, suit-cases, or the like (primarily intended for stowing loads in load-transporting vehicles B60P; arrangements for stowing spare wheels B62D 43/00)
Luggage racks, e.g. for busses (primarily intended for passengers' property smaller than suitcases B60R 7/004; B60R 7/008; luggage racks for rail vehicles B61D 37/003)
[stowing or holding means for elongated articles, e.g. skis inside vehicles]
arranged at front of vehicle ([B60R 5/003 takes precedence])
arranged at rear of vehicle ([B60R 5/003, B60R 5/006 take precedence; external trunks arranged at rear of vehicle B60R 9/065])
extensible externally of the vehicle body, e.g. to create an open luggage compartment of increased capacity (devices for anchoring the boot lid while carrying oversize objects E05C 17/042)
to create an enclosed luggage compartment of increased capacity, e.g. with ventilation apertures for transporting dogs
[luggage covering means, e.g. parcel shelves]
[ collapsible or transformable]
[ collapsible by rolling-up]
of accordion-type, i.e. collapsible by sliding and folding
Stowing or holding appliances inside vehicle primarily intended for personal property smaller than suit-cases, e.g. travelling articles, or maps (for radio sets, television sets, telephones or the like, mounting of cameras operative during drive, tools, or spare parts B60R 11/00; for receptacles for refuse, food, beverages, cigarettes B60N)
[Nets or elastic pockets tensioned against walls or backrests]
in separate luggage compartment ([B60R 7/005 takes precedence])
in driver or passenger space {, e.g. using racks (B60R 7/005, B60R 7/08 take precedence)}
mounted on or under a seat
mounted on door
mounted on sun visor
mounted on or below dashboards
Disposition of racks, clips [ , holders, containers] or the like {for supporting specific articles (B60R 7/005 takes precedence)}
[for supporting maps]
[for supporting spectacles]
[for supporting tissues or tissue boxes]
[for supporting flowers or flower vases]
[for stowing money or valuables, e.g. using safes]
[for stowing tape cartridge(s), compact discs, or the like]
for supporting hats, clothes or clothes hangers
for supporting umbrellas
for supporting weapons
Supplementary fittings on vehicle exterior for carrying loads, e.g. luggage, sports gear or the like
at the sides, e.g. on running-board
Carriers associated with vehicle roof (B60R 9/08 takes precedence)
Carriers characterised by means to facilitate loading or unloading of the load, e.g. rollers, tracks, or the like
Carriers being adjustable or transformable, e.g. expansible, collapsible {transformable into tents B60P 3/36; into beds B60P 3/38}
Carriers characterised by article-gripping {, -covering}, -retaining, or -locking means
Carriers characterised by wind deflecting means (wind deflectors for open roofs B60J 7/22)
Elements for body-finishing, identifying, or decorating; Arrangements or adaptations for advertising purposes

13/00

13/005

[Manufacturers' emblems, name plates, bonnet ornaments, mascots or the like; Mounting means therefor]

13/01

Liners for load platforms or load compartments

13/011

for internal load compartments, e.g. car trunks

13/013

[comprising removable or hinged parts, e.g. for accessing storage compartments]

2013/015

for radio sets (B60R 11/0211 takes precedence)

13/017

[for loud-speakers]

11/021

[for record carriers apparatus, e.g. video recorders, tape players or CD players]

11/023

[of flat type]

11/029

[for displays, e.g. cathodic tubes]

11/035

[of flat type, e.g. LCD]

11/041

[for telephones]

11/047

[for microphones or earphones]

11/052

[for personal computers, e.g. laptops, notebooks]

11/058

[for navigation systems]

11/064

[for control means]

11/076

[for rear passenger use]

11/082

[for the use of several passengers, e.g. simultaneously]

11/091

[the article being mounted on a flexible shaft]

11/092

[with motorization]

2011/0001

[characterised by position]

2011/0003

[inside the vehicle]

2011/0005

[Dashboard]

2011/0007

[Mid-console]

2011/0008

[Ventilation grilles]

2011/0001

[Vehicle control grilles, e.g. steering-wheel or column]

2011/0012

[Seats or parts thereof]

2011/0014

[Arm-rests]

2011/0015

[Back-rests]

2011/0017

[Head-rests]

2011/0019

[Side or rear panels]

2011/0021

[Doors]

2011/0022

[Pillars]

2011/0024

[Rear shelves]

2011/0026

[Windows, e.g. windscreen]

2011/0028

[Ceiling, e.g. roof rails]

2011/0029

[Floor, e.g. side sills, fire wall]

2011/0031

[Seal belts]

2011/0033

[Rear-view mirrors]

2011/0035

[Sun visors]

2011/0036

[Luggage compartment]

2011/0038

[Engine compartment]

2011/004

[outside the vehicle]

2011/0042

[characterised by mounting means]

2011/0043

[for integrated articles, i.e. not substantially protruding from the surrounding parts]

2011/0045

[for visible parts, e.g. flush mounted]

2011/0047

[using hidden fastening means]

2011/0049

[for non integrated articles]

2011/005

[Connection with the vehicle part]

2011/0052

[using screws, bolts, rivets or the like]

2011/0054

[using cigarette lighter]

2011/0056

[using suction cups]

2011/0057

[using magnetic means]

2011/0059

[using clips, clamps, straps or the like]

2011/0061

[using key-type connections]

2011/0063

[using adhesive means, e.g. hook and loop fasteners]

2011/0064

[Connection with the article]

2011/0066

[using screws, bolts, rivets or the like]

2011/0068

[using suction cups]

2011/007

[using magnetic means]

2011/0071

[using latches, clips, clamps, straps or the like]

2011/0073

[using key-type connections]

2011/0075

[using a containment or docking space]

2011/0077

[using adhesive means, e.g. hook and loop fasteners]

2011/0078

[Quickdisconnect two-parts mounting means]

2011/008

[Adjustable or movable supports]

2011/0082

[collapsible, e.g. for storing after use]

2011/0084

[with adjustment by linear movement in their operational position]

2011/0085

[with adjustment by rotation in their operational position]

2011/0087

[around two axes]

2011/0089

[around three axes, i.e. universally mounted]

2011/0091

[the article being mounted on a flexible shaft]

2011/0092

[with motorization]

2011/0094

[characterised by means for covering after user, e.g. boxes, shutters or the like]

2011/0096

[Thief prevention of articles]

2011/0098

[using electric or electronic means, e.g. alarms, codes]
Arrangements or adaptations of sanitation devices
15/04  Toilet facilities (in railway vehicles B61D 35/005)

16/00 Electric or fluid circuits specially adapted for vehicles and not otherwise provided for; Arrangement of elements of electric or fluid circuits specially adapted for vehicles and not otherwise provided for; (devices for protecting vehicle occupants in case of accidents B60R 21/00; safety belts B60R 22/00; central door locking E05B 49/00, E05B 77/50)

16/005 [Electro-mechanical devices, e.g. switched (electric switches in general H01H)]
16/02 [electric {constitutive elements}]
16/0207 [Wire harnesses]
16/0215 [Protecting,fastening and routing means (thereof)]
16/0222 [Grommets]
16/023 [for transmission of signals between vehicle parts or subsystems]
16/0231 [Circuits relating to the driving or the functioning of the vehicle (monitoring tyres B60C 23/00; indicating overspeed B60K 31/00; for dash boards B60K 37/00; B60Q 3/10; for indicating emergencies B60Q 15/2; brake control systems B60T; registering or indicating the working of vehicles G07C 5/00; measuring distance G01C, e.g. combinations of speed and distance G01C 23/00; engine indicators G01L; measuring speed or acceleration G01P)]
16/0232 [for measuring vehicle parameters and indicating critical, abnormal or dangerous conditions]
16/0233 [Vehicle tilting, overturning or roll over]
16/0234 [related to maintenance or repairing of vehicles]
16/0235 [for lighting devices combined with starting or ignition devices for road vehicles]
16/0236 [for economical driving]
16/0237 [circuits concerning the atmospheric environment (meteorology G01W)]
16/0238 [Electrical distribution centers]
16/0239 [Electronic boxes]
16/027 . . . between relatively movable parts of the vehicle, e.g. between steering wheel and column [(devices for measuring, signalling or controlling tyre pressure or temperature specially adapted for mounting on vehicles B60C 23/00)]

16/03 . . . for supply of electrical power to vehicle subsystems or for (circuit arrangements for charging batteries H02J 7/00)]

16/0307 . . . [using generators driven by a machine different from the vehicle motor]

16/0315 . . . [using multiplexing techniques (multiplexing for transmission of signals G08C 15/00; multiplexing for electrical communication in general H04J)]

2016/0322 . . . [Temporary code for documents to be reclassified to G08C, H04L or H04Q]

16/033 . . . characterised by the use of electrical cells or batteries (for propulsion purposes B60K 1/04; supplying batteries to, or removing batteries from, vehicles B60S 5/06; testing of charge state G01R 31/36)

16/037 . . . for occupant comfort, e.g. for automatic adjustment of appliances according to personal settings, e.g. seats, mirrors, steering wheel]

16/0373 . . . [Voice control (in general G10L)]

16/04 . . . Arrangement of batteries

16/06 . . . for removing electrostatic charges (carrying-off electrostatic charges in general H05F 3/00)

16/08 . . . fluid

17/00 Arrangements or adaptations of lubricating systems or devices (lubricating in general F16N)

17/02 . . . Systems, e.g. central lubrication systems

19/00 Wheel guards; Radiator guards, (e.g. grilles); Obstruction removers; Fittings damping bouncing force in collisions (reinforcement elements for side doors B60J 5/0412; mudguards B62D)

2019/002 . . . [Wheel guards]

2019/005 . . . [Crash attenuators, i.e. means added to highway service vehicles for softening high speed impacts]

2019/007 . . . [Means for adjusting or regulating the crash absorption capacity of the vehicle, e.g. when detecting an impending collision]

19/02 . . . Bumpers, i.e. impact receiving or absorbing members for protecting vehicles or fending off blows from other vehicles or objects ((B60R 19/56 takes precedence; initiating brake action by contact of bumper with an external object B60T 7/22; for rail vehicles B61F 19/04; safety equipment for cycles B62J 7/200) integral with waterborne vessels or specially adapted therefor B63B 59/02)

19/023 . . . [Details]

2019/026 . . . [Buffers, i.e. bumpers of limited extent]

19/03 . . . characterised by material, e.g. composite (B60R 19/18 takes precedence)

19/04 . . . formed from more than one section [in a side-by-side arrangement]

19/12 . . . vertically spaced

19/14 . . . having folding parts

19/16 . . . having deflecting members, e.g. rollers, balls

19/18 . . . (characterised by the cross-section;) Means within the bumper to absorb impact

2019/1806 . . . [Structural beams therefor, e.g. shock-absorbing (bumper beams made of cellular materials B60R 19/22)]

2019/1813 . . . [made of metal]

2019/182 . . . [of light metal, e.g. extruded]

2019/1826 . . . [of high-tension steel]

2019/1833 . . . [made of plastic material]

2019/184 . . . [Blow moulded]

2019/1846 . . . [comprising a cellular structure]

2019/1853 . . . [of reinforced plastic material]

2019/186 . . . [Additional energy absorbing means supported on bumper beams, e.g. cellular structures or material]

2019/1866 . . . [Cellular structures]

2019/1873 . . . [Cellular materials]

2019/188 . . . [Blow molded structures]

2019/1886 . . . [Bumper fascias and fastening means therefor (on fenders B60R 19/247)]

2019/1893 . . . [comprising a multiplicity of identical adjacent shock-absorbing means]

19/20 . . . containing [mainly] gas or liquid, e.g. inflatable (connection of valves to inflatable elastic bodies B60C 29/00)

19/205 . . . [inflatable in the direction of an obstacle upon impending impact, e.g. using air bags]

19/22 . . . containing [mainly] cellular material, e.g. solid foam

19/24 . . . Arrangements for mounting bumpers on vehicles

19/242 . . . [on two vertical sleeves, e.g. on energy absorber ends]

19/245 . . . [with adjusting means to compensate manufacturing tolerances, e.g. between bumper and energy absorbers]

19/247 . . . [Fastening of bumpers' side ends]

19/26 . . . comprising yieldable mounting means ((B60R 19/38 takes precedence;) springs, shock absorbers, or means for damping vibrations per se F16F)

19/262 . . . [with means to adjust or regulate the amount of energy to be absorbed]

19/264 . . . [using cellular structures]

19/266 . . . [using friction surfaces]

19/268 . . . [with rebound preventing means, e.g. ratchets]

19/28 . . . Metallic springs

19/285 . . . [comprising only leaf springs, e.g. the mounting means forming part of the guard itself]

19/30 . . . Elastomeric material ((B60R 19/34 takes precedence))

19/32 . . . Fluid shock absorbers [, e.g. with coaxial coil springs]

19/34 . . . destroyed upon impact, e.g. one-shot type

19/36 . . . Combinations of yieldable mounting means of different types ((fluid shock absorbers with coaxial coil springs B60R 19/32))

19/38 . . . [adjustably or movably mounted, e.g. horizontally displacable for securing a space between parked vehicles (adjustably mounted for compensating manufacturing tolerances B60R 19/24, B60R 19/26)]
in the direction of an obstacle before a collision, or extending during driving of the vehicle, i.e. to increase the energy absorption capacity of the bumper (inflatable bumpers B60R 19/20)

extending primarily along the sides of, or completely encircling, a vehicle (ornamental or guard strips B60R 13/04)

Bumper guards

[Guard strips]

spring- or pivotally-mounted

combined with, or convertible into, other devices or objects, e.g. bumpers combined with road brushes, bumpers convertible into beds

[with obstacle sensors of electric or electronic type]

[with air passages, e.g. for cooling]

with lights or registration plates

[with lights]

Radiator or grille guards (; Radiator grilles (cooling aspects B60K 11/08))

[Bull bars]

[Radiator grilles]

[integral with bumpers]

Obstruction removers or deflectors (B60R 19/16, B60R 21/34 take precedence)

[Devices for cutting wire-type obstructions]

[Fittings damping bouncing force in truck collisions, e.g. bumpers;] Arrangements on high-riding vehicles, e.g. lorries, for preventing vehicles or objects from running thereunder

(on vehicle sides)

Arrangements or fittings on vehicles for protecting or preventing injuries to occupants or pedestrians in case of accidents or other traffic risks (safety belts or body harnesses in vehicles B60R 22/00; devices, apparatus or methods for life-saving in general A62B; safety devices for propulsion unit control specially adapted for, or arranged in, vehicles B60K 28/00; seats constructed to protect the occupant from the effect of abnormal g-forces, e.g. crash or safety seats, B60N 2/42; energy-absorbing arrangements for hand wheels for steering vehicles B62D 1/11; energy-absorbing arrangements for vehicle steering columns B62D 1/19; harnessing in aircraft B64D 25/00)

(Type of accident)

[Frontal collision]

[Lateral collision]

[Oblique collision]

[Rear collision or recoiling bounce after frontal collision]

[Free fall]

[Fall in water]

[Roll-over]

[Underrun collision]

[Offset collision]

[Pole collision]

[Post collision measures, e.g. notifying emergency services]

[characterised by occupant or pedestrian]

[Position of passenger]

[lying down]

Body parts of the occupant or pedestrian affected by the accident

[Arms]

[Chest]

[Feet]

[Head]

[Knees]

[Legs]

[Pelvis]

[Shoulders]

[Type of passenger]

[woman, e.g. pregnant]

[Type of vehicles]

[Buses]

[Trailers, e.g. caravans]

[Convertible cars]

[Utility vehicles]

[Agricultural vehicles, e.g. tractors]

[Fork-lift trucks]

[Working vehicles]

[Pick-up trucks; Light trucks; Sport utility vehicles]

[Racing cars]

[Cycles, e.g. motorcycles]

[Railway vehicles]

[Aircraft]

[Boats]

[Amusement vehicles]

Electrical circuits for triggering passive safety arrangements, e.g. airbags, safety belt tighteners, in case of vehicle accidents or impending vehicle accidents (electrical circuits for transmission of signals between steering wheel and the vehicle itself B60R 16/027; for electrically actuating belt retractor locking means B60R 22/343)

[Mounting of electrical components in vehicles]

[Means for detecting collision, impending collision or roll-over]

[the monitored value being used for calculating occupant displacement]

[Safing sensors]

[Controlling a plurality of restraint devices]

[Communication circuits for data transmission]

[Architecture]

[Bus]

[between the airbag system and other vehicle electronic systems]

[between different sensors and airbag control unit]

[between the airbag control unit and pyrotechnic fuses or equivalent actuators]

[Transmission medium]

[wireless]

[optical]

[Transmission method]

[power and data signal using transmission medium]

[specific data frames]

[Prevention of malfunction]

[Problems or faults]

[Cut lines]
B60R

2021/01143 . . . [Short circuits]
2021/0115 . . . [Current leakage]
2021/01156 . . . [Current or voltage overload]
2021/01163 . . . [Insufficient current or voltage]
2021/0117 . . . [Noise]
2021/01177 . . . [Misdeployment, e.g. during assembly, disassembly, accident salvage or recycling]
2021/01184 . . . [Fault detection or diagnostic circuits (in power circuits B60R 2021/01129)]
2021/0119 . . . [Plausibility check]
2021/01197 . . . [Warning devices]
2021/01204 . . . [Actuation parameters of safety arrangements]
2021/01211 . . . [Expansion of air bags]
2021/01218 . . . [control of expansion speed]
2021/01225 . . . [control of expansion volume]
2021/01231 . . . [control of expansion timing or sequence]
2021/01238 . . . [control of expansion shape]
2021/01245 . . . [selection of seat for bag expansion]
2021/01252 . . . [Devices other than bags]
2021/01259 . . . [Brakes]
2021/01265 . . . [Seat belts]
2021/01272 . . . [Belt tensioners]
2021/01279 . . . [Load limiters]
2021/01286 . . . [Electronic control units]
2021/01293 . . . [programmable for use in different vehicles or with different airbags configurations]
21/013 . . . including means for detecting collisions, impending collisions or roll-over
2021/01302 . . . [monitoring vehicle body vibrations or noise]
2021/01304 . . . [monitoring rough road condition]
2021/01306 . . . [monitoring vehicle inclination]
2021/01308 . . . [monitoring distance between vehicle body and road]
2021/01311 . . . [monitoring the braking system, e.g. ABS]
2021/01313 . . . [monitoring the vehicle steering system or the dynamic control system]
2021/01315 . . . [monitoring occupant displacement]
2021/01317 . . . [monitoring seat belt tension]
21/0132 . . . responsive to vehicle motion parameters [e.g. to vehicle longitudinal or transversal deceleration or speed value]
2021/01322 . . . [comprising variable thresholds, e.g. depending from other collision parameters]
2021/01325 . . . [Vertical acceleration]
2021/01327 . . . [Angular velocity or angular acceleration]
21/0133 . . . [by integrating the amplitude of the input signal]
21/01332 . . . [by frequency or waveform analysis]
21/01334 . . . [using Fourier analysis]
21/01336 . . . [using filtering]
21/01338 . . . [using vector analysis]
21/0134 . . . responsive to imminent contact with an obstacle [e.g. using radar systems]
2021/01345 . . . [using mechanical sensing means]
21/0136 . . . responsive to actual contact with an obstacle [e.g. to vehicle deformation, bumper displacement or bumper velocity relative to the vehicle (monitoring crash strength in combination with passenger seat detection B60R 21/01558)]
21/015 . . . including means for detecting the presence or position of passengers, passenger seats or child seats [, and the related safety parameters therefor, e.g. speed or timing of airbag inflation in relation to occupant position or seat belt use]
21/01504 . . . [detecting bag displacement]
21/01508 . . . [detecting forces or pressure in bags or modules]
21/01512 . . . [Passenger detection systems]
21/01516 . . . [using force or pressure sensing means]
21/0152 . . . [using strain gauges]
21/01522 . . . [using fluid means]
21/01524 . . . [using electric switches]
21/01526 . . . [using piezoelectric elements]
21/01528 . . . [mounted on the bag]
21/0153 . . . [using field detection presence sensors]
21/01532 . . . [using electric or capacitive field sensors]
21/01534 . . . [using electromagnetic waves, e.g. infrared]
21/01536 . . . [using ultrasonic waves]
21/01538 . . . [for image processing, e.g. cameras or sensor arrays]
21/0154 . . . [in combination with seat heating]
21/01542 . . . [detecting passenger motion]
21/01544 . . . [detecting seat belt parameters, e.g. length, tension or height-adjustment]
21/01546 . . . [using belt buckle sensors]
21/01548 . . . [sensing the amount of belt wound on retractor]
21/0155 . . . [sensing belt tension]
21/01552 . . . [detecting position of specific human body parts, e.g. face, eyes or hands]
21/01554 . . . [Seat position sensors]
21/01556 . . . [Child-seat detection systems]
21/01558 . . . [monitoring crash strength]
21/0156 . . . [by deceleration]
21/01562 . . . [by speed]
21/01564 . . . [Manually or key-actuated inhibition switches]
21/01566 . . . [Devices for warning or indicating mode of inhibition]
21/017 . . . including arrangements for providing electric power to safety arrangements [or their actuating means, e.g. to pyrotechnic fuses or electromechanic valves]
21/0173 . . . [Diagnostic or recording means therefor]
21/0176 . . . [for firing circuits using only mechanical switches as collision detecting means, in series with pyrotechnic fuses]
21/02 . . . Occupant safety arrangements or fittings [, e.g. crash pads (seat belts with crash pads B60R 22/14; removable children’s seats having a front guard or barrier B60N 2/2839)]
21/0206 . . . [Self-supporting restraint systems, e.g. restraining arms, plates or the like]
21/0213 . . . [mounted on floor]
21/022 . . . [mounted on seats]
21/0226 . . . [mounted on fire wall]
21/0233 . . . [mounted on steering-wheel]
21/024 . . . [mounted on dash-board]
21/0246 . . . [mounted on side walls]
21/0253 . . . [mounted on roof]
21/026 [Rigid partitions inside vehicles, e.g. between passengers and load compartments (B60R 21/12 takes precedence)]

2021/0266 [comprising energy absorbing means]

2021/0273 [automatically movable to an operative position, e.g. in case of collision or impending collision]

2021/028 [Means preventing passenger from falling out of vehicles]

21/0286 [Padded or energy absorbing driving control

\[\text{initiating means, e.g. gear lever, pedals (B60R 21/09 takes precedence; padded linings for
}

\text{steering control means B60R 21/05)])

2021/0293 [Additional pads or cushions in vehicle compartments, e.g. movably mounted]

21/04 [Padded linings for the vehicle interior [; Energy absorbing structures associated with padded or non-padded linings]

2021/0407 [using gas or liquid as energy absorbing means]

2021/0414 [using energy absorbing ribs]

2021/0421 [using honeycomb structures]

21/0428 [associated with the side doors or panels, e.g. displaced towards the occupants in case of a side collision]

2021/0435 [associated with the side or roof pillars]

2021/0442 [associated with the roof panel]

21/045 [associated with the instrument panel or dashboard]

21/05 [associated with the steering wheel, [steering] hand lever or [steering] column (yieldable steering columns B62D 1/18)]

21/055 [Padded [or energy-absorbing] fittings [e.g. seat belt anchors (sun visors B60J 3/00; head rests B60N 2/80)]

21/06 Safety nets, transparent sheets, curtains, or the like, e.g. between occupants and glass ((B60R 21/26), B60R 21/11, B60R 21/12, B60R 21/16 take precedence)

2021/065 [comprising energy absorbing mounting means]

21/08 [automatically] movable from an inoperative to an operative position, e.g. in a collision (electrical circuits for triggering safety arrangements B60R 21/01]

21/09 Control elements or operating handles movable from an operative to an out-of-the-way position, e.g. [pedals,] switch knobs, window cranks ([specially adapted for brake pedals, e.g. by venting of master cylinder or destruction of force transmitting rod, B60T 7/065])

21/11 Overhead guards, e.g. against loads falling down ([specially adapted for fork-lift trucks B66F 9/07545])

21/12 [which protect the occupants against personal attack from the inside or the outside of the vehicle]

21/13 [Roll-over protection (electrical circuits for triggering safety arrangements B60R 21/01)]

21/131 [Protective devices for drivers in case of overturning of tractors (means for preventing overturning or tipping of tractors B62D 49/08)]

2021/132 [Roll bars for convertible vehicles]

21/134 [movable from a retracted to a protection position]

2021/135 [automatically during an accident]

2021/137 [Reinforcement cages for closed vehicle bodies]

2021/138 [using external airbags]

21/16 Inflatable occupant restraints or confinements designed to inflate upon impact or impending impact, e.g. air bags ([protective garments with automatically inflatable shock-absorbing means A41D 13/018; connection of valves to inflatable elastic bodies B60C 29/00])

2021/161 [characterised by additional means for controlling deployment trajectory]

2021/162 [Means for diverting, destroying or blocking the bag in case of dangerous deployment, e.g. during rescue operations or use of rear-facing children seats]

21/164 [combined with vehicle venting means for reducing or avoiding the passenger compartment overpressure during inflation]

2021/165 [reusable, e.g. in case of multiple collisions]

2021/167 [comprising anti-theft devices]

2021/168 [for restraining luggages]

21/18 the inflatable member formed as a belt or harness or combined with a belt or harness arrangement

21/20 Arrangements for storing inflatable members in their non-use or deflated condition; Arrangement or mounting of air bag modules or components

21/201 Packaging straps or envelopes for inflatable members

21/203 in steering wheels or steering columns

21/2032 the inflator or inflatable member not being rotatable with the steering wheel; Arrangements using the steering column or steering wheel rim for storing, supplying or evacuating the inflation gas or for storing the inflatable member]

21/2035 [using modules containing inflator, bag and cover attachable to the steering wheel as a complete sub-unit (steering wheel covers with tear lines B60R 21/21656; assembling of modules B60R 21/217)]

21/2037 [the module or a major component thereof being yieldably mounted, e.g. for actuating the horn switch or for protecting the driver in a non-deployment situation (horn switches integrated in steering wheel covers with tear lines B60R 21/21658)]

21/205 in dashboards

21/206 in the lower part of dashboards, e.g. for protecting the knees

21/207 in vehicle seats

21/2072 in children's seats]

2021/2074 [in head rests]

2021/2076 [Removable covers with tear seams]

2021/2078 [in rear seats]

21/21 in vehicle side panels, e.g. doors (pillar mounted arrangements B60R 21/213)

21/213 in vehicle roof frames or pillars

21/214 in roof panels

21/215 characterised by the covers for the inflatable member ((B60R 21/2176 takes precedence))
Inflatable members (B60R 21/2171) {specially adapted for elongated cylindrical or bottle-like inflators with a symmetry axis perpendicular to the main direction of bag deployment, e.g. extruded reaction canisters (B60R 2021/23514 takes precedence)}

21/2172 . . . . . . . (the cover being connected to the surrounding part and to the module, e.g. floating mounts)

21/2173 . . . . . . . (the module or part thereof being movably mounted on the vehicle)

21/2175 . . . . . . . (using energy absorbing means)

21/2176 . . . . . . . (the air bag components being completely enclosed in a soft or semi-rigid housing or cover)

21/2177 . . . . . . . (Reaction canisters characterised by material)

21/2178 . . . . . . . (Plastic)

21/23 . . . . . . . Inflatable members (B60R 21/18 takes precedence; connection to inflation fluid source retainers B60R 21/217)

21/231 . . . . . . . characterised by their shape, construction or spatial configuration

21/23107 . . . . . . (the bag being integrated in a multi-bag system)

21/23115 . . . . . . (with inflatable support compartments creating an internal suction volume)

21/23123 . . . . . . (Heat protection panels)

2021/2313 . . . . . . . (comprising sensitive compartments)

21/23138 . . . . . . . (specially adapted for side protection (B60R 21/23184, B60R 21/232 take precedence))

2021/23146 . . . . . . . (seat mounted)

21/23153 . . . . . . . (specially adapted for rear seat passengers)

21/23161 . . . . . . . (specially adapted for protecting at least two passengers, e.g. preventing them from hitting each other)

2021/23169 . . . . . . . (specially adapted for knee protection)

21/23176 . . . . . . . (specially adapted for foot protection)

21/23184 . . . . . . . (Tubular air bags connected to the vehicle at their two extremities)

2021/23192 . . . . . . . (Roof bags, i.e. protecting the occupant in a roll-over situation)

21/232 . . . . . . . Curtain-type airbags deploying mainly in a vertical direction from their top edge

21/233 . . . . . . . comprising a plurality of individual compartments; comprising two or more bag-like members, one within the other (B60R 21/232 takes precedence)

2021/23308 . . . . . . . (the individual compartments defining the external shape of the bag)

2021/23316 . . . . . . . [Inner seams, e.g. creating separate compartments or used as tethering means]

2021/23324 . . . . . . . [Inner walls crating separate compartments, e.g. communicating with vents]

2021/23332 . . . . . . . (using independent bags, one within the other)

21/2334 . . . . . . . Expansion control features

21/2338 . . . . . . . Tethers

2021/23382 . . . . . . . [Internal tether means]

2021/23384 . . . . . . . (having ends which are movable or detachable during deployment)

2021/23386 . . . . . . . [External tether means]

2021/23388 . . . . . . . (having ends which are movable or detachable during deployment)

21/2342 . . . . . . . Tear seams

21/2346 . . . . . . . Soft diffusers

21/235 . . . . . . . characterised by their material

2021/23504 . . . . . . . [characterised by material]

2021/23509 . . . . . . . [Fabric]

2021/23514 . . . . . . . [coated fabric]

2021/23519 . . . . . . . [Resin (for coating fabric B60R 2021/23514)]

2021/23523 . . . . . . . [Composite (coated fabric B60R 2021/23514)]

2021/23528 . . . . . . . [Metal]

2021/23533 . . . . . . . [characterised by the manufacturing process]

2021/23538 . . . . . . . [Sewing]

2021/23542 . . . . . . . [Weaving]

2021/23547 . . . . . . . [one piece weaving]

2021/23552 . . . . . . . [Knitting]

2021/23557 . . . . . . . [Molding]

2021/23561 . . . . . . . [Sealing]

2021/23566 . . . . . . . [Nesting of panels, i.e. for material utilisation]

2021/23571 . . . . . . . [characterised by connections between panels]
producing gas under pressure in general arrangement or mounting thereof to the inflators or igniters therefor blasting cartridges for taking precedence )

B60R 21/272 or controlled output ( hybrid inflators using a variable source, e.g. plural stage)
diffuse or guide inflation fluid with means other than bag structure to

{ characterised by casing }
{ characterised by their venting means }

{ characterised by heating or heat insulating means, e.g. for use under extreme temperatures }

{ using fluid materials }
{ of film shape }
{ of elongated shape }

{ triggered by mechanical means }

{ using a filter through which the inflation gas passes }

{ a cooling agent being added to the inflation fluid }

{ for filling the bag with foam }
{ Ignitors }

{ using fluid materials }
{ using a combination of inflators }
{ characterised by auto-ignition means }

{ characterised by heating or heat insulating means, e.g. for use under extreme temperatures }

{ using only solid reacting substances, e.g. pellets, powder }

{ the reacting substances being supported by the inflatable member walls, or by a flexible support within it }

{ comprising a plurality of combustion chambers or sub-chambers }
{ comprising a plurality of pressure chambers }

{ with means for increasing the pressure of the gas just before or during liberation, e.g. hybrid inflators }

{ using a fluid fuel gas generator }

{ characterised by means to rupture or open the fluid source }

{ with means to vent the inflation fluid source, e.g. in case of overpressure }

{ comprising means to control the venting }

{ Arrangements for non-electric triggering of inflation ( electrical circuits for triggering safety arrangements B60R 21/01) }

{ Connections between collision detecting means and inflators using pyrotechnic transmission lines }

Protecting non-occupants of a vehicle, e.g. pedestrians ( B60R 19/02 takes precedence )

{ using deformable body panel, bodywork or components }

{ means outside vehicle body }

{ using means for lifting bonnets }

Semi-passive restraint systems, e.g. systems applied or removed automatically but not both
(; Manual restraint systems (knee, leg or head belts B60R 22/001; devices for releasing in an emergency, remote or automatic unbuckling devices B60R 22/32))

{ Means for holding the tongue or buckle in a non-use position, e.g. for easy access by the user }

{ with means for facilitating access to rear seats in two-door cars }

{ Three-point seat belt systems comprising two side lower and one side upper anchoring devices (B60R 22/02; B60R 22/03 take precedence) }

{ Adaptors for use by small passengers, e.g. children (B60R 22/20 takes precedence; using belt anti-slip devices B60R 22/30) }

{ Adaptors for use with children seats or luggages }

{ at least two ends of the belt being retractable after use }

{ Four-point seat belt systems, e.g. with the two upper points connected together }

{ Sleeve or tubular members enveloping the seat belt for enhancing comfort or protection }

{ Belts; Fixing thereof specially adapted for pregnant users }
B60R

22/028 . . . [specially adapted for use in sleeping position, e.g. for reclining seats]
22/029 . . . [Belt storage; Devices or systems for controlling winding up of unused seat belt]
22/03 . . . Means for presenting the belt or part thereof to the wearer [e.g. foot-operated]
22/04 . . . Passive restraint systems, i.e. systems both applied and removed automatically, e.g. by movement of the vehicle door
22/06 . . . having the belt or harness connected to a member slideable in a vehicle-mounted track
22/08 . . . having the belt retractor mounted on or in a vehicle closure, e.g. the door
22/10 . . . specially adapted for children or animals (children's seats B60N 2/24)

**NOTE**

Groups
B60R 22/02 [B60R 22/02] - B60R 22/08, B60R 22/18 - B60R 22/48 take precedence over group B60R 22/10

22/105 . . . (for children (adaptation of children's seats for seat belts B60N 2/265, B60N 2/2803))
22/12 . . . Construction of belts or harnesses (B60R 21/18 takes precedence ; woven fabrics for safety belts D03D 1/0005)
22/14 . . . incorporating enlarged restraint areas, e.g. vests, nets, crash pads, optionally for children (crash pads for occupants' safety on vehicles in general B60R 21/022)
22/16 . . . using belts which become permanently deformed, i.e. one time use
22/18 . . . Anchoring devices
22/1806 . . . (for buckles)
22/1812 . . . (Connections between seat belt and buckle tongue)
22/1818 . . . (Belt guides)
22/1825 . . . [using rollers]
22/1831 . . . [comprising a slotted plate sliding in its plane, e.g. inside circular guides]
22/1837 . . . [comprising a universal mounting, e.g. spherical or cardan-type]
22/1843 . . . [comprising an elongated sleeve]
22/185 . . . with stopping means for acting directly upon the belt in an emergency, e.g. by clamping or friction ([B60R 22/195 takes precedence; combined with the retractor B60R 22/42])
22/1855 . . . [the means being sensitive to belt tension]
22/19 . . . with means for reducing belt tension during use under normal conditions ([included in the retractor B60R 22/44])
22/195 . . . with means to tension the belt in an emergency, [e.g. means of the through-anchor or splitted reel type] (electrical circuits for triggering safety arrangements (B60R 21/01))

**NOTE**

If the type of belt tensioner is not specified and can be used indifferently for pulling belt anchors or rotating belt reels, the documents are classified in B60R 22/46
22/1951 . . . [characterised by arrangements in vehicle or relative to seat belt]

22/1952 . . . [Transmission of tensioning power by cable; Return motion locking means therefor]
22/1953 . . . [the cable being pulled by mechanical means, e.g. pre-stressed springs, bumper displacement during crash]
22/1954 . . . [characterised by fluid actuators, e.g. pyrotechnic gas generators (actuating a cable B60R 22/1952)]
22/1955 . . . [Linear actuators]
22/1956 . . . [Mechanical triggering means therefor (also adapted for air bag inflators B60R 21/33)]
22/1957 . . . [characterised by electric actuators]
22/1958 . . . [characterised by spring actuators (B60R 22/1953 takes precedence)]
22/20 . . . adjustable in position, e.g. in height
22/201 . . . [with the belt anchor connected to a slider movable in a vehicle-mounted track (for passive restraint systems B60R 22/06)]
22/202 . . . [the slider comprising spring-actuated locking means (B60R 22/205 takes precedence)]
22/203 . . . [the locking means being movably mounted on the slider]
22/205 . . . [the slider comprising emergency actuated locking means]
22/206 . . . [Adjustable stop members for restraint systems comprising belt anchor vehicle mounted tracks, e.g. for passive seat belts]
22/207 . . . [Horizontally or transversally adjustable]
22/208 . . . [by automatic or remote control means]
22/22 . . . secured to the vehicle floor
22/24 . . . secured to the side, door, or roof of the vehicle
22/26 . . . secured to the seat
22/263 . . . [Front seats]
22/266 . . . [Rear seats, e.g. benches]
22/28 . . . incorporating energy-absorbing devices ([belt anchors provided with energy-absorbing means for protecting the occupants in case of physical contact therewith B60R 21/055; belt retractors comprising energy-absorbing means B60R 22/341, B60R 22/4676)]
22/281 . . . [for buckles]
22/282 . . . [using fluids or vico-elastic materials]
22/283 . . . [using tearing or scoring of material]
22/284 . . . [using electric or magnetic braking means]
22/285 . . . [using friction surfaces]
22/286 . . . [using deformation of material]
22/287 . . . [of torsion rods or tubes]
22/288 . . . [with means to adjust or regulate the amount of energy to be absorbed]
22/289 . . . [Energy-absorption curves]
22/30 . . . Coupling devices other than buckles, including length-adjusting fittings [or anti-slip devices (adaptations of manual three-point seat belt systems for use by small passengers using other means than belt anti-slip devices B60R 22/024; buckles A44B 11/00; releasable fastenings in general E16B)]
22/32 . . . Devices for releasing in an emergency, e.g. after an accident [Remote or automatic unbuckling devices (unlocking devices for retractors B60R 22/3416)]]
22/321 . . . [using electric means]
22/322 . . . [using automatic actuating means (B60R 22/321 takes precedence)]
B60R

22/324 . . . [triggered by strong traction on the seat belt, e.g. with temperisation]
22/325 . . . [using remote control means (B60R 22/321, B60R 22/322 take precedence)]
2022/327 . . . [using pyrotechnic means]
2022/328 . . . [comprising means for cutting the belt]
22/34 . Belt retractors, e.g. reels (anchoring devices [e.g. guide loops], with means to tension the belt in an emergency (B60R 22/195)
2022/3402 . . . [Retractor casings; Mounting thereof]
22/3405 . . . [of the non-rotary type]
22/3408 . . . [without locking means (B60R 22/3405 takes precedence)]
22/341 . . . [comprising energy-absorbing means]
22/3413 . . . [operating between belt reel and retractor frame (B60R 22/4676 takes precedence)]
22/3416 . . . [Unlocking devices for retractors (B60R 22/3405 takes precedence)]
2022/3419 . . . [with end lock preventing means]
2022/3421 . . . [with means for locking the belt reel in a non-use position, e.g. for seat mounted retractor when the seat is in a non-locked condition]
2022/3424 . . . [Multi-spool or multi-belt retractors]
2022/3427 . . . [Seat belt connection on reels]
22/343 . . . [with electrically actuated locking means (B60R 22/3405 takes precedence)]
22/347 . . . [with means for permanently locking the retractor during the wearing of the belt (B60R 22/3405, B60R 22/343, B60R 22/415 take precedence)]
2022/3475 . . . [having means for acting directly upon the belt, e.g. by clamping or friction]
22/35 . . . [the locking means being automatically actuated]
22/353 . . . [in response to belt movement when a wearer applies the belt]
2022/3535 . . . [comprising anti-cinch devices]
22/357 . . . [in response to fastening of the belt buckle]
22/36 . . . [self-locking in an emergency (B60R 22/3405, B60R 22/343 take precedence)]
22/38 . . . [responsive only to belt movement]
2022/385 . . . [with adjustable sensitivity]
22/40 . . . [responsive only to vehicle movement]
2022/401 . . . [with adjustable sensor]
2022/402 . . . [automatically adjustable to keep a vertical position, e.g. irrespective of seat or vehicle tilting]
2022/403 . . . [using externally controlled means, e.g. linked with seat back hinge]
2022/404 . . . [with remote sensor, e.g. for mounting on seat]
22/405 . . . [responsive to belt movement and vehicle movement]
22/41 . . . [with additional means for preventing locking (during unwinding) under predetermined conditions]
22/415 . . . [with additional means allowing a permanent locking of the retractor during the wearing of the belt]
22/42 . . . [having means for acting directly upon the belt, e.g. by clamping or friction (not combined with the retractor B60R 22/185)]
22/44 . . . [with means for reducing belt tension during use under normal conditions (not included in the retractor B60R 22/19; B60R 22/3405 takes precedence)]
2022/4406 . . . [Spring shapes; Spring characteristic; Springs with adjustable anchoring means]
2022/4413 . . . [by connecting the retracting spring to the belt reel by means of a transmission which decreases the spring force when the belt is pulled out, e.g. using conical pulleys]
2022/442 . . . [using one spring and one additional retraction device in parallel]
2022/4426 . . . [the additional retraction device being a second spring]
2022/4433 . . . [externally controlled]
2022/444 . . . [the additional retraction device being an electric actuator]
2022/4446 . . . [using one spring and one additional retraction device in series]
2022/4453 . . . [the additional retraction device being a second spring]
2022/446 . . . [with external control means]
2022/4466 . . . [the additional retraction device being an electric actuator]
2022/4473 . . . [using an electric retraction device (combined with a spring B60R 2022/444, B60R 2022/4466)]
2022/448 . . . [using a fluid actuated retraction device]
2022/4486 . . . [for cancelling the belt tension]
2022/4493 . . . [for braking the belt reel using friction surfaces or the like]
22/46 . . . [Reels] with means to tension the belt in an emergency (by forced winding up) (electrical circuits for triggering safety arrangements B60R 21/01 (tensioners using reels only guiding the belt during normal use, e.g. splitree B60R 22/195))
22/4604 . . . [characterised by arrangements in vehicle or relative to seat belt]
2022/4609 . . . [using a plurality of tensioners]
2022/4614 . . . [one pretensioner acting on a plurality of belts]
22/4619 . . . [Transmission of tensioning power by cable, e.g. using a clutch on reel side]
22/4623 . . . [the cable being pulled by mechanical means, e.g. pre-stressed springs, bumper displacement during crash]
22/4628 . . . [characterised by fluid actuators, e.g. pyrotechnic gas generators (actuating a cable B60R 22/4619)]
22/4633 . . . [Linear actuators, e.g. comprising a piston moving along reel axis and rotating along its own axis]
2022/4638 . . . [comprising a piston moving along or in parallel to the reel axis]
2022/4642 . . . [the gas directly propelling a flexible driving means, e.g. a plurality of successive masses, in a tubular chamber]
2022/4647 . . . [the driving means being a belt, a chain or the like]
22/4652 . . . [Mechanical triggering means therefor (also adapted for air bag inflators B60R 21/33)]
2022/4657 . . . [comprising a plurality of charges]
2022/4661 . . . [comprising venting means, e.g. for avoiding overpressure in case of fire for allowing return motion with energy absorption]
2022/4666 . . . [characterised by electric actuators]
22/4671 . . . [characterised by spring actuators
(B60R 22/4623 takes precedence)]
22/4676 . . . [comprising energy-absorbing means operating
between belt reel and retractor frame]
2022/468 . . . [characterised by clutching means between
actuator and belt reel]
2022/4685 . . . [with means to adjust or regulate the tensioning
force in relation to external parameters]
2022/469 . . . [reusable]
2022/4695 . . . [without winding function during normal use]
22/48 . . . Control systems, alarms, or interlock systems, for
the correct application of the belt or harness
2022/4808 . . . [Sensing means arrangements therefor]
2022/4816 . . . [for sensing locking of buckle]
2022/4825 . . . [for sensing amount of belt winded on
retractor]
2022/4833 . . . [for sensing locking of retractor]
2022/4841 . . . [for sensing belt tension]
2022/485 . . . [for sensing belt anchor position, belt
orientation, or the like]
2022/4858 . . . [for sensing pressure on seat]
2022/4866 . . . [Displaying or indicating arrangements thereof]
2022/4875 . . . [on vehicle exterior]
2022/4883 . . . [Interlock systems]
2022/4891 . . . [preventing use of the vehicle when the
seatsbelt is not fastened]

25/00 Fittings or systems for preventing or indicating
unauthorised use or theft of vehicles (locks for
vehicles E05B 77/00-E05B 85/00)
25/001 . . . [Anti-theft devices acting on jacking means or
props, e.g. for trailers]
25/002 . . . [Locking of control actuating or transmitting means
(of steering mechanism B60R 25/02)]
25/003 . . . [locking of control actuating means]
25/005 . . . [of foot actuated control means (rods
connecting pedals and steering wheels
B60R 25/0221)]
25/006 . . . [using means preventing access, e.g. boxes,
shutters]
25/007 . . . [of hand actuated control means]
25/008 . . . [comprising means for locking two or more
control means together, e.g. hand-brake
handle and gear shift lever]
25/01 . . . operating on vehicle systems or fittings, e.g. on
doors, seats or windscreens
25/012 . . . [Airbags triggered]
25/014 . . . [comprising means for locking the seat or parts
thereof in a driving prevention position]
25/016 . . . [comprising means for shuttering the windscreens
or part thereof]
25/018 . . . [Thief traps]
25/02 . . . operating on the steering mechanism
25/021 . . . restraining movement of the steering column
or steering wheel hub, e.g. restraining means
controlled by ignition switch
25/02102 . . . [with supplementary safety device
preventing operation of the starter of an
engine already running]
25/02105 . . . [Arrangement of the steering column
thereof]
25/02107 . . . [comprising overload clutching means]
25/0211 . . . [comprising a locking member radially and
linearly moved towards the steering column]
25/02113 . . . [manually actuated, e.g. using removable
locking means]
25/02115 . . . [key actuated]
25/02118 . . . [with linear bolt motion parallel to the
lock axis]
25/02121 . . . [comprising safety devices avoiding
locking until removal of the key]
25/02123 . . . [using an axially slidable lock
cylinder]
25/02126 . . . [with linear bolt motion perpendicular
to the lock axis]
25/02128 . . . [comprising safety devices avoiding
locking until removal of the key]
25/02131 . . . [by using an axially slidable lock
cylinder]
25/02134 . . . [comprising a locking member axially
moved along the steering column]
25/02136 . . . [manually actuated, e.g. using removable
locking members]
25/02139 . . . [key actuated]
25/02142 . . . [comprising externally controlled safety
devices for preventing locking during vehicle
running condition]
25/02144 . . . [interlocked with gear box or gear lever]
25/02147 . . . [comprising a locking member having
other than linear, axial or radial motion, e.g.
rotatable; Steering column locking using
balls, rollers or the like]
25/0215 . . . using electric means, e.g. electric motors or
solenoids
25/02153 . . . [comprising a locking member radially
and linearly moved towards the steering
column]
25/02156 . . . [comprising a locking member axially
moved along the steering column]
25/022 . . . operating on the steering wheel, e.g. bars
locked to the steering wheel rim (B60R 25/021
takes precedence)
25/0221 . . . [restraining means joining the steering wheel
with another part of the car, e.g. pedals]
25/0222 . . . [by disjoining steering wheel and column]
25/0224 . . . [restraining of steering wheel by collapsing
against column]
25/0225 . . . [using a rod locked on the steering wheel rim
(B60R 25/0221 takes precedence)]
25/0227 . . . [using means preventing access, e.g. boxes
enclosing the steering wheel (B60R 25/014
takes precedence)]
25/0228 . . . [comprising a locking bolt or fork slidable
between or around the steering wheel
spokes]
25/023 . . . Countermeasures against the physical
destruction of the steering lock
25/04 . . . operating on the propulsion system, e.g. engine or
drive motor
2025/0405 . . . [from the external]
2025/041 . . . [Preventing use of engine operating on the
fluid supply]
2025/0415 . . . [with safe immobilisation]
25/042 . . . operating on the fuel supply
25/043 . . . by blocking the exhaust
25/044 . . . by limiting or blocking the air supply
25/045 . . . by limiting or cutting the electrical supply to
the propulsion unit
Means to switch the anti-theft system on or off

using mechanical identifiers

using hidden switches

operating on the vehicle transmission

operating on brakes or brake systems

operating on the vehicle transmission

actuating a signalling device

using mechanical identifiers
combining image information with GPS information or vehicle data, e.g. vehicle speed, gyro, steering angle data

using joined images, e.g. multiple camera images

using merged images, e.g. merging camera image with stored images

merging camera image with lines or icons

using a re-scaling of images

virtually distinguishing relevant parts of a scene from the background of the scene

by overlaying the real scene, e.g. through a head-up display on the windscreen

characterised by the details of the power supply or the coupling to vehicle components

Image calibration

triggering from stand-by mode to operation mode

using wireless transmission

using a data bus

characterised by the display information being shared, e.g. external display, data transfer to other traffic participants or centralised traffic controller

characterised by monitoring and displaying vehicle exterior scenes from a transformed perspective

with an adjustable viewpoint

the adjustment being automatic

from a bird's eye viewpoint

characterised by an event-triggered choice to display a specific image among a selection of captured images

characterised by the intended use of the viewing arrangement

for monitoring and displaying scenes of vehicle interior, e.g. for monitoring passengers or cargo

for child monitoring

for monitoring and displaying vehicle exterior blind spot views

in addition to a rear-view mirror system

for pedestrian protection

for lane monitoring

for replacing a rear-view mirror system

for bad weather conditions or night vision

for aiding parking

for monitoring rearward traffic

for vehicle security, e.g. parked vehicle surveillance, burglar detection

for facilitating docking to a trailer

for vehicle path indication

for obstacle warning

Indexing scheme relating to vehicle anti-theft devices

Communication protocols, communication systems of vehicle anti-theft devices

Bluetooth

Near field communication [NFC]

Radio frequency identification data [RFID]

Internet

Encryption

Communication devices for vehicle anti-theft devices

Personal digital assistant [PDA]

Mobile phones

Satellites