

CPC COOPERATIVE PATENT CLASSIFICATION

B PERFORMING OPERATIONS; TRANSPORTING

(NOTES omitted)

TRANSPORTING

B60 VEHICLES IN GENERAL

(NOTE omitted)

B60R 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; Real-time viewing arrangements for drivers or passengers using optical image capturing systems, e.g. cameras or video systems specially adapted for use in or on vehicles	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}
1/001	. {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) }	

1/084	. . . . {using a removable filtering or hiding screen (associated with windows or windscreens B60J 3/00)}	3/00	Arrangements of steps (or ladders facilitating access to or on the vehicle), e.g. running-boards ({construction of steps for railway vehicles B61D 23/00 ; ladders E06C)
1/085	. . . . {using a combination of interchangeable reflecting surfaces, e.g. reversible mirrors}	3/002	. {Running boards (for vehicle tops B60R 3/005 ; at the sides of the vehicle for carrying loads B60R 9/02)}
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}	3/005	. {Catwalks, running boards for vehicle tops, access means for vehicle tops; Handrails therefor}
1/087	. . . . . {with remote or automatic control means}	3/007	. {Removable steps or ladders, e.g. foldable (as access means for vehicle tops B60R 3/005)}
1/088	. . . . {using a cell of electrically changeable optical characteristic, e.g. liquid-crystal or electrochromic mirrors}	3/02	. Retractable steps {or ladders, e.g. movable under shock (B60R 3/005 takes precedence)}
1/089	. . . . {using a liquid filtering layer of variable thickness}	3/04	. with provisions for shoe scraping
1/10	. Front-view mirror arrangements; {(specially 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}	5/00	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)
1/105	. . {Optical arrangements giving a view under the vehicle, e.g. using periscopes}	5/003	. {Luggage racks, e.g. for busses (primarily intended for passengers' property smaller than suitcases B60R 7/04 ; B60R 7/08 ; luggage racks for rail vehicles B61D 37/003)}
1/12	. Mirror assemblies combined with other articles, e.g. clocks	5/006	. {stowing or holding means for elongated articles, e.g. skis inside vehicles}
1/1207	. . {with lamps; with turn indicators}	5/02	. arranged at front of vehicle {(B60R 5/003 takes precedence)}
2001/1215	. . {with information displays}	5/04	. arranged at rear of vehicle {(B60R 5/003 , B60R 5/006 take precedence; external trunks arranged at rear of vehicle B60R 9/065)}
2001/1223	. . {with sensors or transducers}	5/041	. . {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)}
2001/123	. . {with thermometers}	5/042	. . . {to create an enclosed luggage compartment of increased capacity, e.g. with ventilation apertures for transporting dogs}
2001/1238	. . {with vanity mirrors}	5/044	. . {luggage covering means, e.g. parcel shelves}
2001/1246	. . {with clocks}	5/045	. . . {collapsible or transformable}
2001/1253	. . {with cameras, video cameras or video screens}	5/047	. . . . {collapsible by rolling-up}
2001/1261	. . {with antennae}	5/048	. . . . {of accordion-type, i.e. collapsible by sliding and folding}
2001/1269	. . {with sun visors}	7/00	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)
2001/1276	. . {with radio receivers, loud-speakers or buzzers}	7/005	. {Nets or elastic pockets tensioned against walls or backrests}
2001/1284	. . {with communication systems other than radio-receivers, e.g. keyless entry systems, navigation systems; with anti-collision systems}	7/02	. in separate luggage compartment {(B60R 7/005 takes precedence)}
2001/1292	. . {with holding means for personal articles}	7/04	. in driver or passenger space {, e.g. using racks (B60R 7/005 , B60R 7/08 take precedence)}
1/20	. Real-time viewing arrangements for drivers or passengers using optical image capturing systems, e.g. cameras or video systems specially adapted for use in or on vehicles	7/043	. . {mounted on or under a seat}
1/22	. . for viewing an area outside the vehicle, e.g. the exterior of the vehicle	7/046	. . {mounted on door}
1/23	. . . with a predetermined field of view	7/05	. . mounted on sun visor
1/24	. . . . in front of the vehicle	7/06	. . mounted on or below dashboards
1/25	. . . . to the sides of the vehicle	7/08	. Disposition of racks, clips {, holders, containers} or the like {for supporting specific articles (B60R 7/005 takes precedence)}
1/26	. . . . to the rear of the vehicle	7/081	. . {for supporting maps}
1/27	. . . . providing all-round vision, e.g. using omnidirectional cameras		
1/28	. . . with an adjustable field of view		
1/29	. . for viewing an area inside the vehicle, e.g. for viewing passengers or cargo		
1/30	. . providing vision in the non-visible spectrum, e.g. night or infrared vision		
1/31	. . providing stereoscopic vision		

- 7/082 . . {for supporting spectacles}
- 7/084 . . {for supporting tissues or tissue boxes}
- 7/085 . . {for supporting flowers or flower vases}
- 7/087 . . {for stowing money or valuables, e.g. using safes}
- 7/088 . . {for stowing tape cartridges, compact discs, or the like}
- 7/10 . . for supporting hats, clothes or clothes hangers
- 7/12 . . for supporting umbrellas
- 7/14 . . for supporting weapons
- 9/00 Supplementary fittings on vehicle exterior for carrying loads, e.g. luggage, sports gear or the like**
- 9/02 . . at the sides, e.g. on running-board
- 9/04 . . Carriers associated with vehicle roof ([B60R 9/08 takes precedence](#))
- 9/042 . . Carriers characterised by means to facilitate loading or unloading of the load, e.g. rollers, tracks, or the like
- 9/0423 . . . {for ladders}
- 9/0426 . . . {for small vehicles, e.g. invalid chairs, perambulators}
- 9/045 . . Carriers being adjustable or transformable, e.g. expansible, collapsible ([transformable into tents B60P 3/36; into beds B60P 3/38](#))
- 9/048 . . Carriers characterised by article-gripping {, -covering,}-retaining, or -locking means
- 9/0485 . . . {for ladders ([B60R 9/0423 takes precedence](#))}
- 9/05 . . Carriers characterised by wind deflecting means ([wind deflectors for open roofs B60J 7/22](#))
- 9/052 . . Carriers comprising elongate members extending only transversely of vehicle ([B60R 9/08 takes precedence](#))
- 9/055 . . Enclosure-type carriers, e.g. containers, boxes ([B60R 9/048 takes precedence](#))
- 9/058 . . characterised by releasable attaching means between carrier and roof
- 9/06 . . at vehicle front or rear ([rear luggage compartments within vehicle extensible externally of the vehicle body B60R 5/041](#))
- 9/065 . . {Enclosure-type carriers, e.g. trunks}
- 9/08 . . specially adapted for sports gear ([vehicles specially adapted for carrying aeroplanes, for carrying boats B60P](#))
- 9/10 . . for cycles
- 9/12 . . for skis
- 11/00 Arrangements for holding or mounting articles, not otherwise provided for**
- 2011/0001 . . {characterised by position}
- 2011/0003 . . {inside the vehicle}
- 2011/0005 . . . {Dashboard}
- 2011/0007 . . . {Mid-console}
- 2011/0008 . . . {Ventilation grilles}
- 2011/001 . . . {Vehicle control means, 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 . . . {Seat 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 . . . {with visible part, 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 . . . {Quick-disconnect 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 . . {Theft prevention of articles}
- 2011/0098 . . {using electric or electronic means, e.g. alarms, codes}
- 11/02 . . for radio sets, television sets, telephones, or the like; Arrangement of controls thereof
- 11/0205 . . {for radio sets ([B60R 11/0211 takes precedence](#))}
- 11/0211 . . {for record carriers apparatus, e.g. video recorders, tape players or CD players}
- 11/0217 . . {for loud-speakers}
- 11/0223 . . . {of flat type}
- 11/0229 . . {for displays, e.g. cathodic tubes}
- 11/0235 . . . {of flat type, e.g. LCD}
- 11/0241 . . {for telephones}
- 11/0247 . . {for microphones or earphones}

- 11/0252 . . {for personal computers, e.g. laptops, notebooks}
- 11/0258 . . {for navigation systems}
- 11/0264 . . {for control means}
- 2011/027 . . {for Din-sized apparatus}
- 2011/0276 . . {for rear passenger use}
- 2011/0282 . . {for the use of several passengers, e.g. simultaneously}
- 2011/0288 . . {Apparatus made of several modules independently mounted}
- 2011/0294 . . {Apparatus with multi-functionalities, e.g. radio and telephone}
- 11/04 . Mounting of cameras operative during drive; Arrangement of controls thereof relative to the vehicle
- 11/06 . for tools or spare parts (for vehicle roof parts [B60J 7/20](#); for spare wheels [B62D](#))
- 13/00 Elements for body-finishing, identifying, or decorating; Arrangements or adaptations for advertising purposes**
- 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 . . {made of a plurality of visible parts}
- 2013/016 . . {integrating other functions or accessories}
- 2013/018 . . {Connection or positioning of adjacent panels}
- 13/02 . {Internal} Trim mouldings {; Internal} Ledges; Wall liners {for passenger compartments}; Roof liners ([B60R 13/01](#) takes precedence {; padded linings for the vehicle interior [B60R 21/04](#); arrangements or adaptations of floor mats or carpets in vehicles [B60N 3/04](#); internal lining for trains [B61D 17/18](#))}
- 13/0206 . . {Arrangements of fasteners and clips specially adapted for attaching inner vehicle liners or mouldings (devices for fastening or securing [F16B](#))}
- 13/0212 . . {Roof or head liners (movable head-liners [B60J 7/0007](#))}
- 13/0218 . . . {supported by adhesion with the roof panel}
- 13/0225 . . . {self supporting head liners}
- 13/0231 . . . {specially adapted for roofs with openings}
- 13/0237 . . {Side or rear panels}
- 13/0243 . . . {Doors}
- 13/025 . . . {Pillars; Roof rails}
- 13/0256 . . {Dashboard liners}
- 13/0262 . . {Mid-console liners}
- 13/0268 . . {Rear parcel liners (used as luggage covering means [B60R 5/044](#))}
- 13/0275 . . {comprising removable or hinged parts (for accessing storage compartments [B60R 7/04](#); for airbag deployment [B60R 21/215](#))}
- 2013/0281 . . {made of a plurality of visible parts}
- 2013/0287 . . {integrating other functions or accessories}
- 2013/0293 . . {Connection or positioning of adjacent panels}
- 13/04 . {External} Ornamental or guard strips; Ornamental inscriptive devices {thereon (fastening strips or bars to sheets or plates by means of clips [F16B 5/12](#))}
- 13/043 . . {Door edge guards}
- 2013/046 . . {Foot boards}
- 13/06 . Sealing strips (sealing arrangements for vehicle windows, windscreens, non-fixed roofs, doors, or similar devices [B60J 10/00](#))
- 13/07 . Water drainage or guide means not integral with roof structure ([B60R 13/06](#), [B60J 10/25](#)) take precedence; {integral with roof structure [B62D 25/07](#); drainage openings having movable or removable closures [B62D 25/24](#)}
- 13/08 . Insulating elements, e.g. for sound insulation {(sound insulating linings for trains [B61D 17/185](#); drivers' cabs for load-carrying vehicles insulated against vibrations or noise [B62D 33/0604](#); thermal or acoustic insulation of engines [F02B 77/11](#); damping of sounds using compensation by electro-acoustic methods [G10K 11/178](#))}
- 2013/0807 . . {Arrangements of fasteners or clips specially adapted therefore}
- 13/0815 . . {Acoustic or thermal insulation of passenger compartments (wall or roof liners integrating the insulating function [B60R 13/02](#); insulating floor mats or carpets [B60N 3/04](#))}
- 13/0823 . . . {Insulating partitions, e.g. between front and rear seats}
- 13/083 . . . {for fire walls or floors}
- 13/0838 . . {for engine compartments}
- 13/0846 . . {for duct, cable or rod passages, e.g. between engine and passenger compartments}
- 13/0853 . . . {specially adapted for movable parts, e.g. gears levers, pedals}
- 13/0861 . . {for covering undersurfaces of vehicles, e.g. wheel houses}
- 13/0869 . . {for protecting heat sensitive parts, e.g. electronic components}
- 13/0876 . . {for mounting around heat sources, e.g. exhaust pipes}
- 13/0884 . . {for mounting around noise sources, e.g. air blowers}
- 13/0892 . . {for humidity insulation (sealing strips [B60R 13/06](#))}
- 13/10 . Registration, licensing, or like devices
- 13/105 . . {Licence- or registration plates, provided with mounting means, e.g. frames, holders, retainers, brackets}
- 15/00 Arrangements or adaptations of sanitation devices**
- 15/02 . Washing facilities {(in railway vehicles [B61D 35/002](#))}
- 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 therefor}
- 16/0222 {Grommets}

16/023	. . for transmission of signals between vehicle parts or subsystems	2019/005	. {Crash attenuators, i.e. means added to highway service vehicles for softening high speed impacts}
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 1/52 ; 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)}	2019/007	. {Means for adjusting or regulating the crash absorption capacity of the vehicle, e.g. when detecting an impending collision}
16/0232	. . . . {for measuring vehicle parameters and indicating critical, abnormal or dangerous conditions}	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 27/00 ;) integral with waterborne vessels or specially adapted therefor B63B 59/02)
16/0233	. . . . . {Vehicle tilting, overturning or roll over}	19/023	. . {Details}
16/0234	. . . . . {related to maintenance or repairing of vehicles}	2019/026	. . {Buffers, i.e. bumpers of limited extent}
16/0235	. . . . . {for lighting devices combined with starting or ignition devices for road vehicles}	19/03	. . characterised by material, e.g. composite (B60R 19/18 takes precedence)
16/0236	. . . . . {for economical driving}	19/04	. . formed from more than one section {in a side-by-side arrangement}
16/0237	. . . {circuits concerning the atmospheric environment (meteorology G01W)}	19/12	. . . vertically spaced
16/0238	. . . {Electrical distribution centers}	19/14	. . . having folding parts
16/0239	. . . {Electronic boxes}	19/16	. . . having deflecting members, e.g. rollers, balls
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)}	19/18	. . {characterised by the cross-section;} Means within the bumper to absorb impact
16/03	. . for supply of electrical power to vehicle subsystems {or for (circuit arrangements for charging batteries H02J 7/00)}	2019/1806	. . . {Structural beams therefor, e.g. shock-absorbing}
16/0307	. . . {using generators driven by a machine different from the vehicle motor}	2019/1813	. . . . {made of metal}
16/0315	. . . {using multiplexing techniques (multiplexing for transmission of signals G08C 15/00 ; multiplexing for electrical communication in general H04J)}	2019/182	. . . . . {of light metal, e.g. extruded}
2016/0322	. . . . . {Temporary code for documents to be reclassified to G08C , H04L or H04Q }	2019/1826	. . . . . {of high-tension steel}
16/033	. . . characterised by the use of electrical cells or batteries (for propulsion puposes B60K 1/04 ; supplying batteries to, or removing batteries from, vehicles B60S 5/06 ; testing of charge state G01R 31/36)	2019/1833	. . . . . {made of plastic material}
16/037	. . for occupant comfort {, e.g. for automatic adjustment of appliances according to personal settings, e.g. seats, mirrors, steering wheel}	2019/184	. . . . . {Blow moulded}
16/0373	. . . {Voice control (in general G10L)}	2019/1846	. . . . . {comprising a cellular structure}
16/04	. . Arrangement of batteries	2019/1853	. . . . . {of reinforced plastic material}
16/06	. . for removing electrostatic charges (carrying-off electrostatic charges in general H05F 3/00)	2019/186	. . . {Additional energy absorbing means supported on bumper beams, e.g. cellular structures or material}
16/08	. fluid	2019/1866	. . . . . {Cellular structures}
17/00	Arrangements or adaptations of lubricating systems or devices (lubricating in general F16N)	2019/1873	. . . . . {Cellular materials}
17/02	. Systems, e.g. central lubrication systems	2019/188	. . . . . {Blow molded structures}
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)	2019/1886	. . . {Bumper fascias and fastening means therefor}
2019/002	. {Wheel guards}	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
		2019/242	. . . {on two vertical sleeves, e.g. on energy absorber ends}
		2019/245	. . . {with adjusting means to compensate manufacturing tolerances, e.g. between bumper and energy absorbers}
		2019/247	. . . {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)
		2019/262	. . . . . {with means to adjust or regulate the amount of energy to be absorbed}
		2019/264	. . . . . {using cellular structures}
		2019/266	. . . . . {using friction surfaces}

2019/268	. . . . {with rebound preventing means, e.g. ratchets}	2021/0006	. . . {Lateral collision}
19/28	. . . . Metallic springs	2021/0009	. . . {Oblique collision}
19/285	. . . . . {comprising only leaf springs, e.g. the mounting means forming part of the guard itself}	2021/0011	. . . {Rear collision or recoiling bounce after frontal collision}
19/30	. . . . Elastomeric material {(B60R 19/34 takes precedence)}	2021/0013	. . . {Free fall}
19/32	. . . . Fluid shock absorbers {, e.g. with coaxial coil springs}	2021/0016	. . . {Fall in water}
19/34	. . . . destroyed upon impact, e.g. one-shot type	2021/0018	. . . {Roll-over}
19/36	. . . . Combinations of yieldable mounting means of different types {(fluid shock absorbers with coaxial coil springs B60R 19/32)}	2021/002	. . . {Underrun collision}
19/38	. . . . adjustably or movably mounted, e.g. horizontally displaceable for securing a space between parked vehicles {(adjustably mounted for compensating manufacturing tolerances B60R 19/24, B60R 19/26)}	2021/0023	. . . {Offset collision}
19/40	. . . . 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)}	2021/0025	. . . {Pole collision}
19/42	. . . extending primarily along the sides of, or completely encircling, a vehicle (ornamental or guard strips B60R 13/04)	2021/0027	. {Post collision measures, e.g. notifying emergency services}
19/44	. . Bumper guards	2021/003	. {characterised by occupant or pedestrian}
19/445	. . . {Guard strips}	2021/0032	. . . {Position of passenger}
19/46	. . . spring- or pivotally-mounted	2021/0034	. . . {lying down}
19/48	. . combined with, or convertible into, other devices or objects, e.g. bumpers combined with road brushes, bumpers convertible into beds	2021/0037	. . . {standing}
19/483	. . . {with obstacle sensors of electric or electronic type}	2021/0039	. . . {Body parts of the occupant or pedestrian affected by the accident}
2019/486	. . . {with air passages, e.g. for cooling}	2021/0041	. . . {Arms}
19/50	. . . with lights or registration plates	2021/0044	. . . {Chest}
2019/505	. . . . {with lights}	2021/0046	. . . {Feet}
19/52	. Radiator or grille guards {; Radiator grilles (cooling aspects B60K 11/08)}	2021/0048	. . . {Head}
2019/522	. . {Bull bars}	2021/0051	. . . {Knees}
2019/525	. . {Radiator grilles}	2021/0053	. . . {Legs}
2019/527	. . . {integral with bumpers}	2021/0055	. . . {Pelvis}
19/54	. Obstruction removers or deflectors (B60R 19/16, B60R 21/34 take precedence)	2021/0058	. . . {Shoulders}
19/545	. . {Devices for cutting wire-type obstructions}	2021/006	. . {Type of passenger}
19/56	. {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	2021/0062	. . . {woman, e.g. pregnant}
19/565	. . {on vehicle sides}	2021/0065	. {Type of vehicles}
21/00	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; 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)	2021/0067	. . {Buses}
2021/0002	. {Type of accident}	2021/0069	. . {Trailers, e.g. caravans}
2021/0004	. . {Frontal collision}	2021/0072	. . {Convertible cars}
		2021/0074	. . {Utility vehicles}
		2021/0076	. . . {Agricultural vehicles, e.g. tractors}
		2021/0079	. . . {Fork-lift trucks}
		2021/0081	. . . {Working vehicles}
		2021/0083	. . . {Pick-up trucks; Light trucks; Sport utility vehicles}
		2021/0086	. . {Racing cars}
		2021/0088	. . {Cycles, e.g. motorcycles}
		2021/009	. . {Railway vehicles}
		2021/0093	. . {Aircraft}
		2021/0095	. . {Boats}
		2021/0097	. . {Amusement vehicles}
		21/01	. 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)}
		2021/01006	. . {Mounting of electrical components in vehicles}
		2021/01013	. . {Means for detecting collision, impending collision or roll-over}
		2021/0102	. . . {the monitored value being used for calculating occupant displacement}
		2021/01027	. . . {Safing sensors}
		2021/01034	. . {Controlling a plurality of restraint devices}
		2021/0104	. . {Communication circuits for data transmission}
		2021/01047	. . . {Architecture}
		2021/01054	. . . . {Bus}

2021/01061	{between the airbag system and other vehicle electronic systems}	21/01332	{by frequency or waveform analysis}
2021/01068	{between different sensors and airbag control unit}	21/01334	{using Fourier analysis}
2021/01075	{between the airbag control unit and pyrotechnic fuses or equivalent actuators}	21/01336	{using filtering}
2021/01081	{Transmission medium}	21/01338	{using vector analysis}
2021/01088	{wireless}	21/0134	responsive to imminent contact with an obstacle {, e.g. using radar systems}
2021/01095	{optical}	2021/01345	{using mechanical sensing means}
2021/01102	{Transmission method}	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)}
2021/01109	{power and data signal using transmission medium}	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}
2021/01115	{specific data frames}	21/01504	{detecting bag displacement}
2021/01122	{Prevention of malfunction}	21/01508	{detecting forces or pressure in bags or modules}
2021/01129	{Problems or faults}	21/01512	{Passenger detection systems}
2021/01136	{Cut lines}	21/01516	{using force or pressure sensing means}
2021/01143	{Short circuits}	21/0152	{using strain gauges}
2021/0115	{Current leakage}	21/01522	{using fluid means}
2021/01156	{Current or voltage overload}	21/01524	{using electric switches}
2021/01163	{Insufficient current or voltage}	21/01526	{using piezoelectric elements}
2021/0117	{Noise}	21/01528	{mounted on the bag}
2021/01177	{Misdeployment, e.g. during assembly, disassembly, accident salvage or recycling}	21/0153	{using field detection presence sensors}
2021/01184	{Fault detection or diagnostic circuits}	21/01532	{using electric or capacitive field sensors}
2021/0119	{Plausibility check}	21/01534	{using electromagnetic waves, e.g. infrared}
2021/01197	{Warning devices}	21/01536	{using ultrasonic waves}
2021/01204	{Actuation parameters of safety arrangements}	21/01538	{for image processing, e.g. cameras or sensor arrays}
2021/01211	{Expansion of air bags}	21/0154	{in combination with seat heating}
2021/01218	{control of expansion speed}	21/01542	{detecting passenger motion}
2021/01225	{control of expansion volume}	21/01544	{detecting seat belt parameters, e.g. length, tension or height-adjustment}
2021/01231	{control of expansion timing or sequence}	21/01546	{using belt buckle sensors}
2021/01238	{control of expansion shape}	21/01548	{sensing the amount of belt wound on retractor}
2021/01245	{selection of seat for bag expansion}	21/0155	{sensing belt tension}
2021/01252	{Devices other than bags}	21/01552	{detecting position of specific human body parts, e.g. face, eyes or hands}
2021/01259	{Brakes}	21/01554	{Seat position sensors}
2021/01265	{Seat belts}	21/01556	{Child-seat detection systems}
2021/01272	{Belt tensioners}	21/01558	{monitoring crash strength}
2021/01279	{Load limiters}	21/0156	{by deceleration}
2021/01286	{Electronic control units}	21/01562	{by speed}
2021/01293	{programmable for use in different vehicles or with different airbags configurations}	21/01564	{Manually or key-actuated inhibition switches}
21/013	including means for detecting collisions, impending collisions or roll-over	21/01566	{Devices for warning or indicating mode of inhibition}
2021/01302	{monitoring vehicle body vibrations or noise}	21/017	including arrangements for providing electric power to safety arrangements {or their actuating means, e.g. to pyrotechnic fuses or electro-mechanic valves}
2021/01304	{monitoring rough road condition}	21/0173	{Diagnostic or recording means therefor}
2021/01306	{monitoring vehicle inclination}	21/0176	{for firing circuits using only mechanical switches as collision detecting means, in series with pyrotechnic fuses}
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}		

- 21/02 . . . 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](#))}
- 2021/0206 . . . {Self-supporting restraint systems, e.g. restraining arms, plates or the like}
- 2021/0213 . . . {mounted on floor}
- 2021/022 . . . {mounted on seats}
- 2021/0226 . . . {mounted on fire wall}
- 2021/0233 . . . {mounted on steering-wheel}
- 2021/024 . . . {mounted on dash-board}
- 2021/0246 . . . {mounted on side walls}
- 2021/0253 . . . {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 initiating means, e.g. gear lever, pedals ([B60R 21/09](#) takes precedence; padded linings for 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 21/026](#)}, [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}
- 2021/134 {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](#); [assembly 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

B60R

21/206	. . . . .	in the lower part of dashboards, e.g. for protecting the knees	2021/2177	. . . . .	{Reaction canisters characterised by material}
21/207	. . . . .	in vehicle seats	2021/2178	. . . . .	{Plastic}
21/2072	. . . . .	{in children's seats}	21/23	. . . . .	Inflatable members (B60R 21/18 takes precedence; connection to inflation fluid source retainers B60R 21/217)
2021/2074	. . . . .	{in head rests}	21/231	. . . . .	characterised by their shape, construction or spatial configuration
2021/2076	. . . . .	{Removable covers with tear seams}	2021/23107	. . . . .	{the bag being integrated in a multi-bag system}
2021/2078	. . . . .	{in rear seats}	2021/23115	. . . . .	{with inflatable support compartments creating an internal suction volume}
21/21	. . . . .	in vehicle side panels, e.g. doors (pillar mounted arrangements B60R 21/213)	2021/23123	. . . . .	{Heat protection panels}
21/213	. . . . .	in vehicle roof frames or pillars	2021/2313	. . . . .	{comprising sensitive compartments}
21/214	. . . . .	in roof panels	21/23138	. . . . .	{specially adapted for side protection (B60R 21/23184, B60R 21/232 take precedence)}
21/215	. . . . .	characterised by the covers for the inflatable member {(B60R 21/2176 takes precedence)}	2021/23146	. . . . .	{seat mounted}
2021/21506	. . . . .	{comprising tearing tabs, legs or the like for holding the lid before deployment}	2021/23153	. . . . .	{specially adapted for rear seat passengers}
2021/21512	. . . . .	{the lid being displaced towards the occupant during deployment (B60R 2021/2161, B60R 2021/21525 take precedence)}	2021/23161	. . . . .	{specially adapted for protecting at least two passengers, e.g. preventing them from hitting each other}
2021/21518	. . . . .	{comprising a lock unlocked during deployment}	2021/23169	. . . . .	{specially adapted for knee protection}
2021/21525	. . . . .	{the lid being fixed on the bag, or forming part of the bag wall, or the bag itself being used as wall liner}	2021/23176	. . . . .	{specially adapted for foot protection}
2021/21531	. . . . .	{using a stretchable wall liner}	21/23184	. . . . .	{Tubular air bags connected to the vehicle at their two extremities}
2021/21537	. . . . .	{characterised by hinges}	2021/23192	. . . . .	{Roof bags, i.e. protecting the occupant in a roll-over situation}
2021/21543	. . . . .	{with emblems}	21/232	. . . . .	Curtain-type airbags deploying mainly in a vertical direction from their top edge
21/2155	. . . . .	with complex motion of the cover; Retraction under the lining during opening	21/233	. . . . .	comprising a plurality of individual compartments; comprising two or more bag-like members, one within the other (B60R 21/232 takes precedence)
21/216	. . . . .	comprising tether means for limitation of cover motion during deployment	2021/23308	. . . . .	{the individual compartments defining the external shape of the bag}
2021/2161	. . . . .	{the cover being displaced towards the occupant during deployment}	2021/23316	. . . . .	{Inner seams, e.g. creating separate compartments or used as tethering means}
2021/2163	. . . . .	{with energy absorbing or elastic means}	2021/23324	. . . . .	{Inner walls crating separate compartments, e.g. communicating with vents}
21/2165	. . . . .	characterised by a tear line for defining a deployment opening	2021/23332	. . . . .	{using independent bags, one within the other}
2021/21652	. . . . .	{the tearing being done or assisted by cutters}	21/2334	. . . . .	Expansion control features
2021/21654	. . . . .	{the tearing being done or assisted by heating or pyrotechnic means}	21/2338	. . . . .	Tethers
21/21656	. . . . .	{Steering wheel covers or similar cup-shaped covers}	2021/23382	. . . . .	{Internal tether means}
21/21658	. . . . .	{with integrated switches, e.g. horn switches}	2021/23384	. . . . .	{having ends which are movable or detachable during deployment}
21/217	. . . . .	Inflation fluid source retainers, e.g. reaction canisters; Connection of bags, covers, diffusers or inflation fluid sources therewith or together	2021/23386	. . . . .	{External tether means}
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 21/2176 takes precedence)}	2021/23388	. . . . .	{having ends which are movable or detachable during deployment}
2021/2172	. . . . .	{the cover being connected to the surrounding part and to the module, e.g. floating mounts}	21/2342	. . . . .	Tear seams
2021/2173	. . . . .	{the module or part thereof being movably mounted on the vehicle}	21/2346	. . . . .	Soft diffusers
2021/2175	. . . . .	{using energy absorbing means}	21/235	. . . . .	characterised by their material
21/2176	. . . . .	{the air bag components being completely enclosed in a soft or semi-rigid housing or cover}	2021/23504	. . . . .	{characterised by material}
			2021/23509	. . . . .	{Fabric}
			2021/23514	. . . . .	{coated fabric}
			2021/23519	. . . . .	{Resin}
			2021/23523	. . . . .	{Composite}
			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}
- 2021/23576 {Sewing}
- 2021/2358 {Bonding}
- 2021/23585 {Vulcanisation}
- 2021/2359 {Welding}
- 2021/23595 {Sealing}
- 21/237 characterised by the way they are folded
- 2021/2375 {Folding devices}
- 21/239 characterised by their venting means
- 2021/2395 {comprising means to control the venting}
- 21/26 characterised by the inflation fluid source or means to control inflation fluid flow {arrangement or mounting thereof to the vehicle [B60R 21/20](#); blasting cartridges for producing gas under pressure in general [F42B 3/04](#); initiators or igniters therefor [F42B 3/10](#)}
- 21/26005 {the inflation fluid being transferred to the inflatable member by the mechanical deformation of the fluid container during an impact}
- 2021/26011 {using a filter through which the inflation gas passes}
- 2021/26017 {a cooling agent being added to the inflation fluid}
- 2021/26023 {for filling the bag with foam}
- 2021/26029 {Igniters}
- 2021/26035 {triggered by mechanical means}
- 2021/26041 {of elongated shape}
- 2021/26047 {of film shape}
- 2021/26052 {using fluid materials}
- 2021/26058 {using a combination of inflators}
- 2021/26064 {characterised by auto-ignition means}
- 2021/2607 {characterised by heating or heat insulating means, e.g. for use under extreme temperatures}
- 2021/26076 {characterised by casing}
- 2021/26082 {Material}
- 2021/26088 {Plastic}
- 2021/26094 {characterised by fluid flow controlling valves}
- 21/261 with means other than bag structure to diffuse or guide inflation fluid
- 2021/2612 {Gas guiding means, e.g. ducts}
- 2021/2615 {for diverting the gas into a plurality of bags}
- 2021/2617 {Curtain bag nozzles}
- 21/262 Elongated tubular diffusers, e.g. curtain-type
- 21/263 using a variable source, e.g. plural stage or controlled output ([hybrid inflators B60R 21/272](#))
- 2021/2633 {with a plurality of inflation levels}
- 2021/2636 {The volume of gas being continuously adjustable}
- 21/264 using instantaneous generation of gas, e.g. pyrotechnic ([B60R 21/268](#) takes precedence)
- 2021/2642 {comprising a plurality of combustion chambers or sub-chambers}
- 21/2644 {using only solid reacting substances, e.g. pellets, powder}
- 21/2646 {the reacting substances being supported by the inflatable member walls, or by a flexible support within it}
- 2021/2648 {comprising a plurality of combustion chambers or sub-chambers}
- 21/268 using instantaneous release of stored pressurised gas {([B60R 21/26005](#) takes precedence)}
- 2021/2685 {comprising a plurality of pressure chambers}
- 21/272 with means for increasing the pressure of the gas just before or during liberation, e.g. hybrid inflators
- 2021/2725 {using a fluid fuel gas generator}
- 21/274 characterised by means to rupture or open the fluid source
- 21/276 with means to vent the inflation fluid source, e.g. in case of overpressure {([B60R 21/30](#) takes precedence; venting means on inflatable member walls [B60R 21/239](#))}
- 2021/2765 {comprising means to control the venting}
- 21/30 with means to draw ambient air into the flow line and mix such air with the inflation fluid
- 21/33 Arrangements for non-electric triggering of inflation ([electrical circuits for triggering safety arrangements B60R 21/01](#))
- 2021/335 {Connections between collision detecting means and inflators using pyrotechnic transmission lines}
- 21/34 Protecting non-occupants of a vehicle, e.g. pedestrians {([B60R 19/02](#) takes precedence)}
- 2021/343 {using deformable body panel, bodywork or components}
- 2021/346 {means outside vehicle body}
- 21/36 using airbags
- 21/38 using means for lifting bonnets
- 22/00 Safety belts or body harnesses in vehicles (safety belts or body harnesses in general [A62B 35/00](#))**
- 22/001 {Knee, leg or head belts}
- 2022/003 {for restraining detainees}
- 2022/005 {for restraining luggages}
- 2022/006 {Sleeve or tubular members enveloping the seat belt for enhancing comfort or protection}
- 2022/008 {Belts; Fixing thereof specially adapted for pregnant users}
- 22/02 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](#))}
- 2022/021 {Means for holding the tongue or buckle in a non-use position, e.g. for easy access by the user}

B60R

- 22/022 . . {with means for facilitating access to rear seats in two-door cars}
- 22/023 . . {Three-point seat belt systems comprising two side lower and one side upper anchoring devices ([B60R 22/022](#), [B60R 22/03](#) take precedence)}
- 22/024 . . . {Adaptations for use by small passengers, e.g. children ([B60R 22/20](#) takes precedence; using belt anti-slip devices [B60R 22/30](#))}
- 2022/025 . . . {Adaptations for use with children seats or luggages}
- 2022/026 . . . {at least two ends of the belt being retractable after use}
- 2022/027 . . {Four-point seat belt systems, e.g. with the two upper points connected together}
- 2022/028 . . {specially adapted for use in sleeping position, e.g. for reclining seats}
- 2022/029 . . {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 slidable 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 22/022](#)} - [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 21/02](#))}
- 22/16 . . using belts which become permanently deformed, i.e. one time use
- 22/18 . Anchoring devices
- 2022/1806 . . {for buckles}
- 2022/1812 . . {Connections between seat belt and buckle tongue}
- 2022/1818 . . {Belt guides}
- 2022/1825 . . . {using rollers}
- 2022/1831 . . . {comprising a slotted plate sliding in its plane, e.g. inside circular guides}
- 2022/1837 . . . {comprising a universal mounting, e.g. spherical or cardan-type}
- 2022/1843 . . . {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](#))}
- 2022/1957 . . . {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}
- 2022/207 . . . {Horizontally or transversally adjustable}
- 2022/208 . . . {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
- 2022/263 . . . {Front seats}
- 2022/266 . . . {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](#))}
- 2022/281 . . {for buckles}
- 2022/282 . . {using fluids or vico-elastic materials}
- 2022/283 . . {using tearing or scoring of material}
- 2022/284 . . {using electric or magnetic braking means}
- 2022/285 . . {using friction surfaces}
- 2022/286 . . {using deformation of material}
- 2022/287 . . . {of torsion rods or tubes}

2022/288	. . {with means to adjust or regulate the amount of energy to be absorbed}	2022/404	. . . . {with remote sensor, e.g. for mounting on seat}
2022/289	. . {Energy-absorption curves}	22/405	. . . responsive to belt movement and vehicle movement
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 F16B)}	22/41	. . . with additional means for preventing locking {during unwinding} under predetermined conditions
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)}	22/415	. . . with additional means allowing a permanent locking of the retractor during the wearing of the belt
22/321	. . {using electric means}	22/42	. . . having means for acting directly upon the belt, e.g. by clamping or friction {(not combined with the retractor B60R 22/185)}
22/322	. . {using automatic actuating means (B60R 22/321 takes precedence)}	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)}
22/324	. . . {triggered by strong traction on the seat belt, e.g. with temporisation}	2022/4406	. . . {Spring shapes; Spring characteristic; Springs with adjustable anchoring means}
22/325	. . {using remote control means (B60R 22/321 , B60R 22/322 take precedence)}	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}
2022/327	. . {using pyrotechnic means}	2022/442	. . . {using one spring and one additional retraction device in parallel}
2022/328	. . {comprising means for cutting the belt}	2022/4426	. . . . {the additional retraction device being a second spring}
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)	2022/4433	. . . . . {externally controlled}
2022/3402	. . {Retractor casings; Mounting thereof}	2022/444	. . . . {the additional retraction device being an electric actuator}
22/3405	. . {of the non-rotary type}	2022/4446	. . . {using one spring and one additional retraction device in series}
22/3408	. . {without locking means (B60R 22/3405 takes precedence)}	2022/4453	. . . . {the additional retraction device being a second spring}
22/341	. . {comprising energy-absorbing means}	2022/446	. . . . . {with external control means}
22/3413	. . . {operating between belt reel and retractor frame (B60R 22/4676 takes precedence)}	2022/4466	. . . . {the additional retraction device being an electric actuator}
22/3416	. . {Unlocking devices for retractors (B60R 22/3405 takes precedence)}	2022/4473	. . . {using an electric retraction device}
2022/3419	. . {with end lock preventing means}	2022/448	. . . {using a fluid actuated retraction device}
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}	2022/4486	. . . {for cancelling the belt tension}
2022/3424	. . {Multi-spool or multi-belt retractors}	2022/4493	. . . {for braking the belt reel using friction surfaces or the like}
2022/3427	. . {Seat belt connection on reels}	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. splitted reels B60R 22/195)
22/343	. . with electrically actuated locking means {(B60R 22/3405 takes precedence)}	22/4604	. . . {characterised by arrangements in vehicle or relative to seat belt}
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)	2022/4609	. . . . {using a plurality of tensioners}
2022/3475	. . . {having means for acting directly upon the belt, e.g. by clamping or friction}	2022/4614	. . . . {one pretensioner acting on a plurality of belts}
22/35	. . . the locking means being automatically actuated	22/4619	. . . {Transmission of tensioning power by cable, e.g. using a clutch on reel side}
22/353	. . . . in response to belt movement when a wearer applies the belt	22/4623	. . . . {the cable being pulled by mechanical means, e.g. pre-stressed springs, bumper displacement during crash}
2022/3535	. . . . . {comprising anti-cinch devices}	22/4628	. . . {characterised by fluid actuators, e.g. pyrotechnic gas generators (actuating a cable B60R 22/4619)}
22/357	. . . . in response to fastening of the belt buckle	22/4633	. . . . {Linear actuators, e.g. comprising a piston moving along reel axis and rotating along its own axis}
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}		

2022/4638	. . . . . {comprising a piston moving along or in parallel to the reel axis}	25/016	. . . {comprising means for shuttering the windscreen or part thereof}
2022/4642	. . . . . {the gas directly propelling a flexible driving means, e.g. a plurality of successive masses, in a tubular chamber}	25/018	. . . {Thief traps}
2022/4647	. . . . . {the driving means being a belt, a chain or the like}	25/02	. . . operating on the steering mechanism
22/4652	. . . . . {Mechanical triggering means therefor (also adapted for air bag inflators B60R 21/33)}	25/021	. . . . . restraining movement of the steering column or steering wheel hub, e.g. restraining means controlled by ignition switch
2022/4657	. . . . . {comprising a plurality of charges}	25/02102	. . . . . {with supplementary safety device preventing operation of the starter of an engine already running}
2022/4661	. . . . . {comprising venting means, e.g. for avoiding overpressure in case of fire or for allowing return motion with energy absorption}	25/02105	. . . . . {Arrangement of the steering column thereof}
2022/4666	. . . . . {characterised by electric actuators}	25/02107	. . . . . {comprising overload clutching means}
22/4671	. . . . . {characterised by spring actuators (B60R 22/4623 takes precedence)}	25/0211	. . . . . {comprising a locking member radially and linearly moved towards the steering column}
22/4676	. . . . . {comprising energy-absorbing means operating between belt reel and retractor frame}	25/02113	. . . . . {manually actuated, e.g. using removable locking means}
2022/468	. . . . . {characterised by clutching means between actuator and belt reel}	25/02115	. . . . . {key actuated}
2022/4685	. . . . . {with means to adjust or regulate the tensioning force in relation to external parameters}	25/02118	. . . . . {with linear bolt motion parallel to the lock axis}
2022/469	. . . . . {reusable}	25/02121	. . . . . {comprising safety devices avoiding locking until removal of the key}
2022/4695	. . . . . {without winding function during normal use}	25/02123	. . . . . {using an axially slidable lock cylinder}
22/48	. . . . . Control systems, alarms, or interlock systems, for the correct application of the belt or harness	25/02126	. . . . . {with linear bolt motion perpendicular to the lock axis}
2022/4808	. . . . . {Sensing means arrangements therefor}	25/02128	. . . . . {comprising safety devices avoiding locking until removal of the key}
2022/4816	. . . . . {for sensing locking of buckle}	25/02131	. . . . . {by using an axially slidable lock cylinder}
2022/4825	. . . . . {for sensing amount of belt winded on retractor}	25/02134	. . . . . {comprising a locking member axially moved along the steering column}
2022/4833	. . . . . {for sensing locking of retractor}	25/02136	. . . . . {manually actuated, e.g. using removable locking members}
2022/4841	. . . . . {for sensing belt tension}	25/02139	. . . . . {key actuated}
2022/485	. . . . . {for sensing belt anchor position, belt orientation, or the like}	25/02142	. . . . . {comprising externally controlled safety devices for preventing locking during vehicle running condition}
2022/4858	. . . . . {for sensing pressure on seat}	25/02144	. . . . . {interlocked with gear box or gear lever}
2022/4866	. . . . . {Displaying or indicating arrangements thereof}	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}
2022/4875	. . . . . {on vehicle exterior}	25/0215	. . . . . using electric means, e.g. electric motors or solenoids
2022/4883	. . . . . {Interlock systems}	25/02153	. . . . . {comprising a locking member radially and linearly moved towards the steering column}
2022/4891	. . . . . {preventing use of the vehicle when the seatbelt is not fastened}	25/02156	. . . . . {comprising a locking member axially moved along the steering column}
25/00	Fittings or systems for preventing or indicating unauthorised use or theft of vehicles (locks for vehicles E05B 77/00-E05B 85/00)	25/022	. . . . . operating on the steering wheel, e.g. bars locked to the steering wheel rim (B60R 25/021 takes precedence)
25/001	. . . . . {Anti-theft devices acting on jacking means or props, e.g. for trailers}	25/0221	. . . . . {restraining means joining the steering wheel with another part of the car, e.g. pedals}
25/002	. . . . . {Locking of control actuating or transmitting means (of steering mechanism B60R 25/02)}	25/0222	. . . . . {by disjoining steering wheel and column}
25/003	. . . . . {locking of control actuating means}	25/0224	. . . . . {restraining of steering wheel by collapsing against column}
25/005	. . . . . {of foot actuated control means (rods connecting pedals and steering wheels B60R 25/0221)}	25/0225	. . . . . {using a rod locked on the steering wheel rim (B60R 25/0221 takes precedence)}
25/006	. . . . . {using means preventing access, e.g. boxes, shutters}	25/0227	. . . . . {using means preventing access, e.g. boxes enclosing the steering wheel (B60R 25/014 takes precedence)}
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 windcreens		
25/012	. . . . . {Airbags triggered}		
25/014	. . . . . {comprising means for locking the seat or parts thereof in a driving prevention position}		

25/0228	. . . . {comprising a locking bolt or fork slidable between or around the steering wheel spokes}	25/2009	. . {Antitheft state indicator}
25/023	. . . Countermeasures against the physical destruction of the steering lock	25/2018	. . {Central base unlocks or authorises unlocking}
25/04	. . operating on the propulsion system, e.g. engine or drive motor	25/2027	. . {with data signals passing through the human body}
2025/0405	. . . {from the external}	25/2036	. . {by using the door logic and door and engine unlock means}
2025/041	. . . {Preventing use of engine operating on the fluid supply}	25/2045	. . {by hand gestures}
2025/0415	. . . {with safe immobilisation}	25/2054	. . {by foot gestures}
25/042	. . . operating on the fuel supply	25/2063	. . {Ignition switch geometry}
25/043	. . . by blocking the exhaust	25/2072	. . {with means for preventing jamming or interference of a remote switch control signal}
25/044	. . . by limiting or blocking the air supply	25/2081	. . {combined with personal settings of other vehicle devices, e.g. mirrors, seats, steering wheels}
25/045	. . . by limiting or cutting the electrical supply to the propulsion unit	25/209	. . {Remote starting of engine}
25/06	. . . operating on the vehicle transmission	25/21	. . using hidden switches
25/063	. . . . {Locking of foot actuated control actuating means}	25/22	. . using mechanical identifiers
25/066	. . . . {Locking of hand actuated control actuating means}	25/225	. . . {key in lock presence switch}
25/08	. . operating on brakes or brake systems	25/23	. . using manual input of alphanumeric codes
25/083	. . . {Locking of foot-actuated control actuating means}	25/24	. . using electronic identifiers containing a code not memorised by the user
25/086	. . . {Locking of hand-actuated control actuating means}	25/241	. . . {whereby access privileges are related to the identifiers}
25/09	. . by restraining wheel rotation, e.g. wheel clamps	25/243	. . . {with more than one way to gain access}
25/093	. . . {comprising ground-engaging means}	25/245	. . . {where the antenna reception area plays a role}
25/096	. . . {comprising means for deflating tyres}	25/246	. . . {characterised by the challenge triggering}
25/10	. actuating a signalling device	25/248	. . . {Electronic key extraction prevention}
25/1001	. . {Alarm systems associated with another car fitting or mechanism, e.g. door lock or knob, pedals (features related to the general power supply B60R 25/1018)}	25/25	. . using biometry
25/1003	. . {Alarm systems characterised by arm or disarm features}	25/252	. . . {Fingerprint recognition}
25/1004	. . {Alarm systems characterised by the type of sensor, e.g. current sensing means (using door lock sensors B60R 25/1001)}	25/255	. . . {Eye recognition}
25/1006	. . . {Mechanical sensors, e.g. pendulums (B60R 25/101 takes precedence)}	25/257	. . . {Voice recognition}
25/1007	. . . . {comprising associated circuitry}	25/30	. Detection related to theft or to other events relevant to anti-theft systems
25/1009	. . . {Sonic sensors; Signal treatment therefor}	25/302	. . {using recording means, e.g. black box}
25/101	. . . {Fuel level sensors}	25/305	. . {using a camera}
25/1012	. . . {Zone surveillance means, e.g. parking lots, truck depots}	25/307	. . {using data concerning maintenance or configuration}
2025/1013	. . {Alarm systems characterised by the type of warning signal, e.g. visual, audible}	25/31	. . of human presence inside or outside the vehicle
2025/1015	. . . {Signal coming from the exhaust}	25/32	. . of vehicle dynamic parameters, e.g. speed or acceleration
2025/1016	. . . {Remote signals alerting owner or authorities, e.g. radio signals}	25/33	. . of global position, e.g. by providing GPS coordinates
25/1018	. . {Alarm systems characterised by features related to the general power supply}	25/34	. . of conditions of vehicle components, e.g. of windows, door locks or gear selectors
25/102	. . a signal being sent to a remote location, e.g. a radio signal being transmitted to a police station, a security company or the owner	25/40	. Features of the power supply for the anti-theft system, e.g. anti-theft batteries, back-up power supply or means to save battery power
25/1025	. . . {preventing jamming or interference of said signal}	25/403	. . {Power supply in the vehicle}
25/104	. . characterised by the type of theft warning signal, e.g. visual or audible signals with special characteristics	25/406	. . {Power supply in the remote key}
25/1045	. . . {Signal coming from the exhaust}	99/00	Subject matter not provided for in other groups of this subclass
25/20	. Means to switch the anti-theft system on or off	2099/005	. {Protections against martens or rodents}
		2225/00	Means indicating the functioning state of the alarm system, e.g. indicating arming, using leds
		2300/00	Details of viewing arrangements using cameras and displays, specially adapted for use in a vehicle
		2300/10	. characterised by the type of camera system used
		2300/101	. . using cameras with adjustable capturing direction
		2300/102	. . using 360 degree surveillance camera system
		2300/103	. . using camera systems provided with artificial illumination device, e.g. IR light source
		2300/105	. . using multiple cameras

B60R

- 2300/106 . . using night vision cameras
- 2300/107 . . using stereoscopic cameras
- 2300/108 . . using 'non-standard' camera systems, e.g. camera sensor used for additional purposes i.a. rain sensor, camera sensor split in multiple image areas
- 2300/20 . characterised by the type of display used
- 2300/202 . . displaying a blind spot scene on the vehicle part responsible for the blind spot
- 2300/205 . . using a head-up display
- 2300/207 . . using multi-purpose displays, e.g. camera image and navigation or video on same display
- 2300/30 . characterised by the type of image processing
- 2300/301 . . combining image information with other obstacle sensor information, e.g. using RADAR/LIDAR/SONAR sensors for estimating risk of collision
- 2300/302 . . combining image information with GPS information or vehicle data, e.g. vehicle speed, gyro, steering angle data
- 2300/303 . . using joined images, e.g. multiple camera images
- 2300/304 . . using merged images, e.g. merging camera image with stored images
- 2300/305 . . . merging camera image with lines or icons
- 2300/306 . . using a re-scaling of images
- 2300/307 . . virtually distinguishing relevant parts of a scene from the background of the scene
- 2300/308 . . . by overlaying the real scene, e.g. through a head-up display on the windscreen
- 2300/40 . characterised by the details of the power supply or the coupling to vehicle components
- 2300/402 . . Image calibration
- 2300/404 . . triggering from stand-by mode to operation mode
- 2300/406 . . using wireless transmission
- 2300/408 . . using a data bus
- 2300/50 . characterised by the display information being shared, e.g. external display, data transfer to other traffic participants or centralised traffic controller
- 2300/60 . characterised by monitoring and displaying vehicle exterior scenes from a transformed perspective
- 2300/602 . . with an adjustable viewpoint
- 2300/605 . . . the adjustment being automatic
- 2300/607 . . from a bird's eye viewpoint
- 2300/70 . characterised by an event-triggered choice to display a specific image among a selection of captured images
- 2300/80 . characterised by the intended use of the viewing arrangement
- 2300/8006 . . for monitoring and displaying scenes of vehicle interior, e.g. for monitoring passengers or cargo
- 2300/8013 . . . for child monitoring
- 2300/802 . . for monitoring and displaying vehicle exterior blind spot views
- 2300/8026 . . . in addition to a rear-view mirror system
- 2300/8033 . . for pedestrian protection
- 2300/804 . . for lane monitoring
- 2300/8046 . . for replacing a rear-view mirror system
- 2300/8053 . . for bad weather conditions or night vision
- 2300/806 . . for aiding parking
- 2300/8066 . . for monitoring rearward traffic
- 2300/8073 . . for vehicle security, e.g. parked vehicle surveillance, burglar detection
- 2300/808 . . for facilitating docking to a trailer
- 2300/8086 . . for vehicle path indication
- 2300/8093 . . for obstacle warning
- 2325/00 Indexing scheme relating to vehicle anti-theft devices**
- 2325/10 . Communication protocols, communication systems of vehicle anti-theft devices
- 2325/101 . . Bluetooth®
- 2325/103 . . Near field communication [NFC]
- 2325/105 . . Radio frequency identification data [RFID]
- 2325/106 . . Internet
- 2325/108 . . Encryption
- 2325/20 . Communication devices for vehicle anti-theft devices
- 2325/202 . . Personal digital assistant [PDA]
- 2325/205 . . Mobile phones
- 2325/207 . . Satellites
- 2325/30 . Vehicles applying the vehicle anti-theft devices
- 2325/302 . . Airplanes
- 2325/304 . . Boats
- 2325/306 . . Motorcycles
- 2325/308 . . Industrial vehicles
- 2325/40 . Programmable elements