

**CPC****COOPERATIVE PATENT CLASSIFICATION****B60R****VEHICLES, VEHICLE FITTINGS, OR VEHICLE PARTS, NOT OTHERWISE PROVIDED FOR****NOTE**

Attention is drawn to the Note following the title of class [B60](#)

**B60R 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 per se [G02B](#))

**B60R 1/001**

- . {integrated in the windows, e.g. Fresnel lenses}

**B60R 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](#))}

**B60R 1/003**

- .. {for viewing trailer hitches}

**B60R 1/005**

- . {specially adapted for viewing traffic-lights}

**B60R 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](#))}

**B60R 1/007**

- .. {specially adapted for covering the lateral blind spot not covered by the usual rear-view mirror}

**B60R 1/008**

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

**B60R 1/02**

- . Rear-view mirror arrangements( [periscope arrangements B60R 1/10](#))

**B60R 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}

**B60R 1/04**

- .. mounted inside vehicle{( [B60R 1/025](#) , [B60R 1/08](#) take precedence )}

**B60R 1/06**

- .. mounted on vehicle exterior{( [B60R 1/025](#) , [B60R 1/08](#) take precedence )}

**B60R 1/0602**

- ... {comprising means for cleaning or deicing}

**B60R 1/0605**

- ... {specially adapted for mounting on trucks, e.g. by C-shaped support means}

**B60R 1/0607**

- .... {with remote position control adjustment}

**B60R 1/061**

- ..... {by manually actuated mechanical means, e.g. push-pull cables}

**B60R 1/0612**

- ..... {by electrically actuated means}

**B60R 1/0615**

- ..... {by hydraulically or pneumatically actuated means}

**B60R 1/0617**

- .... {foldable along the vehicle, e.g. in case of external force applied thereon}

**B60R 1/062**

- ... with remote control for adjusting position{( [B60R 1/0607](#) takes precedence )}

**B60R 1/0625**

- .... {by hydraulically or pneumatically powered actuators}

B60R 1/064	....	by manually powered actuators
B60R 1/066	.....	for adjusting the mirror relative to its housing
B60R 1/068	.....	using cables
B60R 1/07	....	by electrically powered actuators
B60R 1/072	.....	for adjusting the mirror relative to its housing
B60R 1/074	.....	for retracting the mirror arrangements to a non-use position alongside the vehicle
B60R 1/076	...	yieldable to excessive external force and provided with an indexed use position( <a href="#">B60R 1/0617</a> , <a href="#">B60R 1/074</a> ) <a href="#">take precedence</a> )
B60R 1/078	...	easily removable; mounted for bodily outward movement, e.g. when towing
B60R 1/08	..	involving special optical features, e.g. avoiding blind spots{,e.g. <a href="#">convex mirrors</a> ; Side-by-side associations of rear-view and other mirrors( <a href="#">B60R 1/025</a> , <a href="#">B60R 1/10</a> <a href="#">take precedence</a> )}
B60R 1/081	...	{avoiding blind spots, e.g. by using a side-by-side association of mirrors}
B60R 1/082	....	{using a single wide field mirror or an association of rigidly connected mirrors}
B60R 1/083	...	{Anti-glare mirrors, e.g. "day-night" mirrors}
B60R 1/084	....	{using a removable filtering or hiding screen( <a href="#">associated with windows or windscreens</a> <a href="#">B60J 3/00</a> )}
B60R 1/085	....	{using a combination of interchangeable reflecting surfaces, e.g. reversible mirrors}
B60R 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}
B60R 1/087	.....	{with remote or automatic control means}
B60R 1/088	....	{using a cell of electrically changeable optical characteristic, e.g. liquid-crystal or electrochromic mirrors}
B60R 1/089	....	{using a liquid filtering layer of variable thickness}
B60R 1/10	.	Front-view mirror arrangements;{( <a href="#">specially adapted for covering the peripheral part of the vehicle</a> <a href="#">B60R 1/002</a> ); periscope arrangements{,i.e. optical devices using combinations of mirrors, lenses, prisms or the like( <a href="#">specially adapted for covering the peripheral part of the vehicle</a> <a href="#">B60R 1/002</a> ; for viewing traffic-lights <a href="#">B60R 1/005</a> ); Other mirror arrangements giving a view from above or under the vehicle}
B60R 1/105	..	{Optical arrangements giving a view under the vehicle, e.g. using periscopes}
B60R 1/12	.	Mirror assemblies combined with other articles, e.g. clocks
B60R 1/1207	..	{with lamps; with turn indicators}
B60R 2001/1215	..	{with information displays}
B60R 2001/1223	..	{with sensors or transducers}
B60R 2001/123	..	{with thermometers}
B60R 2001/1238	..	{with vanity mirrors}
B60R 2001/1246	..	{with clocks}
B60R 2001/1253	..	{with cameras, video cameras or video screens}
B60R 2001/1261	..	{with antennae}

- B60R 2001/1269 . . {with sun visors}
- B60R 2001/1276 . . {with radio receivers, loud-speakers or buzzers}
- B60R 2001/1284 . . {with communication systems other than radio-receivers, e.g. keyless entry systems, navigation systems; with anti-collision systems}
- B60R 2001/1292 . . {with holding means for personal articles}

**B60R 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](#))

- B60R 3/002 . {Running boards( for vehicle tops [B60R 3/005](#); at the sides of the vehicle for carrying loads [B60R 9/02](#))}
- B60R 3/005 . {Catwalks, running boards for vehicle tops, access means for vehicle tops; Handrails therefor}
- B60R 3/007 . {Removable steps or ladders, e.g. foldable( as access means for vehicle tops [B60R 3/005](#))}
- B60R 3/02 . Retractable steps{or ladders, e.g. movable under shock([B60R 3/005](#) takes precedence )}
- B60R 3/04 . with provisions for shoe scraping

**B60R 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](#))

- B60R 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](#))}
- B60R 5/006 . {stowing or holding means for elongated articles, e.g. skis inside vehicles}
- B60R 5/02 . arranged at front of vehicle{([B60R 5/003](#) takes precedence )}
- B60R 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](#))}
- B60R 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](#))}
- B60R 5/042 . . . {to create an enclosed luggage compartment of increased capacity, e.g. with ventilation apertures for transporting dogs}
- B60R 5/044 . . {luggage covering means, e.g. parcel shelves}
- B60R 5/045 . . . {collapsible or transformable}
- B60R 5/047 . . . . {collapsible by rolling-up}
- B60R 5/048 . . . . {of accordion-type, i.e. collapsible by sliding and folding}

<b>B60R 7/00</b>	<b>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 <a href="#">B60R 11/00</a> ; for receptacles for refuse, food, beverages, cigarettes <a href="#">B60N</a>)</b>
<a href="#">B60R 7/005</a>	. {Nets or elastic pockets tensioned against walls or backrests}
<a href="#">B60R 7/02</a>	. in separate luggage compartment( <a href="#">B60R 7/005</a> takes precedence )}
<a href="#">B60R 7/04</a>	. in driver or passenger space,{e.g. using racks( <a href="#">B60R 7/005</a> , <a href="#">B60R 7/08</a> take precedence )}
<a href="#">B60R 7/043</a>	.. {mounted on or under a seat}
<a href="#">B60R 7/046</a>	.. {mounted on door}
<a href="#">B60R 7/05</a>	.. mounted on sun visor
<a href="#">B60R 7/06</a>	.. mounted on or below dashboards
<a href="#">B60R 7/08</a>	. Disposition of racks, clips,{holders, containers}or the like{for supporting specific articles( <a href="#">B60R 7/005</a> takes precedence )}
<a href="#">B60R 7/081</a>	.. {for supporting maps}
<a href="#">B60R 7/082</a>	.. {for supporting spectacles}
<a href="#">B60R 7/084</a>	.. {for supporting tissues or tissue boxes}
<a href="#">B60R 7/085</a>	.. {for supporting flowers or flower vases}
<a href="#">B60R 7/087</a>	.. {for stowing money or valuables, e.g. using safes}
<a href="#">B60R 7/088</a>	.. {for stowing tape cartridges, compact discs, or the like}
<a href="#">B60R 7/10</a>	.. for supporting hats, clothes or clothes hangers
<a href="#">B60R 7/12</a>	.. for supporting umbrellas
<a href="#">B60R 7/14</a>	.. for supporting weapons
<b>B60R 9/00</b>	<b>Supplementary fittings on vehicle exterior for carrying loads, e.g. luggage, sports gear or the like</b>
<a href="#">B60R 9/02</a>	. at the sides, e.g. on running-board
<a href="#">B60R 9/04</a>	. Carriers associated with vehicle roof( <a href="#">B60R 9/08</a> takes precedence )
<a href="#">B60R 9/042</a>	.. Carriers characterised by means to facilitate loading or unloading of the load, e.g. rollers, tracks, or the like
<a href="#">B60R 9/0423</a>	... {for ladders}
<a href="#">B60R 9/0426</a>	... {for small vehicles, e.g. invalid chairs, perambulators}
<a href="#">B60R 9/045</a>	.. Carriers being adjustable or transformable, e.g. expansible, collapsible{(transformable into tents <a href="#">B60P 3/36</a> ; into beds <a href="#">B60P 3/38</a> )}
<a href="#">B60R 9/048</a>	.. Carriers characterised by article-gripping,{-covering,-}retaining, or -locking means
<a href="#">B60R 9/0485</a>	... {for ladders( <a href="#">B60R 9/0423</a> takes precedence )}
<a href="#">B60R 9/05</a>	.. Carriers characterised by wind deflecting means( wind deflectors for open roofs <a href="#">B60J 7/22</a> )

- B60R 9/052 . . Carriers comprising elongate members extending only transversely of vehicle([B60R 9/08 takes precedence](#) )
- B60R 9/055 . . Enclosure-type carriers, e.g. containers, boxes([B60R 9/048 takes precedence](#) )
- B60R 9/058 . . characterised by releasable attaching means between carrier and roof
- B60R 9/06 . . at vehicle front or rear{( [rear luggage compartments within vehicle extensible externally of the vehicle body B60R 5/041](#))}
- B60R 9/065 . . {[Enclosure-type carriers, e.g. trunks](#)}
- B60R 9/08 . . specially adapted for sports gear( [vehicles specially adapted for carrying aeroplanes, for carrying boats B60P](#))
- B60R 9/10 . . for cycles
- B60R 9/12 . . for skis

## **B60R 11/00 Arrangements for holding or mounting articles, not otherwise provided for**

- B60R 2011/0001 . {[characterised by position](#)}
- B60R 2011/0003 . . {[inside the vehicle](#)}
- B60R 2011/0005 . . . {[Dashboard](#)}
- B60R 2011/0007 . . . {[Mid-console](#)}
- B60R 2011/0008 . . . {[Ventilation grilles](#)}
- B60R 2011/001 . . . {[Vehicle control means, e.g. steering-wheel or column](#)}
- B60R 2011/0012 . . . {[Seats or parts thereof](#)}
- B60R 2011/0014 . . . . {[Arm-rests](#)}
- B60R 2011/0015 . . . . {[Back-rests](#)}
- B60R 2011/0017 . . . . {[Head-rests](#)}
- B60R 2011/0019 . . . {[Side or rear panels](#)}
- B60R 2011/0021 . . . . {[Doors](#)}
- B60R 2011/0022 . . . . {[Pillars](#)}
- B60R 2011/0024 . . . . {[Rear shelves](#)}
- B60R 2011/0026 . . . {[Windows, e.g. windscreen](#)}
- B60R 2011/0028 . . . {[Ceiling, e.g. roof rails](#)}
- B60R 2011/0029 . . . {[Floor, e.g. side sills, fire wall](#)}
- B60R 2011/0031 . . . {[Seat belts](#)}
- B60R 2011/0033 . . . {[Rear-view mirrors](#)}
- B60R 2011/0035 . . . {[Sun visors](#)}
- B60R 2011/0036 . . . {[Luggage compartment](#)}
- B60R 2011/0038 . . . {[Engine compartment](#)}
- B60R 2011/004 . . {[outside the vehicle](#)}
- B60R 2011/0042 . {[characterised by mounting means](#)}
- B60R 2011/0043 . . {[for integrated articles, i.e. not substantially protruding from the surrounding parts](#)}

B60R 2011/0045	...	{with visible part, e.g. flush mounted}
B60R 2011/0047	....	{using hidden fastening means}
B60R 2011/0049	..	{for non integrated articles}
B60R 2011/005	...	{Connection with the vehicle part}
B60R 2011/0052	....	{using screws, bolts, rivets or the like}
B60R 2011/0054	....	{using cigarette lighter}
B60R 2011/0056	....	{using suction cups}
B60R 2011/0057	....	{using magnetic means}
B60R 2011/0059	....	{using clips, clamps, straps or the like}
B60R 2011/0061	....	{using key-type connections}
B60R 2011/0063	....	{using adhesive means, e.g. hook and loop fasteners}
B60R 2011/0064	...	{Connection with the article}
B60R 2011/0066	....	{using screws, bolts, rivets or the like}
B60R 2011/0068	....	{using suction cups}
B60R 2011/007	....	{using magnetic means}
B60R 2011/0071	....	{using latches, clips, clamps, straps or the like}
B60R 2011/0073	....	{using key-type connections}
B60R 2011/0075	....	{using a containment or docking space}
B60R 2011/0077	....	{using adhesive means, e.g. hook and loop fasteners}
B60R 2011/0078	...	{Quick-disconnect two-parts mounting means}
B60R 2011/008	..	{Adjustable or movable supports}
B60R 2011/0082	...	{collapsible, e.g. for storing after use}
B60R 2011/0084	...	{with adjustment by linear movement in their operational position}
B60R 2011/0085	...	{with adjustment by rotation in their operational position}
B60R 2011/0087	....	{around two axes}
B60R 2011/0089	....	{around three axes, i.e. universally mounted}
B60R 2011/0091	.....	{the article being mounted on a flexible shaft}
B60R 2011/0092	...	{with motorization}
B60R 2011/0094	.	{characterised by means for covering after user, e.g. boxes, shutters or the like}
B60R 2011/0096	.	{Theft prevention of articles}
B60R 2011/0098	..	{using electric or electronic means, e.g. alarms, codes}
B60R 11/02	.	for radio sets, television sets, telephones, or the like; Arrangements of control thereof({ storing of tape cartridges, compact discs or the like <b>B60R 7/08H</b> ; }of aerials <b>H01Q</b> )
B60R 11/0205	..	{for radio sets( <b>B60R 11/0211</b> takes precedence )}
B60R 11/0211	..	{for record carriers apparatus, e.g. video recorders, tape players or CD players}
B60R 11/0217	..	{for loud-speakers}
B60R 11/0223	...	{of flat type}
B60R 11/0229	..	{for displays, e.g. cathodic tubes}

- B60R 11/0235 . . . {of flat type, e.g. LCD}
- B60R 11/0241 . . {for telephones}
- B60R 11/0247 . . {for microphones or earphones}
- B60R 11/0252 . . {for personal computers, e.g. laptops, notebooks}
- B60R 11/0258 . . {for navigation systems}
- B60R 11/0264 . . {for control means}
- B60R 2011/027 . . {for Din-sized apparatus}
- B60R 2011/0276 . . {for rear passenger use}
- B60R 2011/0282 . . {for the use of several passengers, e.g. simultaneously}
- B60R 2011/0288 . . {Apparatus made of several modules independently mounted}
- B60R 2011/0294 . . {Apparatus with multi-functionalities, e.g. radio and telephone}
  
- B60R 11/04 . Mounting of cameras operative during drive; Arrangement of controls thereof relative to the vehicle([cameras per se G03B](#))
  
- B60R 11/06 . for tools or spare parts( [for vehicle roof parts B60J 7/20](#) ; [for spare wheels B62D](#))
  
- B60R 13/00** **Elements for body-finishing, identifying, or decorating; Arrangements or adaptations for advertising purposes**
  
- B60R 13/005 . {Manufacturers` emblems, name plates, bonnet ornaments, mascots or the like; Mounting means therefor}
  
- B60R 13/01 . Liners for load platforms or load compartments
- B60R 13/011 . . {for internal load compartments, e.g. car trunks}
- B60R 13/013 . . . {comprising removable or hinged parts, e.g. for accessing storage compartments}
- B60R 2013/015 . . {made of a plurality of visible parts}
- B60R 2013/016 . . {integrating other functions or accessories}
- B60R 2013/018 . . {Connection or positioning of adjacent panels}
  
- B60R 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](#)})
- B60R 13/0206 . . {Arrangements of fasteners and clips specially adapted for attaching inner vehicle liners or mouldings( [devices for fastening or securing F16B](#))}
- B60R 13/0212 . . {Roof or head liners( [movable head-liners B60J 7/0007](#))}
- B60R 13/0218 . . . {supported by adhesion with the roof panel}
- B60R 13/0225 . . . {self supporting head liners}
- B60R 13/0231 . . . {specially adapted for roofs with openings}
- B60R 13/0237 . . {Side or rear panels}
- B60R 13/0243 . . . {Doors}
- B60R 13/025 . . . {Pillars; Roof rails}



- B60R 13/0256 .. {Dashboard liners}
- B60R 13/0262 .. {Mid-console liners}
- B60R 13/0268 .. {Rear parcel liners( used as luggage covering means [B60R 5/044](#))}
- B60R 13/0275 .. {comprising removable or hinged parts( for accessing storage compartments [B60R 7/04](#) ; for airbag deployment [B60R 21/215](#))}
- B60R 2013/0281 .. {made of a plurality of visible parts}
- B60R 2013/0287 .. {integrating other functions or accessories}
- B60R 2013/0293 .. {Connection or positioning of adjacent panels}
  
- B60R 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](#))}
- B60R 13/043 .. {Door edge guards}
- B60R 2013/046 .. {Foot boards}
  
- B60R 13/06 . Sealing strips( sealing arrangements for vehicle windows, windscreens, non-fixed roofs, doors, or similar devices [B60J 10/00](#))
  
- B60R 13/07 . Water drainage or guide means not integral with roof structure([B60R 13/06](#) , {[B60J 10/0045](#)}take precedence;{ integral with roof structure [B62D 25/07](#) ; drainage openings having movable or removable closures [B62D 25/24](#))}
  
- B60R 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](#))}
- B60R 2013/0807 .. {Arrangements of fasteners or clips specially adapted therefore}
- B60R 13/0815 .. {Acoustic of thermal insulation of passenger compartments( wall or roof liners integrating the insulating function [B60R 13/02](#) ; insulating floor mats or carpets [B60N 3/04](#))}
- B60R 13/0823 ... {Insulating partitions, e.g. between front and rear seats}
- B60R 13/083 ... {for fire walls or floors}
- B60R 13/0838 .. {for engine compartments}
- B60R 13/0846 .. {for duct, cable or rod passages, e.g. between engine and passenger compartments}
- B60R 13/0853 ... {specially adapted for movable parts, e.g. gears levers, pedals}
- B60R 13/0861 .. {for covering undersurfaces of vehicles, e.g. wheel houses}
- B60R 13/0869 .. {for protecting heat sensitive parts, e.g. electronic components}
- B60R 13/0876 .. {for mounting around heat sources, e.g. exhaust pipes}
- B60R 13/0884 .. {for mounting around noise sources, e.g. air blowers}
- B60R 13/0892 .. {for humidity insulation( sealing strips [B60R 13/06](#))}
  
- B60R 13/10 . Registration, licencing, or like devices
- B60R 13/105 .. {Licence- or registration plates, provided with mounting means, e.g. frames, holders, retainers, brackets}



<b>B60R 15/00</b>	<b>Arrangements or adaptations of sanitation devices</b>
B60R 15/02	. Washing facilities{( in railway vehicles <a href="#">B61D 35/002</a> )}
B60R 15/04	. Toilet facilities{( in railway vehicles <a href="#">B61D 35/005</a> )}
<b>B60R 16/00</b>	<b>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 <a href="#">B60R 21/00</a> ; safety belts <a href="#">B60R 22/00</a> ; central door locking <a href="#">E05B 49/00</a> , <a href="#">E05B 65/38</a>)}</b>
B60R 16/005	. {Electro-mechanical devices, e.g. switched( electric switches in general <a href="#">H01H</a> )}
B60R 16/02	. electric{constitutive elements}
B60R 16/0207	.. {Wire harnesses}
B60R 16/0215	... {Protecting, fastening and routing means therefor}
B60R 16/0222	.... {Grommets}
B60R 16/023	.. for transmission of signals between vehicle parts or subsystems
B60R 16/0231	... {Circuits relating to the driving or the functioning of the vehicle( for dash boards <a href="#">B60K 37/00</a> , <a href="#">B60Q 3/04</a> ; for indicating emergencies <a href="#">B60Q 1/52</a> ; registering or indicating the working of vehicles <a href="#">G07C 5/00</a> ; measuring distance <a href="#">G01C</a> , e.g. combinations of speed and distance <a href="#">G01C 23/00</a> ; engine indicators <a href="#">G01L</a> ; measuring speed or acceleration <a href="#">G01P</a> ; brake control systems <a href="#">B60T</a> ; monitoring tyres <a href="#">B60C 23/00</a> ; indicating overspeed <a href="#">B60K 31/00</a> )}
B60R 16/0232	.... {for measuring vehicle parameters and indicating critical, abnormal or dangerous conditions}
B60R 16/0233	..... {Vehicle tilting, overturning or roll over}
B60R 16/0234	..... {related to maintenance or repairing of vehicles}
B60R 16/0235	.... {for lighting devices combined with starting or ignition devices for road vehicles}
B60R 16/0236	.... {for economical driving}
B60R 16/0237	... {circuits concerning the atmospheric environment(meteorology <a href="#">G01W</a> )}
B60R 16/0238	... {Electrical distribution centers}
B60R 16/0239	... {Electronic boxes}
B60R 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 <a href="#">B60C 23/00</a> )}
B60R 16/03	.. for supply of electrical power to vehicle subsystems{or for( circuit arrangements for charging batteries <a href="#">H02J 7/00</a> )}
B60R 16/0307	... {using generators driven by a machine different from the vehicle motor}
B60R 16/0315	... {using multiplexing techniques( multiplexing for transmission of signals <a href="#">G08C 15/00</a> ; multiplexing for electrical communication in general <a href="#">H04J</a> )}
B60R 2016/0322	.... {Temporary code for documents to be reclassified to <a href="#">G08C</a> , <a href="#">H04L</a> or <a href="#">H04Q</a> }

- B60R 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](#))
- B60R 16/037 . . for occupant comfort,{e.g. for automatic adjustment of appliances according to personal settings, e.g. seats, mirrors, steering wheel}
- B60R 16/0373 . . . {Voice control(in general [G10L](#))}
- B60R 16/0376 . . . {Gear-shift lever position( indicating position of controlling members in general [G05G 1/00](#))}
- B60R 16/04 . . Arrangement of batteries
- B60R 16/06 . . for removing electrostatic charges( carrying-off electrostatic charges in general [H05F 3/00](#))
- B60R 16/08 . fluid
- B60R 17/00 Arrangements or adaptations of lubricating systems or devices( lubricating in general [F16N](#))**
- B60R 17/02 . Systems, e.g. central lubrication systems
- B60R 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](#))**
- B60R 2019/002 . {Wheel guards}
- B60R 2019/005 . {Crash attenuators, i.e. means added to highway service vehicles for softening high speed impacts}
- B60R 2019/007 . {Means for adjusting or regulating the crash absorption capacity of the vehicle, e.g. when detecting an impending collision}
- B60R 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](#))
- B60R 19/023 . . {Details}
- B60R 2019/026 . . {Buffers, i.e. bumpers of limited extent}
- B60R 19/03 . . characterised by material, e.g. composite([B60R 19/18](#) takes precedence )
- B60R 19/04 . . formed from more than one section{in a side-by-side arrangement}
- B60R 19/12 . . . vertically spaced
- B60R 19/14 . . . having folding parts
- B60R 19/16 . . . having deflecting members, e.g. rollers, balls
- B60R 19/18 . . {characterised by the cross-section;}Means within the bumper to absorb impact
- B60R 2019/1806 . . . {Structural beams therefor, e.g. shock-absorbing( bumper beams made of cellular materials [B60R 19/22](#))}

B60R 2019/1813	....	{made of metal}
B60R 2019/182	.....	{of light metal, e.g. extruded}
B60R 2019/1826	.....	{of high-tension steel}
B60R 2019/1833	....	{made of plastic material}
B60R 2019/184	.....	{Blow moulded}
B60R 2019/1846	.....	{comprising a cellular structure}
B60R 2019/1853	.....	{of reinforced plastic material}
B60R 2019/186	...	{Additional energy absorbing means supported on bumper beams, e.g. cellular structures or material}
B60R 2019/1866	....	{Cellular structures}
B60R 2019/1873	....	{Cellular materials}
B60R 2019/188	....	{Blow molded structures}
B60R 2019/1886	...	{Bumper fascias and fastening means therefor( on fenders <a href="#">B60R 2019/247</a> )}
B60R 2019/1893	...	{comprising a multiplicity of identical adjacent shock-absorbing means}
B60R 19/20	...	containing{mainly}gas or liquid, e.g. inflatable( <a href="#">connection of valves to inflatable elastic bodies B60C 29/00</a> )
B60R 19/205	....	{inflatable in the direction of an obstacle upon impending impact, e.g. using air bags}
B60R 19/22	...	containing{mainly}cellular material, e.g. solid foam
B60R 19/24	..	Arrangements for mounting bumpers on vehicles
B60R 2019/242	...	{on two vertical sleeves, e.g. on energy absorber ends}
B60R 2019/245	...	{with adjusting means to compensate manufacturing tolerances, e.g. between bumper and energy absorbers}
B60R 2019/247	...	{Fastening of bumpers` side ends}
B60R 19/26	...	comprising yieldable mounting means({ <a href="#">B60R 19/38</a> takes precedence;} springs, shock absorbers, or means for damping vibrations per se <a href="#">F16F</a> )
B60R 2019/262	....	{with means to adjust or regulate the amount of energy to be absorbed}
B60R 2019/264	....	{using cellular structures}
B60R 2019/266	....	{using friction surfaces}
B60R 2019/268	....	{with rebound preventing means, e.g. ratchets}
B60R 19/28	....	Metallic springs
B60R 19/285	.....	{comprising only leaf springs, e.g. the mounting means forming part of the guard itself}
B60R 19/30	....	Elastomeric material({ <a href="#">B60R 19/34</a> takes precedence})
B60R 19/32	....	Fluid shock absorbers{, e.g. with coaxial coil springs}
B60R 19/34	....	destroyed upon impact, e.g. one-shot type
B60R 19/36	....	Combinations of yieldable mounting means of different types({ <a href="#">fluid shock absorbers with coaxial coil springs B60R 19/32</a> )}
B60R 19/38	...	adjustably or movably mounted, e.g. horizontally displaceable for securing a space between parked vehicles({ <a href="#">adjustably mounted for compensating manufacturing tolerances B60R 19/24</a> , <a href="#">B60R 19/26</a> )}

B60R 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 <a href="#">B60R 19/20</a> )}
B60R 19/42	..	extending primarily along the sides of, or completely encircling, a vehicle( ornamental or guard strips <a href="#">B60R 13/04</a> )
B60R 19/44	..	Bumper guards
B60R 19/445	...	{Guard strips}
B60R 19/46	...	spring- or pivotally-mounted
B60R 19/48	..	combined with, or convertible into, other devices or objects, e.g. bumpers combined with road brushes, bumpers convertible into beds
B60R 19/483	...	{with obstacle sensors of electric or electronic type}
B60R 2019/486	...	{with air passages, e.g. for cooling}
B60R 19/50	...	with lights or registration plates
B60R 2019/505	....	{with lights}
B60R 19/52	.	Radiator or grille guards(; Radiator grilles( cooling aspects <a href="#">B60K 11/08</a> )}
B60R 2019/522	..	{Bull bars}
B60R 2019/525	..	{Radiator grilles}
B60R 2019/527	...	{integral with bumpers}
B60R 19/54	.	Obstruction removers or deflectors( <a href="#">B60R 19/16</a> , <a href="#">B60R 21/34</a> take precedence )
B60R 19/545	..	{Devices for cutting wire-type obstructions}
B60R 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
B60R 19/565	..	{on vehicle sides}
<b>B60R 21/00</b>		<b>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 <a href="#">B60R 22/00</a> ; devices, apparatus or methods for life-saving in general <a href="#">A62B</a> ; safety devices for propulsion unit control specially adapted for, or arranged in, vehicles <a href="#">B60K 28/00</a> ; seats constructed to protect the occupant from the effect of abnormal g-forces, e.g. crash or safety seats, <a href="#">B60N 2/42</a> ; energy-absorbing arrangements for hand wheels for steering vehicles <a href="#">B62D 1/11</a> ; energy-absorbing arrangements for vehicle steering columns <a href="#">B62D 1/19</a> ; harnessing in aircraft <a href="#">B64D 25/00</a>)</b>
B60R 2021/0002	.	{Type of accident}
B60R 2021/0004	..	{Frontal collision}
B60R 2021/0006	..	{Lateral collision}
B60R 2021/0009	..	{Oblique collision}
B60R 2021/0011	..	{Rear collision or recoiling bounce after frontal collision}
B60R 2021/0013	..	{Free fall}
B60R 2021/0016	..	{Fall in water}

B60R 2021/0018	..	{Roll-over}
B60R 2021/002	..	{Underrun collision}
B60R 2021/0023	..	{Offset collision}
B60R 2021/0025	..	{Pole collision}
B60R 2021/0027	.	{Post collision measures, e.g. notifying emergency services}
B60R 2021/003	.	{characterised by occupant or pedestrian}
B60R 2021/0032	..	{Position of passenger}
B60R 2021/0034	...	{lying down}
B60R 2021/0037	...	{standing}
B60R 2021/0039	..	{Body parts of the occupant or pedestrian affected by the accident}
B60R 2021/0041	...	{Arms}
B60R 2021/0044	...	{Chest}
B60R 2021/0046	...	{Feet}
B60R 2021/0048	...	{Head}
B60R 2021/0051	...	{Knees}
B60R 2021/0053	...	{Legs}
B60R 2021/0055	...	{Pelvis}
B60R 2021/0058	...	{Shoulders}
B60R 2021/006	..	{Type of passenger}
B60R 2021/0062	...	{woman, e.g. pregnant}
B60R 2021/0065	.	{Type of vehicles}
B60R 2021/0067	..	{Buses}
B60R 2021/0069	..	{Trailers, e.g. caravans}
B60R 2021/0072	..	{Convertible cars}
B60R 2021/0074	..	{Utility vehicles}
B60R 2021/0076	...	{Agricultural vehicles, e.g. tractors}
B60R 2021/0079	...	{Fork-lift trucks}
B60R 2021/0081	...	{Working vehicles}
B60R 2021/0083	...	{Pick-up trucks; Light trucks; Sport utility vehicles}
B60R 2021/0086	..	{Racing cars}
B60R 2021/0088	..	{Cycles, e.g. motorcycles}
B60R 2021/009	..	{Railway vehicles}
B60R 2021/0093	..	{Aircraft}
B60R 2021/0095	..	{Boats}
B60R 2021/0097	..	{Amusement vehicles}

B60R 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 <a href="#">B60R 16/027</a> ; for electrically actuating belt retractor locking mens <a href="#">B60R 22/343</a> )}
B60R 2021/01006	..	{Mounting of electrical components in vehicles}
B60R 2021/01013	..	{Means for detecting collision, impending collision or roll-over}
B60R 2021/0102	...	{the monitored value being used for calculating occupant displacement}
B60R 2021/01027	...	{Safing sensors}
B60R 2021/01034	..	{Controlling a plurality of restraint devices}
B60R 2021/0104	..	{Communication circuits for data transmission}
B60R 2021/01047	...	{Architecture}
B60R 2021/01054	....	{Bus}
B60R 2021/01061	.....	{between the airbag system and other vehicle electronic systems}
B60R 2021/01068	.....	{between different sensors and airbag control unit}
B60R 2021/01075	.....	{between the airbag control unit and pyrotechnic fuses or equivalent actuators}
B60R 2021/01081	...	{Transmission medium}
B60R 2021/01088	....	{wireless}
B60R 2021/01095	....	{optical}
B60R 2021/01102	...	{Transmission method}
B60R 2021/01109	....	{power and data signal using transmission medium}
B60R 2021/01115	....	{specific data frames}
B60R 2021/01122	..	{Prevention of malfunction}
B60R 2021/01129	...	{Problems or faults}
B60R 2021/01136	....	{Cut lines}
B60R 2021/01143	....	{Short circuits}
B60R 2021/0115	....	{Current leakage}
B60R 2021/01156	....	{Current or voltage overload}
B60R 2021/01163	....	{Insufficient current or voltage}
B60R 2021/0117	....	{Noise}
B60R 2021/01177	....	{Misdeployment, e.g. during assembly, disassembly, accident salvage or recycling}
B60R 2021/01184	...	{Fault detection or diagnostic circuits( in power circuits <a href="#">B60R 2021/01129</a> )}
B60R 2021/0119	....	{Plausibility check}
B60R 2021/01197	....	{Warning devices}
B60R 2021/01204	..	{Actuation parameters of safety arrangents}
B60R 2021/01211	...	{Expansion of air bags}
B60R 2021/01218	....	{control of expansion speed}
B60R 2021/01225	....	{control of expansion volume}
B60R 2021/01231	....	{control of expansion timing or sequence}
B60R 2021/01238	....	{control of expansion shape}

B60R 2021/01245	....	{selection of seat for bag expansion}
B60R 2021/01252	...	{Devices other than bags}
B60R 2021/01259	....	{Brakes}
B60R 2021/01265	....	{Seat belts}
B60R 2021/01272	.....	{Belt tensioners}
B60R 2021/01279	.....	{Load limiters}
B60R 2021/01286	..	{Electronic control units}
B60R 2021/01293	...	{programmable for use in different vehicles or with different airbags configurations}
B60R 21/013	..	including means for detecting collisions, impending collision or roll-over{( inclination sensors per se <a href="#">G01C 9/00</a> ; acceleration sensors per se <a href="#">G01P 15/00</a> ; radar systems per se <a href="#">G01S 13/00</a> ; inertia switches per se <a href="#">H01H 35/14</a> )}
B60R 2021/01302	...	{monitoring vehicle body vibrations or noise}
B60R 2021/01304	...	{monitoring rough road condition}
B60R 2021/01306	...	{monitoring vehicle inclination}
B60R 2021/01308	...	{monitoring distance between vehicle body and road}
B60R 2021/01311	...	{monitoring the braking system, e.g. ABS}
B60R 2021/01313	...	{monitoring the vehicle steering system or the dynamic control system}
B60R 2021/01315	...	{monitoring occupant displacement}
B60R 2021/01317	...	{monitoring seat belt tension}
B60R 21/0132	...	responsive to vehicle motion parameters{,e.g. to vehicle longitudinal or transversal deceleration or speed value}
B60R 2021/01322	....	{comprising variable thresholds, e.g. depending from other collision parameters}
B60R 2021/01325	....	{Vertical acceleration}
B60R 2021/01327	....	{Angular velocity or angular acceleration}
B60R 21/0134	...	responsive to imminent contact with an obstacle{,e.g. using radar systems}
B60R 2021/01345	....	{using mechanical sensing means}
B60R 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 <a href="#">B60R 21/01558</a> )}
B60R 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}

### **WARNING**

Group(s) [B60R 21/01504](#) - [B60R 21/01566](#) is/are incomplete pending reclassification of documents from group(s) [B60R 21/015](#).

Until reclassification is complete, group [B60R 21/015](#) should be considered in order to perform a complete search.

B60R 21/01504	...	{detecting bag displacement}
B60R 21/01508	...	{detecting forces or pressure in bags or modules}



B60R 21/01512	...	{Passenger detection systems}
B60R 21/01516	....	{using force or pressure sensing means}
B60R 21/0152	.....	{using strain gauges}
B60R 21/01522	.....	{using fluid means}
B60R 21/01524	.....	{using electric switches}
B60R 21/01526	.....	{using piezoelectric elements}
B60R 21/01528	....	{mounted on the bag}
B60R 21/0153	....	{using field detection presence sensors}
B60R 21/01532	.....	{using electric or capacitive field sensors}
B60R 21/01534	.....	{using electromagnetic waves, e.g. infrared}
B60R 21/01536	.....	{using ultrasonic waves}
B60R 21/01538	.....	{for image processing, e.g. cameras or sensor arrays}
B60R 21/0154	.....	{in combination with seat heating}
B60R 21/01542	....	{detecting passenger motion}
B60R 21/01544	....	{detecting seat belt parameters, e.g. length, tension or height-adjustment}
B60R 21/01546	.....	{using belt buckle sensors}
B60R 21/01548	.....	{sensing the amount of belt wound on retractor}
B60R 21/0155	.....	{sensing belt tension}
B60R 21/01552	....	{detecting position of specific human body parts, e.g. face, eyes or hands}
B60R 21/01554	...	{Seat position sensors}
B60R 21/01556	...	{Child-seat detection systems}
B60R 21/01558	...	{monitoring crash strength}
B60R 21/0156	....	{by deceleration}
B60R 21/01562	....	{by speed}
B60R 21/01564	...	{Manually or key-actuated inhibition switches}
B60R 21/01566	...	{Devices for warning or indicating mode of inhibition}
B60R 21/017	..	including arrangements for providing electric power to safety arrangements{or their actuating means, e.g. to pyrotechnic fuses or electro-mechanic valves}
B60R 21/0173	...	{Diagnostic or recording means therefor}
B60R 21/0176	....	{for firing circuits using only mechanical switches as collision detecting means, in series with pyrotechnic fuses}
B60R 21/02	.	Occupant safety arrangements or fittings,{e.g. crash pads( <a href="#">seat belts with crash pads B60R 22/14</a> ; <a href="#">removable children's seats having a front guard or barrier B60N 2/2839</a> )}
B60R 2021/0206	..	{Self-supporting restraint systems, e.g. restraining arms, plates or the like}
B60R 2021/0213	...	{mounted on floor}
B60R 2021/022	...	{mounted on seats}
B60R 2021/0226	...	{mounted on fire wall}
B60R 2021/0233	...	{mounted on steering-wheel}
B60R 2021/024	...	{mounted on dash-board}
B60R 2021/0246	...	{mounted on side walls}

B60R 2021/0253	...	{mounted on roof}
B60R 21/026	..	{Rigid partitions inside vehicles, e.g. between passengers and load compartments( <a href="#">B60R 21/12</a> takes precedence )}
B60R 2021/0266	...	{comprising energy absorbing means}
B60R 2021/0273	..	{automatically movable to an operative position, e.g. in case of collision or impending collision}
B60R 2021/028	..	{Means preventing passenger from falling out of vehicles}
B60R 21/0286	..	{Padded or energy absorbing driving control initiating means, e.g. gear lever, pedals( <a href="#">B60R 21/09</a> takes precedence; padded linings for steering control means <a href="#">B60R 21/05</a> )}
B60R 2021/0293	..	{Additional pads or cushions in vehicle compartments, e.g. movably mounted}
B60R 21/04	..	Padded linings for the vehicle interior;{Energy absorbing structures associated with padded or non-padded linings}
B60R 2021/0407	...	{using gas or liquid as energy absorbing means}
B60R 2021/0414	...	{using energy absorbing ribs}
B60R 2021/0421	...	{using honeycomb structures}
B60R 21/0428	...	{associated with the side doors or panels, e.g. displaced towards the occupants in case of a side collision}
B60R 2021/0435	...	{associated with the side or roof pillars}
B60R 2021/0442	...	{associated with the roof panel}
B60R 21/045	...	associated with the instrument panel or dashboard
B60R 21/05	...	associated with the steering wheel,{steering}hand lever or{steering}column( <a href="#">yieldable steering columns B62D 1/18</a> )
B60R 21/055	..	Padded{or energy-absorbing}fittings,{e.g. seat belt anchors( <a href="#">sun visors B60J 3/00</a> ; <a href="#">head rests B60N 2/48</a> )}
B60R 21/06	..	Safety nets, transparent sheets, curtains, or the like, e.g. between occupants and glass( <a href="#">B60R 21/026</a> , <a href="#">B60R 21/11</a> , <a href="#">B60R 21/12</a> , <a href="#">B60R 21/16</a> take precedence )
B60R 2021/065	...	{comprising energy absorbing mounting means}
B60R 21/08	...	{automatically}movable from an inoperative to an operative position, e.g. in a collision( <a href="#">electrical circuits for triggering safety arrangements B60R 21/01</a> )
B60R 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{( <a href="#">specially adapted for brake pedals, e.g. by venting of master cylinder or destruction of force transmitting rod, B60T 7/065</a> )}
B60R 21/11	..	Overhead guards, e.g. against loads falling down{( <a href="#">specially adapted for fork-lift trucks B66F 9/07545</a> )}
B60R 21/12	..	which protect the occupants against personal attack from the inside or the outside of the vehicle
B60R 21/13	..	Roll-over protection( <a href="#">electrical circuits for triggering safety arrangements B60R 21/01</a> )
B60R 21/131	...	{Protective devices for drivers in case of overturning of tractors( means for preventing overturning or tipping of tractors <a href="#">B62D 49/08</a> )}
B60R 2021/132	...	{Roll bars for convertible vehicles}
B60R 2021/134	....	{movable from a retracted to a protection position}
B60R 2021/135	.....	{automatically during an accident}

B60R 2021/137	...	{Reinforcement cages for closed vehicle bodies}
B60R 2021/138	...	{using external airbags}
B60R 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 <a href="#">A41D 13/018</a> ; } connection of valves to inflatable elastic bodies <a href="#">B60C 29/00</a> )
B60R 2021/161	...	{characterised by additional means for controlling deployment trajectory}
B60R 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}
B60R 21/164	...	{combined with vehicle venting means for reducing or avoiding the passenger compartment overpressure during inflation}
B60R 2021/165	...	{reusable, e.g. in case of multiple collisions}
B60R 2021/167	...	{comprising anti-theft devices}
B60R 2021/168	...	{for restraining luggages}
B60R 21/18	...	the inflatable member formed as a belt or harness or combined with a belt or harness arrangement
B60R 21/20	...	Arrangements for storing inflatable members in their non-use or deflated condition; Arrangement or mounting of air bag modules or components
B60R 21/201	....	Packaging straps or envelopes for inflatable members
B60R 21/203	....	in steering wheels or steering columns
B60R 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}
B60R 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 <a href="#">B60R 21/21656</a> ; assembling of modules <a href="#">B60R 21/217</a> )}
B60R 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 <a href="#">B60R 21/21658</a> )}
B60R 21/205	....	in dashboards
B60R 21/206	.....	in the lower part of dashboards, e.g. for protecting the knees
B60R 21/207	....	in vehicle seats
B60R 21/2072	.....	{in children's seats}
B60R 2021/2074	.....	{in head rests}
B60R 2021/2076	.....	{Removable covers with tear seams}
B60R 2021/2078	.....	{in rear seats}
B60R 21/21	....	in vehicle side panels, e.g. doors( pillar mounted arrangements <a href="#">B60R 21/213</a> )
B60R 21/213	....	in vehicle roof frames or pillars
B60R 21/214	....	in roof panels
B60R 21/215	....	characterised by the covers for the inflatable member{(B60R 21/2176 takes precedence )}

B60R 2021/21506	.....	{comprising tearing tabs, legs or the like for holding the lid before deployment}
B60R 2021/21512	.....	{the lid being displaced towards the occupant during deployment( <a href="#">B60R 2021/2161</a> , <a href="#">B60R 2021/21525</a> take precedence )}
B60R 2021/21518	.....	{comprising a lock unlocked during deployment}
B60R 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}
B60R 2021/21531	.....	{using a stretchable wall liner}
B60R 2021/21537	.....	{characterised by hinges}
B60R 2021/21543	.....	{with emblems}
B60R 21/2155	.....	with complex motion of the cover; Retraction under the lining during opening
B60R 21/216	.....	comprising tether means for limitation of cover motion during deployment
B60R 2021/2161	.....	{the cover being displaced towards the occupant during deployment}
B60R 2021/2163	.....	{with energy absorbing or elastic means}
B60R 21/2165	.....	characterised by a tear line for defining a deployment opening
B60R 2021/21652	.....	{the tearing being done or assisted by cutters}
B60R 2021/21654	.....	{the tearing being done or assisted by heating or pyrotechnic means}
B60R 21/21656	.....	{Steering wheel covers or similar cup-shaped covers}
B60R 21/21658	.....	{with integrated switches, e.g. horn switches}
B60R 21/217	....	Inflation fluid source retainers, e.g. reaction canisters; Connection of bags, covers, diffusers or inflation fluid sources therewith or together
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( <a href="#">B60R 21/2176</a> takes precedence )}
B60R 2021/2172	.....	{the cover being connected to the surrounding part and to the module, e.g. floating mounts}
B60R 2021/2173	.....	{the module or part thereof being movably mounted on the vehicle}
B60R 2021/2175	.....	{using energy absorbing means}
B60R 21/2176	.....	{the air bag components being completely enclosed in a soft or semi-rigid housing or cover}
B60R 2021/2177	.....	{Reaction canisters characterised by material}
B60R 2021/2178	.....	{Plastic}
B60R 21/23	...	Inflatable members( <a href="#">B60R 21/18</a> takes precedence; connection to inflation fluid source retainers <a href="#">B60R 21/217</a> )
B60R 21/231	....	characterised by their shape, construction or spatial configuration

**WARNING**

Groups [B60R 21/2334](#) - [B60R 21/2346](#) are not complete, pending a reorganisation; see provisionally also group [B60R 21/233](#)

B60R 2021/23107	.....	{the bag being integrated in a multi-bag system}
B60R 2021/23115	.....	{with inflatable support compartments creating an internal suction volume}

B60R 2021/23123	.....	{Heat protection panels}
B60R 2021/2313	.....	{comprising sensitive compartments}
B60R 21/23138	.....	{specially adapted for side protection( <a href="#">B60R 21/23184</a> , <a href="#">B60R 21/232</a> take precedence )}
B60R 2021/23146	.....	{seat mounted}
B60R 2021/23153	.....	{specially adapted for rear seat passengers}
B60R 2021/23161	.....	{specially adapted for protecting at least two passengers, e.g. preventing them from hitting each other}
B60R 2021/23169	.....	{specially adapted for knee protection}
B60R 2021/23176	.....	{specially adapted for foot protection}
B60R 21/23184	.....	{Tubular air bags connected to the vehicle at their two extremities}
B60R 2021/23192	.....	{Roof bags, i.e. protecting the occupant in a roll-over situation}
B60R 21/232	.....	Curtain-type airbags deploying mainly in a vertical direction from their top edge
B60R 21/233	.....	comprising a plurality of individual compartments; comprising two or more bag-like members, one within the other( <a href="#">B60R 21/232</a> takes precedence )
B60R 2021/23308	.....	{the individual compartments defining the external shape of the bag}
B60R 2021/23316	.....	{Inner seams, e.g. creating separate compartments or used as tethering means}
B60R 2021/23324	.....	{Inner walls crating separate compartments, e.g. communicating with vents}
B60R 2021/23332	.....	{using independent bags, one within the other}
B60R 21/2334	.....	Expansion regulating features
B60R 21/2338	.....	Tethers
B60R 2021/23382	.....	{Internal tether means}
B60R 2021/23384	.....	{having ends which are movable or detachable during deployment}
B60R 2021/23386	.....	{External tether means}
B60R 2021/23388	.....	{having ends which are movable or detachable during deployment}
B60R 21/2342	.....	Tear seams
B60R 21/2346	.....	Soft diffusers
B60R 21/235	....	characterised by their material
B60R 2021/23504	.....	{characterised by material}
B60R 2021/23509	.....	{Fabric}
B60R 2021/23514	.....	{coated fabric}
B60R 2021/23519	.....	{Resin( for coating fabric <a href="#">B60R 2021/23514</a> )}
B60R 2021/23523	.....	{Composite( coated fabric <a href="#">B60R 2021/23514</a> )}
B60R 2021/23528	.....	{Metal}
B60R 2021/23533	.....	{characterised by the manufacturing process}
B60R 2021/23538	.....	{Sewing}
B60R 2021/23542	.....	{Weaving}

B60R 2021/23547	.....	{one piece weaving}
B60R 2021/23552	.....	{Knitting}
B60R 2021/23557	.....	{Molding}
B60R 2021/23561	.....	{Sealing}
B60R 2021/23566	.....	{Nesting of panels, i.e. for material utilisation}
B60R 2021/23571	.....	{characterised by connections between panels}
B60R 2021/23576	.....	{Sewing}
B60R 2021/2358	.....	{Bonding}
B60R 2021/23585	.....	{Vulcanisation}
B60R 2021/2359	.....	{Welding}
B60R 2021/23595	.....	{Sealing}
B60R 21/237	....	characterised by the way they are folded
B60R 2021/2375	.....	{Folding devices}
B60R 21/239	....	characterised by their venting means
B60R 2021/2395	.....	{comprising means to control the venting}
B60R 21/26	...	characterised by the inflation fluid source or means to control inflation fluid flow{( arrangement or mounting thereof to the vehicle <a href="#">B60R 21/20</a> ; blasting cartridges for producing gas under pressure in general <a href="#">F42B 3/04</a> ; Initiators or igniters therefor <a href="#">F42B 3/10</a> )}

**WARNING**

Groups [B60R 21/261](#) - [B60R 21/264](#) are not complete, pending a reorganisation; see provisionally also this group

B60R 21/26005	....	{the inflation fluid being transferred to the inflatable member by the mechanical deformation of the fluid container during an impact}
B60R 2021/26011	....	{using a filter through which the inflation gas passes}
B60R 2021/26017	....	{a cooling agent being added to the inflation fluid}
B60R 2021/26023	....	{for filling the bag with foam}
B60R 2021/26029	....	{Igniters}
B60R 2021/26035	.....	{triggered by mechanical means}
B60R 2021/26041	.....	{of elongated shape}
B60R 2021/26047	.....	{of film shape}
B60R 2021/26052	.....	{using fluid materials}
B60R 2021/26058	....	{using a combination of inflators}
B60R 2021/26064	....	{characterised by auto-ignition means}
B60R 2021/2607	....	{characterised by heating or heat insulating means, e.g. for use under extreme temperatures}
B60R 2021/26076	....	{characterised by casing}
B60R 2021/26082	.....	{Material}
B60R 2021/26088	.....	{Plastic}
B60R 2021/26094	....	{characterised by fluid flow controlling valves}

B60R 21/261	....	with means other than bag structure to diffuse or guide inflation fluid
B60R 2021/2612	.....	{Gas guiding means, e.g. ducts}
B60R 2021/2615	.....	{for diverting the gas into a plurality of bags}
B60R 2021/2617	.....	{Curtain bag nozzles}
B60R 21/262	.....	Elongated tubular diffusers, e.g. curtain-type
B60R 21/263	....	using a variable source, e.g. plural stage or controlled output( <a href="#">hybrid inflators B60R 21/272</a> )
B60R 2021/2633	.....	{with a plurality of inflation levels}
B60R 2021/2636	.....	{The volume of gas being continuously adjustable}
B60R 21/264	....	using instantaneous generation of gas, e.g. pyrotechnic( <a href="#">B60R 21/268 takes precedence</a> )
B60R 2021/2642	.....	{comprising a plurality of combustion chambers or sub-chambers}
B60R 21/2644	.....	{using only solid reacting substances, e.g. pellets, powder}
B60R 21/2646	.....	{the reacting substances being supported by the inflatable member walls, or by a flexible support within it}
B60R 2021/2648	.....	{comprising a plurality of combustion chambers or sub-chambers}
B60R 21/268	....	using instantaneous release of stored pressurized gas{( <a href="#">B60R 21/26005 takes precedence</a> )}
B60R 2021/2685	.....	{comprising a plurality of pressure chambers}
B60R 21/272	.....	with means for increasing the pressure of the gas just before or during liberation, e.g. hybrid inflators
B60R 2021/2725	.....	{using a fluid fuel gas generator}
B60R 21/274	.....	characterised by means to rupture or open the fluid source

### **WARNING**

This group is not complete, pending a reorganisation; see provisionally also group [B60R 21/268](#)

B60R 21/276	....	with means to vent the inflation fluid source, e.g. in case of overpressure{( <a href="#">B60R 21/30 takes precedence</a> ; venting means on inflatable member walls <a href="#">B60R 21/239</a> )}
B60R 2021/2765	.....	{comprising means to control the venting}
B60R 21/30	....	with means to draw ambient air into the flow line and mix such air with the inflation fluid
B60R 21/33	...	Arrangements for non-electric triggering of inflation( <a href="#">electrical circuits for triggering safety arrangements B60R 21/01</a> )
B60R 2021/335	....	{Connections between collision detecting means and inflators using pyrotechnic transmission lines}
B60R 21/34	.	Protecting non-occupants of a vehicle, e.g. pedestrians{( <a href="#">B60R 19/02 takes precedence</a> )}
B60R 2021/343	..	{using deformable body panel, bodywork or components}
B60R 2021/346	..	{means outside vehicle body}
B60R 21/36	..	using airbags



B60R 21/38 . . . using means for lifting bonnets

**B60R 22/00** **Safety belts or body harnesses in vehicles**( [safety belts or body harnesses in general A62B 35/00](#))

B60R 22/001 . {Knee, leg or head belts}

B60R 22/003 . {for restraining detainees}

B60R 22/005 . {for restraining luggages}

B60R 22/006 . {Sleeve or tubular members enveloping the seat belt for enhancing comfort or protection}

B60R 22/008 . {Belts; Fixing thereof specially adapted for pregnant users}

B60R 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](#))}

B60R 22/021 . . {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}

B60R 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 )}

B60R 22/024 . . . {Adaptations for use by small passengers, e.g. children([B60R 22/20](#) takes precedence; using belt anti-slip devices [B60R 22/30](#))}

B60R 22/025 . . . {Adaptations for use with children seats or luggages}

B60R 22/026 . . . {at least two ends of the belt being retractable after use}

B60R 22/027 . . {Four-point seat belt systems, e.g. with the two upper points connected together}

B60R 22/028 . . {specially adapted for use in sleeping position, e.g. for reclining seats}

B60R 22/029 . . {Belt storage; Devices or systems for controlling winding up of unused seat belt}

B60R 22/03 . . Means for presenting the belt or part thereof to the wearer,{[e.g. foot-operated](#)}

B60R 22/04 . Passive restraint systems, i.e. systems both applied and removed automatically, e.g. by movement of the vehicle door

B60R 22/06 . . having the belt or harness connected to a member slidable in a vehicle-mounted track

B60R 22/08 . . having the belt retractor mounted on or in a vehicle closure, e.g. the door

B60R 22/10 . specially adapted for children or animals( [children`s seats B60N 2/24](#))

**NOTE**

Groups [B60R 22/02](#){[B60R 22/022](#)} to [B60R 22/08](#) , [B60R 22/18](#) to [B60R 22/48](#) take precedence over group [B60R 22/10](#)

B60R 22/105 . . {for children( [adaptation of children`s seats for seat belts B60N 2/265](#) , [B60N 2/2803](#))}

- B60R 22/12 . Construction of belts or harnesses([B60R 21/18](#) takes precedence; { woven fabrics for safety belts [D03D 1/0005](#)})
- B60R 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](#))}
- B60R 22/16 . . using belts which become permanently deformed, i.e. one time use
- B60R 22/18 . Anchoring devices
- B60R 22/1806 . . {for buckles}
- B60R 22/1812 . . {Connections between seat belt and buckle tongue}
- B60R 22/1818 . . {Belt guides}
- B60R 22/1825 . . . {using rollers}
- B60R 22/1831 . . . {comprising a slotted plate sliding in its plane, e.g. inside circular guides}
- B60R 22/1837 . . . {comprising a universal mounting. e.g. spherical or cardan-type}
- B60R 22/1843 . . . {comprising an elongated sleeve}
- B60R 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](#))}
- B60R 22/1855 . . . {the means being sensitive to belt tension}
- B60R 22/19 . . with means for reducing belt tension during use under normal conditions{( included in the retractor [B60R 22/44](#))}
- B60R 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](#)

- B60R 22/1951 . . . {characterised by arrangements in vehicle or relative to seat belt}
- B60R 22/1952 . . . {Transmission of tensioning power by cable; Return motion locking means therefor}
- B60R 22/1953 . . . . {the cable being pulled by mechanical means, e.g. pre-stressed springs, bumper displacement during crash}
- B60R 22/1954 . . . {characterised by fluid actuators, e.g. pyrotechnic gas generators( actuating a cable [B60R 22/1952](#))}
- B60R 22/1955 . . . . {Linear actuators}
- B60R 22/1956 . . . . {Mechanical triggering means therefor( also adapted for air bag inflators [B60R 21/33](#))}
- B60R 22/1957 . . . {characterised by electric actuators}
- B60R 22/1958 . . . {characterised by spring actuators([B60R 22/1953](#) takes precedence )}
- B60R 22/20 . . adjustable in position, e.g. in height
- B60R 22/201 . . . {with the belt anchor connected to a slider movable in a vehicle-mounted track( for passive restraint systems [B60R 22/06](#))}

B60R 22/202	....	{the slider comprising spring-actuated locking means( <a href="#">B60R 22/205</a> takes precedence )}
B60R 22/203	.....	{the locking means being movably mounted on the slider}
B60R 22/205	....	{the slider comprising emergency actuated locking means}
B60R 22/206	...	{Adjustable stop members for restraint systems comprising belt anchor vehicle mounted tracks,e.g. for passive seat belts}
B60R 22/207	...	{Horizontally or transversally adjustable}
B60R 22/208	...	{by automatic or remote control means}
B60R 22/22	..	secured to the vehicle floor
B60R 22/24	..	secured to the side, door, or roof of the vehicle
B60R 22/26	..	secured to the seat
B60R 22/263	...	{Front seats}
B60R 22/266	...	{Rear seats, e.g. benches}
B60R 22/28	.	incorporating energy-absorbing devices{( belt anchors provided with energy-absorbing means for protecting the occupants in case of physical contact therewith <a href="#">B60R 21/055</a> ; belt retractors comprising energy-absorbing means <a href="#">B60R 22/341</a> , <a href="#">B60R 22/4676</a> )}
B60R 22/281	..	{for buckles}
B60R 22/282	..	{using fluids or vico-elastic materials}
B60R 22/283	..	{using tearing or scoring of material}
B60R 22/284	..	{using electric or magnetic braking means}
B60R 22/285	..	{using friction surfaces}
B60R 22/286	..	{using deformation of material}
B60R 22/287	...	{of torsion rods or tubes}
B60R 22/288	..	{with means to adjust or regulate the amount of energy to be absorbed}
B60R 22/289	..	{Energy-absorption curves}
B60R 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 <a href="#">B60R 22/024</a> ; buckles <a href="#">A44B 11/00</a> ; releasable fastenings in general <a href="#">F16B</a> )}
B60R 22/32	.	Devices for releasing in an emergency, e.g. after an accident;{Remote or automatic unbuckling devices( unlocking devices for retractors <a href="#">B60R 22/3416</a> )}
B60R 22/321	..	{using electric means}
B60R 22/322	..	{using automatic actuating means( <a href="#">B60R 22/321</a> takes precedence )}
B60R 22/324	...	{triggered by strong traction on the seat belt, e.g. with temporisation}
B60R 22/325	..	{using remote control means( <a href="#">B60R 22/321</a> , <a href="#">B60R 22/322</a> take precedence )}
B60R 22/327	..	{using pyrotechnic means}
B60R 22/328	..	{comprising means for cutting the belt}
B60R 22/34	.	Belt retractors, e.g. reels(anchoring devices{e.g. guide loops} , with means to tension the belt in an emergency <a href="#">B60R 22/195</a> )
B60R 22/3402	..	{Retractor casings; Mounting thereof}

B60R 22/3405	..	{of the non-rotary type}
B60R 22/3408	..	{without locking means(B60R 22/3405 takes precedence )}
B60R 22/341	..	{comprising energy-absorbing means}
B60R 22/3413	...	{operating between belt reel and retractor frame(B60R 22/4676 takes precedence )}
B60R 22/3416	..	{Unlocking devices for retractors(B60R 22/3405 takes precedence )}
B60R 22/3419	..	{with end lock preventing means}
B60R 22/3421	..	{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}
B60R 22/3424	..	{Multi-spool or multi-belt retractors}
B60R 22/3427	..	{Seat belt connection on reels}
B60R 22/343	..	with electrically actuated locking means{(B60R 22/3405 takes precedence )}
B60R 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 )}
B60R 22/3475	...	{having means for acting directly upon the belt, e.g. by clamping or friction}
B60R 22/35	...	the locking means being automatically actuated
B60R 22/353	....	in response to belt movement when a wearer applies the belt
B60R 22/3535	.....	{comprising anti-cinch devices}
B60R 22/357	....	in response to fastening of the belt buckle
B60R 22/36	..	self-locking in an emergency{(B60R 22/3405) , B60R 22/343 take precedence )}
B60R 22/38	...	responsive only to belt movement
B60R 22/385	....	{with adjustable sensitivity}
B60R 22/40	...	responsive only to vehicle movement
B60R 22/401	....	{with adjustable sensor}
B60R 22/402	.....	{automatically adjustable to keep a vertical position, e.g. irrespective of seat or vehicle tilting}
B60R 22/403	.....	{using externally controlled means, e.g. linked with seat back hinge}
B60R 22/404	....	{with remote sensor, e.g. for mounting on seat}
B60R 22/405	...	responsive to belt movement and vehicle movement
B60R 22/41	...	with additional means for preventing locking{during unwinding}under predetermined conditions
B60R 22/415	...	with additional means allowing a permanent locking of the retractor during the wearing of the belt
B60R 22/42	...	having means for acting directly upon the belt, e.g. by clamping or friction{( not combined with the retractor B60R 22/185)}
B60R 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 )}
B60R 22/4406	...	{Spring shapes; Spring characteristic; Springs with adjustable anchoring means}
B60R 22/4413	...	{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}
B60R 22/442	...	{using one spring and one additional retraction device in parallel}

B60R 2022/4426	....	{the additional retraction device being a second spring}
B60R 2022/4433	.....	{externally controlled}
B60R 2022/444	....	{the additional retraction device being an electric actuator}
B60R 2022/4446	...	{using one spring and one additional retraction device in series}
B60R 2022/4453	....	{the additional retraction device being a second spring}
B60R 2022/446	.....	{with external control means}
B60R 2022/4466	....	{the additional retraction device being an electric actuator}
B60R 2022/4473	...	{using an electric retraction device( combined with a spring <a href="#">B60R 2022/444</a> , <a href="#">B60R 2022/4466</a> )}
B60R 2022/448	...	{using a fluid actuated retraction device}
B60R 2022/4486	...	{for cancelling the belt tension}
B60R 2022/4493	...	{for braking the belt reel using friction surfaces or the like}
B60R 22/46	..	{Reels}with means to tension the belt in an emergency{by forced winding up}{ <a href="#">electrical circuits for triggering safety arrangements B60R 21/01</a> }{ tensioners using reels only guiding the belt during normal use, e.g. splitted reels <a href="#">B60R 22/195</a> }
B60R 22/4604	...	{characterised by arrangements in vehicle or relative to seat belt}
B60R 2022/4609	....	{using a plurality of tensioners}
B60R 2022/4614	....	{one pretensioner acting on a plurality of belts}
B60R 22/4619	...	{Transmission of tensioning power by cable, e.g. using a clutch on reel side}
B60R 22/4623	....	{the cable being pulled by mechanical means, e.g. pre-stressed springs, bumper displacement during crash}
B60R 22/4628	...	{characterised by fluid actuators, e.g. pyrotechnic gas generators( <a href="#">actuating a cable B60R 22/4619</a> )}
B60R 22/4633	....	{Linear actuators, e.g. comprising a piston moving along reel axis and rotating along its own axis}
B60R 2022/4638	.....	{comprising a piston moving along or in parallel to the reel axis}
B60R 2022/4642	....	{the gas directly propelling a flexible driving means, e.g. a plurality of successive masses, in a tubular chamber}
B60R 2022/4647	.....	{the driving means being a belt, a chain or the like}
B60R 22/4652	....	{Mechanical triggering means therefor( <a href="#">also adapted for air bag inflators B60R 21/33</a> )}
B60R 2022/4657	....	{comprising a plurality of charges}
B60R 2022/4661	....	{comprising venting means, e.g. for avoiding overpressure in case of fire or for allowing return motion with energy absorption}
B60R 2022/4666	...	{characterised by electric actuators}
B60R 22/4671	...	{characterised by spring actuators( <a href="#">B60R 22/4623</a> takes precedence )}
B60R 22/4676	...	{comprising energy-absorbing means operating between belt reel and retractor frame}
B60R 2022/468	...	{characterised by clutching means between actuator and belt reel}
B60R 2022/4685	...	{with means to adjust or regulate the tensioning force in relation to external parameters}
B60R 2022/469	...	{reusable}
B60R 2022/4695	...	{without winding function during normal use}

- B60R 22/48 . Control systems, alarms, or interlock systems, for the correct application of the belt or harness
- B60R 2022/4808 .. {Sensing means arrangements therefor}
- B60R 2022/4816 ... {for sensing locking of buckle}
- B60R 2022/4825 ... {for sensing amount of belt winded on retractor}
- B60R 2022/4833 ... {for sensing locking of retractor}
- B60R 2022/4841 ... {for sensing belt tension}
- B60R 2022/485 ... {for sensing belt anchor position, belt orientation, or the like}
- B60R 2022/4858 ... {for sensing pressure on seat}
- B60R 2022/4866 .. {Displaying or indicating arrangements thereof}
- B60R 2022/4875 ... {on vehicle exterior}
- B60R 2022/4883 .. {Interlock systems}
- B60R 2022/4891 ... {preventing use of the vehicle when the seatbelt is not fastened}

**B60R 25/00** **Fittings or systems for preventing or indicating unauthorised use or theft of vehicles**(locks for vehicles [E05B 77/00-E05B 85/00](#))

**WARNING**

Subgroups of [B60R 25/00](#) corresponding to IPC2013.01 are not complete pending the completion of a reclassification; see also [B60R 25/00](#) and its other subgroups

- B60R 25/001 . {Anti-theft devices acting on jacking means or props, e.g. for trailers}
- B60R 25/002 . {Locking of control actuating or transmitting means( of steering mechanism [B60R 25/02](#))}
- B60R 25/003 .. {locking of control actuating means}
- B60R 25/005 ... {of foot actuated control means( rods connecting pedals and steering wheels [B60R 25/0221](#))}
- B60R 25/006 .... {using means preventing access, e.g. boxes, shutters}
- B60R 25/007 ... {of hand actuated control means}
- B60R 25/008 .... {comprising means for locking two or more control means together, e.g. hand-brake handle and gear shift lever}
- B60R 25/01 . operating on vehicle systems or fittings, e.g. on doors, seats or windcreens
- B60R 25/012 .. {Airbags triggered}
- B60R 25/014 .. {comprising means for locking the seat or parts thereof in a driving prevention position}
- B60R 25/016 .. {comprising means for shuttering the windscreen or part thereof}
- B60R 25/018 .. {Thief traps}
- B60R 25/02 .. operating on the steering mechanism
- B60R 25/021 ... restraining movement of the steering column or steering wheel hub, e.g. restraining means controlled by ignition switch

B60R 25/02102	....	{with supplementary safety device preventing operation of the starter of an engine already running}
B60R 25/02105	....	{Arrangement of the steering column thereof}
B60R 25/02107	.....	{comprising overload clutching means}
B60R 25/0211	....	{comprising a locking member radially and linearly moved towards the steering column}
B60R 25/02113	.....	{manually actuated, e.g. using removable locking means}
B60R 25/02115	.....	{key actuated}
B60R 25/02118	.....	{with linear bolt motion parallel to the lock axis}
B60R 25/02121	.....	{comprising safety devices avoiding locking until removal of the key}
B60R 25/02123	.....	{using an axially slidable lock cylinder}
B60R 25/02126	.....	{with linear bolt motion perpendicular to the lock axis}
B60R 25/02128	.....	{comprising safety devices avoiding locking until removal of the key}
B60R 25/02131	.....	{by using an axially slidable lock cylinder}
B60R 25/02134	....	{comprising a locking member axially moved along the steering column}
B60R 25/02136	.....	{manually actuated, e.g. using removable locking members}
B60R 25/02139	.....	{key actuated}
B60R 25/02142	....	{comprising externally controlled safety devices for preventing locking during vehicle running condition}
B60R 25/02144	.....	{interlocked with gear box or gear lever}
B60R 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}
B60R 25/0215	....	using electric means, e.g. electric motors or solenoids
B60R 25/02153	.....	{comprising a locking member radially and linearly moved towards the steering column}
B60R 25/02156	.....	{comprising a locking member axially moved along the steering column}
B60R 25/022	...	operating on the steering wheel, e.g. bars locked to the steering wheel rim( <a href="#">B60R 25/021</a> takes precedence )
B60R 25/0221	....	{restraining means joining the steering wheel with another part of the car, e.g. pedals}
B60R 25/0222	....	{by disjoining steering wheel and column}
B60R 25/0224	....	{restraining of steering wheel by collapsing against column}
B60R 25/0225	....	{using a rod locked on the steering wheel rim( <a href="#">B60R 25/0221</a> takes precedence )}
B60R 25/0227	....	{using means preventing access, e.g. boxes enclosing the steering wheel( <a href="#">B60R 25/014</a> takes precedence )}
B60R 25/0228	....	{comprising a locking bolt or fork slidable between or around the steering wheel spokes}
B60R 25/023	...	countermeasures against the physical destruction of the steering lock
B60R 25/04	..	operating on the propulsion system, e.g. engine or drive motor
B60R 2025/0405	...	{from the external}



- B60R 2025/041 . . . {Preventing use of engine operating on the fluid supply}
- B60R 2025/0415 . . . {with safe immobilisation}

### **NOTE**

Not complete pending reclassification; see also other subgroups of [B60R 25/00](#)

### **WARNING**

- B60R 25/042 . . . operating on the fuel supply
- B60R 25/043 . . . by blocking the exhaust
- B60R 25/044 . . . by limiting or blocking the air supply
- B60R 25/045 . . . by limiting or cutting the electrical supply to the propulsion unit
- B60R 25/06 . . . operating on the vehicle transmission
- B60R 25/063 . . . . {Locking of foot actuated control actuating means}
- B60R 25/066 . . . . {Locking of hand actuated control actuating means}
- B60R 25/08 . . . operating on brakes or brake system
- B60R 25/083 . . . {Locking of foot-actuated control actuating means}
- B60R 25/086 . . . {Locking of hand-actuated control actuating means}
- B60R 25/09 . . . by restraining wheel rotation, e.g. wheel clamps
- B60R 25/093 . . . {comprising ground-engaging means}
- B60R 25/096 . . . {comprising means for deflating tyres}
  
- B60R 25/10 . . . actuating a signalling device
- B60R 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 25/10F**)}
- B60R 25/1003 . . . {Alarm systems characterised by arm or disarm features}
- B60R 25/1004 . . . {Alarm systems characterised by the type of sensor, e.g. current sensing means( using door lock sensors [B60R 25/1001](#))}
- B60R 25/1006 . . . {Mechanical sensors, e.g. pendulums([B60R 25/101](#) takes precedence )}
- B60R 25/1007 . . . . {comprising associated circuitry}
- B60R 25/1009 . . . {Sonic sensors; Signal treatment therefor}
- B60R 25/101 . . . {Fuel level sensors}
- B60R 25/1012 . . . {Zone surveillance means, e.g. parking lots, truck depots}
- B60R 2025/1013 . . . {Alarm systems characterised by the type of warning signal, e.g. visual, audible}
- B60R 2025/1015 . . . {Signal coming from the exhaust}
- B60R 2025/1016 . . . {Remote signals alerting owner or authorities, e.g. radio signals}
- B60R 25/1018 . . . {Alarm systems characterised by features related to the general power supply}
- B60R 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
- B60R 25/1025 . . . {preventing jamming or interference of said signal}

- B60R 25/104 .. characterised by the type of theft warning signal, e.g. visual or audible signals with special characteristics
- B60R 25/1045 ... {Signal coming from the exhaust}
- B60R 25/20 . Means to switch the anti-theft system on or off
- B60R 25/2009 .. {Antitheft state indicator}
- B60R 25/2018 .. {Central base unlocks or authorises unlocking}
- B60R 25/2027 .. {with data signals passing through the human body}
- B60R 25/2036 .. {by using the door logic and door and engine unlock means}
- B60R 25/2045 .. {by hand gestures}
- B60R 25/2054 .. {by foot gestures}
- B60R 25/2063 .. {Ignition switch geometry}
- B60R 25/2072 .. {with means for preventing jamming or interference of a remote switch control signal}
- B60R 25/2081 .. {combined with personal settings of other vehicle devices, e.g. mirrors, seats, steering wheels}
- B60R 25/209 .. {Remote starting of engine}
- B60R 25/21 .. using hidden switches
- B60R 25/22 .. using mechanical identifiers
- B60R 25/225 ... {key in lock presence switch}
- B60R 25/23 .. using manual input or alphanumerical codes
- B60R 25/24 .. using electronic identifiers containing a code not memorised by the user
- B60R 25/241 ... {whereby access privileges are related to the identifiers}
- B60R 25/243 ... {with more than one way to gain access}
- B60R 25/245 ... {where the antenna reception area plays a role}
- B60R 25/246 ... {characterised by the challenge triggering}
- B60R 25/248 ... {Electronic key extraction prevention}
- B60R 25/25 .. using biometry
- B60R 25/252 ... {Fingerprint recognition}
- B60R 25/255 ... {Eye recognition}
- B60R 25/257 ... {Voice recognition}
- B60R 25/30 . Detection related to theft or to other events relevant to anti-theft systems
- B60R 25/302 .. {using recording means, e.g. black box}
- B60R 25/305 .. {using a camera}
- B60R 25/307 .. {using data concerning maintenance or configuration}
- B60R 25/31 .. of human presence inside or outside the vehicle
- B60R 25/32 .. of vehicle dynamic parameters, e.g. speed or acceleration
- B60R 25/33 .. of global position, e.g. by providing GPS coordinates
- B60R 25/34 .. of conditions of vehicle components, e.g. of windows, door locks or gear selectors

B60R 25/40	. {2013.01}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
B60R 25/403	.. {Power supply in the vehicle}
B60R 25/406	.. {Power supply in the remote key}
<b>B60R 99/00</b>	<b>Subject matter not provided for in other groups of this subclass</b>
B60R 2099/005	. {Protections against martens or rodents}
<b>B60R 2225/00</b>	<b>Means indicating the functioning state of the alarm system, e.g. indicating arming, using leds</b>
<b>B60R 2300/00</b>	<b>Details of viewing arrangements using cameras and displays, specially adapted for use in a vehicle</b>
B60R 2300/10	. characterised by the type of camera system used
B60R 2300/101	.. using cameras with adjustable capturing direction
B60R 2300/102	.. using 360 degree surveillance camera system
B60R 2300/103	.. using camera systems provided with artificial illumination device, e.g. IR light source
B60R 2300/105	.. using multiple cameras
B60R 2300/106	.. using night vision cameras
B60R 2300/107	.. using stereoscopic cameras
B60R 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
B60R 2300/20	. characterised by the type of display used
B60R 2300/202	.. displaying a blind spot scene on the vehicle part responsible for the blind spot
B60R 2300/205	.. using a head-up display
B60R 2300/207	.. using multi-purpose displays, e.g. camera image and navigation or video on same display
B60R 2300/30	. characterised by the type of image processing
B60R 2300/301	.. combining image information with other obstacle sensor information, e.g. using RADAR/LIDAR/SONAR sensors for estimating risk of collision
B60R 2300/302	.. combining image information with GPS information or vehicle data, e.g. vehicle speed, gyro, steering angle data
B60R 2300/303	.. using joined images, e.g. multiple camera images
B60R 2300/304	.. using merged images, e.g. merging camera image with stored images
B60R 2300/305	... merging camera image with lines or icons
B60R 2300/306	.. using a re-scaling of images
B60R 2300/307	.. virtually distinguishing relevant parts of a scene from the background of the scene
B60R 2300/308	... by overlaying the real scene, e.g. through a head-up display on the windscreen

- B60R 2300/40 . characterised by the details of the power supply or the coupling to vehicle components
- B60R 2300/402 .. Image calibration
- B60R 2300/404 .. triggering from stand-by mode to operation mode
- B60R 2300/406 .. using wireless transmission
- B60R 2300/408 .. using a data bus
  
- B60R 2300/50 . characterised by the display information being shared, e.g. external display, data transfer to other traffic participants or centralised traffic controller
  
- B60R 2300/60 . characterised by monitoring and displaying vehicle exterior scenes from a transformed perspective
- B60R 2300/602 .. with an adjustable viewpoint
- B60R 2300/605 ... the adjustment being automatic
- B60R 2300/607 .. from a bird's eye viewpoint
  
- B60R 2300/70 . characterised by an event-triggered choice to display a specific image among a selection of captured images
  
- B60R 2300/80 . characterised by the intended use of the viewing arrangement
- B60R 2300/8006 .. for monitoring and displaying scenes of vehicle interior, e.g. for monitoring passengers or cargo
- B60R 2300/8013 ... for child monitoring
- B60R 2300/802 .. for monitoring and displaying vehicle exterior blind spot views
- B60R 2300/8026 ... in addition to a rear-view mirror system
- B60R 2300/8033 .. for pedestrian protection
- B60R 2300/804 .. for lane monitoring
- B60R 2300/8046 .. for replacing a rear-view mirror system
- B60R 2300/8053 .. for bad weather conditions or night vision
- B60R 2300/806 .. for aiding parking
- B60R 2300/8066 .. for monitoring rearward traffic
- B60R 2300/8073 .. for vehicle security, e.g. parked vehicle surveillance, burglar detection
- B60R 2300/808 .. for facilitating docking to a trailer
- B60R 2300/8086 .. for vehicle path indication
- B60R 2300/8093 .. for obstacle warning

#### **B60R 2325/00 Indexing scheme relating to vehicle anti-theft devices**

- B60R 2325/10 . Communication protocols, communication systems of vehicle anti-theft devices
- B60R 2325/101 .. Bluetooth
- B60R 2325/103 .. Near field communication [NFC]
- B60R 2325/105 .. Radio frequency identification data [RFID]
- B60R 2325/106 .. Internet

<a href="#">B60R 2325/108</a>	.. Encryption
<a href="#">B60R 2325/20</a>	. Communication devices for vehicle anti-theft devices
<a href="#">B60R 2325/202</a>	.. Personal digital assistant [PDA]
<a href="#">B60R 2325/205</a>	.. Mobile phones
<a href="#">B60R 2325/207</a>	.. Satellites
<a href="#">B60R 2325/30</a>	. Vehicles applying the vehicle anti-theft devices
<a href="#">B60R 2325/302</a>	.. Airplanes
<a href="#">B60R 2325/304</a>	.. Boats
<a href="#">B60R 2325/306</a>	.. Motorcycles
<a href="#">B60R 2325/308</a>	.. Industrial vehicles
<a href="#">B60R 2325/40</a>	. Programmable elements