

# CPC COOPERATIVE PATENT CLASSIFICATION

**B62D** **MOTOR VEHICLES; TRAILERS** (steering, or guiding on a desired track, of agricultural machines or implements [A01B 69/00](#); wheels, castors, axles, increasing wheel adhesion [B60B](#); vehicle tyres, tyre inflation or tyre changing [B60C](#); connections between vehicles of a train or the like [B60D](#); vehicles for use on rail and road, amphibious or convertible vehicles [B60F](#); suspension arrangements [B60G](#); heating, cooling, ventilating or other air treating devices [B60H](#); windows, windscreens, non-fixed roofs, doors or similar devices, protective coverings for vehicles not in use [B60J](#); propulsion plant arrangements, auxiliary drives, transmissions, controls, instrumentation or dashboards [B60K](#); electric equipment or propulsion of electrically-propelled vehicles [B60L](#); power supply for electrically-propelled vehicles [B60M](#); passenger accommodation not otherwise provided for [B60N](#); adaptations for load transportation or to carry special loads or objects [B60P](#); arrangement of signalling or lighting devices, the mounting or supporting thereof or circuits therefor, for vehicles in general [B60Q](#); vehicles, vehicle fittings or vehicle parts not otherwise provided for [B60R](#); servicing, cleaning, repairing, supporting, lifting, or manoeuvring, not otherwise provided for, [B60S](#); brake arrangements, brake control systems or parts thereof [B60T](#); air-cushion vehicles [B60V](#); motor-cycles, accessories therefor [B62J](#), [B62K](#); testing of vehicles [G01M](#))

## NOTE

In this subclass, the following terms are used with the meanings indicated:

- "vehicles" include motor vehicles and trailers;
- "trailers" include forecars or sidecars.

## WARNING

The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:

<a href="#">B62D 25/13</a>	covered by	<a href="#">B60J 1/20</a> , <a href="#">B60R 13/07</a>
<a href="#">B62D 25/22</a>	covered by	<a href="#">B60R 3/00</a>
<a href="#">B62D 65/08</a>	covered by	<a href="#">B60J 10/45</a>

## Steering of motor vehicles or trailers

### NOTE

Steering devices acting on ground-engaging wheels, endless tracks or the like and also applicable to aircraft are classified in [B62D 1/00](#) and relevant subsequent groups; these groups take precedence over [B64C](#); These elaborations also embrace steering of vehicles in general but applicable to land vehicles

<b>1/00</b>	<b>Steering controls, i.e. means for initiating a change of direction of the vehicle</b>
1/02	. vehicle-mounted
1/04	. . Hand wheels
1/043	. . . {with a device allowing single-hand operation of the steering wheel}
1/046	. . . {Adaptations on rotatable parts of the steering wheel for accommodation of switches}
1/06	. . . Rims, e.g. with heating means; Rim covers ( <a href="#">B62D 1/11</a> takes precedence)
1/065	. . . . {Steering wheels with heating and ventilating means (heating and ventilating arrangements for spaces of vehicles <a href="#">B60H</a> )}
1/08	. . . Spokes, e.g. resilient ( <a href="#">B62D 1/11</a> takes precedence)
1/10	. . . Hubs; Connecting hubs to steering columns, e.g. adjustable ( <a href="#">B62D 1/11</a> takes precedence)

1/105	. . . . {Non-rotatable hubs, e.g. the central part of the steering wheel not rotating (for storing airbags <a href="#">B60R 21/2032</a> )}
1/11	. . . incorporating energy-absorbing arrangements, e.g. by being yieldable or collapsible (padded linings associated with the steering wheel <a href="#">B60R 21/05</a> ; shock absorbers using plastic deformation of members in general <a href="#">F16F 7/12</a> )
1/12	. . Hand levers
1/14	. . . Tillers, i.e. hand levers operating on steering columns
1/16	. . Steering columns
1/163	. . . {Part of the steering column replaced by flexible means, e.g. cable or belt}
1/166	. . . {Means changing the transfer ratio between steering wheel and steering gear (by continuous supply of energy, e.g. from electric motor <a href="#">B62D 5/008</a> ; controlling steering depending on driving conditions sensed and responded to <a href="#">B62D 6/00</a> )}

- 1/18 . . . yieldable or adjustable, e.g. tiltable ([padded linings associated with the steering column B60R 21/05](#))

**NOTE**

Group [B62D 1/181](#) takes precedence over groups [B62D 1/183](#) - [B62D 1/187](#).

- 1/181 . . . . with power actuated adjustment, e.g. with position memory
- 1/183 . . . . adjustable between in-use and out-of-use positions, e.g. to improve access
- 1/184 . . . . Mechanisms for locking columns at selected positions ([locking of telescopic systems in general F16B 7/10](#))
- 1/185 . . . . adjustable by axial displacement, e.g. telescopically ([B62D 1/183](#), [B62D 1/187](#), [B62D 1/19](#) take precedence)
- 1/187 . . . . with tilt adjustment; with tilt and axial adjustment ([B62D 1/183](#), [B62D 1/19](#) takes precedence)
- 1/189 . . . . . the entire column being tiltable as a unit
- 1/19 . . . . . incorporating energy-absorbing arrangements, e.g. by being yieldable or collapsible ([shock absorbers using plastic deformation of members in general F16F 7/12](#))
- 1/192 . . . . . {Yieldable or collapsible columns}
- 1/195 . . . . . {Yieldable supports for the steering column}
- 1/197 . . . . . {incorporating devices for preventing ingress of the steering column into the passengers space in case of accident}
- 1/20 . . . Connecting steering column to steering gear
- 1/22 . . Alternative steering-control elements, e.g. for teaching purposes
- 1/24 . not vehicle-mounted ([special adaptations of automatic tractor steering A01B 69/008](#); devices for lifting, movable on wheels, automatically guided [B66F 9/063](#))
- 1/26 . . mechanical, e.g. by a non-load-bearing guide ([railways B61](#))
- 1/265 . . . {especially adapted for guiding road vehicles carrying loads or passengers, e.g. in urban networks for public transportation}
- 1/28 . . non-mechanical {, e.g. following a line or other known markers ([steering position indicators B62D 15/02](#); [steering aids B62D 15/025](#); [parking aids B62D 15/027](#); [steering assistants B62D 15/029](#); determination or calculation of trajectory of land vehicles [G05D 1/021](#))}
- 1/283 . . . {for unmanned vehicles}
- 1/286 . . . {Systems for interrupting non-mechanical steering due to driver intervention}
- 3/00 Steering gears** (power assisted or power driven [B62D 5/00](#); steering linkages [B62D 7/00](#); for non-deflectable wheels [B62D 11/00](#); gearing in general [F16H](#))
- 3/02 . mechanical
- 3/04 . . of worm type
- 3/06 . . . with screw and nut
- 3/08 . . . . using intermediate balls or the like
- 3/10 . . . with worm engaging in sector or roller gear
- 3/12 . . of rack-and-pinion type

- 3/123 . . . {characterised by pressure yokes}
- 3/126 . . . {characterised by the rack}
- 3/14 . hydraulic

**5/00****Power-assisted or power-driven steering**

(controlling steering depending on driving conditions sensed and responded to [B62D 6/00](#); } for non-deflectable wheels [B62D 11/00](#); fluid pressure servomotors in general [F15B](#))

- 5/001 . {Mechanical aspects of steer-by-wire systems, not otherwise provided in [B62D 5/00](#) (hydraulic steer-by-wire systems [B62D 5/091](#))}
- 5/003 . . {Backup systems, e.g. for manual steering ([B62D 5/30](#) takes precedence)}
- 5/005 . . {means for generating torque on steering wheel, e.g. feedback}
- 5/006 . . . {power actuated ([control thereof B62D 6/008](#))}
- 5/008 . {Changing the transfer ratio between the steering wheel and the steering gear by variable supply of energy, e.g. by using a superposition gear}
- 5/02 . mechanical, e.g. using a power-take-off mechanism for taking power from a rotating shaft of the vehicle and applying it to the steering gear
- 5/04 . electrical, e.g. using an electric servo-motor connected to, or forming part of, the steering gear
- 5/0403 . . {characterised by constructional features, e.g. common housing for motor and gear box}
- 5/0406 . . . {including housing for electronic control unit}
- 5/0409 . . {Electric motor acting on the steering column}
- 5/0412 . . . {the axes of motor and steering column being parallel}
- 5/0415 . . . . {the axes being coaxial}
- 5/0418 . . {Electric motor acting on road wheel carriers}
- 5/0421 . . {Electric motor acting on or near steering gear}
- 5/0424 . . . {the axes of motor and final driven element of steering gear, e.g. rack, being parallel}
- 5/0427 . . . . {the axes being coaxial}
- 5/043 . . {characterised by clutch means between driving element, e.g. motor, and driven element, e.g. steering column or steering gear}
- 5/0433 . . . {the clutch being of on-off type}
- 5/0436 . . . . {the clutch being a controlled emergency clutch, e.g. for disconnecting at motor break-down}
- 5/0439 . . . {Controllable friction clutches ([B62D 5/0436](#) takes precedence)}
- 5/0442 . . {Conversion of rotational into longitudinal movement}
- 5/0445 . . . {Screw drives ([Screw mechanisms in general F16H 25/20](#))}
- 5/0448 . . . . {Ball nuts}
- 5/0451 . . . {Roller spindle drives}
- 5/0454 . . . {Worm gears}
- 5/0457 . . {characterised by control features of the drive means as such ([controlling steering depending on driving conditions sensed and responded to B62D 6/00](#); determination of steering angle [B62D 15/021](#); measuring torque applied to steering wheels [G01L 5/221](#); control of electric motor as such [H02P](#))}
- 5/046 . . . {Controlling the motor}
- 5/0463 . . . . {for generating assisting torque}
- 5/0466 . . . . {for returning the steering wheel to neutral position}

- 5/0469 . . . . {End-of-stroke control}
- 5/0472 . . . . {for damping vibrations}
- 5/0475 . . . {Controlling other elements}
- 5/0478 . . . . {Clutches}
- 5/0481 . . . {monitoring the steering system, e.g. failures}
- 5/0484 . . . . {for reaction to failures, e.g. limp home}
- 5/0487 . . . . {detecting motor faults ([B62D 5/0496 takes precedence](#))}
- 5/049 . . . . {detecting sensor failures}
- 5/0493 . . . . {detecting processor errors, e.g. plausibility of steering direction}
- 5/0496 . . . . {by using a temperature sensor}
- 5/06 . . fluid, i.e. using a pressurised fluid for most or all the force required for steering a vehicle
- 5/061 . . {provided with effort, steering lock, or end-of-stroke limiters}
- 5/062 . . {Details, component parts}
- 5/063 . . . {Pump driven by vehicle engine ([B62D 5/065 takes precedence](#))}
- 5/064 . . . {Pump driven independently from vehicle engine, e.g. electric driven pump ([B62D 5/065 takes precedence](#))}
- 5/065 . . characterised by specially adapted means for varying pressurised fluid supply based on need, e.g. on-demand, variable assist
- 5/07 . . Supply of pressurised fluid for steering also supplying other consumers; {control thereof}
- 5/075 . . . {using priority valves (priority valves in general [F15B 13/022](#))}
- 5/08 . . characterised by type of {steering} valve used ([valves in general F16K](#))
- 5/081 . . . {Seat valves}
- 5/083 . . . Rotary valves
- 5/0832 . . . . {with elastic means other than a torsion bar, e.g. leaf springs}
- 5/0835 . . . . {characterised by means for actively limiting the deflection angle, e.g. depending on driving parameters ([controlling steering depending on driving conditions sensed and responded to B62D 6/00](#))}
- 5/0837 . . . . {characterised by the shape of the control edges, e.g. to reduce noise}
- 5/087 . . . Sliding spool valves
- 5/09 . . characterised by means for actuating valves
- 5/091 . . . {Hydraulic steer-by-wire systems, e.g. the valve being actuated by an electric motor}
- 5/092 . . . . {the electric motor being connected to the final driven element of the steering gear, e.g. rack}
- 5/093 . . . Telemotor driven by steering wheel movement ([hydraulic steering gear B62D 3/14](#))
- 5/097 . . . . Gerotor type
- 5/10 . . characterised by type of power unit
- 5/12 . . . Piston and cylinder
- 5/14 . . . Rotary motor
- 5/16 . . . Expansible chamber with flexible wall
- 5/18 . . characterised by power transmitting means
- 5/20 . . specially adapted for particular type of steering gear or particular application ([steering gears per se B62D 3/00; steering linkages not characterised by being power-assisted or power-driven B62D 7/00](#))
- 5/22 . . . for rack-and-pinion type {(pressure yokes [B62D 3/123](#))}

- 5/24 . . . for worm type
- 5/26 . . . for pivoted axles
- 5/28 . . . for pivoted bogies
- 5/30 . . Safety devices, e.g. alternate emergency power supply or transmission means to ensure steering upon failure of the primary steering means
- 5/32 . . . for telemotor systems

**6/00 Arrangements for automatically controlling steering depending on driving conditions sensed and responded to, e.g. control circuits** ([means for initiating a change in direction B62D 1/00; steering valves B62D 5/06; combined with means for inclining the vehicle body or wheels on bends B62D 9/00](#))

#### NOTE

When classifying in this group, classification is also made in the appropriate one of groups [B62D 1/00 - B62D 5/00](#) or [B62D 7/00 - B62D 19/00](#) if other aspects of the steering system are of interest

- 6/001 . . {the torque NOT being among the input parameters}
- 6/002 . . {computing target steering angles for front or rear wheels ([B62D 7/159 takes precedence](#))}
- 6/003 . . {in order to control vehicle yaw movement, i.e. around a vertical axis ([B62D 6/007 take precedence; stability systems acting on the brakes B60T 8/1755](#))}
- 6/005 . . . {treating sensor outputs to obtain the actual yaw rate}
- 6/006 . . {using a measured or estimated road friction coefficient}
- 6/007 . . {adjustable by the driver, e.g. sport mode}
- 6/008 . . {Control of feed-back to the steering input member, e.g. simulating road feel in steer-by-wire applications}
- 6/02 . . responsive only to vehicle speed
- 6/04 . . responsive only to forces disturbing the intended course of the vehicle, e.g. forces acting transversely to the direction of vehicle travel
- 6/06 . . responsive only to vehicle vibration dampening arrangements ([steering dampers for cycles B62K 21/08](#))
- 6/08 . . responsive only to {driver} input torque

#### WARNING

Group [B62D 6/08](#) is not complete. See also [B62D 5/04](#)

- 6/10 . . characterised by means for sensing {or determining} torque

#### WARNING

Group [B62D 6/10](#) is not complete. See also [G01L 5/22](#)

**7/00 Steering linkage; Stub axles or their mountings** ([B62D 13/00 takes precedence; power-assisted or power-driven steering B62D 5/00](#))

- 7/02 . . for pivoted bogies
- 7/023 . . {Steering turntables}

- 7/026 . . {characterised by comprising more than one bogie, e.g. situated in more than one plane transversal to the longitudinal centre line of the vehicle}
- 7/04 . . with more than one wheel
- 7/06 . for individually-pivoted wheels, e.g. on king-pins
- 7/08 . . the pivotal axes being situated in a single plane transverse to the longitudinal centre line of the vehicle
- 7/09 . . . characterised by means varying the ratio between the steering angles of the steered wheels ([varying the ratio automatically depending on driving conditions B62D 6/00](#))
- 7/10 . . . with single-output steering gear
- 7/12 . . . with twin-output steering gear
- 7/14 . . the pivotal axes being situated in more than one plane transverse to the longitudinal centre line of the vehicle, e.g. all-wheel steering
- 7/142 . . . {specially adapted for particular vehicles, e.g. tractors, carts, earth-moving vehicles, trucks}
- 7/144 . . . {for vehicles with more than two axles}
- 7/146 . . . {characterised by comprising means for steering by acting on the suspension system, e.g. on the mountings of the suspension arms ([means on vehicle for adjusting camber, castor or toe-in B62D 17/00](#))}
- 7/148 . . . {provided with safety devices}
- 7/15 . . . characterised by means varying the ratio between the steering angles of the steered wheels ([B62D 7/148 takes precedence](#))}
- 7/1509 . . . . {with different steering modes, e.g. crab-steering, or steering specially adapted for reversing of the vehicle}
- 7/1518 . . . . {comprising a mechanical interconnecting system between the steering control means of the different axles}
- 7/1527 . . . . . {comprising only mechanical parts, i.e. without assistance means}
- 7/1536 . . . . . {provided with hydraulic assistance; ([power-assisted fluid steering per se B62D 5/06](#))}
- 7/1545 . . . . . {provided with electrical assistance; ([power-assisted electrical steering per se B62D 5/04](#))}
- 7/1554 . . . . {comprising a fluid interconnecting system between the steering control means of the different axles; ([power-assisted fluid steering per se B62D 5/06](#))}
- 7/1563 . . . . . {provided with fluid control means; ([B62D 7/1572 takes precedence](#))}
- 7/1572 . . . . . {provided with electro-hydraulic control means}
- 7/1581 . . . . {characterised by comprising an electrical interconnecting system between the steering control means of the different axles; ([power-assisted electrical steering per se B62D 5/04](#))}
- 7/159 . . . . {characterised by computing methods or stabilisation processes or systems, e.g. responding to yaw rate, lateral wind, load, road condition}
- 7/16 . Arrangement of linkage connections ([pivots per se F16C](#); {e.g. ball joints [F16C 11/06](#)})
- 7/163 . . {substantially in axial direction, e.g. between rack bar and tie-rod}
- 7/166 . . {substantially perpendicular, e.g. between tie-rod and steering knuckle ([steering knuckles in general B62D 7/18](#))}
- 7/18 . Steering knuckles; King pins
- 7/20 . Links, e.g. track rods ([means for adjusting camber, castor, or toe-in B62D 17/00](#))
- 7/22 . Arrangements for reducing or eliminating reaction, e.g. vibration, from parts, e.g. wheels, of the steering system ({[dampers in general F16F](#)})
- 7/222 . . {acting on the steering wheel}
- 7/224 . . {acting between the steering wheel and the steering gear, e.g. on the steering column}
- 7/226 . . {acting on the steering gear}
- 7/228 . . {acting between the steering gear and the road wheels, e.g. on tie-rod}
- 9/00 Steering deflectable wheels not otherwise provided for ([steering position indicators B62D 15/02](#))**
- 9/002 . {combined with means for differentially distributing power on the deflectable wheels during cornering}
- 9/005 . {Emergency systems using brakes for steering}
- 9/007 . {Emergency systems using the steering system for braking}
- 9/02 . combined with means for inwardly inclining vehicle body on bends
- 9/04 . combined with means for {inwardly} inclining wheels on bends ([B62D 9/02 takes precedence](#))
- WARNING**
- Group [B62D 9/04](#) is not complete. See also [B62D 9/02](#)
- 11/00 Steering non-deflectable wheels; Steering endless tracks or the like**
- NOTE**
- Gearings of interest apart from this application are also classified in the relevant group of subclass [F16H](#) covering gearings [per se](#)
- 11/001 . {control systems ([B62D 11/183 takes precedence](#))}
- NOTE**
- When classifying in this group, classification is also made in the appropriate one of groups [B62D 11/02](#) - [B62D 11/24](#) if other aspects of the steering system are of interest
- 11/003 . . {Electric or electronic control systems}
- 11/005 . . {Hydraulic control systems}
- 11/006 . . {Mechanical control systems}
- 11/008 . . {Pneumatic control systems}
- 11/02 . by differentially driving ground-engaging elements on opposite vehicle sides
- 11/04 . . by means of separate power sources
- 11/06 . . by means of a single main power source
- 11/08 . . . using brakes or clutches as main steering-effecting means
- 11/10 . . . using gearings with differential power outputs on opposite sides, e.g. with twin-differential or epicyclic gears ({[arrangements or mounting of transmissions in vehicles B60K 17/00](#); gearing in general [F16H](#)})



11/105	. . . . {using variable ratio belt and pulley gearings (gearing for conveying rotary motion by endless flexible members <a href="#">F16H 7/00</a> , <a href="#">F16H 9/00</a> )}	15/0255	. . . {Automatic changing of lane, e.g. for passing another vehicle}
11/12	. . . . using separate change-speed gearings	15/026	. . . {combined with automatic distance control, i.e. electronic tow bar}
11/14	. . . . differential power outputs being effected by additional power supply to one side, e.g. power originating from secondary power source	15/0265	. . . {Automatic obstacle avoidance by steering}
11/16	. . . . the additional power supply being supplied mechanically	15/027	. . {Parking aids, e.g. instruction means}
11/18	. . . . the additional power supply being supplied hydraulically	15/0275	. . . {by overlaying a vehicle path based on present steering angle over an image without processing that image}
11/183	. . . . . {Control systems therefor}	15/028	. . . {Guided parking by providing commands to the driver, e.g. acoustically or optically}
11/186	. . . . . {Uncoupling devices for the hydraulic motors, e.g. to allow towing}	15/0285	. . . {Parking performed automatically}
11/20	. Endless-track steering having pivoted bogie carrying track ( <a href="#">B62D 11/02</a> takes precedence)	15/029	. . {Steering assistants using warnings or proposing actions to the driver without influencing the steering system (parking aids <a href="#">B62D 15/027</a> , determination or calculation of trajectory of land vehicles <a href="#">G05D 1/021</a> , image processing <a href="#">G06T</a> )}
11/22	. Endless track steering being effected by deflecting endless track rollers or the like	15/0295	. . . {by overlaying a vehicle path based on present steering angle over an image without processing that image}
11/24	. Endless track steering specially adapted for vehicles having both steerable wheels and endless track	17/00	<b>Means on vehicles for adjusting camber, castor, or toe-in</b>
12/00	<b>Steering specially adapted for vehicles operating in tandem or having pivotally connected frames (steering endless tracks or the like <a href="#">B62D 11/00</a>; steering specially adapted for trailers <a href="#">B62D 13/00</a>)</b>	19/00	<b>Radius rods, i.e. distance members</b>
12/02	. for vehicles operating in tandem	<b><u>Understructures; Superstructures; Vehicle bodies</u></b>	
13/00	<b>Steering specially adapted for trailers (combined traction and steering hitches <a href="#">B60D</a>)</b>	21/00	<b>Understructures, i.e. chassis frame on which a vehicle body may be mounted (combined frame and vehicle body <a href="#">B62D 23/00</a>; {characterised by the material thereof <a href="#">B62D 29/00</a>)}</b>
13/005	. {operated from tractor steering system}	21/02	. comprising longitudinally or transversely arranged frame members
13/02	. for centrally-pivoted axles	21/03	. . transverse members providing body support
13/025	. . {the pivoted movement being initiated by the coupling means between tractor and trailer}	21/04	. . single longitudinal type
13/04	. for individually-pivoted wheels	21/05	. . pinched frame type, i.e. formed of at least two longitudinal frame sections connected by other longitudinal frame sections of lesser transverse dimension
13/06	. for backing a normally drawn trailer	21/06	. of X-shaped or fork-shaped construction, i.e. having members which form an X or fork as the frame is seen in plan view
15/00	<b>Steering not otherwise provided for</b>	21/07	. wide-hipped frame type, i.e. a wide box-shaped mid portion with narrower sections extending from said mid portion in both fore and aft directions
15/02	. Steering position indicators; {Steering position determination; Steering aids}	21/08	. built up with interlaced cross members
15/0205	. . {Mechanical indicators, e.g. in or near steering wheel}	21/09	. Means for mounting load bearing surfaces
15/021	. . {Determination of steering angle (sensors in general <a href="#">G01B</a> )}	21/10	. in which the main member is plate-like
15/0215	. . . {by measuring on the steering column}	21/11	. with resilient means for suspension {, e.g. of wheels or engine; sub-frames for mounting engine or suspensions}
15/022	. . . . {on or near the connection between the steering wheel and steering column}	<b><u>NOTE</u></b>	
15/0225	. . . {by measuring on a steering gear element, e.g. on a rack bar}	This group <u>does not cover</u> subject matter primarily relating to the suspension, with only a nominal recitation of frame structure, which are covered by subclass <a href="#">B60G</a>	
15/023	. . . {by measuring on the king pin}	21/12	. assembled from readily detachable parts
15/0235	. . . {by measuring or deriving directly at the electric power steering motor}	21/14	. of adjustable length or width
15/024	. . . {Other means for determination of steering angle without directly measuring it, e.g. deriving from wheel speeds on different sides of the car}	21/15	. having impact absorbing means, e.g. a frame designed to permanently or temporarily change shape or dimension upon impact with another body (bumpers <a href="#">B60R 19/02</a> ; shock absorbers in general <a href="#">F16F</a> )
15/0245	. . . {Means or methods for determination of the central position of the steering system, e.g. straight ahead position}		
15/025	. . {Active steering aids, e.g. helping the driver by actively influencing the steering system after environment evaluation ( <a href="#">B62D 1/28</a> takes precedence; parking aids <a href="#">B62D 15/027</a> )}		

- 21/152 . . {Front or rear frames}
- 21/155 . . . {Sub-frames or underguards}
- 21/157 . . {for side impacts}
- 21/16 . having fluid storage compartment
- 21/17 . forming fluid or electrical conduit means or having other means to accomodate the transmission of a force or signal
- 21/18 . characterised by the vehicle type and not provided for in groups [B62D 21/02](#) - [B62D 21/17](#)
- 21/183 . . {specially adapted for sports vehicles, e.g. race, dune buggies, go-karts (tubular skeleton [B62D 23/005](#))}
- 21/186 . . {for building site vehicles or multi-purpose tractors (tracked vehicles [B62D 55/10](#); tractors in general [B62D 49/00](#); building site vehicles in general [E02F](#); lift-trucks [B66F](#))}
- 21/20 . . trailer type, i.e. a frame specifically constructed for use in a non-powered vehicle
- 23/00 Combined superstructure and frame, i.e. monocoque constructions** ({having impact absorbing means [B62D 21/15](#); } superstructure {or monocoque structure} sub-units {or parts or details thereof} [B62D 25/00](#); {characterised by the material thereof [B62D 29/00](#))}
- 23/005 . {with integrated chassis in the whole shell, e.g. meshwork, tubes, or the like ([B62D 33/044](#) takes precedence)}
- 24/00 Connections between vehicle body and vehicle frame** ([B62D 23/00](#), [B62D 33/077](#) take precedence)
- 24/02 . Vehicle body, not intended to move relatively to the vehicle frame, and mounted on vibration absorbing mountings, e.g. rubber pads
- 24/04 . Vehicle body mounted on resilient suspension for movement relative to the vehicle frame
- 25/00 Superstructure {or monocoque structure} sub-units; Parts or details thereof not otherwise provided for** ({having impact absorbing means [B62D 21/15](#); running-boards, steps, or the like as superstructure sub-unit [B60R 3/00](#))}
- 25/02 . Side panels {( [B62D 33/046](#) takes precedence; sideboards for open load compartments [B62D 33/023](#))}
- 25/025 . . {Side sills thereof}
- 25/04 . Door pillars; {windshield pillars}
- 25/06 . Fixed roofs (non-fixed roofs or like shelters [B60J 7/00](#); roof liners [B60R 13/02](#); insulating elements [B60R 13/08](#))
- 25/07 . . having water drainage or guide means integral with roof structure
- 25/08 . Front or rear portions {(sub-frames for mounting engine or suspensions [B62D 21/11](#))}
- 25/081 . . {Cowls (ventilating openings situated directly in front of the vehicle front window [B60H 1/28](#))}
- 25/082 . . {Engine compartments}
- 25/084 . . . {Radiator supports}
- 25/085 . . . {Front-end modules}
- 25/087 . . {Luggage compartments}
- 25/088 . . {Details of structures as upper supports for springs or dampers}
- 25/10 . . Bonnets or lids, {e.g. for trucks, tractors, busses, work vehicles (for truck beds [B60J 7/1607](#); for boats [B63B 19/12](#); doors arranged at the vehicle rear [B60J 5/10](#); inlet covers for vehicle fuel tanks [B60K 15/05](#); for protecting non-occupants of a vehicle [B60R 21/38](#))}
- 25/105 . . . {for motor cars}
- 25/12 . . . Parts or details thereof (locks [E05B](#), {[E05B 83/16](#); devices for holding open [E05C 17/00](#), e.g. while carrying oversize objects [E05C 17/042](#); hinges [E05D](#); counterbalancing means [E05F](#); {checks, stops, buffers [E05F 5/00](#); } springs, {e.g. pneumatic springs} [F16F](#))
- 25/14 . . Dashboards as superstructure sub-units (other dashboard aspects [B60K](#))
- 25/142 . . . {having ventilation channels incorporated therein}
- 25/145 . . . {having a crossbeam incorporated therein}
- 25/147 . . . . {with adjustable connection to the A-pillars}
- 25/16 . . Mud-guards or wings; Wheel cover panels (equipped with means for freeing wheels or tyres from foreign matter [B60S](#))
- 25/161 . . . {Mud-guards made of non-conventional material, e.g. rubber, plastics}
- 25/163 . . . {Mounting devices}
- 25/165 . . . . {including sealing devices}
- 25/166 . . . . {by rods or other distance-keeping devices}
- 25/168 . . . {Mud guards for utility vehicles}
- 25/18 . . . Parts or details thereof, e.g. mudguard flaps
- 25/182 . . . . {Movable mudguards, or mudguards comprising movable or detachable parts ([B62D 25/188](#) takes precedence)}
- 25/184 . . . . . {to facilitate access to wheels}
- 25/186 . . . . . {being attached or suspended laterally from the wheel ([B62D 25/184](#) takes precedence)}
- 25/188 . . . . . {Mud-guard flaps for utility vehicles}
- 25/20 . Floors or bottom sub-units {(sub-frames for mounting engine or suspensions [B62D 21/11](#); drip trays [F16N 31/006](#))}
- 25/2009 . . {in connection with other superstructure subunits}
- 25/2018 . . . {the subunits being front structures}
- 25/2027 . . . {the subunits being rear structures}
- 25/2036 . . . {the subunits being side panels, sills or pillars ([B62D 21/157](#) takes precedence)}
- 25/2045 . . . {the subunits being fire walls}
- 25/2054 . . {Load carrying floors for commercial vehicles}
- 25/2063 . . {Floor elements for repairs}
- 25/2072 . . {Floor protection, e.g. from corrosion or scratching (floor mats [B60N 3/04](#), armour [F41H 7/042](#), insulation [B60R 13/08](#), streamlining [B62D 35/02](#))}
- 25/2081 . . {Jack receiving devices}
- 25/209 . . {Arrangements for the mounting of vehicle hitches (vehicle connections in general [B60D](#))}
- 25/24 . Superstructure sub-units with access {or drainage} openings having movable or removable closures; {Sealing means therefor} (inlet covers for vehicle fuel tanks [B60K 15/05](#))

<b>27/00</b>	<b>Connections between superstructure {or understructure} sub-units</b> {(B62D 33/0207, B62D 33/044 take precedence; between sub-units predominantly made of synthetic material B62D 29/048)}	33/0207	. . {Connections of movable or detachable racks or stanchions to platforms}
27/02	. rigid	33/0215	. . . {for log hauling vehicles (vehicles for log transport in general B60P 3/41)}
27/023	. . {Assembly of structural joints}	33/0222	. . {Connecting elements between stanchions, e.g. roof supporting elements, stiffeners (non-fixed roofs B60J 7/00; securing and covering of load B60P 7/00)}
27/026	. . {Connections by glue bonding (in general F16B 11/00; processes C09J 5/00)}	33/023	. . Sideboard or tailgate structures {(vehicle side panels in general B62D 25/02)}
27/04	. resilient	33/027	. . . movable
27/06	. readily releasable	33/0273	. . . . {Movable tailboards for vehicles comprising non-movable sideboards, e.g. pick-up trucks (B62D 33/037 takes precedence)}
27/065	. . {using screwthread (Connection of crossbeam to A- pillars B62D 25/147; mounting load bearing surfaces B62D 21/09; securing mudguards B62D 25/163; connections for synthetic parts B62D 29/048)}	33/0276	. . . . {by vertical translation (B62D 33/0273 takes precedence)}
<b>29/00</b>	<b>Superstructures, {understructures, or sub-units thereof,} characterised by the material thereof</b> {(B62D 33/044, B62D 33/048 take precedence)}	33/03	. . . . by swinging down {(B62D 33/0273 takes precedence)}
29/001	. {characterised by combining metal and synthetic material}	33/033	. . . . removable {(B62D 33/0273 takes precedence)}
29/002	. . {a foamable synthetic material or metal being added <i>in situ</i> (shaping of substances in a plastic state by foaming, in general B29C 44/00)}	33/037	. . . . Latching means therefor
29/004	. . {the metal being over-moulded by the synthetic material, e.g. in a mould}	33/04	. Enclosed load compartments {Frameworks for movable panels, tarpaulins or side curtains (tarpaulins <i>per se</i> B60J 7/00, B60P 7/04; side curtains <i>per se</i> B60J 5/065)}
29/005	. . {preformed metal and synthetic material elements being joined together, e.g. by adhesives}	33/042	. . {divided into compartments (movable bulk heads B60P 7/14; cattle transport B60P 3/04; bottled liquids B60P 3/22)}
29/007	. {predominantly of special steel or specially treated steel, e.g. stainless steel or locally surface hardened steel}	33/044	. . {built up with profiles of constant elongated shape, e.g. extruded, mechanically interconnected by coupling members, e.g. by clamping, riveting or bolting}
29/008	. {predominantly of light alloys, e.g. extruded}	33/046	. . {built up with flat self-supporting panels; Fixed connections between panels (B62D 29/045, B62D 33/048 take precedence)}
29/02	. predominantly of wood	33/048	. . {for refrigerated goods vehicles}
29/04	. predominantly of synthetic material (working of plastics or substances in a plastic state B29)	33/06	. Drivers' cabs {(overhead guards, e.g. against loads falling down B60R 21/11; roll-over protection B60R 21/13)}
29/041	. . {Understructures}	33/0604	. . {Cabs insulated against vibrations or noise, e.g. with elastic suspension (resilient connections between superstructure sub-units B62D 27/04; damping noise in general G10K 11/00; for vehicles in general B60R 13/08)}
29/043	. . {Superstructures (B62D 25/161 takes precedence)}	33/0608	. . . {pneumatic or hydraulic suspension}
29/045	. . . {Van bodies composed of substantially rectangular panels}	33/0612	. . {Cabins with living accommodation, especially for long distance road vehicles, i.e. sleeping, cooking, or other facilities (beds in general adapted to be used in vehicles A47C 17/80; sanitation devices in vehicles in general B60R 15/00; living accommodation in vehicles in general B60P 3/32; passenger fittings in general B60N 3/00)}
29/046	. . {Combined superstructure and frame, i.e. monocoque constructions}	33/0617	. . {for tractors or off-the-road vehicles (protective devices for drivers in case of overturning of tractors B60R 21/131)}
29/048	. . {Connections therefor, e.g. joints (B62D 29/045 takes precedence)}	33/0621	. . . {able to be dismantled, folding}
<b>31/00</b>	<b>Superstructure for passenger vehicles (passenger vehicles specially adapted to co-operate with aircraft or terminal buildings B64F 1/31)</b>	33/0625	. . . {open}
31/003	. {compact cars, e.g. city cars}	33/063	. . movable from one position into at least one other position, e.g. tiltable, pivotable about a vertical axis, displaceable from one side of the vehicle to the other
31/006	. . {foldable (droppable B60F 5/006)}	33/0633	. . . {pivotable about a vertical axis}
31/02	. for carrying large numbers of passengers, e.g. omnibus	33/0636	. . . {displaceable along a linear path}
31/025	. . {having modular sections}	33/067	. . . tiltable
31/04	. with more than one deck		
<b>33/00</b>	<b>Superstructures for load-carrying vehicles</b> ({having impact absorbing means B62D 21/15; } in which a load-carrying element is movable B60P; liners B60R 13/00; {joining sheets or plates to one another or to strips or bars parallel to them F16B 5/00})		
33/02	. Platforms; Open load compartments {(Flat wagons including posts or standards B61D 3/08)}		

33/07	. . . . characterised by the device for locking the cab in the tilted or in the driving position	49/00	<b>Tractors</b> (of walk type <a href="#">B62D 51/04</a> ; endless-track features <a href="#">B62D 55/00</a> {tractors for handling aircraft <a href="#">B64F 1/22</a> ; transport specially adapted for underground galleries <a href="#">E21F 13/02</a> })
33/071	. . . . . {Locking devices for cabins in driving position; Shock and vibration absorbing devices therefor}	49/002	. {characterised by being of the low ground pressure type}
33/073	. . . characterised by special adaptations of vehicle control devices	49/005	. {Tractors for semi-trailers (combinations of tractor plus semi-trailer <a href="#">B62D 53/06</a> )}
33/077	. characterised by the connection of the superstructure to the vehicle frame {( <a href="#">B62D 33/06</a> takes precedence)}	49/007	. . {Tractors for handling trailers, e.g. roll-trailers in terminals}
33/08	. comprising adjustable means ( <a href="#">B62D 33/10</a> takes precedence)	49/02	. modified to take lifting devices
33/10	. . comprising means for the suspension of the superstructure on the frame	49/04	. modified to take pushing devices
<b>35/00</b>	<b>Vehicle bodies characterised by streamlining</b>	49/06	. adapted for multi-purpose use
35/001	. {For commercial vehicles or tractor-trailer combinations, e.g. caravans}	49/0607	. . {Straddle tractors, used for instance above vine stocks, rows of bushes, or the like}
35/002	. . {for caravans ( <a href="#">B62D 35/004</a> takes precedence)}	49/0614	. . {equipped with visual aids for positioning implements or to control working condition (optical signalling for vehicles in general <a href="#">B60Q 1/26</a> )}
35/004	. . {Inflatable nose or rear cones}	49/0621	. . {comprising traction increasing arrangements, e.g. all-wheel traction devices, multiple-axle traction arrangements, auxiliary traction increasing devices (anti-skid or anti-slip devices fitted onto the wheels <a href="#">B60B 15/02</a> , <a href="#">B60B 39/12</a> ; arrangements of transmission for driving both front and rear wheels or tandem wheels of vehicles <a href="#">B60K 17/34</a> , <a href="#">B60K 17/36</a> )}
35/005	. {Front spoilers ( <a href="#">B62D 35/001</a> takes precedence)}	49/0628	. . . {using detachable weights (counterweights against overturning <a href="#">B62D 49/085</a> ; movable stabilisation masses <a href="#">B62D 37/04</a> )}
35/007	. {Rear spoilers ( <a href="#">B62D 35/001</a> takes precedence)}	49/0635	. . . {using additional ground engaging means, e.g. endless tracks (vehicles with endless tracks and either additional or alternative ground wheels <a href="#">B62D 55/02</a> , <a href="#">B62D 55/04</a> )}
35/008	. {Side spoilers ( <a href="#">B62D 35/001</a> takes precedence)}	49/0642	. . . {by coupling of tractors}
35/02	. Streamlining the undersurfaces {( <a href="#">B62D 35/005</a> , <a href="#">B62D 35/007</a> , <a href="#">B62D 35/008</a> take precedence)}	49/065	. . {Coupling of multi-purpose tractors with equipment (towing bars <a href="#">B60D</a> ; with load transfer <a href="#">B62D 53/08</a> ; power take-off <a href="#">B60K</a> ; with lifting devices <a href="#">B62D 49/02</a> ; pushing gear <a href="#">B62D 49/04</a> )}
<b>37/00</b>	<b>Stabilising vehicle bodies without controlling suspension arrangements</b>	49/0657	. . {Asymmetrical tractors}
37/02	. by aerodynamic means	49/0664	. . {Light, simple, and economical tractors ( <a href="#">B62D 49/002</a> takes precedence)}
37/04	. by means of movable masses	49/0671	. . . {the driver riding on the tractor}
37/06	. . using gyroscopes	49/0678	. . {Tractors of variable track width or wheel base (for vehicles in general <a href="#">B60B 23/12</a> and <a href="#">B60B 35/10</a> )}
<b>39/00</b>	<b>Vehicle bodies not otherwise provided for {, e.g. safety vehicles (safety equipment <a href="#">B60R 21/00</a>)}</b>	49/0685	. . {Reversible tractors adapted for shuttle work}
<b>41/00</b>	<b>Fittings for identifying vehicles in case of collision; Fittings for marking or recording collision areas</b>	49/0692	. . {characterised by the particular arrangement of control devices, e.g. having more than one control stand, operable from vehicle extension (control devices or systems characterised by mechanical features only)}
<b>43/00</b>	<b>Spare wheel stowing, holding, or mounting arrangements</b>	49/08	. having means for preventing overturning or tipping (safety devices for propulsion-unit control, specially adapted for, or arranged in, vehicles <a href="#">B60K 28/00</a> )
43/002	. {Handling devices, mainly for heavy wheels (via cables and chains <a href="#">B62D 43/045</a> )}	49/085	. . {Counterweight}
43/005	. {Protective coverings for spare wheels}	<b>51/00</b>	<b>Motor vehicles characterised by the driver not being seated {(wheeled carriers for golf bags <a href="#">A63B 55/60</a>)}</b>
43/007	. {Anti-theft devices for spare wheels}	51/001	. {characterised by the vehicle control device (mechanical features of control devices in general <a href="#">G05G</a> ; arrangements of vehicle control devices in general <a href="#">B60K 20/00</a> , <a href="#">B60K 23/00</a> , <a href="#">B60K 26/00</a> )}
43/02	. external to the vehicle body		
43/04	. . attached beneath the vehicle body		
43/045	. . . {the wheel or its cradle being attached to one or more chains or cables for handling}		
43/06	. within the vehicle body		
43/08	. . and arranged substantially vertically		
43/10	. . and arranged substantially horizontally		
<b><u>Motor vehicles or trailers classified according to type; Parts or accessories thereof (frames for vehicles of special type <a href="#">B62D 21/18</a>)</u></b>			
<b>47/00</b>	<b>Motor vehicles or trailers predominantly for carrying passengers (superstructures <a href="#">B62D 31/00</a>)</b>		
47/003	. {convertible in order to modify the number of seats (foldable compact cars <a href="#">B62D 31/006</a> ; convertible from one use to a different one <a href="#">B60P 3/42</a> )}		
47/006	. {Vehicles which can be divided in sub-vehicles; nestable vehicles}		
47/02	. for large numbers of passengers, e.g. omnibus		
47/025	. . {articulated buses with interconnecting passageway, e.g. bellows (coupling aspects <a href="#">B60D 5/00</a> )}		



- 51/002 . . {comprising safety arrangements (safety devices for vehicle propulsion unit control [B60K 28/00](#))}
- 51/004 . {characterised by the transmission (arrangements or mounting of transmissions in vehicles [B60K 17/00](#); gearing in general [F16H](#))}
- 51/005 . {Vehicular characteristics of load handling vehicles, e.g. pedestrian trucks (fork-lift trucks [B66F 9/06](#))}
- 51/007 . {the vehicle being of the endless track type (endless track vehicles in general [B62D 55/00](#))}
- 51/008 . {characterised by the vehicle being formed by articulated or separable units (road trains [B62D 53/00](#))}
- 51/02 . the driver standing in the vehicle
- 51/04 . the driver walking
- 51/06 . . Uniaxle walk-type tractors
- 51/065 . . . {the vehicle having only one wheel}
- 53/00 Tractor-trailer combinations; Road trains (traction couplings other than fifth wheel coupling [B60D](#) {tracked vehicles comprising at least two articulated parts [B62D 55/0655](#)})**
- 53/005 . {Combinations with at least three axles and comprising two or more articulated parts (articulated buses [B62D 47/025](#))}
- 53/02 . comprising a uniaxle tractor unit and a uniaxle trailer unit {(see [B60B 11/00](#) - [B60B 11/08](#))}
- 53/021 . . {comprising a universal coupling joint}
- 53/023 . . {with two or more coupling joints allowing staggering of the units from a central plane}
- 53/025 . . {Comprising a transmission shaft passing through the coupling joints ([B62D 53/021](#) takes precedence; trailers with powered axles [B62D 59/00](#))}
- 53/026 . . . {With all wheels powered}
- 53/028 . . {Having only coupling joints other than directional (articulated frames [B62D 21/186](#) and [B62D 55/10](#))}
- 53/04 . comprising a vehicle carrying an essential part of the other vehicle's load by having supporting means for the front or rear part of the other vehicle
- 53/045 . . {with rigid linkage in the horizontal plane (luggage trailers [B62D 63/064](#) - [B62D 63/067](#))}
- 53/06 . . Semi-trailers
- 53/061 . . . {of flat bed or low loader type or fitted with swan necks (detachable swan necks [B62D 53/065](#); swan neck-fifth wheel couplings [B62D 53/08](#))}
- 53/062 . . . . {having inclinable, lowerable platforms; Lift bed trailers; Straddle trailers (lifting coupling saddles [B62D 53/0821](#); crane vehicles [B60P 3/28](#))}
- 53/064 . . . . {inclining platforms by detachable bogies}
- 53/065 . . . . {inclining platforms by detachable or folding swan necks}
- 53/067 . . . {Multi-purpose, convertible or extendable load surface semi-trailers (for container transport [B60P 1/6418](#); convertible road transport vehicles in general [B60P 3/42](#))}
- 53/068 . . . {having devices to equalise or modify the load between the fifth wheel and the rear wheels (adjustable coupling saddles [per se](#) [B62D 53/0807](#); load transfer devices to permit coupling or uncoupling [B62D 53/0857](#); anti jack-knifing devices [B62D 53/0871](#))}
- 53/08 . . Fifth wheel traction couplings {(Tractors for handling trailers in terminals [B62D 49/007](#))}
- 53/0807 . . . {adjustable coupling saddles mounted on sub-frames; Mounting plates therefor}
- 53/0814 . . . . {with adjustment of the clearance between the tractor or the trailer (devices modifying the load in tractor-trailer combinations [B62D 53/068](#))}
- 53/0821 . . . . {Lifting saddles, i.e. to lift the trailer front (tilting body constructions [B60P](#))}
- 53/0828 . . . . {Removable or fold-away traction couplings for non-specialised tractor vehicles}
- 53/0835 . . . . {Coupling saddles able to rock in all directions, e.g. for use in rough terrain}
- 53/0842 . . . {King pins}
- 53/085 . . . . {fitted with anti-coupling devices, pivotal or retractable king pins, e.g. to prevent theft (vehicle fittings for preventing theft in general [B60R 25/00](#))}
- 53/0857 . . . {Auxiliary semi-trailer handling or loading equipment, e.g. ramps, rigs, coupling supports}
- 53/0864 . . . . {Dollies for fifth wheel coupling}
- 53/0871 . . . {with stabilising means, e.g. to prevent jack-knifing, pitching, rolling, buck jumping (stabilising in general [B62D 37/00](#); tractors [B62D 49/08](#))}
- 53/0878 . . . . {the fifth wheel coupling incorporating braking or restraining means}
- 53/0885 . . . {Comprising devices to limit or to compensate for wear or excessive play; Lubricating, shock absorbing, bearing devices, or the like}
- 53/0892 . . . {comprising power transmission shafts (trailers with driven ground wheels [B62D 59/00](#))}
- 53/10 . . . with means for preventing accidental uncoupling
- 53/12 . . . engaging automatically
- 53/125 . . . . {with simultaneous coupling of the service lines}
- 55/00 Endless track vehicles (steering aspects [B62D 11/00](#); {characterised by the driver not being seated [B62D 51/007](#)})**
- 55/02 . with tracks and additional ground wheels {(for multi-purpose tractors [B62D 49/0635](#))}
- 55/04 . with tracks and alternative ground wheels, e.g. changeable from endless track vehicle into wheeled vehicle and *vice versa* {(for multi-purpose tractors [B62D 49/0635](#))}
- 55/06 . with tracks without ground wheels
- 55/062 . . {Tracked vehicles of great dimensions adapted for moving bulky loads or gear}
- 55/065 . . Multi-track vehicles, i.e. more than two tracks {(soil-shifting machines [E02F](#); mining machines [E21C](#))}
- 55/0655 . . . {Articulated endless track vehicles (steering specially adapted for trailers [B62D 13/00](#); articulated buses [B62D 47/025](#); tractor-trailer combinations or road trains comprising a uni-axle unit and a uni-axle trailer [B62D 53/02](#))}
- 55/07 . . Mono-track vehicles
- 55/075 . . Tracked vehicles for ascending or descending stairs, {steep slopes or vertical surfaces} (magnetic or pneumatic ground-engaging parts [B62D 55/265](#); chairs or multi-track cycles specially adapted for invalids [A61G 5/00](#))

55/08	. Endless track units; Parts thereof	55/22	. . . . Arrangements for preventing or modifying back-flexing
55/084	. . Endless-track units or carriages mounted separably, adjustably or extensibly on vehicles, e.g. portable track units ( <a href="#">B62D 55/07</a> takes precedence)	55/24	. . . of continuously flexible type, e.g. rubber belts
55/0842	. . . {Tracked vehicle with track carriages suspended on three points, e.g. by an equaliser bar}	55/242	. . . . {The flexible band being semi-rigid for resisting back-flexing and contributing to spring the vehicle}
55/0845	. . . {Protection devices}	55/244	. . . . {Moulded in one piece, with either smooth surfaces or surfaces having projections, e.g. incorporating reinforcing elements}
55/0847	. . . {Track blocking devices mounted on the frame; Track guides}	55/247	. . . . Gas filled or inflatable flexible tracks ( <a href="#">connection of valves to inflatable elastic bodies B60C 29/00</a> )
55/088	. . with means to exclude or remove foreign matter, e.g. sealing means, self-cleaning track links or sprockets, deflector plates or scrapers	55/253	. . . . having elements interconnected by one or more cables or like elements
55/0882	. . . {Track or sprocket cleaning devices mounted on the frame ( <a href="#">wheel cleaning devices in general B60S</a> )}	55/26	. . . Ground engaging parts or elements {( <a href="#">tracks specially adapted for amphibious vehicles B60F 3/0015</a> )}
55/0885	. . . {Self-cleaning sprockets}	55/265	. . . . having magnetic or pneumatic adhesion
55/0887	. . . {Track-articulation sealings against dust, water, mud or the like ( <a href="#">sealing of bearings in general F16C 33/72; chain bushings in general F16G 15/00</a> )}	55/27	. . . . having different types of crampons for progression over varying ground
55/092	. . with lubrication means ( <a href="#">lubricating in general F16N</a> )	55/275	. . . . with street plate, i.e. means to prevent tread from cutting into road surface
55/096	. . with noise reducing means	55/28	. . . . detachable
55/0963	. . . {Anti-noise driving sprockets}	55/283	. . . . . {and movable, e.g. around an axis or perpendicularly to the track}
55/0966	. . . {Low noise rollers, e.g. with antivibration means ( <a href="#">elastic wheel rims in general B60B 9/00</a> )}	55/286	. . . . . {For soft grounds, e.g. consisting of snow or swamp}
55/10	. . Bogies; Frames ( <a href="#">track-tensioning means B62D 55/30</a> )	55/30	. . Track-tensioning means
55/104	. . Suspension devices for wheels, rollers, bogies or frames ( <a href="#">vehicle suspension in general B60G</a> )	55/305	. . . {acting on pivotably mounted idlers}
55/108	. . . with mechanical springs, e.g. torsion bars	55/32	. Assembly, disassembly, repair or servicing of endless-track systems
55/1083	. . . . {Torsion-bar springs}	57/00	<b>Vehicles characterised by having other propulsion or other ground- engaging means than wheels or endless track, alone or in addition to wheels or endless track (<a href="#">sledges B62B; motor sledges B62M</a>)</b>
55/1086	. . . . {Rubber springs}	57/02	. with ground-engaging propulsion means, e.g. walking members
55/112	. . . with fluid springs, e.g. hydraulic pneumatic	57/021	. . {the ground engaging means being sequentially inflatable bags for peristaltic movement ( <a href="#">B62D 57/024</a> takes precedence)}
55/1125	. . . . {Hydro-pneumatic or pneumatic, e.g. air-cushioned}	57/022	. . {consisting of members having both rotational and walking movements}
55/116	. . . Attitude or position control of chassis by action on suspension, e.g. to compensate for a slope	57/024	. . specially adapted for moving on inclined or vertical surfaces ( <a href="#">endless-track vehicles for ascending or descending stairs B62D 55/075; hand-carts with provision for travelling up or down stairs B62B 5/02</a> )
55/12	. . Arrangement, location, or adaptation of driving sprockets	57/028	. . having wheels and mechanical legs ( <a href="#">B62D 57/024</a> takes precedence; ground-engaging vehicle fittings for supporting, lifting or manoeuvring the vehicle, wholly or in part <a href="#">B60S 9/00</a> )
55/125	. . . Final drives	57/032	. . with alternately or sequentially lifted supporting base and legs; with alternately or sequentially lifted feet or skid ( <a href="#">B62D 57/024</a> takes precedence)
55/13	. . . . readily interchangeable modular type	57/036	. . screw type, e.g. Archimedian screw {( <a href="#">amphibious vehicles comprising screw-type ground-engaging means B60F 3/0023</a> )}
55/135	. . . with dismountable driving crown	57/04	. having other than ground-engaging propulsion means, e.g. having propellers ( <a href="#">arrangement of jet-propulsion units B60K</a> )
55/14	. . Arrangement, location, or adaptation of rollers	59/00	<b>Trailers with driven ground wheels or the like</b>
55/145	. . . {Rollers with replaceable wear rings or rims ( <a href="#">driving sprockets with replaceable rims B62D 55/12</a> )}	59/02	. driven from external propulsion unit
55/15	. . . Mounting devices, e.g. bushings, axles, bearings, sealings {(with lubrication means <a href="#">B62D 55/092</a> )}		
55/18	. . Tracks ( <a href="#">self-cleaning track links B62D 55/088</a> )		
55/20	. . . of articulated type, e.g. chains {(with lubrication means <a href="#">B62D 55/092</a> )}		
55/202	. . . . {Wheel engaging parts; Wheel guides on links}		
55/205	. . . . Connections between track links		
55/21	. . . . . Links connected by transverse pivot pins		
55/211	. . . . . {Bitubular chain links assembled by pins and double connectors}		
55/213	. . . . . {Master track links}		
55/215	. . . . . Resilient connections between links		

- 59/04 . . driven from propulsion unit on trailer
- 61/00 Motor vehicles or trailers, characterised by the arrangement or number of wheels, not otherwise provided for, e.g. four wheels in diamond pattern**
- 61/02 . . with two road wheels in tandem on the longitudinal centre line of the vehicle
- 61/04 . . with two other wheels which are coaxial
- 61/06 . . with only three wheels
- 61/065 . . {with single rear wheel}
- 61/08 . . with single front wheel
- 61/10 . . with more than four wheels {(tractors of the low ground pressure type B62D 49/002)}
- 61/12 . . with variable number of ground engaging wheels, e.g. with some wheels arranged higher than others, or with retractable wheels (for manoeuvring purposes only B60S)
- 61/125 . . {the retractable wheel being a part of a set of tandem wheels (resilient suspension for a single set of tandem wheels B60G 5/00)}
- 63/00 Motor vehicles or trailers not otherwise provided for**
- 63/02 . . Motor vehicles
- 63/025 . . {Modular vehicles (superstructures for busses having modular sections B62D 31/025)}
- 63/04 . . Component parts or accessories
- 63/06 . . Trailers (vehicles comprising living accommodation for people, e.g. caravans, camping or like vehicles B60P 3/32)
- 63/061 . . {Foldable, extensible or yielding trailers (foldable caravans B60P 3/34; adjustable chassis frames B62D 21/14)}
- 63/062 . . {Trailers with one axle or two wheels (semi-trailers B62D 53/06)}
- 63/064 . . . {light luggage or equipment trailers, e.g. for batteries, gas generators, gas bottles, stretchers (luggage carriers per se B60R)}
- 63/065 . . . {forming an extension of the towing vehicle, i.e. with two point fixation}
- 63/067 . . . . {single wheeled (rigid or semi-rigid coupling)}
- 63/068 . . {with more than two axles or more than four wheels (vehicles with more than four wheels in general B62D 61/10)}
- 63/08 . . Component parts or accessories
- 65/00 Designing, manufacturing, e.g. assembling, facilitating disassembly, or structurally modifying motor vehicles or trailers, not otherwise provided for**
- 65/005 . . {Inspection and final control devices}
- 65/02 . . Joining sub-units or components to, or positioning sub-units or components with respect to, body shell or other sub-units or components
- 65/022 . . {Transferring or handling sub-units or components, e.g. in work stations or between workstations and transportation systems}
- 65/024 . . {Positioning of sub-units or components with respect to body shell or other sub-units or components}
- 65/026 . . . {by using a jig or the like; Positioning of the jig}
- 65/028 . . . {by determining relative positions by measurement}
- 65/04 . . Joining preassembled modular units composed of sub-units performing diverse functions, e.g. engine and bonnet (B62D 65/06 - B62D 65/16 take precedence)
- 65/06 . . the sub-units or components being doors, windows, openable roofs, lids, bonnets, or weather strips or seals therefor {(assembling sealing arrangements with vehicle parts, e.g. doors, windows B60J 10/45)}
- 65/10 . . the sub-units or components being engines, clutches or transmissions
- 65/12 . . the sub-units or components being suspensions, brakes or wheel units
- 65/14 . . the sub-units or components being passenger compartment fittings, e.g. seats, linings, trim, instrument panels
- 65/16 . . the sub-units or components being exterior fittings, e.g. bumpers, lights, wipers {, exhausts}
- 65/18 . . Transportation, conveyor or haulage systems specially adapted for motor vehicle or trailer assembly lines {(conveyors and haulage in general B65G)}
- 67/00 Systematic disassembly of vehicles for recovery of salvageable components, e.g. for recycling (for disposal of vehicles by destroying or transformation B09B 3/00, B09B 5/00 {; General arrangement of separating plants B03B 9/00; Recovery of plastics B29B 17/00})**