

# CPC COOPERATIVE PATENT CLASSIFICATION

## B PERFORMING OPERATIONS; TRANSPORTING

(NOTES omitted)

### TRANSPORTING

## B62 LAND VEHICLES FOR TRAVELLING OTHERWISE THAN ON RAILS

**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.

#### WARNINGS

- The following IPC groups are not in the CPC scheme. The subject matter for these IPC 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>
<a href="#">B62D 101/00</a> - <a href="#">B62D 137/00</a>	covered by	<a href="#">B62D 6/00</a> - <a href="#">B62D 6/008</a>
- In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

#### 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

#### 1/00 Steering controls, i.e. means for initiating a change of direction of the vehicle

- 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 ([B62D 1/11](#) takes precedence)
- 1/065 . . . . {Steering wheels with heating and ventilating means (heating and ventilating arrangements for spaces of vehicles [B60H](#))}
- 1/08 . . . Spokes, e.g. resilient ([B62D 1/11](#) takes precedence)
- 1/10 . . . Hubs; Connecting hubs to steering columns, e.g. adjustable ([B62D 1/11](#) takes precedence)
- 1/105 . . . . {Non-rotatable hubs, e.g. the central part of the steering wheel not rotating (for storing airbags [B60R 21/2032](#))}

- 1/11 . . . incorporating energy-absorbing arrangements, e.g. by being yieldable or collapsible ([padded linings associated with the steering wheel B60R 21/05](#); shock absorbers using plastic deformation of members in general [F16F 7/12](#))
- 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 [B62D 5/008](#); controlling steering depending on driving conditions sensed and responded to [B62D 6/00](#))}
- 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](#), [B60W 60/0027](#))}
- 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 breakdown}

- 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
- 6/10 . . characterised by means for sensing {or determining} torque
- 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)
- 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	15/0245	. . . {Means or methods for determination of the central position of the steering system, e.g. straight ahead position}
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 <a href="#">B60K 17/00</a> ; gearing in general <a href="#">F16H</a> )}	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> )}
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> , <a href="#">B60W 60/0027</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>NOTE</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}		
15/0235	. . . {by measuring or deriving directly at the electric power steering motor}		
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}		

- 21/12 . . assembled from readily detachable parts
- 21/14 . . of adjustable length or width
- 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 [B60R 19/02](#); shock absorbers in general [F16F](#))
- 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 accommodate 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	<ul style="list-style-type: none"> <li>Superstructure sub-units with access {or drainage} openings having movable or removable closures; {Sealing means therefor} (inlet covers for vehicle fuel tanks <a href="#">B60K 15/05</a>)</li> </ul>	33/00	<b>Superstructures for load-carrying vehicles</b> ((having impact absorbing means <a href="#">B62D 21/15</a> ; ) in which a load-carrying element is movable <a href="#">B60P</a> ; liners <a href="#">B60R 13/00</a> {; joining sheets or plates to one another or to strips or bars parallel to them <a href="#">F16B 5/00</a> ))
27/00	<b>Connections between superstructure {or understructure} sub-units</b> {( <a href="#">B62D 33/0207</a> , <a href="#">B62D 33/044</a> take precedence; between sub-units predominantly made of synthetic material <a href="#">B62D 29/048</a> )}	33/02	<ul style="list-style-type: none"> <li>Platforms; Open load compartments {(flat wagons including posts or standards <a href="#">B61D 3/08</a>)}</li> </ul>
27/02	<ul style="list-style-type: none"> <li>rigid</li> </ul>	33/0207	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{Connections of movable or detachable racks or stanchions to platforms}</li> </ul> </li> </ul>
27/023	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{Assembly of structural joints}</li> </ul> </li> </ul>	33/0215	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{for log hauling vehicles (vehicles for log transport in general <a href="#">B60P 3/41</a>)}</li> </ul> </li> </ul> </li> </ul>
27/026	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{Connections by glue bonding (in general <a href="#">F16B 11/00</a>; processes <a href="#">C09J 5/00</a>)}</li> </ul> </li> </ul>	33/0222	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{Connecting elements between stanchions, e.g. roof supporting elements, stiffeners (non-fixed roofs <a href="#">B60J 7/00</a>; securing and covering of load <a href="#">B60P 7/00</a>)}</li> </ul> </li> </ul>
27/04	<ul style="list-style-type: none"> <li>resilient</li> </ul>	33/023	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Sideboard or tailgate structures {(vehicle side panels in general <a href="#">B62D 25/02</a>)}</li> </ul> </li> </ul>
27/06	<ul style="list-style-type: none"> <li>readily releasable</li> </ul>	33/027	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>movable</li> </ul> </li> </ul>
27/065	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{using screwthread (connection of crossbeam to A- pillars <a href="#">B62D 25/147</a>; mounting load bearing surfaces <a href="#">B62D 21/09</a>; securing mudguards <a href="#">B62D 25/163</a>; connections for synthetic parts <a href="#">B62D 29/048</a>)}</li> </ul> </li> </ul>	33/0273	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{Movable tailboards for vehicles comprising non-movable sideboards, e.g. pick-up trucks (<a href="#">B62D 33/037</a> takes precedence)}</li> </ul> </li> </ul> </li> </ul>
29/00	<b>Superstructures, {understructures, or sub-units thereof,} characterised by the material thereof</b> {( <a href="#">B62D 33/044</a> , <a href="#">B62D 33/048</a> take precedence)}	33/0276	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{by vertical translation (<a href="#">B62D 33/0273</a> takes precedence)}</li> </ul> </li> </ul> </li> </ul>
29/001	<ul style="list-style-type: none"> <li>{characterised by combining metal and synthetic material}</li> </ul>	33/03	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>by swinging down {(<a href="#">B62D 33/0273</a> takes precedence)}</li> </ul> </li> </ul>
29/002	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{a foamable synthetic material or metal being added <u>in situ</u> (shaping of substances in a plastic state by foaming, in general <a href="#">B29C 44/00</a>)}</li> </ul> </li> </ul>	33/033	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>removable {(<a href="#">B62D 33/0273</a> takes precedence)}</li> </ul> </li> </ul>
29/004	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{the metal being over-moulded by the synthetic material, e.g. in a mould}</li> </ul> </li> </ul>	33/037	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Latching means therefor</li> </ul> </li> </ul>
29/005	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{preformed metal and synthetic material elements being joined together, e.g. by adhesives}</li> </ul> </li> </ul>	33/04	<ul style="list-style-type: none"> <li>Enclosed load compartments {Frameworks for movable panels, tarpaulins or side curtains (tarpaulins <u>per se</u> <a href="#">B60J 7/00</a>, <a href="#">B60P 7/04</a>; side curtains <u>per se</u> <a href="#">B60J 5/065</a>)}</li> </ul>
29/007	<ul style="list-style-type: none"> <li>{predominantly of special steel or specially treated steel, e.g. stainless steel or locally surface hardened steel}</li> </ul>	33/042	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{divided into compartments (movable bulk heads <a href="#">B60P 7/14</a>; cattle transport <a href="#">B60P 3/04</a>; bottled liquids <a href="#">B60P 3/22</a>)}</li> </ul> </li> </ul>
29/008	<ul style="list-style-type: none"> <li>{predominantly of light alloys, e.g. extruded}</li> </ul>	33/044	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{built up with profiles of constant elongated shape, e.g. extruded, mechanically interconnected by coupling members, e.g. by clamping, riveting or bolting}</li> </ul> </li> </ul>
29/02	<ul style="list-style-type: none"> <li>predominantly of wood</li> </ul>	33/046	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{built up with flat self-supporting panels; Fixed connections between panels (<a href="#">B62D 29/045</a>, <a href="#">B62D 33/048</a> take precedence)}</li> </ul> </li> </ul>
29/04	<ul style="list-style-type: none"> <li>predominantly of synthetic material (<u>working of plastics or substances in a plastic state</u> <a href="#">B29</a>)</li> </ul>	33/048	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{for refrigerated goods vehicles}</li> </ul> </li> </ul>
29/041	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{Understructures}</li> </ul> </li> </ul>	33/06	<ul style="list-style-type: none"> <li>Drivers' cabs {(overhead guards, e.g. against loads falling down <a href="#">B60R 21/11</a>; roll-over protection <a href="#">B60R 21/13</a>)}</li> </ul>
29/043	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{Superstructures (<a href="#">B62D 25/161</a> takes precedence)}</li> </ul> </li> </ul>	33/0604	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{Cabs insulated against vibrations or noise, e.g. with elastic suspension (resilient connections between superstructure sub-units <a href="#">B62D 27/04</a>; damping noise in general <a href="#">G10K 11/00</a>; for vehicles in general <a href="#">B60R 13/08</a>)}</li> </ul> </li> </ul>
29/045	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{Van bodies composed of substantially rectangular panels}</li> </ul> </li> </ul> </li> </ul>	33/0608	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{pneumatic or hydraulic suspension}</li> </ul> </li> </ul> </li> </ul>
29/046	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{Combined superstructure and frame, i.e. monocoque constructions}</li> </ul> </li> </ul>	33/0612	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{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 <a href="#">A47C 17/80</a>; sanitation devices in vehicles in general <a href="#">B60R 15/00</a>; living accommodation in vehicles in general <a href="#">B60P 3/32</a>; passenger fittings in general <a href="#">B60N 3/00</a>)}</li> </ul> </li> </ul>
29/048	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{Connections therefor, e.g. joints (<a href="#">B62D 29/045</a> takes precedence)}</li> </ul> </li> </ul>	33/0617	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{for tractors or off-the-road vehicles (protective devices for drivers in case of overturning of tractors <a href="#">B60R 21/131</a>)}</li> </ul> </li> </ul>
31/00	<b>Superstructures for passenger vehicles</b> (passenger vehicles specially adapted to co-operate with aircraft or terminal buildings <a href="#">B64F 1/31</a> )	33/0621	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{able to be dismantled, folding}</li> </ul> </li> </ul>
31/003	<ul style="list-style-type: none"> <li>{compact cars, e.g. city cars}</li> </ul>		
31/006	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{foldable (droppable <a href="#">B60F 5/006</a>)}</li> </ul> </li> </ul>		
31/02	<ul style="list-style-type: none"> <li>for carrying large numbers of passengers, e.g. omnibus</li> </ul>		
31/025	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{having modular sections}</li> </ul> </li> </ul>		
31/04	<ul style="list-style-type: none"> <li>with more than one deck</li> </ul>		

33/0625	. . . {open}	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> )}
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	47/006	. {Vehicles which can be divided in sub-vehicles; nestable vehicles}
33/0633	. . . {pivotable about a vertical axis}	47/02	. for large numbers of passengers, e.g. omnibus
33/0636	. . . {displaceable along a linear path}	47/025	. . {articulated buses with interconnecting passageway, e.g. bellows ( <a href="#">coupling aspects B60D 5/00</a> )}
33/067	. . . tiltable		
33/07	. . . . characterised by the device for locking the cab in the tilted or in the driving position	<b>49/00</b>	<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 takes precedence</a> )}	49/007	. . {Tractors for handling trailers, e.g. roll-trailers in terminals}
33/08	. comprising adjustable means ( <a href="#">B62D 33/10 takes precedence</a> )	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 takes precedence</a> )}	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 takes precedence</a> )}	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 takes precedence</a> )}	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 takes precedence</a> )}	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 take precedence</a> )}	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 takes precedence</a> )}
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> )}		
43/005	. {Protective coverings for spare wheels}		
43/007	. {Anti-theft devices for spare wheels}		
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>Motor vehicles or trailers classified according to type; Parts or accessories thereof (frames for vehicles of special type <a href="#">B62D 21/18</a>)</b>			
<b>47/00</b>	<b>Motor vehicles or trailers predominantly for carrying passengers (superstructures <a href="#">B62D 31/00</a>)</b>		



49/085	. . {Counterweight}	53/067	. . . {Multi-purpose, convertible or extendable load surface semi-trailers (for container transport <a href="#">B60P 1/6418</a> ; convertible road transport vehicles in general <a href="#">B60P 3/42</a> )}
<b>51/00</b>	<b>Motor vehicles characterised by the driver not being seated</b> {(wheeled carriers for golf bags <a href="#">A63B 55/60</a> )}	53/068	. . . {having devices to equalise or modify the load between the fifth wheel and the rear wheels (adjustable coupling saddles <i>per se</i> <a href="#">B62D 53/0807</a> ; load transfer devices to permit coupling or uncoupling <a href="#">B62D 53/0857</a> ; anti jack-knifing devices <a href="#">B62D 53/0871</a> )}
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> )}	53/08	. . Fifth wheel traction couplings {(tractors for handling trailers in terminals <a href="#">B62D 49/007</a> )}
51/002	. . {comprising safety arrangements (safety devices for vehicle propulsion unit control <a href="#">B60K 28/00</a> )}	53/0807	. . . {adjustable coupling saddles mounted on sub-frames; Mounting plates therefor}
51/004	. {characterised by the transmission (arrangements or mounting of transmissions in vehicles <a href="#">B60K 17/00</a> ; gearing in general <a href="#">F16H</a> )}	53/0814	. . . . {with adjustment of the clearance between the tractor or the trailer (devices modifying the load in tractor-trailer combinations <a href="#">B62D 53/068</a> )}
51/005	. {Vehicular characteristics of load handling vehicles, e.g. pedestrian trucks (fork-lift trucks <a href="#">B66F 9/06</a> )}	53/0821	. . . . {Lifting saddles, i.e. to lift the trailer front (tilting body constructions <a href="#">B60P</a> )}
51/007	. {the vehicle being of the endless track type (endless track vehicles in general <a href="#">B62D 55/00</a> )}	53/0828	. . . . {Removable or fold-away traction couplings for non-specialised tractor vehicles}
51/008	. {characterised by the vehicle being formed by articulated or separable units (road trains <a href="#">B62D 53/00</a> )}	53/0835	. . . . {Coupling saddles able to rock in all directions, e.g. for use in rough terrain}
51/02	. the driver standing in the vehicle	53/0842	. . . {King pins}
51/04	. the driver walking	53/085	. . . . {fitted with anti-coupling devices, pivotal or retractable king pins, e.g. to prevent theft (vehicle fittings for preventing theft in general <a href="#">B60R 25/00</a> )}
51/06	. . Uniaxle walk-type tractors	53/0857	. . . {Auxiliary semi-trailer handling or loading equipment, e.g. ramps, rigs, coupling supports}
51/065	. . . {the vehicle having only one wheel}	53/0864	. . . . {Dollies for fifth wheel coupling}
<b>53/00</b>	<b>Tractor-trailer combinations; Road trains</b> (traction couplings other than fifth wheel coupling <a href="#">B60D</a> ; tracked vehicles comprising at least two articulated parts <a href="#">B62D 55/0655</a> )	53/0871	. . . {with stabilising means, e.g. to prevent jack-knifing, pitching, rolling, buck jumping (stabilising in general <a href="#">B62D 37/00</a> ; tractors <a href="#">B62D 49/08</a> )}
53/005	. {Combinations with at least three axles and comprising two or more articulated parts (articulated buses <a href="#">B62D 47/025</a> )}	53/0878	. . . . {the fifth wheel coupling incorporating braking or restraining means}
53/02	. comprising a uniaxle tractor unit and a uniaxle trailer unit {(see <a href="#">B60B 11/00</a> - <a href="#">B60B 11/08</a> )}	53/0885	. . . {Comprising devices to limit or to compensate for wear or excessive play; Lubricating, shock absorbing, bearing devices, or the like}
53/021	. . {comprising a universal coupling joint}	53/0892	. . . {comprising power transmission shafts (trailers with driven ground wheels <a href="#">B62D 59/00</a> )}
53/023	. . {with two or more coupling joints allowing staggering of the units from a central plane}	53/10	. . . with means for preventing accidental uncoupling
53/025	. . {Comprising a transmission shaft passing through the coupling joints ( <a href="#">B62D 53/021</a> takes precedence; trailers with powered axles <a href="#">B62D 59/00</a> )}	53/12	. . . engaging automatically
53/026	. . . {With all wheels powered}	53/125	. . . . {with simultaneous coupling of the service lines}
53/028	. . {Having only coupling joints other than directional (articulated frames <a href="#">B62D 21/186</a> and <a href="#">B62D 55/10</a> )}	<b>55/00</b>	<b>Endless track vehicles</b> (steering aspects <a href="#">B62D 11/00</a> ; {characterised by the driver not being seated <a href="#">B62D 51/007</a> )}
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	55/02	. with tracks and additional ground wheels {(for multi-purpose tractors <a href="#">B62D 49/0635</a> )}
53/045	. . {with rigid linkage in the horizontal plane (luggage trailers <a href="#">B62D 63/064</a> - <a href="#">B62D 63/067</a> )}	55/04	. with tracks and alternative ground wheels, e.g. changeable from endless track vehicle into wheeled vehicle and <i>vice versa</i> {(for multi-purpose tractors <a href="#">B62D 49/0635</a> )}
53/06	. . Semi-trailers	55/06	. with tracks without ground wheels
53/061	. . . {of flat bed or low loader type or fitted with swan necks (detachable swan necks <a href="#">B62D 53/065</a> ; swan neck-fifth wheel couplings <a href="#">B62D 53/08</a> )}	55/062	. . {Tracked vehicles of great dimensions adapted for moving bulky loads or gear}
53/062	. . . . {having inclinable, lowerable platforms; Lift bed trailers; Straddle trailers (lifting coupling saddles <a href="#">B62D 53/0821</a> ; crane vehicles <a href="#">B60P 3/28</a> )}	55/065	. . Multi-track vehicles, i.e. more than two tracks {(soil-shifting machines <a href="#">E02F</a> ; mining machines <a href="#">E21C</a> )}
53/064	. . . . . {inclining platforms by detachable bogies}		
53/065	. . . . . {inclining platforms by detachable or folding swan necks}		

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

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> )	65/00	<b>Designing, manufacturing, e.g. assembling, facilitating disassembly, or structurally modifying motor vehicles or trailers, not otherwise provided for</b>
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)	65/005	. { <a href="#">Inspection and final control devices</a> }
57/036	. . screw type, e.g. Archimedian screw { (amphibious vehicles comprising screw-type ground-engaging means <a href="#">B60F 3/0023</a> ) }	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
57/04	. having other than ground-engaging propulsion means, e.g. having propellers (arrangement of jet-propulsion units <a href="#">B60K</a> )	65/022	. . { <a href="#">Transferring or handling sub-units or components, e.g. in work stations or between workstations and transportation systems</a> }
<b>59/00</b>	<b>Trailers with driven ground wheels or the like</b>	65/024	. . { <a href="#">Positioning of sub-units or components with respect to body shell or other sub-units or components</a> }
59/02	. driven from external propulsion unit	65/026	. . . { <a href="#">by using a jig or the like; Positioning of the jig</a> }
59/04	. driven from propulsion unit on trailer	65/028	. . . { <a href="#">by determining relative positions by measurement</a> }
<b>61/00</b>	<b>Motor vehicles or trailers, characterised by the arrangement or number of wheels, not otherwise provided for, e.g. four wheels in diamond pattern</b>	65/04	. . Joining preassembled modular units composed of sub-units performing diverse functions, e.g. engine and bonnet ( <a href="#">B62D 65/06</a> - <a href="#">B62D 65/16</a> take precedence)
61/02	. with two road wheels in tandem on the longitudinal centre line of the vehicle	65/06	. . the sub-units or components being doors, windows, openable roofs, lids, bonnets, or weather strips or seals therefor { ( <a href="#">assembling sealing arrangements with vehicle parts, e.g. doors, windows B60J 10/45</a> ) }
61/04	. . with two other wheels which are coaxial	65/10	. . the sub-units or components being engines, clutches or transmissions
61/06	. with only three wheels	65/12	. . the sub-units or components being suspensions, brakes or wheel units
61/065	. . { <a href="#">with single rear wheel</a> }	65/14	. . the sub-units or components being passenger compartment fittings, e.g. seats, linings, trim, instrument panels
61/08	. . with single front wheel	65/16	. . the sub-units or components being exterior fittings, e.g. bumpers, lights, wipers { , <a href="#">exhausts</a> }
61/10	. with more than four wheels { ( <a href="#">tractors of the low ground pressure type B62D 49/002</a> ) }	65/18	. . Transportation, conveyor or haulage systems specially adapted for motor vehicle or trailer assembly lines { ( <a href="#">conveyors and haulage in general B65G</a> ) }
61/12	. with variable number of ground engaging wheels, e.g. with some wheels arranged higher than others, or with retractable wheels ( <a href="#">for manoeuvring purposes only B60S</a> )		
61/125	. . { <a href="#">the retractable wheel being a part of a set of tandem wheels (resilient suspension for a single set of tandem wheels B60G 5/00)</a> }		
<b>63/00</b>	<b>Motor vehicles or trailers not otherwise provided for</b>	<b>67/00</b>	<b>Systematic disassembly of vehicles for recovery of salvageable components, e.g. for recycling (for disposal of vehicles by destroying or transformation <a href="#">B09B 3/00</a>, <a href="#">B09B 5/00</a> {; general arrangement of separating plants <a href="#">B03B 9/00</a>; recovery of plastics <a href="#">B29B 17/00</a>})</b>
63/02	. Motor vehicles		
63/025	. . { <a href="#">Modular vehicles (superstructures for busses having modular sections B62D 31/025)</a> }		
63/04	. . Component parts or accessories		
63/06	. Trailers (vehicles comprising living accommodation for people, e.g. caravans, camping or like vehicles <a href="#">B60P 3/32</a> )		
63/061	. . { <a href="#">Foldable, extensible or yielding trailers (foldable caravans B60P 3/34; adjustable chassis frames B62D 21/14)</a> }		
63/062	. . { <a href="#">Trailers with one axle or two wheels (semi-trailers B62D 53/06)</a> }		
63/064	. . . { <a href="#">light luggage or equipment trailers, e.g. for batteries, gas generators, gas bottles, stretchers (luggage carriers per se B60R)</a> }		
63/065	. . . { <a href="#">forming an extension of the towing vehicle, i.e. with two point fixation</a> }		
63/067	. . . . { <a href="#">single wheeled (rigid or semi-rigid coupling)</a> }		
63/068	. . { <a href="#">with more than two axles or more than four wheels (vehicles with more than four wheels in general B62D 61/10)</a> }		
63/08	. . Component parts or accessories		