

CPC COOPERATIVE PATENT CLASSIFICATION

B PERFORMING OPERATIONS; TRANSPORTING

(NOTES omitted)

TRANSPORTING

B61 RAILWAYS

(NOTE omitted)

B61D BODY DETAILS OR KINDS OF RAILWAY VEHICLES (vehicles in general [B60](#); adaptation of vehicles to special systems [B61B](#); underframes [B61F](#))

WARNING

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

Kinds of railway or tramway vehicles

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|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------|
| 1/00 | Carriages for ordinary railway passenger traffic
(mine cars B61D 11/00 ; tramcars B61D 13/00) | 3/187 | . . . {Details, e.g. bridges for floor connections} |
| 1/02 | . General arrangements in sleeping or couchette carriages (B61D 1/08 takes precedence) | 3/188 | {Wheel guides for the vehicles being carried} |
| 1/04 | . General arrangements of seats (B61D 1/06 takes precedence; seats <i>per se</i> B61D 33/00) | 3/20 | . . for forwarding containers |
| 1/06 | . with multiple deck arrangement | 5/00 | Tank wagons for carrying fluent materials |
| 1/08 | . . of sleeping carriages | 5/002 | . {for particulate or powder materials} |
| 3/00 | Wagons or vans (tank wagons B61D 5/00 ; hopper wagons B61D 7/00 ; tipping wagons B61D 9/00 ; mine cars B61D 11/00 ; vehicles specially adapted for animal transportation B60P 3/04 ; {container traffic B65G }) | 5/004 | . . {with loading and unloading means using fluids or vacuum} |
| 3/005 | . {convertible (B61D 3/04 , B61D 3/06 , B61D 15/04 take precedence)} | 5/006 | . . . {with porous walls} |
| 3/02 | . with multiple deck arrangements (for carrying vehicles B61D 3/18) | 5/008 | . {Trackside means for assisting charge or discharge (for hopper cars B61D 7/32)} |
| 3/04 | . with movable floors, e.g. rotatable or floors which can be raised or lowered | 5/02 | . having more than one tank |
| 3/06 | . Flat-bottomed cars convertible into hoppers | 5/04 | . {with means for cooling, heating, or insulating} |
| 3/08 | . Flat wagons including posts or standards {(open loading compartments for load-carrying vehicles, in general B62D 33/02 ; movable or detachable racks or stanchions B62D 33/0207)} | 5/06 | . Mounting of tanks; Integral bodies and frames |
| 3/10 | . Articulated vehicles | 5/08 | . {Covers or access openings; Arrangements thereof} |
| 3/12 | . . comprising running gear interconnected by loads | 7/00 | Hopper cars (flat bottomed cars convertible into hoppers B61D 3/06) |
| 3/14 | . . comprising running gear interconnected by load supports facilitating low-level load transport | 7/02 | . with discharge openings in the bottoms (with body in two halves and discharge by tipping the halves B61D 9/00) |
| 3/16 | . adapted for carrying special loads | 7/04 | . . the openings being above axle level during discharge |
| 3/163 | . . {for carrying animals} | 7/06 | . with openings capable of discharging both between and outside the wheels |
| 3/166 | . . {for carrying very heavy loads} | 7/08 | . with openings capable of discharging only outside the wheels |
| 3/18 | . . for vehicles {(vehicles adapted to carry other vehicles, in general, B60P 3/06)} | 7/10 | . . the discharge being assisted by tipping the bottom |
| 3/181 | . . . {with special accommodation for the motor vehicle driver or passengers (B61D 1/06 takes precedence)} | 7/12 | . the hoppers being movable (B61D 9/00 takes precedence) |
| 3/182 | . . . {specially adapted for heavy vehicles, e.g. public work vehicles, trucks, trailers} | 7/14 | . Adaptations of hopper elements to railways |
| 3/184 | {the heavy vehicles being of the trailer or semi-trailer type} | 7/16 | . . Closure elements for discharge openings |
| 3/185 | {Railway vehicles} | 7/18 | . . . pivoted |
| | | 7/20 | . . . sliding |
| | | 7/22 | . . . Sealing means thereof |
| | | 7/24 | . . . Opening or closing means |
| | | 7/26 | mechanical |
| | | 7/28 | hydraulic or pneumatic |
| | | 7/30 | controlled by means external to cars |
| | | 7/32 | . . Means for assisting charge or discharge |
| | | 9/00 | Tipping wagons |
| | | 9/02 | . characterised by operating means for tipping |

- 9/04 . Adaptations of rail vehicle elements to tipping wagons
- 9/06 . . Bodies
- 9/08 . . Frames; Supporting or guiding means for the bodies
- 9/10 . . Devices preventing overturning when tipping
- 9/12 . . Body fittings or devices facilitating or controlling outflow on discharge
- 9/14 . Tipping systems controlled by trackside means
- 11/00 Mine cars ([B61D 5/00](#) - [B61D 9/00](#) take precedence)**
- 11/02 . Body construction
- 13/00 Tramway vehicles**
- 13/02 . Double-deckers
- 15/00 Other railway vehicles, e.g. scaffold cars; Adaptations of vehicles for use on railways (conveyor frames mounted for movement on rail tracks [B65G 41/02](#); wheeled machines used in permanent way construction or maintenance [E01B](#))**
- 15/02 . Breakdown cranes (crane gear [B66C](#))
- 15/04 . convertible into other non-vehicular apparatus, e.g. exhibition stands
- 15/06 . Buffer cars; Arrangements or construction of railway vehicles for protecting them in case of collisions (buffers [B61G 11/00](#))
- 15/08 . Railway inspection trolleys
- 15/10 . . hand or foot propelled
- 15/105 . . . {for cableways}
- 15/12 . . power propelled
- 15/125 . . . {for cableways}
- 17/06 . . End walls
- 17/08 . . Sides
- 17/10 . . Floors
- 17/12 . . Roofs (movable or foldable roofs, covers or tarpaulins [B61D 39/00](#))
- 17/14 . . . with gangways
- 17/16 . . . Hatches in roofs
- 17/18 . . Internal lining, e.g. insulating
- 17/185 . . . {for sound insulating (arrangement of engine rooms [B61C 17/04](#); sound insulating elements for road vehicles [B60R 13/08](#))}
- 17/20 . . Communication passages between coaches; Adaptation of coach ends therefor
- 17/22 . . . flexible, e.g. bellows
- 17/24 . with body structures of wood
- 17/26 . with body structures of concrete
- 19/00 Door arrangements specially adapted for rail vehicles (locks for vehicles [E05B 77/00](#)-[E05B 85/00](#); door-operating mechanisms [E05F](#))**
- 19/001 . {for wagons or vans (closure elements for hopper car discharge openings [B61D 7/16](#); doors convertible into loading and unloading ramps [B61D 47/00](#); [B61D 19/003](#) takes precedence)}
- 19/002 . . {specially adapted for grain cars}
- 19/003 . {characterised by the movements of the door}
- 19/004 . . {swinging ([B61D 19/008](#) takes precedence)}
- 19/005 . . {sliding ([B61D 19/008](#), [B61D 19/009](#) take precedence)}
- 19/006 . . . {vertically ([B61D 19/006](#) takes precedence)}
- 19/007 . . . {The doors being wall panels enabling complete opening of the wagon sides, e.g. for quick loading or unloading}
- 19/008 . . {both swinging and sliding}
- 19/009 . . {both sliding and plugging, (e.g. for refrigerator cars)}
- 19/02 . for carriages ([B61D 19/003](#) takes precedence)
- 19/023 . . {Emergency exits}
- 19/026 . . {Safety devices for preventing passengers from being injured by movements of doors or variations in air pressure (safety devices in passenger lifts for preventing trapping of passengers between closing doors [B66B 13/26](#); acting on power-operated mechanisms for wings [E05F 15/00](#))}

Body details of railway or tramway vehicles

- 17/00 Construction details of vehicle bodies (for tank wagons [B61D 5/00](#); for hopper cars [B61D 7/00](#); body details specially adapted for tipping wagons [B61D 9/06](#); for mine cars [B61D 11/00](#))**
- NOTE**
- {[B61D 17/005](#) takes precedence over [B61D 17/048](#) - [B61D 17/16](#)}
- 17/005 . {with bodies characterised by use of plastics materials ([B61D 17/005](#) takes precedence; bogie frames comprising parts made from fibre reinforced matrix material [B61F 5/523](#))}
- 17/02 . reducing air resistance by modifying contour {; Constructional features for fast vehicles sustaining sudden variations of atmospheric pressure, e.g. when crossing in tunnels}
- 17/04 . with bodies of metal; with composite, e.g. metal and wood body structures
- 17/041 . . {with bodies characterised by use of light metal, e.g. aluminium ([B61D 17/045](#) takes precedence)}
- 17/043 . . {connections between superstructure sub-units (for road vehicles [B62D 27/00](#))}
- 17/045 . . . {The sub-units being construction modules (modular super-structures for vehicles carrying a large number of passengers [B62D 31/025](#))}
- 17/046 . . . {readily releasable, i.e. dismantlable or collapsible sub-units, e.g. for shipping (convertible wagons [B61D 3/005](#))}
- 17/048 . . {Interior walls, e.g. separation walls between compartments ([B61D 17/06](#), [B61D 17/08](#), [B61D 17/18](#) take precedence)}
- 23/00 Construction of steps for railway vehicles (ladders in general [E06C](#))**
- 23/02 . Folding steps for railway vehicles {, e.g. hand or mechanically actuated}
- 23/025 . . {electrically or fluid actuated}
- 25/00 Window arrangements peculiar to rail vehicles (vehicle window arrangements in general [B60J](#); cleaning vehicle windows [B60S](#); heating arrangements specially adapted for transparent or reflecting areas [H05B 3/84](#))**
- Heating, cooling, ventilating, lighting, or air-conditioning, peculiar to rail vehicles (for vehicles in general [B60](#))**
- 27/00 Heating, cooling, ventilating, or air-conditioning { (heating, cooling or ventilating devices for vehicles in general [B60H 1/00](#); devices for moistening air in vehicles [B60H 3/02](#); devices for filtering air in vehicles [B60H 3/06](#)) }**

- 27/0009 . {Means for controlling or equalizing air pressure shocks in trains, e.g. when passing or crossing in tunnels}
 - 27/0018 . {Air-conditioning means, i.e. combining at least two of the following ways of treating or supplying air, namely heating, cooling or ventilating (air-conditioning in general [F24F](#))}
 - 27/0027 . . {for freight cars; Isothermic wagons}
 - 27/0036 . {Means for heating only (heating in general [F24](#))}
 - 27/0045 . . {Electric heating (for vehicles in general [B60H 1/2215](#); supplying electric power to electric heating circuits of electrically-propelled vehicles [B60L 1/02](#))}
 - 27/0054 . . {combined with heating means using recuperated energy from other sources, e.g. from the brakes}
 - 27/0063 . . {the heat being derived from independent means, i.e. autonomous devices, e.g. stoves}
 - 27/0072 . {Means for cooling only (cooling in general [F25](#))}
 - 27/0081 . . {of wagons for transporting refrigerated goods (vehicles for transporting refrigerated goods [B60P 3/20](#))}
 - 27/009 . {Means for ventilating only (ventilation in general [F24F](#))}
 - 29/00 Lighting**
- Furniture or furnishings peculiar to rail vehicles** (for vehicles in general [B60](#))
- 31/00 Sleeping accommodation**
 - 33/00 Seats**
 - 33/0007 . {Details; Accessories}
 - 33/0014 . . {Seat frames ([B61D 33/0092](#) takes precedence)}
 - 33/0021 . . . {for adjustable or reclining seats}
 - 33/0028 . . . {for reversible seats}
 - 33/0035 . . {Cushions or the like; Covers}
 - 33/0042 . . . {Spring cushions}
 - 33/005 . . {Head, arm or footrests}
 - 33/0057 . {characterised by their mounting in vehicles ([B61D 33/0028](#) and [B61D 33/0092](#) take precedence)}
 - 33/0064 . . {not adjustably mounted; supports therefor}
 - 33/0071 . . . {Removable seats}
 - 33/0078 . . {adjustably mounted}
 - 33/0085 . . . {rotatably}
 - 33/0092 . {Safety seats, e.g. comprising safety locking means; Seats for children}
 - 35/00 Sanitation**
 - 35/002 . {Washing facilities}
 - 35/005 . {Toilet facilities}
 - 35/007 . . {comprising toilet waste receiving, treatment, storage, disposal or removal devices}
 - 37/00 Other furniture or furnishings**
 - 37/003 . {luggage rack and umbrella-stand for rail vehicles (luggage racks within vehicle bodies in general, e.g. busses [B60R 5/003](#))}
 - 37/006 . {for restaurant cars or the like}

Other details peculiar to rail vehicles (for vehicles in general [B60](#))

- 39/00 Wagon or like covers; Tarpaulins; Movable or foldable roofs**
- 39/001 . {Tilttable roofs}

- 39/002 . {Sliding or folding roofs}
- 39/003 . . {telescopic}
- 39/005 . . {for articulated wagons}
- 39/006 . {Opening and closing means}
- 39/007 . . {Controlled by trackside means (systems for tipping wagons controlled by trackside means [B61D 9/14](#))}
- 39/008 . {Sealing means}
- 41/00 Indicators for reserved seats; Warning or like signs; Devices or arrangements in connection with tickets, e.g. ticket holders; Holders for cargo tickets or the like**
- 41/02 . Holders or devices for cargo tickets or the like
- 41/04 . Indicators for reserved seats
- 41/06 . Holders for fare tickets
- 43/00 Devices for using the energy of the movements of the vehicles**
- 45/00 Means or devices for securing or supporting the cargo, including protection against shocks (for vehicles in general [B60P 7/00](#))**
- 45/001 . {Devices for fixing to walls or floors}
- 45/002 . . {Fixing sheet metal, boxes, or the like}
- 45/003 . . {Fixing of logs, beams, barrels, pipes, or the like}
- 45/004 . . {Fixing semi-trailers (wagons for transporting semi-trailers [B61D 3/184](#))}
- 45/005 . . . {by using fifth wheel locks}
- 45/006 . {Fixing by movable walls}
- 45/007 . {Fixing containers (vehicles for transporting containers [B61D 3/20](#))}
- 45/008 . {Shock absorbing devices}
- 47/00 Loading or unloading devices combined with vehicles, e.g. loading platforms, {doors convertible into loading and unloading ramps}(combined with vehicles in general [B60P](#))**
- 47/005 . {Loading or unloading devices combined with road vehicles carrying wagons, e.g. ramps, turntables, lifting means (wagons for carrying road vehicles in general: [B61D 3/18](#))}
- 49/00 Other details**