

# 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

- |             |  |             |   |
|-------------|--|-------------|---|
| <b>1/00</b> | <b>Carriages for ordinary railway passenger traffic</b><br>(mine cars <a href="#">B61D 11/00</a> ; tramcars <a href="#">B61D 13/00</a> )   | 3/187       | . . . {Details, e.g. bridges for floor connections}   |
| 1/02        | . General arrangements in sleeping or couchette carriages ( <a href="#">B61D 1/08</a> takes precedence)  | 3/188       | . . . {Wheel guides for the vehicles being carried}   |
| 1/04        | . General arrangements of seats ( <a href="#">B61D 1/06</a> takes precedence; seats per se <a href="#">B61D 33/00</a> )  | 3/20        | . . for forwarding containers   |
| 1/06        | . with multiple deck arrangement   | <b>5/00</b> | <b>Tank wagons for carrying fluent materials</b>  |
| 1/08        | . . of sleeping carriages  | 5/002       | . {for particulate or powder materials}   |
| <b>3/00</b> | <b>Wagons or vans</b> (tank wagons <a href="#">B61D 5/00</a> ; hopper wagons <a href="#">B61D 7/00</a> ; tipping wagons <a href="#">B61D 9/00</a> ; mine cars <a href="#">B61D 11/00</a> ; vehicles specially adapted for animal transportation <a href="#">B60P 3/04</a> ; {container traffic <a href="#">B65G</a> }) | 5/004       | . . {with loading and unloading means using fluids or vacuum}   |
| 3/005       | . {convertible ( <a href="#">B61D 3/04</a> , <a href="#">B61D 3/06</a> , <a href="#">B61D 15/04</a> take precedence)}  | 5/006       | . . . {with porous walls}   |
| 3/02        | . with multiple deck arrangements (for carrying vehicles <a href="#">B61D 3/18</a> )   | 5/008       | . {Trackside means for assisting charge or discharge (for hopper cars <a href="#">B61D 7/32</a> )}                                |
| 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 <a href="#">B62D 33/02</a> ; movable or detachable racks or stanchions <a href="#">B62D 33/0207</a> })   | 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  | <b>7/00</b> | <b>Hopper cars</b> (flat bottomed cars convertible into hoppers <a href="#">B61D 3/06</a> )                                       |
| 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 <a href="#">B61D 9/00</a> ) |
| 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, <a href="#">B60P 3/06</a> })  | 7/10        | . . the discharge being assisted by tipping the bottom  |
| 3/181       | . . . {with special accommodation for the motor vehicle driver or passengers ( <a href="#">B61D 1/06</a> takes precedence)}  | 7/12        | . the hoppers being movable ( <a href="#">B61D 9/00</a> 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   |
|             |  | <b>9/00</b> | <b>Tipping wagons</b>   |
|             |  | 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 \[E05F 15/00\]\(#\)\)](#)}
- 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](#))**

**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](#))**
- 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. dismountable or collapsible sub-units, e.g. for shipping \(convertible wagons \[B61D 3/005\]\(#\)\)](#)}

**NOTE**

[B61D 17/005](#) takes precedence over  
[B61D 17/048](#)-[B61D 17/16](#)

- 17/048 . . {[Interior walls, e.g. separation walls between compartments \(\[B61D 17/06\]\(#\), \[B61D 17/08\]\(#\), \[B61D 17/18\]\(#\) take precedence\)](#)}

**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 . {Tiltable 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**