

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

1/00 Carriages for ordinary railway passenger traffic (mine cars [B61D 11/00](#); tramcars [B61D 13/00](#))

- 1/02 . General arrangements in sleeping or couchette carriages ([B61D 1/08](#) takes precedence)
- 1/04 . General arrangements of seats ([B61D 1/06](#) takes precedence; seats *per se* [B61D 33/00](#))
- 1/06 . with multiple deck arrangement
- 1/08 . . of sleeping carriages

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](#)})

- 3/005 . {convertible ([B61D 3/04](#), [B61D 3/06](#), [B61D 15/04](#) take precedence)}
- 3/02 . with multiple deck arrangements (for carrying vehicles [B61D 3/18](#))
- 3/04 . with movable floors, e.g. rotatable or floors which can be raised or lowered
- 3/06 . Flat-bottomed cars convertible into hoppers
- 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](#)})
- 3/10 . Articulated vehicles
- 3/12 . . comprising running gear interconnected by loads
- 3/14 . . comprising running gear interconnected by load supports facilitating low-level load transport
- 3/16 . adapted for carrying special loads
- 3/163 . . {for carrying animals}
- 3/166 . . {for carrying very heavy loads}
- 3/18 . . for vehicles ({vehicles adapted to carry other vehicles, in general, [B60P 3/06](#)})
- 3/181 . . . {with special accommodation for the motor vehicle driver or passengers ([B61D 1/06](#) takes precedence)}
- 3/182 . . . {specially adapted for heavy vehicles, e.g. public work vehicles, trucks, trailers}
- 3/184 {the heavy vehicles being of the trailer or semi-trailer type}
- 3/185 {Railway vehicles}

3/187 . . . {Details, e.g. bridges for floor connections}

3/188 {Wheel guides for the vehicles being carried}

3/20 . . for forwarding containers

5/00 Tank wagons for carrying fluent materials

- 5/002 . {for particulate or powder materials}
- 5/004 . . {with loading and unloading means using fluids or vacuum}
- 5/006 . . . {with porous walls}
- 5/008 . {Trackside means for assisting charge or discharge (for hopper cars [B61D 7/32](#))}
- 5/02 . having more than one tank
- 5/04 . {with means for cooling, heating, or insulating}
- 5/06 . Mounting of tanks; Integral bodies and frames
- 5/08 . {Covers or access openings; Arrangements thereof}

7/00 Hopper cars (flat bottomed cars convertible into hoppers [B61D 3/06](#))

- 7/02 . with discharge openings in the bottoms (with body in two halves and discharge by tipping the halves [B61D 9/00](#))
- 7/04 . . the openings being above axle level during discharge
- 7/06 . with openings capable of discharging both between and outside the wheels
- 7/08 . with openings capable of discharging only outside the wheels
- 7/10 . . the discharge being assisted by tipping the bottom
- 7/12 . the hoppers being movable ([B61D 9/00](#) takes precedence)
- 7/14 . Adaptations of hopper elements to railways
- 7/16 . . Closure elements for discharge openings
- 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	17/06	End walls
9/06	Bodies	17/08	Sides
9/08	Frames; Supporting or guiding means for the bodies	17/10	Floors
9/10	Devices preventing overturning when tipping	17/12	Roofs (movable or foldable roofs, covers or tarpaulins B61D 39/00)
9/12	Body fittings or devices facilitating or controlling outflow on discharge	17/14	with gangways
9/14	Tipping systems controlled by trackside means	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)}
11/00	Mine cars (B61D 5/00 - B61D 9/00 take precedence)		
11/02	Body construction	17/20	Communication passages between coaches; Adaptation of coach ends therefor
13/00	Tramway vehicles	17/22	flexible, e.g. bellows
13/02	Double-deckers	17/24	with body structures of wood
		17/26	with body structures of concrete
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)	19/00	Door arrangements specially adapted for rail vehicles (locks for vehicles E05B 77/00 - E05B 85/00; door-operating mechanisms E05F)
15/02	Breakdown cranes (crane gear B66C)		
15/04	convertible into other non-vehicular apparatus, e.g. exhibition stands	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)}
15/06	Buffer cars; Arrangements or construction of railway vehicles for protecting them in case of collisions (buffers B61G 11/00)	19/002	{specially adapted for grain cars}
15/08	Railway inspection trolleys	19/003	{characterised by the movements of the door}
15/10	hand or foot propelled	19/004	{swinging (B61D 19/008 takes precedence)}
15/105	{for cableways}	19/005	{sliding (B61D 19/008 , B61D 19/009 take precedence)}
15/12	power propelled		
15/125	{for cableways}	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)	23/00	Construction of steps for railway vehicles (ladders in general E06C)
	NOTE		
	{ B61D 17/005 takes precedence over B61D 17/048 - B61D 17/16 }	23/02	Folding steps for railway vehicles {, e.g. hand or mechanically actuated}
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)}	23/025	{electrically or fluid actuated}
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}	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)
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)}		

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