

ECLA EUROPEAN CLASSIFICATION

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

Guide heading: Kinds of railway or tramway vehicles

- B61D1/00** Carriages for ordinary railway passenger traffic (mine cars [B61D11/00](#); tramcars [B61D13/00](#))
- B61D1/02** . General arrangements in sleeping or couchette carriages ([B61D1/08](#) takes precedence)
- B61D1/04** . General arrangements of seats ([B61D1/06](#) takes precedence; seats per se [B61D33/00](#))
- B61D1/06** . with multiple deck arrangement
- B61D1/08** . . of sleeping carriages
- B61D3/00** **Wagons or vans** (tank wagons [B61D5/00](#); hopper wagons [B61D7/00](#); tipping wagons [B61D9/00](#); mine cars [B61D11/00](#); vehicles specially adapted for animal transportation [B60P3/04](#); [N: container traffic [B65G](#)])
- B61D3/00B** . [N: convertible ([B61D3/04](#), [B61D3/06](#), [B61D15/04](#) take precedence)]
- B61D3/02** . with multiple deck arrangements (for carrying vehicles [B61D3/18](#))
- B61D3/04** . with movable floors, e.g. rotatable or floors which can be raised or lowered
- B61D3/06** . Flat-bottomed cars convertible into hoppers
- B61D3/08** . Flat wagons including posts or standards [N: (Open loading compartments for load-carrying vehicles, in general [B62D33/02](#); movable or detachable racks or stanchions [B62D33/02D](#))]
- B61D3/10** . Articulated vehicles
- B61D3/12** . . comprising running gear interconnected by loads
- B61D3/14** . . comprising running gear interconnected by load supports facilitating low-level load transport
- B61D3/16** . adapted for carrying special loads
- B61D3/16D** . . [N: for carrying animals]
- B61D3/16F** . . [N: for carrying very heavy loads]
- B61D3/18** . . for vehicles [N: (Vehicles adapted to carry other vehicles, in general, [B60P3/06](#))]
- B61D3/18A** . . . [N: with special accommodation for the motor vehicle driver or passengers ([B61D1/06](#) takes precedence)]

- B61D3/18B . . . [N: specially adapted for heavy vehicles e.g. public work vehicles, trucks, trailers]
- B61D3/18B2 [N: the heavy vehicles being of the trailer or semi-trailer type]
- B61D3/18B3 [N: Railway vehicles]
- B61D3/18C . . . [N: Details, e.g. bridges for floor connections]
- B61D3/18C2 [N: Wheel guides for the vehicles being carried]
- B61D3/20 . . for forwarding containers

B61D5/00 Tank wagons for carrying fluent materials

- B61D5/00B . [N: for particulate or powder materials]
- B61D5/00B2 . . [N: with loading and unloading means using fluids or vacuum]
- B61D5/00B2B . . . [N: with porous walls]
- B61D5/00C . [N: Trackside means for assisting charge or discharge (for hopper cars [B61D7/32](#))]
- B61D5/02 . having more than one tank
- B61D5/04 . [N: IPC2] with means for cooling, heating, or insulating
- B61D5/06 . Mounting of tanks; Integral bodies and frames
- B61D5/08 . [N: IPC2] Covers or access openings; Arrangements thereof

B61D7/00 Hopper cars (flat bottomed cars convertible into hoppers [B61D3/06](#))

- B61D7/02 . with discharge openings in the bottoms (with body in two halves and discharge by tipping the halves [B61D9/00](#))
- B61D7/04 . . the openings being above axle level during discharge
- B61D7/06 . with openings capable of discharging both between and outside the wheels
- B61D7/08 . with openings capable of discharging only outside the wheels
- B61D7/10 . . the discharge being assisted by tipping the bottom
- B61D7/12 . the hoppers being movable ([B61D9/00](#) takes precedence)
- B61D7/14 . Adaptations of hopper elements to railways
- B61D7/16 . . Closure elements for discharge openings
- B61D7/18 . . . pivoted
- B61D7/20 . . . sliding
- B61D7/22 . . . Sealing means thereof
- B61D7/24 . . . Opening or closing means
- B61D7/26 mechanical
- B61D7/28 hydraulic or pneumatic
- B61D7/30 controlled by means external to cars

- B61D7/32 . . Means for assisting charge or discharge
- B61D9/00 Tipping wagons**
- B61D9/02 . characterised by operating means for tipping
- B61D9/04 . Adaptations of rail vehicle elements to tipping wagons
- B61D9/06 . . Bodies
- B61D9/08 . . Frames; Supporting or guiding means for the bodies
- B61D9/10 . . Devices preventing overturning when tipping
- B61D9/12 . . Body fitments or devices facilitating or controlling outflow on discharge
- B61D9/14 . Tipping systems controlled by trackside means
- B61D11/00 Mine cars ([B61D5/00](#) to [B61D9/00](#) take precedence)**
- B61D11/02 . Body construction
- B61D13/00 Tramway vehicles**
- B61D13/02 . Double-deckers
- B61D15/00 Other railway vehicles, e.g. scaffold cars; Adaptations of vehicles for use on railways ([conveyer frames mounted for movement on rail tracks \[B65G41/02\]\(#\)](#); wheeled machines used in permanent way construction or maintenance [E01B](#))**
- B61D15/02 . Breakdown cranes ([crane gear \[B66C\]\(#\)](#))
- B61D15/04 . convertible into other non-vehicular apparatus, e.g. exhibition stands
- B61D15/06 . Buffer cars; Arrangements or construction of railway vehicles for protecting them in case of collisions ([buffers \[B61G11/00\]\(#\)](#))
- B61D15/08 . Railway inspection trolleys
- B61D15/10 . . hand or foot propelled
- B61D15/10B . . . [\[N: for cableways\]](#)
- B61D15/12 . . power propelled
- B61D15/12B . . . [\[N: for cableways\]](#)
- Guide heading: Body details of railway or tramway vehicles**
- B61D17/00 Construction details of vehicle bodies ([for tank wagons \[B61D5/00\]\(#\)](#); [for hopper cars \[B61D7/00\]\(#\)](#); [body details specially adapted for tipping wagons \[B61D9/06\]\(#\)](#); [for mine cars \[B61D11/00\]\(#\)](#))**

- B61D17/00B . [N: with bodies characterised by use of plastics materials ([B61D17/00C](#) takes precedence) (bogie frames comprising parts made from fibre reinforced matrix material [B61F5/52B](#))]
- B61D17/02 . reducing air resistance by modifying contour; [N: Constructional features for fast vehicles sustaining sudden variations of atmospheric pressure, e.g. when crossing in tunnels]
- B61D17/04 . with bodies of metal; with composite, e.g. metal and wood body structures
- B61D17/04A . . [N: with bodies characterised by use of light metal, e.g. aluminium ([B61D17/04B2](#) takes precedence)]
- B61D17/04B . . [N: connections between superstructure sub-units (for road vehicles [B62D27/00](#))]
- B61D17/04B2 . . . [N: The sub-units being construction modules (modular super-structures for vehicles carrying a large number of passengers [B62D31/02B](#))]
- B61D17/04B3 . . . [N: readily releasable, i.e. dismantlable or collapsible sub-units, e.g. for shipping (convertible wagons [B61D3/00B](#))]
- [N: **Note**
[B61D17/00B](#) takes precedence over [B61D17/04C](#)-[B61D17/16](#)
]
- B61D17/04C . . [N: Interior walls, e.g. separation walls between compartments ([B61D17/06](#), [B61D17/08](#), [B61D17/18](#) take precedence)]
- B61D17/06 . . End walls
- B61D17/08 . . Sides
- B61D17/10 . . Floors
- B61D17/12 . . Roofs (movable or foldable roofs, covers or tarpaulins [B61D39/00](#))
- B61D17/14 . . . with gangways
- B61D17/16 . . . Hatches in roofs
- B61D17/18 . . Internal lining, e.g. insulating
- B61D17/18B . . . [N: for sound insulating (arrangement of engine rooms [B61C17/04](#); sound insulating elements for road vehicles [B60R13/08](#))]
- B61D17/20 . . Communication passages between coaches; Adaptation of coach ends therefor
- B61D17/22 . . . flexible, e.g. bellows
- B61D17/24 . with body structures of wood
- B61D17/26 . with body structures of concrete
- B61D19/00** **Door arrangements peculiar to rail vehicles** (vehicle door arrangements in general [B60J](#); vehicle locks [E05B65/12](#); door-operating mechanisms [E05F](#))
- B61D19/00B . [N: for wagons or vans (closure elements for hopper car discharge openings [B61D7/16](#)) (doors convertible into loading and unloading ramps [B61D47/00](#)) ([B61D19/00C](#) takes precedence)]
- B61D19/00B2 . . [N: specially adapted for grain cars]
- B61D19/00C . [N: characterised by the movements of the door]
- B61D19/00C2 . . [N: swinging ([B61D19/00C4](#) takes precedence)]

- B61D19/00C3 . . [N: sliding ([B61D19/00C4](#), [B61D19/00C5](#) take precedence)]
- B61D19/00C3B . . . [N: vertically ([B61D19/00C3B](#) takes precedence)]
- B61D19/00C3D . . . [N: The doors being wall panels enabling complete opening of the wagon sides, e.g. for quick loading or unloading]
- B61D19/00C4 . . [N: both swinging and sliding]
- B61D19/00C5 . . [N: both sliding and plugging, (e.g. for refrigerator cars)]
- B61D19/02 . for carriages ([B61D19/00C](#) takes precedence)
- B61D19/02B . . [N: Emergency exits]
- B61D19/02C . . [N: 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 [B66B13/26](#); acting on power-operated mechanisms for wings [E05F15/00](#))]

B61D23/00 **Construction of steps for railway vehicles** (ladders in general [E06C](#))

- B61D23/02 . Folding steps for railway vehicles, [N: e.g. hand or mechanically actuated]
- B61D23/02B . . [N: electrically or fluid actuated]

B61D25/00 **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 [H05B3/84](#)) [[C9609](#)]

Guide heading: **Heating, cooling, ventilating, lighting, or air-conditioning, peculiar to rail vehicles**
(for vehicles in general [B60](#))

B61D27/00 **Heating, cooling, ventilating, or air-conditioning** [N: (heating, cooling or ventilating devices for vehicles in general [B60H1/00](#); devices for moistening air in vehicles [B60H3/02](#); devices for filtering air in vehicles [B60H3/06](#))]

- B61D27/00A . [N: Means for controlling or equalizing air pressure shocks in trains, e.g. when passing or crossing in tunnels]
- B61D27/00B . [N: 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](#))]
- B61D27/00B2 . . [N: for freight cars; Isothermic wagons]
- B61D27/00C . [N: Means for heating only (heating in general [F24](#))]
- B61D27/00C2 . . [N: Electric heating (for vehicles in general [B60H1/22B](#); supplying electric power to electric heating circuits of electrically-propelled vehicles [B60L1/02](#))]
- B61D27/00C3 . . [N: combined with heating means using recuperated energy from other sources, e.g. from the brakes]
- B61D27/00C4 . . [N: the heat being derived from independent means, i.e. autonomous devices, e.g. stoves]
- B61D27/00D . [N: Means for cooling only (cooling in general [F25](#))]
- B61D27/00D2 . . [N: of wagons for transporting refrigerated goods (vehicles for transporting

refrigerated goods [B60P3/20](#)]

B61D27/00F . [N: Means for ventilating only (ventilation in general [F24F](#))]

B61D29/00 **Lighting**

Guide heading: **Furniture or furnishings peculiar to rail vehicles** (for vehicles in general [B60](#))

B61D31/00 **Sleeping accomodation**

B61D33/00 **Seats**

B61D33/00B . [N: Details; Accessories]

B61D33/00B2 . . [N: Seat frames ([B61D33/00D](#) takes precedence)]

B61D33/00B2B . . . [N: for adjustable or reclining seats]

B61D33/00B2D . . . [N: for reversible seats]

B61D33/00B4 . . [N: Cushions or the like; Covers]

B61D33/00B4B . . . [N: Spring cushions]

B61D33/00B5 . . [N: Head, arm or footrests]

B61D33/00C . [N: characterised by their mounting in vehicles ([B61D33/00B2D](#) and [B61D33/00D](#) take precedence)]

B61D33/00C2 . . [N: not adjustably mounted; supports therefor]

B61D33/00C2B . . . [N: Removable seats]

B61D33/00C4 . . [N: adjustably mounted]

B61D33/00C4B . . . [N: rotatably]

B61D33/00D . [N: Safety seats, e.g. comprising safety locking means; Seats for children]

B61D35/00 **Sanitation**

B61D35/00B . [N: Washing facilities]

B61D35/00C . [N: Toilet facilities]

B61D35/00C2 . . [N: comprising toilet waste receiving, treatment, storage, disposal or removal devices]

B61D37/00 **Other furniture or furnishings**

B61D37/00B . [N: luggage rack and umbrella-stand for rail vehicles (luggage racks within vehicle bodies in general, e.g. busses [B60R5/00B](#))]

B61D37/00C . [N: for restaurant cars or the like]

Guide heading: **Other details peculiar to rail vehicles** (for vehicles in general [B60](#))

- B61D39/00** **Wagon or like covers; Tarpaulins; Movable or foldable roofs**
- B61D39/00B . [N: Tiltable roofs]
- B61D39/00C . [N: Sliding or folding roofs]
- B61D39/00C2 . . [N: telescopic]
- B61D39/00C3 . . [N: for articulated wagons]
- B61D39/00F . [N: Opening and closing means]
- B61D39/00F2 . . [N: Controlled by trackside means (Systems for tipping wagons controlled by trackside means [B61D9/14](#))]
- B61D39/00G . [N: Sealing means]
- B61D41/00** **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**
- B61D41/02 . Holders or devices for cargo tickets or the like
- B61D41/04 . Indicators for reserved seats
- B61D41/06 . Holders for fare tickets
- B61D43/00** **Devices for using the energy of the movements of the vehicles**
- B61D45/00** **Means or devices for securing or supporting the cargo, including protection against shocks (for vehicles in general [B60P7/00](#))**
- B61D45/00B . [N: Devices for fixing to walls or floors]
- B61D45/00B1 . . [N: Fixing sheet metal, boxes, or the like]
- B61D45/00B2 . . [N: Fixing of logs, beams, barrels, pipes, or the like]
- B61D45/00B3 . . [N: Fixing semi-trailers (wagons for transporting semi-trailers [B61D3/18B2](#))]
- B61D45/00B3B . . . [N: by using fifth wheel locks]
- B61D45/00C . [N: Fixing by movable walls]
- B61D45/00D . [N: Fixing containers (vehicles for transporting containers [B61D3/20](#))]
- B61D45/00F . [N: Shock absorbing devices]
- B61D47/00** **Loading or unloading devices combined with vehicles, e.g. loading platforms, [N: doors convertible into loading and unloading ramps] (combined with vehicles in general [B60P](#))**
- B61D47/00B . [N: Loading or unloading devices combined with road vehicles carrying wagons, e.g. ramps, turntables, lifting means (wagons for carrying road vehicles in general: [B61D3/18](#))]

B61D49/00

Other details