B61D

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

Definition statement
This place covers:
Constructional features of the body of railway vehicles and the different types of railroad freight cars. It covers also details and arrangement of interior equipment, e.g. chairs, tables.

References

Limiting references
This place does not cover:

| Adaptation of vehicles to special systems | B61B |
| Underframes | B61F |

Informative references
Attention is drawn to the following places, which may be of interest for search:

| Vehicles in general | B60 |

B61D 1/00

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

Definition statement
This place covers:
Arrangement details for sleeping and seating facilities in the carriages of railway vehicles to increase comfort and loading capacity. This main-group covers also arrangement in multiple deck, e.g. double deck, carriages.

Following drawing shows one example:

References

Limiting references
This place does not cover:

| Mine cars | B61D 11/00 |
B61D 1/02

General arrangements in sleeping or couchette carriages (*B61D 1/08* takes precedence)

**Definition statement**

*This place covers:*

Arrangement details of sleeping or couchette accommodation inside the railway vehicles. See example drawing:

![Diagram of sleeping arrangement](image)

**References**

**Limiting references**

*This place does not cover:*

| Sleeping arrangement for multiple deck carriages | B61D 1/08 |

**Informative references**

*Attention is drawn to the following places, which may be of interest for search:*

| Details of sleeping facilities | B61D 31/00 |
**B61D 1/04**

General arrangements of seats (*B61D 1/06* takes precedence; seats per se *B61D 33/00*)

**References**

**Limiting references**

*This place does not cover:*

| Seat arrangement for multiple deck carriages | B61D 1/06 |

**Informative references**

*Attention is drawn to the following places, which may be of interest for search:*

| Details of seats and accessories therefore | B61D 33/00 |

**B61D 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*})

**Definition statement**

*This place covers:*

Details and arrangements of railway cars for transporting goods.

Typical examples are:

- Railway wagons for carrying road vehicles.
- Low level freight wagons.
- Swivel platform for rail vehicles.
- Convertible freight cars.

Following drawing shows one example:

![Railway Car Drawing](image)

**References**

**Limiting references**

*This place does not cover:*

| Tank wagons | B61D 5/00 |
| Hopper wagons | B61D 7/00 |
| Tipping wagons | B61D 9/00 |
### Informative references

Attention is drawn to the following places, which may be of interest for search:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Train with lorries</td>
<td>B60F 1/04</td>
</tr>
<tr>
<td>Vehicles specially adapted for animal transportation</td>
<td>B60P 3/04</td>
</tr>
<tr>
<td>Omnibus</td>
<td>B62D 47/02, B62D 47/025</td>
</tr>
<tr>
<td>Container traffic</td>
<td>B65G</td>
</tr>
<tr>
<td>Transferring at storage areas</td>
<td>B65G 63/00</td>
</tr>
<tr>
<td>Auxiliary measures taken in connection with loading/unloading</td>
<td>B65G 69/00</td>
</tr>
</tbody>
</table>

### B61D 3/04

**with movable floors, e.g. rotatable or floors which can be raised or lowered**

#### Definition statement

**This place covers:**

The vehicle is able to raise, lower or rotate at least part of the floor, e.g. a container could be rotated by the floor from a first position in which the container is parallel to the roadway to a second position in which the container is parallel to the railway vehicle. The drawing shows an example:

![Diagram](image-url)

#### References

##### Informative references

Attention is drawn to the following places, which may be of interest for search:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wagons or vans; loading platforms</td>
<td>B61D 3/184, B61D 3/20, B61D 47/00, B61D 47/005</td>
</tr>
</tbody>
</table>
B61D 3/182
{specially adapted for heavy vehicles, e.g. public work vehicles, trucks, trailers}

Definition statement
This place covers:
Example:
A rail transport vehicle for carrying a hydraulic crawler crane.

References
Informative references
Attention is drawn to the following places, which may be of interest for search:

| Articulated vehicles comprising running gear interconnected by loads | B61D 3/12 |

B61D 5/00
Tank wagons for carrying fluent materials

Definition statement
This place covers:
Railroad rolling stock designed for transporting liquid and gaseous commodities. This main-group further covers design and improvements of the container as also devices and methods for filling and emptying the railroad tank car.

Following drawing shows one example:
References

Informative references

Attention is drawn to the following places, which may be of interest for search:

<table>
<thead>
<tr>
<th>For cleaning container</th>
<th>B08B 9/08</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closure members for pressure vessels</td>
<td>F16J 13/08</td>
</tr>
</tbody>
</table>

B61D 7/00

Hopper cars (flat bottomed cars convertible into hoppers B61D 3/06)

Definition statement

This place covers:

Railroad freight cars used to transport loose bulk commodities such as coal, ore, grain, track ballast, and the like. This main-group comprises also devices and methods, e.g. closure elements, for discharging the freight from the hopper cars.

Following drawing shows one example:

![Diagram of a hopper car]

References

Limiting references

This place does not cover:

| Flat bottoned cars convertible into hoppers | B61D 3/06 |

Informative references

Attention is drawn to the following places, which may be of interest for search:

| Vehicle for transporting loads | B60P 1/00 |

B61D 9/00

Tipping wagons

Definition statement

This place covers:

Goods wagons designed primarily for the transportation of bulk goods and can usually be tipped, dumped or shovelled.
Following drawing shows one example:

![Mine car diagram]

**B61D 11/00**

**Mine cars (B61D 5/00 - B61D 9/00 take precedence)**

**Definition statement**

*This place covers:*

Railroad wagons specially adapted to be used as mining cars.

Following drawing shows one example:

![Mine car diagram]

**References**

**Limiting references**

*This place does not cover:*

<table>
<thead>
<tr>
<th>Tank wagons</th>
<th>B61D 5/00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tipping wagons</td>
<td>B61D 9/00</td>
</tr>
</tbody>
</table>

**B61D 13/00**

**Tramway vehicles**

**Definition statement**

*This place covers:*

Tramways for public transport, used principally in the city.
Following drawing shows one example:

[B61D 13/00 (continued)]

B61D 15/00

Other railway vehicles, e.g. scaffold cars; Adaptations of vehicles for use on railroads (conveyor frames mounted for movement on rail tracks B65G 41/02; wheeled machines used in permanent way construction or maintenance E01B)

Definition statement

This place covers:

Peculiar railway vehicles that are not in B61D 1/00 - B61D 13/00.

Following drawings show two examples:

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

| Electric devices for preventing crash collisions | B60L 3/0007 |
| Repairing trolley lines | B60M 1/28 |
| Conveyor frames mounted for movement on rail tracks | B65G 41/02 |
| Cranes | B66C25/50 |
| Track building vehicles | E01B |
| Wheeled machines used in permanent way construction or maintenance | E01B |
| Dredgers | E02F 9/022 |
B61D 15/00

Shock testing of vehicles  G01M 17/0078, G01M 7/08
Anti-collision systems  G08G 1/16, B60L 3/0007

B61D 15/06

Buffer cars; Arrangements or construction of railway vehicles for protecting them in case of collisions (buffers B61G 11/00)

Definition statement

This place covers:

Example:

Rail vehicle having a driver's cab provided with an energy-absorbing structure adapted to cope with a collision above the frame of the vehicle.

References

Limiting references

This place does not cover:

Buffers  B61G 11/00

Informative references

Attention is drawn to the following places, which may be of interest for search:

For end walls  B61D 17/06
Obstruction removers  B61F 19/00
**B61D 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**)

**Definition statement**

This place covers:

Details of designing the structure of the vehicle body. This main-group also comprises details of interior walls, end walls, sides, floors, roofs and internal lining of the vehicle body.

Typical examples are:
- Modular double-decker passenger carriage for railway car.
- Lightweight profiles of a railway vehicle body.
- Aerodynamic drag reducing devices.
- Communication passage, e.g. of the bellow type.
- Improved vehicle insulation and method for making using same.
- Height adjustable floor of a railway vehicle.

Following drawings show two examples:

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**References**

**Limiting references**

This place does not cover:

<table>
<thead>
<tr>
<th>For tank wagons</th>
<th>B61D 5/00</th>
</tr>
</thead>
<tbody>
<tr>
<td>For hopper cars</td>
<td>B61D 7/00</td>
</tr>
</tbody>
</table>
Body details specially adapted for tipping wagons
For mine cars

Informative references

Attention is drawn to the following places, which may be of interest for search:

<table>
<thead>
<tr>
<th>Topic</th>
<th>CPCs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bellows for gangways</td>
<td>B23Q 11/0816, B60D 5/00, F16J 3/04</td>
</tr>
<tr>
<td>Internal lining</td>
<td>B60R 13/00</td>
</tr>
<tr>
<td>Underframes of railway vehicle</td>
<td>B61F 1/00</td>
</tr>
<tr>
<td>Vehicles in general</td>
<td>B62D 21/00</td>
</tr>
<tr>
<td>Superstructure for vehicles</td>
<td>B62D 33/04</td>
</tr>
<tr>
<td>Streamlining</td>
<td>B62D 35/00</td>
</tr>
<tr>
<td>Joining sheets or plates;</td>
<td>F16B 5/00</td>
</tr>
<tr>
<td>Sound damping</td>
<td>G10K 11/16</td>
</tr>
</tbody>
</table>

B61D 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}

Definition statement

This place covers:
Examples:

Rail vehicle has rail vehicle ends that are aerodynamically arranged such that rail vehicle is provided with low driving resistance.
Covering for a bogie of a rail vehicle for reducing the aerodynamic drag

![Fig 2](image)

Streamlined rail vehicle front end for better aerodynamics.

References

**Informative references**

Attention is drawn to the following places, which may be of interest for search:

<table>
<thead>
<tr>
<th>Active systems</th>
<th>B61D 27/0009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Braking by creating air resistance</td>
<td>B60T 1/16, B61H 11/10</td>
</tr>
</tbody>
</table>

**B61D 17/06**

End walls

**Definition statement**

*This place covers:*

End wall construction of railway vehicle bodies or details thereof

References

**Informative references**

Attention is drawn to the following places, which may be of interest for search:

<table>
<thead>
<tr>
<th>Protection in case of collision</th>
<th>B61D 15/06</th>
</tr>
</thead>
</table>
B61D 17/08

Sides

Definition statement

This place covers:
Side wall construction of railway vehicle bodies or details thereof

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

| Door arrangements          | B61D 19/007 |

B61D 17/16

Hatches in roofs

Definition statement

This place covers:
Example:
A railroad car with a hatch cover for releasably closing a hatch opening in a roof of a railroad hopper car.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

| Roofs cover                   | B61D 39/00  |
B61D 19/00

Door arrangements specially adapted for rail vehicles (locks for vehicles E05B 77/00 - E05B 85/00; door-operating mechanisms E05F)

Definition statement

This place covers:
Details of doors arrangements for railway vehicles. It concerns also methods and devices for operation of the vehicle doors.

Following drawing shows one example:

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

<table>
<thead>
<tr>
<th>Vehicle door arrangements in general</th>
<th>B60J</th>
</tr>
</thead>
<tbody>
<tr>
<td>Door leaves</td>
<td>B60J 5/00, E06B</td>
</tr>
<tr>
<td>Emergency escape</td>
<td>B60J 9/02</td>
</tr>
<tr>
<td>Vehicle locks in general</td>
<td>E05B 77/00 - E05B 85/00</td>
</tr>
<tr>
<td>Locking by electric means</td>
<td>E05B 77/46, E05B 77/48, E05B 77/50, E05B 83/02, E05B 83/06, E05B 83/363</td>
</tr>
<tr>
<td>Locking means for railway freight cars</td>
<td>E05B 83/02 - E05B 83/14</td>
</tr>
<tr>
<td>Door mechanism especially for railways</td>
<td>E05D 15/00</td>
</tr>
<tr>
<td>Door-operating mechanisms in general</td>
<td>E05F</td>
</tr>
<tr>
<td>Door motorisation</td>
<td>E05F 15/00</td>
</tr>
<tr>
<td>Power-operated mechanism for wings for mass transport</td>
<td>E05F 15/40, E05Y 2900/51</td>
</tr>
</tbody>
</table>

B61D 23/00

Construction of steps for railway vehicles (ladders in general E06C)

Definition statement

This place covers:
The title of this group is self-explanatory and does not need to be more specified.
References

Informative references

Attention is drawn to the following places, which may be of interest for search:

<table>
<thead>
<tr>
<th>Arrangement of steps in general</th>
<th>B60R 3/00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ladders in general</td>
<td>E06C</td>
</tr>
</tbody>
</table>

B61D 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)

Definition statement

This place covers:

The title of this group is self-explanatory and does not need to be more specified.

Following drawing shows one example:

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

<table>
<thead>
<tr>
<th>Windows for vehicles in general</th>
<th>B60J</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleaning vehicle windows in general</td>
<td>B60S</td>
</tr>
<tr>
<td>Aircraft window</td>
<td>B64C 1/1484, B64C 1/1492</td>
</tr>
</tbody>
</table>
Heating arrangements specially adapted for transparent or reflecting areas

B61D 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)}

Definition statement

This place covers:
Devices and methods for heating, cooling, ventilating passenger carriages as also for refrigerating railroad freight cars.

Following drawing show one example:

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

<table>
<thead>
<tr>
<th>Internal lining design</th>
<th>B61D 17/18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heating, cooling or ventilating devices for vehicles in general</td>
<td>B60H 1/00</td>
</tr>
<tr>
<td>Devices for moistening air in vehicles</td>
<td>B60H 3/02</td>
</tr>
<tr>
<td>Devices for filtering air in vehicles</td>
<td>B60H 3/06</td>
</tr>
<tr>
<td>Refrigerated goods vehicles</td>
<td>B60P 3/20</td>
</tr>
<tr>
<td>Superstructures for load-carrying vehicles</td>
<td>B62D 33/048</td>
</tr>
</tbody>
</table>

B61D 29/00

Lighting

Definition statement

This place covers:
The title of this group is self-explanatory and does not need to be more specified.

Typical examples are:
- Arrangement for emergency illumination of emergency exit in rail vehicles.
- Passenger compartment lighting device for rail vehicles.
- Headlamp and signaling lights for railway vehicles.
Following drawing shows one example:

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

| Lighting for vehicle interior | B60Q 3/00 |

**B61D 31/00**

**Sleeping accommodation**

**Definition statement**

*This place covers:*

The title of this group is self-explanatory and does not need to be more specified.

Following drawing shows one example:

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

| Lighting for vehicles in general | B60Q |
| Head or tail indicators          | B61L 15/02 |
| Lighting in general              | F21   |

**B61D 33/00**

**Seats**

**Definition statement**

*This place covers:*

Details and accessories of seats for railway vehicle, seating arrangement and attachment of seats in the vehicle compartment, as also safety seats.
Following drawing shows one example:

![Diagram](image1)

### References

**Informative references**

Attention is drawn to the following places, which may be of interest for search:

<table>
<thead>
<tr>
<th>Details of seats</th>
<th>A47C 7/00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seats for disabled persons</td>
<td>A61G</td>
</tr>
<tr>
<td>Vehicle seats in general</td>
<td>B60N 2/00</td>
</tr>
</tbody>
</table>

### B61D 35/00

**Sanitation**

**Definition statement**

This place covers:

The titles of this group are self-explanatory and does not need to be more specified.

Following drawing shows one example:

![Diagram](image2)

### References

**Informative references**

Attention is drawn to the following places, which may be of interest for search:

<table>
<thead>
<tr>
<th>Sanitary equipment</th>
<th>A47K</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toilets for vehicles in general</td>
<td>B60R 15/00</td>
</tr>
<tr>
<td>Toilets for ships</td>
<td>B63B 29/14</td>
</tr>
<tr>
<td>Toilets for airplane</td>
<td>B64D 11/02</td>
</tr>
</tbody>
</table>
Purification of waste | C02F 1/048
Water-closets or urinals with flushing devices | E03D
Sewers | E03F

**B61D 37/00**

Other furniture or furnishings

**Definition statement**

*This place covers:*

Details of furniture that are not covered in B61D 29/00 and B61D 35/00.

Typical examples are:

- Foldable tables
- Universal computer support
- Drink holder

Following drawing shows one example:

![Diagram of furniture](image)

**References**

*Informative references*

Attention is drawn to the following places, which may be of interest for search:

| Stowage devices for air-planes | B64D 11/003 |

**B61D 39/00**

Wagon or like covers; Tarpaulins; Movable or foldable roofs

**Definition statement**

*This place covers:*

Devices and methods for covering/uncovering railway cars, specially used for freight vehicles.
References

Informative references

Attention is drawn to the following places, which may be of interest for search:

<table>
<thead>
<tr>
<th>Sealing arrangements</th>
<th>B60J 10/00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tarpaulins for vehicles in general</td>
<td>B60P 7/02, B60P 7/04</td>
</tr>
<tr>
<td>Covering for swimming pools</td>
<td>E04H 4/06 - E04H 4/108</td>
</tr>
</tbody>
</table>

B61D 39/003

{telescopic}

Definition statement

This place covers:
Railway wagon covered by telescopically movable roofs.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

<table>
<thead>
<tr>
<th>Sliding doors</th>
<th>B61D 19/005, B61D 17/02</th>
</tr>
</thead>
</table>

B61D 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

Definition statement

This place covers:
The titles of this group are self-explanatory and does not need to be more specified.
Following drawing shows one example:

B61D 43/00

Devices for using the energy of the movements of the vehicles

Definition statement

This place covers:
All types of devices using the movement of the vehicle to provide energy.

Some examples are:
- Regenerative train brakes
- Bogies comprising flywheel and prime mover
- Axle-driven generators
- Generators in wheel set bearing

Following drawing shows one example:

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

<table>
<thead>
<tr>
<th>Auxiliary drives</th>
<th>B60K 25/08</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generators</td>
<td>H02K 7/18</td>
</tr>
</tbody>
</table>
B61D 45/00

Means or devices for securing or supporting the cargo, including protection against shocks (for vehicles in general B60P 7/00)

Definition statement

This place covers:

Devices and methods for securing a load on the railway freight car.

Typical examples are:

• Cable tightening devices and load binders.
• Railway car loading rack.

Following drawing shows one example:

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

<table>
<thead>
<tr>
<th>Platform wagon</th>
<th>B61D 3/08</th>
</tr>
</thead>
<tbody>
<tr>
<td>Securing of load in vehicle in general</td>
<td>B60P 7/00</td>
</tr>
<tr>
<td>Large containers</td>
<td>B65D 88/00</td>
</tr>
</tbody>
</table>

B61D 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)

Definition statement

This place covers:

The titles of this group are self-explanatory and do not need to be more specified.
Following drawing shows one example:

![Drawing of loading/unloading devices for wheelchairs]

**References**

**Informative references**

Attention is drawn to the following places, which may be of interest for search:

| Loading/unloading devices for wheelchairs | B61D 23/00, A61G 3/02 - A61G 3/066 |
| Loading/unloading devices for vehicles in general | B60P |
| Rail vehicle marshalling systems | B61B 1/005 |
| Loading/unloading devices in general | B65G 63/00 - B65G 69/00 |

**B61D 49/00**

**Other details**

**Definition statement**

This place covers:

Body details and kinds of railway vehicles that are not covered in B61D 1/00 - B61D 47/00.

Typical examples are:

- On-board display systems.
- Passenger information system for inside rail vehicle.
- Overhead wiring arrangement for a railway car.
- Railway swimming poolcar.
- Handgrips for use in a railway passenger vehicle.