

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
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B61D 1/00

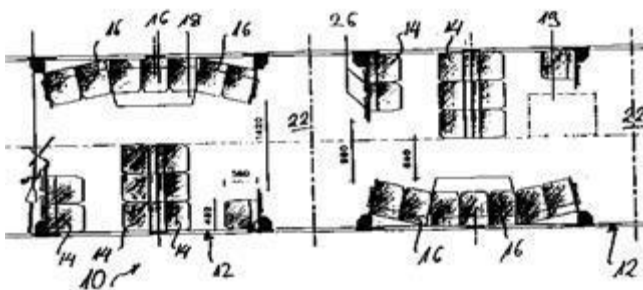
Carriages for ordinary railway passenger traffic (mine cars [B61D 11/00](#); tramcars [B61D 13/00](#))

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
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Tramcars	B61D 13/00
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Informative references

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

Superstructure for passenger vehicles with more than one deck	B62D 31/04
Omnibus	B62D 47/02

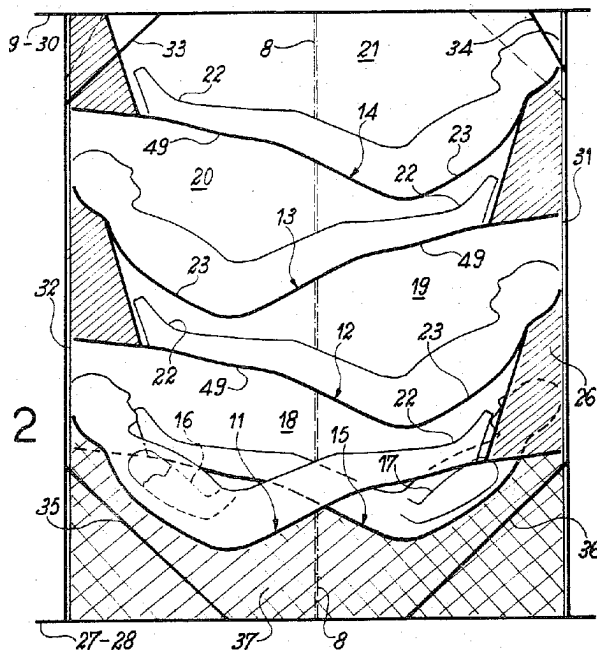
B61D 1/02

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:



References

Limiting references

This place does not cover:

Sleeping arrangement for multiple deck carriages	B61D 1/08
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Informative references

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

Details of sleeping facilities	B61D 31/00
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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
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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
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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

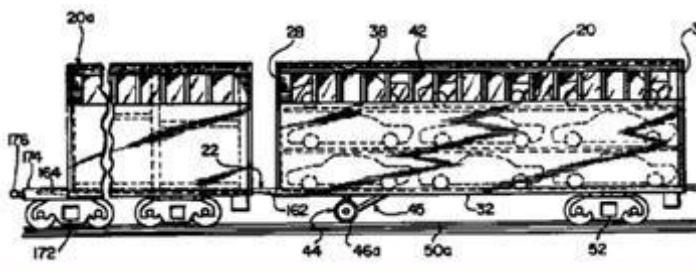
This place covers:

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:



References

Limiting references

This place does not cover:

Tank wagons	B61D 5/00
Hopper wagons	B61D 7/00
Tipping wagons	B61D 9/00

Mine cars	B61D 11/00
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Informative references

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

Train with lorries	B60F 1/04
Vehicles specially adapted for animal transportation	B60P 3/04
Omnibus	B62D 47/02 , B62D 47/025
Container traffic	B65G
Transferring at storage areas	B65G 63/00
Auxiliary measures taken in connection with loading/unloading	B65G 69/00

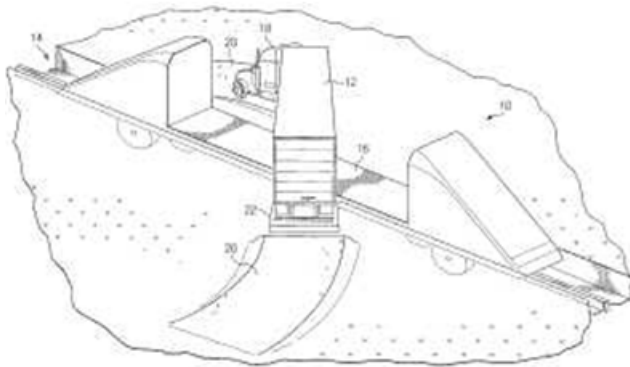
B61D 3/04

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:



References

Informative references

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

Wagons or vans; loading platforms	B61D 3/184 , B61D 3/20 , B61D 47/00 , B61D 47/005
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B61D 3/182

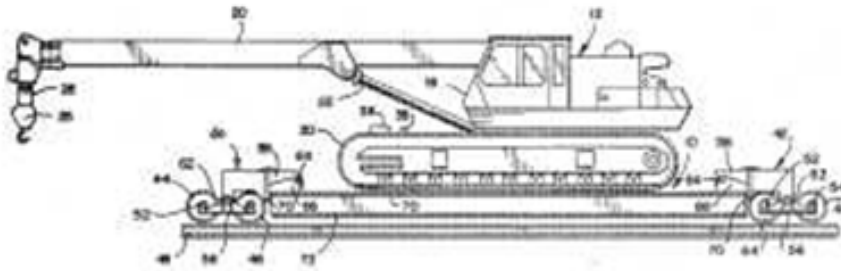
{specially adapted for heavy vehicles, e.g. public work vehicles, trucks, trailers}

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
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B61D 5/00

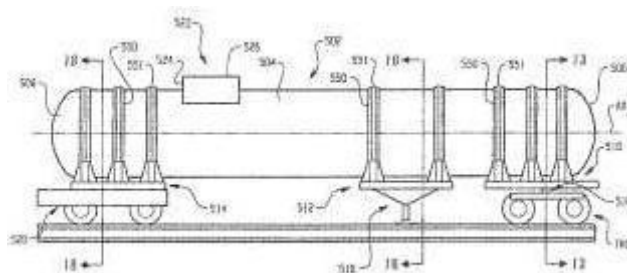
Tank wagons for carrying fluent materials

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:

For cleaning container	B08B 9/08
Closure members for pressure vessels	F16J 13/08

B61D 7/00

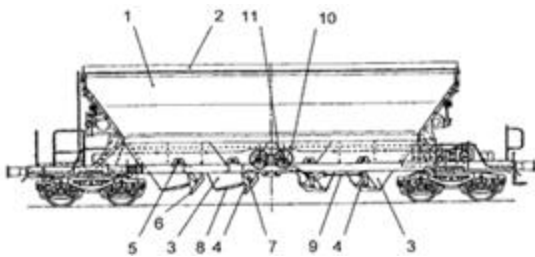
Hopper cars (flat bottomed cars convertible into hoppers [B61D 3/06](#))

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:



References

Limiting references

This place does not cover:

Flat bottomed cars convertible into hoppers	B61D 3/06
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Informative references

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

Vehicle for transporting loads	B60P 1/00
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B61D 9/00

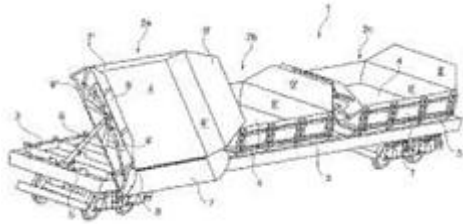
Tipping wagons

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:



B61D 11/00

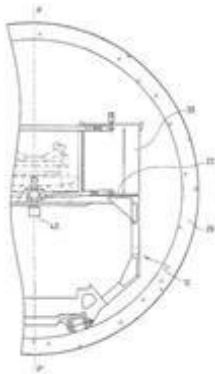
Mine cars ([B61D 5/00](#) - [B61D 9/00](#) take precedence)

Definition statement

This place covers:

Railroad wagons specially adapted to be used as mining cars.

Following drawing shows one example:



References

Limiting references

This place does not cover:

Tank wagons	B61D 5/00
Tipping wagons	B61D 9/00

B61D 13/00

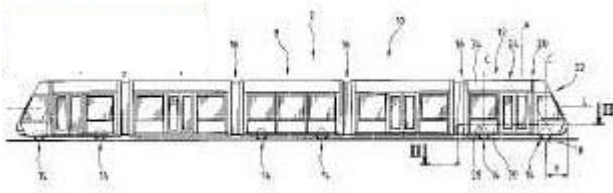
Tramway vehicles

Definition statement

This place covers:

Tramways for public transport, used principally in the city.

Following drawing shows one example:



B61D 15/00

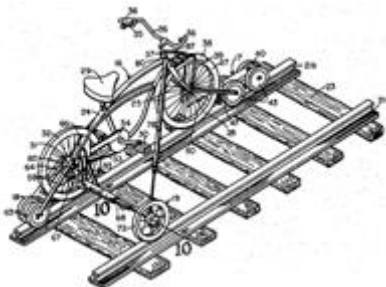
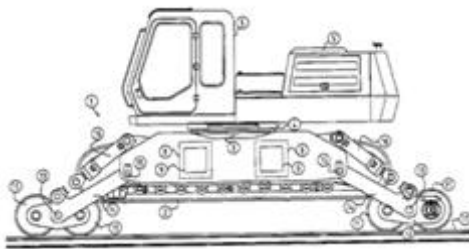
Other railway vehicles, e.g. scaffold cars; Adaptations of vehicles for use on railways (conveyor frames mounted for movement on rail tracks [B65G 41/02](#); wheeled machines used in permanent way construction or maintenance [E01B](#))

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

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

B61D 15/06

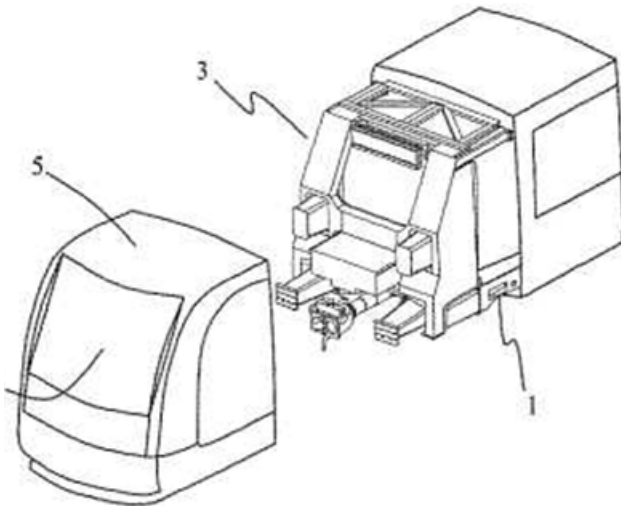
Buffer cars; Arrangements or construction of railway vehicles for protecting them in case of collisions (buffers [B61G 11/00](#))

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
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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

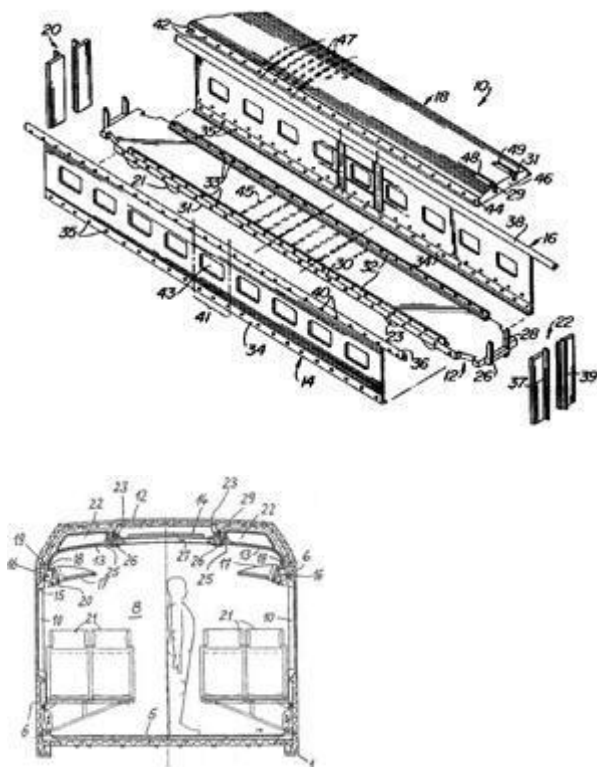
This place covers:

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:



References

Limiting references

This place does not cover:

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

Informative references

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

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

B61D 17/02

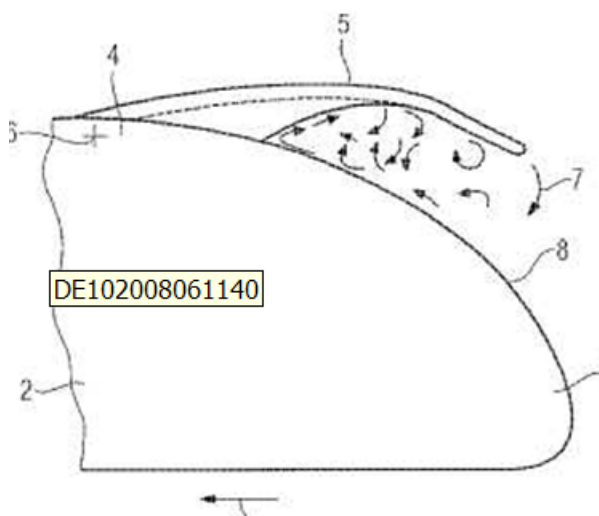
reducing air resistance by modifying contour; Constructional features for fast vehicles sustaining sudden variations of atmospheric pressure, e.g. when crossing in tunnels}

Definition statement

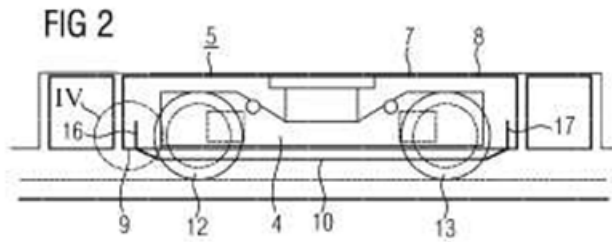
This place covers:

Examples:

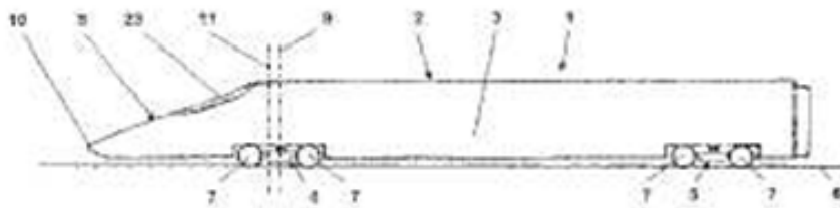
Rail vehicle has rail vehicle ends that are aerodynamically arranged such that rail vehicle is provided with low driving resistance.



Covering for a bogie of a rail vehicle for reducing the aerodynamic drag



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:

Active systems	B61D 27/0009
Braking by creating air resistance	B60T 1/16 , B61H 11/10

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:

Protection in case of collision	B61D 15/06
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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:

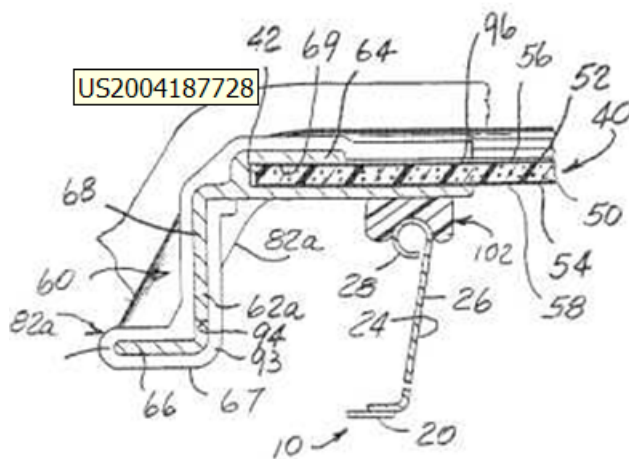
Door arrangements	B61D 19/007
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B61D 17/16**Hatches in roofs****Definition statement**

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
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B61D 19/00

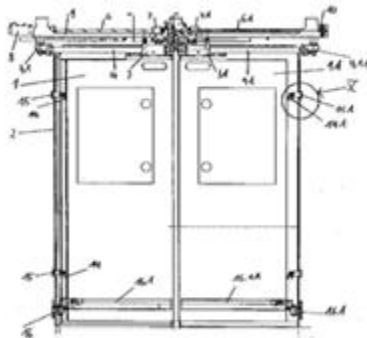
Door arrangements specially adapted for rail vehicles (locks for vehicles [E05B 77/00](#) - [E05B 85/00](#); door-operating mechanisms [E05F](#))

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:

Vehicle door arrangements in general	B60J
Door leaves	B60J 5/00 , E06B
Emergency escape	B60J 9/02
Locking means for railway freight cars	E05B65/14, E05B65/20
Vehicle locks in general	E05B 77/00 - E05B 85/00
Locking by electric means	E05B 77/46 , E05B 77/48 , E05B 77/50 , E05B 83/02 , E05B 83/06 , E05B 83/363
Door mechanism especially for railways	E05D 15/00
Door-operating mechanisms in general	E05F
Door motorisation	E05F 15/00
Power-operated mechanism for wings for mass transport	E05F 15/40 , E05Y 2900/51

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.

Following drawing shows one example:



References

Informative references

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

Arrangement of steps in general	B60R 3/00
Ladders in general	E06C

B61D 25/00

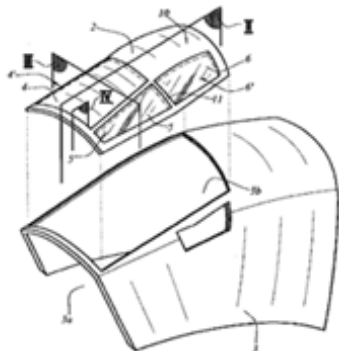
Window arrangements peculiar to rail vehicles (vehicle window arrangements in general [B60J](#); cleaning vehicle windows [B60S](#); heating arrangements specially adapted for transparent or reflecting areas [H05B 3/84](#))

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:

Windows for vehicles in general	B60J
Cleaning vehicle windows in general	B60S
Aircraft window	B64C 1/1484 , B64C 1/1492

Heating arrangements specially adapted for transparent or reflecting areas	H05B 3/84
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B61D 27/00

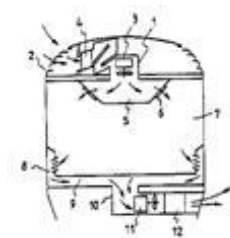
Heating, cooling, ventilating, or air-conditioning {(heating, cooling or ventilating devices for vehicles in general [B60H 1/00](#); devices for moistening air in vehicles [B60H 3/02](#); devices for filtering air in vehicles [B60H 3/06](#)}}

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:

Internal lining design	B61D 17/18
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
Refrigerated goods vehicles	B60P 3/20
Superstructures for load-carrying vehicles	B62D 33/048

B61D 29/00

Lighting

Definition statement

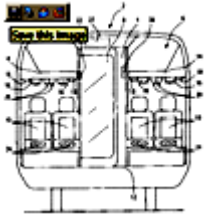
This place covers:

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
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B61D 31/00

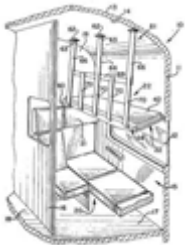
Sleeping accommodation

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

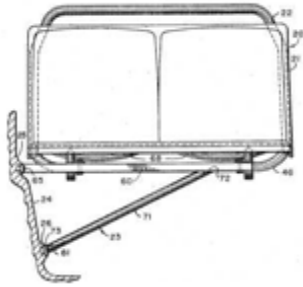
Seats

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:



References

Informative references

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

Details of seats	A47C 7/00
Seats for dissabled persons	A61G
Vehicle seats in general	B60N 2/00

B61D 35/00

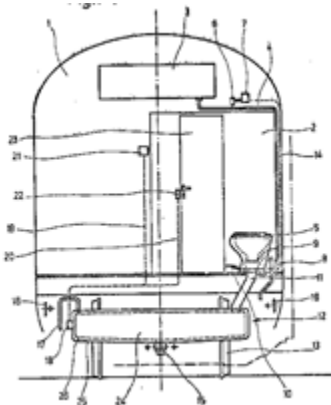
Sanitation

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:



References

Informative references

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

Sanitary equipment	A47K
Toilets for vehicles in general	B60R 15/00
Toilets for ships	B63B 29/14
Toilets for air plane	B64D 11/02

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

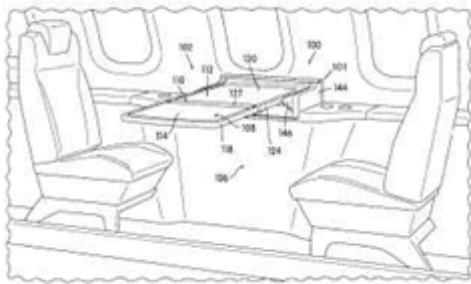
This place covers:

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:



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
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B61D 39/00

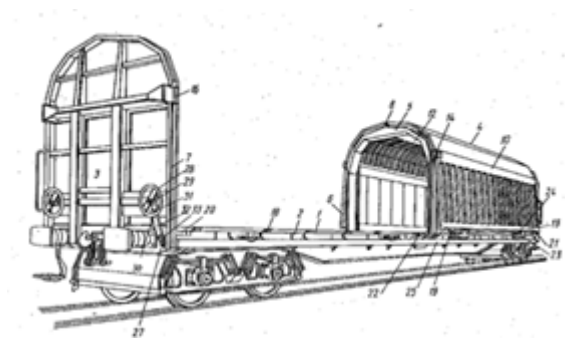
Wagon or like covers; Tarpaulins; Movable or foldable roofs

Definition statement

This place covers:

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

Following drawing shows one example:



References

Informative references

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

Sealing arrangements	B60J 10/00
Tarpaulins for vehicles in general	B60P 7/02 , B60P 7/04
Covering for swimming pools	E04H 4/06 - E04H 4/108

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:

Sliding doors	B61D 19/005 , B61D 17/02
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B61D 41/00

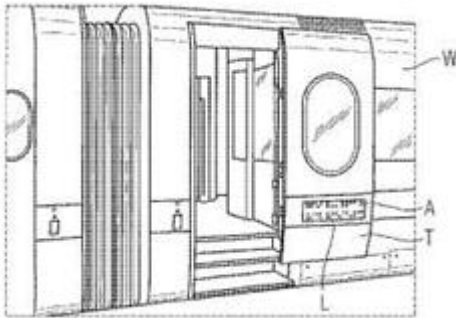
Indicators for reserved seats; Warning or like signs; Devices or arrangements in connection with tickets, e.g. ticket holders; Holders for cargo tickets or the like

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

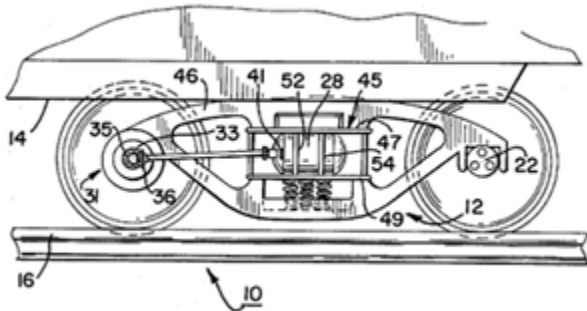
This place covers:

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:

Auxiliary drives	B60K 25/08
Generators	H02K 7/18

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

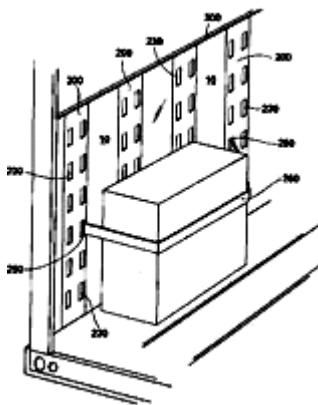
This place covers:

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:

Paltform wagon	B61D 3/08
Securing of load in vehicle in general	B60P 7/00
Large containers	B65D 88/00

B61D 47/00

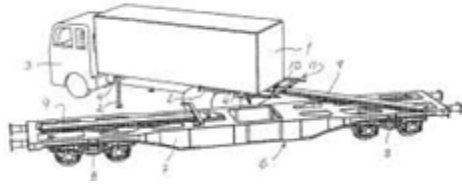
Loading or unloading devices combined with vehicles, e.g. loading platforms, {doors convertible into loading and unloading ramps} (combined with vehicles in general [B60P](#))

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:



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.