

B61F

RAIL VEHICLE SUSPENSIONS, e.g. UNDERFRAMES, BOGIES, ARRANGEMENTS OF WHEEL AXLES; RAIL VEHICLES FOR USE ON TRACKS OF DIFFERENT WIDTH; PREVENTING DERAILING; WHEEL GUARDS; OBSTRUCTION REMOVERS, OR THE LIKE (for vehicles in general B60; axles, wheels B60B; tyres B60C)

Definition statement

This subclass/group covers:

Parts of railway vehicles that are located under the body of the car, and that serves to support, guide and move the body on the rail.

B61F 1/00

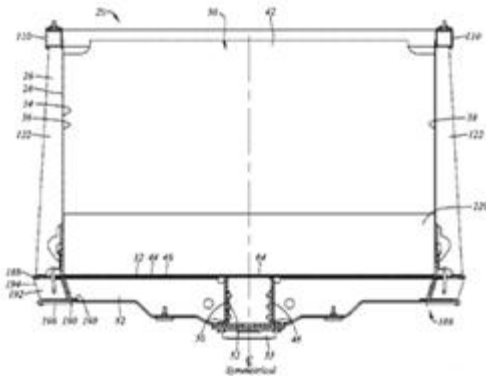
Underframes (making railway vehicle underframes by forging or pressing B21K7/12)

Definition statement

This subclass/group covers:

Constructional features of frameworks for carrying the main body structure.

Following drawing shows one example:



B61F 3/00

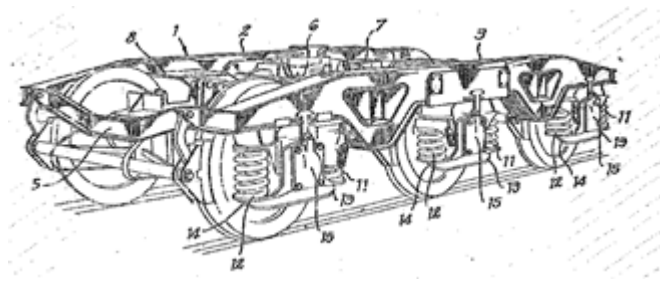
Types of bogies (B61F5/00 takes precedence)

Definition statement

This subclass/group covers:

Constructional features of bogies relating to the numbers of driven/undriven axle used, bogies for articulated railway vehicles, and air drag reducing details.

Following drawing shows one example:



B61F 5/00

Constructional details of bogies; Connections between bogies and vehicle underframes; Arrangements or devices for adjusting or allowing self-adjustment of wheel axles or bogies when rounding curves

Definition statement

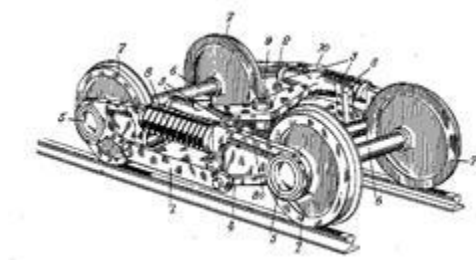
This subclass/group covers:

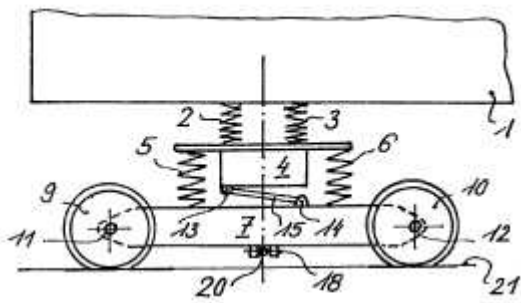
Details of bogies and their connections to the vehicle underframe to improve the running characteristic of the bogie, to reduce wear of the rail and prevent derailment of the vehicle.

Typical examples are:

- Method for optimizin guidance of railway vehicles.
- Railroad car truck suspension yaw stabilizer.
- Pneumatic spring between bogie and underframe.
- Self-steering bogies.
- Railway truck leveling device.
- Bogie for tilting-body type railcar.
- Lightweight truck bolster for railcar.

Following drawing show two examples:





Informative references

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

Molding	B22C 9/00
Vehicle suspension arrangement in general	B60G
Stabilising vehicles bodies	B62D 37/00
Springs and shock absorbers in general	F16F

B61F 7/00

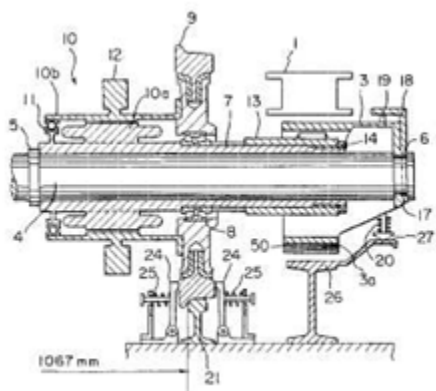
Rail vehicles equipped for use on tracks of different width

Definition statement

This subclass/group covers:

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

Following drawing shows one example:



Informative references

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

Adjustable axle units for varying track	B60B 35/10 .
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B61F 9/00

Rail vehicles characterised by means for preventing derailing, e.g. by use of guide wheels

Definition statement

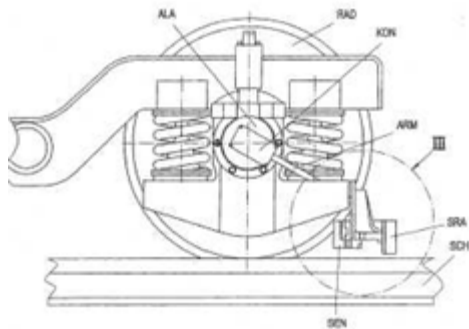
This subclass/group covers:

Devices and methods to prevent derailment of the railway vehicle. It concerns additional components that are mounted on the vehicle.

Typical examples are:

- Derailment detector unit.
- Rail vehicle with guiding device.
- Inductive derailment sensor.

Following drawing shows one example (EP1422119):



References relevant to classification in this group

This subclass/group does not cover:

Preventing derailment by improving bogie components, e.g. improving the characteristics of the springs in	B61F 5/00
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Informative references

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

Power and free systems with vehicles rolling trackless on the ground	B61B 10/04
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B61F 11/00

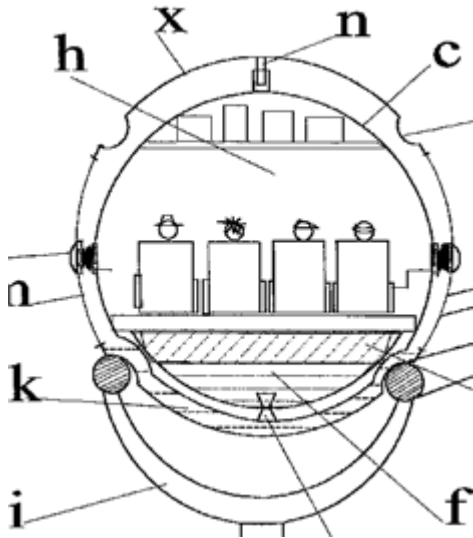
Rail vehicles characterised by rail-engaging elements other than wheels, e.g. balls

Definition statement

This subclass/group covers:

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

Following drawing shows one example (DE29509473U):



B61F 13/00

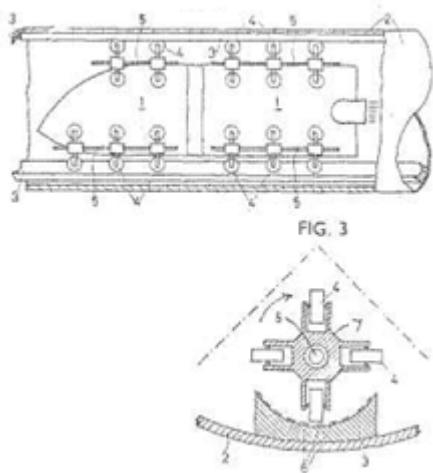
Rail vehicles characterised by wheel arrangements, not otherwise provided for

Definition statement

This subclass/group covers:

Railway vehicles having a wheel arrangement configuration that is not of the conventional type.

Following drawing shows one example:



Informative references

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

Wheel in general	B60B
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Wheel characterised by rail-engaging elements	B60P 17/00
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B61F 15/00

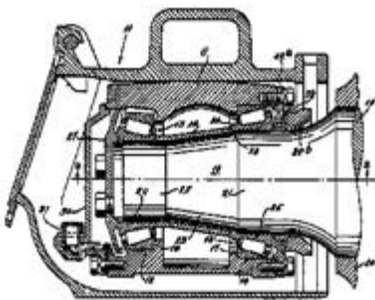
Axle-boxes (mounting or securing axle-boxes B61F5/26; lubrication B61F17/00; bearings in general F16C)

Definition statement

This subclass/group covers:

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

Following drawing shows one example:



Informative references

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

Rotary current collectors with liquid contacts	H01R 39/30
Rotary current collectors with brush holders	H01R 39/38 , H01R 39/381
Speed measuring	G01P 3/00

B61F 17/00

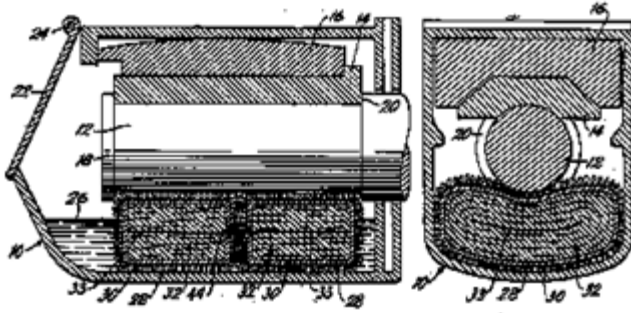
Lubrication specially adapted for axle-boxes of rail vehicles (lubrication in general F16N)

Definition statement

This subclass/group covers:

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

Following drawing shows one example:



B61F 19/00

Wheel guards; Bumpers; Obstruction removers or the like (for vehicles in general B60R19/00)

Definition statement

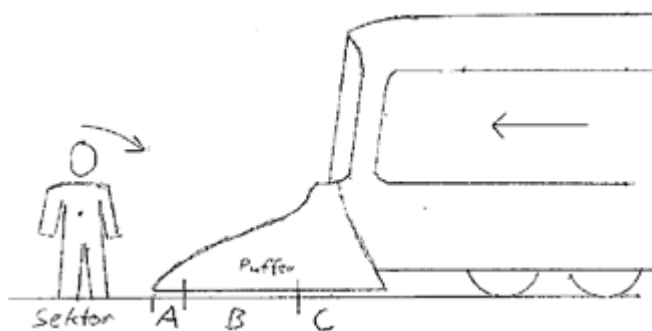
This subclass/group covers:

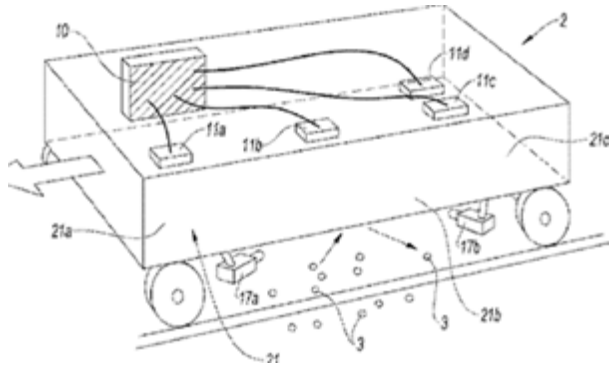
Devices and methods to protect the railway vehicle components from obstacle, e.g. ballast, or to minimize consequences of collisions with pedestrians.

Typical examples are:

- Method and device to detect impacts on specific zones on a railway vehicle.
- Collision protection system for rail vehicles.
- Track sweeper for rail vehicle.

Following drawings show two examples:





Informative references

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

Buffer cars	B61D 15/06
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B61F 99/00

Subject matter not provided for in other groups of this subclass

Definition statement

This subclass/group covers:

Devices and methods that are not in [B61F 1/00](#) to [B61F 19/00](#).