

E01B

PERMANENT WAY; PERMANENT-WAY TOOLS; MACHINES FOR MAKING RAILWAYS OF ALL KINDS (derailing or rerailling blocks on track, track brakes or retarders [B61K](#))

Definition statement

This place covers:

Structure of stationary tracks on which propelled vehicles run for the transportation of passengers or freights;

Tools and machines specially designed for making, maintaining, renewing or taking-up the track.

References

Limiting references

This place does not cover:

Model railways	A63H 19/00
Wetting or lubricating rails	B61K 3/00
Track brakes fixed to permanent way	B61K 7/00
Devices along the track for guiding or ensuring the safety of railway traffic	B61L
Foundation for paving	E01C 3/00
Bridges in general	E01D
Removing undesirable matter from the permanent way (cleaning)	E01H 8/00
Foundations in general	E02D
Making tunnels	E21D
Cable through	H02G 9/04

Informative references

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

Railway systems including the vehicle	B61B
---------------------------------------	----------------------

Synonyms and Keywords

In patent documents, the following words/expressions are often used with the meaning indicated:

"Permanent way"	" Railway, railroad"
-----------------	----------------------

E01B 1/00

Ballastway; Other means for supporting the sleepers or the track; Drainage of the ballastway (draining by trenches, culverts, or conduits [E01F 5/00](#))

Definition statement

This place covers:

Continuous load bearing bedding for supporting the sleepers or the track, e.g. ballast or concrete slab;

Drainage of the ballastway or the ballastless bedding

References

Limiting references

This place does not cover:

Slabs as such for supporting the rails	E01B 3/14 , E01B 3/24 , E01B 3/40
Draining of tramway rails	E01B 21/02
Placing, working or taking-up the ballast	E01B 27/00
Making of concrete parts of the track in situ	E01B 29/005
Means for temporarily supporting the sleeper or the track	E01B 29/40
Fastening railway sleepers to bridges	E01D 19/12
Draining the sub-base of railways by trenches, culverts or conduits	E01F 5/00

Informative references

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

Draining of streets	E01C 11/224
Draining of sport grounds	E01C 13/00 , E01C 13/02
Draining arrangements for bridges	E01D 19/086
Drainage of soils in general	E02B 11/00

E01B 2/00

General structure of permanent way (railway networks [B61B 1/00](#); foundations for pavings [E01C 3/00](#); foundations in general [E02D](#))

Definition statement

This place covers:

General structure of the track, e.g. on bridges or in tunnels, foundations for the track.

References

Limiting references

This place does not cover:

Track superstructure adapted for tramways in paved streets	E01B 21/00
Tracks for special kinds of railways	E01B 25/00
General arrangements of stations, e.g. platforms	B61B 1/00

Informative references

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

Foundation for pavings	E01C 3/00
Foundations in general	E02D

E01B 3/00

**Transverse or longitudinal sleepers (for switches or crossings [E01B 7/22](#));
Other means resting directly on the ballastway for supporting rails**

Definition statement

This place covers:

Sleepers and other means for supporting rails, e.g. concrete slabs, regardless of the substructure, the sleepers being parallel or orthogonal to the rails.

References**Limiting references**

This place does not cover:

Sleeper shoes for ballastless track	E01B/00C2
Sleepers for switches or crossings	E01B 7/22
Sleepers for shiftable tracks for heavy loads	E01B 23/12
Manufacturing of concrete sleepers	B28B

Synonyms and Keywords

Sleeper	Tie, crosstie
---------	---------------

E01B 5/00

Rails; Guard rails (manufacture of rails [B21B](#)); Distance-keeping means for them

Definition statement

This place covers:

Rails for carrying vehicles with their centre of gravity above or suspended from the rail; guard rails, guide rails to prevent derailing; distance keeping means.

References**Limiting references**

This place does not cover:

Tie-rods for sleepers	E01B 3/00
Rail parts for switches or crossings	E01B 7/00
Rail anchors preventing shifting of the track	E01B 13/02
Tie-rods for tramway rails	E01B 21/04
Laying, re-building or taking-up the rails	E01B 29/00
Working rails in or on the line	E01B 31/02
Manufacture of rails	B21B

Synonyms and Keywords

Guard rail	Check rail
------------	------------

E01B 7/00

Switches; Crossings (operating mechanisms [B61L](#))

Definition statement

This place covers:

Mechanical installation enabling trains to be guided from one track to another at a railway junction; crossing of tracks.

References

Limiting references

This place does not cover:

Guard rails	E01B 5/18
Turntables	B61J 1/00
Lubricating of rails	B61K 3/00
Operating mechanisms	B61L

Informative references

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

Switches for easy dismountable tracks	E01B 23/06 , E01B 23/16
Switches for special kinds of railways	E01B 25/00

E01B 9/00

Fastening rails on sleepers, or the like (fastening rails to bridges [E01D 19/12](#))

Definition statement

This place covers:

Fastening means and other track components, e.g. tie-plates, sole-plates, pads or the like, used for attaching rails on their support.

References

Limiting references

This place does not cover:

Fastening switches or crossings on special sleepers	E01B 7/22
Rail anchors	E01B 13/02
Apparatus for fixing or removing fastening means or track components	E01B 29/24 , E01B 29/32
Fastening rails to bridges	E01D 19/12

Informative references

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

Fastening means in general	F16B
----------------------------	----------------------

E01B 9/02

Fastening rails, tie-plates, or chairs directly on sleepers or foundations; Means therefor

Definition statement

This place covers:

Means for fastening rails directly on sleepers or foundations, even if the rails rest on sole-plates or pads;

Means for fastening tie plates or chairs directly on sleepers or foundations.

References**Limiting references**

This place does not cover:

Tie plates per se	E01B 9/40
Fastening the rail on the tie-plate	E01B 9/44
Rail chairs per se	E01B 9/54
Fastening the rail in the chair	E01B 9/58
Special rail fastenings	E01B 9/60 , E01B 9/62 , E01B 9/64 , E01B 9/66

E01B 11/00

Rail joints (electrical connection of the rail [B60M 5/00](#))

Definition statement

This place covers:

Dismountable or non-dismountable rail joints, e.g. by using fishplates or made by welding.

References**Limiting references**

This place does not cover:

Undetachably joining in or on the track, e.g. welding	E01B 29/42
Electrical connections of the rail	B60M 5/00

Informative references

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

Welding in general	B23K
Locking means in general	F16B

E01B 13/00

Arrangements preventing shifting of the track

Definition statement

This place covers:

Arrangements, e.g. rail anchors, preventing shifting such as longitudinal rail movement, which typically occurs during acceleration or deceleration of vehicles, or during expansion and contraction due to temperature change.

References

Limiting references

This place does not cover:

Machines or devices for shifting tracks	E01B 33/00
---	----------------------------

E01B 15/00

Guards for preventing a person's foot being trapped in grooved rails

Definition statement

This place covers:

Arrangements to avoid a person's foot to get stuck in the gap formed along a rail by grooved rails.

References

Limiting references

This place does not cover:

Safety means (in general) for rail/road crossing traffic	B61L 29/00
--	----------------------------

E01B 17/00

Cattle guards connected to the permanent way (grids in general for preventing cattle from straying [A01K 3/00](#))

Definition statement

This place covers:

Arrangements connected to the installations of the railroad preventing cattle or cattle-like animals (whether domesticated or not), such as horses, sheep or deer, from straying on or walking along railways, or preventing intrusion in tunnels.

References

Limiting references

This place does not cover:

Grids in general for preventing for preventing cattle from straying	A01K 3/00
Guards or obstacles for preventing access to the route	B61L 29/02

Informative references

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

Means for fixing fences or the like to rails	E01B 26/005
Snow fences	E01F 7/02

E01B 19/00

Protection of permanent way against development of dust or against the effect of wind, sun, frost, or corrosion; Means to reduce development of noise (snow fences [E01F 7/02](#), snow-ploughs [E01H 8/02](#), watering [E01H 11/00](#))

Definition statement

This place covers:

Protective means of the permanent way against weather influences incorporated in the track;

Means for protecting the underground against spillage;

Means to reduce noise incorporated in the track

References**Limiting references**

This place does not cover:

Snow fences	E01F 7/02
Snow ploughs	E01H 8/02
Control of undesirable vegetation on permanent ways of railways	E01H 11/00

Informative references

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

Spillage retaining means for large containers	B65D 90/24
Protection against snow, sand wind or falling rocks in general	E01F 7/00
Noise absorbing or reflecting arrangements for railways	E01F 8/00
Removing snow or ice from roads	E01H 5/00

E01B 21/00

Track superstructure adapted for tramways in paved streets (paving [E01C 9/04](#), [E01C 9/06](#))

Definition statement

This place covers:

Embedded rail systems, where the traffic area of rail vehicles needs to be shared with road users of private transport, such as cars, trucks or bikes and pedestrians.

References

Limiting references

This place does not cover:

Paving for railroad level crossings	E01C 9/04
Paving adjacent tramway rails	E01C 9/06

Informative references

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

Bedding e.g. ballast or concrete	E01B 1/00
Drainage of the track	E01B 1/008

E01B 23/00

Easily dismantlable or movable tracks, e.g. temporary railways; Details specially adapted therefor

Definition statement

This place covers:

Light railways such as field, colliery or mine use, temporary railways, as well as shiftable tracks for heavy loads.

References

Limiting references

This place does not cover:

Model or toy railways	A63H 19/00 , A63H 21/00
Runway or tracks for trolleys or cranes	B66C 7/00
Rails of supporting structures for mobile scaffolds provided on roofs	E04G 3/34

Informative references

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

Propelled stands or trestles, e.g. on tracks, as supports for apparatus placed thereon	F16M 11/42
--	----------------------------

E01B 25/00

Tracks for special kinds of railways (systems [B61B](#); wheel tracks on roads [E01C 9/02](#))

Definition statement

This place covers:

Special kinds such as rack railways, mono rails, cable-drawn, stationary aerial rope, supporting rails for suspended vehicles, tracks for guiding vehicles, magnetic suspension.

References

Limiting references

This place does not cover:

Slaughterhouse conveying track	A22B 7/001
Overhead rail system for handicapped persons	A61G 7/1042
Electric propulsion	B60L 13/00
Suspended load carriers movable by hand or gravity	B65G 9/008
Wheel tracks	E01C 9/02

Informative references

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

Rope railway systems using cables as traction means	B61B 7/00
Funicular systems	B61B 9/00
Other railway systems	B61B 13/00
Not vehicle mounted steering control for guiding road vehicles, e.g. in urban networks.	B62D 1/26

E01B 27/00

Placing, renewing, working, cleaning, or taking-up the ballast, with or without concurrent work on the track; Devices therefor; Packing sleepers

Definition statement

This place covers:

Placing, redistributing, levelling, loosening the ballast; removing or taking-up ballast; renewing or cleaning the ballast in situ, with or without taking-up or lifting the track; compacting the ballast with or without introducing additional fresh material under the sleepers.

References

Limiting references

This place does not cover:

General body details of railway vehicles, e.g. working platform	B61D
Removing undesirable matter from the permanent way	E01H 8/00

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Packing sleepers	Locally compacting the ballast in the vicinity of the sleepers
------------------	--

E01B 29/00

Laying, rebuilding, or taking-up tracks; Tools or machines therefor (E01B 27/00, E01B 31/00 take precedence)

Definition statement

This place covers:

Transporting, laying, removing or renewing rails, sleepers or lengths of assembled track;

Lifting or levelling of tracks; installing or removing fastening means or other track components, e.g. rail clips, sole-plates;

Undetachably joining or fastening track components in or on the track, e.g. by welding; Sealing rail joints.

References

Informative references

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

Welding in general	B23K
Fastening tools in general	B25B
Hand held nailing or stapling tools	B25C
Devices for moving or tilting heavy loads	B65G 7/00
Cranes mounted on railway vehicles	B66C 23/50
Lifting devices in general	B66F
Glueing metal parts in general	F16B 11/00

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Ribbon rails	Rails assembled into strings
--------------	------------------------------

E01B 31/00

Working rails, sleepers, baseplates, or the like, in or on the line; Machines, tools, or auxiliary devices specially designed therefor (characterised by features independent of use on assembled track [B21](#), [B23](#) - [B25](#), [B27](#))

Definition statement

This place covers:

Working such as reconditioning, repairing or treating track components in or on the line and machines specially designed therefor.

References

Limiting references

This place does not cover:

Working the ballast	E01B 27/00
---------------------	----------------------------

Laying, rebuilding or taking up tracks or track components	E01B 29/00
Undetachably joining or fastening track components	E01B 29/42

E01B 33/00

Machines or devices for shifting tracks, with or without lifting, e.g. for aligning track, for shifting excavator track (combined with sleeper packing machines [E01B 27/17](#))

References

Informative references

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

Machines combined with sleeper packing machines	E01B 27/17
---	----------------------------

E01B 35/00

Applications of measuring apparatus or devices for track-building purposes (apparatus on locomotives or cars to indicate or record bad track sections [B61K 9/00](#); measuring angles, linear dimensions, or irregularities in general [G01B](#), [G01C](#))

Definition statement

This place covers:

Measuring for track building, maintaining or renewing purposes.

References

Limiting references

This place does not cover:

Apparatus on locomotives or cars to indicate or record bad track sections	B61K 9/00
Devices along the track for guiding or ensuring the safety of railway traffic	B61L

Informative references

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

Measuring angles, linear dimensions, or irregularities in general	G01B , G01C
---	---