B66B

ELEVATORS; ESCALATORS OR MOVING WALKWAYS (apparatus for raising or lowering persons on theatrical stages or the like A63J 5/12; funicular railbound systems with rigid ground-supported tracks and cable traction, e.g. cliff railways, B61B 9/00; arrangements of ammunition handlers in vessels B63G 3/00; hoists, lifts, or conveyors for loading or unloading in general B65G; braking or detent devices controlling normal movements of winding drums or barrels B66D; ship-lifting devices E02C; garages for many vehicles with mechanical means for lifting vehicles E04H 6/12; hoists for feeding ammunition or projectiles to launching apparatus or to loading mechanisms F41A 9/00)

Definition statement

This place covers:

Transporting apparatus of the types specified herein for people or discrete loads when used in conjunction with buildings, complexes of buildings, mines, or similar scale manmade structures or natural formations (e.g. caves).

Elevating apparatus (i.e., elevators or lifts) for shifting a discrete load (e.g., person(s), freight), in its entirety, a significant distance (e.g., at least the height of a normal floor of a building) from an entry level (e.g., landing) to a vertically spaced exit level along a shaft. To be proper for this subclass, the elevating apparatus must include:

• a support surface (e.g., elevator car/lift cage) that underlies the load and to which the load is confined during travel,
• rigid or semirigid means for contacting and limiting the travel of the load support surface to back and forth travel along its vertically extending shaft (including inclined ways), and
• drive means (e.g., fluid motors, manually operated cable) for transmitting to the load support surface the force necessary to shift the load between the levels or motion resisting means (e.g., cable linked counterweights) for slowing the travel of the load-supporting surface when moving from a higher load entry level to a lower load exit level.

Conveying apparatus (i.e., an assemblage of elements for moving a load along a predetermined path) for transporting pedestrians (i.e., escalators or moving walkways) from an entrance location to at least one horizontally spaced egress location. To be proper for this subclass, the conveying apparatus must:

• include an underlying surface, or a series of interlinked underlying surfaces, that is intended to normally support and carry individuals to their egress location,
• be arranged or constructed either with a structure that specially adapts the conveying apparatus to the transporting of people or to facilitate potential alternative traversal of the surface(s) by the individuals carried thereon utilizing their standard mode of locomotion (e.g., stepping, walking, manually powering their wheelchair) whenever the underlying surface is idle or the pedestrian wishes to supplement their pace of travel over the underlying surface,
• include rigid or semirigid means for limiting the travel of the supporting surface to a fixed extending path along which individuals are carried when travelling between the horizontally spaced locations, and
• include drive means (e.g., endless chain) for transmitting to the underlying surface the force necessary to shift people between the horizontally spaced locations.

Components of the elevating or conveying apparatus when:

• no specific place for the components exists in another subclass and
• the components are limited to use with the above types of apparatus by a structural modification (e.g., escalator handrails or guards).
Ancillary devices (e.g., elevator call registration systems) for either the elevating or conveying apparatus which are:
• used exclusively with elevating or conveying apparatus and
• have their operations influencing or being influenced by the operation of the elevating or conveying apparatus.

Explanatory Notes or Graphics

(1) Note. Examples of special adaptations for escalators or moving walkways that facilitate the transport of pedestrians are:
• moving steps,
• conveyors combined with handrails,
• conveyors having serrated foot engaging surfaces,
• entrance or exit comb plates,
• passenger operated control of drive means, or
• special layouts facilitating walking along conveying apparatus’ path.

(2) Note. Elevating or conveying apparatus otherwise proper for the definition which is either specially modified for use with, or combined with, apparatus for doing work on or treating (e.g., machine tools, furnaces) the discrete loads being carried (e.g., tools shaping load during elevation) are covered in appropriate subclasses for this subject matter.

(3) Note. The load support surfaces of elevators or lifts are intended to support their loads only for a short period of time during handling. Surfaces intended to either support an article in a non-use storage location, support a useable machine or tool, or move one portion of a machine or article relative to another portion thereof are covered in appropriate subclasses for this subject matter.

(4) Note. The discrete load transported by the elevating apparatus of this subclass is either
• a human,
• an animal or other living creature,
• an article,
• unitized bulk material (e.g., cotton bail, ice block), or
• a group or mix of the above types of loads that is moved as a unit between levels.

References

Limiting references

This place does not cover:

| Life-saving devices used as an alternative to normal egress means (e.g., stairs) during rescue to lower persons in cages, bags, or similar supports from buildings or other structures | A62B 1/02 |
| Amusement rides (e.g., roundabouts, and Ferris wheels) that are, or may include as a part of their structure, elevating or conveying apparatus | A63G |
| Arrangements of ammunition handlers in military-type sea vessels | B63G |
| Equipment for handling freight or for facilitating passenger embarkation or the like to aircraft | B64D 9/00 |
| Hoists, lifts, or conveyors for loading or unloading in general | B65G |
| Hoists, lifts, or conveyors for storing articles, individually or in orderly arrangement, in warehouses or magazines | B65G 1/00 |
| Braking or detent devices controlling normal movements of winding drums or barrels for capstans, hoist, or winches | B66D |
| Lifting or elevating devices for ships | E02C |
Multi-vehicle garages provided with mechanical means for lifting vehicles  E04H 6/12
Hoists for feeding ammunition or projectiles to launching apparatus or to loading mechanisms for weapons  F41A 9/00

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

<table>
<thead>
<tr>
<th>Description</th>
<th>CPC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lifting and lowering devices for moving disabled persons or patients</td>
<td>A61G</td>
</tr>
<tr>
<td>Hoisting or lowering devices for coffins</td>
<td>A61G 19/00</td>
</tr>
<tr>
<td>Funicular rail-bound systems with rigid ground-supported tracks and cable traction (e.g., cliff railways)</td>
<td>B61B 9/00</td>
</tr>
<tr>
<td>Ski-lift, sleigh-lift, or the like trackless systems with only guided towing cables</td>
<td>B61B 11/00</td>
</tr>
<tr>
<td>Devices for lifting or lowering bulky or heavy goods for loading or unloading purposes</td>
<td>B66F</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive means</td>
<td>means for supplying motive force to an element to be moved which includes both force generating means (e.g., motor) and structural linkage (e.g., gears) needed to transmit the force from the generating means to the element.</td>
</tr>
<tr>
<td>Landing</td>
<td>an in situ floor within a structure (e.g., building) (a) that is located adjacent to an elevator shaft or the entrance or egress points of the conveying apparatus' path and (b) to or from which a load (e.g., passenger, cargo, pedestrian) transfers during the charging or discharging of the load-underlying support surface of an elevator or conveying apparatus.</td>
</tr>
<tr>
<td>Shaft</td>
<td>a long, narrow, in situ passageway within a structure (e.g., building, ship, mine) which defines the fixed path between the vertically spaced load entrance and exit levels traveled by the load-underlying support surface of an elevator.</td>
</tr>
<tr>
<td>dumbwaiter</td>
<td>a very small elevator or lift (e.g., normally the support is too small for a person) for moving housekeeping or food items between floors</td>
</tr>
</tbody>
</table>

Synonyms and Keywords
In patent documents, the following words/expressions are often used as synonyms:
- "elevator" and "lift"
- "shaft", "hoistway", "hatchway", "well" and "lift well"
**B66B 1/00**

**Control systems of elevators in general (safety devices B66B 5/00; controlling door or gate operation B66B 13/00; systems of general application G05)**

**Definition statement**

This place covers:

- Apparatus, systems and processes concerned with the control of elevators and mining hoists.
- Control systems for manual operation where the movements are under control of a human operator.
- Automated control systems for a single or a plurality of elevator cars including call assignment systems and methods.
- Speed control for elevator cars.
- Position and motion detection of elevator cars.
- Call input means.
- Switches and other means used by the elevator controller for controlling the motion of the elevator car that are mounted in the hoistway.

**References**

**Limiting references**

This place does not cover:

<table>
<thead>
<tr>
<th>Reference</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitoring elevator operation</td>
<td>B66B 5/0006</td>
</tr>
<tr>
<td>Control of elevator doors</td>
<td>B66B 13/14</td>
</tr>
<tr>
<td>Control of escalators and moving walkways</td>
<td>B66B 25/00</td>
</tr>
</tbody>
</table>

**B66B 1/04**

**hydraulic**

**Definition statement**

This place covers:

- All control systems for hydraulically powered elevators without regulation.
- Control systems containing hydraulic elements.

**References**

**Limiting references**

This place does not cover:

<table>
<thead>
<tr>
<th>Reference</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Levelling systems for hydraulically driven elevators</td>
<td>B66B 1/405</td>
</tr>
</tbody>
</table>
B66B 1/14
with devices, e.g. push-buttons, for indirect control of movements

Definition statement
This place covers:
Control systems where the control is no longer done by a human operator but where the movements of the elevator system are controlled by an electro-mechanical controller that reacts to calls given by the passengers

References
Limiting references
This place does not cover:

Systems especially concerned with the allocation of a call to a car

B66B 1/2408

B66B 1/16
with means for storing pulses controlling the movements of a single car or cage {{B66B 1/2433 takes precedence}}

Definition statement
This place covers:
Control systems where the calls given by the passengers are stored by the controller and executed

References
Limiting references
This place does not cover:

Systems especially concerned with the allocation of a call to a car

B66B 1/2408

B66B 1/18
with means for storing pulses controlling the movements of several cars or cages {{B66B 1/2458 takes precedence}}

Definition statement
This place covers:
Control systems where the calls given by the passengers are stored by the controller and executed and where the controller controls several cars at the same time.

References
Limiting references
This place does not cover:

Systems especially concerned with the allocation of a call to a car for an elevator system with multiple cars in a single hoist way

B66B 1/2433
Systems especially concerned with the allocation of a call to a car for an elevator system with multiple hoist ways each containing a single car or cage

| B66B 1/2458 |

Systems especially concerned with the allocation of a call to a car for an elevator system with multiple hoist ways having multiple cars in each hoist way

| B66B 1/2466 |

Systems especially concerned with the allocation of a call to a car for an elevator system with multiple cars wherein a lateral transfer of the car and or car frame is possible

| B66B 1/2491 |

**B66B 1/20**

and for varying the manner of operation to suit particular traffic conditions, e.g. "one-way rush-hour traffic" {{B66B 1/2466 takes precedence}}

**Definition statement**

*This place covers:*

Control systems where the way in which the calls given by the passengers are executed e.g. operating speed, permissible load is varied depending on the traffic density.

**References**

**Limiting references**

*This place does not cover:*

| B66B 1/2408 |

**B66B 1/24**

Control systems with regulation, i.e. with retroactive action, for influencing travelling speed, acceleration, or deceleration

**Definition statement**

*This place covers:*

Hydraulic valves for the control of hydraulic elevators

**B66B 1/2408**

{where the allocation of a call to an elevator car is of importance, i.e. by means of a supervisory or group controller}

**Definition statement**

*This place covers:*

Systems and methods for handling the assignment of calls to cars.

**References**

**Limiting references**

*This place does not cover:*

| B66B 1/468 |
Varying door-open time

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

Control of acceleration in general

Special rules of classification
In addition to the invention information in this group documents must be provided with one or more Indexing Codes for additional information covering aspects of the call allocation other than the elevator system layout:

When the call input system is of importance: B66B 2201/10 - B66B 2201/104
When the system uses a cost function for the allocation: B66B 2201/20 - B66B 2201/243
When the allocation is influenced by the building layout: B66B 2201/30 - B66B 2201/308
When the control system changes the system of allocation: B66B 2201/40 - B66B 2201/406

B66B 1/26
mechanical

Definition statement
This place covers:
Control system with regulation where the comparison between actual and calculated speed is done mechanically; The other parts of the control system can be electrical

References
Limiting references
This place does not cover:

Overspeed detecting

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

Excess flow valve general (pipe rupture valve)

B66B 1/28
electrical (detecting excessive speed B66B 5/04 {; control of electrical motor H02P})

Definition statement
This place covers:
• Control systems with regulation where the signal treatment and /or control action is performed by electrical or electronical means.
• Control action is effective on the driving gear e.g. through the use of power electronics.
• Control action is effective on braking devices of which the braking characteristics can be electrically modified.

References

Limiting references

This place does not cover:

| Overspeed detecting | B66B 5/04 |

B66B 1/34

Details {e.g. call counting devices, data transmission from car to control system, devices giving information to the control system}

Definition statement

This place covers:
Details of control systems or control related subjects not otherwise provided for.

Special rules of classification
Besides the EC class the Indexing Code range B66B 1/3415 is available to classify specific aspects.

B66B 1/46

Adaptations of switches or switchgear (switches or switchgear in general, applications of switches or switchgear for floor-levelling purpose H01H; panels for boards or switching arrangements H02B 1/015)

References

Limiting references

This place does not cover:

| Switches preventing overwinding | B66B 5/10 |

B66B 1/461

{characterised by their shape or profile}

Definition statement

This place covers:
Constructional features of call registering systems.

B66B 1/468

{Call registering systems}

Definition statement

This place covers:
All systems by which the user can pass his call to the elevator control.
Systems with user identification and or prevention of unauthorised use
Pay for use systems

References

Limiting references
This place does not cover:

<table>
<thead>
<tr>
<th>False call cancellation</th>
<th>B66B 1/2408</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication between the input device and the controller</td>
<td>B66B 1/34</td>
</tr>
<tr>
<td>Multiplexing for position indicators</td>
<td>B66B 3/02</td>
</tr>
</tbody>
</table>

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

| Switchboards and panels general | H02B 1/00 |

Special rules of classification
Beside the EC class at least two of the following Indexing Codes must be assigned: 
Code relating to the moment of destination input: B66B 2201/4615 or B66B 2201/4623

Code relating to on how the call is made: B66B 2201/463 - B66B 2201/4653

Code relating to the processing of information after the call has been made: B66B 2201/4661 - B66B 2201/4692

B66B 1/50
with operating or control mechanisms mounted in the car or cage or in the lift well or hoistway

Definition statement
This place covers:
Switches, optical, magnetic devices and activators therefore that enable the control system to obtain the position of the car and/or landing levels in the hoistway

References
Limiting references
This place does not cover:

<table>
<thead>
<tr>
<th>Fine levelling of the car at the landing</th>
<th>B66B 1/40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preventing overwinding</td>
<td>B66B 5/10</td>
</tr>
</tbody>
</table>

B66B 1/52
Floor selectors

Definition statement
This place covers:
apparatus that represent a scaled model of the elevator hoistway with containing switches to stop the car at predetermined levels
B66B 3/00

Applications of devices for indicating or signalling operating conditions of elevators

Definition statement

This place covers:

Devices, systems and methods providing information to elevator passengers or potential elevator passengers. The information can concern elevator related information such as running status, waiting time, assigned car, car position etc or non-elevator information like weather, publicity, internet, television etc.

The information can be transmitted by sound, light or tactile means

Data transmission systems between car and outside not related to the control of the elevator operation

References

Limiting references

This place does not cover:

| Data communication for control purposes | B66B 1/34 |
| Elevator monitoring | B66B 5/0006 |
| Telephone inside car | B66B 5/0006 |
| Data communication for mining hoists | B66B 19/06 |
| Indicating operation condition of escalators or moving walkways | B66B 27/00 |

B66B 5/00

Applications of checking, fault-correcting, or safety devices in elevators

Definition statement

This place covers:

Apparatus, systems and processes concerned with verifying the operation of the elevator(s), limiting the damage in case of malfunctions, the prevention of unsafe operation conditions and the safety of elevator users and maintenance personnel. The verification of the operation includes:

- monitoring of elevator performance (e.g. normal operation; waiting times).
- monitoring related to maintenance and repair.

The verification can be remote or on site and can include actively testing of devices.

Limiting the damage in case of malfunctions includes:

- overspeed detection
- emergency brake apparatus
- evacuation from blocked elevators
- Buffers or dampers limiting damage in case of impact

The prevention of unsafe operating conditions includes:
measures taken in case of abnormal operation conditions dependent (e.g. redundant components) or independent from the system (e.g. fire, flooding, earthquake, ...)

prevention of overloading

measures in case of rope or cable slack, overwinding or cable slip.

prevention of uncontrolled car movement.

References

Limiting references

This place does not cover:

| Access control                     | B66B 1/468 |
| Verification of ropes or cables    | B66B 7/12  |
| Safety devices related to elevator doors | B66B 13/00 |
| Safety devices for escalators or moving walkways | B66B 29/00 |

Informative references

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

| Automatic brakes in general        | F16D 59/00 |
| Alarm systems in general           | Q08B       |

Glossary of terms

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

| Safety gear means                        | emergency brake device for car or counterweight |
| Speed governor means                     | device to detect overspeed of car or counterweight |

Synonyms and Keywords

In patent documents, the following words/expressions are often used as synonyms:

- "safety gear", "safety catch"

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

"speed limiter" "speed governor" .

B66B 5/0006

{Monitoring devices or performance analysers (B66B 5/02 takes precedence)}

Definition statement

This place covers:

Monitoring arrangements for elevators, checking, registering or analysing normal and or abnormal operating conditions. Performance analysers.
References

Limiting references

This place does not cover:

| Device or system that effectuate a response following the detection of an abnormality | B66B 5/02 |

B66B 5/02

responsive to abnormal operating conditions

Definition statement

This place covers:

Apparatus, systems and processes concerned with abnormal operation conditions for elevators. The abnormal condition can be caused by a malfunction of the elevator system itself or arise due to external factors (e.g. power failure; earthquake; )

Apparatus to permit passengers to leave an elevator car in case of failure.

Apparatus for detecting excessive speed.

Apparatus for preventing overwinding.

Apparatus acting in case of rope or cable slack.

Apparatus acting in case of excessive loads.

Apparatus for braking or catching cars, cages or skips by operating between them and fixed guide elements or surfaces in hoistway or well.

References

Limiting references

This place does not cover:

| Buffer-stops for cars, cages, or skips | B66B 5/28 |
| Earthquake resistant guide rail arrangements | B66B 7/02 |
| Devices limiting sway of ropes and compensation ropes | B66B 7/06 |
| Brakes on driving machine | B66D 5/00 |

B66B 5/021

{the abnormal operating conditions being independent of the system (alarm systems in general G08B)}

Definition statement

This place covers:

Apparatus, systems and processes limiting the impact of external influences on elevator operation. The external influence can have a natural cause (e.g. earthquake, strong winds, flooding, lightning) , be caused by accidents (e.g. fire, smoke) or following human (mis)behaviour (e.g. criminal acts, forced doors, vandalism). Use of elevators for fire fighting and evacuation in case of fires.
References

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Topic</th>
<th>CPC Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verifying identity and authorisation of elevator users</td>
<td>B66B 1/468</td>
</tr>
<tr>
<td>Constructional features of doors</td>
<td>B66B 13/30</td>
</tr>
</tbody>
</table>

**B66B 5/027**

{to permit passengers to leave an elevator car in case of failure, e.g. moving the car to a reference floor or unlocking the door}

**Definition statement**

*This place covers:*

Apparatus, systems and processes enabling the passengers to escape from the car in case of failure. Devices facilitating the liberation by rescue services.

**References**

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Topic</th>
<th>CPC Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Means for passengers to contact rescue services or monitoring centre or vice versa.</td>
<td>B66B 5/00</td>
</tr>
<tr>
<td>Devices for lowering the car in case of power failure for hydraulic lifts</td>
<td>B66B 5/028</td>
</tr>
<tr>
<td>Systems preventing passengers to open the car door when car is stopped between landings</td>
<td>B66B 13/00</td>
</tr>
</tbody>
</table>

**B66B 5/028**

{Safety devices separate from control system in case of power failure, for hydraulical lifts, e.g. braking the hydraulic jack (B66B 5/16 takes precedence)}

**Definition statement**

*This place covers:*

Safety devices exclusively used in hydraulic elevators, the devices can be integrated in the control system.

**References**

Informative references

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

<table>
<thead>
<tr>
<th>Topic</th>
<th>CPC Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excess flow valve general (pipe rupture valve)</td>
<td>F16K 17/20</td>
</tr>
</tbody>
</table>
for detecting excessive speed

Definition statement
This place covers:
Apparatus for detecting excessive speed of elevator car and/or counterweight, upon detection emergency braking is initiated.

Mechanical speed governors;
Governor cable and tensioning means for speed governor cable;
Testing methods for speed governors;
Electrical and electronic speed governors.
Other operating mechanism for speed detecting (e.g. hydraulic; magnetic).
Adaptations of governors to prevent unintended car movements.

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

| Speed measurement for normal elevator control | B66B 1/3492 |

Synonyms and Keywords
In patent documents, the following words/expressions are often used as synonyms:
- "governor" and "limiter"

{Mechanical overspeed governors}

Definition statement
This place covers:
Mechanical speed governors used for detection of excessive speed; constructional detail thereof.

{Testing of overspeed governor}

Definition statement
This place covers:
Methods and apparatus for testing devices detecting excessive speed
**B66B 5/06**

**electrical**

**Definition statement**

*This place covers:*

Apparatus for detecting excessive speed of elevators and counterweights where the detection is done electrically, electronically or opto-electronically.

**B66B 5/08**

**for preventing overwinding**

**Definition statement**

*This place covers:*

Apparatus preventing that the elevator car is hauled so high that it will contact the overhead structure. Apparatus to prevent that hauling cable breaks; Apparatus preventing the fall of the car in case of detached cable due to overwinding.

**B66B 5/10**

**electrical**

**Definition statement**

*This place covers:*

Apparatus preventing that the elevator car is hauled so high that it will contact the overhead structure. The apparatus detects the abnormality electrically or electronically and/or corrects the elevator behaviour electrically or electronically. Terminal slowdown systems.

**References**

**Informative references**

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

| Constructional details of limit switches for elevators | B66B 1/48 |

**B66B 5/12**

**in case of rope or cable slack**

**Definition statement**

*This place covers:*

Apparatus preventing that the elevator car is operated in case where one or more ropes or cables are no longer taut (e.g. through breaking; car or counterweight rests on an obstacle in the hoistway)
B66B 5/125
{electrical}

Definition statement
This place covers:
Apparatus preventing that the elevator car is operated in the case where one or more ropes or cables are no longer taut (e.g. through breaking; car or counterweight rests on an obstacle in the hoistway) and the detection is done electrically or electronically.

B66B 5/14
in case of excessive loads

Definition statement
This place covers:
Apparatus preventing that the elevator car is operated in the case where the car is overloaded. The apparatus normally has one switching level.

References
Limiting references
This place does not cover:

| Load measuring device for normal elevator operation | B66B 1/3476 |

B66B 5/145
{electrical}

Definition statement
This place covers:
Apparatus preventing that the elevator car is operated in the case where the car is overloaded. The apparatus normally has one switching level.
The detection is done electrically or electronically.

B66B 5/16
Braking or catch devices operating between cars, cages, or skips and fixed guide elements or surfaces in hoistway or well

Definition statement
This place covers:
Apparatus retarding and stopping the car or counterweight by interacting with the hoistway or elements mounted therein.
Apparatus that retards and stops the hoisting ropes suspending the car and/or counterweight.
The apparatus can have a working based on friction or can be positively acting.
References

Limiting references

This place does not cover:

| Braking of the driving machine for normal operation | B66D 5/00 |

Synonyms and Keywords

In patent documents, the following words/expressions are often used as synonyms:
- "safety gear", "safety catch"

B66B 5/18

and applying frictional retarding forces

Definition statement

This place covers:
Safety gear that works without a self reinforcing layout;
Mechanisms that initiate the braking action of all types.

B66B 5/185

{by acting on main ropes or main cables}

Definition statement

This place covers:
Apparatus where the frictional retarding forces are transmitted to the elevator main ropes.

B66B 5/20

by means of rotatable eccentrically-mounted members (B66B 5/24 takes precedence)

Definition statement

This place covers:
Apparatus where the frictional retarding forces are generated by contacting an eccentric member with fixed guide members or surfaces in the hoistway or well. The eccentricity produces a self reinforcing effect.

References

Limiting references

This place does not cover:

| Safety gears that work on guide ropes or guide cables | B66B 5/24 |
**B66B 5/22**

by means of linearly-movable wedges *(B66B 5/24 takes precedence)*

**Definition statement**

This place covers:

Apparatus where the frictional retarding forces are generated by contacting an wedge member with fixed guide members or surfaces in the hoistway or well. This group also covers round disks or balls that are wedged between a fixed surface in the hoistway and a tapered housing on the car or counterweight.

**References**

*Limiting references*

This place does not cover:

| Safety gears that work on guide ropes or guide cables | B66B 5/24 |

**B66B 5/24**

by acting on guide ropes or cables

**Definition statement**

This place covers:

Apparatus where the frictional retarding forces are applied to guide ropes or guide cables, so the car and/or counterweight is guided by ropes or cable. The means of generating the retarding forces can be any of the ones explained in B66B 5/18 - B66B 5/22

**References**

*Informative references*

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

| Cableway/ropeway | B61H 9/02 |

**B66B 5/26**

Positively-acting devices, e.g. latches, knives

**Definition statement**

This place covers:

Apparatus where, when applied a material interconnection (other then friction) between the brake apparatus and the fixed guide members or surfaces in the hoistway or well comes into existence.
### B66B 5/28

**Buffer-stops for cars, cages, or skips**

**Definition statement**

*This place covers:*

Passive buffers placed in the bottom or top area of the shaft or hoistway or on the car or counterweight. Details of their construction and arrangement in the hoistway. Testing of the operational fitness of the buffer.

**References**

**Limiting references**

*This place does not cover:*

- Deployable device to create a safety space without any buffering action

**Informative references**

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

- Impact dampers on vehicles
- General damping devices

**Synonyms and Keywords**

In patent documents, the following words/expressions are often used as synonyms:

- "buffer", "bumper", "damper" and "shock absorber"

### B66B 5/282

**{Structure thereof}**

**Definition statement**

*This place covers:*

Constructional features of buffer-stops related to their workings and installation.

**References**

**Limiting references**

*This place does not cover:*

- The additional constructional features when buffer is used to create a temporary safety space
**B66B 5/284**

**{mounted on cars or counterweights}**

**Definition statement**

*This place covers:*

Buffers mounted on cars or counterweights with the purpose of limiting the impact in case of a collision with the extremities of the shaft or hoistway.

**References**

**Limiting references**

*This place does not cover:*

Buffers mounted on cars or counterweights with the purpose of limiting the impact of a collision between two cars or two counterweights

---

**B66B 5/286**

**{between two cars or two counterweights}**

**Definition statement**

*This place covers:*

Buffers mounted on cars or counterweights with the purpose of limiting the impact of a collision between two cars or two counterweights.

---

**B66B 5/288**

**{with maintenance features (if not incorporated in the buffer B66B 5/0087)}**

**Definition statement**

*This place covers:*

Adaptations to buffers facilitating their maintenance and verification of fitness.

Adaptations to buffers so they can be used to create a temporary safety space.

---

**B66B 7/00**

**Other common features of elevators**

**Definition statement**

*This place covers:*

Guideways; guides for elevators; Riding means for riding guideways or guides; structural details of ropes or cables which are adapted for elevator use including non-circular and coated elongated elements. Checking, cleaning and lubricating apparatus for guideways and ropes or cables.

**References**

**Limiting references**

*This place does not cover:*

Constructional features of hoistways
Glossary of terms

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

<table>
<thead>
<tr>
<th>Term(s)</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guide rope means</td>
<td>A guide means composed of a non rigid elongated member destined at guiding a car or counterweight.</td>
</tr>
</tbody>
</table>

Synonyms and Keywords

In patent documents, the following words/expressions are often used as synonyms:

- "guideway", "guide rail" and "guide"
- "rope" and "cable"

B66B 7/02

Guideways; Guides (arrangements in mine shafts E21D 7/02)

Definition statement

This place covers:

Fixed continuous structures installed along or constructional features of the hoistway adapted to guide the car and/or counterweight along a fixed path in the hoistway. Guideways; guides for elevators; Guide ropes

References

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Category</th>
<th>Classification Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guide rails for lifts associated with stairways</td>
<td>B66B 9/0846</td>
</tr>
<tr>
<td>The installation of guideways</td>
<td>B66B 19/002</td>
</tr>
<tr>
<td>Guide rails for carrying surfaces of escalators and moving walkways</td>
<td>B66B 23/14</td>
</tr>
<tr>
<td>Production of guide rails</td>
<td>B21D 3/10</td>
</tr>
<tr>
<td>Arrangements of guideways in cranes</td>
<td>B66C 7/08</td>
</tr>
<tr>
<td>Self-supporting constructions of hoistways containing the guide rails</td>
<td>E04F 17/005</td>
</tr>
</tbody>
</table>

Informative references

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

<table>
<thead>
<tr>
<th>Category</th>
<th>Classification Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixations in general</td>
<td>E01B 9/00</td>
</tr>
</tbody>
</table>
**B66B 7/04**

{Riding means, e.g.] Shoes, Rollers, {between car and guiding means, e.g. rails, ropes (rollers adapted to match the shape of a special guiding means B66B 7/02; vibration attenuation systems acting between car and its supporting frame B66B 11/026)}

**Definition statement**

*This place covers:*

Riding means in general located between the car or counterweight and the guideways or guides. The riding means are intended to keep the car and or counterweight in a defined geometrical relationship with the guides, to reduce friction and attenuate shocks and vibrations. Rollers, shoes located between the car or counterweight and the guideways or guides.

**References**

**Limiting references**

*This place does not cover:*

| Vibration attenuation systems between the car and its supporting frame | B66B 11/026 |
| Roller assemblies for carrying surfaces of escalators and moving walkways | B66B 23/145 |

**B66B 7/06**

**Arrangements of ropes or cables**

**Definition statement**

*This place covers:*

Elongated flexible members suited for withstanding the suspension forces on cars and/or counterweights and/or transmitting the tractive force to car and or counterweight.

Elongated flexible members compensating the weight of the suspension and/or tractive force transmitting members.

Elongated flexible members for power and or signal supply to the car and/or counterweight.

Accessories for the elongated members

cable stabilisers

protecting devices for ropes

**Relationships with other classification places**

Cables in general (construction, production,..) D07B; Transmission cables F16G 9/00; Transmission chains F16G 13/00

**References**

**Limiting references**

*This place does not cover:*

| Physical layout of the rope or cable within the hoistway to obtain a desired technical effect (roping) | B66B 11/008 |
B66B 7/062
{Belts}

Definition statement
This place covers:
Elongated members of non-circular cross-section used for the suspension or transmission of tractive force.

References
Limiting references
This place does not cover:

| Belts used for power and signal supply | B66B 7/064 |
| Chains | B66B 7/066 |
| Belts used for weight compensation | B66B 7/068 |

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

| Rubber field in general | B29D 29/00 - B29D 29/106 |
| V-belts in general | F16G 5/00 - F16G 5/24 |

B66B 7/064
{Power supply or signal cables}

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

| Electrical connectors | H01R |

B66B 7/068
{Cable weight compensating devices}

Definition statement
This place covers:
The elongated member itself.
Tensioners and dampers for the elongated member
B66B 7/08
for connection to the cars or cages, e.g. couplings

Definition statement
This place covers:
connections to the cars, counterweights and fixed structures in the hoistway or machine room.

Measures to stop transmission of vibration between cable and car or counterweight

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

| General means for fixing cables | F16G 11/00 |

B66B 7/085
(Belt termination devices)

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

| Load securing devices | B60P 7/08 |
| Termination devices for straps | B66C 1/18 |

B66B 7/10
for equalising rope or cable tension

Definition statement
This place covers:
Devices taking up the difference in tension between several cables.

Devices taking up the difference in length between several cables. the devices are mounted between the cable termination and the cage, counterweight or drum.

B66B 7/12
Checking, lubricating, or cleaning means for ropes, cables or guides

Definition statement
This place covers:
flaw detectors for cables ropes and belts.
lubricating means for ropes cables and guides

cleaning means for guides ropes and cables
## References

### Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Topic</th>
<th>CPC Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Testing of power transmitting endless elements</td>
<td>G01M 13/023</td>
</tr>
</tbody>
</table>

### Informative references

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

<table>
<thead>
<tr>
<th>Topic</th>
<th>CPC Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rope inspection in FICLA</td>
<td>B66B5/02&amp;C</td>
</tr>
</tbody>
</table>

## B66B 7/123

### {by analysing magnetic variables}

### References

### Informative references

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

<table>
<thead>
<tr>
<th>Topic</th>
<th>CPC Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optical flaw detection in moving materials in general</td>
<td>G01N 21/89</td>
</tr>
</tbody>
</table>

## B66B 7/1246

### {specially adapted for guides}

### Definition statement

This place covers:

Guide checking device for installed guide rails

### References

### Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Topic</th>
<th>CPC Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation of guide rails</td>
<td>B66B 19/002</td>
</tr>
</tbody>
</table>

## B66B 7/1253

### {Lubricating means}

### References

### Informative references

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

<table>
<thead>
<tr>
<th>Topic</th>
<th>CPC Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lubrication of ropeways</td>
<td>B61B 12/08</td>
</tr>
<tr>
<td>Lubricating in general</td>
<td>F16G 9/00</td>
</tr>
</tbody>
</table>
**B66B 9/00**

Kinds or types of lifts in, or associated with, buildings or other structures (characterised by control systems **B66B 1/00**; apparatus for raising or lowering persons on stages of theatres **A63J 5/12**)

**Definition statement**

This place covers:

- Lift or elevator concepts in which either the function of the elevator or the components that are used and/or the way components are arranged differs from traditionally traction elevators.

- Lifts with a characterising driving mechanism

- Lifts with multiple cars

- Lifts with inclined hoistways

- Transportable lifts that can be shifted from one part of a building to another or to another building

**References**

**Limiting references**

This place does not cover:

| Lifts facilitating access to vehicles for disabled persons | A61G 3/02 |
| Devices especially for evacuation of high-rise buildings | A62B 1/02 |
| Space elevators | B64G 1/00 |
| Lifts for bulky goods | B66F, B66C, B66D |
| Lifting tables, platform, scissor tables | B66F 7/00 |
| Vehicle lifts in parking garages | E04H 6/14 |
| Lifts on ladders | E06C 7/12 |

**Informative references**

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

| Elevator system with second cabin instead of counterweight | B66B 2009/006 |
| Devices used for window cleaning | A47L 1/02 |
| Devices used for facade cleaning | E04G 23/002 |

**B66B 9/027**

{by rope climbing devices}

**References**

**Informative references**

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

| Apparatus for mountaineering | A63B 29/00 |
| Suspended scaffolding platforms | E04G 3/30 |
Self acting brakes

### B66B 9/04

actuated pneumatically or hydraulically (platforms for lifting or lowering through short distances [B66F 7/00](#))

**Definition statement**

*This place covers:*

- constructional aspects of the as such driven elevators
- Friction enhancing systems on pulleys

**References**

**Limiting references**

*This place does not cover:*

<table>
<thead>
<tr>
<th>Control of hydraulic elevators</th>
<th>B66B 1/04; B66B 1/24</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydraulic pistons</td>
<td>F15B 15/00</td>
</tr>
</tbody>
</table>

### B66B 9/08

associated with stairways, e.g. for transporting disabled persons (facilitating access of invalids to vehicles [A61G 3/02](#))

**References**

**Informative references**

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

<table>
<thead>
<tr>
<th>Balustrades for stairways etc.</th>
<th>E04F 11/18</th>
</tr>
</thead>
</table>

### B66B 9/16

Mobile or transportable lifts specially adapted to be shifted from one part of a building or other structure to another part or to another building or structure

**References**

**Informative references**

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

<table>
<thead>
<tr>
<th>Devices for lifting or lowering bulky or heavy goods for loading or unloading purposes</th>
<th>B66F 9/00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Movable, with their loads, on wheels or the like, e.g. fork-lift trucks</td>
<td>B66F 9/06</td>
</tr>
</tbody>
</table>
B66B 9/187
with a liftway specially adapted for temporary connection to a building or other structure (B66B 9/193 takes precedence)

References

Limiting references
This place does not cover:

| With inclined liftways | B66B 9/193 |

B66B 11/00
Main component parts of lifts in, or associated with, buildings or other structures

Definition statement
This place covers:

Constructional features of hoistways

elevators characterised by the location of the driving gear and or controller

Loading/unloading equipment for lifts associated with buildings

Roping

Elevator cabin, cars, cages or load supporting structures

Driving gear for elevators

References

Limiting references
This place does not cover:

| Installation of elevators | B66B 19/00 |
| Hoistways, lift wells, lift shafts, | E04F 17/005, E04B 1/34 |

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

| Roping | The spatial distribution of the traction and/or suspension means throughout the elevator installation. The distribution is changed in order to obtain e.g. a different speed ratio, space saving in the hoistway, more stable suspension of the car |
B66B 11/0246
{Maintenance features (devices facilitating maintenance in general B66B 5/0087)}

Definition statement
This place covers:
features forming an integral part of the elevator car which enable or facilitate the maintenance tasks of service personnel

B66B 11/06
with hoisting rope or cable positively attached to a winding drum {(B66B 11/0075 takes precedence)}

References
Limiting references
This place does not cover:

| Roping aspect when such a drive is used | B66B 11/0075 |

B66B 11/08
with hoisting rope or cable operated by frictional engagement with a winding drum or sheave {(B66B 11/008 takes precedence)}

References
Limiting references
This place does not cover:

| Roping aspect when such a drive is used | B66B 11/008 |

B66B 13/00
Doors, gates, or other apparatus controlling access to, or exit from, cages or lift well landings (door fittings, locks E05)

Definition statement
This place covers:
Doors and gates for elevator cages and landings.
Door locks specially adapted for use in elevator doors
Mechanisms and controllers for (semi-) automatic operation of the doors.
Door contacts
Safety devices related to elevator doors

Relationships with other classification places
Doors of general application E05F
References

Limiting references

This place does not cover:

| General door fittings | E05 |

Glossary of terms

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

<table>
<thead>
<tr>
<th>Landing door means</th>
<th>Stationary door closing the entrance to the lift well</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car door</td>
<td>Door attached to the elevator car or cabin which closes the entrance thereof</td>
</tr>
</tbody>
</table>

B66B 13/02

Door or gate operation (of general application E05F)

Definition statement

This place covers:

The complete door mechanism if not of the door types mentioned below.

Constructional details: motor, brake, clutch, damper, test device

References

Informative references

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

| Counterweight for door in general | E05D 13/10 |

B66B 13/06

of sliding doors

Definition statement

This place covers:

Vertically sliding elevator doors or gates.

B66B 13/10

by car or cage movement

Definition statement

This place covers:

Sliding elevator doors or gates where the operation thereof is effected through the movement of the car.
References

Limiting references

This place does not cover:

Unlocking the door by the car

B66B 13/20

B66B 13/12

Arrangements for effecting simultaneous opening or closing of cage and landing doors

Definition statement

This place covers:

Arrangements and apparatus that effect the simultaneous movement in opening and closing of the cage and landing doors when the cage is situated at a landing. The devices often perform an unlocking action as well. Their operating principle can be mechanical, electrical or electromechanical or hydraulic.

B66B 13/14

Control systems or devices

Definition statement

This place covers:

Systems, methods and apparatus for controlling the operation of elevator doors.

References

Limiting references

This place does not cover:

Locking and unlocking devices for elevator doors

B66B 13/16 - B66B 13/20

Safety devices preventing passengers getting trapped between closing doors

B66B 13/26

B66B 13/16

Door or gate locking devices controlled or primarily controlled by condition of cage, e.g. movement or position

References

Limiting references

This place does not cover:

Locks for special uses

F16P 3/08
B66B 13/22

Operation of door or gate contacts

Definition statement
This place covers:
Safety contacts to check if door is correctly locked
The circuit containing such contacts (safety chain or safety line)
Checking and testing systems for the circuit

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

| Safety contacts associated with closing members in general | H01H 3/00 |

B66B 13/24

Safety devices in passenger lifts, not otherwise provided for, for preventing trapping of passengers

Definition statement
This place covers:
Devices to avoid lock picking
Devices for emergency unlocking and/or opening of car and landing doors
Systems detecting unauthorised access to the hoistway
Systems to detect car position in emergency if associated with the doors
Systems avoiding passengers getting trapped between doors
Systems avoiding passengers getting trapped between car and hoist way

References
Limiting references
This place does not cover:

| Adaptations of car door locks preventing opening between floors | B66B 13/12 |

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

| Proximity switches in general | H03K 17/945 |
**B66B 13/26**

between closing doors

**Definition statement**

This place covers:

- Devices preventing that passengers get caught between closing doors or door panels and door frame
- Devices preventing that members of passengers their clothing or luggage gets drawn in between door panels an doorframe or car walls

**B66B 13/28**

between car or cage and wells

**Definition statement**

This place covers:

- Devices preventing that passengers or freight get caught between the car and the hoistway in cars without car doors
- movable car sills; photo electrical protection of the open car entrance
- Lining to smoothen the hoistway wall in front of the car entrance

**References**

**Limiting references**

This place does not cover:

| Car doors | B66B 13/00 |

**B66B 13/285**

{Toe guards or apron devices}

**References**

**Informative references**

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

| Toe guard in FICLA | B66B11/02&Z |

**B66B 13/30**

Constructional features of doors or gates (of interest apart from this application **E06B**)

**References**

**Limiting references**

This place does not cover:

| Swinging bridges between car floor and landing | B66B 17/18 |
**B66B 13/306**

**{Details of door jambs}**

**References**

**Informative references**

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

| For controller built in door frame | B66B1/34&C (FI) |

**Glossary of terms**

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

| Three way frame | Japanese expression for door post |

**B66B 13/308**

**{Details of seals and joints}**

**References**

**Informative references**

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

| Seals in general | F16J 15/00 - F16J 15/56 |

**B66B 15/00**

**Main component parts of mining-hoist winding devices**

**References**

**Limiting references**

*This place does not cover:*

| Cable brakes | B66B 5/185 |
| Hoist brakes general | B66D 5/16 |
| Winding towers for mines | E04H 12/26 |

**B66B 15/02**

**Rope or cable carriers**

**Definition statement**

*This place covers:*

Drums and pulleys both for mine-hoist and elevators in buildings.
B66B 15/04
Friction sheaves; "Koepe" pulleys

Definition statement
This place covers:
Pulleys that transmit hoisting force to the hoisting members by means of friction.
Friction enhancing systems on pulleys

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

<table>
<thead>
<tr>
<th>Pulleys in general</th>
<th>F16H 55/32</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special friction</td>
<td>F16H 55/50</td>
</tr>
</tbody>
</table>

B66B 15/06
Drums

Definition statement
This place covers:
The motive force on the hoisting member is generated by winding/unwinding the hoisting member on a drum

B66B 15/08
Driving gear

Definition statement
This place covers:
The motive force generating means to power the rope and cable carriers for mine lifts
Roping systems used in mines

B66B 17/00
Hoistway equipment

Definition statement
This place covers:
• Equipment installed and used in mining hoistways
• Mining hoist cages
• Mining skips
• Counterweights for both mining and elevators installed in buildings
References

Limiting references
This place does not cover:

- Winding towers for mines

B66B 17/06

with tiltable platforms

Definition statement
This place covers:
e.g. to transport long materials

B66B 17/08

Mining skips

References

Limiting references
This place does not cover:

- Skips used for inclined or horizontal transport

B66B 17/12

Counterpoises

Definition statement
This place covers:
counterpoises used in mine lifts
counterpoises used in lifts associated with buildings
constructural features of counterpoise
filler weights

Synonyms and Keywords
In patent documents, the following words/expressions are often used as synonyms:
• "counterweight", "counterpoises", balance weight" and "compensation weight"
B66B 17/14
Applications of loading and unloading equipment (of general application B65G)

References
Limiting references
This place does not cover:

<table>
<thead>
<tr>
<th>Loading and unloading of lifts associated with buildings</th>
<th>B66B 11/006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loading and unloading in general</td>
<td>B65G</td>
</tr>
</tbody>
</table>

B66B 17/34
Safe lift clips; Keps

Definition statement
This place covers:
Devices used for locking the car or cage to the hoist way or guide rails during loading and unloading. The devices are self releasing so that operations can continue after loading or unloading. The devices can have a double function as safety break which then is activated during an emergency

B66B 19/00
Mining-hoist operation

Definition statement
This place covers:
Installation of mining hoists
installation of elevator associated with buildings
design of elevators associated with buildings
modernisation of elevators
installing and exchanging guide rails and ropes or cables both in mines and elevators in buildings
Method for training service staff
safety devices used during installation only

References
Limiting references
This place does not cover:

| Scaffolding in the hoistway | E04G 3/18 |
**B66B 20/00**

Elevators not provided for in groups B66B 1/00 - B66B 19/00

**Definition statement**

*This place covers:*

This symbol is not to be used.

**B66B 21/00**

Kinds or types of escalators or moving walkways

**Definition statement**

*This place covers:*

principals and concepts

installation of escalators and moving walkways in or against a building

**References**

**Limiting references**

*This place does not cover:*

| Stairways transforming in to an elevator or lifting platform | B66B 9/0869 |
| Tools for installation of escalators and moving walkways | B66B 31/00 |

**Informative references**

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

| Skilifts | B61B |
| General continuous transporters with variable speed | B61K 1/00; B65G 47/04 |
| Conveyors for articles | B65G |

**B66B 23/00**

Component parts of escalators or moving walkways

**Definition statement**

*This place covers:*

Frame and frame structure

Driving gear for the passenger carrying surface

Driving gear for the handrails

Carrying surfaces

Guiding means for carrying surfaces

tensioning means for carrying surfaces

tensioning means for handrails
Balustrades
handrails

References

Limiting references
This place does not cover:

| Frame structures for general conveyors | B65G 21/00 - B65G 21/22 |

B66B 23/02
Driving gear

References

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

| Gearbox in general | F16H 1/14 |

B66B 23/10
Carrying belts

Definition statement
This place covers:
continuous carrying surfaces for horizontal or slightly inclined transport of passengers
carrying surface composed of interlinked pallets having a single side exposed to the passenger for horizontal or slightly inclined transport of passengers

B66B 23/12
Steps

Definition statement
This place covers:
carrying surfaces having a tread and riser used in escalators
constructional details of steps
production methods of steps
advertising on steps

References

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

| Advertising on walls or similar surfaces in general | G09F 19/22 |
**B66B 23/14**
Guiding means for carrying surfaces

**Definition statement**
This place covers:
for steps and pallets

**B66B 23/145**
{Roller assemblies}

**References**

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

| Roller attached to moving chains or belts in general | B65G 39/20 |

**B66B 23/16**
Means allowing tensioning of the endless member

**References**

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

| Belt or chain tensioning means in general | B65G 23/44 |

**B66B 23/22**
Balustrades

**Definition statement**
This place covers:
constructional details of balustrades
Guiding means for the handrail

Handrails

**B66B 23/24**
Handrails (driving gear therefor B66B 23/02; tensioning means therefor B66B 23/16; preventing jamming thereof by foreign objects B66B 29/04; accessories therefor B66B 31/02)

**Definition statement**
This place covers:
shape, kind and materials adapted for handrails
advertising on handrails

References

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Fabrication of handrails</th>
<th>B29C 48/00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiber reinforcement</td>
<td>B29C 70/00</td>
</tr>
</tbody>
</table>

B66B 25/00

Control of escalators or moving walkways (walkways of variable speed type B66B 21/12; handrails of variable speed type B66B 23/26; of general application G05)

Definition statement

This place covers:
Starting, reversing, slowing down in relation to passenger demand and special needs for passengers
control system configuration
monitoring of escalators for maintenance or repair

References

Limiting references

This place does not cover:

| Monitoring for safety reasons     | B66B 29/005 |

B66B 31/00

Accessories for escalators, or moving walkways, e.g. for sterilising or cleaning (for safety B66B 29/00)

Definition statement

This place covers:
protection structures for elevators against fire, rain, snow other external influences
tools for maintenance and installation of escalators and moving walkways
adaptations for conveying hand carts e.g. shopping or airport carts

References

Informative references

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

<table>
<thead>
<tr>
<th>Cleaning in general</th>
<th>A47L 11/00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hand carts per se</td>
<td>B62B 1/00; B62B 3/00</td>
</tr>
<tr>
<td>Japanese classification</td>
<td>B66B31/00&amp;F /fi</td>
</tr>
</tbody>
</table>