

**CPC****COOPERATIVE PATENT CLASSIFICATION****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 conveyers 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](#) )

**NOTE**

In this subclass, the following term is used with the meaning indicated:

- "elevator" covers the term "lift", and the two terms are interchangeable

**Guidance heading: Common features of elevators**

- 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](#) )
- [B66B 1/02](#) . Control systems without regulation, i.e. without retroactive action
  - [B66B 1/04](#) . . hydraulic
  - [B66B 1/06](#) . . electric
  - [B66B 1/08](#) . . . with devices, e.g. handles or levers, in the cars or cages for direct control of movements
  - [B66B 1/10](#) . . . . specially adapted for mining hoists
  - [B66B 1/12](#) . . . with devices, e.g. handles or levers, located at a control station for direct control movements, e.g. electric mining-hoist control systems
  - [B66B 1/14](#) . . . with devices, e.g. push-buttons, for indirect control of movements
  - [B66B 1/16](#) . . . . with means for storing pulses controlling the movements of a single car or cage( { [B66B 1/2433](#) takes precedence } )
  - [B66B 1/18](#) . . . . with means for storing pulses controlling the movements of several cars or cages( { [B66B 1/2458](#) takes precedence } )
  - [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 } )
  - [B66B 1/22](#) . . . . with means for taking account of delayed calls
  - [B66B 1/24](#) . Control systems with regulation, i.e. with retroactive action, for influencing travelling speed, acceleration, or deceleration
  - [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}

B66B 1/2416	...	{For single car elevator systems}
B66B 2001/2425	....	{Zone definition for two cars in the same hatchway}
B66B 1/2433	...	{For elevator systems with a single shaft and multiple cars}
B66B 2001/2441	....	{with the use of a speed pattern generator}
B66B 2001/245	....	{for high-speed elevators which do not attain the maximum speed during shorts runs}
B66B 1/2458	...	{For elevator systems with multiple shafts and a single car per shaft}
B66B 1/2466	...	{For elevator systems with multiple shafts and multiple cars per shaft}
B66B 2001/2475	....	{by using cost function computing}
B66B 2001/2483	....	{by predicting the traffic, e.g. with statistical or learning procedures}
B66B 1/2491	...	{For elevator systems with lateral transfers of cars or cabins between hoistways}
B66B 1/26	..	mechanical
B66B 1/28	..	electrical( detecting excessive speed <a href="#">B66B 5/04</a> );{(control of electrical motor <a href="#">H02P</a> )}
B66B 1/285	...	{with the use of a speed pattern generator}

### **WARNING**

This group is not complete due to reorganisation in progress, see also [B66B 1/28](#)

B66B 1/30	...	effective on driving gear,{e.g. acting on power electronics, on inverter or rectifier controlled motor}
B66B 1/302	....	{for energy saving}
B66B 1/304	....	{with starting torque control}
B66B 1/306	....	{with DC powered elevator drive}
B66B 1/308	....	{with AC powered elevator drive}
B66B 1/32	...	effective on braking devices,{e.g. acting on electrically controlled brakes( <a href="#">brake control H02P</a> , lift brakes per se <a href="#">B66B 5/02</a> )}
B66B 1/34	.	Details,{e.g. call counting devices, data transmission from car to control system, devices giving information to the control system}
B66B 1/3407	..	{Setting or modification of parameters of the control system}
B66B 1/3415	..	{Control system configuration and the data transmission or communication within the control system}
B66B 1/3423	...	{Control system configuration, i.e. lay-out}
B66B 1/343	....	{Fault-tolerant or redundant control system configuration}
B66B 1/3438	....	{Master-slave control system configuration}
B66B 1/3446	...	{Data transmission or communication within the control system}
B66B 1/3453	....	{Procedure or protocol for the data transmission or communication}
B66B 1/3461	....	{between the elevator control system and remote or mobile stations}
B66B 1/3469	..	{mechanical}
B66B 1/3476	..	{Load weighing or car passenger counting devices( <a href="#">B66B 5/14</a> takes precedence )}
B66B 1/3484	...	{using load cells}

- B66B 1/3492     ..     {Position or motion detectors or driving means for the detector( [B66B 1/40](#) ,  
[B66B 1/50](#) take precedence; length measuring [G01B](#) ; speed measuring [G01P](#) )}
- B66B 1/36     ..     Means for stopping the cars, cages, or skips at predetermined levels
- B66B 1/365     ...     {mechanical}
- B66B 1/38     ...     and for returning the controlling handle or lever to its neutral position
- B66B 1/40     ...     and for correct levelling at landings
- B66B 1/405     ....     {for hydraulically actuated elevators}
- B66B 1/42     ....     separate from the main drive
- B66B 1/425     .....     {adapted for multi-deck cars in a single car frame}
- B66B 1/44     ...     and for taking account of disturbance factors, e.g. variation of load weight
- 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](#) )
- B66B 1/461     ...     {characterised by their shape or profile}
- B66B 1/462     ....     {Mechanical or piezoelectric input devices}
- B66B 1/463     ....     {Touch sensitive input devices}
- B66B 1/465     ....     {being resistant to damage}
- B66B 1/466     ....     {facilitating maintenance, installation, removal, replacement or repair}
- B66B 1/467     ...     {characterised by their mounting position}
- B66B 1/468     ...     {Call registering systems}
- B66B 1/48     ...     Adaptations of mechanically-operated limit switches( for cranes [B66C 13/50](#) ;  
for winding mechanisms [B66D 1/56](#) )
- B66B 1/50     ...     with operating or control mechanisms mounted in the car or cage or in the lift  
well or hoistway
- B66B 1/52     ...     Floor selectors
- B66B 3/00     Applications of devices for indicating or signalling operating conditions of  
elevators**
- B66B 3/002     .     {Indicators}
- B66B 3/004     ..     {Mechanical devices that can be illuminated}
- B66B 3/006     ..     {for guiding passengers to their assigned elevator car}
- B66B 3/008     ..     {Displaying information not related to the elevator, e.g. weather, publicity, internet  
or TV}
- B66B 3/02     .     Position or depth indicators
- B66B 3/023     ..     {characterised by their mounting position}
- B66B 3/026     ..     {Mechanical devices that can be illuminated}
- B66B 5/00     Application of checking, fault-correcting, or safety devices in elevators**
- B66B 5/0006     .     {Monitoring devices or performance analysers( [B66B 5/02](#) takes precedence )}
- B66B 5/0012     ..     {Devices monitoring the users of the elevator system}
- B66B 5/0018     ..     {Devices monitoring the operating condition of the elevator system}
- B66B 5/0025     ...     {for maintenance or repair}
- B66B 5/0031     ...     {for safety reasons}

- B66B 5/0037 .. {Performance analysers}
- B66B 5/0043 . {Devices enhancing safety during maintenance}
- B66B 5/005 .. {Safety of maintenance personnel}
- B66B 5/0056 ... {by preventing crushing}
- B66B 5/0062 .... {by devices, being operable or not, mounted on the elevator car}
- B66B 5/0068 .... {by activating the safety brakes when the elevator car exceeds a certain upper or lower position in the elevator shaft}
- B66B 5/0075 .... {by anchoring the elevator car or counterweight}
- B66B 5/0081 ... {by preventing falling by means of safety fences or handrails, being operable or not, mounted on top of the elevator car}
- B66B 5/0087 . {Devices facilitating maintenance, repair or inspection tasks( devices incorporated in the buffer [B66B 5/288](#) ; railings on top of the car [B66B 11/0226](#) )}
- B66B 5/0093 .. {Testing of safety devices}
- B66B 5/02 . responsive to abnormal operating conditions
- B66B 5/021 .. {the abnormal operating conditions being independent of the system(alarm systems in general [G08B](#))}
- B66B 5/022 ... {where the abnormal operating condition is caused by a natural event, e.g. earthquake}
- B66B 5/024 ... {where the abnormal operating condition is caused by an accident, e.g. fire}
- B66B 5/025 ... {where the abnormal operating condition is caused by human behaviour or misbehaviour, e.g. forcing the doors}
- 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}
- B66B 5/028 .. {Safety devices separate from control system in case of power failure, for hydraulic lifts, e.g. braking the hydraulic jack( [B66B 5/16](#) takes precedence )}
- B66B 5/04 .. for detecting excessive speed
- B66B 5/042 ... {with characteristic location of the governor cable}
- B66B 5/044 ... {Overspeed governors}
- B66B 5/046 .... {of the pendulum or rocker arm type}
- B66B 5/048 ... {Testing of overspeed governor}
- B66B 5/06 ... electrical
- B66B 5/08 .. for preventing overwinding
- B66B 5/10 ... electrical
- B66B 5/12 .. in case of rope or cable slack
- B66B 5/125 ... {electrical}
- B66B 5/14 .. in case of excessive loads
- B66B 5/145 ... {electrical}
- B66B 5/16 .. Braking or catch devices operating between cars, cages, or skips and fixed guide elements or surfaces in hoistway or well
- B66B 5/18 ... and applying frictional retarding forces
- B66B 5/185 .... {by acting on main ropes or main cables}
- B66B 5/20 .... by means of rotatable eccentrically-mounted members( [B66B 5/24](#) takes precedence )

B66B 5/22	....	by means of linearly-movable wedges( <a href="#">B66B 5/24</a> takes precedence )
B66B 5/24	....	by acting on guide ropes or cables
B66B 5/26	...	Positively-acting devices, e.g. latches, knives
B66B 5/28	.	Buffer-stops for cars, cages, or skips
B66B 5/282	..	{Structure thereof}
B66B 5/284	..	{mounted on cars or counterweights}
B66B 5/286	...	{between two cars or two counterweights}
B66B 5/288	..	{with maintenance features( if not incorporated in the buffer <a href="#">B66B 5/0087</a> )}
<b>B66B 7/00</b>		<b>Other common features of elevators</b>
B66B 7/02	.	Guideways; Guides( <a href="#">arrangements in mine shafts E21D 7/02</a> )
B66B 7/021	..	{with a particular position in the shaft}
B66B 7/022	..	{with a special shape}
B66B 7/023	..	{Mounting means therefor}
B66B 7/024	...	{Lateral supports}
B66B 7/025	...	{End supports, i.e. at top or bottom}
B66B 7/026	...	{Interconnections}
B66B 7/027	...	{for mounting auxiliary devices}
B66B 7/028	..	{with earthquake protection devices}
B66B 7/04	..	{Riding means, e.g.}Shoes, Rollers,{between car and guiding means, e.g. rails, ropes( <a href="#">rollers adapted to match the shape of a special guiding means B66B 7/02</a> ; <a href="#">vibration attenuation systems acting between car and its supporting frame B66B 11/026</a> )}
B66B 7/041	...	{including active attenuation system for shocks, vibrations}
B66B 7/042	....	{with rollers, shoes}
B66B 7/043	.....	{using learning}
B66B 7/044	....	{with magnetic or electromagnetic means}
B66B 7/045	.....	{using learning}
B66B 7/046	...	{Rollers}
B66B 7/047	...	{Shoes, sliders}
B66B 7/048	...	{including passive attenuation system for shocks, vibrations}
B66B 7/06	.	Arrangements of ropes or cables
B66B 7/062	..	{Belts}
B66B 7/064	..	{Power supply or signal cables}
B66B 7/066	..	{Chains}
B66B 7/068	..	{Cable weight compensating devices}
B66B 7/08	..	for connection to the cars or cages, e.g. couplings
B66B 7/085	...	{Belt termination devices}
B66B 7/10	..	for equalising rope or cable tension
B66B 7/12	.	Checking, lubricating, or cleaning means for ropes, cables or guides
B66B 7/1207	..	{Checking means}

B66B 7/1215	...	{specially adapted for ropes or cables}
B66B 7/1223	....	{by analysing electric variables}
B66B 7/123	....	{by analysing magnetic variables}
B66B 7/1238	....	{by optical techniques}
B66B 7/1246	...	{specially adapted for guides}
B66B 7/1253	..	{Lubricating means}
B66B 7/1261	...	{specially adapted for ropes or cables}
B66B 7/1269	...	{specially adapted for guides}
B66B 7/1276	..	{Cleaning means}
B66B 7/1284	...	{specially adapted for ropes or cables}
B66B 7/1292	...	{specially adapted for guides}

**Guidance heading: Lifts in, or associated with, buildings**

<b>B66B 9/00</b>	<b>Kinds or types of lifts in, or associated with, buildings or other structures</b> ( characterised by control systems <a href="#">B66B 1/00</a> ; apparatus for raising or lowering persons on stages of theatres <a href="#">A63J 5/12</a> )	
B66B 9/003	.	{for lateral transfer of car or frame, e.g. between vertical hoistways or to/from a parking position}
B66B 2009/006	.	{Ganged elevator}
B66B 9/02	.	actuated mechanically otherwise than by rope or cable
B66B 9/022	..	{by rack and pinion drives}
B66B 9/025	..	{by screw-nut drives}
B66B 9/027	..	{by rope climbing devices}
B66B 9/04	.	actuated pneumatically or hydraulically( <a href="#">platforms for lifting or lowering through short distances B66F 7/00</a> )
B66B 9/06	.	inclined, e.g. serving blast furnaces
B66B 9/08	..	associated with stairways, e.g. for transporting disabled persons{( <a href="#">facilitating access of invalids to vehicles A61G 3/02</a> )}
B66B 9/0807	...	{Driving mechanisms}
B66B 9/0815	....	{Rack and pinion, friction rollers}
B66B 9/0823	....	{Screw and nut}
B66B 9/083	....	{Pull cable, pull chain}
B66B 9/0838	...	{Levelling gears}
B66B 9/0846	...	{Guide rail( <a href="#">B66B 9/0807</a> takes precedence )}
B66B 9/0853	...	{Lifting platforms, e.g. constructional features}
B66B 9/0861	...	{Hanging lifts, e.g. rope suspended seat or platform}
B66B 9/0869	...	{Collapsible stairways, e.g. operable between a lower level and an upper level}
B66B 2009/0876	...	{Details}
B66B 2009/0884	....	{Control systems}
B66B 2009/0892	....	{Seats` constructional features}

- B66B 9/10 . Paternoster type( with devices for transferring goods into, or out of, the compartments [B65G 17/00](#) )
- 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( [devices for lifting or lowering bulky or heavy goods for loading or unloading purposes B66F 9/00](#) , e.g. fork-lift trucks [B66B 9/06](#) )
- B66B 9/187 .. with a liftway specially adapted for temporary connection to a building or other structure( [B66B 9/193](#) takes precedence )
- B66B 9/193 .. with inclined liftways
- B66B 11/00 Main component parts of lifts in, or associated with, buildings or other structures**
- B66B 11/0005 . {Constructional features of hoistways}
- B66B 11/001 . {Arrangement of controller, e.g. location}
- B66B 11/0015 .. {in the machine room}
- B66B 11/002 .. {in the hoistway}
- B66B 11/0025 ... {on the car}
- B66B 11/003 ... {on the counterweight}
- B66B 11/0035 . {Arrangement of driving gear, e.g. location or support}
- B66B 11/004 .. {in the machine room}
- B66B 11/0045 .. {in the hoistway}
- B66B 11/005 ... {on the car}
- B66B 11/0055 ... {on the counterweight}
- B66B 11/006 . {Applications of loading and unloading equipment for lifts associated with buildings( of general application [B65G](#); for paternoster lifts [B65G 17/00](#) ; for mine lifts [B66B 17/14](#) )}
- B66B 11/0065 . {Roping( [Mining hoist B66B 15/08](#) )}
- B66B 11/007 .. {for counterweightless elevators}
- B66B 11/0075 .. {with hoisting rope or cable positively attached to a winding drum}
- B66B 11/008 .. {with hoisting rope or cable operated by frictional engagement with a winding drum or sheave}
- B66B 11/0085 ... {of rucksack elevators}
- B66B 11/009 ... {with separate traction and suspension ropes}
- B66B 11/0095 ... {where multiple cars drive in the same hoist way}
- B66B 11/02 . Cages,{i.e. cars}( [doors, gates or other apparatus controlling access to, or exit from, cages B66B 13/00](#) )
- B66B 11/0206 .. {Car frames}
- B66B 11/0213 ... {for multi-deck cars}
- B66B 11/022 .... {with changeable inter-deck distances}
- B66B 11/0226 .. {Constructional features, e.g. walls assembly, decorative panels, comfort equipment, thermal or sound insulation}
- B66B 11/0233 ... {Lighting systems}
- B66B 11/024 ... {Ventilation systems}



- B66B 11/0246 . . . {Maintenance features( devices facilitating maintenance in general [B66B 5/0087](#) )}
- B66B 11/0253 . . . {Fixation of wall panels}
- B66B 11/026 .. {Attenuation system for shocks, vibrations, imbalance, e.g. passengers on the same side( acting between car or supporting frame and guides [B66B 7/04](#) ; acting between car and ropes, cables [B66B 7/08](#) ; correcting levelling between car and floor [B66B 1/40](#) )}
- B66B 11/0266 . . . {Passive systems( aerodynamic structure [B66B 11/0226](#) )}
- B66B 11/0273 . . . . {acting between car and supporting frame}
- B66B 11/028 . . . {Active systems}
- B66B 11/0286 . . . . {acting between car and supporting frame}
- B66B 11/0293 . . . {Suspension locking or inhibiting means to avoid movement when car is stopped at a floor( locking car to building while loading to avoid movement [B66B 17/34](#) )}
- B66B 11/04 . Driving gear;{Details thereof, e.g. seals( braking devices acting on the driving gear [B66B 5/02](#) ; of mining-hoist winding devices [B66B 15/08](#) )}
- B66B 11/0407 .. {actuated by an electrical linear motor( in the counterweight [B66B 17/12](#) )}
- B66B 11/0415 .. {actuated manually, e.g. additional safety system}
- B66B 11/0423 .. {actuated pneumatically or hydraulically}
- B66B 11/043 .. {actuated by rotating motor; Details, e.g. ventilation( Roping on drum, sheave, winch or pulley [B66B 11/0065](#) ; Power supply or control [B66B 1/28](#) , [H02P](#) ; Motor construction [H02K](#) )}
- B66B 11/0438 . . . {with a gearless driving, e.g. integrated sheave, drum or winch in the stator or rotor of the cage motor}
- B66B 11/0446 . . . {with screw-nut or worm-screw gear}
- B66B 11/0453 . . . {with planetary or epicycloidal gear, e.g. differential gear}
- B66B 11/0461 . . . {with rack and pinion gear}
- B66B 11/0469 . . . {with chain, pinion gear}
- B66B 11/0476 . . . {with friction gear, e.g. belt linking motor to sheave}
- B66B 11/0484 . . . {with a clutch or a coupling system between several motors, e.g. switching different speeds, progressive starting, torque limitation, flywheel( control [B66B 1/28](#) )}
- B66B 11/0492 .. {actuated by other systems, e.g. combustion engines}
- B66B 11/06 .. with hoisting rope or cable positively attached to a winding drum{ [B66B 11/0075](#) takes precedence }
- B66B 11/08 .. with hoisting rope or cable operated by frictional engagement with a winding drum or sheave{ [B66B 11/008](#) takes precedence }
- B66B 13/00** **Doors, gates, or other apparatus controlling access to, or exit from, cages or lift well landings( door fittings, locks [E05](#) )**
- B66B 13/02 . Door or gate operation( of general application [E05F](#) )
- B66B 13/04 .. of swinging doors
- B66B 13/06 .. of sliding doors
- B66B 13/08 . . . guided for horizontal movement
- B66B 13/10 . . . by car or cage movement



B66B 13/12	..	Arrangements for effecting simultaneous opening or closing of cage and landing doors
B66B 13/125	...	{electrical}
B66B 13/14	..	Control systems or devices
B66B 13/143	...	{electrical}
B66B 13/146	....	{method or algorithm for controlling doors}
B66B 13/16	...	Door or gate locking devices controlled or primarily controlled by condition of cage, e.g. movement or position
B66B 13/165	....	{electrical}
B66B 13/18	....	without manually-operable devices for completing locking or unlocking of doors
B66B 13/185	.....	{electrical}
B66B 13/20	.....	Lock mechanisms actuated mechanically by abutments or projections on the cages
B66B 13/22	.	Operation of door or gate contacts
B66B 13/24	.	Safety devices in passenger lifts, not otherwise provided for, for preventing trapping of passengers
B66B 13/245	..	{mechanical}
B66B 13/26	..	between closing doors
B66B 13/28	..	between car or cage and wells
B66B 13/285	...	{Toe guards or apron devices}
B66B 13/30	.	Constructional features of doors or gates( of interest apart from this application <a href="#">E06B</a> )
B66B 13/301	..	{Details of door sills}
B66B 13/303	..	{Details of door panels}
B66B 13/305	...	{Slat doors for elevators}
B66B 13/306	..	{Details of door jambs}
B66B 13/308	..	{Details of seals and joints}

**Guidance heading:** **Lifts in hoistways of mines**

**B66B 15/00**      **Main component parts of mining-hoist winding devices**

B66B 15/02	.	Rope or cable carriers
B66B 15/04	..	Friction sheaves; "Koepe" pulleys
B66B 15/06	..	Drums
B66B 15/08	.	Driving gear

**B66B 17/00**      **Hoistway equipment**

B66B 17/02	.	mounted in head-frames( winding towers for mines <a href="#">E04H 12/26</a> )
B66B 17/04	.	Mining-hoist cars or cages
B66B 17/06	..	with tiltable platforms
B66B 17/08	.	Mining skips
B66B 17/10	..	adapted for passenger transport

- B66B 17/12 . Counterpoises
- B66B 17/14 . Applications of loading and unloading equipment( of general application [B65G](#) )
- B66B 17/16 .. for loading and unloading mining-hoist cars or cages
- B66B 17/18 ... Swinging bridges, e.g. for compensating for differences in level between car or cage and landing
- B66B 17/20 ... by moving vehicles into, or out of, the cars or cages
- B66B 17/22 ... Securing vehicles in cars or cages
- B66B 17/24 .... mounted on the car or cage
- B66B 17/26 .. for loading or unloading mining-hoist skips
- B66B 17/28 .. electrically controlled( for elevators in general [B66B 1/06](#) )
- B66B 17/30 ... for cars or cages
- B66B 17/32 ... for skips
- B66B 17/34 . Safe lift clips; Keps
- B66B 17/36 . Gates or other apparatus controlling access to, or exit from, cars, cages, or hoistway landings

**B66B 19/00****Mining-hoist operation**

- B66B 19/002 . {installing or exchanging guide rails( details of rails [B66B 7/02](#) )}
- B66B 19/005 . {installing or exchanging the elevator drive}
- B66B 19/007 . {method for modernisation of elevators}
- B66B 19/02 . installing or exchanging ropes or cables
- B66B 19/04 . installing or removing mining-hoist cars, cages, or skips
- B66B 19/06 . Applications of signalling devices( depth indicators [B66B 3/02](#) ; order telegraphs [G08B](#) )

**B66B 20/00****Elevators not provided for in groups [B66B 1/00](#) to [B66B 19/00](#)****Guidance heading: Escalators or moving walkways****B66B 21/00****Kinds or types of escalators or moving walkways**

- B66B 21/02 . Escalators
- B66B 21/025 .. {of variable speed type}
- B66B 21/04 .. Linear type
- B66B 21/06 .. Spiral type
- B66B 21/08 .. Paternoster type, i.e. the escalator being used simultaneously for climbing and descending( [B66B 21/06](#) takes precedence )
- B66B 21/10 . Moving walkways
- B66B 21/12 .. of variable speed type

**B66B 23/00****Component parts of escalators or moving walkways**

- B66B 23/02 . Driving gear
- B66B 23/022 .. {with polygon effect reduction means}

B66B 23/024	.. {Chains therefor}
B66B 23/026	.. {with a drive or carrying sprocket wheel located at end portions}
B66B 23/028	.. {with separate drive chain or belt that engages directly the carrying surface chain}
B66B 23/04	.. for handrails
B66B 23/06	... with means synchronising the operation of the steps or the carrying belts and the handrails
B66B 23/08	. Carrying surfaces
B66B 23/10	.. Carrying belts
B66B 23/12	.. Steps
B66B 23/14	. Guiding means for carrying surfaces
B66B 2023/142	.. {paternoster return type system}
B66B 23/145	.. {Roller assemblies}
B66B 23/147	.. N: End portions, i.e. means for changing the direction of the carrying surface]
B66B 23/16	. Means allowing tensioning of the endless member
B66B 23/18	.. for carrying surfaces
B66B 23/20	.. for handrails
B66B 23/22	. Balustrades
B66B 23/225	.. {Lighting systems therefor}
B66B 23/24	.. Handrails( driving gear therefor <a href="#">B66B 23/02</a> ; tensioning means therefor <a href="#">B66B 23/16</a> ; preventing jamming thereof by foreign objects <a href="#">B66B 29/04</a> ; accessories therefor <a href="#">B66B 31/02</a> )
B66B 23/26	... of variable speed type
<b>B66B 25/00</b>	<b>Control of escalators or moving walkways</b> ( walkways of variable speed type <a href="#">B66B 21/12</a> ; handrails of variable speed type <a href="#">B66B 23/26</a> ; of general application <a href="#">G05</a> )
B66B 25/003	. {Methods or algorithms therefor}
B66B 25/006	. {Monitoring for maintenance or repair( for security reasons <a href="#">B66B 29/005</a> )}
<b>B66B 27/00</b>	<b>Indicating operating conditions of escalators or moving walkways</b> ( of general application <a href="#">G08</a> )
<b>B66B 29/00</b>	<b>Safety devices of escalators or moving walkways</b> ( walkways of variable speed type <a href="#">B66B 21/12</a> ; handrails of variable speed type <a href="#">B66B 23/26</a> )
B66B 29/005	. {Applications of security monitors}
B66B 29/02	. responsive to, or preventing, jamming by foreign objects
B66B 29/04	.. for balustrades or handrails
B66B 29/06	.. Combplates
B66B 29/08	. Means to facilitate passenger entry or exit( moving handrails <a href="#">B66B 23/24</a> )
<b>B66B 31/00</b>	<b>Accessories for escalators, or moving walkways, e.g. for sterilising or cleaning</b> ( for safety <a href="#">B66B 29/00</a> )
B66B 31/003	. {for cleaning steps or pallets}
B66B 31/006	. {for conveying hand carts, e.g. shopping carts( hand carts per se <a href="#">B62B 1/00</a> , <a href="#">B62B 3/00</a> )}

B66B 31/02 . for handrails

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**B66B 2201/00 Aspects of control systems of elevators**

- B66B 2201/10 . Details with respect to the type of call input
- B66B 2201/101 .. Single call input
- B66B 2201/102 .. Up or down call input
- B66B 2201/103 .. Destination call input before entering the elevator car
- B66B 2201/104 .. Call input for a preferential elevator car or indicating a special request
- B66B 2201/20 . Details of the evaluation method for the allocation of a call to an elevator car
- B66B 2201/21 .. Primary evaluation criteria
- B66B 2201/211 .. Waiting time, i.e. response time
- B66B 2201/212 .. Travel time
- B66B 2201/213 ... where the number of stops is limited
- B66B 2201/214 .. Total time, i.e. arrival time
- B66B 2201/215 .. Transportation capacity
- B66B 2201/216 .. Energy consumption
- B66B 2201/22 .. Secondary evaluation criteria
- B66B 2201/221 .. Penalisation of transfers
- B66B 2201/222 .. Taking into account the number of passengers present in the elevator car to be allocated
- B66B 2201/223 .. Taking into account the separation of passengers or groups
- B66B 2201/224 .. Avoiding potential interference between elevator cars
- B66B 2201/225 .. Taking into account a certain departure interval of elevator cars from a specific floor, e.g. the ground floor
- B66B 2201/226 .. Taking into account the distribution of elevator cars within the elevator system, e.g. to prevent clustering of elevator cars
- B66B 2201/23 .. Other aspects of the evaluation method
- B66B 2201/231 .. Sequential evaluation of plurality of criteria
- B66B 2201/232 ... where the time needed for a passenger to arrive at the allocated elevator car from where the call is made is taken into account
- B66B 2201/233 .. Periodic re-allocation of call inputs
- B66B 2201/234 .. Taking into account uncertainty terms for predicted values, e.g. the predicted arrival time of an elevator car at the floor where a call is made
- B66B 2201/235 .. Taking into account predicted future events, e.g. predicted future call inputs
- B66B 2201/24 .. Control of empty elevator cars
- B66B 2201/241 .. Standby control
- B66B 2201/242 .. Parking control
- B66B 2201/243 .. Distribution of elevator cars, e.g. based on expected future need
- B66B 2201/30 . Details of the elevator system configuration
- B66B 2201/301 .. Shafts divided into zones
- B66B 2201/302 ... with variable boundaries
- B66B 2201/303 .. Express or shuttle elevators

B66B 2201/304	..	Transit control
B66B 2201/305	...	with sky lobby
B66B 2201/306	..	Multi-deck elevator cars
B66B 2201/307	..	Tandem operation of multiple elevator cars in the same shaft
B66B 2201/308	..	Ganged elevator cars
B66B 2201/34	.	details
B66B 2201/40	.	Details of the change of control mode
B66B 2201/401	..	by time of the day
B66B 2201/402	..	by historical, statistical or predicted traffic data, e.g. by learning
B66B 2201/403	..	by real-time traffic data
B66B 2201/404	..	by cost function evaluation
B66B 2201/405	..	by input of special passenger or passenger group
B66B 2201/406	..	by input of human supervisor
B66B 2201/46	..	Switches or switchgear
B66B 2201/4607	...	Call registering systems
B66B 2201/4615	....	Wherein the destination is registered before boarding
B66B 2201/4623	....	Wherein the destination is registered after boarding
B66B 2201/463	....	Wherein the call is registered through physical contact with the elevator system
B66B 2201/4638	....	Wherein the call is registered without making physical contact with the elevator system
B66B 2201/4646	.....	using voice recognition
B66B 2201/4653	....	wherein the call is registered using portable devices
B66B 2201/4661	....	for priority users
B66B 2201/4669	.....	using passenger condition detectors
B66B 2201/4676	....	for checking authorization of the passengers
B66B 2201/4684	....	for preventing accidental or deliberate misuse
B66B 2201/4692	....	for payment for use