

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

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 1/2433 ... { For elevator systems with a single shaft and multiple cars}
- 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 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 [B66B 5/04](#)); {(control of electrical motor H02P)}
- B66B 1/285 ... { with the use of a speed pattern generator}

WARNING

[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 (brake control H02P, lift brakes per se [B66B 5/02](#))}
- 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 ([B66B 5/14](#) 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 ([B66B 5/24](#) 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 [B66B 5/0087](#))}

B66B 7/00 **Other common features of elevators**

B66B 7/02 . Guideways; Guides (arrangements in mine shafts [E21D 7/02](#))

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 (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](#))}

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}

Lifts in, or associated with, buildings

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](#))

- B66B 9/003 . { for lateral transfer of car or frame, e.g. between vertical hoistways or to/from a parking position}
- 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 (platforms for lifting or lowering through short distances [B66F 7/00](#))
- B66B 9/06 . inclined, e.g. serving blast furnaces
- B66B 9/08 . . associated with stairways, e.g. for transporting disabled persons {(facilitating access of invalids to vehicles [A61G 3/02](#))}
- 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 ([B66B 9/0807](#) 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 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 [E06B](#))
- 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 }

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 E04H 12/26](#))

- 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](#)

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 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 [B66B 23/02](#); tensioning means therefor [B66B 23/16](#); preventing jamming thereof by foreign objects [B66B 29/04](#); accessories therefor [B66B 31/02](#))
- B66B 23/26 ... of variable speed type

- 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](#))

- B66B 25/003 . { Methods or algorithms therefor}
- B66B 25/006 . { Monitoring for maintenance or repair (for security reasons [B66B 29/005](#))}

- B66B 27/00** **Indicating operating conditions of escalators or moving walkways** (of general application [G08](#))

- B66B 29/00** **Safety devices of escalators or moving walkways** (walkways of variable speed type [B66B 21/12](#); handrails of variable speed type [B66B 23/26](#))

- 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 B66B 23/24](#))

- B66B 31/00** **Accessories for escalators, or moving walkways, e.g. for sterilising or cleaning (for safety [B66B 29/00](#))**

- B66B 31/003 . { for cleaning steps or pallets}
- B66B 31/006 . {for conveying hand carts, e.g. shopping carts ([hand carts per se B62B 1/00](#), [B62B 3/00](#))}
- B66B 31/02 . for handrails

- B66B 2001/00** **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 2001/24 . Control systems with regulation, i.e. with retroactive action, for influencing travelling speed, acceleration, or deceleration
- B66B 2001/2408 . . { where the allocation of a call to an elevator car is of importance, i.e. by means of a supervisory or group controller}
- B66B 2001/2416 . . . { For single car elevator systems}
- B66B 2001/2425 { Zone definition for two cars in the same hatchway}
- B66B 2001/2433 . . . { 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 ([control of acceleration and deceleration G05B 19/407](#))}
- B66B 2001/2466 . . . { 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 2009/00** **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](#))**

- B66B 2009/006 . Ganged elevator

- B66B 2009/06 . inclined, e.g. serving blast furnaces
- B66B 2009/08 . . associated with stairways, e.g. for transporting disabled persons {([facilitating access of invalids to vehicles A61G 3/02](#))}
- B66B 2009/0876 . . . Details
- B66B 2009/0884 Control systems

B66B 2009/0892 Seats` constructional features

B66B 2023/00 Component parts of escalators or moving walkways

B66B 2023/14 . Guiding means for carrying surfaces

B66B 2023/142 .. paternoster return type system

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