

CPC COOPERATIVE PATENT CLASSIFICATION

B PERFORMING OPERATIONS; TRANSPORTING

(NOTES omitted)

TRANSPORTING

B66 HOISTING; LIFTING; HAULING

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](#))

NOTE

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

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

WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

Common features of elevators

		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}
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)	1/2416	. . . . {For single car elevator systems}
1/02	. Control systems without regulation, i.e. without retroactive action	1/2433	. . . . {For elevator systems with a single shaft and multiple cars}
1/04	. . hydraulic	1/2458	. . . . {For elevator systems with multiple shafts and a single car per shaft}
1/06	. . electric	1/2466	. . . . {For elevator systems with multiple shafts and multiple cars per shaft}
1/08	. . . with devices, e.g. handles or levers, in the cars or cages for direct control of movements	1/2491	. . . . {For elevator systems with lateral transfers of cars or cabins between hoistways}
1/10	. . . . specially adapted for mining hoists	1/26	. . mechanical
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	1/28	. . electrical (detecting excessive speed B66B 5/04 {; control of electrical motor H02P })
1/14	. . . with devices, e.g. push-buttons, for indirect control of movements	1/285	. . . . {with the use of a speed pattern generator}
1/16	. . . . with means for storing pulses controlling the movements of a single car or cage { B66B 1/2433 takes precedence}	1/30	. . . . effective on driving gear {, e.g. acting on power electronics, on inverter or rectifier controlled motor}
1/18	. . . . with means for storing pulses controlling the movements of several cars or cages { B66B 1/2458 takes precedence}	1/302	. . . . . {for energy saving}
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)}	1/304	. . . . . {with starting torque control}
1/22	. . . . . with means for taking account of delayed calls	1/306	. . . . . {with DC powered elevator drive}
1/24	. Control systems with regulation, i.e. with retroactive action, for influencing travelling speed, acceleration, or deceleration	1/308	. . . . . {with AC powered elevator drive}
		1/32	. . . . effective on braking devices {, e.g. acting on electrically controlled brakes (brake control H02P , lift brakes per se B66B 5/02)}
		1/34	. Details {, e.g. call counting devices, data transmission from car to control system, devices giving information to the control system}
		1/3407	. . . {Setting or modification of parameters of the control system}

- 1/3415 . . {Control system configuration and the data transmission or communication within the control system}
- 1/3423 . . . {Control system configuration, i.e. lay-out}
- 1/343 {Fault-tolerant or redundant control system configuration}
- 1/3438 {Master-slave control system configuration}
- 1/3446 . . . {Data transmission or communication within the control system}
- 1/3453 {Procedure or protocol for the data transmission or communication}
- 1/3461 {between the elevator control system and remote or mobile stations}
- 1/3469 . . {mechanical}
- 1/3476 . . {Load weighing or car passenger counting devices ([B66B 5/14](#) takes precedence)}
- 1/3484 . . . {using load cells}
- 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](#))}
- 1/36 . . Means for stopping the cars, cages, or skips at predetermined levels
- 1/365 . . . {mechanical}
- 1/38 . . . and for returning the controlling handle or lever to its neutral position
- 1/40 . . . and for correct levelling at landings
- 1/405 {for hydraulically actuated elevators}
- 1/42 separate from the main drive
- 1/425 {adapted for multi-deck cars in a single car frame}
- 1/44 . . . and for taking account of disturbance factors, e.g. variation of load weight
- 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 \[H02B 1/015\]\(#\)](#))
- 1/461 . . . {characterised by their shape or profile}
- 1/462 {Mechanical or piezoelectric input devices}
- 1/463 {Touch sensitive input devices}
- 1/465 {being resistant to damage}
- 1/466 {facilitating maintenance, installation, removal, replacement or repair}
- 1/467 . . . {characterised by their mounting position}
- 1/468 . . . {Call registering systems}
- 1/48 . . . Adaptations of mechanically-operated limit switches ([for cranes \[B66C 13/50\]\(#\)](#); [for winding mechanisms \[B66D 1/56\]\(#\)](#))
- 1/50 . . . with operating or control mechanisms mounted in the car or cage or in the lift well or hoistway
- 1/52 . . . Floor selectors
- 3/00 Applications of devices for indicating or signalling operating conditions of elevators**
- 3/002 . {Indicators}
- 3/004 . . {Mechanical devices that can be illuminated}
- 3/006 . . {for guiding passengers to their assigned elevator car}
- 3/008 . . {Displaying information not related to the elevator, e.g. weather, publicity, internet or TV}
- 3/02 . Position or depth indicators
- 3/023 . . {characterised by their mounting position}
- 3/026 . . {Mechanical devices that can be illuminated}
- 5/00 Applications of checking, fault-correcting, or safety devices in elevators**
- 5/0006 . {Monitoring devices or performance analysers ([B66B 5/02](#) takes precedence)}
- 5/0012 . . {Devices monitoring the users of the elevator system}
- 5/0018 . . {Devices monitoring the operating condition of the elevator system}
- 5/0025 . . . {for maintenance or repair}
- 5/0031 . . . {for safety reasons}
- 5/0037 . . {Performance analysers}
- 5/0043 . {Devices enhancing safety during maintenance}
- 5/005 . . {Safety of maintenance personnel}
- 5/0056 . . . {by preventing crushing}
- 5/0062 {by devices, being operable or not, mounted on the elevator car}
- 5/0068 {by activating the safety brakes when the elevator car exceeds a certain upper or lower position in the elevator shaft}
- 5/0075 {by anchoring the elevator car or counterweight}
- 5/0081 . . . {by preventing falling by means of safety fences or handrails, being operable or not, mounted on top of the elevator car}
- 5/0087 . {Devices facilitating maintenance, repair or inspection tasks ([devices incorporated in the buffer \[B66B 5/288\]\(#\)](#); [railings on top of the car \[B66B 11/0226\]\(#\)](#))}
- 5/0093 . . {Testing of safety devices}
- 5/02 . responsive to abnormal operating conditions
- 5/021 . . {the abnormal operating conditions being independent of the system ([alarm systems in general \[G08B\]\(#\)](#))}
- 5/022 . . . {where the abnormal operating condition is caused by a natural event, e.g. earthquake}
- 5/024 . . . {where the abnormal operating condition is caused by an accident, e.g. fire}
- 5/025 . . . {where the abnormal operating condition is caused by human behaviour or misbehaviour, e.g. forcing the doors}
- 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}
- 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)}
- 5/04 . . for detecting excessive speed
- 5/042 . . . {characterised by specific locations of the governor cable}
- 5/044 . . . {Mechanical overspeed governors}
- 5/046 {of the pendulum or rocker arm type}
- 5/048 . . . {Testing of overspeed governor}
- 5/06 . . . electrical
- 5/08 . . for preventing overwinding
- 5/10 . . . electrical
- 5/12 . . in case of rope or cable slack
- 5/125 . . . {electrical}
- 5/14 . . in case of excessive loads
- 5/145 . . . {electrical}

- 5/16 . . Braking or catch devices operating between cars, cages, or skips and fixed guide elements or surfaces in hoistway or well
- 5/18 . . . and applying frictional retarding forces
- 5/185 {by acting on main ropes or main cables}
- 5/20 by means of rotatable eccentrically-mounted members ([B66B 5/24 takes precedence](#))
- 5/22 by means of linearly-movable wedges ([B66B 5/24 takes precedence](#))
- 5/24 by acting on guide ropes or cables
- 5/26 . . . Positively-acting devices, e.g. latches, knives
- 5/28 . Buffer-stops for cars, cages, or skips
- 5/282 . . {Structure thereof}
- 5/284 . . {mounted on cars or counterweights}
- 5/286 . . . {between two cars or two counterweights}
- 5/288 . . {with maintenance features (if not incorporated in the buffer [B66B 5/0087](#))}
- 7/00 Other common features of elevators**
- 7/02 . Guideways; Guides ([arrangements in mine shafts E21D 7/02](#))
- 7/021 . . {with a particular position in the shaft}
- 7/022 . . {with a special shape}
- 7/023 . . {Mounting means therefor}
- 7/024 . . . {Lateral supports}
- 7/025 . . . {End supports, i.e. at top or bottom}
- 7/026 . . . {Interconnections}
- 7/027 . . . {for mounting auxiliary devices}
- 7/028 . . {with earthquake protection devices}
- 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](#))}
- 7/041 . . . {including active attenuation system for shocks, vibrations}
- 7/042 {with rollers, shoes}
- 7/043 {using learning}
- 7/044 {with magnetic or electromagnetic means}
- 7/045 {using learning}
- 7/046 . . . {Rollers}
- 7/047 . . . {Shoes, sliders}
- 7/048 . . . {including passive attenuation system for shocks, vibrations}
- 7/06 . Arrangements of ropes or cables
- 7/062 . . {Belts}
- 7/064 . . {Power supply or signal cables}
- 7/066 . . {Chains}
- 7/068 . . {Cable weight compensating devices}
- 7/08 . . for connection to the cars or cages, e.g. couplings
- 7/085 . . . {Belt termination devices}
- 7/10 . . for equalising rope or cable tension
- 7/12 . Checking, lubricating, or cleaning means for ropes, cables or guides
- 7/1207 . . {Checking means}
- 7/1215 . . . {specially adapted for ropes or cables}
- 7/1223 {by analysing electric variables}
- 7/123 {by analysing magnetic variables}
- 7/1238 {by optical techniques}
- 7/1246 . . . {specially adapted for guides}
- 7/1253 . . {Lubricating means}
- 7/1261 . . . {specially adapted for ropes or cables}

- 7/1269 {specially adapted for guides}
- 7/1276 . . . {Cleaning means}
- 7/1284 {specially adapted for ropes or cables}
- 7/1292 {specially adapted for guides}

Lifts in, or associated with, buildings

- 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](#))**
- 9/003 . {for lateral transfer of car or frame, e.g. between vertical hoistways or to/from a parking position}
- 2009/006 . {Ganged elevator}
- 9/02 . actuated mechanically otherwise than by rope or cable
- 9/022 . . {by rack and pinion drives}
- 9/025 . . {by screw-nut drives}
- 9/027 . . {by rope climbing devices}
- 9/04 . actuated pneumatically or hydraulically ([platforms for lifting or lowering through short distances B66F 7/00](#))
- 9/06 . inclined, e.g. serving blast furnaces
- 9/08 . . associated with stairways, e.g. for transporting disabled persons ({[facilitating access of invalids to vehicles A61G 3/02](#)})
- 9/0807 . . . {Driving mechanisms}
- 9/0815 {Rack and pinion, friction rollers}
- 9/0823 {Screw and nut}
- 9/083 {Pull cable, pull chain}
- 9/0838 . . . {Levelling gears}
- 9/0846 . . . {Guide rail ([B66B 9/0807 takes precedence](#))}
- 9/0853 . . . {Lifting platforms, e.g. constructional features}
- 9/0861 . . . {Hanging lifts, e.g. rope suspended seat or platform}
- 9/0869 . . . {Collapsible stairways, e.g. operable between a lower level and an upper level}
- 9/10 . paternoster type ([with devices for transferring goods into, or out of, the compartments B65G 17/00](#))
- 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
- 9/187 . . with a liftway specially adapted for temporary connection to a building or other structure ([B66B 9/193 takes precedence](#))
- 9/193 . . with inclined liftways
- 11/00 Main component parts of lifts in, or associated with, buildings or other structures**
- 11/0005 . {Constructional features of hoistways}
- 11/001 . {Arrangement of controller, e.g. location}
- 11/0015 . . {in the machine room}
- 11/002 . . {in the hoistway}
- 11/0025 . . . {on the car}
- 11/003 . . . {on the counterweight}
- 11/0035 . {Arrangement of driving gear, e.g. location or support}
- 11/004 . . {in the machine room}
- 11/0045 . . {in the hoistway}
- 11/005 . . . {on the car}
- 11/0055 . . . {on the counterweight}

- 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](#))}
- 11/0065 . . {Roping (mining hoist [B66B 15/08](#))}
- 11/007 . . {for counterweightless elevators}
- 11/0075 . . {with hoisting rope or cable positively attached to a winding drum}
- 11/008 . . {with hoisting rope or cable operated by frictional engagement with a winding drum or sheave}
- 11/0085 . . . {of rucksack elevators}
- 11/009 . . . {with separate traction and suspension ropes}
- 11/0095 . . . {where multiple cars drive in the same hoist way}
- 11/02 . . Cages, {i.e. cars}(doors, gates or other apparatus controlling access to, or exit from, cages [B66B 13/00](#))
- 11/0206 . . {Car frames}
- 11/0213 . . . {for multi-deck cars}
- 11/022 {with changeable inter-deck distances}
- 11/0226 . . {Constructional features, e.g. walls assembly, decorative panels, comfort equipment, thermal or sound insulation}
- 11/0233 . . . {Lighting systems}
- 11/024 . . . {Ventilation systems}
- 11/0246 . . . {Maintenance features (devices facilitating maintenance in general [B66B 5/0087](#))}
- 11/0253 . . . {Fixation of wall panels}
- 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](#))}
- 11/0266 . . . {Passive systems (aerodynamic structure [B66B 11/0226](#))}
- 11/0273 {acting between car and supporting frame}
- 11/028 . . . {Active systems}
- 11/0286 {acting between car and supporting frame}
- 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](#))}
- 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](#))}
- 11/0407 . . {actuated by an electrical linear motor (in the counterweight [B66B 17/12](#))}
- 11/0415 . . {actuated manually, e.g. additional safety system}
- 11/0423 . . {actuated pneumatically or hydraulically}
- 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](#))}
- 11/0438 . . . {with a gearless driving, e.g. integrated sheave, drum or winch in the stator or rotor of the cage motor}
- 11/0446 . . . {with screw-nut or worm-screw gear}
- 11/0453 . . . {with planetary or epicycloidal gear, e.g. differential gear}
- 11/0461 . . . {with rack and pinion gear}
- 11/0469 . . . {with chain, pinion gear}
- 11/0476 . . . {with friction gear, e.g. belt linking motor to sheave}
- 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](#))}
- 11/0492 . . {actuated by other systems, e.g. combustion engines}
- 11/06 . . with hoisting rope or cable positively attached to a winding drum {([B66B 11/0075](#) takes precedence)}
- 11/08 . . with hoisting rope or cable operated by frictional engagement with a winding drum or sheave {([B66B 11/008](#) takes precedence)}
- 13/00** **Doors, gates, or other apparatus controlling access to, or exit from, cages or lift well landings (door fittings, locks [E05](#))**
- 13/02 . . Door or gate operation (of general application [E05F](#))
- 13/04 . . of swinging doors
- 13/06 . . of sliding doors
- 13/08 . . . guided for horizontal movement
- 13/10 . . . by car or cage movement
- 13/12 . . Arrangements for effecting simultaneous opening or closing of cage and landing doors
- 13/125 . . . {electrical}
- 13/14 . . Control systems or devices
- 13/143 . . . {electrical}
- 13/146 {method or algorithm for controlling doors}
- 13/16 . . . Door or gate locking devices controlled or primarily controlled by condition of cage, e.g. movement or position
- 13/165 {electrical}
- 13/18 without manually-operable devices for completing locking or unlocking of doors
- 13/185 {electrical}
- 13/20 Lock mechanisms actuated mechanically by abutments or projections on the cages
- 13/22 . . Operation of door or gate contacts
- 13/24 . . Safety devices in passenger lifts, not otherwise provided for, for preventing trapping of passengers
- 13/245 . . {mechanical}
- 13/26 . . between closing doors
- 13/28 . . between car or cage and wells
- 13/285 . . . {Toe guards or apron devices}
- 13/30 . . Constructional features of doors or gates (of interest apart from this application [E06B](#))
- 13/301 . . {Details of door sills}
- 13/303 . . {Details of door panels}
- 13/305 . . . {Slat doors for elevators}
- 13/306 . . {Details of door jambs}
- 13/308 . . {Details of seals and joints}
- Lifts in hoistways of mines**
- 15/00** **Main component parts of mining-hoist winding devices**
- 15/02 . . Rope or cable carriers
- 15/04 . . Friction sheaves; "Koepe" pulleys
- 15/06 . . Drums
- 15/08 . . Driving gear
- 17/00** **Hoistway equipment**
- 17/02 . . mounted in head-frames (winding towers for mines [E04H 12/26](#))
- 17/04 . . Mining-hoist cars or cages

17/06	. . with tiltable platforms	23/12	. . Steps
17/08	. Mining skips	23/14	. Guiding means for carrying surfaces
17/10	. . adapted for passenger transport	2023/142	. . {paternoster return type system}
17/12	. Counterpoises	23/145	. . {Roller assemblies}
17/14	. Applications of loading and unloading equipment (of general application B65G)	23/147	. . {End portions, i.e. means for changing the direction of the carrying surface}
17/16	. . for loading and unloading mining-hoist cars or cages	23/16	. Means allowing tensioning of the endless member
17/18	. . . Swinging bridges, e.g. for compensating for differences in level between car or cage and landing	23/18	. . for carrying surfaces
17/20	. . . by moving vehicles into, or out of, the cars or cages	23/20	. . for handrails
17/22	. . . Securing vehicles in cars or cages	23/22	. Balustrades
17/24	. . . . mounted on the car or cage	23/225	. . {Lighting systems therefor}
17/26	. . for loading or unloading mining-hoist skips	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)
17/28	. . electrically controlled (for elevators in general B66B 1/06)	23/26	. . . of variable speed type
17/30	. . . for cars or cages	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)
17/32	. . . for skips	25/003	. {Methods or algorithms therefor}
17/34	. Safe lift clips; Keps	25/006	. {Monitoring for maintenance or repair (for security reasons B66B 29/005)}
17/36	. Gates or other apparatus controlling access to, or exit from, cars, cages, or hoistway landings	27/00	Indicating operating conditions of escalators or moving walkways (of general application G08)
19/00	Mining-hoist operation	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)
19/002	. {installing or exchanging guide rails (details of rails B66B 7/02)}	29/005	. {Applications of security monitors}
19/005	. {installing or exchanging the elevator drive}	29/02	. responsive to, or preventing, jamming by foreign objects
19/007	. {method for modernisation of elevators}	29/04	. . for balustrades or handrails
19/02	. Installing or exchanging ropes or cables	29/06	. . Combplates
19/04	. Installing or removing mining-hoist cars, cages, or skips	29/08	. Means to facilitate passenger entry or exit (moving handrails B66B 23/24)
19/06	. Applications of signalling devices (depth indicators B66B 3/02 ; order telegraphs G08B)	31/00	Accessories for escalators, or moving walkways, e.g. for sterilising or cleaning (for safety B66B 29/00)
20/00	Elevators not provided for in groups B66B 1/00 - B66B 19/00	31/003	. {for cleaning steps or pallets}
Escalators or moving walkways		31/006	. {for conveying hand carts, e.g. shopping carts (hand carts per se B62B 1/00 , B62B 3/00)}
21/00	Kinds or types of escalators or moving walkways	31/02	. for handrails
21/02	. Escalators	2201/00	Aspects of control systems of elevators
21/025	. . {of variable speed type}	2201/10	. Details with respect to the type of call input
21/04	. . linear type	2201/101	. . Single call input
21/06	. . spiral type	2201/102	. . Up or down call input
21/08	. . paternoster type, i.e. the escalator being used simultaneously for climbing and descending (B66B 21/06 takes precedence)	2201/103	. . Destination call input before entering the elevator car
21/10	. Moving walkways	2201/104	. . Call input for a preferential elevator car or indicating a special request
21/12	. . of variable speed type	2201/20	. Details of the evaluation method for the allocation of a call to an elevator car
23/00	Component parts of escalators or moving walkways	2201/21	. . Primary evaluation criteria
23/02	. Driving gear	2201/211	. . Waiting time, i.e. response time
23/022	. . {with polygon effect reduction means}	2201/212	. . Travel time
23/024	. . {Chains therefor}	2201/213	. . . where the number of stops is limited
23/026	. . {with a drive or carrying sprocket wheel located at end portions}	2201/214	. . Total time, i.e. arrival time
23/028	. . {with separate drive chain or belt that engages directly the carrying surface chain}	2201/215	. . Transportation capacity
23/04	. . for handrails		
23/06	. . . with means synchronising the operation of the steps or the carrying belts and the handrails		
23/08	. Carrying surfaces		
23/10	. . Carrying belts		

B66B

- 2201/216 . . Energy consumption
- 2201/22 . . Secondary evaluation criteria
- 2201/221 . . Penalisation of transfers
- 2201/222 . . Taking into account the number of passengers present in the elevator car to be allocated
- 2201/223 . . Taking into account the separation of passengers or groups
- 2201/224 . . Avoiding potential interference between elevator cars
- 2201/225 . . Taking into account a certain departure interval of elevator cars from a specific floor, e.g. the ground floor
- 2201/226 . . Taking into account the distribution of elevator cars within the elevator system, e.g. to prevent clustering of elevator cars
- 2201/23 . . Other aspects of the evaluation method
- 2201/231 . . Sequential evaluation of plurality of criteria
- 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
- 2201/233 . . Periodic re-allocation of call inputs
- 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
- 2201/235 . . Taking into account predicted future events, e.g. predicted future call inputs
- 2201/24 . . Control of empty elevator cars
- 2201/241 . . Standby control
- 2201/242 . . Parking control
- 2201/243 . . Distribution of elevator cars, e.g. based on expected future need
- 2201/30 . . Details of the elevator system configuration
- 2201/301 . . Shafts divided into zones
- 2201/302 . . . with variable boundaries
- 2201/303 . . Express or shuttle elevators
- 2201/304 . . Transit control
- 2201/305 . . . with sky lobby
- 2201/306 . . Multi-deck elevator cars
- 2201/307 . . Tandem operation of multiple elevator cars in the same shaft
- 2201/308 . . Ganged elevator cars
- 2201/40 . . Details of the change of control mode
- 2201/401 . . by time of the day
- 2201/402 . . by historical, statistical or predicted traffic data, e.g. by learning
- 2201/403 . . by real-time traffic data
- 2201/404 . . by cost function evaluation
- 2201/405 . . by input of special passenger or passenger group
- 2201/406 . . by input of human supervisor
- 2201/46 . . Switches or switchgear
- 2201/4607 . . . Call registering systems
- 2201/4615 Wherein the destination is registered before boarding
- 2201/4623 Wherein the destination is registered after boarding
- 2201/463 Wherein the call is registered through physical contact with the elevator system
- 2201/4638 Wherein the call is registered without making physical contact with the elevator system
- 2201/4646 using voice recognition
- 2201/4653 wherein the call is registered using portable devices
- 2201/4661 for priority users
- 2201/4669 using passenger condition detectors
- 2201/4676 for checking authorization of the passengers
- 2201/4684 for preventing accidental or deliberate misuse
- 2201/4692 for payment for use