

## SECTION 14200

## ELEVATORS

- ALTERATION:** Any change or addition to the equipment other than ordinary repairs or replacements.
- ANNUNCIATOR, CAR:** An electrical device in the car which indicates visually the landings at which an elevator landing signal registering device has been actuated.
- AUTOMATIC TRANSFER DEVICE:** A mechanism which automatically moves a load consisting of a cart, tote box, pallet, wheeled vehicle, box or similar object to and from the platform to the material lift or dumbwaiter.
- BANK OF ELEVATORS:** A group of two or more elevators in adjacent hoistways; or a group of elevators with entrances facing onto a common corridor.
- BANK OF PUSH BUTTONS:** A grouping of push buttons in a common mounting frame or panel.
- BAR LOCK:** A manually operated, vertically sliding, steel bar fastened to the hoistway side of either swing type or horizontally sliding type hoistway door panels to lock them in the closed position.
- BI-PARTING DOOR:** A vertically sliding or a horizontally sliding door, consisting of two or more sections so arranged that the sections or groups of sections open away from each other and so interconnected that all sections operate simultaneously.
- BUFFER:** A device designed to stop a descending car or counterweight beyond its normal limit of travel by storing or by absorbing and dissipating the kinetic energy of the car or counterweight. (Also see: Oil Buffer and Spring Buffer).
- BUMPER:** A device, other than an oil or spring buffer, designed to stop a descending car or counterweight beyond its normal limit of travel by absorbing the impact.
- CAB:** A self-contained enclosure mounted on the elevator platform, within which passengers and loads are carried.
- CAGE:** A cab-like enclosure, mounted on the elevator platform of temporary elevators, in which passengers and loads are carried.
- CAPACITY:** The maximum rated load, measured in pounds, that an elevator is designed and installed to lift at the rated speed.
- CAR, ELEVATOR:** The load-carrying unit including its platform, car frame, enclosure (cab) and car door or gate that moves through the hoistway.
- CAR DOOR OR GATE ELECTRIC CONTACT:** An electrical device, the function of which is to prevent operation of the driving machine by the normal operating device unless the car door or gate is in the closed position.
- CAR DOOR OR GATE POWER CLOSER:** A device, or assembly of devices which closes a manually opened car door or gate by power other than by hand, gravity, springs or the movement of the car.
- CAR DOOR OR GATE, POWER CLOSER:** A door or gate which is closed by a door or gate power operator.
- CAR ENCLOSURE:** The top and the walls of the car resting on and attached to the car platform.
- CAR FRAME (SLING):** The supporting frame to which the car platform, upper and lower sets of guide shoes, car safety and the hoisting ropes or hoisting-rope sheaves, or the plunger of a direct plunger elevator are attached.
- CAR FRAME, OVERSLUNG:** A car frame with the hoisting-rope fastenings or hoisting-rope sheaves attached to the crosshead or two members of the car frame.
- CAR FRAME SUB-POST:** A car frame all of whose members are located below the car platform.
- CAR FRAME, UNDERSLUNG:** A car frame to which the hoisting-rope fastenings or hoisting-rope sheaves are attached at or below the car platform.
- CAR PLATFORM:** The structure which forms the floor of the car and which directly supports the load.
- CAR PLATFORM--LAMINATED:** A self-supporting platform constructed of plywood with a bonded steel sheet facing on both top and bottom surfaces.
- CAR PLATFORM FRAME:** A structural frame, composed of interconnecting members, which supports the car platform floor.
- CLEARANCE, BOTTOM CAR:** The clear vertical distance from the pit floor to the lowest structural or mechanical part, equipment or device installed beneath the car platform, except guide shoes or rollers, safety jaw assemblies and platform aprons or guards, when the car rests on its fully compressed buffers.
- CLEARANCE, TOP CAR:** The shortest vertical distance between the top of the car crosshead, or between the top of the car where on crosshead is provided, and the nearest part of the overhead structure or any other obstruction when the car floor is level with the top terminal landing.
- CLEARANCE, TOP COUNTERWEIGHT:** The shortest vertical distance between any part of the counterweight structure and the nearest part of the overhead structure or any other obstruction when the car floor is level with the bottom terminal landing.

**COMPENSATING-ROPE SHEAVE SWITCH:** A device which automatically causes the electric power to be removed from the elevator driving-machine motor and brake when the compensating sheave approaches its upper or lower limit of travel.

**COMPENSATION:** The use of wire ropes or chains, hung from the underside of the elevator car to the underside of the counterweight, to counterbalance the shift in weight.

**COMPOUND ROPING:** An elevator hoisting rope arrangement where the ropes do not move at the same linear speed as the elevator car.

**CONTROL:** The system governing the starting, stopping, direction of motion, acceleration, speed and retardation of the moving members. (Do not confuse with "operation" which is defined as the method of actuating the control).

1. Control, Generator-Field: A system of control which is accomplished by the use of an individual generator for each elevator or dumbwaiter wherein the voltage applied to the driving-machine motor is adjusted by varying the strength and direction of the generator field.

2. Control, Multi-Voltage: A system of control which is accomplished by impressing successively on the armature of the driving-machine motor a number of substantially fixed voltages such as may be obtained from multi-commutator generators common to a group of elevators.

3. Control, Rheostatic: A system of control which is accomplished by varying resistance and/or reactance in the armature and/or field circuit of the driving-machine motor.

4. Control, Single-Speed Alternating Current: A control for a driving-machine induction motor which is arranged to run at a single speed.

5. Control, Static: A control system in which control functions are performed by solid state devices.

6. Control Two-Speed Alternating Current: A control for a two-speed driving-machine induction motor which is arranged to run at two different synchronous speeds by connecting the motor windings so as to obtain different numbers of poles.

**CONTROLLER:** A device or group of devices which serves to control in a predetermined manner the apparatus to which it is connected.

**COUNTERWEIGHT:** A calculated weight, installed at the end of the hoisting rope opposite the elevator car to balance the weight of the car and thereby facilitate motion.

**CROSSHEAD:** The top horizontal member of a car frame.

**CYLINDER WELL:** The outer casing extending below the pit bottom that receives the hydraulic cylinder of the hoisting unit of a hydraulic elevator.

**DEFLECTION SHEAVE:** A grooved sheave to direct hoisting ropes to the desired location in the hoistway.

**DISPATCHING DEVICE, ELEVATOR AUTOMATIC:** A device, the principal function of which is to either: (1) Operate a signal in the car to indicate when the car should leave a designated landing or, (2) Actuate its starting mechanism when the car is at a designated landing.

**DOOR OR GATE, CAR OR HOISTWAY:** The movable portion of the car or hoistway entrance which closes the opening providing access to the car or to the landing.

(1) Door, Bi-Parting: A vertically sliding or a horizontally sliding door, consisting of two or more sections so arranged that the sections or groups of sections open away from each other and so interconnected that all sections operate simultaneously.

(2) Door or Gate Closer: A device which closes a hoistway door or a car door or gate by means of a spring or gravity.

(3) Door or Gate, Power-Operated: A hoistway door or a car door or gate which is opened and closed by a door or gate power-operator.

(4) Door or Gate Power Operator: A device or assembly of devices which opens a hoistway door and/or a car door or gate by power other than by hand, gravity, springs or the movement of the car, and which closes them by power other than by hand, gravity or the movement of the car.

(5) Door or Gate, Self-Closing: A manually opened hoistway door or a car door or gate which closes when released.

(6) Door or Gate, Manually Operated: A hoistway door or car door or gate which is opened and closed by hand.

**DOOR INTERLOCK:** A device having two related and interdependent functions: (1) To prevent operation of the driving machine by the normal operating device unless the hoistway door is locked in the closed position, and (2) to prevent the opening of the hoistway door from the landing side unless the car is within the landing zone and is either stopped or being stopped.

**DOOR PROTECTIVE DEVICE:** Device to prevent or restrict the closing of the door against passengers or other obstacles in the entrance.

**ELEVATOR:** A hoisting and lowering mechanism equipped with an elevator car or platform that moves in fixed guides in a substantially vertical direction, and which serves two or more fixed landings or floors of a building or structure.

(1) Elevator, Freight: An elevator primarily used for carrying freight and on which only the operator and the persons necessary for unloading and loading the freight are permitted to ride.

(2) Elevator, Gravity: An elevator utilizing gravity to move the car.

(3) Elevator, Hand: An elevator utilizing manual energy to move the car.

(4) Elevator, Multideck: An elevator having two or more compartments located one immediately above the other.

(5) Elevator, Observation: An elevator designed to permit exterior viewing by passengers while the car is traveling.

(6) Elevator, Passenger: An elevator used primarily to carry persons other than the operator and persons necessary for loading and unloading.

(7) Elevator, Power: An elevator utilizing energy other than gravitational or manual to move the car.

(a) Elevator, Electric: A power elevator where the energy is applied by means of an electric driving machine.

(b) Elevator, Hydraulic: A power elevator where the energy is applied, by means of a liquid under pressure, in a cylinder equipped with a plunger or piston.

(i) Elevator, Direct-Plunger: A hydraulic elevator having a plunger or cylinder directly attached to the car frame or platform.

(ii) Elevator, Electro-Hydraulic: A direct-plunger elevator where liquid is pumped under pressure directly into the cylinder by a pump driving by an electric motor.

(iii) Elevator, Maintained-Pressure Hydraulic: A direct plunger elevator where liquid under pressure is available at all times for transfer into the cylinder.

(iv) Elevator, Roped-Hydraulic: A hydraulic elevator having its piston connected to the car with wire ropes.

(8) Elevator, Sidewalk: An elevator of the freight type for carrying material exclusive of automobiles and operating between a

landing in a sidewalk or other area exterior to a building and floors below the sidewalk or grade level.

**EMERGENCY STOP SWITCH:** A device located in the car which, when manually operated, causes the electric power to be removed from the driving-machine motor and brake of an electric elevator or from the electrically operated valves and/or pump motor of a hydraulic elevator.

**ENTRANCE:** The protective assembly which closes the hoistway enclosure openings normally used for loading and unloading.

(1) Entrance, Horizontal Slide Type: An entrance in which the panel(s) or door(s) slides horizontally.

(2) Entrance, Swing Type: An entrance in which the panel(s) or door(s) swings around vertical hinges.

(3) Entrance, Vertical Slide Type: An entrance in which the panel(s) or door(s) slides vertically.

**ENTRANCE LOCKED OUT OF SERVICE:** An entrance in which the hoistway door is mechanically locked by means other than the interlock to prevent the door being opened from the car side without keys or special equipment.

**GATE, SEMI-AUTOMATIC:** A gate which is opened manually and which closes automatically as the car leaves the landing.

**GEARED TRACTION MACHINE:** A traction type elevator hoisting machine in which the energy is transmitted from the motor to the driving sheave through gearing.

**GEARLESS TRACTION MACHINE:** A traction type elevator hoisting machine, without intermediate gearing, that has the traction sheave and the brake drum mounted directly on the motor shaft.

**GUIDE RAILS:** Metal rails that guide the vertical movement of the elevator car and counterweight.

**GUIDE SHOES:** A sliding or rolling device mounted to the car frame or counterweight which follows in contact with the guide rail during elevator operation.

**HALL BUTTON:** Signal device for calling an elevator to that floor.

**HALL LANTERN:** A signal device that illuminates to indicate arrival and direction of travel of an elevator.

**HOISTING MACHINE:** The power unit that applies the energy necessary to raise and lower an elevator.

**HOISTING ROPE:** Rope from which an elevator car and counterweight are suspended, and by which the elevator hoisting machine raises and lowers the elevator car.

**HOISTWAY:** A vertical shaftway, including the pit, for the travel of one or more elevators that terminates at the underside of the overhead machinery space floor or grating, or at the underside of the roof where the hoistway does not penetrate the roof.

(1) Hoistway, Blind: The portion of a hoistway which passes floors or other landings at which no normal landing entrances are provided.

(2) Hoistway, multiple: A hoistway for more than one elevator, dumbwaiter or material lift.

(3) Hoistway, Single: A hoistway for a single elevator, dumbwaiter or material lift.

**HOISTWAY ACCESS SWITCH:** A switch, located at a landing, the function of which is to permit operation of the car with the hoistway door at this landing and the car door or gate open, in order to permit access to the top of the car or to the pit.

**HOISTWAY ENCLOSURE:** The fixed structure, consisting of vertical walls or partitions, which isolates the hoistway from all other areas or from an adjacent hoistway and in which the hoistway doors and door assemblies are installed.

**HOISTWAY DOOR ELECTRIC CONTACT:** An electrical device, the function of which is to prevent operation of the driving machine by the normal operating device unless the hoistway door is in the closed position.

**HOISTWAY DOOR OR GATE LOCKING DEVICE:** A device which secures a hoistway door or gate in the closed position and prevents it from being opened from the landing side except under certain specified conditions.

(1) Hoistway Door Combination Mechanical Lock and Electric Contact: A combination mechanical and electrical device with two related, but entirely independent functions, which are: (a) To prevent operation of the driving machine by the normal operating device unless the hoistway door is in the closed position, and (b) To lock the hoistway door in the closed position and prevent it from being opened from the landing side unless the car is within the landing zone.

(2) Hoistway Door Interlock: A device having two related and interdependent functions which are: (a) To prevent the operation of the driving machine by the normal operating device unless the hoistway door is locked in the closed position, and (b) To prevent the opening of the hoistway door from the landing side unless the car is within the landing zone and is either stopped or being stopped.

(3) Hoistway Gate Separate Mechanical Lock: A mechanical device the function of which is to lock a hoistway gate in the closed position after the car leaves a landing and prevent the gate from being opened from the landing side unless the car is within the landing zone.

(4) Hoistway Door Interlock Retiring . Cam Device: A device which consists of a retractable cam with its actuating mechanism and which is entirely independent of the car door or hoistway-door power operator.

**HOISTWAY UNIT SYSTEM:** A series of hoistway door interlocks, hoistway door electric contacts or hoistway door combination mechanical locks and electric contacts, or a combination thereof, the function of which is to prevent operation of the driving machine by the normal operating device unless all hoistway doors are in the closed position and are locked in the closed position.

**HYDRAULIC DRIVING MACHINE:** An elevator hoisting machine in which the energy is applied by means of a liquid under pressure in a cylinder equipped with a piston or plunger.

**INDEPENDENT OPERATION:** A type of operation whereby an automatic elevator can be operated only from the car buttons, and during this operation, all landing calls are unanswered, hall lanterns are inoperative, and only stopping signals from the car are effective.

**LANDING:** That portion of a floor, balcony or platform used to receive and discharge passengers or freight.

(1) Landing, Bottom Terminal: The lowest landing served by the elevator or material lift which is equipped with a hoistway door provided with a hoistway door locking device which permits egress from the hoistway side.

(2) Landing, Top Terminal: The highest landing served by the elevator or material lift which is equipped with a hoistway door provided with a hoistway door locking device which permits egress from the hoistway side.

(3) Landing, Unenclosed: A landing which is open to the atmosphere or is open to an interior court of a building.

**LANDING ZONE:** A zone extending from a point eighteen inches below a landing to a point eighteen inches above the landing.

**LEVELING DEVICE, ELEVATOR CAR:** Any mechanism which will, either automatically or under the control of the attendant, move the car within the leveling zone toward the landing only, and automatically stop it at the landing.

**NOTES:** (1) Where controlled by the attendant by means of an up and down continuous pressure switches in the car, this device is known as an "inching device".

1. Leveling Device, One-Way Automatic: A device which corrects the car level only in case of under-run of the car, but will not maintain the level during loading and unloading.

2. Leveling Device, Two-Way Automatic Maintaining: A device which corrects the car level on both under-run and over-run, and maintains the level during loading and unloading.

3. Leveling Device, Two-Way Automatic Non-maintaining: A device which corrects the car level on both under-run and over-run, but will not maintain the level during loading and unloading.

**LEVELING ZONE:** The limited distance above or below an elevator landing within which the leveling device is permitted to cause movement of the car toward the landing.

**MACHINE, DRIVING:** The power unit which applies the energy necessary to raise and lower an elevator, material lift, or dumb-waiter car or to drive an escalator, an inclined lift or a moving walk.

1. Electric Driving Machine: One where the energy is applied by an electric motor. It includes the motor, brake and the driving sheave or drum together with its connecting bearing, belt or chain, if any.

a. Direct-Drive Machine: An electric driving machine the motor of which is directly connected mechanically to the driving sheave, drum, or shaft without the use of belts or chains, either with or without intermediate gears.

(1) Geared-Drive Machine: A direct-drive machine in which the energy is transmitted from the motor to the driving sheave, drum, or shaft through gearing.

(2) Traction Machine: A direct-drive machine in which the motion of a car is obtained through friction between the suspension ropes and a traction sheave.

(a) Geared-Traction Machine: A geared-drive traction machine.

(b) Gearless-Traction Machine: A traction machine, without intermediate gearing, which has the traction sheave and the brake drum mounted directly on the motor shaft.

(3) Winding-Drum Machine: A geared-drive machine in which the suspension ropes are fastened to and wind on a drum.

(4) Worm-Geared Machine: A direct-drive machine in which the energy

from the motor is transmitted to the driving sheave or drum through worm gearing.

b. Indirect-Drive Machine: An electric driving machine, the motor of which is connected indirectly to the driving sheave, drum or shaft by means of a belt or chain through intermediate gears

(1) Belt-Drive machine: An indirect-drive machine having a single belt or multiple belts as the connecting means.

(2) Chain-Drive Machine: An indirect-drive machine having a chain as the connecting means.

c. Screw Machine: An electric driving machine, the motor of which raises and lowers a vertical screw through a nut, with or without suitable gearing, and in which the upper end of the screw is connected directly to the car frame or platform. The machine may be of direct or indirect-drive type.

2. Hydraulic Driving Machine: One in which the energy is applied by means of a liquid under pressure in a cylinder equipped with a plunger or piston.

a. Direct-Plunger Driving Machine: A hydraulic driving machine in which the plunger or cylinder is directly attached to the car frame or platform.

b. Roped-Hydraulic Driving Machine: A hydraulic driving machine in which the piston is connected to the car with wire ropes. It includes the cylinder, the piston, and multiplying sheaves, if any, and their guides.

**NONSTOP SWITCH:** A switch, when operated, will prevent the elevator from making registered landing stops.

**OIL BUFFER:** A buffer using oil as a medium which absorbs and dissipates the kinetic energy of the descending car or counterweight.

1. Oil Buffer Stroke: The oil-displacing movement of the buffer plunger or piston, excluding the travel of the buffer-plunger accelerating device.

**OPERATING DEVICE:** The car switch, push button lever or other manual device used to actuate the control.

**OPERATION:** The method of actuating the control.

1. Operation, Automatic: Operation wherein the starting of the elevator car is effected in response to the momentary actuation of operating devices at the landing, and/or of operating devices in the car identified with the landings, and/or in response to an automatic starting mechanism, and wherein the car is stopped automatically at the landings.

- a. **Group Automatic Operation:** Automatic operation of two or more nonattendant elevators equipped with power-operated car and hoistway doors. The operation of the cars is coordinated by a supervisory control system including automatic dispatching means whereby selected cars at designated dispatching points automatically close their doors and proceed on their trips in a regulated manner. It includes one button in each car for each floor served and up and down buttons at each landing (single buttons at terminal landings). The stops set up by the momentary actuation of the car buttons are made automatically in succession as a car reaches the corresponding landing irrespective of its direction of travel or the sequence in which the buttons are actuated. The stops set up by the momentary actuation of the landing buttons may be accomplished by any elevator in the group, and are made automatically by the first available car that approaches the landing in the corresponding direction.
- b. **Nonselective Collective Automatic Operation:** Automatic operation by means of one button in the car for each landing served and one button at each landing wherein all stops registered by the momentary actuation of landing or car buttons are made irrespective of the number of buttons actuated or of the sequence in which the buttons are actuated. With this type of operation, the car stops at all landings for which buttons have been actuated, making the stops in the order in which the landings are reached after the buttons have been actuated, but irrespective of its direction of travel.
- c. **Selective Collective Automatic Operation:** Automatic operation by means of one button in the car for each landing served and by up and down buttons at the landings, wherein all stops registered by the momentary actuation of the car buttons are made as defined under nonselective collective automatic operation, but wherein the stops registered by the momentary actuation of the landing buttons are made in the order in which the landings are reached in each direction of travel after the buttons have been actuated. With this type of operation, all "up" landing calls are answered when the car is traveling in the up direction and all "down" landing calls are answered when the car is traveling in the down direction, except in the case of the uppermost or lowermost calls which are answered as soon as they are reached irrespective of the direction of travel of the car.
- d. **Single Automatic Operation:** Automatic operation by means of one button in the car for each landing served and one button at each landing, so arranged that if any car or landing button has been actuated, the actuation of any other car or landing operating button will have no effect on the operation of the car until the response to the first button has been completed.
2. **Operation, Car Switch:** Operation wherein the movement and direction of travel of the car are directly and solely under the control of the attendant by means of a manually operated car switch or of continuous pressure buttons in the car.
- a. **Car Switch Automatic Floor-Stop Operation:** Operation in which the stop is initiated by the attendant from within the car with a definite reference to the landing at which it is desired to stop, after which the slowing down and stopping of the elevator is effected automatically.
3. **Operation, Continuous Pressure:** Operation by means of buttons or switches in the car and at the landings, any one of which may be used to control the movement of the car as long as the button or switch is manually maintained in the actuating position.
4. **Operation, Pre-Register:** Operation in which signals to stop are registered in advance by buttons in the car and at the landings. At the proper point in the car travel, the attendant in the car is notified by a signal, visual, audible or otherwise, to initiate the stop, after which the landing stop is automatic.
5. **Operation, Signal:** Operation by means of single buttons or switches (or both) in the car, and up or down direction buttons (or both) at the landings, by which predetermined landing stops may be set up or registered for an elevator or for a group of elevators. The stops set up by the momentary actuation of the car buttons are made automatically in succession as the car reaches those landings, irrespective of its direction of travel or the sequence in which the buttons are actuated. The stops set up by the momentary actuation of the up and down buttons at the landing are made automatically by the first available car in the group approaching the landing in the corresponding direction, irrespective of the sequence in which the buttons are actuated. With this type of operation, the car can be started only by means of a starting switch or button in the car.
- OVERHEAD STRUCTURE:** All of the structural members, platforms, etc., supporting the elevator machinery, sheaves and equipment at the top of the hoistway.

**PARKING DEVICE:** An electrical or mechanical device, the function of which is to permit the opening of the hoistway door from the landing side when the car is within the landing zone of that landing. The device may also be used to close the door.

**PIT:** That portion of a hoistway extending from the sill level of the lowest landing to the floor at the bottom of the hoistway.

**POSITION INDICATOR, HALL, CAR:** A device that indicates the position of the elevator car in the hoistway. It is called a hall position indicator when placed at a landing or a car position indicator when placed in the car.

**RATED LOAD:** The load that the elevator is designed and installed to lift at the rated speed.

**RATED SPEED:** The speed in the up direction that the elevator is designed to operate with the rated load in the car.

**RISE:** See "Travel".

**ROLLER GUIDE:** Guide, composed of 3 or more rollers, mounted on top of car or counterweight frame to grip the guide rails.

**ROPE EQUALIZER, SUSPENSION:** A device installed on an elevator car or counterweight to equalize automatically the tensions in the suspension wire ropes.

**ROPE-FASTENING DEVICE, AUXILIARY:** A device attached to the car or counterweight or to the overhead dead-end rope-hitch support which will function automatically to support the car or counterweight in case the regular wire-rope fastening fails at the point of connection to the car or counterweight or at the overhead dead-end hitch.

**RUNBY, BOTTOM, ELEVATOR CAR:** The distance between the car buffer striker plate and the striking surface of the car buffer when the car floor is level with the bottom terminal landing.

**RUNBY, BOTTOM, ELEVATOR COUNTERWEIGHT:** The distance between the counterweight buffer striker plate and the striking surface of the counterweight buffer when the car floor is level with the top terminal landing.

**RUNBY, TOP, DIRECT-PLUNGER HYDRAULIC ELEVATOR:** The distance the elevator car can run above its top terminal landing before the plunger strikes its mechanical stop.

**SAFETY BULKHEAD:** A closure at the bottom of the cylinder located above the cylinder head and provided with an orifice for controlling the loss of fluid in the event of cylinder head failure.

**SAFETY, CAR OR COUNTERWEIGHT:** A mechanical device attached to the car frame or to an auxiliary frame, or to the counterweight frame, to stop and hold the car or counterweight in case of predetermined overspeed or free fall, or if the suspension ropes slacken.

1. Safety, Self-Resetting: A car or counterweight safety released and reset by movement in the up direction.

**SIDE STILES:** The vertical side members of a car frame.

**SIGNAL DEVICE, ELEVATOR CAR FLASH:** One providing a signal light in the car, which is illuminated when the car approaches the landings at which a landing signal registering device has been actuated.

**SIGNAL REGISTERING DEVICE, ELEVATOR LANDING:** A button or other device, located at the elevator landing, which when actuated by a waiting passenger, causes a stop signal to be registered in the car.

**SIGNAL SYSTEM, ELEVATOR SEPARATE:** One consisting of buttons or other devices located at the landings, which when actuated by a waiting passenger illuminate a flash signal or operate an annunciator in the car indicating floors at which stops are to be made.

**SIGNAL TRANSFER DEVICE, ELEVATOR AUTOMATIC:** A device by means of which a signal registered in a car is automatically transferred to the next car following, in case the first car passes a floor for which a signal has been registered without making a stop.

**SIGNAL TRANSFER SWITCH, ELEVATOR:** A manually operated switch, located in the car, by means of which the operator can transfer a signal to the next car approaching in the same direction, when he desires to pass a floor at which a signal has been registered in the car.

**SLACK-ROPE SWITCH:** A device which automatically causes the electric power to be removed from the elevator driving machine motor and brake when the suspension ropes of a winding-drum machine become slack.

**SOLID STATE DEVICE:** An element that can control current flow without moving parts.

**SPRING BUFFER:** A buffer utilizing a spring to cushion the impact force of the descending car or counterweight.

1. Spring Buffer Load Rating: The load required to compress the spring an amount equal to its stroke.
2. Spring Buffer Stroke: The distance the contact end of the spring can move under a compressive load until all coils are essentially in contact.

**STARTERS CONTROL PANEL:** An assembly of devices by means of which the starter may control the manner in which an elevator or group of elevators function.

**STATIC SWITCHING:** Switching of circuits by means of solid state devices.

**STOPPING DEVICE, ELEVATOR LANDING:** A button or other device, located at an elevator landing, which when actuated, causes the elevator car to stop at that floor.

**TERMINAL SPEED LIMITING DEVICE, EMERGENCY:** A device which automatically reduces the speed as a car approaches a terminal landing, independently of the functioning of the operating device, and the normal terminal stopping device if the latter fail to slow down the car as intended.

**TERMINAL STOPPING DEVICE, FINAL:** A device which automatically causes the power to be removed from an electric elevator driving machine motor and brake, or from a hydraulic elevator machine, independent of the functioning of the normal terminal stopping device, the operating device or any emergency terminal speed limiting device, after the car has passed a terminal landing.

**TERMINAL STOPPING DEVICE, MACHINE FINAL (STOP-MOTION SWITCH):** A final terminal stopping device operated directly by the driving machine.

**TERMINAL STOPPING DEVICE, NORMAL:** A device or devices to slow down and stop an elevator car automatically at or near a terminal landing independently of the functioning of the operating device.

**TRANSOM:** A panel or panels used to close a hoistway enclosure opening above a hoistway entrance.

**TRAVEL (RISE):** The vertical distance between the bottom terminal landing and the top terminal landing of an elevator.

**TRAVELING CABLE:** A cable made up of electric conductors, which provides electrical connection between an elevator car and a fixed outlet in the hoistway or machine room.

**TRUCK ZONE, ELEVATOR:** The limited distance above an elevator landing within which the truck zoning device permits movement of the elevator car.

**TRUCK ZONING DEVICE, ELEVATOR:** A device which will permit the operator in the car to move a freight elevator within the truck zone with the car door or gate and a hoistway door open.

**VISION PANEL:** A small glass window in hoistway door and car door to permit the passengers or operator to see when the car has reached the landing.

**WAITING PASSENGER INDICATOR:** An indicator which shows at which landings and for which direction elevator hall stop or signal calls have been registered and are unanswered.

**WORKING PRESSURE:** The pressure, measured at the cylinder of a hydraulic elevator, when lifting the car and its rated load at rated speed, or with Class CZ loading when leveling up with maximum static load.