

CLASS 187, ELEVATOR, INDUSTRIAL LIFT TRUCK, OR STATIONARY LIFT FOR VEHICLE

SECTION I - CLASS DEFINITION

This class is the locus for apparatus (i.e., elevator) for shifting a discrete load, in its entirety, from an entry level to a vertically spaced exit level along a fixed path when the apparatus includes (a) a reciprocating, load-underlying, support surface (e.g., car), (b) rigid or semi-rigid means for contacting and limiting the travel of the load support surface to the fixed vertical path, and (c) either (1) drive-means* (e.g., fluid motor, manually operated linkage) for transmitting to the load support surface the force necessary to shift the load between the levels or (2) motion resisting means (e.g., counterweight) for slowing the travel of the load supporting surface when moving from a higher load entry level to a lower load exit level.

In addition, this class is the locus for a fixedly mounted apparatus (i.e., vehicle lift) which elevates a discrete vehicle, in its entirety, from a lower entrance and exit level to a significantly higher upper level where the vehicle is intended to be repaired or inspected when the apparatus includes both (a) a vertically reciprocating, vehicle-underlying support surface and (b) drive-means* for transmitting to the support surface the force necessary for it to elevate the vehicle.

Further, this class is the locus for a mobile wheeled or tracked apparatus (e.g., forklift) which travels to, picks up, and shifts a discrete load, in its entirety, from one level to another vertically spaced level and then carries the load, while still fully supported thereby, a short horizontal distance (e.g., length of a warehouse) to a load discharge point; when the apparatus includes (a) a vertically reciprocating load support surface (e.g., forks) which travels only along a confined linear path and (b) drive-means* for transmitting to the support surface the force necessary for it to elevate the load.

This class also provides for a subcombination of one of the above types of apparatus when (a) no specific locus for the subcombination exists in another class and (b) the subcombination is limited to use with the above types of apparatus by a structural modification.

Finally, this class also provides for an ancillary device (e.g., call registration system) which is (a) used exclusively with and (b) has its operation either influencing or being influenced by the operation of one of the above

types of apparatus when no particular locus exists for the device in another class.

SECTION II - LINES WITH OTHER CLASSES AND WITHIN THIS CLASS

Elevating apparatus otherwise proper for this class which is either (a) specially modified for use with or within another disparate apparatus (e.g., machine tool, furnace), (b) in combination with structure for treating the discrete load or vehicle in some manner (e.g., work cutting) or (c) claimed in combination with specific details of a distinct disparate apparatus (e.g., endless feeding belt) or distinct structure (e.g., rack) is classified in other classes (e.g., Class 414, subclass 564, Class 414, subclasses 592+).

Elevating apparatus which is constructed in such a manner that the support surface for the load or vehicle is inherently self-charged or self-discharged during movement along its fixed generally vertical path of travel is excluded from this class and is classified in other handling classes (e.g., Class 414, subclasses 595+).

An apparatus including a load or vehicle support surface which travels in a circuit around a fixed pathway having both a vertical and a horizontal segment is excluded from this class and is found in other handling classes (e.g., Class 198, subclasses 321+).

The load or vehicle support surface of an apparatus proper for this class is intended to support the load or vehicle only for a short period of time during handling and is not intended for either (a) supporting an article in a nonuse storage location (e.g., Class 312, subclass 247 vertically moveable cabinet) (b) supporting a useable machine or tool (e.g., Class 248, subclasses 646+ movable machinery support) or (c) moving one portion of a machine or article relative to another portion thereof (e.g., an operator). In the situation when a vehicle is supported, the surface may also support the vehicle during the time necessary for its repair or inspection.

The line between an elevator proper for this class (187) and a jack proper for Class 254, Implements or Apparatus for Applying Pushing or Pulling Force is as follows:

(A) Class 187 provides for elevating apparatus which (1) lifts the entire load a significant distance, (2) is either stationary, nonmanually transported as a unit between use locations, or supported, at least in part, by a building its services in use, and (3) has a load supporting surface

intended to be guided along or confined to (e.g., located within a shaft) a linear path; and

(B) Class 254 provides for “jacking” apparatus which either (1) elevates only one portion of the load, (2) is manually pulled as an assembled self-supporting unit between use locations or carried and is also positioned under the load, or (3) is stationary mounted at a particular location and is capable of lifting the load only a relatively short distance (e.g., far less than the distance between the floor and ceiling of a room).

The discrete load proper for this class (187) is either (a) an animal, (b) an article, (c) a unitized bulk material (e.g., cotton bail, ice block) or (d) a group or mix thereof moved as a unit between levels.

SECTION III - REFERENCES TO OTHER CLASSES

SEE OR SEARCH CLASS:

- 52, Static Structures (e.g., Buildings), subclass 30 for an elevator combined with building structure other than that necessary to support or guide the elevator.
- 104, Railways, subclasses 35+ for structure shifting railroad vehicles through use of a turntable and subclasses 127+ for an elevator having its operation interconnected with that of an elevated railway.
- 108, Horizontally Supported Planar Surfaces, subclasses 20+ for a power driven surface and subclasses 144.11+ for a vertically adjustable surface which supports a load (e.g., lowers as articles are being stacked) but does not transport it as a unit between vertical locations.
- 182, Fire Escape, Ladder, or Scaffold, subclasses 141+ for a platform having elevating or lowering means which is used to either escape a fire or in the maintenance of a building.
- 186, Merchandising, subclasses 22+ for an elevator or drop used to service a store and subclasses 47 and 51 for an elevator used in servicing a dining room.
- 212, Traversing Hoists, subclass 319 for a traveling bridge-type crane having a load engager (other than a platform, cage, or similar device) which is mounted for guided vertical movement toward and away from the bridge.
- 244, Aeronautics and Astronautics, subclasses 137.1+ for means (e.g., elevator) to load cargo or a passenger onto an aircraft.

- 312, Supports: Cabinet Structure, subclass 247 for a vertically movable cabinet.
- 318, Electricity: Motive Power Systems, appropriate subclasses for electric motor controls, per se.
- 405, Hydraulic and Earth Engineering, subclass 3 for means for lifting a marine vessel during portage, launching, or removing.
- 414, Material or Article Handling, as following subclasses: 246, 247+, 249+, 260, and 264 for a vertically moving vehicle carrier, which carrier is adapted for charging or discharging a facility for the parking of wheeled vehicles; subclass 281 for a means for charging or discharging plural, static structures, and wherein the means includes a portable elevating device having a load sustaining surface; subclasses 364+ for the combination of a pivotably or tiltably movable structure for supporting a wheeled, load-transporting type vehicle and reorienting the vehicle into a load-releasing attitude, and the vehicle being unloaded thereby, and wherein the axis of pivot or tilt of the structure is vertically shiftable (e.g., by means in the nature of an elevator or hoist); subclasses 422+ for a receptacle emptying device of an elevator type; subclass 427 for a wheel and wheel type article handler and transporter having a wheel engaging means of an elevator type; subclass 441 for a motion responsive load handler and transporter wherein the handler is operated by a ground-engaging wheel and is guided for rectilinear movement in a vertical or inclined path; subclasses 458+ for a vehicle having load handling means in the nature of spaced, shelf-like load engaging portions which portions engage the load from opposite sides and elevate it for transport; subclasses 460+ for a vehicle which straddles a load and elevates it onto load supporting structure; subclass 471 for a self-loading or unloading vehicle having a load receiving portion which is pivotable relative to the horizontal, and wherein means is provided for also raising or lowering the portion and its axis of pivot; subclasses 495+ for a self-loading or unloading vehicle having a load receiving portion which is movable in a vertical or inclined path; subclasses 540+ for a self-loading or unloading vehicle having a load handling means which raises or lowers a load in a path which includes vertical rectilinear movement; subclass 564 for a combination of carriers, at least one of which is an elevator or hoist and another is an endless or rotary carrier; sub-

classes 589+ for a load support which moves linearly in a vertical direction and has additional movement for aligning and mounting its load; and subclasses 592+ for the combination of an elevator or hoist and a loading or unloading means therefor.

452, Butchering, subclass 178 for an elevator combined with or having particular structure limiting it to use with butchering means.

472, Amusement Devices, appropriate subclasses, particularly subclass 2, for an amusement device which lifts an individual during a ride.

SECTION IV - GLOSSARY

Repetitive terms used in the titles or definitions of the class definition and its indented subclasses in a special or limited sense are set forth below with the meaning each is to have. For economy of space, an asterisk (*) following a word located in the definition or notes indicates that reference should be made to this Glossary for the specific meaning thereof. In addition, an asterisk (*) following a hyphenated phrase (e.g., drive-means*) indicates that the entire hyphenated phrase has been defined in this Glossary.

CABLE*

A flaccid, elongated, flexible element which can transmit force only when under tension (e.g., rope, wire, chain).

CONTROL*

Means for regulating the operation of a separate and distinct force generating, transmitting, or retarding device (e.g., motor, drive-means*, brake) which moves or stops the movement of a relatively movable component of apparatus proper for this class (e.g., elevator car), and includes both (a) an information input component (e.g., sensor, information storage means, manual push button) and (b) a distinct component which effects the operation of the force generating, transmitting, or retarding device in a particular manner based on the input information.

DRIVE-MEANS*

Means for supplying a motive force to an element to be moved which includes both force generating means (e.g., motor) and structural linkage (e.g., gears) needed to transmit the force from the generating means to the element.

LANDING*

An in situ floor within a structure (e.g., building) located adjacent to an elevator shaft* and to or from which a load (e.g., passenger, cargo) transfers during the charging or discharging of the load-underlying support surface of an elevator.

SHAFT*

A long, narrow, in situ passageway within a structure (e.g., building, ship, mine) which defines the fixed path between the vertically spaced load entrance and exit levels traveled by the load-underlying support surface of an elevator.

SUBCLASSES

200 STAIRWAY ASSIST FOR INDIVIDUAL OR MINOR BARRIER (E.G., CURB) LIFT FOR IMPAIRED INDIVIDUAL:

This subclass is indented under the class definition. Subject matter either (a) intended to carry only a single person and located on or very near to a flight of stairs for use by the person as (1) an alternative to or (2) in conjunction with the stairs or (b) located adjacent a small obstruction (e.g., loading dock) which would be no serious obstacle to a healthy person and having a specific feature (e.g., modified access, wheelchair guides) adapting it to carry a person having some physical problem which prohibits or restricts the ability of the person to travel past the small obstruction.

SEE OR SEARCH THIS CLASS, SUBCLASS:

901, for an elevator control modified for use by a disabled individual.

SEE OR SEARCH CLASS:

- 4, Baths, Closets, Sinks, and Spittoons, subclasses 564.1+ for means for lifting a person vertically into or out of a tub.
- 5, Beds, subclasses 83.1+ for hoisting means for lifting a person into or out of a bed.
- 198, Conveyors: Power-Driven, subclasses 321+ for a conveyor or an accessory therefor with specialized structure for conveying people.

- 414, Material or Article Handling, sub-classes 467+ and 921 for vehicles having means to load or unload an individual in a wheelchair.
- 201 Mounted adjacent stairway for travel parallel thereto:**
This subclass is indented under subclass 200. Subject matter which is located near a flight of stairs and wherein the rigid or semirigid means for limiting the path of travel of its load-underlying support surface restricts the path to a direction parallel to the incline of the flight of stairs.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
245+, for an inclined elevator of general utility.
- SEE OR SEARCH CLASS:
414, Material or Article Handling, sub-classes 595+ for an inclined track elevator with means which loads or unloads it.
- 202 Having specific means contacting or on load support for stopping thereof:**
This subclass is indented under subclass 201. Subject matter having a particular structural aspect (e.g., operator) of braking or catching means mounted on or engaging the load-underlying support surface and selectively holding the load-underlying support surface at different locations along its path of travel detailed.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
351+, for means for stopping a load support of general utility.
- 203 STATIONARY LIFT FOR ROADWAY VEHICLE OR REQUIRED COMPONENT THEREOF:**
This subclass is indented under the class definition. Subject matter consisting of fixedly mounted apparatus, or a specified component thereof (i.e., drive-means*, vehicle-underlying support surface component) not provided for in another class, for elevating a discrete wheeled highway vehicle, in its entirety, from a lower entrance and exit level to a significantly higher upper level where the vehicle is intended to be repaired or inspected.
- (1) Note. The line between a vehicle lift proper for this subclass and its indented subclasses and one proper for Class 254, Implements or Apparatus for Applying Pushing or Pulling Force is as follows:
(a) This subclass and its indents provide for vehicle elevating apparatus which (1) has a vehicle supporting surface entirely separable from the vehicle, (2) lifts the entire vehicle a significant distance along a generally rectilinear path, (3) maintains its vehicle underlying support surface in a substantially level attitude relative to ground, and (4) is stationarily mounted at a particular location; and
(b) Class 254 provides for vehicle elevating apparatus otherwise proper therefor which either (1) elevates only one portion of the vehicle at a time, (2) is manually carried or moved as an assembled, self-supporting unit between use locations and positioned under the vehicle, (3) lifts the entire vehicle only a relatively short distance (e.g., a small lever arm lifting less than the height of the vehicle), or (4) is attached to and travels with the vehicle.
- SEE OR SEARCH CLASS:
104, Railways, subclass 44 for an automobile turntable combined with an elevator, and subclasses 127+ for a railway vehicle elevator.
137, Fluid Handling, subclass 234.6 for a vehicle lift, vehicle guide, or vehicle support combined with a fluid supply means for the vehicle.
184, Lubrication, subclass 1.5 for means used in emptying or filling a vehicle's crank case.
254, Implements or Apparatus for Applying Pushing or Pulling Force, sub-classes 2+, 88, 89+, 94, 418+, and digest 9 for apparatus for lifting an entire vehicle a short distance.
414, Material or Article Handling, sub-classes 233+ for a parking facility including one or more movable sites (i.e., a vehicle is transported by and

also stored on the load support surface), and subclass 678 for a device having a support for a boat or land vehicle and means to lift and tilt the support.

- 204 With distinct jack on vehicle support:**
This subclass is indented under subclass 203. Subject matter provided with means having its own drive-means* and mounted on, or adjacent to and traveling with, the vehicle-underlying support surface of the elevating apparatus for lifting one portion of a vehicle while the vehicle is located on the support surface.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
220, for axle or undercarriage type support structure which normally travels with distinct wheel supporting trackways, but is selectively sustained by a prop at an elevated position to remove the vehicle from the trackways when the trackways are lowered relative thereto.
- 205 With floor pit opening for support and safety cover therefor:**
This subclass is indented under subclass 203. Subject matter provided with both a hole in the floor surrounding the elevating apparatus which allows the vehicle-underlying support surface to be flush with the floor when not elevated and means which extends over at least a portion of the hole when the vehicle-underlying support surface is elevated to prevent an object from falling into the hole.
- 206 With safety prop or braking rod for support:**
This subclass is indented under subclass 203. Subject matter provided with an elongated rigid member which (a) is attached to and extends from the elevated vehicle-underlying support surface to the floor, (b) is distinct from the drive-means* for the support surface, and (c) holds the support surface in its elevated position if the drive-means* therefor fails by pushing against the surface of the floor or coacting with means for stopping (e.g., a stationary catch) its motion.

- 207 Having position lock for engaging sustaining drive means or guide means of support:**
This subclass is indented under subclass 203. Subject matter having a catch or brake which engages either (a) a portion of the drive-means* directly supporting (e.g., piston of fluid ram) the vehicle-underlying support surface or (b) travel directing structure (e.g., guide shoe) for the vehicle-underlying support surface to retain at a particular position, or slow the travel of, the vehicle-underlying support surface.

- 208 Ratchet bar and latching pawl-type lock:**
This subclass is indented under subclass 207. Subject matter wherein the vehicle-underlying support surface is retained at a particular position by a catch engaging a corresponding surface configuration (e.g., tooth) on an elongated member and wherein the catch, when not engaged, moves vertically relative to the elongated member when the vehicle-underlying support surface is elevated or lowered.

- 209 With safety cutoff for drive means:**
This subclass is indented under subclass 203. Subject matter provided with means (e.g., limit switch) which turns off or disconnects the vehicle-underlying support surface drive-means* to protect the user of, or vehicle on, the vehicle elevating apparatus when the apparatus is either improperly used (e.g., overloaded) or a potentially injurious condition exists.

SEE OR SEARCH THIS CLASS, SUBCLASS:

276+, for a control* for the drive means of an elevator car.

- 210 Having specific drive means for support:**
This subclass is indented under subclass 203. Subject matter having a particular structural aspect of drive-means* (e.g., cable drum) for transmitting to the vehicle-underlying support surface the force necessary to shift the vehicle between its upper and lower levels detailed.

SEE OR SEARCH THIS CLASS, SUBCLASS:

250+, for specific drive means for an elevator car.

211 Includes plural sustaining levers (e.g., scissored levers):

This subclass is indented under subclass 210. Drive-means* including two distinct elongated members which are (a) located between the vehicle-underlying support surface and a supporting floor and (b) mounted in a manner allowing them to each swing vertically in conjunction with each other and to hold up the vehicle while restricting its movement to a generally linear vertical path.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

269, for an elevator car supported by scissored levers in the drive means.

SEE OR SEARCH CLASS:

254, Implements or Apparatus for Applying Pushing or Pulling Force, subclass 91 for a swinging platform which elevates an entire vehicle.

212 Powered by vehicle being lifted:

This subclass is indented under subclass 210. Drive-means* having as its source of power either the motor, drive train, or road wheel of a vehicle located on the vehicle-underlying support surface of the apparatus.

SEE OR SEARCH CLASS:

254, Implements or Apparatus for Applying Pushing or Pulling Force, subclasses 91, 94, and 422 and digest 9 for vehicle lifting apparatus powered by either the impact of, the motion of, or a driven part of a supported vehicle.

213 Includes driven sustaining columns on opposite sides of support:

This subclass is indented under subclass 210. Drive-means* including two distinct elongated structures positioned on different sides of a common vehicle-underlying support surface and directly across from each other which transmit elevating force to, and together hold up, the vehicle-underlying support surface.

214 Having threaded rider and mating screw:

This subclass is indented under subclass 213. Drive-means* wherein one of the force transmitting elongated structures includes both (a)

an element attached to the vehicle-underlying support surface which has an aperture therein with an internally facing threaded tooth and (b) a cylindrical rod passing through the aperture which has a tooth on its outer surface threaded around the longitudinal axis of the rod, mating with the tooth of the aperture element, and rotating relative thereto when the vehicle-underlying support surface is elevated or lowered.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

267+, for an elevator car supported by threaded rider and screw drive means.

215 Includes sustaining fluid ram:

This subclass is indented under subclass 210. Drive-means* including a vertically extending, fluid powered mechanism which (a) is attached to the vehicle-underlying support surface and (b) has two concentric, telescoping components bearing a portion of the weight of the vehicle-underlying support surface when it travels vertically.

(1) Note. The line between a stationary vehicle lift drive proper for this class (187) and a linear fluid motor and its control proper for Class 91, Motors: Expansible Chamber Type, or a linear fluid motor proper for Class 92, Expansible Chamber Devices, is as follows:

(1) Class 187 provides for lifting apparatus which claims more than a named stationary lift for a vehicle moving a vehicle in its entirety between vertically spaced levels by a linear fluid motor and additional structure which is not necessary to the internal fluid drive of the linear fluid motor (e.g., external load support guide structure, particular load-underlying support surface structure, particular lifting apparatus controls (e.g., rope controls)),

(2) Class 91 provides for linear fluid motors and their controls moving a load between spaced positions and claiming a named load supporting surface, and

(3) Class 92 provides for linear fluid motors moving a load between spaced

positions and claiming a named load supporting surface.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

272+, for an elevator car with a fluid supporting ram in its drive means.

SEE OR SEARCH CLASS:

91, Motors: Expansible Chamber Type, appropriate subclasses for fluid pressure operated linear motors and their controls.

92, Expansible Chamber Devices, appropriate subclasses for fluid pressure operated linear motors.

254, Implements or Apparatus for Applying Pushing or Pulling Force, subclass 93 for fluid pressure powered apparatus for lifting a portion of a vehicle a short distance.

216 Having specific vehicle support structure (e.g., trackways):

This subclass is indented under subclass 203. Subject matter having a particular aspect of the vehicle-underlying support surface of the apparatus detailed.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

403, for an elevator having a load-underlying support surface with means to engage the wheels of a carried vehicle.

SEE OR SEARCH CLASS:

254, Implements or Apparatus for Applying Pushing or Pulling Force, subclasses 133+ for special engaging structure on a jack.

217 With movable stop engaging vehicle wheel:

This subclass is indented under subclass 216. Vehicle-underlying support surface provided with structure (e.g., chock) shiftable from a position where it does not interfere with the movement of the vehicle wheel onto the support surface to a position where it contacts the wheel and prevents movement of the vehicle off of the support surface in one direction.

218 Includes portion positioned or shaped to engage axle or undercarriage:

This subclass is indented under subclass 216. Vehicle-underlying support surface including a component or section particularly arranged or contoured to contact the axle or supporting framework of the vehicle and transmit lifting force thereto.

219 Portion adjusts to plural use positions:

This subclass is indented under subclass 218. Vehicle-underlying support surface having an attached contact component or section shiftable from one location to another to contact either (a) different portions of the supporting framework or axle of the same vehicle or (b) the axles or supporting frameworks of vehicles having different configurations.

220 Portion moves from use to nonuse configuration (e.g., alternate supports):

This subclass is indented under subclass 218. Vehicle-underlying support surface having at least one attached contact component or section which shifts from (a) a location where it does not contact the vehicle axle or framework when the vehicle elevating apparatus is in operation to (b) another location where it will contact the vehicle axle or framework when the vehicle elevating apparatus is in operation.

221 Includes auxiliary or adjustably spaced trackway:

This subclass is indented under subclass 216. Vehicle-underlying support surface including a component which (a) is designed to direct a wheel of a vehicle driving onto the support surface and (b) is either (1) located where it does not contact and direct a wheel every time the vehicle elevating apparatus is in operation (e.g., one of plural alternatively useable trackways) or (2) shiftable toward or away from a similar wheel directing component during different vehicle elevating operations for vehicles having a different gauge or wheel arrangement.

222 INDUSTRIAL LIFT TRUCK OR REQUIRED COMPONENT THEREOF (E.G., FORKLIFT):

This subclass is indented under the class definition. Subject matter consisting of a mobile wheeled or tracked apparatus (e.g., forklift) or a specified component thereof (i.e., drive-

means*, load support surface, guides for surface) not provided for in another class, which travels to, picks up, and shifts a discrete load, in its entirety, from one level to another vertically spaced level and then carries the load while still fully supported on the surface a short horizontal distance (e.g., the length of a warehouse) to a load discharge point.

- (1) Note. The line between a mobile lift truck proper for this and the indented subclasses and one proper for Class 254, Implements or Apparatus for Applying Pushing or Pulling Force is as follows: (a) This subclass and its indents provide for a mobile wheeled or track guided truck which both (1) selfloads, supports, and travels with a load between horizontally spaced locations and (2) is capable of vertically moving this load along a fixed path for a significant distance and unloading it at a different, vertically spaced level; and (b) Class 254 provides for a mobile lift truck which either (1) elevates only one portion of the load or (2) lifts the entire load only a relatively short distance (e.g., less than the height of the load) and then returns it to its original level when unloading.
- (2) Note. Wheeled or tracked apparatus otherwise proper for this and the indented subclasses is excluded therefrom when the load support surface is mounted for movement in an additional direction (e.g., tilted) and is found in Class 414, subclasses 629, 631+, 641+, and 663+ even when the movement is not utilized to load or unload the surface (e.g., merely stabilizes the load).

SEE OR SEARCH CLASS:

- 254, Implements or Apparatus for Applying Pushing or Pulling Force, subclasses 2+ for a jack-type hoist truck.
- 414, Material or Article Handling, subclasses 629, 631+, 641+, 663+, and 914 for portable elevators having an additional handling feature (e.g., tilting vertical guide).

223 Having safety cutoff control:

This subclass is indented under subclass 222. Mobile wheeled or tracked apparatus having a control* which determines when an unsafe operating condition has occurred and responds to the condition by regulating or stopping the operation of the apparatus or load support surface.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 209, for a stationary lift for a roadway vehicle having safety cutoff means for its drive-means*.

SEE OR SEARCH CLASS:

- 701, Data Processing: Vehicles, Navigation, and Relative Location, subclass 50 for operation controlling means, per se, of this type for a forklift when the algorithm utilized is not peculiar solely to use with a forklift.

224 Having control for load support drive-means:

This subclass is indented under subclass 222. Mobile wheeled or tracked apparatus having a control* for regulating the operation of the drive-means* for the load support surface of the apparatus.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 209, for a stationary lift for a roadway vehicle having a safety cutoff means for its drive-means*.
- 276+, for a control* regulating the power source of drive-means* for an elevator.

SEE OR SEARCH CLASS:

- 701, Data Processing: Vehicles, Navigation, and Relative Location, subclass 50 for an operation controlling means for a forklift utilizing an algorithm not peculiar solely to use with a forklift.

225 Having foldable vertical guide:

This subclass is indented under subclass 222. Mobile wheeled or tracked apparatus provided with rigid, vertically extending, elongated structure for limiting the load support surface to travel along its confined linear path, the

- structure having two elongated vertical segments attached to one another in a manner allowing one segment of the elongated structure to bend over and lie adjacent to the other segment.
- 226 Having extensible vertical guide for load support:**
This subclass is indented under subclass 222. Mobile wheeled or tracked apparatus provided with rigid, vertically extending, elongated structure for limiting the load support surface to travel along its confined linear path, the structure having two elongated vertical sections attached to one another in a manner allowing one section to move vertically relative to the other section to lengthen or shorten the height of the elongated structure.
- 227 Guide or drive-means* therefor positioned to enhance operator visibility:**
This subclass is indented under subclass 226. Mobile wheeled or tracked apparatus in which either (a) the structure for confining the load support surface to a linear path, (b) the drive-means* for the movable section thereof, or (c) the drive-means* for the load support surface is positioned, relative to a work station for the human operator of the apparatus, in a manner designed to avoid obstructing the view of the operator when using the apparatus.
- 228 And guiding means for fluid drive line:**
This subclass is indented under subclass 226. Mobile wheeled or tracked apparatus also having directing means for limiting the path traveled by a pipe which is shifted when the sections of the elongated structure are moved relative to each other and which carries fluid to drive-means* for either (a) the movable section of the elongated structure or (b) the load support surface of the apparatus.
- 229 Extended by single fluid ram:**
This subclass is indented under subclass 226. Mobile wheeled or tracked apparatus wherein the two sections of the vertically extending, elongated structure are moved relative to each other by a single, fluid powered mechanism having two telescopic concentric components.
- 230 Specific vertical guide:**
This subclass is indented under subclass 226. Mobile wheeled or tracked apparatus in which one particular aspect (e.g., cross section) of the vertically extending elongated structure is detailed.

SEE OR SEARCH THIS CLASS, SUBCLASS:
238, for a nonextensible vertical guide for the load support surface of a lift truck.
- 231 Having structure allowing propulsion or steering by walking attendant:**
This subclass is indented under subclass 222. Mobile wheeled or tracked apparatus having hand engaged structure used to propel or to direct the course of the mobile apparatus which is positioned in a manner designed to allow a human operator to walk while propelling or directing the apparatus when it travels between horizontally spaced locations.
- 232 With stabilizing outrigger:**
This subclass is indented under subclass 231. Mobile wheeled or tracked apparatus provided with structure extending outwardly from the main track engaging or wheeled supporting base of the mobile apparatus which prevents the mobile apparatus from toppling over or overturning when in use.
- 233 Having specific drive-means for load support:**
This subclass is indented under subclass 222. Mobile wheeled or tracked apparatus having a particular aspect of drive-means* (e.g., cable drum) for transmitting to the load support surface of the apparatus the force necessary to shift it along its confined linear path detailed.

SEE OR SEARCH THIS CLASS, SUBCLASS:
250+, for specific load support drive-means* for an elevator.
- 234 Including fluid ram:**
This subclass is indented under subclass 233. Mobile wheeled or tracked apparatus wherein the drive-means* includes a fluid powered mechanism having two telescopic, concentric components which mechanism is directly

attached or linked to the load support surface of the apparatus.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

272+, for a fluid ram type drive-means* for an elevator car.

235 Including cable accumulating-type drum:

This subclass is indented under subclass 233. Mobile wheeled or tracked apparatus wherein the drive-means* includes both (a) a cable* directly attached to the load support surface of the apparatus and (b) a drum turned about its central axis by the source of power and having a perimeter about which the cable* is wound and collected when the drum is turned to apply a pulling force to the load support surface.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

261+, for a drive-means* for an elevator car which includes a cable accumulating type drum.

236 Including gear and mating rack or chain:

This subclass is indented under subclass 233. Mobile wheeled or tracked apparatus wherein the drive-means* includes both (a) a toothed gear rotatably attached to the load support surface or to a relatively stationary component of the mobile apparatus and (b) a bar or chain which is mounted along the confined path of travel of the load support surface or attached to the load support surface and which has a row of complementary teeth or apertures mating with teeth of the gear.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

270+, for drive-means* for an elevator car which includes a gear and mating rack or chain.

237 Having specific load support structure (e.g., forks):

This subclass is indented under subclass 222. Mobile wheeled or tracked apparatus having at least one particular aspect of the load support surface detailed.

- (1) Note. The line between an elevator or industrial lift truck proper for this and the indented subclasses and one proper

for Class 414, Material or Article Handling, is as follows:

(a) This subclass and its indents provide for an elevator or industrial lift truck or component thereof when the load is shifted in its entirety in a primary lifting direction from one level to another vertically spaced level and may additionally include (1) mere pivoting or tilting of the load supporting structure for detachment or storage or (2) retaining of a received load on the support surface; and

(b) Class 414 provides for load engaging structure in which the load support surface travels in a generally vertical primary lift direction and (1) is mounted for movement in a direction other than the primary lift direction (e.g., tilting) or (2) has an additional load handling structure (e.g., conveyor) or (3) is constructed in such a manner that the load support surface is inherently self-charged or self-discharged along the primary lift direction.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

401+, for specific load support structure for an elevator.

SEE OR SEARCH CLASS:

414, Material or Article Handling, subclass 785 for a load-underlying support surface for an elevator or industrial lift truck having an additional load handling feature.

238 Having specific guide means for load support:

This subclass is indented under subclass 222. Mobile wheeled or tracked apparatus having one particular aspect of means which contacts or is on the load support surface of the apparatus for limiting the surface to vertical travel along its confined linear path detailed.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

230, for an extensible vertical guide for the support surface of a lift truck.

239 MOUNTED ON EXTERIOR OF BUILDING:

This subclass is indented under the class definition. Subject matter wherein (a) the rigid or semirigid means for limiting the path of travel of the load-underlying support surface of an elevator is attached to or formed in the outer surface of a wall forming the perimeter of a building and (b) the load-underlying support surface is completely located, at all times, beyond the perimeter of the building.

SEE OR SEARCH CLASS:

182, Fire Escape, Ladder, or Scaffold, subclasses 141+ for a platform having elevating or lowering means and subclass 37 for a similar platform which also traverses horizontally along a track.

240 TRANSPORTABLE ELEVATOR:

This subclass is indented under the class definition. Subject matter constructed in a manner which makes it easily movable, as a unit, from one location where it functions as an elevator to another location where it again functions as an elevator.

- (1) Note. The line between a portable elevator proper for Class 254, Implements or Apparatus for Applying Pushing or Pulling Force, is as follows: (a) Class 187 provides for transportable elevating apparatus which (1) lifts the entire load a significant distance between a loading and unloading position (e.g., greater than the height of a load being lifted), (2) is transported between use locations in an unloaded condition and (3) has a load supporting surface intended to be guided along or confined to (e.g., located within a shaft) a linear path, and (b) Class 254 provides for portable "jacking" apparatus which is movable between locations and either (1) elevates only one portion of the load, or (2) is manually transported as an assembled self-supporting unit between use locations, or (3) is carried and positioned under the load and is capable of lifting the load only a relatively short distance (e.g., less than the distance between the floor and ceiling of a room).

SEE OR SEARCH THIS CLASS, SUBCLASS:

222+, for an industrial lift truck.

SEE OR SEARCH CLASS:

- 182, Fire Escape, Ladder, or Scaffold, appropriate subclasses, especially subclasses 141+ for a portable platform where a workman only does work while supported thereon (e.g., sandblasting, window washing, etc.).
- 254, Implements or Apparatus for Applying Pushing or Pulling Force, appropriate subclasses for portable "jacking" apparatus lifting only a portion of a load or lifting a load a short distance.
- 414, Material or Article Handling, subclasses 495+ for a self-loading vehicle with an elevating load body and subclasses 540+ for a self-loading vehicle loaded by an attached elevator.

241 Nonself-supporting-type (e.g., leaned against building):

This subclass is indented under subclass 240. Movable elevator wherein the rigid or semirigid means for contacting and limiting the travel of the load-underlying support surface to a fixed vertical path is incapable of maintaining itself in an operative position without being leaned against or propped up by another structure (e.g., building, pole).

SEE OR SEARCH CLASS:

182, Fire Escape, Ladder, or Scaffold, subclasses 101+ for a vertically moving platform on a ladder.

242 Knockdown or collapsible for transport:

This subclass is indented under subclass 240. Movable elevator which is either designed to be (a) quickly disassembled and reassembled when moved between use locations or (b) readily folded into a more compact size, in at least one dimension, when moved between use locations.

243 Wheel supported:

This subclass is indented under subclass 242. Movable elevator wherein a portion of the weight of the elevator is sustained or borne by an attached wheel in contact with the ground

when the elevator is moved in its disassembled or folded configuration between use locations.

244 Wheel supported:

This subclass is indented under subclass 240. Movable elevator wherein a portion of the weight of the elevator is sustained or borne by an attached wheel in contact with the ground when the elevator is moved between use locations.

245 INCLINED ELEVATOR:

This subclass is indented under the class definition. Subject matter wherein the rigid or semi-rigid means for contacting and limiting the path of travel of the load-underlying support surface is obliquely angled relative to the horizontal surface or ground upon which the elevator is supported.

SEE OR SEARCH THIS CLASS, SUBCLASS:

201+, for an inclined elevator mounted adjacent a stairway and used to move only a single individual.

SEE OR SEARCH CLASS:

182, Fire Escape, Ladder, or Scaffold, subclasses 10+ for a support traveling along an inclined cable.

414, Material or Article Handling, subclasses 595+ for an inclined track elevator with means to load or unload it.

246 Having linking cable tension change actuated stopping means for load support:

This subclass is indented under subclass 245. Subject matter having braking or catching means mounted on or engaging the load-underlying support surface and selectively holding it at different locations along its travel path, which means is responsive to variations in the amount of tension in a cable* structurally linking the power source of a drive-means* to the load-underlying support surface.

SEE OR SEARCH THIS CLASS, SUBCLASS:

202, for means for stopping the load-underlying support surface of an inclined elevator mounted adjacent a stairway.

361+, for means for stopping the load-underlying support surface of an ele-

vator which is actuated by a change in tension of its suspension cable.

247 HAVING COMPUTER CONTROL OF ELEVATOR:

This subclass is indented under the class definition. Subject matter having a central processing unit (CPU) supervising a control* which fully regulates the entire operation of an elevator without assistance by an individual.

SEE OR SEARCH CLASS:

700, Data Processing: Generic Control Systems or Specific Applications, subclass 275 for data processing mechanical control system, which may be used in an environment that includes an elevator.

248 Includes redundant circuitry:

This subclass is indented under subclass 247. Subject matter also having a secondary central processing unit, components of the control*, or means for carrying electric current therebetween which assumes the function of its equivalent in response to the failure of either the primary central processing unit, components of the control*, or means for carrying electric current therebetween.

249 HAVING INDEPENDENT SUPPORTS CARRYING DISTINCT LOADS AND SHARING COMMON PATH:

This subclass is indented under the class definition. Subject matter wherein the elevator has two or more unattached load support surfaces which (a) shift different loads and (b) follow the same rigid or semirigid means for contacting and limiting the travel path.

(1) Note. Plural load-underlying support surfaces attached to an endless belt or chain and having a vertical component of travel are found in Class 198, Conveyors: Power-Driven when the supports travel around a closed path and this subclass when the supports reciprocate along a linear path only.

SEE OR SEARCH CLASS:

104, Railways, subclass 25 for an endless horizontal train.

198, Conveyors: Power-Driven, sub-classes 321+ for a conveyor specialized to conveying people and sub-classes 793+ for plural supports attached to an endless belt or chain.

250 HAVING SPECIFIC LOAD SUPPORT DRIVE MEANS OR ITS CONTROL:

This subclass is indented under the class definition. Subject matter having either (a) a particular structural aspect of drive-means* (e.g., cable drum) for transmitting to the load-underlying support surface of the elevator the force necessary to shift the load between its entry and exit levels or (b) a particular aspect of a control* for regulating the operation of such a drive-means* detailed.

SEE OR SEARCH THIS CLASS, SUBCLASS:

210+, for specific drive-means* for the vehicle support of a vehicle lift.

233+, for specific drive-means* for the load support of an industrial lift truck.

251 Includes linking support cable (e.g., rope, chain) in drive means:

This subclass is indented under subclass 250. Drive-means* including a cable* attached to the load underlying support surface and which (a) is part of the structural linkage needed to transmit power from the power source to the load-underlying support surface of the elevator and (b) bears at least a portion of the weight of the load-underlying support surface during its travel along the shaft*.

(1) Note. Class 254, Implements or Apparatus for Applying Pushing or Pulling Force, provides for the type of drive-means proper for this and the indented subclasses when the load support is merely named and no additional elevator structure (e.g., load support guide) is claimed.

SEE OR SEARCH CLASS:

254, Implements or Apparatus for Applying Pushing or Pulling Force, sub-classes 264+ for apparatus for lifting a load which contacts and pulls on a cable supporting the load.

252 And reciprocatingly shifted pulley wheel pulling thereon:

This subclass is indented under subclass 251. Drive-means* also including an element having a generally circular perimeter which engages the cable* and is (a) freely (i.e., non-powered) rotatable about an axis through its center in response to movement of the cable* over its perimeter and (b) attached at its axis to the source of power and bodily reciprocated thereby from one position to another to apply a pulling force to the cable*.

SEE OR SEARCH CLASS:

254, Implements or Apparatus for Applying Pushing or Pulling Force, sub-classes 385+ for a load supporting cable shifted by a cable engaging pulley reciprocated by drive means.

253 Shifted by fluid ram:

This subclass is indented under subclass 252. Drive-means* wherein the source of power includes a telescopic, fluid powered mechanism having (a) at least two concentric components and (b) the axis of the cable* engaging element attached to the reciprocating component thereof.

254 And rotatably driven drum pulling thereon:

This subclass is indented under subclass 251. Drive-means* also including a drum turned about its central axis by the source of power and having a perimeter which contacts the cable* and either winds a segment of cable* around its perimeter, or otherwise engages and pulls on a segment of the cable*, to apply a pulling force on the load-underlying support surface of the elevator.

(1) Note. The term "drum" is used in this and the indented subclasses to designate a rotatable structure (e.g., capstan, driven pulley, driven sprocket wheel, winding drum, windless, etc.) which is caused to turn about its axis of rotation by the source of power (e.g., motor).

SEE OR SEARCH CLASS:

254, Implements or Apparatus for Applying Pushing or Pulling Force, sub-classes 266+ for a rotatably driven drum pulling on a load hoisting cable.

- 255 With projections or apertures for engaging complementary formations on cable (e.g., sprocket):**
This subclass is indented under subclass 254. Drive-means* wherein the drum is provided with projections or apertures located on the surface of its perimeter for engaging mating apertures or projections formed along the length of the cable*.
- 256 Plural driven drums:**
This subclass is indented under subclass 254. Drive-means* including at least one other drum turned about its central axis by a source of power and having a perimeter which contacts the same or another cable* to apply a pulling force on the same or another load-underlying support surface.
- 257 Each moves distinct load support:**
This subclass is indented under subclass 256. Drive-means* wherein each drum engages and pulls on distinct cables* attached to different load-underlying support surfaces.
- 258 Having distinct drive motors:**
This subclass is indented under subclass 256. Drive-means* wherein different motors having no common components and whose operation is not dependent on one another provide the source of power for each drum.
- 259 Cable accumulating-type drums:**
This subclass is indented under subclass 256. Drive-means* having at least two drums, each of which is of the type which winds the contacted cable* about, and collects it on, its perimeter when the drum is turned to apply a pulling force to the load support surface.
- 260 Different size drums:**
This subclass is indented under subclass 256. Drive-means* having at least two drums, one of which has a larger perimeter than the other.
- 261 Cable accumulating-type drum:**
This subclass is indented under subclass 254. Drive-means* wherein the drum is of the type which winds the cable* about, and collects it on, the perimeter of the drum when the drum is turned to apply a pulling force to the load-underlying support surface.
- 262 Having cable guiding pulley wheel spaced therefrom:**
This subclass is indented under subclass 261. Drive-means* having a cable* directing element (e.g., pulley) positioned along the path of travel of the cable* at a location spaced from the drum, which element is provided with a generally circular perimeter rotatable about an axis through its center in response to the movement of the cable* over its perimeter.
- 263 With structure adapting drum for manual drive:**
This subclass is indented under subclass 254. Drive-means* wherein the drum is provided with structure attached to it which allows the drum to be turned by a human, rather than mechanical, energy source of power.
- 264 With separate biasing means maintaining cable tension:**
This subclass is indented under subclass 254. Drive-means* wherein the cable* linking the drum to the load support surface of the elevator has means engaging or attached to it, other than the drum, which applies a force to the cable* to keep it at the proper tautness.
- 265 Includes spring supported pulley:**
This subclass is indented under subclass 264. Drive-means* wherein the cable* tauting means includes (a) a cable* directing element (e.g., pulley) positioned along the path of the cable* and provided with a generally circular perimeter which rotates about an axis through its center in response to the movement of the cable* over its perimeter and (b) spring means for movably mounting the cable* directing element to supporting structure.
- 266 Having cable guiding pulley wheel spaced therefrom:**
This subclass is indented under subclass 254. Drive-means* having a cable* directing element (e.g., pulley) positioned along the path of travel of the cable* and spaced from the drum, which element is provided with a generally circular perimeter rotatable about an axis through the center of the element in response to the movement of the cable* over the perimeter.

267 Includes threaded rider mating with support screw in drive means:

This subclass is indented under subclass 250. Drive-means* including (a) an element attached to the load-underlying support surface of the elevator which has an aperture therein with an internally facing threaded tooth and (b) a cylindrical rod passing through the aperture and mounted along the length of the shaft* which has a tooth on its outer surface threaded around the longitudinal axis of the rod and mating with the tooth of the element, and rotating relative thereto, when power is transmitted to the load-underlying support surface to shift it along the shaft*.

SEE OR SEARCH CLASS:

254, Implements or Apparatus for Applying Pushing or Pulling Force, subclasses 98+ for screw type means for lifting a load.

268 Driven rider:

This subclass is indented under subclass 267. Drive-means* wherein the apertured element attached to the load-underlying support surface is rotated about the axis of the aperture by the power source.

269 Includes scissored supporting levers in drive-means:

This subclass is indented under subclass 250. Drive-means* including two levers attached to the load-underlying support surface of the elevator which (a) are joined together by a pivot pin at a point spaced from their ends and about which they swing when the levers are transmitting power from the power source to the support surface and (b) bear at least a portion of the weight of the load-underlying support surface during its travel along the shaft*.

SEE OR SEARCH CLASS:

254, Implements or Apparatus for Applying Pushing or Pulling Force, subclass 122 for lazy tong means used to lift a load.

270 Includes gear on support mating with stationary rack or chain:

This subclass is indented under subclass 250. Drive-means* including both (a) a power transmitting toothed gear rotatively attached to the

load-underlying support surface of the elevator and (b) a bar or chain mounted along the length of the shaft* and having a row of complementary teeth or apertures with which the teeth of the gear mate.

SEE OR SEARCH THIS CLASS, SUBCLASS:

352+, for a gear mounted on the support surface and provided with rotation inhibiting means which mates with a stationary rack or chain.

271 Worm-type gear:

This subclass is indented under subclass 270. Drive-means* wherein the rotatable gear either (a) has a cylindrical shape and a continuous tooth on its outer surface which is threaded around the longitudinal axis of the cylinder or (b) has teeth on its outer surface shaped to cooperate with a cylinder shaped bar mounted along the length of the shaft* and having a continuous tooth on its outer surface which is threaded around the longitudinal axis of the cylinder shaped bar.

272 Includes fluid supporting ram in drive-means:

This subclass is indented under subclass 250. Drive-means* including a fluid powered mechanism attached to the load-underlying support surface of the elevator having two concentric telescopic components which bear a portion of the weight of the load-underlying support surface and move it along the shaft* when telescoped.

(1) Note. The line between an elevator drive proper for this class (187) and a linear fluid motor and its control proper for Class 91, Motors: Expansible Chamber Type, or a linear fluid motor proper for Class 92, Expansible Chamber Devices is as follows:

(a) Class 187 provides for elevating apparatus which claims more than a named load-underlying support surface moved between vertically spaced levels by a linear fluid motor or additional elevator structure which is not necessary to the internal fluid drive of the linear fluid motor (e.g., external load support guide structure, particular load-underlying sup-

port surface structure, particular elevator controls (e.g., rope controls), elevator counterbalances),

(b) Class 91 provides for linear fluid motors and their controls moving a load between spaced positions and claiming a named load supporting surface, and

(c) Class 92 provides for linear fluid motors moving a load between spaced positions and claiming a named load supporting surface.

SEE OR SEARCH THIS CLASS, SUBCLASS:

215, for a stationary lift for a roadway vehicle having fluid ram-type drive-means.

SEE OR SEARCH CLASS:

91, Motors: Expansible Chamber Type, appropriate subclasses for fluid pressure operated linear motors and their controls.

92, Expansible Chamber Devices, appropriate subclasses for fluid pressure operated linear motors.

254, Implements or Apparatus for Applying Pushing or Pulling Force, subclass 93 for fluid pressure operated lifting means.

273 Pneumatic (e.g., steam):

This subclass is indented under subclass 272. Drive-means* wherein the fluid utilized to power the mechanism is a gas.

274 Plural fluid rams having interrelated operation:

This subclass is indented under subclass 272. Drive-means* provided with an additional, similar, telescopic, fluid powered mechanism having its operation influenced or affected by the other fluid powered mechanism.

275 With fluid flow controlling means:

This subclass is indented under subclass 272. Drive-means* provided with particular means for directing and regulating the amount of fluid going to the telescopic, fluid powered mechanism.

SEE OR SEARCH CLASS:

91, Motors: Expansible Chamber Type, subclass 428 for a manual control for a motive fluid valve carried and operated from a named load.

276 Includes control for power source of drive-means:

This subclass is indented under subclass 250. Subject matter including a control* which regulates the operation of either (a) the force generating means of the drive-means* (e.g., motor) or (b) a component of the force transmitting linkage of the drive-means* not bearing the weight of the load-underlying support surface (e.g., fluid valve for fluid ram).

SEE OR SEARCH THIS CLASS, SUBCLASS:

209, for a stationary lift for a roadway vehicle having safety cutoff means for its drive-means*.

224, for an industrial lift truck having a control* for its load support drive-means*.

277 With specific electrical component:

This subclass is indented under subclass 276. Subject matter wherein the control* is provided with a particular part for receiving input information or effecting the regulating operation powered by an electric current.

SEE OR SEARCH THIS CLASS, SUBCLASS:

308, for an electrically actuated latch for holding the manual input component of a control* for the power source of drive-means* for an elevator.

SEE OR SEARCH CLASS:

200, Electricity: Circuit Makers and Breakers, digest 26 for a circuit maker or breaker operated when a lifting cable becomes slack (e.g., cable breaks).

318, Electricity: Motive Power Systems, appropriate subclasses for electric motor controls, per se.

278 Actuated by movement of building (e.g., seismic activity):

This subclass is indented under subclass 277. Control* wherein the load-underlying support surface travels within a normally static, multi-story structure and the information input component has its operation induced or modified by a change in position of one portion of the structure relative to either (a) another portion of the structure or (b) the ground caused by an accidental (e.g., explosion) or natural (e.g., wind deflection) external force thereon.

279 Actuated by presence of obstruction in shaft:

This subclass is indented under subclass 277. Control* in which the information input component has its operation induced by the presence of an object (e.g., foot) projecting into the shaft* and when the object is in this location it is either (a) obstructing the safe passage of the load-underlying support surface or (b) endangering its safety when the load-underlying support surface passes through the shaft*.

SEE OR SEARCH THIS CLASS, SUBCLASS:

300, for a mechanical control* for the power source of a drive-means* actuated by the presence of an obstruction in the shaft*.

280 Actuated by location of access barrier or its lock:

This subclass is indented under subclass 277. Control* in which the information input component has its operation induced by either (a) the position of a door which allows or prevents the passage of a load onto the load-underlying support surface or (b) the position of a device having the sole function of holding such a door in its load blocking or unblocking position.

SEE OR SEARCH THIS CLASS, SUBCLASS:

301, for a mechanical control* for the power source of a drive-means* actuated by the location of an access barrier or its lock.

SEE OR SEARCH CLASS:

200, Electricity: Circuit Makers and Breakers, subclasses 61.62+, particularly subclass 61.65, for a circuit maker or breaker actuated by the operation of a closure, closure operator or closure accessory.

281 Actuated by excessive load:

This subclass is indented under subclass 277. Control* in which the information input component has its operation induced by an increase in the weight of the load on the load-underlying support surface beyond the normal or acceptable limit.

282 Actuated by load support contacting trip in shaft:

This subclass is indented under subclass 277. Control* in which the information input component has its operation induced by engagement with either (a) a device located along the shaft* and projecting thereinto when the input component of the control* travels with the load-underlying support surface or (b) the load-underlying support surface or structure attached thereto when the input component of the control is stationarily mounted, located along, and projects into the shaft*.

SEE OR SEARCH THIS CLASS, SUBCLASS:

302+, for a mechanical control* for the power source of a drive-means* actuated by a trip in the shaft*.

283 Having trip at each of plural landings:

This subclass is indented under subclass 282. Control* having either a projecting operation inducing device or a control input component located near each of numerous (i.e., more than two) landings* along the shaft*.

284 And means for final leveling:

This subclass is indented under subclass 283. Control* having additional means which (a) begins its operation when a relatively short vertical distance remains between the load-underlying support surface and a landing* at which it is stopping and (b) adjusts the regulating functioning of the control* to accurately align the landing* and load-underlying support surface when fully stopped.

285 For fluid-type power source:

This subclass is indented under subclass 277. Subject matter in which the force generating means regulated by the control* is powered by a fluid flowing therethrough.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

275, for a fluid ram which moves the load-underlying support surface and has specific fluid flow controlling means (e.g., valve).

286 Actuated by load support speed sensor or governor:

This subclass is indented under subclass 285. Control* in which the information input component has its operation induced by regulating or detecting means which either measures or is responsive to (a) changes in the velocity or (b) improper velocity of the load support surface.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

305, for a mechanical control* for the power source of a drive-means* actuated by a load support speed sensor or governor.

287 Includes safety cut off switch actuated by load support speed sensor or governor:

This subclass is indented under subclass 277. Control* including a device for stopping the flow of electric current to the force generating means when the information input component has its operation induced by regulating or detecting means which measures or is responsive to excessive or improper velocity of the load-underlying support surface.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

305, for a mechanical control* for the power source of a drive-means* actuated by a load support speed sensor or governor.

288 Control actuates mechanical braking means for power source:

This subclass is indented under subclass 277. Subject matter wherein the control* regulates the operation of means directly engaging and stopping or slowing the motion of a moving

component of either (a) the force generating means of the drive-means* (e.g., motor) or (b) a component of the force transmitting linkage of the drive-means* not bearing the weight of the load-underlying support surface (e.g., clutch).

SEE OR SEARCH CLASS:

254, Implements or Apparatus for Applying Pushing or Pulling Force, subclass 267 for a rotational speed governor controlling retarding means engaging a cable pulling drum.

289 For electric power source:

This subclass is indented under subclass 277. Subject matter in which the force generating means regulated by the control* is powered by an electric current.

290 With auxiliary supply of electricity:

This subclass is indented under subclass 289. Subject matter provided with an alternate or reserve supply (e.g., battery) of electric current for powering the control* or force generating means upon failure or reduction in the primary supply of electric current.

291 Having means for final leveling:

This subclass is indented under subclass 289. Control* having means which (a) begins its operations when a relatively short vertical distance remains between the load-underlying support surface and a landing* at which it is stopping and (b) adjusts the regulating functioning of the control* to accurately align the landing* and load-underlying support surface when fully stopped.

292 With means for stopping vibration or bump start:

This subclass is indented under subclass 289. Control with means adjusting the functioning of the control* so as to prevent either (a) the oscillation of the load-underlying support surface during its travel or (b) any motion opposite to the intended direction of travel of the load-underlying support surface when it is leaving a landing*.

293 Controls power source speed:

This subclass is indented under subclass 289. Subject matter wherein the control* regulates the force output rate of the generating means.

- 294 Actuated near terminus of shaft:**
This subclass is indented under subclass 293. Control* in which the information input component has its operation induced when the load-underlying support surface comes close to the upper or lower end of the shaft*.
- 295 Having control signal pattern generator:**
This subclass is indented under subclass 293. Control* having an electrical component in the regulating circuitry of the force generating means which receives a signal from a landing*, formulates the electrical command signals necessary to accomplish the desired movement of the load-underlying support surface, and transmits these signals to another component of the regulating circuitry.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
247, for a central processing unit which accomplishes this function.
- 296 Limited to power source (i.e., motor) utilizing A.C. power:**
This subclass is indented under subclass 293. Subject matter in which the force generating means regulated by the control* must specifically use an alternating electric current.
- SEE OR SEARCH CLASS:
318, Electricity: Motive Power Systems, subclasses 727+ for an induction motor system which is not combined with, or limited to use solely with, an elevator.
- 297 Limited to power source (i.e., motor) utilizing D.C. power:**
This subclass is indented under subclass 293. Subject matter in which the force generating means regulated by the control* must specifically use a direct electric current.
- SEE OR SEARCH CLASS:
388, Electricity: Motor Control Systems, appropriate subclasses for a D.C. motor control which is not combined with, or limited to use solely with, an elevator.
- 298 Actuated by human operator engaging specific input part:**
This subclass is indented under subclass 289. Control* in which a particular aspect of the information input component is detailed and has its operation induced by force applied to it by an individual (e.g., manual pull starting cable).
- SEE OR SEARCH THIS CLASS, SUBCLASS:
306+, for a mechanical control* for the power source of a drive-means* actuated by a human operator.
- 299 With means locking input part of control against movement:**
This subclass is indented under subclass 298. Control* provided with means having the sole function of holding the information input component at a particular position and resisting its shifting by the individual.
- 300 Actuated by presence of obstruction in shaft:**
This subclass is indented under subclass 276. Control* in which the information input component has its operation induced by the presence of an object (e.g., foot) projecting into the shaft* and when the object is in this location it is either (a) obstructing the safe passage of the load-underlying support surface or (b) endangering its safety when the load-underlying support surface passes through the shaft*.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
279, for an electric control* for the power source of the drive-means* actuated by the presence of an obstruction in the shaft*.
- 301 Actuated by location of access barrier or its lock:**
This subclass is indented under subclass 276. Control* in which the information input component has its operation induced by either (a) the position of a door which allows or prevents the passage of a load onto the load-underlying support surface or (b) the position of a device having the sole function of holding such a door in its load blocking or unblocking position.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
280, for an electric control* for the power source of a drive-means* actuated by the location of an access barrier or its lock.
- 302 Actuated by load support contacting trip in shaft:**
This subclass is indented under subclass 276. Control* in which the information input component has its operation induced by engagement with either (a) a device located along the shaft* and projecting thereinto when the input component of the control* travels with the load-underlying support surface or (b) the load-underlying support surface or structure attached thereto when the input component of the control is stationarily mounted, located along, and projects into the shaft*.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
282+, for an electric control* for the power source of the drive-means* actuated by a trip in the shaft*.
- 303 Having trip at each of plural landings:**
This subclass is indented under subclass 302. Control* having either a projecting operation inducing device or a control input component located near each of numerous (i.e., more than two) landings* located along the shaft*.
- 304 Trip supported on or formed by cable:**
This subclass is indented under subclass 303. Control* wherein the projecting operation inducing device or the control input component located near a landing* is sustained by or made of a cable*.
- 305 Actuated by load support speed sensor or governor:**
This subclass is indented under subclass 276. Control* in which the information input component has its operation induced by regulating or detecting means which either measures or is responsive to (a) changes in the velocity or (b) improper velocity of the load-underlying support surface.
- 306 Actuated by human operator engaging specific input part:**
This subclass is indented under subclass 276. Control* in which the information input component has its operation induced by force applied to it by an individual and a particular structural aspect of the input component is detailed (e.g., made of cable*).
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
298+, for an electric control* for the power source of the drive-means* actuated by a human operator.
- 307 With means for locking input part of control against movement by operator:**
This subclass is indented under subclass 306. Control* provided with means having the sole function of holding the information input component (e.g., handle) at a particular location to prevent its operation by an individual until the holding means is released.
- 308 Actuated by position or movement of access barrier or its position lock:**
This subclass is indented under subclass 307. Control* wherein the holding means for the information input component has its operation induced by the location or shifting of either (a) a passage door for the load-underlying support surface or (b) a device for holding such a door in its blocking or unblocking location.
- 309 Having barrier position lock operable only when load support or control input part safely positioned:**
This subclass is indented under subclass 308. Control* wherein damage to the load is prevented by having the device for holding the door constructed or located so it may not be normally released or applied except when either (a) the load-underlying support surface is at a landing* or (b) the information input component of the control* is in a neutral location where the drive-means* will not transmit force to the load-underlying support surface.
- 310 With common actuation of barrier position lock and input part locking means:**
This subclass is indented under subclass 309. Control* provided with structural linkage for transmitting force either (a) from the means

- holding the information input component to the device for holding the door to release or apply the device when the holding means is shifted or (b) from a single input source to both the means for holding the information input component and the device for holding the door at the same time to make their operation interdependent.
- 311 Using cable to transmit input:**
This subclass is indented under subclass 306. Control* wherein a cable* conveys force from the individual to the input component.
- 312 Running cable type:**
This subclass is indented under subclass 311. Control* in which the cable* is linked to the load-underlying support surface in such a manner as to travel therewith or at a rate proportional thereto.
- 313 WITH BARRIER FOR REGULATING ACCESS TO LOAD SUPPORT:**
This subclass is indented under the class definition. Subject matter provided with means (e.g., gate, door) which allows or prevents the passage of a load (e.g., freight, rider) entering or leaving the load-underlying support surface by selectively moving, relative to the path of travel of the load, into a blocking or unblocking position.
- SEE OR SEARCH CLASS:
49, Movable or Removable Closures, appropriate subclasses for door structure in combination with merely named elevator structure (e.g., car, shaft).
- 314 Operation variable for emergency, maintenance, or abnormal condition:**
This subclass is indented under subclass 313. Subject matter provided with means which changes, or allows changes to, the normal functioning of the path blocking means when (a) a serious crisis exists which could cause injury (e.g., fire, broken support cable*), (b) repair or cleaning of a component of the elevator is needed, or (c) an unusual situation occurs (e.g., landing* and car not correctly aligned).
- 315 Includes motor or motor driven linkage for shifting barrier:**
This subclass is indented under subclass 313. Subject matter wherein the path blocking means is moved between its positions by drive-means* which includes either (a) a device which converts nonmechanical energy (e.g., electrical) or stored energy (e.g., fuels) into mechanical energy or (b) a structural linkage intended to be driven by such a device.
- SEE OR SEARCH CLASS:
49, Movable or Removable Closures, subclasses 324+ for an operator for moving a closure.
- 316 With specific electrical control therefor:**
This subclass is indented under subclass 315. Subject matter provided with a control* for the drive-means* of the path blocking means having a particular aspect of a part powered by an electric current detailed (e.g., electric eye).
- 317 Includes object detecting sensor or switch on barrier:**
This subclass is indented under subclass 316. Subject matter wherein the information input component of the control* is carried by the path blocking means and includes circuit making and breaking means which contacts, or otherwise determines the physical presence of, an object obstructing the course along which the path blocking means moves.
- SEE OR SEARCH CLASS:
49, Movable or Removable Closures, subclasses 26+ for safety means responsive to an obstruction in the path of a closure.
200, Electricity: Circuit Makers and Breakers, subclass 61.43 for a sensitive edge type feeler, per se, intended to be mounted on a closure and to detect an object in its path.
- 318 Shifts barrier mounted at landing:**
This subclass is indented under subclass 315. Subject matter wherein the drive-means* moves path blocking means which is stationarily positioned at a landing* to allow or prevent passage of the load between the load-underlying support surface and the landing*.

- 319 Through coupling with barrier on load support:**
This subclass is indented under subclass 318. Subject matter wherein the path blocking means positioned at the landing* is detachably connected to distinct path blocking means attached to and traveling with the load-underlying support surface when both path blocking means are at the same landing* and a common energy converting device (i.e., motor) of the drive-means* therefor utilizes this connection to move both path blocking means simultaneously.
- 320 Plural interconnected motors shift barriers at different landings:**
This subclass is indented under subclass 318. Subject matter having at least two distinct energy converting devices which either (a) share a common energy supply system, (b) power portions of the same drive-means*, or (c) have their operation regulated by the same control* and which move distinct path blocking means stationarily positioned at various landings* along the shaft*.
- 321 Motor stationarily mounted and linkable to barriers on different landings:**
This subclass is indented under subclass 318. Subject matter wherein the energy converting device is attached to structure at a fixed location and the structural linkage which it powers is constructed to move distinct path blocking means stationarily positioned at various landings* along the shaft*.
- 322 Includes rotating shaft extending between landings:**
This subclass is indented under subclass 321. Subject matter wherein the structural linkage includes an elongated rigid element which passes through plural landings* and turns about its longitudinal axis when transmitting power to path blocking means.
- 323 Nonelectric motor:**
This subclass is indented under subclass 318. Subject matter in which the energy converting device (i.e., motor) does not utilize electric current as input energy.
- 324 Shifts sliding barrier on load support:**
This subclass is indented under subclass 315. Subject matter wherein the drive-means* moves path blocking means attached to the load-underlying support surface bodily, as a unit, along guide means which constrains its movement to rectilinear reciprocation in substantially a single primary direction when repositioned either to prevent or allow passage of a load.
- 325 Including barrier mounted at landing:**
This subclass is indented under subclass 313. Subject matter including path blocking means stationarily positioned at a landing* to allow or prevent passage of the load between the load-underlying support surface and the landing*.
- 326 Barrier shifted by drive means powered by motion of load support:**
This subclass is indented under subclass 325. Subject matter wherein the stationary path blocking means is selectively moved to prevent or allow passage of the load by drive-means* powered by contact with a moving load-underlying support surface, or by structure attached to the load-underlying support surface, of an elevator.
- 327 Having endless driving belt in drive means:**
This subclass is indented under subclass 326. Drive-means* having a flaccid element (e.g., chain) formed into a continuous loop which transmits force to the path blocking means when moved around a closed path by the power source.
- 328 Having rotatably driven drum and cable pulled thereby in drive means:**
This subclass is indented under subclass 326. Drive-means* having a drum turned about its central axis by the source of power and a cable* which is either wound around or otherwise engaged by the perimeter of the drum to transmit force to the path blocking means.
- 329 Having cable and guiding pulley therefor in drive means:**
This subclass is indented under subclass 326. Drive-means* having a cable* and a cable* directing element (e.g., pulley) positioned along the path of travel of the cable*, which element is provided with a generally circular

- perimeter rotatable about an axis through the center of the element in response to the movement of the cable* over its perimeter when the cable transmits force to the path blocking means.
- 330 With means to couple to barrier on load support:**
This subclass is indented under subclass 325. Subject matter provided with means for detachably connecting the path blocking means stationarily positioned at a landing* to distinct path blocking means attached to and traveling with the load-underlying support surface when both path blocking means are at the same landing* so that both are moved
- 331 With position lock therefor:**
This subclass is indented under subclass 325. Subject matter provided with means having the sole function of restricting or preventing the movement of the path blocking means from a location where it allows passage of the load to a location where it prevents passage of the load.
- 332 Collapsible or rollable type:**
This subclass is indented under subclass 325. Subject matter wherein the stationary path blocking means has two distinct edges which are connected to each other by load blocking structure which permits the edges to move either closer together by reducing one of its dimensions (e.g., folds compact, winds around one of the edges) when the path of the load is cleared or spread apart by expanding one of its dimensions when the path of the load is blocked thereby.
- 333 Slideably mounted:**
This subclass is indented under subclass 325. Subject matter wherein the stationary path blocking means both (a) is attached to the landing* by guide means which constrains its movement to rectilinear reciprocation in substantially a single primary direction and (b) moves bodily as a unit when repositioning to prevent or allow passage of the load.
- 334 Including slideably mounted barrier on load support:**
This subclass is indented under subclass 313. Subject matter including path blocking means which (a) travels with and is attached to the load-underlying supporting surface by guide means which constrains the blocking movement of the means to rectilinear reciprocation in substantially a single primary direction and (b) moves bodily as a unit when repositioning to prevent or allow passage of the load.
- SEE OR SEARCH CLASS:
49, Movable or Removable Closures, subclasses 116+ for plural closures having opposed similar movement.
- 335 With position lock therefor:**
This subclass is indented under subclass 334. Subject matter provided with means having the sole function of restricting or preventing the movement of the path blocking means from a location where it either allows passage of the load or prevents passage of the load.
- 336 WITH CLOSURE MEANS FOR SHAFT OPENING THROUGH LANDING:**
This subclass is indented under the class definition. Subject matter provided with repositionable means for covering the passageway formed through the landing* by the elevator shaft*.
- SEE OR SEARCH CLASS:
49, Movable or Removable Closures, subclass 33 for a closure shiftable to bridge an obstacle or pit.
- 337 Including pivoted closure:**
This subclass is indented under subclass 336. Subject matter wherein at least a portion of the means covering the passageway includes covering structure (e.g., door) connected to the landing* in a manner allowing it to both (a) swing in an arcuate path about a constantly contacted connection point or region located on the landing* and (b) maintain movement between the covering structure and landing* at their contact point or region.
- 338 Shifted by drive means powered by load support motion:**
This subclass is indented under subclass 337. Passageway covering means wherein the swinging covering structure is moved about its connection to the landing* by drive-means* powered by contact with a moving load-underlying support surface, or structure attached to

the load-underlying support surface, of an elevator.

- (1) Note. Means located on and traveling with the load supporting surface which is intended to impact directly against the passageway covering means is not considered a drive-means* proper for this subclass and is found in subclass 337.

339 With closure latching means:

This subclass is indented under subclass 337. Passageway covering means provided with means for releasably holding the free end of the swinging covering structure in its passage covering position or its passage uncovering position.

340 Including transversely sliding closure:

This subclass is indented under subclass 336. Subject matter wherein the means covering the passageway includes covering structure (e.g., door) which is (a) connected to the landing* by guide means which constrains its movement to rectilinear reciprocation in substantially a single primary direction intersecting the central axis of the shaft*, and (b) movable only bodily as a unit between its covering and uncovering positions.

341 Shifted by drive means powered by load support motion:

This subclass is indented under subclass 340. Passageway covering means wherein the reciprocating covering structure is moved by drive-means* powered by contact with a moving load-underlying support surface, or structure attached to the load-underlying support surface, of an elevator.

- (1) Note. Means located on and traveling with the load-underlying support surface which is intended to impact directly against the passageway covering means is not considered a drive-means* proper for this subclass and is found in subclass 340.

342 Including closure bodily carried along shaft by load support:

This subclass is indented under subclass 336. Subject matter wherein at least a portion of the means covering the passageway includes covering structure (e.g., hatch) completely detach-

able from the passageway formed in the landing*, this detachable covering structure being moved in at least one direction along the shaft* by the load-underlying support surface of an elevator, or structure attached thereto, when the surface or structure passes through the passageway.

343 HAVING MEANS CUSHIONING CONTACT OF LOAD SUPPORT WITH TERMINUS OF SHAFT:

This subclass is indented under the class definition. Subject matter having means which (a) is located either (1) near the top or bottom of the shaft* of the elevator or (2) on the upper or lower portion of the load-underlying support surface and (b) coacts respectively with the upper or lower portion of the support surface or the top or bottom of the shaft when the load-underlying support surface comes close to an end of the shaft* to soften the force of impact of the support surface therewith.

- (1) Note. An impact softening means proper for this and the indented subclasses is capable of retarding the movement of the load-underlying support surface only adjacent to the ends of a shaft* and not at different points along the shaft*.

SEE OR SEARCH CLASS:

188, Brakes, subclasses 266+ for an internal-resistance retarder, per se.

344 Fluid resistance or shock absorber-type means:

This subclass is indented under subclass 343. Subject matter wherein the impact softening means includes structure which contacts or compresses a gas or liquid medium and utilized the retarding force caused by this contact or compression to slow down the load-underlying support surface coacting therewith.

- (1) Note. This subclass includes patents in which the load-underlying support surface is designed to act as a piston within a cylinder of a fluid shock absorber when entering a modified portion of the shaft.

345 HAVING FLUID DAMPENING MEANS REGULATING LOAD SUPPORT MOVEMENT:

This subclass is indented under the class definition. Subject matter having means which (a) contacts and pushes against a resisting fluid and (b) is linked to, engages, or is supported on the load-underlying support surface to slow the travel of the support surface to an acceptable speed in at least one direction by direct utilization of the resistance of the fluid to the movement of a component of the means.

SEE OR SEARCH THIS CLASS, SUBCLASS:

343+, for means which cushions the travel of the load supporting surface only near an end of the shaft*.

351+, for means stopping the load supporting surface which utilizes a fluid operator* for moving a component.

SEE OR SEARCH CLASS:

188, Brakes, subclasses 266+ for an internal-resistance motion retarder, per se.

346 With fluid coating portion carried by load support:

This subclass is indented under subclass 345. Subject matter wherein the component of the means which contacts and pushes against the resisting fluid is supported by, and bodily transported with, the load-underlying support surface during its travel up and down the shaft*.

SEE OR SEARCH THIS CLASS, SUBCLASS:

352, for a nonfluid dampened rotating gear attached to a load-underlying support surface which coats with a stationary rack.

347 Includes piston and cylinder attached to support by cable:

This subclass is indented under subclass 345. Subject matter wherein the fluid resistance means includes a component located within and movable along the length of an elongated hollow chamber containing the resisting fluid, the component displacing or compressing the fluid when moved relative to the chamber by

the travel of the load-underlying support surface which is linked thereto by a cable*.

348 WITH EMERGENCY RUNNING SUSPENSION CABLE FOR LOAD SUPPORT:

This subclass is indented under the class definition. Subject matter provided with a cable* either attached or attachable to the load-underlying support surface which travels with and assumes a portion of the weight of the load-underlying support surface upon the breakage or failure of the normal or primary weight sustaining structure of the load-underlying support surface to prevent its uncontrolled falling.

SEE OR SEARCH THIS CLASS, SUBCLASS:

251+, for a suspension cable* which is a component of the normal drive-means* for the load-underlying support surface.

407, for a stationary cable which guides the travel of the load-underlying supporting surface.

349 WITH CONDITION ACTUATED MEANS RELEASING LOAD SUPPORT FROM DRIVE MEANS:

This subclass is indented under the class definition. Subject matter provided with means which disconnects or detaches the load-underlying support surface from its drive-means* in response to a particular circumstance (e.g., over tensioned cable, cable overwinding).

(1) Note. The patents within this subclass usually include structure for supporting or stopping the movement of the load supporting surface after it has been detached or disconnected.

SEE OR SEARCH THIS CLASS, SUBCLASS:

411, for a device which is not detached in response to a particular condition for connecting the drive-means* to the load-underlying support surface.

SEE OR SEARCH CLASS:

294, Handling: Hand and Hoist-Line Implements, subclasses 82.24+ for a load release type hoisting hook and subclasses 110.1+ for an automati-

cally released pivoting jaws type grapple.

350 HAVING MEANS ENGAGING CABLE ATTACHED TO LOAD SUPPORT, OR ITS GUIDE, TO SLOW LOAD SUPPORT:

This subclass is indented under the class definition. Subject matter having (a) a cable* (e.g., haulage cable, counter weight cable, looped braking cable) connected to and traveling with the load-underlying support surface which can transmit slowing or halting force directly thereto and (b) braking means for engaging either the cable* or a nondriven cable* directing means (e.g., pulley) to slow or halt the travel of the load-underlying support surface by transmitting the braking force through the cable* thereto.

SEE OR SEARCH CLASS:

188, Brakes, subclass 65.1 for a brake for a strand.

351 HAVING SPECIFIC MEANS CONTACTING OR ON LOAD SUPPORT FOR STOPPING OR SLOWING THEREOF:

This subclass is indented under the class definition. Subject matter having particular means (e.g., pawl, brake shoe) which either (a) is located along or cooperates with the shaft* and directly engages the load-underlying support surface or (b) is carried by the load-underlying support surface and engages structure located along or cooperating with the shaft* for (1) retaining the support surface at a particular location (e.g., catch) or (2) halting or retarding the travel of the support surface (e.g., brake).

352 Includes gear on support mating with stationary rack:

This subclass is indented under subclass 351. Subject matter wherein the retaining, halting, or retarding means includes (a) a toothed gear rotatively attached to the load-underlying support surface of the elevator and provided with means to inhibit its rotation and (b) a bar or chain mounted along the length of the shaft* and having a row of complementary teeth or apertures with which the teeth of the rotatable gear intermesh.

353 Worm-type gear:

This subclass is indented under subclass 352. Subject matter in which the rotatable gear either (a) has a cylindrical shape and a continuous tooth on its outer surface which is threaded around the longitudinal axis of the cylinder or (b) has teeth on its outer surface shaped to cooperate with a cylinder shaped bar mounted along the length of the shaft* and having a continuous tooth on its outer surface which is threaded around the longitudinal axis of the cylinder shaped bar.

354 Means actuated by access barrier movement:

This subclass is indented under subclass 351. Retaining, halting, or retarding means having its operation induced by the shifting of path blocking means (e.g., door) which allows or prevents the passage of a load entering or leaving the load-underlying support surface by a path going to or from a landing*.

355 And having movable contact component carried by support:

This subclass is indented under subclass 354. Retaining, halting, or retarding means carried by the load-underlying support surface and having one relatively moving part which in one of its positions forcefully engages fixed structure located along or forming a portion of the shaft* to retain, halt, or retard the travel of the support surface and in another of its positions allows free movement of the support surface past or along the fixed structure.

SEE OR SEARCH CLASS:

188, Brakes, subclasses 41+ for a brake applied to the traction rail of a railroad.

356 Stationarily mounted and having disparate movable contact component:

This subclass is indented under subclass 351. Retaining, halting, or retarding means which is fixedly located along a side of the shaft* and has at least one relatively moving connected part which has no other function but to engage the load-underlying support surface, or structure traveling therewith, to retain, halt, or retard the supporting surface when in one of its positions and in another of its positions allow

- free movement of the supporting surface therepast.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 351, for a fixedly located movable structure along a side of the shaft having a function other than the mere stopping of the load-underlying support surface (e.g., movable elongated guide rail).
- 357 Mounted only at landings or terminus of shaft:**
This subclass is indented under subclass 356. Retaining, halting, or retarding means which is located along the shaft* solely at the landings* or at the top or bottom of the shaft*.
- 358 Having drive means for component powered by load support motion:**
This subclass is indented under subclass 356. Retaining, halting, or retarding means having its relatively moving part moved by drive-means* powered by contact with a moving load-underlying support surface, or structure attached to such load-underlying support surface, of an elevator.
- 359 Includes movable contact component on support for engaging shaft structure:**
This subclass is indented under subclass 351. Retaining, halting, or retarding means which is carried by the load-underlying support surface and has at least one relatively moving connected part which in one of its positions forcefully engages fixed structure located along or forming a portion of the shaft* to retain, halt, or retard the travel of the support surface and in another of its positions allows free movement of the support surface past or along the fixed structure.
- SEE OR SEARCH CLASS:
- 188, Brakes, subclasses 41+ for a brake applied to the traction rail of a railroad.
- 360 Interlocking only with structure of landings or terminus of shaft:**
This subclass is indented under subclass 359. Retaining, halting, or retarding means wherein the movable part can only forcefully engage fixed structure forming a portion of the landings* or the top or bottom of the shaft* to retain, halt, or retard the travel of the load-underlying support surface.
- 361 Actuated by change in suspension or counterweight cable tension:**
This subclass is indented under subclass 359. Retaining, halting, or retarding means in which the relatively movable engaging part has its operation induced by a variation in tautness (e.g., breaking) of a cable* connected to the load-underlying support surface and wherein this cable both (a) bears a portion of the weight of the load-underlying support surface during its travel along the shaft* and (b) is linked either to the power source or a weight which causes or opposes the travel of the load-underlying support surface in one direction.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 246, for means for stopping the load-underlying support surface of an inclined elevator which is actuated by a change in tension of its drive cable.
- 362 And shaped to cut into cooperating structure:**
This subclass is indented under subclass 361. Retaining, halting, or retarding means wherein the relatively movable engaging part has a sharp edge configured in such a manner as to sever or deeply pierce into fixed structure located along or forming a portion of the shaft* to retain, halt, or retard the load-underlying support surface.
- 363 And interlocking with complementary stationary formation (e.g., catches):**
This subclass is indented under subclass 361. Retaining, halting, or retarding means wherein the relatively movable engaging part engages a corresponding surface configuration on fixed structure located along or forming a portion of the shaft* to retain, halt, or retard the load-underlying support surface.
- 364 Slideably mounted contact component:**
This subclass is indented under subclass 363. Retaining, halting, or retarding means having its relatively movable engaging part connected to another part of the means, or to the structure attaching it to the load-underlying support surface, by two distinct, rigid or semirigid formations which (a) are each integral with or

- attached to a different one of the parts or part and attaching structure and (b) have mutually cooperating surfaces both (1) in gliding contact with each other and (2) restricting the relative movement of the engaging part to substantially a single primary direction.
- 365 Slides perpendicular to path of support:**
This subclass is indented under subclass 364. Retaining, halting, or retarding means wherein the single primary direction along which the engaging part moves is at a right angle to the fixed structure located along or forming a portion of the shaft* which is engaged by it.
- 366 Plural pivotally attached gripping contact components engaging common rail:**
This subclass is indented under subclass 363. Retaining, halting, or retarding means having two relatively moveable engaging parts which (a) are connected to the load-underlying support surface in a manner allowing both of them to (1) swing in an arcuate path about a constantly contacted connection point or region traveling with the support surface and (2) maintain movement between the part and connection at their contact point or region and (b) forcefully engage opposite sides of a slender member or formation which extends along the length of the shaft*.
- 367 Pivotaly attached contact component:**
This subclass is indented under subclass 361. Retaining, halting, or retarding means in which the relatively movable engaging part is connected to the load-underlying support surface in a manner allowing it to both (a) swing in an arcuate path partially about a constantly contacted connection point or region traveling with the support surface and (b) maintain movement between the part and connection at their contact point or region.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
361, for patents with an engaging part which revolves completely around the contacted point or region (e.g., a rotating guide wheel with a brake).
- 368 With eccentric camming face:**
This subclass is indented under subclass 367. Retaining, halting, or retarding means wherein the engaging part is provided with a curved
- engaging periphery and the axis about which the engaging part swings is positioned in such a manner that it is not geometrically centered relative to the engaging periphery of the part which arrangement causes the periphery to apply ever increasing pressure to the fixed structure it engages as the part swings toward its final position.
- 369 Having similar contact component cooperating to grip common rail:**
This subclass is indented under subclass 368. Retaining, halting, or retarding means having an additional engaging part which is shaped like the first engaging part and acts therewith to forcefully engage opposite sides of a slender member or formation which extends along the length of the shaft*.
- 370 Plural gripping contact components engaging common rail:**
This subclass is indented under subclass 367. Retaining, halting, or retarding means having two swinging engaging parts forcefully engaging opposite sides of a slender member or formation which extends along the length of the shaft*.
- 371 Slideably mounted contact component:**
This subclass is indented under subclass 361. Retaining, halting, or retarding means having its relatively moving engaging part connected to another part of the means, or to the structure attaching it to the load-underlying support surface, by two distinct, rigid or semirigid formations which (a) are each integral with or attached to a different one of the parts or part and attaching structure and (b) have mutually cooperating surfaces both (1) in gliding contact with each other and (2) restricting the relative movement of the engaging part to substantially a single primary direction.
- 372 Having wedge shape or sliding along incline:**
This subclass is indented under subclass 371. Retaining, halting, or retarding means in which either (a) the moving engaging part has a tapered contour or (b) the cooperating formations restricting its movement to a primary direction are at an acute or an obtuse angle to the fixed structure located along the shaft*, and the engaging part and cooperating formation are positioned relative to each other in such a manner that the part will increase the engaging

force applied against the fixed structure when moved along the formation in one direction.

373 Actuated by load support speed governor or sensor:

This subclass is indented under subclass 359. Retaining, halting, or retarding means in which the relatively movable engaging part has its operation induced by regulating or detaching means which either measures or is responsive to changes in the velocity of the load-underlying support surface.

SEE OR SEARCH CLASS:

188, Brakes, subclasses 180+ and 189 for a speed-responsive brake.

374 Pivotally attached contact component:

This subclass is indented under subclass 373. Retaining, halting, or retarding means in which the relatively movable engaging part is connected to the load-underlying support surface in a manner allowing it to both (a) swing in an arcuate path partially about a constantly contacted connection point or region traveling with the support surface and (b) maintain movement between the part and connection at their contact point or region.

SEE OR SEARCH THIS CLASS, SUBCLASS:

373, for patents with an engaging part which revolves completely around the contacted point or region (e.g., a rotating guide wheel with a brake).

375 Plural gripping contact components engaging common rail:

This subclass is indented under subclass 374. Retaining, halting, or retarding means having two swinging engaging parts forcefully engaging opposite sides of a slender member or formation which extends along the length of the shaft*.

376 Slidable contact component having wedge shape or sliding along incline:

This subclass is indented under subclass 373. Retaining, halting, or retarding means having its relatively moving engaging part connected to another part of the means, or to the structure attaching it to the load-underlying support surface, by two distinct rigid or semirigid formations which (a) are each integral with or

attached to a different one of the parts or part and attaching structure and (b) have mutually cooperating surfaces both (1) in gliding contact with each other and (2) restricting the relative movement of the engaging part to substantially a single primary direction, and further wherein either (i) the engaging part has a tapered contour or (ii) the cooperating formations restricting its movement to a primary direction are at an acute or an obtuse angle to the fixed structure located along the shaft*, and the engaging part and cooperating formation are positioned relative to each other in such a manner that the part will increase the engaging force applied against the fixed structure when moved along the formation in one direction.

377 Actuated by human operator:

This subclass is indented under subclass 359. Retaining, halting, or retarding means in which the relatively movable engaging part has its operation induced by force applied to it by an individual.

378 And interlocking with complementary stationary formation:

This subclass is indented under subclass 377. Retaining, halting, or retarding means wherein the relatively movable engaging part engages a corresponding surface configuration on fixed structure located along or forming a portion of the shaft* to retain, halt, or retard the load-underlying surface.

379 Pivotally attached contact component:

This subclass is indented under subclass 377. Retaining, halting, or retarding means in which the relatively movable engaging part is connected to the load-underlying support surface in a manner allowing it to both (a) swing in an arcuate path partially about a constantly contacted connection point or region which travels with the support surface and (b) maintain movement between the part and connection at their contact point or region.

SEE OR SEARCH THIS CLASS, SUBCLASS:

377, for patents with an engaging part which revolves completely around the contacted point or region (e.g., a rotating guide wheel with a brake).

- 380 WITH CALL REGISTRATION MEANS:**
This subclass is indented under the class definition. Subject matter provided with means which receives, processes, and stores or cancels requests (i.e., car calls, hall calls) by individuals for elevator service to change their landing*.
- SEE OR SEARCH CLASS:
361, Electricity: Electrical Systems and Devices, subclasses 139+ for relay control systems.
- 381 Having call cancel or refuse feature:**
This subclass is indented under subclass 380. Subject matter in which the service request means has means to either nullify, reject, or prevent the processing of a service request.
- 382 Shared by plural load supports:**
This subclass is indented under subclass 380. Subject matter in which a single means handles all service requests for or from two or more load-underlying support surfaces and coordinates their operation.
- 383 Assigns load supports to zones:**
This subclass is indented under subclass 382. Subject matter wherein all the landings* served by the load-underlying support surfaces are subdivided into small regions of adjoining landings* and the service request handling means either (a) restricts a load-underlying support surface to servicing only one of these smaller regions or (b) allows a load-underlying support surface to respond to service request only from one of these specified smaller regions.
- 384 Having security or priority preemption feature:**
This subclass is indented under subclass 382. Subject matter having means to either (a) refuse an unauthorized or accept an authorized request from an individual or (b) alter the normal precedence for processing a service request from an individual.
- 385 Dispatches load supports from designated landing:**
This subclass is indented under subclass 382. Subject matter wherein the service request handling means also restricts the load-underlying
- support surface to a single landing* when not in use and permits the idle load-underlying support surfaces to travel therefrom only when service is requested to another landing* or another condition in a preexisting service plan is met.
- 386 Frequency based on interval of time:**
This subclass is indented under subclass 385. Subject matter having preexisting service plan which requires the passing of a particular amount of time before an idle load-underlying support surface may travel from the landing*.
- (1) Note. The amount of time may either be fixed or changed periodically based on another factor (e.g., time of day).
- 387 Assigns calls to load supports on predetermined basis:**
This subclass is indented under subclass 382. Subject matter wherein the service request handling means directly selects an individual load-underlying support surface of the group to respond to the request for service from a landing* based on a preexisting selection plan.
- 388 Also directs response:**
This subclass is indented under subclass 380. Subject matter wherein the means for handling service request also sends the load-underlying support surface to a landing* in answer to the request.
- 389 Includes specific floor selector:**
This subclass is indented under subclass 380. Subject matter including a particular device for either (a) causing the load-underlying support surface to be stopped at a landing* or (b) signaling an individual controlling the operation of the load-underlying support surface to stop it at a landing* in response to a request for service.
- 390 ALARM SYSTEM:**
This subclass is indented under the class definition. Subject matter which includes means to detect a dangerous condition and signal a warning in response thereto.
- SEE OR SEARCH CLASS:
116, Signals and Indicators, subclass 68 for a mechanical alarm, per se, actuated by the motion of an elevator.

- 340, Communications: Electrical, subclasses 500+ for an electrical alarm system, per se.
- 391 WITH MONITORING, SIGNALLING, AND INDICATING MEANS:**
This subclass is indented under the class definition. Subject matter provided with means which senses or keeps track of a physical condition important to the operation of the elevator and transmits notice of a change in this condition to a communication device designed to inform either an individual or a central processor of the change.
- SEE OR SEARCH CLASS:
116, Signals and Indicators, subclass 64 for mechanical means for signaling the elevator car from different floors.
362, Illumination, subclass 481 for means for lighting an elevator threshold.
369, Dynamic Information Storage or Retrieval, subclass 21 for control of a dynamic recording or reporting means by a named elevator absent any specific elevator structure or elevator control, and subclass 69 for a recording or reporting device combined with a named elevator absent any specific elevator structure or control.
- 392 Monitors passengers:**
This subclass is indented under subclass 391. Subject matter wherein the physical condition checked or sensed is related to an individual riding, or waiting at a landing* to ride, the load-underlying support surface.
- 393 Monitors operational parameter:**
This subclass is indented under subclass 391. Subject matter wherein the physical condition checked or sensed is one in which it is essential for anyone maintaining or using the elevator to know for the safe or proper functioning of the elevator (e.g., position, speed, direction).
- 394 Load support position:**
This subclass is indented under subclass 393. Subject matter in which the location of the load-underlying support surface along the shaft* is the physical condition checked.
- 395 HAVING CALL BUTTON WITH INDICATOR:**
This subclass is indented under the class definition. Subject matter having a device (e.g., push button) used by an individual to request elevator service which is provided with communication means (e.g., it lights up when request is recorded) informing the same individual that load-underlying support surface will be responding.
- SEE OR SEARCH CLASS:
200, Electricity: Circuit Makers and Breakers, appropriate subclasses for mechanical switches, per se.
- 396 GENERAL INFORMATION DISPLAY (E.G., STORE DIRECTORIES):**
This subclass is indented under the class definition. Subject matter which includes either (a) means for communicating both knowledge necessary to the operation of an elevator and knowledge (e.g., advertising) which is not limited in its useful application to an individual using an elevator or (b) means having its operation caused or modified by an elevator, which communicates knowledge (e.g., advertising) not limited in its useful application to an individual using an elevator.
- SEE OR SEARCH CLASS:
40, Card, Picture, or Sign Exhibiting, subclasses 446+ for a changing exhibitor, subclasses 541+ for an illuminated directory, and subclass 585 for a sign type directory.
340, Communications: Electrical, subclasses 815.01+ for electrical visual display means other than those changing the operation of the elevator or those having their operation or information modified by an elevator.
- 397 WITH VISUAL INDICATOR OF MOVEMENT OF LOAD SUPPORT:**
This subclass is indented under the class definition. Subject matter provided with means for exhibiting to the view of an individual a read-out showing some facet of the motion or travel of the load-underlying support surface.

SEE OR SEARCH CLASS:

- 116, Signals and Indicators, subclass 226 for mechanical means for indicating the position of an elevator car.
- 340, Communications: Electrical, subclasses 815.01+ for a visual indicator, per se, and subclasses 286.01+ for a visual indicator in a communication system other than the type used with an elevator.

398 Indicates particular one of plural load supports responding:

This subclass is indented under subclass 397. Exhibiting means which shows the specific one of several load-underlying support surfaces which will answer a request for service made from any given landing*.

399 Indicates existing location:

This subclass is indented under subclass 397. Exhibiting means which shows the current position in the shaft* of, or the landing* nearest to, the load-underlying support surface.

SEE OR SEARCH CLASS:

- 116, Signals and Indicators, subclass 226 for mechanical means indicating the position of an elevator within its shaft.

400 WITH SAFETY OR SEALING MEANS FOR GAP BETWEEN LOAD SUPPORT AND LANDING:

This subclass is indented under the class definition. Subject matter provided with means attached to the load-underlying support surface, landing* or shaft* of the elevator which alleviates, prevents, or restricts the accidental, harmful, or unwanted (a) passage of a substance (e.g., gas, dirt) or (b) intrusion of a portion of a passenger or cargo (e.g., hand, chair leg) into the space between the landing* and load-underlying support surface.

SEE OR SEARCH CLASS:

- 49, Movable or Removable Closures, subclasses 303+ for a closure movement actuated retractable sealing, guiding, or locking strip and subclasses 316+ for an operator for a retractable sealing, guiding, or locking strip.

401 HAVING SPECIFIC LOAD SUPPORT STRUCTURE OR ARRANGEMENT (E.G., CAR FRAMING):

This subclass is indented under the class definition. Subject matter having a particular structural aspect of the load-underlying, support surface of the elevator (e.g., framing, shape, flooring) detailed.

- (1) Note. The line between an elevator or industrial lift truck proper for this and the indented subclasses and one proper for Class 414, Material or Article Handling, is as follows: (a) This subclass and its indents provide for an elevator or industrial lift truck or component thereof when the load is shifted in its entirety in a primary lifting direction from one level to another vertically spaced level and may additionally include (1) mere pivoting or tilting of the load supporting structure for detachment or storage or (2) retaining of a received load on the support surface; and (b) Class 414 provides for load engaging structure in which the load support surface travels in a generally vertical primary lift direction and (1) is mounted for movement in a direction other than the primary lift direction (e.g., tilting) or (2) has an additional load handling structure (e.g., conveyor) or (3) is constructed in such a manner that the load support surface is inherently self-charged or self-discharged along the primary lift direction.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 216+, for specific vehicle-underlying support structure for a roadway vehicle lift.
- 237, for specific load support structure for an industrial lift truck.

SEE OR SEARCH CLASS:

- 294, Handling: Hand and Hoist-Line Implements, subclasses 67.1+ for a load supporting frame attached to a hoist-line.
- 312, Supports: Cabinet Structure, subclass 247 for a vertically movable cabinet mounted on the wall or ceiling of a room.

- 414, Material or Article Handling, subclasses 592+ for a load-underlying support surface for an elevator, or industrial lift truck having an additional load handling feature.
- 402 Arranged to carry masonry hod:**
This subclass is indented under subclass 401. Load-underlying, support surface particularly constructed to support between the entrance and exit levels of the elevator a tray or container attached to a pole type handle which is intended to carry a load of building material (e.g., brick) used by a mason.
- 403 With means for engaging wheels of carried vehicle:**
This subclass is indented under subclass 401. Load-underlying, support surface provided with means which contacts the wheels of a vehicle positioned on the support surface while it travels between its entrance and exit levels.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
217, for a stationary lift for a roadway vehicle having vehicle-underlying support structure with a movable stop which engages a wheel of the vehicle.
- SEE OR SEARCH CLASS:
104, Railways, subclasses 127+ for an elevator having its operation interconnected with that of an elevated railway.
410, Freight Accommodation on Freight Carrier, subclasses 7+ for means for retaining a vehicle type load on a freight carrier.
- 404 HAVING SPECIFIC COUNTERBALANCE MEANS FOR LOAD SUPPORT:**
This subclass is indented under the class definition. Subject matter having a particular structural aspect of means detailed which is structurally linked to and mitigates the effect of either (a) gravitational force on or (b) the driving force exerted by the drive-means* on the load-underlying support surface in at least one direction of its travel within the shaft* by opposing those forces with a resistance tending to balance them.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
406+, for specific stationary guiding structure for a counterbalance means.
- SEE OR SEARCH CLASS:
16, Miscellaneous Hardware (e.g., Bushing, Carpet Fastener, Caster, Door Closer, Panel Hanger, Attachable or Adjunct Handle, Hinge, Window Sash Balance, etc.), subclasses 193+ for counterbalance means for a door or window, respectively, and subclasses 400+ for a counterbalance device, per se.
104, Railways, subclass 174 for a counterbalance system used in railway traction and subclass 254 for a counterweighted bumper.
- 405 Includes variable weight:**
This subclass is indented under subclass 404. Subject matter wherein the means for resisting the gravitational or driving force on the load-underlying support surface includes structure capable of having its weight changed by the addition or removal of material to thereby increase or decrease the amount of resistance to the travel of the load-underlying support surface.
- 406 HAVING SPECIFIC STATIONARY GUIDING STRUCTURE FOR COUNTERBALANCE MEANS OR LOAD SUPPORT:**
This subclass is indented under the class definition. Subject matter having a particular aspect (e.g., cross section) of the immovable structure which contacts and limits the travel of (a) a weight designed to at least partially balance or counteract the weight of the load-underlying support surface or (b) the load-underlying support surface of the elevator to a fixed path detailed.
- SEE OR SEARCH CLASS:
184, Lubrication, subclasses 21+ for a device mounted on an elevator car which lubricates its guiding structure.
- 407 Formed from cable:**
This subclass is indented under subclass 406. Subject matter in which the path limiting structure is constructed from a cable*.

- 408 And mounting means therefor:**
This subclass is indented under subclass 406. Subject matter having means for attaching the path limiting means to the elevator shaft*.
- 409 HAVING SPECIFIC GUIDE SHOE:**
This subclass is indented under the class definition. Subject matter having a particular structural aspect (e.g., shape) of a device mounted on the load-underlying support surface and bodily traveling therewith detailed which is intended to contact and slide along the rigid or semirigid means limiting the travel of the load-underlying support surface of the elevator to a fixed vertical path.
- 410 With roller:**
This subclass is indented under subclass 409. Subject matter wherein the device is provided with at least one revolvably mounted wheel or caster to reduce friction between the device and the path limiting means.
- 411 HAVING SPECIFIC FORCE TRANSMITTING CONNECTION FOR COUNTERWEIGHT OR LOAD SUPPORT:**
This subclass is indented under the class definition. Subject matter having a particular structural aspect of a device detailed for attaching either (a) drive-means* to the load-underlying support surface of the elevator, (b) a weight designed to at least partially balance or counteract the weight of the load-underlying support surface to structure linking the weight to the support surface, or (c) the load-underlying support surface to structure linking it to a weight designed to at least partially balance or counteract the weight of the support surface.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
349, for an attaching means which releases the load-underlying support surface from the drive-means* in response to a particular condition.
- SEE OR SEARCH CLASS:
24, Buckles, Buttons, Clasps, etc., subclasses 115+ for a cord or rope holder, per se, which connects a cord or rope to a structure.
- 412 Equalizes tension in, or length of, plural linking cables:**
This subclass is indented under subclass 411. Attaching device which attaches two or more cables to the load-underlying support surface or weight at a common location and is constructed to maintain the cables at the same degree of tautness or at the same length.
- 413 HAVING SPECIFIC ARRANGEMENT OR CONNECTION OF ELECTRICAL OR FLUID SERVICE LINE:**
This subclass is indented under the class definition. Subject matter having (a) a particular aspect of structure within the shaft* detailed which limits the path of or (b) a particular aspect of a device used to attach a portion of either (1) a wire which carries electric current or (2) a pipe which carries fluid under pressure to the load-underlying support surface.
- SEE OR SEARCH CLASS:
174, Electricity: Conductors and Insulators, subclasses 68.1+ for electrical conductors, per se.
248, Supports, subclasses 49+ for a pipe or cable support which is not combined with more than named elevator structure.
285, Pipe Joints or Couplings, appropriate subclasses for a pipe attaching device which is not combined with more than named elevator structure.
439, Electrical Connectors, appropriate subclasses for a connector for attaching an electric wire which is not combined with more than named elevator structure.
- 414 MISCELLANEOUS:**
This subclass is indented under the class definition. Subject matter not provided for in another subclass.
- CROSS-REFERENCE ART COLLECTIONS
- 900 TEMPORARY CONSTRUCTION ELEVATOR FOR BUILDING:**
A collection of art disclosing a useful detail of an elevator intended to be nonpermanently located at a site and to move building material to its final landing* within an insitu structure during the erection of the structure.

901 CONTROL MODIFIED FOR USE BY DISABLED INDIVIDUAL:

A collection of art disclosing a control* which regulates the operation of a component of an elevator (e.g., door) and has a specific feature adapting it for use by a person having some physical problem which prohibits or restricts the ability of the person to operate a standard control.

902 CONTROL FOR DOUBLE-DECKER CAR:

A collection of art disclosing a control* which regulates the operation of an elevator car having two distinct passenger compartments located at different vertical levels.

END