
29 C.F.R. § 1910.179

Overhead and gantry cranes.

- (a) *Definitions applicable to this section.* (1) A crane is a machine for lifting and lowering a load and moving it horizontally, with the hoisting mechanism an integral part of the machine. Cranes whether fixed or mobile are driven manually or by power.
- (2) An *automatic crane* is a crane which when activated operates through a preset cycle or cycles.
- (3) A *cab-operated crane* is a crane controlled by an operator in a cab located on the bridge or trolley.
- (4) *Cantilever gantry crane* means a gantry or semigantry crane in which the bridge girders or trusses extend transversely beyond the crane runway on one or both sides.
- (5) *Floor-operated crane* means a crane which is pendant or nonconductive rope controlled by an operator on the floor or an independent platform.
- (6) *Gantry crane* means a crane similar to an overhead crane except that the bridge for carrying the trolley or trolleys is rigidly supported on two or more legs running on fixed rails or other runway.
- (7) *Hot metal handling crane* means an overhead crane used for transporting or pouring molten material.
- (8) *Overhead crane* means a crane with a movable bridge carrying a movable or fixed hoisting mechanism and traveling on an overhead fixed runway structure.
- (9) *Power-operated crane* means a crane whose mechanism is driven by electric, air, hydraulic, or internal combustion means.
- (10) A *pulpit-operated crane* is a crane operated from a fixed operator station not attached to the crane.
- (11) A *remote-operated crane* is a crane controlled by an operator not in a pulpit or in the cab attached to the crane, by any method other than pendant or rope control.
- (12) A *semigantry crane* is a gantry crane with one end of the bridge rigidly supported on one or more legs that run on a fixed rail or runway, the other end of the bridge being supported by a truck running on an elevated rail or runway.
- (13) *Storage bridge crane* means a gantry type crane of long span usually used for bulk storage of material; the bridge girders or trusses are rigidly or nonrigidly supported on one or more legs. It may have one or more fixed or hinged cantilever ends.
- (14) *Wall crane* means a crane having a jib with or without trolley and supported from a side wall or line of columns of a building. It is a traveling type and operates on a runway attached to the side wall or columns.
- (15) *Appointed* means assigned specific responsibilities by the employer or the employer's representative.
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- (16) *ANSI* means the American National Standards Institute.
- (17) An *auxiliary hoist* is a supplemental hoisting unit of lighter capacity and usually higher speed than provided for the main hoist.
- (18) A *brake* is a device used for retarding or stopping motion by friction or power means.
- (19) A *drag brake* is a brake which provides retarding force without external control.
- (20) A *holding brake* is a brake that automatically prevents motion when power is off.
- (21) *Bridge* means that part of a crane consisting of girders, trucks, end ties, footwalks, and drive mechanism which carries the trolley or trolleys.
- (22) *Bridge travel* means the crane movement in a direction parallel to the crane runway.
- (23) A *bumper* (buffer) is an energy absorbing device for reducing impact when a moving crane or trolley reaches the end of its permitted travel; or when two moving cranes or trolleys come in contact.
- (24) The *cab* is the operator's compartment on a crane.
- (25) *Clearance* means the distance from any part of the crane to a point of the nearest obstruction.
- (26) *Collectors current* are contacting devices for collecting current from runway or bridge conductors.
- (27) *Conductors, bridge* are the electrical conductors located along the bridge structure of a crane to provide power to the trolley.
- (28) *Conductors, runway (main)* are the electrical conductors located along a crane runway to provide power to the crane.
- (29) The *control braking means* is a method of controlling crane motor speed when in an overhauling condition.
- (30) *Countertorque* means a method of control by which the power to the motor is reversed to develop torque in the opposite direction.
- (31) *Dynamic* means a method of controlling crane motor speeds when in the overhauling condition to provide a retarding force.
- (32) *Regenerative* means a form of dynamic braking in which the electrical energy generated is fed back into the power system.
- (33) *Mechanical* means a method of control by friction.
- (34) *Controller, spring return* means a controller which when released will return automatically to a neutral position.
- (35) *Designated* means selected or assigned by the employer or the employer's representative as being qualified to perform specific duties.
- (36) A *drift point* means a point on a travel motion controller which releases the brake while the motor is not energized. This allows for coasting before the brake is set.
- (37) The *drum* is the cylindrical member around which the ropes are wound for raising or lowering the load.
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(38) An *equalizer* is a device which compensates for unequal length or stretch of a rope.

(39) *Exposed* means capable of being contacted inadvertently. Applied to hazardous objects not adequately guarded or isolated.

(40) *Fail-safe* means a provision designed to automatically stop or safely control any motion in which a malfunction occurs.

(41) *Footwalk* means the walkway with handrail, attached to the bridge or trolley for access purposes.

(42) A *hoist* is an apparatus which may be a part of a crane, exerting a force for lifting or lowering.

(43) *Hoist chain* means the load bearing chain in a hoist.

Note:

Chain properties do not conform to those shown in ANSI B30.9-1971, Safety Code for Slings.

(44) *Hoist motion* means that motion of a crane which raises and lowers a load.

(45) *Load* means the total superimposed weight on the load block or hook.

(46) The *load block* is the assembly of hook or shackle, swivel, bearing, sheaves, pins, and frame suspended by the hoisting rope.

(47) *Magnet* means an electromagnetic device carried on a crane hook to pick up loads magnetically.

(48) *Main hoist* means the hoist mechanism provided for lifting the maximum rated load.

(49) A *man trolley* is a trolley having an operator's cab attached thereto.

(50) *Rated load* means the maximum load for which a crane or individual hoist is designed and built by the manufacturer and shown on the equipment nameplate(s).

(51) *Rope* refers to wire rope, unless otherwise specified.

(52) *Running sheave* means a sheave which rotates as the load block is raised or lowered.

(53) *Runway* means an assembly of rails, beams, girders, brackets, and framework on which the crane or trolley travels.

(54) *Side pull* means that portion of the hoist pull acting horizontally when the hoist lines are not operated vertically.

(55) *Span* means the horizontal distance center to center of runway rails.

(56) *Standby crane* means a crane which is not in regular service but which is used occasionally or intermittently as required.

(57) A *stop* is a device to limit travel of a trolley or crane bridge. This device normally is attached to a fixed structure and normally does not have energy absorbing ability.

(58) A *switch* is a device for making, breaking, or for changing the connections in an electric circuit.

(59) An *emergency stop switch* is a manually or automatically operated electric switch to cut off electric power

independently of the regular operating controls.

(60) A *limit switch* is a switch which is operated by some part or motion of a power-driven machine or equipment to alter the electric circuit associated with the machine or equipment.

(61) A *main switch* is a switch controlling the entire power supply to the crane.

(62) A *master switch* is a switch which dominates the operation of contactors, relays, or other remotely operated devices.

(63) The *trolley* is the unit which travels on the bridge rails and carries the hoisting mechanism.

(64) *Trolley travel* means the trolley movement at right angles to the crane runway.

(65) *Truck* means the unit consisting of a frame, wheels, bearings, and axles which supports the bridge girders or trolleys.

(b) *General requirements*—(1) *Application*. This section applies to overhead and gantry cranes, including semigantry, cantilever gantry, wall cranes, storage bridge cranes, and others having the same fundamental characteristics. These cranes are grouped because they all have trolleys and similar travel characteristics.

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