

1-7 ACRONYMS AND DEFINITIONS

1-7.1 Acronyms

The following specialized acronyms are used for hoisting and rigging (H&R) operations and equipment. Not all of these acronyms are used in this manual; some have been included for general information.

AC	Alternating Current
ACI	American Concrete Institute
AGMA	American Gear Manufacturers Association
AISC	American Institute of Steel Construction
AISE	Association of Iron and Steel Engineers
AISI	American Iron and Steel Institute
ANS	American Nuclear Society
ANSI	American National Standards Institute
API	American Petroleum Institute
ASLE	American Society of Lubrication Engineers
ASM	American Society of Metals
ASME	American Society of Mechanical Engineers
ASNT	American Society for Nondestructive Testing
ASTM	American Society for Testing Materials
AWG	American Wire Gage
AWS	American Welding Society
CCTV	Closed Circuit Television
CDL	Commercial Driver's License
CFR	Code of Federal Regulations
CMAA	Crane Manufacturers Association of America
CMV	Commercial Motor Vehicle
CSAO	Construction Safety Association of Ontario
DC	Direct Current

DOE	U.S. Department of Energy
DOE-HFO	U.S. Department of Energy Hanford Field Office
DOL	U.S. Department of Labor
DOT	U.S. Department of Transportation
FO&M	Fleet Operations and Maintenance
FRAM	Functions, Responsibilities, and Authority Manual
HAMTC	Hanford Atomic Metal Trades Council
H&R	Hoisting & Rigging
HHRC	Hanford Hoisting and Rigging Committee
HMI	Hoist Manufacturer's Institute
HR	Human Resources
HSHRM	Hanford Site Hoisting and Rigging Manual
ISO	International Standards Organization
IWRC	Independent Wire Rope Core
MHI	Material Handling Institute
NCR	Non-Conformance Report
NDA	Non-Destructive Assessment
NDT	Non-Destructive Test
NEMA	National Electrical Manufacturer's Association
NFPA	National Fire Protection Association
NLGI	National Lubricating Grease Institute
NRC	Nuclear Regulatory Commission
OJT	On-the-Job Training
OSHA	Occupational Safety and Health Administration
PCSA	Power Crane and Shovel Association
RL	DOE Richland Operations Office
SAE	Society of Automotive Engineers
UBC	Uniform Building Code

UL	Underwriter's Laboratory
WISHA	Washington Industrial Safety and Health Act
WSMA	Web Sling Manufacturer's Association

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1-7.2 Definitions

The following specialized terms are used for hoisting and rigging (H&R) operations and equipment. Definitions are provided as general information, primarily for terms used in this Manual. However, users are encouraged to refer to definitions in their context in applicable standards.

Accessory	A secondary part or assembly of parts that contributes to the overall function and usefulness of a crane or forklift.
Assembly/Disassembly (A/D) Director	An individual who meets this subpart's requirements for an A/D director, irrespective of the person's formal job title or whether the person is non-management or management personnel.
Anti-Two-Block Device	A device which, when activated, disengages all crane functions whose movement can cause two-blocking. See <i>Two-Block Damage Prevention Feature</i> and <i>Two-Block Warning Feature</i> .
Assembly/Disassembly	The assembly and/or disassembly of cranes covered under this standard, with the exception of overhead cranes covered by ASME B30.2, B30.11, and B30.17.
Attachment, forklift truck	A device other than conventional forks or load backrest extension, mounted permanently or removable on the elevating mechanism of a forklift truck for handling the load. Popular types are fork extensions, clamps, rotating devices, side shifters, load stabilizers, rams, and booms.
Axis of Rotation	The vertical axis around which the crane superstructure rotates. Also called center of rotation (obsolete) and swing axis.
Bail	(a) The U-shaped member of a bucket or load usually used as a lifting point; or (b) A U-shaped portion of a socket, or other fitting used on wire rope.
Ballast	Weight added to a crane base to create additional stability; it does not rotate when the crane swings.
Base Mounting	The structure forming the lowest element of a crane or derrick; it transmits loads to the ground or other supporting surface. For mobile cranes, this is synonymous with carrier or crawler mounting. For tower cranes, the term includes a travel base, knee frame base, or fixed base (footing).
Block	A term applied to a wire rope sheave (pulley) enclosed inside plates and fitted with some attachment such as a hook or shackle.
Blocking (also referred to as Cribbing)	Wood or other material used to support equipment or a component and distribute loads to the ground. It is typically used to support lattice boom sections during assembly/ disassembly and under outrigger and stabilizer floats. Also referred to as <i>Cribbing</i> .
Boom Angle	The angle above or below horizontal of the longitudinal axis of the base boom section.
Boom (crane)	A member, in compression, hinged to the rotating superstructure and used for supporting the hoisting tackle and load.
Boom Hoist	The rope drum(s), drive(s), and reeving controlling the luffing motion of the boom.
Boom Pendant	A non-operating rope or strand with end terminations to support the boom.

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Breaking Strength	The measured tensile load required to cause failure of cable, chain, wire rope, or any other load-bearing element.
Bridle Sling	Sling composed of multiple wire rope legs with a fitting that attaches to the lifting hook.
Bumper (buffer)	An energy-absorbing device that reduces impact when two moving cranes or trolleys come into contact or when a moving crane or trolley reaches the end of its permitted travel.
Center of Gravity	The center of gravity of any object is the point in the object around which its weight is evenly distributed. If you could put a support under that point, you could balance the object on the support.
Clearance	The horizontal or vertical distance from any part of the crane to a point of the nearest obstruction.
Clevis	A U-shaped fitting with holes in each end through which a pin or bolt is run.
Clip	Fitting for clamping two parts of wire rope.
Collector	Contacting device mounted on bridge or trolley for collecting current from conductor system.

Commercial Motor Vehicle	<p>A motor vehicle or combination of motor vehicles used in commerce to transport passengers or property if the motor vehicle:</p> <ol style="list-style-type: none"> a. Has a gross combination weight of 11,794 kg (26,001 lb) or more inclusive of a towed unit with a gross vehicle weight rating of more than 4536 kg (10,000 lb), or b. Has a gross vehicle weight rating of 11,794 kg (26,001 lb) or more, or c. Is designed to transport 16 or more passengers, including the driver, or d. Is of any size and is used in the transportation of materials found to be hazardous for the purposes of the Hazardous Materials Transportation Act and which requires the motor vehicle to be placarded under 49 CFR 172, Subpart F, <i>Hazardous Materials Regulations</i>. e. Has a gross combination weight of 11,794 kg (26,001 lb) or more inclusive of a towed unit with a gross vehicle weight rating of more than 4536 kg (10,000 lb), or f. Has a gross vehicle weight rating of 11,794 kg (26,001 lb) or more, or g. Is designed to transport 16 or more passengers, including the driver, or h. Is of any size and is used in the transportation of materials found to be hazardous for the purposes of the Hazardous Materials Transportation Act and which requires the motor vehicle to be placarded under 49 CFR 172, Subpart F, <i>Hazardous Materials Regulations</i>.
Controlled Load Lowering	<p>Lowering a load by means of a mechanical hoist drum device that allows a hoisted load to be lowered with maximum control using the gear train or hydraulic components of the hoist mechanism. Controlled load lowering requires the use of the hoist drive motor, rather than the load hoist brake, to lower the load.</p>
Controlling Entity	<p>An employer that is a prime contractor, general contractor, construction manager or any other legal entity which has the overall responsibility to DOE for the construction of the project – its planning, quality and completion.</p>
Core	<p>Core member of wire rope about which the strands are laid. It may be fiber, a wire strand, or an independent wire rope.</p>
Counterweights	<p>Weights added to a crane upper structure to create additional stability. They rotate with the crane as it swings.</p>
Crane	<p>A machine for lifting and lowering a load vertically and moving it horizontally with the hoisting mechanism as an integral part of the machine. The term is applicable to fixed and mobile machines and to powered or manually driven machines.</p>
Crane, Articulating	<p>A crane whose boom consists of a series of folding, pin connected structural members, typically manipulated to extend or retract by power from hydraulic cylinders.</p>

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Crane, Assist	A crane used to assist in assembling or disassembling a crane. Also known as a Service Crane.
Crane, Automatic	A crane that, when activated, operates through a preset cycle or cycles.
Crane, Bridge	A crane with a single- or multiple-girder movable bridge, carrying a movable trolley or fixed hoisting mechanism, and traveling on an overhead fixed runway structure.
Crane, Cab-Operated	A crane controlled by an operator in a cab located on the bridge or trolley.
Crane, Cantilever Gantry	A gantry or semigantry crane in which the bridge girders or trusses extend transversely beyond the crane runway on one or both sides.
Crane, Crawler	A crane consisting of a rotating superstructure with power plant, operating machinery, and boom, mounted on a base, equipped with crawler treads for travel. Its function is to hoist, lower, and swing loads at various radii.
Crane, Double-Girder	A crane having two bridge girders mounted between, and supported from, the end trucks.
Crane/Derrick, Floating	Equipment designed by the manufacturer (or employer) for marine use by permanent attachment to a barge, pontoons, vessel or other means of flotation.
Crane, Floor-Operated	A power-operated crane that is controlled by an operator from the floor or an independent platform or walkway located in the crane-way, using power control switches or push-buttons on a pendant.
Crane, Gantry	A crane similar to an overhead bridge 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, usually 3 meters (10 feet) or more below the bottom of the bridge.
Crane, Hammerhead Tower	A lifting machine consisting of a mast with an upper, rotating member to which a jib boom is attached that extends horizontally from the rotating member, with a counter-weighted jib boom extending from the rotating member in the opposite direction, neither of which jib booms are arranged or rigged for luffing. The main jib boom carries a trolley on which the lower load block is suspended. The counterweight jib boom contains the counterweight for the main jib and working load, and sometimes provides the mounting for the hoisting and trolley travel motors and drums.
Crane, Interlocking	A crane with an interlock mechanism on one or both ends, enabling it to be mechanically locked to another crane, fixed transfer section, or spur track for the purpose of transferring a carrier from one to another.
Crane, Jib Crane	A fixed crane with a vertical rotating member supported at the bottom (also at the top in some types), from which an arm extends to carry the hoist trolley. Jib cranes are most commonly mounted on a vertical column, supplied as part of the jib crane or mounted on existing structural members (e.g., a wall-mounted jib crane).
Crane, Locomotive	A crane consisting of a rotating superstructure with power plant, operating machinery and boom, mounted on a base or car equipped for

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	travel on a railroad track. It may be self-propelled or propelled by an outside source. Its function is to hoist and swing loads at various radii.
Crane, Manually Operated	A crane whose hoist mechanism is driven by pulling an endless chain, or whose travel mechanism is driven in the same manner or by manually moving the load.
Crane, Mobile Crane	A lifting device incorporating a cable suspended latticed boom or hydraulic telescopic boom designed to be moved between operating locations by transport over the road.
Crane, Monorail	A crane or hoist attached to a trolley that runs on the flanges of a structural beam.
Crane, Overhead	A crane with a single or multiple girder movable bridge, carrying a movable trolley or fixed hoisting mechanism, and traveling on an overhead fixed runway structure.
Crane, Polar	A bridge or gantry crane that travels on a circular runway.
Crane, Portable Gantry (A-Frame)	A crane similar to an overhead (underhung) crane, except the bridge beam for the trolleys is supported by four legs usually on casters.
Crane, Portal	A type of crane consisting of a rotating upper structure, hoist machinery, and boom mounted on top of a structural gantry which may be fixed in one location or have travel capability. The gantry legs or columns usually have portal openings in between to allow passage of traffic beneath the gantry.
Cranes, Power-Operated	A crane whose mechanism is driven by electricity, air, hydraulic, or internal combustion engine, as opposed to hand-operated movements.
Crane, Pulpit-Operated	A crane operated from a fixed operator station not attached to the crane.
Crane, Remotely Operated	A crane controlled by any method other than with a pendant, rope, or attached cab.
Crane, Semi-Gantry	A gantry crane with one end of the bridge rigidly supported by leg(s) that run on a fixed rail or runway and the other end supported by end trucks that run on an elevated rail or runway.
Crane, Sideboom	A track-type or wheel-type tractor having a boom mounted on the side of the tractor, used for lifting, lowering or transporting a load suspended on the load hook. The boom or hook can be lifted or lowered in a vertical direction only.
Crane, Single-Girder	A crane having one bridge girder mounted between, and supported from the end trucks.
Crane, Storage Gantry	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.
Crane, Tower	A type of lifting structure which utilizes a vertical mast or tower to support a working boom (jib) in an elevated position. Loads are suspended from the working boom. While the working boom may be of the fixed type (horizontal or angled) or have luffing capability, it can always rotate to swing loads, either by rotating on the top of the tower

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	(top slewing) or by the rotation of the tower (bottom slewing). The tower base may be fixed in one location or ballasted and moveable between locations. Mobile cranes that are configured with luffing jib and/or tower attachments are not considered tower cranes under this section.
Crane, Truck	A crane consisting of a rotating superstructure with a power plant, operating machinery, and boom on a truck-type mounting equipped with a power plant for travel. Its function is to hoist, lower, and swing loads at various radii. Some variations of this use a single engine in the truck that also is the power source for the superstructure, or use a single engine in the superstructure, which is also the power source for the truck.
Crane, Wall	A crane having a jib, with or without a trolley, supported from a side wall or line of columns of a building. It is a traveling-type crane and operates on a runway attached to the side wall or line of columns.
Crane, Wheel-Mounted (Wagon)	A crane consisting of a rotating superstructure with power plant, operating machinery and boom, mounted on a base or platform equipped with axles and rubber-tired wheels for travel. The base may be propelled by an engine in the superstructure, or with a separate engine controlled from the superstructure. Its function is to hoist, lower, and swing loads at various radii.
Crane Service Classification	The Crane Manufacturers Association of America (CMAA) has established six service classes to enable the purchaser to specify the most economical class of crane for a particular installation. It is not economical either to under specify or to over specify when choosing a service class. Specifying a crane with too light a service class will reduce cost but may result in excessive maintenance. A crane with too high a service class may decrease maintenance costs but at an excessive initial investment. See <i>Crane Service</i> .
Crane Service—Class A (Standby or Infrequent Service)	Class A1 (Standby Service) —This service class covers cranes used in installations such as power houses, public utilities, turbine rooms, nuclear reactor buildings, motor rooms, nuclear fuel handling and transformer stations, where precise handling of valuable machinery at slow speeds with long idle periods between lifts is required. Class A2 (Infrequent Use) —These cranes are used in installations such as small maintenance shops, pump rooms, testing laboratories, and similar operations where the loads are relatively light, speeds are slow, and a low degree of control accuracy is required. The loads may vary anywhere from no load to full rated load with a frequency of a few lifts per day or month.
Crane Service—Class B (Light Service)	This service covers cranes that may be used in repair shops, light assembly operations, service buildings, or light warehousing, where service requirements are light, and the speed is slow. Loads may vary from no load to occasional full rated loads with two to five lifts per hour, averaging 3 meters (10 feet) per lift.
Crane Service—Class C (Moderate Service)	This service covers cranes that may be used in machine shops or paper-mill machine rooms, where service requirements are moderate. In this

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	type of service, the crane will handle loads that average 50 percent of the rated capacity with 5 to 10 lifts per hour, averaging 4.6 meters (15 feet), not over 50 percent of the lifts at rated capacity.
Crane Service—Class D (Heavy Service)	<p>This service covers cranes that may be used in heavy machine shops, foundries, fabricating plants, steel warehouses, container yards, or lumber mills, and standard-duty bucket and magnet operations where heavy-duty production is required.</p> <p>In this type of service, loads approaching 50 percent of the rated capacity will be handled constantly during the working period. High speeds are desirable for this type of service with 10 to 20 lifts per hour averaging 4.6 meters (15 feet), not over 65 percent of the lifts at rated capacity.</p>
Crane Service—Class E (Severe Service)	This type of service requires a crane capable of handling loads approaching a rated capacity throughout its life. Applications may include magnet, bucket, magnet/bucket combination cranes for scrap yards, cement mills, lumber mills, fertilizer plant, or container handling, with 20 or more lifts per hour at or near the rated capacity.
Crane Service—Class F (Continuous Severe Service)	This type of service requires a crane capable of handling loads approaching rated capacity continuously under severe service conditions throughout its life. Applications may include custom-design specialty cranes essential to performing the critical work tasks affecting the total production facility. These cranes must provide the highest reliability with special attention to ease of maintenance features.
Critical Lift	A hoisting operation utilizing a documented lift plan in which a critical item will be hoisted or moved, or in which a noncritical item will be hoisted or moved in an area where critical items could be affected.
Critical Load or Item	<p>In accordance with this manual: A part, component, assembly, or piece of equipment (item) whose dropping, upset, or collision could cause/result in the following:</p> <ol style="list-style-type: none"> Damage that would result in serious economic consequences Damage that would result in unacceptable delay to schedule or other significant deleterious programmatic impact (such as loss of vital data) Undetectable damage that would jeopardize future operations or safety of a facility Significant release of radioactive or other hazardous material to the environment or create an undesirable condition Personnel injury or significant adverse health impact, either onsite or offsite. <p>Large, costly items should be considered critical. Items that require special care in handling because of size, weight, installation in close-tolerance receptors, fragility, high susceptibility to damage or other unusual factors should be considered critical.</p> <p>Implicit in this definition is the possibility of handling items, which are themselves not critical in nature, over other items that are critical, thus making the lift involved “critical.”</p>

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Critical Load	<p>In accordance with ANSI N14.6, <i>American National Standard for Radioactive Materials - Special Lifting Devices for Shipping Containers Weighing 10,000 Pounds (4500 kg) or More</i>: Any lifted load whose uncontrolled movement or release could adversely affect any safety-related system when such system is required for unit safety or could result in potential off-site exposures comparable to the guideline exposures outlined in 10 CFR, Part 100, <i>Reactor Site Criteria</i>.</p> <p>In accordance with ASME NOG-1, <i>Rules for Construction of Overhead and Gantry Cranes (Top Running Bridge, Multiple Girder)</i>: Any lifted load whose uncontrolled movement or release could adversely affect any safety-related system when such system is required for unit safety or could result in potential off-site exposures in excess of the limit determined by the equipment purchaser.</p>
Custodian	An individual designated as having custodial responsibility for equipment. The custodian takes “ownership” of assigned equipment and ensures that required maintenance, inspections, and tests remain current. The custodian will have quick access to the equipment history file.
D/d Ratio	A term regarding wire rope. D = Diameter of curvature around which the rope is bent. d = diameter of rope.
Dead End	The point of fastening of one rope end in a running rope system, the other end being fastened at the rope drum.
Deflection	(a) The sag across a span of a load member caused by the imposed live and/or dead loads, which is usually measured at mid-span as the distance along a straight horizontal line drawn between the supports; (b) any deviation from a straight horizontal line.
Derrick	An apparatus for lifting or lowering loads, consisting of a mast or equivalent member held at the head by guys or braces, with or without a boom, for use with hoists and ropes.
Design Factor	The conservatism used in design calculations. As a function of design, this factor can be based upon the point of equipment failure, such as crane tipping, and brake stopping capacity, or based upon strength of materials, ultimate, nominal, or yield. Consensus standards and this manual express design factors as a ratio (for example: 5:1, 3:1, 3.5:1) or as a single number (for example: 5, 3, or 3.5, understood to mean the “X” to 1). Although “design factor” is sometimes referred to as a “safety factor”, “design factor” is the preferred term. An inexperienced person may incorrectly assume this factor of design conservatism will make up for such conditions as shock loading, poor rigging, improper equipment selection, and overload conditions.
Designated Leader (DL)/ Lift Director	A qualified individual assigned to all hoisting and rigging operations to ensure that the lifting operation is properly performed.
Dismantling	Includes partial dismantling (such as dismantling to shorten a boom or substitute a different component).

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Draw-works	The draw works is the primary hoisting machinery consisting of a drum and countershafts whose main function is to provide a means of raising and lowering the travel blocks through wire ropes.
Drum	(a) A cylindrical-flanged barrel of uniform (cylindrical drum) or tapering (conical drum) diameter on which cable is wound for operation or storage, which may be smooth or grooved; (b) the cylindrical member around which rope is wound for lifting or lowering the load or boom, or swinging the boom supporting structure.
End Truck	An assembly consisting of structural members such as wheels, bearings, and axles that supports the bridge girder(s) or the trolley cross member(s).
Equalizer	Device used to compensate for unequal length or stretch of a hoist rope and connects two or more systems to a single running block.
Fall Zone	The area (including but not limited to the area directly beneath the load) in which it is reasonably foreseeable that partially or completely suspended materials could fall in the event of an accident.
Fatigue	The phenomenon leading to fracture under repeated or fluctuating stresses having a maximum value less than the tensile strength of the material.
Fiber Cores	Cords or rope made of vegetable or synthetic fiber used in the core of a wire rope.
Flemish Eye	A type or method of making a wire rope eye splice. Same as a “Molly Hogan.”
Grooves	Depressions in the periphery of a sheave or drum used for positioning and supporting a rope.
Ground Conditions	The ability of the ground to support the equipment (including slope, compaction, and firmness).
Guy or Guy Line	Strand or rope, usually galvanized steel, for holding a structure in position.
Hammerhead Boom	A boom tip arrangement in which both the boom suspension and the hoist ropes are greatly offset from the boom longitudinal centerline to provide increased load clearance.
Handling Fixture	A cradle, handling structure, shipping fixture, or container designed specifically to support or facilitate component lifting or handling during fabrication, loading, shipping, storage, installation, or use.
Hazardous (classified) Location	Locations where fire or explosion hazards may exist. Locations are classified depending on the properties of the flammable vapors, liquids, or gases, or combustible dusts or fibers which may be present and the likelihood that a flammable or combustible concentration or quantity is present.
Class I	Locations in which flammable gases or vapors are, or may be, present in the air in quantities sufficient to produce explosive or ignitable mixtures.

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Class II	Locations that are hazardous because of the presence of combustible dust.
Class III	Locations where easily ignitable fibers or flyings are present but not likely to be suspended in quantities sufficient to produce ignitable mixtures.
Hoist	A lifting device for raising or lowering loads. Its service area is vertical over its mounting. Hoists may be attached to fixed or moveable structures by an upper hook or bracket and can be either power or manually operated; (b) A power-operated component of a crane or monorail system that provides torque to raise a load or lower it at a controlled speed and hold a load stationary; (c) A power-driven drum or drums capable of lifting and lowering loads.
Hoisting	The act of raising, lowering or otherwise moving a load in the air with equipment covered by this standard. As used in this standard, “hoisting” can be done by means other than wire rope/ hoist drum equipment.
Hook Latch	A mechanical device to bridge the throat opening of a hook.
Jack	A portable hand- or power-operated mechanism with a base and load point designed for controlled linear movement.
Jib	An extension attached to the boom point to provide added boom length for lifting specified loads. The jib may be in line with the boom or offset to various angles in the vertical plane of the boom.
Latticed Boom	A boom constructed of four longitudinal corner members, called chords, assembled with transverse and/or diagonal members, called lacings, to form a trusswork in two directions. The chords carry the axial boom forces and bending moments, while lacings resist the shears.
Lay (wire rope)	(a) The manner in which the wires in a strand or the strands in a rope are helically laid, or (b) the distance measured parallel to the axis of the rope (or strand) in which a strand (or wire) makes one complete helical convolution about the core (or center). In this connection, lay is also referred to as “lay length” or “pitch”.
Limiting Devices	A device that is operated by some part of a power-driven machine or equipment to control motions of the machine or equipment.
Limit Switch	An electrical device that is operated by the bridge, trolley, or hoist motion to disconnect the circuit, to establish a new circuit, or to provide a warning.
Load-Bearing Parts	Any part of a material-handling device in which the induced stress is influenced by the hook load. A primary load-bearing part is one, where the failure of which could result in dropping, upset, or uncontrolled motion of the load. Load-bearing parts which, if failed, would result in no more than stoppage of the equipment without causing dropping, upset, or loss of control of the load, are not considered to be primary load-bearing parts.
Load Center (forklifts)	The horizontal longitudinal distance from the intersection of the horizontal load-carrying surfaces and vertical load engaging faces of the

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	forks (or equivalent load positioning structure) to the center of gravity of the load.
Load Moment (or rated capacity) Indicator	A system which aids the equipment operator by sensing (directly or indirectly) the overturning moment on the equipment, i.e., load multiplied by radius. It compares this lifting condition to the equipment's rated capacity, and indicates to the operator the percentage of capacity at which the equipment is working. Lights, bells, or buzzers may be incorporated as a warning of an approaching overload condition.
Master Switch	A manual or automatic device that governs the operation of contractors and/or auxiliary devices of an electric control and provides for shutdown of all electric power to a crane or hoist.
Multi-Purpose Machine	A machine that is designed to be configured in various ways, at least one of which allows it to hoist (by means of a winch or hook) and horizontally move a suspended load. For example, a machine that can rotate and can be configured with removable forks/tongs (for use as a forklift) or with a winch pack, jib (with a hook at the end) or jib used in conjunction with a winch. When configured with the forks/tongs, it is not covered by this subpart. When configured with a winch pack, jib (with a hook at the end) or jib used in conjunction with a winch, it is covered by this subpart.
Multiple Load Line Operation	Simultaneous use of two or more lines reeved over sheaves on a single shaft or multiple shafts of a crane with multiple load drums to lift, rotate, or hold a single load.
Narrow-Aisle Truck	A self-loading truck primarily intended for right-angle stacking in aisles narrower than those normally required by counterbalance trucks of the same capacity.
Nondestructive Examination (NDE)	A name applied to a variety of tests which make use of indirect means to locate material discontinuities (e.g., radiography, dye penetrant, magnetic particle, ultrasonic).
Normal Operating Conditions	Those conditions during which a crane or carrier is being operated and is performing functions within the scope of the original design. For a cab-operated crane, the operator is at the operating control devices in the cab and no other person is on the crane except those designated. For a floor-operated crane or carrier, the operator is at the operating control devices, which are suspended from the crane but operated with the operator off the crane, and no person is on the crane. For a remote-operated crane or carrier, the operator is at the operator control devices, which are not attached to any part of the crane, and no person is on the crane.
Ordinary Lifts	Are those lifts that are performed by trained and qualified personnel with conventional equipment using sound hoisting and rigging practices as described in safety handbooks, consensus standards, and in compliance with regulations.
Outrigger Lift-Off	The occurrence of an outrigger lifting from the ground is often attributed to the natural flex in the cranes frame according to the manufacture. This may happen when lifting a load in certain

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	configurations within the capacity limits of the load chart and is not necessarily an indication of an unstable condition.
Outriggers	Extendable arms attached to a crane base mounting, which include the means for relieving the wheels (crawlers) of crane weight; used to increase stability.
Overload	Any load in excess of the safe working load or rated capacity of the equipment or tackle.
Pendants	Both wire and bar types. Wire type: a fixed length of wire rope with mechanical fittings at both ends for pinning segments of wire rope together. Bar type: instead of wire rope, a bar is used. Pendants are typically used in a latticed boom crane system to easily change the length of the boom suspension system without completely changing the rope on the drum when the boom length is increased or decreased.
Powered Industrial Truck	A mobile, power-driven vehicle used to carry, push, pull, lift, stack, or tier material.
Qualified Evaluator	A person who has demonstrated that he/she is competent in accurately assessing whether individuals meet the Qualification Requirements.
Qualified Inspector	One whose competence is recognized by the cognizant manager and whose qualification to perform specific inspection activities has been determined verified and attested to in writing. A qualified inspector could be a third-party.
Side Loading	A loading applied at any angle to the vertical plane of the boom.
Signal Person/Flagman	A qualified person whose responsibility is to provide direction for equipment movements to the operator through use of voice signals or standardized hand signals.
Special Lift	Any documented lift not designated as a <i>Critical Lift</i> or <i>Ordinary Lift</i> . Special Lift plans do not require the technical rigor of a critical lift and do not have to be performed in a step-by-step sequence.
Splicing	Interweaving of two ends of ropes to make a continuous or endless length without appreciably increasing the diameter. Also, making a loop or eye in the end of a rope by tucking the ends of the strands.
Spotter	An assigned person(s) whose sole responsibility is to provide a warning or stop signal during vehicle or equipment operation prior to violation of proximity restrictions or per-determined distance limitations to structures or hazards such as power and communication lines, overhead obstructions, buildings, telephone poles, ground penetrations and etc. (Spotters for mobile cranes require the use of a qualified signalman/flagman as a spotter).
Tag Line	A non-conductive rope (usually fiber) attached to a lifted load to help control the load.
Technical Approver	An individual assigned to review critical lift plans who has technical knowledge and experience applicable to the requirements of this manual, mandatory standards, and equipment identified in the critical lift plan.

Trolley	A unit that travels on the bridge rails consisting of frame, end trucks, drive supporting the hoisting mechanism, rope, and load block that supports the load, or a unit that travels on the lower flange of a beam or monorail system supporting a hoist.
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