APPENDIX A – GLOSSARY

ACCIDENT. See section 12.

A-FRAME. On cranes equipped with booms, the structural portion exclusive of the boom above the rotate platform. On derricks, the stationary portion of the structural framing above the foundation or sills.

A-FRAME BLOCK. The lower block of luffing tackle usually integral with the apex of the A-frame. The term luffing block is preferred.

ALTERATION. See section 1.

AUTOMATIC MECHANICAL LOAD-LOWERING BRAKE. See "MECHANICAL LOAD BRAKE."

AUXILIARY HOIST. A separate hoist system of lighter load capacity and usually of higher speed than the main hoist.

BALLAST. A weight (usually fixed) added to the non-rotating portion of a crane or derrick to provide the required stability of the crane or derrick as a whole.

BASKET HITCH. A method of rigging a sling in which the sling is passed around the load and both loop eyes or end fittings are attached to the lifting device.

BEAM. Maximum width of a vessel hull.

BEAM CLAMP. A device that attaches to overhead structural steel used for attaching rigging gear or other hardware.

BELOW THE HOOK LIFTING DEVICE. A device, suspended from a crane's hook, used for special lifting applications. The device can be a structural, mechanical, magnetic, or vacuum type lifter. For additional descriptions refer to ASME B30.20.

BITT. Double post fitting to which mooring lines from vessels are attached.

BOGIE. A short end truck attached to the end of one girder. This type of end truck is used when more than four wheels are required on a crane due to the design of the runway.

BOLSTER. The load-bearing crossbeam connecting, equalizing, and aligning a pair of parallel trucks on a two-rail track.

BOOM. In crane and derrick usage, an inclined spar, strut, or other long member supporting the hoisting tackle.

BOOM HINGE. The combination of the immediate parts of the rotate structure, boom, and (as most frequently used) the pin about which the boom turns when luffed.

BRAIDED WIRE ROPE SLING. A sling made from braided wire rope slings, the body of which is made up of two or more wire rope slings braided together.

BRAKE. A device used for retarding or stopping motion by friction or power means.

BRIDGE. The main structural and mechanical portion of an overhead traveling crane spanning from one runway rail to the other, consisting of the girders supporting the trolley, the end trucks, the travel drive mechanism, and related parts.

BRIDLE. A sling composed of multiple legs with the top ends gathered in a fitting that goes over the lifting hook.

BROOMING. The straightening of the wires at the end of a wire rope in preparation for pouring a speltered or resin socket.

BULL GEAR AND PINION. The large gear (usually attached to the non-rotating part of a crane) and the mating pinion (usually attached to the rotating superstructure) by which the superstructure is caused to rotate.

BULL WHEEL. A relatively large wheel attached to the base of mast and boom of a derrick with a rim shaped to accommodate two cables. By pulling on the cable, the boom is rotated by the bull wheel.

BUMPER. A device fastened to a traveling crane to cushion the impact of striking another crane or a runway stop.

CAB. The compartment containing the controls for cranes or derricks and a seat and shelter for the operator.

CABLE LAID WIRE ROPE SLING. A type of wire rope sling consisting of several wire ropes laid into a single wire rope (e.g. 7X7X7).

CAGE. A partially open circular ring that retains, spaces, and aligns the balls or rollers of an anti-friction bearing, or the rollers or wheels of a live roller path.

CAPACITY. The maximum rated load that a crane is designed to handle. Designated limit of operating characteristics based on specific conditions.

CAPSTAN. A stationary vertical shaft/drum for winding rope or chain for hoisting or hauling purposes.

CENTER STEADIMENT. A pair of male and female castings or weldments, one connected to the fixed portion and the other to the revolving superstructure of a crane, for the purpose of maintaining the position of the center of rotation of the superstructure and of spider and cage of the roller path when used. When a center steadiment is used, the kingpin threads through it.

CHAFING BLOCK. Wood or brass wear plate used to prevent excessive wear or damage to cable.

CHAINFALL. A portable hand chain operated chain hoist used for lifting, pulling or tensioning applications.

CHAIN SLING. An assembly fabricated from Grade 80 or Grade 100 alloy steel chain and attachments (i.e., links, upper and lower hooks) used for lifting when connected to a lifting mechanism at the sling's upper end and when supporting a load at the sling's lower end.

CHOKE ANGLE. The angle between the vertical part and choked part of a sling in a choker hitch. As this angle is decreased, the rated capacity of the sling is reduced.

CHOKER HITCH. A method of rigging a sling in which the sling is passed around the load, then through one loop eye, end fitting, or other device with the other loop eye or end fitting attached to the lifting device.

CIVIL ENGINEERING SUPPORT EQUIPMENT (CESE). The term Civil Engineering Support Equipment is a procurement budget term referring to equipment for which NAVFACENGCOM has the responsibility for determining requirements, procuring, and assigning. The equipment includes automotive vehicles, construction, railway, fire fighting and mobile weight handling equipment. Portal, gantry, jib, floating, derrick, and other facility cranes normally fixed are not classified as CESE.

CLEARANCE. The minimum distance from any part of the crane to the point of nearest obstruction.

CLEAT. A mooring fitting having two horizontal arms to which mooring lines are secured.

COLLECTORS. Contacting devices for collecting current from the runway or bridge conductors. On rotating cranes, a ring and brush assembly that provides a means for conducting electrical power between a stationary and a rotating member or component.

CONDUCTOR. A metal bar, shape, or wire used to conduct electric current.

CONSTRUCTION EQUIPMENT. The term "construction equipment" means all mechanical equipment used in the construction, alteration, or repair of buildings, bridges, roads, or other kinds of real property. It includes pile drivers, power shovels and cranes with special attachments, road rollers, tractors, scrapers, plows, street sweepers, sprinkle carts, portable boilers, pumps, and air compressors. It also includes such stationary machines and mechanical apparatus as rock crushing plants, concrete batching and mixing plants, and similar equipment used exclusively in the construction and maintenance of public works. When used as a general term, "construction equipment" includes mobile weight handling equipment.

CONTACTOR. A device, operated other than by hand, for repeatedly establishing and interrupting an electric power circuit.

CONTROL PANEL. An assembly of electrical components that governs the flow of power to or from a motor in response to signals from master switch, push button station, or remote control.

CONTROLLER. A device or group of devices that serves to govern, in some predetermined manner, the power delivered to the motor to which it is connected.

COUNTERWEIGHT. Weight, usually attached to the rotating part of a crane, to provide stability to the rotating superstructure.

COUPLING LINK. A forged, welded, or mechanically closed link used to join alloy steel chain to a master link or to a master coupling link.

CRANE BASE. The portion of the supporting structure immediately below the rotating portion of a crane. On land cranes, it is a portion of the portal, underbody, carrier, or car body. On floating cranes, it is that portion of the framing extending down to the deck of the pontoon.

CRANE JIB. A boom or arm supporting a trolley or fall block, fitted to swing in sockets attached to a wall or column. The arm is generally fixed in a vertical direction but free to rotate horizontally.

CRANE SAFETY ADVISORY. A directive issued by the Navy Crane Center identifying a deficient condition and corrective actions associated with weight handling or rigging equipment, or weight handling operations.

CREEP SPEED. A very slow, constant, continuous, fixed rate of motion of the hoist, trolley, or bridge. Usually established at 1 to 10 percent of the normal full load speed.

CUSHIONED START. An electrical or mechanical method for reducing the rate of acceleration of travel motion.

D/d RATIO. The ratio of the diameter of the pin, hook, or other object a wire rope lashing or sling is bent around, divided by the diameter of the wire rope sling.

DEAD END. The fixed end of a rope or cable on a crane, derrick, or hoist.

DEAD LOADS. The loads on a structure that remain in a fixed position relative to the structure. On a crane such loads include the girders, footwalk, cross shaft, drive units, panels, etc.

DIAPHRAGM. A plate or partition between opposite parts of a member, serving a definitive purpose in the structural design of the member.

DRAFT. Depth of vessel hull below the water line.

DRIFT. Motion after the power is cut off. Also means the change of hook radius due to load.

DRIFT POINT. An operating position of a motor control circuit in which all power is cut off from the motor but the electric brake remains energized allowing the driven load to "drift" or "coast."

DRIVE. The assembly of the motor and gear unit used to propel the bridge or trolley.

DRUM. The cylindrical member around which the hoisting ropes are wound for lifting or lowering the load.

DUMMY CAB. An operator's compartment or platform on a pendant or radio controlled crane, having no permanently mounted electrical controls, in which an operator may ride while controlling the crane.

DUTY. A requirement of service that defines the degree of regularity of the load. It is determined by the kind of loads to be handled and the facility to be served.

DUTY CYCLE. A complete operation from preparation for lifting a load to its final deposition, or a series of such movements, the kind, amount, sequence, frequency, duration, and period of work performed. A factor in determining mechanical, control, and electrical duty classification and the design ratings of engines, generators, motors, gearing, clutches, brakes, bearings, and other parts.

DYNAMIC BRAKING. Braking a driven load by connecting an electrical control and motor circuit so that the motor becomes a generator under an overhauling load, absorbing energy from the load and returning it to the power input line, or wasting it as heat in special resistance, or both.

DYNAMIC LOWERING. A method of control by which the hoist motor is so connected in the lowering direction, that when it is over-hauled by the load, it acts as a generator and forces current either through the resistors or back into the line.

DYNAMOMETER. A system intended to aid the operator/rigger by continuously monitoring the load and warning to an approach to an overload condition. Typically, a calibrated scale between the hook of a crane and a load used to measure load weight.

EDDY CURRENT BRAKE. A brake consisting of a stationary magnetic field, usually variable, and a metallic rotor through which braking forces are exerted electromagnetically by the induced eddy currents in the rotor, the rotor absorbing the energy of motion, and dissipating it as heat. An eddy current brake can slow down but cannot stop a moving load.

ELECTRIC CONTROL OR CONTROLLER. A device or group of devices that serve to govern, in a predetermined manner, the electric power delivered to the apparatus to which it is connected. Some of the basic functions are the control of acceleration, retardation, line closing, and reversing.

ELECTRICAL BRAKING SYSTEM. A method of controlling crane motor speed when in an overhauling condition, without the use of friction braking.

ENCLOSED CONDUCTOR(S). A conductor or group of conductors substantially enclosed to prevent accidental contact.

ENCLOSURE. A housing to contain electrical components, usually specified by a NEMA classification number.

END APPROACH. The minimum horizontal distance, parallel to the runway, between the outermost extremities of the crane and the centerline of the hook.

END ATTACHMENTS. Attachments (i.e., hooks, shackles, etc.) used for connecting a sling to a load.

END FITTINGS. Terminal hardware on the end of a sling.

END TIE. A structural member other than the end truck that connects the ends of the girders to maintain the squareness of the bridge.

END TRUCK. The unit consisting of truck frame, wheels, bearings, axles, etc., that supports the bridge girders.

ENDLESS WIRE ROPE SLING. A wire rope sling made endless from one continuous length of wire rope with the ends joined by one or more swaged fittings.

EQUALIZER. An engineered device that automatically adjusts for equal distribution of the load.

EQUALIZER BEAM. A beam or other fabricated structure used between two hooks or other lifting attachments, on one or more cranes, to share the load between lifting attachments. The load may be equally or unequally applied, based on the rated capacities of the hooks or other lifting attachments from which the equalizer beam is suspended.

EYE PIN. The pin used to attach an eye hook to a crane's hook block, e.g., to an overhaul ball assembly on a whip hoist.

FAIL-SAFE. A provision designed to automatically stop or safely control any motion in which a malfunction occurs.

FAIRLEAD. A group of pulleys or rollers used in connection with a winch or similar apparatus to permit the cable to be reeled from any direction.

FENDER. A protective system installed around the hull of a floating vessel.

FIXED AXLE. An axle that is fixed in the truck and on which the wheel revolves.

FLEET ANGLE. The angle formed by the lead of a rope at the extreme end of a drum with a line drawn perpendicular to the axis of the drum through the center of the nearest fixed sheave (expressed in degrees).

FLEETING SHEAVE. A sheave that moves along its supporting shaft or pin.

FLOAT. In connection with portal crane trucks, float is the total amount of lateral movement of the pairs of trucks on both sides of a crane that is permitted by their construction.

FLOOR-OPERATED CRANE. A crane that is pendant or radio controlled by an operator on the floor or an independent platform.

FLOUNDER PLATE. A triangular plate with a hole on top and two holes on the bottom, used to distribute a load.

FOOTWALK. The walkway with handrail and toe boards attached to the bridge or trolley for access purposes.

FREEBOARD. The distance from the main or weather deck on a floating vessel to the water line.

FULL MAGNETIC CONTROL OR CONTROLLER. An electric control having all of its basic functions performed by electromagnets.

GAGE. For portal and gantry crane track, the center to center distance between rails. For railroad track, the clear distance between rail heads.

GANTRY. A framework supported at each end so that it spans a distance, used for carrying a traveling crane. For mobile cranes, gantry refers to the structural frame, extending above the superstructure (rotating upper frame), to which the boom support ropes are reeved.

GANTRY CRANE. A crane whose bridge is rigidly supported on two or more legs running on fixed rails or other runway.

GIRDERS. The principal horizontal beams of the crane bridge that support the trolley and are supported by the end trucks.

GROMMET WIRE ROPE SLING. A wire rope sling that is an endless circle fabricated from one continuous strand of wire rope.

GROUND FAULT. An accidental conducting connection between the electrical circuit or equipment and the earth or some conducting body that serves in place of the earth.

GUDGEON. In crane usage, a vertical pin about which a travel truck (or its associated equalizers or bolsters) pivots in a horizontal plane and on which the weight of the truck usually bears.

GUDGEON PIN. In crane usage, a horizontal pin connected to a gudgeon that carries the weight of a crane to the trucks or equalizers, and on which the latter pivot in a vertical plane and frequently float.

GYPSY HEAD. A small, auxiliary revolving drum at the side or top of a winch.

HAND TUCKED SPLICE. A loop or eye formed in the end of a rope (wire, synthetic or natural fiber) by tucking the end of the strands back into the main body of the rope in a prescribed manner.

HEADACHE BALL. A heavy weight attached above the hook on a single line or whip hoist to provide sufficient weight to lower the hook when unloaded.

HEALTH CARE PROFESSIONAL. Health care professional means a person who is licensed, certified, and/or registered, in accordance with applicable State laws and regulations, to perform physical examinations. The term includes, but is not limited to, doctors of medicine, doctors of osteopathy, physician's assistants, advanced practice nurses, and doctors of chiropractic.

HEEL. The transverse inclination of a vessel due to the action of the waves, wind, unsymmetrical weight distribution or other temporary force.

HOGLINE. Boom stay cable attached to the equalizer bar.

HOIST. A machinery unit that is used for lifting and lowering a load.

HOIST EQUALIZERS. Hydraulic motors controlled by switches in the operator's cab that drive an equalizer sheave to adjust sling spacing and the amount of wire rope wraps on hoist drums on certain types of mobile boat hoists.

HOIST ROLL BACK. An inherent condition, due to insufficient motor torque, that allows a hoisted hook load to lower:

a. When the hoist controller is moved initially into the hoisting position, or
b. As the controller is returned to neutral.

HOIST ROLL UP. On solid state controlled hoists, the distance a hoisting drive block rises when the controller is placed in the lowering direction. This roll up is due to torque proving circuits in the hoist direction that ensure the drive is capable of restraining a load before releasing the holding brakes.

HOLDING BRAKE. A brake that automatically prevents motion when power is off.

HOOK APPROACH. The minimum horizontal distance between the center of the runway rail and the hook.

HOOK LATCH. A device used to bridge the throat opening of a hook.

HOOK ROLLER. A roller attached to the underside of the rotate platform, rolling under a projecting flange (usually attached to the lower roller path) to prevent the rotate platform from overturning.

HOOK, DOUBLE-BARBED. A hook with two symmetrical barbs from a common shank.

HYDRAULIC BRAKE. A brake that provides retarding or stopping motion by hydraulic means.

IDLER SHEAVE. A sheave used to equalize tension in opposite parts of a rope. Because of its slight movement, it is not termed a running sheave.

IMPACT ALLOWANCE. Additional hook load assumed to result from the dynamic effect of the live load.

INTEGRAL LIFTING ATTACHMENTS. Lifting attachments that are fabricated or formed (welded, cast, or molded) as integral parts of (i.e., permanently attached to) the component or equipment to be lifted. Internal threads in tapped holed are considered integral lifting attachments.

INTERLOCK. A device that permits the operation of equipment only after pre-established conditions have been fulfilled, and stops the operation when conditions change.

INSULATED LINK. A component normally installed between the hook and the lifting wire rope or lower load block to prevent the flow of electrical energy. Insulated links are primarily used when there is the possibility of contact between weight handling equipment and electrified power lines or when radio frequency energy may collect on the weight handling equipment structure. Insulated links are used extensively in the handling of ordnance.

JOGGING (NOTCHING, INCHING). The rapidly repeated closure of a circuit to start a motor from rest for the purpose of accomplishing small movements of the driven machine.

KINGPIN (CENTERPIN). A vertical steel pin or hollow tube located at the center of rotation of a crane for the purpose of aiding in preventing overturning of the superstructure and also for maintaining the center of rotation in position. (See "Center Steadiment.")

LASHING. Wire rope, synthetic rope, synthetic webbing, or other approved material (without permanent end fittings) that is used for wrapping and securing around an object to provide a point or points from which to lift the object.

LAY LENGTH OF WIRE ROPE. The distance along a wire rope in which a strand makes one complete turn around the rope's center.

LEVER OPERATED HOIST. A manually operated hoist (utilizing chain, wire rope, or synthetic webbing) with ratchet, pawl, and friction brake used for lifting, pulling, and tensioning applications.

LIFT. Maximum safe vertical distance through which the hook, magnet, or bucket can move.

LIFT CYCLE. Single lifting and lowering motion (with or without load).

LIFTING DEVICES. Buckets, magnets, grabs and other supplemental devices, the weight of which is to be considered part of the rated load, used for ease in handling certain types of loads.

LIFTING LUG. An appendage affixed as an integral or non-integral part of the component and used for the attachment of weight handling equipment.

LIMIT SWITCH. A device designed to cut off power automatically at or near the limit of travel for the crane motion.

LIST. The angle between the horizontal plane and roller path plane measured athwartships for floating cranes.

LIVE BOOM. A boom that is lowered by gravity solely under the control of the boom hoist drum brake.

LIVE LOAD. A load that moves relative to the structure under consideration.

LOAD BEARING PARTS. See section 1.

LOAD BRAKE. A brake that provides retarding force without external control.

LOAD CELL. The load measuring device in a system intended to aid the operator or rigger by continuously monitoring the load and warning to an approach to an overload condition.

LOAD CONTROLLING PARTS. See section 1.

LOAD CYCLE. One lift cycle with load plus one lift cycle without load.

LUFFING. A radial in and out movement of the load by the raising or lowering of a crane or derrick boom.

MAGNETIC CONTROL. A means of controlling direction and speed by using magnetic contactors and relays.

MAGNETIC LIFTER (CLOSE PROXIMITY OPERATED). A below the hook lifting device that uses a lifting magnet in such a fashion that the operator manually positions the magnet on the load, and manually guides the load during a lift.

MAGNETIC LIFTER (REMOTE OPERATED). A below the hook lifting device that uses a lifting magnet in a way that does not require an operator or other personnel to be in close proximity to the magnet or load while in use.

MAIN HOIST. Hoist system used for raising and lowering loads up to maximum rated capacity of the crane.

MAJOR DEFICIENCY. See section 1.

MANUAL CONTROL OR CONTROLLER. An electric control having all of its basic functions performed by hand.

MASTER LINK. Forged or welded steel link (round, pear or oval in shape) used to support all member(s) (legs) of an alloy steel chain or wire rope sling.

MASTER COUPLING LINK. A coupling link used as an intermediate link to join two or more alloy steel chains to a master link.

MASTER SWITCH. A switch, usually in low current and low voltage circuits and operated by a crane or hoist operator, that dominates the operation of other control devices most often of greater current and voltage, such as contactors, relays, and other magnetically operated devices.

MATERIALS HANDLING EQUIPMENT. This term includes all self-propelled and conveyor equipment normally used in storage and materials handling operations in and around warehouses, shipyards, industrial plants, airfields, magazines, depots, docks, terminals and on board ships. Included are warehouse tractors, forklift trucks, rough terrain forklift trucks, platform trucks, straddle carrying trucks, industrial cranes and automated material handling systems. Also included are driverless tractor systems, stock selector systems, storage retriever systems, stacker crane systems, pallet movement systems, and intra-depot transporter systems for warehouse applications. Excluded are construction and gantry/portal cranes, overhead electric traveling cranes, and non-portal shipboard conveyor systems. See SECNAVINST 4440.31.

MECHANICAL LOAD BRAKE. An automatic type of friction brake used for stopping or controlling loads in the lowering direction. This unidirectional device requires torque from the motor to lower a load but does not impose additional load on the motor when lifting a load.

MECHANICAL SPLICE. A loop or eye formed in the end of a wire rope (either turn-back or flemish eye) with one or more metal sleeves pressed or swaged over the wire rope junction.

MESSENGER TRACK. A horizontal member, mounted along a handrail or girder, supporting movable carriers from which festooned wires are hung.

MOBILE BOAT HOIST. A straddle type self-propelled or towed type carrier crane consisting of a steel structure supported by wheels designed to straddle, carry, and lift vessels in and out of the water.

MODIFICATION. See alteration.

MULTI-PART SLING. A sling with more than one component rope in the body. The component ropes may be cable laid or braided.

NON-INTEGRAL ATTACHMENTS. Removable attachments (eye bolts, bolted lifting lugs, etc.)

NOTCH. Movement across or to mechanical notches that indicates by feel of the master switch handle the various speed points and that automatically centers the handle at the contact points.

OEM. The original equipment manufacturer or a company that has obtained the rights to the equipment design or manufacture.

OPERATOR'S CAB. The operator's compartment from which movements of the crane are controlled. May be specified as open, having only sides or a railing around the operator, or enclosed, complete with roof, windows, etc.

OUTRIGGERS. Extendable or fixed members attached to the mounting base, that rest on supports at the outer ends used to support the crane. Outriggers are capable of supporting the entire weight of the crane and load.

OVERHEAD ELECTRIC TRAVELING CRANE. An electrically operated machine for lifting, lowering and transporting loads, consisting of a movable bridge carrying a fixed or movable hoisting mechanism and traveling on an overhead runway structure.

OVERLOAD. Any load greater than the rated load.

OVERLOAD PROTECTION (OVERCURRENT). A device operative on excessive current to cause and maintain the interruption or reduction of current flow to the equipment governed.

PACKAGE HOIST. A commercially designed and mass-produced hoist characterized by the motor, gearing, brake(s), and drum contained in a single package often connected by the use of c, d, or p-face flanges. This is in contrast to a "built-up" hoist, which utilizes separate motors, gearboxes, brakes, and drum typically connected by couplings.

PADEYE. A portable or fixed eye secured to structural members or through holes in structural members, used for attachment of rigging gear.

PARKING BRAKE. A friction brake for a bridge or trolley, automatically applied when power to the crane is interrupted.

PAWL. A gear locking device.

PENDANT PUSH BUTTON STATION. A device suspended from the crane permitting operation of the crane from the floor or other remote location.

PERFORMANCE. The effective operation of any device. The manner or behavior of equipment in operation.

PERSONNEL PLATFORM. A platform used for lifting personnel with cranes. It is either suspended from the crane by wire rope or chain slings, or directly attached to the crane. It has no installed motion controls for the platform itself.

PITCH DIAMETER. Distance through the center of a drum or sheave from center to center of a rope passed about the periphery.

PIVOT TRUNNION SYSTEM. A pivot system between the front columns and top beam on certain types of mobile boat hoists to minimize stresses in the machine structure when traveling over uneven terrain.

PLUGGING. Creating a braking motion with an electric or hydraulic motor by applying energy to reverse the motor.

PORTABLE FLOOR CRANE. A self contained lifting device characterized by a pair of laterally spaced legs, an upright mast, pivoting boom with a boom extension, and hook which is used to raise and lower loads.

PORTABLE GANTRY/ A-FRAME. A portable structure, similar to an overhead bridge crane, except that the bridge for carrying the trolley is rigidly supported on two or more legs usually with wheels.

PORTABLE LOAD INDICATOR. A portable device or system intended to aid the operator or rigger by continuously monitoring the load weight and providing a visual indication of the total load. Some devices may also provide audible warning to the approach of an overload condition.

PROTECTIVE PANEL. An assembly containing overload and undervoltage protection for all crane motions.

RACK. A bar, straight or curved, with teeth or one face for gearing to a pinion, worm, or other mechanism.

RADIUS. The horizontal distance from a projection of the axis of rotation to the ground or water line, before loading, to the center of the hoist line(s) with load applied ("radius" and "reach" as used for cranes are synonymous).

RATING. Designated limit of operating characteristics based on specific conditions.

REACTOR. A device that introduces reactance into an AC circuit for such purposes as motor starting, paralleling transformers, and control of current.

REEVING ARRANGEMENT. A plan showing the path that a rope takes in adapting itself to all sheaves and drums of a piece of equipment.

REGENERATIVE BRAKING. In crane and hoist usage, braking a driven load that becomes overhauling by virtue of overspeed beyond the synchronous speed of an AC motor, the motor then becoming a generator that absorbs energy from the overspeeding load and returns it to the power input line.

RELAY. A device that is operative by a variation in the conditions of one electric circuit to effect the operation of other devices in the same or another electric circuit.

REMOTE OPERATED CRANE. 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.

RING. A forged or welded steel link used to support all member(s) (legs) of a sling assembly.

ROLLBACK. See "HOIST ROLL BACK."

ROLLER CLEARANCE. Distance between rollers and roller path on portal and floating cranes that have a balance deck platform design. Roller clearance is not necessarily indicative of crane instability, but can be the result of normal dynamic undulation of the roller path or the roller path supporting members, undersized rollers, mis-aligned roller axles, roller race connectors, rail splices, etc.

ROLLER LIFT-OFF. Roller clearance comprising approximately 60 percent or more rollers in the roller path quadrant under the counter weight with the boom at maximum radius and maximum load or the quadrant under the boom heel pin with the boom at minimum radius and no load.

ROLLER PATH. The circular rails or flat tracks or conical surface tracks on which rollers or wheels travel.

ROTATE BEARING. A large, precision machined ring bearing connecting the stationary and rotating portions of portal, floating, and mobile cranes.

ROTATE PLATFORM (TURNTABLE). That part of a rotating crane immediately above the roller path supporting the machinery, the machinery house, and cab.

RUNNING SHEAVE. A sheave that rotates as the hook is raised or lowered.

SAFETY DEVICE. See section 1.

SEMI-MAGNETIC CONTROL OR CONTROLLER. An electric control having only a part of its basic functions performed by electromagnets.

SERVICE BRAKE. A friction brake for bridge or trolley, automatically or manually applied, used during normal operation to apply a retarding force.

SERVICE CLASSIFICATIONS FOR OVERHEAD TRAVELING CRANES. For procurement purposes, the Crane Manufacturers Association of America has established the following classifications:

Class A - Standby Service
Class B - Light Service
Class C - Moderate Service
Class D - Heavy Duty Service
Class E - Severe Service
Class F - Continuous Severe Service

SERVICE FACTORS. Multipliers applied to ratings to adapt them to conditions of service other than those for which the ratings were established.

SHACKLE. A U-shaped fitting with a pin across the throat used as connection between lengths of a chain or to attach other fittings.

SHALL. As used in this publication, means the requirement is mandatory.

SHOULD. As used in this publication, means recommended guidance.

SHUNT. A conductor of one of many forms joining two points in a circuit to form a parallel or bypass circuit through which a portion of the current may pass for the purpose of regulating the relative electrical characteristics of various portions of the circuit.

SINGLE LEG VERTICAL HITCH. A method of supporting the load by a single, vertical part or leg of the sling.

SKYLIGHT. A built-up frame having glass fitted in the top and installed over a deck opening for the purpose of admitting light and air to compartment below.

SLING. An assembly used for lifting when connected to a lifting mechanism at the sling's upper end and when supporting a load at the sling's lower end.

SLING ADJUSTMENT SYSTEM. Hydraulic cylinders controlled by switches in the operator's cab on certain types of mobile boat hoists that move certain hoists fore and aft to position slings in the optimum position under boats to be lifted.

SLOW SPEED MICRODRIVE. Normally an alteration to main hoist of portal cranes. Used in specialized applications where very slow speeds and high degree of control are required.

SMOOTH. Motion without any hesitation, abnormal vibration, binding, gross shimmy, or irregularity.

SNATCH BLOCK. A single or multi sheave block that opens on one side to allow running the wire or fiber rope over the sheave without having to thread the end through the block.

SPEED POINT. One of a series of circuits and associated electrical control devices that control the various speeds and directions of a motor.

SPELTERED SOCKET. A type of connection for rope in which molten zinc is used.

SPIDER. The radial member connecting the roller cage with the center steadiment to maintain the true circular path of the rollers and to resist the outward thrust of the rollers.

SPREADER. A beam or bar used for holding apart two or more lifting slings that suspend a load having two or more lifting attachments. A spreader may be suspended from a crane or hoist using one or more lifting attachments.

SPUD LOCK. A device consisting of a spud and socket used for the purpose of preventing motion of the rotating structure of a crane while idle.

STABILIZERS. Extendable or fixed members attached to the mounting base to increase the stability of a crane, but that may not have the capability of relieving all of the weight from wheels or tracks.

STOP. A fixed obstruction designed to contact the bumper of a traveling crane or trolley.

SWIVEL EYE BAR. An extension of a hook shank on an articulated duplex sister hook that is pinned to the hook.

SWIVEL HOIST RING. A threaded fixture used as an attachment device for lifting loads, similar to a shouldered eye bolt, but capable of swiveling 180 degrees and rotating 360 degree with no reduction in capacity.

SYNTHETIC ROPE SLING. A sling manufactured from a synthetic fiber (nylon, polyester, etc.).

SYNTHETIC ROUNDSLING. An endless sling manufactured from synthetic fiber yarns (nylon, polyester, etc.) covered by a tubular jacket.

SYNTHETIC WEBBING SLING. A sling manufactured from nylon or polyester webbing.

TACKLE BLOCK. A block designed to be used with natural and synthetic fiber rope. The block consists of metal sheaves with either wood or metal side plates. The side plates and sheaves may or may not be secured with cheek straps. The block is lighter and has less capacity than a wire rope block.

TEST LOAD. Any load or force used for testing, the magnitude of which is known within acceptable tolerances and is so certified by the facility test director. Test loads shall be expressed in pounds.

TOPPING BLOCK. The upper block of luffing tackle. The term upper luffing block is preferred.

TRAVEL. The horizontal, usually straight-line motion, of a crane or its parts (such as a trolley).

TRIM. Angle between the horizontal plane and roller path plane measured fore and aft.

TROLLEY. A wheeled carriage designed to support and transport a suspended load. The term includes all integral associated equipment for hoisting, and propelling the load.

TRUCK. The complete unit of frame, wheels, integral driving, and associated equipment that supports a traveling crane or traveling portion of a crane, such as a trolley.

TURNBUCKLE. A device normally attached in line with a sling(s) for making limited adjustments in length, by turning a threaded barrel attached to right hand and left hand threaded end connections.

TWO-BLOCK. Over-hoisting by direct hoisting or indirectly by lowering the boom or telescoping the boom so that the hook block and the upper block come in contact resulting in possible damage to the structure, parting of the hoist line, and dropping of the load.

VACUUM LIFTER. A below the hook lifting device for lifting and transporting loads in a fixed attitude using a vacuum as the holding force.

VALIDATION. Second level approval of the activity certification of cranes used in special purpose service by the Navy Crane Center, normally consisting of complete record review, independent condition inspection, and verification of the proper conduct of the crane condition inspection and load test performed by the activity.

VANGS (VANG LINES). Lines attached to each side of a derrick boom near the outer end and to tackle on the base, ground, or pontoon by means of which the boom is rotated from one side to the other.

WEATHERPROOF. Tightness such that exposure to the weather will not interfere with its successful operation.

WEIGHT HANDLING EQUIPMENT. Weight handling equipment consists of cranes (e.g., portal cranes, mobile cranes), rigging gear (e.g., slings, shackles), and associated equipment (e.g., portable hoists, dynamometers).

WHEELBASE. The distance between the centers of the most forward and most aft wheels on a traveling crane. On overhead traveling cranes with more than a total of four bridge wheels, the distance between the centers of the forward group of wheels and the aft group of wheels.

WHIP HOIST. A hoist using a single line to the hook without intervening tackle. Used for light loads and fast speeds.

WIND LOCK. A means, usually a spud lock, for preventing the motion of a crane that might be caused by the action of the wind.

WIRE ROPE BLOCK. A block that is equipped with cheek straps, which provide strength between the end attachments and sheave center pins. The block is well suited for heavy loads and high speed applications.

WIRE ROPE SLING (PENDANT). A sling fabricated from wire rope usually fabricated with an eye at each end.