JRCLANCY
QUALITY SINCE 1885

Stage & Rigging Terms

A

A-Guide: A-shaped aluminum members fixed in parallel rows for the purpose of guiding arbors or clews. They are intended for use on counterweighted systems employing compensating chains and in zones of high seismic activity. This is a Clancy product.

Acoustical Reflector Panel (Cloud): A reflective panel hung in the auditorium, generally above the audience, that is used to direct sound into desired zones. Often decorative in nature.

Act Curtain: A curtain (sometimes designed for a specific show) that is opened to signal the beginning of a performance. The Front Curtain is often used for this purpose.

Actuator: (1) Any mechanical or electrical control device (a push button) that initiates an action.
(2) A screw jack or a hydraulic or pneumatic cylinder used to cause an action like opening a door.

Apron: The portion of stage that extends beyond the proscenium opening.

Arbor: A carriage or rack that contains weights, usually flame cut steel or cast iron, in sufficient quantity to balance a load.

Arbor Pit: An area located below an opening in the stage floor that permits greater travel for counterweight arbors and pipe battens.

Arbor Release: A part of the fire curtain rigging that permits the fire safety curtain arbor to move and the fire safety curtain to close. The release is usually controlled by the fire line system.

Arena: A performance space with seating all round the performers. Examples include theaters, basketball courts, and indoor rodeos.

As Built Drawings (Final Drawings): Equipment or layout drawings that show equipment as it was actually built and intended to be installed. They may not reflect actual, as installed, conditions.

Audience: The area of the theater where visitors sit to view a stage performance.

Auditorium: A hall or seating area within the hall where the audience views a performance.

Austrian Curtain: A curtain that is raised (opened) with brailed lifting lines and is sewn with both vertical and horizontal fullness.

B

Backstage: The stage area that is located beyond the sight of the audience. Usually behind curtains and other masking devices.

Banner Winch: A winch with a smooth drum designed to roll up a cloth banner. Usually used with curtains intended to modify the acoustic properties of a space.

Bar Joist: A beam fabricated using lightweight rolled or fabricated sections that is used for long spans under light loading conditions.

Batten: A bar, usually made from steel pipe, from which scenery, lights and curtains are hung.

Batten Clamp: See “Pipe Clamp.”

Beam: A structural member (usually horizontal in a building structure) that resists bending.

Beam Clamp: A device from which a load is hung, attached to the flange of a steel beam without altering the beam in any way.

Bearing: A device that supports a shaft or other machine part while minimizing friction.

Belaying Pin: A wood or steel rod, inserted into a hole in a pin rail, that secures ropes attached to a load. They are typically removable.

Black Box: A room (often painted black) that is intended for performance and lacks a permanent configuration, seating, or fixed performance area. Provision for performance lighting and props or curtains is often made.

Block: An assembly that consists of one or more sheaves and axles in a housing.

Border Curtain: A curtain used to define the top limit of the stage and to mask or hide lights and unused scenery and curtains.

Brail Curtain: A curtain that is raised (opened) with brail type lift lines and is sewn flat or has horizontal fullness.

Brail Lines: Lifting lines that pass through a row of rings sewn to the back of the curtain and attach at the curtain bottom. The curtain folds up when the lines are pulled.

Brail Winch: A winch designed to work as part of a rigging system to raise and lower a curtain from its bottom support using cables run through rows of rings on the back of the curtain.

Breaking Strength: The load at which a failure occurs.

Bridge-Lighting: A catwalk that crosses from one side of the stage to the other, used for lighting fixtures and operator access. It may be dead hung or flown.

Bridle: An assembly that splits a lift line into two separated attachment points. Used to support trusses or to provide extra support along a pipe batten to limit deflection.

C

Cable Clip: A device to mechanically fasten cables, consisting of bolts, nuts, and pads that bear against the cable to prevent crushing and slippage.

Cable Cradle: A device that supports an electrical cable loop and prevents sharp bends. It often has a hole for attachment of a lifting line.

Cable Reel: A drum for holding hose or various types of electrical cable that winds using springs or a motor. The hose or cable is connected at the hub of the drum so the connection to other systems is maintained as the drum rotates.

Cable Roller: A roller assembly designed to prevent moving cables from contacting any part of a building or adjacent rigging. Not intended to change cable direction or carry loads.

Capstan Winch: A winch, usually portable, with an un-grooved drum designed to assist in moving heavy loads. An operator wraps a rope around the drum and pulls to tighten the rope on the drum. Friction causes the rope to travel with the rotating drum.

Carriage: See "Arbor."

Certified Rigger: A rigger who has passed the "Entertainment Technician Certification Program" (etcp) exam and is recognized as competent to do rigging for a period of time. This certification is based on both experience and a written test. Regular re-certification is required.

Clew: Device that connects several ropes or cables to one, usually stronger, rope or cable.

Clutch: Clutches are couplings that permit selective engagement and disengagement of shafts, such as a gearbox shaft from a drum.

Compensating Line: A system of light and heavy chains or cables that balances lift line weight as it transfers from the batten to the arbor side of a moving counterweight set.

Competent Person: The ESTA/ANSI Series E1 standards definition is a person who is capable of identifying existing and predictable hazards in the workplace, and who is authorized to take prompt corrective measures to eliminate them.

Contour Curtain: A brail or Austrian curtain rigged so that each lift line may be operated separately to form different shaped openings.

Counterweight: (n) Weights, usually flame cut steel or cast iron, that are placed in counterweight arbors to balance the weight of loads hung on battens. (v) The act of adding or removing weight from a set in order to achieve a balanced system.

Counterweight Assist Winch: An electric winch whose capacity is augmented by the addition of a counterweight arbor.

Counterweight Set: A rigging system where the load is balanced by a counterweight so that only a small force is required to overcome friction and move the load.

Cross Over: A corridor created by an upstage curtain and the rear stage wall that allows actors and other personnel to cross from one side of the stage to the other side out of sight of the audience.

Curtain: Any fabric panel that is hung as part of a scene or to mask unwanted views.

Curtain Track: A formed or extruded shape that contains moving carriers and supports drapery. They often have a cord or other means to open and close the drapes.

Cyclorama: (1) Curtain at the rear of the performance area used to represent the sky or distant areas.
(2) Set of borders, legs, and drops used to define the limits of a performance area.

D

D/d Ratio: It is the ratio between the tread diameter (D) of the drum or sheave and the cable diameter (d). Smaller ratios reduce the service life of cables.

Dash Pot: An adjustable, hydraulic ram that smoothly slows and stops a moving object.

Dead End: The end of a rope or part of a device that is not active or load carrying.

Dead Haul: Pulling a load that is not counterbalanced.

Dead Hung: Directly fixed to the structure or attached at a fixed elevation using chain, rods, or cable.

Dead Load: The permanent or non-removable part of a system load (i.e. the weight of a batten versus the load hung from it).

Design Life: The minimum expected life of the system expressed in hours or cycles of operation.

Design Load: The load that a system or equipment item is designed to carry. This load can be made up of dead loads, live loads, dynamic loads, and environmental forces.

Direct Struck Limit: A limit switch that is actuated directly by a moving device passing by the switch location.

Double Purchase: A rope or cable that passes from a lifting device (arbor, winch, or person) over a block, to a block attached to the load, and tied off at the previous block, is double purchased. The system allows twice as much load to be raised for a given effort, but the rope or cable must be pulled twice as far, so total work done remains the same.

Down Stage: The area of the stage that is closest to the audience. See "Raked Stage."

Drive Shaft: A rotating component that conducts power from an engine or other power source to a drum, pulley, or gear.

Drop Curtain: A curtain that is painted or constructed in a manner that makes it a part of the scenic environment.

Drum Winch: A winch with a drum for wrapping cable as it is taken up. One end of the drum is typically supported by a bearing while the other end is connected to the output shaft of the gear box.

Dynamic (Live) Load: The loads in a system that change in magnitude, direction or location over time.

E

Electric: A name given to a pipe batten used to support lighting equipment in a theater.

Elevation Drawing: A drawing that shows the vertical face of an object or system.

Emergency Stop Circuit: This should be a failsafe, separately wired circuit in rigging control that stops any and all controlled machinery in an emergency. The circuit can be triggered by depressing Emergency Stop pushbuttons and by various automatic sensors and limit switches. To re-start it is necessary to take one or more specific actions to begin motion.

Environmental Forces: Conditions in the environment which have an affect upon the strength, size, or effective life of equipment. Examples of forces include snow loads on roofs and wind against the side of a building.

Equal Pitch: All grooves in the sheave have the same pitch diameter so that the center of each line travels the same distance as the sheave rotates one revolution.

ETL Link: Electro Thermal Links are fusible links which react (melt) when the ambient temperature reaches 165° F or when subjected to an imposed electrical impulse.

F

Factor of Safety: The ratio between the rated working load of a component or system and its minimum ultimate breaking strength.

Fail Safe Brake: A brake that will fully engage and resist motion of the device if power or control signal is lost. For example: a spring applied, electrically released brake.

Fall Arrest System: A device that engages to halt a person or other load that has exceeded a predetermined speed, indicating a falling condition.

Field Check: A visit made to an installation project for the purpose of obtaining project measurements, checking its status, and finding potential conflicts.

Fire Safety Curtain: A curtain that closes automatically in event of a fire to prevent heat, smoke and flames on the stage from reaching the audience. The curtain may be closed when the space is not occupied to prevent unauthorized access and to prevent falls from the edge of the stage.

Fireline: Firelines are installed around the perimeter of a stage-proscenium arch to hold the fire safety curtain open. Firelines connect the curtain to all manual electrical and heat activated devices that release the safety curtain.

Fleet Angle: The angle formed between the centerline of a sheave or drum and another sheave or fixed point.

Floor Block: Pulley mounted at the floor to hold a rope or cable in position and to reverse its direction. Floor blocks meant for rope often incorporate a means of adjustment to accommodate changes in length due to loads or environmental conditions.

Flown: Suspended in a manner that permits the equipment to be raised and lowered.

Fly: The act of lifting scenery, lights, and curtains.

Fly Gallery: A gallery or catwalk above the stage floor from which counterweight and hemp (rope) rigging is operated.

Fly Loft: The space between the roof and the performance area that is not visible to the audience.

Forestage: The portion of the stage located in front of the proscenium or main curtain line.

Free End Ball: A heavy ball that is attached to the end of a fire line and wrapped around the fire safety curtain operating line to prevent closure of the curtain. When tension is release in the fire line the weight of the ball causes it to fall free, releasing the curtain.

Fixed Speed: A winch that operates at a single speed with no ability to modify the speed. Fixed speed winches are typically used for low speed setup or heavy load applications.

Front Curtain (House Curtain): A curtain used to define the stage location to the arriving audience. It is often the curtain closest to the audience and may also perform the function of an "Act Curtain."

Fullness: Additional fabric that is added to a curtain to be sewn into pleats. 100 percent fullness means that the curtain would be double its finished width before the pleats are made.

Fusible Link: A device consisting of two metal parts that are soldered together. The solder melts at a predetermined temperature allowing the two halves to separate.

G

Gearmotor: The combination of a gearbox and motor in a single unit. The motor may also incorporate a brake.

Grade 5 Bolt: A medium carbon steel bolt that has been quenched and tempered for increased hardness and tensile strength in accordance with SAE Specification J429. The heads of bolts rated as Grade 5 have three lines at 120° intervals on their heads.

Gridiron (Grid): An open floor, usually made from light steel channels or grating, that is located near the roof steel. It provides mounting locations for rigging equipment and access to that equipment for inspection and maintenance.

Guide: To control the movement of rigging devices by means of slides or rollers moving in tracks or on stretched cables.

Guide Shoe: A rolling or sliding device that connects a counterweight arbor or sliding tension block to guide rails in order to guide its travel.

Guide Rails: Components that confine and control the movement of counterweight arbors and tension floor blocks. See "J-Guide, A-Guide, Lattice Track, T-Guide, and Wire Guide."

H

Hand Line: A line, usually rope, that is pulled by hand to lift or control the movement of a load.

Hand Winch: A device that consists of a hand crank that rotates a drum or pulley through a torque multiplying/speed reducing mechanism.

Head Block: A pulley mounted to support steel that changes the direction of lift and operating lines between the loft blocks and an arbor or winch.

Head Block Beams: Structural framing designed to support the head blocks and all related loads. Usually consisting of one or two beams and associated bracing members.

Heat Resisting Border: A curtain that is placed between stage masking curtains and a heat source, such as a stage light, to prevent a fire. The heat resisting curtain employs a fabric which is fire proof, rated for high temperatures and spreads the heat from hot spots.

Hemp (Rope or Spotline) Rigging: A rigging system that employs ropes and sandbags instead of counterweight arbors or other devices. Usually used for temporary rigging.

Hoist: A geared mechanism, either hand operated or motorized, for use in raising (vertical movement only) equipment. The gearing produces a mechanical advantage in speed and load capacity.

Hoisting Machine: A powered machine used for raising, lowering, and holding objects.

Holding Brake: A brake use to hold a load in a static condition as opposed to decelerating a load to a stop and holding the load.

House: See "Auditorium."

House Left/Right: The sides of an auditorium as seen by an audience member while facing the stage.

Hydraulic Descent Control: A device used to control the speed of a closing fire curtain. These devices include hydraulic dampers, speed regulators, and dashpots.

I

Idler: A pulley designed to support one or more cables but not to make direction changes.

Incremental Block: A multi-grooved pulley that supports and changes the direction of cables between the load and the head block and that supports other, more distant, lines in the set.

Index Light: A series of lamps in a special housing designed to illuminate the locking or pinrail area.

Index Strip: A device located at the front of a locking rail to hold line set identification labels.

J

J-Guide: J-shaped aluminum members fixed in parallel rows for the purpose of guiding arbors or clews.

L

Lattice Track: A parallel pair of angles or other structural members that guide an arbor or clew. Low friction slides or roller guides are placed on both sides of the device to be guided.

Lead Line: See "Lift Line."

Leg Curtain: A curtain used to define the side limit of the stage and to mask or hide actors, lights, and unused scenery in the off stage area (wings).

Lift Line: Any rope or cable located between a load and a winch or counterweight arbor.

Lighting Bridge: A walkway across the stage (fixed or flown) where lights are hung and where they may be adjusted and maintained.

Line Set: A system consisting of one or more lift lines and related components operating together to lift, lower, or suspend a load.

Limit Switch: An electro-mechanical switch that trips (changes state) when contacted by a moving device. They are used to halt the motion of a winch or other electro-mechanical device.

Line Shaft Winch: Winch with a series of cable drums connected to a gearbox by a common shaft.

Live End: The end of a rope or part of a device that is active or load carrying.

Live Load: That part of a system load that may be added or deleted (i.e. lights hung from a pipe batten).

Load Side Brake (Load Brake): A brake in the power train of the winch that is attached to the same shaft as the load, at the output side of the gearbox.

Loading Gallery (Loading Bridge): A gallery above the stage floor where technicians add and remove counterweights from the arbors. Usually located so technicians have access to arbors when battens are at their lowest positions.

Load Sensing: A mechanical or electrical device that senses the load in a cable or block and produce a signal that can be read by a controlling device

Locking Collar: A fastening device located on the counterweight arbor rods above the upper spreader plate and counterweights and intended to help keep the weights in the arbor during a hard impact.

Locking Rail (Loading Rail): A structural railing designed to support rope locks in a way that allows them to be easily operated. It holds the out-of-balance loads from the rigging system held by rope locks. It also serves as a safety railing for operators and other personnel.

Loft Block: A pulley mounted to the gridiron or support steel that supports and changes the direction of a lift line cable between the load and the head block.

Loft Well: (1) An opening in the gridiron designed for the attachment of loft blocks so that lift lines can pass through it. (2) An opening in the gridiron designed so cables can pass through from blocks mounted above without rubbing against the opening.

LumaLift™: The LumaLift line of lighting hoists is available from Clancy in self-climbing and grid mounted versions. The hoists are compact and feature built-in plugging strips and electric cable handling.

M

ManualMaker™: This software program from Clancy facilitates the creation custom operation and maintenance manuals for stages using Clancy hardware. Sections are written in Microsoft Word for most standard Clancy products.

Masking: A set of curtains or scenic elements used to define the visual limits of a performance area.

Motor (Primary) Brake: A brake that is mounted at the motor. It has a low torque capacity and fast response. Used for normal stopping and holding duty on a motorized hoist.

Motorized Rigging: A theatrical rigging system using powered winches and other devices to move equipment rather than muscle power.

Mouse: To wrap the end of a rope, cable or turnbuckle to prevent it from unwinding.

Mule Block: A pulley that supports and changes the direction of one or more cables traveling between loft blocks and head block.

Mule Winch: See “Capstan Winch.”

Multi-Cable: Electrical cable (borderlight cable) with multiple conductors that conducts electrical power to multiple circuit wire ways and boxes on the stage. At least one conductor must be used as a grounding wire.

Multi-Line Block: Any block that can support more than one line. See “Incremental Block” and “Multi-Sheave Block”.

Multi-Sheave Block: A block with more than one sheave, each of which can support and change the direction of a rope or cable. Sheaves can be held by a common shaft or by multiple shafts within a common housing.

Multi-Sheave Block: A block which contains a number of sheaves and sets of bearings so that each rope or cable can operate independently.

N

Nicopress®: A registered trademark of the National Telephone Supply Company, used to describe compression type sleeves placed at the end of a wire rope to interconnect two ropes or to form an eye at the end.

O

Off Stage: The stage floor area that is not a part of the acting area and is not visible to the audience.

Olio Curtain: A curtain located between the “Front” or “Act” curtains and the “Rear” curtain that closes off a portion of the acting area for more intimate presentations. It is often colored or decorative.

On Stage: The portion of the stage area visible to the audience, usually defined by masking curtains, scenery, an orchestra shell, or by lighting.

Orchestra: (1) A group of musicians who play instrumental selections. (2) The portion of the auditorium on the main floor that is closest to the musicians and the acting area.

Orchestra Lift: A moving platform that is used to adjust the elevation of the musicians in relation to the stage and auditorium. Usually operates within the confines of an orchestra pit.

Orchestra Pit: A depressed area between the stage and audience seating area where musicians sit, so the audience can hear the music and see the performance over the heads of the musicians.

Orchestra Pit Filler: Removable platforms that are used to close off the orchestra pit at the level of the stage or auditorium.

Orchestra Pit Lift: A section of the orchestra pit floor that may be raised and lowered by some mechanical (typically motorized) means.

Orchestra Shell: An enclosure on stage, consisting of walls and a ceiling that reflects sound into the auditorium. Usually decorative in nature.

Over Balance Bar System: In this system the curtain and counterweight are balanced so that the curtain can be raised and lowered manually with a minimum of effort. A weighted bar is held above the upper batten of the fire safety curtain by a hinged mechanism. The hinged mechanism opens when the fire line is released, so that the weighted bar slides down the center lift lines to rest on the upper batten. This makes the curtain heavier than the counterweight and causes it to close.

Over Speed Brake: Any brake that is controlled to recognize when the speed exceeds a preset threshold and then acts to stop the controlled load.

Out-of-Balance: A condition that exists when the weight of a batten, fittings, and attached loads do not equal that of counterbalancing equipment such as counterweight and an arbor. For safe and efficient use, manually operated sets should be balanced to within 50 pounds of neutral.

Outrigger: A barrier device that protects counterweight arbors from scenery, etc. that may be leaned against them. Often also supports index lights.

P

Paint Frame: A rigid frame, usually made of wood, to which drops and flats may be attached vertically for painting. They are normally rigged to be raised and lowered so painters can reach all areas of the frame.

Parking Brake: See "Holding Brake."

Pendent: A hand held controller that is attached to an electrical cable so the operator can move about to obtain better visibility of the devices being controlled.

Pileup Winch: Winch with a drum that has a narrow slot to contain the cable in a single vertical layer. The speed and load capacity varies with each layer of cable. Also called a Yo-Yo winch.

Pinrail: A railing with holes to accept belaying pins. May also act as a safety railing at the edge of a gallery or walkway.

Pipe Clamp: Clamping device that bolts around a pipe for attachment of chain or cable hangers.

Pipe Grid: Horizontal structure hung over a stage or auditorium to support lights and scenery. Made from pipes crossing on right angles at set intervals.

Pitch Diameter: Diameter of a sheave or drum measured from the center line of the cable wrapped around it.

Pivot Block: A pulley designed to adjust to structures at odd angles.

Plan Drawing: A drawing that shows the layout or top view of a construction or object.

Point Hoist: A single line winch, used singularly or in groups, to hold a load at a specific point over the stage. They are the motorized equivalent of spot lines, providing the greatest flexibility possible in automated rigging (Similar to a dimmer per circuit in lighting.).

Portal: A portal consists of a header (border) and tabs (legs) that can be moved to adjust the size and shape of the proscenium opening to fit various performance needs. It is usually located just up stage of the front curtain and may have provision for mounting lights.

PowerAssist™: These hoists are designed to drive existing or new counterweight sets by using a closed loop, proprietary rope/chain arrangement to operate between zero pounds up to double the weight fixed in the arbor.

PowerLift™: A J.R. Clancy Product. See "Zero Fleet Angle Winch."

Purchase Line: See "Hand Line."

Proscenium: The dividing wall or barrier between the audience and the stage.

Proscenium Arch: The opening in the proscenium through which the audience views a performance.

Q

Qualified Person: The ESTA/ANSI Series E1 standards definition is a person who by possession of a recognized degree or certificate of professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated the ability to solve or resolve problems relating to the subject matter and work.

R

Raked Stage: A sloped platform that is lower near the audience for better visibility and higher at the rear, providing the illusion of distance. This is the source for the terms "Down Stage" and "Upstage."

Rated Load: See "Recommended Working Load."

Recommended Working Load: The maximum load which J.R. Clancy, Inc. recommends be applied to current, listed products which are in "like new" condition and which have been properly installed, maintained, and operated. "Safe Working Load" and "Working Load Limit" are similar terms used by other manufacturers.

Resultant Load: A single load resulting from the combination of two, or more, forces acting on an object.

Reverse Bend: Passing a rope over a series of blocks so the rope is bent in opposing directions.

Rigging: All of the hardware used to lift, lower, and hold performance equipment on or above a stage.

RiggingWriter®: This software program from Clancy facilitates the creation of custom rigging specifications based on using Clancy hardware. Sections are written in Microsoft Word and are available for most standard Clancy products.

Rope Lock: A cam operated device that clamps the hand line that is attached to an arbor in order to prevent movement. Designed to hold the unbalanced load in a set.

Rotary Limit Switch: A device containing a driven rotating shaft that contacts one or more switch contacts as it rotates.

S

Safe Working Load: See "Recommended Working Load (RWL)."

Safety Chain: (1) A secondary support line, usually of chain, that supports a fire curtain or other device when the primary support cable becomes slack for any reason.
(2) The extra weight of fire curtain safety chains helps the fire curtain accelerate at the start of its travel.

Safety Factor: This is the ratio between "Recommended Working Load" and minimum, or average, failure rating that must be furnished above the RWL to account for all of the uncertainties. These can include the actual operating load, shock loads, variations in materials and manufacturing processes, environmental conditions, accuracy of the design theory, and whether failures would endanger human lives.

Sag Bar: A support rail, usually of wood or plastic, that keeps cables from sagging over a horizontal span due to their own weight. Sag bars don't carry any loads.

Sandbag: A fabric bag that can be filled with sand and attached to rope rigging as a counterbalance to the load hung from the set.

SceneControl™: The Clancy SceneControl line of rigging controllers use industrial grade PLC computers, touch screen displays, and industrial grade operators that require that an operator present at the console when any equipment is moving. A load monitoring system stops motion with the detection of any change in load. Cues and presets can be created, modified, stored, and replayed. Targets, speeds, and positions are displayed. Displays can show metric units, decimal feet or feet and inches. Depending upon the model, many programming and playback features are available.

Scrim: A curtain made from a semi-transparent material that looks solid when lit from the audience side and becomes almost invisible when back lit.

Section Drawing: A drawing that reveals an imaginary view obtained by making a cut through an object.

Self-Climbing: A pipe grid or batten that has an integral device for raising and lowering.

Set: A system of cables, pulleys, lifting devices and battens that holds a specific set of scenic elements, curtains or lights.

Shackle: A U-shaped device with holes at each end to accommodate a pin or bolt; used to connect a rope, cable, or chain to another device or a hanging point.

Sheave: A component with a groove around its circumference to support and contain a rope or cable and a bearing at its center to permit rotation about a shaft.

Shock Load: Loads generated by the rapid application of a force or motion to an object or by the collision of moving bodies.

Side Line Pulley: A light duty block that mounts by its side to a surface. They are normally used to support fire lines and operating cords for curtain tracks.

Sight Line: The edge or line of view, of what can be seen on stage from the location of the audience.

Single Purchase: A rope or cable passing from a lifting device (arbor, winch, or person) over a block, or series of blocks, to a load is single purchased. Force must be exerted equal to the load to be held or raised.

Slack Line: A cable that droops or leaves the sheave or drum groove because it lacks tension in the line.

Smoke Pocket: A slot, usually of fabricated steel that supports a guide system at the edges of a fire safety curtain and that helps to prevent smoke passing around the edges of the curtain.

Smoke Seal: A fabric flap that mounts on the proscenium wall and contacts the fire curtain in order to form a barrier that reduces the passage of air and smoke between the stage and auditorium.

Spot Block: Any block that is designed for temporary, and easily movable connection to a gridiron or other theatre structure.

Spotline Rigging: A single line rigging system designed to be easily installed, relocated, and removed. They are often rigged with rope and are frequently motorized.

Spreader Plates: A thin plate located on counterweight arbor rods, spaced by the user at 2 foot intervals between counterweights, to prevent the rods from spreading apart under a sudden impact load and releasing the counterweights.

Stage: A platform on which performances are given.

Stage Left/Right: The left and right sides of a stage as seen by an actor standing on stage facing the audience.

Stage Lift: A section of the stage floor that may be raised or lowered to different levels above and below the stage by some mechanical (typically motorized) means.

Starter: An electrical device that consists of a contactor, overload protection, and other control devices to power a motor. Many starters have dual contactors that are mechanically and electrically interconnected to cause the motor to run in either direction.

Static (Dead) Load: A load that does not change position or magnitude over time.

Stop Batten (Bumper Angle): A member mounted to the T or J-Guides that limits the travel of arbors at their top and bottom trim. They are often provided with a wood or rubber.

Stopping Brake: A brake that is activated while the load is in motion and is used to decelerate the load to a controlled stop and hold it.

Straight Lift Curtain: A curtain that can be raised (opened) without folding in any way.

Structural Drawing: An engineering drawing that describes the size, location, and attachment details of the building structure.

Submittal Drawings: Drawings that are prepared by the equipment supplier or installer to describe the equipment and details of the installation to the client. Approval of the drawings by the client indicates his acceptance of the proposed equipment, locations, and conditions of the installation.

SureBrake™: This variable torque brake is always applied, acting directly upon the winch drum, ensuring an immediate stop with no engagement shock and no need for electricity or external sensors.

SureGrip™: This rope, available exclusively from Clancy, is constructed using a 3-strand construction combining filament and staple/spun polyester wrapped around fibrillated polyolefin. One strand contains an identifying tape showing the manufacturer's name and address with the year of manufacture.

SureGuard II™: A device that accepts input from sensors and control devices and releases a fire safety curtain in response to these signals. It contains a battery and charger so a short term power loss will not result in a curtain closure. The name is a trademark of J.R. Clancy, Inc.

SureLock™: A special rope lock made by J.R. Clancy, Inc. designed so it cannot be opened when the counterweight set is more than 50 pounds out-of-balance in either direction. Also see “Rope Lock.”

Swaged Fitting: A fitting that is squeezed in a die so that the material in the fitting cold flows around the strands in the cable to form a tight connection. The excess material will flow out around the edges of the die.

Swivel Block: A pulley that allows the sheave to rotate and align itself in the plane of the cable.

T

Tab: (1) A masking leg that is mounted at right angles to the front of the stage. (2) See “Portal.”

Tableau: A curtain that is drawn open by a line running through rings located diagonally across the rear of the curtain from the leading edge up to the top on the offstage edge.

Tag Line: A line attached to a load to assist in controlling its movement.

Tandem Block: A block with two or more sheaves on separate shafts within a common housing.

Teaser: Another name for a border curtain. It often refers to the first masking curtain on stage and is paired with the “Tormentor” legs.

T-Bar (T-Guide): “T” shaped members placed in parallel rows to guide arbors or clews. Guides may consist of low friction slides or rollers.

Tension Block: See “Floor Block.”

Thimble: A grooved fitting around which a rope or cable is bent to form an eye. It supports the rope or cable and prevents kinking and wear.

Thrust Stage: A room with seats arranged on three sides around a performance space located against the fourth wall. This wall may be used for scenery, back drops, and acting space.

Tieoff Bracket: A bracket attached to rigging blocks, gridiron, or other structure to hold one end of wire ropes or chains.

Tormentor: Another name for a leg curtain. These are the first masking legs located after the main curtain.

Traction Drive Winch: Winch with a V-grooved drum that uses friction between cables and the sides of the grooves to engage the pulling cables. Increasing the cable tension causes the cables to jam tighter in the v-grooves.

Travel: The path of moving stage equipment and the distance moved.

Traveler: A curtain on a track that can be opened or closed to reveal or mask a portion of the stage.

Tread Diameter: The diameter of a sheave measured at the bottom of its groove.

Tread Pressure: This indicator of the radial bearing pressure (P) of a rope against a sheave groove is taken as the Tension (T) in the rope divided by the tread radius (R) of the sheave times the rope diameter (d).

$$P = \frac{2T}{Dd}$$

Trigger Arbor Release: This is an auxiliary system that is added to a fire safety curtain rig so the curtain can be in balance for normal operation but also allow automatic closure in an emergency by adding weight to the curtain. It basically consists of a guided auxiliary weight arbor, a catch arbor that is tied to the curtain and receives the auxiliary weight arbor (trigger arbor), and a triggering device that releases the trigger arbor in response to a loss of tension in the fire line.

Trim: (1) A load is "in trim" when the equipment load equals the counterbalancing weight.
(2) A set or element is trimmed when it has been placed in the desired position within the performance area.

Trim Chain: A length of chain placed between a lift line and a pipe batten or scenic element to connect them and to facilitate minor height adjustment of the load.

Tripped: A curtain or scenic element is lifted by a second set of lines attached at the bottom or intermediate point on the piece. Pulling the lines will cause the piece to fold in half or thirds.
Note: If the piece is counterbalanced, the weight balance will shift as the piece is tripped.

Truss Batten: Two or more pipes or other linear members fabricated together with cross bracing in a trussed configuration. Used in place of a pipe batten for heavy loads or extended distances between lift lines.

U

Under Hung: Hung from the bottom of a beam or structure.

Up Stage: The portion of the stage that is furthest from the audience. See "Raked Stage."

Upright: Resting on top of a beam or structure.

V

Valence: See "Border Curtain." Usually a special border associated with the "Front Curtain." May be permanently fixed within the proscenium arch.

Variable Frequency Drive: An electronic device that can vary the speed of an AC motor by varying the frequency of the current supplied to the motor. Speeds can typically be varied over a limited range of speeds.

Variable Speed: A device that is capable of operating at various speeds. The time required to ramp up to the operating speed and back to zero may be adjustable.

Vector Drive (also Flux Vector Drive): An AC variable speed drive that offers greatly increased performance over variable frequency drives. A processor in the drive develops the correct vectors of magnetic flux within the motor to provide the required performance. A closed loop vector drive can provide full torque at zero speed, allowing it to hold the load while not moving. These drives provide the best low speed performance of an AC drive.

W

Wall Batten: Horizontal structural members to which guide tracks are attached.

Wall Knee: Bracket that attaches a wall batten to the building structure.

Well: Gaps between gridiron members intended for the mounting and support of loft blocks on boundary channels and for allowing the free passage of cables.

Winch: A geared mechanism, either hand operated or motorized, for use in raising (vertical) or moving (horizontal) equipment. The gearing produces a mechanical advantage in speed and load capacity.

Wings: The portion of the stage area located to either side of the acting area.

Wire Grid: An open floor that supports lights or provides access to theatrical equipment. It is formed of woven cables attached to, and supported by, a structural frame.

Wire Guide: Wires placed to control the location and travel of arbors, clews and curtains.

Wire Rope: A wire rope consists of a number of strands laid helically about a metallic or non-metallic core. Each strand consists of a number wires also laid helically about a center.

Working Load Limit (WLL): See Recommended Working Load (RWL).

Y

Yo-Yo: A winch type used when space is tight and fleet angles are difficult. The drum contains a narrow slot(s) where the lift line piles up in a single layer. The winch capacity, speed, and distance traveled vary with each cable wrap.

Z

Zero Fleet Angle Winch: A winch with cables that exit the winch at fixed points so that fleet angles do not need to be considered in the rigging layout. This is accomplished by incorporating a moving head block or by making the drum move in relation to the head block per Izenour/Clancy designs dating from the early 1960s.

Zetex®: Registered Trade name for a woven, high temperature, silica glass fabric used in the making of fire safety curtains. The name is a trademark of Newtex Industries, Inc.