

# Dock Equipment Glossary of Terms

**Attachments**-This term refers to implements that can be added to a fork truck for managing a load. Attachments such as clamps, slip sheet forks and carpet poles can influence capacity and should be considered in selecting a dock leveler.

**Barrier Vehicle Restraint**-The portion of a vehicle restraint device that engages the transport vehicle to prevent movement.

**Bumpers, Dock**-Pieces of rubber or other resilient material located at the floor level of a dock opening to cushion the building from truck or tractor-trailer impact.

**Chock**- *Verb* - to place a wheel chock in front of a wheel of a transport vehicle to inhibit movement of the vehicle away from a loading dock.

**Communication Lights**-Colored lights to communicate the status of the loading operation to the dock operator and to the driver of the transport vehicle. Typically, one set of lights is visible to the dock operator to indicate whether the restraint is engaged, and another set of lights is visible to the transport vehicle driver to indicate whether it is safe to pull the vehicle away from the dock. The lights are typically green to indicate "GO" and red to indicate "STOP". Amber lights may be used to indicate caution.

**Curb Angle**-The steel angles used to reinforce and protect the corner edges of the pit area or the face edge of a dock. See, Pit Steel.

**Dawg**-A toothed device that when engaged with a ratchet bar limits the travel of the bar to one direction. See, Pawl.

**Dock (Loading Dock)**-The sorting or staging platform where shipments are loaded or unloaded. The loading dock is a bay or a series of bays in a warehouse or facility where trucks are loaded and unloaded, which can be located on the building's exterior, flush with the building, or fully enclosed.

**Dock Board**-A device for bridging the gap between the warehouse and/or loading dock platform and a vehicle's load bed.

**Dock Bumper**-Pieces of rubber located at the floor level of a dock opening to cushion the building from truck or tractor-trailer impact.

**Dock Face**-The outside wall of the dock door area.

**Dock Leveler Capacity**-The manufacturer's capacity tag rating may not reflect the gross roll-over load for a specific dock leveler. Capacity is the rating of the load that the manufacturer of the dock leveler deems to be appropriate for the design, based on considerations of the characteristics of the user's application. The required capacity of a dock leveler for a specific application is usually determined by taking the GVW and applying a complexity factor to it. The complexity factor is typically determined by a set of characteristics that are present in the application. These characteristics may include, but are not limited to: the heaviest fork lift and load (GVW) being driven across the dock leveler; the number of fork lift cycles driving across the dock leveler; the life expectation of the dock leveler; the loading slope above or below dock level; the use of three vs four wheel lift trucks; whether there are attachments on the front end of the lift truck; the lip length as well as other

considerations. The authorized sales representative of the manufacturer can help determine the capacity of the dock leveler that is required for a specific application.

**Dock Leveler Deck-**The deck assembly is the major part of the structure that is driven over. Most decks have an anti-skid surface such as a tread plate surface to provide traction at the various working angles. The deck assembly pivots at the back end of the dock leveler - the end of the dock leveler that is furthest from the transport vehicle. The dock leveler has a hinged lip attached to the other end.

**Dock Levelers-**A manually, hydraulically, or electrically operated plate, located at the dock entrance, which can be raised and lowered to accommodate varying trailer floor heights.

**Dock Light-** Dock Lights ensure that operators can see while they're inside dark trailers to load and unload safely.

**Dock Lift-**A lift whose travel is five feet (1524 mm) or less and which primarily is used to load/unload material from trucks and transfer it to dock or ground elevation.

**Dock Pit-**The pit is the recessed opening in the building's floor that accommodates the pit dock leveler. Most pits are lined along the edges with structural steel angles that are embedded in the concrete.

**Dock Plate-**A movable metal ramp that allows access to a rail car or trailer.

**Dock Safety Lighting-** Dock Safety Lighting are functional lights that activate when a tractor-trailer truck locks onto a warehouse dock. These safety lights help prevent accidents and injuries and help prevent forklifts from falling off docks or departing trucks.

**Dock Seal-**A rubber or canvas covering that extends out from a dock face to seal the gap between the dock and the trailer's entrance.

**Dock Shelter-**A cover that protects the space between the door of a rail car or truck and a warehouse from inclement weather. A dock shelter is the flexible enclosure that allows a trailer to pull under and into the opening of a loading dock while the surface of the fabric forms a contact barrier around the rear of the trailer.

Loading dock shelters fit more loosely around the trailer than loading dock seals, so they tend to last longer and be more forgiving to truck drivers.

**Driveway-**The surface in front of the dock where the transport vehicle is parked. The driveway surface may be horizontal or may be sloped toward or away from the dock. The driveway surface is typically made of concrete, asphalt, or gravel.

**EOD- (Edge of Dock)** A Dock Leveler design to be face mounted on the leading edge of a dock. It can also be pit mounted.

**Flip Lip-**A style of lip extension which uses the energy left over after the dock-leveler deck has come to the fully raised position and then flips the lip out. The dock board is then walked down with the lip already in the extended position.

**Gross Vehicle Weight (GVW)**-The GVW is the combined weight of the material handling equipment (lift truck, pallet jack, etc.) and the load. In other words, it is the total maximum weight moving across the dock leveler.

**Holdown**-A mechanical, electrical, or hydraulic device that holds a dock leveler at a set height above, at, or below dock level. See, Ramp Control.

**Horizontal Operating Range**-The horizontal distance between the face of the dock bumpers and the restraining surface of a vehicle restraint. See “working range” (2.36).

**ICC Bar Restraint**-A vehicle restraint that engages the rear impact guard (RIG) of a transport vehicle, thus preventing movement of the vehicle away from the dock structure.

**Industrial Vehicle**-Forklift trucks, powered or non-powered pallet jacks, or any other form of vehicles used to load or unload material on a transport vehicle.

**Lifter Arm**-On mechanical levelers, it is a lifting device, often employing a roller and using spring tension that raises the main portion of the dock leveler during deployment. It can also be used to describe the lever arm used to extend the lip during its deployment.

**Lip**-The lip assembly is usually pivotally attached on the deck assembly and pivots from a vertical stored position to a position that rests to the transport vehicle’s floor. Lips are usually made with a tread plate that is like the deck.

**Load**-The load is the weight of a typical individual pallet on a transport vehicle. For typical capacity calculations there is a maximum of (20) twenty loads per transport vehicle.

**Loading Dock**-The sorting or staging platform where shipments are loaded or unloaded.

**Loading Dock Door**-The openings in the loading dock area to the outside of a building. Loading dock doors are an important topic in planning and constructing a building. The rapidity of loading dock door opening is a consideration where control of ambient temperature and humidity are required. Often doors of this type are equipped to open automatically as a moving object approaches the door.

**Loading Dock Equipment**-Equipment used to make the loading dock area of a facility more accessible and to provide safe movement of goods in that dock area. Loading dock equipment includes elevating docks, dock levelers, dock boards, dock lights, bumpers, seals, shelters, vehicle restraints and traffic doors.

**Loading Dock Operating Personnel**-A person or persons engaging in the process of loading and/or unloading transport vehicles whereby the activities may include the operation of industrial vehicles, dock levelers, vehicle restraints, dock doors, etc.

**Manual Operation**-Placement of a dock leveler or a vehicle restraint device in its operating position by the manual effort of the loading dock operating personnel.

**Pawl**-A toothed device that when engaged with a ratchet bar limits the travel of the bar to one direction.

**Pit**-That part of the dock area that is-cut out to contain a dock-leveling device.

**Pit Steel**-Steel edging embedded in concrete to protect the corners surrounding the area cut out to contain the leveler device.

**Rack Bar**-A flat bar with teeth cut in one face to allow a round gear with corresponding teeth to roll back and forth changing rotary motion into linear motion or vice versa.

**Ramp Control**-A mechanical device using a ratchet bar and pawl assembly to hold a dock-leveler at a particular position. See, Holdown.

**Ratchet Bar**-A steel bar with inclined teeth on one face which when used with a pawl only allows movement of the bar in one direction.

**Rated Capacity**-The maximum load which can be applied according to the manufacturer's specification.

**Rated Load Capacity**-The maximum load for which the equipment is designed by the manufacturer.

**Rear Impact Guard (RIG)**-A structure attached to the rear of a transport vehicle to prevent an automobile from running under a transport vehicle during a rear end collision (a.k.a. ICC bar or underride guard). As of January 1998, U.S. Federal Motor Vehicle Safety Standards FMVSS 223 & FMVSS 224 regulated the performance and use of rear impact guards for trailers rated over 10,000 pounds Gross Vehicle Weight (GVW).

**Shim**-These are steel plates that can be used to help level pit-mounted dock levelers. Shims may be placed under the frame structure and would be welded in place to provide a structural load path to the building's foundation.

**Stump Out**-A term that describes the inability of a fork truck to drive back up on to the dock-leveler from the truck because the lip has folded so far down as to prevent the fork truck from driving up its incline.

**Toe Guard**-It is a shield that is mounted flush to the side of a deck assembly to provide toe protection when the dock leveler is above dock level.

**Trailer Restraint**-See Wheel Restraint.

**Transport Vehicle**-A cargo-carrying vehicle (e.g., a truck, semi-trailer, trailer, or railcar) which may be entered upon by a powered or non-powered industrial vehicle or conveyors to load or unload material.

**Unscheduled Departure**-The event of a transport vehicle departing the dock before loading or unloading is completed.

**Vehicle Creep**-The movement of a transport vehicle away from the loading dock caused by the transfer of momentum as an industrial truck decelerates when entering the vehicle and accelerates when exiting the vehicle. Uncontrolled trailer creep may allow the lip of a dock leveler to become unsupported and create a dangerous gap between the transport vehicle and the dock.

**Vertical Operating Range**-The range of heights of the bottom of an RIG above the driveway that can be engaged by the vehicle restraint. See "working range" (2.36).

**Walk Out Lip**-A style of dock-leveler that is designed to extend the lip section as the board is lowered into position.

**Wheel Chocks**-Blocks of rubber, wood or metal placed in front of, between or behind truck wheels to prevent accidental trailer movement.

**Wheel Restraint**-A vehicle restraint that engages one or more wheels of a transport vehicle, thus inhibiting uncontrolled movement of the vehicle away from the dock structure. Also known as Vehicle or Trailer Restraint.

**Working Range**-The horizontal and vertical range of positions of an RIG that can be engaged by the vehicle restraint.