

WAC 296-56-60103 Terminals handling intermodal containers or roll-on roll-off operations. (1) You must make sure every intermodal container is legibly and permanently marked with:

- (a) The weight of the container when empty, in pounds;
- (b) The maximum cargo weight the container is designed to carry, in pounds; and
- (c) The sum of the maximum weight of the container with cargo, in pounds (gross container capacity).

(2) You must make sure no container is hoisted by any crane or derrick unless the following conditions have been met:

(a) You must ascertain from the carrier whether a container to be hoisted is loaded or empty. Empty containers must be identified before loading or discharge in such a manner as will inform every supervisor and foreman on the site and in charge of loading or discharging, and every crane or other hoisting equipment operator and signalman, if any, that the container is empty. Methods of identification may include cargo plans, manifests or markings on the container.

(b) In the case of a loaded container:

(i) The actual gross weight must be plainly marked so as to be visible to the crane operator, other hoisting equipment operator, signalman, and to every supervisor and foreman on the site and in charge of the operation; or

(ii) The cargo stowage plan or equivalent permanently recorded display serving the same purpose, containing the actual gross weight and the serial number or other positive identification of that specific container, must be provided to the crane or other hoisting equipment operator and signalman, if any, and to every supervisor and foreman on the site and in charge of the operation.

(c) Every outbound loaded container which is received at a marine terminal ready to load aboard a vessel without further consolidation or loading must be weighed to obtain the actual gross weight before being hoisted.

(d) When container weighing scales are located at a marine terminal, any outbound container with a load consolidated at that terminal must be weighed to obtain an actual weight before being hoisted.

(i) If the terminal has no scales, the actual gross weight may be calculated on the basis of the container's contents and the container's empty weight. The weights used in the calculation must be posted conspicuously on the container, with the name of the person making the calculation and the date.

(ii) Container weights must be subject to random sample weight checks at the nearest weighing facility. In cases where such weight checks or experience otherwise indicate consistently inaccurate weights, the weight of containers so calculated at the source from which the inaccurate weights originated must no longer be recognized as true gross weights. Such containers must not be hoisted unless actual gross weights have been obtained by weighing.

(e) The following containers are exempted from the requirements of (c) and (d) of this subsection:

(i) Open type vehicle containers.

(ii) The container is marked on the outside in such a manner that an employee can readily discern that the container is carrying vehicles.

(iii) Containers built specifically for the carriage of compressed gases.

(iv) The container carries only completely assembled vehicles and no other cargo.

(v) The vehicles were loaded into the container at the marine terminal.

(f) The weight of loaded inbound containers from foreign ports must be determined by weighing or by the method of calculation described in (d)(ii) of this subsection or by shipping documents.

(g) Any scale used within Washington state to weigh containers for the purpose of the requirements of this section must meet the accuracy standards of the state or local public authority in which the scale is located.

(3) You must make sure no container is hoisted if its actual gross weight exceeds the weight marked as required in subsection (1)(c) of this section, or if it exceeds the capacity of the crane or other hoisting device intended to be used.

(4) You must make sure there are marked or designated areas set aside within a container or roll-on roll-off terminal for passage of employees to and from active cargo transfer points, except where you provide transportation to and from those points.

(5) You must direct employees to stay clear of the area beneath a suspended container. Employees must stay clear of the area beneath a suspended container.

(6) You must make sure each employee working in the immediate area of container handling equipment or in the terminal's traffic lanes wears a high visibility vest (or equivalent protection).

Note to subsection (6) of this section: High visibility vests or equivalent protection means high visibility/retroreflective materials which are intended to provide conspicuity of the user by day through the use of high visibility (fluorescent) material and in the dark by vehicle headlights through the use of retroreflective material. The minimum area of material for a vest or equivalent protection is .5m(2) (760 in.(2)) for fluorescent (background) material and .13m(2) (197 in.(2)) for retroreflective material. Vests or equivalent protection, such as high visibility/retro-reflective coveralls, that are available for industrial use, may also be acceptable.

(7) You must make sure containers are handled using lifting fittings or other arrangements suitable and intended for the purposes as set forth in (a) and (c) of this subsection, unless when damage to an intermodal container makes special means of handling necessary.

(a) Loaded intermodal containers of twenty feet (6.1 m) or more in length must be hoisted as follows:

(i) When hoisting by the top fittings, the lifting forces must be applied vertically from at least four top fittings or by means which will safely lift the container without damage. The lifting fittings provided must be used.

(A) The container being lifted is an ISO closed box container;

(B) The condition of the box is sound;

(C) The speed of hoisting and lowering is moderated when heavily laden containers are encountered;

(D) The lift angle is at eighty to ninety degrees;

(E) The distance between the lifting beam and the load is at least eight feet and 2.4 inches (2.5 m); and

(F) The length of the spreader beam is at least 16.3 feet (5 m) for a twenty-foot container, and at least 36.4 feet (11.1 m) for a forty-foot container.

(ii) If hoisted from bottom fittings, the hoisting connections must bear on the fittings only, making no other contact with the container. The angles of the four bridle legs must not be less than thirty degrees to the horizontal in the case of forty foot (12.2 m) con-

tainers, thirty-seven degrees in the case of thirty foot (9.1 m) containers, or forty-five degrees in the case of twenty foot (6.1 m) containers.

(iii) Lifting containers by fork lift trucks or by grappling arms from above or from one side may be done only if the container is designed for this type of handling.

(b) Other means of hoisting may be used only if the containers and hoisting means are designed for such use.

(c) When using intermodal container spreaders that employ lanyards for activation of load disengagement, all possible precautions must be taken to prevent accidental release of the load. Intermodal container spreader twistlock systems must be designed and used so that a suspended load cannot accidentally be released.

(d) Flat bed trucks or container chassis used to move intermodal containers must be equipped with pins, flanges, or other means to prevent the container from shifting.

(e) Flat bed, low boy trailers (mafis) and other similar equipment used to transport containers must be marked with their cargo capacities and must not be overloaded.

(f) Each tractor must have all brake air lines connected when pulling trailers equipped with air brakes and must have the brakes tested before commencing operations.

(8) You must inspect intermodal containers for defects in structural members or fittings before handling. Any intermodal container found to be unsafe must be identified as such, promptly removed from service and repaired before being returned to service.

(9) You must make sure containers are not hoisted unless all engaged chassis twist locks are released.

(10) You must meet the following requirements for operations involving the lifting of two or more intermodal containers by the top container, also known as vertical tandem lifts (VTLs).

(a) Each employee involved in VTL operations must be trained and competent in the safety-related work practices, safety procedures, and other requirements in this section that pertain to their respective job assignments.

(b) No more than two intermodal containers may be lifted in a VTL.

(c) Before the lift begins, you must ensure that the two containers lifted as part of a VTL are empty.

Note: The lift begins immediately following the end of the prelift required by subsection (10)(c) of this section. Thus, the weight may be determined during the prelift using a load indicating device meeting WAC 296-56-60085 (1)(a) on the crane being used to lift the VTL.

(d) The lift must be performed using either a shore-based container gantry crane or another type of crane that:

(i) Has the precision control necessary to restrain unintended rotation of the containers about any axis;

(ii) Is capable of handling the load volume and wind sail potential of VTLs; and

(iii) Is specifically designed to handle containers.

(e) You must ensure that the crane operator pauses the lift when the vertically coupled containers have just been lifted above the supporting surface to assure that each interbox connector is properly engaged.

(f) Containers below deck may not be handled as a VTL.

(g) VTL operations may not be conducted when the wind speed exceeds the lesser of:

(i) Fifty-five km/h (thirty-four mph or thirty knots); or

(ii) The crane manufacturer's recommendation for maximum wind speed.

(h) You must ensure that each interbox connector used in a VTL operation:

(i) Automatically locks into corner castings on containers but only unlocks manually (manual twistlocks or latchlocks are not permitted);

(ii) Is designed to indicate whether it is locked or unlocked when fitted into a corner casting;

(iii) Locks and releases in an identical direction and manner as all other interbox connectors in the VTL;

(iv) Has been tested and certificated by a competent authority of this chapter (for interbox connectors that are a part of a vessel's gear) or WAC 296-56-60093 (for other interbox connectors):

(A) As having a load-bearing surface area of eight hundred mm\two\ when connected to a corner casting with an opening that is sixty-five mm wide; and

(B) As having a safe working load of ninety-eight kN (ten thousand kg) with a safety factor of five when the load is applied by means of two corner castings with openings that are sixty-five mm wide or equivalent devices;

(v) Has a certificate that is available for inspection and that attests that the interbox connector meets the strength criteria given in (h) (iv) of this subsection; and

(vi) Is clearly and durably marked with its safe working load for lifting and an identifying number or mark that will enable it to be associated with its test certificate.

(i) Reserved.

(j) You must ensure that each container and interbox connector used in a VTL and each corner casting to which a connector will be coupled is inspected immediately before use in the VTL.

(i) Each employee performing the inspection must be capable of detecting defects or weaknesses and be able to assess their importance in relation to the safety of VTL operations.

(ii) The inspection of each interbox connector must include: A visual examination for obvious structural defects, such as cracks, a check of its physical operation to determine that the lock is fully functional with adequate spring tension on each head; and a check for excessive corrosion and deterioration.

(iii) The inspection of each container and each of its corner castings must include: A visual examination for obvious structural defects, such as cracks, a check for excessive corrosion and deterioration; and a visual examination to ensure that the opening to which an interbox connector will be connected has not been enlarged, that the welds are in good condition, and that it is free from ice, mud, or other debris.

(iv) You must establish a system to ensure that each defective or damaged interbox connector is removed from service.

(v) An interbox connector that has been found to be defective or damaged must be removed from service and may not be used in VTL operations until repaired.

(vi) A container with a corner casting that exhibits any of the problems listed in (j) (iii) of this subsection may not be lifted in a VTL.

(k) No platform container may be lifted as part of a VTL unit.

(11) You must meet the following requirements for transporting vertically coupled containers:

(a) Equipment other than cranes used to transport vertically connected containers must be either specifically designed for this application or evaluated by a qualified engineer and determined to be capable of operating safely in this mode of operation.

(b) You must develop, implement, and maintain a written plan for transporting vertically connected containers. The written plan must establish procedures to ensure safe operating and turning speeds and must address all conditions in the terminal that could affect the safety of VTL-related operations, including communication and coordination among all employees involved in these operations.

(12) You must establish a safe work zone within which employees may not be present when vertically connected containers are in motion.

(a) The safe work zone must be sufficient to protect employees in the event that a container drops or overturns.

(b) The written transport plan required by subsection (11)(b) of this section must include the safe work zone and procedures to ensure that employees are not in this zone when a VTL is in motion.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 18-03-159, § 296-56-60103, filed 1/23/18, effective 2/23/18; WSR 15-24-102, § 296-56-60103, filed 12/1/15, effective 1/5/16; WSR 09-15-144, § 296-56-60103, filed 7/21/09, effective 9/1/09. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 00-21-103, § 296-56-60103, filed 10/18/00, effective 2/1/01. Statutory Authority: RCW 49.17.040. WSR 99-02-024, § 296-56-60103, filed 12/30/98, effective 3/30/99. Statutory Authority: Chapter 49.17 RCW and RCW 49.17.040, [49.17].050 and [49.17].060. WSR 92-22-067 (Order 92-06), § 296-56-60103, filed 10/30/92, effective 12/8/92. Statutory Authority: Chapter 49.17 RCW. WSR 89-11-035 (Order 89-03), § 296-56-60103, filed 5/15/89, effective 6/30/89. Statutory Authority: RCW 49.17.040 and 49.17.050. WSR 86-03-064 (Order 86-02), § 296-56-60103, filed 1/17/86; WSR 85-01-022 (Order 84-24), § 296-56-60103, filed 12/11/84.]