

(1) ISO 3874, Freight Containers, Amendment 2, Vertical tandem lifting (2002); IBR approved for § 1917.71(l)(1)(i).

(2) [Reserved]

4. In § 1917.46, add a sentence to the end of paragraph (a)(1)(viii)(A) to read as follows:

**§ 1917.46 Load indicating devices.**

(a) \* \* \*

(1) \* \* \*

(viii) \* \* \*

(A) \* \* \* *Exception:* When this type of crane performs a VTL, a load indicating device in proper working condition is required.

\* \* \* \* \*

5. Section 1917.71 is amended by:

a. Adding new paragraphs (b)(9) and (b)(10);

b. Redesignating paragraphs (f)(3) through (5) as paragraphs (f)(4) through (6) respectively;

c. Adding a new paragraph (f)(3); and

d. Adding new paragraphs (i), (j), (k), (l), and (m).

The additions read as follows:

**§ 1917.71 Terminals handling intermodal containers or roll-on roll-off operations.**

\* \* \* \* \*

(b) \* \* \*

(b)(9) *Vertical tandem lifts.* If VTLs will be performed, the employer shall use the vessel's cargo stowage plan required in paragraphs (b)(1) and (b)(2)(ii) of this section to determine the location and characteristics of all VTL units being handled and shall provide a copy to the crane operator.

(10) The employer shall ensure that the crane operator conducts a pre-lift before hoisting a VTL. A pre-lift means that the crane operator pauses the lift when the initial strain has been taken and the lifting frame wires tensioned in order to assure that all liftlocks are properly engaged.

\* \* \* \* \*

(f) \* \* \*

(3) *Vertical tandem lifts.* The employer shall ensure that each VTL is conducted in accordance with the following criteria:

(i) A VTL shall consist of no more than two ISO approved series 1 containers, with a total weight of cargo and containers not to exceed 20 tons;

(ii) Only shore-based container gantry cranes are used;

(iii) Containers containing the following may not be lifted as a VTL:

(A) Liquid or solid bulk cargoes;

(B) Hazardous cargo; or

(C) A flexible tank inside that is fully or partially loaded with a fluid cargo;

(iv) No platform container with its end frames erect may be lifted as part of

a VTL unit. Empty platform containers with their end frames folded may be lifted in a VTL unit in accordance with the applicable regulations of this part. If the interbox connectors are an integral part of the platform container and are designed to lift other empty platform containers, they may be interlocked and lifted in accordance with the manufacturer's recommendations;

(v) Containers below deck may not be handled as a VTL; and

(vi) VTLs may not be conducted when wind speeds exceed 34 mph (55 kph) (30 knots).

\* \* \* \* \*

(i) The employer shall not use flat bed trucks, chassis, bomb carts, or similar type equipment to transport containers that are vertically connected, unless such equipment is specifically designed to safely transport vertically connected containers or has been evaluated by a qualified person and determined to be a safe mode of operation. For the purposes of this paragraph, a qualified person means one with a recognized degree or professional certificate and extensive knowledge and experience in the transportation of vertically connected containers who is capable of design, analysis, evaluation and specifications in that subject.

(j) The employer shall develop and implement a written plan for transporting vertically connected containers in a terminal. The written plan shall establish safe operating speeds; safe turning speeds; and address any conditions unique to the terminal that could affect the safety of VTL-related operations. The employer shall review and update the plan as necessary.

(k) Damaged or defective liftlocks shall be removed from service and not used for lifting. A means of keeping damaged or defective liftlocks separate from operating liftlocks shall be established.

(l)(1) The employer shall ensure that each liftlock used in a marine terminal to connect VTLs:

(i) Is in compliance with the applicable standards of ISO 3874;

(ii) Is inspected by a competent person, certificated, and individually tested in accordance with requirements for loose gear in ILO Convention 152 before being used for the first time and after any substantial alteration or repair ("certificated" means that the liftlock is accompanied by a certificate, issued by a recognized body that is approved by the competent authority, to conduct appropriate testing and thorough examination of liftlocks);

(iii) Is subjected to a thorough examination by a competent person at

least once in every 12 months. A thorough examination shall include: a visual exam for obvious structural defects; physical operation to determine that the lock is fully functional with adequate spring tension on each head or latch; a check for excessive corrosion and deterioration; and immediate removal from service when found to be defective or damaged;

(iv) Is regularly examined, including visual inspection, before each use;

(v) Is certificated with a Safe Working Load (SWL) for lifting of at least 10,000 kg;

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

(vii) Locks and releases in an identical direction and manner as all other liftlocks on the vessel onto which the VTLs will be loaded. They shall have a "telltale" incorporated in the design that indicates whether the liftlock is locked or unlocked in the corner fittings. This "telltale" shall be visible from deck level; and

(viii) Is the same type as the other liftlocks that are on the vessel onto which the connected containers will be loaded.

(2) For the purpose of this paragraph (l), a competent person means a person familiar with the proper maintenance and use of liftlocks by training or experience. Such a person will be able to detect defects or weaknesses and be able to assess their importance in relation to the safe and continued use of the liftlocks.

(m) Manual twistlocks or latchlocks shall not be used as liftlocks.

**PART 1918—SAFETY AND HEALTH REGULATIONS FOR LONGSHORING**

1. The authority citation for part 1918 is revised to read as follows:

**Authority:** Sections 4, 6, and 8 of the Occupational Safety and Health Act of 1970, 29 U.S.C. 653, 655, 657; Sec. 41, Longshore and Harbor Workers' Compensation Act, 33 U.S.C. 941; Secretary of Labor's Order No. 6–96 (62 FR 111) or 5–2002 (67 FR 65008), as applicable.

Section 1918.90 also issued under 5 U.S.C. 553.

Section 1918.100 also issued under Sec. 29, Hazardous Materials Transportation Uniform Safety Act of 1990 (49 U.S.C. 1801–1819 and 5 U.S.C. 553).

2. In § 1918.2, add the definitions for *Competent authority*, *Liftlock*, and *Vertical tandem lift* (VTL), in alphabetical order, to read as follows:

**1918.2 Definitions**

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