

# WASTEQUIP

*Nationally known for personal service*

June, 1 2007

Dear Sirs,

In reference to your concerns directed toward the information your company received for securement of a container on a Roll-Off vehicle. The *correct* section is 393.134 in the 2003 49 CFR titled "**What are the rules for securing roll-on/roll-off or hook lift containers?**" The U.S. Department of Transportation has designated that Roll -Offs fall under Section 393.134. Section 393.134 (b) states that only vehicles which **do not have an integral securement system** needs to comply with the remainder of the code. 49 CFR 393.134 mirrored ANSI Z245 with regard to securement. ANSI Z245.1 is the design code which Wastequip as well as all other Roll-Off manufactures have used past, present and future in the design and application of the securement devices. ANSI Z245.1-1999 Section 7.3.4.3 speaks to this unique **integral securement system**. **Wastequip provides four styles of "Integral Securement Systems" which comply with the Federal law**

- 1.) Standard mechanical slide in type hoist/container rear hold down
- 2.) Nylon strap ratchet hold downs
- 3.) "Hooker" can locks
- 4.) Pioneer Wastequip "Box Locks".

Wastequip Roll-Off Hoist/Container securement systems meet ANSI and 49 CFR codes. By CFR/ANSI direction the "Integral Securement System" can be placed within 3 m (10ft) of the rear of the container.

The securement of the container by use of independent chains or straps would be required only if the unique integral securement system between the hoist and container has been compromised. A compromise would entail the container rear hold down not mating with the hoist rear hold down or either the container rear hold down or hoist rear hold down were removed or never installed. Only in the absence of the "Integral Securement System" would the 2 m (6 ft 7 in) CFR rule apply.

I hope this information will be of help in your endeavor to resolve this issue. Any questions please contact me at 1-800-285-0666, ext. 357.

Thank you

Bill Geise, P.E.  
Director of Engineering  
Wastequip, Inc

described in ANSI Z245.60 Type "T" containers shall meet the requirements of clauses 7.3.2.5.1 (b) and (d) and shall provide an alternate means of securing the container in the lifting device.

**7.3.3 Side-loading equipment**

**7.3.3.1** Packing cycle controls shall be located so that the operator has a view of the point of operation.

**7.3.3.2** A Type "B" side-loader (figure 7 (b)), having a loading height of not less than 107 cm (42 in), measured vertically from the ground to the loading sill, shall be considered as meeting the requirements of clause 7.2.8 (Point of operation protection).

**7.3.3.3** A sign shall be located on the sides of body near the loading hopper, with wording such as:

**"DANGER — STAND CLEAR WHEN  
PACKER PANEL IS IN MOTION."**

**7.3.4 Tilt-frame and roll-off/hook lift equipment**

**7.3.4.1 Hold down devices**

Tilt-frame, roll-off/hook lift vehicles shall have accommodations for hold down device(s) independent of the container lifting device to allow for securing the container to the transport vehicle which:

- a) Limits movement of the container fore and aft,
- b) Limits movement of the container from side to side, and
- c) Limits movement of the container up and down at both the front and rear of the container.

**7.3.4.2 Hold down device performance**

Container hold down devices must be capable of withstanding static forces, without

suffering permanent damage, that would result if the vehicle were subjected to the following forces (separately), with a container at the maximum weight rating for the hoist, as specified by the manufacturer:

- a) 0.8 g deceleration in a forward direction,
- b) 0.5 g deceleration in a rearward direction,
- c) 0.5 g acceleration in a lateral direction, and
- d) 0.2 g acceleration, relative to the load in a vertical direction,

where g = the force of gravity.

The manufacturer shall affix a label near the operating controls for the tilt frame stating the maximum weight rating for containers to be transported such as:

**"MAXIMUM CONTAINER WEIGHT  
\_\_\_\_\_ KG ( \_\_\_\_\_ LBS)."**

or shall include this statement in the information supplied pursuant to clause 5 of this standard.

\* **7.3.4.3 Integral securement system (tilt-frame and roll-off equipment)**

An integral securement system on the container and transport vehicle shall be provided for the container type(s) which the transporter is intended to carry, which will provide adequate securement for the container in and of itself, provided that all of the following conditions are met:

- \* a) All securement devices on the container mate with the receiving devices on the lifting device frame so as to prevent more than 7 cm (2-3/4 in) movement of the container relative to the hoist frame in any direction, when subjected to the accelerations specified in clause 7.3.4.2.

Securement devices on the container must meet the performance criteria at the container manufacturer's maximum weight rating. Securement devices on the transport vehicle must meet the performance criteria at the body manufacturer's maximum weight rating for the lifting system,

- b) The mating of the securement devices at the front of the container to the hoist frame must prevent movement up, as well as forward, when the container is pulled into the transit position by the lifting device. The hook or other feature of the lifting system which attaches the lifting device to the container must be designed so as to:

1) prevent its becoming accidentally disengaged during transport and,

2) prevent rearward movement of the container, otherwise, an additional device must be provided which shall be engaged when the lifting device frame is in position for over the road transit, so as to prevent rearward movement of the container,

- c) The mating of the long rails of the hoist frame and container within one another provide adequate side to side restraint of movement of the container, and

- \* d) Mating rear hold down devices must be provided on both the transport vehicle and container, within 3 m (10 ft) of the rear of the container, there being at least one set of mating devices if located at the center of the container or at least two sets of mating devices if located on the side rails.

Note: If the rear hold down devices on the container and transport vehicle are not compatible, manually installed

securement must be used as required in 6.1.7.4.3.

7.3.4.4 Operating controls outside the cab shall be located in an accessible position to ensure that the container can be loaded onto the vehicle without striking the operator in case of accidental dropping.

7.3.4.5 Unloading, pull-on, and lift-arm controls shall be sustained-manual-pressure controls and located in such a position that the operator has a clear view of the front of the container at all times.

### 7.3.5 Mechanized container collecting vehicles

7.3.5.1 Controls for loading wastes or recyclable materials into the vehicle shall be located so that the operator has a view of the lifting mechanism and the container to lifted.

7.3.5.2 A sign shall be located adjacent to the lifting mechanism, with wording such as:

**"DANGER — STAND CLEAR WHILE  
LIFTING DEVICE IS IN MOTION."**

### 7.3.6 Recycling vehicles

7.3.6.1 On multi-compartment units equipped with moveable partitions, the release mechanism shall be capable of withstanding the forces created by the maximum loading of the compartment and shall be designed so as to protect the operator from the sudden movement of the partition.

7.3.6.2 On units equipped with overhead loading mechanisms, signs shall be located near the operating controls with wording such as:

**"WARNING — CHECK  
OVERHEAD CLEARANCE  
BEFORE OPERATING LOADER."**

and

**"DANGER — STAND CLEAR OF  
LOADER WHEN IN OPERATION."**

[Code of Federal Regulations]  
[Title 49, Volume 4]  
[Revised as of October 1, 2004]  
From the U.S. Government Printing Office via GPO Access  
[CITE: 49CFR393.134]

[Page 1215]

TITLE 49--TRANSPORTATION

DEPARTMENT OF TRANSPORTATION

PART 393\_PARTS AND ACCESSORIES NECESSARY FOR SAFE OPERATION--Table of Contents

Subpart I\_Protection Against Shifting and Falling Cargo

Sec. 393.134 What are the rules for securing roll-on/roll-off or hook lift containers?

(a) Applicability. The rules in this section apply to the transportation of roll-on/roll-off or hook lift containers.

(b) Securement of a roll-on/roll-off and hook lift container. Each roll-on/roll-off and hook lift container carried on a vehicle which is not equipped with an integral securement system must be: \*

(1) Blocked against forward movement by the lifting device, stops, a combination of both or other suitable restraint mechanism;

(2) Secured to the front of the vehicle by the lifting device or other suitable restraint against lateral and vertical movement;

(3) Secured to the rear of the vehicle with at least one of the following mechanisms:

(i) One tiedown attached to both the vehicle chassis and the container chassis;

(ii) Two tiedowns installed lengthwise, each securing one side of the container to one of the vehicle's side rails; or

(iii) Two hooks, or an equivalent mechanism, securing both sides of the container to the vehicle chassis at least as effectively as the tiedowns in the two previous items.

(4) The mechanisms used to secure the rear end of a roll-on/roll off or hook lift container must be installed no more than two meters (6 ft 7 in) from the rear of the container.

(5) In the event that one or more of the front stops or lifting devices are missing, damaged or not compatible, additional manually installed tiedowns must be used to secure the container to the vehicle, providing the same level of securement as the missing, damaged or incompatible components.