

Federal Motor Carrier Safety Administration

Rules & Regulation

Part 393: Parts and Accessories Necessary for Safe Operation

Vehicle-related Regulation

393.132

393.136

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:

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

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

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

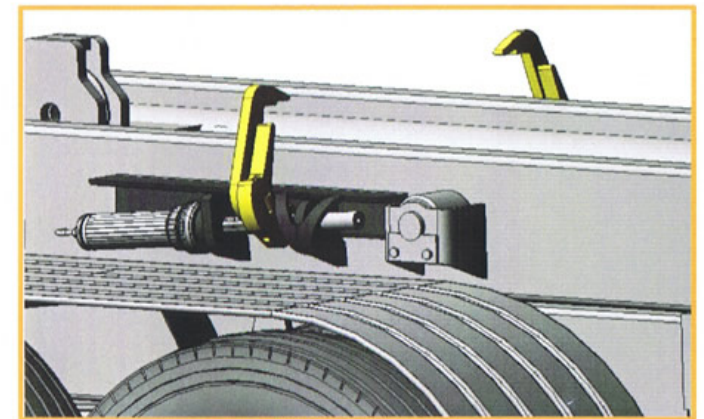
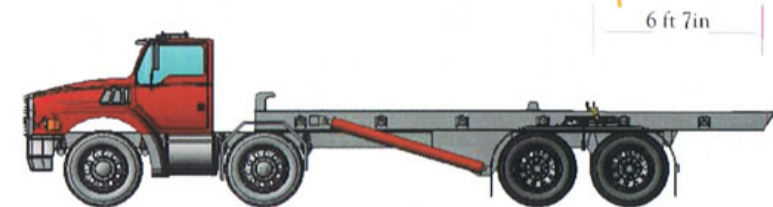
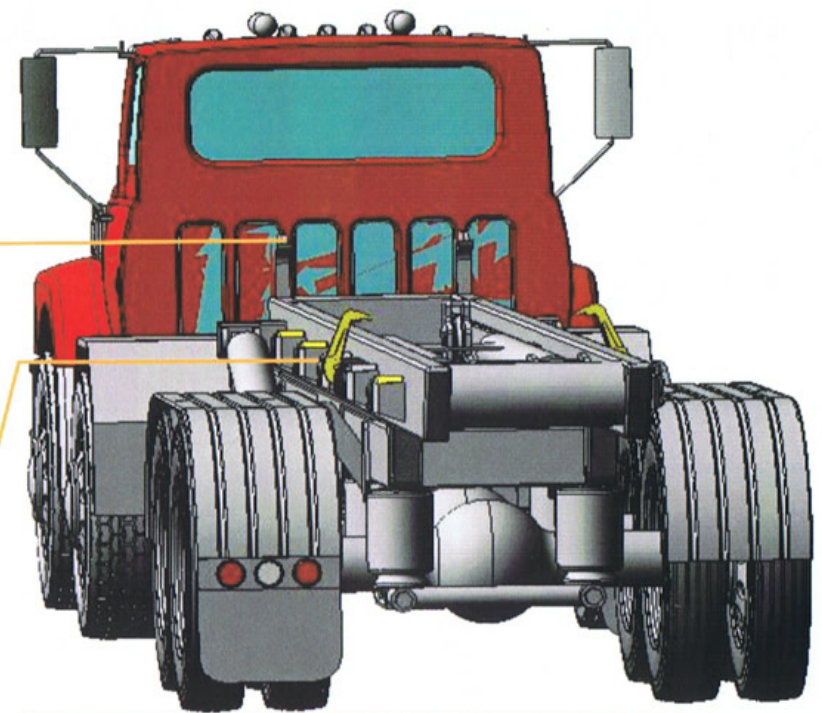
(b) (3) (i) One tiedown attached to both the vehicle chassis and the container chassis.

(b) (3) (ii) Two tiedowns installed lengthwise, each securing one side of the container to one of the vehicle's side rails; **or**

(b) (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 (6ft 7in) from the rear of the container.

(b) (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.

67 FR 61234, Sep. 27, 2002



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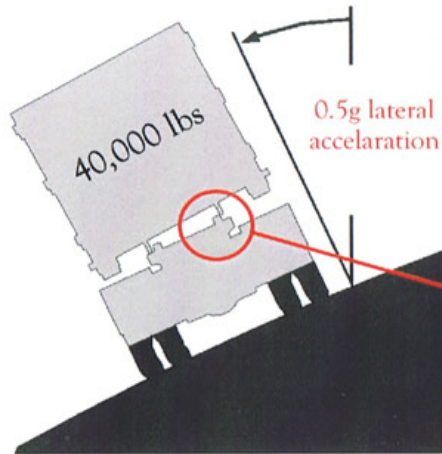
Vehicle-related Regulations

393.100

393.104

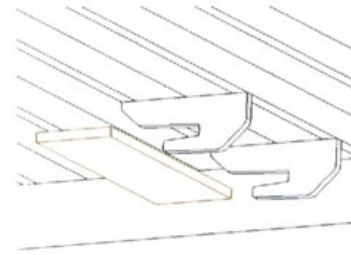
393.102 What are the minimum performance criteria for cargo securement devices and systems?

- (a) (1) 0.8 g deceleration in the forward direction;
- (a) (2) 0.5 g acceleration in the rearward direction; and
- (a) (3) 0.5 g acceleration in a lateral direction.



(b) Performance criteria for devices prevent vertical movement of loads that are not contained within the structure of the vehicle. Securement systems must provide a **Downward Force** equivalent to at least 20% of the weight of the article of cargo if the article is not fully contained within the structure of the vehicle.

It be easy for Roll-off manufacturers to put such a brig-plate across the mast but containers wold have to be standard



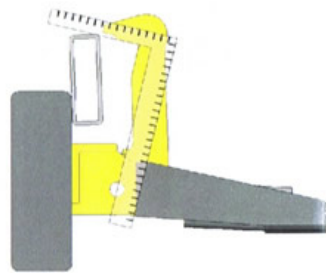
Thos hooks are welded onto the most vulnerable part of the containers an when they fall apart: it cannot be detected.

(c) **Prohibition on exeding working load limits.**

Cargo securement devices and systems must be designed, installed, and maintained to ensure that the maximum forces acting on the devices or systems do not exceed the working load limit for the devices under the conditions listed in paragraphs (a) and (b) of this section



A manual system causes excessive downtime on the truck operation. In addition, if one forget to withdraw it, it be destroy by the load in movement. This is a monumental task wich result in exces of **\$21,000.00** of labour time.

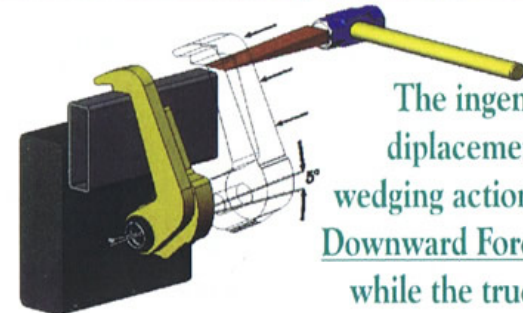
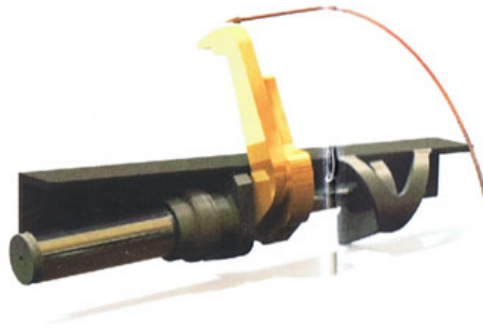
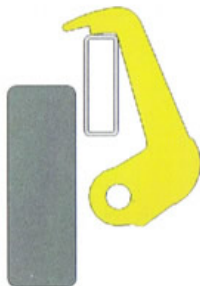


It resembles a hook but without hold over action



This particular product is not efficient

This design provide a lateral displacement which allows a hook that produce a True Holding Action



The ingenious lateral displacement provide a wedging action that produce a Downward Force which incrises while the truck is in motion