Kansas

Corporation Commission

Commercial Motor Vehicle
Cargo Securement
49 C.F.R. Part 393, Subpart I

July, 2014

Commercial Motor Vehicle (CMV) CARGO SECUREMENT

Cargo securement is a major element of CMV safety because improperly secured loads have the potential to cause physical and property damage to those sharing the road.

In 2014, the Kansas legislature exempted INTRAstate CMVs with a manufacturers gross vehicle or combination weight rating from 10,001 to 26,000 pounds from the safety regulations, **but** these CMVs remain subject to the Cargo Securement regulations found in 49 C.F.R. Part 393, Subpart I.

They are also subject to the annual inspection requirements found in Part 396.17.

Proper Cargo Securement?

How Much is it worth??

Kansas Law, K.S.A. 8-1906, applies to all vehicles.

Securing loads on vehicles; requirements for hauling livestock. (a) No vehicle shall be driven or moved on any highway unless such vehicle is so constructed or loaded as to prevent any of its load from dropping, sifting, leaking or otherwise escaping therefrom, except that:

(1) This section shall not prohibit the necessary spreading of any substance in highway maintenance or construction operations; and

(c) No person shall operate on any highway any vehicle with any load unless such load and any covering thereon is securely fastened so as to prevent the covering or load from becoming loose, detached or in any manner a hazard to other users of the highway.

390.3 General Applicability

(a) The rules in subchapter B of this chapter are applicable to all employers, employees, and commercial motor vehicles, which transport property or passengers in interstate commerce …

(f) Exceptions. Unless otherwise specifically provided, the rules in this subchapter do not apply to—

(2) Transportation performed by the Federal government, a State, or any political subdivision of a State, or an agency established under a compact between States that has been approved by the Congress of the United States;

Part 393.100 Applicability

(a) Trucks, truck tractors, semitrailers, full trailers, and pole trailers.

(b) Must prevent from leaking, spilling, blowing or falling from motor vehicle.

(c) Must prevent from shifting upon or within so vehicles stability or maneuverability is not adversely affected.

Part 393.102(d)

393.102 – Performance criteria for securement devices.

(d) - Equivalent means of securement.

If secured in accordance with 393.104 through 393.136 then 393.102 criteria complied with

Part 393.104
Securement devices standards

(a) Applies to all devices & systems used to secure cargo.

(b) Can not be damaged (when needed for securing cargo) note: interp. letter sent

(c) Vehicle. Structures & anchor points must be strong enough and not damaged (damage that would adversely effect securement)

(d) Dunnage must not have damage that would effect securement systems.

Part 393.104(f)

(1) Must not contain knots.

(2) Repaired in accordance with mfg. standards.

(3) Attached & secured to prevent becoming loose, unfastened, opened, or releasing.

(4) Edge protection must be used if tiedown is subject to abrasion or cutting.

Defective Tiedowns

7. SECUREMENT OF CARGO

Tiedown Defect Table

Tiedown Defect Table

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Part 393.106
General Securement Requirements

(a) Applies to all cargo, except bulk. Note; Commodity specific rules take precedence when additional securement is required.

(b) Cargo must be secured.

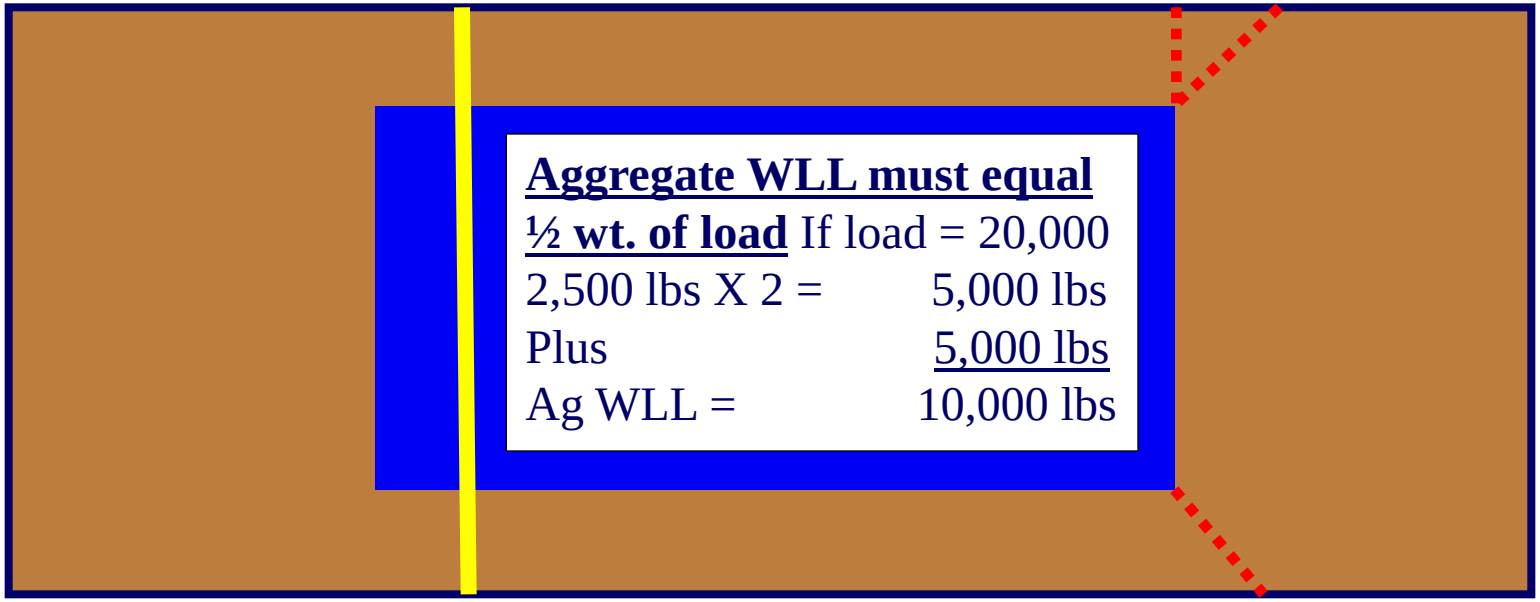
(c)(1) If can roll, must be prevented from rolling.

(c)(2) If side by side & secured transversely. (i) Placed in direct contact or. (ii) Be prevented from shifting towards each other.

(d) Aggregate working load limit (WLL) must equal ½ weight of load.

Part 393.106(d)
General Securement Requirements

393.106(d)(2) = 1/2
Assigned WLL
Mfg. WLL = 5,000



393.106(d)(3) = full
Assigned WLL
Mfg. WLL = 5,000

393.106(d)(2) = 1/2
Assigned WLL
Mfg. WLL = 5,000

Part 393.108 Determining WLL of Securement Systems

(a) Weakest link

(b) Mfg. Weight rating first, if none use table.

(d) Unmarked chain to be considered grade 30.

(g) Friction mats can be used as part of blocking and bracing to protect against horizontal movement.

Part 393.110

- (a) In addition to 393.106, must have tiedowns as follows.

Part 393.110(b)(1)

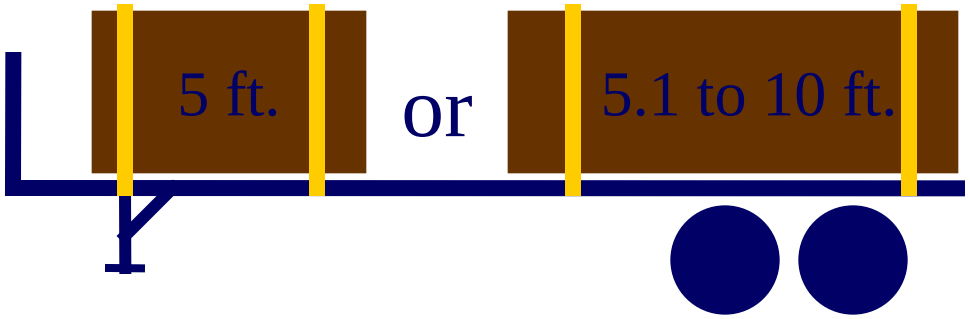
Articles 5 ft. or less and 1,100 lbs or less and

Not blocked or against headerboard

At least one securement device that meets the requirements of 393.106

Part 393.110(b)(2)(i) & (ii)

5 ft. or less and more than 1,100 lbs.
Or
5.1 to 10 ft. regardless of weight
Not blocked against headerboard

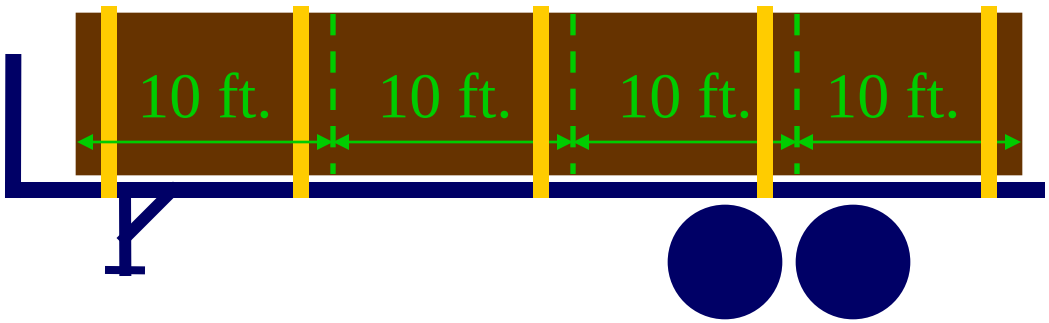


At least two securement device that meets the requirements of 393.106

Part 393.110(b)(3)

Two if longer than 10 ft.

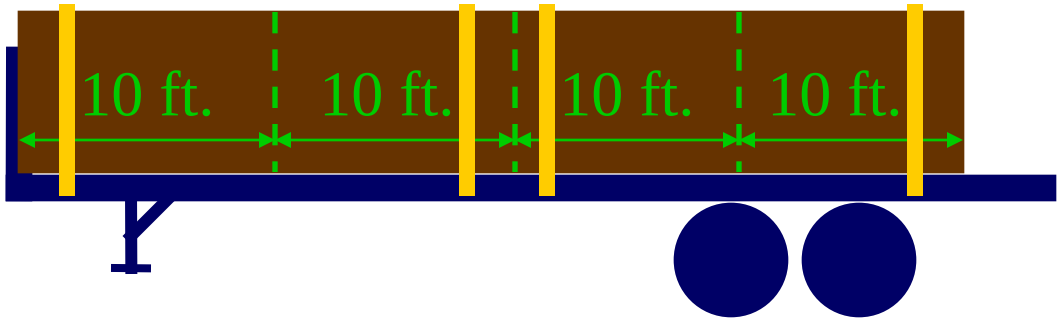
Not blocked against headerboard



Plus one for each 10 ft. or fraction,
after the first 10 ft.

Part 393.110(c)

If required to be blocked to the front by a headerboard or other like device.



Then one device for each 10 ft. of load or fraction thereof.

Part 393.110(d)

393.110 does not apply to special purpose vehicles hauling cargo that must be secured by special means due to design, size, shape, or weight

However must still conform to 393.106

Part 393.112

- Must be adj. except for steel strapping.

Part 393.114
Front End Structure

(a) Applies only if cargo is in contact with the front end structure.

(e) Substitute devices may be used if at least as strong as.

Part 393.128
Securing Machinery lighter than 10,000 pounds

- Restrained at both front and rear
- Prevent lateral, forward, rearward and vertical movement

Part 393.130
Securing Heavy Vehicles

- Vehicles/Equipment/

  Machinery greater than 10,000 lbs.
- At least four securement devices

HYUNDAI
HEAVY DUTY 20TON

DEERE

Cargo Securement Defects

7. SECUREMENT OF CARGO

m. Improper Securement on Automobiles or Light Vehicles

n. Improper Securement on Heavy Equipment

n. Improper Securement on Heavy Equipment

n. Improper Securement on Heavy Equipment

n. Improper Securement on Heavy Equipment

n. Improper Securement on Heavy Equipment

7. SECUREMENT OF CARGO

n. Improper Securement on Heavy Equipment

n. Improper Securement on Heavy Equipment

n. Improper Securement on Flattened or Crushed Vehicles

n. Prohibition of Synthetic Webbing on Flattened or Crushed Vehicles

n. Improper Securement on Flattened or Crushed Vehicles

n. Improper Securement on Flattened or Crushed Vehicles

Cargo Securement Defects

7. SECUREMENT OF CARGO

a. Loose Cargo

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"Secure your load as if everyone you love is driving in the vehicle behind you."

– Robin Abel, Safety Consultant,
Guardian, 3rd quarter 2013

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