



## Load Securement

On September 27, 2003, the Federal Motor Carrier Safety Administration (FMCSA) published new cargo securement rules. Motor carriers operating in interstate commerce must comply with these requirements. The intent of the requirements is to reduce the number of accidents caused by cargo shifting on or within, or falling from, a commercial motor vehicle.

The cargo requirements apply to all cargo carrying commercial motor vehicles operating in interstate commerce. This includes all types of articles of cargo, except commodities in bulk that lack structure of fixed shape such as liquids, gases, aggregates, etc.

### Types of Commercial Vehicles Subject to the Cargo Securement Standards and the General Requirements.

- The rules are applicable to trucks, truck tractors, semitrailers, full trailers and pole trailers.
- Each commercial motor vehicle must, when transporting on public roads, be loaded and the cargo secured to prevent the cargo from leaking, spilling, blowing or falling from the motor vehicle.
- Cargo must be contained, immobilized or secured to prevent shifting upon or within the vehicle to such an extent that the vehicles stability or maneuverability is adversely affected.
- Every cargo carrying vehicle must be equipped with a headboard of sufficient strength to prevent load shifting, which may penetrate or crush the driver's compartment.

### FMCSA 393.110 Number of Tiedowns Required.

The cargo securement system to restrain articles of cargo against movement must meet requirements concerning the minimum number of tiedowns. When an article of cargo is not blocked or positioned to prevent movement in the forward direction, the number of tiedowns needed depends on the length and weight of the articles.

There must be:

- One tiedown for articles 5 ft or less in length and 1,000 lbs or less in weight.
- Two tiedowns if the article of cargo is 5 ft or less in length and more than 1,000 lbs in weight or greater than 5 ft but less than 10 ft in length regardless of weight.



- An article of cargo longer than 10 ft in length must be secured by two tiedowns for the first 10 ft, and one additional tiedown for every 10 ft of length, or fraction thereof.
- If an article of cargo is blocked, braced or immobilized to prevent movement in the forward direction by a headboard or bulkhead, then the article of cargo must be secured by at least one tiedown for every 10 ft of length, or fraction thereof.

#### FMCSA Special Rules:

##### 393.116 Securing Logs

##### 393.118 Securing dressed lumber and similar building products

Generally, the basic rules concerning the minimum number of tiedowns do not apply to vehicles transporting fabricated structural items such as roof trusses. The rules enacted by the FMCSA are vague regarding the treatment of structural building components. The Structural Building Components Association (SBCA) and its Wood Truss Council of America (WTCA) are working to forge a working relationship with the FMCSA to better understand how load securement rules apply to this industry. In the meantime they suggest working with your local law enforcement and state transportation offices.

#### Tiedown System Requirements:

Each cargo securement system must be able to withstand a minimum amount of force in each direction:

- Forward Force - 80% of the cargo weight when braking while driving straight forward.
- Rearward Force - 50% of the cargo weight when accelerating, shifting gears while climbing a hill, or braking in reverse.
- Sideways Force - 50% of the cargo weight when turning, changing lanes, or braking while turning.
- Upward Force - 20% of the cargo weight when traveling over bumps in the road or cresting a hill.
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This requirement is satisfied when the cargo is fully contained.

#### Driver Safety

The cargo being shipped must not:

- Obscure the drivers view ahead or to the right or left sides.
- Interfere with the free movement of the driver's arms or legs.
- Prevent the driver's free and ready access to accessories required for emergencies.

- Prevent the free and ready exit of any person from the commercial motor vehicle cab or drivers compartment.
- The truck driver must inspect the cargo and the devices used to secure the cargo within the first 50 miles after the beginning of a trip and make necessary changes. The driver must also inspect and make necessary changes after 3 hours of driving or after the motor vehicle has been driven 150 miles, whichever occurs first.

As an owner, owner operator or driver of a commercial motor vehicle, safety should be your first priority. Your life as well as the lives of others depends on you assuring that the load is secure and both you and your vehicle are in the best operating condition possible.

Additional load securement requirements apply. Information concerning these can be found in the “Federal Motor Carrier Safety Regulations” (FMCSR), part 393.100 through 393.136.