

Safety Note #154

## Cargo Securement Requirements



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Foothill REC

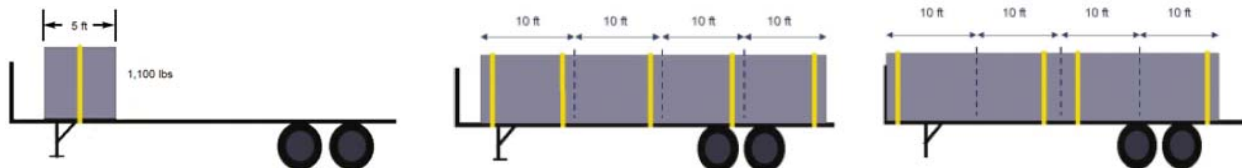
This safety note provides a summary of the “Cargo Securement Rules” published by the Federal Motor Carrier Safety Administration’s (FMCSA). The cargo securement rules include general securement rules applicable to all types of articles of cargo, with certain exceptions, and commodity-specific rules covering certain transportable goods that are considered the most difficult to determine the most appropriate means of securement. Requirements concerning securement, working load limits, blocking, and bracing are applicable to all commodities being transported.

Cargo must be firmly immobilized or secured on or within a vehicle by structures of adequate strength, tonnage (loose materials used to support and protect cargo) or dunnage bags (inflatable bags intended to fill space between articles of cargo or between cargo and the wall of the vehicle), shoring bars, tiedowns, or a combination of these methods.

Regulations require each tiedown to be attached and secured in a manner that prevents it from becoming loose, unfastened, opening, or releasing while the vehicle is in transit. All tiedowns and other components of a cargo securement system used to secure loads on a trailer equipped with rub rails must be located inboard of the rub rails whenever practicable. Also, edge protection must be used whenever a tiedown is subject to abrasion or cutting at the point where it touches an article of cargo. The edge protection must resist abrasion, cutting, and crushing.

The rules do not prohibit the use of unmarked tiedown devices. However, in view of the potential safety hazards of motor carriers misidentifying unmarked tiedowns, unmarked welded steel chain be considered to have a working load limit (WLL) equal to that of grade 30 proof coil, and other types of unmarked tiedowns be considered to have a WLL equal to the lowest rating for that type in the table §393.108 for WLL found on page 14 of the “Cargo Securement Rules”. Two examples from this table would be 1-3/4 inch Synthetic Webbing has a WLL of 1,750 lbs. and ½ inch Braided Nylon rope has a WLL of 502 lbs. The FMCSA cargo securement rules do *not* require rating and marking of anchor points. However, FMCSA encourages manufacturers to rate and mark anchor points.

Cargo securement systems used to restrain articles 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 1,100 lbs or less in weight; two tiedowns if the article is 5 ft or less in length and more than 1,100 lbs in weight; or greater than 5 ft but less than 10 ft, regardless of weight. Below are three diagrams showing how tiedowns should be used.



**Notes:** The Federal Motor Carrier Safety Administration’s “Cargo Securement Rules” is available online at: <http://www.fmcsa.dot.gov/documents/cargo/cs-policy.pdf>