Truck Loading Safety – Quick Tips



The rules and regulations regarding standard safe loading practices of enclosed and flatbed types of trailers for a semi-tractor service is extensively covered in truck driver training schools. Current information can also be found on the website of several different agencies involved with the trucking industry (see sources).

The following are some topics for concern:

Selection of Binding Chains: (49 CFR 393.102)

Truckers frequently use chains to tie down their loads securely, to enhance safety and abide by the law. There are two important factors to keep in mind when evaluating chains:

1. The word “grade” describes the type of chain. For example, a “**Grade 7**” chain is popular with many carriers, despite its higher expense. It is a strong chain specifically for load securement, made from heat-treated carbon steel with a boron additive. “**Grade 8**” and “**Grade 10**” chains are made of alloy steel designed for heavy lifting.
2. The “safety factor” of chains refers to a fraction of maximum load weight that the chain can carry before breaking. If a chain can hold 1,000 pounds before breaking, and has a safety factor of 4, the chain would have a working load limit of 250 pounds (250=1/4 of 1000). Truckers are required to use chains with a “working load limit” equal to 1/2 times the weight of the load (49CFR 393.102(a)(2)). In this example, using a chain that has a working load limit of 250 pounds, truckers would need one chain for every 500 pounds.

Tie Downs: Ratchet vs Lock Binders: (49 CFR 393.102)

Applicable U.S. Federal Motor Carrier Safety Regulations (FMCSR) state there must be one tie down every 10 feet for general cargo and every 8 feet for metal cargo. There must be enough tie downs so that when combined their working load limit equals half the weight of the cargo secured. At least two tie downs must be used in securing metal articles. Since there are several variables in determining how many tie downs are required for securing cargo, check out regulation 49 CFR 393.110 for more detailed information. Selection of ratchet or lock binders is not specified and left to the user’s discretion and preferences.

Current U.S. Federal Motor Carrier Safety Regulations (FMCSR) state in the 2nd paragraph of 3.7.1 that vehicles that weigh over 10,000 pounds must be loaded accordingly to the provisions in section 10 which applies to heavy vehicles, equipment and machinery.

There is no mention of saddle mounts to haul large trucks and an effort is underway by the American Trucking Association (ATA) to get this included into the FMCSR standard. *A saddle mount is a truck or tractor towing other vehicles with the front axle of each towed vehicle mounted on top of the frame of the proceeding vehicle. Saddle mounting is a great way to transport more than one vehicle without the use of a trailer or multiple drivers.*

Commonly Asked Questions

Q: What guideline can I use in selecting chains to secure and tie down my loads?

A: The American Trucking Association (ATA), Commercial Vehicle Safety Alliance (CVSA) and Federal Highway Administration (FHWA) all offer information to help you with cargo safety standards. Refer to the websites listed at the end of this document.

Q: Where can I get the latest news on trucking regulations and hazards?

A: The American Trucking Association (ATA).

Q: How can I avoid costly violations of safety rules?

A: By obtaining training through safety seminars such as that offered by the Commercial Vehicle Safety Alliance (CVSA).

Sources

Title 49—Transportation, 49CFR 393, Subparts A—General, and I—Protection Against Shifting Cargo
http://www.gpo.gov/fdsys/pkg/CFR-2010-title49-vol5/xml/CFR-2010-title49-vol5-part393.xml

ATA (American Trucking Association) http://www.trucking.org
For latest information on current events, news, laws, safety features, and regulatory issues.

FMCSR (US Federal Motor Carrier Safety Regulations) www.fmcsa.dot.gov
For trucking Industry news, education, outreach and issues.

CVSA (Commercial Vehicle Safety Alliance) www.cvsa.org
For topics and references on motor carriers, vehicles, cargo safety standards, compliance, education and enforcement.

FHWA (Federal Highway Administration) www.fhwa.dot.gov
For interpretations and guidance on safety and regulatory issues.

Safety Transportation Services – www.stsny.com

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