Proper Cargo Securement

For companies that transport materials, tools, or other supplies, taking steps to help prevent losses from unsecured loads is important. Loss of load while in transit may involve damage to vehicles, equipment, personal injuries, or death, as well as increased liability. Many of these accidents could be prevented if trips are planned, loads are properly secured, and required pre-trip and en route inspections are performed. It is important that management and drivers are familiar with the regulations and requirements before securing cargo. The following information and guidance can help you reduce the chance of a loss.

Federal Regulations

Federal Motor Carrier Safety Regulations (FMCSR) standards apply to commercial motor vehicles including vehicles in combination that;

- Have a gross vehicle weight rating (GVWR) or gross combination (GCWR) of 10,001 pounds or more,
- Are used in transporting hazardous materials in a quantity requiring placarding, or Are used in interstate transportation of vehicles and cargo

As a transporter, it is your responsibility to check local state laws, rules, and regulations concerning intrastate trips.

What are Your Responsibilities?

- Comply with federal and state laws, rules, and regulations pertaining to load securement as they apply to your current operation. There is also a basic moral responsibility to help ensure public safety.
- Properly load and secure any cargo aboard a vehicle, including;
  - Covering roll-off and other containers while in transit
  - Emptying containers when transporting totes, bins, and other containers to customer sites
  - Monitoring of and, when appropriate, prohibition of, oversized or unusually shaped materials extending off of vehicle
- Familiarize drivers with the methods and procedures for securing cargo and making adjustments while in transit.
- Establish specific training requirements for drivers on proper securement equipment for the following types of cargo: intermodal containers, heavy vehicles, flattened or crushed vehicles, and roll-on/roll-off or hook left containers

What are Your Responsibilities?

Utilize the following guidelines when securing cargo:

- Immobilize or secure cargo on or within a vehicle by tie-downs along with blocking, bracing, friction mats, other cargo, void fillers, or a combination of these
- Determine the proper number and type of tie-downs needed

The North American Cargo Securement Standard is a uniform regulatory requirement for securement of cargo on highway transport vehicles recognized by the United States and Canada. The standard requires that:

- All cargo should be secured so that it does not leak, spill, blow off the vehicle, fall off the vehicle, fall through the vehicle, otherwise dislodge from the vehicle, or shift upon or within the vehicle to such an extent that the vehicle's stability or maneuverability is adversely affected. Some movement is allowed if it doesn't reduce the effectiveness of the securement system.
- Each securement system must be able to withstand a minimum amount of force in each direction as detailed in the MC-P/PV-04-001 Federal Motor Carrier Safety Administration Drivers Handbook on Cargo Securement – Chapter 1.

A load is "fully contained" if these requirements are met and the load is considered properly secured. Otherwise the load may be considered unsafe.

A securement system is a method that uses one or a combination of vehicle structure, securing devices, and/or blocking and bracing equipment. The system must be appropriate for the cargo's size, shape, strength, and characteristics. Additionally, the articles of cargo must have sufficient structural integrity to withstand the forces of loading, securement, and transportation. Three Ways to Trans

Three Ways to Transport Cargo

All cargo must be transported in one of three ways:

- Fully contained by structures of adequate strength so that cargo cannot shift, or tip and it is restrained against horizontal movement (forward, rearward, and side to side) by vehicle structure or by other cargo,
- Immobilized by structures of adequate strength or a combination of structure, blocking, and bracing to prevent shifts or tipping, or
- Secured on or within a vehicle by tie-downs along with blocking, bracing, friction mats, other cargo, void fillers, or a combination of these

Implementation – A Call for Change

Making a few changes to driver training and cargo securement practices can greatly improve overall fleet safety efforts and reduce the chance of delays, accidents, claims, and legal actions. Below is a short checklist of activities that may help drivers and companies make the required changes:

Drivers

- Should not operate a commercial motor vehicle, nor should the motor carrier require or permit a driver to operate the vehicle unless:
    - Cargo is evenly distributed on the vehicle and adequately secured to prevent shifting, leaks or spills, blow off from vehicle, fall from or through vehicle, or otherwise dislodge, as specified in 49 CFR 393.100 through 393.136, Subpart 1 – Protection Against Shifting or Falling Cargo
    - Cargo and equipment do not impact the driver's view or access to the controls and equipment
- Should inspect the cargo securement within the first 50 miles after beginning the trip and adjust the load as needed
- Should reexamine the cargo securement devices whenever there is a change of duty status, after the vehicle has been driven for three hours, or after the vehicle has been driven for 150 miles, whichever occurs first
    - If load is in a sealed commercial vehicle that has been ordered not to be opened or has been

loaded in such a manner that is in impractical than reexamination is not required. Refer to good judgment and company policies when implementing this rule.

Ongoing evaluation of truck and load conditions must be a continuous, regular action for route drivers.

Companies

- Should carefully review their current operations, and decide on the changes that are needed regarding cargo securement
- Should update existing policies to include a written policy on cargo securement
- Should communicate changes to drivers, helpers, and others involved in this activity
- Should add this topic to periodic safety training to continue to reinforce use of correct practices

References

1. Federal Motor Carrier Safety Regulations, 49 CFR Parts 392 and 393, covering inspection of cargo, cargo securement devices and systems and the definitions of specific securement requirements.
2. “Understanding the Federal Motor Carrier Safety Administration’s Cargo Securement Rules” USDOT brochure
3. North American Cargo Securement Standard, Commercial Vehicle Safety Alliance

For more information, contact your local AIG representative.