**Section 558.50 Securement Systems**

The rules in this Section apply to tiedown assemblies (including chains, cables, steel straps, and fiber webbing), other securement devices, and attachment or fastening devices used in conjunction therewith, which are used to secure cargo to motor vehicles in transit. All devices which are used to secure cargo to a motor vehicle in transit under the rules in this Part must conform to the requirements of this Section.

a) Tiedown assemblies. The aggregate static breaking strength of the tiedown assemblies used to secure an article against movement in any direction must be at least 1½ times the weight of that article. Chain used as a component of a tiedown assembly must conform to the requirements of the November, 1975 edition of the National Association of Chain Manufacturer's Welded Chain Specifications applicable to all types of chain. Steel strapping used as a component of a tiedown assembly must conform to the requirements of Federal Specification No. QQ-S-781H (as amended May 18, 1977). Copies of both of these specifications are available in the Illinois State Library and the office of the Illinois Department of Transportation. Steel strapping that is one inch wide or wider must have at least two pairs of crimps in each seal and, when end-over-end lap joints are formed, must be sealed with at least two seals.

b) Load binders and hardware. The strength of load binders and hardware that are part of, or used in conjunction with, a tiedown assembly must be equal to, or greater than, the minimum strength specified for that tiedown assembly in paragraph (a) of this Section.

c) Attachment to the vehicle. The hook, bolt, weld, or other connector by which a tiedown assembly is attached to a vehicle, and the mounting place and means of mounting the connector, must be at least as strong as the tiedown assembly when that connector is loaded in any direction in which the tiedown assembly may load it.

d) Winches or other fastenings. The anchorages of a winch or other fastening devices mounted on a vehicle and used in conjunction with a tiedown assembly must have a combined tensile strength equal to, or greater than, the strength of the tiedown assembly.

e) Adjustability. A tiedown assembly and its associated connectors and attachment devices must be designed, constructed, and maintained so that the driver of an in-transit vehicle can tighten them. However, the rules in this paragraph do not apply to a securement system in which the tiedown assembly consists of steel strapping or a tiedown assembly which is not required by the rules in this Section.