LOAD SECUREMENT

This Safe Job Procedure is developed to help ensure the integrity of cargo being carried as well as to ensure the safety of the operator of the tractor unit. An improperly secured load may result in: loss of life, loss of load, damage to the load, damage to the vehicle, a crash, the issuance of citations/fines to the driver and the vehicle being placed Out-of-service.

Load securement will be conducted in accordance with the guidelines contained within the National Safety Code for Motor Carriers, Standard 10 that has been adopted within Provincial Regulations (Manitoba 37/2005).

The following steps are required to ensure that a load has the proper number of ties downs to sufficiently restrain the load from movement.

The driver of a vehicle shall ensure:

a) The cargo securement systems, and each component of a system, used to contain, immobilize or secure cargo on or within the trailer shall be strong enough to withstand the forces, which may be placed upon a load.
b) The components of the cargo securement system shall be in good working order, shall be fit for the purpose for which they are used and if a locking device or securing device is used to secure cargo to a deck it shall be secured in a manner that prevents it from becoming unfastened while the trailer is on a highway.

A load shall be secured with tie downs of a sufficient Working Load Limit (WLL) to ensure the integrity of the load. The manufacturer of the tie down device shall mark these limits. The required number of tie downs will be calculated in the following manner:

1) Where the cargo is longer than 10 feet (i) two tie downs for the first 10 feet and then (ii) 1 extra tie down for each additional 10 feet or fraction thereof.

2) Calculate the load of the cargo and divide this by 2. Then divide this number by the lowest WLL rating of one the components of the tie down system. This will produce the required number of tie downs based upon the weight of the load. To this number add 1 additional tie down for the first 10 feet of a load.

Compare the number of tie downs determined by the two above methods and use the result that produces the higher number of tie downs.

For example:
We have a load of H beams that have to be transported to a site. They are 40 feet 6 inches in length and weigh 45,000 lbs. We are using chain tie downs that have a WLL rating of 4700 pounds.

Method 1: Divide 40 feet 6 inches by 10 and round to the next highest number equals 5 tie downs plus 1 additional for the first 10 feet for a total of 6 tie downs.

Method 2: Divide 55,000 pounds by 2 to get 50% of the load. Then divide 27,500by 4700 and we get 5.85 or 6 tie downs. To this we add another tie down for the first 10 feet and our requirement is 7 tie downs.

Comparing the two answers and using the higher number, which is 7 tie downs, becomes our requirement based upon the weight of the load.