

Securement of Shortwood Loaded Crosswise –Automatic Tensioning Devices

(NSC 10 - Part 2, Division 1, Sections 35 (2) and 36(2))

Issue:

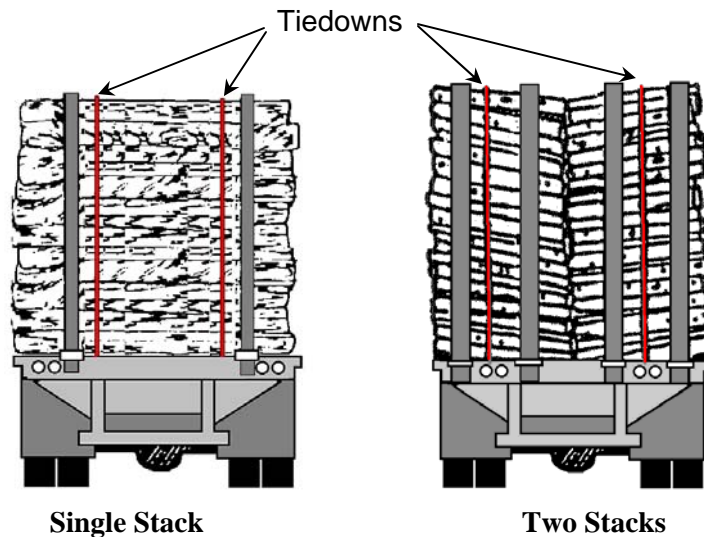
National Safety Code Standard 10 Part 2, Division 1, Sections 35(2) and 36(2) state:

A vehicle built on or after January 1, 2010 shall be equipped with a device that maintains a tension not less than 900 kg at all times, and automatically takes up slack in the tiedown as the logs settle.

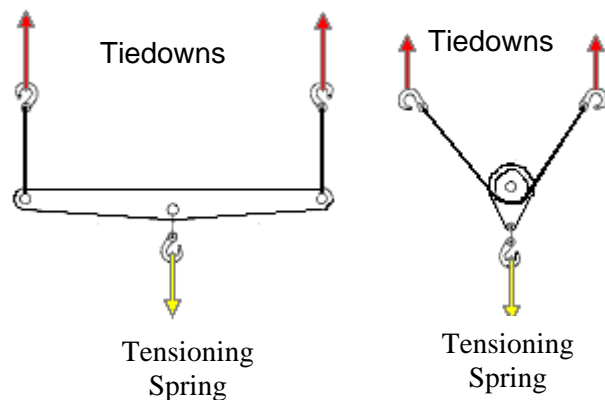
Background:

NSC Standard 10 requires the use of longitudinal tiedowns to secure stacks of shortwood loaded crosswise on vehicles:

- At least two tiedowns for a single stack
- At least one tiedown per stack if two stacks are loaded side by side on a vehicle



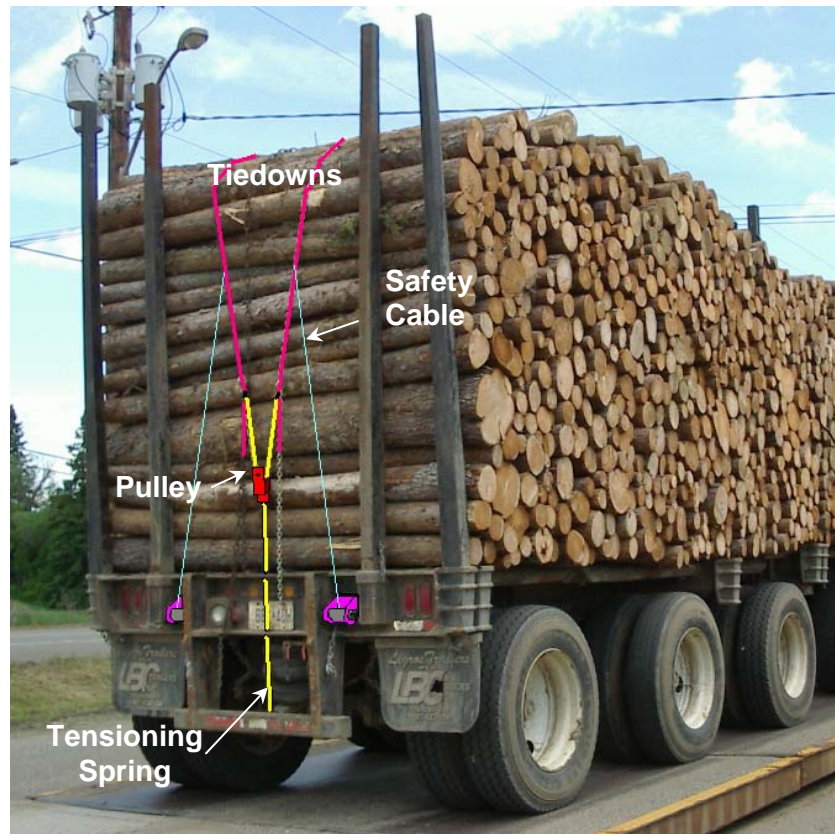
Automatic tensioning devices have been in usage on some of these configurations for several years. These systems typically use an air or mechanical spring to apply tension to the tiedowns, usually through lever or pulley based equalization system:



The use of tension equalization mechanisms as shown above results in the ends of both tiedowns being connected together at a common point. Consequently, failure of either tiedown will result in loss of tension in both. In addition, it could be argued that the requirement for at least two tiedowns on a single

stack of shortwood is not met (by the definition of a tiedown), as linking two tiedowns through a pulley effectively results in a single tiedown.

Nationally acceptable automatic tensioning devices mechanisms must include supplementary safety chains or cables, as depicted below. This will ensure that some level of tension is maintained in one of the tiedowns in the event of failure of a single tiedown or the tensioning device.



Implementation

Full compliance with the provisions of NSC Standard 10 Part 2, Division 1, Sections 35(2) and 36(2) will be required and enforced on January 1, 2010.