



⚠ Hazard alert

Securing Log Loads when Binders and Wrappers are Removed

A log truck driver was seriously injured when he was struck by a log that fell from his load as he was removing the wrappers at a log yard. Before removing the wrappers, the log yard's equipment operator inspected the load and mistakenly did not identify the potential hazard. He then positioned the log handling machine so that the grapple tusk tips made contact with the outside of the load (bumping the load). However, when the last binder was released, a log above the bunk stakes fell from the load, striking the tusks before striking the driver.



*The method used to secure the load violates 437-007-1110(2) since it does not prevent logs from falling off loads. **Do not use this method.***

Log truck drivers are exposed to the serious hazard of logs falling off loads when removing wrappers. Such accidents have occurred even when the driver and log yard personnel thought the load was secured. It is important that everyone involved in the unloading process understands what is considered "secured" in order to develop and use methods that effectively protect workers.

What does secured mean when removing wrappers?

When binders and wrappers are properly in place on a log or wood fiber load, the risk of logs falling off, or out from, the top or side of the load is eliminated. Securing loads when binders and wrappers are removed must provide an equivalent level of protection to ensure that logs cannot fall off, or out from, the top or side of loads.

Log securement may be achieved by keeping all loaded logs completely below the top of the bunk stakes, with no short or double-ended logs on the sides, or by effectively restraining the side of the load where binders and wrappers are removed with a barrier or a log handling machine. Methods used for securing loads that do not **prevent** logs from falling off, or out from, the top or side of a load where binders and wrappers are removed is **not** secured.

Who is responsible for ensuring log loads are secured?

Log yard operators are responsible for developing, posting, and enforcing yard rules. Such rules must be legible and posted in plain view for log truck drivers to read. Some log yards provide log truck drivers with a copy of their rules to better ensure compliance. Employers of log truck drivers must ensure their employees understand and follow log yard rules. Such rules typically include at least the following information:

- Required personal protective equipment to be worn
- CB radio channel to contact log yard personnel
- Side of truck where binders should be placed and released
- Number of wrappers to remain on load until secured by a machine or barrier
- Specific instructions on barrier use
- Where drivers must remain while unloading



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Securing log loads with a barrier

The two basic types of barriers (wrapper racks) used to secure log loads for safe wrapper removal are *adjustable* and *nonadjustable*. Both types must protect workers on the side of the load where binders and wrappers are removed, and should be inspected regularly to ensure proper function. Adjustable barriers must allow the operator to position the barrier against the load.

Nonadjustable barriers must allow log truck drivers to position their loads close enough to the barrier to prevent logs from falling off or out of the secured side of the load. Since positioning a truck and trailer close enough to some nonadjustable barriers can be challenging, if not impossible, adjustable barriers when used correctly generally provide more reliable protection.



Secure loads by making contact with the adjustable barrier.

Securing log loads with a log handling machine

Log handling machines were not designed to protect workers from falling logs. The method used to secure log loads with a machine must **prevent** logs from falling off, or out of, loads. Any method that does not prevent such hazards, such as “bumping the load,” is not considered an acceptable method of securement. Fully-encompassing the load provides the most reliable method of securement when using log handling machines. Since equipment failure can result in crushing hazards, employers of log yard operators and log truck drivers must ensure workers do not walk under loaded or unloaded log handling machine carriages.



Secure loads by fully encompassing them with the grapple, and with the carriage backrest against the load.

What are the minimum number of wrappers in Oregon?

During transportation to the log yard:

All short logs (less than 27 feet long) – 2 wrappers
All long logs (27 feet long or more) – 4 wrappers
Loads of four long logs or less – 2 wrappers

At log yard before secured:

All short logs (less than 27 feet long) – 1 wrapper
All long logs (27 feet long or more) – 2 wrappers

Binders and Wrappers 437-07-1015 (2) Binders, chains, cables, synthetic materials, fasteners, wrappers, or other wrapper attachments must each have a minimum breaking strength of not less than 15,000 pounds.

Read the complete Oregon OSHA rules for log yards and wrappers removal in [Division 7, Subdivision L](#).

Hazard alerts provide information on hazardous materials, equipment, or practices. For more information contact the Oregon OSHA Standard and Technical Resources Section at 503-378-3272 or 800-922-2689 (toll-free), or visit our website at osha.oregon.gov.