



# Spring-assisted folding stakes pose risk on log transport trailers

By Gord Woodward

If you work with log transport trailers, you need to be aware of the risks for serious injury that can occur when using spring-assisted folding stakes. The following tips can help reduce your risk for being struck, suffering strains and sprains, and sustaining other injuries.

Just as a spring holds your garage door in place, spring-assisted folding stakes help hold logs in place on transport trailers. In both cases, adjusting the spring tension can be hazardous work. There's a big difference in potential consequences, though.

If a garage door fails, it may damage property. But if the top part of a folding stake collapses, people can be hurt. Badly.

"Adjusting the spring tensions of these stakes on log transport trailers can result in serious injuries if not done properly," says Earl Houlden, a WorkSafeBC supervisor with Prevention Field Services based in Terrace. "A stake extension that isn't fully extended or secured when vertical can fold down suddenly when the spring tension is released."

That's what happened to a worker recently, who was seriously injured when an unsecured stake extension

swung down when they were adjusting the spring tension and it struck their head.

"Consider the energy and force that's in that stake extension," Houlden cautions. "You don't have time to react."

## Five tips for safe use of spring-assisted folding stakes

A new safety bulletin from WorkSafeBC explains the hazards of working with spring-assisted folding stakes on log transport trailers. It also describes steps employers and contractors should take to reduce the risk of injury, including conducting a risk assessment. Here are five tips from the bulletin:

### 1 Identify the hazards

Being struck by a folding stake is just one of the hazards workers face. Strains, sprains, and other musculoskeletal injuries can also occur from using a pry bar to detach the chain link from the hook latch, or by pulling on it. "And if the spring isn't attached or it's broken, it could pinch limbs," says Houlden.

Inspect the stake and spring mechanism to look for anything that may cause harm. Clean out any mud or dirt so you have an unobscured view. Check everything, including the chain, for wear and tear.

“You might also have to give a small tug on the extension and see if there’s tension on it.”

Using a pry bar not suited to the task can also be hazardous.

## 2 Assess the risk

The risk is the chance that somebody could be harmed by these hazards, as well as how serious the harm could be. Employers need to determine the level of risk: low, moderate, or high. For example, “as soon as you unlatch that chain it becomes a high risk because that extension could fall and strike the worker,” Houlden explains.

## 3 Implement controls

If you can’t eliminate risks, you need to take action to reduce them. After completing a risk assessment, develop written safe work procedures for specific job tasks. Safe work practices include the following:

- Specify which equipment to use to reduce risk, such as a custom-built stake securement device that stabilizes the upper part of the stake while adjusting spring tension. Make sure the equipment is labelled.
- Identify safe work zones and “no-go” zones for specific tasks. “Remind workers to stay out of the bight,” Houlden says.
- Ensure workers wear appropriate personal protective gear, such as hard hats.
- Train workers on how to adjust the spring tension and make sure only properly trained workers make

the adjustments. “I tell them to always look up before doing anything,” he says. The stake extension should be fully extended and secured before releasing the tension.

- Regularly clean and maintain the stakes and spring mechanism.

## 4 Ask the manufacturer for information

Contact the manufacturers of the trailer bunk and stakes to find out the recommended safe procedures for adjusting the spring tension. Ask if there’s a specifically designed tool and method to use. Do they supply such a tool? Is there a tool that’s clearly labelled with the brand or make of the stake it’s designed for?

Also ask for recommendations on safely securing stake extensions before releasing spring tension.

## 5 Expect the unexpected

“Assume it’s going to fail, and act accordingly,” Houlden says. It’s a proactive mindset that helps workers focus on the hazards and risks, and the precautionary steps they can take.

## For more information

Review the [safety bulletin at worksafefbc.com](https://www.worksafefbc.com) by searching for “spring-assisted folding stakes.” You can learn about reducing the risk of injury by visiting the site’s [Log transportation](#) and [Managing risk](#) pages. You can also review the Occupational Health and Safety Regulation, [Section 26.3 Training](#) and [Section 26.66 Bunks and stakes](#). ☺



**BCMSA**

On-Site Health & Safety Training  
200+ Online Safety Awareness Courses  
Certificate of Recognition (COR) Program  
Reduced Cost for Online SDS Management  
COR Organization Self-Assessment  
*free online tool available to all organizations*  
BCMSA/PWABC Annual Joint Conference  
*September 20-23, 2020 in Richmond*

Share the knowledge!  
**BC MUNICIPAL SAFETY ASSOCIATION**

[bcmsa.ca](https://bcmsa.ca)    