



Elite Transport's innovative design uses a side lever that operates the hydraulic tarp overhead. Driver Deane Carlson demonstrates it to operations manager Lonny Burkett and WorkSafeBC occupational safety officer Jeff Postnikoff.

# Putting a lid on tarping injuries

By Lynn Easton

The owner-operator of a Prince George transport company is determined to stop the large number of injuries to B.C. woodchip haulers.

Elite Transport's Dean Jardine was shocked to learn that the overwhelming majority of injuries at his company occur when his drivers secure tarps on their bulk sawdust and woodchips.

"I couldn't believe it," says Jardine. "It was out of control."

Ministry of Transportation regulations specify that every bulk load must be secured with a tarp, so that particles don't fly out when the trucks are on the highway. But drivers are routinely at risk of falling when securing the tarps because they have to climb up ladders on their trucks to throw the tarps using ropes and ties. This also puts them at risk for tripping and slipping on the ground outside and for musculoskeletal (MSI) injuries from throwing the heavy tarps.

Jardine was determined to find a solution, to lower both the number of injuries, and the cost of those injuries to his business. "We had no choice," he says. "We had a shortage of staff and needed a safer environment."

In 2016, a survey by the Bulk Haulers Injury Elimination Task Force (BHJET) enlisted the not-for-profit researchers FP Innovations to survey member-companies on the issue. They found, on average, 60 percent of all injuries for bulk haulers happened while tarping woodchip loads. WorkSafeBC statistics cited in the survey note that the average claim cost per year for tarping-related injuries was just above \$1.7 million, and total claims for the last five years topped \$10.3 million. "We can't survive with those kind of costs," Jardine says.

## Elite sews up an effective solution

So, two years ago, he and his employees started experimenting to fabricate an automatic hydraulic

tarping system. Through trial and error, they came up with a prototype that allows drivers to flip a switch on the side of their trucks to start the tarping process.

They also designed lightweight mesh tarps that automatically fold over the load from either side of the truck. Jardine even brought sewing machines into his shop to make his own tarps. “Everybody was welcome to throw their ideas in,” he says.

And it’s worked. The tarps have been highly effective, and have held up well in harsh northern B.C. winters, when covering a load is most dangerous for drivers.

So far, there have been no tarp-related injuries on trucks that use the automated system, Jardine notes. “Not one,” he says. “We just had to get on with it and make something that worked.”

He has installed the hydraulic system on 7 of his 29 vehicles and says the mechanism can be retrofitted for approximately \$7,000 per truck. Since then, he has also added an electric system to one of his shorter trucks, which means drivers don’t even have to leave the cab to tarp their loads.

As a bonus, injured workers are getting back on the job more quickly than before, he adds. Recently, a worker with an unrelated hand injury managed to return to work within four days because he could drive an automated chip truck with little risk of re-injury. “If I can help get the guys safer on the job I am going to do it,” Jardine says.

## Innovation sparks interest from other transport companies

Both the hydraulic and electric designs have caught the attention of other transport companies in the Prince George area after Jardine was invited to present a video of his hydraulic system at a BHIET meeting.

Brad Evans, who helped form the BHIET, is excited by the idea. As the former director of safety for Excel Transportation, Evans helped create the BHIET to discuss ways to end the high number of tarping injuries. He’s worried that if companies don’t find answers, they’ll face a driver shortage very soon.

“You have to give Elite a whole lot of credit,” he says. “They really took the bull by the horns and looked for a solution.”

A few Prince George companies have tried to slow the number of injuries in other ways. Excel Transportation converted an old chip truck to make an elevated floor

so drivers wouldn’t have to climb ladders. A few mills have developed tarping stations that work for specific-sized trucks.

These changes have improved conditions for some drivers but don’t eliminate all safety issues, says WorkSafeBC safety officer Jeff Postnikoff who has been part of the task force for about four years.

“The key is going to be engineering the problem out, and from what I can see, Elite is well on the way to doing that,” he says.

## Expanding the use of the automated tarp system

Shelagh Locke, WorkSafeBC transportation industry specialist, says that industry support is needed to test the tarping in more trucks. “Elite has a great system and they are definitely reducing loss days,” she says.

Locke has met with the BHIET and watched Jardine’s presentation. “I’m really impressed with how the whole industry is working together to find a solution. It’s very admirable,” Locke says.



In this truck, the tarps are operated from inside the cab, as demonstrated by shop foreman Dave Kerr.

Jardine has a prototype patent and is manufacturing his design but says he'd be happy if someone else builds on his idea. After showing his system to the task force, one of his competitors showed up the next day and brought a designer with him.

"Go for it, make it better," Jardine says. "We're not marketing this. We just want to keep our guys safe and retain our drivers."

BHIET members have been impressed with Elite's system, says Trish Kohorst, task force facilitator and Forest Safety Council transportation safety program manager. "Elite has put in big money without any support to this point," Kohorst says.

The task force is now waiting for results from an FP Innovations evaluation of Elite's hydraulic system, as well as a second device, developed by Tycrop, a Fraser Valley based manufacturer of trailers and products for the trucking industry.

"Our companies need to decide what their own next steps will be and what direction the task force will go in," she says.

**"We just want to keep our guys safe and retain our drivers."**

—Dean Jardine, owner-operator of Elite Transport

Jardine isn't waiting. He plans to continue to improve both the hydraulic and electric tarping systems on his trucks. "I want this not only for us," he says. "I want my drivers safe and I want my competitors' drivers safe." ☺



**CODE THREE**  
**EMERGENCY VEHICLES INC.**

**Ambulances & Mobile Treatment Centres**  
[www.code3emergency.ca](http://www.code3emergency.ca)

**KELOWNA, BC CANADA • 250-861-9000**



## Falls are a leading cause of injury for truck drivers

Reduce your risk

- 1 Always use 3 points of contact
- 2 Face the truck and climb slowly
- 3 Wear proper footwear

For more safety resources visit [worksafebc.com/transportation](http://worksafebc.com/transportation)

**WORK SAFE BC**