

Slips, Trips and Falls Amongst Professional Drivers

Hazards are ever-present in the steel plant environment, and a heightened awareness and emphasis on safety is a necessary priority for our industry. This monthly column, coordinated by members of the AIST Safety & Health Technology Committee, focuses on procedures and practices to promote a safe working environment for everyone.

Author

Andrew Erin
Director of Risk and Safety, PGT Trucking Inc., Aliquippa, Pa., USA

Late on a Thursday afternoon in December 2021, a professional flatbed truck driver was securing their load of steel to the deck of their trailer. They took pride in their load securement, and always went beyond the Department of Transportation's (DOT) requirements. As such, spread on the trailer deck that afternoon were the tools of the trade — chains, binders, edge protectors and “J-hooks” that create an anchor point on the trailer, beveled lumber, coil racks, and rubber belts.

This load would position the driver perfectly to end their week with a good paycheck — so they were happy but they later admitted to rushing in anticipation of the drive ahead of them. As the driver moved from one side of the coil to the other, their boot caught on a chain and they fell from the trailer deck to the concrete parking lot of the steel mill. Their injuries included a fractured arm which required surgical repair and a significant concussion. Five months after the incident, they are still unable to return to work as a professional driver.

What happened to this driver is surprisingly common. While one might expect truck driver injuries to result most frequently from motor vehicle crashes, this is not the case. The Bureau of Labor Statistics reports that for 2017, slips, trips and falls accounted for the largest source of injuries to truck drivers at 27%, compared to 17% of injuries caused by crashes.¹ The National Safety Council echoes these conclusions, reporting over 45,000 falls for transportation workers in 2020. The data from the National Safety Council also points to slips, trips and falls as the most common cause of workers compensation claims amongst professional drivers.²

Part of the problem may be that the severity of these injuries is underappreciated. An executive at a steel manufacturer recently questioned how bad a similar fall could truly be, given that a typical flatbed deck is, in their words, “only about four to five feet above the ground.” However, consider that since the driver was standing upright the moment they lost their balance, their nearly six-foot height meant that their head fell more than 10 feet before it struck the pavement. Tragically, the statistics also demonstrate this danger: The Bureau of Labor Statistics reports that in 2018, 34 professional drivers lost their lives in a fall.³

What Are Drivers and Carriers Doing to Address This Issue?

Efforts by carriers to reduce slips, trips and falls most often focus on driver habits. In the case of the truck driver, their trailer deck was cluttered by piles of securement equipment, creating the unsafe condition that caused their fall. Driver education should focus in part on developing efficient workflows that minimize excess tools on the deck and prioritize neat and safe environments.

Another important habit for a flatbed driver to develop is to utilize three points of contact whenever climbing up or down from the truck or trailer. At PGT Trucking, stickers have been applied to areas where the drivers are commonly climbing to remind them of this key safety step. The stickers are inexpensive and, so far, effective. Reported driver falls decreased by 57% in the six months after the stickers were applied, compared to the six months prior.

Comments are welcome.

If you have questions about this topic or other safety issues, please contact safetyfirst@aist.org.

Please include your full name, company name, mailing address and email in all correspondence.

Figure 1



Flatbed load securement presents many tripping hazards.

In an ideal world, carriers would be able to outfit open-deck trailers with mobile, built-in fall protection that travels with the trailer to solve the problem of driver falls. While several attempts at trailer-based fall protection systems have been marketed, unfortunately, none have overcome the challenges of flexibility and portability needed to gain widespread usage.

What Can Shippers Do to Reduce Falls at Their Facilities?

Fall protection is best located on-site at shippers and consignees where the work on the trailer deck occurs. A variety of systems is available to allow a shipper to find a system that best fits their locations and needs. Some are fixed platforms, between which a trailer is pulled before work is done on the deck. Others are nets suspended by poles, then attached to the trailer rails. Mobile platforms with locking casters allow flexibility while still providing safe places from which drivers can work. One shipper of paper rolls requires drivers to wear a harness, which they provide, that slows any fall with a lanyard anchored to a beam running above the trailer loading bay.

Any of these systems is welcomed, provided it allows a driver to do the necessary work while protecting them from the danger of a fall. Perhaps the most important aspect of a shipper's fall protection scheme is its usage and availability. The mill where the truck driver was loading did indeed have a fall protection system with nets in place. In fact, the fall occurred within eyesight of these fall nets. So why did the driver not use it? An investigation found that the facility had blocked the entrances with piles of plowed snow

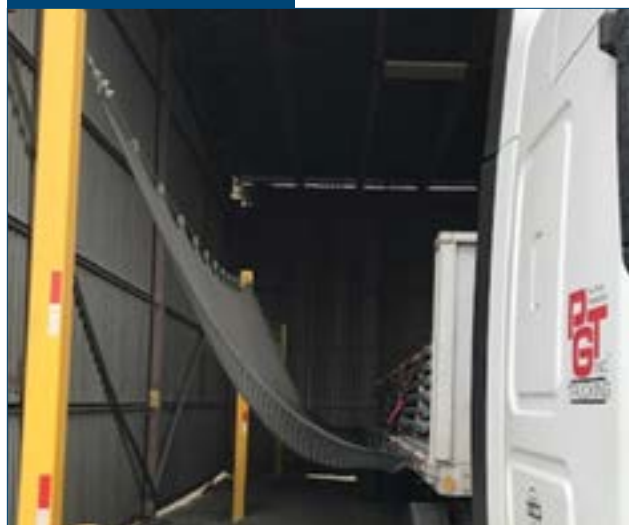
Figure 2



Stickers that were applied to areas where the drivers are commonly climbing to remind them of this key safety step.

from a recent storm, making it impossible for them to utilize the system. Any capital investment into a fall protection system will fall short of its purpose if its importance is not an integral part of the facility's safety culture. Everyone from the plant manager, to a driver loading there, and even the snow plow driver must know what the system is, how to use it, and the consequences of a driver losing their footing and falling to the pavement.

Figure 3



A net provides protection for a driver, who has just inches of space on either side of this load to work.

Figure 4



This roof joist manufacturer mandates the usage of mobile platforms with handrails, and forbids drivers from standing on a trailer. These policies were enacted after a driver was seriously injured in a fall on-site.

Truck driving is hard, dangerous work. Professional drivers work long hours, often away from home for days or weeks at a time, while navigating roadways of increasingly distracted motorists. These challenges are only multiplied when hauling steel commodities on an open deck. In addition to driving a large vehicle through congested roads, the driver is also responsible for securing the load in such a way that it will not move, even if the driver must brake abruptly when cut off by a driver who has no idea how long it takes a 40-ton vehicle to stop.

The dangers experienced when driving are significant, but most driver injuries happen when the truck itself is stationary — slips, trips and falls. The securement needed to hold a load safely in place presents hazards to the driver as they work and results in dozens of preventable deaths each year. Drivers must remain aware of their surroundings and develop safe habits like using three points of contact. Carriers must continue to train and educate their drivers.

Figure 5



This fall protection system is well intended, but snow had been plowed into the entrance and exit days prior, making it inaccessible to the drivers loading there.

Carriers should also prioritize shippers who provide safe environments for their drivers. PGT Trucking, for example, has stopped working with certain shippers who will not provide fall protection while shipping loads that leave no room on the deck for the driver to work safely. As drivers become increasingly hard to recruit, shippers who ask a driver to do a dangerous task without fall protection may find capacity harder to source. Conversely, forward-thinking shippers have an opportunity to differentiate themselves by leading on this issue. A professional driver recognizes a shipper who prioritizes safety by investing in fall protection and builds the safety culture to enforce its use.

References

1. <https://www.ishn.com/articles/110895-invest-in-slips-falls-protection>.
2. <https://injuryfacts.nsc.org/work/industry-incidence-rates/industry-profiles>.
3. <https://www.bls.gov/iif/oshwc/foi/truck-drivers-2018.htm>. ◆