

5 Steps to Reach Zero Falls From a Ladder at Work

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At a Glance: How to Eliminate Ladder Falls

- Form a Proactive Plan
- Opt for Low-Level Access Solutions
- Require Permits for Ladder Use
- Reassess Facility Design and Workflows
- Commit to a Ladder-Free Future

It took a routine lightbulb change to spark a lightbulb moment.

For several years, Oshkosh Corporation and its brands had been working towards eliminating falls from a ladder at work in its proactive pursuit of the highest level of OSHA's Voluntary Protection Program (VPP). The company had made positive progress in improving workplace safety through implementation of its robust Safety Management System.

But then, a preventable injury from a ladder fall last year led Oshkosh to say "no more."

"That's where we just drew a line in the sand and said we are going to try to prevent this from ever happening again," says Adam Croskey, safety director for global manufacturing at JLG Industries, an Oshkosh Corporation company.

Ladder falls are one of the leading causes of workplace injuries, according to the Centers for Disease Control and Prevention. Not only that, but their use increases ergonomic stress on the body and can impede job site productivity.

So what is Oshkosh doing to change this? Here are five steps that your company can also take to eliminate ladder falls.

Be Proactive

About 10 years ago Oshkosh began pursuing OSHA's Voluntary Protection Program (VPP) Star Location status, says Jeffrey Rush, senior director of global manufacturing for JLG.

The program recognizes workplaces that achieve exemplary and continuous improvement of occupational safety and health. Acceptance into the program is rigorous and involves multiple steps.

"You invite a team of OSHA inspectors into your facility and open up your processes, and you say tell me everything you see that you think I could improve," Rush says.

Sites that attain VPP Star status see a rate of workplace illnesses or injuries that cause team members to require time off, restrictions, or a transfer that is 52% below the industry average.

Rush says during the process, OSHA shared some eye-opening statistics about the hazards of ladders. According to the Consumer Product Safety Commission, there are more than 500,000 people treated for ladder-related injuries in the U.S. annually, and the Centers for Disease Control found that about 300 people die each year from ladder-related injuries.

In the construction industry specifically, about 100 workers died from ladder falls in a single year.

That got Oshkosh to start evaluating how they were using ladders in their facilities and with what frequency, Rush says.

At JLG, ladders were used not only for maintenance tasks but also for some manufacturing processes on large pieces of equipment, such as for work on the 1500AJP articulating boom lift. And at Oshkosh Defense, ladders were used to assemble military trucks that can be about 14 ft. (4.3 m) high.

Croskey says they also noticed an increase in injuries on three- or four-step ladders, used for grabbing parts out of material racks or putting decals on machines. Workers do not have to fall far for the injury to be serious, Croskey says. The average fall distance is 7.5 ft. (2.3 m).

More than 500,000 people are treated for ladder-related injuries in the U.S. annually, according to the CPSC.

Falls from shorter distances often occur because the risk does not feel that great to workers when they are only 3 ft. (0.9 m) or 4 ft. (1.2 m) off the ground, and they'll take both hands off the ladder, Croskey says. Best practice for safe ladder use calls for three points of contact at all times.

"There's a comfort factor that sort of lulls you into that false sense of security when you're a little bit lower," he says. "Once you start getting above 8 ft. (2.4 m), I just think you're less likely to take both hands off and take some additional risk because for whatever reason, your natural instinct kicks in a little bit to protect yourself."

Find Alternative Solutions

Croskey says the first step was replacing the lower level work platform ladders without handrails with those that have handrails and limiting A-frame ladders to maintenance tasks only.

Of course, workers still needed ways to perform work at height during manufacturing. In 2015, JLG purchased Power Towers, a low-level access equipment manufacturer based in the U.K., and began incorporating their products into the workflows of Oshkosh brands.

Low-level access solutions include the LiftPod, a personal portable lift that allows work up to 20 ft. (6.1 m), and the 830P and 1030P push-around lifts.

Injuries from low-level access solutions are much less likely to occur than from ladders. These lightweight products are designed for one-person operation and feature small footprints to maneuver tight spaces. One of their biggest benefits is that their platforms allow team members to safely use both hands while working at height.

For the next five years, Croskey says that implementing these solutions reduced the number of injuries at JLG. He says the company also started limiting ladder use for maintenance tasks as well as a best practice.

Use Ladder Permits

But after a team member fell from a ladder from less than 4 ft. (1.2 m) and broke several ribs in early 2020, Croskey and his team locked up all the remaining ladders and sought to shift ladder use from a rare occurrence to a documented exception.

JLG developed a ladder permit that team members must fill out to log why they needed to use a ladder and affirm that there was not another viable option available through a documented Risk Assessment process.

"That permit is similar to permits for workers going into a confined space, or other activities where a pre-job Risk Assessment should be performed," Croskey says. "If there's no other feasible way to do this job without a ladder, we're going to write out a ladder permit."

He says this causes team members and their supervisors to thoroughly evaluate the situation and whether it really warrants a ladder. In nearly all instances, a low-level access product is the better solution, because it enables team members to work safely and efficiently.

"If you look at the warnings on ladders, it says three points of contact at all times," Rush says. "What really can you do in the air with one hand?"

Reassess Designs and Workflows

In addition to reducing its ladder use, Oshkosh started looking at its facility designs and manufacturing processes differently.

"It drove us to think of other engineering solutions to try to eliminate risks," Croskey says. "It was a new way to look at our facilities, tasks, and processes."





They evaluated the positions of items, such as valves and light fixtures, and whether they should be relocated. In some cases, they called in contractors to move access points in order to permanently eliminate the need to work at height.

Croskey says all of their careful assessment and planning led to the realization that they did not require ladders as much as they previously thought.

"In the past, we used ladders quite a bit," he says. "We've found out that you can help eliminate ladder use if you really challenge existing practices and pursue continuous improvement."

Establish A Ladder-Free Future

Oshkosh is now taking its restrictions on ladder use to the next level.

"As we design new processes or as we start up new facilities, one of our guidelines is it has to be a ladder-free facility or it has to be a ladder-free process," Rush says.

Any work by outside contractors prohibits ladders, which is outlined and required in their contracts.

Designs for future company facilities must ensure that ladders will not ever need to be used for their maintenance, a method they adopted when building Oshkosh's new headquarters in Wisconsin in 2019.

"In the new corporate office, you will not find any step ladders or extension ladders," Rush says.

This is the way forward, he says.

Since adopting these steps, JLG has had zero ladder falls over the past 12 months, and the company has seen benefits beyond that.

"It's definitely improved our ergonomics and workplace efficiency," Rush says.

It has also eliminated the need for two team members to perform some maintenance tasks, where in the past a second team member would need to be available to hand tools or materials to the team member on the ladder.

Croskey says he believes other companies can successfully adopt these practices and enhance the safety and efficiency of their worksites. He says the key is embracing a new mindset about work at height.

"For us, it was changing the mentality of not defaulting to the ladder first, but defaulting to the ladder last," he says.