

Aerial Products – Having What You Need, When You Need It

Introduction

Aerial performers have fascinated audiences for years under the big top. The thrill of seeing someone walking the high wire or soaring through the air in a trapeze act, or suspended high above the ground in a Cirque du Soleil performance. But from a workplace setting, high work/aerial work isn't nearly as glamorous. It isn't just working at elevated heights, it is having the tools and equipment you need at heights, having easy and safe access to them, and protecting those below when you are working at heights.

Reality Check

So if you are working at heights, how do you get the materials and equipment you need when you need them? If you are in an aerial lift, or scissor lift, that is easy. You have a container that holds all the tools you may need, that keeps them organized, and that keeps them within easy reach. And if you don't have such a container? It can be a time waster – having to remove each item carefully so that nothing falls as you pull things out of the 5 gallon bucket. And what if you didn't bring everything with you? Well, now you have to get back to floor level to get the tool, equipment, etc. Oops.

Improving productivity is a major aspect of having the right container that helps you stay organized when working at heights. You need a specific tool? Yep, there's a space for that.

The other aspect to having the right container that allows you to have your materials conveniently located is to protect those below you. According to the 2010 Liberty Mutual Workplace Safety Index, ten percent of the disabling injuries in 2008 were caused by being struck by an object. From a direct cost standpoint (medical bills and lost wages) these resulted in \$5,360,000,000 in worker's compensation costs. That does not even begin to account for the pain and suffering of the employee on the receiving end of the falling object – or the emotional suffering of the employee whose tool fell hitting the co-worker.

In one situation, an electrician was working at heights and placed a screwdriver in his shirt pocket before going up in an aerial lift. While he was up in the air, he leaned over and his screwdriver fell out of his pocket. The subsequent picture of a screwdriver piercing a hard hat is a good reminder to wear head protection, but it does not really address the root cause. The electrician needed a better way to carry and secure his equipment when working at heights.

Those working at heights are also not immune to injuries related to not having what you need when you need it. The same Liberty Mutual Safety Index shows falls from the same level accounting for 15.7% of the disabling claims for 2008 and \$8,370,000,000 in worker's compensation cost. So you are in the lift,

realize you forgot something, and then have to go back down to get it. Stepping onto and off of the lift increases your chance of slips and falls.

Or what if you are working on a different type of elevated surface – such as a roof? The more you have to climb up and down a ladder to retrieve materials, the greater the chance of slipping and falling. And we all know you need to maintain three point contact on a ladder (one hand and two feet or two hands and one foot on the ladder at all times – just as a reminder). I have been on jobsites and seen people trying to climb a ladder while carrying tools in their hands. Not safe. I also vividly remember an injury where the employee lost his footing climbing a ladder while carrying material in his hand. He fell approximately twenty-five feet and suffered permanent injuries (the Liberty Mutual Safety Index lists falls to a lower level as the fifth highest cause of disabling injuries in 2008 with \$5,290,000,000 in worker's compensation costs).

Standards

The Occupational Safety and Health Administration (OSHA), has several things to say about materials handling on elevated surfaces. From the general industry section on Powered Platforms, Manlifts, and Vehicle-Mounted Work Platforms (29CFR 1910, Subpart F):

Tools, materials and debris not related to the work in progress shall not be allowed to accumulate on platforms.

But most of the references are in the construction standard. The subpart on steel erection (29CFR1926.759(a)) states that “all materials, equipment, and tools, which are not in use while aloft, shall be secured against accidental displacement.” 1926.451(h) indicates that hard hats are only one provision to protect against falling objects and that each employee on a scaffold should be provided with other protection – including toe boards, netting, and canopy systems.

The OSHA Construction E-Tool simply states that “workers secure tools and materials to prevent them from falling on people below”. Seems pretty straightforward, doesn't it?

Controlling Tools and Materials at Height

There are several considerations for determining how best to convey and control your materials. Are you working on an aerial lift or scissor lift and just need your items to be better arranged (i.e. you will not actually be physically carrying your tools)? A sturdy container with pockets and compartments that work for the desired job would be the primary focus. Ideally it would have a way to secure it to the work platform so that it does not tip over and is easier to access.

What if you are working at heights, but have to climb a ladder to access your work platform – whether it is a roof, scaffold, or other elevated work platform? Again, you want a sturdy container with the appropriate pockets and compartments for your work materials. But you also need a way of hoisting the item to your work platform – any attachment points should be heavy duty – ideally with a built-in safety factor in case the container is overloaded. Think about how you will lift the container to your

work platform (remember, you need to keep three-point contact while climbing) – do you need a swivel snap to keep the handle of the container from rubbing against a sharp object? Or would a hook help to secure it once you have it in your work area?

And then there is the weight of the container itself. Leather holds up well in most situations, but can add considerable weight to already heavy materials. If you are manually hoisting the container, a lighter weight material will be easier to handle.

If you are working in wet conditions, does it have a way for any liquid to drain – or will it just accumulate in the bottom of the container? Is the base of the container secure enough to keep it from tipping over? And what is the working capacity of the container – is it suitable for your needs?

As we have mentioned several times, it is important to control your tools and materials – especially when they are being raised and lowered, but also when on the work surface. Does the container have a cover that is easy to get on and off as needed?

Be a Star Performer

Just as the circus performer has the tools they need when they attempt to walk the tightrope, you need certain materials to successfully navigate the tightrope known as an elevated work surface. Unlike the big top performers, however, you have more potential obstacles to deal with: weather, job schedule; and potentially other workers both above and below. Keep your tools and materials organized, close and easy to access, and protected in case of spills so you can be a star performer on your worksite.

References

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