

Guidance

Dropped Object Prevention

There are certain industries where dropped object prevention is a given; industries like petrochemical, offshore work, and construction. But in reality, any work that requires tools to be used at height requires comprehensive dropped object prevention solutions. Without such solutions workers and the general public are significantly less safe. So much so that statistics indicate there are hundreds of injuries every year in the UK suffered from the consequences of dropped objects. In addition, a few dozen people die annually.

It's important to note that while dropping a screwdriver from a distance of a few feet is generally no big deal, dropping it from a height of two or three stories could be potentially dangerous. Without a hard hat, being struck by a screwdriver dropped from a height of two stories could be potentially fatal. Even with a hard hat, heavier tools can be the source of significant injuries when dropped from above. Therefore, it is vitally important for anyone working at height to properly secure tools and other objects so they won't fall.

The Barrier Principle

In the world of safety assessments, a principle known as the "barrier principle" is significant in steering how workers will prevent working at height accidents. This principle assumes that a chain reaction of events must exist in order for a tool or other object to be dropped. Barriers (Collective measures) are things put in the way to interrupt this chain of events so that the accident cannot occur. The more barriers in place in a given process, the safer that process theoretically becomes.

When it comes to dropped object prevention, the barrier principle must be well balanced with the need for worker productivity. In other words, managers could put so many barriers in place that workers could barely get anything done in the course of the workday. While that makes a company's safety record impeccable, it can very easily destroy production which, in turn, could ruin your business. On the other hand, relaxing all safety regulations in order to produce maximum output may do just that, but it then makes your site inherently unsafe.

The idea is to develop enough barriers to reasonably interrupt the normal course of events that would lead to an accident without diminishing productivity significantly. That makes dropped object prevention somewhat of an art form rather than just a technical analysis. Those who do it best are those most likely to succeed in their line of work.

Tool Tethering

Tool tethering is one of the more popular barriers when it comes to using hand tools at height. Not only is it effective, but it's also one of the few barriers that directly addresses dropped object prevention. Other safety measures, including enclosed workspaces and nets, do prevent a dropped tool from reaching the ground, but they don't prevent the tool from being dropped. The tethering system provides the closest thing to total dropped object prevention because the object in question is always connected to the individual worker or his equipment.

Tool tethering involves attaching a lanyard to both the tool and some other piece of stationary equipment. Often times the tether is attached to a worker's safety harness, his tool belt or his person. In other instances a tool is tethered to a static tool bag or box that is affixed to the scaffolding or cherry picker. And of course, some tools are tethered directly to the scaffold or the cherry picker. How a specific tool is tethered determines not only its safety, but also the comfort level of the individual using it. That makes tethering choices extremely important.

Guidance

Tethering Appropriate to the Task

There are several different kinds of tool tethering systems including wire tethers, synthetic or Velcro straps, retractable tethers, and so on. Knowing what choice to make depends on the type of work being done, the tools being used, and the way those tools will be used by workers. The best tethering systems will prevent tools from falling to the ground while at the same time not be cumbersome to the worker using them. If workers are encumbered by tethers they are more likely to be less productive and willing to cut corners when possible.

It's interesting to note that the same tool might have multiple tethering options depending on how and when it is used. For example, a screwdriver that will be used fairly closely to its tethering point can be affixed with a lanyard of fairly short length. But if that screwdriver will be stretched out to quite a distance, a lanyard may not be appropriate because it could be extremely long to compensate for the distance. In that case a retractable lanyard might be the better choice. By using a retractable lanyard to worker doesn't have all that extra material hanging from his tool belt; material that could get caught on something else and cause an accident.

Worker Training

Just as important to dropped object prevention as proper tethering systems is the training of individual employees. Unless a worker has observed or been involved in a dropped object accident, he often does not think in terms of that potential. Education goes a long way in making workers aware of potential safety risks and causes them to think in that direction. All workers and supervisors should be trained in the potential damage falling objects can cause, the proper way to use company safety systems, and how to be both safe and productive at the same time.

With proper training and hands-on experience workers quickly become comfortable with safety and tool tethering systems. The best workers will even learn to adapt to any restrictions tool safety systems put on them so that their output is not changed. On the other hand, employees who are not motivated will always struggle with dropped object prevention and efficiency. Those are the types of workers that managers and job site supervisors need to keep a special eye on.

Ongoing Inspections

Unfortunately, with repetitive work comes the tendency to cut corners and be unsafe. Supervisors must therefore continually inspect working areas to ensure worker compliance with safety regulations. Not that supervisors have to be mean and abusive to employees, but they do have to correct any violations they see. Workers who know that supervisors will pay attention are more likely to simply obey the regulations without question.

Safety inspections are especially critical when bringing new workers onto a job. It's assumed that if the employee is new, human resources will have done its job in properly vetting said individual. But supervisors still must assume new workers have little to no experience with the tool safety systems they are using. They must regularly check on new employees until they are comfortable such workers can properly follow safety procedures without someone looking over their shoulders.

Author: N. S. Beardmore January 2012

LEADING EDGE

Tool Safety Solutions Ltd
Unit 5
Glenmore Business Park
Aerodrome Road
Gosport
Hampshire
United Kingdom

Tel +44 (0) 1329 550 121
Fax +44 (0) 1329 550 470
Email sales@leadingedgesafety.co.uk
Web toollanyardsbagsandbelts.com