

Guidance

Dropped Objects

It is common knowledge in the construction and marine industries that dropped objects present a very real danger to worker safety. In one case investigated by the United States Occupational Safety and Health Administration, a construction worker was standing under a scaffold while a worker and three sections of a ladder were being hoisted above him. One of the ladder sections came loose, falling to the earth and striking the worker on the ground in the head. That worker was not wearing a hard hat and subsequently died from his injuries.

This story probably doesn't surprise us because we consider the large and heavy pieces of a ladder to always be fatal. But were you aware that something as small as a 90mm bolt could be equally fatal if dropped from a distance of six stories? It's true. If we plug the numbers into the scientific formula to determine velocity and force, that small bolt dropped from six stories would be travelling at approximately 80 km/h with the force of 49.5 kg. If that bolt struck a man on the head it would probably kill him.

Heavier objects obviously need less distance to cause injury or fatality. A claw hammer can kill a man at a height of just two stories while a sledgehammer only needs one. The point is, given the right distance and weight, just about anything dropped from height could cause injury; most can even cause death as well. That means preventing dropped objects at the work is of utmost importance.

It Begins with Risk Assessment

A safe job site begins with a proper risk assessment by a certified inspector. And in case you didn't know, risk assessments are required by law for any UK job which involves working at height. Risk assessment takes into consideration the type of work being done, how employees access work at height area, who will be in the vicinity of the job while on the ground, the specific tools being used, how they will be used, the weather conditions, and any other factors that could adversely affect the work environment.

Though it's impossible for any risk assessment to think of everything, the best inspectors are those that can visualise all of the most common problems as well as many of those that are uncommon. By analysing the potential of as many hazards as possible, the risk assessment is designed to give site planners the proper parameters for designing safety systems. If a risk assessment is done poorly, site planners are ill-equipped to do their jobs.

This makes risk assessment one of the key components to preventing injuries or property damage from dropped objects. The necessity of such assessments should never be underestimated, nor should the findings of the inspector ever be taken lightly. Even site planners who believe the inspectors are being too picky should still heed all warnings and plan appropriately. When it comes to safety it is better to be too cautious than not cautious enough.

Safety System Planning

Safety system planning should utilise as many preventative measures as possible without putting undue burden on workers trying to complete their tasks. Typically there will be four things utilised to maximise safety. The first is a tethering system which keeps all tools and other loose objects firmly affixed to some sort of anchor so that if dropped at height they cannot reach the ground. The second system is to use enclosed workspaces as often as possible rather than simply open air scaffolding. Third, catch systems are placed underneath scaffolding just in case something does make it past the first two barriers. Finally, one of the most important things that can be done to prevent injury from dropped objects is to prevent individuals from walking around or underneath any working at height area. Unless it's absolutely necessary for workers to be in close proximity, an area should be cordoned off with some sort of barrier to prevent individuals from getting too close. That way, if all the other systems fail the worst that could happen is property damage to the building. If no one on the ground is walking near the job there is no risk of them being injured or killed.

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Worker Implementation

The final piece of the dropped objects puzzle is worker implementation. After inspectors have completed their assessment and planners have developed the safety systems, it is up to supervisors and workers to deploy safety systems according to plans. The deployment begins with setting up scaffolding and collective systems properly. Cutting corners in order to speed up the process is always a recipe for disaster. Instead, workers need to be thorough to make sure everything is set up according to standards.

With the work area secured and scaffolding properly erected, workers who will be going up to do the work must ensure their tools are properly tethered to their safety harnesses, their tool belts, to their person or some other fixed anchor point. When a worker requires more tools than he can carry in a tool belt, he will often use a stationary tool bag or box that is permanently affixed to the scaffolding or cherry picker. Tools placed in those bags and boxes are also tethered for safety.

In addition, when a worker needs to retrieve a tool from a stationary bag or box he must practice safe procedures such as hooking his own tether to the tool before he unhooks it from the bag or box. In this way a tool is never left untethered and cannot be dropped to the ground. Tool tethering systems are only as effective as the employees who use them. Those who practice proper tool safety find that tethers work wonders in preventing dropped tools. Workers who are careless are more prone to accidents.

Be Sure You Are Educated

Dropped objects are a source of workplace injuries all over the UK. Fortunately, they don't need to be. That's why various Regulations and worker safety advocacy groups are pushing so hard to educate companies and workers about workplace safety issues. The more all of us are educated regarding the facts of dropped objects and worker safety, the more safe we will all be.

If you are company owner conducting any work at height activity, it is your responsibility to make sure both you and your employees are properly educated. The government makes working at height regulations freely available and downloadable from the Internet. Furthermore, there are many worker advocacy groups and safety organisations willing to provide education for you and your employees. Then gather your workers and make sure they are all properly trained before you begin work.

Company owners that fail to educate themselves and their workers will be held responsible if their actions result in an accident. It is not worth the risk; either in terms of physical injury or the financial ruin of your business. Proper education and deployment of safety systems should be a top priority if your company conducts any working at height.

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