Guidance

Why You Should Tether Tools for Working at Height

More and more it's becoming common for those who work on scaffolding and other working at height applications to tether their tools with lanyards. For example, where line workers used to simply strap their tool belts on in years gone by they now use specially designed tool bags and holsters which are secured to their harnesses or person and to which hand tools are also secured. Much of this is due to the working at height work regulations 2005.

Despite these regulations and their intended purposes for safety, there is still much lively debate within various industries as to the practicality and viability of tool tethering. As one of the arguments goes, the regulations don't specifically mandate tool tethering per say, so there must be a better way to secure tools than using lanyards. Those who are in opposition to tool tethering usually insist that too many lanyards attached to a harness, tool belt or worker become a safety issue of their own. To some degree they do have a point.

The Purpose of Tethering

The purpose behind the tethering is very simple. It comes down to the fact that there are thousands of injuries every year in the UK that occur as a direct result of dropped tools. Yet before you insist that a hard hat protects workers from dropped tools consider some simple physics. We all know from our days in school that as an object falls toward the ground it accelerates exponentially. As it accelerates it picks up force which is transferred to any object it strikes on impact. It is this force which can be deadly to those standing below a dropped object.

As an example, the average screwdriver dropped from a height of just 14m is equivalent to dropping it from four stories when you figure in the physics. When you combine the original mass of the screwdriver with the acceleration, you can calculate that the screwdriver will hit the ground at an impact weight of nearly 74kg. That kind of weight at a fast enough speed is enough to kill someone even if he's wearing a hard hat.

If you don't understand the math think of it in terms of a bullet fired from a gun. If someone stood and threw a bullet at you using his bare hand, from just a few feet, that bullet would bounce off harmlessly. But that same bullet fired from a gun at a distance of 20 yards would be deadly. The force behind the bullet is what does the damage, not necessarily the bullet itself. Dropped objects from height carry the same destructive force as a bullet fired from a gun. That's the primary reason for tool tethering.

Tethering Has Its Limits

Those who complain that too many tethers pose a safety risk in and of themselves are correct to a certain degree. If you have a dozen hand tools tethered to your safety harness and tool belt it is very easy to tangle those tethers together or get one of them caught on a piece of scaffolding. To avoid such issues good planning is necessary. It might be helpful to tether only three or four tools that are most important and used most often. Other tools can be secured in a tool bag or bucket and only called upon when needed.

Remember that tethering tools to your person is really designed to make the most used tools as handy as possible. It's not designed to enable you to carry every tool you own on your person. Also understand

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That different tools require different lengths of lanyards depending on how a specific tool is used.

For example, the physics of using a hammer dictate that it will normally be used fairly close to the body. An extremely long tether is not going to be necessary. On the other hand, a cordless drill will sometimes be stretched overhead or at a great distance in front of you in order to be used. This type of tool may need a longer lanyard or one that is made of flexible material.

One last thing you should remember in terms of tethering limits is the reality that lanyards are not 100% fail safe. While any piece of safety equipment is helpful in reducing dropped tools, the most important piece of safety equipment is your brain. Workers need to always be aware of what's going on around them and use their tools appropriately. Workers who conduct themselves with this attitude are much safer than those who go about their business carelessly.

Consider Damaged Tools

Safety issues aside, tool tethering is also a good idea in order to protect your tools from damage. Using the previous example of the screwdriver at 14m, let's consider dropping a cordless drill from the same height. 14m is high enough that the impact could damage the drill significantly. If it is damaged beyond repair that means you'll spend up to 10 times as much to replace the drill as you would have spent on simply purchasing a lanyard. When you consider the cost of replacing damaged tools, not tethering is hardly worth it.

If you own a large company with hundreds of tools in your inventory tethering becomes even more important. The more tools in play, the greater potential for monetary loss because of lack of tethering. In other words, if 10 workers use untethered tools you risk 10 times the amount of financial loss as you would with one employee not tethering. The more workers and tools you have engaged the more you need to tether to protect your financial investment.

It's the Law

Lastly, we stated previously that some argue the law does not specifically mandate tool tethering. While that's true, the law does specifically say that workers at height must take every reasonable measure to prevent dropped tools. The law will view tool tethering as a reasonable measure in nearly every case. Therefore, appearing before a court and defending our failure to use tethering will almost always prove unsuccessful. Whether we like it or not, we just will not win that argument in the UK.

Tool tethering is a reality in today's modern environment. There's no point in complaining about or arguing about its usefulness. Better off to start using tool tethering right away so that you get used to it and you can remain productive. It's in everybody's best interests anyway.

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