Guidance

Choosing Tool Lanyards and Tethers
Preventing Dropped Tools When Working at Height

Any object falling from height is a concern, a tool dropping from a considerable height endangers every thing and everybody beneath. Any sizeable tool, for instance a ratchet spanner, can kill a person, as well as do considerable damage as well as cost a business in production, workers compensation claims and equipment repairs. Tool tethers are the most effective solution to safeguard employees, their tools, as well as the work-site. The safety engineer's aim when deciding on the best tethering methods and equipment should be to ensure the tool, as well as the work task are appropriate. For instance when using a retractable tool lanyard and where the tool is extended in use, no more than minimum force ought to be required, so that it doesn't cause the worker fatigue, but also should retract very easily and avoid the tool from deploying when not in use.

The tool is appropriately tethered when its storage or use minimises the risks of the tool falling, becoming entangled, as well as not causing the user fatigue, as well as annoyance, not to mention boosts worker satisfaction along with productivity. Any new safety engineer might ask: How do you know which kind of tether to use in for different types of application? There's a wide variety of tool tethers and lanyards available. That engineer might also question, should the tethered tool be connected to the worker or maybe it should be attached to the structure? Does it require a quick release connector to change out tools quickly? If the tool lanyard is attached to the workers wrist does it need an expansion joint to prevent de-gloving or worse should the tool or lanyard become entangled in such as rotating machinery.

It can easily appear confusing, however, when any tool is properly matched up with the appropriate tether as well as task, the work can certainly be performed safer, much more easily, plus more efficiently. On the other hand, a improperly matched tether can be a safety hazard. The actual safety engineer's problem is always to provide a tether which is user-friendly plus suitable for the work environment. The following review details a number of tool-tethering solutions. The following information about tethering systems provides a quick introduction to how you can decide on the correct tether.

One Size Does Not Fit All
Considering this is such a very high risk subject to workers' safety, it is regrettable that there has been little published when it comes to tethering products along with tethering safety methods. A lot of safety specialists are not aware of the readily available options. Tethering systems in many cases can be specified for a number of uses in a wide range of industrial sectors. Every application possesses its own range of requirements, for example specific mounting and / or attachment demands. Leading Edge, with our extensive range of tool tethering solutions are addressing the importance of selecting the correct tether.

An Appropriate Lanyard And Tether For Each Application
The reason for tethering is usually to safe-guard tools in order to avoid injury and property damage should they be dropped. However there also exists factors which could effect the safety of the individual while using the tether or lanyard. Any kind of incorrectly matched tool tether and lanyard may result in reduced productivity, leading to fatigue, annoyance, and sometimes non-compliance with using a tool lanyard and in so doing ultimately risk exposure to injury.

Choosing the correct tethering solution will ensure that the lanyard selected is matched to the task. For example, it is often important to provide a lanyard which has a low-stretch force not to mention reduces entanglement, it will help eliminate or lessen user fatigue when it's at full extension whilst supplying the correct degree of recoil. This can be done by simply choosing a product where the manufacturer provides a suitable spring force to their retractable tool lanyards or when making elasticated lanyards sews the elastic components into the webbing in the course of production rather than assembling this afterwards. In this way, the actual elastic provides you with the best possible retraction tension as well as low stretch force.

For Tools Less Than 2 Lb
Imagine a worker using several small tools, say an electrician using pliers, screwdrivers, plus a multimeter. These kinds of tools and working conditions tend to be ideal for retractable lanyards which safely enables connecting multiple tools on to the worker with hardly any risk associated with entanglement and / or snagging.

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Working At Height With Multiple Tools
Change the tool not the tether. But what do you do when you have multiple tools to tether? It's a common scenario. There are many options for worker safety in multi-tool tethering situations, for example one solution is using tool bags with multiple tool anchor points. Changing tool lanyards at height is not recommended because of the potential for dropping the tool midst change.

Tethering Heavy Tools
Tethering heavy tools, (generally over 5Kg or 10+ lbs) to a person is a significant safety concern. In the case of heavy tools, safety personnel should consider using tethers anchored to a structure. Tools anchored this way transfers the shock load from the dropped tool to the structure and not the worker. For heavy tools (over 5Kg or 10 lb), anchoring to a structure should be mandatory.

Of concern is where a worker, assuming a lanyard is rated for 15 lbs, believes he is able to connect a 15-lb tool to his tool belt. This is a terrible idea. Typically the 15-lb tool, at the full-drop length, can produce more than 250 lbs of dynamic shock load, more than sufficient to be able to topple a worker off his feet. And a personal fall-protection system might not protect that individual.

Safety engineers need to check out workable tool tethering options by making use of reputable manufacturers if possible coming from the height safety industry.

The Tether And Lanyard Rating
Unfortunately, there are none. Tool-tether ratings have not been established or standardised by either the tethering or safety industries. There are no universal specifications governing tool tethers as there are with fall-protection devices. As such, the safety engineer has no real basis for choosing proper tethers and thus arbitrarily makes a selection based on tool weight. Without additional specification the safety engineer maybe creating a potentially dangerous situation.

When tool tethers are ordered without appropriate specifications or where the product has been tested inappropriately and the tether and lanyard is insufficient for the weight of the tool, chances are the tether may not be suitable and be extremely dangerous. It's also important to consider is there a sufficient safety factor of at least 2:1 when dropped. A drop test should simulate a tool held at arms length above head height (or at full extension above the anchor point), where dropping imposes a dynamic impact load when the tool is arrested and it's this load which requires a safety factor. Merely hanging a load in a static test is insufficient to simulate the dynamic forces when dropped. To view the way Leading Edge tests click here.....

Make The Employee Your Partner In Tool Tethering Safety
For any effective tool tethering-safety program, workers and safety engineers need to partner. A correctly tethered tool can make work more efficient. It makes easier maintenance, servicing, as well as manufacturing and construction by continuing to keep workers' tools handy and also easily accessible. Tethers which properly match the tool, worker, as well as task will be conducive for a safe working conditions.

Author: N. S. Beardmore February 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