

# DROPPED OBJECT PREVENTION

It's the anvil perched atop a rocky cliff, a boulder teetering next to a desert roadway, and on a jobsite, it's a tape measure outstretched from a worker's hand. Wile E. Coyote knows that the anvil or boulder are plenty capable of sending the Road Runner to an early grave, but in the real world, we often write this type of hazard off. The reality is, falling objects pose a great danger to life safety, but the injuries they cause are almost entirely preventable. Any short search on OSHA or the Bureau of Labor Statistics quickly reveals that, every day, workers across the United

States are seriously injured or killed by falling objects, and in 2016, the total number of related recordables was more than 50,000.

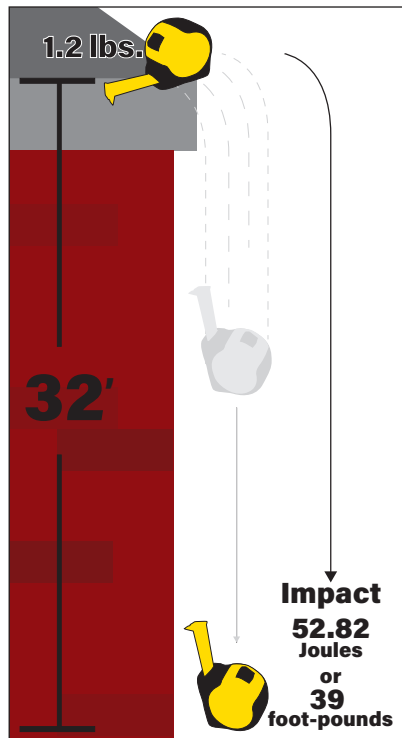
In 2016, OSHA issued a final rule updating its general industry "Walking-Working Surfaces" standards specific to slip, trip, and fall hazards. The rule also includes a new section that establishes employer requirements for using personal fall protection systems, as well as guidance on the need for dropped object protection. In addition, more recently the International Safety Equipment Association (ISEA) and the American National Standards Institute (ANSI) have announced that the long anticipated "Dropped Objects Standard" has been approved. ANSI/ISEA 121-2018, American National Standard for Dropped Object Prevention Solutions establishes

50,000+  
Falling Object  
Incidents  
Recorded in  
2016



minimum design, performance, and labeling requirements for product solutions that prevent falling objects and guidelines for testing that equipment.

Fortunately for those with boots on the ground, solutions for protecting workers from falling objects have seen a significant increase over the past decade, and now some of the largest safety companies in the world are making a real commitment to dropped object prevention. The 50,000 plus falling object recordables are part of a broad scope of injuries that encompass everything from falling steel I-beams to someone dropping a tape measure. It would seem there would be a stark difference between the two, but physics

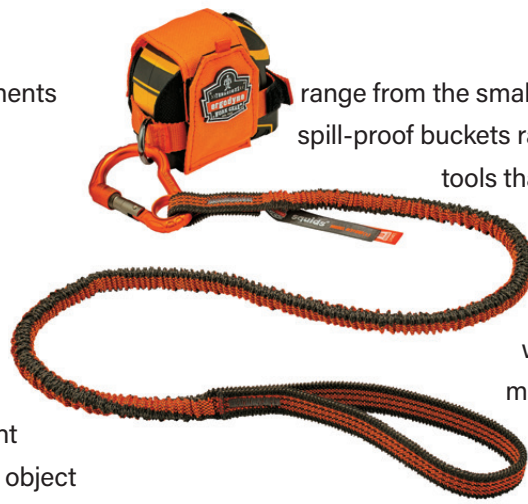


tells us that, depending on the height, they can be equally deadly. A 25-foot Stanley Fat Max tape measure weighs 1.2 lbs. By falling a distance of 32' or 9.8 meters, a Fat Max has a kinetic energy of 52.82 Joules or about 39 foot-pounds of force. This might not be enough to go through a hard hat, but it's more than enough to cause serious injury. This of course is assuming the

tape measure hits a worker's hard hat and not an unprotected body part.

Take the probability of dropping a tool multiplied by the number of workers on any given jobsite, and it becomes readily apparent that dropped tool prevention would significantly increase workplace safety. This can be accomplished using several techniques, including tool lanyards, controlled access zones, and situational awareness.

Tool lanyards, bags, and pouches have seen tremendous advances in popularity and ease of use. Their capacities



range from the smallest of tools up to spill-proof buckets rated for 250 lbs. For tools that don't have a built in anchorage point, aftermarket anchors can be installed without the use of any mechanical fasteners.

Controlled access zones can be as simple as a taped off perimeter around elevated work. If there is no one to drop a tool on, the only risk is to the tool itself. When used in conjunction with tool lanyards, controlled access zones also increase workplace efficiency by eliminating the need to retrieve a dropped tool.

Lastly, great care needs to be taken when walking around elevated work. It takes approximately one second for an object to fall 30 feet. Even if one is watching for falling tools, it's unlikely there will be enough time to get out of the way. Steer well clear of scaffolding, boom and scissor lifts, and any other elevated work. Doing so will save your life.

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For more detail about 2016 injuries and illnesses, please view the following link:  
<https://www.bls.gov/iif/osch0060.pdf>

