

Is Your Fall Protection Equipment a *Silent* hazard?

Each year over 100,000 injuries and deaths are attributable to work-related falls. According to the National Safety Council, falls are one of the leading causes of deaths in the workplace. In addition to permanent injuries and lost lives caused by falls, businesses lose *billions of dollars* each year from significant increases in insurance

premiums, workers' compensation claims, product liability costs, and other related expenses. According to Boston-based Liberty Mutual, the leading private provider of workers compensation insurance in the United States, on-the-job injuries cost employers nearly \$1 billion *per week* in payments to injured employees and their medical care providers.

Has anyone noticed?

The manufacture and sales of fall protection products have steadily grown over the past decade, however the number of injuries and deaths associated with falls from heights has also increased.

What's the problem?

Several factors have contributed to these alarming and disturbing statistics:

- All fall protection equipment deteriorates with use and exposure over time, regardless of brand and/or manufacturer.
- Equipment is not inspected often enough for wear and damage.
- Proper training is not provided – often, the wrong equipment is selected for a particular situation, and equipment is not worn properly.

Those specifying or using fall protection equipment know these factors to be valid (at least at some subliminal level). Yet, it

is very likely that a high percentage of equipment used on job sites throughout North America, today, would fail to meet safety standards if exposed to a fall. Meaning, someone could be seriously injured or die.

Yet, it is very likely that a high percentage of equipment used on job sites throughout North America, today, would fail to meet safety standards if exposed to a fall.

How do we know?

On any given day, a visit to any job site in the country

will unveil fall protection equipment being used that is potentially dangerous because of wear, neglect, misuse or age/exposure. Over the past several months, shock-absorbing lanyards from a variety of

manufacturers have been voluntarily removed from job sites for safety qualification, and 85% of the product samples FAILED standard safety tests (*in accordance with ANSI Standards*). These are surprising and alarming facts that the fall protection community has overlooked, while touting the many standards and regulations to which their products are tested and deemed safe.

The recent test program focused on shock-absorbing lanyards from eight manufacturers and showed a variety of performance failures (lanyard test, 220 lbs. @ 6 ft. free fall):

- 100% did not pass visual inspection criteria [weld splatter, webbing cuts/abrasions, broken stitching, frayed/burned webbing, chemical damage, discoloration, deformed hardware (cracks/rough or sharp edges) and/or loose, distorted or broken grommets, etc.]

- 6% the webbing actually broke
- 24% elongated over the 42 inch standard
- 83% had fall arrest forces over 900 lbs. (ANSI), with 9% over 1,800 lbs. (OSHA)
- 6% were previously deployed, but still in active service when removed from the job site
- 42% had hardware with visible defects
- 9% had snap hooks that opened during testing
- 9% had webbing that was knotted

The safety community must recognize these facts and take a proactive approach.

Workers are being seriously injured in falls with equipment that *initially* passed industry safety standards. More troubling, worn and damaged equipment is

still accessible even though it will not perform as designed in the event of a fall.

Best intentions.

Safety directors and supervisors need to make a concerted effort to keep unsafe

Workers, through proper training and attentive daily inspection, will be safer and injury free.

Common equipment performance



Knotted webbing with weld splatter.

and potentially life-threatening equipment out of the hands of those working at heights. Workers, through proper training and attentive daily inspection, will be safer and injury free. Taking equipment out of service too early is a better alternative than explaining to a worker's family that there has been a serious accident ... adopt a *Smart Policy* – when in doubt, throw it out! In addition, some manufacturers have implemented a return-and-inspect program for equipment, ask your supplier for details.

Personal Fall Arrest System.

A Personal Fall Arrest System is comprised of three (3) key components – anchorage connector; body wear; and connecting device. While a lot of focus has been given to anchorage connectors and body wear (full-body harnesses), when discussing fall protection, the connecting device (a shock-absorbing lanyard or self-retracting lifeline) between these two components actually bears the greatest fall forces during a fall.

Historically, harnesses are replaced on the job site more often than connecting devices. The connecting device is by far the most critical component in surviving a fall safely and should be carefully inspected and replaced prior to use at the slightest indication of wear or damage. While each component of a personal fall

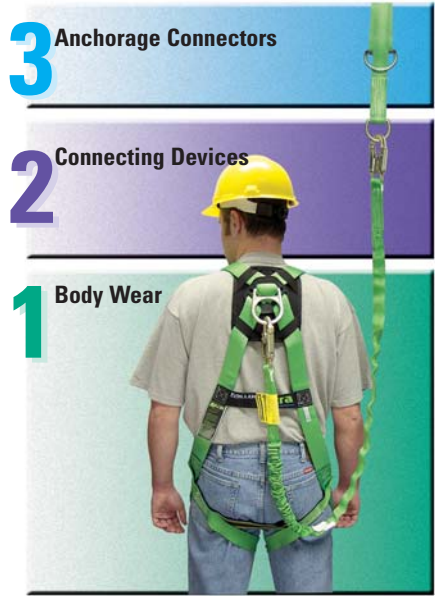
Remember: adopt a Smart Policy – when in doubt, throw it out!

be given before, during and after a connecting device has been selected.

For example, once an anchorage, such as an I-beam, is located, its strength or its ability to

arrest a fall can be determined easily. Likewise, the full-body harness offers an inherently high safety factor, since fall forces are distributed throughout the

PERSONAL FALL ARREST SYSTEM



arrest system is vital to worker safety, the connecting device – selection, materials, construction and inspection/maintenance needs – make it the *critical link* in assembling a safe fall protection system. Careful consideration and attention must

be given to many webbing components, including chest, shoulder, waist and legs. No single component is subjected to the total fall force; however, a shock-absorbing lanyard or self-retracting lifeline is comprised of only one strength member (i.e., webbing, rope, steel cable). Substandard design, poor-quality workmanship, excessive exposure to UV light or chemicals, physical damage, improper storage or inadequate inspection can lead to lanyard/lifeline failure.

What's needed?

Proper training, maintenance and inspection of all components of the Personal Fall Arrest System are crucial in creating a safe work environment. Even the highest quality products require regular inspection, especially when safety and well-being of the user are at stake. Remember: adopt a *Smart Policy* – when in doubt, throw it out!

Food for thought: Next time you and your family embark on a vacation to Disney, ask yourself what percentage of failure is acceptable with the aircraft you are boarding.

For over 65 years, Miller Fall Protection has manufactured and supplied Miller® and Titan® brand safety products and is proud to take the lead in emphasizing the importance of product selection, inspection and replacement before equipment becomes a silent hazard.

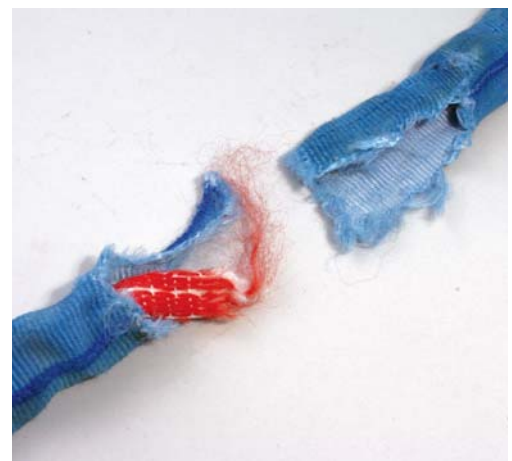
ce failures. Adopt a Smart Policy – when in doubt, throw it out!



Frayed webbing.



Damaged shock-absorber pack cover.



Broken shock-absorbing webbing.