

THERE IS A NEED FOR A HIGHER STANDARD IN FALL PROTECTION

PROBLEM:

According to the Bureau of Labor Statistics there were 303,817 nonfatal injuries caused from falls in private industry in 2000. Further, there were 640 fatal work-related injuries caused from falls in private industry in 2000. Please note that there is an indication that 640 deaths is a preliminary figure. We believe this figure is actually low because according to NIOSH, between 1980 and 1995 there were 9,070 fatal work-related injuries on an average.

Using these figures it is estimated that approximately 832 workers are injured per day due to falls. This is unacceptable since we can provide the answer to this problem.

Federal OSHA has stated in **29 CFR 1926.501** that *"Each employee on a walking/working surface (horizontal and vertical surface) with an unprotected side or edge which is 6 feet (1.8 m) or more above a lower level shall be protected from falling by the use of guardrail systems, safety net system, or personal fall arrest systems."* Further, this requirement is duplicated for "Leading edges", "Hoist areas", "Holes", "Formwork and Reinforcing Steel", "Excavations", "Dangerous equipment", "Overhand bricklaying and related work", "Roofing work on low-slope roofs", "Steep roofs", "Precast concrete erection, and the list of areas covered goes on.

A review of the OSHA regulations governing fall protection shows that in **29 CFR 1926.502(d)** *"If a personal fall arrest system is used for fall protection, it must do the following:....Limit maximum arresting force on an employee to 1,800 pounds (8 kiloNewtons) when used with a body harness; Be rigged so that an employee can neither free fall more than 6 feet nor contact any lower level"*.

Further, OSHA states in **29 CFR 1910.132 (d)** that *"The employer shall assess the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of personal protective equipment (PPE). If such hazards are present, or likely to be present, the employer shall: (i) Select, and have each affected employee use, the type of PPE that will protect the affected employee from the hazards identified in the hazard assessment; (ii) Communicate selection decisions to each affected employee; and, (iii) Select PPE that properly fits each affected employee."*

Since Federal OSHA has stated that persons working over 6 feet off the ground must have fall protection, then the persons mentioned above who were injured or killed in these accidents, assuming the requirements of 1910.132 were met, were more likely than not wearing fall protection when the accident occurred. We feel that the accidents occurred because the employer did not select the proper PPE for the fall hazard due to the fact that any full body harness on the market today, although they will arrest a fall, is likely to contribute to injury at the time of the fall due to contact with lower levels and contacting the structure which the person is tied off to. In effect when a fall occurs with that equipment simple dynamics will slam the wearer into the structure on which he is connected, causing injury and sometimes death. We also feel that the equipment which is on the market today allows a user to fall a total distance of 9 ½ feet which is derived from the 6 foot lanyard and the addition of elongation which equals 9 ½ feet. Since it is general industry knowledge that all buildings are built in 10 foot increments it stands to reason that any fall which includes elongation will contact the user with a lower level. This is a clear violation to the **General Duty Clause (29 USC 654)**.

Federal OSHA states in **29 USC 654** that *"Each employer shall furnish to each of his employees, employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees"*.

The Answer to the Problem

The Dennington Safety Harness was conceived and developed by Mark Dennington, a union ironworker from Louisiana. He envisioned a need for a higher standard in fall protection for quite some time.

The Dennington Safety Harness is that higher standard. There is a rapidly growing list of prominent national and international companies and unions that agree with us. The Dennington Safety Harness has three distinct and significant advantages that set it apart from all other competition.

The Three Advantages of the Dennington Safety Harness

1. ***The "Three Point Balancing System" keeps the worker vertical (both in fall and retrieval situations).*** The fallen worker is kept in a straight up and down position rather than a slumped over position. Our competition's tie off D-rings are able to slip to the middle of the back causing a head first or slumped over position. This action alone could potentially prevent thousands of serious injuries and deaths each year.

2. There is a ***shorter fall distance*** while still complying with OSHA standards. The competition's lanyards extend up to an additional 36 to 42 inches to the fall of a worker. That means our harness can stop a worker's fall up to 3.5 feet shorter in falling distance.

3. ***There is radically less Shock to the body and a significantly reduced hazardous slamming effect.*** Our harness achieves this through the absorption of downward inertia by the bungee Shock absorbers at the end of the fall.

So unique is this design, that the U.S. Patent office has approved patent application for copyright protection. ***Compared to the closest competitive product today, the Dennington Safety Harness is "State of the Art".***

When incorporated into a comprehensive fall protection program, we are convinced that this product will significantly reduce the number and severity of worker compensation claims, reduce serious injuries and deaths, and save money in all types of industry. Besides the human and financial costs, federal requirements mandated by OSHA provide additional incentives for businesses to develop and implement fall protection programs.

How the Dennington Safety Harness overcomes the Fundamental Problems with the Present Technology

Until recently, industry has had no alternative to the Elongation Deceleration Device (EDD). The problems with the EDD, or tear away lanyards, are three fold:

First, the competitors lanyard length itself is 6 ft. The additional length provided by the EDD will cause you to fall a total of 9 ½ feet. In other words the total length of the fall will slam you into the structure you are tied to since typical buildings are built in ten foot increments! To further complicate the issue, OSHA enacted a new fall protection standard which became effective February 6, 1995. This regulation requires fall protection for anyone exposed to a fall of six feet or more. This only accentuates the already known hazard previously mentioned.

To be in federal compliance the 6 foot lanyard with the 3 ½ foot tearaway would have to be wrapped 3 ½ foot around the structure you are tied off to. This only leaves you 2 ½ foot of the length of the lanyard which has to come from the back D ring, travel around your body and be tied off to the structure in front of you. This only leaves you 12" or less working room. This is less than a positioning harness and does not comply with the federal regulations.

The unique design of the Dennington Safety Harness allows the elimination of the EDD and stops you within six feet of maximum fall distance with the use of a shock absorber which is built into the unit itself. You can therefore use the length of the lanyard for 5 foot of working distance which enables you to do your job efficiently and still remain in federal compliance.

The **Second** deficiency relates to retrieval (current EDD system). The EDD's lanyard is connected to a D-ring in the middle of the back. This causes the falling worker to be in a head-first and slumped position at the end of the fall. The slumped position makes retrieval hazardous, particularly in confined space. A slumped and head first position puts the worker at serious risk of either head or back injury.

The unique design of our Dennington harness allows for a vertical fall and recovery by virtue of the three point balancing system. This will significantly reduce the retrieval time and potential of circulatory problems associated with hang time. It facilitates for a much quicker and easier retrieval process.

The **Third** deficiency relates to what we call "the slamming effect". This is what happens when you fall with a "tear away" system and/or hit the end of a straight lanyard at the end of a fall. When a worker falls with a "tear away" lanyard, a whipping motion occurs that is likened to that of an unattended water hose. This motion can slam the worker back into the structure which he is tied off, causing unnecessary injuries or death.

The Dennington harness absorbs the downward inertia of the victim, not transferring it to lateral execution into the structure used as an anchorage point. It is during the "slamming" stage of falls where numerous head, back and neck injuries occur. Furthermore, there is significantly less shock on the body as demonstrated in our video by Mark Dennington as he repeatedly jumps off a seventy foot tower.

Our experience has shown that after seeing our harness demonstration and video, there will be no question which harness you would choose to wear in a fall situation.

Summary

Various OSHA standards indicate that an employer must assess a situation and provide proper protection where needed. Proper protection has not been available until now. The Dennington Safety Harness exceeds OSHA standards and eliminates other problems associated with falls other than contact with a lower level. This in itself separates the Dennington Safety Harness from other harnesses which are presently offered on the market.

We believe that since our Harness is the higher standard available and meets and exceeds OSHA standards and provides a higher quality of fall protection than any other harness on the market that it is clearly the only product which should be used in the event a fall hazard is assessed.

Disclaimer

Providing this information is not legal advice and should not be considered the unauthorized practice of law. Any questions concerning these statutes should be directed to an attorney.