Weekly Safety Meeting

Talks ZONE

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T0209

Fall protection basics

Whether on the same level or at an elevated location, it's essential you know what fall prevention and protection are all about.

This safety talk deals with falls from heights, and the difference between fall restraint and fall arrest systems.

If you're at risk of falling three metres (10 feet) or more where you work, you need to wear the appropriate fall protection equipment.

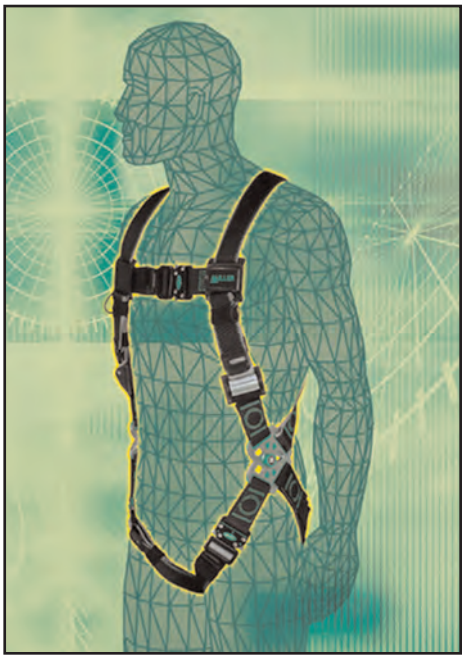
FALL RESTRAINT— The measures needed to keep a worker from reaching a fall point. The most common is a standard guardrail. Where that's not available or practical, a travel-restraint system is used that will allow a worker to go far enough to reach an unprotected edge but not far enough to fall over.

A basic travel-restraint system consists of:

- approved full-body harness
- lanyard
- lifeline
- rope grab to attach harness or lanyard to lifeline
- anchorage capable of supporting 204 kilograms (450 pounds) with a recommended safety factor of at least two—408 kilograms or 900 pounds.

FALL ARREST— A system that backs up your main form of fall protection.

By definition, it stops a worker in a fall, and must be capable of withstanding the tremendous impact forces involved. It follows the "ABC Rule" (as does travel restraint), meaning it must have the following components:



Anchorage

The secure point where the forces of a fall are absorbed and to which the fall arrest system is attached. Permanent anchors for fall arrest must be certified by an engineer, or have the capability of sustaining a static load of 2,268 kg (5,000 pounds).

Body Harness

A device with straps that is secured to distribute the fall arrest forces over at least the thighs, shoulders, pelvis, waist and chest. It can also be attached to a lanyard, lifeline or deceleration device, most often with a "D" ring. Research indicates the most desirable is a dorsal D ring located between the shoulder blades.

Connecting Components

The variety of lanyards and devices that connect the body harness to the anchorage.

Never simply wrap a lanyard around an anchor and clip the snap hook back onto the lanyard. This leads to a distinct possibility of the lanyard being cut or the snap hook failing from cross loading. Instead, use a properly engineered anchor sling to connect the lanyard to the anchor.

If using carabiners in the fall arrest system ensure that gates are closed and locked before use and that the gates are not directly cross-loaded.

Fall protection lanyards are only to be used for their designed purpose. Lanyards that have been subjected to the forces of a fall must be removed from service immediately.

Snap hooks on connecting systems must be the dual action locking type.

Shock absorbers are deceleration devices used in conjunction with lanyards to dissipate kinetic energy during fall arrest. When designing the fall arrest system, remember that shock absorbers will extend the total fall distance by 1.2 metres (four feet)

As is the case with lanyards, shock absorbers subjected to the forces of a fall are immediately removed from service.

Retractable lifelines are spring-loaded devices that arrest quick movement, slips or falls. Equip the retractable with a tag line to return the lifeline to the housing when not in use. This will maximize spring strength and the life of the unit.

Install the housing at a point that will prevent the lifeline from becoming caught by moving machinery.

***REMEMBER:* Fall protection measures mean nothing unless proper training is provided by competent persons and records of training are maintained.**

Fall Protection Basics

The Quiz

These questions are meant to help you remember what was discussed today — not to test your patience or challenge your intelligence. The answers are at the bottom of the page. Cover them up, and complete the quiz as quickly as you can.

1. What is the most commonly used fall restraint system?

   _____

2. What are the three elements of the 'ABC Rule'?

   A._____
   B._____
   C._____

3. A fall arrest system must be rigged so that an employee cannot free-fall more than 4.5 meters (15 feet).

   ___ True
   ___ False

4. The fall arrest anchorage point must be cable of supporting how much weight per employee?

   ___ 1500 pounds
   ___ 2500 pounds
   ___ 5000 pounds

5. The body harness D-ring should be located in the centre of the employee's back, near waist level.

   ___ True ___ False

6. Fall protection system components should be checked for damage and deterioration

   ___ Periodically
   ___ Before each use
   ___ When flaws are noticed

7. Fall protection lanyards and shock absorbers should be removed from service immediately if they have been subjected to the forces of a fall?

   ___ True ___ False

8. Does your company provide full training in the use of all fall protection equipment it provides?

   ___ Yes ___ No ___ Don't know

ANSWERS: 1. Guardrail, 2.Anchorage, Body harness, Connecting components, 3. False, 4. 5,000 pounds, 5. False, 6. Before each use, 7. True, 8. Your answer

Hold These Thoughts

Falls from portable ladders are a major source of injury in the workplace and at home.

Using a ladder for purposes not anticipated in its design is the most common cause of falls. Companies and individuals need to focus more on the importance of choosing a Canadian Standards Association (CSA)-approved ladder of appropriate strength, type, and length for the task.

Once you've inspected your ladder to confirm it's in good condition, know where and how to set up the ladder. Check for overhead electrical wires. Clear the area around the base and top of the ladder of debris, tools and other objects.

In high-traffic areas, set up suitable barricades. If you're using a ladder in a doorway, lock the doors shut.

Place the ladder's feet one-quarter of the ladder's working length away from the base of the structure (e.g. if the ladder measures eight feet between its base and its support point at the top of a wall, there should be two feet between the base of the ladder and the foot of the wall).

Rest both side rails on the top support and secure the ladder to prevent slipping.

If you will be stepping onto a higher platform from the ladder, make sure the ladder extends at least one metre above that platform.

Place the ladder on a firm, level footing. Secure the bottom to prevent it from slipping. Have someone hold the ladder if possible.

Do not set up a ladder on a box, cart, table or scaffold; on ice; or on any other unstable or slippery surface.

Stand a ladder on both side rails, not on any of its rungs.

When climbing up or down, always face the ladder and use a three-point contact climbing method (two hands and one foot, or one hand and two feet).

Do not use ladder-type material hoists for roof access unless the hoists are designed for that purpose.

For the Record

Date of Meeting: _____ Topic: _____
Location: _____ Department:_____
Start Time: _____ Finish Time: _____ Meeting Leader: _____

In Attendance:

Tips for Safety Meeting Leaders

Believe in what you're doing. Safety talks demonstrate the commitment of employers and workers to health and safety. As a supervisor, health and safety representative, member of a joint health and safety committee, safety officer, etc., your objective is to help workers recognize and control hazards on the job.

Handle questions effectively. If the question is relevant and you know the answer, give it. If you don't know, say so, but tell the questioner you'll find the answer and get back to him or her. Then make sure you do so. If it's information that could be useful to the whole group, you might want to repeat the question along with the answer at the next meeting. If the question has nothing to do with the subject of the meeting, don't let yourself become sidetracked. Tell the questioner you'll discuss it in private after the meeting.

Keep attendance records. Each employee who attends the meeting should sign this form. Then you complete and forward it to wherever your company's procedure calls for. If your workers have come up with valuable suggestions during the meeting, or have alerted you to particular safety hazards, make note of them —and be sure to follow up, either by taking care of the matter yourself or by bringing it to the attention of the appropriate authority.