



Fall Arrest

Don't Fall Down on the Job

Falls and falling objects can result from unstable working surfaces, ladders that are not safely positioned, and misuse of fall protection. Workers are also subject to falls or to the dangers of falling objects if sides and edges, floor holes, and wall openings are not protected. Any time a worker is at a height of six feet or more (construction industry) or four feet or more (general industry), the worker must be protected.

Fall Protection

Fall protection must be provided for each employee on a walking/working surface with an unprotected side or edge at the height required by the OSHA standard applicable to their work environment. Management is required to:

- Develop, implement and commit to a fall protection program
- Provide training on the fall protection program
- Evaluate the program on a regular basis to insure the program's effectiveness and determine whether it needs to be changed or updated

Employees should use their fall arrest according to manufacturers instructions. Before using your harness you must do a thorough inspection of the harness, lanyard and connectors and decide where they will tie-off to.

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.

Anchorage/Anchorage Connector

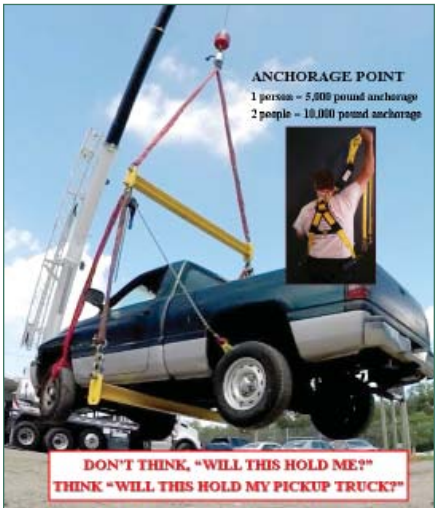
The anchorage point is commonly referred to as a tie-off point (Ex: I-beam, rebar, scaffolding, lifeline, etc.) and the anchorage connector is used to join the connecting device to the anchorage (Ex: cross-arm strap, beam anchor, D-bolt, hook anchor, etc.).

Anchorage must be independent and capable of supporting 5,000 lbs. per employee attached. They must also be located high enough for a worker to avoid contact with a lower level should a fall occur. The anchorage connector should be positioned to avoid a "swing fall."

Body Wear

A full body harness is a body support device that distributes fall arrest forces across the shoulders, thighs and pelvis. Full body harnesses have a center back fall arrest attachment for connection

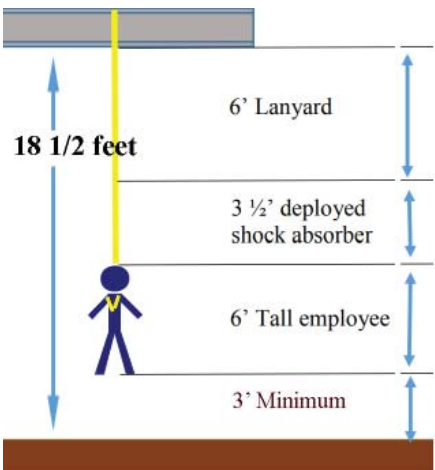
ANCHORAGE POINT



to the fall arrest connecting device and may have other D-rings for use in worker positioning, fall prevention, suspension or ladder climbing.

Connecting Device

The critical link which joins the body wear to the anchorage/anchorage connector is the connecting device (Ex: shock-absorbing lanyard, fall limiter, self-retracting lifeline, rope grab, etc.).



Potential fall distance must be calculated to determine type of connecting device to be used – typically, under 18-1/2 ft. (5.6m), always use a self-retracting lifeline/fall limiter; over 18-1/2 ft. (5.6m), use a shock-absorbing lanyard or self-retracting lifeline/fall limiter.

Shock-absorbing lanyards can expand up to 3-1/2 ft. (1.1m) when arresting a fall; attach lanyards to the harness back D-ring only; never tie a knot in any web lanyard – it reduces the strength by 50%.

Additional Concerns and Systems

Employers are required to assess the workplace to determine if the walking/working surfaces on which employees are to work have the strength and structural integrity to safely support workers. Once employers have determined that the surface is safe for employees to work on, the employer must select one of the options listed for the work operation if a fall hazard is present.

- Where protection is required, select fall protection systems appropriate for given situations.
- Use proper construction and installation of safety systems.
- Supervise employees properly.
- Train workers in the proper selection, use, and maintenance of fall protection systems.



Temporary guard rail systems are often used to keep workers from going over the edge.

Unprotected Sides, Wall Openings, and Floor Holes

Almost all sites have unprotected sides and edges, wall openings, or floor holes at some point during construction. If these sides and openings are not protected at your site, injuries from falls



Fall arrest and safety can also be addressed with safety net systems.

or falling objects may result, range from sprains and concussions to death.

Use at least one of the following whenever employees are exposed to a fall of 6 feet or more above a lower level:

- Guardrail Systems
- Safety Net Systems
- Fall Arrest Systems
- Cover or guard floor holes as soon as they are created.
- Guard or cover any openings or holes immediately.
- Construct all floor hole-covers so they will effectively support two times the weight of employees, equipment, and materials that may be imposed on the cover at any one time.
- In general, it is better to use fall prevention systems, such as guardrails, than fall protection systems, such as safety nets or fall arrest devices.

True or False

1. Using a fall arrest harness is enough protection for most employees. T or F
2. When there are more than six feet between levels you can use fall arrest, safety nets, or guardrails systems. T or F
3. In general you should use fall arrest devices instead of fall prevention systems. T or F
4. Tying a knot in the lanyard to make it shorter is an acceptable method of shortening the total length. T or F
5. Any time a worker is at a height of four feet or more, in the general industry, the worker must be protected. T or F
6. An anchorage point must be capable of supporting 5,000 lbs. per employee. T or F
7. A personal fall arrest system is comprised of three (3) key components – anchorage connector; body belt and connecting device. T or F

ANSWERS: 1. F, 2. T, 3. F, 4. F, 5. F, 6. T, 7. F

SAFETY TRAINING SIGN-IN

Company Name: _____ Date: _____

Subject: Prevent Machine Guarding

The following employees participated in this training.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____

