PPE'S SUPPLY · 32

Fall Protection

Fall-protection equipment enquiries for work-at-height arrangements.

Fall Protection

Fall Arrest Systems consist of an anchorage connector, body wear, and a connecting device. When these components are used properly, and in conjunction with each other, they form a system that is vitally important in fall hazard situations. Body wear and connecting devices (e.g. lanyards, fall-limiters/self-retracting life lines) must meet all OSHA, ANSI Z359 “Safety Requirements for Personal Fall Arrest Systems (PFAS), Subsystems and Components”, and ANSI A10.14-1991 “Fall Protection Systems – American National Standard for Construction and Demolition Operations” requirements.

Hazards

Injuries from falls, including impact with a lower surface or object, effects of arrested falls, and suspension trauma from being suspended in a harness after a fall.

General Requirements

Fall protection is most effective when it is used to prevent a fall or eliminate exposure to a fall hazard. Types of PPE for fall prevention include travel restraint and positioning systems. For work where exposure to a fall hazard cannot be eliminated or a fall cannot be prevented, personal fall arrest systems that allow a fall but prevent the employee from striking the ground or a lower object.

Effective application of any personal fall protection system must be overseen by a Competent Person in fall protection, as there are many variables, situations, and conditions that may make fall protection infeasible.

Users must attend EHS training on personal fall protection systems prior to being assigned work requiring such equipment. Training includes selection, use, and limitations of the components of the system, proper donning and fit of the harness, inspection criteria, and recognition of fall hazards.

Personal Fall Protection

Personal fall arrest harnesses and connecting devices must be inspected prior to use by the wearer, and at least annually by a “competent person” other than the user. General inspection criteria is available during EHS training, as well as proper donning and fit of the harness. This inspection should be documented.

General guidelines from OSHA, ANSI, and most manufacturers do not specify a shelf-life or expiration for personal fall protection equipment. If the equipment passes the inspection process specified by the manufacturer or other recognized criteria, it is acceptable for use. Always follow manufacturer’s instructions.

Never use a harness that does not pass visual inspection. Some manufacturers do specify a service life for harnesses, such as five years. If a service life is specified by the manufacturer, the date that the harness is put into service (i.e. first used) must be noted on the tag or inspection log. Follow the manufacturer's guidelines on inspection and removal from service once the service life has been reached.

Wearers should report any incident of falling in the harness to their supervisor.

Harnesses that have received a fall force must not be reused unless it has been recertified by the manufacturer in writing.

Harnesses that have received a fall force should be removed from service and tagged "Do Not Use". If it will not be sent to the manufacturer for recertification, render it unusable (i.e. cut a strap) and throw it in the trash. Harnesses should not be purchased second-hand because the history of the harness is unknown.

Connecting devices must be shock-absorbing in order to reduce fall forces below OSHA's maximum allowable fall force of 1,800 pounds.

Types of Fall Protection

There are two types of fall protection:

Type I fall protection can be used for fall protection as well as positioning. Most harnesses are designed to ANSI's maximum working weight of 310 pounds. If the working weight (the person and tools) exceeds 310 pounds, a heavy-duty harness and connecting device must be used.

Type I harnesses are available with various D-ring configurations. All harnesses must have a back D-ring for attaching the connecting device for fall arrest.

Shoulder D-rings are optional for confined space (vertical) retrieval.

Hip D-rings are optional for positioning where hands must be free to perform work.

Chest D-ring is optional for ladder climbing device connection.

Type II fall protection (ex. body belt) is for positioning only. Body belts are not permitted for fall arrest.. EHS recommends that body belts not be purchased or kept on-site to avoid misuse and confusion.

Selection

Harnesses may be sized for small to X-large body frames, or offer a universal fit, which can be adjusted for medium to X-large frames.

Consider the work environment where the harness will be worn in order to select a harness that will provide the level of protection and service life desired.

There are several types of harness available to address work environment issues and/or industry hazards:

- Concrete construction harness
- Arc-flash utility harness
- Heat- and abrasion-resistant harness
- Grease/oil/dirt/grime-resistant harness
- High-visibility harness
- Lightweight harness (made of lightweight polyester for comfort)
- Abrasion-resistant harness
- Welding harness

FAQ

Q. What makes up a fall arrest system?

An anchorage connector, body wear (a harness) and a connecting device such as a lanyard or self-retracting lifeline, used together.

Q. Which standards apply to fall protection equipment?

Body wear and connecting devices must meet OSHA requirements, ANSI Z359 for personal fall arrest systems and ANSI A10.14 for construction and demolition.

Q. Is prevention better than arrest?

Yes. Fall protection is most effective when it prevents a fall, using travel restraint and positioning systems. Fall arrest systems are for situations where the hazard cannot be eliminated.

Q. How often should harnesses be inspected?

Before each use by the wearer, and at least annually by a competent person other than the user, with the inspection documented.

Q. Do harnesses expire?

General guidance does not set a shelf life, but some manufacturers specify one, such as five years. Always follow the manufacturer's instructions and never use a harness that fails inspection.

Useful details to share when you enquire

- Tasks, workplace hazards and product specifications
- Required quantities and wearer sizes
- Existing equipment and compatibility needs

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