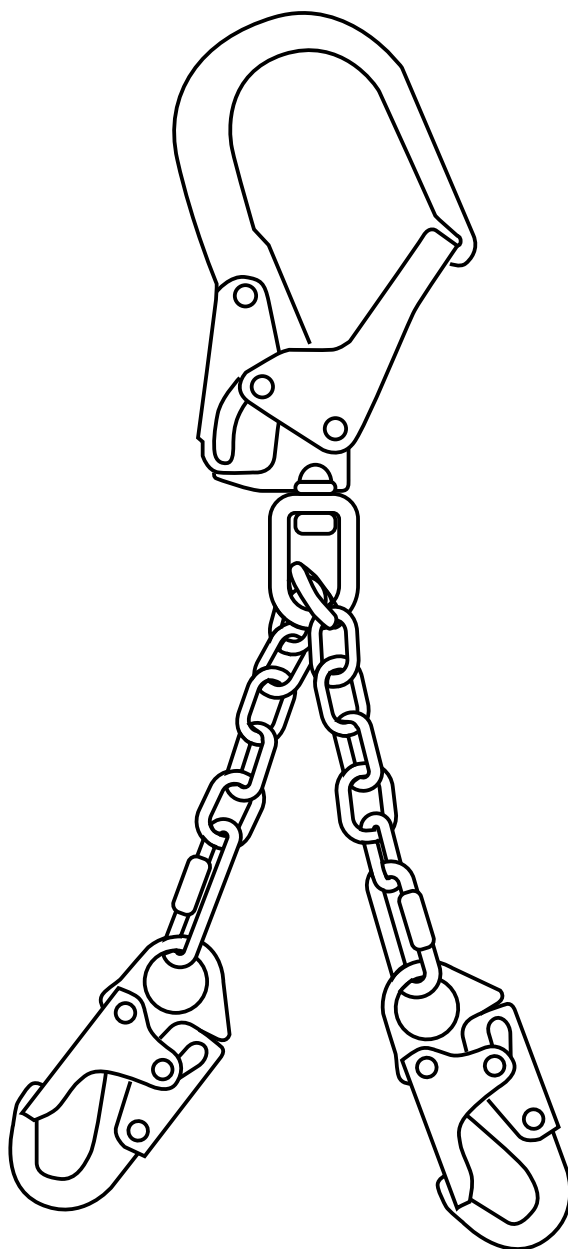


# Rebar Positioning Lanyards

## User Instruction Manual



This manual is intended to meet the Manufacturer's Instructions as required by the American National Standards Institute (ANSI) Z359 and should be used as part of an employee training program as required by the Occupational Safety and Health Administration (OSHA).

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For purposes of this manual, the FallTech® Rebar Positioning Lanyards, in all iterations may be referred to collectively as the positioning assemblies, the assembly, the positioning lanyard, the lanyard, the equipment, the product, or the unit.

## 1.0 Warnings and Important Information

### **WARNING**

- Avoid moving machinery, thermal, electrical, and/or chemical hazards as contact may cause serious injury or death.
- Avoid swing falls.
- Follow the weight restrictions and recommendations in this manual.
- Remove from service any equipment subjected to fall arrest forces.
- Remove from service any equipment that fails inspection.
- Do not alter or intentionally misuse this equipment.
- Consult FallTech when using this equipment in combination with components or subsystems other than those described in this manual.
- Do not connect rebar hooks, large carabiners, or large snap hooks to the FBH dorsal D-rings as this may cause a roll-out condition and/or unintentional disengagement.
- Avoid sharp and/or abrasive surfaces and edges.
- Use caution when performing arc welding. Arc flash from arc welding operations, including accidental arcs from electrical equipment, can damage equipment and are potentially fatal.
- Examine the work area. Be aware of the surroundings and workplace hazards that may impact safety, security, and the functioning of fall arrest systems and components.
- Hazards may include but not be limited to cable or debris tripping hazards, equipment failures, personnel mistakes, moving equipment such as carts, barrows, fork lifts, cranes, or dollies. Do not allow materials, tools or equipment in transit to contact any part of the fall arrest system.
- Do not work under suspended loads.

### **IMPORTANT**

This product is part of a personal fall arrest, restraint, work positioning, suspension, or rescue system. A Personal Fall Arrest System (PFAS) is typically composed of an anchorage and a Full Body Harness (FBH), with a connecting device, i.e., an Energy Absorbing Lanyard (EAL), or a Self-Retracting Device (SRD), attached to the dorsal D-ring of the FBH.

These instructions must be provided to the worker using this equipment. The worker must read and understand the manufacturer's instructions for each component or part of the complete system. Manufacturer's instructions must be followed for proper use, care, and maintenance of this product. These instructions must be retained and be kept available for the worker's reference at all times. Alterations or misuse of this product, or failure to follow instructions, may result in serious injury or death.

A Fall Protection Plan must be on file and available for review by all workers. It is the responsibility of the worker and the purchaser of this equipment to assure that users of this equipment are properly trained in its use, maintenance, and storage. Training must be repeated at regular intervals. Training must not subject the trainee to fall hazards.

Consult a doctor if there is reason to doubt your fitness to safely absorb the shock of a fall event. Age and fitness seriously affect a worker's ability to withstand falls. Pregnant women or minors must not use this equipment.

Heavy users experience more risk of serious injury or death due to falls because of increased fall arrest forces placed on the user's body. In addition, the onset of suspension trauma after a fall even may be accelerated for heavy users.

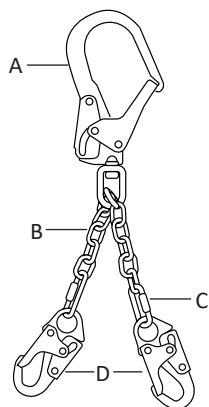
The user of the equipment discussed in this manual must read and understand the entire manual before beginning work.

NOTE: For more information consult the ANSI Z359 body of standards.

## 2.0 Description

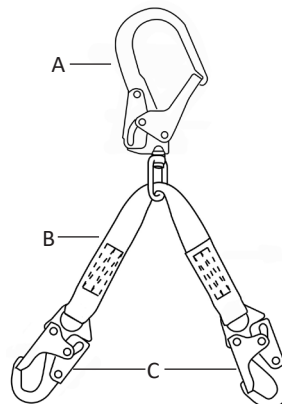
The FallTech® Rebar Positioning Lanyards consists of a self-closing, self-locking rebar hook connected to a pair of self-closing, self-locking snap hooks, via either chain or polyester web, see Figures 1 and 2. Chain Rebar Positioning Lanyards are available with alloy steel rebar hooks, in either a swivel or eyelet configuration, see Figure 1. Aluminum rebar hooks with a swivel connection are also available. Web Rebar Positioning Lanyards utilize a length of polyester web as a connector, with either an eyelet aluminum or swivel alloy steel rebar hook, see Figure 2. All Positioning Systems described and discussed in this manual meet or exceed the requirements of ANSI Z359.3 and OSHA 1926.502.

**Figure 1 - About FallTech® Chain Rebar Positioning Lanyards**



|   |  |
|---|--|
| A | Rebar Hook with 2.5" Gate Opening (Swivel or Eyelet Type)                |
| B | 9/32" Welded Link Grade 80 Chain or 1/4" Welded Link Grade 43 Chain      |
| C | Zinc Plated Alloy Steel Quick Connect Pins (Used on Grade 43 Chain Only) |
| D | Alloy Steel Snap Hooks for Side D-Ring Connection                        |

**Figure 2 - About FallTech® Web Rebar Positioning Lanyards**



|   |   |
|---|---|
| A | Rebar Hook with 2.5" Gate Opening                 |
| B | Double Layer Polyester Webbing                    |
| C | Alloy Steel Snap Hooks for Side D-Ring Connection |



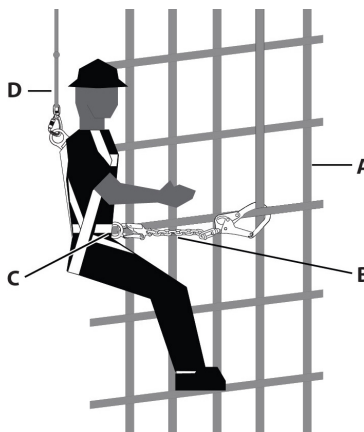
### WARNING

Be sure to read, understand, and follow all instructions and warnings in this manual.  
Any misuse could result in serious injury or death.

## 3.0 Application

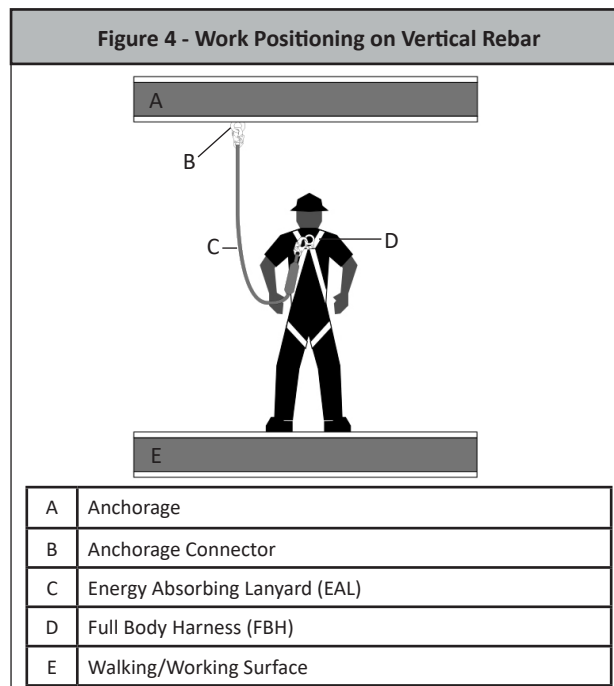
**3.1 Purpose:** The FallTech® Rebar Positioning Lanyards covered in this manual are designed for use as part of a work positioning system that holds and supports the user at a work location, including concrete form work and steel erection; see Figure 3. This equipment is not designed for fall arrest, restraint, or personnel riding systems.

**Figure 3 - Work Positioning on Vertical Rebar**



|   |   |
|---|---|
| A | Vertical Form Rebar                           |
| B | Rebar Positioning Lanyard                     |
| C | Side/Positioning D-Rings on Full Body Harness |
| D | Backup Personal Fall Arrest System            |

- 3.2 Personal Fall Arrest System:** FallTech recommends the use of a stand-by Personal Fall Arrest System (PFAS) in conjunction with this equipment. A PFAS is an assembly of components and subsystems used to arrest a person during a fall event. A PFAS typically consists of an anchorage, a Full Body Harness (FBH), and a deceleration device such as a Energy Absorbing Lanyard (EAL) or Self Retracting Device (SRD). Maximum permissible free fall is six feet. See Figure 4.



- 3.3 Rescue:** Rescue operations require specialized equipment that is beyond the scope of this manual.

- 3.4 Application Limits:** Consider the following when making attachments.

**NOTE:** To maintain ANSI Z359 compliance, limit total user weight to no more than 310 lbs., (140.6 kg).

**Avoid sharp edges and other hazards.** You must protect workers by padding or sheathing unprotected sharp edges while work is being done. All workplace hazards must be eliminated, controlled, or considered before any work takes place.

**Any equipment that has been subjected to fall arrest forces must be removed from service.**

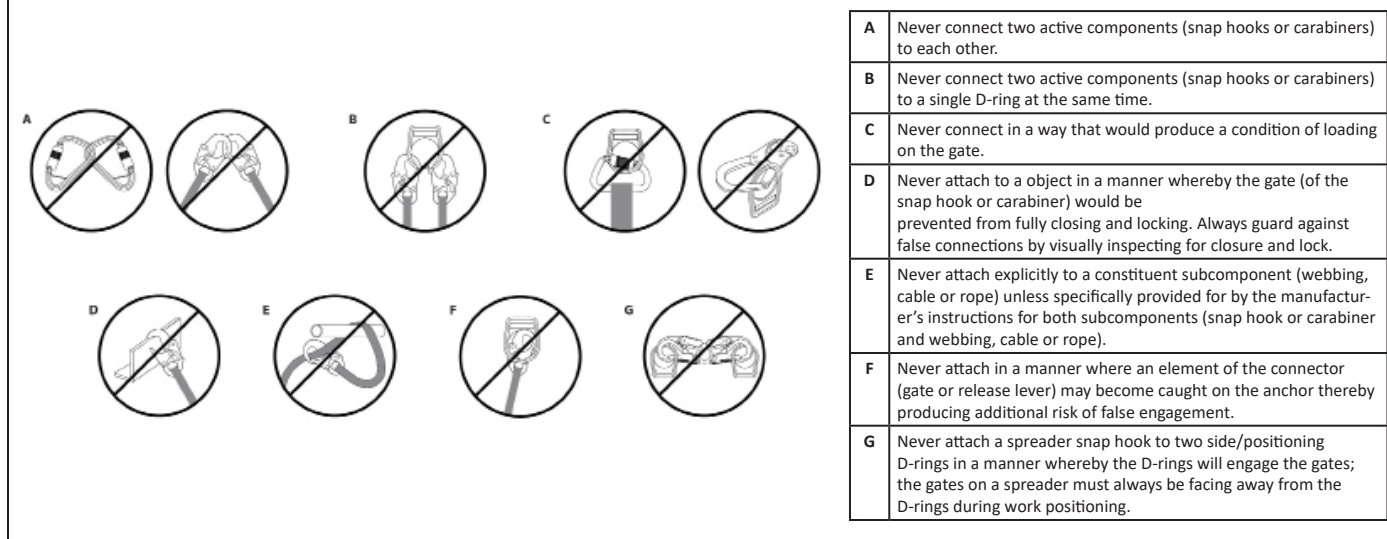
If there is any danger of a fall, a separate Personal Fall Arrest System (PFAS) **MUST** also be used.

**DO NOT** use the Rebar Positioning Lanyard connector to lift tools, materials, or personnel.

## 4.0 System Requirements

- 4.1 Chain/Web Rebar Positioning Lanyard:** These systems are designed for work positioning only, see Figure 3.
- 4.2 Compatibility of Connectors:** Connectors are considered to be compatible with connecting elements when they have been designed to work together in such a way that their sizes and shapes do not cause their gate mechanisms to inadvertently open regardless of how they become oriented. Contact FallTech if you have any questions about compatibility. Connectors must be compatible with the anchorage or other system components. Do not use equipment that is not compatible. Non-compatible connectors may unintentionally disengage. Connectors must be compatible in size, shape, and strength. Self-closing, self-locking snap hooks and carabiners are required by ANSI and OSHA.
- 4.3 Compatibility of Components:** Equipment is designed for use with approved components and subsystems only. Substitutions or replacements made with non-approved components or subsystems may jeopardize compatibility of equipment and may affect the safety and reliability of the complete system.
- 4.4 Making Connections:** Only use self-locking snap hooks and carabiners with this equipment. Only use connectors that are suitable to each application. Ensure all connections are compatible in size, shape and strength. Do not use equipment that is not compatible. Visually ensure all connectors are fully closed and locked. Connectors (snap hooks and carabiners) are designed to be used only as specified in each product's user's instructions. See Figure 5.

Figure 5 - Non-Compatible Connections



**4.5 Personal Fall Arrest System:** PFAS used with this equipment must meet ANSI Z359 requirements. A full body harness must be worn when this equipment is used as a component of a PFAS. As required by OSHA, the personal fall arrest system must be able to arrest the user's fall with a maximum arresting force of 1,800 lbs (8 kN), and limit the free fall to 6 ft (1.8 m).

**4.6 Personal Fall Arrest System Anchorage Strength: PFAS Anchorage Strength:** An anchorage selected for PFAS must have a strength able to sustain a static load applied in the direction permitted by the PFAS of at least:

- Two times the maximum arrest force permitted when certification exists, or
- 5,000 lbs. (22.2 kN) in the absence of certification.

Select an anchorage location carefully. Consider structural strength, obstructions in the fall path, and swing fall hazards. In certain situations, the qualified person can determine that a given structure is able to withstand the applied MAF of the PFAS with a safety factor of at least two.

**4.7 Work Positioning:** Work positioning systems typically utilize an FBH, configured to allow an authorized person to be supported on an elevated vertical or inclined surface, such as a wall, and work with both hands free. A back up PFAS is required when the user is exposed to a free fall of 2' or more.

**4.7.1 Work Positioning Anchorage Strength:** Anchorages selected for work positioning systems must be able to sustain a static load applied in the directions permitted by the system of at least:

- 3,000 lbs. (13.3kN) for non-certified anchorages or
- Two times the foreseeable force for certified anchorages

## 5.0 Installation and Use

### WARNING

Do not alter or intentionally misuse this equipment. Consult FallTech® when using this equipment in combination with components or subsystems other than those described in this manual. All components or subsystems used with the anchors discussed in this manual must be in compliance with ANSI Z359.

Take action to avoid sharp and/or abrasive surfaces and edges when possible.

**5.1 Pre-Use Inspection:** FallTech® requires that the following steps be taken during inspection prior to each use of this Rebar Positioning Lanyard.

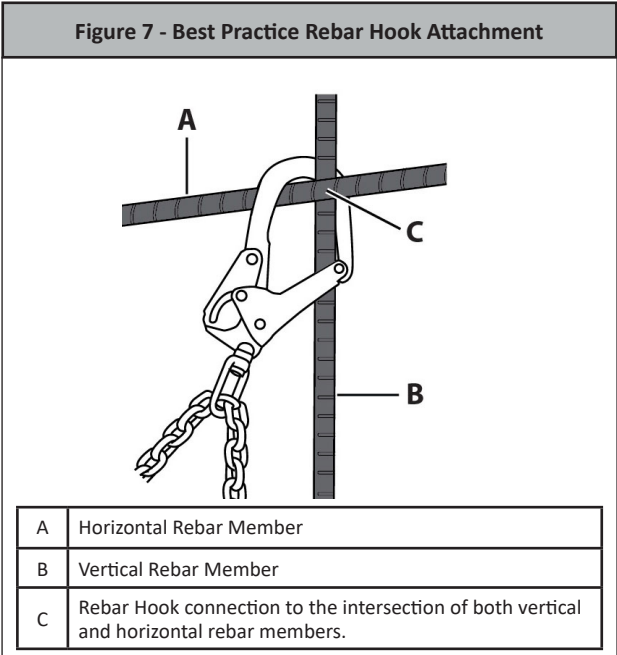
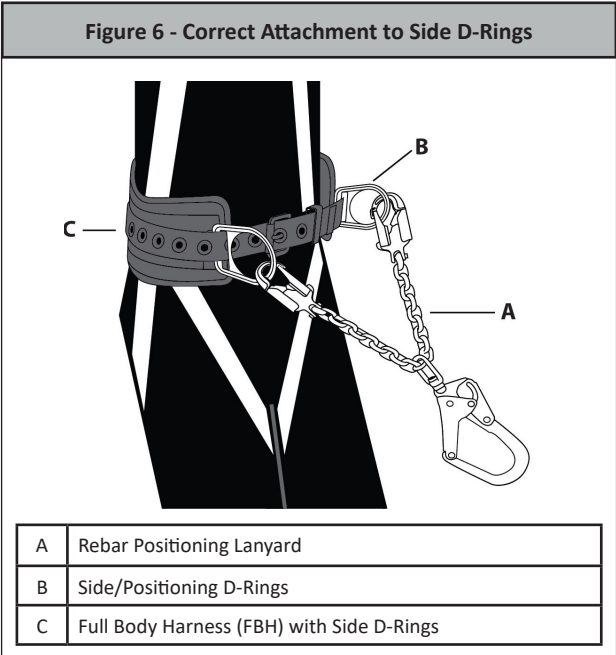
- Check the webbing/chain and look for cuts, fraying, and signs of damage from excessive wear or abrasion. Also look for excessive dirt, grease, oil, paint, or other surface contamination or discoloring. If any condition exists that compromises the integrity of the webbing, changes the general properties or feel of the webbing or limits/restricts the adjustment of the webbing, immediately remove from service.
- Check all stitch locations. Ensure that each stitch box and bar-tack is intact with no loose, frayed or torn threads. If any of the stitch locations shows signs of damage or excessive wear, immediately remove the Rebar Positioning Lanyard from service.
- Check hardware (snap hooks, swivel, rebar hooks, chain links, etc.) for the following: Cracks, corrosion, excess wear, damage breakage, or distortion, and ensure all snap hook gates move freely and lock properly when closed.

**5.2 Plan the Use:** Consider all job and site factors that may affect the safety of the user. If free fall distance is 2’ or greater, a back-up Personal Fall Arrest System is mandatory. See Section 4 for PFAS anchorage and body wear requirements.

**5.3 Connect the Rebar Positioning Lanyard to Full Body Harness:**

Follow these procedures:

- 1. Don the FBH, which must have side D-rings.
- 2. Connect the snap hooks to the side D-rings. See Figure 6.
- 3. Attach the rebar hook to the rebar. See Figure 7.



**5.4 Connect the PFAS:** If necessary, connect the PFAS to the dorsal D-ring on the FBH. Connect the PFAS to a suitable overhead anchorage. See the PFAS manufacturer’s instructions for more information.

## 6.0 Maintenance, Service, and Storage

**6.1 Maintenance:** Clean the Rebar Positioning Lanyard with water and mild detergent. Do not allow excessive build-up of dirt, paint, or other agents that may cause damage or hardening of the web fibers on any webbing. Hardening of the fibers of the web from external elements may result in a loss of strength or alter the properties of the web in a manner that could cause the Rebar Positioning Lanyard to fail or to operate and perform correctly.

### 6.2 Proper Care

- Keep the Rebar Positioning Lanyard clean and free of contaminants, this will greatly increase the service life.
- Mold and mildew due to damp storage will reduce the service life.
- Use a damp rag and a mild soap and water solution to clean the hardware. Wipe the hardware dry with a clean soft cloth.
- **DO NOT** use heat to dry.
- **DO NOT** use any solvents or petroleum products to clean this anchor.
- **DO NOT** attempt to repair or modify this Rebar Positioning Lanyard or any of its components. Such attempts will void the warranty and may result in serious injury or death.

**6.3 Storage:** Store in a clean, dry, and chemical free environment and keep out of direct sunlight.

## 7.0 Inspection

**7.1 Pre-Use Inspection:** Please review the Pre-Use Inspection guidelines in Section 5.1 for inspection requirements.

**7.2 Inspection Frequency:** FallTech requires all fall protection equipment to be inspected by a competent person other than the user at least once each year or more frequently if the conditions exist. FallTech strongly recommends that a competent person conducts a hazard assessment of the environment and determines the length of the inspection intervals due to the site conditions. The annual inspection shall be recorded on an inspection log, including all deficiencies. This inspection should also be used as an opportunity to train any authorized persons with respect to deficiencies that they have failed to observe on their daily inspections.

| Inspection Frequency     |  |   |                             |                                       |
|--------------------------|--|---|-----------------------------|---------------------------------------|
| Type of Use              | Application Examples   | Example Conditions of Use   | Worker Inspection Frequency | Competent Person Inspection Frequency |
| Infrequent to Light Use  | Rescue and confined space, factory maintenance                 | Good storage conditions, indoor or infrequent outdoor use, room temperature, clean environments         | Before each use             | Annually                              |
| Moderate to Heavy Use    | Transportation, residential construction, utilities, warehouse | Fair storage conditions, indoor and extended outdoor use, all temperatures, clean or dusty environments | Before each use             | Semi-annually to annually             |
| Severe to Continuous Use | Commercial construction, oil and gas, mining, foundry          | Harsh storage conditions, prolonged or continuous outdoor use, all temperatures, dirty environments     | Before each use             | Quarterly to semi-annually            |

**7.3 Inspection Results:** If an inspection reveals defects in or damage to the equipment, inadequate maintenance or activated fall indicators, remove the equipment from service.



**7.4 Inspection Document:** Record inspection results on the Inspection Record provided below or on a similar document.

# Inspection Record

Model #: \_\_\_\_\_ Serial #: \_\_\_\_\_ Date of Manufacture: \_\_\_\_\_

[illegible]

The labels must be present and legible.

[illegible]

## 9.0 Definitions

The following are general definitions of fall protection terms as defined by ANSI Z359.0-2012.

**Anchorage** - A secure connecting point or a terminating component of a fall protection system or rescue system capable of safely supporting the impact forces applied by a fall protection system or anchorage subsystem.

**Anchorage Connector** - A component or subsystem that functions as an interface between the anchorage and a fall protection, work positioning, rope access or rescue system for the purpose of coupling the system to the anchorage.

**Arrest Distance** - The total vertical distance required to arrest a fall. The arrest distance includes the deceleration distance and activation distance.

**Authorized Person** - A person assigned by the employer to perform duties at a location where the person will be exposed to a fall hazard.

**Available Clearance** - The distance from a reference point, such as the working platform, to the nearest obstruction that an authorized person might contact during a fall which, if struck, could cause injury.

**Capacity** - The maximum weight that a component, system or subsystem is designed to hold.

**Certification** - The act of attesting in writing that the criteria established by these standards or some other designated standard have been met.

**Certified Anchorage** - An anchorage for fall arrest, positioning, restraint or rescue systems that a qualified person certifies to be capable of supporting the potential fall forces that could be encountered during a fall.

**Clearance** - The distance from a specified reference point, such as the working platform or anchorage of a fall arrest system, to the lower level that a worker might encounter during a fall.

**Clearance Requirement** - The distance below an authorized person that must remain clear of obstructions in order to ensure that the authorized person does not make contact with any objects that would cause injury in the event of a fall.

**Competent Person** - An individual designated by the employer to be responsible for the immediate supervision, implementation and monitoring of the employer's managed fall protection program who, through training and knowledge, is capable of identifying, evaluating and addressing existing and potential fall hazards, and who has the employer's authority to take prompt corrective action with regard to such hazards.

**Component** - An element or integral assembly of interconnected elements intended to perform one function in the system.

**Connecting Subsystem** - An assembly, including the necessary connectors, comprised of all components, subsystems, or both, between the anchorage or anchorage connector and the harness attachment point.

**Connector** - A component or element that is used to couple parts of the system together.

**Deceleration Distance** - The vertical distance between the user's fall arrest attachment at the onset of fall arrest forces during a fall, and after the fall arrest attachment comes to a complete stop.

**Energy (Shock) Absorber** - A component whose primary function is to dissipate energy and limit deceleration forces which the system imposes on the body during fall arrest.

**Fall Arrest** - The action or event of stopping a free fall or the instant where the downward free fall has been stopped.

**Fall Hazard** - Any location where a person is exposed to a potential free fall.

**Free Fall** - The act of falling before a fall protection system begins to apply forces to arrest the fall.

**Free Fall Distance** - The vertical distance traveled during a fall, measured from the onset of a fall from a walking working surface to the point at which the fall protection system begins to arrest the fall.

**Harness, Full Body** - A body support designed to contain the torso and distribute the fall arrest forces over at least the upper thighs, pelvis, chest and shoulders.

**Horizontal Lifeline** - A component of a horizontal lifeline subsystem, consisting of a flexible line with connectors or other coupling means at both ends for securing it horizontally between two anchorages or anchorage connectors.

**Horizontal Lifeline Subsystem** - An assembly, including the necessary connectors, comprised of a horizontal lifeline component and, optionally, of:  
a) An energy absorbing component or, b) A lifeline tensioner component, or both. This subsystem is normally attached at each end to an anchorage or anchorage connector. The end anchorages have the same elevation.

**Horizontal Lifeline** – A component of a horizontal lifeline subsystem, consisting of a flexible line with connectors or other coupling means at both ends for securing it horizontally between two anchorages or anchorage connectors.

**Horizontal Lifeline Subsystem** – An assembly, including the necessary connectors, comprised of a horizontal lifeline component and, optionally, of:  
a) An energy absorbing component or, b) A lifeline tensioner component, or both. This subsystem is normally attached at each end to an anchorage or anchorage connector. The end anchorages have the same elevation.

**Lanyard** - A component consisting of a flexible rope, wire rope or strap, which typically has a connector at each end for connecting to the body support and to a fall arrester, energy absorber, anchorage connector or anchorage.

**Lanyard Connecting Subsystem** - An assembly, including the necessary connectors, comprised of a lanyard only, or a lanyard and energy absorber.

**Personal Fall Arrest System (PFAS)** - An assembly of components and subsystems used to arrest a person in a free fall.

**Positioning** - The act of supporting the body with a positioning system for the purpose of working with hands free.

**Positioning Lanyard** - A lanyard used to transfer forces from a body support to an anchorage or anchorage connector in a positioning system.









**Qualified Person** - A person with a recognized degree or professional certificate and with extensive knowledge, training and experience in the fall protection and rescue field who is capable of designing, analyzing, evaluating and specifying fall protection and rescue systems.

**Self-Retracting Device (SRD)** - A device that contains a drum wound line that automatically locks at the onset of a fall to arrest the user, but that pays out from and automatically retracts onto the drum during normal movement of the person to whom the line is attached.

**Snaphook** - A connector comprised of a hook-shaped body with a normally closed gate or similar arrangement that may be opened to permit the hook to receive an object and, when released, automatically closes to retain the object.

**Swing Fall** - A pendulum-like motion that occurs during and/or after a vertical fall. A swing fall results when an authorized person begins a fall from a position that is located horizontally away from a fixed anchorage.

## APPENDIX A

| Table 1: Specifications for Rebar Positioning Lanyards |  |  |   |  |   |
|--|--|--|---|--|---|
| Item #   | Length                                       | Lanyard Type   | Maximum User Capacity   | Minimum Material Tensile Strength  | Photo   |
| 8250<br>825010LK<br>82506L                             | 23" (58.4cm)<br>19" (48.3cm)<br>17" (43.2cm) | Chain Rebar Assembly<br><b>for Work Positioning Only</b><br>#18 swivel rebar hook and<br>two snap hooks                        | 310 lbs<br>to comply with ANSI<br>Z359.3<br>and OSHA<br><br>425 lbs to comply with<br>OSHA only | 9/32" Grade 80 Welded<br>Link Steel Chain:<br>3,500 lbs Min  |    |
|  |  |  |   | Alloy Steel Snap/Rebar Hooks:<br>5,000 lbs Min with 3,600 lbs Gate<br>Strength   |   |
| 8250LT<br>8250LT10LK                                   | 21" (53.3cm)<br>17" (43.2cm)                 | Chain Rebar Assembly<br><b>for Work Positioning Only</b><br>#18 rebar hook<br>and two snap hooks                               |   | 9/32" Grade 80 Welded<br>Link Steel Chain:<br>3,500 lbs Min  |    |
|  |  |  |   | Alloy Steel Snap/Rebar Hooks:<br>5,000 lbs Min with 3,600 lbs Gate<br>Strength   |   |
| 8250A  | 24" (61cm)                                   | Chain Rebar Assembly<br><b>for Work Positioning Only</b><br>#18 aluminum rebar<br>hook with swivel and two<br>steel snap hooks |   | 9/32" Grade 80 Welded<br>Link Steel Chain:<br>3,500 lbs Min  |    |
|  |  |  |   | Alloy Steel Snap Hooks and<br>Aluminum Alloy Rebar Hook:<br>5,000 lbs Min with 3,600 lbs Gate<br>Strength  |   |
| 8252   | 23" (58.4cm)                                 | Chain Rebar Assembly<br><b>for Work Positioning Only</b><br>#18 swivel rebar hook and<br>two snap hooks                        |   | 1/4" Grade 43 Welded<br>Link Steel Chain:<br>3,500 lbs Min<br><br>Alloy Steel Snap/Rebar Hooks:<br>5,000 lbs Min with 3,600 lbs Gate<br>Strength |   |
| 8252LT   | 21" (53.3cm)                                 | Chain Rebar Assembly<br><b>for Work Positioning Only</b><br>#18 rebar hook<br>and two snap hooks                               |   |  |  |
| 8250W<br>825012W                                       | 23" (58.4cm)<br>19" (48.3cm)                 | Web Rebar Assembly<br><b>for Work Positioning Only</b><br>#18 swivel rebar hook and<br>two snap hooks                          |   | Polyester Webbing:<br>5,000 lbs Min  |  |
|  |  |  |   | Alloy Steel Snap/Rebar Hooks:<br>5,000 lbs Min with 3,600 lbs Gate<br>Strength   |   |
| 8250LTW  | 24" (61cm)                                   | Web Rebar Assembly<br><b>for Work Positioning Only</b><br>#18 rebar hook<br>and two snap hooks                                 |   | Polyester Webbing:<br>5,000 lbs Min  |  |
|  |  |  |   | Alloy Steel Snap/Rebar Hooks:<br>5,000 lbs Min with 3,600 lbs Gate<br>Strength   |   |
| 8250LTWA   | 24" (61cm)                                   | Web Rebar Assembly<br><b>for Work Positioning Only</b><br>#18 aluminum rebar hook<br>and two aluminum snap<br>hooks            |   | Polyester Webbing:<br>5,000 lbs Min  |  |
|  |  |  |   | Aluminum Alloy Snap and Rebar<br>Hooks: 5,000 lbs Min with 3,600 lbs<br>gate strength  |   |