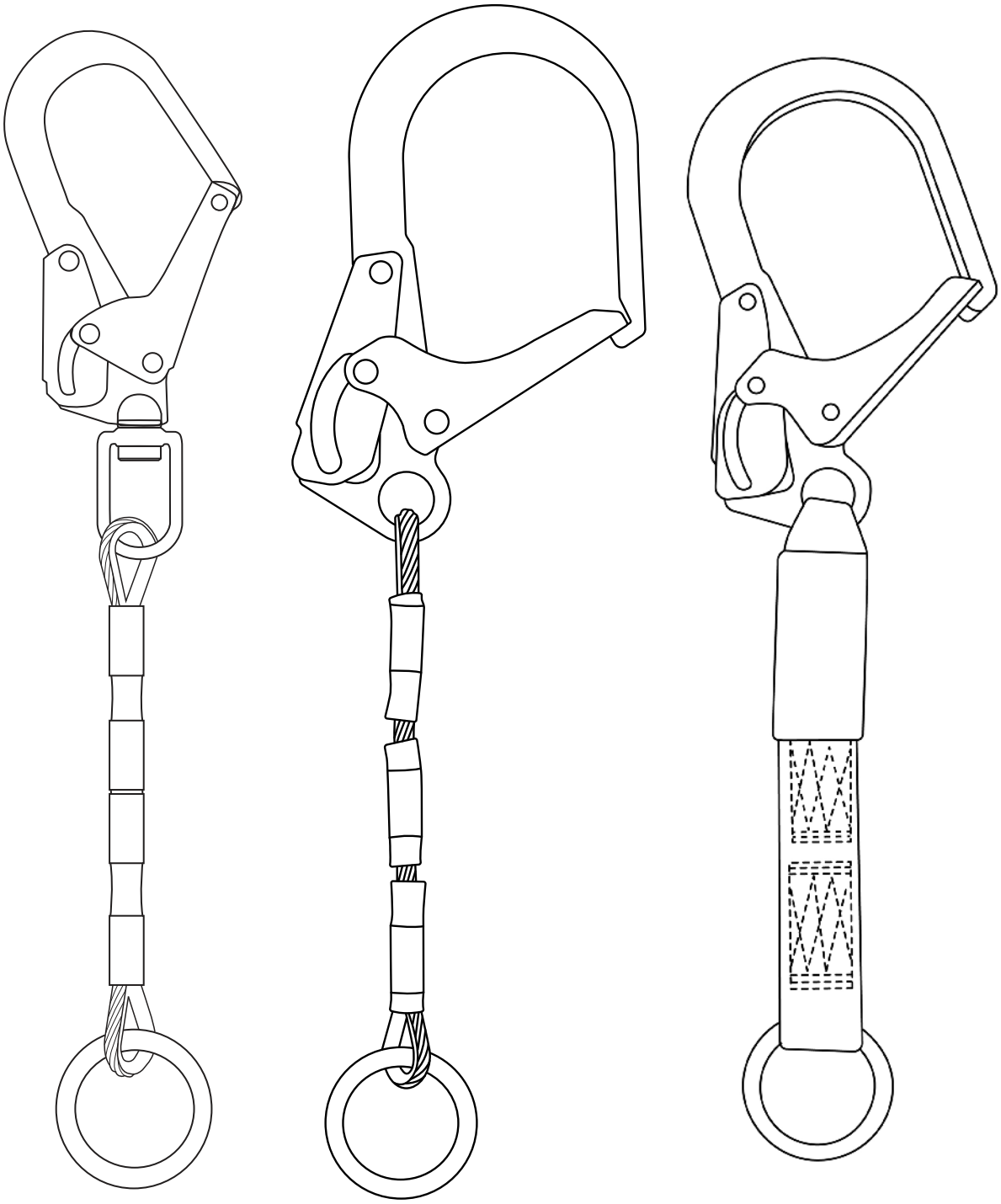
FALLTECH®

Cable/Web Anchor

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® Cable Anchor may be referred to as the Cable Anchor, product, equipment, anchor, anchorage connector, or the unit. The FallTech® Web Anchor may be referred to as the Cable Anchor, product, equipment, anchor, anchorage connector, or the unit. Throughout this manual, ANSI Z359.0-2012 fall protection words, phases and terms are used. These terms are all formally defined in Section 9 of this manual.

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 are not limited to, cable or debris tripping hazards, equipment failures, personnel mistakes, or 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., a Shock Absorbing Lanyard (SAL), or a Self-Retracting Lanyard (SRL), 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.

ANSI limits the weight of fall protection equipment users to a maximum of 310 lbs. Products in this manual may have a rated capacity exceeding ANSI capacity limits. 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 event 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® Cable Anchor is an anchorage connector for a single personal fall arrest system (PFAS) consisting of a swaged length of 1/4" diameter galvanized steel wire rope with a zinc plated alloy steel rebar hook on the anchorage end and an O-ring on the device attachment end; see Figure 1 for component description.
The FallTech® Web Anchor is an anchorage connector for a single personal fall arrest system (PFAS) consisting of a sewn length of Kevlar® webbing with a zinc plated alloy steel large rebar hook on the anchorage end and an O-ring on the device attachment end; see Figure 2 for component description.
The Cable/Web Anchor is a versatile anchorage connector designed to improve access to an anchorage or increase the ability of a large device to properly orient during use when attached to a rigid anchorage.

Figure 1 - About FallTech® Cable Anchor

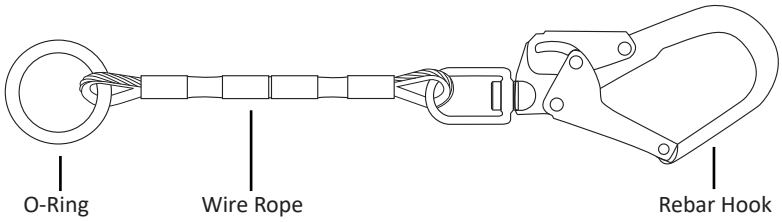
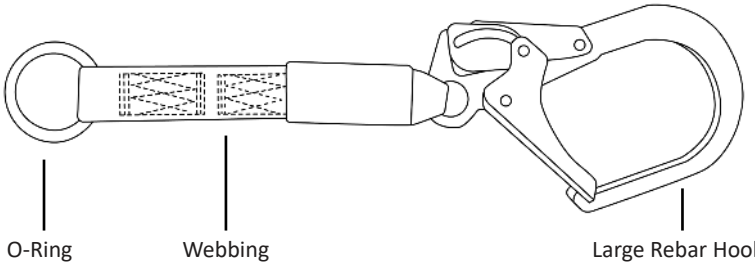


Figure 2 - About FallTech® Web Anchor



⚠ 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 Cable/Web Anchor is designed to be used as a component in a PFAS, to provide a combination of worker mobility and fall protection as required for inspection work, general construction, maintenance work, oil production, confined space work, etc.

3.2 **Personal Fall Arrest System:** A PFAS is typically composed of an anchorage and a FBH, with an energy absorbing connecting device, i.e., a EAL, an SRD, or a Fall Arrester Connecting Subsystem (FACSS), attached to the dorsal D-ring of a properly fitted and adjusted FBH. All uses and applications of a FBH with this equipment requires the FBH to be properly fitted and adjusted to the user. Failure to properly fit the FBH to the user could result in serious injury or death.

3.3 **Application Limits:** The FallTech® Cable/Web Anchor is a dynamic anchorage subsystem that varies in its performance depending upon the length of the system, and the type of PFAS system used. Care should be taken to understand the capacity of the system, anchorage strength requirements, total allowable free fall, and the requirements of how the user's PFAS deploys during a fall event. The longer the freefall, the greater the energy in the system, which will result in more significant clearance requirements and impact forces on the body. Take action to avoid sharp edges, abrasive surfaces, and thermal, electrical, and chemical hazards.

3.4 **Approved Applications:** Below are applications for which all FallTech® Cable/Web Anchor is specifically suited. This list is not all-inclusive, but is intended to anticipate the most common applications in which this product may be used.

3.4.1 Personal Fall Arrest: The FallTech® Cable/Web Anchor used as the anchorage component of a PFAS to protect the user in the event of a fall. PFAS typically consists of an anchorage, a Full Body Harness (FBH), and a deceleration device such as an Energy Absorbing Lanyard (EAL) or Self Retracting Device (SRD). Maximum permissible free fall is 6 ft (1.8 m).

3.4.2 Restraint: The FallTech® Cable/Web Anchor may be used as a component of a restraint system to prevent the user from reaching a fall hazard. Restraint systems typically include a full body harness containing a body belt and a lanyard or restraint line.

3.4.3 Work Positioning: The FallTech® Cable/Web Anchor may be used as a component of a work positioning system to support the user at a work position. Work positioning systems typically include an FBH with integrated side D-rings, a body belt, and a positioning lanyard. A back up PFAS is required when the user is exposed to a free fall of 2 ft or more.

3.4.4 Personnel Riding: The FallTech® Cable/Web Anchor may be used as a component of a personnel- riding system to suspend or transport the user vertically. Personnel riding systems typically include a full body harness, bosun chair or seat board, and a back-up personal fall arrest system.

3.4.5 Horizontal Lifelines: The FallTech® Cable/Web Anchor is suitable for use in any application where a horizontal lifeline has been installed under the guidance of a qualified person, and where the Free-Fall Distance does not exceed 6 ft (1.8 m).

3.4.6 Rescue: The FallTech® Cable/Web Anchor may be used as an anchor in rescue operations that require specialized equipment beyond the scope of this manual.

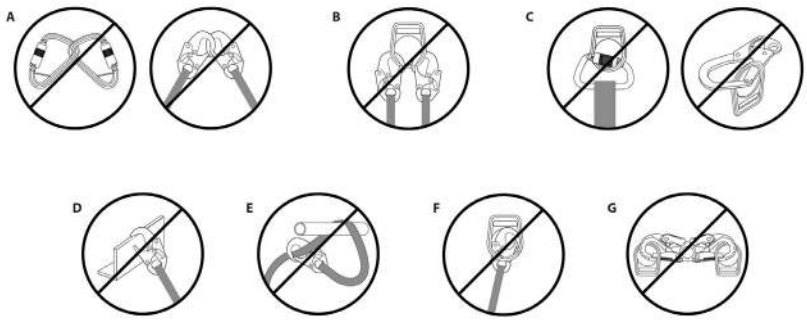
4.0 System Requirements

4.1 **Capacity:** The Cable/Web Anchor covered in this manual is ANSI and OSHA compliant, with a listed single user capacity, including clothing, tools, etc. See Appendix A for capacity information. No more than one PFAS may be connected to the Cable/Web Anchor at one time. The Cable/Web Anchor has a minimum service temperature of -30 degrees Fahrenheit.

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 open inadvertently 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 connectors are required by ANSI and OSHA.

4.3 **Making Connections:** Only use self-locking connectors 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, rebar hooks, and carabiners) are designed for use only as specified in this manual.

Figure 2 - Non-Compatible Connections



A	Never connect two active components (snap hooks or carabiners) to each other.
B	Never connect two active components (snap hooks or carabiners) to a single D-ring at the same time.
C	Never connect in a way that would produce a condition of loading on the gate.
D	Never attach to a object in a manner whereby the gate (of the snap hook or carabiner) would be prevented from fully closing and locking. Always guard against false connections by visually inspecting for closure and lock.
E	Never attach explicitly to a constituent subcomponent (webbing, cable or rope) unless specifically provided for by the manufacturer's instructions for both subcomponents (snap hook or carabiner and webbing, cable or rope).
F	Never attach in a manner where an element of the connector (gate or release lever) may become caught on the anchor thereby producing additional risk of false engagement.
G	Never attach a spreader snap hook to two side/positioning D-rings in a manner whereby the D-rings will engage the gates; the gates on a spreader must always be facing away from the D-rings during work positioning.

4.4 **Personal Fall Arrest System:** PFAS used with this equipment must meet ANSI Z359 requirements and applicable OSHA regulations. An FBH must be worn when this equipment is used as a component of a PFAS. OSHA regulations require the PFAS to arrest the user's fall with a maximum arresting force of 1,800 lbs. (8 kN) and limit the free fall to 6 feet or less. If the maximum free fall distance must be exceeded, the employer must document, based on test data, that the maximum arresting force will not be exceeded, and the PFAS will function properly.

4.5 **PFAS Anchorage Strength:** An anchorage selected for a 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.

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. Installation of the Cable/Web Anchor must be done under the supervision of a Competent Person trained in its design and use.

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

1. Inspect the Cable/Web Anchor hardware (O-ring and rebar hook). These items must not be damaged, broken, distorted, or have any sharp edges, burrs, cracks, worn parts, or corrosion.
2. Check the cable/webbing, looking 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 cable/web, immediately remove the anchor from service.
3. For the Web Anchor, check all stitch locations. Ensure that each stitch is intact with no loose, frayed, or torn threads. If any of the stitch locations show signs of damage or excessive wear, immediately remove the anchor from service.
4. Inspect the labels. All labels must be present and fully legible.
5. Inspect each system component or subsystem according to the associated manufacturer's instructions.

5.2 **Anchorage Location:** Select a suitable anchorage point that will support the strength requirement of Section 4.5 and minimize free fall and swing hazards. To avoid unintentional disengagement of connectors, use only compatible connectors when connecting to the anchorage. Ensure all connector close and lock securely.

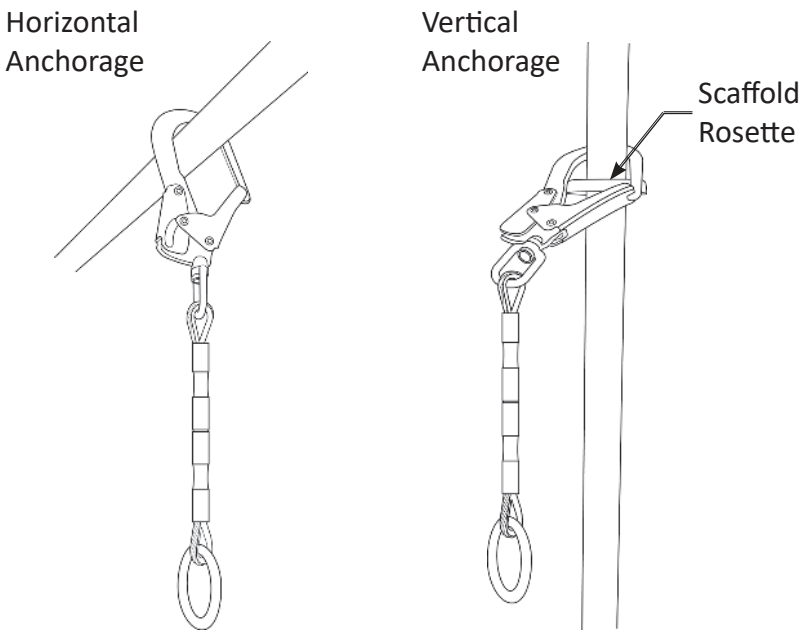
DO NOT allow free fall to exceed six feet.

5.3 **Fall Clearance Distance:** Take action to reduce the danger of falls. Ensure sufficient clearance in the fall area to arrest the fall before contact with the ground or other obstructions. The actual clearance required is dependent upon the type of connecting subsystem used. See user instruction manual(s) of other components in the PFAS to determine minimum required fall clearance (MRFC).

5.4 **Installation:** Open the gate of the swivel rebar hook and attach around the vertical or horizontal anchorage. Ensure that the gate closes and locks before connecting a device or lanyard to the O-ring. See Figure 3 below for common installation configurations. Ensure that the Cable/Web Anchor cannot come off the anchorage or structural member at any point along the intended path of movement. If the structural member to which the Cable/Web Anchor is attached is sloped or vertical, the anchor must be positioned next to a stop which will prevent it from sliding or moving in the event of a fall.

DO NOT attach the anchor in a manner that will load the tip of the swivel rebar hook in the event of a fall.

Figure 3 - Cable/Web Anchor Installation Configurations



6.0 Maintenance, Service, and Storage

Maintenance: No scheduled maintenance is required, other than the replacement of items that failed inspection. The Cable/Web Anchor hardware may be cleaned with a damp rag and a mild soap and water solution. 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.

Service: There are no specific service requirements for this system component.

Storage: If the unit is removed from its installation location, it should be stored in a dry area free of corrosive elements that may harm or cause the product not to function.

7.0 Inspection

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

Do not use the FallTech Cable/Web Anchor or additional equipment if it fails any part of this inspection.

7.2 Inspection Frequency:

Pre-Use: Inspect the Cable/Web Anchor and additional equipment before each use as outlined in section 5.1. All installations must be approved to local standards by a Competent Person.

Annually: The Cable/Web Anchor and additional equipment must be inspected by a Competent Person annually and recorded on the Inspection Record provided or equivalent document.

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, remove from service immediately.

7.4 Inspection Document: Record inspection results on the Inspection Record provided on the following page or a similar document.

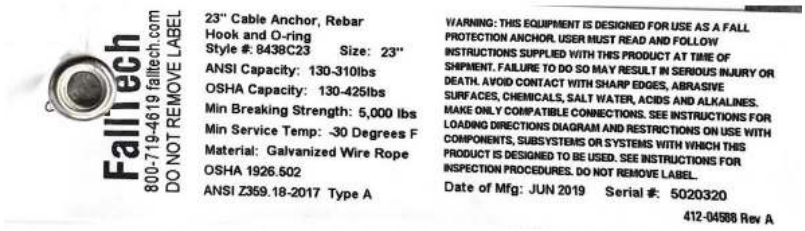
Inspection Record

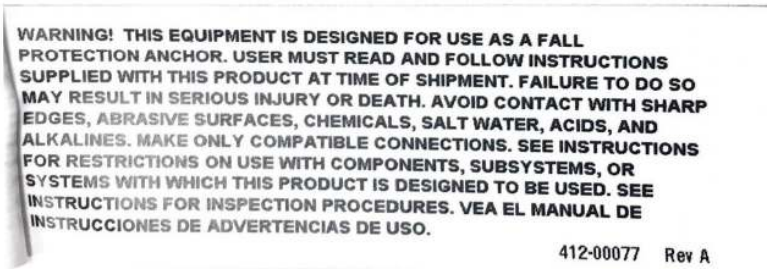
Model #:_____ Serial #:_____ Date of Manufacture:_____

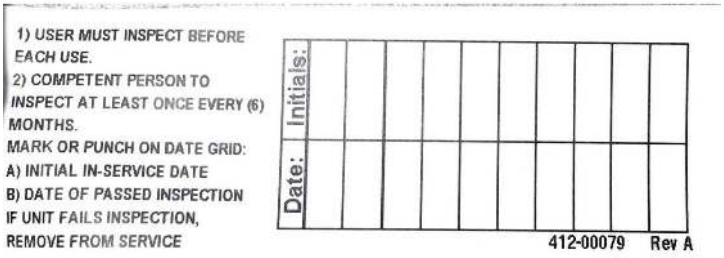
INSPECTION DATE	INSPECTOR	COMMENTS	PASS/FAIL	CORRECTIVE ACTION NEEDED	APPROVED BY

8.0 Labels

The labels must be present and legible.







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.

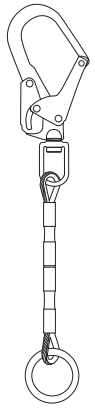
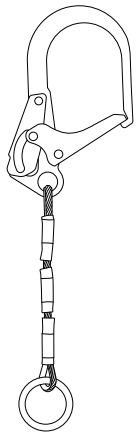
Self-Retracting Device (SRD) - A device that contains a drum wound line that automatically locks at the onset of a fall to arrest the user, but that pays out from and automatically retracts onto the drum during normal movement of the person to whom the line is attached.

After onset of a fall, the device automatically locks the drum and arrests the fall. Self-retracting devices include self-retracting lanyards (SRLs), self-retracting lanyards with integral rescue capability (SRL-Rs), and self-retracting lanyards with leading edge capability (SRL-LEs) and, hybrid combinations of these.

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 Cable/Web Anchor				
Part Numbers	**Minimum Tensile Strength and Material**	**Maximum User Capacity**	**Standards & Regulations**	**Image**
8438C23 23” Cable Anchor with Swivel Steel Rebar Hook and O-Ring	**Alloy Steel Swivel Rebar Hook:** Minimum 5,000 lbs with 3,600 lbs Gate Strength **Alloy Steel O-Ring:** Minimum 5,000 lbs **1/4” Diameter Galvanized Steel Wire Rope:** Minimum 5,000 lbs	310 lbs to comply with ANSI Z359.18 and OSHA 425 lbs to comply with OSHA only	ANSI Z359.18-2017 Type A OSHA 1926.502 OSHA 1910.140	
8438C23X 23” Cable Anchor with Steel Extra Large Rebar Hook and O-Ring	**Alloy Steel Extra Large Rebar Hook:** Minimum 5,000 lbs with 3,600 lbs Gate Strength **Alloy Steel O-Ring:** Minimum 5,000 lbs **1/4” Diameter Galvanized Steel Wire Rope:** Minimum 5,000 lbs			
8438AF23 23” Web Arc Flash Anchor with Large Steel Rebar Hook and O-Ring	**Alloy Steel Large Rebar Hook:** Minimum 5,000 lbs with 3,600 lbs Gate Strength **Alloy Steel O-Ring:** Minimum 5,000 lbs **Kevlar® Webbing:** Minimum 5,000 lbs