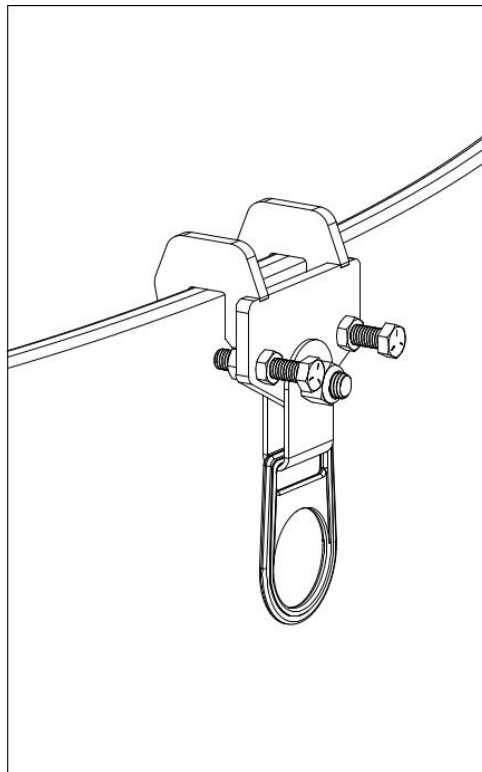




**Reliance Industries, LLC**

**Installation, Operation, Inspection and Maintenance  
Instructions for the Vertical Steel Plate Anchor**

**Part Number 3057-1**



**Reliance Industries, LLC  
Deer Park, TX 77536  
Ph. (888) 362-2826  
Ph. (281) 930-8000  
Fax (281) 930-8666**

## User Instructions

### 3057 Vertical Steel Plate Anchor



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## Important Instructions!

These instructions must be kept on file and available for the users reference at **all** times. The users must read and full understand these instructions or have the instructions explained in detail before using this equipment. **Failure to observe these instructions could result in serious injury or death.**

Prior to use, all workers must be trained in the proper use of all systems and equipment.

A Training and Instruction review should be repeated at regular intervals.

A rescue plan must be prepared; the workers must be trained in its use, and rescue equipment must be on hand prior to any use of this Vertical Steel Plate Anchor system.

Any questions regarding these instructions should be directed to:

Reliance Industries, LLC  
Deer Park, TX 77536  
Ph. (888) 362-2826  
Ph. (281) 930-8000  
Fax (281) 930-8666  
E-mail: [Info@reliable.com](mailto:Info@reliable.com)

**User Instructions**  
**3057 Vertical Steel Plate Anchor**



**Table of Contents**

**IMPORTANT INSTRUCTIONS!** ..... 2

**SYSTEM DESCRIPTION** ..... 5

**ANCHORAGE POINTS**..... 5

**MATERIALS OF CONSTRUCTION**..... 5

**VERTICAL STEEL PLATE ANCHOR** ..... 6

    FIGURE 1 - VERTICAL STEEL PLATE ANCHOR PARTS IDENTIFICATION ..... 6

**PERSONAL FALL ARREST EQUIPMENT USED WITH VERTICAL STEEL PLATE ANCHOR**..... 7

**INSTALLATION LAYOUT CONSIDERATIONS AND LIMITATIONS**..... 8

    FIGURE 2 - VERTICAL STEEL PLATE ANCHOR INSTALLATION LIMITATIONS ..... 8

**INSTALLATION**..... 9

**VERTICAL STEEL PLATE ANCHOR INSTALLATION PROCEDURES** ..... 9

    TO INSTALL THE VERTICAL STEEL PLATE ANCHOR ..... 9

    FIGURE 3 – INSTALLING VERTICAL STEEL PLATE ANCHOR..... 9

    FIGURE 4 – PROPER ORIENTATION VIEW OF VERTICAL STEEL PLATE ANCHOR..... 10

**TRAINING** ..... 10

**PLANNING FOR RESCUE**..... 11

**INSPECTION**..... 11

**SERVICING**..... 12

**WARNINGS AND LIMITATIONS** ..... 12

**INSPECTION LOG FOR THE VERTICAL STEEL PLATE ANCHOR** ..... 13

## User Instructions

### 3057 Vertical Steel Plate Anchor



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# Important OSHA Regulations Covering the Use of Fall Arrest Anchorage Systems

#### OSHA 1926.502 (d)(15):

Anchorage used for attachment of personal fall arrest equipment shall be independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5,000-lb (22 kN) per employee attached, or shall be designed, installed, and used as follows:

#### (d)(15)(i):

as part of a complete personal fall arrest system which maintains a safety factor of at least two; and

#### (d)(15)(ii):

under the supervision of a qualified person.

#### OSHA 1926.502 (d)(16)(iii):

Personal fall arrest systems shall be rigged such that an employee can neither free-fall more than 6-ft. nor contact any lower surface.

#### OSHA 1926.502 (d)(21):

Personal fall arrest systems shall be inspected prior to each use for wear, damage and other deterioration, and defective components shall be removed from service.

#### OSHA 1926.502 (d)(19):

Personal fall arrest systems and components subjected to impact loading shall be immediately removed from service and shall not be used again for employee protection until inspected and determined by a competent person to be undamaged and suitable for reuse.

## User Instructions

### 3057 Vertical Steel Plate Anchor



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## System Description

The Vertical Steel Plate Anchor is one component of a personal fall arrest system that is designed to attach to vertical steel plates in order to anchor a self-retracting lifeline (SRL) or shock absorbing lanyard (SAL) that a single worker can use for fall arrest. The Vertical Steel Plate Anchor and SRL or SAL, provides fall protection for a single individual. Do not use for on anchorage component of a Horizontal lifeline. Do not use to hang, lift or support tools or equipment.

The system is used in conjunction with a full-body harness for the worker and a self-retracting lanyard (SRL) or shock absorbing lanyard (SAL) using double-action single-locking snap hooks to attach to the dorsal D-ring of the harness. Any attachments to the Vertical Steel Plate Anchor must transfer fall arrest forces to the body through the dorsal d-ring of the full body harness only. Harness side and chest d-rings are not allowable connection points.

**Capacity:** 400 pounds (181kg) including the weight of the person and any clothing or tools.

**Minimum Breaking Strength:** 5,000 pounds (22.2kN)

**Steel Plate Thickness Range:** 0.375 inches – 1.000 inches thick (9-5-25.4mm)

**Meets:** OSHA Requirements

## Anchorage Points

The Vertical Steel Plate Anchor is designed to be attached to a vertical structural steel member or steel piling with a thickness of 0.375 -1.000 inches. The structural steel member or steel piling to which the Vertical Steel Plate Anchor is attached, must be capable of sustaining a 5000 pound load applied at the connection D-ring of the Vertical Steel Plate Anchor in all intended and allowed directions of loading. If there are questions concerning the suitability of the structural steel member or steel piling for anchoring a Vertical Steel Plate Anchor to, please contact Reliance Industries at 303-424-8650 prior to use.

## Materials of Construction

Vertical Steel Plate Anchor: Zn plated grade 50 steel

D-ring: Zn plated forged steel

D-ring Yoke: Stainless Steel

Bolts, washers: Zn plated grade 5 steel, Zn plated steel

## User Instructions

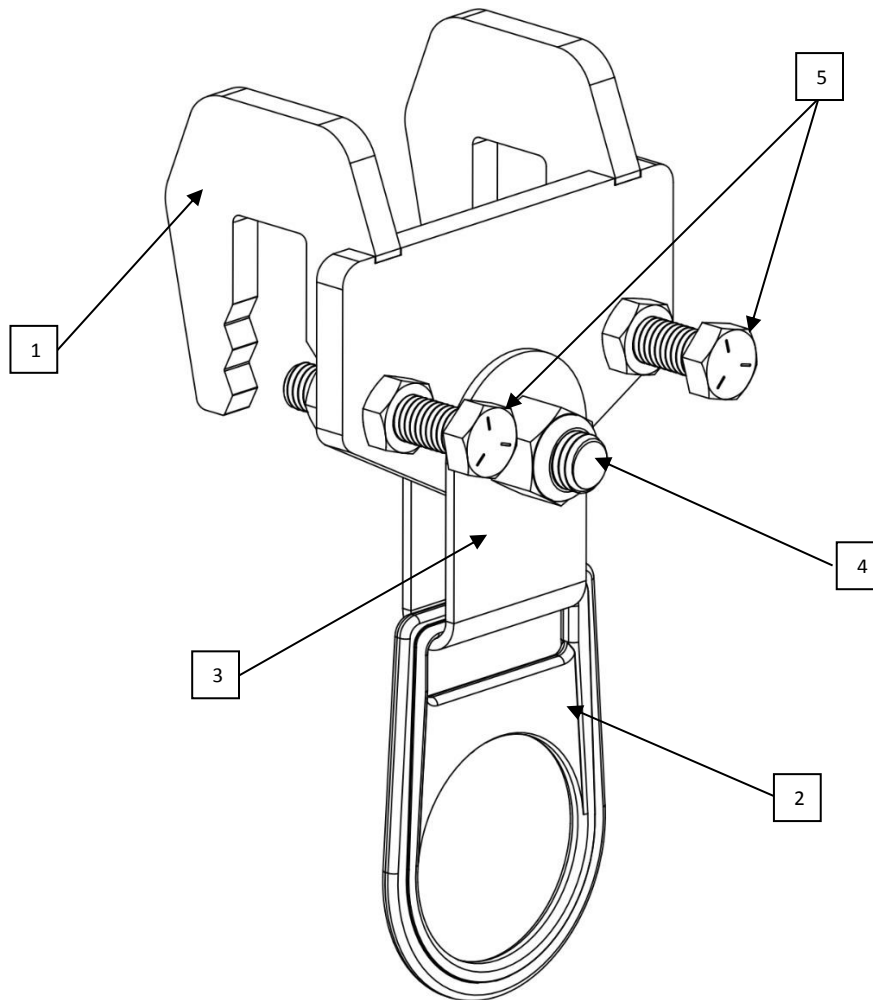
### 3057 Vertical Steel Plate Anchor



Reliance Industries, LLC

## Vertical Steel Plate Anchor

The Vertical Steel Plate Anchor consists of the following standard approved and compatible components:



1. Vertical Steel Plate Anchor Bracket, 1 ea.
2. D-ring, 1 ea.
3. D-ring Yoke, 1 ea.
4. Yoke Bolt and Nut, 1 ea.
5. Clamp Bolt and Jam Nut, 2 ea.

Figure 1 - Vertical Steel Plate Anchor Parts Identification

## User Instructions

### 3057 Vertical Steel Plate Anchor

## Personal Fall Arrest Equipment Used with Vertical Steel Plate Anchor

Care should also be used in selecting harnesses for use with the Vertical Steel Plate Anchor. Harnesses with sewn down back pads can limit as much as 1 ft. of back pad slippage during fall arrest, giving additional clearance for safety. If the system will be used where a worker could encounter a head first free-fall, a non-secured back pad can slide down the webbing to the small of the back, allowing the worker to fall out of the harness through the top by allowing the harness straps to slip over the shoulders. For this reason, we recommend the use of full body, crossover or pullover type harness with sewn down or slip resistant back pads for all installations. Only a self-retracting lanyard (SRL) or shock absorbing lanyard (SAL) that limits forces to 1800 pounds or less can be used on this product. When using a snap hook to connect to the anchorage connector, ensure accidental disengagement cannot occur. Self-locking snap hook or self-locking and self-closing gate carabiners must be used to reduce the possibility of roll-out when making connections. Do not use non-locking snap hooks. Always follow the manufactures instructions supplied with each system component.

## User Instructions

### 3057 Vertical Steel Plate Anchor



## Installation Layout Considerations and Limitations

The Vertical Steel Plate Anchor is used to provide fall protection while climbing or descending structural steel member or steel piling. The Vertical Steel Plate Anchor may only be installed on structural steel member or steel piling with a thickness of 0.375-1.000 inches. The anchorage connector is not intended for use on other materials such as hardened steel, cast iron, aluminum, concrete or wood. An alternate form of fall protection must be used by the worker during installation. The Vertical Steel Plate Anchor may not be used as a fall protection anchorage until it has been certified for use.

- The angle of use is based on a 30 degree working angle from the Vertical Steel Plate Anchor. Do not exceed the working angle or the system may impart excessive swing fall and or, over load the Vertical Steel Plate Anchor or its anchorage attachment (see Fig. 2)

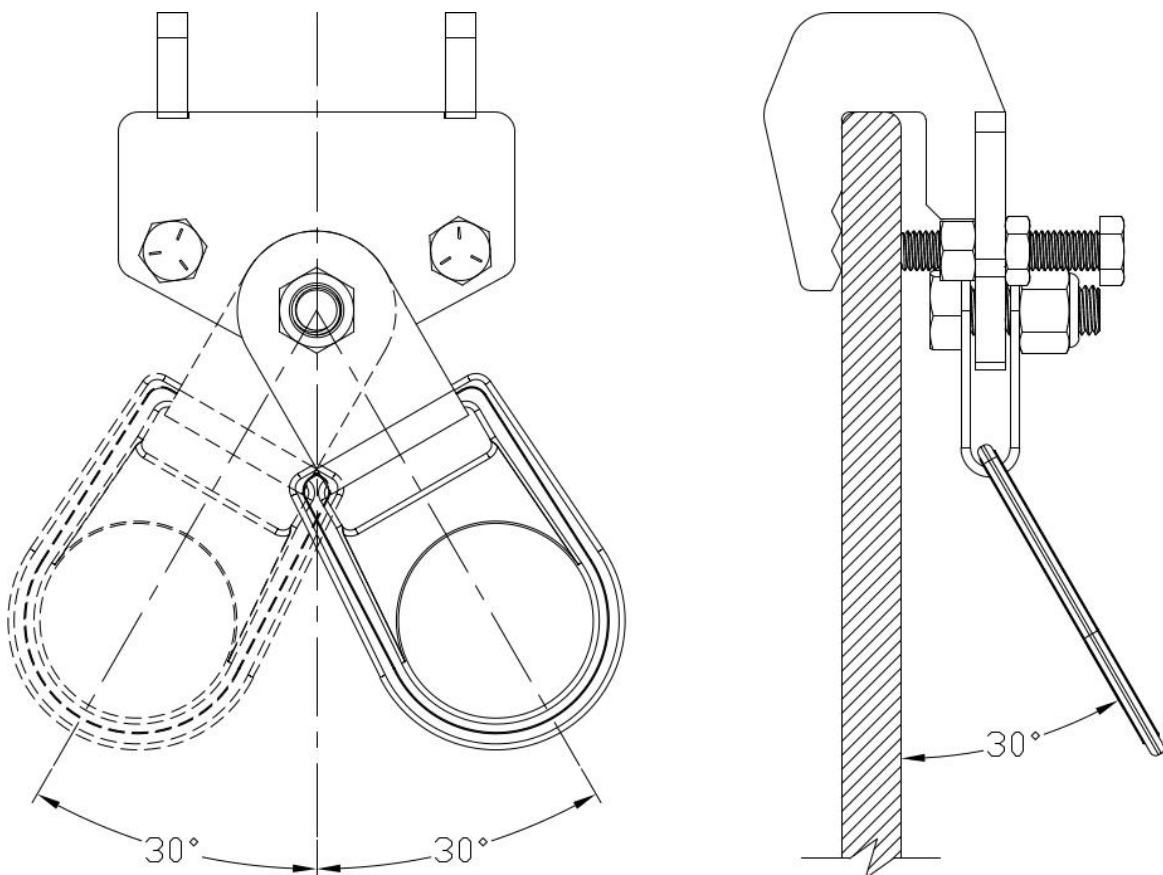


Figure 2 - Vertical Steel Plate Anchor Installation Limitations



## User Instructions

### 3057 Vertical Steel Plate Anchor



## Installation

Note: Installation of the Vertical Steel Plate Anchor should be done under the supervision of a Competent Person. Approved fall protection MUST be worn at all times during installation of the Vertical Steel Plate Anchor. Connection to the Vertical Steel Plate Anchor as an anchorage point for fall protection is not permitted until full installation has been completed and the Davit has been inspected and certified for use.

## Vertical Steel Plate Anchor Installation Procedures

### To Install the Vertical Steel Plate Anchor

Loosen the clamp bolts out so that the points do not protrude into the mounting slot. Place the anchor over an appropriate steel plate anchorage. Ensure the top wall of the mounting slot is fully seated on the steel plate anchorage. Tighten each clamp bolt until it makes contact with the anchorage. Torque the bolts to 20 foot pounds. (see Fig. 3) Exceeding the torque requirements may damage the Vertical Steel Plate Anchor. Tighten jam nuts to bracket plate.

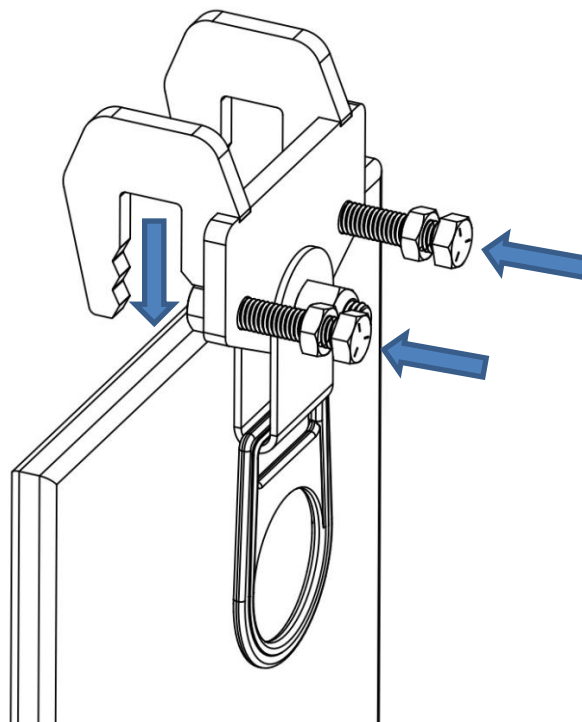


Figure 3 – Installing Vertical Steel Plate Anchor

## User Instructions

### 3057 Vertical Steel Plate Anchor



The Vertical Steel Plate Anchor mounting slot must be flush to the top edge of the vertical plate with the up arrow pointing up as shown. The anchorage must allow the Vertical Steel Plate Anchor to hang in a vertical orientation. Do not install the Vertical Steel Plate Anchor on an incline, upside down, or at an angle. (see fig. 4)

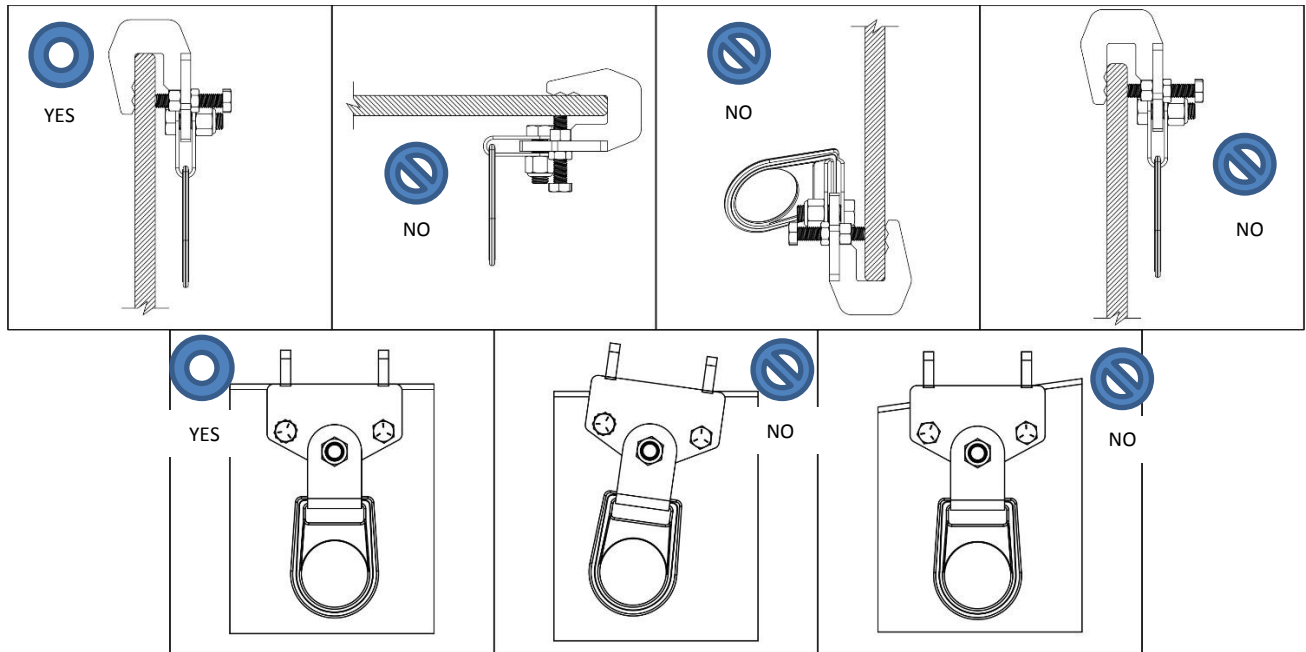


Figure 4 – Proper Orientation view of Vertical Steel Plate Anchor

## Training

It is the responsibility of the employer to train all workers prior to using this system (per OSHA 1926.503 (a)(1)). The employer shall provide a training program for each employee who might be exposed to fall hazards. The program shall enable each employee to recognize the hazards of falling and shall train each employee in the procedures to be followed in order to minimize these hazards.

The employer shall assure that, as necessary, each employee has been trained by a competent person qualified in the following areas:

- OSHA regulations governing the use of ladders and personal fall protection systems.
- Ability to recognize potential fall and workplace hazards.
- Method of inspection of safety equipment.
- Rescue procedures.
- Installation and removal techniques.

## User Instructions

### 3057 Vertical Steel Plate Anchor

## Planning for Rescue

Prior to system use, a rescue plan must be prepared, the workers must be trained in its use, and the rescue equipment must be on hand to implement it in case of a fall.

Typical rescue plans include (but are not limited to) the following items:

1. List of equipment that must be readily accessible in the event of an emergency and the names of those workers certified to use or operate that equipment.
2. Emergency contact phone numbers (ambulance, hospital, fire department...) and a means to contact them (cell phone, emergency radio).
3. List of employees on the site, and the specific tasks they will perform to effect the rescue.

Only Qualified Persons trained in fall protection planning and implementation should undertake the design and installation of personal fall arrest systems. It is of the utmost importance to identify a method of rescue from deployed fall arrest systems before a fall has occurred, and have the means to affect the rescue on hand. In some situations it may be possible to use the fall arrest anchorage itself as an anchorage capable of use for rescue. However, in some situations, it is possible that access to the fallen individual will be blocked by other structure making it impossible to be used as a suitable anchorage for rescue. For this reason, always install rescue anchorages to rigid structures for attaching hoists or other retrieval equipment at locations that can be reached by rescue personnel. Note whether rescue must be up or down. If you rescue upward, anchorages must be high enough to raise the fallen worker above the walking/working surface. Individuals who will be using the Vertical Steel Plate Anchor must be trained in the rescue plan and have the equipment on hand to implement it in an emergency. In case a worker has been injured or is unconscious, always consider the evacuation method and path to be used after the worker has been retrieved.

Contact Reliance Engineering for help in identifying possible methods of rescue and rescue planning.

## Inspection

Prior to each use, the worker must inspect the Vertical Steel Plate Anchor for any physical damage, wear, corrosion, or malfunctioning parts. If an inspection reveals a problem or unsafe condition, remove the entire system from service until it can be re-certified by a competent person.

The Vertical Steel Plate Anchor should be examined to ensure that the Vertical Steel Plate Anchor is not bent and that it is installed properly onto vertical steel anchorage. It must be secured into place using the two Clamp Bolts as shown in Fig. 3.

## Servicing

A qualified person trained in the inspection and servicing of system components must carry out servicing of this system. The company's safety officer should maintain a record log of all servicing and inspection dates. The system and all components must be withdrawn from service if subjected to fall arrest forces. Those components may be returned to service only after being re-certified by a qualified person. Only original Reliance equipment replacement parts are approved for use in this system. Contact Reliance Engineering with questions and when in need of assistance.

## Warnings and Limitations

Proper care should always be taken to visually scan the work area prior to use. Remove any obstruction, debris, and other materials from, and beneath the work area that could cause injuries or interfere with the operation of this system. Be cautious of swing fall hazards if working horizontally to the side of the Davit. Never exceed the working fleet angle of the SRL as specified in Fig. 2.

Users should be familiar with pertinent regulations governing the use of this system and its components. Only trained and competent personnel should install and supervise the use of this system.

Use only Reliance supplied or qualified compatible components.

**If you have any questions regarding the correct installation or use of this product DO NOT USE. Contact Reliance Engineering at Ph. (303) 424-8650 or Fax (303) 424-8670.**

# Inspection Log for the Vertical Steel Plate Anchor

Company: \_\_\_\_\_ Location: \_\_\_\_\_ Date: \_\_\_\_\_  
 Job Site: \_\_\_\_\_ Log No.: \_\_\_\_\_ System No.: \_\_\_\_\_

Describe non-conforming conditions in the boxes below:

Inspection Criteria	Missing Parts	Labels Readable	Corrosion	Deformed Parts	Cracked Parts/ Broken wires	Excessive Loading
Anchor Bracket not bent?						
D-ring and yoke not deformed?						
D-ring bolt present and tight?						
D-ring and yoke swivel freely?						
Anchor Clamp Bolts present and tight?						

Has a Rescue Plan been prepared? \_\_\_\_\_

Is Rescue Equipment on hand? \_\_\_\_\_

Have workers been trained in the Rescue Procedures and been given a copy of the Rescue Plan? \_\_\_\_\_

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