



Reliance Industries, LLC

**Installation, Operation, Inspection and Maintenance
Instructions for the Weld-on Stanchion Receiver**



**Reliance Industries, LLC
PO Box 2046
Deer Park, TX 77536
Ph. (800) 488-5751
Ph. (303) 424-8650
Fax (303) 424-8670**

User Instructions

6154 Weld-on Stanchion Receiver



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 horizontal lifeline systems or their components.

Any questions regarding these instructions should be directed to:

Reliance Industries, LLC
PO Box 2046
Deer Park, TX 77536
Ph. (800) 488-5751
Ph. (303) 424-8650
Fax (303) 424-8670

Table of Contents

| | |
|--|-----------|
| IMPORTANT INSTRUCTIONS! | 2 |
| SYSTEM DESCRIPTION | 5 |
| INSTALLATION | 5 |
| FIGURE 1 – INSTALLATION OF THE WELD-ON RECEIVER..... | 6 |
| TRAINING | 7 |
| PLANNING FOR RESCUE | 7 |
| INSPECTION | 7 |
| SERVICING | 8 |
| WARNINGS AND LIMITATIONS | 8 |
| INSPECTION LOG FOR HLL SYSTEMS | 10 |
| SKYLINE™ HORIZONTAL LIFELINE DIAGRAM | 11 |

User Instructions

6154 Weld-on Stanchion Receiver



Reliance Industries, LLC

Important OSHA Regulations Covering the Use of Horizontal Lifeline Systems

OSHA 1910.66 Subpart M – 1926.502 (d)(8):

Horizontal Lifelines shall be designed, installed, and used under the supervision of a qualified person as part of a complete fall arrest system, which maintains a safety factor of at least two.

OSHA 1910.66 (b):

“Qualified Person” means one with a recognized degree or professional certificate and extensive knowledge and experience in the subject field who is capable of design, analysis, evaluation, and specifications in the subject work, project, or product.

OSHA 1910.66 (b):

“Competent Person” means a person who is capable of identifying hazardous or dangerous conditions in the personal fall arrest system or any component thereof, as well as in their application and use with related equipment

OSHA 1910.66:

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 1910.66 (n):

The sag in the lifeline should be minimized to prevent the connecting piece of equipment (self-retracting lanyard or other appropriate personal fall arrest device) from sliding down the lifeline to a position which creates a swing hazard during a fall arrest.

OSHA Standards, Interpretations and Compliance Letters, 02/09/1995-Criteria for personal fall arrest systems:

The free-fall distance is limited to 6 feet. The deceleration distance must not exceed 42 inches; lifeline elongation is not included in deceleration distance; and the total fall distance is unregulated except that the employee cannot make contact with a lower level...The safety factor of two should be applied based on the anticipated maximum arrest force, not the fall energy.

User Instructions

6154 Weld-on Stanchion Receiver



System Description

The Weld-on Stanchion Receiver is a weldable steel stanchion tube receiver that may be welded to any steel structure certified capable of withstanding the loads that may be imposed on it. Once properly welded into place, a Reliance Industries Horizontal Lifeline Stanchion may be bolted into place. Upon completion of the work, the stanchion tube may be removed from the Receiver, and the Receiver cut free from the structure if no longer needed; or sealed with a zinc-rich galvanizing primer and left in place for future re-use after inspection.

Installation

Installation of horizontal lifeline systems should be done under the supervision of a Qualified Person trained in their function and use. Use only parts that have been qualified as compatible components by Reliance Industries. Install the system only as specified in the system parameter documents prepared by the computer program system. Ensure that the minimum anchorage strength is at least 2 times the anticipated line tension called out in the system parameter documents. Have the anchorages certified by a qualified person and keep documentation on hand. HLL calculations for minimum required clearance (MRC) are measured below the walking/working surface and assume that the horizontal lifeline is at least 5 ft. above the walking/working surface (unless otherwise specified) in order to limit free-fall to 6 ft. or less as required by OSHA. Always install lifelines horizontally where all end anchorages and bypass supports are at the same elevation. Always install the system per the system parameter documents and NEVER change span length, sub-span length, or number of people allowed on the system once a system is designed and certified. Remember, horizontal lifeline dynamics change with any change to span length, or number of people allowed on the system. Any changes require a new design, and MUST be approved by a qualified person.

Note: Installation of the Weld-on Stanchion Receiver should be done under the supervision of a Competent Person. Approved fall protection MUST be worn at all times during installation of the Receiver. Installation to the Stanchion as an anchorage point for fall protection is not permitted until full inspection has been completed and the fall protection system has been inspected and certified for use.

1. Prepare the surface where the Weld-on Receiver is to be located. Paint, scale and rust must be removed by grinding or sanding to create a surface capable of being welded to.
2. Mark the location where the Receivers are to be placed. Ensure the locations are placed so that the lifeline will be straight and level when welded in place.
3. Weld the Receiver into place with the bolt hole in line (parallel) with the horizontal lifeline (see Figure 1). Weld with a 5/16-in. fillet weld using 70,000 PSI minimum strength MIG wire or electrode. Care should be taken to leave the small notch at the bottom of the tube open. This is the drainage hole, used to keep water from building up and corroding the inside of the tube.
4. Seal with primer, or a zinc rich paint to prevent rust and corrosion.
5. Bolt Skyline Horizontal Lifeline Stanchions in place using the hardware supplied with the stanchion.

User Instructions

6154 Weld-on Stanchion Receiver



The Weld-on Stanchion Receiver may be removed from the structure after work has been completed and the fall protection safety system has been fully removed. The Receiver may be cut free from the surface. Once the surface has been ground flat, a coat of zinc-rich primer should be applied to prevent corrosion.

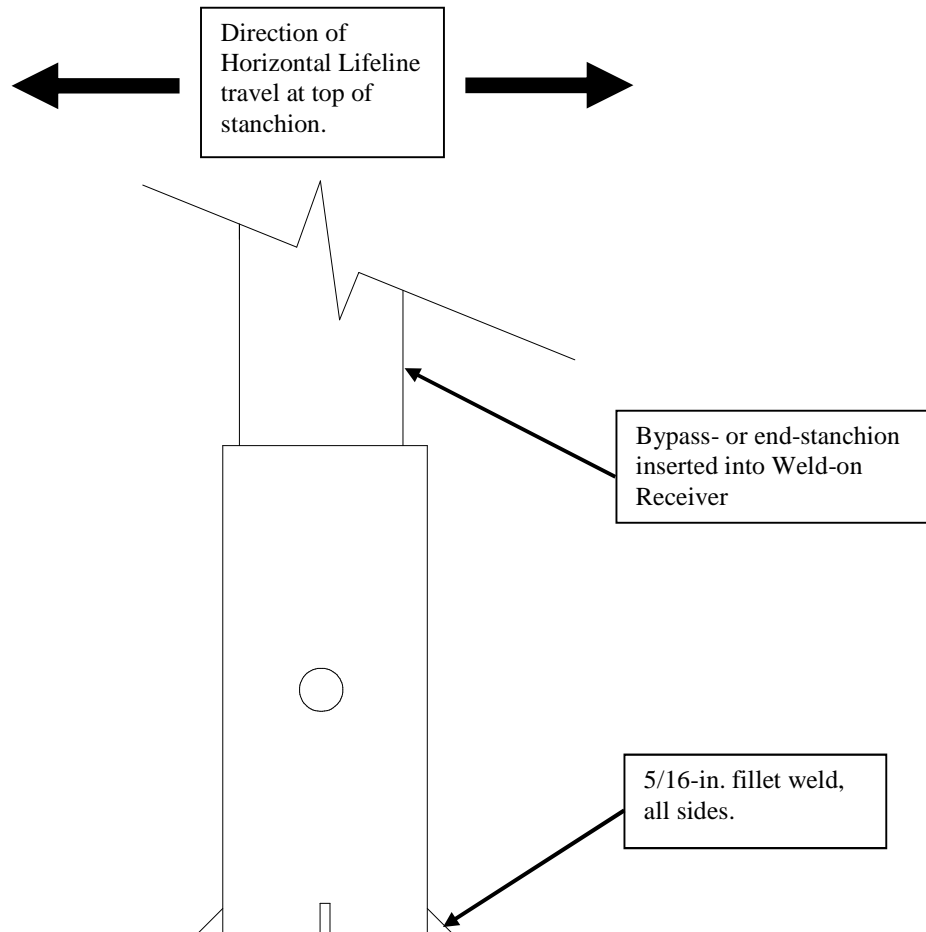


Figure 1 – Installation of the Weld-on Receiver

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:

- a. OSHA regulations governing the use of horizontal lifelines.
- b. Ability to recognize potential fall and workplace hazards.
- c. Method of inspection of safety equipment.
- d. Rescue procedures.
- e. Installation and removal techniques.

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.
4. If a confined space is to be entered a confined space work permit must be filed and approved.

During installation of horizontal lifeline systems, anchorage points should be identified, and clearly marked in such a manner as to provide a means to rescue a worker at any position along the lifeline system.

Inspection

Prior to each use, the worker must inspect the system for any physical damage, wear, corrosion, or malfunctioning parts. The Weld-on Receiver Bracket must be inspected each day prior to use as part of the general lifeline inspection. The Bracket should be inspected to insure that the welds are present, intact, and show no evidence of cracking. If a horizontal lifeline Stanchion has been inserted into the Weld-on Receiver, then the bolt and nut must be inserted through the receiver and secured in place.

User Instructions

6154 Weld-on Stanchion Receiver



Reliance Industries, LLC

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 worker, who must also check the pre-tension of the horizontal lifeline system prior to each use, must inspect all system components. A formal inspection must be carried out a minimum of once each year, and be formally documented and kept on file with the system parameter documents.

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 certified by a qualified person. Only original Reliance equipment replacement parts are approved for use in this system. Contact Reliance Industries 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 obstructions, 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 lifeline. Always use the shortest lanyard length possible to connect to the lifeline. Be aware of the movements of others on the lifeline at the same time, knowing that if they fall, the sudden motion in the lifeline could pull others off balance. When working at a fixed area, tie off to other suitable overhead anchorage if they exist, allowing the lifeline to be occupied by fewer people.

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.

Do not exceed manufacturers' recommended span length or maximum number of people on the same lifeline as listed on either the tag attached to the specific horizontal lifeline system, or in the lifeline parameter data sheets.

Do not use these components with any other horizontal lifeline material. Only 3/8 – 7x19 IPS or stainless steel wire rope is allowed, due to its high-energy capacity.

Use only Reliance Industries supplied or qualified compatible components.



User Instructions

6154 Weld-on Stanchion Receiver

Reliance Industries, LLC

This Weld-on Receiver Bracket is to be used only as a component of personal fall protection systems that have been designed under the supervision of a Qualified Person. The Qualified Person must determine the suitability of the system for the work to be performed and that the structure to which it is attached meets the minimum strength requirements as determined by applicable regulations.

The Weld-on Stanchion Receiver Bracket **MUST NOT** be used **DIRECTLY** as a personal fall arrest anchorage. It **MUST** only be used for the attachment of approved Reliance industries stanchions which then may be used as a means of anchorage for fall protection systems.

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

Inspection Log for HLL Systems

Company: _____ Location: _____ Date: _____
 Job Site: _____ HLL Log No.: _____ System No.: _____

Is this system used as described in the HLL Log No. _____ to conform to design document criteria? _____

Describe non-conforming conditions in the boxes below:

| Inspection Criteria | Missing Parts | Labels Readable | Corrosion | Deformed Parts | Cracked Parts/ Broken wires | Excessive Loading |
|------------------------------------|---------------|-----------------|-----------|----------------|--------------------------------|-------------------|
| Welded on all sides | | | | | | |
| No deformation | | | | | | |
| No corrosion | | | | | | |
| No changes to attachment structure | | | | | | |
| HLL Identity Tag | | | | | | |
| HLL Shock Absorber | | | | | | |
| End Clamp complete | | | | | | |
| End fittings(bow shackles) | | | | | | |
| Shackles | | | | | | |
| Wire Rope | | | | | | |
| Webbing Strap | | | | | | |
| Ratchet Tensioner | | | | | | |
| Stanchions | | | | | | |
| Stanchion retention bolt and nut | | | | | | |
| Tie Back Cables | | | | | | |

Is Shock Absorber pre-tension set correctly _____

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 _____

Skyline™ Horizontal Lifeline Diagram

