



User Instruction Manual Precast Concrete Beam Horizontal Lifeline System

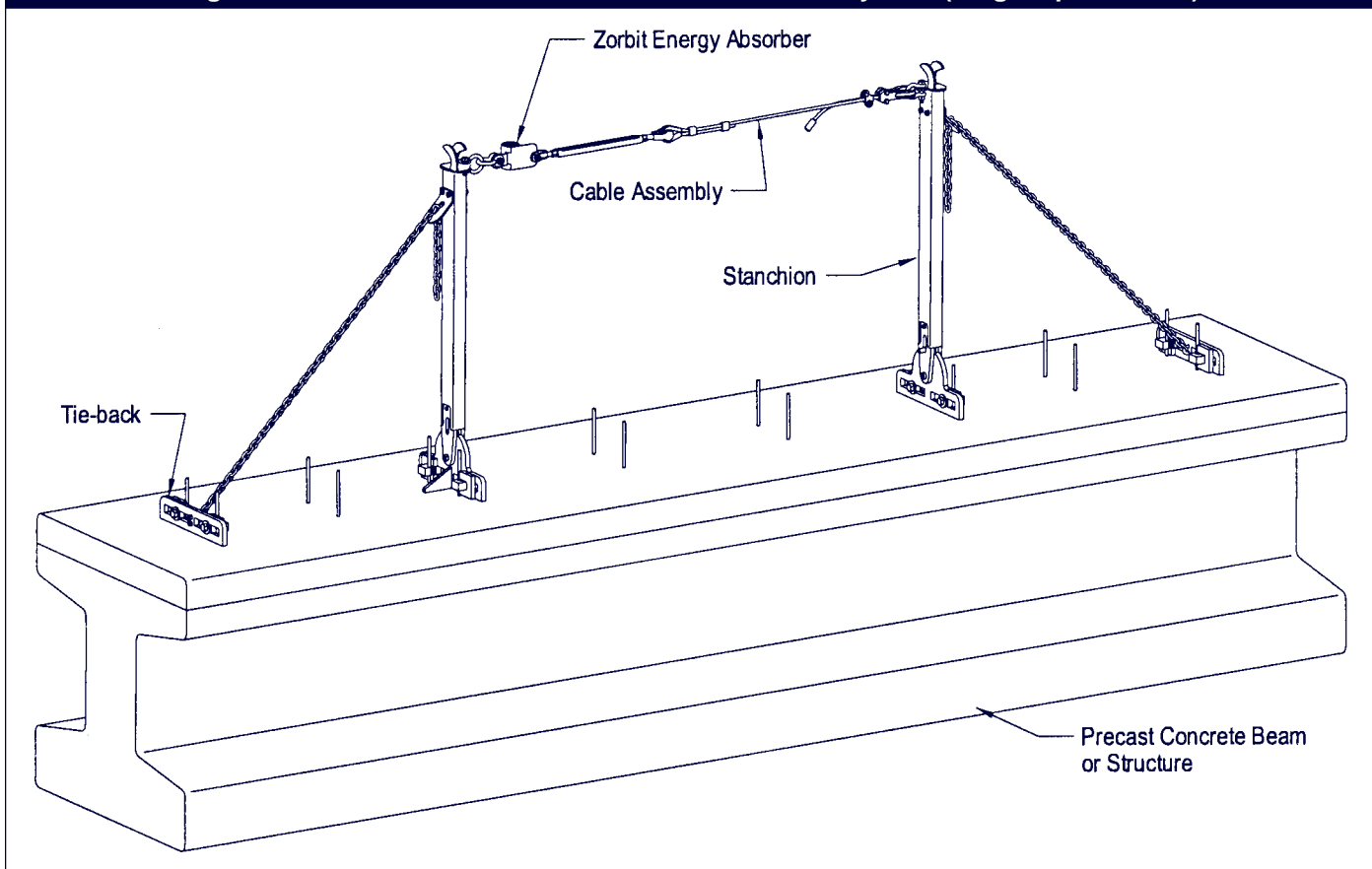
This manual is provided as the Manufacturer's Instructions, and should be used as part of an employee training program as required by OSHA.



WARNING: This product is part of a fall protection system. The users must read and follow the manufacturer's instructions for each component of the system. These instructions must be provided to the users of this equipment. The user must read and understand these instructions or have them explained to them before using this equipment. Manufacturer's instructions must be followed for proper use and maintenance of this product. Alterations or misuse of this product or failure to follow instructions may result in serious injury or death.

IMPORTANT: If you have questions on the use, care, or suitability of this equipment for your application, contact DBI/SALA.

Figure 1 - Precast Concrete Beam Horizontal Lifeline System (Single Span shown)



1.0 APPLICATION

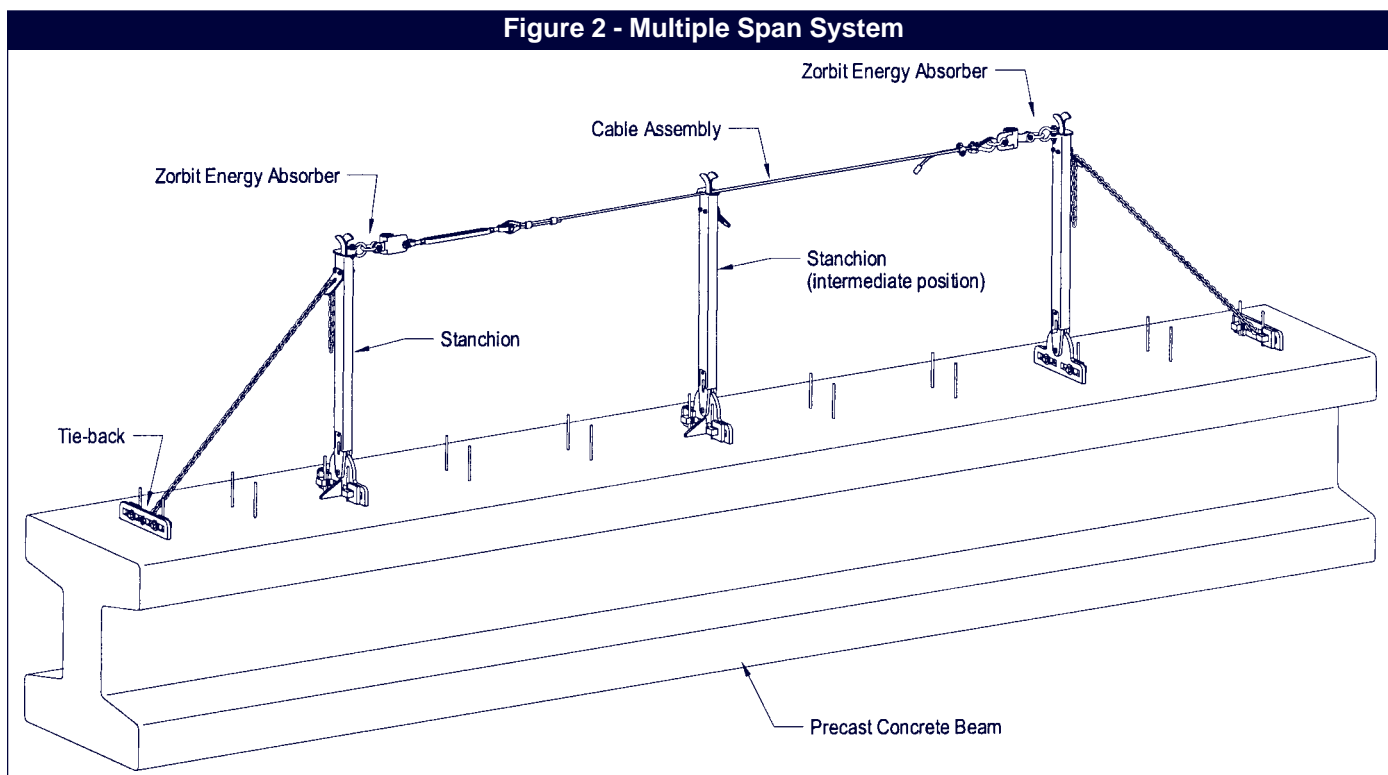
1.1 PURPOSE: The Precast Concrete Beam Horizontal Lifeline (HLL) System is to be used as an anchoring system for up to four users, depending on the system configuration. Use the Precast Concrete Beam HLL where horizontal mobility and fall protection on precast beams are required. Use this equipment only as specified in this manual. See Figures 1 and 2 for the configuration and component identification.

1.2 LIMITATIONS: The following limitations apply to the installation and use of this equipment. Other limitations may apply:

IMPORTANT: OSHA regulations require that horizontal lifelines shall be installed and used under the supervision of a qualified person (see below for definition) as part of a complete personal fall arrest system that maintains a safety factor of at least two.

Qualified Person: An individual with a recognized degree or professional certificate, and extensive knowledge and experience in the subject field, who is capable of design, analysis, evaluation, and specification in the subject work, project, or product. Refer to OSHA 1910.66, 1926.32, and 1926.502.

A. HORIZONTAL LIFELINE SPAN: The maximum horizontal lifeline span length is 60 feet. The system length can be extended by using multiple spans. See Figure 2. The span length must be reduced when the clearance is limited. See section 3.0 for clearance information.



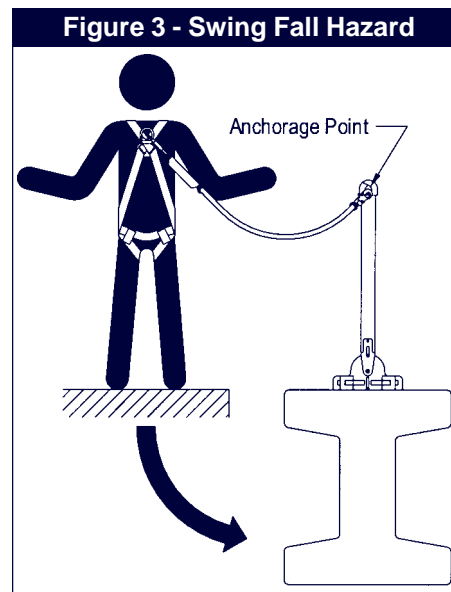
B. ANCHORAGES: The Precast Concrete Beam HLL must be installed on anchorages that meet the strength and size requirements specified in section 2.0.

C. SYSTEM CAPACITY: The capacity of the single span system is two persons. The capacity of the multiple span system is two persons secured on each span, with no more than four persons connected to the system at one time. The maximum weight of each person, including tools and clothing, is 310 lbs.

D. CONNECTING SUBSYSTEM: Each user's connecting subsystem (energy absorbing lanyard) must limit the fall arrest forces to 900 lbs. or less. See section 2.4.

E. FREE FALL: Rig and use the personal fall arrest system such that the potential free fall does not exceed government regulatory and subsystem manufacturer's requirements. See section 3.0 and subsystem manufacturer's instructions for more information.

F. SWING FALLS: See Figure 3. Swing falls occur when the anchorage point is not directly above the point where a fall occurs. The force of striking an object in a swing fall may cause serious injury or death. Minimize swing falls by working as close to the anchorage point as possible. Do not permit a swing fall if injury could occur.



- G. FALL CLEARANCE:** There must be sufficient clearance below the worker to arrest a fall before striking a lower level or obstruction. See section 3.0 for clearance information.
- H. BODY SUPPORT:** This equipment must only be used with personal fall arrest systems incorporating a full body harness.
- I. PHYSICAL AND ENVIRONMENTAL HAZARDS:** Use of this equipment in areas with physical or environmental hazards may require additional precautions to reduce the possibility of injury to the user or damage to the equipment. Hazards may include, but are not limited to; heat, chemicals, corrosive environments, high voltage power lines, gases, moving machinery, and sharp edges. Contact DBI/SALA if you have questions about using this equipment where physical or environmental hazards exist.
- J. TRAINING:** This equipment must be installed and used by persons trained in the correct application and use of this equipment. See section 4.0.

1.3 APPLICABLE STANDARDS: Refer to national standards, including ANSI Z359.1, ANSI A10.14, and local, state, and federal (OSHA 1910.66 and 1926.502) requirements for more information on personal fall arrest systems and associated components.

2.0 SYSTEM REQUIREMENTS

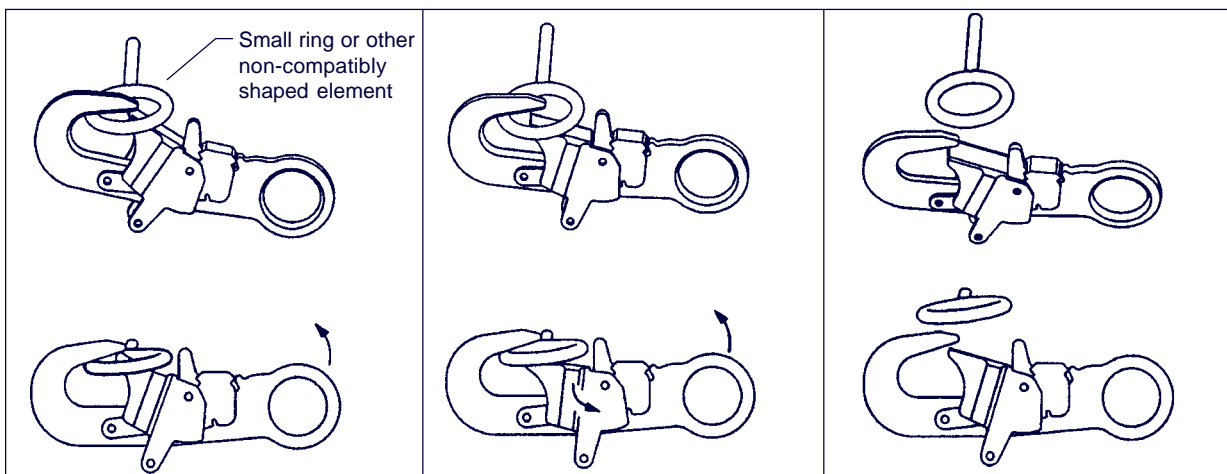
2.1 COMPATIBILITY OF COMPONENTS: DBI/SALA equipment is designed for use with DBI/SALA approved components and subsystems only. Substitutions or replacements made with non-approved components or subsystems may jeopardize compatibility of equipment and may effect the safety and reliability of the complete system.

2.2 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 DBI/SALA if you have any questions about compatibility.

Connectors (hooks, carabiners, and D-rings) must be capable of supporting at least 5,000 lbs. (22kN). 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. See Figure 4. Connectors must be compatible in size, shape, and strength. Self locking snap hooks and carabiners are required by ANSI Z359.1 and OSHA.

Figure 4 - Unintentional Disengagement (Roll-out)

If the connecting element that a snap hook (shown) or carabiner attaches to is undersized or irregular in shape, a situation could occur where the connecting element applies a force to the gate of the snap hook or carabiner. This force may cause the gate (of either a self-locking or a non-locking snap hook) to open, allowing the snap hook or carabiner to disengage from the connecting point.



1. Force is applied to the snap hook.

2. The gate presses against the connecting ring.

3. The gate opens allowing the snap hook to slip off.

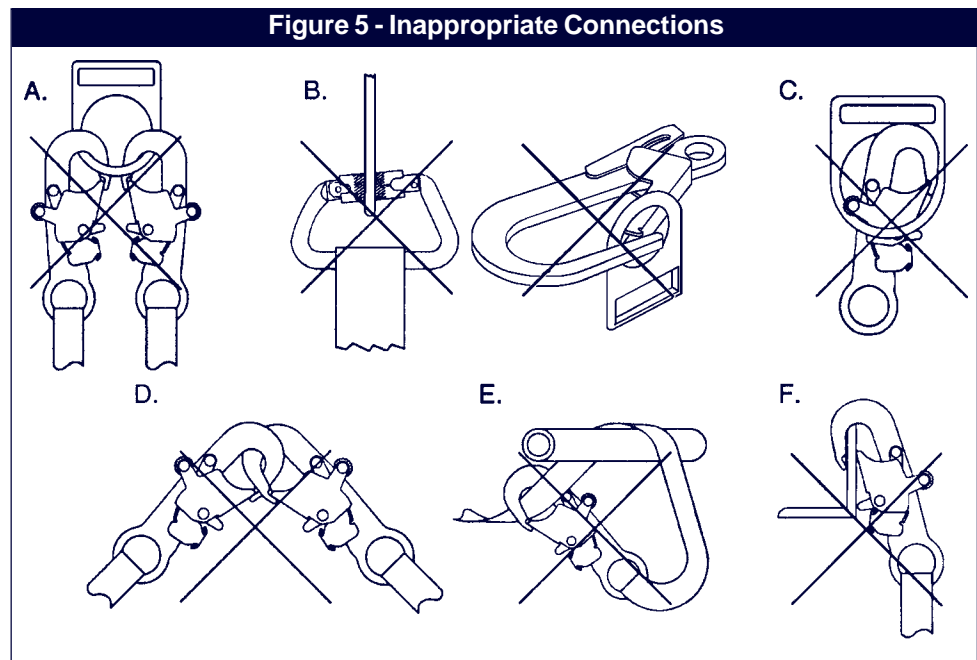
2.3 MAKING CONNECTIONS: Only use self-locking snap hooks and carabiners with this equipment. Only use connectors that are suitable to each application. Ensure all connections are compatible in size, shape and strength. Do not use equipment that is not compatible. Ensure all connectors are fully closed and locked.

DBI/SALA connectors (snap hooks and carabiners) are designed to be used only as specified in each product's user's instructions. See Figure 5 for inappropriate connections. DBI/SALA snap hooks and carabiners should not be connected:

- A. To a D-ring to which another connector is attached.
- B. In a manner that would result in a load on the gate.

NOTE: Large throat opening snap hooks should not be connected to standard size D-rings or similar objects which will result in a load on the gate if the hook or D-ring twists or rotates. Large throat snap hooks are designed for use on fixed structural elements such as rebar or cross members that are not shaped in a way that can capture the gate of the hook.

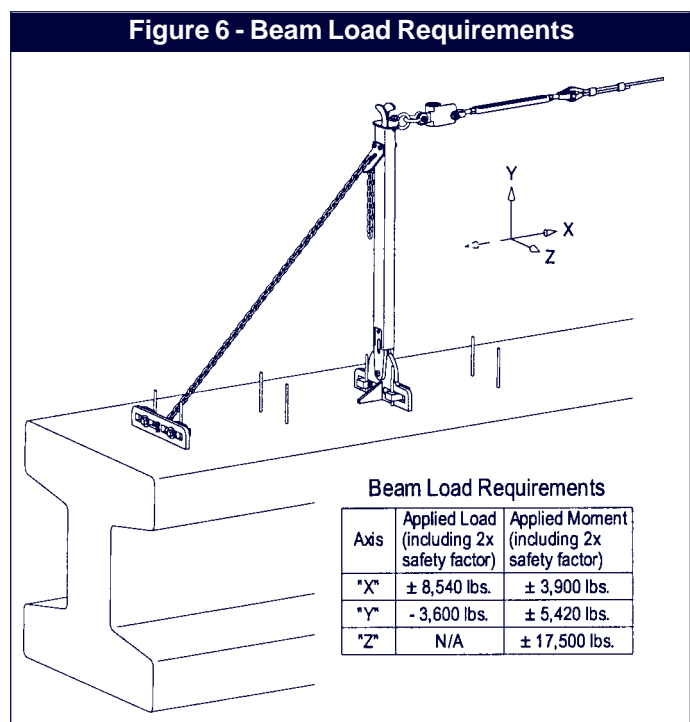
- C. In a false engagement, where features that protrude from the snap hook or carabiner catch on the anchor and without visual confirmation seems to be fully engaged to the anchor point.
- D. To each other.
- E. Directly to webbing or rope lanyard or tie-back (unless the manufacturer's instructions for both the lanyard and connector specifically allow such a connection).



- F. To any object which is shaped or dimensioned such that the snap hook or carabiner will not close and lock, or that roll-out could occur.

2.4 CONNECTING SUBSYSTEM: The connecting subsystem (energy absorbing lanyard) is the portion of the personal fall arrest system that is used to connect between the horizontal lifeline subsystem and the harness fall arrest attachment element. The connecting subsystem must limit forces applied to the horizontal lifeline to 900 lbs. or less.

2.5 BEAM LOAD REQUIREMENTS: The beam or structure on which the Precast Concrete Beam HLL is installed must support the loads applied by the system during a fall arrest. The stanchion and tie-back attachment points may be subjected to horizontal and vertical forces, and torsional loads. The structure on which the horizontal lifeline components are installed must be sufficiently secured to provide the load capacities specified in Figure 6. Cumulative loading must be evaluated when more than one system is installed on a structure.



3.0 INSTALLATION AND USE

WARNING: Do not alter or intentionally misuse this equipment. Consult DBI/SALA when using this equipment in combination with components or subsystems other than those described in this manual. Some subsystem and component combinations may interfere with the operation of this equipment. Use caution when using this equipment around moving machinery, electrical hazards, chemical hazards, and sharp edges.

WARNING: Consult your doctor if there is reason to doubt your fitness to safely absorb the shock from a fall arrest. Age and fitness seriously affect a worker's ability to withstand falls. Pregnant women and minors must not use this system.

3.1 BEFORE EACH USE inspect this equipment according to section 5.0. Do not use this equipment if the inspection reveals an unsafe or defective condition. Plan the use of your fall protection system prior to exposing workers to dangerous situations. Review all factors affecting your safety before using this system.

- A. Read and understand all manufacturer's instructions for each component of the personal fall arrest system. All DBI/SALA harnesses and connecting subsystems are supplied with separate user instructions. Keep all instructions for future reference.
- B. Review sections 1.0 and 2.0 to ensure the system limitations and other requirements have been met. Review applicable information regarding the system clearance criteria, and ensure changes have not been made to the system installation (such as lanyard length or span distances), or occurred at the job site, that could affect the system performance. Do not use the system if changes are required.

3.2 SYSTEM INSTALLATION: Figure 1 shows a typical single span Precast Concrete Beam Anchor HLL system installation. Figure 2 shows a typical multiple span system installation. The horizontal lifeline system must be installed and used as specified below.

A. **SYSTEM LOCATION:** Install the Precast Concrete Beam HLL system on the working surface level. The stanchions must be located at a height that will limit the free fall distance to six feet. The length of the energy absorbing lanyard should be limited to reduce the potential free fall distance. Stanchions must be installed at approximately the same elevation. Limit the lifeline slope to five degrees or less.

B. **SYSTEM DIRECTION:** The horizontal lifeline must be installed straight and horizontal, without turns or bends.

C. **REBAR/SHEAR STUD SPACING AND DIAMETER:** The Precast Concrete Beam stanchions may be installed onto concrete beams with rebar spacing of 2-1/2 inches to 12 inches, with a diameter of 3/8 inches to 3/4 inches. The system may be attached onto 3/4 inch diameter shear studs with spacing of 2-1/2 inches to 12 inches. The clamps may be rotated 180 degrees to achieve the required spacing. See Figure 7.

D. **EVALUATION OF STRUCTURE STRENGTH AND HORIZONTAL LIFELINE SPANS:** The location of the stanchions and tie-backs must be determined and the strengths of the beams must be evaluated according to section 2.0. The maximum span distance is sixty feet. For multiple span systems, the spans need not be of equal length, however, each span must be evaluated separately in determining the clearance requirements.

E. **EVALUATION OF HORIZONTAL LIFELINE SPANS FOR CLEARANCE:** The elevation and length of the system span(s) must be determined. This information is used to evaluate the horizontal lifeline system clearance. Do not begin installation until the clearance requirements are met. See Figure 8 for clearance requirements.

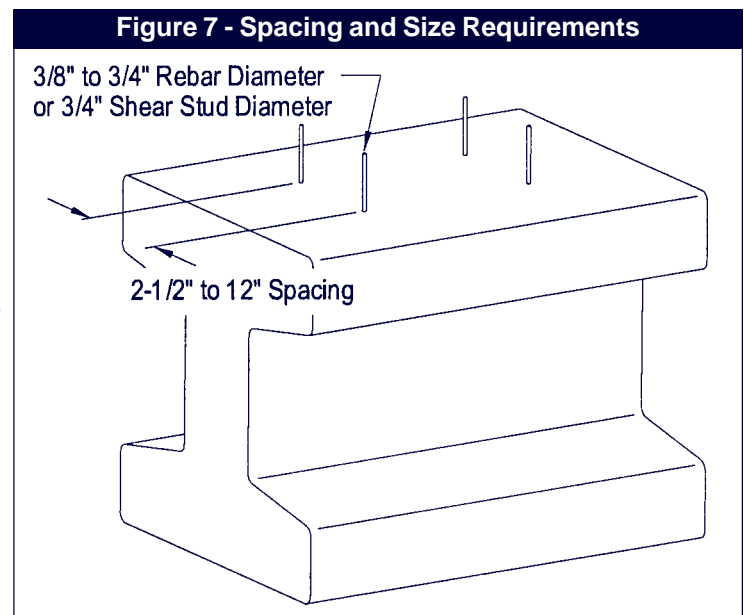
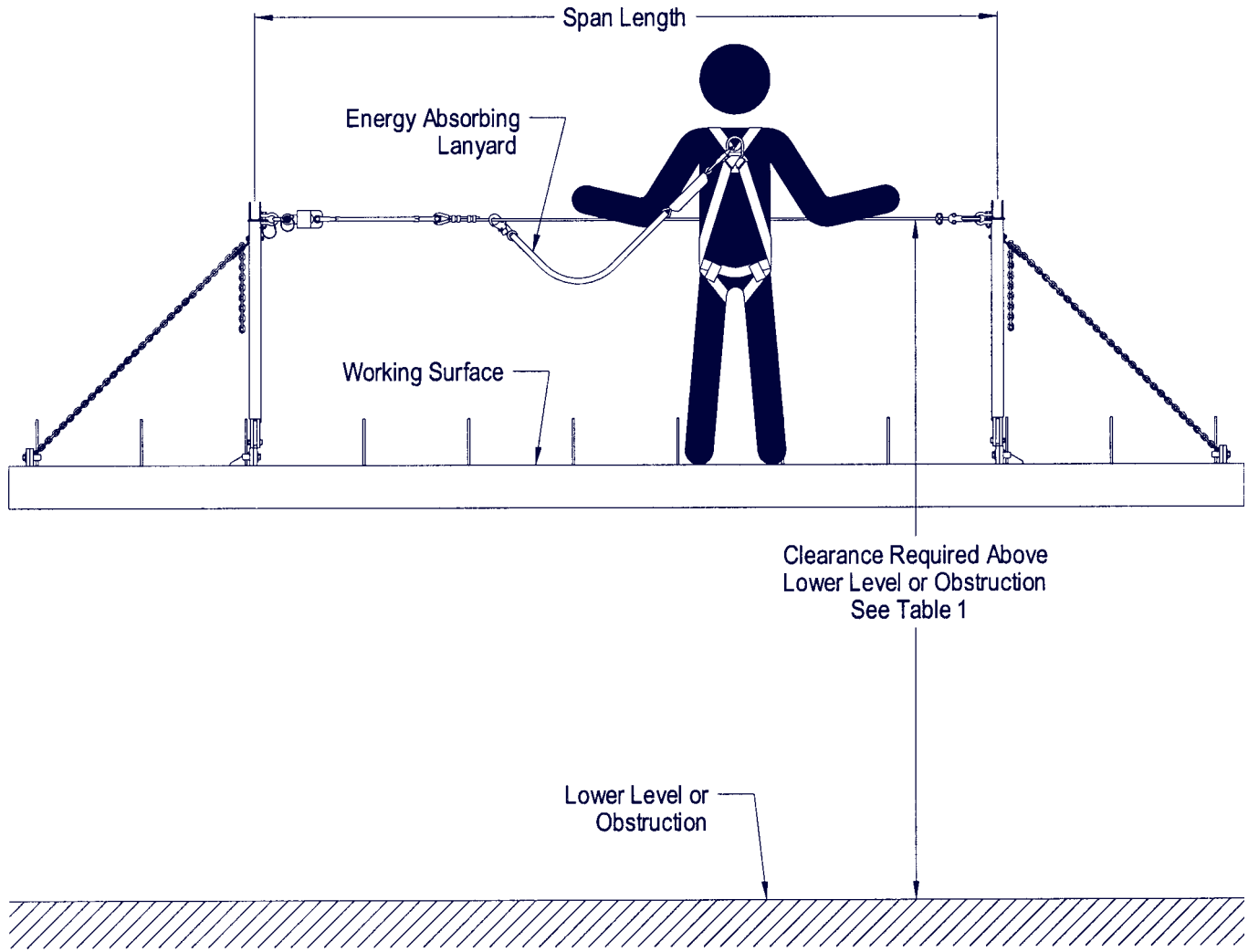


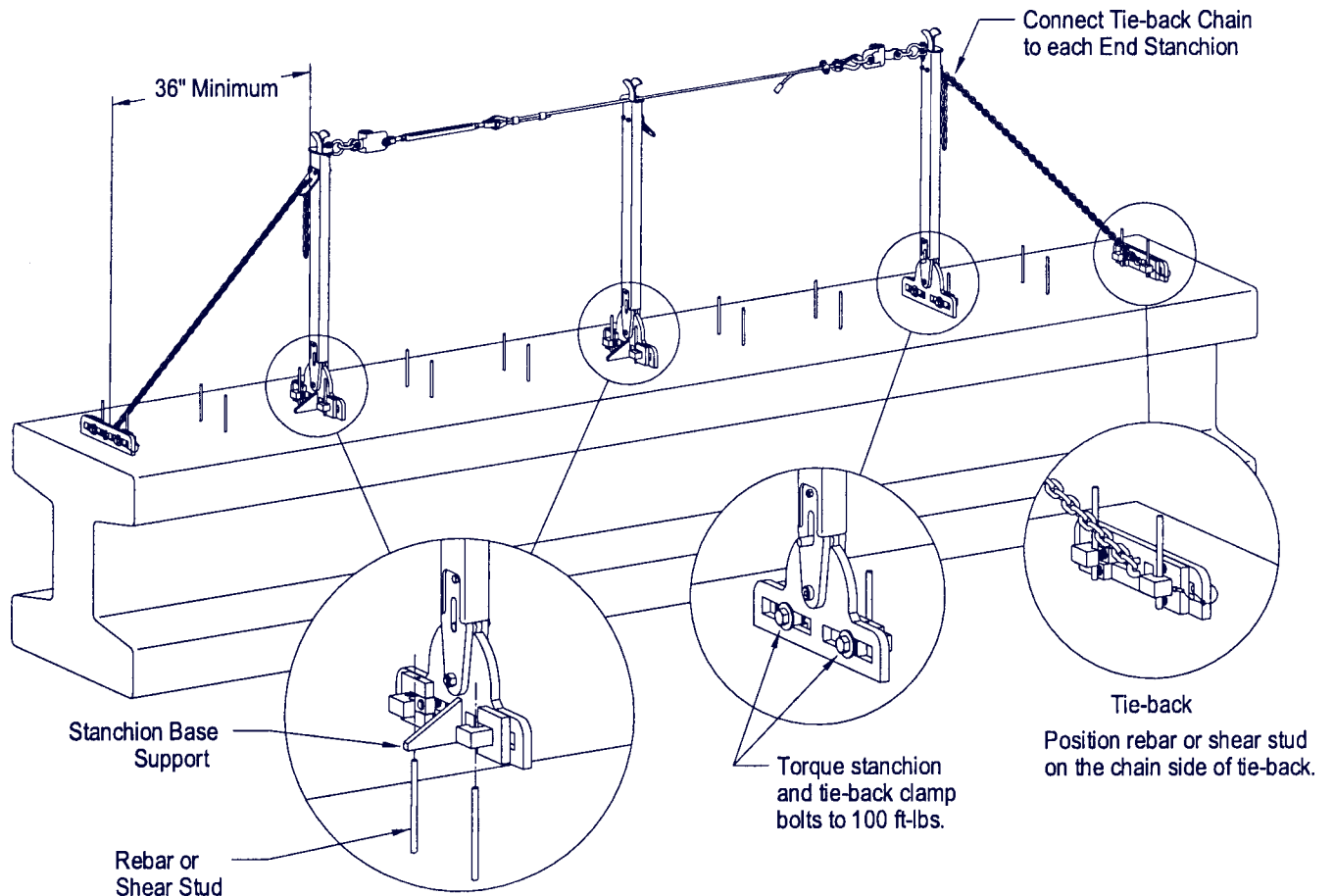
Figure 8 - Clearance Requirements



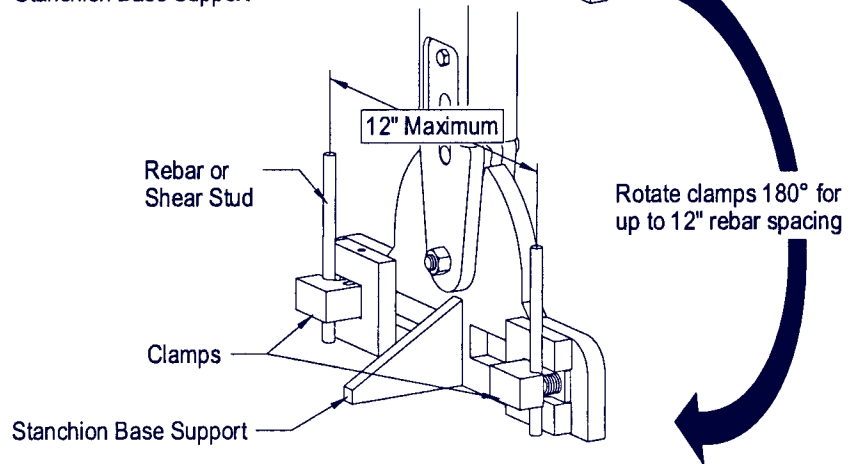
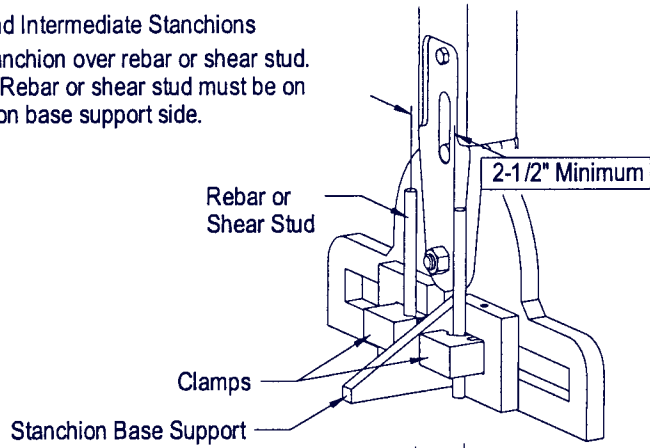
**Table 1
Clearance Required Above Lower Level or Obstruction When Using an Energy Absorbing Lanyard,
for One or Two Persons**

Span Length (in feet)	Length of Energy Absorbing Lanyard (in feet)			
	3	4	5	6
0 - 10	14'- 11"	15'- 11"	16'- 11"	17'- 11"
10 - 15	15'- 7"	16'- 7"	17'- 7"	18'- 7"
15 - 20	16'- 2"	17'- 2"	18'- 2"	19'- 2"
20 - 25	16'- 11"	17'- 11"	18'- 11"	19'- 11"
25 - 30	17'- 6"	18'- 6"	19'- 6"	20'- 6"
30 - 35	18'- 2"	19'- 2"	20'- 2"	21'- 2"
35 - 40	18'- 10"	19'- 10"	20'- 10"	21'- 10"
40 - 45	19'- 6"	20'- 6"	21'- 6"	22'- 6"
45 - 50	20'- 1"	21'- 1"	22'- 1"	23'- 1"
50 - 55	20'- 10"	21'- 10"	22'- 10"	23'- 10"
55 - 60	21'- 5"	22'- 5"	23'- 5"	24'- 5"

Figure 9 - Installation



End and Intermediate Stanchions
Position stanchion over rebar or shear stud.
Important: Rebar or shear stud must be on the stanchion base support side.

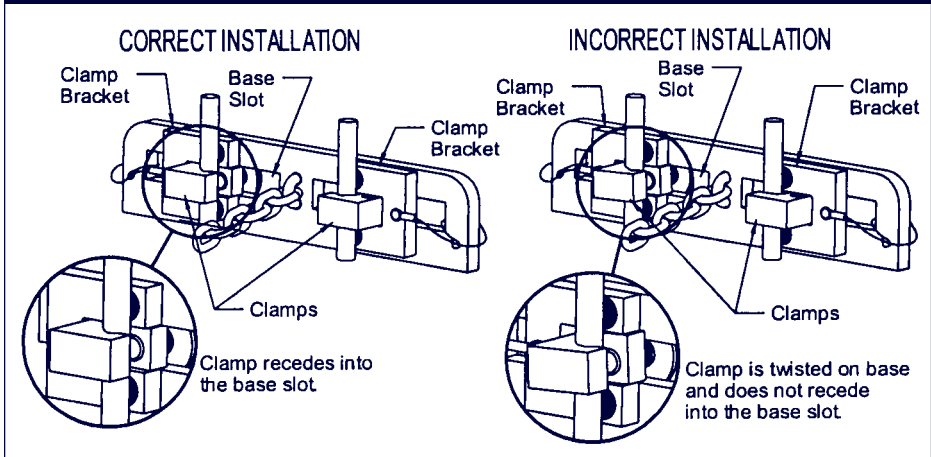


F. ATTACHING STANCHION AND TIE-BACK TO REBAR: See Figures 7 and 9. The rebar clamps may be rotated 180 degrees to achieve the required rebar spacing dimension. Lower the stanchion or tie-back over the rebar, with the stanchion base and the tie-back positioned against, and centered over the rebar as shown in Figure 9. Tighten the clamp bolts, ensuring the clamps securely grip the rebar. Position each tie-back at least 36 inches from the end stanchion. Tighten clamp bolts, ensuring bolts securely grip the rebar. Torque the stanchion and tie-back clamp bolts to 100 ft.-lbs. Connect the tie-back chain to each end stanchion.

WARNING: The tie-back chain must be securely connected to each end stanchion to support the loads imposed by the system. Do not use the system if the tie-back chain is not connected.

WARNING: When attaching the stanchion base and the tie-back base ensure that the rebar clamps are lined up so when the bolts are tightened the rebar clamps will recede into the slot in the base as illustrated in Figure 10 (correct installation). If the rebar clamps are not lined up correctly the clamp could break when torquing the bolts.

Figure 10 - Correct and Incorrect Installations



G. ATTACHING STANCHION AND TIE-BACK TO SHEAR STUD: The Shear Connector Stud Tie-back and stanchion is for use on beams using the shear connector studs of 3/4 inch diameter. The stud clamps may be rotated 180 degrees to achieve the required spacing dimension. Inspect the teeth on the grippers to ensure that they are in good condition before installation. The gripper teeth can be rotated 90 degrees by loosening the socket screw indicated in Figure 11. The grippers are only located on the clamp bracket of the tie-back piece. The grippers must be replaced if two (2) or more teeth are broken. Lower the tie-back or stanchion over the shear stud, positioned the tie-back against and centered over the shear stud making sure that the clamp grips the shear connector above the weld as shown in Figure 12. Do not clamp onto the weld. Tighten the clamp bolts, ensuring the clamps securely grip the shear connector stud. Position each tie-back at least 36 inches from the end stanchion. Tighten the clamp bolts, ensuring the bolts securely grip the shear connector studs. Torque the stanchion and tie-back clamp bolts to 100 ft.-lbs. Connect the tie-back chain to each end stanchion.

NOTE: Make sure that the clamp grips the shear connector stud above the weld. Do not clamp onto the weld (see Figure 12).

Figure 11 - Shear Connector Stud Tie-back

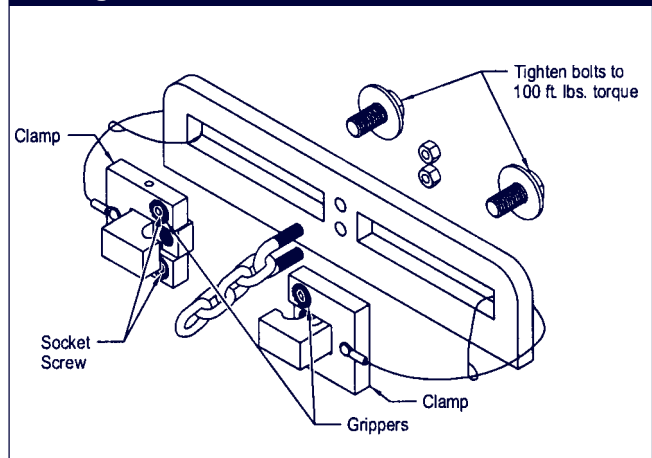
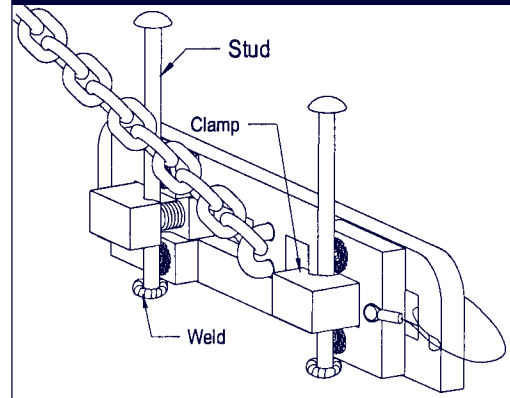


Figure 12 - Attaching the tie-back

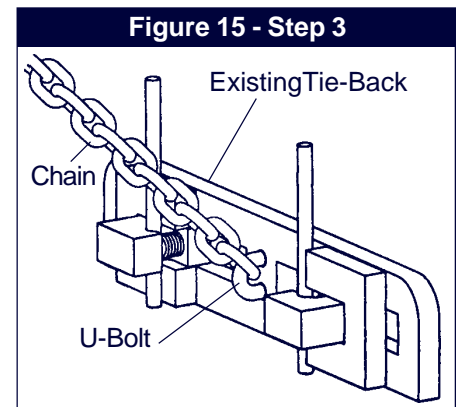
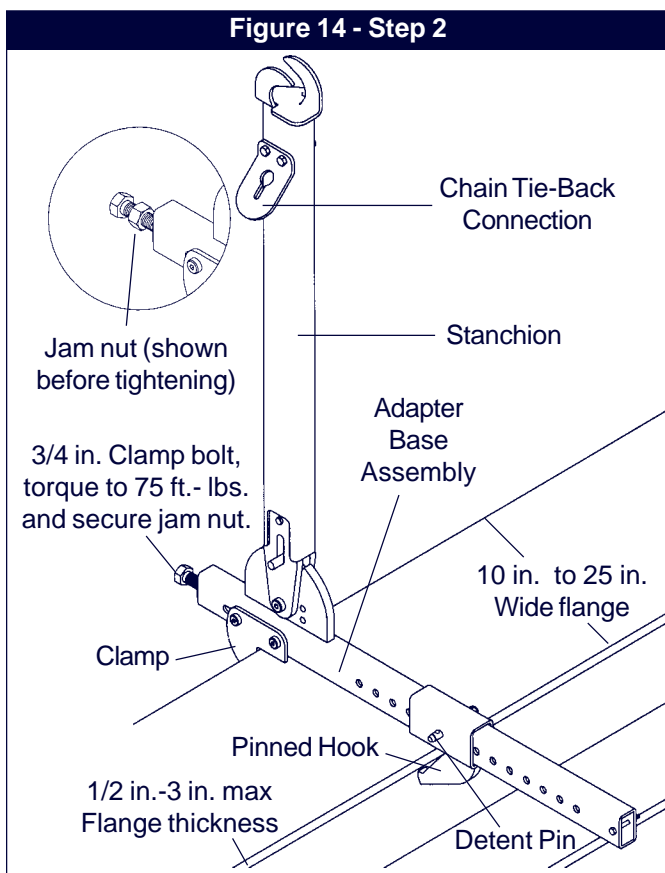
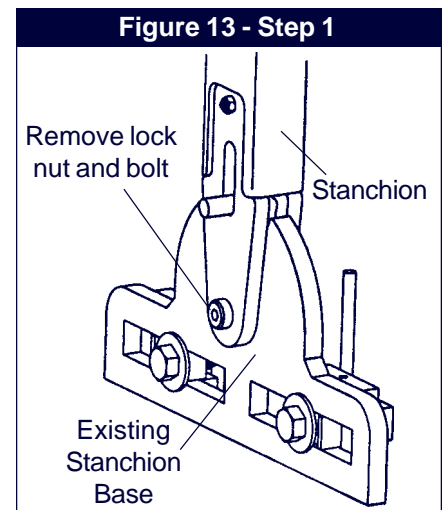


H. ATTACHING THE ADAPTER BASE ASSEMBLY: The Adapter Base Assembly will allow you to use your existing Concrete Beam Horizontal Lifeline System on an I beam flange (1/2 inch minimum to 3 inch maximum thickness and 10 inch to 25 inch wide) by replacing the existing stanchion base and the tie-back with the adapter base assembly. Follow these step to make the conversion.

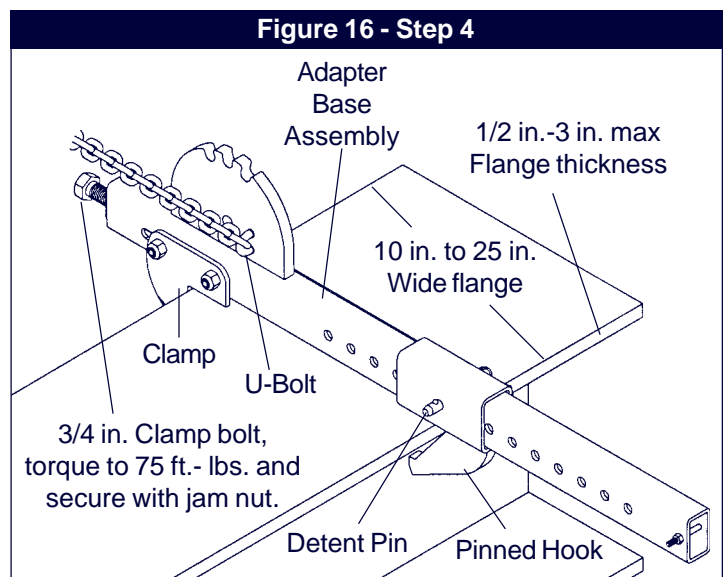
Step 1. Remove the lock nut and bolt on the existing stanchion base. See Figure 13. Remove the existing stanchion base and discard the lock nut.

Step 2. Place the stanchion on the adapter base assembly and install the bolt and new nut. Make note of which side the chain tie-back connection is installed for the end stanchion. Stanchions on the opposite ends of the system need to have the chain tie-back connections on the opposite side of the stanchion (as shown in Figure 9). Position each tie-back at least 36 inches from the end stanchion. Tighten the nut and bolt such that the stanchion will still pivot on the base. Loosen the 3/4 inch clamp bolt until the clamp can slide back freely. Place the stanchion and the adapter base assembly on the I-Beam and slide the pinned hook until it is tight with the beam, then slide the hook back until the detent pin can be inserted into the hole. Once the hook is in position tighten the 3/4 inch clamp bolt, torque to 75 ft.- lbs. and secure it with the jam nut. See Figure 14.

Step 3. Remove the chain, lock nuts and the U-bolt on the existing tie-back. See Figure 15.



Step 4. Place the U-bolt through the last link in the chain and insert the U-bolt into the two holes that line up vertically on the adapter base. Tighten the new nuts to secure the U-bolt. Place the adapter base assembly on the I-Beam and slide the pinned hook until it is tight with the beam, then slide the pinned hook back until the detent pin can be inserted into the hole. Attach the chain to the stanchion tie-back connection. Slide the adapter base with the chain back until the chain is tight. A minimum of 36 inches must be maintained between the tie-back base and the first stanchion. Tighten the 3/4 inch clamp bolt to 75 ft.- lbs., torque and secure it with the jam nut. See Figure 16.

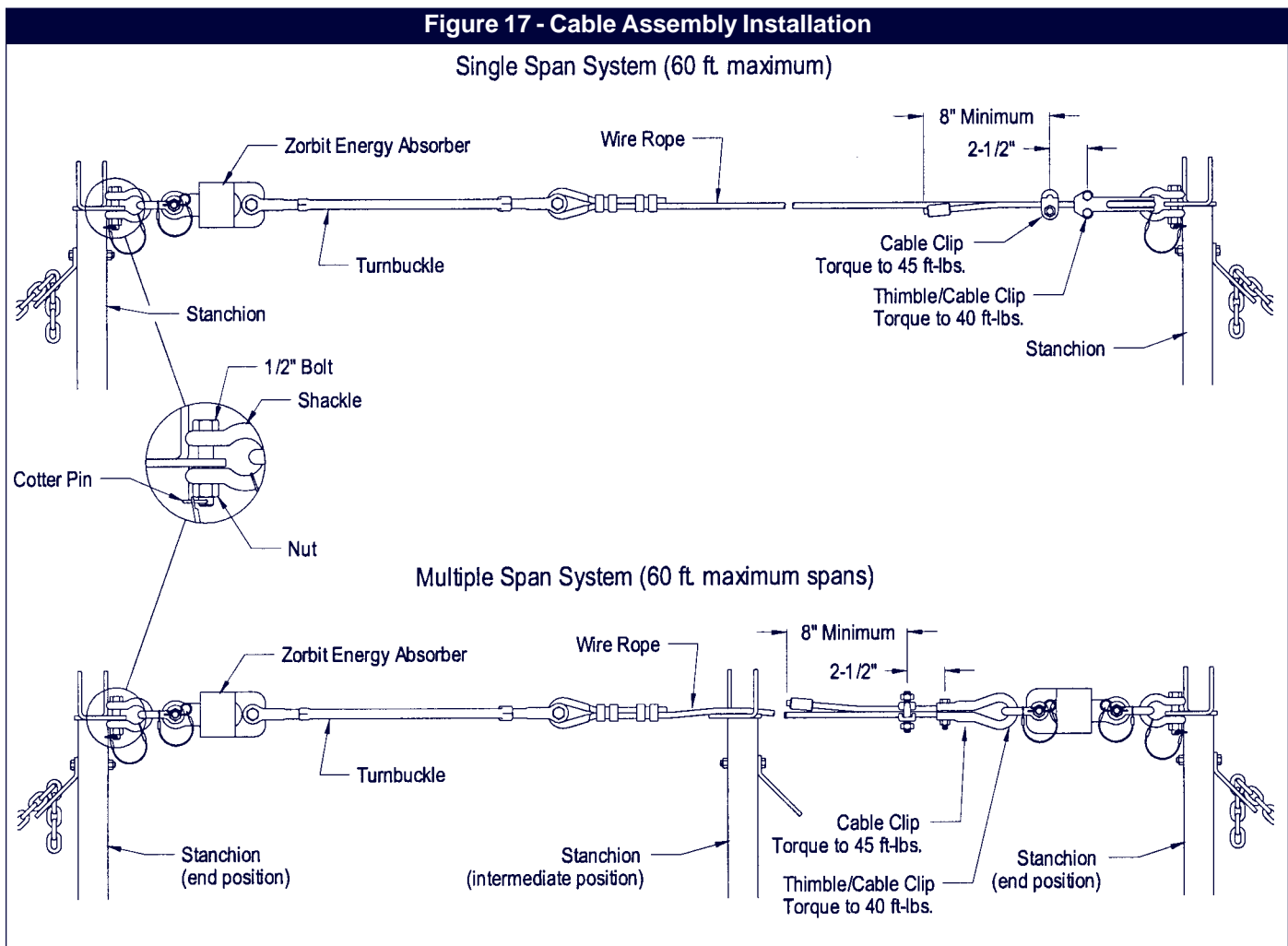


I. CABLE ASSEMBLY INSTALLATION: See Figure 17 for component identification. Multiple span systems must include a Zorbit energy absorber at each end.

Step 1. Connect the shackle on the energy absorber end of the cable assembly to the inside hole of the stanchion using the 1/2 inch bolt and nut included with the shackle. Insert the shackle cotter pin into the hole in the 1/2 inch shackle bolt.

Step 2. Extend the turnbuckle so that 1/2 inch of the threads remain exposed in the turnbuckle body slots. Connect the shackle on the thimble end (or the second Zorbit energy absorber on the multiple span systems) of the cable assembly to the inside hole of the opposite stanchion using the 1/2 inch bolt and nut included with the shackle. Insert the shackle cotter pin into the hole in the 1/2 inch shackle bolt. Loosen the cable clip and the thimble clip at the end of the cable assembly and pull the wire rope tight to remove the slack. Secure the cable clip as shown in Figure 17. At least eight inches of the cable must extend out from the free cable clip. Torque the cable clip and the thimble clip to values specified in Figure 17.

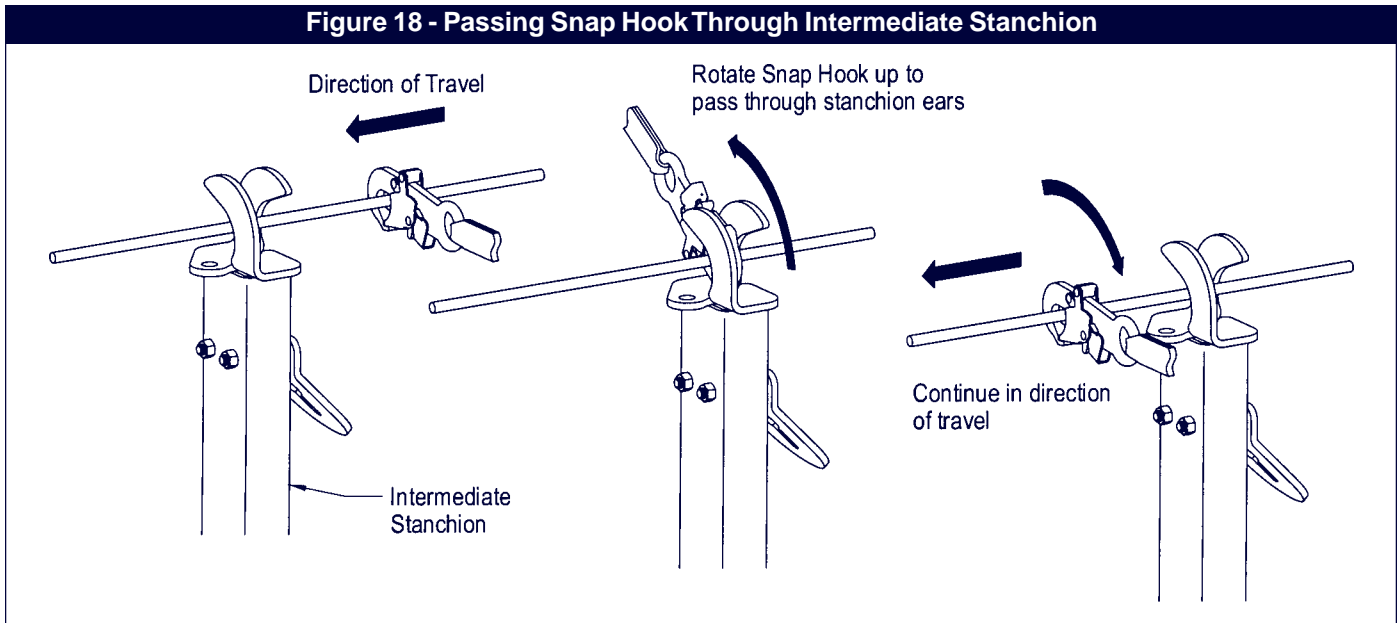
Step 3. To pre-load the system, tighten the wire rope by rotating the turnbuckle body. The unrestrained jaw of the turnbuckle must be prevented from turning to prevent twisting of the wire rope. Tension the wire rope until the sag on the system at mid-span is six inches or less, with no weight on the wire rope. The turnbuckle will not over-tension the wire rope.



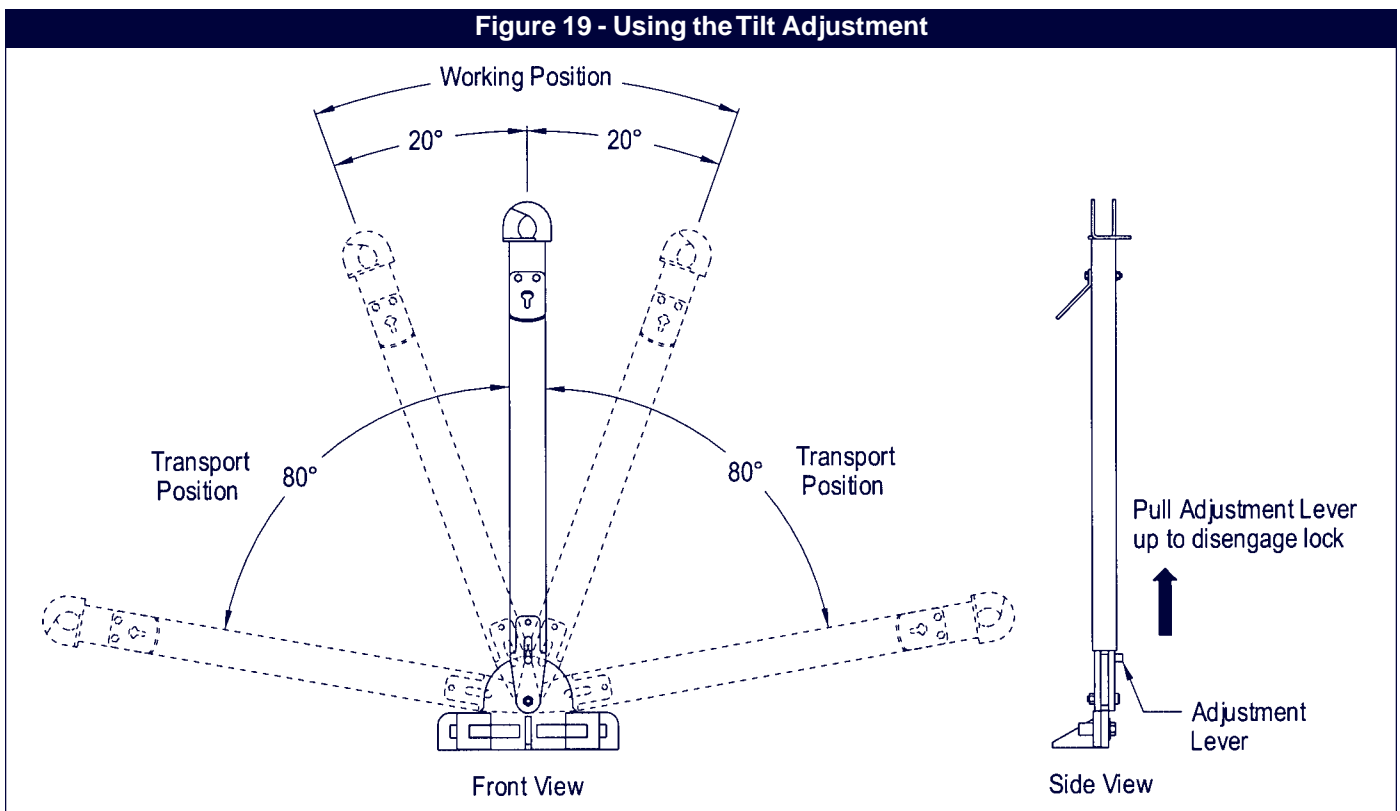
3.3 USE:

A. PERSONAL FALL ARREST SYSTEM COMPONENTS: Inspect and don the full body harness according to manufacturer's instructions. Attach the connecting subsystem (energy absorbing lanyard) to the dorsal connection on the harness.

- B. CONNECTING TO THE HLL SYSTEM:** Approach the work area using the appropriate access equipment. Connect the personal fall arrest system to the horizontal lifeline. Connectors must meet all compatibility and strength requirements.
- C. USING THE SYSTEM:** The user must remain connected to the system at all times. To use the horizontal lifeline system, walk normally allowing the connector to slide along the wire rope. If an intermediate stanchion is included with your system refer to Figure 18 for passing the snap hook through the intermediate stanchion.



- D. USING THE TILT ADJUSTMENT:** See Figure 19. The Precast Concrete Beam system includes a tilt adjustment feature to allow the users to work on either side of the beam, or to lay flat for transportation. To tilt the stanchion, pull the tilt adjustment lever up to disengage the lock from the stanchion base. It may be necessary to loosen the cable tension before tilting the stanchion. To tilt the stanchion to the transport position disconnect the tie-back chains. Tilt the stanchion to the desired position. Re-tension the cable and



reconnect the tie-back chain (if necessary) when the stanchions are in a working position. All stanchions must be tilted to the same position. The system may be used for fall protection when in the vertical and 20 degree tilt positions. Do not use the system when tilted in the 80 degree position.

- E. HAZARDOUS SITUATIONS:** Do not take unnecessary risks, such as jumping or reaching too far from the edge of the working surface. Do not allow your energy absorbing lanyard to pass under the arms or between the feet. To avoid inadequate clearance do not climb above the horizontal lifeline. To avoid swing fall hazards do not work too far from either side of the system.
- F. TWO PERSONS CONNECTED WITHIN A SINGLE SPAN:** When a person falls while connected to the horizontal lifeline, the wire rope will deflect within the span to which the worker is connected. If two persons are connected to the system within the same span, and one person falls, the second person may be pulled off the working surface due to the deflection of the HLL. The potential for the second person falling increases as the horizontal lifeline span length increases.
- G. FREE FALL:** The personal fall arrest system must be rigged to limit free falls to six feet or less, according to OSHA requirements.
- H. SHARP EDGES:** Avoid working where the energy absorbing lanyard or other system components will be in contact with, or abrade against, unprotected sharp edges. If working around sharp edges is unavoidable, a protective cover must be used to prevent cutting of the PFAS components.
- I. IN THE EVENT OF A FALL:** The responsible party must have a rescue plan and the ability to implement a rescue. Tolerable suspension time in a full body harness is limited, so a prompt rescue is critical.

IMPORTANT: Use care when handling an expended Zorbit energy absorber. The tearing of the energy absorber material produces extremely sharp edges.

- J. RESCUE:** With the number of potential scenarios for a worker requiring rescue, an on site rescue team is advantageous. The rescue team is given the tools, both in equipment and techniques, so it can perform a successful rescue. Training should be provided on a periodic basis to ensure the rescuers' proficiency.

3.4 SYSTEM REMOVAL: When no longer required, the system should be removed from the job site. To slacken the wire rope, loosen the turnbuckle until the tension is removed from the wire rope. Remove the system from the anchorages. Ensure there are no knots or kinks in the wire rope before storage.

To remove the adapter base assembly, loosen the jam nut and back off the 3/4 inch bolt until the detent pin on the hook is loose. Remove the detent pin and slide the hook off of the beam flange.

4.0 TRAINING

4.1 It is the responsibility of all users of this equipment to understand these instructions, and to be trained in the correct installation, use, and maintenance of this equipment. These individuals must be aware of the consequences of improper installation or use of this equipment. This user manual is not a substitute for a comprehensive training program. Training must be provided on a periodic basis to ensure proficiency of the users.

5.0 INSPECTION

5.1 FREQUENCY:

- **Before Each Use:** An inspection of the system by a qualified person must be completed after the system is installed and prior to each day's use. Inspect according to the steps listed in section 5.2.
- **Annually:** System components must be formally inspected by a qualified person, other than the user, at least annually. Extreme working conditions may require increasing inspection frequency. Inspect according to the steps listed in section 5.2. Record inspection results in the inspection and maintenance log in section 9.0.

5.2 INSPECTION STEPS:

Step 1. Inspect the turnbuckle for damage. Ensure that sufficient threads are engaged into the turnbuckle body.

Look for any cracks or deformities in the metal. Inspect the metal components for rust or corrosion that may affect their strength or operation.

- Step 2.** Inspect the wire rope for rust, corrosion, broken wires, or other obvious faults. Inspect the wire rope for proper tension. Inspect all hardware (fasteners, shackles, wire rope cable clips, etc.) securing the horizontal lifeline assembly to ensure that they are present and properly installed.
- Step 3.** Inspect the Zorbit energy absorber for extension or deformities. There should be no tearing of the metal between the holes in the Zorbit coiled section. Extended Zorbit energy absorbers must be removed from service and destroyed, or marked for training only. Inspect the securing hardware for strength and function.
- Step 4.** Inspect the teeth on the grippers to ensure that they are in good condition before installation. The gripper teeth can be rotated 90 degrees by loosening the socket screw indicated in Figure 11. The grippers are only located on the clamp bracket of the tie-back piece. The grippers must be replaced if two (2) or more teeth are broken.
- Step 5.** Inspect all labels. The labels must be present and fully legible. See section 8.0. Replace any labels that may be missing or illegible.

IMPORTANT: *If this equipment is subjected to the forces of a fall arrest, it must be removed from service and destroyed, or returned to DBI/SALA for inspection or repair.*

- 5.3** If the inspection reveals an unsafe or defective condition, remove the unit from service and destroy, or contact DBI/SALA for possible repair.
- 5.4 USER EQUIPMENT:** Inspect the harnesses and energy absorbing lanyards used with the HLL system according to manufacturer's instructions.

6.0 MAINTENANCE, SERVICING, STORAGE

- 6.1** The Concrete Beam Anchor components require no scheduled maintenance, other than repair or replacement of items found defective during an inspection. See section 5.0. If components become heavily soiled with grease, paint, or other substances, clean them with appropriate cleaning solutions. Do not use caustic chemicals that could damage the system components.
- 6.2 USER EQUIPMENT:** Maintain, service, and store user equipment according to manufacturer's instructions.

7.0 SPECIFICATIONS

7.1 COMPONENTS:

A. MATERIALS:

STANCHION: Zinc plated steel.

ENERGY ABSORBER (Zorbit): Stainless steel.

WIRE ROPE: 3/8 inch diameter, 7x19 galvanized wire rope. Maximum tensile strength 14,400 lbs.

CABLE ASSEMBLY COMPONENTS: Turnbuckle, thimbles, and cable clips are galvanized steel.

B. STANCHION WEIGHT: 38.5 lbs.

7.2 ENERGY ABSORBER PERFORMANCE:

Peak Dynamic Pullout Load: 2,500 lbs.
 Average Dynamic Pullout Load: 2,000 lbs.
 Maximum Pullout: 48.5 inches
 Minimum Tensile Strength: 5,000 lbs.
 Patents Pending

8.0 LABELING

8.1 These labels must be present and fully legible:

STANCHION LABEL

ZORBIT ENERGY ABSORBER LABEL

STANCHION & TIE-BACK LABEL

9.0 INSPECTION AND MAINTENANCE LOG

DATE OF MANUFACTURE: _____

MODEL NUMBER: _____

DATE PURCHASED: _____

INSPECTION DATE	INSPECTION ITEMS NOTED	CORRECTIVE ACTION	MAINTENANCE PERFORMED
Approved By:			
Approved By:			
Approved By:			
Approved By:			
Approved By:			
Approved By:			
Approved By:			
Approved By:			
Approved By:			
Approved By:			
Approved By:			
Approved By:			



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