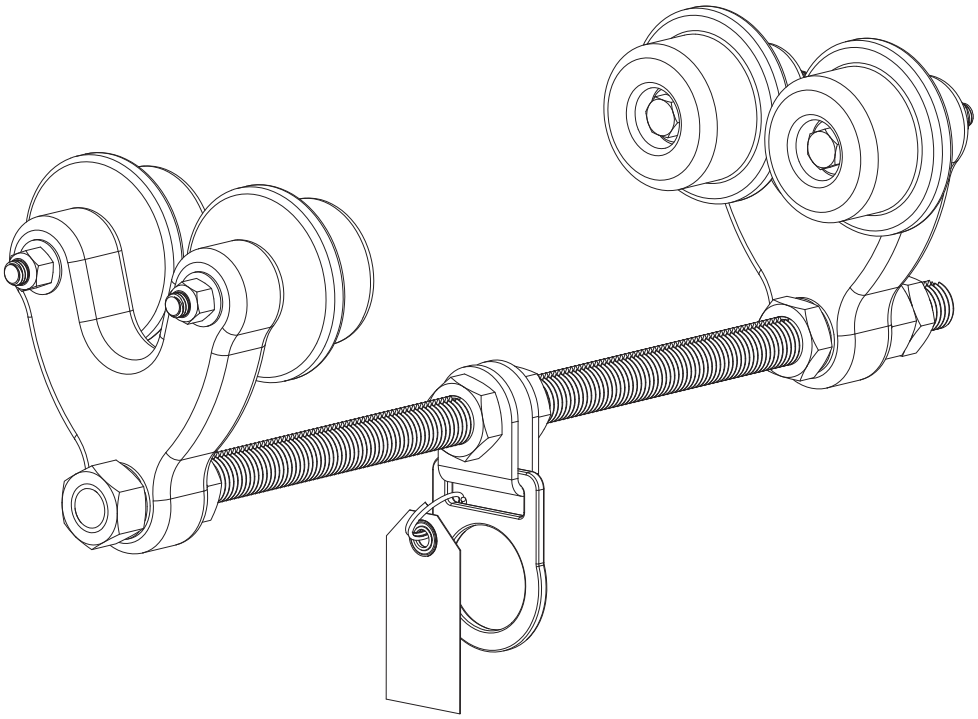
FALL SAFE™

USER INSTRUCTIONS FOR
BEAM TROLLEY

Model # 4850 & 4851



SureWerx®

FALL SAFE™
Ph. 1-800-323-7402

Canada labels
SureWerx, 49 Schooner St.
Coquitlam, BC V3K 0B3

USA labels
SureWerx USA Inc.
Elgin, IL USA 60123

Table of Contents

IMPORTANT INSTRUCTIONS! 03
IMPORTANT OSHA REGULATIONS COVERING THE USE OF PERSONAL FALL ARREST ANCHORAGES 04
PRODUCT DESCRIPTION 05
ANCHORAGE POINT CONSIDERATIONS 05
PRODUCT SPECIFICATIONS 06
FREEWHEELER™ TROLLEY COMPONENTS 07
FIGURE 1 TROLLEY COMPONENTS 07
Detail A 08
Detail B 08
Detail C 08
Detail D 08
FIGURE 2 KEYWAY DETAIL; TROLLEY COMPONENTS, CONTINUED 08
PERSONAL FALL ARREST EQUIPMENT FOR USE WITH THE FREEWHEELER™ BEAM TROLLEY 09
INSTALLATION OF THE FREEWHEELER™ BEAM TROLLEY 09
FIGURE 3 IDENTIFICATION OF THE "FLOATING" SIDE OF THE TROLLEY 10
TRAINING 11
PLANNING FOR RESCUE 11
INSPECTION 12
SERVICING 12
MAINTENANCE AND STORAGE 12
WARNINGS AND LIMITATIONS 13
INSPECTION LOG FOR 4850 & 4851 FREEWHEELER™ TROLLEY 14
WARRANTY 15

IMPORTANT INSTRUCTIONS

These instructions must be kept on file and available for the users reference at **all** times. The users must read and fully 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, the user must be trained in the proper use of this equipment and the process or system in which it is used.

A review of the instructions and re-training should be repeated at regular intervals or whenever the review shows that additional instruction or training is needed.

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 or any other Personal Fall Protection Equipment.

Any questions regarding these instructions should be directed to:

Manufacturer's Name and Address

Fall Safe™
Canada labels
SureWerx, 49 Schooner St.
Coquitlam, BC V3K 0B3

USA labels
SureWerx USA Inc.
Elgin, IL USA 60123

IMPORTANT OSHA REGULATIONS COVERING THE USE OF PERSONAL FALL ARREST ANCHORAGES

OSHA 1926.502 (d)(15):

Anchorages 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.

PRODUCT DESCRIPTION

The Fall Safe Freewheeler™ Beam Trolley is designed to be used in applications where an overhead I-Beam is present and fall arrest is needed. The Beam Trolley attaches to an overhead I-beam, and a personal fall arrest system consisting of either a self-retracting lifeline, shock-absorbing lanyard, or vertical lifeline is then attached to the D-ring of the Trolley. The Freewheeler™ Trolley can be used with live steam (so long as the temperatures do not affect any other component of the personal fall arrest system connected to the trolley) in food handling applications (Model 4850) or highly corrosive environment applications (Model 4851).

This trolley has been designed and tested to be used for personal fall arrest use only. It is not intended for other applications. It is not intended to be used for suspending equipment. The D-ring is designed for single snaphook or carabiner connection. Do not attach multiple personal fall arrest devices to the Freewheeler™ Trolley.

ANCHORAGE POINT CONSIDERATIONS

The strength of the structure to which the Trolley is attached must be at least 3,600-lb. with certification, or 5,000-lb. in the absence of certification for each Trolley. These minimum load capacities must be multiplied by the number of Trolleys that will be attached to any one steel anchorage member at a time. Only one person may be attached to this Trolley at any time. The anchorage beam strength must be certified by a qualified person and must be verifiable by either calculation or testing. Anchorage locations must be selected carefully. Considerations must be made of the potential for swing falls. If in question, consult Fall Safe staff for proper design requirements.

PRODUCT SPECIFICATIONS

Model type:	Freewheeler™ I-Beam Trolley
Part number:	Model # 4850 & 4851
MBS:	5,000-lb. (Single person, personal fall arrest anchorage)
Rated capacity:	310-lb. (Single person, including clothing and tools)
Meets:	OSHA Subpart I & M, ANSI Z359
Range of beam sizes:	I-beam flange width range 4.00-in. Minimum to 16.5-in. Maximum with beam flange thickness from to 0.5-in. to 1.75-in. (Other sizes may be used if certified by manufacturer.)

Materials:	Model #4580
Trolley side plates:	Aluminum, powder coated
D-Ring:	304 Stainless Steel
D-Ring Yoke:	304 Stainless Steel
Threaded Rod:	18-8 Stainless Steel
Hardware:	18-8 Stainless Steel
Wheels:	UHMW with 304 Stainless Steel bearings

Materials:	Model #4581
Trolley side plates:	304 Stainless Steel
D-Ring:	304 Stainless Steel
D-Ring Yoke:	304 Stainless Steel
Threaded Rod:	18-8 Stainless Steel
Hardware:	18-8 Stainless Steel
Wheels:	UHMW with 304 Stainless Steel bearings

Caution: **Always certify, using a qualified person, that the beam to which the Beam Trolley is being attached will carry the intended loads per OSHA and ANSI standards. The anchorage must be capable of sustaining a load of 5,000 lbs.**

FREEWHEELER™ TROLLEY COMPONENTS

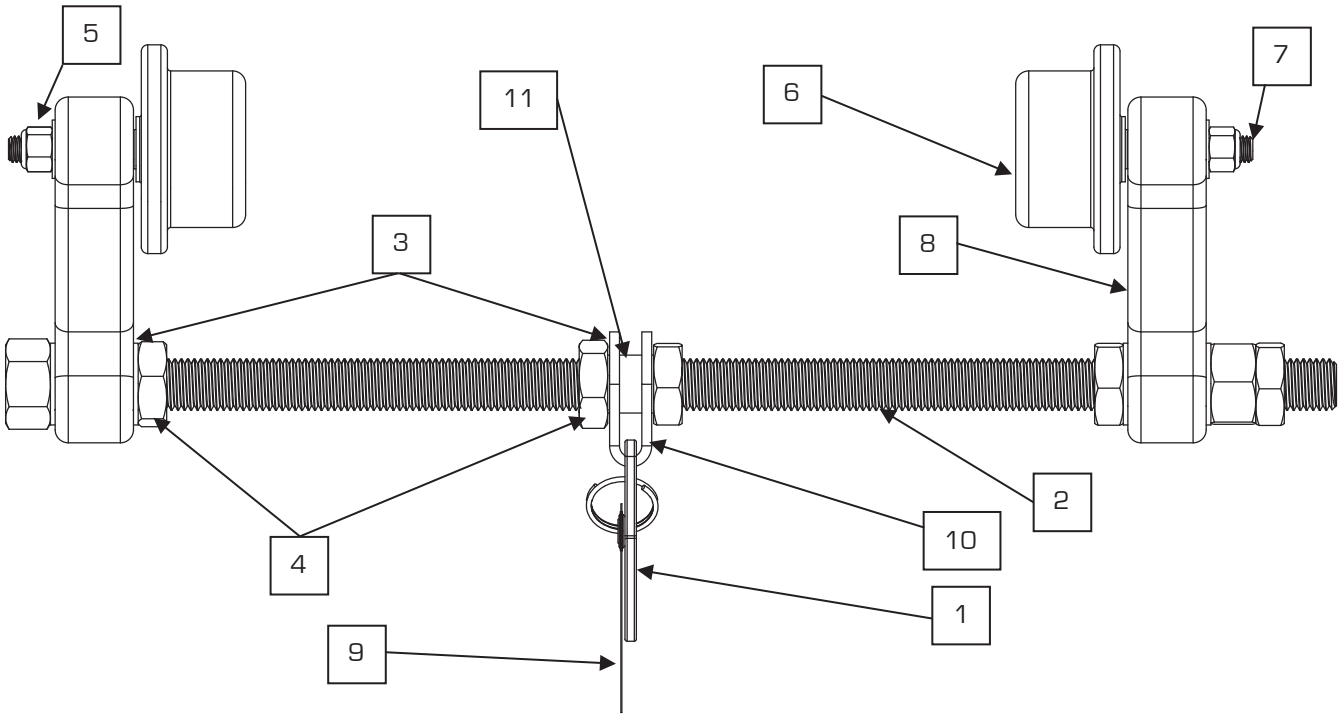
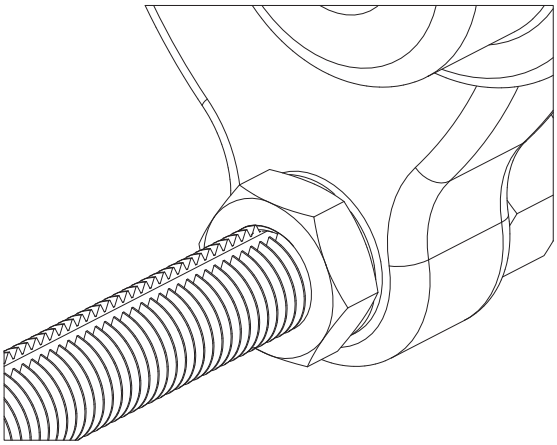


Figure 1 Trolley Components

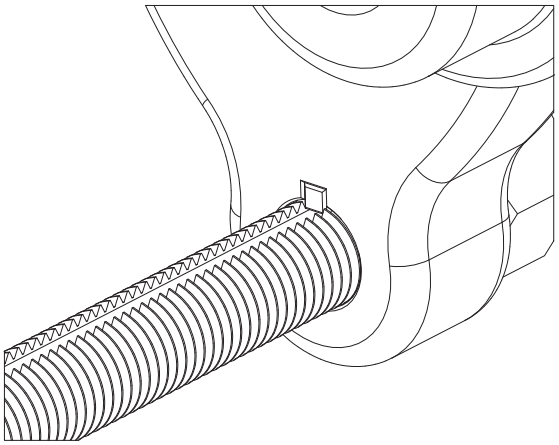
The I-Beam Trolley consists of the following standard approved and compatible components (see Figure 1) (Further details are shown in Figure 2 on the next page):

PART #	DESCRIPTION	QTY
1	D-RING	1
2	THREADED ROD W/WELDED NUT	1
3	FLAT WASHER	6
4	JAM NUT	5
5	NYLOCK NUT	4
6	TROLLEY WHEEL	4
7	TROLLEY WHEEL BOLT	4
8	TROLLEY BODY	2
9	LABEL	1
10	D-RING HANGER	1
11	SPACER	1

WARNING: The Fall Safe Freewheeler™ Trolley is designed for use with the approved, above listed components only. Substitutions or replacements with non-approved components will endanger the system integrity and may affect the safety and reliability of the total system.

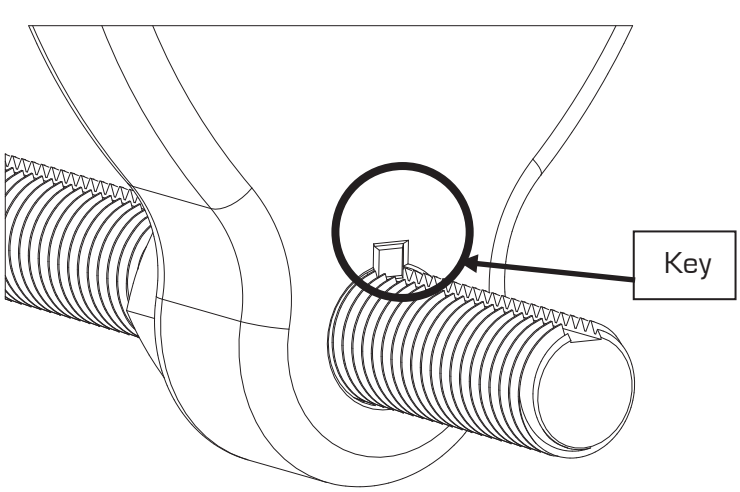


Detail A



Detail B

The Freewheeler™ Trolley has a keyway channel cut into the top of the Threaded Rod (see “A” above). If the jam nut is loosened and slid out of the way, the keyway channel in the Trolley Body also becomes visible (see “B” above,or “C” and “D” below). Pressed into the keyway is a key (circled in “C” below). This key is present in both Trolley Bodies. It prevents the two Trolley Bodies from twisting relative to one another. This key **MUST NOT** be removed.



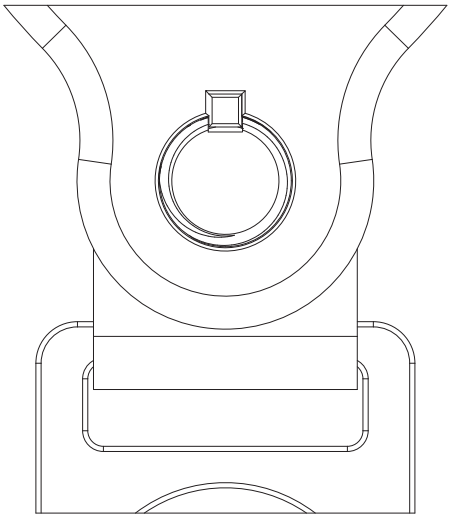


Figure 2 Keyway Detail; Trolley Components, continued

PERSONAL FALL ARREST EQUIPMENT FOR USE WITH THE FREEWHEELER™ BEAM TROLLEY

It is of utmost importance in the design of personal fall arrest systems to understand the nature and type of work being performed in an area prior to the installation of fall protection equipment. Anchorages should be located such that they are directly overhead (or as much so as possible) to help reduce or eliminate the possibility of a swing fall. Separate anchorages must be provided for each individual worker in an area, and only one worker should be attached to an anchorage at any one time. If several workers are to be in an area at a given time, the anchorages should be placed so that the potential for entangling the vertical lifelines is minimal.

INSTALLATION OF THE FREEWHEELER™ BEAM TROLLEY

Installation of personal fall arrest anchorages should be done under the supervision of a Qualified Person trained in their design and use. Use only parts that have been qualified as compatible components by Fall Safe. Ensure that the minimum anchorage strength is at least 5000-lb or 3,600-lb. with certification. A qualified person must certify the anchorage locations and documentation kept on hand.

NOTE: Approved fall protection must be worn during Trolley installation at all times. Do not use the anchorage until the system has been completely installed, inspected, and approved for use by a Qualified Person.

WARNING: The Freewheeler™ Trolley must only be used if BOTH keys (see Figure 2, Detail C for location) are present in the Trolley Bodies. These keys prevent the Trolley Wheel Assemblies from rotating or twisting relative to another. If the Trolley sides were allowed to rotate, it may be possible for the Trolley to be dislodged from the flanges of the I-beam. Care must be taken when loosening the jam nuts and sliding the Trolley Bodies along the Threaded Shaft that these keys are not allowed to come out or are removed. Once installed, the jam nuts must be tightened to 40-ft.-lb. minimum.

1. Measure the flange of the beam to ensure that it measures between 4 and 16.5 in. in width. I-beams must not be damaged, deformed, spliced, or otherwise modified in ways that may affect the trolley tracking correctly, or that may affect the security of its' connection to the I-beam.
2. Loosen both the jam nut and the outer nut on the floating side of the Beam Trolley to fit over the flange (see Figure 3).
3. Spread the Trolley Bodies apart and rest the Trolley Wheels onto the flange of the I-beam.
CAUTION: As the Trolley Body is moved, care must be taken that the key does not slide free from the Body. By holding the two washers on either side of the body as it is moved will help keep the key captured in the Trolley Body. The key MUST NOT be removed.
4. Pull the Wheels located on the fixed side of the trolley so that the outer rub pad is resting against the edge of the flange.

5. Adjust the inner nut of the floating side of the trolley so that the outer rub pad of the wheel is approx. 1/16-in. but not more than 1/8-in. from the edge of the beam flange (see Figure 3).
6. Tighten the outer nut toward the other yoke while holding the inner nut with a wrench until the floating side Trolley Body is secured firmly. This should leave only approx. 1/16-in. of play between the wheels on each side of the flange when evenly spaced. Adjust jam nuts as necessary to achieve proper spacing between the wheel rub pad and I-beam flange.
7. Tighten the jam nut.
8. The D-ring must be evenly spaced between the wheels of the trolley. Loosen the jam nuts securing the D-ring Yoke and slide the Yoke, Spacer, and Washers to the center of the threaded shaft.
9. Adjust the Yoke so that it is on the Spacer, slide the Washers in on both sides of the Spacer, and then tighten the Jam Nuts. Once tightened verify that the Yoke and D-ring spin and rotate on the Spacer. If they do not move freely, then loosen and reset so that it floats freely, and re-tighten the Jam Nut. The space between the Trolley Body and the Yoke Jam nuts must be the same on both sides of the Yoke.
10. Ensure that all four wheels are in contact with the top surface of the flange. Adjust as necessary.
11. Install some form of stop for the trolley to prevent the possibility of the trolley running off the end of the beam. Metal tabs (welded or bolted) provided the most security. **Warning: The trolley MUST NOT be installed on open-ended or slanted beams.**
12. Retighten all nuts and jam nuts with a 1-1/2" wrench and torque to 40-ft lbs minimum. Verify that side plates are locked into place on the I-beam.

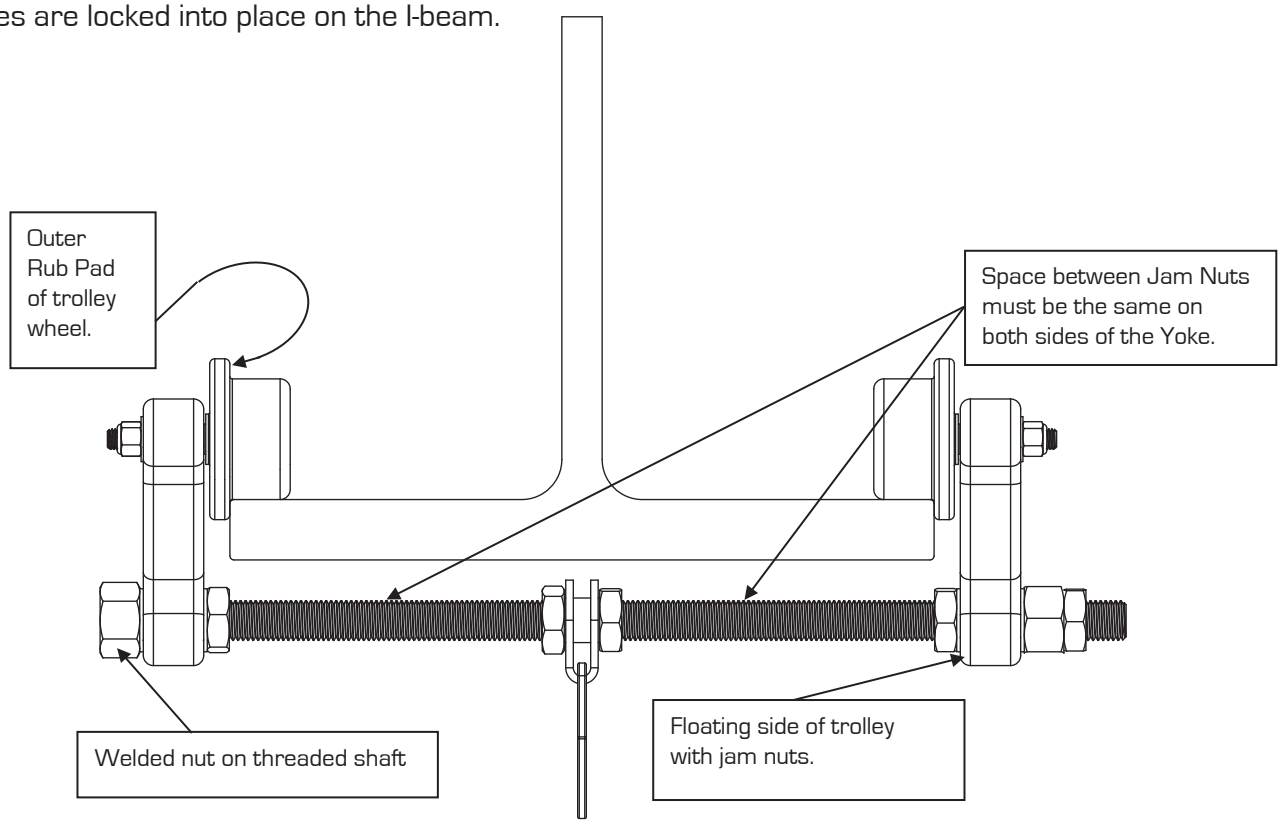


Figure 3 Identification of the "Floating" side of the Trolley

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 personal fall arrest systems.
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.

The equipment that will be used to aid in the rescue of any worker must be attached to structural anchorages independent of those used by the fallen worker. During installation of worker anchorages, rescue anchorages and equipment attachment hard points should be installed, and also clearly marked in such a manner as to provide a means to rescue a worker in any position in the work area.

INSPECTION

Prior to each use, the worker must inspect the system for any physical damage, wear, corrosion, or missing parts and proper installation. If the Freewheeler™ Trolley has seen a fall arrest load, it must be removed from service until it is inspected by a competent person who either replaces or repairs and re-certifies the components for use again. 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.

A Formal Inspection must be carried out by a competent person trained in the inspection and replacement of the system at least once a year.

Typical items to look for include:

1. Check that all wheels are in correct alignment with the flange. If they are not, adjust the trolley side plates so that they are in contact.
2. While rolling the trolley back and forth, ensure that the wheels are rolling smoothly. If they do not roll smoothly, they can be lubricated with a heavy spray lubricant.
3. Check the attaching yoke and d-ring for cracks, deformation or excessive wear.
4. Verify that the d-ring/yoke is evenly centered in between the two trolley sides. If it is not, adjust the jam nuts until it is positioned back into the center of the threaded rod.
5. Check the threaded rod to ensure it is straight.
6. Examine the yokes for any wear, cracks or deformation.

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 Fall Safe equipment replacement parts are approved for use in this system. Contact Fall Safe Engineering with questions and when in need of assistance.

MAINTENANCE AND STORAGE

Maintenance and storage of equipment shall be conducted by the user's organization in accordance with Fall Safe instructions. Equipment that is in need of, or scheduled for maintenance shall be tagged **"DO NOT USE"** and removed from service.

Hardware should be wiped clean with a rag to remove dirt and grease.

Store in a clean, dry area free from excessive heat, steam, sunlight, harmful fumes, and corrosive agents.

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 anchorage. Always use the shortest lanyard length possible to connect to the anchorage. Be aware of the movements of others in the work area at the same time to ensure that the vertical lifelines don not become entangled, knowing that if they do and a fall occurs, the sudden motion in the lifelines could pull others off balance.

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 Fall Safe supplied or qualified compatible components.

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

INSPECTION LOG FOR 4850 & 4851 FREEWHEELER™ TROLLEY

Company: _____ Location: _____ Date:_____

Job Site: _____ Anchor No.: _____ System No.: _____

Describe non-conforming conditions in the boxes below:

Inspection Criteria	Missing Parts	Labels Readable	Corrosion	Deformed Parts	Excessive Loading
D-ring present?					
Threaded rod not deformed?					
Keyway present in Threaded Rod?					
Keys present in Trolley Bodies, 1 in each Body?					
D-ring swings free?					
D-ring evenly centered?					
Structure unchanged and capable of taking full load as required?					
Wheels adjusted right for beam?					
Wheel nuts tight?					
Wheels spin freely?					
Threaded rod nuts tight?					
Wheels not deformed?					
Jam nuts tight?					
Side Plate Powder Coating free of cracks or bubbling, or effervescence corrosion					
D-Ring Corrosion					
Hardware Corrosion					
Label Pack					

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?

_____



WARRANTY: • Warranty policy is that of an implied manufacturer warranty and covers manufacturer's defects and workmanship. This warranty is valid for one year from date of purchase unless otherwise stated • Warranties are limited to the replacement of defective parts. Parts damaged from misuse will not be replaced under the warranty program. SureWerx USA shall be the sole judge of part condition • Warranty does not apply to: (i) cosmetic damage, such as scratches, nicks and dents; (ii) consumable parts, such as batteries, unless product damage has occurred due to a defect in materials or workmanship; (iii) damage caused by accident, abuse, misuse, water, flood, fire, or other acts of nature or external causes; (iv) anticipated wear or damage due to use of the product in the application for which it is marketed; (v) damage to a product that has been modified or altered without the written permission of SureWerx. • Warranty varies by brand and product category. Please contact customer service for specific warranty policies

FALL SAFE™
Ph. 1-800-323-7402

Canada labels
SureWerx, 49 Schooner St.
Coquitlam, BC V3K 0B3

USA labels
SureWerx USA Inc.
Elgin, IL USA 60123

SureWerx®