

**BAILEY®**

**FALL PROTECTION**

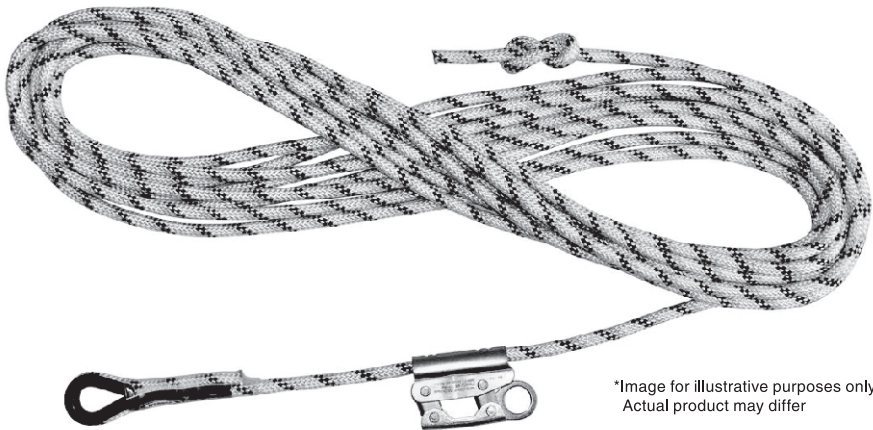
# USER INSTRUCTIONS

## ROPE LIFELINE SYSTEM

Complies with AS 1891.5:2020 -

Personal equipment for work at height

Part 5: Manufacturing requirements for lanyard assemblies and pole straps



\*Image for illustrative purposes only.  
Actual product may differ

(This manual applies to Werner Co. Rope Lifeline Systems 127566, 127567)

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## CAUTION!

*If use of fall protection equipment is necessary then the work environment is dangerous and potentially deadly. Werner Co. products are designed to eliminate as much of the hazard as possible but can do that **ONLY** if they are used correctly. Use this equipment as it was designed to be used, after appropriate training, under the direct supervision of a competent person, according to the instructions provided, and in accordance with local safety regulations.*

*User **MUST** read and understand all cautions and instructions. Failure to heed these guidelines could result in injury or even death.*

*Please, **WORK SAFE! WORK SMART!***

PRODUCT CERTIFICATION



BSI Certified Product

Certified to AS 1891.5:2020  
Issued by BSI

This product is marked with the BSI Benchmark insignia. This indicates that the product conforms to the technical requirements AS 1891.5:2020 in both design and testing. This also indicates the conformance of the manufacturing and quality control processes that are in place to produce this product. Annual reviews are undertaken by BSI to ensure consistent product conformance and quality.

AS 1891.5:2020 Lic. No.: BMP 770257

# ROPE LIFELINE SYSTEM

## USER INSTRUCTIONS

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**WARNING!**

*This product is just one part of a personal fall arrest, work positioning, travel restraint, climbing or rescue system. It must be matched correctly with other components to form a complete and functional system. The user must understand the function of each of these components and follow the manufacturer's instructions for use for each. Australian standards require that training in the use of these products be provided by a competent person. The user must be provided these instructions, should read and follow them, and then consult the competent person who will supervise his work if he has any questions about any part of the instructions. Australian and International Standards require the users of fall arrest equipment to be trained before they use this type of safety equipment. These instructions may be used as part of a training program that is appropriate for the user's occupation. The equipment should be used ONLY in accordance with these instructions, local ordinances and codes, the applicable Australian standards, and the employer's safety plan. Alterations or misuse of this product, or failure to follow instructions may result in serious injury or death.*

**IF YOU HAVE ANY QUESTIONS ABOUT ANYTHING IN THESE INSTRUCTIONS, THE EQUIPMENT, OR PROPER USE OF THE EQUIPMENT, CONTACT WERNER CO. FOR MORE INFORMATION.**

Note: All images in these instructions are for illustrative or instructional purposes only. They do not necessarily represent the actual product(s) in this kit.

# ROPE LIFELINE SYSTEM

## USER INSTRUCTIONS

### Safe Work Practices

**Before you start working always assess your work environment for factors that will affect your safety. Have a plan of how you are going to carry out your tasks safely. Prepare fall arrest, fall restraint, work positioning, suspension and rescue systems prior to working.**

A competent person must conduct a risk assessment to determine the best equipment and the safest work practices. Consider the following:

- Ensure that the forces applied to the body through a lanyard or anchor age line at fall arrest, do not exceed 6kN (600kg).
- The pendulum effect if a fall occurs
- Falls over sharp edges
- Working on slopes
- Choosing suitable anchor points
- The clearance to the closest obstacle below the user
- Comfort, during extended suspension
- Rescue and retrieval systems to prevent suspension trauma
- Confined space hazards
- Electrical, chemical and fire hazards
- Climatic and environmental conditions
- Consider if a restraint system is suitable instead of a fall arrest system
- Only use equipment in accordance with manufacturer's instructions, that is; method of fitting, adjustment, use and capacity

### Rescue and Retrieval

A rescue and retrieval plan should be a part of any safe work practice. It is important for all persons working at heights to consider how a person can be rescued in the event of a fall. If a person needs to be rescued from a free fall it is important for the rescuers to act quickly. Within 3 minutes a person suspended in a harness can suffer from suspension trauma. This condition is caused by blood pooling in the legs, and can lead to loss of consciousness, renal failure and eventually death. If the suspended person is conscious they should be encouraged to keep their legs moving or even push against a surface with their legs.

# Training

**For your safety, it is important to fully read these instructions and understand them. These instructions should always be readily available for reference by the user. They should be read at periodic intervals and when the operator has not used these products for an extended period. Training performed by a competent person in the safe use of this equipment will help understand the correct use of height safety equipment.**

Australian and International Standards require the users of fall arrest equipment to be trained before they use this type of safety equipment. These instructions may be used as part of a training program that is appropriate for the user's occupation. Users of safety equipment must read and understand (or have received an explanation of) all instructions, warning labels and markings supplied with these products.

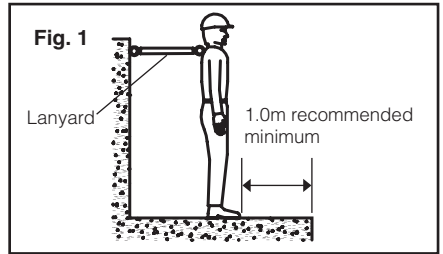
# Terminology

## Competent Person

A competent person is defined in Standard AS/NZS 1891.4 as “a person who has, through a combination of training, education and experience, acquired knowledge and skills enabling that person to correctly perform a specified task.”

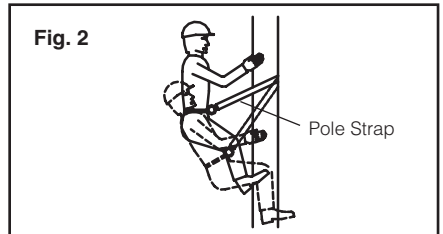
## Total / Fall Restraint – Fall not possible

This should be the aim and first option for any fall protection setup. A total/fall restraint system is designed to prevent the user from reaching an area where there is a risk of a fall, so a free fall or limited fall is not possible. It is recommended that a fall restraint system is set up to prevent a user from being within at least 1 metre from an edge where a fall could occur. See Fig. 1.



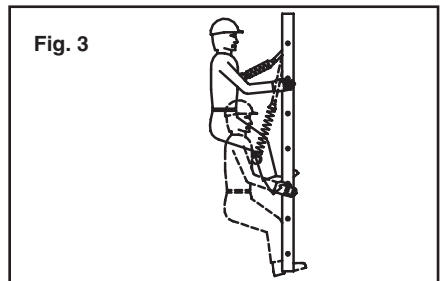
## Restrained Fall / Work Positioning

A restrained fall occurs when a person suffers a fall but they are partially restrained by a device such as a pole strap. See Fig. 2.



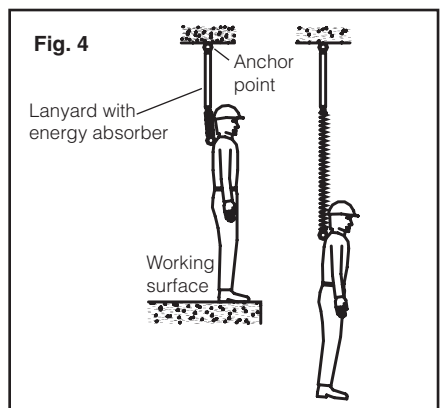
## Limited Free Fall

Free fall distance less than 600mm. A limited free fall occurs when a person falls less than 600mm either vertically or on a slope where it is not possible to walk without a handrail. See Fig. 3.



## Free / Fall Arrest

Free fall greater than 600mm. A fall arrest system is designed to stop the free fall of a user and limit the maximum arresting forces imposed on the user to 6 kN or less. Free falls greater than 2.0m are not acceptable under normal circumstances. Refer to AS/NZS 1891.4 paragraph 8.3(c). See Fig. 4.

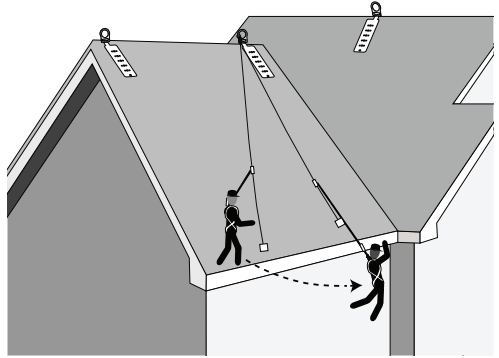


## Suspension

A suspension system is designed to enable access to a workplace by suspending a person attached to a rope line and a secondary safety system.

## Fall Clearance

Ensure sufficient clearance exists in your fall path to prevent striking an object during a fall. The clearance required is dependent upon the subsystem (rope grab and lanyard, rope grab and karabiner) and lifeline properties. The chart to the right shows the approximate elongation for Werner lifelines in dry conditions. Wet ropes generally have more elongation than dry ropes. Allow for additional elongation in wet or humid conditions. Lifeline elongation must be considered when estimating fall clearance.



## Rescue – Emergency Procedure

A rescue system is designed to provide effective and timely assistance or rescue to raise or lower a user to safety in the event of an emergency. Due to the risk of suspension trauma a person should be removed from the suspended position as soon as possible.

Lifeline Length	Stretch
15m	1.5m
25m	2.5m

## Additional Standards for Reference

Australian Standards set out recommendations for selection and safe use of safety equipment, plus outline minimum acceptable performance of different types of safety equipment. They do not necessarily indicate best work practices. Additional reading of relevant safety standards as listed below is recommended:

**AS/NZS 1891 Series** (Personal equipment for work at height)AS 1891.5 (Personal equipment for work at height)

**AS 1353 Series** (Flat synthetic-webbing slings)

**AS 1666 Series** (Wire-rope slings)

**AS/NZS 2865 Series** (Safe working in a confined space)

**AS 4142 Series** (Fibre ropes)

**AS/NZS 4488 Series** (Industrial rope access systems)

**AS 4497 Series** (Round Slings-synthetic fibre)

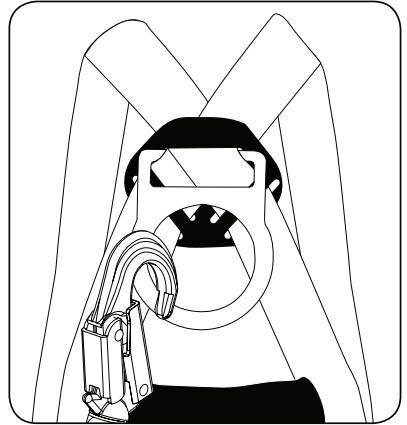
## Installation and Use

### a. Connect the Snap Hook

Connect the snap hook on the lanyard to **ONLY** to the back D-ring of the harness. Do not connect to any other part of the harness.

### b. Connecting to an Anchorage

Connect a Karabiner to the eye on the rope Lifeline and connect the Karabiner to a suitable anchor.



### Warning

***The rope grab should be positioned to limit potential free fall to the shortest possible distance, but in no case more than 2 metres.***

### c. Connecting the Rope Grab to the Lifeline

Ensure the rope grab is positioned correctly on the device. The lanyard connection end of the rope grab must be oriented down towards the loose end of the rope lifeline.

### d. Test the Rope Grab

Test the operation of the rope grab by pulling down on the lanyard. You must not be able to pull the rope grab down the lifeline or adjust it without raising the lanyard connection handle.

### e. Positioning the Rope Grab on the Lifeline

Squeeze the lanyard connection handle to release the rope grab from its current position on the lifeline. Release the lanyard connection handle to the desired new position and tug on the lanyard to ensure it locks on the lifeline. Keep a minimum of 2 metres of rope below the rope grab for rope grab locking distance and fall clearance.

# Attachments and Connections

## Making Connections

Only use self-locking snap hooks and karabiners 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.

Connectors (snap hooks and karabiners) are designed to be used only as specified in each product's user's instructions. See inappropriate connections.

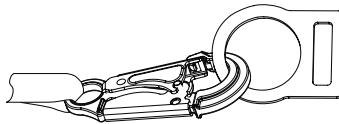
Snap hooks and karabiners should NOT be connected:

- i. to a D-ring to which another connector is attached.
- ii. in a manner that would result in a load on the gate. If the connecting element that a snaphook or karabiner attaches to is undersized or irregular in shape, a situation could occur where the connecting element applies a force to the gate of the snaphook or karabiner. This force may cause the gate (of either a self-locking or a non-locking snaphook) to open, allowing the snaphook or karabiner to disengage from the connecting point.

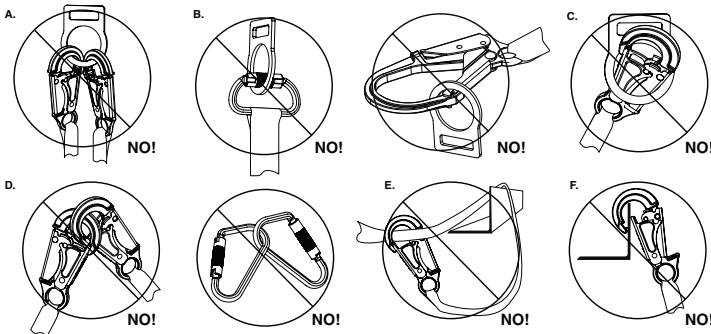
Connectors always need to be compatible with the attachment or anchor points they are being connected to. If a snap hook or karabiner cannot properly engage its locking mechanism when being connected to an attachment point another connection method must be found.

If connecting with a snap hook or karabiner to an attaching point that has an irregular shape or is too small, there is a chance that it may disengage the locking mechanism. This action is called 'roll-out'. Roll out occurs when the attaching device applies force onto the tip of the gate on the hook thus forcing it open. Bailey snap hooks and karabiners have a dual action, gate mechanism which will reduce the risk of 'roll-out' occurring.

## Proper Connection



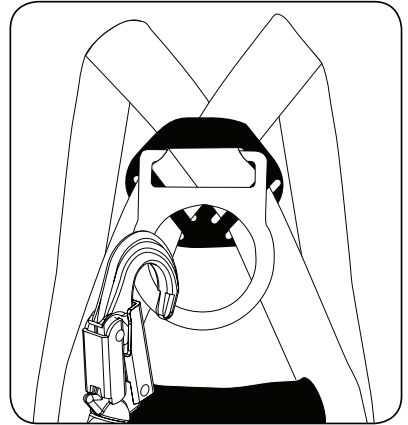
## Inappropriate Connections



## Attachments – D-Ring

For fall arrest applications, connect to the dorsal D-ring located between the shoulders on the back of the full body harness.

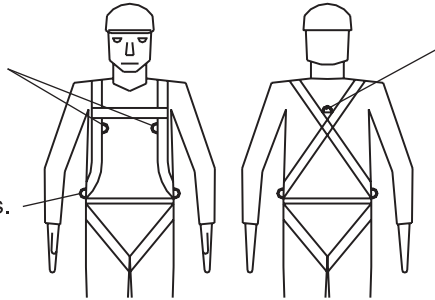
The pack end of a shock pack energy absorbing lanyard, or the designated end of an internal shock absorbing lanyard should be attached to the harness rear D-ring. With twin leg lanyards, the center hook should be attached to the harness.



## Harness Attachment Points

Belay frontal attachment points. Always use both points together. (Used for rope suspension, fall arrest and rescue)

Side attachment points. (Used with horizontal restraint systems and positioning)



Rear fall arrest attachment point (Preferred attachment point for fall arrest)

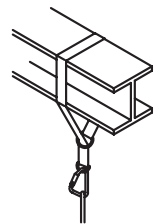
## Suitable Anchorage

Fall prevention and fall arrest safety equipment needs to be suitably connected to anchor points that can withstand the forces that may be applied to them during a fall arrest situation. These strength requirements for anchorages are outlined in the Australian Standard AS/NZS 1891.4 Table 3.1. The strength required for a single point anchorage is 15 kN for a one person free fall arrest and 21 kN for a two person free fall arrest.

The building or structure and anchorage points shall be assessed by an engineer, unless it is clear to a competent person that the anchorage system is structurally adequate. Refer to AS/NZS 1891.4 3.1.2.

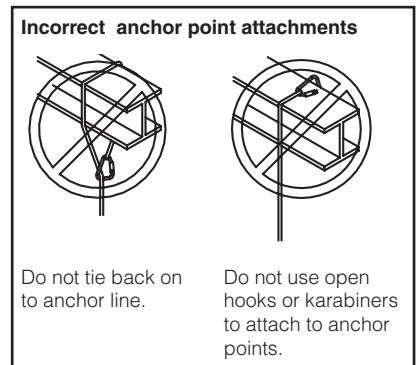
### Correct use of a sling on an anchor point

Small D-ring passes through larger D-ring on the sling.



Anchor points should be visibly inspected for damage or wear by the user before attaching to them. The supporting structure, that holds the anchor point should be a sound structure free from defects or corrosion. When a designated anchor point is not available, a suitable structure can be connected to using appropriate slings.

**Wherever possible the anchor point should be above the attachment point on your harness. If the anchor point is lower than your attachment point you risk falling twice the length of your lanyard. Refer to “Working Slack” on page 8.**



## Energy Absorbing Fall Arrest Lanyards

### Single Leg Lanyards

Single leg lanyards with energy absorbers are common fall arrest devices. The energy absorber can expand to a maximum length of 1.75m whilst arresting a fall. The working slack on a lanyard should be kept to a minimum. If a free fall is possible, the lanyard length, height of the user and the 1.75m energy absorber length must be considered to prevent the user from hitting obstacles below. Refer to the “fall clearance” calculation on page 8.

**Energy absorbing lanyards must only be used in conjunction with full body harnesses. The energy absorber end of the lanyard attaches to the harness. If an energy absorbing lanyard has been used to arrest a fall it must be taken out of service and destroyed.**

### Conditions of Use

All safety equipment should be stored correctly and kept in good condition. Additions or alterations made to such devices may reduce their ability to function correctly, therefore becoming unsafe. Unauthorized additions alterations or repairs shall not be made to such devices and would void any warranty. **If this equipment has been involved in a fall it must be taken out of service and destroyed.** If this equipment has been damaged, come in contact with corrosive chemicals or exposed to excessive heat or sunlight it must be destroyed or returned for inspection.

Werner equipment is designed for use with Werner approved components and subsystems only. Werner Co cannot be held responsible for connections made to other manufacturers' safety equipment. Even though this safety equipment has been developed to help users work safely at heights, it is the responsibility of the user and/or the owner of the equipment to assess working and environmental conditions. A risk assessment of working conditions should be undertaken prior to selecting appropriate safety equipment. Exercise care when working in cold conditions with rope and webbing products. Do not use these products if they are wet, frozen or thawing as their performance can be considerably impaired.

**Caution:** Always be aware of working near live electrical hazards

## Inspecting Safety Equipment

To keep safety equipment in good working order it must be inspected and maintained at regular intervals in accordance with Australian Standard AS/NZS 1891.4 Table 9.1. Safety equipment should always be inspected before and after each use by the user. Fall-arrest devices need to be inspected every 3 months by a competent person. Harnesses, belts and lanyard assemblies need to be inspected by a competent person every 6 months or at sooner intervals if it is recommended by the supplier or manufacturer. If any safety equipment is used in an extreme working environment, it may need to have a stricter inspection or maintenance schedule. Refer to table 1.1.

Webbing products, including harnesses, belts, shock absorbing lanyards and pole straps have a service life of 10 years. Regardless of their condition or frequency of use they must be removed from service and destroyed no later than 10 years after their date of manufacture (D.O.M.).

**Written inspection records must be kept for safety equipment.** Australian Standard AS/NZS 1891.4 Table 9.2 indicates relevant information which needs to be recorded for particular types of safety equipment. A sample harness and belt inspection checklist table is printed on page 15. This checklist can be used for inspections on individual safety apparatus.

Inspection	Inspected by	Products / Applications
Before and after each use.	Operator	All personal equipment (full body harnesses, lanyards, connectors and fall arrest devices)
3 monthly	Competent person (Inspection record must be kept)	Fall arrest devices external check only
6 monthly	Competent person (Inspection record must be kept)	Belts, harnesses, lanyards, connectors and associated personal equipment
12 monthly service and inspection.	Approved certified agent (Inspection record must be kept)	<ul style="list-style-type: none"> <li>• Permanently installed anchorages</li> <li>• Fall arrest devices-full service including dismantling where indicated</li> <li>• Vertical / horizontal lifelines and rails, including integral components and permanently installed mobile attachment devices.</li> </ul>
Entry and re-entry into service	Competent person (Inspection record must be kept)	All the products listed above
After a fall arrest and before further use.	Remove from service.	All the products listed above

Table 1.1

# Inspection Cleaning and Storage

## Inspecting Harnesses and Ancillary Equipment Before and After Fitting

**Always inspect these products before and after use.** The user should always visually inspect these products before use and pay particular attention to the following:

- Labels must be visible and legible.
- Date of manufacture, out of service date, and serial number.
- Cut, worn or frayed webbing.
- Frayed or cut stitching.
- Excess dirt, grease or chemical stains on webbing.
- Deformation, wear or corrosion of metal components.
- Missing parts.

If the product has been inspected by the user and they have any doubt about its integrity, it should be taken out of service, tagged and inspected by a competent person. If the competent person inspecting the product deems it unfit for use the product shall be destroyed.

## Cleaning and Storage

Keeping safety equipment clean is part of its maintenance schedule and should be done at regular intervals. If equipment is used in environments where it is constantly exposed to foreign matter (eg. dust, moisture and chemicals) it may require more regular cleaning. Any contaminants found on safety equipment should be wiped off with a cloth. Mild detergent and lukewarm water may be required to thoroughly clean some surfaces. It is important to rinse off with clean water, then wipe down and allow to dry properly in a ventilated area away from direct sunlight. Do not use strong chemicals when cleaning these products. Do not oil or lubricate any metal components on these products.

Ensure all safety equipment is stored in a clean, dry and well ventilated location. Avoid storing safety equipment in environments that will expose them to heat, sunlight, sharp edges, chemical fumes and corrosive substances. If the equipment has been recently cleaned with water it must be completely dry before storing.

**FOR HARNESES, AND ANCILLARY EQUIPMENT**

Item description: \_\_\_\_\_ Serial No.: \_\_\_\_\_  
 Manufacturer / Supplier: \_\_\_\_\_ Date of manufacture: \_\_\_\_\_  
 Date of purchase: \_\_\_\_\_ Date first used in service: \_\_\_\_\_  
 Date of inspection: \_\_\_\_\_ Date of next inspection: \_\_\_\_\_  
 Date out of service: \_\_\_\_\_  
 Details of any connections used: \_\_\_\_\_  
 List usage limitations: \_\_\_\_\_  
 Inspected by (print name): \_\_\_\_\_ Signature: \_\_\_\_\_

COMPONENT	CONDITION OR FAULT TO BE CHECKED	PASS	FAIL	N/A
<b>Webbing</b>	Cuts, tears or holes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Abrasion damage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Excessive stretching	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Corrosive chemical, solvent or heat damage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Deterioration due to rotting, mildew or ultraviolet exposure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Sewing</b>	Broken, cut or worn threads	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Corrosive chemical, solvent or heat damage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Karabiners and Snap hooks</b>	Distortion of hook or latch shape	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Cracks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Excessive wear at swivels and latch pivot pin	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Open rollers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Free movement of the latch over its full travel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Broken, weak or missing latch springs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Free from dirt, debris or corrosion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>D-rings</b>	Cracks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Damage or distortion of shape	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Excessive wear	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Buckles and adjusters</b>	Damage or distortion of shape	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Cracks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Bent tongues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Open rollers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Ropes</b>	Cuts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Abrasion or fraying	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Stretching	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Corrosive chemical, solvent or heat damage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Deterioration due to rotting, mildew or ultraviolet exposure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Chains</b>	Damage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Attachment points to snap hooks and rings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



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