DRAPER®

INSTRUCTIONS FOR

Safety Karabiner

Stock No.82472 Part No.KAR/F/B

IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY TO ENSURE THE SAFE AND EFFECTIVE USE OF THIS PRODUCT.

CE 0194

GENERAL INFORMATION

These instructions accompanying the product are the original instructions. This document is part of the product, keep it for the life of the product passing it on to any subsequent holder of the product. Read all these instructions before assembling, operating or maintaining this product.

This manual has been compiled by Draper Tools describing the purpose for which the product has been designed, and contains all the necessary information to ensure its correct and safe use. By following all the general safety instructions contained in this manual, it will ensure both product and operator safety, together with longer life of the product itself.

All photographs and drawings in this manual are supplied by Draper Tools to help illustrate the operation of the product.

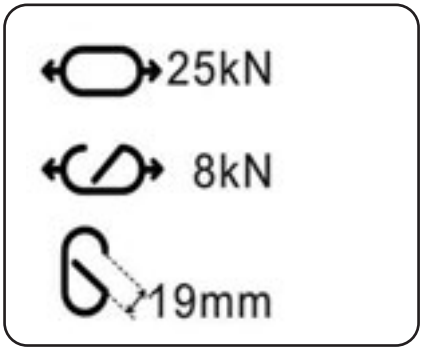
Whilst every effort has been made to ensure the accuracy of information contained in this manual, the Draper Tools policy of continuous improvement determines the right to make modifications without prior warning.

1. INSTRUCTIONS FOR USE

WARNING: Activities involving the use of this equipment are inherently
dangerous. You are responsible for your own actions and decisions.

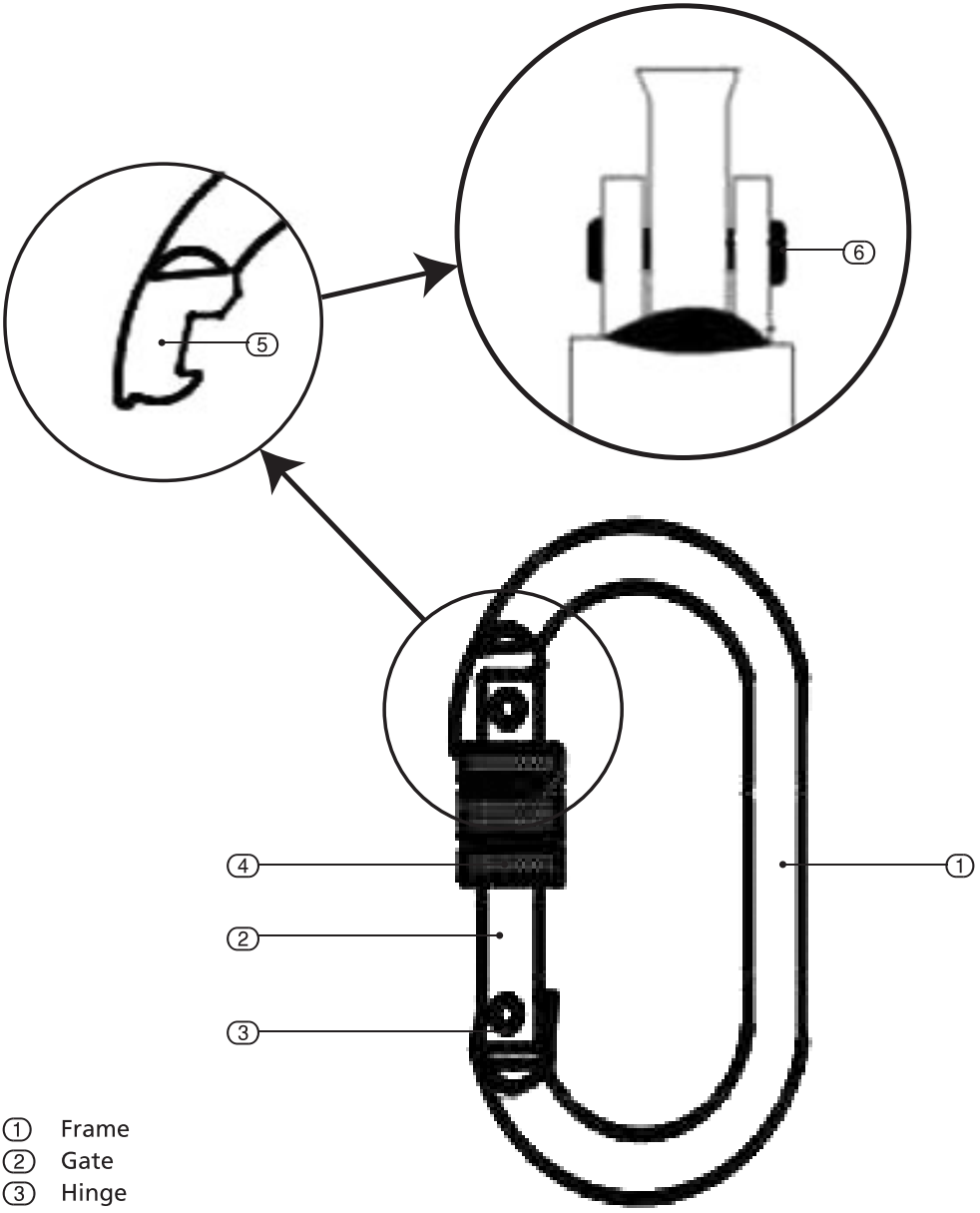
Before using this equipment, you must:

- Read and understand all Instructions for Use.
- Get specific training in its proper use.
- Become acquainted with its capabilities and limitations.
- Understand and accept the risks involved.



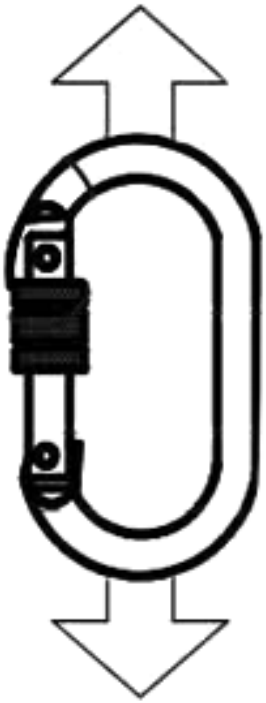
2. TECHNICAL DESCRIPTION

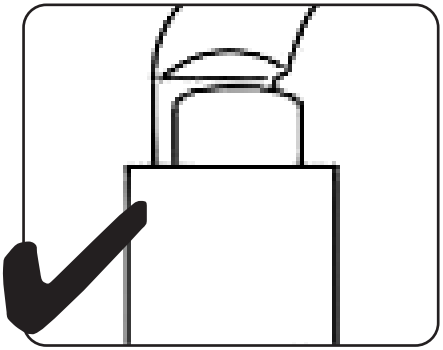
2.1 IDENTIFICATION

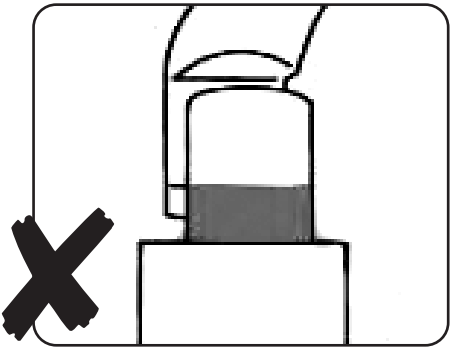


① Frame
② Gate
③ Hinge
④ Locking sleeve
⑤ Keylock
⑥ Keylock slot

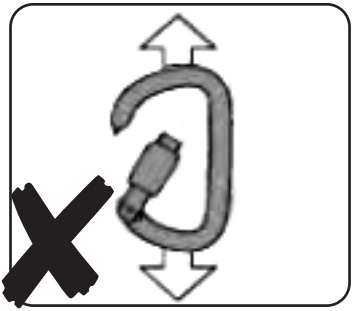
3. INSTALLATION

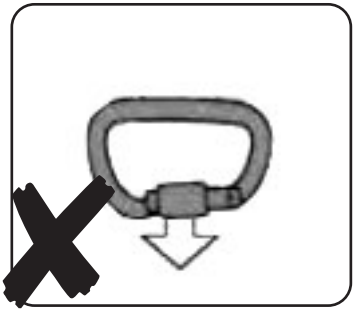


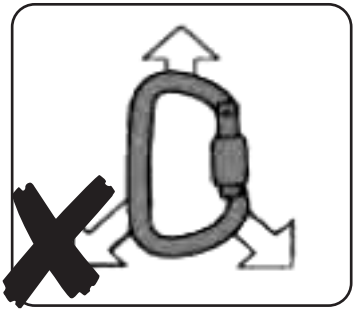


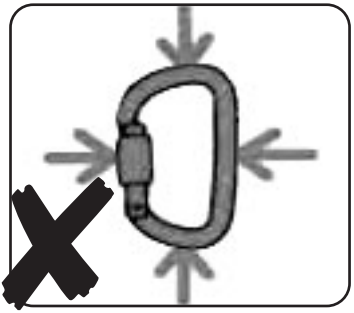


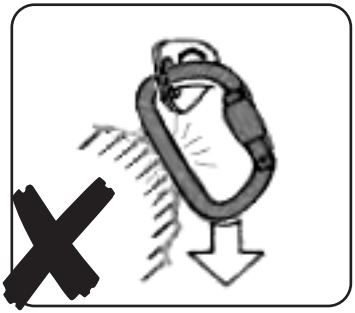
DANGER!

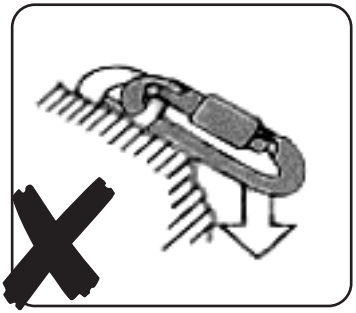




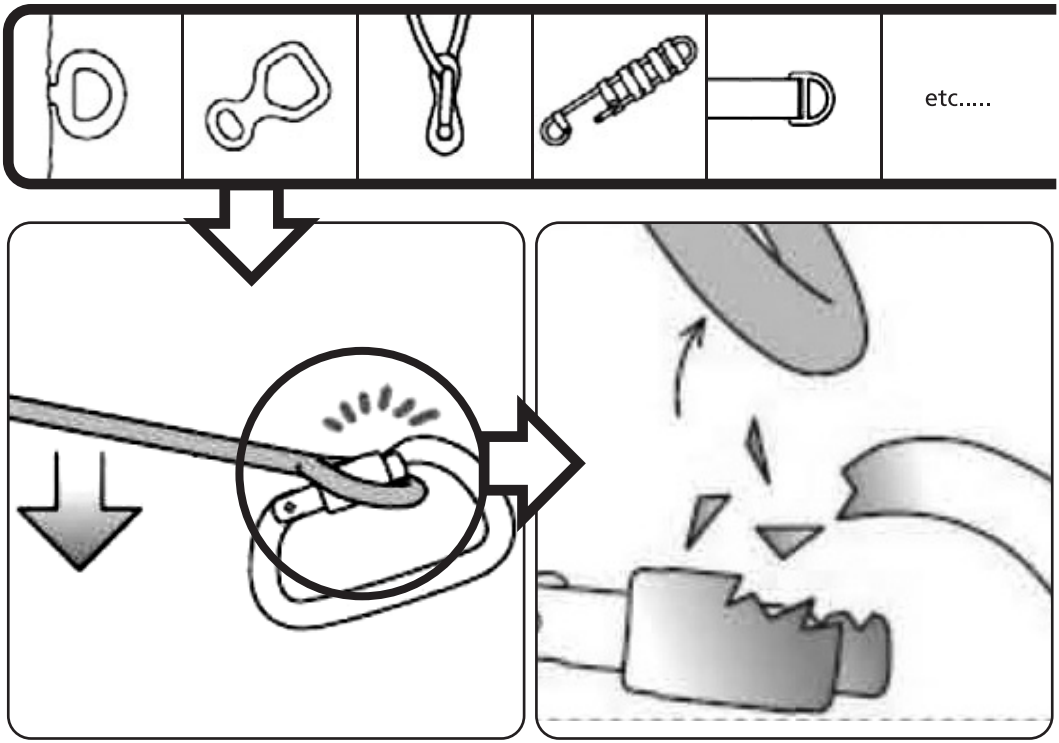








4. WARNING, DANGER!



Any external pressure on the gate is dangerous.

5. APPLICATION

5.1 PURPOSE

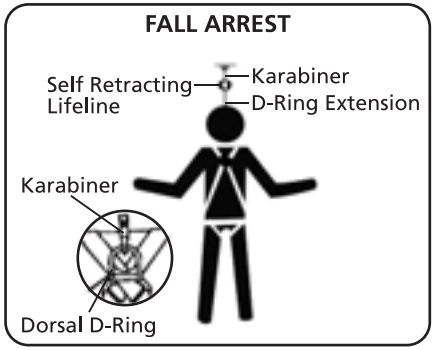
Draper Karabiners are designed to be used as anchorage connectors or connectors for fall arrest, restraint, work positioning systems.

Following are descriptions of these applications. See Figure

5.2 FALL ARREST

Fall arrest systems typically include a full body harness and a connecting subsystem, such as a self retracting lifeline.

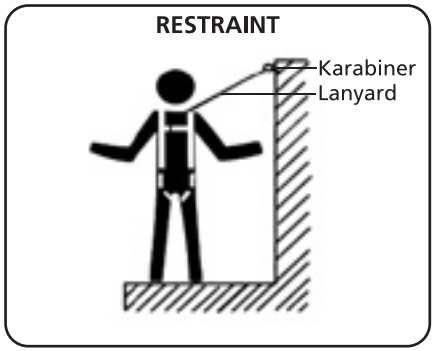
Maximum permissible free fall is 6 feet. This type of system is used where a free fall is possible before the fall is arrested.



5.3 RESTRAINT

Restraint systems typically include a full body harness and a lanyard or restraint line used to restrain the user from reaching a hazard (leading edge roof work).

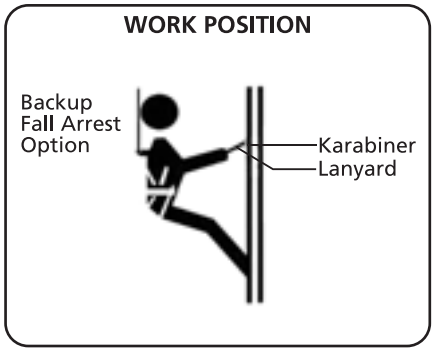
This type of system is used where no vertical free fall is possible.



5.4 WORK POSITIONING

Work positioning systems typically include a full body harness and lanyard to position or support the user at the work position.

Maximum permissible free fall is 2 feet.



5. APPLICATION

5.5 MATERIALS

Connectors Draper Stock No.82472 is made from steel grade 35CrMo.

5.6 LIMITATIONS ON USE

This personal protective equipment (PPE) is used for connecting two or more pieces of equipment together.

It can be used with personal fall protection systems such as fall arrest systems, work positioning systems, restraint systems and rescue systems.

This product must not be loaded beyond its strength rating, nor be used for any purpose other than that for which it is designed.

It is essential for safety that item is withdrawn from use immediately should:

a) any doubt arise about it's condition for safe use or,
b) it has been used to arrest a fall.
   Product should not be used again until confirmed in writing by a competent person that it is acceptable to do so.

5.7 RESPONSIBILITY

WARNING, specific training is essential before use.

This product must only be used by competent and responsible persons, or those placed under the direct and visual control of a competent and responsible person.

Gaining an adequate apprenticeship in appropriate techniques and methods of protection is your own responsibility.

You personally assume all risks and responsibilities for all damage, injury or death which may occur during or following incorrect use of our products in any manner whatsoever. If you are not able, or not in a position to assume this responsibility or to take this risk, do not use this equipment.

5.8 INSPECTION, POINTS TO VERIFY

Before each use

Make sure the body, gate, and locking sleeve are free of any cracks, deformation, corrosion, etc. Open the gate and verify that it closes and locks itself automatically when released. The Keylock slot (gate) must not be blocked by any foreign matter (dirt, pebble, etc.).

During each use

It is important to regularly inspect the condition of the product. Check its connections with the other equipment in the system and make sure that the various pieces of equipment in the system are correctly positioned with respect to each other.

Contact Draper Tools if there is any doubt about the condition of this product.

Retire the equipment if it shows any sign of reduced strength or impaired function. Destroy retired equipment to prevent further use.

6. HOW TO USE THIS EQUIPMENT

1. Open: turn the nut anticlockwise.
2. Push the hinge inwards to attach to component such as lanyard, safety harness attachment point. .... etc.
3. After release, the karabiner should snap shut. Then turn the nut clockwise to lock device.

6.1 INSTALLATION

This connector must always be used with the gate closed and locked.

The strength of the connector is greatly reduced if the gate is open.

Check the connector regularly to verify that it is securely locked. Lock it manually if necessary.

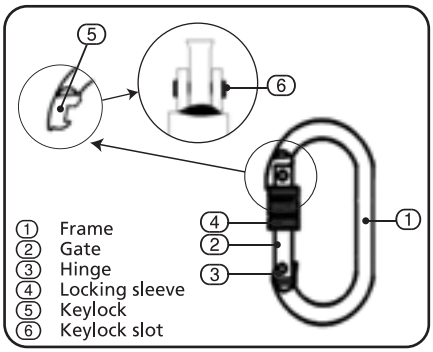
Contaminants such as mud, sand, paint, ice, dirty water, etc. can prevent the automatic locking system from working.

The Karabiner is strongest when closed and loaded on its major axis.

Any other position reduces its strength.

The Karabiner must be able to move freely and without interference.

Any constraint or external pressure is dangerous.



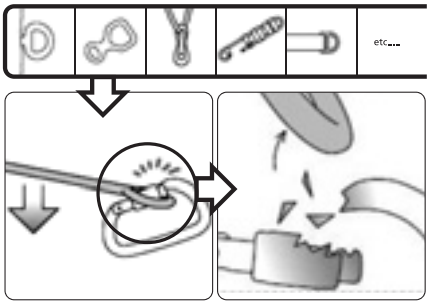
6.2 WARNING DANGER OF DEATH

Any external pressure on the gate (with a descender, for example) is dangerous.

When a sudden tension comes onto the rope, the locking sleeve can break and the gate can open itself.

Allowing the device or rope to detach itself from the connector.

Remember: For your safety, get into the habit of always doubling-up your systems, especially Karabiners.



6. HOW TO PUT THE HARNESS ON

6.3 PRECAUTIONS

Karabiners should not be used where frequent opening and closing is required during the course of use.

The length of the connector should be taken into account when used in any fall arrest system, as it will influence the length of a fall.

Information on the hazards that may affect the performance of the equipment and corresponding safety precautions that have to be observed e.g.: extremes of temperature, trailing or looping of lanyards or lifelines over sharp edges, chemical reagents electrical conductivity, cutting, abrasion, climatic exposure, pendulum falls.

- Users must be medically fit for activities at height.

  WARNING: Inert suspension in a harness can result in serious injury or death.
- You must have a rescue plan and the means to rapidly implement it in case of difficulties encountered while using this equipment. This implies an adequate training in the necessary rescue techniques.
- Take care to minimize the potential for falls and the height of any potential fall.
- The clearance under the user must be sufficient to prevent him from striking an obstacle in case of a fall (the length of the connector can influence the height of a fall).
- You must check to ensure that the product markings remain legible during the entire lifetime of the product.
- You must verify the suitability of this connector for use in your application with regard to applicable governmental regulations and other standards on occupational safety.
- The instructions for use for each item of equipment used in conjunction with this product must be respected.
- The instructions for use must be provided to users of this equipment. If the equipment is re-sold outside the original country of destination the reseller shall provide these instructions in the language of the country in which the product is to be used.

During transportation, the equipment should be protected against possible damage of components, e.g. damp environment, sharp edges, vibration and ultraviolet degradation.

7. GENERAL INFORMATION

7.1 LIFETIME

Maximum lifetime of Draper product: 10 years. Taking into account the development of new techniques and the compatibility of products with other products.

The lifetime is difficult to predict without taking into account the conditions of use. It depends on the intensity and frequency of use, and on the environment where the product is used .

To prolong the life of this product, take care when transporting and using it.

Avoid impacts, and rubbing against abrasive surfaces or sharp edges, etc. (list not exhaustive).

Certain environmental factors will greatly accelerate wear: salt, sand, snow, ice, moisture, chemicals, etc. (list not exhaustive).

For your safety, in addition to following the (Inspection points to verify before, during, and after each use) the equipment must undergo an in-depth inspection by a competent inspector. This inspection must be performed at least once every 12 months. The frequency of the in-depth inspection depends on the frequency, intensity, and type of use of the equipment.

For better control of your equipment, we advise you to keep an (inspection record) for each product.

It is preferable to issue new equipment to each user of PPE so that he/she will be able to know its entire usage history.

WARNING: An exceptional event can reduce the lifetime of the product to one single use. For example, the product is used to arrest a major fall, there is a major impact on the product, it is exposed to extreme temperatures, etc. The resulting deterioration may not be visible on the product.

Modifications, repairs

Any modification, addition to, or repair of the equipment other than that authorized by Draper is prohibited: due to the risk of reducing the effectiveness of the equipment.

Guarantee

This product is guaranteed for 3 years against any faults in materials or manufacture. Exclusions from the guarantee: normal wear and tear, oxidation, modifications or alterations, incorrect storage, poor maintenance, damage due to accidents, to negligence.

7.2 SUBSYSTEM ASSEMBLY

Draper is not responsible for subsystem assemblies not manufactured by Draper. Connection of typical fall arrest, restrain, work positioning to the connector. Following are recommended methods of attaching subsystem elements and components to Draper supplied connectors:

1. When using an energy absorbing lanyard, connect the energy absorber “pack” end to the harness.
2. When using a self retracting lifeline, ensure the device is properly positioned so that retraction is not hindered.
3. When connecting, ensure connections are fully closed and locked.
4. Ensure all connections are compatible in size, shape, and strength.

8. SYSTEM REQUIREMENTS

8.1 COMPATIBILITY OF COMPONENTS

Draper equipment is designed for use with Draper approved components and subsystems only.

A full body harness is the only acceptable body holding device that can be used in a fall arrest system.

A connector must be compatible with the equipment to which it is attached (shape, size, etc.). An incompatible connection can cause accidental disconnection, breakage, or affect the safety function of another piece of equipment.

WARNING: If the connector is attached to an element of the system that is too large: (e.g. wide webbing, large bars, etc.) the connector's strength can be reduced.

Contact Draper if you are uncertain about the compatibility of your equipment.

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.

8.2 COMPATIBILITY 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 Draper if you have any questions about compatibility.

Connectors (hooks, Karabiners, and D-rings) must be capable of supporting at least 5,000lbs (22.2 kN).

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. Connectors must be compatible in size, shape, and strength. Karabiners are required by CE EN362.

8.3 MAKING CONNECTIONS

Only Karabiners shall be used with this equipment.

Ensure all connectors are fully closed and locked and compatible.

8.4 ANCHORAGE STRENGTH

The anchorage strength required is dependent on the application type.

8.5 FALL ARREST

Anchorages selected for fall arrest systems shall have a strength capable of sustaining static loads applied in the directions permitted by the system of at least:

1. 5,000 lbs. (22.2 kn) for non-certified anchorages, or
2. Two times the maximum arresting force for certified anchorages .When more than one fall arrest system is attached to an anchorage, the strengths set forth in (1) and (2) above shall be multiplied by the number of systems attached to the anchorage.

8.6 WORK POSITIONING

The structure to which the work positioning system is attached must sustain static loads applied in the directions permitted by the work positioning system of at least 3,000lbs., or twice the potential impact load, whichever is greater. When more than one work positioning system is attached to an anchorage, the strengths stated above must be multiplied by the number of work positioning systems attached to the anchorage.

8. SYSTEM REQUIREMENTS

8.7 RESTRAINT

Anchorages selected for restraint and travel restraint systems shall have a strength capable of sustaining static loads applied in the directions permitted by the system of at least:

1. 1,000 lbs. (4.5 kN) for non-certified anchorages, or
2. Two times the foreseeable force for certified anchorages. When more than one restraint and travel restraint system is attached to an anchorage, the strengths set forth in (1) and (2) above shall be multiplied by the number of systems attached to the anchorage.

8.8 ANCHORS

Work at height

The anchor point of the system should preferably be located above the user's position and must conform to the requirements of the EN 795 standard, in particular the minimum strength of the anchor must be 10 kN.

Warning:

1. The equipment shall not be used outside its limitations, or for any purpose other than that for which it is intended
2. Any dangers that may arise by the use of combinations of items of equipment in which the safe function of any one item is affected by or interferes with the safe function of another
3. It is essential for safety that equipment is withdrawn from use immediately should:
   a) any doubt arise about its conditions for safe use or,
   b) it have been used to arrest to fall,
   c) not used again until confirmed in writing by a competent, person that it is acceptable to do so.
4. For equipment intended for use in fall arrest systems, it is essential for safety the user shall ensure that the anchor device or anchor point should always be positioned, and the work carried out in such a way, as to minimise both the potential for falls and potential fall distance. Where is it essential that the anchor device/point is placed above the position of the user.
5. For equipment intended for use in fall arrest systems, it is essential for safety to verify the free space required beneath the user at the workplace before each occasion of use, so that, in the case of a fall , there will be no collision with the ground or other obstacle in the fall path.

9. MAINTENANCE

9.1 MAINTENANCE

Below procedure is to be strictly adhered to.

1. ALWAYS CHECK before, after and during use that the connector works properly. ALWAYS REPLACE the connector after a fall even if no defect or damage is visible; the Initial resistance of the connector could be seriously reduced. The possibility of re-using the device must be authorized exclusively by the producer with a prior written consent that reserves the right to carry out appropriate examinations and testing. Any repair shall only be carried out in accordance with producer's procedures. REPLACE the connector that shows signs of wear and corrosion.
2. REPLACE the connector if opening and/or closing/locking are difficult. Clean the connectors with soft water and dry it with a non-abrasive cloth.
3. When using CATCH-FREE System connectors (fig.12), pay particular attention to the slot on the lever: It has to be dirt-free: soil, mud, gravel etc. (list not exhaustive). In the case of use on ice-falls or alpine environments, make sure the slot on the lever is not obstructed by snow or ice.
4. LUBRICATE the mobile components with a general purpose, low viscosity silicone oil used lubricating metal and non·metal surfaces (e.g. LOCTITE 8021). If the connector comes in contact with salt water, wash it immediately and lubricate it. All necessary maintenance operations must be carried out by competent persons explicitly authorized and scrupulously following the operational instructions established by the producer.
5. DISINFECTION - Dissolve a disinfectant which contains quaternary ammonium salts in warm water (max. 20°C). Soak the tool in this solution for one hour. Rinser with potable water and dry it with a clean cloth.
6. When the equipment becomes wet, either from being in use or when due to cleaning, it shall be allowed to dry naturally, and shall be kept away from direct heat
7. Storage conditions should preventative where environmental or other factors could affect the condition of components, e.g. damp environment, sharp edges, vibration and ultraviolet degradation
8. If gate operation is sluggish, apply a small amount of WD-40 or similar moisture repellent agent to the hinge end only. If you have questions concerning the condition of the snap hook or Karabiner contact Draper.

9.2 INSTRUCTIONS FOR PERIODIC EXAMINATION:

1. The need for regular periodic examinations shall be strictly followed, the safety of users is depends upon the continued efficiency and durability of the equipment.
2. The frequency of periodic examinations, taking account of such factors as legislation, equipment type, frequency of use, and environmental conditions. The equipment shall performs the periodic examination at least every 12 months.
3. The periodic examinations are only to be conducted by a competent person and strictly in accordance with the manufacturer's periodic examination procedures .
4. The legibility of the product markings shall be check.

10.0 IMPORTANT

It is essential for safety of the user that if the product is re-sold outside the country of designation that the re-seller shall provide instructions for use, for maintenance, for periodic examination and for repair in the language of the country in which the product is to be used.

10. LABEL

Before use, please read carefully the instructions.

Self-closing connector intended to be used as a component.

Reference Norm

Reference of the notified organisation controlling production

Product conforms to the PPE directive.

Brand

Manufacturer date

Breaking force

Tension direction

Item number

EC type examination of notified body involved with the design stage and production control phase are performed by:
INSPEC INTERNATIONAL LTD.
(Notified Body no. 0194)
56, Leslie Hough Way, Salford,
Greater Manchester M6 6AJ
United Kingdom

NOTES

4. ANNUAL INSPECTION

Karabiner						
Manufacturers						
Contact details						
Manufacturing date		Life expiry date				
Model		Serial No.				
Date of Purchase		Date first put service		Name of User		
This harness can be used with Draper's other components of fall arrest system such as Energy absorbing lanyards						

S. No.	Date	Controller	Results	Comments	Signature	Next Inspection
1.						
2.						
3.						
4.						
5.						
6.						
7.						

These instructions should be kept with the related material (traceable by the serial number) for the full duration of the life of the product.

This product is intended for use by a single use, the user is also responsible for this product.

This product is to be used for personal protection only (against falls from heights) and limited to uses as described on the first page of these instructions.

It is STRICTLY FORBIDDEN to modify and/or alter any component of the product and/or the product in whole.

Any product which has seen a FALL or shows any sign of DETERIORATION, and/or requires REPAIRS must be returned to the manufacturer or authorized agent.

Prior to every use a visual inspection is recommended.

An annual inspection by a competent person following with the manufacturers or authorized agents instructions is COMPULSORY

ATTENTION: the inspection should include but not limited to: loose, cracked or defective hardware frayed, crushed or broken strands damaged or loose termination.

The minimum strength of the anchorage points, for connecting is: (15 kN) anchorage must be placed above the position of the user.

Harness, vest, overall and user manual marked with capital letter “A”, means use as fall arrest attachment point.