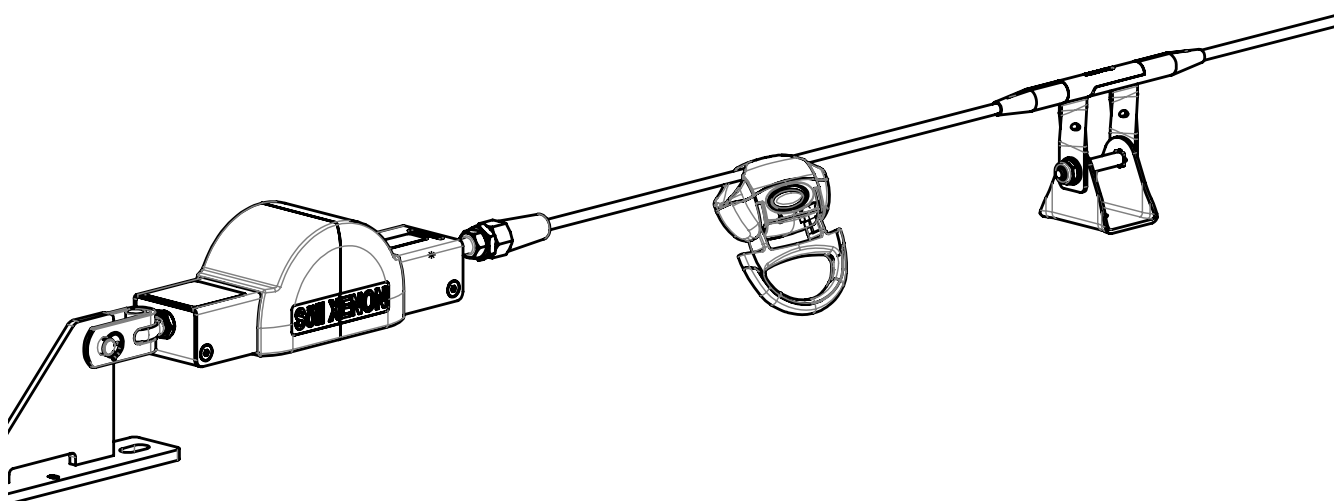


Assembly, installation and operating instructions for

Söll Xenon anchor device

According to EN 795:2012 and CEN/TS 16415:2012



(The following must be completed by the installer in permanent waterproof ink.)

Date of manufacture:

Date of initial operation:

Operator/User:

Street:

Place:




Tel.: Fax:



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Explanation of symbols

	Danger! Improper or careless handling could cause accidents leading to falls or even death.
	Warning! Non-observance could result in serious injury.
	Important! Useful information and user tips are given here.

Changes in this issue: -

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1 Introduction

1.1 Product description

This manual relates to the Söll XENON anchor device. The complete list of the product reference is available at you installer or your responsible customer service. (see. 5.2 contact).

The Söll XENON anchor device is a horizontal lifeline system with a maximum incline of 15° which fulfils the requirements of EN 795:2012 type C. The purpose of this anchor device is to secure up to 7 persons against falls from height and simultaneously provides them with a great freedom of movement. The cable guide can be designed to be straight or curved to 90°. The distance between two Söll XENON intermediate brackets(2) can be between 2 m and depending on the cable type up to 20 m. The energy absorber(1) mounted at the end of the cable(3) allows absorption of cable forces via “energy dissipation”. Special shuttles(4) are used for connecting a user to the cable, which allows the user to pass the intermediate brackets and corners without disconnecting from the cable. (see fig. 1.1)

The selection and use of the Söll XENON anchor system must not be made without resorting to an installer duly authorized by the manufacturer who will be able to help the user select the appropriate equipment, to analyse the requirements of a secure installation, and install them in a suitable configuration.

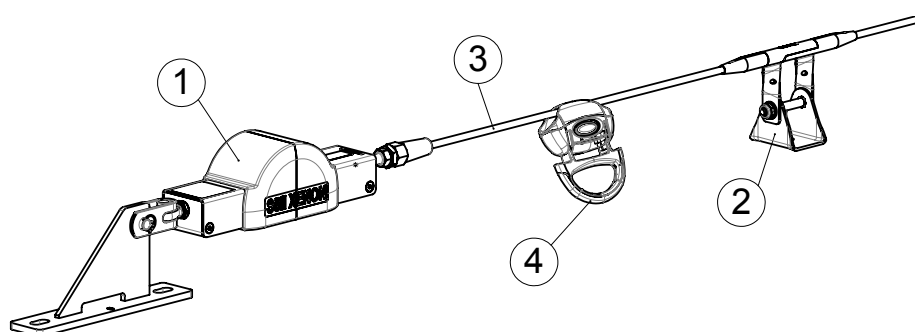


Fig. 1.1
Main components of a
Söll XENON system

- | | |
|---|----------------------|
| 1 | energy absorber |
| 2 | intermediate bracket |
| 3 | cable |
| 4 | shuttle |

1.2 General information and safety precautions

Before installation and using this system it is imperative you read and understand this instruction manual and any additional instructions provided during installation training or given with the system at the time of shipment.

Do not install this equipment or carry out any modifications on this system unless you are properly trained to do so!

KEEP THIS MANUAL FOR FUTURE USE - DO NOT THROW AWAY!

Ask your installer to provide you with a user training before first use of this equipment or to confirm this is not required : for certain configurations of the system trainings before use are mandatory.



Danger!

Failure to comply with these instructions may result in serious injury or death!

All system users must be provided with this instruction manual.

The operating company of the anchor device must ensure that this instruction manual

- is either kept in a safe and dry location near the system
- or is always kept in an easily accessible location that is known to all system users.

The operating company must present this instruction manual at the request of the manufacturer (SPERIAN FALL PROTECTION Deutschland GmbH & Co. KG or one of its authorised dealers). Prevailing accident prevention regulations and safety guidelines must be followed.

If other personal safety equipment is used as protection against falling or as restraining or rescuing devices and if such equipment is anchored to or fixed on the Söll-Xenon anchor device, corresponding operating instructions of the respective companies and the instructions for use/user information provided by the relevant manufacturer must be followed.

The Söll Xenon anchor device should only be used for the intended purpose, e.g. not as a transport anchor or for lifting of loads.

For the safety of all persons working on the system, it is essential that all workers are physically fit and not under the influence of medication, drugs or alcohol.

For user's safety, resellers have an obligation to provide the manual in the user's local language.

The system has been certified by EC-type test: DERKA EXAM GmbH, Dinnendahlstraße 9, D-44809 Bochum, CE 0158.

1.3 Limitations, capabilities and performance

a) Limitations and capabilities



Danger!

Failure to comply with these provisions will expose the user to risks of fall from height!

The Söll Xenon anchor device can be used to secure:

- max. 4 persons by using the 7x7, Ø8 mm stainless steel cable
- max. 7 persons by using the 1x19, Ø8 mm stainless steel cable
- max. 4 persons in overhead systems when using self retracting lifelines (SRL)

The distance between two intermediate brackets must not exceed 15 m for 7x7, Ø8 mm cable and 20 m for 1x19, Ø8 mm cable.

When self-retractable lifelines are used in a Söll XENON anchor system the maximum span length is limited to 15 m and the weight of each self-retractable lifeline must not exceed 12 kg.

The Söll XENON anchor device is not certified according EN 15567 and therefore not intended to be used in adventure/activity parks.

b) Performance

The maximum cable tension in case of a fall depends on several factors, i.e., span length, number of the energy absorbers, number of users and the fall factor respective the free fall height.

The cable tension determines the forces which are passed to the end anchors and curve parts.

For each Xenon system, the expected forces must be calculated and proven to be admissible. The Söll XENON anchor device has been designed so that:

- the maximum cable tension is between 8 and 18 kN in the most common system configurations
- the maximum force affecting the intermediate bracket has to be engineered with 6 kN for a single user system and for a multiple user system 6 kN for the first user and 0.5 kN for each additional user.
- the maximum cable deflection is 3.7 m in the most common system configurations (Lower deflections must be calculated to suit the particular case).

2 Inspection and assembly before use

2.1 Inspection before installation



Warning!

Before installation, the expected system forces must be calculated. A qualified engineer must check whether the components on which the Söll Xenon anchor device is to be fixed to can withstand these stresses resulting from a fall and certify this (certificate of stability).

Manufacturer's installation instructions and installation suggestions as per the EN 795 standard and Australian Standard AS/NZS 1891.4 must be followed at the time of installation. Installation details can be found in the „Installation Guide“ provided separately.

In order to minimise the fall distance and limit the possibility of a free fall, please consider the location of the anchor device and the work being carried out.

Ensure that the necessary fall clearance for arresting the falling user is not higher than the ground clearance available on-site. Adjust the type and length of the coupling element accordingly. (For Australian & New Zealand please refer to AS/NZS 1891.4.)

Determine the distance required between the Söll Xenon anchor device and the ground or an obstacle by taking into account the deflection of the cable which depends on the location of the anchor device (overhead installation, on ground, ...) and the type and length of the coupling element (refer to the example). (see fig. 2.1).

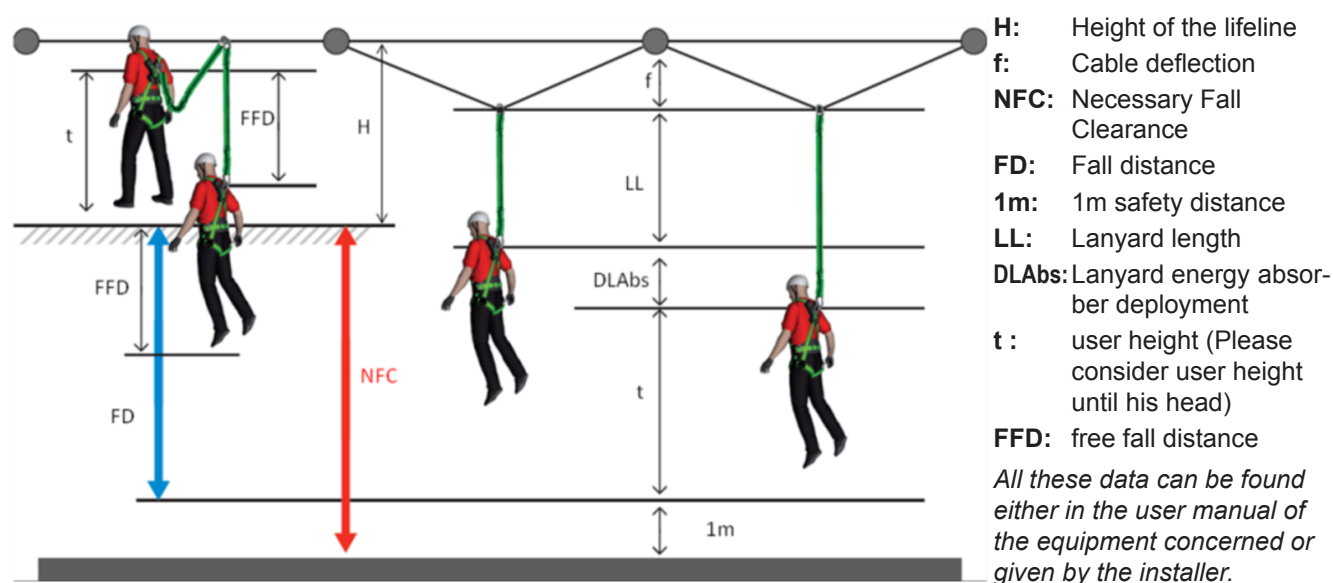


Fig.2.1 - Cable deflection and necessary fall clearance

Calculation of the Necessary Fall Clearance:

$$\begin{aligned} & \text{Cable deflection } \mathbf{f} \\ & + \text{Lanyard length } \mathbf{LL} \\ & + \text{Lanyard energy absorber deployment } \mathbf{DLAbs} \\ & + \text{User height } \mathbf{t} \text{ (usually 6 feet / 1.80 m)} \\ & - \text{Line height } \mathbf{H} \\ & + \text{Safety distance } \mathbf{1m} \\ \hline & = \mathbf{\text{Necessary Fall Clearance NFC}} \end{aligned}$$

2.2 Compatibilities

All system components are designed to be used in a Söll XENON anchor device only. Performance of the product is not guaranteed if used with components other than those approved and recommended for the Söll XENON system.

The Söll-Xenon anchor device should be used only in combination with the following safety accessories:

- EN 355 compliant energy absorbers
- EN 354 compliant lanyards
- EN 362 compliant connectors
- EN 360 compliant self-retracting lifelines (SRL)
- EN 358 and EN 361 compliant full body harnesses and work positioning belts
- For Australia and New Zealand: absorbers, harnesses, SRLs, belts refer to AS/NZS 1891

For more details on these accessories please refer to the respective product instructions.

2.3 Prior use checks

Ensure that the Söll-Xenon anchor device is inspected before each use. The anchor device must be in perfect working condition and must be functioning properly before and during every use of the device. Ensure that the device and the components are not deformed or damaged.

The Söll-Xenon anchor device should not be used if the following defects are detected:

- The opening of the shuttle is greater than **4.0 mm** (standard shuttle) or **5.0 mm** (Overhead roller shuttle). Please refer to section **"After use information and maintenance"** (fig. 4.1; 4.2).
- The material thickness near the opening is less than 3.5 mm. (standard shuttle) (fig 4.1)
- The system has been subjected to stresses resulting from a fall (fig. 2.2; 2.3)
- Cable is under-tensioned (fig. 2.4)
- Cable is over-tensioned (fig. 2.4)

If defects are detected, the system should be removed from service until an expert (as defined in chapter **"After use information and maintenance"**) confirms in writing that the system is fit for use.



Note:

The fall indicator is released after a fall or in case of excess force (see fig. 2.1, 2.2) and a red „STOP“ mark is visible.

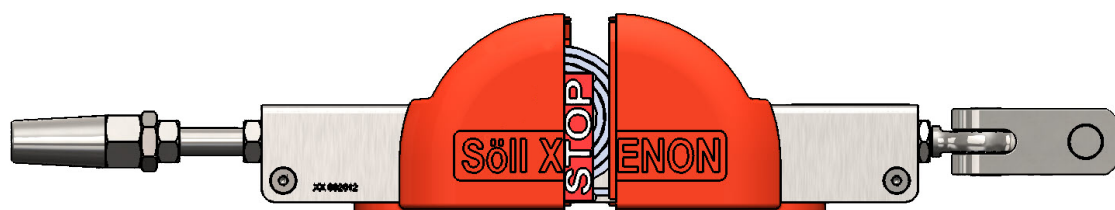


Fig. 2.2 - Energy absorber with a released fall indicator



Fig. 2.3 - Tensioner with a released fall indicator

Before every use, ensure there is adequate fall clearance below the user to prevent the user from hitting the ground or any other obstacles in the event of a fall.

Always check the pre-tension of the cable on the energy absorber (fig. 2.4) or tensioner (fig. 2.5) before using the Söll-Xenon anchor device.

When using the tensioner (fig. 2.5) the maximum limit of the cable (approximately 2 kN) is reached when the third ring of the pre-tension indicator becomes visible.

Minimum clearance distances must be maintained. (fig. 2.6)

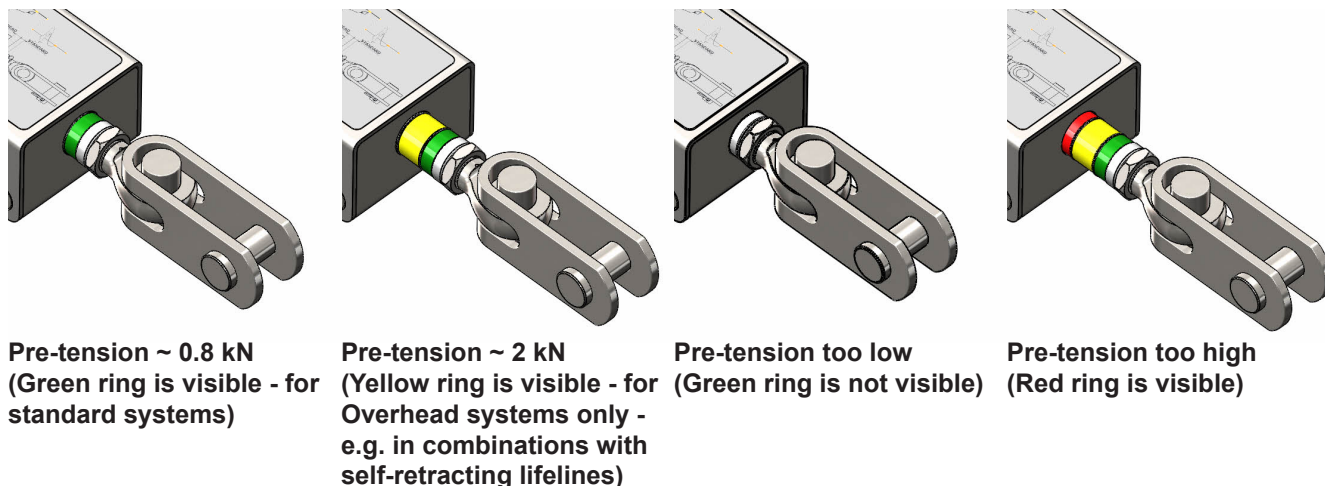


Fig. 2.4 - Pre-tension energy absorber

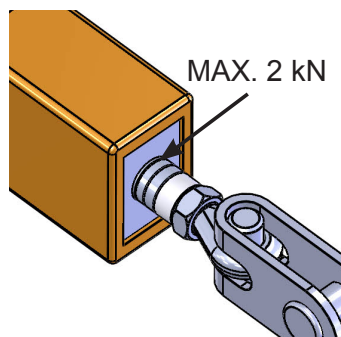


Fig. 2.5 - Pre-tension tensioner

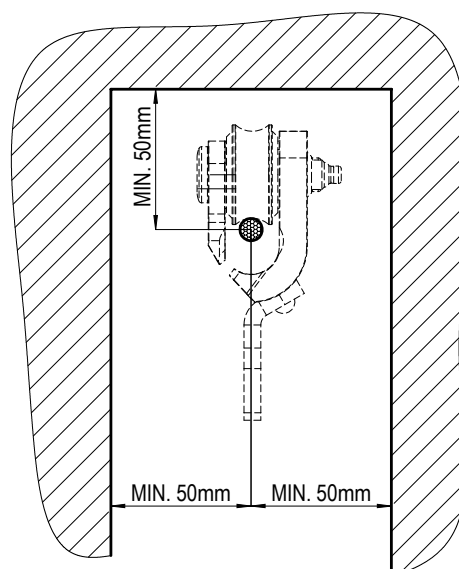


Fig. 2.6 - Minimum clearance distances



Note:

1. The energy absorber and the tensioner have a tensioning path limiter that prevents excessive stretching of both thread ends and thus ensures that the functional capability is not hampered. Keep in mind that the energy absorber may get damaged if the permissible pre-tension is exceeded.
2. If you notice a considerable resistance when unscrewing the thread ends before installation (at 55-60 mm of the visible thread depending on the model), do not turn further!

3 Use

3.1 Forseeable misuse

Every user must use a separate shuttle! Only the shuttles approved by the manufacturer should be used.



Danger!

Be careful when using self-retractable lifelines which have not been tested in combination with the horizontal anchor device. A swinging cable in case of a fall can affect the blocking function of the self-retractable lifeline in certain circumstances. You must ensure that your installer properly tests the lifelines.



Danger!

Don't secure a person only with an carabiner on the cable! Always use the shuttle.

3.2 Use of the standard shuttle

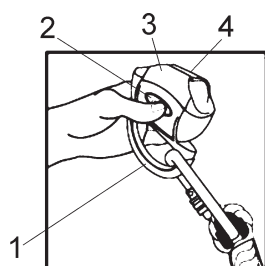


Fig. 3.1 - Components of the standard shuttle

- 1 Anchor eye
- 2 Unlock key
- 3 Movable half-shell
- 4 Fixed half-shell

Fig. 3.1 shows the main components of the standard shuttle. To fix the shuttle, hook the carabiner of the coupling element into the anchoring eye (1) of the shuttle (fig. 3.2).



Danger!

The carabiner hook must be secured against unintentional disengagement.

You must strictly follow the instructions in the section below:

Open the half shells (3) of the shuttle by pressing the unlock key (2) and pushing the anchoring eye (1) upwards (fig. 3.4). Attach the shuttle to the cable (fig. 3.5) Release the unlock key (2). The half-shells (3) close automatically. The shuttle can then move freely on the cable (fig. 3.6).

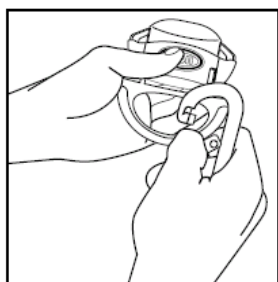


Fig. 3.2

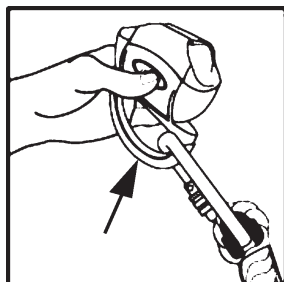


Fig. 3.4

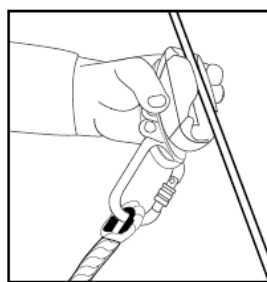


Fig. 3.5

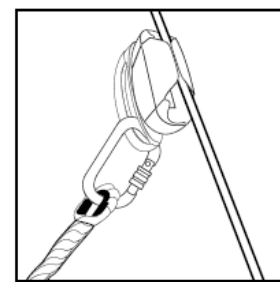


Fig. 3.6



Caution!

Half-shells of the shuttle must shut when the anchor eye is pulled! (fig. 3.7)

To detach the shuttle after use press the unlock key (2) and push the anchoring eye upwards (fig. 3.4) and take the shuttle off.



Danger!

The shuttle or the carabiner of the lanyard may be detached only if the user is secured otherwise against falling from height!

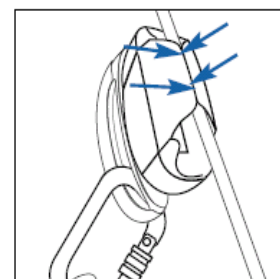


Fig. 3.7

3.3 Use of the overhead roller shuttle

Fig. 3.8 shows the main components of the roller shuttle. To fix the shuttle, hook the carabiner of the lanyard into the anchoring eye (1) of the overhead roller shuttle, similarly to the standard shuttle.

Press the unlock key(4) and open the locking plate(2) (fig. 3.9, 3.10). Put the roller shuttle on the cable (fig. 3.11). Close the locking plate(2) (fig. 3.12). The roller shuttle can now move freely on the cable.

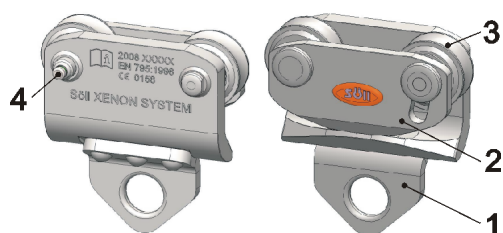


Fig. 3.8 - Components of the overhead roller shuttle

- 1 Anchor eye
- 2 Locking plate
- 3 Rollers
- 4 Unlock key

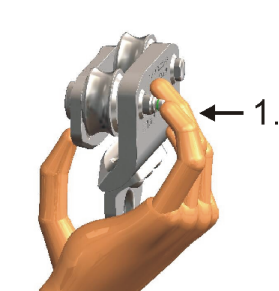


Fig. 3.9



Fig. 3.10



Fig. 3.11



Fig. 3.12



Danger!

The green marking ring on the unlock key **MUST** be visible. Only then the shuttle is locked safely and is ready for operation. (fig. 3.13)



Note:

If the horizontal anchor system has intermediate brackets or curves, it must be ensured when fixing the shuttle that the shuttle gap points in the direction of the sheet metal web of the bracket. (fig. 3.14)

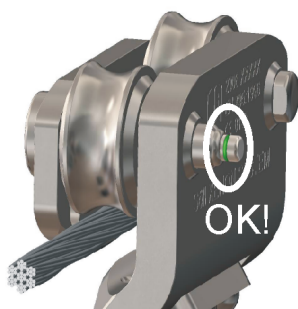


Fig. 3.13

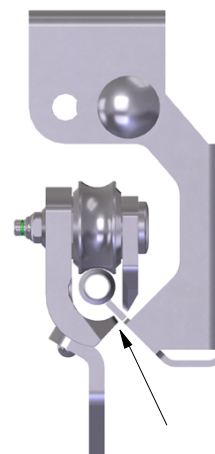


Fig. 3.14

3.4 Emergency procedures

It is essential that the owner of this system has a rescue plan, wherein all possible emergencies, in particular the urgent need to evacuate an injured person, that may occur while working are taken into account.

4 After use information and maintenance

4.1 Repair

Only the manufacturer or a person appointed by the manufacturer is allowed to carry out repairs.

Components with mechanical damages (e.g. resulting from a fall) must be replaced!

Only use original spare parts or the ones approved by the manufacturer while carrying out repairs.

For further information on the availability and suitability of spare parts, please refer to our Söll XENON Information Guide or contact your installer or alternatively, contact the customer service person responsible for your area. (see section „5.2 Contact“).

4.2 Inspection

Ask an expert to inspect the Söll Xenon anchor device regularly as per requirement, however at least once **every 12 months**. Critical environmental conditions (dirt, dust, chemical impacts, temperature, UV radiation) can require more frequent maintenance intervals. Ask your installer for advice.

Always ensure manufacturer's instructions and statutory regulations are taken into account when inspecting the Söll XENON anchor device.



Note:

If the device has not been used for a period longer than 1 year, ask an expert to inspect device before reusing it!



Danger!

A defective anchor device or the one subjected to stresses resulting from a fall should no longer be used and removed from service. It may only be used again if an expert approves such use in writing.



Note:

An expert is:

„a person who has adequate knowledge in the area of personal safety equipment for protection against falls from heights owing to his technical education (e.g. participation in and successful completion of a training program provided by Miller) and experience and who is knowledgeable about the applicable safety regulations, accident prevention regulations, guidelines and generally acceptable technical standards (e.g. DIN-Standards, VDE-specifications, technical regulations of other member states of the European Union or other contracting countries of the agreement across the European economic zone) to such an extent that he can assess the safe working condition and proper use of personal safety equipment for protection against falling.“



Warning:

An expert is not authorized to carry out repairs.

Before and during each use of the anchor device, ensure attention is paid to the correct functioning of all components.

4.3 Regular inspections

Check the abrasion limits of the standard shuttle (fig. 4.1) and the overhead roller shuttle (fig. 4.2).
Check if the green ring of the overhead shuttle is visible when the locking plate is closed (fig. 4.3)

Further inspections should be carried out in accordance with the inspection list below:

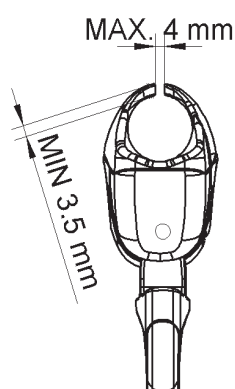


Fig. 4.1

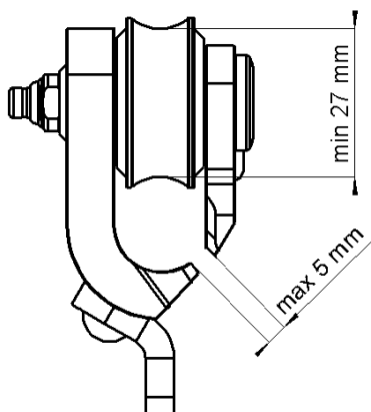


Fig. 4.2

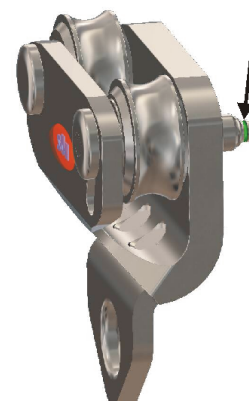


Fig. 4.3

- The identification plate must be visible.
- Cable tension! The green ring on the energy absorber must be visible, - if the red ring shows the tension is excessive. The yellow ring should only be visible in combination with overhead system components and retractable lifelines (SRL)
- Cable condition: Locate any squeezed points, loose strands, cut wires or corrosion. - Do not use the device in case the cable shows evidence of such a condition!
- Crimping state: The control ring must be in contact with the cable end connection. If any abnormal deviation is evident, it means that the cable connection has slipped and that the lifeline needs to be checked by the manufacturer or an approved installer. Do not use the device!
- General condition of the energy absorber: All bolts and pins must be present, the plastic housing must be intact, the label for pre-tension must be visible, absorber must not be fall-charged - STOP-label must not be visible.
- Condition of attachments: Nuts and screws must be present and tight.
- Conditions of posts or interface: Check any visible welds. Do not use the device in case the welding is not in a good condition or if corrosion has damaged the solidity of the device!

- Check intermediate hangers and bends:
 - there must be no plastic deformation,
 - presence and intactness of the plastic guides (depending on type), check if the nuts or screws are tightly screwed on, if any deformation is visible on the bend and also check the cable tension on both sides of the bend!
- Condition of the standard and overhead shuttle: The shuttle and especially its movable components (rollers, locking pin, locking plate, half shells unlock key, etc.), must be clean and work smoothly

For inspections and repairs, we recommend the use of the list at the end of this manual.

4.4 Cleaning, transportation and storage

Basic care of all Sperian Fall Protection equipment will prolong the life of the unit or system and will contribute to the performance of its vital safety function. Periodically clean system components to remove any dirt, paint, corrosives, contaminants, or other materials that may have accumulated.

Don't use aggressive chemicals such as alcohol, acids or lyes for cleaning! We recommend the use of soapsuds.


When the Söll Xenon shuttle is not in use, store in a clean, dry, ventilated area, free of exposure to fumes, corrosive elements and environmental effects.


Ensure that the device is transported in a clean, dry, ventilated area, free of exposure to fumes, corrosive elements and environmental effects.

5 Miscellaneous

5.1 Identification

Affix the identification plate (fig. 5.1) at the access points containing the following information. **The presence of the identification plate is mandatory and it must never be removed!**

- Manufacturer, vendor or importer
- Type designation: Söll XENON
- Max. number of users
- Max. length of PPE
- Next inspection date
- Installation number (Labeled internally by the installer if necessary)
- Number of absorbers
- Length of the system
- Mark and identification number of the certified body appointed for testing the personal protection equipment: CE158, DEKRA EXAM GmbH
- Pictograph that indicates to a user that the instructions for use should be read: 
- **Note:** Only use with EN 355 or EN 360 compliant personal protection equipment
- Installer contact details
- Number and year of the European standard: EN 795:2012




The identification plate is a rectangular label with a grey background and black text. It contains the following information:

- MILLER** by Honeywell logo
- Söll Xenon** Horizontal Lifeline System
- Installer / Installateur: (blank space for signature)
- Maximum number of users / Nombre maximum d'utilisateurs / Maximale Benutzeranzahl / Maximaal aantal gebruikers: (blank space)
- Maximum length of PPE / Longueur maximale du SPI / Maximale Länge der PSA / Maximale lengte van PBM: (blank space)
- Next inspection due / Date de la prochaine inspection / Nächste Inspektion / Datum volgende inspectie: (blank space)
- Installation number / Numéro d'installation / Installationsnummer / Installatienummer: (blank space)
- Number of absorbers / Numéro d'absorbeurs / Anzahl der Dämpfer / Aantal schokdempers: (blank space)
- Length of the system / Longueur du système / Systemlänge / Lengte van het systeem: (blank space)
- www.fall-protection.com
- EN 795:2012 CE0158
- Pictographs: a warning triangle with an exclamation mark, an information icon (i), and a pictograph of a person using a fall protection system.
- Footnote: Only use with PPE EN 355 or 360 compliant / N'utiliser qu'avec EPI selon EN 355 ou 360 / Nur mit PSA nach EN 355 oder 360 / Alleen gebruiken met PBM conform norm EN 355 of 360

Fig. 5.1

The marking on the shuttles should contain the following information (fig. 5.2: standard shuttle, fig. 5.3: overhead roller shuttle):

- Type designation: Söll XENON
- Year of manufacture
- Serial number (SN)
- Number and year of the European standard
- Mark and identification of the certified body appointed for testing the personal protection equipment: CE158
- Pictograph indication that the user should read the instructions for use: 

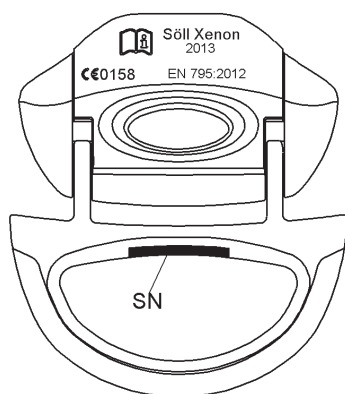


Fig. 5.2

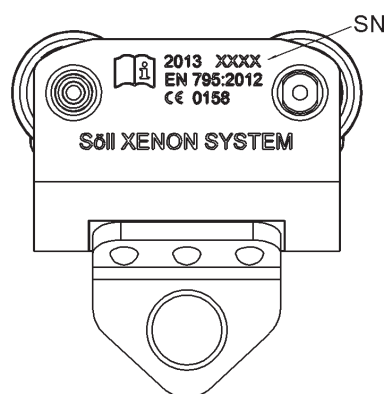


Fig. 5.3

5.2 Contact

For Southern Europe: System Customer Service (Vierzon, France)

- Phone: +33 248 53 00 80
- mail: lignedevie@antec.fr

For Northern Europe: System Customer Service (Hof, Germany)

- Phone: +49 9281 8302 0
- mail: scs-hof@honeywell.com

Inspections and repairs

Year of manufacture:		Type designations/standard:		
Date of purchase:		Serial number:		
Date of first use:				
Date	Reason for working on the system (*)	Damage determined, repairs carried out and other important details	Name and signature of the expert	Date of the next regular inspection

(*) Mark „I“ for regular inspections, „R“ for repair

[illegible]

Sperian Fall Protection Deutschland
GmbH & Co. KG
Seligenweg 10
D-95028 Hof
Phone +49 (0) 9281 83 02 0
Fax +49 (0) 9281 36 26

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