

# Assembly, Installation and operating instructions for „Söll-Xenon“ anchorage device

according to EN 795:1996

Part No: XE-...

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

Date of manufacture: \_\_\_\_\_

Date of initial operation: \_\_\_\_\_

Operator/User: \_\_\_\_\_

Street: \_\_\_\_\_

Place: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax.: \_\_\_\_\_

Date of Issue: 07.05.2009

SE 65




Technical modifications reserved!



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## Explanation of symbols

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

## General information

These installation instructions and directions for use refer to those parts of the product that are relevant to safety.

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**Notice!**

In this issue the following has been changed: drawings B 1a and b, B 6, B 7 and B 8, D 1 - 7, E 2b, points A 16, B 2, B 4.2, B 4.3, C 1, E 6, E 7.

## A Safety precautions

- A 1. It is advised that all persons using the Söll-Xenon anchorage device read this instruction manual carefully before using the device. Actions contravening this instruction manual put people's lives at risk!
- A 2. The operating company of the anchorage device must ensure that this instruction manual
- is either kept at a safe and dry location near the system
  - or is always kept at an easily accessible location that is known to all system users.
- A 3. 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).
- A 4. The Söll-Xenon anchorage device should be used only by personnel trained to handle this device safely.
- A 5. Prevailing accident prevention regulations and safety guidelines, e.g. BGV A 1, BGV C 22 as well as the „Regulations for using personal safety equipment against falling or for restraining and rescuing“ like BGR 198, BGR 199 and BGR 203 must be followed. BGV C 22 and the BGI 530 specification document must be followed for installation.
- A 6. If other personal safety equipment is used as protection against falling or as restraining or rescuing devices and if such equipment is anchored or fixed on the Söll-Xenon anchorage device, corresponding operating instructions of the respective companies and the instructions for use/user information provided by the relevant manufacturer must be followed.
- A 7. Maximum characteristic forces are:  
11.2 kN (rope- $\varnothing$  8 mm) or 14.0 kN (rope- $\varnothing$  10 mm) for the end anchor,  
6.0 kN for the intermediate anchor.  
Lower characteristic forces must be substantiated with calculation in particular cases.



### **Warning!**

Before installation, check whether the component on which the Söll-Xenon anchorage device is to be fixed can withstand the stresses resulting from a fall (certificate for stability). A qualified engineer must certify this.

- A 8. Manufacturer's installation instructions (refer to the separate installation manual) and installation suggestions as per the EN 795 standard and Australian Standard AS/NZS 1891.4 must be followed at the time of installation.
- A 9. Select the position of the anchorage device and the method of work in such a manner that the free fall and the fall height are restricted to a minimum.
- A 10. Ensure that the distance required for arresting should not be greater than the one available on-site. Adjust the type and length of the coupling element accordingly. (For Australian & New Zealand please refer to AS/NZS 1891.4.)

A 11. Determine the distance required between the Söll-Xenon anchorage device and the ground or an obstacle by taking into account the deflection of the rope which depends on the location of the anchorage device (overhead installation, on ground, ...) and the type and length of the coupling element (refer to the example). The maximum deflection of the rope is 1.36 m (see figure A1). Lower deflections must be substantiated with calculation in particular cases

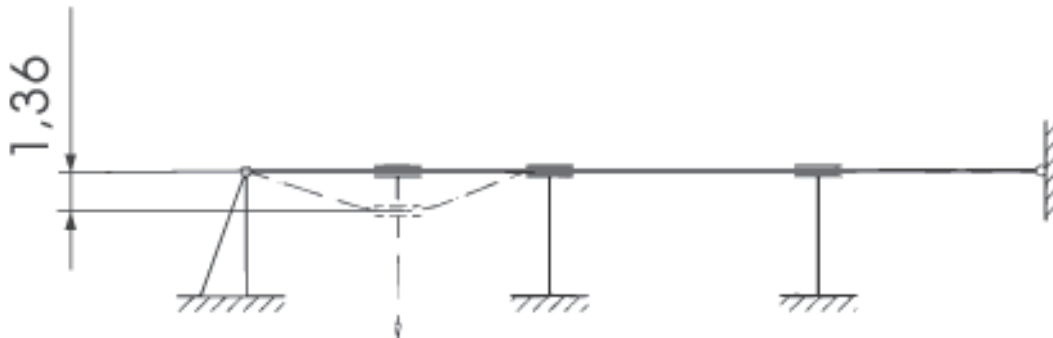


Figure A1 - maximum deflection of the anchorage device

**Example:**

The minimum distance from the ground required for using an EN 354 compliant lanyard having a length of 1.5 m is calculated as follows:

2x length of the coupling element	3,00 m
Maximum plastic deformation of the shock absorber	1,75 m
Maximum deflection of the anchorage device	1,36 m
Safety distance	<u>1,00 m</u>
Required minimum distance from the ground	7,11 m

(For Australian & New Zealand please refer to AS/NZS 1891.4.)

- A 12. It is essential that the owner of this system has a rescue measures plan, wherein all possible emergencies that may occur while working are taken into account.
- A 13. The Söll-Xenon anchorage device should only be used for the intended purpose, e.g. not as a transport anchor or for lifting of loads.
- A 14. For the user's safety, it is essential that he be physically fit and not be under the influence of medicines or alcohol.
- A 15. For the users' safety, it is important that the retailer provide this manual in respective country's language if this system is re-sold in another country.
- A 16. The certified testing agency appointed for the prototype test: DEKRA EXAM GmbH, Dinnendahlstraße 9, 44809 Bochum, CE 0158

## B Inspection and assembly before use

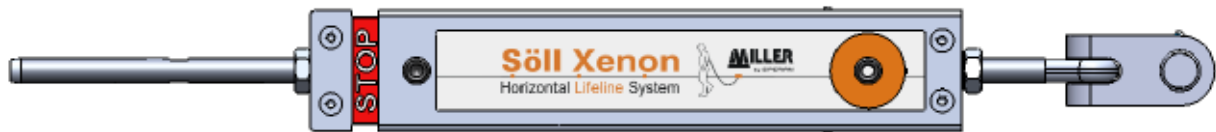
- B 1. Ensure that the Söll-Xenon anchorage device is inspected before each use. The anchorage device must be in flawless working condition and must be functioning properly before and during every use of the device. Ensure that the device and the components are not deformed or damaged.
- B 2. The Söll-Xenon anchorage device should not be used if the following defects are detected
- The opening of the shuttle is greater than 4.0 mm
  - The material thickness near the opening is less than 3.5 mm.
  - The system has been subjected to stresses resulting from a fall
  - Rope is under tensioned
  - Rope is over tensioned

If defects are detected, the system should be out of service until an expert 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 figures B 1, B 2) and a red „STOP“ mark is visible.



**Figure B 1a** - Shock absorber with a released fall indicator

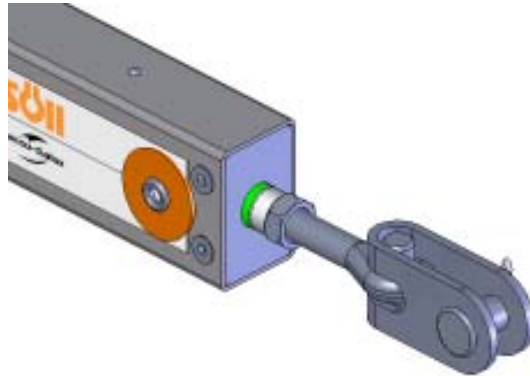


**Figure B 1b** - Tensioner with a released fall indicator

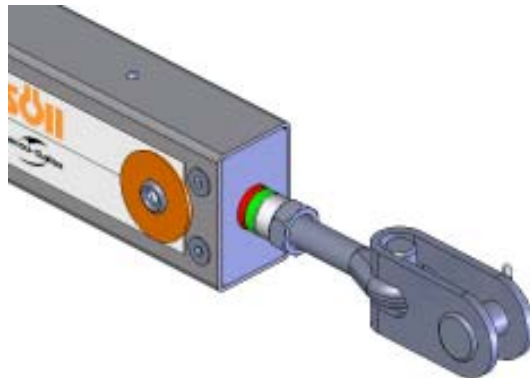
- B 3. Before every use, ensure that there is adequate fall clearances under the user, to prevent the user from hitting the ground or any other obstacles in the event of a fall.

B 4. Always check the pre-tension of the rope on the shock absorber before using the Söll-Xenon anchorage device.

B 4.1 Standard Shock Absorber (see figures B 2 to B 4)

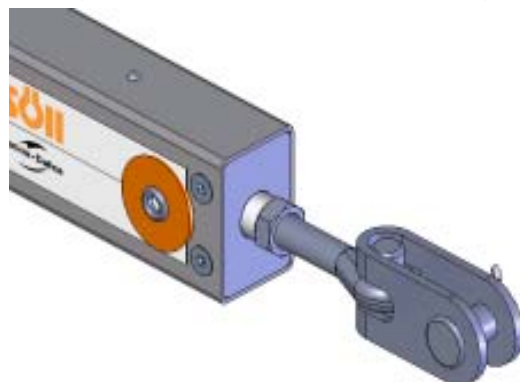


**Figure B 2** - Pre-tension OK, the green ring is visible



**Figure B 3** - Pre-tension too high, the red ring is visible

Reduce pre-tension by rotating the shock absorber till the green ring is visible.

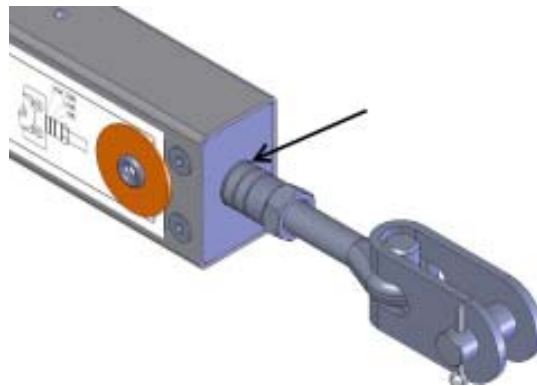


**Figure B 4** - Pre-tension too low, the red ring is not visible

Increase pre-tension by rotating the multi-function absorber till the green ring is visible.

If the fall indicator is released, check the anchorage device to determine whether a fall has occurred. (Check to see if the red „STOP“ mark is visible.)

B 4.2 When using the "Heavy-Duty" shock absorber or the tensioner, the maximum limit of the rope, i.e. approximately 2 kN, is reached when the third ring of the pre-tension indicator becomes visible.



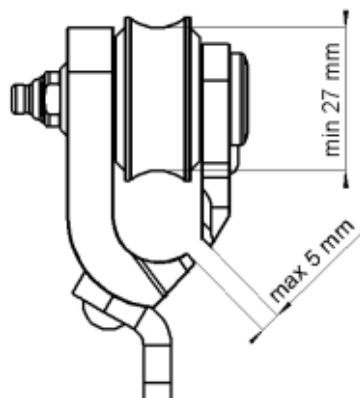
**Figure B 5** - Pre-tension when using the "Heavy-Duty" shock absorber

B 4.3 **Note:**

The multi-function shock absorber has a tensioning path limiter that prevents excessive stretching of both thread ends and thus ensures that the functional capability is not hampered. If you notice a considerable resistance when unscrewing the thread ends (at 55-60 mm of the visible thread depending on the model), do not turn further.

**Note:**

Keep in mind that the shock absorber may get damaged if the permissible pre-tension is exceeded.



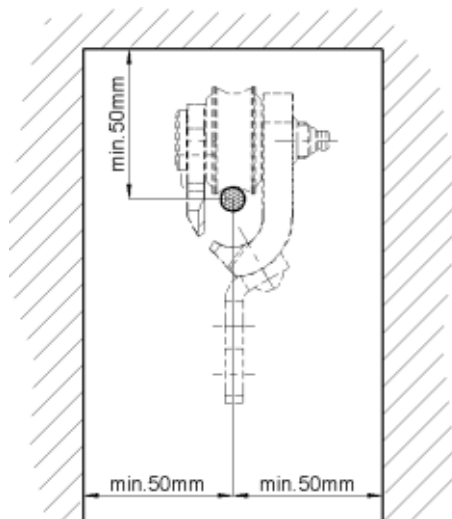
**Figure B 6** - Abrasion limit of the Söll-Xenon – wheeled glider.

**Overhead Wheeled Glider**

- The minimum diameter of the gliding surfaces of the wheels must be 27mm.
- The opening between the shuttle casing and rear plate must not exceed 5mm!



**Figure B 7 -** Locking mechanism is OK – green ring on the unlock key is visible when the shuttle is closed.



**Figure B 8 -** Minimum clearance distances to be maintained (except the system components)

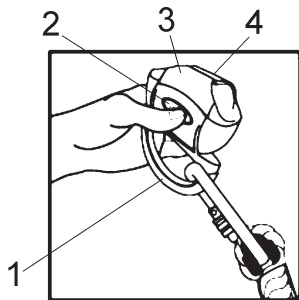
**Danger!**

If the minimum distances are not maintained, the shuttle may open unintentionally and fall from the rope.

# C Use

- C 1. The Xenon anchorage device with the 7x7, Ø8 mm stainless steel may be used to secure a maximum of 4 persons against falling, and the one with the 1x19, Ø8 mm stainless steel rope may be used to secure a maximum of 7 persons.
- C 2. Every user must use a separate shuttle! Only the shuttles approved by the manufacturers should be used.
- C 3. The Söll-Xenon anchorage device should be used only in combination with the following safety accessories
  - EN 355 compliant shock absorber
  - Full body harness and work positioning belt according EN 358, EN 361.

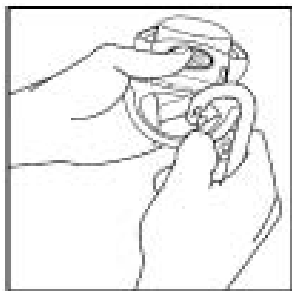
## C 4. Terms



**Figure C 1 - Components of a shuttle**

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

## C 5. Fixing the shuttle

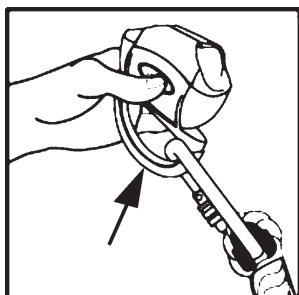


**Figure C 2 - Hook the karabiner hook of the coupling element into the anchoring eye of the shuttle.**

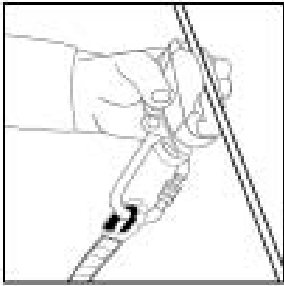


### Danger!

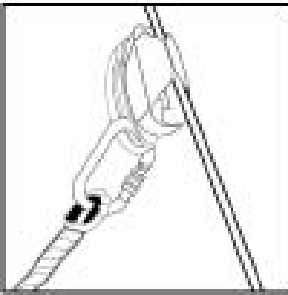
The karabiner hook must be secured against unintentional disengagement.



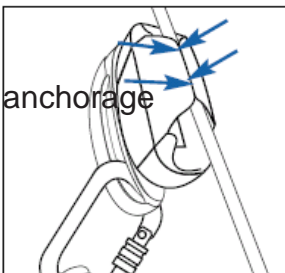
**Figure C 3 - Open the half-shells of the shuttle by pressing the unlock key and pushing the anchoring eye upwards.**



**Figure C 4** - Shuttle on the rope



**Figure C 5** - Release the unlock key. Half-shells shut automatically. The shuttle can now move freely on the rope.



**Figure C 6 - Caution!**

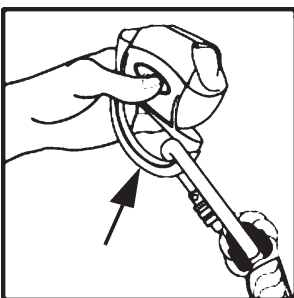
Half-shells of the shuttle must shut when the eye is pulled.

**C 6. Danger!**



The karabiner hook of the coupling element should be detached from the anchoring eye only if the user is otherwise secured against falling.

**C 7. Detaching the shuttle**



**Figure C 7** - Open the shuttle by pressing the unlocking key and pushing the anchoring eye upwards and detach the shuttle from the rope.

# D Utilization of the overhead wheeled glider

**Remark:**

To prevent impact damage to the wheeled shuttle, a minimum clearance of 85mm is required around the cable, along its full length.

- D 1. The SÖLL-XENON anchorage device with a 8mm stainless steel cable 1x19 against falls from a height can be used by 7 persons at a maximum.
- D 2. Every user must use a separate shuttle! Only the shuttles approved by the manufacturers should be used.
- D 3. The Söll-Xenon anchorage device should be used only in combination with the following safety accessories
  - EN 355 compliant shock absorber
  - Full body harness and work positioning belt according EN 358, EN 361.
  - AS/NZS 1891 Fall Protection Equipment
- D 4. Terms

**Figure D 1 - Components of a shuttle**



- 1 Anchoring eye
- 2 Locking plate
- 3 Wheeled gliders
- 4 unlock key

D 5. Fixing the shuttle

**Figure D 2 - Press Pos. 4 for the unlock key**



**Figure D 3 - Locking plate open Pos. 2**



**Figure D 4 - Put the glider on the rope**



**Figure D 5 - Close the locking plate, Pos.2**



**Figure D 6 - danger**

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

**Note:**

If the rope 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.



**Figure D 7 - Glider on intermediate hanger overhead**



## E Maintenance

- E 1. Only the manufacturer or a person appointed by the manufacturer is allowed to carry out repair activities owing to reasons pertaining to safety. Components with mechanical damage (e.g. resulting after a fall) must be replaced!
- E 2. Only use original spare parts or the ones approved by the manufacturer while carrying out repairs.
- E 3. Ask an expert to inspect the Söll-Xenon anchorage device regularly as per requirement, however at least once every 12 months. Always ensure manufacturer's instructions and statutory regulations are taken into account when inspecting.

### Note:



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

- E 4. Regular inspections are essential since users' safety depends on the effectiveness and durability of the device.

### E 5. Warning!



A defective anchorage device or the one subjected to stresses resulting from a fall should no longer be used and put out service. It may only be used again if an expert approves it.

### An expert is:

„a person who has adequate knowledge in the area of personal safety equipment for protection against falling owing to his technical education (e.g. participation in and successful completion of a training program) and experience and who is knowledgeable about the prevailing national industrial 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.“




### Note!

An expert is not authorized to carry out repairs.

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

E 6. Affix the identification plate containing the following information at the access points:

- Manufacturer, vendor or importer: SÖLL
- Type designation: Söll-Xenon
- Max number of users
- Required distance from the ground
- Year of manufacture : 20xx
- Next inspection: month/year
- Installation number: Labelled internally by the installer if necessary
- Number of absorbers: xx piece.
- Length of the system: xx m
- Mark and identification number of the certified agency appointed for testing the personal safety equipment: **CE 0158**, 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 safety equipment



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

- Top Left:** SÖLL logo and contact information for Söll-Dehler - Söll, Christian Dehler Holding Deutschland GmbH & Co. KG, including address, phone, fax, and email.
- Top Right:** Xenon logo and product name: Horizontal Lifetime System, with a note that it is CE certified according to EN 705:1995.
- Left Column:** A list of fields for user information:
  - Mögliche Benutzerszahl: [ ]
  - Maximum number of users: [ ]
  - Erforderlicher Abstand zum Boden: [ ]
  - Required distance to the ground: [ ]
  - Dauphr: [ ]
  - Year of manufacturing: [ ]
  - Nächste Inspektion: [ ]
  - Next inspection: [ ]
  - Installationsnummer: [ ]
  - Installation number: [ ]
  - Anzahl der Dämpfer: [ ]
  - Number of absorbers: [ ]
  - Systemlänge: [ ]
  - Length of the system: [ ]
- Right Column:** A large empty box for the installer's name: Installateur/Installer: [ ]
- Bottom Center:** The CE mark and the number 0158.
- Bottom Right:** Two pictographs: a yellow triangle with an exclamation mark (warning) and a blue circle with a white figure holding a book (read instructions).
- Bottom Left:** A note in German and English: "Benutzung nur mit PSA nach EN 355 oder EN 360" / "Only use with PPE EN 355 or 360 compliant".



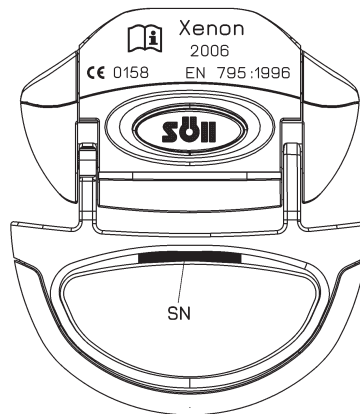
Figure E 1 - Identification plate

### Caution!

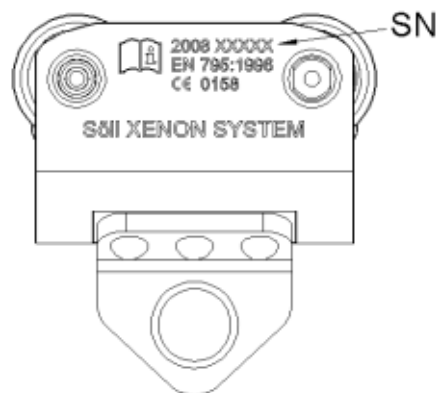
The identification plate must never be removed.

E 7. The label on the shuttle should contains the following information:

- Manufacturer, vendor or importer: SÖLL
- Type designation: Söll-Xenon
- Year of manufacture: 20xx
- Serial number (SN): xxxxx
- Number and year of the European standard: EN 795:1996
- Mark and identification number of the certified agency appointed for testing the personal safety equipment, **CE 0158**
- Pictograph indicating that the user should read the instructions for use:



**Figure E 2 a** - Label of the shuttle



**Figure E 2b** - Identification of the rolling shuttle

E 8. The label of the shuttle and the identification plate must be checked for legibility during every regular inspection.



