treeMOTION essential/pro

Herstellerinformationen und Gebrauchsanleitung/
Manufacturer's information and instructions for use

Acc. to: EN813:2008, EN358:2018
ANSI Z133-2017 for arboricultural operations,
ASTM F887-20, CSA Z259.1-05, AS/NZS 1891.1:2020

Nach: EN813:2008, EN358:2018
ANSI Z133-2017 für Baumpflegearbeiten,
ASTM F887-20, CSA Z259.1-05, AS/NZS 1891.1:2020

Together in Motion

Art.-Nr.: 6801485 / Ausgabe 02/2022

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⚠ WARNING

This product is a work positioning belt and sit harness, specifically designed for arborists.

It must not be used to arrest a fall. This product may be utilized only by persons trained in its safe use and having the relevant knowledge and skills, or under the direct supervision of such persons. Please consider the need of a back-up system, e.g. a fall arrest system. Whenever possible, the equipment should be provided personally to the user. It may be used only within the specified limited scope of use and for the defined purpose.

Prior to using this product, read this document thoroughly, make sure you understand the instructions for use, and keep them with the product, together with the inspection sheet! Keep instructions for future reference. In addition, check national safety regulations regarding personal protective equipment (PPE) for arborists' use for local requirements.

Attention! Consult AS/NZS 1891.4 for guidance on selection, use and maintenance matters!

The product accompanied by this set of instructions is type-examined and CE-marked to state conformity with regulation (EU) 2016/425 on Personal Protective Equipment (PPE). This product has been developed according to a risk analysis taking into account the special requirements of arborists.

If the system is sold or passed on to another user, the instructions for use must accompany the equipment. If the system is transferred to another country, it is the responsibility of the seller/previous user to ensure that the instructions for use are in the correct language for that country and that the requirements of relevant national standards are met.

TEUFELBERGER is not responsible for any direct, indirect, or incidental consequences/damage occurring during or after the use of the product and resulting from any improper use, especially caused by incorrect assembly of the equipment.

Note: This sit harness is intended solely for work positioning, NOT for fall arrest!

Edition 02/2022 Art. no.: 6801485

1. GENERAL

Whenever possible, this harness shall be personal issue. Any relevant documentation shall be issued to the user and convenient to access. Do not throw the instructions away. Keep for future use. When in use or storage, protect the harness from damage. Should any doubt arise about the safe condition of the harness or any of its components, quarantine the product and label it in an obvious way so that it cannot be used by mistake. Return the harness to the manufacturer for assessment and/or repair. Do not use the product again unless the manufacturer has stated (in writing) that it may be returned to service. No alterations, additions or repair are to be made to the equipment without the manufacturer's written consent. The equipment shall not be used outside its limitations or for any purpose other than that for which it is intended. If resold to another country, the seller must provide instructions for use in the appropriate language.

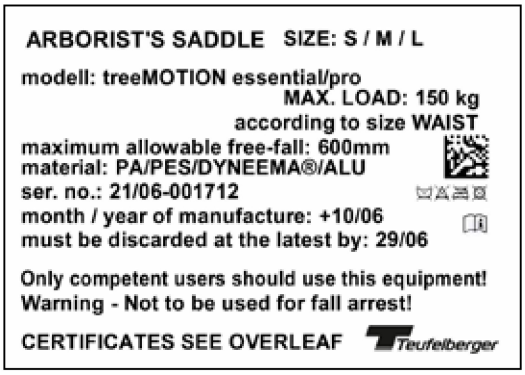
PPE systems must be thoroughly inspected by a competent person at regular intervals.

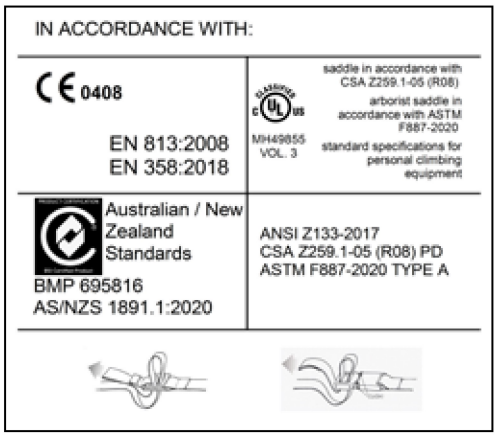
TEUFELBERGER recommend that a competent person carries out a thorough inspection at least every 6 months. Check national regulations for local requirements.

Responsibility

It is the user's responsibility to ensure:

- Adequate physical and mental condition to use the harness in normal and emergency situations.
- That a relevant risk assessment is in place for the work to be carried out, including emergeny contingencies and taking correct first aid into consideration.
- That all components of the system are compatible with one another.
- You have to consider national work at hight safety guidelines.





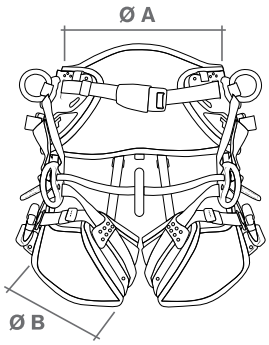
1.1. EXPLANATION OF THE MARKING ON THE HARNESS

Arborist's Saddle
Modell: Product name
Size: S / M / L
Material: materials used in the harness
Controll-No: number identifying the lot
Ser.-No: year of manufacture - serial number
Month/year of manufacture: two digits for month /four digits for year
must be discarded at the latest by: month/year of latest theoretically possible withdrawal from service. Actual life span may be much shorter. Consult Instructions for Use!
Max. load: 150 kg / 330 lbs
Maximum allowable free-fall: 600mm
There must not be a chance of a free fall.
Warning – not to be used for fall arrest!
"Free fall" does however not mean e.g. slipping of the user's feet. This is limited to 600mm
Indication informing the user that it is necessary to read the Instructions for Use
Only competent users should use this equiment!
manufacturer
Certificates see overleaf:
Look on the back of the label for information on certification and standards
The European standard symbols for washing of textiles and their care are used.
In accordance with:
EN 358: Standard for belts for work positioning and restraint and work positioning lanyards
EN 813: Standard for Sit harnesses
CE 0408 : The CE mark certifies compliance with the fundamental requirements of regulation (EU) 2016/425. The number identifies the testing institute (e.g., 0408 for TÜV Austria Services GmbH, Deutschstrasse 10, A-1230 Vienna, Austria).
CSA Z259.1-05 PD: Canadian standard on body belts and saddles for work positioning and travel restraint – group PD for work positioning and descent
MH49855: UL file number – identifying certification to CSA
AS/NZS 1891.1:2020: Australian/New Zealand Standard for industrial fall-arrest systems and devices – part 1: harnesses and ancillary equipment!
BMP 695816: licence number – identifying certification to AS/NZS
ASTM F887-20 type A: US American standard specifications for personal climbing equipment – aborist saddle type A
ANSI Z133-2017: US-American standard for arboricultural operations
Extra labels are attached to the rings as required by AS/NZS 1891.1:2020

LIMITED FALL
LIMITED FALL – MUST USE WITH OPPOSITE RING
POLE STRAP – MUST USE WITH OPPOSITE RING

2. USE

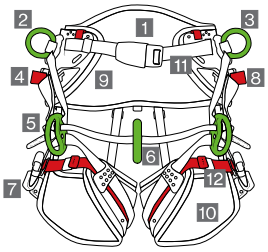
2.1. SIZE AND LOAD



Size	Ø A	Ø B	Max. user weight (incl. tools and equipment)
S	69 - 86 cm 27 - 33 in	38 - 57 cm 15 - 22 in	150 kg 330 lbs
M	80 - 105 cm 31 - 41 in	42 - 72 cm 17 - 28 in	150 kg 330 lbs
L	92 - 129 cm 36 - 50 in	48 - 87 cm 19 - 34 in	150 kg 330 lbs

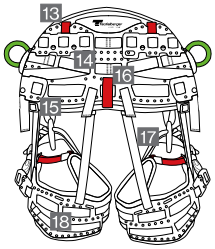
We follow the rationale of EN358:2018: There is usually no fall arrest during the intended use of tree-MOTION. **It is approved for 150 kg including tools and equipment.** This is covered by the static test with 15 kN which represents a safety factor of 10.

2.2. ATTACHMENT POINTS - treeMOTION Pro



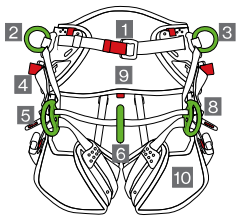
GREEN = PPE attachment points

RED = Non-PPE attachments points



1	ANSI Cobra® Buckle double adjustment	10	Comfortable Leg Paddings (both sides)
2	Standing Side Ring for work positioning (both sides)	11	Elastic waist webbing for perfect fitting
3	Lying openable Ring (both sides)	12	Elastic leg webbings for perfect fitting (both sides)
4	Adjustment buckles (both sides)	13	Loops for attaching a chest assembly (No fall arrest top!)
5	Forward D Pro for bridge connection and attachment of climbing or positioning systems (both sides)	14	Main Gear brackets for attaching a gear hook (both sides)
6	Sliding T Ring for attaching the climbing or positioning system	15	Small Gear brackets for attaching a gear hook (both sides)
7	ANSI Cobra® Buckle adjustable (both sides)	16	Gear Loop for attaching a chainsaw
8	Adjustable hip/leg connection (both sides)	17	Elastic webbing connection between waist and leg
9	Comfortable Back Padding	18	Leg loops (both sides)

ATTACHMENT POINTS - treeMOTION essential



GREEN = PPE attachment points

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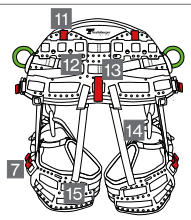
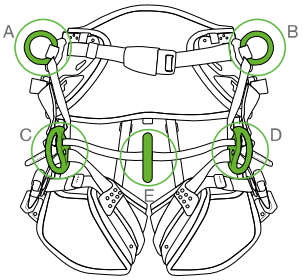


1	Adjustment buckles	9	Light Back Padding
2	Standing Side Ring for work positioning (both sides)	10	Light Leg Paddings (both sides)
3	Lying openable Ring (both sides)	11	Loops for attaching a chest assembly (No fall arrest top!)
4	Adjustment buckles (both sides)	12	Main Gear brackets for attaching a gear hook (both sides)
5	Forward D Pro for bridge connection and attachment of climbing or positioning systems (both sides)	13	Gear Loop for attaching a chainsaw
6	Sliding T Ring for attaching the climbing or positioning system	14	Elastic webbing connection between waist and leg
7	Adjustment buckles (both sides)	15	Leg loops (both sides)
8	Adjustable hip/leg connection (both sides)		

Front PPE attachment points:test loads applied according toEN 358 or EN 813 respectively

A + B = EN 358

E = EN 813

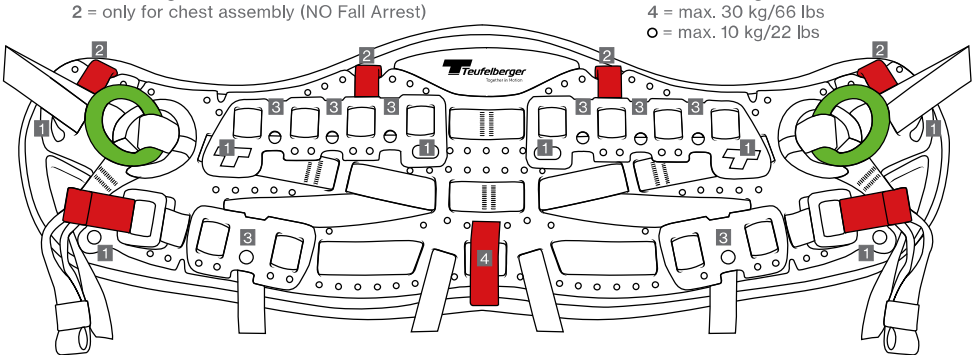


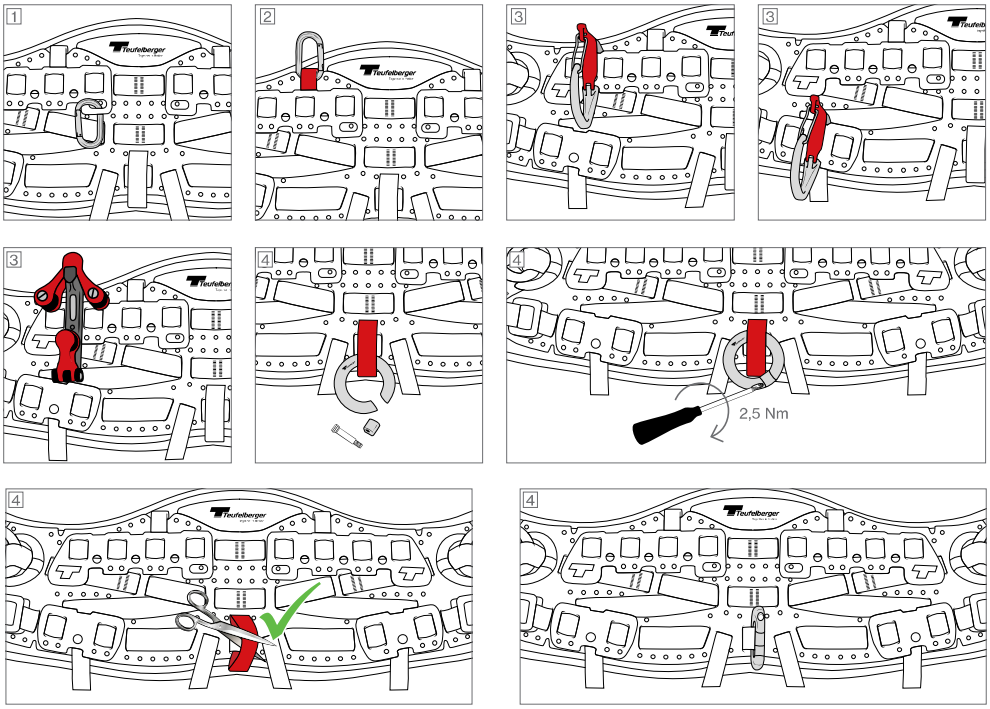
C + D = EN 813

OVERVIEW: WAIST BELT – POSSIBLE ATTACHMENT POINTS AND PERMISSIBLE LOADS

1 = max. 5 kg/11 lbs
2 = only for chest assembly (NO Fall Arrest)

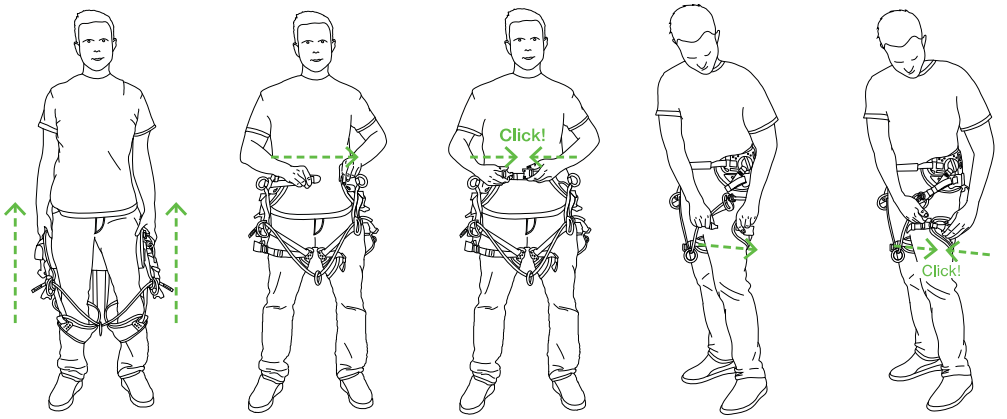
3 = max. 10 kg/22 lbs
4 = max. 30 kg/66 lbs
○ = max. 10 kg/22 lbs





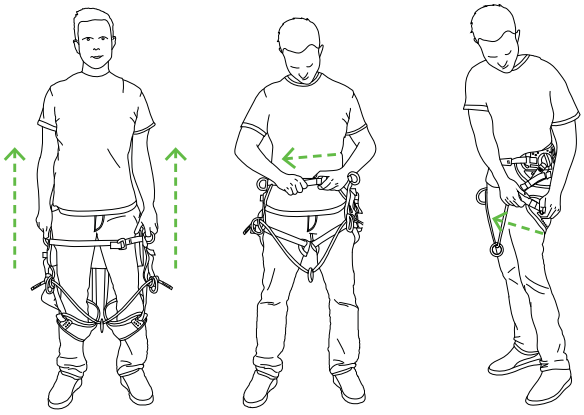
2.3. HOW TO PUT ON THE HARNESS CORRECTLY

treeMOTION Pro



Step into the harness between the rope bridge and the leg loops	Close the elastic strap, using the hook on the waist belt	Close the Cobra® buckle on the waist belt	Close the elastic strap, using the hook on the leg loops	Close the Cobra® buckle on both leg loops

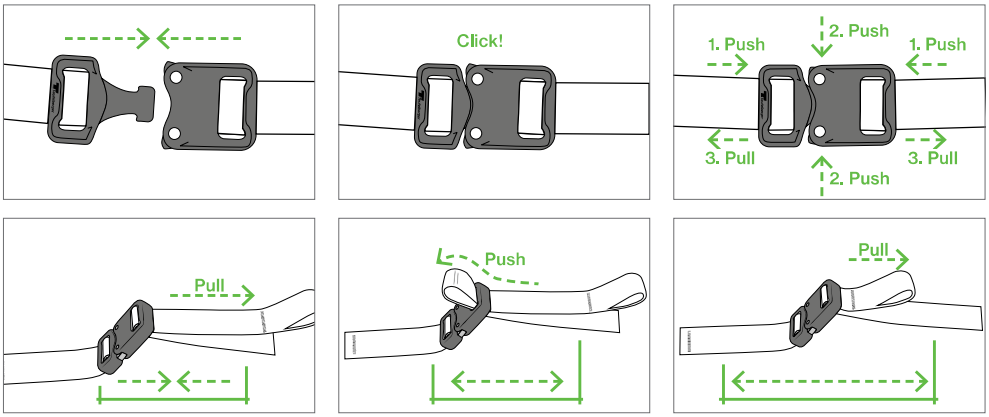
treeMOTION Essential



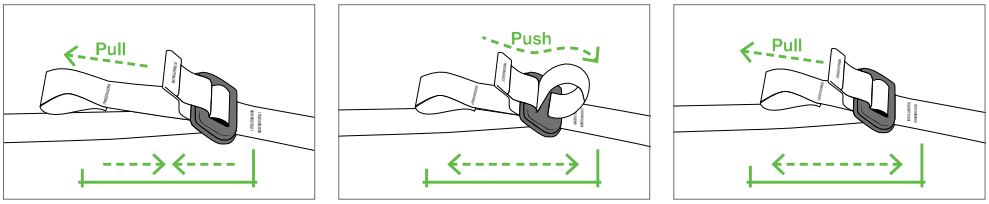
Step into the harness between the rope bridge and the leg loops	Tauten the webbing at the hips, using the readjuster buckles	Tauten the webbing at the leg loops, using the readjuster buckles

2.4. FUNCTION OF THE VARIOUS BUCKLES AND HOW TO ADJUST THE HARNESS

ANSI COBRA® BUCKLE; DUAL READJUSTABLE (WAIST BELT) AND READJUSTABLE (LEG LOOPS)



READJUSTER BUCKLES (ONLY ON TREEMOTION ESSENTIAL)



2.5. ADJUSTMENT OF BUCKLES

The default configuration is one knotted rope bridge, with a ring disposed on it.

However, this manual describes all acceptable configurations:

- one bridge with one ring
- two independently knotted bridges, each with one ring
- two bridges knotted on top of one another, each with one ring

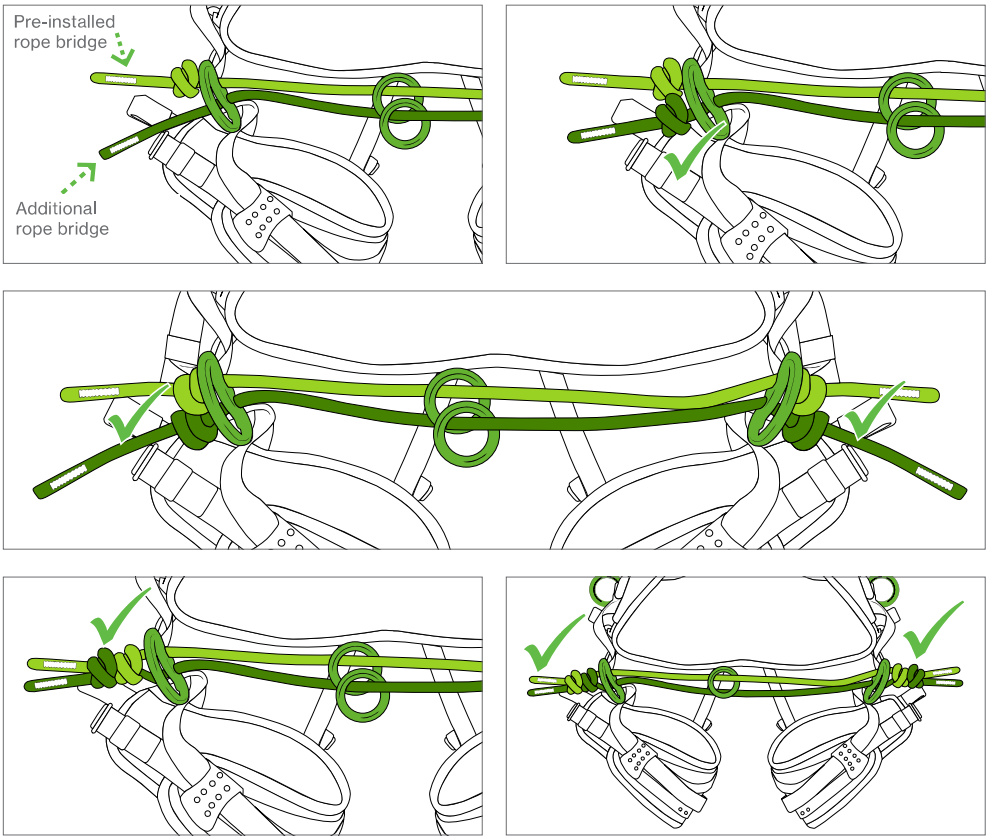
Instead of the ring, you can also use hardware according to:

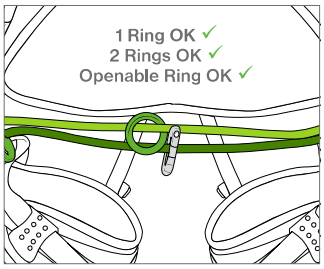
- PPE treeMOTION Open Ring bk 7350351
- EN 362 (karabiners for climbing)
- ANSI/ASSE Z359.12 (karabiners certified only by UL)

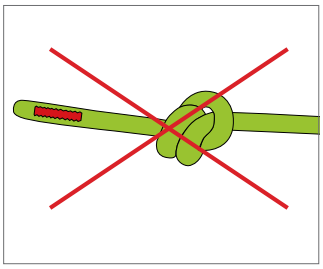
Adjust the length of the rope bridges supporting the rope bridge attachment point ensuring the stopper knots are properly tied, dressed and set before going 'on rope'.

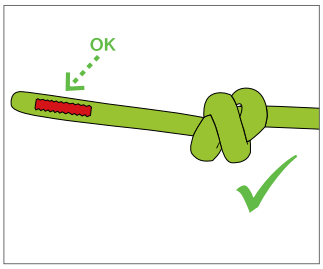
The climber shall fully equip the harness for the task to be performed, then hang in suspension and adopt a range of work positions to ensure that the harness is properly fitted, comfortable and suitable for the task.

Leg and back paddings are attached to the harness by hook-and-loop fastener and can be removed for cleaning and put back in place.









3. MODES OF USE

There must not be any chance of a free fall. „Free fall" does, however, not mean e.g. slipping of the user´s feet.

Choose the connection of the harness to an anchorage point at a level which will result in the least total fall distance consistent with the user's ability to carry out work tasks.

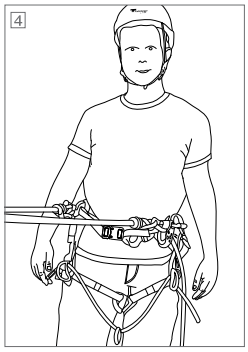
When making any connection to a point on a harness which cannot be seen by the wearer of the harness, either make it before putting the harness on or have it made or checked for security by a second person.

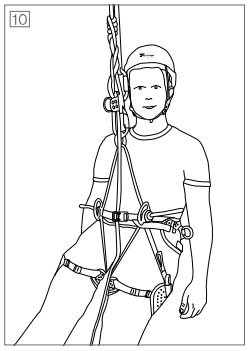
Use as Work Positioning Belt on the basis of EN 358

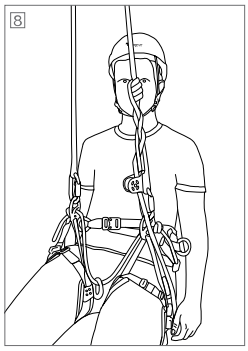
Lateral loading of the harness: Feet should be well supported (e.g. standing on pole with spikes). Work positioning lanyard on a level with waistline when connected to both standing rings (4). (pic. 9)

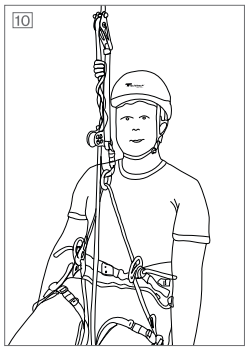
Use as Sit Harness on the basis of EN 813:

- Suspended – central attachment on rope bridge (10). Doubled (running) rope system with friction hitch adjuster.
- Suspended – central attachment on rope bridge (10). Single rope descent with mechanical adjuster.
- Suspended – Attachment to both front D rings (8). Doubled (running) rope system with friction hitch adjuster.









4. REPLACEMENT PARTS

Article#	Name
7350322	PSA treeMOTION Pro Leg loop left S KSS
7350323	PSA treeMOTION Pro Leg loop left M KSS
7350324	PSA treeMOTION Pro Leg loop left L KSS
7350325	PSA treeMOTION Pro leg loop right S KSS
7350326	PSA treeMOTION Pro leg loop right M KSS
7350327	PSA treeMOTION Pro leg loop right L KSS
7350328	PSA tM Essential leg loop left S KSS
7350329	PSA tM Essential leg loop left M KSS
7350330	PSA tM Essential leg loop left L KSS
7350331	PSA tM Essential leg loop right S KSS
7350332	PSA tM Essential leg loop right M KSS
7350333	PSA tM Essential leg loop right L KSS
7350335	PSA tM hip/leg connection Kit M KSS
7350337	PSA tM bridge knotted bg short KSS
7350338	PSA tM bridge knotted bg medium KSS
7350339	PSA tM bridge knotted bg large KSS
7350340	PSA tM bridge knotted dg short KSS
7350341	PSA tM bridge knotted dg medium KSS
7350342	PSA tM bridge knotted dg large KSS
7350343	PSA tM Padding Pro Set S KSS
7350344	PSA tM Padding Pro Set M KSS
7350345	PSA tM Padding Pro Set L KSS
7350346	PSA tM Padding Set Essential S KSS
7350347	PSA tM Padding Set Essential M KSS
7350348	PSA tM Padding Set Essential L KSS
7350349	PSA tM Elastic web set leg/back KSS
7350350	PSA tM Elastic web set hip+legs KSS
7350351	PSA ANSI Openable Ring 40 mm bk as SSS
7350352	PSA ANSI Ring 40 mm gn SSS
7333213	Elastic cord Set (use for Gear Loops or Leg/Back connection)

Existing knotted bridges from treeMOTION can be used too

ROPE BRIDGE

treeMOTION evo was certified to be used with different bridges that support the front rope bridge attachment point (10). Depending on the user's preference treeMOTION evo can easily be adapted to their needs.

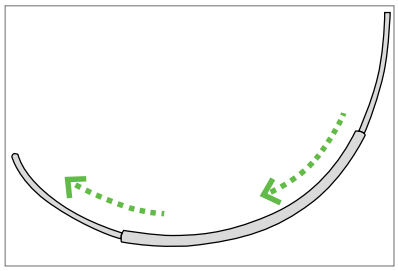
If the sheath of the rope bridge is ruptured by any means (e.g. cutting, heating or abrasion) or a tactile inspection of the core identifies changes in diameter or rope properties, the rope bridge shall be replaced immediately by, or under the supervision of, a competent person.

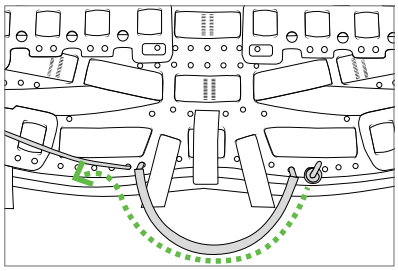
For replacement, it is imperative that you use only the replacement parts approved by the manufacturer and diligently follow the instructions accompanying the spare part(s). Before using the equipment again, be sure to verify that the spare part has been replaced correctly. If you lack the experience, skills, and knowledge that are necessary for this job, please consult a compentent person or the manufacturer. In general, repairs may only be carried out by the manufacturer.

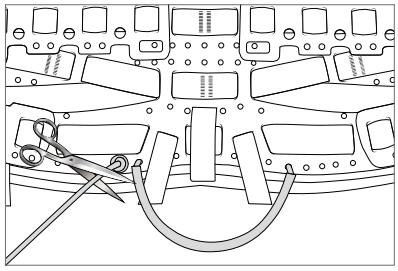
Additional tests were carried out with ANSI/ASSE Z359.12, EN 362 carabiners and the Teufelberger PSA treeMOTION Open Ring bk (Art.no. 7350351) directly attached to the rope bridge instead of the green ring. These may therefore be used as alternative options on a single rope bridge or on two rope bridges simultaneously.

4.1. MOUNTING OF REPLACEMENT PARTS

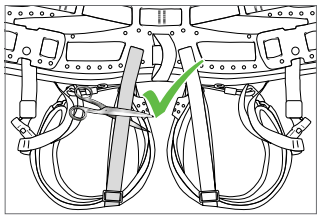
AS GEAR LOOP

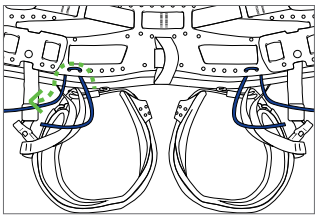


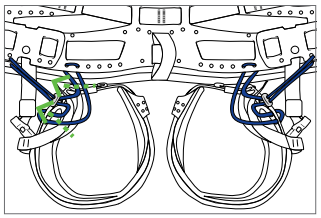


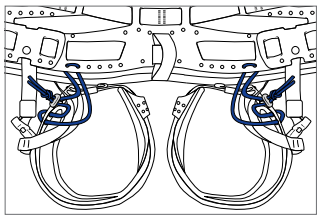


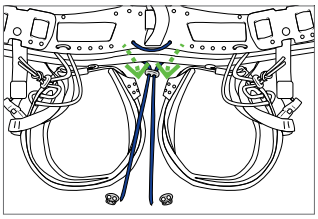
AS HIP-LEG CONNECTION

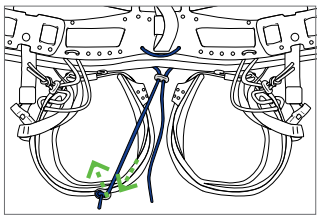


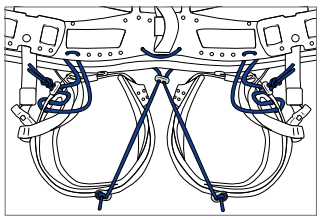












5. LIMITATIONS OF USE

treeMOTION may not be used in fall arrest situations. Slack in the climbing line should be minimised at all times. **There must not be any chance of a free fall. „Free fall" does, however, not mean e.g. slipping of the user´s feet.** Consider the need of using a back-up, e.g. a fall arrest system. Be aware of the potential for pendulum swings and manage the risk.

Choose the connection of the harness to an anchorage point at a level which will result in the least total fall distance consistent with the user's ability to carry out work tasks.

Never carry out work with this product if, as a result of your physical and mental condition, your safety might be compromised in scenarios of normal use or in emergencies!

Repairs, modifications or additions to this product, apart from the replacement of the spare parts as described above, shall only be made by the equipment manufacturer or persons or entities authorized in writing by the manufacturer.

6. TO BE OBSERVED PRIOR TO USE

Prior to using it, this product must be subject to a **visual inspection** in order to verify its integrity, readiness for use and proper functioning.

Once the product has been subject to a fall, its use must be discontinued immediately. If the slightest doubt remains, the product must be retired or may not be used again until a competent person, having subjected such product to the required testing and inspections, has approved its further use in writing.

It must be ensured that the recommendations for **use with other components** be complied with: lanyards shall meet EN 354 and any further PPE must meet the harmonized standards under the regime of regulation (EU) 2016/425. Anchor points must withstand a static load of 12 kN according to EN 795:2012. WARNING: When using a tree as the anchor point the same loads may be applied to the tree. Pay attention to the choice of an appropriate anchor system! Ensure all neighbouring components are compatible. Ensure all components are correctly configured. Failure to do so increases risk of serious injury or fatality.

It is the responsibility of the user that a relevant and 'live' Risk Assessment is in place for the work to be carried out which includes emergency contingencies.

A plan of rescue measures that covers all foreseeable emergencies needs to be in place before this product can be used. Prior to and during use, rescue measures that can be executed safely and effectively must be considered at all times.

SUSPENSION TRAUMA

Upon prolonged use of the harness as a sit harness the symptoms described below may occur: Hanging/sitting immobile in suspension in a harness for longer periods of time (for example, in cases of unconsciousness) may cause one's blood flow to be restricted and eventually lead to a so-called suspension trauma (also known as harness hang syndrome).

MORTAL DANGER! – Call EMERGENCY SERVICES immediately! Possible symptoms include paleness of the skin, excessive perspiration, shortness of breath, impaired vision, dizziness, and nausea (This list is incomplete, as symptoms may vary considerably from one person to another).

Persons suffering from such symptoms should therefore, provided that they are still able to, take appropriate measures themselves in order to keep the blood from pooling in their legs (e.g. by moving the legs or by taking the weight off the leg loops, for example by standing in foot loops). Where this is not possible, it must be ensured that victims be rescued as fast as possible from the suspended position and that appropriate first aid measures be taken.

Position a rescued person how it´s most comfortable for the affected person. Often it makes sense to place the person in a position flat on the ground. Consider further injuries.

A sitting or squatting position is not recommended anymore (according to DGUV information sheet 204-011)

7. TRANSPORT, STORAGE & CLEANING

The load-bearing parts of the harness are made of Polyester, Polyamid, Aluminium, Dyneema®

The Cobra buckles are made of:
body: aluminum
rivets, adjuster bar, integrated D-Ring: stainless steel
clips: brass
anti slide part: polymer

☑... OK
☒... not OK

Operating temp range
☑ +50°C to -30°C

Storage and transportation conditions
☒ Compaction
☒ Nibbling pests
☑ Ventilation
☒ Excessive moisture
☒ UV radiation
☑ +15°C to +25°C
☑ Dry and clean environment
☒ Sharp edged objects

Maintenance/Cleaning
☑ Water (≤ 30°C)
☒ Machine washing
☑ Mild detergent
☒ Pressure washer
☑ Gentle hand washing

Clean dirty COBRA® buckles in lukewarm water (if necessary using neutral soap). Rinse them well. Dry at room temperature, never in an electric dryer or near electric radiators. Use only approved household disinfection liquids not any containing halogen as needed. The joints of all metal parts must be relubricated with a dry lubricant regularly, particularly following cleaning (such dry lubricants perform their lubricating function even when in a dry state so that no dust or dirt can cling to it).

Drying
☑ Hang in well ventilated space (≤ 30C)
☒ Direct sunlight
☒ Applied heat (e.g. fire)

Disinfection
☑ occasional short term wash with max. 60°C
☑ Duration (≤ 1 hour)
☑ Ethanol
☑ Rinse after disinfection
☑ Isopropyl alcohol 70%

Corrosive substances
Keep away from corrosive acids, bases, liquids, vapours, gases etc. Be careful with tree exsudates! They may be surprisingly aggressive. If you think damage has occurred as a result of contact with an agressive substance:

1. Quarantine the product and label it in an obvious way so that it can not be used by mistake;
2. Send as much detail as possible about your concerns to the manufacturer;
3. Do not use the product again unless the manufacturer replied (in writing) that it may be returned to service.

WARNING

If any part of the harness is to be exposed to chemicals, e.g. cleaning materials or hazardous atmospheres, the user should consult the manufacturer before to determine whether the part is suitable for continued use.

8. REGULAR CHECKS

Checking the equipment at regular intervals is absolutely necessary: your safety depends on the effectiveness and durability of the equipment!

Following each use, the product should be checked for abrasion and cuts. Also check it for the legibility of the product labelling! The use of damaged components or components subjected to a fall must be discontinued at once. If there is only the slightest doubt, the product needs to be retired or subjected to testing by a competent person.

When using the equipment in occupational health and safety to EN 365, it must be checked at least every 12 months and when using to AS/NZS 1891.1 at least once every 6 months by a duly qualified person strictly observing the instructions, or else by the manufacturer, and it must, whenever necessary, be

replaced. These inspections must be documented (documentation of equipment; cf. table). Refer to national regulations for inspection intervals.

This inspection must comprise:
- Inspection of the general condition: age, completeness, dirt, correct composition.
- Inspection of the labels: Present? Legible? CE marking present? Year of production visible?
- Inspection of the individual parts for mechanical damage such as cuts, cracks, notches, abrasion, deformation, ribbing, curling, squashing.
- Inspection of all individual parts for damage caused by heat or chemicals, such as fusion or hardening.
- Inspection of the metal parts for corrosion and deformation.
- Inspection of the completeness of the end connections, stiching (e.g. no abrasio of sewing thread) seams, splices, (e.g. no splippage), knots.

Again, the following rule applies: If there is only the slightest doubt, the product needs to be retired or subjected to testing and by a duly qualified person.

9. SERVICE LIFE

The theoretically possible total lifetime is limited to 10 years from the date of manufacture. Only when used infrequently (1 week per year), stored and maintained properly (see Chapter “Transport, Storage and Cleaning).

The actual useful life depends solely on the condition of the product, which in turn is influenced by various factors (see below). Extreme influences may shorten service life to a single use only or to even less if the equipment is damaged prior to its first use (e.g. in transport).

Mechanical wear and other influences such as the impact of sunlight will decrease the life span considerably. Bleached or abraded fibres, discoloration, and hardened spots are certain indicators that the product needs to be retired.

It is clearly not possible to offer a general statement about the product’s service life, as such life span depends on various factors, e.g. UV light, type and frequency of use, handling, climatic influences such as ice or snow, environments such as salt, sand, battery acid etc., heat contamination (above normal climatic conditions), mechanical deformation and/or distortion, ... (incomplete list!),

In general, the following rule applies: If the user, for whatever reason – however insignificant it may seem – is uncertain whether or not the product meets all the necessary criteria, either reject it from service and render unusable, or place in quarantine and label in an obvious manner so that it cannot be used by mistake. Only return to service following the written authorisation of a competent person.

Withdraw equipment from service if it has been used to arrest a fall.

10. DECLARATION OF CONFORMITY

A document can be accessed in the download area of www.teufelberger.com (category: declaration of conformity).

Product inspection record sheet:

Manufacturer: TEUFELBERGER Fiber Rope GmbH, Vogelweiderstraße 50, A-4600 Wels	Model:	Retailer:	
Batch No.:	Serial No.:	Name of User:	
Date of Production:	Purchase Date:	Date of First Use:	Date of Retirement:
Compatible components within harness based work at height systems:			
Comments:			

Written Inspection Record Sheet - treeMOTION

Date	Inspection type *(p, w, t, e)	Findings and actions (Defects, repairs, etc.)	**A**ccept, **R**eject or **C**orrect?	Next inspection date	Name and Signature of competent person

*Inspection types: p = pre-use check, w = weekly inspection, t = thorough inspection, e = exceptional circumstances