

SSE 02

User Manual

SSE 02

Rope fall arrester SSE with sliding arrester harness

Subject to technical changes

BRIEF DESCRIPTION

INTENDED USE

In combination with a harness in compliance with EN 361 with a sternal attachment point, the fall arrester SSE serves to secure persons when climbing or descending e.g. auf pylons with a stationary ascent in the shape of a vertical ladder, or climbing facilities with step irons etc.

The SSE safety system comprises a stationary tensioned safety cable connected to the structure and a sliding arrester harness (arrester device) that can be used as required.

During the ascent, the user pulls the arrester harness with him on the guide rope.

When descending, the arrester harness slides ahead due to its weight. In the event of a fall, the arrester harness blocks on the tensioned safety cable and arrests the user safely.

An installed energy absorber on the arrester harness limits the impact force to max. 6.0 kN.

The tensioned safety cable SSE is attached to the TOP of a strong end attachment point.

A rope clamp for length adjustment and a locking device are attached to the BOTTOM of the end attachment point. An indicator spring allows the rope tension to be controlled.

There are rope guides arranged at regular intervals, through which the safety cable is placed and is secured against sideward movement.

These rope guides can be passed freely by the sliding arrester harness (arrester device) without detachment and reattachment.

The rope guides and rope tension reduce the risk of the rope swinging and the associated rope wear.

Max. number of users: 3 persons, clearance min. 5.0 m.

Max. user weight incl. clothing and equipment: 150.0 kg

Min. user weight incl. clothing and equipment: 50.0 kg

Application temperature: +80°C to -30°C

The fall arrester SSE 02 has been tested as system and may only be used on an SSE-tensioned safety cable! The SSE guide rope is installed in a stationary manner to the structure.

It may only be used by instructed personnel.

All other uses are deemed improper. The company BORNACK will not be liable for any ensuing damages. The user bears the sole risk.

BRIEF DESCRIPTION

EQUIPMENT FALL ARRESTER SSE02

- CNC-manufactured casing and element in stainless steel
- Eccentric jammer 1 in stainless steel
- Redundant eccentric jammer 2 for panic bolt, in stainless steel
- Side flanks made of plastic
- Rope guide prism to 'detach' the unit, one-hand operation
- Automatically closing, dual lock
- Plastic rope centring
- Safety flap gate to prevent reversed wearing
- High-performance energy absorber belt with shrink tube sheath, max. 6.0 kN also for 150 kg useful load
- Karabiner with swivel, Twistlock PLUS, triple lock
- User manual

EQUIPMENT GUIDE ROPE SSE

- Stainless steel cable 8.0 mm, 1x19 with fork terminal with toggle (guy rope ferrule with fork-head)
- Rope guides SSE with connection plate, screw attachment
- Rope tensioner with:
 - Rope clamp for adjustment of the rope length to the installation situation
 - Pre-tension springs
 - Indicator spring rope tension 0,8 kN
 - Threaded spindle with clamping nut

ACCESSORIES

- Full body harness acc. to EN 361 equipped with two fall arrester D-rings on the front (sternal D-ring at chest height, e.g. STRIPE. Full body harnesses with elastic straps are not compatible.
- Positioning rope MANUSTOP MS 1.5 m acc. to EN 358 or similar and/or
- Energy absorber rope PYTHON P 2.0 m acc. to EN 355 or similar

APPLICATION

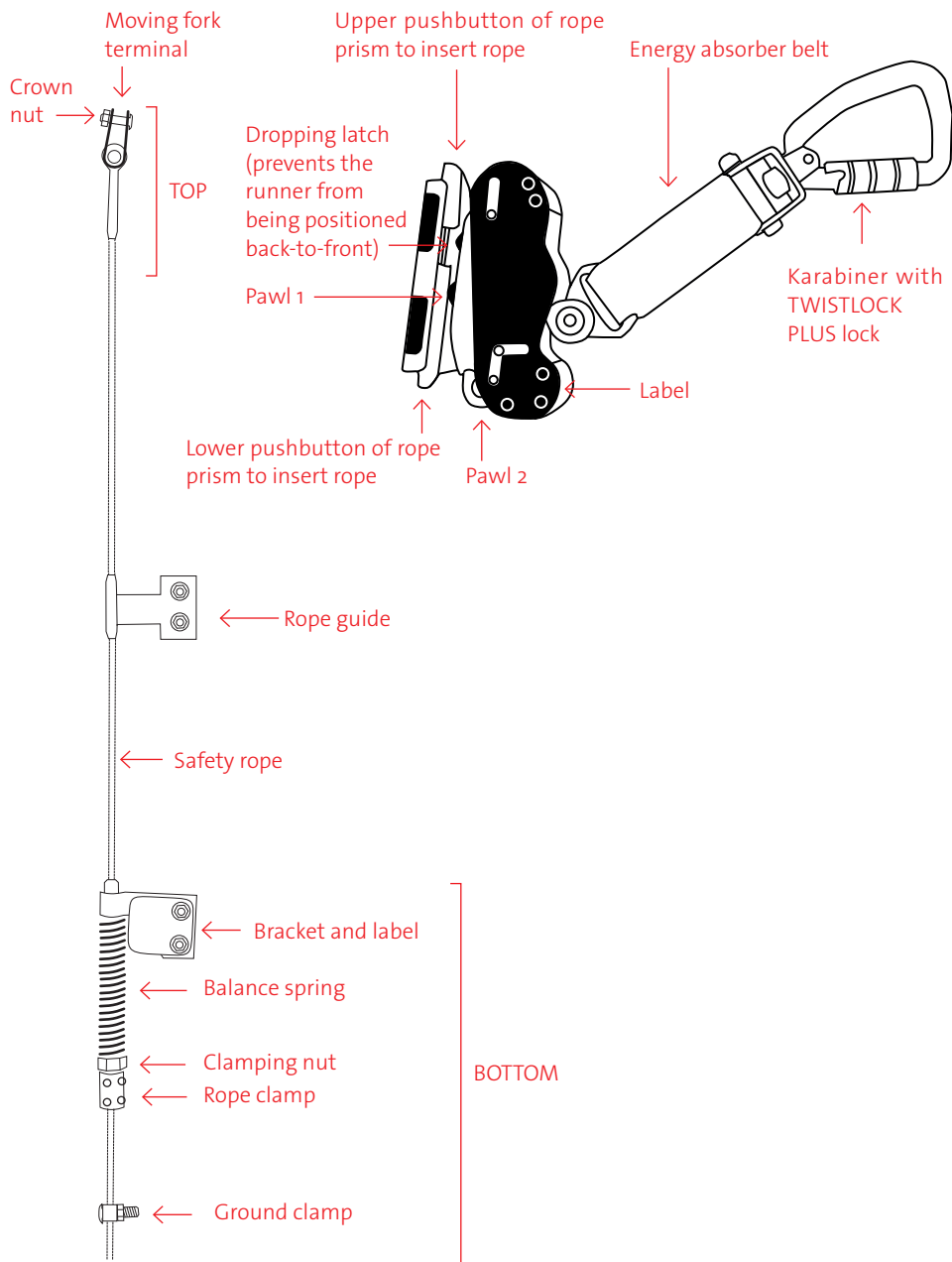
- Securing against a fall via an arresting function

USE

- Ascending and descending ladders e.g. on pylons
- Climbing path equipped with stationary SSE tensioned safety cable (see type plate)

GUIDE ROPE SSE

FALL ARRESTER SSE 02



INFORMATION BEFORE USE



The following checks must be performed before each use!

- Damaged, fall-stressed, dubious fall arresting equipment, devices or protective equipment must be immediately withdrawn and not used.
- The equipment may only be inspected by an expert or the manufacturer.
- No independent changes or repairs may be carried out.

VISUAL INSPECTION OF THE SAFETY CABLE

- Check the entire safety cable system during every inspection: check that all components are complete and fully functional.

Before starting:

- Rope is tensioned and not slack
- Clamping device and end attachment are OK
- No irregularities apparent during visual inspection toward the top of the mast
- Label is legible

During ascent:

- Safety cable does not rub (in particular on the contact point with the rope guides)
- Rope guides are tight (no loose screws)
- No deformed rope guides
- No corrosion
- Swaging eye terminal at TOP shows no signs of slippage or wear or corrosion.
- Crown nut is secured with a splint.
- All the screws of the end attachment TOP are secured with a lock plate at the top.
- All screw connections are complete and tight. Lock plates or lock rings (spring rings) are in place.

- Metal parts, in particular the rope surface and rope end connections, show no signs of damage caused by deformation, breakage, wear, heat (lightning strike) or chemical influences.
- No deformation or cracks in the metal parts.
- No corrosion on the metal parts.

VISUAL INSPECTION OF THE FALL ARRESTER

- Check it is complete and fully functional.
- Metal parts show no signs of damage caused by deformation, breaks, wear, heat, corrosion of the effects of chemicals.
- No deformation or cracks in the metal parts.
- No corrosion on the metal parts.
- Textile parts (energy absorber belt) show no signs of damage (wear, cuts, melting cause by heat or the effects of chemicals).
- The last expert inspection took place less than 12 months ago (test label).

FUNCTION TEST

- All moving parts and joints in the personal protective equipment run smoothly and do not jam.
- The arresting equipment closes automatically when placed onto the tensioned cable.
- The arresting equipment blocks when jerked downwards.
- The arresting equipment cannot be attached to the tensioned cable the wrong way round.
- The karabiner closes automatically after opening.
- The label is legible.

SSE 02 IN USE

USE OF THE FALL ARRESTER EQUIPMENT

SSE

CAUTION:

Dubious or faulty systems may not be used and should be reported centrally to the line manager. Document nonconformities and report them to the manufacturer.



CAUTION:

When starting to climb close to the ground (approx. 2.0 m), it is possible, in unfavourable conditions, that the legs may come into contact with the ground when a fall is arrested.

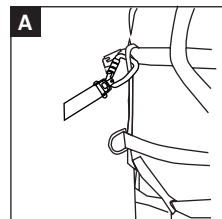
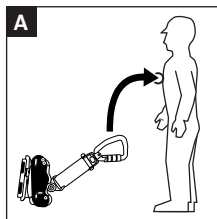


Putting on the full body harness
(observe User Manual of the harness)



A Attach the karabiner of the SSE 02 to the sternal attachment point (middle of chest) of the full body harness. The attachment point must be approved for the arresting function (A-code).

Observe User Manual of the harness



SAFE ASCENT OF THE MAST

Climbing to the lower end of the securing system SSE (approx. 2.5 – 3.0 m climbing height).

Use PPE to secure against falling, e.g. energy absorber lanyard etc.

Observe User Manual of the respective PPE.



CAUTION:

Before using, ensure that there is enough space below the user to prevent impact with a protruding object or the ground.



CAUTION:

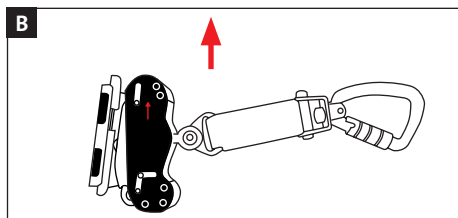
The length of the connection equipment (fall arrester to full body harness) may not be extended, e.g. by adding or removing a lanyard.



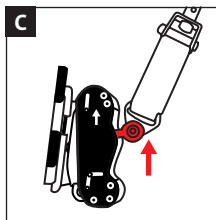
SSE 02 IN USE

ATTACHMENT OF THE FALL ARRESTER TO THE TENSIONED ROPE

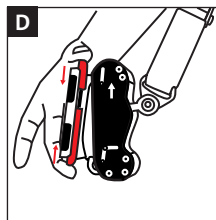
B Hold the unit in your hand so that the arrow points upwards (if in the wrong position, the dropping latch covers the insert slit for the rope)



C Open pawl 1 by lifting the energy absorber belt.



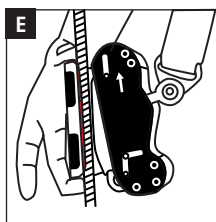
D Press the pushbuttons of the rope prism (unit lock) with your thumb and middle finger: the prism opens itself.



- Press both buttons, pressing the upper button first
- A slight twisting movement helps the unit to open

This procedure can be carried out with just one hand! It is designed for both left-handed and right-handed operation!

E Place the fall arrester onto the guide rope.



CAUTION:



Check that the unit sits correctly on the rope!

- Prism is closed (basic setting)
- Unit runs freely during manual lifting and lowering.
- Unit blocks when jerked downwards.

SSE 02 IN USE

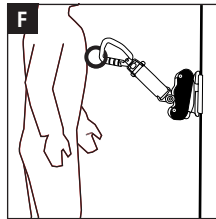
SAFE ASCENT AND DESCENT

- During ascent, the fall arrester runs freely.
- During descent the fall arrester slides.
- Its own weight automatically ahead on the rope.
- The relatively heavy weight of the unit ensures that it functions reliably.

When climbing, the upper body can be easily shifted to the left or right.

F The upper body should be positioned on the guide rope so that the karabiner is in a steep position ('5 to 12').

The further the upper body is tilted backwards, the faster the arresting function triggers in the event of a fall (the fall arrester responds more quickly in case of a fall).



CROSSING THE ROPE GUIDE

- When crossing the rope guide, the fall arrester must slide with its opening slit over the bridge of the rope guide. To do this, the rope guide must be approached as precisely as possible:
 - No lateral movements of the body
 - Position the upper body close to the direction of the guide rope
 - Move the fall arrester fast and evenly upwards or downwards

SSE 02 IN USE

- The following behaviour can lead to unintentional faults:
 - Fall arrester is twisted when placed onto the rope guide and rubs on rope guide (braking)
 - Upper body is leant too much backwards (fall arrester blocks)
 - Downward jerking (fall arrester blocks), fall arrester can be released again by simply lifting the karabiner

CAUTION:



Check that the unit has been attached correctly, and that it is closed and locked.

Manual function test: jerk downwards!

- When positioning/working on the climbing path:
- Also secure with a positioning rope and/or energy absorbing belt. Do not work when only secured via the fall arrester system!
- When crossing over: Before removing the fall arrester SSE02 from the tension cable attach the energy absorber belt to a secure attachment point above the exit.
- Max. 3 persons in the securing system at the same time (guide rope).
- Safety clearance 5.0 m between person climbing at the same time.

DETACHMENT FROM THE SECURING SYSTEM

CAUTION:



Only detach yourself from the fall arrester, if there is no longer a risk of falling. If necessary, attach a lanyard for temporary securing.

Repeat steps C-D. Remove unit from the rope.

SAFETY INSTRUCTIONS

There is a risk to life if these safety instructions are not observed!

- If you have any problems with this equipment, please just call the BORNACK hotline for help
- Vertical fall-arrest equipment and safety equipment may no longer be used, even in the case of very minor faults.
- Damaged, fall-stressed, dubious vertical fall-arrest equipment, devices or protection equipment must be immediately withdrawn and not used.
- Inspection by an expert or the manufacturer. Only use again after approval has been given. Document the inspection in the test card.
- Independent modifications or repairs are prohibited.
- The fall arrester SSE 02 is part of the personal protection equipment and should be assigned to a specific person/team and must be inspected accordingly by a specially qualified expert.
- The stationary installed SSE securing ropes are inspected by a specially trained expert during every tour to ensure they are safe (recommissioning of the SSE system). This person must attend a user training course for 'authorised SSE persons' at BORNACK.
- The securing system must be inspected at greater intervals by a technically competent expert who has been trained by BORNACK in how to inspect the SSE system. This inspection must be documented.
- The protective equipment may only be used by qualified staff who are familiar with the material and have been briefed about the possible risks associated with its use.
- In accordance with the accident prevention guidelines (UVV), a theoretical training course with a practical element for personal protective equipment of Cat. 3 is required. Make use of the training competence of the BORNACK training centres (see BORNACK hotline).
- Accessories from other manufacturers may only be used, if they are compatible with this safety equipment and have been approved by BORNACK.
- They may not impair the function and safety of the protection equipment.
- Clothing and shoes must be suitable for the task at hand and the weather conditions.
- Set the harness to your personal measurements (including clothing).
- Only use the equipment if you are fully fit.
- A harness must always be used when this fall protection system is used as an arresting system (free fall). The total fall path must be taken into account.
- Protect personal protective equipment during storing, use and transportation against the effects of heat (e.g. welding flames or sparks) and chemicals (e.g. acids, alkalis) and mechanical effects (e.g. loads, wear, sharp edges).
- Before starting work, the responsible person must draw up an emergency plan (rescue plan) which defines how to rescue casualties quickly and safely from a vertical fall-arrest system and ensures first aid is administered.
- The rescue operation must be completed within a specific time period of between 10 to 30 minutes, depending on conditions
- BORNACK can help you draw up tailor-made rescue plans and will integrate these into future training courses!
- The national / local safety guidelines (e.g. in Germany the guidelines issued by the professional associations BGR 198 and BGR 199) and the accident prevention guidelines for the specific industry must be observed.
- Possible fall path if all required PPE components are used correctly: brake path fall arrester (max. 175 cm) + (if necessary reaction time HSG) + physical height (clear height of the PPE) + safety reserve 1 m.

OTHER

CERTIFICATION

Complies with the EC Directive 89/686/EEC.

Type testing and production monitoring by:

DEKRA EXAM GmbH
Dinnendahlstr. 9, D-44809 Bochum
CE 0158

Quality management system certified according to DIN EN ISO 9001.

Production monitoring by Notified Body Category III.

REGULAR INSPECTIONS

This equipment must be inspected and documented at least once a year or before use by a specially trained expert.

SALES

The dealer must ensure that the user manual is supplied in the language of the designated country. The respective translation must be authorised by BORNACK.

SERVICE

If you have any further questions about safe use of this PPE or other BORNACK services, such as:

- Risk analysis
- Rescue plans
- Training courses
- Expert inspections

please send your question to our e-mail hotline: hotline@bornack.de
We will be happy to help!

MAINTENANCE

- Protective equipment that is well looked after will last longer!
- This rope protection equipment does not require any special maintenance.
- Special maintenance and inspection regulations apply to fall protection equipment (see separate User Manual). As these devices need to be opened for the inspection and readjustment, they must be sent to a workshop authorised by the equipment manufacturer.
- Observe metal parts with slight surface corrosion and withdraw from use if necessary.

OTHER

CLEANING

- Dry damp personal protective equipment in the air, not on artificial heat sources. Dry metal components with cloths.
- Brush soiled textile components (full body harness, and ropes etc.) when dry or wet with a brush or possibly with lukewarm water and a little detergent for delicates. No other cleaning agents may be used!

LIFE SPAN

Maximum usage period of fall arrester SSE o2 after being used for the first time:

up to 10 years

- Textile components are subject to aging (brittleness). Their service life can also be significantly reduced, if exposed to temperatures, chemicals and wear, and due to storage and use!
- Arrange for the fall arrester SSE to be inspected by a trained expert at least once a year and enter the inspection results into the test card.
- On pylons: Always arrange for a qualified person to check the securing rope SSE every time before use, and then 're-commission'!
- It should be inspected and documented by a trained expert at least once a year.

REPAIRS

- For reasons of liability, repairs may only be carried out by the manufacturer.
- Only original spare parts from the manufacturer may be used.

STORAGE

- Dry damp personal protective equipment before storing.
- Store away from light in a dry place.
- Do not store rope protection equipment close to radiators. Permanent temperatures of over +50 °C have a negative impact on the strength of the textile material and will reduce the life span.
- Do not allow personal protective equipment to come into contact with aggressive substances (e.g. oils, grease, acids, chemicals).
- Store and transport the personal protective equipment in the device case or device bag.
- The fall arrester equipment is generally made of corrosion-resistant materials (stainless steel, aluminium). Nevertheless, permeants exposure to corrosive influences should be taken into account (e.g. seawater atmosphere or chemical influences).

TRANSPORT

Transport the personal protective equipment in the device case or device bag.

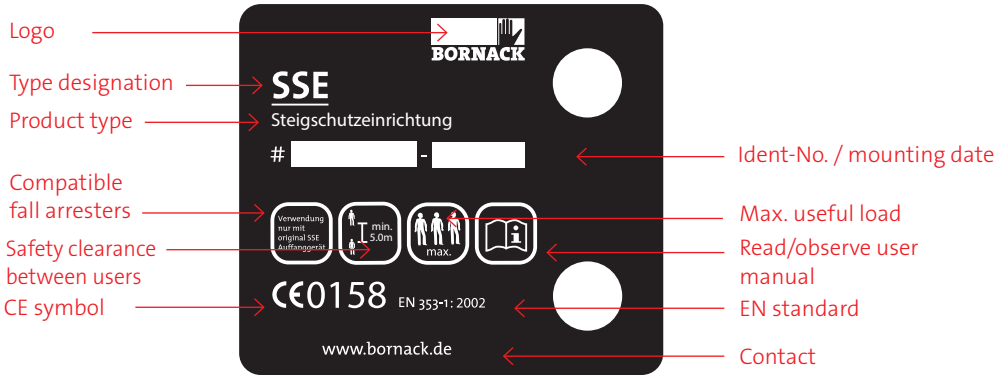
OTHER

PRODUCT IDENTIFICATION

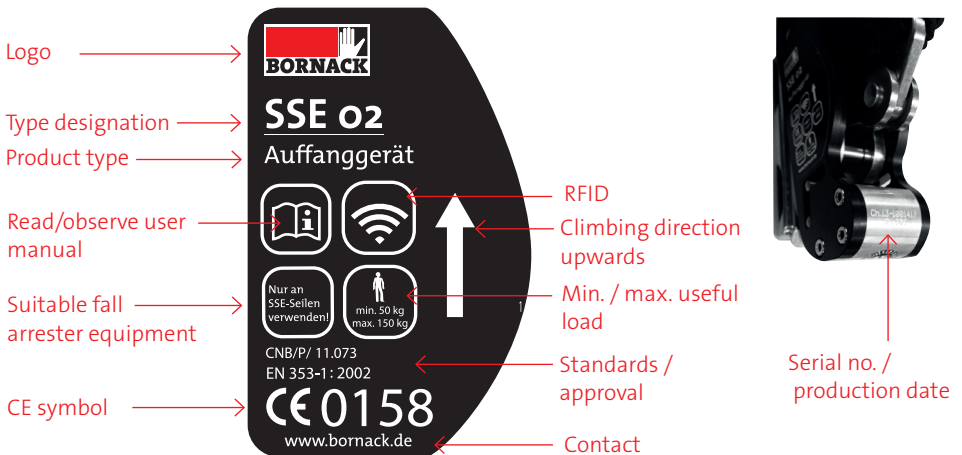
You will find the following information on the fall arrester equipment:

Guide rope SSE

Label on mast foot



Guided-type fall arrester SSE





TEST CARD

FOR ANNUAL MONITORING

The test card must be completed in full by the expert during the annual inspection.

This test card does not claim to cover all test criteria and does not relieve the expert from his decision about the overall condition.

Type SSE o2 : _____

Manufactured on: _____

Serial no.: _____

Purchase date: _____

Date of first use: _____

Life span at the latest: _____

	Date	Signature	Next inspection	Reason for inspection
Year 1				
Year 2				
Year 3				
Year 4				
Year 5				
Year 6				
Year 7				
Year 8				
Year 9				
Year 10				



FALLSTOP

Safety equipment for securing and rescuing at heights and depths

SAFEPOINT

Permanently installed safety systems for architects and industry

BORNACK GmbH & Co.KG
Bustadt 39
74360 Ilsfeld
Germany

Tel +49 (0) 70 62 / 26 90 0-0
Fax +49 (0) 70 62 / 26 90 0-550
info@bornack.de
www.bornack.de

BORNACK Schweiz
Oholten 7
5703 Seon, AG
Swiss

Tel +41 (0) 62 / 886 30 40
Fax +41 (0) 62 / 886 30 41
info@bornack.ch
www.bornack.ch