

STEIN

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SMB1000

Please read this document carefully, it gives instructions for the correct use of this product

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WARNING

Activities using this type of equipment are inherently dangerous. It is not possible to cover every eventuality relating to the use of this equipment. Purchasers and users of this device should seek professional training from a fully qualified and competent instructor prior to engaging in any activity. If you are not able, or not in a position to assume this responsibility, do not use this product. The manufacturer its distributors and retailers do not accept any liability if users do not follow the instructions correctly. Only the techniques shown in the diagrams are authorised. Any other use deviating from those shown may result in serious injury or death.

Prior to each use a complete risk assessment must be carried out to ascertain that the device chosen configures with and is appropriate to the work being undertaken. The chosen device must also be compatible with all the other components within the system.

Users must always ensure that all components of the work system are suitable for the foreseeable loadings that may be applied during use. Poor technique and shock loading may cause catastrophic failure of this equipment and should be avoided. Where a failure of the product may occur a suitable backup system must be installed and used. All components of the system used with the device must be inspected before and after each lowering operation. Retire the device from use if there are any tactile or visual signs of wear or damage. The retention devices must also be inspected & checked for both tension and wear after each lowering operation to ensure they are securely attached to the device and the mounting point.

The SMB1000 Lowering Device should only ever be used with the correct diameter of rope, You must never exceed the recommended maximum diameter. Each device has a Working Load Limit (WLL) – This is the maximum load allowed to be applied to the device where catastrophic failure will occur. These values are based on a vertical load being applied and used as specified within these instructions.

Although these devices have been issued with a Working Load Limit (WLL) it is your responsibility to ensure that all the components used in conjunction with the device are matched equally with their Working Load Limit (WLL) or Safety Factor (SF) or Safe Working Load (SWL). If you are unsure on a products individual specifications you should contact the manufacturer. You should never exceed the lowest rated section or component within a rigging system. When calculating any rigging system the strength of the anchor and attachment points must also be taken into account.

- The SMB1000 must never be used for lifting or lowering people. They are not intended or rated for use as Personal Protective Equipment. (PPE)
- Always keep body parts, loose clothing, and debris away from the device when in use.
- Always use appropriate hand protection when operating the device.
- When holding the working line NEVER wrap the line around your hands or other body parts. Always ensure it can run freely in case you need to release the line in an emergency.
- Do not stand or allow others to stand directly under the load being lowered or under the work being performed above. Ensure users and other persons are working and operating the device from a safe distance.
- Any potential shock loading must always be kept to an absolute minimum when using the device as with all rigging equipment.
- All connecting devices or components must be retired from use if they are subjected to impact loading.
- To avoid damage to the device you must minimise all if any free fall distance.
- Always maintain control of any lowered load.
- Products covered under these instructions should never be resold or used by a third party after it has been used by the original purchaser.
- The manufacturer recommends this product should be inspected prior to use along with periodically independent inspection in line with relevant UK Regulations.

As part of any method statement we recommend that all users of this equipment must be given a copy of these instructions. They must read them, understand them and explicitly follow all instructions and cautions attached. Any person using this equipment should be fully trained and competent in its use before carrying out any rigging operations.

Product Identification and Markings

This device is fitted with a Product Identification label showing the following information

- 1 Manufacturers Name
- 2 Trademark
- 3 Product Model Number
- 4 Type Of Use
- 5 Working Load Limit
- 6 Device Weight In Accessories
- 7 Serial Number
- 8 Country of Origin

1	STEIN Products Limited
2	STEIN
3	SMB1000
4	Lowering Device
5	1000kg WLL
6	5.8kg inc Straps & Rubbers
7	<i>serial number</i>
8	USA

Maximum Rope Size

The SMB Lowering Device should only ever be used with the correct diameter of rope, You must never exceed the recommended maximum diameter. Each device has a Working Load Limit (WLL) – This is the maximum load allowed to be applied to the device for lowering. These values are based on a static vertical load being applied and used as specified in these instructions. However, a dynamic load can multiply the forces incurred on a rigging system; a dynamic load weighing considerably less than the WLL of the device can still exceed the limit due to the multiplied forces caused by its motion. Therefore, all potential dynamic loads should be carefully calculated and minimised where possible.

Model	Maximum Rope Diameter	Working Load Limit (WLL)
SMB1000	14mm	1000kg

- You must ascertain that the device chosen is appropriate to the work being undertaken.
- Working Load Limits will vary depending on the type of mounting used (see page 7)
- The Working Load Limit is based on using the supplied mounting Ratchet Handle & Strap and backed up with a sufficiently rated Anchor Sling.

Product Life

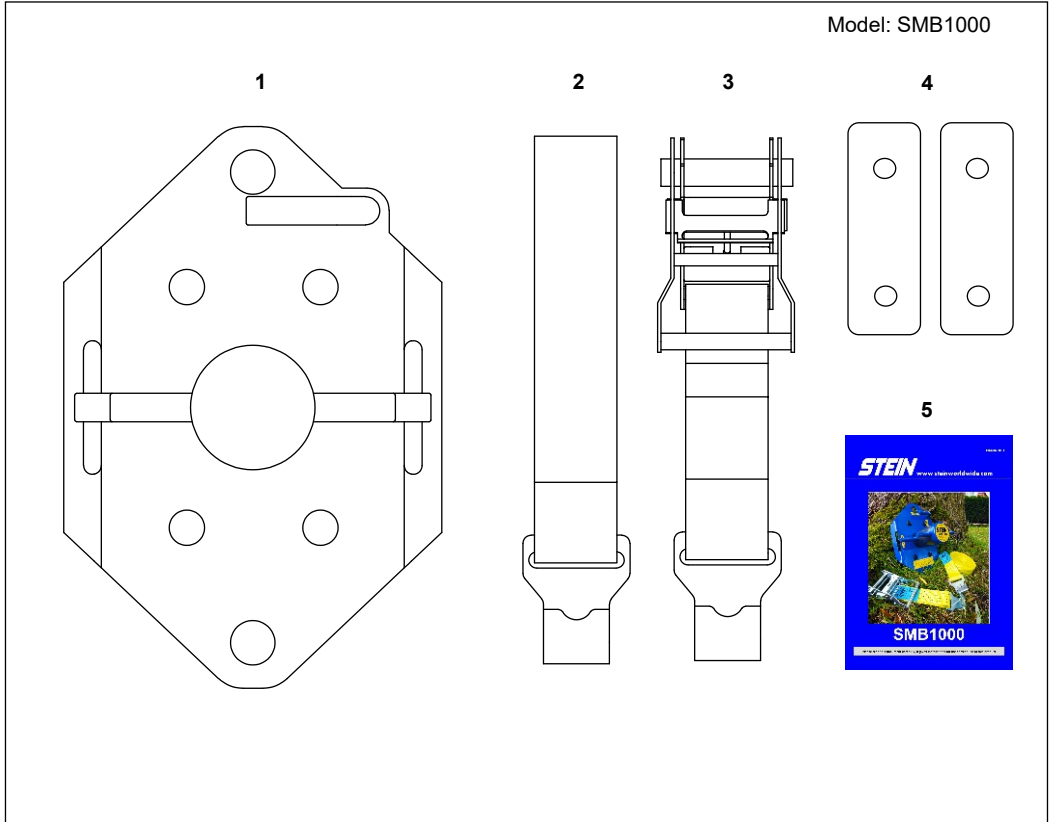
This product should be checked before and after use by an experienced person to ensure continued serviceability. Use visual and tactile inspection to identify cuts, tears, abrasion damage and powdering due to ageing, contact with heat, acids, alkalis and other corrosives. If the product has been subjected to a severe shock loading, damage or abrasion and there is any doubt about the integrity of the product it should be taken out of use. Periodic examinations, taking account of such factors as legislation, equipment type, frequency of use, and environmental conditions. This should be carried out by a competent person at least every 6-months.

A record card should be kept for each product in use. This card should show the details of the product, its identification, model (SKU), serial number, date of first use, date of purchase, date of manufacture, frequency of use, history of periodic examinations, who conducted examination, due date for periodic examination, and applications for which it is suitable with the name and contact details.

The product should be the property of only one user and the record card shall be maintained by this user to ensure they are aware of the history of the product. The record card should also be used as a log to record the user's name, the date used and application, the conditions encountered in use and any relevant comments about the condition of the product. Knowing your product is essential to ensure safe working.

Only use a product that is either new or has a known working life. A product can look good but have compromised properties. Discard unknown products as unsuitable for safe working. This product has a maximum recommended shelf life of 5 years if stored correctly (from date of manufacture). It is impossible to quantify a maximum recommended life in use as the damage a product is subjected to will depend on the manner and frequency of use.

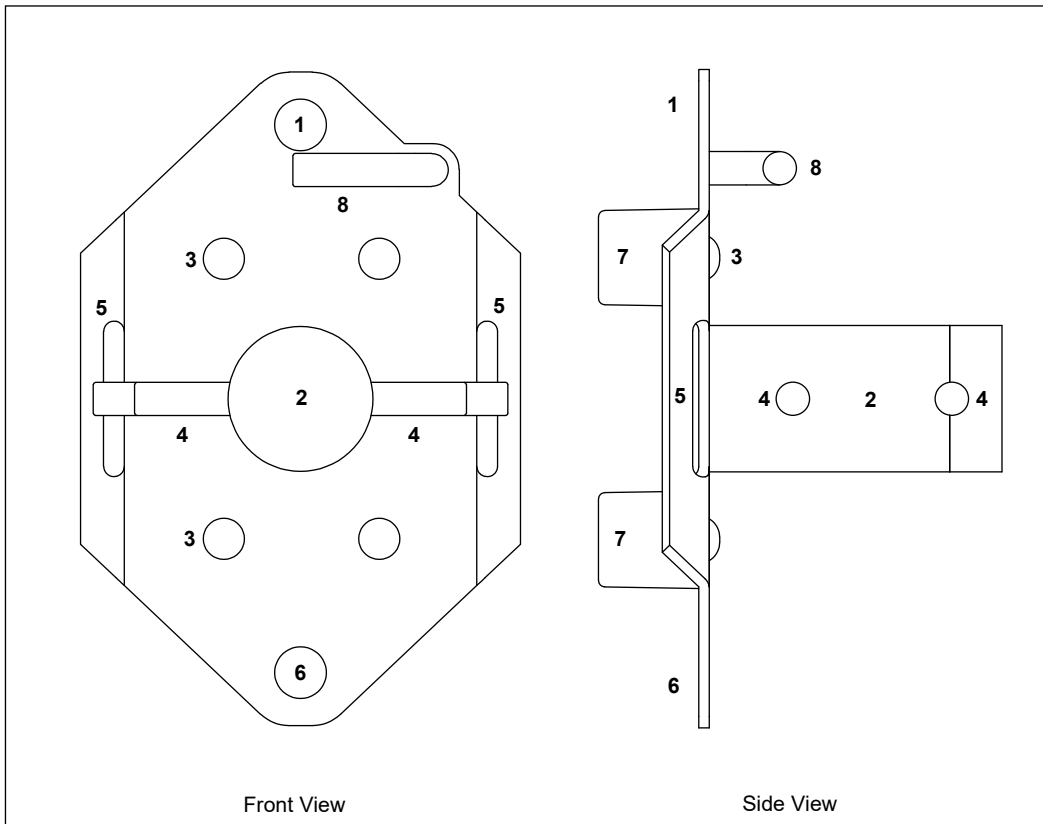
Box Contents



The SMB1000 Device will consist of the the following items:

- 1 SMB1000 Lowering Device
- 2 Ratchet Strap Tail
- 3 Ratchet Strap Handle
- 4 Pair of Rubber Protection Mounts
- 5 Instruction Manual

Part Identification

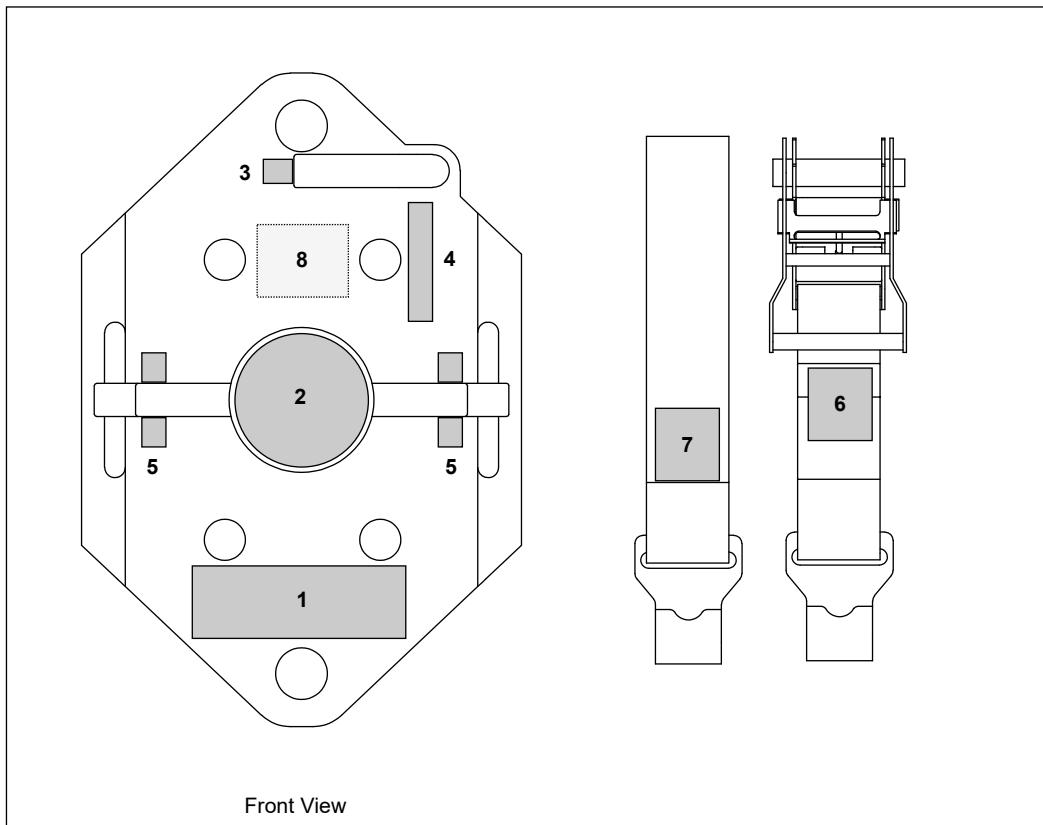


Front View

Side View

- 1 Mounting Strap Attachment Point
- 2 Bollard
- 3 Protection Mount Fixing
- 4 Fairleads
- 5 Side Anchor Point
- 6 Base Anchor Point
- 7 Rubber Protection Mounts
- 8 Top Rope Guide

Product Information and Warning Labels



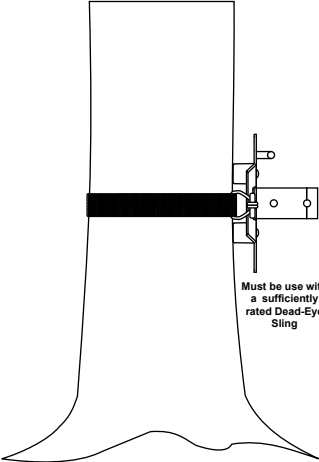
Front View

- 1 Product Warning Label
- 2 Product Information Label
- 3 Product Warning Label
- 4 Product Warning Label
- 5 Attachment Point Label
- 6 Ratchet Handle Product Information Label
- 7 Ratchet Strap Tail Product Information Label
- 8 Product ID Label *(On Reverse Side)*

WARNING:

It is important that all Safety Labels are visible and present. It is recommended that you replace these immediately if they are removed or un-readable.

Mounting Methods



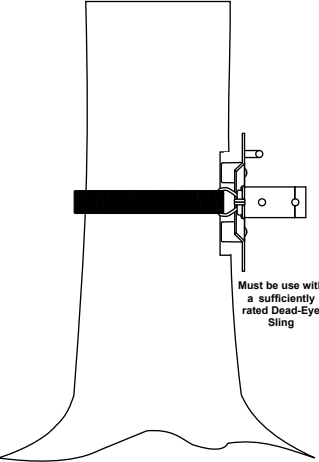
Method 1
Protection Mounting

Working Load Limit 750kg

This method of mounting is used where selected limbs are being removed but the tree remains. This method helps protect the tree from damage.

When mounting the device it is recommended to locate it at a height where the rope will be tailed out as close to horizontal as possible. This will ensure the maximum use of the fairleads

The Working Load Limit is based on using the specified mounting Ratchet Handle & Strap and backed up with a sufficiently rated Anchor Sling.

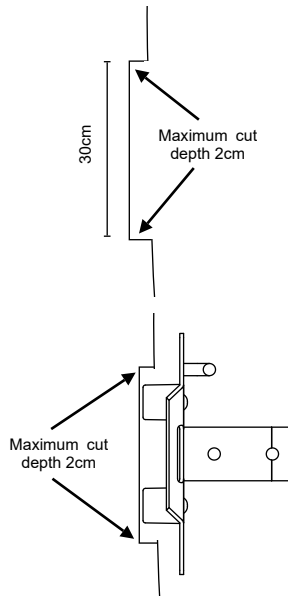


Method 2
Sunken Mounting

Working Load Limit 1000kg

This method of mounting is used where the tree is being dismantled and the limbs lowered are of a heavy size and where impact loading may occur.

When using method 2 the sunken cut should not exceed 2cm. Any deeper than 2cm and this will interfere with the base anchor point and will make the top attachment point unusable.



Tree Protection Mounts

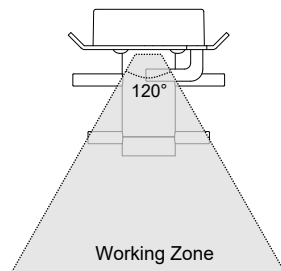
The device is supplied with a set of rubber protection mounts. These are attached to the device with the supplied Coach Bolts and Nuts. Coach bolts enter from the front of the device and nuts at the rear as picture below. The mounts should be inspected carefully prior to each use and replaced when worn or damaged.

Never use the device without the rubber protection mounts fitted

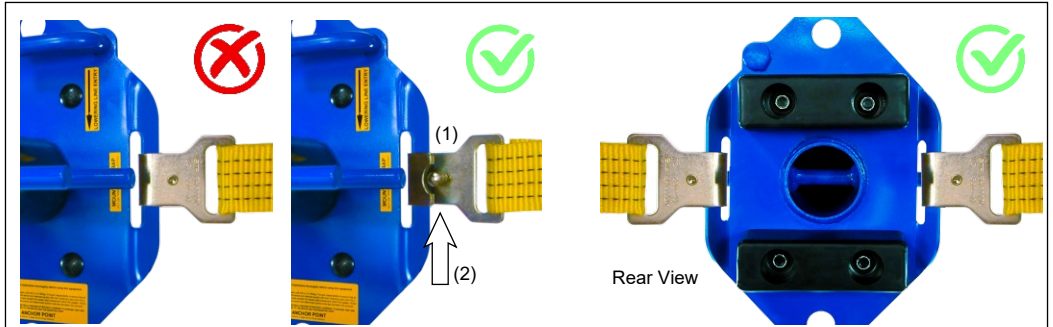


Working Zone

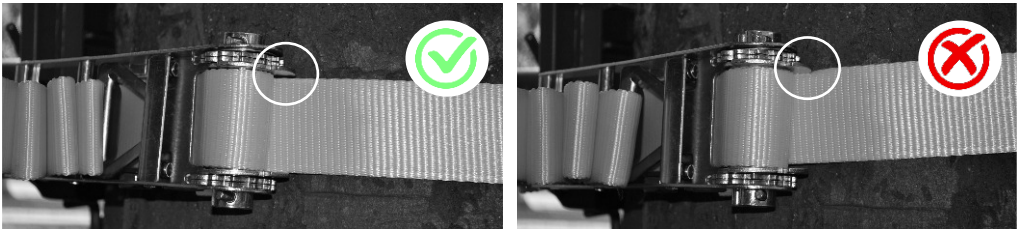
The user should position the device so there is a clear working zone of 120° from the front of the device. The lowering line must stay within this working zone to ensure correct rope alignment. This also prevents the rope from overlapping on the bollard and makes full use of the fairleads.



Ratchet Strap Mounting



When fixing the Ratchet Strap ensure the open face of the hooks face outwards as shown in the diagram (1) checking the Retaining Spring Pin (2) is located so the hook cannot come free from the device.



When tightening the ratchet ensure the webbing enters the ratchet evenly and is not in contact with the side guide plates. This will cause premature wear to the webbing and possible webbing failure.

The retention devices must be inspected & checked for both tension and wear after each lowering operation to ensure they are securely attached to the device and the mounting point.

Base Anchor Point



The Working Load Limit (WLL) is based on using the specified mounting Ratchet Strap and backed up with a sufficiently rated Anchor Sling. This is to be connected to the base anchor point with a suitable steel connector as shown in the diagram below (Closure Gate facing away from the trunk) and terminated around the trunk using a suitable self-tightening hitch such as a cow-hitch or timber-hitch.

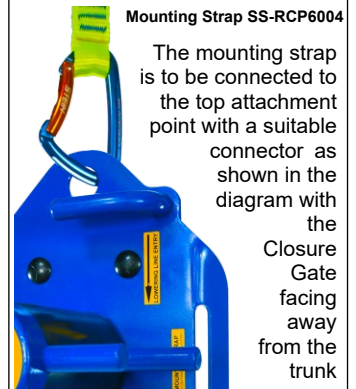
This must be inspected & checked for both tension and wear after each lowering operation to ensure it is securely attached to the device and the mounting point.

WARNING

The SMB1000 Device should never be operated or used without a base anchor sling fitted and secured properly.

Top Attachment Point

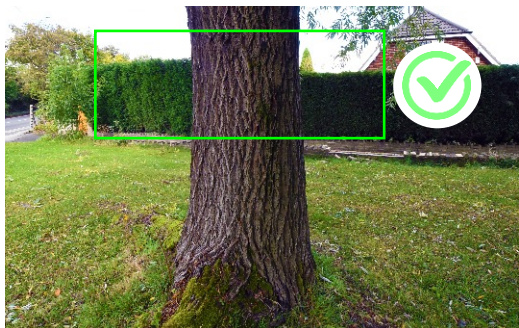
The top attachment point is used to support the weight of the device to help with the initial mounting of the device by an individual person and with the removal of the device from the mounting point.



Device Mounting Instructions

ENSURE THE WORK AREA IS FREE & CLEAR OF ANY OBSTACLES AND A FULL RISK ASSESSMENT HAS BEEN UNDERTAKEN BEFORE USING THE DEVICE

These mounting instructions are the same for using both methods of mounting as described on page 7



- (1) When selecting the best place to mount the device try to locate an area where there is little or no stem taper. If the tree is being removed this can be achieved by shaping the stem to be parallel.
- (2) You must then decide which type of mounting method is required for the job you are undertaking (see page 7)
- (3) For ease of mounting we recommend that you use a STEIN Top Mounting Strap above where the device is to be mounted.
- (4) Using the Top Attachment Point attach the lowering device to the Karabiner.
- (5) Ensure the Closure Gate on the karabiner faces away from the trunk (see page 8)
- (6) Ensure the device is suspended at a height where it can be safely operated.



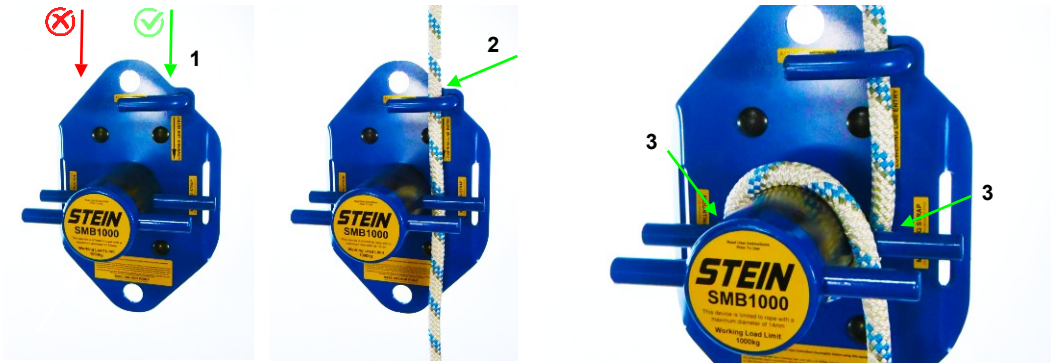
- (7) Using the supplied Ratchet Handle and Ratchet Strap attach the device to the tree.
- (8) Ensure the Strap Hooks are fitted correctly and the Webbing is fed through the Ratchet Handle as shown on page 8
- (9) Tighten the Ratchet System as tight as possible ensuring the device is securely mounted to the tree.
- (10) Once the Device is securely mounted a backup Sling must be attached to the base anchor point. and tied off using a suitable termination hitch. Ensure the sling is of a sufficient length to terminate the hitch properly.
- (11) Once the device is mounted correctly the Top Mounting Strap can either be removed or detached from the device.

NEVER USE THIS DEVICE WITHOUT AN ANCHOR SLING ATTACHED

We strongly recommend that you use the STEIN SS-3372008005 Multi-Sling as the Anchor Sling

Routing The Rope

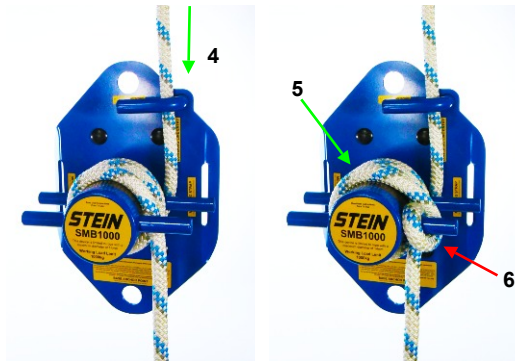
The following instructions demonstrate the correct routing of the working line. Never use alternative routing as this may result in serious injury or death.



- (1) Ensure the working line enters the device from a vertical point directly above the device.
- (2) The line must pass behind the rope guide on the top right-hand side of the bollard.



- (3) The rope must take a single wrap, passing behind both rear fairleads. Pull the rope tight and continue with further wraps in between the rear and front fairleads.



- (5) Apply a couple of wraps, more wraps maybe required subject to the size of timber being lowered. More wraps give more friction.
- (6) If at any time you need to suspend/lock a load, simply wrap the working line a minimum of 3 times around the bollard and finish by applying 1 or 2 half hitch's on opposing exit fairlead's. Subject to the size of load being suspended extra half hitch's maybe required.



Once you are in a position to commence lowering, stand well clear of the drop zone ensuring the working line will not be obstructed by the item being lowered. Where a load is being cut from above the rigging pivot point the operator should draw slack out of the system. This can be achieved by quickly pulling on the working line as the branch/log begins to fold and then release the working line as normal as the load passes the rigging point.

If it is necessary to pre-tension the working line tighter than what can be achieved by simply pulling down on it, a mechanical advantage of 3:1 can be achieved by incorporating the Stein RC-3100 Pre-Tension pulley. This pulley has been design specifically to be used with STEIN Lowering Devices.

