

# SEGO Single bobbin descender

# **USER INSTRUCTIONS**

# Description

The Ego is a descent device designed specifically for rope access use

- Descending
- Ascending
- Progress capture

# Working load of 200kg.

For use on EN1891 kernmantel rope (Ø10.5 to 11mm).

The Ego has been tested on 10.5 and 11mm Tectra rope

Ego has a progressive double-braking mechanism meaning it will brakeif the handle is either released or pulled too hard in panic.

Ego can be used on a rope at any angle.

Ego has additional protection against backwards threading

# Before Each Use

Check condition and operation of device. Refer to notes on reverse for more information.

Ensure that the handle, gate, cam and top plate are all free to move smoothly over their full range and that spring-loaded elements return fully. Confirm braking and descending functions under operational load in a location where there is no fall risk.

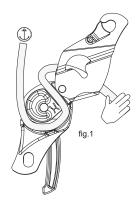
Confirm haul catch is not engaged and is free to move.

# Attachment

For ascending or descending attach Ego to central waist attachment point on harness with a suitable locking connector.

# Threading (fig.1)

To thread the Ego put the handle in the locked position, open the front plate (this can be done without removing the connector by opening the catch), take rope and feed round the cam in an anticlockwise direction so that the tail rope exits the top right of the device, then close the front plate. Ensure the catch snaps shut over the karabiner.



# Removing rope

To remove the rope put the handle in the

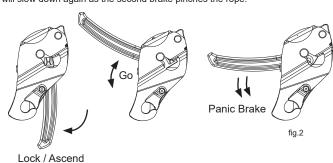
lock position, open the catch and swinging the front plate open.

(The karabiner can stay attached to the harness and device to prevent dropping). Unthread the rope by taking the tail end and removing it from the device, clockwise round the cam.

# Handle Positions (fig.2)

To Lock / Ascend or thread: Rotate fully clockwise until it clicks in to the lock position.

To Descend: rote anti clockwise until the cam is engaged then slowly apply anticlockwise pressure to reach the desired speed of descent. Panic Brake: if the handle is pulled anticlockwise to hard the device will slow down again as the second brake pinches the rope.



# **C€0120** EN12841:2006(C)

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Type approval; SGS United Kingdom Ltd, Weston-Super-Mare, BS22 0WA, UK

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# heightec.com

# Descending

To descend, first take in any slack by pulling in on the tail rope. Hold the tail rope and unlock the device by rotating the handle in an anti clockwise rotation until resistance from the cam is felt. To release cam and start the descent, pull gently until the desired speed is reached. If the handle is pulled too far the device's second brake will engage to prevent an out of control descent by slowing the device.

The second brake is progressive so the more it is pulled the more it will engage enabling the user to find a sweet spot in the go position easily even on slopes.

2 person descent - To start the descent a strong pull on the handle and a firm grip on the tail rope will be required. Once moving, the forces are reduced. Always descend slowly and carefully and practice this technique in a controlled environment.

# Tail rope positions (fig.3)

reduces wear on the device.

Always hold the tail rope when descending. The Ego tail rope can be held in two positions. 1) over the front plate for ease on short descents. 2) in line using the rope path over the brake block to prevent rope twists on longer descents. Stainless friction surface

# Ascending

To ascend, put the handle in to the locked / ascend position. Attach an ascender with a foot loop above the device on the same rope. Stand up in the foot loop and as slack develops in the main line pull it through the device.

Note: If the handle is tripped and the second brake engages adjust technique so that the rope is pulled through the device as it is off-weighted, this will allow a more efficient ascent. In certain situations e.g. When the rope condition is muddy or the device is being used on a slope, the haul catch may be used to ascend.

# Hauling (fig.5)

To haul engage haul catch put the handle in the lock position and push the haul catch forward to it clicks in to the recess in the handle. This enables the device to be used for progress capture or during a rescue haul. For normal use this should be left in the unlocked position to allow all other functions to work.

# Inspection (fig.4)

The Ego has a wear indicator on the cam. If the line is fully broken the device should be retired.

The mechanism can be inspected and cleaned out by removing the plate on the back by removing the 2 small screws and sliding this off. This allows any accumulation of dirt to be removed from the moving parts. The spring that locks the handle can all so be removed and cleaned. To do this simply remove the screw and regrease the spring.

# Back threading protection

The Ego has protection against many accidental backwards threading scenarios. If threaded backwards and loaded the second brake will grip the rope and stop an out of control descent. If this is triggered the handle will be forced out of the lock position and the cam will grip the rope, the user should then attach to a safe anchorage e.g. ascenders before touching or unlocking the device further.

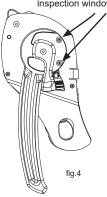
DO NOT attempt to descend with the device backwards. Warning: back threading protection can be overridden with the haul catch, before using the device for normal descent / ascent ensure that is not engaged.

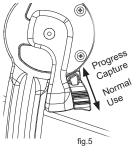
# Paying out slack (fig.6)

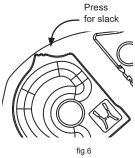
The cam has a button on top which allows slack to be paid out under partial load when the handle is locked out e.g. moving towards an edge or taking the device off of a rope.



Unscrew to remove inspection window



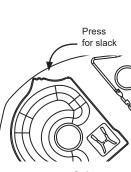




# Warnings

- · Always use in conjunction with a suitable back-up system e.g. a Type A
- Always maintain control of tail rope, unless device is "locked-off."
- · Always use a connector (EN362 Class B) with bar size between Ø10mm and Ø12.7mm.
- Do NOT use screwlinks (EN362 Class Q) with bar size less than Ø10mm
- · Always minimise slack in anchor line.

- · Do NOT over-load or apply dynamic load as this may damage the rope.
- Always be aware of the device temperature rising during long/fast descents due to friction - this may damage the rope.
- Ensure a knot or other end termination is used at the bottom of the working line, to prevent descending off the end of the line.
- Ensure the rope does not run over any sharp edges or abrasive surfaces.
- Do NOT use outside of limits or for any purpose than described above.
- · Do NOT use as part of a fall arrest system.



# 1 - Personal issue and traceability:

This product is personal protective equipment and should be individually issued to the person who will be using it. The product should remain traceable to the original certificate of conformity and a permanent record should be kept of its use. This user instruction forms part of the permanent product record. All users must receive and read a copy of these instructions and should understand what the instructions mean and be familiar with them, including, but not limited to function, suitability, compatibility of the product and inspection for defects arising from damage. A copy of this user instruction should be kept with the equipment, and referred to before and after each use. In the event of a rescue, these instructions should be provided to the rescuer

# 2a - Anchor Points:

The anchor device or anchor point used should be of sufficient strength to sustain foreseeable loads in all permitted directions. Specific standards requirements:

EN: Anchor device should conform to EN795, with minimum static strength of 12kN. heightec recommend a higher strength of 15kN as specified in the IRATA ICOP and BS7985. When more than one system is attached to an anchorage, th strengths should be multiplied by the number of systems. Anchorages should be positioned to minimise the potential for falls, and the distance and consequences of any potential fall, ideally above the user. Verify there is sufficient free space beneath the user to avoid collision with the ground or other obstacles and minimise sideways or pendulum falls. The connecting system instructions should give advice on clearance required, but a fall arrest energy absorber may extend by up to

2b - Further Requirements for Anchor Points in US (ANSI): ANSI: (a) where certified, twice the maximum arrest force, or (b) where not certified 22.2kN (5,000lbf) for fall arrest, 13.3kN (3,000lbf) for work positioning, or 4.5kN (1,000lbf) for restraint. When designing, selecting, and certifying a fall arrest anchorage, the qualified person shall include the limitations on use of the system in fall protection procedures described in ANSI Z359.2. Design, selection and installation of certified fall arrest anchorages shall include determining a safe location where and how to connect those anchorages by taking into consideration the forces generated by arresting a fall, total existing and anticipated loading, load path, structural member strengths connection and support strengths, stability, clearance requirements, swing fall, rescue deflection of the system, and impact on the structural members to which the fall arrest system

Anchorages selected for rescue systems shall have a strength capable of sustaining static loads, applied in the directions permitted by the rescue system of at least 3,100lbf for connection of rescue system only, or meet a Factor of Safety of 5:1 based on the static load placed on the system when the system is designed, installed and used under the supervision of a qualified person.

Persons engaged in rescue operations that are exposed to a fall hazard, must be provided an anchorage suitable for fall arrest in accordance with ANSI Z359.1.

Anchorage connectors shall not be attached to anchorages where such attachment would reduce the anchorage system strength below the applicable level set forth above or reduce the anchorage strength below the allowable level set by applicable structural codes. A suitable anchorage connector shall be used for rigging the connection of lanyards and lifelines to structural members. A lanyard shall not be connected back onto itself for use as an anchorage connector unless specifically designed for this purpose.

Anchorage connections shall be stabilised to prevent unwanted movement or disengagement of the rescue system from the anchorage. Verify system connections by pre-tensioning the system before applying the intended load.

Other components used in fall protection or work positioning systems

must conform to the relevant standards, be compatible with each other and be used in accordance with their user instructions.

# 3a - Inspection and care:

The strength of this product may be affected by cuts, nicks, deep scratches, wear, abrasion, deformation, chemical contamination, UV degradation, exposure to flame, extreme termperatures and other factors. Keep this equipment away from such sources of damage. Use this product with caution near moving machinery, electrical hazards, sharp edges and abrasive surfaces.

This product must be inspected before and after use, and particularly after being used for rescue, to ensure the product is in a suitable condition and operates correctly. Written records should be kept of all inspections.

If there is any doubt about condition of the product, or it has been subjected to a fall or substantial shock load, withdraw it from use until confirmed to be safe, in writing, by a person deemed to be competent by The heightec Group.

No repairs of this product should be undertaken, any attempt to do so may invalidate it's compliance and/ or certification.

The safety of users depends upon the continued efficiency and

durability of this equipment, which must subjected to detailed visual and tactile examination by a competent person\* at intervals of no greater than 6 months for textiles or 12 months for metals, taking into account relevant legislation, equipment type, frequency of use and environmental conditions. These examinations should be carried out strictly in accordance with the manufacturer's periodic examination procedures. Detailed examinations should include confirmation of the legibility of product markings.

\*A competent person may be defined as someone who "...has appropriate theoretical and practical knowledge and experience..."

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The results of examinations should be recorded. Intermittent inspections of components which may be subject to excessive wear may also be appropriate. The results of these need not be recorded. Contact your distributor for information on suitable inspection procedures

#### 3b - Inspection criteria:

Textile products or elements: check material and stitching for damage including cuts, nicks, abrasion, fraying, discolouration, heat or chemical damage etc. Ensure stoppers are present on ends of adjustment webbing.

Metal devices or components: check for damage, corrosion, excessive tightness, sharp edges, excessive play, deformation, cracking or anything that might affect strength. Check security and correct operation of any moving parts e.g. side plates, return action of springs, cams, operating handles, bearings. Check function of closure mechanisms, where present (e.g. screwlink thread, connector gates).

3c - Cleaning, maintenance and storage:

Wash textiles by hand with non-detergent soap at approx 25°C (cool). Rinse and dry naturally, away from direct sources of heat and sunlight. If necessary use a disinfectant compatible with polyamide and polyester. Use diluted and rinse thoroughly in clean water. Dry as previously stated. These cleaning

procedures must be strictly adhered to.
Mechanical metal products with moving parts should be occasionally oiled, at bearings or pivot points, with excess oil removed. Store and transport in a dry, clean condition, away from sources of severe vibration, humidity, direct heat, sunlight and any physical or chemical contaminants

# 4 - Lifespan:

Textile products or elements: maximum 10 year lifespan from date of manufacture, subject to competent use, maintenance and examination programme.

Metal products: indefinite lifespan, subject to competent

use, care and examination programme. The lifespan of all products will be reduced by normal wear and tear, particularly when used in abrasive or corrosive environments. In extreme circumstances, the life of an item may be reduced to a single use

5a - General usage:
Users should be suitably trained and competent to work in situations where a risk of falling may be present or under the direct supervision of such a person, fully trained in the use of this product and free of medical contra-indications for work at height or rescue. Do not use this product outside of its limitations or if you are unsure of any aspect of its use. No alterations or additions may be made to the product. The heightec Group do not take any responsibility for injury or accident of any kind arising from the use of this product

It is essential a rescue plan is in place to deal with emergencies and in particular to consider treatment and recovery of a fallen or suspended person. Rescue equipment must be present and personnel should be competent in its use. Orthostatic intolerance can occur when a person is suspended motionless in a harness, and is potentially fatal. Ensure that the rescue of a suspended person is carried-out promptly.
Contamination with oils, lubricants, water or solvents may alter

the performance of the product. For rope devices behaviour will vary according to the age, type, diameter and characteristics of the rope used

# 5b - Care of rope during use:

Take any steps necessary to protect the rope from damage during use, including rope protectors, edge protectors, intermediate anchor points or deviations to avoid sharp or rough edges. Consider also the position of the rope below the user. Ensure rope cannot suffer from the effects of wind, or become trapped around obstacles

# 6 - Guarantee:

This product is guaranteed for three years against faults arising from manufacturing errors or materials defects. This guarantee does not include normal wear and tear, faults arising from uses for which the product was not designed and accidental damage.

# 7 - Notes:

If this product is re-sold outside the original country of destination the reseller shall provide these instructions in the language of the country in which the product is to be used.

Markings:
The following markings may be present on the product:

CE mark - European Conformity

i Read these instructions before use.



For use with kernmantel ropes conforming to EN1891



XX-YY - Diameter range of rope which this product may be used, in mm



Date of manufacture is marked on the product in the form: DAY MONTH YEAR, DDMMYY eg.120510.

The ID no is unique to this item.

Do not remove or obscure the product labels or markings. Unique ID should be read in conjunction with product code and batch number e.g. D01 120510 123

INSPECTION RECORDS			ID Number:		
Product:		PO/ Certificate No.:			
Model/Type:		Purchase Date:			
Manufacture Date:		First Use Date:			
Date	Observati	ons / Comments	Actions	Inspector	Next Due
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