

# TRANGO® User's Manual for New Flexcam

EN 12276:1998 Mountaineering equipment  
Frictional anchors

## CE0120

### Caution!

Read and follow carefully before use.  
Only the trained and experienced expert or one who are under his direct or indirect control can use this.

### Minimum holding force and Width size

Size	Min.holding force (kN)	Width (mm)	Size	Min.holding force (kN)	Width (mm)
1	7 kN	11 - 17	6	12 kN	34 - 55
2	7 kN	15 - 21	7	12 kN	44 - 68
3	10 kN	19 - 27	8	12 kN	53 - 86
4	10 kN	24 - 33	9	12 kN	63 - 107
5	12 kN	27 - 43		-	

### Marking (fig1)

New Flexcam : Model name

Size : Width size of cam (see table)

kN : Kilo Newton which manufacturer ensures

CE : CE Marking for Directive89/686/EEC Article 11

0120 : Number of official organism controlling the quality system

EC Type-examination by :

SGS United Kingdom Ltd

Weston-super-Mare, somerset BS22 6WA, United Kingdom

0810 : Lot number (year & Month)

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### How to use ...

- Improper use of this product may cause serious injury or damage. Careful attention and limitation is required to use this product. Read and understand the properties and characteristics of this product.
  - Only the persons trained and experienced on mountaineering or ones who are under his/their direct or indirect control can use this product.
  - It may be used in conjunction with any appropriate items of climbing equipment of suitable specification and according to the EN standards with due consideration to the limitations of each individual piece of equipment.
  - in wet or frozen condition, it may not operate smoothly.
  - Sling or any other parts can be damaged by sharp edged things
- ※ See detailed instructions on next page.

### How to maintain ...

- Always check the operation status before/after use.
  - If the cam can not open easily, lubricate cam shaft.
  - If after oiling cam does not work well, discard cam.
- Replace the unit with signs of wear and corrosion. Replace the cam when opening and closing are difficult. Avoid any contact of the cam with corroding substance and heat sources. Lubricate when necessary, the mobile components with silicone based lubricant only. If the cam comes in contact with seawater, wash it and lubricate with oil.

### Lifespan or how to assess it.

- 3-5 years when monthly used. · 1-2 years when weekly used.
- 4-6 months when daily used. · Sudden impact will end useful life.

The load indicated in always the lowest guaranteed value.

A cam lasts several years when use intermittently, but this can not exactly evaluated. In frequent use condition, for your safety, a replacement each 3 years is recommended.

### Limitation on use

Never use the products having

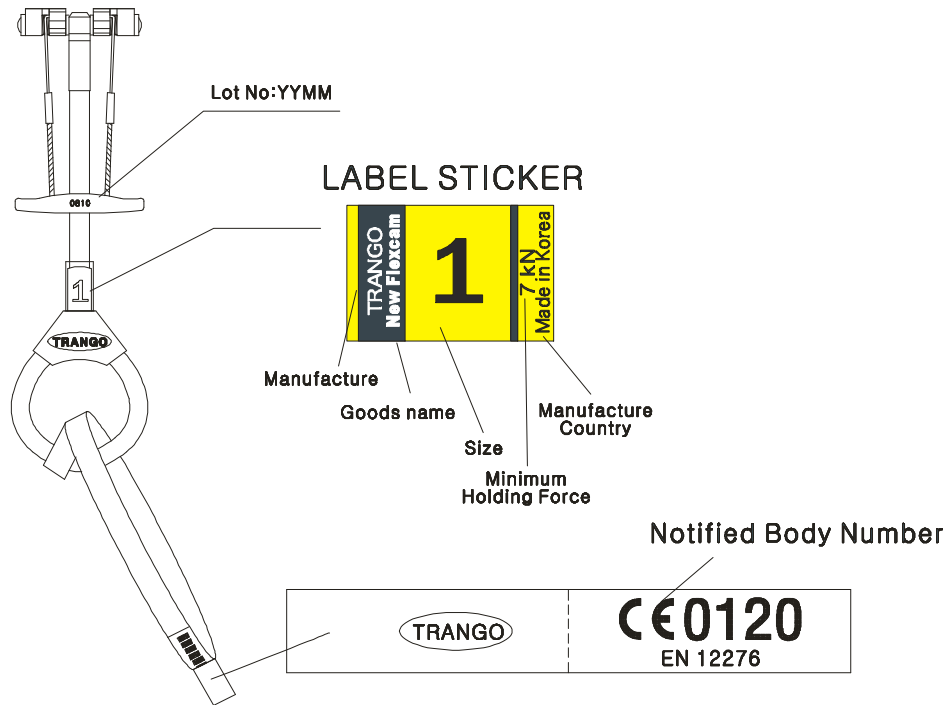
- sudden impact like fall, even if not default or damage is visible.
- defects, cracks, damages.
- abrasion, corrosion.
- unsmooth opening of the cam.

### Effects of chemical reagents and temperature

- High temperature over 100°C can shorten the lifetime.
- Chemical reagents like strong acid can corrode the cam.

### Effects of storage and ageing

- When cam is stored in damp air, cam will be rusted and malfunctioned. Do not store in damp air.
- There is no ageing effect on the metallic components, however the sling will age if stored in sunlight.
- keep in a cool, dry, dark place away from high temperature, high humidity, sharp edges, icy conditions, corrosive or other possible causes of damage and/or chemicals.



Marking (fig 1)

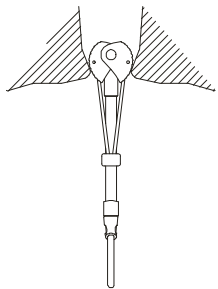


fig 2

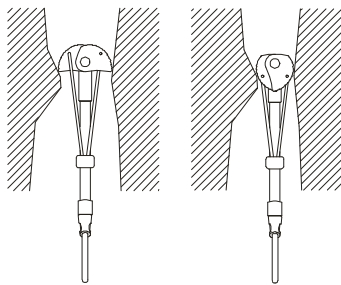


fig 3

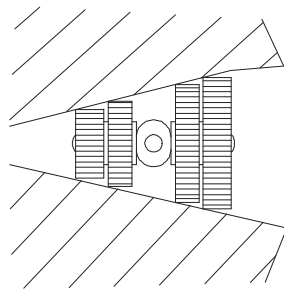


fig 4

## Use

1. Never position a Cam at the edge of a crack. (fig 2)
2. Never place a unit so that the cam are offset, e.g. with two cams extended and cams retracted.( fig 3)
3. Never place a unit where any single cam is near its maximum extension. ( fig 4)

## Regularinspection

Before and after use, be sure your cam have smooth trigger action, easy cam retraction and expansion, and independent cam motion, With no signs of damage to sling or cam unit.

## Discard the unit if

- \* The cams or sling have been damaged in a fall.
- \* The cam teeth are worn away.
- \* The tailpiece or crossbar is cracked.
- \* The stem cable are frayed ,kinked, or damaged in any way.
- \* The springs are weak or damaged.
- \* The sling or stitching is worn or damaged.