Catch - CTC 100

Product Info Sheet

Rope Adjustment Device
Conforms to EN 12841:2006 A/B
(Expert Use Only)

Hot forged aluminium body

Large attachment eye for multiple connections

Rope friendly stainless steel cam

Tether attachment point (2mm diameter cord) for drop-free installation and removal

Screw-lockable side plates for semi-permanent attachment to safety line

Towable Release Mechanism (Patent Pending) replaceable part no. CTC 100 TM

Side plate locking screw stowage point in boss

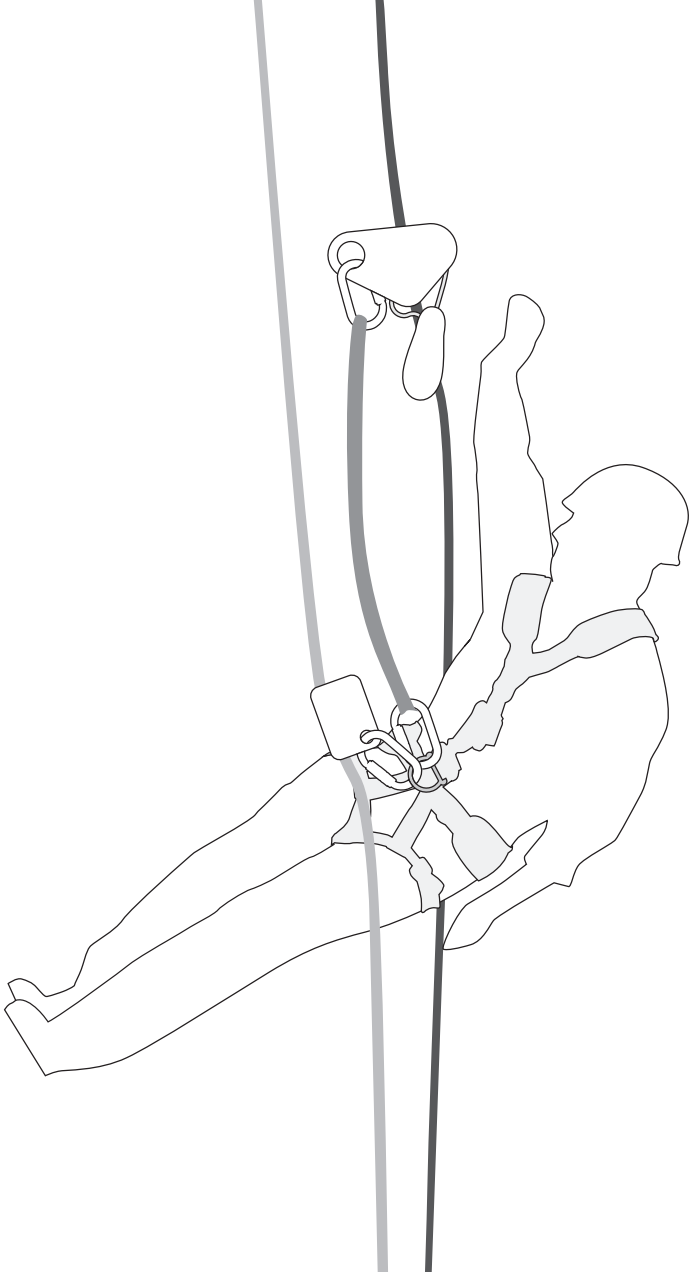
Stainless steel boss

Injection moulded/ hot forged handle ergonomically shaped for ease of use with descent devices

The Catch

Rope adjustment device which moves freely up the rope, can be towed down the rope using the Towable Release Mechanism and locks under static or dynamic loading.

The Catch features a non-aggressive, rope friendly stainless steel cam. This is spring loaded allowing the Catch to be positioned above the user.

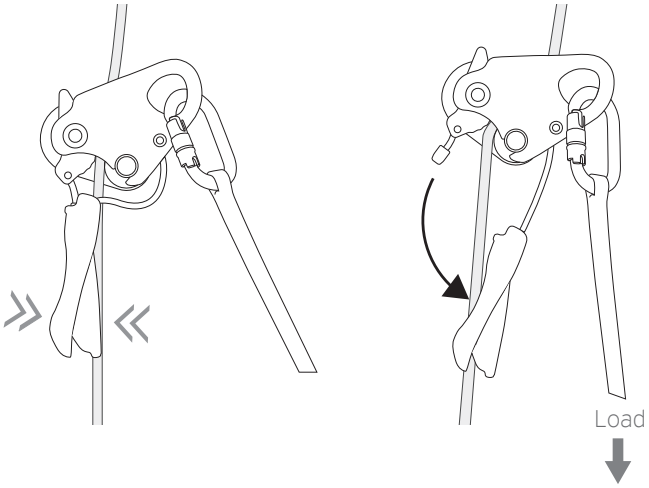


How does it work?

The Catch incorporates a unique Towable Release Mechanism (TRM).

The TRM allows the user to tow the Catch whilst descending yet will enable it to lock onto the safety line in the event of a main line failure. The TRM has a panic function that will initiate the locking of the Catch onto the safety line. The Catch will also lock onto the safety line if the user simply lets go of the TRM.

The Catch has undergone extensive field testing, including real person main line failures and uncontrolled descents.



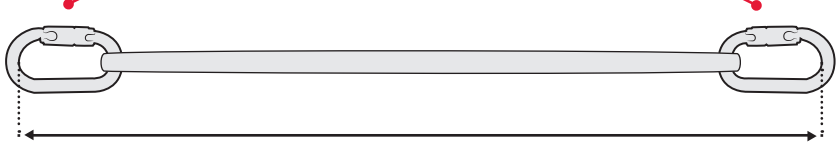
1. User lets go of the TRM in a fall. This causes the Catch to lock onto the safety line.

2. User initiates 'panic grip' on the TRM. This causes the TRM to release and the Catch to lock onto the safety line.

EN 354:2010 Lanyards/Cowstails

Lanyard Length

EN 362:2004 Connectors



80cm - Max Lanyard/ Cowstail length

Specifications at a glance

› Certification - Conforms to relevant EN Standards.
› Rating - Based on manufacturer's extensive testing.

Certification

EN 12841:2006 Type A - Safety Line Rope Adjustment
The Catch is certified to EN 12841:2006 for Type A devices on approved 11mm diameter kernmantel ropes at a rated load of 100 kg, (single person use) under hot, cold and wet conditions as defined in the standard.
See Table 1, Page 5 for list of approved ropes and Table 2, Page 6 for heavier user information.

EN 12841:2006 Type B - Working Line Ascender
The Catch is certified to EN 12841:2006 for Type B devices on approved 11mm diameter kernmantel ropes at a rated load of 100 kg as defined in the standard.
See Table 1, Page 5 for list of approved ropes.

Rating

200kg two person rescue load.
See Table 2, Page 6 for detailed information on fall factor conditions in such applications.

Materials

- 303 Stainless steel cam and boss
- 6082 T6 Aluminium side plates anodised to EN 7599:2010 class AA10
- Stainless steel screws/rivets

General Info

- Product Code - CTC 100
- A back up device for rope access systems, designed to 'catch' the user on their safety line in an emergency
- Towable Release Mechanism (Patent Pending)
- Suitable for use on approved EN 1891:1998 A 11mm and NFPA 1983 (2012 ED) 7/16in ropes
- CE marked in accordance with PPE directive 89/686/EEC

‹ Laser markings showing correct direction of use.

Tether attachment point (2mm diameter cord) for drop-free installation and removal. ›

Catch
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Specifications

EN 12841:2006 Type A/B – Rope Access Systems – Rope Adjustment Device
For use on approved 11mm and 7/16in diameter kernmantel ropes complying to EN 1891:1998 A or NFPA 1983 (2012 ED.)

Extract from EN 12841:2006 Personal Protecion Equipment - Rope Access Systems - Rope Adjustment Devices

rope access system
personal fall protection system, which comprises two separately secured sub-systems, one as the working line and the other as the safety line, which are used for getting to and from the place of work, and which can be used for work positioning and rescue.

rope adjustment device
component which, when fitted to an anchor line of appropriate diameter and type, will enable the user to vary his or her position along it.
NOTE Rope adjustment devices are sub-divided into Types A, B and C. The same rope adjustment device may conform to more than one type.

Type A rope adjustment device: safety line adjustment device
rope adjustment device for a safety line which accompanies the user during changes of position and/or allows adjustment of the safety line, and which locks automatically to the safety line under static or dynamic loading.

Type B rope adjustment device: working line ascender
manually operated rope adjustment device which, when attached to a working line, locks under load in one direction and slides freely in the opposite direction.
NOTE Type B rope adjustment devices are intended always to be used in conjunction with a Type A rope adjustment device connected to a safety line.

Catch Conformity

EN 12841:2006 Type A
Safety Line Rope Adjustment Device - The Catch is certified to EN 12841:2006 Type A devices on 11mm diameter kernmantel ropes at a rated load of 100kg under hot, cold and wet conditions as defined in the standard.
See Table 1, page 5 for list of approved ropes.

EN 12841:2006 Type B
Working Line Ascender - The Catch is certified to EN 12841:2006 Type B devices on 11mm diameter kernmantel ropes at a rated load of 100kg as defined in the standard.
See Table 1, page 5 for list of approved ropes.

Approved Ropes EN 12841:2006 Type A and B

The DMM Catch - The Safety Line Rope Adjustment Device tested fully complies with the requirements of the standard EN 12841:2006 Type A devices on 11mm diameter EN 1891:1998 A ropes or on 7/16in diameter NFPA 1983 (2012 ED) ropes as listed in the table below and at a rated load of 100kg under hot, cold and wet conditions as defined in the standard.

The DMM Catch also fully complies with the requirements of the standard EN 12841:2006 Type B devices (Working Line Ascender) on 11mm diameter EN 1891:1998 A ropes or on 7/16in diameter NFPA 1983 (2012 ED) ropes as listed in the table below and at a rated load of 100kg as defined in the standard.

NB - The Catch must ONLY be used on ropes tested and approved by DMM.

Table 1

Manufacturer	Model	Diameter	Conformity	Approved
BEAL	Access Unicore	11mm	EN1891:1998 A	✓
BEAL	Industrie	11mm	EN1891:1998 A	✓
BEAL	North Sea	11mm	EN1891:1998 A	✓
BEAL	Pro Water	11mm	EN1891:1998 A	✓
BLUE WATER	DGR	11mm	NFPA 1983 (2012 ED)	✓
BLUE WATER	Protac	7/16in	NFPA 1983 (2012 ED)	✓
BLUE WATER	Safeline	7/16in	NFPA 1983 (2012 ED)	✓
DMM	Worksafe	11mm	EN1891:1998 A	✓
DMM	Worksafe Plus	11mm	EN1891:1998 A	✓
EDELRID	Performance Static	11mm	EN1891:1998 A	✓
EDELRID	Power Static 2	11mm	EN1891:1998 A	✓
EDELRID	Safety Super 2	11mm	EN1891:1998 A	✓
MAMMUT	Performance Static	11mm	EN1891:1998 A	✓
MARLOW	LSK	11mm	EN1891:1998 A	✓
PETZL	Axis	11mm	EN1891:1998 A	✓
STERLING	Safety Pro	11mm	EN1891:1998 A	✓
STERLING	Superstatic 2	7/16in	NFPA 1983 (2012 ED)	✓
TENDON	Static	11mm	EN1891:1998 A	✓
TEUFELBERGER	Patron	11mm	EN1891:1998 A	✓
TEUFELBERGER	Patron Plus	11mm	EN1891:1998 A	✓

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Catch Testing

The Catch has been tested in accordance with the requirements of EN12841:2006. This requires the Catch to arrest the fall of a steel mass of 100kg in a Fall Factor 2 (FF2) situation on a specified lanyard length with a maximum slippage of 2 metres, with an impact force of less than 6kN. However it is advisable and good working practice that the Catch should never be positioned below the harness attachment point (FF1).

Table 2 displays typical slippage and impact force test results for various masses, fall factors and lanyard lengths. These tests were performed using a DMM Worksafe 11mm diameter rope.

Table 2

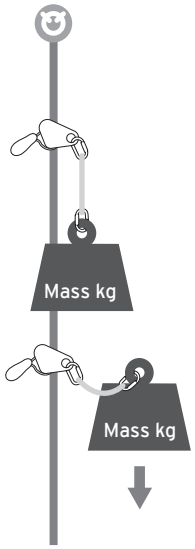
	Typical results showing Catch slippage (cm) and impact force (kN) in different fall factor scenarios			
	100kg, 80cm lanyard	**120kg, 80cm lanyard**	**200kg, 80cm lanyard**	**200kg, 40cm lanyard**
FF0	0cm, 1.5kN	1cm, 2kN	2cm, 4.5kN	1cm, 3.5kN
FF0.5	10cm, 4.5kN	25cm, 5kN	70cm, 5.5kN	45cm, 4.5kN
FF1	28cm, 5kN	30m, 5.5kN	Do not use	180cm, 4.0kN
FF2	Do not use	Do not use	Do not use	Do not use

KEY
Recommended use
Reposition Catch above shoulder height as soon as possible.
Do NOT use Catch in this situation!

Pre-Tensioned Rope Tests

Top Tensioned Rope - Simulating Rescue from Below

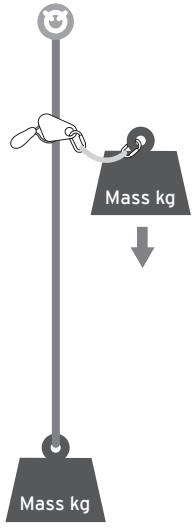
A 100kg mass (Top Mass) was lowered onto a Catch set up on a 80cm lanyard at 1m from the top of the rope, where the position of the Catch was marked on the rope.
A second Catch was set up 2m from the bottom of the rope, where its position was marked on the rope. A second mass (Bottom Mass) was then dropped in a fall factor one onto the bottom Catch. The slip distance of each Catch was then recorded.



Top Mass			Bottom Mass			
Mass kg	Lanyard Length cm	Slip Distance cm	Mass kg	Lanyard Length cm	Slip Distance cm	Fall Factor
100	80	12	100	80	15	1
100	80	70	130	80	43	1

Bottom Tensioned Rope - Simulating Rescue from Above

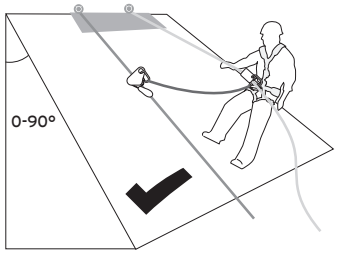
A mass was attached to the bottom of the rope.
A Catch was set up 1m from the top of the rope, where its position was marked on the rope. A second mass was then dropped onto the Catch. The slip distance of the Catch was then recorded.



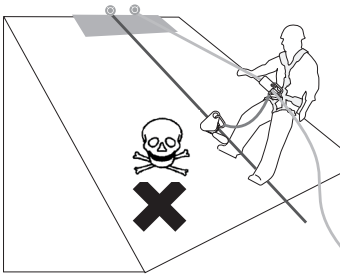
			Fall Factor 1		Fall Factor 2	
Lanyard Length cm	Bottom Mass kg	Top Mass kg	Slip Distance cm	Peak Force kN	Slip Distance cm	Peak Force kN
80	80	50	7	4.1	7	5
80	80	100	35	3.6	125	3.7
80	100	50	8	3.6	28	4.3
80	100	80	15	3.8	50	4.2
80	100	100	23	3.8	97	4.4

Catch
Technical Notes

Sloping Roof



The Catch should be positioned high and to one side of the user ensuring that nothing will affect the proper function of the Catch.



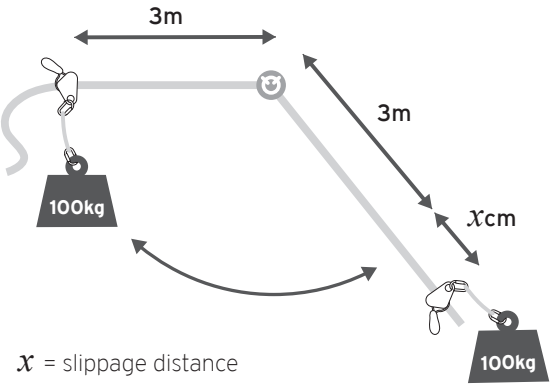
Do not work in a position where the Catch may become trapped between sloping surfaces and the user (or anything else) as it may not function properly.

Pendulum

Pendulum falls should be avoided wherever possible.

Simulated Pendulum Test
A 100kg mass was suspended horizontally approximately 3m from the anchor point. The Catch was connected to the rope at distance 3m from the top of the rope, where the position of the Catch was marked on the rope. This created slack in the rope approximately equal to the length of the lanyard being used. The mass was released which resulted in a arcing swing.

The slip distance of the Catch was then recorded.



x = slippage distance

Height of Mass Above Anchor Point cm	Lanyard Length cm	Slip Distance cm
0	80	1
35	80	63
70	80	183

Adjustable Restraint

The Catch can be used as part of a planned restraint system of sufficient strength for any potential loading.