

## OPERATOR'S MANUAL

# Waterski & Wakeboard Harness

English Edition 07/2014



## OPERATOR'S MANUAL

Before using the water ski harness for the first time in water, get accustomed to the system on shore. The **CR Water Ski Harness** consists of two parts.

### 1. HARNESS



### 2. HANDLE



**PLEASE TAKE NOTICE:** the CR harness is an integrated part of a specifically constructed harness system. Use this water ski harness only in conjunction with the original quick release and the original CR handle.

#### PREPARATION:

- Put on the waist harness and close the belt so that the harness fits your size. Put the black line in front of your stomach and hook it up to the D-ring on the side, using the snap link.
- This black line serves to connect the CR handle with the harness. The connection is made with a pulley, which can be moved from side to side on the lead line.
- This way the towing force can always work on the body axis and allows for utmost freedom of movement for the water skier.
- Each harness is equipped with a quick release consisting of two parts. The second part of the quick release is mounted on the CR handle.



**PLEASE TAKE NOTICE:** Only wear a harness of a size that fits your weight class. This harness is exclusively designed to pull one person on water skis or on a wakeboard. The harness is not designed to perform body rotations or loops. Never ever use this harness for sports equipment, which is specifically designed to lift, fly or function as a kite. Read the safety instructions before use.

| Size  | Waist Circumference | TOST Weak Links Breaking Load | Minimum Body Weight | Suitable for Body Weight |
|-------|---------------------|-------------------------------|---------------------|--------------------------|
| S/120 | 24-30 inch          | TOST No. 14-120 dN            | 80 lbs / 36 Kg      | 80-100 lbs               |
| S     | 24-30 inch          | TOST No. 9-150 dN             | 100 lbs / 45 Kg     | 100-130 lbs              |
| M     | 28-34 inch          | TOST No. 8-200 dN             | 130 lbs / 60 Kg     | 130-165 lbs              |
| L     | 32-38 inch          | TOST No. 8-200 dN             | 130 lbs / 60 Kg     | 150-190 lbs              |
| XL    | 36-42 inch          | TOST No. 25-250 dN            | 165 lbs / 75 Kg     | 170-210 lbs              |
| XXL   | 42-50 inch          | TOST No. 25-250 dN            | 175 lbs / 80 Kg     | 200-265 lbs              |

**⚠ WARNING!**  
Do not use the harness if you do not fulfil the minimum body weight requirements.

## THE WATER SKI HANDLE

### Attaching the water ski handle to the mainline:



The CR water ski handle is connected to the mainline with the orange loop.

Observe the following steps:

- First lead the orange loop through the loop on the mainline.
- Then pull the entire mainline through the orange loop.

## THE QUICK RELEASE

### Connecting and closing the quick release correctly:

Hold both connecting parts on the black soft handles and connect them. Make sure that the grip is completely pushed together after connecting the two parts, so that the 3 clutches are covered and the quick release is locked.

#### Position 1. OPEN



#### Position 2. ONLY CLICKED (NOT LOCKED)



#### Position 3. CLOSED AND LOCKED



The automatic quick release is unlocked through tension on the actuator cord. The actuator cord goes into tension if you let go of the handle and the tension is now on the mainline.

If you want to unlock the quick release manually, you have to move back the grip to position 2 (RELEASE).

## THE WATERSKI HARNESS SYSTEM – FUNCTIONING

The water ski handle is not directly connected to the mainline as you are used to.

The water ski handle is led around a pulley block and is connected to the CR harness with a specially designed quick release. By following this sequence we make use of a mechanical advantage, which results in a 50% reduction of the force needed on the handle. The pulley block allows for maximum freedom of movement, the towing force remains equally distributed between handle and harness in every position of the body. The two most important advantages should be mentioned here:

1. Great relief to arms and the back is achieved. This allows for an easier grip and longer rides with better control.
2. Half of the towing force acts on the harness and is therefore in a much lower and more central position of the water skier.

It facilitates getting into the correct posture on the water ski or the wakeboard, and makes mastering necessary corrections much easier. The system is only complete with the automatic release mechanism.

What you need to know about it:

In order to release the quick release automatically you need an actuator cord (white line in the picture). The length of this line is such that it is slack during the ride, and only automatically goes into tension when you let go of the handle.

Once the actuator cord is under tension it transfers the entire tension coming from the mainline. The actuator cord is connected to the movable part of the quick release and in this way manages to unlock automatically.

Once the quick release is unlocked, the connection to the water skier is immediately broken.

**Before using the equipment in water, you need to get to know the system on shore.**



### Test the system as described:

Tie the mainline to a stable object, which needs to be strong enough to hold your body weight. Put on the waist harness. Connect the leading line to the D-ring on the side. Now connect the CR handle to the harness by connecting and locking the two parts of the quick release (position 3).

Now make sure that all lines run free and are not tangled or in knots.

Now you can hold on to the handle and gently lean back into the harness. Now try to pull back and forth on the handle. Pull the handle once towards your body and then stretch your arms all the way forward. The quick release should not open in this position. The actuator cord is slack.

#### WARNING!

**If you let go of the handle, the release mechanism opens and you could fall backwards.**

Slowly and in a controlled way drop the handle on the floor and move back one step. The white line or the actuator cord should now be under tension.

By pulling gently on the harness the quick release should unlock and break the connection.

## PREPARATIONS ON BOARD

The CR handle is already connected to the mainline.

Fasten the mainline to the appropriate towing hook on the boat. The same regulations as for water skiing apply and must be followed. You also need to know the laws of the respective country and follow them.

These regulations are for your own safety and must therefore be followed.

Agree on commands and hand signals for START/STOP/FASTER/SLOWER/EMERGENCY STOP/HELP.

A second person has to be on board at all times as an observer. Wearing a life jacket is compulsory. Put your on the harness while still on board. After putting on your water ski or wakeboard you can connect the quick release and close it correctly so that your harness is connected to the mainline.

Help children to put on the harness and with closing the quick release. Check that the position of the harness is correct and that the lines are not tangled or in knots.

## FIRST START ON WATER

Do not let go of the handle while the boat is bringing the mainline under tension.

When you let go of the handle, a slight tension on the mainline is sufficient to unlock the quick release. When the boat is not moving and when the mainline is not under tension there is no tension on the actuator cord, so the automatic quick release is therefore not affected and remains locked.

**PLEASE NOTICE:** When the quick release is unlocked (picture position 2) the quick release opens right at the start. In case you let go of the handle for a moment while preparing your start, make sure that the quick release is completely closed (picture position 3).

**If you see that you are not connected to the harness while starting, simply let go of the handle and try again.**

If you continue with your water skiing, the system could be damaged because such a case causes unpredictable connections between handle and mainline to occur.

In this instruction manual we do not give any instructions concerning starting and riding techniques since this varies strongly according to personal style and equipment (combo water skier, mono ski, wakeboard).

We recommend a mainline 16 to 18 metres long including the CR handle.

### **A hint when starting with the wakeboard:**

Make sure that the quick release is kept outside the edge of the board in order to prevent an unwanted opening of the quick release in case it touches the edge of the board.

Start out by increasing speed in regular fashion. On your first ride you should get accustomed to the new distribution of weight. Ride more carefully than usual and at moderate speed. After a short ride, try to use the quick release. Let go of the handle, just as you would do with a regular water ski handle, to finish the ride.

## PREPARING YOUR START ON WATER

When the boat with the mainline approaches get ready by holding the connection device which is mounted to the harness.

When the boat driver approaches you with the mainline in accustomed fashion and you get hold of the handle, you should first grab the quick release and connect it and close it correctly as described above. After that you have to hold fast on the handle in order to prevent an unwanted opening of the quick release.

**PLEASE NOTICE:** In case the boat driver is not going slowly enough and the mainline is under tension you have to react very quickly. If you do not hold on to the handle the actuator cord gets under tension because of the tension on the mainline, and the quick release opens. Before giving the boat driver the start signal, make sure once more that the quick release is correctly closed (pic. pos. 3). Repeat the start and now go on a longer ride to get used to the new towing conditions.

## INTEGRATED WEAK LINK

Quick release with integrated weak link



The quick release system of the water ski harness is equipped with a weak link. This weak link serves as a safety feature in case the release mechanism does not function properly. In an event of emergency the towing force is limited to the indicated breaking load of the integrated weak link.

### PLEASE NOTICE:

In order to fit different body weights our harnesses are equipped with various degrees of breaking loads..



**SMALL S/120 = 120 daN (120 kg)**

Colour: turquoise - Nr. 14

**SMALL = 150 daN (150 kg)**

Colour: grey – Nr. 9

**MEDIUM= 200 daN (200 kg)**

Colour: purple – Nr. 8

**LARGE = 200 daN (200 kg)**

Colour: purple – Nr. 8

**XL + XXL = 250 daN (250 kg)**

Colour: red – Nr. 25

- NEVER remove the integrated weak link
- Replace a broken weak link only with an original weak link by Tost Gmbh Aviation Equipment – Munich
- Do not use a stronger breaking load than is indicated for the respective size of the harness and which is suitable for your body weight. Consult the following table for information.

| Size  | Min. body weight required | Suitable for Body Weight |
|-------|---------------------------|--------------------------|
| S/120 | 80 lbs / 36 Kg            | 80-100 lbs               |
| S     | 100 lbs / 45 Kg           | 100-130 lbs              |
| M     | 130 lbs / 60 Kg           | 130-165 lbs              |
| L     | 130 lbs / 60 Kg           | 150-190 lbs              |
| XL    | 165 lbs / 75 Kg           | 170-210 lbs              |
| XXL   | 175 lbs / 80 Kg           | 200-265 lbs              |

### **WARNING**

The Quick Release is equipped with a safety - weak link.  
Do not use any bigger harness size as indicated for your weight class!  
Do not use the harness if you do not fulfill the minimum body weight requirements!

## **WARNING**

Use of this product and participation in the sport involves inherent risks of injury or death.

### **To reduce risks:**

Use the CR Handle exclusively in conjunction with the original Cape Reamol - Waterski waist Harness and the original Automatic Quick Release.

Connect the CR Handle to the towline using the rope loop only.  
DO NOT USE METAL HOOKS OR METAL PARTS.

IT IS COMPULSORY TO TEST THE RELEASE MECHANISM BEFORE EACH USE.

Do not modify the original configuration of this product, do not remove or substitute any single part of the system. Any modification could result in a malfunction and increase the risk of injury.

Inspect ropes, the quick release and the release cord before each use. DO NOT USE IF DAMAGED.

Always wear a U.S. Coast Guard approved type III (PFD) vest, or equivalent in their respective countries.

Make sure ropes are not wrapped around part of anyone's body during use and that all ropes of the system are in proper position. Never place wrists or feet through handle. Rope stretches during use.

Breakage can cause rope to snap back and may hit the occupants or user which could result in injury.

This Handle technology is intended only for towing a single person on waterskis and wakeboards.

Any other use may cause rope failure or malfunction of the system.

This product is not designed to allow body rotations or loops.

DO NOT PERFORM ANY ROTATION OR LOOPS.

Always have a person other than the driver as an observer and to operate the tow line release in the event it is necessary to release the towline from the vessel.

Attempting land or dock starts can increase the risk of injury or death.

USE ONLY ON WATER.

Do not use this product for any towed product specifically designed to lift, fly or function as a kite.

Read, understand and follow the Watersport Safety Code.

Read the Operator's Manual before use.