

Harness Buckle «Free Fall»

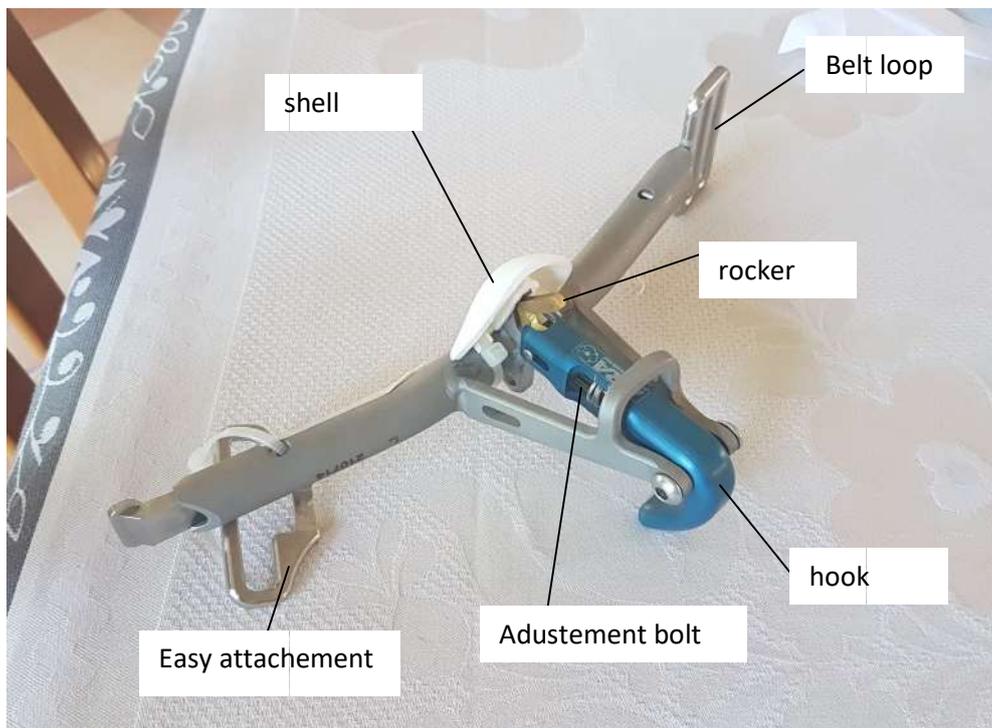
Preamble

Thank you for purchasing this Adjustable Release Harness Buckle. When pulled hard, the hook of the "Free Fall" harness buckle will swing and release the harness line. This can be the case in a fall where the pull can sometimes bend a conventional harness buckle.

So thank you for your interest in this project. Prototyping wasn't easy, and getting into production was even more complicated. COVID 19 has not helped ... Collecting user feedback is in FRA's DNA. Please do not hesitate to tell me about any ideas for improvement, any flaws or difficulties you notice.

Thus, access to the adjustment bolt has been improved and the latter is now made of plastic to eliminate galvanic oxidation problems. Its resistance is more than ten times the maximum force of the spring ...

If ever, this buckle did not suit you (unsuitable for your harness for example), do not hesitate to return it to me, again specifying the reasons. The price (excluding shipping costs) will be refunded.



Disclaimer

If you have purchased this equipment, it is because you are aware of the risks involved in windsurfing or windfoiling and of the lack of security of current harness buckles. The Free Fall harness buckle (patent pending) allows you to instantly free yourself from the rig but cannot negate all the risks inherent in these sports.

Setting

The strap loops are removable and include 3 positions. It is therefore possible to adjust the width of the bar. It is also possible to change the quick attachment side.

By compressing the retaining spring to a greater or lesser extent, the adjustment bolt sets the trigger force. It is therefore the practitioner's responsibility to ensure that the setting is suitable for his practice. In windfoil, the optimal setting must allow navigation without unwanted triggering while offering the possibility of triggering the system on demand by suddenly pushing the boom. This setting may vary depending on the style of navigation more or less lying under the sail.

A first adjustment must be made on land. For a windfoil use, by hanging on a harness line (hang by the arms, holding the bar with both hands so as not to fall back on the opening), set the trigger for your entire weight (when your feet leave the ground). For a slalom use, a stronger setting will be necessary because of the repeated shocks in the chop.

Screwing the adjustment bolt towards the sail (clockwise), makes the setting stronger.

This setting should then be fine-tuned on the water according to your practice. In windfoil, On a fast run where you are tilted under the sail in your usual style, a strong push on the boom should allow the hook to open. If you find that it works too easily, harden the setting or vice versa. Note the position of the washer in relation to the graduated scale. Do not exceed the last graduation which corresponds to the minimum length of the spring when opening.

Retesting the setting regularly will also be a fairly reassuring good practice.

Triggering situations in navigation

On a sudden fall, if the tension is correctly adjusted (see video on the site), the centrifugal force of the catapult is sufficient to open the hook. When you feel like you're getting overpowered, the natural tendency is to push the rig. Do not deprive yourself of it, hearing the opening is always a relief and it can help to catch up the situation.

Finally, while ridding slow, if you find yourselves standing upright on the board but hooked to the harness lines without really knowing how to unhook. It is here possible, by dropping into the harness, to trigger the release.

Rearming

After a fall, it is advisable to check the hook which could have triggered and protected you without you noticing it. Rearming can be done with one hand by pushing the hook back into place. This will be done as soon as possible to avoid the inconvenience of realizing that you cannot get back to the harness once at full speed. When closing back the hook, make sure that no textile gets stuck / caught in it. Bibs for example.

Manual release :

By catching the flange on one side of the hook with your fingers and pushing with your thumb on the rocker, you can manually release the hook.

This is useful for adjusting the trigger force or if you ever get stuck under the sail.

Tensioning the tack line

With a regular harness bar, it is convenient to make a loop at the end of the tack line and use the harness bar to tension at the mast base. Here it is no longer possible, the hook opens!

Another method is possible.

Pass a loop through one of the side slits of the hook flange and then a loop through this loop.



You can pull hard but by pulling the free end, this knot comes undone easily.

Maintenance / repair:

Do not apply oil or grease which could trap the sand. Prefer a little WD40 or special bicycle chain Teflon oil if necessary (adjustment bolt). As with any mechanical component, seawater can create damage over time. It is therefore recommended to rinse the mechanism with fresh water after use in a saline environment, just as with your neoprene.

Small traces of rust may appear as a sign of pollution of the stainless steel surface during machining. Rub them with a dish pad or fine sandpaper.

Sand is not a friend of mechanics either. Therefore avoid leaving the mechanism in the sand or in the surf.

If it ever finds itself loaded with sand, start with a good rinse.

If this proves insufficient, with a view to maximum service life, the buckle can be completely dismantled. Loosen the spring completely. Drive out the 4mm pin that holds the piston. You can then take out the spring piston assembly and clean everything. To replace the pin, use an electric screwdriver to push it in while turning it.

The loops for the straps are not welded and can therefore be replaced. Others could be offered over time to adapt to the different types of existing harnesses (please indicate a possible need).

Warranty :

Like any product sold in the European Union, the "Free Fall" harness buckle has a 2-years guarantee of conformity.

Good and numerous navigations