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GEAR FEAR.

Chris Curtis.

During my usual browsing of YouTube videos relating to all things ropes, I came across a video of a guy who disliked the Petzl Tibloc (Photo 1) because of how it tears the sheath when highly loaded. He was pushing for everyone to stay with prusiks.

After reading through the comments, this guy created huge gear fear of Tiblocs in one fowl swoop.

One of the comments read and I quote: "I'm removing my Tibloc tomorrow!" Others were saying "if it works why change it? (Staying with prusiks)"

By this rational, if we all stayed with prusiks, then there wouldn't be a single rope grab/ascender on the market and we would still be riding around on horse drawn carts instead of driving cars. Some people just don't like change.

The biggest problem with the video was that it didn't put the entire system into perspective. Yes the Tibloc and every other toothed ascender, will strip the sheath at a certain load, which varies depending on the rope diameter and rope condition, but it is well above normal operating loads if used correctly.

One pull test video I found showed that a Tibloc used on 11mm diameter rope stripped the sheath at 9.75kN (994 kg). That's more load than I would ever want to put on any rope system! The ropes core still didn't break though, so the load was still being held!

Here is where it gets more interesting. Let's assume that we did see those kinds of loads, we could be overloading many other parts of the system. A typical aluminium carabiner has a minimum breaking strain (MBS) of, for example, 22kN (2243kg). All manufacturers state not to exceed 25% of the MBS, which equates to 5.5kN (561kg). So you can see that we should now also be concerned with overloading the carabiners! The rope strength also needs to be taken into account too as well as every other part of the system.

If stripping the sheath is really of concern then a rope grab that doesn't have the teeth can be used, such as the Petzl Shunt (Photo 2). Devices like this are designed to take small shock loads and will slip above a certain load.

The Shunt starts to slip at around 300kg (very approximate) so it acts as a load limiter and will minimise damage to the rope.

This Tibloc story above is just one example of how a lack of knowledge has created gear fear.

The point I am trying to make is, do your research, read the technical information from the manufacturer (Figure 1, 2), or ask someone in the know.

Every piece of gear has its limitations and as long as it's used within those limitations you shouldn't have a problem. Look at every part of the system and not focus on just one part.

Manufacturers put huge amounts of resources into designing & testing gear before being released to the public and also must comply with strict standards.

If you have read this far without falling asleep, thank you for reading, and I hope you got something out of this article.

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Photo 1: New (Left) and old (right), Petzl Tibloc ascenders. **Photo:** *Chris Curtis.*

Photo 1: The Petzl Shunt ascender. **Photo:** *Chris Curtis.*

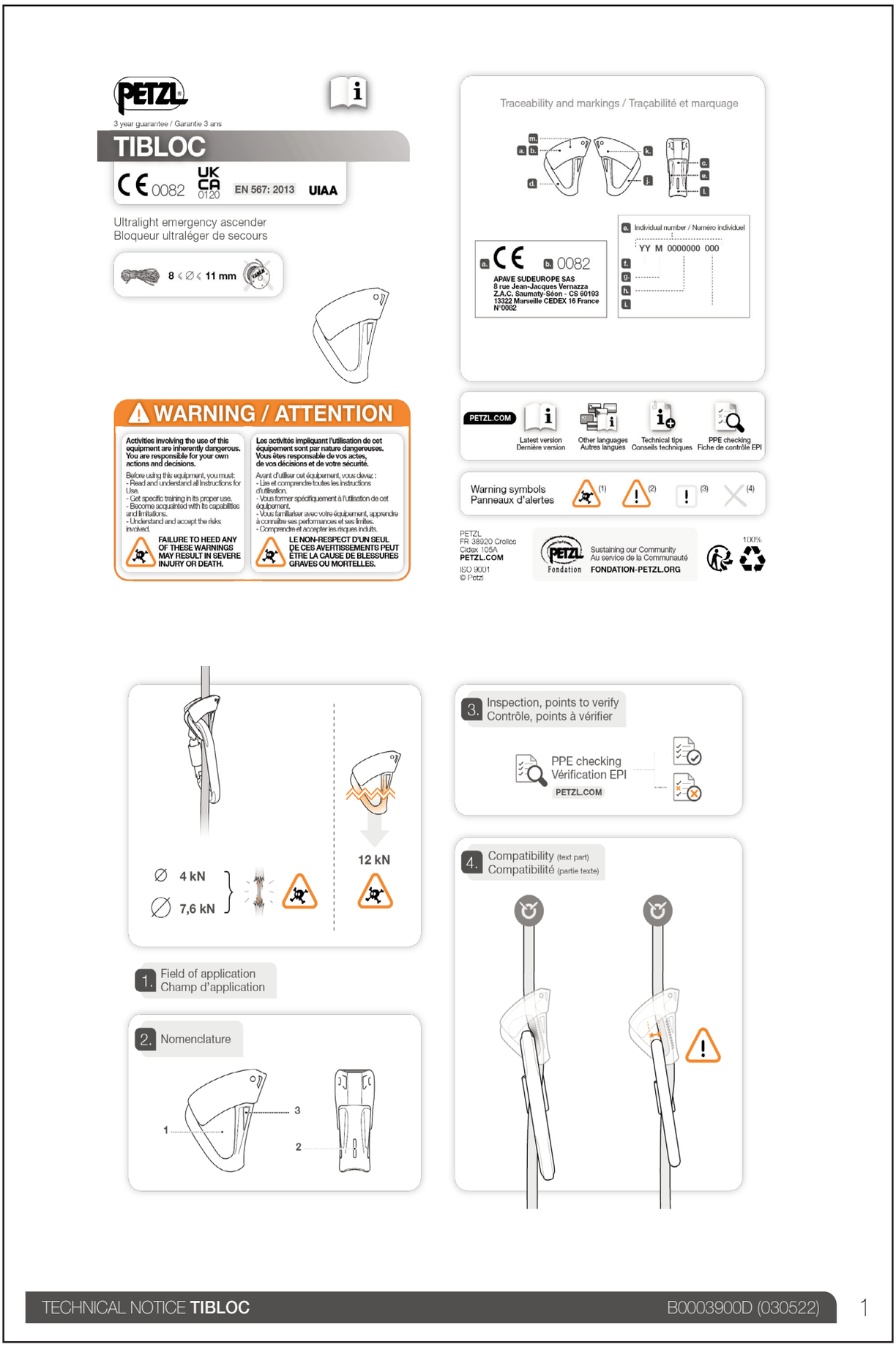

Figure 1: Petzl Technical Notice for the Tibloc ultralight emergency ascender, page 1.

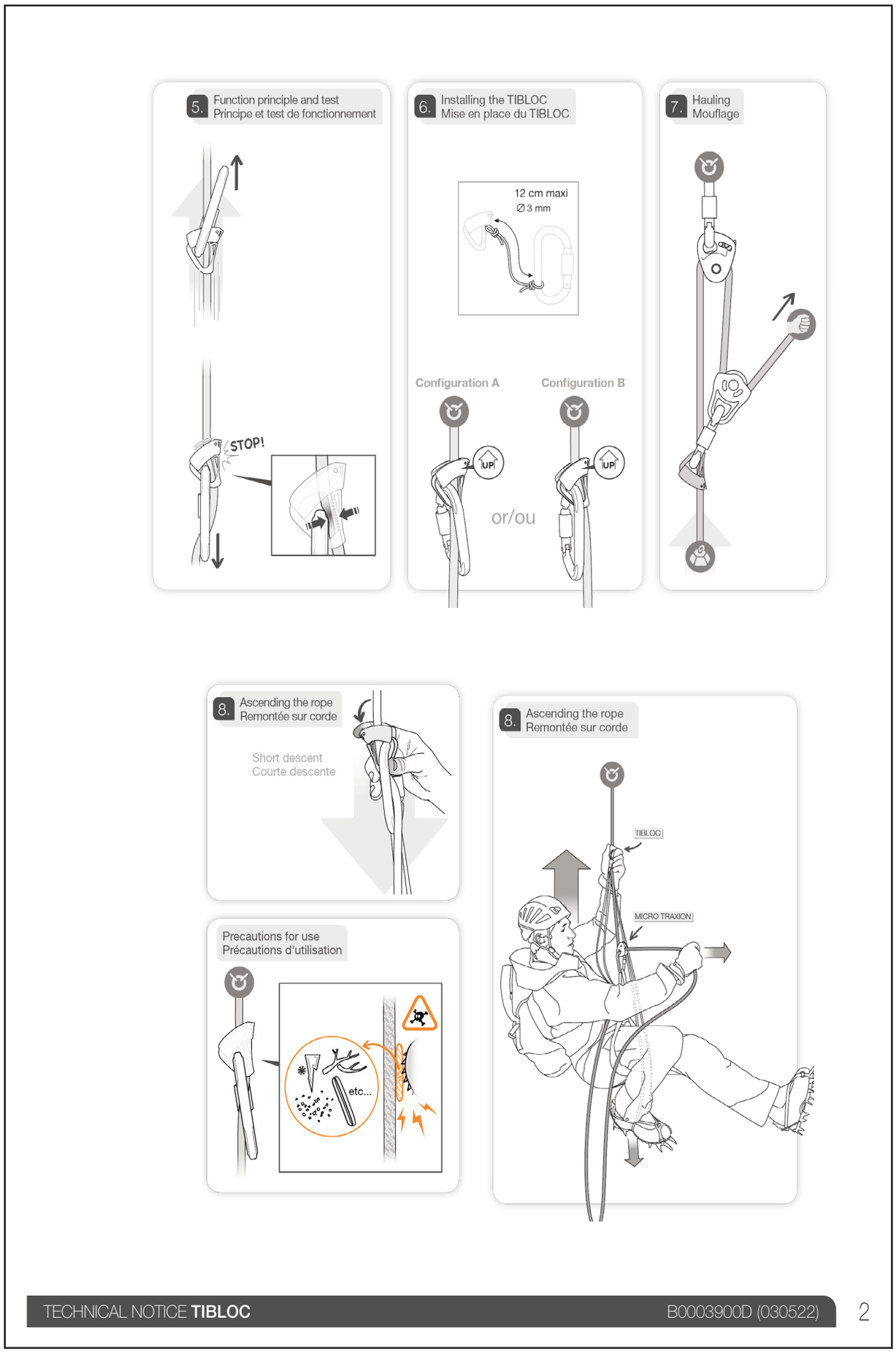

Figure 2: Petzl Technical Notice for the Tibloc ultralight emergency ascender, page 2.