ZIM SAILING

Preventing Eyelet Damage on Your Opti Race Sail

We've noticed that most cases of broken sail eyelets happen during rigging or while adjusting the sprit on the water. With proper setup, the forces involved should be far below the level required to damage an eyelet, so following these guidelines will help keep your sail in top condition.

How Much Force Can an Eyelet Handle?

- In our tests, a small single eyelet breaks at around **45lbs** of force.
- With the sail rigged correctly (ties within 10 mm of the mast, with the sprit and vang tensioned normally), the maximum load we measured is **around 9lbs** — well within the safe limit.

Common Causes of Eyelet Damage

1. **Top ties slip too low during sailing**
    - If the top three ties slide down from their correct position, they create an unnatural angle and pull on the eyelets.
    - **Check top sail ties** before re-tensioning the sprit on the water.
2. **Loose or broken ties at the main top eyelet**
    - If the top eyelet ties fail or are too loose, the entire load transfers to the lower eyelets.
    - This greatly increases stress and can lead to breakage.
3. **Rigging with excessive hand pressure**
    - When checking the distance between the sail, boom, and mast, avoid pressing your palm into the sail and tightening ties at the same time.
    - This can create unnatural angles and high forces, especially on a new sail.

Key Tips to Avoid Problems

- Always **secure all ties firmly** and keep them close to the mast (less than 10 mm gap).
- Double-check tie positions **before and after tensioning** the sprit.
- Replace any worn or broken ties immediately.
- Be gentle when adjusting the sail — don't apply unnecessary pressure during rigging.

Other Recommendations to Avoid Problems ->

You can either use the 3,2,1,1,1,1,2,3 method (mm off the mast), or keep the measurements even with each other. (All mast ties or luff ties at a 1mm spacing from tack to head)

This will ensure that the loads on the grommets are evenly distributed and your sail will not self-destruct. 99% of the time, uneven load distribution is the cause of grommets ripping out of the luff.

By following these steps, you'll greatly reduce the risk of broken eyelets and help your sail perform at its best for years to come.