

# You're just full of Hot Air!

## An article on Airbags

Every summer, we go through a ton of airbags here at the shop. Why do we send out so many? I believe it is because many sailors don't understand the problems inherent in Optimist airbags, and how to care for them. Following are some helpful tips for keeping your airbags in shape and in your boat!

What makes airbags pop?

1. Inflation. Inflation is an issue your sailor should be constantly aware of. It's their responsibility to ensure that the correct amount of air is in their airbag. A properly inflated airbag will keep the boat from taking on too much water in the event of a capsize, and will ensure less bailing time and more sailing time. Many times, an airbag will be properly inflated on shore, and then will need to be blown up more on the water. The colder water temperature on the hull decreases air pressure in the bag. The real problem occurs when the boat hits the shore, and sits in the sun. Without the cold water to decrease air pressure, the bag is now overfilled and pops. Every time you come off the water, let a little air out of your bag. After all, you can always blow a little more hot air into it! A good airbag is made with double seals around the edge, to prevent failure from over inflation.



**1. Left: Airbag with single seal. Right: Airbag with double seals**

2. Abrasion. Abrasion is the second recurring reason for airbag failure. Common causes of abrasion are non-skid and underneath your deck. The non-skid in your boat can be very aggressive. Most non-skid is made from sand particulates in paint, which is what gives you grip. That sand can be very

sharp! Keep your bags properly inflated to make sure they stay in your airbag straps, and away from any rubbing on your non-skid. Abrasion underneath your deck is a more common than that from non-skid. Your airbag sits against the underside of your deck, and moves slightly all the time. The long-term result of that movement is a wearing and fraying of the bag, ending in a bag failure.



## **2. Wearing on airbag from the underside of a deck.**

You can buy airbags that are more resistant to abrasion by choosing an airbag made with a denier count of 200 or more, and avoiding nylon airbags. Denier is a unit of measurement of thread count of specific materials. 200 denier is a ballistic material, and is very strong. Nylon bags are much weaker, and do not wear well. You can tell the difference between nylon and a good denier bag by feel. If the bag feels smooth and rubbery, it is nylon. If you can feel and see threads on the bag, it is a good denier.

You can avoid under deck wear by removing the airbags while trailering or car topping. However, all airbags will wear at some point. Be sure to check your bags before going out on the water.

I hope this helps you understand that all airbags are not the same! For longer life of your airbags, purchase bags that have a good denier count. Also, check your airbags often for inflation and any abrasion issues. Fair Sailing!