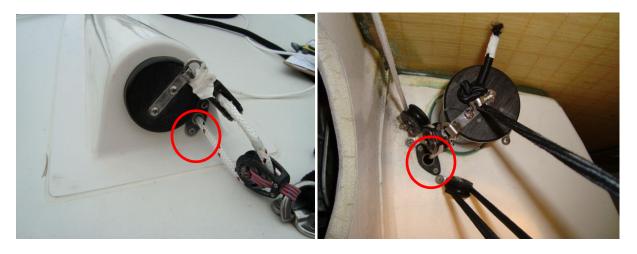
## Conversion to single line tack/pole out

Converting to a single line tack/pole out is quite easy and should take less than a few hours, even for those not mechanically inclined. Having one line allow the pole to fully extend on hoists and come in automatically when the kite is doused. You no longer have to worry about pulling the pole out partially.

Step 1) install thru deck bushings – see images below. These route the line through the end of the snout on the bow of the boat, and thru the bulkhead under deck. <a href="http://www.apsltd.com/c-177-thru-deckbushingslacinghookssnatchhooks.aspx">http://www.apsltd.com/c-177-thru-deckbushingslacinghookssnatchhooks.aspx</a> Here's a link to a number of different options. Keep in mind that the bow bushing should be a close fit with the line to prevent water ingress.



Step 2) modify inboard pole end to re-route line. Some poles are setup with two thru deck blocks that won't allow the line to run correctly. These may be replaced with a cheek block or a regular block on an eyestrap. Make sure you have sufficient backing on the pole to prevent the screws from ripping through (backing plate, large fender washers, etc). Another option is to use a second outboard pole end on the inboard end of the pole. See images. Here's a link to a number of different options.

<u>http://www.apsltd.com/c-418-harken-carbo-airblocks.aspx</u> Also, make sure that the outboard end of the pole is facing up when you move the inboard blocks. You want all the line to move smoothly and not wrap around the pole.



Step 3) move cleat on deck. Depending on your boat, this may require adding a thru deck block as well. We recommend using a double thru deck like a Harken 089. This allows the line to turn the corners thru the deck and run forward without chafing. A single thru deck will not turn the line forward, only down.

Under the deck in the forward hole, we recommend using a large fender washer and a barrel nut. A regular nut and bolt will chafe the line as it goes forward to the pole. See images below. Most hardware stores should have these available. These prevent the thru deck from ripping up and out of the deck.

We also recommend adding a pulley behind the cleat with a stand up spring or boot. This lets the crew pull the tack from the rail without having to worry about pulling straight thru the cleat. It also helps prevent accidentally uncleating the tack.



Step 4) re-run the line. This may be easier by removing the outboard end of the pole and sliding the pole into the hull. Getting the line through the two bushings will probably be the most difficult part of the project. You may need a longer tack line than you previously had since both pole out and tack are together. The line should be sufficiently long so if the clew is held by the crew, the tack can stream behind the boat, preventing shrimping.

That's it, Here are a couple overall pictures. Make sure you don't have twists in the shockcord or pole/tack line that may cause the pole to twist and bind. Also, make sure you vang or other control lines are not weaved in between the shockcord and pole lines.

