

**Tip Cap / Tip Webbing
Safety Directive -SD501
Status: Mandatory
All Wings grounded till complied**

Date: July 10, 2024

Issue:

Yellow tip webbing abrasion from alum tube, cutting through webbing.

Tip Cap Shrinkage making the cap too small and it can get pressed down into the shim tube or LE tube and causes abrasion on the tip Webbing strap.

Background:

We believe the wings with tip caps made from 2021 on could have this issue. However we want to check all wings no matter the year it was made.

However, this is the first failure we had been aware of. (July 2024)

The wings we know about that has had a problem, had over 300 hours. Wings over the last 26 years up until now has not had any issue that we know of.

Scope:

We believe this is limited to 2021 wings or newer. However we are requiring that ALL WINGS from 1996 to 2024 are not flown till inspected.

This directive is to check the Yellow Tip webbing on your wing and the size of the tip cap and check shims making sure they don't have a sharp edge.

*1*Check to make sure the tip webbing is not cut through where it makes the bend.*

*2*Check the tip cap that it is not wedged down into the LE tube or Shim if it has shims.*

3 Make sure the LE tube or the shims do not have sharp edge.*

Authorized Persons:

Owner, LSA-R-M or an A&P or higher is allowed to execute this safety directive in accordance with the instructions in this direct

Tools and Articles Required:

Philips screwdriver

Compliance:

Follow instruction to take the tip cap off and inspect the Webbing and measure the tip cap

This is also how you would add or take out shims for tuning your wing.

To check the strap and tip cap you must remove the yellow tip strap from around the tip cap and look at the inside of the strap for excessive wear.

You can do this while the wing is on the trike. OR when the wing is off the trike.

We want to compile a data base of straps that are worn and need to be replaced.

We need model, serial number and hours on the wing.

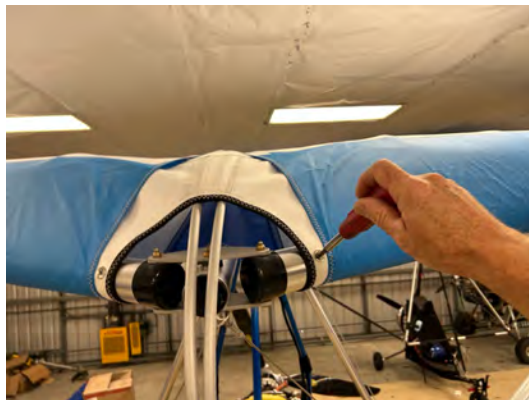
Procedure:

- 1- Remove the nose rib and sail mount screws at the nose.
- 2- Take out the tip strut and first 3 curved ribs
- 3- Take the cross bar haul back cable off the latch hook (Bailey Block) . You will need to pull the sail in a little so the sail is slack. It is best to take a little loop of rope or a sail tie buckle strap and extend the cable by about 9" and hook to the bailey block. This is prevent the wing from coming back to much.
- 4- Un-velcro the loops around the LE at the tip. Using the black finger loop strap pull the main Yellow strap off the Tip Cap.
- 5- Now you need to take the Tip Cap out of the LE. To do this you much release the wedge on the inside of the tip cap. Unscrew the 2 screws about ¼' out. Now with the screw drive on the head of the screw hit the top of the screw driver pushing the screws back flush. Now the cap can rotate and pull out.

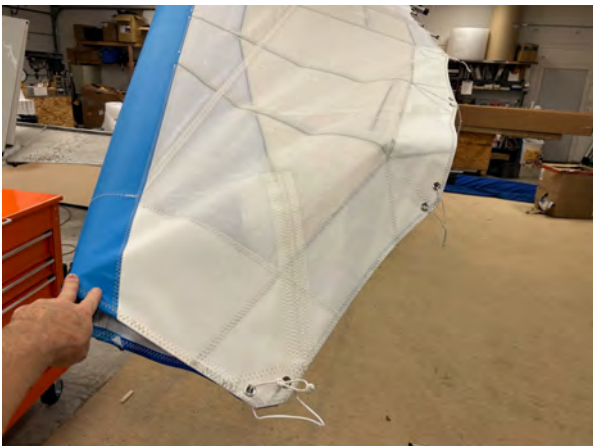
#1



#1



#2



#3



#4



#5



#5



We had a run of tip caps that ran small on the body and the rim.
ID 1.838" to 1.860"
They should be 1.884 to 1.891 (ranging .025 to .45 smaller)
Your cap body should not be less than 1.884

**Body measurement
Good 2013 tip**



Bad 2023 tip



Bad tip cap needs replaced

Bad webbing - needs replaced



Tip Cap pressed down into the Shim and alum edge can cut the Webbing

If your tip caps are in spec and webbing is just slightly worn you can medigate any farther wear by doing 2 tasks: 1- File the shim or LE tube to be more rounded and smooth
2- Put a piece of 1"x1" adhesive LOOP Velcro on the edge Or heavy tape. See picture



Good Tip Caps 2021 or earlier
Outer lip should read 1.950 to 1.955

Could be Bad caps 2021 or newer
Newer (bad) caps showing 1.940



If your webbing is worn and needs to be replace we will replace webbing at no charge.
Shipping cost of the sail and time we will not cover.

If you need to replace your tip cap we can sell you new 3D printed ones for \$60.00 for 2.

Let us know what you need at ultrikes@northwing.com

