Removing Painted Lettering From Gelcoat

Issue Date: September 28,2022

This document may have been updated!
Be sure to dowload the latest version!
http://aviation.derosaweb.net/presentations

PLEASE NOTE

This document may have recently been updated with new information, changes, and corrections.

Be sure to visit my presentation web site and download the latest version of this document. It could make an important difference to your work!

http://aviation.derosaweb.net/presentations

Thank you, John DeRosa “OHM” Ω

Overview

In 2017 I purchase my second (used) glider. There were many things that I wanted to update on the ship; instruments, batteries, tow out gear, etc. The list goes on. One thing I had to do was replace the previous owner's contest ID's with my own.

The removal was simple enough on the vinyl lettering on the trailer and the vertical stabilizer. However, it was not so simple removing the large 18" contest ID lettering on the underside of the right wing because these were painted on!

I procrastinated until 2019 when I knew I needed to take on this tedious and imposing task before going to my next major soaring event to prevent my (wrong) contest ID being called out while in a big gaggle!

After asking many of the more knowledgeable people I know on the subject I moved forward on this onerous task.

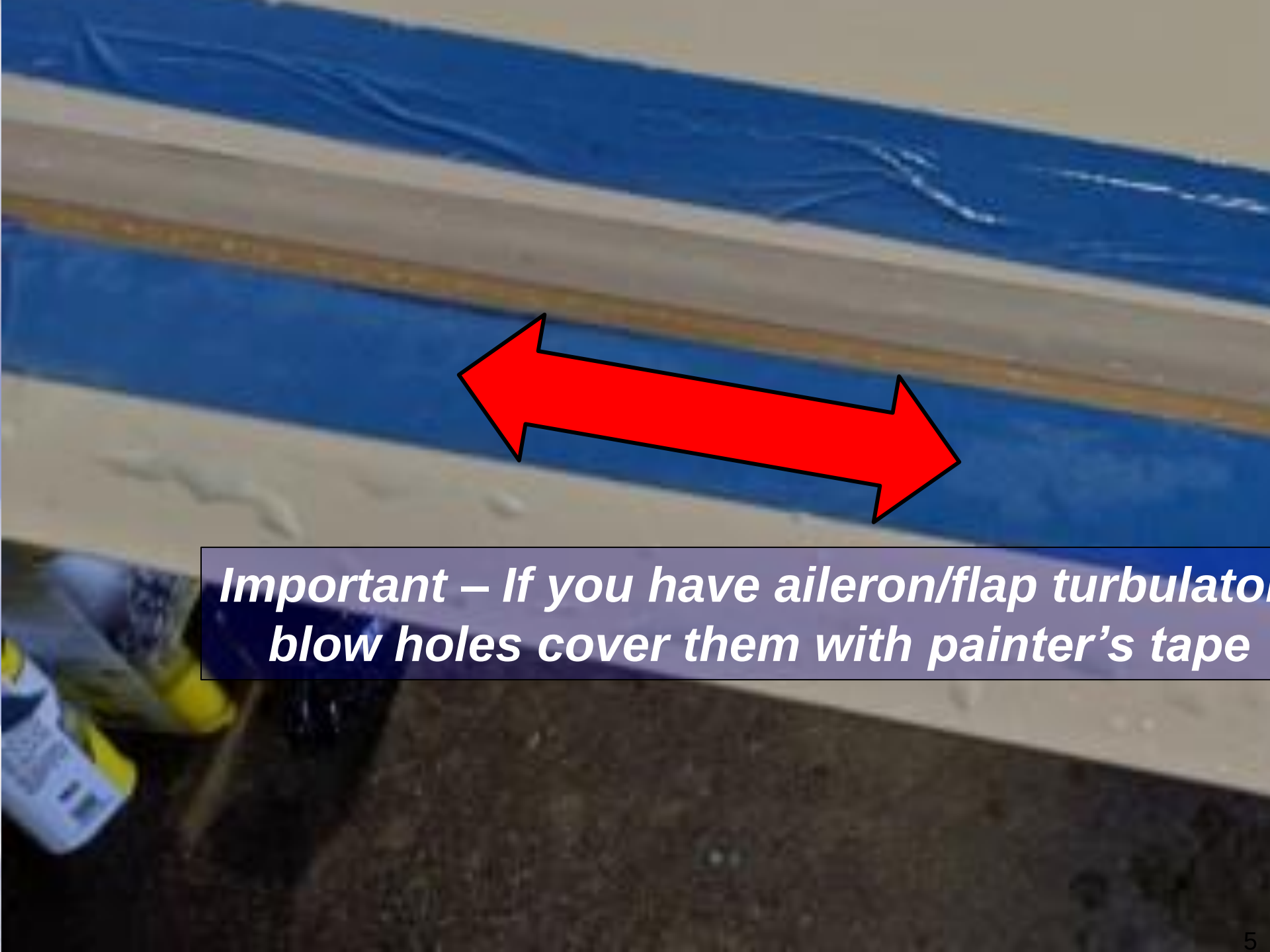
The following pages detail what I went through to get this important change off my list of important actions.

Step 1 - Mineral Spirits and then Acetone

My initial plan was to start with the most benign and least strong solvents. If that didn't work then use more powerful solvents one at a time.

I started with mineral spirits leaving it soak for 10, then 20, and finally 30 minutes. Then I upped the ante to using acetone. Neither of these chemicals did much of anything at all. ;-(

After consultation with some experienced soaring brethren they offered suggestions for Step 2…


Important – If you have aileron/flap turbulato
blow holes cover them with painter's tape

Initial Lettering Removal Trial

Mineral Spirits
and then Acetone

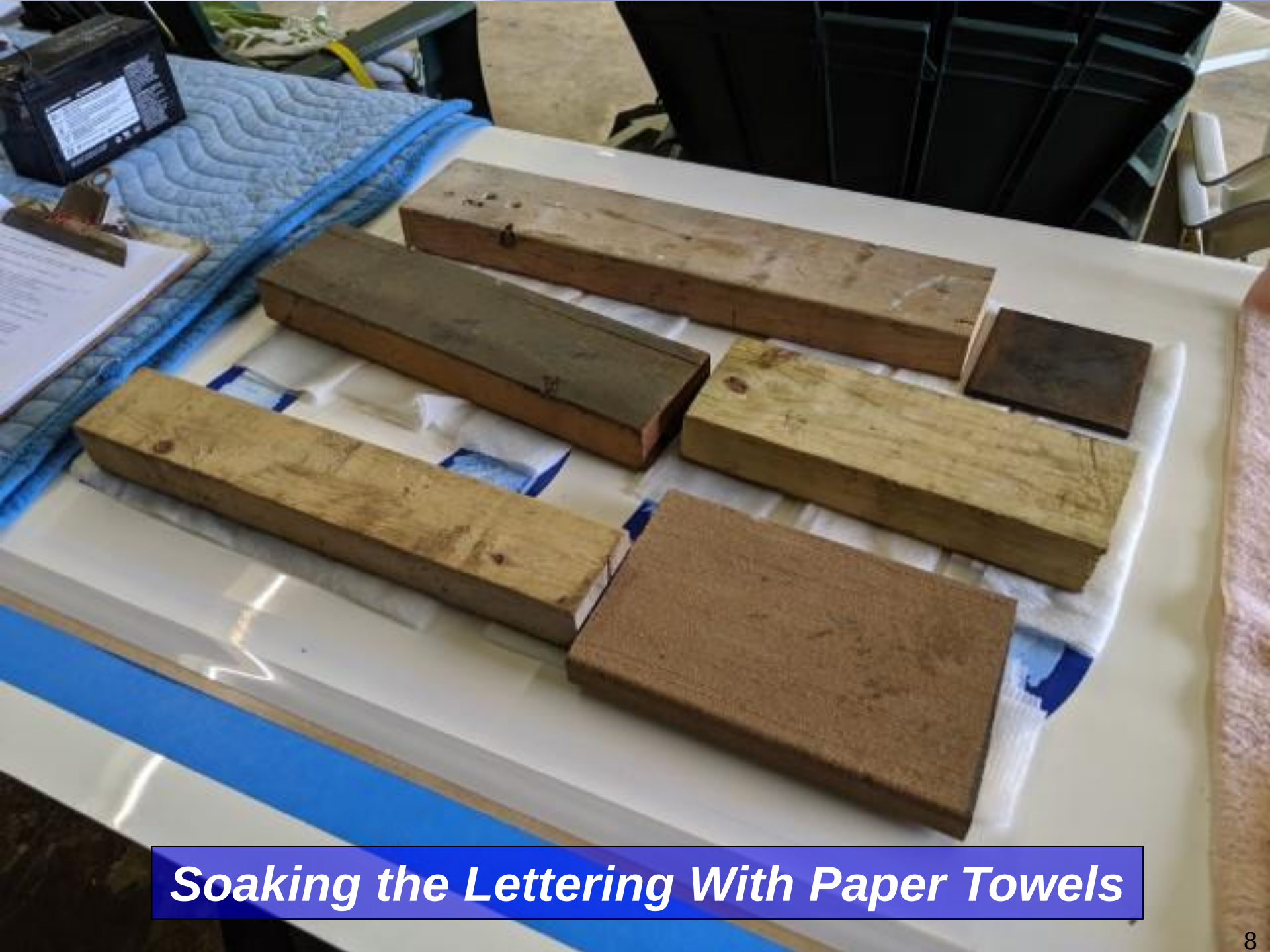
Barely made a dent even after soaking and working with plastic "razer" blades.

Step 2 – Lacquer Thinner

The pundits said that the paint used on my wing was most likely lacquer. So lacquer thinner should do the trick, right? Just do a little application of the thinner and bing-bang-boom everything should all come right off. Sadly … no.

It end up taking multiple hours of repeatedly soaking of the lettering with wet paper towels for 10-20 minutes at a time, followed by much scraping with a **plastic** “razor” blade.

This removed about 60% of the paint.



Soaking the Lettering With Paper Towels

After the use of Lacquer Thinner

Step 3 - Methyl Ethyl Ketone

Upping my game again and began using a more powerful artillery aimed at this stubborn paint. I switched to the mighty solvent chemical Methyl Ethyl Ketone (MEK).

<u>WARNING</u> - MEK is not something to be used without a breathing mask and rubber gloves. You should be thinking "THIS IS YOUR (scrambled) BRAIN ON MEK"!

MEK took much less elbow grease. I started with short duration soaking for 5 minutes. Not finding much happening I went to 10 minutes. I then found the all I really needed to do was simply rub briskly with damp paper towels.

At this point about 95% of the paint had been removed.


BB
After the use of MEK

Step 4 – Wet Sanding

I had high hopes that sanding was **not** going to be part of this project. Who wants to touch, let along sand, their lovely smooth glistening gelcoat on their **WINGS**?!?!

But my advisors had all used the “S” word so I found that I was facing the inevitable. I … would … sand!

I started by wet sanding with 1000 grit, then 2000 and finally 3000 using lots of water! BTW - I only used distilled water (nothing is too good for my bird).

Sandpaper Grit Used

1000 < optional
2000
3000


Wet Sanding in Progress

Wet Sanding Almost Completed


Wet Sanding Completed

Step 5 – Final Buffing

Now for the polishing and buffing. I used a Cyclo brand dual pad random orbital buffer. A very nice tool indeed!

I used different buffing compounds to deal with removal of the sanding marks. In order they were;

1) 3M Rubbing Compound < optional
2) 3M Machine Polish
3) 3M Ultra-fine Machine Polish
4) WX Seal and Block - Part 1
5) WX Seal and Block - Part 2

Cyclo Random Orbital Buffer

Step 1 - 3M "Protect-It" Polishing Compounds

Step 2 – "WX Seal & Block" Polishing Compounds

"WX Seal and Block" using a Cyclo Buffer

Step 6 – Apply the New Letters

Hurrah! I was finally able to apply
my own personal contest IDs.

AND IN VINYL THIS TIME

Wait a minute. WHO??? Who the heck is WHO???

See the next slide!

Step 6 – Apply the New Letters

Hurrah! I was finally able to apply
my own personal contest IDs.

AND IN VINYL THIS TIME

Ahhhh. Much Better! Repeat after me…

"Ohmmm-Mani-Padme-Hum…Ohmmm-Mani-Padme-Hum…"

See My Other Presentations

- Transceiver Troubleshooting
- Glider Oxygen Systems
- Working with Glider Air Lines
- Sailplane Electrical Wiring
- Trailer Wiring & LED Lights
- Pilot Relief Systems
- Battery Testing
- Spar Alignment Tool
- L'Hotellier Fittings
- Carbon Fiber Panels
- IGC Filename Decoding
- Blanik L-23 Strut Work
- Survival Kits
- Removing Painted Letters

http://aviation.derosaweb.net/presentations

The End

Questions?

Email: jhderosa@yahoo.com (OHM Ω)
Web Site: http://aviation.derosaweb.net/presentations