

📄 1956 to 1962 Reproduction Soft Top Rear Bow Modifications

Warning, another Mozzetta "Long Post". 😊

[Link to thread at NCRS TDB](#)

I had a bug when I first submitted this post last weekend and it delayed me from posting this. Gary C and John W and I were stymied as to why the bug. Come to find out it was some combinations of words in my text which caused errors and after several repeated attempts I got locked out of the TDB as it thought I was a hacker. 😊

Finally, here is my post. 😊 I decided to expand it to include some installation information. Thanks Gary and John for the help. Gary found the "bug" in my text.

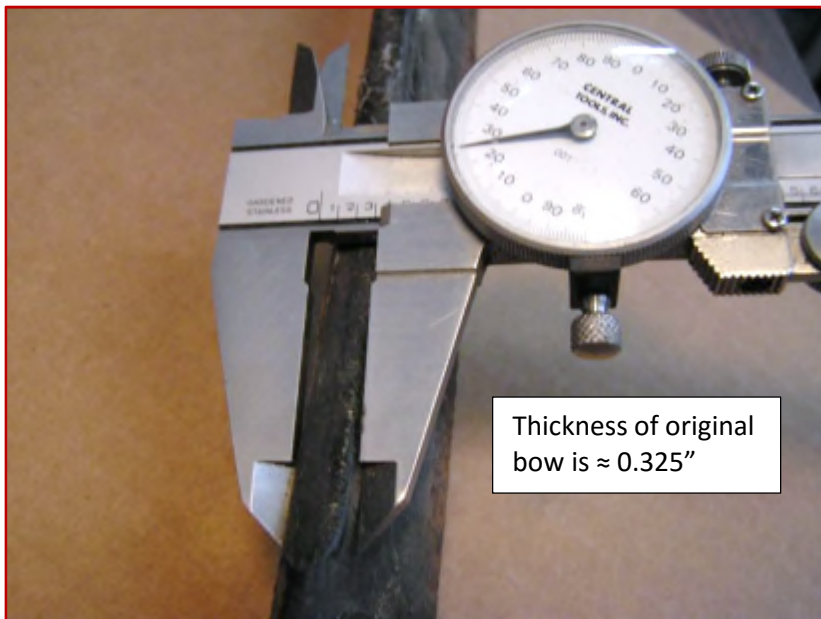
I've used several reproduction bows over the last few years on restorations, and although it's great to have the availability of the reproduction bows, a few things are different which require some modifications if you want them to look right for judging. I did this last night on a '59 top frame I restored in preparation for a new original type vinyl top.

I had a nice conversation with Jerry "Sully" Sullivan from Sully's Tops yesterday. I had a few install issues due to a prior owner's mis-installation of the deck-lid latches on this Hardtop-only car which was converted to add a Soft Top. I'll address that later also.

The repro bows are made of extruded aluminum as opposed to steel which was used originally. One of my issues with the use of the repros is that they do not include recesses for the 6 T-Nuts nor are there top-edge reliefs for the rear window straps. They also are a little thicker than the originals, and do not come pre-drilled for the lower filler weatherstrips. I discussed my ideas with Jerry to mill out the Tee-nut areas. He said he has had a few calls about spinning Tee-nuts and he asked for my photos of my mods when done. Nice guy to talk with.

First, here are a few shots of a rusty old original '56-'60 bow. As you can see, the recesses for the Tee-nuts are there to prevent them from showing up as a protrusion after the vinyl is installed. The vinyl tops have a thick plastic guard where it's stapled to the rear bow but not hard enough to hide the Tee-nuts. The Tee-nuts were spot welded on.





Thickness of original bow is ≈ 0.325 "



Note the depression for the T nuts

Original :



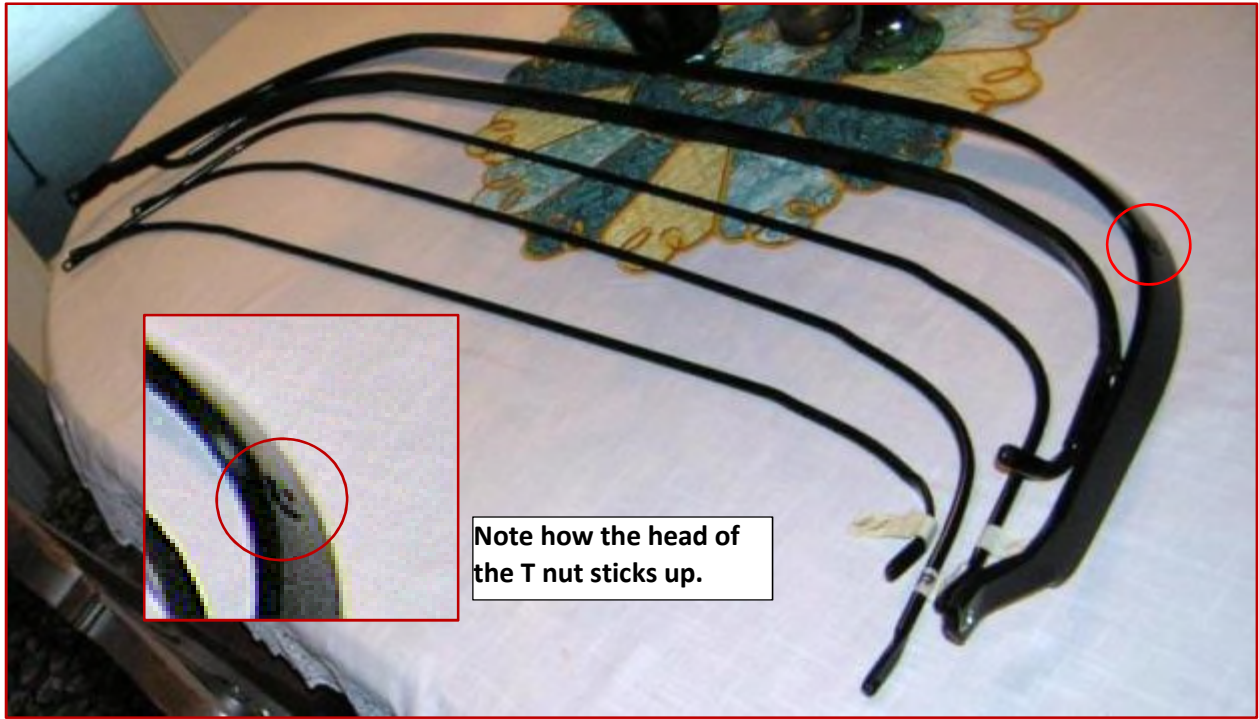
Recess (each side) for the side-window strap. The strap staples to the inside tack strip then wraps underneath, around and up to the #4 bow tack strip at the inside recess of the #4 bow where the top pad sits. The strap is a triple thick vinyl. The original relief is to make the transition smoother as it passes over the rear bow. The recess is about **4" wide and only about 1/16" deep**.

Sheet metal screws were used to attach the filler weatherstrip originally as it's thin steel there. Repros are thick aluminum so you should drill & tap for machine screws.

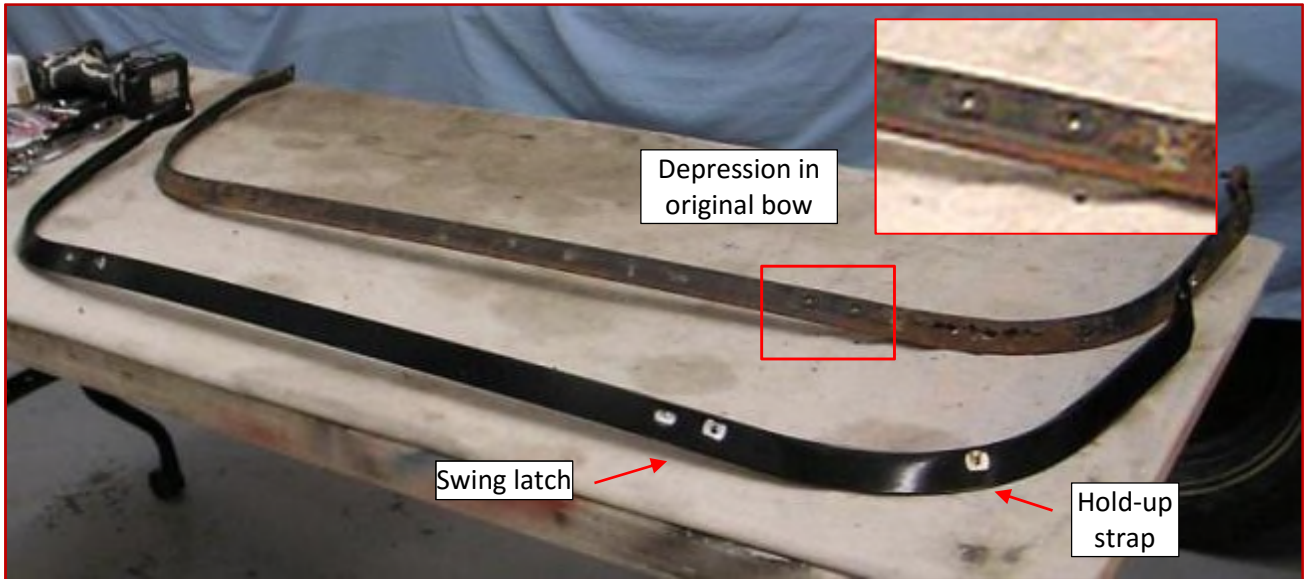


Here is the assembly and parts kit after media blasting and prime/paint with Gloss Black. This frame was badly rusted and was freed up then sandblasted first. I had to acquire all 5 new bows to salvage it. The front header bow was fine.





Here is the reproduction bow and the original. The repro is a tad bigger in overall girth, thicker, but it beats trying to find a good original. Most are badly rusted from sitting in the wells of old project cars.



I drill and tap the 2 sides for the filler weatherstrip using **#8-32 screws**. I simply use the weatherstrip as my guide for the holes.

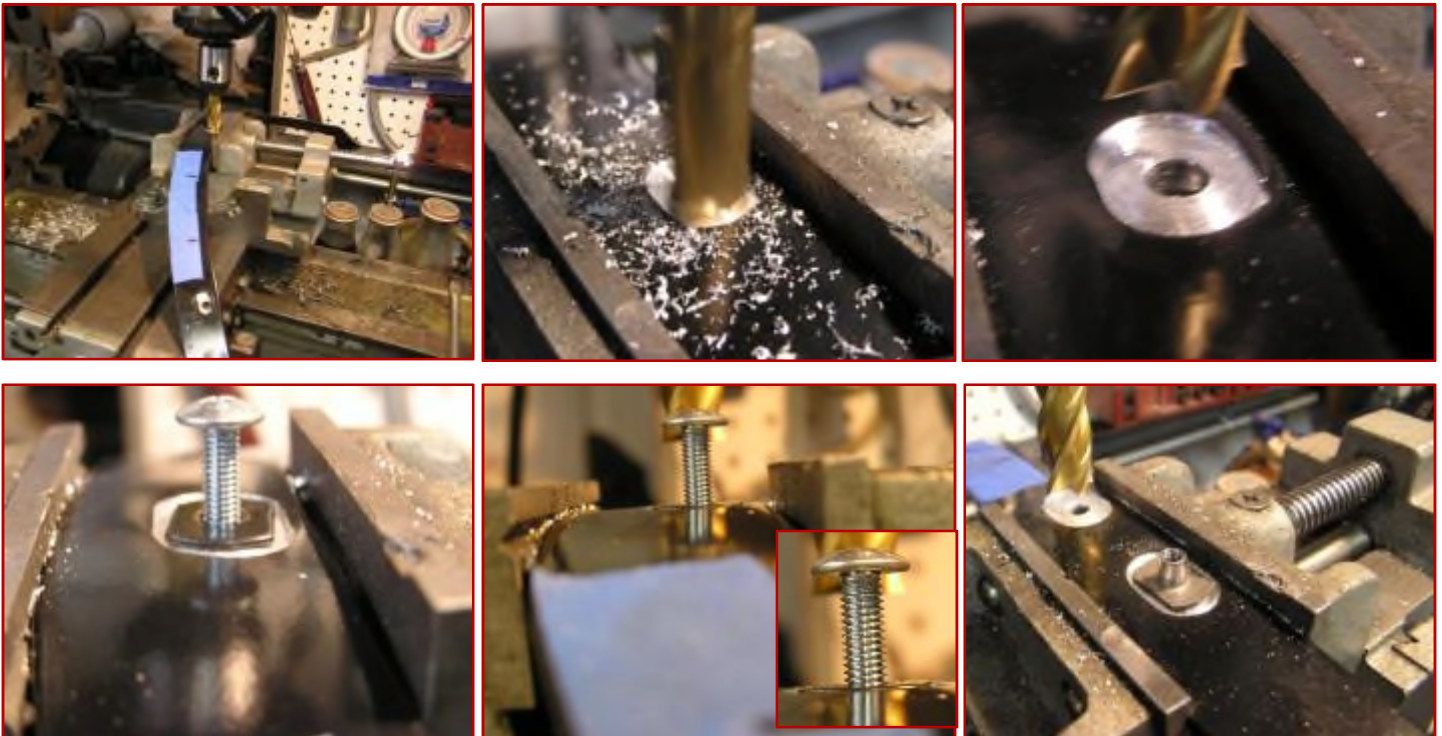


The Tee-nuts are just pressed into the repro bow. They may spin if the screws ever get corroded also. One spun on me when I test fit a swing latch.

I removed the Tee-nuts and marked the strap relief area after transferring the measurements from the original.



I set up my mill and using a 9/16 end mill bit I shaved the 6 areas to a depth of the thickness of the Tee-nuts. This also will act as a nut-stop when fastening or removing the screws, especially in the future if there is a bit of corrosion in the threads. A thumb press on the flat and it'll lock in on the inside edge of the recess.



I also milled the strap area and filed it smooth at the upper relief corners like original. I didn't want to go too deep, just enough at the top so the strap won't be so obvious with a smooth edge.



Below are photos of a 1960 top I did a few years ago using a reproduction rear bow. You can see the telltale of the Tee-nuts and the side straps at the sides of the rear window. At that time I removed some strap thickness by cutting one of the 3 layers but it was still obvious. You really can't see the bow from the inside as it's covered by the weatherstrip so the Interior judges may not notice the repro bow. A sharp exterior judge would see the T-nuts sticking out like a sore thumb and probably add a dot or two to the sheets for deduct. 😞 More importantly, it just looks crappy to me. I was never satisfied with that.





So I decided that on the 1959 I'm restoring to modify a brand new reproduction rear bow to make the assembly appear as original with only a slight trace, if any, of the Tee-nuts and window straps when completed. All 6 T-nut areas were done and the strap areas modified with reliefs. The strings are to hold the bows in position for assembly to the car for adjustments and preparation for the vinyl top installation. I installed the frame assembly and adjusted it to the existing side windows. This car has a Hardtop and the windows were adjusted to that first. I then removed the Hardtop and when setting the Soft Top frame I keep the side windows fixed with their adjustments and stops. **The Soft Top frame MUST be then adjusted TO the side windows.** This makes it a bit trickier because there is only so much adjustment allowed. This one took a few tricks to make it fit right. I attach ALL weatherstrips for this test fitting process.





After adjustments for the header and side window fits, it has to be tested to fold down into the well. Sometimes some adjustments are needed and “cheated” to get it working in both modes.



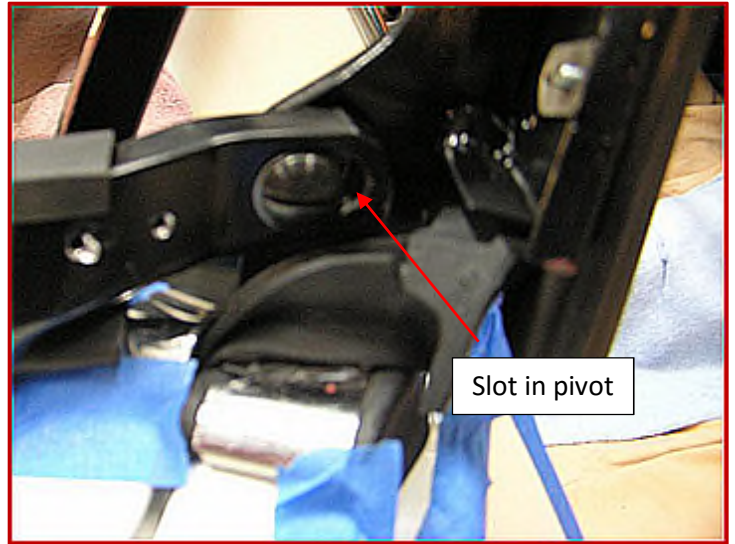
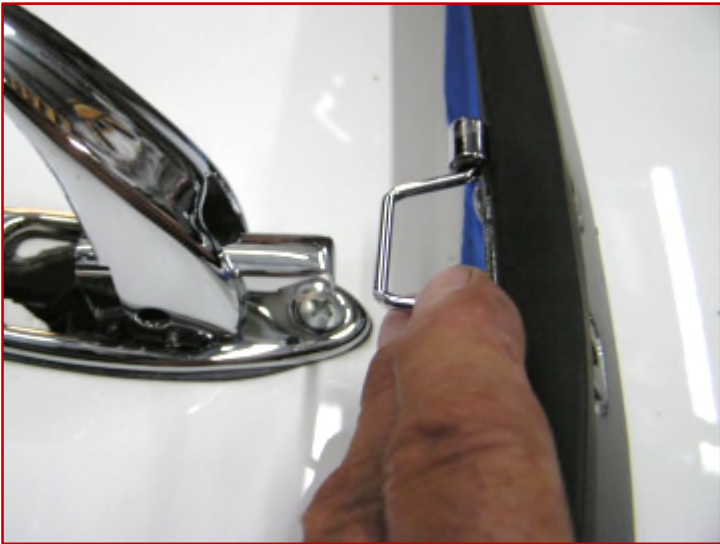
A special concern is to make sure the header clears the deck-lid latch stud too. I always put a protector grommet on that when doing a top and suggest it's always used when raising and lowering a top. You can see it here with some blue tape over it also for added safety.



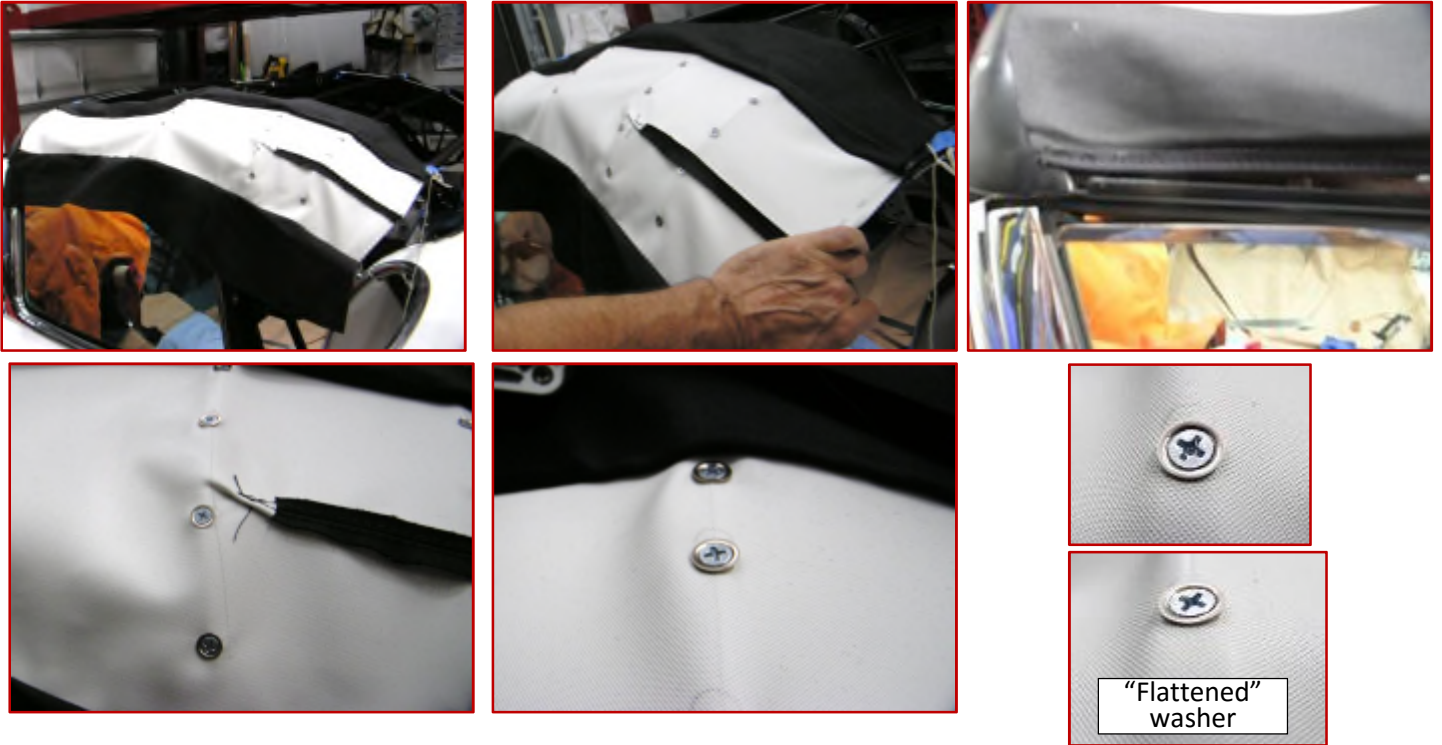
Here it is after frame adjustments. Side windows fit well and doors open and close properly against the weatherstrip. When the vinyl top material goes on, it's important not to stretch it too much as to lose the side window fit, as well as having the top pulling too hard on the windshield frame.



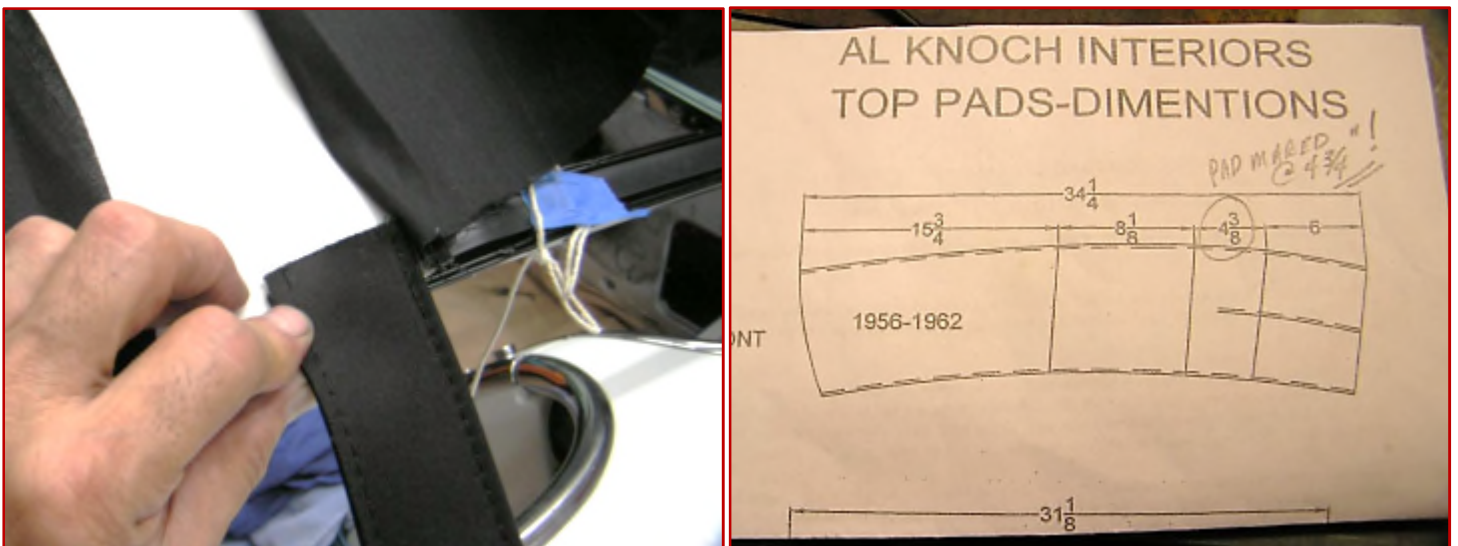
I had to modify this rear bow to accommodate misplaced deck-lid latches. The left side was 3/8" too far forward and I couldn't cheat it by drilling new holes in the lid, the paint was already marred by the latches. I had an idea on how to correct it and I talked to Sully and he agreed it could work. **I opened the holes for the pivots and slotted them to bring the bow a tad forward.** This fixed it. But, this caused the vinyl come forward a bit more also so I had to cut a little extra off above the rear window.

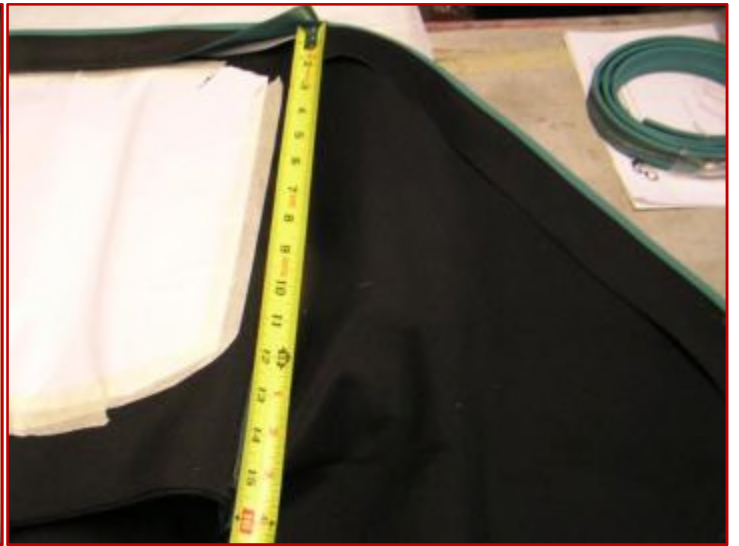
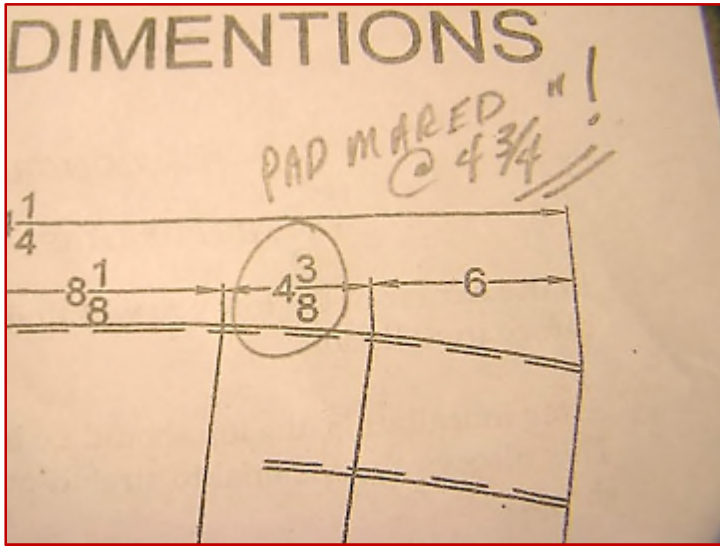


Pads stapled and screwed to the bows. The **repro washers for the little screws are bigger than original**. After the pads are set I hit the edges of the washers with a small hammer to **fold the edges down**. This results in a smoother look later after the vinyl is installed.

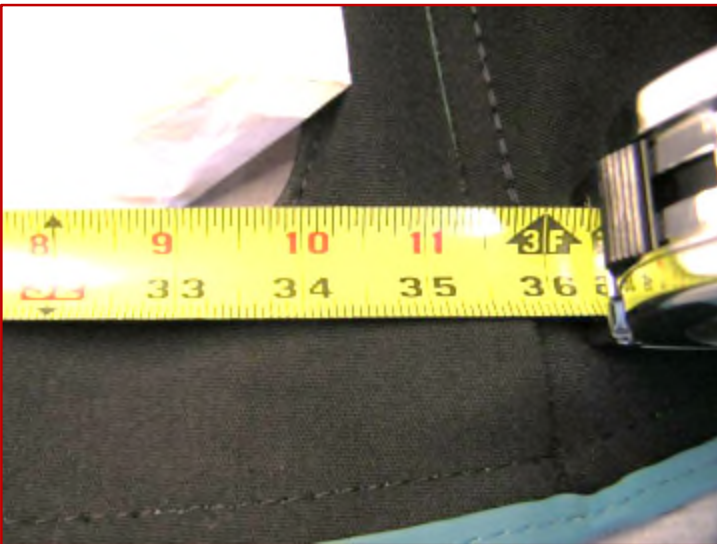
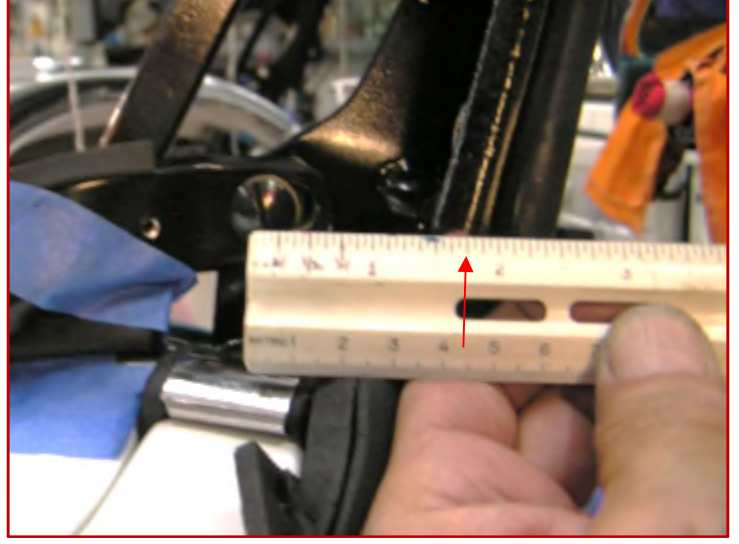
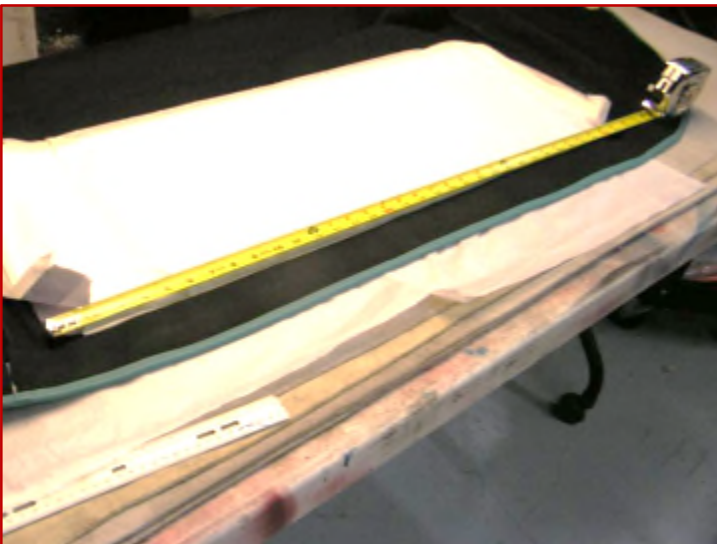
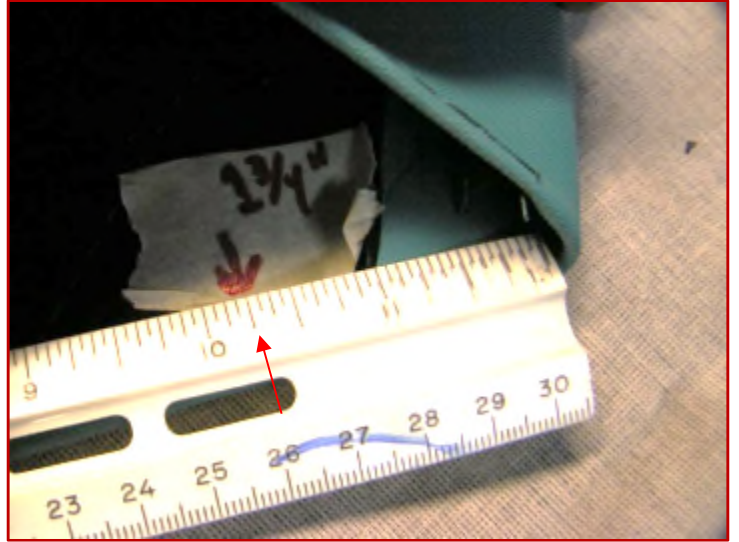


I then measure and attach the rear straps to the #4 bow. This is sometimes (**actually always**) a trial and error process. Test latching operation and check if straps are snug against the inside of the top. Repeat, test, repeat, until satisfied. **Note the error in the AK dimension between #2 and #3 bows.** Measure the vinyl from the bow seam up to the top and transfer to the frame.



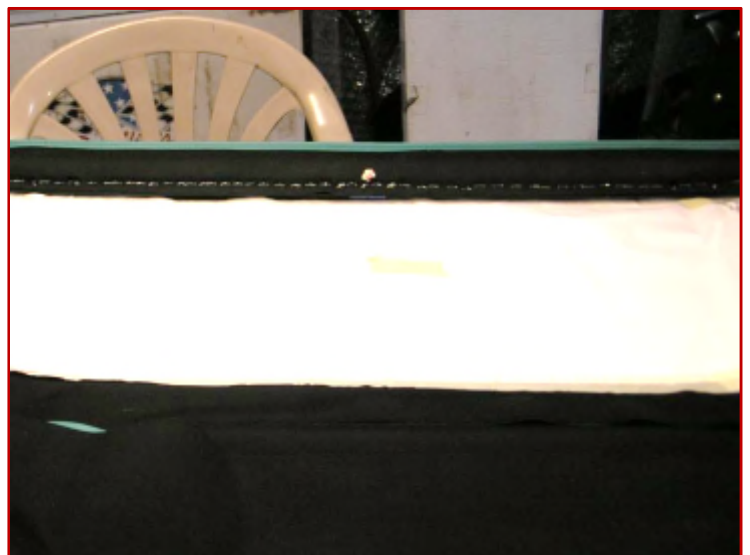


Remove the rear bow and staple the vinyl to the frame while pulling the outer edges taught. Usually 1 3/4" from the pivot bolt to the edge of the side frame piping.





I put some staples to it and test fit the rear bow to ensure the piping looks right at the bottom edges when I stretch the vinyl towards the #4 bow. When stapling, it's important to keep the vinyl aligned along the entire rear bow edge. When satisfied, remove the bow and staple away.



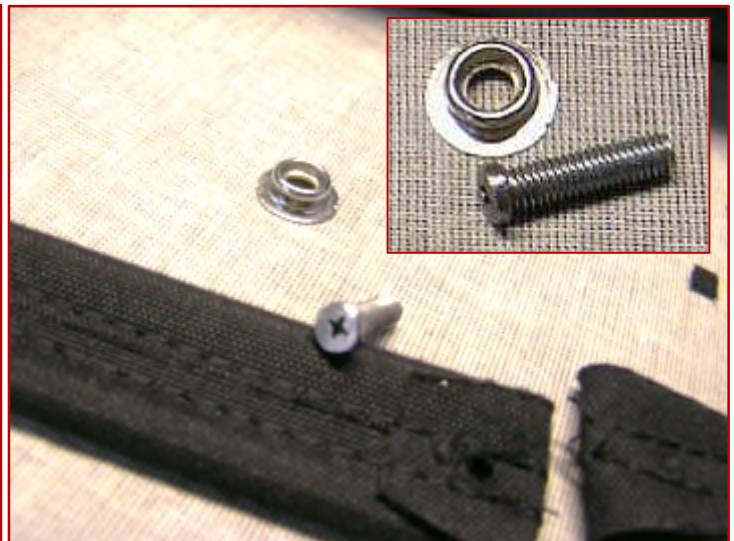


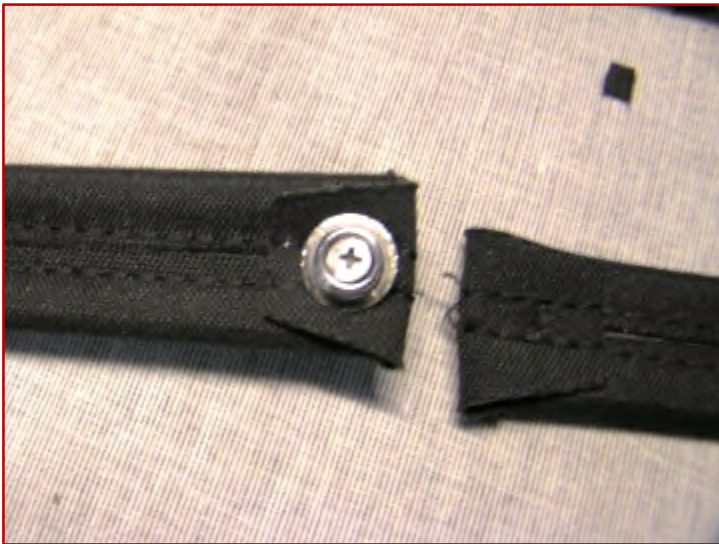
After a few dozen staples and temporary header attachment it's getting to look like a soft top. Wrinkles will go away later.





Another issue with repro parts... the **hold-up straps**. Most kits that include the 10-32 buttons for the straps where attached to the rear bow don't work. **The screw length is too short for the '59-'60 hard rubber thick weatherstrip.** This is also an issue for the swing latches. I make my own screws by grinding the heads until they fit in **marine chromed brass buttons**. Remember the strap has to snap to itself for storage and gets 1 twist when attached to the side frame when folding the top down.

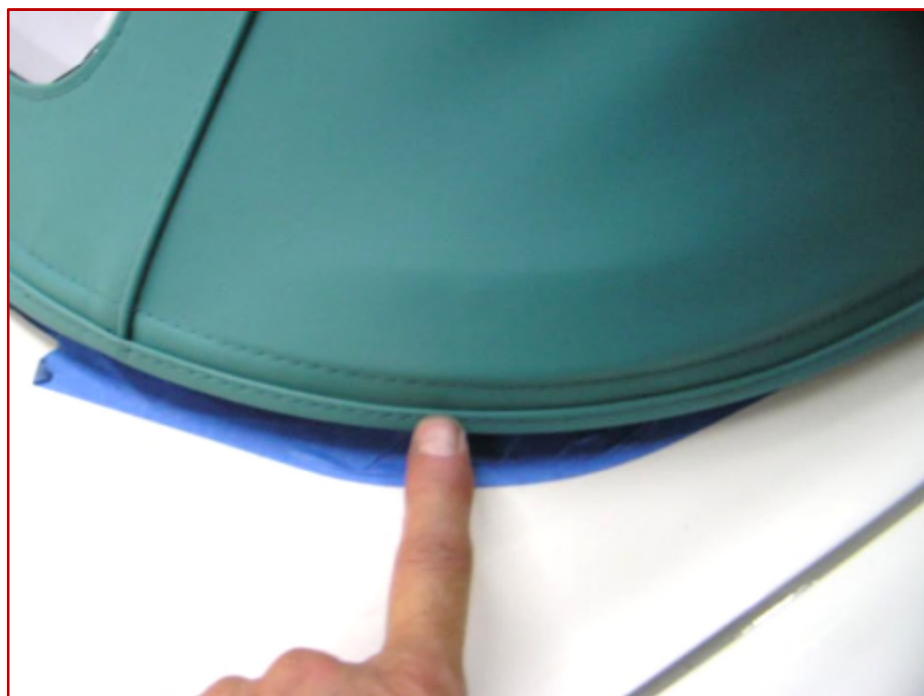
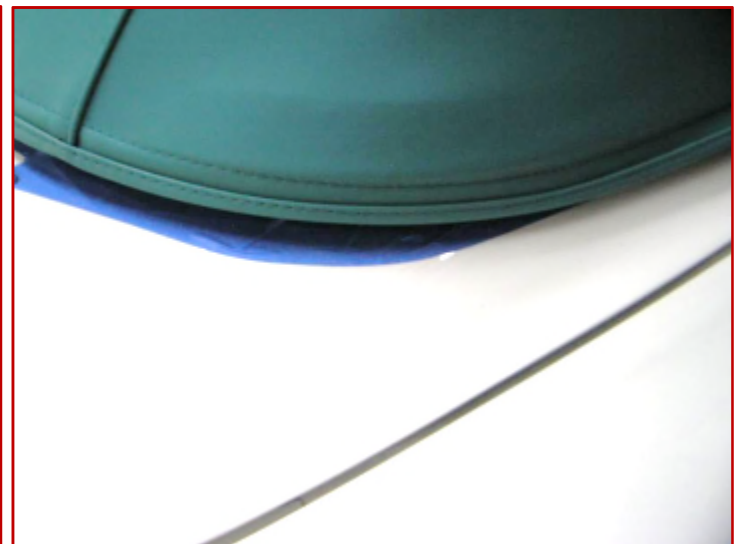
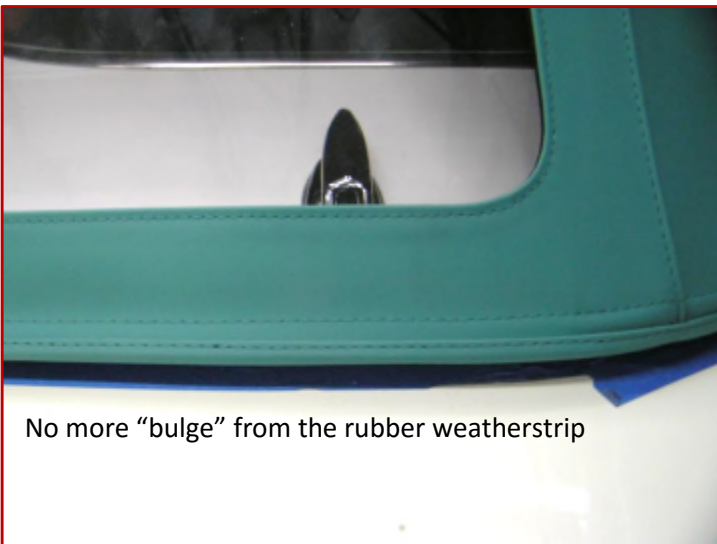
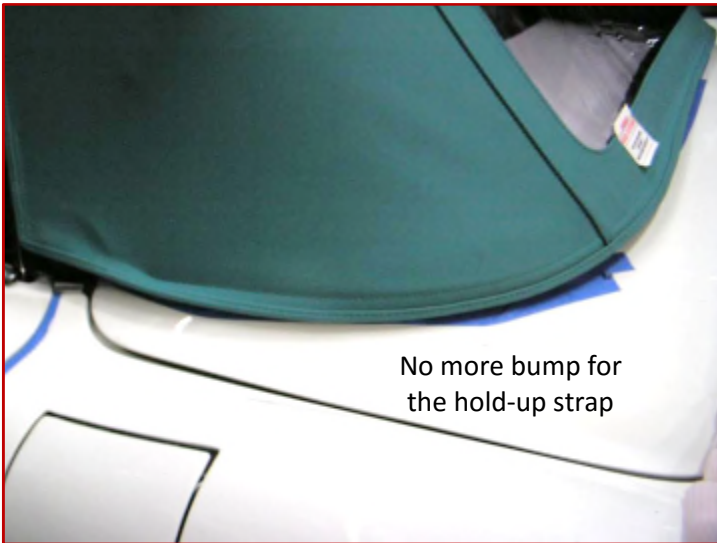




After test fits, I then attach the side flaps to the vertical frames. **That center T-nut of the vertical weatherstrip is hard to reach so I tape it to the frame so it doesn't drop.** I cut holes in the flap and re-fit the weatherstrips and check the upper rear curves. After the top is done, I release the latches and the weatherstrips again and glue the flap in position, reinstall the weatherstrips and then trim the flaps.

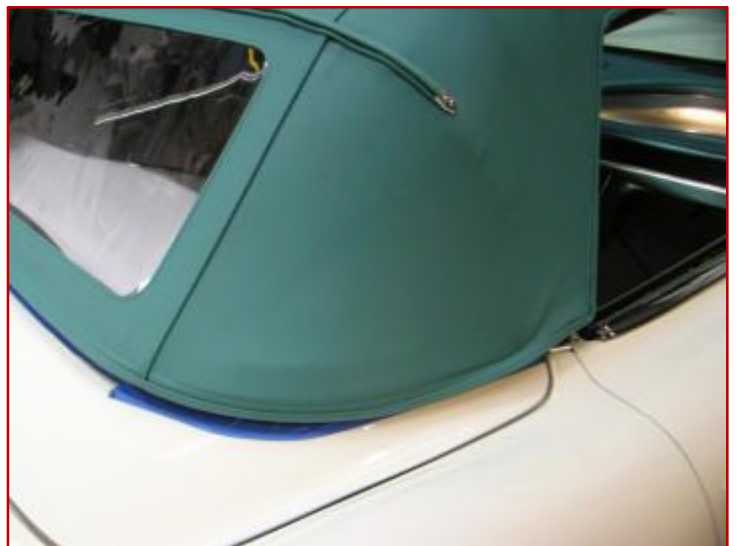
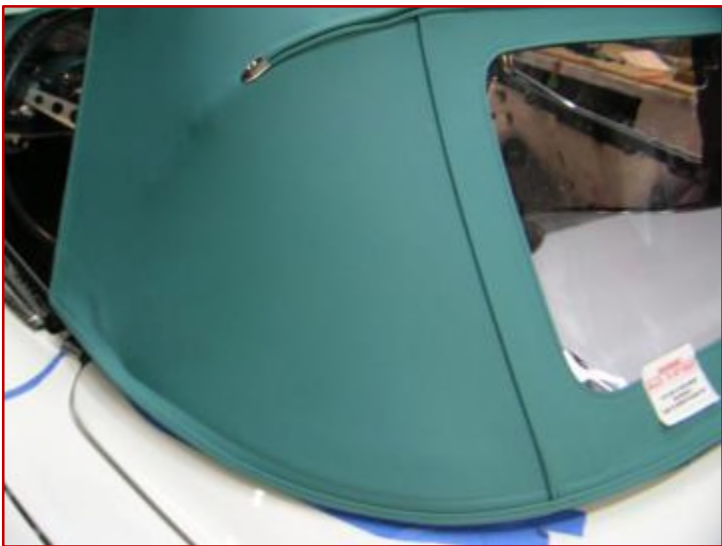


Some photos of the "hidden" T-nuts.



The completed top. Any residual wrinkles are removed with a steamer on the inside and outside of the wrinkled areas. Some good soak time in the sun will remove the little ones left over from stretching.





Aerial shot.



Rich

p.s. Even more photos here of all steps of frame restoration and vinyl installation.
Links to photo albums:

[Frame](#)

[Vinyl](#)

Last edited by Richard Mozzetta (13499); September 15th, 2015 at 06:03 AM.