

Restoring and Making New Upholstered Box Cushions for the Pearson 365 Ketch

By Pete Weisskopf, Pearson 365 Ketch Owner

1. Foam Restoration

Foam is expensive and your old foam probably has a strong odor of mildew. Not to worry, this can be corrected. Remove the old cushion covers and the batting. Set the batting aside. I find this material is quite durable and mold resistant. Mix up a gallon of solution in an insecticide sprayer. I use water, ammonia, vinegar a few tablespoons of TSP and a splash of detergent. Spray the foam down on all sides and let it sit for several hours. You can then wash the foam down with a hose to rinse the soap out. Prop the cushion up to let it drain and dry in the sun. Out here in AZ this is easy. But you will need some good dry weather for this phase. Give the cushions the smell test when done and I think you will find that they are now fresh and odor free.

2. Cut out Material

You are going to need about around 24 yards of material to recover the 8 cushions in the Pearson 365 Ketch. The 2 cushions for the back port side backrests are open backed and get stapled to the wooden frames. This article describes how to make zippered box cushions with welting on both the top and bottom edges which is all the other 6 cushions. . This is the most difficult type of cushion to make but the finished look is worth the effort.



The biggest pieces of material will be the top and bottom panels of each cushion. To cut these out, lay you material on the floor wrong side up. Upholstery fabric will have some

sort of coating on the wrong side that you can draw on with the chalk. Lay a foam cushion down on the material long way parallel with the selved edge. Using chalk and a strait edge mark the fabric to be not more than ½” oversize. Use straight lines and don’t try to follow the irregular edge of the foam. Remove the foam cut this piece out and then turn it over and lay it on another section of fabric in the same orientation. Pin the cut piece to a new section wrong side facing wrong side. Now cut the second panel out using the original piece as a template. With the 2 pieces pinned together, lay it on top of the foam panel and radius the edges to match the shape of the foam panels. A sweeping curverd corner will be easier to sew.



Whatever the size or shape of the top and bottom panel, it will be critical that they are identical. Cutting them out pinned together will guarantee this happens.

3 Cut Welting fabric.

Cut 2” strips of welting at a 45 degree angle to you material. You will need a lot of this stuff. You will need 3 strips (cut from a 54” bolt) for each edge. There are about 13 edges

so that's 39 strips. Sew these strips together 3 at a time and sew then at 90 degree angles to each other right side facing each other.



These strips will get wrapped around 3/16" welting cord during final assembly.

4 Assemble Zipper boxes

All the box cushions can be done with a 72" medium to heavy duty zippers. Cut out two 3 1/2" wide zipper box panels for each zipper. 80" long pieces will be good. You will need a zipper foot for your sewing machine. Fold over a 1/2" hem along each zipper panel and using the zipper foot sew the panel to the zipper right side up. The zipper foot will allow the needle to travel close to the zipper teeth without hitting them. I set my zipper foot up with the needle on the inside or throat of the machine. I also used the zipper foot to sew the welting. There are special feet that follow the cord in the welting but I managed without one of those, more on this later.

With both zipper panels hemmed and sewn to the zipper, they should be around 6” wide. Next reinforce the zipper ends with a piece of fabric pinned in from the underside. This will keep your zippers from pulling apart.



Finally cut a 6” strip that will be long enough to make it around the circumference of the cushion. Fold over a hem and sew it to one end of the zipper box without sewing through any teeth. You can make a little pocket that covers the zipper pull for a nice finished look. Go ahead and cut off the excess zipper box panel material.

I deviate from conventional box cushion construction by adding a short 6” wide leader panel to the other end of the zipper box. Since the zipper usually ends near a corner, to simplify the final closing up of the box, the leader will allow this process to be performed around a corner in a straight section of the cushion. It does add an extra seam but makes life easier. How much easier, will become obvious later on toward the end of the sewing process. In the case of our cushions, the zipper and this extra seam will not be visible once installed on the boat..

5 Sew the Top Panel

You are now ready to do some serious sewing. Put a full bobbin in your machine and oil it up. You will be sewing the box cushion together inside out. You will first need to line

up the zipper panel to the side you want it to be on and pin the leader around the edge. This leader will be your starting point in the assembly.



Start by placing your top panel on a flat surface right side up. Position the zipper box right side down and pin it in a few places wrapping your leader around the edge. On this panel we will begin sewing a few inches down the leader piece shown in the upper left corner of this picture. You will need this excess loose material later.

Please pay attention to this. We will be sewing up the top, the side panel, and the cord wrapped with the 2" welting with one pass. So you will place this stack up into the sewing machine with the top (and later the bottom) panel laying flat on the bottom of the stack up on the table of the machine (right side up), followed by the welting that it wrapped around the cord right side out, and finally the side panel on the very top (right side down). All this fabric will have to move through the throat of the machine but it will fit. Most importantly, when you turn the whole thing over to sew the bottom panel and welting, the bottom panel will lay flat on the table of the machine at the bottom of the stack up. Failure to sew top and bottom in exactly the same way will create serious and unacceptable alignment of top and bottom panels. You will not know this has happened until you are 99% finished and you will not be able to close up the finished box. There will be excess material or not enough, your corners will not line up with each other and you will be ripping the entire bottom panel out for hours where you will start over.



In this picture you see the top panel (RS up) on the bottom, the welting wrapped out the cord (middle), and the side panel (RS down). The zipper foot is to the left of the cord. The needle is to the right of the zipper foot. Wrap the welting around the cord. Line up the edges. Align those edges to the out side edge of the top panel. Next align the side panel to those 3 edges, pin it all about 6" down from the foot, sew and repeat. You will be sewing counter clockwise around the top panel facing RS up. Keep the needle running close to the left side of the cord. (Note: I'm left handed so if this seems unnatural, you may consider turning the whole thing around. i.e. needle on the left side of the foot, material on the outside of the throat and sewing CW around the panel.)

Also Important : When starting out leaves a few excess inches of cord, welting and side panel loose. Stagger the welting and cord so all these seam will not be on top of each other. You will need this when you finish sewing up the whole perimeter. You will need to line up, cut and tape the ends of the cord and fold some welting under to make a hem. You will also need to fold the leader under to make a hem there too. Do not sew the vertical hem yet. This will be where you fudge the final alignment to the bottom panel.

Worthwhile Tip: If your machine has an incandescent bulb, you will want to put a piece of chicken wire over it. Upholstery fabrics contain synthetic fibers that will melt when they come into contact with this hot bulb.



Here's the final alignment and hemming of the welting, and side panel seams all pinned up for sewing. This is where your machine will show its metal as there may be 8 -10 layers depending on how well you staggered all these seams. Remember leave the vertical seam open. This will be the last thing you sew. Note: undo a few inches of the zipper before you seal it all up the bottom panel for obvious reasons. More on this later.



Here's the corner showing the zipper box and leader wrapped around the corner viewed from the inside.



Here's that same corner viewed from the outside.

6 Line up and sew bottom Panel.

Locate the corners on the bottom panel and pin them into alignment with the top panel assembly which is now done. This is a fairly critical step because if you don't get this right your box cushion will look like a trapezoid.

You will turn this over and place it on the table of your machine. Remember you must sew the bottom together in the same way as the top was done for things to line up. This becomes obvious as you sew the corners. You will miter cut the welting so it can negotiate the turn. The vertical piece will be held close to vertical, mitered a little, and with some effort you should get the hang of sewing around these corners with 4 pieces a material lined up to the outside edge. When done it will be the vertical side panel that gets distorted in the process a sewing the corners. The top and bottom panels remain flat the whole time. The object is to have the sewing perimeter of the top equal to the sewing perimeter of the bottom. If they are different the final seams will not line up. And believe me if you have a $\frac{1}{2}$ " misalignment after sewing a two 200+ inch perimeters, that it is pretty good. When you join the final bottom panel seam together you can fold the vertical hem in a way to make up this error. There will be no bulges you can't get rid of if you fold, align and sew this vertical hem very last.



Close this vertical side hem and you are done. I hope you remembered to undo the zipper before sewing this seam.

Using spray adhesive, re-attach the welting. Muscle the foam into the box cushion by compressing it. Be careful not to tear a zipper tooth apart while doing this. You can stuff balls of welting into corner that appear baggy.

Good Luck.

Reference:

“Singer Upholstery basics Plus” by Steve Cone