

Upholstery Techniques - Aussie Style

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This presentation is about high end marine upholstery and the cross-over between auto and marine upholstery. The transition from auto to marine with seating starts with looking at how an auto seat is made i.e. Modern cars are a pressed steel base with a moulded foam insert which is similar to the end result of basic marine seating. These foam inserts may not last for long periods before collapsing. Older seat designs are generally built with springs or say Jaguar seats with a stretched rubber base, or a stretch membrane with smaller springs around the edges. All these types of sprung bases can help towards slowing the collapse of the foam, (as the base areas give a bit rather than relying on the foam alone), as well as adding comfort. Generally, a well fitted seat cover lasts longer than a loose one. If the foam collapses the cover becomes loose and can therefore wear prematurely or very quickly.

The marine seat /settee is the same, not enough thought is put into the manufacturing of seating with sometimes poor foam selection and basic loose-fitting covers, incorrect sizing i.e., base height, length and back rest height and leaning back angles. Most mistakes are made by boat builders as they never ask for a trimmers advice when designing the Settee structure. When designing a settee I believe it is our job to ask the right questions to the customers about their intended use of the Settee on their boat, ie, is it for lounging, dining, sleeping or a combination of all? All of these answers determine the foam laminating choices, shape, size and how it will make the end result to suit the owner's needs. Remember you could have the same boat with 5 different customers all wanting different results. Get the foam base choice right and you are on your way to making covers that will with stand the test of time. The use of Enduro and Hospital Grade foam's in seat bases and mattresses are some of my choices. The Enduro & Hospital Grade foams will last a lot longer, without collapsing and therefore keep the cover tight as it was meant to be, with less wear.

Foam choices.

Exterior cushions. Quick dry foam, generally firm with Nonskid / slip, sewn under all base cushions.

Interior, a general combo of mine in a Settee is 1" or 25mm Charcoal then AA29-4003" or 75mm Yellow Enduro EN 36-130 or 3" or 75mm Hospital Grade--HG-170. The top layer is a

profile cut knee-roll front MA 29-200 then either Dacron, 3/4" or 20mm Memory UF52-40 or VG65-55 Fusion Gel on top. The next level is to add pocket springs and webbing bases. The pocket springs come in blocks 90 mm high, 300 mm wide and 400 long. The springs are individually covered with spun bonded fabric and then combined in a block and covered again. These blocks can be combined together to whatever size is required for say a mattress base or a seat base. For a seat they can be placed directly on a plywood board. The next best thing is to add elastic webbing either to a flat ply base with the middle cut out if the depth supplied by the boat builder is deep enough to allow, or a lowered area to a ply base to allow for the depth of the pocket springs, then add the elastic webbing. The result is an extremely comfortable settee. I have made a demonstration seat to give an idea of the combination possibilities to get the base right. The seat with a combination of Sunbrella furniture fabric and leather just to give different ideas of fabrics selection and covering techniques.

The back rest is also crucial to comfort. This is one technique used, again sewn and covered with different finishes, ie back sewn, piping and different ways to finish Zips. The fabric and leather are sewn on Dacron rather than gluing it to the foam. Making it part of the cover will stop the Dacron from moving over time. The other foam sample is one of the combinations I use for a back rest including my top roll and lumbar support profiles. These create fantastic comfort when angled correctly and combined with the knee roll on the bottom cushion.

An important thing to remember, separating either the back rest or base, with separate pull-down areas or full-length listings, this helps in 2 ways, It keeps the cover tighter for longer and stops the cover from rolling. The end result is a much longer lasting seat. If my customers request was for cushions with no ply boards, a zip together listing would be used. The display backrest shows individual pull down sections where webbing is sewn to the top panel. This webbing is then pulled through the foam and tied around individual squares approximately 2" or 50 mm square of Polycarbonate. I have made the display seats so we can pull them apart and look at the internal structure IE springs and foam set up as well as different sewing methods.

A mattress or bed consists of a base foam 1" or 2" Charcoal AA29-400, then the pocket springs are glued together on the base foam and to each other with a border of 3 1/2" or 90mm Yellow Enduro EN 36-130, it is then topped with the required height of yellow Enduro and memory foam or fusion gel.

Hopefully you can all take at least one useful thing from these presentations back to your own workshops and add to your existing methods.