

WELCOME

Welcome to the world of woodwork, where you are surrounded by the smells, the shavings and the feel of a living material, wood.

It is very important when working with wood to understand the material that you are using. Take your time. Do not rush, there is no hurry. Hurrying creates mistakes and mistakes cost money. So go slowly and enjoy.

This kayak was designed with a number of objectives in mind.

- 1) Ease of construction with a comprehensive kit supplied.
- 2) Relative low cost, although quality need not be compromised.
- 3) When using the finished product, ease of transportation and ease of handling in moderate running waters, coastal paddling and touring.
- 4) Most importantly it will be unique to you, there will ever only be one kayak like yours.

TOOLS REQUIRED

Electric drill/driver

#2 square drill bit and 3mm drill bit

Fine tooth saw

Plane

Hammer

Long nose pliers

Tape measure

Square

2x 150mm "G" clamps

Sanding block and 80 and 120 grit sand paper

25mm masking tape

An electric belt sander is a time saving tool if you have one.

Staple gun with 10mm staples. (Hand gun can be used or a rental staple gun with small compressor for a half day.

One straight length of ex 150x50 dressed timber (to set keel during construction.

PAINT

We are recommending RESENE "Super gloss enamel "because it has good levelling properties it blocks back with 120grit sandpaper between coats and it has a huge colour range and that is where the fun is. This kayak will be unique to you.

You will need a total of about 4~5 litres total to paint the canvas

You will also need 1 litre of a marine varnish to seal the timber framework.

GLUE

You will be using an International system. Please read the manufactures specifications prior to using it and familiarize yourself with the procedures.

Also read the MSD sheets for your health and safety benefits.

Acetone for cleaning up is not supplied.

NB Keep all these materials out of reach from young people.

STEP 1

Check that you have all tools required and prepare a clean dry working area.

Sand all the components, removing sharp edges that may cause chaffing. It is easier to do this now as it can be difficult to sand and clean when assembled.

Step 2

The stringers are to be joined using the vice supplied. Glue both surfaces and hold together with masking tape and place in the vice supplied. You can do two or three stringers at a time but ensure there is tape between the joins and all surface areas so that they will release. Do not over tighten the vice bolts.

Leave for 24 hours, remove and block sand the joins smooth. Repeat this with all the stringers, gunwale, trim and the 36mm keel supplied (fig1)

Step3

As per drawing (fig2) glue and screw the bow and stern pieces into place and check that they are in line. Next glue and screw the ribs into position in the designated positions onto the keel. Check that these are square to the keel stringer and follow the rib order. When this is done, screw the base down to ex 150x 50 base board.

Step 4

When pushing in the stringers, you will find them to be a tight fit. Tap them in carefully. Each time checking that the ribs stay square to the keel stringer.

In order, first put in the seat stringers, these will be slightly over sized but can be cut back when the glue has cured. (Glue these into place only screws are not needed)

Next, put in the deck stringers in order S1, S2, S3, S4, S5, and S6, each time giving a little tension. You need to eye up S1 and S2 to ensure they are in a straight line (fig 3)

NOTE over size stringers 5 and 6 into the cockpit area.

IMPORTANT always drill in a 3mm pilot hole carefully through the stinger and deep into the rib to avoid potential splitting of the rib when screwing.

The remaining 7~12 to be located and glued into place in the following order S7, S8, S9, S10, S11, and S12, each time giving a little tension ensuring all the ribs are square to the keel.

Leave all these stringers long, they are to be cut individually to suit.

When cutting these stringers to attach to the bow and stern frames, use the actual frame as a guide to run the saw against it to cut the stringer to get the right angle always pulling the stringer up slightly to give the correct length. (Glue and screw) The stringers will take their natural form when mating up to the stern and bow sections. We always suggest cutting longer, remember you can always decrease the length but not increase! (Fig 4)

Install the spreader bars between the gunwales

STEP 5

Trim back and screw in the pre-molded cockpit surround. Again these are supplied oversize and will need to be cut back to suit. Again, cut it back little by

little to allow them to fit. Please note stingers 5 and 6 will need to be cut to suit the surround.

STEP 6

Well done, it will be looking like a Kayak now. At times it seems a pity to cover all this wonderful woodwork. Stand back and look at what you have achieved!

At this point you can now unscrew it from the 150 x 50 base board. The frame is complete. Using the plane shape the stringers to avoid any sharp edges and feather the framing back to create nice soft lines. Sand all the stringers and remove areas that may cause chaffing. There will be a bit of work around the bow and stern to get it just right. It pays to spend a little extra time doing this. If an area is a little rough it becomes very obvious when the canvas and paint goes on. You can cut a 100mm strip of canvas off the material supplied and pull it over the frame work and pull it along. You will then see how everything is sitting.

STEP 7

Varnish the frame work. This is a little fiddly as you need to work it in at the end grain and get into all the tight areas. We suggest 2 coats with a light sand between.

STEP 8

The covering, there is not really any right or wrong way of doing this other than pulling and tugging at the canvas until it is just right. The canvas supplied is in the roll is 5000mm x 1800mm. At first you will need to split the canvas down the centre at 1100mm the balance being 700mm for the deck.

IMPORTANT be accurate with the split as the tolerance is tight at the widest part of the frame.

Start with the hull or the bottom first by pulling the canvas tight from bow to stern and temporarily stapling it onto the deck. Next evenly work the cloth pulling it and stapling onto stringers 7 and 8. (Gunwale)

The bow and stern will need to be gathered, cut and pulled over and stapled into place (fig5) all surplus material should be carefully cut off.

This process is then repeated with the deck and stapled on to the same stringers. The bow and stern areas where the staples are exposed will be capped with the aluminium trim and the gunwale will have a timber trim.

Finally cut the canvas and pull down in to the cockpit.

At the very end there will be a small canvas trim to the bow and stern. (Fig 6)

NOTE it is important to keep the staples spaced evenly and start working the canvas from the centre working out to the bow and stern. Expect to have to pull out many staples and re-stretch and staple many times until it is just right.

It is a clean rewarding job so it is important to persevere.

Step 9

Painting, firstly tape newspaper in to the cockpit area to stop the paint splashing onto your finished woodwork.

The enamel paint will need to be diluted by 20% with turpentine to ensure total absorption into the cloth. We would suggest a white as a base coat and then build up you colours from there. (An undercoat is not necessary) This first coat takes a bit of time to paint due to the amount of paint is absorbs. This process is import as this will adhere the canvas to the stringers. Really work it in with a brush (a 4" fence brush works well) not a roller at this stage. Be sure to work it in around the staples.

Allow 24 hours between the coats. Give the surface a light sand between coats with the 120 grit sand paper. We would suggest 4~5 coats but it is up to you as to the finish you wish to achieve. Of course the colour scheme is up to you.

Have fun!

STEP 9

Trim the cockpit mouldings to suit. They are supplied oversize so remember to cut them back little by little until they fit. We would suggest that you apply a couple of coats of vanish to them before screwing them into place. The gunwale trims can now be attached (18x12mm) these are screwed over the stapled join. Because of the build-up of paint in this area you can tap it down with a hammer and carefully cut off any access. . As above we would suggest

that you apply a couple of coats of varnish prior to screwing into place. You may wish to mask and seal any gaps the MS and paint. Finally the aluminium bow and stern strips can be screwed into place. Bend them in with a bead of MS sealant. Remove access and paint.

STEP 9

The paddle is self explanatory. All components are cut to length. Glue and screw together. You may wish to remove the screws. Sand smooth and varnish to suit. The aluminium joiner is screwed into place and you can decide the offset of the blades to suit.

Well done, enjoy and be safe out on the water.