

Wooden leading edge installation instructions

The first step to install the leading edges is to hang the wing (or wings) vertically (with the leading edge up) from a table using wood clamped or screwed to a table, what I mean by this is to have boards extend off the table about 12" or so to support them. These boards will support the front spar.

You will need to use small blocks for spacers to keep the spar spaced from the boards to allow the leading edges to extend past the rear face of the spar.

It is very important to make sure the wing is absolutely straight at this time, you can use sticks and clamps extended from the ribs to the table to take any twist out of the wing. We use a digital "Smart" level to ensure this and made a simple jig that hooks over the nose rib and touches the rear spar to read from.

Next dry fit the leading edge to make sure it fits correctly.

Before gluing the leading edge in place the front face of the spar and the sides of the ribs should be varnished/sealed.

When everything is ready to go mix up some epoxy, start with 6 ounces per leading edge and mix more as required, coat the entire inside of the leading edge with a thin coat of epoxy then mix in some thickener to the remainder of the glue, now apply the glue to the nose ribs and top and bottom surfaces of the spar.

Carefully fit the leading edge over the nose ribs and start clamping or strapping it into place, we have found that motorcycle type tie downs work great for this but you can also use bungee cords as well. Position the straps so that one is over each nose rib and pull fairly tight, next you can use long sticks or lots of clamps to hold the sides of the leading edge to the spar, again refer to our website for photos.

For the lower wings all you have to do is let the glue set then trim the excess wood, we do this by using a router along the spar then a straight edge and utility knife to cut the areas where the ribs meet the spar, then mark and cut out any needed inspection areas.

For the upper wing we do both the left and right sides first, then when the glue is set you can trim the area next to the nose ribs and attach a doubler nose rib to attach the center section, you can also scarf the center section to the left and right leading edges instead if you prefer. You will need to dry fit the center section and make a cutout for the wing fittings before gluing.

A second person really helps for the above procedures, it is also a good idea to use packing tape to protect areas that you don't want glued, as in any inspection cut outs plus the ribs aft of the rear face of the spar etc.

