

Custom Step-by-Step Victoria R/C Sailing Yachts by OMSA
revision Aug 4, 2007, Chapter D

Okanagan Model Sailboat Association, Kelowna, B.C. Canada



[Forward to Step-by-Step Chapter E](#)

[Return to Step-by-Step Chapter C](#)

[Return to Step-by-Step Menu](#)

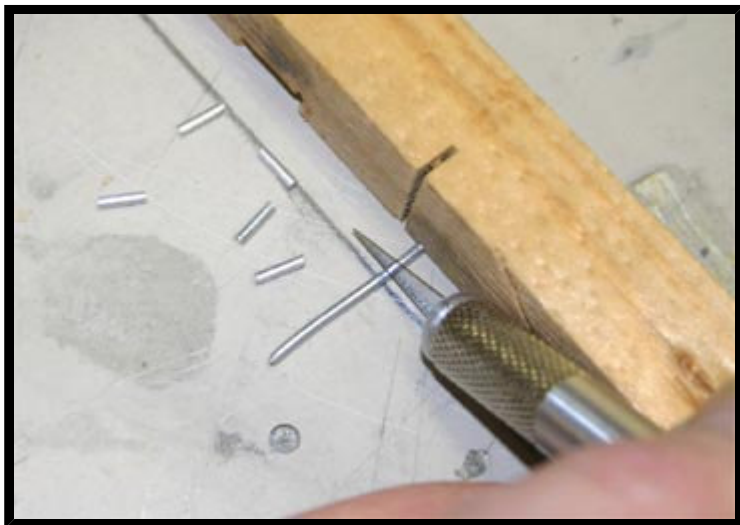
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The installation of the standing rigging of your Victoria is perhaps the most enjoyable part of building your custom racing yacht.

The procedures shown below use very thin stainless steel rigging wire (.015") and adjustable rigging couplers at the base of each of the rigging wires to properly support and tension the mast.

All of the components shown below are available from our on-line catalogue and comprise the [LONGBOW Victoria rigging kit](#).

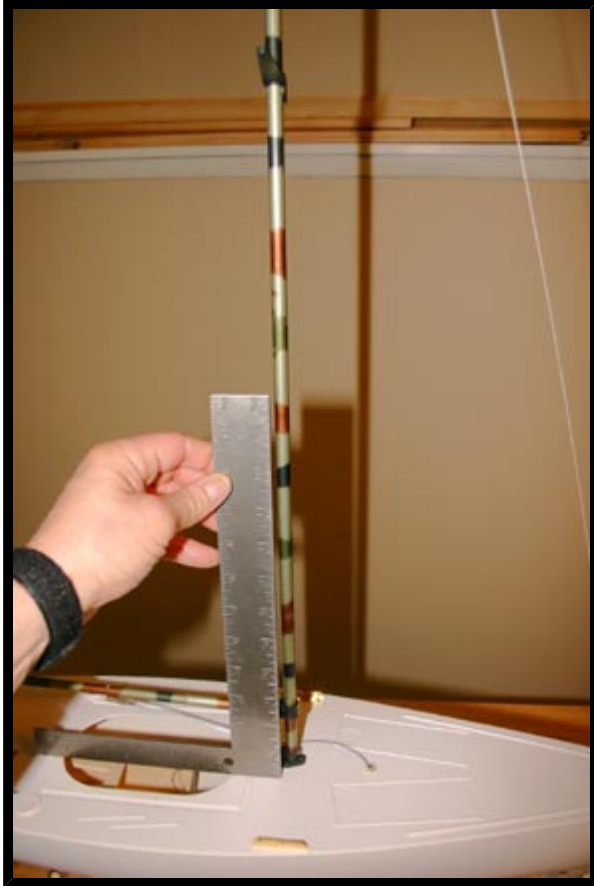
Step D1: making rigging crimps



The best thing we have found for crimps for the rigging of a Victoria are small pieces (1/4" long) cut from a length of 1/16" outside diameter soft aluminum tubing. This tubing is part of the LONGBOW Victoria rigging kit. With the use of a hobby knife slice off a dozen or so 1/4" lengths. Here the 1/16" stock is shown being rotated while using a measuring jig and a wooden block to contain the crimps as they pop off. The ends of the crimps may have a bit of a burr which can be quickly removed with the pointy end of your hobby knife.

A tip: To prevent a burr from forming at the ends of the crimps, avoid cutting right through the aluminium, then just break the piece off with your fingers.

Step D2: Install temporary forestay



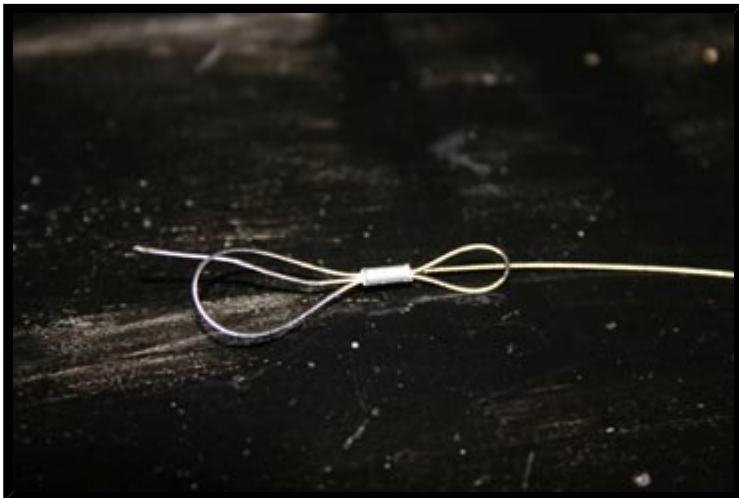
Since the actual forestay on the Victoria boats is part of the jib sail, which won't be installed quite yet, we need to install a temporary forestay from the jib chain-plate at the bow up to top of the mast to support the mast while we install the rest of the rigging.

A spool of fishing line is kept around the shop for this purpose which will also come in handy when the sails get installed. You can also use a piece of the stock blue string that comes with the Victoria kit

The temporary forestay can be seen here running diagonally (top-right) through the photo and is just lightly attached with a pair of knots of your choosing.

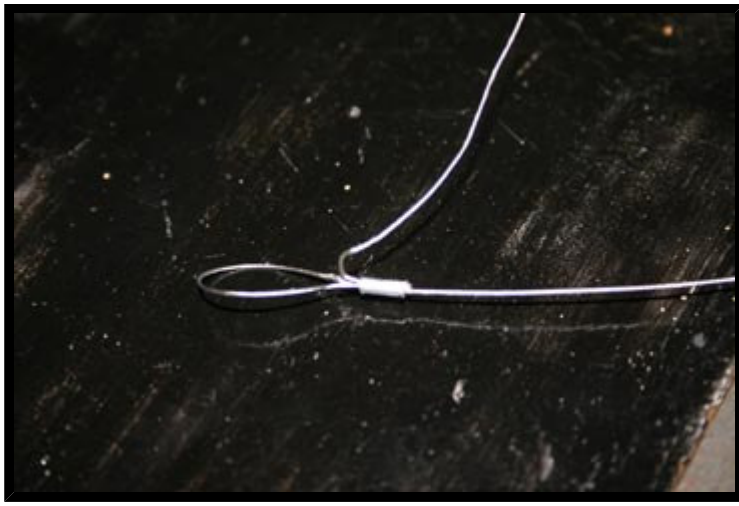
Adjust the length of temporary forestay while checking that the mast remains vertical relative to the deck surface.

Step D3: A guide to loops and crimps



Here is a demonstration of making a 3 pass rigging loop that will be used at all ends of the Tiger Tail nylon coated, stainless steel rigging wire that is part of the [LONGBOW Victoria rigging kit](#).

The choice of the 1/16" diameter tubing for the rigging crimps allows a full three passes of the thin Tiger Tail rigging wire to pass through the crimp which maximizes the strength and reliability of the rigging lines. A needle-nose pliers will make this job pretty easy. The 3 pass crimp technique has been around for longer than our club has, and still shows up in current model boating magazine articles.



Here the tag end of the Tiger Tail has been carefully pulled to shorten the extra loop right up to the end of the crimp. Try not to pull the end of the extra loop inside the crimp however.



Here the crimp has been flattened with a small pair of pliers and the tag end of the wire has been trimmed off with a pair of side cutters.

In practice, this 3 pass loop and crimp should never let your Victoria down in heavy weather situations even after years of sailing.

A simple 2 pass loop and crimp will fail both you and your Victoria..
(trust us on this one)

Step D4: Making and installing a Victoria back-stay.

Here are two views of a Victoria's back-stay using Tiger Wire for the lower portion of the backstay and a 6" or 8" length of an adjustable portion at the top near the mast-head crane to allow a convenient adjustment in the back-stay tension.



The tag end of the Tiger Wire at the transom can either be trimmed off, or it can be made extra long and attached to your radio receiver to make a very efficient radio antennae. ([see Chapter F](#)).

In that case, a very small hole is drilled through the transom to pass the tiger tail inside the hull. The small hole is then sealed up with a dab of glue.

Radios will be examined in more detail later in [Step-by-Step Chapter F](#)



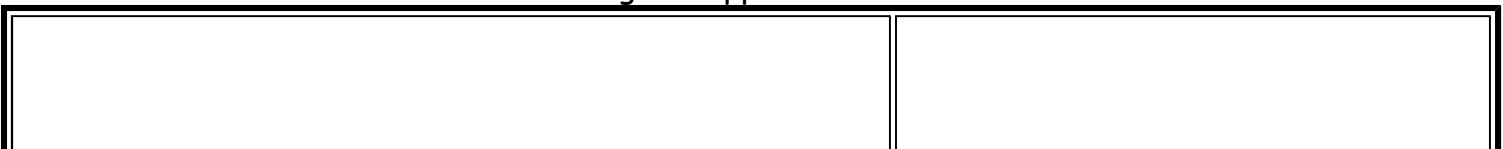
Here is an example of a backstay using the stock plastic fitting that comes with the Victoria kits. It is more than strong enough and very easy as well.

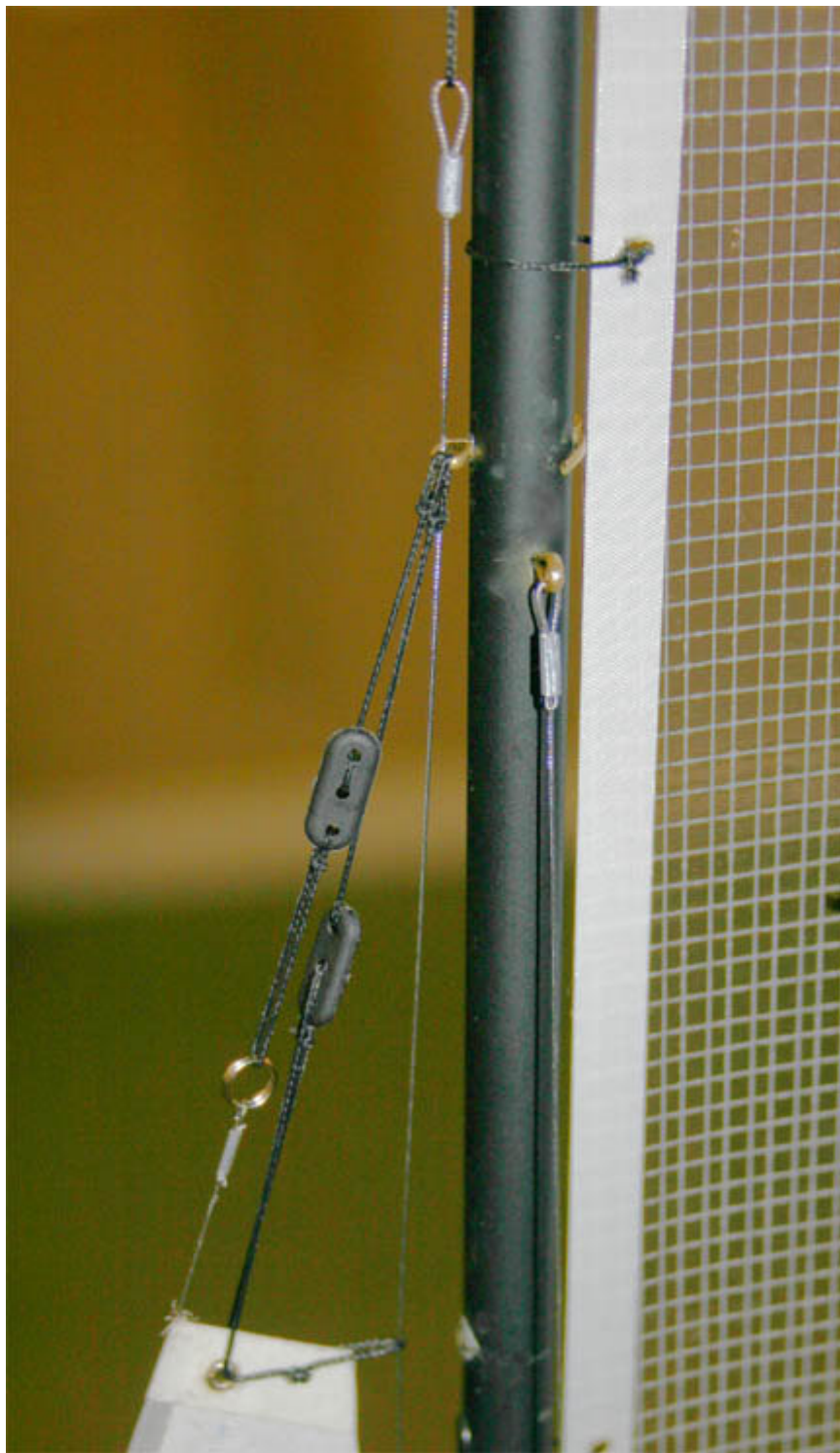


Also note a small drain plug installed in the transom. This example consisted of a short length of #16 electrical wire in a 3/32" hole.

The 6"-8" adjustable portion at the top of the backstay is made from either the line material that comes with the Victoria or a length of 20-30 lb. braided fishing line. In the middle of the adjustable length is a stock "bowsie" from your kit which holds the desired length and tension of the line.

D5: Installing the upper mast shroud lines.





Here is an example of a very recent Victoria that was built using a 1/16" brass cotter pin for the upper shroud attachments and another one for the forestay/jib halyard attachment.

The shroud cotter pin is inserted through the mast and an eye on the opposite side formed and silver-soldered shut so that there is an eye on both sides of the mast.

The use of the brass cotter pins for the attach points gets around the problem of the luff of the main sail rubbing against the stock plastic pieces that come with the Victoria kit. This interference problem can prevent the main sail from filling reliably in light air.

The 1/16" brass cotter pins are easily robust enough for this purpose.

I like this one a lot and has now become my "standard".

The thin line passing up through the forestay eye is the jib topping lift which is described in chapter I.

The upper shroud lines can now be attached to the clevises at the deck chain plates. Most builders use the forward-most clevises for the upper shrouds and the rear clevises for the lower shrouds.

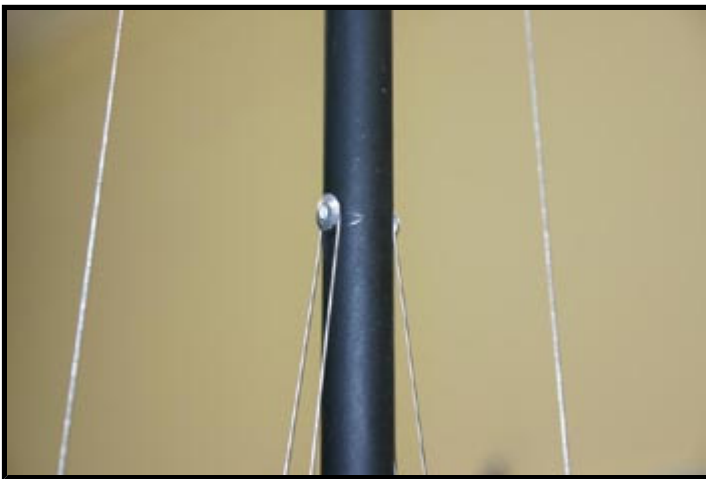
To prevent these adjustable clevises from



rusting and seizing up, you should consider the brass plated ones supplied by **LONGBOW**.

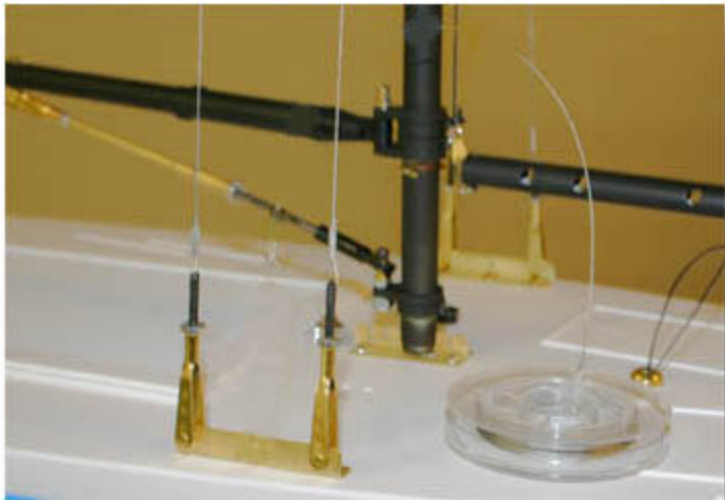
Note: the use of the 2-56 stainless nuts to lock-in the adjustments.

Step D6: Installing lower shroud lines



More and more of our Victorias are built using no spreader what-so-ever. Shown here is one method to attach the lower shrouds to the mast. The lower shrouds are trapped under the head of one of the 3/32" pop rivets at a point 21" above the deck. *Other builders use a cotter pin arrangement exactly like shown above for the upper shrouds.*

Most builders only use one set of lower shrouds rather than the two sets shown here. I suggest taking the lower shrouds to the rear-most location on the deck chain-plate. This location best controls mast bend.



But at this point the Victoria starts to look like a real sailboat with the lower shrouds now securing the mid-point of the mast, the upper shrouds supporting the upper part of the mast and the deck chain-plates rigged up with the brass clevises and the rigging couplers.

The adjustable clevises are now tensioned to hold the mast precisely vertical as observed from above. When the shroud

lines are tensioned they sound like a loose guitar string when plucked.

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[Forward to Step-by-Step Chapter E](#)

[Return to Step-by-Step Chapter C](#)

[Return to Step-by-Step Menu](#)

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