

# Getting *Broremann* back in business

(..or *Small is Beautiful*, part II ...)

by Arne Kverneland



.. *Broremann* in 2007 with the Bm rig...



. and in June 2009 on the first sail with the new JR...

*I bought Broremann, an 18' Oslojolle in 2007 and brought her down to Stavanger from Bergen on a rented trailer. The first summer I sailed around in her with the Bm rig, but the plan from day one was to convert her to JR. The Oslojolle is quite tender so the quick reefing of the JR would be very welcome. The making of that sail and the first sailing trips are described in the file...*

“**20090712 Summer letter...** “ - found in the same folder as this letter.

After a successful 2009 season with the new rig, I was looking forward to the 2010 season. I was having a new, stronger mast made and this time it was to be installed in the designed position. Unfortunately in late spring 2010 I ended up wheels up, so when I was fit for fight again in July, I had to focus on my other boat, *Johanna* and the Stavanger JR rally in the beginning of August.

But then came spring 2011. The new mast had been resting in my cellar for almost a year, so there was no longer any excuse for not going ahead. This is what this little photo article is about...

## Homework

The masthead fitting:

While it still was cold outside, I made a new masthead fitting. Having no mechanical or welding equipment I decided to make it from webbing. After having used webbing a lot in junk sails, I have become impressed by how strong and easy to work with this stuff is so I decided to give it a try. The idea was to make a close-fitting masthead cap with hoops stitched on to take the halyard block, the mast lift and the lazy jack. (.. the forth hoop was just made for the symmetry...) This cap was to be held in place with two hose-clamps.

4. April:



.. starting with the ring made of 50mm webbing...



.. then 4 ears to tie halyard, mastlift and lazy j. to...



..the hoops are machine-sewn at the end of the ears



.. then the ears with hoops are sewn to the ring...



.. a "test mast" was useful in getting the size right...



.. the result of 2-3 hours work...

Not much to say about this, the photos should explain themselves ok.



## In the mast shed and workshop

The rest of the work was done in the Lundsvågen harbour where my boats live.

2. June



.. no transport problems in this size range...



.. a little sanding outdoors first...

I decided to use 2-pot Polyurethane varnish on both the mast, mast-step and the bulkhead.

The bulkhead:

After 41 years the aft bulkhead had rotted away at the lower edge so I decided to use it as a template and fabricate a new one.



.. the old and the new bulkhead..



.. then I stained the it with some "teak on a can"

Since most of the original wood on board was some teak(ish) plywood, the new bulkhead would need to be stained to match the rest. Buying the real stuff was not an option.



.. left-over plywood was quickly transformed into a few more figure-8 cable/line reels. Nice to have...

## Varnishing the mast and other bits:

3. June



..the root end; end grain thoroughly soaked...



.. and the top end; just plugged with some putty...



.. that bulkhead looking better and better...



.. the mast step also getting a few coats..

The varnishing of course took several days. Luckily most members had rigged their boats by now so my working in the mast shed didn't disturb anyone. That mast step consists of a base plate onto which the mast step is just screwed in place. This let me test-raise the mast and assess its rake. I got it right in the third try...

## On the boat

The partners:

5. June



..at point of no return...



.. ready for stirring epoxy...





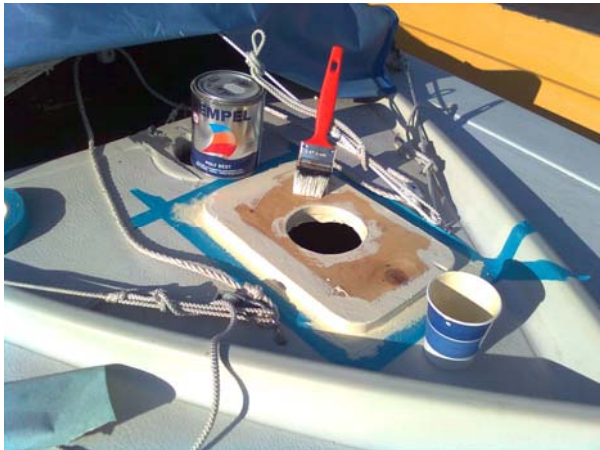
.. mast partners clamped in place...



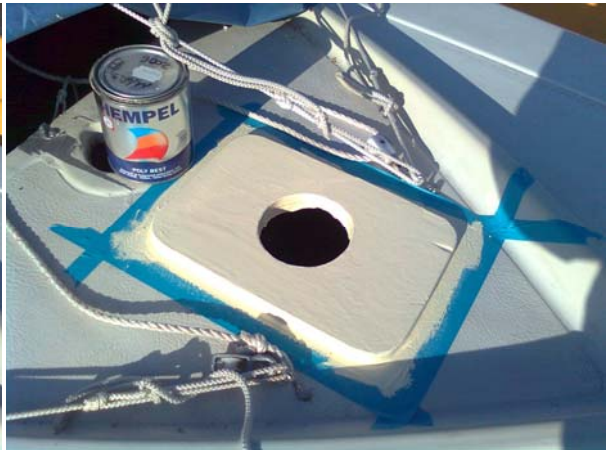
..returning from a sail in Johanna, the epoxy was set...

Cutting a hole in the deck is a big event every time – I now have 3 “used holes” in my collection. The job went well. Clamping that mast partner plate to the deck turned out a bit tricky as it slid around. I wish I had dry-fitted it with two temporary screws and used them to position the plate while adding clamp pressure (light pressure; I didn’t want to squeeze out all the epoxy).

11. June



.. the first coat of paint went on a few days later...



The mast-step (11. June):

The installing of the mast step led to some surprises. Luckily I only fastened the step with 2 screws to begin with...



.. mast-step being readied for test fitting..



.. here in place. Note big flotation tank in front of it...





..oops, that Rhino look wasn't planned...



.. the mast-step had to be moved a couple of times...

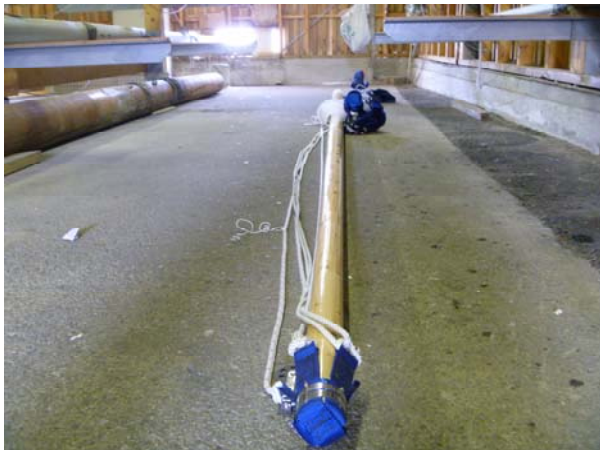


.. yes, and while I was at it, the masthead fitting was clamped on...

Installing the mast step involved drilling a number of holes in the plywood that I previously had sealed so well. All I could do now was to fill the holes with some old Ravilakk varnish before fitting the screws. I hope it will work; they don't sit under water normally...

Readying the mast before stepping (20. June):

With the mast-step firmly in place it was time to dress up the mast with halyard, mastlift and lazy jack. Also a "waist belt" of thick webbing was taped to the mast at deck level. With this in place there was no need for wedges. And then there was the mast jacket made from a cut-off funnel...



.. the lines tied or laced in place; no shackles...



..the mast and the sail bundle which had been stored...



**..the mast, coated with 5 coats of 2-pot varnish from Epifanes. The waistbelt at deck level taped in place...**

#### Rigging (21. June)

The mast weighs 10,0kg so I stepped it by hand several times without problem. The hard mast-coat was then taped in place and I could fit the sail bundle, attach the standing lines; tack parrel, tack line, batten parrels and lazy jack. Then the running lines came on; halyard (1-part), luff- and yard hauling parrel, and finally the sheet (3-part). The rigging job may have taken as much as two hours, no sweat.



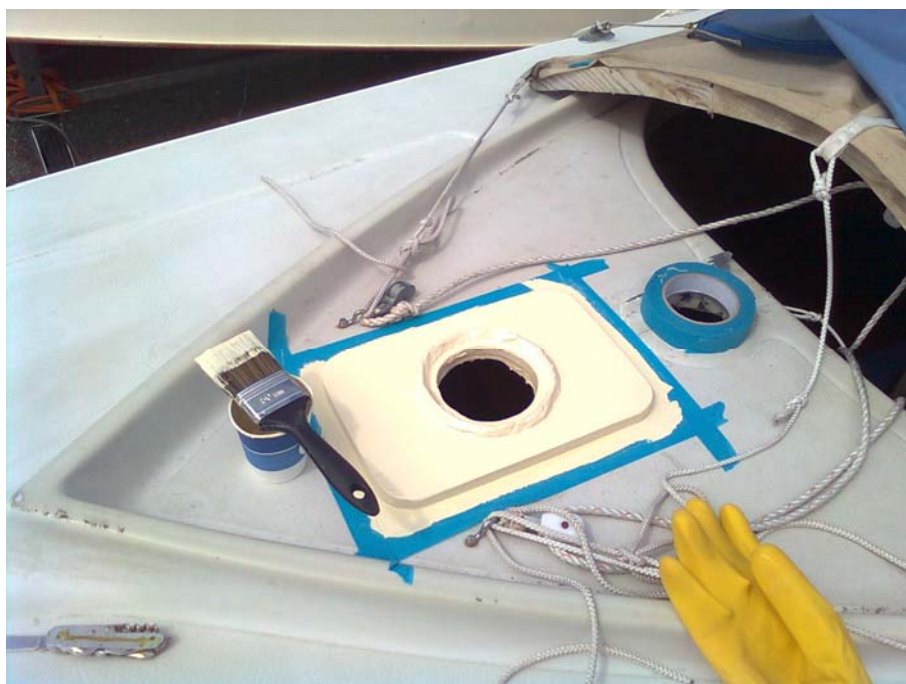
**..test-hoisting the sail to verify that the rigging is right**



Details from the cockpit a few days later:



The main lines from right to left: halyard, yard h. parrel, luff h. parrel. The tack line (shock chord) and the c.b. tackle can also be spotted..



Actually, to keep that funnel type mast coat from leaking, a sort of “dam” around the mast hole was made from epoxy, here seen covered in the second coat of 2-pot paint.





Over the years the stop-bolt in the centre board had chewed its way through the plywood so two pads of aluminium was fitted. The halyard is cleated to that black cleat on the c.b. trunk. Easy to reach...



The halyard and running parrels share a bag. Practical as their tails are not long at the same time.



The new bulkhead, my pride and joy. The sheet is also stored in a bag of course...

## First sail

21. June, evening.

There is not so much to say about that first sail except that everything worked perfectly well. The new mast, beefed up from 7 to 9cm, seems to be just as it should, neither too bendy nor too heavy, at 10kg. The sail bundle, yard and all weighs in at 7.9kg so the sail goes up quickly with the one-part halyard.

The mast is now also fitted in the designed position, 25cm forward of where it sat in 2009. This has led to the lightest weather helm you could dream up – just right...



.. in the light breeze I could sit to lewards...



.. caught in the gybe – not often to be seen. I gybed several times without problems...





**.. it doesn't get much better than this...**



**.. struggling on – it's all work and no play...**

That was it! I hope some of it made sense and that the photos made you ignore (or forgive me) my Stavanger-English.

Stavanger, June, 30<sup>th</sup> 2011  
Arne Kverneland