



(..photos from the Stavanger Junk Rig Rally 2008...)

## More Junk Sails...

**..an illustrated autumn letter to the Yahoo JR group ...**

( .. this is partly a follow-up letter of the *Summer Letter* dated 20080715...)

(.. letter started Friday, 20081003...)

The sailing activities are slowing down in Stavanger. The very fine summer – both for sailors and farmers – has given way for autumn with shorter days and horizontal rain. Still I am to crew in a Nordic Folkboat on Sunday. The race has been given an appropriate name; Høstskulpen = Autumn Splash. The forecasts so far promise rain and F6 from SW.

(..20081006, Monday

I never made it to the race yesterday. A storm the evening before shut down one of the radars that I maintain for the Stavanger Airport, so had to work overtime to get it back on the air...)

### Stavanger Junk Rig Rally (Djunkesamling) 2008

The Stavanger Junkrig Rally this year was blessed with good winds between F4 and F6. Finally I could have photos of my boat with reefed sail and hopefully learn a bit from them. More below:

### Peregrine visits Stavanger

Another great event was the visit of the 37ft junk rigged sloop Peregrine. This beautiful wooden boat, built and launched by her owner, Sebastian Hentschel, was on her way from Greifswald in Germany to the island Hitra in Norway. This is an impressive boat! With her 80sqm sloop rig with cambered panels (..designed by Victor “skarv” Winterthun, well known member of this group...), she sails like a dream. I met them in my Johanna to take some pictures of her, and even in a modest F3 it was a struggle to sail around her to get some good shots. I guess the speed difference between them was not more than 0.1-0.3 knots. Only when the wind dropped to F2 did Johanna really pull away. Enjoy the photos!



Photo 1, Johanna 7-up and slightly over-pressed

Photo: Peter Manning, 20080809

Photos 1 and 2 were taken just a few minutes apart. We started the day bravely with seven panels up (photo1). This photo shows a few things:

- The distance from mast top to the sling point on the yard is on the short side so the sail is being tilted a bit forward, whether I like it or not. Neither the luff- nor the yard hauling parrels have much effect here. I once tried a quick fix by moving the sling point forward on the yard, but that only lead to a tail-heavy sail which did not reef or furl that neatly. If I were to make a new mast for that sail, I guess I would add a foot to the present length.
- The strain from the sheets at the leech must be considerable since we are hard on the wind and probably heeling about 30°. Still there are only a few wrinkles in the sail at the leech (..also read Summer Letter about this...): Right before the rally I hand-stitched on an extra boltrope to the leech and this clearly seems to take over some of the load that the webbing boltrope was struggling with. I think this was an improvement and in my next sail(s) I will rope the sail with webbing, like I do today, and add that extra rope type boltrope to the leech from day one.
- With full sail the lazy-jacks take no load so they will not cut into the sail.



Photo 2: Johanna with 6 panels up

Photo: Peter Manning, 20080809

Photo 2 shows Johanna sailing 6-up.

- Note that the yard has been hauled quite a bit aft to give a bit weather helm. The luff is now vertical.
- A vertical luff also means a vertical leech (on this sail). This generally gives less problems with battens or boom catching the sheets when tacking or gybing.
- With one or more panels reefed away, the lazy jacks get active. As can be seen, they will now cut into the camber in the bulging panels. It doesn't seem to get worse than on the photo if I lower more panels. I guess in stronger winds the force in each panel will better stand up against the pressure from the lazy jacks. This cutting effect of the lazy jacks does not seem to do much harm. The overall camber of the sail gets a bit reduced, but that's ok in stronger winds.
- My feeling is that Johanna is at her best to windward when 6-up in the low end of F5.

On both Photo 1 and 2 one can see that the luffs of each panels are all quite taut, except for the lowest one. This is much thanks to using a moderate batten distance and the fact that with cambered panels the vertical loads are lighter and concentrated at luff and leech( .. i.e. compared to in a flat sail...). I thus get away without using down-hauls.

### **Peregrine**

( ..to learn more about the boat and the man behind her, check their web site at...)



All I can say is that she is a lovely boat, owned by very fine people. Here are some photos:



**Photo 3** Peregrine's sail shifted well forward at the tack.

**Photo:** Arne K, 20080906 at time 16:44:56

This was the first shot I got as we met. We then turned back for some close-hauled sailing (..close reach really...).



Photo 4

Photo: Arne K, 20080906 at time 16:49:56

In this position Johanna was stuck behind Peregrine for several minutes, until we headed up and got out of her wind shadow...



Photo 5 Peregrine making speed in a gentle F3. Photo: Arne K 20080906 at time 16:57:02

.. no need for words...



Photo 6

Photo: Arne K 20080906 at time 16:58:16

..those lines...



Photo 7

Photo: Arne K, 20080906 at time 16:58:48

.. *THOSE LINES!!!*...



Photo 8 Peregrine head on.

Photo: Arne K, 20080906 at time 16:59:32

We finally managed to sneak ahead of Peregrine. From ahead she is just an awesome sight...



Photo 9: Peregrine and her happy crew after some 600NM. Photo: Arne 20080906 at time 17:02:04



Photo 10 Heading for the harbour

Photo: Arne K, 20080906 at time 17:11:00



Photo 11 Wind down on F2

Photo: Arne K, 20080906 at time 17:24:02

Only with the wind dropping to F2 did we in Johanna really gain on Peregrine!

#### Conclusions:

As you can imagine I am very impressed by Peregrine and her rig. The hull type, originally a one-masted, lug rigged fishing boat type from Scotland (Loch Fyne Skiff), is very well suited for the junk sloop rig as this type used to carry the same sort of mast close to the bow. She has a deep forefoot and a straight sloping keel, ending at nearly 2m at the heel where it meets the rudder. Her deep deadrise makes her a bit tender, compared to what I am used to.

The 80sqm sail on a 12 ton boat gives a SA/disp of only 15.3, but she is still quite a light wind flyer. My hunch is that from a pure performance point of view, the one sail rig seems to be more efficient than a two-sail rig. On the other hand, Sebastian reports that she is quite a

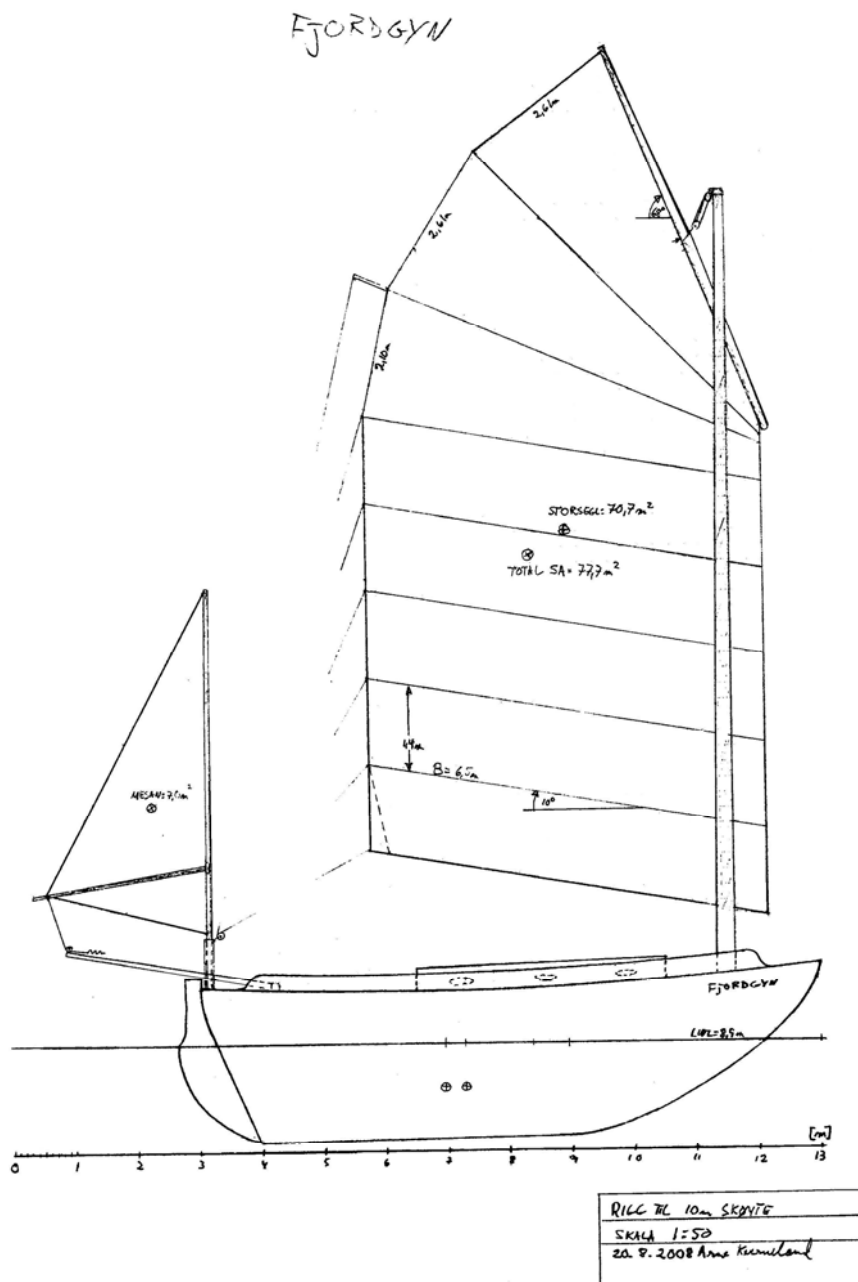


handful to steer on a broad reach in some wind despite the fact that he can swing the sail well forward when reaching (.. se photo 3 versus photo 5). I guess the sloop may not be the optimal offshore rig since the chord of the sail tends to be that big.

Recently I made a sketch of a yawl rig for a friend's 33ft Colin Archer. Today that boat has a 3-sail Bermudian ketch rig, which is quite busy and not too weatherly for his (mostly) coastal cruising.

The idea with the yawl is that the mainsail can be made with shorter chord, so when one bear away on a reach, with the mizzen sheet well started, the tiller forces will stay more human (..at least than with the one-sail junk of this size...).

What do you think?



Stavanger, 20081007, Arne Kverneland (a-kve2@online.no)