

Chapter 5

(..of *The Cambered Panel Junk Rig*..)

Making the sail

.. lofting, cutting and sewing...

(..this chapter is definitely meant for the doers, not for easy armchair reading...)

Introduction - *how TCPJR differs from a western sail.*

Before setting off to describe the step-by-step procedure of constructing this *Johanna*-style, cambered panel sail, I must add a few words about its peculiarities.

- First of all, due to the much lower stress in the sailcloth compared to in a gaff- or lugsail of the same size, we can get away with half as heavy sailcloth as these need.
- The way the batten panels are shaped and joined together, makes them special. The barrel shape to create camber has already been dealt with in Chapter 4.
- The method of joining these panels, using “Amateur Method B”, may also look a bit odd. Back in 1994, when I made the first sail this way, I only regarded it as a quick experimental method to check the barrel cut method. However, after we learned how little load the sailcloth in a JR sees, sails put together this way have crossed oceans without any issues with these tailor’s style *panel joining seams*. Traditional western sailmakers may be upset when they see them, but I say: *Don’t argue with success*.
- Moreover, when it was understood that the real load carrier is the boltrope and battens (boomlets, really), there was no need for fitting strengthening patches anywhere.
- The very first cambered panel sail I made (*Malena, 1994*) had a rope type boltrope, stitched on by hand. Nowadays, for the last four sails, I have made the boltrope from 48mm polyester webbing, sewn on with the sewing machine. I still call it a boltrope, though.
- Finally, all metal grommets have given way to loops made of today’s strong webbing of different dimensions. These spread the loads better and can quickly be fitted with the sewing machine.

Some more notes on choice of sailcloth.

The sail can be made of almost any cloth meant to be used outdoors and take sun and rain without rotting. It does not need to be dedicated sailcloth. In fact, I rather look for softer material, easy to deal with, and generally cheaper than sailcloth. Some use spinnaker cloth, and that sounds like a good idea on smaller sails for coastal work.

Tools and working space.

Things you will need:

- *A well-lit room* with space for a lofting floor or table, at least big enough to room one panel plus a bit more. This will let you loft the sail by lofting one batten panel at a time.
- A rough wooden floor would be perfect; that would let you pin the canvas and templates, etc. to the floor. That would also allow you to make marks on it with a felt tip pen. If you have to work on a “sensitive” floor, a dance hall or something, you can get away with making tape marks and using weights to hold down the measuring tape,

splines or lines. A temporary lofting floor of thin plywood has once let me loft a little sail in my carpet-covered living room. That sailcloth had to be cut with a hotknife...

- Initially, I thought that a big sewing table would be needed, but actually, I have done well with an ordinary table. It would be best if it has rounded-off corners so it will not catch the sailcloth. I place the sewing machine not far from the left end of the table.
- *A sewing machine* and a roll of suitable thread. If you intend to use your domestic sewing machine, I suggest you buy the biggest needles that it can take, say 110. My machine is an old *Pfaff 360* and the thickest thread I can use is T90. In most cases T70 thread is fine, even on bigger sails (30-60sqm) - but I confess that I use T90 with 220g/sqm canvas, since I happen to have that.
- *Measuring stuff*; metre-sticks, tapes (min 10m), awls, tacks, bendy wooden splines (15x15 or 20x20mm) of the same length as a batten plus a little extra.
- *Marking stuff*; felt tip markers; tailor's chalk, chalked line if possible; 25mm nails and a hammer; a roll of painter's paper for full size templates/patterns.
- *A good office stapler*. With the shown methods of joining batten panels and batten pockets etc. an ordinary office stapler will do well in basting the panels together before dragging them to the sewing machine. I find the stapler easier to use than the basting tape, and one avoids gumming up the needle.
- A roll of medium thick paper to make the templates/patterns from. I find it best to make paper patterns for every batten panel, although panel 4-7 can share the same pattern.
- A good pair of scissors, or even a hotknife if the canvas is prone to fraying.
- *Light 25mm nylon ribbon*. You will need about 2m of this ribbon for fitting as telltales; one at the leech of each panel (..fit these before fitting the boltrope...).

Basic skills needed.

Mastering the sewing machine

If you are new to sewing machines, I suggest you practice on some cheap material before starting the sail. Sewing along a line is not more difficult than cutting along a line with a band saw. The tricky part is to set up the machine correctly, with correct tension in the lower and upper thread. I cannot spell the details here, so suggest you ask someone who can help you to get started.

Joining canvas

I generally roll out the canvas parallel to the battens. Sometimes the batten panels, including the round, is wider than the rolled out canvas (..cloth/canvas/material...), so there you may have to add cloth. The biggest sails I have made was 48sqm, and the needed extra cloth was not very wide, so it was easy to pass under the sewing machine. With the paper pattern ready, we could easily see how much extra cloth was needed, and then add this with a flat seam, doubled or tripled, before finishing the cutting out of the batten panel. This *could* be a place where basting tape may make some sense. On smaller sails, like on my 35sqm sail for *Ingeborg*, I only needed to add a small amount of cloth to the top corners of panel 1-3 (..see photo on the last page...).

Hemming the sail (.. that is; wrapping the edge inwards and stitching it on...)

The hems I use nowadays are simple 20mm hems with only one row of stitches. They will mostly be covered by the webbing type boltrope, anyway. Just remember to hem the luff and leech of each batten panel *before* joining them (..more later on that...).

Marking the tack corner of each panel

Mark the tack corner of each batten panel to avoid confusion (..photo on page 7 and others...). These marks are useful also during the rigging process. Personally, I use a felt tip pen.

Overview of the construction process in 9 main steps.

This is your master progress plan from now. Stick to it!

1. Finish the sailplan, sheet 1-4.
2. With dimensions taken from sailplan Sheet 2 and 3, loft and assemble the four lower panels, but without fitting batten pockets etc. Only one common paper pattern needed. Then put this lower section aside.
3. With dimensions taken from Sheet 2 and 3, loft and assemble the 3-panel upper section, using individual paper patterns for each panel.
4. Fabricate all the needed strips for batten pockets and *pocket gap cover strips*. Dimensions found on Sheet 4 of the sailplan.
5. Stitch on a telltale at the leech of each batten panel. Then fit all the cover strips and batten pockets to the lower and upper section, but do not join these two sections yet.
6. Sew on the boltrope (webbing) around the edge of both sail sections
7. Add the webbing loops (big and small) at the batten ends on both sections.
8. Add the big loops to the corners of the sail and the smaller ones to the foot of panel 7 and to the head of panel 1.
9. Finally, join the lower and upper section along batten 3, fit the remaining cover strips and batten pockets, and *then* join the overlapping boltropes and put on the last loops at both batten ends.

Detailed description of the construction process, step 1-9.

STEP ONE: *Finish the 4-sheet sailplan.*

If you only have sailplan Sheet 1 and 2 from one of the master sails in Chapter 4, it is now time for scaling the sail up or down to your wanted size.

The simplest way is to print out two copies of the Sheet 1 and 2 of the master sail you have decided to use.

Sheet 2 is then corrected for dimensions, with a calculator and a fixed scale factor. A new sailplan Sheet 3 is then created on the other (corrected) copy of sheet 2, but now you sketch on the wanted round to get the needed camber (FIG 1).

Sheet 4 is likewise drawn on the second printed out (and corrected) copy of Sheet 1, now with the batten pockets on.

I suggest you let the batten pockets end 150 or 200mm from the luff and leech, and let there be a gap of 200 or 300mm between the forward and aft batten pockets. With these dimensions established, the lengths of the batten pockets and *batten pocket cover strips* can be found.

Note: You only use the calculated dimensions on the sailplans when you are to loft the full size paper patterns for each batten panel. You therefore don't need to worry about the scale of this actual sailplan, only the calculated dimensions on it. Still, I suggest you double-check these before starting the lofting process.

Before settling on the length of forward batten pockets, you need to have an idea of where the mast is to go. For this and a few other reasons, you need to have sketched up a sailplan with the boat on, and the scale of the boat and sail must of course match. Your problem...

Below, the 4-sheet sailplan for my *Ingeborg* has been drawn in CAD, so looks much fancier than needed. (Note the names of the sides and corners of the sail on SHEET 1).

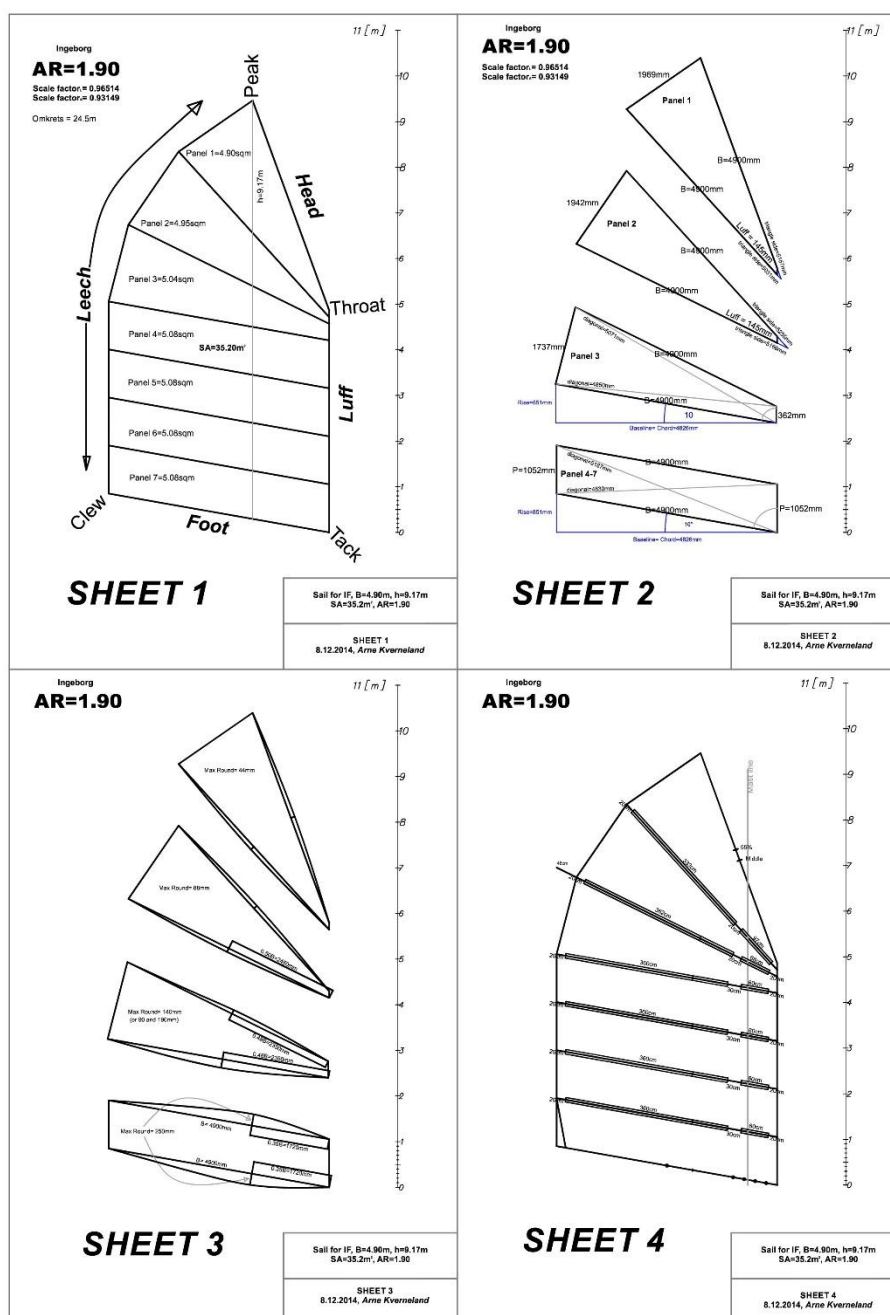


FIG 1. Sailplan sheet 1-4, taken from *Ingeborg*. Full size plans at the end of this chapter

STEP 2: With dimensions taken from sailplan Sheet 2 and 3, loft and assemble the four lower panels, but without fitting batten pockets etc. Only one common paper pattern needed. Then put this lower section aside.

Note, very important!

All the text and all diagrams and photos are about sails riding at the PORT side of the mast.

..and I loft the sails with the mast side up - always. If your sailcloth has different-looking sides, keep the same side up (..choose the one which is easiest to draw on..)

Since I assume that you are a first-timer in making junk sails, I will go in great detail in explaining these first steps. You soon gain skills with experience, so I will little by little ‘set you free’.

Lofting panel 4-7...

We start with the lower section, at Panel 7. First we have to loft the common paper pattern which the panels 4-7 can be cut from. To help you, I have picked this detail from **Sheet 2** and 3 (..which you have corrected for size, by now...). All paper patterns are lofted to *net size* of the batten panels.

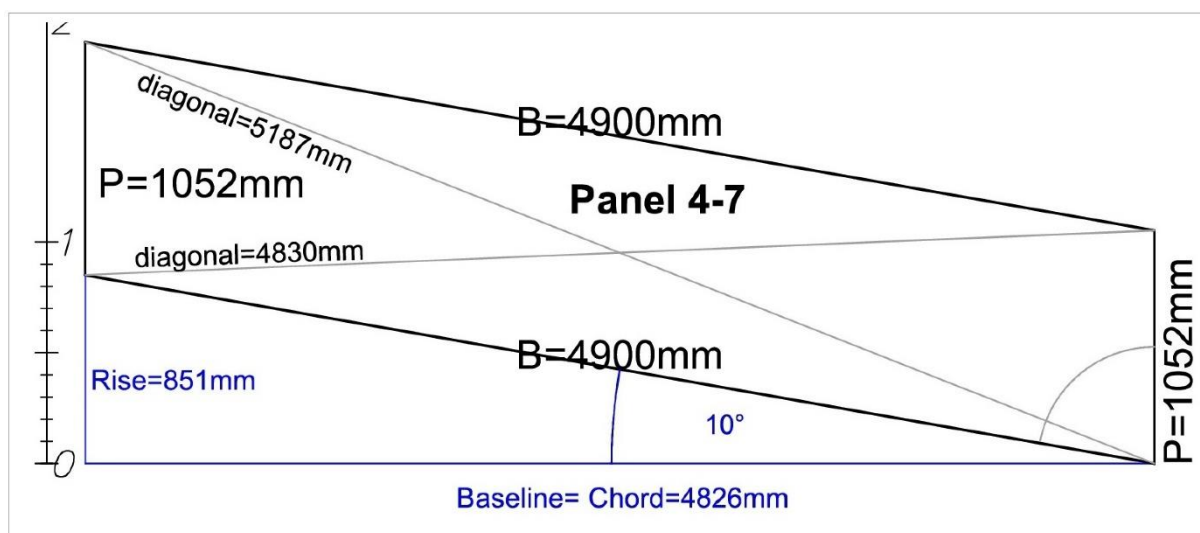


Fig 2. Details picked from Sheet 2.

The details picked from **Sheet 2** let you loft the straight sides first.

I have mostly used the blue helping lines to draw the lower edge, and then the luff and leech at right angle to the baseline. Now, with accurate diagonals available, it may be just as quick and accurate to use these to get the corners in the right place.

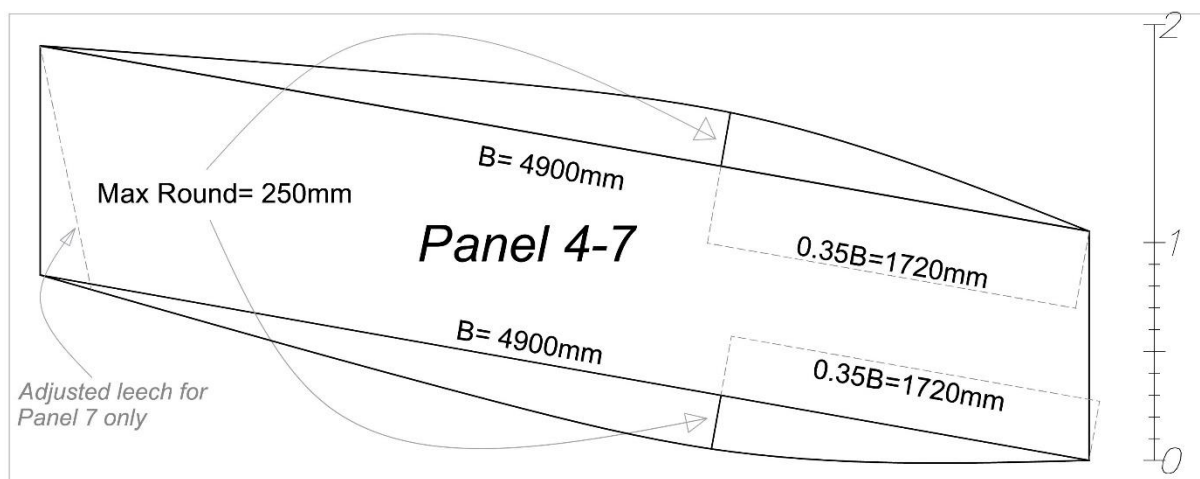


Fig 3. Details picked from Sheet 3.

With the straight lines in place on the paper pattern, you are ready for adding the barrel curves. I put the *Max Round* point on the lower panels at 35% from the luff.

For this, a wooden spline of around 20x20mm is good for making a nice curve. The shape of the curve is not critical, but I usually make the aft 40% of this curve straight. Moreover, I

don't torture the forward end of the spline into a sharp curve either. The actual camber will anyway be ruined at the luff when sailing on the port tack, but the boat still sails just fine.

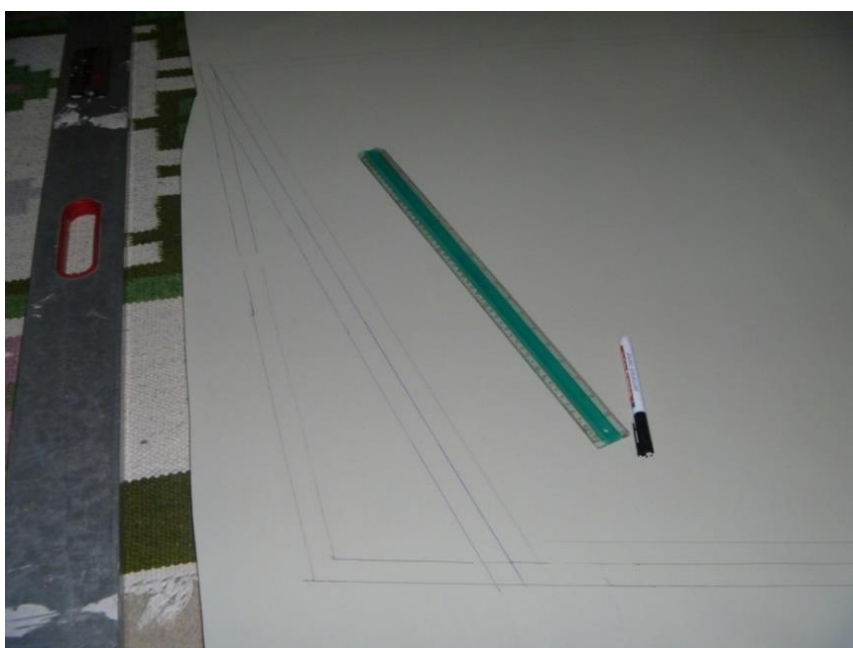


20120604 Håvard cutting out the panel 4-7 pattern for the 48sqm sail of his Edmond Dantes.

With only three reference points for this curved spline, we spent a bit time on eye-balling the curve, by moving the nails a bit back and forth until we were happy. Not exactly rocket science...

Special for Panel 7:

Panel 7 is identical to panel 4-6 except that 5% of the foot has been cut away at the clew. This detail is shown on FIG 3 (one page up) and on the photo below. One starts with the common panel 4-7 pattern and mark up the panel on the sailcloth, but right before one is ready for cutting in canvas, this modification is done to the sail, without affecting the paper pattern.



20130420 Marking up the modified leech onto Panel 7 of Frøken Sørenesen's sail



20090218 Detail from making Broremann's sail. A 20mm "frame" around the "net size" pattern has been added to the cloth. Note the extra helping line at the luff. Handy when putting on the hem...

Note! All the batten panels from Panel 1 to 7 are given an extra 20mm 'frame' around them, that is, outside the net size of the paper patterns.

At the luff and leech of all the panels, this is used for making a 20mm hem. Make these before joining any batten panels. In addition, the foot of panel 7 and head of panel 1 receive the same hem.

The 20mm extra cloth along the battens are reserved for joining the panels.

Joining the panels, using the Amateur Method B

See FIG 4, below. The secret to joining panel 7 and 6 at their curved sides, is to flip Panel 7 upside down first, and then place panel 6 on top of it, as on the diagram below. Baste them together with ordinary staples before dragging them to the sewing machine.

(..Once again: Hem luff and leech first...)

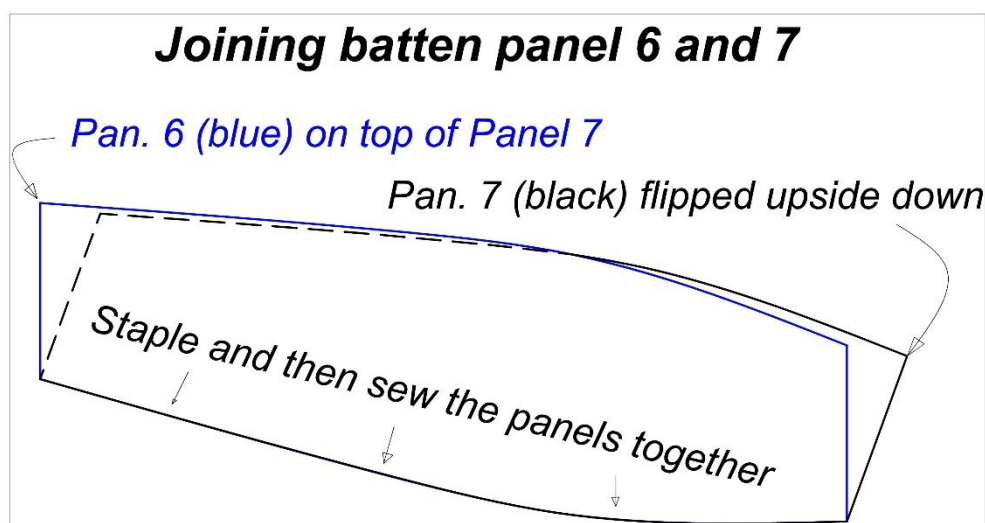


FIG 4. How the panels are laid back to back to make the curved edges match.

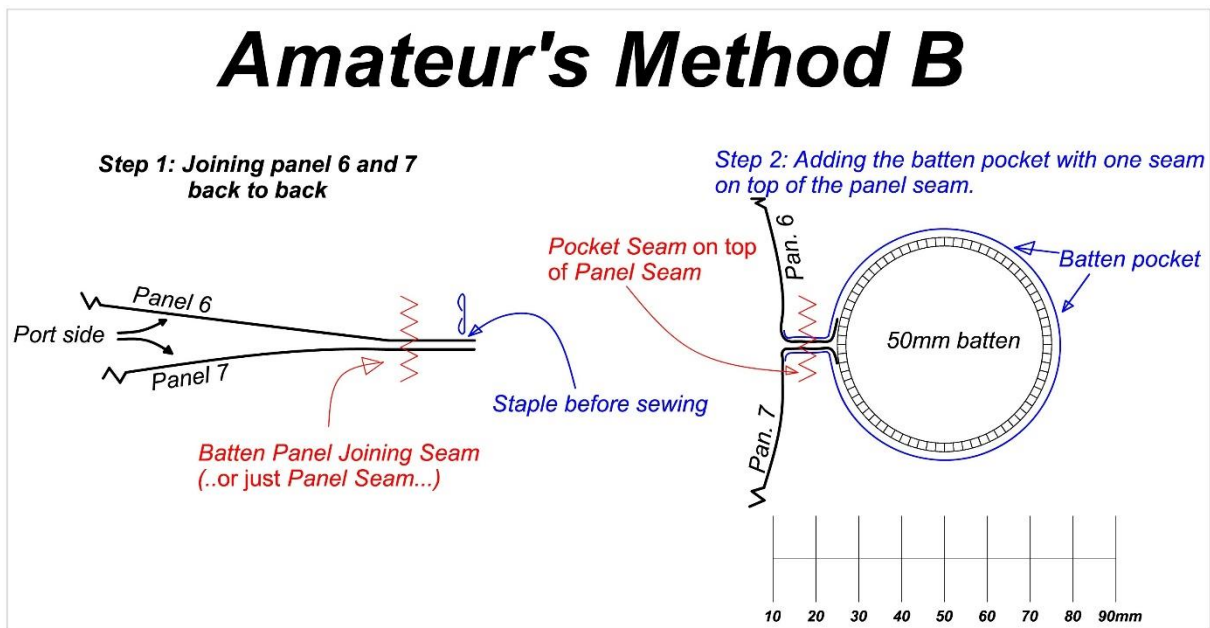


FIG 5. The typical tailor's seams (red) used for joining the batten panels and adding the batten pockets.



20141230 joining two batten panels with the *Batten Panel Joining Seam*. Easy...

A photo says more than hundred words. This is the essence of the Amateur Method. One doesn't have to push big rolls of sailcloth through the sewing machine. No need for a big sewing machine, big table or big space.

By now, you are a half pro, so you can draw up, cut out, hem and join the two next panels without me hanging over your shoulder.

Personally, I prefer to cut out one panel and then fit it before cutting out the next, but that is up to you.

With these four panels sewn together, it's time to put this lower section aside.

STEP 3: *With dimensions taken from Sheet 2 and 3, loft and assemble the 3-panel upper section, using individual paper patterns for each panel.*

Panel 1 and 2...

Lofting panel 1 and 2 is done by making use of the fact that these batten panels are almost triangular. **Sheet 2** has been given helping lines to let one start with lofting a true triangle onto the paper pattern.

From there it is easy to measure up where the short luff will go. Now, bring out the spline and add those very slack barrel curves, taken from **Sheet 3**. The *Max Round* of those curves is put at the middle.

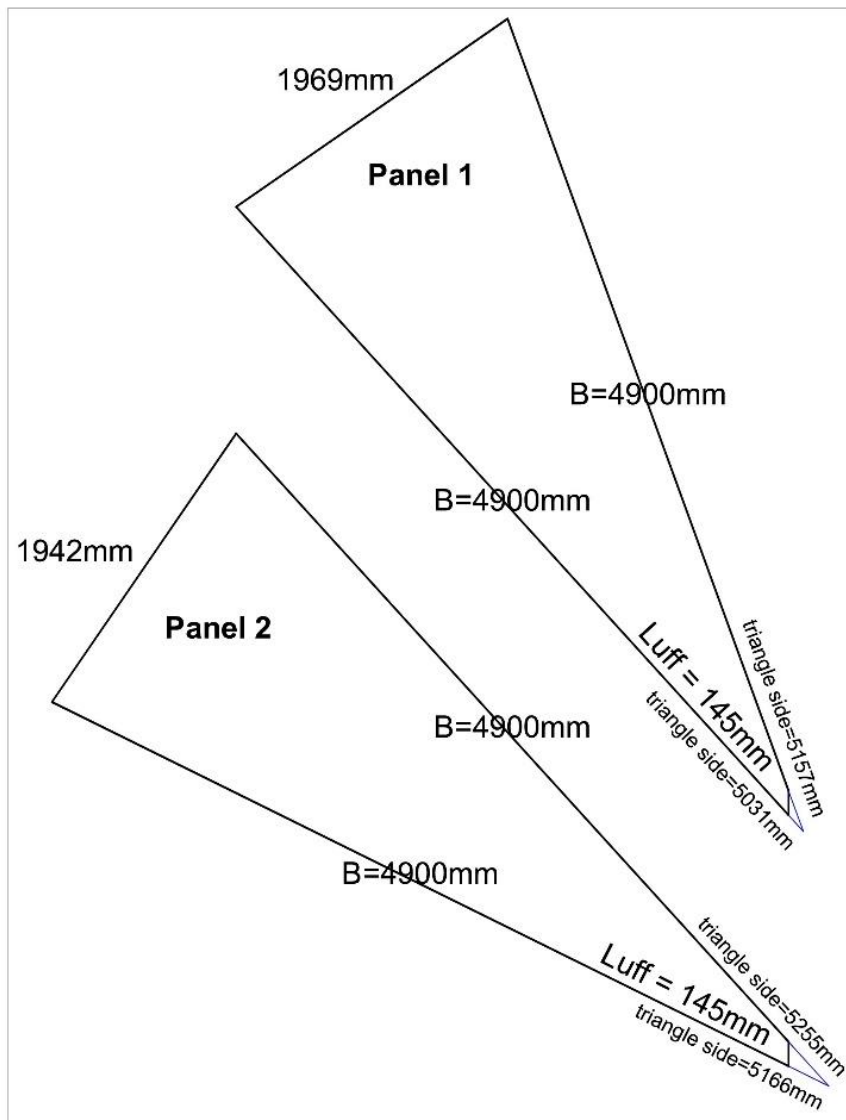


FIG 6. *Part of Sheet 2 showing panel 1 and 2 with the triangular blue helping lines.*

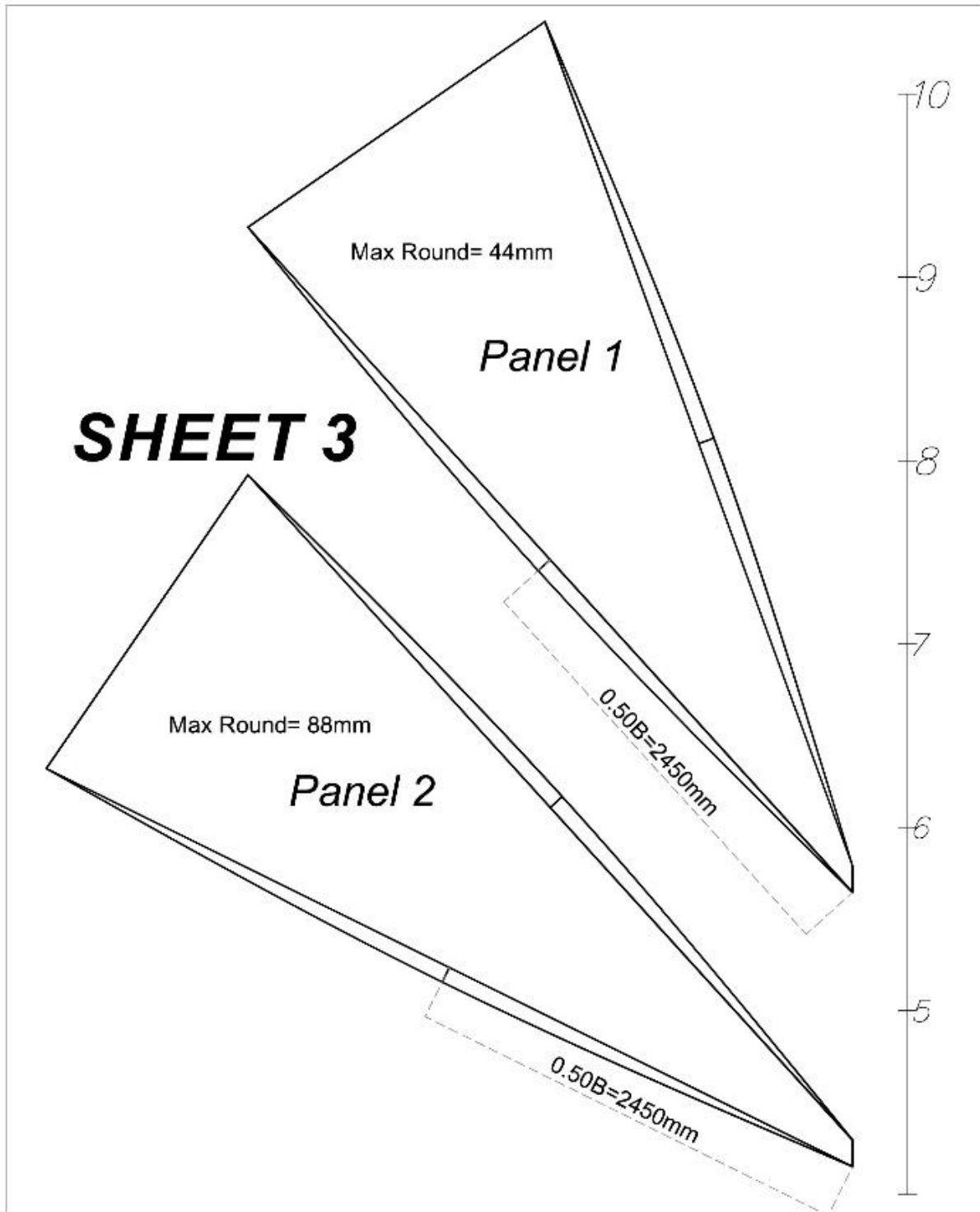


FIG 7. Part of Sheet 3 showing Panel 1 and 2 with their very moderate round at the edges.



20150104 The pattern of panel 2 for Ingeborg's sail, ready for the scissors...



20150105 Ingeborg's panel 2 with the luff hemmed...

Before cutting in canvas, I suggest you loft panel 2 first, basically using the same procedure as with panel 1. With both patterns available, it is easier to place them on the sailcloth in a way which makes best use of the material (See *Broremann's* panel 1 and 2, overleaf).



20090222 Broremann's patterns for panel 1 and 2...

Panel 3...

Lofting and cutting out panel 3 is plain sailing - except for one little trap:

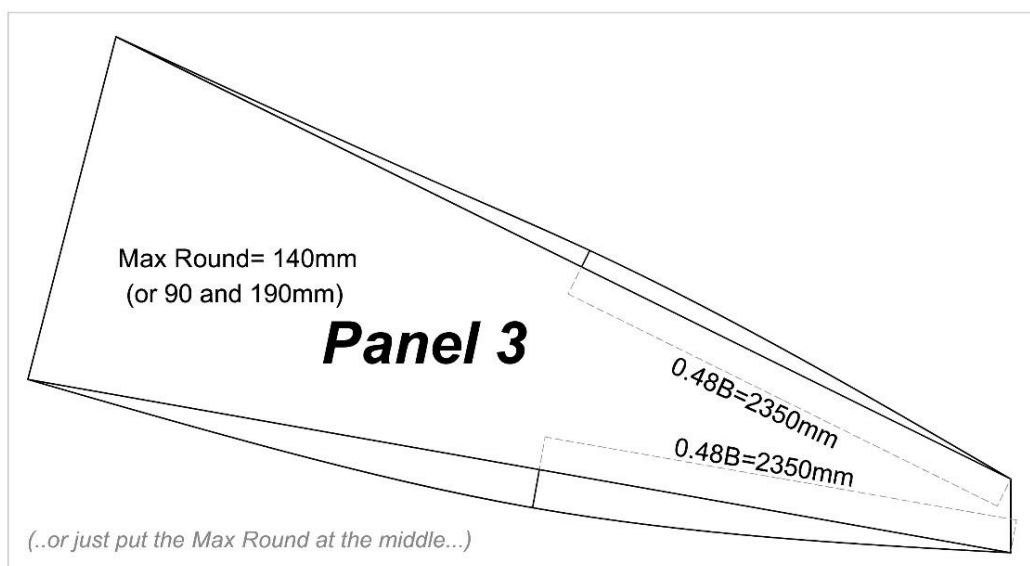


FIG 8. Panel 3.

Panel 3, also known as the transition panel, sits between Panel 4, with quite much round along the edges, and Panel 2, with very little round in it. To make it easier to join two adjacent panels, I suggest making the barrel curves asymmetric, with more round at the lower edge than at the upper one. This has worked well for me (FIG 8).



20150106, Ingeborg's sail: The assembled but still naked top section marks the end of STEP 3....

STEP 4: *Fabricate all the needed strips for batten pockets and pocket gap cover strips.*

First, the batten pocket cover strips...

Dimensions were found during doing STEP 1 on page 3.



*20150101 The pocket gap cover strips of Ingeborg's sail. All of them are 60mm wide.
This temporary table was very helpful for such small jobs...*

The purpose of these *pocket gap cover strips* is to cover the raw edges of the sail between the forward and aft batten pockets, and at the ends of each batten. In addition, they cover the panel seams from sunlight, as will the pocket seams of the batten pockets do. They are made without any hems, but long enough to go about 50mm into the batten pockets, and almost flush with the sail's luff and leech so that the webbing boltrope eventually will cover them when fitted. *Mark these strips well on their reverse side to avoid confusion when they later are to be fitted.*

(.. if the sailcloth is not prone to fraying, and the intended sailing is not that ambitious, you may well decide not to bother with these cover strips at all. However, they don't cost that much extra work to make and fit, so it's up to you...)

Aft batten pockets...

Check **Sheet 4** for lengths. The aft batten pockets are made from the sailcloth you make the sail from. If you are short of material, you may patch together offcuts from cutting out the batten panels - of which there will be plenty. Add 20mm at each end for hems. The width depends on the size of the battens. I haven't stored their width dimensions, but it is not difficult to find their width. FIG.5 (p. 8) gives you an idea. Make a short test pocket and sew it to the sail. Then check with a piece of dummy batten to see if it fits. It should be a slack, but not too slack fit...

(..a rough guide to start from: Use the batten's circumference and add 6cm, allowing for the pocket seam running 20mm from the edges...)



.. helping lines along all batten pockets to sew on...

20150102 The aft batten pockets for Ingeborg. Two of them are made for 50mm battens and the rest for 38mm. Note how the sewing lines for the pocket seams have been drawn on, 20mm from the edges.

Forward batten pockets...

Check **Sheet 4** for lengths. I generally make these of stouter material than the aft ones, as they will rub on the mast. For serious long distance sailing, one could make these pockets oversize to make room for padding the battens underneath them.



20150102 The forward batten pockets for Ingeborg's sail, made of thick PVC material. They are made ready for 20mm hems at the end.

STEP 5: *Stitch on a telltale at the leech of each batten panel. Then fit all the cover strips and batten pockets to the lower and upper section, but do not join these two sections yet.*

First, the pocket gap cover strips...



20150109 Sewing on the pocket gap cover strips on Ingeborg's sail

(..It should not be necessary to spell out how to stitch on telltales at the leech...)

I recommend drawing a line on those strips, 20mm from the edge, to sew on. However, these come in short lengths so are quite easy to deal with. Just wrap them firmly along the middle first. The goal is to sew this seam on top of the *batten panel joining seam*.

Enter the batten pockets...



20120610 Stapling on the aft batten pocket on ED after the cover strip has been sewn on.

Again, this shows how easy the Amateur Method B is. Only this pocket will have to run under the arm of the sewing machine.

(..just remember to unpick the staples as you go, after each seam. That is a small price to pay...)

There is no difference in fitting these to the upper and lower panels. If you have marked them well, and marked the sail where they should go, it is not that hard.

Still, sewing on the batten pockets calls for some accuracy: After having fitted them, run that short test batten through all the pockets to ensure there is no tight spot. *It would be more than a little annoying to find a blocked batten pocket while rigging the sail...*

STEP 6: *Sew on the boltrope (webbing) around the edge of both sail sections...*

As said, I only recommend the webbing type boltrope these days, as it is easier to deal with than hand-stitching on the rope type bolt rope.

The last three sails I have made has the boltrope from one big roll of 48mm polyester ‘seatbelt webbing’. Now that big roll is not so big anymore, so I have been thinking of alternatives to fitting it around the whole perimeter of any possible new sail. It appears that the leech, head and the upper metre of the luff see the highest load. Further down the luff and along the foot, I might find some lighter webbing, say 20 or 30mm wide. Anyway, the webbing in the sails I show you here, apart from in that blue, 10sqm one for *Broremann*, is the 48mm type. Sewing this boltrope on, is quite simple, with no need for basting with staples or anything.

The only problem is at the corners or “knuckles” of the sail, as on the leech at batten 1-3, plus 6 (because of that modified panel 7). On these places, the webbing will have to be cut off and then started again on the next leg.

- Start with sewing the webbing on at the foot and then cut it clean off, flush with the luff and leech. Fuse with a solder iron.
- Sew on the webbing at the leech of panel 4-6, and just let it run out over panel 3 and 7, and trim off flush with the sail. Fuse.
- Add the short stub of boltrope on the leech of panel 7, and again trim flush and fuse the end (see photo on p.18).
- Continue up the leech in the same fashion, then along the head and finally down the luff.

End of STEP 6 - but first a couple of photos...



20130423 Roping the luff of Frøken Sørensen's sail. Double- or triple-stitch it on.

Lots of nice details on FS's sail: The cover strip and batten pockets are already on as per STEP 5. Note the T5 number on the tack of panel 5. They are sometimes useful when rigging the sail or adjusting something in the sail on the boat. This sewing procedure I spell out for you is actually a result of me doing it in about the same way, 3-4 times now. Therefore, I can use photos from any of the sails. (..the sails of *Ingeborg* and FS even come off the same roll of *Odyssey III*..)



20150108 Showing Ingeborg's leech at batten 2

This photo illustrates how the webbing boltropes overlap each other at this batten 2 knuckle. That loop will be dealt with soon.

STEP 7: *Add the webbing loops (big and small) at the batten ends on both sections...*

The clue with fastening the battens quite firmly to the boltrope is that the boltrope is to take the loads, not the sailcloth. This is particularly important at the leech where the sheetlets are attached, and pull hard downwards. For this, I use one big webbing loop at each batten end. The length of the webbing for these loops are about 30 to 50cm, depending on size of sail and battens. The shown one on FIG 9 is around 40cm.

The loop is fitted in two stages.

First, you sew it on flat between A and B.

Then you bring in that helping batten stub, align it well with the batten pocket, and wrap the loop around it. Then mark up position C (or use a staple there, before sewing C-D. Use triple or quadruple stitching.

Double-check for good alignment with the helping batten before going to the next (*..make sure you don't mix what's up or down on the sail ☺*..).

These batten loops have proven to be plenty strong, and the way they are fitted, makes for good alignment with the batten pockets, and in addition, they are not too hard for an ordinary sewing machine to work with..

That little black loop on the photo above is made of an about 100mm length of 20mm webbing. This is used for tying the batten into correct for-and-aft position, and with correct (quite loose) tension. Add these small loops as you go, to save a bit man-handling of the sail - by now, the two sections have become quite bulky.

(..Sewing through that many layers of sail and webbing may be hard to the sewing machine. It may help to fit a brand new needle before starting on this..)

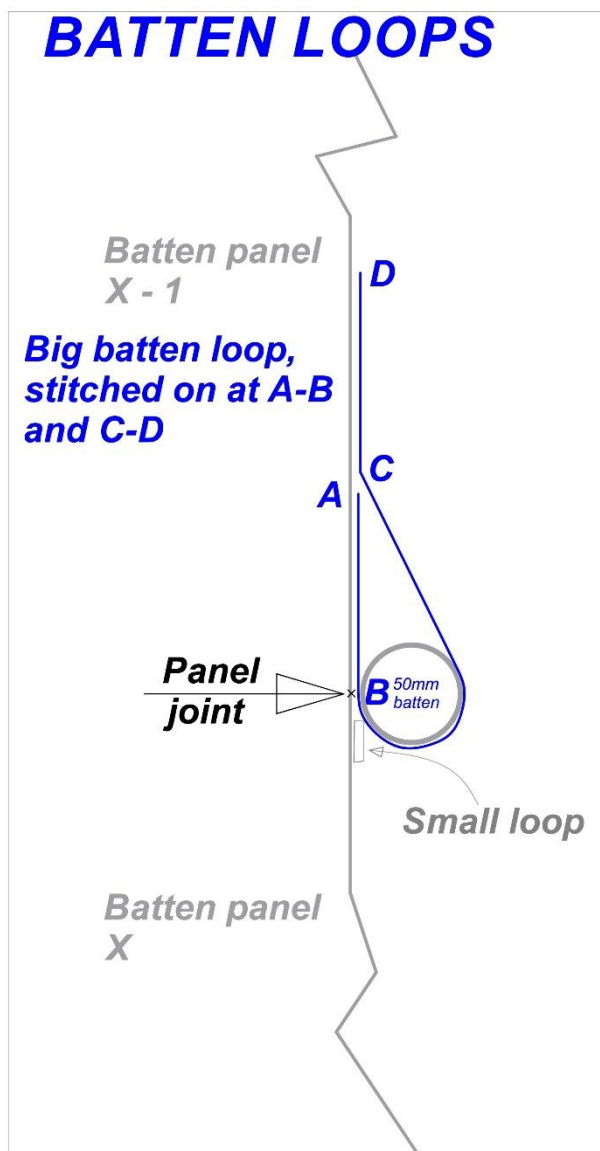


FIG 9. Details of that big batten loop



20150108 Ingeborg's sail, still awaiting one loop at T2.



20120609 Edmond's sail with a big and small loop



20150108 mass production of loops for Ingeborg

All these photos surely proves that it can be done within a small working area. In my case, it is very helpful to be able to quickly erect and remove a separate working table.

STEP 8: Add the big loops to the corners of the sail and the smaller ones to the foot of panel 7 and to the head of panel 1.

The hardest working corner loop is no doubt the one up at the peak. This must be quadruple-stitched on top of the bolt rope webbing, with the same size webbing.



20150107 The loop at the peak of Ingeborg's sail.

Keep in mind that when one hauls in that loop, the forces are to be transferred along the boltropes and thus not affect the sailcloth. For this reason, there is no need for a strengthening patch, even on this corner, which takes the highest load.

These corner loops have been used on several sails now, and they have never failed. On the two lower corners, the tack and clew, the loads are ridiculously light, so whatever webbing you have, will do there.

At the throat corner, it is a bit complicated. On the photo on the page above, you can only just spot that short *throat loop*, above the shown stub batten. This will be laced to the end of the yard. Maybe not optimal, but it works. The down-hauling *Throat Hauling Parrel* (THP) is tied directly to the yard, not to the sail, so will actually offload the throat loop here.



Ingeborg again, in 20150111. Tack corner ...



..and clew corner. No big loads here.

The small loops along the foot and head of the sail...

I recommend making the sail this way, that is, lacing them to the yard and boom via small loops, sewn on at about 300mm internal distance along the head and foot. This method allows one to lace things like the halyard's slingpoint(s) etc. onto the yard, and topping lifts etc. onto the boom, without having to drill any holes in the spars. These rows of webbing loops see little load, so you cannot fail to get them about right. I had a hard time finding a photo of them, but finally, here, along the head of the finished sail for *Edmond Dantes*:



20120610 The head of the finished sail of ED, only six days after starting lofting panel 7...

STEP 9: *Finally, join the lower and upper section along batten 3, fit the remaining cover strips and batten pockets, and then join the overlapping boltropes and put on the last loops at both batten ends.*

By now the collection of un-used batten pockets should have shrunk to 2 and of cover strips to 3, plus a couple of big and small webbing loops for the batten ends.

Time for sewing together the upper and lower section along batten 3. The procedure is just like your first batten panel panel joining job, except that there is so much more canvas to handle. Again, the office stapler is a good help.

The photos on the next pages jump a bit between *Ingeborg's* and *Frøken Sørensen's* sail, but the procedure was identical.



20150111 (time 14:48) making upper and lower section of Ingeborg's sail ready for joining



*20130425 (19:13) Frøken Sørensen's sail, dragging the whole lot to the sewing machine.
(..note the telltales at the leech...)*

Again, even when sewing in the middle of the sail, almost none of it has to pass under the arm of the sewing machine.



20130425 (19:14) Having just started the last panel joining seam on Frøken Sørensen. Lots of staples this time...

As can be seen, a couple of long webbing (boltrope) tails are visible. The best way is to cut off the one from the lower section flush with batten 3, and then use the tail of the upper section as the overlapping joint for the boltrope. This way, when fitting the last big webbing loop, as per FIG 9, you will not have to sew through more than two layers of webbing.

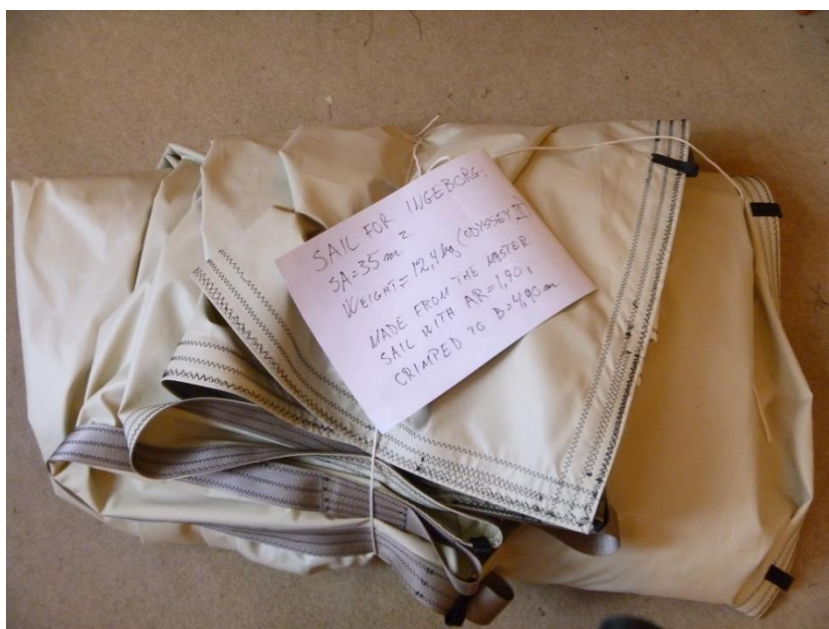
There are a few places where you will have to sew through 3 layers, and even more. In case your sewing machine stalls, you may have to hand-stitch there. Luckily, my good old Pfaff 360 is very obedient...



20130425 (21:35) Frøken Sørensen's sail: Final stitch - JOB DONE!



Frøken Sørensen's sail...



..and Ingeborg's, a couple a years later, 11. Jan. 2015 at time 18:23...

Finally...

I hope this new version of Chapter 5, with all the photos I have gained since the 2011 version, will make it easier for any first-timer to stitch together a fully useful sail.

Good luck!

Stavanger, 27th January 2024,
Arne Kverneland

PS: Below, you will find the full size, four sheets of Ingeborg's sailplan, and finally a few photos of all the shown sails attached to their boats...

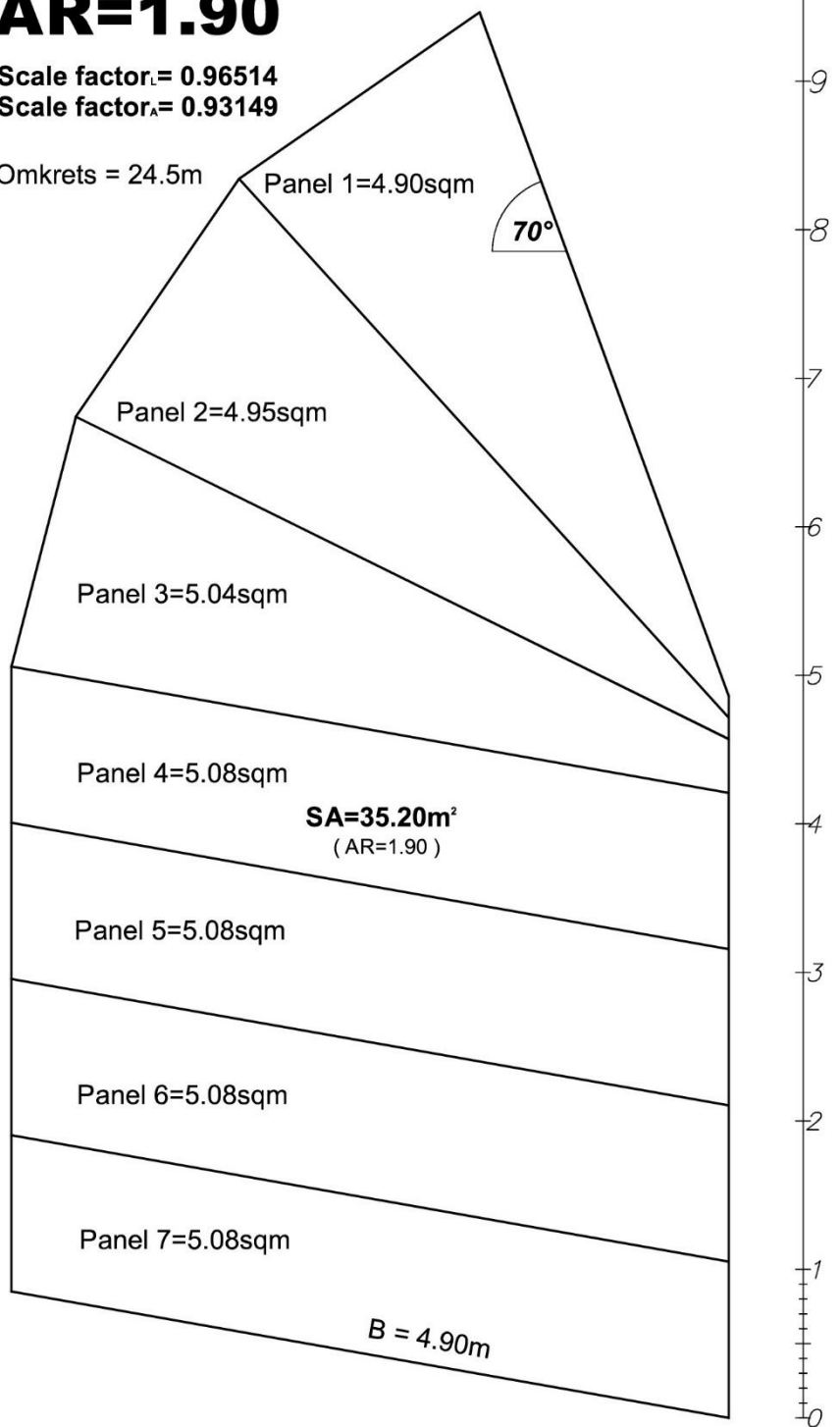
Ingeborg

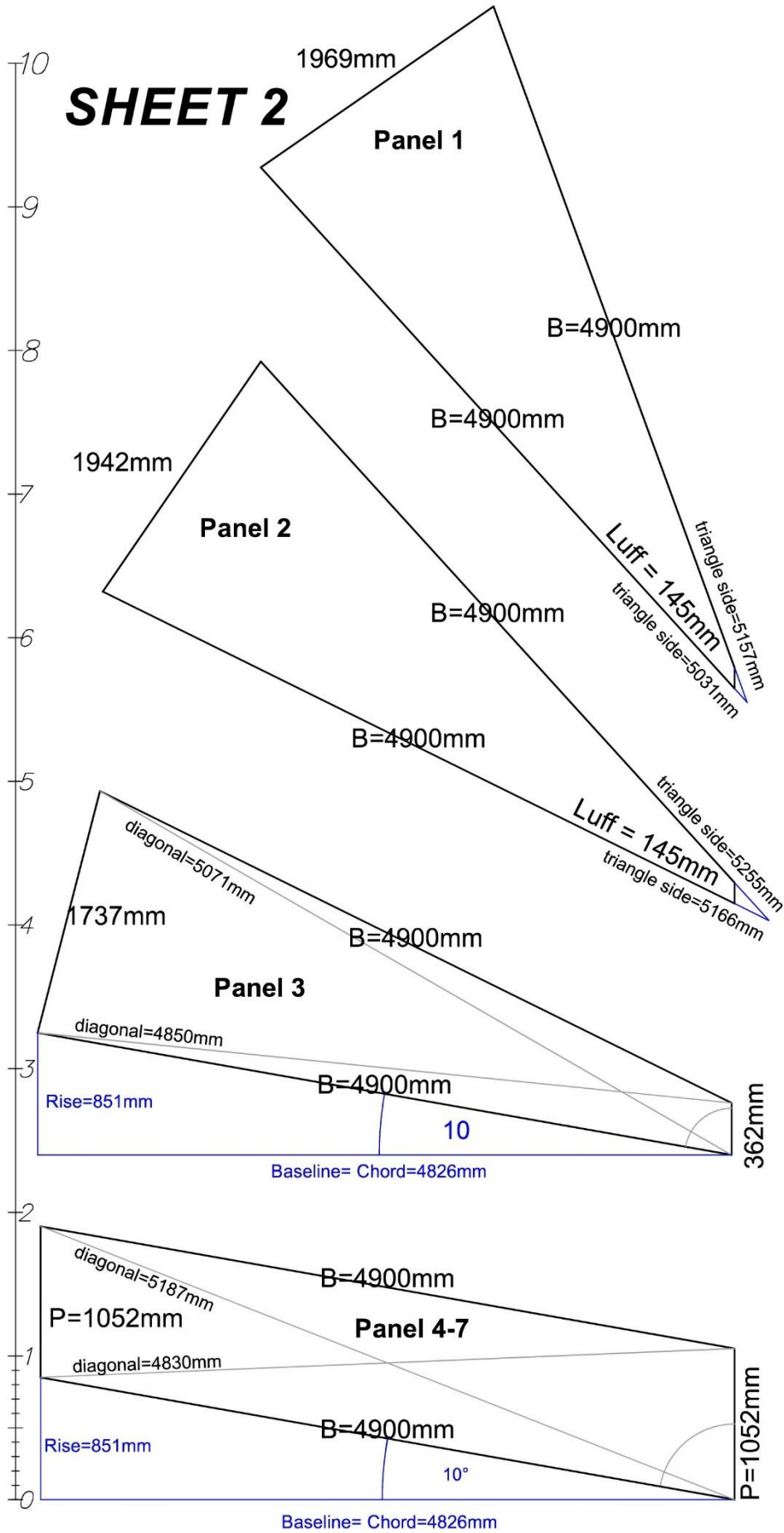
AR=1.90

Scale factor_L = 0.96514

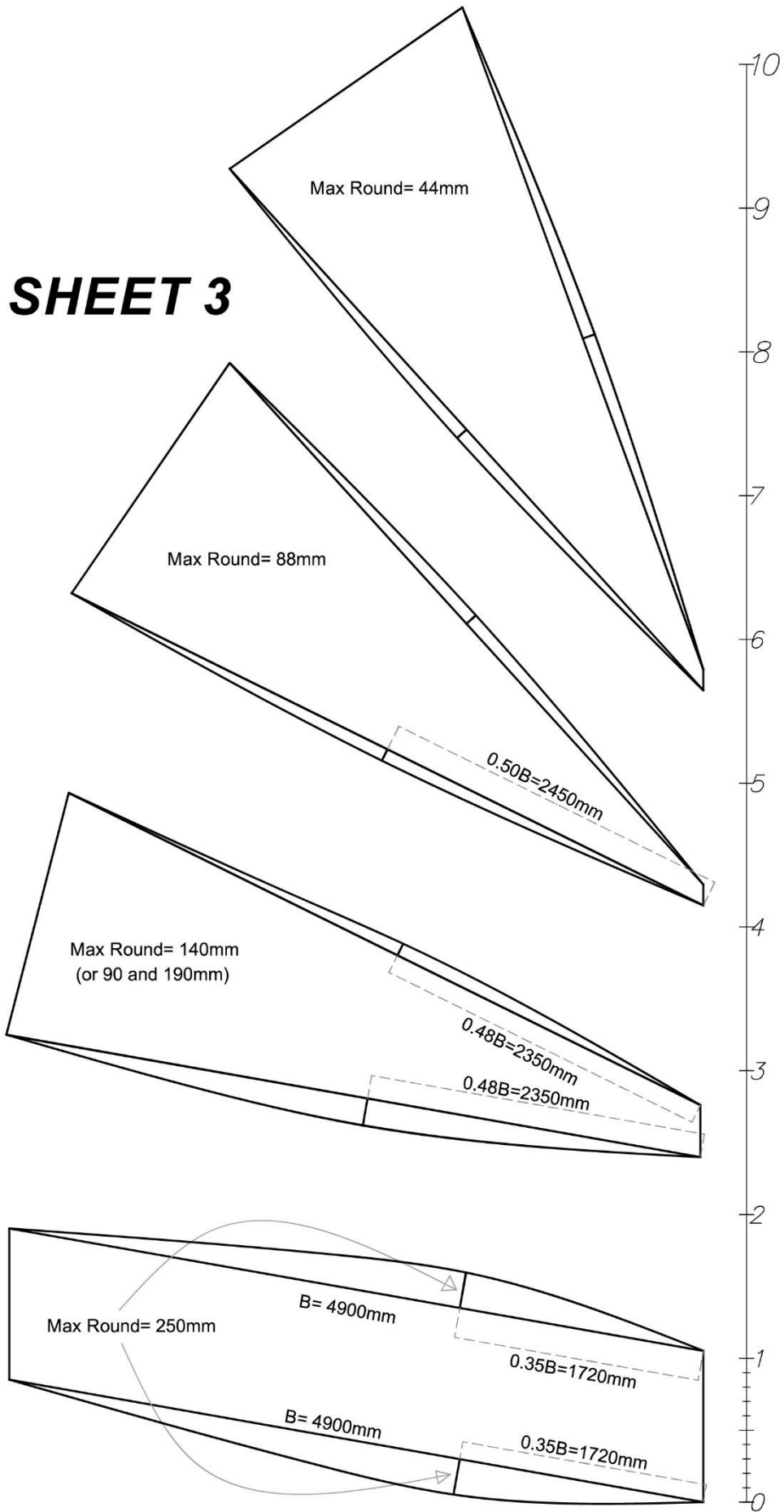
Scale factor_A = 0.93149

Omkrets = 24.5m

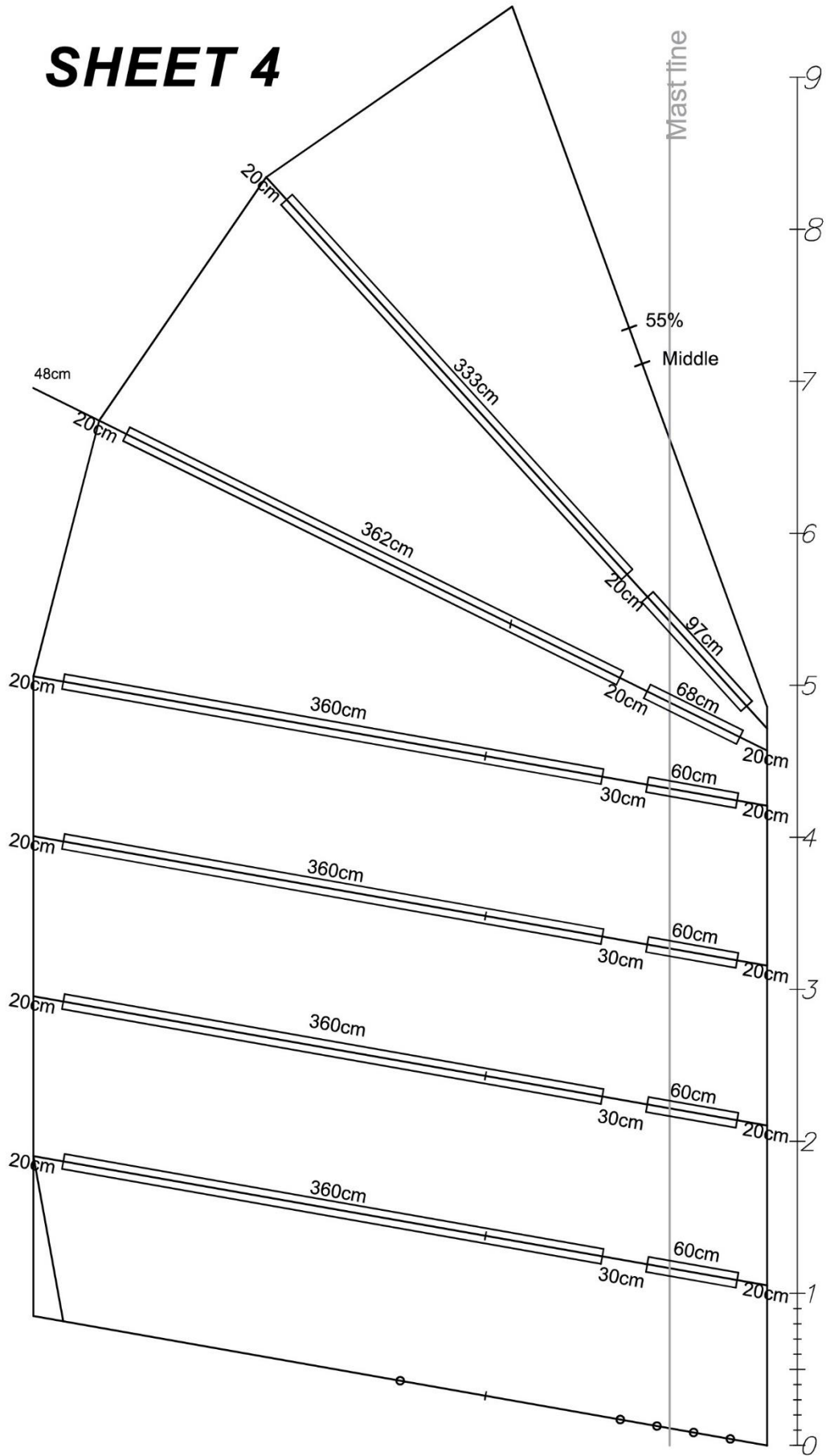




SHEET 3



SHEET 4





Broremann, 2011...



Edmond Dantes, 2012...



Frøken Sørensen 2014...



..and Ingeborg, 2021...

(.. all but *Edmond Dantes* are - or have been - mine...)

*Finally,
big thanks to Graeme Kenyon in NZ for encouragements and for helping me to make this text
easier to read.*