SAILPLAN FREEDOM35 G10 STYLE

By Gio Schouten

“Samiel” flying the G10 sail rig

“Samiel” with reefed mizzen

Motivation

- **THE STANDARD WRAP AROUND SAIL PLAN.**

- **PROS**
- The standard wrap around sail plan for the Classic Freedom 35 with wish booms in itself is a very smart and efficient concept. The mast sits in the foil profile and as such turbulence behind the mast is reduced to a minimum.

- **CONS**
- As with all things there are also drawbacks to this sail plan.

  1. It is not really possible to use full battens.

  2. In order to be able to lower the sail the cloth around the mast needs to be folded as a harmonica. This can not be done with modern laminate sail cloth without destroying it.

  3. The wrap around sail in fact is a double sail and hence the cost of a sail, even when using moderate quality cloth, is relatively high.

Motivation Continued

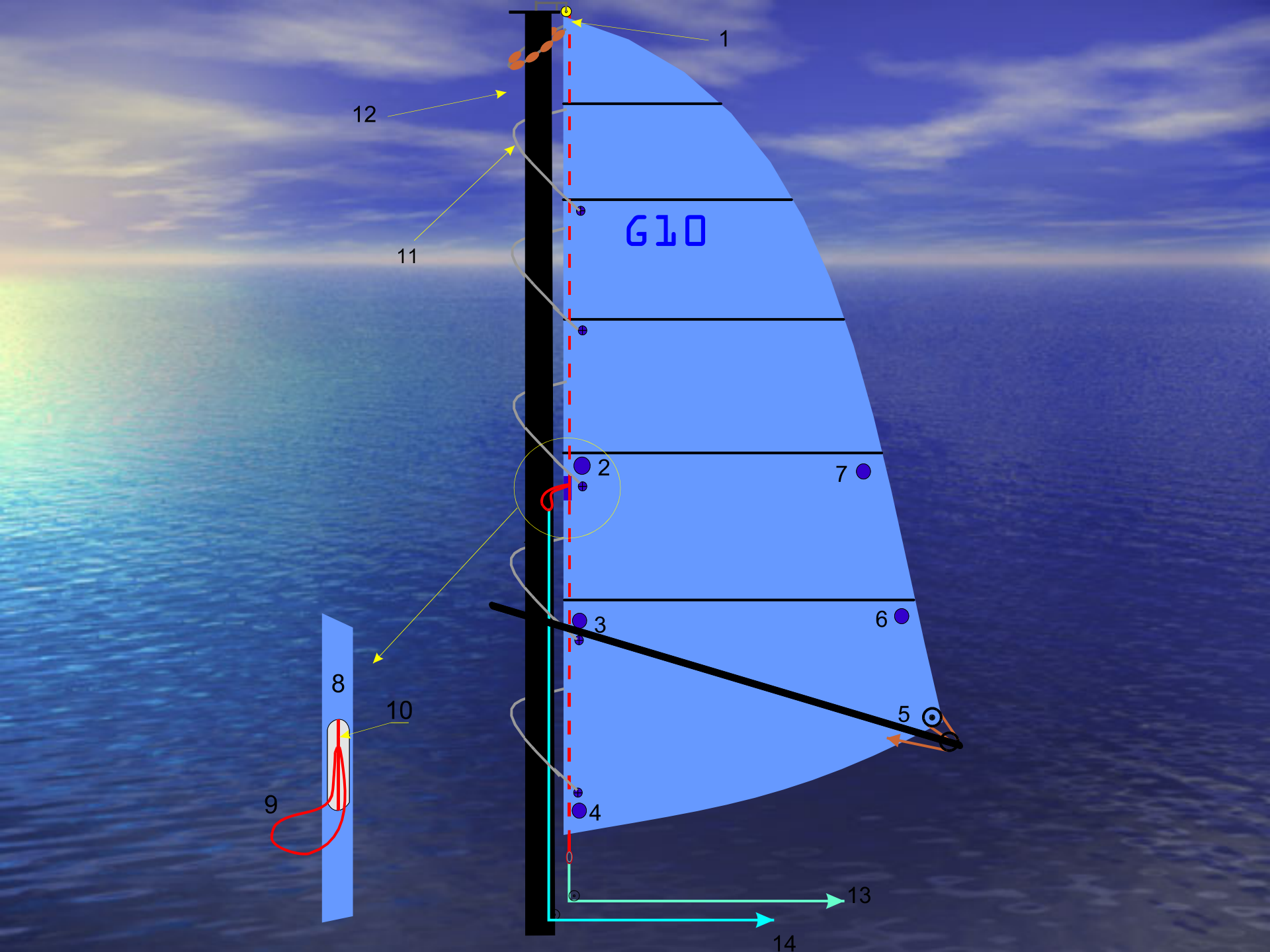
- **THE G10 FULLY BATTENED SAIL RIG**

- **PROS**
- The G10 sail plan makes possible the use of full battens allowing approximately 24% more sail area compared to the standard wrap around sail and 10-15%?? more than the GT rig. A high proportion of this additional sail area is located in the top of the sail where wind speeds are highest.

- The G10 sail plan makes it possible to use modern laminate sail cloth incorporating materials such as, but not limited to,: Mylar, Pentex, Aramid, Carbon etc.

- More possibilities for sail trim. (Explained later)

- **CONS**
- The G10 sail rig requires three additional lines per sail.
- Greed for speed may take its toll. ?????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G10
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Technical Description.

- Main enabling feature of the G10 rig is the use of a very low stretch luff cord which runs thru the luff pocket but is not sewn in as is the case with “normal” sails. (Red dotted line) The luff cord runs free thru the entire luff pocket and is only attached to the sail at the very sail top (1) . As such it forms a kind of forestay. For “Samiel” we used “Dyna One” line from Gleistein. This is an extremely strong, yet very light, material. Thickness was perhaps slightly overdone at 12mm.
- The sail is hoisted as normal. At Samiel we tried to get as much footage up high as possible and hence the sail is hoisted to the very top of the mast.
- Once the sail is up the Dyna One forestay is tightened from the cockpit by pulling on the extension line (13). It pays to also use a low stretch material for this purpose. We used Dyna Mix, again from Gleistein but of course any good quality low stretch line will do.
- In order to prevent the sail from flying free it is held to the mast by means of short “rakbanden” (11). These are short loops of soft outer skin of normal mains sheet material. This detail is borrowed from the traditional Dutch sailing barges.
- The top of the “rakband” is sewn to the luff of the sail and the lower end is knotted thru an eyelet in the luff.

Technical Description continued

- The top “rakband” (12) is not looped top to bottom but forms a simple horizontal loop. This is done to prevent the sail from coming away from the mast when reefed. It helps if this top “rakband” has “kloten”, wooden rollers that help to reduce friction when hoisting.
- After the sail is hoisted the fore / aft place of maximum depth of the sail can be regulated, to a degree, by pulling down the cunning ham hole (4). (Line not shown)
- The sheet outhaul runs thru a sawn in block (14), similar to the ones used with most in mast roller furling sails. This solution provides sufficient leverage for the outhaul and eliminates the need for the block and tackle which sits half way on the wishbone on the standard rig.
- Reefing gear is the same as with the standard rig with the following addition: In the luff pocket are openings (8) just below the luff reefing cringles thru which protrudes a loop (9) of the main Dyna One wire (10). (Only shown for the second reef)
- When reefing the following procedure is followed: 1. Let go sufficient length of the halyard. 2. Pull tight line number 14, which is attached to the loop(9) in the Dyna One forestay. 3. Then proceed as usual with shortening the lines that run thru the reefing cringles. (not shown)

Conclusion

- Samiel sails like stink.
- She is considerably faster then her sister ships and she actually beats a lot of fancy 42 footers.
- Sailing Samiel is only marginally more complicated then sailing a “standard” F35 and provides a lot of fun for to her owners.