

From Gaff to Junk

..an easy and low-risk way to convert a gaff-rigged sloop to a hybrid junkrig...
by Arne Kverneland

Take a look at the sail plan on page 2. It shows an almost typical Norwegian gaff sloop as used over 100 years ago, just before the semi-diesel engines came in. Typical is the thick pole mast and no use of top mast. The masts were partly cantilevered and partly stayed with shrouds. Running backstays were never used. The distance from deck and up to the lowest fore stay is fairly long. The lower shrouds, not shown on the drawings, are also fastened at this point (the *hounds*?). My only adjustment from the tradition is that I made the gaff just a bit shorter to bring the peak in over the middle of the boom. This steals a bit sail area, but also solves the problems with excessive twist.

This rig was actually built and fitted to an old boat from 1904. The owner was very pleased with it and was particularly happy with the good balance of the rig with many different sail settings. Take a look at the different CE positions with different sail combinations.

Now, a couple of years ago I did an exercise to see what would happen if the gaff sail was replaced with a junk sail. The result can be seen on page 3. As can be seen, the junk sail actually came out a bit bigger than the gaff, almost as big as the gaff plus topsail (never fitted). The CE moves a bit forward on the sail plan. In practice I would have pulled the junk sail further aft to have minimum balance. This would reduce interference with the shrouds and the staysail. The rig never left the drawing board, but I think it would be a quick and easy fix for people who struggle with handling the gaff mainsail on a similar boat.

In my harbour sits a Tiki 21 catamaran which the owner doesn't use. I bet that this could also have been converted to hybrid junk, just by replacing the mainsail. That would have been fun!

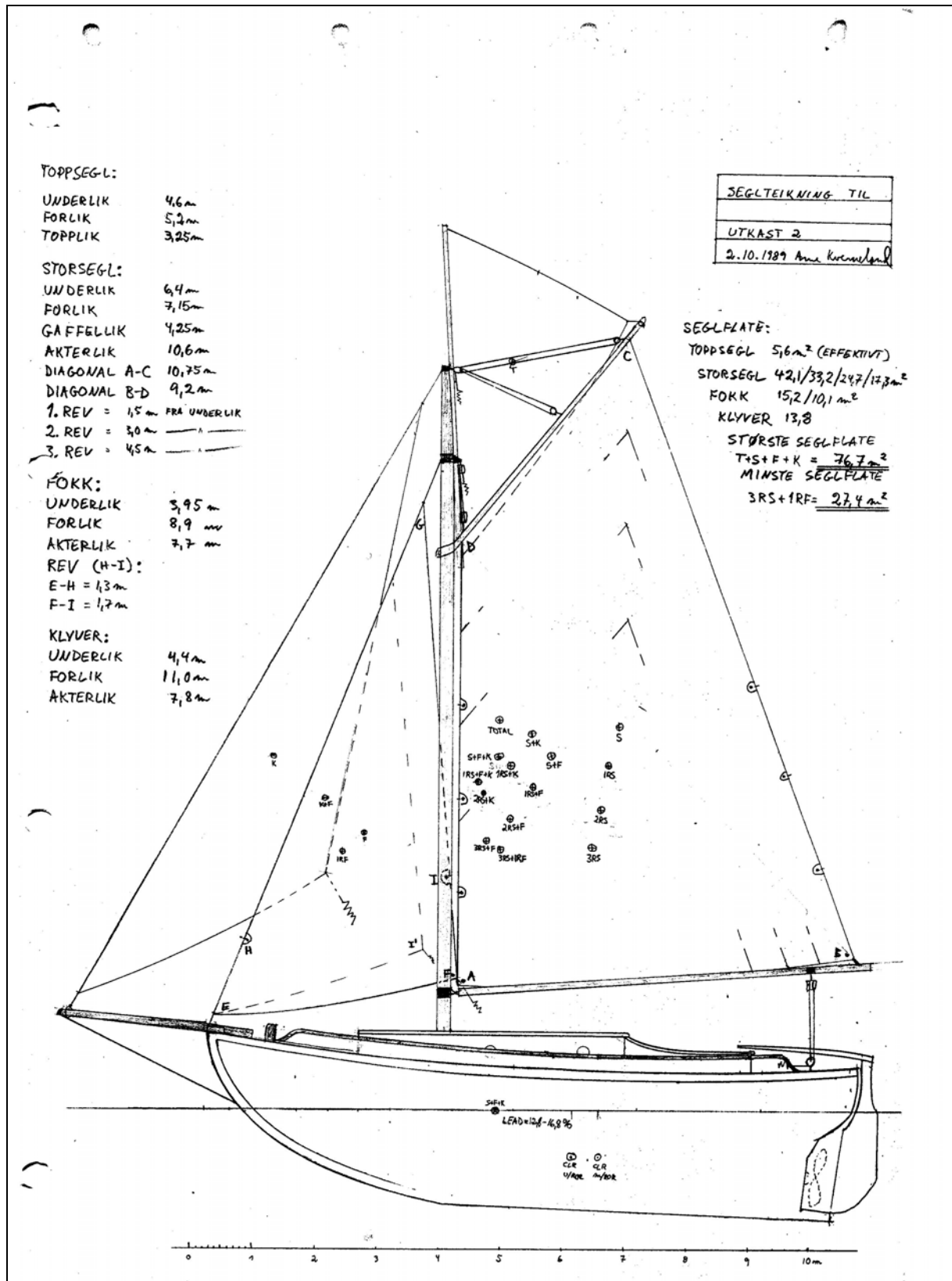


.. from the rigging of Broremann in 2009, the Tiki 21 sits in the background...

Conclusion

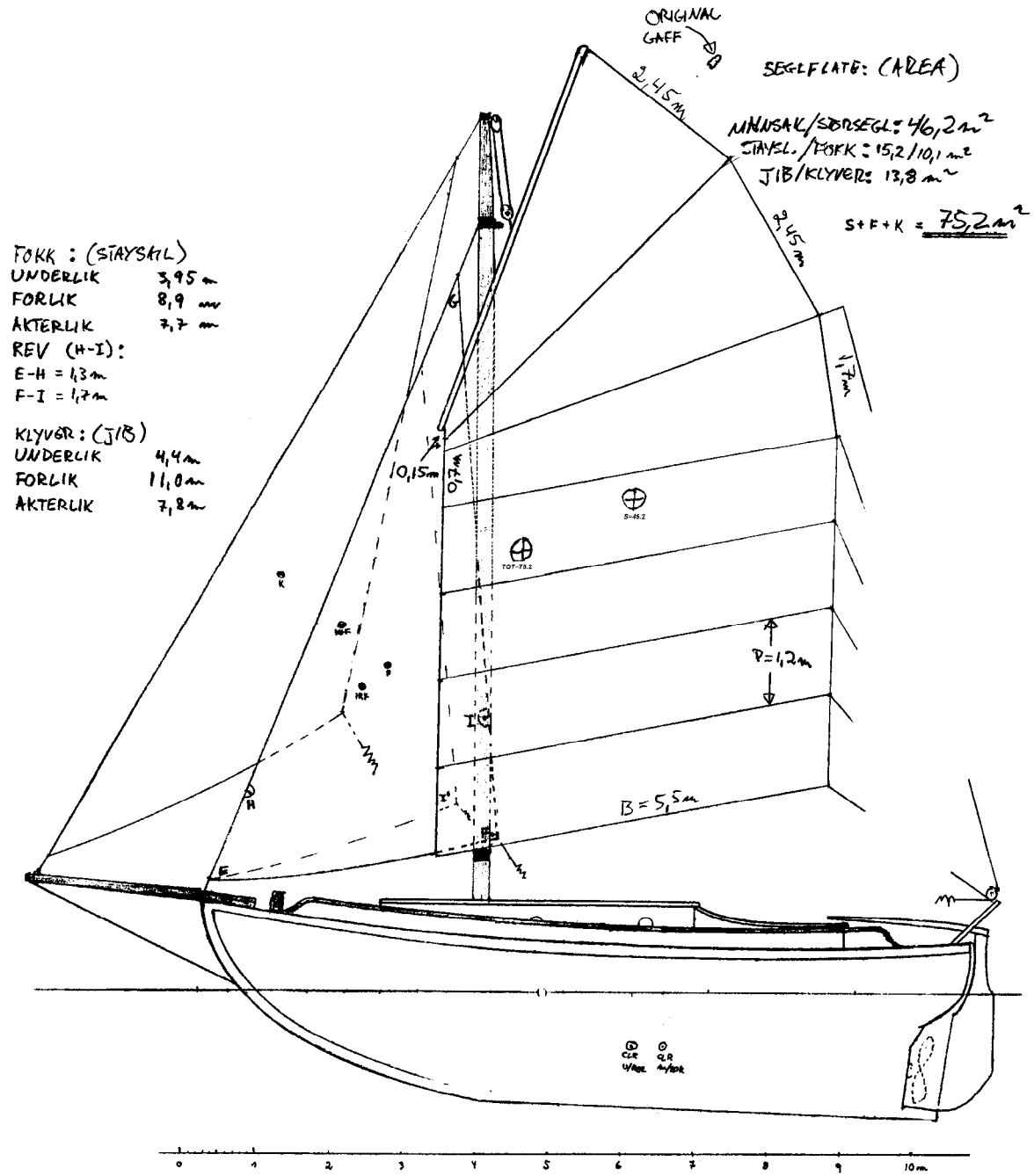
I think that the mainsail on most gaff-rigged cutters/sloops could be replaced with a junk sail to get easier handling. It may end up looking funny – in particular if we have eyes calibrated to like the gaff rig. Still, I bet I could get used to that junksail if it worked better than the gaff.

Stavanger, 20101212
Arne Kverneland



..this boat was built in 1904 as an engine demonstrator for an engine manufacturer. It still was fully rigged!
 The sail plan had disappeared so I drew up a new one.
 The boat was rigged to this plan, minus the topsail and it was reported to perform and handle well.
 The shrouds and several running lines are not shown...

SEGLTEIKNING TIL
10,5m BÅT
UTKAST 3
23.8.2008 Anne Kv



.. this junk mainsail never left the drawing board, but it was still a fun exercise.
 If rigged, I would have pulled the sail more aft to have minimum balance.
 The shrouds and several running lines are not shown...