An easy to make tiller brake

or...

two bungees and a piece of string

by
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The 6.5m Jollenkreuzer, *Frøken Sørensen* steering herself well - as long as the apparent wind is from ahead, and the wind strength doesn't vary too much...

My needs

This is a quite unpretentious device. In recent years, my sailing has mainly consisted of day-sails in the area around my home town of Stavanger, where the sailing grounds and varying winds requires a lot of sail adjustments and tight manoeuvrings.

As the distances sailed and the time spent on the fjord do not warrant the installation of an auto pilot or wind vane, I soon felt the need for a simple devise to hold the tiller while I tended to the halyard or sheets when single handed.

The tiller brake, how it is made and how it works

On my boats I have now settled on using variations of a simple string and bungee type tiller brake. Here is how it works:

(I made the first version of it in 2009 for the 18' dinghy, *Broremann* - search for Broremann on YouTube).

As can be seen above, a rope is passed round the brake under the tiller and is then tied off on both sides with bungees.

The core of this tiller brake is a carefully shaped little piece of wood, fastened to the underside of the tiller. It has a notch in it, which provides the grip. To increase the holding power of the brake, I have reshaped that notch a couple of times to make it narrower. Now its gap is 15° on *Frøken Sørensen*'s tiller and only 8° on the one I just fitted on *Ingeborg* (p. 4) As a result, even with moderate tension in the bungees, the brake holds well.

The photos below shows two different versions:

The core of Frøken Sørensen's tiller brake, before and after modification to a narrower notch.

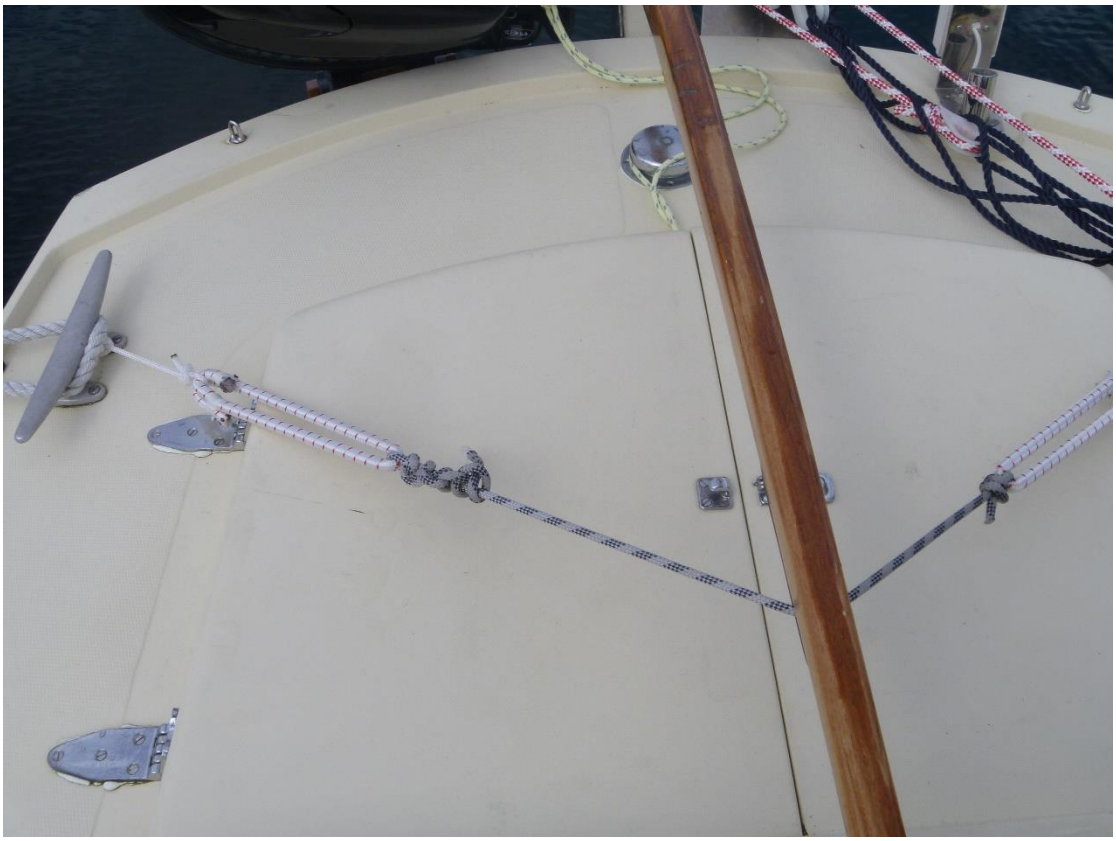
The challenge was to make the tiller brake secure enough, but still let me over-ride it with brute force to make a sudden manoeuvre. It also had to be quick and easy to connect and disconnect, and let me make millimetre-fine adjustment under way.

The new 15° notch on Frøken Sørensen. Together with the doubled bungees, it makes a good tiller brake.

The tiller brake in use
After I got that notch right, I have found this device easy to use. Its first useful job is to hold the tiller to leeward while I hoist the sail, otherwise we would soon run out of space.
As a bonus, the tiller brake also lets my two boats - both with sloop junk rigs - steer themselves with the apparent wind before the beam. In practice I think they hold a better close-hauled course than I can - but then I am not a star helmsman. The ability to finely adjust the tiller is the key to make this primitive self-steering work. Most pinrail and chain type of tiller locks fail on this point.

The tiller brake is also useful when slowly beam-reaching back and forth to catch mackerel... In practice, I engage and disengage the tiller brake many times during a sail, as it is so easy.

A few more tips on how to get the tiller brake right.
Initially I thought it would be right to have long bungees and let the tiller float a little back and forth. Now I have found - at least on the directionally unstable Frøken Sørensen - that it is better to use short, thick bungees to minimise rudder movements. I have yet to decide on the directionally stable Ingeborg, but at least she tracked extremely well on the first trip I tried her, with fairly short bungees on the brake lines (photo below).

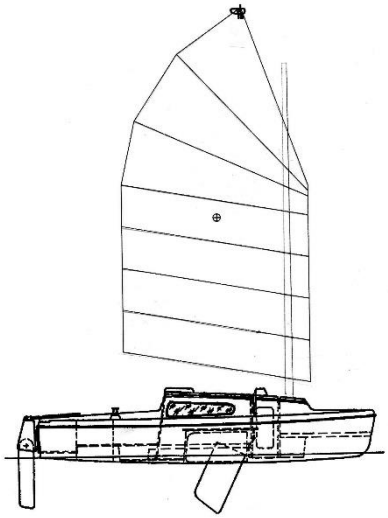


How the tiller brake looks like on my 26' IF, Ingeborg.

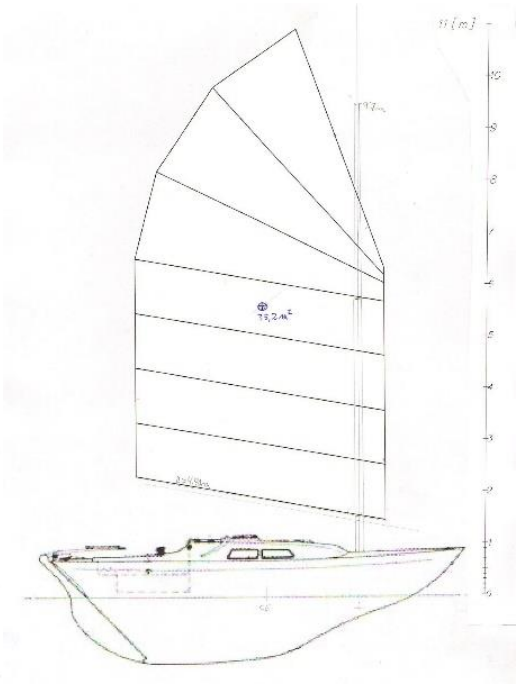
As you can see, I have just tied off my tiller brake lines to existing hardware on deck. You may need to fit dedicated cleats for the job on your own boat. In that case; aim for positions which lets the rope pass over the brake at an angle of around 90-120°.
Note: Use bungees on both sides, as fitting it on one side only makes any fine adjustment of the tiller difficult.

Good luck with making your own!

Ingeborg's hardwood brake with only 8° notch, jams the line firmly, to cope with the higher tiller forces.



6.5m Frøken Sørensen



7.9m Ingeborg

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