

Product Review: A Roller Furler for Hanked-On Sails

4/28/2019

For three summers, I cruised and raced my Ensign with the popular Harken MK III roller furler. I was not happy with it. It was cumbersome to assemble, install, transport and store, required expensive repairs to replace damaged sections of foil and I did not like the effects of the rigid foil on the Genoa luff entry.

I recently purchased a roller furler which allows me to furl a standard, hanked-on Ensign Genoa #1 or Genoa #2. I want to share with all Ensign sailors what I found after a “sea trial” during the 2019 Ensign Mid-Winter Regatta by comparing my personal experiences with the **Harken MKIII Furler** vs the **Bartels Endless Furler**.

See pictures of both systems on pages 4-8.

Mechanism of Action

The Harken design is made for headsails which have a luff tape. The luff tape inserts into a rigid, slotted aluminum extrusion through which the forestay runs. As the furling drum rotates, the rigid foil rotates and the sail rolls up. The forestay does not rotate.

The Bartels design is made for headsails which attach to the forestay with hanks. As the furling flywheel rotates, the forestay rotates and the sail rolls up.

Cost and Installation

I paid about \$2000 for my Harken system more than 10 years ago. This included the cost of the hardware, a new forestay and a professional rigger at a marina who had to slide and splice 24 feet of the rigid foil on to the forestay and then swag on the terminal fittings. I also paid the marina to install the system on my boat because I could not transport the 24-foot-long extrusion from the marina.

I paid about \$1050 for my complete Bartels system and easily installed it myself just like you would with an ordinary forestay. The cost included all hardware, spliced loop of control line and new forestay with swaged on terminal fittings.

If you already have hanked on sails, you don't have to go to the expense to change to a luff tape with the Bartels system. If you purchase the Harken system and want to use your hanked on sails you will have to visit your sailmaker.

Transport and Storage

The assembled Harken foil with forestay is 24 feet long, rigid and unwieldy. It must be strapped to your mast for transport and storage. If not firmly supported and protected it can easily be bent and damaged. The torque tube and furling drum assembly is bulky and relatively heavy, being 6 inches in max diameter and 18 inches in length.

The Bartels system rolls up tightly like any other forestay and can be stored safely in the cabin or bilge while travelling. The furling flywheel is 3.4 inches in diameter and 2.5 inches in length. The furler fits in your pocket.

Operation

The Harken furling drum is rotated by a control line that can only be led to a fixed point on one side of the boat so that it can be cleated after furling. It can only be furled by pulling in one direction. The control line can get foul wraps on the drum and bind.

The Bartels furling flywheel is rotated by an endless loop of control line which can be configured around the entire perimeter of the boat and furled in any direction of rotation. It does not have to be cleated after furling. You cannot get wraps that bind in the flywheel.

Sail Trim-the Luff

With a rigid foil, I had to move the tell tales further aft to get useful information. Not sure if I ever got them in the right place. Also, for racing trim I never got the hang of how to fine tune the luff tension when it was in the foil. Maybe it's just me.

With the Bartels and hanked on sails, trimming the luff of the headsail for racing is exactly the same as without a furler.

Sail Trim- the Foot

Sails without furling hardware ride about 1.5" above the deck, this is the original Genoa sail plan.

Sails attached to the Bartels RF ride 3.5" above the deck or 2" higher than the original Genoa sail plan.

Sails attached to the Harken RF ride 7.5" off the deck or 6" higher than the original Genoa sail plan.

Reefing the Headsail

With the Harken system you can partially deploy the sail to depower. While Ensign sailmakers cringe at this thought because their sail is not cut to be shaped this way, optimum shape is not an issue for cruisers or anyone when safety becomes a concern.

The Bartels system is either furled or unfurled, it cannot be partially deployed.

Furling in Strong Air Going Upwind

My impression is that I could furl the Harken system under a heavier load going upwind than I can furl the Bartels. If memory serves me right, I could furl the Harken at 18-20 going upwind.

I could furl the Bartels without any problem going upwind at windspeeds up to 15 mph. At about 16+ mph it became difficult and at times sloppy.

Going downwind at 16+, I had no problem furling it. After rounding the windward mark, with the pressure off, it worked perfectly. So, from a practical point of view the Bartels can be furled in strong air as long as you bear off the wind to take some pressure off the sail first.

A flogging sail cannot be furled properly by either system. Both systems furl easily off the wind.

Availability

Harken roller furler hardware is made by a US manufacturer and distributed widely throughout the country.

The Bartels hardware is made by a German manufacturer who, at the time I bought my mine, did not ship to the US. See pages 10-11 in the catalogue link:

http://www.bartels.eu/fileadmin/bartels/templates/downloads/Catalog_furling_reefing.pdf.

I was able to purchase the Bartels system from the Shark 24 Class rigger in Ontario, Canada.

<http://mastheadsparsandrigging.com/>He made a new forestay to Ensign Class length and swaged on the hardware. He has been selling this system to the Shark 24 Class for about 20 years.

Both Chad Lewis from Ensign Spars <http://ensignspars.com> and Doug Burtner from Quantum Sails Rochester dburtner@quantumsails.com have already contacted Bartels in Germany about becoming dealers for them in the US. These guys are long time Ensign sailors and very responsive to servicing the ECA membership.

In summary, I am very pleased with the Bartels “Endless Furler” for hanked on sails. It offers all the advantages of roller furling and a few distinct advantages over a rigid foiled system. I feel this is a far superior design in terms of assembly, installation, ease of operation, transportation, storage and is less prone to being damaged. It is half the cost; you can use your same sails and the design is more consistent with the original Ensign sail plan than that of a furler requiring a rigid foil. By the way, the Bartels system has been used by the Shark 24 Class for about 20 years and is highly recommended by them.

Please be aware that a rule change proposal regarding roller furlers is now being discussed on the ECA Forum. Proposed changes seek to address the following:

“Current rules were unintentionally written in such a way as to mandate that head foils and luff tapes MUST be used on all installed roller furling systems. At the time of the rules’ writing, no commercially available roller furling systems came WITHOUT a head foil, which is a situation that has changed. The rule has been re-written to also include boats with roller furling systems that do NOT incorporate a head foil, whose headsails are NOT fitted with luff tape, but instead are attached to the forestay using hanks made of metal and/or plastic (just like the headsails on boats lacking roller furling)”.

Pete Kogut

Fleet 23, Canandaigua, NY

The White Lady #856



HARKEN®
MKIII
Jib Reefing & Furling
Installation Manual

Unit 00AL

English • Deutsch • Français • Italiano



WARNING! Strictly follow all instructions to avoid an accident, damage to your vessel, personal injury or death. See www.harken.com for additional safety information.



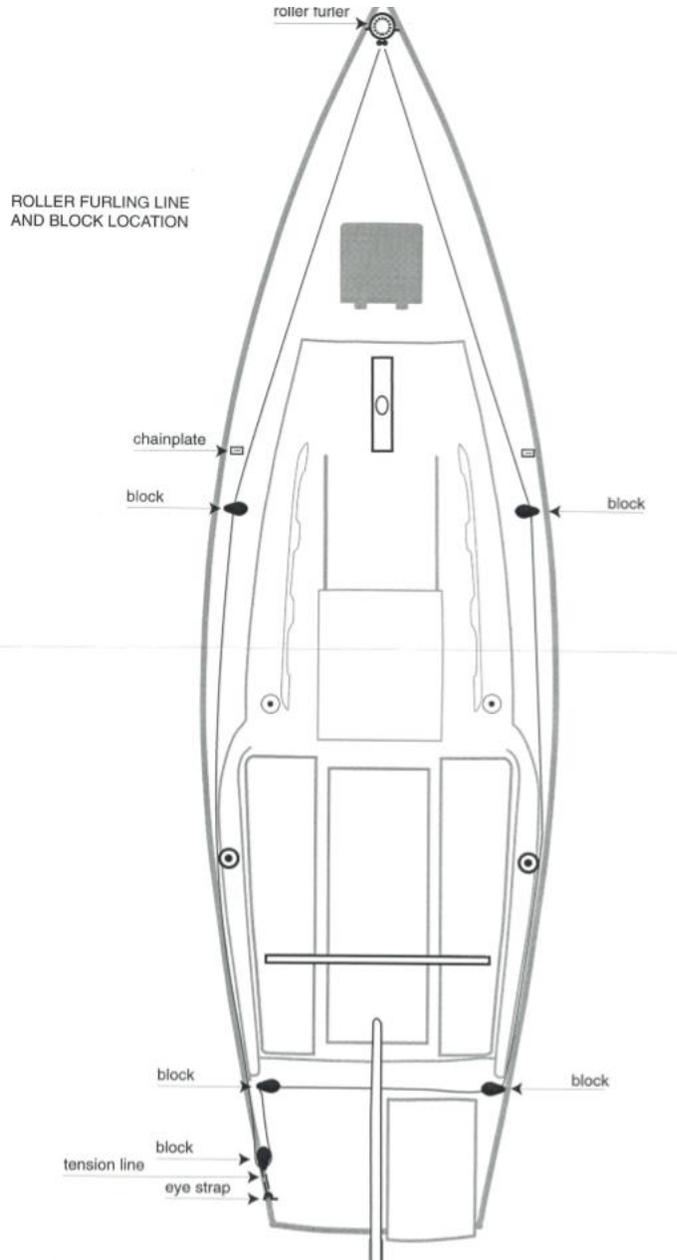
Bartels Endless Furler. View #1



Bartels Endless Furler. View #2



Bartels Headstay Swivel and Headsail Swivel



Final Page.