
Installing CapeHorn's Jean-du-Sud self steering on a Bayfield 32'

<https://caphorn.com/en/welcome/>

Éric Sicotte, Cape Horn engineer erics@caphorn.com

Yves Gélinas, Cape Horn president mail@caphorn.com

CapeHorn Marine Products
26 Guy Racicot Street
Oka, (Québec) Canada
J0N 1E0



Still trying to figure out how to control the angle. Now we just turn the black pedestal.



We did install a pulley wheel with a line and a tightening spring but it did not work well. Optimally we would like something that had clicks so you could say, "One click to the right."



We discovered the bungees holding the servo pendulum need to be as tight as can be and as fresh. We do not want to have it fail in the middle of a rough ocean. To tie them together we used a small stainless hose clamp. Will be getting an extra pendulum and both vanes.



Holding up the servo pendulum horizontally will hopefully prevent a large following sea from disturbing it.



CapeHorn lower control line pulley which did not work as designed.



Order total: \$36.60

Shipping to:

619 Evanswood Pl, Cincinnati, OH 45220-1528, United States

Order number: 16-08559-06206

5" Dia x 1/4" Wide V-Belt Pulley Nylon Body x 5/16" (8mm) Bore + Set Screw New

You should get it by May 21.

<https://order.ebay.com/ord/show/?ViewPaymentStatus&purchaseOrderId=16-0855-906205#/>

https://www.ebay.com/itm/291973298468?_trkparms=amclksrc%3DITM%26aid%3D1110006%26algo%3DHOMESPLICE.SIM%26ao%3D1%26asc%3D20200818142055%26meid%3Dd74707de48fc4579927226855b7732d5%26pid%3D101113%26rk%3D1%26rkt%3D12%26sd%3D291630913447%26itm%3D291973298468%26pmt%3D0%26noa%3D1%26pg%3D2563228%26algv%3DDefaultOrganicWeb%26brand%3DUnbranded&_trksid=p2563228.c101113.m2108



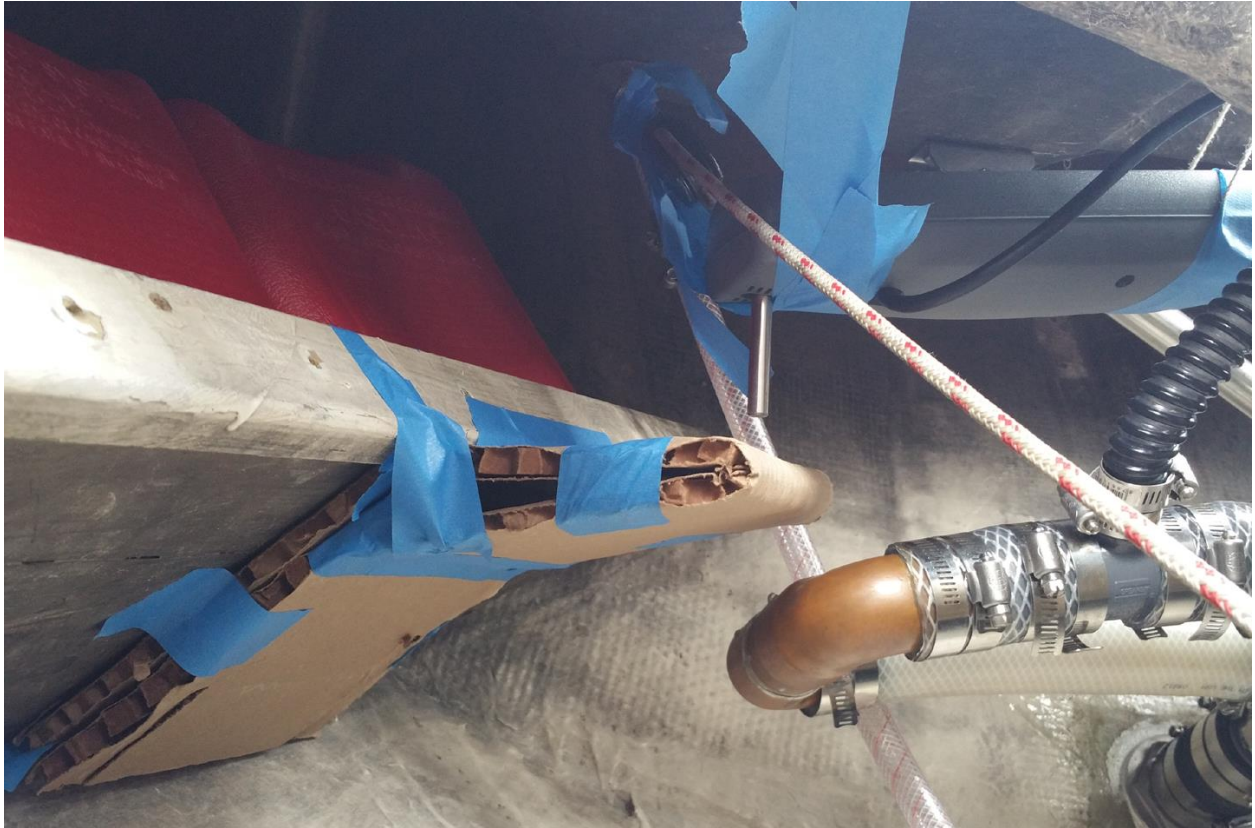
Installed stainless steel angle and pedestal for auto tiller. Have a little trouble with the lever supplied that goes between the end of the autopilot and the external vane movement V. But all in all it works well.

Raymarine Pedestal Socket Assembly - 1-1/2 Inch (262030PSK112)

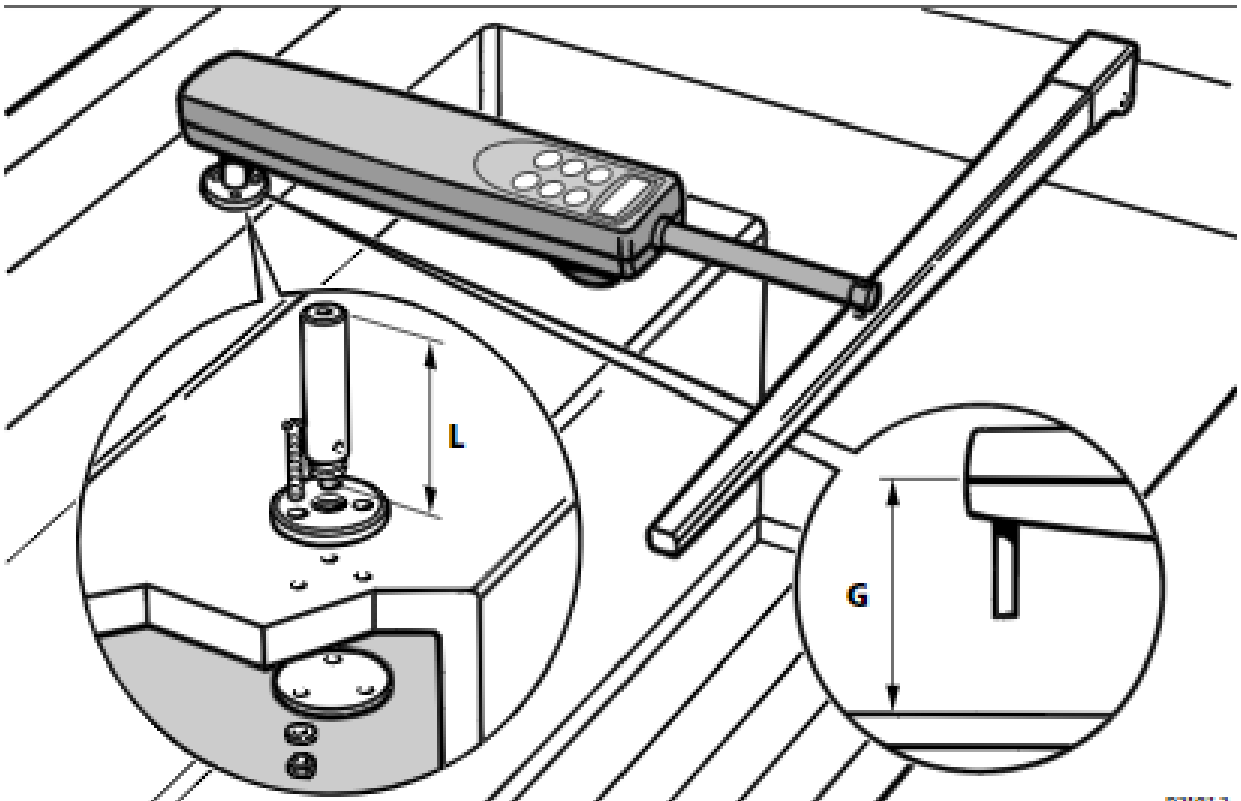
D026 1 \$74.99



The Raymarine Auto Tiller barely fits above the Whale pump but it does. The whole install was done with fractions of inches clearing everything.



Dummy for the stainless steel plate to hold the pedestal.



Dear Éric Sicotte,

Thank you for the quick reply. We also quickly discovered your solution. Turns out we just have to move the auto stick a little off kelter to make it fit. Will have a stainless sheet bent to hold the pedestal to hold the auto stick.

Our next engineering feat is to discover a type of pulley dial to run the control line loop through so we can click to the right or left. The dial would be mounted on the stern deck below the horizontal tower. Any thoughts would be appreciated.

Thank you for a fantastic product.

Tom Lohre

<http://tomlohre.com/sailing.htm>





210118

Dear Eric,

After a second year on the hard, we will be going in the water this spring with the new engine in. May you recommend an auto tiller stick? Will probably mount it to the port side. Looking to be able to open the rear lazarette and engage or adjust it. Hard to believe the remote is more expensive than the tiller. Maybe we do not need a remote since you can immediately disengage the auto pilot by loosening the engaging lines.



Raymarine ST1000 Plus Tiller Pilot
Product # A12004
ST1000 Plus Tiller Pilot

\$379 remote \$480

<https://rm.factoryoutletstore.com/cat/20254/raymarine-tiller-pilots.html>

AL Brookins 201019

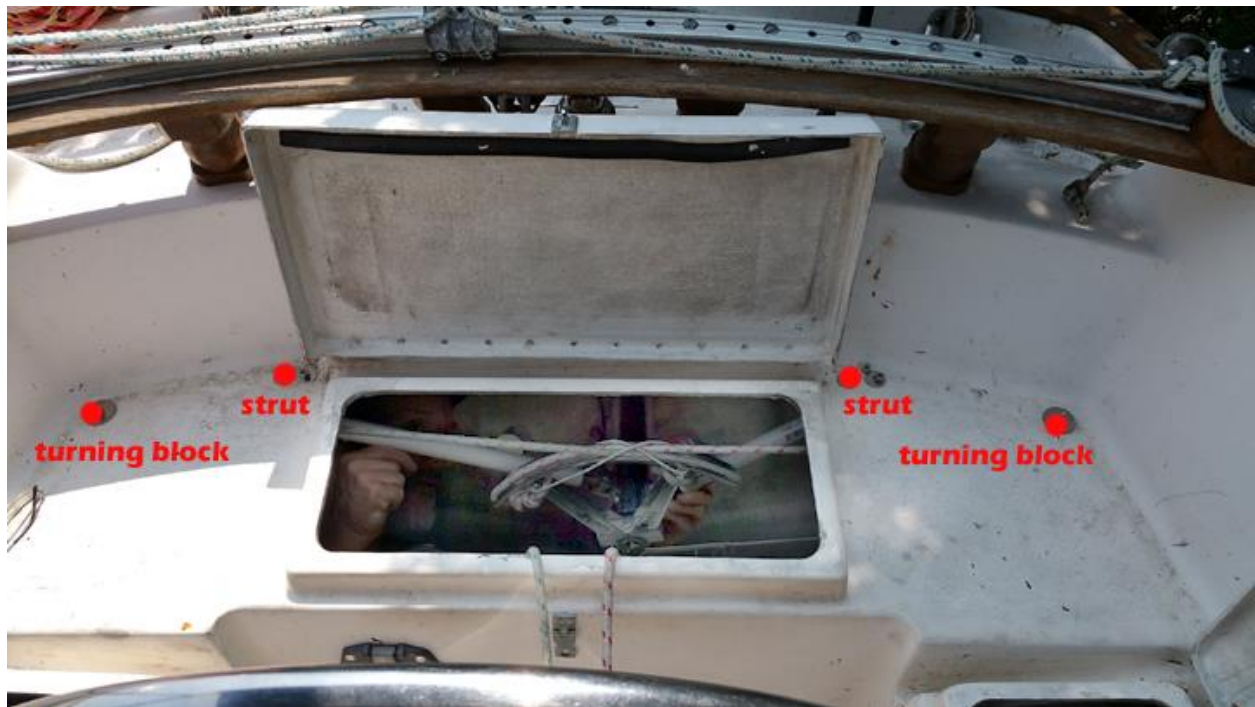
Hi Tom, I have been corresponding with CapeHorn for our B29. I see that you posted a couple of years ago that you purchased one. Could you please share your impression of this system on the Bayfield? It's a lot of money to me and I want to make the right choice. Best, Al

We spared no compromise running the control lines. May have to be creative using the lazaretts as storage. Of course we have not tried her out yet. Will attach an electric autopilot stick to it. Sailing all the Great Lakes next year trialing her. We'll have to give it a name.

We went for the Cape Horn because it was elegant and stainless steel



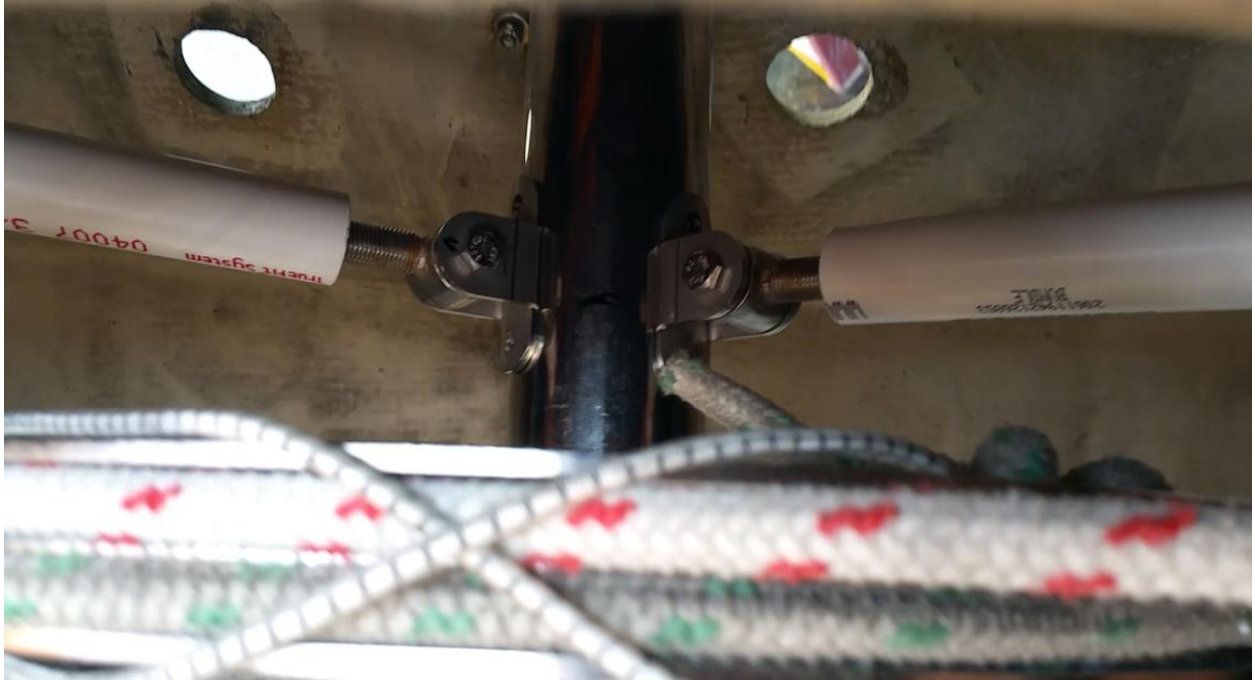
Fiberglassed horizontal self steering tube.



The strut brackets and turning blocks were bolted through the rear of the cockpit deck.



The engaging lines just wrap around the smooth cockpit. Since they do not move, there is no chance of chafing.

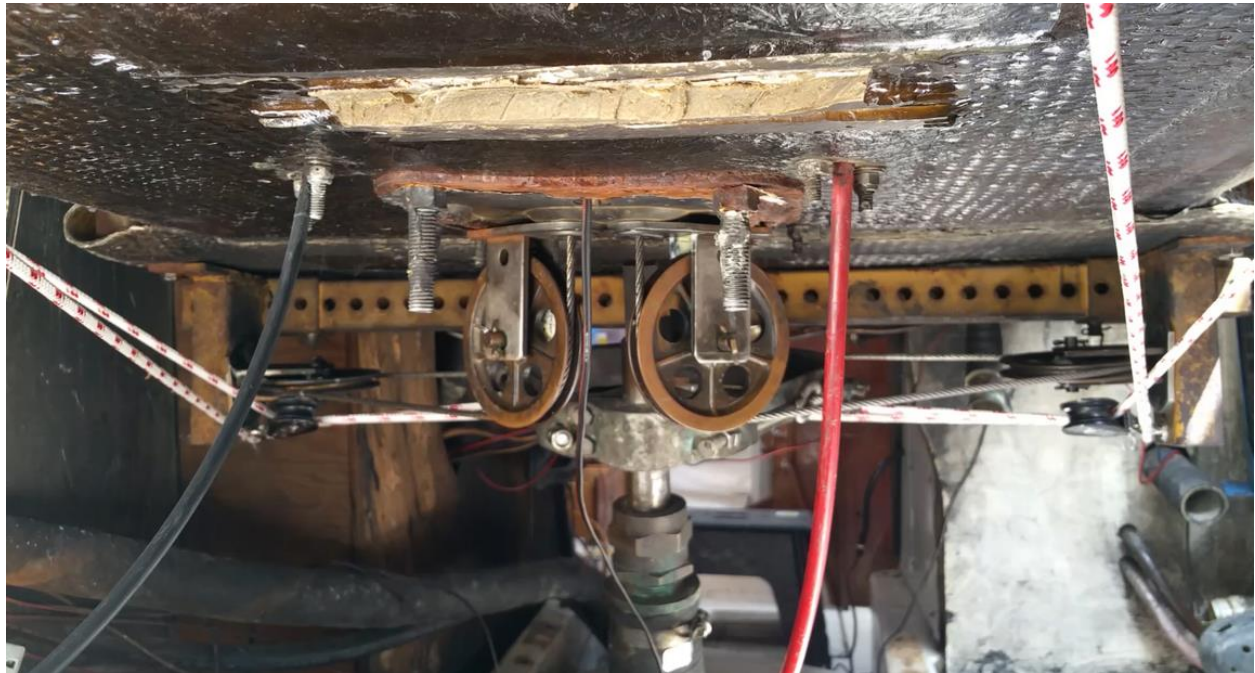


In preparing to cut the provided stainless tubes for the struts we made dummies out of plastic tubing with a nut pushed into the end. We had extra trouble drilling the holes for the struts that support the vane vertical tube. But with a little reaming out we made it fit. The facing plate that holds the tube was wide enough to hide the error.



You can see the port turning block with the line going towards the quadrant in the distance. Plenty of room for the electric auto pilot stick to engage the servo pendulum in front of the Cape Horn quadrant. Will attach it to the deck also. Easy to open the rear lazarett and adjust the auto pilot stick. Still have to put some fiberglass around the inside of the horizontal tube using West System G-Flex and Episize Biaxial Fabric.

https://www.westmarine.com/buy/west-system--episize-biaxial-fabric--P004_120_008_501?recordNum=12



Looking towards the bow, lucky the angle iron for the steering pulleys had enough room at their bottoms to accept an eye bolt to accept the turning block for lines attached to the rudder quadrant.



Engaging lines to the right. The corners of the cockpit align with the servo pendulum quadrant.



Offset horizontal tube still allows a ladder on the port side and the name on the starboard side. You drill a 2 1/2 in. (63 mm) for Jean-du-Sud hole in stern. After measuring a dozen times I drilled the hole but when I put the horizontal tube in it it was too small. After a lot of consternation, I realized I had used the horizontal tube that goes inside the real outside horizontal tube.



Vertical post needs only light support confidently supplied by two struts bolted to the edge of the stern easily accessing the nuts if you are medium build.



SUNCOR 2 5/8" Stainless Steel Oblong Pad Eye, \$8.79

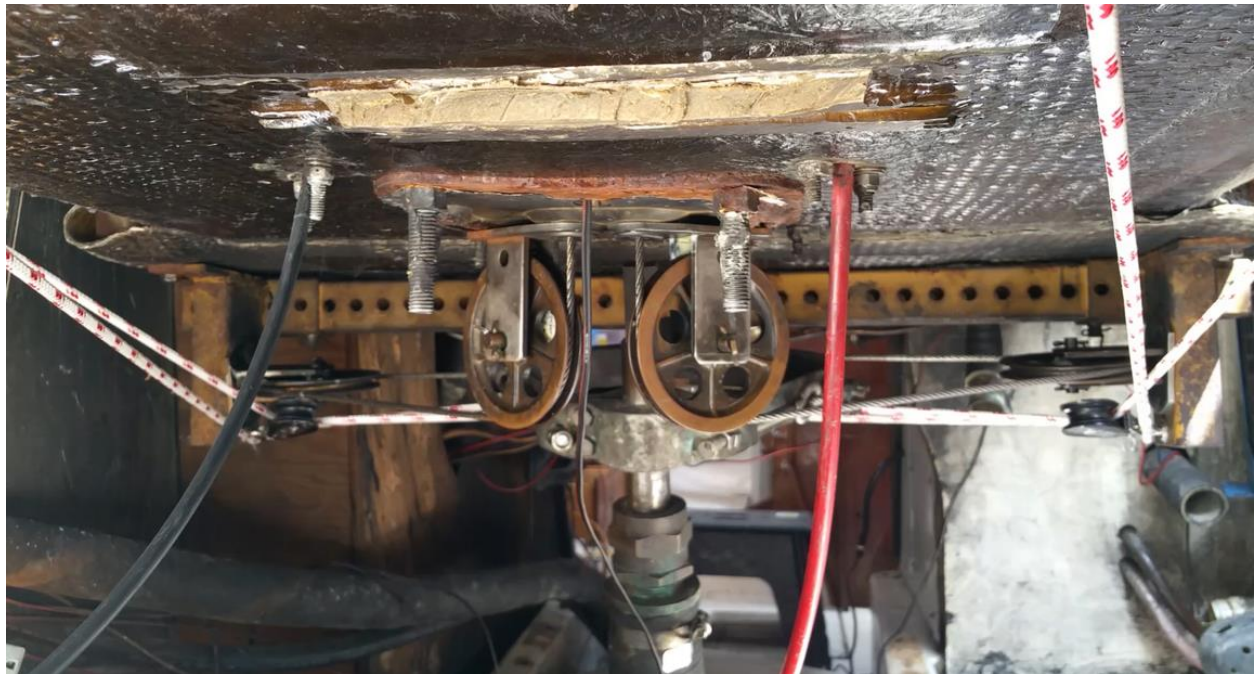
Model # 4479945 | Mfg # S3705-0006-C | UPC # 791506370529

<https://www.westmarine.com/buy/suncor--2-5-8-stainless-steel-oblong-pad-eye--4479945>

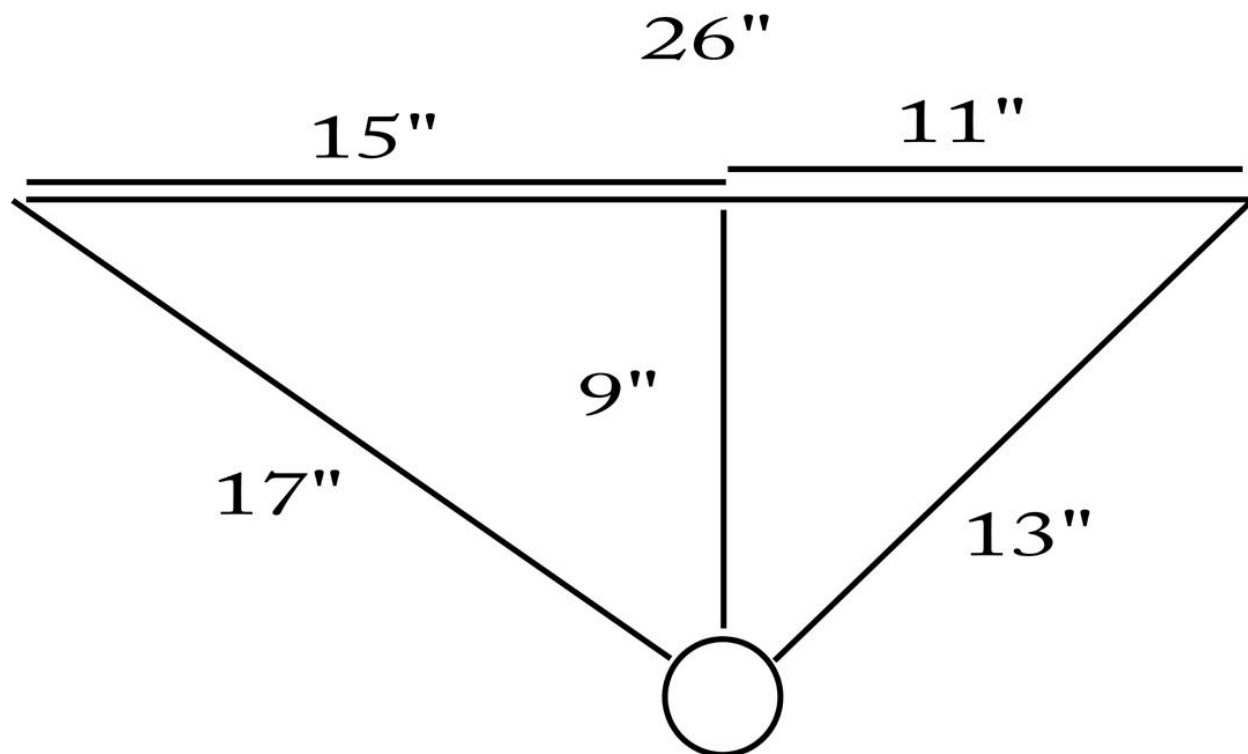
is bolted to the tapped rudder quadrant with a brass bolt and ground off to make the pulley smooth again, set with locktight. The angle from the quadrant to the pulleys is perfect to transfer the force. Many times you have to fiberglass in eye bolts to the hull but not in this installation.

Hawaii 2021: Inside Singlehanded Sailing with Christian Williams, Cape Horn Failed at a pad eye connected to the rudder quadrant

<https://www.youtube.com/watch?v=Oz8wpl9YG1o>







Guide sent to Éric Sicotte, Cape Horn engineer to confirm the necessary angles needed to support the horizontal tube. Working up the drawing in illustrator helped get the exact angles. Though the tube went out off to the port side due to the chain plate, the strut tubes were mounted symmetrically.



Right under the Cap Horn logo at the top of the vertical mast you can see the device that sets the angle of the vane in relation to the wind. A small $\frac{1}{8}$ " line goes around the white rotating

platform through turning blocks and downward. A necessary evil is all the turning blocks to take the line to the companionway so you can adjust the vane while inside the cabin. I am trying to come up with a clicker type device that allows you to say, "Give her one click to the port."

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Éric Sicotte, Cape Horn engineer erics@caphorn.com

Yves Gélinas, Cape Horn president mail@capehorn.com

Dear Tom :

The way you suggest to lead the control lines to the steering quadrant is excellent, the turning blocks being strongly supported by the structure holding the sheaves for the steering cables. The blocks on the steering quadrant can be fastened with a strap bolted to the edge of the bronze quadrant with a 1/4" bolt tapped directly into the lip of the quadrant, assuming its radius is close to 8", as shown in the attached photo. If the bolt projects into the groove for the cable, you simply grind it flush. Or you can bolt a metal plate to the underside of the quadrant and bolt the strap to it.

Position of the supporting struts and first pair of blocks you suggest is excellent.

Any block will do, as long as the sheave is min. 1 3/4" (45 mm) dia. You do not need to purchase roller or ball bearing blocks, which are more expensive, ordinary standard bushing blocks are good enough.

If you can not rotate the CH quadrant through 360 degrees, at least you may be able to rotate it on the side opposed to the hoses in order to take the paddle out of the water.

Fair wind,

Yves

Dear Éric & Yves,

We are really enjoying our installed Caphorn even though the boat is still in the yard. All last year we installed Caphorn and worked on installing the engine. Soon we will be back working and hope for a July 31, 2020 launch.

My question is what you suggest for an adjuster for the vane. I hope to find a rotating dial that the control line goes through allowing one click left or right. I do not want to run control lines along the sides of the boat. Before I start searching for something I thought I would ask you. I especially like the click part. Experiencing the clicking of the Aries was what started this idea. Maybe it would attach to the Caphorn mast. It would mean reaching off the stern to adjust the vane.

Thank you for a great device. It took me a while to intuitively know how these devices work but after thousands of miles with an Aries, I'll enjoy yours even more. We got a 5,000nm voyage planned for 2021.

Sincerely,

Tom Lohre

513-236-1704

Dear Tom,

Thanks for the photos, you did an excellent job with the installation.

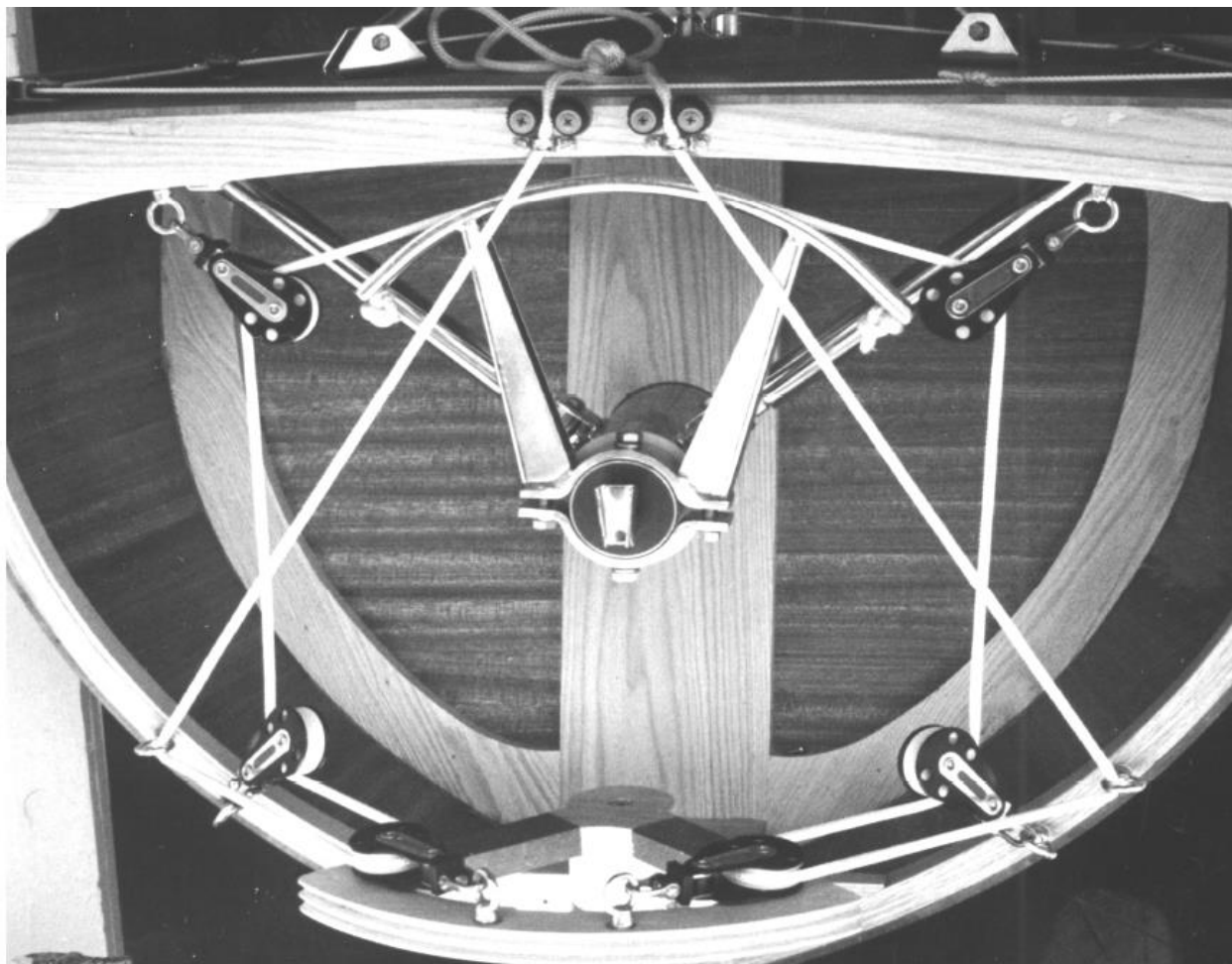
Suggestion : if you tie a knot in the two control lines emerging in the cockpit at the position rudder amidships and pendulum vertical, you would be able to connect the gear more easily by pulling the lines equally and cleating them in one single move (photo).

To set the course from a distance (and ensure it remains set), you can rig a line as described in page 31 of the Owner's Manual. You write: "I do not want to run control lines along the sides of the boat."

Actually, it is not the control lines that you will run around the cockpit, it is a small 1/8" line that allows you to set the course even from below. This has been working since the beginning and users seem happy with it. If you do not want lines around the cockpit, you should rig at least a line around the course-adjusting disk, down to the stern pulpit, but you would need to go aft to adjust the course.

Fair wind,

Yves



Example from Cape Horn website for guidance.



Example of control lines $\frac{1}{4}$ in. (6 - 7 mm) for Jean-du-Sud.



<https://www.westmarine.com/buy/harken--38mm-big-bullet-single-block-swivel--196295?recordNum=1>

HARKEN 38mm Big Bullet Single Block, Swivel, \$35.99 WM also \$35.99 on Defender
Model # 196295 | Mfg # 168 | UPC # 97653005209

6- Ordinary plain bearing blocks, Minimum sheave diameter should be 34 or 40 mm for JdS



For the angle iron adjacent to the rudder quadrant for the pulley and fairlead.

2- FASCO FASTENER

1/4-20 x 2-5/8" Stainless Steel Eye Bolts, 2-Pack \$9.79

Model # 121501 | Mfg # 3534MP | UPC # 28836135345

https://www.westmarine.com/buy/fasco-fastener--stainless-steel-eye-bolts--P013_390_002_010?recordNum=1



For the stern lazarette

2-6mm 1/4" Stock Dia.Bolt,2-3/16"L, 1/2"Hole Dia, 1-1/8" shaft, 1" plate diameter

SEA-DOG

Eye Bolts

\$24.99

Model # 599225 | Mfg # 080463 | UPC # 35514080453

https://www.westmarine.com/buy/sea-dog--eye-bolts--P002_060_008_002?recordNum=3



For the stern lazarette with a small footprint on the cockpit at less cost.

Defender 2-Point Davit Lifting Eye Kit

Kit Includes (2) Eye Nuts, (2) Machine Screws and (4) Washers

Item #: 450174 Model #:

DEF-2PK

Shipping Weight: 1.00 Lbs. Our Price: \$44.99

<https://www.defender.com/product3.jsp?path=-1|215570|294|2345877|2345880&id=3238338>



SUNCOR 2 5/8" Stainless Steel Oblong Pad Eye, \$8.79

Model # 4479945 | Mfg # S3705-0006-C | UPC # 791506370529

<https://www.westmarine.com/buy/suncor--2-5-8-stainless-steel-oblong-pad-eye--4479945>



2- RONSTAN

Medium C-Cleat, Gray

\$25.95

Model # 553735 | Mfg # RF5010 | UPC # 9316800191604

<https://www.westmarine.com/buy/ronstan--medium-c-cleat-gray--553735?recordNum=3>

<https://www.westmarine.com/fairleads>



<https://www.westmarine.com/buy/schaefer--thru-deck-fairlead--156679?recordNum=11>



<https://www.westmarine.com/buy/sea-dog--3-8-stainless-steel-eye-nut--13809256?recordNum=43>



<https://www.westmarine.com/buy/sea-dog--3-8-stainless-steel-eye-nut--13809256?recordNum=43>

Other Wind Vanes

ariesvanegear@gmail.com

On Apr 5, 2016, at 1:41 AM, Lean Nelis <ariesvanegear@gmail.com> wrote:

Dear Tom.

Nice to hear you fall in love with the Aries.

The price for an Aries tiller is €3400,- incl vat for a wheel steered Aries it is €3700,- incl vat.

This includes all the parts for mounting the blocks the lines etc. Just mount it and set sail.

Shipping costs are exclusive.

When you send it out of Europe it can be cheaper because of the height of the vat..

All the best

Lean

Monitor Windvane	
Complete Monitor Windvane with custom mounting system	\$4,900.00