Question by Alan Brown

There is some extremely valuable information in this site about lowering the mast - and it has bolstered my confidence to tackle this, so I can undertake some mast-head maintenance (lights, sheaves, checking out shrouds. . .). But as I will need to raise the mast after the work is completed, I've just slightly bottled out, and looking for some reassurance again!

Using the technique of an A-frame (feet bolted to the lower shroud chain plates) and block and tackle to the stem-head fitting, to lower the mast, has anyone RAISED the mast this way? I would welcome feedback on experiences

Thanks,

Allan

Hi Allan,

Raising the mast that way is just the opposite of lowering. Only the force needed for raising is much more so you definitely need a four sheave tackle.

Besides, apart from an A-frame you also need a construction that prevent the mast from going sideward's because that will ruin your mast foot! An example how to do that can be seen in my story about a device on my L27 thats in the reference library.
http://leisureowners.memberlodge.org/Resources/Documents/mast_lowering_device.pdf and
http://leisureowners.memberlodge.org/Content/Documents/Document.ashx?DocId=71485

Below you can see the installation as installed on my former L23. Also look at the device to keep the pivot of the top shrouds aligned with the mast pivot. That's very important! If you have more questions, don't hesitate to ask.

Ad

I am trying to construct an A-frame on my Leisure 23. I have gone through the three descriptions I could find on this site. "Installing a Mast Lowering Device on a Leisure 27", "Un-stepping/Re-stepping the mast" and "What's In an 'A' frame." But there are still a few unanswered questions.
I imagine removing both lower shroud and use the upper one to control lateral movement. I will use the mainsheet to raise the A-frame from the point where the headstay is fitted. The A-frame is 2.5 meters and will have a pivot point 35 cm in front of the mast pivot.
1. Is it enough to use the upper shroud as it is or is more control of the mast needed?
2. Where should A-frame pivot be placed?
3. Does anyone have detailed pictures that can illustrate these issues?

Kind Regards
Ernst G. Oszadlik

Hi Ernst,

I had an A-frame on the L23 I owned as well before I bought my L27 . Using the upper shrouds for keeping the mast upright while lowering is ok but the chainplates of the upper shrouds will have to be changed because they must be exactyly inline with the pivoting point of the mastfoot. This is very important , if its too high the shroud or mastfoot will break when you lower the mast! If its too low (e.g. more than about 1 cm)however the shroud will come very loose when the mast is lowered and will not be able to keep the mast inline and the mastfoot will be overloaded sidewards. On my L23 it was solved by a simple construction made of flat stainless bars that is attached to both the original upper and aft lower shroud chainplates as can be seen on this picture:

The upper as well as the aft lower shrouds are then attached to that construction. Off course the length of the shrouds must be adjusted.

On the picture you can also see the pivoting point of the A frame bar. Its bolted through the toerail which is filled up with glasfibre putty locally from beneath and reinforced with a stainless plate which is bent over the toerail . The location of the pivot in relation to the mastfoot isn't that important however the longer the distance to the mastfoot longitudinally , the more force is needed to hoist the mast.

The whole system can be seen on the next picture:

Off course the forward shrouds must be detached before the mast can be lowered. In my case its made easy by using a babystay/slip hook like the one below:

I hope you this will be off use for you. If you have any more questions , please let me know.

Ad

Yes,

thank you - it was exactly what I needed.
I can see that I have to make a triangle to hold the upper and lower shroud tight.

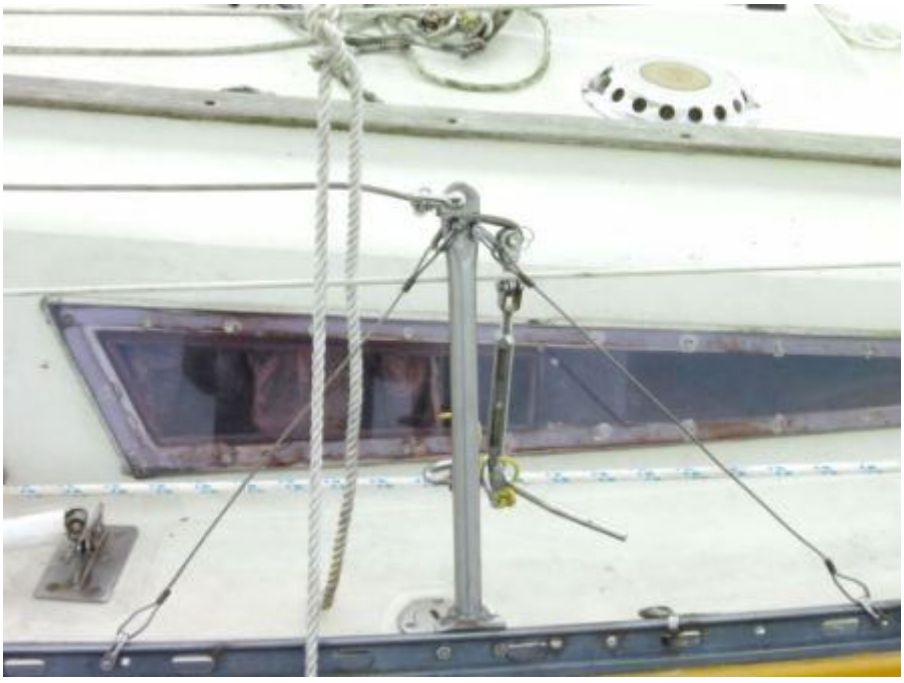
Ego

Hi Ego,

Only the upper shroud has to be kept tight , the forward lowers must be detached and the aft lowers can stay as they are.

Instead of making a "triangle"which requires some welding yo can also do it alternatively as i did on my leisure 27. Just take a piece of 3/4 stainless tube , flatten the ends with a hammer and drill two holes (always use drilling fluid with stainless!). See pictures:

3mm stainless cable



Same system on a Leisure 27

Ernst George Oszadlik wrote:

Hi Ad

I understand what you mean with respect to the shroud, but I can not see the necessity relieve focal point backwards, there is no move in that direction as I see it.
Instead, it is important to distribute the pull of the upper shroud and a-frame over a large area. The L23 has unfortunately not a baseboard as L27. And another problem is to shorten the existing upper shroud to mount it on flat steel. An idea for it, you've already described, using a rope grip and a D shackel. The method can be used until they can be replaced with new ones in the right length.

/Ego

Hi Ego,

Off course you are right about that . However I don't see the point you mention next. And off course the upper shroud must be shortened but that's a cheap and easy job for a well equipped shop. And you're right about the baseboard (do you mean the aluminum toe rail?) . But the forces on the upper shroud are very moderate so a simpel bolt through small chainplate like this

with a stainless penny washer like this

will do the job.

And as I already said , the pivot points of the A-frame will have to be reinforced beneath the deck with glassfibre putty . On the L23 I owned the toe rail was simply filled with putty from underneath as on this picture :

This part of the toerail is filled up with glasfibre putty underneath in the forecabin

That construction was original installed in 1978 and always functioned without problems and leakages!The forces are moderate on this spot.I made a calculation and only a maximum compression force of 120 Kgs is put vertically on the Pivot.And last , as for this , I don't think it will work. It does with my L27 but the l27 has back swept spreaders where the l23 hasn't. That's why the triangle or piece of pipe I was talking about has to be attached to the upper shroud chainplates at the bottom and to the shortened upper shroud at the top. if not they wouldn't be exactly inline with the poivot bolt of the mast.And this changed arrangement stays that way , also when the mast is upright and you go sailing! So I'm afraid you have to shorten the upper shrouds anyway.

Ad

What I meant was not to secure the upper shroud the same point as a frame. **No I did understand that**.It would be easier if the L23 had the same toe rail as L27, it would distribute forces better.**I don't see that point , its only easier to attach the "triangle to the toe-rail on the l27 than to a specially installed chainplate on the l23**

I got the idea that the spreaders are not so stable and using the forward shrouds with same pivot point as the top shroud inline with the mast pivot could prevent the spreaders breaks **That's not necessary at all , either teh lower forward shrouds or the topshrouds are enough to keep the mast straight. At my L27 I use teh forward lowers and on my L23 I used the topshrouds. Both worked fine.** The upper portion of the mast does not need to be controlled and we just want to keep the mast in line.**Correct , see above.**
Any way the status is that my blacksmith has not received the materials for a frame yet and the plan is to make a 150 mm long U-profile for toe rail and mount the a-frame on that. I suppose you mean the way I did at my l27 , see picture. **Those U frames are available on the market by the way (in germany at http://www.edelstahl-haese.de/home.htm see under M and picture !) . They weren't even very expensive and very nice machined and polished!** Relief of the pull from upper shroud will be in front of the A-frame pivot points.**??? are you extending the A-frame to behind the pivot of the mast?? IYou probably mean that the A frame pivot is closer to the Bow than the attachment point of the upper shroud ?** The extension for the upper shroud will be a flat iron at 550 mm.

/Ego

I would like to propose that you make a drawing and send that to me by email (mail adress is in the members directory in the members only area). then I can put it in the thread and give you my opinion on it.

all the best,

Ad

Jean Pierre Terrey wrote

On my L23 the A frame is hinged as shown on the first chainplate, but I attach the babystays to the A frame using the pelican clamp to a carabiner locked onto each leg of the A frame. This distributes the load from the apex towards the centre of the A frame. If the weather is good, I'll film the whole event in 3 weeks when I lower the mast.
J-P

Now my mast is down.
It went very well.
I've put pictures on: http://leisure23.egonik.dk/#home
I also have a video but have not managed to get it uploaded yet.
I hope this can be helpful to others and say thanks for the help I have received.

/Ego

Hi Ernst,

Regrettably I didn't see any pictures of the mast lowering device .I'm especially interested in how you connected the forward lowers or babystays as you call it to the A-frame.I can't figure out how you could lower the mast that way without troubles because the connecting points will not be inline with the pivot of the mast. Can you make a picture or drawing of it and send it to me by Email?

As for the video:Can't you upload the video to your own website? May be the maximum size allowed is too low for it. Sometimes it helps cutting the video in two or more pieces and upload them individually. You also may upload them to Youtube (getting an account is free) and put the link in a message.

I don't think a video can be put in the Leisure website but to be able to do so it must be somewhere in the web anyway because it will be too big for Email.

Ad

Hi Ad

There are 36 pictures, you have to click the thumbnail to see them all.

I think we have a misunderstanding about the forward lower shrouds - I have not used it, just disconnected it and used the mounting point for the A-frame as showed on the pictures. I was thinking of using it insted of the upper shrouds.

I am going to cut the video down from 35 minutes to app. 10 minutes it tages to lower the mast and then put it on youtube or my website.

/Ego

Picture link:
http://iloapp.egonik.dk/gallery/leisure23?Home

Video link:
http://www.youtube.com/watch?v=VxrEcwkrTtQ&feature=mfu_in_order&list=UL

Last modified: 17 Oct 2011 8:07 AM | Ernst George Oszadlik

Thankyou Ernst.

They say a picture is worth a thousand words - your pics + video are incredibly useful, and have boosted my confidence in tackling a maintenance job that I have been shying away from for a long time.

Allan Brown

Lots of examples:
http://www.google.nl/search?q=mast+lowering+system&hl=nl&gbv=2&tbm=isch&ei=5LvgTsvRGMSBOqvI7P0J&start=63&sa=N

http://www.google.nl/search?tbm=vid&hl=nl&source=hp&q=mast+lowering&btnG=Zoeken&gbv=2&oq=mast+lowering&aq=f&aqi=&aql=&gs_sm=s&gs_upl=1344l7836l0l9355l13l13l0l7l7l0l224l1065l0.3.3l6l0