

April 26, 2011

GREAT LAKES ALBERG ASSOCIATION Presents

GLAA NEWSLETTER

April 2011



Commodore's Corner:



Warm sunshine, milder temperatures, fresh Spring breezes....all the ingredients for bolstering the anticipation of preparing our good old boats for launch....and don't forget to have that tube of Bengay or A535 Rub handy the next day!

At this time of year you will find a variety of boating magazines have included detailed spring checklists for your reference. Many boat owners over the years have created their own checklists, however, for new Alberg owners these lists can prove quite helpful along with the very informative Maintenance/How To pages on our GLAA website.

From one coast to the other this year, it seemed the snow just didn't want to end...hopefully, the little flurry we had earlier in the week (mid April) was the last of it. Nothing deters Alberg owners each and every Spring, from braving the elements to prepare their boats for launch...though, I must admit the frequent rainstorms and high winds we've been experiencing down here in Prince Edward County lately, are making it a bit more challenging for painting the bottom of my A30! In our boat yard this week, I couldn't help but notice the number of boats that still had their winter covers on. Only a couple were uncovered waiting to have their hulls cleaned and polished, and a new coat of paint applied to their bottoms.

The severe weather system the entire world has been experiencing over the past year has me wondering just what our already short sailing season will be like this year. No matter what, I am determined to make the most of the time I can be out on the water with my husband and our zoo crew! I hope all of you have a wonderful year on and off the water, and look forward to seeing you at our GLAA events throughout 2011!

Clare Matthews, the GLAA's hard working Membership Director has been busy putting together this year's Members Roster. Included in the 2011 Roster is a new separate section listing Boat Names first then their owners' names. As well, you will find a list of 2011Events so all GLAA members (at least those of you who wanted to be included in the 2011 Roster and sent in your renewals by the March 31st deadline) will know what activities are planned for both our racers and cruisers. Updates to this list including more details, will be posted throughout the year on the GLAA website Event Calendar. Please visit the site periodically to keep well informed, and as always, Dennis Litchfield (Webmaster Extraordinaire) will continue to email notices to members advising of any changes or 'pre-registration required' to events.

The Executive Team will be continuing to source venues for GLAA organized activities (including Seminars) in the 'north country'. There are a growing number of members keeping their boats on northern bays and lakes. A GLAA event (or two) would provide an opportunity to bring everyone together and share in the wonderful camaraderie so characteristic of Alberg sailors.

Throughout 2011, there are GLAA racing/cruising events planned in the central (Toronto) and in southeast parts of the province, however, there is nothing planned so far for the north or northwest parts. I would like to invite members who keep their boat in these areas to help your Executive by submitting ideas for a few events (both on the water and on the hard). Currently, I am speaking with a couple of companies in the marine industry located in the Georgian Bay area who have expressed an interest in hosting one of our Seminars. Stay tuned! Please contact me directly or email your suggestions by using the 'Contact Us' link on the GLAA website. As always, I look forward to hearing your comments and ideas. Please keep them coming! Thank you.

Fair Winds, Cathie

Membership Report

The **Great Lakes Alberg Association 2011 Membership Roster** will be launched in April before the fleet sets sail. Members last year wanted to have their roster on board before the sailing season started and the Executive team agreed.

Look for these new features in your copy of the 2011 Roster:

- A schedule of the **2011 Annual Events** is included to help you fit the GLAA events into your sailing plans for 2011. Dates and locations are listed for events confirmed at the time of publishing. Please check the website at www.alberg.ca for updates and event details.
- We've added a **Roster by Boat Name** list which is an alphabetical index of sailboat names with the corresponding GLAA Member(s). A quick reference for identifying fellow GLAA sailors on the water.

Clare Matthews
GLAA Membership Director

The Syronelle Cup Races *June 10, 11 and 12*

Just a reminder that the races are on that weekend hosted by the Toronto Hydroplane and Sailing club and that Phil Birkenheier is looking for **two loaner boats**.

Phil is also looking for crew volunteers and you can contact him at cpbirkenheier@hotmail.com

For new GLAA members the Syronelle Cup Races are a CAN-AM competition with a team of one or two crews from the Chesapeake Bay Alberg 30 Association coming up to compete, hence the need for loaner boats. In the fall a GLAA team will travel to the Chesapeake to compete in the Rankin Regatta.

GLAA "On the Hard" Seminar Series *Sailmaking with Brian Chapman and Tristan Storey of UK-Halsey*

It was a delightful, informative Sunday afternoon spent at the sail Loft of UK-Halsey in Toronto. There, Brian and Tristan taught us the intricacies of warp, fill and bias.

Warp is the name of the threads that run the length of a bolt of sail fabric, fill are the threads that run width wise and bias is the angle of 45 degrees to the warp and fill where important stress measurements are made.



Many different types of threads are available for the fabric and are selected based on the use the sail will be put to, cruising vs racing, exposure to sunlight, dollars, etc. Sail fabric is engineered for the purpose and the threads selected for the warp are usually different from those for the fill. In fact, you can have a mixture of threads in either direction in order to meet desired qualities for stretch resistance, durability and smoothness of surface.

Tightness of the weave is also important, a tight weave is more stretch resistant but also more prone to tearing. Usually the fill threads run straight and the warp threads are woven around them but there can be variations.

And then, the cloth can be treated. Chemically treating the fabric will give it a smoother, harder surface. This is usually done for racing sails and while treating improves the performance it also shortens the life of the sail.

Brain and Tristan passed around samples of the same material one untreated and two others with different degrees of treatment. It was hard to believe they were the same material. The untreated material was soft, pliable and impossible to tear with your hands. The treated material was smooth, stiff and very easy to tear. This is why racing sails don't last long, raising and lowering wears on the stiff fabric eventually creating a weak point that could produce a major rip.

UK-Halsey also designs sails and Brian and Tristan demonstrated the software they have to do it. The program has the metrics for all the major boats and to that you add the metrics for the fabric you will be using and presto, you have your design. A rotatable image comes up that allows you to view it from all angles and see the stresses at play. You can also vary some of the factors and fine tune the final design to your own particular needs. The program precisely lay out the cut for each strip of fabric in the sail and it is fascinating to see how the material is laid out so that the strength of the fabric nicely aligns with the stress lines of the sail.

UK-Halsey has several lofts around the world and all do design and maintenance but there is only one manufacturing location in Hong Kong and all have full online access with Hong Kong to share information on design and materials.

From the maintenance point of view this loft seemed quite busy. Brian mentioned that they had some 400 sails stored there for the winter that they were inspecting and repairing. No doubt our mother's old saying, "A stitch in time saves nine." is especially true for sails.

The afternoon concluded with a discussion on rigging both on the setting up of the mast and the sheeting of the sails.

Our thanks to Brian and Tristan.

Dennis Litchfield

Do as I say, Not as I did

by Gord martin, SV Maggy Fields IV,A37

This is a story of a very frustrating air leak in my fuel system, caused by some bad choices I made about 5-6 years ago; the exact date is in my maintenance log on the boat, but it is too darn cold to go look now. It started with wanting to make sure I had a fuel pump backup in case of failure on my 35 year old Farymann diesel. I found out that I could not buy a rebuilt kit for the fuel pump nor could I get a new pump. It seemed like a good idea to have an electric pump as a backup. A bit more study revealed the fact that the fuel circuit had to be different for the electric pump, so I converted completely to the electric, removed the mechanical pump, and bought a second electric pump as my spare. Around the same time I replaced the engine fuel filter with a new Racor filter assembly. The original had been using 20 micron automotive filters while the Racor is 2 micron. The

main point of this story is that, in the process of making all these changes, I inadvertently used three different types of thread sealer, none of which were recommended for diesel fuel. I learn all my lessons the hard way.

The problem started in the Murray canal on the way back from the Picton Rendezvous. I had spent a night at the wall and when starting the engine in the morning it started then stumbled a bit then ran OK for the day. All day I worried about the engine but it stayed running flawlessly. I anchored in Cobourg that night and in the morning EYC friends called from the reciprocal wall, saying someone is leaving, come on over. OK, I'll be there in a minute. Oops, the engine started then died. I have been through this before, so, jumping to the wrong conclusion, I quickly swapped the fuel pump, bled the system, and it started and ran perfectly. I was a bit puzzled as to why a fuel pump would fail at 120 hrs., as I had changed it at New York in '09. Next morning I started the engine and again it died after a few seconds, so obviously I was wrong about the fuel pump. It was the bleeding that did the trick. At this point I tightened all the hose clamps, and searched everywhere for a fuel leak, but nothing was visible. It seems that air can get in where fuel won't come out. All it took to get the engine running well for the whole day was to bleed the injector pump for about 2 seconds. I bled the engine each morning to get myself back home, all the while thinking of possible causes. The most likely suspect was the copper washer on the bleed screw. I met Charles Gallimore of E&C Marine walking the dock at Whitby, and he confirmed that the bleed screw washer was a likely cause. He suggested getting a nylon washer as the copper tends to work harden, but I had no luck finding nylon washers at Home Depot or Canadian Tire.

After a long hard motorsail to windward, I got to EYC, unloaded my boat after dark, and lost the bleed screw in the gravel parking lot! Murphy strikes again! Luckily I had noted some measurements, and I have a machine shop as a last resort. Next day I went to Rovon Diesel and they searched but could not find a bleed screw anything like I needed, so I said never mind, I can make the bleed screw, all I need is some 6mm copper washers, which they had.

I made the new bleed screw and installed it with a new washer. It ran great for 2 or 3 days, then the same old problem. Then back to analyzing; what could cause a vacuum in the fuel system? Could it be plugged filters; I was shocked to find that I had 280hrs on the filters, so I changed filters and it ran great; for a week or two, then the same old problem. Next I changed the copper washers on a banjo fitting, replaced a piece of hose which looked a bit soft, and made a new nylon washer for the bleed screw. Same thing; it seemed perfect for a few days then it would start and die as before. Toward the end of the season it needed bleeding every time I started up, so I got to be very fast with the operation.

At this point there was nothing left to check but all those ¼ NPT brass fittings which I had changed a few years ago. I was not going to go through all that labour without knowing I had the proper thread compound, so I went off to Harper Diesel and asked what they use for sealing threads in fuel systems. \$25.00 and five minutes later I had a small tube of pink goo made for Detroit Diesel by Loctite. I stripped out the 7 or 8 fittings, cleaned them thoroughly, applied the new sealer, popped the hoses on, bled the system, and it started and ran perfectly. I could only test it 5 or 6 times before winterizing the engine, but I am quite sure that the problem has been licked. I wonder what old Murphy will throw at me next year.

Tech Talk *with Don Campbell*

In this issue Don discusses three technical aspects of sails.



I will discuss three technical aspects of sails in Tech Talk and if you have questions, then we can go on further. The first is the way they work and while I mentioned a bit about that in the balance sections last year, there is always more to consider. I will assume that you have been able to understand how the forces work perpendicular to the tangent to the curve of a sail. However, the sail profile and orientation of the curves change with height and so the resultant of all forces needs to be calculated in three dimensions. This gets to be confusing for some of us and I don't know an easy way to visualize this except to say that a beach ball surface might be as good a proxy as any, where you can imagine a sail shape drawn on that surface. (Just use one sail at a time).

To get good sail shape so that we do get forces pulling for us in constructive ways, we need to be able to control the shape of the sail surface in the winds we have available. This means that you have specified to your sailmaker the normal winds you sail in and he has done his best to cut a sail for you to be able to get the most out of that wind speed. For Toronto, that average wind speed might be between 11 and 14 knots but the sailmaker will have chosen a specific wind speed, like 12 knots. That means that you need to have sail controls to set the sail shape for that wind speed, and more to allow you to change sail shape for every other wind speed than the designed one, if you are to maximize the energy transferred. If you don't want to maximize the energy transfer, you at least want to utilize some of the energy and incur some of the energy transfers. To allow us to do this, fortunately, sailors of the past and naval architects have given us various sail controls. The hardware companies make it easy for us to use these controls. There are at least 8 controls for foresails and 10 or 12 for the main. And with sail shape, to maximize the transfer, very small adjustments (as little as two inches on the genoa sheet) make a big difference to boat speed. "Just about right" will not do for those of us who want performance. The easiest way to see these differences is with a good knotmeter and compass. The one shows changes in boat speed and the other shows changes in pointing. I have a knotmeter that measures in 100'ths of a knot, and while I don't worry too much about accuracy at that level, it does give a very good indication of the relative differences at very small increments. As a skipper, I always know whether I am speeding up, staying at constant speed or slowing down. For course made good (CMG), GPS is the best tool, but there are times when one needs to foot off for acceleration and that does not show well on CMG plots. GPS speeds are often relative to the ground and boat speed is a function of speed in the water. Therefore, knotmeters are a better guide for boat speed than GPs units.

The correct setting for a sail under load is the one that allows all of the telltales to fly straight aft with the possibility that those on the windward sail surface of foresails can lift to 45°. This is the indicator to say you have laminar flow across the sail membrane. Your sailmaker ought to have telltales in at least 3 places aft of

the luff on a foresail and as many as four on the leech of the mainsail. These are the tools that are there to use to show you when you have his sail working as well as you can. They are the tools that show the deflection of the air currents around that foil that you cannot see otherwise. If you don't have telltales, take the sail in to your sailmaker and have him add them or add them yourself at the places where they have been lost.

To trim to the genoa telltales, if the leewards are rising, let the sheet out and if the inners are rising, pull the sheet in. In other words, take the sail towards the ones which are not flying. Once the sail is set and the course is determined, you can steer to the wind changes. If the windwards are rising, steer downwind and if the leewards are rising steer upwind. Steer away from the telltale that is not behaving. It has the same effect as the trimming rule. The main telltales are to fly straight aft and you may have to juggle settings of controls if the main is off the centerline of the boat so that weather helm is reduced. Twist will play a part on these settings on both sails as well.

Controls:

The principal control for a foresail is the sheet. It is the line that we use to set sail shape tension and to adjust the sail to get the tell tails flying. Tension on the sheet is the primary way we adjust foot tension and therefore curve on foresails. This sheet is usually controlled by a winch and so it matters how easily you can adjust things using the winch and whatever cleats you use. Having a system that allows a 2" slip every time you cleat it is not an easy system to work with and the technology to-day with self tailing winches far outdoes those winches that were originally fit on most Albergs. These new winches are easy to use and control the line to the millimeter, for even the fairest of cruising crew and almost of any age. Other controls on the foresail are halyard tension, which sets the entry for the angle of attack, cunningham which may be used to take up any slack or stretch of the halyard if the halyard is rope, headstay sag which sets draft depth and curve on the angle of entry, lead position which sets the position of the tension of the sheet, track position, whether inside or outside, which sets the slot placement, barber haulers, which set the position of the sheet tension on downwind situations, and whisker poles which are rigid struts for clew placements. There are often leech lines and now foot lines added to foresails to fine tune the lengths of these two lengths.

The most used controls of this list are the halyard and sheets and between these two, and lead placement, you should be able to adjust the tensions on the sail to get the 3 levels of telltales flying. You will normally find that even on Alberg 30's there are differences in wind directions and strengths within the first 40 feet above the water. Thus, you may want to have the top of the sail with a different setting than the bottom, so you may want a bit of twist. Change the car location to get this. All you can really do is play with the controls in the wind you have to get those 3 layers of tell tales all flying. Then you will have the sail working as designed and built and the boat will be moving well. As I have said previously, this foresail is more effective than the main by a factor of 1.5 to 1.8, so you really want this sail working well. The faster you go the more the angle of attack can be lifted so you will be pointing better too. The foresail is always in undisturbed air so gets the first and best shot at transferring energy from wind to boat. Use it well.

The controls on a mainsail are far more than on a foresail. While the principle controls are the same: sheet and halyard, there are very different jobs here for the sheet. The only things the main sheet does is keep the position of the boom on its arc stationary and keeps the angle of the boom somewhat controlled vertically. There is no tension on the foot of the mainsail controlled by the sheet. The foot tension is controlled by the outhaul. Then you have backstay adjustment again but that really sets the orientation of the boom on downwind courses and tips off the top of the sail. One may still have a cunningham on a mainsail and it can be for halyard sag or luff tension if a sail has stretched too long to get between the black bands for race sail size adjustment. There is a boom vang to control the boom lift on downwind courses and that may be supplemented by having the mainsheet on a car that rides on a track. There are reefing points in a mainsail to control the effective sail area without changing draft position in the cut of the sail. (There is no equivalent with roller “reefing” systems for the foresail because the draft moves forward once you start rolling and sail shape is changed considerably.) Mast bend changes sail shape (but this is not a very plausible control with AL30s). Mast rake will set the balance points and to some degree change sail orientation so change sail shape too. The traveller can set allowable sail shape particularly the shape between sails and be used to offset weather helm. Battens are yet another control to set sail shape. This can be done by using different length or strength battens or by adjusting the tension on the equipment you have for holding battens in place. Particularly with full battens, you may find that a weak batten up top is required on light air days to allow twist to be a smooth transition curve. You may also find it possible to add draft by shortening the adjustments and make things flatter by lengthening the adjustments.

It should be obvious now that there is a necessity to have the controls on the foresail working in conjunction with the controls on the mainsail to maximize thrust. To get this, you will have both sails at a point just greater than a stall and that is the sail set that allows you to go as fast as you can. It is a very fine line because over trimming will stall the boat, but being right next to that point allows for maximum energy transfer and maximum speed which gives maximum pointing ability. My question to you is “Are you using all of your sail controls to get some fun out of your boat?”

As always, I invite questions and comments from the readers. You can reach me at dk.campbell@sympatico.ca

Don Campbell

INFORMATION TIMBITS

An Invitation from the Great Lakes Fleet of the Cape Dory Sailboat Owners Association

Good Morning GLAA from the Great Lakes Fleet of the Cape Dory Sailboat Owners Association. We are staging a sail or drive in this summer (date to be announced) in the Mackinaw Straits area. We would like to invite all of your members to join us in celebrating our mutual designer, Carl Alberg. For more information please visit our website <http://www.capedory.org/board/viewtopic.php?t=28322> or contact me directly at: mpr@seascan.com

Hope to see you there! Mike Ritenou, CDSOA Great Lakes Fleet Captain. Our Commodore Cathie will be talking to Mike and you will also be able to learn more of this event from her at zoocrew@kos.net.

Quotes from Doris Hansen

Doris Hansen was the wife of Kurt Hansen and part owner of Whitby Boat Works. In **1965** when she was Treasurer of the newly formed Alberg 30 (Great Lakes) Association, what she had to say then *still* applies today for the Great Lakes Alberg Association, **some 47 years later!**

By having a strong Association you will maintain the one design feature, thereby enjoying very keen and competitive sailing only possible with a one design boat.

*Let's face facts, the publicity and reputation of the Alberg as a dependable cruising boat is partly through its performance on the racing circuit. The publicity is what maintains the very high interest to prospective boat buyers and keeps the resale value of your Alberg as high as it is. Join our Association, come to our meetings, contribute to our Newsletter and **be proud** of the boat you own.*