



Ranger 23

Owners and Class Association Newsletter

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The Lifesling system consists of a yellow flotation collar attached to 125 feet of polypropylene line, a 3-to-1 hoisting tackle rig, and a storage bag with instructions printed on both sides. In this photo the polypropylene line is inside the bag.

Safety At Sea

Many years ago Pat and I crewed on a new Bristol 34, *Banshee*, out of Marina del Rey in Southern California.

The start was off King Harbor. The wind was in the twenties so we started the race with our smallest headsail and one reef in the main. We were doing quite well as we beat into the swells almost parallel to the beach. Suddenly we heard a loud crack, and saw the top half of the mast just above the spreaders hanging and flailing in the wind.

The wind was now in the upper thirties. We were sitting broadside to the waves off the El Segundo beach. I went forward and wrapped my legs around the mast base and tried to pull the mainsail down. Pat and Lee Boldaska straddled the spinnaker pole on the foredeck and started pulling the jib out of the water. I kept my eyes on each incoming wave and yelled to Pat and Lee to hold on as each wave broke over the boat. With good crew work we got the sails and wire back on the boat and were able to start the engine and motor back to Marina del Rey.

The boat was new and had only one light air race. With these much higher winds, none of us thought to keep a close eye on the mast as it was experiencing these much higher rig loads. If we had, we would have seen that the upper windward shroud was stretching under these first heavy loads. The shrouds had not been pre-stretched. This was the cause of the rig failure.

A catamaran in the same race capsized and lost one crew member. If someone had gone overboard during the dismasting on *Banshee*, we might have lost them also. I learned a lot from that race and it has influenced my sailing ever since then.

Man Overboard

Hopefully, you will never need the information provided in this article. However, if you are ever faced with a man-overboard situation this could be the most important sailing article that you have ever read.

Because the Ranger 23 is most frequently sailed with only two to four people on board the recovery of an overboard person can present a difficult situation. This is particularly true in Puget Sound and similar locations where the water is very cold. A quick recovery can mean the difference between life and death.

No one has ever gone overboard from *Kittiwake*. However, my wife, Pat, ended up in the water twice from our Cal 20. While practicing for the Cal 20 Nationals off Marina Del Ray, California, we were sailing wing-and-wing downwind toward a mark. I saw that a fleet of small boats were sailing upwind and approaching the mark. Not wanting to interfere with the race I asked Pat to go forward and take down the whisker pole. As she started back to the cockpit I realized that I was approaching the mark too quickly. Without thinking I jibed the mainsail over just at the wrong time. The boom caught Pat and nicely dropped her into the water beside the boat. She had her lifejacket on and I was able to reach down and pull her on board.

In another Cal 20 race under PHRF, I was late in calling for the spinnaker takedown at an inshore mark. In the hassle of raising the jib and dropping the spinnaker the jib sheet got hung up on a bow cleat. As we rounded the mark Pat went forward to clear the sheet. As she came back aft a wave bounced us around and she went over the side. However, as she went over she was able to grasp the deck edge, and hand-over-hand she worked her way back to the cockpit where I yanked her back on board. No damage done, no places lost, the race continued.

Both of these situations could have come out much worse if the water had been cold, the boat traveling much faster, we were under spinnaker, or it had been me in the water. A 200 pound husband in the cold water and a 140 pound wife on the boat can mean just that, life or death. A very cold and exhausted person in the water simply may not be able to climb back on board without help. We have read of several such accidents over the past few years.

When anyone new steps on board our Ranger 23, *Kittiwake*, they get the standard safety introduction. Pat and I almost always wear our life jackets, so jackets are offered to guests. If the winds are light, we are not racing,

they will not be leaving the cockpit, and they are good swimmers, we don't always force the jackets on them. However for racing, everyone wears a jacket in all but light wind conditions in the summer. On *Kittiwake*, anytime that foul weather gear is put on, life jackets are required!

Additional safety gear on board includes a large yellow U-shaped life ring and the Seattle Sailing Foundation's Lifesling system.

The U-shaped life ring is stowed in the starboard cockpit seat locker. A short length of black webbing is tied to the life ring and left hanging outside the lazarette. All the person on board has to do is grab the exposed webbing, pull the life ring out and throw it to give the person in the water additional flotation.

However, the primary means of recovery is the Lifesling system. The Lifesling is designed specifically for short-handed man overboard situations. It consists of a flotation device attached to a long polypropylene line, and a block and tackle system for recovery. These are stored in a nice white or yellow bag. For racing we set the bag on the floor in the aft end of the cockpit. For cruising the bag can be attached to the stern pulpit. The long polypropylene line is spliced to a short length of Dacron line that is tied to the stern pulpit.

The Lifesling was developed after a long series of experiments and tests on Puget Sound by the Sailing Foundation of Seattle. The Lifesling is the ideal man-overboard recovery system for a small short-handed boat such as the Ranger 23.

The six steps for using the Lifesling are printed on both sides of the bag.

1. Stop boat immediately, maintain usual contact, deploy the Lifesling.
2. Circle the M.O.B. until contact is made.
3. Stop boat immediately, drop sails. M.O.B. Puts Lifesling on. Do not tow M.O.B.
4. Pull M.O.B. slowly alongside boat.
5. Rig hoisting tackle.
6. Hoist M.O.B. aboard.

These are the basics, enough to serve as a reminder when in action, but a more detailed manual also comes with the Lifesling. I also have a video tape with three short demos of the use of the system. The following is the key parts of the narration from these tapes.

When the worst happens immediately luff up into the wind to slow the boat and throw the Lifesling over the transom. Keep contact with the man overboard and don't panic. With this system the Lifesling, not the boat, is delivered to the victim. Very little boat handling skills are required. Have someone point at the victim and keep him in sight at all times.

Resist the temptation to start the engine. Many tests have shown that the average sailor has a much easier time with the boat under sail.

With the Lifesling deployed tack the boat. Leaving the jib cleated through the tack will help the boat turn quickly. With a spinnaker up immediately turn the boat back into the wind and

release the spinnaker halyard so the sail will come down on the foredeck.

Steer the boat in a circle around the victim. In most situations this can be done without trimming the sails.

As the boat circles, the floating retrieving line will tow the Lifesling inside the boat's wake much like a water-ski rope. This will deliver the floating line to the victim usually on the first or second circle.

Once the victim has the line in hand, head the boat into the wind and stop the boat dead in the water to avoid towing the victim behind the boat. To keep the boat stopped drop the sails, headsail first. The victim gets into the flotation collar.

At this point the rescue is well underway. With the boat stopped, use the retrieving line to pull the victim to the boat. If necessary the line can be taken to a winch. The victim will be safer, more comfortable and easier to pull while floating on his back.

Once he is alongside pull the victim as far out of the water as possible and cleat the retrieving line securely. The strain on the line will keep the victim secure in the Lifesling and his head and shoulders out of the water to reduce the chance of hypothermia.

Remember, at this point the emergency is over and proper procedure is a lot more important than speed.

The lifting tackle, which is best stowed in the bottom of the Lifesling bag, can now be rigged. The bottom end of the tackle is passed over the lifelines and snapped into the large loop which attaches the retrieving line to the Lifesling.

The main halyard is used to lift the top end of the lifting tackle. Actually, any halyard will work, but the main halyard may give the best lead for the bottom part of the tackle. The halyard should be pulled to lift the top block of the tackle so that it is raised to about 10 feet off the deck. This height will enable the victim to clear the lifelines during the hoisting. Cleat the halyard securely.

The lower hauling part of the tackle should then be taken through the normal jib lead and to a winch (a self-tailing winch is desirable).

With the winch, take a strain on the tackle and release the retrieving line. Use the power of the winch and tackle to lift the victim out of the water and over the lifelines. Get the victim dry and warm as soon as possible.

With any luck at all you will never need to use your Lifesling in a real overboard situation. But it is very important to rehearse the drill. A practice session aboard your boat with your crew will familiarize everyone with the system and give them the confidence to carry out a real rescue, calmly and successfully.

All of that sounds fine, and the video taped demonstrations show that the Lifesling does work. However, a few other comments should be made.

Retrieval of a man overboard at night can be much more difficult than under daylight situations. The basic problem of course is knowing where the victim is relative to the boat. When sailing at night on *Kittiwake* each crew member has a personal strobe light (Forespar RL-2) and a whistle. If we were sailing in the open ocean at night we would also install a man overboard pole on the stern pulpit with an attached strobe light (this was required for offshore races in California).

The major problem with any man overboard system is, does the person left on board know how to use the system? I suspect that most people who purchase the Lifesling, install it on the stern pulpit, read the instructions, but then never teach their crew how to use it. Probably even fewer follow through with live practice sessions. No one wants to intentionally jump overboard into cold water and hope that their crew will recover them quickly.

For the crew left on board the first part of the recovery is fairly simple. Deploy the Lifesling, circle about the victim until he gets into the flotation collar, lower the sails, and pull him up to the boat. This is a lot easier than trying to sail the boat back and alongside the victim.

The only difficult part is that before pulling the victim alongside you have to stop the boat by lowering the sails. It doesn't take a live overboard test to learn this part of the system. Just announce that you have gone overboard, step back and watch as your crew deploys the sling, makes several circles, drops the sails, and pulls the sling to the side of the boat. No one gets wet in this exercise.

Hooking up the lifting tackle is a bit more involved and definitely needs some practice before it is actually needed. The lifting tackle consists of a fiddle block with extra large bail for your halyard shackle, a single block with carabiner, and 65 feet of braided line. Attaching the fiddle block to a halyard and the carabiner to the flotation collar is a simple task. However, figuring out where to run the braided line can be a bit more difficult. The solution is to pull the genoa sheet out of its genoa car and turning block, and then weave the hoisting line through these same blocks and to the genoa winch.

Training with the system is important. If you put off setting up a system and doing the proper training, someday it may be too late.

Surprise Curtains

E-Mail from Nicole Wells:

Hello there! My boyfriend has worked very hard over the last three months restoring his boat. It is almost done and I wanted to make curtains for the inside windows as a surprise. Do you know the dimensions of the windows? I know this may be an odd request but if you know offhand I would appreciate the info. Thanks!

Reply:

I went down to my boat this morning and measured the windows. I hope that the following information will help you.

The Ranger 23 has three windows on each side. All of the dimensions given below are to the outside edges of the window frame. The frame itself runs all the way around the window and is 1 1/8" wide. The frame is aluminum (or maybe plastic in newer boats).

I will assume that the boat you are working with has never had curtains. If it has, you will have to somehow find out how they were attached to the boat. Obviously, curtains on a boat are not done using any of the same hardware that you would find in a house.

Curtains are usually attached to a plastic track screwed to the wall just above the windows. Some people also put a track just below the window so the curtains will give complete privacy in the cabin (the sides of the cabin slope inward slightly so, without the lower track and with the curtains hanging straight down, they may not close off the window sufficiently).

There is only a width of about 2 1/2" above the windows, and 2 1/4" below for the curtain tracks. That means that the maximum height of wall space for the curtains in the main cabin will be about 12" (the curtains would probably be a maximum of about 10" to 11" high). The total distance from the forward edge of the forward window in the main cabin to the aft edge of the aft window is about 52 3/4". The distance between the two windows is only 4 1/2" so some people use a continuous stretch of track above and below the windows. There is 1 1/2" of space in front of the first cabin window and about 9 1/2" behind the aft cabin window. You probably would want to start the curtain track as far forward as possible and extend it aft into the 9 1/2" space, and use at least two separate curtains so that they can be slid aside to let in light.

The forward main cabin window has the following dimensions: The forward height of the window is 6". The window gets higher on the aft end where it is 6 3/4". The corners of the window are rounded. The length of the window is 26 1/4". Again, these dimensions are to the outside of the window frame.

The aft main cabin window is 6 1/2" high at the forward end and increases to 7 1/4" at the aft end. The window is 24" long. The corners of the window frame are rounded. The small window in the forward V-birth area is 6" high and 13 3/4" long.

The West Marine Catalog shows a PVC Drapery Track System that should work great on a Ranger 23. The Flexible 3 ft. Track sections come in white or brown. Snap carriers and snap tape are also available as are end caps for the track. They describe the installation as follows:

1. Affix the track to the interior cabin surface with screws.
2. Slide the snap carriers onto the track.
3. Sew a length of snap tape to the fabric, and snap the curtains to the carriers.
4. Affix the end caps to finish the track ends.
5. Purchase one track section, and one package each of snap carriers, snap tape, and end caps for every 3 feet of curtains. The total West Marine cost for the track system, four 3 ft. sections, for the Ranger 23 (without the curtain material) would be \$44.66 (with only 2 packages of end caps).

You can contact West Marine at 1-800-262-8464. The above description is on page 647 of the West Marine 1999 Master Catalog.

Please let me know who you are building curtains for and how it all comes out.

From Patrick Early, San Francisco, California:

I'm writing to offer my most sincere thanks for a couple things

you've done for me lately:

First, my girlfriend presented me with some beautiful curtains for my R-23 which, thanks to your communication with her, look absolutely stunning. That was extraordinarily kind of you to help her out like that and I really appreciate it.

*Second, I was stunned at the amount and quality of information you sent me in the R-23 Association packet. If only I had this information before I started restoring **Crazy Horse**! It's been a tremendous help in getting the boat prepared for racing again -- with any luck I'll be starting my first beer can race this July. I still owe you a couple things -- the serial number of **Crazy Horse** (it's a '73 short rig) and the article and photos of the bulkhead replacement project I wrote of. I'll get them to you as soon as I can, I promise.*

Thanks again Arvel. Please let me know if I can do anything to return the favor down here in San Francisco.

Boat Trim and Leaks

From Jim Harley, Harbor Springs, Michigan:

I am back from sailing to Cuba again in the little tub. I have two questions if you don't mind.

*I noticed **Grendel** (the name of my Ranger 23) as it sits in the water. It seems to be slightly bow heavy, and not sitting evenly. Any thoughts?*

I have had some leaks. I have now pulled out and sealed and reseated everything I could touch (chain plates, stanchions, hand rails, etc.). Yet, I still manage to take on water under the bunks. The only reason I can figure is that water is collecting under the main cabin hatch cover (due to waves, spray, etc.). The water underneath the cover has no where else to go except through screw holes or spilling otherwise from under the cover. Now, if the boat were sitting level or bow-high, the water would drain out; or if drain slits/holes were in at the base of the main hatch cover, the water could drain out there. Should the cover be sealed or caulked?

*Thanks in advance. I will travel back to Florida this weekend to sail **Grendel** up the Atlantic Coast to Savannah, Georgia.*

Reply:

How the R-23 rides in the water obviously depends upon just how the boat is loaded. I have not observed many other boats recently so I can only comment on my experiences with **Kittiwake**.

When **Kittiwake** was originally measured for IOR racing I talked to Gary Mull about the balance of the boat. He told me that the boat was designed to float about 1.5 degrees bow down in the measurement condition. The "measurement condition" is with all racing equipment on board except the crew.

This bow down condition caused a slight forward movement of the bow waterline point but also moved the aft measurement point forward to just a few inches aft of the rudder post centerline. Gary did this so the boat would have a more favorable (smaller) water line length measurement. When a full crew is then placed in the cockpit the boat will float more normally on its lines. On **Kittiwake** the boot strip at the bow has always been partially under water

with the boat normally loaded at the dock. The boat today still floats bow down.

However, I doubt that this has anything do with your getting water in the cabin seat storage areas. With the fixed hatch cover on **Kittiwake** I have never experienced any water getting into the boat from the sliding hatch (except once when a big wave broke over the entire boat from the stern and filled the cockpit). I don't think that it is a good idea to put drain holes along the sides of the hatch cover. Just let what water that gets under the cover run out the back.

My experience is that the water gets into the storage areas from any number of other sources. I have discussed this in several previous newsletter articles.

On most boats it is wise to assume that water may somehow get into these areas. We never store anything in these areas except those items that we don't mind if they get wet (i.e., anchor line, etc.). If you do put anything in these areas put it in waterproof bags or plastic boxes.

It may take a lot of detective work to find the source of the water. On **Kittiwake** it comes from the seal around the windows and through the deck-to-hull joint under the teak toe-rail.

Let me know how your latest trip comes out. It would also be great to have a photo of your boat in Cuba along with a few words on your experiences there.

Philip Hecht Still Going Strong

From Philip Hecht, Providence, Rhode Island:

Just a few lines to bring you up-to-date since my surprise phone call a few months ago. I did work successfully on the rudder by simply drilling new bolt holes in the shaft where the tiller yoke is connected. The old holes were elongated and now there is no play at all. I feel strong and eager to hit the trail again, and, as a matter of fact, we won the first distance race of the new season, "The Ice Breaker." The main contenders were an Ericson 33 and a Columbia 34.

Last year, I won the Prince Henry the Navigator race again and received a new trophy for covering the greatest distance in six hours of all the competing classes! And best news of all I'm finally getting a new computer which will allow me to join the world on the Internet. I haven't really felt the need for it as my present Mac takes care of my correspondence and teaching needs adequately, but my young son (25) insists on my joining the 21st century.

*One more item before closing. I believe you have polar diagrams for **Kittiwake** which you published in the newsletters some time ago and which I cannot locate. Would you be good enough to send them to me? Thanks and good health and good sailing for '99.*

R-23 for Sale

Dennis & Pat Casey, San Pedro, California, have bought a new boat and are offering **Ruffian** for sale. From the photos that I have of **Ruffian**, she looks like a great boat. If you know of anyone looking for a R-23 have them call Dennis at (310) 548-4237.

Best Genoa Size?

From Ike Stephenson, Muskegon, Michigan:

Here is my idea for my Ranger 23, Explenture. She's a short rig, and is a bit of a dog in light air. My budget is tight, but still I want better light air speed. At present my biggest genoa is a 135% # 2, as my old # 1 blew up.

Also, I single-hand the boat exclusively. The sail should be easy to handle. The conventional wisdom/choice--a roller furler is out. I don't have the budget. So, my idea is to come up with a genoa, that is big enough to give some push in light air, but also be capable of being reefed down to say 100% to 110% size. The starting point will likely be a used sail. Perhaps a # 2 (to get the heavier cloth weight) from a slightly larger boat. Hopefully this sail would be around 150%. Then add 2 sets of reef points, one to take it down to # 2 size (130%) and another to get down to # 3 size (100%). This would seem to satisfy the needs of a bigger sail, while giving some of the sail handling ease needed for single handing. Also, please confirm the measurements for the Ranger 23 short rig: are they I= 27.53 and J= 9.71.

Also, based on these figures what are the dimensions/measurements of a #1, #2 and #3 for the Ranger 23, if you happen to have them?

I really would like to hear from you on this idea. What do you think of it?

Reply:

Yes a short rig R-23 is not very fast in light winds. To solve this problem alone I would probably want to go up to a 170% sail. Even when I switched to the tall rig in California I went up to a 168% genoa for *Kittiwake*.

Dick Deaver of North Sails, with the R-23, *Dove*, won the Yachting One-of-a-Kind Regatta in 1974 (off light-winded Newport Beach, California). He used a 172% 5.6 oz. genoa for 0-8 knots true wind, 172% 5.6 oz. for 8-16 knots, and a 150% 5.6 oz. sail with a single reef for 14-24 knots. The single reef in the 150% was for the "almost never happens" condition of higher winds in Newport Beach. And, this was with a tall-rig R-23 and a professional crew on board. In going to the larger genoa Deaver said, "About nine times out of ten, modifying a good heavy weather boat for light air performance works without pushing the rating too high." However, keep in mind that Deaver was racing under the old CCA rule, not under the present day PHRF system.

As to the reefing-headsail problem, first some technical information for the newsletter readers, then the practical problems.

The J measurement is the horizontal distance from where the headstay meets the deck, to where a horizontal line would intersect the leading edge of the mast (if the mast were extended down into the cabin). Since we can't stretch a tape into the cabin we must instead measure forward from the base of the mast horizontally to a vertical line (a plumb bob line) up from the point where the headstay contacts the deck.

The I-distance is even more difficult to measure. Both ends of the tape would have to be in difficult or impossible

positions. The lower end would be inside the cabin where a theoretical deck (without the cabin) would be. The other end is where the headstay at the top would intersect the leading edge of the mast. Because of the masthead crane, this upper point may be above the point where the headstay attaches to the crane.

For an accurate measurement you have to rely on an official measurer who knows how to get around all these practical measurement problems. In her early days, *Kittiwake* was measured a number of times (CCA rule, IOR rule, MORF rule).

With all of these problems most people just rely on what is shown on the official sail plan drawings from the designer. For the short rigged R-23 Gary Mull's drawing (dated Jan. 16, 1971) shows that J=9.70', and I=27.54'. For the tall rig I=30' (drawing dated Aug. 16, 1973).

For single-handed purposes I agree that a roller furler is the best compromise for ease of use. However, if you want to reef a headsail you would have the following situations.

I laid out your suggested reefs on a sail plan drawing. Starting with a basic number 1 genoa (150%) you would have to reduce the luff length by about 2.75 feet to get down to a 130% genoa size. To get down to a 100% jib size you would have to reduce the luff length by about 8 feet from the original 150% sail size.

Both of these "reefed" sails would have lower aspect ratios than conventional full-hoist 130 or 100% sails. Aspect ratio has a strong influence on the drag of the sail when generating a given amount of lift (in the aerodynamics business we call this drag-due-to-lift, or induced drag). Short hoist sails have more drag. This is why racing sailors will always prefer to reduce sail area by going to a different sail with full hoist on the luff, but with reduced foot length. We always want to use the optimum sail for the given conditions. Also, our separate sails will have different shapes optimized for each sailing condition (fullness, leading edge curve shape, etc.).

The practical aspects of reefing a headsail should also be considered. Reefing a headsail would involve letting off on the halyard and then going forward to pull the new reef tack-point down and attaching it to the deck. Next, attach the genoa sheet to the new clew reef point, then tighten the halyard back up and sheet the sail in properly. Now go forward and roll up the exposed sail below the reef points and tie in reef lines to keep the bottom of the sail from flapping. This would be necessary to avoid having the sail hang up on something if you have to tack. Assuming that you are sailing to windward, all of this must be accomplished with the sail flapping wildly while you are working on the leeward side of the boat.

All of this is not too bad with a full crew. Single-handed, it's a more difficult task.

Reefing down to a 100% sail would be much more difficult than the 130% reef. You have a lot more loose sail to deal with.

If you are only cruising, then you are not as concerned with performance, and reefing down to a shorter and

smaller sail would make the boat easier to handle. And, you would not be concerned with the time that it takes you to accomplish the reefing.

It's all a matter of personal preference. Even when cruising I like to think that I'm getting the most out of the boat and the wind given to me.

Question. What happened to your plans to race your boat single-handed in 1988? How did you do?

Reply From Ike Stephenson:

Thanks for your comments. I found out when I measured my I dimension that I am actually a tall rig. The measurement was 30 feet. Would you mind recalculating the reef points with this dimension in mind?

As for the practicality, I think with a changing sheet, and reef points that are left in the sail attached with Brummel or sister hooks it should be pretty easy. I realize that the sail in question is a compromise. If I had the money to do a new sail or a roller furler I would. However, I don't. Also, I don't race the boat. I want a sail I can use on a daily basis, and when the breeze comes up drop a reef in and be done with it. Changing the jib single handed with hanks is as bad as reefing it.

As for my plans this year in a word -- work happened! We became short staffed at exactly the wrong time. I did manage a 4 day cruise that was about 100 miles one way. I had all conditions from drifting to 8 consecutive thunderstorms with 60 knot breeze and a knockdown at night. Next year I plan to do a lot of single handing. Whether I race or not I don't know, probably not. I will still likely attempt Chicago-to-Mackinac single handed, that is a 333 mile voyage.

Reply:

For a tall rig you would have to reduce the luff length by about 3.25 feet to reach a 130% size, and about 8.9 feet to get down to 100% size.

From Ike Stephenson:

I have given up on the idea of a reefable genoa. I will be buying a new # 1 genoa, hoping to improve upon light air performance.

What size overlap do you recommend? I think 155% is a minimum, with 170% a maximum and perhaps too much considering I single hand. How does 160% sound?

Reply:

Selecting the best genoa size depends upon the local sailing conditions and the intended use -- racing or just cruising.

As you know, genoa size is measured as the percentage of the luff perpendicular (the perpendicular distance from the luff to the clew). A 150% genoa is usually considered as standard. Many PHRF rating systems allow you to go up to a 155% genoa without a rating penalty.

For cruising I would think that the standard 155% genoa would work fine. For racing it depends upon the racing conditions and the rating system being used.

In the Puget Sound we race under predominately light wind conditions. At the present time *Kittiwake* is raced with a 155% genoa. I felt that the PHRF penalty for going up to a 168% or 170% genoa was a bit too much and I didn't want to take that penalty under those days when the wind

was up. I had my old 168% genoa cut down to 155%.

With new modern sails the R-23 goes to weather great with the 155% genoa. Also, a larger genoa is a bit more difficult to tack than the 155% genoa, it tends to hang up on the shrouds more. With the 155% genoa the winch handle for the primary winch can be rotated freely through the full 360 degrees. With the old 168% sail the genoa sheet got in the way of the winch handle.

Bow Deck/Hull Separation

From Scott Galloway:

I am just a guy with a slip who is considering the purchase of a Ranger 23. I really like the boat, and know people who have owned them. It seems to be ideally suited for my abilities and needs as a sailor.

The only thing that makes me hesitate in purchasing the boat that I am considering is a rather pronounced crack that runs transversely across the deck at the bow just aft of the forestay fitting. This crack as it reaches the starboard and port edge of the deck runs downward to the hull/deck joint, and then longitudinally aft to the track which provides a mechanical connection between the hull and the deck.

I have walked the docks in my local harbor and have noticed that about 50% of the Ranger 23s I have seen appear to have a similar problem, or appear to have had some repairs to this area.

I assume that the hull/deck bond forward of the track is chemical only and that the forestay exerts sufficient force on the deck at this location to cause the separation. No one I have contacted can tell me whether this is a cosmetic or structural problem.

Are you aware of this problem? Are you aware of an acceptable fix for this problem?

I have spoken with one local owner of a Ranger 23. His bow was damaged when his son ran the boat into the dock, and he had to rebuild it. He advised me that he believes that the hull/deck connection forward of the track is a chemical bond only, and that no screws or bolts hold the deck to the hull at that location. He said that he believes that the boat I described to you and to him has had some separation of the hull/deck seam forward of the track, but that the separation is probably not a risk. He feels that the cracks can be filled and sealed. He has however not had this problem.

I also spoke to one other person who is the business partner of a Ranger 23 owner, who also owns the boat next to his partner's Ranger 23. That owner's boat has a similar separation of the hull deck seam, but the cracks have been filled with caulking compound which appears to be clear silicon. The owner's partner told me that leaks have been a recurring problem and that the owner has not solved the problem. He was not certain that the leaks originated in the damaged bow area. I now have the owner's phone number and will try to call him to obtain his opinion.

I will be appreciative of any information that you can provide on this issue.

Reply:

I have not seen the problem that you described. Of the more than 100 R-23 owners that I have been in contact with no one has ever mentioned that problem.

If you examine the outside of the boat and the deck to hull join inside of the boat you should be able to tell if there is a real structural problem, or just a case of gel-coat cracking that is not a structural problem.

The headstay fitting on the R-23 has a strap that runs down the hull on the outside at the bow so that the primary load is carried by the hull instead of the deck. Any damage to the deck in this area would probably be due to hitting a dock or a failure of the bolts that attach the headstay fitting to the hull. I have had my R-23 for over 27 years and my bow region still looks fine. I will mention your problem in my next R-23 newsletter to see if anyone else has had the problem that you describe.

From Scott Galloway:

Thank you for your response to my questions about the crack in the bow area of the Ranger 23 I am considering. I have now inspected a few other Ranger 23s and talked to a few owners. The owners agree with you that they have not experienced any structural or cosmetic problems in the bow of their Ranger 23s.

I have however seen similar cracks on three other Ranger 23s now, and the business partner of a Ranger 23 owner showed me rather large cracks on his partner's boat in the bow area running along the hull/deck seam from the bow aft to the track. The cracks had been filled with clear silicon caulking compound.

I have also noted several Ranger 23s which seem to have been modified by installation of what appear to be screws or bolts along the hull/deck seam forward of the track. I have seen others which appear to have incurred gel coat repairs in the bow area. I very much appreciate the information on the Ranger 23 Association.

If I do purchase a Ranger 23, I will join your organization. A relative of mine owned a Ranger 23 at one time, says great things about them, and now owns a Ranger 33. I can find little technical information on these great boats. Your list of printed information looks interesting and very useful.

Which Sailmaker?

From Jim Daubenger, Port Townsend, WA:

My son contacted you on the Internet last October inquiring about Ranger 23's for me. The information you sent convinced me that the R-23 was the boat I wanted. I found one I liked in Olympia and bought it. I sailed it for the first time today and I couldn't have been happier.

I think I will get a couple new sails, a main and maybe a 120. I will use the boat mostly for day sailing and a little local club racing and possibly an overnighter from time to time. I am considering a full batten main. What is your thinking on that and is there a sailmaker you would recommend?

I would like to purchase a copy of the sail plan drawing and join the R-23 Class Association. I have the 95-96 newsletters, an owner's manual and the profile of the boat by Gary Mull.

Reply:

I first jumped to the conclusion that you had Richard Sandler's old boat, but that turned out not to be the case.

I have enclosed copies of the R-23 Newsletters for 97-98 that you are missing and the sail plan drawing that you

requested.

I usually don't "recommend" a sailmaker. Any of the top three or four can probably build you a good set of sails. It all depends upon what you want to spend. New sails are very expensive. A new main and jib will probably cost you about what you paid for the whole boat. Also, my reasons for picking a sailmaker may be different than yours. I wanted the very best and was willing to spend what was required.

My main interest has always been in racing and I have found it helpful to have a good working relationship with my sailmaker. It also helps if your sailmaker has experience making sails for the R-23.

I selected North Sails for my latest set of sails as you can see from a few of my newsletter articles. Contributing to this decision was the fact that I know the president of the company, Tom Whidden. I helped him with the sail aerodynamics chapter in his book, *The Art and Science of Sails*, and have done design research work for some of the America's Cup boats that he sailed on.

I had also discovered that most of the other local sailmaker representatives really don't know how their sails work from the aerodynamic standpoint, so I would have had problems communicating my requirements to them.

If you have a limited budget and a good sewing machine you might consider making a sail yourself from a Sailrite kit (see the article in the December '96 R-23 Newsletter).

As to headsail size, the general consensus is that three sails, 155%, 135%, and 90-100% fit most needs for the R-23 nicely. Which new sail you purchase depends upon the condition of your current sails (keeping in mind that most of your sailing will probably be in the lower wind ranges). My current 90% jib is 27 years old, and it still looks almost new. However, it is short hoist and someday I hope to replace it with a full hoist sail.

I have no experience with a full batten mainsail on the R-23. You will have to discuss this with your sailmaker. Better still, I would suggest that you talk to two or three sailmakers so that you can compare opinions.

Quiz -- How Sails Work

See page 8 for the answers.

- The air particles traveling over the top side of an airfoil (leeward side of a sail) have farther to travel than the particles passing along the other side. They therefore must travel faster to meet up with the bottom side particles.
 - True
 - False
- If air had no viscosity, how would this affect our sailboats?
 - We would sail faster on all points
 - We could only sail downwind
 - We would not be able to sail at all

Sail Care

The following text was taken from a handout sheet from North Sails.

After Sailing

Avoid storing your sails wet for long periods of time. This is especially important with nylon and Dacron sails, which are most susceptible to mildew. To dry your sails, spread them out on a lawn or hoist them up your rig on a still day. Never hang your sails to dry in a breeze.

Relieve the outhaul tension on the mainsail before covering it. Likewise, ease the halyard on a roller furling sail that will be stored for an extended period.

Roll or fold your sails to store them. If they are to be left on deck your sails must be bagged or covered to protect them from UV damage.

Cleaning Your Sails

Dirt and Salt -- Use a soft brush or sponge, liquid detergent and water.

Blood -- Soak the stained area in a mixture of 10 parts cold water and 1 part bleach. Scrub with a soft brush, rinse thoroughly and then dry completely.

Mildew -- Most mildew can be removed with hot, soapy water. If necessary use the same procedure as for blood.

Oil, Grease, Tar and Wax -- Small stains can be removed with a cloth soaked in Trichlorethylene or a proprietary stain remover. More extensive stains may require a mixture of detergent and solvent. Brush this mixture into the stained area, allow it to set for 10-15 minutes and then wash it off with water.

Rust and Metallic Stains -- First scrub with soap and water, then use acetone, methyl ethyl ketone (MEK) or alcohol on a clean cloth. As a last resort try a diluted mixture of 20 parts water, 1 part oxalic acid and soak for 15-20 minutes. 50 parts warm water to 1 part hydrochloric acid will also work. Rinse thoroughly and dry.

Paint and Varnish -- Acetone or MEK should remove most paint stains. Varnish can be removed with alcohol. Rinse thoroughly and dry.

Note: The above recommendations for removing stains are primarily for woven Dacron sails. We do not recommend washing colored sailcloth with anything except soap and water. Solvents should not be used on laminated sailcloth as the adhesive may be broken down.

Fall Checkover

Many sailors bring their sails into the loft at the end of the season to be checked over. However, you may want to save a few dollars and survey your sails yourself.

Check all seams for frayed or broken stitching. On older sails, sails that have been stored damp for a long period, or sails exposed to extensive UV rays, run your thumbnail over the sewing at the leech to see if the threads are rotten.

Check the high load areas of the seams (near the head and clew and the last 25% of the seams at the leech) most carefully. Check the sewing on the leech tape and the head

and clew patches.

Check all batten pockets for chafe at each end of the batten.

Check luff ropes at the head and tack and mainsail foot ropes at the clew to ensure that the rope is not pulling away from the tape. Check the entire genoa luff tape for tears and the top of the tape for fraying.

Check all the sail hardware. Ensure that headboard rivets are intact and that press-in or sew-in rings are not cutting through the sailcloth. Check for worn webbing and hand sewing on mainsail luff and foot slides and make sure the grommets which the slides are sewn through are not pulling out of the sail.

If you have hank on genoas you may want to rinse each hank and spray the pistons with WD-40.

With another person, hold up the sail one panel at a time and inspect it for tears or holes. If your sails have plastic windows make sure there are no cracks developing.

Keep the above guidelines in mind and you will ensure many seasons of good racing and cruising from your sails.

Answers -- How Sails Work

1. *The air particles traveling over the top side of an airfoil have farther to travel than the particles passing along the other side. They therefore must travel faster to meet up with the particles flowing on the bottom side.*

False

This simple explanation appears in many books about flight and finds its way into sailing literature. However, wind tunnel tests and computer programs used in aerodynamics prove that air flowing over the top side of an airfoil reaches the trailing edge long before the bottom side air. This also applies to airflow about our sails.

2. *If air had no viscosity, how would this affect our sailboats?*

We would not be able to sail at all

Air has a small amount of viscosity. It tends to cling to surfaces that it flows past just as water tends to cling to the underwater portions of our boat. If air had zero viscosity, airfoils would have zero drag, and zero lift. Birds could not fly, airplanes would not leave the ground, and we could not sail.

For further information about how sails work see the following books:

The Best of SAIL Trim (the articles by Arvel Gentry)

The Art and Science of Sails, by Tom Whidden and Michael Levitt (Chapter 5, *A New View of Sailboat Aerodynamics*)

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