

Rigging and Handling the

SPINNAKER

By ARVEL GENTRY and JIM LAUFFENBURGER

"Flying a spinnaker can be one of the easier parts of competition. However, a small snafu in getting the spinnaker up or down can be disastrous." Here are some guidelines on spinnaker handling and rigging.

AS A RACING SKIPPER IMAGINE yourself in this situation. It is Wednesday and your regular crew is not available for the weekend's racing. You have just managed to find a substitute crew, but have no time to practice spinnaker handling with them. The race requires the effective use of your spinnaker. With an unfamiliar crew you may be in for trouble. Or, how about this one. Suppose that you are a pickup crew member placed in the above situation. How well will you do? Or quite a different situation. You have just purchased your first spinnaker and have no previous spinnaker handling experience. With all that thin nylon, those guys, sheets, and halyards, you are scared stiff about flying that big chute for the first time. If you have been in one of these situations, or may be you are in a similar situation now, then the remainder of this article will be of interest to you.

The actual flying of a spinnaker can be one of the easier parts of competitive sailing since small errors in sheeting do not have as strong an influence on boat speed as does, say a small error in sheeting a genoa. However, a small snafu in getting the spinnaker up or down can be disastrous. The first secret to spinnaker handling is to have a set detailed step by step procedure that the entire crew knows and understands. The second secret is to practice this procedure until everything happens smoothly and efficiently, preferably without spinnaker wraps or excessive wet nylon.

The subtle art of getting the most out of the spinnaker once it is up requires considerable experience and it is not the purpose of this article to discuss this aspect of spinnaker use. Instead, this article will stick primarily to the mechanics of handling the spinnaker.

A detailed written outline giving each step in the use of the spinnaker can be of great help to the skipper in analyzing his own procedures and in training a new crew member. A pickup crew member would welcome such an outline a day or so before the race so that he can become familiar with the skipper's preferred way of doing things. And the new owner of a spinnaker and gear searches through all of the sailing books hoping to find such a detailed outline so that he can fly his chute with a reasonable amount of understanding and confidence. The

detailed spinnaker handling outline presented in this article was prepared with these basic problems in mind. For the experienced skipper this outline may serve as the starting point for the preparation of an outline following his own preferred procedures. For the new spinnaker owner this outline and the illustrations furnished may go a long way in getting started in this most interesting part of sailing.

The procedures given in this outline are for a midget ocean racing class of boat. Some items may have to be changed when they are applied to a much larger type of boat. The emphasis in this outline is on efficient handling of the spinnaker in close-quarter competition in around-the-marks type of racing. For this reason all spinnaker rigging is prepared before the boat leaves the dock and the procedures while racing are designed for quick handling in situations where the spinnaker may go up and down several times in a single race, and where it may be necessary to tack before the chute is raised without changing any of the rigging.

The drawing of the various spinnaker gear components will be helpful in understanding the procedures outlined in this article. In this drawing the spinnaker lines and the jib sheets are printed in color. Rigging not associated with the use of the spinnaker, such as the mainsheet, jib halyard, and boom vang, has been left out of the drawing. Every skipper has his own favorite way of rigging for the spinnaker but this drawing contains the general features of the most popular approaches. Several subtle points should be made concerning the layout shown. Note that the loose ends of the spinnaker halyard, topping lift and foreguy lines are led inside the cabin. This keeps the loose spaghetti in the cockpit to a minimum. The jib sheets are cleated with enough slack in the lines so that they will be able to run up and over the spinnaker pole. The spinnaker halyard cleat is placed on the opposite side from the topping and foreguy cam cleats. This helps prevent the embarrassment of having a new crew release the halyard by mistake when the skipper had ordered the foreguy or topping lines to be released. A piece of yarn is shown attached to the ring on the upper spinnaker pole bridle to indicate the airflow direction. On a boat much larger than the one shown in this drawing the bridles on the spinnaker pole are frequently deleted and the topping and foreguy attached directly to the end of the pole.

The rest of this article is a detailed step-by-step outline of each of the major phases of spinnaker handling: (1) Rigging the Spinnaker at Dock, (2) Setting the Spinnaker, (3) Jibing the Spinnaker, (4) Lowering the Spinnaker, and (4) Repacking the Spinnaker. The information is presented in outline form in the interest of simplicity and brevity.

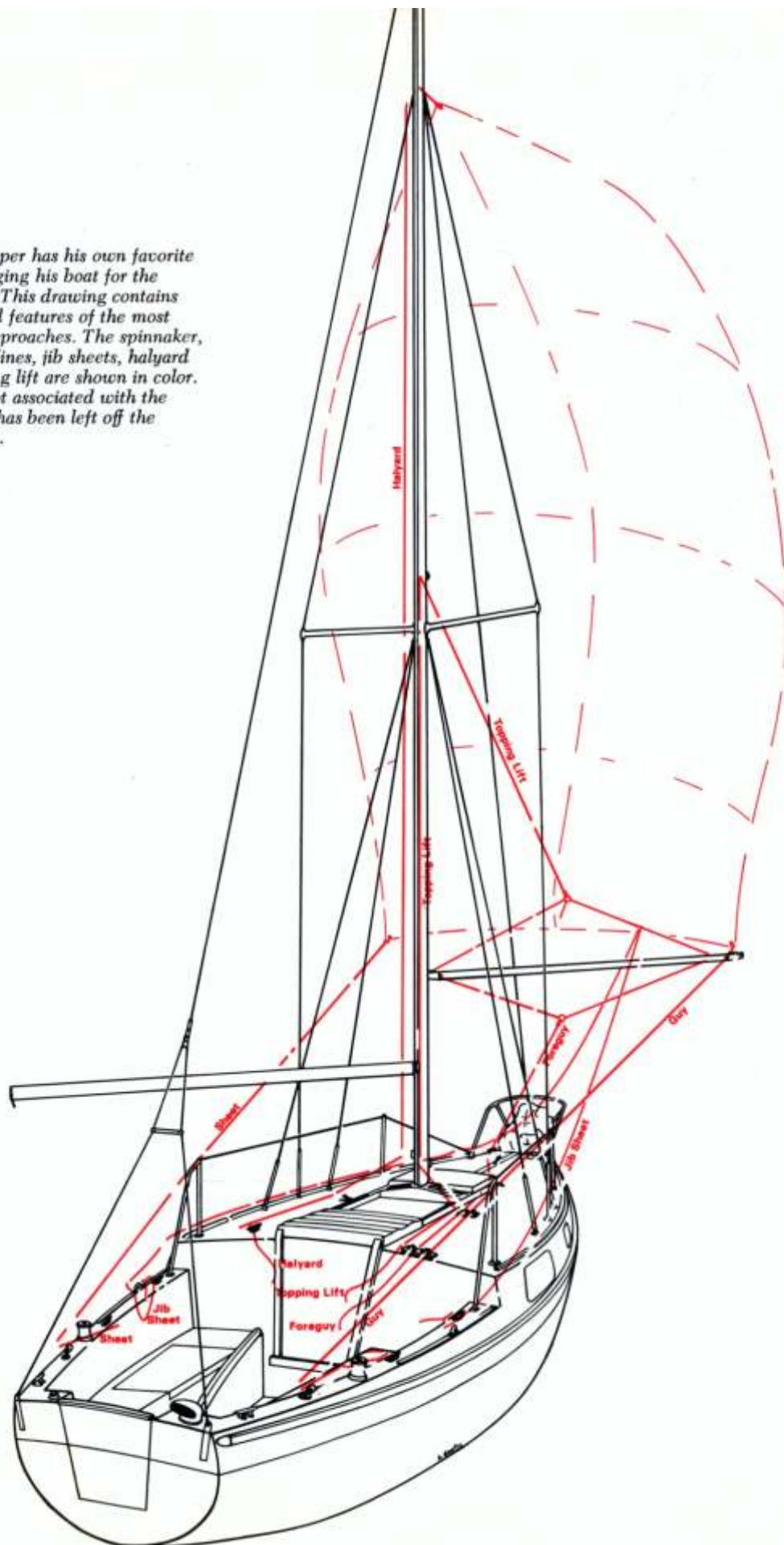
1. RIGGING SPINNAKER GEAR AT DOCK

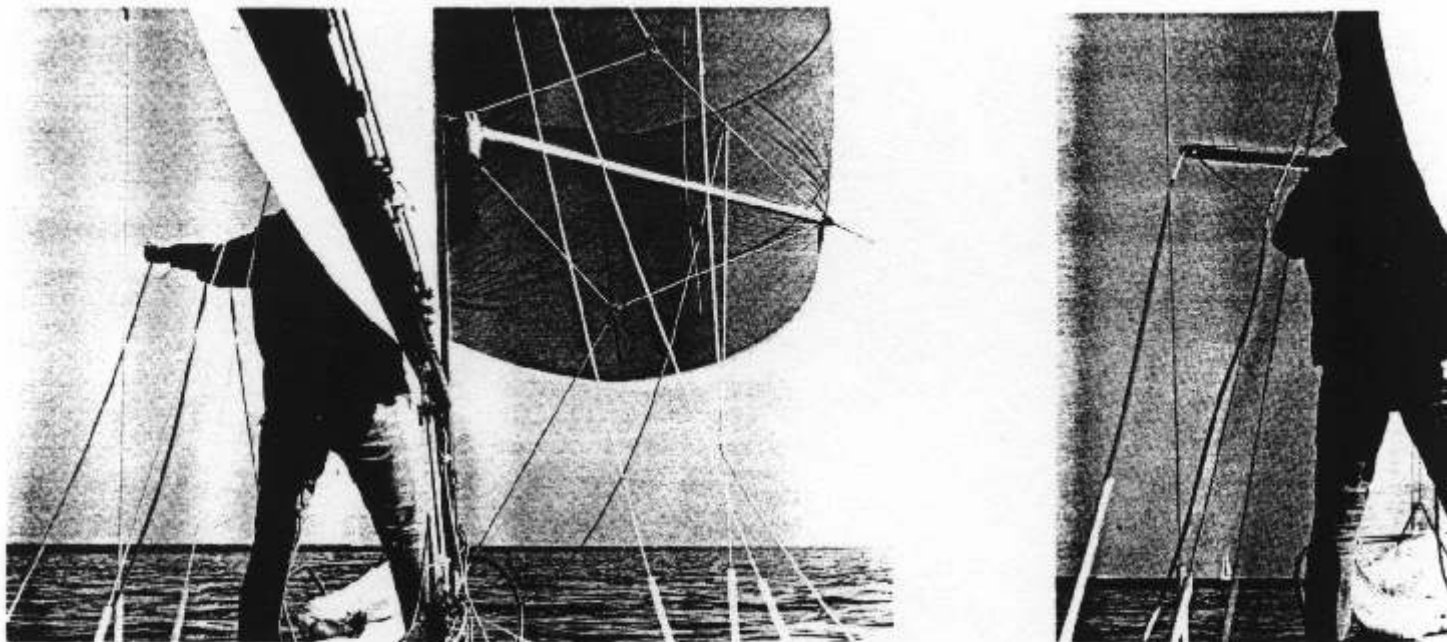
a. Rig all the spinnaker gear at the dock so that everything can be double checked before leaving and so that unnecessary hurrying while racing can be avoided. Rig all spinnaker lines before putting on the jib.

b. Snap the spinnaker sheets to the bow pulpit, run them aft, keeping them inside of the pulpit and outside of all life lines and stays, and feed them through the spinnaker sheet blocks. The spinnaker sheets should be about two times the boat length. Pull the sheets tight at the blocks and tie each off to cleats so that they do not fall into the water. Tie knots in the end of the sheets so that they will not slip out of the blocks.

c. Rig the foreguy and snap it to the lower bridle on the spinnaker pole. The open ends of the pole fittings should face up. Rig the topping lift to the upper bridle

Every skipper has his own favorite way of rigging his boat for the spinnaker. This drawing contains the general features of the most popular approaches. The spinnaker, spinnaker lines, jib sheets, halyard and topping lift are shown in color. Rigging not associated with the spinnaker has been left off the illustration.





The foredeck man lifts the jib sheet and reaches under it to grab the spinnaker sheet. At the skipper's signal he pulls the release line to free the pole from the mast and the sheet is placed into the pole end.

on the pole. Matched color markings on the lines using felt pens or paint will help in getting the lines attached to the right place.

d. Lay the pole on the deck in its storage position with the foreguy and topping lift lines still attached. It is helpful if the pole end fittings are still facing up as the pole sets in its storage position. Be sure that the pole is not rotated in this process so that the bridles become twisted about the pole.

e. The topping-lift line will now be hanging down from the mast to the pole. Grab the center of this line and take it to the base of the mast where it is snapped into a shackle at that point or tied with a shock cord. At this point you have the topping lift line going from the pole to the base of the mast, then to the mast topping-lift fitting and back down to the jam cleat in the cockpit. By attaching the topping lift line to the base of the mast it will be kept out of the way when it is not in use. Take up any slack in the topping-lift line at the jam cleat. Take up slack on the foreguy and cleat it also.

f. Make your best guess as to which tack you will be on when the spinnaker is first to be used. If it will be a starboard tack, take the starboard spinnaker sheet that passes near the forward end of the spinnaker pole and snap it in to the pole fitting. At this time the starboard sheet should run from the aft of the boat outside of the life lines, lie alongside and outside of the spinnaker pole, turn toward the other side of the boat as it passes through the pole end fitting, and then be attached to the pulpit (always remaining inside of the pulpit itself). The pole should be turned so that the open part of the pole fitting is facing up as the sheet is placed in it. The above procedure will avoid having the sheet running the wrong way through the end fitting. The sheet now becomes the after guy. Note that the guy end-shackle is still attached to the pulpit and that the guy itself runs freely through the pole end fitting. If the first use of the spinnaker is to be on a port tack, use the same procedure as above except use the port spinnaker sheet.

g. Now, put on the jib using extra long jib sheets. The jib sheets should run on top of all spinnaker lines. This will permit tacking with the spinnaker fully rigged

without having to change any of the lines.

h. Before leaving the dock the skipper should double check all rigging.

i. If the spinnaker will be used early in the race you may wish to attach the spinnaker bag to the headstay before leaving the dock. However, do not attach the sheets or halyard to the spinnaker at this time. The spinnaker halyard should be attached to the most forward point on the bow pulpit.

2. SETTING THE SPINNAKER

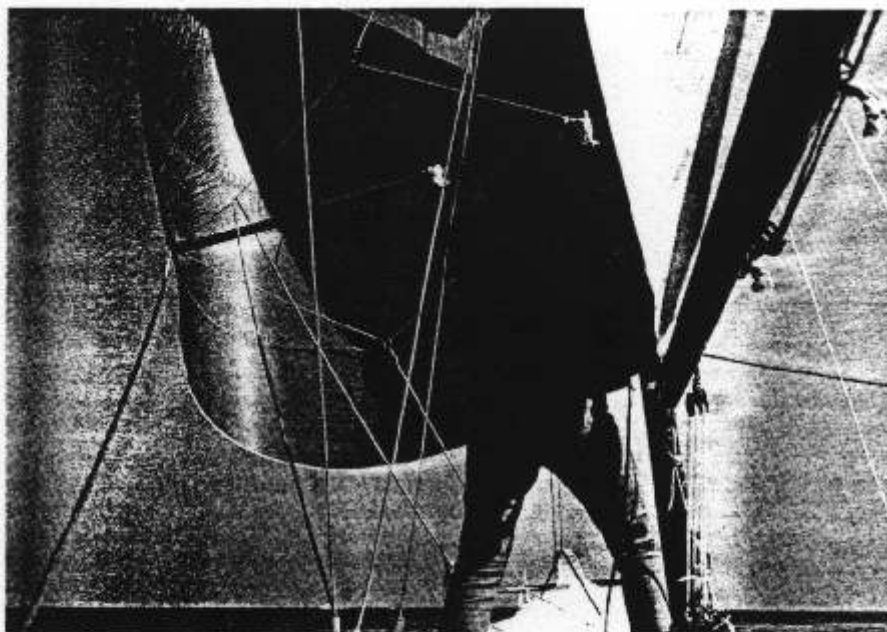
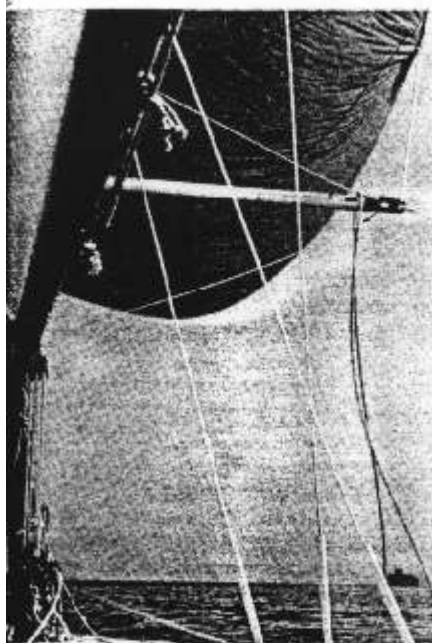
a. Before the mark is reached go forward with the spinnaker in its launching bag (turtle), snap the bottom of the bag to the headstay fitting and the top to the headstay or the pulpit. Uncleat the guy and sheet in the cockpit. If you now find that you were wrong in the original guess as to which side the pole would first be on, you will have to switch the sheets at this time. To do this, lift the guy out of the pole end fitting, then grab the other sheet (to be the new guy) and place it in the fitting.

b. Attach the halyard to the head of the spinnaker, and the guy and sheet to the appropriate clews. Be sure that the halyard, guy and sheet are entirely inside of the pulpit and not wrapped around it. Do not unsnap the top of the turtle as it will come open when the halyard and sheet are pulled.

c. Adjust the height of the spinnaker pole eye (car) on the mast track. If the spinnaker will be used on a run, move the car toward the upper end of the track. If you are going to be reaching, the car should be a little lower on the track.

d. Release the topping lift from the shackle or shock cord at the base of the mast and lift the pole up and attach it to the mast spinnaker pole track car. The opening of the pole end should face up.

e. If you do not have to tack before rounding the mark, or if you will not have to jibe at the mark, take up on the topping lift so that the pole is level with its front end resting up against the headstay. Uncleat the foreguy. If you will be tacking or jibing before setting



The pole is pushed to the new side and the old guy is released from the spinnaker. The end of the pole is snapped into the mast track. The guy, topping lift, foreguy and sheet are then adjusted.

the spinnaker, let the forward end of the pole down to the deck and tighten the foreguy so the pole end does not bounce around on the deck. Keep the jib sheets tight so that they do not slide down the spinnaker pole and get underneath the end of the pole.

f. As the mark is rounded play out the jib and the main to the running course. Transfer the jib sheets in the cockpit to cleats so that the winches are free for use on the spinnaker guy and sheet (unless you have two sets of winches). If the cockpit arrangement permits, do this before the mark is rounded. Pull the jib in tight so that it will be out of the way and cleat the sheet.

g. The crew gets ready to pull the spinnaker halyard, the helmsman or sheet man is ready on the sheet and the other crew member is ready on the after guy, topping lift, and foreguy. All call out "ready." Nothing should be done until everyone is ready. Don't hurry things at this point. The skipper takes a quick look around to be sure that everything is correct and calls "halyard." The crew starts pulling as fast as possible on the halyard. As soon as he sees that the spinnaker is coming smoothly out of the bag he yells "sheet." The sheet man starts pulling on the sheet to stretch the foot of the spinnaker and prevent it from twisting. When the spinnaker is all the way up, the spinnaker halyard is cleated.

h. When the spinnaker is all the way up, the guy is pulled to bring the pole back to its proper position. The winch may be used to do this if necessary. As this is done the sheet is let back out and adjusted to let the spinnaker fill.

i. The foredeck man releases the jib halyard (with its end tied to the cleat so it won't fly away), pulls the jib down and stuffs it in the pulpit out of the way. Tie the jib down with shock cord so it will not come loose if the jib sheets are pulled. Since the jib sheets were originally rigged on top of the spinnaker lines the jib sheet on the side where the pole is will run up and over the pole and back to the cockpit. This is why the jib sheets should be extra long. On those boats with small jibs you may elect to roll the jib up to the headstay rather than take it completely down. To prepare for this the crew takes a length of half-inch masking tape and

sticks it to his jacket. When the time comes to get the jib out of the way he goes forward and grabs the sail at a point about half way from the luff to the clew. He then rolls the sail up in a neat roll parallel to the headstay with just the clew sticking out. The piece of masking tape is placed around the sail and headstay to hold the roll in place. On the larger jibs several pieces of tape may be required to hold the jib in place. When the jib is needed again a pull on the jib sheet will break the tape and allow a rapid jib re-set.

j. While near the pulpit the foredeck man retrieves the spinnaker turtle.

k. Adjust the pole end on the mast, the foreguy, the topping lift, and the guy to get the pole in the proper position. The pole should be approximately perpendicular to the apparent wind. A piece of yarn tied on to the topping lift bridle or spinnaker pole will help in judging this.

l. The exact position of the pole and the amount of tension on the foreguy, topping lift, and guy will vary depending upon the wind and sea conditions. In very light winds pull the pole a little further aft and lower it slightly. Also switch to a very light spinnaker sheet. In heavier air let the pole ride a little further forward and higher. In very high winds where control becomes a problem, let the pole still further forward and pull it down slightly to choke it off and keep things under control. On a reach, the spinnaker should be handled like a large genoa, with the pole well forward and quite low to straighten the luff.

m. Adjust the sheet so that the luff is full and just on the verge of a slight amount of reverse curve or spillage. If you let out on the sheet slightly the spinnaker luff should start to collapse. Continual adjustment of the sheet will keep the spinnaker close to this luff breakpoint. The spinnaker clews should be about level.

3. JIBING THE SPINNAKER

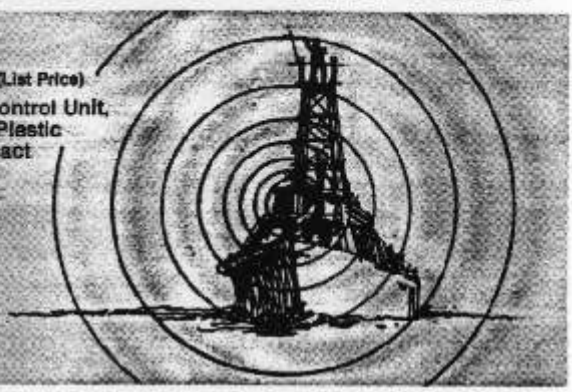
a. Head the boat dead downwind. The skipper starts the jibe by pulling the main almost all the way in without
(Continued on page 114)

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SPINNAKER

(Continued from page 51)

actually jibbing it over.

b. The foredeck man lifts up the jib sheet on the lee side and reaches under it to grab the spinnaker sheet (to be the new guy). At the signal from the skipper he pulls the release line on the pole to release the pole end from the mast. The spinnaker sheet (new guy) is then placed into the pole end fitting. The topping lift and the foreguy are not changed during this process. The spinnaker is now attached to both ends of the pole. Both jib sheets now run up and over the pole ends and topping lift.

c. Push the pole out to the new side, and at the same time, pull the trip line to release the former guy from the spinnaker. Push the jib sheet off of the free end of the pole (it will usually fall off anyway as you push the pole out and forward to the new side). Take the end of the pole to the mast and snap it into the track.

d. Jibe the main over carefully without changing the heading of the boat too much. Let the main all the way out to its proper running position.

e. The guy, topping lift, foreguy, and sheet are now adjusted to make the spinnaker fly properly on this new tack.

f. If the wind force is too high for the foredeck man to handle the pole in the above end-for-end jibe then you might try the dip-pole method as follows. Start the jibe by pulling the main almost all the way in without actually jibbing it over. The foredeck man pulls the release line on the pole to release the pole end from the guy, and the topping lift is eased to lower the pole so it will go under the headstay. The jib sheet is pushed off of the end of the pole. The foreguy is not changed. The sheets

(we now have two of them rather than a sheet and a guy) are adjusted if necessary to keep the spinnaker filled. The mast end of the pole is left fixed to the spinnaker track. The foredeck man takes the end of the pole under the headstay and to the other side of the deck. He now lifts up the jib sheet so that it will be on top of the pole, grabs the spinnaker sheet (the new guy), and snaps it into the pole end fitting. The topping lift is tightened back up and the new guy is pulled to bring the pole back aft. As the pole reaches its new position the main may be jibed over and let out to its proper running position. Adjust all lines and pole height to get the spinnaker in proper shape for this new tack.

4. LOWERING THE SPINNAKER

a. Check that all lines are untangled and ready to run free. Transfer the jib sheets from their cleats and back to the jib winches. Raise the jib and pull the jib sheet tight so it won't flap around and so that it will blanket part of the spinnaker. This will prevent the spinnaker from wrapping around the headstay.

b. Let out rapidly on the guy so that the pole goes up to the headstay and at the same time pull on the sheet to collapse the spinnaker in the lee of the jib and mainsail. Do not release the pole end from the guy, but just release the guy at the jam cleat in the cockpit.

c. Pull fast on the sheet to bring the entire foot of the spinnaker into the open hatch. All sharp projections nearby should be covered with tape or filed off so that you will not tear the spinnaker. Let out on the spinnaker halyard as fast as necessary to permit the chute to be pulled in under the boom from the lee side of the main.

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d. When the head of the spinnaker is in the hatch, unsnap the halyard and sheets from the spinnaker and snap them to the lee side lifeline.

e. Let off on the topping lift so that the end of the spinnaker pole is resting on the deck. At the same time take up on the jib sheet that runs on the top of the pole so that it does not fall off the end of the pole. This will permit immediate tacking if it is necessary.

f. After the mark has been rounded and you are on the next leg of the course the foredeck man can go forward to release the spinnaker pole from the mast and place it back in its storage position. Do not detach any of the pole rigging. Snap the center of the topping-lift line to the base of the mast just as you did before leaving the dock.

g. Remove the spinnaker sheets and halyard from the lee side lifeline and snap all three lines together. By pulling on the former guy on the other side of the boat all three snap shackles may be brought back to the how pulpit. The foredeck man now goes to the pulpit and attaches the sheets and halyard back to the pulpit.

5. REPACKING THE SPINNAKER

a. If the spinnaker is very large or is badly twisted you will first have to make some sense out of the mess. First find the head of the spinnaker and stick it under a cushion or some other object. With one hand on either side of the center seam start bunching the sail back against the cushion to "accordion up" the sail. Continue in this manner with the center seam always between your hands until the foot is reached. This will straighten out the sail and get it ready for packing.

b. Sit down with the spinnaker bag between your

legs with the lid folded back against your crotch, and with the wire ring in the bag resting on your thighs. With both hands grab the center seam of the sail at the foot and stuff it down into the bag. Work out from the bottom-center of the sail with each hand simultaneously bringing in handfuls of sail and stuffing it into the bag. When the clews are reached twist them back and stuff them on the outside of the bag under the wire ring and against your legs so that they will not slip into the bag as the rest of the sail is packed. With the clews safely tucked away, spread your hands apart, find each of the tablings on the sides of the sail, bring your hands together gathering as much sail cloth as possible, and then stuff it into the bag. Now, repeating this gathering process, continue working up toward the head of the sail. When all of the sail is in, except just the clews and the head, snap on the top of the bag. With this procedure you can have even a very large spinnaker repacked and ready for use again in less than a minute.

Conclusion

Some skippers will differ with a few of the items in this outline, and this is to be expected. There are many tricks to successful spinnaker handling and, with experience, each skipper develops his own set. For example, what happens in a luffing match when you are forced into a situation where you can no longer carry the spinnaker? Take it down, of course. However, leave the sheets and halyard attached, and as soon as it can be carried again, launch it directly out of the open hatch on the lee side of the main.

No single article can cover all possible spinnaker handling situations. However, a good foundation such as is set forth in this article will go a long way in improving your spinnaker handling procedures.