Encounter Sailing Crew Manual

Contents

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Welcome on board

Hi there, welcome on board. Currently you are onboard of the Encounter, a well maintained 1975 German Frers designed sailing boat. Encounter is an 53 feet aluminium sloop built by Palmer & Johnson. More details about the boat you can find here, http://www.encountersailingyacht.com. Just for now. Bart and Ed found the boat as an abandoned wreck on a ship graveyard in Florida. They totally restored the boat in France. The Encounter is a sistership of the

Australian Bumblebee III, which was owned by John Kahlbetze. The list of honours for the Bumblebee III.

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2nd: Sydney/Hobart Race - 1974
Australian Admiral's Cup team - 1975
1st: Miami/Nassau Race - 1976
1st: Ft Lauderdale/Charlston Race - 1976
1st: Newport Race Week - 1976
2nd: Newport/Bermuda Race - 1976
1st: Skaw Race - 1977
1st: Skaw Race Week - 1977
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The Encounter has quite some potential in the classic race circuit in the Mediterrane.

In this manual you find how we race the Encounter on the Med and probably you are here to find out how you can contribute to go faster and win even more races with us.

[encounter antibes 2015]

We like you to walk through the structure of this manual. This manual continues with the introduction of the core crew who maintain this manual, followed by the description of a typical Med Race from start to finish.

- The First part, this introduction followed by an introduction to the core team
- The Second describes the Main Manoeuvres, it starts with a typical Med Race and some general safety precautions.

- The Third part describes More Manoeuvres which are related to change the sail area when the wind conditions change from moderate to heavy or vice versa.
- The Fourth part is the Miscellaneous part which starts with the positions on Deck, a detailed description of some of the controls and technics on board. It also contains the leftovers like what to bring on board.

This manual is based on two main sources of knowledge. First and foremost the condensed knowledge of the nine crewmembers we'll introduce to you in a second. Second the book by Stuart Quarrie "The offshore crew's manual". This book is somewhere in the book cabinet on board.

This manual primarerely concentrates on boat handling during manoeuvres while racing. This document only describes manoeuvring, trimming and tack-ticks are not described in this manual.

When you want to know everything you need to know about trim, please watch the excellent North Sails video called "Trim for speed", https://www.youtube.com/watch?v=P1n-7czmc14. It is mandatory for racing on the Encounter to watch this video **at least** once a year.

When you want to know more about tactics and strategy. Talk to the guys at the after guard. But only talk to them after the race.

In summary. If you want to find out more. Grab one of the before mentioned mighty nine or even better watch the 58 minutes of Trim for speed or of course read the entire book by Stuart Quarrie.

Of course we race the boat together and are all equal but some are more equal than others. Before we go into depth on manoeuvering and other technical details I like to introduce you to the core crew. Knowing who is who is most of the times more important than knowing what is what. The core crew can be described as the eight dwarfs and snow white.

The core team

The core team consists of one women and eight men. I'll introduce you to each of them. Whenever something is not clear grab one of us and ask your question.

Helmsman : Bart

First and foremost we have Bart. Bart is the owner skipper and driver. He is at the helm so to speak. Without Bart there is no boat and without a boat there is no race. Let me tell you that Bart fulfills a lot more duties than only keeping the boat in more than excellent shape.

Mast & Pit : Ed

Second there is Ed. Ed is also owner of the boat. Ed knows of all the technical details of the boat. When you break something, lose something or can not find something. You go to Ed. Ed you can find around the mast and most of the time he is on the halyards. When he is not there, well then he is somewhere else.

Tactician : Sven

Third there is Sven. Sven is the brains of the boat and is the liaison between the owners and the other core crew members. Sven is a childhood friend of Bart and both guys grew up on a houseboat on a dutch river called "De Vecht" as neighbours. You can find Sven at the back of the boat. Sven stands behind Bart and makes the calls. If Sven says right we go to the right. Unless Bart steers to the left. Then the boat goes to the left. That's the nature of things.

Bowman : Paul

Now I like to introduce you to Paul. Paul is the bowman and most of the time he is the first to finish. You can find him on the bow of the boat. Only he is allowed before the mast at all times. Most of our manoeuvring is dictated by what is happening before the mast. Since we are all looking forward and Paul is in front most of the time we are looking at Paul.

Halyards : Mascha

Finally. Snow white. We have more girls on board but only one in the core team. Macha is in charge of hoisting and lowering the sails. During the race we normally only hoist and lower sails in front of the mast, but even that keeps us quite busy.

Sail and Crew master : Nanne

Nanne is keeping an eye on the boat and one on the crew. Nanne does a lot of talking and currently he is talking to you. Hi there that's me Nanne. Normally you find me after the mast and before the grinders. My nick name is **speed doctor**. My speciality is increasing speed of information transformation. This can be translated to increasing speed of learning, increasing speed of communication, increasing speed of coördination, increasing speed of trust and last but not least increasing boat speed.

Now I introduce you to the guys who run the engine and turn the throttle or better said who are on the sheets.

Head Sail and Gennaker Trimmer : Hugo

Hugo you find on the sheets of all the sails you see in front of the mast. During the race we go upwind and downwind and have different sails for that purpose. Ed, Mascha and Paul are taking care of bringing them up and down. But even more important is Hugo. Hugo his task is to get most speed adding power out of the sails by trimming the sheets. Hugo is most of the time near the big sheet winches.

Grinder : Bernard

Hugo holds the sheet, Bernard trims the sheet. Bernard ate more spinach in his live than the rest of the crew together. The boat is strong, Bernard is stronger. Aptly named Popeye, he is the real sailor man. Bernard came on board recently but he is a real key core crew member. Apart from Sven and Bart, Bernard will never miss a race. And Bernard, being a local, knows where to go when the boat is in the harbor.

Main Sail Trimmer : Hans

Last but not least there is Hans. Hans is on the main. Actually Hans is steering the boat. The boat has a big rudder. The main is bigger. If Sven says bear away and Bart turns the wheel. Well the boat will stay straight on track if Hans does not ease the sheet. Once again that is the nature of things. Hans has his own cock-pit.

Are you still with us ? Good ! Now you are thinking what's in it for me. Let me tell you. We sail the boat with twelve to fourteen crew members so there are three to five spots left and you will find your spot there. Moreover except for Bart, Sven and Bernard who are on the boat at all times the other core crew positions are open as well occasionally.

Manoeuvres

Before we describe the nine main manoeuvres during a med race we first give a description of a typical Med Race and some safety considerations for sailing on a BIG boat.

Racing the Med

Racing on the Med is always in the sun and the wind is always gently blowing between two to four Beaufort. Since we are on a raceboat all velocities are measured in the same unit. The default unit for velocity on a boat is a knot. One knot is one sea mile per hour and a sea mile is 1852 meters. You can always

ask me where that odd number comes from but it's beyond scope to tell you here.

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1 knot  =  1852 meters/hour
2 knots   3600 meters/hour
2 knots      1 meter/second
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If you spit in the water and count like clockwork you are able to estimate the speed of the boat quite accurate. You can also calculate the time it takes to get to the buoy when you know the distance to that buoy. The boat speed is always expressed in knots. It's the most important number on the boat and for that reason you can always find that number back on a big display on the mast below the boom. If you look towards Paul you're eyes will find that number as well.

But wait a minute we were talking about the wind. Yes and from now on we don't talk about Beaufort anymore but we talk about knots when we discuss the velocity of the wind. The wind is always gently blowing between 5 to 15 knots in the Med. When blowing 15 knots we have upwind an apparent wind of 20 knots over deck and we are doing around 7.4 boatspeed. And if we are going downwind well you can figure that out by doing some basic trigonometry. Or just wait and see when you are on the racecourse.

The racecourse is normally around ten to fifteen miles long and goes up to a maximum of twenty miles. When you have at least a moderate breeze a race rarely takes more than three hours. In that time frame you go up and down wind and do around five buoy roundings. Normally you change course and headsails at the buoy. Apart from that you start by crossing a start-line and finish by crossing a finish-line. In proper order you have a pre-start preparations, the start, the upwind beat, the weather mark rounding, the downwind run, the leeward mark rounding and finally the finish. In this chapter we will mainly concentrate on the different manoeuvres during the race. As the title suggest we will only discuss the main manoeuvres. They are presented below in the order of appearance during the race.

- genua hoist
- tack
- gybe with genua or jib
- start
- weather mark rounding
- gybe with gennaker
- leeward mark rounding

Before getting to the manoeuvres in detail it is time a completely different topic. More Power Than You Can Handle.

More Power Than You Can Handle

Sailing is always a balance between not enough power and more power than you can handle. We can consider three different wind conditions. Light wind, moderate wind and heavy wind.

- light wind : True Wind Speed (TWS) < 5 knots
- moderate wind : 5 knots $<$ TWS < 15 knots
- heavy wind : TWS > 15 knots

In light wind conditions most of the time we have to deal with not enough power. In moderate conditions we constantly shift gears from not enough power to more power than we can handle. And finally with heavy wind conditions we have to deal most of the time with more power than we can handle. I like to talk bit more on **more power than you can handle**.

On BIG boats you have BIG loads. Encounter is a big boat. The boat weights about 18 tons. That is nine times the weight of daddy's Mercedes. Moreover on the backstauy we have up to four tons of tension, two times the weight of that Mercedes. And on the sheets up to two tons. That's on par with daddy's car.

The above sounds like a joke but loosing a finger or worse is not a joke. And You would not be the first one.

Without scaring you off. I would like to walk through some common-sense safety precautions.

First and foremost. Your safety and well being is more important than anything else. This leads to the follwoing three recommendations.

1. If you don't know what you are doing don't do it! Never make anything loose if you don't know what it is.
2. Always stay on board. Stay out of the way of booms, sheets, sails and careless other crewmembers.
3. If you really lost control and don't know what is going on. Please go below deck and only come back when you know what to do.

Manoeuvres

In general there are two things to remember when doing a manoeuvre.

1. Be prepared.
2. Speed more than hurry.

Each manoeuvre is a sequence of steps which have to be conducted as a team working together. Within each manoeuvre there is a pivot point around which all the manoeuvre steps revolve. All the steps before that pivot point have to be executed as late as possible, however they should be finished well before that pivot point. Finishing in-time is more important than starting late. The steps after the pivot point are important too, however these steps are less time-critical. We will describe nine manoeuvres. The manoevres are presented in the order as they appear during a race. Of course some manoeuvres are repeated multiple

times. Our race starts at hoisting the genua or jib about nine to seven minutes before the actaul starting signal.

1. genua hoist.
2. tack.
3. gybe with genua or jib.
4. start.
5. weather mark rounding.
6. gybe with gennaker.
7. spinnaker pole up.
8. spinnaker pole down.
9. leeward mark rounding.

This manual is primarily aimed at the occasional crew member. If you want detailed descriptions of each and every role I welcome you to read the earlier mentioned book "The offshore crew's manual" by Stuart Quarrie.

1. Genua Hoist

Genua Hoist

The genua when down lies on deck and the forward leach is knotted with a sailband and attached to the boat. The genua lies on one side. Preferably on port side. The advantage is when you hoist the sail you have the right of way. The bowman prepares the halyard, attaches it to the sail and checks if everything is running free. The sail is fed into the pre-feeder and the feeder. Then the bowman relieves the genua shock cord and unties the front of the sail by removing the sailband.

When the bowman is ready and the sail is ready to hoist the bowman points with his strecht arm to the top of the mast. The mastman and halyards man can start hoisting now. Hoisting the sail should go as quick as possible. The driver steers the boat upwind on such an angle that the sheet corner, the clew, is about one meter outside of the boat.

The bowman stays at the front till the sail is almost up and he only helps on the halyard for the last half meter to hoist the sail.

Extensive slack on the sheet should be avoided. However no tension should be on the sheet during the hoist of the sail. When the sail is totally up and has the proper halyard tension, the sail can be powered up by either grinding in the sheet or by bearing away a bit.

keypoints to remember

- genua on proper board
- genua halyard attached
- genua top in feeder
- genua free of shockcord and sailband

- bowman indicates ready for hoist
- **HOIST**
- no tension on sheet
- tension on halyard
- tension on sheet

2. Tack

Tack

The tactician dictates where to go. And when he wants to tack he makes the following calls. - Prepare to tack - Ready to tack ? (No answer means yes!) - Three - Two - One - GO Those calls are made for good reasons. When tacking everybody wants to contribute and starts walking around. However only those crewmembers should move who are on their way to their task. Depending on your role you move at the rythm as dictated by the tactician.

- **"Prepare to tack."** The mainsheet trimmer releases the babystay and the bowman removes the babystay.
- **"Ready to tack."** When no answer is given everybody knows we are ready to tack.
- **"Three."** At three the *old* genua trimmer gets to her winch and prepares the tensioned sheet to release.
- **"Two."** At two the *new* genua trimmer gets to her winch and prepares the *lazy* sheet. Lazy refers to a sheet currently not in use.
- **"One."** And at one the grinders get into position. **None** of the other crewmembers moved till sofar. This is both to keep the boat upright and not sending the message accross the fleet that we are about to tack.
- **"Tack."** The driver starts to turn. In the first half of the turn it is important to get the boat as quick as possible into the wind without losing speed. At the same time the trimmer releases the sheet about 10 to 15 centimeters. She keeps the sail inside the stanchions and guard rail. The sheet is totally released when the wind starts to come in the sail from the other, outside, side. The boat keeps on turning till it's on the other tack. Now it is the trick to be up to target speed again without losing to much height. The sheet is grinded in as quick as possible and the sheet corner should be inside the stanchions and guard rail again. The grinders follow the instructions of their trimmer. The two words the trimmer should use are **trim** and **hold**. Unlike to tactician the trimmer does not have to reach the whole boat but just her grinders. The last part of trimming the sheet goes more slowly and is directly dependant on the speed of the boat. The sheet is trimmed in when the boat is less than half a knot below target speed About this time the bowman can attach the babystay again.

keypoints to remember

- **prepare to tack**

- babystay removed
- **ready to tack**
- **three**
- trimmer in position
- **two**
- new trimmer in position
- **one**
- grinders in position
- **TACK**
- turn boat and release sheet 10 to 15 centimeters
- as the boat moves the head sail is moved to the other side, preferably the clew stays within the boat.
- **trim**
- the new sheet gets grinded in, in close coördination with the boat speed.
- back to target speed
- babystay re-attached

3. Gybe with Genua or Jib

Gybe with Genua or Jib

There are up to three situations where we gybe without a downwind sail up during the race.

1. During the pre-start period. A gybe is preferred above a tack when manoeuvring. This is for the following two reasons. Reason one is to keep the boat moving at considerable speed so you can go where you want. Reason two is avoiding the tendency to get to close to the starting line. With a big boat speed at the starting signal is more important than the exact position.
2. A gybe set at the windward buoy. In this situation a gybe is executed before the gennaker is hoisted. Executing this manoeuvre can be dictated by the tacktics or by the race course, not all courses are up-down wind.
3. A gybe just before or during the leeward buoy rounding. Sometimes it is preferable to have the downwind sail stowed away before gybing near the leeward buoy.

The tactician dictates where to go and especially in the pre-start period it should be clear to the crew when a gybe is about due. The tactician can say gybing but this is not necessary. The driver turns the boat from running to dead down wind and the main sheet trimmer trims in the main. The angle off the boom should always be less than 45 degrees compared with the centerline of the boat. When the boom is reasonably far in the new backstay can be prepared and tensioned. Now the driver can say Gybe. Be aware when the boom comes over. The boom always claims right of way. Stay out of that way. Now the old backstay has to be released to give room to the boom. It sounds like a contradiction but

here the headsail trimmer should do the same. When turning from running to dead down wind the headsail should be trimmed in, to the point where the clew is between the stanchions and above deck. The new trimmer has removed the extensive slack from the new sheet and at the point that the boat is dead down wind the grinders go to the new grinder on the new winch around which the new sheet is wrapped. When the sheet is trimmed in properly at the old side. There is no reason to trim-in more. The opposite actually when being back at running course the sheet has to be released till the sail is trimmed well. When the boat keeps on turning to half wind or upwind. Of course keep on trimming the head and main accordingly.

keypoints to remember

- **gybing**
- trim the main sheet in to less than 45 degrees of centerline
- turn the boat from running to dead down wind
- keep trimming in the main
- trim the clew of headsail on to the deck
- tension the backstay
- **GYBE**
- gybe the boom, by steering the boat towards the new running course
- gybe the headsail
- ease the old backstay
- ease the main
- ease the headsail

4. Start

Start

Around eleven minutes before the actual start we make a final call which sail will be hoisted, the final call is made by Bart and Sven. Around 10 to 7 minutes before the start that sail will be hoisted and the other sails are stored under deck. An hour or so before the race we make some practise runs and train on the different manoeuvres and check the actual speed, the condition on the course and so on. In the last last 10 minutes before the starting signal a final plan for the start is made and communicated. Decision is made on where to start on the starting line. Boat or pin-end etc. The manoeuvring before the start is also important. To go from one board to the other gybing is preferred for two reasons. One you keep the boat up to speed. Two the upwind distance to the starting line is kept larger so the boat and crew can keep a higher speed. It is best when the boat is positioned in such a place that you don't have to make a gybe or tack in the last one-and-a-half minute. In the final approach to the starting line the bowman indicates the distance to the line by holding up fingers to indicate the boat length to the line. Crossing the line should be done at full upwind speed or even more speed by steering a little bit off wind. Apart from

all the individuals tasks the general crew has to position their weight in such a way that the boat goes as fast as possible. And of course crossing the line should be done after the starting signal.

keypoints to remember

- decision which head sail the One or the Three
- **10 minutes signal**
- hoist headsail
- make and communicate starting plan
- **5 minutes signal**
- execute plan
- one-and-a-half minute, final approach
- **one minute signal**
- trim prepared to get more than max boatspeed
- choose final position on line
- **START**

5. Weather mark rounding

Weather mark rounding

After the start and a good deal of the upwind beat we get towards the weather mark. The tactician communicates his strategy and explains the options with regard to the other boats around. The tactician also makes the final call on which gennaker will be used. And finally he indicates if he wants a bear away set or a gybe set. Or a bear away set immediately followed by a gybe with the gennaker. Now the bowman can prepare the gennaker sheets and bring the shackles to the proper stanchion. The bowman excutes this task in close coordination with the other crewmembers. Except the bowman all the oher crewmembers remain in there position, **don't move**. Now it is time to bring the gennaker on deck. The bowman brings the sail to front halfway between the mast and the bow and attaches the gennaker bag to the boat near a stanchion. After securing the bag the sheets are attached to the clew and the tackline to the tack. Finally it is time for gennaker halyard. The halyard is prepared and looked after by the mastman. He hands the halyard shackle to the bowman. The bowman attaches the halyard shackle to the head of the gennaker. At the same time the pit prepares the genua halyard for dropping the genua, ease and remove from winch the cunningham and the temporary bear away genua sheet is installed. This bear away sheet is used to free the big genua winch. This big winch can now be used for the gennaker sheet. The gennaker sheets are prepared for trimming, however there should not never be tension on any gennaker sheet till the mastman shouts **top**. All should be ready about two boat lengths before the mark. Within the last two boat length all the crewmembers get to their position. The gennaker is ready to hoist. When we reach the buoy and the boat starts to bear away both the main and the genua are eased. During the turn

or sometimes up to ten boat lengths after the rounding depending on tactical considerations the tactician shouts **ready to hoist** and **HOIST**. Sometimes only **HOIST**. The mastman hoists the gennaker as fast as he can. It is very important that the sail does not catch wind during the hoist. When the gennaker is in the top of the mast the mastman shouts **TOP**. Now the sheet from which the slack already is removed is trimmed in fast in order to fill the genakker. At the same time the halyard of the genua is released and the bowman pulls the genua down and together with one or two other crewmembers brings the genua to deck inside the guard rail and over the stanchions. After tying the genua with a sailband and shockcord and putting the genua in the feeder again the halyard of the genua is tensioned again. In this way the genua is ready to hoist again.

Depending on the course and speed the spinnaker pole is set. This manoeuvre is the subject of the following chapter.

After setting the pole the mainsail halyard can be released a bit as well.

We are now well on our way towards the next mark. However before we get there we are going to set and remove the spinnaker pole and do some gybes as well. These subjects are described in the next chapters. Before we go over to the next chapter we repeat the keypoints to remember.

keypoints to remember

- which gennaker ?
- bear away or gybe set ?
- prepare gennaker sheets
- bring gennaker on deck
- secure gennaker bag on deck
- attach sheets and tackline to gennaker
- attach halyard to gennaker
- bear away sheet installed
- prepare genua halyard
- remove cunningham from winch
- enter the two lengths to buoy
- everybody in position
- bear away
- ease main and genua
- **HOIST**
- hoist gennaker
- secure tack
- **TOP**
- trim the sheet hard
- lower the genua
- trim the gennaker properly
- set the pole (next chapter)
- prepare the genua ready to hoist

- remove gennaker bag
- release tension on mainsail halyard

6. Spinnaker Pole up

Spinnaker Pole up

In order to square the gennaker more outside the boat we often use the spinakker pole to bring the gennaker tack outside to luff. Normally the gennaker tack is attached to the tack-line which is secured on the bow of the boat under the pulpit.

Before setting the boom, the guy is placed in the pole beak. When setting the boom we first lift the boom on the mast and then lift the toppinglift. Once the pole is at the proper height and trimmed horizontally we can start to pull the guy. As soon as there is enough tension on the guy the pit can slowly release tension from the tack line. The pit also has to release the downhaul. However whenever releasing the downhaul always keep tension on the downhaul and alway keep one wrap around the winch. The gennaker trimmer dictates the angle and height of the pole. The pole is always trimmed horizontally. When the gennaker is squared you can ease the gennaker sheet more.

keypoints to remember

- bring pole end to proper board
- put guy in pole beak
- lift pole on mast
- lift pole end with topping lift
- keep tension on downhaul
- bring tension on guy
- release tackline slowly and carefully
- release downhaul slowly and carefully
- bring pole horizontal with toppinglift
- bring pole in position by grinding the guy
- ease the sheet to keep the gennaker in proper trim
- put more tension on downhaul

7. Spinnaker Pole down

Spinnaker Pole down

Removing the pole is the opposite of setting the pole. First **dé-**square the pole. The pole is brought to the front. The pole should not brought totally to the forestay. Because by easing the toppinglift and lowering the pole the pole also moves forward towards the forestay. When easing the guy and the toppinglift one should keep proper tension on the downhaul. Also the tack-line should be

trimmed quite severe. When all goes well the pole end should end within the pulpit. During this movement most of the time the gennaker sheet has to be trimmed in at the same time, to keep the gennaker properly trimmed.

Now the guy can be released and all the tension gets to the tackline. By giving enough slack on the guy the guy can be removed from the pole beak and the pole can be stored away. The final steps is to bring the toppinglift back to the mast.

keypoints to remember

- bring pole forward by easing the guy
- lower the pole end by easing the toppinglift
- keep winching the downhaul
- start trimming the tackline
- ease the guy when the pole end is within the pulpit
- release and slakc the guy
- lower the pole end
- remove the guy from the pole beak
- lower the pole on the mast
- store the pole
- bring the toppinglift back to the mast

8. Gybe with Gennaker

Gybe with Gennaker

Before gybing the spinnaker pole has to be removed.

Gybing with the gennaker is a lot like gybing with the jib. However there are some notable differences. The tactician indicates that he wants to gybe and starts the manoeuvre by saying **"ready to gybe?"** . First and foremost when there is not a lot of wind the main is brought inside the boat by winching the boom with the main sheet. Now the air from behind can more easily flow into the gennaker and keeps the gennaker filled even when the driver turns the boat from running to dead downwind. The driver keeps on turning till the boat is by the lee. The final call is made by the tactician. **GYBE**. The sheet of the gennaker is release sofar that clew is almost forward of the forestay. At the same time the driver steers even more by the lee and the boom comes over. As soon as the gennaker clew is around the forestay the new gennaker sheet can be trimmed in hard. By turning boat beyond run toward reach the gennaker is moer easile filled with air again. Once the gennaker starts to fill the drive can go down to running course again. And the gennaker sheet has to be eased accordingly.

After gybing the gennaker can be squared again with the spinnaker pole.

keypoints to remember

- remove spinnaker pole
- **ready to gybe**
- trim in the main
- turn the boat from running to down wind or even by the lee
- bring the gennaker clew forward but keep the gennaker filled
- **GYBE**
- turn the boat more by the lee
- ease the sheet more so the gennaker clew comes forward of the forestay
- swing the boom
- trim the new sheet hard
- turn the boat to reach
- once the gennaker start to fill
- ease the sheet
- turn the boat to running course
- ease the sheet
- square gennaker with spinnaker pole

9. Leeward mark rounding

Leeward mark rounding

Rounding the leeward mark is the last manoeuvre in this chapter. Before starting this manoeuvre we should check if there is enough tension on the mainsail halyard. Normally we first have to remove the spinnaker pole. This manoeuvre is described in the chapter before the previous chapter. Once the tack of the gennaker is firmly secured to the bow of the boat by the tackline we are ready to start this manoeuvre. First the bowman brings the "retrieve line" to the pit and the line goes into the hatch. The retrieve line is attached to the middle of the gennaker. The next step is to hoist the genua.

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Sometimes the spinnaker pole stays squared.
This is in situation when there is not a lot of wind
or we are dead down wind.
With other words in light conditions we sometimes
hoist the genua and drop the gennaker
before removing the spinnaker pole.
This is the exception.
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Hoisting the genua is described in the first chapter of the manoeuvring section. The difference is that we are now sailing downwind. Once again it is extremely important that there is enough slack on the sheet and that sail should always stay a little loose when it is up. The genua is trimmed with the bear away sheet. This specific sheet we have seen before at the weather mark. The genua is up the pole is removed and the gennaker is also still up. In situations where the pole is removed and the genua is up it is very difficult to keep the gennaker filled. This is primarily due to the fact that the Encounter does not have a bowsprit. Gennaker bowsprits did not exist back in the seventies. Due to the fact that the gennaker is not very effective when the genua is up we normally take the gennaker down right after the genua is up.

When bringing down the gennaker the big trick is to scare the gennaker by releasing the tackline totally or by spiking the tack with a metal marlin spike by the bowman. At the same time drop the gennaker halyard with at least 10 meters at once. And at the same time pull as hard as you can on the "retriever line". When all goes well the gennaker should be below deck before is realizes what's happening. To bring down the gennaker we have to pull the sail with at least three and preferable with four crewmembers. One is below deck, two are around the hatch and one is near the guard rail at the side of the boat. The trick is to move the sail along you and not into you, also always stay windward of the sail. The sail should be free to fly toward the back of the boat. In general this means that your back is towards the front of the boat. Once the gennaker is stowed below deck we are within two lengths of the buoy and everybody gets into the upwind race mode. The cunningham line is wrapped around the winch and within heavy conditions already tensioned. The driver makes a smooth turn around the buoy. Three things are important.

1. During the turn the boat should gain as much speed as possible.
2. At the end of the turn the boat should be close hauled.
3. There should be no room between the buoy and the boat at that point.

A couple of tricks help. Make a nice slow swing. Winch and grind in the sails with lots of power without overtrimming. Have all the waight already on luff with the legs overboard. Have the proper tension on the halyards, stays and back stay.

From genua hoist till being up to the upwind beat again is a long ride and we are really happy that you are still with us. Some of the above described manoeuvres we will repeat a couple of times again and then we really reach for the finish. And after the finish we all deserve a fresh cold beer. Cheers and we see you on the water.

keypoints to remember

- tension on mainsail halyard
- spinnaker boom away
- retrieve line to pit and hatch
- genua up

- **DROP**
- spike gennaker tack
- release 10 meters of gennaker halyard
- pull on retrieve line
- bring sail down and below deck with at least three crewmembers
- two boatlenghts from buoy
- get into upwind mode
- all crewweight to luff
- turn boat
- trim main
- trim genua
- sail full speed close hauled along the mark

More Manoeuvres

In this section we describe manoeuvres which are only executed when the wind conditions during the race change from moderate to heavy or vice versa. This only happens occasionally that is why it described in a separate section. Once again more power than you can handle or not enough power. The name of the game is to adjust the sail area accordingly. In the case of too much power we lower the sail area by setting a reef, changing from genua to jib or replace the full gennaker for a flat gennaker. It is a tough decision to make since changing sail area takes time. That time has the be gained back in the remaining part of that leg.

We first describe sail changes upwind. Either reefing or unreefing the main or changing the genua for a jib or vice versa. after that we describe the sailchange which we can execute downwind. As said before we start with reefing the main. Reefing the main if executed correctly can be done quite fast.

11. Reefing the Main

Reefing the main

First we prepare the reefline. The reefline goes from the gooseneck to the mast plate and from there to a free grinder winch at the middle of the boat. Once the reefline is ready the halyard, sheet and vang can be released. The bowman and the mastman pull the sail downward on the mast till they can attach the reefing cringle to the gooseneck. Once secured the bowman raises his arm and points to the top of the mast. This is the signal to tension the halyard again and to trim in the reefline on the grinder winch. Once both lines are fully tensioned the sheet and vang can be trimmed again. On longer trips it is favourable to secure the clew with an extra holdfast, dutch translation : steekbout.

keypoints to remember

- prepare reefline on grinder winch
- lower the main halyard
- release vang and sheet
- secure reefing cringle on gooseneck
- tension the halyard
- trim in the reefline
- tension the reefline
- trim the main sheet and vang
- close the stopper in the boom near the gooseneck
- release the reefline
- clear the grinder winch

12. Unreefing the Main

Unreefing the main

Now we go the other way around. If attached remove the holdfast. Now bring tension on the reefline. This can be done with a normal winch and does not have to be done with a grinder winch. Open the stopper inside the boom near the gooseneck. Release the halyard half a meter, free the reeftack from the gooseneck and start hoisting the main. Make sure the cunnuninghamhole is totally free and release vang and mainsheet when putting final tension on the halyard.

keypoints to remember

- remove holdfast
- tension reefline
- open stopper under boom
- release reefline
- lower halyard half a meter
- free the reeftack near gooseneck
- hoist the main halyard
- release vang and main sheet
- tension the main halyard
- trim the vang and main sheet

13. Change Genua to Jib and vv

Change Genua to Jib and vv

Changing the genua to jib is by far the most time consuming and thus detrimental manoeuvre and should be avoided at all times. In general reefing the main is the preferred solution however we do describe the genua to jib change. Once again preparation is half the work. We'll first describe the tack change and after

that the same change while staying on the same tack. Two more considerations to keep in mind.

1. Due to our handicap rules we only have one forestay groove available during racing. This means that we first have to lower the *old* sail before hoisting the *new* sail.
2. The time spent before the mast by any crew member should be minimised and the crew weight before the mast should be as low as possible. Especially upwind crew weight before the mast is very detrimental for the boat speed.

With these two aspects in mind we come to the following procedure. Have the new sail ready on deck and the bag partially opened, the sheet attached to the clew and the sheet ready to trim. With a tack set the preparation of the sheet is straight forward. Just put in the sheet a windward in the proper blocks. Just be aware of the stays and the guard rail. When staying on the same tack we have to use the bear away sheet which has been described earlier. Back to the prepared *new* sail. The front leech of the sail is just in front of the mast already out of the bag with the sailband securely fastened. Both tack and top are already free. Once everybody is ready the bowman runs forward with the sail by holding the sailband. He attaches the tack to the proper place on the bow and raises his arm. This is the moment the driver steers into the tack and as soon as the *old* sail is inside the guard rail and the stanchions the sail gets dropped at once by releasing the halyard totally. The lowered sail is moved backward as soon as possible. The trick is to get the forleech of the sail next or just before the mast and the rest of the sail behind the mast.

The bowman still at the bow of the boat first opens the tack shackle, during or just after dropping and then removes the halyard from the old top. The halyard gets attached to the *new* sail and the *new* sail is guided through the pre-feeder and the feeder into the groove. As soon as the sail is ready, once again indicated by the raised arm of the bowman the mastman starts to hoist. The driver tries to stay as claused-hauled as possible however the speed is kept at at least four knots. Keep on sailing.

Once the halyard tension is ok on the *new* sail the sheet is trimmed in and the driver is at that time already back the max VMG, velocity made good, course. The *old* sail lies next to the mast and behind. The sail is flaked now. A sailband around the front leach and the sail goes back in the sailbag. When it is extremely wet is stays on deck, otherwise it goes below deck ready to be hoisted again.

Once again, the above described manoeuvre is extremely time consuming and very expensive in terms of lower boat speed for a long time. Normally we hang in to the weather mark and change headsails during the downwind leg.

keypoints to remember

- get the *new* sail bag on deck, with the front next to the mast
- prepare the *new* sheet

- make bag open
- bowman runs with sail to bow
- bowman attaches the tack to bow
- bowman raises arm
- driver starts to tack
- halyard and sail dropped once inside guard rail and stanchions
- bowman unlocks the tack of the *old* headsail
- bowman transfers halyard from *old* to *new* sail
- bowman feeds sail in pre-feeder and feeder
- bowman raises arm
- mastman hoists
- once in top, tension is put on halyard
- boat already on other tack
- sheet is trimmed
- boat back to target speed
- second sheet secured
- *old* sail flaked
- *old* sail put in bag
- *old* sail put below deck

14. Gennaker Gybe Peel

Gennaker Gybe Peel

The gennaker gybe peel is used to change to a flatter or fuller gennaker. Sometimes it is executed during a gybe mark rounding. For example going from a run to a reach. But most of the times it is a specific gybe to execute this manoeuvre.

Once again preparation is half of the game. First attach the sailbag halfway the mast and the bow next to the guard rail and near a stanchion. Then attach a spare sheet to the *new* gennaker and attach the tack to a temporary tack line. This is all executed on the windward board. Prepare the halyard. Once everything is ready the driver steers a deep downwind run and we hoist the new gennaker. The mastman shouts top once the *new* gennaker is in top. **Gybe** and we lower the *old* genakker, get that gennaker below deck, change the sheets, pack the *old* gennaker in its bag. You can watch the following gybe peel video. https://www.youtube.com/watch?v=gf_dalLAuoE

keypoints to remember

- get gennaker bag on deck
- secure bag on deck
- attach spare sheet to *new* gennaker
- attach temporary tack-line to *new* gennaker
- attach halyard to *new* gennaker
- steer on a deep run
- hoist the *new* gennaker

- **TOP**
- **GYBE**
- lower the *old* gennaker
- get gennaker below deck
- change back from spare sheet to regular gennaker sheets
- pack the *old* gennaker into the bag

Miscellaneous

This part is the miscellaneous part which starts with the positions on Deck, a detailed description of some of the controls and technics on board. It also contains the leftovers like what to bring on board

Positions on deck

Positions on Deck

See Figure : positions on deck

Winches, Handles and Grinders

Winches, Handles and Grinders

A winch and a grinder are typical extension to increase your body strength. Handle them with care. Handles have the tendency to step overboard, however the do not swim very well.

Winch

All winches are turning clockwise. You always have to put the lines clockwise around the winch. A winch gives resistance even when it turning in your direction. Pulling a line in as fast as possible is done faster without a winch. Once the line starts to tension the line should be around the winch. In a lot of situation this change in tension is so abrubt that it is better to have the line around the winch at all times, at least once or twice. The more turns you have around the winch the more tension you can handle. However when you have too many turns around the winch you don't feel the tension and the sheet line its feeling and when releasing the line it does not run out smoothly.

In general three or four turns around the winch is normal for a sheet. Eight to ten turns for the main and head halyards and for the gennaker halyard around five. On the grinder winches is six to seven turns for the genua and two to four for the gennaker. For the gennaker you have to change the number of turns during trimming depending on the puffs and the course of the boat.

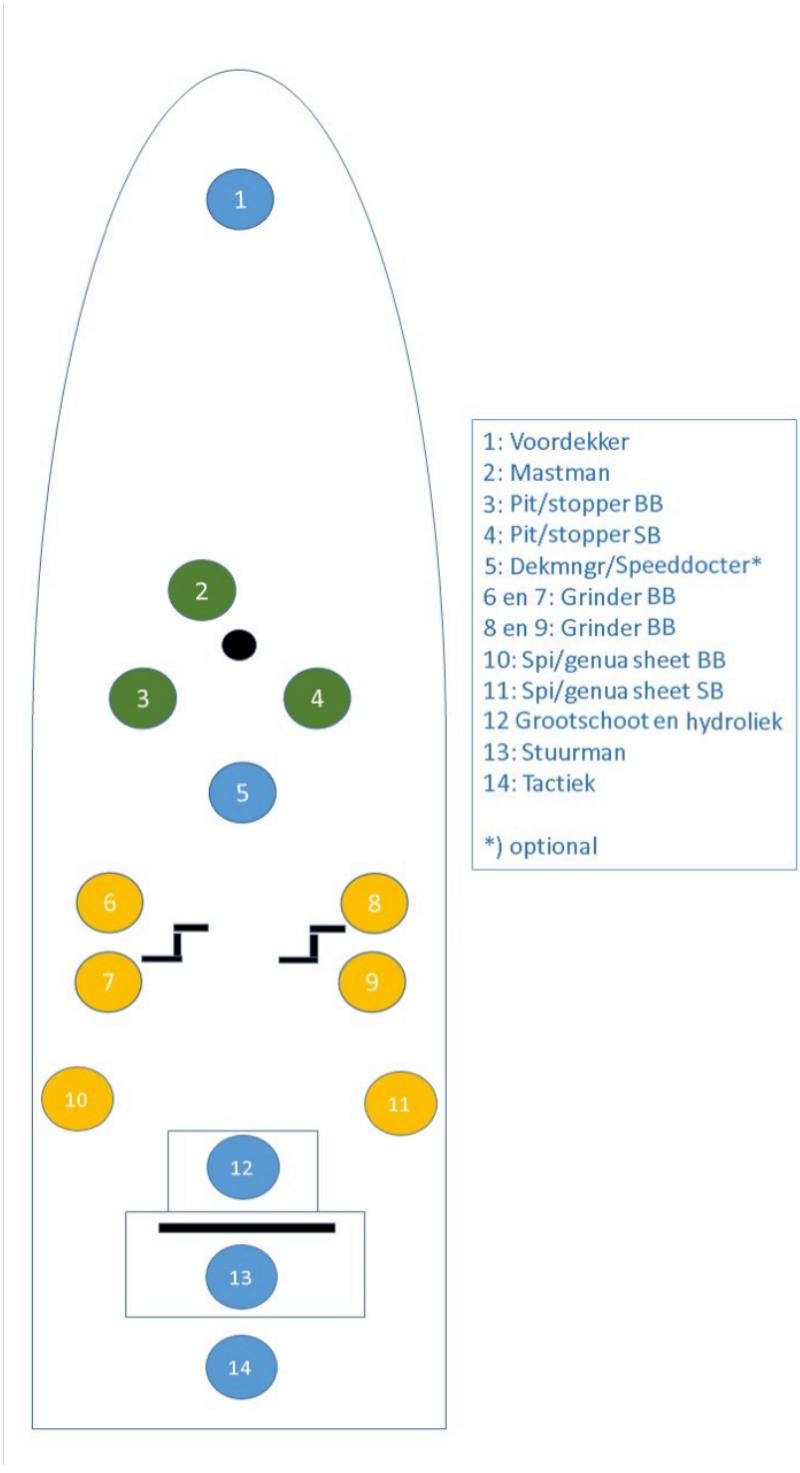


Figure 1: positions on deck

When releasing tension from a sheet on a winch put one hand on the sheet turns on the winch, now you can feel what the sheet does when you **slowly** release the sheet with your other hand.

Figure 2: hand on winch

When you totally want to release a sheet, for example the genua sheet when you are tacking, first release some tension as described before. Once the max tension is off you can take off the sheet from the winch by pulling it up. Please always check if there are no wrinkles in the remaining line, with other words, avoid knots in the line releasing.

Handle

Now some words about the handles. The handles when used in a winch are locked with a spring, check the spring lock before using. Remove the handle before releasing a sheet or halyard. The handles can be turned clockwise and counter clockwise. In the latter direction the winch goes at half the speed and your power is doubled.

Grinder

The two big sheet winches on the middle of the boat are attached to one grinder each. The two grinders are equal and are not mirrored. In general it's best that the number one grinder, Bernard, stays on one side of the grinder, that

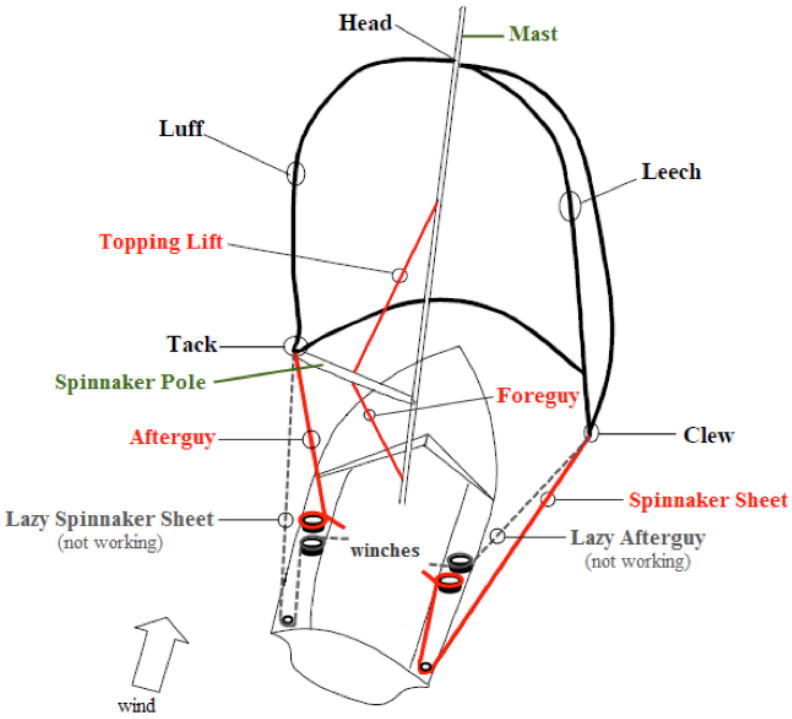
means that on starboard he is on the outside of the grinder and on port on the inside of the grinder. When grinding stay in eye contact with the other grinder and listen to the trimmer who says **trim** and **hold**. Be aware that the boom is close to your head. Especially when it is swinging over during tack or gybe. The grinder has three speeds, clockwise you have **one** and **three** and counter clockwise you have **two**. When sheeting in the genua shift gear when you go from one to two by turning the knob on top of the grinder winch. The above does not sound very clear here but once you are on the water you see what I mean ;) . Check it out while leaving port or before the race.

One more remark

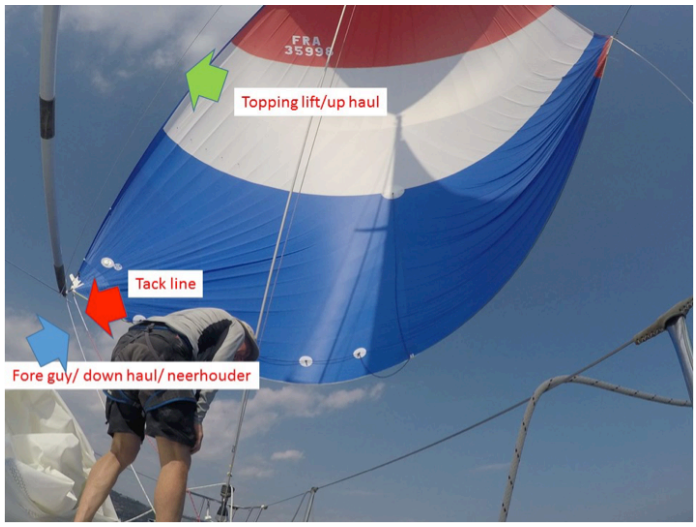
One last remark on the grinder winches, this applies to the other winches as well. The lines around the winch should always be in-line with that winch. With other words the line should always be perpendicular to the winch axis and parallel to the deck. In practise this means that the lines should be as close as possible to the deck. All sounds quite complicated but as soon as we are sailing it's more natural and starts to make sense. Time to get sailing.

Spinnaker controls

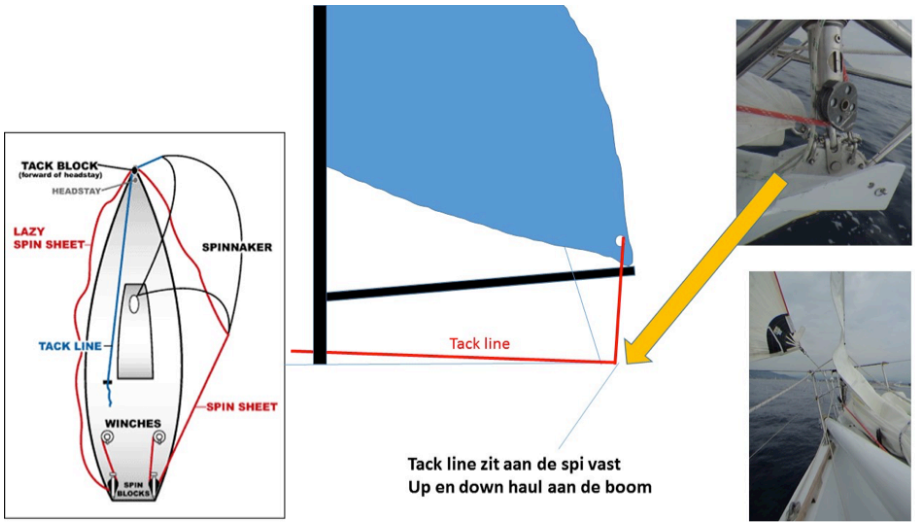
Spinnaker controls



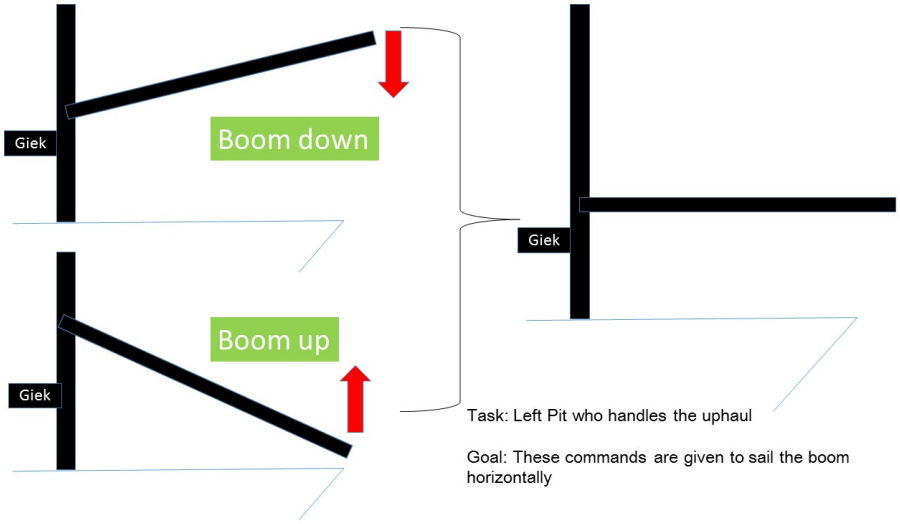
Spinnaker controls overview



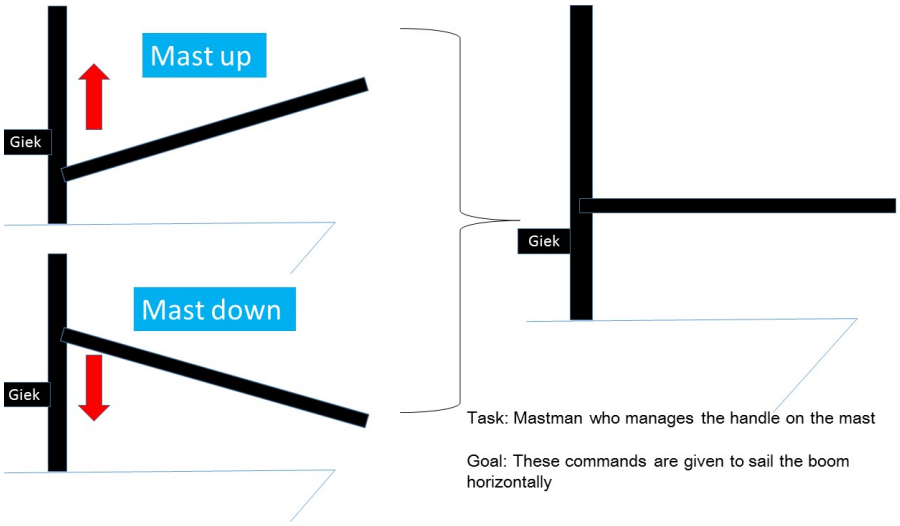
Spinnaker controls in action with bowman



Tack line



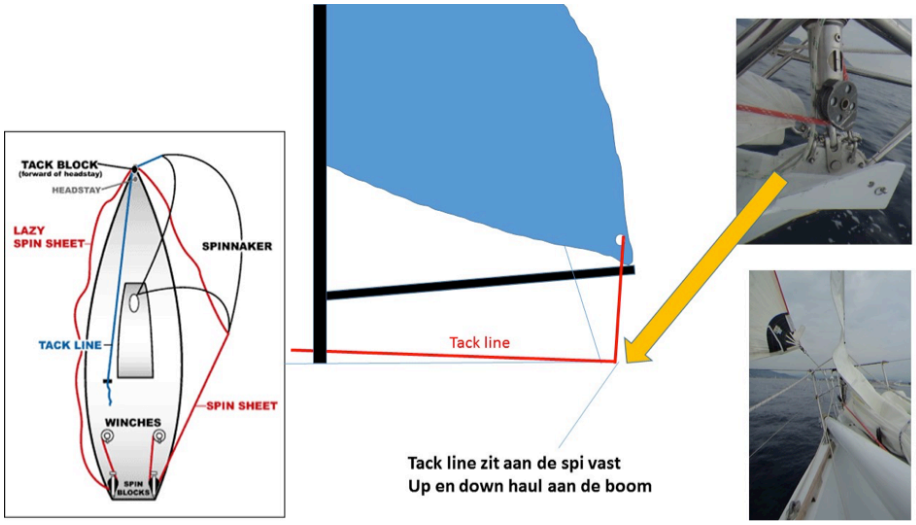
Spinnaker boom control mast up/down



Spinnaker boom control mast up/down

Tack line

Tack line



Tack line

The pit

The Pit

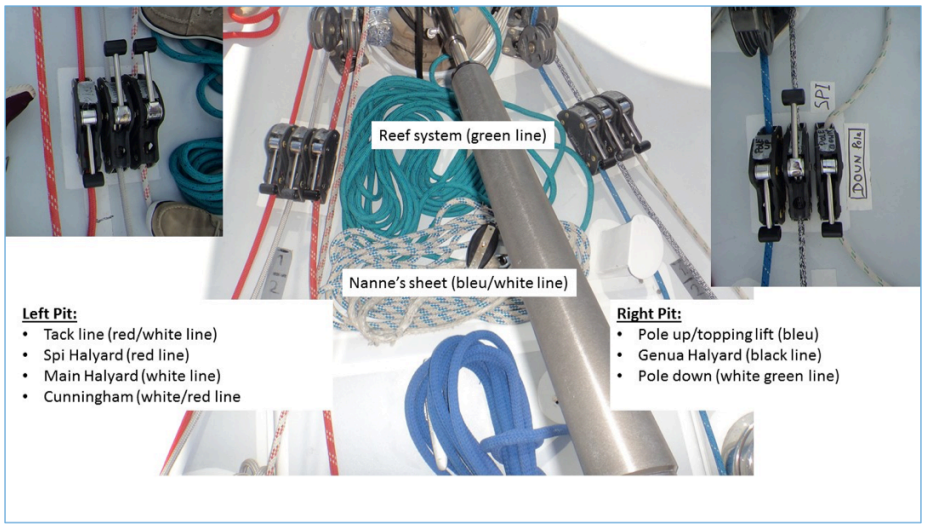


Figure 3: the pit

Notice: The clew (stopper) can not open with a lot of tension on the line. Get the line within for 3 cm and open the clew. Prepare your move and make sure the clew is open before you get the call 'release'.

Left Pit

1. Tack line:Very important during hoisting spi of jibing. Lots of tension on the line!
2. Spi halyard: After hoisting stays the line on deck. When not used: inside the cabin
3. Main halyard: After hoisting the rest of the line in the cabin.
4. Cunningham:

Right Pit

1. Pole up: important to keep the boom up. Make sure the boom is horizontal.
2. Genua halyard: When the spi is hoisted, lower the genua on command. Preparet he clew is open!
3. Pole down: When the trimming starts the tack line is released. The pole down takes over. During jibe get within tack line en pole down together, but the tack line takes over the force. Pole down must pulled with the tack line to hold the boom close tot he boat once the tack line is disabled. Otherwise the boom sticks into the water and the boom can snap.

Sails on board

Sails on board

- Genua 1 (new in september 2015)
- Genua 2 (Is coming soon: made from old genua 1)
- Genua 3
- A2 (red/white/bleu – september 2016)
- A1.5 (White – second hand TP52 sail)
- A3 (White - second hand TP52 sail)
- A4 (White - second hand TP52 sail)
- Mainsail (new in 2015)

Genua 1 (september 2015)

Genua 2 (werd toch vermaakt van de oude genua 1?)

Genua 3

Ax (rood/wit blauw – september 2016)

Ax (White – second hand TP52 sail)

Ax (White - second hand TP52 sail)

Mainsail (new in xxxx)

Asymmetric Spinnakers

Asymmetric spinnakers

Light Air Tight Reacher - A0 The smallest Asymmetrical allowed by the IRC rules, the A0 (more commonly known as a the Code 0), is a specialty sail often constructed made of high modulus materials for light air close Reaching, as high as 40 degrees apparent, and as low as 85 degrees apparent.
40 - 85 AWA
3 - 15 AWS
Light Air Reacher - A1 The A1 sails with a comparably tight luff, and is designed slightly flatter than an A2 for better stability. This sail is designed for stable boats that want to improve their light air performance.
65 - 105 AWA
3 - 12 AWS
All-Purpose Runner - A2 The A2 is an AP running sail, and flies with the longest luff and largest mid-girth of all the spinnakers. The sail is meant to be very stable, and when used in the right wind range will fly out to weather, away from the mainsail. Meant to sail the deepest angles, the sail is generally constructed of light to medium weight spinnaker cloth to take advantage of lower apparent wind speeds.
115 - 160 AWA
8 - 20 AWS
All-Purpose Reacher - A3 The A3 is meant to be an effective reaching sail from 5-23 knots apparent wind speed (dependant on angle), and is meant to help the boat accelerate quickly in shifty, fluky conditions. Designed slightly flatter than the A1, it carries a smaller midgirth with a slightly longer luff to allow the sail to project as the breeze increases.
70 - 120 AWA
5 - 23 AWS

	Heavy Air Runner A4TThe A4 carries the midgirth up as high as possible, giving the sail the power to project to weather. Constructed of heavier spinnaker cloth, and slightly smaller luff length the A2, the A4 is designed to sail between 115-165 degrees apparent. This sail will work best if you have a stable, powerful boat and you want to improve broad reaching to downwind capability. 115 - 165 AWA 10 - 25 AWS **Heavy Air Reacher - A5**The A5 is designed with a flatter shape and tighter luff that allow it to be used for reaching for in higher windspeeds. This sail is often a fractional kite, when possilble. 85 - 130 AWA 16 - 28 AWS

What to bring for an event

NR	Item	Opmerking	
1.	Paspoort en boekingsbevestigingen		
2.	Bijdragen in de pot: max 60 euro pd	Afhankelijk van wat Panerai organisatie biedt als borrels en diner.	
3.	Zeiljack zonder voering met los fleecevest		
4.	Zeilbroek (?)	Check de weersvoorspellingen voor vertrek	
5.	Boot- en walschoenen	Minimaal 2 paar. Encounter betreden uitsluitend met	de bootschoenen!

NR	Item	Opmerking
6.	Slippers	Voor op het land en douchen
7.	Kniebeschermers voor het dekwerk	Optioneel. Ligt aan je functie
8.	(Zeil-) korte broek en t-shirts	Van de Panerai krijg je een t-shirt en een petje. Tijdens de wedstrijden draag je een Encounter shirt.
9.	Zwempak en handdoek	
10.	Oplader telefoon	
11.	Zeilhandschoenen	Optioneel. Ligt aan je functie
12.	Slaapzak/lakenzak/slaapzak	Slaap je in het appartement dan is dit meestal niet nodig.
13.	Starthorloge	Optioneel
14.	Zonnebril met touwje	
15.	Toilettas	
16.	Zonnebrand en na ‘t zonnetje	
17.	…	…

Glossary of terms

About

This Manual is maintained by the Encounter Sailing Crew

It can be found back online on readthedocs

http://encountersailing.readthedocs.io

The source of the manual is online on gitlab

https://gitlab.com/encountersailing/crewmanual

The print version of the manual can be downloaded here

encountersailingcrewmanual.pdf

The current version is :

commit 17dd847e84d0439601a5fc7bf30c01cbc3f40aa6 Author: nosinga nosinga@gmail.com Date: Wed May 17 10:38:17 2017 +0200

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Update pdf
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