

## Downwind sails

### Spinnaker & Gennaker

*When the apparent wind comes abaft the beam it is very difficult to keep the genoa filled without having to spread it to windward with a pole, as it will be covered by the mainsail. Then the special downwind sails like the spinnaker or the gennaker will be more efficient headsails, especially in light airs.*



*The spinnaker is a sail for which it is particularly difficult to give exact trimming instructions. Therefore you will find that in this book we try to introduce you to more practical rules of thumb.*

## Types of spinnakers

**Cross-cut** spinnakers were the first of the modern types of symmetrical spinnakers. Because wind forces at the top of the sail caused a diagonal load, there was a significant stretch in the cloth. This resulted in some deformations of the sail shape as the wind freshened. This type of spinnaker could be used effectively on a run, but it was less suited for reaching.

**Radial head** spinnakers have vertical panels at the top which reduce the stretch of the cloth in heavy airs. This type was a significant improvement from the cross-cut spinnaker, but the radial head spinnaker's properties when reaching are still not the best.

**Tri-radial** spinnakers have panels placed in the three main directions of stretch. This sail is therefore more capable of maintaining its shape and is a good all round spinnaker for most yachts.

Modern sailmakers may use *computer aided design* when shaping and cutting the panels. The sailmaker will then be able to create panels with optimum shape, strength and material orientation.

### Materials

Spinnakers (and gennakers) are made of thin nylon cloth in order to function in very light airs. Nylon is chosen because it has a high strength/weight ratio and elastic shock damping to resist the loads imposed by gusts. In direct contrast mainsails and genoas are made from materials with as little elasticity as possible in order to maintain their shapes in the gusts.

Nylon will decay when exposed to sunlight over a long period of time. Spinnakers and gennakers should therefore be stored in their sailbags when not in use. The sails must be dry when they are put in their bags. Thorough cleansing with fresh water at least once a year will prolong sail life.



*Cross-cut*



*Radial head*



*Tri-radial*



*Modern spinnaker*

# Equipment and Terms

## Sheet and Guy

The spinnaker is controlled by two "sheets", but the sheet which is led via the spinnaker pole is called the **guy** (or aft guy) and is attached to the windward clew of the spinnaker. The **sheet** is attached to the leeward clew. The sheet becomes the guy and vice versa when the spinnaker is gybed.

The **spinnaker pole** is attached to the spinnaker via the guy. The pole must be equipped with both an **uphaul** and **downhaul** to keep the pole horizontal. Note that the downhaul must deal with much greater forces than the uphaul because the spinnaker has a significant vertical driving force component.

Both sheet and guy are led through **blocks** on the aft deck and on to the winches, often dedicated spinnaker winches somewhat smaller than the genoa winches.

The **jockey pole** is used, especially on bigger boats, to get a better pull angle for the guy and to keep the guy away from the shrouds.

The **preventer** stops the main boom from whipping across the cockpit in an **uncontrolled gybe**. This is one of the most dangerous incidents that can happen when sailing. Normally the preventer is attached to the boom at nearly the same point as the main sheet. It is then led forward to the stem to obtain a good pull angle to the boom and a more elastic system, through a block or around a cleat and back to the cockpit where it is cleated.

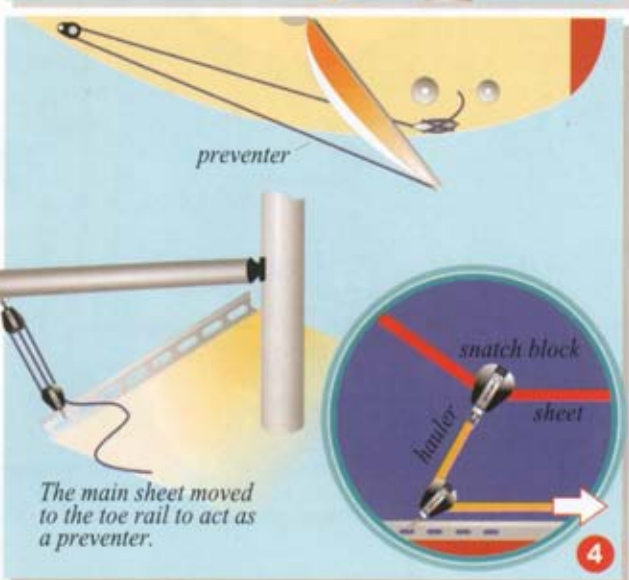
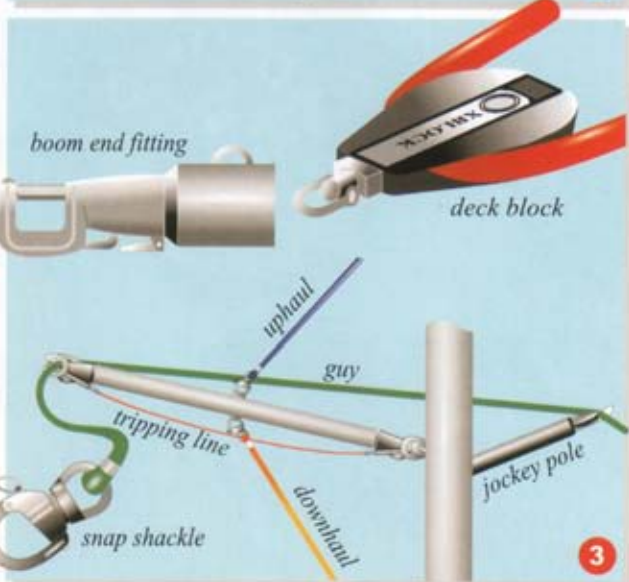
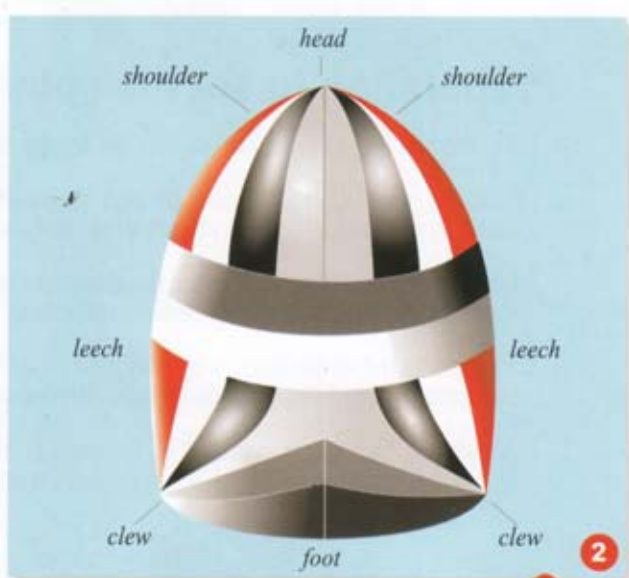
**NB! A quick release method is essential for all preventer types. Also use a preventer when on or near a dead run when using the genoa as headsail.** Alternatively the sheet may be moved to the rail as shown on the figure. But a dedicated preventer is advisable, even if it does not lead all the way to the stem and back. Always ensure that it can be released quickly, preferably from the cockpit.

The **Barber hauler** is a line with a snatch block running on the sheet, routed via a deck block in the toe rail just abaft the shrouds. The Barber hauler adjusts the sheet lead in the fore and aft direction (see also page 30 - fig.69).

If you attach a snatchblock to the toe rail, you will obtain an extra single sheeting point further forward.

**Leeward side** is always the side of the boat where the boom is located (except when gybing when the boom might be held back from swinging over to the other side by a preventer).

**To broach** means that steering control is overpowered by an imbalance of the sail forces. This imbalance is self amplified by the increased heel angle.



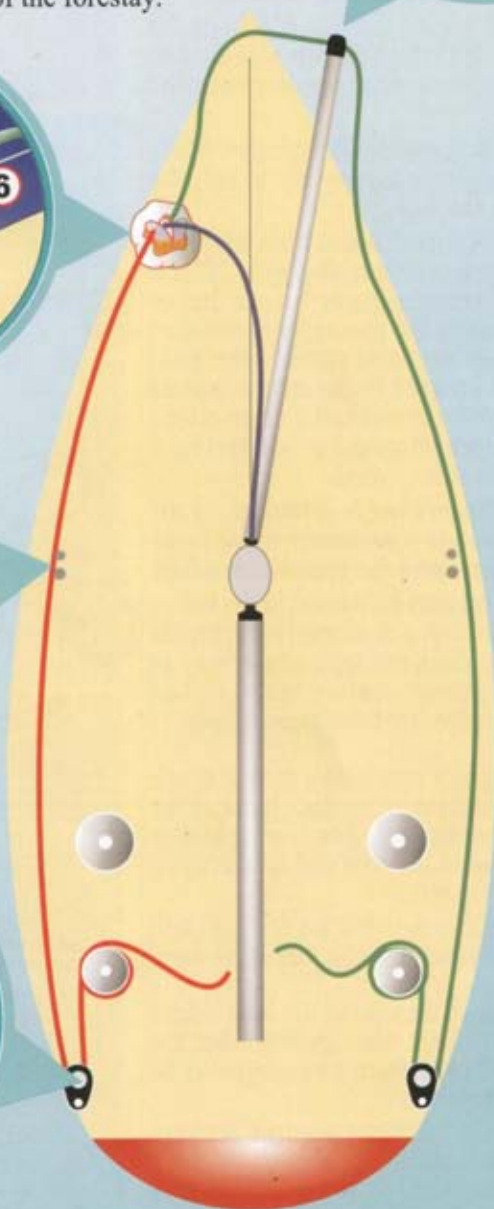
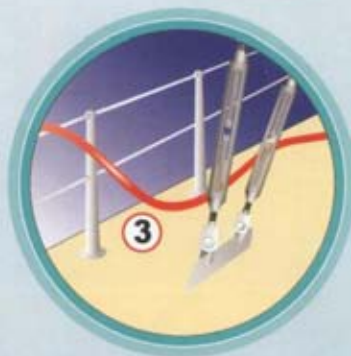
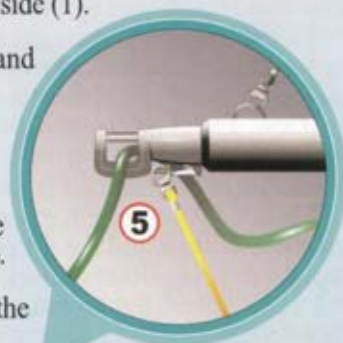
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## Preparation to set the spinnaker

- Tie the sail bag to the guard rail on the foredeck on the leeward side (1).
- Lead the sheet (2) to run outside and beneath the guard rails and through the lead block on the aft deck and on to the winch.
- Lead the sheet forwards outside the shrouds (3) and the genoa sheet and attach it to the spinnaker clew (4).
- The guy is led in the same way, but in addition through the pole end fitting (5), in front of the forestay and to the windward clew (6).
- Attach the halyard to the head of the sail (7). NB! Check that the halyard is running freely in front of the forestay.



# Hoisting the spinnaker

## Hoisting the spinnaker on a run

It is safest to hoist and take down the spinnaker in the lee of the genoa. If you don't want to do this, you must remember to pull the windward clew (A) close to the pole end before hoisting the spinnaker.

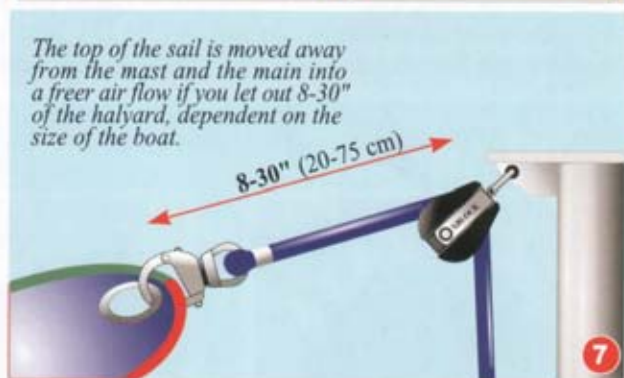
- Set pole to correct height and tighten downhaul.
- Hoist the spinnaker quickly and make fast halyard.
- Tighten guy until the pole is in the correct position with the windward clew close to the pole end.
- Pull in the sheet until the spinnaker fills.
- Take down the genoa. NB! With the wind more on the beam, the spinnaker will often not fill until the genoa has been taken down.

## Hoisting with the wind on the beam

- Set the pole 15° to the centreline and a little lower than on a run. Tighten downhaul. Cont. as above.

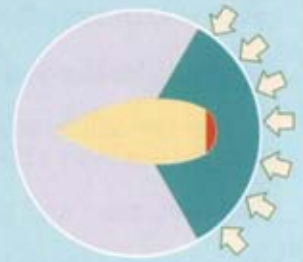
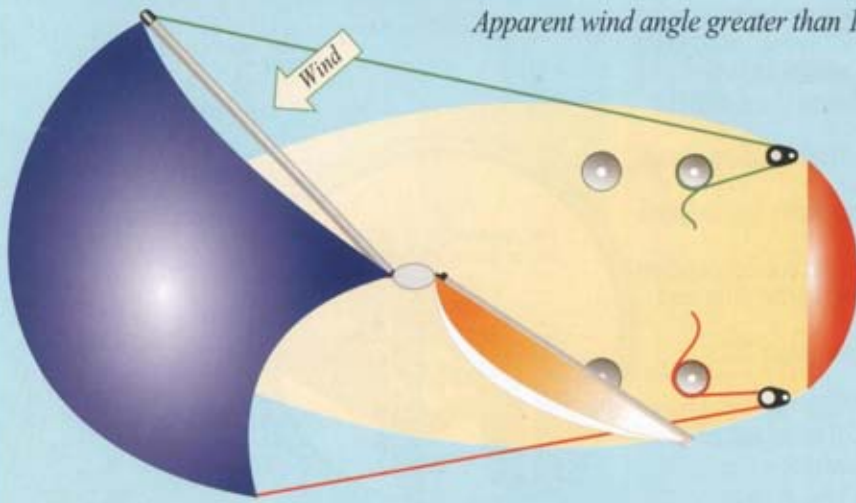
## Spinnaker setting in general

- Be very thorough when packing the spinnaker. Hold the head and fold the leeches (normally marked with red and green tapes) until you reach the clews. Put the spinnaker into the bag while holding the head and the clews. It may be wise to let two crew members do this task. Spinnakers on bigger boats are packed in special ways.
- Tie the spinnaker bag securely to the guard rail.
- Double check that sheet and guy are correctly laid.
- Set the spinnaker pole to correct height and angle.
- Take in the slack on the guy until the clew is close to the pole. NB! This is not absolutely necessary if the spinnaker is hoisted in the lee of the genoa.
- Check that the downhaul is tight so that the pole will not lift and point skywards when the sail fills.
- Always lay sheet, guy and halyard with one turn around the winch for safety. You then have the ability to control the spinnaker if it fills suddenly.
- On a run, except in very light and heavy airs, it pays to let out a little of the halyard in order to move the spinnaker away from the mainsail.



## The pole's angle to the wind

Apparent wind angle greater than  $120^\circ$  : The pole  $90^\circ$  to the wind



Apparent wind  $120 - 180^\circ$

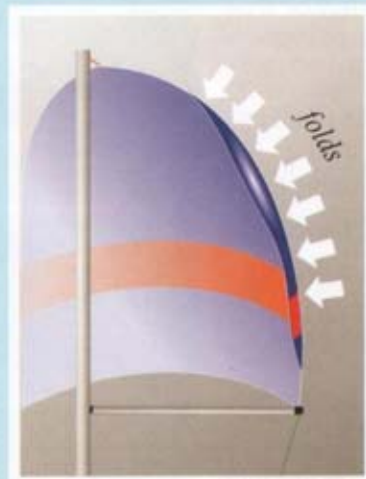
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When the apparent wind angle is  $120 - 180^\circ$ , as a rule of thumb, set the pole at  $90^\circ$  to the wind. When apparent wind comes more from ahead (reach/tight reach) you should "overtrim" the spinnaker pole in order to *open* the leeward leech and flatten the sail (see fig.18). You must then tighten the guy to move the pole further aft, so the angle between the pole and apparent wind becomes less than  $90^\circ$ .

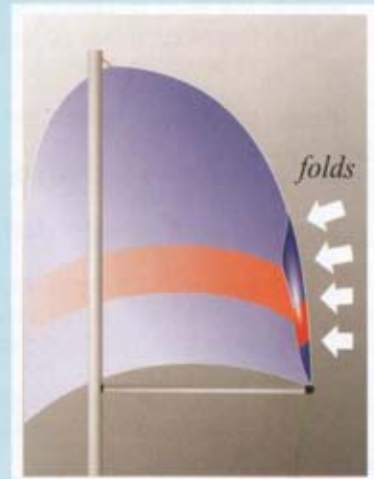
## The height of the pole



Pole too low



Pole at correct height



Pole too high

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One way to decide the correct height for the pole is to look at the windward leech (the luff). It trembles as the spinnaker is luffed. Adjust the height of the pole until *most of the leech breaks at the same time* when the spinnaker luffs. If the top breaks first, you must lift the pole. If the leech breaks first in the lower part, you must lower the pole.

Another, simpler rule of thumb is that the leeward and windward clews should have the same height above deck on a run. NB! It is important to check this on a run when the wind is failing and the sheet clew drops. Then the pole must be lowered! On a reach the draft position will be more important so the windward clew will often be lower than the sheet clew.

# Spinnaker depth

## Depth in upper parts of the sail

The depth of the spinnaker is primarily set by the sailmaker who shaped the panels of the sail. But the depth in the upper parts of the spinnaker is also affected by the height of the clews. When these are lifted, the leech and luff will **open** and the shoulders (the upper parts of the leeches) will spread apart.

This will **flatten** the upper parts of the sail, contrary to what many people believe. If clews are lowered, the leeches will stretch and approach each other, thus:

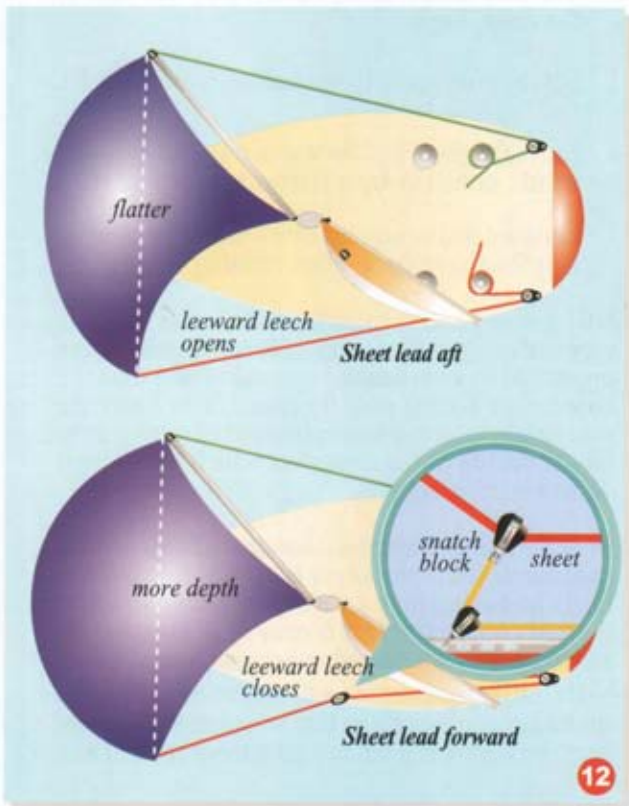
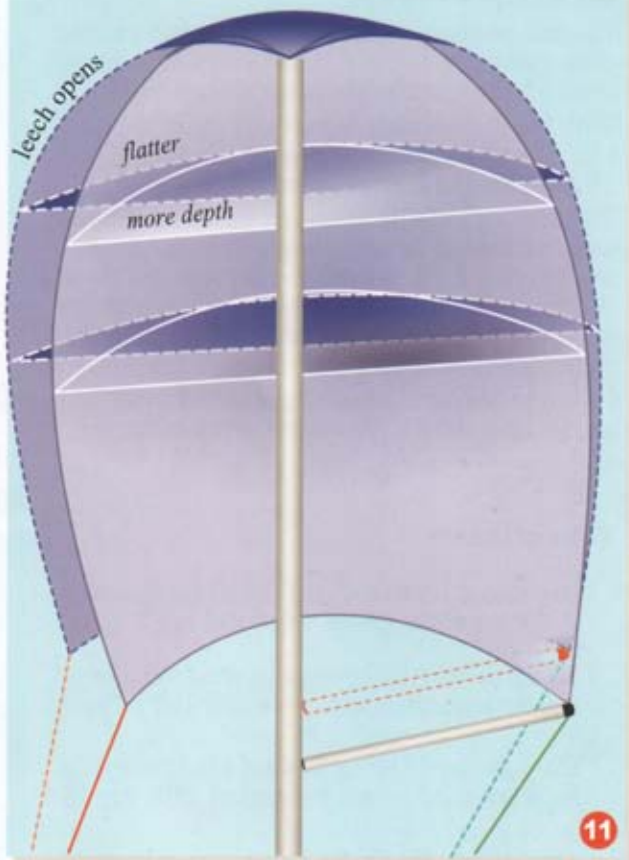
- Pole higher: Flattens upper parts of spinnaker
- Pole lower: More depth in upper parts of sail

## Depth in the lower parts of the spinnaker

The depth in the lower parts of the spinnaker is controlled primarily by the position of the sheet lead in nearly the same way as the genoa. Normally the lead is located aft (deck block), but by using a Barber hauler attached just aft of the shrouds, the sheet lead may be moved forwards.

With the sheet lead well aft, the sail will be flatter and the leeward leech will **open**. This reduces the heeling force due to the air flow leaving the sail with less bending. The sail will also be further away from the main which makes a more favourable air flow along both sails. In contrast the depth of the sail will increase and leeward leech will **close** when the lead is moved farther forwards - due to the pull from the sheet now being directed more downwards. Thus:

- Sheet lead aft: Flatter in lower parts - leech opens
- Sheet lead forward: More depth - leech closes



## Draft position

The draft position is controlled by the relative height of the clews. The rule of thumb stating that the clews should be at equal height is not always valid.

With the wind abeam or more forward, the draft will move forwards if you lower the pole. If you lift the pole, the draft position will move aft.

On a cruising yacht the spinnaker should be trimmed with the clews at the same height or with the windward clew a little lower than the leeward clew. With a strong wind on the beam it is especially important to lower the pole to move the draft forwards and thus avoid broaching.

(When in danger of broaching, ease the mainsheet and kicking strap to depower the top of the sail.)

### Rules of thumb

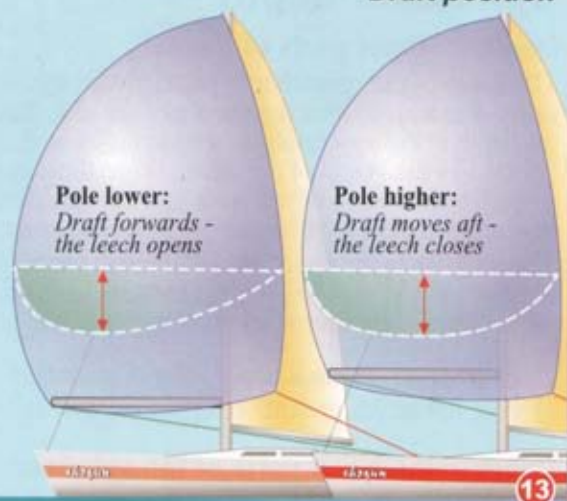
- It is wise to hoist (and take down) the spinnaker in the lee of the genoa. Fig 6 and Fig 27.
- Set the pole 90° to the apparent wind when broad reaching/running (app. wind 120-180°). Fig.9.
- The pole should be set forward a little when the apparent wind comes forward of 120°. Fig 18.
- The pole should always be set perpendicular to the mast. Fig 8.
- Set the pole lower in decreasing winds. Fig.10.
- Move the sheet lead forwards on a run in strong winds, normally by a Barber hauler. Fig 16.
- Leeward and windward clews should be at equal heights above deck when running. Fig 10.

NB! These general rules are not always valid. In very heavy airs with danger of **broaching** it is more important to stabilize the spinnaker and thus the boat before setting sails for speed. You **lower** the pole height in strong winds (instead of raising it) to flatten the top of the spinnaker which normally is desirable in heavy airs.

*In order to trim the spinnaker optimally you must continually ease the sheet until windward leech (luff) folds, and then take in just enough so that the fold disappears. This is done to ensure that the sail is never oversheeted to become less efficient.*

NB! Cruising yachtsmen will almost never trim the spinnaker continually in this way, but will instead overtrim the sheet a little to get a more relaxed trip.

## Draft position



Keep the vertical mid-seam parallel to the mast. If the seam bends out to leeward at the top of the sail, you should ease the guy. If the seam bends out to windward you should haul in the guy.

It almost never pays to be on a dead run. In light and medium winds it will be better to head up a little to increase the boat speed and thus obtain a better air flow across the sails.

In stronger winds heading up will ensure a more stable progress and reduce the risk of rolling and broaching to leeward (see page 53).

## Running with a spinnaker

- Set the pole  $90^\circ$  to the apparent wind - lower the pole as the wind lightens. Ensure the clews are at the same height above deck.
- The sheet lead should be all the way aft.

**In light airs and choppy seas** you may "undertrim" the pole. This means that the pole is set with a larger angle than  $90^\circ$  to apparent wind. You can then ease the sheet more so the spinnaker will pull well ahead of the stem. The depth will increase in the lower part of the sail increasing the drive force through the waves. (If you move the sheet lead forwards with the Barber hauler, the spinnaker will be more stable in the choppy sea.)

### Running in heavy airs

The boat becomes more difficult to handle. It is most important to *prevent rolling* to *avoid a broach*.

#### Broad reaching (wind on the quarter):

- Overtrim the spinnaker pole and set it lower to stabilize the luff of the spinnaker.
- Move the sheet lead forwards by tightening the Barber hauler and in addition overtrim the sheet a little. This will spread out the spinnaker, which will prevent it from swinging from side to side initiating rolling, especially in big waves.

#### On a dead run (to be avoided):

- As above, but ease the guy a little (undertrim the pole) to ensure that the spinnaker does not pull too much to windward (the boat would then heel to windward which may initiate rolling).

### Stability on a run

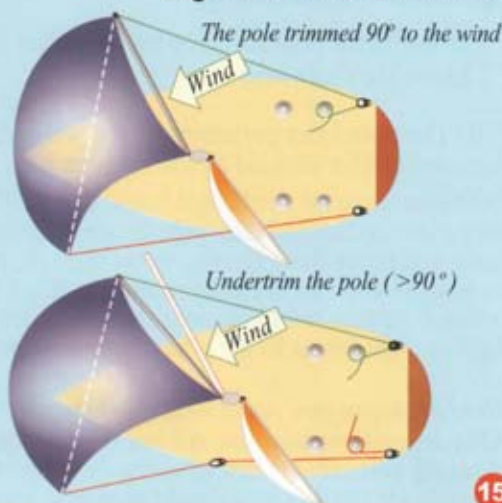
To avoid rolling when the wind starts to freshen, it is important that the spinnaker pulls as straight ahead as possible. You may see the direction of pull if you look up at the halyard block (or sheave) on the mast (fig.17). If the pull direction deviates too much from straight ahead, you have trimmed your spinnaker incorrectly. But it is difficult and awkward to stare at a block up in the mast. Therefore:

If the boat starts rolling to *windward*, you haul in the sheet a little. If the boat starts rolling to *leeward*, you ease the sheet. The helmsman must watch the movements of the boat and head up a little when the boat heels to windward, and bear off a little when the boat heels to leeward. Rule of thumb:

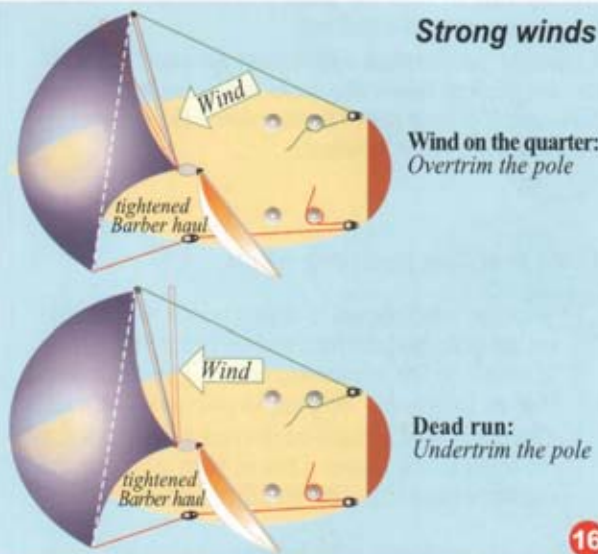
**Steer the boat under the mast!** (see page 54)

It is also important that the boat is kept as upright as possible. The crew should be located aft to prevent the bow burying in the water and to ensure that the rudder grips with maximum efficiency.

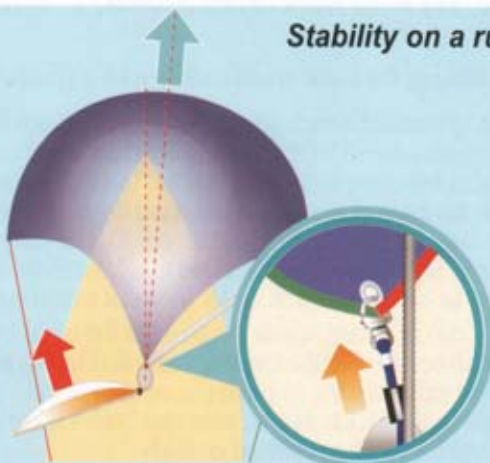
### Light and medium winds



### Strong winds



### Stability on a run



Here the spinnaker pulls a little to windward at the same time as the main pulls to leeward. The total force from the sails will therefore be approx. straight ahead holding the boat stable.

## Close reaching

- Overtrim the pole and keep the spinnaker filled.
- Move the sheet lead aft.

NB! The principles pertaining to the wind abeam are also valid for all wind directions from 50 to 120°.

When the apparent wind angle is less than 120°, you may overtrim the spinnaker pole to open the leeward leech and move the spinnaker away from the main, so long as you can keep the spinnaker filled. This will also turn the sail force more ahead thus reducing heeling. NB! Never let the pole rest on the forestay.

### *How high can you point with a spinnaker?*

This depends on how the sail has been made, but generally you may say that when the direction of pull exceeds 45° (fig 17), you should change to a genoa. But try first to ease the sheet and haul in a little on the guy to improve sail set.

***Cruising yachtsmen often own spinnakers that are inefficient when the wind is abeam or further forward. It is then better to take down the spinnaker and set the genoa instead!***

## Close reaching in strong winds

- With the wind abeam in strong winds, you should set the pole as described above, but a little lower to stabilize the windward leech. The draft then moves forwards - helping to prevent a broach.
- The sheet lead should be moved aft to open the leeward leech more. This in turn will reduce the heel (and thus the weather helm).

***If there are problems with heeling or steering, bear away to a broad reach or take down the spinnaker!***

## Trimming the main when sailing with a spinnaker

The spinnaker bends the airflow much more than the genoa does. You will find that the main must be sheeted more in to compensate. In other respects treat the main normally i.e. increase depth by easing the outhaul and straighten the mast. The halyard should also be eased. On a close reach the main may need to be flattened in order to reduce heeling.

On a run in strong winds the twist in the main must be reduced to cure the tendency to roll. The top parts of the sail may try to push the boat to windward. Tighten the kicker but be sure that both kicker and preventer can be released quickly.

In light airs, however, you may have to use the topping lift or a telescopic kicker to **lift** the boom a little, to provide the necessary twist in the sail.

## Light and medium winds

*Overtrim the pole so long as you manage to keep the spinnaker filled. This will open the leech and reduce the heeling force.*



*If the pole is set 90° to the wind, leeward leech will close more (red dotted line).*

*Sheet lead well aft to open leeward leech.*

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## Strong winds



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*Twist in the main creates a force component to windward in the top of the sail when running in heavy airs. Tighten the kicker!*

## The main



Loose kicker

Tight kicker

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# Broach

If the boat is sailed upright in heavy airs, the sail forces from a correctly trimmed spinnaker and main will balance each other. The boat may be held on course with small, quick helm corrections.

A gust or a wave causing the boat to heel may easily make the boat unstable. Sail forces from spinnaker and main will then act on the same side of the boat's turning point, and will both try to turn the boat to windward. The rudder may not be able to counteract these forces and the helm may lose control.

Further heeling action increases weather helm which then contributes to an irresistible turn into the wind and the momentum of boat, mast, rig and sails will heel the boat even more. The boat will twist violently into the wind, dip its boom into the sea and trip into a knock down. The boat has **broached to windward!**

## Broach to leeward

A broach to leeward followed by a gybe can occur. This can become dangerous if the preventer has been set or the main sheet is attached to the rail. The boom will lift to point skywards. Wind fills the back of the main and heels the boat violently. The boat may then fill with water through an open hatch.

## Avoiding a broach:

Avoid any rolling by preventing the spinnaker from swinging side to side (see page 51) and bear off a little in the gusts. Sail with the wind further aft the more it blows, but try to avoid being on a dead run in heavy airs!

## What to do when a broach to windward has started:

- Ease the main sheet (does not help much on a run).
- Ease the kicker to depower the main.
- Ease off the spinnaker sheet if necessary.

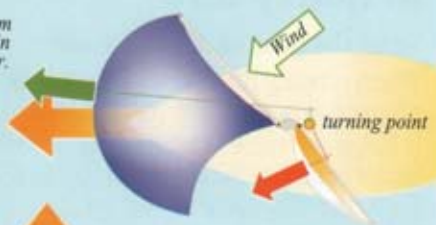
## What to do when a broach to leeward has started:

Shout **"HEADS DOWN!"**. Keep the crew away from the main sheet and track. The boom will suddenly and violently swing across the cockpit if no preventer has been set or the preventer breaks.

- Release or cut the preventer to let the boom swing over to the new leeward side.
- Ease off the kicker to take wind out of the main.
- If necessary loose the guy (on the new leeward side!). NB! If the downhaul is eased off quickly during the broach, both spinnaker and pole may be saved from immersion and destruction.

## Forces leading to broaching

The sail forces from spinnaker and main balance each other.



The sail forces from spinnaker and main will both try to turn the boat to windward.



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## Broach



broach to windward



broach to leeward

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# Steering downwind in heavy airs

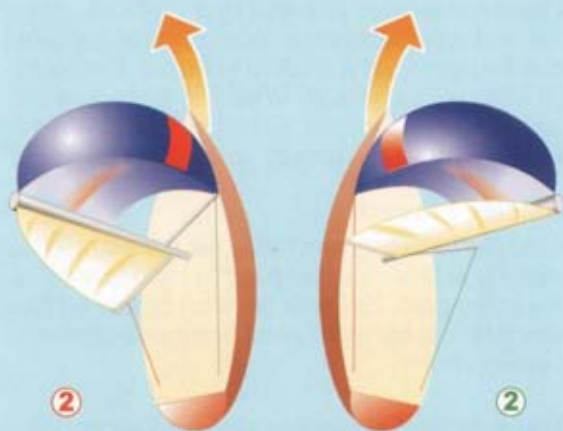
## Steer the boat under the mast!

When running downwind in heavy airs *rolling* can produce serious problems and should be avoided. It helps to "tame" the spinnaker with the Barber hauler and trim the sheet and guy as shown on p.51. Stop any tendency to roll by steering correctly. If the boat starts to roll to *leeward* - bear away a little. When the roll starts to *windward* - head up a little. This is what is meant by steering the boat *under the mast*. Many yachtsmen have developed a tendency to do exactly the opposite thing, which results in worsening the problem.

Of course you should never bear off when the boat is close to gybing. Therefore it is wise to always sail a little closer to the wind and avoid a dead run. This allows the option of bearing off a little without any risk of gybing.

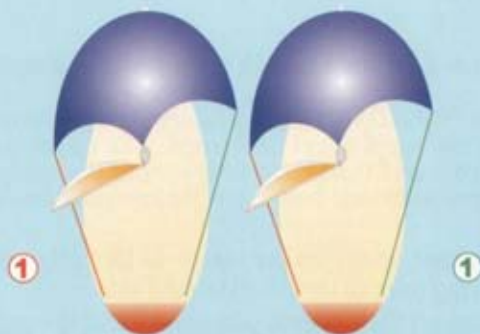
But if you have rigged a good preventer, you will be able to employ the above technique with a large degree of security. You will see when the main starts to backwind, and be able to correct course while the preventer stops the boom from initiating the gybe. Always try to anticipate the boat's movements. The sooner you react the better will be your control.

**Note that** a windward broach is less dangerous than a leeward broach. A leeward broach usually creates a gybe, some damage, risk to life and limb and considerable chaos.



**Roll to leeward:**  
*Bear off a little*

**Roll to windward:**  
*Head up a little*



# Gybing the spinnaker

There are three main ways to gybe a spinnaker. Big boats and racing yachts normally use an extra set of guys and sheets called *lazy guys/lazy sheets*. These are not shown in the illustrations. Generally a spinnaker is gybed in the following way:

- Bear off to a dead run.
- Stabilize the spinnaker.
- Lead the pole to leeward and clip on the sheet.
- Gybe the main, head up and trim the spinnaker on its new course.

Racing crews normally gybe the main and spinnaker simultaneously but many cruisers choose to gybe the main after (or before) the spinnaker, especially with a short and/or inexperienced crew. The problem is that whenever the spinnaker is on the same side as the main there is a danger of turbulence twisting and tangling the spinnaker. On stable boats you may sheet the main amidship to keep the spinnaker filled while it is being gybed.

## End to end gybe (best suited for boats under 30 feet)

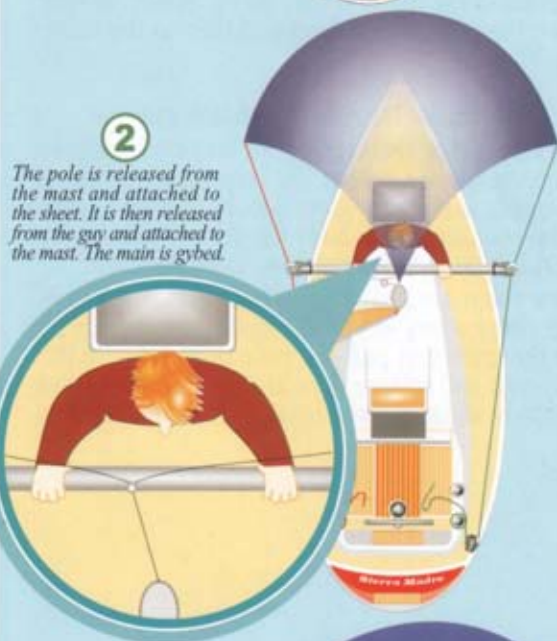
This is the simplest method of the three and the one which demands least extra equipment.

But it may be difficult to execute in heavy airs and choppy seas, especially if the boat is over 30 feet long. This is because the spinnaker pole will be totally free from the mast during the period of the pole movement.

- Bear off to a dead run and hold a steady course.
- Ease the sheet and haul in the guy until the pole is positioned athwartships with the spinnaker filled.
- Ease downhaul a little before the crew, normally looking aft, releases the pole from the mast and attaches the free pole end to the sheet on leeward side. (The main should be gybed at this moment, but it might be wise to secure the pole first).
- The crew then releases the guy, attaches the pole end to the mast and re-tensions the downhaul.
- Now gybe the main, head up and trim the spinnaker on the new course.

The crew may find it easier to grab the sheet to attach it to the pole if a Barber hauler is tightened. Some helmsmen grab the sheet and try to lead it inwards onto the deck. Accurate steering is critical however to avoid chaos and an uncontrolled gybe of the main. With a short crew or in heavy airs, an alternative to gybing the spinnaker may be to take it down, gybe the main and hoist the spinnaker on the new course.

## One-pole gybe



## Two-pole gybe

If the boat is equipped with two poles but only one set of sheets and guys you may gybe as follows:

- Bear away to a dead run and set the pole 45°\*.
- Attach the other pole to the mast, rig an uphaul and attach the other pole end to the sheet. \*\*
- Rig a downhaul and adjust/secure pole height with up and downhaul. Set the new pole 45°\*.
- Gybe the main and take down the first pole.
- Head up slowly and trim the spinnaker on its new course.

\* to the boat's centreline

\*\* It may, dependent of boat size, be difficult to attach the free pole end to the sheet with the pole attached to the mast. It may be necessary to first attach the pole to the sheet and then to the mast.

## The boat has got lazy sheet and lazy guy

If an extra set of sheets and guys are fitted you may attach the second pole to the lazy sheet, tighten it and use it as the new guy. Before gybing ensure the up and downhauls have the second pole under control. You are then ready to gybe the main.

When the main has been gybed, adjust the new sheet (the ex-lazy guy) and ease off the old guy so that the crew can pull the pole inboard with the downhaul and release the old guy. You then head up slowly and trim the spinnaker on its new course.

## Two pole gybe



Head up slowly on the new course while trimming the spinnaker.

2



When both poles are set 45° to the centreline with tight up and downhauls the main is gybed.

1



Bear off to a dead run and set the other pole 45° to the centreline.

## Dip pole gybe (with one set of sheets and guys)

(Remove any baby-stay/inner stay prior to gybing.)

- Bear off to a dead run and stabilize spinnaker. Avoid rolling.
- Ease the uphaul and release the pole from guy.
- Ease the downhaul and dip the pole under the forestay (raise the mast end of the pole if necessary) and attach it to the sheet on the leeward side.
- Tighten uphaul and downhaul.
- Gybe the main. Head up slowly on the new course while trimming the spinnaker.

The main should in fact be gybed at the same time as the pole is led over to the leeward side, but with a small and/or inexperienced crew it may be safer to do as described above.

## Dip pole gybe (with double set of sheets and guys)

- Bear off to a dead run and stabilize spinnaker. Avoid rolling.
- Raise the mast end of the pole so that the pole may be led past the forestay to the other side.
- Ease the uphaul and release the guy.
- Dip the pole end down and past the forestay and attach it to the lazy sheet (the new guy).
- The main may be gybed at the same time.
- Reposition the mast end of the pole and tighten the uphaul and the new guy.
- Head up slowly on the new course and trim the spinnaker.

This method is very efficient, but demands a well co-ordinated crew. One crew member may sit in the pulpit facing aft. When the pole is dipped past the forestay the crew should quickly attach the lazy guy to the pole end.

It is important that the helmsman steers the boat so that the spinnaker is stable and ahead of the boat. When the pole is released from the guy, the spinnaker is controlled only by two "sheets". The helmsman must now keep the spinnaker filled until the pole is attached to the new guy and the main is gybed.

NB! If you sheet the main to the centreline, you may keep the spinnaker filled during the gybe, even if you first gybe the main after the pole has been led over and attached to the new guy.

## Dip pole gybe



Head up slowly on the new course while trimming the spinnaker.



When the spinnaker is stable ahead of the boat, the pole is released from the guy, led under the forestay and attached to the sheet (the new guy). The main may be gybed at the same time.



Bear away to a dead run and stabilize the spinnaker.

## Taking down the spinnaker

Many yachtsmen think that it is difficult to take down the spinnaker. But if you take it down in the lee of the genoa and follow the method described below you should not have problems:

- Hoist genoa to leeward and bear off to a dead run.
- Ease the guy until the pole is at the headstay.
- Haul in the sheet. Check that downhaul is tight.
- Release the spinnaker from the guy. If necessary lower the pole to reach the snap shackle or the tripping line (A).
- Take in all slack on the sheet as soon as the spinnaker is released - streaming out to leeward like a large pennant. Make fast the sheet.
- Ease off the halyard in a **quick** and controlled way. Simultaneously pull in the spinnaker, under the main boom and down the hatch. Prepare (stow) the spinnaker for the next hoist.

NB! Grasp the sheet as close as possible to the spinnaker and pull with long hauls along the leech. When you approach the top of the sail, you may grasp the cloth closer to the middle of the sail.

**Never ease the halyard before the spinnaker is released from the guy and a crewmember is ready to pull it over the side.**

There are other ways to take down a spinnaker but this is the safest method for cruising yachtsmen. This method may also work with the wind abeam.

NB! If the spinnaker is filled when you release the guy be warned that the pole may suddenly recoil. This happens as a result of the elasticity of the heavily tensioned guy. Kevlar minimises this effect. **Always stand to leeward of or below the spinnaker pole when the guy is released!**

If everything should fail and the spinnaker ends up in the water, you just have to completely release the halyard. Remember to cut the stop knot and let the halyard run completely out from the mast and boat. The spinnaker will then trail after the boat, like a dead fish, only attached by the sheet. Pull everything on board. To do this you may need to slow the boat by heading up into the wind.



Ease off the halyard and pull the spinnaker as quickly as possible in under the boom and down the hatch.



Ease the boom close to the forestay. Take in all slack on the sheet and release the spinnaker from the guy. It will now stream to leeward like a pennant.

# The Gennaker

A *gennaker* (also called an *asymmetric* spinnaker) is a practical alternative to the spinnaker. Its tack is attached to the foredeck and it is trimmed like a genoa when the wind is forward of the beam. When running with the wind it can be set like a spinnaker with pole, sheet and guy etc. It can also be poled out to windward as a genoa.

The gennaker is larger than a genoa, but smaller than a spinnaker. It is a high clewed sail that sets well with the wind from forwards to aft of the beam until it is necessary to use a pole.

**NB!** If set running as a spinnaker the gennaker may set more satisfactorily with tack to the pole and clew to the sheet.

## Setting the gennaker

- Tie the sail bag on the foredeck.
- Attach the tack to the stem head with a 0.5 m line.
- Hoist sail as quickly as possible with sheet eased.
- Haul in the sheet until the gennaker fills.

## Gybing the gennaker

- Bear off to a dead run.
- Ease the sheet off until the gennaker collapses.
- Lead the sheet around in front of the forestay and back to the block and winch on the other side.
- Haul the sheet until the sail fills.

## Taking down the gennaker (when not using a pole)

- Release the tack on the foredeck.
- Make fast the gennaker sheet.
- Bear away to a dead run. Sheet the main in a little.
- Release the halyard in a quick and controlled way. Simultaneously pull in the gennaker under the main boom and down the hatch. Prepare (stow) the gennaker for the next hoist.

**NB!** Use the same technique as you do when taking down a spinnaker. Grasp the sheet as close as possible to the sail and pull with long hauls along the leech. When you approach the top of the sail, you may grasp the cloth closer to the middle of the gennaker.

Keep the tack of the gennaker relatively close to the deck when reaching. When running set the sail like a Blooper or Bigboy. Ease the tack control line and the halyard a little so that the sail moves into clear wind as far away from the main as possible.

