

GRAVITAS SAILING MANUAL

**S
80**

Gravitas
ROYAL YACHT CLUB
OF VICTORIA
R2781

YAMAHA
8

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Forward

The aim of this manual is to initiate those that are new to the art of sailing and to familiarise others to GRAVITAS.

The art of sailing is not very complicated but the skill of racing is both complicated and requires a sense of dedication, awareness, risk taking and above all a desire to win.

Only when the whole crew work together and to the best of their abilities will the boat be competitive and success will come.

Gravitas is a 'one design' S80 class that is built to a strict class design allowing it to compete in the most challenging form of racing, against other boats identically built as yours allowing the skill of the crew to be a major factor as to who wins the race.

Sandy as the owner & skipper has put his soul and money into his boat and wants desperately to find success in both the one design and mixed fleet races.

As crew you are shielded from the costs of running a racing yacht but you are expected to give in other ways such as commitment to the boat and the racing calendar, gaining skills in your duties, being proactive onboard and giving your best efforts during a race.

Only when we work as a team will we truly be a racing boat capable of beating all before us.

SPECIFICATIONS:

Length: 8 metres

Crew: 5

Class: Division 3 PHC

S80 in State Championships

Club: Royal Victorian Yacht Club

Berthed: Pen D3

Sails: Battened Main Sail

No.1 Genoa

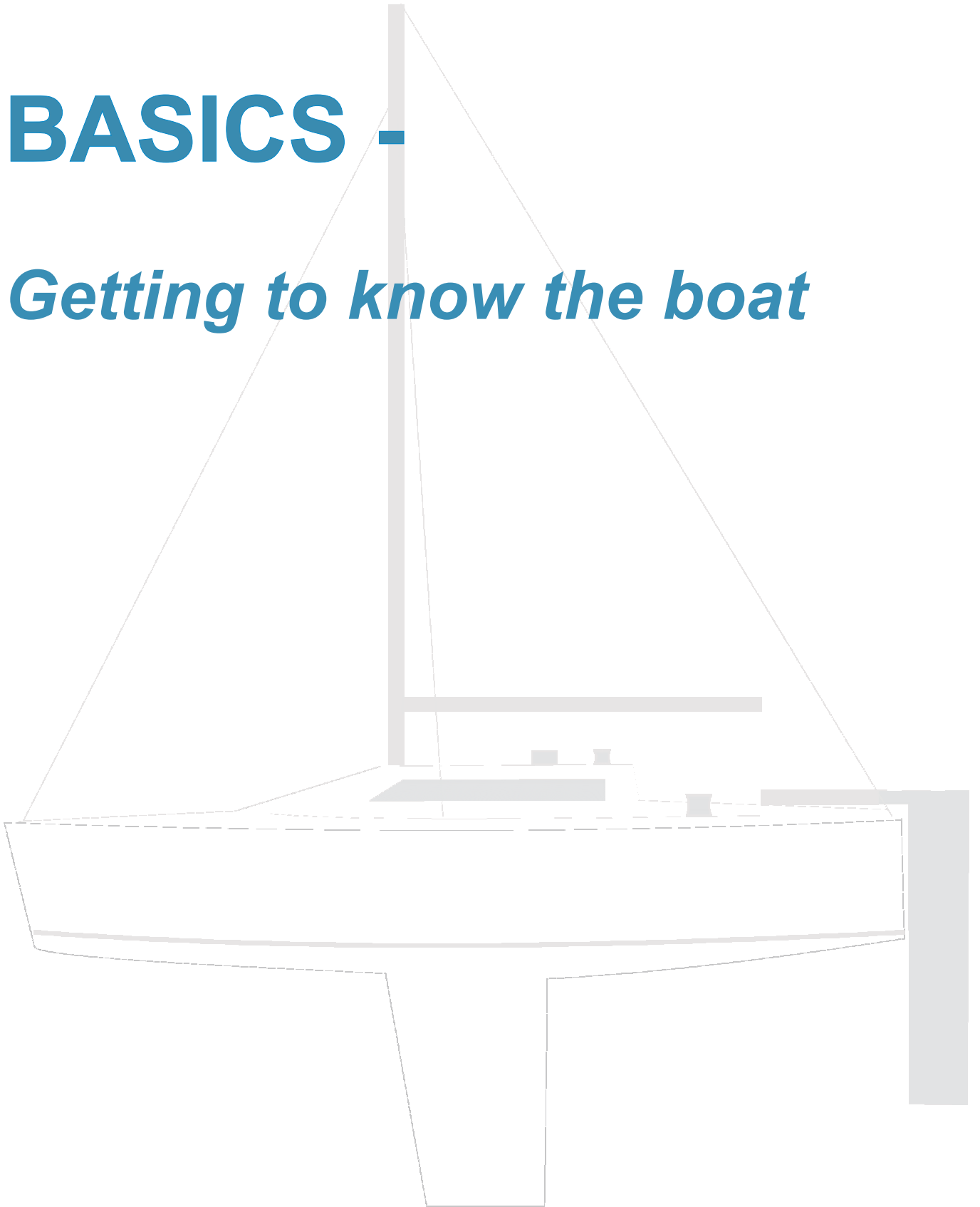
No.2 Genoa

No.3 Genoa

Spinnaker X2

BASICS -

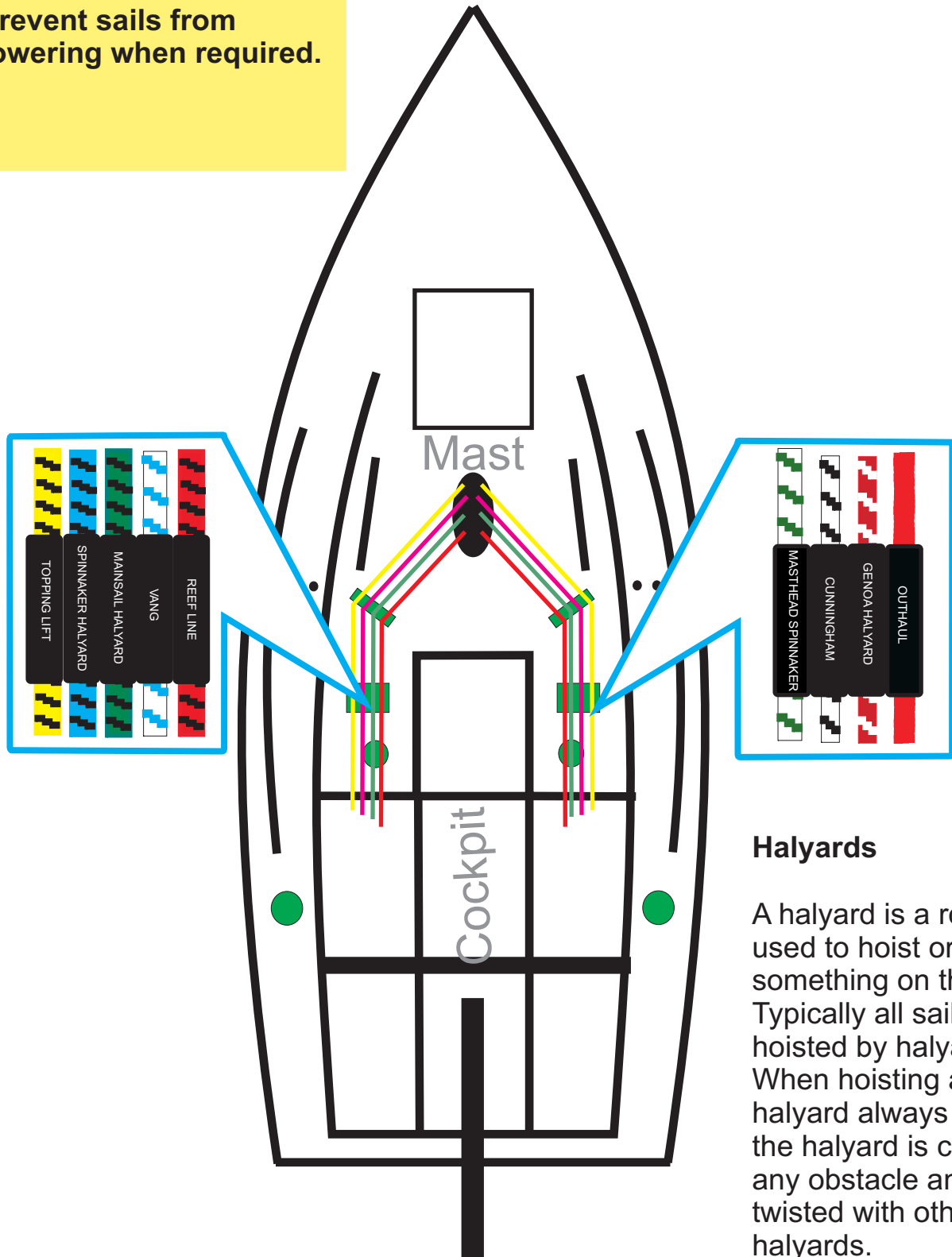
Getting to know the boat



IMPORTANT!!

Always look up the mast to ensure the halyards are not twisted as this will make hoisting sails difficult and could prevent sails from lowering when required.

Halyards



Halyards

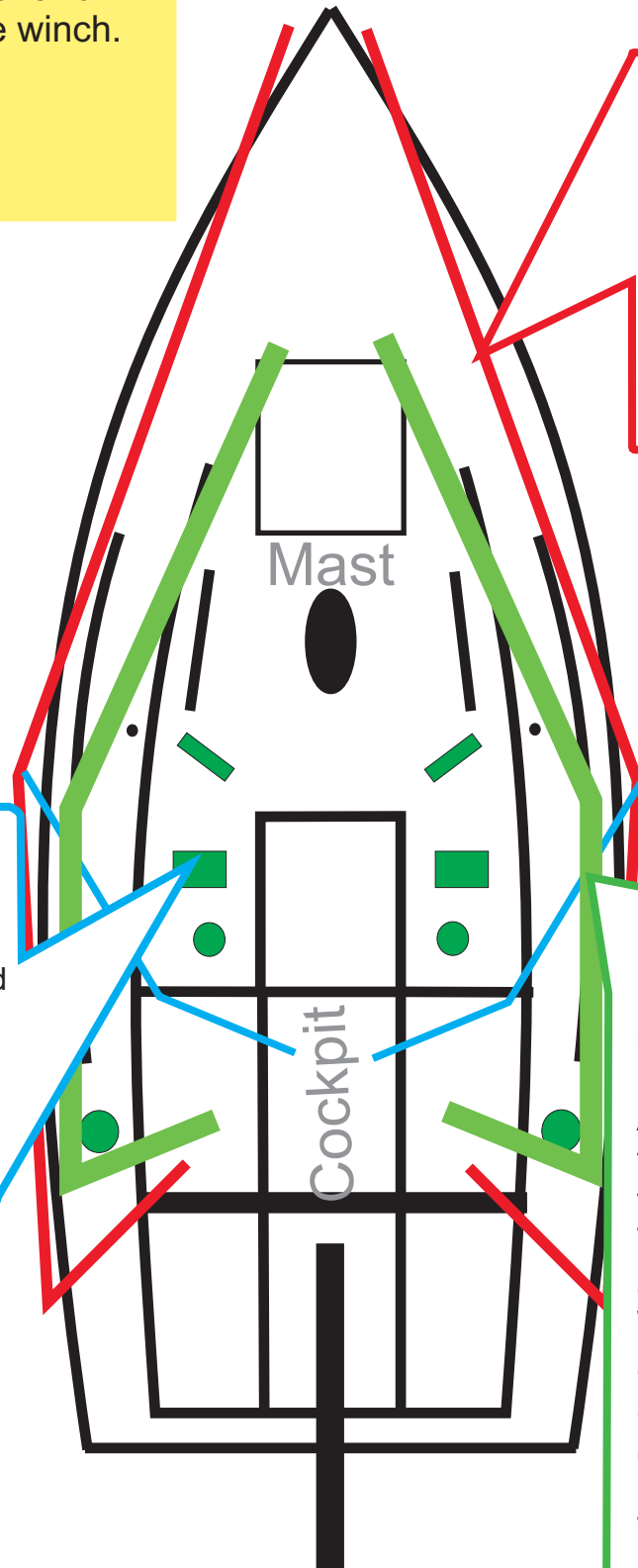
A halyard is a rope used to hoist or tension something on the yacht. Typically all sails are hoisted by halyards. When hoisting a halyard always ensure the halyard is clear of any obstacle and not twisted with other halyards.

Generally the Mast man assists by pulling on the halyard at the mast.

IMPORTANT!!

Do not put too many wraps around the winch when initially pulling in the sheet on a tack as this could give you a overrun which will lock the winch.

Sheets



SPINNAKER SHEETS

Ensure they are run OUTSIDE everything and do not go through the life lines until the rear ratchet block

TWEEKER

The Tweeker is a fine tune for the Spinnaker sheet and is used to bring the Clews of the Spinnaker even for maximum performance.

Sheets

A sheet is a rope used to control and adjust the sails. Typically all sails are adjusted by sheets. When trimming a sail always ensure the sheet is on the appropriate winch.

Tweakers are adjusted by hand as they are only a fine tune for the Spinnaker Sheets.

Winches



Sheets must only be loaded on to winches in a **CLOCKWISE** direction



Tension **MUST** be applied to the sheet when winding the winch to get purchase



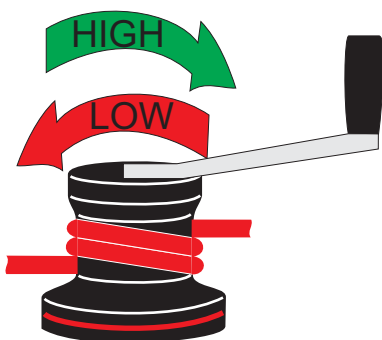
Beware of trapping your fingers between the sheet and the winch (It hurts)



When bringing in the slack sheet during a tack **DO NOT** overload the winch (1 or 2 wraps at most) or you will create an overrun where the sheet is pinched by itself



If overrun occurs try to release the pressure on the sheet and unwind to free it, once free re-wrap the sheet onto the winch and trim



Winding the winch handle in a **CLOCKWISE** direction will be the high geared direction allowing fast retrieval of the sheet



Winding the winch handle in an **ANTI-CLOCKWISE** direction will be the low geared direction allowing more torque on the sheet



To ease the sheet just ease the pressure of the sheet on the winch drum, be careful not to release it too quickly as this will upset the trim of the boat and the Skipper



Always replace winch handles in the pockets in the cockpit

Bowline Knot

The Bowline Knot is the most important knot used on a yacht as it connects the Genoa sheets to the sails. This knot can easily be undone.



Create a loop in the sheet.



Feed the sheet through the clew and then through the loop.



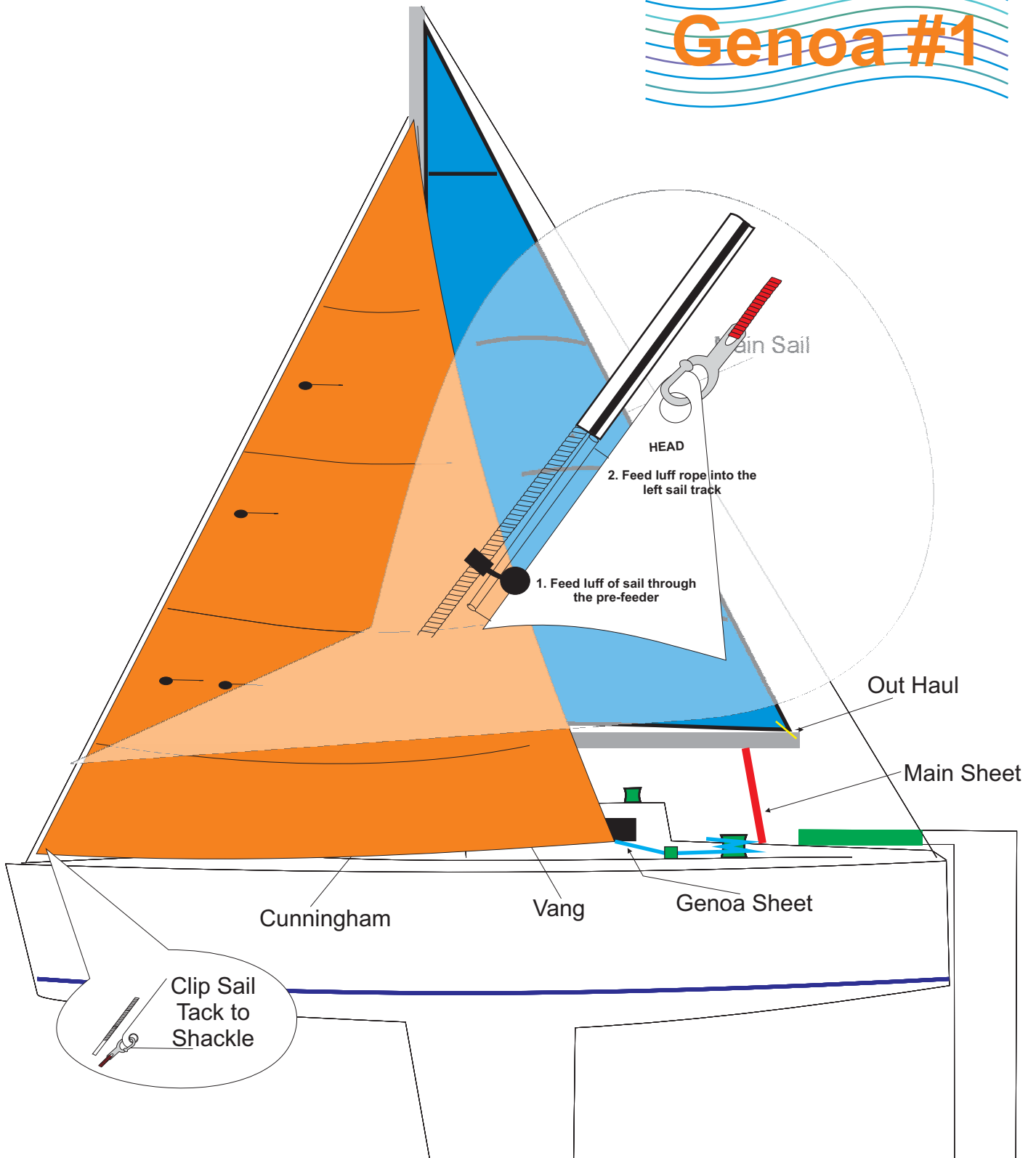
Pass sheet around the main sheet and back through the loop, leave a tail and pull tight.

SAILS -

Getting to know the boat



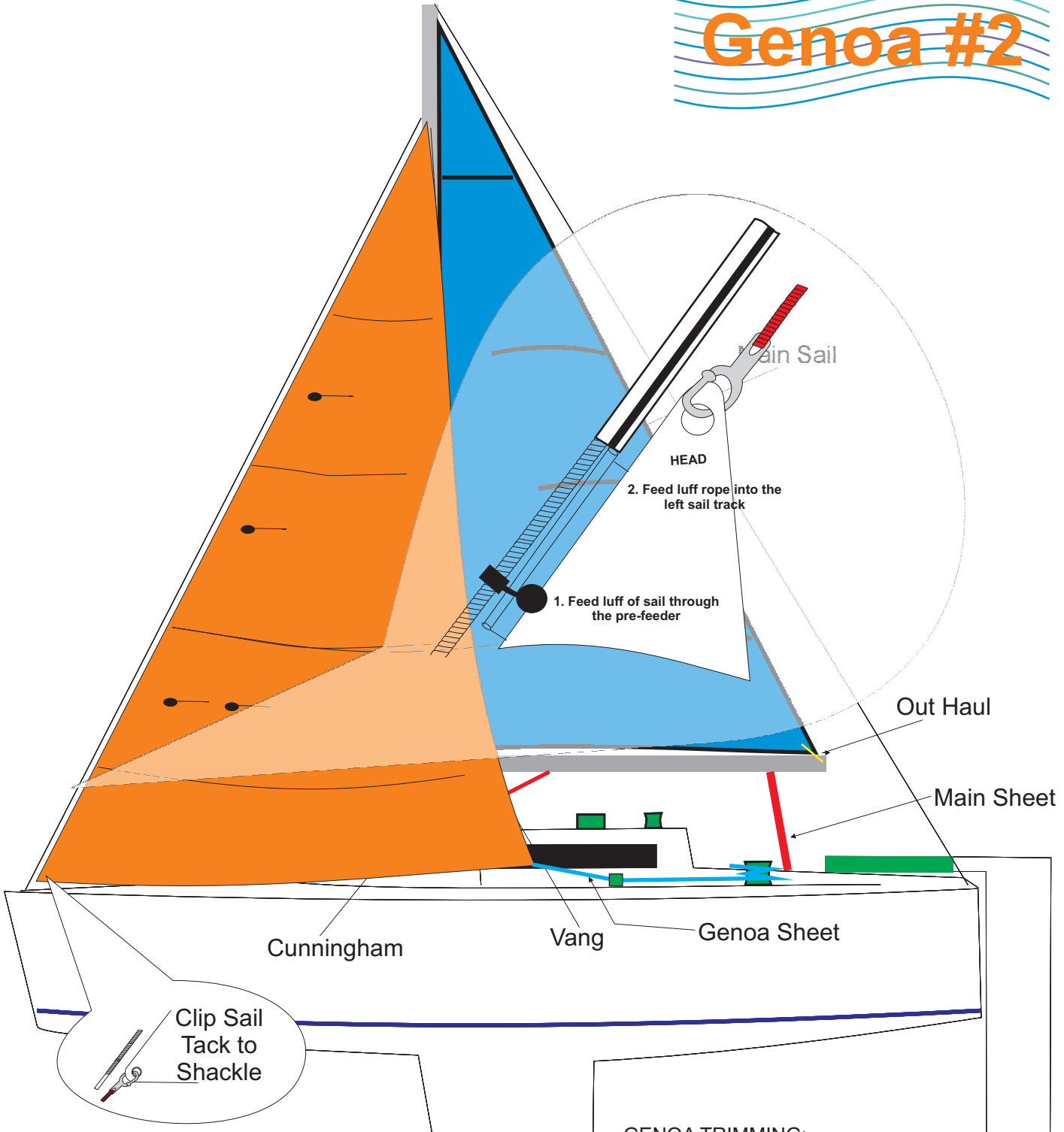
Genoa #1



GENOA TRIMMING:
The GENOA is used in up-wind sailing and to get maximum power and lift from the genoa it must be constantly trimmed to current heading and wind, both of which change regularly.

The TELLTALES on the sail give an indication of the trim of the sail with the ideal setting being the telltales flowing straight back (refer above).

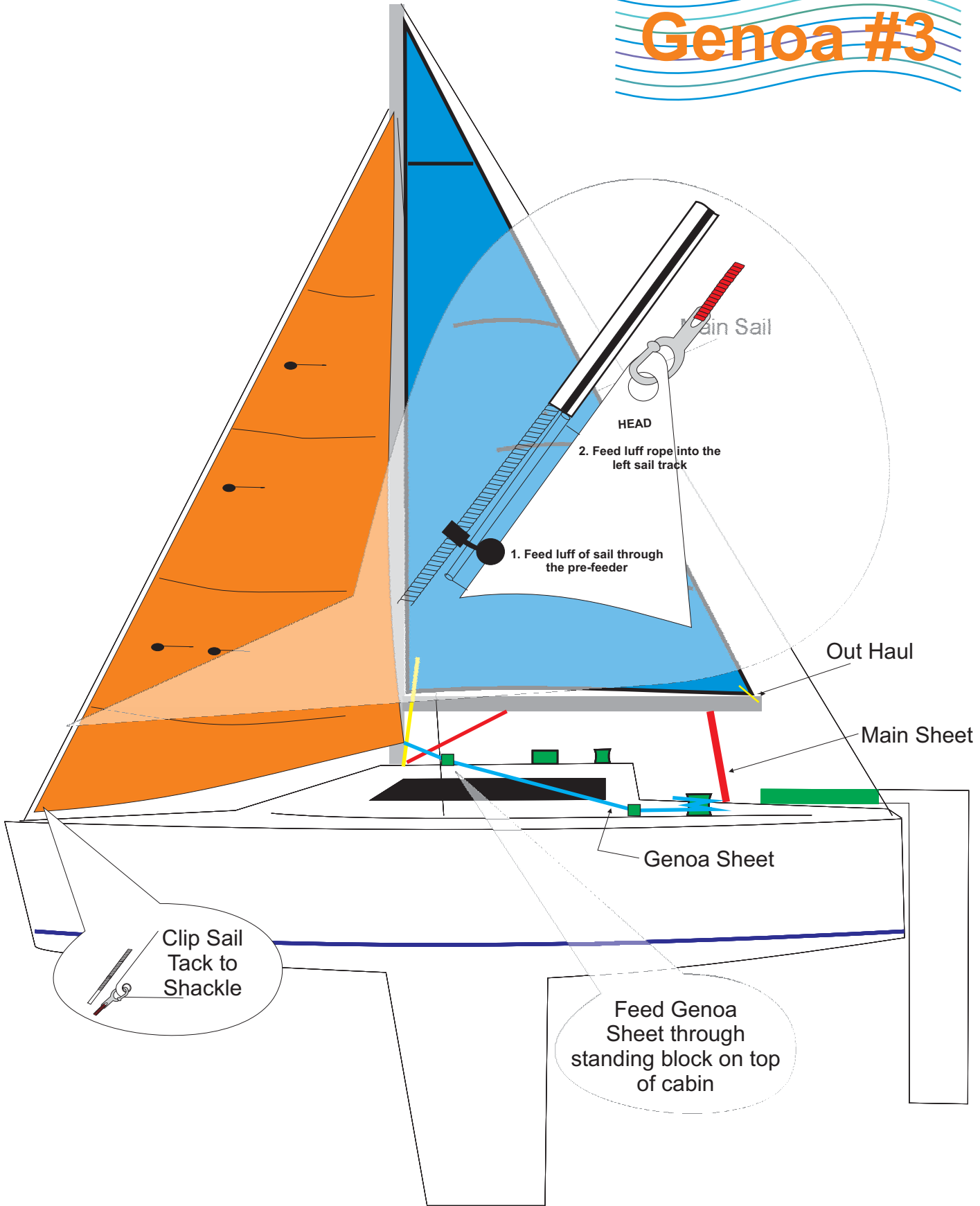
Genoa #2



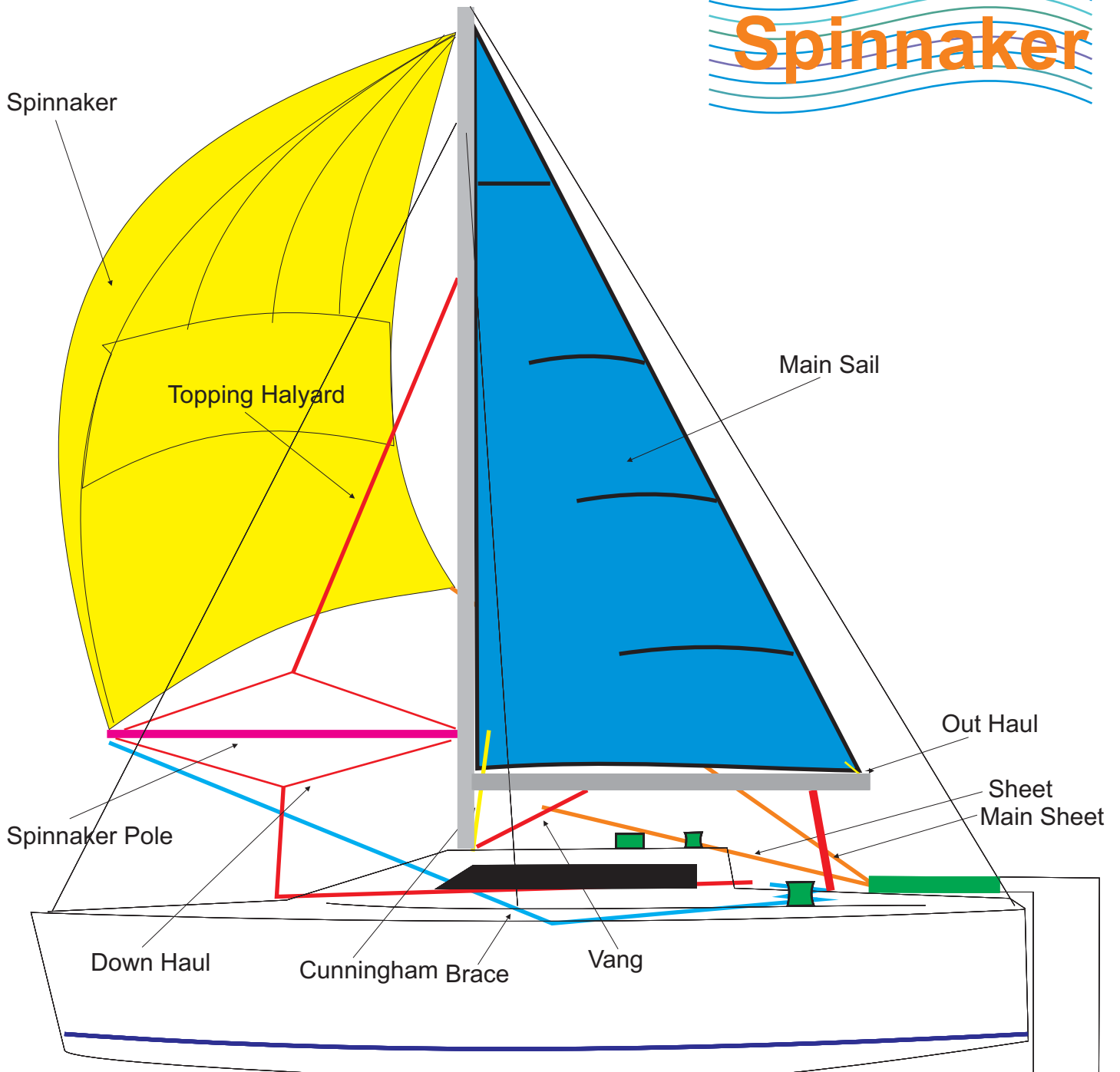
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Genoa #3



Spinnaker



The spinnaker is set by:

- ◆ Bring spinnaker bag to bow
- ◆ Attach the Halyard, sheet and brace
- ◆ LOOK UP to make sure the Halyard is not crossed over the Genoa Halyard
- ◆ Put brace sheet through spinnaker pole beak
- ◆ Attach spinnaker pole to mast
- ◆ Attach topper halyard to spinnaker pole
- ◆ Hoist spinnaker pole
- ◆ Pull back on the brace sheet and lock off
- ◆ Hoist spinnaker halyard until fully up
- ◆ Pull on spinnaker sheet to fill spinnaker
- ◆ Tighten down haul and lock off

Theory:

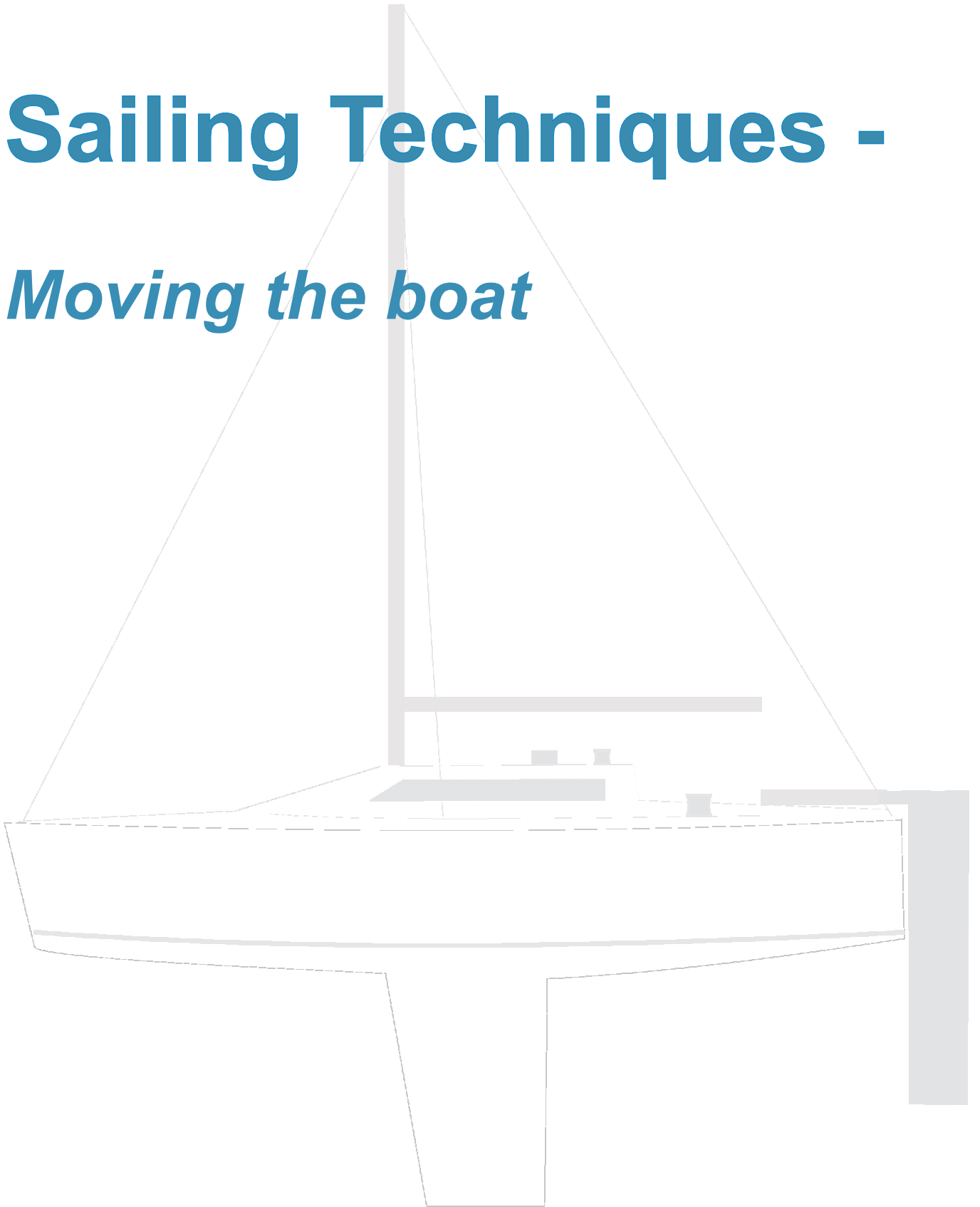
The spinnaker can only be used when the wind is either behind or on a reach situation.

The use of the spinnaker can greatly increase boat speed but can increase the risk of rounding up due to the pressures involved.

The spinnaker is held in position on the windward side of the boat or the opposite side of the boom by the spinnaker pole which is adjusted depending on the angle of the wind relative to the boat, the sail is controlled by the sheet by which the sail is kept full by constant trimming. Whilst under spinnaker a tack is called a gybe and entails the moving of the spinnaker pole to the other side of the boat

Sailing Techniques -

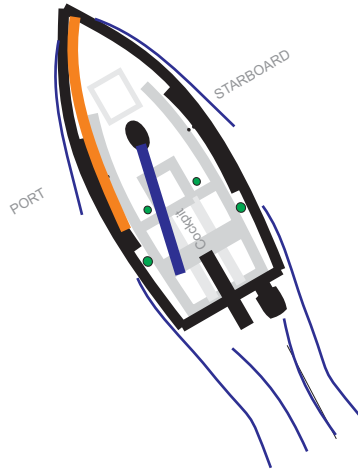
Moving the boat







Tacking



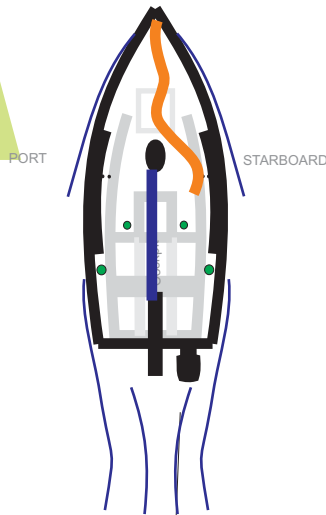
New Tack







SETTING NEW COURSE

-  Generate good **boat speed**
-  Bring **crew** onto the rail
-  Man the **winches**
-  If on **PORT** tack keep watch for other yachts

Head to Wind








TACKING

-  As boat comes **head to wind** release **loaded Genoa sheet**
 -  Bring Genoa across the boat by pulling the slack Genoa sheet
 -  Winch on the Genoa sheet until trimmed
 -  Lock Genoa sheet into cleat
- Boom swings across the boat during the tack

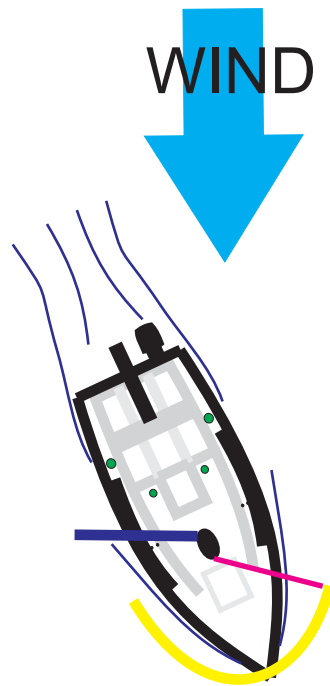
Original Tack



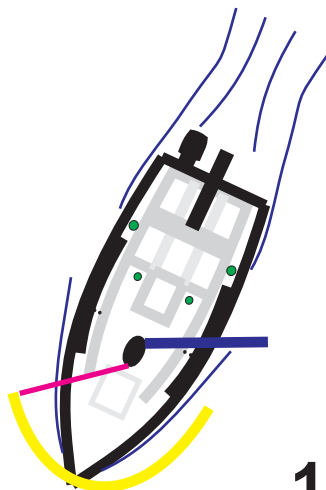
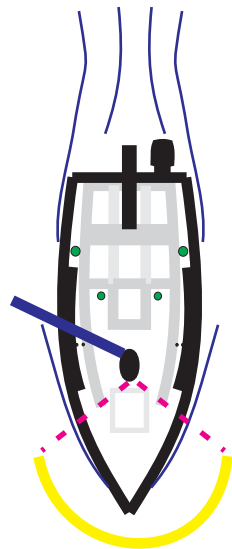
SETTING UP TO TACK

-  Generate good **boat speed**
-  Bring **crew** off the rail
-  Man the **winches**
-  Whilst looking forward **prepare** to tack
-  Load up Genoa sheet to winch on the windward side of the boat





Gybing












'Gybing is a down wind tack'







PREPARING TO GYBE

-  Bowman & 1X Trimmer goes forward
-  Tactician/Skipper check gybe angles
-  Mainsheet takes both Spinnaker sheet and brace in hand (forward of the main sheet track)
-  Tweekers are brought to the deck

GYBING

-  Skipper squares up the boat to a **Square Run**
-  **Trimmer** releases down-haul sheet
-  **Bowman** disconnects pole from old brace sheet
-  **Mainsheet** floats the spinnaker to keep it full, easing sheets as required to assist in the gybing of the pole
-  **Trimmer** un-clips pole from mast and attaches it to the new brace sheet
-  **Bowman** attaches the pole to the mast and calls "**MADE**"
-  **Skipper** gybes the boat
-  **Trimmer** secures brace
-  **Trimmer** tunes spinnaker

SETTING NEW COURSE

-  Generate good **boat speed**
-  Bring **crew** onto the rail
-  Man the **winch**es
-  If on **PORT** tack keep watch for other yachts

WIND








Windward Mark







NORMAL SET

Instead of gybing the sails are eased and the spinnaker is set.

-  Raise the pole
-  Round at the mark
-  Pull back the brace
-  Hoist Spinnaker
-  Lower Genoa

APPROACHING THE MARK

-  Bring Spinnaker bag to bow
-  If possible start to set up the pole
-  Ease Genoa & Main Sail to reach to the mark
-  Keep the Skipper informed of distance & angle to go to the mark

MARK





Gybe Set

3 Boat Lengths

Lay Line

GYBE SET

Gybe sets occur when the boat needs to **gybe** before setting the spinnaker.

-  Gybe the boat at the mark
-  Set up pole & Spinnaker bag
-  Hoist Spinnaker
-  Lower Genoa

RULES AT THE MARK








To avoid collisions the overlap rule comes into play as yachts approach the mark.

If you have an overlap with the yacht ahead when it reaches the 3 boat length mark **it must** give you room at the mark.





Leeward Mark

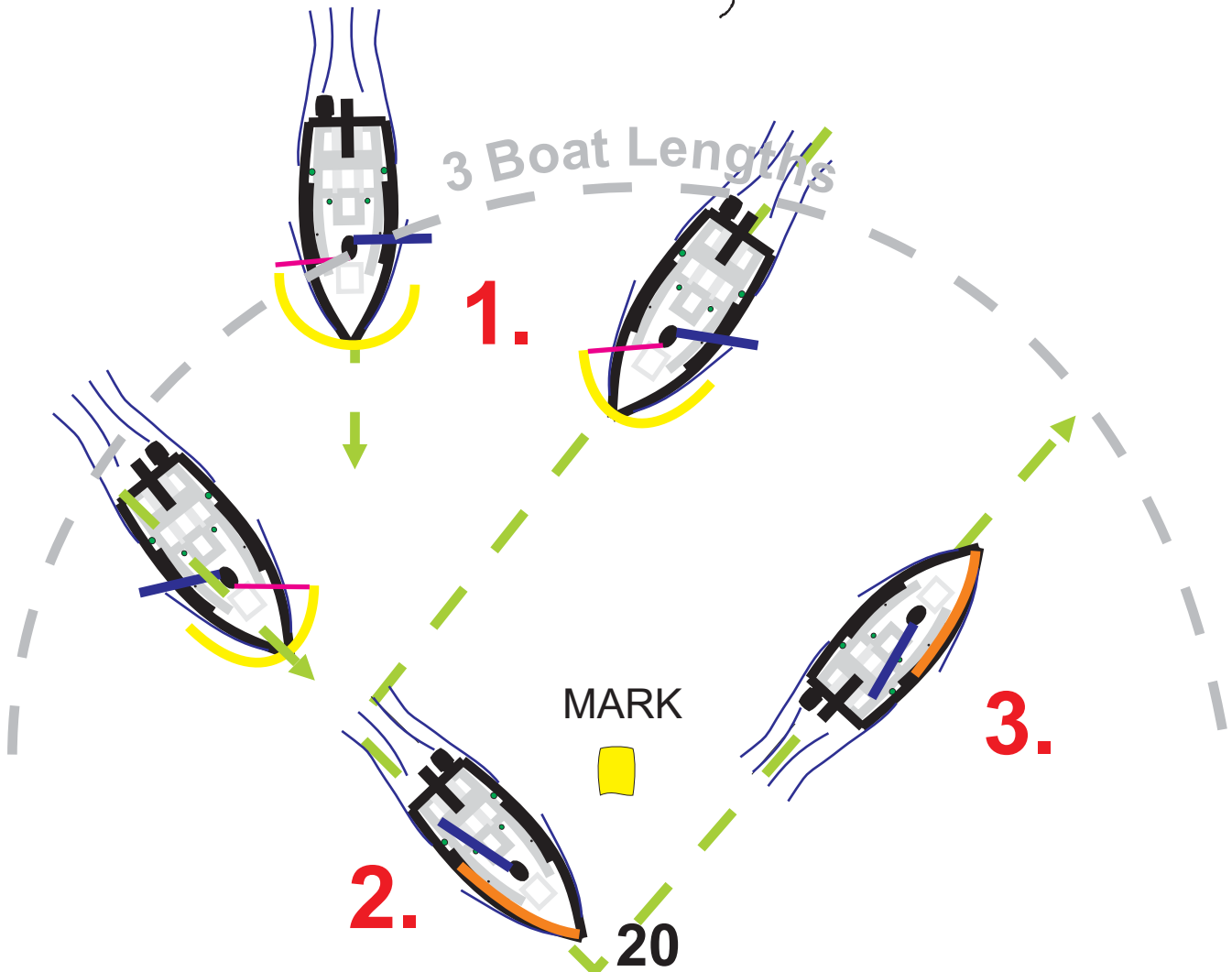
APPROACHING THE MARK

-  Check the Genoa Sheets are free from downhaul
-  Feed Genoa through Feeder and into track
-  Raise the Genoa and bring on Genoa Sheet to fill sail
-  Grab Spinnaker Sheet forward of the Tweaker and from over the top lifeline
-  Bring Spinnaker Pole forward and lower slightly
-  Fire the Spinnaker Brace Sheet and lower the Spinnaker Halyard
-  Lower the Spinnaker behind the Genoa

ROUNDING THE MARK

-  Begin to retune Main Sail for the beat, bring on the Outhaul, Vang & Backstay
-  Keep the Skipper informed of distance & angle to go to the mark

“This is a Critical transition as time lost here is hard to get back!”



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