

# Shortened Sail and A Balanced Boat



Why is all of this Important?

# Understanding the Basics

A Balanced Boat Begins with understanding what the Main and Headsail do

Upwind:

Main – Lifts the Boat

Headsail – Brings the Bow down

Reach – Same as Upwind

Downwind - Same as Upwind – Wind Direction has Effect

# Listen To Your BOAT

The Boat will ALWAYS tell you  
what it wants

Rudder position  
5 to 7 degrees

Weather Helm/Lee Helm



<http://www.schoolofsailing.net/weather-helm-and-lee-helm.html>



# What To Do As The Wind Increases

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Varies Boat to Boat and by Sea state

Older Designs

Newer Designs

Flat Seas

Waves

# As the Wind Increases we have to think about our options

Outhaul

Vang

Traveler

Sheet

Car position

Sail Size

Inboard/Outboard Leads

Jib and Jigger

Wing on Wing

Halyard Tension

Cross Sheeting

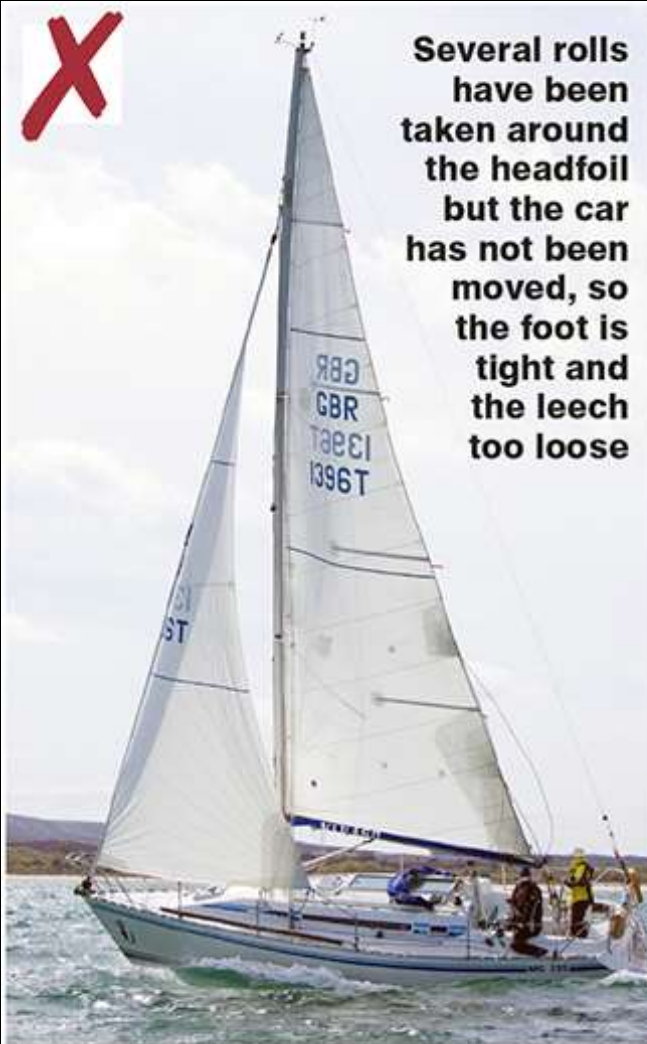


◀ **Over-full and over-powered: these sail settings might have worked in lighter winds and a choppler sea, but they're no good in 24 knots**

▶ **Flattening the sails makes the boat faster and more comfortable. Life also becomes easier for the helmsman**



# Car Too Far Aft



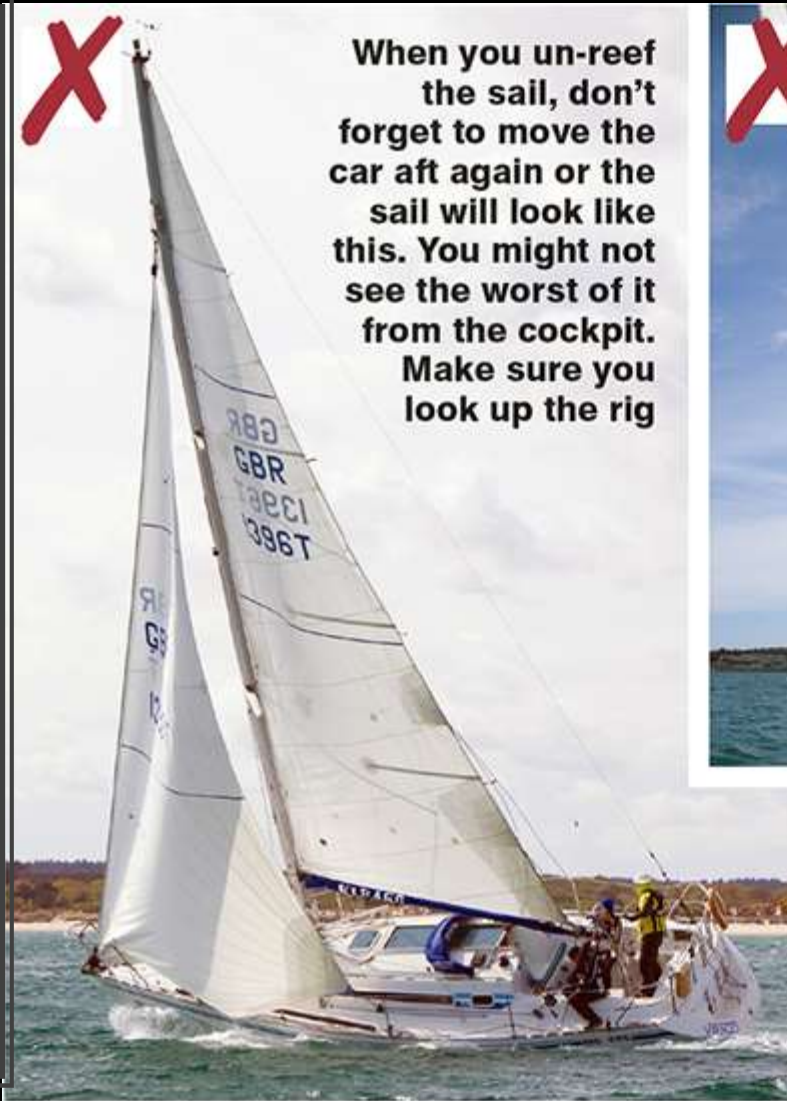
**Several rolls have been taken around the headfoil but the car has not been moved, so the foot is tight and the leech too loose**



**Seen from on board, the difference is even more pronounced. The leech is too open and much of the sail is back-winding**



# Car Too Far Forward



**When you un-reef the sail, don't forget to move the car aft again or the sail will look like this. You might not see the worst of it from the cockpit. Make sure you look up the rig**



**If you find the foot won't sheet inside the guardwires, chances are your car is too far forward – a common problem even with the cars fully aft if the genoa is wrongly cut**

## **The roller-reefing compromise**

A headsail is compromised as soon as you reef it around a headfoil. That's why it can be worthwhile using a smaller sail when you know you're going to be making upwind for any distance in breezier conditions. Just look at the difference.

We will discuss more of this later

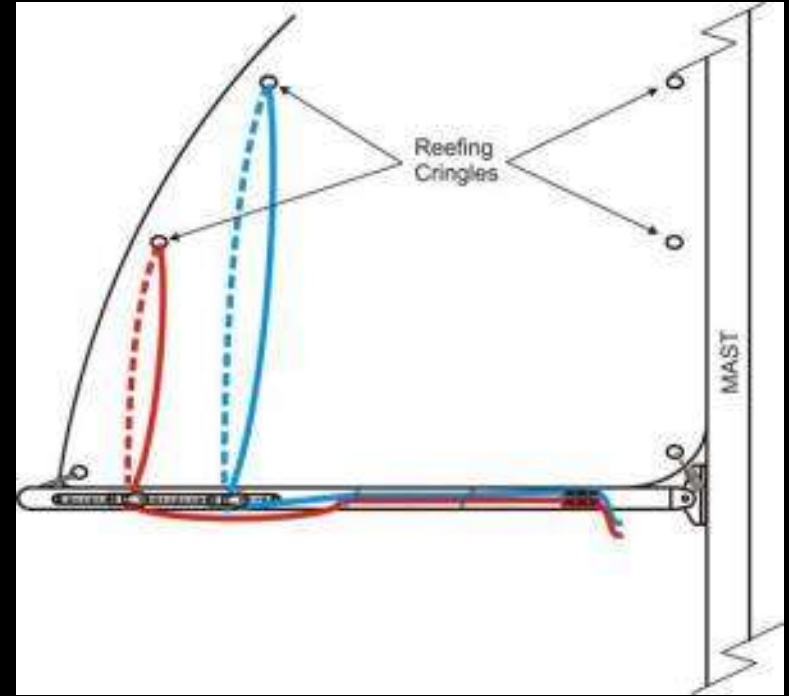
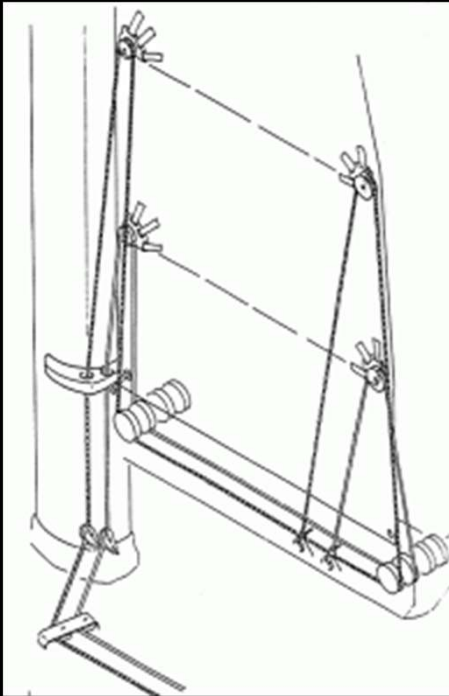


Compare this No3 headsail with the reefed No1 above, which loses both shape and the all-important luff length



**ABOVE RIGHT** From on board it's clear that the un-reefed No3 is in a different league...

**RIGHT...**as confirmed by this shot. A reefed headsail could never look like this



# Properly Reefing a Mainsail

# Pennant Too Loose



**It doesn't help having the pennant in the right place if you don't pull it down all the way**



**This means the boom is lower than it should be...**



**...and the sail will be far too full. This is no good in the amount of breeze that calls for a reef**

# Pennant Too Far Forward



Here the pennant is too far forward on the boom, which makes it hard to pull the clew cringle down tightly



Again, this leads to a low boom, a foot that's too loose...



...and a sail that's too full



...to flatten  
the sail as  
much as  
necessary



Pennant Correct

# Securing The Main while Reefed

Main Sail Tie Downs

**LAST** Thing Done

**FIRST** thing Done when shaking Reef

If you want to tidy up the bunt (the redundant part of the sail), first make sure that the ties don't distort the foot. All the load should be taken by the cringles at luff and leech. The reef points in between are not designed to take any weight. If they do, you risk stretching the sail or even ripping it.





**Here the reef pennant is tied too loosely around the boom, stopping the cringle from being pulled down tightly. The ties in the reef points are under load and distorting the sail**



**This reef needs tidying up all round. The pennant is too far aft on the boom and not pulled down tightly, so the sail is too full and the bunt is filling with wind as well**

So That Question....

Is Partly Furling a Headsail a  
good idea?

DEPENDS.....

In today's Digital world your best most current resource for information is the internet.

You Tube is probably the best

Check it all out.

Best thing about Sailing...It's a new experience every day!