

When you have set your yacht up on the side of the lake either for the first time or just before a major race, you need to know that your pride and joy will be trimmed to its optimum. What follows are some very simple steps to help ensure that your yacht does what you expect it to. A well balanced yacht is both a pleasure to sail and one that will be moving through the water with less fuss, thereby moving much faster.

When travelling to windward your yacht will be subjected to its maximum heeling point. If heeled too much the sails will not be generating forward motion and the yacht will be drifting away from the wind, also the rudder will quite possibly be out of the water thereby giving you no or little directional control. This indicates that you should have changed to a smaller suit of sails - using a large sail rig in the wrong conditions will lead to breakages and blown out inefficient sails.

The Ideal

As stated, a well balanced yacht is both a pleasure and a faster yacht. It should behave the same on either tack, with a slight amount of weather helm required to keep the yacht sailing at its optimum speed to windward. You do not want to be using the rudder more than a few degrees when beating, as this is like applying the brake.

When you are beating to windward you need your yacht to be travelling the shortest distance and at its fastest speed.

The Essentials

Like most things in life it is essential that you have the following basics set first.

- The mast is upright when viewed from astern.
- The mast is also upright when viewed from abeam. (This is a starting point only).
- Rudder needs to be centralised, with equal throw on each side.
- Ensure the rudder is not bent or leaning to one side when viewed from astern.
- The gooseneck assembly is perfectly parallel with the mast, therefore the boom attachment is directly above the kicking strap attachment. If this is not so then the kicking strap will be tighter on one tack than the other.
- Ensure all sheeting lines cannot get snagged on any hooks or deck furniture and that all pullies and blocks are free running.
- Sails should be able to go from full in to full out.
- Sails and booms should travel the same distance out on each tack for any given transmitter stick position.

When you sail for the first time your yacht should behave the same on each tack. It should not have weather helm on the starboard tack and lee helm on the port tack, if this is the case then one or more of the above must be addressed before you can continue.

Understanding Lee and Weather Helm

When sailing close to the wind: Lee helm is the rudder movement required to prevent the boat bearing away from the wind. Weather Helm is the rudder movement required to prevent the boat luffing into the wind.

To counteract excessives of either lee or weather helm the sail rig centre of effort must be moved either forward to counteract weather helm, or backwards to counteract lee helm. This will usually mean moving the mast position along with the jib pivot point.

The Desired Windward Course

A perfectly balanced yacht, thereby one that does not show any signs of either lee or windward helm may be easy to sail, but she will not be travelling to windward at her most optimum speed.

For her optimum speed to be realised you will need to set her up with a little weather helm, only a few degree (2°). As you start on a new tack the yacht should slightly rise up into the wind and then gently fall away from the wind before again slightly rising into the wind. This is all done without the sails flapping. Full sails mean that they are driving while flapping sails are producing no drive, just drag. As slight changes in wind strength and or direction occur the yacht should find its own course to windward with varying degrees of dropping off and coming up into the wind.

This will allow you to sail to windward with no hands on the transmitter sticks, thereby no large rudder movements slowing you down. As wind strength and direction rarely stay constant on most lakes, the time your yacht takes to adjust itself to the new conditions will not be as quick as you may wish. This is when the a little rudder or sail change may be required to help the yacht maintain a speedy course.

