

So, you've got wind ? - Technical Tips for Owners of Comet Duo's . .

LIGHT WIND SAILING:

A healthy sail area combined with relatively fast hull shape gives the Duo the potential for excellent light wind performance, however as always, there are certain basic rules that will allow you to get the best out of your Duo.

Firstly, I think it is important to have tell-tales on the jib to enable you to really "see" the airflow. These can be black wool threaded through the sail, knotted each side then trimmed to about 6" or the "stick on" type found in chandlers. I put one just in front of the window, one half way up the sail, and a third higher up, all the same distance from the luff or front of the sail.

BEATING:

The crew should be sat to leeward with the helmsman sat to windward on the side seat or up on the side deck if the wind strength warrants it. In all cases the helmsman should endeavour to sit as far forward as possible. This digs the boats' bow in, and lifts the transom thus reducing the wetted area of the hull. The boat should be allowed to heel to leeward helping the sails fall into the correct shape. The wetted area of the hull is also reduced.

The boat should be sailed as smoothly as possible especially in really light winds, tiller movements should be as small as possible and tacks should not be as fast as in stronger winds, or hard won boat speed & momentum will be lost. The crew should be careful not to sheet the jib in too tight, but with no need to use the jammer, be careful you don't lose concentration and let the sheet go loose, changing the sail shape.

The mainsail should be set with no cunningham (downhaul) tension and with only enough halyard tension to make sure the sail is fully hoisted. The outhaul should not be tight but not too loose ! If the sail is too full the airflow can not stay attached to the surface of the sail. The kicking strap should only really have enough tension to prevent the boom lifting. This will allow the sail to twist a little. The boom needs to be pulled towards the centre of the boat, but without a lot of downward pull on the sail.

This is easier achieved on more recent Duos where the mainsheet block is knotted to the centre of a loose rope horse without using the swivel block. The rope horse is set-up so the bottom of the block is about 6" above the tiller. When the rope horse is set-up like this the boom is pulled in from the windward side of the transom without a lot of unwanted download tension. The boat should be steered so both in really light winds, it is important to keep the boat moving at all costs.

REACHING:

The centreboard can be raked aft to maintain the balance of the boat and to reduce wetted area. The crew will still sit to leeward but the helmsman will sit well forward. Heel the boat to leeward to help the sail set. The crew eases the jib and is usually making constant adjustments keeping both tell-tales streaming. In light winds the apparent wind direction can change quite a lot requiring changes to both sails if a straight course is maintained.

The relationship of the jib to the mainsail and vice versa is vitally important in all wind strengths. Generally the mainsail should be eased until it just begins to luff

then pulled in a fraction. (Luffing is when the wind gets around the front of the sail causing the front area to flap, a jib will luff when the boat is pointed higher to the wind than the sail angle suits).

RUNNING:

Keep the crew weight well forward and raise the centreboard for low drag. It is better and more comfortable for the helm and crew to sit on each side seat rather than share the centre seat. The helm can control the tiller extension more easily and have better visibility, and the crew can hold the boom out to the shroud if required. The jibstick comes in handy for light to medium winds helping to stop the sail from collapsing but this can still happen in really light winds as the boat can occasionally end up going faster than the wind when the wind suddenly drops.

MEDIUM WIND SAILING:

As light winds increase into medium winds the crew will move to the centre seat with the helmsman sat up on the side deck if the wind strength requires it.

On all points of sail, the boat should be kept as upright as possible and particular attention paid to the centreboard position to give just a bit weather helm to the tiller. (Weather helm is felt as a pull against you on the tiller, if you let go of the tiller the boat will round up to windward. Lee helm is the opposite when the tiller pushes and the boat bears off downwind when the tiller is released).

The mainsail outhaul might be eased a bit to give more power to the sail. The kicking strap will also need to be tightened to stop the sail twisting too much, otherwise the same rules about tell-tales & luffing sails apply as with light winds.

HEAVY WIND SAILING:

The duo has always had what I would call a "racing" sail area, rather than a "cruising" one. The sail area is more like a Firefly, Graduate, Miracle etc. than slower boats like Gulls, Otters and Herons. This is mainly why the Duo has good light wind performance. Once the wind is up to a good Force 3, if you're light, or a Force 4 if you're heavier then beating to windward in a Duo will be hard work as it would be in any other racing dinghy.

BEATING:

First, I will assume that you are sailing with full sail beating to windward. Both helm and crew should be sat up on the side decks and using the toestraps, with the crew up next to the shroud and the helm up close to him or her. This gets the weight forward, the bows seem to "get a grip" on the water and the dinghy doesn't drag its transom. The mainsail should be set flat to "depower" the sail with plenty of outhaul, kicker and downhaul. If you have adjustable jib fairleads then move them more aft than usual.

If you are racing, I would say it's almost essential to have tell-tales on the jib. I put one just in front of the window, one half way up the sail, and a third higher up, all the same distance from the luff. Sailing upwind in a breeze requires a bit of teamwork. What I do is to sail & steer the boat using the bottom two jib tell-tales, keep the jib in tight, and steer the boat to windward so the bottom two windward & leeward tell-tales are streaming aft. If you come too close to the wind the windward tell-tales will flutter, and the boat will quickly slow.

When the boat is hit by a gust, keep the jib in tight and ease the mainsheet, the mainsail will luff (wind gets around the back of the mast and sail flaps there). The jib will keep you sailing to windward until the gust eases and you can sheet in the mainsail. If you don't ease the main in the gusts, the boat will heel a lot, the tiller will pull with what's called "weather helm", the boat slows, usually the rudder will lose its grip on the water and the boat swings round to windward. By easing the mainsail, but keeping the jib in tight, the pressure on the jib stops the bows from rounding up even if you still heel a bit.

Obviously there will be times when a gust is so strong the crew has to ease the jib as well, but I always reassure a crew by telling them I will ease the mainsail in the gusts, and that they should keep the jib in tight until I tell them otherwise. It can also help if the centreboard is raked aft a bit, this lessens the weather helm when

heeled. Don't over do it though as it will result in lee helm which is a horrible feeling!

REACHING:

On a reach the centreboard will certainly want moving back (handle forward!). The helm and crew also move back to help the boat get on the plane. If the boat accelerates up on to the plane then you need to pull the sails in a bit to keep those tell-tales streaming. Sometimes you can't see the leeward tell-tales so you just have to ease the jib now and then to check that the windward tell-tales are only just streaming.

The golden rule for beginners is that as much wind goes around the back of the sail as round the front. This applies to all points of sail except downwind. So often you see people making hard work for themselves by pulling the sails in too much.

RUNNING:

When running, in theory, the centreboard could be fully up but I would leave some down in heavy wind for stability. Straight downwind, it is still best to get the jib out the opposite side rather than let it flap behind the mainsail.

In a real blow you might not worry about the jibstick, but if it's not too windy then give it a try. To stop the jib blowing off the end of the stick as you put it on and clip it to the mast, it can help if some tension on the jib sheet which if the helm and crew have their hands full, can only be done by sitting on the jib sheet.

REEFED SAILING:

If beating with a reefed mainsail but with the jib as well, the centreboard should be left fully down and the boat sailed with a bit of heel, to prevent lee helm (the tiller seems to push you). There won't be the need to ease the mainsheet in most of the gusts. When reaching whilst reefed the centreboard should stay down further than its position for full sail.

If the wind is so strong, to require the jib to be furled upwind, beware of over-sheeting the mainsail. Only pull the boom in to a point above the outer edge of the transom. The Duo is now effectively a single-hander like a Comet or Laser, without the aerodynamic benefits of a jib.

Keep the centreboard raked aft a bit more than for full sail.

When sailing with just a reefed mainsail keep checking you're not oversheeting by easing the main until it luffs, then pulling it in until it just stops luffing.

