

INTERNATIONAL DESIGN AND TECHNICAL OFFICE

Mainsail Trim Pointers, Reefing and Sail Care for the Beneteau Oceanis Series

The following points on mainsail trim apply both to the Furling and Classic mainsails we produce for Beneteau USA and the Oceanis Line of boats. In sailing the boats we can offer these general ideas and observations that will apply to the 311's through to the newest B49.

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MAINSAIL TRIM:

The following points on mainsail trim apply both to the Furling and Classic mainsail, as the concepts are the same. Mainsail trim falls into two categories, upwind and downwind.

Upwind

1. Upwind in up to about 8 knots true wind the traveler can be brought to weather of centerline. This ensures that the boom will be close centerline and the leech of the sail in a powerful upwind mode.
2. The outhaul should be eased 2" / 50mm at the stopper, easing the foot of the mainsail away from the boom about 8"/200mm
3. Mainsheet tension should be tight enough to have the uppermost tell tail on the leech streaming aft about 50% of the time in the 7-12 true wind range. For those with furling mainsails the action of furling and unfurling the sail can play havoc with keeping the telltales on the sail and you may need to replace them from time to time.

You will find that the upper tell tail will stall

and fold over to the weather side of the sail about 50% of the time in 7-12 knots.

However, if the top tell tail is folding over to leeward, the mainsheet tension is too loose and it needs to be brought in tighter.

4. In 8-12 knots the outhaul should be brought in ½ of light air setting and the traveller lowered to half the distance to centerline.
5. With the mainsheet tension set, the boom-vang should be tensioned until it is just snug.
6. In over 12 knots, the upper tell tail should be flowing almost all the time.
7. As the wind builds above the 12-knot range you will need to de-power the boat to keep her on her lines and to reduce weather helm. Start by getting the outhaul all



the way on and then let the traveler down in additional 3" /76mm increments until the boat balances. If the action of lowering the traveler to balance the helm causes the mainsail to backwind, this means it is time to consider reefing the mainsail.

Downwind

1. With the boom-vang set as outlined above the mainsail will have close to the right trim for downwind sailing.
2. As soon as the sails are eased and sailing lower downwind angles (even as little as 3⁰) ease the traveler down in 3" increments until the boat balances and drives well.
3. Bearing off 12⁰ and deeper, the traveler should be all the way out and at this point start to ease the mainsheet. The leech tension should correct assuming the boom-vang was tightened as above. At this point all your telltales will be flowing aft.
4. With a battened mainsail (Classic), one normally keeps the top batten parallel to the boom while off the wind. Achieve this with the boom vang keeping the leech adjusted and the telltales flowing aft. Obviously, without the battens (furling mainsails) you will need to eyeball it. If the top batten or sail is falling off to leeward from this position, tighten the vang to bring it back in line with the boom. With the leech trimmed this way, both tell tails should fly aft 95% of the time.

Reefing Notes:

Reefing the mainsail, headsail or both in combination allows the skipper to keep the trim of the boat in a more upright mode. This is a safer, more comfortable and faster way to sail in strong breezes. In addition, reefing the sails importantly affects the balance of the boat and can increase or decrease the amount of weather helm that develops at the wheel. The timing and sequence of reefing is up to the skipper of the boat to consider and will vary from skipper to skipper, as some conditions or preference in how the boat is sailed in reefing conditions are variable. With this in mind, the following points are general observations.

1. The 'balance' of helm is regulated through mast rake, fore and aft. This will be preset during the initial commissioning.
 - a. More mast rake aft will move the sailplan center of effort aft, in effect putting more loads on the sails aft of the keel. This will then in turn 'pivot' the boat around the keel, bringing the bow into the wind.
 - b. Mast rake forward and the opposite is true, the balance moves forward and the boat will gain neutral or lee helm.
2. Weather helm is desirable in all sailing yachts. It keeps the bow into the wind while sailing upwind and improves your VMG to weather.
 - a. In 10 to 12 knots of wind with the sails fully deployed we expect to have the helm just slightly above neutral or with a small amount of helm. This means in releasing the wheel, the boat will (depending on wind, sea conditions and boat trim) slowly come into the wind.



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3. As you reef the sails, you are also going to affect the balance or center of effort on the sailplan.
 - a. Reefing the genoa will reduce the area of this sail and in turn moves the center of effort aft, increasing helm.
 - b. Reefing the mainsail first, will move the center of effort forward and decrease the weather helm.

With these points in mind, we generally recommend that in the case of the 323, the mainsail should be reefed to the first reef in the classic or just before the top-most batten with the PBF mainsail when first shortening sail. This will ensure a balanced helm as the breeze initially builds. In 15 knots true wind, you will need the mainsail reefed and the genoa reefed to the first reef mark and though you may be somewhat underpowered initially, as sailors we find it safer to assume the wind will continue to build and it is always more prudent to reef earlier than later. Should the wind decrease, increasing the sail area is easily accomplished by deploying the genoa so it can be full sized again. Assuming the breeze continues to build into the upper teens, it is important to have a sense of how much weather helm you have. If you find yourself fighting to keep the bow down (the boat continually wanting to come up hard into the wind) then you need to reduce the mainsail area either by furling the mainsail in-mast additionally or going to the second reef in the Classic mainsail. This will establish the balance back to the helm and also decrease the total net area, making the boat more upright and comfortable.

SAIL CARE:

Both mainsails and headsails will get dirty with time and use. A primary source is air pollution which deposits filth on the standing rigging. The sails in turn will pick this up when they come in contact with shrouds, mast and spreaders. This obviously affects the headsail to a greater degree as it is dragged across the rigging with each tack and gybe. We recommend a yearly cleaning either on your own or through a commercial sail cleaner or sail loft.

Roller Furling Mainsails are equipped with a small label on the starboard clew of the sail. This is designed as a 'marker' that will indicate when the mainsail is furled inside the mast enough so that the U.V. cover on both sides of the sail will protect the sail. It is imperative that the sail be furled so that the label is clearly inside the mast, thus protecting the sailcloth from harmful U.V. which will damage the sailcloth quickly.



Furling Label on starboard side of mainsail clew patch



*Mainsail with label and sail exposed;
INCORRECTLY furled*



Mainsail with label furled inside mast and sail furled correctly.