



Tuning Guide

Pre Race There is little on a Tasar to adjust and be concerned with, but check the following:

Shroud Tension for:

- **strong winds:** as tight as you can readily get them
- **medium winds:** firmly tight when pull backs are aft
- **light winds:** as for medium, but only 2/3 pulled aft.

Diamond Stays:

As per the book:

- Finger tight to jib pole fitting on mast, BUT for lightweights who need bend in the rig, try slightly loose.
- For heavyweights who need less bend, slightly tighter. PERHAPS loos in waves and very gusty winds, but I'm not convinced this really helps.

Batten Tension: remove all vertical folds along batten pockets; have small creases between mast and battens: removable with main sheet tension.

Tension top batten the most, and less so with the lower ones (V lock fittings help). In waves and light or medium air:

- fuller sail for power
- in flat water and
- strong winds flatter sail.

Clew Board / Jib sheets:

- In strong winds, fasten one or more holes below the middle
- In medium to light winds, fasten in the middle.

Jib Luff Tension: this depends on your particular style:

- Pointing: wrinkles just not present
- Flat water: flatter jib
- Waves: fuller for power/acceleration.

Blocks and Slides should run smoothly: silicone spray can be useful.

Sailing a Tasar Fast

Some people sail fast using slight variations to the settings and techniques described. The advice below simplifies reality. When sailing conditions change continuously, alterations should also be made continuously by the crew and helmsman. These changes should be introduced with the minimum of thought so that more important strategic and tactical considerations can be focused on.

Beating in Light Airs (0-4kts) **1. Jib. Luff tension:** loose, horizontal

wrinkles appearing

Clew board: centre hole for new jib, one hole up for older jib

Jib sheets: light weight

Fairleads: 0 - 5 holes showing at inner end of track:

Sheet tension: not cleated or tight; played in hand and up to 3cm out if required for speed.

2. Main. Battens: just enough tension to avoid wrinkles (flat sail).

Clew outhaul: 3cm maximum depth between sail and boom.

Boom vang: minimum tension (some twist in sail is desirable).

Cunningham: minimum: some wrinkles in the luff are acceptable.

Boom position: between quarter (for 0-2kts) and centre line.

Main tension: minimal, but increase as wind does to straighten leech.

3. Shrouds. Can be 1/3 to 1/2 way forward along the track to ease rig tension.

4. Technique. Daggerboard: between right down and 15cm above the case. Sail for speed; direction is less important. Coordinate changing from speed to pointing modes if the wind increases. Weight forward (helmsman forward of thwart) to reduce wetted hull area and spread laterally to reduce roll. Some leeward heel to reduce wetted hull area; use of gravity to hold sail shape is also good. Watch and sail for wind puffs. Minimize movement (especially tacking) which disturbs air flow and, if necessary, move smoothly. Roll tack.

Beating in Medium Airs (5-10) kts

5. Jib. Luff tension: wrinkles just disappearing; looser if speed wanted; tighter if pointing wanted:

Clew board: one hole below centre or centre for older jib.

Jib sheets: light weight (but gloves may be necessary)

Fairlead: no holes showing, as far inboard as possible

Sheet tension: firm to tight.

6. **Main. Battens:** high tension for depth and power

Clew outhaul: 3-10 cm maximum depth from boom to sail.

Boom vang: minimal tension (enough to maintain tension when main sheet is eased):
Cunningham: tension to just remove wrinkles in the luff.

Boom position: on centreline as much as possible

Main tension: tension to straighten leech (less if waves) but watch the leech ribbons (top ones should break occasionally and lower ones should fly straight).

7. **Technique.** Daggerboard: about 15cm showing above the top of the casing. Sail the boat 100% upright, hiking hard to do so. Use maximum waterline length without digging the stem (look for wave pattern off the transom). Cleat mainsheet and play the traveler.

8. **Waves.** Avoid sailing the boat directly into a wave, and use the tiller to angle the boat onto and off steep waves. To match the course changes and introduce more sail power, twist the main (ease sheet and bring traveler to windward an equivalent amount) and the jib (up to 2cm), and move the jib fairlead 12 holes fuller outboard than usual. The traveler may be cleated and the sheet played. Keep the crew weight together, shoulder to shoulder and sufficiently aft so that the bow does not rig into waves. Speed becomes relatively more important than pointing. Quickly remove any water shipped.

Beating in Medium to Strong Wind (12-20 kts)

9. **Jib. Luff tension:** no wrinkles showing: start to flatten.

Clew board: jib sheets attached 1-2 holes below the centre position.

Jib sheets: use heavy weight, large diameter sheets to aid crew comfort.

Fairlead position: inboard, with 2 holes showing at the inboard end of the track.

Sheet tension: hard in, but with the crew prepared to ease the sheet in gusts.

10. **Main. Battens:** average tension for fairest depth to sail.

Clew outhaul: 5cm depth, and tighter as the wind increases.

Boom vang: tension increases with wind to flatten the top of the sail.

Cunningham: sufficient to remove luff wrinkles.

Boom position: as near the centreline as possible. but eased to leeward in gusts.

Main tension: tight for a straight leech.

11. **Technique.** Dagger board positioned from showing 15cm above the casing to 25cm as the wind increases and the gusts become more violent. Sailing flat is vital. As crew weight becomes inadequate to keep the boat flat, it must be depowered. The vang is tightened first, then the main traveler eased to leeward in gusts. If the jib back-winds the mainsail, the jib too should be eased with the gusts. At the start of each gust ease the sails slightly and bear away for speed, then return to

your original position as the wind settles. Heavy crews sailing in flat water might try planing to windward. This technique needs practice and care in use. Roll tacking becomes tricky!

- 12. Waves.** As for paragraph 8, noting that waves are more likely at this wind strength. With violent gusts and steep waves cleating the traveler and playing the main sheet is worthwhile.

Beating in Strong Winds (20kts+)

- 13. Jib. Luff tension:** tight to flatten and so depower sail:

Clew board: from 1 hole below the central position to the bottom of the board, thereby inducing twist in the sail.

Jib sheets: large diameter to aid constant use:

Fairlead position: 1-4 holes showing at the inboard end of the track.

Sheet tension: hard when possible, but more likely to need near continuous playing with wind and wave requirements.

- 14. Mainsail. Battens:** minimal tension to flatten the sail

Clew outhaul: tight.

Boom vang: very hard to flatten the mainsail.

Cunningham: hard to ensure no wrinkles.

Boom position: from centreline to stern quarter as it is played with gusts and waves.

Main tension: eased to induce twist and feather the top of the sail.

- 15. Technique.** The dagger board should be near or at deck level. Sail flat and work hard. Wave techniques described in paragraph 8 become the norm. Weight should be moved farther aft (crew may have one leg aft of thwart). Coordinated crew work for changing sail settings is important. Venturi bailer should be constantly down. Don't bother roll tacking!

16. Roll Tacking

- a.- With the boat in an upright position, cleat the main sheet and use the tiller to a maximum of 45 degrees to luff the boat.
- b.- As the boat nears 'head to wind', the helm and crew move their weight to the old windward side to roll the boat over themselves. As this happens the helmsman lets go the traveler line.
- c.- When the boat is 'head to wind' the crew quickly changes the jib to the new side and rotates the mast to the new position.
- d.- When the new course is reached the traveler should be positioned for the new leg and the boat should be brought back upright. Both actions should be smooth and at a speed appropriate to the wind strength.

At the end of any tack when beating, the boat should be sailed slightly below the normal course to windward until the normal speed is reached.

Rounding the Windward Mark

Use a set routine to follow in priority order. Recommended is:

- a. Set planned course.
- b. Ensure boat is upright.
- c. Set sails for speed.
- d. Over-rotate the mast.
- e. Ease vang.
- f. Fairlead out.
- g. Leeward shroud forward.
- h. Dagger board up.
- i. Clew outhaul off.
- j. Cunningham off.
- k. Begin normal sailing.

Reaching

1. **Jib. Fairleads:** should be moved outboard as the angle of the boat to the wind increases. They should usually be at the outboard end of the track. Thereafter, in light winds, the crew may hold the jib sheet beyond the gunwale. **Whisker pole:** may be carried on the broadest of reaches but, if in doubt it is usually better not to.
2. **Shrouds:** For all reaches move the leeward shroud all the way forward. In flat water (when the rig will not bounce) the windward shroud may also be eased forward.
3. **Mainsail. Mast rotator:** leave in normal position for close reaching or over-rotate when the wind is on or aft the beam.

Clew Outhaul: ease to 15cm depth between boom and sail, less in light winds and more in waves

Boom vang: tight enough to maintain a straight leech, but not so tight as to flatten the sail unless the wind strength requires it.

Cunningham: eased, wrinkles are not a problem.

Traveler position: for close reaching the traveler may be played, if not it should be positioned under the average boom position. For broader reaching it should be at the end of the track.

Mainsheet tension: if using the traveler for adjustment the sheet controls leech tension, otherwise it simply controls sail angles.

4. **Technique.** Daggerboard half way up: further up the broader the reach and the stronger the wind. In the lightest winds keep weight well forward and heel to leeward to lift the chine and reduce drag. In all other winds sail upright. Look for gusts and lulls: bear away in gusts to stay in them longer and luff in the lulls to increase speed and head towards the next gust. In very strong gusts bear away, ease sails and hike hard as they hit. Fore and aft weight positions are as for beating unless planing is possible, then having weight slightly aft of normal to help planing is good. In the strongest winds the crew may have one foot under the helmsman's toe strap. Play the sails constantly, the mainsail by using the main sheet unless the reach is very close.

Practice coordinating tiller and sail changes so that course, jib and mainsail changes occur smoothly, together and continuously. To promote planing wait for a gust, luff to meet it whilst playing the sails and hike out and slightly aft. When planing, bear away to compensate for ground made to windward.

Use waves: steer to stay on the 'downhill' side of a wave and avoid sailing 'uphill'. If in doubt, steer for the calmest water. One 'pump' per wave or gust is permitted to help promote planing.

5. Roll Gybing

NOTE: as with tacking, the mast may move from the vertical only once.

- a. Crew ensures dagger board is below the swinging arc of the vang and uncleats the jib.
- b. Crew rolls the boat to weather to make the boat bear away towards the gibe. Helmsman lets the rudder follow the course the boat takes. The sails are eased as the boat bears away.
- c. When the mainsail begins to back, the helmsman catches the mainsheet and pulls the sail across the boat to the new leeward side.
- d. As the sail moves the rudder is returned admidships. it should be there when the sail's power is felt on the new tack.
- e. When the sail has finished crossing, the boat is smoothly returned to an upright position.
- f. When the new course is reached, the sails are trimmed accordingly, and the shrouds adjusted.

6. Strong Wind Gybing

There are two keys to success in gybing in very strong winds. Firstly, begin the manoeuvre when the boat is going its fastest. This is because the apparent wind felt when the sails are on the new tack is relatively at its least. Secondly, the boat should be on a run when the wind pressures the sail on the new tack. This is achieved by the helmsman correcting the boat's course in the short moments when the boom crosses the boat and he is crossing to the new windward side. Roll gybes should not be tried in very strong winds. Instead, the boat should be kept as level and stable as possible throughout the manoeuvre.

Running

1. Jib. Whisker pole: used.

Head of sail: when the whisker pole is used the top furling fitting does not always swivel. Mast should be de-rotated and sheet tensioned to correct the situation.

Fairlead position: outboard as far as possible.

Sheet tension: tighter the broader the run and harden if sailing by-the-lee.

Jib tack fitting: may be turned using the furling line to ensure the base of the sail forms a fair shape.

2. Shrouds. In light winds and flat water both shrouds should be positioned at the forward end of their tracks. In stronger winds only the leeward shroud should be moved. In very strong winds it can be wiser not to adjust the shrouds at all.

3. Mainsail. Mast rotator: always over-rotated.

Clew outhaul: not very important: it may be set as for beating.

Boom vang: tensioned just enough to keep the leech straight. In strong winds twist should be avoided in the mainsail to reduce the possibility of rolling.

Cunningham: of little importance: it may be set as for beating.

Traveler position: as far to leeward as possible.

Main sheet tension: minimal, sail can rest against the shroud.

4. Technique. Daggerboard position: resting on the inside lip of the casing in light winds, otherwise further down as the wind increases to a maximum of a third of the way down in very strong winds. In most winds a Tasar or be sailed either directly downwind or 'tacked downwind' at about 20 degrees off the downwind course with little difference in outcome. In marginal planing 'tacking' can be faster, particularly when waves are well used to promote early surfing. Weight should be spread laterally across the boat to maintain stability: helm and crew can often sit on opposite side decks. In light to medium winds weight should be positioned fore and aft to ensure the transom is only just touching the water. In planing winds weight is moved aft, and in the strongest winds the crew will be needed behind the thwart.