

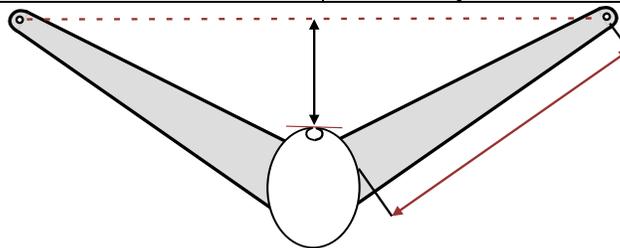


Yngling tuning guide

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Basic Settings

	Settings
Spreader length	600mm-620mm center spreader length (look at drawing below)
Spreader angle for light teams (up to 250 Kg)	240mm distance chord to mast aft (look at drawing below)
Spreader angle for heavy teams (more than 250 Kg)	210mm distance chord to mast aft (look at drawing below)
Mast position	1925mm distance mast forward to forestay-deck connection
Mast rake	1080mm (read more below)
Jib lead position	2000mm forestay-deck connection to center of jib lead block



Shroud tension (Loos Gauge PT-1)

Wind speed	Upper shrouds	Lower shrouds
Light air (up to 7 Kts)	7- 8	Straight mast
Medium condition I (8 - 15 Kts)	9-12	Straight mast
Medium condition II (15 - 20 Kts)	13-20	Straight mast
Heavy air (more than 21 Kts)	21-25	Top bending 100mm - 150mm to leeward depending on crew weight



Before stepping the mast, mark shrouds and forestay as follows:

Detach the shrouds from the spreader tips and tension each shroud and the forestay individually as hard as possible along the front edge of the mast. Transfer the upper edge of the measurement mark at boom height onto the forestay and upper shrouds using a permanent marker.

For reproducibility, it is recommended to use a spring scale to apply the same tension each time before marking the wires.

Now step the mast.

The distance from the forestay pin to the front edge of the mast should be 1925mm.

Check that the mast foot does not sit flush on the mast step. Ideally, there should be a 5mm gap at the front of the mast foot. This allows the mast to bend more easily and makes it simpler to adjust the rig from light to heavy wind settings.



Check the distance from the upper edge of the mark at the gooseneck to the deck. It must be exactly 500mm. If not, correct the mast foot height.

Using the previously applied shroud marks, check whether the mast stands centered in the boat. Measure to the upper shroud chainplates on port and starboard and fix the shrouds. Adjust upper shroud tension to 10 LE. Then lightly set the lower shrouds. Final adjustment is done on the water according to wind strength.

Measure from the mark on the forestay down to the deck along the forestay. This distance should be 1080mm.

Measure rig tension in the harbor using the Loos PT-1 gauge. Attach the gauge approx. 1500 mm above deck. It provides good baseline values for upper shroud tension. Recommended values are shown in the table above.

Tip: Under all conditions, the leeward upper shroud should be just slack enough that it does **not** flop around while sailing.

The lower shrouds are adjusted on the water. Set them so that the mast is straight sideways in light to medium winds (up to 20 kts). In chop, the mast may sag slightly (2–3 cm) to leeward at the spreaders. This makes the mainsail fuller and increases power. When wind exceeds 20 kts, the lowers must be tightened so that the mast top bends 70–150 mm to leeward depending on crew weight.

Backstay

Backstay tension has a major influence on sail shape and trim in medium and strong winds. It bends the mast in the upper section, flattening and opening the mainsail. It also tensions the forestay, which controls the jib entry and opens the jib leech.

This improves control in strong or gusty winds, reduces heeling, leeway, and helm pressure.

Note that any change in backstay tension requires readjusting mainsheet, jib sheet, and vang.

Mark your backstay every 5cm to quickly reproduce proven settings.

Caution: Pulling the backstay unnecessarily or failing to release it in time leads to loss of power and pointing ability.

Mainsail

Mainsheet

The mainsheet is the most important control for speed. Proper sheet tension is crucial for both speed and pointing. Even small adjustments can make a big difference.

Watch the top batten telltale — it should fly 90% of the time, and the top batten should be parallel to the boom.

If the sail is too open, you lose pointing.

If trimmed too tight, helm pressure increases — you may point slightly higher briefly, but speed drops quickly.



Mark your mainsheet with different colors to quickly find good settings.

Cunningham

Up to 15 kts, the cunningham stays completely loose. Any right-angle wrinkles along the luff can be ignored.

Above 15 kts, the cunningham becomes important to move draft forward and open the leech.

Outhaul

The outhaul controls lower sail depth.

- Up to 7 kts: ease so the clew is 30mm from the boom mark
- With increasing wind: tighten progressively
- When the crew is fully hiking, outhaul should be max tight.

Vang (Kicker)

In medium and strong winds upwind, the vang is an important control. Applied vang bends the lower mast and flattens the mainsail. It also controls the leech when easing the mainsheet in gusts, preventing the sail from opening too much and losing pointing.

Before rounding the windward mark, always release the vang. If not, the boom or gooseneck may be damaged when bearing away due to high sideways loads.

Jib

Jib lead position

The standard jib lead position is 2000mm from the forestay pin to the center of the block.

Depending on wind strength:

- Light air: up to 30mm forward
- Heavy air: up to 30mm aft

Watch the jib luff telltales — windward and leeward must react simultaneously.

Jib halyard tension

Always monitor jib halyard tension.

Never sail with too much halyard tension!

Too much tension moves maximum draft too far forward, making the entry too round and the exit too flat.



Tension only until each hanks shows a slight wrinkle.

In light air, more visible wrinkles are acceptable — this moves draft aft and makes the sail fuller.

Trim in Light Air (up to 7 kts)

Mainsail

- Mainsheet: Top batten 10–15° more open than parallel; top telltale must fly
- Traveller: 100–120mm above centerline; boom may even be slightly to windward
- Backstay: None
- Vang: None
- Cunningham: None
- Outhaul: Up to 30mm from mark
- Crew weight: Move forward; sail with slight leeward heel

Jib

- Luff: Light wrinkles (“crow’s feet”) desired
- Lead: 1880mm from forestay pin; adjust one hole forward or aft if needed
- Tack height: 50–70mm above deck
- Telltales: Must react simultaneously
- Leech telltale: Should fly 95% of the time

Trim in Medium Air I (8–15 kts)

Mainsail

- Mainsheet: Top batten parallel; top telltale flies 70%
- Traveller: 5cm above centerline
- Backstay: None, but engage lightly in gusts
- Vang: None
- Cunningham: None
- Outhaul: 10–20mm from mark
- Crew weight: Centered; sail upright to reduce helm pressure

Jib

- Luff: Just no wrinkles
- Lead: 2000mm
- Tack height: 50–70mm
- Telltales: Must react simultaneously
- Leech telltale: Should fly 95% of the time

Trim in Medium Air II (15–20 kts)

Mainsail

- Mainsheet: Top batten slightly open
- Traveller: Centerline
- Backstay: Actively used to flatten main, reduce helm, tension forestay



- Vang: Firm to bend lower mast
- Cunningham: Tight to open leech
- Outhaul: Max tight
- Crew weight: Upright boat, max hiking

Jib

- Luff: Just no wrinkles
- Tack height: 50–70mm
- Lead: 2000mm (adjust as needed)
- Telltales: Must react simultaneously
- Leech telltale: Should fly 100% of the time

Trim in Heavy Air (20+ kts)

Mainsail

- Mainsheet: Top batten clearly open
- Traveller: 50–100mm leeward of centerline
- Backstay: Actively used
- Vang: Strong
- Cunningham: Strong
- Outhaul: Max tight
- Crew weight: Max hiking, boat upright

Jib

- Luff: Just no wrinkles
- Tack height: 50–70mm
- Lead: 2030mm (likely one hole aft)
- Telltales: Must react simultaneously
- Leech telltale: Must fly 100% of the time

Spinnaker Trim Basics

- Windward luff: Aim for 200–250mm of periodic curling
- Pole angle: Pole end level with leeward clew; pole perpendicular to apparent wind
- Pole height: Adjust so windward luff collapses at 30% from the top
- Center seam: Should run parallel to the mast

Spinnaker Trim in Light Air

Communication between helm and trimmer is essential.

Goal: sail as deep as possible while maintaining pressure in the sail.

Do not sail too high (longer distance) or too low (loss of pressure).



The correct downwind mode is a continuous rhythm of heading up and bearing away to maintain speed and VMG.

Spinnaker Trim in Medium Air (I + II)

- Steer for maximum depth
- Pole as far aft as possible
- Windward clew approx. 500mm from pole
- Leeward clew near the forestay

Spinnaker Trim in Heavy Air

Safety first!

- Do not sail too aggressive
- Pole slightly forward of 90° to apparent wind
- Windward clew at the pole
- Leeward clew trimmed so the foot flies close to the forestay