

Nordic Folkboat

Helsinki spring 2023



North Sails Folkboat Sails

LM-5A Mainsail

To be used for J.M Aluminum mast

LM-5 Mainsail

To be used for B.M Aluminum mast and most wooden mast

FL-5L Jib

Wind range from 0 – 12 knot

FL-5

Wind range from 8 knots – and up

If only one jib is be used, it should be FL-5 as All-purpose

Nordic Folkboat Tuning Guide for Aluminum Masts

Introduction

The purpose of this tuning guide is to provide our clients with standardized guidelines on how to get the most out of their new North Sails Folkboat sails. This guide was written by Søren Kæstel, Per Jørgensen and Theis Palm.

Follow these instructions as closely as possible. However, it is always a good idea to experiment. Your boat, the weight of the crew, the boat's balance as well as local conditions will also affect the optimal trim.

Mast Trim

The mast on a Folkboat is probably the most critical component of the boat's trim, especially with the introduction of the class-legal aluminum mast. The aluminum mast has the proper stiffness. Therefore, it is important that these trim instructions are followed carefully in terms of how much pressure the mast applies to the aft edge of the mast hole.

- 1 Verify that the mast is vertical. This is best done by moving each shroud along the mast and make a mark on the shroud that matches the top of the gooseneck mark. Reattach the shrouds to the chainplates and measure from the mark to where the turnbuckles enter the deck - the distance should be the same on both sides.
- 2 Set the mast rake. Detach the forestay from the deck and place it along the mast. Stretch the wire as much as possible and make a mark that matches the top of the gooseneck mark. Reattach the forestay. The mark should be 1.31 m from the deck along the forestay. Check the height of the mark at the gooseneck it should be 1 meter (there is +/- 1 cm in the rules)
- 3 Position the foot of the mast. Move the foot of the mast aft until the mast just touches the aft edge of the mast hole in the deck. In light winds (0-8 knots) the mast should be relatively hard on the aft edge and pressed 22 mm astern on the mast foot rail, the mast will bend smoothly. In the wind range 9-14 knots of wind, press the foot of the mast 16 mm astern and in strong winds 10 mm astern.
- 4 Adjust the jumpers. Pull on the backstay. Look up the sail track and make sure that the mast is straight, and the jumpers are equally tight. If not, adjust the jumpers until the mast is straight. Jumpers are set relatively loose in light winds and strong winds. In medium winds, tighten the common turnbuckle 2-3 turns. The maximum draft in the top of the mainsail should be 47% aft along the chord. The most important thing is that the mast curve is even from deck to top. If the jumpers are too tight, the mast will curve too much in the bottom and be too straight in the top. If the jumpers are too loose, the bottom will be straight, and the top will curve if the jumpers are set to loosen. A consistent curvature gives the leech a nice, even twist.
- 5 Set the forestay tension. Initially, the mast hole helps to push the mast forward and thus get the forestay loose. In light wind the forestay should sag about 8 cm. Tighten the shrouds while sailing until the 8 cm sag is obtained. In medium wind, tighten the shroud turnbuckles 1½ turns and a further 1½ turns in strong wind, thus tightening the forestay under increased wind pressure.

1 Mainsail trim

The mainsheet is critical in setting the shape of the sail and small adjustments can have a big effect on speed and pointing. If the mainsheet is sheeted tight, the leech will close and put more pressure on the rudder - on the other hand pointing ability is improved. This can be used in medium winds and flat water, where the boat can be kept flat by hiking. In light winds the mainsheet is eased so that the top tell-tale flies straight. In heavy winds, sheet tight and pull the backstay until the rudder feels light again (but without losing pointing). In large waves, let the leech twist a little more to have a wider steering angle. This increases speed, and therefore pointing, at the same time. As a thumb rule the top batten is trimmed parallel to the boom in almost all wind strengths.

2 Outhaul

The outhaul is also an important factor when trimming as it controls the draft in the bottom of the sail. In very light winds (0-5 knots) the sail should be 3 cm from the mark. In medium winds (5-12 knots) about 1.5 cm from the mark and in more wind than this pull the sail all the way to the mark.

3 Cunningham

Do not set the Cunningham in light winds. In medium winds set the Cunningham so that the wrinkles in the luff disappear. When the wind exceeds 15 knots it is pulled hard to open the leech and keep the draft forward in the sail.

4 Traveler

It is a good idea to have two cars on your traveler. They are then connected by two wires of about 40 cm leading to a mainsheet block. This facilitates sailing in light and medium winds. In light winds (0-6 knots) pull the traveler cars 15-20 cm to windward. In medium winds (6-14 knots) set them in the middle. In higher wind the cars are eased to leeward to decrease heel and thus rudder pressure.

5 Backstay

The backstay has two functions: To control draft in the mainsail and to control forestay sag. When the backstay is tightened, the mainsail flattens, the leech opens, and there is less forestay sag and, therefore, a jib with less draft. It is a good idea to put marks on the backstay, e.g., every 20 cm, to facilitate finding the right trim after mark rounding, etc.

6 Kicking strap / Boom Vang

The kicking strap is used when sailing upwind in strong wind to keep the boom down when easing in the gusts. Never use the kicking strap upwind in less than 16 knots and use caution. Remember always to ease the kicking strap for downwind sailing when bearing off, otherwise the boom might break. Downwind the kicking strap is trimmed so that the top batten is parallel to the boom - on all sailing angles and in all conditions.

North Sails jibs are made for sheeting points both on deck and cabin top. However, we recommend sheeting from the cabin top to make the jib-leech twist more freely and thus allowing the gap between main and jib to be as wide as possible. Furthermore, the control of the jib is improved (particularly in heavy winds) because of the shorter distance from clew to block. The jib-lead track is placed with its center 58 cm from the boat's centerline. When sheeting from the cabin top, we recommend using a swivel block on the deck, so that the jib sheet does not create an overwrap on the winch.

1 Sheeting Point

The position of the jib lead is crucial for the jib trim. As a reference point measure 2.65 m from the pin in the forestay to the center of the block (if the lead is on the cabin top). The jib shall luff evenly, tell-tales must fly at the same time in top and bottom.

2 Jib Sheet

As a rule, sheet the jib so that the middle batten is parallel to the centerline in most conditions, in light winds (0-5 knots) leave 2-3 degrees of twist. If the sea is lumpy, move the jib lead two to three "holes" forward to get more draft and power in the jib (the middle batten shall still be parallel to the boat's centerline). In heavy winds move the lead one or two "holes" back without letting the foot of the sail become loose and flutter.

3 Halyard Tension

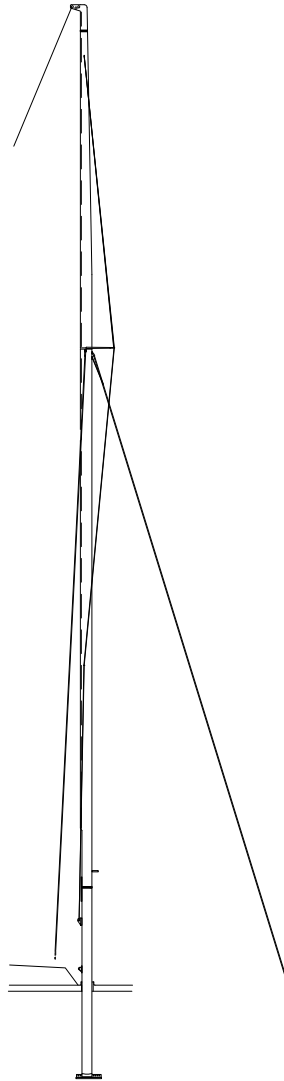
Never pull the halyard too tight. This will cause the draft of the jib to move too far forward. Pull it until the wrinkles in the luff disappear. In light wind the best shape is obtained when leaving small wrinkles in the luff

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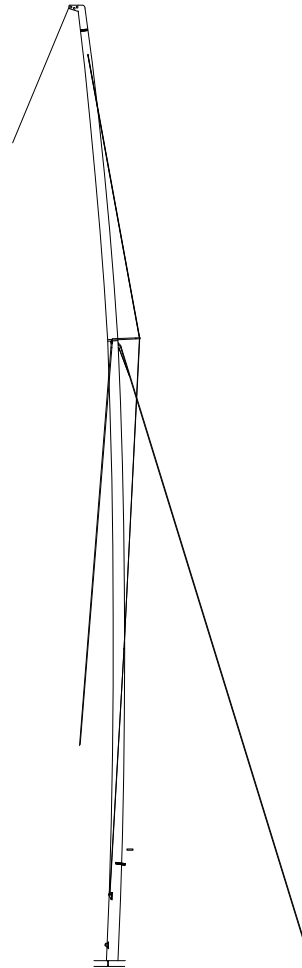
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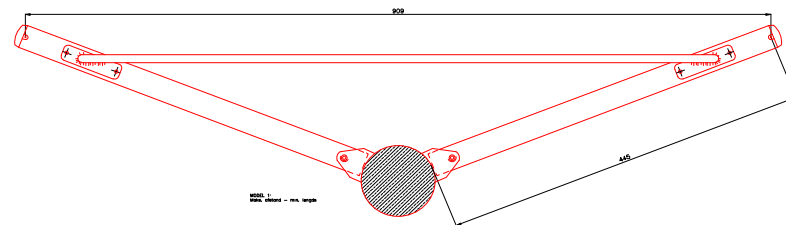
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Jumper struts; legs not less than 450 mm \pm 5 mm. The distance between the bearing points of jumper struts shall be 900 mm \pm 10 mm. This is standard dimensions on J.M and B.M mast



Check the mast is bending evenly from deck level to mast top.
To make it more visible, take a coloured string and hoist with the mainsail halyard and hold it to the mast at deck level



5. Set the forestay tension. Initially, the mast hole helps to push the mast forward and thus get the forestay loose. In light wind the forestay should sag about 8 cm. Tighten the shrouds while sailing until the 8 cm sag is obtained. In medium wind, tighten the shroud turnbuckles $1\frac{1}{2}$ turns and a further $1\frac{1}{2}$ turns in strong wind, thus tightening the forestay under increased wind pressure. **Another way to measure forestay sag; with a medium set up the forestay moves 28 cm from max SB side to max BB side**



Upwind sail trim Mainsail



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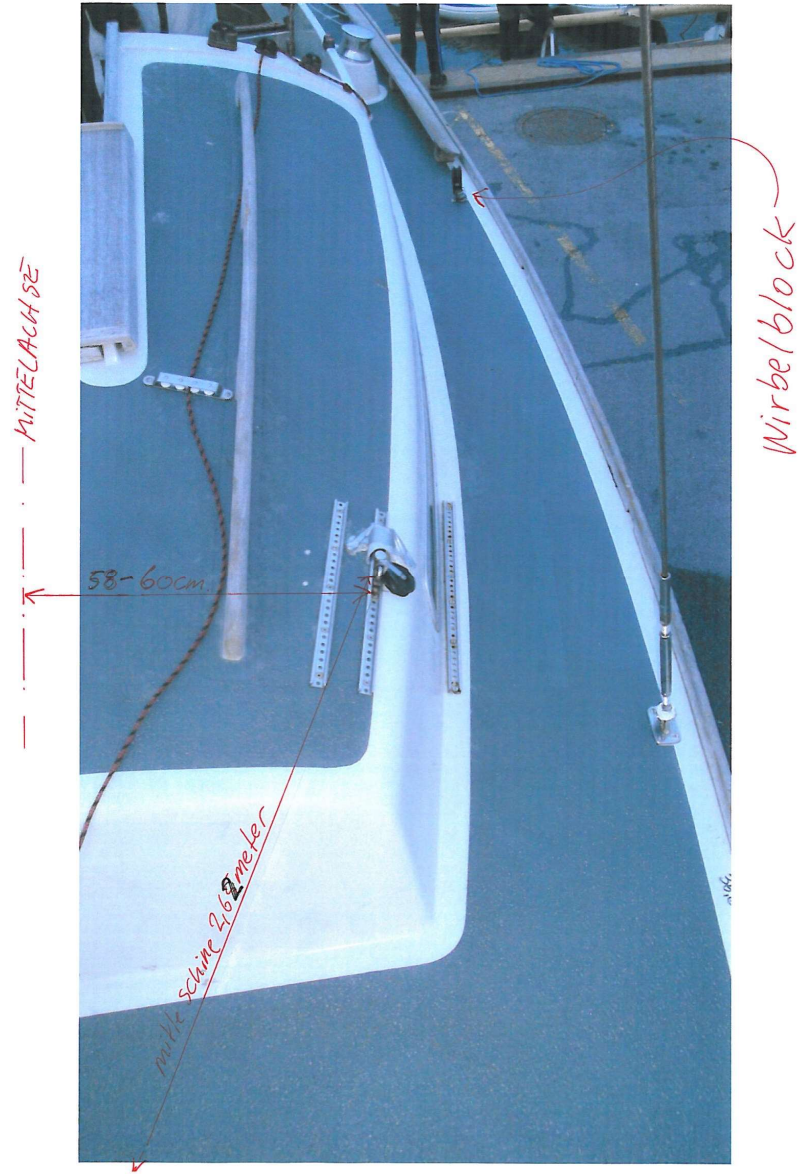
Whisker "Jib" pole is 2,85 m



Upwind sail trim Jib



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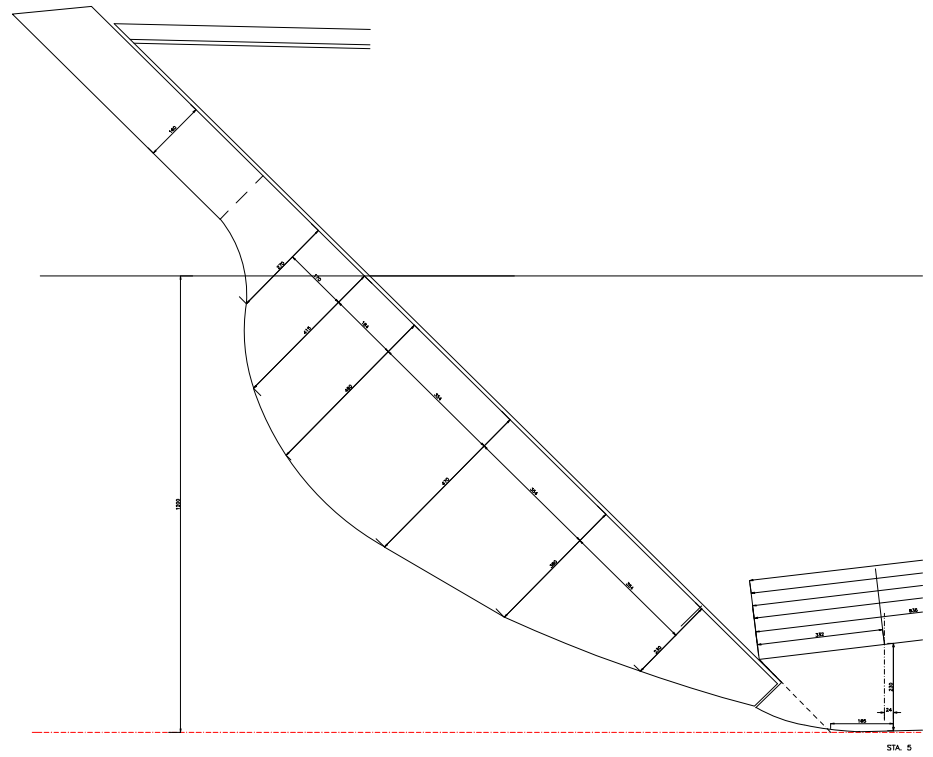
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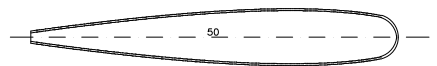
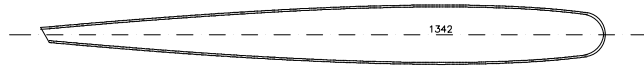


DEN-813 in racing trim

- Weight of Boat at “Minimum”
- Under water treatment
- Rudder with profile and lift “7kg”
- Aluminium mast
- The boat is very simple like; Fixed Jumpers, One track for jib, One line for outhaul, Jib halyard one side, hook for mainsail, Cunningham in both side backstay on travellerbeam
- Anchor placement at mast foot
- All extra like - water, food, extra clothing, bucket etc. at mast foot



STA. 5



Crew weight placement upwind

4-7 knots one crew in the cabin forward, one crew to leeward trimming sails, helm to leeward

8-11 knots both in cockpit balance the boat, helm sitting to windward on deck

12- knots and up, all on sitting on deck and start hiking as the wind increase

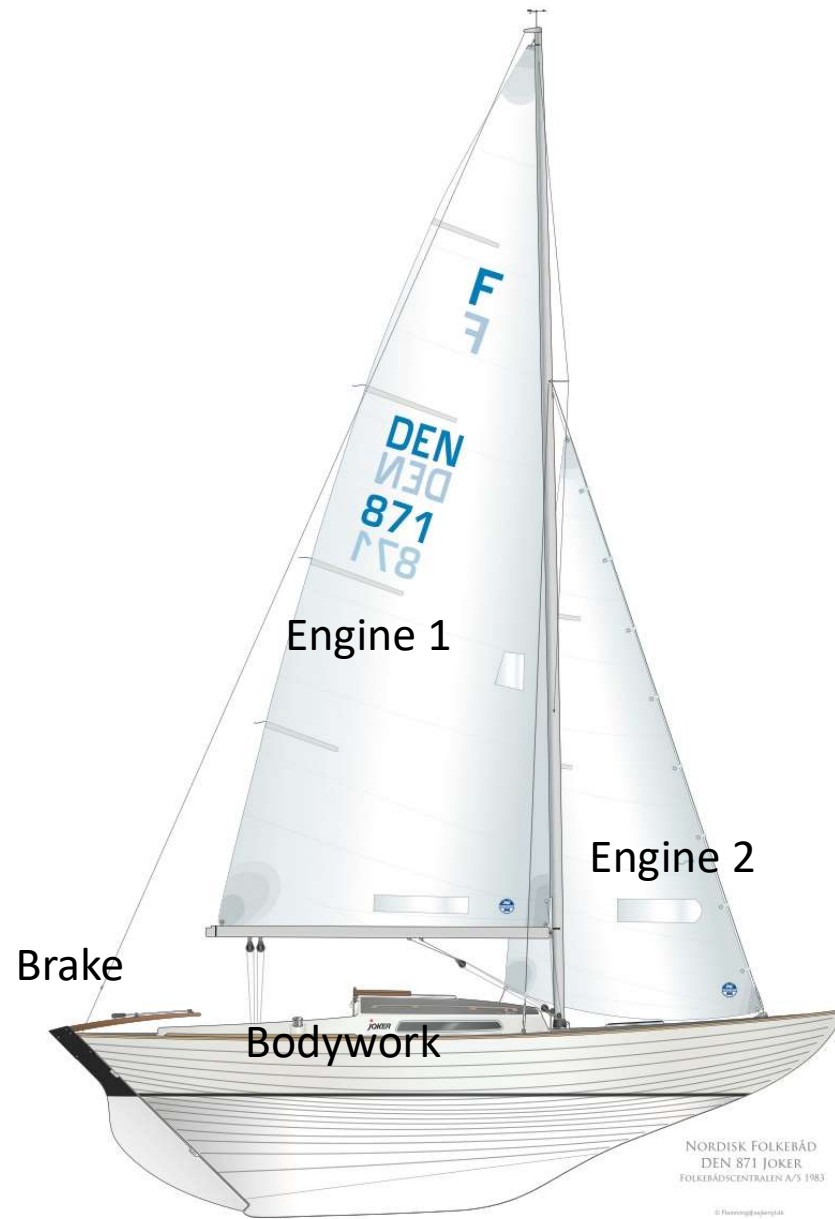
Crew weight placement downwind

Always as much forward as possible



Ballance the boat

Make the boat as light as possible on the the rudder, otherwise it's a brake



A good start and a good tuning make victory



Good Luke in 2023

