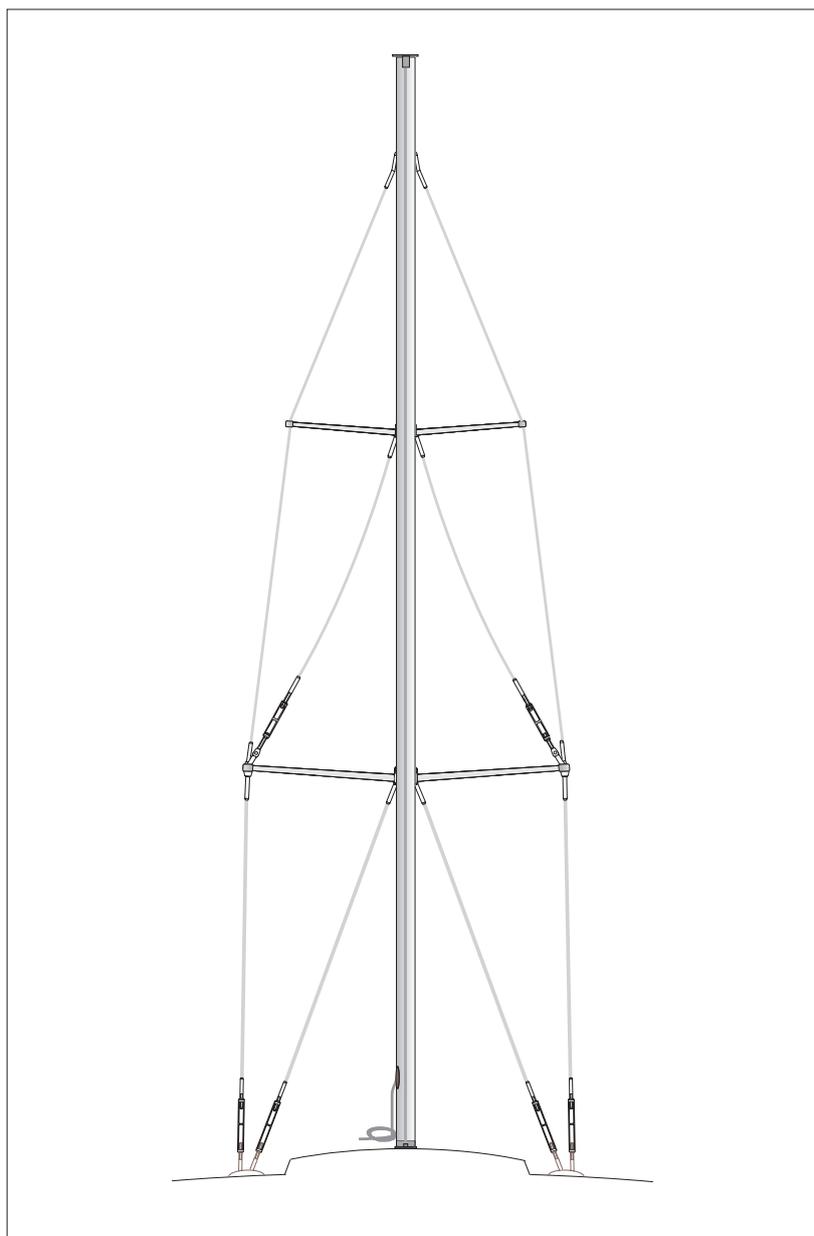


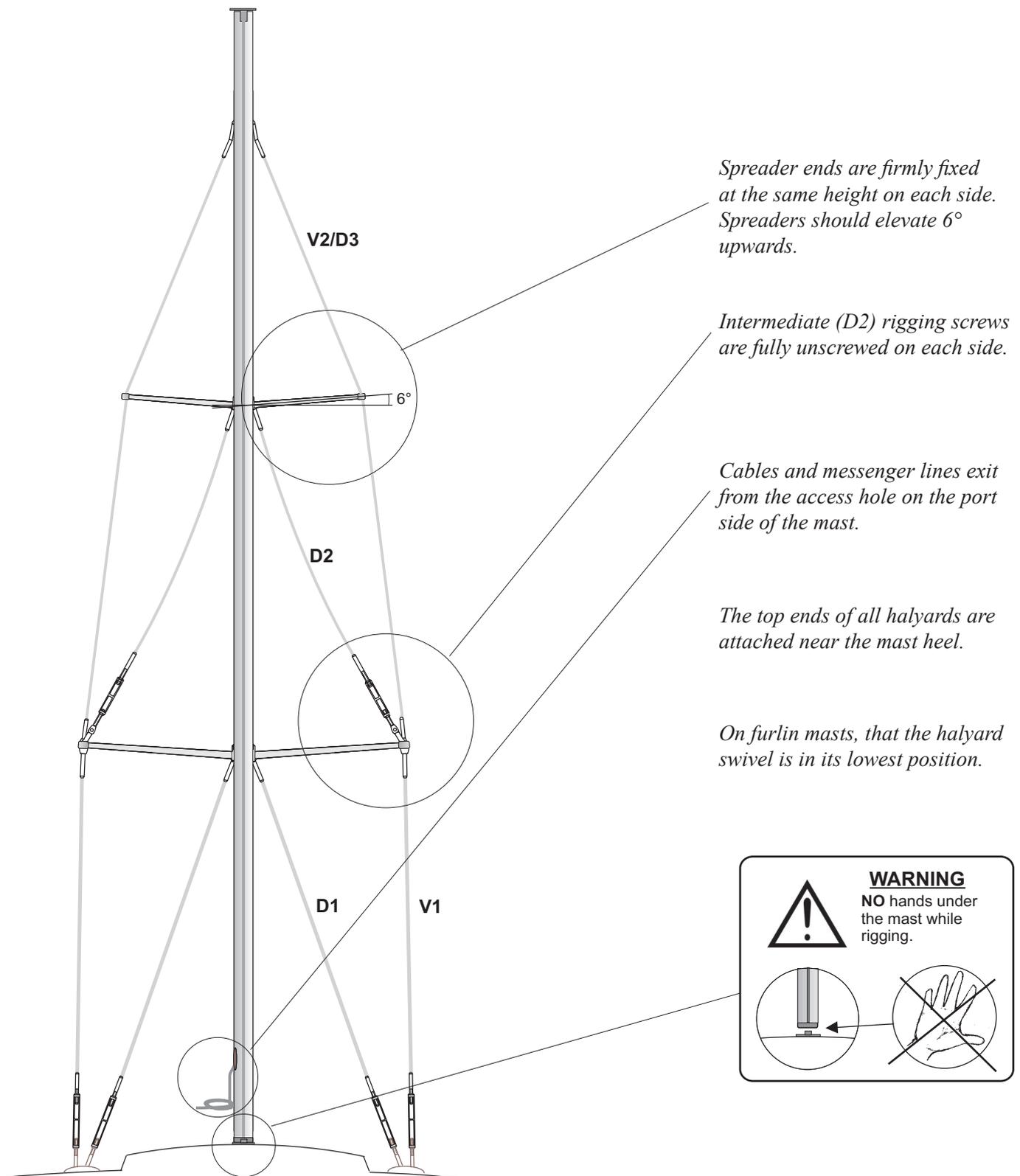
## Tuning instructions S.O. 36, 39 & 42

Complementary information to the manual:

“Hints and advice “ 595-540-E (Instructions for rigging. Conditions for valid guarantee.)



Before stepping the mast make sure that:



Step the mast and connect the stays and shrouds to their chainplates. The lower shrouds (D1) and the backstays should be completely slack. The intermediate shrouds (D2) should already be slack.

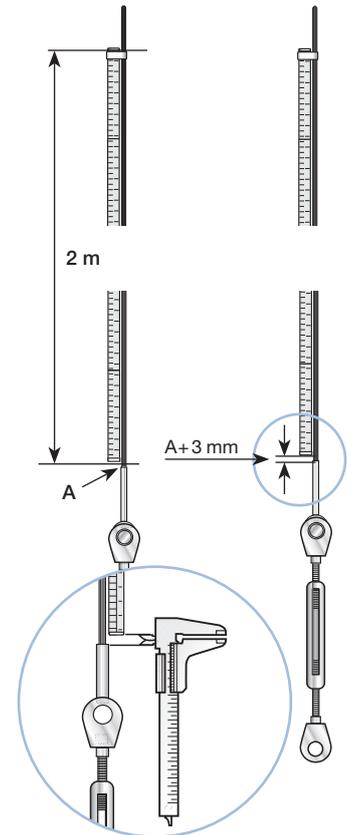
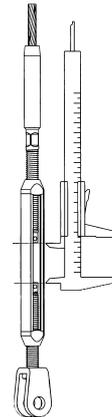
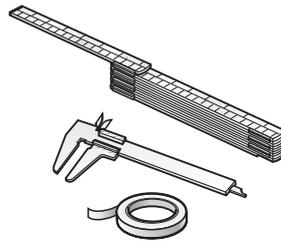
If the backstays appear to be too short and difficult to attach, wait until after you have tuned the V1's before connecting. The mast stands upright with the help of the forestays and the cap shrouds (V1's) only.

Make sure that the boom does not hang on the topping lift or that any halyard carries a load which might affect the curvature of the mast.

- The V1 shrouds should be tensioned to 20% of their breaking load. Use “The folding rule” method.

**The following materials are required:**

- \* A 2 metre long measuring rod (a folding rule is recommended)
  - \* Adhesive tape
  - \* Vernier callipers
- Start with the cap shrouds only hand-tight.
  - Tape the upper end of the folding rule to the starboard cap shroud. The lower end of the folding rule shall be approximately 5 mm above the upper end of the wire terminal. Measure the distance between terminal and folding rule precisely. This is index 0, let's call it point A.
  - Counting the turns, tension the starboard cap shroud until the distance is  $A + 2$  mm between the terminal and the folding rule. Measure using the vernier callipers.
  - Leave the folding rule attached to the starboard shroud, move across to the port side and tension the shroud rigging screw the equivalent amount (number of turns). Use the vernier callipers to check that you have the same gap on each V1 rigging screw.
  - Continue to tension each V1 in turn. At intervals, check the starboard side to see how much the folding rule has moved from the end terminal. When the gap is  $A + 4$  mm, the cap shrouds are tensioned to 20% of the breaking load of the wire ( $4 \times 5\% = 20\%$ ).



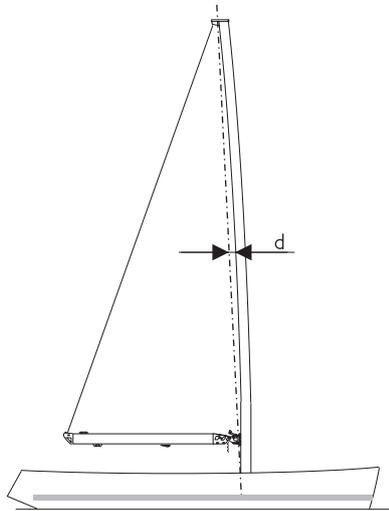
*Hint! Count how many turns on the rigging screw corresponds to 1 mm elongation (5% of the breaking load). Make a note of it. This is useful to know if you ever need to tension “another 5%”.*

*Note: The S.O. Performance versions are equipped with high performance compact wires. This gives an addition in tension when the values for stretch above is used, Seldén recommends this increase in tension.*

*If the backstays were not attached to the chainplates from start, attach them now. Make sure that the rigging screws are fully unscrewed.*

2. Tune the D1 shrouds until you have achieved the desired pre bend. Seldén recommends 0,5% of the P-measure the conventional masts and 0,2% for furlin masts. Use the main halyard as a reference to judge the pre bend. See table below for approximate curvatures. Remember that after the D2 shrouds are tensioned, the curvature will decrease by approximately 10mm.

The pre bend affects the shape of the main sail. The sailmaker may have design assumptions for the mainsail which is used on the boat. The pre bend may have to be adjusted after test sailing.



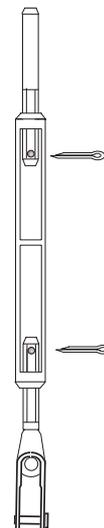
	<b>Classique (Conventional)</b>	<b>Enrouleur (Furlin)</b>
<b>S.O. 36</b>	d = 65	d = 25
<b>S.O. 36 Performance</b>	d = 70	-
<b>S.O. 39</b>	d = 70	d = 30
<b>S.O. 39 Performance</b>	d = 75	-
<b>S.O. 42</b>	d = 75	d = 30
<b>S.O. 42 Performance</b>	d = 80	-

Sight up through the sail groove to check that the mast is straight in a sideways direction. If it is not straight, adjust the D1's as required.

3. When you are satisfied with the straightness, tighten the D2 shrouds equally. The D2 should be tensioned enough to make the mast to bend in an even curve, in its longitudinal direction. Sight up through the sail groove from deck to make sure that the mast is straight sideways. The D2 shrouds may have to be adjusted again after test sailing.

4. Finally tune the backstays until the top of the mast starts to bend aft.

Don't forget to lock the rigging screws with split pins.



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