
THE DAY SAILER QUARTERLY

DAY SAILER TUNING GUIDE

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Our intense focus on the Day Sailer Class has enabled us to refine our designs and research the latest doth options resulting in the finest Day Sailer sails available.

SETTING UP YOUR DAY SAILER FOR DOYLE/CRESSY SAILS

BEFORE STEPPING THE MAST:

1. Make sure tumbuckles are clean and turn easily.
2. Make sure spreader adjusters are clean and turn easily.
3. Tape or tie a string to the tang or the upper end of each shroud. Strings should be slightly longer than the shrouds. Taping, rather than tying the strings, will allow them to be pulled off later without removing the mast.

AFTER STEPPING THE MAST:

1. Put the boat in the water and adjust the headstay, shrouds and mast foot so that the mast rakes slightly aft from vertical.

2. If the mast can move more than 1/8 inch fore and aft in the mast partner (deck opening), wedge the front of the mast to remove the play.

3. Center-of-plumb the mast by adjusting the shrouds with the empty boat in the water. Check by dropping a plumb bob from the main halyard or by taping a level to the side of the mast and reading it from the dock.

4. Tension shrouds and headstay so there is NO slack. If you use a tension gauge, a Loos Model A should read about 50 pounds. Sight up the mast to make sure there is no fore, aft, or sideways curvature.

5. Take the strings attached to the top of the shrouds. Bring each one down leading it aft of the spreader and tie it to the outer end of the clevis pin in the chainplate. Each string will now be a straight line from the top of the shroud to the bottom.

6. Adjust each spreader so that its aft edge is 1" forward of the straight line described by the string. The outer end of the spreader should be 1 1/2" to 2" outside of the string line.

SETTING THE MAST RAKE AND BALANCE:

1. Sail the boat upwind in 4-6 knots of wind. Sails should be trimmed normally for upwind legs. Skipper and crew should be in their normal positions and should keep the boat FLAT. The Cunningham should be off and the centerboard should be all the way down.
2. Release the tiller so the boat steers itself. It should turn slowly into the wind.

3. If the boat goes straight or turns downwind, lengthen the headstay, tighten the shrouds, and move the mast butt forward to increase mast rake. Again, sight up the mast to make sure there is no curvature.
4. Repeat Steps 2 and 3 until the boat turns slowly but steadily into the wind each time it is allowed to steer itself.
5. Recheck that mast is plumb and straight and shrouds and headstay are properly tensioned.
6. If the boat turns sharply into the wind, the tiller is released and carries a heavy weather helm, reduce the mast rake by tightening the headstay and moving the butt back. This condition is unlikely.

SETTING THE MAST BEND:

1. This may take several tries in different wind conditions.
2. Sail the boat upwind with the traveler set to bring the boom to the center and the top batten parallel to the boom. Make sure the Cunningham and vang are off. Look for diagonal wrinkles running from the center of the mast to the boom. These should begin to appear in about 8 knots of wind and become more prominent as the wind increases.
3. If the wrinkles appear in winds below 8 knots, the mast is bending too much. To correct this, sight up the mast while the boat is sailing. If most of the bend is in the upper part of the mast, tighten the spreader adjusters slightly to push the ends of the spreaders forward. If most of the bend is in the lower part of the mast, move the butt forward. Don't change the length of the headstay as this will change the mast rake and the balance of the boat.

4. If the wrinkles do not appear at 8 to 10 knots, loosen the spreader adjustments and/or move the foot of the mast aft until the wrinkles do appear. Again do not change the headstay length.
5. Repeat steps 3 or 4 until the wrinkles appear at 8 to 10 knots.
6. When the mast bend **is** correct, recheck the shroud and headstay tension and the mast rake balance.

TRIMMING THE SAILS UPWIND

1. Boom should be on center and the top batten parallel to the boom. If the boom cannot be brought to center without cocking the top batten inward, pull the mid-boom traveler more to windward, or make the stem traveler triangle higher.
2. The outhaul should be moderately tight in light air and progressively tighter as the wind increases. In a drifter, a tight outhaul may help to loosen the leech of the main.
3. The Cunningham should be used to keep the maximum draft point 50% back in the main. This will usually mean no Cunningham up to 10 knots and progressively more Cunningham in higher winds to remove most of the wrinkles.
4. Keep the vang off **going** upwind.
5. The jib leads should be barber-hauled in 15-18" from the outer edge of the cuddy in light air and eased off as the wind increases.
6. The jib luff should be tensioned so that small wrinkles appear along the luff in up to about 10 knots of wind.

Above 10 knots, increase the tension to remove most or all of the wrinkles. In chop and light air, ease the luff to get more drive.

7. Keep both windward and leeward jib telltales flying whenever possible.
8. In heavy air, tighten the outhaul and Cunningham and ease the traveler to allow the boom to go to leeward. Hike HARD. It is very important to keep the boat flat even if this means that much of the main is luffing.

SAILING OFF THE WIND

1. Centerboard up as much as possible.
2. Set the vang so the top batten is parallel to the boom.
3. Ease Cunningham and outhaul.
4. Raise spinnaker pole until spinnaker clews are level.
5. Trim the spinnaker so there is 6-12" inches of curl in the luff.
6. Keep the pole perpendicular to the apparent wind.
7. While reaching, keep your speed up by heading higher in the light spots or choppy water. Head off only in the puffs and don't sail unnecessarily high early in the leg.
8. On the runs, jibe in the windshifts to stay on the headed tack.

OTHER HELPFUL HINTS

1. When in doubt, let it out.

2. Remember that you must change your trim or "shift gear" as conditions change. As you come into a light spot or a choppy spot, ease the main and jib slightly and bear off to power through. As the wind fills in or the chop subsides, trim in carefully and come back up to your proper course.
3. Keep centerboard, rudder and bottom in the best shape possible.
4. Get a good start, do not overstand marks or sail in another boat's bad air.

NOTE: These are guidelines—NOT gospel. What is fast for your boat may vary slightly from our charts.

Remember this is only a game we are playing. Have fun and good sailing.

Special thanks to Dan Duggan for preparing this tuning guide.

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Editor's note – This article is from the Spring 2001 Day Sailer Quarterly. I have attempted to retain as much of the original format as possible, and have made one minor spelling correction.