

Measuring Guide

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Download and print this page to organize your measurements. For **custom** sails, follow all of the steps and be detailed and specific about your requirements including hardware and tack pin set back. For **stock** sails focus on the basics; dimensions, cloth weight, and luff types on headsails. Then perform a search by luff length leaving boat type "Unspecified". A close fit is good but an exact fit is not necessary. Measure according to the instructions below and fill in the boxes. Please be conservative when ordering and allow a few inches for stretch or error. A little short is fine but too long can be a problem.

Measuring For Mainsails:

Luff

Hook your tape measure up to the main halyard (along with the head of the old mainsail if available). Hoist it under normal luff tension. If your old sail is not available then hoist to the maximum height you want your mainsail to stretch up to (better a little short than too long). If there are bands on the mast, measure to the band. Then measure down to the top surface of the boom itself. (Not the tack pin on the boom). This will be the "LUFF" (or "P").

1. Luff ("P")

Leech

While the tape measure is still hoisted, swing it back to the aft end of the boom and measure (a straight line) to the point where you want your clew ring to be located. This is the "LEECH".

2. Leech

Foot

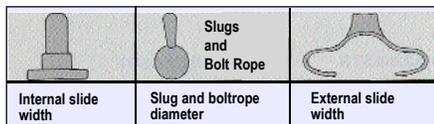
Lower the tape and attach it to the out haul line along with the clew of your old mainsail if available. Pull the out haul to the maximum point of draw. Take the measurement from there to the aft face of the mast. (Not to the tack fitting on the boom). This will be the "FOOT" (or "E" dimension). If no old mainsail is available pull it out to where you want your clew to stop. (If there is a band on the boom, measure to it).

3. Foot ("E")

Luff & Foot Hardware

Note the shape and size of the slides, slugs, or bolt rope and how they attach to the mast. These are easily changed on mainsails but it is helpful to know anyway. Flat internal and external slides are measured in width while cylindrical slugs and bolt rope are measured in diameter.

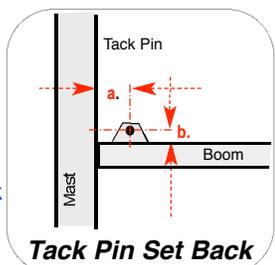
4. Luff: (circle type below and fill in size here)
Foot:



Tack Pin Setback

Determine the location of the Tack Pin on your boom "goose-neck". This is measured in inches behind the mast and above the boom and is used to locate the tack ring on your mainsail in the right place so it doesn't pucker. This is not necessary for used or stock sails since they are already fixed. You can add shackles or lashings if needed to smooth it out.

5. Behind mast: a.
Above boom: b.



Measuring For Headsails:

Max. Luff

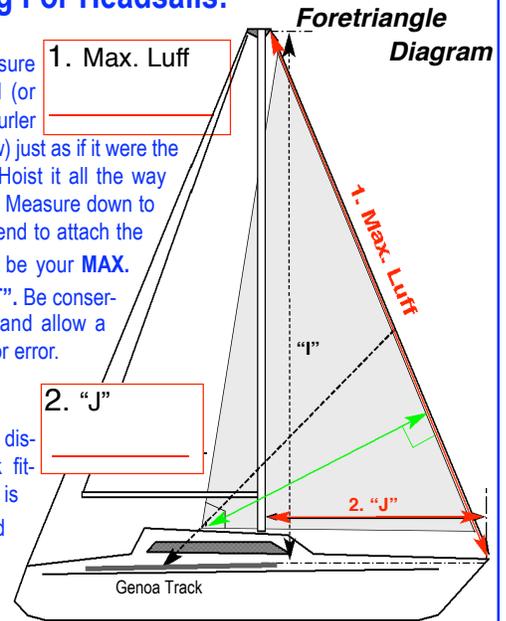
Hook a long tape measure up to your jib halyard (or top furling swivel on a furler see "Furler Hoist" below) just as if it were the head ring of the sail. Hoist it all the way until it stops at the top. Measure down to whatever point you intend to attach the sails tack to. This will be your **MAX. LUFF** or "MAX. HOIST". Be conservative when ordering and allow a few inches for stretch or error.

1. Max. Luff

"J" Dimension

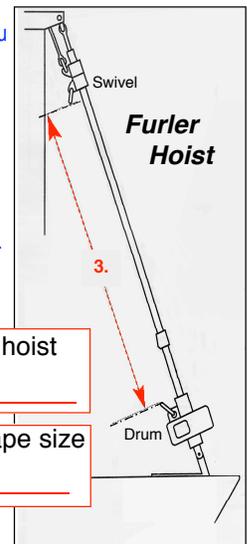
Measure the horizontal distance between the tack fitting and the mast. This is the "J" dimension and will be the number the "L/P" is compared to for percent overlap.

2. "J"



Sheet Lead Angle

Be sure that the clew height for the jib or genoa you want will allow you to sheet to the existing genoa track or you may need to add additional tracks. Extend an imaginary line from about mid luff through the clew to the deck. When the sail is sheeted in flat you should be able to achieve even tension both down the leech and back on the foot. Otherwise you will end up with a sail that is "Strapped" (tight) along one and loose on the other. If in doubt we recommend you "mock up" the sail using line or tape measures and test the lead out.



3. Furler hoist

4. Luff Tape size

Furling Sails

If you have a furling unit, hook the tape measure up to the upper furling swivel (as if it were the head of the sail). Hoist the tape all the way up and measure down to the tack fitting on the furling drum. Also determine the diameter of the luff tape needed. (Luff tape is the small bead that feeds into the headfoil). This can be measured on an old sail with calipers or a fine scale ruler. Luff tape size is provided with furling unit documentation too. The most common size is #6 (measures slightly over 3/16.")

Spinnakers

For racing, the spinnakers luff should equal the "I" dimension and the max foot/girth should not exceed 1.8 X "J" .

For cruising spinnakers the luff can be plus or minus 8% of "I" but cannot exceed maximum hoist on the halyard. Spinnaker foot should fall between 1.6 and 1.8 X "J"

To Figure % Overlap

Multiply the boat's "J" dimension times the headsail percent you want. That should be equal to the sail's "L/P." (Luff Perpendicular) is the length of a line drawn from the clew to the luff, intersecting the luff at 90 degrees.) If your "J" is 10 feet and you want a 150% the L/P must equal 15 ft.