

HASSE & COMPANY PORT TOWNSEND SAILS

MAINSAIL (Marconi): SELF MEASURE FORM

About You and Your Boat		About Your Mast
Name		Brand and model
Address		Construction material
Phone		Section dimensions Fore and aft Athwartships
Fax		Is mast stepped on the deck or keel? (circle one)
Email		Is base of mast at cabin top or deck? (circle one)
Type of Boat		Number of spreaders
Name of Boat		*Amount of pre-bend in inches
LOA	Displacement	*Position of pre-bend (For example: at the top spreader or mid luff)
Beam	Rig	Max mast bend
Type of Backstay		Position of max mast bend

*Pre-bend:

Most masts have either:

- a. an adjustable backstay for the purpose of inducing *mast-bend* as a tool for sail trim, OR
- b. a static backstay

Masts that are not designed for the use of *mast bend* as a tool for sail trim often have *pre-bend*—a forward-tending curve of less than half the mast's fore and aft dimension. If your mast has a static backstay(s), please note the amount of *pre-bend* in inches. Also note the approximate position of the *pre-bend* relative to the spreaders or the luff of the mainsail.

If your mast is meant to be bent as a tool for sail trim, it will have an adjustable backstay. Please note the amount of mast bend in inches when you have tensioned the backstay to its working maximum. Also note the position of the maximum mast bend. *Mast bend is observed by sighting up the aft face of the mast.*

Bearing point:

The bearing point is the contact point of sail hardware and rig fittings when the sail is under load. For example, the bearing point of the tack fitting would be the forward side of the pin that captures the mainsail's tack ring.

Sailing position of the boom:

The boom is in the sailing position when it clears all deck structures (including pilot house, dodger, bimini, galleys, etc.) The boom should also clear the head of any crew member who is standing on the cockpit sole at the helm. The boom usually looks proper when it is positioned so that it rises slightly at the aft end to match the angle of the shear line at the stern. This can be seen most accurately from the dock or a dinghy.

Measuring From Aloft

Attach a 50'-100' steel measuring tape to the mainsail halyard shackle or bowline that will be secured to the head of your mainsail when it is hoisted aloft. It is prudent to tie a downhaul line to the halyard for retrieving the halyard and measuring tape. Please measure and note the following in feet and inches.

1. Hoist the tape to the main halyard sheave or as high as the halyard splice, etc. allows and measure:

_____ A. Distance to the base of the mast

Note height of cabin top if mast is stepped on or through cabin top

2. Lower the tape to the mainsail headboard position; the mainsail headboard position must allow 10 inches horizontal distance between the aft face of the mast track and the backstay. Measure and note the following:

_____ B. Distance to the base of the mast

_____ C. Distance to the bottom of mast sail track

_____ D. Luff length (P) to bearing point of tack fitting (*If gooseneck is sliding note bearing point of tack fitting when gooseneck is in desired sailing position.*)

_____ E. Leech length to bearing point of clew (outhaul) fitting with the outhaul in its aftermost position and the boom in its sailing position (clearing gallows, dodgers, helmsperson's head, etc.)

_____ F. Distance to the backstay base

_____ G. Distance to the top of the boom gallows

_____ H. Distance to the top of the dodger (forward)

_____ I. Distance to the top of the dodger (aft)

_____ J. Distance to the top of the bimini (forward)

_____ K. Distance to the top of the bimini (aft)

_____ L. Distance to stern cleat

_____ M. Distance to trys'l lead

3. Lower the measuring tape to the following points along the mast and measure to the base of the mast. (*Please note whether the base of the mast is at the cabin top or the deck.*)

_____ N. Distance from the top spreader to the base of the mast

_____ O. Distance from the middle spreader to the base of the mast

_____ P. Distance from the lower spreader to the base of the mast

_____ Q. Distance from the top of the Trys'l track to the base of the mast

4. Mast Section: _____ (Width athwartships and width fore & aft)

Measuring Along the Boom

- _____ a. Foot length: Distance from the bearing point of the tack fitting to the outhaul in the maximum aft position
- _____ b. Distance from the bearing point of the tack fitting to the bearing point of the clew fitting in its maximum forward position
- _____ c. Distance from the bearing point of the tack fitting to reef sheave 1
- _____ d. Distance from the bearing point of the tack fitting to reef sheave 2
- _____ e. Distance from the bearing point of the tack fitting to reef sheave 3
- _____ f. Overall boom length from bearing point of the tack fitting to end of boom
- _____ g. Distance from the bearing point of the tack fitting to the backstay; measured along the boom
- _____ h. Distance from the bearing point of the tack fitting to the boom gallows
- _____ i. Distance from the bearing point of the tack fitting to the forward edge of the dodger
- _____ j. Distance from the bearing point of the tack fitting to the aft edge of the dodger
- _____ k. Distance from the bearing point of the tack fitting to the forward edge of the bimini
- _____ l. Distance from the bearing point of the tack fitting to the aft edge of the bimini
- _____ m. Boom section (not pictured)

Measuring Along The Deck (or parallel to the deck)

- _____ m. Distance from the aft face of the mast to the base of the backstay; measured along the deck
- _____ n. Distance from the aft face of the mast to the stern cleat
- _____ o. Distance from the aft face of the mast to the Trys'l lead

Details

- _____ 1. Tack cutback: distance from the aft face of the sail track to the bearing point of the tack fitting
- _____ 2. Tack cutup: distance from the top of the boom to the bearing point of the tack fitting
- _____ 3. Reef hook: distance from the aft face of the mast track to the bearing point of the hook
- _____ 4. Gate bottom above top of boom
- _____ 5. Length of gate opening
- _____ 6. Tack jaw width
- _____ 7. Outhaul cutup: distance from the top of the boom track to the bearing point of the clew fitting
- _____ 8. Outhaul track length
- _____ 9. Outhaul jaw width
- _____ 10. Luff slide type (1st choice)
- _____ 9. Luff slide type (2nd choice)
- _____ 10. Foot slide type (1st choice)/ skip if sail will be loose-footed
- _____ 11. Foot slide type (2nd choice)/ skip if sail will be loose footed

Please enclose photos of the tack and clew fittings. Thank you for your careful measuring.