



## Rig Measurement

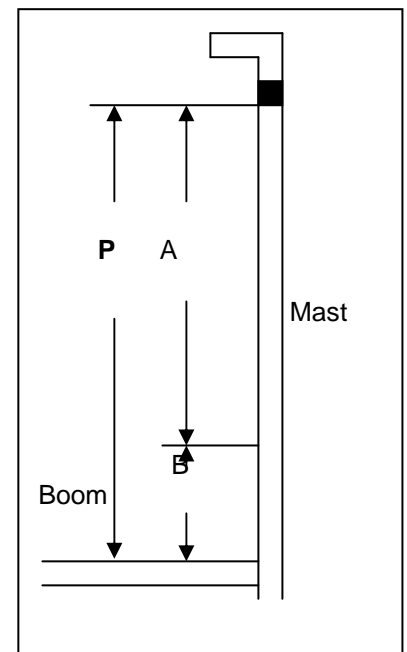
- What is being measured?
- P** Maximum mainsail hoist measured on the mast as the distance between the **mainsail upper limit mark** and the top of the boom.
  - E** Mainsail **outer point distance** measured on the boom as the distance between the **mainsail outer point** and the aft edge of the mast **spar**.
  - J** Foretriangle base measured as the horizontal distance between the fore side of the mast **spar** at the deck/coachroof and the intersection of the centreline of the forestay with the deck.
  - FL** Forestay length measured as the distance between the forward end of J and the forestay rigging point.
  - STL** Spinnaker tack length measured as the length of the longer of the **bowsprit** or spinnaker tack point on the deck.
  - SPL** Spinnaker pole length

**P** can be measured with the mast either in or out of the boat.

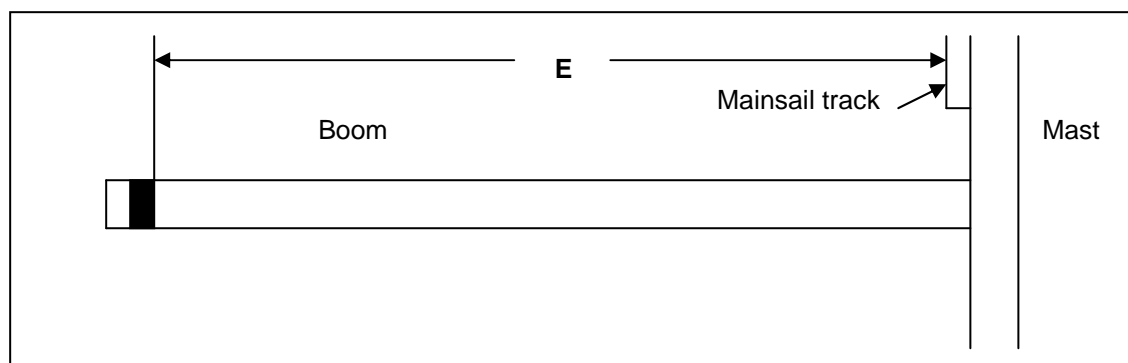
With the mast out: Lay the mast horizontally with the aft face upwards. Make a reference mark on the mast above where the boom top surface will be. Measure distance A between this reference mark and the lower edge of the black band at the top of the mast, or if there is no black band to the bearing surface of the fully hoisted halyard shackle.

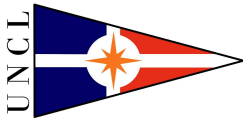
When the mast has been stepped and the boom fitted, with the boom horizontal measure the distance B down from the reference mark to the top of the boom and add this to A to get P.

With the mast up: This should be done on a day with light winds to avoid inaccuracy due to wind effects on the tape measure. Send a crew member aloft to the masthead with a steel tape measure. Measure the distance from the lower edge of the black band at the masthead, or if there is no black band to the bearing surface of the fully hoisted halyard shackle, to the top of the boom.



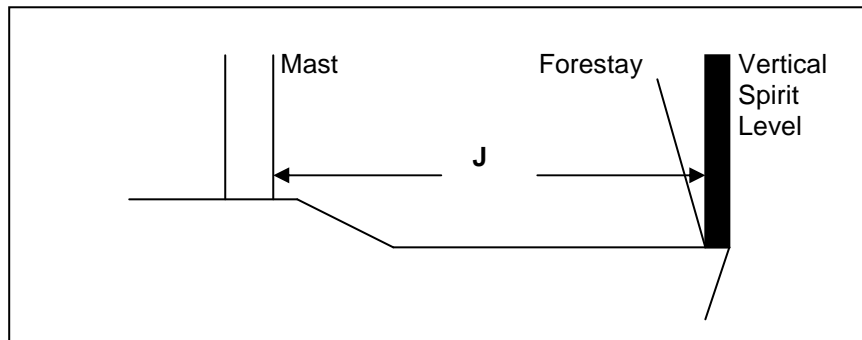
**E** is measured with the mast stepped and the boom fitted. Set the boom horizontal and on the centreline. Measure the distance between the aft face of the mast, or the aft face of any external mainsail track, to the forward edge of the black band at the end of the boom, or if there is no black band, to the aft end of the boom.





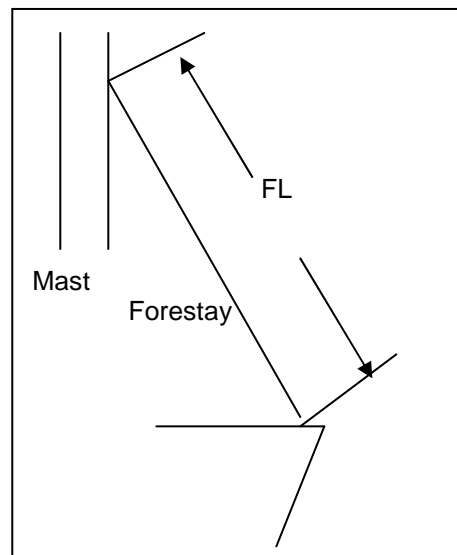
**J** is measured with the mast stepped and chocked at deck level, standing rigging tensioned, and backstay/runners hand tight.

Position and hold a spirit level vertically on the deck at the centreline of the forestay. Measure the horizontal distance between the front face of the mast at deck level and the spirit level. This will be the shortest distance found when moving the tape measure up and down the spirit level while the end is held at the mast.



**FL** is measured with the mast stepped and chocked at deck level, standing rigging tensioned, and backstay/runners hand tight. If the forestay is adjustable (either while racing or at any other time) it must be set to the maximum length that will be used while racing. As with P, this should be done on a day with light winds to avoid inaccuracy due to wind effects on the tape measure.

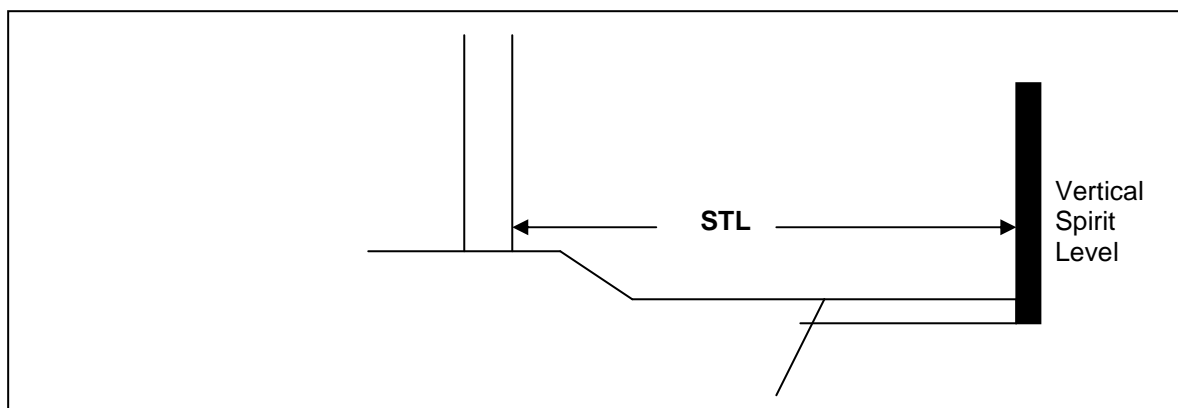
Send a crew member aloft to the hounds with a steel tape measure. Measure the distance from the forestay attachment point on the mast to the bottom of the forestay where it intersects the deck.

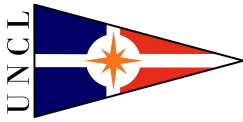


**STL** is measured with the mast up. It is the longer of either of the following:

Bowsprit length:

Fully extend the bowsprit. Position and hold a spirit level vertically against the end of the bowsprit. Measure the horizontal distance between the front face of the mast at deck level and the spirit level. This will be the shortest distance found when moving the tape measure up and down the spirit level while the end is held at the mast.

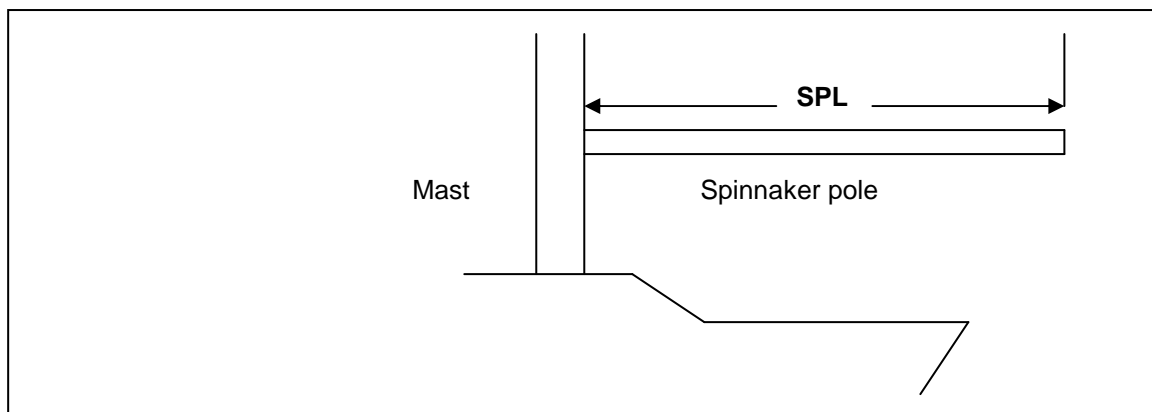




Spinnaker tack point on deck: As for bowsprit, but with the spirit level positioned at the spinnaker tack point on deck.

**SPL** is measured with the mast up:

Spinnaker pole length: Rig the pole at a convenient height horizontally on the mast on the centreline of the boat. Ensuring that the pole is pulled forward to its maximum extension on the heel fitting, measure the distance from the front face of the mast to the extremity of the pole.

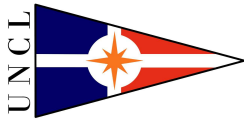


#### References:

Equipment Rules of Sailing. <https://www.sailing.org/documents/equipmentrules/index.php>

#### IRC definitions:

- P** The distance between the **mainsail** (in the case of a **schooner**, the **foremast sail**) **upper point**, and the top of the boom when set at right angles to the **mast**, or the **mainsail tack point** whichever is lower, on the **mainmast** (in the case of a **schooner**, the **foremast**). The **upper limit mark** shall be permanently marked by a 25mm band of contrasting colour. If there is no **upper limit mark** the upper measurement point shall be taken as the top of the highest sheave used for the halyard. In the case of a gaff rig, the upper measurement point is the **peak point** of the **mainsail** or the **head point** of the topsail if on board.
- PY** The distance between the **mizzen** (in the case of a **schooner**, the **mainmast sail**) **upper point**, and the top of the boom when set at right angles to the **mast**, or the **mizzen tack point** whichever is lower, on the **mizzenmast** (in the case of a **schooner**, the **mainmast**). The **upper limit mark** shall be permanently marked by a 25mm band of contrasting colour. If there is no **upper limit mark** the upper measurement point shall be taken as the top of the highest sheave used for the halyard.
- E** The **outer point distance** of a **mainsail** (or in the case of a **schooner**, a **foremast sail**). The **outer limit mark** shall be permanently marked by a 25mm band of contrasting colour. If there is no **outer limit mark** the outer measurement point shall be taken to the aft end of the boom. For the measurement of **outer point distance**, ERS H.4.2 shall not apply. **Fittings**, local curvature, local cutaway and any increase in the fore/aft dimension of a sail track and/or sail track support, shall be ignored.
- EY** The **outer point distance** of a **mizzen** (or in the case of a **schooner**, a **mainsail**). The **outer limit mark** shall be permanently marked by a 25mm band of contrasting colour. If there is no **outer limit mark** the outer measurement point shall be taken to the aft end of the boom.



**Forestay** The ERS definition of **forestay** shall not apply. Forestay is defined as: Permanently attached **rigging** providing forward support for a mast **spar**.

**FL** The forestay length measured from the forward end of J to the forestay rigging point.

**J** The longitudinal distance between the intersection of the fore side of the mast **spar**, extended as necessary, and the deck including any superstructure; and the intersection of the centreline of the forestay, extended as necessary, and the deck, or bowsprit **spar**.

**SPL** The greatest horizontal distance from the forward face of the **mast spar**, ignoring any **fittings** and tracks, measured on or near the centreline of the **boat**, to the extremity of the **spinnaker pole**.

**STL** The greatest horizontal distance from the forward face of the **mast spar**, ignoring any **fittings** and tracks, measured on or near the centreline of the **boat**, to any of the following:

- the extremity of the **bowsprit**, ignoring any **outer limit marks**;
- the spinnaker tack point on deck projected vertically as necessary;
- if a headsail or a flying headsail may be tacked forward of the forestay, the headsail or flying headsail tack point on deck projected vertically as necessary or to the extremity of the **bowsprit** ignoring any **outer limit marks**.

*Updated January 2021*