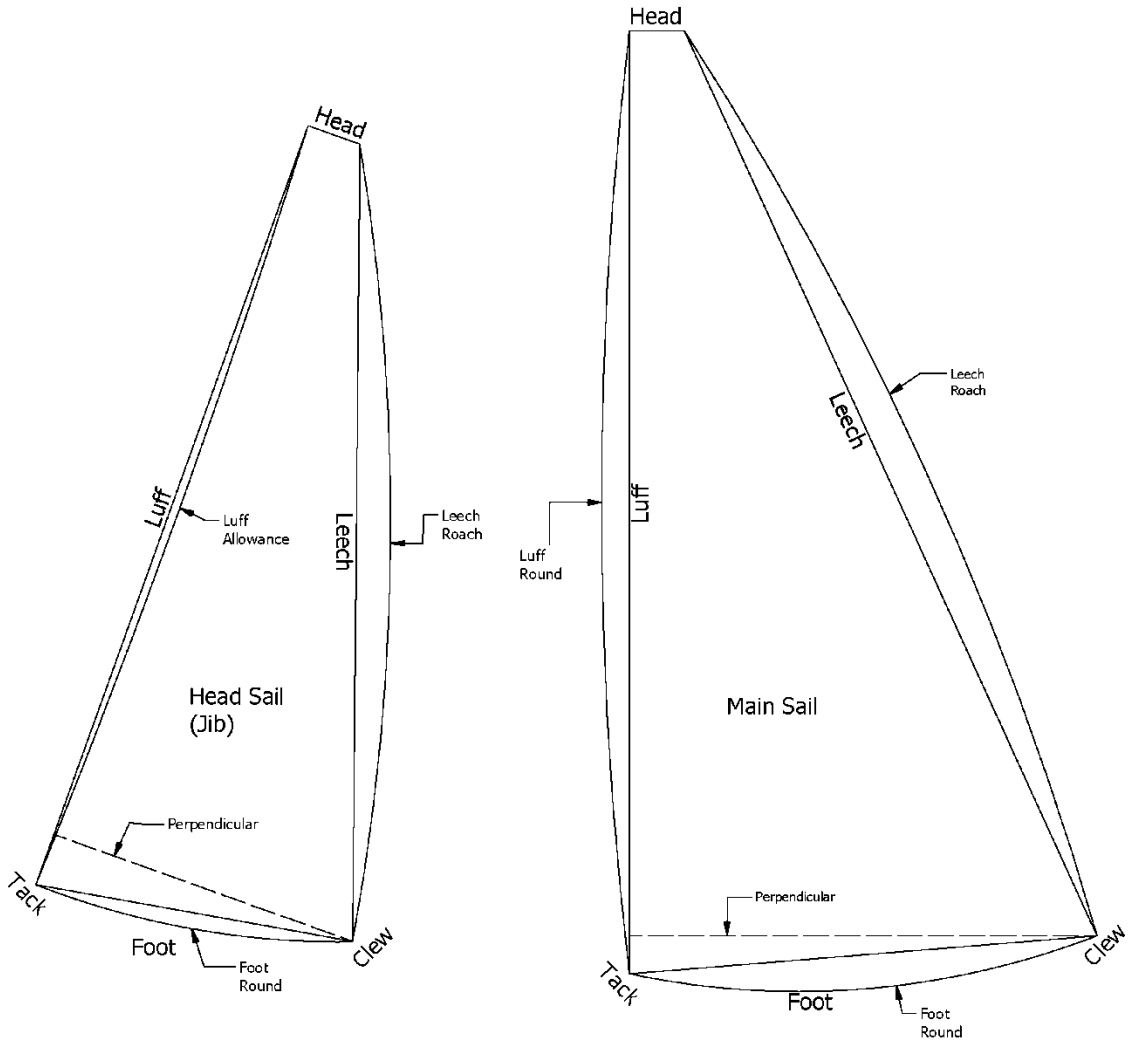
The following is the AMYA method for Sail Measurement. These procedures DO NOT supersede any Class Specifications. (1983)

Sail definitions diagram



MEASUREMENT:

Measurements shall be made with the sail laying on a flat surface, and may be performed with the sail rigged onto its spar(s) when the rigging permits unimpeded accesses to the measurement control points and their connecting straight (flat) lines.

For all measurements except that of the roach, the fabric shall be tensioned along the line of measurement just sufficiently to remove all wrinkles (stitching puckers accepted). Roach measurements shall follow the procedure of Section 3.1.8. (1985)

Measurements shall be cloth edge to cloth edge (i.e. total overall length). They shall be made to the nearest 1/16 inch.

HEAD: The upper edge of the sail fabric or the junction between the sail fabric and the headboard shall be perpendicular to the luff and shall not exceed 3/4 inch in length.

LUFF: Measured on the straight line from the tack (lower forward corner) to the head.

CLEW: The lower aft corner of the sail. In cases of lopped or rounded "corners", a clew measurement point shall be established where a straight line from the aft corner of the head (or headboard) intersects the lower edge of the sail. That leech line shall be so oriented that the existing roach becomes the maximum allowable.

LEECH: Measured on the straight line between the clew and the aft end of the head (or headboard).

ROACH: Measured perpendicular to a straight line between the clew and the aft end of the head. The leech shall be tensioned to remove wrinkles. Additionally, tension shall be applied to the foot just sufficiently to completely flatten the roach area. The point of application shall be at twice the allowable roach dimension, along the foot from the clew. Direction of the pull shall be along a line from the head.

PERPENDICULAR (Sometimes called the DIAGONAL): Measured from the clew to the closest point on the luff.

In a case of a mainsail where its clew is lower than the line through the tack perpendicular to the luff, the perpendicular shall be measured from the tack to the closest point on the straight line between the clew and the aft point of the head (the leech line).

CALCULATIONS:

$$Total\ Sail\ area = \frac{(Jib\ Luff)\ (Jib\ Perpendicular)}{2} + \frac{(Main\ Luff)(Main\ Perpendicular)}{2}$$

In the case of lowered clew mentioned in 3.1.9.1 the mainsail contribution of the total sail area shall be:

$$\frac{(Main\ Leech)(Main\ Perpendicular)}{2}$$

The rounded foot of a loose footed sail and the leech roach of any sail are not included in determining sail area. Otherwise, any increase in sail area due to intentionally pre-curved spars shall be added as follows:

$$Additional\ Area = \frac{2(XY)}{3}$$

Where X is the length of the side, and Y is the maximum departure of the fabric from the straight line of the "X" measurement.

Sails of other than triangular shape shall be divided into multiple triangles for area calculations.