

Spinnaker Area Changes

Correction to formula

Last spring we published that we would be implementing a change to the way we calculate the Spinnaker area. In that publication we wrote the following:

To the Symmetrical Measured Sail Area:

$$SAsym = .83 * MLL * (Foot + 4 * MG) / 5$$

MG = MG or $1.8 * SPL$

To the Asymmetrical Measured Sail Area:

$$SAasym = .83 * AML * (Foot + 4 * MG) / 5$$

AML = (A Luff + A Leach) / 2

MG = Greater of MG or $1.8 * SPL$ or $1.8 * BSL$

We have identified that the “MG” used in the above formula needed to be revised in order to ensure that boats with a “Standard” (Class JSP Spinnaker tack location) Spinnaker pole or Bowsprit, would not be penalized.

We also identified a need to ensure that we did not penalize boats that added a “small” Non-articulating Bowsprit on a Class of boat that “as standard” used an articulating pole.

So we have corrected our formula as follows:

To the Symmetrical Measured Sail Area:

$$SAsym = .83 * MLL * (Foot + 4 * SG) / 5$$

IF SPL is greater than JSP

SG = greater of MG or $1.8 * SPL$

This ensures that only Spinnaker poles longer than “Standard” will be penalized

To the Asymmetrical Measured Sail Area:

$$SAasym = .83 * AML * (Foot + 4 * AG) / 5$$

AML = (A Luff + A Leach) / 2

For Centerline BSL greater than JSP on non-centerline class – only!
(no spinnaker pole or Articulating Bowsprit shall be on board)

BSLadj = BSL- greater of $(.15 * J)$ or 1 foot

AG = Greater of AMG or $1.8 * BSLadj$

This allows for a small non-articulating bowsprit (no greater than 15% of J or 1 foot)

For all articulating pole lengths (SPL or BSL)

If SPL or BSL greater than JSP

AG = greater of AMG or $1.8 * SPL$ or $1.8 * BSL$

This ensures that only Spinnaker poles and articulating Bowsprits longer than “Standard” will be penalized

* only the single largest penalty will apply for all spinnakers.

Definitions from Handicappers Manual:

Part II – Section 4

Change

AMG is defined as the Asymmetrical spinnaker-mid girth, measured mid luff to mid leech under moderate tension.

AML is defined as the Asymmetrical spinnaker maximum luff length without penalty.

$$AML = (MLL + MLE) / 2$$

FLYING SAILS – -

A: Symmetrical: -For measurement as a standard spinnaker, a sail must have the following characteristics.

1. The sail must be symmetrical about a line joining the head to the center of the foot.
2. Spinnakers shall be sheeted from only one point on the sail.
3. Battens shall not be used.
4. ~~Luff or Leech shall not, without penalty, exceed $0.95 \sqrt{(ISP^2 + JSP^2)}$~~
Sail area no greater than the Standard Sail area, without penalty.
5. ~~Maximum width, without penalty, shall be limited to $1.80 \times JSP$~~
Spinnaker pole no longer than JSP, without penalty
6. Leech lines are permitted, but must not be adjusted while racing.

B: Asymmetrical: -Asymmetrical spinnakers shall have the following characteristics.

1. Mid (AMG) girth, measured mid luff to mid leech, shall be greater than or equal to 75% of the foot length.
2. Spinnakers shall be sheeted from only one point on the sail.
3. Battens shall not be used.
4. Luff and leech of unequal lengths, ~~where $60\% \text{ Luff} + 40\% \text{ Leech} \leq 0.95 \sqrt{(ISP^2 + JSP^2)}$~~
where luff is at least 5% longer than the leech.
5. ~~Maximum width, without penalty, shall be limited to $1.8 \times JSP$~~
Sail area no greater than Standard Sail area, without penalty.
6. Spinnaker pole or Bowsprit pole no longer than JSP, without penalty
7. Leech lines are permitted, but must not be adjusted while racing.

JSP is defined as the length of the class spinnaker pole or bowsprit pole. Described as the farthest distance from forward side of the mast to the “Standard Equipment supplied” (ref: Part I, 4.3) spinnaker tack location.
Note that this can be much greater than the J.

MG is defined as the symmetrical spinnaker maximum girth. With the spinnaker folded in half, this is 2 x the maximum width of the sail measured from the center/fold of the sail to the luff and leech.

MLL is defined as the measured luff length of a spinnaker.

MLE is defined as the measured leech length of a spinnaker.

SPL shall be the length of the spinnaker pole when forced outboard in its fitting on the mast and set in a horizontal position athwart ships, measured from the center line of the yacht to the extreme outboard end of the pole and any fittings used when a spinnaker is set.