

CHALLENGER OF RECORD & DEFENDER AMERICA'S CUP 36

Interpretation 057 of AC75 Class Rule Version 1.16 issued 30th September 2020

Rule References:

- 18.5 The 25%, 50% and 75% **sail skin** girths are taken from the 25%, 50% and 75% **leech points** to the nearest point on the **luff** as illustrated in Figures 19.1 and 20.2.
- 35.64 **Leech points**
For any **sail skin** a **leech point** is the intersection of **leech** and a line perpendicular to the line from the **lower leech point** to the **head point** taken at the corresponding percentage of **LL** from the **lower leech point**. **Leech points** are illustrated in Figures 19.1 and 20.2.
- 35.63 **Leech**
The aft edge of a **sail skin**.
- 35.66 **LL**
The distance from the **head point** to the **clew point** for a **headsail sail skin** or the lower **leech point** for a **mainsail sail skin**.
- 35.69 **Lower leech point:**
For any **sail skin** of the **mainsail** the **lower leech point** is the intersection of a 26.750 m radius circle centred at the **head point** and the **leech** or the projection of the **leech**. For any **headsail** the **lower leech point** is at the **clew point**.
- 20.13 When calculating a **mainsail** girth, the offset between the local **luff** of a **sail skin** and the aft face of the **mast surface** shall be added (if the **luff** is aft of the aft face) or subtracted (if the **luff** is forward of the aft face) from the girth measurement.
- 18.2 Local hollows or distortions of **sail skin** edges shall be bridged for all sail measurements.
- 5.11 For **mainsails** and **headsails**:
(c) Any modification to a **sail skin** shall not alter any girth measurement by more than 15%.
- 20.12 For a specific **mainsail** measurement length or girth, the greatest value from all **sail skins** shall be taken.
- 19.14 Maximum **headsail** measurements....
- 20.14 Limits of **Mainsail** girths...

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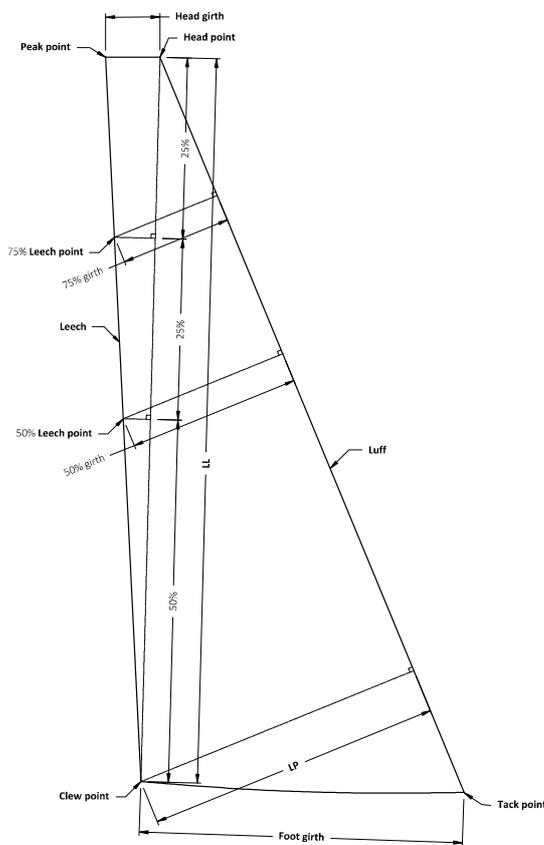


Figure 19.1: Headsail Measurement

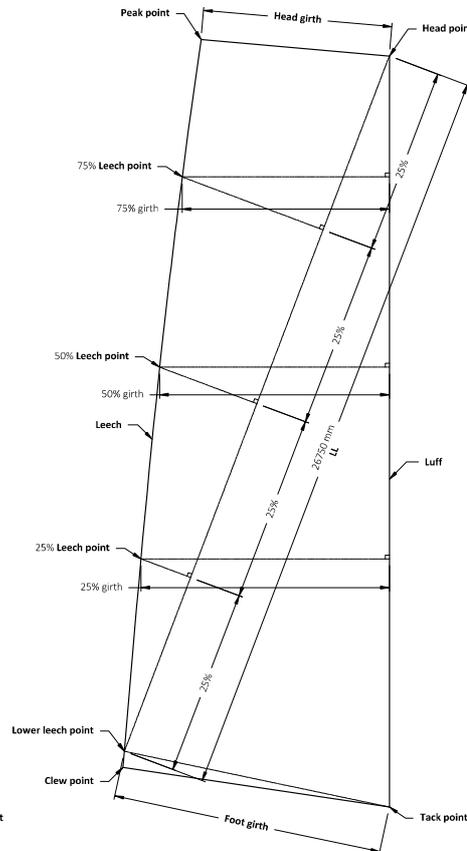


Figure 20.2: Mainsail Measurement

Questions:

Considering that the “% girth line” is a line perpendicular to the line from the **lower leech point** to the **head point** taken at the corresponding percentage of **LL** from the **lower leech point** (25%, 50% or 75% girth) as per figures 19.1 and 20.2; for the precise measurement of the 25%, 50% and 75% **sail skin** girths:

- 1) Is each girth measured from the **25%, 50% and 75% Leech points**, respectively?
- 2) Are the **25%, 50% and 75% Leech points** physical points on the **sail skin** (intersection of the aft edge of the **sail skin** and the respective “% girth line”)?
- 3) May the measurer project the **25%, 50% and 75% Leech points** to an imaginary point outside of the **leech** to measure the 25%, 50% and 75% sail skin girths?
- 4) If so, must that imaginary point be located along the “% girth line”? where else?
- 5) Is there any correction or offset when measuring the respective girth from the **25%, 50% and 75% Leech points**?
- 6) If so, what rule requires such correction or offset at the **leech** and how is it measured?
- 7) Are these girth measurements measured to the nearest point of the **luff**?
- 8) For **mainsails**, is there any other correction in the determination of the nearest point of the **luff** than the offset described by Rule 20.13?
- 9) If so, what rule requires such correction or offset at the **luff** of a **mainsail** and how is it measured?
- 10) For **headsails**, is there any correction in the determination of the nearest point of the **luff**?
- 11) If so, what rule requires such correction or offset at the **luff** of a **headsail** and how is it measured?

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Interpretation:

N.A.

Answers:

1. Yes, to determine the **leech points** attention is drawn to Rule 18.2.
2. Yes, except if there is a local hollow of the **leech** at the physical intersection with the lines used to determine the **leech points**. In this case Rule 18.2 applies.
3. Yes, if the **Measurement Committee** determines there are local hollows or distortions per Rule 18.2.
4. By definition, that imaginary point will define one end of the % girth line.
5. Yes, if either Rule 18.2 or Rule 20.13 applies.
6. If there is a local hollow or distortion in the physical **leech** of a **sail skin** that could alter a girth measurement, and the **Measurement Committee** determines that rule 18.2 applies, the **Measurement Committee** will determine the points along the **leech** between which that local irregularity or hollow will be bridged, and will determine the point along the % girth line or projection thereof that defines one end of the girth line for all measurement purposes, per Rule 18.2.
7. Yes, following rule 18.5.
8. Yes, rule 18.2 applies to all **sail skin** edges. But Rule 20.13 does not allow a correction in the determination of the nearest point on the **luff** or of the **luff** but only of the measured girth.
9. Rule 18.2 will be applied to all sail measurements to which the **Measurement Committee** determines that rule applies. Measurement methodology is determined by the **Measurement Committee**, unless a specific measurement process is otherwise defined by a Measurement Procedure published by the **Rules Committee** in consultation with the **Measurement Committee**. If the **Measurement Committee** determines that Rule 18.2 applies along the **luff** and/or **leech** of a **mainsail sail skin**, they will determine the appropriate measurement methodology to correct for it when making any girth measurement. It is impossible to generalize how any measurement might be made without knowing the specifics of a detail that might cause the **Measurement Committee** to apply Rule 18.2 to a specific measurement. General guidance for the application of Rule 18.2 with regard to sail girth measurement is outlined in answer 6 above, but that guidance may be modified by the **Measurement Committee** as they see fit in specific instances if they determine that process does not adequately yield the correct girth measurement.
10. Yes, if the **Measurement Committee** determines that Rule 18.2 applies along the **leech** and/or **luff** of a particular **headsail** in way of a particular % girth measurement.
11. If the **Measurement Committee** determines that rule 18.2 is to be applied per answer 10 above, they will determine the appropriate correction method in a manner analogous to that outlined in answer 6, above, unless they determine that another method of bridging the local hollow or distortion yields results that more accurately reflect the particular girth measurement.

END