

CHALLENGER OF RECORD & DEFENDER

AMERICA'S CUP 36

Interpretation 058

of

AC75 Class Rule Version 1.16 issued 30th September 2020

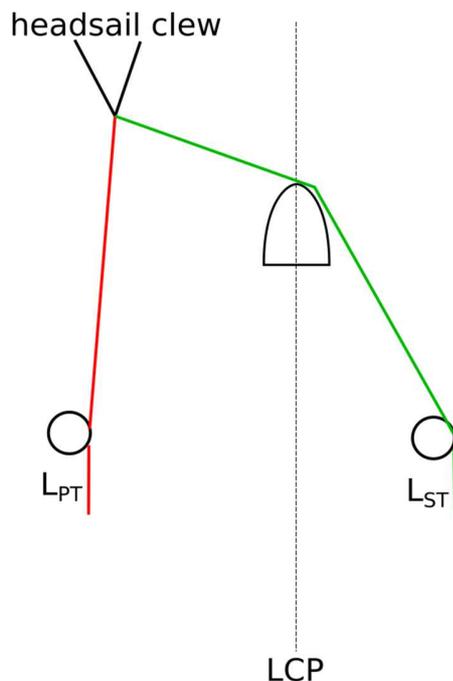
Rule References:

- 19.10 No **control system** shall be attached to, or bear upon a **headsail** except:
- (a) sheets attached to a single piece of **sail hardware** within 400 mm of the **clew point**;
- 19.13 Except during (or immediately before or after) a change of the outermost set **headsail**, the outermost set **headsail** sheet may only be controlled by:
- (a) the rotary motion of a winch, controlling the length of the sheet, where:
 - (i) the winch may be self-tailing, but shall not be captive; and
 - (ii) the crew must unload a sheet from one winch and load the other sheet on to another winch to tack and gybe the **headsail**; and

Interpretation 054

Context:

We describe several cases of jib sheet systems, using the type of winches listed in interpretation 054, and their possible usage to perform a tack or gybe of the **headsail**. In all cases, two sheets are connected to the **jib clew** in a 1:1 arrangement. The sheets are wrapped with one or more wraps around two winches, one on each side of **LCP**.



CASE A:

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In this case, the type of winch is a ratchet non self-tailing winch. A crew member holds the tail of the loaded leeward (from now on, "old") sheet in order to guarantee the friction necessary to hold the load, while another crew member holds the tail of the slack windward (from now on, "new") sheet, in preparation of the manoeuvre.

In order to tack or gybe the **headsail**, the crew member holding the old sheet tail reduces the tension on the tail, and eases the sheet through slippage around the stationary winch drum. No coils of the old sheet are added and/or removed from the old winch. The crew member holding the tail of the new sheet increases the tension in order to guarantee the friction, while other crew members, via **force input devices**, drive the rotation of the new winch in order to haul the new sheet. No coils of the new sheet are added and/or removed from the new winch. At the end of the manoeuvre, the **headsail** has been successfully tacked or gybed.

CASE B:

In this case, the type of winch is a ratchet self-tailing winch, but the sheets are not wrapped around the self-tailers. A crew member holds the tail of the loaded leeward (from now on, "old") sheet in order to guarantee the friction necessary to hold the load, while another crew member holds the tail of the slack windward (from now on, "new") sheet, in preparation of the manoeuvre. This is a typical situation in case of two or more tack/gybes in rapid succession, or in case the crew decides for any reason not to use the self-tailer in order to be able to ease the sheet quickly.

In order to tack or gybe the **headsail**, the crew member holding the old sheet tail reduces the tension on the tail, and eases the sheet through slippage around the stationary winch drum. No coils of the old sheet are added and/or removed from the old winch. The crew member holding the tail of the new sheet increases the tension in order to guarantee the friction, while other crew members, via **force input devices**, drive the rotation of the new winch in order to haul the new sheet. No coils of the new sheet are added and/or removed from the new winch. At the end of the manoeuvre, the **headsail** has been successfully tacked or gybed.

CASE C:

In this case, the type of winch is a back-winding self-tailing, but the sheets are not wrapped around the self-tailers. A crew member holds the tail of the loaded leeward (from now on, "old") sheet in order to guarantee the friction necessary to hold the load, while another crew member holds the tail of the slack windward (from now on, "new") sheet, in preparation of the manoeuvre. This is not a typical situation for a back-winding self-tailing winch, but nevertheless a possible usage.

In order to tack or gybe the **headsail**, the crew member holding the old sheet tail reduces the tension on the tail, and eases the sheet through slippage around the stationary winch drum. No coils of the old sheet are added and/or removed from the old winch. The crew member holding the tail of the new sheet increases the tension in order to guarantee the friction, while other crew members, via **force input devices**, drive the rotation of the new winch in order to haul the new sheet. No coils of the new sheet are added and/or removed from the new winch. At the end of the manoeuvre, the **headsail** has been successfully tacked or gybed.

CASE D:

In this case, the type of winch is a back-winding self-tailing, but the sheets are not wrapped around the self-tailers. A crew member holds the tail of the loaded leeward (from now on, "old") sheet in order to guarantee the friction necessary to hold the load, while another crew member holds the tail of the slack windward (from now on, "new") sheet, in preparation of the manoeuvre. This is not a typical situation for a back-winding self-tailing winch, but nevertheless a possible usage.

In order to tack or gybe the **headsail**, crew members operate the old winch by **force input device(s)** to back-wind it and ease the sheet by opposite rotation. No coils of the old sheet are added and/or removed from the old winch. The crew member holding the tail of the new sheet increases the tension in order to guarantee the friction, while other crew members, via **force input devices**, drive the rotation of the new winch in order to haul the new sheet. No coils of the new sheet are added and/or removed from the new winch. At the end of the manoeuvre, the **headsail** has been successfully tacked or gybed.

CASE E:

In this case, the type of winch is a back-winding self-tailing, and the sheets are wrapped around the self-tailers. No members of the crew are holding the tails of the sheets.

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In order to tack or gybe the **headsail**, crew members operate the old winch by **force input device(s)** to back-wind it and ease the sheet by opposite rotation. No coils of the old sheet are added and/or removed from the old winch. Other crew members, via **force input devices**, drive the rotation of the new winch in order to haul the new sheet. No coils of the new sheet are added and/or removed from the new winch. At the end of the manoeuvre, the **headsail** has been successfully tacked or gybed.

END OF CASES

In all the above cases, several winch systems have successfully tacked or gybed the **headsail** without the required actions of loading and/or unloading the sheets as described in interpretation 054, interpretation C.

Therefore we conclude, these winch systems can carry out a tack/gybe without these actions and thus are not rule compliant, as explained in answer 5 of Interpretation 054.

Questions:

1. In the scenario of CASE A:
 - a. Was the tack/gybe of the **headsail** performed without the required loading and unloading actions?
 - b. Should the **Measurement Committee** issue a certificate for the **yacht** and why or why not?
2. In the scenario of CASE B:
 - a. Was the tack/gybe of the **headsail** performed without the required loading and unloading actions?
 - b. Should the **Measurement Committee** issue a certificate for the **yacht** and why or why not?
3. In the scenario of CASE C:
 - a. Was the tack/gybe of the **headsail** performed without the required loading and unloading actions?
 - b. Should the **Measurement Committee** issue a certificate for the **yacht** and why or why not?
4. In the scenario of CASE D:
 - a. Was the tack/gybe of the **headsail** performed without the required loading and unloading actions?
 - b. Should the **Measurement Committee** issue a certificate for the **yacht** and why or why not?
5. In the scenario of CASE E:
 - a. Was the tack/gybe of the **headsail** performed without the required loading and unloading actions?
 - b. Should the **Measurement Committee** issue a certificate for the **yacht** and why or why not?
6. If the answer to all the questions "b" above is "NO", does it mean interpretation 054 bans any winch system?

Interpretation:

In all cases the scenarios described state that 'no coils of the old sheet are added or removed from the old winch' and 'no coils of the new sheet are added or removed from the new winch'. This is in direct contradiction to the interpretation of 19.13(a)(ii) given in Interpretation 054, which states:

"The most reasonable and natural interpretation is that the crew must physically handle the sheet to remove its coils from one winch and physically handle another sheet to place coils around another winch."

A Measurement Certificate does not absolve a **Competitor** from complying with the Rule; there are numerous Rules (e.g. 19.13, 28.7 – 28.10) that require specific behavior of the **Crew** irrespective of whether a Measurement Certificate has been issued.

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Answers:

For questions 1-5:

- a.) Yes, the requirements to load and unload the winches are not met.
- b.) Where:
 - (i) the configuration of the yacht is such that it cannot be operated in compliance with the **AC75 Class Rule**, then the certificate should be withheld.
 - (ii) the configuration is capable of being operated legally, then the certificate should be issued.

For question 6:

Not applicable, see interpretation section above.

END