

# RRS 42 - GUIDE – 49er/49erFX

March 2022

## **INTRODUCTION**

This document ranks as a guide for judges and competitors. Official interpretations of RRS 42 are published in World Sailing RRS 42 Interpretations and these are referred to in this guide.

## **PRINCIPLE**

The judges will give competitors the benefit of the doubt, however, when they are sure a competitor is breaking RRS 42 they will act to protect the competitors that are complying with the rule.

## **49er/49erFX CLASS RULES AFFECTING RRS 42:**

C.1.1 RULES (01 March 2022)

(b) RRS 42.3 shall apply as amended below: RRS 42.3 is changed as follows:

(j) A boat may be sculled if the sculling does not propel the boat in any direction.

## **Class Specific Techniques and Breaches and judge boat positioning:**

Please note that 49ers travel very fast. Judge boat positioning is crucial to avoid any unexpected accidents. Good 360 degree view when you are on a 49er course is recommended together with three golden tips listed below:

1. Before the start give plenty of room for the boats to manoeuvre, they require a large area in strong winds. If you get into a bad position, it is better to remain stationary and let the 49ers avoid you.
2. At the top mark do not position yourself close to the mark on the extension of the starboard layline especially in gusty conditions. In strong gusts 49ers keep sailing on a close-hauled course as they can't bear away.
3. To work out the course the 49er will steer on the run remember two key points:
  - If a boat is hit by a gust, she needs to bear away!
  - If running into a lull, she needs to luff!

In general, RRS 42 is not a big problem for the class, especially when both the helm and crew are trapezing, but breaches do occur in the 4-8 knot wind range.

## **STARTS**

### **Sculling**

Due to small and vertical rudder, 49ers require forceful and repeated movements to change her course. Such action is now permitted under their class rules if it does not propel the boat in any direction. The amount of course change when sculling to one side will be very small compared to conventional boats. If a boat is being sculled on both sides, only penalize if it is clearly propelling the boat.

Remember, that the propulsion does not have to be a forward movement so any sculling clearly propelling the boat in any direction breaks RRS 42.3(j).

#### ***Permitted actions:***

- Sculling to one and to both sides before the start as long as it does not propel the boat – 42.3(j)
- Repeatedly moving the helm to reduce the speed – 42.3(f)

***Prohibited actions:***

- Sculling to one side or both sides clearly propelling the boat sideways – BASIC 4 / SCULL 2
- A boat's helmsman repeatedly makes these two actions simultaneously (1) sculls hard and (2) jumps, bounces or rapidly shifts weight athwartship and the action results in a flick of the leach or in the boat clearly moving sideways - BASIC 4 / PUMP 6
- Forceful sculling on both sides propelling the boat – SCULL 2

***Gathering evidence:***

- Are the tiller movements propelling the boat in any direction?

**Pumping**

Due to the fully battened rig, the boom needs to be pushed out to stop boat swinging up to wind direction. If 49er wants to bear away from almost stopping situation, she needs to push out the boom. Afterwards a strong pull on the main or boom she will be required to get battens onto the correct side. This action can be repeated as long as it is clearly intended to get the battens on the correct side.

***Permitted actions:***

- Repeatedly pumping the main in order to invert the batten(s) – 42.3(e)

***Prohibited Actions:***

- Repeatedly pumping the main when battens are already inverted – PUMP 1

***Gathering evidence:***

- Is a boat having an inverted batten(s)?
- Is pumping the main inverting the batten(s)?

**UPWIND****Body pumping**

Mostly occurs in marginal trapeezing conditions and is induced by the crew. Body pumping to windward may also occur with no flicks on the leach due to high leach tension. This action will not break RRS 42.2(a) but may still break a basic rule if it clearly propels the boat.

***Permitted actions:***

- Moving the body fore and aft in order to change the trim of the boat in phase with the waves – OUCH 1

***Prohibited actions:***

- Body pumping with no flicks on the leach that clearly propels the boat – BASIC 4
- Body pumping causing repeated flicks on the leach by flexing the crew's legs on the trapeze or excessively torquing upper part of the body – PUMP 6

***Gathering evidence:***

- Are there waves?
- Is the competitor's body movement in phase with the waves?
- Is the competitor's body movement causing the leach to flick?
- Can you connect competitor body movements with the flicks?
- Are the flicks repeated?
- May the flicks on the leach be caused by the waves?
- How does it appear compared to the other boats?
- Is observed body pumping causing no flicks on the leach clearly propelling the boat?

**Sheet pumping**

Rapid sheet adjustment on the main is required to simply keep the boat flat. The amount of adjustment is much larger and faster than for other boats. The more regular the adjustments become the closer they get to the penalty area.

***Permitted actions:***

- Moving a sail in and out in phase with wind shifts, gusts or waves – PUMP 2

***Prohibited actions:***

- Pulling in and releasing the main not in response to wind shifts, gusts or waves – PUMP 1

***Gathering evidence:***

- Could the trim and release be a response to wind shifts, gusts or waves?
- Is the repeated trim and release fanning the sail?

**Rocking after rounding the gate mark**

Slow rocking often occurs while rounding the gate mark especially in light airs. When the boat has come to a virtual standstill, you will observe the crew repeatedly moving to leeward and back to windward to rock the boat. This is done gently in order to keep the wings out of the water and is stopped once the boat gets up to normal speed. It is unlikely that both judges will see the whole incident, as mark roundings are usually busy, but since it qualifies as a tactical breach even one judge can penalize if he can connect the repeated rolling of the boat to the crew movement.

***Permitted actions:***

- Adopting static crew position, a static setting of sail or centreboard when the boat's stability is reduced – ROCK 4

***Prohibited actions:***

- Repeated rolling of the boat that is not linked to wave patterns by moving the body to leeward and back to windward in order to get normal boat's speed.

***Gathering evidence:***

- Is the competitor causing the boat to roll?
- Is the rolling repeated?

**WINDWARD MARK**

**Body pumping**

Mainly observed on boats that tack near the zone or below the layline next to the mark. As after the tack 49ers loose speed badly, the boat's crew and helmsman bounce once on the wing to balance the boat flat and invert the battens. However repeated bounces on the wing that flick the main and are not required to release the battens should be penalized.

See UPWIND section for permitted and prohibited actions.

**Rock/Pump combination**

This combination often happens in lighter conditions and is induced by the crew holding onto the mast or shroud.

***Permitted actions:***

- One roll or one body pump that does not clearly propel the boat.

***Prohibited actions:***

- One roll or one body pump clearly propelling the boat - BASIC 4
- Repeated rolling the boat - 42.2(b)(1)

***Gathering evidence:***

- Is the competitor causing the boat to roll?
- Does a single roll or body pump clearly propel the boat?
- Is the rolling repeated (more than once)?

**DOWNWIND**

**Body Pumping**

It is possible to see the crew jumping on the edge of the wing to give an additional kick to the boat's speed what in turn causes the leech to flick.

See UPWIND section for permitted and prohibited actions.

**Rocking**

Rocking in 49er downwind mostly occurs near the finishing line in light air when competitors fight for the place and count on not being caught in time by the judges.

See UPWIND section for permitted and prohibited actions.

## **Pumping the mainsail**

A forceful pull on the boom with the hand or sheet may be required to get the battens onto the correct side after a gybe and will be repeated if it failed to do so. These actions are permitted if it is clear they are being done to release the battens.

See STARTS section for permitted and prohibited actions.

## **TIPS FOR COMPETITORS**

Ask questions.

If you are not sure about a technique, ask in writing for a clarification so that other competitors can also benefit from the answer.

If you get a yellow flag penalty, ask the judges for an explanation of what you can and can't do.

Remember, the more important the event, the higher the ratio of judges to competitors, so your sailing technique will be under scrutiny when it really matters.