

REVISION HISTORY

Rev Number	Reason for issue	Pages affected
01	First Issue	-
02	Updated some of the previous upgrades and added a few more. Prices update.	all
03	Updated some of the previous upgrades and added a few more. Prices update.	all
04	Updated some of the previous upgrades and added a few more. Prices update.	all
05	Updated some of the previous upgrades and added a few more. Prices update.	all

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1. INTRODUCTION

1.1. The purpose of this document is to list the upgrades made to the standard one-design supply during the 2024 season and define their type.

2. DEFINITIONS

- 2.1. Upgrades are of one of the following types:
 - 2.1.1. **Maintenance**: made in order to mitigate issues that occurred on one or more boats during the past season.
 - 2.1.2. **Performance**: made for the purpose of improving the performance of the boat and/or simplifying its use (e.g. maneuvers).
 - 2.1.3. **Functional**: made for the purpose of reducing/simplifying maintenance and minimizing replacement frequency.
 - 2.1.4. **Mandatory**: any upgrade that affects performances or safety.

3. LIST OF UPGRADES

Item	Description	Туре	Effective date of mandatory status
Reinforcement of the rudder turret	On the hull and the removable piece	Functional	01/01/2026
Reinforcement of the vertical rudder	Carbon reinforcements on the pin dowels	Functional	-
Reinforcement on the rake organizer	Small carbon plate on the top of the plastic rake organizer	Functional	-
Change of rivets for inserts with screws in the mast	It improves durability and makes it easier to change the fittings	Funcional	-
New wrapping system	Application of spray wrapping	Functional	-
Increase in diameter of the mast breaker's dyneema	Safer when tensioning	Functional	-
Ring in the attack of the vang system	Prevents wear on the line	Functional	-
Lamination at the rack joint	Improves the sealing of the rack and it makes it stronger	Functional	-
Foil up system with plastic ball	Helps when lifting the foils	Performance	
C-Plate trampoline bolt rope	Enhances fixation on the boat and its durability	Functional	-
New trampoline	Improved for longer duration	Functional/ performance	-
Application of clear paint to the appendages and relative official standard finishing	Improves hydrodynamics (special regulations described in the <u>Owner's</u> <u>Manual</u>)	Performance	01/01/2026
New shrouds rigging set	Less stretch and better performance	Mandatory/ performance	01/01/2025

4. DETAILS

4.1. Reinforcement of the rudder turret - Functional

4.1.1. On the removable piece:

3-millimeter thick carbon spacer in the screw area.



4.1.2. On the hull:

- Custom-made external reinforcement to be placed on the front part of the rudder turret, preventing material fatigue and providing greater rigidity and durability. Designed in conjunction with the rudder vertical reinforcement to prevent breakages during abrupt stress on windy days in case of a spinout.
- External reinforcement, "plug and play".



4.2. **Reinforcement of the vertical rudder** - Functional



4.2.1. Carbon reinforcements on the pin dowels

4.2.2. Advantages:

- Greater strength and durability.
- External reinforcement, "plug and play".

4.3. **Reinforcement on the rake organizer** - Functional

4.3.1. Small carbon piece that is fixed with the same screws as the rake organizer to protect the plastic from impacts and tighten the screws evenly without bending the plastic.



- 4.3.2. Advantages:
 - Greater durability.

4.4. Change of rivets for inserts with screws in the mast - Functional

4.4.1. Threaded stainless steel insert placed in the mast instead of rivets.



4.4.2. Advantages:

• Easier to replace the mast pulleys, now secured with screws.

4.5. New wrapping system - Functional

4.5.1. New spray-applied wrapping with transparent UV-protective varnish. It is applied like paint and removed like traditional wrapping



4.5.2. Advantages:

- Easy to apply, allowing full boat wrapping in a single workday.
- Seamless application without sheet joints.
- Easy to repair scratches—just spray the product.
- Simple to remove, reducing work time as it leaves no adhesive residue.
- Significantly more cost-effective compared to traditional wrapping.

4.6. Increase in diameter of the mast breaker's dyneema - Functional

- 4.6.1. We increased the Dyneema diameter to 8 mm for greater safety when tensioning.
- 4.6.2. Advantages:
 - The line will be less likely to break.



4.7. **<u>Ring in the attach of the vang system</u>** - *Functional*

- 4.7.1. 8 mm low friction ring as a link between the soft shackles.

- 4.7.2. Advantages:
 - Prevents wear between the soft shackles.

4.8. Lamination at the rack joint - Functional

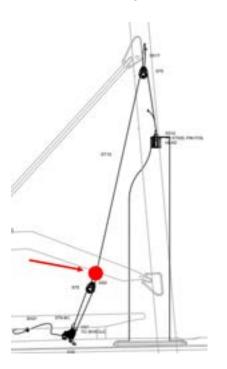
4.8.1. Carbon fiber lamination of the entire rack joint and clear coat painting.



- 4.8.2. Advantages:
 - Stronger racks.
 - Superior aesthetic finish.
 - Solves water ingress issues.
 - Increased rack stiffness while sailing.

4.9. Foil up system with plastic ball - Performance

- 4.9.1. We have added a plastic ball to the Dyneema of the foil-up system to help grip and pull when lifting the foil during maneuvers.
- 4.9.2. Advantages:
 - Maneuvering speed.



4.10. C-Plate trampoline bolt rope - Functional

4.10.1. After incorporating this improvement in our previous technical bulletin and testing it throughout the year, we can confirm that it has proven to be 100% effective. We have not experienced any further issues with the bolt rope detaching. We recommend implementing this upgrade on your 69F boat.



- 4.10.2. Advantages:
 - With this improvement, no additional maintenance is required.

4.11. New trampoline - Functional/Performance

- 4.11.1. Advantages with this improvement in trampoline attachment, tested during the 2024 season:
 - By replacing the metal rings with a batten inside a Dacron sleeve, the attachment system doesn't break when tensioned or over time/corrosion.
 - It allows for greater tensioning of the trampolines.
 - They maintain tension even for months, which is a great advantage as it eliminates the need to tension them every day during a championship.
 - It features grips for the straps on both sides, making it possible to have a single spare trampoline for both sides (with the upper side connection being the only difference).



4.12. <u>Application of clear paint to the appendages and relative official</u> <u>standard finishing</u> - *Performance*

4.12.1. Thanks to our research team and extensive testing, we have achieved a standard one-design finish worthy of the America's Cup!

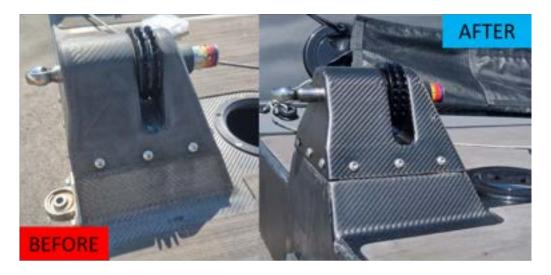
We used the same product applied to the foils of the AC75, with a finish that ensures the same conditions for all competitors. It improves hydrodynamics, resulting in higher speed. It also protects the carbon from UV rays.





This year, we are offering a service for those who wish to renew their boat and make it look brand new. This includes clear varnish painting of all parts exposed to sunlight, preventing resin deterioration, enhancing hydrodynamics, and providing an amazing carbon look aesthetic.

Contact us to learn about our pricing, promotions, and fully customized quotes tailored to each specific case.



4.13. New shrouds rigging set - Mandatory/Performance

We have achieved excellent performance using the new **Fabrica** shrouds set. We verified that the stretch of the shrouds during a regatta day, and even over longer periods from one week to 30 days, does not show significant changes in the boat's tension or rake. Therefore, this is a major advantage in a championship, as the same tension setting can be maintained for a week without needing to adjust the initial setup.

Additionally, we tested each cable on a workbench, applying tension measured in kilograms with extreme digital precision. We confirmed that the correct way to use the **Spinlock Rig Sense** tension meter is by placing it in the traditional position but without pushing the plastic wedge that clamps the cable, allowing it to stop naturally. This is because the FS, D1, D2, and D3 shrouds have a larger diameter than those listed in the tension meter's reference chart. If the plastic wedge is pushed, the measurements become inaccurate, sometimes showing discrepancies of over 100 kg.

We also compared potential differences between new and used tension meters, and in the most extreme case, the margin of error was 50 kg, which is not significant for the tension ranges of the 69F.



5. ORDERS

5.1. Please send an email to <u>office@69fsailing.com</u> with a list of the parts you would like to order.

You will then receive an order confirmation with the final price and expected delivery date.

- 5.2. The prices will be available soon. The prices are considered valid at the time of issue of the present document, but may be subject to fluctuations following changes in procurement costs.
- 5.3. If the upgrade price is not indicated, the component, if requested, is supplied for free.
- 5.4. Expected delivery time will be around 45-60 days after the date of order.
- 5.5. Prices are considered VAT excluded.

6. UPGRADES FROM PREVIOUS TECHNICAL BULLETINS

LIST OF UPGRADES (Technical Bulletin-01-2021-11-12)

Item	Description	Туре
Foil top bearing	Titanium top bearing case with updated low friction element and cover design	Functional
Roller bearing	New roller bearing component to prevent rust formation in salt water	Functional
Rudder rake control line	Closed rake line system crossing the boats from side to side	Performance
No-fall stick shock cord	Shock cord on one end of no fall stick in order to facilitate rigging/unrigging and removing need to tension the line every day	Functional
Sails	New mainsail and jib design and material	Performance
Mainsail lock strop	Replaced steel wire with soft strop	Structural
Foil-up dyneema line	Adjustable splice	Functional
Retriever line	Double shock cord on retriever line for improved slack picking up	Performance
Sailmon MAX carbon support bracket	Stronger carbon support bracket for Sailmon MAX	Functional
Jib halyard and tack line's covered soft shackles	Soft shackles with higher SWL and resistance to wear	Structural
Bowsprit-out system	Added 20mm lead ring on front soft loop	Structural
Gennaker flip flop blocks	Shock cord on gennaker flip flops to prevent rotation outboard	Performance

LIST OF UPGRADES (Technical Bulletin-02-2022-03-20)

Item	Description	Туре
Foil top bearing	Titanium top bearing case with updated low friction element and cover design	Functional
Roller bearing	New roller bearing component to prevent rust formation in salt water	Functional
Rudder rake control line	Closed rake line system crossing the boats from side to side	Performance
No-fall stick shock cord	Shock cord on one end of no fall stick in order to facilitate rigging/unrigging and removing need to tension the line every day	Functional
Sails	New mainsail and jib design and material	Performance
Mainsail lock strop	Replaced steel wire with soft strop and carbon plate	Maintenance
Foil-up dyneema line	Adjustable splice	Functional
Retriever line	Double shock cord on retriever line for improved slack picking up	Performance
Sailmon MAX carbon support bracket	Stronger carbon support bracket for Sailmon MAX	Functional
Jib halyard and jib tack covered soft shackles	Soft shackles with higher SWL and resistance to wear	Maintenance
Bowsprit-out system	Added 20mm lead ring on front soft loop with 57 ratchet	Functional
Tiller Stop Strop	Updated system to prevent tiller to go max excursion	Performance
Anti-Torsion soft shackle for foil down strop	Longer soft shackle to avoid external block of down strop 57S to twist	Performance
Soft Shackle on jib car block	Stronger soft shackle on jib car block	Maintenance
Jib sheet cleat fairlead	X-treme angle fairlead added to increase lifespan	Performance
Foil Rake Organizer	3D printed foil rake organizer cover	Functional

-	Bigger gennaker halyard sheave with higher SWL and fitting carbon plate	Performance
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LIST OF UPGRADES (Technical Bulletin-03-2023-03-10)

Item	Description	Туре	Effective date of mandatory status
Vang car end stop	Custom block to limit the range of the vang car at the safety limit	Mandatory	10/03/2023
Vakaros Atlas 2 instrument + support bracket	Complete Vakaros Atlas 2 with support mounted on carbon bracket	Mandatory	10/03/2023
Anti Skid Pad	New layout	Maintenance	-
Water drain	Custom water drain to facilitate the emptying of water from the boat	Maintenance	-
Vang 57 Flip Flop deck block on C-Plate	Stronger block to prevent breakages of the same	Maintenance	-
Jib halyard Tail	3 mm dyneema mouse line to prevent breakages of the same while hoisting	Maintenance	01/01/2024
Gennaker Bag	Reinforced back part to extend duration	Maintenance	-
Daggerboard lifting system	Dyneema double loop to replace pad eye on daggerboard top	Maintenance	01/01/2024
Jib Cam Cleat	Standard Cam Cleat to replace micro Cam Cleat	Maintenance	-
Sails	New supplier (North Sails)	Mandatory	01/01/2024
Foil up system	Linked to down system. New end strop to prevent breakages	Functional	01/01/2024
Foil down system	Linked to up system. Reduced number of blocks and shock cords	Functional	-
Gennaker tack line	Longer tack line and shorter purchase line with end stop ball	Functional	-

Jib halyard purchase line stop	Added ball to end stop	Functional	-
Jib sheet system	New system with 7 mm sheet and shorter shock cord to prevent tangling of the same	Functional	-
Mainsheet 57D shock cord	Shock cord from one rack to the other through mainsheet 57D	Functional	-
Flip Flops shock cord	Shock cord passing through 40S block from one Gnk flip flop to the other	Functional	-
Rudder pin safety lock	Symplified shock cord	Functional	-
Shock cord From Gnk 75 to hiking strap	To avoid twisting of gennaker sheets	Functional	-
Deck cover back attachment	Plastic band between deck cover and hull to simplify assembly	Functional	-

LIST OF UPGRADES (Technical Bulletin-04-2024-01-10)

Item	Description	Туре	Effective date of mandatory status
Vang end stop	Changes from mandatory to functional.	Functional/Optional	-
C-Plate trampoline bolt rope	Enhances fixation on the boat and its durability	Functional	-
New trampoline	Improved for longer duration	Functional	-
Transition from the '38mm to the '51mm Wire Through-Deck' on the mast and boom.	Greater strength	Functional	-
Application of clear paint to the appendages and relative official standard finishing	Improves hydrodynamics (special regulations described in the <u>Owner's</u> <u>Manual</u>)	Performance	-
Screw with a Torx head	Replacement of Allen screws with Torx	Maintenance	-
Towing line	Towing line made with the same line as the gennaker sheet	Maintenance	-
C-Plate under the jib cleat	Enhances support on the deck.	Maintenance	-
Foil up system with plastic ball and rubber disc	Reverts to the previous system but adds a rubber disc with a plastic ball.	Mandatory	01/01/2024
Sails	New supplier (North Sails)	Mandatory	01/01/2024
New standing rigging set	Less stretch and better performance	Maintenance	01/01/2025
Jib halyard hanks	Improved fixation in the stay and more durable plastic	Functional	-
Carbon plug to seal the tubes of the rack	Improves the sealing of the tubes.	Functional	-

Jib halyard Tail	3 mm dyneema mouse line to prevent breakages of the same while hoisting	Mandatory	01/01/2024
Daggerboard lifting system	Dyneema double loop to replace pad eye on daggerboard top	Mandatory	01/01/2024