DOCUMENT CONTROL SHEET

TECHNICAL BULLETIN

69F

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01	First Issue	-
02	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 2023 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
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 Owner's Manual)	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

4. DETAILS

4.1. **Vang car end stop** - Functional/Optional

4.1.1. Custom block.



4.1.2. Advantages:

- impose a mechanical and more accurate limit on the range of the vang car
- therefore prevent the possible breakage of the rig.

4.2. **C-Plate trampoline Bolt rope** - Functional

- 4.2.1. New attachment system to the boat.

 A 1600mm long, 45mm wide, and 3mm thick 'c-plate' used for attaching the trampoline bolt rope. The reefing line will then adhere to the boat's hull using epoxy adhesive.
- 4.2.2. The product includes bighead's and screws.





4.2.3. Advantages: increased durability.

4.3. **New trampoline** - Functional



- 4.3.1. The metal ring fastening is replaced by a system made with 2 battens, which are connected through a zigzag with a dyneema line:
 - increased durability
 - easier application.
- 4.3.2. The lashing cover with velcro is no more mandatory.

4.4. <u>Transition from the '38mm to the '51mm Wire Through-Deck' on the mast and boom</u> - *Functional*





- 4.4.1. All the '38mm Wire Through-Deck' are replaced by '51mm Wire Through-Deck'.
- 4.4.2. Advantages:
 - greater strength
 - simplifies everything to a single standard measurement for the entire boat
 - the same spare part works for all systems using Wire Through-Deck.

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



- 4.5.1. Improves hydrodynamics by sealing potential pores and imperfections.
- 4.5.2. Regulation ensures the continuity of the one-design:
 - sanding and painting system was studied and consulted in accordance with how it is implemented in the foils of the America's Cup
 - this improvement can only be performed in our official workshop
 - this enhancement can be carried out on both the rudder, daggerboard and the lower part of the foil.
- 4.5.3. More info in owners manual page 22 to 26:

 Owners Manual

4.6. **Screw with a Torx head** - Maintenance



- 4.6.1. 4.6.2. Replacement of Allen screws with Torx. Advantages: less likelihood of damaging their heads when adjusting them.

4.7. <u>Towing line</u> - Maintenance



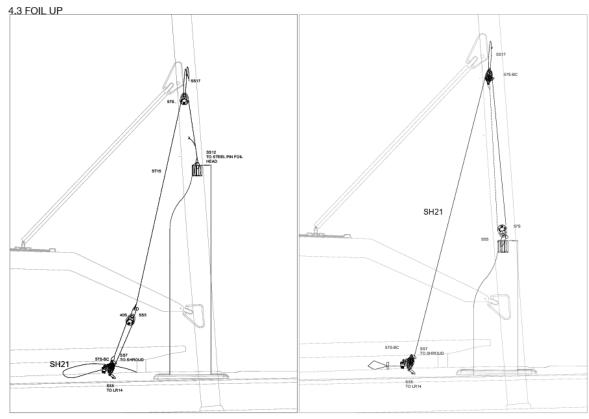
- 4.7.1. Towing line made with the same line as the gennaker sheet: Swiftcord 8mm yellow.
- 4.7.2. Advantages:
 - stronger and more durable
 - floating line
 - you can continue using the old sheets and only purchase new gennaker sheets.

4.8. C-Plate under the jib cleat - Maintenance



- 4.8.1. Distributes the cleat pressure on the deck over a wider area.
- 4.8.2. Advantages: prevents the deck from compressing when tightening the cleat screws.

4.9. Foil up system with plastic ball and rubber disc - Mandatory





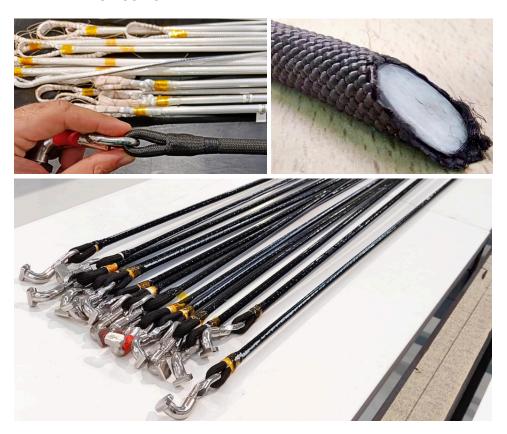
- 4.9.1. Reverting to the previous foil up system, but adding a plastic ball and a rubber disc to prevent the cleat bridge from breaking when making a stop.
- 4.9.2. Detached from the foil down system. The foil's end stop is removed from the system.
- 4.9.3. Option 2: Pulley on the foil head.
- 4.9.4. Only the plastic ball and rubber disc are added to the system; the rest of the lines remain the same. It becomes obsolete compared to the previous technical bulletin: the foil end stop line, the two soft shackles that connected to the foil down system, and the metal ring.

<u>Sails</u> - Mandatory 4.10.



- 4.10.1.
- Supplier North Sails. New material (main and jib 3Di). 4.10.2.

4.11. New standing rigging set - Maintenance



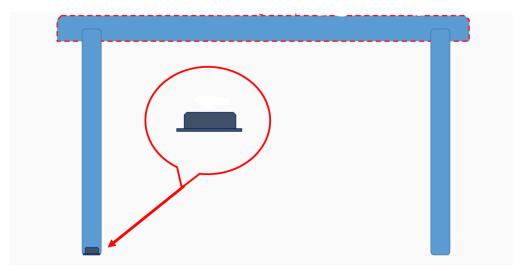
- 4.11.1. New mast rigging, constructed in High Modulus Polyethylene (HMPE) Dyneema.
- 4.11.2. Unidirectional fibers covered in compaction plastic with a Dyneema sheath.
- 4.11.3. Advantages:
 - greater durability
 - as unidirectional fibers, unlike the previous twisted ones, they do not stretch or contract when stored.

4.12. **Jib halyard hanks** - Functional



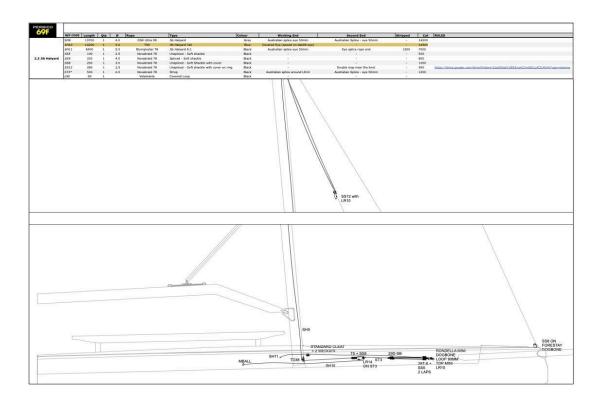
- 4.12.1. Improved fixation in the stay. The jib uses three halyard sheaves in total.
- 4.12.2. Advantages:
 - easier to install and remove on the forestay
 - faster to hoist
 - more durable plastic.

4.13. Carbon plug to seal the tubes of the rack - Functional



4.13.1. Upgraded carbon fiber plug to prevent detachment and improve sealing against potential water ingress.

4.14. **Jib Halyard Tail** - Mandatory



- 4.14.1. SH10 modified with novabraid 78 3 mm Black, Length 14200 mm australian eye splice at 500 mm.
- 4.14.2. Advantages:
 - dyneema rope make the circuit stronger and prevent the breakage of the tail while hoisting the jib
 - longer splice eye make easier to understand if the purchase is attached wrong as it is impossible to give tension by pulling.

4.15. <u>Daggerboard lifting system</u> - Mandatory



- Double dyneema loop to replace soft pad eye on top of the daggerboard.
- 4.15.1. 4.15.2. Advantages: can hold a stronger pull if the daggerboard is stuck.

5. ORDERS

- 5.1. Please send an email to salesoffice@69fsailing.com 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 are available in the following document.
 - Technical Bulletin-04-2024-01-10 Price List.pdf
 - 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	X-treme angle fairlead added to	Performance

fairlead	increase lifespan	
Foil Rake Organizer	3D printed foil rake organizer cover	Functional
Gennaker Halyard Sheave	Bigger gennaker halyard sheave with higher SWL and fitting carbon plate	Performance

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	-