#### **REVISION HISTORY**

Rev No.	Issue Date	Reason for Issue
v1.0	23/03/2020	First issue
v1.1	13/02/2021	Update pin and tiller locking system

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#### 1. INTRODUCTION

This manual explains in detail with the aid of pictures how to correctly install the rudder and rudder foil on the 69F. You are invited to read it carefully and familiarise yourself with the boat before sailing.

### 2. EQUIPMENT

#### **RUDDER STRUT**





#### **RUDDER FOIL**





#### **TILLER**



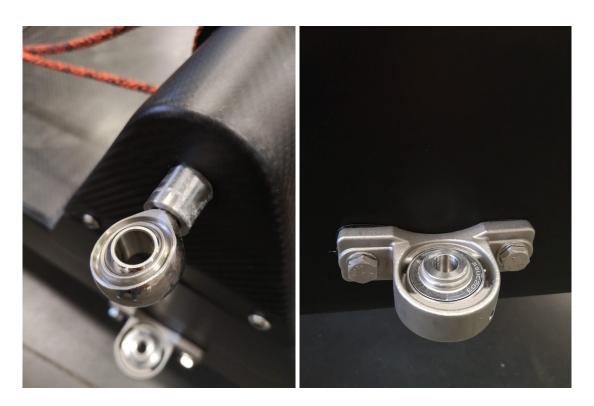
#### **TILLER EXTENSIONS**



PIN

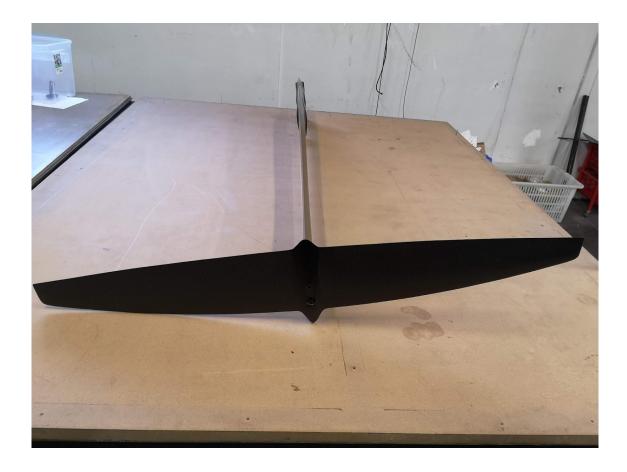


#### **TOP AND BOTTOM BEARINGS**



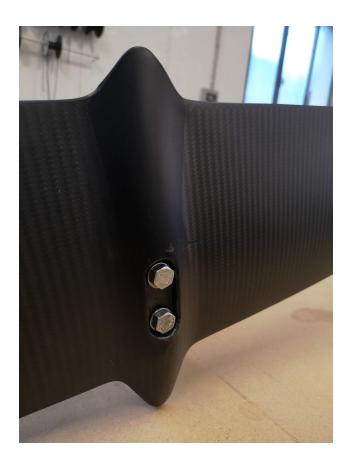
#### 3. ASSEMBLY

Firstly, install the rudder foil (rudder elevator) to the strut. In order to do so, insert the rudder strut into the foil's top recess. To make sure the strut is inserted all the way you may use a mallet protecting the foil from scratching with some soft cloth.



Once the joint is complete, tighten the 2 bolts with washers on the bottom winglet recess. It is suggested not to use thread locker on the bolts in order to avoid them getting seized and to ease the winglet removal procedure.

Warning: The bolts tightness should be checked every day before going sailing and the may become a little loose with the vibrations.



#### 4. INSTALLATION

In order to install the rudder on the boat, this procedure shall be followed (please note that the rudder may not be installed while the boat is on the trailer):

- 1. Set the rudder top bearing at number 4 (white on the coloured scale)
- 2. Make sure the bottom and top bearings are aligned by sliding the pin through both. If they are not aligned, slide the pin from the bottom bearing up into the top one
- 3. Fit the tiller through the rudder head socket
- 4. Fit the rudder to the top bearing taking care that the mainsheet bride is over the tiller.
- 5. Align the rudder head and tiller holes
- 6. Pass the pin through the rudder head, tiller and top bearing
- 7. Fit the rudder to the bottom bearing paying attention not to change the angle of the rotating part
- 8. Slide the pin through the bottom bearing
- 9. Pass the bungee cord fixed to the pin's head around the tiller's case and fix is around the pin's head
- 10. Attach the carabiner coming from the deck to the tiller extensions loop in order to avoid the tiller rotating excessively
- 11. Install the tiller extensions
- 12. Fix the tiller extensions' joint to the tiller with the bungee cord attached to the tiller

Pin and bearings MUST be carefully cleaned and lubricated before mounting in order to avoid them seizing up.

The tolerance between pin and bearings is very tight so in summer time make sure the pin is cooled before sliding it in.

#### 5. MAINTENANCE

The use of sanding paper, abrasive sponge, grinding or polish paste or cream is not permitted; nor the use of any liquid or cream or filler like nanotech or similar are not permitted. The only action permitted is the use of simple soap and sponge, with the goal to remove eventual dirty on the surface

Sanding is forbidden in order to preserve the integrity of the paint. Moreover, sanding carried out routinely could lead to the removal of the paint layer and damage to the carbon fibers making up the external layer of the appendage.

The top bearing bushing sliding inside the rudder tower must be greased every about 10 days of sailing. The suggested marine grease is shown in the picture below. The removing sequence is shown in the pictures below.





The bottom bearing must be greased about every 10 days of sailing in fresh water and every 2 days of sailing in salt water. The suggested marine grease is shown in the picture below.



The bottom bearing rotating, removable part may be subject to rust when in salt water for a long time. Use product like *Dech 10* by Blue Marine (<u>Link</u>) to derust it.



Bottom bearing before (left) and after (right) derusting.



The bottom bearing removing sequence is shown in the pictures below.



A video of how to remove bottom bearing's rotating part can be found at the link below:

Bottom bearing removal video