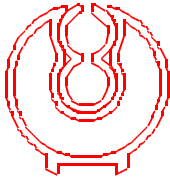
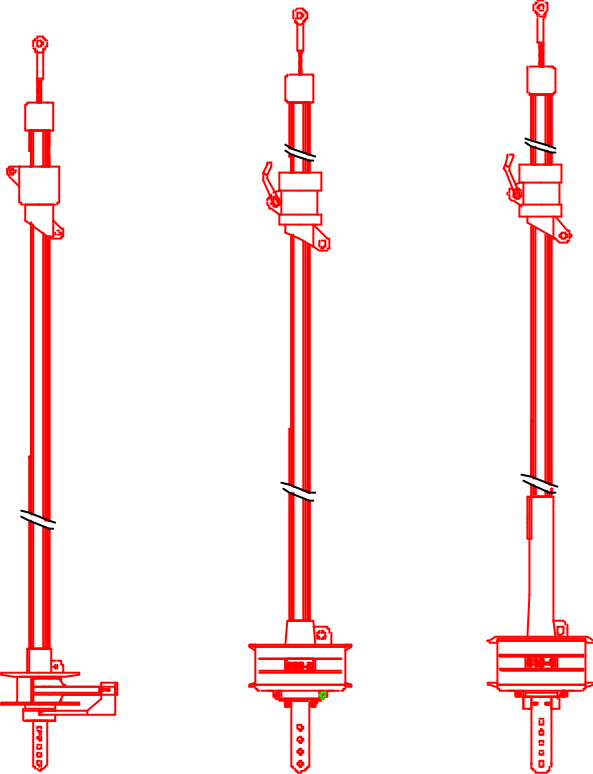


**PLASTIMO JIB REEFING SYSTEMS
S-SERIES**

406-S

608-S

810-S



ASSEMBLY INSTRUCTIONS FOR S-SERIES

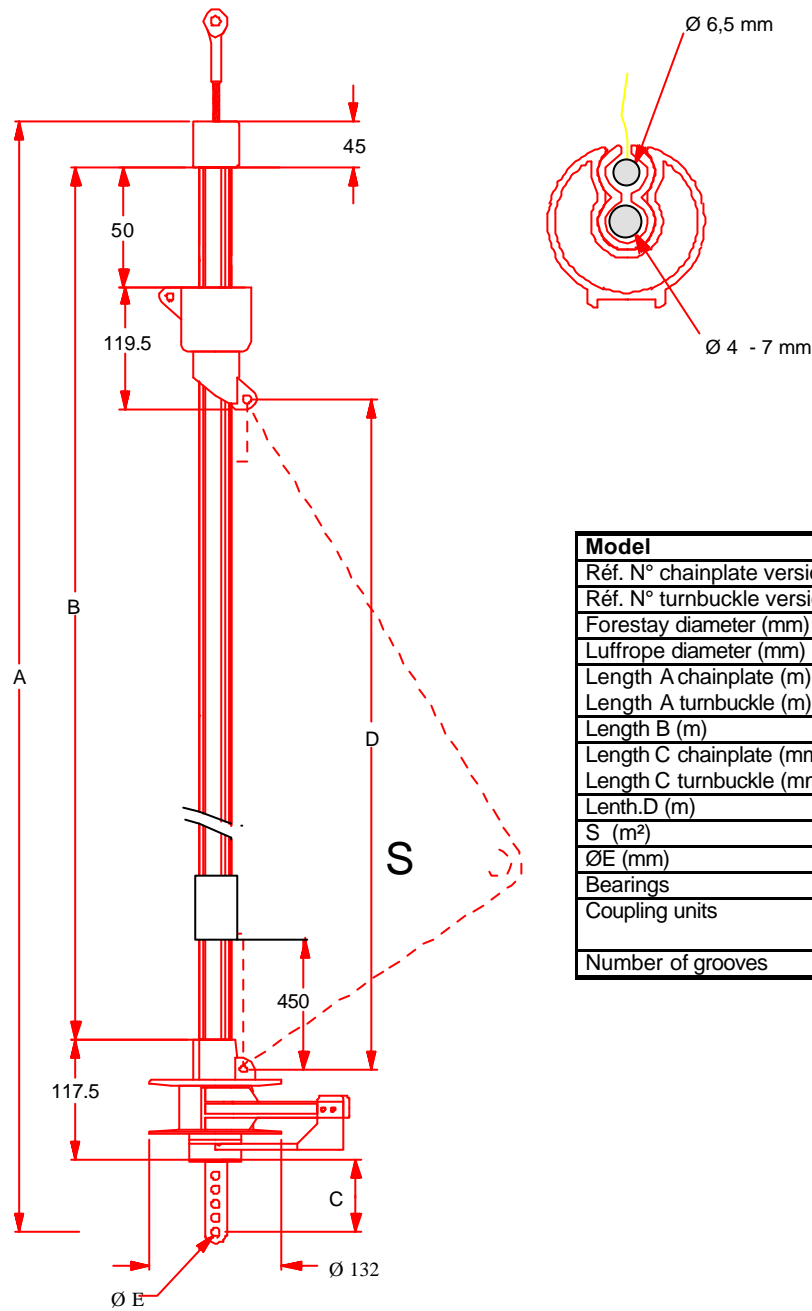
406-S 608-S 810-S

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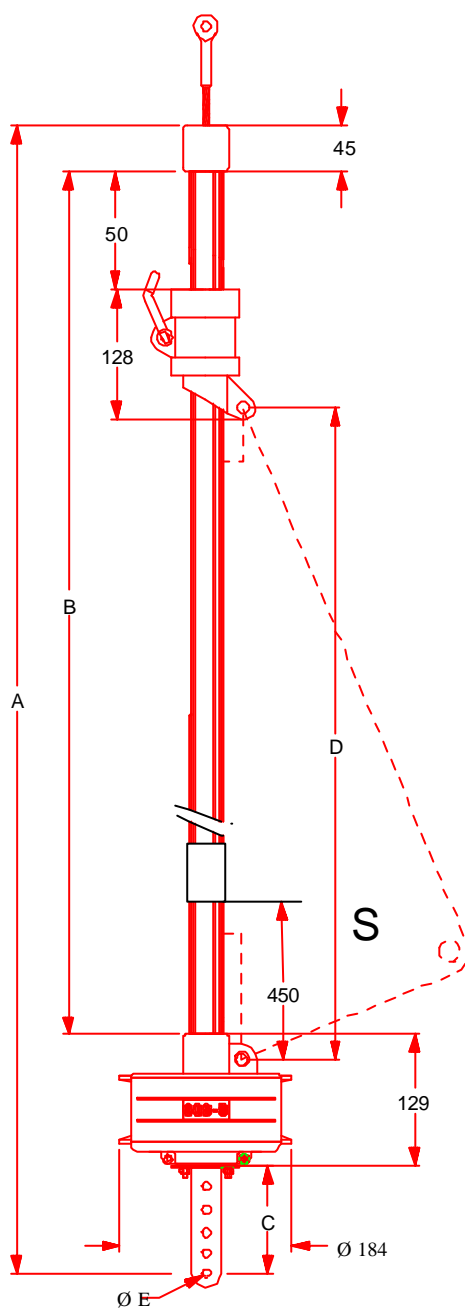
TECHNICAL SPECIFICATIONS

406-S MODEL



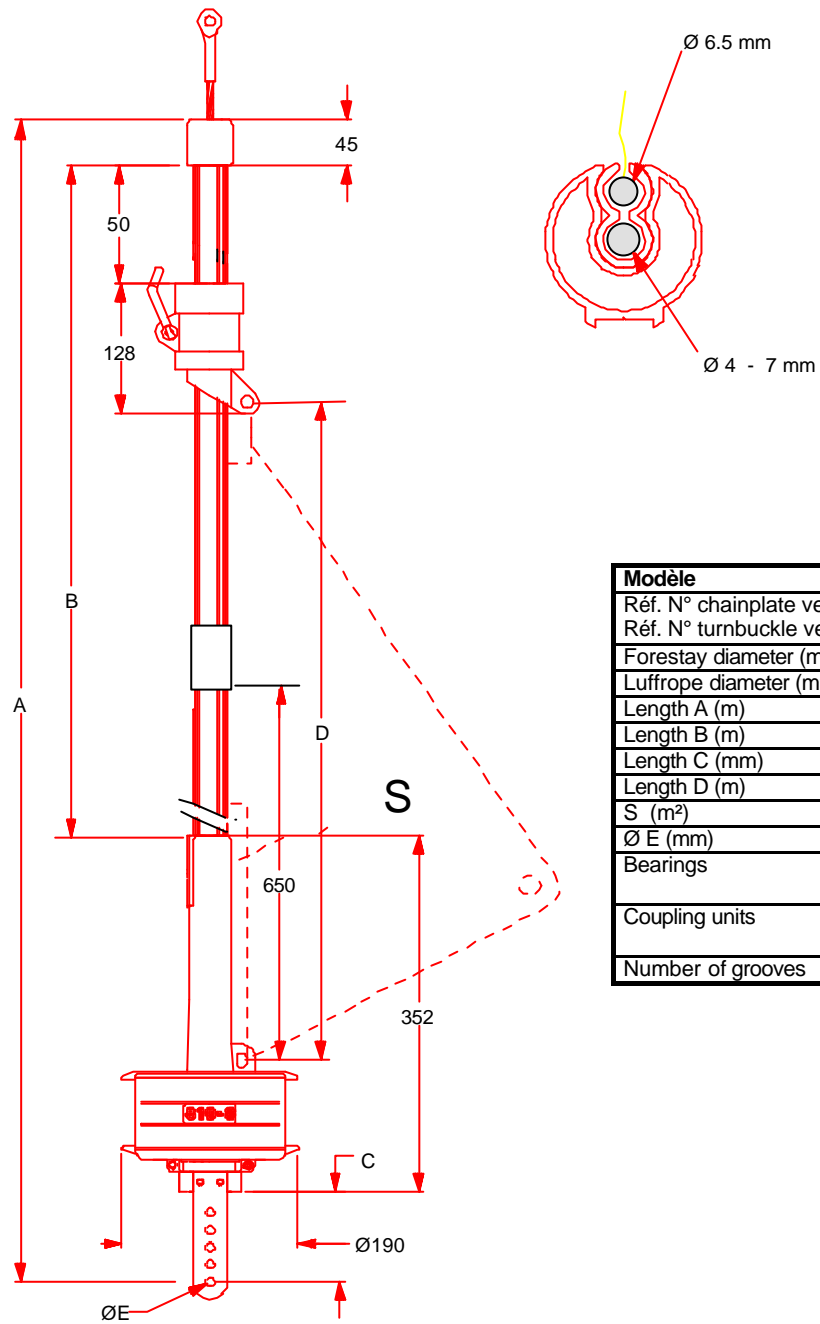
Model	406-S
Réf. N° chainplate version	25722
Réf. N° turnbuckle version	25723
Forestay diameter (mm)	4 - 7
Luffrope diameter (mm)	6.5
Length A chainplate (m)	6.20
Length A turnbuckle (m)	6.28
Length B (m)	5.95
Length C chainplate (mm)	85
Length C turnbuckle (mm)	170
Length D (m)	5.82
S (m²)	12
ØE (mm)	8.5
Bearings	Delrin ®
Coupling units	aluminium + screws
Number of grooves	1

608-S MODEL



Modèle	608-S
Réf. N° chainplate version	25724
Réf. N° turnbuckle version	25725
Forestay diameter (mm)	4 - 7
Luffrope diameter (mm)	6.5
Length A chainplate (m)	9.22
Length A turnbuckle (m)	9.40
Length B (m)	8.94
Length C chainplate (mm)	115
Length C turnbuckle (mm)	285
Length D (m)	8.80
S (m ²)	25
Ø E (mm)	12.5
Bearings	Delrin® & stainless steel
Coupling units	aluminium + screws
Number of grooves	1

810-S MODEL

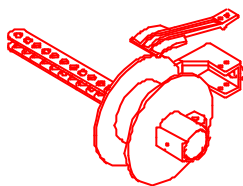


Modèle	810-S
Réf. N° chainplate version	25374
Réf. N° turnbuckle version	
Forestay diameter (mm)	4 - 7
Luffrope diameter (mm)	6.5
Length A (m)	11.05
Length B (m)	10.44
Length C (mm)	220
Length D (m)	10.49
S (m ²)	35
Ø E (mm)	14.3
Bearings	Delrin® & Torton®
Coupling units	aluminium + screws
Number of grooves	1

DESCRIPTION OF SPECIFIC PARTS FOR EACH MODEL

406-S model

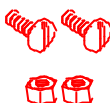
- 1 drum unit



- 1 halyard swivel

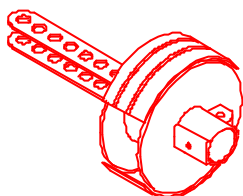


- 2 TCL screws M4 x 12 (to secure reefing line feeder 406-S)



608-S model

- 1 drum unit

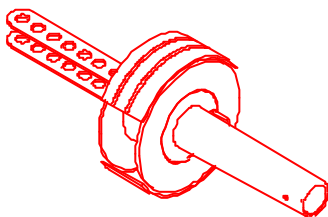


- 1 halyard swivel



Enrouleur 810-S

- 1 drum unit

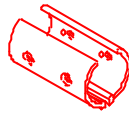


- 1 halyard swivel



Standard parts for all models

- 1 boltrope prefeeder



- 1 top end stop



- 2 bearings

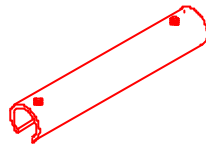


- Coupling sleeves

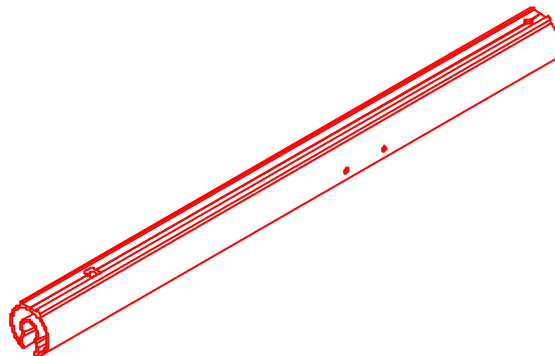
- 406-S ⇒ Qty 4

- 608-S ⇒ Qty 6

- 810-S ⇒ Qty 7



- 1 base spar

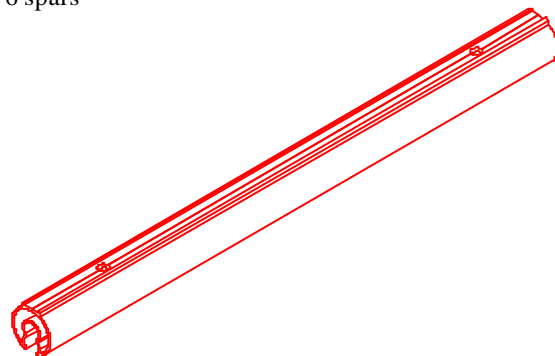


- Intermediate spars

- 406-S ⇒ 3 spars

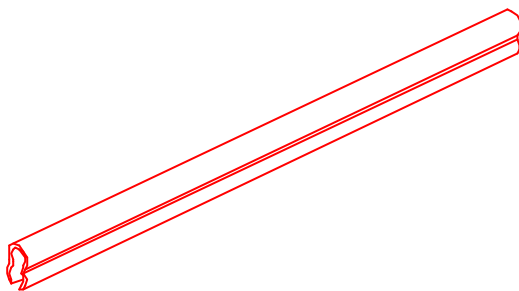
- 608-S ⇒ 5 spars

- 810-S ⇒ 6 spars



- PVC liners

- 406-S \Rightarrow 4 liners
- 608-S \Rightarrow 6 liners
- 810-S \Rightarrow 7 liners



- Screws

- TF M5 x 8 screws for spar connections
 - 406-S \Rightarrow 6 screws + 2
 - 608-S \Rightarrow 10 screws + 2
 - 810-S \Rightarrow 12 screws + 2



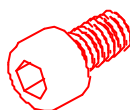
- 4 N°7 TF screws (3.9 x 9.5) to secure prefeeder.



- 1 N°10 TF screw (4.8 x 12.7)



- 1 Chc M5 x 12 screw to secure base spar to drum



TOOLS NEEDED

- Hammer
- Pliers
- Comfortable bosun's chair (Plastimo).
- Allen key (\varnothing 4)
- Electric or hand drill
- 1 \varnothing 4 mm drill
- Hacksaw
- Tape measure
- Screwdriver
- Silicone filler.

FLAT ASSEMBLY

- This method consists of fully dismantling the forestay and assembling the jib reefing system while the forestay is lying flat.
- We recommend this method as it is faster.
- In certain cases the top part of the forestay cannot be dismantled, in this case::
 - ➔ do an in situ assembly (see page 15)
 - ➔ contact a professional who can install a universal joint on the upper part of the forestay.

Steps to be followed:

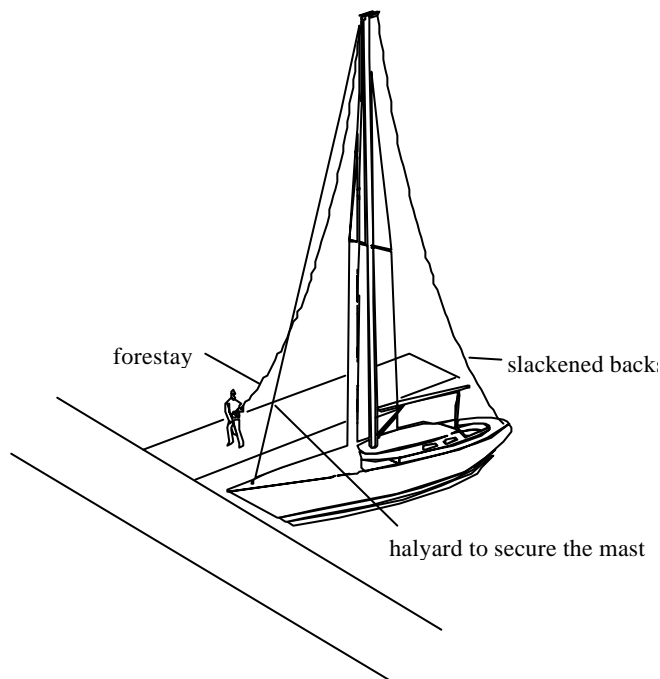
DISMANTLING THE FORESTAY

Lower part

- Slacken the backstay
- Secure the mast forward with 1 or 2 halyards
- Tighten the halyards to relieve the strain on the forestay
- Dismantle the lower part of the forestay (this usually consists of removing a removing a rigging screw pin, or a screw and a nut)).

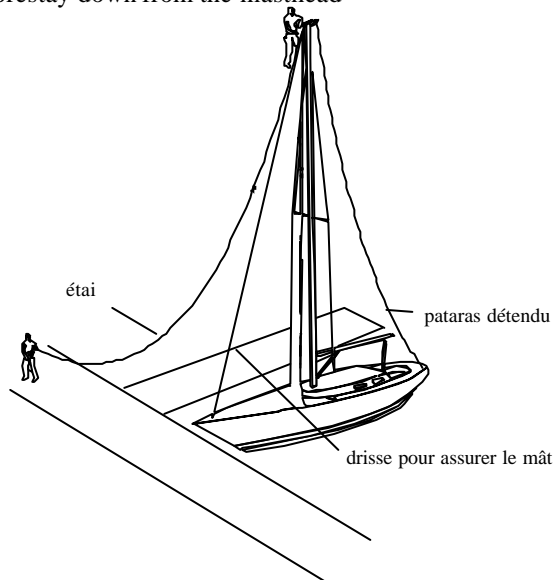
Note : it is important to measure the distance between the forestay eye and the hole of the forward mounting plate in order to find the correct adjustments again.

For a turnbuckle assembly, measure the distance between the mounting plate and the blocking nut of the turnbuckle.



Upper part

- Send a person to the masthead (equipped with hammer and pliers)
- Dismount the upper part of the forestay
- Bring the person and the forestay down from the masthead



ASSEMBLING THE JIB REEFING SYSTEM

- Lay the forestay flat



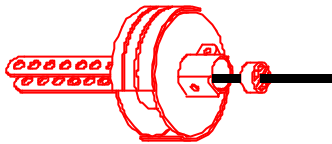
- Place the parts to be assembled alongside the forestay



- Assemble the drum unit on the forestay and put the rigging screw pin or screw and nut in place (select the chainplate hole that corresponds to the initial forestay adjustment)



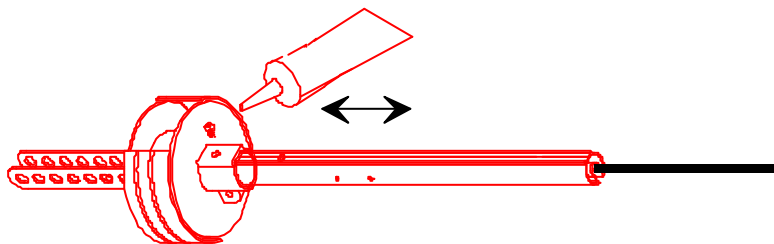
- Slide a bearing into the drum



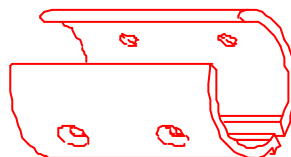
- Insert a coupling sleeve into the base spar (ensure that the hole in the coupling sleeve is in line with the pre-drilled hole of the base spar)



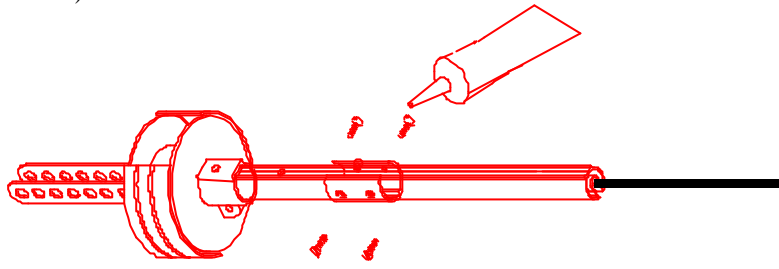
- Slide the base spar into the drum unit until the two holes are in line, insert the Chc M5 x 12 screw (after putting some silicone filler in the hole in order to reduce the stainless steel / aluminium electrolytic couple) and tighten.



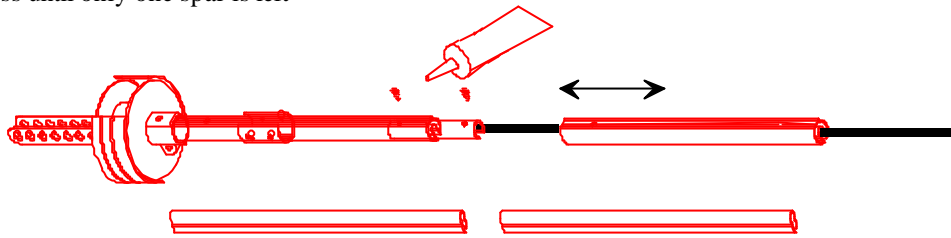
- Install the boltrope prefeeder; ensure it is the right way up, see diagram below.



- Secure with the 4 N°7 (3.9 x 9.5) TF screws

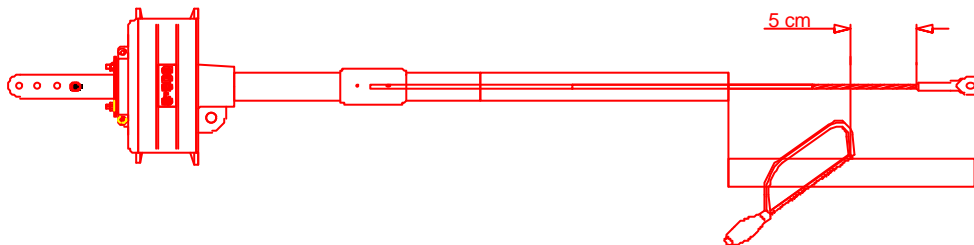


- Insert an aluminium coupling sleeve, put some silicone filler into the hole and position a TF MS x 8 screw (do not tighten or it will be difficult to put the second screw in place).
- Put a second spar into position, put some silicone filler in the hole and position the screw (once the two screws are in position they may both be tightened). Wipe off any excess filler with a cloth.
- Insert PVC liners as you go along (ensure they are flush against the prefeeder)
- Repeat the process until only one spar is left

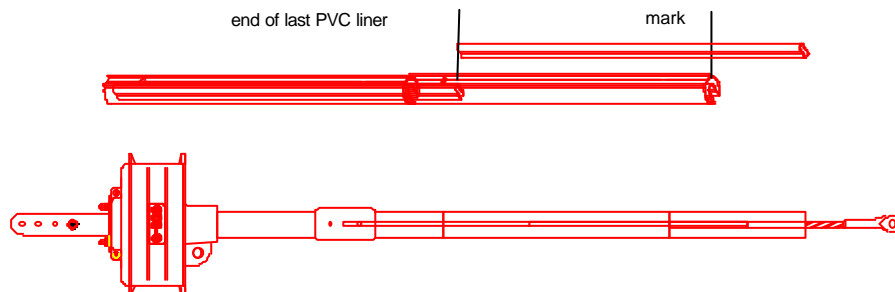


Cutting the last spar

- Position the last spar so that it lies flush against the previous spar but do not install it
- Measure a distance of 5 cm back from the sleeve of the forestay
- Mark and cut the spar with a hacksaw
- Put a coupling sleeve into position
- Insert the spar, then insert and tighten the screw

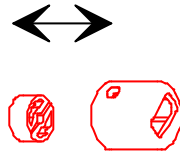


- Position the last PVC liner
- Mark the liner level with the end of the aluminium spar
- Cut and insert the PVC liner

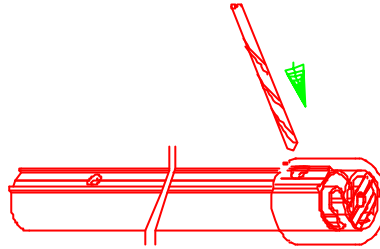


Installing the top end stop

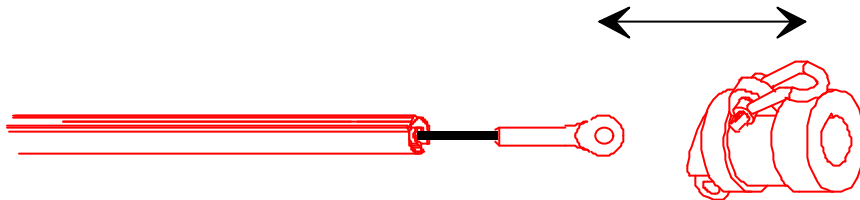
- Slot the second bearing into the top end stop



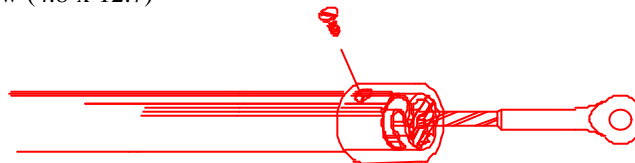
- Slide the top end stop over the aluminium spar
- Drill a hole (with a 4 mm drill)
- IMPORTANT: refer to diagram for the positioning of the top end stop



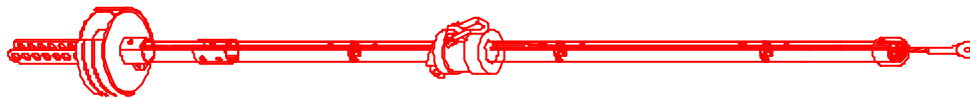
- Before putting the screw into position, do not forget to slide the halyard swivel into place (ensure that the conical end of the halyard swivel faces downwards)



- Put the top end stop back into position
- Put some silicone filler into the hole
- Insert and tighten N°10 TF screw (4.8 x 12.7)



- Your jib reefing system is now assembled and can be put into position (hoist it up to the masthead with a halyard)



IN SITU ASSEMBLY

- ➔ this method of assembly may be carried out by one person
- ➔ it is not necessary to dismantle anything at the masthead

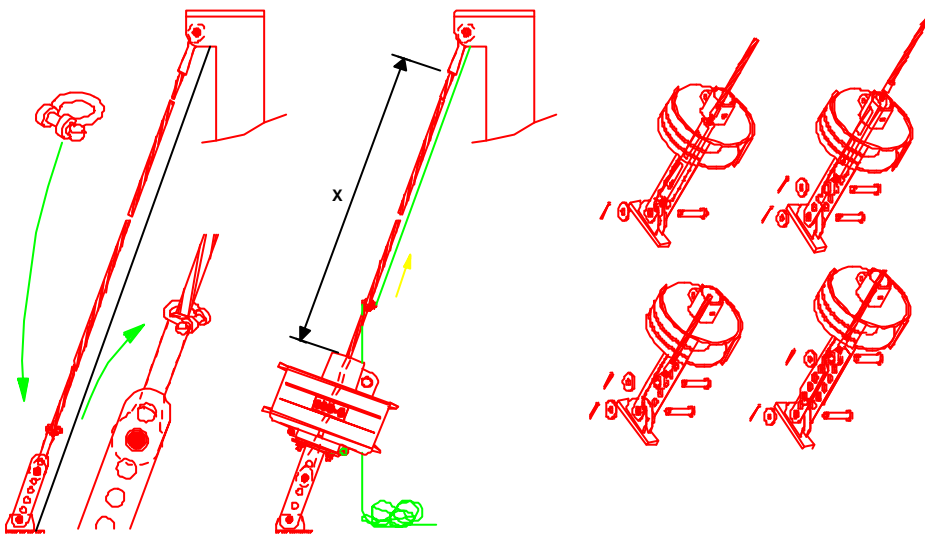
Steps to be followed:

MEASURING THE LENGTH OF THE FORESTAY

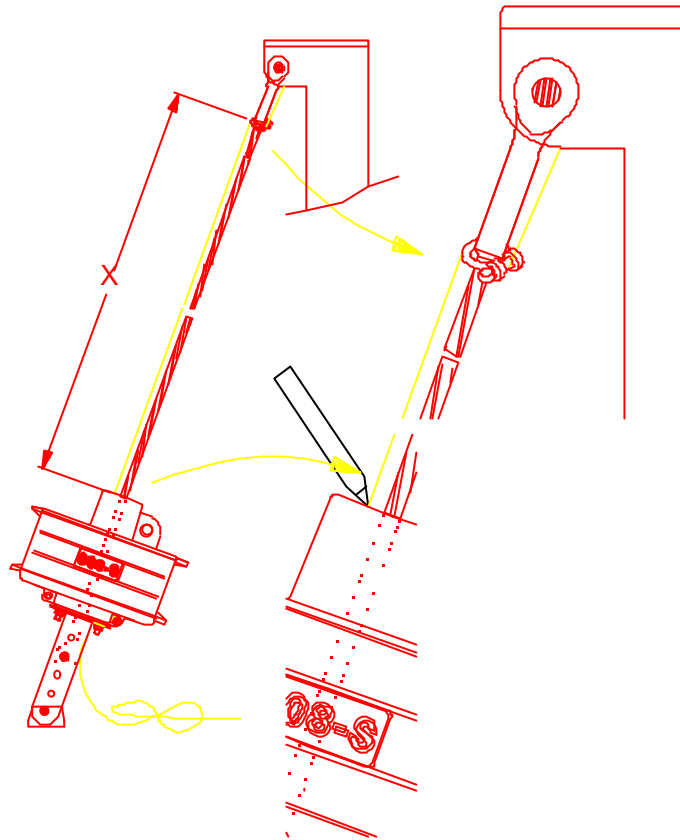
- In order for this jib reefing system to be perfectly adapted to your boat the length « X » needs to be known.

Helpful hint:

- Slide a small shackle around the forestay
- Ensure that it lies flush against the sleeve
- Slacken the backstay
- Secure the mast with a halyard
- Dismount the lower part of the forestay
- Assemble the drum unit
- Reassemble the lower part of the forestay
- Undo the halyard and tighten the backstay



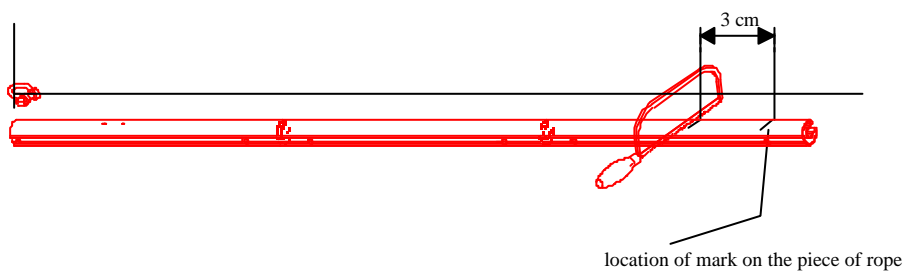
- Attach a halyard to the shackle
- Attach a length of rope (or a tape measure) to the shackle
- Hoist the shackle until it touches the top sleeve of the forestay
- Mark the piece of rope level with the top of the drum unit
- Lower the shackle



CUTTING THE LAST SPAR

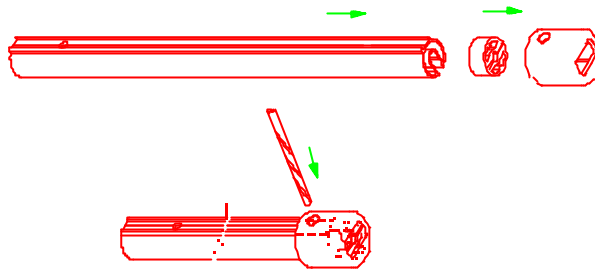
Stretch out flat the piece of rope used to measure the length of the forestay

- Lay the aluminium spars parallel to the piece of rope (take note of base spar, see page 7)
- Mark the spar level with the mark on the piece of rope
- Cut the spar 3 cm (safety margin) below the mark



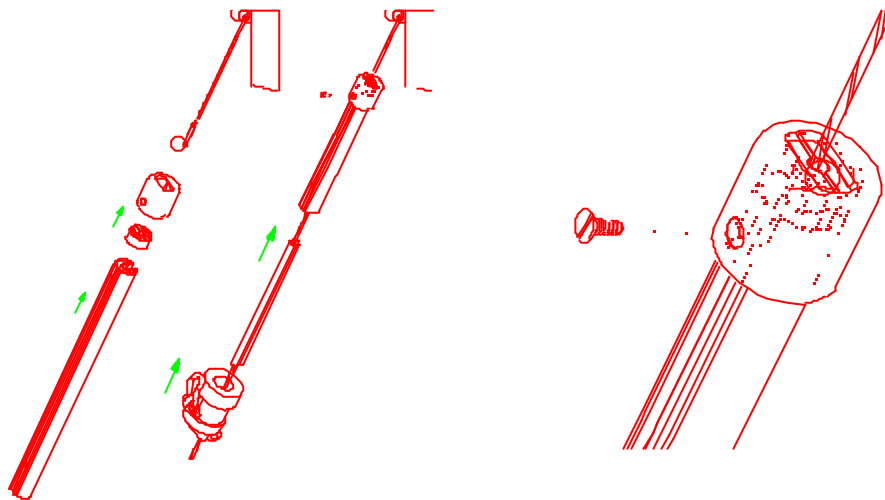
ASSEMBLING THE TOP END STOP

- The top end stop should be assembled on the aluminium spar that has just been cut.
 - a) The second bearing is slotted into the top end stop
 - b) Slide the top end stop fully over the end of the spar
(IMPORTANT: refer to diagram below for positioning of the hole in the top end stop)
 - c) Drill a hole using a $\varnothing 4$ mm drill

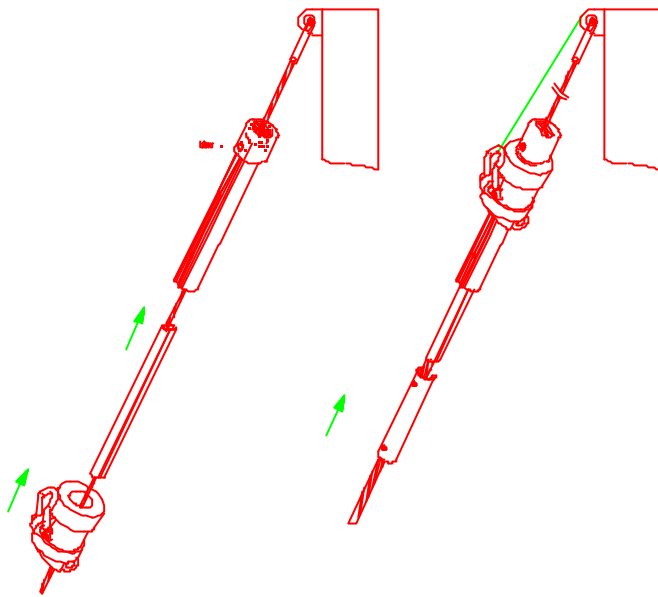


ASSEMBLING THE SPARS

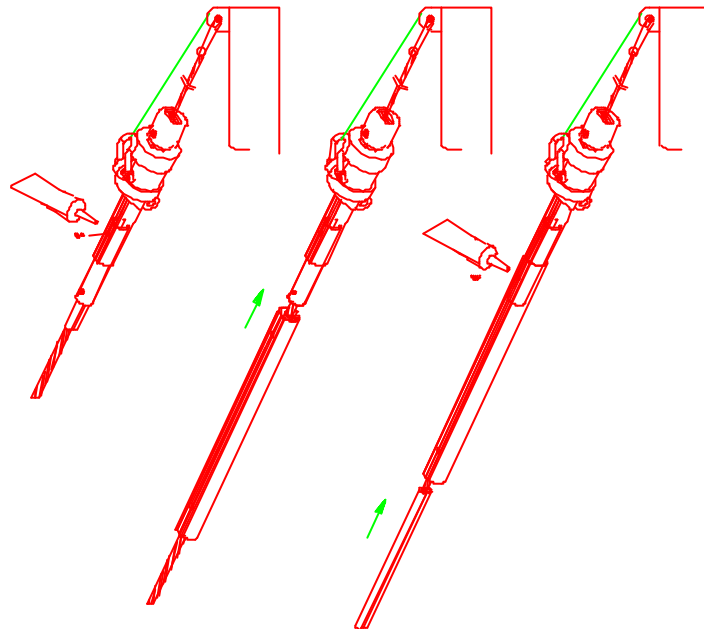
- Dismount the forestay from the stemhead fitting
- Install the following on the forestay:
 - Top end stop
 - Bearing
 - The spar that you have cut and drilled
 - N°10 screw
 - PVC liner
 - N°10 screw
 - Halyard swivel (IMPORTANT: see drawing below for position of halyard swivel)



- Refasten the forestay
- Attach a halyard to the halyard swivel in order to support the spars as they are assembled

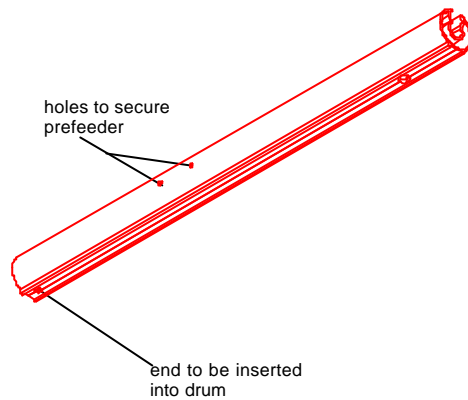


- Insert a coupling sleeve
- Put some silicone filler into the holes before tightening the screws (in order to reduce the electrolytic couple between the stainless steel screw and the aluminium)
- Insert an M5 x 8 screw
- Wipe away any excess silicone with a cloth
- Slide another aluminium spar into position
- Insert a PVC liner
- IMPORTANT:** keep the base spar to one side; you will be assembling it last)
- Repeat the process as many times as necessary

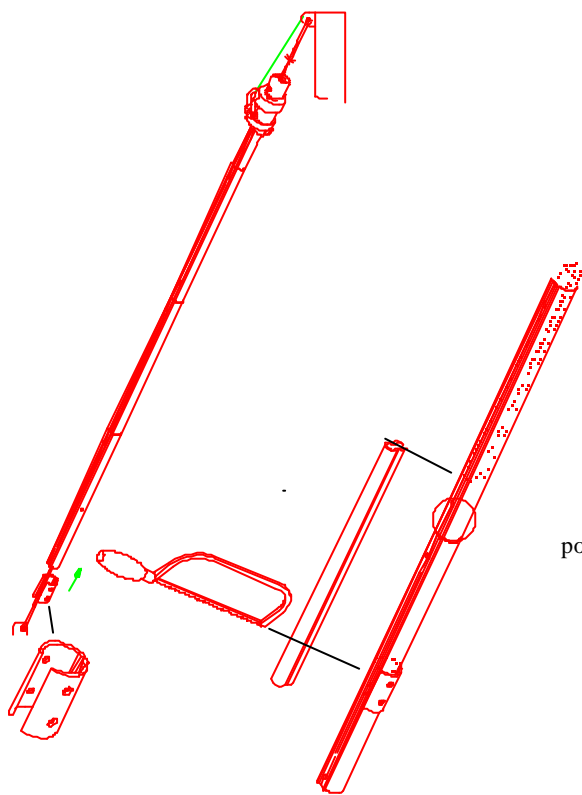


ASSEMBLING THE BASE SPAR

- IMPORTANT: ensure the base spar is facing the right way (see diagram below)

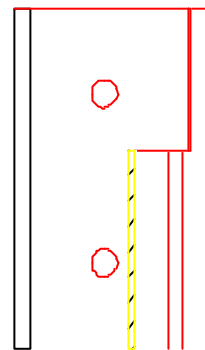


-Cutting the PVC liner

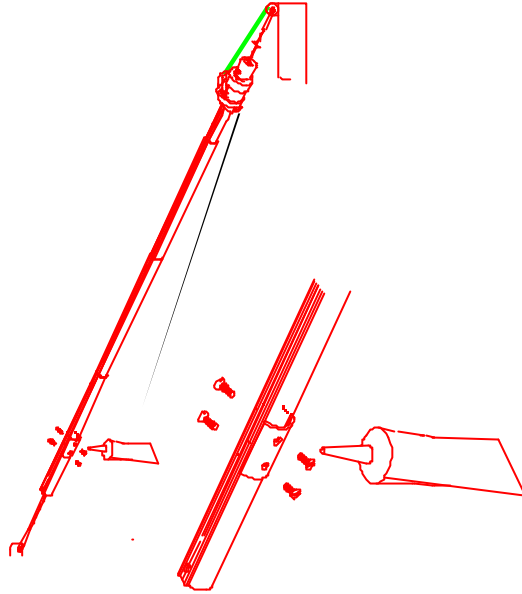


- Slide the prefeeder into position from the bottom of the spar until it is in line with the holes in the spar (IMPORTANT: ensure that the prefeeder is the right way up)
- Insert a N°7 screw
- Position a PVC liner, mark and cut to required length
- Remove the prefeeder and install the cut PVC liner

position of prefeeder

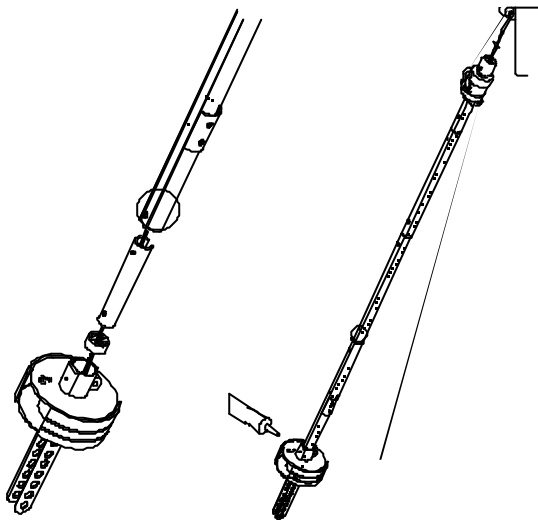


INSTALLING THE BOLTROPE PREFEEDER



- Put the prefeeder back into position
- Put some silicone filler in the holes
- Insert and tighten the 4 N°7 screws
- Wipe away any excess filler with a cloth

ASSEMBLING THE DRUM UNIT

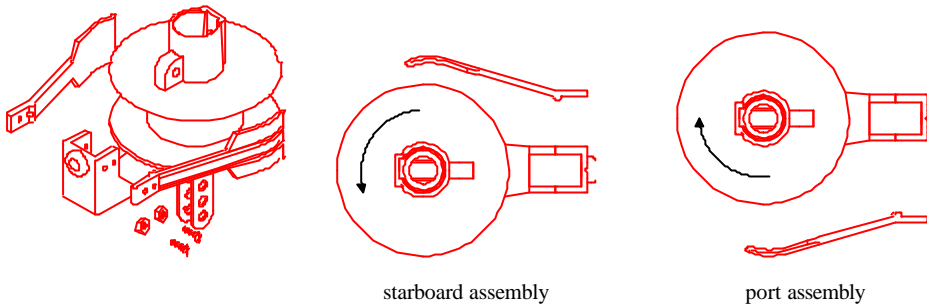


- Detach the forestay from its mounting plate on the boat
- Position the sleeve or turnbuckle* on the drum (*depending on model)
- Slide a bearing into the drum
- Insert a coupling sleeve into the base spar (ensure that the hole in the coupling sleeve is in line with the pre-drilled hole of the base spar)
- Insert the base spar into the drum unit
- Put some silicone filler in the pre-drilled hole
- Insert the Chc M5 x 12 screw
- Attach the jib reefing system to the forward mounting plate
- Lower the halyard swivel
- Tighten the backstay

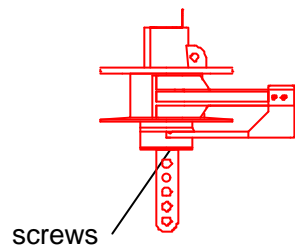
ADJUSTING THE REEFING LINE FEEDERS

406-S model

- The reefing line feeder on the 406-S model is assembled either on the right or left hand side of the drum unit, depending on which direction you prefer to reef.
- To fasten the reefing line feeder, use the two M4 x 12 nuts and bolts (see page 6)

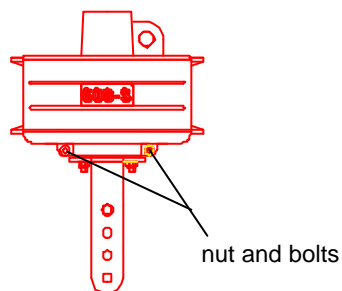


- The angle is adjusted by loosening the two screws that hold the chainplate.



608-S & 810-S models

- The angle of reefing line feeders on 608-S & 810-S models is adjusted by loosening the two nuts and bolts (see diagram below)

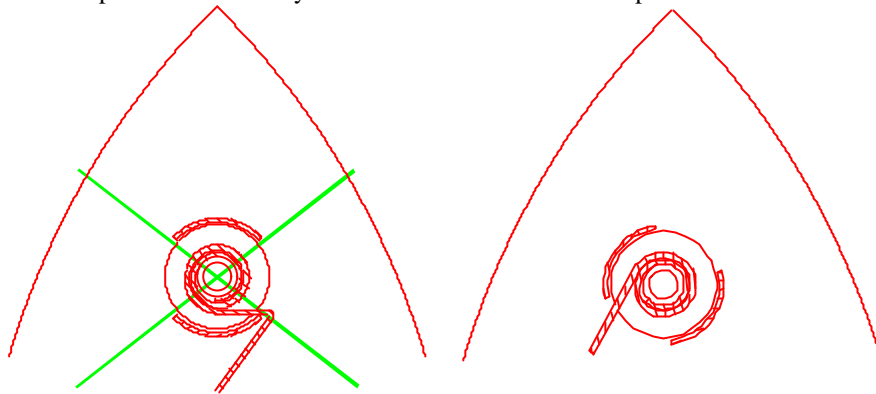


RECOMMENDATIONS

Reefing line feeders

➔ The angle of all the reefing line feeders may be adjusted.

IMPORTANT: they should be positioned in a way that best suits the direction of pull on the line

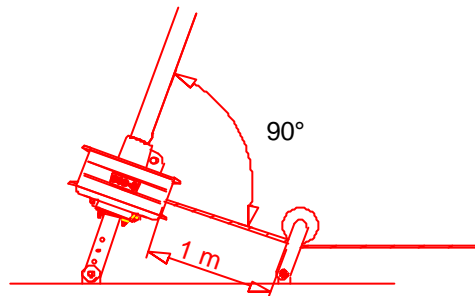


Reefing line

➔ The reefing line is wound around the drum.

Only use pre-stretched rope in order to eliminate any elasticity

Refer to diagram below for the position of the reefing line as it comes out of the drum



Reefing direction of the genoa

➔ The genoa should be reefed in the same direction as the strands turn on the forestay.

When you are not sailing

➔ Slacken the backstay in order to reduce undue strain on mechanical parts

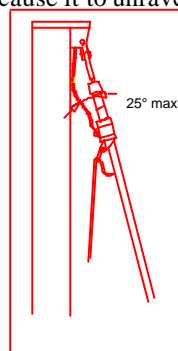
About the drum

➔ When your genoa is fully reefed and in order to avoid direct strain on mechanical parts and on the knot of the reefing line, there should be a minimum length of one halyard turn on the drum.

Halyard/forestay angle

➔ This angle should never be more than 20-25° as this makes it impossible to tauten and reef the sail.

What is more, this undue strain on the forestay could cause it to unravel and even dismast the boat...



When sailing

➔ Ensure that the forestay is always taut. Not only will this make reefing easier but will avoid any danger of the forestay unravelling. (We recommend putting a universal joint at the masthead)

Hauling on the genoa

➔ The reefing line should never be used to haul on the sail.

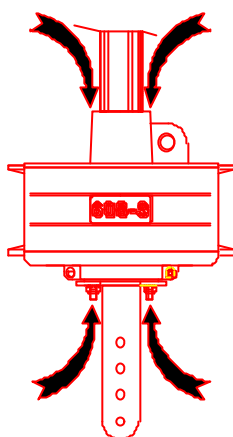
Unfurling the genoa

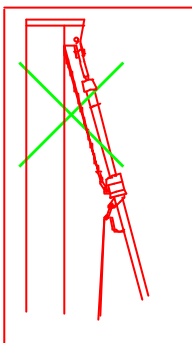
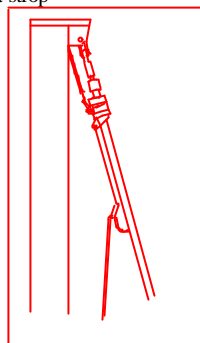
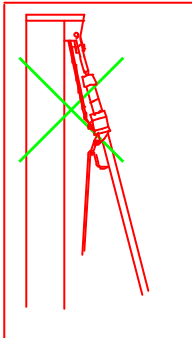
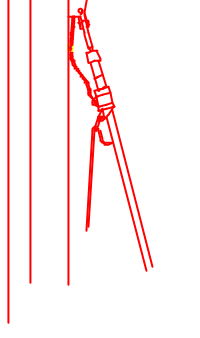
➔ When unfurling the genoa, ensure that it does not unfurl too quickly by winding the reefing line once round a winch and feeding it out slowly in one hand and the genoa sheet in the other.

MAINTENANCE

Rinse the drum unit once a year with fresh water (no dismantling required).
 - No other special maintenance is needed.

fresh water



PROBLEM ENCOUNTERED	CAUSE	SOLUTION
Halyard turns with the halyard swivel	- Forestay not taut enough ➡➡	- tighten the backstay
	- Genoa halyard too slack ➡➡	- tauten the genoa halyard
	- Genoa too short, halyard swivel too low ➡➡	- Use a strop
		
The halyard tends to wrap itself around the spar when the genoa is hoisted	- Genoa halyard too close to the forestay ➡➡	- Fasten a halyard feeder to the mast or a diverter to the forestay
		
The halyard tends to wrap itself around the spar when the genoa is hoisted	- Halyard is worn and thus twists in the direction of the rope strands ➡➡	- Change the halyard
Reefing line fouls	- Wrong angle on reefing line ➡➡	- Change position of first sheave unit - Slow down the unfurling of the genoa by winding the reefing line once round a winch.
	- First sheave too far from drum unit ➡➡	
	- Genoa unfurled too quickly ➡➡	
Genoa difficult to hoist	- Poor output from a sheave	- Try with a different halyard - Change luffrope
	- Halyard jammed ➡➡	
	- Luffrope too large ➡➡	

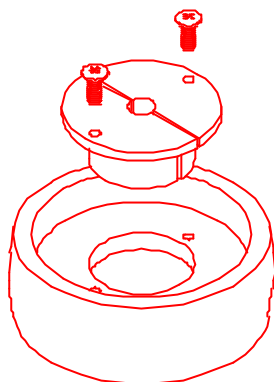
OPTIONAL EXTRAS

HALYARD DIVERTERS

- When the genoa is furling or unfurling, if the angle between the halyard and the forestay is too tight, the halyard risks being twisted round as the halyard swivel turns.
- 2 options are available to solve this problem:

Option 1: Halyard diverter wheel

- To install the diverter wheel, it is necessary to dismantle the forestay



Ref: 25720

Option 2: Halyard feeder

- To install the halyard feeder, it is not necessary to dismantle the forestay
- 2 sizes are available:

- we recommend: Ref 25677 ➔ 608 & 810 models
Ref 26140 ➔ 406 model



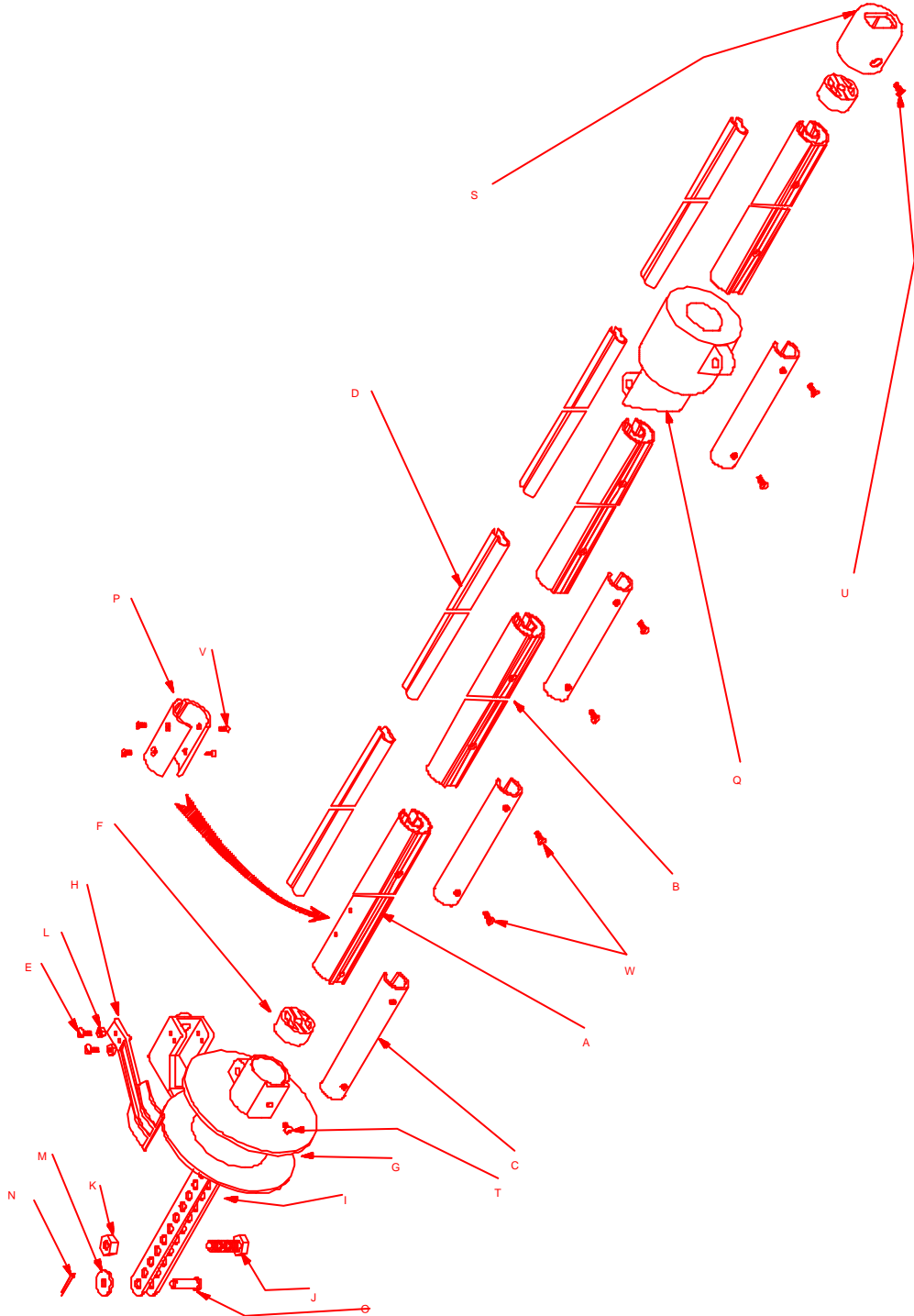
Ref: 25677



Ref: 26140

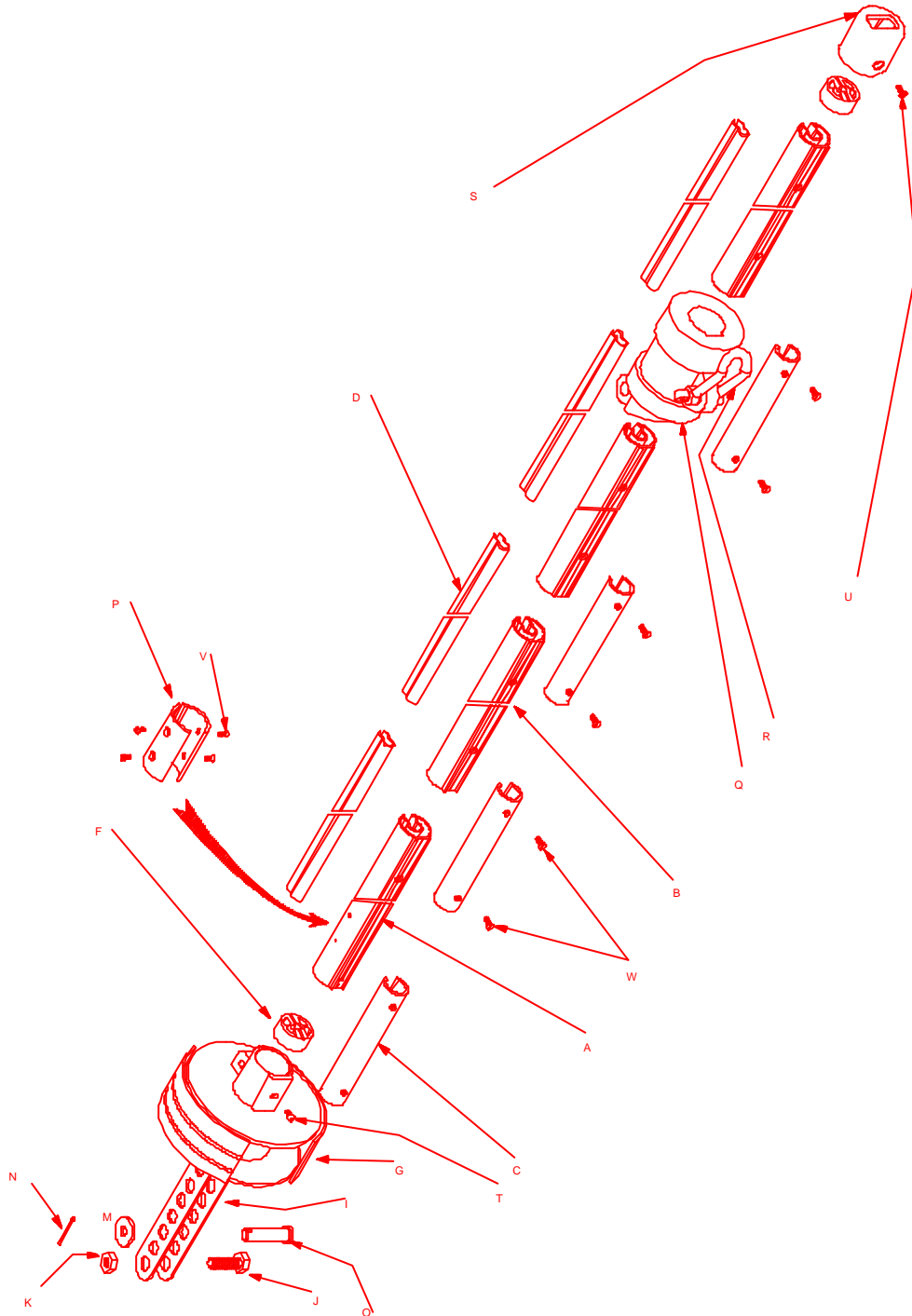
	Référence	Reference N°	406-S	406-S
			25722	25723
A	25752	Base	1	1
B	25392	Alloy spar	3	3
C	25384	Coupling sleeve	4	4
D	26179	PVC liner	4	4
E	25675	Screw TCL M4 x 12	2	2
F	22827	Bearing	2	2
G	10001	Drum	1	1
	10003	"		
	10008	"		
H	26324	Reefing line adjuster	1	1
I	26325	Coupling plates 5 holes	1	
	21308	11 holes		1
	21291	5 holes		
	21295	11 holes		
	22850	5 holes		
J	18109	Screw TH 8 x 30	1	
	22831	Screw TH 12 x 35		
	22855	Screw TH 14 x 40		
K	18048	Nut M8	1	
	22832	Nut M12		
	22857	Nut M14		
L	18045	Nut M4	2	2
M	18076	Washer L8		1
	18078	Washer L12		
N	18090	Split pin 2x20		1
	18092	Split pin 2.5x30		
O	22836	Shouldered clevis pin dia 8		1
	22837	Shouldered clevis pin dia 12		
P	22844		1	1
Q	17067	Halyard swivel	1	1
	17070	"		
R	19451	Crank shackle		
S	26321	top end stop	1	1
T	25674	Screw Chc M5 x 12	1	1
U	25672	Screw N°10 (4.8x12.7)	1	1
V	25872	Screw TF N°7 (3.9x12.7)	4	4
W	27127	Screw TF M5 x 8	6+2	6+2

406 -S



	Référence	Reference N°	608-S	608-S
			25724	25725
A	25752	Base	1	1
B	25392	Alloy spar	5	5
C	25384	Coupling sleeve	6	6
D	26179	PVC liner	6	6
E	25675	Screw TCL M4 x 12		
F	22827	Bearing	2	2
G	10001	Drum		
	10003	"	1	1
	10008	"		
H	26324	Reefing line adjuster		
I	26325	Coupling plates 5 holes		
	21308	11 holes		
	21291	5 holes	1	
	21295	11 holes		1
	22850	5 holes		
J	18109	Screw TH 8 x 30		
	22831	Screw TH 12 x 35	1	
	22855	Screw TH 14 x 40		
K	18048	Nut M8		
	22832	Nut M12	1	
	22857	Nut M14		
L	18045	Nut M4		
M	18076	Washer L8		
	18078	Washer L12		1
N	18090	Split pin 2x20		
	18092	Split pin 2.5x30		1
O	22836	Shoudered clevis pin dia 8		
	22837	Shoudered clevis pin dia 12		1
P	22844		1	1
Q	17067	Halyard swivel		
	17070	"	1	1
R	19451	Crank shackle	1	1
S	26321	top end stop	1	1
T	25674	Screw Chc M5 x 12	1	1
U	25672	Screw N°10 (4.8x12.7)	1	1
V	25872	Screw TF N°7 (3.9x12.7)	4	4
W	27217	Screw TF M5 x 8	10+2	10+2

608 - S



	Référence	Reference N°	810-S
			25374
A	25752	Base	1
B	25392	Alloy spar	6
C	25384	Coupling sleeve	7
D	26179	PVC liner	7
E	25675	Screw TCL M4 x 12	
F	22827	Bearing	2
G	10001	Drum	
	10003	"	
	10008	"	1
H	26324	Reefing line adjuster	
I	26325	Coupling plates 5 holes	
	21308	11 holes	
	21291	5 holes	
	21295	11 holes	
	22850	5 holes	2
J	18109	Screw TH 8 x 30	
	22831	Screw TH 12 x 35	
	22855	Screw TH 14 x 40	1
K	18048	Nut M8	
	22832	Nut M12	
	22857	Nut M14	1
L	18045	Nut M4	
M	18076	Washer L8	
	18078	Washer L12	
N	18090	Split pin 2x20	
	18092	Split pin 2.5x30	
O	22836	Shouldered clevis pin dia 8	
	22837	Shouldered clevis pin dia 12	
P	22844		1
Q	17067	Halyard swivel	
	17070	"	1
R	19451	Crank shackle	1
S	26321	top end stop	1
T	25674	Screw Chc M5 x 12	1
U	25672	Screw N°10 (4.8x12.7)	1
V	25872	Screw TF N°7 (3.9x12.7)	4
W	27127	Screw TF M5 x 8	12+2

810 S

