

FURLEX

 **SELDÉN**

Manual Furlex 304S Forestay Ø12 only

**Note! THIS MANUAL REPLACES
PAGES 4, 8, 9 AND 10 IN
MANUAL 597-132**



 **SELDÉN**

1.2 What's included?

Basic pack / Extended pack

The Furlex system consists of a basic pack with drum unit, halyard swivel, sail feeder, bearing halves, top guard and furling rope. The Extended pack also includes halyard leads, stanchion blocks and pre-feeder pack - accessories that will make your system work even better on your boat.

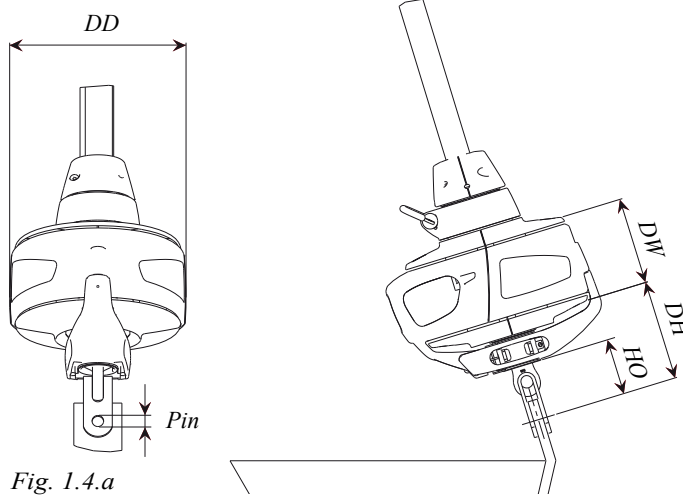
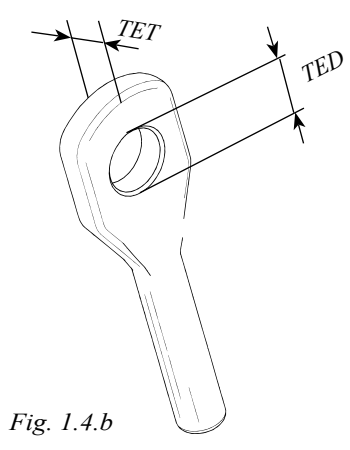
Foil pack, wire pack and eye pack

The Furlex system also includes a foil pack with luff extrusions, distance tubes and connectors. A complete forestay is also supplied with every Furlex, including a swaged stud/eye solution (no adjuster). On new boats delivered with a complete new Seldén rig, the forestay is usually included in the standing rigging and does not come as a separate wire pack.

Basic pack / Extended pack		Foil pack	Wire pack / Eye pack
<ul style="list-style-type: none"> • Drum unit • Halyard swivel • Furling rope • Bearing halves • Top guard • Sail feeder • Manual 	Extended pack also includes: <ul style="list-style-type: none"> • Halyard leads • Stanchion blocks • Pre-feeder pack • Torx bit set 	<ul style="list-style-type: none"> • Luff extrusions • Distance tubes • Joining sleeves • Connecting plates 	<ul style="list-style-type: none"> • Wire with swaged eye

1.3 Main dimensions

All dimensions are given in millimeters and inches.

 <p>Fig. 1.4.a</p>					 <p>Fig. 1.4.b</p>			
Furlex model	DD	DH	DW	HO	Wire dim.	Pin	TED	TET
304S	Ø220	160	105	110	Ø12	Ø19 (3/4")	Ø19.5	16 (5/8")

2.3 Wire length calculation

Furlex is supplied with a fixed-length forestay, with a swaged eye on one end and a swaged stud in the other end.

If a stud-terminated stay is to be manufactured by a local rigger it is important to note that WL in this case equals the length of the finished stay, from eye to end of stud, as shown in fig. 2.4.a. WL is calculated in table 1.

1. Slacken the backstay and/or the cap shrouds as much as possible, but make sure that no rigging screws are unscrewed so far that the threads are no longer visible "on the inside" of the rigging screw body. Ideally the forestay setting should not be adjusted. However, if there is insufficient adjustment in the backstay, and the forestay has a rigging screw, this can be adjusted as well. Just make sure to mark the thread with tape before adjusting.
2. Pull the top of the mast forward using the genoa or spinnaker halyard. Secure the halyard using a "D" shackle or tie the halyard to a strong deck fitting. For safety reasons, do not use any halyard snap shackles. Secure the halyard tail after the halyard has been tensioned.
3. Go up the mast. Connect a free halyard to the forestay. Then detach the forestay and lower it using the free halyard. Bring the stay down and place it on a flat surface. If the forestay rigging screw was slackened, adjust it back to the tape mark.
4. Measure the forestay length (FL) with just enough tension to keep the forestay straight on the ground. Forestay length (FL) is the distance between the hole in the swaged top terminal and the hole in whatever lower part that was attached directly to the hole in the chain plate. Enter the measurement into "Table 1" below, in the row marked FL.



You can use the FURLEX CALCULATOR on our web site. Go directly to the calculator by scanning the QR-code with your mobile device or visit www.seldenmast.com.

Table 1: Calculation of forestay wire cutting length		Your forestay	Example (304S/Ø12)				
FL	Existing forestay length (FL), including rigging screw (See Fig. 2.4.a)		16.243				
T	Deduction for lower terminal:	-	- 140				
	<table><tr><td>WIRE</td><td>Without rigging screw:</td></tr><tr><td>304S</td><td>Ø12mm wire: 140 mm (5 1/2")</td></tr></table>	WIRE	Without rigging screw:	304S	Ø12mm wire: 140 mm (5 1/2")		
	WIRE	Without rigging screw:					
304S	Ø12mm wire: 140 mm (5 1/2")						
H	If links or extra toggles are to be used, deduct this length (H) from FL. (See table 6.7).	-	- 0				
WL	For stays with swaged stud, WL equals the length of the finished stay as shown in fig 2.4.a and NOT the cutting length.	=	= 16.103				

2.4 Top extrusions - length calculation

The Furlex luff extrusion consists of a number of shorter pieces. Starting from the bottom there is a 1000 mm (39 3/8") luff extrusion connected to the drum unit and extending up to the sail feeder. Then, from the sail feeder and up there are a number of full length luff extrusions ($L=2400$ mm) and finally there is a 2000 mm top extrusion that has to be cut to length to suite the actual forestay length.



Note! If the calculation gives a top extrusion length (D) that is shorter than 700 mm (27 1/2"), the calculation must be reworked by exchanging one of the 2400 mm (94 1/2") extrusions with the uncut 2000 mm (78 3/4") top extrusion. By doing so the top extrusion will be cut from a 2400 mm (94 1/2") length and its length will then exceed 700 mm (27 1/2"). If the calculation gives a top extrusion length (D) that exceeds 2000 mm (78 3/4"), the top extrusion must be cut from one of the 2400 mm (94 1/2") extrusions. In this case the 2000 mm (78 3/4") extrusion will not be used.

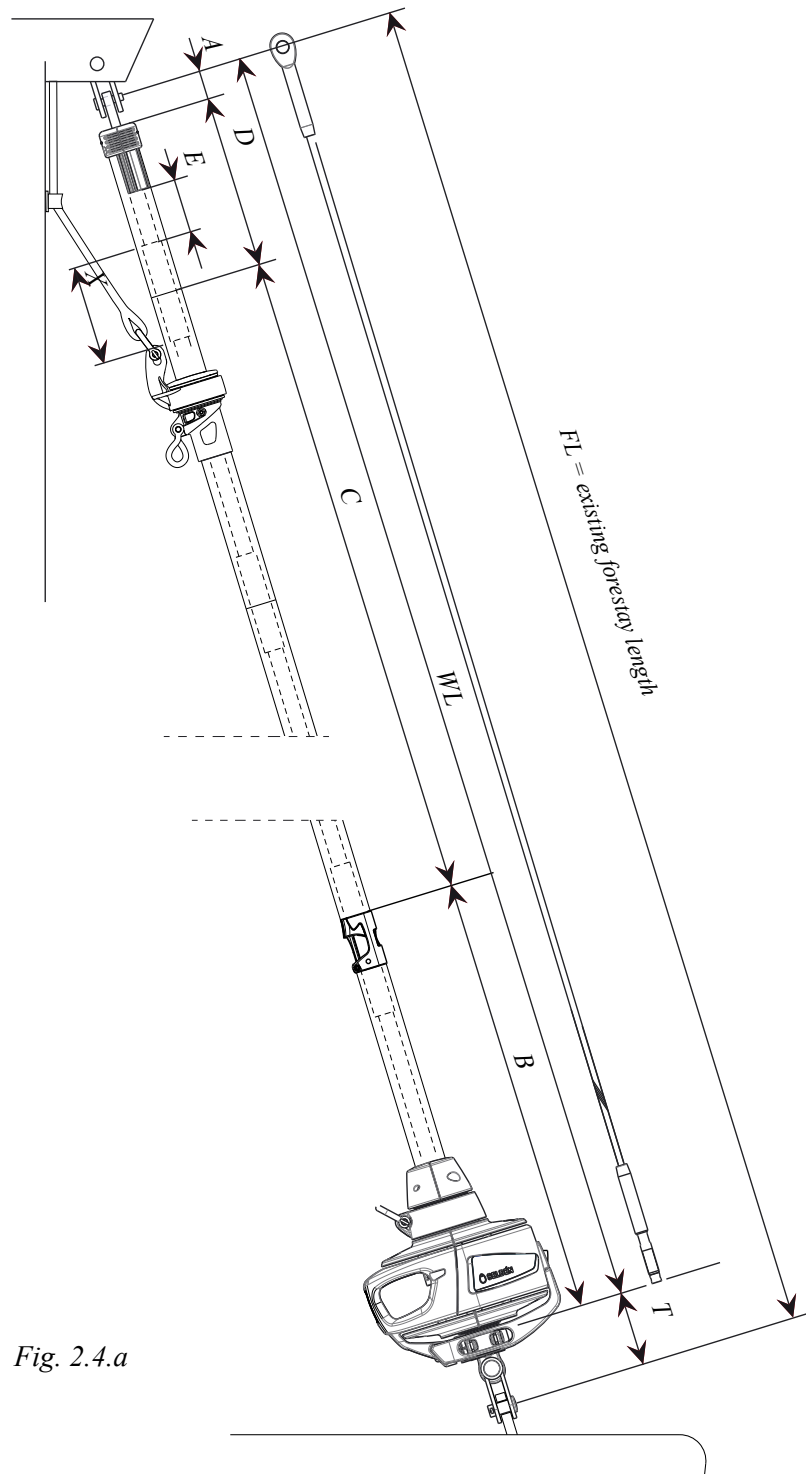


Fig. 2.4.a

To find out the cutting length of the top extrusion (D) and the length of the top distance tube (E), start with the length of the forestay wire (WL) that was calculated in table 1. Then follow the steps in table 2 below. On fixed length forestays (incl. rod stays), verify WL by measuring the stay length from centre of eye to end of stud (wire) or end of rod head. Note: The length of the top distance tube (E) is deliberate designed with some centimeters vertical space of the distance tubes and joining sleeves in the total length of luff extrusion. You can also use the FURLEX CALCULATOR on our web site. Go directly to the calculator by scanning the QR-code with your mobile device.



Table 2: Calculation of top luff extrusion length and top distance tube length		Your forestay	Example (204S/Ø8) with rigging screw 50% extended				
WL	Length of the new forestay wire (as per Table 1).		16103				
A+B	<table><tr><td>WIRE</td><td>Without rigging screw:</td></tr><tr><td>304S</td><td>Ø12 mm wire: 1460 mm (57 1/2")</td></tr></table>	WIRE	Without rigging screw:	304S	Ø12 mm wire: 1460 mm (57 1/2")		1460
WIRE	Without rigging screw:						
304S	Ø12 mm wire: 1460 mm (57 1/2")						
N	Number of full length extrusions to be used: N = (WL - (A+B)) / 2400 (94 1/2")		(16103-1460) /2400=6.1 →N=6				
C	Total length of the number of full length extrusions (2400 mm) to be used: C = N x 2400 (94 1/2")		6 x 2400 = 14400				
D*	Length of top luff extrusion: D = WL – (A+B) – C		16103-1460 -14400 = 243				
X	Fixed deduction 304S: 250 mm		250				
E*	Length of the top distance tube: E=D-X		243-250 = -7				

*) If, as in our example, D becomes less than 400 mm it is necessary to recalculate as below and cut one of the **full length luff extrusions** according to D_{new} and one of the **full length distance tubes** according to E_{new} . Note that the original top luff extrusion and the original top distance tube will now be used as intermediate extrusions.

Table 2B: Recalculation if D<400 mm		Your forestay	Example
N_{new}	Reduce the number of full length extrusions by one. $N_{new} = N - 1$		N=5
C_{new}	$C_{new} = N_{new} \times 2400 + 2000$ (94 1/2" + 78 47/64")		14000
D_{new}	$D_{new} = D + 400$ (15 3/4")		643
E_{new}	$E_{new} = E + 400$ (15 3/4")		393

7 Warranty

Seldén Mast AB guarantees the Furlex-system for 2 years. The guarantee covers faults arising from defective design, materials or workmanship.

The guarantee is only valid if the Furlex-system is assembled, operated and maintained in accordance with this manual and is not subjected to loads in excess of those indicated in the brochure and instructions.

Complete shipment and warranty conditions are to be found on Seldéns website www.seldenmast.com. See Resources/Partners information/General information/General conditions of sale (595-546-E).

If the system is repaired by anyone other than Seldén Mast AB or one of our authorized dealers, the guarantee ceases to be valid.

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