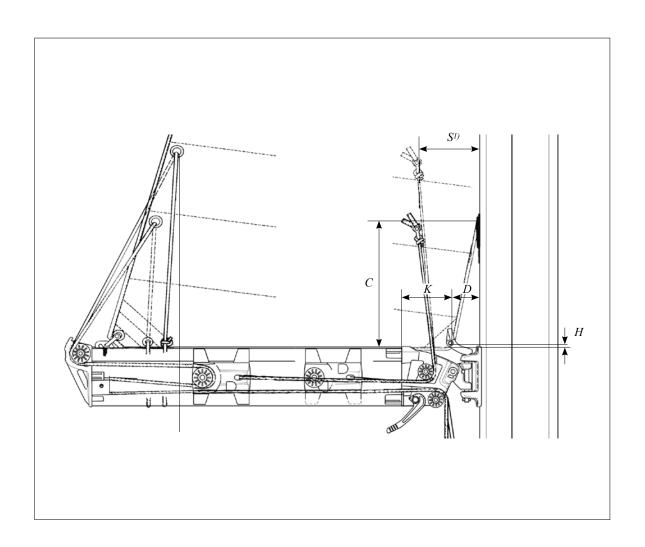
Sailmaker's guide

Dimensions and hints to help Sailmakers make sails for Seldén rigs and equipment.





1 Introduction

This guide is intended to provide sailmakers with the information necessary for them to ensure that rig and sail will be compatible. It covers the major part of Seldén's production from 1977 onwards. The information generally applies to Kemp products of the same period.

Masts between 1977 and 2002 are normally type E (conventional mast) or type R (In mast furling mast). Masts from \sim 2003 are type C (conventional masts) or type F (In mast furling masts). Each section of the guide is marked with mast type to help the reader in locating the correct information.







Although this Guide is primarily aimed at Sailmakers, the content should assist our end customers in making the best use of our impoved product.

F

However, we would point out that this guide is only intended as an aid, and that variations can occur.

It is the sailmaker's responsibility to ensure that the sail suits the rig.

This information will be up-dated as new products are introduced. Seldén reserves the right to change the specifications given without prior notice.

		The following information must be given to the sailmaker by the customer:
	Conventional mainsail with "short" battens.	Mast section dimensions. • Boom section dimensions. • Sail Plan ("P" & "E").
Mainsails	Conventional mainsail with full length battens.	Mast section dimensions. • Boom section dimensions. • Sail Plan ("P" & "E").
	In-mast furling mast mainsails	Mast section dimensions. • Boom section dimensions. • Reefing system type (Seldén in-mast furling, Furlex-Main, etc.)
Foresails	Roller furling genoas.	Furlex type. • Total forestay length incl. all toggles or available sail space • Sail Plan

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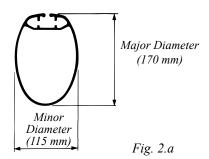
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2 Conventional masts

2.1 Mast sections

Mast section measurements are given as follows: Major Diameter/Minor Diameter (i.e. 170/115). Take note of the mast section shape. This will help identification and the use of correct measurements. The major diameter of the mast can usually be found in the number engraved at the mast heel. For example K23-170-1233.

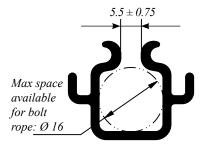


Conventional masts before 2003							
	Mast	Luff Groove mm	Slider				
E-Section (10° aft face)	122/85 130/93	4.0 + 1.0 - 0.0	511-601				
	138/95 155/104 170/115 177/124		511-602				
	189/132 206/139 224/150 237/162 274/185	5.5 ± 0.75	or 511-603				
	321/171 365/194	6.25 ± 0.75	511-603				
E-Section (Round aft face)	126/85	+ 1.0 4.0 - 0.0	511-601				
	147/95 162/104 178/115 216/139 239/162	5.5 ± 0.75	511-602 or 511-603				
D-Section	109/88 121/92	+ 1.0 4.0 - 0.0	511-601				
	129/100 137/113 146/112 160/132	5.5 ± 0.75	511-602 or 511-603				
P-Section	73/53 90/65 100/73 111/81 123/90	+ 0.75 4.0 - 0.00	611-601				
	137/100	+ 0.75 4.5 - 0.00	511-601				
	152/111 169/123 188/137	5.5 ± 0.75	511-601 or 511-603				

		Conve	ntional mas	sts from 20	003		
	Mast	Mast dim	Luff groove mm	Groove insert for bolt rope ¹⁾	MDS- car	Sail slider	Bolt rope (mm)
C-Section (2006)							
	C080	79/60					
	C086 C096	87/64 96/69	4.5 ± 0.75	-	-	511-601	Ø 10
C-Section (2006)	C106	106/71					
	C116	116/75	E 0 1 0 7E			511-602	Ø 10
	C126 C139	126/79 139/85	5.0 ± 0.75	-	-	511-602	Ø 10
C-Section	C156	156/87				511-605	
(2003)	C175 C193	175/93 193/102	10 ± 0.75	5.5 ± 0.75	511-702	or 511-607	Ø 10
لرتي	C211	211/110					
	C227	227/119			511-701	511-605	
$ \setminus $	C245	245/127	10 ± 0.75	5.5 ± 0.75	or	or	Ø 10
$ \setminus f $	C264 C285	264/136 285/147			511-702	511-607	
	C285	304/157					
	C321 C365	321/171 365/194	16 ± 0.75	-	511-730 or 511-731	-	-

- 1) Special groove insert and sail feeder gate are required to accept bolt rope. If sail slider are to be used in combination with bolt rope insert, use HA 258/A019 or Rutgerson 102.
- 2) Recommended Bolt rope diameter Ø 10 mm.

Groove insert for bolt rope



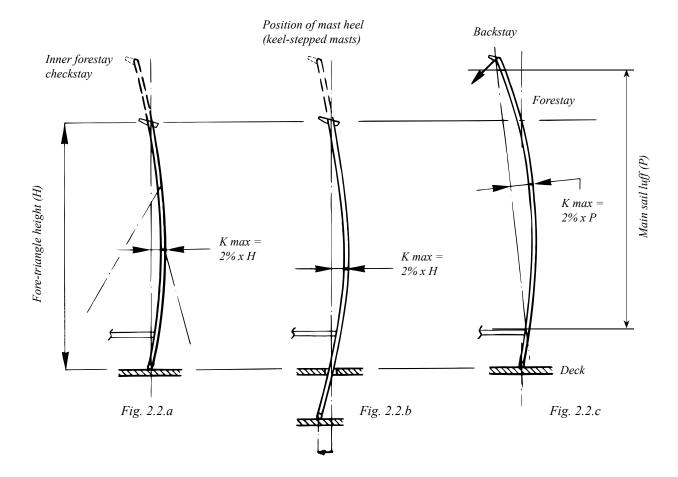
E & C

2.2 Mast deflection curves

Our spars and fittings are designed to cope with a maximum longitudinal deflection of 2% of the fore-triangle height (H). On fractional rigs the maximum deflection can be taken as being 2% of the mainsail luff (P). These values are guiding principles only.

The conditions are:

- 1) The mast forms an even curve (convex front) from deck level to mast-head.
- 2) The deflection must be kept within the stated values, even in rough seas, by suitable longitudinal staying. The deflection curve is formed by:



It may be possible to increase the above values on some masts. However, in such cases the customer must request a special calculation for this from Seldén Mast, and have our written agreement for the increase in deflection depth.

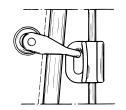


2.3 Mainsails

2.3.1 Fitting slides

To avoid jamming in the luff groove, slides must have freedom of movement on the sail.

Fig. 2.3.1.a



Correct: Free-moving fixture

Fig. 2.3.1.b

Wrong: Stiff fixture

Several systems are available for full length battens. Seldén's RCB system is shown on pages 8–9 and Seldén's MDS system is shown on pages 10–11. Refer to the relevant manufacturers concerning other systems.

Ε

2.3.2 Sail slides E-masts

It is imperative that the correct sliders are used on Seldén masts in order to fit the Seldén sail feeder gate.

Art. no.	Slider (mm)	Fits luff groove (mm)	Breaking load	Bainbridge part no.
511-601	Fig. 2.3.2.a	4	700 N (70Kp)	A 013
511-602	Fig. 2.3.2.b	5	2250 N (225Kp))	A 014
511-603	Fig. 2.3.2.c	5.5	4000 N (400 Kp)	A 015

2.3.3 Sail slides C-masts

It is imperative that Seldén slides are used on Seldén masts in order to fit the Seldén sail feeder gate.

Art. no.	Slider (mm)	Fits luff groove (mm)	Breaking load (N)	Bainbridge part no.
511-605	Fig. 2.3.3.a	10	2250 N (225 Kp)	A011
511-607	Fig. 2.3.3.b	10	4000 N (400 Kp)	A012
511-702-02	Fig. 2.3.3.c	10 ¹)	2000N (200 Kp)	-
511-701-02	Fig. 2.3.3.d	10 ¹)	3000N (300 Kp)	-
511-730-02	Fig. 2.3.3.e	16 ¹⁾	4500N (450 Kp)	-
511-731-02		16 ¹⁾	8750N (875 Kp)	-

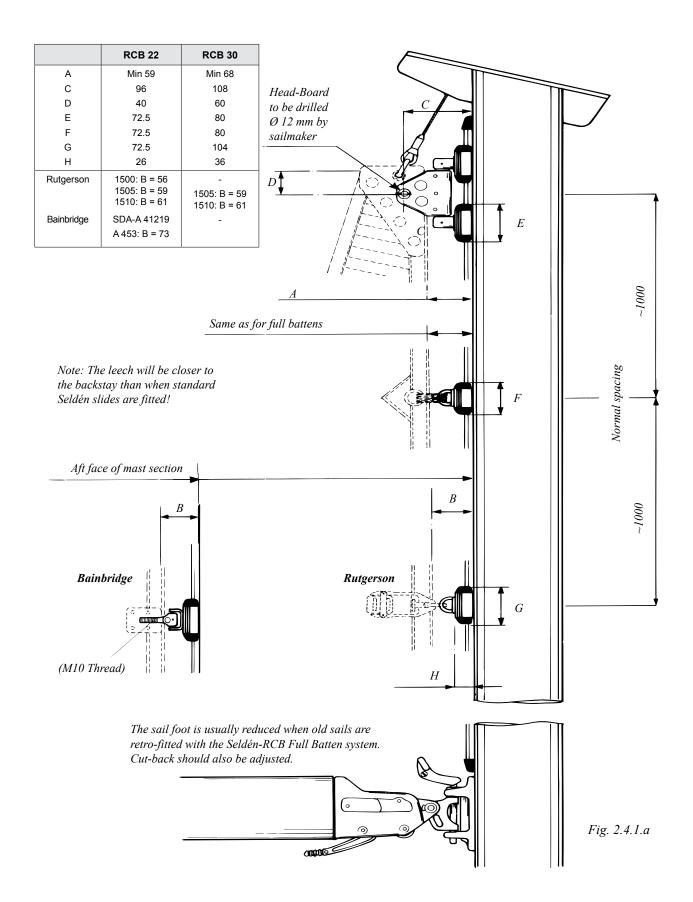
¹⁾ For Mast sections, see page 11 and 13.

2.3.4 Shackles for sliders

Art. no.	Shackle (mm)	Fits slide (mm)	Breaking load (N)	Bainbridge part no.
307-094-01	8.5 45.1	511-605 511-607 511-701-01 511-702-01	2000N (200 Kp)	-

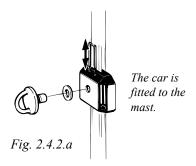
2.4 Seldén – RCB full batten System 22 and System 30

2.4.1 Dimensions



2.4.2 Parts

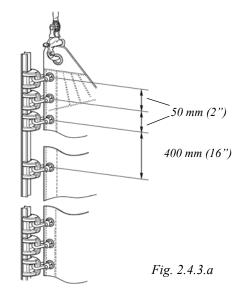
The slide attachment eye is easily detached from the slide and can be sent to the sailmaker separately. It also facilitates fitting the mainsail.



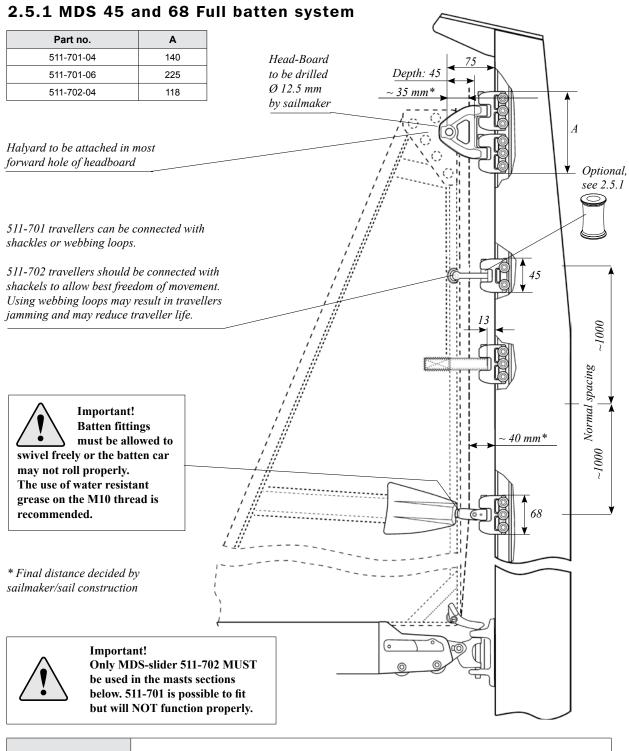
		Connectors	Car	Total assembly
Head-board car				
	RCB 22	511-595-11	511-581-11	511-595-01
	RCB 22 Light	511-703-11	511-703-11	511-703-11
	RCB 30	511-695-11	511-681-11	511-695-01
Batten car				
All-Round: Fits Rutgerson	RCB 22	511-590-01	<u> </u>	511-581-04
batten fitting and others	RCB 22 Light	511-703-11		511-703-11
and others	RCB 30	511-690-01	—	511-681-04
Batten car With M-10				
screw: Fits Bainbridge	RCB 22	511-598-01	511-581-11	511-581-03
batten fitting	RCB 22 Light	511-703-11	511-703-11	511-703-11
and others	RCB 30	511-692-01	511-681-11	511-681-03
		© P	F F	
Sail car	RCB 22	511-590-01	511-581-11	511-581-04
	RCB 22 Light 511-703-11		511-703-11	511-703-11
	RCB 30	511-690-01	511-682-11	511-681-04

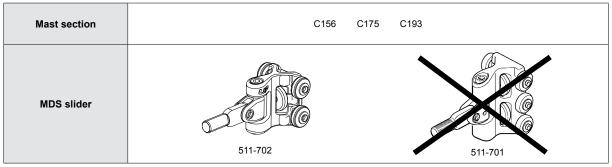
2.4.3 Try Sail slider (Part. no.: 511-713)

- Three sliders at the head and tack of the sail c/c 50 mm (2"). Remaining cars to be fitted with c/c ~400 mm (16").
- For sufficient articulation always connect cars to sail via shackles.
- For less friction use Seldén Silicone lubricant (Part No. 312-506) or similar products on the track.
- Breaking load 2.6kN.

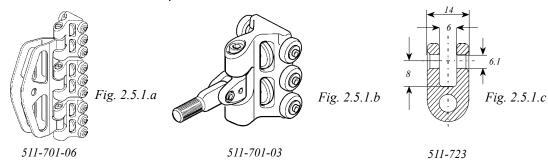


2.5 MDS Full batten system





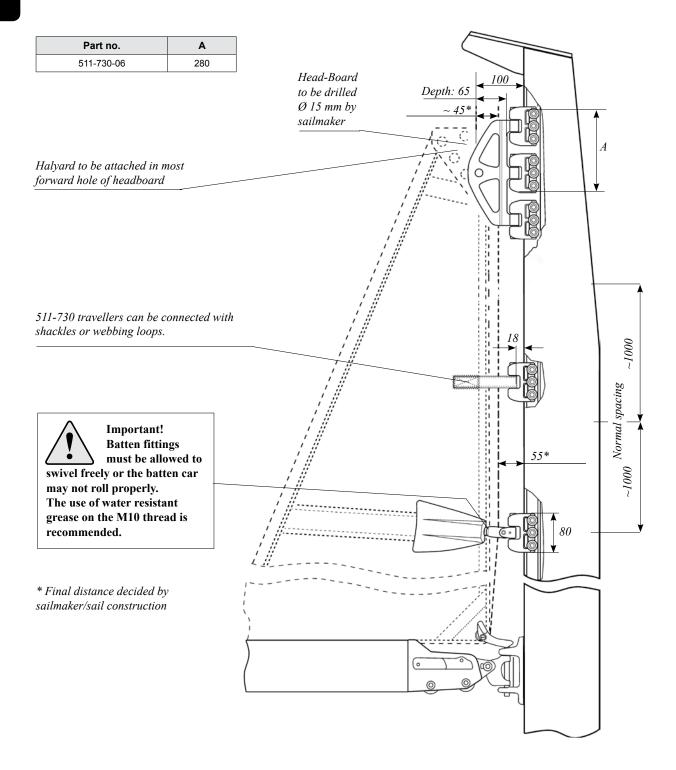
2.5.2 Parts and RM-limits, MDS 45 and 68



	Assembly Max RM kNm		Parts	Parts		Section	
	7.000		mbly Frac	- Carto			Coolion
Head board	511-707-01	Mh 90	70	511-707	0 166-234	1- 01	C156 C211 C175 C227 C193 C245
	511-708-01	160	120	511-708	0 166-234	4-01	C264 C285 C304
	511-702-041)	55	40	511-707-01	MDS 45 511-702-01	153-118	C156 C175 C193
Head board car	511-701-042)	90	70	511-707-01	MDS 68 511-701-01	153-117	C211 C227 C245
	511-701-06 ³)	160	120	511-708-01	MDS 68 511-701-01	153-117	C264 C285 C304
	511-702-03	90	70	MDS 45 511-702-01	M10 screw 511-712-01	153-118	C156 - C175
Batten	511-702-08		70	MDS 45 511-702-01	511-723 ⁴)	153-118	C193
Car	511-701-03 M10 screw	160	120	MDS 68 511-701-01	M10 screw 511-712-01	153-117	C211 C227 C245 C264
	MDS 68 511-701-08	100	120	MDS 68 511-701-01	511-723 4)	153-117	C285 C304
Sail Car	MDS 45 511-702-02	90	70	MDS 45 511-702-01	511-719	153-118	C156 C245 C175 C264 C193 C285 C211 C304 C227
		160	120		(_0	(9)	C211 C264 C227 C285 C245 C304
	MDS 68 511-701-02			MDS 68 511-701-01	511-719	153-117	

¹⁾ Breaking load 4000N, 2) Breaking load 6000N, 3) Breaking load 9000N, 4) Measurement see fig. 2.5.1.c.

2.5.3 MDS 80 Full batten system



2.5.4 Parts and RM-limits, MDS 80 and MDS 80 HD* $\,$

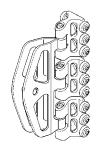


Fig. 2.5.3.a

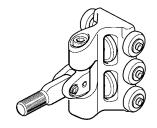


Fig. 2.5.3.b

511-730-06/511-731-06

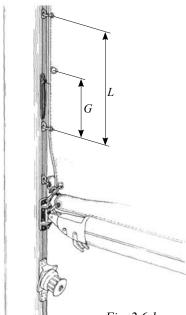
511-730-03/511-731-06

	Assembly	Max Ri Asse Mh		Parts	Pa	rts	Section
Head board	511-728-01	550	450	511-728	165-5	04-01	C321 C365
Heard board car	MDS 80 511-730-06 ¹⁾ MDS 80 HD 511-731-06 ²⁾	250 550	200 450	511-728-01	511-730-01	153-139	C321 C365
Batten car	MDS 80 511-730-03 M10 screw MDS 80 511-730-09 M12 screw MDS 80 HD 511-731-03 M10 screw MDS 80 HD 511-731-09 M12 screw	250 550	200 450	MDS 80 511-730-09 MDS 80 HD 511-731-09	511-727-01 M12 511-727-02 M10	153-139	C321 C365
Sail car	MDS 80 511-730-02 MDS 80 HD 511-731-02	250 550	200 450	MDS 80 511-730-01 MDS 80 HD 511-731-01	153		C321 C365

^{*} MDS 80 HD has machined aluminium body

¹⁾ Breaking load 13500N

²⁾ Breaking load >25000N



2.6 Sail Feeder Gate

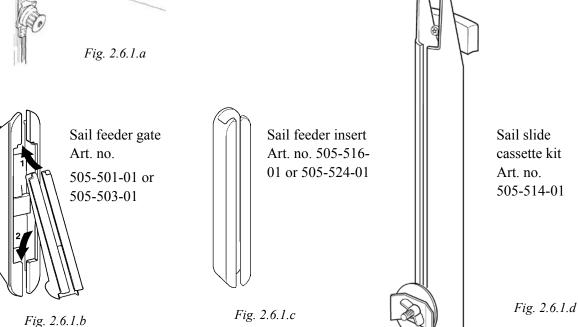
2.6.1 Seldén Sail Feeder Gate

The Seldén E-section sail feeder gate allows reefing without needing to remove the slides from the luff groove. Ensure that the measurement "G" is sufficient to allow the reef cringle to be hooked on with the slides in place in the luff groove.

"L"= the largest possible slide spacing as recommended by the sailmaker.

Note. Remember that the reef cringles also have "cut-back" to reduce horizontal loading on the nearest slide.

(Reef Hook cut-back = "F"; page 18-19, 22 and 27)



Section Series E122/85-274/185 & D109/88-160/132

The sail feeder is fitted with a removable gate to permit the mainsail to be fitted with either a luff rope or with slides. See fig. 2.6.1.b. Length of outer oval casing of 505-501-01 is 160 mm, 505-503-01 is 130 mm.

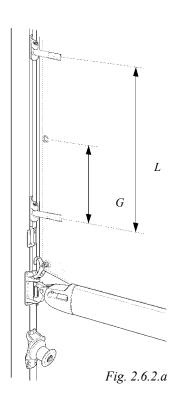
Section Series E126/85-239/162 & P73/53-188/137

From 1977 to 1979 inclusive, these sections were fitted with the sail feeder gate mentioned above. Earlier sections have a dilated luff groove just above the gooseneck fitting to allow either luff rope or slides to be fed in. An extension tube, see fig. 2.6.1.d (part number 505-514-01) is obtainable as extra equipment for these masts. This allows slides to move down the luff groove to the upper edge of the gooseneck fitting, and permits reefing in the same way as in fig. 2.6.1.a.

Sail Feeder Gate for Full-Length Batten Cars

For sails with full-length battens and cars that run in the luff groove, a special sail feeder insert is available, see fig. 2.6.1.c (505-516-01 can be fitted instead of 505-501-01 and 505-524-01 can be fitted instead of 505-503-01). Sail feeder insert no. 505-516-01 fits sections E 138/95–274/185 and D-129/100–160/132. Sail feeder insert no. 505-524-01 fits sections E 122/85, E 130/93, D 109/28 and D 121/92.

C C156 -C365



2.6.2 Seldén MDS Sail Feeder Gate

The Seldén C-section sail feeder gate allows reefing without needing to remove the slides from the luff groove. Ensure that the measurement "G" is sufficient to allow the reef cringle to be hooked on with the slides in place in the luff groove.

"L" = the largest possible slide spacing as recommended by the sailmaker.

Note. Remember that the reef cringles also have "cut-back" to reduce horizontal loading on the nearest slide.

(Reef Hook cut-back = "F"; page 20-22, 23-24 and 28).

Fig. 2.6.2.b MDS Sail feeder gate for C156-C304 Part. no. 505-519-01

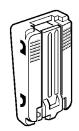
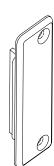


Fig. 2.6.2.c MDS Sail feeder gate for C321 and C365 Part. no. 507-309-01

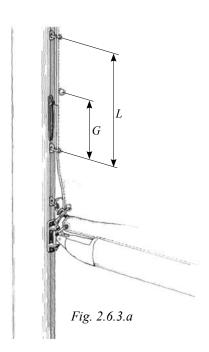


Instructions for the MDS sail feeder gate.

The MDS-sail feeder gate is designed for use with MDS cars or conventional sail sliders. When using MDS cars, simply remove the sail feeder gate when installing or removing the cars. When using it with conventional sliders, feed the sliders through the spring-loaded mid section of the sail feeder gate.

Feeding MDS Cars	Feeding Sail sliders
Fig. 2.6.2.d	Fig. 2.6.2.e
Sail feeder gate is easily removed to fit or remove	Sail feeder gate is designed for use with Seldén
Seldén MDS cars.	MDS cars or conventional sail slides.
1. Press at the bottom of the middle gate.	
2. Push the Sail feeder gate body downwards.	





2.6.3 Seldén feeder Gate - Keelboat

The Seldén C-section sail feeder gate allows reefing without needing to remove the slides from the luff groove. Ensure that the measurement "G" is sufficient to allow the reef cringle to be hooked on with the slides in place in the luff groove.

"L" = the largest possible slide spacing as recommended by the sailmaker.

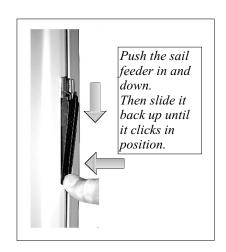
Note. Remember that the reef cringles also have "cut-back" to reduce horizontal loading on the nearest slide.

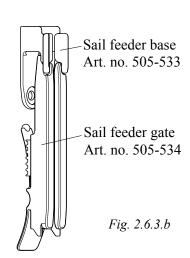
(Reef Hook cut-back = "F"; page 21, 24 and 28).

Section Series C080 - C139

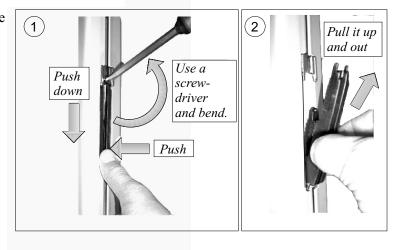
The sail feeder is fitted with a removable gate to permit the mainsail to be fitted with either a luff rope or with slides. See fig. 2.6.3.b.

How to fit Sail feeder





How to remove Sail feeder



2.7 New boom section series 2008

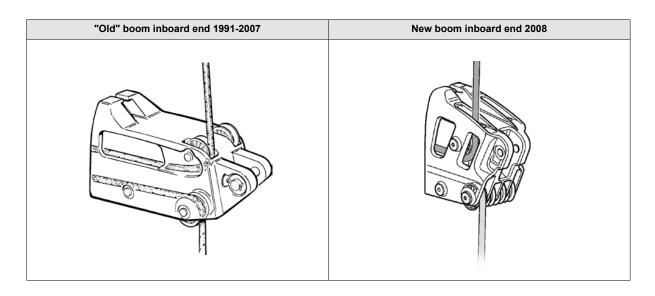
During 2007/2008 a new series was launched containing more different section sizes and new end fittings. The new booms can be identified by their shorther inboard ends.

The boom sections will have changed descriptions from 2008.

Old Description	New Description
120/62	B120
New 2008	B135
143/76	Outgoing 2007
New 2008	B152
171/94	B171
200/117	B200
230/70	B230
250/140	B250
290/155	

New boom series 2008

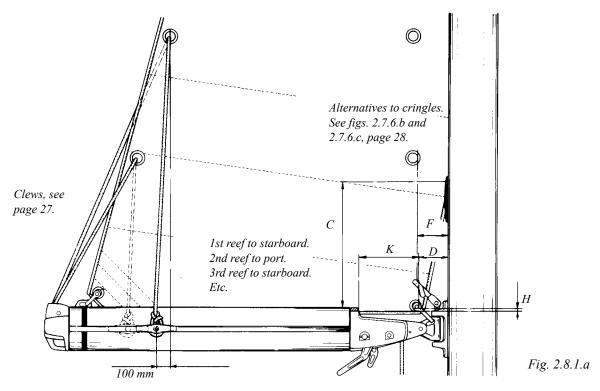
	Boom	Boom dim.	Sail foot groove mm
	B087	86/59	5.5 ± 0.6
B087 B104	B104	104/60	5.5 ± 0.6
	B120	120/62	5.5 ± 0.75
	B135	135/71	5.8 ± 0.75
	B152	152/82	5.8 ± 0.75
	B171	171/94	5.5 ± 0.75
+ Y	B200	200/117	6.25 ± 0.75
	B250	250/140	6.25 ± 0.75
	B290	290/155	10.25 ± 0.75
X	B300	300/155	6.25 ± 0.75
	B380	380/186	-
P	B190	190/60	5.5 ± 0.75
	B230	230/70	6.25 ± 0.75



E

2.8 Boom sections on conventional masts (through 1991) (Tacks, reefing hooks etc)

2.8.1 Slab reefing and roller reefing on older booms



	Boom section	Luff foot groove	ga	eeder ate back"	Та	ck	Reef hooks	No. of internal reefing lines	Reef line attachment at aft end of boom
		mm	C mm	K mm	D mm	H	F mm		
	Grooved Section 1977–1991	+ 0.75 4.0 - 0.0							Reefing line tied
 	85/58 86/59*		600 600	190 190	60 60	0	50 50	2 2	fast to slide on the boom. Free choice of
	111/75 128/90 150/105 162/125	5.5 ± 0.75	830 830 830 830	205 225 265 330	75 75 60 60	10 20 30 25	65 65 105 105	2 2 3 4	number of slides.
	E-Section 1982–1991 189/132 206/139	5.5 ± 0.75	830 830	330 330	60 60	25 25	105 105	4 4	Reefing line tied around boom; see fig. 2.8.2.a, page 19.
	P-Section 1969–1980 73/53 90/65 111/81	+ 0.75 4.0 - 0.0		exi b	veral var st. Spar e individ measur	s must dually		Usually roller reefing booms, but also slab-reefing booms with external reefing lines occur.	Adjustable slides on tracks occur, but reefing lines can also be tied around boom. See fig. 2.8.2.a
	137/100	+ 0.75 4.5 - 0.0						occur.	page 19.

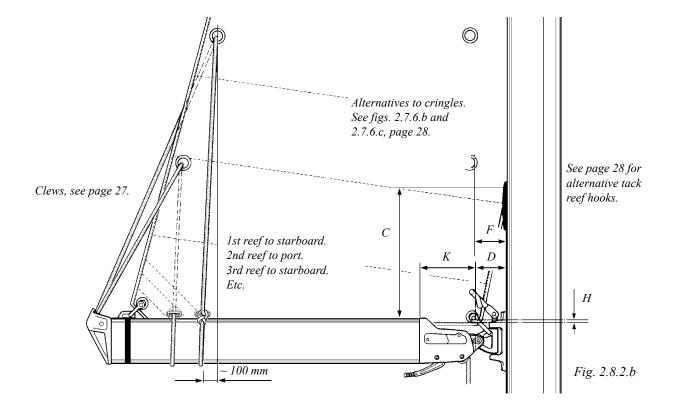
^{*} Still in production.

2.8.2 Traditional slab-reefing booms from 1991 inclusive 2003



- 1. The reefing line is tied as illustrated, with a bowline and running noose. No. 1 reef is shown. Note that grommets are required along the foot for each reef.
- 2. For loose-footed sails, the reef line loop must be held in the correct position along the boom, to ensure proper reefing. Seldén's eye slider can be used for this. (See table 2.11). Fig.





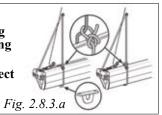
	Boom section	Luff foot groove	ga	eeder ate back"	Tack		Reef hooks	No. of internal reefing lines	Reef line attachment at aft end of boom
		mm	C mm	K mm	D mm	H mm	F mm		
	120/62		830	215	75	10	65	2 slab reefs + 1 flattening reef	
	143/76	5.5 ± 0.75	830	160	80	20	80	3 slab reefs	
	171/94		830	190	80	20	80	3 slab reefs	
\ c -3\	200/117		830	250	100	20	110	4 slab reefs	Reefing line tied around boom;
'	250/140	6.25 ± 0.75	830	275	100	20	110	4 slab reef	see fig. 2.8.2.a.
E3	300/155	6.25 ± 0.75	830	100	77	37	Running hook page 28	2–4 slab reefs	

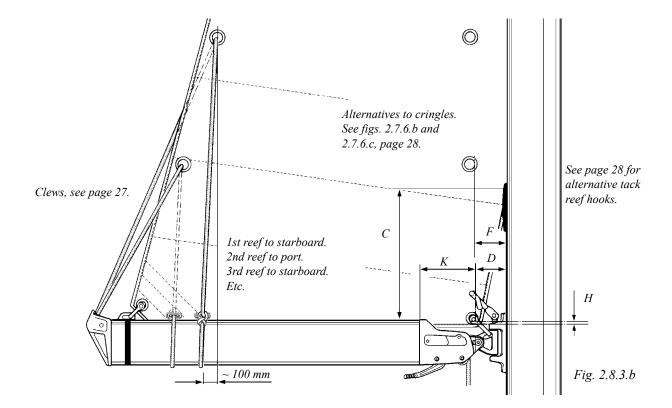
C

2.8.3 Traditional slab-reefing booms on C-mast from 2003 - 2007



- . The reefing line is tied as illustrated, with a bowline and running noose. No. 1 reef is shown. Note that grommets are required along the foot for each reef.
- 2. For loose-footed sails, the reef line loop must be held in the correct position along the boom, to ensure proper reefing. Seldén's eye slider can be used for this. (See table 2.11). Fi



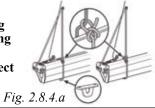


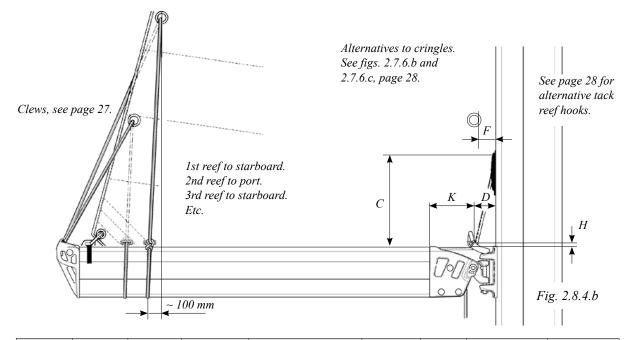
Mast section		Boom section	Luff foot groove		feeder ga ut-back"		Та	ck	Reef hooks	No. of internal reefing lines	Reef line attachment at aft end
			mm	C (MDS slides) mm	C (bolt rope) mm	K	D mm	H	F mm		of boom
C156 C175	σ	120/62	5.5 ± 0.75	130	850	150	80	35	80	2 slab reefs + 1 flattening reef	
C193		143/76	5.5 ± 0.75	110	830	165	80	20	80	3 slab reefs	
C211		171/94	5.5 ± 0.75	110	830	195	80	20	80	3 slab reefs	
C227 C245	G	200/117	6.25 ± 0.75	110	830	270	80	20	80	4 slab reefs	Reefing line
C264	CJ	171/94	5.5 ± 0.75	180	830	210	100	45	110	3 slab reefs	tied around
C285	-()	200/117	6.25 ± 0.75	150	830	250	100	20	110	4 slab reef	boom; see fig. 2.8.3.a.
C304		250/140	6.25 ± 0.75	150	830	275	100	20	110	4 slab reef	
C264 C285 C304	(F)	300/155	6.25 ± 0.75	170	830	75	100	35	Running hook page 28	2–4 slab reefs	

2.8.4 Traditional slab-reefing booms on C-mast from 2008



- 1. The reefing line is tied as illustrated, with a bowline and running noose. No. 1 reef is shown. Note that grommets are required along the foot for each reef.
- 2. For loose-footed sails, the reef line loop must be held in the correct position along the boom, to ensure proper reefing. Seldén's eye slider can be used for this. (See table 2.11).





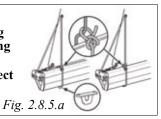
Mast section		Boom section	Sail foot groove		feeder ga		Та	ck	Reef hooks	No. of internal reefing lines	Reef line attachment
			mm	C (MDS slides) mm	C (bolt rope) mm	K	D mm	H	F mm		at aft end of boom
C080 C087 C096 C106		B087	5.5 ± 0.75	~	600	55	55	0	70	2 slab reefs	
C116 C126 C139		B104	5.5 ± 0.75	~	600	55	55	0	70	2 slab reefs	
C126 C139		B120	5.5 ± 0.75	~	600	165	65	20	70	2 slab reefs	
C156		B087	5.5 ± 0.75	130	750	55	65	20	70	2 slab reefs	
0130		B104	3.5 1 0.75	130	730	33	00	20	70	2 Slab Teels	
C156 C175		B120	5.5 ± 0.75	130	750	150	80	35	80	2 slab reefs + 1 flattening reef	Reefing line tied around
C193		B135	5.8 ± 0.75	130	750	105	80	30	80	3 slab reefs	boom;
C211	_/	B152	3.0 ± 0.73	120	750	105	80	20	80	3 slab reefs	see fig. 2.8.4.a.
C227	4.5	B171	5.5 ± 0.75	110	750	120	80	20	80	3 slab reefs	
C245		B200	6.25 ± 0.75	170	750	175	100	15	80	4 slab reefs	
C264		B171	5.5 ± 0.75	180	750	135	100	45	110	3 slab reefs	
C285		B200	0.05 . 0.75	150	750	175	100	15	110	4 slab reef	
C304		B250	6.25 ± 0.75	150	750	175	100	15	110	4 slab reef	
C264 C285	(4)	B290	10.25 ± 0.75	170	750	75	100	35	Running hook	2–4 slab reefs	
C304		B300	6.25 ± 0.75	170	730	75	100	35	page 28	2 -4 sidb feels	

2.8.5 Single line reef booms as from and including 1991 - 2003



Important!

- 1. The reefing line is tied as illustrated, with a bowline and running noose. No. 1 reef is shown. Note that grommets are required along the foot for each reef.
- 2. For loose-footed sails, the reef line loop must be held in the correct position along the boom, to ensure proper reefing. Seldén's eye slider can be used for this. (See table 2.11).



	1st reef to starboard. 2nd reef to port. 3rd reef to starboard. Etc.	Forward reef line attached by means of a shackle supplied by Seldén Mast.
Clews, see page 27.	C	D H
Fig. 2.8.5.b	00 mm E	

	Boom section	Luff foot groove	ga	eeder ate back"	Та	ck	Single lines reef	No. of reef lines	Reef line attachment	Max height for reef 1 (Starboard)	Max height for reef 2 (Port)
		mm	C mm	K mm	D mm	H mm	S¹) mm			mm	mm
	120/62		830	215	75	10	120	2 single line + 1 flattening		E-1800	E-600
	143/76	5.5 ± 0.75	830	160	80	20	140	2 single line +	Reef line attached	E-1800	E-700
	171/94		830	190	80	20	150	1 traditional slab reef ²⁾	as per fig. 2.8.5.a	E-1900	E-850
رجع	200/117		830	250	100	20	190	2 single line +	g	E-2000	E-950
	250/140	6.25 ± 0.75	830	275	100	20	200	2 traditional slab reefs ²⁾		E-2500	E-1100

 $^{1) \}quad \textit{The "S" measurement includes the shackle supplied by Seld\'en Mast.}$

Comprehensive instructions on Single-Line reefs can be obtained from Seldén Mast; reference No 595-664-SET, (in Swedish, English and German).

²⁾ Running Reef Hooks as shown on page 28 should be used for traditional 3rd and 4th slab reefs in conjunction with Single-Line Reefs. If permanent reef hooks are used at the tack there is a risk that the sail can snag when a Single-Line Reef is shaken out.

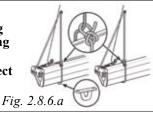
^{3) &}quot;Max height" information refer to forward reef cringle only.

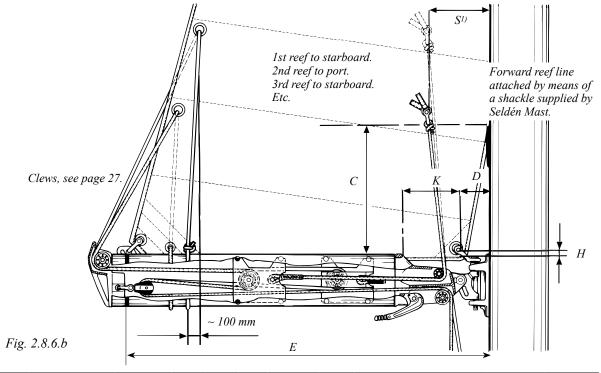
2.8.6 Single line reef booms on C-mast from 2003 - 2007



Important!

- 1. The reefing line is tied as illustrated, with a bowline and running noose. No. 1 reef is shown. Note that grommets are required along the foot for each reef.
- 2. For loose-footed sails, the reef line loop must be held in the correct position along the boom, to ensure proper reefing. Seldén's eye slider can be used for this. (See table 2.11).





Mast section		Boom section	Luff foot groove		feeder g ut-back		Та	ck	Single line reef	No. of internal reefing	Reef line attachment	Max height for reef 1 (Starboard)	Max height for reef 2 (Port)
				C (MDS slides)	C (bolt rope)	К	D	Н	S 1)	lines		3)	3)
			mm	mm	mm	mm	mm	mm	mm			mm	mm
C156		120/62		130	850	150	80	35	120	2 single line + 1 flattening		E-1800	E-600
C175	αл	143/76	5.5 ± 0.75	110	830	165	80	20	140	2 single line +		E-1800	E-700
C193										1 traditional			
C211		171/94		110	830	195	80	20	150	slab reef ²⁾	Reef line	E-1900	E-850
C227 C245	کم	200/117	6.25 ± 0.75	110	830	270	80	20	190	2 single line + 2 tradi- tional slab reefs ²⁾	attached	E-2000	E-950
0240											as per fig. 2.8.6.a		
C264		171/94		180	830	210	100	45	180	2 single line + 1 tradi- tional slab reefs ²⁾	ilg. 2.0.0.a	E-1900	E-850
C285		200/117	5.5 ± 0.75 6.25 ± 0.75	150	830	250	100	20	190	2 single line +		E-2000	E-950
C304	کی	250/140		150	830	275	100	20	200	slab reefs ²⁾		E-2500	E-1100

¹⁾ The "S" measurement includes the shackle supplied by Seldén Mast.

Comprehensive instructions on Single-Line reefs can be obtained from Seldén Mast; reference No 595-664-SET, (in Swedish, English and German).

²⁾ Running Reef Hooks as shown on page 28 should be used for traditional 3rd and 4th slab reefs in conjunction with Single-Line Reefs. If permanent reef hooks are used at the tack there is a risk that the sail can snag when a Single-Line Reef is shaken out.

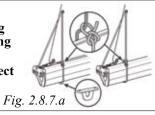
^{3) &}quot;Max height" information refer to forward reef cringle only.

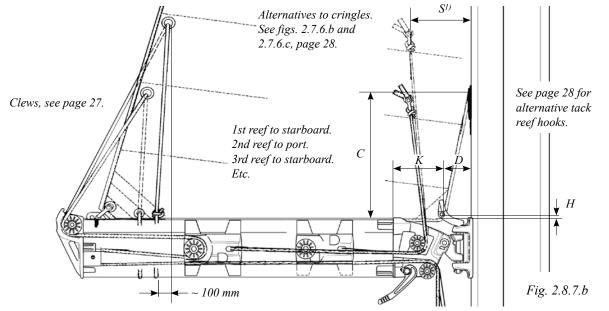
2.8.7 Single line reef booms on C-mast from 2008



Important!

- 1. The reefing line is tied as illustrated, with a bowline and running noose. No. 1 reef is shown. Note that grommets are required along the foot for each reef.
- 2. For loose-footed sails, the reef line loop must be held in the correct position along the boom, to ensure proper reefing. Seldén's eye slider can be used for this. (See table 2.11).





Mast section		Boom section	Sail foot groove		eeder g ut-back		Та	ck	Single line reef	No. of internal reefing	Reef line attachment	Max height for reef 1	Max height for reef 2
			mm	C (MDS slides) mm	C (bolt rope) mm	K	D mm	H	S¹) mm	lines		(Starboard) 3) mm	(Port) ³⁾ mm
C080 C087 C096 C106		B087	5.5 ± 0.75	~	600	55	55	0	95	2 single line		E-1650	E-450
C116 C126 C139		B104	5.5 ± 0.75	~	600	55	55	0	95	2 single line		E-1650	E-450
C126 C139		B120	5.5 ± 0.75	~	600	165	65	20	70	2 single line		E-1650	E-450
C156		B087 B104	5.5 ± 0.75	130	750	165	65	20	105		Reef line	-	-
C156		B120	5.5 ± 0.75	130	750	150	80	35	120	2 single line + 1 flattening	attached as per	E-1800	E-600
C175	()	B135	5.8 ± 0.75	130	750	105	80	30	165	2 single line +	fig. 2.8.7.a	E-1800	E-650
C193 C211	\	B152	0.0 1 0.70	120	750	105	80	20	165	1 traditional slab reef ²⁾		E-1800	E-750
C227	5	B171	5.5 ± 0.75	110	750	120	80	15	165	Sidd 1001		E-1900	E-850
C245		B200	6.25 ± 0.75	170	750	175	100	15	240	2 single line + 2 tradi- tional slab reefs ²⁾		E-2000	E-950
	α'n	B171	5.5 ± 0.75	180	750	135	100	45	200	2 single line + 1 tradi- tional slab reefs ²⁾		E-1900	E-850
C264 C285		B200	6.25 ± 0.75	150	750	175	100	15	240			E-2000	E-950
C304	$ \setminus $	B250	0.25 ± 0.75	150	750	175	100	15	240	2 single line + 1 traditional slab reefs ²⁾		E-2500	E-1100
	4	B290	10.25 ± 0.75	150	750	80	100	30	240	SIGD ICCIS -/		E-2900	E-1550

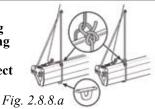
Comprehensive instructions on Single-Line reefs can be obtained from Seldén Mast; reference No 595-664-SET, (in Swedish, English and German).

The "S" measurement includes the shackle supplied by Seldén Mast.
Running Reef Hooks as shown on page 28 should be used for traditional 3rd and 4th slab reefs in conjunction with Single-Line Reefs. If permanent reef hooks are used at the tack there is a risk that the sail can snag when a Single-Line Reef is shaken out.
"Max height" information refer to forward reef cringle only. Length is calculated on 16-plait reef line. For low stretch lines, reef height

2.8.8 Slab reef Match booms



- 1. The reefing line is tied as illustrated, with a bowline and running noose. No. 1 reef is shown. Note that grommets are required along the foot for each reef.
- 2. For loose-footed sails, the reef line loop must be held in the correct position along the boom, to ensure proper reefing. Seldén's eye slider can be used for this. (See table 2.11). Fi



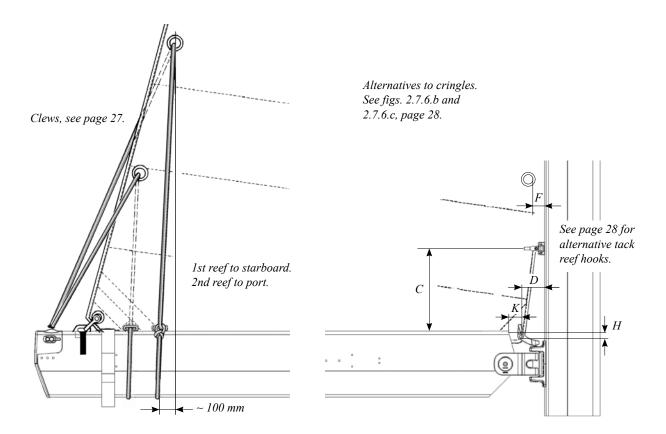


Fig. 2.8.8.b

Mast section		Boom section	Luff foot groove		feeder ga ut-back"		Та	ck	Reef hooks	No. of internal reefing lines	Reef line attachment at aft end
				C (MDS slides)	C (bolt rope)	K	D	Н	F		of boom
			mm	mm	mm	mm	mm	mm	IIIIII		
C175 C227		B190	+ 0.45 5.8 - 1.05	100	750	35	80	0	80	2 slab reefs	Reefing line tied around
C211 C245	ال ا	B230	6.25 ± 0.75	80	750	45	80	20*	80	2 slab reefs	boom; see fig. 2.8.8.a.

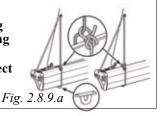
 $^{* \}textit{Tack shackle below top of extrusion}.$

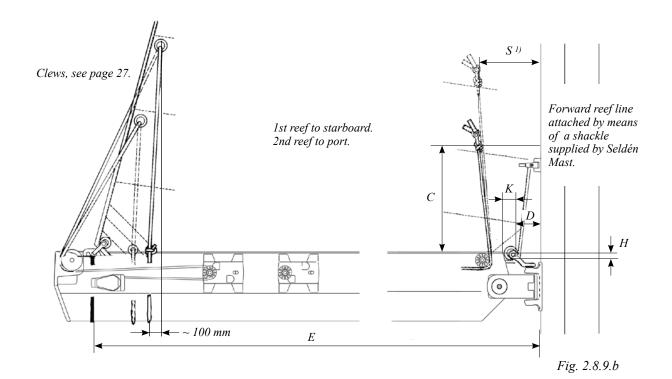
2.8.9 Single line reef Match booms



Important!

- . The reefing line is tied as illustrated, with a bowline and running noose. No. 1 reef is shown. Note that grommets are required along the foot for each reef.
- 2. For loose-footed sails, the reef line loop must be held in the correct position along the boom, to ensure proper reefing. Seldén's eye slider can be used for this.





Mast section		Boom section	Luff foot groove		eeder (ut-back		Та	ck	Single line reef	No. of internal reefing lines	Reef line attachment	Max height for reef 1 (Starboard)	Max height for reef 2 (Port)
				C (MDS slides)	C (bolt rope)	K	D	Н	S 1)	illes		3)	3)
			mm	mm	mm	mm	mm	mm	mm			mm	mm
C175 C227	Ŋ	B190	5.8 - 1.05	100	750	35	80	0	180	2 slab reefs	Reefing line tied around	E-1650	E-470
C211 C245		B230	6.25 ± 0.75	80	750	45	80	204)	195	2 slab reefs	boom; see fig. 2.8.9.a.	E-1900	E-650

¹⁾ The "S" measurement includes the shackle supplied by Seldén Mast.

Comprehensive instructions on Single-Line reefs can be obtained from Seldén Mast; reference No 595-664-SET, (in Swedish, English and German).

²⁾ Running Reef Hooks as shown on page 28 should be used for traditional 3rd and 4th slab reefs in conjunction with Single-Line Reefs. If permanent reef hooks are used at the tack there is a risk that the sail can snag when a Single-Line Reef is shaken out.

^{3) &}quot;Max height" information refer to forward reef cringle only. Length is calculated on 16-plait reef line. For low stretch lines, reef height may be increased slightly.

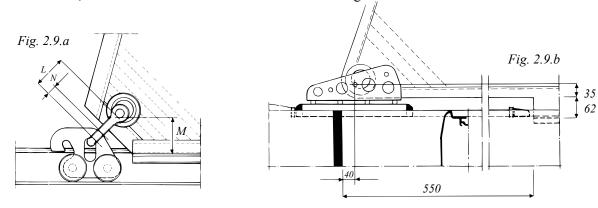
⁴⁾ Tack shackle below top of extrusion.

E & C

2.9 Clews

See page 32-38 for in-mast furling mast - manual, hydraulic and electro.

Outhaul cars or slides are supplied complete with shackles on all current Seldén booms. However, there are older booms from section series P 73/53–137/100 which were supplied without either. In these cases, the sail's clew is lashed to the boom end-fitting.



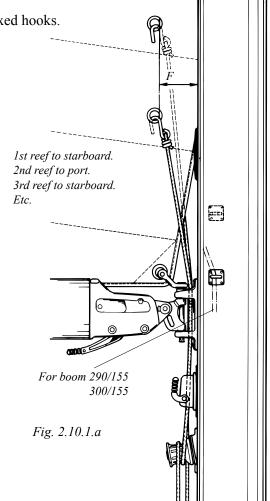
Boom		naul car/slide Basic No.	Shackle L	М	N min.
111/81 137/100	507-701	(O) (O)	Ø 7 mm key shackle L = 40 mm 307-004	40 mm	11 mm
85/58 86/59	511-519		Ø 5 mm key shackle L = 34 mm 307-001	40 mm	11 mm
111/75 128/90	507.000		Ø 8 mm key shackle L = 44 mm 307-005	45 mm	13 mm
150/105 162/125	507-602		Ø 10 mm shackle L = 44 mm 307-024	45 mm	13 mm
189/132 206/139	507-603		Ø 10 mm shackle L = 38 mm 307-024	45 mm	13 mm
B087 B104	507-612		Ø 5 mm shackle L = 38 mm 307-045	35 mm	5 mm
B120	507.540		Ø 8 mm shackle L = 35 mm 307-026	40 mm	8 mm
B135	507-519	600	Ø 8 mm shackle L = 35 mm 307-026	40 mm	8 mm
143/76			Ø 8 mm shackle L = 35 mm 307-026	40 mm	10 mm
B152	507.500	$\overline{\Omega}$	Ø 8 mm shackle L = 35 mm 307-026	40 mm	10 mm
B171	507-569		Ø 10 mm shackle L = 38 mm 307-024	45 mm	10 mm
B190			Ø 10 mm shackle L = 38 mm 307-024	45 mm	10 mm
B200 B230 B250	511-570		Ø 10 mm shackle L = 38 mm 307-024	50 mm	14 mm
B200 B250	511-617	(0.0.00)	pin Ø 12 x 33 165-402 jaw width: 20 mm	Coc Fi	, 20h
B300	511-588		pin Ø 12 x 37 165-409 jaw width: 23 mm	See no	g. 2.9.b
B290	511-648		Ø 12 mm shackle L = 41 mm 307-004	55 mm	12 mm



2.10.1 Running reef-hooks

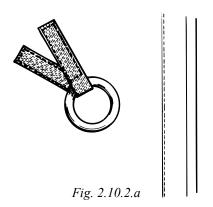
"Running" reef-hooks may be used as an alternative to fixed hooks.

	Boom section	Reef hooks F mm	
	120/62	120	
	135/72	120	
	143/76	120	
	152/84	120	See page 19 and 20 for other tack data.
\r\	171/94	120	
·	200/117	130	
	250/140	130	
(RAY	290/155	130	Use "Alternative to cringles second
	300/155	130	alternative" (Fig. 2.10.2.b)



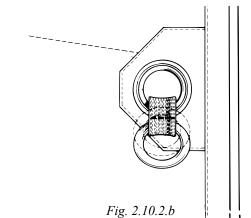
2.10.2 Alternatives to cringles

First alternative



Is used when the reefing line is attached with a shackle, such as for "Single-Line Reefing".

Second alternative



Improves handling when the sail is to be reefed to a permanent tack reef-hook.

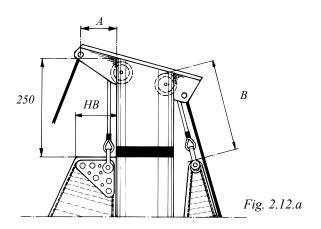
2.11 Boom sliders - eye

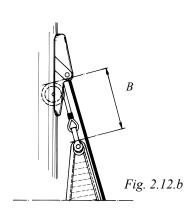
Boom section	Item no	Slide	T-track width
86/59 B087 B104	511-555-02		16 mm
B087 B104	511-641-01		20 mm
B120 B135 B152 B171	511-571-01		25 mm
B200 B250 B290 B300	511-572-01		32 mm
B120 B135 B152 B171 B190	511-636-01		25 mm
B200 B250 B290 B300	511-637-01	For lazy-jack or reefline location only (not for reefline attachment)	32 mm



2.12 Head measurements

See page 32-35 for In-mast furling mast and page 36-37 for Furlex Main - Retro-fit system.





				A (mm)									
	C-mast												
	Mast	head		tional g crane	Tapered std/long crane								
	15°	0°	15°	0°	15°								
C156	70	90	80/280	90/295	80/280	"A" =							
C175	110	120	115/280	120/295	85/295	75–100 mm. (With							
C193	110	110	100/265	105/280		non-tapered							
C211	110	130	105	115	110	fractional rigs using section							
C227	110	130	90	100	100/220	D-109/88 or							
C245	120	130	120	130	130	E-122/85 the me-							
C264	110	125	100	110	120	asurement							
C285	100	120	120	130		is 25 mm.)							
C304		175		120									

To avoid the halyard splice or Talurit damaging the mast-head sheave, dimension "B" must not be shorter than that shown.

When choosing the "B" measurement, consideration must be taken to dimension HB and the mainsail roach in relation to the backstay.

For other halyard boxes the "B" measurement is calculated from the upper edge of the sheave to the topmost point of the sail.

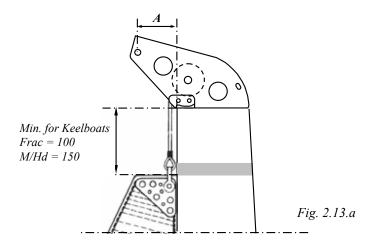
Rope halyard									
Rope Dimension	"B" mm Knot	"B" mm Spliced							
Ø 6 mm	60	430							
Ø 8 mm	70	430							
Ø 10 mm	80	430							
Ø 12 mm	90	440							
Ø 14 mm	100	440							

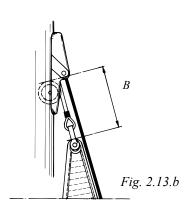
	Wire halyard									
Halyard Wire Dimension	"B" mm Hand-Spliced Halyard Eye	"B" mm Talurit-Spliced Halyard Eye								
Ø 3 mm	200	140								
Ø 4 mm	230	150								
Ø 5 mm	260	170								
Ø 6 mm	300	200								
Ø 7 mm	350	230								
Ø 8 mm	400	250								

E & C

2.13 Head measurements keelboat

See page 32-35 for In-mast furling mast and page 33-37 for Furlex Main - Retro-fit system.





				A (mm)				
			C-mast			E-mast		
	Masthead		Masthead Fractional std/long crane				Tapered std/long crane	
	15°	0°	15°	0°	15°			
C080	-	-	-	-	-			
C087	-	-	65	-	60/150			
C096	-	-	55	-	50/145			
C106	-	-	80	-	70/180			
C116	-	-	70	-	65/175			
C126	70	-	95	-	85/210			
C139	65	-	80	-	75/205	"A" =		
C156	70	90	80/280	90/295	80/280	A = 75–100 mm		
C175	110	120	115/280	120/295	85/295	70 100 11111		
C193	110	110	100/265	105/280	70/280			
C211	110	130	105	115	110			
C227	110	130	90	100	100/220			
C245	120	130	120	130	130			
C264	110	125	100	110	120			
C285	100	120	120	130				
C304		175		120				

Rope halyard									
Rope Dimension	"B" mm Knot	"B" mm Spliced							
Ø 5 mm	60	430							
Ø 6 mm	60	430							
Ø 8 mm	70	430							
Ø 10 mm	80	430							
Ø 12 mm	90	440							
Ø 14 mm	100	440							

To avoid the halyard splice or Talurit damaging the mast-head sheave, dimension "B" must not be shorter than that shown.

When choosing the "B" measurement, consideration must be taken to dimension HB and the mainsail roach in relation to the backstay.

For other halyard boxes the "B" measurement is calculated from the upper edge of the sheave to the topmost point of the sail.

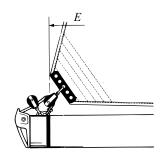
3 In-mast furling mast

3.1 R section: manual, hydraulic and electro

			Mast section					Lu	ıff extrusion		
Sail slo Sail com,	51	Luff g	•	Luff groove Luff tape							
Mast sec- tion	Sail com-	Sail slot	Max foot length	Sp	pare luff gro in mast	ove	Туре	Туре	Dia- meter	Luff groove	Max space for
	part- ment		E max ⁴⁾	Luff groove	Max space available for luff tape	Slide				luff tape	
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
190/94 213/104 235/116	Ø 85 Ø 90 Ø 100	13.5 ± 3	3750 4000 4500	3.25	Ø 7.2	_	RA	Ø 25	2.75 ± 0.25	Ø 6.0	
214/122 232/126 260/136	Ø 110 Ø 114 Ø 114	15 ± 3	4750 5500 5500	3.25	Ø 10.0	Bainbridge AO32	RB	Ø 30	3.25 ± 0.35	Ø 8.0 ¹⁾	
290/150 324/169 ³⁾	Ø 124 Ø 154	15 ± 3	6000 7000	3.25 4.0	Ø 10.0 Ø 12.0	Bainbridge AO32 Bainbridge AO32 or Rutgerson 101	RC	Ø 38	3.25 ± 0.25	Ø 10.6 ²⁾	
370/1923)	Ø 174	15 ± 3	7500	3.3	Ø 13.0	Bainbridge AO33 or Rutgerson 102	RD	Ø 58	3.25 ± 0.25	Ø 10.6	

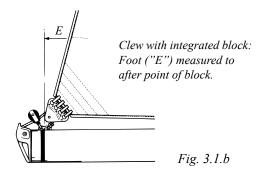
- 1) 1995 and earlier: Ø 10
- 2) Max Ø7 mm luff tape due to new sail feeder (2001).
- 3) For more performance oriented furling main sails with a lot of shape and/or stiffer (non-dacron) sail cloth, and for sails with horizontal battens, an optional sail guide can be provided (art. no 535-811-01).
- When the sail is fully furled, 300 mm of Emax will remain outside the mast due to reinforcement and clew-board. Note! Listed values are MAX VALUES for DACRON® main sails designed primarily for easy furling and reefing. For more performance oriented sails with more shape and stiffer sail cloth, max foot length will be reduced depending on sail design and sail cloth.
- ☐ Design aspects on in-mast furling main sails, see page 38.

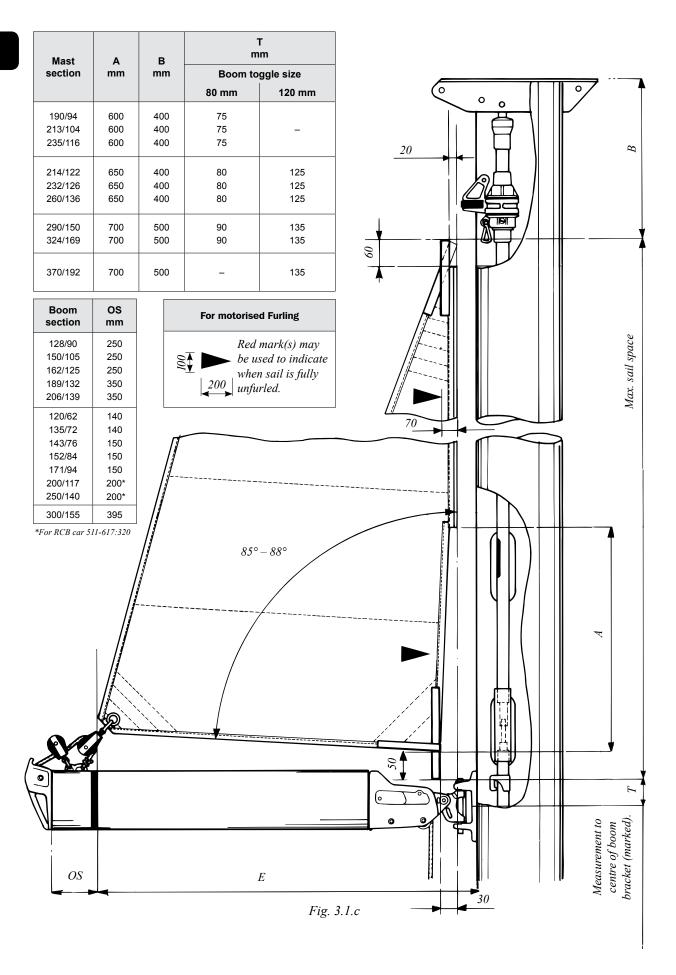
Alternative clew executions



Clew with clew-board: Foot ("E") measured to after point of sail. Clew-board gives longer effective ("E") than integrated block or normal cringle.

Fig. 3.1.a





3.2 F section: manual, hydraulic and electro

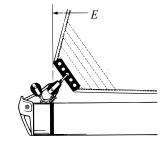
Sections		Section dimn.	ly	l _x	Wall thickness,	Weight	W _y min	W _X min
		X/Y mm	cm ⁴	cm ⁴	mm	kg/m	cm ³	cm³
Furling masts	F176	176/93	526	187	2.90	4.12	58.2	40.0
	F194	194/101	709	254	3.05	4.69	70.8	49.8
	F212	212/109	970	337	3.15	5.45	88.2	61.8
PS	F228	228/118	1306	453	3.4	6.30	112	76.8
	F246	246/126	1781	613	3.75	7.37	139	97.3
1 Y	F265	265/135	2392	828	4.15	8.66	173	122
\ /	F286	286/146	3237	1122	4.5	10.02	220	154
	F305	305/156	4389	1513	5.05	11.75	276	194
X	F324	324/169	5576	2056	5.5	13.8	329	243
	F370	370/192	8835	3149	5.8	16.6	468	326
	F406	408/207	14321	4725	6.5	19.34	671	451

	1 .	100				1120					101	
				Mast sec	ction				Lu	ff extrusion	1	
Sail slo	Sail slot Sail compartment					Luff groove Luff tape			Luff groove Luff tape			
Section	Sail compart-		Max length	Sail slot	s	pare luff groo	ove	Type	Dia- meter	Luff groove	Max space for luff	
	ment	Ē	E max ¹⁾		Luff groove Max space available		Slide		meter	groove	tape	
	mm		mm	mm	mm	for luff tape mm	mm	mm	mm	mm	mm	
F176	Ø 85	RA	3750			6	_					
F194	Ø 93	RA	4200					-				
F212	F212 Ø 100	RA	4500					RA	Ø 25	2.75±0.25	Ø6	
		RB	4400	15±3								
F228	Ø 108	RA	5000		3.25±0.25	8	Bainbridge AO31					
F040	Q 44.4	RB	4900					RB	a 20		Ø8	
F246	Ø 114	RB RB	5400 6000					RB	Ø 30		٥ ٧	
F265	Ø 123	RC	5800									
		RB	6500									
F286	Ø 133	RC	6300	17±3		10	Bainbridge AO32					
		RB	6900				-	RC	Ø 38			
F305	Ø 141	RC	6700	-						3.25±0.35		
		RD	6000	1							Ø 10	
F324	Ø 154	RC	7000	20±3		12						
F32 4	וש 1ט4	RD	RD 7000 20±3 4±0.25	12	Bainbridge AO32							
F370	Ø 174	RC	7500	22±3	710.20	13	Sambridge 71002	RD	Ø 58	8		
		RD										
F406	Ø 190	RD	9500	24±3	6.5±0.5	15	Bainbridge AO33					

Note: For more performance oriented furling main sails with a lot of shape and/or stiffer (non-dacron) sail cloth, and for sails with horizontal battens, an optional sail guide can be provided

- 1) When the sail is fully furled, min 300 mm of Emax will remain outside the mast due to reinforcement and clew-board. Note! Listed values are MAX VALUES for DACRON® main sails designed primarily for easy furling and reefing. For more performance oriented sails with more shape and stiffer sail cloth, max foot length will be reduced depending on sail design and sail cloth.
- ☐ Design aspects on in-mast furling main sails, see page 36.

Alternative clew executions

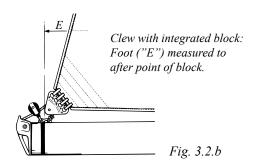


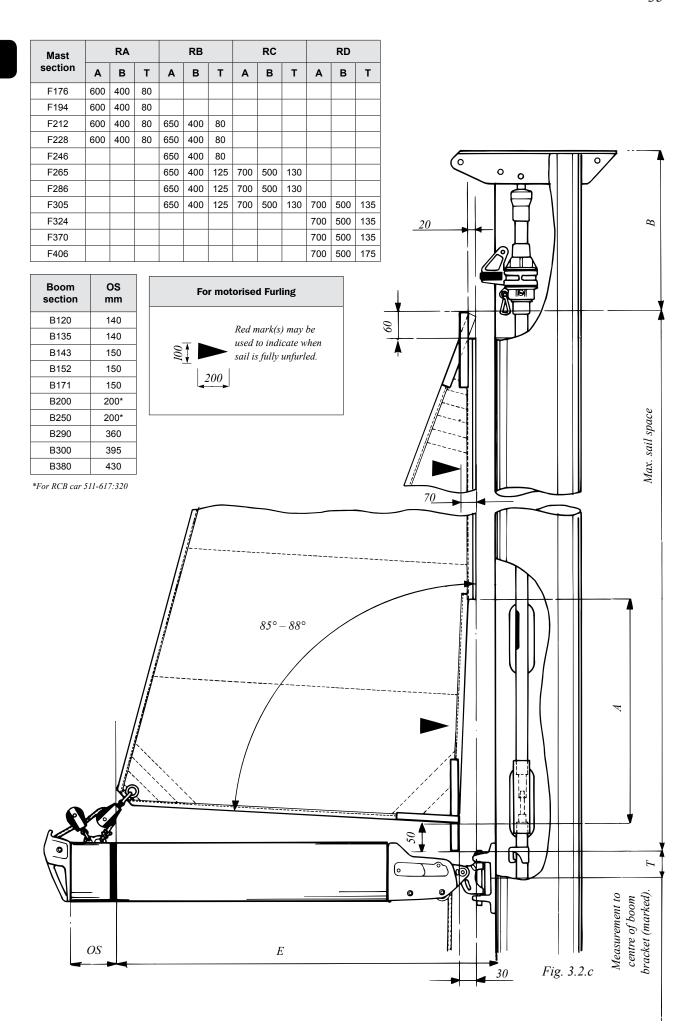
Clew with clew-board:

Foot ("E") measured to after point of

Clew-board gives longer effective ("E") than integrated block or normal cringle.

Fig. 3.2.a





3.3 Furlex Main - Retro-fit system

(Production of this product range ceased 2003).

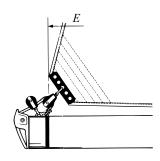
		F	urlex Main – Other so	ection				Luff	extrusion	
Sail slo		5		Luff tape chamber Luff groo				Luff groove Luff tape		
Furlex Main	Sail cham-	Sail slot					Type	Dia- meter	Luff groove	Max space
Туре	ber		"E	Luff groove	Max space available for luff tape	Slide				for luff tape
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Type 76 Type 90	Ø 76 Ø 90	13.5 ± 3	3500 4000	3.25 3.25	Ø 9.4 Ø 9.4	Bainbridge AO31 or Rutgerson 101	RA	Ø 25	2.75 ± 0.25	Ø 6.0
Type 108	Ø 108	15 ± 3	5000	3.25	Ø 10.0	Bainbridge AO32 or Rutgerson 101	RB	Ø 30	3.25 ± 0.35	Ø 8*

¹⁾ Note! Listed values are MAX VALUES for DACRON® main sails designed primarily for easy furling and reefing. For more performance oriented sails with more shape and stiffer sail cloth, max foot length will be reduced depending on sail design and sail cloth.

*1995 and earlier: Ø 10

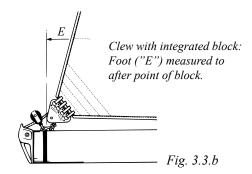
- ☐ The luff extrusion is asymmetrically shaped in order to help overcome initial resistance when starting to furl. Do not use heavy sail-cloth in the luff area.
- ☐ Head and tack webbing bands should be of soft quality which can fold easily. 20 mm is a suitable width. Do not use metal cringles on them.
- ☐ Battens must be located on the port side of the sail so as not to snag on the inside of the sail compartment.
- ☐ If clew cringles are used they must not be thicker than 14 mm in order to fit the outhaul block.
- □ The upper part of the luff extrusion will be kept centered by the halyard swivel, while most of the section will rest on the aft face of the sail compartment when sailing. The luff curve must have a wedge formed into it for compensation (0 to 30 mm) at the upper 500–800 mm of the luff.

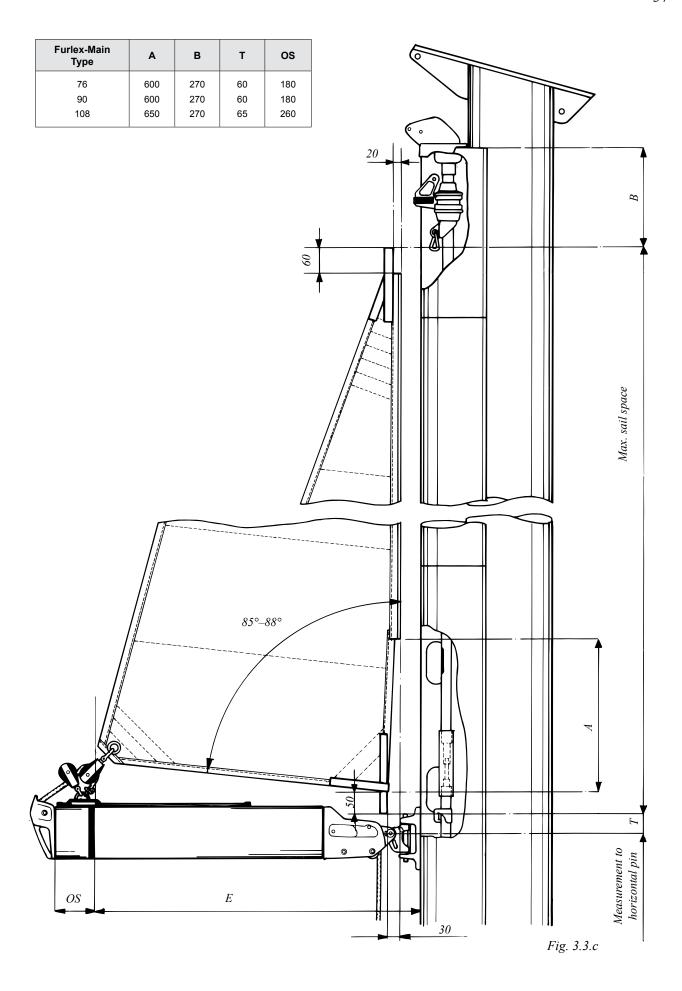
Alternative clew executions



Clew with clew-board:
Foot ("E") measured to after
point of sail.
Clew-board gives longer
effective ("E") than
integrated block or normal
cringle.

Fig. 3.3.a





3.4 Design aspects on in-mast furling mast main sails

Sail cloth type

In general, single layer cloth (e.g. Dacron TM) folds easier around the luff extrusion than multilayer laminate cloth, causing less furling resistance. "Softer" sail cloth therefore allows more sail to be furled into the mast. Sail cloth generally becomes softer with time, so a new sail can cause more furling resistance than a sail that has been used for some time.

Sail cloth disposition

The luff extrusion is asymmetrically shaped in order to help overcome initial resistance when starting to furl. Do not use heavy sail cloth in the luff area.

Clew height

A furling main sail foot should should rise towards the clew, approximately 85°–88° (see fig. 3.2.c). This increases leech tension when furling and prevents the lower part of the sail roll becoming too bulky. Note that when the sail is furled, the weight of the sail may cause the clew to move downwards.

Luff curve shape

The upper part of the luff extrusion will be kept centered by the top swivel, while most of the luff extrusion will rest on the aft face of the sail compartment when sailing. The luff curve must have a wedge formed into it for compensation (0-to 30 mm) at the upper 500 – 800 mm of the luff.

Clew reinforcement

The clew reinforcement should be made so that it allows the sail to be furled in leaving approximately 300 – 500 mm outside the mast.

Webbing tape

Head and tack webbing tapes should be of soft quality which can fold easily. A suitable width is 20 mm. Do not use cringles.

Luff tape

Avoid using luff tape close to head and tack. The high loads in head and tack may damage the luff tape. (See fig. 3.2.c)

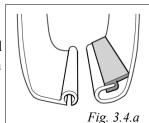
Clew cringles

If clew cringles are used they must not be thicker than 14 mm in order to fit the outhaul block.

Batten types

The main batten types used in furling main sails are: full-length vertical battens, short vertical battens and horizontal (foldable) battens. Experience has shown that vertical battens work very well whereas horizontal battens have a tendency to snag in the sail slot when the sail is furled out. For more performance oriented

furling main sails with a lot of shape and/or stiffer (non-dacron) sail cloth, and for sails with horizontal battens, an optional sail guide (art. no 535-811-01) can be



provided (see fig. 3.4.a). If full-length vertical battens are used, round battens generally work better than square battens since square battens can twist. If short vertical battens are used, square battens often work well and are usually less bulky.

Batten location

Battens must be located on the port side of the sail so as not to snag on the inside of the sail compartment.

End fittings, connectors and tensioning arrangement

End fittings, connectors and tensioning arrangement (vertical battens) should be made as slim as possible. Bulky solutions may cause the battens to snag in the sail slot.

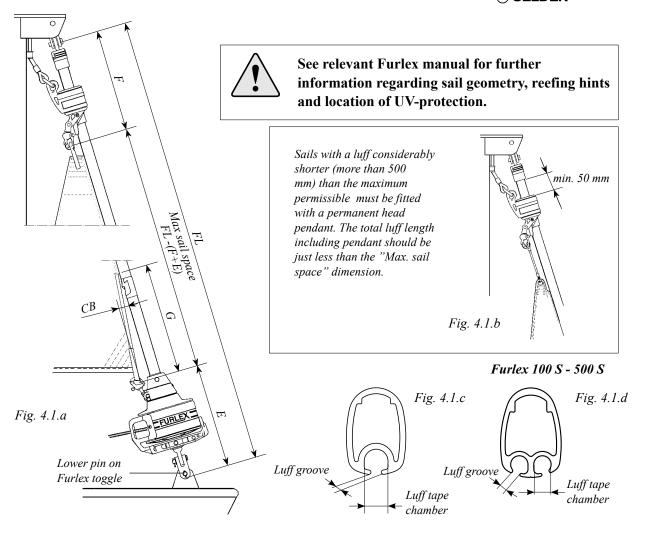
Short vertical battens – vertical displacement

Short vertical battens should be located so that they do not overlap each other vertically. The lowest batten should not overlap the clew reinforcement.

4 Furlex foresails

4.1 Furlex S

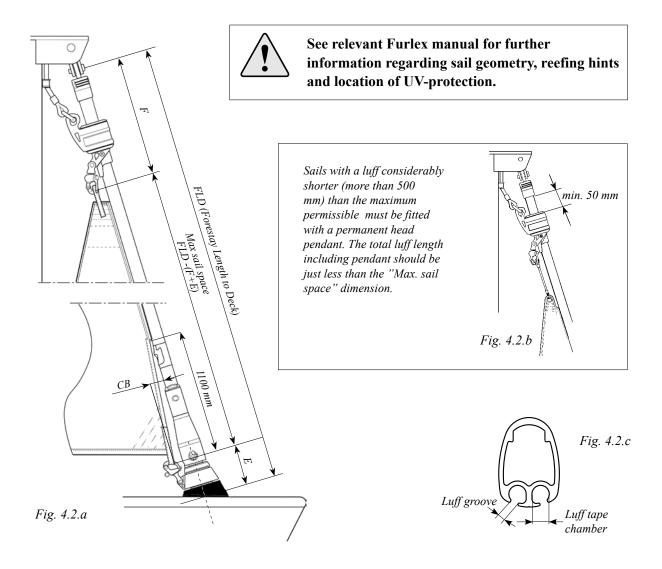




	Furlex Type/Serie	Section dimension	Luff groove	Max. space available in chamber	Max. luff tape	Cut- back	Cut- back height	(Mea	um sail spa surement calc ting forestay le	
			mm	mm	mm	CB mm	G mm	F mm	E mm	F+E mm
	Α	26/17	3.0	Ø6	Ø 5	60	1100	360	280	640
	В	31/20	3.0	Ø6	Ø 5	60	1100	390	340	730
	С	40/27	3.0	Ø7	Ø 6	80	1100	540	420	960
	D	50/34	3.0	Ø8	Ø 6	100	1100	620	490	1110
-	50 S	22/15	2.6	Ø6	Ø 5	25	630	360	215	575
Manual	100 S Ø 4 & 5	26/17	3.0	Ø6	Ø 5	60	1100	360	280	640
Σ	100 S Ø 6	26/17	3.0	Ø6	Ø 5	60	1100	375	295	670
	200 S	31/21	3.0	Ø6	Ø 5	60	1100	540	330	870
	300 S	39/27	3.0	Ø 7.5	Ø 6.5	80	1100	550	400	950
	400 S	48/34	3.0	Ø 8	Ø 6.5	95	1100	620	535	1155
	500 S	60/46	3.0	Ø9	Ø7	95	1100	620	535	155

4.2 Furlex TD (Through Deck)

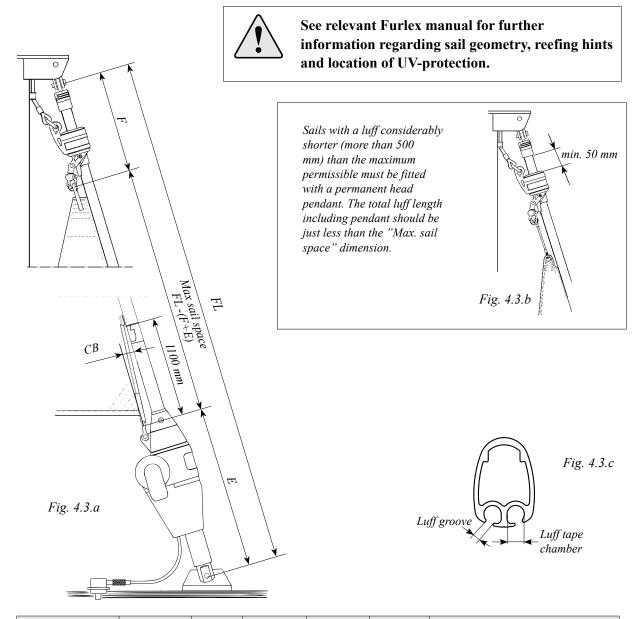




Furlex Type/Serie		Section dimension	Luff groove	Luff tape chamber	Max. luff tape	Cut-back	Maximum sail space FLD-(F+E)		
			mm	mm	mm	CB mm	F mm	E mm	F+E mm
	200 TD	31/21	3.0	Ø6	Ø 5	60	540	130	670
Manual	300 TD	39/27	3.0	Ø 7.5	Ø 6.5	80	550	150	700
Σ	400 TD	48.5/34	3.0	Ø8	Ø 6.5	95	620	210	830
This data is also valid for Furlex TD Electric.									

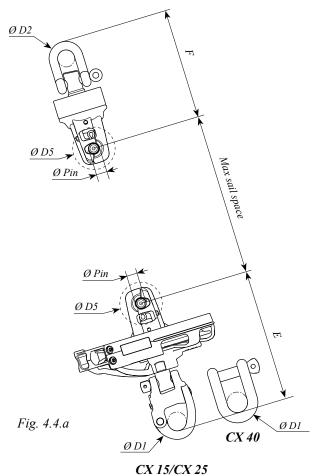
4.3 Furlex Hydraulic





Furlex Type/Serie		Section dimension	Luff groove	Max. space available in chamber	Max. luff tape	Cut-back	(Me	num sail spa asurement cal sting forestay	
			mm	mm	mm	CB mm	F mm	E mm	F+E mm
	C-Hydraulic	40/27	3.0	Ø7	Ø 6	80	540	520	1060
	D-Hydraulic	50/34	3.0	Ø8	Ø 6	100	620	675	1295
Hydraulic	E-Hydraulic	60/46	3.0	Ø9	Ø7	100	620	675	1295
lydra	300 H	39/27	3.0	Ø 7.5	Ø 6.5	80	550	490	1040
_	400 H	48/34	3.0	Ø8	Ø 6.5	100	620	610	1230
	500 H	60/46	3.0	Ø 9	Ø 7	100	620	675	1295

4.4 Seldén Code X, Furling system for gennaker, Code 0 and stay sail



See manual 595-731-E for further information.

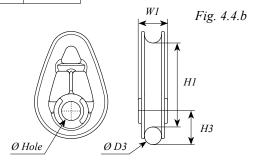
System	(Measur halyard sh	imum sail s rement calculat nackle to fasten n boat/bow spr	ted from ling device				Max fork	
	E mm	F mm	F+E mm	D1 mm	D2 mm	Ø Pin mm	space Ø D5 mm	
CX15	125	95	220	16	12	10	40	
CX25	155	120	275	22	20	12	45	
CX40	165	145	310	24	24	16	55	

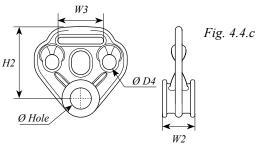
Thimbles for Torque rope

System	Ø Hole mm	Max rope D3, mm	W1 mm	H1 mm	H3 (At max rope), mm
CX15	10,3	8	16	43	17
CX25	12,3	11	19	55	21
CX40	16,3	11	19	55	21

Thimbles for double luff rope

System	Ø Hole mm	D4 mm	W2 mm	W3 mm	H2 mm
CX15	10,3	8	16	22	34
CX25	12,3	8	19	27	42
CX40	16,3	12	20	33	52





Notes/Comments

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