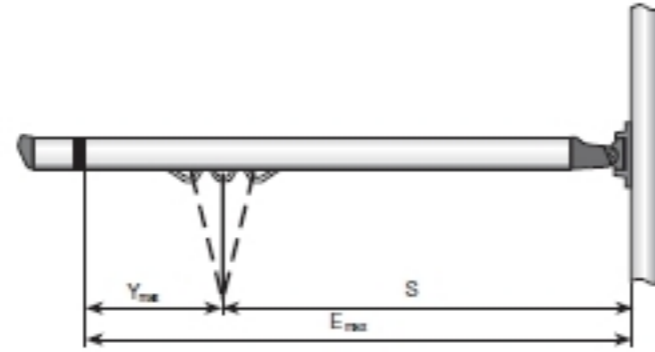


# Boom sections choice

To select the correct boom section, you will need to know the sail foot length (E) and righting moment (RM). If the RM is not known, displacement is an alternative.

The E and Y measurements must also be known for dimensioning purposes. The length of the boom is sometimes determined by other factors than E and therefore we need the S measurement as well. A good example is when the boom extrusion needs an overlength to allow the main sheet to pass a sprayhood.



Masthead rigs,  $E_{max}$  and  $Y_{max}$  (m)

Section	RM 30 kNm	Displ. tonnes	B087		B104		B120		B135		B152		B171		B200		B250		B290		B380	
			$E_{max}$	$Y_{max}$	$E_{max}$	$Y_{max}$	$E_{max}$	$Y_{max}$	$E_{max}$	$Y_{max}$	$E_{max}$	$Y_{max}$	$E_{max}$	$Y_{max}$	$E_{max}$	$Y_{max}$	$E_{max}$	$Y_{max}$	$E_{max}$	$Y_{max}$	$E_{max}$	$Y_{max}$
6	1.2	3.3	1.7	4.0	1.8	4.1	2.1															
8	1.6	3.3	1.4	4.0	1.6	4.1	1.8	4.6	2.5													
10	2.0	3.3	1.3	4.0	1.4	4.1	1.6	4.6	2.2													
12	2.4	2.9	1.2	4.0	1.3	4.1	1.5	4.6	2.0	5.6	2.9											
14	2.8	2.6	1.1	3.5	1.2	4.1	1.4	4.6	1.9	5.6	2.7											
16	3.2			3.2	1.1	4.1	1.3	4.6	1.8	5.6	2.5	6.1	3.3									
18	3.6			3.0	1.1	4.1	1.2	4.6	1.7	5.6	2.4	6.1	3.1									
20	4.0			2.8	1.0	3.8	1.1	4.6	1.6	5.6	2.3	6.1	3.0									
25	5.0			2.4	0.9	3.3	1.0	4.6	1.4	5.6	2.0	6.1	2.7									
30	5.7					2.9	0.9	4.5	1.3	5.6	1.9	6.1	2.4	6.6	3.7							
35	6.3					2.6	0.9	4.0	1.2	5.6	1.7	6.1	2.3	6.6	3.4							
40	7.0							3.7	1.1	5.1	1.6	6.1	2.1	6.6	3.2							
45	7.7							3.4	1.1	4.7	1.5	6.1	2.0	6.6	3.0							
50	8.2							3.2	1.0	4.4	1.4	6.1	1.9	6.6	2.8							
55	9.0									4.1	1.4	6.1	1.8	6.6	2.7							
60	10									3.9	1.3	5.7	1.7	6.6	2.6							
70	11									3.5	1.2	5.1	1.6	6.6	2.4	7.6	3.7					
80	12									3.2	1.1	4.7	1.5	6.6	2.2	7.6	3.5					
90	14									2.9	1.1	4.3	1.4	6.5	2.1	7.6	3.3					
100	15									2.7	1.0	4.0	1.3	6.0	2.0	7.6	3.1					
110	16											3.7	1.3	5.7	1.9	7.6	3.0					
120	18											3.5	1.2	5.3	1.8	7.6	2.8					
130	19											3.3	1.2	5.0	1.8	7.6	2.7	8.5	4.3			
140	20											3.2	1.1	4.8	1.7	7.6	2.6	8.5	4.1			
150	22													4.6	1.6	7.5	2.5	8.5	4.0			
160	23													4.4	1.6	7.2	2.5	8.5	3.8			
170	25													4.2	1.5	6.9	2.4	8.5	3.7	12	6.1	
180	26													4.0	1.5	6.6	2.3	8.5	3.6	12	5.9	
190	27													3.9	1.5	6.4	2.3	8.5	3.5	12	5.8	
200	28													3.7	1.4	6.1	2.2	8.5	3.4	12	5.6	
220	31															5.7	2.1	8.5	3.3	12	5.4	
240	34															5.4	2.0	8.5	3.1	12	5.1	
260																		8.5	3.0	12	4.9	
280																		8.2	2.9	12	4.7	
300																		7.9	2.8	12	4.6	
320																				12	4.4	
340																				12	4.3	
360																				12	4.2	
380																					11.6	4.1
400																					11.2	4.0

Fractional rigs,  $E_{max}$  and  $Y_{max}$  (m)

Section	RM 30 kNm	Displ. tonnes	B087		B104		B120		B135		B152		B171		B200		B250		B290		B380						
			$E_{max}$	$Y_{max}$	$E_{max}$	$Y_{max}$	$E_{max}$	$Y_{max}$	$E_{max}$	$Y_{max}$	$E_{max}$	$Y_{max}$	$E_{max}$	$Y_{max}$	$E_{max}$	$Y_{max}$	$E_{max}$	$Y_{max}$	$E_{max}$	$Y_{max}$	$E_{max}$	$Y_{max}$					
6	1.2	3.4	1.4	4.1	1.6	4.1	1.8																				
8	1.6	3.3	1.2	4.1	1.4	4.1	1.6	4.6	2.1																		
10	2.0	2.8	1.1	3.7	1.2	4.1	1.4	4.6	1.9																		
12	2.4	2.5	1.0	3.3	1.1	4.1	1.3	4.6	1.8																		
14	2.8	2.2	0.9	3.0	1.0	4.1	1.2	4.6	1.6	5.6	2.3																
16	3.2	2.0	0.9	2.7	1.0	3.7	1.1	4.6	1.5	5.6	2.1																
18	3.6			2.5	0.9	3.4	1.0	4.6	1.4	5.6	2.1	6.1	2.7														
20	4.0					3.2	1.0	4.6	1.4	5.6	2.0	6.1	2.6														
25	5.0							2.7	0.9	4.3	1.2	5.6	1.7	6.1	2.3	6.6	3.4										
30	5.7									3.8	1.1	5.2	1.6	6.1	2.1	6.6	3.1										
35	6.3									3.4	1.0	4.7	1.5	6.1	1.9	6.6	2.9										
40	7.0									3.1	1.0	4.3	1.4	6.1	1.8	6.6	2.7										
45	7.7											3.9	1.3	5.8	1.7	6.6	2.6										
50	8.2											3.7	1.2	5.4	1.6	6.6	2.4										
55	9.0													3.4	1.2	5.1	1.5	6.6	2.3	7.6	3.6						
60	10													3.2	1.1	4.8	1.5	6.6	2.2	7.6	3.5						
70	11															2.9	1.0	4.3	1.4	6.5	2.1	7.6	3.2				
80	12																	3.9	1.3	5.9	1.9	7.6	3.0				
90	14																	3.6	1.2	5.4	1.8	7.6	2.8				
100	15																	3.3	1.1	5.0	1.7	7.6	2.7				
110	16																	3.1	1.1	4.7	1.6	7.6	2.6				
120	18																			4.4	1.6	7.3	2.4				
130	19																			4.2	1.5	6.9	2.3	8.5	3.7		
140	20																			4.0	1.5	6.6	2.3	8.5	3.5		
150	22																			3.8	1.4	6.2	2.2	8.5	3.4		
160	23																			3.6	1.4	6.0	2.1	8.5	3.3		
170	25																			3.5	1.3	5.7	2.1	8.5	3.2	12.0	5.2
180	26																			3.3	1.3	5.5	2.0	8.5	3.1	12.0	5.1
190	27																			3.2	1.3	5.3	1.9	8.5	3.0	12.0	5.0
200	28																				5.1	1.9	8.5	3.0	12.0	4.8	
220	31																				4.8	1.8	8.1	2.8	12.0	4.6	
240	34																				4.5	1.7	7.6	2.7	12.0	4.4	
260																							7.2	2.6	12.0	4.2	
280																							6.8	2.5	11.9	4.1	
300																							6.5	2.4	11.4	3.9	
320																									10.9	3.8	
340																									10.4	3.7	
360																									10.0	3.6	
380																									9.6	3.5	
400																									9.3	3.4	