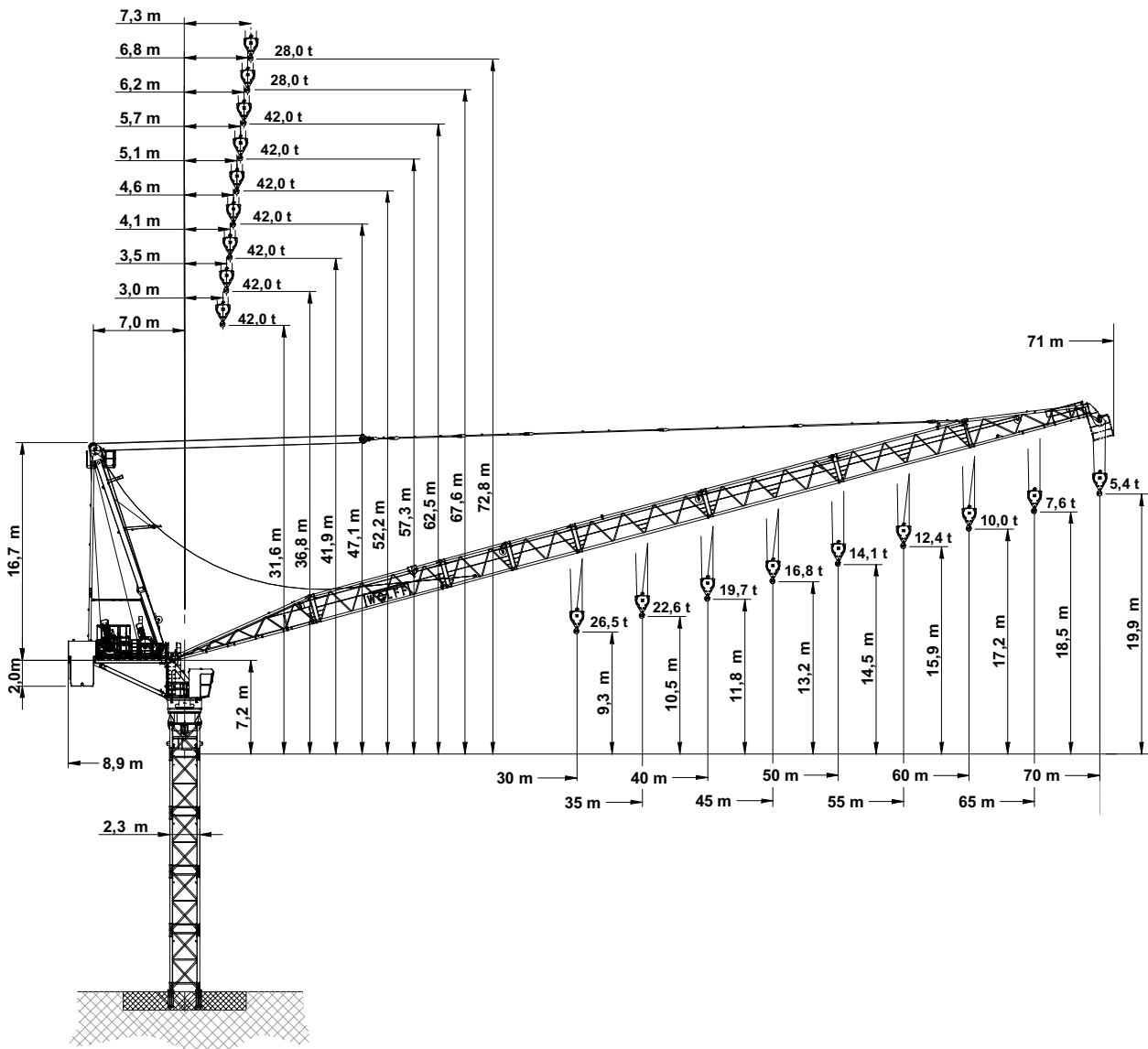


1 Schedule drawing

1.1 Schedule drawing WOLFF 630 B




Data WOLFF 630B

Item	Data
Crane type	BGL GROUP C.0.11.630
Design	Overhead travelling crane with top slewing luffing jib, with climbing feature
Type of setup	Stationary or travelling
Basis of calculation	EN
Payload torque	max. 8000 kN/m
Hoist winch	Hw 28110FU / Hw 28132FU

2 Load carrying capacities


2.1 Table of load carrying capacities WOLFF 630B (single reeving)

 14 t		Operating radius [m]	Operating radius [m]											LCC
			20	25	30	35	40	45	50	55	60	65	70	
JL [m]	70	7.3 – 37.0	14.0	14.0	14.0	14.0	12.6	10.6	9.3	8.0	7.0	6.1	5.4	LCC [t]
	65	6.8 – 42.0	14.0	14.0	14.0	14.0	14.0	12.8	11.1	9.7	8.6	7.6		
	60	6.2 – 46.0	14.0	14.0	14.0	14.0	14.0	14.0	12.6	11.2	10.0			
	55	5.7 – 49.0	14.0	14.0	14.0	14.0	14.0	14.0	13.7	12.4				
	50	5.1 – 50.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0					
	45	4.6 – 45.0	14.0	14.0	14.0	14.0	14.0	14.0						
	40	4.1 – 40.0	14.0	14.0	14.0	14.0	14.0							
	35	3.5 – 35.0	14.0	14.0	14.0	14.0								
	30	3.0 – 30.0	14.0	14.0	14.0									
JL			Jib length											
LCC			Load carrying capacity											

2.2 Table of load carrying capacities (kg) in meter intervals, WOLFF 630B (single reeving)

Operating radius [m]	Jib length [m]								
	30	35	40	45	50	55	60	65	70
10	14000	14000	14000	14000	14000	14000	14000	14000	14000
11	14000	14000	14000	14000	14000	14000	14000	14000	14000
12	14000	14000	14000	14000	14000	14000	14000	14000	14000
13	14000	14000	14000	14000	14000	14000	14000	14000	14000
14	14000	14000	14000	14000	14000	14000	14000	14000	14000
15	14000	14000	14000	14000	14000	14000	14000	14000	14000
16	14000	14000	14000	14000	14000	14000	14000	14000	14000
17	14000	14000	14000	14000	14000	14000	14000	14000	14000
18	14000	14000	14000	14000	14000	14000	14000	14000	14000
19	14000	14000	14000	14000	14000	14000	14000	14000	14000
20	14000	14000	14000	14000	14000	14000	14000	14000	14000
21	14000	14000	14000	14000	14000	14000	14000	14000	14000
22	14000	14000	14000	14000	14000	14000	14000	14000	14000
23	14000	14000	14000	14000	14000	14000	14000	14000	14000
24	14000	14000	14000	14000	14000	14000	14000	14000	14000
25	14000	14000	14000	14000	14000	14000	14000	14000	14000
26	14000	14000	14000	14000	14000	14000	14000	14000	14000
27	14000	14000	14000	14000	14000	14000	14000	14000	14000
28	14000	14000	14000	14000	14000	14000	14000	14000	14000
29	14000	14000	14000	14000	14000	14000	14000	14000	14000
30	14000	14000	14000	14000	14000	14000	14000	14000	14000
31		14000	14000	14000	14000	14000	14000	14000	14000
32		14000	14000	14000	14000	14000	14000	14000	14000
33		14000	14000	14000	14000	14000	14000	14000	14000
34		14000	14000	14000	14000	14000	14000	14000	14000
35		14000	14000	14000	14000	14000	14000	14000	14000
36			14000	14000	14000	14000	14000	14000	14000
37			14000	14000	14000	14000	14000	14000	14000
38			14000	14000	14000	14000	14000	14000	13520
39			14000	14000	14000	14000	14000	14000	13060
40			14000	14000	14000	14000	14000	14000	12630
41				14000	14000	14000	14000	14000	12220
42				14000	14000	14000	14000	14000	11830
43				14000	14000	14000	14000	13580	11450
44				14000	14000	14000	14000	13180	11100
45				14000	14000	14000	14000	12790	10760
46					14000	14000	14000	12430	10430
47					14000	14000	13640	12080	10120
48					14000	14000	13290	11740	9820
49					14000	14000	12950	11420	9530
50					14000	13710	12630	11110	9260
51						13420	12320	10810	8990
52						13150	12020	10520	8740
53						12890	11740	10250	8490
54						12640	11460	9980	8260
55						12400	11190	9720	8030
56							10940	9480	7810
57							10690	9240	7600
58							10450	9010	7390
59							10220	8790	7200
60							10000	8570	7010
61								8370	6820
62								8170	6640
63								7970	6470
64								7780	6300
65								7600	6140
66									5980
67									5830
68									5680
69									5540
70									5400


2.3 Table of load carrying capacities WOLFF 630B (double reeving)

 28 t		Operating radius [m]	20	25	30	35	40	45	50	55	60	65	70	LCC [t]
JL [m]	70	7.3 – 20.0	28.0	21.4	17.0	13.9	11.6	9.7	8.3	7.1	6.1	5.2	4.5	
	65	6.8 – 22.5	28.0	24.7	19.9	16.4	13.8	11.7	10.1	8.8	7.6	6.7		
	60	6.2 – 24.0	28.0	26.7	21.7	18.1	15.4	13.3	11.6	10.3	9.1			
	55	5.7 – 25.0	28.0	28.0	23.0	19.4	16.7	14.6	12.9	11.5				
	50	5.1 – 26.0	28.0	28.0	24.1	20.6	17.9	15.8	14.1					
	45	4.6 – 27.0	28.0	28.0	25.2	21.6	18.9	16.8						
	40	4.1 – 28.0	28.0	28.0	26.2	22.5	19.7							
	35	3.5 – 28.5	28.0	28.0	26.6	22.6								
	30	3.0 – 28.5	28.0	28.0	26.5									
JL			Jib length											
LCC			Load carrying capacity											

2.4 Table of load carrying capacities (kg) in meter intervals, WOLFF 630B (double reeving)

Operating radius [m]	Jib length [m]								
	30	35	40	45	50	55	60	65	70
10	28000	28000	28000	28000	28000	28000	28000	28000	28000
11	28000	28000	28000	28000	28000	28000	28000	28000	28000
12	28000	28000	28000	28000	28000	28000	28000	28000	28000
13	28000	28000	28000	28000	28000	28000	28000	28000	28000
14	28000	28000	28000	28000	28000	28000	28000	28000	28000
15	28000	28000	28000	28000	28000	28000	28000	28000	28000
16	28000	28000	28000	28000	28000	28000	28000	28000	28000
17	28000	28000	28000	28000	28000	28000	28000	28000	28000
18	28000	28000	28000	28000	28000	28000	28000	28000	28000
19	28000	28000	28000	28000	28000	28000	28000	28000	28000
20	28000	28000	28000	28000	28000	28000	28000	28000	28000
21	28000	28000	28000	28000	28000	28000	28000	28000	26430
22	28000	28000	28000	28000	28000	28000	28000	28000	25010
23	28000	28000	28000	28000	28000	28000	28000	27290	23710
24	28000	28000	28000	28000	28000	28000	28000	25960	22520
25	28000	28000	28000	28000	28000	28000	26740	24740	21420
26	28000	28000	28000	28000	28000	26840	25580	23610	20410
27	28000	28000	28000	28000	26930	25760	24500	22570	19470
28	28000	28000	28000	27000	25930	24760	23500	21600	18600
29	27480	27500	27050	26070	25000	23830	22570	20700	17790
30	26500	26550	26160	25200	24140	22960	21700	19860	17030
31		25660	25320	24390	23330	22150	20890	19070	16330
32		24820	24540	23630	22570	21380	20130	18330	15660
33		24030	23810	22910	21860	20670	19410	17630	15040
34		23300	23120	22240	21190	19990	18740	16980	14450
35		22600	22470	21600	20550	19360	18100	16370	13900
36			21850	21000	19960	18760	17500	15780	13380
37			21270	20430	19390	18190	16930	15230	12880
38			20720	19890	18860	17650	16390	14710	12420
39			20200	19380	18350	17140	15880	14220	11970
40			19700	18900	17860	16660	15400	13750	11550
41				18440	17410	16200	14940	13300	11150
42				18000	16970	15760	14500	12880	10770
43				17580	16550	15340	14080	12470	10400
44				17180	16150	14940	13680	12080	10050
45				16800	15770	14560	13300	11710	9720
46					15410	14190	12930	11360	9400
47					15060	13840	12590	11020	9100
48					14730	13510	12250	10690	8810
49					14410	13180	11930	10380	8530
50					14100	12880	11620	10080	8260
51						12580	11320	9800	8000
52						12290	11040	9520	7750
53						12020	10760	9250	7520
54						11750	10500	9000	7290
55						11500	10250	8750	7060
56							10000	8510	6850
57							9760	8280	6640
58							9530	8060	6440
59							9310	7850	6250
60							9100	7640	6070
61								7440	5890
62								7250	5710
63								7060	5540
64								6880	5380
65								6700	5220
66									5070
67									4920
68									4780
69									4640
70									4500




2.5 Table of load carrying capacities WOLFF 630B (triple reeving)

 42 t		Operating radius [m]												LCC [t]
			20	25	30	35	40	45	50	55	60	65	70	
JL [m]	60	6.2 – 16.0	32.8	25.4	20.4	16.9	14.3	12.2	10.6	9.2	8.1			
	55	5.7 – 16.5	34.1	26.7	21.8	18.2	15.6	13.5	11.9	10.5				
	50	5.1 – 17.0	35.4	28.0	23.0	19.5	16.8	14.8	13.1					
	45	4.6 – 17.5	36.6	29.1	24.1	20.6	17.9	15.8						
	40	4.1 – 18.0	37.8	30.1	25.1	21.4	18.7							
	35	3.5 – 18.5	38.8	30.8	25.4	21.6								
	30	3.0 – 18.5	38.8	30.8	25.5									
JL	Jib length													
LCC	Load carrying capacity													

2.6 Table of load carrying capacities (kg) in meter intervals, WOLFF 630B (triple reeving)

Operating radius [m]	Jib length [m]								
	30	35	40	45	50	55	60	65	70
10	42000	42000	42000	42000	42000	42000	42000	-	-
11	42000	42000	42000	42000	42000	42000	42000	-	-
12	42000	42000	42000	42000	42000	42000	42000	-	-
13	42000	42000	42000	42000	42000	42000	42000	-	-
14	42000	42000	42000	42000	42000	42000	42000	-	-
15	42000	42000	42000	42000	42000	42000	42000	-	-
16	42000	42000	42000	42000	42000	42000	42000	-	-
17	42000	42000	42000	42000	42000	40680	39280	-	-
18	42000	42000	42000	40810	39570	38250	36860	-	-
19	40870	40860	39770	38620	37390	36080	34700	-	-
20	38770	38750	37760	36640	35430	34130	32750	-	-
21	36880	36850	35950	34850	33660	32360	30990	-	-
22	35150	35120	34300	33230	32050	30750	29390	-	-
23	33580	33530	32790	31750	30580	29280	27930	-	-
24	32140	32080	31410	30390	29230	27940	26590	-	-
25	30810	30750	30140	29140	27990	26700	25360	-	-
26	29580	29520	28970	27980	26840	25560	24220	-	-
27	28450	28380	27880	26920	25780	24500	23170	-	-
28	27400	27320	26870	25920	24800	23520	22190	-	-
29	26420	26330	25930	25000	23880	22600	21280	-	-
30	25500	25410	25050	24140	23030	21750	20430	-	-
31		24550	24230	23330	22220	20950	19630	-	-
32		23740	23470	22570	21470	20200	18890	-	-
33		22990	22740	21860	20770	19500	18190	-	-
34		22270	22060	21190	20110	18840	17530	-	-
35		21600	21420	20560	19480	18210	16910	-	-
36			20820	19970	18890	17630	16320	-	-
37			20250	19400	18330	17070	15760	-	-
38			19700	18870	17800	16540	15240	-	-
39			19190	18370	17300	16040	14740	-	-
40			18700	17880	16820	15560	14260	-	-
41				17430	16370	15110	13810	-	-
42				16990	15940	14680	13380	-	-
43				16580	15520	14270	12970	-	-
44				16180	15130	13880	12580	-	-
45				15800	14750	13500	12210	-	-
46					14390	13140	11850	-	-
47					14050	12800	11510	-	-
48					13720	12470	11180	-	-
49					13400	12150	10870	-	-
50					13100	11850	10570	-	-
51						11560	10280	-	-
52						11280	10000	-	-
53						11010	9730	-	-
54						10750	9470	-	-
55						10500	9220	-	-
56							8980	-	-
57							8750	-	-
58							8530	-	-
59							8310	-	-
60							8100	-	-
61								-	-
62								-	-
63								-	-
64								-	-
65								-	-
66								-	-
67								-	-
68								-	-
69								-	-
70								-	-

3 Tower combinations

	<p>⚠ DANGER</p> <p>Usage of incorrect tower combinations. The slewing tower crane may overturn.</p> <ol style="list-style-type: none">1) Use the specified tower combinations.2) If you need another tower combination that is not specified here, please contact WOLFFKRAN to get an approved alternative setup in writing.
	<p>NOTICE</p> <p>All tower combinations apply to free standing slewing tower cranes without climbing gear.</p>
	<p>NOTICE</p> <p>For tower combination with tower element TV 25 and UV 25 please contact WOLFFKRAN.</p>

3.1 Tower combinations on foundation anchor (HT23 - connection)

Jib length	30 m – 35 m			
Item				
1	4.5 m	HT 23		
2	9.0 m	HT 23		
3	13.5 m	HT 23		
4	18.0 m	HT 23		
5	22.5 m	HT 23		
6	27.0 m	HT 23		
7	31.5 m	HT 23		
8	36.0 m	HT 23		
9	40.5 m	HT 23		
10	45.0 m	HT 23		
11	49.5 m	HT 23		
Foundation		FUA G 160		
Tower height [m]		49.5		

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Jib length	30 m – 35 m				
Item					
1	4.5 m	HT 23			
2	9.0 m	HT 23			
3	13.5 m	HT 23			
4	18.0 m	HT 23			
5	22.5 m	HT 23			
6	27.0 m	HT 23			
7	31.5 m	HT 23			
8	36.0 m	HT 23			
9	40.5 m	HT 23			
10	45.0 m	HT 23			
11	56.3 m	BT 23			
Foundation		FUA G 210			
Tower height [m]		56.3			

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Jib length	30 m – 35 m			
Item				
1	4.5 m	HT 23		
2	9.0 m	HT 23		
3	13.5 m	HT 23		
4	18.0 m	HT 23		
5	22.5 m	HT 23		
6	27.0 m	HT 23		
7	31.5 m	HT 23		
8	36.0 m	HT 23		
9	37.2 m	VR 23/25-29		
10	41.7 m	UV 29		
11	46.2 m	UV 29		
12	50.7 m	UV 29		
13	55.2 m	UV 29		
14	65.2 m	BT 29		
Foundation		FUA BT 29		
Tower height [m]		65.2		

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Jib length	40 m – 70 m				
Item					
1	4.5 m	HT 23			
2	9.0 m	HT 23			
3	13.5 m	HT 23			
4	18.0 m	HT 23			
5	22.5 m	HT 23			
6	27.0 m	HT 23			
7	31.5 m	HT 23			
8	36.0 m	HT 23			
9	40.5 m	HT 23			
10	45.0 m	HT 23			
Foundation		FUA G 160			
Tower height [m]		45.0			

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Jib length	40 m – 70 m			
Item				
1	4.5 m	HT 23		
2	9.0 m	HT 23		
3	13.5 m	HT 23		
4	18.0 m	HT 23		
5	22.5 m	HT 23		
6	27.0 m	HT 23		
7	31.5 m	HT 23		
8	36.0 m	HT 23		
9	40.5 m	HT 23		
10	51.8 m	BT 23		
Foundation		FUA G 210		
Tower height [m]		51.8		

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Jib length	40 m – 70 m			
Item				
1	4.5 m	HT 23		
2	9.0 m	HT 23		
3	13.5 m	HT 23		
4	18.0 m	HT 23		
5	22.5 m	HT 23		
6	27.0 m	HT 23		
7	31.5 m	HT 23		
8	36.0 m	HT 23		
9	37.2 m	VR 23/25-29		
10	41.7 m	UV 29		
11	46.2 m	UV 29		
12	50.7 m	UV 29		
13	60.7 m	BT 29		
Foundation		FUA BT 29		
Tower height [m]		60.7		

3.2 Tower combinations on cross frame (HT23 - connection)

Jib length	30 m – 35 m			
Item				
1	4.5 m	HT 23	HT 23	
2	9.0 m	HT 23	HT 23	
3	13.5 m	HT 23	HT 23	
4	18.0 m	HT 23	HT 23	
5	22.5 m	HT 23	HT 23	
6	27.0 m	HT 23	HT 23	
7	31.5 m	HT 23	HT 23	
8	36.0 m	HT 23	HT 23	
9	40.5 m	HT 23	HT 23	
10	45.0 m	HT 23	HT 23	
11	49.5 m	HT 23	HT 23	
Substructure		KR 12-60 KR 12-60/80	KR 16-80 KR 16-80/100	
[m x m]		6.0 x 6.0 8.0 x 8.0	8.0 x 8.0 10.0 x 10.0	
Substructure height [m]		1.4	1.8	
Tower height [m]		50.9	51.3	

Jib length	30 m – 35 m			
Item				
1	4.5 m	HT 23		
2	9.0 m	HT 23		
3	13.5 m	HT 23		
4	18.0 m	HT 23		
5	22.5 m	HT 23		
6	27.0 m	HT 23		
7	31.5 m	HT 23		
8	36.0 m	HT 23		
9	37.2 m	VR 23/25-29		
10	41.7 m	UV 29		
11	46.2 m	UV 29		
12	50.7 m	UV 29		
13	55.2 m	UV 29		
14	65.2 m	BT 29		
Substructure		KR 16-80 KR 16-80/100		
[m x m]		8.0 x 8.0 10.0 x 10.0		
Substructure height [m]		1.8		
Tower height [m]		67.0		

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Jib length	40 m – 50 m			
Item				
1	4.5 m	HT 23	HT 23	
2	9.0 m	HT 23	HT 23	
3	13.5 m	HT 23	HT 23	
4	18.0 m	HT 23	HT 23	
5	22.5 m	HT 23	HT 23	
6	27.0 m	HT 23	HT 23	
7	31.5 m	HT 23	HT 23	
8	36.0 m	HT 23	HT 23	
9	40.5 m	HT 23	HT 23	
10	45.0 m	HT 23	HT 23	
Substructure		KR 12-60 KR 12-60/80	KR 16-80 KR 16-80/100	
[m x m]		6.0 x 6.0 8.0 x 8.0	8.0 x 8.0 10.0 x 10.0	
Substructure height [m]		1.4	1.8	
Tower height [m]		46.4	46.8	

Jib length	40 m – 50 m			
Item				
1	4.5 m	HT 23		
2	9.0 m	HT 23		
3	13.5 m	HT 23		
4	18.0 m	HT 23		
5	22.5 m	HT 23		
6	27.0 m	HT 23		
7	31.5 m	HT 23		
8	36.0 m	HT 23		
9	37.2 m	VR 23/25-29		
10	41.7 m	UV 29		
11	46.2 m	UV 29		
12	50.7 m	UV 29		
13	55.2 m	UV 29		
14	65.2 m	BT 29		
Substructure		KR 16-80 KR 16-80/100		
[m x m]		8.0 x 8.0 10.0 x 10.0		
Substructure height [m]		1.8		
Tower height [m]		67.0		

Jib length	55 m – 60 m			
Item				
1	4.5 m	HT 23	HT 23	
2	9.0 m	HT 23	HT 23	
3	13.5 m	HT 23	HT 23	
4	18.0 m	HT 23	HT 23	
5	22.5 m	HT 23	HT 23	
6	27.0 m	HT 23	HT 23	
7	31.5 m	HT 23	HT 23	
8	36.0 m	HT 23	HT 23	
9	40.5 m	HT 23	HT 23	
10	45.0 m	HT 23	HT 23	
Substructure		KR 12-60 KR 12-60/80	KR 16-80 KR 16-80/100	
[m x m]		6.0 x 6.0 8.0 x 8.0	8.0 x 8.0 10.0 x 10.0	
Substructure height [m]		1.4	1.8	
Tower height [m]		46.4	46.8	

WOLFFKRAN

Jib length	55 m – 60 m			
Item				
1	4.5 m	HT 23		
2	9.0 m	HT 23		
3	13.5 m	HT 23		
4	18.0 m	HT 23		
5	22.5 m	HT 23		
6	27.0 m	HT 23		
7	31.5 m	HT 23		
8	36.0 m	HT 23		
9	37.2 m	VR 23/25-29		
10	41.7 m	UV 29		
11	46.2 m	UV 29		
12	50.7 m	UV 29		
13	60.7 m	BT 29		
Substructure		KR 16-80 KR 16-80/100		
[m x m]		8.0 x 8.0 10.0 x 10.0		
Substructure height [m]		1.8		
Tower height [m]		62.5		

WOLFFKRAN

Jib length	65 m			
Item				
1	4.5 m	HT 23	HT 23	
2	9.0 m	HT 23	HT 23	
3	13.5 m	HT 23	HT 23	
4	18.0 m	HT 23	HT 23	
5	22.5 m	HT 23	HT 23	
6	27.0 m	HT 23	HT 23	
7	31.5 m	HT 23	HT 23	
8	36.0 m	HT 23	HT 23	
9	40.5 m	HT 23	HT 23	
10	45.0 m	HT 23	HT 23	
Substructure		KR 12-60 KR 12-60/80	KR 16-80 KR 16-80/100	
[m x m]		6.0 x 6.0 8.0 x 8.0	8.0 x 8.0 10.0 x 10.0	
Substructure height [m]		1.4	1.8	
Tower height [m]		46.4	46.8	

WOLFFKRAN

Jib length	65 m				
Item					
1	4.5 m	HT 23			
2	9.0 m	HT 23			
3	13.5 m	HT 23			
4	18.0 m	HT 23			
5	22.5 m	HT 23			
6	27.0 m	HT 23			
7	31.5 m	HT 23			
8	36.0 m	HT 23			
9	37.2 m	VR 23/25-29			
10	41.7 m	UV 29			
11	46.2 m	UV 29			
12	56.2 m	BT 29			
Substructure		KR 16-80 KR 16-80/100			
[m x m]		8.0 x 8.0 10.0 x 10.0			
Substructure height [m]		1.8			
Tower height [m]		58.0			

Jib length	70 m			
Item				
1	4.5 m	HT 23	HT 23	
2	9.0 m	HT 23	HT 23	
3	13.5 m	HT 23	HT 23	
4	18.0 m	HT 23	HT 23	
5	22.5 m	HT 23	HT 23	
6	27.0 m	HT 23	HT 23	
7	31.5 m	HT 23	HT 23	
8	36.0 m	HT 23	HT 23	
9	40.5 m	HT 23	HT 23	
10	45.0 m		HT 23	
Substructure		KR 12-60 KR 12-60/80	KR 16-80 KR 16-80/100	
[m x m]		6.0 x 6.0 8.0 x 8.0	8.0 x 8.0 10.0 x 10.0	
Substructure height [m]		1.4	1.8	
Tower height [m]		41.9	46.8	

WOLFFKRAN

Jib length	70 m				
Item					
1	4.5 m	HT 23			
2	9.0 m	HT 23			
3	13.5 m	HT 23			
4	18.0 m	HT 23			
5	22.5 m	HT 23			
6	27.0 m	HT 23			
7	31.5 m	HT 23			
8	36.0 m	HT 23			
9	37.2 m	VR 23/25-29			
10	41.7 m	UV 29			
11	46.2 m	UV 29			
12	56.2 m	BT 29			
Substructure		KR 16-80 KR 16-80/100			
[m x m]		8.0 x 8.0 10.0 x 10.0			
Substructure height [m]		1.8			
Tower height [m]		58.0			

3.3 Tower combinations on mobile cross frame (HT 23 connection)

Jib length	30 m – 35 m			
Item				
1	4.5 m	HT 23	HT 23	
2	9.0 m	HT 23	HT 23	
3	13.5 m	HT 23	HT 23	
4	18.0 m	HT 23	HT 23	
5	22.5 m	HT 23	HT 23	
6	27.0 m	HT 23	HT 23	
7	31.5 m	HT 23	HT 23	
8	36.0 m	HT 23	HT 23	
Substructure		KRF6 12-60/80	KRF 16-80/100	
[m x m]		8.0 x 8.0	10.0 x 10.0	
Substructure height [m]		2.9	3.3	
Tower height [m]		38.9	39.3	

WOLFFKRAN

Jib length	30 m – 35 m				
Item					
1	4.5 m	HT 23			
2	9.0 m	HT 23			
3	13.5 m	HT 23			
4	18.0 m	HT 23			
5	22.5 m	HT 23			
6	27.0 m	HT 23			
7	31.5 m	HT 23			
8	32.7 m	VR 23/25-29			
9	37.2 m	UV 29			
10	41.7 m	UV 29			
11	46.2 m	UV 29			
12	56.2 m	BT 29			
Substructure	KRF 16-80/100				
[m x m]	10.0 x 10.0				
Substructure height [m]	3.3				
Tower height [m]	59.5				

WOLFFKRAN

Jib length	40 m – 50 m			
Item				
1	4.5 m	HT 23	HT 23	
2	9.0 m	HT 23	HT 23	
3	13.5 m	HT 23	HT 23	
4	18.0 m	HT 23	HT 23	
5	22.5 m	HT 23	HT 23	
6	27.0 m	HT 23	HT 23	
7	31.5 m	HT 23	HT 23	
8	36.0 m	HT 23	HT 23	
Substructure		KRF6 12-60/80	KRF 16-80/100	
[m x m]		8.0 x 8.0	10.0 x 10.0	
Substructure height [m]		2.9	3.3	
Tower height [m]		38.9	39.3	

WOLFFKRAN

Jib length	40 m – 50 m				
Item					
1	4.5 m	HT 23			
2	9.0 m	HT 23			
3	13.5 m	HT 23			
4	18.0 m	HT 23			
5	22.5 m	HT 23			
6	27.0 m	HT 23			
7	28.2 m	VR 23/25-29			
8	32.7 m	UV 29			
9	37.2 m	UV 29			
10	41.7 m	UV 29			
11	46.2 m	UV 29			
12	56.2 m	BT 29			
Substructure	KRF 16-80/100				
[m x m]	10.0 x 10.0				
Substructure height [m]	3.3				
Tower height [m]	59.5				

WOLFFKRAN

Jib length	50 m – 60 m				
Item					
1	4.5 m	HT 23	HT 23		
2	9.0 m	HT 23	HT 23		
3	13.5 m	HT 23	HT 23		
4	18.0 m	HT 23	HT 23		
5	22.5 m	HT 23	HT 23		
6	27.0 m	HT 23	HT 23		
7	31.5 m	HT 23	HT 23		
8	36.0 m	HT 23	HT 23		
Substructure		KRF6 12-60/80	KRF 16-80/100		
[m x m]		8.0 x 8.0	10.0 x 10.0		
Substructure height [m]		2.9	3.3		
Tower height [m]		38.9	39.3		

WOLFFKRAN

Jib length	55 m – 60 m			
Item				
1	4.5 m	HT 23		
2	9.0 m	HT 23		
3	13.5 m	HT 23		
4	18.0 m	HT 23		
5	22.5 m	HT 23		
6	27.0 m	HT 23		
7	28.2 m	VR 23/25-29		
8	32.7 m	UV 29		
9	37.2 m	UV 29		
10	41.7 m	UV 29		
11	51.7 m	BT 29		
Substructure		KRF 16-80/100		
[m x m]		10.0 x 10.0		
Substructure height [m]		3.3		
Tower height [m]		55.0		

WOLFFKRAN

Jib length	65 m				
Item					
1	4.5 m	HT 23	HT 23		
2	9.0 m	HT 23	HT 23		
3	13.5 m	HT 23	HT 23		
4	18.0 m	HT 23	HT 23		
5	22.5 m	HT 23	HT 23		
6	27.0 m	HT 23	HT 23		
7	31.5 m	HT 23	HT 23		
8	36.0 m	HT 23	HT 23		
Substructure		KRF6 12-60/80	KRF 16-80/100		
[m x m]		8.0 x 8.0	10.0 x 10.0		
Substructure height [m]		2.9	3.3		
Tower height [m]		38.9	39.3		

WOLFFKRAN



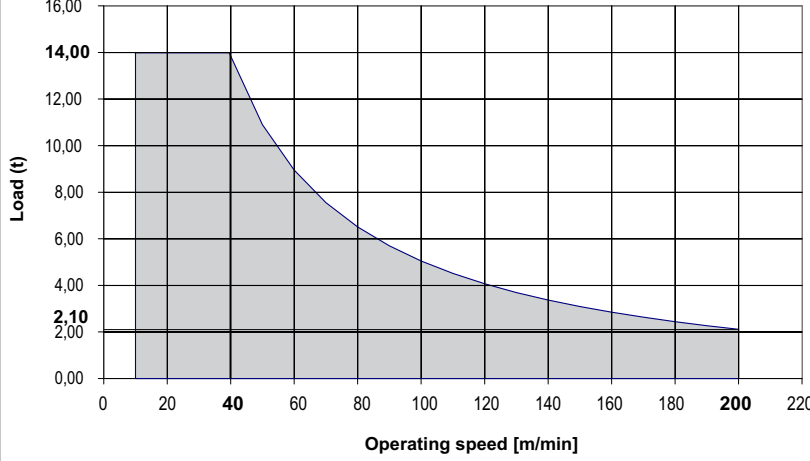
Jib length	65 m			
Item				
1	4.5 m	HT 23		
2	9.0 m	HT 23		
3	13.5 m	HT 23		
4	18.0 m	HT 23		
5	22.5 m	HT 23		
6	27.0 m	HT 23		
7	28.2 m	VR 23/25-29		
8	32.7 m	UV 29		
9	37.2 m	UV 29		
10	41.7 m	UV 29		
11	51.7 m	BT 29		
Substructure		KRF 16-80/100		
[m x m]		10.0 x 10.0		
Substructure height [m]		3.3		
Tower height [m]		55.0		



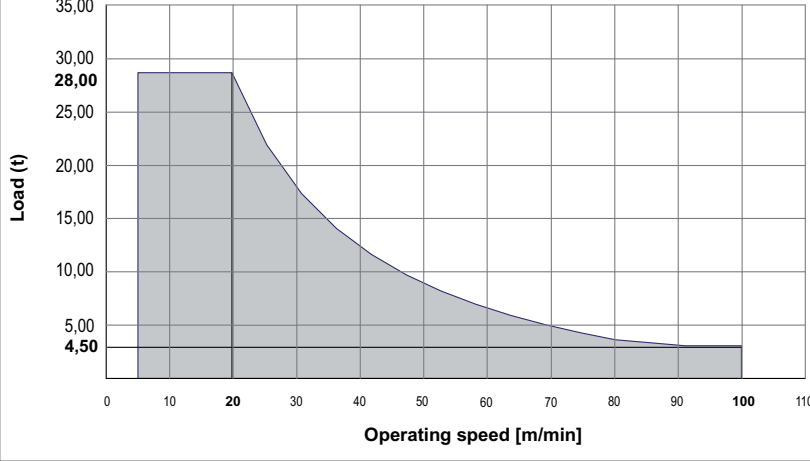
Jib length	70 m				
Item					
1	4.5 m	HT 23	HT 23		
2	9.0 m	HT 23	HT 23		
3	13.5 m	HT 23	HT 23		
4	18.0 m	HT 23	HT 23		
5	22.5 m	HT 23	HT 23		
6	27.0 m	HT 23	HT 23		
7	31.5 m	HT 23	HT 23		
8	36.0 m	HT 23	HT 23		
Substructure		KRF6 12-60/80	KRF 16-80/100		
[m x m]		8.0 x 8.0	10.0 x 10.0		
Substructure height [m]		2.9	3.3		
Tower height [m]		38.9	39.3		


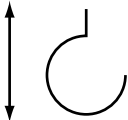
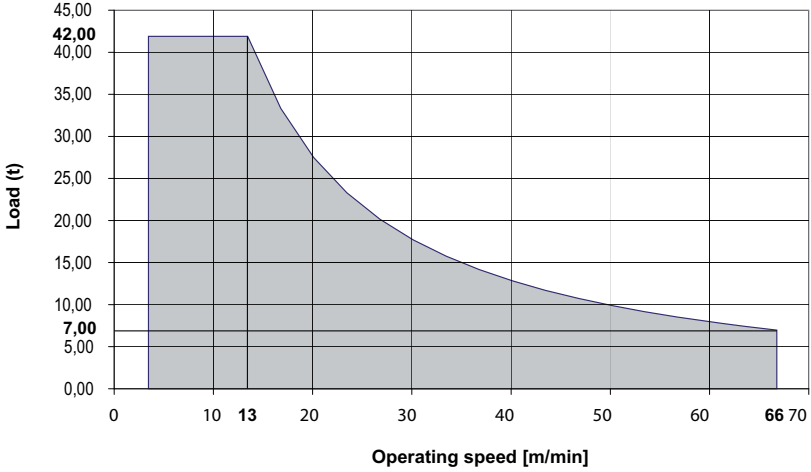
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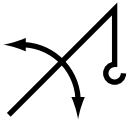

Jib length	70 m			
Item				
1	4.5 m	HT 23		
2	9.0 m	HT 23		
3	13.5 m	HT 23		
4	18.0 m	HT 23		
5	22.5 m	HT 23		
6	27.0 m	HT 23		
7	28.2 m	VR 23/25-29		
8	32.7 m	UV 29		
9	37.2 m	UV 29		
10	41.7 m	UV 29		
11	51.7 m	BT 29		
Substructure		KRF 16-80/100		
[m x m]		10.0 x 10.0		
Substructure height [m]		3.3		
Tower height [m]		55.0		



4 Operating speeds

Drive unit [type]	Operating speed Carrying load	Hook travel distance max. [m]	Power [kW]	Total connected load [kVA]	
Hw28110FU	Lifting / lowering		920	110	214.0 Total connected load at coincidence factor of 0.7
					
Max. tower height (m) (with jib length of 70 m)				847	

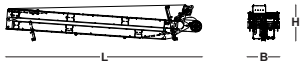

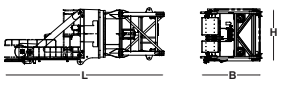





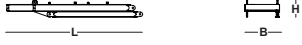
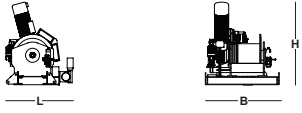
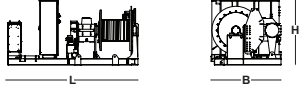
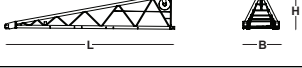
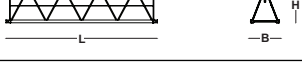

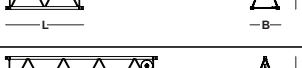

Drive unit [type]	Operating speed Carrying load	Hook travel distance max. [m]	Power [kW]	Total connected load [kVA]	
Hw28110FU	Lifting / lowering		460	110	214.0 Total connected load at coincidence factor of 0.7
					
Max. tower height (m) (with jib length of 70 m)				387	

Drive unit [type]	Operating speed Carrying load	Hook travel distance max. [m]	Power [kW]	Total connected load [kVA]	
Hw28110FU	Lifting / lowering		306	110	214.0 Total connected load at coincidence factor of 0.7
					
Max. tower height (m) (with jib length of 70 m)				233	

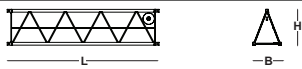
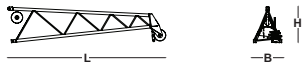
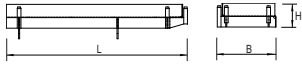





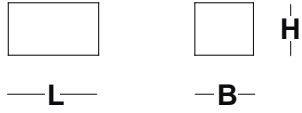
Drive unit [type]	Operating speeds	Power [kW]	Total connected load [kVA]
EW 12110FU	Jib luffing in / out	110	214.0 Total connected load at coincidence factor of 0.7
			

Drive unit [type]	Operating speeds	Power [kW]	Total connected load [kVA]
SG	Slewing	2x7,5	214.0 Total connected load at coincidence factor of 0.7
			

5 Package list 630 B

Quantity	Description	Package	L [m]	W [m]	H [m]	Weight [kg]	Volume [m ³]
1	Tower head section upper part including pulley block and platforms		11.95	2.50	2.57	9500	76.78
1	Tower head section brace		10.18	0.72	0.43	1600	3.15
1	Tower head section lower part		8.52	3.05	2.66	20400	69.12
	Connecting block with ladder		4.27	2.35	2.30	4500	23.08
	Slewing frame including railings and slewing gear motor (dismantled)		2.32	2.57	2.97	13300	17.71
	Tower top lower part adapter		2.32	2.80	2.52	2600	14.73
1	Driver's cab suspension		2.72	2.00	0.57	400	3.10
1	Driver's cab		1.90	1.44	2.34	750	6.40
1	Counter jib with struts and platforms		8.05	2.50	1.09	5900	21.94
1	Machine platform with derricking winch, 2. brake		1.82	2.23	2.60	4700	10.55
1	Machine platform with hoist gear, 2 brake (incl. 920 m Ø 26 mm hoisting rope = 3 tons)		2.60	4.26	2.24	11900	24.81
1	Jib section 1		11.88	2.53	2.25	4100	67.63
1	Jib section 2		10.60	1.98	2.20	3000	46.17
1	Jib section 3		5.43	1.98	2.20	1600	23.65
1	Jib section 4		5.43	1.98	2.20	1400	23.65
1	Jib section 5		10.60	1.98	2.20	2400	46.17

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Quantity	Description	Package	L [m]	W [m]	H [m]	Weight [kg]	Volume [m ³]
2	Jib section 6		10.60	1.98	2.20	2100	46.17
1	Jib section 7 (without platforms)		10.75	1.98	2.23	3500	47.47
1	Platforms		3.1	0.5	1.5	500	2.33
	Snatch block (single reeving)		1.08	0.34	1.99	600	0.73
	Snatch block (double reeving)		1.20	0.40	1.99	1000	0.96
	Snatch block, triple reeving		1.20	0.50	1.99	1500	1.20
1	Stay rods for 70 m operating radius		10.53	0.60	0.19	2200	1.20
1	Auxiliary crane		3.37	0.40	3.43	300	4.62
	Standard railings		2.60	1.10	0.65	300	1.86
1	Box (small parts)		0.63	0.50	0.38	100	1.12

6 Assembly weights

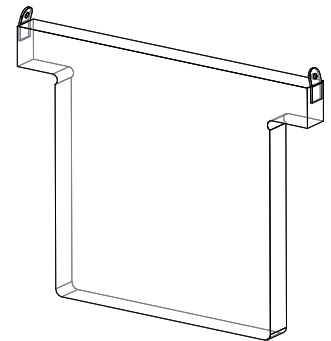
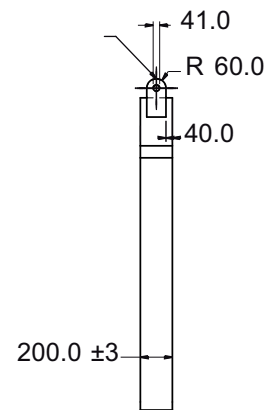
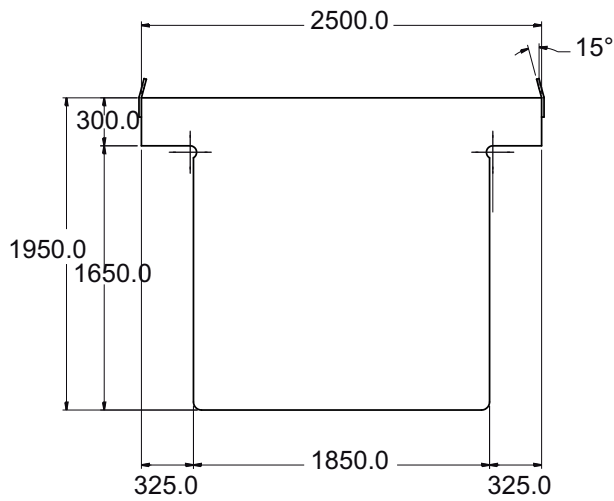
6.1 Counterweight blocks



NOTICE

The described diagrams of the counterweights and central ballast blocks only show sketches. Have them issue the reinforcement charts by experts.

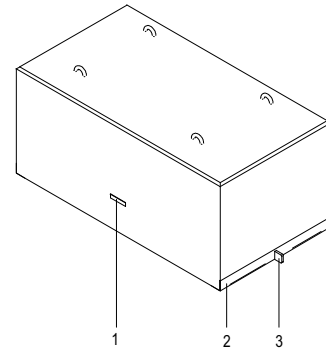
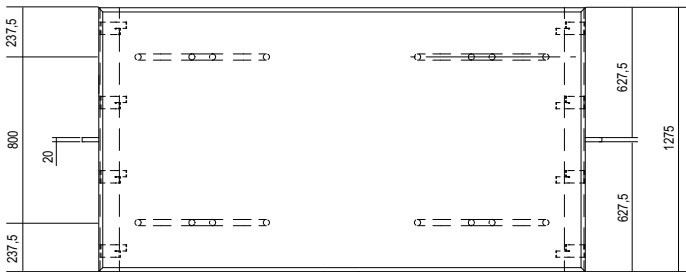
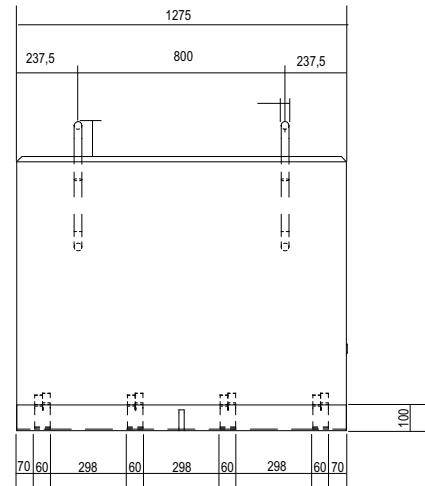
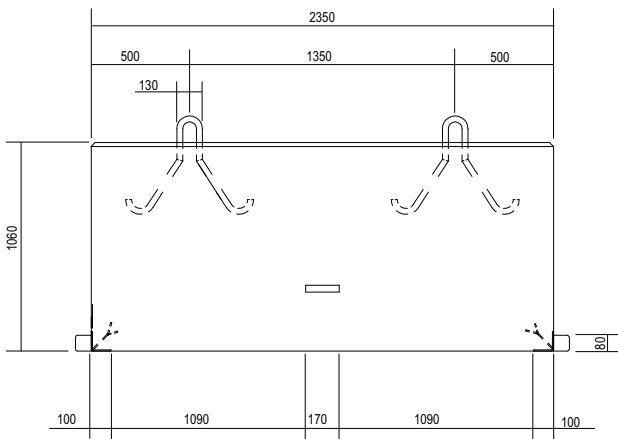
6.1.1 Counterweight block, 5.97 t



Data counterweight block 5.97 t

Item	Data
Material	Material quality S235JR, max. carbon content 0.25%
Max. permitted weight tolerance	+/- 3 %
Order number	30046411

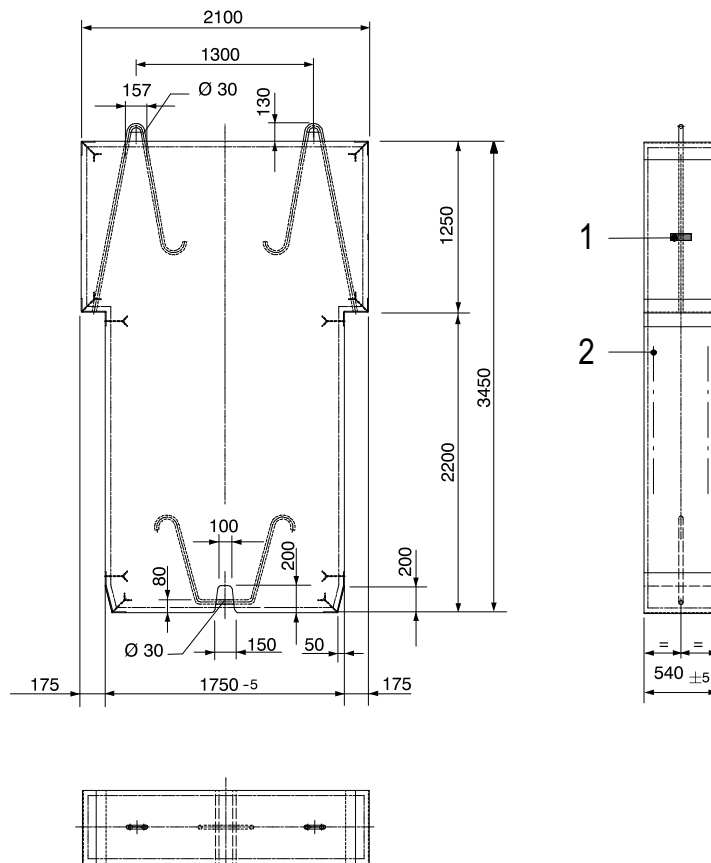
6.1.2 Counterweight block, 7.5 t



Data counterweight block 7.5 t

Item	Data
Material	Concrete, min. C 20/25
Max. permitted weight tolerance	+/- 3 %
Order number	30049324
1	Component identifier
2	Border protection
3	Adjustment

6.1.3 Counterweight block, 8.0 t



Data counterweight block 8.0 t

Item	Data
Material	Concrete, min. C 20/25
Max. permitted weight tolerance	+/- 3 %
Order number	30043944
1	Component identifier
2	Structural steel reinforcement

6.2 Total weight jib assembly

Complete jib: mechanical parts, brace plate, supports, assembly brace ropes, assembly rope guides, snatch block

Jib length [m]	Weight [kg] WOLFF 630 B
70.0	23300
65.0	21700
60.0	20800
55.0	19200
50.0	18400
45.0	16700
40.0	15600
35.0	14000
30.0	12200

6.3 Assembly weight slewing gear

Module	Crane parts	Weight [kg]	
Tower head section upper part			11015
	▪ Tower head top (including struts, pedestals and standard railing)	10520	
	▪ Pulley block	310	
	▪ Shock absorber	185	
Lower part of tower head section			20360
	▪ Lower part of tower head section	2590	
	▪ Slewing frame + KDV	13290	
	▪ Connecting block	4480	
Counterjib (including struts, pedestals and standard railing)			5900
Machine platform hoisting gear (1000 m rope = 5 to)			17500
Machine platform derricking winch			4700

6.4 Assembly weight cross frame

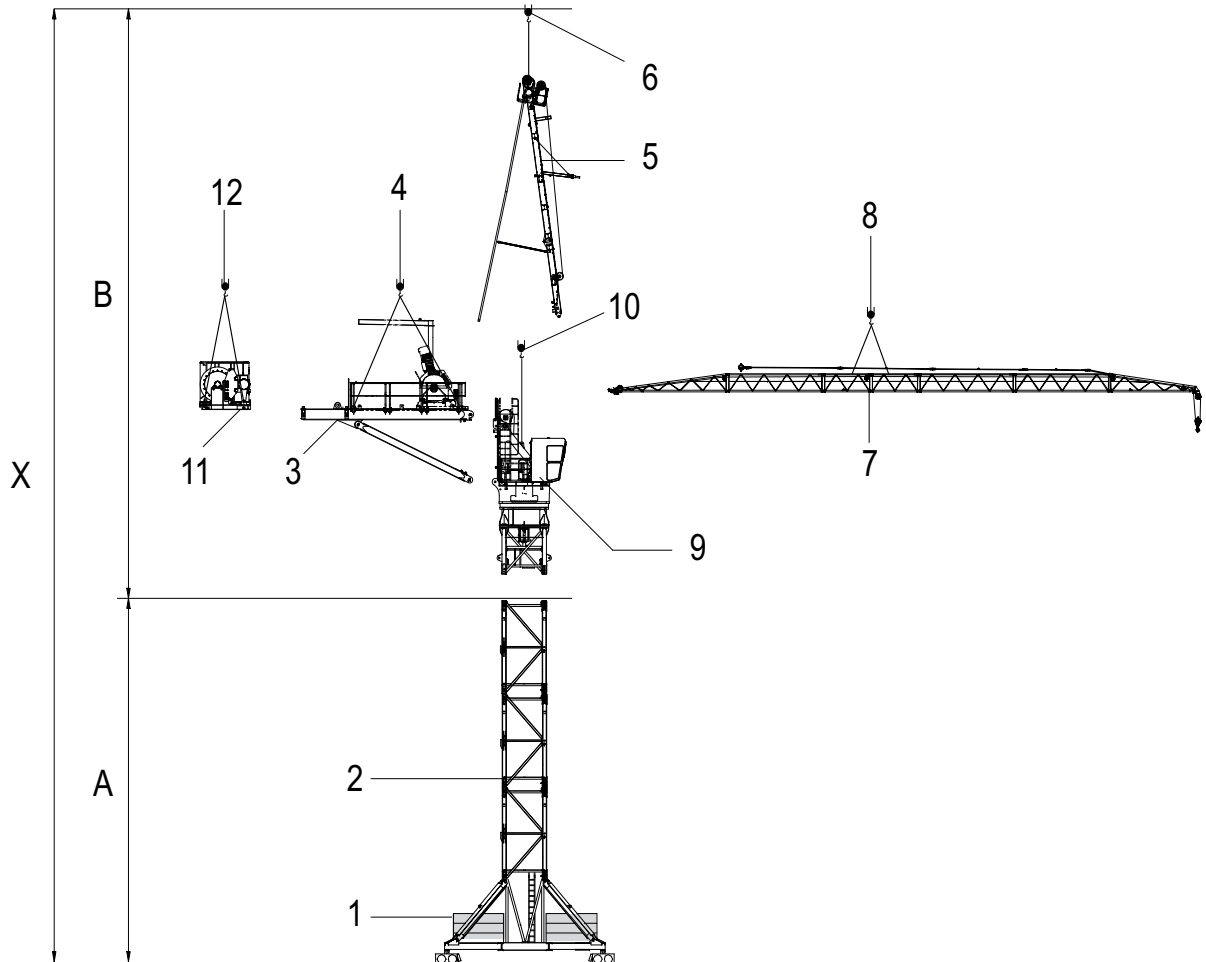
Module	crane part	Weight [kg]	
Cross frame KR 12 - 60 (without accessories)			14271
(6 m x 6 m)	▪ 4 x AZ 140 E 10	788	
	▪ 4 x AZ 156 M	844	
	▪ 4 x AZ 120 E 15.5	728	
	▪ 4 x AZ 140 M	788	
	▪ 4 x AZ 140 E 17	875	
	▪ 4 x AZ 160 HT 23	668	
Cross frame KR 12 – 60/80 (without accessories)			17732
(8 m x 8 m)	▪ 4 bolted spigots AZ 140 E 10	788	
	▪ 4 bolted spigots AZ 156 M	844	
	▪ 4 bolted spigots AZ 120 E15.5	728	
	▪ 4 bolted spigots AZ 140 M	788	
	▪ 4 bolted spigots AZ 140 E17	875	
	▪ 4 bolted spigots AZ 160 HT23	668	
Cross frame KR 16 - 80 (without accessories)			21450
(8 m x 8 m)	▪ 4 bolted spigots AZ 140 E KR 16 - 80	620	
	▪ 4 bolted spigots AZ 156 M KR 16-80	680	
	▪ 4 bolted spigots AZ 156S M KR 16-80	675	
Cross frame KR 16 – 80/100 (without accessories)			25400
(10 m x 10 m)	▪ 4 bolted spigots AZ 140 E KR 16 - 80	620	
	▪ 4 bolted spigots AZ 156 M KR 16-80	680	
	▪ 4 bolted spigots AZ 156S M KR 16-80	675	

6.5 Hook height above ground required for mobile cranes

For information about the height of the WOLFF slewing tower crane, refer to Tower combinations [8].

NOTICE! During assembly, allowances must be made for level differences (mobile crane to base of the slewing tower crane).

Hook height above ground required for mobile cranes (X) = height of the WOLFF slewing tower crane (A) + clearance of 29 (B).



Exemplary illustration


[A]	Height of the WOLFF slewing tower crane	[B]	Clearance 29 m
[X]	Hook height above ground required for the mobile crane		
1	Substructure	7	Jib
2	Tower element	8	Four-point lifting tackle (4 m with shackle)
3	Counterjib with luffing gear platform	9	Tower head section lower part
4	Four-point lifting tackle (4 m with shackle)	10	Two-point lifting tackle (2 m with shackle)
5	Upper tower head section	11	Hoisting winch platform, complete
6	Two-point lifting tackle (3 m with shackle)	12	Four-point lifting tackle (2 m with shackle)

(see also):

- Tower combinations [8]

7 Assembly diagrams

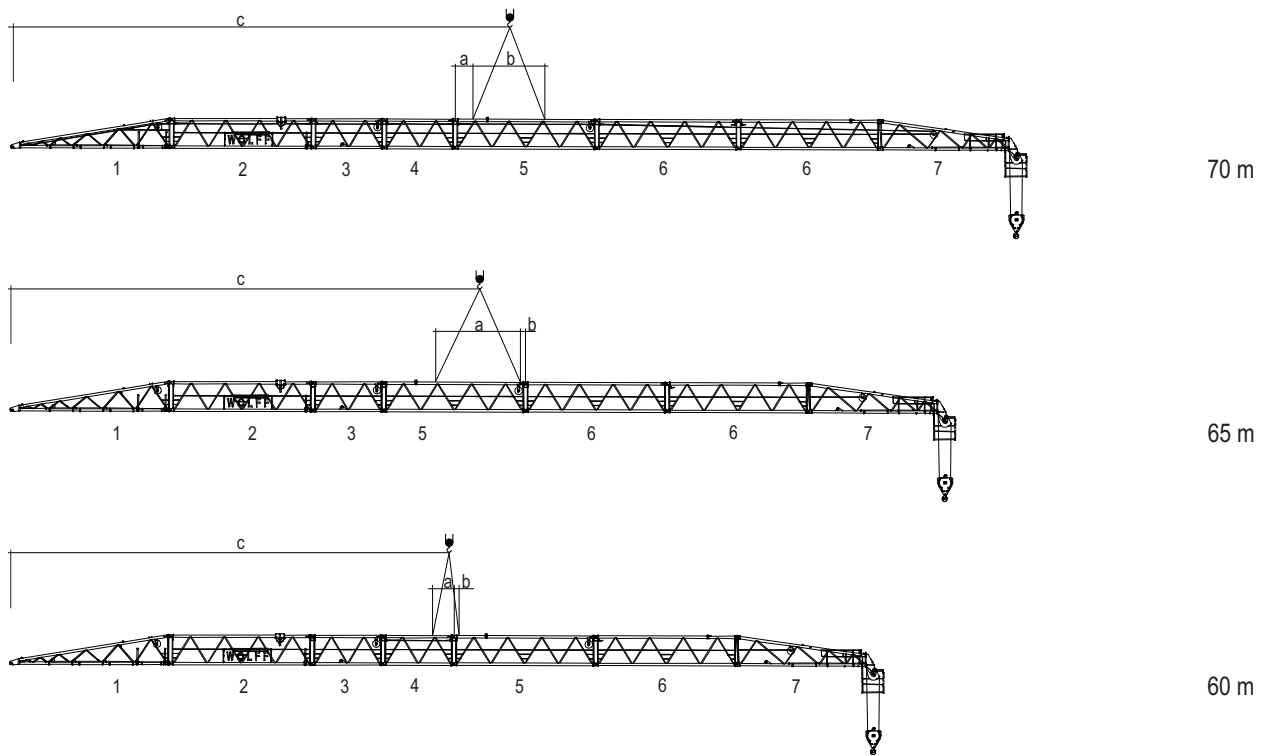
7.1 Jib attachment diagram

	NOTICE
	For jib assembly, use a Four-point lifting tackle (4 m with shackle).

Length of jib elements

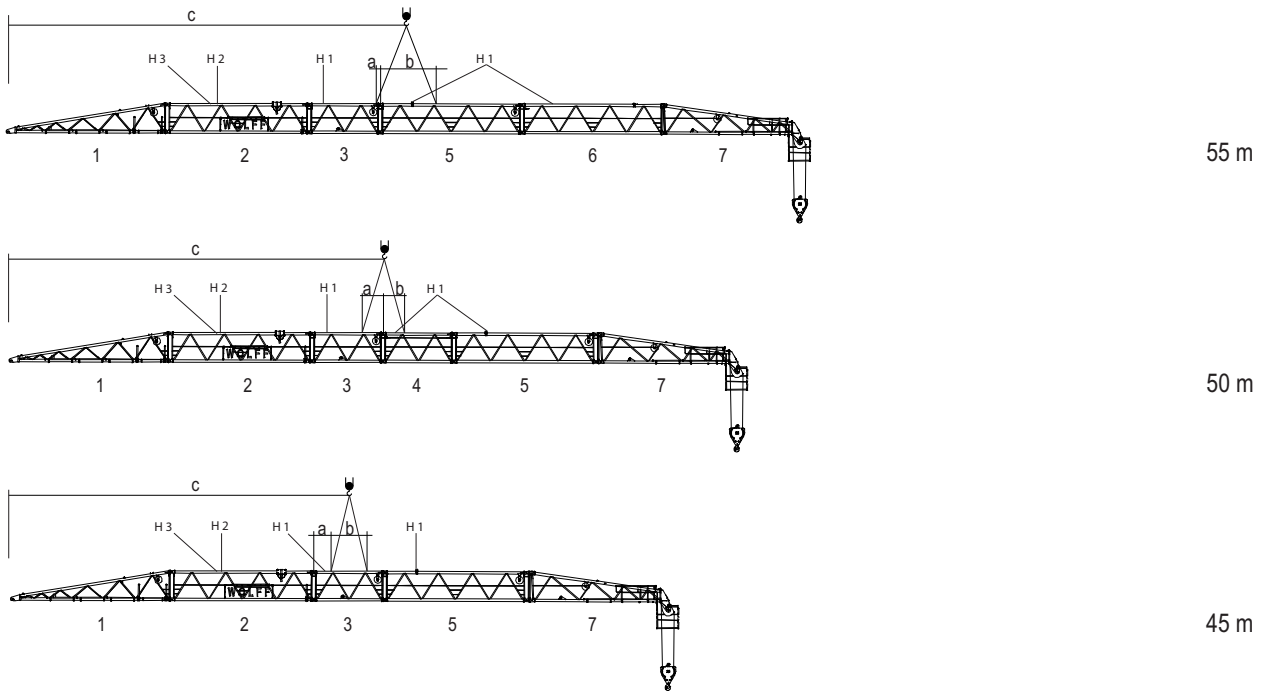
Item	Length [m]
Jib element 1	11.60
Jib element 2, 5, 6	10.35
Jib element 3, 4	5.18
Jib element 7	9.97

7.1.1 Jib attachment diagram 70 m to 60 m



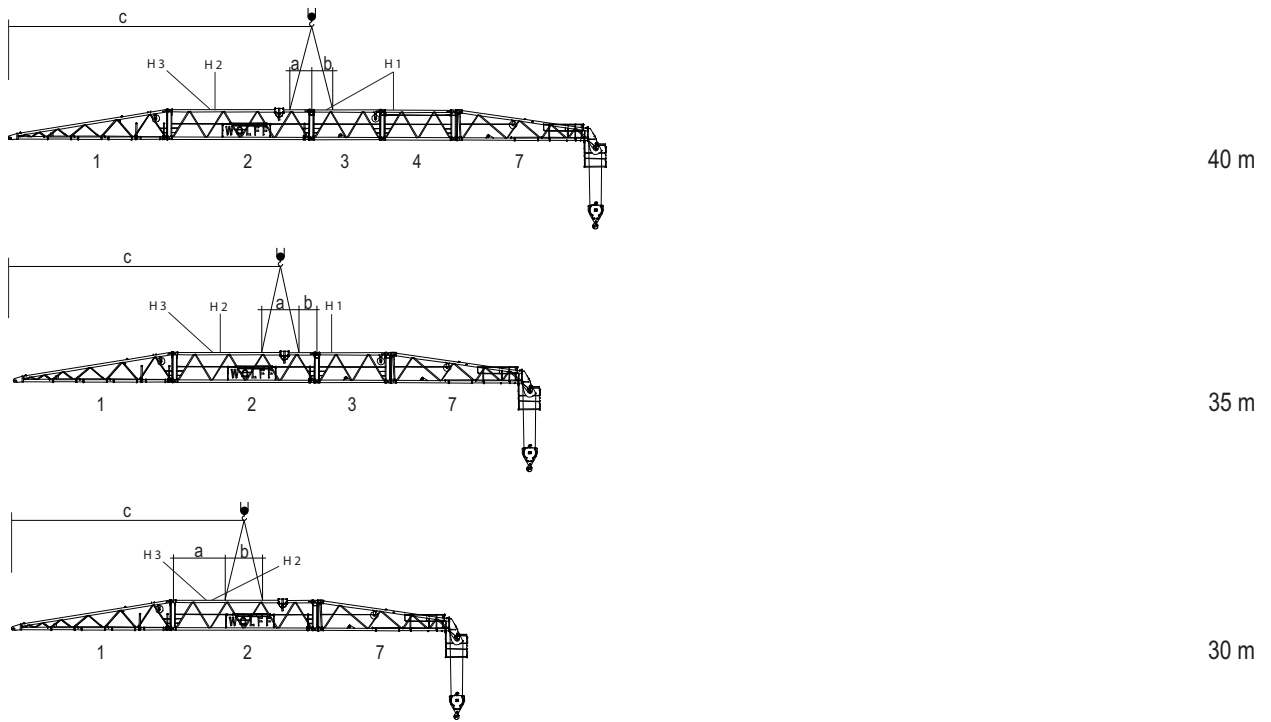
Data	Jib length (m)		
	70	65	60
a [m]	1.35	6.14	1.50
b [m]	5.17	0.38	0.20
c [m]	36.20	34.00	31.70
Weight (kg)	23300	21700	20800

7.1.2 Jib attachment diagram 55 m to 45 m



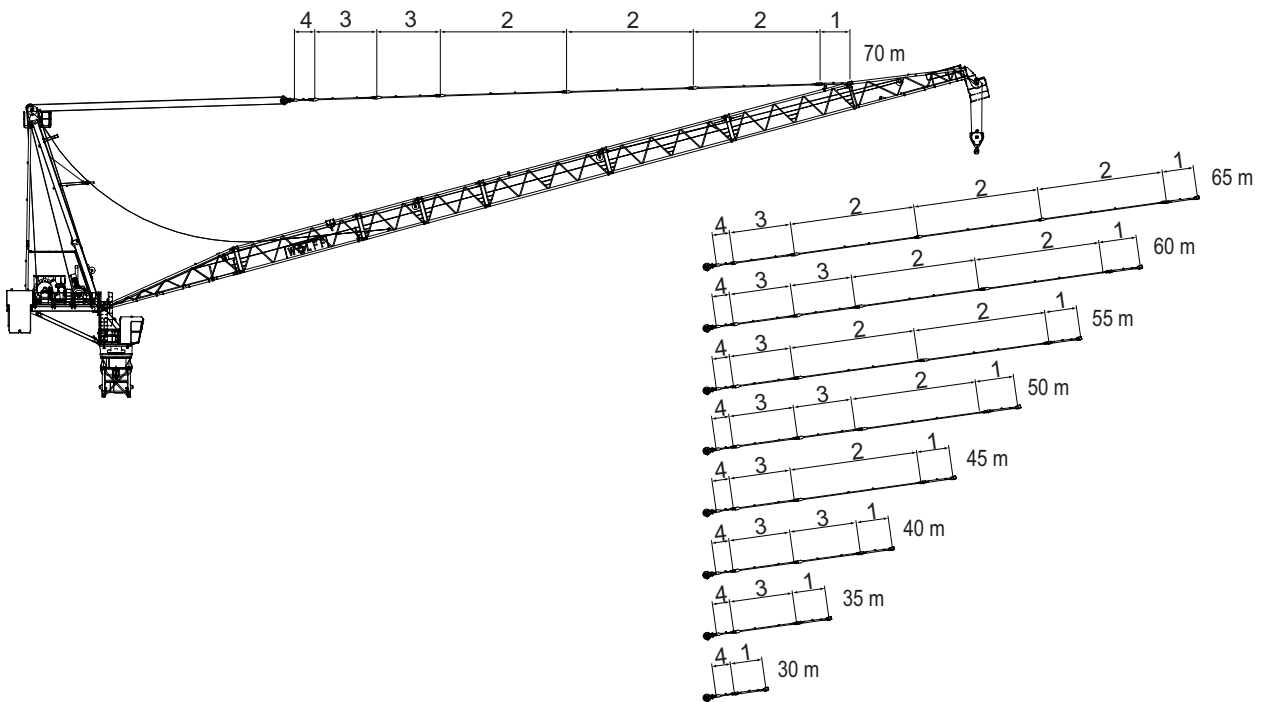
Data	Jib length (m)		
	55	50	45
a [m]	0.20	1.50	1.30
b [m]	3.87	1.50	2.57
c [m]	29.00	27.10	24.50
Weight (kg)	19200	18400	16700

7.1.3 Jib attachment diagram 40 m to 30 m



Data	Jib length (m)		
	40	35	30
a [m]	1.55	2.68	3.83
b [m]	1.50	1.35	2.69
c [m]	21.90	19.30	16.80
Weight (kg)	15600	14000	12200

7.2 Jib brace diagram



Brace table

Jib length	Lengths [m]									Total weight [t]
	Pulley block	Brace no. 4	Brace no. 3	Brace no. 3	Brace no. 2	Brace no. 2	Brace no. 2	Brace no. 1	Total length	
Jib – 70 m	0.75	1.60	5.15	5.15	10.30	10.30	10.30	2.48	46.03	2.2
Jib – 65 m	0.75	1.60	5.15		10.30	10.30	10.30	2.48	40.88	1.9
Jib – 60 m	0.75	1.60	5.15	5.15		10.30	10.30	2.48	35.73	1.7
Jib – 55 m	0.75	1.60	5.15			10.30	10.30	2.48	30.58	1.5
Jib – 50 m	0.75	1.60	5.15	5.15			10.30	2.48	25.43	1.3
Jib – 45 m	0.75	1.60	5.15				10.30	2.48	20.28	1.0
Jib – 40 m	0.75	1.60	5.15	5.15				2.48	15.13	0.8
Jib – 35 m	0.75	1.60	5.15					2.48	9.98	0.5
Jib – 30 m	0.75	1.60						2.48	4.83	0.3

Bolt table

Jib length	Brace	Bolts			Fuse	
		Quantity	Dimension [mm]	Item no.	Dimension [mm]	Item no.
Jibs - all	AL 7	1	Ø 105/90x235	30048840	Cotter pin 13 x 112	10006053
Jib – 70 m	1	1	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
	2	3	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
	3	2	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
	4	1	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
Jib – 65 m	1	1	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
	2	3	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
	3	1	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
	4	1	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
Jib – 60 m	1	1	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
	2	2	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
	3	2	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
	4	1	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
Jib – 55 m	1	1	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
	2	2	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
	3	1	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
	4	1	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
Jib – 50 m	1	1	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
	2	1	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
	3	2	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
	4	1	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
Jib – 45 m	1	1	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
	2	1	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
	3	1	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204

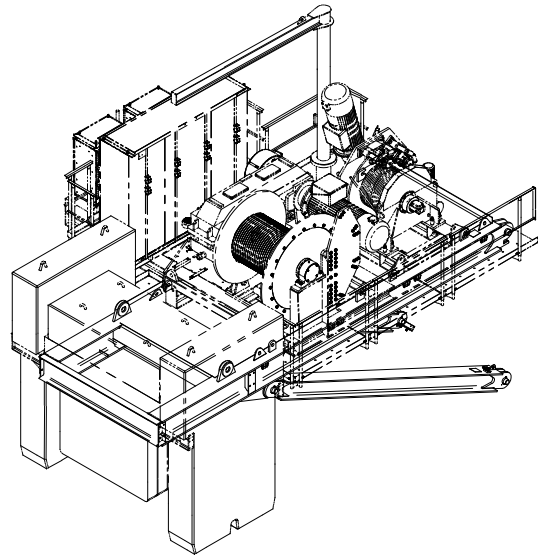
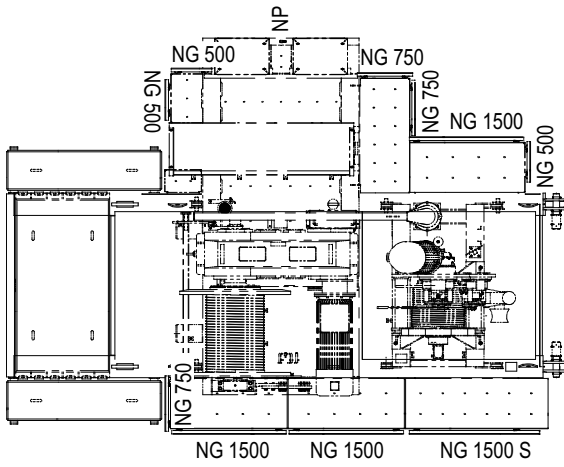
Jib length	Brace	Bolts			Fuse	
		Quantity	Dimension [mm]	Item no.	Dimension [mm]	Item no.
Jib – 45 m	4	1	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
Jib – 40 m	1	1	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
	2	-	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
	3	2	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
	4	1	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
Jib – 35 m	1	1	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
	2	-	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
	3	1	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
	4	1	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
Jib – 30 m	1	1	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
	2	-	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
	3	-	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204
	4	1	Ø 80/70x200	30048828	Spring retainers 10/60-80	10022204

7.3 Arrangement of standard railings

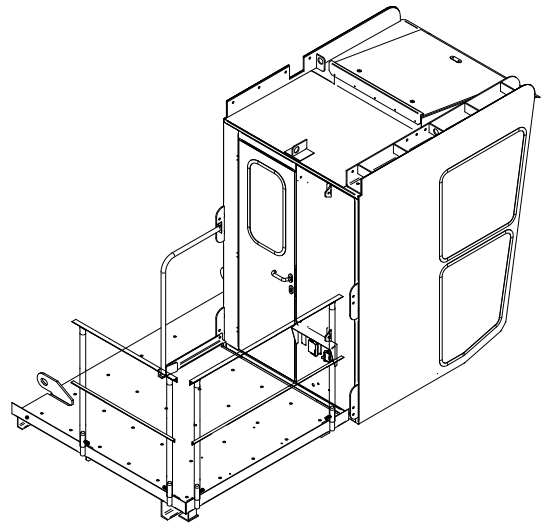
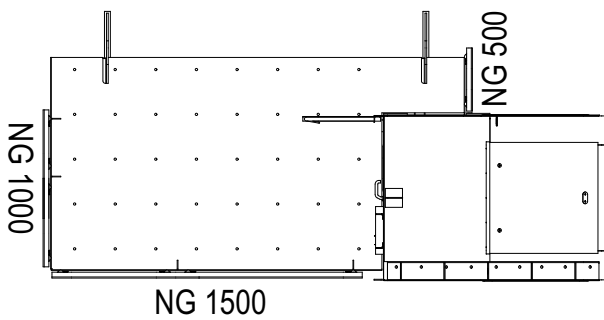
7.3.1 Standard railings (NG) and accessories

Quant- ity	Standard railings (NG) / accessories	Article no.
3	Standard stays Ø42.4 x 1090	30000167
7	Standard railings NG 500	30018793
7	Standard railings NG 750	30018794
1	Standard railings NG 1000	30018795
4	Standard railings NG 1500	30018796
1	Standard railings NG 1500 S	30046289
3	Standard railings NG 2000	30018797

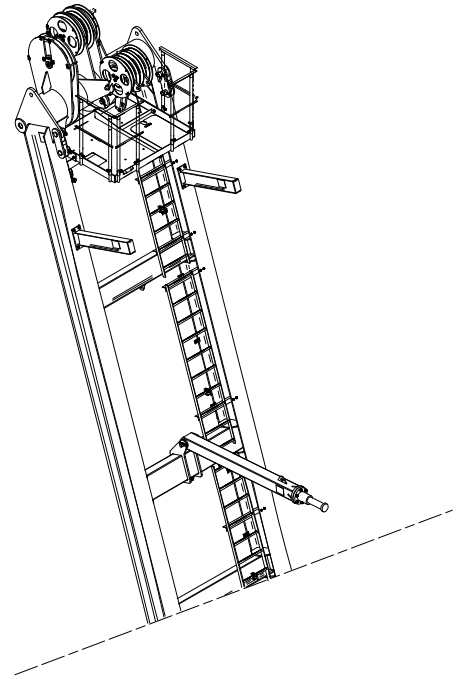
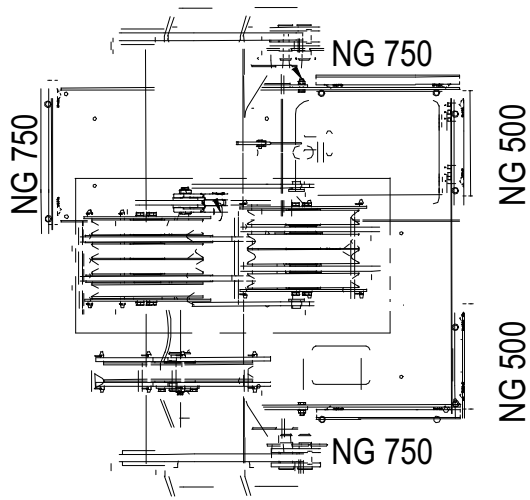
7.3.2 Arrangement of standard railings



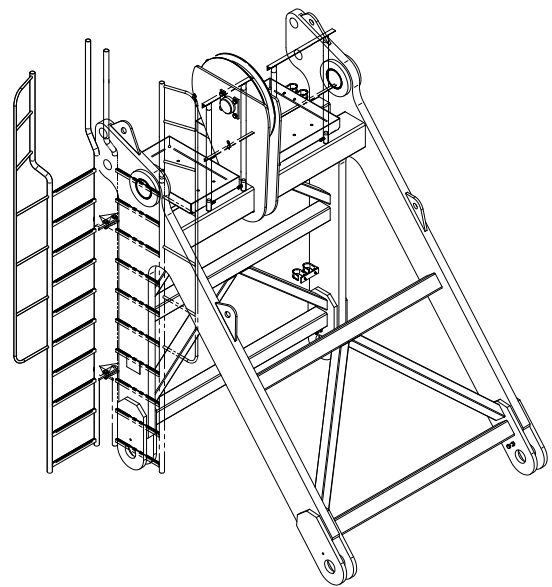
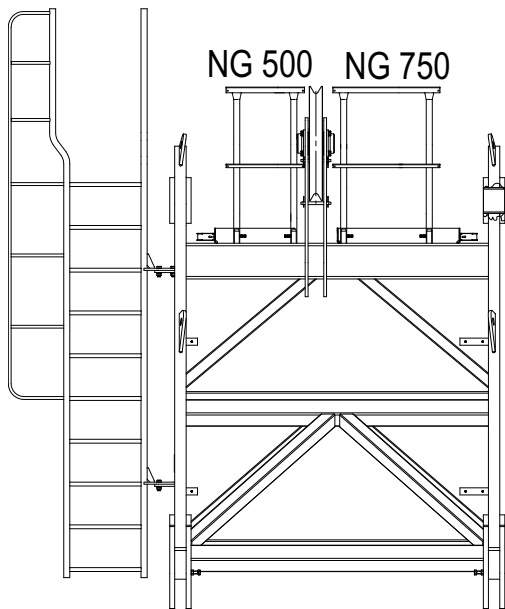
Arrangement of standard railings, counterjib



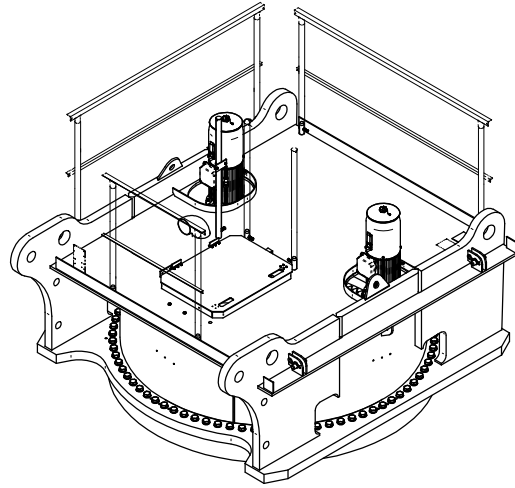
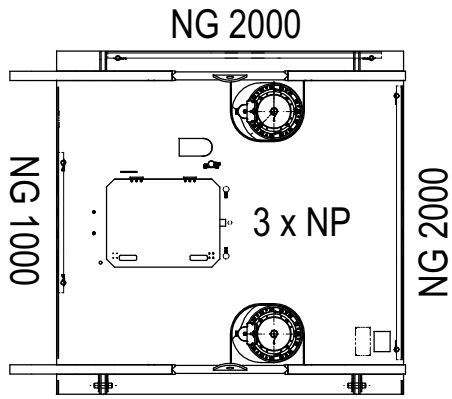
Arrangement of standard railings, operator cabin



Arrangement of standard railings, tower head section



Arrangement of standard railings, connecting block





Arrangement of standard railings, slewing frame


8 Suitable climbing frames


This section contains information on

- Outer climbing units
- Inner climbing units (KSH)


	⚠ WARNING
	<p>Climbing unit attached to the cat head bottom section Increased wind surface. The slewing tower crane may overturn.</p> <ol style="list-style-type: none"> 1) Lower the climbing unit down on the tower, or 2) dismantle the climbing unit.

	NOTICE
	<p>Clamping forces for the inner climbing unit (KSH) are specified based on a building height of < 250m and wind category C 25</p>



	NOTICE
	<p>The operating radius specified is measured from the tower center and is to be considered a reference value. Exact balancing can be achieved by moving the trolley with the tower elements specified in the table or a load and can be checked by moving the end stops of the tower apart without offsets.</p>

	NOTICE
	<p>The data required and the instructions for tower assemblies with inner climbing unit is available in the separate description of the inner climbing unit.</p>

DANGER! Observe the special tower combination for the inner climbing unit.

	NOTICE
	<p>Details for climbing balancing</p> <p>The climbing balancing details obtain to the double reeving snatch block which includes that the Hook position is on the same height as at hook heights in height of the bottom edge of the tower head section lower part (hook height = tower height).</p>

8.1 Outer climbing units

	<p>NOTICE</p> <p>If feasible, you should preferably operate your climbing frame without balancing weight.</p>
	<p>NOTICE</p> <p>Tower element on the transfer carriage</p> <p>The data on climbing balance was specified under the assumption that a tower element is on the transfer carriage.</p>


8.1.1 Outer climbing unit KWH 23

Climbing radius [m] for the balancing weights

630 B	Jib length [m]								
	70	65	60	55	50	45	40	35	30
no weight	35.6	37.8	38.8	41.3	42.1	-	-	-	-
HT 23 = 3.94 to	-	-	-	-	-	32.1	33.0	-	-
Weight t = 5.0 t	-	-	-	-	-	-	30.6	32.0	-
Weight t = 10.0 t	-	-	-	-	-	-	-	23.2	24.2

8.2 Inner climbing units

8.2.1 Internal climbing unit KSH 23/ KSH E 23

	NOTICE
	<p>Lower clamping length for the internal climbing unit KSH E 23</p> <p>Subject to coordination with WOLFFKRAN, it is also possible to realize a clamping length of 10.0 to 15.5 m with a lower tower height. Contact WOLFFKRAN to discuss this issue.</p>

Tower combinations for slewing tower cranes with internal climbing unit.

Item	Jib length 30 m - 60 m			
	1	HT 23	HT 23	HT 23
2	HT 23	HT 23	HT 23	HT 23
3	HT 23	HT 23	HT 23	HT 23
4	HT 23	HT 23	HT 23	HT 23
5	HT 23	HT 23	HT 23	HT 23
6	HT 23	HT 23	HT 23	
7	HT 23	HT 23		
8	HT 23			
Internal climbing unit	KSH E 23	KSH E 23	KSH E 23	KSH E 23
Foundation	FUA G 210	FUA G 210	FUA G 210	FUA G 210
Tower height [m]	52.5	48.0	43.5	39.0

Tower combinations for slewing tower cranes with internal climbing unit.

Item	Jib length 65 m - 70 m			
	1	HT 23	HT 23	HT 23
2	HT 23	HT 23	HT 23	HT 23
3	HT 23	HT 23	HT 23	HT 23
4	HT 23	HT 23	HT 23	HT 23
5	HT 23	HT 23	HT 23	
6	HT 23	HT 23		
7	HT 23			
Internal climbing unit	KSH E 23	KSH E 23	KSH E 23	KSH E 23
Foundation	FUA G 210	FUA G 210	FUA G 210	FUA G 210
Tower height [m]	48.0	43.5	39.0	34.5

Climbing radius for the balancing weights

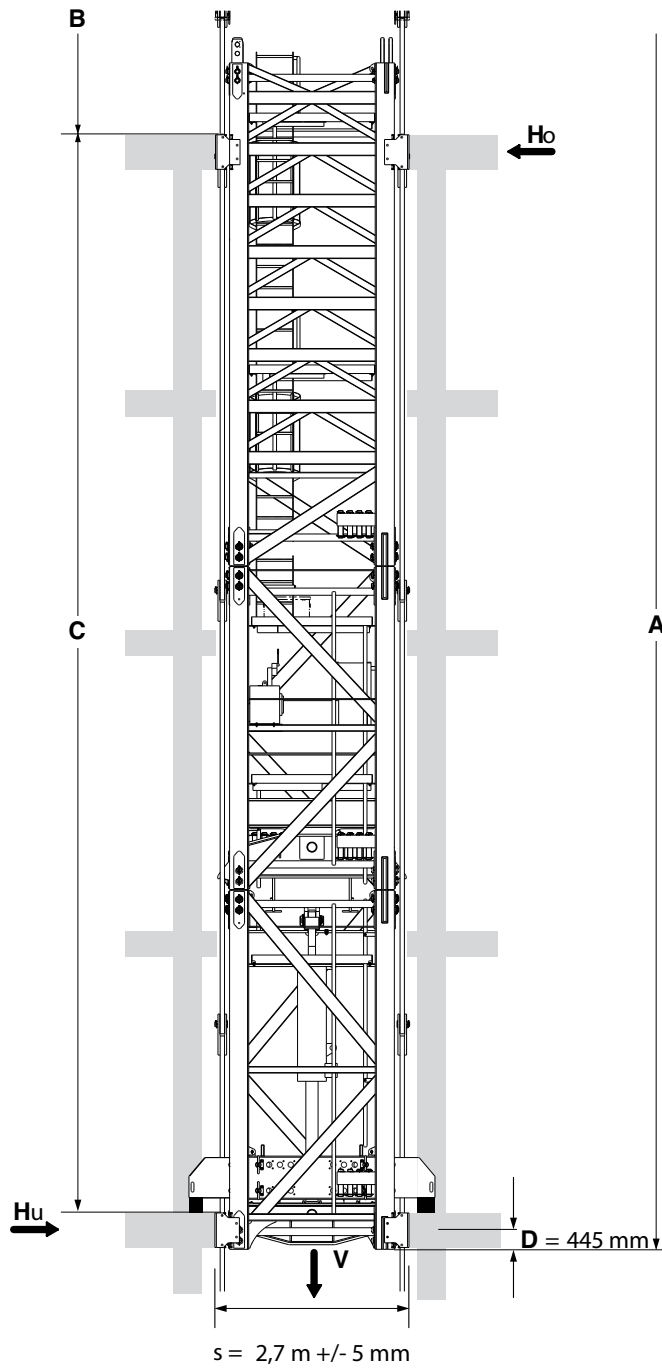
630B	Jib length [m]				
	70	65	60	55	50
without weight	52.8	55.6	56.8	-	-
HT 23 = 3.94 t	-	-	42.9	44.7	46.3
Weight = 5.0 t	-	-	40.2	41.8	42.3
Weight = 10.0 t	-	-	-	-	-
Weight = 15.0 t	-	-	-	-	-

Climbing radius for the balancing weights

630B	Jib length [m]			
	45	40	35	30
without weight	-	-	-	-
HT 23 = 3.94 t	-	-	-	-
Weight = 5.0 t	-	-	-	-
Weight = 10.0 t	33.2	33.8	-	-
Weight = 15.0 t	-	-	27.6	28.4

The details obtain to the double reeving snatch block at hook heights in height of the bottom edge of the tower head section lower part (HH=TH)

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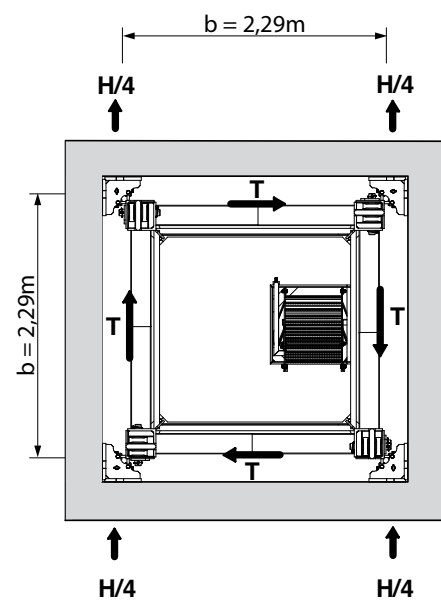
$$C_{\min} = 12,0 \text{ m}$$

$$C_{\max} = 15,5 \text{ m}$$

$$H_o = \frac{M}{C} + H$$

$$H_u = H_o - H$$

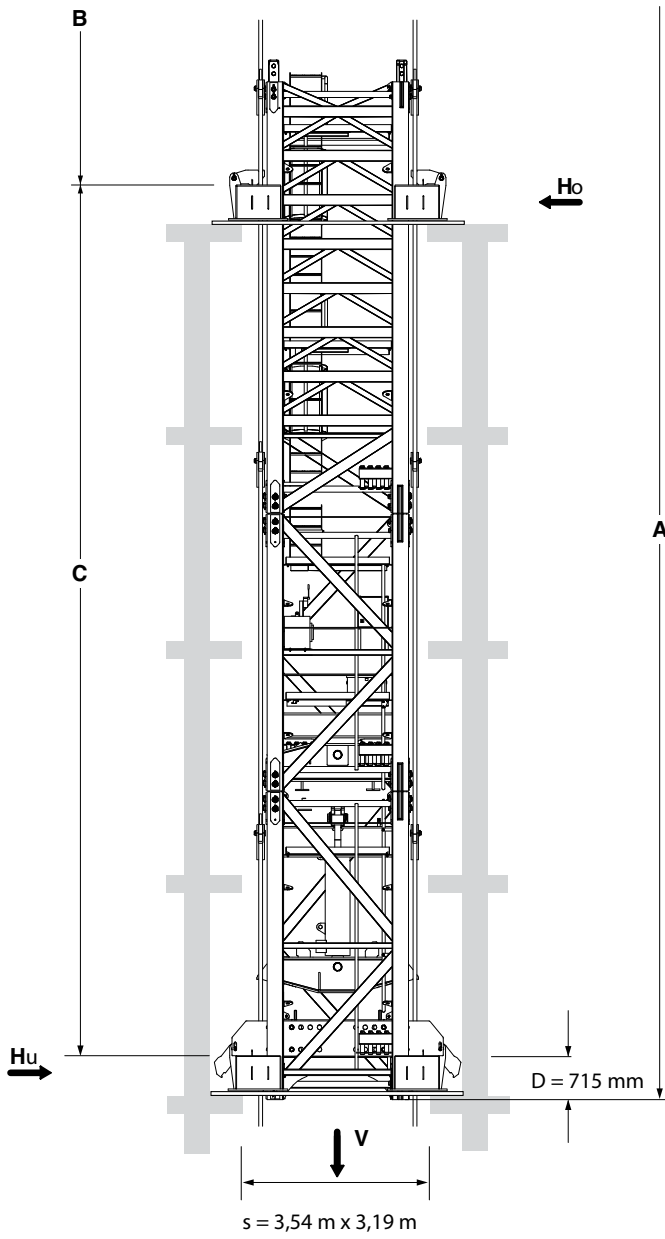
$$T = \frac{M_D}{2 \times b}$$



KSH E 23

A	= Tower height	C	= Distance between corner guides
W	= A-C-D		

WOLFFKRAN



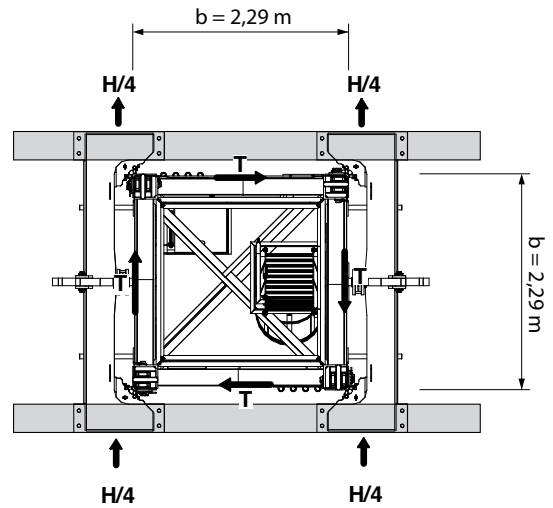
$$C_{\min} = 12,0 \text{ m}$$

$$C_{\max} = 15,5 \text{ m}$$

$$H_o = \frac{M}{C} + H$$

$$H_u = H_o - H$$

$$T = \frac{M_D}{2 \times b}$$



KSH 23

A	= Tower height	C	= Distance between climbing frames
W	= A-C-D		

Jib length 30 m - 60 m

Operational clamping forces [kN] inside a building																				
A (m)	52.5					48.0					43.5					39.0				
C (m)	12.0	13.0	14.0	15.0	15.5	12.0	13.0	14.0	15.0	15.5	12.0	13.0	14.0	15.0	15.5	12.0	13.0	14.0	15.0	15.5
V (kN)	2601					2561					2522					2483				
Ho (kN)	860	790	740	690	670	820	760	710	660	640	790	730	680	640	620	770	710	660	610	590
Hu (kN)	800	730	680	630	610	770	710	650	600	580	740	680	630	580	560	710	660	610	560	540
T (kN)	110					110					110					110				

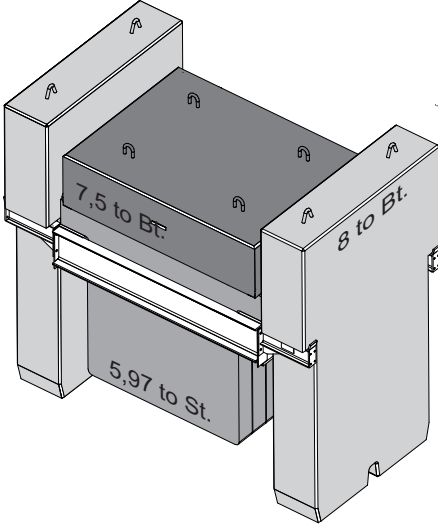
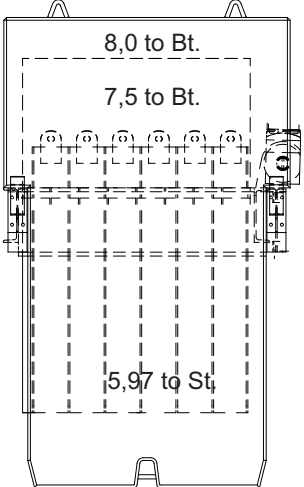
Non-operational clamping forces [kN] inside a building																				
A (m)	52.5					48.0					43.5					39.0				
C (m)	12.0	13.0	14.0	15.0	15.5	12.0	13.0	14.0	15.0	15.5	12.0	13.0	14.0	15.0	15.5	12.0	13.0	14.0	15.0	15.5
V (kN)	2073					2034					1994					1955				
Ho (kN)	1320	1220	1130	1060	1020	1180	1090	1020	950	920	1060	980	910	850	820	940	870	810	760	730
Hu (kN)	970	870	780	710	670	850	760	680	610	580	740	660	590	530	500	640	570	500	450	430
T (kN)	-					-					-					-				

Jib length 65 m - 70 m

Operational clamping forces [kN] inside a building																				
A (m)	48.0					43.5					39.0					34.5				
C (m)	12.0	13.0	14.0	15.0	15.5	12.0	13.0	14.0	15.0	15.5	12.0	13.0	14.0	15.0	15.5	12.0	13.0	14.0	15.0	15.5
V (kN)	2384					2345					2305					2266				
Ho (kN)	820	760	710	660	640	790	730	680	630	610	760	700	650	610	590	730	670	630	590	570
Hu (kN)	760	690	640	590	570	730	660	610	570	550	700	640	590	550	530	670	610	570	520	510
T (kN)	110					110					110					110				

Non-operational clamping forces [kN] inside a building																				
A (m)	48.0					43.5					39.0					34.5				
C (m)	12.0	13.0	14.0	15.0	15.5	12.0	13.0	14.0	15.0	15.5	12.0	13.0	14.0	15.0	15.5	12.0	13.0	14.0	15.0	15.5
V (kN)	2058					2019					1980					1940				
Ho (kN)	1380	1270	1180	1100	1070	1250	1150	1070	1000	970	1130	1040	970	900	880	1020	940	870	820	790
Hu (kN)	1040	930	840	770	730	930	830	750	680	650	820	730	660	600	570	720	650	580	520	500
T (kN)	-					-					-					-				

9 Arrangement of counterweight blocks

Jib length [m]	70	65	60	55	50	45	40	35	30
Total weight 59.32 t	 								
	6 x 5.97 tons suspended steel weight								
	2 x 8.0 tons suspended concrete weight								
	1 x 7.5 tons lying concrete weight								

