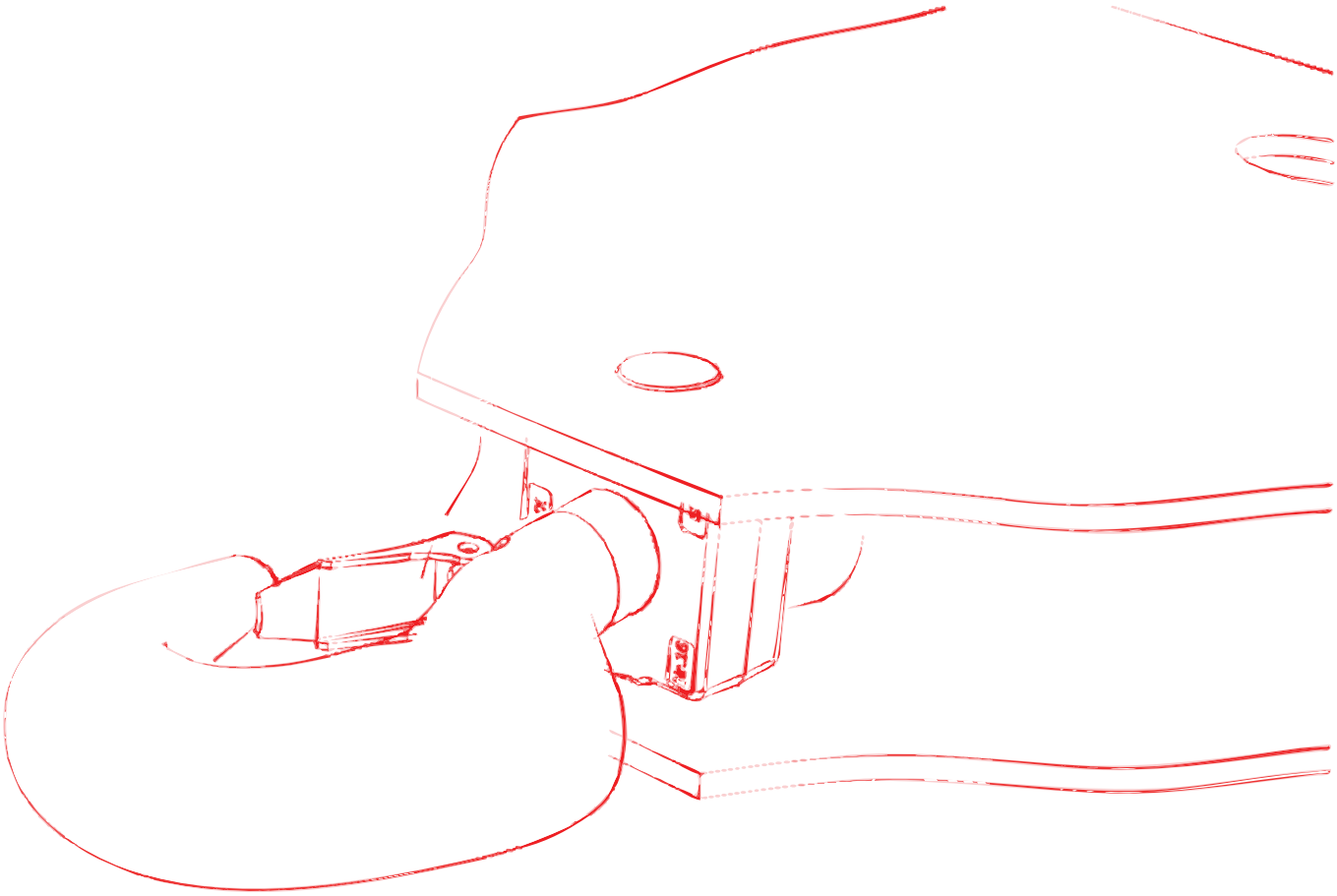
WOLFFKRAN

TI_2017-3

Slewing tower crane

WOLFF 630 B

Technical information



English

English

Published by

WOLFFKRAN GmbH

Austraße 72

74076 Heilbronn

Germany

Phone +49 7131 9815 0

Fax +49 7131 9815 355

www.wolffkran.com

info@wolffkran.de

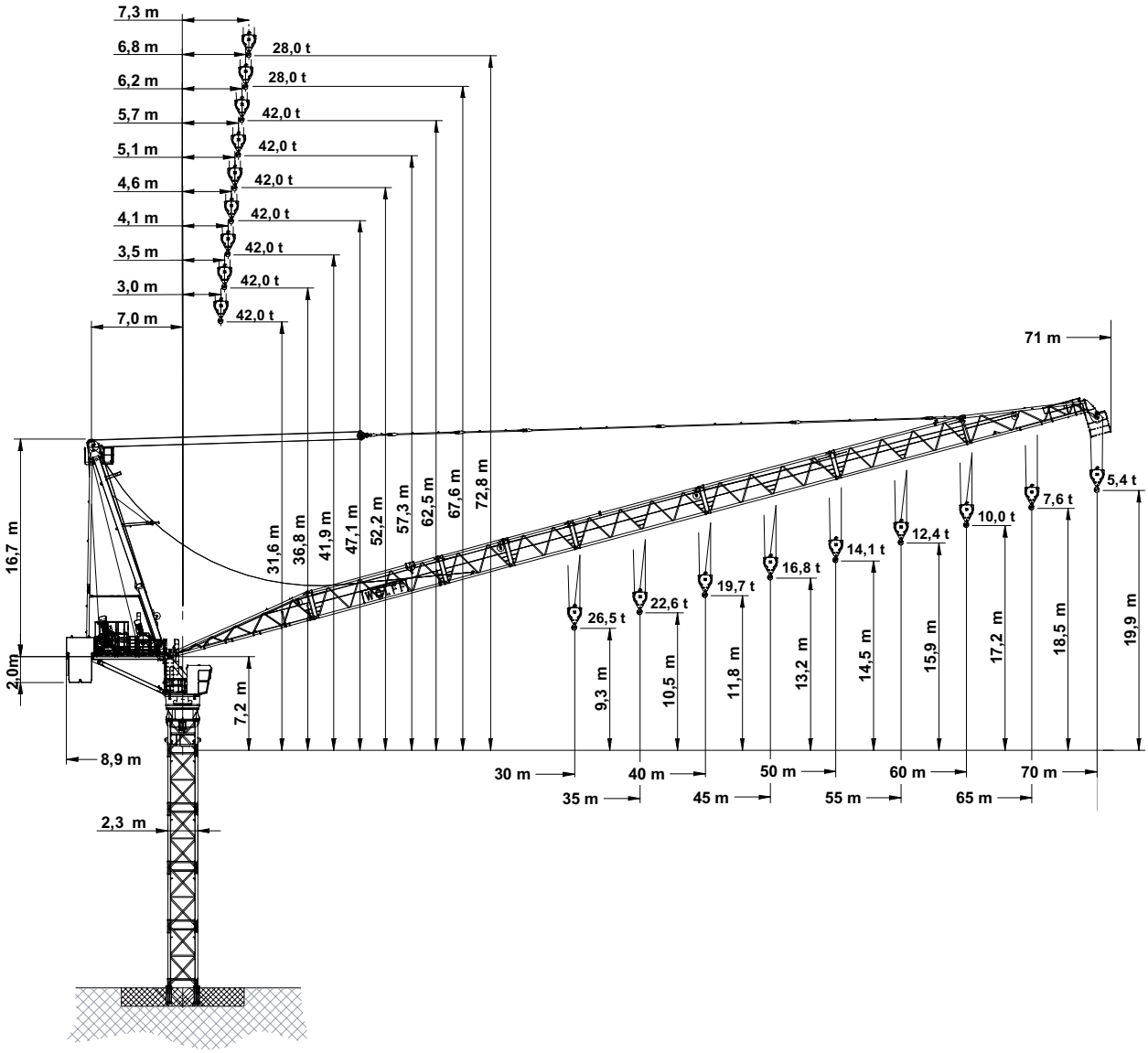
Stand: 03/2017

Table of contents

Table of contents

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 14439 (C25)
Payload torque	max. 8000 kNm
Hoist winch	Hw 28110FU / Hw 28132FU

2 Load carrying capacities

NOTICE

WOLFF-Boost

With the WOLFF-Boost function, the load is allowed to exceed the load torque range specified for the lifting capacities by up to 10%. This is, however, subject to the restriction that hoisting gear and trolley drive (trolley crane) respectively hoisting gear and derricking gear (luffing crane) must only be moved alternatingly.

2.1 Table of load carrying capacity WOLFF 630B (1 fall operation)

 14 t		Operating radius [m]		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	10.8	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												

The load carrying capacity is related to a tower height of 40.5 m. Tower heights greater than that reduce the maximum load carrying capacity by the weight of the additional hoisting ropes (1-fall mode = 3.25 kg per meter of the hook range).

2.2 Table of load carrying capacities (kg) in meter intervals, WOLFF 630B (1 fall operation)

Operating radius	Jib length [m]								
[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 capacity WOLFF 630B (2 fall operation)

 28 t		Operating radius [m]		20	25	30	35	40	45	50	55	60	65	70	
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**	LCC [t]
	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												

The load carrying capacity is related to a tower height of 40.5 m. Tower heights greater than that reduce the maximum load carrying capacity by the weight of the additional hoisting ropes (2-fall mode = 6.5 kg per meter of the hook range).

2.4 Table of load carrying capacities (kg) in meter intervals, WOLFF 630B (2 fall operation)

Operating radius	Jib length [m]								
[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 capacity WOLFF 630B (3 fall operation)

		Operating radius [m]		20	25	30	35	40	45	50	55	60	65	70	
 42 t															
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**			LCC [t]
	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												

The load carrying capacity is related to a tower height of 40.5 m. Tower heights greater than that reduce the maximum load carrying capacity by the weight of the additional hoisting ropes (3 fall operation = 9.75 kg per meter of the hook range).

2.6 Table of load carrying capacities (kg) in meter intervals, WOLFF 630B (3 fall operation)

Operating radius	Jib length [m]								
[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

⚠ DANGER

Usage of incorrect tower combinations.

The slewing tower crane may overturn.

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.

NOTICE

All tower combinations apply to free standing slewing tower cranes without climbing gear.

3.1 Tower combinations on foundation (slewing section with HT 23 - 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 anchors		FUA 160 G			
Tower height [m]		49.5			
Wind category		C25			

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 anchors		FUA 210 G			
Tower height [m]		56.3			
Wind category		C25			

3 Tower combinations

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 anchors		FUA BT 29			
Tower height [m]		65.2			
Wind category		C25			

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 anchors		FUA 160 G			
Tower height [m]		45.0			
Wind category		C25			

3 Tower combinations

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 anchors		FUA 210 G			
Tower height [m]		51.8			
Wind category		C25			

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 anchors		FUA BT 29			
Tower height [m]		60.7			
Wind category		C25			

3.2 Tower combinations on cross frame (slewing section with 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		
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		
Corner distance [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		
Wind category		C25			

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			
Corner distance [m x m]		8.0 x 8.0 10.0 x 10.0			
Substructure height [m]		1.8			
Tower height [m]		67.0			
Wind category		C25			

3 Tower combinations

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		
Corner distance [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		
Wind category		C25			

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			
Corner distance [m x m]		8.0 x 8.0 10.0 x 10.0			
Substructure height [m]		1.8			
Tower height [m]		67.0			
Wind category		C25			

3 Tower combinations

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		
Corner distance [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		
Wind category		C25			

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			
Corner distance [m x m]		8.0 x 8.0 10.0 x 10.0			
Substructure height [m]		1.8			
Tower height [m]		62.5			
Wind category		C25			

3 Tower combinations

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		
Corner distance [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		
Wind category		C25			

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			
Corner distance [m x m]		8.0 x 8.0 10.0 x 10.0			
Substructure height [m]		1.8			
Tower height [m]		58.0			
Wind category		C25			

3 Tower combinations

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		
Corner distance [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		
Wind category		C25			

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			
Corner distance [m x m]		8.0 x 8.0 10.0 x 10.0			
Substructure height [m]		1.8			
Tower height [m]		58.0			
Wind category		C25			

3.3 Tower combinations on mobile cross frame (slewing section with 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		
Corner distance [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		
Wind category		C25			

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			
Corner distance [m x m]		10.0 x 10.0			
Substructure height [m]		3.3			
Tower height [m]		59.5			
Wind category		C25			

3 Tower combinations

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		
Corner distance [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		
Wind category		C25			

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			
Corner distance [m x m]		10.0 x 10.0			
Substructure height [m]		3.3			
Tower height [m]		59.5			
Wind category		C25			

3 Tower combinations

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		
Corner distance [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		
Wind category		C25			

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			
Corner distance [m x m]		10.0 x 10.0			
Substructure height [m]		3.3			
Tower height [m]		55.0			
Wind category		C25			

3 Tower combinations

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		
Corner distance [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		
Wind category		C25			

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			
Corner distance [m x m]		10.0 x 10.0			
Substructure height [m]		3.3			
Tower height [m]		55.0			
Wind category		C25			

3 Tower combinations

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		
Corner distance [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		
Wind category		C25			

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			
Corner distance [m x m]		10.0 x 10.0			
Substructure height [m]		3.3			
Tower height [m]		55.0			
Wind category		C25			

4 Foundation loads / central ballast weights / corner loads in compliance with EN 14439 / EN 13001

⚠ DANGER

Usage of incorrect tower combinations.

The slewing tower crane may overturn.

1) Use the specified tower combinations.

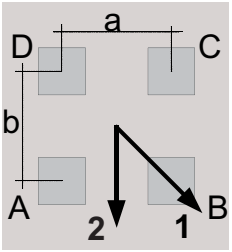
2) If you need another tower combination that is not specified here, please contact WOLFFKRAN to get an approved alternative setup in writing.

Jib positions

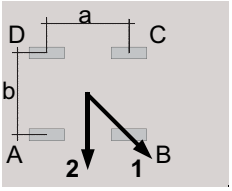
The corner loads are given for two jib positions with the maximum corner load resulting from jib position 1.

For square setup, the following equation is true: a = b

For rectangular setup, the following equation is true: a > b



Cross frame or cross frame element



Undercarriage

NOTICE! For undercarriage details, please refer to the relevant operating manual.

Wind load with crane out of service

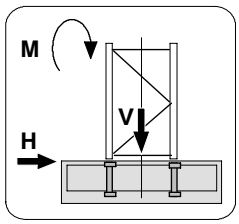
The stability for stormy weather is calculated on the basis of wind region C (EN 13001-2). The reference wind speed for zone C is 28 m/s (10 m above ground, averaged over 10 minutes).As a basis, a recurrence interval of 25 years is used. As a basis, a recurrence interval of 25 years is used.

Please contact WOLFFKRAN for stability calculations in other wind regions.

For information on the different substructures, refer to Section 5 of the Operating Manual.

4.1 Foundation loads jib 30 m - 35 m

Slewing section 630 B with 30 m – 35 m jib on foundation.
Slewing tower crane without climbing device.



Foundation load in compliance with EN 14439 / EN 13001 – typical loads

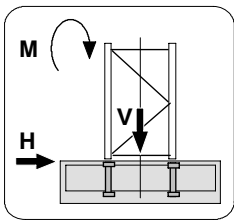
Includes all dynamical factors under consideration of second-order theory for stationary slewing tower cranes on concrete foundation in compliance with a tower combination without climbing device.

TH:	Crane in service			Crane out of service			Assembly		
	Slewing torque: 500 kNm			Wind category C25					
	M	V	H	M	V	H	M	V	H
[m]	[kNm]	[kN]	[kN]	[kNm]	[kN]	[kN]	[kNm]	[kN]	[kN]
4.5	6780	1337	33	4750	1319	75	1750	574	14
9.0	6950	1376	35	5110	1358	82	1810	614	15
13.5	7140	1415	38	5520	1397	89	1880	653	16
18.0	7370	1454	40	5980	1437	96	1960	692	17
22.5	7620	1494	42	6480	1476	103	2050	731	18
27.0	7900	1533	44	7030	1515	110	2140	771	20
31.5	8210	1572	46	7640	1555	117	2250	810	21
36.0	8560	1612	48	8350	1612	128	2360	849	22
40.5	8950	1651	51	9100	1651	135	2480	889	23
45.0	9380	1690	53	9930	1690	142	2620	928	25
49.5	9850	1730	55	10840	1730	149	2760	967	26
51.8	10010	1765	57	11220	1765	154	2820	1002	27
56.3	10560	1804	59	12250	1804	161	2980	1042	28
Tower combination with base tower element BT 29									
56.2	10240	1831	60	11940	1831	164	2950	1069	28
60.7	10730	1878	62	12960	1878	172	3110	1115	30
65.2	11270	1924	65	14060	1924	180	3280	1162	31

Caption:			
TH:	Tower height	V:	Vertical load
M:	Torque	H:	Horizontal load

4.2 Foundation loads jib 40 m - 70 m

Slewing section 630 B with 40 m – 70 m jib on foundation.
Slewing tower crane without climbing device.



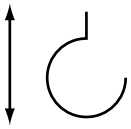
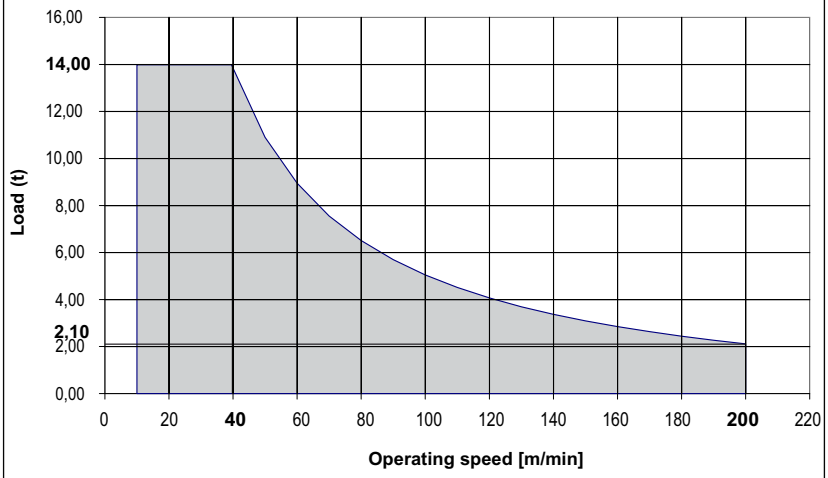
Foundation load in compliance with EN 14439 / EN 13001 – typical loads

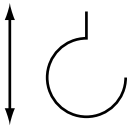
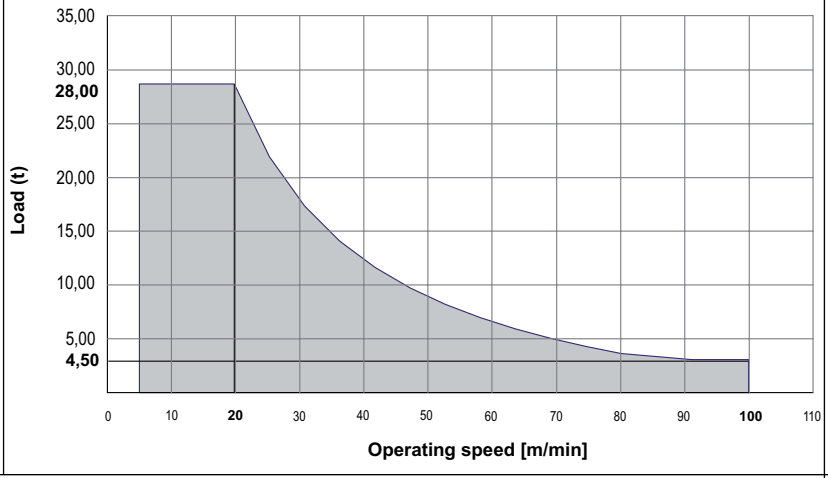
Includes all dynamical factors under consideration of second-order theory for stationary slewing tower cranes on concrete foundation in compliance with a tower combination without climbing device.

TH:	Crane in service			Crane out of service			Assembly		
	Slewing torque: 500 kNm			Wind category C25					
	M	V	H	M	V	H	M	V	H
[m]	[kNm]	[kN]	[kN]	[kNm]	[kN]	[kN]	[kNm]	[kN]	[kN]
4.5	7510	1495	32	6270	1419	108	7150	815	14
9.0	7690	1534	35	6790	1459	115	7230	854	16
13.5	7890	1573	37	7360	1498	122	7330	893	17
18.0	8120	1613	39	7980	1537	129	7430	933	18
22.5	8380	1652	41	8650	1577	136	7560	972	19
27.0	8680	1692	43	9390	1616	143	7700	1012	21
31.5	9010	1731	46	10190	1655	150	7860	1051	22
36.0	9390	1770	48	11060	1695	157	8040	1090	23
40.5	9810	1809	50	12020	1734	164	8240	1129	24
45.0	10280	1849	52	13060	1774	171	8470	1169	26
47.3	10390	1809	65	13500	1809	176	8540	1204	26
51.8	10960	1848	67	14670	1848	183	8790	1243	28
Tower combination with base tower element BT 29									
51.7	10700	1868	68	14350	1868	185	8670	1263	28
56.2	11230	1914	70	15720	1914	239	8900	1309	29
60.7	11800	1961	73	17420	1961	252	9160	1356	31

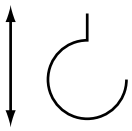
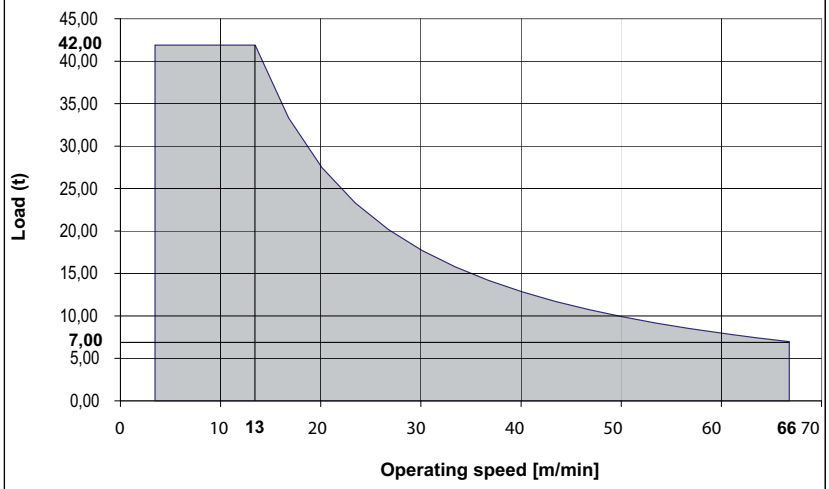
Caption:			
TH:	Tower height	V:	Vertical load
H:	Horizontal load	M:	Torque

5 Operating speeds

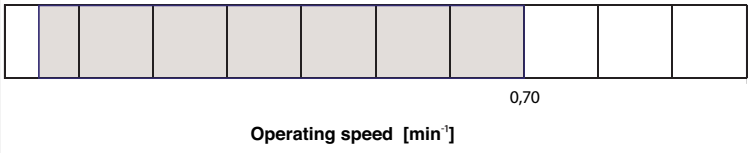
Drive unit [type]	Operating speed Carrying load		Hook travel distance max. [m]	Power [kW]	Total connected wattage [kVA]
Hw28110FU	**Lifting / lowering**		920	110	214.0 Total connected load at coincid-ence factor of 0.7
					
Max. tower height [m] (with jib length of 70 m)					847

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

5 Operating speeds

Drive unit [type]	Operating speed Carrying load		Hook travel distance max. [m]	Power [kW]	Total connected wattage [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 wattage [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 wattage [kVA]
SG	**Slewing**	**2x7.5**	214.0 Total connected load at coincidence factor of 0.7
			

6 Out of service positions

⚠ WARNING

Parking the jib outside the area for the out of service position.

The slewing tower crane may overturn.

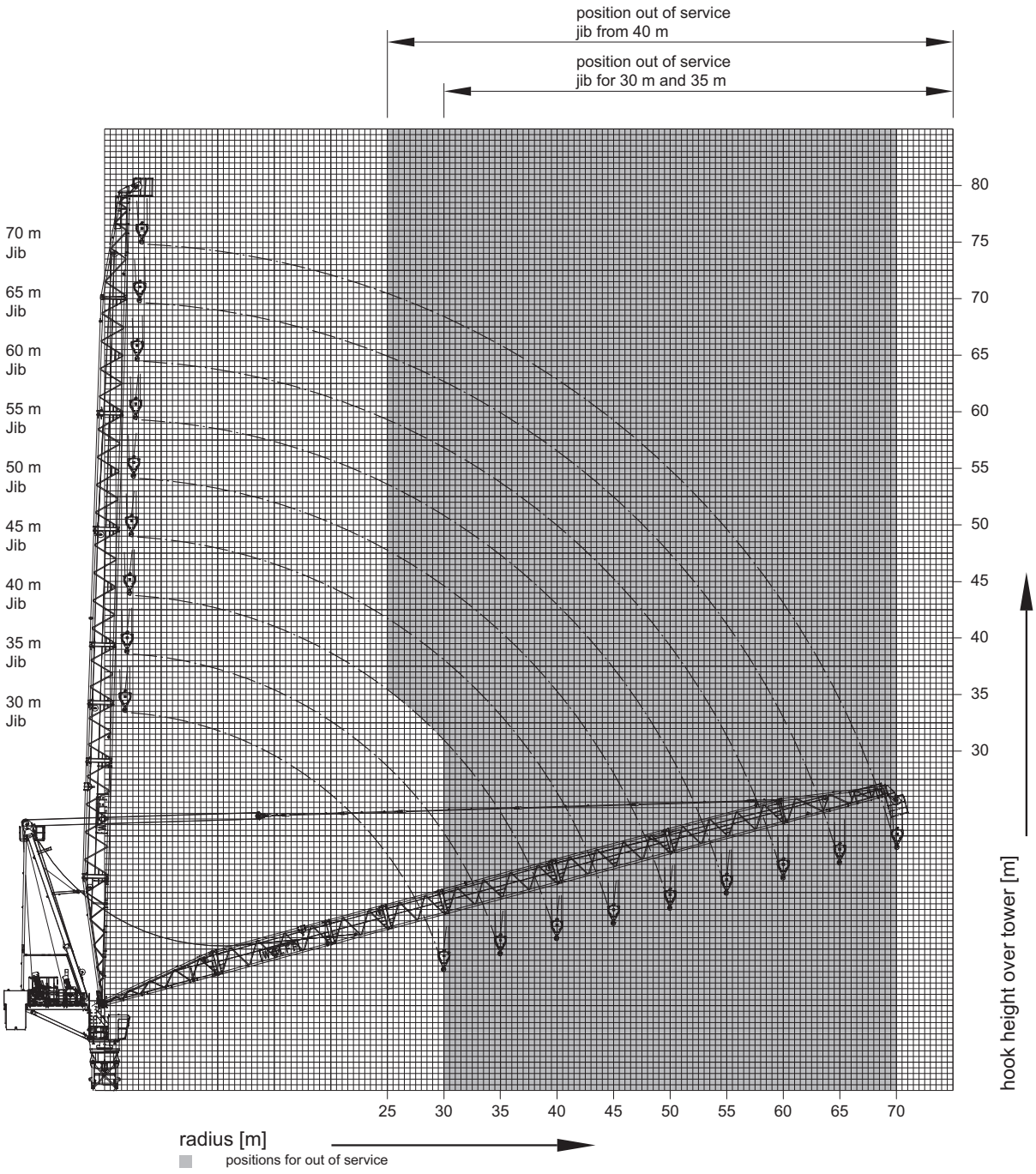
► Park the jib only in the grey shaded area for the out of service position.

NOTICE

Out of service position with smaller operating radius.

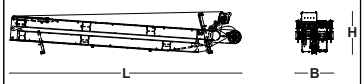
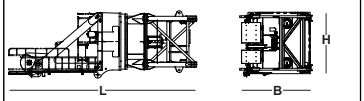
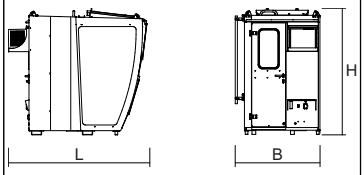
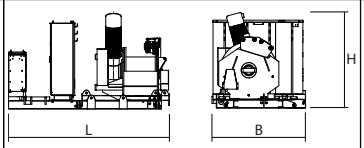
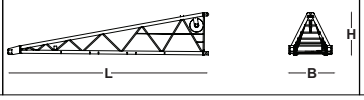
At your request, shutdown with smaller operating radius can be implemented in cases of reduced tower height or increased central ballast, and possibly use of a wind sail. Please contact WOLFFKRAN for information.

6 Out of service positions

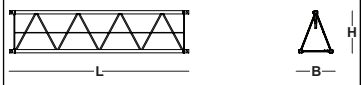
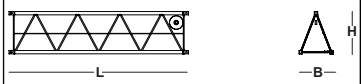
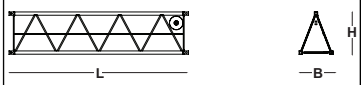
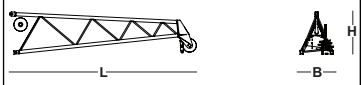
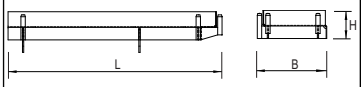
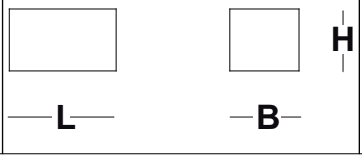


7 Package list

7.1 Package list 630 B

Quantity	Description	Package	L [m]	W [m]	H [m]	Weight [kg]	Volume [m³]
1	Tower head section upper part including pulley block and platforms		11.95	2.50	2.30	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		2.26	1.45	2.30	940	7.54
1	Counterjib with struts and platforms		8.05	2.50	1.09	5900	21.94
1	Machine platform with luffing gear, 2nd 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)		4.48	2.61	2.66	12280	31.10
1	Jib element 1		11.88	2.53	2.25	4100	67.63

7 Package list

Quantity	Description	Package	L [m]	W [m]	H [m]	Weight [kg]	Volume [m³]
1	Jib element 2		10.60	1.98	2.20	3000	46.17
1	Jib element 3		5.43	1.98	2.20	1600	23.65
1	Jib element 4		5.43	1.98	2.20	1400	23.65
1	Jib element 5		10.60	1.98	2.20	2400	46.17
2	Jib element 6		10.60	1.98	2.20	2100	46.17
1	Jib element 7 (without platforms)		10.75	1.98	2.23	3500	47.47
1	Platforms		3.1	0.5	1.5	500	2.33
	Hook block 1 fall operation		1.08	0.34	1.99	600	0.73
	Hook block (2 fall operation)		1.20	0.40	1.99	1000	0.96
	Hook block 3 fall operation		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

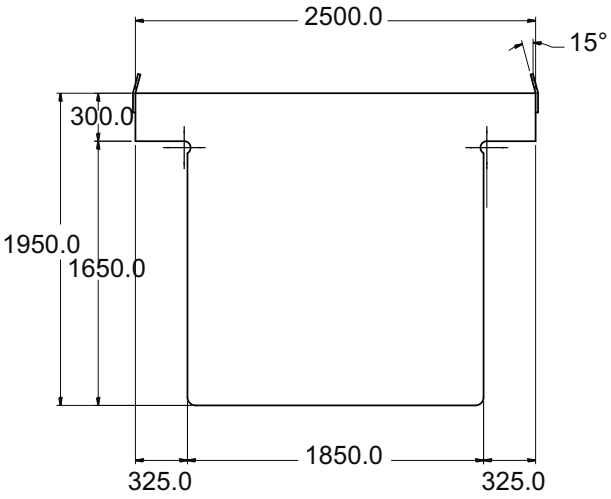
8 Assembly weights

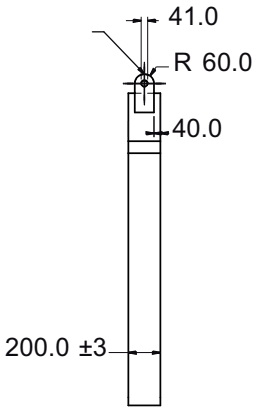
8.1 Counterweight blocks

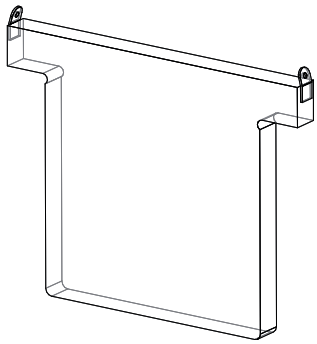
NOTICE

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

8.1.1 Counterweight block, 5.97 t



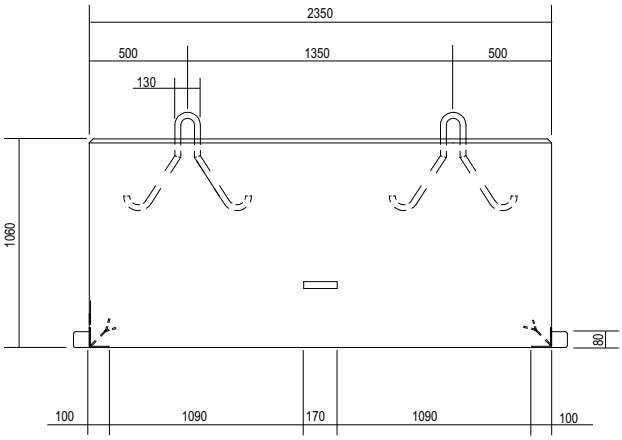


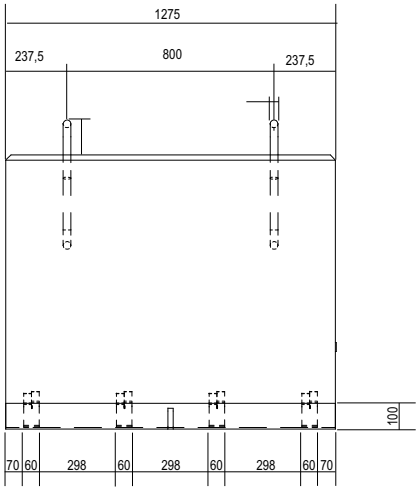


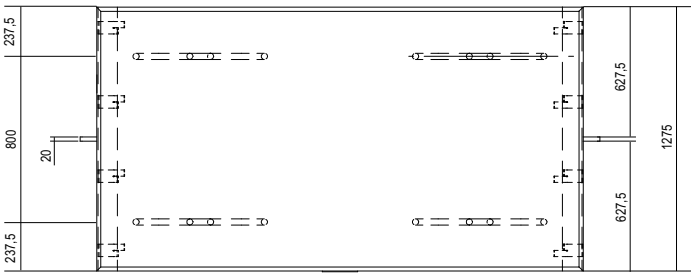
Data counterweight block 5.97 t

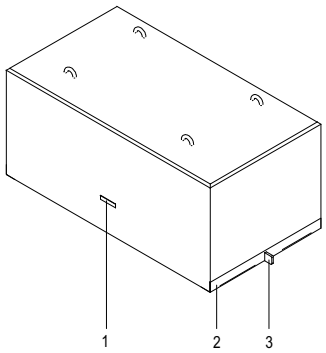
Item	Data
Material	Material quality S235JR, max. carbon content 0.25%
Max. permitted weight tolerance	+/- 3 %
Order number	30046411

8.1.2 Counterweight block, 7.5 t





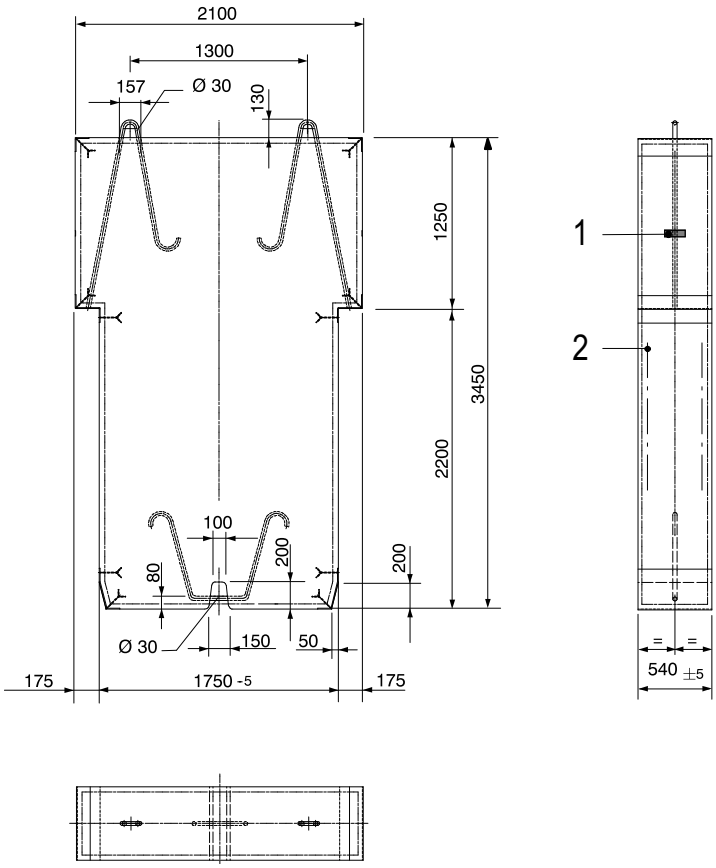




Data counterweight block 7.5 t

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

8.1.3 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

8.2 Total weight jib assembly

Complete jib: mechanical parts, brace, supports, assembly brace ropes, assembly rope guides, hook 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

8.3 Assembly weight slewing section

Module	Crane parts	Weight [kg]	
Tower head section upper part			11015
	▪ Tower head section upper part (including struts, platforms and standard railings)	10520	
	▪ Pulley block	310	
	▪ Shock absorber	185	
Driver's cab with driver's cab suspension			1340
	▪ Driver's cab suspension	400	
	▪ Driver's cab	940	
Tower head section lower part			20360
	▪ Lower part of tower head section	2590	
	▪ Slewing frame + ball race bearing	13290	
	▪ Connecting block	4480	
Counterjib (including struts, pedestals and standard railing)			5900
Machine platform hoisting gear (1000 m rope = 5 to)			17500
Machine platform luffing gear			4700

8.4 Assembly weight cross frame

Module	Crane parts	Weight [kg]	
Cross frame KR 12-60 (without accessories)			15650
(6.0 m x 6.0 m)	▪ AZ 140 M KR 12-60/80	790	
	▪ AZ 120 E15,5 KR 12-60/80	730	
	▪ AZ 140 E17 KR 12-60/80	875	
	▪ AZ 160 M KR 12-60/80	905	
	▪ AZ 140 E 10 KR 12-60/80	790	
	▪ AZ 156 M KR 12-60/80	845	
Cross frame KR 12-60/ 80 (without accessories)			19260
(8.0 m x 8.0 m)	▪ AZ 140 M KR 12-60/80	790	
	▪ AZ 120 E15,5 KR 12-60/80	730	
	▪ AZ 140 E17 KR 12-60/80	875	
	▪ AZ 160 M KR 12-60/80	905	
	▪ AZ 140 E 10 KR 12-60/80	790	
	▪ AZ 156 M KR 12-60/80	845	
Cross frame KR 16- 80 (without accessories)			21450
(8.0 m x 8.0 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
(10.0 m x 10.0 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	

8.5 Assembly weights traveling cross frame

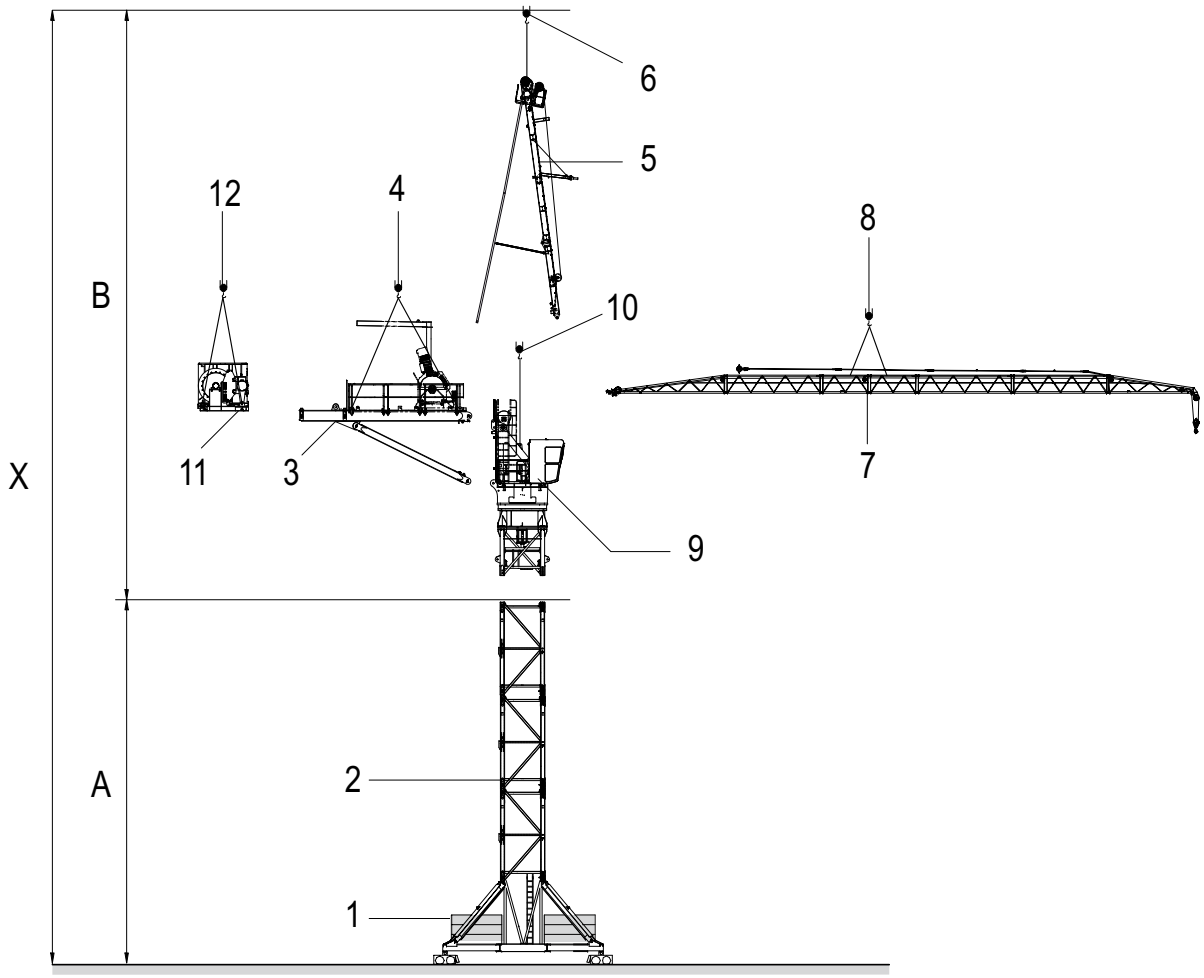
Module	Crane part	Weight [kg]	
Traveling cross frame KRF6 12-60/80 complete			41200
(8.0 m x 8.0 m)	▪ Cross frame	14170	
	▪ Backing braces	2875	
	▪ Drive gear corners	4560	
	▪ Subframe	18270	
	▪ Platforms and ladders	255	
	▪ Control cabinet	130	
	▪ small items	940	
	▪ Set of bolted spigots AZR 140 M KR 12-60/80	790	
	▪ Set of bolted spigots AZ 120 E 15,5 KR 12-60/80	730	
	▪ Set of bolted spigots AZ 140 E 15,5 KR 12-60/80	875	
	▪ Set of bolted spigots AZR 160 M KR 12-60/80	905	
	▪ Set of bolted spigots AZ 140 E 10 KR 12-60/80	790	
	▪ Set of bolted spigots AZR 156 M KR 12-60/80	845	

8.6 Required hook height for mobile cranes

For information about the height of the WOLFF slewing tower crane, refer to Tower combinations [13].

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 m (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	4-fall attachment (4 m with shackle)
3	Counterjib with luffing gear platform	9	Tower head section lower part
4	4-fall attachment (4 m with shackle)	10	2-fall attachment (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-fall attachment (2 m with shackle)

8 Assembly weights

(see also):

- Tower combinations [13]

9 Assembly diagrams

9.1 Jib attachment diagram

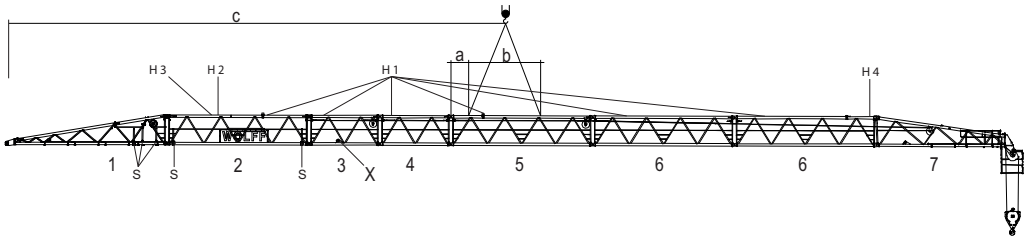
NOTICE

For jib assembly, use a 4-fall attachment (4 m with shackle).

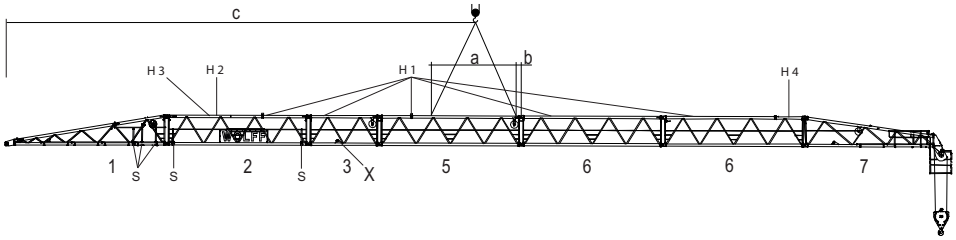
Length of jib elements

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

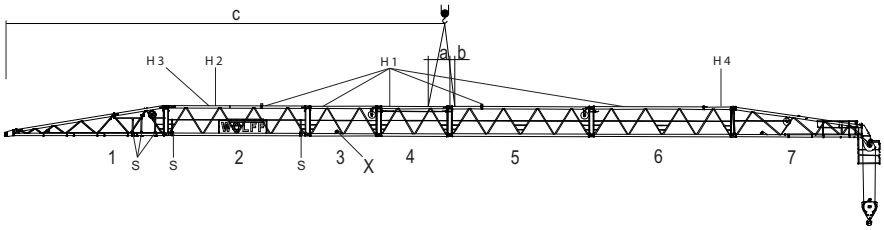
9.1.1 Jib attachment diagram 70 m to 60 m



70 m



65 m

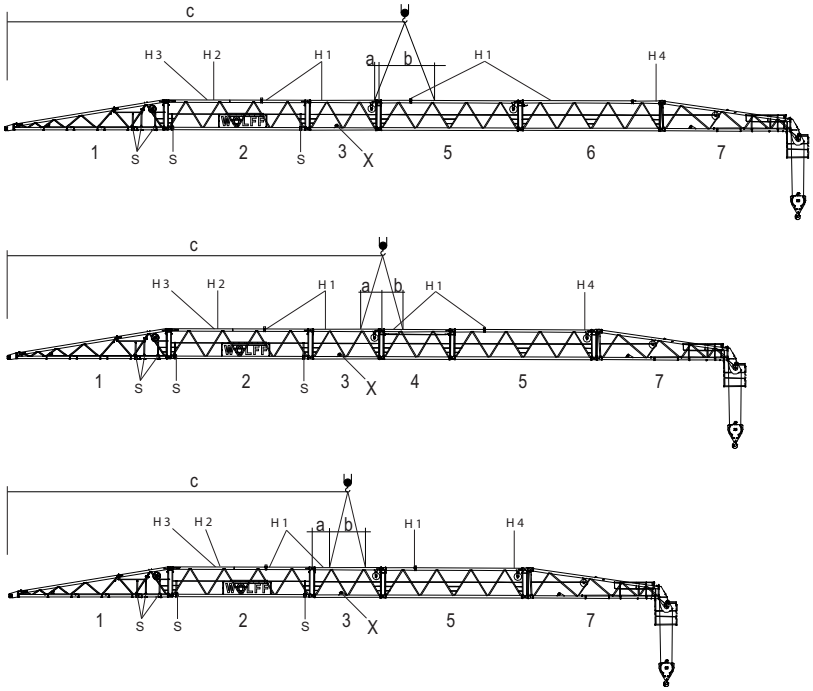


60 m

	Jib length [m]		
Data	**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

Caption			
H 1 – H 2	Support block for jib brace	S	Boom protectors at the bottom boom
H 3	Support block for pulley block	X	Fastening assembly brace ropes
H 4	Support block for brace rod 1		

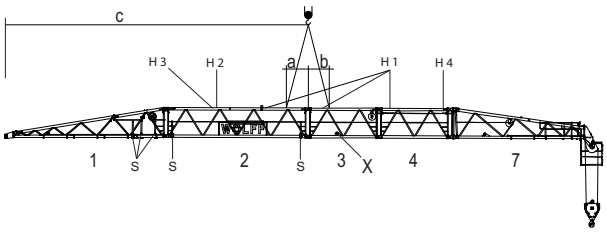
9.1.2 Jib attachment diagram 55 m to 45 m



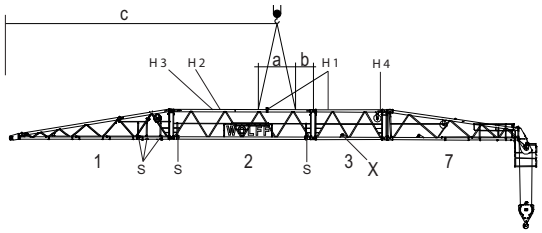
	Jib length [m]		
Data	**55**	**50**	**45**
a [m]	0.20	1.50	1.30
b [m]	3.87	1.50	2.57
c [m]	29.00	27.10	24.50
Weight [kg]	19200	18400	16700

Caption			
H 1 – H 2	Support block for jib brace	S	Boom protectors at the bottom boom
H 3	Support block for pulley block	X	Fastening assembly brace ropes
H 4	Support block for brace rod 1		

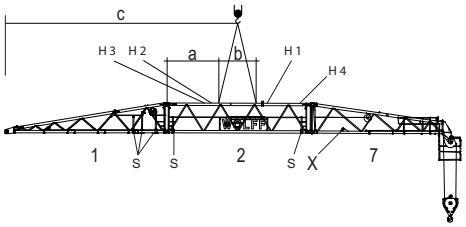
9.1.3 Jib attachment diagram 40 m to 30 m



40 m



35 m

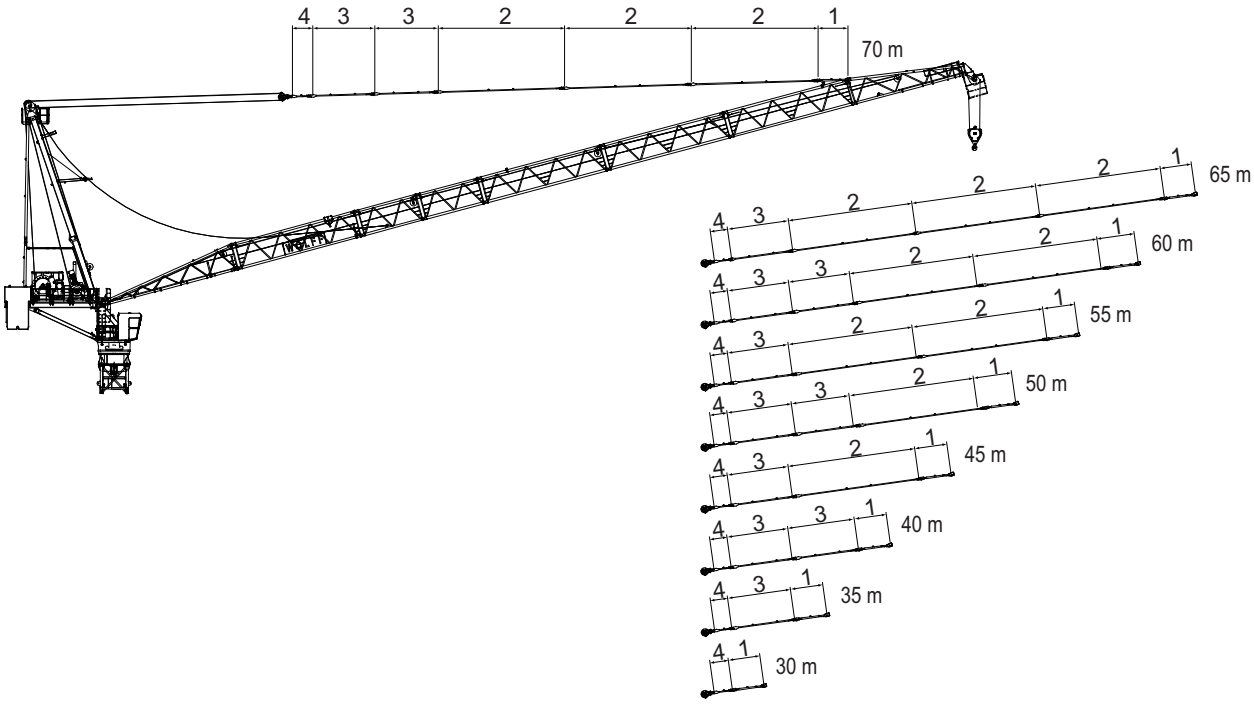


30 m

	Jib length [m]		
Data	**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

Caption			
H 1 – H 2	Support block for jib brace	S	Boom protectors at the bottom boom
H 3	Support block for pulley block	X	Fastening assembly brace ropes
H 4	Support block for brace rod 1		

9.2 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

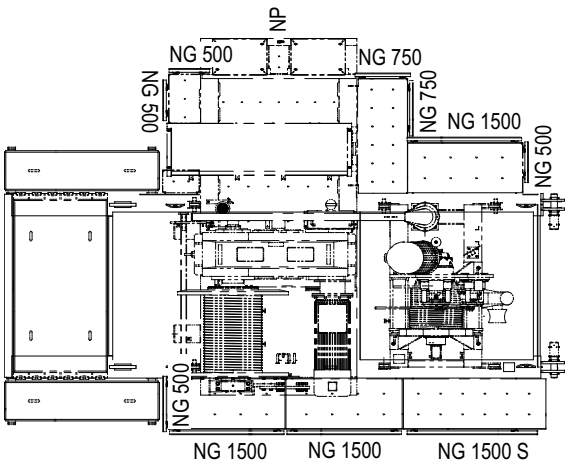
Jib length	Brace	Bolts			Retaining element	
		Qua-ntity	Dimension [mm]	Item no.	Dimension [mm]	Item no.
Jibs - all	AL 7	1	Ø 105/90x325	30055077	Locking pin 17x125	10024058
Jib – 70 m	1	1	Ø 80/70x200	30048828	Locking pin 10x100	10024804
	2	3	Ø 80/70x200	30048828	Locking pin 10x100	10024804
	3	2	Ø 80/70x200	30048828	Locking pin 10x100	10024804
	4	1	Ø 80/70x200	30048828	Locking pin 10x100	10024804
Jib – 65 m	1	1	Ø 80/70x200	30048828	Locking pin 10x100	10024804
	2	3	Ø 80/70x200	30048828	Locking pin 10x100	10024804
	3	1	Ø 80/70x200	30048828	Locking pin 10x100	10024804
	4	1	Ø 80/70x200	30048828	Locking pin 10x100	10024804
Jib – 60 m	1	1	Ø 80/70x200	30048828	Locking pin 10x100	10024804
	2	2	Ø 80/70x200	30048828	Locking pin 10x100	10024804
	3	2	Ø 80/70x200	30048828	Locking pin 10x100	10024804
	4	1	Ø 80/70x200	30048828	Locking pin 10x100	10024804
Jib – 180' 5-1/2" (55 m)	1	1	Ø 80/70x200	30048828	Locking pin 10x100	10024804
	2	2	Ø 80/70x200	30048828	Locking pin 10x100	10024804
	3	1	Ø 80/70x200	30048828	Locking pin 10x100	10024804
	4	1	Ø 80/70x200	30048828	Locking pin 10x100	10024804
Jib – 50 m	1	1	Ø 80/70x200	30048828	Locking pin 10x100	10024804
	2	1	Ø 80/70x200	30048828	Locking pin 10x100	10024804
	3	2	Ø 80/70x200	30048828	Locking pin 10x100	10024804
	4	1	Ø 80/70x200	30048828	Locking pin 10x100	10024804
Jib – 45 m	1	1	Ø 80/70x200	30048828	Locking pin 10x100	10024804
	2	1	Ø 80/70x200	30048828	Locking pin 10x100	10024804
	3	1	Ø 80/70x200	30048828	Locking pin 10x100	10024804
	4	1	Ø 80/70x200	30048828	Locking pin 10x100	10024804
Jib – 40 m	1	1	Ø 80/70x200	30048828	Locking pin 10x100	10024804
	2	-	Ø 80/70x200	30048828	Locking pin 10x100	10024804
	3	2	Ø 80/70x200	30048828	Locking pin 10x100	10024804
	4	1	Ø 80/70x200	30048828	Locking pin 10x100	10024804
Jib – 35 m	1	1	Ø 80/70x200	30048828	Locking pin 10x100	10024804
	2	-	Ø 80/70x200	30048828	Locking pin 10x100	10024804
	3	1	Ø 80/70x200	30048828	Locking pin 10x100	10024804
	4	1	Ø 80/70x200	30048828	Locking pin 10x100	10024804
Jib – 30 m	1	1	Ø 80/70x200	30048828	Locking pin 10x100	10024804
	2	-	Ø 80/70x200	30048828	Locking pin 10x100	10024804
	3	-	Ø 80/70x200	30048828	Locking pin 10x100	10024804
	4	1	Ø 80/70x200	30048828	Locking pin 10x100	10024804

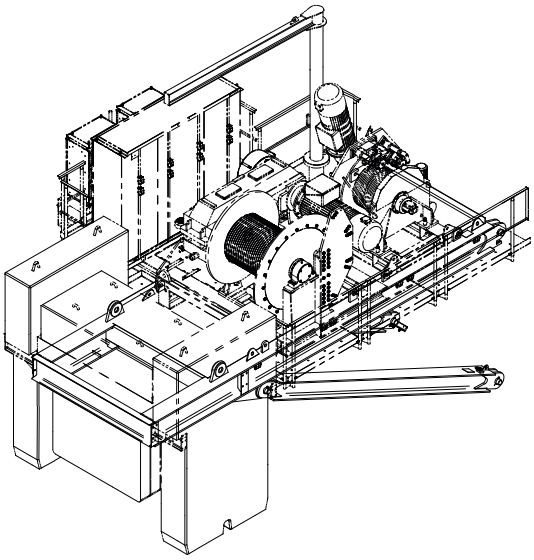
9.3 Arrangement of standard railings

9.3.1 Standard railings (NG) and accessories

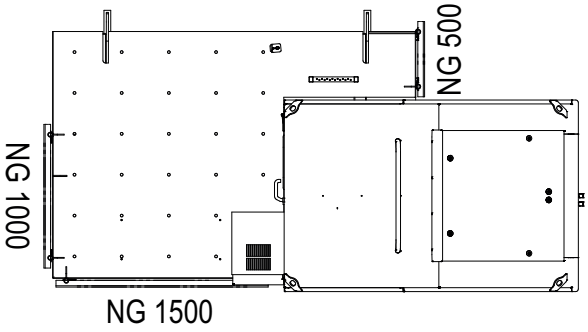
Quant-ity	Standard railings (NG) / accessories	Article no.
3	Standard posts Ø42.4 x 1090	30000167
8	Standard railings NG 500	30018793
6	Standard railing NG 750	30018794
2	Standard railing NG 1000	30018795
4	Standard railing NG 1500	30018796
1	Standard railings NG 1500 S	30046289
2	Standard railing NG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

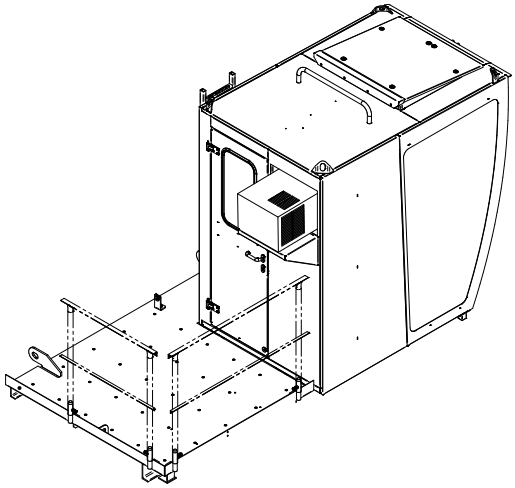
9.3.2 Arrangement of standard railings



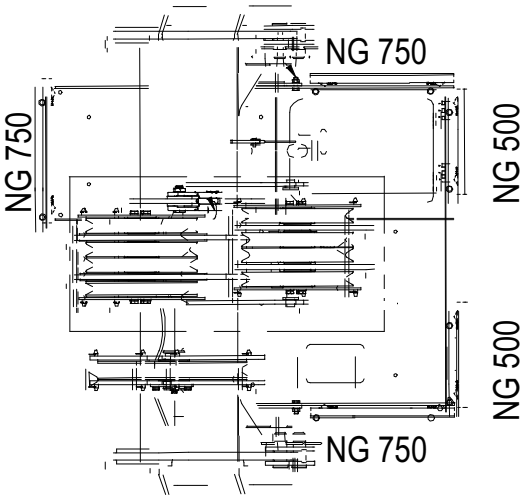


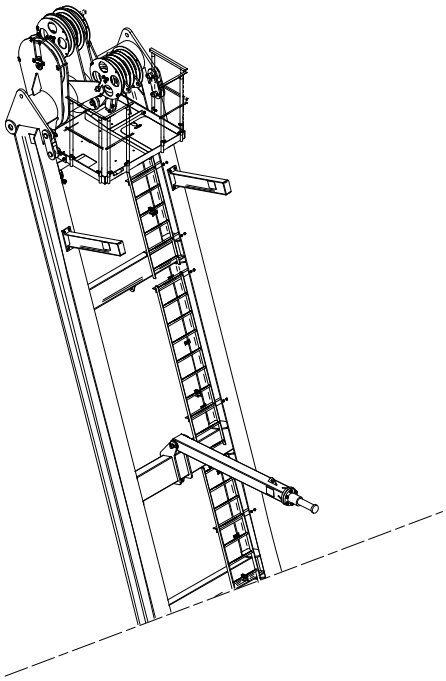
Arrangement of standard railings, counterjib



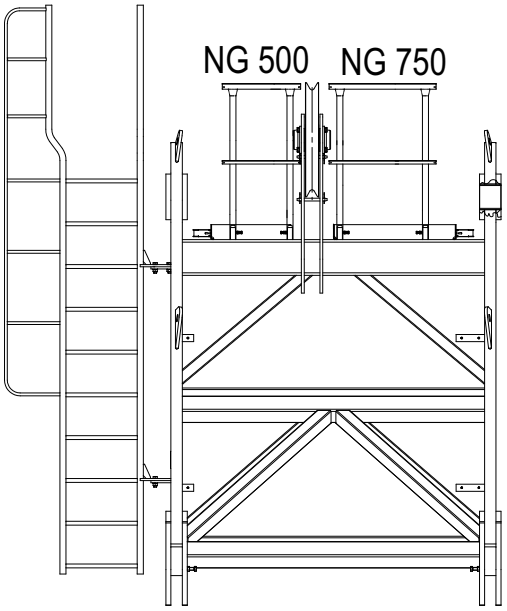


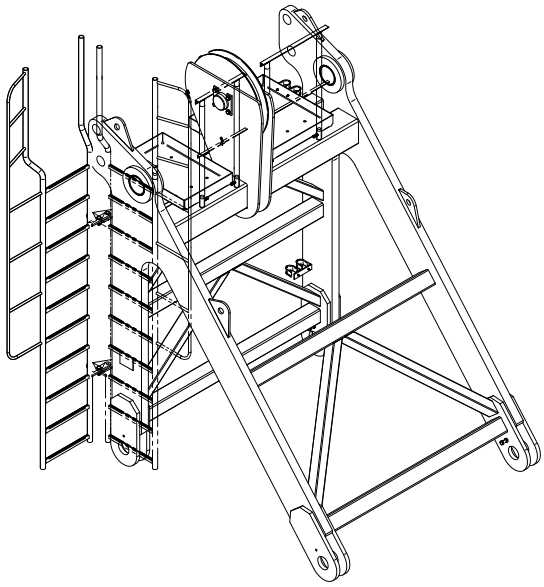
Arrangement of standard railings, driver's cab





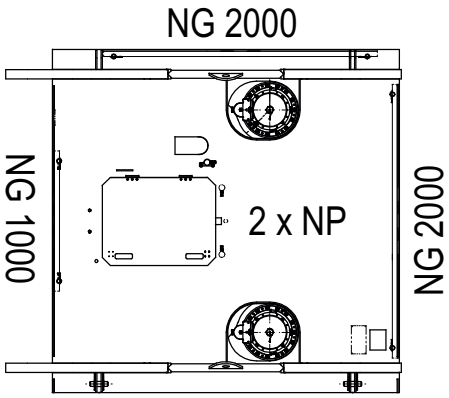
Arrangement of standard railings, tower head section

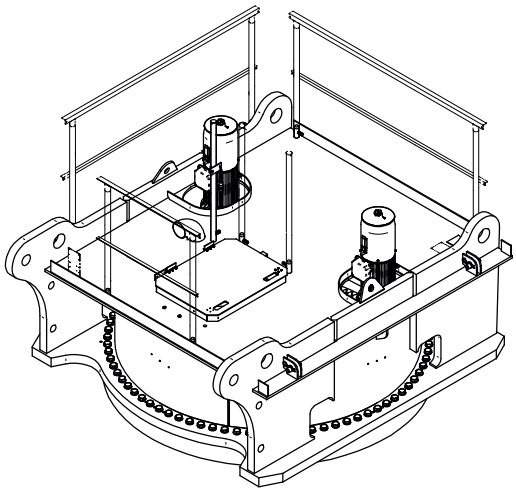




Arrangement of standard railings, connecting block

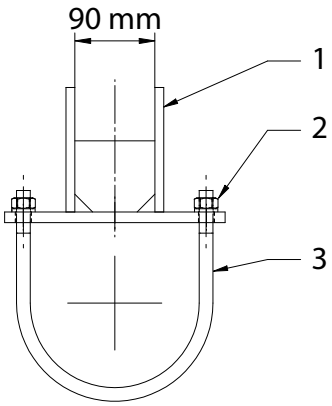
9 Assembly diagrams





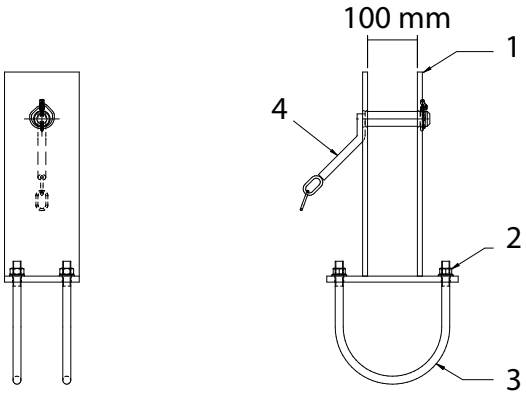
Arrangement of standard railings, slewing frame

9.4 Support blocks for brace



Support block H 1 for jib brace

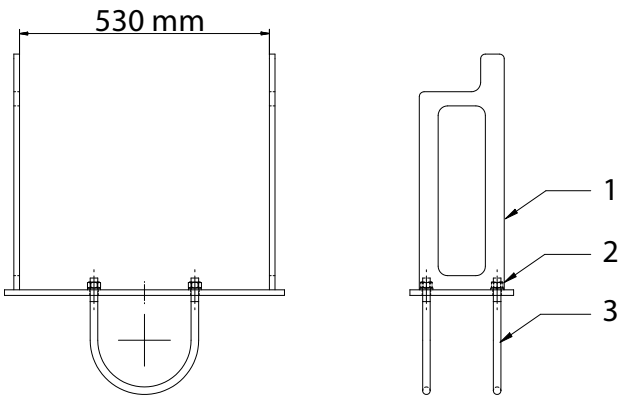
1	Support block	3	Bracket
2	Nut and washer		



Support block H 2 for jib brace

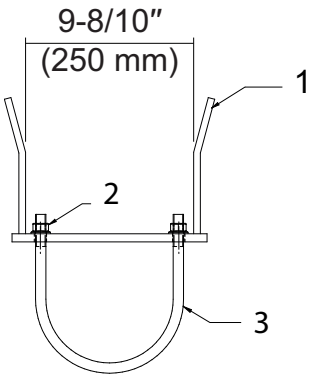
1	Support block	3	Bracket
2	Nut and washer	4	Bolts with handle and chain

9 Assembly diagrams



Support block H 3 for pulley block

1	Support block	3	Bracket
2	Nut and washer		



Support block H4 for brace rod 1

1	Support block for brace rod 1	3	Bracket
2	Nut and circlip		

10 Suitable climbing devices

This section contains information on

- Outer climbing devices (KWH)
- Inner climbing devices (KSH)

NOTICE

Details on the climbing device

Always refer to the details in the documentation of the climbing device.

NOTICE

The operating radius specified is measured from the tower center and is to be considered a reference value. Exact balancing can be achieved by changing the operating radius with the tower elements or loads specified in the table.

NOTICE

Details for climbing balancing

The climbing balancing details obtain to the double reeving hook 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).

NOTICE

If feasible, preferably operate your climbing device without balancing weight.

10.1 Outer climbing devices

⚠ DANGER

Climbing device attached to the lower part of the tower head section lower part.

Increased wind surface. The slewing tower crane may overturn.

► Dismantle the climbing device after the climbing procedure is finished or lower the climbing device down on the ground or lower the climbing device down to the uppermost tower brace.

NOTICE

Tower element on the transfer carriage

The data on climbing balance was specified under the assumption that a tower element is on the transfer carriage.

10.1.1 Outer climbing device KWH 23 / KWH 23.1

Climbing radius [m] for the balancing weights

	Jib length [m]								
630 B	**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 t	-	-	-	-	-	32.1	33.0	-	-
Weight = 5.0 t	-	-	-	-	-	-	30.6	32.0	-
Weight = 10.0 t	-	-	-	-	-	-	-	23.2	24.2

10.2 Inner climbing devices

NOTICE

The data required and the instructions for tower assemblies with inner climbing device is available in the separate description of the inner climbing device.

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

NOTICE

Clamping forces for the inner climbing device (KSH) are specified based on a building height of < 250m and wind category C 25.

10.2.1 Inner climbing device KSH 23/ KSH E 23

NOTICE

Lower clamping length for the inner climbing device KSH 23 / KSH E 23.

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 option.

Tower combinations for slewing tower cranes with inner climbing device.

Item	Jib length 30 m - 60 m			
1	HT 23	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			
inner climbing device	KSH E 23	KSH E 23	KSH E 23	KSH E 23
Foundation	FUA 210 G	FUA 210 G	FUA 210 G	FUA 210 G
Tower height [m]	52.5	48.0	43.5	39.0

Tower combinations for slewing tower cranes with inner climbing device.

Item	Jib length 65 m - 70 m			
1	HT 23	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			
inner climbing device	KSH E 23	KSH E 23	KSH E 23	KSH E 23
Foundation	FUA 210 G	FUA 210 G	FUA 210 G	FUA 210 G
Tower height [m]	48.0	43.5	39.0	34.5

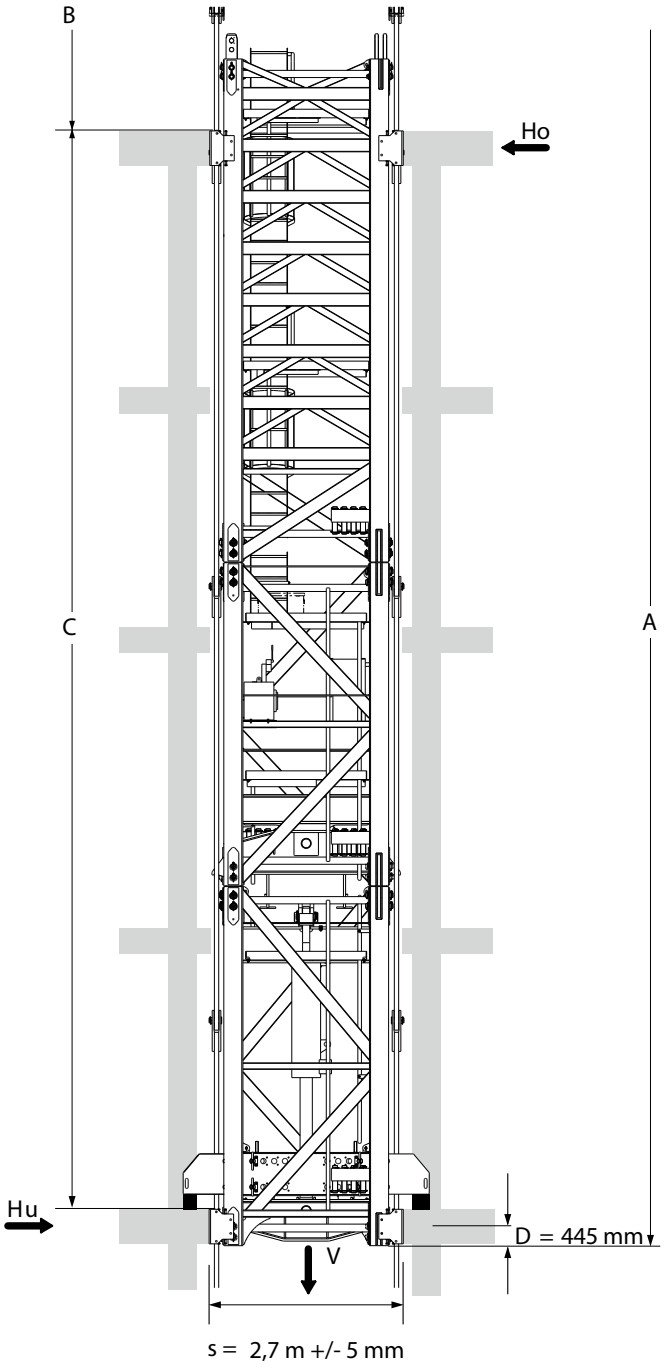
10 Suitable climbing devices

Climbing radius [m] for the balancing weights

	Jib length [m]				
630 B	**70**	**65**	**60**	**55**	**50**
no 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 [m] for the balancing weights

	Jib length [m]			
630 B	**45**	**40**	**35**	**30**
no 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

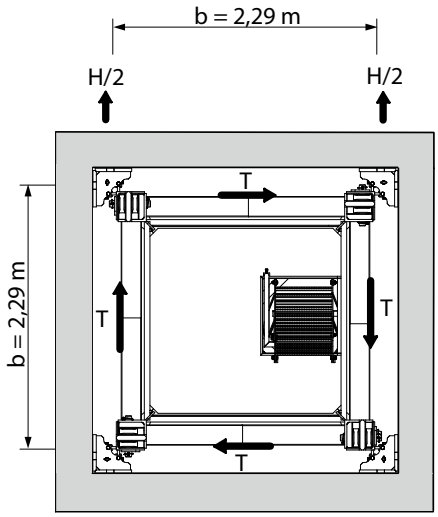


C_{min} = 12,0 m
C_{max} = 15,5 m

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

$Hu = Ho - H$

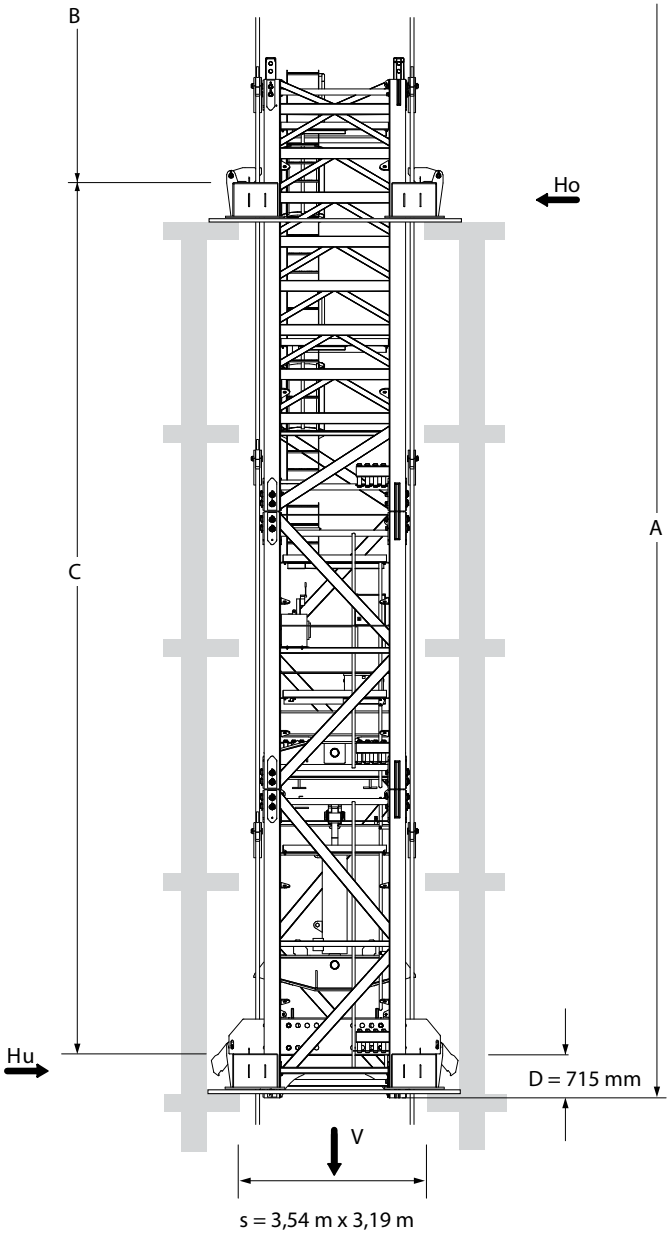
$T = \frac{M_D}{2 \times b}$



KSH E 23

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

10 Suitable climbing devices

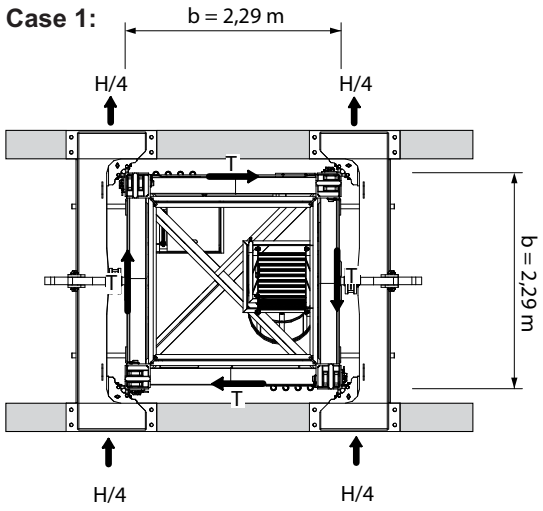


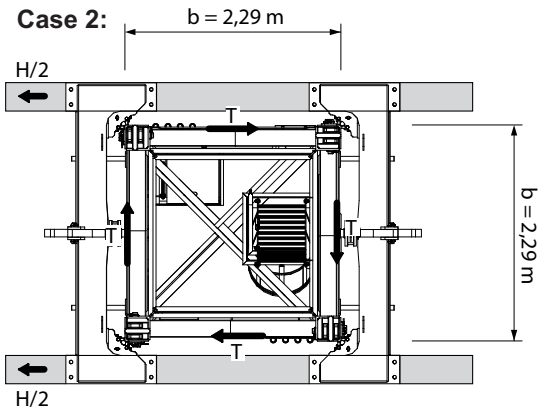
C_{min} = 12,0 m
C_{max} = 15,5 m

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

$Hu = Ho - H$

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





KSH 23

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

Jib length 30 m - 60 m

In service clamping forces

In service 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				

Out of service clamping forces

Out of service clamping forces [kN] inside a building																				
A (m)	52.2					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

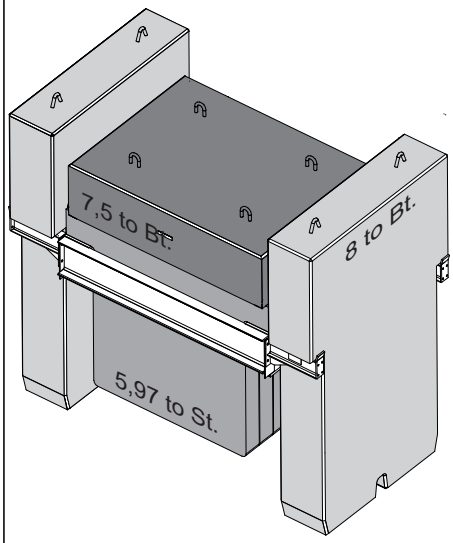
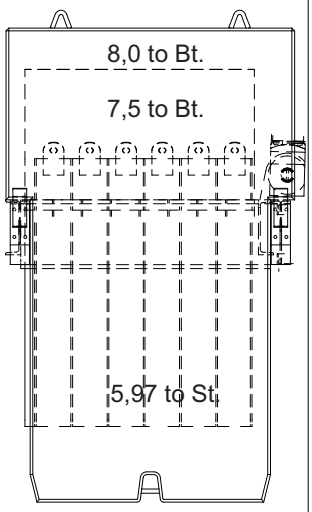
In service clamping forces

In service 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				

Out of service clamping forces

Out of service 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)	-					-					-					-				

11 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

WOLFFKRAN Group
Headquarter international:
WOLFFKRAN AG
Baarermattstraße 6
CH-6300 Zug
Switzerland
Phone +41 41 766 85 00
Fax +41 41 766 85 99
info@wolffkran.com

Manufacturing:
WOLFFKRAN GmbH
Austraße 72
D-74076 Heilbronn
Germany
Phone + 49 7131 9815 0
Fax + 49 7131 9815 355
info@wolffkran.de

WOLFFKRAN Werk Brandenburg GmbH
Frederik-Ipsen-Straße 5
D-15926 Luckau OT Alterno
Germany
Phone + 49 35456 674 0
Fax + 49 35456 674 200
info@wolffkran.de