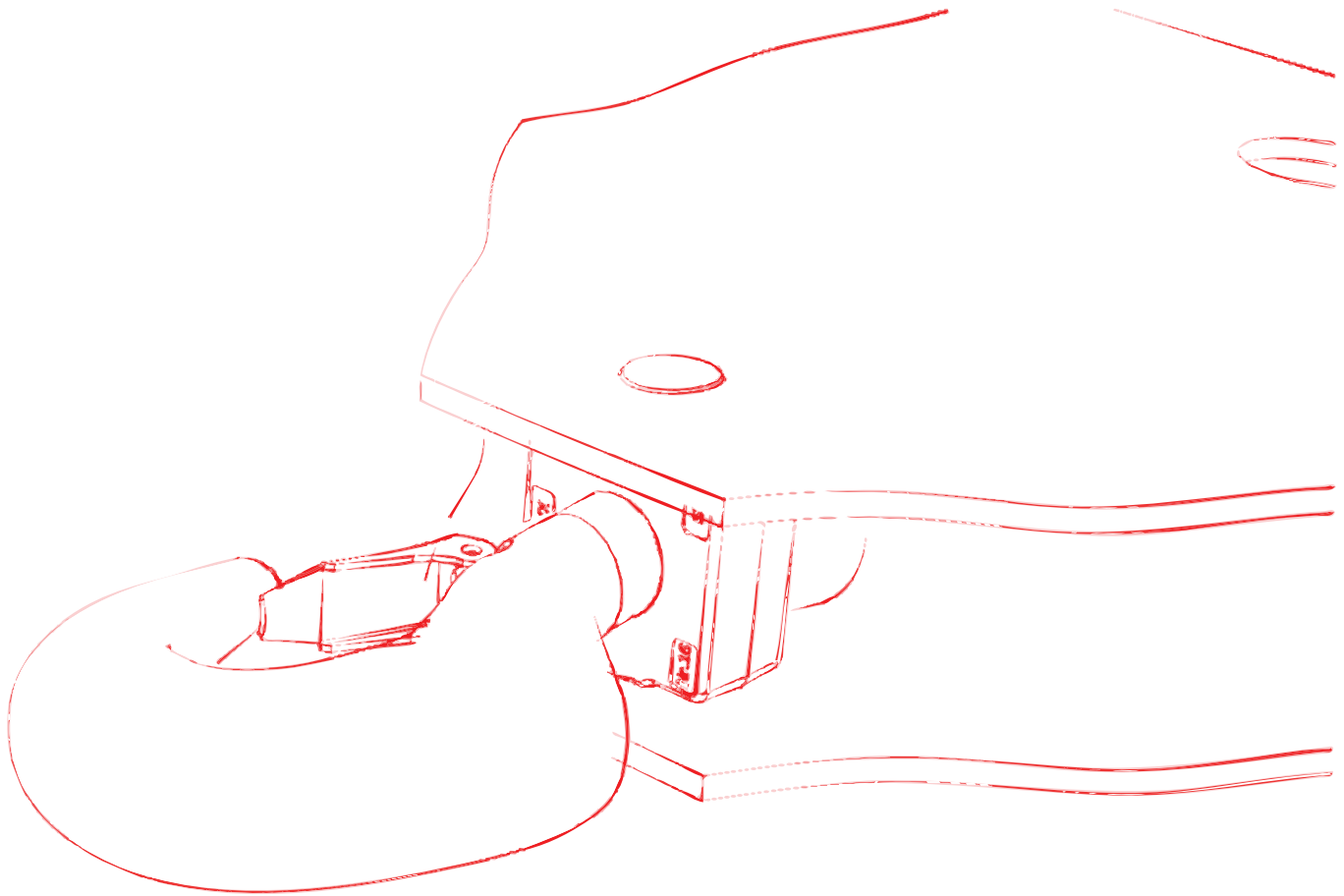


Slewing tower crane

WOLFF 5020 clear

Technical information



English

English



*Published by*

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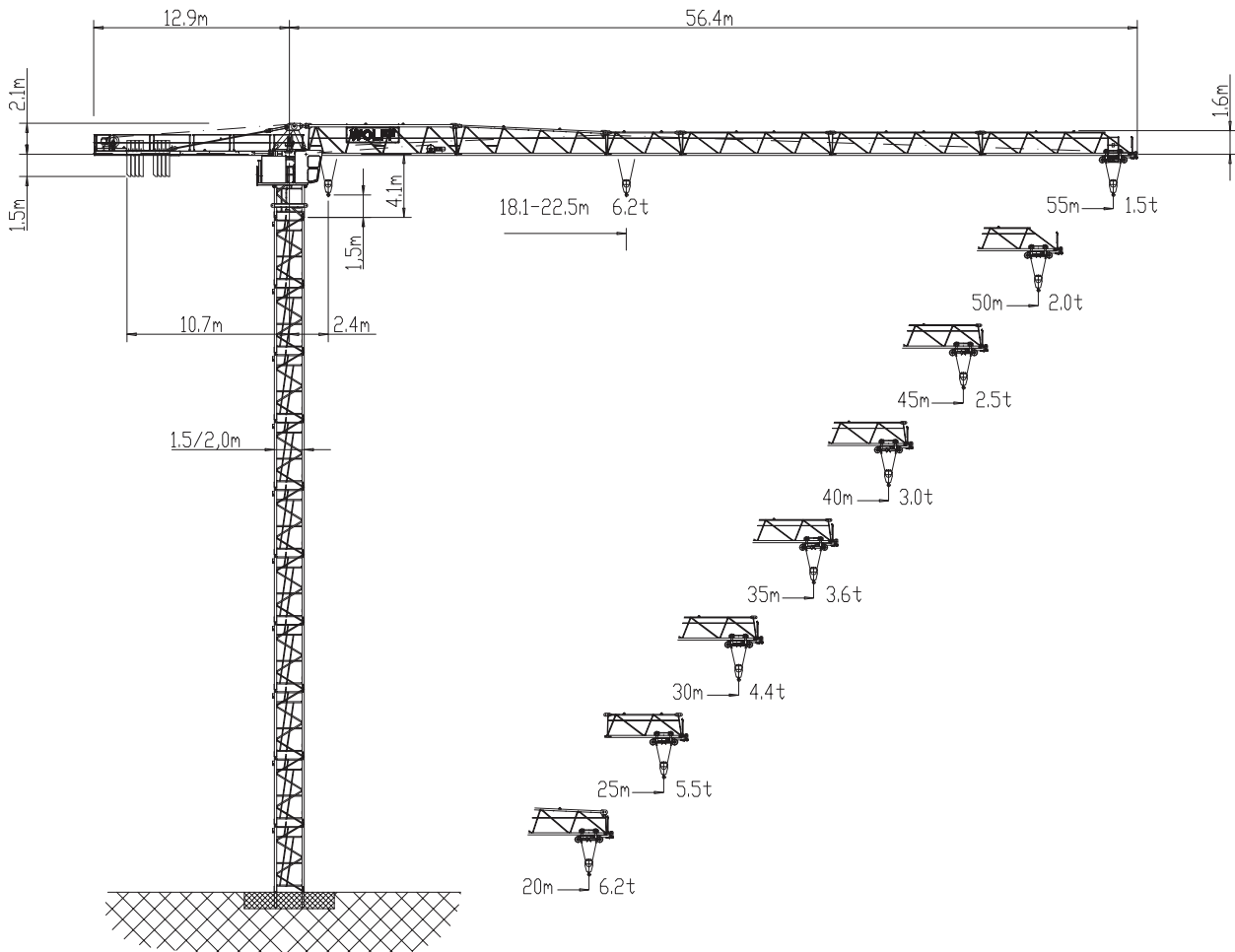
**Table of contents**

1	Schedule drawing	5
1.1	Schedule drawing WOLFF 5020.6clear	5
1.2	Schedule drawing WOLFF 5020.8clear	6
2	Load carrying capacities	7
2.1	Table of load carrying capacities, WOLFF 5020.6 clear (6.2 t)	8
2.2	Table of load carrying capacities (kg) in meter intervals, WOLFF 5020.6 clear (6.2 t, 2 fall operation)	9
2.3	Table of load carrying capacities, WOLFF 5020.8 clear (8.5 t)	10
2.4	Table of load carrying capacities (kg) in meter intervals, WOLFF 5020.8 clear (8.5 t, 2 fall operation)	11
3	Tower combinations	12
3.1	Tower combinations on foundation (slewing section with TFS 15 / UV 15 - connection)	13
3.2	Tower combinations on foundation (slewing section with TFS 20 / UV 20 - connection)	18
3.3	Tower combinations on cross frame (slewing section with TFS 15 / UV 15 - connection)	23
3.4	Tower combinations on cross frame (slewing section with TFS 20 / UV 20 - connection)	29
3.5	Tower combinations on cross frame element (slewing section with TFS 15 / UV 15 - connection)	35
3.6	Tower combinations on cross frame element (slewing section with TFS 20 / UV 20 - connection)	37
3.7	Tower combinations on mobile cross frame (slewing section with TFS 15 / UV 15 - connection)	38
3.8	Tower combinations on mobile cross frame (slewing section with TFS 20 / UV 20 - connection)	41
3.9	Tower combinations on undercarriage (slewing section with TFS 15 / UV 15 - connection)	44
3.10	Tower combinations on undercarriage (slewing section with TFS 20 / UV 20 - connection)	47
4	Foundation loads / central ballast weights / corner loads in compliance with EN 14439 / EN 13001	49
4.1	Foundation loads jib 20 m - 55 m	51
5	Operating speeds	52
6	Package list	54

6.1	Package list 5020	54
7	Assembly weights	56
7.1	Counterweight blocks	56
7.1.1	Counterweight block, 1.2 t	57
7.1.2	Counterweight block, 2.05 t	58
7.2	Total weight jib assembly	59
7.3	Assembly weight slewing section	60
7.4	Assembly weight cross frame	61
7.5	Assembly weights traveling cross frame	63
7.6	Assembly weight cross frame elements	65
7.7	Assembly weight undercarriage	66
7.8	Required hook height for mobile cranes	67
8	Assembly diagrams	68
8.1	Jib attachment diagram	68
8.1.1	Trolley jib - attachment diagram 55 m to 45 m	69
8.1.2	Trolley jib - attachment diagram 42.5 m to 32.5 m	70
8.1.3	Trolley jib - attachment diagram 30 m to 20 m	71
8.2	Trolley jib mounting rig	72
8.3	Arrangement of standard railings	73
8.3.1	Standard railings (NG) and accessories	73
8.3.2	Arrangement of standard railings	74
9	Suitable climbing devices	76
9.1	Outer climbing devices	77
9.1.1	Outer climbing device KWH 15.2	78
9.1.2	Outer climbing device KWH 20.3 / KWH 20.3.1	79
9.1.3	Außenkletterwerk KWH 20.6 / KWH 20.6.1 / KWH 20.6.2	80
9.2	Inner climbing devices	81
9.2.1	Inner climbing device KSH 15	82
9.2.2	Inner climbing device KSH 20 M	84
9.2.3	Inner climbing device KSH 20 L	86
10	Arrangement of counterweight blocks	88

## 1 Schedule drawing

### 1.1 Schedule drawing WOLFF 5020.6clear

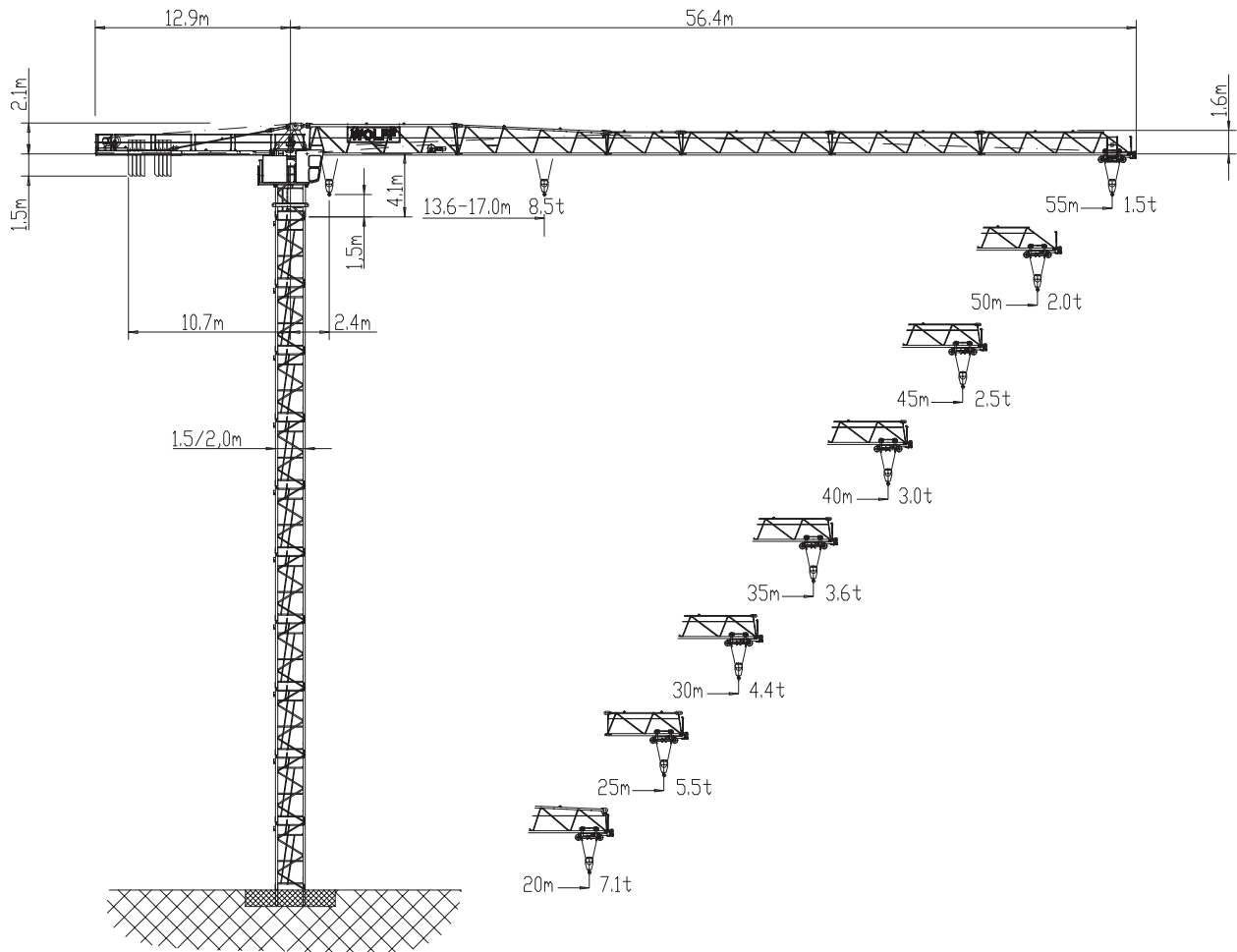


Data WOLFF 5020.6 clear

Item	Data
Crane type	BGL GROUP C.0.10.0112
Design	Overhead travelling crane with top slewing trolley jib, with climbing feature
Type of setup	Stationary or travelling
Basis of calculation	EN
Payload torque	max. 1400 kN/m
Hoist winch	Hw 628FU

## 1 Schedule drawing

### 1.2 Schedule drawing WOLFF 5020.8clear



Data WOLFF 5020.8 clear

Item	Data
Crane type	BGL C.0.10.0112
Design	Overhead travelling crane with top slewing trolley jib, with climbing feature
Type of setup	Stationary or travelling
Basis of calculation	EN
Payload torque	max. 1440 kNm
Hoist winch	Hw 845FU

### 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 alternately.

## 2 Load carrying capacities

### 2.1 Table of load carrying capacities, WOLFF 5020.6 clear (6.2 t)

 6.2 t		Operating radius [m]	10.0	15.0	20.0	22.5	25.0	27.5	30.0	32.5	35.0	37.5	40.0	42.5	45.0	47.5	50.0	52.5	55.0	LC-C [t]	
JL [m]	55	2.4 - 18.1	6.2	6.2	5.5	4.8	4.3	3.8	3.4	3.1	2.8	2.6	2.4	2.2	2.0	1.9	1.7	1.6	1.5		
	52.5	2.4 - 19.5	6.2	6.2	6.0	5.3	4.7	4.2	3.8	3.4	3.1	2.8	2.6	2.4	2.2	2.1	1.9	1.8			
	50	2.4 - 20.0	6.2	6.2	6.2	5.4	4.8	4.3	3.9	3.5	3.2	2.9	2.7	2.5	2.3	2.1	2.0				
	47.5	2.4 - 20.4	6.2	6.2	6.2	5.5	4.9	4.4	4.0	3.6	3.3	3.0	2.8	2.6	2.4	2.2					
	45	2.4 - 21.2	6.2	6.2	6.2	5.8	5.1	4.6	4.2	3.8	3.4	3.2	2.9	2.7	2.5						
	42.5	2.4 - 21.3	6.2	6.2	6.2	5.8	5.2	4.6	4.2	3.8	3.5	3.2	2.9	2.7							
	40	2.4 - 21.7	6.2	6.2	6.2	6.0	5.3	4.7	4.3	3.9	3.5	3.3	3.0								
	37.5	2.4 - 22.0	6.2	6.2	6.2	6.0	5.4	4.8	4.3	3.9	3.6	3.3									
	35	2.4 - 22.0	6.2	6.2	6.2	6.0	5.4	4.8	4.3	3.9	3.6										
	32.5	2.4 - 22.3	6.2	6.2	6.2	6.1	5.4	4.9	4.4	4.0											
	30	2.4 - 22.3	6.2	6.2	6.2	6.1	5.4	4.9	4.4												
	27.5	2.4 - 22.4	6.2	6.2	6.2	6.2	5.5	4.9													
	25	2.4 - 22.5	6.2	6.2	6.2	6.2	5.5														
	22.5	2.4 - 22.5	6.2	6.2	6.2	6.2															
	20	2.4 - 20.0	6.2	6.2	6.2																
	JL			Jib length																	
LCC			Load carrying capacity																		

The load carrying capacity is related to a hook range of 42.0 m. Hook ranges greater than that reduce the maximum load carrying capacity by the weight of the additional hoisting ropes (2 fall operation = 2.5 kg per meter of the hook range).




## 2.2 Table of load carrying capacities (kg) in meter intervals, WOLFF 5020.6 clear (6.2 t, 2 fall operation)

Operating radius [m]	Jib length [m]														
	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55
10	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200
11	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200
12	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200
13	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200
14	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200
15	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200
16	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200
17	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200
18	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200
19	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	5860
20	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	6030	5530
21		6200	6200	6200	6200	6200	6200	6200	6200	6200	6200	5990	5870	5700	5220
22		6200	6200	6200	6200	6200	6200	6190	6110	5960	5950	5680	5560	5400	4950
22.5		6200	6200	6170	6130	6130	6040	6030	5960	5810	5800	5530	5420	5270	4820
23			6050	6020	5980	5980	5900	5880	5810	5670	5660	5400	5290	5130	4700
24			5760	5730	5700	5620	5610	5530	5400	5390	5140	5030	4890	4470	
25			5500	5470	5440	5440	5360	5350	5280	5150	5140	4900	4800	4660	4260
26				5230	5200	5200	5120	5110	5050	4920	4910	4680	4580	4450	4070
27				5010	4980	4980	4900	4890	4830	4710	4700	4480	4390	4260	3890
27.5				4900	4870	4870	4800	4790	4730	4610	4600	4380	4290	4160	3800
28					4770	4770	4700	4690	4630	4510	4500	4290	4200	4080	3720
29					4580	4580	4510	4500	4440	4330	4320	4110	4030	3910	3560
30					4400	4400	4330	4330	4270	4160	4150	3950	3870	3750	3420
31						4230	4170	4160	4100	4000	3990	3800	3720	3600	3280
32						4080	4010	4000	3950	3850	3840	3650	3580	3470	3150
32.5						4000	3940	3930	3880	3780	3770	3580	3510	3400	3090
33							3870	3860	3810	3710	3700	3520	3440	3340	3030
34							3730	3720	3670	3580	3570	3390	3320	3210	2920
35							3600	3590	3540	3450	3440	3270	3200	3100	2810
36							3470	3420	3420	3330	3330	3160	3090	2990	2710
37							3360	3310	3220	3210	3210	3050	2980	2890	2620
37.5							3300	3250	3170	3160	3160	3000	2930	2840	2570
38								3200	3110	3110	3110	2950	2880	2790	2530
39									3100	3010	3010	2850	2790	2700	2440
40									3000	2920	2910	2760	2700	2610	2360
41										2830	2820	2680	2610	2530	2290
42											2740	2740	2590	2530	2210
42.5											2700	2690	2550	2490	2180
43												2650	2510	2460	2140
44												2580	2440	2380	2080
45												2500	2370	2310	2010
46													2300	2240	1950
47													2230	2180	1890
47.5													2200	2150	1860
48														2120	1840
49														2060	1780
50														2000	1730
51															1680
52															1630
52.5															1610
53															1590
54															1540
55															1500

## 2 Load carrying capacities

### 2.3 Table of load carrying capacities, WOLFF 5020.8 clear (8.5 t)

 8.5 t		Operating radius [m]	10.0	15.0	20.0	22.5	25.0	27.5	30.0	32.5	35.0	37.5	40.0	42.5	45.0	47.5	50.0	52.5	55.0	LCC [t]	
JL [m]	55	2.4 - 13.6	8.5	7.6	5.5	4.8	4.3	3.8	3.4	3.1	2.8	2.6	2.4	2.2	2.0	1.9	1.7	1.6	1.5		
	52.5	2.4 - 14.7	8.5	8.3	6.0	5.3	4.7	4.2	3.8	3.4	3.1	2.8	2.6	2.4	2.2	2.1	1.9	1.8			
	50	2.4 - 15.1	8.5	8.5	6.2	5.4	4.8	4.3	3.9	3.5	3.2	2.9	2.7	2.5	2.3	2.1	2.0				
	47.5	2.4 - 15.3	8.5	8.5	6.3	5.5	4.9	4.4	4.0	3.6	3.3	3.0	2.8	2.6	2.4	2.2					
	45	2.4 - 16.0	8.5	8.5	6.6	5.8	5.1	4.6	4.2	3.8	3.4	3.2	2.9	2.7	2.5						
	42.5	2.4 - 16.0	8.5	8.5	6.6	5.8	5.2	4.6	4.2	3.8	3.5	3.2	2.9	2.7							
	40	2.4 - 16.3	8.5	8.5	6.8	6.0	5.3	4.7	4.3	3.9	3.5	3.3	3.0								
	37.5	2.4 - 16.5	8.5	8.5	6.9	6.0	5.4	4.8	4.3	3.9	3.6	3.3									
	35	2.4 - 16.6	8.5	8.5	6.9	6.0	5.4	4.8	4.3	3.9	3.6										
	32.5	2.4 - 16.8	8.5	8.5	7.0	6.1	5.4	4.9	4.4	4.0											
	30	2.4 - 16.8	8.5	8.5	7.0	6.1	5.4	4.9	4.4												
	27.5	2.4 - 16.9	8.5	8.5	7.0	6.2	5.5	4.9													
	25	2.4 - 16.9	8.5	8.5	7.1	6.2	5.5														
	22.5	2.4 - 16.9	8.5	8.5	7.1	6.2															
	20	2.4 - 17.0	8.5	8.5	7.1																
	JL			Jib length																	
LCC			Load carrying capacity																		








The load carrying capacity is related to a hook range of 42.0 m. Hook ranges greater than that reduce the maximum load carrying capacity by the weight of the additional hoisting ropes (2 fall operation = 2.5 kg per meter of the hook range).

## 2.4 Table of load carrying capacities (kg) in meter intervals, WOLFF 5020.8 clear (8.5 t, 2 fall operation)

Operating radius [m]	Jib length [m]														
	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55
10	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500
11	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500
12	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500
13	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500
14	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8240
15	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8300	7630
16	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8480	8110	7950	7730	7110
17	8490	8460	8460	8420	8380	8380	8260	8240	8140	7950	7940	7580	7440	7230	6640
18	7980	7950	7950	7910	7870	7870	7760	7740	7640	7460	7450	7120	6980	6780	6230
19	7520	7490	7490	7450	7410	7410	7310	7290	7200	7030	7020	6700	6570	6380	5860
20	7100	7080	7080	7040	7000	7000	6900	6890	6800	6640	6630	6330	6200	6030	5530
21		6700	6700	6660	6630	6630	6530	6520	6440	6280	6270	5990	5870	5700	5220
22		6360	6360	6330	6290	6290	6200	6190	6110	5960	5950	5680	5560	5400	4950
22.5		6200	6200	6170	6130	6130	6040	6030	5960	5810	5800	5530	5420	5270	4820
23			6050	6020	5980	5980	5900	5880	5810	5670	5660	5400	5290	5130	4700
24			5760	5730	5700	5700	5620	5610	5530	5400	5390	5140	5030	4890	4470
25			5500	5470	5440	5440	5360	5350	5280	5150	5140	4900	4800	4660	4260
26				5230	5200	5200	5120	5110	5050	4920	4910	4680	4580	4450	4070
27				5010	4980	4980	4900	4890	4830	4710	4700	4480	4390	4260	3890
27.5				4900	4870	4870	4800	4790	4730	4610	4600	4380	4290	4160	3800
28					4770	4770	4700	4690	4630	4510	4500	4290	4200	4080	3720
29					4580	4580	4510	4500	4440	4330	4320	4110	4030	3910	3560
30					4400	4400	4330	4330	4270	4160	4150	3950	3870	3750	3420
31						4230	4170	4160	4100	4000	3990	3800	3720	3600	3280
32						4080	4010	4000	3950	3850	3840	3650	3580	3470	3150
32.5						4000	3940	3930	3880	3780	3770	3580	3510	3400	3090
33							3870	3860	3810	3710	3700	3520	3440	3340	3030
34							3730	3720	3670	3580	3570	3390	3320	3210	2920
35							3600	3590	3540	3450	3440	3270	3200	3100	2810
36								3470	3420	3330	3330	3160	3090	2990	2710
37								3360	3310	3220	3210	3050	2980	2890	2620
37.5								3300	3250	3170	3160	3000	2930	2840	2570
38									3200	3110	3110	2950	2880	2790	2530
39									3100	3010	3010	2850	2790	2700	2440
40									3000	2920	2910	2760	2700	2610	2360
41										2830	2820	2680	2610	2530	2290
42											2740	2740	2590	2530	2210
42.5											2700	2690	2550	2490	2180
43												2650	2510	2460	2140
44												2580	2440	2380	2080
45												2500	2370	2310	2010
46													2300	2240	1950
47													2230	2180	1890
47.5													2200	2150	1860
48														2120	1840
49														2060	1780
50														2000	1730
51															1680
52															1630
52.5															1610
53															1590
54															1540
55															1500

## 3 Tower combinations

### 3 Tower combinations

	<p style="text-align: center;"><b>⚠ DANGER</b></p> <p>Usage of incorrect tower combinations. The slewing tower crane may overturn.</p> <ol style="list-style-type: none"> <li>1) Use the specified tower combinations.</li> <li>2) If you need another tower combination that is not specified here, please contact WOLFFKRAN to get an approved alternative setup in writing.</li> </ol>
	<p style="text-align: center;"><b>NOTICE</b></p> <p>All tower combinations apply to free standing slewing tower cranes without climbing gear.</p>
	<p style="text-align: center;"><b>NOTICE</b></p> <p>The tower elements TFS 15 cannot be climbed. Use TFS 15.4 tower elements for climbing.</p>
	<p style="text-align: center;"><b>NOTICE</b></p> <p>The tower elements TFS 20 are without climbing feature. Tower elements TFS 20.4 are used for climbing.</p>
	<p style="text-align: center;"><b>NOTICE</b></p> <p>For tower combination with tower element TV 25 and UV 25 please contact WOLFFKRAN.</p>
	<p style="text-align: center;"><b>NOTICE</b></p> <p>When using the UV 15 tower connection, the illustrated TFS 15(.4) and UVA 15.4 tower elements can be replaced by UV 15.4 tower elements. The illustrated hook height remains the same. All other tower elements are to be used as illustrated.</p>
	<p style="text-align: center;"><b>NOTICE</b></p> <p>When using the UV 20 tower connection, the illustrated TFS 20(.4) and UVA 20.4 tower elements can be replaced by UV 20.4 tower elements. The illustrated hook height remains the same. All other tower elements are to be used as illustrated.</p>

## 3.1 Tower combinations on foundation (slewing section with TFS 15 / UV 15 - connection)

Jib length	20 m – 55 m				
Item					
1	4.5 m	TFS 15	TFS 15	TFS 15	TFS 15
2	9.0 m	TFS 15	TFS 15	TFS 15	TFS 15
3	13.5 m	TFS 15	TFS 15.4	TFS 15.4	TFS 15.4
4	18.0 m	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
5	22.5 m	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
6	27.0 m	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
7	31.5 m	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
8	36.0 m	TFS 15.4	UVA 15.4	UVA 15.4	UVA 15.4
9	40.5 m		UV 15.4	UV 15.4	UV 15.4
10	45.0 m		UV 15.4	UV 15.4	UVÜ 15.4
11	49.5 m			UVÜ 15.4	UV 20.4
12	54.0 m			UV 20.4	UV 20.4
13	58.5 m			UV 20.4	TVA 20.4
14	63.0 m				TV 20.4
15	67.5 m				TV 20.4
16	72.0 m				TV 20.4
Foundation anchors		FUA B.4 FUA 93	FUA 120 Type C-120	FUA 120 Type C-120	FUA 140 Type D-140
Tower height [m]		36.0	45.0	58.5	72.0
Hook height above ground [m]		37.5	46.5	60.0	73.5
Wind category		C25			

## 3 Tower combinations

Jib length	20 m – 55 m			
Item				
1	4.5 m	TFS 15		
2	9.0 m	TFS 15		
3	13.5 m	TFS 15.4		
4	18.0 m	TFS 15.4		
5	22.5 m	TFS 15.4		
6	27.0 m	TFS 15.4		
7	31.5 m	UVA 15.4		
8	36.0 m	UV 15.4		
9	40.5 m	UV 15.4		
10	45.0 m	UVÜ 15.4		
11	49.5 m	UV 20.4		
12	54.0 m	TVA 20.4		
13	58.5 m	TV 20.4		
14	63.0 m	TV 20.4		
15	67.5 m	TV 20.4		
16	72.0 m	TV 20.4		
17	73.0 m	VR 2023		
18	77.5 m	TV 23		
Foundation anchors		FUA 140 Type D-140		
Tower height [m]		77.5		
Hook height above ground [m]		79.0		
Wind category	C25			









## 3 Tower combinations

### 3.2 Tower combinations on foundation (slewing section with TFS 20 / UV 20 - connection)

Jib length	20 m – 55 m				
Item					
1	4.5 m	TFS 20	TFS 20	TFS 20	TFS 20
2	9.0 m	TFS 20	TFS 20	TFS 20	TFS 20
3	13.5 m	TFS 20	TFS 20	TFS 20	TFS 20
4	18.0 m	TFS 20	TFS 20	TFS 20	TFS 20
5	22.5 m	TFS 20	TFS 20	TFS 20	TFS 20
6	27.0 m	TFS 20	TFS 20	TFS 20	TFS 20
7	31.5 m	TFS 20	TFS 20	TFS 20.4	TFS 20.4
8	36.0 m	TFS 20	TFS 20.4	TFS 20.4	TFS 20.4
9	40.5 m		TFS 20.4	TFS 20.4	TFS 20.4
10	45.0 m		TFS 20.4	TFS 20.4	UVA 20.4
11	49.5 m			UVA 20.4	UV 20.4
12	54.0 m			UV 20.4	UV 20.4
13	58.5 m			UV 20.4	TVA 20.4
14	63.0 m				TV 20.4
15	67.5 m				TV 20.4
16	72.0 m				TV 20.4
Foundation anchors		FUA B.4 FUA 93	FUA B.4 FUA 93	FUA 120 Type C-120	FUA 140 Type C-140
Tower height [m]		36.0	45.0	58.5	72.0
Hook height above ground [m]		37.5	46.5	60.0	73.5
Wind category		C25			

Jib length	20 m – 55 m			
Item				
1	4.5 m	TFS 20		
2	9.0 m	TFS 20		
3	13.5 m	TFS 20		
4	18.0 m	TFS 20		
5	22.5 m	TFS 20		
6	27.0 m	TFS 20.4		
7	31.5 m	TFS 20.4		
8	36.0 m	TFS 20.4		
9	40.5 m	TFS 20.4		
10	45.0 m	UVA 20.4		
11	49.5 m	UV 20.4		
12	54.0 m	TVA 20.4		
13	58.5 m	TV 20.4		
14	63.0 m	TV 20.4		
15	67.5 m	TV 20.4		
16	72.0 m	TV 20.4		
17	73.0 m	VR 2023		
18	77.5 m	TV 23		
Foundation anchors		FUA 140 Type C-140		
Tower height [m]		77.5		
Hook height above ground [m]		79.0		
Wind category	C25			

## 3 Tower combinations

Jib length	20 m – 55 m			
Item				
1	4.5 m	TFS 20		
2	9.0 m	TFS 20		
3	13.5 m	TFS 20		
4	18.0 m	TFS 20		
5	22.5 m	TFS 20		
6	27.0 m	TFS 20.4		
7	31.5 m	TFS 20.4		
8	36.0 m	TFS 20.4		
9	40.5 m	UVA 20.4		
10	45.0 m	UV 20.4		
11	49.5 m	TVA 20.4		
12	54.0 m	TV 20.4		
13	58.5 m	TV 20.4		
14	63.0 m	TV 20.4		
15	67.5 m	TV 20.4		
16	68.5 m	VR 2023		
17	73.0 m	TV 23		
18	77.5 m	HTA 23		
19	82.0 m	HT 23		
20	86.5 m	HT 23		
21	91.0 m	HT 23		
Foundation anchors		FUA G 160		
Tower height [m]		91.0		
Hook height above ground [m]		92.5		
Wind category		C25		





## 3.3 Tower combinations on cross frame (slewing section with TFS 15 / UV 15 - connection)

Jib length	20 m – 55 m				
Item					
1	4.5 m	TFS 15	TFS 15	TFS 15	TFS 15
2	9.0 m	TFS 15	TFS 15	TFS 15	TFS 15
3	13.5 m	TFS 15	TFS 15	TFS 15	TFS 15
4	18.0 m	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
5	22.5 m	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
6	27.0 m	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
7	31.5 m	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
8	36.0 m		UVA 15.4	TFS 15.4	TFS 15.4
9	40.5 m		UVÜ 15.4	UVA 15.4	UVA 15.4
Substructure		KR 6-40	KR 800-5 KR 800-6	KRV 7-32	KRV 7-32/46 KR 8-46
Corner distance [m x m]		4.0 x 4.0	5.0 x 5.0 6.0 x 6.0	3.2 x 3.2	4.6 x 4.6
Substructure height [m]		0.7	0.9	0.8	0.9
Tower height [m]		32.2	41.4	41.3	41.4
Hook height above ground [m]		33.7	42.9	42.8	42.9
Wind category		C25			

## 3 Tower combinations

Jib length	20 m – 55 m			
Item				
1	4.5 m	TFS 15	TFS 15	
2	9.0 m	TFS 15	TFS 15	
3	13.5 m	TFS 15.4	TFS 15.4	
4	18.0 m	TFS 15.4	TFS 15.4	
5	22.5 m	TFS 15.4	TFS 15.4	
6	27.0 m	TFS 15.4	TFS 15.4	
7	31.5 m	TFS 15.4	TFS 15.4	
8	36.0 m	UVA 15.4	UVA 15.4	
9	40.5 m	UV 15.4	UV 15.4	
10	45.0 m	UVÜ 15.4	UVÜ 15.4	
11	49.5 m	UV 20.4	UV 20.4	
12	54.0 m	UV 20.4	UV 20.4	
13	58.5 m	TVA 20.4	TVA 20.4	
14	63.0 m	TV 20.4	TV 20.4	
15	67.5 m		TV 20.4	
16	72.0 m		TV 20.4	
Substructure		KR 10-46 KR 10-46/60	KRV 10-60	
Corner distance [m x m]		4.6 x 4.6 6.0 x 6.0	5.0 x 5.0 6.0 x 6.0	
Substructure height [m]		1.2	1.2	
Tower height [m]		64.2	73.2	
Hook height above ground [m]		65.7	74.7	
Wind category		C25		





## 3 Tower combinations

Jib length	20 m – 55 m			
Item				
1	4.5 m	TFS 15	TFS 15	
2	9.0 m	TFS 15	TFS 15	
3	13.5 m	TFS 15.4	TFS 15.4	
4	18.0 m	TFS 15.4	TFS 15.4	
5	22.5 m	TFS 15.4	TFS 15.4	
6	27.0 m	TFS 15.4	TFS 15.4	
7	31.5 m	TFS 15.4	TFS 15.4	
8	36.0 m	UVA 15.4	UVA 15.4	
9	40.5 m	UV 15.4	UV 15.4	
10	45.0 m	UVÜ 15.4	UVÜ 15.4	
11	49.5 m	UV 20.4	UV 20.4	
12	54.0 m	UV 20.4	UV 20.4	
13	58.5 m	TVA 20.4	TVA 20.4	
14	63.0 m	TV 20.4	TV 20.4	
15	67.5 m	TV 20.4	TV 20.4	
16	72.0 m	TVÜ 20.4	TV 20.4	
Substructure		KR 1000-8	KR 12-60 KR 12-60/80	
Corner distance [m x m]		8.0 x 8.0	6.0 x 6.0 8.0 x 8.0	
Substructure height [m]		1.2	1.4	
Tower height [m]		73.2	73.4	
Hook height above ground [m]		74.7	74.9	
Wind category		C25		

Jib length	20 m – 55 m			
Item				
1	4.5 m	TFS 15	TFS 15	TFS 15
2	9.0 m	TFS 15	TFS 15	TFS 15
3	13.5 m	TFS 15.4	TFS 15.4	TFS 15.4
4	18.0 m	TFS 15.4	TFS 15.4	TFS 15.4
5	22.5 m	TFS 15.4	TFS 15.4	TFS 15.4
6	27.0 m	TFS 15.4	TFS 15.4	TFS 15.4
7	31.5 m	UVA 15.4	UVA 15.4	UVA 15.4
8	36.0 m	UV 15.4	UV 15.4	UV 15.4
9	40.5 m	UVÜ 15.4	UVÜ 15.4	UVÜ 15.4
10	45.0 m	UV 20.4	UV 20.4	UV 20.4
11	49.5 m	UV 20.4	UV 20.4	UV 20.4
12	54.0 m	TVA 20.4	TVA 20.4	TVA 20.4
13	58.5 m	TV 20.4	TV 20.4	TV 20.4
14	63.0 m	TV 20.4	TV 20.4	TV 20.4
15	67.5 m	TV 20.4	TV 20.4	TV 20.4
16	68.5 m	VR 2023	VR 2023	VR 2023
17	73.0 m	TV 23	TV 23	TV 23
18	77.5 m	TV 23	TV 23	TV 23
19	82.0 m	HTA 23	HTA 23	HTA 23
20	86.5 m		HT 23	HT 23
21	91.0 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	1.4	1.8
Tower height [m]		83.4	87.9	92.8
Hook height above ground [m]		84.9	89.4	94.3
Wind category		C25		

## 3 Tower combinations

Jib length	20 m – 55 m			
Item				
1	4.5 m	TFS 15		
2	9.0 m	TFS 15		
3	13.5 m	TFS 15.4		
4	18.0 m	TFS 15.4		
5	22.5 m	TFS 15.4		
6	27.0 m	TFS 15.4		
7	31.5 m	UVA 15.4		
8	36.0 m	UV 15.4		
9	40.5 m	UVÜ 15.4		
10	45.0 m	UV 20.4		
11	49.5 m	TVA 20.4		
12	54.0 m	TV 20.4		
13	58.5 m	TV 20.4		
14	63.0 m	TV 20.4		
15	64.0 m	VR 2023		
16	68.5 m	TV 23		
17	73.0 m	TV 23		
18	77.5 m	HTA 23		
19	82.0 m	HT 23		
20	86.5 m	HT 23		
21	87.7 m	VR 23/25-29		
22	92.2 m	UV 29		
23	102.2 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]		104.0		
Hook height above ground [m]		105.5		
Wind category			C25	

## 3.4 Tower combinations on cross frame (slewing section with TFS 20 / UV 20 - connection)

Jib length	20 m – 55 m				
Item					
1	4.5 m	TFS 20	TFS 20	TFS 20	TFS 20
2	9.0 m	TFS 20	TFS 20	TFS 20	TFS 20
3	13.5 m	TFS 20	TFS 20	TFS 20	TFS 20
4	18.0 m	TFS 20	TFS 20	TFS 20	TFS 20
5	22.5 m	TFS 20	TFS 20	TFS 20	TFS 20
6	27.0 m	TFS 20	TFS 20	TFS 20	TFS 20
7	31.5 m	TFS 20	TFS 20	TFS 20.4	TFS 20.4
8	36.0 m	TFS 20.4	TFS 20.4	TFS 20.4	TFS 20.4
9	40.5 m	TFS 20.4	TFS 20.4	TFS 20.4	TFS 20.4
10	45.0 m			UVA 20.4	UVA 20.4
11	49.5 m			UV 20.4	UV 20.4
12	54.0 m			UV 20.4	UV 20.4
13	58.5 m			TVA 20.4	TVA 20.4
14	63.0 m			TV 20.4	TV 20.4
15	67.5 m				TV 20.4
16	72.0 m				TV 20.4
Substructure		KR 800-5 KR 800-6	KRV 7-32/46 KR 8-46	KR 10-46 KR 10-46/60	KRV 10-60
Corner distance [m x m]		5.0 x 5.0 6.0 x 6.0	4.6 x 4.6	4.6 x 4.6 6.0 x 6.0	5.0 x 5.0 6.0 x 6.0
Substructure height [m]		0.9	0.9	1.2	1.2
Tower height [m]		41.4	41.4	64.2	73.2
Hook height above ground [m]		42.9	42.9	65.7	74.7
Wind category		C25			



Jib length	20 m – 55 m			
Item				
1	4.5 m	TFS 20	TFS 20	
2	9.0 m	TFS 20	TFS 20	
3	13.5 m	TFS 20	TFS 20	
4	18.0 m	TFS 20	TFS 20	
5	22.5 m	TFS 20	TFS 20	
6	27.0 m	TFS 20	TFS 20	
7	31.5 m	TFS 20.4	TFS 20.4	
8	36.0 m	TFS 20.4	TFS 20.4	
9	40.5 m	TFS 20.4	TFS 20.4	
10	45.0 m	UVA 20.4	UVA 20.4	
11	49.5 m	UV 20.4	UV 20.4	
12	54.0 m	UV 20.4	UV 20.4	
13	58.5 m	TVA 20.4	TVA 20.4	
14	63.0 m	TV 20.4	TV 20.4	
15	67.5 m	TV 20.4	TV 20.4	
16	72.0 m	TVÜ 20.4	TV 20.4	
Substructure		KR 1000-8	KR 12-60 KR 12-60/80	
Corner distance [m x m]		8.0 x 8.0	6.0 x 6.0 8.0 x 8.0	
Substructure height [m]		1.2	1.4	
Tower height [m]		73.2	73.4	
Hook height above ground [m]		74.7	74.9	
Wind category	C25			

## 3 Tower combinations

Jib length	20 m – 55 m				
Item					
1	4.5 m	TFS 20	TFS 20	TFS 20	
2	9.0 m	TFS 20	TFS 20	TFS 20	
3	13.5 m	TFS 20	TFS 20	TFS 20	
4	18.0 m	TFS 20	TFS 20	TFS 20	
5	22.5 m	TFS 20	TFS 20	TFS 20	
6	27.0 m	TFS 20.4	TFS 20.4	TFS 20.4	
7	31.5 m	TFS 20.4	TFS 20.4	TFS 20.4	
8	36.0 m	TFS 20.4	TFS 20.4	TFS 20.4	
9	40.5 m	UVA 20.4	UVA 20.4	UVA 20.4	
10	45.0 m	UV 20.4	UV 20.4	UV 20.4	
11	49.5 m	UV 20.4	TVA 20.4	TVA 20.4	
12	54.0 m	TVA 20.4	TV 20.4	TV 20.4	
13	58.5 m	TV 20.4	TV 20.4	TV 20.4	
14	63.0 m	TV 20.4	TV 20.4	TV 20.4	
15	67.5 m	TV 20.4	TV 20.4	TV 20.4	
16	68.5 m	VR 2023	VR 2023	VR 2023	
17	73.0 m	TV 23	TV 23	TV 23	
18	77.5 m	HTA 23	HTA 23	HTA 23	
19	82.0 m	HT 23	HT 23	HT 23	
20	86.5 m		HT 23	HT 23	
21	91.0 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	1.4	1.8	
Tower height [m]		83.4	87.9	92.8	
Hook height above ground [m]		84.9	89.4	94.3	
Wind category		C25			







## 3.5 Tower combinations on cross frame element (slewing section with TFS 15 / UV 15 - connection)

Jib length	20 m – 55 m				
Item					
1	4.5 m	TFS 15	TFS 15	TFS 15	TFS 15
2	9.0 m	TFS 15	TFS 15	TFS 15	TFS 15
3	13.5 m	TFS 15	TFS 15	TFS 15	TFS 15.4
4	18.0 m	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
5	22.5 m	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
6	27.0 m	UVA 15.4	TFS 15.4	TFS 15.4	TFS 15.4
7	31.5 m		UVA 15.4	TFS 15.4	TFS 15.4
8	36.0 m			UVA 15.4	UVA 15.4
9	40.5 m			UVÜ 15.4	UV 15.4
10	45.0 m				UVÜ 15.4
11	49.5 m				TVA 20.4
Substructure		KRE 250	KRE 250	KRE 260.1	KRE 260.2
Corner distance [m x m]		4.5 x 5.44	5.0 x 5.0	5.0 x 6.79 6.0 x 6.0	5.0 x 6.79
Substructure height [m]		4.0	4.0	4.0	4.0
Tower height [m]		31.0	35.5	44.5	53.5
Hook height above ground [m]		32.5	37.0	46.0	55.0
Wind category		C25			

## 3 Tower combinations

Jib length	20 m – 55 m			
Item				
1	4.5 m	TFS 15	TFS 15	
2	9.0 m	TFS 15	TFS 15	
3	13.5 m	TFS 15.4	TFS 15.4	
4	18.0 m	TFS 15.4	TFS 15.4	
5	22.5 m	TFS 15.4	TFS 15.4	
6	27.0 m	TFS 15.4	TFS 15.4	
7	31.5 m	TFS 15.4	TFS 15.4	
8	36.0 m	UVA 15.4	UVA 15.4	
9	40.5 m	UV 15.4	UV 15.4	
10	45.0 m	UV 15.4	UVÜ 15.4	
11	49.5 m	UVÜ 15.4	UV 20.4	
12	54.0 m	TVA 20.4	UV 20.4	
13	58.5 m		TVA 20.4	
14	63.0 m		TV 20.4	
15	67.5 m		TVÜ 20.4	
16	72.0 m		UVA 25	
Substructure		KRE 260.2	KRE 480	
Corner distance [m x m]		6.0 x 6.0	8.0 x 8.0	
Substructure height [m]		4.0	4.0	
Tower height [m]		58.0	76.0	
Hook height above ground [m]		59.5	77.5	
Wind category		C25		

## 3.6 Tower combinations on cross frame element (slewing section with TFS 20 / UV 20 - connection)

Jib length	20 m – 55 m				
Item					
1	4.5 m	TFS 20	TFS 20	TFS 20	TFS 20
2	9.0 m	TFS 20	TFS 20	TFS 20	TFS 20
3	13.5 m	TFS 20	TFS 20	TFS 20	TFS 20
4	18.0 m	TFS 20	TFS 20	TFS 20	TFS 20
5	22.5 m	TFS 20	TFS 20	TFS 20	TFS 20
6	27.0 m	TFS 20	TFS 20	TFS 20	TFS 20
7	31.5 m	TFS 20	TFS 20	TFS 20.4	TFS 20.4
8	36.0 m	TFS 20.4	TFS 20.4	TFS 20.4	TFS 20.4
9	40.5 m	UVA 20.4	TFS 20.4	TFS 20.4	TFS 20.4
10	45.0 m		UVA 20.4	UVA 20.4	UVA 20.4
11	49.5 m		TVA 20.4	UV 20.4	UV 20.4
12	54.0 m			TVA 20.4	UV 20.4
13	58.5 m				TVA 20.4
14	63.0 m				TV 20.4
15	67.5 m				TVÜ 20.4
16	72.0 m				UVA 25
Substructure		KRE 260.1	KRE 260.2	KRE 260.2	KRE 480
Corner distance [m x m]		5.0 x 6.79 6.0 x 6.0	5.0 x 6.79	6.0 x 6.0	8.0 x 8.0
Substructure height [m]		4.0	4.0	4.0	4.0
Tower height [m]		44.5	53.5	58.0	76.0
Hook height above ground [m]		46.0	55.0	59.5	77.5
Wind category		C25			

## 3 Tower combinations

### 3.7 Tower combinations on mobile cross frame (slewing section with TFS 15 / UV 15 - connection)

Jib length	20 m – 55 m				
Item					
1	4.5 m	TFS 15	TFS 15	TFS 15	
2	9.0 m	TFS 15	TFS 15	TFS 15	
3	13.5 m	TFS 15.4	TFS 15.4	TFS 15.4	
4	18.0 m	TFS 15.4	TFS 15.4	TFS 15.4	
5	22.5 m	TFS 15.4	TFS 15.4	TFS 15.4	
6	27.0 m	TFS 15.4	TFS 15.4	TFS 15.4	
7	31.5 m	UVA 15.4	UVA 15.4	UVA 15.4	
8	36.0 m	UV 15.4	UV 15.4	UV 15.4	
9	40.5 m	UV 15.4	UV 15.4	UV 15.4	
10	45.0 m	UVÜ 15.4	UVÜ 15.4	UVÜ 15.4	
11	49.5 m	UV 20.4	UV 20.4	UV 20.4	
12	54.0 m	UV 20.4	UV 20.4	UV 20.4	
13	58.5 m	TVA 20.4	TVA 20.4	TVA 20.4	
14	63.0 m		TV 20.4	TV 20.4	
15	67.5 m		TV 20.4	TV 20.4	
16	72.0 m		TV 20.4	TV 20.4	
Substructure		KRF 10-46/60	KRF4 12-60/80	KRF6 12-60/80	
Corner distance [m x m]		6.0 x 6.0	8.0 x 8.0	8.0 x 8.0	
Substructure height [m]		2.0	2.5	2.9	
Tower height [m]		60.5	74.5	74.9	
Hook height above ground [m]		62.0	76.0	76.4	
Wind category		C25			

Jib length	20 m – 55 m			
Item				
1	4.5 m	TFS 15	TFS 15	
2	9.0 m	TFS 15	TFS 15	
3	13.5 m	TFS 15.4	TFS 15.4	
4	18.0 m	TFS 15.4	TFS 15.4	
5	22.5 m	TFS 15.4	TFS 15.4	
6	27.0 m	UVA 15.4	UVA 15.4	
7	31.5 m	UV 15.4	UV 15.4	
8	36.0 m	UV 15.4	UV 15.4	
9	40.5 m	UVÜ 15.4	UVÜ 15.4	
10	45.0 m	UV 20.4	UV 20.4	
11	49.5 m	UV 20.4	UV 20.4	
12	54.0 m	TVA 20.4	TVA 20.4	
13	58.5 m	TV 20.4	TV 20.4	
14	63.0 m	TV 20.4	TV 20.4	
15	67.5 m	TV 20.4	TV 20.4	
16	68.5 m	VR 2023	VR 2023	
17	73.0 m	TV 23	TV 23	
18	77.5 m	TV 23	TV 23	
19	82.0 m	HTA 23	HTA 23	
20	86.5 m		HT 23	
21	91.0 m		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]		84.9	94.3	
Hook height above ground [m]		86.4	95.8	
Wind category		C25		





## 3.8 Tower combinations on mobile cross frame (slewing section with TFS 20 / UV 20 - connection)

Jib length	20 m – 55 m			
Item				
1	4.5 m	TFS 20	TFS 20	TFS 20
2	9.0 m	TFS 20	TFS 20	TFS 20
3	13.5 m	TFS 20	TFS 20	TFS 20
4	18.0 m	TFS 20	TFS 20	TFS 20
5	22.5 m	TFS 20	TFS 20.4	TFS 20.4
6	27.0 m	TFS 20.4	TFS 20.4	TFS 20.4
7	31.5 m	TFS 20.4	TFS 20.4	TFS 20.4
8	36.0 m	TFS 20.4	TFS 20.4	TFS 20.4
9	40.5 m	TFS 20.4	TFS 20.4	TFS 20.4
10	45.0 m	UVA 20.4	UVA 20.4	UVA 20.4
11	49.5 m	UV 20.4	UV 20.4	UV 20.4
12	54.0 m	UV 20.4	UV 20.4	UV 20.4
13	58.5 m	TVA 20.4	TVA 20.4	TVA 20.4
14	63.0 m		TV 20.4	TV 20.4
15	67.5 m		TV 20.4	TV 20.4
16	72.0 m		TV 20.4	TV 20.4
Substructure		KRF 10-46/60	KRF4 12-60/80	KRF6 12-60/80
Corner distance [m x m]		6.0 x 6.0	8.0 x 8.0	8.0 x 8.0
Substructure height [m]		2.0	2.5	2.9
Tower height [m]		60.5	74.5	74.9
Hook height above ground [m]		62.0	76.0	76.4
Wind category		C25		

## 3 Tower combinations

Jib length	20 m – 55 m			
Item				
1	4.5 m	TFS 20	TFS 20	
2	9.0 m	TFS 20	TFS 20	
3	13.5 m	TFS 20	TFS 20	
4	18.0 m	TFS 20	TFS 20	
5	22.5 m	TFS 20.4	TFS 20.4	
6	27.0 m	TFS 20.4	TFS 20.4	
7	31.5 m	TFS 20.4	TFS 20.4	
8	36.0 m	TFS 20.4	TFS 20.4	
9	40.5 m	UVA 20.4	UVA 20.4	
10	45.0 m	UV 20.4	UV 20.4	
11	49.5 m	TVA 20.4	TVA 20.4	
12	54.0 m	TV 20.4	TV 20.4	
13	58.5 m	TV 20.4	TV 20.4	
14	63.0 m	TV 20.4	TV 20.4	
15	67.5 m	TV 20.4	TV 20.4	
16	68.5 m	VR 2023	VR 2023	
17	73.0 m	TV 23	TV 23	
18	77.5 m	HTA 23	HTA 23	
19	82.0 m	HT 23	HT 23	
20	86.5 m		HT 23	
21	91.0 m		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]		84.9	94.3	
Hook height above ground [m]		86.4	95.8	
Wind category		C25		



## 3 Tower combinations

### 3.9 Tower combinations on undercarriage (slewing section with TFS 15 / UV 15 - connection)

Jib length	20 m – 55 m				
Item					
1	4.5 m	TFS 15	TFS 15	TFS 15	TFS 15
2	9.0 m	TFS 15	TFS 15	TFS 15	TFS 15
3	13.5 m	TFS 15	TFS 15.4	TFS 15.4	TFS 15.4
4	18.0 m	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
5	22.5 m	UVA 15.4	TFS 15.4	TFS 15.4	TFS 15.4
6	27.0 m		UVA 15.4	TFS 15.4	TFS 15.4
7	31.5 m			UVA 15.4	TFS 15.4
8	36.0 m			UVÜ 15.4	UVA 15.4
9	40.5 m				UVÜ 15.4
Substructure		UW 250	UW 250	UW 260.1	UW 260.1
Corner distance [m x m]		4.5 x 5.44	5.0 x 5.0	5.0 x 6.79	6.0 x 6.0
Substructure height [m]		4.5	4.5	4.5	4.5
Tower height [m]		27.0	31.5	40.5	45.0
Hook height above ground [m]		28.5	33.0	42.0	46.5
Wind category		C25			

Jib length	20 m – 55 m				
Item					
1	4.5 m	TFS 15	TFS 15	TFS 15	TFS 15
2	9.0 m	TFS 15	TFS 15	TFS 15	TFS 15
3	13.5 m	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
4	18.0 m	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
5	22.5 m	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
6	27.0 m	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
7	31.5 m	UVA 15.4	TFS 15.4	UVA 15.4	UVA 15.4
8	36.0 m	UVÜ 15.4	UVA 15.4	UV 15.4	UV 15.4
9	40.5 m	TVA 20.4	UVÜ 15.4	UV 15.4	UV 15.4
10	45.0 m		TVA 20.4	UVÜ 15.4	UV 15.4
11	49.5 m			TVA 20.4	UVÜ 15.4
12	54.0 m				TVA 20.4
Substructure		UW 260.2	UW 260.2	UW 260.3	UW 260.3
Corner distance [m x m]		5.0 x 6.79	6.0 x 6.0	5.0 x 6.79	6.0 x 6.0
Substructure height [m]		4.5	4.5	4.5	4.5
Tower height [m]		45.0	49.5	54.0	58.5
Hook height above ground [m]		46.5	51.0	55.5	60.0
Wind category		C25			

## 3 Tower combinations

Jib length	20 m – 55 m			
Item				
1	4.5 m	TFS 15		
2	9.0 m	TFS 15		
3	13.5 m	TFS 15.4		
4	18.0 m	TFS 15.4		
5	22.5 m	TFS 15.4		
6	27.0 m	TFS 15.4		
7	31.5 m	UVA 15.4		
8	36.0 m	UV 15.4		
9	40.5 m	UV 15.4		
10	45.0 m	UVÜ 15.4		
11	49.5 m	UV 20.4		
12	54.0 m	UV 20.4		
13	58.5 m	TVA 20.4		
14	63.0 m	TV 20.4		
15	67.5 m	TVÜ 20.4		
16	72.0 m	UVA 25		
Substructure		UW 480		
Corner distance [m x m]		8.0 x 8.0		
Substructure height [m]		5.0		
Tower height [m]		77.0		
Hook height above ground [m]		78.5		
Wind category		C25		

## 3.10 Tower combinations on undercarriage (slewing section with TFS 20 / UV 20 - connection)



Jib length	20 m – 55 m				
Item					
1	4.5 m	TFS 20	TFS 20	TFS 20	TFS 20
2	9.0 m	TFS 20	TFS 20	TFS 20	TFS 20
3	13.5 m	TFS 20	TFS 20	TFS 20	TFS 20
4	18.0 m	TFS 20	TFS 20	TFS 20	TFS 20
5	22.5 m	TFS 20	TFS 20	TFS 20	TFS 20
6	27.0 m	TFS 20	TFS 20	TFS 20	TFS 20
7	31.5 m	TFS 20.4	TFS 20.4	TFS 20.4	TFS 20.4
8	36.0 m	UVA 20.4	TFS 20.4	UVA 20.4	TFS 20.4
9	40.5 m		UVA 20.4	TVA 20.4	UVA 20.4
10	45.0 m				TVA 20.4
Substructure		UW 260.1	UW 260.1	UW 260.2	UW 260.2
Corner distance [m x m]		5.0 x 6.79	6.0 x 6.0	5.0 x 6.79	6.0 x 6.0
Substructure height [m]		4.5	4.5	4.5	4.5
Tower height [m]		40.5	45.0	45.0	49.5
Hook height above ground [m]		42.0	46.5	46.5	51.0
Wind category		C25			

## 3 Tower combinations

Jib length	20 m – 55 m				
Item					
1	4.5 m	TFS 20	TFS 20	TFS 20	
2	9.0 m	TFS 20	TFS 20	TFS 20	
3	13.5 m	TFS 20	TFS 20	TFS 20	
4	18.0 m	TFS 20	TFS 20	TFS 20	
5	22.5 m	TFS 20	TFS 20	TFS 20	
6	27.0 m	TFS 20.4	TFS 20.4	TFS 20.4	
7	31.5 m	TFS 20.4	TFS 20.4	TFS 20.4	
8	36.0 m	TFS 20.4	TFS 20.4	TFS 20.4	
9	40.5 m	TFS 20.4	TFS 20.4	TFS 20.4	
10	45.0 m	UVA 20.4	UVA 20.4	UVA 20.4	
11	49.5 m	TVA 20.4	UV 20.4	UV 20.4	
12	54.0 m		TVA 20.4	UV 20.4	
13	58.5 m			TVA 20.4	
14	63.0 m			TV 20.4	
15	67.5 m			TVÜ 20.4	
16	72.0 m			UVA 25	
Substructure		UW 260.3	UW 260.3	UW 480	
Corner distance [m x m]		5.0 x 6.79	6.0 x 6.0	8.0 x 8.0	
Substructure height [m]		4.5	4.5	5.0	
Tower height [m]		54.0	58.5	77.0	
Hook height above ground [m]		55.5	60.0	78.5	
Wind category		C25			



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

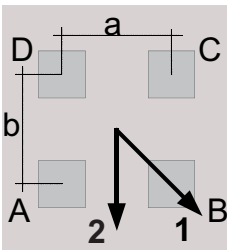
	<div style="background-color: red; color: white; text-align: center; padding: 5px;"><b>! DANGER</b></div> <p>Usage of incorrect tower combinations. The slewing tower crane may overturn.</p> <ol style="list-style-type: none"> <li>1) Use the specified tower combinations.</li> <li>2) If you need another tower combination that is not specified here, please contact WOLFFKRAN to get an approved alternative setup in writing.</li> </ol>
	<div style="background-color: #00a0e3; color: white; text-align: center; padding: 5px;"><b>NOTICE</b></div> <p>If you need foundation loads for tower combination with tower element TV 25 and UV 25, please contact WOLFFKRAN to get an approved alternative setup.</p>

### Jib positions

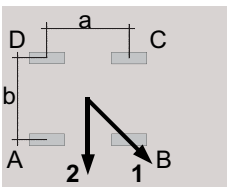
The corner loads are given for two jib positions with the maximum corner load resulting from jib position 1.

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.

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

Please contact WOLFFKRAN for stability calculations in other wind regions.

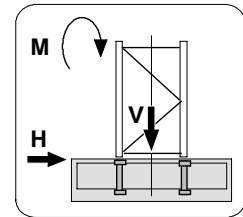
For information on the different substructures, refer to Section 5 of the Operating Manual.

## 4.1 Foundation loads jib 20 m - 55 m

Slewing section 5020 *clear* with 20 m – 55 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.




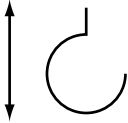
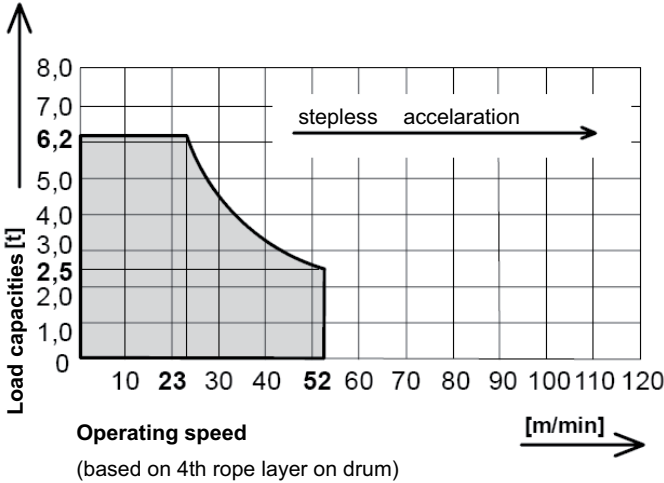
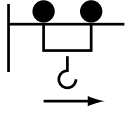
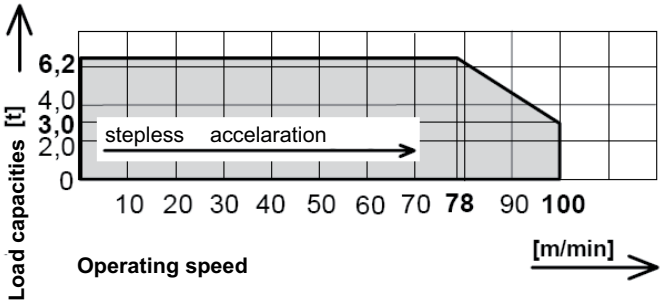

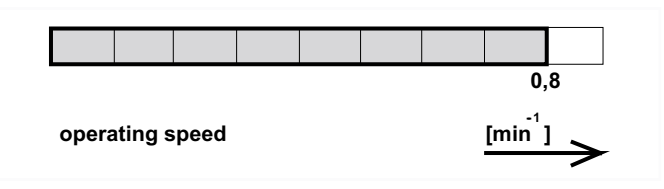
HH		Crane in service			Crane out of service			Assembly		
4	2	Slewing torque: 200 kNm			Wind category C25					
STR	STR	M	V	H	M	V	H	M	V	H
[m]	[m]	[kNm]	[kN]	[kN]	[kNm]	[kN]	[kN]	[kNm]	[kN]	[kN]
-	6.0	1000	362	15	880	292	25	1060	260	5
-	10.5	1080	376	16	1000	306	29	1085	273	5
-	15.0	1160	389	18	1150	320	34	1120	286	6
-	19.5	1260	402	19	1310	334	38	1160	299	7
-	24.0	1370	415	20	1510	348	43	1210	312	8
-	28.5	1490	428	21	1720	362	47	1260	325	8
-	33.0	1660	466	23	1970	376	52	1320	339	9
-	37.5	1830	479	24	2240	390	56	1400	352	10
-	42.0	1980	501	26	2540	404	61	1460	373	11
-	46.5	2170	518	27	3050	552	90	1540	390	11
-	51.0	2360	537	29	3640	572	98	1630	410	12
-	55.5	2540	556	30	4290	590	105	1710	428	13
-	60.0	2840	676	32	5030	608	113	1800	446	14
-	64.5	2980	716	35	5730	651	124	1860	486	16
-	69.0	3220	744	37	6570	679	134	1960	514	17
-	73.5	3480	772	39	7500	707	144	2060	542	18
-	74.5	3480	812	40	7680	742	149	2070	582	18
-	79.0	3750	842	43	8690	773	160	2190	612	20
-	83.5	3960	890	45	9740	843	175	2280	660	21
-	88.0	4250	929	47	10920	882	186	2410	699	22
-	92.5	4570	969	49	12210	922	198	2540	739	23
-	94.8	4680	1023	51	12790	959	206	2600	793	25
-	99.3	5030	1062	54	14240	998	218	2750	832	26
Tower combination with base tower element BT 29										
-	103.7	5270	1124	57	15500	1067	233	2870	894	28
-	108.2	5630	1170	59	17100	1113	246	3040	940	29


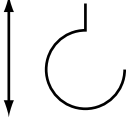
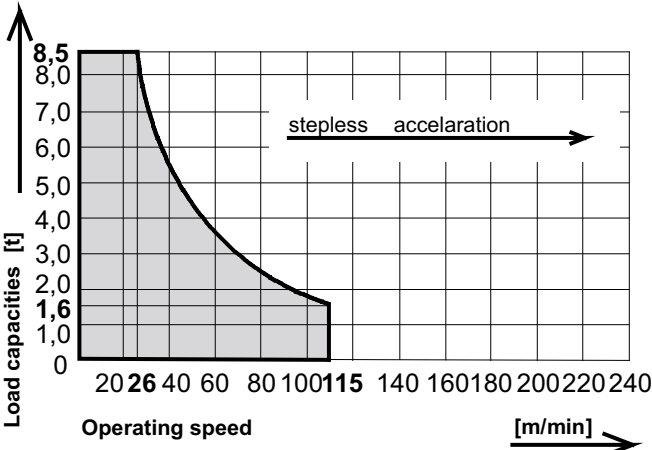
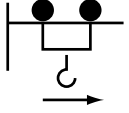
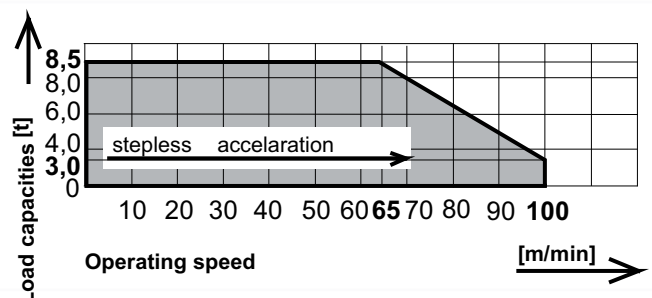

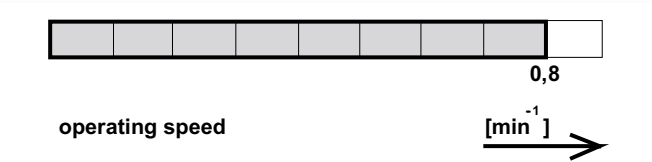
#### Caption:

HH:	Hook height	V:	Vertical load	STR:	Number of falls
H:	Horizontal load	M:	Torque		

## 5 Operating speeds

### 5 Operating speeds

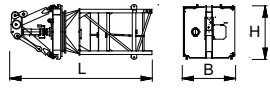
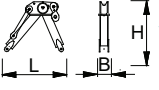
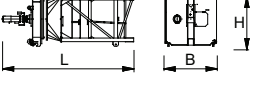
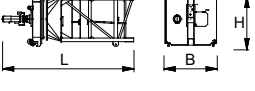
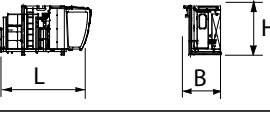
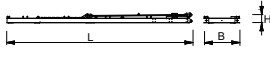
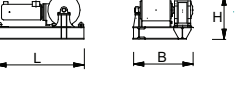
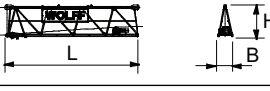

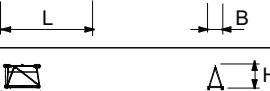
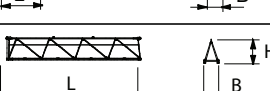
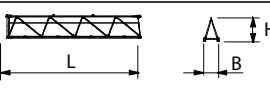
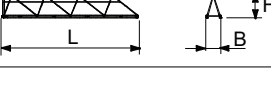
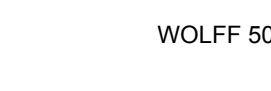
Drive unit [type]	Operating speed Carrying load		Hook travel distance max. [m]	Power [kW]	Total connected load [kVA]
Hw628FU	Lifting		190	28	44.0 Total connected load at coincidence factor of 0.7
	 <p>Load capacities [t]</p> <p>Operating speed [m/min] (based on 4th rope layer on drum)</p>				
KW	Trolley movement			4.0	
	 <p>Load capacities [t]</p> <p>Operating speed [m/min]</p>				
SG	Slewing			7.5	
	 <p>operating speed [min<sup>-1</sup>]</p>				






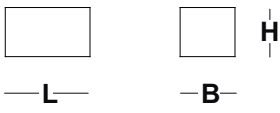
Drive unit [type]	Operating speed Carrying load		Hook travel distance max. [m]	Power [kW]	Total connected load [kVA]
Hw845FU	Lifting		190	45	59.0 Total connected load at coincidence factor of 0.7
					
KW	Trolley movement			4.0	
					
SG	Slewing			7.5	
					

## 6 Package list

## 6 Package list

### 6.1 Package list 5020


Quantity	Description	Package	L [m]	W [m]	H [m]	Weight [kg]	Volume [m³]		
1	Tower head section, complete with slewing frame, ball race bearing, slewing gear and slip ring system		with TFS 15/UV 15 Sput					5750	25.61
			6.16	2.10	1.98				
	Tower head section upper part with stay parts		with TFS 20/UV 20 Sput					890	1.25
			1.87	0.36	1.85				
	Tower head section lower part with slewing frame, ball race bearing, slewing gear and slip ring system		with TFS 15/UV 15 Sput					4860	22.95
			5.52	2.10	1.98				
	Tower head section lower part with slewing frame, ball race bearing, slewing gear and slip ring system		with TFS 20/UV 20 Sput					4930	28.05
			5.52	2.10	2.42				
1	Driver's cab with driver's cab suspension		4.73	2.12	2.55	2450	25.57		
1	Counterjib with stay parts and standard railings		12.00	2.30	0.64	4410	17.66		
1	Hoist winch platform Hw628FU (incl. 170 m hoisting rope)		2.17	1.50	1.12	2165	3.65		
1	Jib element 1 with traverse gear		10.29	1.19	2.30	2330	28.41		
1	Jib element 3		10.27	1.19	2.08	1310	25.42		
1	Jib element 4		5.25	1.19	1.65	645	10.31		
1	Jib element 5		2.75	1.19	1.65	395	5.40		
1	Jib element 6		10.23	1.19	1.65	1010	20.08		
1	Jib element 7		10.21	1.19	1.64	810	20.05		
1	Jib element 8		10.17	1.19	1.64	705	19.87		

Quantity	Description	Package	L [m]	W [m]	H [m]	Weight [kg]	Volume [m <sup>3</sup> ]
1	Rope swivel cross-beam		0.89	1.10	0.45	105	0.44
1	Trolley LK 8		1.87	1.42	0.95	295	2.52
1	Maintenance cage		0.75	0.58	1.69	55	0.74
1	Hook block U6 (8)		0.50	0.22	1.11	350	0.12
1	Standard railings		2.60	1.10	0.65	300	1.86
1	Box (small parts)		0.63	0.50	0.38	100	1.12

7 Assembly weights

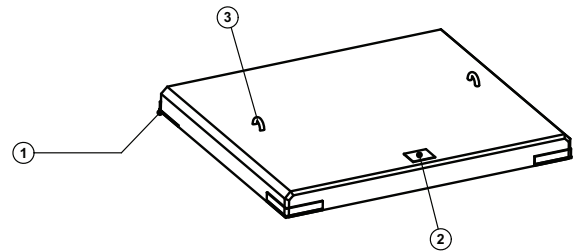
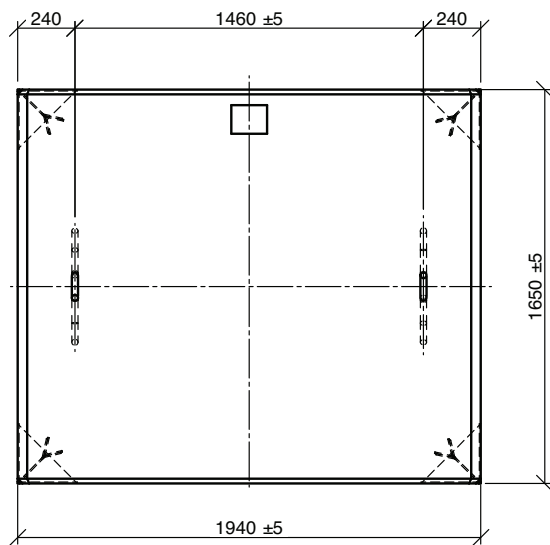
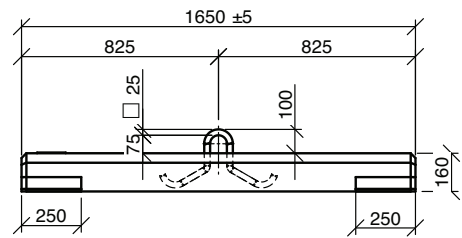
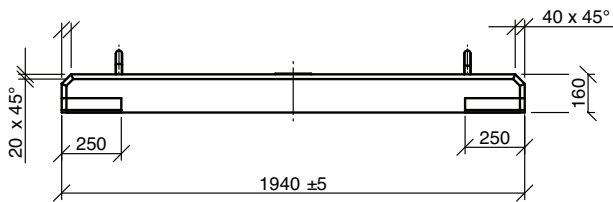
7 Assembly weights

7.1 Counterweight blocks

	<b>NOTICE</b>
	<p>The described diagrams of the concrete counterweights and central ballast blocks only show sketches. Have them issue the reinforcement charts by experts.</p>



### 7.1.1 Counterweight block, 1.2 t

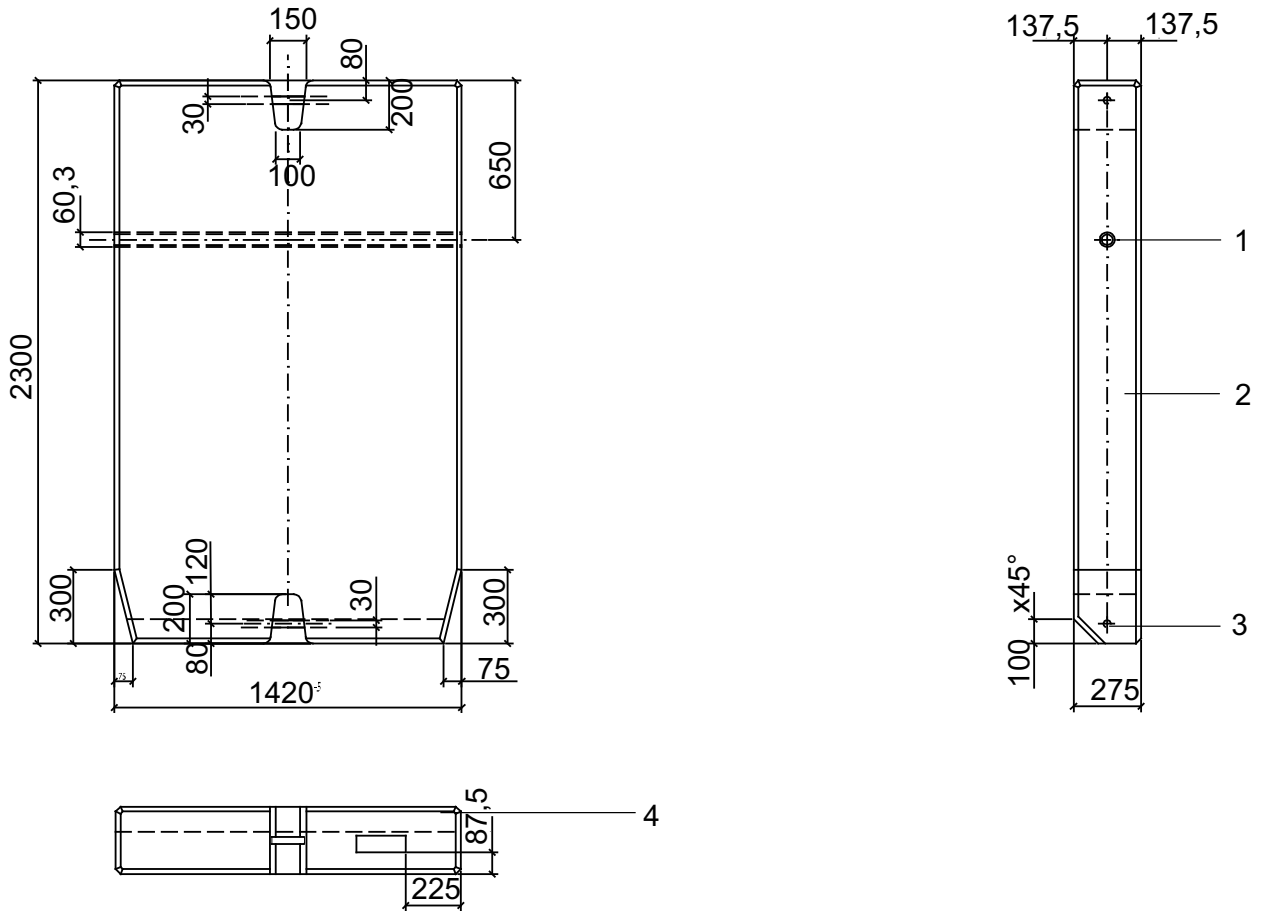


Data counterweight block 1.2 t

Item	Data
Material	Concrete, min. C 20/25
Max. permitted weight tolerance	+/- 3 %
Order number	30047345
1	Corner guard
2	Component identifier
3	Suspension

## 7 Assembly weights

### 7.1.2 Counterweight block, 2.05 t



Data counterweight block 2.05t

Item	Data
Material	Concrete, min. C 20/25
Max. permitted weight tolerance	+/- 3 %
Order number	30045226
1	Connection for stub shaft
2	Structural steel reinforcement
3	Suspension
4	Component identifier

## 7.2 Total weight jib assembly

Trolley jib, complete: Trolley, trolley ropes, hook block, standard railings and rope swivel crossbeam

<b>Jib length [m]</b>	<b>Weight [kg]</b> <b>WOLFF 5020 clear</b>
55.0	7600
52.5	7300
50.0	6900
47.5	6900
45.0	6900
42.5	6600
40.0	6200
37.5	6300
35.0	6100
32.5	5900
30.0	5500
27.5	5500
25.0	5100
22.5	4800
20.0	4500

## 7 Assembly weights

### 7.3 Assembly weight slewing section

Module	Crane parts	Weight [kg]	
Tower head section complete – Tower connection UV 20 / TV 20	Lower part of tower head section		5820
	▪ Tower head section upper part including brace plates	890	
	▪ Tower head section lower part including slewing frame, ball race bearing, slewing gears, standard railings and slip ring system	4930	
Tower head section complete – Tower connection UV 15/ TFS 15	Lower part of tower head section		5750
	▪ Tower head section upper part including brace plates	890	
	▪ Tower head section lower part including slewing frame, ball race bearing, slewing gears, standard railings and slip ring system	4860	
Operator cabinet platform, complete			2450
	▪ Driver's cab including control cabinet, resistor and driver's cab suspension		
Counterjib with Hw628FU, complete			7785
	▪ Counterjib with brace plates and standard railings	4410	
	▪ Hoist winch platform Hw628FU (incl. 170-m hoisting cable)	2175	
	▪ Concrete counterweight block 1.2 t (below hoist winch platform)	1200	
Counter jib with Hw845FU, complete			7750
	▪ Counterjib with brace plates and standard railings	4410	
	▪ Hoist winch platform Hw845FU (incl. 170m hoising cable)	2140	
	▪ Concrete counterweight block 1.2 t (below hoist winch platform)	1200	

## 7.4 Assembly weight cross frame

Module	Crane parts	Weight [kg]
Cross frame KR 6-40 (without accessories)		
(4.0 m x 4.0 m)	▪ 4 bolted spigots AZ 93.4	200
	▪ 4 bolted spigots AZ 93.4 E 15	240
Cross frame KR 7-32 (without accessories)		
(3.2 m x 3.2 m)	▪ 4 bolted spigots AZ 85 E 20.5	210
	▪ 4 bolted spigots AZ 93.4 E 15	240
	▪ 4 bolted spigots AZ 120 M	292
Cross frame KR 7 - 32 (without accessories)		
(3.2 m x 3.2 m)	▪ 4 bolted spigots AZ 85 E 20.5	210
	▪ 4 bolted spigots AZ 93.4 E 15	240
	▪ 4 bolted spigots AZ 120 M	292
Cross frame KR 7 - 32/46 (without accessories)		
(4.6 m x 4.6 m)	▪ 4 bolted spigots AZ 85 E 20.5	210
	▪ 4 bolted spigots AZ 93.4 E 15	240
	▪ 4 bolted spigots AZ 120 M	292
Cross frame KR 8- 46 (without accessories)		
(4.6 m x 4.6 m)	▪ 4 bolted spigots AZ 85 E 20.5	210
	▪ 4 bolted spigots AZ 93.4 E 15	240
	▪ 4 bolted spigots AZ 120 M	292
Cross frame KR 10- 46 (without accessories)		
(4.6 m x 4.6 m)	▪ 4 bolted spigots AZR 120 E 15.5	552
	▪ 4 bolted spigots AZ 140 M	698
Cross frame KR 16 - 46/ 60 (without accessories)		
(6.0 m x 6.0 m)	▪ 4 bolted spigots AZR 120 E 15.5	552
	▪ 4 bolted spigots AZ 140 M	698
Cross frame KRV 10-60 (without accessories)		
(6.0 m x 6.0 m)	▪ 4 bolted spigots AZ 120 E 15,5 KRV 10-60	730
	▪ 4 bolted spigots AZ 140 M KRV 10-60	790
	▪ 4 bolted spigots AZ 140 E 10 KRV 10-60	790
	▪ 4 bolted spigots AZ 140 M KRV 10-60	715
Cross frame KR 12-60 (without accessories)		
(6.0 m x 6.0 m)	▪ 4 bolted spigots AZ 120 E 15,5 KR 12-60	730
	▪ 4 bolted spigots AZ 140 M KR 12-60	790
	▪ 4 bolted spigots AZ 140 E10 KR 12-60	790

## 7 Assembly weights

Module	Crane parts	Weight [kg]
	▪ 4 bolted spigots AZ 156 M KR 12-60	845
	▪ 4 bolted spigots AZ 140 E17 KR 12-60	875
	▪ 4 bolted spigots AZ 160 M KR 12-60	905
Cross frame KR 12-60/ 80 (without accessories)		19260
(8.0 m x 8.0 m)	▪ 4 bolted spigots AZ 120 E 15,5 KR 12-60	730
	▪ 4 bolted spigots AZ 140 M KR 12-60	790
	▪ 4 bolted spigots AZ 140 E10 KR 12-60	790
	▪ 4 bolted spigots AZ 156 M KR 12-60	845
	▪ 4 bolted spigots AZ 140 E17 KR 12-60	875
	▪ 4 bolted spigots AZ 160 M KR 12-60	905
Cross frame KR HEB 700 - 4 (without accessories)		4 450
(4.0 m x 4.0 m)	▪ 4 bolted spigots AZ 93.4	240
Cross frame KR HEB 700 - 5 (without accessories)		5 410
(5.0 m x 5.0 m)	▪ 4 bolted spigots AZ 93.4	240
Cross frame KR HEB 800 - 5 (without accessories)		5 860
(5.0 m x 5.0 m)	▪ 4 bolted spigots AZ 120 M	292
Cross frame KR HEB 800 - 6 (without accessories)		6 600
(6.0 m x 6.0 m)	▪ 4 bolted spigots AZ 120 M	292
Supporting frame SR 150 (without accessories)		5 460
(4.0 m x 4.0 m)	▪ 4 bolted spigots AZ 85 E 20.5	210
	▪ 4 bolted spigots AZ 93.4 E 15	240
	▪ 4 bolted spigots AZ 120 M	292
Cross frame KR 1000- 8 (without accessories)		14 630
(8 m x 8 m)	▪ 4 bolted spigots AZ 140 E	684
	▪ 4 bolted spigots AZ 156 M	748
Cross frame KR 16- 80 (without accessories)		21 450
(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)		25 400
(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

## 7.5 Assembly weights traveling cross frame

Module	Crane parts	Weight [kg]	
Mobile cross frame KRF 10 – 46/60 complete			17500
(6.0 m x 6.0 m)	▪ Cross frame	7000	
	▪ Drive gear corners	2385	
	▪ Backing braces	1510	
	▪ Subframe	5645	
	▪ Platforms + ladders	510	
	▪ Control cabinet	130	
	▪ small items	320	
	▪ Set of bolted spigots AZR 120 E 15,5	552	
	▪ Set of bolted spigots AZ 140 M	698	
Traveling cross frame KRF4 12-60/80 complete			32300
(8.0 m x 8.0 m)	▪ Cross frame	14170	
	▪ Backing braces	2875	
	▪ Drive gear corners	4560	
	▪ Subframe	9380	
	▪ Platforms and ladders	255	
	▪ Control cabinet	130	
	▪ small items	930	
	▪ 4 bolted spigots AZ 120 E 15,5 KR 12-60	730	
	▪ 4 bolted spigots AZ 140 M KR 12-60	790	
	▪ 4 bolted spigots AZ 140 E10 KR 12-60	790	
	▪ 4 bolted spigots AZ 156 M KR 12-60	845	
	▪ 4 bolted spigots AZ 140 E17 KR 12-60	875	
	▪ 4 bolted spigots AZ 160 M KR 12-60	905	

## 7 Assembly weights

Module	Crane parts	Weight [kg]	
Traveling cross frame KRF6 12-60/80 complete (8.0 m x 8.0 m)			41200
	▪ Cross frame	14170	
	▪ Backing braces	2875	
	▪ Drive gear corners	4560	
	▪ Subframe	18270	
	▪ Platforms and ladders	255	
	▪ Control cabinet	130	
	▪ small items	940	
	▪ 4 bolted spigots AZ 120 E 15,5 KR 12-60	730	
	▪ 4 bolted spigots AZ 140 M KR 12-60	790	
	▪ 4 bolted spigots AZ 140 E10 KR 12-60	790	
	▪ 4 bolted spigots AZ 156 M KR 12-60	845	
	▪ 4 bolted spigots AZ 140 E17 KR 12-60	875	
	▪ 4 bolted spigots AZ 160 M KR 12-60	905	



## 7.6 Assembly weight cross frame elements

Module	Crane parts	Weight [kg]	
Cross frame element KRE 138, complete			3 800
	▪ Cross frame platform with lifting beam, corner plates and transport locks	2 100	
	▪ Mast base with diagonal struts	1 700	
Cross frame element KRE 250 complete			5 750
	▪ Cross frame platform with hinged section, corner plates and transport locks	2 730	
	▪ Mast base with diagonal struts and tie rods	3 020	
Cross frame element KRE 260.1, complete			8 100
	▪ Cross frame platform with hinged section, corner plates and transport locks	4 320	
	▪ Mast base with diagonal struts and tie rods	3 780	
Cross frame element KRE 260.2, complete			10 900
	▪ Cross frame platform with hinged section, corner plates and transport locks	5 455	
	▪ Mast base with diagonal struts and tie rods	5 445	
Cross frame element KRE 480 complete			24 250
	▪ Mast base	7 100	
	▪ Hinged sections with corner plates	6 250	
	▪ Diagonal struts and ballast carrier	9 260	
	▪ Assembly platform, ladder, and small parts	1 640	

## 7 Assembly weights

### 7.7 Assembly weight undercarriage

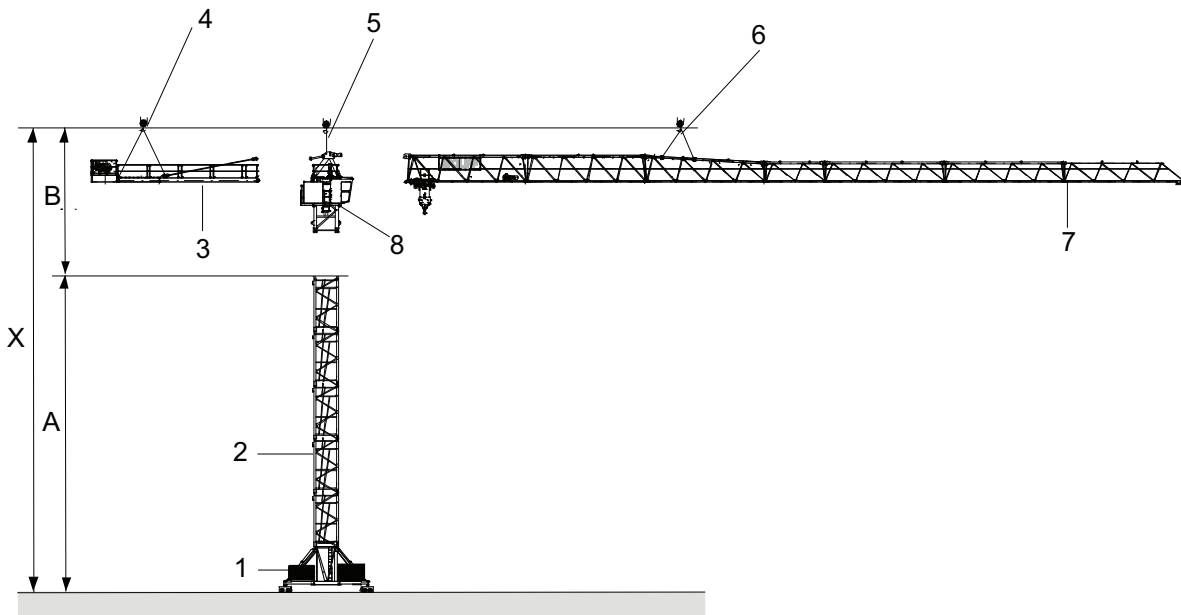
Module	Crane parts	Weight [kg]	
Bogie truck UW 138, complete			5 750
	▪ Undercarriage platform with mounting device, spacers and subframes	3 970	
	▪ Mast base with diagonal struts	1 780	
Undercarriage UW 250, complete			8 800
	▪ Undercarriage platform with hinged sections, subframes and transport locks	5 600	
	▪ Mast base with diagonal struts and tie rods	3 200	
Undercarriage UW 260.1, complete			11 400
	▪ Undercarriage platform with hinged sections, subframes and transport locks	7 150	
	▪ Mast base with diagonal struts and tie rods	4 250	
Undercarriage UW 260.2, complete			14 060
	▪ Undercarriage platform with hinged sections, subframes and transport locks	9 810	
	▪ Mast base with diagonal struts and tie rods	4 250	
Undercarriage UW 260.3, complete			17 200
	▪ Undercarriage platform with hinged sections, subframes and transport locks	11 300	
	▪ Mast base with diagonal struts and tie rods	5 900	
Undercarriage UW 480, complete			34 000
	▪ Mast base	7 100	
	▪ Hinged sections with mounting device and subframes	16 000	
	▪ Diagonal struts and ballast carrier	9 260	
	▪ Assembly platform, ladder, and small parts	1 640	

## 7.8 Required hook height for mobile cranes

For information about the height of the WOLFF slewing tower crane, refer to Tower combinations [12].

**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 12 m (B).



Exemplary illustration

[A]	Height of the WOLFF slewing tower crane	[B]	Clearance 12 m
[X]	Hook height above ground required for the mobile crane		
1	Undercarriage	5	Single-point lifting tackle (2 m with shackle)
2	Tower element	6	4-fall attachment (4 m with shackle)
3	Counterjib, complete	7	Jib, complete
4	Four-point lifting tackle (with shackle)	8	Tower head section, complete


**(see also):**

- Tower combinations [12]

8 Assembly diagrams

8 Assembly diagrams

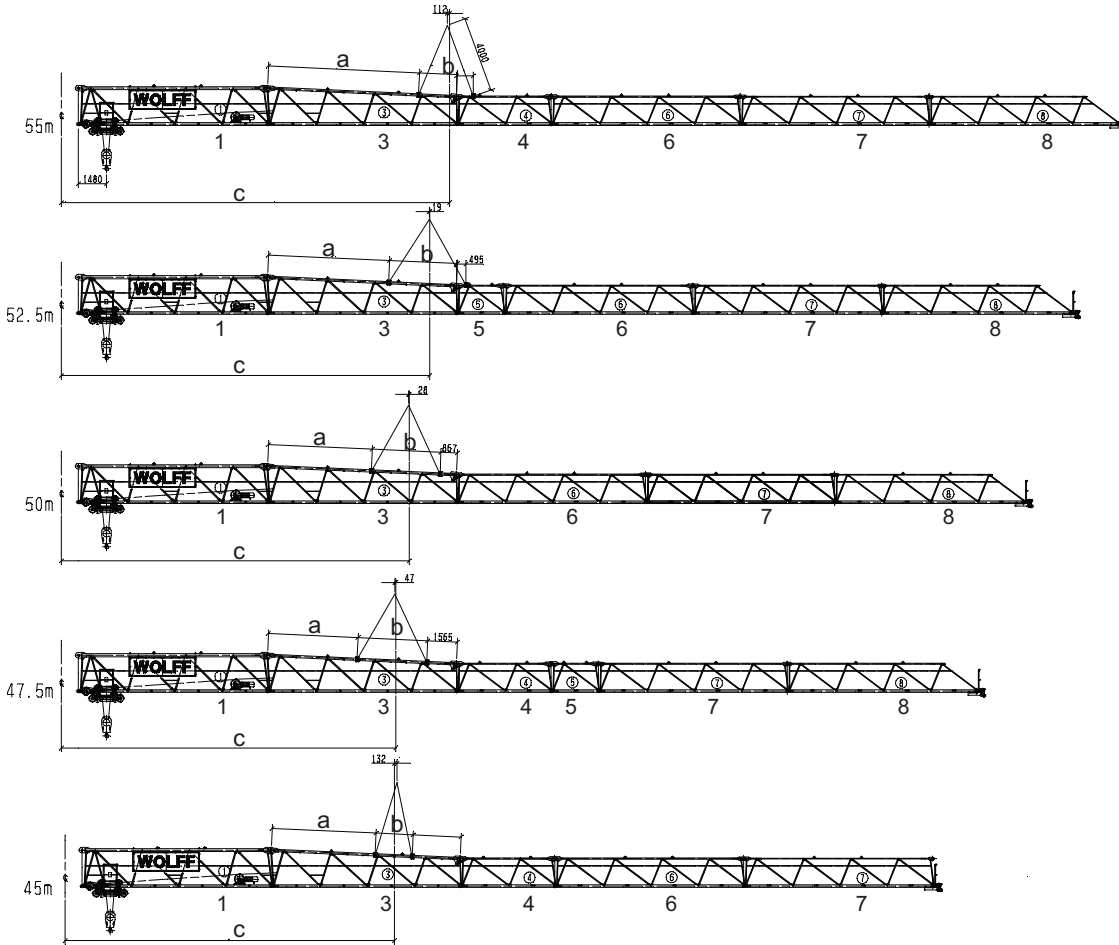
8.1 Jib attachment diagram

	<b>NOTICE</b>
	For jib assembly, use a 4-fall attachment (4 m with shackle).

### Length of jib elements

Item	Length [m]
Trolley jib elements 1, 3, 6, 7 and 8	10.0
Trolley jib element 4	5.0
Trolley jib element 5	2.5
Rope swivel crossbeam	0.51

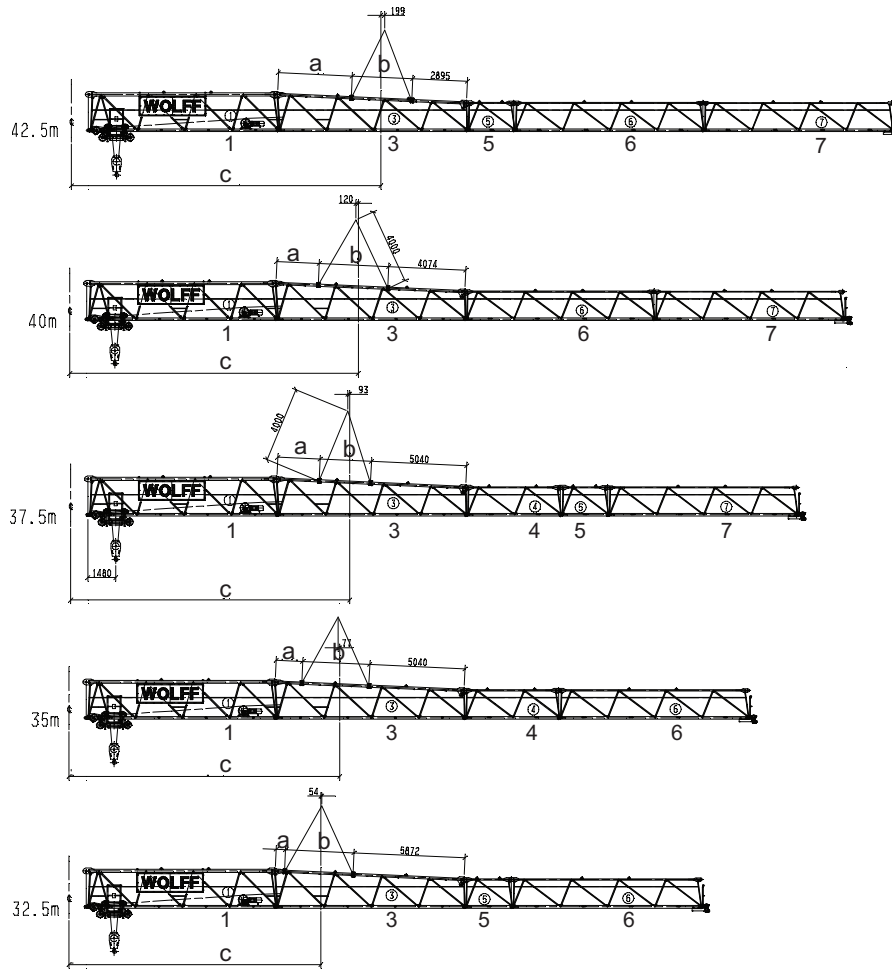
## 8.1.1 Trolley jib - attachment diagram 55 m to 45 m



a	Dimension a		c	Dimension c	
b	Dimension b				
Jib length [m]					
Data	55	52.5	50	47.5	45
a [mm]	8003	6413	5503	4743	5503
b [mm]	2000	3590	3633	3695	1963
c [mm]	20530	19480	18400	17690	17420
Weight [kg] 5020 clear	7600	7300	6900	6900	6900

## 8 Assembly diagrams

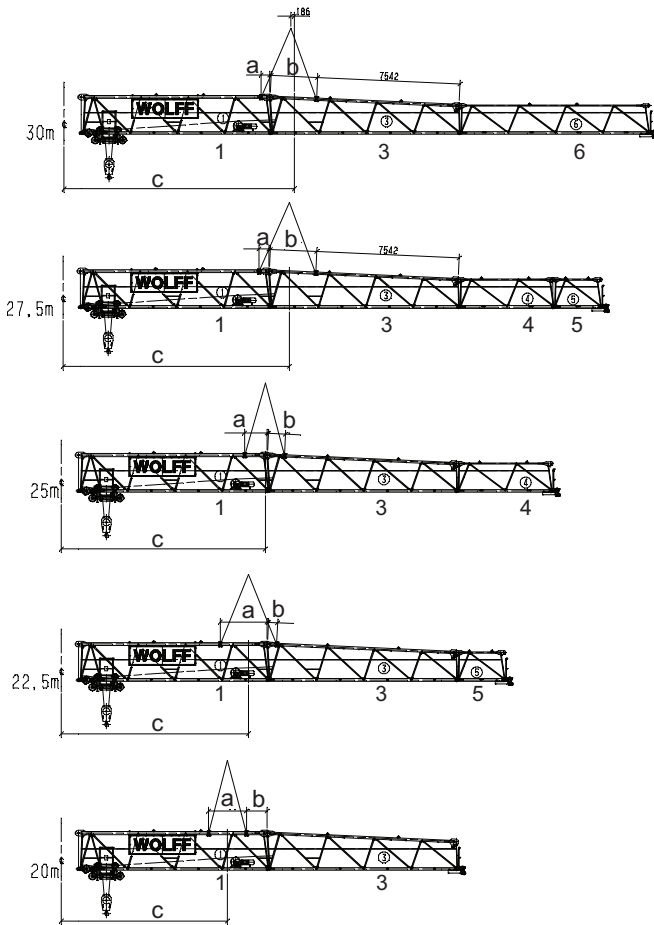
### 8.1.2 Trolley jib - attachment diagram 42.5 m to 32.5 m



a	Dimension a	c	Dimension c
b	Dimension b		

Data	Jib length [m]				
	42.5	40	37.5	35	32.5
a [mm]	3911	2241	2241	1408	502
b [mm]	3198	3688	2723	3555	3629
c [mm]	16370	15260	14760	14320	13320
Weight [kg] 5020 clear	6600	6200	6300	6100	5900

## 8.1.3 Trolley jib - attachment diagram 30 m to 20 m




a	Dimension a	c	Dimension c
b	Dimension b		

Data	Jib length [m]				
	30	27.5	25	22.5	20
a [mm]	465	527	1192	2479	2000
b [mm]	2461	2461	912	490	1095
c [mm]	12190	11970	10790	9900	8790
Weight [kg] 5020 clear	5500	5500	5100	4800	4500

## 8 Assembly diagrams

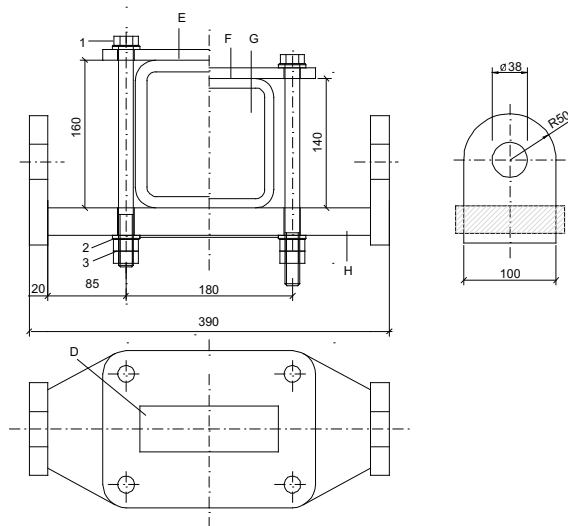
### 8.2 Trolley jib mounting rig

	NOTICE
	<p>For information on the arrangement of the mounting rig, refer to the attachment diagram.</p> <p>Two mounting rigs are required per slewing tower crane.</p>

#### Elements required for each mounting rig

Quantity	Item	Dimensions	Material
1	Mounting rig		
4	Hexagonal head bolt	M16 x 240	ISO 4017-8.8 galv.
8	HSFG washer	17	EN 14399 galvanized
8	Hexagonal nut	M16	ISO 4032-8 galvanized

#### Mounting rig



1	Hexagonal head screw	A	Mounting rig
2	HSFG washer	B	Top chord trolley jib
3	Hexagonal nut		



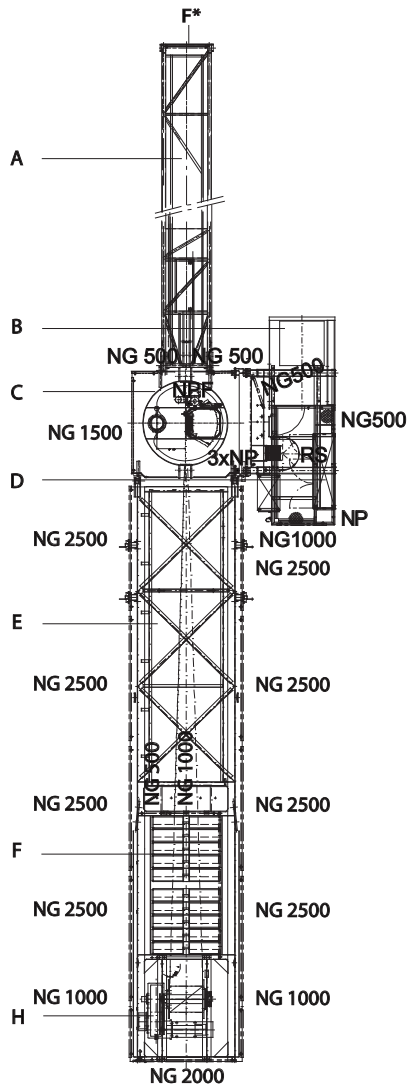
## 8.3 Arrangement of standard railings

### 8.3.1 Standard railings (NG) and accessories

Quantity *	Standard railings (NG)/ accessories	Article no.
1	Flag pole mount 900	30045884
2	Standard railing NG 500 Zn	30018793
1	Standard railing NG 1500 Zn	30018796
2	Standard posts Ø42.4x1090	30000167
1	Standard railing NG 500 Zn	30018793
1	Standard railing NG 750 Zn	30018794
1	Standard railing NG 1000 Zn	30018795
4	Standard posts Ø42.4x1090	30000167
1	Hoop guard for control cabin pedestal	30044244
1	Standard railing NG 500 Zn	30018793
2	Standard railing NG 1000 Zn	30018795
1	Standard railing NG 2000 Zn	30018797
8	Standard railing NG 2500 Zn	30018798
1	Railing at the counterweight	30045196

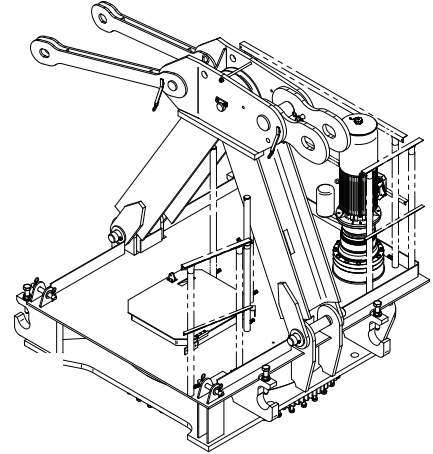
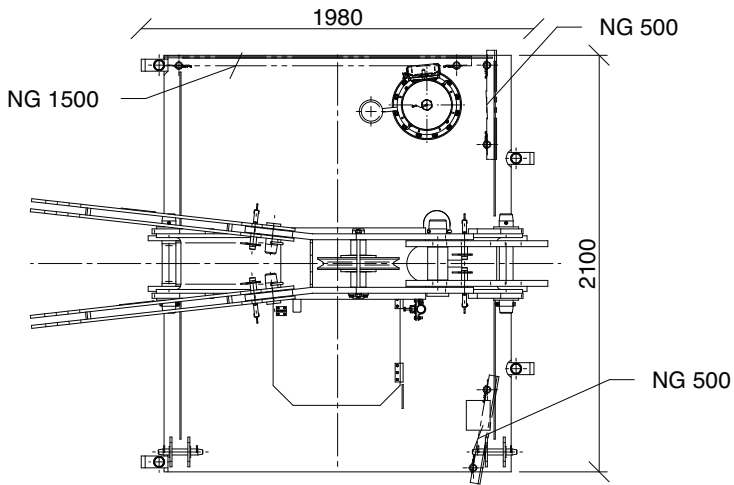
## 8 Assembly diagrams

### 8.3.2 Arrangement of standard railings

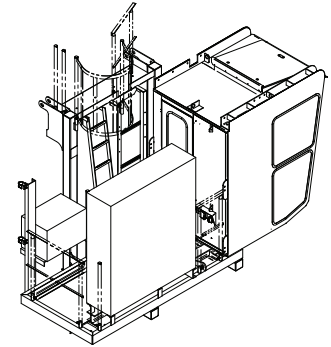
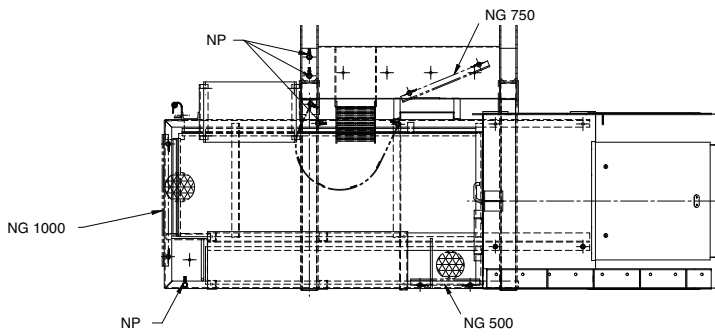


Arrangement of standard railings

A	Trolley jib	E	Counterjib
B	Driver's cab	F	Counterweights
C	Cat head pedestal	H	Hoist winch Hw845/628FU
D	Control cabinet	F *	Flag pole mount



Arrangement of standard railings, tower head section







Arrangement of standard railings, driver's cab

## 9 Suitable climbing devices



### 9 Suitable climbing devices

This section contains information on

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

	<p style="text-align: center;"><b>NOTICE</b></p> <p>Details on the climbing device Always refer to the details in the documentation of the climbing device.</p>
	<p style="text-align: center;"><b>NOTICE</b></p> <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 changing the operating radius with the tower elements or loads specified in the table.</p>
	<p style="text-align: center;"><b>NOTICE</b></p> <p>Details for climbing balancing The climbing balancing details apply to the snatch block in maximum hook position.</p>
	<p style="text-align: center;"><b>NOTICE</b></p> <p>If feasible, preferably operate your climbing device without balancing weight.</p>

## 9.1 Outer climbing devices

	<p style="text-align: center;"><b>! DANGER</b></p> <p>Climbing device attached to the lower part of the tower head section lower part.</p> <p>Increased wind surface. The slewing tower crane may overturn.</p> <ul style="list-style-type: none"><li>▶ 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.</li></ul>
	<p style="text-align: center;"><b>NOTICE</b></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>

## 9 Suitable climbing devices

### 9.1.1 Outer climbing device KWH 15.2

Climbing radius for balancing weights with TFS 15 tower elements

	Jib length [m]														
	55	52.5	50	47.5	45	42.5	40	37.5	35	32.5	30	27.5	25	22.5	20
no weight	25.6	41.0	36.8	-	-	-	-	-	-	-	-	-	-	-	-
TFS 15 = 1.41 t	8.7	14.3	12.7	14.8	15.9	17.1	18.8	20.0	18.7	19.1	20.3	20.7	-	-	-
Weight = 5.00 t	-	4.9	4.3	5.1	5.5	6.0	6.6	7.1	6.5	6.7	7.2	7.3	8.0	7.3	8.2

Climbing radius for balancing weights with UV 15 tower elements

	Jib length [m]														
	55	52.5	50	47.5	45	42.5	40	37.5	35	32.5	30	27.5	25	22.5	20
no weight	24.1	39.5	35.3	-	-	-	-	-	-	-	-	-	-	-	-
UV 15 = 1.73 t	6.9	11.8	10.5	12.2	13.2	14.2	15.7	16.8	15.6	16.0	17.0	17.4	18.8	17.4	-
Weight = 5.00 t	-	4.7	4.1	4.9	5.3	5.8	6.4	6.9	6.3	6.5	7.0	7.1	7.8	7.1	8.0

### 9.1.2 Outer climbing device KWH 20.3 / KWH 20.3.1

Climbing radius for balancing weights with TFS 20 tower elements

	Jib length [m]														
	55	52.5	50	47.5	45	42.5	40	37.5	35	32.5	30	27.5	25	22.5	20
no weight	7.8	23.3	20.0	25.5	28.6	-	-	-	-	-	-	-	-	-	-
TFS 20 = 1.41 t	-	7.1	6.0	7.9	8.9	10.4	11.9	13.1	12.1	12.6	14.0	14.4	16.0	14.7	-
Weight = 5.00 t	-	-	-	-	-	-	4.1	4.6	4.2	4.4	5.0	5.1	5.8	5.3	6.1

Climbing radius for balancing weights with UV 20 tower elements

	Jib length [m]														
	55	52.5	50	47.5	45	42.5	40	37.5	35	32.5	30	27.5	25	22.5	20
no weight	5.4	20.9	17.6	23.2	26.3	30.6	-	-	-	-	-	-	-	-	-
UV 20 = 1.94 t	-	5.0	4.1	5.6	6.5	7.7	9.0	10.0	9.2	9.6	10.8	11.1	12.4	11.3	13.1
Weight = 5.00 t	-	-	-	-	-	-	3.8	4.3	3.9	4.1	4.7	4.8	5.5	5.0	5.8

## 9 Suitable climbing devices

### 9.1.3 Außenkletterwerk KWH 20.6 / KWH 20.6.1 / KWH 20.6.2

**NOTICE! KWH 20.6.1 can only be operated with 5020.8 clear.**

**NOTICE! At a jib length of 55 m, climbing operations are not possible with KWH 20.6.1 and KWH 20.6**

Climbing radius for balancing weights with TFS 20 tower elements


	Jib length [m]														
	55	52.5	50	47.5	45	42.5	40	37.5	35	32.5	30	27.5	25	22.5	20
no weight	-	20.2	16.9	22.4	25.5	29.8	-	-	-	-	-	-	-	-	-
TFS 20 = 1.41 t	-	6.0	4.9	6.8	7.9	9.3	10.9	12.1	11.1	11.5	13.0	13.4	15.0	13.7	15.8

Climbing radius for balancing weights with UV 20 tower elements


	Jib length [m]														
	55	52.5	50	47.5	45	42.5	40	37.5	35	32.5	30	27.5	25	22.5	20
no weight	-	17.8	14.5	20.0	23.1	27.4	-	-	-	-	-	-	-	-	-
UV 20 = 1.94 t	-	4.1	3.2	4.8	5.6	6.8	8.1	9.1	8.3	8.7	9.9	10.2	11.5	10.4	12.2



## 9.2 Inner climbing devices

	<b>NOTICE</b>
	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.**

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

## 9 Suitable climbing devices

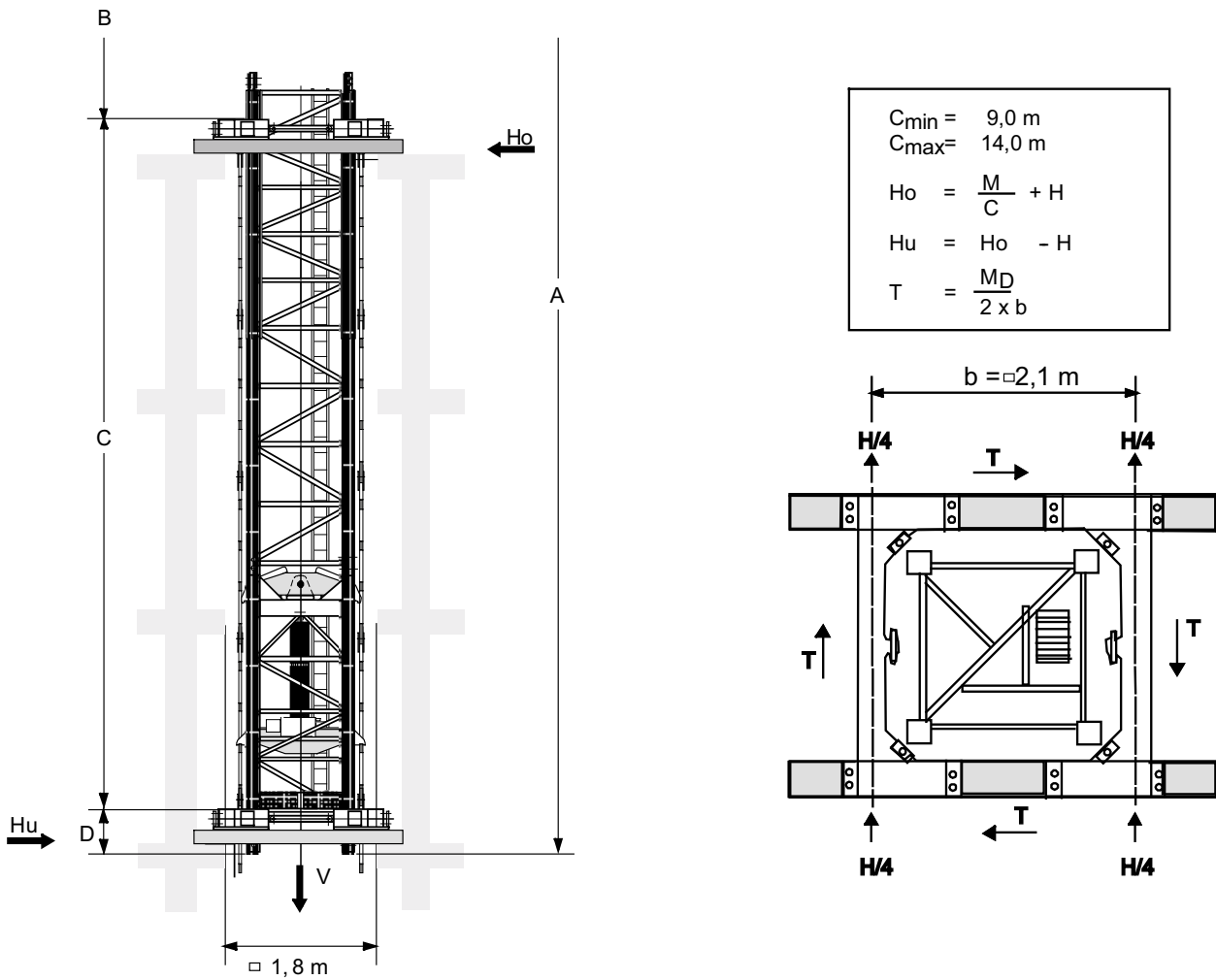
### 9.2.1 Inner climbing device KSH 15

Tower combinations for slewing tower cranes with inner climbing device.

Item			
1	UV 15.4	UV 15.4	UV 15.4
2	UV 15.4	UV 15.4	UV 15.4
3	UV 15.4	UV 15.4	UV 15.4
4	UV 15.4	UV 15.4	UV 15.4
5		UV 15.4	UV 15.4
6			UV 15.4
inner climbing device	KSH 15	KSH 15	KSH 15
Foundation	FUA 120	FUA 120	FUA 120
Tower height [m]	32.9	37.4	41.9
Hook height above ground [m]	34.5	39.0	43.5

### Climbing radius for the balancing weights

	Jib length [m]														
	55	52.5	50	47.5	45	42.5	40	37.5	35	32.5	30	27.5	25	22.5	20
UV 15.4 = 1.75 t	26.0	30.7	28.5	30.3	31.2	31.5	32.8	-	-	-	-	-	-	-	-
Weight = 5.00 t	11.4	13.5	12.5	13.3	13.7	13.8	14.4	14.9	14.0	14.2	14.3	14.4	15.0	14.0	14.8



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

## Einspannkräfte im Betrieb

A [m]	Einspannkräfte im Gebäude [kN] im Betrieb																	
	41,9						37,4				32,9							
C [m]	9,0	10,0	11,0	12,0	13,0	14,0	9,0	10,0	11,0	12,0	13,0	14,0	9,0	10,0	11,0	12,0	13,0	14,0
V	708						691				674							
Ho	210	190	180	160	150	140	200	180	160	150	140	130	180	170	150	140	130	120
Hu	190	170	150	130	120	110	170	150	140	120	110	100	160	140	130	110	100	90
T	50						50				50							

## Einspannkräfte außer Betrieb

A [m]	Einspannkräfte im Gebäude [kN] außer Betrieb																	
	41,9						37,4				32,9							
C [m]	9,0	10,0	11,0	12,0	13,0	14,0	9,0	10,0	11,0	12,0	13,0	14,0	9,0	10,0	11,0	12,0	13,0	14,0
V	616						599				582							
Ho	440	400	360	330	310	290	370	340	310	280	260	240	310	280	260	230	220	200
Hu	300	260	220	200	170	150	240	210	180	150	130	110	190	160	140	110	100	80
T	-						-				-							

## 9 Suitable climbing devices

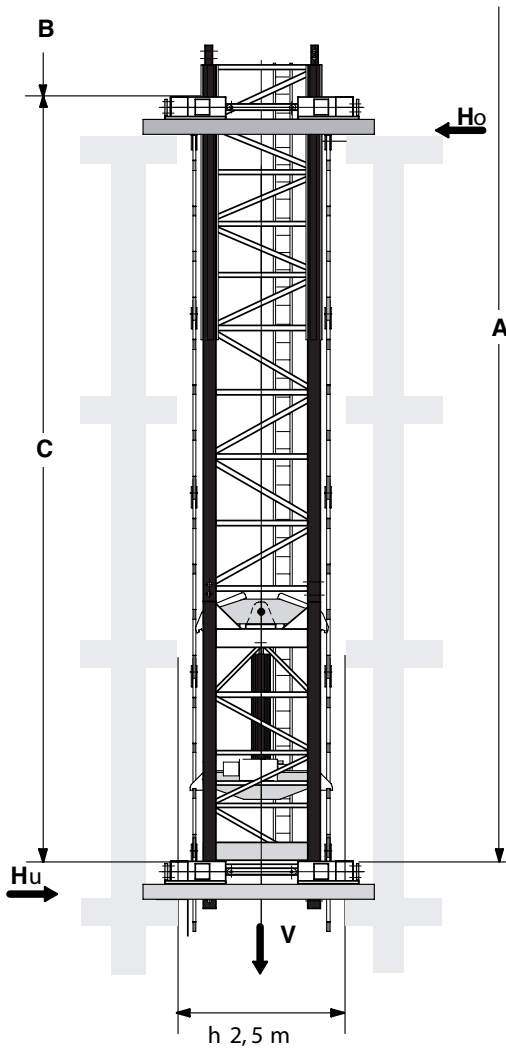
### 9.2.2 Inner climbing device KSH 20 M

Tower combinations for slewing tower cranes with inner climbing device.

Item		
1	UV 20.4 LC	UV 20.4
2	UV 20.4 LC	UV 20.4 LC
3		UV 20.4 LC
inner climbing device	KSH 20 M	KSH 20 M
Foundation	FUA 120	FUA 120
Tower height [m]	37.5	42.0
Hook height above ground [m]	39.0	43.5

#### Climbing radius for the balancing weights

	Jib length [m]														
	55	52.5	50	47.5	45	42.5	40	37.5	35	32.5	30	27.5	25	22.5	20
TFS 20.4 = 1.56 t	28.1	33.2	30.8	32.7	33.8	34.0	-	-	-	-	-	-	-	-	-
UV 20.4 = 2.05 t	23.2	27.5	25.5	27.1	28.0	28.2	29.3	30.3	28.6	-	-	-	-	-	-
Weight = 5.00 t	11.4	13.5	12.5	13.3	13.7	13.8	14.4	14.9	14.0	14.2	14.3	14.4	15.0	14.0	14.8



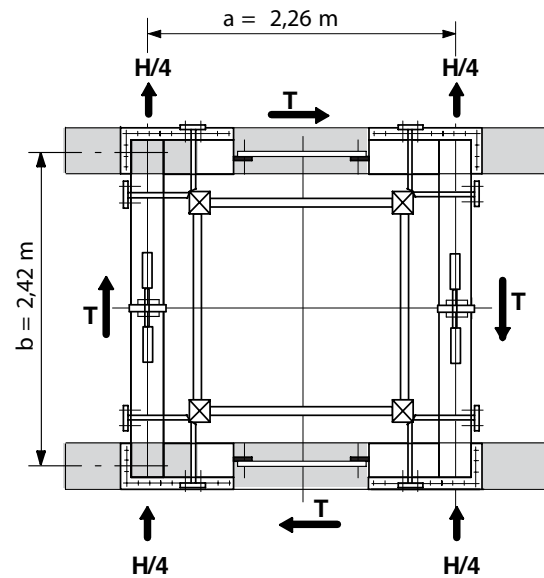
$$C_{\min} = 11,0 \text{ m}$$

$$C_{\max} = 14,0 \text{ m}$$

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

$$H_u = H_o - H$$

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



A	tower height	C	Distance between guide frames
B	A-C-D	D	0.77 m

### In service clamping forces

In service clamping forces [kN] inside a building								
A [m]	42.0				37.5			
C [m]	11.0	12.0	13.0	14.0	11.0	12.0	13.0	14.0
V	742				723			
Ho	180	160	150	140	160	150	140	130
Hu	150	130	120	110	140	120	110	100
T	50				50			

### Out of service clamping forces

Out of service clamping forces [kN] inside a building								
A [m]	42.0				37.5			
C [m]	11.0	12.0	13.0	14.0	11.0	12.0	13.0	14.0
V	649				631			
Ho	380	350	320	300	320	290	270	250
Hu	230	200	180	150	180	160	140	120
T	-				-			

## 9 Suitable climbing devices

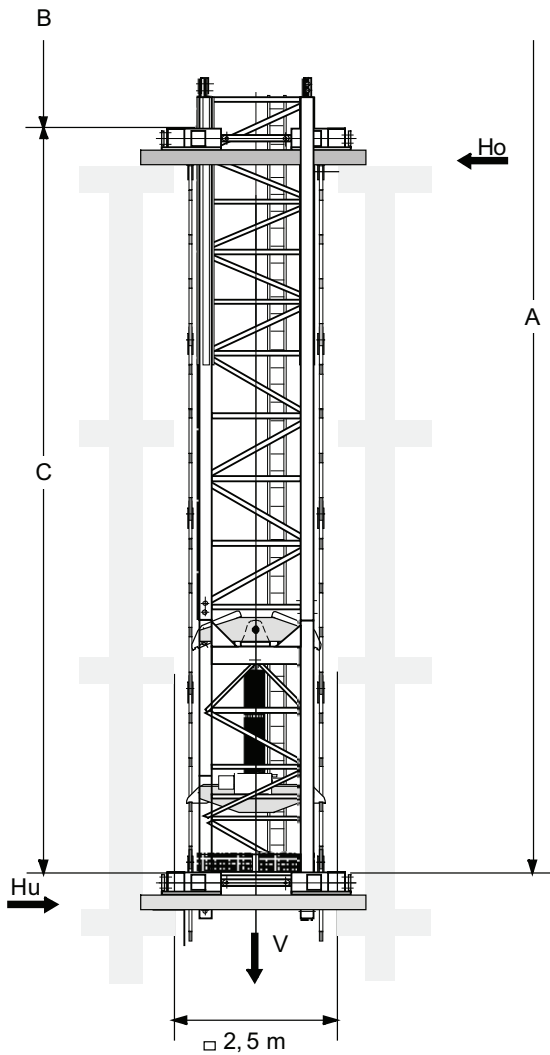
### 9.2.3 Inner climbing device KSH 20 L

Tower combinations for slewing tower cranes with inner climbing device.

Item			
1	UV 20.4	UV 20.4	UV 20.4
2	UV 20.4	UV 20.4	UV 20.4
3	UV 20.4	UV 20.4	UV 20.4
4	UV 20.4	UV 20.4	UV 20.4
5	UV 20.4	UV 20.4	UV 20.4
6		UV 20.4	UV 20.4
7			UV 20.4
8			
inner climbing device	KSH 20 L	KSH 20 L	KSH 20 L
Foundation	FUA 120	FUA 120	FUA 120
Tower height [m]	36.5	41.0	45.5
Hook height above ground [m]	38.0	42.5	47.0

### Climbing radius for the balancing weights

	Jib length [m]														
	55	52.5	50	47.5	45	42.5	40	37.5	35	32.5	30	27.5	25	22.5	20
TFS 20.4 = 1.56 t	28.1	33.2	30.8	32.7	33.8	34.0	-	-	-	-	-	-	-	-	-
UV 20.4 = 2.05 t	23.2	27.5	25.5	27.1	28.0	28.2	29.3	30.3	28.6	-	-	-	-	-	-
Weight = 5.00 t	11.4	13.5	12.5	13.3	13.7	13.8	14.4	14.9	14.0	14.2	14.3	14.4	15.0	14.0	14.8



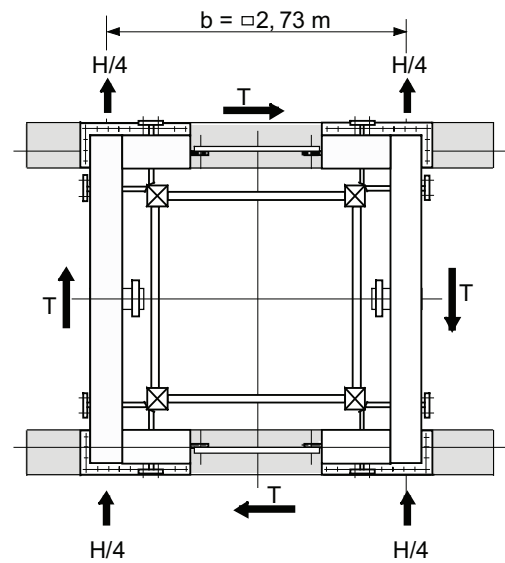
$$C_{min} = 9,0 \text{ m}$$

$$C_{max} = 13,0 \text{ m}$$

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

$$H_u = H_o - H$$

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



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

### In service clamping forces

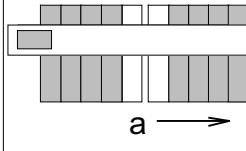
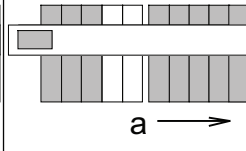
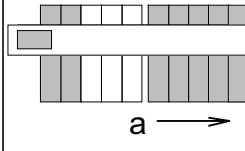
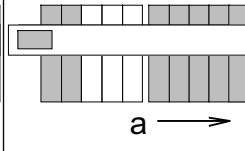
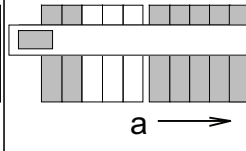
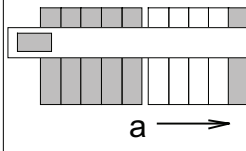
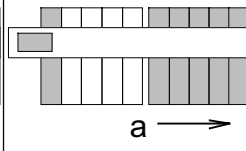
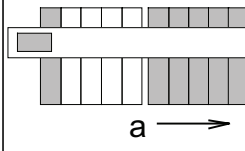
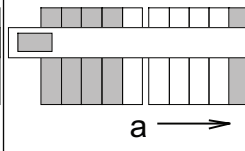
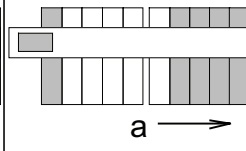
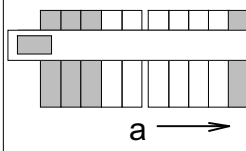
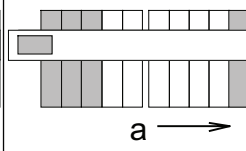
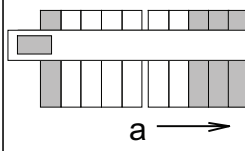
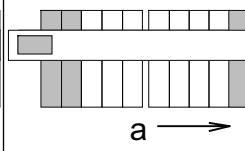
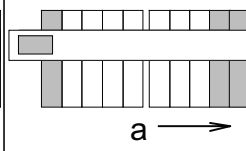
In service clamping forces [kN] inside a building															
A [m]	45.5					41.0					36.5				
C [m]	9.0	10.0	11.0	12.0	13.0	9.0	10.0	11.0	12.0	13.0	9.0	10.0	11.0	12.0	13.0
V	750					732					713				
Ho	230	200	190	170	160	210	190	170	160	150	190	180	160	150	140
Hu	200	170	160	140	130	180	160	140	130	120	170	150	130	120	110
T	40					40					40				

### Out of service clamping forces



Out of service clamping forces [kN] inside a building															
A [m]	45.5					41.0					36.5				
C [m]	9.0	10.0	11.0	12.0	13.0	9.0	10.0	11.0	12.0	13.0	9.0	10.0	11.0	12.0	13.0
V	658					639					621				
Ho	520	470	430	390	360	440	400	360	330	310	370	330	300	280	260
Hu	370	320	270	240	210	300	260	220	190	170	240	200	170	150	130
T	-					-					-				

## 10 Arrangement of counterweight blocks

### 10 Arrangement of counterweight blocks

<b>L = 55 m</b>	<b>L = 52.5 m</b>	<b>L = 50 m</b>	<b>L = 47.5 m</b>	<b>L = 45 m</b>
8 x 2.05 t	8 x 2.05 t	7 x 2.05 t	7 x 2.05 t	7 x 2.05 t
				
W = 17.6 t	W = 17.6 t	W = 15.6 t	W = 15.6 t	W = 15.6 t
<b>L = 42.5 m</b>	<b>L = 40 m</b>	<b>L = 37.5 m</b>	<b>L = 35 m</b>	<b>L = 32.5 m</b>
6 x 2.05 t	6 x 2.05 t	6 x 2.05 t	5 x 2.05 t	5 x 2.05 t
				
W = 13.5 t	W = 13.5 t	W = 13.5 t	W = 11.5 t	W = 11.5 t
<b>L = 30 m</b>	<b>L = 27.5 m</b>	<b>L = 25 m</b>	<b>L = 22.5 m</b>	<b>L = 20 m</b>
4 x 2.05 t	4 x 2.05 t	4 x 2.05 t	3 x 2.05 t	3 x 2.05 t
				
W = 9.4 t	W = 9.4 t	W = 9.4 t	W = 7.4 t	W = 7.4 t

Additional permanent counterweight for all jib lengths: 1.2 t

L	Jib length [m]	a	To the tower
G	Total weight [t]		Counterweight
	No counterweight		





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