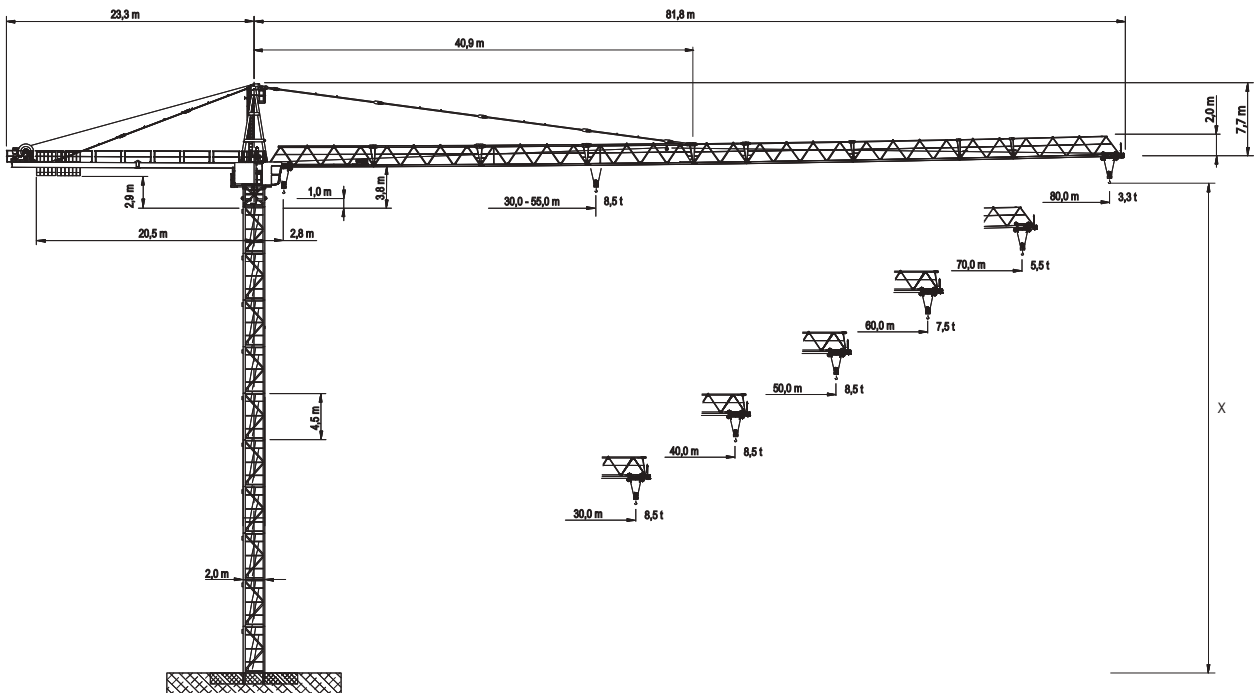


## 1 Schedule drawing

### 1.1 Schedule drawing WOLFF 8033.8cross

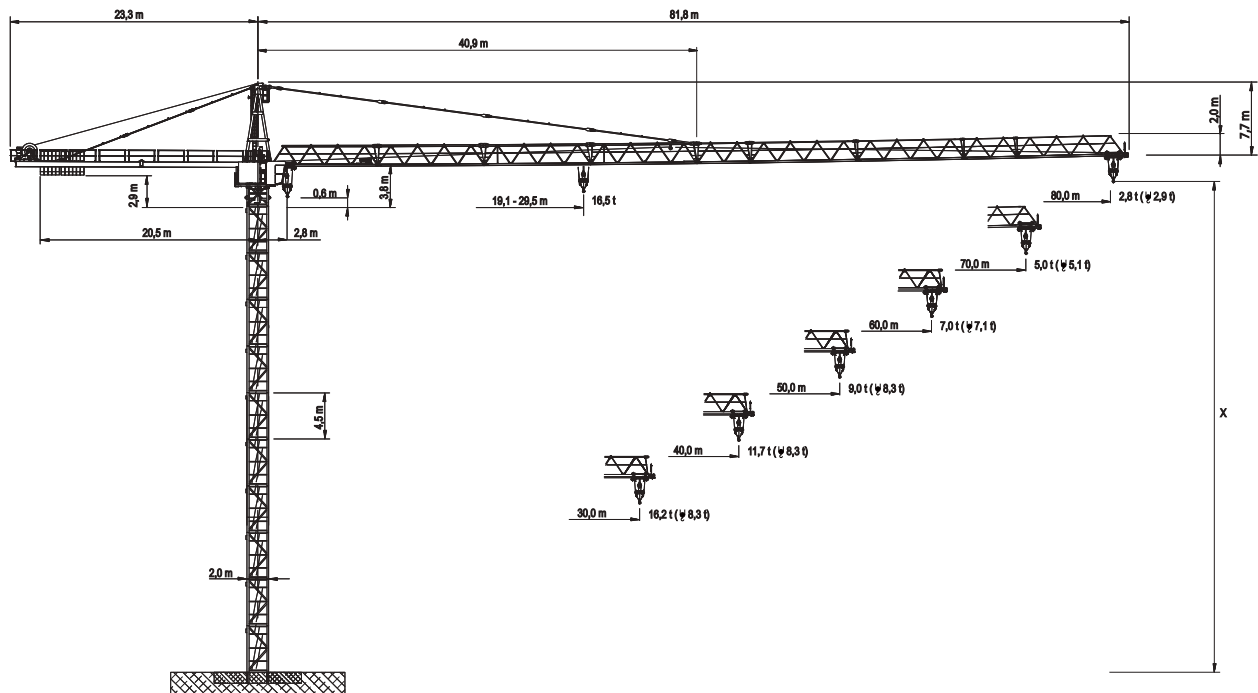


[X] max. hook height above ground

#### Data WOLFF 8033.8

Item	Data
Crane type	BGL GROUP C.0.10.0450
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. 4680 kN/m
Hoist winch	Hw 875 FU

## 1.2 Schedule drawing WOLFF 8033.16cross




[X] max. hook height above ground

Data WOLFF 8033.16

Item	Data
Crane type	BGL GROUP C.0.10.0450
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. 4870 kN/m
Hoist winch	Hw 875 FU

## 2 Load carrying capacities

### 2.1 Table of load carrying capacity WOLFF 8033.8 (double reeving)

 8.5 t		Operating radius [m]	30	35	40	45	50	55	60	65	70	75	80	LCC [t]
JL [m]	80	2.8 – 36.2	8.5	8.5	7.6	6.6	5.9	5.3	4.7	4.3	3.9	3.6	3.3	
	77.5	2.8 – 39.9	8.5	8.5	8.5	7.4	6.6	5.9	5.3	4.8	4.4	4.1		
	75	2.8 – 43.4	8.5	8.5	8.5	8.2	7.3	6.5	5.9	5.3	4.9	4.5		
	72.5	2.8 – 45.8	8.5	8.5	8.5	8.5	7.7	6.9	6.3	5.7	5.2			
	70	2.8 – 47.9	8.5	8.5	8.5	8.5	8.1	7.3	6.6	6.0	5.5			
	67.5	2.8 – 49.7	8.5	8.5	8.5	8.5	8.5	7.6	6.9	6.3				
	65	2.8 – 51.3	8.5	8.5	8.5	8.5	8.5	7.9	7.1	6.5				
	62.5	2.8 – 56.6	8.5	8.5	8.5	8.5	8.5	8.1	7.3					
	60	2.8 – 53.7	8.5	8.5	8.5	8.5	8.5	8.3	7.5					
	57.5	2.8 – 54.5	8.5	8.5	8.5	8.5	8.5	8.4						
	55	2.8 – 55.0	8.5	8.5	8.5	8.5	8.5	8.5						
	52.5	2.8 – 52.5	8.5	8.5	8.5	8.5	8.5							
	50	2.8 – 50.0	8.5	8.5	8.5	8.5	8.5							
	47.5	2.8 – 47.5	8.5	8.5	8.5	8.5								
	45	2.8 – 45.0	8.5	8.5	8.5	8.5								
	42.5	2.8 – 45.5	8.5	8.5	8.5									
	40	2.8 – 40.0	8.5	8.5	8.5									
	37.5	2.8 – 37.5	8.5	8.5										
	35	2.8 – 35.0	8.5	8.5										
	32.5	2.8 – 32.5	8.5											
30	2.8 – 30.0	8.5												

**Caption**


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 mode = 2.52 kg per meter of the hook range).

## 2.2 Table of load carrying capacities (kg) in meter intervals, WOLFF 8033.8 (double reeving)

Operating radius [m]	Jib length [m]																				
	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60	62.5	65	67.5	70	72.5	75	77.5	80
25	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500
26	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500
27	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500
28	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500
29	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500
30	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>
31		8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500
32		8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500
32.5		<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>
33			8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500
34			8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500
35			<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>
36				8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500
37				8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8290
37.5				<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8160</b>
38					8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8040
39					8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	7810
40					<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8480</b>	<b>7590</b>
41						8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8250	7380
42						8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8030	7180
42.5						<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>7930</b>	<b>7090</b>
43							8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	7820	6990
44							8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8370	7620	6810
45							<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8160</b>	<b>7430</b>	<b>6640</b>
46								8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8450	7960	7250	6470
47								8500	8500	8500	8500	8500	8500	8500	8500	8500	8500	8250	7770	7070	6310
47.5								<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8150</b>	<b>7680</b>	<b>6990</b>	<b>6240</b>
48									8500	8500	8500	8500	8500	8500	8500	8500	8470	8060	7590	6910	6160
49									8500	8500	8500	8500	8500	8500	8500	8500	8280	7870	7410	6740	6010
50									<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8450</b>	<b>8100</b>	<b>7700</b>	<b>7250</b>	<b>6590</b>	<b>5870</b>
51										8500	8500	8500	8500	8500	8500	8260	7920	7530	7080	6440	5740
52										8500	8500	8500	8500	8500	8370	8080	7750	7360	6930	6300	5610
52.5										<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8500</b>	<b>8280</b>	<b>8000</b>	<b>7660</b>	<b>7280</b>	<b>6850</b>	<b>6230</b>	<b>5550</b>
53											8500	8500	8500	8430	8200	7910	7580	7200	6780	6160	5490
54											8500	8500	8440	8260	8030	7750	7420	7050	6640	6030	5370
55												<b>8500</b>	<b>8410</b>	<b>8270</b>	<b>8090</b>	<b>7860</b>	<b>7590</b>	<b>7270</b>	<b>6910</b>	<b>6500</b>	<b>5250</b>
56													8240	8110	7930	7700	7440	7120	6760	6360	5780
57													8080	7950	7770	7550	7290	6980	6630	6230	5660
57.5													<b>8000</b>	<b>7870</b>	<b>7690</b>	<b>7480</b>	<b>7220</b>	<b>6910</b>	<b>6560</b>	<b>6170</b>	<b>5600</b>
58														7790	7620	7400	7140	6840	6500	6110	5540
59														7640	7470	7260	7010	6710	6370	5990	5430
60														<b>7500</b>	<b>7330</b>	<b>7120</b>	<b>6870</b>	<b>6580</b>	<b>6250</b>	<b>5870</b>	<b>5330</b>
61															7200	6990	6740	6460	6130	5760	5220
62																7060	6860	6620	6340	6010	5650
62.5																<b>7000</b>	<b>6800</b>	<b>6560</b>	<b>6280</b>	<b>5960</b>	<b>5600</b>
63																	6740	6500	6220	5900	5500
64																		6620	6380	6110	5800
65																		<b>6500</b>	<b>6270</b>	<b>6000</b>	<b>5690</b>
66																			6160	5890	5590
67																			6050	5790	5490
67.5																			<b>6000</b>	<b>5740</b>	<b>5440</b>
68																				5690	5400
69																				5590	5300
70																				<b>5500</b>	<b>5210</b>
71																					5130
72																					4810
72.5																					4730
73																					<b>5000</b>
74																					<b>4690</b>
75																					<b>4240</b>
76																					<b>3740</b>
77																					4650
77.5																					4200
78																					4200
79																					4200
80																					<b>3900</b>

## 2.3 Table of load carrying capacity WOLFF 8033.16 (double reeving)

 8.3 t		Operating radius [m]	30	35	40	45	50	55	60	65	70	75	80	LCC [t]
JL [m]	80	2.8 – 35.4	8.3	8.3	7.2	6.2	5.5	4.9	4.3	3.9	3.5	3.2	2.9	
	77.5	2.8 – 39.1	8.3	8.3	8.1	7.0	6.2	5.5	4.9	4.4	4.0	3.7		
	75	2.8 – 42.5	8.3	8.3	8.3	7.8	6.9	6.1	5.5	4.9	4.5	4.1		
	72.5	2.8 – 44.8	8.3	8.3	8.3	8.3	7.3	6.5	5.9	5.3	4.8			
	70	2.8 – 46.9	8.3	8.3	8.3	8.3	7.7	6.9	6.2	5.6	5.1			
	67.5	2.8 – 48.7	8.3	8.3	8.3	8.3	8.1	7.2	6.5	5.9				
	65	2.8 – 50.2	8.3	8.3	8.3	8.3	8.3	7.5	6.7	6.1				
	62.5	2.8 – 51.5	8.3	8.3	8.3	8.3	8.3	7.7	6.9					
	60	2.8 – 52.6	8.3	8.3	8.3	8.3	8.3	7.9	7.1					
	57.5	2.8 – 53.4	8.3	8.3	8.3	8.3	8.3	8.0						
	55	2.8 – 53.9	8.3	8.3	8.3	8.3	8.3	8.1						
	52.5	2.8 – 52.5	8.3	8.3	8.3	8.3	8.3							
	50	2.8 – 50.0	8.3	8.3	8.3	8.3	8.3							
	47.5	2.8 – 47.5	8.3	8.3	8.3	8.3								
	45	2.8 – 45.0	8.3	8.3	8.3	8.3								
	42.5	2.8 – 42.5	8.3	8.3	8.3									
	40	2.8 – 40.0	8.3	8.3	8.3									
	37.5	2.8 – 37.5	8.3	8.3										
	35	2.8 – 35.0	8.3	8.3										
	32.5	2.8 – 32.5	8.3											
30	2.8 – 30.0	8.3												

**Caption**


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 mode = 2.52 kg per meter of the hook range).

## 2.4 Table of load carrying capacities (kg) in meter intervals, WOLFF 8033.16 (double reeving)

Operating radius [m]	Jib length [m]																							
	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60	62.5	65	67.5	70	72.5	75	77.5	80			
25	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300			
26	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300			
27	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300			
28	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300			
29	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300			
30	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>			
31		8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300			
32		8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300			
32.5		<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>			
33			8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300			
34			8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300			
35			<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>			
36				8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8140			
37				8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	7890			
37.5				<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>7760</b>			
38					8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	7640			
39					8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	7410			
40					<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8080</b>	<b>7190</b>			
41						8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	6980			
42						8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	6780			
42.5						<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>7530</b>	<b>6690</b>			
43							8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8190	7420	6590			
44							8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	7970	7220	6410			
45							<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8260</b>	<b>7760</b>	<b>7030</b>	<b>6240</b>		
46								8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8050	7560	6850	6070		
47								8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	8280	7850	7370	6670	5910		
47.5								<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8170</b>	<b>7750</b>	<b>7280</b>	<b>6590</b>	<b>5840</b>		
48									8300	8300	8300	8300	8300	8300	8300	8300	8300	8070	7660	7190	6510	5760		
49									8300	8300	8300	8300	8300	8300	8300	8300	8240	7880	7470	7010	6340	5610		
50									<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8050</b>	<b>7700</b>	<b>7300</b>	<b>6850</b>	<b>6190</b>	<b>5470</b>		
51										8300	8300	8300	8300	8300	8160	7860	7520	7130	6680	6040	5340			
52										8300	8300	8300	8300	8210	7970	7680	7350	6960	6530	5900	5210			
52.5										<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8300</b>	<b>8120</b>	<b>7880</b>	<b>7600</b>	<b>7260</b>	<b>6880</b>	<b>6450</b>	<b>5830</b>	<b>5150</b>			
53											8300	8300	8220	8030	7800	7510	7180	6800	6380	5760	5090			
54											8280	8180	8040	7860	7630	7350	7020	6650	6240	5630	4970			
55											<b>8100</b>	<b>8010</b>	<b>7870</b>	<b>7690</b>	<b>7460</b>	<b>7190</b>	<b>6870</b>	<b>6510</b>	<b>6100</b>	<b>5500</b>	<b>4850</b>			
56												7840	7710	7530	7300	7040	6720	6360	5960	5380	4740			
57												7680	7550	7370	7150	6890	6580	6230	5830	5260	4630			
57.5												<b>7600</b>	<b>7470</b>	<b>7290</b>	<b>7080</b>	<b>6820</b>	<b>6510</b>	<b>6160</b>	<b>5770</b>	<b>5200</b>	<b>4580</b>			
58													7390	7220	7000	6740	6440	6100	5710	5140	4530			
59													7240	7070	6860	6610	6310	5970	5590	5030	4430			
60													<b>7100</b>	<b>6930</b>	<b>6720</b>	<b>6470</b>	<b>6180</b>	<b>5850</b>	<b>5470</b>	<b>4930</b>	<b>4330</b>			
61														6800	6590	6340	6060	5730	5360	4820	4240			
62															6660	6460	6220	5940	5610	5250	4720	4150		
62.5															<b>6600</b>	<b>6400</b>	<b>6160</b>	<b>5880</b>	<b>5560</b>	<b>5200</b>	<b>4670</b>	<b>4100</b>		
63																6340	6100	5820	5500	5150	4630	4060		
64																	6220	5980	5710	5400	5040	3970		
65																	<b>6100</b>	<b>5870</b>	<b>5600</b>	<b>5290</b>	<b>4940</b>	<b>3890</b>		
66																		5760	5490	5190	4850	3810		
67																		5650	5390	5090	4760	3730		
67.5																		<b>5600</b>	<b>5340</b>	<b>5040</b>	<b>4710</b>	<b>4220</b>	<b>3690</b>	
68																			5290	5000	4670	3660		
69																			5190	4900	4580	3580		
70																			<b>5100</b>	<b>4810</b>	<b>4490</b>	<b>4020</b>	<b>3510</b>	
71																				4730	4410	3950	3440	
72																				4640	4330	3870	3380	
72.5																				<b>4600</b>	<b>4290</b>	<b>3840</b>	<b>3340</b>	
73																					4250	3800	3310	
74																					4170	3730	3250	
75																					<b>4100</b>	<b>3660</b>	<b>3190</b>	
76																						3600	3130	
77																							3530	3070
77.5																							<b>3500</b>	<b>3040</b>
78																								3010
79																								2950
80																								<b>2900</b>

## 2.5 Table of load carrying capacity WOLFF 8033.16 (quadruple reeving)

 16.5 t		Operating radius [m]	30	35	40	45	50	55	60	65	70	75	80	LCC [t]
JL [m]	80	2.8 – 19.1	10.0	8.3	7.1	6.1	5.4	4.8	4.2	3.8	3.4	3.1	2.8	
	77.5	2.8 – 21.1	11.1	9.3	8.0	6.9	6.1	5.4	4.8	4.3	3.9	3.6		
	75	2.8 – 22.9	12.2	10.3	8.8	7.7	6.8	6.0	5.4	4.8	4.4	4.0		
	72.5	2.8 – 24.1	13.0	10.9	9.4	8.2	7.2	6.4	5.8	5.2	4.7			
	70	2.8 – 25.3	13.7	11.5	9.9	8.6	7.6	6.8	6.1	5.5	5.0			
	67.5	2.8 – 26.2	14.2	12.0	10.3	9.0	8.0	7.1	6.4	5.8				
	65	2.8 – 27.1	14.7	12.4	10.7	9.3	8.3	7.4	6.6	6.0				
	62.5	2.8 – 27.8	15.1	12.8	11.0	9.6	8.5	7.6	6.8					
	60	2.8 – 28.3	15.5	13.1	11.3	9.8	8.7	7.8	7.0					
	57.5	2.8 – 28.7	15.7	13.3	11.4	10.0	8.9	7.9						
	55	2.8 – 29.0	15.9	13.4	11.6	10.1	9.0	8.0						
	52.5	2.8 – 29.2	16.0	13.5	11.6	10.2	9.0							
	50	2.8 – 29.2	16.0	13.5	11.6	10.2	9.0							
	47.5	2.8 – 29.3	16.1	13.6	11.7	10.2								
	45	2.8 – 29.2	16.1	13.5	11.7	10.2								
	42.5	2.8 – 29.3	16.1	13.6	11.7									
	40	2.8 – 29.3	16.1	13.6	11.7									
	37.5	2.8 – 29.4	16.1	13.6										
	35	2.8 – 29.4	16.1	13.6										
	32.5	2.8 – 29.4	16.2											
30	2.8 – 29.5	16.2												

**Caption**

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 (4-fall mode = 5.04 kg per meter of the hook range).

## 2.6 Table of load carrying capacities (kg) in meter intervals, WOLFF 8033.16 (16,5t, quadruple reeving)

Operating radius [m]	Jib length [m]																					
	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60	62.5	65	67.5	70	72.5	75	77.5	80	
25	16500	16500	16500	16500	16500	16500	16500	16500	16500	16500	16500	16500	16500	16500	16500	16500	16500	15880	14980	13670	12240	
26	16500	16500	16500	16500	16500	16500	16500	16500	16500	16500	16500	16500	16500	16500	16500	16500	15980	15210	14350	13090	11710	
27	16500	16500	16500	16500	16500	16500	16500	16500	16500	16500	16500	16500	16500	16500	16500	16500	15990	15340	14590	13760	12550	
28	16500	16500	16500	16500	16500	16500	16500	16500	16500	16500	16500	16500	16500	16340	15900	15360	14740	14020	13220	12040	10770	
29	16500	16500	16500	16500	16500	16500	16500	16500	16500	16500	16500	16340	16080	15730	15300	14780	14180	13490	12710	11580	10340	
<b>30</b>	<b>16200</b>	<b>16160</b>	<b>16120</b>	<b>16120</b>	<b>16100</b>	<b>16060</b>	<b>16050</b>	<b>16070</b>	<b>15990</b>	<b>15990</b>	<b>15910</b>	<b>15740</b>	<b>15490</b>	<b>15160</b>	<b>14740</b>	<b>14240</b>	<b>13650</b>	<b>12990</b>	<b>12240</b>	<b>11140</b>	<b>9950</b>	
31		15590	15550	15550	15530	15500	15480	15500	15430	15430	15350	15190	14940	14620	14210	13730	13160	12520	11790	10740	9580	
32		15050	15010	15020	15000	14970	14950	14970	14900	14900	14820	14660	14430	14120	13720	13250	12710	12080	11380	10350	9240	
<b>32.5</b>		<b>14800</b>	<b>14760</b>	<b>14770</b>	<b>14740</b>	<b>14710</b>	<b>14700</b>	<b>14720</b>	<b>14650</b>	<b>14650</b>	<b>14570</b>	<b>14420</b>	<b>14180</b>	<b>13880</b>	<b>13490</b>	<b>13030</b>	<b>12490</b>	<b>11870</b>	<b>11180</b>	<b>10170</b>	<b>9070</b>	
33			14510	14520	14500	14470	14450	14470	14400	14400	14330	14170	13950	13640	13260	12810	12280	11670	10990	9990	8910	
34			14040	14050	14030	14000	13980	14000	13940	13940	13860	13710	13490	13200	12830	12390	11870	11280	10620	9660	8600	
<b>35</b>			<b>13600</b>	<b>13610</b>	<b>13580</b>	<b>13560</b>	<b>13540</b>	<b>13560</b>	<b>13500</b>	<b>13500</b>	<b>13420</b>	<b>13280</b>	<b>13060</b>	<b>12780</b>	<b>12420</b>	<b>11990</b>	<b>11490</b>	<b>10920</b>	<b>10270</b>	<b>9340</b>	<b>8320</b>	
36				13190	13170	13140	13120	13140	13080	13080	13010	12870	12660	12380	12030	11620	11130	10570	9950	9040	8040	
37				12790	12770	12740	12730	12750	12690	12690	12620	12480	12280	12010	11670	11260	10790	10250	9640	8750	7790	
<b>37.5</b>				<b>12600</b>	<b>12580</b>	<b>12550</b>	<b>12540</b>	<b>12560</b>	<b>12500</b>	<b>12500</b>	<b>12430</b>	<b>12290</b>	<b>12090</b>	<b>11830</b>	<b>11490</b>	<b>11090</b>	<b>10620</b>	<b>10090</b>	<b>9490</b>	<b>8620</b>	<b>7660</b>	
38				12390	12370	12350	12370	12310	12310	12250	12110	11920	11650	11320	10930	10470	9940	9350	8480	7540		
39				12040	12010	12000	12020	11960	11960	11890	11760	11570	11310	10990	10610	10160	9650	9070	8230	7310		
<b>40</b>				<b>11700</b>	<b>11670</b>	<b>11660</b>	<b>11680</b>	<b>11620</b>	<b>11620</b>	<b>11560</b>	<b>11430</b>	<b>11250</b>	<b>10990</b>	<b>10680</b>	<b>10310</b>	<b>9870</b>	<b>9370</b>	<b>8800</b>	<b>7980</b>	<b>7090</b>		
41				11350	11340	11360	11300	11300	11240	11120	10930	10690	10380	10020	9590	9100	8550	7750	6880			
42				11050	11040	11050	11000	11000	10940	10820	10640	10400	10100	9740	9330	8850	8310	7530	6680			
<b>42.5</b>				<b>10900</b>	<b>10890</b>	<b>10900</b>	<b>10850</b>	<b>10850</b>	<b>10790</b>	<b>10670</b>	<b>10500</b>	<b>10260</b>	<b>9970</b>	<b>9610</b>	<b>9200</b>	<b>8730</b>	<b>8200</b>	<b>7430</b>	<b>6590</b>			
43					10740	10760	10710	10710	10650	10530	10360	10120	9830	9480	9080	8610	8090	7320	6490			
44					10470	10480	10430	10430	10370	10260	10090	9860	9570	9230	8840	8380	7870	7120	6310			
<b>45</b>					<b>10200</b>	<b>10220</b>	<b>10170</b>	<b>10170</b>	<b>10110</b>	<b>10000</b>	<b>9830</b>	<b>9610</b>	<b>9330</b>	<b>9000</b>	<b>8610</b>	<b>8160</b>	<b>7660</b>	<b>6930</b>	<b>6140</b>			
46						9960	9910	9910	9860	9750	9580	9370	9090	8770	8390	7950	7460	6750	5970			
47						9720	9670	9670	9620	9510	9350	9140	8870	8550	8180	7750	7270	6570	5810			
<b>47.5</b>						<b>9600</b>	<b>9550</b>	<b>9550</b>	<b>9500</b>	<b>9390</b>	<b>9230</b>	<b>9020</b>	<b>8760</b>	<b>8440</b>	<b>8070</b>	<b>7650</b>	<b>7180</b>	<b>6490</b>	<b>5740</b>			
48							9440	9440	9380	9280	9120	8910	8650	8340	7970	7560	7090	6410	5660			
49							9210	9210	9160	9060	8910	8700	8450	8140	7780	7370	6910	6240	5510			
<b>50</b>							<b>9000</b>	<b>9000</b>	<b>8950</b>	<b>8850</b>	<b>8700</b>	<b>8500</b>	<b>8250</b>	<b>7950</b>	<b>7600</b>	<b>7200</b>	<b>6750</b>	<b>6090</b>	<b>5370</b>			
51								8790	8740	8650	8500	8300	8060	7760	7420	7030	6580	5940	5240			
52								8600	8550	8450	8310	8110	7870	7580	7250	6860	6430	5800	5110			
<b>52.5</b>								<b>8500</b>	<b>8450</b>	<b>8360</b>	<b>8210</b>	<b>8020</b>	<b>7780</b>	<b>7500</b>	<b>7160</b>	<b>6780</b>	<b>6350</b>	<b>5730</b>	<b>5050</b>			
53									8360	8260	8120	7930	7700	7410	7080	6700	6280	5660	4990			
54									8180	8080	7940	7760	7530	7250	6920	6550	6140	5530	4870			
<b>55</b>									<b>8000</b>	<b>7910</b>	<b>7770</b>	<b>7590</b>	<b>7360</b>	<b>7090</b>	<b>6770</b>	<b>6410</b>	<b>6000</b>	<b>5400</b>	<b>4750</b>			
56										7740	7610	7430	7200	6940	6620	6260	5860	5280	4640			
57										7580	7450	7270	7050	6790	6480	6130	5730	5160	4530			
<b>57.5</b>										<b>7500</b>	<b>7370</b>	<b>7190</b>	<b>6980</b>	<b>6720</b>	<b>6410</b>	<b>6060</b>	<b>5670</b>	<b>5100</b>	<b>4480</b>			
58											7290	7120	6900	6640	6340	6000	5610	5040	4430			
59											7140	6970	6760	6510	6210	5870	5490	4930	4330			
<b>60</b>											<b>7000</b>	<b>6830</b>	<b>6620</b>	<b>6370</b>	<b>6080</b>	<b>5750</b>	<b>5370</b>	<b>4830</b>	<b>4230</b>			
61												6700	6490	6240	5960	5630	5260	4720	4140			
62													6560	6360	6120	5840	5510	5150	4620	4050		
<b>62.5</b>													<b>6500</b>	<b>6300</b>	<b>6060</b>	<b>5780</b>	<b>5460</b>	<b>5100</b>	<b>4570</b>	<b>4000</b>		
63														6240	6000	5720	5400	5050	4530	3960		
64															6120	5880	5610	5300	4940	4430	3870	
<b>65</b>															<b>6000</b>	<b>5770</b>	<b>5500</b>	<b>5190</b>	<b>4840</b>	<b>4340</b>	<b>3790</b>	
66																5660	5390	5090	4750	4250	3710	
67																5550	5290	4990	4660	4170	3630	
<b>67.5</b>																<b>5500</b>	<b>5240</b>	<b>4940</b>	<b>4610</b>	<b>4120</b>	<b>3590</b>	
68																	5190	4900	4570	4080	3560	
69																	5090	4800	4480	4000	3480	
<b>70</b>																	<b>5000</b>	<b>4710</b>	<b>4390</b>	<b>3920</b>	<b>3410</b>	
71																		4630	4310	3850	3340	
72																		4540	4230	3770	3280	
<b>72.5</b>																		<b>4500</b>	<b>4190</b>	<b>3740</b>	<b>3240</b>	
73																			4150	3700	3210	
74																			4070	3630	3150	
<b>75</b>																			<b>4000</b>	<b>3560</b>	<b>3090</b>	
76																				3500	3030	
77																					3430	2970
<b>77.5</b>																					<b>3400</b>	<b>2940</b>
78																						2910
79																						2850
<b>80</b>																						<b>2800</b>



## 3 Tower combinations

	<p><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><b>NOTICE</b></p> <p>All tower combinations apply to free standing slewing tower cranes without climbing gear.</p>
	<p><b>NOTICE</b></p> <p>The quadruple reeving hook height is only for the crane 8033.16 in quadruple reeving mode.</p>
	<p><b>NOTICE</b></p> <p>For tower combination with tower element TV 25 and UV 25 please contact WOLFFKRAN.</p>

## 3.1 Tower combinations on foundation anchor (TV 20 - connection)

Jib length	30 m – 80 m			
Item				
1	4.5 m	TV 20.4		
2	9.0 m	TV 20.4		
3	13.5 m	TV 20.4		
4	18.0 m	TV 20.4		
5	22.5 m	TV 20.4		
6	27.0 m	TV 20.4		
7	31.5 m	TV 20.4		
8	36.0 m	TV 20.4		
9	40.5 m	TV 20.4		
10	45.0 m	TV 20.4		
11	49.5 m	TV 20.4		
12	54.0 m	TV 20.4		
Foundation anchor		TYPE D -140/ FUA 140		
Tower height [m]		54.0		
Hook height double reeving [m]		55.0		
Hook height quadruple reeving [m]		54.6		

Jib length	30 m – 80 m			
Item				
1	4.5 m	TV 20.4		
2	9.0 m	TV 20.4		
3	13.5 m	TV 20.4		
4	18.0 m	TV 20.4		
5	22.5 m	TV 20.4		
6	27.0 m	TV 20.4		
7	31.5 m	TV 20.4		
8	36.0 m	TV 20.4		
9	40.5 m	TV 20.4		
10	45.0 m	TV 20.4		
11	49.5 m	TV 20.4		
12	50.5 m	VR 2023		
13	55.0 m	TV 23		
14	59.5 m	TV 23		
Foundation anchor		TYPE D-140 / FUA 140		
Tower height [m]		59.5		
Hook height double reeving [m]		60.5		
Hook height quadruple reeving [m]		60.1		

Jib length	30 m – 80 m			
Item				
1	4.5 m	TV 20.4		
2	9.0 m	TV 20.4		
3	13.5 m	TV 20.4		
4	18.0 m	TV 20.4		
5	22.5 m	TV 20.4		
6	27.0 m	TV 20.4		
7	31.5 m	TV 20.4		
8	36.0 m	TV 20.4		
9	40.5 m	TV 20.4		
10	45.0 m	TV 20.4		
11	46.0 m	VR 2023		
12	50.5 m	TV 23		
13	55.0 m	TV 23		
14	59.5 m	HTA 23		
15	64.0 m	HT 23		
16	68.5 m	HT 23		
17	73.0 m	HT 23		
Foundation anchor		FUA G 160		
Tower height [m]		73.0		
Hook height double reeving [m]		74.0		
Hook height quadruple reeving [m]		73.6		

Jib length	30 m – 80 m			
Item				
1	4.5 m	TV 20.4		
2	9.0 m	TV 20.4		
3	13.5 m	TV 20.4		
4	18.0 m	TV 20.4		
5	22.5 m	TV 20.4		
6	27.0 m	TV 20.4		
7	31.5 m	TV 20.4		
8	36.0 m	TV 20.4		
9	40.5 m	TV 20.4		
10	41.5 m	VR 2023		
11	46.0 m	TV 23		
12	50.5 m	TV 23		
13	55.0 m	HTA 23		
14	59.5 m	HT 23		
15	64.0 m	HT 23		
16	68.5 m	HT 23		
17	79.8 m	BT 23		
Foundation anchor		FUA G 210		
Tower height [m]		79.8		
Hook height double reeving [m]		80.8		
Hook height quadruple reeving [m]		80.4		

Jib length	30 m – 80 m				
Item					
1	4.5 m	TV 20.4			
2	9.0 m	TV 20.4			
3	13.5 m	TV 20.4			
4	18.0 m	TV 20.4			
5	22.5 m	TV 20.4			
6	27.0 m	TV 20.4			
7	31.5 m	TV 20.4			
8	36.0 m	TV 20.4			
9	40.5 m	TV 20.4			
10	41.5 m	VR 2023			
11	46.0 m	TV 23			
12	50.5 m	TV 23			
13	55.0 m	HTA 23			
14	59.5 m	HT 23			
15	64.0 m	HT 23			
16	68.5 m	HT 23			
17	69.7 m	VR 23/25-29			
18	74.2 m	UV 29			
19	84.2 m	BT 29			
Foundation anchor		FUA BT 29			
Tower height [m]		84.2			
Hook height double reeving [m]		85.2			
Hook height quadruple reeving [m]		84.8			

## 3.2 Tower combinations on foundation anchor (HT23 - connection)

Jib length	30 m – 80 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		
12	54.0 m	HT 23		
13	58.5 m	HT 23		
14	63.0 m	HT 23		
15	67.5 m	HT 23		
16	78.8 m	BT 23		
Foundation anchor		FUA G 210		
Tower height [m]		78.8		
Hook height double reeving [m]		79.8		
Hook height quadruple reeving [m]		79.4		

## 3.3 Tower combinations on cross frame (TV 20 - connection)

Jib length	30 m – 80 m			
Item				
1	4.5 m	TV 20.4		
2	9.0 m	TV 20.4		
3	13.5 m	TV 20.4		
4	18.0 m	TV 20.4		
5	22.5 m	TV 20.4		
6	27.0 m	TV 20.4		
7	31.5 m	TV 20.4		
8	36.0 m	TV 20.4		
9	40.5 m	TV 20.4		
10	45.0 m	TV 20.4		
11	49.5 m	TV 20.4		
12	54.0 m	TV 20.4		
Substructure		KR 12-60 / KR 12-60/80		
[m x m]		6.0 x 6.0 8.0 x 8.0		
Substructure height [m]		1.4		
Tower height [m]		55.4		
Hook height double reeving [m]		56.4		
Hook height quadruple reeving [m]		56.0		



Jib length	30 m – 80 m			
Item				
1	4.5 m	TV 20.4		
2	9.0 m	TV 20.4		
3	13.5 m	TV 20.4		
4	18.0 m	TV 20.4		
5	22.5 m	TV 20.4		
6	27.0 m	TV 20.4		
7	31.5 m	TV 20.4		
8	36.0 m	TV 20.4		
9	40.5 m	TV 20.4		
10	45.0 m	TV 20.4		
11	49.5 m	TV 20.4		
12	50.5 m	VR 2023		
13	55.0 m	TV 23		
14	59.5 m	TV 23		
Substructure		KR 12-60 / KR 12-60/80		
[m x m]		6.0 x 6.0 8.0 x 8.0		
Substructure height [m]		1.4		
Tower height [m]		60.9		
Hook height double reeving [m]		61.9		
Hook height quadruple reeving [m]		61.5		

Jib length	30 m – 80 m			
Item				
1	4.5 m	TV 20.4		
2	9.0 m	TV 20.4		
3	13.5 m	TV 20.4		
4	18.0 m	TV 20.4		
5	22.5 m	TV 20.4		
6	27.0 m	TV 20.4		
7	31.5 m	TV 20.4		
8	36.0 m	TV 20.4		
9	40.5 m	TV 20.4		
10	45.0 m	TV 20.4		
11	46.0 m	VR 2023		
12	50.5 m	TV 23		
13	55.0 m	TV 23		
14	59.5 m	HTA 23		
15	64.0 m	HT 23		
16	68.5 m	HT 23		
Substructure		KR 12-60 / KR 12-60/80		
[m x m]		6.0 x 6.0 8.0 x 8.0		
Substructure height [m]		1.4		
Tower height [m]		69.9		
Hook height double reeving [m]		70.9		
Hook height quadruple reeving [m]		70.5		

Jib length	30 m – 80 m			
Item				
1	4.5 m	TV 20.4		
2	9.0 m	TV 20.4		
3	13.5 m	TV 20.4		
4	18.0 m	TV 20.4		
5	22.5 m	TV 20.4		
6	27.0 m	TV 20.4		
7	31.5 m	TV 20.4		
8	36.0 m	TV 20.4		
9	40.5 m	TV 20.4		
10	45.0 m	TV 20.4		
11	46.0 m	VR 2023		
12	50.5 m	TV 23		
13	55.0 m	TV 23		
14	59.5 m	HTA 23		
15	64.0 m	HT 23		
16	68.5 m	HT 23		
Substructure		KR 16-80 / KR 16-80/100		
[m x m]		8.0 x 8.0 10.0 x 10.0		
Substructure height [m]		1.8		
Tower height [m]		70.3		
Hook height double reeving [m]		71.3		
Hook height quadruple reeving [m]		70.9		



# WOLFFKRAN

Jib length	30 m – 80 m			
Item				
1	4.5 m	TV 20.4		
2	9.0 m	TV 20.4		
3	13.5 m	TV 20.4		
4	18.0 m	TV 20.4		
5	22.5 m	TV 20.4		
6	27.0 m	TV 20.4		
7	31.5 m	TV 20.4		
8	36.0 m	TV 20.4		
9	40.5 m	TV 20.4		
10	41.5 m	VR 2023		
11	46.0 m	TV 23		
12	50.5 m	TV 23		
13	55.0 m	HTA 23		
14	59.5 m	HT 23		
15	64.0 m	HT 23		
16	68.5 m	HT 23		
17	69.7 m	VR 23/25-29		
18	74.2 m	UV 29		
19	84.2 m	BT 29		
Substructure		KR 16-80/100		
[m x m]		10.0 x 10.0		
Substructure height [m]		1.8		
Tower height [m]		86.0		
Hook height double reeving [m]		87.0		
Hook height quadruple reeving [m]		86.6		

## 3.4 Tower combinations on cross frame element (TV 20 - connection)

Jib length	30 m – 80 m			
Item				
1	4.5 m	TV 20.4		
2	9.0 m	TV 20.4		
3	13.5 m	TV 20.4		
4	18.0 m	TV 20.4		
5	22.5 m	TV 20.4		
6	27.0 m	TV 20.4		
Substructure		KRE 260.2		
[m x m]		6.0 x 6.0		
Substructure height [m]		4.0		
Tower height [m]		31.0		
Hook height double reeving [m]		32.0		
Hook height quadruple reeving [m]		31.6		

Jib length	30 m – 80 m			
Item				
1	4.5 m	TV 20.4		
2	9.0 m	TV 20.4		
3	13.5 m	TV 20.4		
4	18.0 m	TV 20.4		
5	22.5 m	TV 20.4		
6	27.0 m	TV 20.4		
7	31.5 m	TV 20.4		
8	36.0 m	TV 20.4		
9	40.5 m	TV 20.4		
10	45.0 m	TV 20.4		
11	49.5 m	TVÜ 20.4		
12	54.0 m	UVA 25		
Substructure		KRE 480		
[m x m]		8.0 x 8.0		
Substructure height [m]		4.0		
Tower height [m]		58.0		
Hook height double reeving [m]		59.0		
Hook height quadruple reeving [m]		58.6		

## 3.5 Tower combinations on mobile cross frame (TV 20 connection)

Jib length	30 m – 80 m			
Item				
1	4.5 m	TV 20.4	TV 20.4	
2	9.0 m	TV 20.4	TV 20.4	
3	13.5 m	TV 20.4	TV 20.4	
4	18.0 m	TV 20.4	TV 20.4	
5	22.5 m	TV 20.4	TV 20.4	
6	27.0 m	TV 20.4	TV 20.4	
7	31.5 m	TV 20.4	TV 20.4	
8	36.0 m	TV 20.4	TV 20.4	
9	40.5 m	TV 20.4	TV 20.4	
10	45.0 m	TV 20.4	TV 20.4	
Substructure		KRF4 12-60/80	KRF6 12-60/80	
[m x m]		8.0 x 8.0	8.0 x 8.0	
Substructure height [m]		2.5	2.9	
Tower height [m]		47.5	47.9	
Hook height double reeving [m]		48.5	48.9	
Hook height 4-fall operation [m]		48.1	48.5	



Jib length	30 m – 80 m			
Item				
1	4.5 m	TV 20.4	TV 20.4	
2	9.0 m	TV 20.4	TV 20.4	
3	13.5 m	TV 20.4	TV 20.4	
4	18.0 m	TV 20.4	TV 20.4	
5	22.5 m	TV 20.4	TV 20.4	
6	27.0 m	TV 20.4	TV 20.4	
7	31.5 m	TV 20.4	TV 20.4	
8	36.0 m	TV 20.4	TV 20.4	
9	40.5 m	TV 20.4	TV 20.4	
10	41.5 m	VR 2023	VR 2023	
11	46.0 m	TV 23	TV 23	
12	50.5 m	TV 23	TV 23	
13	55.0 m	TV 23	TV 23	
Substructure		KRF4 12-60/80	KRF6 12-60/80	
[m x m]		8.0 x 8.0	8.0 x 8.0	
Substructure height [m]		2.5	2.9	
Tower height [m]		57.5	57.9	
Hook height double reeving [m]		58.5	58.9	
Hook height 4-fall operation [m]		58.1	58.5	

Jib length	30 m – 80 m			
Item				
1	4.5 m	TV 20.4		
2	9.0 m	TV 20.4		
3	13.5 m	TV 20.4		
4	18.0 m	TV 20.4		
5	22.5 m	TV 20.4		
6	27.0 m	TV 20.4		
7	31.5 m	TV 20.4		
8	36.0 m	TV 20.4		
9	40.5 m	TV 20.4		
10	41.5 m	VR 2023		
11	46.0 m	TV 23		
12	50.5 m	TV 23		
13	55.0 m	HTA 23		
14	59.5 m	HT 23		
15	64.0 m	HT 23		
Substructure		KRF6 12-60/80		
[m x m]		8.0 x 8.0		
Substructure height [m]		2.9		
Tower height [m]		66.9		
Hook height double reeving [m]		67.9		
Hook height 4-fall operation [m]		67.5		

Jib length	30 m – 80 m			
Item				
1	4.5 m	TV 20.4		
2	9.0 m	TV 20.4		
3	13.5 m	TV 20.4		
4	18.0 m	TV 20.4		
5	22.5 m	TV 20.4		
6	27.0 m	TV 20.4		
7	31.5 m	TV 20.4		
8	36.0 m	TV 20.4		
9	37.0 m	VR 2023		
10	41.5 m	TV 23		
11	46.0 m	TV 23		
12	50.5 m	HTA 23		
13	55.0 m	HT 23		
14	59.5 m	HT 23		
15	64.0 m	HT 23		
16	68.5 m	HT 23		
Substructure		KRF 16-80/100		
[m x m]		10.0 x 10.0		
Substructure height [m]		3.3		
Tower height [m]		71.8		
Hook height double reeving [m]		72.8		
Hook height 4-fall operation [m]		72.4		


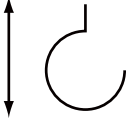
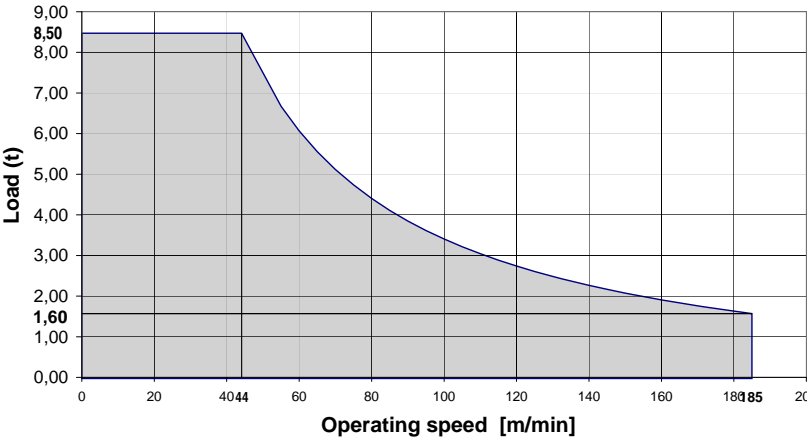
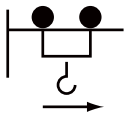
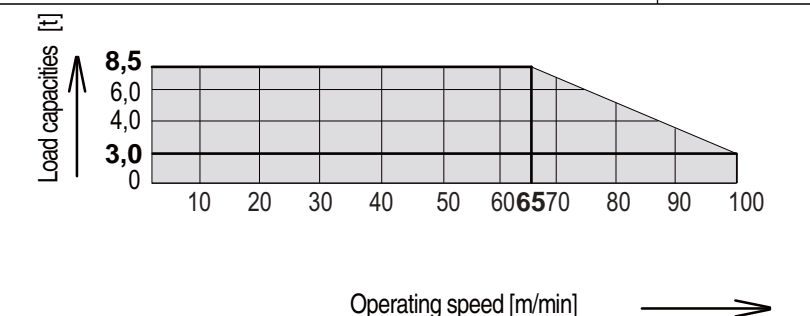

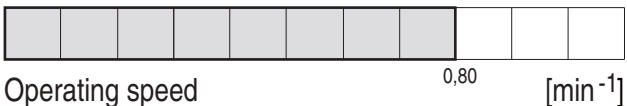
Jib length	30 m – 80 m				
Item					
1	4.5 m	TV 20.4			
2	9.0 m	TV 20.4			
3	13.5 m	TV 20.4			
4	18.0 m	TV 20.4			
5	22.5 m	TV 20.4			
6	27.0 m	TV 20.4			
7	31.5 m	TV 20.4			
8	36.0 m	TV 20.4			
9	37.0 m	VR 2023			
10	41.5 m	TV 23			
11	46.0 m	TV 23			
12	50.5 m	HTA 23			
13	55.0 m	HT 23			
14	59.5 m	HT 23			
15	64.0 m	HT 23			
16	65.2 m	VR 23/25-29			
17	69.7 m	UV 29			
18	78.7 m	BT 29			
Substructure	KRF 16-80/100				
[m x m]	10.0 x 10.0				
Substructure height [m]	3.3				
Tower height [m]	83.0				
Hook height double reeving [m]	84.0				
Hook height quadruple reeving [m]	83.6				

## 3.6 Tower combinations on bogie truck (TV 20 - connection)

Jib length	30 m – 80 m			
Item				
1	4.5 m	TV 20.4		
2	9.0 m	TV 20.4		
3	13.5 m	TV 20.4		
4	18.0 m	TV 20.4		
5	22.5 m	TV 20.4		
Substructure		UW 260.3		
[m x m]		6.0 x 6.0		
Substructure height [m]		4.5		
Tower height [m]		27.0		
Hook height double reeving [m]		28.0		
Hook height quadruple reeving [m]		27.6		

Jib length	30 m – 80 m				
Item					
1	4.5 m	TV 20.4			
2	9.0 m	TV 20.4			
3	13.5 m	TV 20.4			
4	18.0 m	TV 20.4			
5	22.5 m	TV 20.4			
6	27.0 m	TV 20.4			
7	31.5 m	TV 20.4			
8	36.0 m	TV 20.4			
9	40.5 m	TV 20.4			
10	45.0 m	TVÜ 20.4			
11	49.5 m	TV 25			
12	54.0 m	UVA 25			
Substructure		UW 480			
[m x m]		8.0 x 8.0			
Substructure height [m]		5.0			
Tower height [m]		59.0			
Hook height double reeving [m]		60.0			
Hook height quadruple reeving [m]		59.6			

## 4 Operating speeds

Drive unit [type]	Operating speed Carrying load		Hook travel distance max. [m]	Power [kW]	Total connected load [kVA]
Hw875FU	Lifting / lowering		400	75	<b>97.0</b> Total connected load at coincidence factor of 0.7
					
<b>KW</b>	<b>Crab movement</b>			<b>9.0</b>	
					
<b>SG</b>	<b>Slewing</b>			<b>2 x 7.5</b>	
					


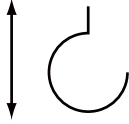
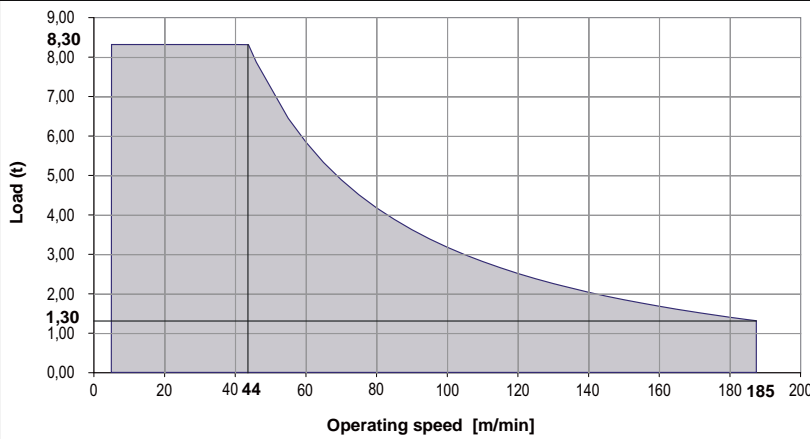
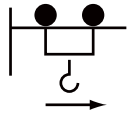
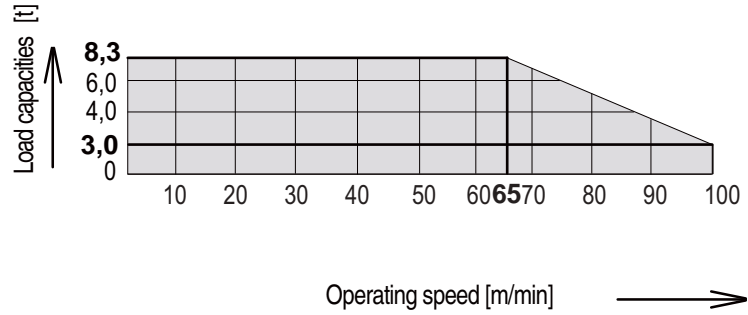

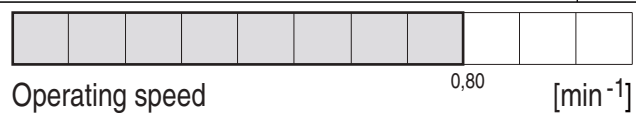


## NOTICE

4-fall mode only with the 8033.16cross.


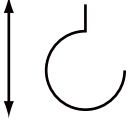
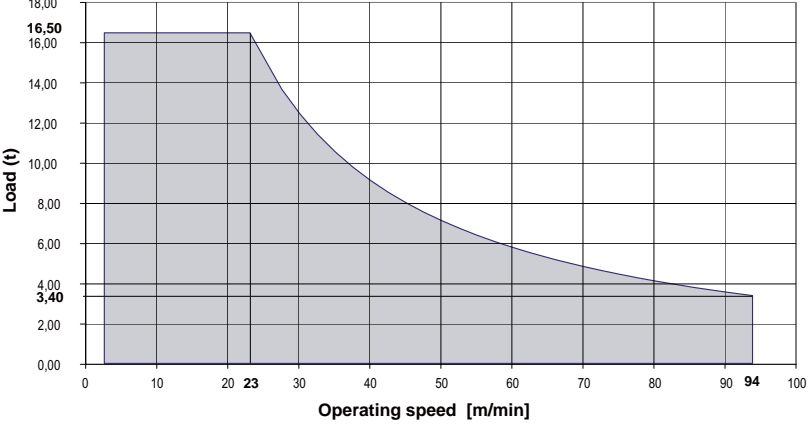
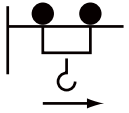
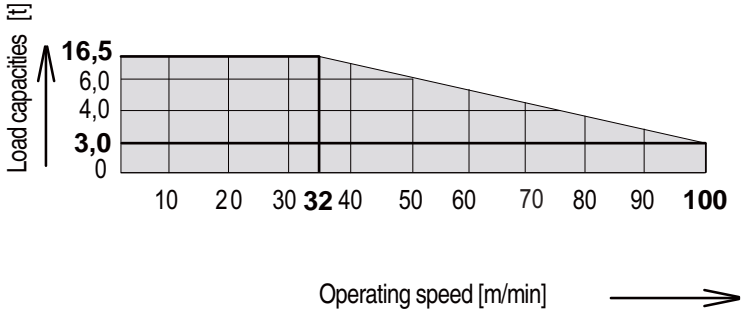

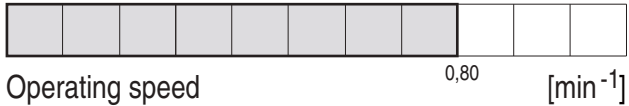
The 4-fall mode is only possible at the slewing tower crane 8033.16cross.

### Operating speeds WOLFF 8033.16


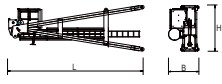

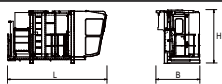

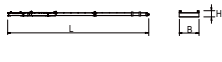

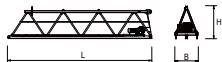
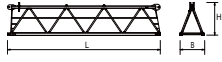
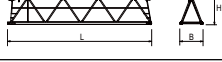
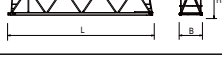
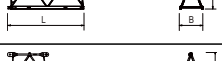

Drive unit [type]	Operating speed Carrying load		Hook travel distance max. [m]	Power [kW]	Total connected load [kVA]
Hw875FU	Lifting / lowering		460	75	<b>97.0</b> Total connected load at coincidence factor of 0.7
					
<b>KW</b>	<b>Crab movement</b>			<b>9.0</b>	
					
<b>SG</b>	<b>Slewing</b>			<b>2 x 7.5</b>	
					

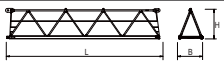
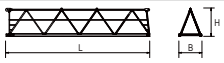

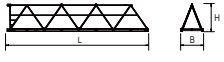

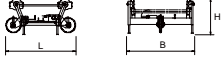


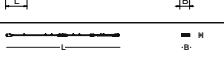


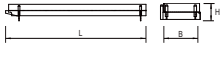







# WOLFFKRAN

Drive unit [type]	Operating speed Carrying load		Hook travel distance max. [m]	Power [kW]	Total connected load [kVA]
Hw875FU	Lifting / lowering		230	75	<b>97.0</b> Total connected load at coincidence factor of 0.7
					
<b>KW</b>	<b>Crab movement</b>			<b>9.0</b>	
					
<b>SG</b>	<b>Slewing</b>			<b>2 x 7.5</b>	
					

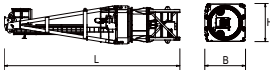
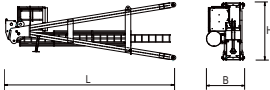
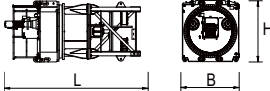


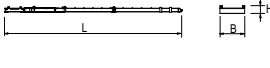
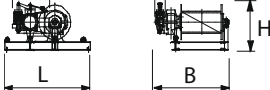
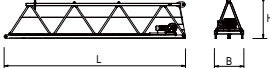
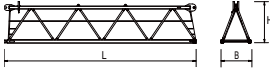
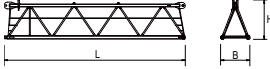
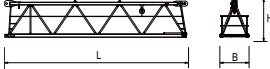


## 5 Package list 8033.8

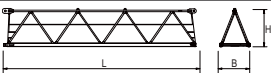
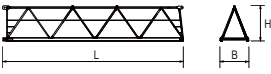



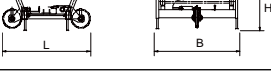



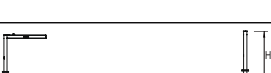

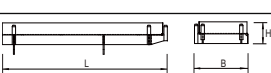
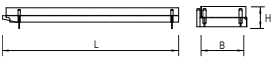

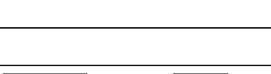


Quantity	Description	Package	L [m]	W [m]	H [m]	Weight [kg]	Volume [m³]		
1	Tower head section, complete with slewing frame, ball slew bearing, slewing gear and slip ring system  (stay parts on counter jib)		with UV 20 lower part of tower head section					15000 (410)	66.41
			11.55	2.30	2.50				
			with HT 23 lower part of tower head section					16300 (410)	76.34
			11.75	2.32	2.80				
	Tower head section upper part (stay parts for counter jib)		7.39	2.49	1.66	2925 (410)	30.55		
			Tower head section lower part with slewing frame, ball slew bearing, slewing gear and slip ring system		with UV 20 lower part of tower head section				
	5.60	2.30			2.50				
	with HT 23 lower part of tower head section					13370 (410)	37.68		
5.80	2.32	2.80							
1	Driver's cab with driver's cab suspension		4.82	2.19	2.55	2625	26.92		
1	Counter jib in hinged position  (stay parts on counter jib)		11.98	2.30	1.31	7140 (865)	36.10		
	Counter jib (stay parts on counter jib)		22.24	2.30	0.72	7140 (865)	36.83		
1	Hoist winch platform Hw875FU (2. Brake)  (210 m hoist rope) (290m hoist rope)		2.17	1.88	1.18	2250  (270) (370)	4.82		
1	Jib section 1 with traverse gear		10.19	1.64	2.29	3400	38.54		
1	Jib section 2		10.19	1.64	2.08	2460	34.76		
1	Jib section 3		10.23	1.64	2.08	2320	34.90		
1	Jib section 4		10.30	1.64	2.07	2300	34.97		
1	Jib section 5		5.33	1.64	2.03	1135	17.74		
1	Jib section 6		2.83	1.64	2.03	695	9.42		

Quantity	Description	Package	L [m]	W [m]	H [m]	Weight [kg]	Volume [m <sup>3</sup> ]
1	Jib section 7		10.28	1.64	2.03	1815	34.22
1	Jib section 8		10.22	1.64	2.02	1290	33.86
1	Jib section 9		5.20	1.64	2.01	660	17.14
1	Jib section 10		10.19	1.64	2.01	1040	33.59
1	Rope swivel crossbeam		1.38	1.54	0.50	245	1.06
1	Trolley LK 8		1.87	1.85	1.00	330	3.46
1	Maintenance cage		0.75	0.55	1.69	55	0.70
1	Snatch block U 8		1.02	0.26	1.70	505	0.45
1	Brace rods for operating radius 80 m		10.17	0.25	0.60	2780	1.53
1	Auxiliary crane (stand)		2.53	0.30	2.96	220 (80)	2.25
1	Package pedestal 1 on counterjib 8033		2.73	0.66	0.33	100	0.59
2	Platform 2/3 on counter jib		1.72	0.66	0.33	75	0.37
1	Package pedestal 4 on counterjib 8033		2.89	0.66	0.33	105	0.63
1	Package pedestal 5 on counterjib 8033		2.77	0.66	0.33	100	0.60
1	Package pedestal 6 on counterjib 8033		2.61	0.66	0.33	95	0.57
	Standard railings		2.60	1.10	0.65	300	1.86
1	Box (small parts)		0.63	0.50	0.38	100	1.12

**NOTICE! Bracketed weights must be added to their associated components.**

## 6 Package list 8033.16


Quantity	Description	Package	L [m]	W [m]	H [m]	Weight [kg]	Volume [m <sup>3</sup> ]		
1	Tower head section, complete with slewing frame, ball slew bearing, slewing gear and slip ring system  (stay parts on counter jib)		with UV 20 lower part of tower head section					15000 (410)	66.41
			11.55	2.30	2.50				
			with HT 23 lower part of tower head section					16300 (410)	76.34
	Tower head section upper part (stay parts for counter jib)		7.39	2.49	1.66	2925 (410)	30.55		
	Tower head section lower part with slewing frame, ball slew bearing, slewing gear and slip ring system		with UV 20 lower part of tower head section					12075	32.20
			5.60	2.30	2.50				
			with HT 23 lower part of tower head section					13370	37.68
1	Driver's cab with driver's cab suspension		4.82	2.19	2.55	2625	26.92		
1	Counter jib in hinged position  (stay parts on counter jib)		11.98	2.30	1.31	7140 (865)	36.10		
	Counter jib  (stay parts on counter jib)		22.24	2.30	0.72	7140 (865)	36.83		
1	Hoist winch platform Hw875FU (2. Brake)  (210 m hoist rope) (290m hoist rope)		2.17	1.88	1.18	2250  (270) (370)	4.82		
1	Jib section 1 with traverse gear		10.19	1.64	2.29	3400	38.54		
1	Jib section 2		10.19	1.64	2.08	2460	34.76		
1	Jib section 3		10.23	1.64	2.08	2320	34.90		
1	Jib section 4		10.30	1.64	2.07	2300	34.97		
1	Jib section 5		5.33	1.64	2.03	1135	17.74		
1	Jib section 6		2.83	1.64	2.03	695	9.42		

Quantity	Description	Package	L [m]	W [m]	H [m]	Weight [kg]	Volume [m <sup>3</sup> ]
1	Jib section 7		10.28	1.64	2.03	1815	34.22
1	Jib section 8		10.22	1.64	2.02	1290	33.86
1	Jib section 9		5.20	1.64	2.01	660	17.14
1	Jib section 10		10.19	1.64	2.01	1040	33.59
1	Rope swivel cross-beam		1.38	1.54	0.50	245	1.06
1	Crab LK 8/16		1.87	1.85	1.00	455	3.46
1	Maintenance cage		0.75	0.55	1.69	55	0.70
1	Snatch block U 8/16		1.02	0.26	1.70	780	0.45
1	Brace rods for operating radius 80 m		10.17	0.25	0.60	2780	1.53
1	Auxiliary crane (stand)		2.53	0.30	2.96	220 (80)	2.25
1	Package pedestal 1 on counterjib 8033		2.73	0.66	0.33	100	0.59
2	Platform 2/3 on counter jib		1.72	0.66	0.33	75	0.37
1	Package pedestal 4 on counterjib 8033		2.89	0.66	0.33	105	0.63
1	Package pedestal 5 on counterjib 8033		2.77	0.66	0.33	100	0.60
1	Package pedestal 6 on counterjib 8033		2.61	0.66	0.33	95	0.57
	Standard railings		2.60	1.10	0.65	300	1.86
1	Box (small parts)		0.63	0.50	0.38	100	1.12

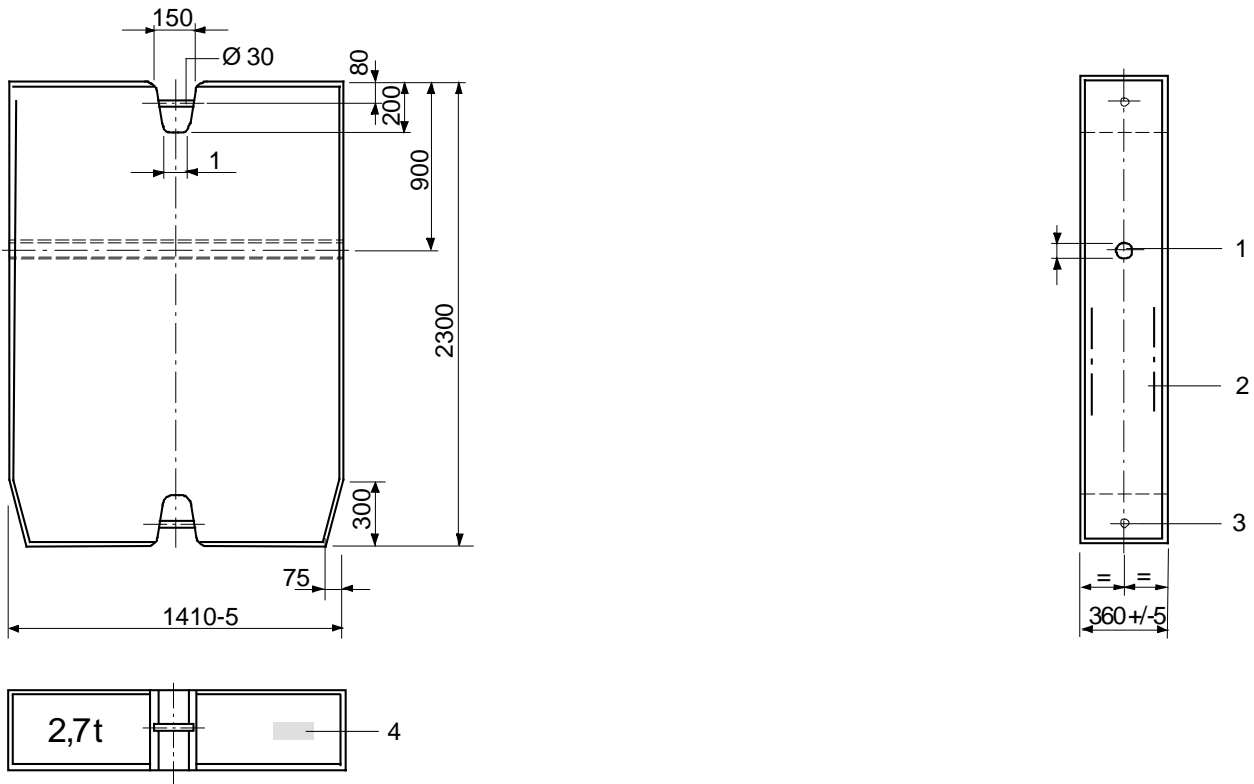
**NOTICE! Bracketed weights must be added to their associated components.**

## 7 Assembly weights

### 7.1 Counterweight blocks

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

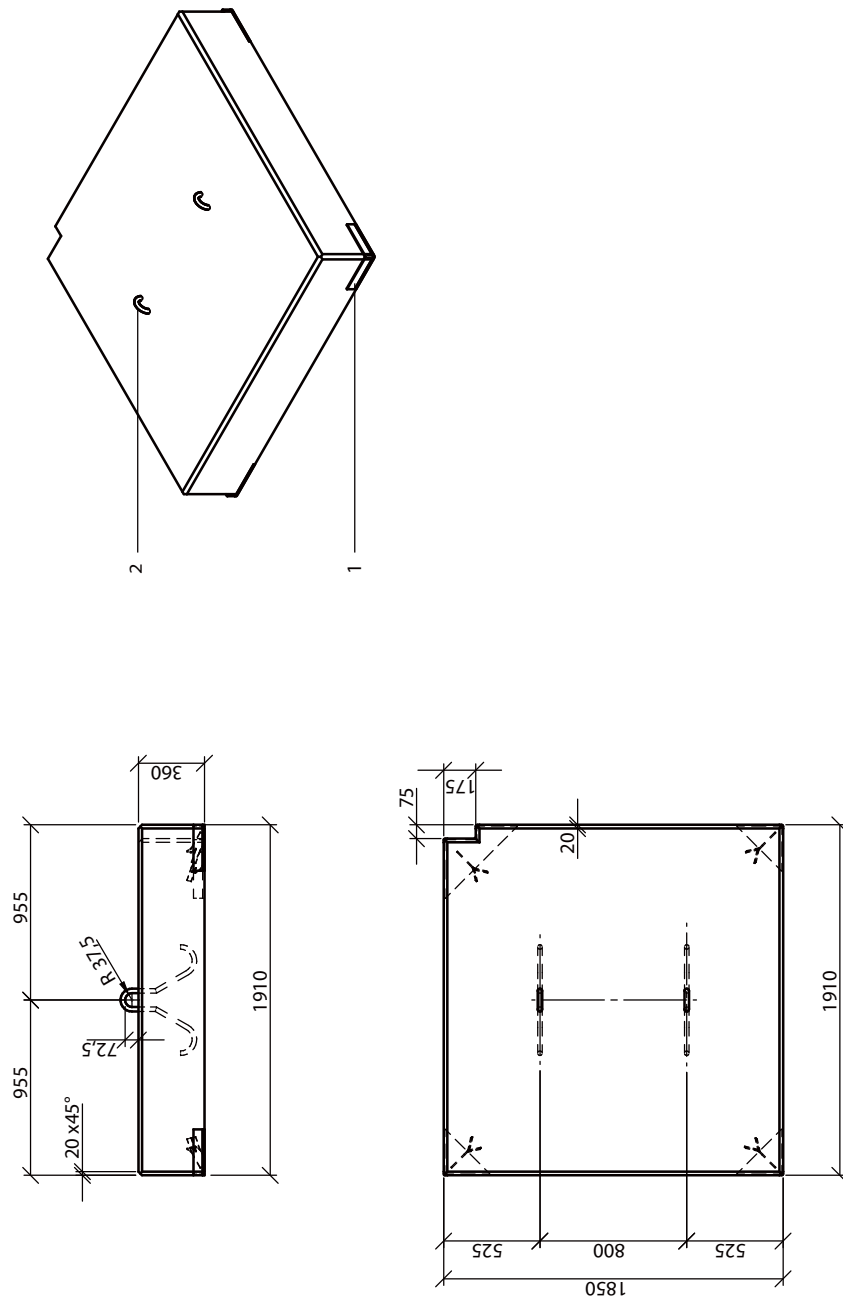
## 7.1.1 Counterweight block, 2.7 t



Data counterweight block 2.7 t

Item	Data
Material	Concrete, min. C 20/25
Max. permitted weight tolerance	+/- 3 %
Order number	962-2-005966
1	Connection for stub shaft ( $\varnothing$ 40/ 78 x 215 962-4-006490)
2	Structural steel reinforcement
3	Suspension
4	Component identifier

## 7.1.2 Counterweight block, 3.0 t



Data counterweight block 3.0 t

Item	Data
Material	Concrete, min. C 20/25
Max. permitted weight tolerance	+/- 3 %
Order number	30050551
1	Corner guard
2	Lifting eyes



## 7.2 Total weight jib assembly

### Assembly weights 8033.8

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

Jib length [m]	Weight [kg] WOLFF 8033.8cross
80.0	20215
77.5	20250
75.0	19555
72.5	19115
70.0	18420
67.5	19210
65.0	18515
62.5	18075
60.0	17380
57.5	17920
55.0	15575
52.5	15135
50.0	14440
47.5	14980
45.0	14285
42.5	13845
40.0	13150
37.5	13165
35.0	12470
32.5	12030
30.0	11335

## Assembly weights 8033.16

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

Jib length [m]	Weight [kg] WOLFF 8033.16cross
80.0	20615
77.5	20650
75.0	19955
72.5	19515
70.0	18820
67.5	19610
65.0	18915
62.5	18475
60.0	17780
57.5	18320
55.0	15975
52.5	15535
50.0	14840
47.5	15380
45.0	14685
42.5	14245
40.0	13550
37.5	13565
35.0	12870
32.5	12430
30.0	11735

## 7.3 Assembly weight slewing gear

Assembly weights 8033.8 cross

Module	Crane parts	Weight [kg]	
Tower head section, complete – tower connection TV 20 tower top lower part			15410
	▪ Tower head section upper part including brace plates	3335	
	▪ Tower head section lower part including slewing frame, ball race bearing, slewing gears, standard railings and slip ring system	12075	
Tower head section, complete – tower connection HT 23 tower top lower part			16710
	▪ Tower head section upper part including brace plates	3335	
	▪ Tower head section lower part including slewing frame, ball race bearing, slewing gears, standard railings and slip ring system	13375	
Operator cabinet platform, complete			2625
	▪ Operator cabin with operator cabin platform	2625	
Counter jib with Hw875FU, complete			14730
	▪ Counter jib with brace plates and standard railings	8910	
	▪ Hoist winch platform Hw875FU (incl. 210 m hoisting rope)	2520	
	▪ concrete weight 3.0 t (under hoisting winch platform)	3000	
	▪ Auxiliary crane incl. stand	300	

Assembly weights 8033.16 cross

Module	Crane parts	Weight [kg]	
Tower head section, complete – tower connection TV 20 tower top lower part			15410
	▪ Tower head section upper part including brace plates	3335	
	▪ Tower head section lower part including slewing frame, ball race bearing, slewing gears, standard railings and slip ring system	12075	
Tower head section, complete – tower connection HT 23 tower top lower part			16710
	▪ Tower head section upper part including brace plates	3335	
	▪ Tower head section lower part including slewing frame, ball race bearing, slewing gears, standard railings and slip ring system	13375	
Operator cabinet platform, complete			2625
	▪ Operator cabin with operator cabin platform	2625	
Counter jib with Hw875FU, complete			14830
	▪ Counter jib with brace plates and standard railings	8910	
	▪ Hoist winch platform Hw875FU (incl. 290 m hoisting rope)	2620	
	▪ concrete weight 3.0 t (under hoisting winch platform)	3000	
	▪ Auxiliary crane incl. stand	300	

## 7.4 Assembly weight cross frame

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

## 7.5 Assembly weight cross frame elements

Module	Crane parts	Weight [kg]	
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	

## 7.6 Assembly weight bogie truck

Module	Crane parts	Weight [kg]	
Bogie truck UW 260.3, complete			
	▪ Bogie truck platform with hinged sections, subframes and transport locks	11 300	
	▪ Mast base with diagonal struts and tie rods	5 900	
Bogie truck UW 480, complete			
	▪ Mast base	7 100	
	▪ Hinged sections with lifting beam and subframes	16 000	
	▪ Diagonal struts and ballast carrier	9 260	
	▪ Assembly platform, ladder, and small parts	1 640	
			34 000

## 7.7 Assembly weights travelling cross frame

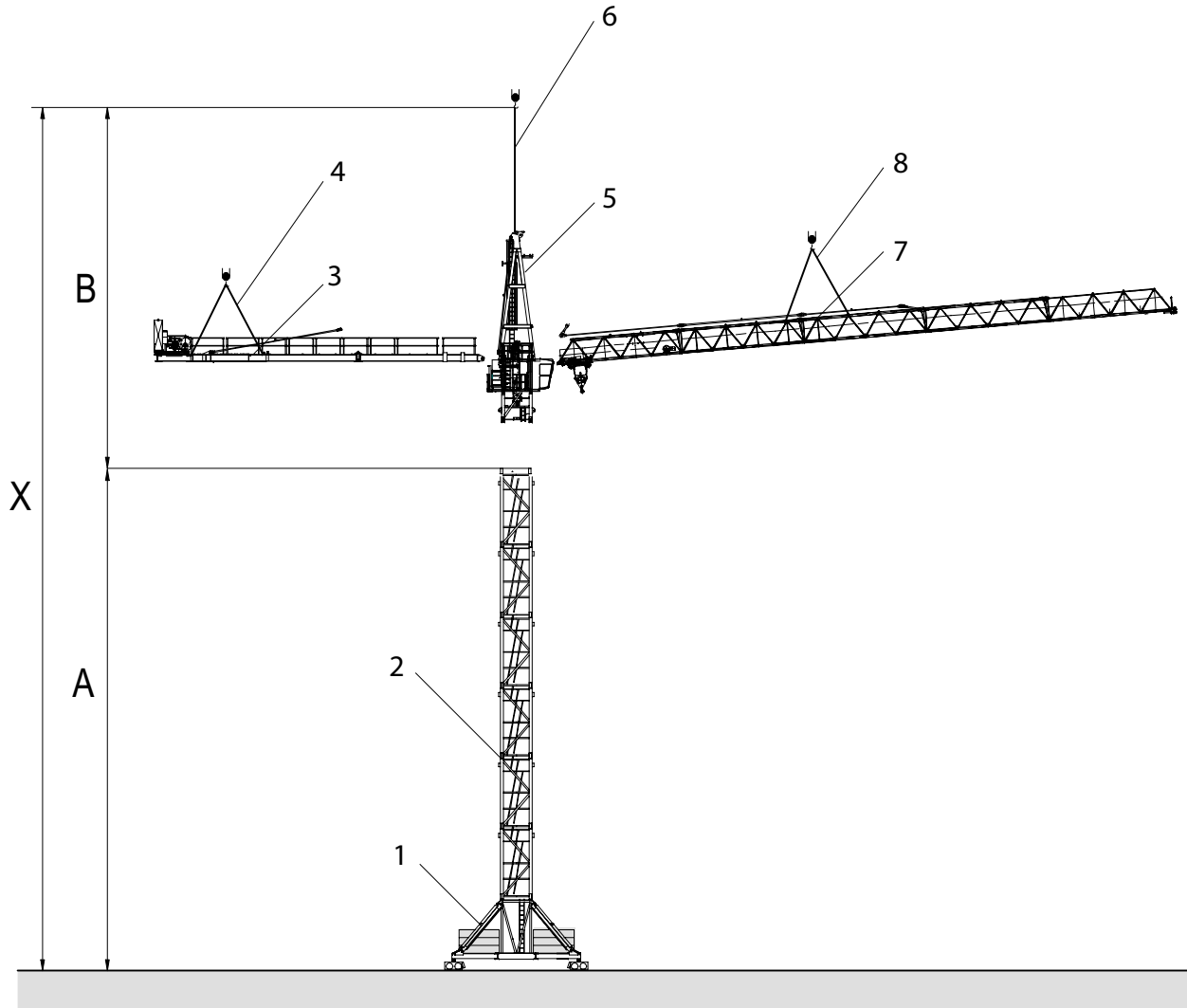
Module	crane part	Weight [kg]	
	Cross frame KRF 12 – 60/80 complete (8.0m x 8.0m)		42 480
	▪ Cross frame (without subframe and accessories)	19 260	
	▪ Extension member	720	
	▪ Backing braces	1 980	
	▪ Control cabinet	100	
	▪ Rope drum with mounting	600	
	▪ small items	240	
	▪ Drive gear	19 580	
	▪ 4 bolted spigots AZ 140 M	788	
	▪ 4 bolted spigots AZ 140 E 10	788	
	▪ 4 bolted spigots AZ 156 M	844	
	▪ 4 bolted spigots AZ 140 E 17	875	
	▪ 4 bolted spigots AZ 160 HT23	668	

## 7.8 Hook height above ground required for mobile cranes

For information about the height of the WOLFF slewing tower crane, refer to Tower combinations [9].

**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 15 (B).



Exemplary illustration

[A]	Height of the WOLFF slewing tower crane	[B]	Clearance 15 m
[X]	Hook height above ground required for the mobile crane		
1	Substructure	5	Tower head section, complete
2	Tower element	6	Single-point lifting tackle (1 m with shackle)
3	Counter jib including hoisting winch platform	7	Jib, complete
4	Four-point lifting tackle (6 m with shackle)	8	Four-point lifting tackle (6 m with shackle)




**(see also):**

- Tower combinations [\[9\]](#)

## 8 Assembly diagrams

### 8.1 Jib attachment diagram

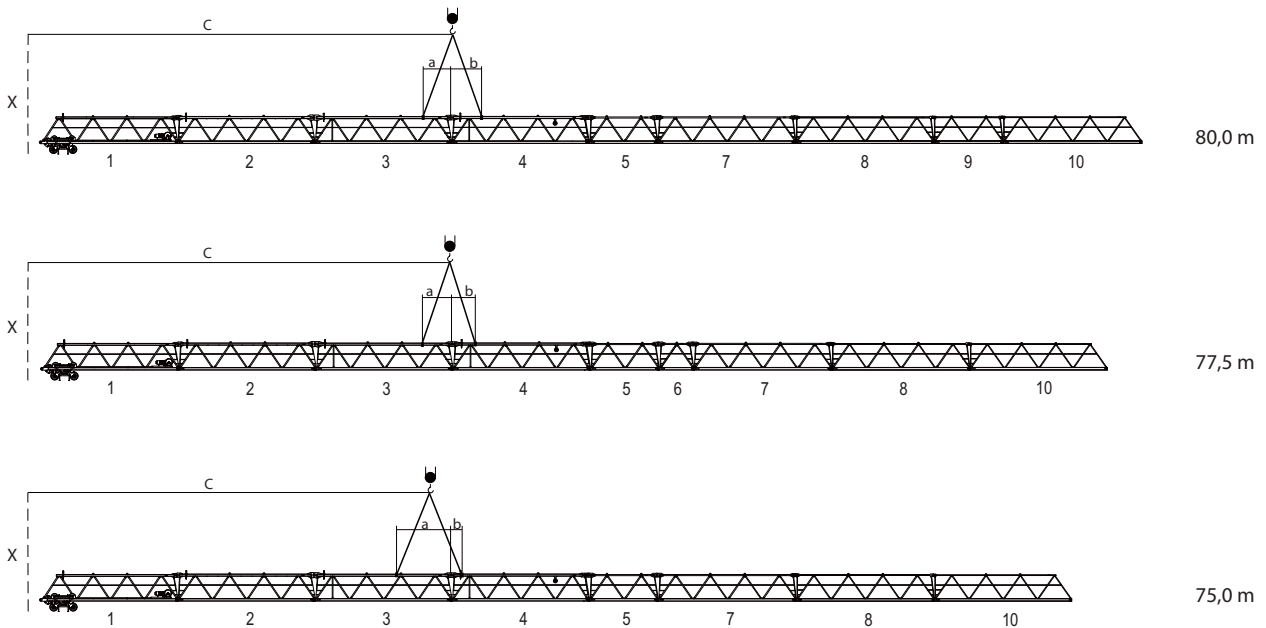
	<b>NOTICE</b>
	For jib assembly, use a Four-point lifting tackle (6 m with shackle).

#### Length of jib elements

Item	Length [m]
Jib element 1, 2, 3, 4, 7, 8, 10	10
Jib section 5.9	5
Jib section 6	2.5

## 8.1.1 Trolley jib - attachment diagram 8033.8

### 8.1.1.1 Trolley jib - attachment diagram 80.0 m to 75.0 m

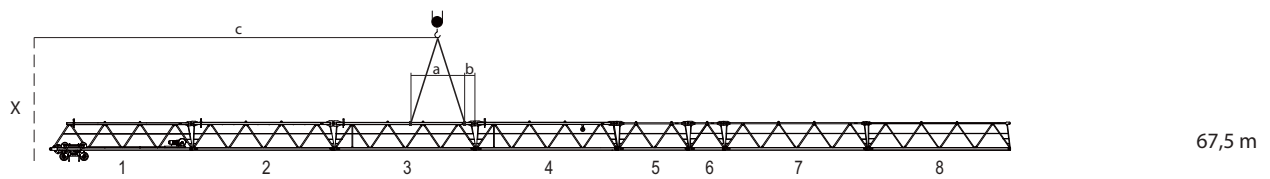
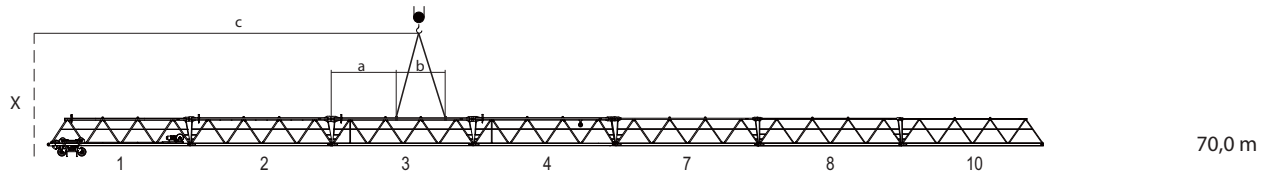
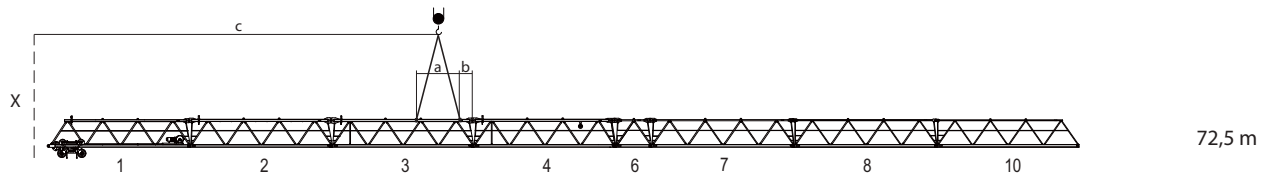


a	Dimension a	b	Dimension b
c	Dimension c	X	Middle of tower

### Attachment data 8033.8

Data	Jib length [m]		
	80.0	77.5	75.0
a [m]	2.14	2.14	3.91
b [m]	2.35	1.61	0.67
c [m]	31.30	30.90	29.50
Weight [kg]	20215	20250	19555

## 8.1.1.2 Trolley jib - attachment diagram 72.5 m to 67.5 m

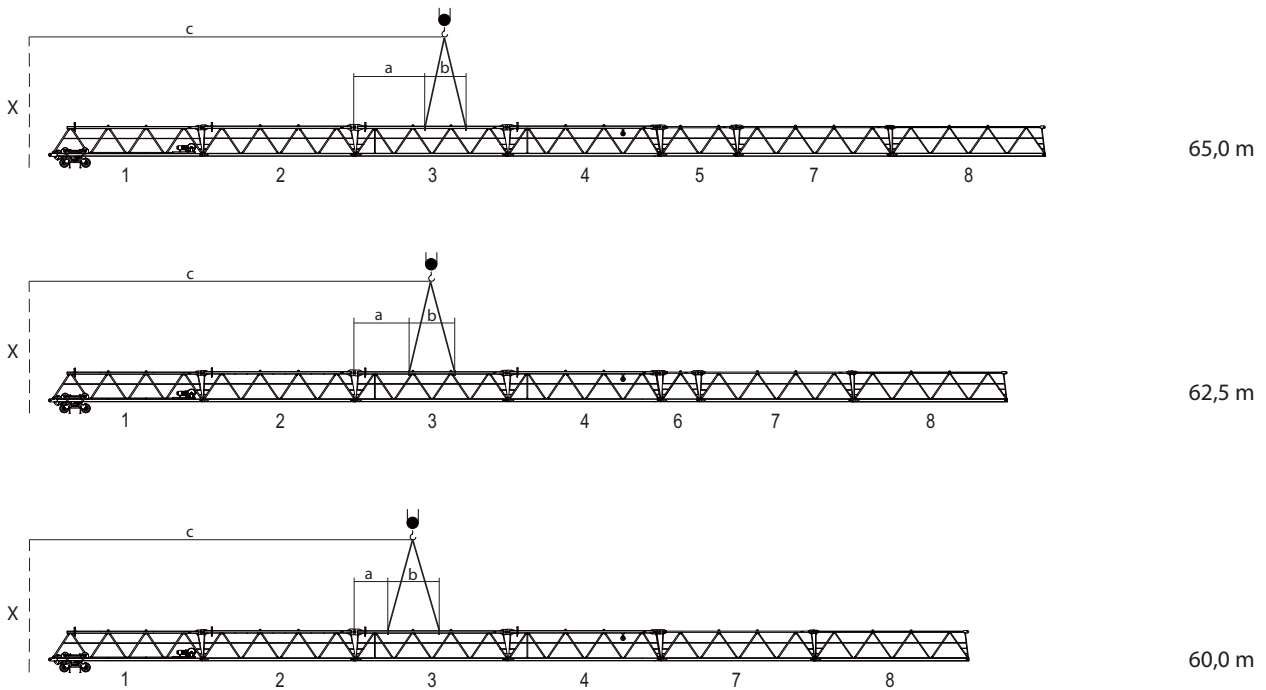


a	Dimension a	b	Dimension b
c	Dimension c	X	Middle of tower

### Attachment data 8033.8

Data	Jib length [m]		
	72.5	70.0	67.5
a [m]	3.02	4.56	3.76
b [m]	0.89	3.59	0.89
c [m]	28.80	27.50	28.40
Weight [kg]	19115	18420	19210

## 8.1.1.3 Trolley jib - attachment diagram 65.0 m to 60.0 m

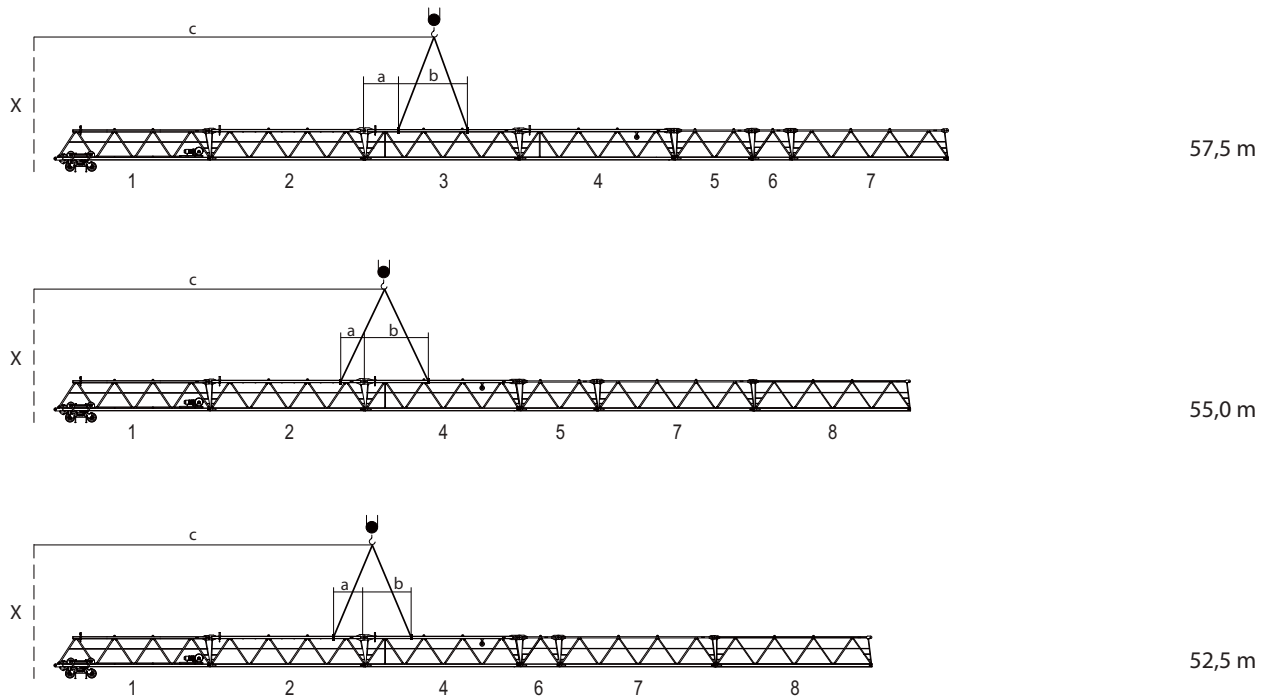


a	Dimension a	b	Dimension b
c	Dimension c	X	Middle of tower

### Attachment data 8033.8

Data	Jib length [m]		
	65.0	62.5	60.0
a [m]	4.56	3.59	2.06
b [m]	2.79	3.02	3.59
c [m]	27.10	26.30	25.00
Weight [kg]	18515	18075	17380

## 8.1.1.4 Trolley jib - attachment diagram 57.5 m to 52.5 m

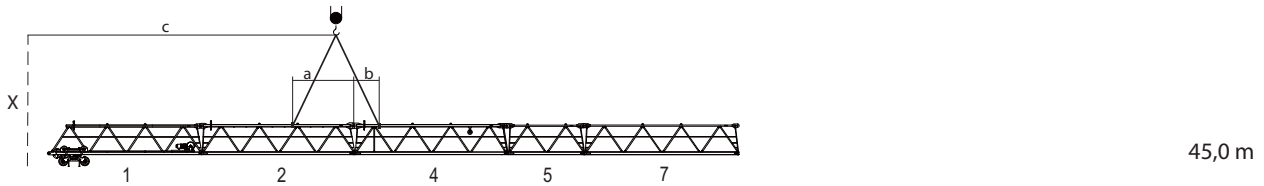
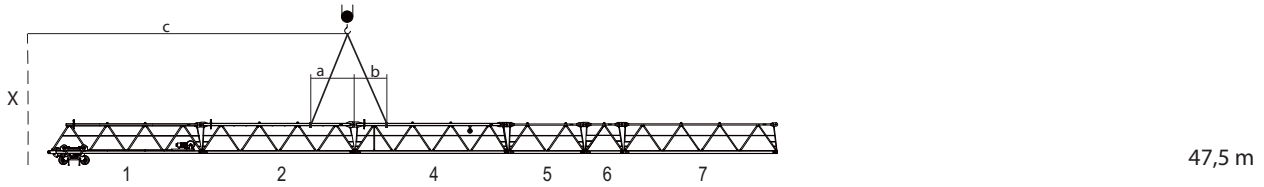
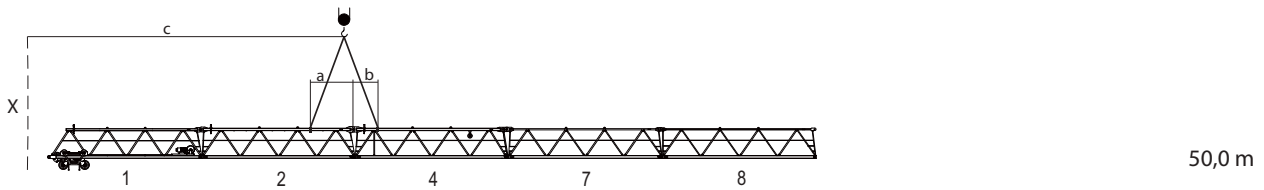


a	Dimension a	b	Dimension b
c	Dimension c	X	Middle of tower

### Attachment data 8033.8

Data	Jib length [m]		
	57.5	55.0	52.5
a [m]	2.06	1.42	2.14
b [m]	4.56	4.11	3.15
c [m]	25.50	22.50	21.70
Weight [kg]	17920	15575	15135

## 8.1.1.5 Trolley jib - attachment diagram 50.0 m to 45.0 m

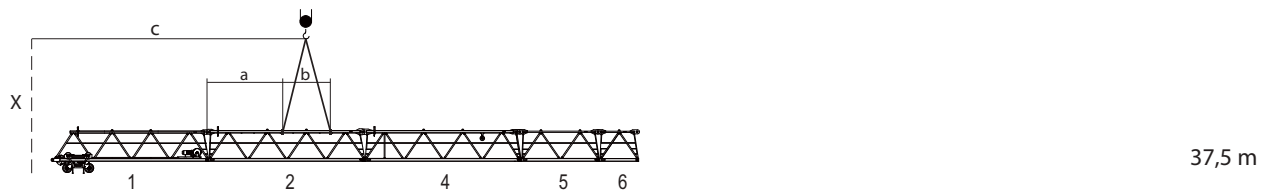
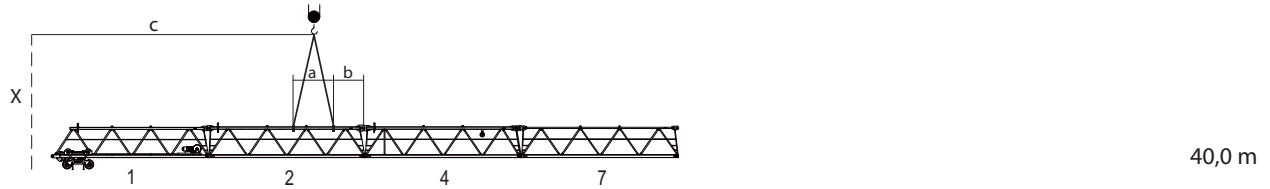
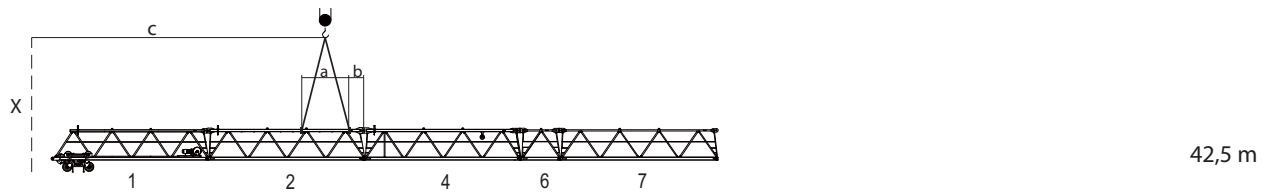


a	Dimension a	b	Dimension b
c	Dimension c	X	Middle of tower

### Attachment data 8033.8

Data	Jib length [m]		
	50.0	47.5	45.0
a [m]	2.94	2.94	3.92
b [m]	1.61	2.35	1.61
c [m]	20.50	20.90	20.00
Weight [kg]	14440	14980	14285

## 8.1.1.6 Trolley jib - attachment diagram 42.5 m to 37.5 m



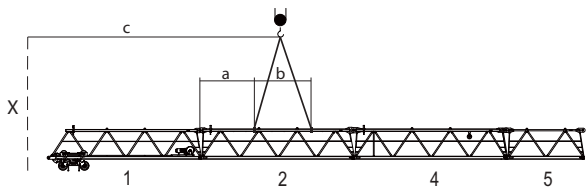
a	Dimension a	b	Dimension b
c	Dimension c	X	Middle of tower

### Attachment data 8033.8

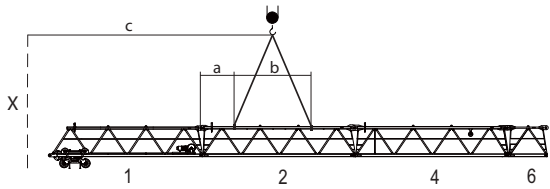
Data	Jib length [m]		
	42.5	40.0	37.5
a [m]	3.03	2.79	4.56
b [m]	0.89	1.85	3.59
c [m]	18.80	17.90	17.50
Weight [kg]	13845	13150	13165



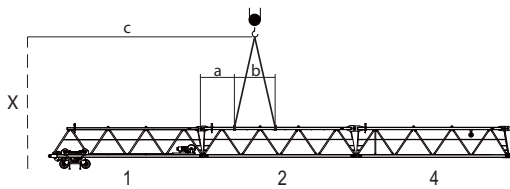
## 8.1.1.7 Trolley jib - attachment diagram 35.0 m to 30.0 m



35,0 m



32,5 m



30,0 m

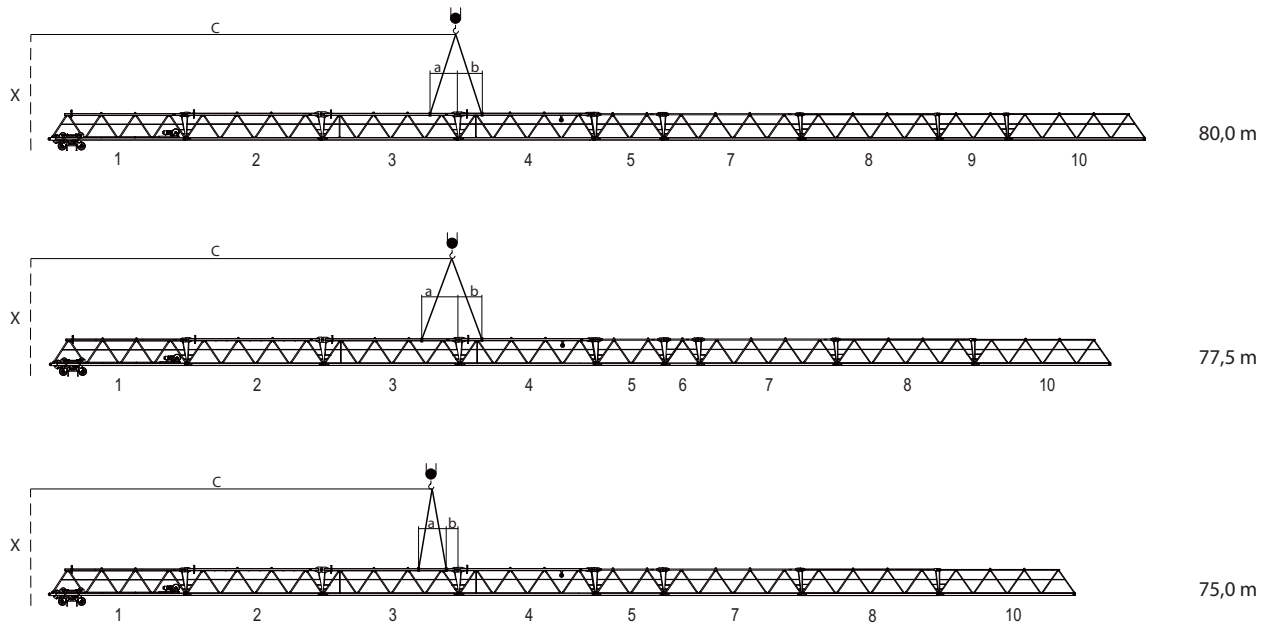
a	Dimension a	b	Dimension b
c	Dimension c	X	Middle of tower

### Attachment data 8033.8

Data	Jib length [m]		
	35.0	32.5	30.0
a [m]	3.58	2.06	2.06
b [m]	3.77	5.29	2.79
c [m]	16.60	15.90	14.60
Weight [kg]	12470	12030	11335

## 8.1.2 Trolley jib - attachment diagram 8033.16

### 8.1.2.1 Trolley jib - attachment diagram 80.0 m to 75.0 m

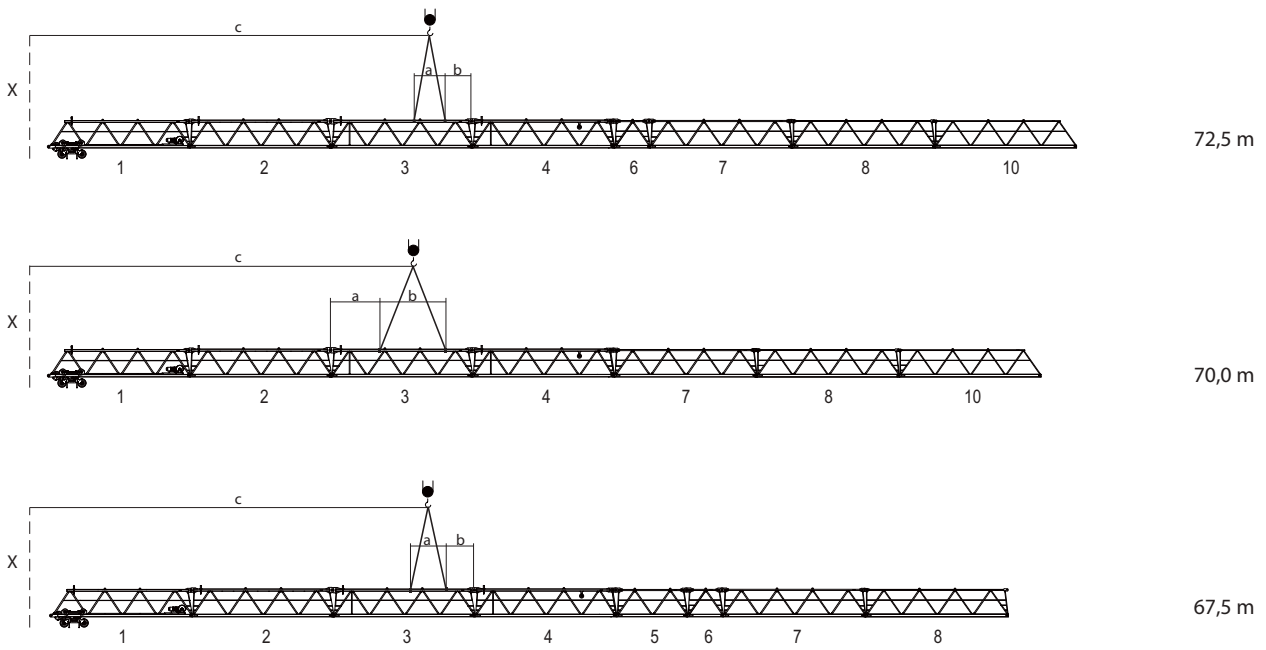


a	Dimension a	b	Dimension b
c	Dimension c	X	Middle of tower

#### Attachment data 8033.16

Data	Jib length [m]		
	80.0	77.5	75.0
a [m]	2.14	2.94	2.06
b [m]	1.61	1.61	0.89
c [m]	30.90	30.50	29.20
Weight [kg]	20615	20650	19955

## 8.1.2.2 Trolley jib - attachment diagram 72.5 m to 67.5 m

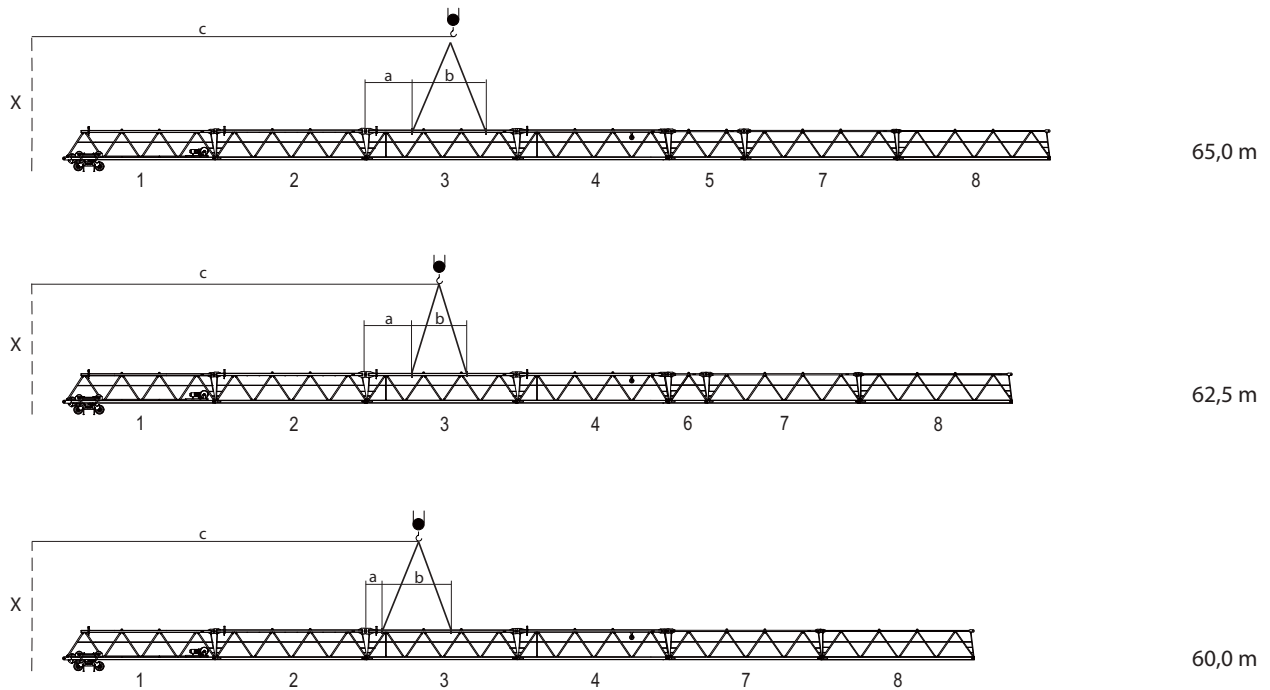


a	Dimension a	b	Dimension b
c	Dimension c	X	Middle of tower

### Attachment data 8033.16

Data	Jib length [m]		
	72.5	70.0	67.5
a [m]	2.06	3.59	2.79
b [m]	1.85	4.56	1.85
c [m]	28.30	27.00	27.90
Weight [kg]	19515	18820	19610

## 8.1.2.3 Trolley jib - attachment diagram 65.0 m to 60.0 m

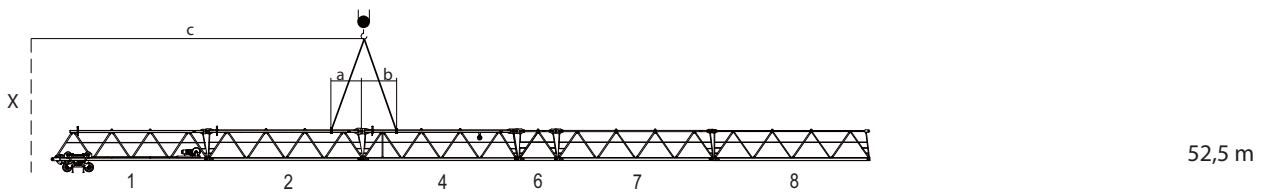
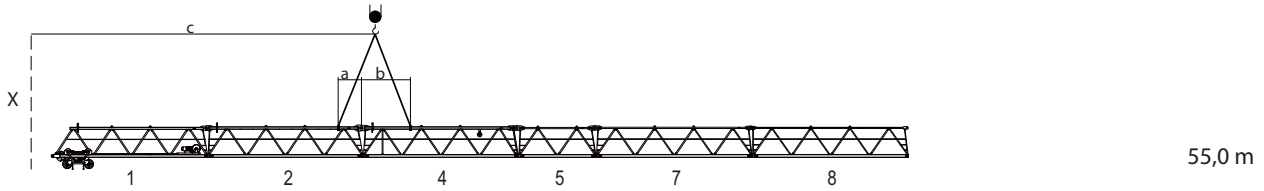
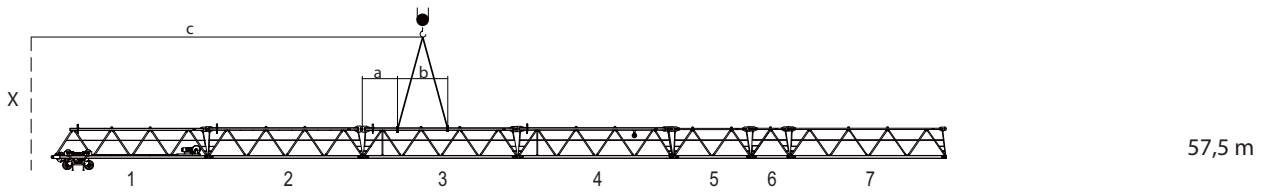


a	Dimension a	b	Dimension b
c	Dimension c	X	Middle of tower

### Attachment data 8033.16

Data	Jib length [m]		
	65.0	62.5	60.0
a [m]	2.86	2.86	1.09
b [m]	5.29	3.76	4.56
c [m]	26.70	25.90	24.50
Weight [kg]	18915	18475	17780

## 8.1.2.4 Trolley jib - attachment diagram 57.5 m to 52.5 m

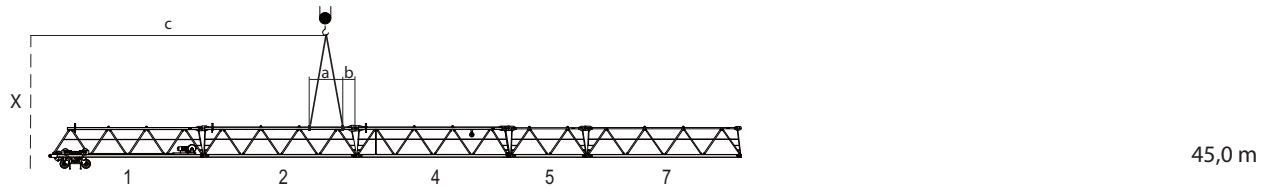
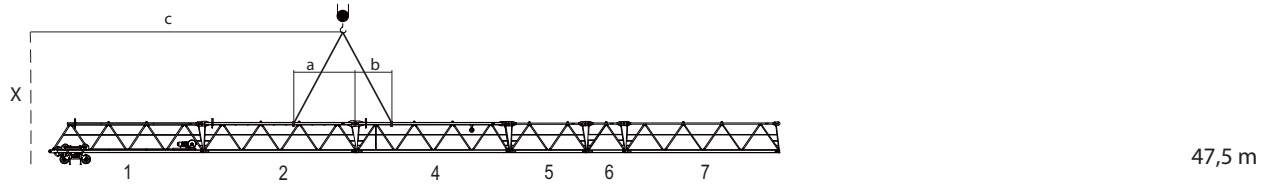
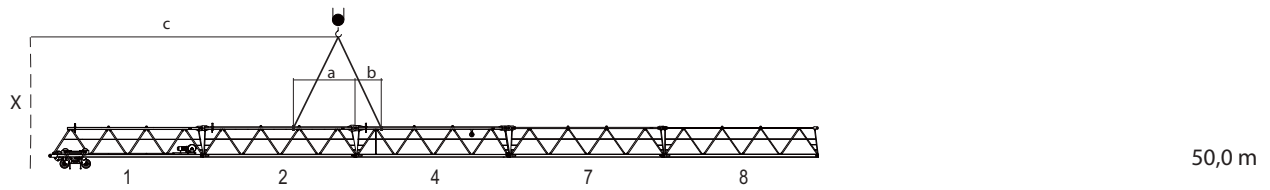


a	Dimension a	b	Dimension b
c	Dimension c	X	Middle of tower

### Attachment data 8033.16

Data	Jib length [m]		
	57.5	55.0	52.5
a [m]	2.06	1.42	2.14
b [m]	3.59	3.15	2.35
c [m]	25.00	22.00	21.30
Weight [kg]	18320	15975	15535

## 8.1.2.5 Trolley jib - attachment diagram 50.0 m to 45.0 m

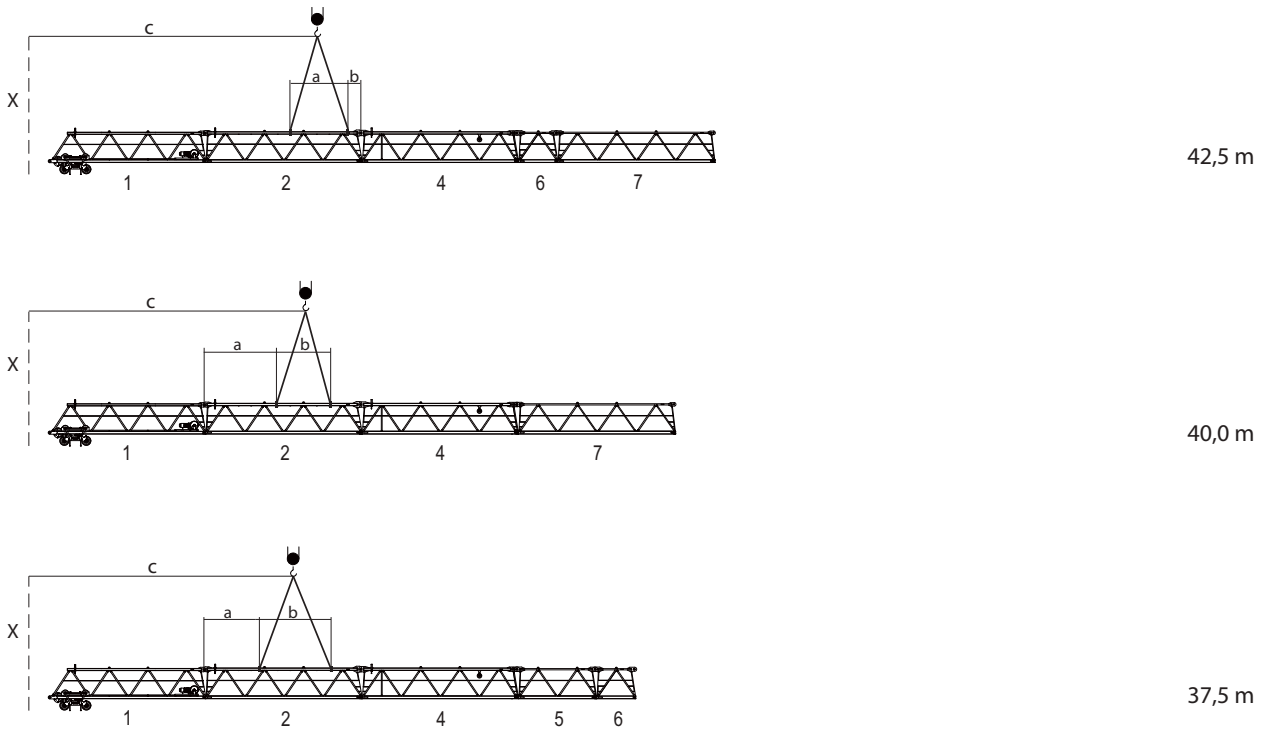


a	Dimension a	b	Dimension b
c	Dimension c	X	Middle of tower

### Attachment data 8033.16

Data	Jib length [m]		
	50.0	47.5	45.0
a [m]	3.92	3.92	2.06
b [m]	1.61	2.35	0.89
c [m]	20.00	20.40	19.20
Weight [kg]	14840	15380	14685

## 8.1.2.6 Trolley jib - attachment diagram 42.5 m to 37.5 m

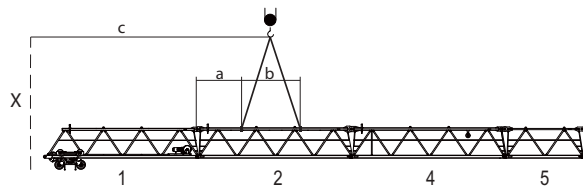


a	Dimension a	b	Dimension b
c	Dimension c	X	Middle of tower

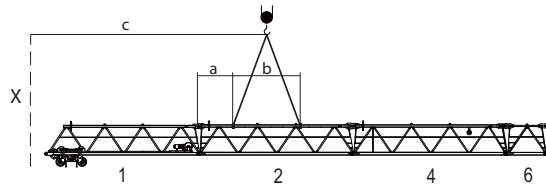
### Attachment data 8033.16

Data	Jib length [m]		
	42.5	40.0	37.5
a [m]	3.76	4.56	3.58
b [m]	0.89	3.59	4.57
c [m]	18.40	17.50	17.00
Weight [kg]	14245	13550	13565

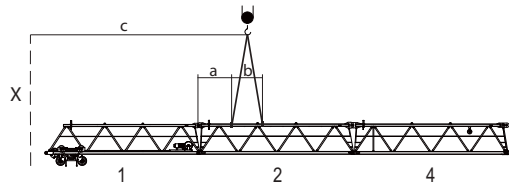
## 8.1.2.7 Trolley jib - attachment diagram 35.0 m to 30.0 m



35,0 m



32,5 m



30,0 m

a	Dimension a	b	Dimension b
c	Dimension c	X	Middle of tower

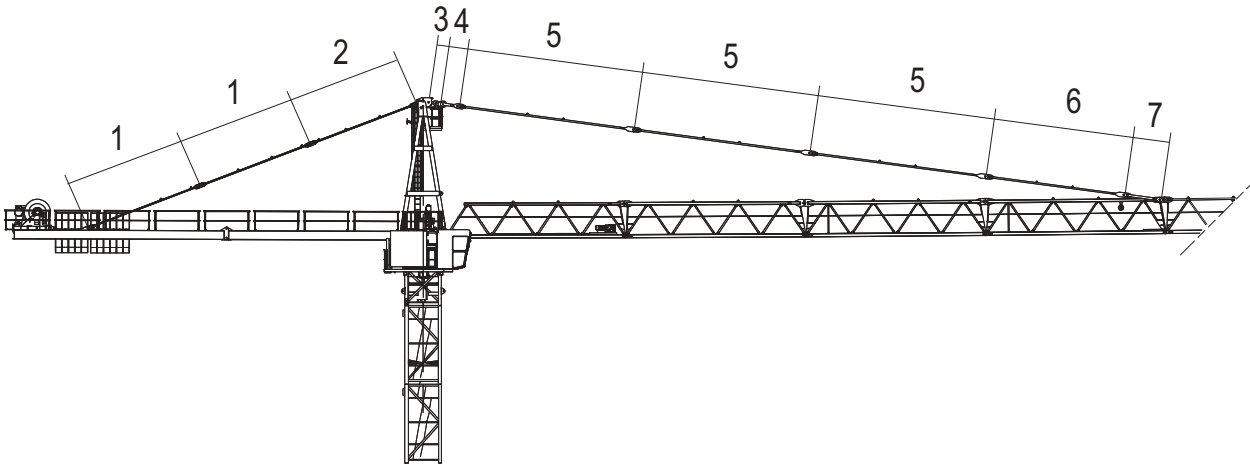
### Attachment data 8033.16

Data	Jib length [m]		
	35.0	32.5	30.0
a [m]	2.86	2.06	2.06
b [m]	3.76	4.56	2.06
c [m]	15.90	15.50	14.20
Weight [kg]	12870	12430	11735



## 8.2 Jib brace diagram

### Brace diagram 80.0 m – 57.5 m



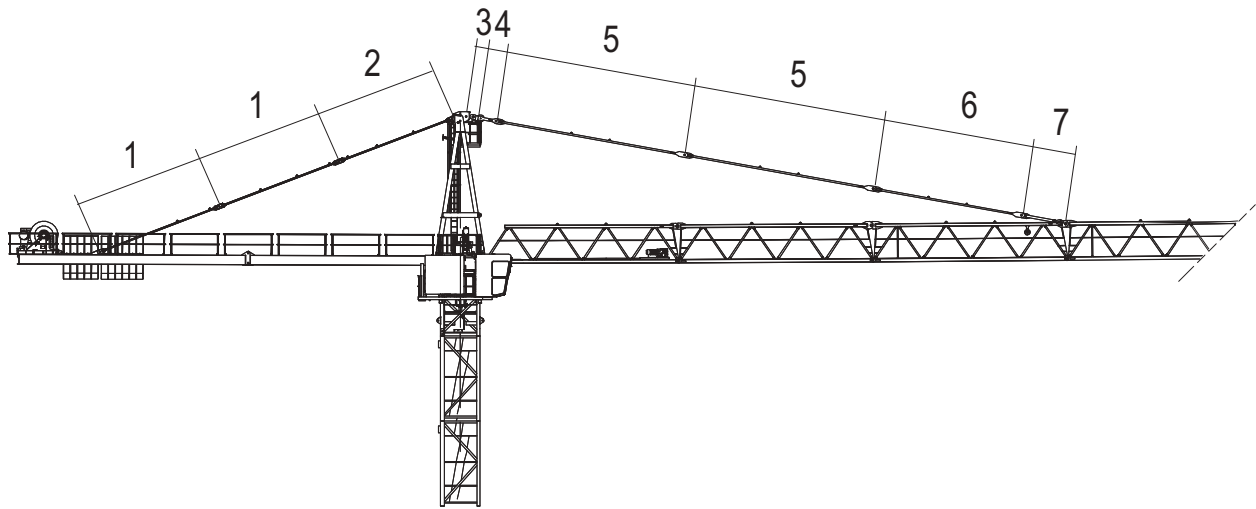
Brace table

Brace	Lengths [mm]							Brace types
	Brace no. 1	Brace no. 2	Brace no. 3	Brace no. 4	Brace no. 5	Brace no. 6	Brace no. 7	
Counter jib	6579	6225	-	-	-	-	-	double
Jib	-	-	400	1210	9856	7752	2020	single

Bolt table brace 80.0 m – 57.5 m

Item	Brace	Fastening			Fuse		
		Quantity	Designation	Dimensions	Quantity	Component	Dimensions
Counter jib brace	1	4	Bolts	Ø 70/60x152	4	Spring retainers	10/60-80
	2	2	Bolts	Ø 70/60x152	2	Spring retainers	10/60-80
Jib brace	3	1	Bolts	Ø 100/90x235	1	Cotter pin	13x125
	4	2	Bolts	Ø 100/90x225	2	Cotter pin	13x125
					2	Washer	130/91x4
	5	3	Bolts	Ø 100/90x225	3	Cotter pin	13x125
	6	1	Bolts	Ø 100/90x225	1	Cotter pin	13x125
	7	1	Collar bolt	Ø 110/90x325	1	Axle retainer	40x10x140
					2	Lock washer	A16
2					Hexagonal head screw	M16x40-8.8	

## Brace diagram 55.0 m – 30.0 m



Brace table

Brace	Lengths [mm]							Brace types
	Brace no. 1	Brace no. 2	Brace no. 3	Brace no. 4	Brace no. 5	Brace no. 6	Brace no. 7	
Counter jib	6579	6225	-	-	-	-	-	double
Jib	-	-	400	1210	9856	7752	2020	single

Bolt table brace 80.0 m – 57.5 m

Item	Brace	Fastening			Fuse		
		Quantity	Designation	Dimensions	Quantity	Component	Dimensions
Counter jib brace	1	4	Bolts	Ø 70/60x152	4	Spring retainers	10/60-80
	2	2	Bolts	Ø 70/60x152	2	Spring retainers	10/60-80
Jib brace	3	1	Bolts	Ø 100/90x235	1	Cotter pin	13x125
	4	2	Bolts	Ø 100/90x225	2	Cotter pin	13x125
						2	Washer
	5	2	Bolts	Ø 100/90x225	2	Cotter pin	13x125
	6	1	Bolts	Ø 100/90x225	1	Cotter pin	13x125
	7	1	Collar bolt	Ø 110/90x325	1	Axle retainer	40x10x140
						2	Lock washer
					2	Hexagonal head screw	M16x40-8.8

## 8.3 Trolley jib mounting rig



### NOTICE

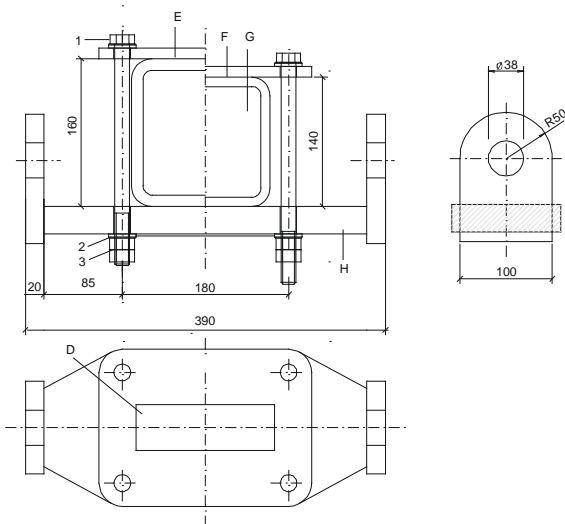
For information on the arrangement of the mounting rig, refer to the attachment diagram.

Two mounting rigs are required per slewing tower crane.

### 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



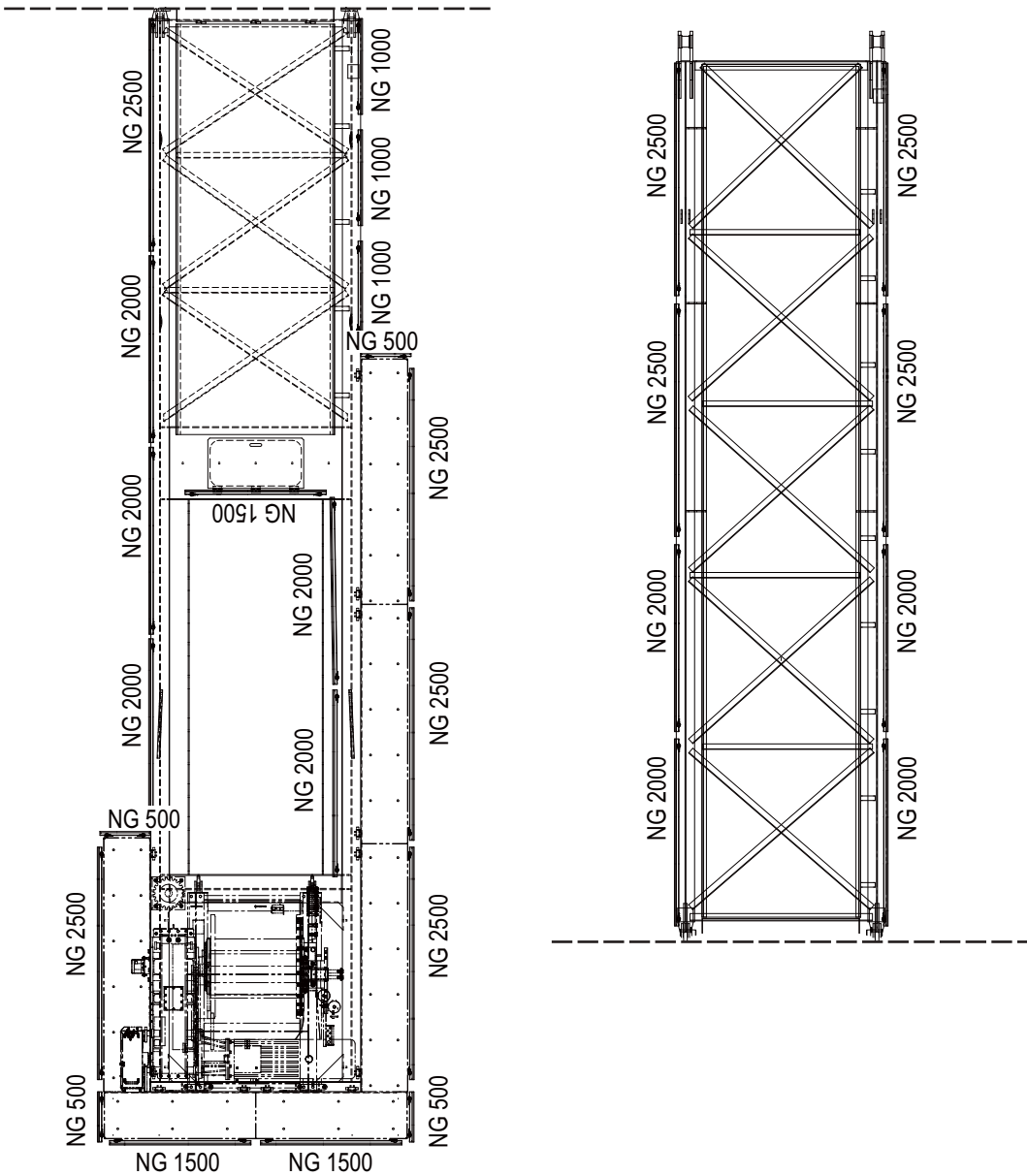
1	Hexagonal head screw	A	Mounting rig
2	HSFG washer	W	Top belt trolley jib
3	Hexagonal nut		

## 8.4 Arrangement of standard railings

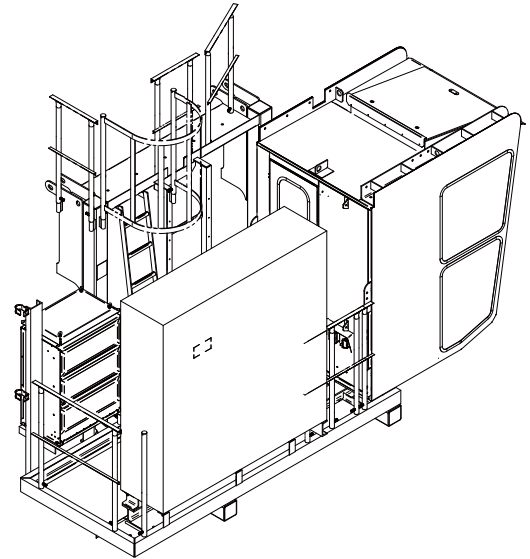
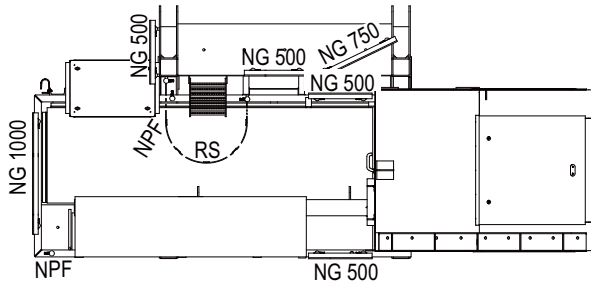
### 8.4.1 Standard railings (NG) and accessories

Quantity	Standard railings (NG) / accessories	Article no.
9	Standard railings NG 2500	30018798
14	Standard railings NG 2000	30018797
3	Standard railings NG 1500	30018796
5	Standard railings NG 1000	30018795
2	Standard railings NG 750	30018794
11	Standard railings NG 500	30018793
4	Standard stays Ø 42.4 mm x 1090 mm	30000167
1	RS (back guard)	30044244
1	support block AB 1 645 mm	30050695
1	support block AB 2 1140 mm	30050697

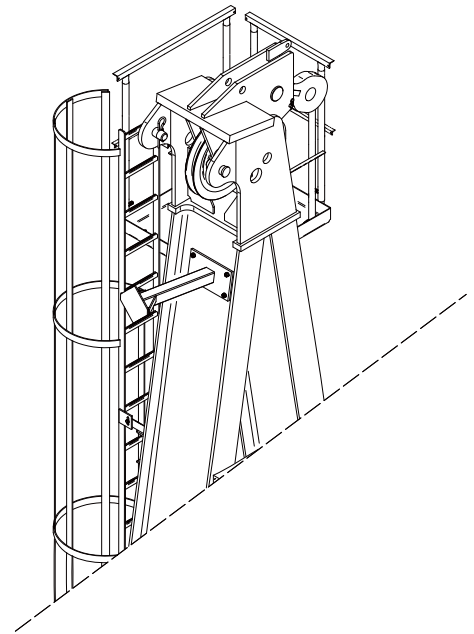
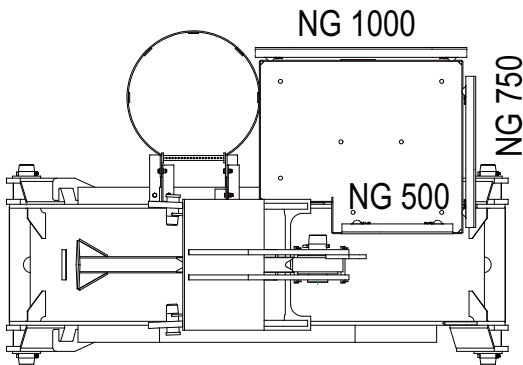
## 8.4.2 Arrangement of standard railings



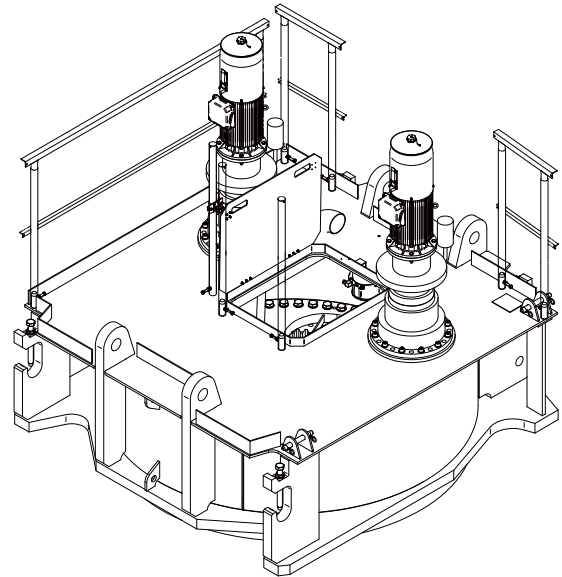
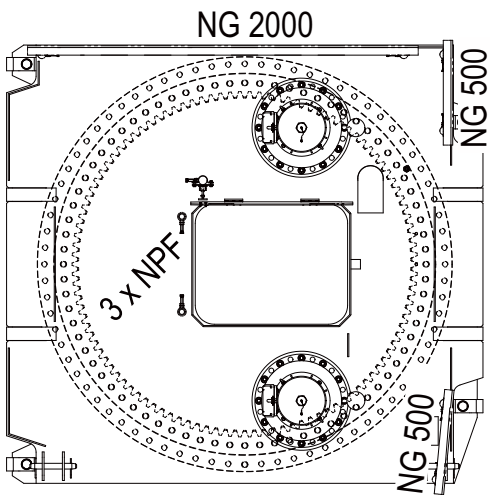
Arrangement of standard railings, counterjib



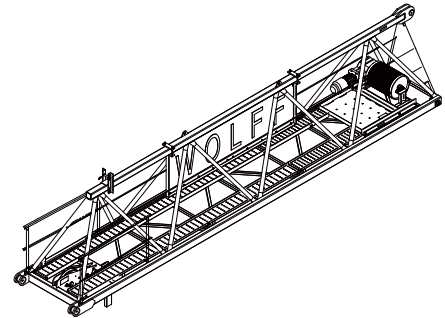
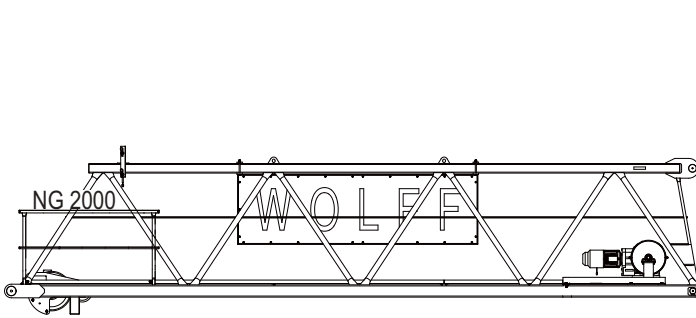
Arrangement of standard railings, operator cabin



Arrangement of standard railings, tower head section



Arrangement of standard railings, slewing frame





Arrangement of standard railings, jib element 1


## 9 Suitable climbing frames


This section contains information on

- Outer climbing units
- Inner climbing units (KSH)


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

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

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



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

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


	<b>NOTICE</b>
	<p>Details for climbing balancing The climbing balancing details apply to the snatch block in maximum hook position.</p>



## 9.1 Outer climbing units

	<p><b>NOTICE</b></p> <p>If feasible, you should preferably operate your climbing frame without balancing weight.</p>
	<p><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>

## 9.1.1 Outer climbing unit KWH 20.6/ KWH 20.6.1

	<b>NOTICE</b>
	<p>Minimum height for stationary setup: 2 tower elements = 9.0 m tower height</p> <p>Minimum height for crawling towers: 2 tower elements + bogie truck = approx. 13.5 m tower height</p>

### Climbing radius 8033.8 cross

Climbing radius for the balancing weights

8033.8	Jib length						
	80	77.5	75	72.5	70	67.5	65
no weight	38.8	47.1	-	-	-	-	-
TV 20 = 2.98 t	8.4	10.4	21.8	29.9	28.6	30.9	29.8
Weight = 5.0 t	-	6.4	14.0	19.3	18.5	20.0	19.3
Weight = 10.0 t	-	-	-	-	-	-	-

Climbing radius for the balancing weights

8033.8	Jib length						
	62.5	60	57.5	55	52.5	50	47.5
no weight	-	-	-	-	-	-	-
TV 20 = 2.98 t	37.2	35.6	41.1	44.2	42.0	-	-
Weight = 5.0 t	24.2	23.1	26.7	28.8	27.3	29.8	28.8
Weight = 10.0 t	-	-	-	-	-	-	-

Climbing radius for the balancing weights

8033.8	Jib length						
	45	42.5	40	37.5	35	32.5	30
no weight	-	-	-	-	-	-	-
TV 20 = 2.98 t	-	-	-	-	-	-	-
Weight = 5.0 t	27.8	29.7	28.2	28.6	30.0	-	-
Weight = 10.0 t	-	-	-	-	-	17.3	16.8

## Climbing radius 8033.16 cross

Climbing radius for the balancing weights

8033.16	Jib length [m]						
	80	77.5	75	72.5	70	67.5	65
no weight	26.9	32.7	-	-	-	-	-
TV 20 = 2.98 t	7.5	9.3	19.7	27.0	25.9	27.9	27.0
Weight = 5.0 t	-	6.0	13.0	18.0	17.2	18.6	18.0
Weight = 10.0 t	-	-	-	-	-	-	-


Climbing radius for the balancing weights


8033.16	Jib length [m]						
	62.5	60	57.5	55	52.5	50	47.5
no weight	-	-	-	-	-	-	-
TV 20 = 2.98 t	33.7	32.2	37.1	40.0	38.0	41.4	40.1
Weight = 5.0 t	22.6	21.5	24.9	26.9	25.5	27.8	26.9
Weight = 10.0 t	-	-	-	-	-	-	-

Climbing radius for the balancing weights

8033.16	Jib length [m]						
	45	42.5	40	37.5	35	32.5	30
no weight	-	-	-	-	-	-	-
TV 20 = 2.98 t	38.7	-	-	-	-	-	-
Weight = 5.0 t	26.0	27.7	26.4	26.7	28.1	-	-
Weight = 10.0 t	-	-	-	-	-	16.6	16.1

## 9.1.2 Outer climbing unit KWH 23

	<b>NOTICE</b>
	<p>Climbing radiuses marked with *</p> <p>Jib lengths marked with * can only be climbed with additional ballast. Please contact WOLFFKRAN for information.</p>

	<b>NOTICE</b>
	<p>Usage of KWH 23 on WOLFF 8033 with TV 20 lower part of tower head section</p> <p>You must use a joining frame VR 2023 to operate the outer climbing unit KWH 23 in connection with the WOLFF 8033 on TV 20 tower head section lower part.</p>

### Climbing radius 8033.8 cross

Climbing radius for the balancing weights, lower part of tower head section TV 20 with outer climbing unit

8033.8	Jib length [m]						
	80	77.5	75	72.5	70	67.5	65
without weight	*	*	-	-	-	-	-
TV 23 = 3.04 t	-	-	14.9	22.8	21.7	23.8	23.0
Weight = 5.0 t	-	-	9.5	14.8	14.1	15.5	14.9
Weight = 10.0 t	-	-	-	-	-	-	-

Climbing radius for the balancing weights, lower part of tower head section TV 20 with outer climbing unit

8033.8	Jib length [m]						
	62.5	60	57.5	55	52.5	50	47.5
without weight	-	-	-	-	-	-	-
TV 23 = 3.04 t	30.3	28.8	34.0	37.5	35.5	39.1	37.8
Weight = 5.0 t	19.8	18.8	22.3	24.7	23.3	25.8	24.8
Weight = 10.0 t	-	-	-	-	-	-	-

Climbing radius for the balancing weights, lower part of tower head section TV 20 with outer climbing unit

8033.8	Jib length [m]						
	45	42.5	40	37.5	35	32.5	30
without weight	-	-	-	-	-	-	-
TV 23 = 3.04 t	36.4	-	-	-	-	-	-
Weight = 5.0 t	23.9	25.8	24.5	24.8	26.3	29.1	-
Weight = 10.0 t	-	-	-	-	-	15.2	14.7

Climbing radius for the balancing weights, lower part of tower head section HT 23 with outer climbing unit

8033.8	Jib length [m]						
	80	77.5	75	72.5	70	67.5	65
without weight	*	*	-	-	-	-	-
HT 23 = 3.94 t	-	-	11.3	17.8	17.0	18.6	17.9
Weight = 5.0 t	-	-	9.1	14.4	13.7	15.1	14.5
Weight = 10.0 t	-	-	-	-	-	-	-

Climbing radius for the balancing weights, lower part of tower head section HT 23 with outer climbing unit

8033.8	Jib length [m]						
	62.5	60	57.5	55	52.5	50	47.5
without weight	-	-	-	-	-	-	-
HT 23 = 3.94 t	23.9	22.7	27.0	29.8	28.1	31.1	30.0
Weight = 5.0 t	19.4	18.4	21.9	24.2	22.9	25.3	24.4
Weight = 10.0 t	-	-	-	-	-	-	-

Climbing radius for the balancing weights, lower part of tower head section HT 23 with outer climbing unit

8033.8	Jib length [m]						
	45	42.5	40	37.5	35	32.5	30
without weight	-	-	-	-	-	-	-
HT 23 = 3.94 t	28.9	31.2	29.5	30.0	-	-	-
Weight = 5.0 t	23.5	25.4	24.0	24.4	25.9	-	-
Weight = 10.0 t	-	-	-	-	-	15.0	14.5

## Climbing radius 8033.16 cross

Climbing radius for the balancing weights, lower part of tower head section TV 20 with outer climbing unit

8033.16	Jib length [m]						
	80	77.5	75	72.5	70	67.5	65
without weight	*	*	46.8	-	-	-	-
TV 23 = 3.04 t	-	-	13.4	20.6	19.6	21.5	20.7
Weight = 5.0 t	-	-	8.8	13.8	13.1	14.4	13.9
Weight = 10.0 t	-	-	-	-	-	-	-

Climbing radius for the balancing weights, lower part of tower head section TV 20 with outer climbing unit

8033.16	Jib length [m]						
	62.5	60	57.5	55	52.5	50	47.5
without weight	-	-	-	-	-	-	-
TV 23 = 3.04 t	27.4	26.0	30.8	33.9	32.1	35.4	34.2
Weight = 5.0 t	18.5	17.6	20.8	23.0	21.7	24.1	23.2
Weight = 10.0 t	-	-	-	-	-	-	-

Climbing radius for the balancing weights, lower part of tower head section TV 20 with outer climbing unit

8033.16	Jib length [m]						
	45	42.5	40	37.5	35	32.5	30
without weight	-	-	-	-	-	-	-
TV 23 = 3.04 t	33.0	35.5	33.7	-	-	-	-
Weight = 5.0 t	22.3	24.1	22.8	23.1	24.5	27.2	26.4
Weight = 10.0 t	-	-	-	-	-	-	14.1

Climbing radius for the balancing weights, lower part of tower head section HT 23 with outer climbing unit

8033.16	Jib length [m]						
	80	77.5	75	72.5	70	67.5	65
without weight	*	*	45.0	-	-	-	-
HT 23 = 3.94 t	-	-	10.4	16.4	15.6	17.1	16.5
Weight = 5.0 t	-	-	8.4	13.4	12.7	14.0	13.5
Weight = 10.0 t	-	-	-	-	-	-	-



Climbing radius for the balancing weights, lower part of tower head section HT 23 with outer climbing unit

8033.16	Jib length [m]						
	62.5	60	57.5	55	52.5	50	47.5
without weight	-	-	-	-	-	-	-
HT 23 = 3.94 t	22.0	20.9	24.8	27.4	25.9	28.7	27.6
Weight = 5.0 t	18.1	17.2	20.4	22.6	21.3	23.7	22.8
Weight = 10.0 t	-	-	-	-	-	-	-

Climbing radius for the balancing weights, lower part of tower head section HT 23 with outer climbing unit

8033.16	Jib length [m]						
	45	42.5	40	37.5	35	32.5	30
without weight	-	-	-	-	-	-	-
HT 23 = 3.94 t	26.6	28.7	27.2	27.6	29.3	-	-
Weight = 5.0 t	21.9	23.7	22.4	22.7	24.1	26.8	-
Weight = 10.0 t	-	-	-	-	-	-	13.9

## 9.2 Inner climbing units

	<p><b>NOTICE</b></p> <p>The listed climbing radius for the crane WOLFF 8033.16 cross only applies to the climbing procedure in 2-fall operation.</p>
	<p><b>NOTICE</b></p> <p>4-fall mode only with the 8033.16cross. The 4-fall mode is only possible at the slewing tower crane 8033.16cross.</p>



## 9.2.1 Inner climbing unit KSH 20 SH

Tower combinations for slewing tower cranes with inner climbing unit.

<b>Item</b>				
1	TV 20.4	TV 20.4	TV 20.4	TV 20.4
2	TV 20.4	TV 20.4	TV 20.4	TV 20.4
3	TV 20.4	TV 20.4	TV 20.4	TV 20.4
4	TV 20.4	TV 20.4	TV 20.4	TV 20.4
5	TV 20.4	TV 20.4	TV 20.4	TV 20.4
6	TV 20.4	TV 20.4	TV 20.4	TV 20.4
7	TV 20.4	TV 20.4	TV 20.4	
8	TV 20.4	TV 20.4		
9	TV 20.4			
Inner climbing unit	KSH 20 SH	KSH 20 SH	KSH 20 SH	KSH 20 SH
Foundation	FUA TYPE FS-156 / FUA 156S	FUA TYPE FS-156 / FUA 156S	FUA TYPE FS-156 / FUA 156S	FUA TYPE FS-156 / FUA 156S
Tower height [m]	55.5	51.0	46.5	42.0
Hook height (2-fall) [m]	56.5	52.0	47.5	43.0
Hook height (4-fall) [m]	56.1	51.6	47.1	42.6

## Climbing radius 8033.16 cross

Climbing radius [m] for the balancing weights

8033.16	Jib length [m]						
	80	77.5	75	72.5	70	67.5	65
TV 20.4 = 2.98 t	36.0	37.8	48.0	55.2	53.1	56.1	54.2
Weight = 5.0 t	24.5	25.8	32.7	37.6	36.2	38.2	37.0
Weight = 10.0 t	-	-	-	-	-	-	-

Climbing radius [m] for the balancing weights

8033.16	Jib length [m]						
	62.5	60	57.5	55	52.5	50	47.5
TV 20.4 = 2.98 t	-	-	-	-	-	-	-
Weight = 5.0 t	41.5	39.8	43.8	44.3	42.3	44.5	43.7
Weight = 10.0 t	-	-	-	-	-	-	-

Climbing radius [m] for the balancing weights

8033.16	Jib length [m]						
	45	42.5	40	37.5	35	32.5	30
TV 20.4 = 2.98 t	-	-	-	-	-	-	-
Weight = 5.0 t	42.1	-	-	-	-	-	-
Weight = 10.0 t	23.6	24.5	23.4	23.5	24.2	25.7	24.8

## Climbing radius 8033.8 cross

Climbing radius [m] for the balancing weights

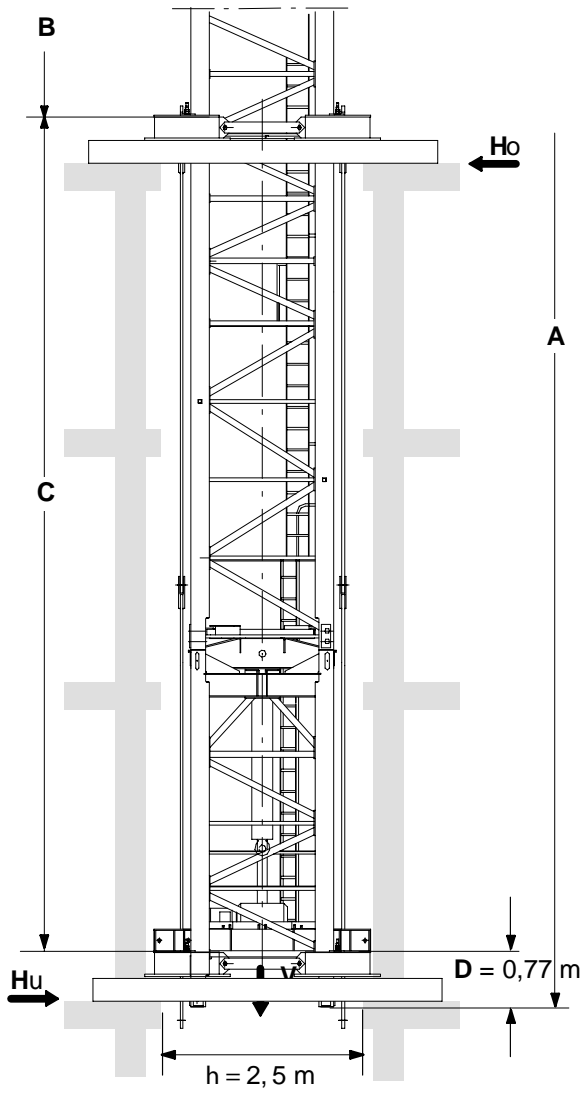
8033.8	Jib length [m]						
	80	77.5	75	72.5	70	67.5	65
TV 20.4 = 2.98 t	39.7	41.7	52.9	60.8	58.5	61.8	59.8
Weight = 5.0 t	26.2	27.5	34.9	40.1	38.6	40.8	39.5
Weight = 10.0 t	-	-	-	-	-	-	-

Climbing radius [m] for the balancing weights

8033.8	Jib length [m]						
	62.5	60	57.5	55	52.5	50	47.5
TV 20.4 = 2.98 t	-	-	-	-	-	-	-
Weight = 5.0 t	44.2	42.5	46.7	47.2	45.1	-	-
Weight = 10.0 t	-	-	-	-	-	25.8	25.3

Climbing radius [m] for the balancing weights

8033.8	Jib length [m]						
	45	42.5	40	37.5	35	32.5	30
TV 20.4 = 2.98 t	-	-	-	-	-	-	-
Weight = 5.0 t	-	-	-	-	-	-	-
Weight = 10.0 t	24.4	25.4	24.2	24.4	25.1	26.6	25.7



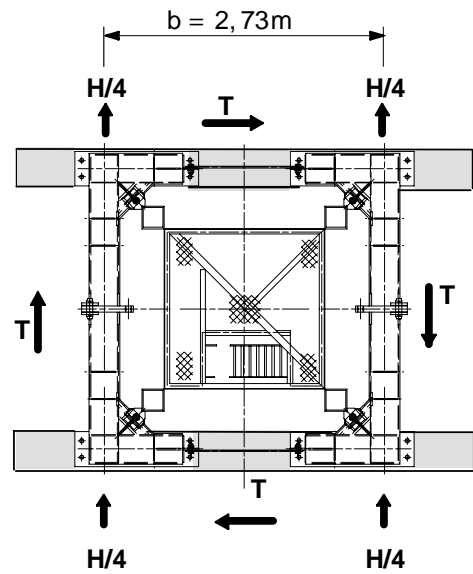
$$C_{\min} = 11,0 \text{ m}$$

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

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

$$H_u = H_o - H$$

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



A	Tower height	C	Distance between guide frames
W	A-C-D		


## In service clamping forces

In service clamping forces [kN] inside a building																
A [m]	55.5				51.0				46.5				42.0			
C [m]	11.0	12.0	13.0	14.0	11.0	12.0	13.0	14.0	11.0	12.0	13.0	14.0	11.0	12.0	13.0	14.0
V	1510				1481				1453				1425			
Ho	530	490	450	420	500	460	430	400	470	430	400	370	450	410	380	350
Hu	480	430	400	370	450	410	370	340	420	380	350	320	400	360	330	300
T	100				100				100				100			

## Out of service clamping forces

Out of service clamping forces [kN] inside a building																
A [m]	55.5				51.0				46.5				42.0			
C [m]	11.0	12.0	13.0	14.0	11.0	12.0	13.0	14.0	11.0	12.0	13.0	14.0	11.0	12.0	13.0	14.0
V	1293				1265				1236				1208			
Ho	950	870	810	750	840	770	710	660	730	670	620	580	640	580	540	500
Hu	680	600	540	480	580	510	450	400	490	430	380	330	400	350	310	270
T	-				-				-				-			

## 9.2.2 Internal climbing unit KSH 23/ KSH E 23

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

Tower combinations 8033 cross, on lower part of tower head section HT 23 with inner climbing unit

Item	Jib length 30 m - 80 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	HT 23
7	HT 23	HT 23	HT 23	HT 23
8	HT 23	HT 23	HT 23	HT 23
9	HT 23	HT 23	HT 23	HT 23
10	HT 23	HT 23	HT 23	
11	HT 23	HT 23		
12	HT 23			
Inner climbing frame	KSH E 23	KSH E 23	KSH E 23	KSH E 23
Foundation	FUA G 210	FUA G 210	FUA G 210	FUA G 210
Tower height [m]	70.5	66.0	61.5	57.0
Hook height [m] 2-fall	71.5	67.0	62.5	58.0
Hook height [m] 4-fall	71.1	66.6	62.1	57.6

## Climbing radius 8033.8 cross

Climbing radius [m] for the balancing weights

8033.8	Jib length [m]						
	80	77.5	75	72.5	70	67.5	65
HT 23 = 3.94 t	31.9	33.5	42.5	48.8	47.0	49.7	48.0
Weight = 5.0 t	26.2	27.5	34.9	40.1	38.6	40.8	39.5
Weight = 10.0 t	-	-	-	-	-	-	-

Climbing radius [m] for the balancing weights

8033.8	Jib length [m]						
	62.5	60	57.5	55	52.5	50	47.5
HT 23 = 3.94 t	53.9	51.7	-	-	-	-	-
Weight = 5.0 t	44.2	42.5	46.7	47.2	45.1	-	-
Weight = 10.0 t	-	-	-	-	-	25.8	25.3

Climbing radius [m] for the balancing weights

8033.8	Jib length [m]						
	45	42.5	40	37.5	35	32.5	30
HT 23 = 3.94 t	-	-	-	-	-	-	-
Weight = 5.0 t	-	-	-	-	-	-	-
Weight = 10.0 t	24.4	25.4	24.2	24.4	25.1	26.6	25.7

## Climbing radius 8033.16 cross

Climbing radius [m] for the balancing weights

8033.16	Jib length [m]						
	80	77.5	75	72.5	70	67.5	65
HT 23 = 3.94 t	29.5	30.9	39.3	45.1	43.4	45.9	44.4
Weight = 5.0 t	24.5	25.8	32.7	37.6	36.2	38.2	37.0
Weight = 10.0 t	-	-	-	-	-	-	-

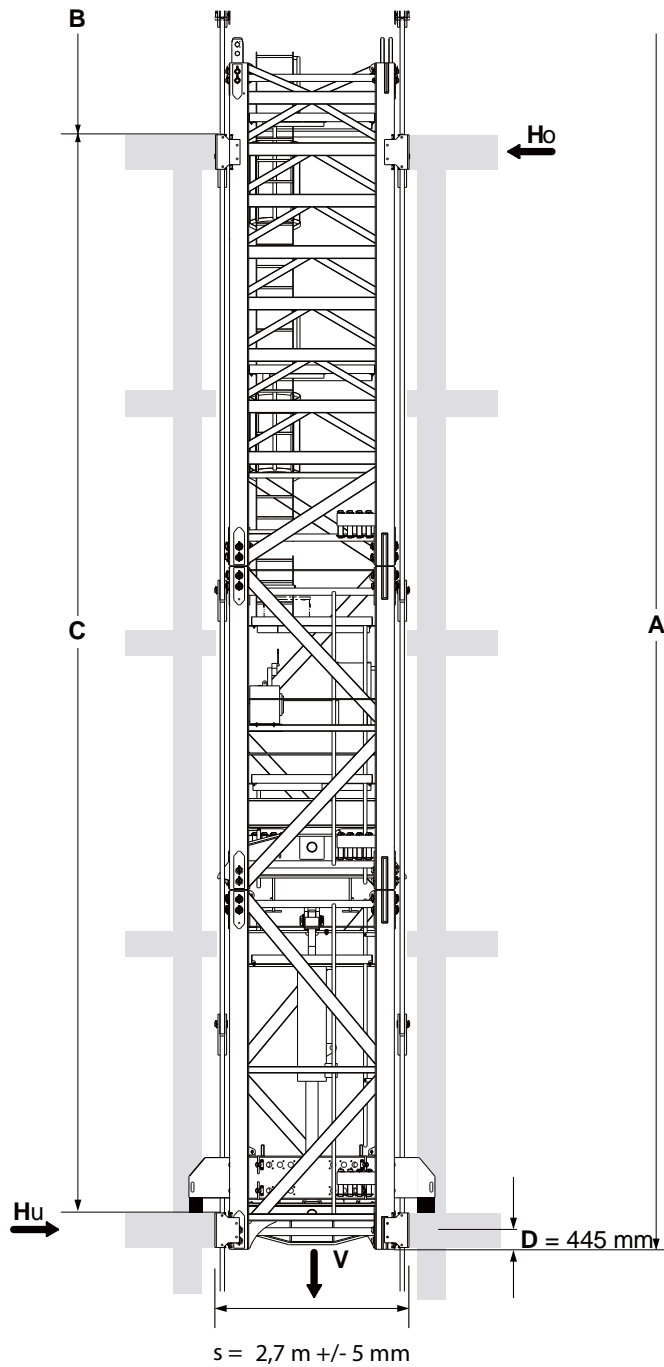
Climbing radius [m] for the balancing weights

8033.16	Jib length [m]						
	62.5	60	57.5	55	52.5	50	47.5
HT 23 = 3.94 t	49.8	47.8	52.6	-	-	-	-
Weight = 5.0 t	41.5	39.8	43.8	44.3	42.3	44.5	43.7
Weight = 10.0 t	-	-	-	-	-	-	-

Climbing radius [m] for the balancing weights

8033.16	Jib length [m]						
	45	42.5	40	37.5	35	32.5	30
HT 23 = 3.94 t	-	-	-	-	-	-	-
Weight = 5.0 t	-	-	-	-	-	-	-
Weight = 10.0 t	23.6	24.5	23.4	23.5	24.2	25.7	24.8

# WOLFFKRAN



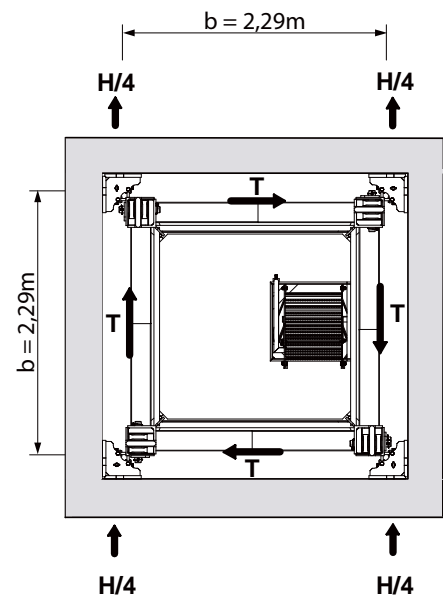
$$C_{\min} = 12,0 \text{ m}$$

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

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

$$H_u = H_o - H$$

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

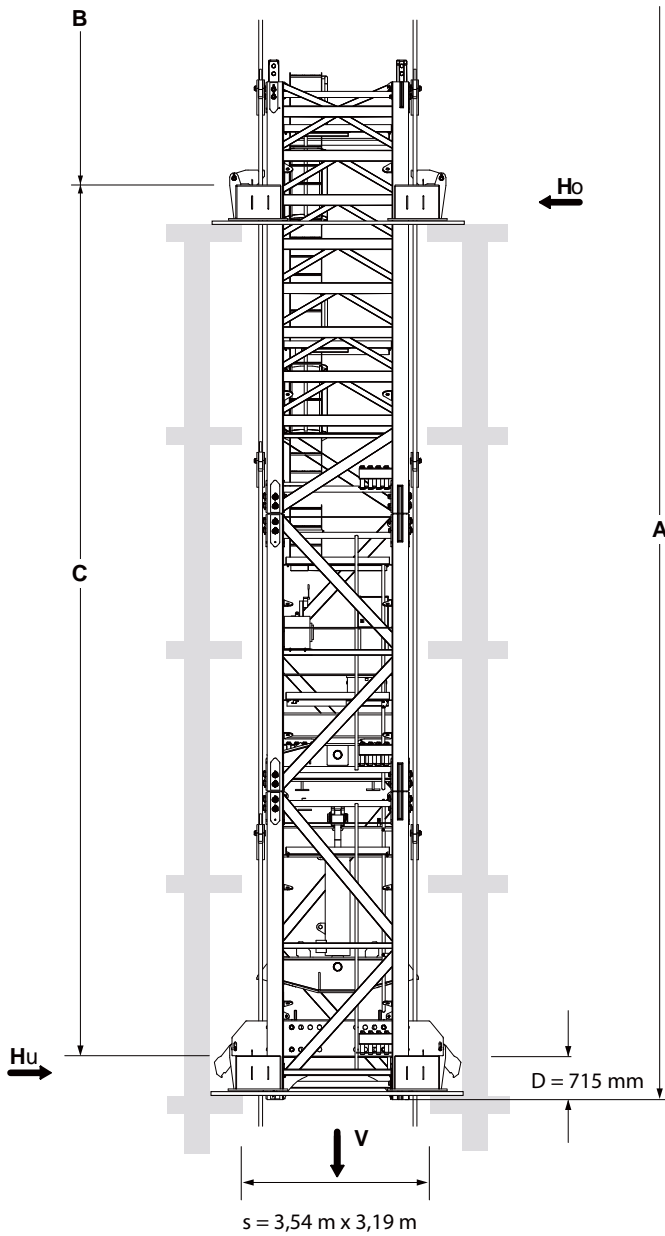


KSH E 23

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



# WOLFFKRAN



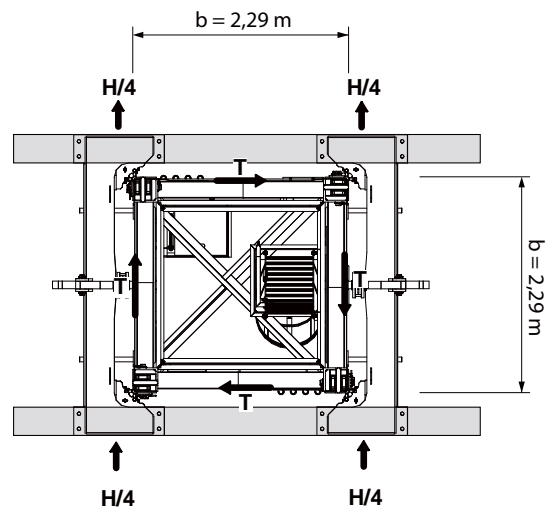
$$C_{\min} = 12,0 \text{ m}$$

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

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

$$H_u = H_o - H$$

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



KSH 23

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

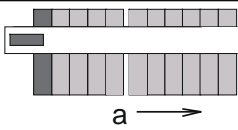
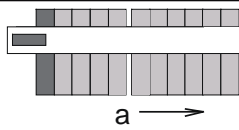
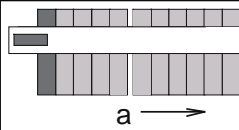
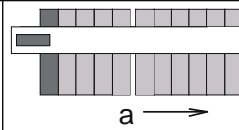
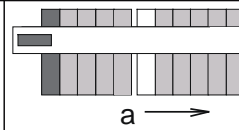
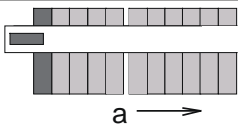
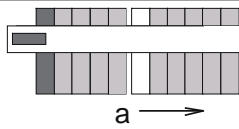
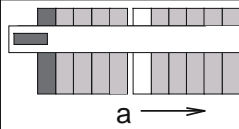
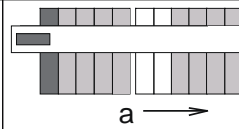
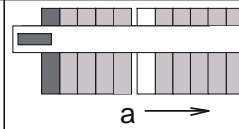
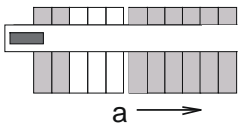
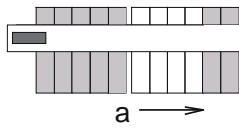
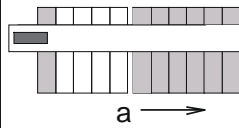
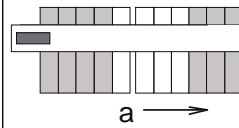
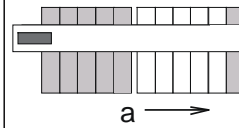
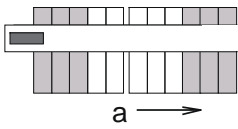
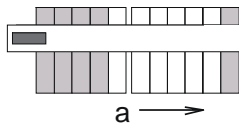
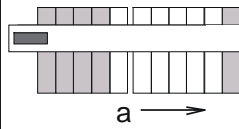
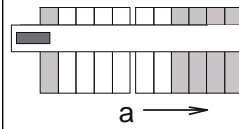
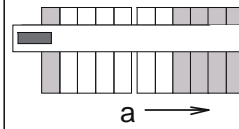
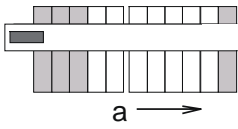
## Operational clamping forces




Operational clamping forces [kN] inside a building																				
A (m)	70.5					66.0					61.5					57.0				
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)	1936					1897					1857					1818				
Ho (kN)	580	540	500	470	450	550	510	470	440	430	520	480	440	410	400	490	450	420	390	380
Hu (kN)	510	470	430	400	380	480	440	410	370	360	450	420	380	350	340	430	390	360	330	320
T (kN)	110					110					110					110				

## Non-operational clamping forces

Non-operational clamping forces [kN] inside a building																				
A (m)	70.5					66.0					61.5					57.0				
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)	1720					1680					1641					1601				
Ho (kN)	1330	1220	1140	1060	1030	1190	1100	1020	950	920	1070	990	920	850	830	950	880	810	760	740
Hu (kN)	980	880	790	720	680	860	770	690	620	590	750	670	600	540	510	650	570	510	460	430
T (kN)	-					-					-					-				

## 10 Arrangement of counterweight blocks

<b>L = 80 m</b>	<b>L = 77.5 m</b>	<b>L = 75 m</b>	<b>L = 72.5 m</b>	<b>L = 70 m</b>
11 x 2.7 t	11 x 2.7 t	11 x 2.7 t	11 x 2.7 t	10 x 2.7 t
				
W = 32.7 t	W = 32.7 t	W = 32.7 t	W = 32.7 t	W = 30.0 t
Additional permanent counterweight for all jib lengths: 3.0 t				
<b>L = 67.5 m</b>	<b>L = 65 m</b>	<b>L = 62.5 m</b>	<b>L = 60 m</b>	<b>L = 57.5 m</b>
11 x 2.7 t	10 x 2.7 t	10 x 2.7 t	9 x 2.7 t	10 x 2.7 t
				
W = 32.7 t	W = 30.0 t	W = 30.0 t	W = 27.3 t	W = 30.0 t
Additional permanent counterweight for all jib lengths: 3.0 t				
<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 2.7 t	7 x 2.7 t	7 x 2.7 t	7 x 2.7 t	6 x 2.7 t
				
W = 24.6 t	W = 21.9 t	W = 21.9 t	W = 21.9 t	W = 19.2 t
Additional permanent counterweight for all jib lengths: 3.0 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 2.7 t	5 x 2.7 t	5 x 2.7 t	5 x 2.7 t	5 x 2.7 t
				
W = 19.2 t	W = 16.5 t	W = 16.5 t	W = 16.5 t	W = 16.5 t
Additional permanent counterweight for all jib lengths: 3.0 t				
<b>L = 30 m</b>				
4 x 2.7 t				
				
W = 13.8 t				
Additional, constant counterweight for all jib lengths: 3.0 t				

	Intermediate ballast 1 x 2.7 t		Counterweight block 1 x 2.7 t
	No counterweight	L	Jib length [m]
a	To the tower	G	Total weight [t]

