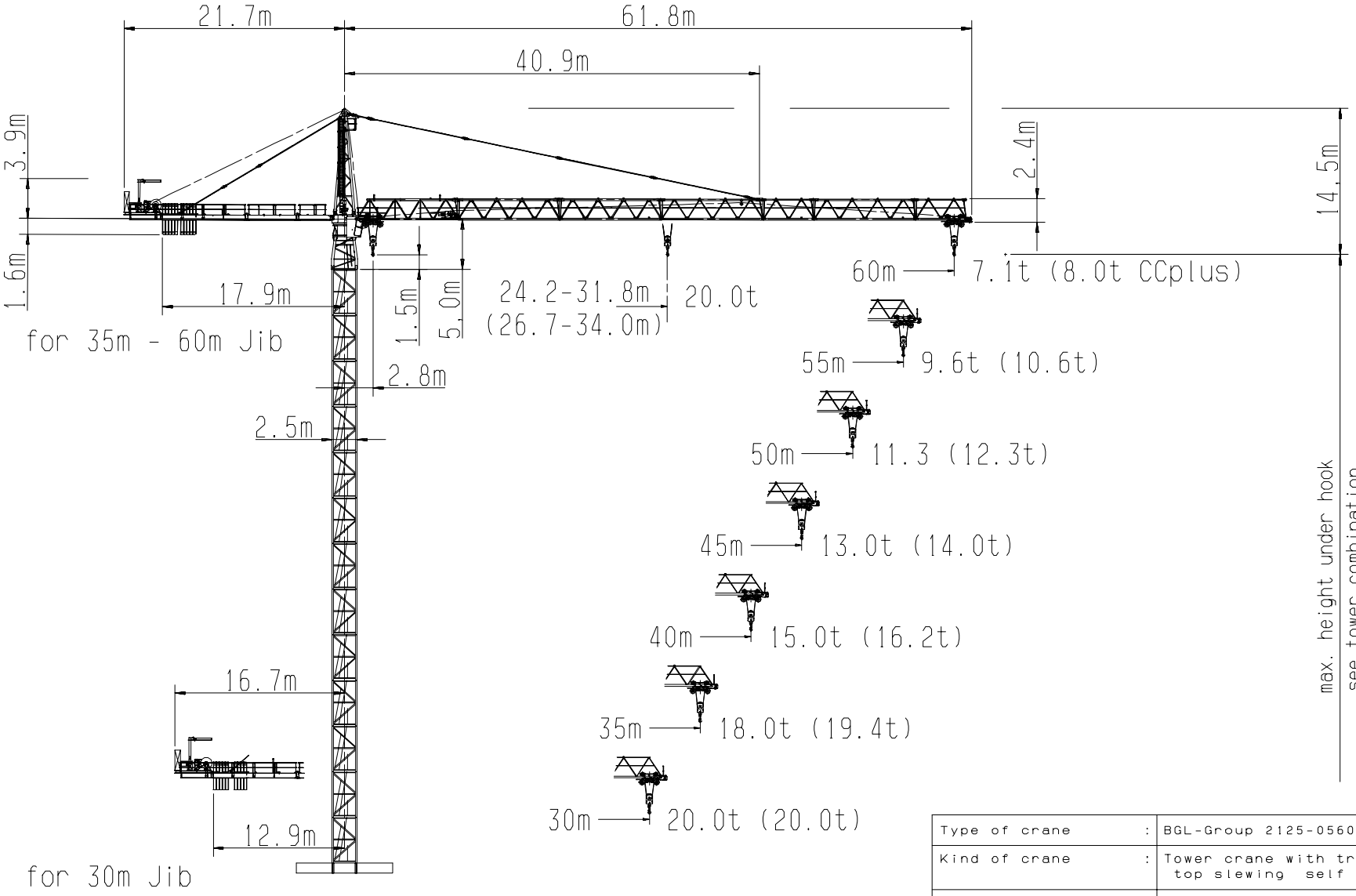


Type of crane	:	BGL-Group 2125-0560
Kind of crane	:	Tower crane with trolly jib top slewing self climbing
Installation	:	stationary or travelling
Calculation base	:	FEM-HC1 / A3
Load moment	:	max.6360 kNm

PLANING DIAGRAM 6071

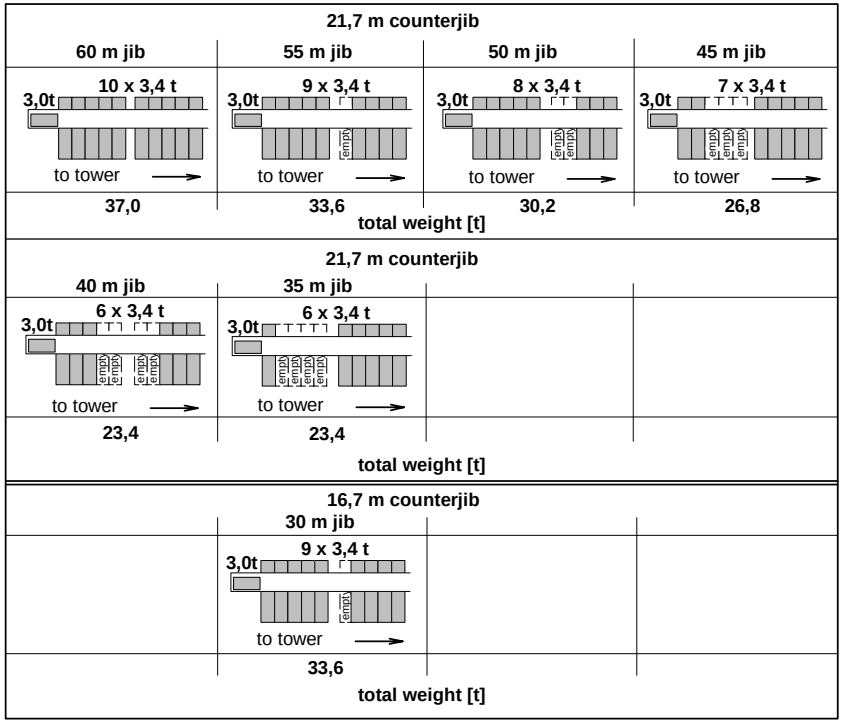
962-3-024013E

2.2.1.1 **Load capacity table**

radius [m]				25	30	35	40	45	50	55	60	
length of jib [m]	**60**	2,8 – 24,2	20 t	19,3	15,8	13,3	11,5	10,0	8,8	7,9	**7,1**	load capacity [t]
	55	2,8 – 28,5		20,0	18,9	16,0	13,8	12,1	10,7	**9,6**		
	50	2,8 – 29,9		20,0	19,9	16,8	14,5	12,7	**11,3**			
	45	2,8 – 30,4		20,0	20,0	17,2	14,8	**13,0**				
	40	2,8 – 30,7		20,0	20,0	17,4	**15,0**					
	35	2,8 – 31,8		20,0	20,0	**18,0**						
	30	2,8 – 30,0		20,0	**20,0**							

The load capacities refer to a hook path of 42,0 m. With greater hook paths the safe working load will be minimized by the additional weight of the hoisting cable (with 2 fall operation = 2,4 kg per meter hook path).

Arrangement of counterweights with hoisting winch **Hw 2075 FU**

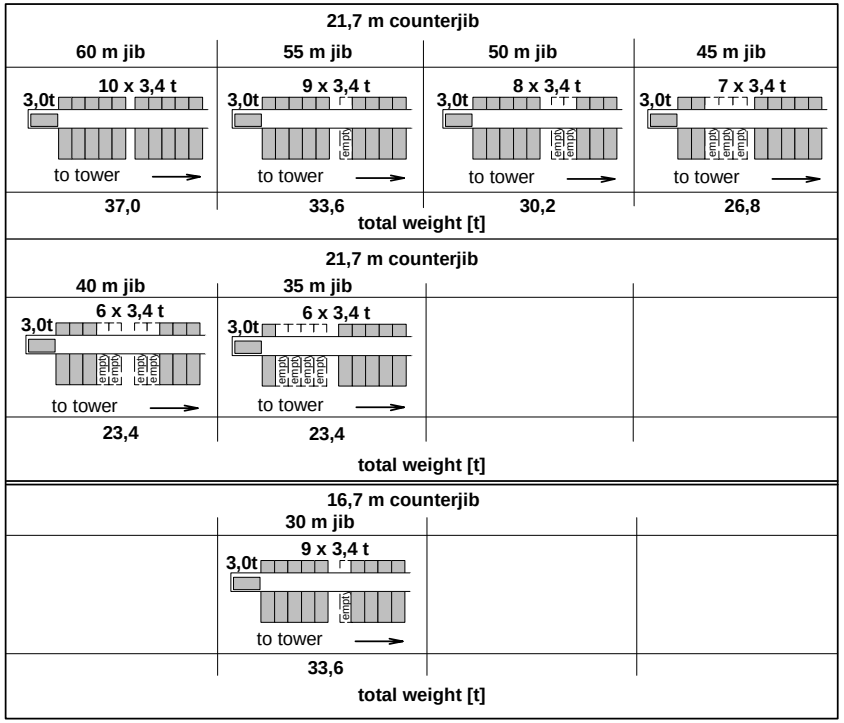


2.2.1.2 **Load capacity table**

radius [m]				25	30	35	40	45	50	55	60	
length of jib [m]	**60**	2,8 – 26,7	20 t	20,0	17,6	14,9	12,8	11,2	9,9	8,9	**8,0**	load capacity [t]
	55	2,8 – 31,1		20,0	20,0	17,6	15,2	13,3	11,8	**10,6**		
	50	2,8 – 32,2		20,0	20,0	18,3	15,8	13,8	**12,3**			
	45	2,8 – 32,5		20,0	20,0	18,5	16,0	**14,0**				
	40	2,8 – 33,0		20,0	20,0	18,7	**16,2**					
	35	2,8 – 34,0		20,0	20,0	**19,4**						
	30	2,8 – 30,0		20,0	**20,0**							

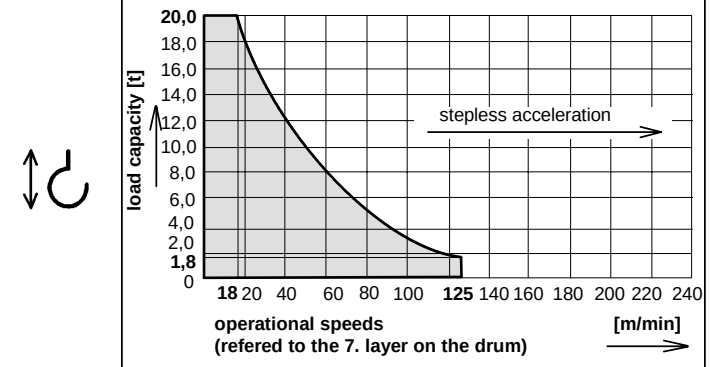
The load capacities refer to a hook path of 42,0 m. With greater hook paths the safe working load will be minimized by the additional weight of the hoisting cable (with 2 fall operation = 2,4 kg per meter hook path).

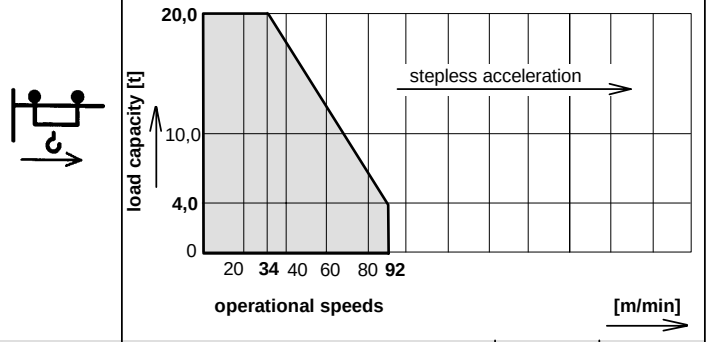
Arrangement of counterweights with hoisting winch **Hw 2075 FU**

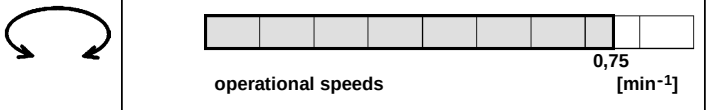


2.2.2.1 **Operational speeds** **380 V - 460 V, 50/60 Hz**

drive [model]	operational speed load capacity	max. lift [m]	output [kW]	total output [kVA]
Hw 2075 FU	hoisting	400	75	
Kw	traversing		9,0	
Dw	Slewing 0,75 min^{-1}		2 x 7,5	







98 total-output for a simultaneity factor of 0,7

962-4-024016E

2.2.3.1 **Load capacity table [kg] data given in distances of meters** **DIN 15018 / H1 - B3**

radius [m]	jib length [m] 30	35	40	45	50	55	60
20,0	20000	20000	20000	20000	20000	20000	20000
21,0	20000	20000	20000	20000	20000	20000	20000
22,0	20000	20000	20000	20000	20000	20000	20000
23,0	20000	20000	20000	20000	20000	20000	20000
24,0	20000	20000	20000	20000	20000	20000	20000
25,0	20000	20000	20000	20000	20000	20000	19300
26,0	20000	20000	20000	20000	20000	20000	18480
27,0	20000	20000	20000	20000	20000	20000	17730
28,0	20000	20000	20000	20000	20000	20000	17040
29,0	20000	20000	20000	20000	20000	19640	16400
30,0	20000	20000	20000	20000	19900	18900	15800
31,0		20000	19820	19590	19210	18270	15240
32,0		19840	19150	18930	18560	17650	14710
33,0		19190	18520	18310	17950	17070	14220
34,0		18580	17930	17720	17370	16520	13750
35,0		18000	17400	17200	16800	16000	13300
36,0			16840	16650	16320	15510	12900
37,0			16350	16160	15830	15050	12510
38,0			15870	15690	15370	14610	12140
39,0			15430	15250	14940	14200	11790
40,0			15000	14800	14500	13800	11500
41,0				14420	14130	13420	11130
42,0				14040	13760	13070	10830
43,0				13680	13400	12730	10540
44,0				13330	13060	12400	10260
45,0				13000	12700	12100	10000
46,0					12420	11790	9750
47,0					12120	11510	9510
48,0					11840	11230	9280
49,0					11560	10970	9050
50,0					11300	10700	8800
51,0						10480	8640
52,0						10250	8440
53,0						10020	8250
54,0						9810	8070
55,0						9600	7900
56,0							7720
57,0							7560
58,0							7400
59,0							7250
60,0							7100

the load capacities refer to a range of lift of 42,0 m

962-4-024017E

2.2.3.2 **Load capacity table [kg] data given in distances of meters** **DIN 15018 / H1 – B3**

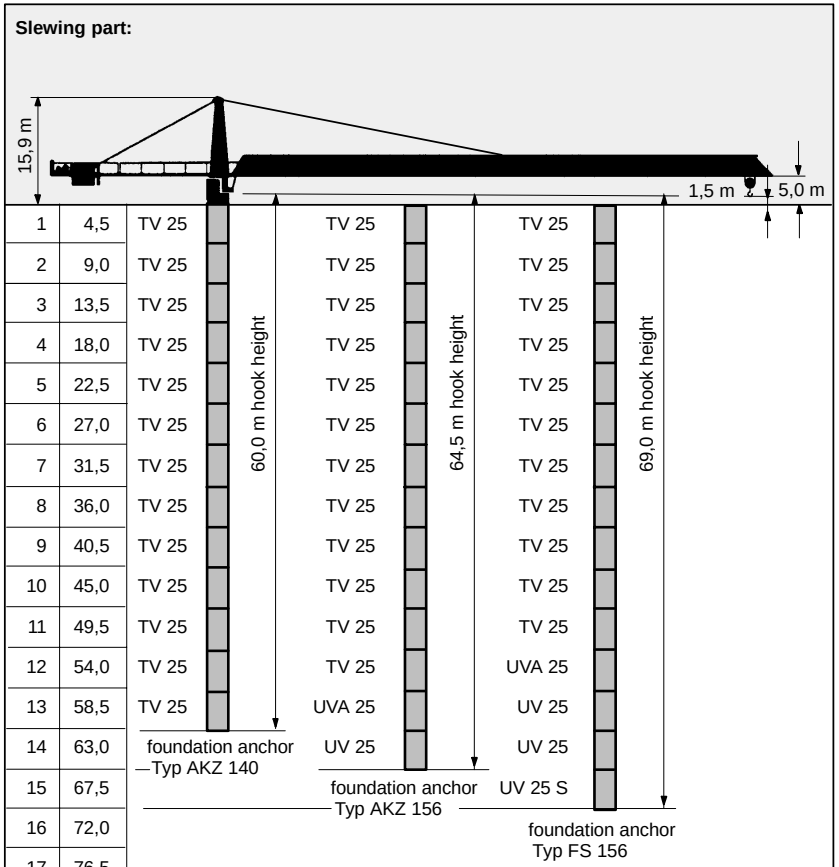
radius	jib lenth [m]						
[m]	30	35	40	45	50	55	60
20,0	20000	20000	20000	20000	20000	20000	20000
21,0	20000	20000	20000	20000	20000	20000	20000
22,0	20000	20000	20000	20000	20000	20000	20000
23,0	20000	20000	20000	20000	20000	20000	20000
24,0	20000	20000	20000	20000	20000	20000	20000
25,0	20000	20000	20000	20000	20000	20000	20000
26,0	20000	20000	20000	20000	20000	20000	20000
27,0	20000	20000	20000	20000	20000	20000	19730
28,0	20000	20000	20000	20000	20000	20000	18970
29,0	20000	20000	20000	20000	20000	20000	18260
30,0	20000	20000	20000	20000	20000	20000	17600
31,0		20000	20000	20000	20000	20000	16980
32,0		20000	20000	20000	20000	19370	16400
33,0		20000	19980	19670	19460	18730	15860
34,0		20000	19340	19050	18840	18140	15340
35,0		19400	18700	18500	18300	17600	14900
36,0			18180	17900	17710	17040	14400
37,0			17640	17370	17180	16540	13970
38,0			17140	16870	16690	16060	13560
39,0			16660	16400	16220	15610	13170
40,0			16200	16000	15800	15200	12800
41,0				15520	15350	14770	12450
42,0				15110	14950	14380	12110
43,0				14730	14560	14010	11800
44,0				14360	14200	13650	11490
45,0				14000	13800	13300	11200
46,0					13510	12990	10920
47,0					13190	12680	10660
48,0					12880	12380	10400
49,0					12580	12090	10160
50,0					12300	11800	9900
51,0						11560	9690
52,0						11300	9480
53,0						11060	9270
54,0						10830	9070
55,0						10600	8900
56,0							8690
57,0							8510
58,0							8330
59,0							8160
60,0							8000

the load capicities refer to a range of lift 42,0 m

2.2.7.1 **Tower configurations**

for a free standing stationary tower crane without climbing drive on a concrete foundation.

Slewing part:



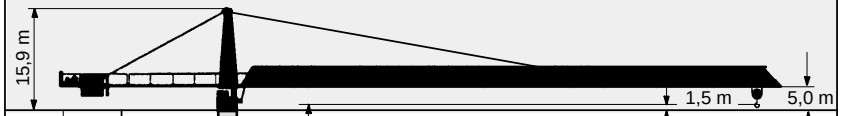
tower elements	height of tower (m)			
1	4,5	TV 25	TV 25	TV 25
2	9,0	TV 25	TV 25	TV 25
3	13,5	TV 25	TV 25	TV 25
4	18,0	TV 25	TV 25	TV 25
5	22,5	TV 25	TV 25	TV 25
6	27,0	TV 25	TV 25	TV 25
7	31,5	TV 25	TV 25	TV 25
8	36,0	TV 25	TV 25	TV 25
9	40,5	TV 25	TV 25	TV 25
10	45,0	TV 25	TV 25	TV 25
11	49,5	TV 25	TV 25	TV 25
12	54,0	TV 25	TV 25	UVA 25
13	58,5	TV 25	UVA 25	UV 25
14	63,0		UV 25	UV 25
15	67,5			UV 25 S
16	72,0			
17	76,5			
18	81,0			

For data regarding foundation anchors see section 12.
The tower configurations are recommended for economic crane installation and may be used in any case.
Tower configurations with other tower elements are possible, but must be checked and confirmed by us in every individual case and before crane installation starts.

2.2.7.2 **Tower configurations**

for a free standing stationary crane without climbing device on a concrete foundation.

Slewing part:



tower elements	height of tower [m]	
1	4,5	TV 25
2	9,0	TV 25
3	13,5	TV 25
4	18,0	TV 25
5	22,5	TV 25
6	27,0	TV 25
7	31,5	TV 25
8	36,0	TV 25
9	40,5	TV 25
10	45,0	TV 25
11	49,5	UVA 25
12	50,7	VR 2529
13	55,2	UV 29
14	59,7	UV 29
15	64,2	UV 29
16	68,7	UV 29
17	73,2	UV 29
18	77,7	UV 29
19	82,2	UV 29
20	92,2	BT 29

93,7 m hook height

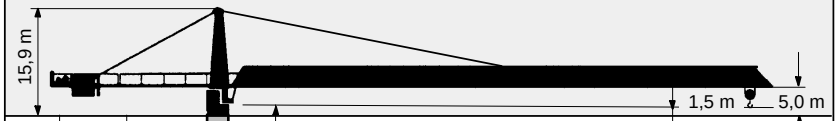
foundation anchor
type FUA – BT 29

For data regarding foundation anchors see section 12.
The tower configurations are recommended for economic crane installation and may be used in any case.
Tower configurations with other tower elements are possible, but must be checked and confirmed by us in every individual case and before crane installation starts.

2.2.8.1 **Tower configurations**

for a free standing stationary crane without climbing device on a cross frame.

Slewing part:



tower elements	height of tower (m)	
1	4,5	TV 25
2	9,0	TV 25
3	13,5	TV 25
4	18,0	TV 25
5	22,5	TV 25
6	27,0	TV 25
7	31,5	TV 25
8	36,0	TV 25
9	40,5	TV 25
10	45,0	TV 25
11	49,5	TV 25
12	54,0	TV 25
13	58,5	
14	63,0	
15	67,5	
16	72,0	
17	76,5	
18	81,0	

56,7 m hook height

1,2 m

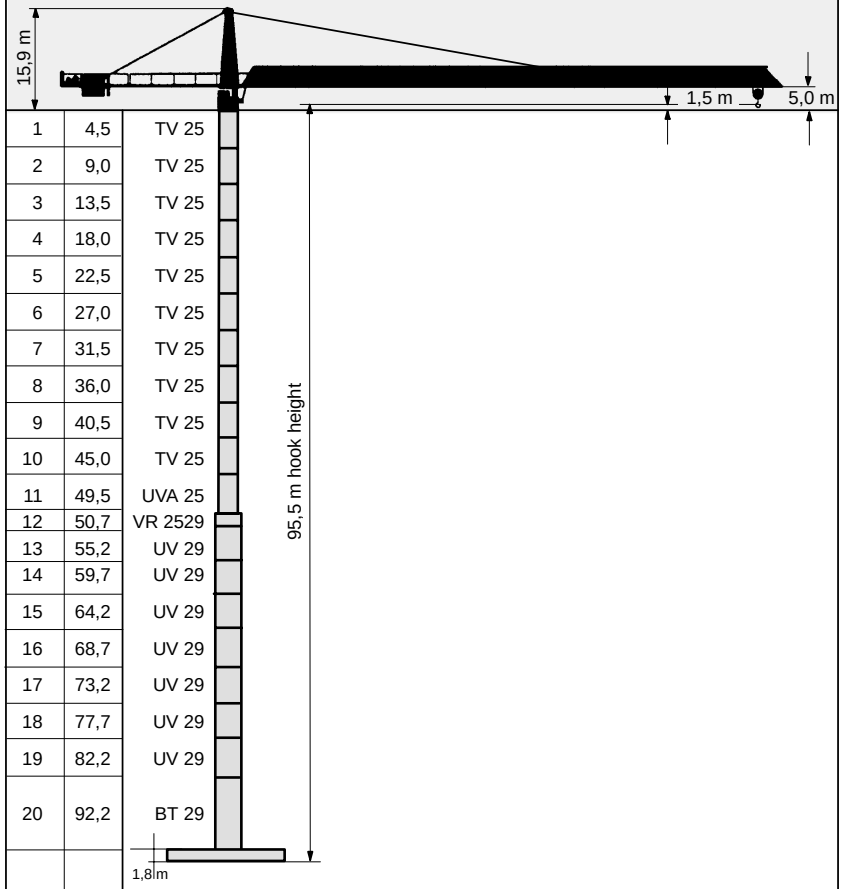
KR 1000 – 8
connection
TV 25/UVA 25/ UV 25

For data regarding cross frames see section 12.
The tower configurations are recommended for economic crane installation and may be used in any case.
Tower configurations with other tower elements are possible, but must be checked and confirmed by us in every individual case and before crane installation starts.

2.2.8.2 **Tower configurations**

for a free standing stationary crane without climbing device on a cross frame.

Drehteil:



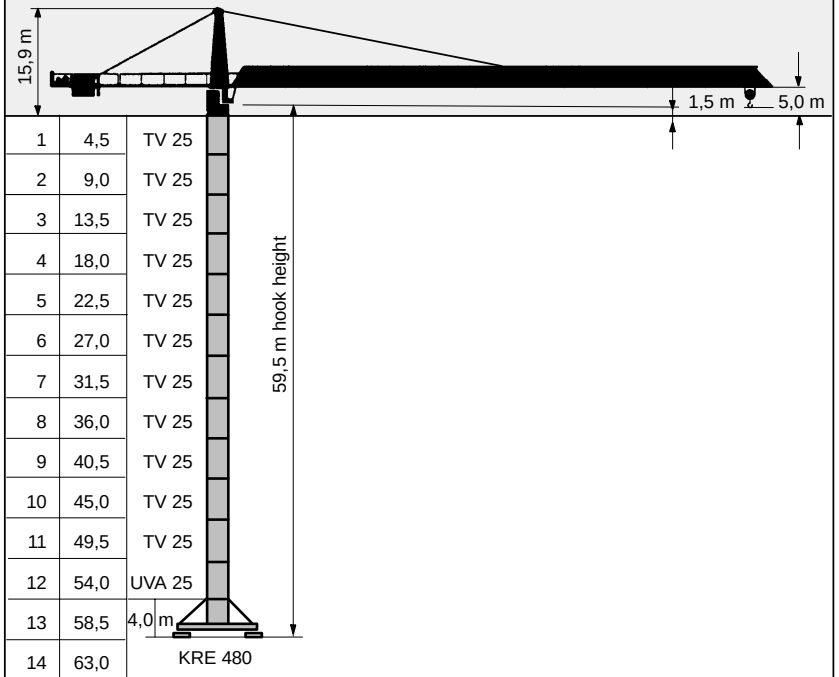
tower elements	height of tower [m]	
1	4,5	TV 25
2	9,0	TV 25
3	13,5	TV 25
4	18,0	TV 25
5	22,5	TV 25
6	27,0	TV 25
7	31,5	TV 25
8	36,0	TV 25
9	40,5	TV 25
10	45,0	TV 25
11	49,5	UVA 25
12	50,7	VR 2529
13	55,2	UV 29
14	59,7	UV 29
15	64,2	UV 29
16	68,7	UV 29
17	73,2	UV 29
18	77,7	UV 29
19	82,2	UV 29
20	92,2	BT 29

For data regarding cross frames see section 12.
The tower configurations are recommended for economic crane installation and may be used in any case.
Tower configurations with other tower elements are possible, but must be checked and confirmed by us in every individual case and before crane installation starts.

2.2.9.1 **Tower configurations**

for a free standing stationary crane without climbing device on a cross frame element.

Slewing part:



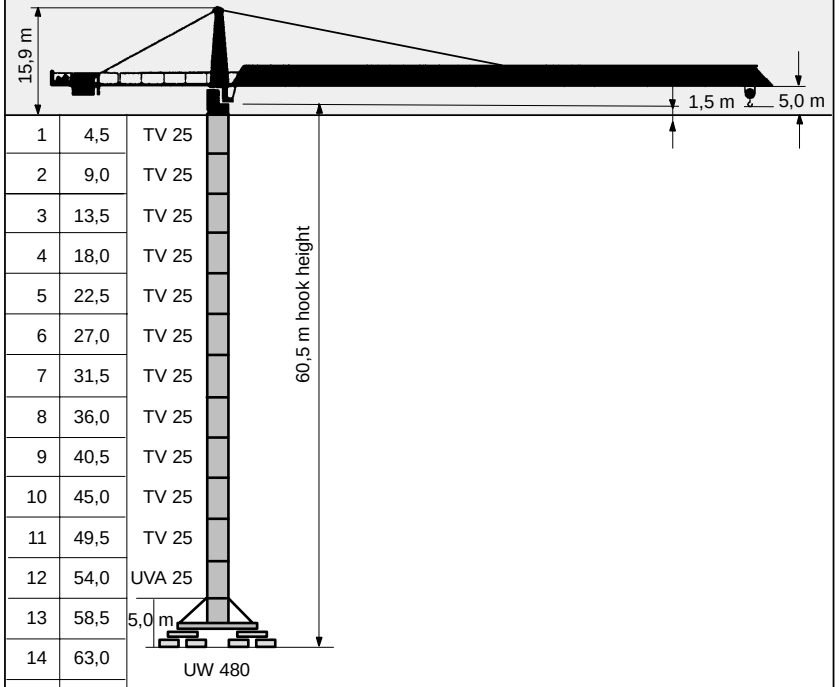
tower elements	height of tower (m)	
1	4,5	TV 25
2	9,0	TV 25
3	13,5	TV 25
4	18,0	TV 25
5	22,5	TV 25
6	27,0	TV 25
7	31,5	TV 25
8	36,0	TV 25
9	40,5	TV 25
10	45,0	TV 25
11	49,5	TV 25
12	54,0	UVA 25
13	58,5	
14	63,0	
15	67,5	
16	72,0	
17	76,5	
18	81,0	

For data regarding cross frame elements see section 12.
The tower configurations are recommended for economic crane installation and may be used in any case.
Tower configurations with other tower elements are possible, but must be checked and confirmed by us in every individual case and before crane installation starts.

2.2.10.1 **Tower configurations**

for a free standing travelling crane without climbing device.

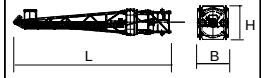
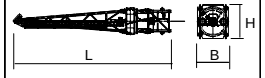
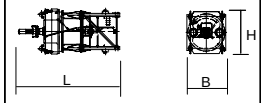
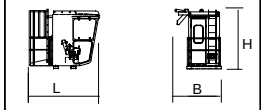
Slewing part:



tower elements	height of tower (m)	
1	4,5	TV 25
2	9,0	TV 25
3	13,5	TV 25
4	18,0	TV 25
5	22,5	TV 25
6	27,0	TV 25
7	31,5	TV 25
8	36,0	TV 25
9	40,5	TV 25
10	45,0	TV 25
11	49,5	TV 25
12	54,0	UVA 25
13	58,5	
14	63,0	
15	67,5	
16	72,0	
17	76,5	
18	81,0	

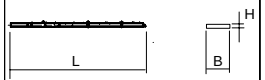
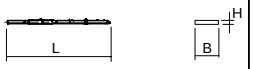
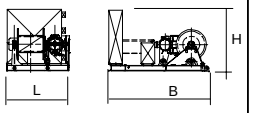
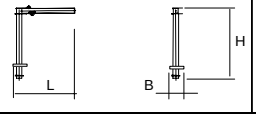
For data regarding undercarriage see section 12.
The tower configurations are recommended for economic crane installation and may be used in any case.
Tower configurations with other tower elements are possible, but must be checked and confirmed by us in every individual case and before crane installation starts.

2.3.1 **Colli list**

Item	pcs.	Designation	Colli	L (m)	B (m)	H (m)	weight (kg)	volume (m^3)
1	1	tower top complete with platforms at tower top, ladders and different bracing brackets, without platform at slewing frame		15,88	2,99	2,57	19840	122,4
	Pos. 1 dismantled	tower top complete without bracing brackets, platforms or ladders		15,88	2,57	2,57	18550	104,9
		upper part of tower top without platforms, ladders or bracing brackets		10,52	2,10	2,20	4280	48,6
		lower part of tower top with slewing frame, DV, slewing drives, slip ring system and adapter; without platform at slewing frame		6,81	2,57	2,57	14270	51,5
		lower part of tower top with slewing frame, DV, slewing drives, slip ring system without adapter or platform at slewing frame		3,50	2,30	2,50	9730	20,1
2	1	platform slewing frame		1,84	0,77	0,99	110	1,4
3	1	driver's cabin with driver's cabin suspension		2,74	2,35	2,33	1250	15,0
		driver's cabin suspension		1,08	2,02	0,91	250	2,0

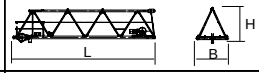
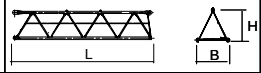
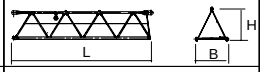
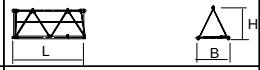
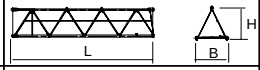
Loose and small parts can be distributed depending on the available space.

2.3.2 **Colli liste**

Item	pcs.	designation	colli	L (m)	B (m)	H (m)	weight (kg)	volume (m^3)
4	1	counterjib **21,7 m** folded without platforms		11,60	2,10	1,50	6250	36,5
		counterjib **21,7 m** unfolded without platforms		20,12	2,10	0,75	6250	31,7
		conterjib **16,7 m** folded without platforms		11,60	2,10	1,50	4750	36,5
		conterjib **16,7 m** unfolded without platforms		15,12	2,10	0,75	4750	23,8
5	1	platform **1** /460x2570		2,61	0,62	0,52	81	0,8
	1	platform **2** /460x2560		2,56	0,62	0,52	74	0,8
	1	platform **3** /460x2060		2,06	0,62	0,52	63	0,7
	1	platform **5** /460x2078		2,11	0,62	0,52	70	0,7
6	2	platform **4** /460x2060		2,06	0,47	0,52	48	0,5
	1	platform **6** /460x2065		2,07	0,47	0,52	70	0,5
7	1	**Hw 2075 FU** machinery platform with hoisting rope (Ø 24 mm x 225 m)		2,30	3,73	2,30	6950	19,7
8	1	disassembly crane		2,35	0,4	3,05	300	2,87

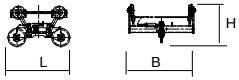
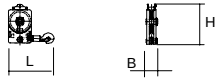
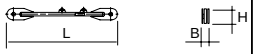
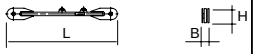
Loose and small parts can be distributed depending on the available space.

2.3.3 **Colli list**

Item	pcs.	designation	colli	L (m)	B (m)	H (m)	weight (kg)	volume (m^3)
9	1	jib part **1** with trolley drive		10,22	2,06	2,40	3850	50,53
10	1 (2x)	jib part **2**		10,25	2,06	2,18	2690	46,03
11	1	jib part **3**		10,29	2,06	2,17	2450	46,00
12	1	jib part **4**		5,31	2,06	2,13	1170	23,30
13	1	jib part **5**		10,27	2,06	2,12	1770	44,85
14	1	jib part **8**		5,23	2,06	2,15	830	45,2
15	1	rope swivel traverse		1,53	1,98	0,50	280	1,5
16	1	**trolley jib** bracing **1.1**		0,70	0,16	0,25	66	0,03
17	1	bracing **1.2**		2,09	0,11	0,26	169	0,06
18	1	bracing **1.3**		0,62	0,05	0,24	50	0,01
19	1 (3x)	bracing **1.4**		9,49	0,11	0,24	527	0,25
20	1	bracing **1.5**		1.70	0,23	0,24	151	0,09

Loose and small parts can be distributed depending on the available space.

2.3.4 **Colli list**

Item	pcs.	designation	colli	L (m)	B (m)	H (m)	weight (kg)	volume (m^3)
21	1	bracing		10,03	0,11	0,24	554	0,26
22	1	trolley 1 LK 20		2,00	2,23	1,30	740	5,8
23	1	hook block		1,30	0,60	1,30	630	1,0
24	1 (2x)	**counterjib** bracing **1**		9,56	0,07	0,21	295	0,14
25	1 (2x)	bracing **2**		4,69	0,07	0,21	155	0,07
26	1 (2x)	bracing **3**		4,31	0,07	0,21	145	0,06
27	1 (2x)	bracing **4**		5,35	0,07	0,21	175	0,08
28	1	standard handrail (small parts)		2,55	1,1	1,80	460	5,05
29	1	box (small parts)		1,60	0,90	0,80	500	1,15

Loose and small parts can be distributed depending on the available space.

2.5.1 **Assembly weights - tower top - counterjib**

Tower top, complete

bracing brackets (1x560 mm, 2x9300mm), driver's cabin, driver's cabin suspension, platform and standard handrails **21 070 kg**

- upper part of tower top, complete 5 440 kg
- driver's cabin with driver's cabin suspension 1 230 kg
- lower part of tower top with slewing frame, DV, slewing drives, platform, standard handrails and slip ring system 14 400 kg

Counterjib 21,7 m - with hoisting drive Hw 2075 FU, complete

machinery platform Hw 2075 FU with hoisting rope (Ø 24 mm x 225 m), 6 platforms, 6 bracing brackets, assembly trestles and standard handrail, counterweight 3 t (under machinery platform), **17 700 kg**

- counterjib with 4 bracing brackets, platforms, assembly trestles and standard handrail 7 750 kg
- machinery platform Hw 2075 FU with hoisting rope (Ø 24 mm x 225 m) 6 950 kg
- counterweight 3 t (under machinery platform) 3 000 kg

Counterjib 16,7 m - with hoisting drive Hw 2075 FU, complete

machinery platform Hw 2075 FU with hoisting rope (Ø 24 mm x 225 m), 6 platforms, 2 bracing brackets, assembly trestles and standard handrail, counterweight 3 t (under machinery platform), **16 180 kg**

- counterjib with 2 bracing brackets, platforms, assembly trestles and standard handrail 6 230 kg
- machinery platform Hw 2075 FU with hoisting rope (Ø 24 mm x 225 m) 6 950 kg
- counterweight 3 t (under machinery platform) 3 000 kg

2.5.2 **Assembly weights – trolley jib**

60 m trolley jib, complete – bracing brackets, rolley, traversing ropes, hook block and standard handrails	**19 900 kg**
55 m trolley jib, complete – bracing brackets, trolley, traversing ropes, hook block and standard handrails	**19 000 kg**
50 m trolley jib, complete – bracing brackets, trolley, traversing ropes, hook block and standard handrails	**17 800 kg**
45 m trolley jib, complete – bracing brackets, trolley, traversing ropes, hook block and standard handrails	**15 750 kg**
40 m trolley jib, complete – bracing brackets, trolley, traversing ropes, hook block and standard handrails	**14 540 kg**
35 m trolley jib, complete – bracing brackets, trolley, traversing ropes, hook block and standard handrails	**13 940 kg**
30 m trolley jib, complete – bracing brackets, trolley, traversing ropes, hook block and standard handrails	**12 740 kg**

2.5.3 **Assembly weights – cross frame / cross frame element / undercarriage**

cross frame KR 1000 – 8 (without optional parts)		**8 200 kg**
– 4 spigots TV 25 / TV 25		**684 kg**
cross frame element KRE 480, complete		**24 250 kg**
– base mast part	7 100 kg	
– swivel arms with corner bearings	6 250 kg	
– diagonal struts and ballast rest	9 260 kg	
– assembly platform, ladder and small parts	1 640 kg	
undercarriage UW 480, complete		**34 000 kg**
– base mast part	7 100 kg	
– swivel arms with crosshead and subframe	16 000 kg	
– diagonal struts and ballast rest	9 260 kg	
– assembly platform, ladder and small parts	1 640 kg	

2.5.4 **Required hook height for the mobile crane**

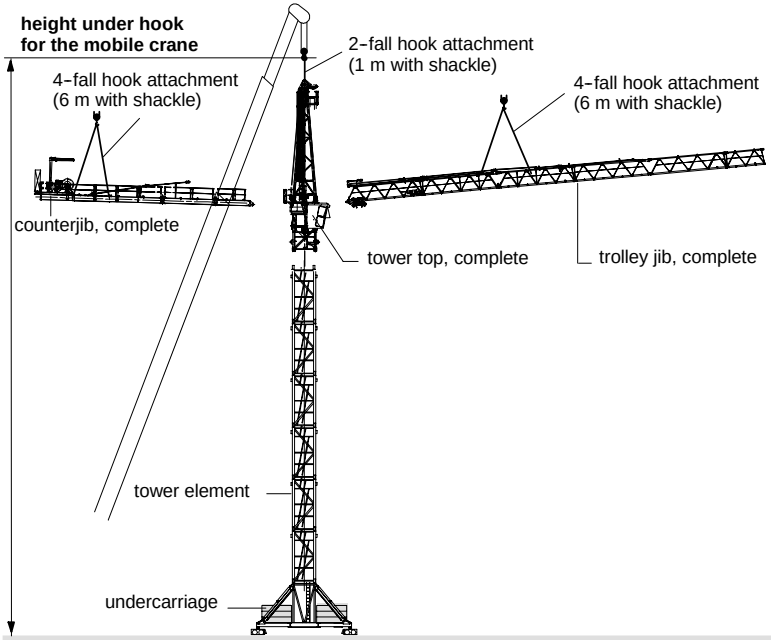
Danger!
Use suspension ropes with sufficient capacity and observe suspension plans!

Required height under hook for the mobile crane
=
Height under hook of WOLFF tower crane + 18 m.

For data regarding the height under hook of WOLFF tower cranes see tower configurations.

If the crane will be erected on another substructure, the required height under hook of the crane increases by the stuctural dimension of the substructure.

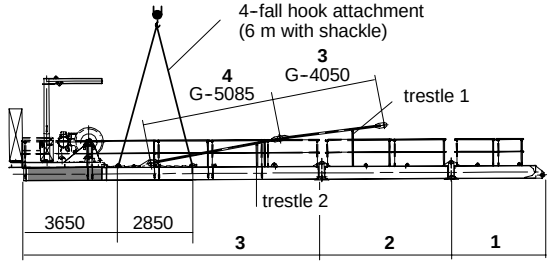
Differences in ground (mobile crane basis – tower crane basis) must be considered for erection.



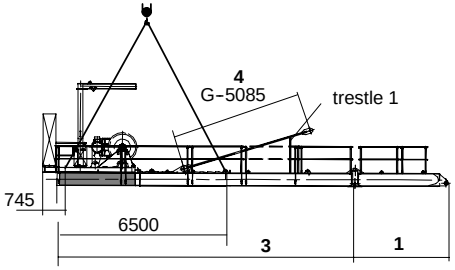
2.6.1.1 **Counterjib - suspension plan**

Danger in case of assembly or disassembly!
There mustn't be any loose parts on the counterjib.

The parts of the jib are labeled with a building part identification sign.



counterjib 21,7 m
G = 17 100 kg



counterjib 16,7 m
G = 15 300 kg

2.6.3.1 **Trolley jib - suspension plan 60 m up to 30 m jib**

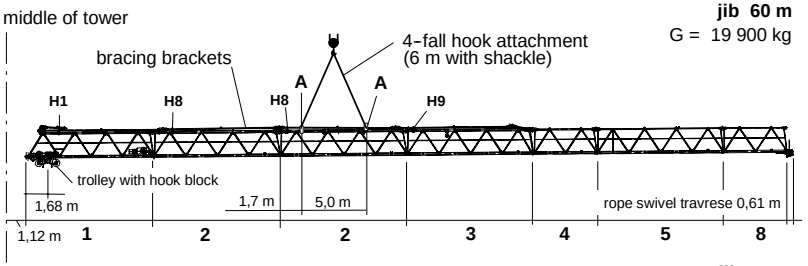
Danger during disassembly!
Loosen bolts at the pivot point of the jib. Trolley jib must be balanced before it is lifted away. There mustn't be any loose parts on the trolley jib.
The parts of the jib are labeled with a building part identification at the top chord.

Lengths:	trolley jib part	1/2/3/5	= 10,0 m
	trolley jib part	4/8	= 5,0 m
	rope swivel traverse		= 0,61 m

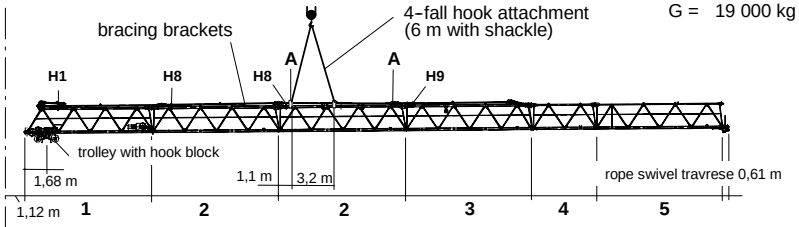
More details about suspensions **A** , see item 2.6.3.10 / 2.6.3.11 and supports **H1, H8** and **H9** see item 2.6.3.5.

Attention!
For assembly attach hook block with 2 sling ropes DIN 3088 (Ø 8 mm x 1 m with shackle) to the trolley, reeve in assembly rope (Perlon rope Ø 14 mm x 12 m) and secure at the trolley.

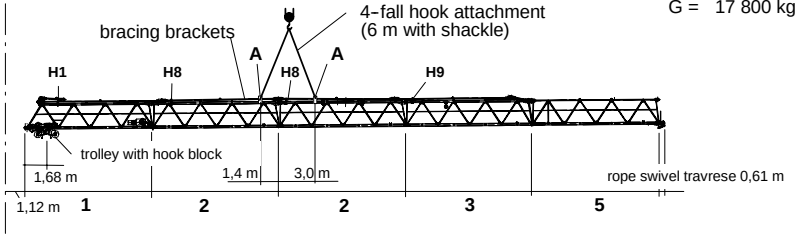
jib 60 m G = 19 900 kg



jib 55 m G = 19 000 kg



jib 50 m G = 17 800 kg



2.6.3.2 **Trolley jib - suspension plan 45 m up to 35 m jib**

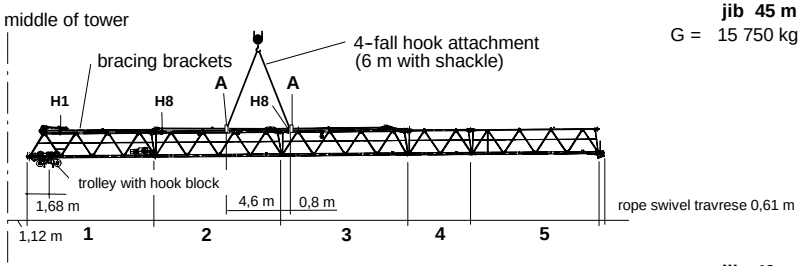
Danger during disassembly!
Loosen bolts at the pivot point of the jib. Trolley jib must be balanced before it is lifted away. There mustn't be any loose parts on the trolley jib.
The parts of the jib are labeled with a building part identification at the top chord.

Lengths:	trolley jib part	1/2/3/5	= 10,0 m
	trolley jib part	4	= 5,0 m
	rope swivel traverse		= 0,61 m

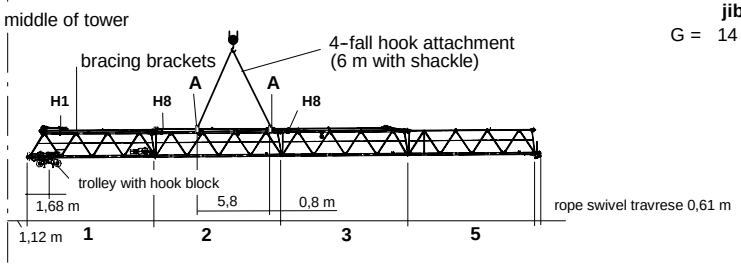
More details about suspensions **A** , see item 2.6.3.10 / 2.6.3.11 and supports **H1, H8** and **H9** see item 2.6.3.5.

Attention!
For assembly attach hook block with 2 sling ropes DIN 3088 (Ø 8 mm x 1 m with shackle) to the trolley, reeve in assembly rope (Perlon rope Ø 14 mm x 12 m) and secure at the trolley.

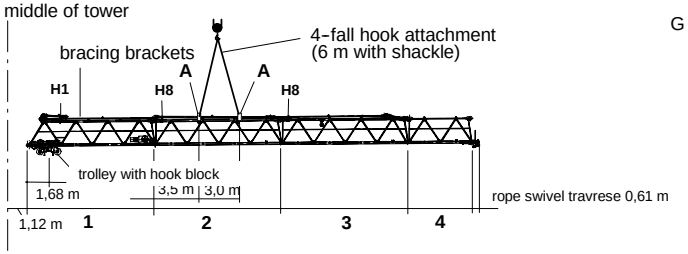
jib 45 m G = 15 750 kg



jib 40 m G = 14 540 kg



jib 35 m G = 13 940 kg



2.6.3.3 **Trolley jib – suspension plan 30 m jib**

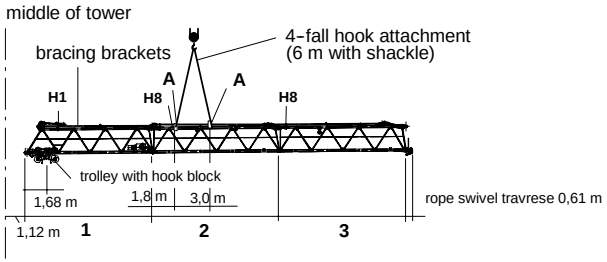
Danger during disassembly!
Loosen bolts at the pivot point of the jib. Trolley jib must be balanced before it is lifted away. There mustn't be any loose parts on the trolley jib.
The parts of the jib are labeled with a building part identification at the top chord.

Lengths: trolley jib part 1/2/3 = 10,0 m
rope swivel traverse = 0,61 m

More details about suspensions **A** , see item 2.6.3.10 / 2.6.3.11 and supports **H1, H8** and **H9** see item 2.6.3.5.

Attention!
For assembly attach hook block with 2 sling ropes DIN 3088 (Ø 8 mm x 1 m with shackle) to the trolley, reeve in assembly rope (Perlon rope Ø 14 mm x 12 m) and secure at the trolley.

jib 30 m
G = 12 740 kg

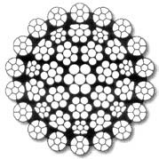


2.7.1 **Hoisting rope** **for hoisting winch - Hw 2075 FU**

Cable Ø = 24 mm + 4% + 2%

design according to DIN 15 020
kind of operation TWG 1 Am

First equipment



CASAR EUROLIFT –
non twisting
flexible hoisting rope
with compressed outer strands
and compressed cable core

with special packing material grip

nominal strength = 2160 N/mm²
calc. breaking strength = 706,0 kN
min. breaking strength = 564,1 kN
weight per meter = 2,843 kg

Design

langs lay rope, right handed,
made from blank cable wire.

middle space factor = 0,720
spinning loss factor = 0,82
weight factor = 0,87
total twist number = 280

Number of carryig wires in the outer strands
is to be judged by the state of wear according to
DIN 15020 Bl. 2 / ISO DIS 4309 = **126**

Attention! **hoisting rope with special packing material grip**

Basic equipment

cable length	**225 m**	**for crane with:**	**cable**	**2 fall**
			radius	**60 m**
			hook path	**41 m**

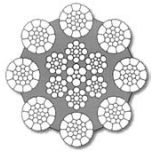
By lengthening the hook path by 1 tower element (4,5 m) the necessary cable length increases by **9,0 m for operation in 2 falls.**

Attention!
A wire cable is a complex machine element.

Conventional cable design frequently doesn't meet the requirements of modern rope drives, short service life is the result.

2.7.2 **Traversing rope**

Cable Ø = 12 mm $^{+4\%}_{+2\%}$	design according to DIN 15 020 kind of operation TWG 1 Am
First equipment	**CASAR TURBOPLAST –** cable with 8 strands made out of compressed outer strands. **with special packing material grip** **nominal strength = 1960 N/mm²** **calc. breaking strength = 148,3 kN** **min. breaking strength = 124,9 kN** **weight per meter = 0,658 kg**
Design	ordinary lay rope, right handed, surface of wires zinc coated. middle space factor = 0,665 middle spinning loss factor = 0,85 middle weight factor = 0,87 total twist number = 327 Number of carryig wires in the outer strands is to be judged by the state of wear according to DIN 15020 Bl. 2 / ISO DIS 4309 = **208**



Attention! short traversing rope with special packing material grip

Basic equipment

cable lengths 1 x 100 m 1 x 176 m	**for crane with: radius 60 m – 85 m**

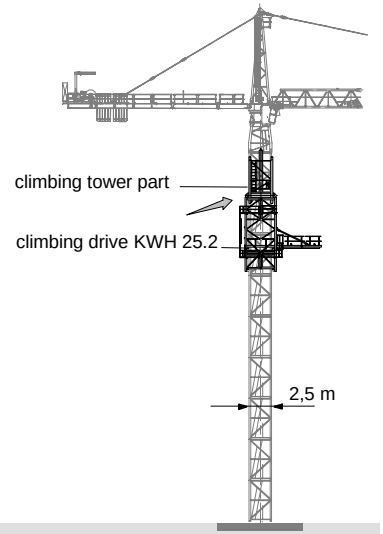
! **Attention!**
A wire cable is a complex machine element.

Conventional cable design frequently doesn't meet the requirements of modern rope drives. short service life is the result.

2.8.1 **Insertable exterior climbing drive KWH 25.2**

! **Attention!**
The assembly of the climbing drive with the WOLFF tower crane 6071 is possible with operation in 2 falls.

More details about the climbing drive KWH 25.2 see additional equipment, section 12.



Minimum height with stationary erection:
1 climbing tower part **2 tower elements = 13,5 m tower height**

Minimum height with travelling erection:
1 climbing tower part **2 tower elements + undercarriage** **appr. 13,5 m tower height**

2.8.1.1 **Balancing weights**

WOLFF 6071 balancing weight *	**jib** 30 m	35 m	40 m	45 m	50 m	55 m	60 m
load = 5,0 t	--	--	--	--	--	52,2 m **	52,9 m
load = 8,0 t	--	--	--	39,2 m	36,9 m	35,9 m	36,4 m
load = 12,0 t	27,2 m	28,9 m	27,8 m	27,7 m	26,0 m	--	--

* The indicated balancing weights are gross-weights of tower sections or a load.

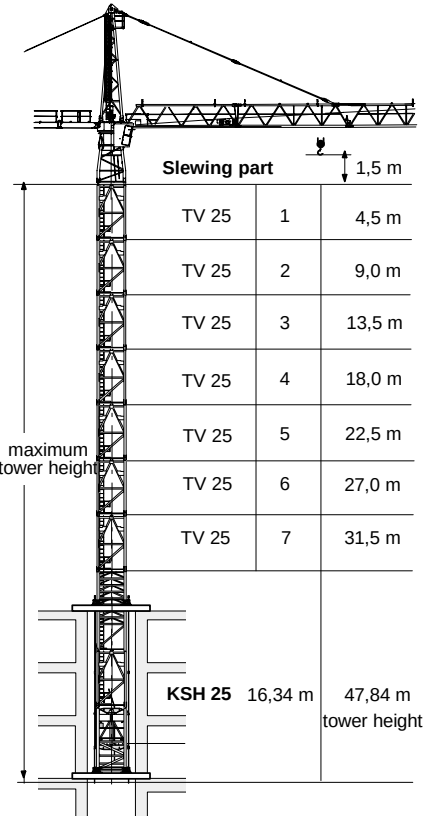
** The given radius (m) is an approximate value and refers to the center of the tower. The exact balancing position can be reached by carefully moving the trolley and can be checked by a frictionless moving in or out of the concerned tower section.

Danger!
The climbing gear is an auxilliary device for assembly and mustn't stay at the tower crane WOLFF under normal working conditions.
Until the tower has been repinned fully and in all holes, the balancing must be kept and the slewing part must remain locked. (For details, please see operational manual KWH 25.2).
The climbing gear is an auxilliary device for assembly and mustn't stay at the tower crane WOLFF under normal working conditions.

2.8.5. **Insertable internal climbing drive KSH 25**

For use of the WOLFF 6071 in connection with internal climbing drive KSH 25 the tower combination has to be observed as shown here.

More details about the climbing drive KSH 25 see additional equipment, section 12.



2.8.5.1 **Balancing weights**

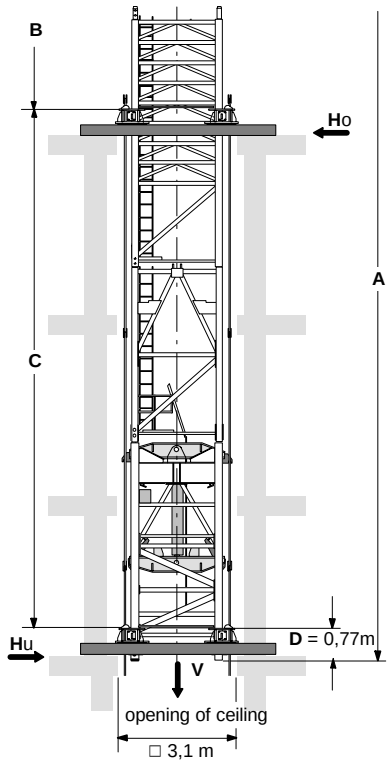
* The indicated balancing weights are gross-weights of tower elements or a load.

** The indicated radius refers to the centre of the tower and shall be treated as standard value. Exact balancing must achieved by travelling of trolley with tower element or load and can checked by measuring the distance between corner posts and tensioning brackets. This distance shall be equal at all four corner posts.

-- balancing not possible

WOLFF 6071 balancing weight *	jib 30 m	35 m	40 m	45 m	50 m	55 m	60 m
load = 5,0 t	--	--	--	--	--	--	54,3 m **
load = 8,0 t	--	--	--	40,1 m	37,8 m	36,8 m	37,3 m
load = 12,0 t	27,8 m	29,6 m	28,4 m	28,3 m	26,7 m	26,0 m	--

2.8.2.2 **Reacting forces to building** **for hydraulic interior climbing drive KSH 25**



A = tower height

B = A - C - D

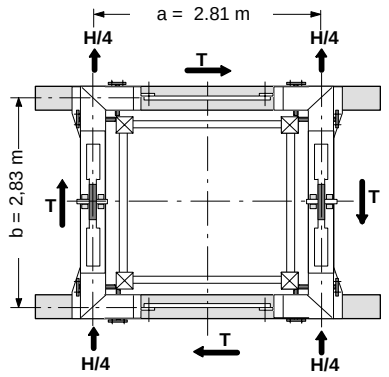
C = distance between guide frames

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

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

Hu = Ho - H

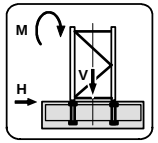
$T = \frac{M_D}{2 \times b}$



Reacting forces to building (kN)	in operation															
A(m)	47,8				43,3				38,8				34,3			
C(m)	12	13	14	15	12	13	14	15	12	13	14	15	12	13	14	15
V	1580				1550				1520				1490			
Ho	530	490	450	420	510	470	430	410	490	450	410	390	460	430	400	370
Hu	470	430	400	370	450	410	380	350	430	390	360	330	410	380	340	320
T	98				98				98				98			
Reacting forces to building (kN)	**out of operation**															
A(m)	47,8				43,3				38,8				34,3			
C(m)	12	13	14	15	12	13	14	15	12	13	14	15	12	13	14	15
V	1362				1332				1302				1272			
Ho	320	300	280	260	260	240	220	210	240	220	210	200	230	210	200	180
Hu	140	110	90	70	80	60	50	30	80	60	40	30	80	60	40	30
T	0				0				0				0			

3.1.1 **Foundation loads according to DIN**

Inclusive all dynamic factors, theory order II taken into account
for statioary tower crane on a concrete foundation
according to tower configuration without climbing device
Permanent acting moment = **3300** kNm
M = moment **H** = horizintal force **V** = vertical load

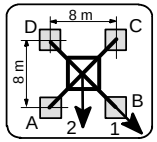


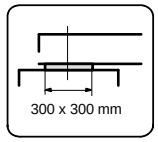
Foundation loads — Jib lrngth 30 - 60 m

height under hook	Crane in service torque moment **490** kNm			Crane out of service			Assembly		
	M	H	V	M	H	V	M	H	V
[m]	[kNm]	[kN]	[kN]	[kNm]	[kN]	[kN]	[kNm]	[kN]	[kN]
10,5	4357	37	1025	2785	56	809	3502	19	470
15,0	4543	39	1056	2525	62	840	3597	21	502
19,5	4749	41	1088	1857	86	872	3705	23	534
24,0	4973	43	1120	1409	96	904	3827	26	566
28,5	5219	46	1153	915	106	936	3962	28	598
33,0	5488	48	1185	690	121	1163	4112	30	630
37,5	5780	50	1217	1318	131	1195	4277	32	662
42,0	6099	52	1249	2001	140	1227	4457	34	694
46,5	6446	55	1281	2745	150	1259	4654	37	726
51,0	6826	57	1313	3553	160	1291	4868	39	758
55,5	7240	59	1345	4432	170	1323	5101	41	790
60,0	7693	61	1377	5387	180	1355	5353	43	822
64,5	8122	64	1417	6381	190	1395	5604	46	862
69,0	8595	66	1457	7467	201	1435	5878	48	903
Attention ! Tower configuration with basis tower BT 29									
71,2	8600	68	1522	7820	202	1500	5940	50	977
75,7	9060	71	1568	9040	214	1546	6240	53	1013
80,2	9600	73	1614	10340	225	1592	6560	55	1060
84,7	10170	76	1660	11730	236	1638	6900	58	1105
89,2	10800	78	1707	13230	247	1684	7260	60	1152
93,7	11480	81	1753	14850	258	1713	7660	63	1200

3.2.1.1 **Central ballasts and corner loads acc. to DIN 15019**

for a stationary tower crane on a
cross frame without climbing drive



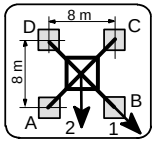


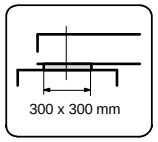
KR 1000 - 8 **Corner distance 8,0 m x 8,0 m** **Jib length 30 m**

hook height	central ballast	jib position	crane in service torque moment: **325** kNm corner loads				horizontal force	jib position	crane out of service torque moment: 0 kNm corner loads				horizontal force
			A	**B**	**C**	**D**			**A**	**B**	**C**	**D**	
[m]	[t]		[kN]	[kN]	[kN]	[kN]	[kN]		[kN]	[kN]	[kN]	[kN]	[kN]
11,7	42,5	1	350	735	350	0	41	1	359	590	359	128	62
		2	619	619	99	99		2	522	522	196	196	
16,2	42,5	1	353	762	353	0	43	1	367	547	367	187	84
		2	636	636	98	98		2	494	494	240	240	
20,7	42,5	1	354	792	354	0	45	1	375	523	375	227	91
		2	655	655	95	95		2	480	480	270	270	
25,2	42,5	1	353	825	353	0	48	1	276	526	276	26	101
		2	675	675	91	91		2	460	460	306	306	
29,7	42,5	1	351	862	351	0	50	1	284	545	284	23	111
		2	696	696	86	86		2	469	469	99	99	
34,2	42,5	1	347	902	347	0	52	1	292	566	292	18	120
		2	718	718	80	80		2	486	486	98	98	
38,7	45,0	1	353	947	353	0	55	1	306	594	306	19	130
		2	748	748	79	79		2	510	510	103	103	
43,2	57,5	1	407	995	407	0	57	1	346	648	346	43	140
		2	804	804	101	101		2	559	559	132	132	
47,7	70,0	1	459	1049	459	0	59	1	385	703	385	66	150
		2	864	864	219	219		2	610	610	159	159	
52,2	85,0	1	521	1107	521	0	62	1	430	767	430	94	160
		2	932	932	242	242		2	695	695	380	380	
56,7	102,5	1	589	1174	589	4	64	1	589	885	589	293	170
		2	1009	1009	269	269		2	798	798	380	380	

3.2.1.2 **Central ballasts and corner loads acc. to DIN 15019**

for a stationary tower crane on a
cross frame without climbing drive



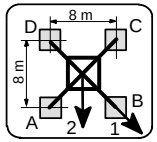


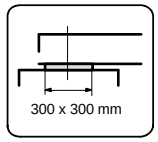
KR 1000 - 8 **Corner distance 8,0 m x 8,0 m** **Jib length 35 m**

hook height	central ballast	jib position	crane in service torque moment: **325** kNm corner loads				horizontal force	jib position	crane out of service torque moment: 0 kNm corner loads				horizontal force
			A	**B**	**C**	**D**			**A**	**B**	**C**	**D**	
[m]	[t]		[kN]	[kN]	[kN]	[kN]	[kN]		[kN]	[kN]	[kN]	[kN]	[kN]
11,7	65,0	1	397	786	397	8	41	1	397	640	397	155	63
		2	685	685	209	209		2	568	568	226	226	
16,2	65,0	1	405	808	405	2	43	1	321	639	321	2	86
		2	704	704	206	206		2	546	546	95	95	
20,7	65,0	1	408	836	408	0	45	1	329	657	329	1	93
		2	725	725	201	201		2	561	561	97	97	
25,2	65,0	1	408	869	408	0	48	1	334	677	334	0	103
		2	746	746	196	196		2	576	576	97	97	
29,7	65,0	1	406	905	406	0	50	1	339	701	339	0	113
		2	769	769	189	189		2	592	592	97	97	
34,2	65,0	1	402	945	402	0	52	1	341	727	341	0	123
		2	793	793	181	181		2	610	610	95	95	
38,7	65,0	1	396	989	396	0	55	1	343	756	343	0	133
		2	819	819	171	171		2	628	628	93	93	
43,2	70,0	1	413	1037	413	0	57	1	368	788	368	0	142
		2	858	858	173	173		2	660	660	102	102	
47,7	82,5	1	465	1089	465	0	59	1	420	832	420	9	152
		2	919	919	191	191		2	711	711	129	129	
52,2	97,5	1	600	1147	600	54	61	1	466	896	466	35	162
		2	987	987	214	214		2	770	770	161	161	
56,7	115,0	1	652	1234	652	70	64	1	518	969	518	66	172
		2	1064	1064	241	241		2	837	837	199	199	

3.2.1.3 **Central ballasts and corner loads acc. to DIN 15019**

for a stationary tower crane on a
cross frame without climbing drive



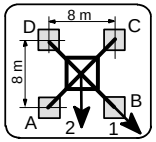


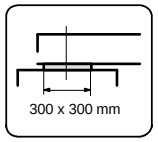
KR 1000 - 8 **Corner distance 8,0 m x 8,0 m** **Jib length 40 m**

hook height	central ballast	jib position	crane in service torque moment: **325** kNm corner loads				horizontal force	jib position	crane out of service torque moment: 0 kNm corner loads				horizontal force
			A	**B**	**C**	**D**			**A**	**B**	**C**	**D**	
[m]	[t]		[kN]	[kN]	[kN]	[kN]	[kN]		[kN]	[kN]	[kN]	[kN]	[kN]
11,7	65,0	1	449	779	449	118	41	1	313	623	313	2	64
		2	683	683	215	215		2	554	554	243	243	
16,2	65,0	1	457	803	457	110	43	1	321	640	321	2	87
		2	702	702	211	211		2	546	546	95	95	
20,7	65,0	1	465	829	465	100	46	1	329	657	329	0	94
		2	722	722	207	207		2	561	561	96	96	
25,2	65,0	1	473	856	473	89	48	1	334	678	334	0	104
		2	744	744	201	201		2	576	576	97	97	
29,7	65,0	1	481	885	481	76	50	1	338	702	338	0	114
		2	767	767	195	195		2	593	593	96	96	
34,2	65,0	1	419	917	419	0	52	1	341	729	341	0	124
		2	791	791	186	186		2	610	610	95	95	
38,7	65,0	1	413	961	413	0	55	1	342	758	342	0	133
		2	816	816	177	177		2	628	628	93	93	
43,2	65,0	1	405	1008	405	0	57	1	342	790	342	0	143
		2	843	843	166	166		2	648	648	89	89	
47,7	77,5	1	457	1060	457	0	59	1	403	825	403	0	153
		2	904	904	184	184		2	699	699	116	116	
52,2	92,5	1	589	1130	589	48	61	1	453	885	453	22	163
		2	972	972	207	207		2	758	758	148	148	
56,7	110,0	1	641	1217	641	65	64	1	505	957	505	53	173
		2	1049	1049	233	233		2	825	825	185	185	

3.2.1.4 **Central ballasts and corner loads acc. to DIN 15019**

for a stationary tower crane on a
cross frame without climbing drive



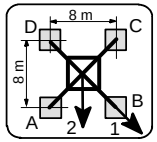


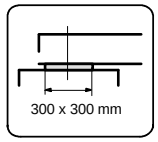
KR 1000 - 8 **Corner distance 8,0 m x 8,0 m** **Jib length 45 m**

hook height	central ballast	jib position	crane in service torque moment: **325** kNm corner loads				horizontal force	jib position	crane out of service torque moment: 0 kNm corner loads				horizontal force
			A	**B**	**C**	**D**			**A**	**B**	**C**	**D**	
[m]	[t]		[kN]	[kN]	[kN]	[kN]	[kN]		[kN]	[kN]	[kN]	[kN]	[kN]
11,7	60,0	1	398	772	398	23	41	1	289	622	289	0	65
		2	677	677	218	218		2	546	546	249	249	
16,2	60,0	1	456	796	456	116	44	1	297	639	297	0	88
		2	696	696	215	215		2	534	534	82	82	
20,7	60,0	1	464	821	464	106	46	1	303	658	303	0	95
		2	716	716	211	211		2	549	549	83	83	
25,2	60,0	1	472	849	472	94	48	1	308	680	308	0	105
		2	738	738	205	205		2	564	564	84	84	
29,7	60,0	1	480	878	480	81	50	1	312	704	312	0	115
		2	761	761	198	198		2	581	581	83	83	
34,2	60,0	1	416	917	416	0	53	1	315	731	315	0	125
		2	785	785	190	190		2	598	598	82	82	
38,7	60,0	1	410	962	410	0	55	1	316	760	316	0	135
		2	811	811	180	180		2	617	617	79	79	
43,2	60,0	1	402	1010	402	0	57	1	316	792	316	0	145
		2	839	839	168	168		2	636	636	76	76	
47,7	72,5	1	454	1063	454	0	59	1	377	828	377	0	154
		2	899	899	186	186		2	688	688	103	103	
52,2	87,5	1	588	1125	588	52	62	1	441	874	441	8	164
		2	968	968	209	209		2	747	747	135	135	
56,7	105,0	1	640	1213	640	67	64	1	493	946	493	39	174
		2	1045	1045	235	235		2	830	830	350	350	

3.2.1.5 **Central ballasts and corner loads acc. to DIN 15019**

for a stationary tower crane on a
cross frame without climbing drive



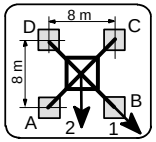


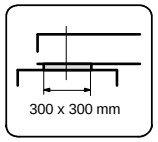
KR 1000 - 8 **Corner distance 8,0 m x 8,0 m** **Jib length 50 m**

hook height	central ballast	jib position	crane in service torque moment: **490** kNm corner loads				horizontal force	jib position	crane out of service torque moment: 0 kNm corner loads				horizontal force
			A	**B**	**C**	**D**			**A**	**B**	**C**	**D**	
[m]	[t]		[kN]	[kN]	[kN]	[kN]	[kN]		[kN]	[kN]	[kN]	[kN]	[kN]
11,7	57,5	1	455	793	455	117	41	1	276	622	276	0	65
		2	694	694	216	216		2	535	535	275	275	
16,2	57,5	1	463	817	463	109	44	1	284	639	284	0	89
		2	713	713	213	213		2	528	528	76	76	
20,7	57,5	1	471	843	471	99	46	1	290	659	290	0	96
		2	734	734	208	208		2	543	543	77	77	
25,2	57,5	1	479	870	479	87	48	1	295	681	295	0	106
		2	756	756	202	202		2	558	558	77	77	
29,7	57,5	1	487	900	487	74	50	1	299	705	299	0	116
		2	779	779	195	195		2	575	575	77	77	
34,2	57,5	1	495	932	495	58	53	1	302	732	302	0	125
		2	804	804	186	186		2	592	592	75	75	
38,7	57,5	1	503	965	503	41	55	1	303	761	303	0	135
		2	830	830	176	176		2	611	611	73	73	
43,2	57,5	1	511	1002	511	20	57	1	303	794	303	0	145
		2	858	858	164	164		2	630	630	69	69	
47,7	60,0	1	525	1047	525	4	59	1	314	829	314	0	155
		2	894	894	156	156		2	657	657	71	71	
52,2	75,0	1	571	1126	571	15	62	1	385	867	385	0	165
		2	963	963	178	178		2	730	730	311	311	
56,7	92,5	1	622	1215	622	30	64	1	572	946	572	199	175
		2	1041	1041	204	204		2	836	836	308	308	

3.2.1.6 **Central ballasts and corner loads acc. to DIN 15019**

for a stationary tower crane on a
cross frame without climbing drive



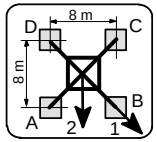


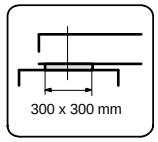
KR 1000 - 8 **Corner distance 8,0 m x 8,0 m** **Jib length 55 m**

hook height	central ballast	jib position	crane in service torque moment: **490** kNm corner loads				horizontal force	jib position	crane out of service torque moment: 0 kNm corner loads				horizontal force
			A	**B**	**C**	**D**			**A**	**B**	**C**	**D**	
[m]	[t]		[kN]	[kN]	[kN]	[kN]	[kN]		[kN]	[kN]	[kN]	[kN]	[kN]
11,7	47,5	1	441	767	441	116	42	1	226	623	226	0	66
		2	671	671	211	211		2	509	509	274	274	
16,2	47,5	1	449	791	449	108	44	1	233	640	233	0	90
		2	691	691	208	208		2	503	503	50	50	
20,7	47,5	1	457	817	457	98	46	1	240	660	240	0	97
		2	712	712	203	203		2	518	518	51	51	
25,2	47,5	1	465	845	465	86	48	1	245	682	245	0	107
		2	734	734	197	197		2	534	534	52	52	
29,7	47,5	1	473	875	473	72	51	1	248	706	248	0	117
		2	757	757	190	190		2	551	551	51	51	
34,2	47,5	1	481	906	481	56	53	1	251	733	251	0	127
		2	782	782	181	181		2	568	568	49	49	
38,7	47,5	1	489	940	489	38	55	1	252	763	252	0	137
		2	808	808	171	171		2	587	587	47	47	
43,2	47,5	1	497	977	497	18	57	1	252	796	252	0	146
		2	836	836	158	158		2	606	606	43	43	
47,7	52,5	1	518	1028	518	7	60	1	275	831	275	0	156
		2	879	879	157	157		2	643	643	292	292	
52,2	67,5	1	563	1108	563	19	62	1	346	870	346	0	166
		2	949	949	178	178		2	740	740	287	287	
56,7	85,0	1	615	1197	615	33	64	1	565	964	565	166	176
		2	1027	1027	204	204		2	847	847	283	283	

3.2.1.7 **Central ballasts and corner loads acc. to DIN 15019**

for a stationary tower crane on a
cross frame without climbing drive



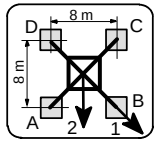


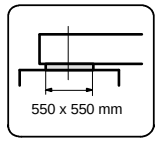
KR 1000 - 8 **Corner distance 8,0 m x 8,0 m** **Jib length 60 m**

hook height	central ballast	jib position	crane in service torque moment: **490** kNm corner loads				horizontal force	jib position	crane out of service torque moment: 0 kNm corner loads				horizontal force
			A	**B**	**C**	**D**			**A**	**B**	**C**	**D**	
[m]	[t]		[kN]	[kN]	[kN]	[kN]	[kN]		[kN]	[kN]	[kN]	[kN]	[kN]
11,7	35,0	1	371	722	371	19	42	1	163	624	163	0	67
		2	619	619	122	122		2	486	486	256	256	
16,2	35,0	1	379	744	379	13	44	1	170	641	170	0	91
		2	637	637	120	120		2	472	472	19	19	
20,7	35,0	1	387	768	387	6	46	1	177	661	177	0	98
		2	656	656	117	117		2	487	487	20	20	
25,2	35,0	1	391	797	391	0	49	1	181	683	181	0	108
		2	676	676	113	113		2	503	503	20	20	
29,7	35,0	1	388	835	388	0	51	1	185	708	185	0	118
		2	698	698	108	108		2	520	520	19	19	
34,2	35,0	1	383	877	383	0	53	1	187	735	187	0	128
		2	721	721	101	101		2	538	538	18	18	
38,7	37,5	1	389	923	389	0	55	1	201	765	201	0	138
		2	751	751	99	99		2	562	562	21	21	
43,2	37,5	1	379	973	379	0	58	1	201	798	201	0	148
		2	777	777	89	89		2	583	583	106	106	
47,7	50,0	1	430	1028	430	0	60	1	261	834	261	0	157
		2	836	836	109	109		2	654	654	290	290	
52,2	65,0	1	491	1089	491	0	62	1	333	873	333	0	167
		2	903	903	133	133		2	751	751	284	284	
56,7	82,5	1	561	1155	561	0	64	1	569	979	569	160	177
		2	978	978	161	161		2	859	859	280	280	

3.2.2.1 **Central ballasts and corner loads acc. to DIN 15019**

for a stationary tower crane on a
cross frame without climbing drive



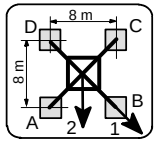


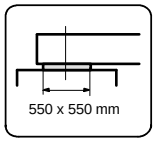
KR 16 - 80 **Corner distance 8,0 m x 8,0 m** **Jib length 30 m**

hook height	central ballast	jib position	crane in service torque moment: **325** kNm corner loads				horizontal force	jib position	crane out of service torque moment: 0 kNm corner loads				horizontal force
			A	**B**	**C**	**D**			**A**	**B**	**C**	**D**	
[m]	[t]		[kN]	[kN]	[kN]	[kN]	[kN]		[kN]	[kN]	[kN]	[kN]	[kN]
66,3	135	1	699	1359	699	39	71	1	699	1167	699	231	197
		2	1173	1173	324	324		2	1030	1030	368	368	
68,5	135	1	712	1377	712	48	73	1	712	1213	712	212	199
		2	1190	1190	334	334		2	1066	1066	358	358	
73,0	155	1	776	1475	777	78	75	1	776	1374	777	179	212
		2	1281	1281	372	372		2	1199	1199	354	354	
77,5	175	1	838	1575	838	101	78	1	838	1536	838	140	223
		2	1372	1372	404	404		2	1331	1331	345	345	
82,0	200	1	962	1691	962	233	80	1	912	1718	912	107	234
		2	1478	1478	447	447		2	1482	1482	343	343	
86,5	225	1	1036	1814	1036	258	83	1	986	1908	986	65	245
		2	1586	1586	486	486		2	1638	1638	335	335	
91,0	250	1	1110	1941	1110	279	85	1	1060	2107	1060	14	256
		2	1698	1698	523	523		2	1800	1800	320	320	
95,5	280	1	1197	2086	1197	308	88	1	1113	2361	1114	0	267
		2	1825	1825	568	568		2	1982	1982	312	312	

3.2.2.2 **Central ballasts and corner loads acc. to DIN 15019**

for a stationary tower crane on a
cross frame without climbing drive



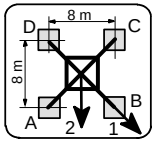


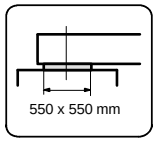
KR 16 - 80 **Corner distance 8,0 m x 8,0 m** **Jib length 35 m**

hook height [m]	central ballast [t]	jib position	crane in service, torque moment: **325** kNm, corner loads A [kN]	B [kN]	C [kN]	D [kN]	horizontal force [kN]	jib position	crane out of service, torque moment: 0 kNm, corner loads A [kN]	B [kN]	C [kN]	D [kN]	horizontal force [kN]
66,3	150	1	768	1435	768	102	72	1	718	1184	718	252	199
		2	1239	1239	297	297		2	1048	1048	389	389	
68,5	150	1	782	1453	782	110	74	1	732	1231	732	232	201
		2	1256	1256	307	307		2	1085	1085	379	379	
73,0	165	1	833	1542	833	124	76	1	783	1379	783	187	214
		2	1334	1334	332	332		2	1205	1205	362	362	
77,5	190	1	907	1659	907	156	79	1	857	1554	857	161	225
		2	1439	1439	376	376		2	1350	1350	365	365	
82,0	210	1	969	1766	969	171	81	1	919	1723	919	115	236
		2	1533	1533	405	405		2	1488	1488	350	350	
86,5	235	1	1043	1890	1043	196	84	1	993	1913	993	73	248
		2	1642	1642	444	444		2	1643	1643	343	343	
91,0	265	1	1129	2030	1130	229	86	1	1079	2123	1080	36	259
		2	1767	1767	492	492		2	1818	1818	341	341	
95,5	295	1	1216	2176	1216	257	89	1	1155	2354	1156	0	270
		2	1894	1894	538	538		2	1998	1998	334	334	

3.2.2.3 **Central ballasts and corner loads acc. to DIN 15019**

for a stationary tower crane on a
cross frame without climbing drive



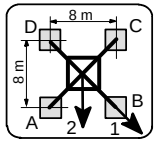


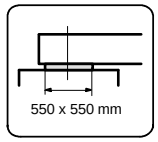
KR 16 - 80 **Corner distance 8,0 m x 8,0 m** **Jib length 40 m**

hook height [m]	central ballast [t]	jib position	crane in service, torque moment: **325** kNm, corner loads A [kN]	B [kN]	C [kN]	D [kN]	horizontal force [kN]	jib position	crane out of service, torque moment: 0 kNm, corner loads A [kN]	B [kN]	C [kN]	D [kN]	horizontal force [kN]
66,3	140	1	745	1405	745	84	72	1	695	1191	695	198	200
		2	1212	1212	277	277		2	1045	1045	344	344	
68,5	145	1	771	1436	771	105	74	1	721	1250	721	191	202
		2	1241	1241	300	300		2	1095	1095	346	346	
73,0	160	1	822	1525	822	119	76	1	772	1399	772	146	215
		2	1319	1319	325	325		2	1215	1215	329	329	
77,5	180	1	884	1630	884	138	79	1	834	1562	834	106	226
		2	1411	1411	356	356		2	1349	1349	319	319	
82,0	205	1	958	1750	958	166	81	1	908	1745	908	71	237
		2	1518	1518	398	398		2	1500	1500	316	316	
86,5	230	1	1032	1874	1032	190	84	1	982	1935	982	28	248
		2	1627	1627	437	437		2	1656	1656	308	308	
91,0	260	1	1118	2014	1119	223	87	1	1059	2157	1059	0	259
		2	1752	1752	485	485		2	1831	1831	306	306	
95,5	290	1	1205	2159	1205	251	89	1	1097	2426	1098	0	271
		2	1880	1880	531	531		2	2013	2013	297	297	

3.2.2.4 **Central ballasts and corner loads acc. to DIN 15019**

for a stationary tower crane on a
cross frame without climbing drive



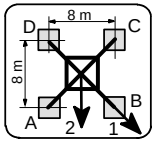


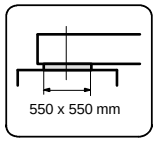
KR 16 - 80 **Corner distance 8,0 m x 8,0 m** **Jib length 45 m**

hook height [m]	central ballast [t]	jib position	crane in service torque moment: **325** kNm corner loads A [kN]	B [kN]	C [kN]	D [kN]	horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm corner loads A [kN]	B [kN]	C [kN]	D [kN]	horizontal force [kN]
66,3	140	1	756	1414	756	98	72	1	706	1222	706	190	202
		2	1221	1221	291	291		2	1071	1071	341	341	
68,5	140	1	770	1432	770	107	74	1	720	1269	720	170	204
		2	1238	1238	301	301		2	1108	1108	331	331	
73,0	155	1	821	1522	821	121	77	1	771	1419	771	124	216
		2	1316	1316	326	326		2	1229	1229	313	313	
77,5	180	1	895	1639	895	152	79	1	845	1596	845	95	227
		2	1421	1421	369	369		2	1376	1376	315	315	
82,0	200	1	957	1747	957	166	82	1	907	1768	907	46	239
		2	1516	1516	398	398		2	1516	1516	298	298	
86,5	230	1	1043	1885	1044	202	84	1	993	1973	994	14	250
		2	1638	1638	449	449		2	1686	1686	301	301	
91,0	255	1	1117	2014	1118	221	87	1	1028	2213	1029	0	261
		2	1751	1751	484	484		2	1850	1850	285	285	
95,5	285	1	1204	2160	1204	248	89	1	1064	2488	1065	0	272
		2	1880	1880	528	528		2	2034	2034	274	274	

3.2.2.5 **Central ballasts and corner loads acc. to DIN 15019**

for a stationary tower crane on a
cross frame without climbing drive



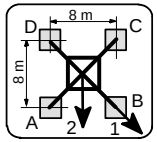


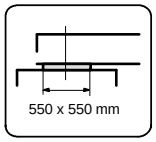
KR 16 - 80 **Corner distance 8,0 m x 8,0 m** **Jib length 50 m**

hook height [m]	central ballast [t]	jib position	crane in service torque moment: **490** kNm corner loads A [kN]	B [kN]	C [kN]	D [kN]	horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm corner loads A [kN]	B [kN]	C [kN]	D [kN]	horizontal force [kN]
66,3	125	1	732	1412	732	52	73	1	682	1235	682	130	202
		2	1213	1213	251	251		2	1073	1073	291	291	
68,5	125	1	746	1430	746	62	74	1	696	1281	696	111	204
		2	1229	1229	262	262		2	1109	1109	282	282	
73,0	145	1	810	1533	810	87	77	1	760	1444	760	75	217
		2	1321	1321	299	299		2	1244	1244	276	276	
77,5	170	1	884	1652	884	116	79	1	834	1623	834	45	228
		2	1427	1427	341	341		2	1392	1392	276	276	
82,0	190	1	945	1761	946	130	82	1	890	1803	890	0	239
		2	1522	1522	369	369		2	1533	1533	258	258	
86,5	220	1	1032	1901	1032	164	84	1	942	2044	942	0	250
		2	1646	1646	418	418		2	1705	1705	259	259	
91,0	245	1	1106	2032	1106	181	87	1	960	2304	961	0	261
		2	1761	1761	452	452		2	1871	1871	241	241	
95,5	280	1	1205	2193	1205	217	90	1	1018	2585	1018	0	273
		2	1904	1904	507	507		2	2069	2069	241	241	

3.2.2.6 **Central ballasts and corner loads acc. to DIN 15019**

for a stationary tower crane on a
cross frame without climbing drive



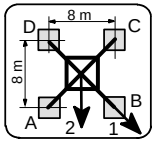


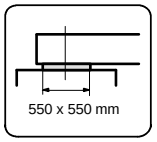
KR 16 - 80 **Corner distance 8,0 m x 8,0 m** **Jib length 55 m**

hook height [m]	central ballast [t]	jib position	crane in service, torque moment: **490** kNm, corner loads A [kN]	B [kN]	C [kN]	D [kN]	horizontal force [kN]	jib position	crane out of service, torque moment: 0 kNm, corner loads A [kN]	B [kN]	C [kN]	D [kN]	horizontal force [kN]
66,3	120	1	731	1402	731	61	73	1	681	1262	681	101	203
		2	1205	1205	257	257		2	1092	1092	271	271	
68,5	120	1	745	1419	745	71	74	1	695	1307	695	82	205
		2	1221	1221	268	268		2	1128	1128	261	261	
73,0	140	1	809	1522	809	96	77	1	759	1472	759	45	218
		2	1313	1313	305	305		2	1263	1263	254	254	
77,5	160	1	870	1629	871	112	80	1	820	1640	821	1	229
		2	1407	1407	334	334		2	1400	1400	241	241	
82,0	185	1	944	1752	945	137	82	1	855	1868	856	0	240
		2	1515	1515	374	374		2	1555	1555	234	234	
86,5	215	1	1031	1892	1031	170	85	1	905	2114	906	0	252
		2	1640	1640	423	423		2	1729	1729	234	234	
91,0	240	1	1105	2024	1105	186	87	1	921	2379	921	0	263
		2	1755	1755	456	456		2	1896	1896	214	214	

3.2.2.7 **Central ballasts and corner loads acc. to DIN 15019**

for a stationary tower crane on a
cross frame without climbing drive



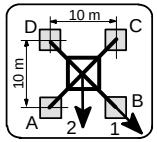


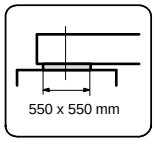
KR 16 - 80 **Corner distance 8,0 m x 8,0 m** **Jib length 60 m**

hook height [m]	central ballast [t]	jib position	crane in service, torque moment: **490** kNm, corner loads A [kN]	B [kN]	C [kN]	D [kN]	horizontal force [kN]	jib position	crane out of service, torque moment: 0 kNm, corner loads A [kN]	B [kN]	C [kN]	D [kN]	horizontal force [kN]
66,3	120	1	692	1352	692	31	72	1	692	1286	692	98	205
		2	1159	1159	225	225		2	1112	1112	272	272	
68,5	120	1	705	1370	705	41	74	1	705	1331	705	79	207
		2	1175	1175	235	235		2	1148	1148	263	263	
73,0	140	1	769	1469	769	69	77	1	769	1497	769	42	219
		2	1264	1264	274	274		2	1284	1284	255	255	
77,5	160	1	831	1571	831	90	79	1	827	1670	827	0	231
		2	1355	1355	307	307		2	1422	1422	240	240	
82,0	185	1	905	1689	905	121	82	1	859	1902	859	0	242
		2	1460	1460	351	351		2	1578	1578	232	232	
86,5	210	1	979	1811	979	147	84	1	883	2152	883	0	253
		2	1567	1567	391	391		2	1740	1740	218	218	
91,0	245	1	1078	1961	1078	195	87	1	946	2421	946	0	264
		2	1703	1703	454	454		2	1934	1934	222	222	

3.2.3.1 **Central ballasts and corner loads acc. to DIN 15019**

for a stationary tower crane on a
cross frame without climbing drive



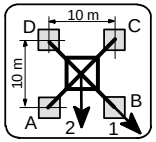


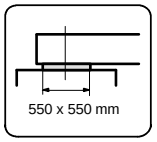
KR 16 - 100 **Corner distance 10,0 m x 10,0 m** **Jib length 30 m**

hook height [m]	central ballast [t]	jib position	crane in service, torque moment: **325** kNm, corner loads A [kN]	B [kN]	C [kN]	D [kN]	horizontal force [kN]	jib position	crane out of service, torque moment: 0 kNm, corner loads A [kN]	B [kN]	C [kN]	D [kN]	horizontal force [kN]
66,3	80	1	616	1097	616	136	71	1	566	941	566	192	197
		2	956	956	277	277		2	831	831	301	301	
68,5	80	1	630	1114	630	146	73	1	580	981	580	179	199
		2	972	972	287	287		2	863	863	297	297	
73,0	90	1	669	1183	669	155	75	1	619	1097	619	141	212
		2	1032	1032	306	306		2	957	957	281	281	
77,5	105	1	718	1265	718	171	78	1	668	1226	668	110	223
		2	1105	1105	331	331		2	1063	1063	273	273	
82,0	125	1	780	1363	780	196	80	1	730	1374	730	85	234
		2	1192	1192	367	367		2	1185	1185	274	274	
86,5	145	1	841	1464	841	219	83	1	791	1528	791	54	245
		2	1281	1281	401	401		2	1313	1313	270	270	
91,0	165	1	903	1568	903	238	85	1	853	1690	853	16	256
		2	1373	1373	433	433		2	1445	1445	261	261	
95,5	190	1	977	1688	977	266	88	1	909	1889	910	0	267
		2	1480	1480	474	474		2	1595	1595	259	259	

3.2.3.2 **Central ballasts and corner loads acc. to DIN 15019**

for a stationary tower crane on a
cross frame without climbing drive



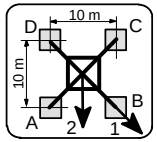


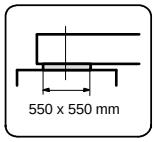
KR 16 - 100 **Corner distance 10,0 m x 10,0 m** **Jib length 35 m**

hook height [m]	central ballast [t]	jib position	crane in service, torque moment: **325** kNm, corner loads A [kN]	B [kN]	C [kN]	D [kN]	horizontal force [kN]	jib position	crane out of service, torque moment: 0 kNm, corner loads A [kN]	B [kN]	C [kN]	D [kN]	horizontal force [kN]
66,3	90	1	623	1156	623	90	72	1	573	946	573	200	199
		2	1000	1000	246	246		2	837	837	309	309	
68,5	90	1	637	1174	637	100	74	1	587	986	587	187	201
		2	1016	1016	257	257		2	869	869	304	304	
73,0	100	1	676	1243	676	109	76	1	626	1102	626	149	214
		2	1077	1077	275	275		2	963	963	289	289	
77,5	120	1	737	1338	737	136	79	1	687	1244	687	130	225
		2	1162	1162	312	312		2	1081	1081	293	293	
82,0	135	1	786	1424	786	148	81	1	736	1380	736	93	236
		2	1237	1237	335	335		2	1191	1191	281	281	
86,5	155	1	848	1526	848	170	84	1	798	1534	798	62	248
		2	1327	1327	369	369		2	1318	1318	278	278	
91,0	175	1	909	1630	910	189	86	1	859	1695	860	24	259
		2	1419	1419	400	400		2	1450	1450	269	269	
95,5	200	1	984	1751	984	216	89	1	926	1883	926	0	270
		2	1526	1526	441	441		2	1599	1599	268	268	

3.2.3.3 **Central ballasts and corner loads acc. to DIN 15019**

for a stationary tower crane on a
cross frame without climbing drive



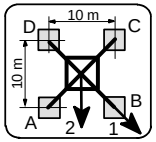


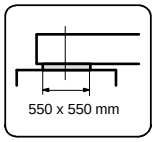
KR 16 - 100 **Corner distance 10,0 m x 10,0 m** **Jib length 40 m**

hook height [m]	central ballast [t]	jib position	crane in service, torque moment: **325** kNm, corner loads A [kN]	B [kN]	C [kN]	D [kN]	horizontal force [kN]	jib position	crane out of service, torque moment: 0 kNm, corner loads A [kN]	B [kN]	C [kN]	D [kN]	horizontal force [kN]
66,3	85	1	612	1141	612	84	72	1	562	959	562	165	200
		2	986	986	238	238		2	843	843	281	281	
68,5	85	1	626	1158	626	93	74	1	576	999	576	152	202
		2	1002	1002	249	249		2	875	875	276	276	
73,0	95	1	665	1227	665	102	76	1	615	1116	615	114	215
		2	1063	1063	267	267		2	969	969	260	260	
77,5	115	1	726	1323	726	130	79	1	676	1259	676	94	226
		2	1148	1148	304	304		2	1088	1088	265	265	
82,0	130	1	775	1409	775	142	81	1	725	1395	725	56	237
		2	1223	1223	327	327		2	1199	1199	252	252	
86,5	150	1	837	1510	837	164	84	1	787	1550	787	24	248
		2	1313	1313	361	361		2	1326	1326	248	248	
91,0	170	1	898	1615	899	182	87	1	835	1725	835	0	259
		2	1405	1405	392	392		2	1459	1459	238	238	
95,5	195	1	973	1736	973	209	89	1	875	1941	875	0	271
		2	1512	1512	433	433		2	1609	1609	236	236	

3.2.3.4 **Central ballasts and corner loads acc. to DIN 15019**

for a stationary tower crane on a
cross frame without climbing drive



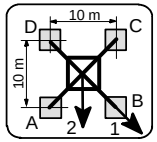


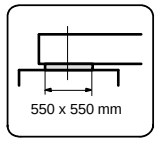
KR 16 - 100 **Corner distance 10,0 m x 10,0 m** **Jib length 45 m**

hook height [m]	central ballast [t]	jib position	crane in service, torque moment: **325** kNm, corner loads A [kN]	B [kN]	C [kN]	D [kN]	horizontal force [kN]	jib position	crane out of service, torque moment: 0 kNm, corner loads A [kN]	B [kN]	C [kN]	D [kN]	horizontal force [kN]
66,3	80	1	611	1137	611	85	72	1	561	974	561	148	202
		2	983	983	239	239		2	853	853	269	269	
68,5	80	1	625	1154	625	95	74	1	575	1014	575	135	204
		2	999	999	250	250		2	885	885	264	264	
73,0	95	1	676	1237	676	116	77	1	626	1144	626	108	216
		2	1072	1072	280	280		2	993	993	260	260	
77,5	110	1	725	1320	725	130	79	1	675	1276	675	75	227
		2	1146	1146	305	305		2	1100	1100	251	251	
82,0	130	1	787	1419	787	154	82	1	737	1426	737	48	239
		2	1234	1234	340	340		2	1224	1224	250	250	
86,5	145	1	836	1509	836	163	84	1	786	1570	786	2	250
		2	1312	1312	360	360		2	1340	1340	232	232	
91,0	170	1	910	1627	910	193	87	1	835	1771	835	0	261
		2	1417	1417	403	403		2	1486	1486	234	234	
95,5	195	1	984	1749	984	219	89	1	873	1990	874	0	272
		2	1525	1525	443	443		2	1638	1638	230	230	

3.2.3.5 **Central ballasts and corner loads acc. to DIN 15019**

for a stationary tower crane on a
cross frame without climbing drive



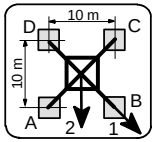


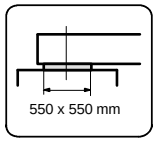
KR 16 - 100 **Corner distance 10,0 m x 10,0 m** **Jib length 50 m**

hook height [m]	central ballast [t]	jib position	crane in service, torque moment: **490** kNm, corner loads A [kN]	B [kN]	C [kN]	D [kN]	horizontal force [kN]	jib position	crane out of service, torque moment: 0 kNm, corner loads A [kN]	B [kN]	C [kN]	D [kN]	horizontal force [kN]
66,3	70	1	600	1144	600	56	73	1	550	992	550	108	202
		2	984	984	215	215		2	862	862	237	237	
68,5	70	1	613	1160	613	66	74	1	563	1031	563	95	204
		2	1000	1000	226	226		2	894	894	232	232	
73,0	85	1	665	1243	665	86	77	1	615	1163	615	67	217
		2	1074	1074	256	256		2	1002	1002	228	228	
77,5	100	1	714	1328	714	100	79	1	664	1295	664	33	228
		2	1148	1148	280	280		2	1110	1110	218	218	
82,0	120	1	775	1428	776	123	82	1	725	1447	726	4	239
		2	1237	1237	314	314		2	1235	1235	216	216	
86,5	140	1	837	1532	837	142	84	1	757	1635	757	0	250
		2	1328	1328	346	346		2	1365	1365	209	209	
91,0	160	1	899	1639	899	158	87	1	776	1843	776	0	261
		2	1422	1422	375	375		2	1501	1501	197	197	
95,5	185	1	973	1763	973	182	90	1	812	2068	812	0	273
		2	1532	1532	414	414		2	1654	1654	192	192	

3.2.3.6 **Central ballasts and corner loads acc. to DIN 15019**

for a stationary tower crane on a
cross frame without climbing drive



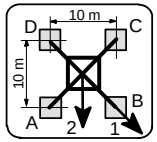


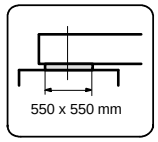
KR 16 - 100 **Corner distance 10,0 m x 10,0 m** **Jib length 55 m**

hook height [m]	central ballast [t]	jib position	crane in service, torque moment: **490** kNm, corner loads A [kN]	B [kN]	C [kN]	D [kN]	horizontal force [kN]	jib position	crane out of service, torque moment: 0 kNm, corner loads A [kN]	B [kN]	C [kN]	D [kN]	horizontal force [kN]
66,3	65	1	599	1135	599	62	73	1	549	1013	549	84	203
		2	978	978	220	220		2	877	877	220	220	
68,5	65	1	612	1151	612	73	74	1	562	1052	562	72	205
		2	993	993	231	231		2	909	909	216	216	
73,0	80	1	664	1234	664	93	77	1	614	1185	614	43	218
		2	1067	1067	260	260		2	1017	1017	210	210	
77,5	95	1	713	1320	713	106	80	1	663	1319	663	7	229
		2	1142	1142	284	284		2	1127	1127	199	199	
82,0	115	1	774	1420	775	129	82	1	702	1494	702	0	240
		2	1231	1231	318	318		2	1253	1253	196	196	
86,5	135	1	836	1525	836	148	85	1	727	1691	727	0	252
		2	1323	1323	349	349		2	1384	1384	188	188	
91,0	155	1	898	1633	898	163	87	1	744	1903	744	0	263
		2	1417	1417	378	378		2	1521	1521	175	175	
95,5	190	1	997	1782	997	211	90	1	827	2132	828	0	274
		2	1552	1552	441	441		2	1701	1701	193	193	

3.2.3.7 **Central ballasts and corner loads acc. to DIN 15019**

for a stationary tower crane on a
cross frame without climbing drive



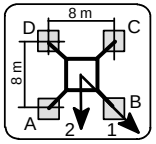


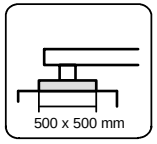
KR 16 - 100 **Corner distance 10,0 m x 10,0 m** **Jib length 60 m**

hook height [m]	central ballast [t]	jib position	crane in service torque moment: **490** kNm corner loads A [kN]	B [kN]	C [kN]	D [kN]	horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm corner loads A [kN]	B [kN]	C [kN]	D [kN]	horizontal force [kN]
66,3	60	1	547	1075	547	18	72	1	547	1022	547	72	205
		2	920	920	173	173		2	883	883	211	211	
68,5	60	1	560	1092	560	29	74	1	560	1061	560	60	207
		2	936	936	184	184		2	914	914	206	206	
73,0	75	1	612	1172	612	52	77	1	612	1194	612	30	219
		2	1008	1008	216	216		2	1024	1024	200	200	
77,5	90	1	661	1253	661	69	79	1	654	1336	654	0	231
		2	1080	1080	242	242		2	1134	1134	188	188	
82,0	110	1	722	1350	723	95	82	1	685	1521	685	0	242
		2	1167	1167	378	378		2	1261	1261	184	184	
86,5	130	1	784	1449	784	119	84	1	708	1721	708	0	253
		2	1257	1257	411	411		2	1393	1393	175	175	
91,0	155	1	858	1565	858	152	87	1	748	1937	748	0	264
		2	1362	1362	454	454		2	1543	1543	173	173	
95,5	190	1	957	1709	957	206	89	1	830	2170	830	0	275
		2	1496	1496	519	519		2	1725	1725	190	190	

3.3.1.1 **Central ballasts and corner loads acc. to DIN 15019**

for a stationary tower crane on a
cross frame element without climbing drive



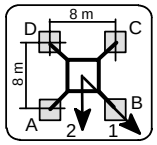


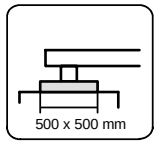
KRE 480 **Corner distance 8,0 m x 8,0 m** **Jib length 30 m**

hook height [m]	central ballast [t]	jib position	crane in service torque moment: **325** kNm corner loads A [kN]	B [kN]	C [kN]	D [kN]	horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm corner loads A [kN]	B [kN]	C [kN]	D [kN]	horizontal force [kN]
14,5	32,5	1	336	753	336	0	44	1	356	570	356	143	72
		2	623	623	90	90		2	507	507	205	205	
19,0	32,5	1	338	782	338	0	47	1	364	522	364	207	94
		2	641	641	88	88		2	476	476	253	253	
23,5	32,5	1	338	813	338	0	49	1	265	512	265	18	101
		2	660	660	85	85		2	460	460	285	285	
28,0	32,5	1	336	848	336	0	51	1	273	531	273	15	111
		2	680	680	80	80		2	456	456	91	91	
32,5	32,5	1	333	887	333	0	54	1	281	551	281	12	121
		2	702	702	75	75		2	472	472	91	91	
37,0	35,0	1	340	929	340	0	56	1	296	578	296	13	131
		2	731	731	74	74		2	496	496	96	96	
41,5	45,0	1	383	976	383	0	58	1	329	626	329	31	140
		2	781	781	91	91		2	539	539	118	118	
46,0	57,5	1	436	1027	436	0	61	1	368	681	368	55	150
		2	839	839	211	211		2	589	589	147	147	
50,5	72,5	1	500	1082	500	0	63	1	413	743	413	83	160
		2	906	906	235	235		2	659	659	382	382	
55,0	87,5	1	560	1143	560	0	65	1	566	832	566	299	170
		2	975	975	257	257		2	754	754	377	377	
59,5	105,0	1	618	1222	618	13	68	1	618	961	618	275	180
		2	1052	1052	283	283		2	860	860	375	375	
64,0	125,0	1	676	1316	676	35	70	1	676	1102	676	250	190
		2	1139	1139	313	313		2	977	977	374	374	

3.3.1.2 **Central ballasts and corner loads acc. to DIN 15019**

for a stationary tower crane on a
cross frame element without climbing drive



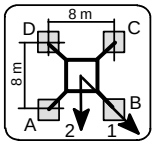


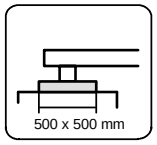
KRE 480 **Corner distance 8,0 m x 8,0 m** **Jib length 35 m**

hook height	central ballast	jib position	crane in service torque moment: **325** kNm corner loads				horizontal force	jib position	crane out of service torque moment: 0 kNm corner loads				horizontal force
			A	**B**	**C**	**D**			**A**	**B**	**C**	**D**	
[m]	[t]		[kN]	[kN]	[kN]	[kN]	[kN]		[kN]	[kN]	[kN]	[kN]	[kN]
14,5	57,5	1	401	799	401	2	45	1	316	633	316	0	73
		2	696	696	205	205		2	559	559	242	242	
19,0	57,5	1	404	825	404	0	47	1	323	651	323	0	96
		2	716	716	201	201		2	554	554	94	94	
23,5	57,5	1	405	857	405	0	49	1	329	671	329	0	103
		2	737	737	196	196		2	569	569	95	95	
28,0	57,5	1	403	892	403	0	52	1	333	693	333	0	113
		2	759	759	190	190		2	585	585	95	95	
32,5	57,5	1	400	930	400	0	54	1	337	718	337	0	123
		2	782	782	183	183		2	602	602	94	94	
37,0	57,5	1	395	972	395	0	56	1	339	746	339	0	133
		2	807	807	174	174		2	620	620	92	92	
41,5	57,5	1	388	1018	388	0	58	1	340	777	340	0	143
		2	834	834	163	163		2	639	639	89	89	
46,0	70,0	1	442	1068	442	0	61	1	402	810	402	0	153
		2	893	893	183	183		2	690	690	117	117	
50,5	85,0	1	505	1122	505	0	63	1	449	872	449	26	162
		2	960	960	206	206		2	748	748	150	150	
55,0	100,0	1	629	1195	629	62	65	1	494	937	494	51	172
		2	1029	1029	228	228		2	808	808	181	181	
59,5	117,5	1	681	1284	681	77	67	1	546	1011	546	81	182
		2	1107	1107	254	254		2	875	875	218	218	

3.3.1.3 **Central ballasts and corner loads acc. to DIN 15019**

for a stationary tower crane on a
cross frame element without climbing drive



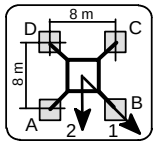


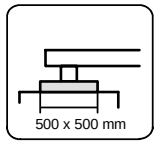
KRE 480 **Corner distance 8,0 m x 8,0 m** **Jib length 40 m**

hook height	central ballast	jib position	crane in service torque moment: **325** kNm corner loads				horizontal force	jib position	crane out of service torque moment: 0 kNm corner loads				horizontal force
			A	**B**	**C**	**D**			**A**	**B**	**C**	**D**	
[m]	[t]		[kN]	[kN]	[kN]	[kN]	[kN]		[kN]	[kN]	[kN]	[kN]	[kN]
14,5	55,0	1	446	787	446	104	45	1	303	633	303	0	74
		2	687	687	204	204		2	539	539	253	253	
19,0	55,0	1	454	812	454	96	47	1	310	651	310	0	97
		2	707	707	201	201		2	548	548	88	88	
23,5	55,0	1	462	838	462	85	49	1	316	672	316	0	104
		2	728	728	196	196		2	563	563	88	88	
28,0	55,0	1	470	866	470	73	52	1	320	694	320	0	114
		2	750	750	189	189		2	579	579	88	88	
32,5	55,0	1	405	902	405	0	54	1	324	720	324	0	124
		2	774	774	182	182		2	596	596	87	87	
37,0	55,0	1	400	944	400	0	56	1	326	748	326	0	134
		2	799	799	173	173		2	614	614	85	85	
41,5	55,0	1	393	989	393	0	58	1	326	778	326	0	144
		2	825	825	163	163		2	633	633	83	83	
46,0	65,0	1	434	1039	434	0	61	1	376	812	376	0	153
		2	878	878	176	176		2	678	678	104	104	
50,5	80,0	1	572	1100	572	45	63	1	436	861	436	12	163
		2	945	945	199	199		2	736	736	136	136	
55,0	95,0	1	618	1179	618	57	65	1	482	926	482	38	173
		2	1014	1014	221	221		2	796	796	168	168	
59,5	112,5	1	670	1267	670	72	67	1	534	999	534	68	183
		2	1092	1092	247	247		2	881	881	359	359	

3.3.1.4 **Central ballasts and corner loads acc. to DIN 15019**

for a stationary tower crane on a
cross frame element without climbing drive



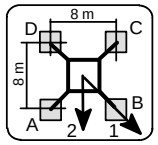


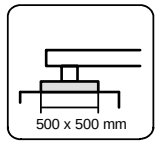
KRE 480 **Corner distance 8,0 m x 8,0 m** **Jib length 45 m**

hook height	central ballast	jib position	crane in service torque moment: **325** kNm corner loads				horizontal force	jib position	crane out of service torque moment: 0 kNm corner loads				horizontal force
			A	**B**	**C**	**D**			**A**	**B**	**C**	**D**	
[m]	[t]		[kN]	[kN]	[kN]	[kN]	[kN]		[kN]	[kN]	[kN]	[kN]	[kN]
14,5	50,0	1	445	779	445	110	45	1	277	634	277	0	75
		2	681	681	208	208		2	531	531	259	259	
19,0	50,0	1	453	804	453	101	47	1	284	653	284	0	98
		2	701	701	204	204		2	536	536	75	75	
23,5	50,0	1	461	831	461	91	50	1	290	673	290	0	105
		2	722	722	199	199		2	551	551	75	75	
28,0	50,0	1	406	863	406	0	52	1	295	696	295	0	115
		2	745	745	193	193		2	567	567	75	75	
32,5	50,0	1	403	902	403	0	54	1	298	722	298	0	125
		2	768	768	185	185		2	584	584	74	74	
37,0	50,0	1	397	944	397	0	56	1	300	750	300	0	135
		2	793	793	176	176		2	602	602	72	72	
41,5	50,0	1	390	991	390	0	59	1	300	781	300	0	145
		2	820	820	166	166		2	621	621	69	69	
46,0	60,0	1	431	1041	431	0	61	1	349	815	349	0	155
		2	873	873	178	178		2	666	666	90	90	
50,5	75,0	1	494	1096	494	0	63	1	422	851	422	0	165
		2	941	941	202	202		2	725	725	123	123	
55,0	90,0	1	617	1174	617	60	65	1	469	915	469	24	174
		2	1011	1011	223	223		2	785	785	349	349	
59,5	107,5	1	669	1263	669	74	68	1	619	1006	619	231	184
		2	1089	1089	248	248		2	893	893	345	345	

3.3.1.5 **Central ballasts and corner loads acc. to DIN 15019**

for a stationary tower crane on a
cross frame element without climbing drive



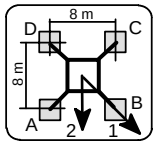


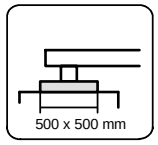
KRE 480 **Corner distance 8,0 m x 8,0 m** **Jib length 50 m**

hook height	central ballast	jib position	crane in service torque moment: **490** kNm corner loads				horizontal force	jib position	crane out of service torque moment: 0 kNm corner loads				horizontal force
			A	**B**	**C**	**D**			**A**	**B**	**C**	**D**	
[m]	[t]		[kN]	[kN]	[kN]	[kN]	[kN]		[kN]	[kN]	[kN]	[kN]	[kN]
14,5	50,0	1	458	807	458	110	45	1	277	635	277	0	75
		2	705	705	212	212		2	525	525	292	292	
19,0	50,0	1	466	832	466	101	47	1	284	653	284	0	99
		2	725	725	208	208		2	536	536	74	74	
23,5	50,0	1	474	859	474	90	50	1	290	674	290	0	106
		2	746	746	203	203		2	552	552	75	75	
28,0	50,0	1	482	887	482	78	52	1	294	697	294	0	116
		2	769	769	196	196		2	568	568	75	75	
32,5	50,0	1	490	918	490	63	54	1	297	723	297	0	126
		2	793	793	188	188		2	585	585	74	74	
37,0	50,0	1	498	950	498	46	56	1	299	751	299	0	136
		2	818	818	179	179		2	603	603	72	72	
41,5	50,0	1	506	985	506	27	59	1	300	782	300	0	145
		2	845	845	168	168		2	622	622	69	69	
46,0	50,0	1	514	1023	514	6	61	1	299	816	299	0	155
		2	874	874	155	155		2	642	642	65	65	
50,5	62,5	1	554	1094	554	13	63	1	359	853	359	0	165
		2	936	936	171	171		2	694	694	91	91	
55,0	77,5	1	599	1175	599	23	65	1	430	893	430	0	175
		2	1006	1006	192	192		2	791	791	307	307	
59,5	97,5	1	657	1272	657	43	68	1	607	1030	607	185	185
		2	1092	1092	223	223		2	906	906	309	309	

3.3.1.6 **Central ballasts and corner loads acc. to DIN 15019**

for a stationary tower crane on a
cross frame element without climbing drive



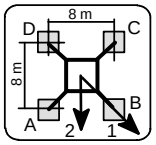


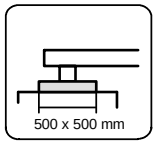
KRE 480 **Corner distance 8,0 m x 8,0 m** **Jib length 55 m**

hook height	central ballast	jib position	crane in service torque moment: **490** kNm corner loads				horizontal force	jib position	crane out of service torque moment: 0 kNm corner loads				horizontal force
			A	**B**	**C**	**D**			**A**	**B**	**C**	**D**	
[m]	[t]		[kN]	[kN]	[kN]	[kN]	[kN]		[kN]	[kN]	[kN]	[kN]	[kN]
14,5	40,0	1	445	781	445	109	45	1	227	636	227	0	76
		2	683	683	207	207		2	500	500	290	290	
19,0	40,0	1	453	806	453	100	48	1	233	654	233	0	100
		2	703	703	203	203		2	512	512	49	49	
23,5	40,0	1	461	833	461	89	50	1	239	675	239	0	107
		2	724	724	198	198		2	527	527	50	50	
28,0	40,0	1	469	862	469	76	52	1	243	698	243	0	117
		2	747	747	191	191		2	543	543	49	49	
32,5	40,0	1	477	893	477	61	54	1	246	724	246	0	127
		2	771	771	183	183		2	560	560	48	48	
37,0	40,0	1	485	925	485	44	57	1	248	753	248	0	137
		2	796	796	173	173		2	578	578	46	46	
41,5	40,0	1	493	961	493	25	59	1	249	784	249	0	147
		2	824	824	162	162		2	598	598	43	43	
46,0	40,0	1	501	998	501	4	61	1	247	818	247	0	157
		2	853	853	149	149		2	618	618	39	39	
50,5	55,0	1	546	1076	546	17	63	1	320	856	320	0	166
		2	921	921	172	172		2	702	702	290	290	
55,0	70,0	1	592	1157	592	27	66	1	542	909	542	175	176
		2	992	992	192	192		2	801	801	283	283	
59,5	90,0	1	650	1254	650	45	68	1	600	1048	600	151	186
		2	1077	1077	222	222		2	917	917	283	283	

3.3.1.7 **Central ballasts and corner loads acc. to DIN 15019**

for a stationary tower crane on a
cross frame element without climbing drive



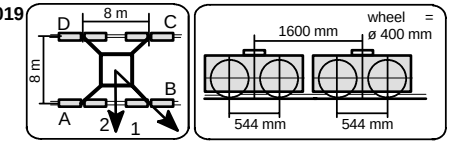


KRE 480 **Corner distance 8,0 m x 8,0 m** **Jib length 60 m**

hook height	central ballast	jib position	crane in service torque moment: **490** kNm corner loads				horizontal force	jib position	crane out of service torque moment: 0 kNm corner loads				horizontal force
			A	**B**	**C**	**D**			**A**	**B**	**C**	**D**	
[m]	[t]		[kN]	[kN]	[kN]	[kN]	[kN]		[kN]	[kN]	[kN]	[kN]	[kN]
14,5	27,5	1	374	735	374	13	46	1	164	637	164	0	77
		2	629	629	119	119		2	476	476	273	273	
19,0	27,5	1	382	758	382	6	48	1	170	655	170	0	101
		2	648	648	117	117		2	481	481	17	17	
23,5	27,5	1	388	784	388	0	50	1	176	676	176	0	109
		2	668	668	113	113		2	496	496	18	18	
28,0	27,5	1	386	821	386	0	52	1	180	700	180	0	118
		2	688	688	108	108		2	513	513	18	18	
32,5	27,5	1	382	861	382	0	55	1	183	726	183	0	128
		2	710	710	102	102		2	530	530	16	16	
37,0	30,0	1	389	904	389	0	57	1	197	755	197	0	138
		2	740	740	101	101		2	554	554	20	20	
41,5	30,0	1	381	952	381	0	59	1	197	786	197	0	148
		2	765	765	92	92		2	573	573	106	106	
46,0	37,5	1	408	1005	408	0	61	1	234	821	234	0	158
		2	811	811	100	100		2	618	618	292	292	
50,5	52,5	1	470	1063	470	0	64	1	306	858	306	0	168
		2	876	876	125	125		2	714	714	288	288	
55,0	67,5	1	530	1126	530	0	66	1	546	924	546	169	177
		2	944	944	148	148		2	813	813	279	279	
59,5	87,5	1	604	1202	604	7	68	1	604	1065	604	144	187
		2	1027	1027	182	182		2	930	930	279	279	
64,0	107,5	1	662	1298	662	27	70	1	662	1213	662	112	197
		2	1112	1112	213	213		2	1052	1052	273	273	

3.4.1.1 **Central ballasts and corner loads to DIN 15019**

for a stationary tower crane on an undercarriage without climbing drive

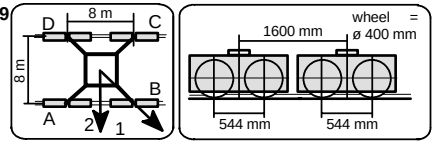


UW 480 **Corner distance 8,0 m x 8,0 m** **Jib length 30 m**

hook height	central ballast	jib position	crane in service torque moment: **325** kNm corner loads				horizontal force	jib position	crane out of service torque moment: 0 kNm corner loads				horizontal force
			A	**B**	**C**	**D**			**A**	**B**	**C**	**D**	
[m]	[t]		[kN]	[kN]	[kN]	[kN]	[kN]		[kN]	[kN]	[kN]	[kN]	[kN]
15,5	32,5	1	356	788	356	25	49	1	381	589	381	173	72
		2	651	651	111	111		2	528	528	234	234	
20,0	32,5	1	357	818	357	25	52	1	389	539	389	239	94
		2	670	670	109	109		2	495	495	283	283	
24,5	32,5	1	356	853	356	25	54	1	290	540	290	40	104
		2	690	690	105	105		2	475	475	319	319	
29,0	32,5	1	353	890	353	25	57	1	298	559	298	38	114
		2	711	711	99	99		2	483	483	114	114	
33,5	32,5	1	348	932	348	25	60	1	306	579	306	33	123
		2	734	734	93	93		2	499	499	113	113	
38,0	37,5	1	366	978	366	25	63	1	327	613	327	41	133
		2	771	771	97	97		2	529	529	124	124	
42,5	50,0	1	419	1029	419	25	66	1	366	667	366	65	143
		2	828	828	118	118		2	579	579	153	153	
47,0	62,5	1	470	1084	470	25	68	1	405	722	405	88	153
		2	888	888	236	236		2	629	629	181	181	
51,5	77,5	1	531	1145	531	25	71	1	451	785	451	117	163
		2	957	957	258	258		2	710	710	406	406	
56,0	92,5	1	588	1211	588	25	74	1	603	890	603	316	173
		2	1028	1028	278	278		2	806	806	400	400	
60,5	110,0	1	655	1284	655	26	77	1	655	1020	655	290	182
		2	1108	1108	302	302		2	913	913	397	397	

3.4.1.2 **Central ballasts and corner loads to DIN 15019**

for a stationary tower crane on an undercarriage without climbing drive

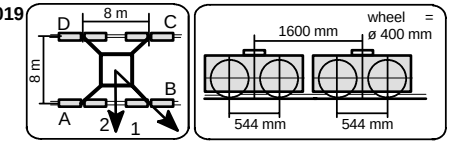


UW 480 **Corner distance 8,0 m x 8,0 m** **Jib length 35 m**

hook height	central ballast	jib position	crane in service torque moment: **325** kNm corner loads				horizontal force	jib position	crane out of service torque moment: 0 kNm corner loads				horizontal force
			A	**B**	**C**	**D**			**A**	**B**	**C**	**D**	
[m]	[t]		[kN]	[kN]	[kN]	[kN]	[kN]		[kN]	[kN]	[kN]	[kN]	[kN]
15,5	57,5	1	423	832	423	25	49	1	338	662	338	25	73
		2	725	725	226	226		2	580	580	271	271	
20,0	57,5	1	424	862	424	25	52	1	345	680	345	25	96
		2	745	745	222	222		2	581	581	117	117	
24,5	57,5	1	423	896	423	25	55	1	351	701	351	25	106
		2	767	767	216	216		2	596	596	118	118	
29,0	57,5	1	420	934	420	25	57	1	355	724	355	25	116
		2	790	790	209	209		2	612	612	118	118	
33,5	57,5	1	415	975	415	25	60	1	359	750	359	25	126
		2	815	815	200	200		2	629	629	117	117	
38,0	57,5	1	408	1021	408	25	63	1	360	778	360	25	136
		2	841	841	190	190		2	647	647	115	115	
42,5	62,5	1	424	1071	424	25	65	1	386	809	386	25	145
		2	881	881	191	191		2	679	679	124	124	
47,0	75,0	1	475	1125	475	25	68	1	441	850	441	32	155
		2	942	942	208	208		2	730	730	151	151	
51,5	90,0	1	537	1185	537	25	71	1	486	914	486	59	165
		2	1011	1011	230	230		2	789	789	184	184	
56,0	105,0	1	666	1255	666	77	74	1	532	979	532	84	175
		2	1083	1083	250	250		2	848	848	215	215	
60,5	125,0	1	724	1353	724	95	76	1	590	1059	590	120	185
		2	1169	1169	279	279		2	930	930	418	418	

3.4.1.3 **Central ballasts and corner loads to DIN 15019**

for a stationary tower crane on an undercarriage without climbing drive

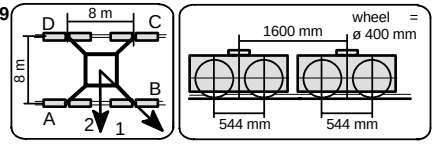


UW 480 **Corner distance 8,0 m x 8,0 m** **Jib length 40 m**

hook height	central ballast	jib position	crane in service torque moment: **325** kNm corner loads				horizontal force	jib position	crane out of service torque moment: 0 kNm corner loads				horizontal force
			A	**B**	**C**	**D**			**A**	**B**	**C**	**D**	
[m]	[t]		[kN]	[kN]	[kN]	[kN]	[kN]		[kN]	[kN]	[kN]	[kN]	[kN]
15,5	55,0	1	471	818	471	124	49	1	326	663	326	25	74
		2	716	716	225	225		2	560	560	109	109	
20,0	55,0	1	479	843	479	114	52	1	332	681	332	25	97
		2	737	737	221	221		2	575	575	111	111	
24,5	55,0	1	487	871	487	103	55	1	338	702	338	25	107
		2	758	758	215	215		2	590	590	111	111	
29,0	55,0	1	424	906	424	25	57	1	342	725	342	25	117
		2	782	782	208	208		2	606	606	111	111	
33,5	55,0	1	420	947	420	25	60	1	345	751	345	25	127
		2	806	806	199	199		2	623	623	110	110	
38,0	55,0	1	413	992	413	25	63	1	347	780	347	25	136
		2	832	832	189	189		2	642	642	108	108	
42,5	57,5	1	416	1042	416	25	66	1	360	811	360	25	146
		2	866	866	184	184		2	667	667	111	111	
47,0	70,0	1	468	1097	468	25	68	1	422	845	422	25	156
		2	927	927	201	201		2	718	718	138	138	
51,5	85,0	1	610	1157	610	63	71	1	474	902	474	45	166
		2	997	997	223	223		2	777	777	171	171	
56,0	100,0	1	655	1239	655	72	74	1	519	968	519	70	176
		2	1068	1068	243	243		2	837	837	202	202	
60,5	117,5	1	707	1331	707	83	76	1	657	1048	657	266	186
		2	1148	1148	266	266		2	934	934	380	380	

3.4.1.4 **Central ballasts and corner loads to DIN 15019**

for a stationary tower crane on an undercarriage without climbing drive

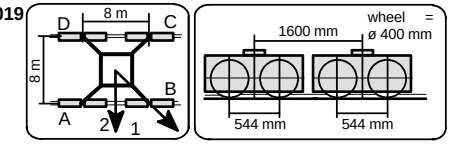


UW 480 **Corner distance 8,0 m x 8,0 m** **Jib length 45 m**

hook height	central ballast	jib position	crane in service torque moment: **325** kNm corner loads				horizontal force	jib position	crane out of service torque moment: 0 kNm corner loads				horizontal force
			A	**B**	**C**	**D**			**A**	**B**	**C**	**D**	
[m]	[t]		[kN]	[kN]	[kN]	[kN]	[kN]		[kN]	[kN]	[kN]	[kN]	[kN]
15,5	50,0	1	470	810	470	130	49	1	300	664	300	25	75
		2	710	710	229	229		2	552	552	288	288	
20,0	50,0	1	478	836	478	120	52	1	307	682	307	25	98
		2	731	731	225	225		2	563	563	98	98	
24,5	50,0	1	425	867	425	25	55	1	312	704	312	25	108
		2	753	753	219	219		2	578	578	98	98	
29,0	50,0	1	422	905	422	25	58	1	317	727	317	25	118
		2	776	776	211	211		2	594	594	98	98	
33,5	50,0	1	418	947	418	25	60	1	319	753	319	25	128
		2	801	801	203	203		2	612	612	97	97	
38,0	50,0	1	410	993	410	25	63	1	321	782	321	25	138
		2	827	827	192	192		2	630	630	95	95	
42,5	50,0	1	401	1044	401	25	66	1	321	813	321	25	148
		2	855	855	180	180		2	649	649	92	92	
47,0	65,0	1	465	1099	465	25	68	1	395	848	395	25	157
		2	923	923	204	204		2	707	707	125	125	
51,5	80,0	1	525	1159	525	25	71	1	461	891	461	31	167
		2	992	992	225	225		2	765	765	157	157	
56,0	95,0	1	654	1234	654	75	74	1	507	957	507	56	177
		2	1064	1064	244	244		2	837	837	371	371	
60,5	112,5	1	706	1326	706	86	77	1	656	1066	656	246	187
		2	1145	1145	267	267		2	946	946	366	366	

3.4.1.5 **Central ballasts and corner loads to DIN 15019**

for a stationary tower crane on an undercarriage without climbing drive

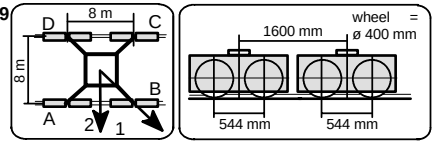


UW 480 **Corner distance 8,0 m x 8,0 m** **Jib length 50 m**

hook height	central ballast	jib position	crane in service torque moment: **490** kNm corner loads				horizontal force	jib position	crane out of service torque moment: 0 kNm corner loads				horizontal force
			A	**B**	**C**	**D**			**A**	**B**	**C**	**D**	
[m]	[t]		[kN]	[kN]	[kN]	[kN]	[kN]		[kN]	[kN]	[kN]	[kN]	[kN]
15,5	50,0	1	483	837	483	130	49	1	300	664	300	25	75
		2	734	734	233	233		2	548	548	96	96	
20,0	50,0	1	491	863	491	119	52	1	307	683	307	25	99
		2	754	754	228	228		2	563	563	98	98	
24,5	50,0	1	499	891	499	107	55	1	312	704	312	25	109
		2	777	777	222	222		2	578	578	98	98	
29,0	50,0	1	507	921	507	93	58	1	316	728	316	25	119
		2	800	800	215	215		2	595	595	98	98	
33,5	50,0	1	515	954	515	77	60	1	319	754	319	25	128
		2	825	825	206	206		2	612	612	96	96	
38,0	50,0	1	523	988	523	59	63	1	321	783	321	25	138
		2	852	852	195	195		2	630	630	94	94	
42,5	50,0	1	531	1025	531	38	66	1	321	814	321	25	148
		2	881	881	182	182		2	649	649	91	91	
47,0	52,5	1	541	1076	541	25	68	1	332	849	332	25	158
		2	917	917	174	174		2	676	676	93	93	
51,5	67,5	1	591	1152	591	31	71	1	404	887	404	25	168
		2	987	987	195	195		2	745	745	338	338	
56,0	82,5	1	637	1235	637	38	74	1	587	950	587	223	178
		2	1060	1060	213	213		2	843	843	330	330	
60,5	102,5	1	695	1335	695	54	77	1	645	1090	645	200	188
		2	1148	1148	242	242		2	959	959	330	330	

3.4.1.6 **Central ballasts and corner loads to DIN 15019**

for a stationary tower crane on an undercarriage without climbing drive

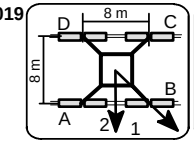


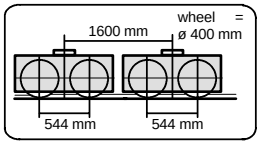
UW 480 **Corner distance 8,0 m x 8,0 m** **Jib length 55 m**

hook height	central ballast	jib position	crane in service torque moment: **490** kNm corner loads				horizontal force	jib position	crane out of service torque moment: 0 kNm corner loads				horizontal force
			A	**B**	**C**	**D**			**A**	**B**	**C**	**D**	
[m]	[t]		[kN]	[kN]	[kN]	[kN]	[kN]		[kN]	[kN]	[kN]	[kN]	[kN]
15,5	40,0	1	470	812	470	128	50	1	249	665	249	25	76
		2	712	712	228	228		2	524	524	71	71	
20,0	40,0	1	478	838	478	118	52	1	256	684	256	25	100
		2	732	732	223	223		2	538	538	72	72	
24,5	40,0	1	486	866	486	106	55	1	261	706	261	25	110
		2	755	755	217	217		2	554	554	73	73	
29,0	40,0	1	494	896	494	92	58	1	265	729	265	25	120
		2	778	778	209	209		2	570	570	72	72	
33,5	40,0	1	502	929	502	75	61	1	268	756	268	25	130
		2	804	804	200	200		2	588	588	71	71	
38,0	40,0	1	510	963	510	56	63	1	270	785	270	25	140
		2	830	830	189	189		2	606	606	69	69	
42,5	40,0	1	518	1001	518	35	66	1	270	817	270	25	149
		2	859	859	177	177		2	625	625	65	65	
47,0	45,0	1	537	1055	537	25	69	1	293	851	293	25	159
		2	902	902	174	174		2	659	659	318	318	
51,5	60,0	1	584	1134	584	34	71	1	365	889	365	25	169
		2	973	973	195	195		2	754	754	314	314	
56,0	77,5	1	636	1224	636	47	74	1	586	974	586	197	179
		2	1052	1052	219	219		2	860	860	311	311	
60,5	95,0	1	687	1319	687	56	77	1	637	1109	637	166	189
		2	1134	1134	241	241		2	971	971	304	304	

3.4.1.7 **Central ballasts and corner loads to DIN 15019**

for a stationary tower crane on an undercarriage without climbing drive





UW 480 **Corner distance 8,0 m x 8,0 m** **Jib length 60 m**

hook height	central ballast	jib position	crane in service torque moment: **490** kNm corner loads				horizontal force	jib position	crane out of service torque moment: 0 kNm corner loads				horizontal force
			A	**B**	**C**	**D**			**A**	**B**	**C**	**D**	
[m]	[t]		[kN]	[kN]	[kN]	[kN]	[kN]		[kN]	[kN]	[kN]	[kN]	[kN]
15,5	27,5	1	399	765	399	33	50	1	186	666	186	25	77
		2	658	658	140	140		2	497	497	302	302	
20,0	27,5	1	407	789	407	25	53	1	193	685	193	25	101
		2	677	677	137	137		2	507	507	41	41	
24,5	27,5	1	406	824	406	25	56	1	198	707	198	25	111
		2	698	698	133	133		2	523	523	41	41	
29,0	27,5	1	402	863	402	25	58	1	202	731	202	25	121
		2	719	719	127	127		2	540	540	40	40	
33,5	30,0	1	409	906	409	25	61	1	217	758	217	25	131
		2	749	749	126	126		2	563	563	45	45	
38,0	30,0	1	402	954	402	25	64	1	219	787	219	25	141
		2	774	774	117	117		2	582	582	43	43	
42,5	32,5	1	404	1006	404	25	66	1	231	819	231	25	151
		2	806	806	113	113		2	608	608	134	134	
47,0	40,0	1	429	1063	429	25	69	1	267	854	267	25	160
		2	853	853	119	119		2	663	663	310	310	
51,5	57,5	1	501	1126	501	25	72	1	351	892	351	25	170
		2	927	927	149	149		2	765	765	311	311	
56,0	72,5	1	557	1195	557	25	74	1	584	983	584	185	180
		2	997	997	170	170		2	866	866	301	301	
60,5	92,5	1	635	1271	635	25	77	1	642	1125	642	158	190
		2	1082	1082	201	201		2	984	984	300	300	