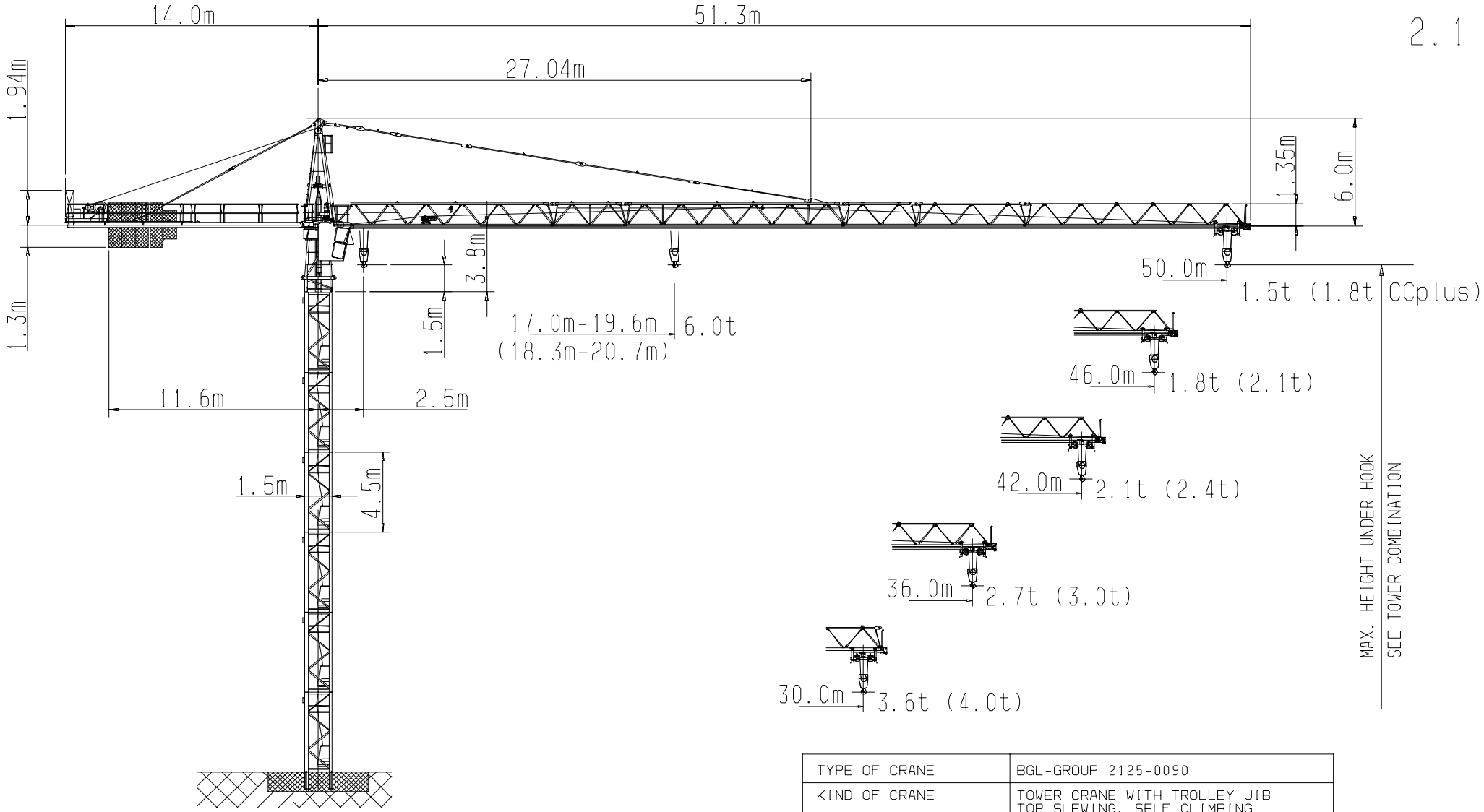


TYPE OF CRANE	BGL-GROUP 2125-0090
KIND OF CRANE	TOWER CRANE WITH TROLLEY JIB TOP SLEWING, SELF CLIMBING
INSTALLATION	STATIONARY OR TRAVELLING
CALCULATION BASE	DIN 15018-H1/B3 DIN 15020-1AM
LOADMOMENT	MAX. 1173 KNM

PLANING DIAGRAM 5015

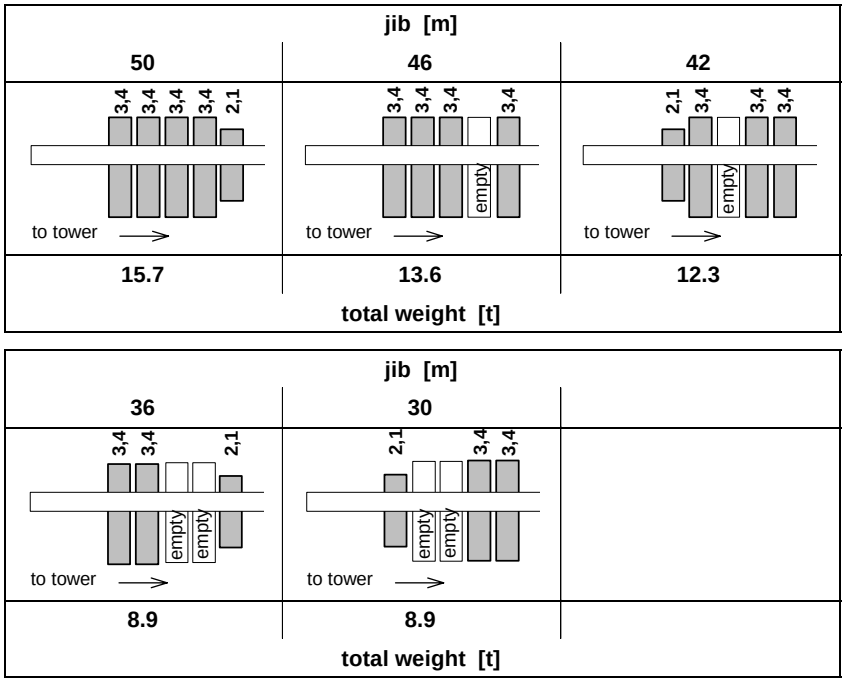
962-3-020778E

2.2.1.1 Load capacity table

jib length [m]	radius [m]		20	25	30	36	42	46	50	load capacity [t]
50	2.5 – 17.0		4.9	3.8	3.0	2.4	1.9	1.7	**1.5**	
46	2.5 – 17.4		5.1	3.9	3.1	2.4	2.0	**1.8**		
42	2.5 – 18.1		5.3	4.1	3.3	2.6	**2.1**			
36	2.5 – 18.5	**6.0**	5.5	4.2	3.3	**2.7**				
30	2.5 – 19.6		5.8	4.5	**3.6**					

The load capacities refer to a hook path of 42.0 m.
With greater hook paths the admissible load will be minimized by the additional weight of the hoisting rope = 2.4 kg per meter hook path.

Arrangement of counterweights with hoisting winch — Hw 628 FU

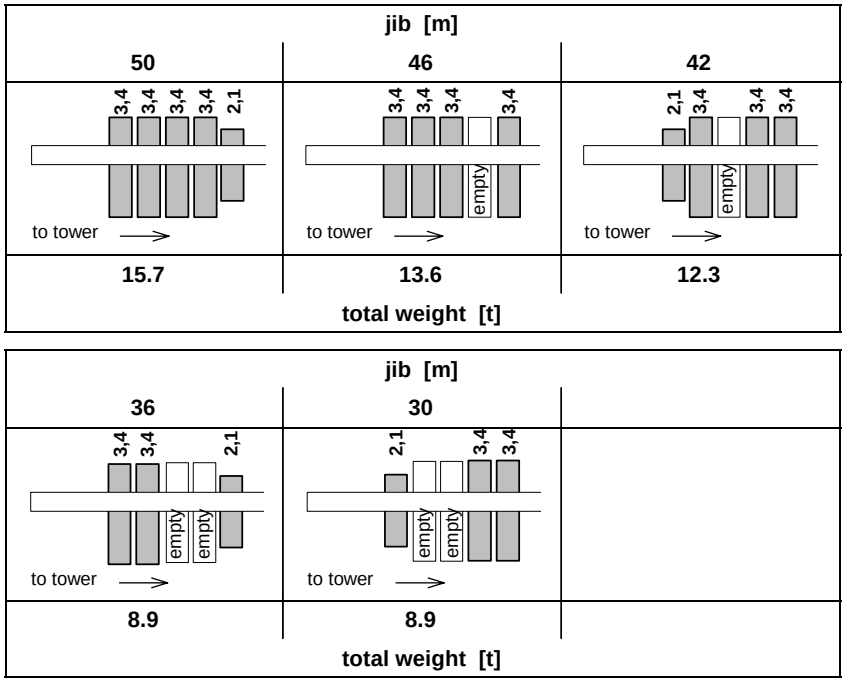


2.2.1.2 Load capacity table

jib length [m]	radius [m]		20	25	30	36	42	46	50	load capacity [t]
50	2.5 – 18.3		5.5	4.3	3.4	2.8	2.3	2.0	**1.8**	
46	2.5 – 18.7		5.6	4.4	3.5	2.8	2.3	**2.1**		
42	2.5 – 19.4		5.8	4.5	3.7	3.0	**2.4**			
36	2.5 – 19.7	**6.0**	5.9	4.6	3.7	**3.0**				
30	2.5 – 20.7		6.0	4.9	**4.0**					

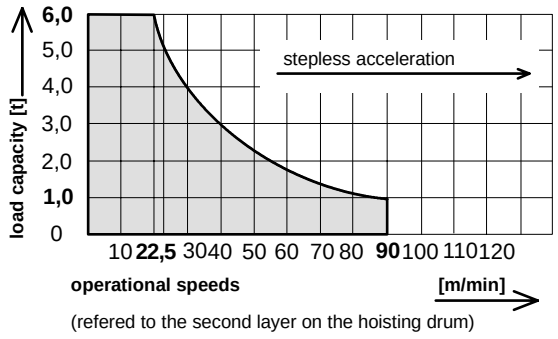
The load capacities refer to a hook path of 42.0 m.
With greater hook paths the admissible load will be minimized by the additional weight of the hoisting rope = 2.4 kg per meter hook path.

Arrangement of counterweights with hoisting winch — Hw 628 FU



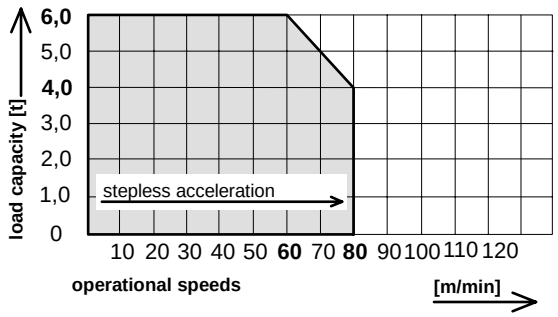
2.2.2.1 **Operational speeds** 400 V, 50 Hz

drive [type]	operational speeds load capacity	maximum hook path [m]	output [kW]	total output [kVA]
Hw 628 FU	**hoisting**	**190**	**28**	**44,0** total output for a simultaneity factor 0,8

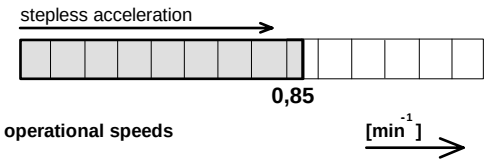


(refered to the second layer on the hoisting drum)

Kw	**traversing**		**4,0**	



Dw	**slewing 0,85 min^{-1}**		**5,0**	



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

radius [m]	jib length [m] 30	36	42	46	50
15,0	6000	6000	6000	6000	6000
16,0	6000	6000	6000	6000	6000
17,0	6000	6000	6000	6000	6000
18,0	6000	6000	6000	5770	5590
19,0	6000	5800	5660	5410	5250
20,0	5800	5500	5300	5100	4900
21,0	5520	5160	5030	4800	4660
22,0	5220	4880	4760	4540	4400
23,0	4960	4630	4520	4310	4170
24,0	4710	4400	4290	4090	3960
25,0	4500	4200	4100	3900	3800
26,0	4280	3990	3890	3710	3590
27,0	4090	3810	3720	3540	3430
28,0	3920	3650	3560	3390	3280
29,0	3750	3490	3400	3240	3140
30,0	3600	3300	3300	3100	3000
31,0		3220	3130	2980	2880
32,0		3090	3010	2860	2770
33,0		2970	2890	2750	2660
34,0		2860	2790	2650	2560
35,0		2760	2680	2550	2460
36,0		2700	2600	2400	2400
37,0			2500	2370	2290
38,0			2410	2290	2210
39,0			2330	2210	2130
40,0			2250	2140	2060
41,0			2180	2070	1990
42,0			2100	2000	1900
43,0				1930	1860
44,0				1870	1810
45,0				1820	1750
46,0				1800	1700
47,0					1640
48,0					1590
49,0					1550
50,0					1500

The load capacities refer to a hook path of 42m.

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

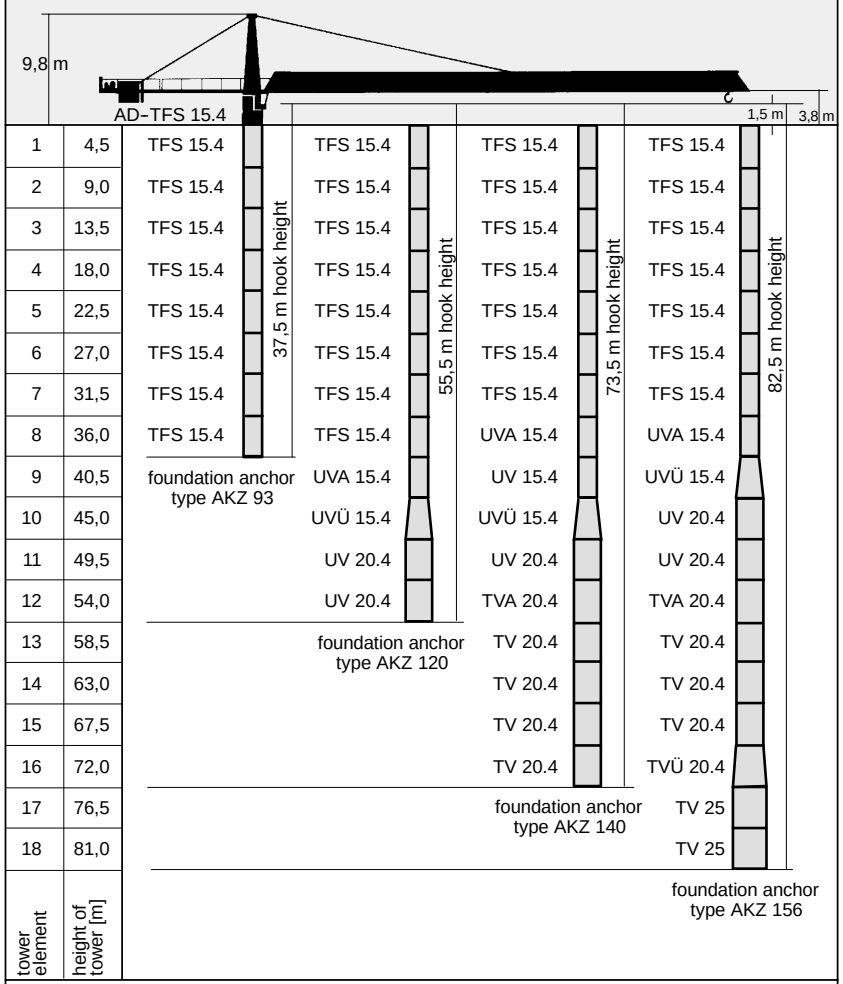
radius [m]	jib length [m] 30	36	42	46	50
15,0	6000	6000	6000	6000	6000
16,0	6000	6000	6000	6000	6000
17,0	6000	6000	6000	6000	6000
18,0	6000	6000	6000	6000	6000
19,0	6000	6000	6000	5940	5800
20,0	6000	5900	5800	5600	5500
21,0	5950	5620	5520	5310	5190
22,0	5650	5330	5240	5040	4920
23,0	5380	5070	4990	4800	4680
24,0	5130	4830	4750	4570	4460
25,0	4900	4600	4500	4400	4300
26,0	4680	4410	4340	4170	4060
27,0	4490	4220	4150	3990	3890
28,0	4300	4050	3980	3820	3730
29,0	4130	3890	3820	3670	3570
30,0	4000	3700	3700	3500	3400
31,0		3590	3530	3390	3300
32,0		3460	3400	3260	3180
33,0		3340	3280	3140	3060
34,0		3220	3160	3030	2950
35,0		3110	3050	2930	2850
36,0		3000	3000	2800	2800
37,0			2850	2730	2660
38,0			2760	2640	2570
39,0			2670	2560	2490
40,0			2590	2480	2410
41,0			2510	2400	2340
42,0			2400	2300	2300
43,0				2260	2200
44,0				2190	2130
45,0				2130	2070
46,0				2100	2000
47,0					1950
48,0					1900
49,0					1850
50,0					1800

The load capacities refer to a hook path of 42m.

2.2.6.1 **Tower configurations**

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

Slewing part:

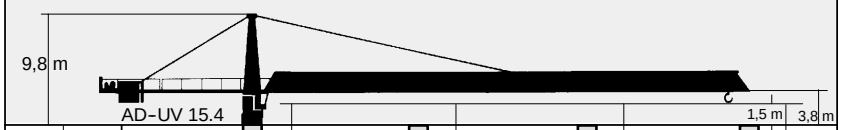


For data regarding foundation anchors see section 12.
The above shown tower configurations are recommended for economic crane installation and may be used in any case.
Tower configurations with other tower elements are possible, but must be checked and confirmed by us in every individual case and before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

2.2.6.2 Tower configurations

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

Slewing part:



tower element	height of tower [m]				
1	4,5	UV 15.4	UV 15.4	UV 15.4	UV 15.4
2	9,0	UV 15.4	UV 15.4	UV 15.4	UV 15.4
3	13,5	UV 15.4	UV 15.4	UV 15.4	UV 15.4
4	18,0	UV 15.4	UV 15.4	UV 15.4	UV 15.4
5	22,5	UV 15.4	UV 15.4	UV 15.4	UV 15.4
6	27,0	UV 15.4	UV 15.4	UV 15.4	UV 15.4
7	31,5	UV 15.4	UV 15.4	UV 15.4	UV 15.4
8	36,0	UV 15.4	UV 15.4	UV 15.4	UV 15.4
9	40,5	UV 15.4	UV 15.4	UV 15.4	UVÜ 15.4
10	45,0	UV 15.4	UVÜ 15.4	UVÜ 15.4	UV 20.4
11	49,5		UV 20.4	UV 20.4	UV 20.4
12	54,0		UV 20.4	TVA 20.4	TVA 20.4
13	58,5			TV 20.4	TV 20.4
14	63,0			TV 20.4	TV 20.4
15	67,5			TV 20.4	TV 20.4
16	72,0			TV 20.4	TVÜ 20.4
17	76,5				TV 25
18	81,0				TV 25

46,5 m hook height; 55,5 m hook height; 73,5 m hook height; 82,5 m hook height

foundation anchor type AKZ 120

foundation anchor type AKZ 120

foundation anchor type AKZ 140

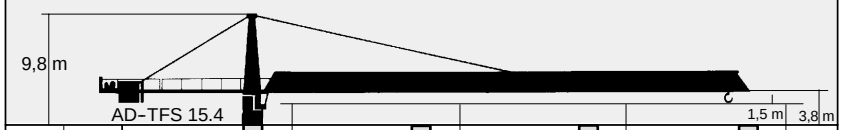
foundation anchor type AKZ 156

For data regarding foundation anchors see section 12.
The above shown 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.

2.2.7.1 Tower configurations

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

Slewing part:



tower element	height of tower [m]				
1	4,5	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
2	9,0	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
3	13,5	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
4	18,0	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
5	22,5	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
6	27,0		TFS 15.4	TFS 15.4	TFS 15.4
7	31,5			TFS 15.4	TFS 15.4
8	36,0				TFS 15.4
9	40,5				UVA 15.4
10	45,0				
11	49,5				
12	54,0				
13	58,5				
14	63,0				
15	67,5				
16	72,0				
17	76,5				
18	81,0				

24,8 m Hakenhöhe; 29,3 m Hakenhöhe; 34,0 m Hakenhöhe; 42,9 m hook height

0,8 m
KR HEB 700-3,8
connection
TFS 15

0,8 m
KR HEB 700-5
connection
TFS 15 / UV 15 / UV 20

1,0 m
SR 150
connection
TFS 15 / UV 15

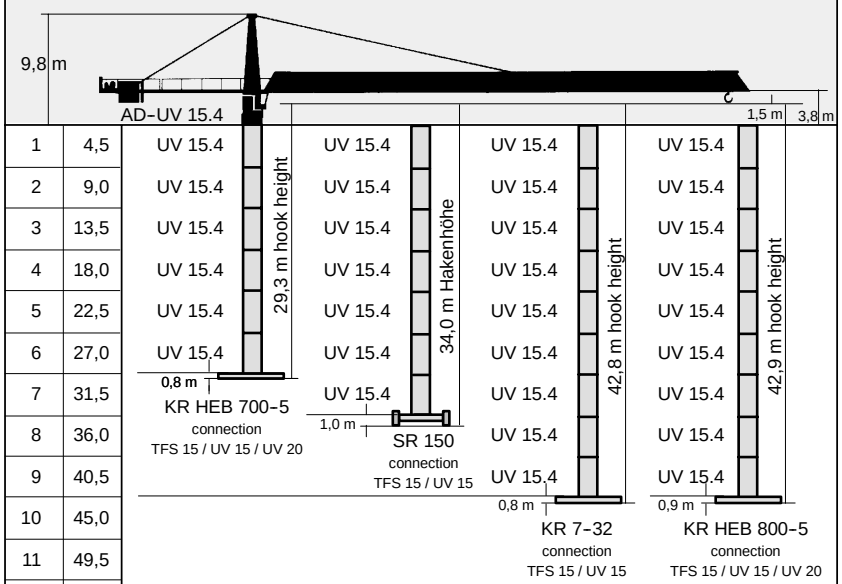
0,9 m
KR HEB 800-5
connection
TFS 15 / UV 15 / UV 20

For data regarding base- cross frames see section 12.
The above shown 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 base- cross frame

Slewing part:



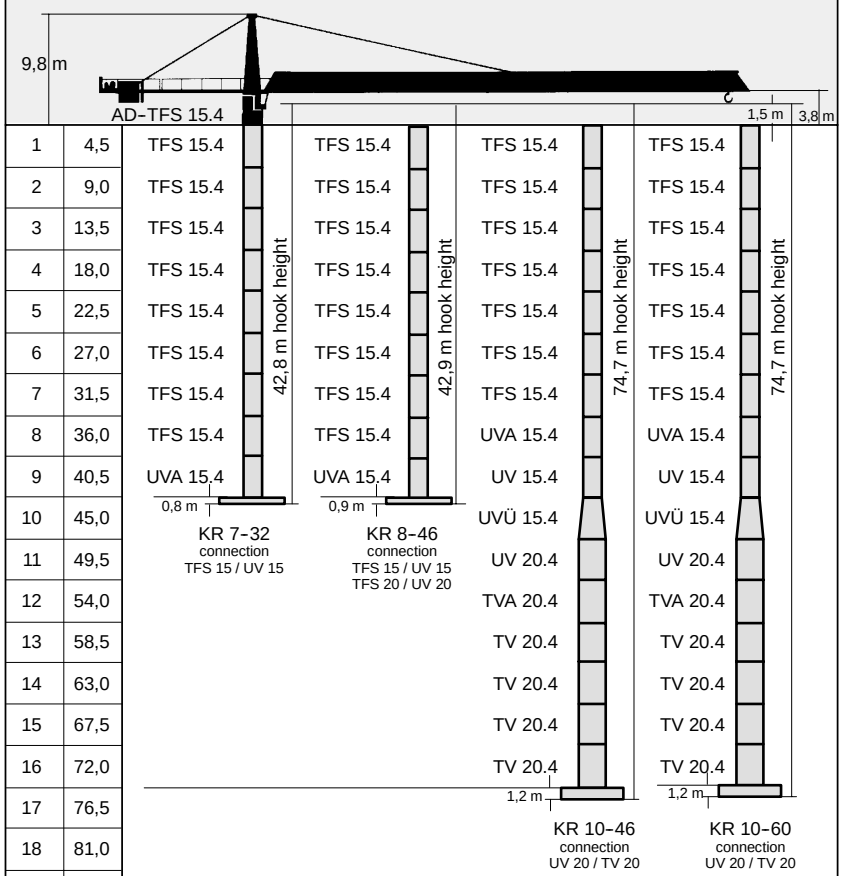
tower element	height of tower [m]				
1	4,5	UV 15.4	UV 15.4	UV 15.4	UV 15.4
2	9,0	UV 15.4	UV 15.4	UV 15.4	UV 15.4
3	13,5	UV 15.4	UV 15.4	UV 15.4	UV 15.4
4	18,0	UV 15.4	UV 15.4	UV 15.4	UV 15.4
5	22,5	UV 15.4	UV 15.4	UV 15.4	UV 15.4
6	27,0	UV 15.4	UV 15.4	UV 15.4	UV 15.4
7	31,5		UV 15.4	UV 15.4	UV 15.4
8	36,0			UV 15.4	UV 15.4
9	40,5			UV 15.4	UV 15.4
10	45,0				
11	49,5				
12	54,0				
13	58,5				
14	63,0				
15	67,5				
16	72,0				
17	76,5				
18	81,0				

For data regarding base- cross frames see section 12.
The above shown 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.

2.2.7.3 Tower configurations

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

Slewing part:



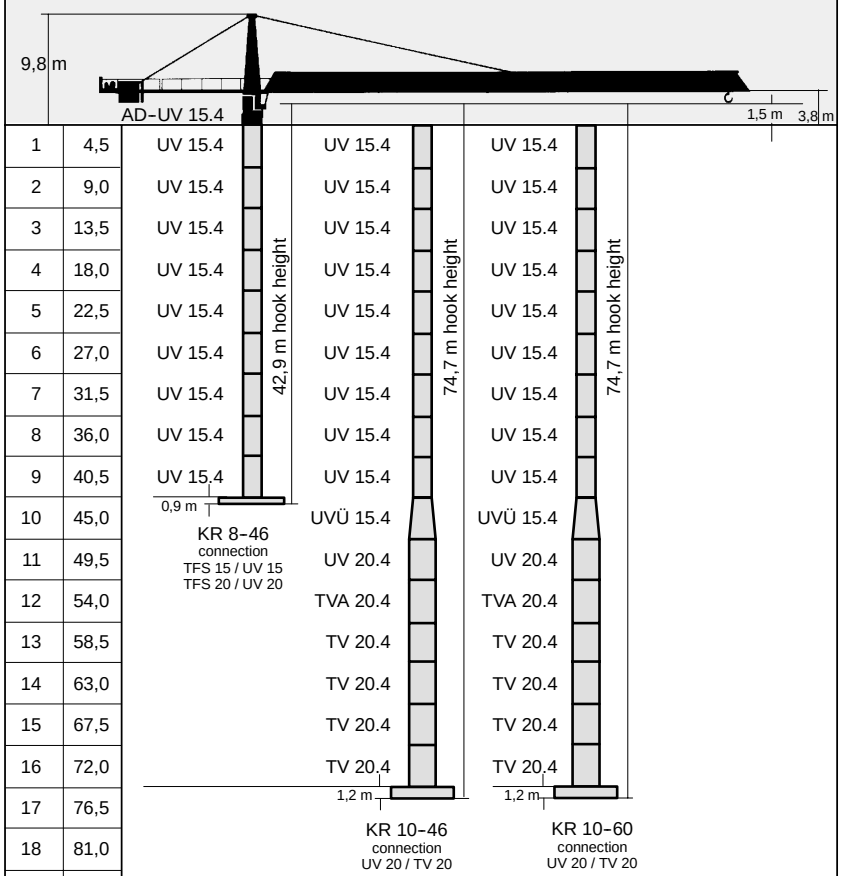
Turm-element	Turm-höhe [m]				
1	4,5	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
2	9,0	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
3	13,5	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
4	18,0	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
5	22,5	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
6	27,0	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
7	31,5	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
8	36,0	TFS 15.4	TFS 15.4	UVA 15.4	UVA 15.4
9	40,5	UVA 15.4	UVA 15.4	UV 15.4	UV 15.4
10	45,0			UVÜ 15.4	UVÜ 15.4
11	49,5			UV 20.4	UV 20.4
12	54,0			TVA 20.4	TVA 20.4
13	58,5			TV 20.4	TV 20.4
14	63,0			TV 20.4	TV 20.4
15	67,5			TV 20.4	TV 20.4
16	72,0			TV 20.4	TV 20.4
17	76,5				
18	81,0				

For data regarding cross frames see section 12.
The above shown 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.

2.2.7.4 **Tower configurations**

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

Drehteil:



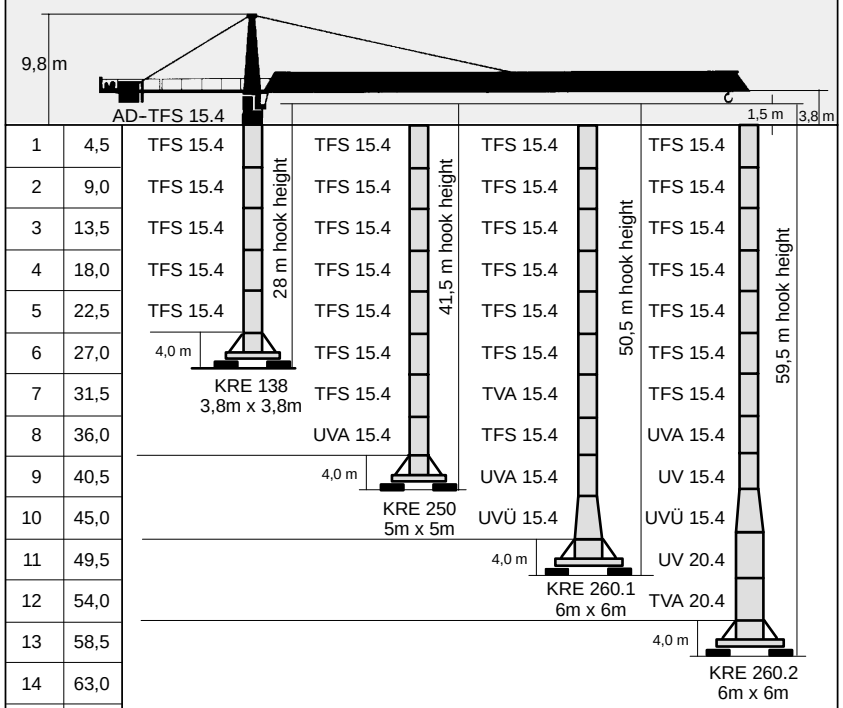
Turm-element	Turm-höhe [m]			
1	4,5	UV 15.4	UV 15.4	UV 15.4
2	9,0	UV 15.4	UV 15.4	UV 15.4
3	13,5	UV 15.4	UV 15.4	UV 15.4
4	18,0	UV 15.4	UV 15.4	UV 15.4
5	22,5	UV 15.4	UV 15.4	UV 15.4
6	27,0	UV 15.4	UV 15.4	UV 15.4
7	31,5	UV 15.4	UV 15.4	UV 15.4
8	36,0	UV 15.4	UV 15.4	UV 15.4
9	40,5	UV 15.4	UV 15.4	UV 15.4
10	45,0		UVÜ 15.4	UVÜ 15.4
11	49,5		UV 20.4	UV 20.4
12	54,0		TVA 20.4	TVA 20.4
13	58,5		TV 20.4	TV 20.4
14	63,0		TV 20.4	TV 20.4
15	67,5		TV 20.4	TV 20.4
16	72,0		TV 20.4	TV 20.4
17	76,5			
18	81,0			

For data regarding cross frames see section 12.
The above shown 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 element

Slewing part:



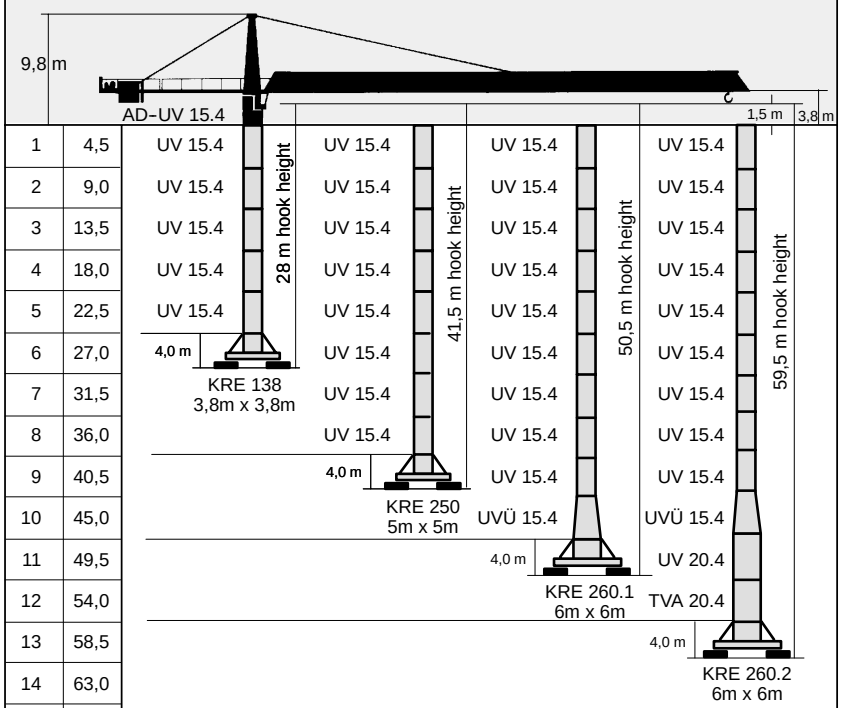
tower element	height of tower [m]				
1	4,5	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
2	9,0	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
3	13,5	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
4	18,0	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
5	22,5	TFS 15.4	TFS 15.4	TFS 15.4	TFS 15.4
6	27,0		TFS 15.4	TFS 15.4	TFS 15.4
7	31,5		TFS 15.4	TVA 15.4	TFS 15.4
8	36,0		UVA 15.4	TFS 15.4	UVA 15.4
9	40,5			UVA 15.4	UV 15.4
10	45,0			UVÜ 15.4	UVÜ 15.4
11	49,5				UV 20.4
12	54,0				TVA 20.4
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 above shown 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 element

Slewing part:

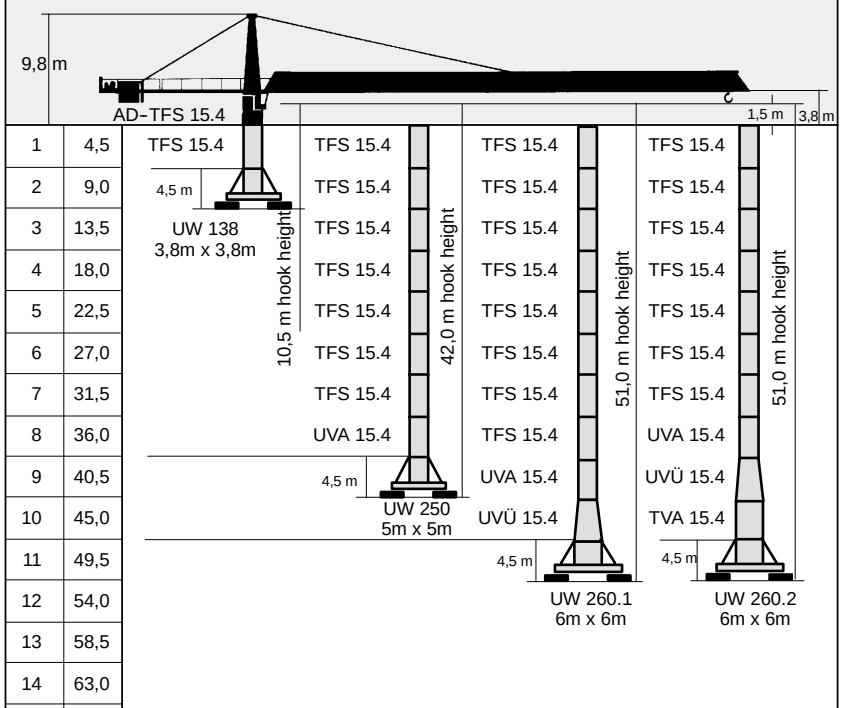


For data regarding cross frame elements see section 12.
The above shown tower configurations are recommended for economic crane installation and may be used in any case.
Tower configurations with other tower elements are possible, but must be checked and confirmed by us in every individual case and before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

2.2.9.1 **Tower configuraions**

for a travelling crane without climbing device

Slewing part:

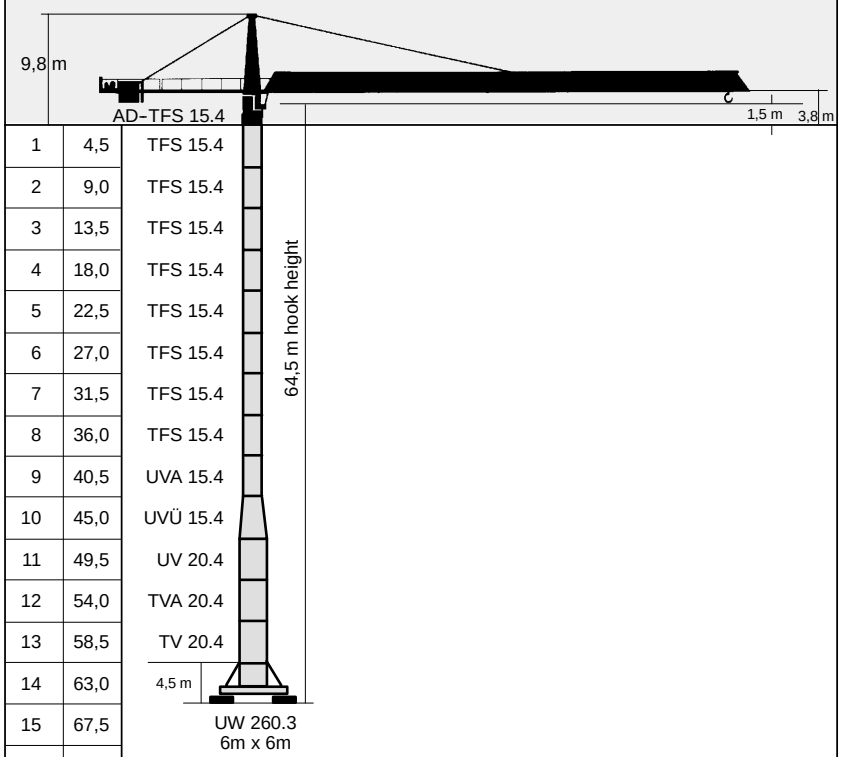


For data regarding undercarriages see section 12.
The above shown tower configurations are recommended for economic crane installation and may be used in any case.
Tower configurations with other tower elements are possible, but must be checked and confirmed by us in every individual case and before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

2.2.9.2 **Tower configurations**

for a travelling crane without climbing device

Slewing part:



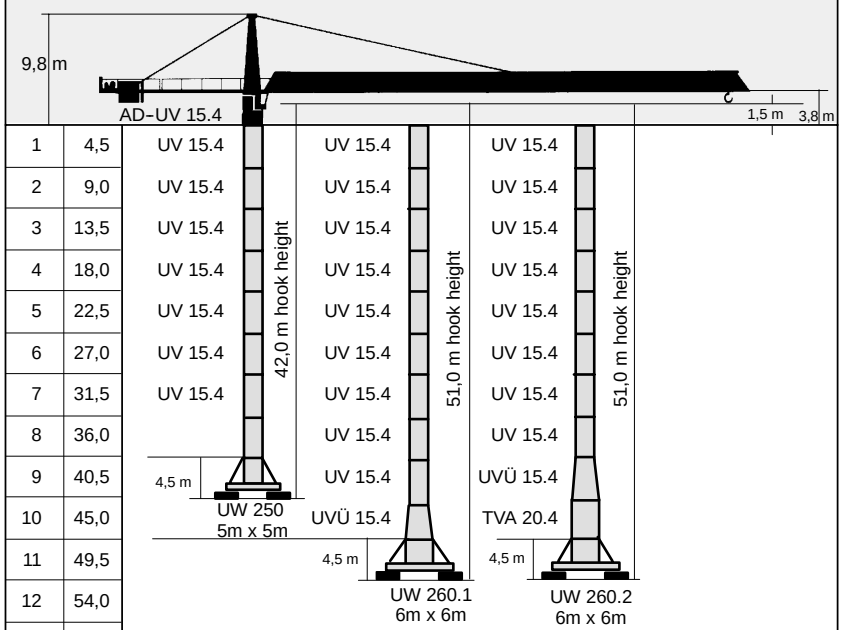
tower element	height of tower [m]	
1	4,5	TFS 15.4
2	9,0	TFS 15.4
3	13,5	TFS 15.4
4	18,0	TFS 15.4
5	22,5	TFS 15.4
6	27,0	TFS 15.4
7	31,5	TFS 15.4
8	36,0	TFS 15.4
9	40,5	UVA 15.4
10	45,0	UVÜ 15.4
11	49,5	UV 20.4
12	54,0	TVA 20.4
13	58,5	TV 20.4
14	63,0	
15	67,5	
16	72,0	
17	76,5	
18	81,0	

For data regarding undercarriages see section 12.
The above shown 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.

2.2.9.3 **Tower configurations**

for a travelling crane without climbing device

Slewing part:



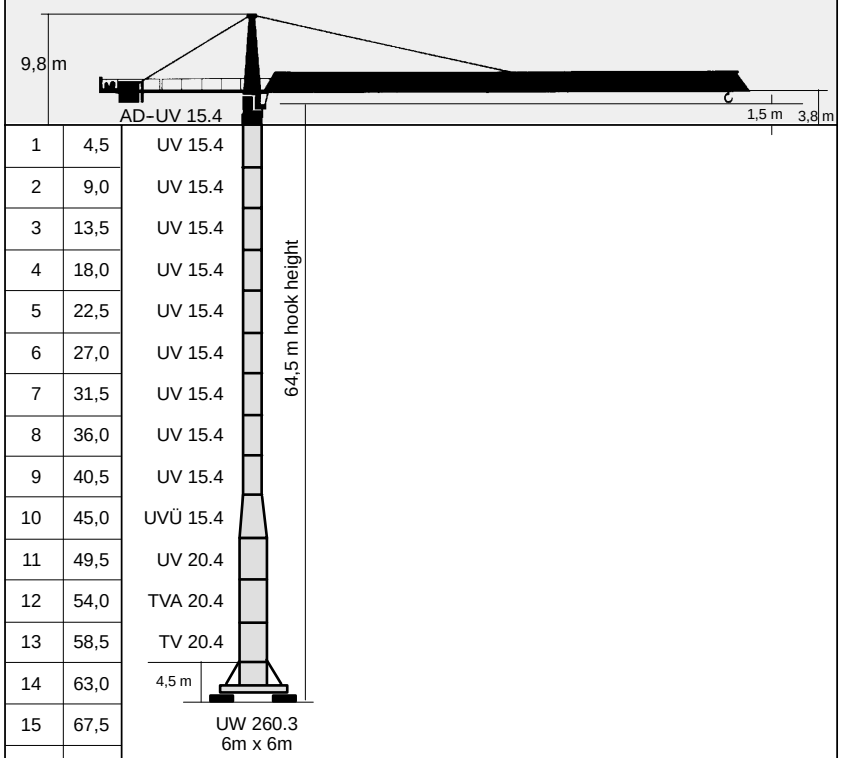
tower element	height of tower [m]			
1	4,5	UV 15.4	UV 15.4	UV 15.4
2	9,0	UV 15.4	UV 15.4	UV 15.4
3	13,5	UV 15.4	UV 15.4	UV 15.4
4	18,0	UV 15.4	UV 15.4	UV 15.4
5	22,5	UV 15.4	UV 15.4	UV 15.4
6	27,0	UV 15.4	UV 15.4	UV 15.4
7	31,5	UV 15.4	UV 15.4	UV 15.4
8	36,0		UV 15.4	UV 15.4
9	40,5		UV 15.4	UVÜ 15.4
10	45,0		UVÜ 15.4	TVA 20.4
11	49,5			
12	54,0			
13	58,5			
14	63,0			
15	67,5			
16	72,0			
17	76,5			
18	81,0			

For data regarding undercarriages see section 12.
The above shown 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.

2.2.9.4 Tower configurations

for a travelling crane without climbing device

Slewing part:

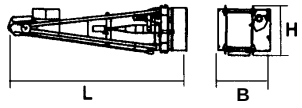
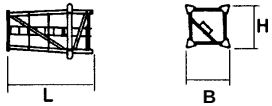
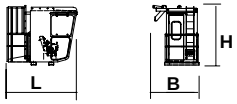
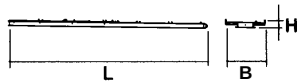
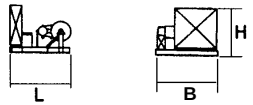


tower element	height of tower [m]
1	4,5
2	9,0
3	13,5
4	18,0
5	22,5
6	27,0
7	31,5
8	36,0
9	40,5
10	45,0
11	49,5
12	54,0
13	58,5
14	63,0
15	67,5
16	72,0
17	76,5
18	81,0

UV 15.4
UV 15.4
UV 15.4
UV 15.4
UV 15.4
UV 15.4
UV 15.4
UV 15.4
UV 15.4
UVÜ 15.4
UV 20.4
TVA 20.4
TV 20.4

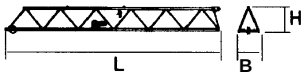
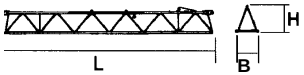
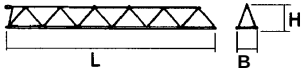
For data regarding undercarriages see section 12.
The above shown tower configurations are recommended for economic crane installation and may be used in any case.
Tower configurations with other tower elements are possible, but must be checked and confirmed by us in every individual case and before 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 and bracing parts, upper slewing frame KDV, slewing drive, lower slewing frame		6,85	2,01	1,84	4520	25,33
2	1	AD – TFS 15.4		3,00	1,54	1,92	1200	8,87
		AD – UV 15.4		3,00	1,54	1,92	1760	8,87
		AD – TFS 20.4		3,00	2,02	2,42	1600	14,66
		AD – UV 20.4		3,00	2,02	2,42	1800	14,66
3	1	driver's cabin with suspension		2,80	2,15	2,45	1100	14,75
4	1	driver's cabin suspension		1,13	1,67	0,54	210	1,02
5	1	counterjib with bracing parts		13,07	2,37	0,48	2370	14,87
6	1	machinery platform Hw 628 FU with hoisting rope (Ø 16 mm x 170 m)		2,34	2,36	1,81	2420	9,99

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

2.3.2 **Colli list**

item	pcs.	Designation	Colli	L (m)	B (m)	H (m)	weight (kg)	volume (m^3)
7	1	jib part **1**		12,21	1,18	1,59	1700	22,91
8	1	jib part **2**		4,27	1,10	1,41	490	6,62
9	1	jib part **3** with bracing parts		12,27	1,10	1,55	2075	20,92
10	1	jib part **4**		4,27	1,1	1,41	480	6,62
11	1	jib part **5**		6,25	1,10	1,41	675	9,69
12	1	jib part **6**		12,2	1,10	1,41	980	18,92
13	1	rope swivel traverse		0,69	1,12	0,44	90	0,34
14	1	trolley		1,54	1,36	0,92	210	1,92
15	1	hook block (loose part)		0,50	0,22	1,03	350	0,11
16	1	standard hand-rail (loose part)		3,0	1,10	1,00	300	3,30
17	1	box (small part)		1,6	0,90	0,80	350	1,15

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

2.5.1 **Assembly weights - Slewing part**

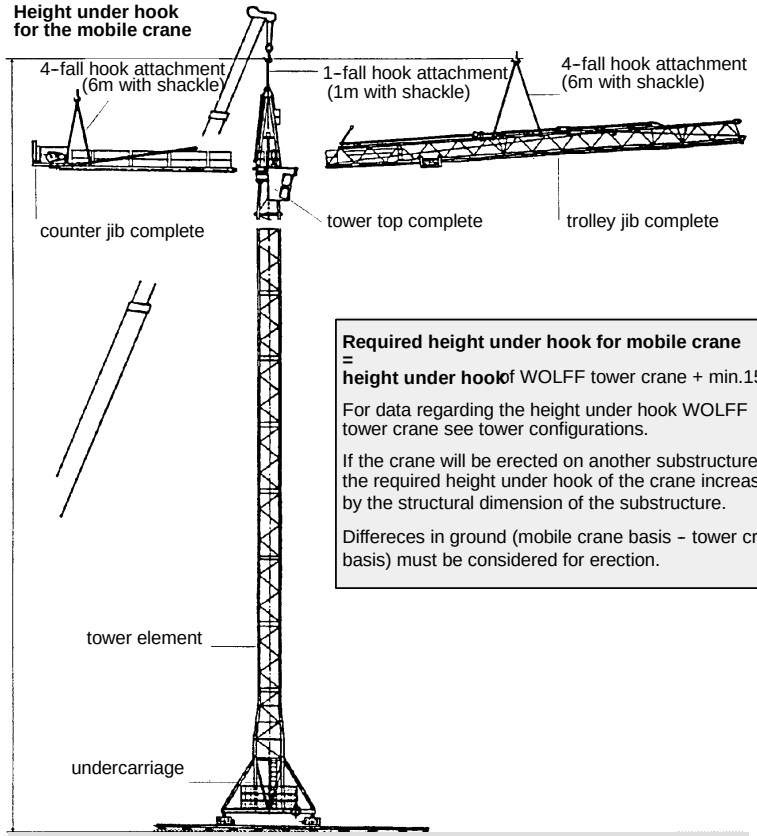
Tower top complete wth adapter piece AD - TFS 15.4		**6 950 kg**
bracing brackets (1x600 mm, 2x 5200mm), driver's cabin, driver's cabin suspension, platform and standard handrail		
- adapter piece AD - TFS 15.4	1 200 kg	
- driver's cabin with suspension and standard handrail	1 230 kg	
Tower top complete wth adapter piece AD - UV 15.4		**7 510 kg**
bracing brackets (1x600 mm, 2x 5200mm), driver's cabin, driver's cabin with suspension and standard handrail		
- adapter piece AD - UV 15.4	1 760 kg	
- driver's cabin with suspension and standard handrail	1 230 kg	
Tower top complete wth adapter piece AD - TFS 20.4		**7 350 kg**
bracing brackets (1x600 mm, 2x 5200mm), driver's cabin, driver's cabin with suspension and standard handrail		
- adapter piece AD - TFS 20.4	1 600 kg	
- driver's cabin with suspension and standard handrail	1 230 kg	
Tower top complete wth adapter piece AD - UV 20.4		**7 550 kg**
bracing brackets (1x600 mm, 2x 5200mm), driver's cabin, driver's cabin with suspension and standard handrail		
- adapter piece - UV 20.4	1 800 kg	
- driver's cabin with suspension and standard handrail	1 230 kg	
Copunterjib with hoisting winch Hw 628 FU, complete		**5 000 kg**
machinery platform Hw 628 FU with hoisting rope (Ø 16 mm x 170 m), 2 bracing brackets (2 x 6500 mm) and standard handrail		
- counterjib with 2 bracing brackets and standard handrail	2 580 kg	
- machinery platf. Hw 628 FU with hoisting rope (Ø 16 mm x 170 m)	2 420 kg	
50 m trolley jib, complete		**6 700 kg**
- bracing brackets, trolley, traversing ropes, hook block and standard handrails		
46 m trolley jib, complete		**6 240 kg**
- bracing brackets, trolley, traversing ropes, hook block and standard handrails		
42 m trolley jib, complete		**5 750 kg**
- bracing brackets, trolley, traversing ropes, hook block and standard handrails		
36 m trolley jib, complete		**5 080 kg**
- bracing brackets, trolley, traversing ropes, hook block and standard handrails		
30 m trolley jib, complete		**4 730 kg**
- bracing brackets, trolley, traversing ropes, hook block and standard handrails		

2.5.2 Assembly weights - cross frame / cross frame elements / undercarriage

Cross frame KR 8 - 46 (without optional features)		**5 000 kg**
- 4 spigots TFS 15.4	200 kg	
- 4 spigots UV 15.4	272 kg	
- 4 spigots TFS 20.4	200 kg	
- 4 spigots UV 20.4	272 kg	
- option: 4 corner spindle	800 kg	
Cross frame KR 10 - 60 (without optional features)		**1 0000 kg**
- 4 spigots UV 20	272 kg	
- 4 spigots TV 20	684 kg	
- option: 4 corner spindle	800 kg	
Cross frame element KRE 250 complete		**5 750 kg**
- cross frame platform with swivel arms, corner bearings and transport safety devices	2 730 kg	
- base mast part with diagonal struts and track rod	3 020 kg	
Cross frame element KRE 260.1 complete		**8100 kg**
- cross frame platform with swivel arms, corner bearings and transport safety devices	4320 kg	
- base mast part with diagonal struts and track rod	3780 kg	
Cross frame element KRE 260.2 complete		**10900 kg**
- cross frame platform with swivel arms, corner bearings and transport safety devices	5455 kg	
- base mast part with diagonal struts and track rod	5445 kg	
Undercarriage UW 260.1 complete		**11400 kg**
- undercarriage platform with swivel arms, subframes and transport safety devices	7150 kg	
- base mast part with diagonal struts and track rod	4250 kg	
Undercarriage UW 260.2 complete		**13930 kg**
- undercarriage platform with swivel arms, subframes and transport safety devices	8050 kg	
- base mast part with diagonal struts and track rod	5880 kg	

2.5.3 Required height under hook for the mobile crane

Warning!
Use suspension ropes with sufficient capacity and observe suspension plan!



Required height under hook for mobile crane
=
height under hook of WOLFF tower crane + min.15 m

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

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

Differeces in ground (mobile crane basis - tower crane basis) must be considered for erection.

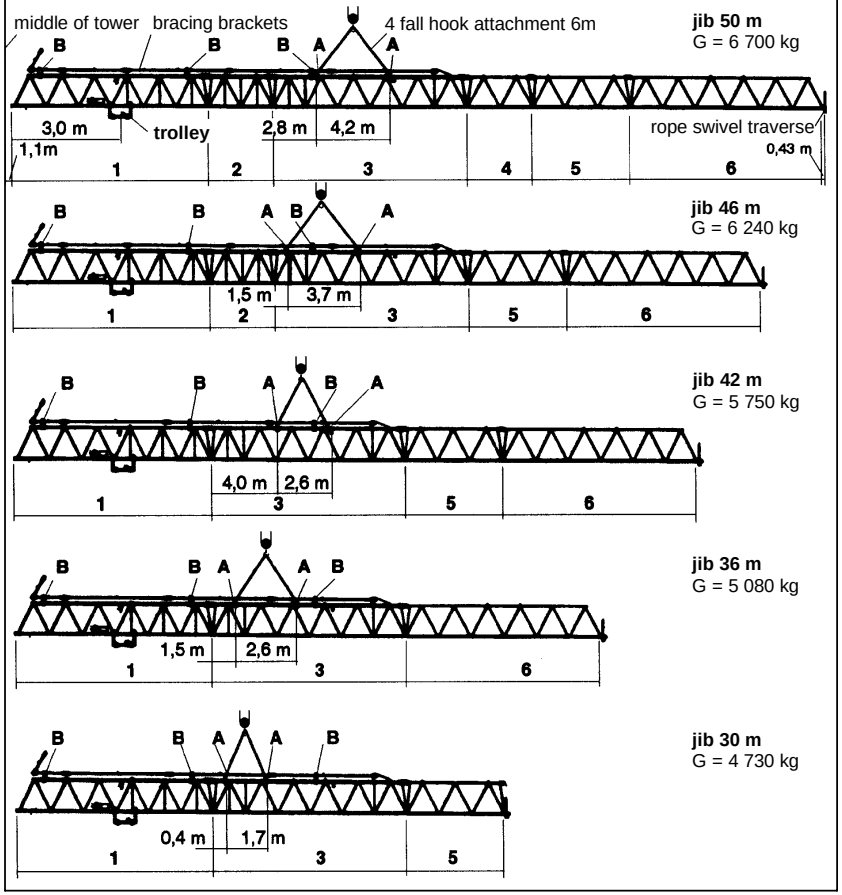
2.6.1 **Trolley jib – suspension plan**

Danger in case of disassemly!
Release fixing bolts at the pivot point of the jib. Jib must be balanced before it can be extended. There mustn't be any loose parts on the jib.

The parts of the jib are labeled with a building part identification at the top chord.

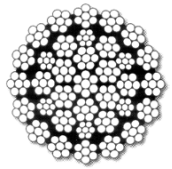
Lengths:	jib part	**1/3/6**	=	12,0 m
	jib part	**5**	=	6,0 m
	jib part	**2/4**	=	4,0 m
	rope swivel traverse		=	0,43 m

More details about suspension **A** and support **B** and support **C** see next side.



2.7.1 **Hoisting rope** **for hoisting winch Hw 628 FU**

Cable Ø = 16 mm + 4% + 2%	design according to DIN 15 020 kind of operation TWG 1 Am
First equipment	**CASAR STARLIFT -** non twisting flexible hoisting rope with compressed cable core



nominal strength = 1770 N/mm²
calc. breaking strength = 234,1 kN
min. breaking strength = 178,1 kN
weight per meter = 1,191 kg

Design

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

middle space factor = 0,654
middle spinning loss factor = 0,76
middle weight factor = 0,90
total twist number = 245

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 = **112**

Basic equipment

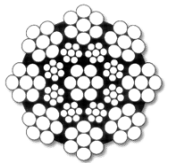
cable length	**170 m**	**for crane with:**	**cable**	**2 fall**
			radius	**50 m**
			hook path	**42 m**

By lengthening the hook path by 1 tower element (4,5 m) the necessary cable length increases by **9 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 = 6 mm + 4% + 2%	design according to DIN 15 020 kind of operation TWG 1 Am
First equipment	**CASAR UNILIFT -** cable with 8 strands in non-overlapped double parallel construction made out of uncompressed strands.  **nominal strength = 1770 N/mm²** **calc. breaking strength = 35,4 kN** **min. breaking strength = 32,3 kN** **weight per meter = 0,157 kg**
Design	ordinary lay rope, right handed, surface of wires zinc coated. middle space factor = 0,643 middle spinning loss factor = 0,90 middle weight factor = 0,87 total twist number = 119 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 = **56**

Basic equipment

cable lengths	**1 x 57 m** **1 x 99 m**	**for crane with: radius**	**50 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 gear**

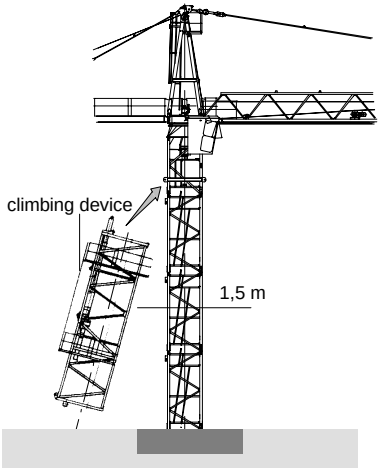
The following removable hydraulic exterior climbing gear can be used with the tower crane WOLFF 5015.

- KWH 15.2

KWH 15.2 information is given in a seperate documentation in section 12, Additional Equipment.

Min. height with stationary erection:
3 tower elements = 13,5 m tower height

Min. height with travelling erection:
2 tower elements + undercarriage appr. 13,5 m tower height



2.8.1.1 **Balancing weights for climbing**

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

** The given (m) data for position of weights along jib are approximate only and refer to center of tower. The exact balance point is arrived at by short moves of trolley and is considered arrived when the towersection concerned lifts out of the resting tower without any friction. Be careful and try repeatedly until best possible balancing is assured.

--- balancing not possible

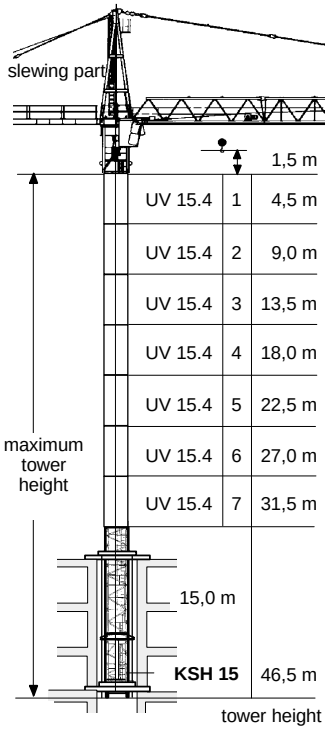
for climbing in UV-15.4 tower elements	**jib**					
	30 m	**36 m**	**42 m**	**46 m**	**50 m**	
with balancing load * UV 15.4 = 1,73 t	* * 13,8	12,1	11,0	8,6	6,3	
without balancing load	--	--	--	31,9	24,2	
for climbing in TFS 15.4 tower elements						
with balancing load * TFS 15.4 = 1,41 t	* * 16,6	14,6	13,4	10,5	8,0	
without balancing load	--	--	--	33,2	25,5	

⚠ **Danger!**
While climbing, the slewing part of the crane must be locked in the direction of of moving towersections in or out the tower. Until tower has been repinned fully and in all holes, the balancing must be kept and the slew part must remain locked. (For details, please see operational manual KWH 15.2).
The climbing device 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 device KSH 15

For the use of the WOLFF 5015 in connection with the internal climbing device KSH15, the tower configuration has to be observed as shown here.

KSH15 informations are given in a seperate documentation in section 12, Additional Equipment.



2.8.5.1 Table of balancing weights

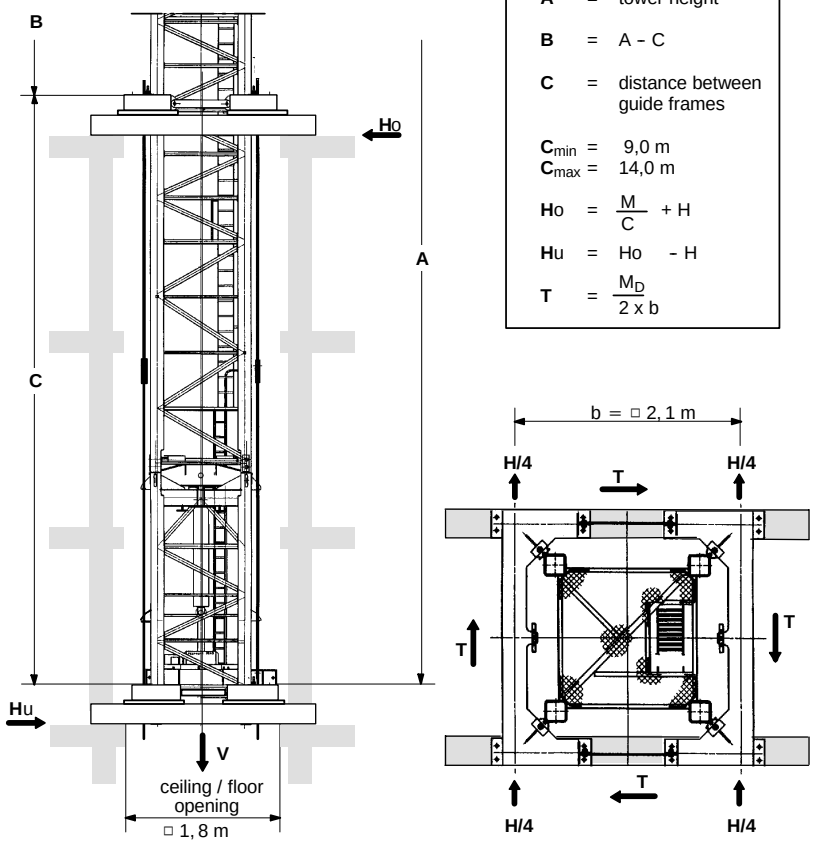
* The indicated balancing weights are gross-weights of tower elements or load.

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

-- balancing not possible

balancing weight *	jib 30 m	36 m	42 m	46 m	50 m
UV 15 = 1,75 t	** --	34,2	31,8	29,8	28,8
weight = 3,00 t	20,9	20,0	18,5	17,4	16,8

2.8.5.2 Fixed end forces in building for hydraulic internal climbing device KSH 15



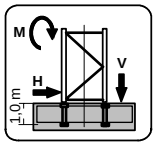
Fixed end forces in building (kN)

A (m)	46,5				42,0				37,5				33,0			
C (m)	9	10	12	14	9	10	12	14	9	10	12	14	9	10	12	14
V	615	615	615	615	598	598	598	598	580	580	580	580	563	563	563	563
Ho	372	343	299	267	315	291	254	228	263	244	214	193	218	203	179	162
Hu	294	265	221	189	243	219	182	156	198	179	149	128	176	158	132	113
T	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32

3.1.1 **Foundation loads according to DIN**

inclusive all dynamic factors taking into account the theory of second level
for a stationary tower crane on a concrete foundation
according to tower configuration without a climbing device

M = moment **H** = horizontal force **V** = vertical load

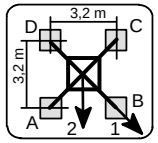


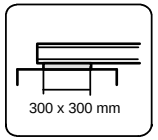
Foundation loads — jib 30 - 50 m

Hook height	Crane in service torque moment 135 kNm			Crane out of service			Assembly		
[m]	M [kNm]	H [kN]	V [kN]	M [kNm]	H [kN]	V [kN]	M [kNm]	H [kN]	V [kN]
10,5	1013	17	359	194	35	353	1110	9	196
15,0	1102	18	374	367	39	366	1158	10	209
19,5	1202	19	388	575	43	379	1214	11	222
24,0	1314	21	403	824	49	392	1280	13	235
28,5	1439	22	417	1106	54	405	1354	14	248
33,0	1581	23	432	1425	60	418	1439	15	261
37,5	1740	24	446	1785	65	431	1536	16	274
42,0	1905	26	465	2188	72	480	1637	18	292
46,5	2070	27	487	2647	78	498	1741	19	312
51,0	2239	29	507	3103	85	518	1851	21	330
55,5	2424	30	527	3618	92	536	1971	22	348
60,0	2577	33	574	4148	101	575	2085	25	390
64,5	2776	35	605	4748	110	603	2223	27	419
69,0	2994	37	636	5401	117	631	2374	29	447
73,5	3230	39	667	6130	126	660	2538	31	475
78,0	3420	41	712	6835	137	700	2692	33	516
82,5	3667	44	747	7641	146	732	2873	36	548

3.2.1.1 **Centerballasts and corner loads according to DIN 15019**

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



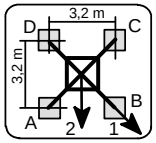


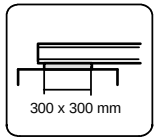
KR 7 - 32 **Corner distance 3,2 m x 3,2 m** **jib 30 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,3	60,0	1	243	436	243	49	18	1	191	322	191	60	38
		2	379	379	106	106		2	284	284	98	98	
15,8	60,0	1	246	453	246	39	19	1	194	335	194	54	42
		2	392	392	100	100		2	294	294	95	95	
20,3	60,0	1	249	471	249	27	21	1	198	350	198	46	53
		2	406	406	92	92		2	305	305	90	90	
24,8	60,0	1	252	492	252	13	22	1	201	365	201	37	59
		2	422	422	83	83		2	323	323	152	152	
29,3	60,0	1	252	519	252	0	23	1	241	421	241	61	64
		2	439	439	72	72		2	368	368	113	113	
33,8	75,0	1	296	578	296	15	24	1	281	527	281	35	70
		2	496	496	97	97		2	455	455	108	108	
38,3	90,0	1	337	644	337	30	26	1	322	641	322	3	75
		2	554	554	120	120		2	548	548	96	96	
42,8	110,0	1	391	726	391	55	27	1	350	801	350	0	81
		2	628	628	153	153		2	659	659	92	92	

3.2.1.2 **Centerballasts and corner loads according to DIN 15019**

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



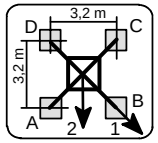


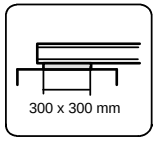
KR 7 - 32 **Corner distance 3,2 m x 3,2 m** **jib 36 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,3	55,0	1	231	419	231	43	18	1	179	310	179	47	38
		2	364	364	98	98		2	272	272	86	86	
15,8	55,0	1	234	435	234	33	20	1	182	323	182	41	42
		2	376	376	92	92		2	282	282	82	82	
20,3	55,0	1	238	454	238	21	21	1	185	338	185	33	54
		2	390	390	85	85		2	293	293	78	78	
24,8	55,0	1	241	475	241	7	22	1	226	367	226	84	59
		2	406	406	76	76		2	326	326	126	126	
29,3	55,0	1	235	507	235	0	23	1	229	430	229	28	65
		2	423	423	65	65		2	371	371	87	87	
33,8	70,0	1	285	561	285	9	24	1	270	538	270	2	70
		2	480	480	90	90		2	459	459	80	80	
38,3	85,0	1	326	627	326	24	26	1	279	684	279	0	75
		2	539	539	113	113		2	552	552	69	69	
42,8	110,0	1	391	721	391	62	27	1	328	849	328	0	81
		2	625	625	158	158		2	676	676	76	76	

3.2.1.3 **Centerballasts and corner loads according to DIN 15019**

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



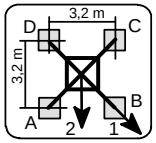


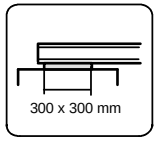
KR 7 - 32 **Corner distance 3,2 m x 3,2 m** **jib 42 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,3	50,0	1	229	410	229	48	18	1	183	338	183	28	39
		2	357	357	101	101		2	293	293	73	73	
15,8	50,0	1	232	426	232	37	20	1	186	353	186	19	43
		2	369	369	94	94		2	304	304	68	68	
20,3	50,0	1	235	445	235	25	21	1	189	370	189	9	54
		2	384	384	87	87		2	317	317	62	62	
24,8	50,0	1	239	466	239	11	22	1	190	391	190	0	60
		2	400	400	77	77		2	331	331	55	55	
29,3	50,0	1	235	497	235	0	23	1	227	438	227	15	65
		2	417	417	66	66		2	376	376	77	77	
33,8	65,0	1	283	554	283	11	25	1	256	558	256	0	70
		2	474	474	91	91		2	465	465	70	70	
38,3	82,5	1	330	627	330	32	26	1	274	710	274	0	76
		2	540	540	119	119		2	566	566	64	64	
42,8	110,0	1	402	729	402	74	27	1	334	879	334	0	81
		2	633	633	170	170		2	697	697	76	76	

3.2.1.4 **Centerballasts and corner loads according to DIN 15019**

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



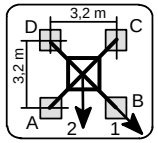


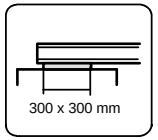
KR 7 - 32 **Corner distance 3,2 m x 3,2 m** **jib 46 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,3	45,0	1	221	401	221	41	18	1	141	404	141	0	39
		2	348	348	94	94		2	315	315	29	29	
15,8	45,0	1	224	417	224	31	20	1	136	429	136	0	43
		2	361	361	87	87		2	326	326	23	23	
20,3	45,0	1	227	436	227	18	21	1	129	456	129	0	54
		2	375	375	79	79		2	339	339	17	17	
24,8	47,5	1	237	464	237	10	22	1	132	487	132	0	60
		2	397	397	76	76		2	360	360	16	16	
29,3	52,5	1	253	500	253	5	23	1	146	522	146	0	65
		2	428	428	77	77		2	398	398	77	77	
33,8	62,5	1	281	552	281	10	25	1	236	592	236	0	71
		2	472	472	89	89		2	475	475	57	57	
38,3	87,5	1	347	644	347	49	26	1	291	745	291	0	76
		2	557	557	136	136		2	595	595	68	68	
42,8	115,0	1	419	746	419	91	27	1	349	917	349	0	81
		2	650	650	187	187		2	728	728	80	80	

3.2.1.5 **Centerballasts and corner loads according to DIN 15019**

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



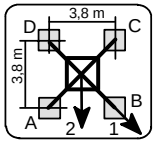


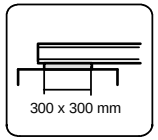
KR 7 - 32 **Corner distance 3,2 m x 3,2 m** **jib 50 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,3	55,0	1	252	433	252	71	18	1	144	505	144	0	39
		2	380	380	124	124		2	376	376	20	20	
15,8	55,0	1	255	450	255	61	20	1	138	529	138	0	43
		2	393	393	118	118		2	388	388	14	14	
20,3	60,0	1	271	482	271	61	21	1	155	557	155	0	55
		2	420	420	122	122		2	414	414	20	20	
24,8	62,5	1	281	510	281	52	22	1	158	589	158	0	60
		2	443	443	119	119		2	435	435	18	18	
29,3	67,5	1	297	546	297	47	23	1	172	625	172	0	65
		2	473	473	120	120		2	463	463	21	21	
33,8	72,5	1	312	586	312	39	25	1	183	666	183	0	71
		2	506	506	119	119		2	519	519	76	76	
38,3	90,0	1	359	660	359	58	26	1	298	782	298	0	76
		2	572	572	147	147		2	621	621	68	68	
42,8	117,5	1	431	764	431	99	27	1	354	957	354	0	82
		2	666	666	197	197		2	755	755	78	78	

3.2.2.1 **Centerballasts and corner loads according to DIN 15019**

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



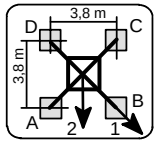


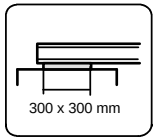
KR HEB 700 - 3,8 **Corner distance 3,8 m x 3,8 m** **jib 30 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,3	45,0	1	201	364	201	38	18	1	150	260	150	40	37
		2	316	316	86	86		2	228	228	72	72	
15,8	45,0	1	204	379	204	30	19	1	153	271	153	35	41
		2	328	328	81	81		2	237	237	69	69	
20,3	45,0	1	208	396	208	20	20	1	156	284	156	28	52
		2	341	341	75	75		2	247	247	66	66	
24,8	45,0	1	211	414	211	8	21	1	159	298	159	21	58
		2	355	355	67	67		2	268	268	124	124	

3.2.2.2 **Centerballasts and corner loads according to DIN 15019**

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



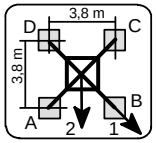


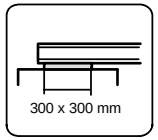
KR HEB 700 – 3,8 Corner distance 3,8 m x 3,8 m **jib 36 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,3	42,5	1	196	354	196	38	18	1	143	254	143	33	37
		2	307	307	84	84		2	221	221	65	65	
15,8	42,5	1	199	368	199	30	19	1	147	265	147	28	41
		2	319	319	79	79		2	231	231	63	63	
20,3	42,5	1	202	385	202	19	20	1	150	278	150	22	53
		2	332	332	73	73		2	241	241	59	59	
24,8	42,5	1	206	404	206	7	21	1	191	309	191	72	58
		2	346	346	65	65		2	275	275	107	107	

3.2.2.3 **Centerballasts and corner loads according to DIN 15019**

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



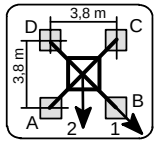


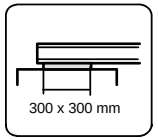
KR HEB 700 – 3,8 Corner distance 3,8 m x 3,8 m **jib 42 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,3	37,5	1	193	346	193	41	18	1	148	278	148	17	38
		2	301	301	86	86		2	240	240	55	55	
15,8	37,5	1	197	361	197	33	19	1	151	291	151	10	42
		2	313	313	81	81		2	250	250	52	52	
20,3	37,5	1	200	378	200	22	20	1	154	306	154	2	53
		2	326	326	74	74		2	262	262	47	47	
24,8	37,5	1	203	397	203	10	22	1	150	330	150	0	58
		2	340	340	66	66		2	278	278	99	99	

3.2.2.4 **Centerballasts and corner loads according to DIN 15019**

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



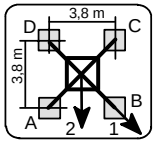


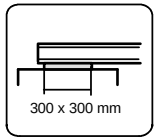
KR HEB 700 – 3,8 Corner distance 3,8 m x 3,8 m **jib 46 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,3	32,5	1	185	337	185	34	18	1	103	340	103	0	38
		2	292	292	78	78		2	257	257	16	16	
15,8	32,5	1	189	352	189	25	19	1	99	361	99	0	42
		2	304	304	73	73		2	267	267	12	12	
20,3	35,0	1	198	375	198	21	20	1	106	385	106	0	53
		2	323	323	73	73		2	285	285	13	13	
24,8	37,5	1	208	401	208	15	22	1	112	411	112	0	59
		2	344	344	71	71		2	304	304	13	13	

3.2.2.5 **Centerballasts and corner loads according to DIN 15019**

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



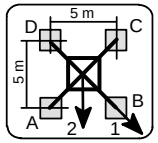


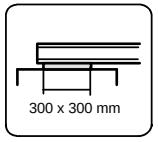
KR HEB 700 – 3,8 Corner distance 3,8 m x 3,8 m **jib 50 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,3	42,5	1	217	369	217	65	18	1	113	425	113	0	38
		2	325	325	109	109		2	313	313	13	13	
15,8	45,0	1	226	391	226	62	19	1	121	446	121	0	42
		2	343	343	110	110		2	330	330	15	15	
20,3	47,5	1	236	414	236	58	20	1	128	470	128	0	53
		2	362	362	110	110		2	348	348	15	15	
24,8	50,0	1	246	440	246	51	22	1	133	498	133	0	59
		2	383	383	108	108		2	367	367	15	15	

3.2.3.1 **Centerballasts and corner loads according to DIN 15019**

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



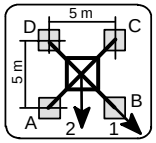


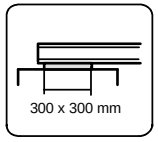
KR HEB 700 – 5 **Corner distance 5 m x 5 m** **jib 30 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
6,8	25,0	1	151	267	151	35	16	1	100	178	100	21	35
		2	233	233	69	69		2	162	162	110	110	
11,3	25,0	1	154	278	154	31	18	1	103	187	103	19	37
		2	242	242	67	67		2	162	162	44	44	
15,8	25,0	1	158	290	158	25	19	1	106	196	106	16	41
		2	252	252	64	64		2	170	170	43	43	
20,3	25,0	1	161	304	161	18	20	1	110	207	110	12	52
		2	262	262	60	60		2	178	178	41	41	
24,8	25,0	1	164	319	164	10	21	1	149	226	149	72	58
		2	273	273	55	55		2	204	204	95	95	
29,3	25,0	1	167	335	167	0	23	1	153	268	153	37	63
		2	286	286	49	49		2	234	234	71	71	
33,8	35,0	1	196	379	196	13	24	1	181	339	181	23	69
		2	325	325	67	67		2	293	293	69	69	

3.2.3.2 **Centerballasts and corner loads according to DIN 15019**

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



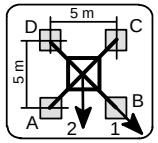


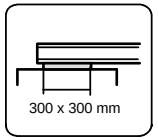
KR HEB 700 – 5 **Corner distance 5 m x 5 m** **jib 36 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
6,8	25,0	1	152	264	152	40	16	1	100	178	100	21	35
		2	232	232	73	73		2	155	155	44	44	
11,3	25,0	1	155	275	155	35	18	1	103	187	103	19	37
		2	240	240	71	71		2	163	163	74	74	
15,8	25,0	1	159	287	159	30	19	1	106	196	106	16	41
		2	250	250	68	68		2	171	171	72	72	
20,3	25,0	1	162	301	162	23	20	1	110	207	110	12	53
		2	260	260	64	64		2	186	186	107	107	
24,8	25,0	1	165	316	165	15	21	1	150	240	150	60	58
		2	272	272	59	59		2	214	214	86	86	
29,3	25,0	1	168	332	168	5	23	1	153	282	153	24	63
		2	284	284	53	53		2	245	245	62	62	
33,8	32,5	1	190	369	190	12	24	1	175	348	175	3	69
		2	317	317	64	64		2	297	297	54	54	

3.2.3.3 **Centerballasts and corner loads according to DIN 15019**

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



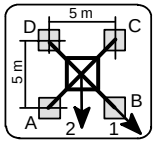


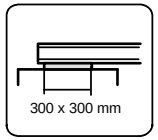
KR HEB 700 – 5 **Corner distance 5 m x 5 m** **jib 42 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
6,8	20,0	1	150	258	150	42	17	1	104	196	104	12	35
		2	226	226	73	73		2	169	169	39	39	
11,3	20,0	1	153	269	153	37	18	1	107	206	107	8	38
		2	235	235	71	71		2	177	177	37	37	
15,8	20,0	1	156	281	156	32	19	1	111	217	111	4	42
		2	245	245	68	68		2	186	186	35	35	
20,3	20,0	1	160	295	160	24	20	1	112	231	112	0	53
		2	255	255	64	64		2	196	196	32	32	
24,8	20,0	1	163	310	163	16	22	1	109	251	109	0	58
		2	267	267	59	59		2	216	216	80	80	
29,3	20,0	1	166	327	166	5	23	1	151	287	151	15	64
		2	280	280	53	53		2	247	247	55	55	
33,8	27,5	1	188	364	188	12	24	1	166	360	166	0	69
		2	313	313	64	64		2	300	300	46	46	

3.2.3.4 **Centerballasts and corner loads according to DIN 15019**

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



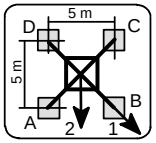


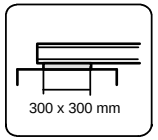
KR HEB 700 – 5 **Corner distance 5 m x 5 m** **jib 46 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
6,8	15,0	1	142	249	142	35	17	1	63	245	63	0	35
		2	218	218	66	66		2	179	179	6	6	
11,3	17,5	1	151	266	151	36	18	1	75	259	75	0	38
		2	233	233	70	70		2	194	194	11	11	
15,8	17,5	1	155	279	155	30	19	1	74	274	74	0	42
		2	242	242	67	67		2	203	203	9	9	
20,3	20,0	1	164	299	164	30	20	1	84	292	84	0	53
		2	259	259	69	69		2	218	218	12	12	
24,8	20,0	1	167	314	167	21	22	1	80	313	80	0	59
		2	271	271	64	64		2	229	229	8	8	
29,3	22,5	1	177	337	177	17	23	1	88	336	88	0	64
		2	290	290	63	63		2	265	265	59	59	
33,8	25,0	1	186	363	186	10	24	1	152	382	152	0	69
		2	311	311	62	62		2	307	307	36	36	

3.2.3.5 **Centerballasts and corner loads according to DIN 15019**

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



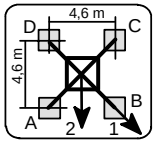


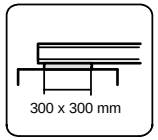
KR HEB 700 – 5 **Corner distance 5 m x 5 m** **jib 50 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
6,8	25,0	1	173	281	173	65	17	1	84	309	84	0	35
		2	250	250	97	97		2	228	228	10	10	
11,3	25,0	1	177	292	177	61	18	1	83	323	83	0	38
		2	258	258	95	95		2	236	236	8	8	
15,8	27,5	1	186	311	186	61	19	1	94	339	94	0	42
		2	274	274	98	98		2	252	252	12	12	
20,3	27,5	1	189	325	189	54	20	1	91	358	91	0	53
		2	285	285	94	94		2	262	262	9	9	
24,8	30,0	1	199	347	199	51	22	1	100	379	100	0	59
		2	303	303	94	94		2	279	279	11	11	
29,3	32,5	1	208	370	208	46	23	1	107	403	107	0	64
		2	323	323	94	94		2	304	304	83	83	

3.2.4.1 **Centerballasts and corner loads according to DIN 15019**

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



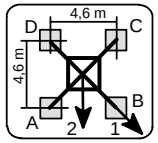


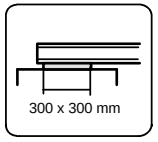
KR 8 – 46 **Corner distance 4,6 m x 4,6 m** **jib 30 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,4	30,0	1	170	305	170	35	18	1	118	210	118	27	38
		2	265	265	74	74		2	183	183	53	53	
15,9	30,0	1	173	317	173	29	19	1	121	220	121	23	42
		2	275	275	71	71		2	191	191	52	52	
20,4	30,0	1	176	331	176	21	21	1	125	231	125	19	53
		2	286	286	67	67		2	200	200	50	50	
24,9	30,0	1	179	346	179	12	22	1	164	249	164	79	59
		2	298	298	61	61		2	224	224	104	104	
29,4	30,0	1	183	363	183	2	23	1	168	294	168	41	64
		2	311	311	55	55		2	257	257	78	78	
33,9	40,0	1	211	407	211	15	24	1	196	368	196	24	70
		2	350	350	72	72		2	318	318	74	74	
38,4	50,0	1	239	453	239	25	26	1	224	447	224	1	75
		2	391	391	88	88		2	382	382	66	66	
42,9	62,5	1	274	508	274	40	27	1	238	560	238	0	81
		2	439	439	108	108		2	457	457	61	61	
47,4	80,0	1	321	577	321	64	28	1	269	686	269	0	86
		2	502	502	139	139		2	548	548	63	63	

3.2.4.2 **Centerballasts and corner loads according to DIN 15019**

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



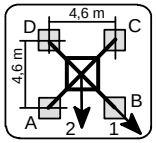


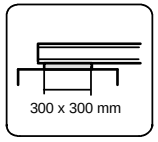
KR 8 - 46 **Corner distance 4,6 m x 4,6 m** **jib 36 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,4	27,5	1	164	295	164	34	18	1	112	204	112	20	38
		2	257	257	72	72		2	177	177	47	47	
15,9	27,5	1	168	308	168	28	20	1	115	214	115	17	42
		2	267	267	69	69		2	185	185	46	46	
20,4	27,5	1	171	321	171	20	21	1	118	225	118	12	54
		2	277	277	64	64		2	200	200	112	112	
24,9	27,5	1	174	337	174	11	22	1	159	258	159	60	59
		2	289	289	59	59		2	229	229	89	89	
29,4	27,5	1	177	354	177	1	23	1	162	303	162	21	65
		2	302	302	52	52		2	262	262	63	63	
33,9	35,0	1	199	392	199	7	24	1	181	375	181	0	70
		2	335	335	63	63		2	317	317	52	52	
38,4	47,5	1	234	444	234	24	26	1	199	478	199	0	75
		2	382	382	85	85		2	388	388	50	50	
42,9	65,0	1	281	511	281	51	27	1	235	593	235	0	81
		2	443	443	118	118		2	475	475	56	56	
47,4	85,0	1	334	587	334	82	28	1	278	720	278	0	86
		2	513	513	156	156		2	574	574	65	65	

3.2.4.3 **Centerballasts and corner loads according to DIN 15019**

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



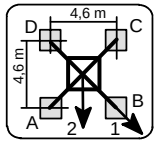


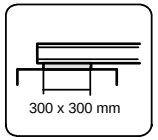
KR 8 - 46 **Corner distance 4,6 m x 4,6 m** **jib 42 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,4	22,5	1	162	288	162	36	18	1	116	224	116	8	39
		2	251	251	73	73		2	193	193	40	40	
15,9	22,5	1	165	301	165	30	20	1	119	236	119	3	43
		2	261	261	69	69		2	202	202	37	37	
20,4	22,5	1	168	315	168	22	21	1	120	252	120	0	54
		2	272	272	65	65		2	212	212	34	34	
24,9	22,5	1	172	331	172	13	22	1	116	273	116	0	60
		2	284	284	59	59		2	232	232	82	82	
29,4	22,5	1	175	348	175	2	23	1	160	308	160	12	65
		2	297	297	53	53		2	265	265	55	55	
33,9	32,5	1	203	392	203	14	25	1	181	390	181	0	70
		2	337	337	70	70		2	326	326	50	50	
38,4	45,0	1	238	445	238	31	26	1	198	496	198	0	76
		2	384	384	91	91		2	398	398	47	47	
42,9	62,5	1	285	513	285	57	27	1	233	614	233	0	81
		2	446	446	124	124		2	487	487	53	53	
47,4	85,0	1	344	596	344	93	28	1	286	745	286	0	87
		2	522	522	166	166		2	593	593	66	66	

3.2.4.4 **Centerballasts and corner loads according to DIN 15019**

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



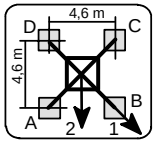


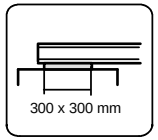
KR 8 - 46 **Corner distance 4,6 m x 4,6 m** **jib 46 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,4	20,0	1	160	286	160	35	18	1	81	282	81	0	39
		2	249	249	72	72		2	211	211	12	12	
15,9	20,0	1	163	298	163	29	20	1	80	299	80	0	43
		2	259	259	68	68		2	220	220	9	9	
20,4	22,5	1	173	319	173	27	21	1	89	318	89	0	54
		2	276	276	70	70		2	236	236	12	12	
24,9	22,5	1	176	335	176	18	22	1	85	339	85	0	60
		2	288	288	64	64		2	247	247	7	7	
29,4	25,0	1	186	358	186	13	23	1	92	364	92	0	65
		2	308	308	64	64		2	283	283	58	58	
33,9	30,0	1	202	390	202	13	25	1	166	414	166	0	71
		2	335	335	68	68		2	333	333	40	40	
38,4	47,5	1	249	456	249	41	26	1	207	521	207	0	76
		2	395	395	102	102		2	418	418	50	50	
42,9	65,0	1	296	524	296	67	27	1	241	640	241	0	81
		2	457	457	134	134		2	507	507	54	54	
47,4	87,5	1	355	608	355	103	28	1	293	774	293	0	87
		2	534	534	177	177		2	614	614	67	67	

3.2.4.5 **Centerballasts and corner loads according to DIN 15019**

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



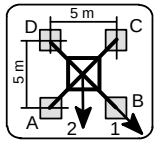


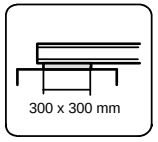
KR 8 - 46 **Corner distance 4,6 m x 4,6 m** **jib 50 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,4	30,0	1	192	318	192	66	18	1	99	352	99	0	39
		2	281	281	103	103		2	262	262	13	13	
15,9	30,0	1	195	331	195	59	20	1	97	369	97	0	43
		2	291	291	99	99		2	271	271	10	10	
20,4	32,5	1	205	351	205	58	21	1	106	388	106	0	55
		2	308	308	101	101		2	288	288	13	13	
24,9	35,0	1	214	373	214	55	22	1	114	411	114	0	60
		2	327	327	101	101		2	305	305	15	15	
29,4	37,5	1	224	398	224	50	23	1	121	436	121	0	65
		2	347	347	100	100		2	329	329	88	88	
33,9	40,0	1	233	424	233	42	25	1	126	464	126	0	71
		2	368	368	98	98		2	373	373	63	63	
38,4	47,5	1	255	465	255	45	26	1	207	546	207	0	76
		2	403	403	107	107		2	433	433	47	47	
42,9	67,5	1	308	540	308	77	27	1	253	668	253	0	82
		2	472	472	145	145		2	530	530	57	57	

3.2.5.1 **Centerballasts and corner loads according to DIN 15019**

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



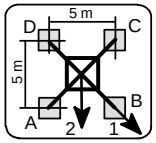


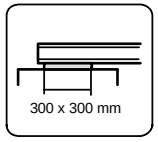
KR HEB 800 – 5 **Corner distance 5 m x 5 m** **jib 30 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,4	22,5	1	153	277	153	29	18	1	101	186	101	17	38
		2	241	241	65	65		2	161	161	42	42	
15,9	22,5	1	156	289	156	23	19	1	105	195	105	14	42
		2	250	250	62	62		2	169	169	41	41	
20,4	22,5	1	159	302	159	17	21	1	108	205	108	11	53
		2	260	260	59	59		2	177	177	39	39	
24,9	22,5	1	163	316	163	9	22	1	148	226	148	70	59
		2	271	271	54	54		2	203	203	92	92	
29,4	25,0	1	172	339	172	6	23	1	157	273	157	41	64
		2	290	290	55	55		2	239	239	75	75	
33,9	32,5	1	194	375	194	14	24	1	179	338	179	21	70
		2	322	322	66	66		2	291	291	67	67	
38,4	42,5	1	223	419	223	26	26	1	208	413	208	2	75
		2	362	362	83	83		2	353	353	62	62	
42,9	55,0	1	257	472	257	42	27	1	227	515	227	0	81
		2	409	409	105	105		2	424	424	60	60	
47,4	70,0	1	298	534	298	62	28	1	250	631	250	0	86
		2	465	465	131	131		2	506	506	60	60	

3.2.5.2 **Centerballasts and corner loads according to DIN 15019**

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



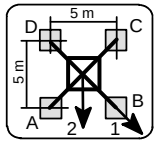


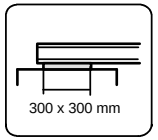
KR HEB 800 – 5 **Corner distance 5 m x 5 m** **jib 36 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,4	20,0	1	148	268	148	27	18	1	95	180	95	11	38
		2	233	233	63	63		2	155	155	65	65	
15,9	20,0	1	151	280	151	22	20	1	98	189	98	8	42
		2	242	242	60	60		2	164	164	63	63	
20,4	20,0	1	154	293	154	15	21	1	102	199	102	4	54
		2	252	252	56	56		2	179	179	99	99	
24,9	20,0	1	157	307	157	8	22	1	142	234	142	51	59
		2	263	263	51	51		2	207	207	78	78	
29,4	20,0	1	159	325	159	0	23	1	146	275	146	16	65
		2	276	276	46	46		2	237	237	54	54	
33,9	30,0	1	189	366	189	12	24	1	174	346	174	2	70
		2	314	314	64	64		2	296	296	52	52	
38,4	40,0	1	217	410	217	24	26	1	185	440	185	0	75
		2	354	354	81	81		2	358	358	47	47	
42,9	55,0	1	258	469	258	46	27	1	213	545	213	0	81
		2	408	408	108	108		2	436	436	50	50	
47,4	72,5	1	305	537	305	73	28	1	249	663	249	0	86
		2	469	469	141	141		2	524	524	56	56	

3.2.5.3 **Centerballasts and corner loads according to DIN 15019**

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



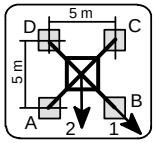


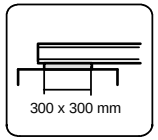
KR HEB 800 – 5 **Corner distance 5 m x 5 m** **jib 42 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,4	15,0	1	145	261	145	29	18	1	99	199	99	0	39
		2	227	227	63	63		2	170	170	29	29	
15,9	15,0	1	148	273	148	24	20	1	98	214	98	0	43
		2	237	237	60	60		2	178	178	27	27	
20,4	15,0	1	152	286	152	17	21	1	96	231	96	0	54
		2	247	247	56	56		2	188	188	24	24	
24,9	15,0	1	155	301	155	9	22	1	93	251	93	0	60
		2	258	258	52	52		2	209	209	71	71	
29,4	15,0	1	157	318	157	0	23	1	143	279	143	7	65
		2	271	271	46	46		2	240	240	47	47	
33,9	25,0	1	187	361	187	13	25	1	164	359	164	0	70
		2	310	310	64	64		2	299	299	45	45	
38,4	37,5	1	221	412	221	30	26	1	184	456	184	0	76
		2	356	356	86	86		2	367	367	45	45	
42,9	55,0	1	268	478	268	58	27	1	224	565	224	0	81
		2	416	416	120	120		2	453	453	54	54	
47,4	72,5	1	315	547	315	84	28	1	258	685	258	0	87
		2	479	479	151	151		2	543	543	58	58	

3.2.5.4 **Centerballasts and corner loads according to DIN 15019**

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



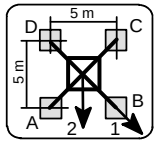


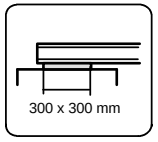
KR HEB 800 – 5 **Corner distance 5 m x 5 m** **jib 46 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,4	15,0	1	150	265	150	34	18	1	72	259	72	0	39
		2	231	231	68	68		2	192	192	9	9	
15,9	15,0	1	153	277	153	29	20	1	71	275	71	0	43
		2	241	241	65	65		2	201	201	7	7	
20,4	17,5	1	163	297	163	28	21	1	81	292	81	0	54
		2	257	257	68	68		2	217	217	10	10	
24,9	17,5	1	166	311	166	20	22	1	78	312	78	0	60
		2	269	269	63	63		2	227	227	6	6	
29,4	20,0	1	175	334	175	17	23	1	85	334	85	0	65
		2	288	288	63	63		2	264	264	57	57	
33,9	22,5	1	185	359	185	11	25	1	149	381	149	0	71
		2	308	308	62	62		2	304	304	35	35	
38,4	37,5	1	226	416	226	35	26	1	182	479	182	0	76
		2	361	361	91	91		2	380	380	41	41	
42,9	55,0	1	273	483	273	62	27	1	221	589	221	0	81
		2	421	421	124	124		2	466	466	49	49	
47,4	75,0	1	326	558	326	94	28	1	266	712	266	0	87
		2	490	490	162	162		2	563	563	59	59	

3.2.5.5 **Centerballasts and corner loads according to DIN 15019**

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



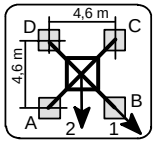


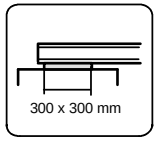
KR HEB 800 – 5 **Corner distance 5 m x 5 m** **jib 50 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,4	25,0	1	181	297	181	65	18	1	92	323	92	0	39
		2	263	263	99	99		2	241	241	13	13	
15,9	25,0	1	185	309	185	60	20	1	91	339	91	0	43
		2	273	273	96	96		2	250	250	10	10	
20,4	27,5	1	194	329	194	59	21	1	101	357	101	0	55
		2	289	289	99	99		2	266	266	13	13	
24,9	27,5	1	197	344	197	51	22	1	97	378	97	0	60
		2	301	301	94	94		2	277	277	10	10	
29,4	30,0	1	207	367	207	47	23	1	105	401	105	0	65
		2	320	320	94	94		2	303	303	81	81	
33,9	32,5	1	216	392	216	41	25	1	111	427	111	0	71
		2	340	340	92	92		2	344	344	59	59	
38,4	40,0	1	238	431	238	45	26	1	196	502	196	0	76
		2	375	375	102	102		2	401	401	46	46	
42,9	57,5	1	285	498	285	72	27	1	234	615	234	0	82
		2	436	436	135	135		2	488	488	53	53	

3.2.6.1 **Centerballasts and corner loads according to DIN 15019**

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



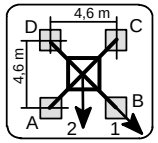


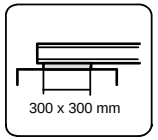
KR 10 – 46 **Corner distance 4,6 m x 4,6 m** **jib 30 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,7	27,5	1	169	305	169	34	18	1	118	210	118	26	38
		2	265	265	73	73		2	183	183	53	53	
16,2	27,5	1	173	318	173	28	19	1	121	220	121	22	42
		2	275	275	70	70		2	191	191	51	51	
20,7	27,5	1	176	332	176	20	21	1	124	231	124	18	53
		2	286	286	66	66		2	200	200	49	49	
25,2	27,5	1	179	347	179	11	22	1	164	252	164	77	59
		2	298	298	60	60		2	226	226	102	102	
29,7	27,5	1	182	364	182	1	23	1	167	296	167	39	64
		2	311	311	54	54		2	259	259	76	76	
34,2	37,5	1	211	408	211	13	24	1	196	371	196	21	70
		2	350	350	71	71		2	319	319	72	72	
38,7	50,0	1	245	460	245	30	26	1	230	457	230	4	75
		2	397	397	93	93		2	390	390	70	70	
43,2	62,5	1	280	515	280	45	27	1	246	567	246	0	81
		2	446	446	113	113		2	465	465	64	64	
47,7	77,5	1	321	578	321	63	28	1	264	693	264	0	86
		2	503	503	138	138		2	551	551	60	60	
52,2	100,0	1	381	660	381	103	30	1	320	825	320	0	92
		2	578	578	184	184		2	658	658	75	75	
56,7	122,5	1	442	743	442	141	31	1	369	970	369	0	99
		2	655	655	229	229		2	770	770	84	84	
61,2	145,0	1	509	830	509	188	34	1	427	1122	427	0	107
		2	736	736	282	282		2	891	891	97	97	
65,7	170,0	1	579	925	579	232	36	1	479	1296	479	0	116
		2	823	823	334	334		2	1022	1022	105	105	
70,2	200,0	1	661	1034	661	287	38	1	550	1483	550	0	124
		2	925	925	396	396		2	1170	1170	121	121	
74,7	232,5	1	749	1153	749	345	40	1	622	1692	622	0	132
		2	1034	1034	463	463		2	1332	1332	136	136	

3.2.6.2 **Centerballasts and corner loads according to DIN 15019**

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



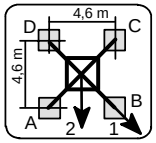


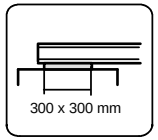
KR 10 - 46 **Corner distance 4,6 m x 4,6 m** **jib 36 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,7	25,0	1	164	295	164	33	18	1	112	204	112	19	38
		2	257	257	71	71		2	177	177	46	46	
16,2	25,0	1	167	308	167	27	20	1	115	214	115	16	42
		2	267	267	68	68		2	185	185	75	75	
20,7	25,0	1	171	322	171	19	21	1	118	225	118	11	54
		2	278	278	63	63		2	201	201	110	110	
25,2	25,0	1	174	338	174	10	22	1	159	261	159	57	59
		2	290	290	58	58		2	231	231	87	87	
29,7	25,0	1	177	355	177	0	23	1	162	306	162	18	65
		2	303	303	52	52		2	264	264	61	61	
34,2	35,0	1	205	399	205	12	24	1	190	381	190	0	70
		2	342	342	69	69		2	325	325	56	56	
38,7	45,0	1	234	445	234	23	26	1	195	484	195	0	75
		2	383	383	84	84		2	390	390	47	47	
43,2	62,5	1	281	512	281	50	27	1	231	600	231	0	81
		2	444	444	117	117		2	478	478	54	54	
47,7	82,5	1	334	588	334	80	28	1	274	728	274	0	86
		2	513	513	155	155		2	576	576	62	62	
52,2	105,0	1	395	669	395	120	30	1	329	861	329	0	92
		2	589	589	201	201		2	684	684	75	75	
56,7	127,5	1	456	753	456	159	31	1	377	1007	377	0	99
		2	666	666	246	246		2	797	797	84	84	
61,2	150,0	1	522	839	522	205	34	1	435	1160	435	0	108
		2	747	747	298	298		2	918	918	97	97	
65,7	175,0	1	592	934	592	250	36	1	487	1335	487	0	116
		2	834	834	350	350		2	1049	1049	105	105	
70,2	205,0	1	674	1044	674	304	38	1	556	1523	556	0	124
		2	936	936	413	413		2	1198	1198	120	120	
74,7	237,5	1	762	1162	762	363	40	1	628	1733	628	0	133
		2	1045	1045	480	480		2	1360	1360	135	135	

3.2.6.3 **Centerballasts and corner loads according to DIN 15019**

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



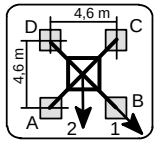


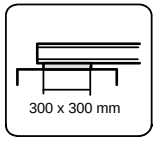
KR 10 - 46 **Corner distance 4,6 m x 4,6 m** **jib 42 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,7	20,0	1	162	289	162	35	18	1	116	225	116	7	39
		2	251	251	72	72		2	193	193	39	39	
16,2	20,0	1	165	301	165	29	20	1	119	236	119	2	43
		2	261	261	69	69		2	202	202	36	36	
20,7	20,0	1	168	316	168	21	21	1	118	253	118	0	54
		2	272	272	64	64		2	212	212	33	33	
25,2	20,0	1	172	331	172	12	22	1	114	274	114	0	60
		2	284	284	59	59		2	233	233	80	80	
29,7	20,0	1	175	349	175	1	23	1	160	310	160	9	65
		2	298	298	52	52		2	266	266	53	53	
34,2	30,0	1	203	393	203	13	25	1	178	396	178	0	70
		2	337	337	69	69		2	328	328	48	48	
38,7	42,5	1	238	446	238	29	26	1	194	502	194	0	76
		2	385	385	90	90		2	400	400	45	45	
43,2	62,5	1	291	520	291	62	27	1	241	621	241	0	81
		2	453	453	129	129		2	495	495	56	56	
47,7	82,5	1	344	597	344	91	28	1	282	753	282	0	87
		2	523	523	165	165		2	595	595	63	63	
52,2	105,0	1	405	679	405	131	30	1	336	889	336	0	93
		2	599	599	211	211		2	704	704	76	76	
56,7	127,5	1	466	763	466	168	31	1	382	1038	382	0	99
		2	676	676	255	255		2	818	818	84	84	
61,2	150,0	1	533	850	533	215	34	1	439	1192	439	0	108
		2	757	757	308	308		2	939	939	96	96	
65,7	177,5	1	608	952	608	265	36	1	502	1370	502	0	116
		2	851	851	365	365		2	1078	1078	109	109	
70,2	207,5	1	690	1062	690	319	38	1	570	1563	570	0	124
		2	953	953	427	427		2	1228	1228	123	123	
74,7	240,0	1	779	1182	779	376	40	1	639	1777	639	0	133
		2	1064	1064	494	494		2	1392	1392	135	135	

3.2.6.4 **Centerballasts and corner loads according to DIN 15019**

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



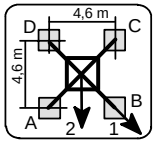


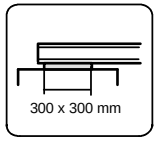
KR 10 - 46 **Corner distance 4,6 m x 4,6 m** **jib 46 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,7	17,5	1	160	286	160	34	18	1	80	283	80	0	39
		2	249	249	71	71		2	211	211	11	11	
16,2	17,5	1	163	299	163	28	20	1	78	300	78	0	43
		2	259	259	67	67		2	220	220	8	8	
20,7	20,0	1	173	319	173	26	21	1	88	319	88	0	54
		2	276	276	69	69		2	237	237	11	11	
25,2	22,5	1	182	341	182	23	22	1	96	341	96	0	60
		2	295	295	70	70		2	254	254	13	13	
29,7	25,0	1	192	365	192	18	23	1	103	365	103	0	65
		2	315	315	69	69		2	291	291	62	62	
34,2	27,5	1	201	391	201	11	25	1	163	420	163	0	71
		2	336	336	67	67		2	335	335	38	38	
38,7	45,0	1	248	457	248	40	26	1	203	527	203	0	76
		2	396	396	101	101		2	420	420	47	47	
43,2	65,0	1	302	531	302	72	27	1	250	647	250	0	81
		2	464	464	139	139		2	515	515	58	58	
47,7	85,0	1	355	609	355	101	28	1	289	781	289	0	87
		2	534	534	175	175		2	616	616	64	64	
52,2	107,5	1	416	691	416	140	30	1	342	919	342	0	93
		2	610	610	221	221		2	726	726	76	76	
56,7	132,5	1	483	782	483	184	31	1	400	1070	400	0	99
		2	694	694	271	271		2	846	846	89	89	
61,2	152,5	1	543	863	543	224	34	1	444	1225	444	0	108
		2	769	769	318	318		2	961	961	95	95	
65,7	180,0	1	619	965	619	274	36	1	506	1404	506	0	117
		2	864	864	375	375		2	1101	1101	108	108	
70,2	210,0	1	701	1076	701	327	38	1	573	1599	573	0	124
		2	966	966	437	437		2	1252	1252	121	121	
74,7	245,0	1	796	1202	796	390	40	1	654	1816	654	0	133
		2	1083	1083	509	509		2	1423	1423	139	139	

3.2.6.5 **Centerballasts and corner loads according to DIN 15019**

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



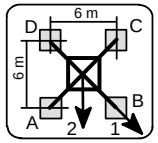


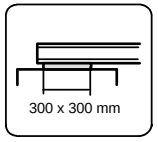
KR 10 - 46 **Corner distance 4,6 m x 4,6 m** **jib 50 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,7	27,5	1	191	318	191	65	18	1	98	353	98	0	39
		2	281	281	102	102		2	262	262	12	12	
16,2	27,5	1	195	331	195	58	20	1	96	370	96	0	43
		2	291	291	98	98		2	271	271	10	10	
20,7	30,0	1	204	352	204	57	21	1	105	390	105	0	55
		2	309	309	100	100		2	288	288	12	12	
25,2	32,5	1	214	374	214	53	22	1	113	412	113	0	60
		2	327	327	100	100		2	305	305	14	14	
29,7	35,0	1	223	398	223	48	23	1	119	438	119	0	65
		2	347	347	100	100		2	331	331	86	86	
34,2	37,5	1	233	425	233	41	25	1	124	466	124	0	71
		2	368	368	97	97		2	375	375	61	61	
38,7	47,5	1	261	472	261	50	26	1	216	553	216	0	76
		2	410	410	112	112		2	442	442	51	51	
43,2	65,0	1	308	541	308	75	27	1	249	675	249	0	82
		2	473	473	144	144		2	532	532	54	54	
47,7	87,5	1	368	625	368	110	28	1	299	813	299	0	87
		2	550	550	185	185		2	640	640	65	65	
52,2	110,0	1	428	708	428	149	30	1	351	953	351	0	93
		2	626	626	231	231		2	750	750	77	77	
56,7	135,0	1	496	800	496	191	31	1	408	1107	408	0	100
		2	711	711	280	280		2	872	872	89	89	
61,2	157,5	1	562	887	562	238	34	1	464	1262	464	0	109
		2	792	792	333	333		2	994	994	101	101	
65,7	185,0	1	638	989	638	287	36	1	524	1444	524	0	117
		2	887	887	390	390		2	1134	1134	113	113	
70,2	215,0	1	720	1101	720	340	38	1	589	1642	589	0	125
		2	989	989	451	451		2	1286	1286	125	125	
74,7	250,0	1	815	1228	815	402	40	1	668	1863	668	0	133
		2	1107	1107	523	523		2	1459	1459	141	141	

3.2.7.1 **Centerballasts and corner loads according to DIN 15019**

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



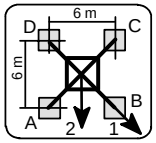


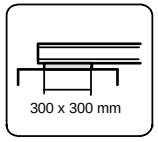
KR 10 - 60 **Corner distance 6 m x 6 m** **jib 30 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,7	10,0	1	130	234	130	26	18	1	78	149	78	8	38
		2	203	203	56	56		2	128	128	28	28	
16,2	10,0	1	133	244	133	22	19	1	81	157	81	6	42
		2	211	211	54	54		2	135	135	28	28	
20,7	10,0	1	136	255	136	17	21	1	85	166	85	3	53
		2	221	221	52	52		2	148	148	94	94	
25,2	10,0	1	139	268	139	11	22	1	124	191	124	57	59
		2	230	230	48	48		2	172	172	77	77	
29,7	10,0	1	143	282	143	3	23	1	128	226	128	29	64
		2	241	241	44	44		2	198	198	58	58	
34,2	17,5	1	165	316	165	13	24	1	150	284	150	15	70
		2	272	272	58	58		2	245	245	55	55	
38,7	27,5	1	193	358	193	28	26	1	178	352	178	4	75
		2	310	310	76	76		2	301	301	55	55	
43,2	35,0	1	215	395	215	35	27	1	183	434	183	0	81
		2	343	343	87	87		2	354	354	46	46	
47,7	47,5	1	250	447	250	52	28	1	203	531	203	0	86
		2	389	389	110	110		2	422	422	47	47	
52,2	65,0	1	298	511	298	84	30	1	249	633	249	0	92
		2	449	449	147	147		2	506	506	59	59	
56,7	80,0	1	340	571	340	109	31	1	278	744	278	0	99
		2	503	503	177	177		2	588	588	62	62	
61,2	97,5	1	394	640	394	148	34	1	328	861	328	0	107
		2	568	568	220	220		2	683	683	75	75	
65,7	117,5	1	451	717	451	186	36	1	376	993	376	0	116
		2	639	639	264	264		2	788	788	85	85	
70,2	137,5	1	508	795	508	222	38	1	418	1137	418	0	124
		2	711	711	306	306		2	895	895	91	91	
74,7	162,5	1	578	888	578	268	40	1	477	1297	477	0	132
		2	797	797	359	359		2	1021	1021	104	104	

3.2.7.2 **Centerballasts and corner loads according to DIN 15019**

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



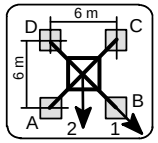


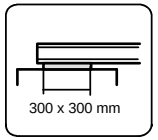
KR 10 - 60 **Corner distance 6 m x 6 m** **jib 36 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,7	7,5	1	124	225	124	24	18	1	72	143	72	1	38
		2	195	195	53	53		2	125	125	49	49	
16,2	7,5	1	128	235	128	20	20	1	74	152	74	0	42
		2	204	204	51	51		2	132	132	48	48	
20,7	7,5	1	131	247	131	15	21	1	116	165	116	67	54
		2	213	213	49	49		2	151	151	81	81	
25,2	7,5	1	134	260	134	9	22	1	119	197	119	41	59
		2	223	223	45	45		2	174	174	64	64	
29,7	7,5	1	137	274	137	1	23	1	122	232	122	12	65
		2	234	234	41	41		2	200	200	44	44	
34,2	15,0	1	159	308	159	11	24	1	143	292	143	0	70
		2	264	264	55	55		2	248	248	41	41	
38,7	22,5	1	181	343	181	20	26	1	147	371	147	0	75
		2	296	296	67	67		2	298	298	35	35	
43,2	37,5	1	222	399	222	45	27	1	184	460	184	0	81
		2	347	347	97	97		2	370	370	45	45	
47,7	52,5	1	263	457	263	68	28	1	217	558	217	0	86
		2	401	401	125	125		2	445	445	51	51	
52,2	67,5	1	305	515	305	95	30	1	250	660	250	0	92
		2	454	454	156	156		2	523	523	57	57	
56,7	85,0	1	353	581	353	126	31	1	290	772	290	0	99
		2	514	514	192	192		2	611	611	65	65	
61,2	100,0	1	401	644	401	158	34	1	328	889	328	0	108
		2	573	573	230	230		2	701	701	72	72	
65,7	120,0	1	458	721	458	196	36	1	375	1023	375	0	116
		2	644	644	273	273		2	805	805	82	82	
70,2	142,5	1	522	805	522	238	38	1	430	1168	430	0	124
		2	722	722	321	321		2	920	920	94	94	
74,7	167,5	1	591	898	591	285	40	1	488	1329	488	0	133
		2	808	808	375	375		2	1046	1046	107	107	

3.2.7.3 **Centerballasts and corner loads according to DIN 15019**

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



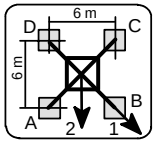


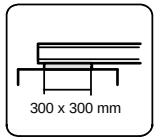
KR 10 - 60 **Corner distance 6 m x 6 m** **jib 42 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,7	2,5	1	122	219	122	25	18	1	69	167	69	0	39
		2	191	191	53	53		2	135	135	17	17	
16,2	2,5	1	125	230	125	21	20	1	69	180	69	0	43
		2	199	199	51	51		2	143	143	16	16	
20,7	2,5	1	128	241	128	16	21	1	68	194	68	0	54
		2	208	208	49	49		2	152	152	75	75	
25,2	2,5	1	132	254	132	9	22	1	67	210	67	0	60
		2	218	218	45	45		2	175	175	58	58	
29,7	5,0	1	141	275	141	8	23	1	126	242	126	11	65
		2	236	236	47	47		2	208	208	45	45	
34,2	10,0	1	157	303	157	11	25	1	132	304	132	0	70
		2	260	260	54	54		2	250	250	35	35	
38,7	20,0	1	185	345	185	26	26	1	148	385	148	0	76
		2	298	298	72	72		2	307	307	34	34	
43,2	35,0	1	226	402	226	50	27	1	184	476	184	0	81
		2	350	350	102	102		2	379	379	43	43	
47,7	50,0	1	267	461	267	73	28	1	215	577	215	0	87
		2	404	404	130	130		2	456	456	48	48	
52,2	67,5	1	315	525	315	105	30	1	260	681	260	0	93
		2	464	464	167	167		2	541	541	59	59	
56,7	85,0	1	363	592	363	135	31	1	299	796	299	0	99
		2	525	525	202	202		2	630	630	67	67	
61,2	100,0	1	412	655	412	168	34	1	336	914	336	0	108
		2	584	584	239	239		2	720	720	73	73	
65,7	120,0	1	469	732	469	205	36	1	382	1050	382	0	116
		2	655	655	282	282		2	825	825	82	82	
70,2	142,5	1	532	817	532	247	38	1	435	1198	435	0	124
		2	734	734	330	330		2	941	941	93	93	
74,7	167,5	1	602	911	602	293	40	1	492	1363	492	0	133
		2	820	820	383	383		2	1068	1068	105	105	

3.2.7.4 **Centerballasts and corner loads according to DIN 15019**

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



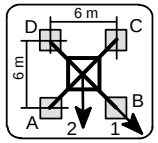


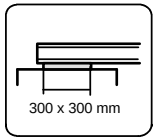
KR 10 - 60 **Corner distance 6 m x 6 m** **jib 46 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,7	5,0	1	133	229	133	36	18	1	59	217	59	0	39
		2	201	201	64	64		2	160	160	7	7	
16,2	5,0	1	136	240	136	32	20	1	59	230	59	0	43
		2	209	209	62	62		2	168	168	6	6	
20,7	7,5	1	146	258	146	33	21	1	71	245	71	0	54
		2	225	225	66	66		2	183	183	10	10	
25,2	7,5	1	149	271	149	27	22	1	69	261	69	0	60
		2	235	235	62	62		2	198	198	69	69	
29,7	10,0	1	158	291	158	25	23	1	79	280	79	0	65
		2	252	252	64	64		2	231	231	56	56	
34,2	10,0	1	162	307	162	16	25	1	132	322	132	0	71
		2	265	265	59	59		2	260	260	33	33	
38,7	22,5	1	196	356	196	36	26	1	160	404	160	0	76
		2	309	309	83	83		2	324	324	38	38	
43,2	37,5	1	237	413	237	61	27	1	196	496	196	0	81
		2	361	361	112	112		2	397	397	46	46	
47,7	52,5	1	278	472	278	83	28	1	226	599	226	0	87
		2	415	415	140	140		2	474	474	51	51	
52,2	67,5	1	320	531	320	109	30	1	257	704	257	0	93
		2	469	469	170	170		2	554	554	56	56	
56,7	87,5	1	374	604	374	145	31	1	308	821	308	0	99
		2	536	536	212	212		2	649	649	69	69	
61,2	102,5	1	422	667	422	178	34	1	345	939	345	0	108
		2	595	595	249	249		2	739	739	75	75	
65,7	122,5	1	479	744	479	215	36	1	391	1077	391	0	117
		2	667	667	292	292		2	845	845	84	84	
70,2	145,0	1	543	830	543	256	38	1	443	1226	443	0	124
		2	746	746	340	340		2	961	961	94	94	
74,7	170,0	1	612	923	612	301	40	1	499	1392	499	0	133
		2	832	832	392	392		2	1090	1090	105	105	

3.2.7.5 **Centerballasts and corner loads according to DIN 15019**

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



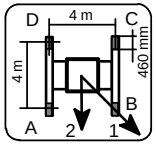


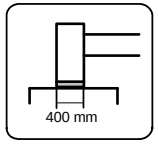
KR 10 - 60 **Corner distance 6 m x 6 m** **jib 50 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,7	12,5	1	158	255	158	61	18	1	72	271	72	0	39
		2	227	227	89	89		2	199	199	8	8	
16,2	12,5	1	161	266	161	57	20	1	72	284	72	0	43
		2	235	235	87	87		2	207	207	7	7	
20,7	15,0	1	171	284	171	58	21	1	84	299	84	0	55
		2	251	251	91	91		2	222	222	11	11	
25,2	15,0	1	174	297	174	51	22	1	82	316	82	0	60
		2	261	261	87	87		2	232	232	8	8	
29,7	17,5	1	184	318	184	49	23	1	91	335	91	0	65
		2	278	278	89	89		2	262	262	75	75	
34,2	20,0	1	193	340	193	46	25	1	99	357	99	0	71
		2	297	297	89	89		2	298	298	58	58	
38,7	22,5	1	203	364	203	41	26	1	163	424	163	0	76
		2	317	317	88	88		2	337	337	38	38	
43,2	37,5	1	243	422	243	65	27	1	198	518	198	0	82
		2	369	369	117	117		2	411	411	45	45	
47,7	52,5	1	284	482	284	87	28	1	227	623	227	0	87
		2	424	424	144	144		2	490	490	49	49	
52,2	70,0	1	332	547	332	118	30	1	270	730	270	0	93
		2	484	484	181	181		2	576	576	59	59	
56,7	87,5	1	381	614	381	147	31	1	307	849	307	0	100
		2	546	546	216	216		2	666	666	66	66	
61,2	105,0	1	435	684	435	186	34	1	356	968	356	0	109
		2	611	611	259	259		2	762	762	78	78	
65,7	125,0	1	492	761	492	223	36	1	401	1107	401	0	117
		2	683	683	302	302		2	869	869	86	86	
70,2	147,5	1	556	847	556	264	38	1	451	1259	451	0	125
		2	762	762	349	349		2	986	986	95	95	
74,7	175,0	1	631	948	631	315	40	1	518	1428	518	0	133
		2	855	855	407	407		2	1121	1121	111	111	

3.2.8.1 **Centerballasts and corner loads according to DIN 15019**

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



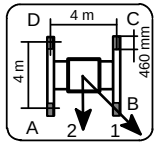


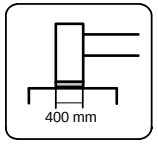
SR 150 **Corner distance 4 m x 4 m** **jib 30 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,5	40,0	1	197	352	197	42	18	1	146	251	146	41	37
		2	307	307	87	87		2	220	220	71	71	
16,0	40,0	1	200	367	200	34	19	1	149	262	149	36	41
		2	318	318	83	83		2	229	229	69	69	
20,5	40,0	1	204	383	204	25	20	1	152	274	152	30	53
		2	330	330	77	77		2	238	238	66	66	
25,0	40,0	1	207	400	207	14	22	1	192	290	192	94	58
		2	344	344	70	70		2	261	261	123	123	
29,5	40,0	1	207	423	207	4	23	1	195	341	195	49	63
		2	358	358	62	62		2	299	299	92	92	
34,0	52,5	1	245	473	245	17	24	1	230	429	230	30	69
		2	406	406	84	84		2	371	371	89	89	
38,5	65,0	1	279	528	279	30	25	1	264	523	264	5	74
		2	455	455	103	103		2	448	448	81	81	

3.2.8.2 **Centerballasts and corner loads according to DIN 15019**

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



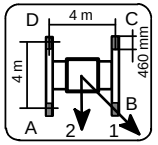


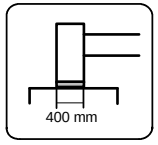
SR 150 **Corner distance 4 m x 4 m** **jib 36 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,5	37,5	1	192	342	192	41	18	1	140	245	140	34	38
		2	298	298	85	85		2	214	214	65	65	
16,0	37,5	1	195	356	195	34	19	1	143	256	143	30	42
		2	309	309	81	81		2	223	223	63	63	
20,5	37,5	1	198	372	198	24	20	1	146	268	146	24	53
		2	321	321	75	75		2	234	234	133	133	
25,0	37,5	1	202	390	202	13	22	1	187	301	187	72	58
		2	335	335	68	68		2	268	268	106	106	
29,5	37,5	1	201	414	201	4	23	1	190	353	190	27	64
		2	350	350	60	60		2	305	305	75	75	
34,0	47,5	1	233	457	233	10	24	1	215	439	215	4	69
		2	391	391	75	75		2	372	372	65	65	
38,5	62,5	1	274	518	274	30	25	1	236	559	236	4	75
		2	447	447	101	101		2	455	455	63	63	

3.2.8.3 **Centerballasts and corner loads according to DIN 15019**

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



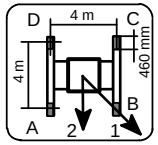


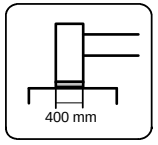
SR 150 **Corner distance 4 m x 4 m** **jib 42 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,5	32,5	1	190	335	190	44	18	1	144	268	144	19	38
		2	292	292	87	87		2	232	232	56	56	
16,0	32,5	1	193	349	193	36	19	1	147	281	147	13	42
		2	303	303	82	82		2	242	242	52	52	
20,5	32,5	1	196	365	196	27	20	1	150	295	150	5	53
		2	316	316	76	76		2	253	253	48	48	
25,0	32,5	1	199	383	199	15	22	1	146	319	146	4	59
		2	329	329	69	69		2	271	271	98	98	
29,5	32,5	1	200	406	200	4	23	1	188	359	188	16	64
		2	345	345	61	61		2	309	309	66	66	
34,0	45,0	1	237	457	237	17	24	1	213	457	213	4	70
		2	393	393	82	82		2	382	382	62	62	
38,5	60,0	1	278	520	278	36	25	1	233	581	233	4	75
		2	449	449	107	107		2	467	467	59	59	

3.2.8.4 **Centerballasts and corner loads according to DIN 15019**

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



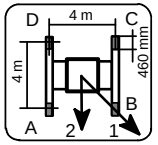


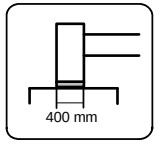
SR 150 **Corner distance 4 m x 4 m** **jib 46 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,5	27,5	1	182	326	182	37	18	1	99	328	99	4	38
		2	284	284	80	80		2	247	247	18	18	
16,0	27,5	1	185	340	185	29	19	1	96	348	96	4	42
		2	295	295	75	75		2	257	257	14	14	
20,5	30,0	1	194	363	194	26	20	1	103	370	103	4	53
		2	313	313	75	75		2	275	275	16	16	
25,0	32,5	1	204	387	204	21	22	1	110	396	110	4	59
		2	333	333	74	74		2	293	293	16	16	
29,5	35,0	1	213	414	213	13	23	1	115	424	115	4	64
		2	355	355	72	72		2	329	329	68	68	
34,0	42,5	1	235	455	235	16	24	1	196	485	196	4	70
		2	391	391	80	80		2	390	390	50	50	

3.2.8.5 **Centerballasts and corner loads according to DIN 15019**

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



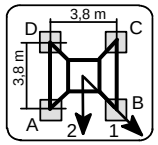


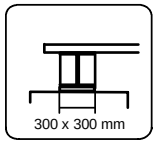
SR 150 **Corner distance 4 m x 4 m** **jib 50 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
11,5	37,5	1	213	358	213	68	18	1	111	409	111	4	38
		2	316	316	110	110		2	302	302	16	16	
16,0	40,0	1	223	379	223	66	19	1	120	429	120	4	42
		2	333	333	112	112		2	318	318	18	18	
20,5	42,5	1	232	402	232	62	21	1	128	452	128	4	54
		2	352	352	112	112		2	336	336	20	20	
25,0	45,0	1	242	426	242	57	22	1	134	478	134	4	59
		2	372	372	111	111		2	355	355	20	20	
29,5	47,5	1	251	453	251	49	23	1	138	508	138	4	65
		2	394	394	108	108		2	376	376	97	97	
34,0	52,5	1	267	489	267	45	24	1	153	541	153	4	70
		2	424	424	110	110		2	432	432	72	72	

3.3.1.1 **Centerballasts and corner loads according to DIN 15019**

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



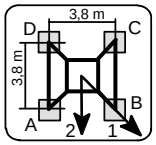


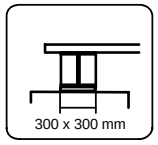
KRE 138 **Corner distance 3,8 m x 3,8 m** **jib 30 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
10,0	47,5	1	205	366	205	44	18	1	154	263	154	44	37
		2	319	319	91	91		2	231	231	76	76	
14,5	47,5	1	208	380	208	36	19	1	157	275	157	39	41
		2	330	330	87	87		2	240	240	74	74	
19,0	47,5	1	212	396	212	27	20	1	160	287	160	34	52
		2	342	342	81	81		2	250	250	71	71	
23,5	47,5	1	215	414	215	16	21	1	163	300	163	27	56
		2	355	355	74	74		2	262	262	138	138	
28,0	47,5	1	218	433	218	3	23	1	203	339	203	67	62
		2	370	370	66	66		2	299	299	107	107	

3.3.1.2 **Centerballasts and corner loads according to DIN 15019**

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



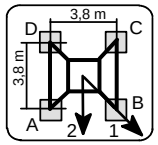


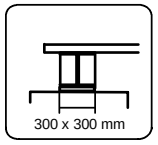
KRE 138 **Corner distance 3,8 m x 3,8 m** **jib 36 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
10,0	42,5	1	193	350	193	37	18	1	141	251	141	31	37
		2	304	304	83	83		2	219	219	63	63	
14,5	42,5	1	197	364	197	30	19	1	144	262	144	27	41
		2	315	315	79	79		2	228	228	61	61	
19,0	42,5	1	200	380	200	21	20	1	148	275	148	21	53
		2	327	327	73	73		2	237	237	58	58	
23,5	42,5	1	203	397	203	10	21	1	188	293	188	83	57
		2	340	340	66	66		2	263	263	114	114	
28,0	42,5	1	203	420	203	0	23	1	192	345	192	38	62
		2	355	355	58	58		2	300	300	83	83	

3.3.1.3 **Centerballasts and corner loads according to DIN 15019**

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



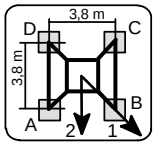


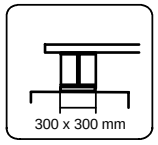
KRE 138 **Corner distance 3,8 m x 3,8 m** **jib 42 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
10,0	37,5	1	191	342	191	40	18	1	145	275	145	16	38
		2	298	298	85	85		2	237	237	54	54	
14,5	37,5	1	194	356	194	33	19	1	149	288	149	10	42
		2	309	309	80	80		2	247	247	50	50	
19,0	37,5	1	198	372	198	23	20	1	152	302	152	2	53
		2	321	321	74	74		2	258	258	46	46	
23,5	37,5	1	201	390	201	12	22	1	148	324	148	0	57
		2	334	334	68	68		2	270	270	41	41	
28,0	37,5	1	203	411	203	0	23	1	141	352	141	0	62
		2	349	349	59	59		2	304	304	75	75	

3.3.1.4 **Centerballasts and corner loads according to DIN 15019**

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



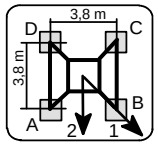


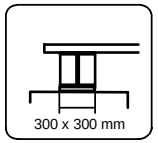
KRE 138 **Corner distance 3,8 m x 3,8 m** **jib 46 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
10,0	35,0	1	189	339	189	40	18	1	112	338	112	0	38
		2	295	295	84	84		2	260	260	21	21	
14,5	35,0	1	193	353	193	32	19	1	109	358	109	0	42
		2	306	306	79	79		2	270	270	17	17	
19,0	35,0	1	196	369	196	23	20	1	104	380	104	0	53
		2	319	319	73	73		2	281	281	13	13	
23,5	37,5	1	206	394	206	17	22	1	110	405	110	0	57
		2	338	338	73	73		2	300	300	13	13	
28,0	40,0	1	215	420	215	10	23	1	115	433	115	0	63
		2	360	360	70	70		2	324	324	76	76	

3.3.1.5 **Centerballasts and corner loads according to DIN 15019**

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



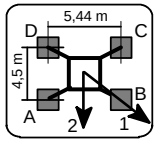


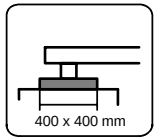
KRE 138 **Corner distance 3,8 m x 3,8 m** **jib 50 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
10,0	42,5	1	215	365	215	64	18	1	110	422	110	0	38
		2	321	321	108	108		2	310	310	11	11	
14,5	45,0	1	224	386	224	63	19	1	119	442	119	0	42
		2	338	338	110	110		2	326	326	14	14	
19,0	47,5	1	234	408	234	59	20	1	126	465	126	0	54
		2	357	357	110	110		2	344	344	15	15	
23,5	50,0	1	243	433	243	54	22	1	133	491	133	0	57
		2	377	377	109	109		2	363	363	15	15	
28,0	52,5	1	253	459	253	46	23	1	137	520	137	0	63
		2	399	399	107	107		2	383	383	15	15	

3.3.2.1 **Centerballasts and corner loads according to DIN 15019**

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



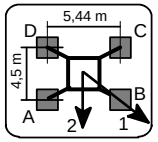


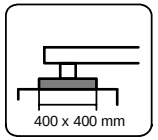
KRE 250 **Corner distance 4,5 m x 5,44 m** **jib 30 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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	30,0	1	195	303	145	36	19	1	136	210	101	27	41
		2	273	273	67	67		2	189	189	48	48	
19,0	30,0	1	200	316	146	30	20	1	140	220	103	24	53
		2	283	283	63	63		2	197	197	46	46	
23,5	30,0	1	205	330	148	23	22	1	145	231	105	19	57
		2	295	295	58	58		2	214	214	109	109	
28,0	30,0	1	211	346	149	14	23	1	184	270	145	59	62
		2	308	308	52	52		2	246	246	83	83	
32,5	40,0	1	242	388	174	28	24	1	221	340	165	46	67
		2	347	347	69	69		2	306	306	80	80	
37,0	50,0	1	273	432	200	40	25	1	257	414	185	28	73
		2	387	387	85	85		2	370	370	72	72	

3.3.2.2 **Centerballasts and corner loads according to DIN 15019**

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



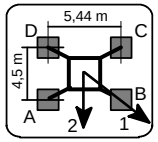


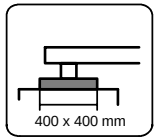
KRE 250 **Corner distance 4,5 m x 5,44 m** **jib 36 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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	27,5	1	189	294	140	35	19	1	129	204	95	21	42
		2	264	264	65	65		2	183	183	42	42	
19,0	27,5	1	194	307	142	29	20	1	134	214	97	17	53
		2	275	275	61	61		2	193	193	112	112	
23,5	27,5	1	199	321	143	21	22	1	171	238	141	74	57
		2	287	287	56	56		2	219	219	93	93	
28,0	27,5	1	205	337	144	12	23	1	182	279	137	40	62
		2	299	299	49	49		2	251	251	67	67	
32,5	35,0	1	229	373	163	20	24	1	212	343	151	20	68
		2	332	332	61	61		2	306	306	57	57	
37,0	45,0	1	261	417	189	33	25	1	249	417	171	2	73
		2	373	373	77	77		2	370	370	50	50	

3.3.2.3 **Centerballasts and corner loads according to DIN 15019**

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



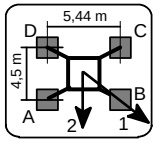


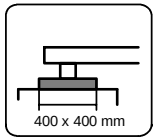
KRE 250 **Corner distance 4,5 m x 5,44 m** **jib 42 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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	22,5	1	186	288	139	37	19	1	137	224	96	9	42
		2	259	259	66	66		2	200	200	33	33	
19,0	22,5	1	191	300	140	31	20	1	142	236	98	3	53
		2	269	269	61	61		2	209	209	30	30	
23,5	22,5	1	196	315	141	23	22	1	144	251	97	0	57
		2	281	281	56	56		2	221	221	86	86	
28,0	22,5	1	202	331	142	13	23	1	181	283	133	31	63
		2	294	294	50	50		2	254	254	60	60	
32,5	30,0	1	226	367	162	21	24	1	211	347	148	11	68
		2	327	327	61	61		2	309	309	49	49	
37,0	42,5	1	264	418	193	39	25	1	252	431	171	0	74
		2	374	374	83	83		2	380	380	47	47	

3.3.2.4 **Centerballasts and corner loads according to DIN 15019**

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



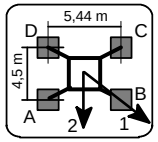


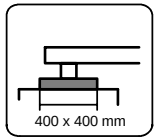
KRE 250 **Corner distance 4,5 m x 5,44 m** **jib 46 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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	22,5	1	190	291	143	42	19	1	123	277	71	0	42
		2	263	263	71	71		2	225	225	11	11	
19,0	22,5	1	195	304	145	36	21	1	122	294	67	0	54
		2	273	273	67	67		2	234	234	8	8	
23,5	25,0	1	207	325	152	34	22	1	134	314	75	0	57
		2	292	292	67	67		2	251	251	10	10	
28,0	27,5	1	219	347	159	31	23	1	144	336	81	0	63
		2	311	311	67	67		2	279	279	69	69	
32,5	30,0	1	231	371	166	26	24	1	217	363	150	5	68
		2	332	332	66	66		2	321	321	46	46	
37,0	42,5	1	269	422	198	44	25	1	252	454	167	0	74
		2	379	379	87	87		2	393	393	43	43	

3.3.2.5 **Centerballasts and corner loads according to DIN 15019**

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



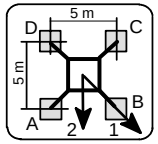


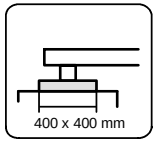
KRE 250 **Corner distance 4,5 m x 5,44 m** **jib 50 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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	222	323	175	73	19	1	149	343	84	0	42
		2	295	295	102	102		2	276	276	12	12	
19,0	35,0	1	233	343	182	73	21	1	161	360	93	0	54
		2	312	312	104	104		2	292	292	15	15	
23,5	35,0	1	238	357	184	65	22	1	159	380	88	0	58
		2	324	324	98	98		2	303	303	10	10	
28,0	37,5	1	250	380	191	61	23	1	169	403	93	0	63
		2	343	343	98	98		2	321	321	11	11	
32,5	42,5	1	269	410	204	62	24	1	190	428	110	0	69
		2	371	371	102	102		2	367	367	75	75	
37,0	45,0	1	282	437	210	55	26	1	268	477	179	0	74
		2	393	393	99	99		2	415	415	47	47	

3.3.3.1 **Centerballasts and corner loads according to DIN 15019**

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



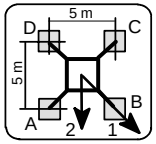


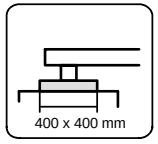
KRE 250 **Corner distance 5 m x 5 m** **jib 30 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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	25,0	1	157	288	157	26	19	1	106	195	106	16	41
		2	250	250	65	65		2	169	169	43	43	
19,0	25,0	1	161	301	161	20	20	1	109	205	109	13	53
		2	260	260	61	61		2	177	177	41	41	
23,5	25,0	1	164	315	164	13	22	1	112	216	112	9	57
		2	271	271	57	57		2	196	196	101	101	
28,0	25,0	1	167	330	167	4	23	1	152	256	152	49	62
		2	282	282	52	52		2	225	225	79	79	
32,5	32,5	1	189	366	189	13	24	1	174	318	174	30	67
		2	314	314	64	64		2	276	276	72	72	
37,0	40,0	1	211	403	211	19	25	1	196	386	196	7	73
		2	347	347	75	75		2	330	330	62	62	
41,5	52,5	1	246	455	246	36	27	1	222	479	222	0	78
		2	394	394	98	98		2	400	400	61	61	

3.3.3.2 **Centerballasts and corner loads according to DIN 15019**

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



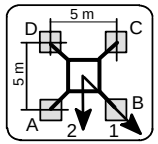


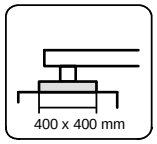
KRE 250 **Corner distance 5 m x 5 m** **jib 36 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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	22,5	1	152	279	152	25	19	1	100	189	100	10	42
		2	242	242	62	62		2	164	164	66	66	
19,0	22,5	1	155	292	155	19	20	1	103	199	103	6	53
		2	252	252	59	59		2	177	177	104	104	
23,5	22,5	1	159	306	159	12	22	1	144	224	144	63	57
		2	263	263	55	55		2	200	200	87	87	
28,0	22,5	1	162	321	162	3	23	1	147	264	147	30	62
		2	274	274	49	49		2	230	230	64	64	
32,5	27,5	1	178	350	178	5	24	1	163	321	163	5	68
		2	300	300	55	55		2	274	274	51	51	
37,0	37,5	1	206	394	206	18	25	1	178	408	178	0	73
		2	339	339	73	73		2	335	335	47	47	
41,5	50,0	1	240	446	240	35	27	1	196	509	196	0	79
		2	386	386	95	95		2	405	405	45	45	

3.3.3.3 **Centerballasts and corner loads according to DIN 15019**

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



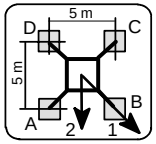


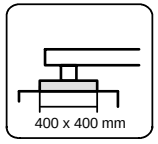
KRE 250 **Corner distance 5 m x 5 m** **jib 42 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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	17,5	1	150	273	150	27	19	1	102	212	102	0	42
		2	237	237	63	63		2	179	179	29	29	
19,0	17,5	1	153	285	153	21	20	1	100	228	100	0	53
		2	247	247	59	59		2	188	188	27	27	
23,5	17,5	1	156	299	156	13	22	1	98	247	98	0	57
		2	258	258	55	55		2	202	202	81	81	
28,0	17,5	1	160	315	160	4	23	1	145	268	145	21	63
		2	270	270	50	50		2	232	232	57	57	
32,5	22,5	1	175	345	175	6	24	1	156	330	156	0	68
		2	295	295	55	55		2	277	277	44	44	
37,0	32,5	1	204	389	204	18	25	1	166	423	166	0	74
		2	335	335	72	72		2	338	338	39	39	
41,5	50,0	1	251	454	251	47	27	1	208	527	208	0	79
		2	395	395	107	107		2	422	422	49	49	

3.3.3.4 **Centerballasts and corner loads according to DIN 15019**

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



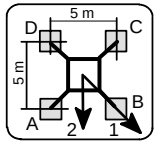


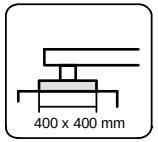
KRE 250 **Corner distance 5 m x 5 m** **jib 46 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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	17,5	1	154	276	154	32	19	1	75	272	75	0	42
		2	241	241	68	68		2	201	201	9	9	
19,0	17,5	1	158	289	158	26	21	1	73	289	73	0	54
		2	251	251	64	64		2	211	211	6	6	
23,5	20,0	1	167	310	167	24	22	1	82	308	82	0	57
		2	268	268	66	66		2	227	227	9	9	
28,0	22,5	1	177	332	177	21	23	1	91	329	91	0	63
		2	286	286	67	67		2	256	256	67	67	
32,5	25,0	1	186	355	186	17	24	1	98	353	98	0	68
		2	306	306	66	66		2	295	295	47	47	
37,0	35,0	1	214	400	214	29	25	1	176	445	176	0	74
		2	345	345	83	83		2	357	357	42	42	
41,5	50,0	1	255	459	255	51	27	1	205	550	205	0	79
		2	399	399	111	111		2	435	435	46	46	

3.3.3.5 **Centerballasts and corner loads according to DIN 15019**

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



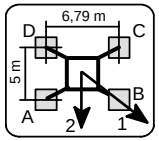


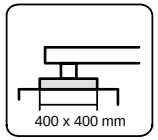
KRE 250 **Corner distance 5 m x 5 m** **jib 50 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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	27,5	1	186	309	186	63	19	1	95	336	95	0	42
		2	273	273	99	99		2	250	250	13	13	
19,0	27,5	1	189	321	189	57	21	1	93	353	93	0	54
		2	283	283	95	95		2	260	260	10	10	
23,5	30,0	1	199	342	199	55	22	1	102	373	102	0	58
		2	300	300	97	97		2	276	276	12	12	
28,0	32,5	1	208	364	208	52	23	1	110	395	110	0	63
		2	319	319	98	98		2	294	294	92	92	
32,5	35,0	1	218	388	218	47	24	1	117	420	117	0	69
		2	338	338	97	97		2	334	334	71	71	
37,0	37,5	1	227	414	227	40	26	1	190	468	190	0	74
		2	360	360	95	95		2	377	377	47	47	
41,5	52,5	1	268	474	268	62	27	1	218	575	218	0	79
		2	414	414	122	122		2	456	456	50	50	

3.3.4.1 **Centerballasts and corner loads according to DIN 15019**

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



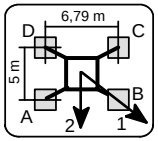


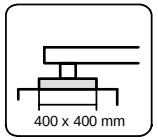
KRE 260.1 **Corner distance 5 m x 6,79 m** **jib 30 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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	20,0	1	187	269	119	37	21	1	125	181	78	22	45
		2	246	246	60	60		2	165	165	38	38	
19,0	20,0	1	193	280	120	33	22	1	130	190	80	20	57
		2	256	256	57	57		2	173	173	36	36	
23,5	20,0	1	199	292	120	27	23	1	163	205	127	84	61
		2	266	266	53	53		2	193	193	96	96	
28,0	20,0	1	205	306	120	20	25	1	175	240	120	55	66
		2	278	278	48	48		2	222	222	73	73	
32,5	27,5	1	231	340	139	30	26	1	208	298	132	42	71
		2	309	309	60	60		2	273	273	67	67	
37,0	37,5	1	263	381	163	45	27	1	248	365	148	31	77
		2	348	348	78	78		2	333	333	63	63	
41,5	47,5	1	296	424	187	59	28	1	289	437	164	16	82
		2	388	388	94	94		2	396	396	57	57	
46,0	60,0	1	335	475	217	76	30	1	338	520	184	2	88
		2	436	436	115	115		2	469	469	52	52	

3.3.4.2 **Centerballasts and corner loads according to DIN 15019**

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



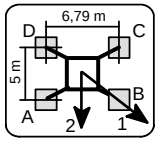


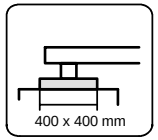
KRE 260.1 **Corner distance 5 m x 6,79 m** **jib 36 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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	17,5	1	181	260	114	35	21	1	119	175	72	16	46
		2	238	238	57	57		2	160	160	61	61	
19,0	17,5	1	187	271	115	31	22	1	124	184	73	13	57
		2	248	248	54	54		2	174	174	98	98	
23,5	17,5	1	193	284	116	25	24	1	161	211	118	67	61
		2	258	258	50	50		2	197	197	81	81	
28,0	17,5	1	199	297	116	18	25	1	173	247	112	38	66
		2	270	270	45	45		2	226	226	59	59	
32,5	25,0	1	224	331	135	28	26	1	206	305	123	24	72
		2	301	301	58	58		2	277	277	52	52	
37,0	35,0	1	257	372	159	43	27	1	246	373	139	13	77
		2	340	340	75	75		2	338	338	48	48	
41,5	47,5	1	296	422	189	63	28	1	294	451	161	4	83
		2	387	387	98	98		2	407	407	47	47	
46,0	65,0	1	348	485	231	93	30	1	355	547	193	2	88
		2	447	447	131	131		2	494	494	55	55	

3.3.4.3 **Centerballasts and corner loads according to DIN 15019**

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



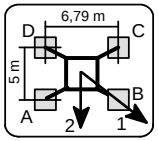


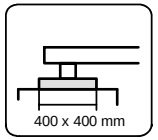
KRE 260.1 **Corner distance 5 m x 6,79 m** **jib 42 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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	12,5	1	178	254	113	37	21	1	127	193	72	6	46
		2	233	233	58	58		2	175	175	24	24	
19,0	12,5	1	183	265	114	32	22	1	133	204	73	2	57
		2	243	243	55	55		2	184	184	22	22	
23,5	12,5	1	189	278	114	26	24	1	136	218	71	0	61
		2	253	253	50	50		2	199	199	75	75	
28,0	12,5	1	196	292	115	19	25	1	173	250	108	30	67
		2	265	265	45	45		2	228	228	52	52	
32,5	20,0	1	221	326	133	29	26	1	205	308	119	16	72
		2	297	297	58	58		2	280	280	45	45	
37,0	30,0	1	254	367	157	43	27	1	246	377	135	4	78
		2	336	336	75	75		2	341	341	40	40	
41,5	45,0	1	299	424	194	69	29	1	300	462	163	0	83
		2	389	389	103	103		2	417	417	45	45	
46,0	65,0	1	357	494	242	105	30	1	368	565	201	3	88
		2	456	456	143	143		2	511	511	58	58	

3.3.4.4 **Centerballasts and corner loads according to DIN 15019**

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



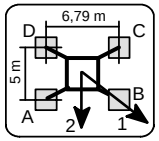


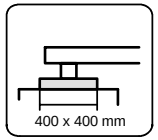
KRE 260.1 **Corner distance 5 m x 6,79 m** **jib 46 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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	15,0	1	188	264	124	48	21	1	130	240	58	0	46
		2	243	243	69	69		2	204	204	10	10	
19,0	15,0	1	194	275	125	43	22	1	131	255	56	0	58
		2	253	253	66	66		2	213	213	8	8	
23,5	17,5	1	206	294	132	43	24	1	144	271	64	0	61
		2	270	270	68	68		2	229	229	11	11	
28,0	20,0	1	219	315	138	42	25	1	157	290	71	0	67
		2	288	288	69	69		2	259	259	68	68	
32,5	20,0	1	226	330	138	34	26	1	213	322	121	12	72
		2	301	301	62	62		2	292	292	42	42	
37,0	32,5	1	264	378	168	54	27	1	259	397	143	5	78
		2	347	347	86	86		2	359	359	43	43	
41,5	47,5	1	310	434	204	80	29	1	314	483	170	1	83
		2	400	400	114	114		2	436	436	48	48	
46,0	65,0	1	362	499	246	109	30	1	373	584	200	0	89
		2	461	461	147	147		2	524	524	54	54	

3.3.4.5 **Centerballasts and corner loads according to DIN 15019**

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



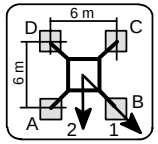


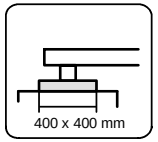
KRE 260.1 **Corner distance 5 m x 6,79 m** **jib 50 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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	22,5	1	214	290	149	73	21	1	150	296	62	0	46
		2	269	269	94	94		2	246	246	8	8	
19,0	25,0	1	226	308	156	74	22	1	164	311	71	0	58
		2	285	285	97	97		2	262	262	11	11	
23,5	27,5	1	238	327	163	74	24	1	177	328	79	0	62
		2	302	302	99	99		2	278	278	14	14	
28,0	27,5	1	244	341	163	67	25	1	177	347	74	0	67
		2	314	314	93	93		2	291	291	86	86	
32,5	30,0	1	258	363	169	64	26	1	188	369	79	0	73
		2	333	333	93	93		2	330	330	66	66	
37,0	32,5	1	271	386	174	59	27	1	269	413	147	2	78
		2	354	354	91	91		2	373	373	42	42	
41,5	47,5	1	317	443	210	84	29	1	320	504	171	0	83
		2	408	408	119	119		2	451	451	46	46	
46,0	67,5	1	375	514	258	119	30	1	390	607	210	0	89
		2	476	476	158	158		2	546	546	58	58	

3.3.5.1 **Centerballasts and corner loads according to DIN 15019**

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



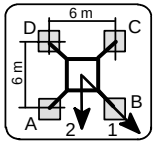


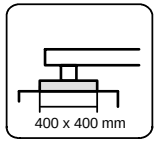
KRE 260.1 **Corner distance 6 m x 6 m** **jib 30 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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	10,0	1	128	238	128	18	21	1	77	152	77	1	45
		2	206	206	50	50		2	130	130	23	23	
19,0	10,0	1	131	249	131	14	22	1	79	162	79	0	57
		2	214	214	48	48		2	140	140	92	92	
23,5	10,0	1	135	260	135	9	23	1	120	177	120	62	61
		2	224	224	45	45		2	160	160	79	79	
28,0	10,0	1	138	274	138	2	25	1	123	211	123	35	66
		2	234	234	42	42		2	185	185	61	61	
32,5	17,5	1	160	307	160	13	26	1	145	266	145	23	71
		2	264	264	56	56		2	231	231	59	59	
37,0	25,0	1	182	341	182	23	27	1	167	326	167	8	77
		2	294	294	69	69		2	279	279	55	55	
41,5	32,5	1	204	377	204	30	28	1	178	400	178	0	82
		2	326	326	81	81		2	330	330	47	47	
46,0	42,5	1	232	421	232	43	30	1	189	491	189	0	88
		2	366	366	98	98		2	391	391	43	43	
50,5	60,0	1	279	486	279	72	31	1	232	592	232	0	93
		2	426	426	133	133		2	474	474	55	55	

3.3.5.2 **Centerballasts and corner loads according to DIN 15019**

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



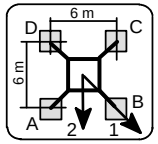


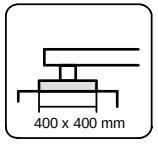
KRE 260.1 **Corner distance 6 m x 6 m** **jib 36 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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	10,0	1	129	235	129	22	21	1	77	152	77	1	46
		2	204	204	54	54		2	133	133	50	50	
19,0	10,0	1	132	246	132	18	22	1	79	162	79	0	57
		2	213	213	52	52		2	149	149	86	86	
23,5	10,0	1	135	258	135	13	24	1	120	189	120	52	61
		2	222	222	49	49		2	169	169	72	72	
28,0	10,0	1	139	271	139	6	25	1	124	223	124	25	66
		2	232	232	45	45		2	194	194	54	54	
32,5	15,0	1	154	298	154	11	26	1	139	272	139	7	72
		2	256	256	53	53		2	233	233	46	46	
37,0	22,5	1	177	333	177	20	27	1	152	341	152	0	77
		2	287	287	66	66		2	282	282	41	41	
41,5	32,5	1	205	375	205	35	28	1	167	425	167	0	83
		2	325	325	84	84		2	340	340	40	40	
46,0	47,5	1	246	432	246	60	30	1	203	517	203	0	88
		2	377	377	114	114		2	413	413	48	48	
50,5	62,5	1	286	490	286	82	31	1	233	619	233	0	93
		2	431	431	142	142		2	490	490	52	52	

3.3.5.3 **Centerballasts and corner loads according to DIN 15019**

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



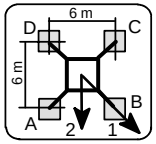


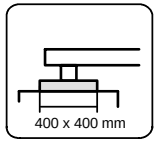
KRE 260.1 **Corner distance 6 m x 6 m** **jib 42 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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	5,0	1	127	230	127	24	21	1	73	178	73	0	46
		2	199	199	54	54		2	144	144	18	18	
19,0	5,0	1	130	241	130	19	22	1	73	191	73	0	57
		2	208	208	52	52		2	152	152	16	16	
23,5	5,0	1	133	253	133	14	24	1	71	206	71	0	61
		2	218	218	49	49		2	170	170	66	66	
28,0	5,0	1	136	266	136	7	25	1	121	225	121	17	67
		2	228	228	45	45		2	195	195	48	48	
32,5	10,0	1	152	293	152	11	26	1	136	277	136	0	72
		2	252	252	53	53		2	235	235	39	39	
37,0	17,5	1	174	328	174	20	27	1	142	354	142	0	78
		2	283	283	65	65		2	284	284	34	34	
41,5	30,0	1	209	377	209	40	29	1	168	439	168	0	83
		2	328	328	90	90		2	349	349	39	39	
46,0	45,0	1	249	434	249	65	30	1	202	533	202	0	88
		2	380	380	119	119		2	423	423	46	46	
50,5	62,5	1	297	500	297	93	31	1	244	639	244	0	94
		2	440	440	153	153		2	507	507	56	56	

3.3.5.4 **Centerballasts and corner loads according to DIN 15019**

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



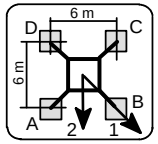


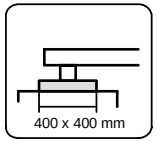
KRE 260.1 **Corner distance 6 m x 6 m** **jib 46 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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	7,5	1	137	240	137	35	21	1	63	228	63	0	46
		2	210	210	65	65		2	169	169	8	8	
19,0	7,5	1	141	251	141	30	22	1	62	242	62	0	58
		2	218	218	63	63		2	177	177	6	6	
23,5	10,0	1	150	269	150	31	24	1	74	257	74	0	61
		2	234	234	66	66		2	193	193	78	78	
28,0	10,0	1	153	283	153	24	25	1	71	275	71	0	67
		2	245	245	62	62		2	218	218	59	59	
32,5	12,5	1	163	304	163	22	26	1	148	295	148	1	72
		2	262	262	64	64		2	252	252	44	44	
37,0	17,5	1	179	332	179	25	27	1	142	372	142	0	78
		2	287	287	70	70		2	295	295	32	32	
41,5	32,5	1	219	388	219	51	29	1	180	458	180	0	83
		2	339	339	100	100		2	366	366	43	43	
46,0	47,5	1	260	445	260	75	30	1	214	554	214	0	89
		2	391	391	129	129		2	441	441	49	49	
50,5	62,5	1	301	505	301	97	31	1	242	661	242	0	94
		2	445	445	157	157		2	520	520	52	52	

3.3.5.5 **Centerballasts and corner loads according to DIN 15019**

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



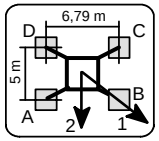


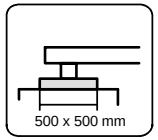
KRE 260.1 **Corner distance 6 m x 6 m** **jib 50 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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	15,0	1	163	266	163	60	21	1	76	281	76	0	46
		2	235	235	90	90		2	208	208	9	9	
19,0	15,0	1	166	277	166	55	22	1	76	295	76	0	58
		2	244	244	88	88		2	216	216	7	7	
23,5	17,5	1	175	295	175	56	24	1	87	311	87	0	62
		2	260	260	91	91		2	231	231	11	11	
28,0	17,5	1	179	309	179	49	25	1	84	330	84	0	67
		2	271	271	87	87		2	249	249	78	78	
32,5	20,0	1	188	330	188	46	26	1	93	350	93	0	73
		2	288	288	88	88		2	283	283	63	63	
37,0	22,5	1	198	353	198	43	27	1	170	390	170	0	78
		2	307	307	88	88		2	321	321	45	45	
41,5	32,5	1	226	396	226	56	29	1	183	478	183	0	83
		2	346	346	106	106		2	380	380	42	42	
46,0	47,5	1	267	454	267	79	30	1	216	576	216	0	89
		2	399	399	134	134		2	455	455	48	48	
50,5	65,0	1	314	521	314	107	31	1	255	685	255	0	94
		2	460	460	167	167		2	541	541	56	56	

3.3.6.1 **Centerballasts and corner loads according to DIN 15019**

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



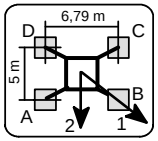


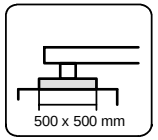
KRE 260.2 **Corner distance 5 m x 6,79 m** **jib 30 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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	17,5	1	189	270	120	39	21	1	126	182	79	23	45
		2	247	247	61	61		2	167	167	39	39	
19,0	17,5	1	194	281	121	34	22	1	131	191	81	21	56
		2	257	257	58	58		2	175	175	37	37	
23,5	17,5	1	200	293	121	28	23	1	164	206	128	85	60
		2	268	268	54	54		2	194	194	97	97	
28,0	17,5	1	206	307	122	21	25	1	176	241	122	57	66
		2	279	279	49	49		2	223	223	75	75	
32,5	25,0	1	232	341	140	32	26	1	209	299	133	44	71
		2	310	310	62	62		2	274	274	68	68	
37,0	35,0	1	264	382	165	47	27	1	249	366	150	33	77
		2	349	349	79	79		2	334	334	65	65	
41,5	45,0	1	297	425	189	60	28	1	290	438	165	18	82
		2	389	389	96	96		2	397	397	59	59	
46,0	57,5	1	337	476	220	80	30	1	340	521	187	5	88
		2	438	438	119	119		2	471	471	56	56	
50,5	75,0	1	391	541	263	112	31	1	404	622	220	2	95
		2	500	500	154	154		2	562	562	62	62	
55,0	95,0	1	451	615	312	148	33	1	474	734	256	0	100
		2	569	569	193	193		2	662	662	71	71	
59,5	117,5	1	517	694	367	190	34	1	553	857	299	0	107
		2	645	645	239	239		2	772	772	82	82	

3.3.6.2 **Centerballasts and corner loads according to DIN 15019**

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



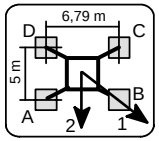


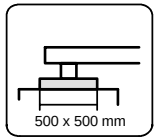
KRE 260.2 **Corner distance 5 m x 6,79 m** **jib 36 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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	15,0	1	182	261	116	37	21	1	120	176	73	17	45
		2	239	239	59	59		2	162	162	62	62	
19,0	15,0	1	188	272	117	32	22	1	125	185	74	14	57
		2	249	249	55	55		2	175	175	100	100	
23,5	15,0	1	194	285	117	26	24	1	162	212	119	69	61
		2	259	259	51	51		2	198	198	83	83	
28,0	15,0	1	200	298	117	19	25	1	175	248	113	40	66
		2	271	271	46	46		2	227	227	60	60	
32,5	22,5	1	226	332	136	30	26	1	207	305	124	26	72
		2	302	302	59	59		2	278	278	53	53	
37,0	30,0	1	252	367	154	39	27	1	241	367	135	9	77
		2	335	335	71	71		2	332	332	44	44	
41,5	45,0	1	297	423	190	65	28	1	295	451	162	6	82
		2	388	388	99	99		2	408	408	49	49	
46,0	60,0	1	343	480	228	91	30	1	350	542	189	0	88
		2	442	442	129	129		2	489	489	52	52	
50,5	80,0	1	403	551	278	129	32	1	422	649	229	1	95
		2	510	510	170	170		2	586	586	64	64	
55,0	100,0	1	463	625	326	164	33	1	491	763	264	0	101
		2	580	580	209	209		2	687	687	72	72	
59,5	122,5	1	529	704	382	206	34	1	569	886	306	0	107
		2	656	656	255	255		2	797	797	84	84	

3.3.6.3 **Centerballasts and corner loads according to DIN 15019**

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



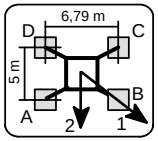


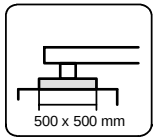
KRE 260.2 **Corner distance 5 m x 6,79 m** **jib 42 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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	10,0	1	179	255	114	38	21	1	129	194	73	7	46
		2	234	234	59	59		2	176	176	25	25	
19,0	10,0	1	184	266	115	33	22	1	134	205	74	3	57
		2	244	244	56	56		2	185	185	23	23	
23,5	10,0	1	190	279	116	27	24	1	138	217	74	0	61
		2	254	254	52	52		2	200	200	76	76	
28,0	10,0	1	197	293	116	20	25	1	174	251	109	32	67
		2	266	266	47	47		2	229	229	53	53	
32,5	17,5	1	222	327	134	30	26	1	207	309	120	18	72
		2	298	298	59	59		2	281	281	46	46	
37,0	27,5	1	255	368	159	45	27	1	247	377	137	6	77
		2	337	337	76	76		2	341	341	42	42	
41,5	42,5	1	300	424	195	71	29	1	301	463	164	2	83
		2	390	390	105	105		2	418	418	47	47	
46,0	60,0	1	353	489	238	103	30	1	364	560	198	1	89
		2	451	451	140	140		2	506	506	55	55	
50,5	80,0	1	413	561	288	141	32	1	434	669	237	2	95
		2	520	520	181	181		2	604	604	67	67	
55,0	100,0	1	473	635	337	175	33	1	504	785	271	0	101
		2	590	590	220	220		2	706	706	74	74	
59,5	122,5	1	540	715	392	216	34	1	581	911	311	0	108
		2	666	666	265	265		2	817	817	84	84	

3.3.6.4 **Centerballasts and corner loads according to DIN 15019**

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



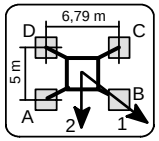


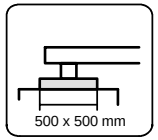
KRE 260.2 **Corner distance 5 m x 6,79 m** **jib 46 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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	12,5	1	188	264	124	48	21	1	130	240	59	0	45
		2	243	243	69	69		2	204	204	11	11	
19,0	12,5	1	194	276	125	44	22	1	132	255	56	0	57
		2	253	253	66	66		2	213	213	8	8	
23,5	15,0	1	206	294	132	44	23	1	145	271	65	0	61
		2	270	270	68	68		2	229	229	11	11	
28,0	15,0	1	213	308	132	36	25	1	145	289	59	0	66
		2	282	282	63	63		2	253	253	62	62	
32,5	17,5	1	226	330	138	34	26	1	213	322	121	12	72
		2	301	301	63	63		2	292	292	42	42	
37,0	30,0	1	264	378	168	55	27	1	260	397	143	6	77
		2	347	347	86	86		2	359	359	44	44	
41,5	45,0	1	310	435	205	80	28	1	314	483	171	1	83
		2	400	400	114	114		2	436	436	48	48	
46,0	62,5	1	362	499	246	109	30	1	373	583	200	0	88
		2	461	461	147	147		2	524	524	54	54	
50,5	85,0	1	428	579	300	149	31	1	452	697	245	1	93
		2	537	537	191	191		2	629	629	68	68	
55,0	105,0	1	488	652	349	185	32	1	521	813	280	0	100
		2	606	606	231	231		2	730	730	76	76	
59,5	127,5	1	554	732	404	226	34	1	598	940	319	0	106
		2	683	683	275	275		2	843	843	86	86	

3.3.6.5 **Centerballasts and corner loads according to DIN 15019**

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



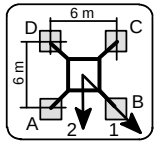


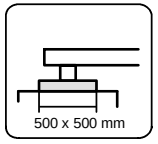
KRE 260.2 **Corner distance 5 m x 6,79 m** **jib 50 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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	20,0	1	215	291	150	74	21	1	152	296	65	0	46
		2	270	270	95	95		2	248	248	9	9	
19,0	22,5	1	227	309	158	76	22	1	166	311	74	0	58
		2	286	286	98	98		2	263	263	13	13	
23,5	22,5	1	233	321	158	69	24	1	167	328	70	0	62
		2	297	297	94	94		2	273	273	9	9	
28,0	25,0	1	246	342	164	68	25	1	179	347	76	0	67
		2	315	315	95	95		2	292	292	88	88	
32,5	27,5	1	259	364	170	65	26	1	191	368	82	0	72
		2	335	335	94	94		2	331	331	68	68	
37,0	30,0	1	272	387	176	61	27	1	270	414	148	4	78
		2	355	355	93	93		2	374	374	44	44	
41,5	45,0	1	318	444	212	86	29	1	323	502	174	0	83
		2	409	409	121	121		2	452	452	48	48	
46,0	62,5	1	371	509	255	117	30	1	384	603	205	0	89
		2	471	471	155	155		2	541	541	55	55	
50,5	82,5	1	431	581	305	155	32	1	455	713	243	0	96
		2	540	540	196	196		2	640	640	66	66	
55,0	105,0	1	498	662	359	194	33	1	533	836	285	0	102
		2	617	617	240	240		2	750	750	77	77	
59,5	127,5	1	565	743	414	235	35	1	609	965	322	0	108
		2	694	694	284	284		2	863	863	86	86	

3.3.7.1 **Centerballasts and corner loads according to DIN 15019**

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



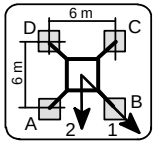


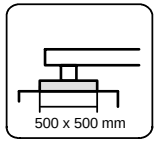
KRE 260.2 **Corner distance 6 m x 6 m** **jib 30 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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	7,5	1	129	239	129	20	21	1	78	153	78	3	45
		2	207	207	52	52		2	131	131	25	25	
19,0	7,5	1	133	250	133	15	22	1	81	162	81	0	56
		2	215	215	50	50		2	141	141	94	94	
23,5	7,5	1	136	262	136	10	23	1	121	178	121	63	60
		2	225	225	47	47		2	161	161	80	80	
28,0	7,5	1	139	275	139	3	25	1	124	212	124	37	66
		2	235	235	43	43		2	186	186	62	62	
32,5	15,0	1	161	308	161	14	26	1	146	267	146	25	71
		2	265	265	57	57		2	232	232	60	60	
37,0	22,5	1	183	342	183	24	27	1	168	326	168	10	77
		2	296	296	71	71		2	280	280	56	56	
41,5	30,0	1	205	378	205	32	28	1	181	399	181	0	82
		2	327	327	83	83		2	331	331	49	49	
46,0	40,0	1	235	422	235	47	30	1	194	489	194	0	88
		2	367	367	102	102		2	393	393	47	47	
50,5	55,0	1	277	480	277	73	31	1	230	589	230	0	95
		2	421	421	133	133		2	470	470	54	54	
55,0	72,5	1	325	547	325	103	33	1	272	697	272	0	100
		2	482	482	168	168		2	556	556	64	64	
59,5	90,0	1	373	613	373	134	34	1	310	813	310	0	107
		2	543	543	204	204		2	646	646	71	71	
64,0	107,5	1	424	682	424	166	36	1	349	939	349	0	115
		2	606	606	242	242		2	741	741	77	77	
68,5	130,0	1	487	765	487	210	38	1	406	1077	406	0	123
		2	684	684	291	291		2	853	853	91	91	

3.3.7.2 **Centerballasts and corner loads according to DIN 15019**

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



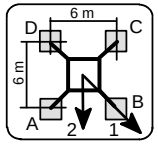


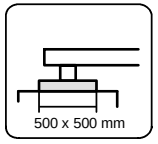
KRE 260.2 **Corner distance 6 m x 6 m** **jib 36 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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	5,0	1	124	230	124	18	21	1	68	151	68	0	45
		2	199	199	49	49		2	128	128	45	45	
19,0	5,0	1	127	241	127	13	22	1	69	162	69	0	57
		2	208	208	47	47		2	143	143	81	81	
23,5	5,0	1	130	253	130	8	24	1	115	184	115	47	61
		2	217	217	44	44		2	164	164	67	67	
28,0	5,0	1	134	266	134	1	25	1	119	217	119	20	66
		2	227	227	40	40		2	188	188	49	49	
32,5	10,0	1	150	293	150	6	26	1	135	267	135	2	72
		2	251	251	48	48		2	228	228	41	41	
37,0	17,5	1	172	327	172	16	27	1	143	340	143	0	77
		2	282	282	61	61		2	277	277	36	36	
41,5	30,0	1	206	376	206	36	28	1	171	423	171	0	82
		2	326	326	86	86		2	341	341	41	41	
46,0	42,5	1	242	427	242	57	30	1	196	515	196	0	88
		2	372	372	111	111		2	409	409	45	45	
50,5	57,5	1	284	484	284	84	32	1	231	615	231	0	95
		2	426	426	142	142		2	486	486	52	52	
55,0	75,0	1	332	551	332	114	33	1	272	724	272	0	101
		2	487	487	178	178		2	573	573	61	61	
59,5	92,5	1	380	617	380	144	34	1	310	841	310	0	107
		2	547	547	213	213		2	663	663	68	68	
64,0	112,5	1	438	692	438	183	36	1	361	968	361	0	115
		2	618	618	257	257		2	765	765	80	80	
68,5	132,5	1	495	769	495	220	38	1	405	1108	405	0	123
		2	689	689	300	300		2	871	871	88	88	

3.3.7.3 **Centerballasts and corner loads according to DIN 15019**

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



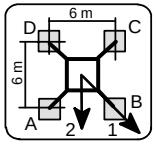


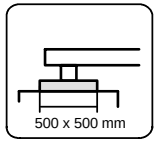
KRE 260.2 **Corner distance 6 m x 6 m** **jib 42 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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	0,0	1	122	224	122	19	21	1	63	178	63	0	46
		2	194	194	49	49		2	139	139	13	13	
19,0	0,0	1	125	235	125	14	22	1	63	191	63	0	57
		2	203	203	47	47		2	147	147	12	12	
23,5	0,0	1	128	248	128	9	24	1	62	206	62	0	61
		2	213	213	44	44		2	165	165	62	62	
28,0	2,5	1	138	267	138	8	25	1	123	226	123	19	67
		2	229	229	46	46		2	196	196	49	49	
32,5	7,5	1	153	294	153	13	26	1	138	276	138	0	72
		2	253	253	54	54		2	236	236	41	41	
37,0	15,0	1	175	329	175	22	27	1	145	352	145	0	77
		2	284	284	67	67		2	285	285	36	36	
41,5	27,5	1	210	378	210	42	29	1	171	437	171	0	83
		2	329	329	91	91		2	350	350	40	40	
46,0	42,5	1	252	435	252	69	30	1	208	531	208	0	89
		2	382	382	122	122		2	425	425	49	49	
50,5	57,5	1	294	494	294	95	32	1	242	633	242	0	95
		2	435	435	153	153		2	503	503	56	56	
55,0	75,0	1	342	560	342	124	33	1	282	745	282	0	101
		2	497	497	188	188		2	591	591	64	64	
59,5	92,5	1	391	627	391	154	34	1	319	864	319	0	108
		2	558	558	223	223		2	681	681	70	70	
64,0	112,5	1	448	703	448	192	36	1	369	993	369	0	116
		2	628	628	267	267		2	784	784	82	82	
68,5	132,5	1	505	781	505	229	38	1	412	1136	412	0	124
		2	700	700	310	310		2	891	891	88	88	

3.3.7.4 **Centerballasts and corner loads according to DIN 15019**

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



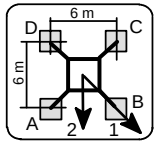


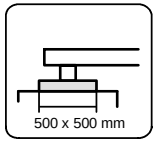
KRE 260.2 **Corner distance 6 m x 6 m** **jib 46 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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	5,0	1	138	240	138	35	21	1	63	228	63	0	45
		2	210	210	65	65		2	169	169	8	8	
19,0	5,0	1	141	251	141	31	22	1	63	242	63	0	57
		2	219	219	63	63		2	177	177	6	6	
23,5	7,5	1	150	269	150	31	23	1	74	257	74	0	61
		2	234	234	66	66		2	193	193	78	78	
28,0	7,5	1	154	283	154	25	25	1	72	275	72	0	66
		2	245	245	62	62		2	218	218	59	59	
32,5	10,0	1	163	304	163	23	26	1	148	295	148	1	72
		2	263	263	64	64		2	252	252	44	44	
37,0	15,0	1	179	332	179	25	27	1	142	372	142	0	77
		2	288	288	70	70		2	295	295	33	33	
41,5	30,0	1	220	388	220	51	28	1	181	458	181	0	83
		2	339	339	101	101		2	367	367	43	43	
46,0	45,0	1	260	446	260	75	30	1	214	554	214	0	88
		2	391	391	130	130		2	441	441	50	50	
50,5	60,0	1	301	505	301	97	31	1	242	661	242	0	93
		2	446	446	157	157		2	520	520	53	53	
55,0	77,5	1	350	571	350	128	32	1	284	771	284	0	100
		2	506	506	193	193		2	607	607	62	62	
59,5	97,5	1	404	644	404	164	34	1	332	892	332	0	106
		2	574	574	234	234		2	704	704	74	74	
64,0	115,0	1	458	715	458	202	36	1	378	1018	378	0	116
		2	640	640	277	277		2	804	804	83	83	
68,5	135,0	1	516	793	516	238	38	1	420	1162	420	0	124
		2	712	712	319	319		2	911	911	90	90	

3.3.7.5 **Centerballasts and corner loads according to DIN 15019**

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



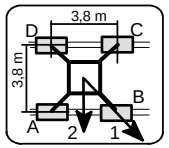


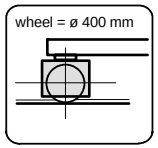
KRE 260.2 **Corner distance 6 m x 6 m** **jib 50 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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	12,5	1	164	267	164	61	21	1	79	281	79	0	46
		2	237	237	91	91		2	209	209	10	10	
19,0	12,5	1	167	278	167	56	22	1	78	295	78	0	58
		2	245	245	89	89		2	217	217	8	8	
23,5	15,0	1	177	296	177	57	24	1	89	311	89	0	62
		2	261	261	92	92		2	232	232	12	12	
28,0	15,0	1	180	310	180	50	25	1	87	329	87	0	67
		2	272	272	88	88		2	250	250	80	80	
32,5	17,5	1	189	331	189	48	26	1	96	349	96	0	72
		2	290	290	89	89		2	284	284	65	65	
37,0	20,0	1	199	354	199	44	27	1	174	389	174	0	78
		2	308	308	90	90		2	321	321	47	47	
41,5	30,0	1	227	397	227	57	29	1	187	476	187	0	83
		2	347	347	107	107		2	381	381	44	44	
46,0	42,5	1	263	449	263	77	30	1	210	572	210	0	89
		2	394	394	132	132		2	450	450	46	46	
50,5	60,0	1	312	514	312	109	32	1	255	677	255	0	96
		2	455	455	168	168		2	536	536	57	57	
55,0	77,5	1	360	582	360	137	33	1	293	793	293	0	102
		2	517	517	202	202		2	625	625	64	64	
59,5	97,5	1	414	655	414	173	35	1	340	916	340	0	108
		2	585	585	244	244		2	723	723	75	75	
64,0	115,0	1	465	726	465	204	36	1	376	1048	376	0	116
		2	649	649	281	281		2	820	820	80	80	
68,5	137,5	1	528	810	528	246	38	1	430	1194	430	0	124
		2	728	728	329	329		2	935	935	91	91	

3.3.1.1 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



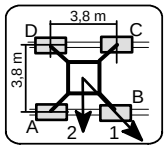


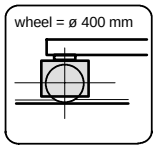
UW 138 **Corner distance 3,80 m x 3,80 m** **jib 30 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
10,5	47,5	1	205	368	205	42	18	1	154	265	154	43	37
		2	320	320	90	90		2	232	232	75	75	

3.4.1.2 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



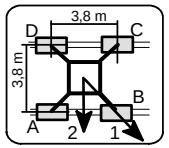


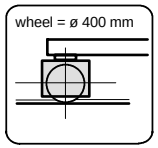
UW 138 **Corner distance 3,80 m x 3,80 m** **jib 36 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
10,5	42,5	1	193	351	193	36	18	1	141	252	141	30	37
		2	305	305	82	82		2	220	220	63	63	
15,0	42,5	1	197	365	197	28	19	1	144	263	144	25	41
		2	316	316	78	78		2	229	229	60	60	

3.4.1.3 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



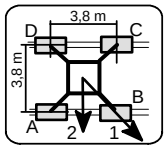


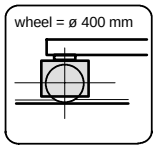
UW 138 **Corner distance 3,80 m x 3,80 m** **jib 42 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
10,5	37,5	1	191	343	191	39	18	1	145	276	145	15	38
		2	299	299	84	84		2	238	238	53	53	
15,0	37,5	1	194	358	194	31	19	1	149	289	149	8	42
		2	310	310	79	79		2	248	248	49	49	
19,5	37,5	1	198	374	198	22	20	1	152	303	152	1	53
		2	322	322	73	73		2	259	259	45	45	

3.4.1.4 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



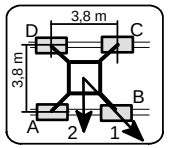


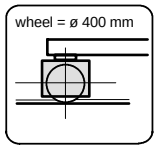
UW 138 **Corner distance 3,80 m x 3,80 m** **jib 46 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
10,5	35,0	1	189	340	189	38	18	1	111	340	111	0	38
		2	296	296	83	83		2	261	261	20	20	
15,0	35,0	1	193	355	193	30	19	1	107	360	107	0	42
		2	307	307	78	78		2	271	271	16	16	
19,5	35,0	1	196	371	196	21	20	1	103	383	103	0	53
		2	320	320	72	72		2	282	282	12	12	

3.4.1.5 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



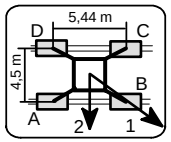


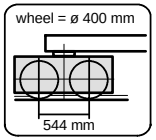
UW 138 **Corner distance 3,80 m x 3,80 m** **jib 50 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
10,5	45,0	1	221	373	221	69	18	1	121	425	121	0	38
		2	328	328	114	114		2	317	317	17	17	

3.4.2.1 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



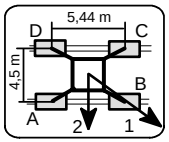


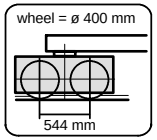
UW 250 **Corner distance 4,5 m x 5,44 m** **jib 30 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	30,0	1	203	312	152	43	19	1	143	218	109	34	41
		2	281	281	74	74		2	197	197	55	55	
19,5	30,0	1	208	325	154	37	20	1	148	229	111	30	53
		2	292	292	70	70		2	206	206	53	53	
24,0	30,0	1	213	339	155	29	22	1	183	246	155	93	58
		2	304	304	64	64		2	228	228	110	110	
28,5	32,5	1	225	361	162	26	23	1	200	293	157	65	63
		2	323	323	64	64		2	266	266	91	91	
33,0	40,0	1	250	398	182	34	24	1	230	357	171	45	69
		2	356	356	76	76		2	321	321	81	81	
37,5	52,5	1	287	448	213	52	25	1	273	438	197	33	74
		2	403	403	98	98		2	391	391	79	79	

3.4.2.2 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



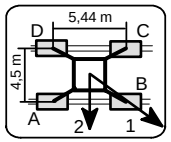


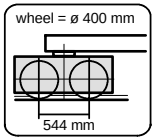
UW 250 **Corner distance 4,5 m x 5,44 m** **jib 36 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	27,5	1	197	303	148	42	19	1	137	212	103	28	42
		2	273	273	72	72		2	191	191	49	49	
19,5	27,5	1	202	316	149	35	21	1	142	223	105	24	53
		2	284	284	67	67		2	203	203	118	118	
24,0	27,5	1	207	330	150	27	22	1	181	253	147	74	58
		2	295	295	62	62		2	233	233	95	95	
28,5	27,5	1	213	346	151	18	23	1	191	295	143	39	64
		2	308	308	56	56		2	265	265	69	69	
33,0	37,5	1	244	388	177	32	24	1	227	365	164	25	69
		2	348	348	73	73		2	326	326	64	64	
37,5	47,5	1	275	433	202	45	26	1	263	442	182	8	75
		2	388	388	89	89		2	391	391	56	56	

3.4.2.3 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



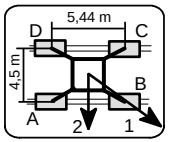


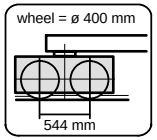
UW 250 **Corner distance 4,5 m x 5,44 m** **jib 42 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	22,5	1	194	296	146	43	19	1	145	233	104	15	42
		2	267	267	72	72		2	208	208	40	40	
19,5	22,5	1	199	310	148	37	21	1	149	245	105	10	53
		2	278	278	68	68		2	218	218	37	37	
24,0	22,5	1	204	324	149	29	22	1	151	262	103	8	59
		2	290	290	63	63		2	235	235	88	88	
28,5	22,5	1	210	340	150	19	23	1	190	299	140	31	64
		2	303	303	56	56		2	268	268	61	61	
33,0	32,5	1	241	383	175	33	24	1	226	370	160	16	70
		2	343	343	73	73		2	329	329	57	57	
37,5	45,0	1	278	434	207	51	26	1	265	458	180	8	75
		2	390	390	95	95		2	401	401	54	54	

3.4.2.4 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



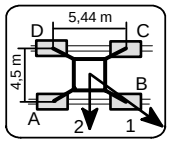


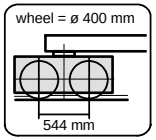
UW 250 **Corner distance 4,5 m x 5,44 m** **jib 46 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	22,5	1	198	300	151	49	19	1	130	287	77	8	42
		2	271	271	78	78		2	233	233	18	18	
19,5	25,0	1	209	320	159	48	21	1	142	304	86	8	54
		2	289	289	79	79		2	249	249	21	21	
24,0	25,0	1	215	334	160	40	22	1	140	324	81	8	59
		2	301	301	74	74		2	260	260	16	16	
28,5	27,5	1	227	357	167	37	23	1	150	346	87	8	64
		2	320	320	74	74		2	293	293	71	71	
33,0	30,0	1	239	381	174	32	24	1	222	383	152	8	70
		2	341	341	72	72		2	336	336	47	47	
37,5	47,5	1	289	445	218	62	26	1	277	480	188	8	75
		2	401	401	106	106		2	420	420	56	56	

3.4.2.5 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



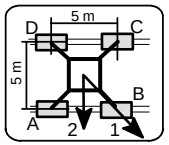


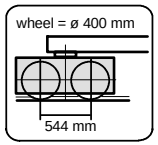
UW 250 **Corner distance 4,5 m x 5,44 m** **jib 50 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	32,5	1	230	332	182	80	19	1	156	353	91	8	42
		2	303	303	109	109		2	285	285	19	19	
19,5	35,0	1	241	352	190	79	21	1	167	370	99	8	54
		2	321	321	110	110		2	301	301	22	22	
24,0	37,5	1	253	373	197	77	22	1	178	390	107	8	59
		2	339	339	111	111		2	318	318	23	23	
28,5	40,0	1	265	396	204	73	23	1	188	413	112	8	65
		2	359	359	110	110		2	339	339	100	100	
33,0	42,5	1	277	420	211	68	24	1	197	439	116	8	70
		2	380	380	108	108		2	382	382	76	76	
37,5	47,5	1	296	453	224	67	26	1	281	503	188	8	76
		2	409	409	111	111		2	436	436	54	54	

3.4.3.1 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



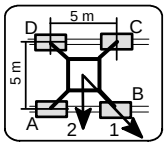


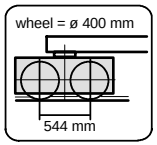
UW 250 **Corner distance 5,0 m x 5,0 m** **jib 30 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	25,0	1	165	297	165	33	19	1	114	204	114	23	41
		2	258	258	72	72		2	178	178	50	50	
19,5	25,0	1	168	310	168	27	20	1	117	214	117	20	53
		2	268	268	68	68		2	186	186	48	48	
24,0	25,0	1	172	324	172	19	22	1	157	232	157	82	58
		2	279	279	64	64		2	210	210	104	104	
28,5	25,0	1	175	339	175	10	23	1	160	272	160	48	63
		2	291	291	59	59		2	239	239	81	81	
33,0	32,5	1	197	375	197	19	24	1	182	335	182	29	69
		2	323	323	71	71		2	290	290	74	74	
37,5	42,5	1	225	419	225	31	25	1	210	409	210	12	74
		2	362	362	88	88		2	351	351	70	70	
42,0	55,0	1	260	471	260	48	27	1	233	506	233	8	80
		2	409	409	110	110		2	421	421	69	69	

3.4.3.2 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



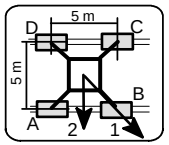


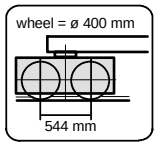
UW 250 **Corner distance 5,0 m x 5,0 m** **jib 36 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	22,5	1	160	288	160	32	19	1	107	198	107	17	42
		2	250	250	69	69		2	173	173	73	73	
19,5	22,5	1	163	301	163	25	21	1	111	208	111	13	53
		2	260	260	66	66		2	187	187	109	109	
24,0	22,5	1	166	315	166	18	22	1	151	239	151	63	58
		2	271	271	61	61		2	213	213	89	89	
28,5	22,5	1	170	330	170	9	23	1	155	280	155	29	64
		2	283	283	56	56		2	243	243	66	66	
33,0	30,0	1	192	366	192	17	24	1	177	343	177	10	69
		2	315	315	68	68		2	294	294	59	59	
37,5	40,0	1	220	410	220	30	26	1	189	433	189	8	75
		2	354	354	85	85		2	355	355	54	54	
42,0	55,0	1	261	469	261	53	27	1	220	536	220	8	80
		2	408	408	114	114		2	432	432	59	59	

3.4.3. **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



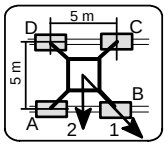


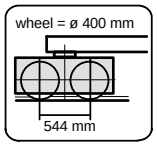
UW 250 **Corner distance 5,0 m x 5,0 m** **jib 42 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	17,5	1	157	282	157	33	19	1	109	221	109	8	42
		2	245	245	70	70		2	187	187	36	36	
19,5	17,5	1	161	294	161	27	21	1	107	238	107	8	53
		2	255	255	66	66		2	196	196	34	34	
24,0	17,5	1	164	309	164	19	22	1	104	257	104	8	59
		2	266	266	62	62		2	215	215	83	83	
28,5	17,5	1	167	325	167	10	23	1	152	284	152	21	64
		2	278	278	56	56		2	245	245	59	59	
33,0	25,0	1	189	361	189	18	24	1	167	355	167	8	70
		2	311	311	68	68		2	297	297	52	52	
37,5	35,0	1	218	405	218	30	26	1	177	449	177	8	75
		2	350	350	85	85		2	359	359	47	47	
42,0	52,5	1	265	470	265	59	27	1	219	554	219	8	81
		2	410	410	119	119		2	443	443	57	57	

3.4.3.4 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



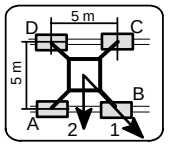


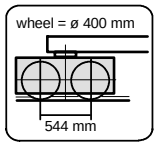
UW 250 **Corner distance 5,0 m x 5,0 m** **jib 46 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	17,5	1	162	285	162	39	19	1	81	282	81	8	42
		2	249	249	75	75		2	210	210	16	16	
19,5	20,0	1	172	305	172	38	21	1	92	299	92	8	54
		2	266	266	77	77		2	225	225	20	20	
24,0	20,0	1	175	319	175	31	22	1	89	318	89	8	59
		2	277	277	73	73		2	235	235	16	16	
28,5	22,5	1	184	341	184	28	23	1	97	339	97	8	64
		2	295	295	73	73		2	269	269	69	69	
33,0	25,0	1	194	365	194	23	24	1	166	376	166	8	70
		2	315	315	73	73		2	309	309	49	49	
37,5	37,5	1	228	416	228	41	26	1	187	471	187	8	75
		2	361	361	96	96		2	377	377	50	50	
42,0	55,0	1	275	481	275	69	27	1	228	577	228	8	81
		2	421	421	130	130		2	462	462	59	59	

3.4.3.5 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



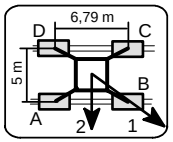


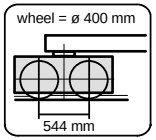
UW 250 **Corner distance 5,0 m x 5,0 m** **jib 50 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	27,5	1	193	317	193	69	19	1	102	346	102	8	42
		2	281	281	106	106		2	259	259	20	20	
19,5	27,5	1	197	331	197	63	21	1	99	363	99	8	54
		2	291	291	102	102		2	268	268	17	17	
24,0	30,0	1	206	351	206	61	22	1	109	383	109	8	59
		2	309	309	104	104		2	285	285	19	19	
28,5	32,5	1	216	374	216	58	23	1	117	405	117	8	65
		2	328	328	104	104		2	308	308	94	94	
33,0	35,0	1	225	398	225	53	24	1	123	430	123	8	70
		2	347	347	103	103		2	348	348	73	73	
37,5	37,5	1	235	424	235	45	26	1	189	494	189	8	76
		2	369	369	101	101		2	392	392	48	48	
42,0	55,0	1	282	490	282	73	27	1	229	602	229	8	81
		2	429	429	134	134		2	477	477	57	57	

3.4.4.1 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



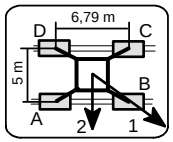


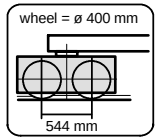
UW 260.1 **Corner distance 5 m x 6,79 m** **jib 30 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	20,0	1	195	277	126	44	21	1	133	189	86	29	45
		2	255	255	67	67		2	174	174	45	45	
19,5	20,0	1	201	289	127	39	22	1	138	199	87	26	56
		2	264	264	64	64		2	182	182	43	43	
24,0	20,0	1	207	301	127	33	23	1	172	220	132	85	62
		2	275	275	59	59		2	207	207	98	98	
28,5	22,5	1	220	321	134	32	25	1	191	262	132	62	67
		2	293	293	60	60		2	242	242	81	81	
33,0	30,0	1	245	355	152	42	26	1	224	319	144	48	72
		2	325	325	73	73		2	293	293	75	75	
37,5	40,0	1	277	397	177	57	27	1	264	387	160	37	78
		2	364	364	90	90		2	353	353	71	71	
42,0	50,0	1	310	440	201	71	28	1	305	459	175	21	83
		2	404	404	107	107		2	417	417	64	64	
46,5	65,0	1	356	498	236	95	30	1	361	549	202	14	89
		2	458	458	134	134		2	497	497	66	66	

3.4.4.2 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



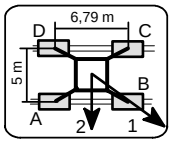


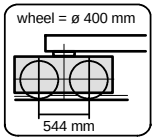
UW 260.1 **Corner distance 5 m x 6,79 m** **jib 36 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	17,5	1	189	269	122	42	21	1	127	183	79	23	45
		2	247	247	64	64		2	169	169	68	68	
19,5	17,5	1	195	280	123	37	22	1	158	193	129	94	56
		2	256	256	61	61		2	184	184	104	104	
24,0	17,5	1	201	293	123	31	23	1	170	226	124	68	62
		2	267	267	57	57		2	210	210	83	83	
28,5	17,5	1	207	306	123	24	25	1	183	262	117	39	67
		2	279	279	52	52		2	240	240	60	60	
33,0	27,5	1	239	347	148	40	26	1	222	326	135	31	73
		2	317	317	70	70		2	297	297	60	60	
37,5	37,5	1	271	388	172	55	27	1	262	394	151	19	78
		2	356	356	88	88		2	358	358	56	56	
42,0	50,0	1	310	438	202	75	29	1	310	473	172	9	84
		2	402	402	110	110		2	428	428	54	54	

3.4.4.3 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



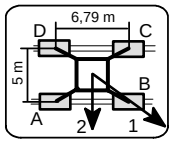


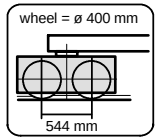
UW 260.1 **Corner distance 5 m x 6,79 m** **jib 42 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	12,5	1	186	263	121	43	21	1	135	202	79	13	45
		2	241	241	65	65		2	183	183	31	31	
19,5	12,5	1	191	274	121	38	22	1	141	212	80	9	57
		2	251	251	61	61		2	193	193	29	29	
24,0	12,5	1	197	287	122	32	24	1	170	229	120	61	62
		2	262	262	57	57		2	212	212	77	77	
28,5	15,0	1	210	307	128	31	25	1	189	271	119	37	68
		2	280	280	58	58		2	248	248	60	60	
33,0	22,5	1	236	341	147	41	26	1	222	330	131	23	73
		2	312	312	70	70		2	300	300	52	52	
37,5	32,5	1	268	383	171	56	27	1	262	399	147	10	79
		2	351	351	88	88		2	361	361	48	48	
42,0	50,0	1	320	446	213	87	29	1	323	491	180	12	84
		2	411	411	122	122		2	444	444	59	59	

3.4.4.4 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



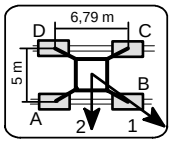


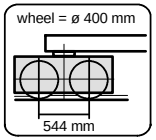
UW 260.1 **Corner distance 5 m x 6,79 m** **jib 46 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	15,0	1	196	273	131	55	21	1	137	250	65	8	45
		2	252	252	76	76		2	212	212	17	17	
19,5	15,0	1	202	284	132	50	22	1	138	264	62	8	57
		2	262	262	73	73		2	221	221	15	15	
24,0	17,5	1	214	303	139	50	24	1	151	281	70	8	62
		2	279	279	75	75		2	238	238	18	18	
28,5	20,0	1	227	324	145	49	25	1	164	300	77	8	68
		2	297	297	75	75		2	272	272	70	70	
33,0	22,5	1	240	346	151	46	26	1	229	343	132	18	73
		2	316	316	75	75		2	312	312	50	50	
37,5	35,0	1	279	394	182	67	27	1	276	419	155	11	79
		2	362	362	98	98		2	379	379	51	51	
42,0	50,0	1	324	450	218	92	29	1	329	507	181	8	84
		2	415	415	127	127		2	457	457	55	55	

3.4.4.5 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



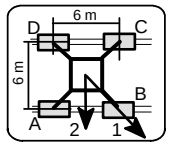


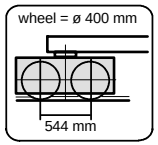
UW 260.1 **Corner distance 5 m x 6,79 m** **jib 50 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	25,0	1	228	305	163	86	21	1	170	306	81	8	46
		2	284	284	107	107		2	261	261	21	21	
19,5	25,0	1	234	317	164	81	22	1	171	321	78	8	57
		2	294	294	104	104		2	271	271	18	18	
24,0	27,5	1	246	336	170	81	24	1	184	338	86	8	63
		2	311	311	105	105		2	287	287	21	21	
28,5	30,0	1	259	356	177	79	25	1	196	357	92	8	68
		2	329	329	106	106		2	311	311	94	94	
33,0	30,0	1	266	372	176	70	26	1	195	379	85	8	74
		2	343	343	99	99		2	344	344	68	68	
37,5	35,0	1	286	402	188	71	27	1	285	435	158	8	79
		2	370	370	104	104		2	394	394	50	50	
42,0	52,5	1	338	465	230	102	29	1	346	529	192	9	84
		2	430	430	138	138		2	478	478	59	59	

3.4.5.1 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



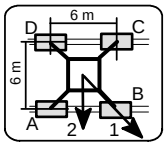


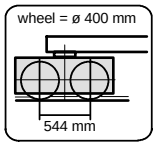
UW 260.1 **Corner distance 6 m x 6 m** **jib 30 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	10,0	1	136	246	136	25	21	1	84	160	84	8	45
		2	214	214	57	57		2	138	138	31	31	
19,5	10,0	1	139	257	139	21	22	1	86	171	86	8	56
		2	223	223	55	55		2	150	150	98	98	
24,0	10,0	1	142	269	142	15	23	1	127	191	127	63	62
		2	232	232	52	52		2	173	173	82	82	
28,5	12,5	1	152	289	152	15	25	1	137	231	137	42	67
		2	249	249	55	55		2	204	204	70	70	
33,0	17,5	1	168	316	168	19	26	1	153	281	153	24	72
		2	272	272	63	63		2	244	244	62	62	
37,5	27,5	1	196	357	196	35	27	1	181	347	181	15	78
		2	310	310	82	82		2	298	298	63	63	
42,0	35,0	1	218	393	218	43	28	1	190	423	190	8	83
		2	342	342	94	94		2	350	350	56	56	
46,5	47,5	1	252	444	252	61	30	1	213	515	213	8	89
		2	388	388	117	117		2	417	417	58	58	
51,0	62,5	1	293	503	293	84	31	1	244	617	244	8	94
		2	441	441	145	145		2	494	494	63	63	

3.4.5.2 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



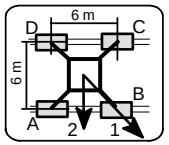


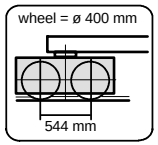
UW 260.1 **Corner distance 6 m x 6 m** **jib 36 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	10,0	1	137	244	137	29	21	1	84	160	84	8	45
		2	213	213	61	61		2	142	142	57	57	
19,5	10,0	1	140	255	140	25	22	1	125	172	125	78	56
		2	221	221	58	58		2	158	158	92	92	
24,0	10,0	1	143	267	143	19	23	1	128	203	128	53	62
		2	231	231	56	56		2	181	181	75	75	
28,5	10,0	1	146	280	146	12	25	1	131	237	131	26	67
		2	241	241	52	52		2	206	206	57	57	
33,0	15,0	1	162	307	162	17	26	1	147	288	147	8	73
		2	265	265	60	60		2	246	246	48	48	
37,5	22,5	1	184	342	184	26	27	1	153	364	153	8	78
		2	296	296	73	73		2	295	295	43	43	
42,0	35,0	1	219	391	219	47	29	1	180	448	180	8	84
		2	340	340	97	97		2	359	359	48	48	
46,5	50,0	1	260	448	260	71	30	1	215	541	215	8	89
		2	393	393	127	127		2	433	433	56	56	
51,0	65,0	1	300	507	300	94	31	1	245	644	245	8	94
		2	446	446	154	154		2	510	510	60	60	

3.4.5.3 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



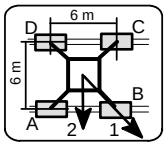


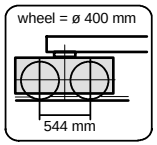
UW 260.1 **Corner distance 6 m x 6 m** **jib 42 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	5,0	1	134	238	134	30	21	1	80	187	80	8	45
		2	208	208	61	61		2	152	152	25	25	
19,5	5,0	1	138	249	138	26	22	1	79	201	79	8	57
		2	217	217	58	58		2	160	160	24	24	
24,0	5,0	1	141	262	141	20	24	1	78	216	78	8	62
		2	226	226	55	55		2	182	182	70	70	
28,5	5,0	1	144	275	144	13	25	1	129	240	129	18	68
		2	237	237	52	52		2	208	208	51	51	
33,0	12,5	1	166	309	166	24	26	1	149	299	149	8	73
		2	267	267	65	65		2	254	254	48	48	
37,5	20,0	1	188	344	188	33	27	1	154	377	154	8	79
		2	298	298	78	78		2	304	304	43	43	
42,0	32,5	1	223	393	223	53	29	1	180	462	180	8	84
		2	343	343	102	102		2	368	368	47	47	
46,5	47,5	1	263	450	263	77	30	1	214	558	214	8	89
		2	396	396	131	131		2	443	443	54	54	
51,0	65,0	1	311	516	311	105	31	1	255	664	255	8	95
		2	456	456	165	165		2	527	527	64	64	

3.4.5.4 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



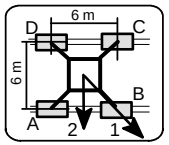


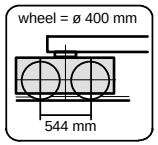
UW 260.1 **Corner distance 6 m x 6 m** **jib 46 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	7,5	1	145	248	145	42	21	1	70	237	70	8	45
		2	218	218	72	72		2	177	177	15	15	
19,5	7,5	1	148	260	148	37	22	1	69	251	69	8	57
		2	227	227	70	70		2	185	185	13	13	
24,0	10,0	1	158	278	158	38	24	1	80	267	80	8	62
		2	243	243	73	73		2	205	205	81	81	
28,5	10,0	1	161	292	161	31	25	1	78	285	78	8	68
		2	253	253	69	69		2	231	231	62	62	
33,0	12,5	1	171	313	171	29	26	1	149	317	149	8	73
		2	271	271	70	70		2	265	265	46	46	
37,5	20,0	1	193	348	193	37	27	1	154	395	154	8	79
		2	303	303	83	83		2	315	315	41	41	
42,0	35,0	1	233	404	233	63	29	1	192	482	192	8	84
		2	354	354	113	113		2	386	386	51	51	
46,5	50,0	1	274	461	274	87	30	1	226	578	226	8	90
		2	407	407	142	142		2	461	461	58	58	
51,0	67,5	1	321	528	321	115	31	1	266	686	266	8	95
		2	467	467	175	175		2	546	546	66	66	

3.4.5.5 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



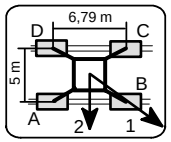


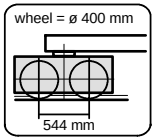
UW 260.1 **Corner distance 6 m x 6 m** **jib 50 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	15,0	1	170	274	170	66	21	1	83	291	83	8	46
		2	244	244	97	97		2	216	216	16	16	
19,5	15,0	1	174	286	174	62	22	1	82	305	82	8	57
		2	253	253	94	94		2	224	224	14	14	
24,0	17,5	1	183	304	183	62	24	1	93	321	93	8	63
		2	269	269	98	98		2	240	240	18	18	
28,5	17,5	1	186	318	186	55	25	1	91	339	91	8	68
		2	279	279	93	93		2	262	262	81	81	
33,0	20,0	1	196	339	196	53	26	1	100	360	100	8	74
		2	297	297	95	95		2	296	296	66	66	
37,5	22,5	1	205	362	205	49	27	1	170	413	170	8	79
		2	316	316	95	95		2	334	334	47	47	
42,0	35,0	1	240	412	240	68	29	1	195	502	195	8	84
		2	362	362	118	118		2	400	400	50	50	
46,5	50,0	1	281	470	281	91	30	1	228	600	228	8	90
		2	415	415	147	147		2	475	475	56	56	
51,0	67,5	1	328	537	328	118	31	1	266	711	266	8	95
		2	476	476	180	180		2	561	561	64	64	

3.4.6.1 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



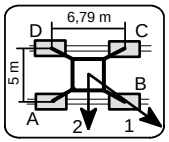


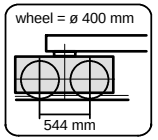
UW 260.2 **Corner distance 5 m x 6,79 m** **jib 30 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	17,5	1	197	279	127	45	21	1	134	191	87	30	45
		2	256	256	68	68		2	175	175	46	46	
19,5	17,5	1	202	290	128	41	22	1	139	200	88	28	56
		2	266	266	65	65		2	183	183	44	44	
24,0	17,5	1	208	302	129	35	24	1	174	221	134	86	62
		2	276	276	61	61		2	208	208	99	99	
28,5	17,5	1	215	316	129	27	25	1	186	256	127	57	67
		2	288	288	56	56		2	237	237	77	77	
33,0	27,5	1	246	356	154	44	26	1	225	320	145	50	73
		2	326	326	74	74		2	294	294	76	76	
37,5	37,5	1	279	398	178	59	27	1	265	388	161	39	78
		2	365	365	92	92		2	354	354	73	73	
42,0	47,5	1	311	441	202	72	29	1	306	460	177	23	84
		2	405	405	108	108		2	418	418	66	66	
46,5	60,0	1	352	493	233	92	30	1	356	544	198	11	89
		2	454	454	131	131		2	492	492	63	63	
51,0	80,0	1	412	564	283	130	32	1	427	652	237	13	96
		2	522	522	172	172		2	589	589	75	75	
55,5	100,0	1	472	638	331	165	33	1	498	764	274	9	102
		2	592	592	211	211		2	690	690	83	83	

3.4.6.2 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



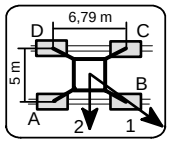


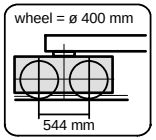
UW 260.2 **Corner distance 5 m x 6,79 m** **jib 36 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	15,0	1	190	270	123	43	21	1	128	185	80	24	45
		2	248	248	65	65		2	170	170	69	69	
19,5	15,0	1	196	281	124	39	23	1	160	195	130	95	57
		2	258	258	62	62		2	185	185	105	105	
24,0	15,0	1	202	294	124	33	24	1	172	227	125	70	62
		2	268	268	58	58		2	212	212	85	85	
28,5	15,0	1	208	308	125	25	25	1	184	263	118	40	68
		2	280	280	53	53		2	241	241	62	62	
33,0	22,5	1	234	341	143	36	26	1	217	321	130	26	73
		2	312	312	65	65		2	292	292	55	55	
37,5	32,5	1	266	383	167	51	28	1	257	389	146	15	78
		2	351	351	83	83		2	353	353	51	51	
42,0	47,5	1	311	439	204	76	29	1	311	474	174	11	84
		2	403	403	112	112		2	429	429	56	56	
46,5	65,0	1	364	503	247	109	30	1	374	571	208	11	90
		2	464	464	147	147		2	516	516	65	65	
51,0	82,5	1	418	568	291	141	32	1	437	674	239	8	97
		2	526	526	182	182		2	608	608	71	71	
55,5	105,0	1	484	648	346	182	33	1	516	792	284	8	102
		2	603	603	227	227		2	715	715	84	84	

3.4.6.3 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



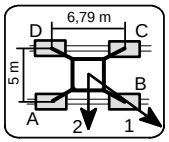


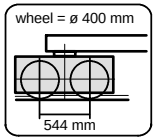
UW 260.2 **Corner distance 5 m x 6,79 m** **jib 42 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	10,0	1	187	264	122	45	21	1	137	203	81	14	46
		2	243	243	66	66		2	185	185	32	32	
19,5	10,0	1	193	275	123	40	23	1	142	214	82	10	57
		2	252	252	63	63		2	194	194	30	30	
24,0	10,0	1	199	288	123	34	24	1	171	230	121	62	63
		2	263	263	58	58		2	213	213	78	78	
28,5	10,0	1	205	302	123	26	25	1	184	266	115	33	68
		2	275	275	53	53		2	243	243	55	55	
33,0	20,0	1	237	342	148	42	26	1	223	331	132	24	73
		2	313	313	72	72		2	301	301	54	54	
37,5	30,0	1	269	384	172	57	28	1	263	399	148	12	79
		2	352	352	89	89		2	362	362	50	50	
42,0	45,0	1	315	440	208	82	29	1	317	485	175	8	84
		2	406	406	117	117		2	439	439	54	54	
46,5	62,5	1	368	505	252	114	30	1	379	585	207	8	90
		2	467	467	152	152		2	527	527	62	62	
51,0	82,5	1	428	577	301	152	32	1	450	693	247	8	97
		2	536	536	193	193		2	625	625	74	74	

3.4.6.4 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



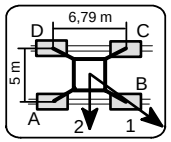


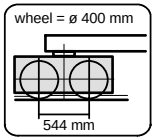
UW 260.2 **Corner distance 5 m x 6,79 m** **jib 46 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	12,5	1	196	273	132	55	21	1	137	250	65	8	45
		2	252	252	76	76		2	212	212	18	18	
19,5	12,5	1	202	285	133	50	22	1	139	264	62	8	57
		2	262	262	73	73		2	222	222	15	15	
24,0	15,0	1	214	304	139	50	24	1	152	281	71	8	62
		2	279	279	75	75		2	238	238	18	18	
28,5	17,5	1	227	324	146	49	25	1	164	300	78	8	68
		2	297	297	76	76		2	273	273	70	70	
33,0	20,0	1	240	346	151	46	26	1	229	344	133	18	73
		2	317	317	75	75		2	312	312	50	50	
37,5	32,5	1	279	394	182	67	27	1	276	419	155	12	79
		2	362	362	99	99		2	380	380	51	51	
42,0	47,5	1	324	451	218	92	29	1	329	507	181	8	84
		2	416	416	127	127		2	457	457	55	55	
46,5	67,5	1	383	522	266	127	30	1	399	610	220	9	90
		2	483	483	166	166		2	551	551	67	67	
51,0	87,5	1	442	595	313	160	31	1	466	722	254	8	95
		2	553	553	202	202		2	651	651	75	75	

3.4.6.5 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



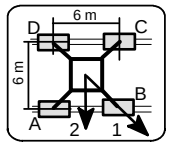


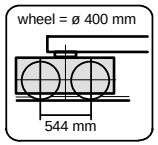
UW 260.2 **Corner distance 5 m x 6,79 m** **jib 50 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	20,0	1	223	300	158	81	21	1	160	306	71	8	46
		2	279	279	102	102		2	256	256	16	16	
19,5	22,5	1	235	318	165	82	23	1	173	321	80	8	58
		2	295	295	105	105		2	272	272	19	19	
24,0	25,0	1	247	337	172	82	24	1	186	338	88	8	63
		2	312	312	107	107		2	288	288	22	22	
28,5	25,0	1	254	351	172	74	25	1	186	357	83	8	68
		2	324	324	101	101		2	306	306	90	90	
33,0	27,5	1	267	373	177	71	26	1	198	379	88	8	74
		2	344	344	101	101		2	345	345	69	69	
37,5	32,5	1	287	403	189	73	28	1	286	436	160	10	79
		2	371	371	105	105		2	394	394	52	52	
42,0	47,5	1	332	460	225	98	29	1	337	526	183	8	85
		2	424	424	133	133		2	473	473	55	55	
46,5	67,5	1	392	531	274	135	30	1	410	629	226	8	91
		2	493	493	174	174		2	568	568	68	68	
51,0	85,0	1	446	598	318	166	32	1	469	740	251	8	97
		2	556	556	208	208		2	661	661	72	72	

3.4.7.1 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



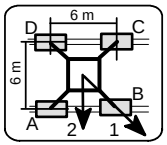


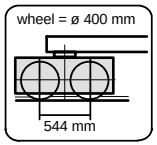
UW 260.2 **Corner distance 6 m x 6 m** **jib 30 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	7,5	1	137	248	137	26	21	1	86	162	86	9	45
		2	215	215	59	59		2	139	139	32	32	
19,5	7,5	1	140	259	140	22	22	1	88	171	88	8	56
		2	224	224	57	57		2	151	151	99	99	
24,0	7,5	1	144	271	144	16	24	1	129	192	129	65	62
		2	233	233	54	54		2	174	174	83	83	
28,5	7,5	1	147	284	147	10	25	1	132	226	132	37	67
		2	244	244	50	50		2	199	199	65	65	
33,0	15,0	1	169	317	169	21	26	1	154	282	154	26	73
		2	274	274	64	64		2	245	245	63	63	
37,5	22,5	1	191	352	191	30	27	1	176	342	176	10	78
		2	305	305	77	77		2	293	293	59	59	
42,0	32,5	1	219	394	219	44	29	1	193	422	193	8	84
		2	343	343	95	95		2	351	351	58	58	
46,5	42,5	1	249	439	249	58	30	1	206	514	206	8	89
		2	383	383	114	114		2	412	412	55	55	
51,0	57,5	1	291	497	291	85	32	1	241	614	241	8	96
		2	437	437	145	145		2	490	490	62	62	
55,5	75,0	1	339	563	339	115	33	1	282	724	282	8	102
		2	498	498	180	180		2	577	577	71	71	

3.4.7.2 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



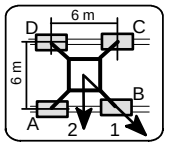


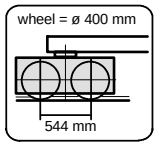
UW 260.2 **Corner distance 6 m x 6 m** **jib 36 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	5,0	1	132	239	132	24	21	1	75	160	75	8	45
		2	208	208	56	56		2	137	137	52	52	
19,5	5,0	1	135	250	135	20	23	1	75	172	75	8	57
		2	216	216	53	53		2	153	153	87	87	
24,0	5,0	1	138	262	138	14	24	1	123	198	123	49	62
		2	226	226	51	51		2	176	176	70	70	
28,5	5,0	1	141	275	141	8	25	1	126	232	126	21	68
		2	236	236	47	47		2	201	201	52	52	
33,0	12,5	1	164	309	164	18	26	1	149	288	149	9	73
		2	266	266	61	61		2	247	247	50	50	
37,5	20,0	1	186	343	186	28	28	1	156	363	156	8	78
		2	297	297	74	74		2	296	296	45	45	
42,0	32,5	1	220	392	220	48	29	1	183	447	183	8	84
		2	342	342	99	99		2	360	360	50	50	
46,5	45,0	1	256	443	256	69	30	1	208	539	208	8	90
		2	388	388	124	124		2	429	429	53	53	
51,0	62,5	1	304	507	304	102	32	1	255	640	255	8	97
		2	448	448	161	161		2	513	513	66	66	
55,5	77,5	1	346	567	346	125	33	1	283	751	283	8	102
		2	503	503	190	190		2	594	594	68	68	

3.4.7.3 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



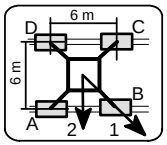


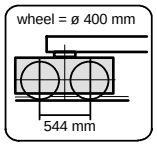
UW 260.2 **Corner distance 6 m x 6 m** **jib 42 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	0,0	1	129	233	129	25	21	1	70	187	70	8	46
		2	203	203	56	56		2	147	147	20	20	
19,5	0,0	1	133	244	133	21	23	1	69	201	69	8	57
		2	212	212	54	54		2	155	155	19	19	
24,0	2,5	1	142	263	142	21	24	1	81	216	81	8	63
		2	227	227	57	57		2	183	183	71	71	
28,5	2,5	1	145	276	145	15	25	1	130	241	130	20	68
		2	238	238	53	53		2	209	209	52	52	
33,0	7,5	1	161	303	161	19	26	1	139	298	139	8	73
		2	262	262	61	61		2	249	249	43	43	
37,5	17,5	1	189	345	189	34	28	1	157	376	157	8	79
		2	299	299	80	80		2	304	304	44	44	
42,0	30,0	1	224	394	224	54	29	1	184	461	184	8	84
		2	344	344	104	104		2	369	369	49	49	
46,5	45,0	1	266	451	266	80	30	1	220	555	220	8	90
		2	397	397	135	135		2	445	445	57	57	
51,0	60,0	1	308	510	308	107	32	1	254	658	254	8	97
		2	451	451	166	166		2	523	523	63	63	
55,5	77,5	1	356	577	356	135	33	1	293	772	293	8	103
		2	512	512	200	200		2	612	612	71	71	

3.4.7.4 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



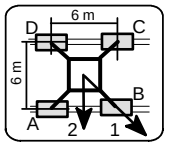


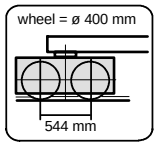
UW 260.2 **Corner distance 6 m x 6 m** **jib 46 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	5,0	1	145	249	145	42	21	1	70	237	70	8	45
		2	218	218	72	72		2	177	177	15	15	
19,5	5,0	1	149	260	149	37	22	1	70	251	70	8	57
		2	227	227	70	70		2	186	186	13	13	
24,0	7,5	1	158	278	158	38	24	1	81	267	81	8	62
		2	243	243	73	73		2	205	205	81	81	
28,5	7,5	1	161	292	161	31	25	1	79	285	79	8	68
		2	254	254	69	69		2	231	231	62	62	
33,0	10,0	1	171	313	171	29	26	1	150	317	150	8	73
		2	271	271	70	70		2	265	265	47	47	
37,5	17,5	1	193	348	193	38	27	1	155	395	155	8	79
		2	303	303	83	83		2	315	315	41	41	
42,0	32,5	1	234	404	234	63	29	1	193	482	193	8	84
		2	354	354	113	113		2	386	386	51	51	
46,5	47,5	1	274	462	274	87	30	1	226	578	226	8	90
		2	407	407	142	142		2	461	461	58	58	
51,0	65,0	1	322	528	322	115	31	1	266	686	266	8	95
		2	468	468	175	175		2	546	546	67	67	

3.4.7.5 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



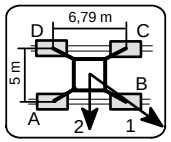


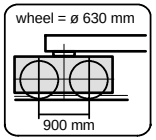
UW 260.2 **Corner distance 6 m x 6 m** **jib 50 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	12,5	1	172	276	172	68	21	1	85	291	85	8	46
		2	245	245	98	98		2	217	217	17	17	
19,5	12,5	1	175	287	175	63	23	1	85	305	85	8	58
		2	254	254	96	96		2	226	226	15	15	
24,0	15,0	1	184	305	184	63	24	1	96	321	96	8	63
		2	270	270	99	99		2	241	241	19	19	
28,5	15,0	1	188	319	188	56	25	1	93	339	93	8	68
		2	281	281	95	95		2	263	263	83	83	
33,0	17,5	1	197	340	197	54	26	1	102	360	102	8	74
		2	298	298	96	96		2	297	297	67	67	
37,5	20,0	1	207	363	207	50	28	1	174	412	174	8	79
		2	317	317	96	96		2	335	335	49	49	
42,0	32,5	1	241	413	241	69	29	1	199	500	199	8	85
		2	363	363	120	120		2	400	400	52	52	
46,5	47,5	1	283	471	283	95	30	1	234	597	234	8	91
		2	416	416	150	150		2	476	476	60	60	
51,0	62,5	1	326	530	326	121	32	1	266	702	266	8	97
		2	470	470	181	181		2	556	556	65	65	

3.4.8.1 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



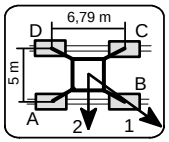


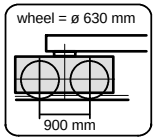
UW 260.3 **Corner distance 5 m x 6,79 m** **jib 30 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	17,5	1	204	286	135	53	21	1	142	199	95	38	45
		2	264	264	76	76		2	183	183	54	54	
19,5	17,5	1	210	298	136	48	22	1	147	208	96	35	56
		2	273	273	73	73		2	191	191	52	52	
24,0	17,5	1	216	310	137	42	24	1	181	229	141	94	62
		2	284	284	68	68		2	215	215	107	107	
28,5	17,5	1	222	324	137	35	25	1	194	264	135	65	67
		2	296	296	63	63		2	245	245	84	84	
33,0	27,5	1	254	364	161	52	26	1	233	328	153	58	73
		2	334	334	82	82		2	302	302	84	84	
37,5	37,5	1	286	406	186	67	27	1	273	396	169	46	78
		2	373	373	100	100		2	362	362	80	80	
42,0	47,5	1	319	449	210	80	29	1	314	468	185	31	84
		2	413	413	116	116		2	425	425	73	73	
46,5	60,0	1	360	500	241	100	30	1	364	552	206	18	89
		2	461	461	139	139		2	500	500	70	70	
51,0	80,0	1	419	572	291	138	32	1	435	659	245	21	96
		2	530	530	180	180		2	597	597	83	83	
55,5	100,0	1	479	646	339	173	33	1	506	771	282	17	102
		2	600	600	219	219		2	698	698	90	90	

3.4.8.2 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



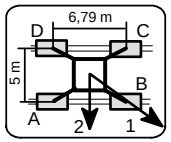


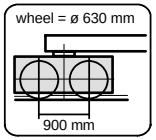
UW 260.3 **Corner distance 5 m x 6,79 m** **jib 36 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	15,0	1	198	278	131	51	21	1	136	192	88	32	45
		2	256	256	73	73		2	178	178	77	77	
19,5	15,0	1	204	289	132	46	23	1	167	202	138	103	57
		2	265	265	70	70		2	193	193	113	113	
24,0	15,0	1	210	302	132	40	24	1	179	235	133	77	62
		2	276	276	66	66		2	219	219	93	93	
28,5	15,0	1	216	315	132	33	25	1	192	270	126	48	68
		2	288	288	61	61		2	249	249	70	70	
33,0	22,5	1	242	349	151	43	26	1	225	329	138	34	73
		2	319	319	73	73		2	300	300	63	63	
37,5	32,5	1	274	391	175	58	28	1	265	397	154	22	78
		2	358	358	91	91		2	360	360	59	59	
42,0	47,5	1	319	446	212	84	29	1	319	482	182	19	84
		2	411	411	119	119		2	437	437	64	64	
46,5	65,0	1	372	510	255	116	30	1	382	579	215	18	90
		2	472	472	155	155		2	524	524	73	73	
51,0	82,5	1	426	576	299	148	32	1	444	682	247	16	97
		2	534	534	190	190		2	615	615	79	79	
55,5	105,0	1	492	656	353	190	33	1	524	799	291	16	102
		2	610	610	235	235		2	723	723	92	92	

3.4.8.3 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



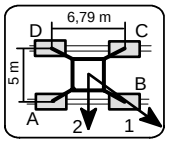


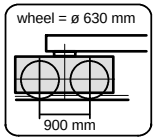
UW 260.3 **Corner distance 5 m x 6,79 m** **jib 42 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	10,0	1	195	272	130	52	21	1	144	211	88	22	46
		2	250	250	74	74		2	192	192	40	40	
19,5	10,0	1	200	283	130	48	23	1	150	221	89	18	57
		2	260	260	70	70		2	202	202	38	38	
24,0	10,0	1	206	296	131	41	24	1	178	237	129	70	63
		2	271	271	66	66		2	221	221	86	86	
28,5	10,0	1	213	310	131	34	25	1	192	273	122	40	68
		2	283	283	61	61		2	251	251	63	63	
33,0	20,0	1	245	350	156	50	26	1	231	338	140	32	73
		2	321	321	79	79		2	309	309	62	62	
37,5	30,0	1	277	392	180	65	28	1	271	407	156	20	79
		2	360	360	97	97		2	369	369	57	57	
42,0	45,0	1	322	448	216	90	29	1	325	493	183	16	84
		2	413	413	125	125		2	447	447	62	62	
46,5	62,5	1	375	513	259	122	30	1	386	593	215	16	90
		2	475	475	160	160		2	535	535	70	70	
51,0	82,5	1	435	585	309	160	32	1	458	701	255	16	97
		2	543	543	201	201		2	633	633	81	81	
55,5	105,0	1	502	666	364	200	33	1	537	821	298	16	103
		2	620	620	245	245		2	742	742	94	94	

3.4.8.4 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



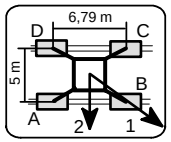


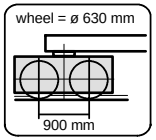
UW 260.3 **Corner distance 5 m x 6,79 m** **jib 46 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	12,5	1	204	281	139	63	21	1	145	257	73	16	45
		2	260	260	84	84		2	220	220	25	25	
19,5	12,5	1	210	292	140	58	22	1	146	272	70	16	57
		2	270	270	81	81		2	229	229	23	23	
24,0	15,0	1	222	311	147	58	24	1	160	289	79	16	62
		2	287	287	83	83		2	246	246	26	26	
28,5	17,5	1	235	332	153	57	25	1	172	307	86	16	68
		2	305	305	83	83		2	280	280	78	78	
33,0	20,0	1	248	353	159	54	26	1	237	351	140	26	73
		2	324	324	83	83		2	320	320	58	58	
37,5	32,5	1	287	402	190	74	27	1	284	427	163	19	79
		2	370	370	106	106		2	387	387	59	59	
42,0	47,5	1	332	458	226	100	29	1	337	515	189	16	84
		2	423	423	134	134		2	465	465	63	63	
46,5	67,5	1	391	530	274	135	30	1	406	618	228	17	90
		2	491	491	173	173		2	559	559	75	75	
51,0	87,5	1	450	603	321	168	31	1	474	730	262	16	95
		2	561	561	210	210		2	658	658	83	83	
55,5	107,5	1	510	676	370	204	33	1	542	848	295	16	101
		2	630	630	250	250		2	760	760	90	90	

3.4.8.5 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



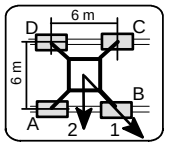


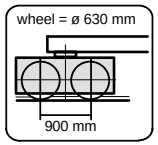
UW 260.3 **Corner distance 5 m x 6,79 m** **jib 50 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	20,0	1	231	308	166	89	21	1	167	314	79	16	46
		2	286	286	110	110		2	264	264	24	24	
19,5	22,5	1	243	325	173	90	23	1	181	329	88	16	58
		2	303	303	113	113		2	280	280	27	27	
24,0	25,0	1	255	345	179	90	24	1	194	346	96	16	63
		2	320	320	115	115		2	296	296	30	30	
28,5	25,0	1	262	359	179	82	25	1	194	365	90	16	68
		2	332	332	109	109		2	313	313	98	98	
33,0	27,5	1	275	381	185	79	26	1	206	386	95	16	74
		2	351	351	109	109		2	353	353	77	77	
37,5	32,5	1	295	411	197	81	28	1	294	444	168	18	79
		2	379	379	113	113		2	402	402	59	59	
42,0	47,5	1	340	467	233	106	29	1	345	534	191	16	85
		2	432	432	141	141		2	480	480	63	63	
46,5	67,5	1	400	539	282	143	30	1	418	636	234	16	91
		2	500	500	181	181		2	576	576	76	76	
51,0	85,0	1	454	605	325	174	32	1	476	747	259	16	97
		2	563	563	216	216		2	669	669	80	80	
55,5	107,5	1	520	687	380	213	33	1	554	872	299	16	103
		2	641	641	259	259		2	780	780	90	90	

3.4.9.1 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



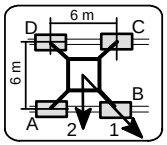


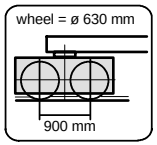
UW 260.3 **Corner distance 6 m x 6 m** **jib 30 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	7,5	1	145	255	145	34	21	1	93	169	93	17	45
		2	223	223	66	66		2	147	147	39	39	
19,5	7,5	1	148	266	148	30	22	1	96	179	96	16	56
		2	232	232	64	64		2	159	159	107	107	
24,0	7,5	1	151	278	151	24	24	1	136	200	136	72	62
		2	241	241	61	61		2	181	181	91	91	
28,5	7,5	1	155	292	155	18	25	1	140	234	140	45	67
		2	251	251	58	58		2	206	206	73	73	
33,0	15,0	1	177	325	177	28	26	1	162	290	162	33	73
		2	281	281	72	72		2	252	252	71	71	
37,5	22,5	1	199	359	199	38	27	1	184	349	184	18	78
		2	312	312	85	85		2	301	301	66	66	
42,0	32,5	1	227	402	227	52	29	1	201	430	201	16	84
		2	351	351	103	103		2	358	358	65	65	
46,5	42,5	1	256	446	256	66	30	1	214	522	214	16	89
		2	391	391	122	122		2	420	420	62	62	
51,0	57,5	1	299	505	299	93	32	1	249	622	249	16	96
		2	444	444	153	153		2	498	498	69	69	
55,5	75,0	1	347	571	347	122	33	1	290	732	290	16	102
		2	505	505	188	188		2	585	585	79	79	
60,0	92,5	1	395	637	395	153	35	1	328	848	328	16	109
		2	566	566	224	224		2	674	674	86	86	
64,5	112,5	1	452	713	452	191	37	1	378	977	378	16	117
		2	637	637	267	267		2	777	777	97	97	

3.4.9.2 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



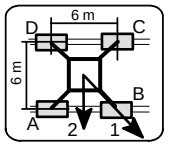


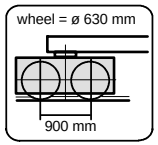
UW 260.3 **Corner distance 6 m x 6 m** **jib 36 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	5,0	1	139	247	139	32	21	1	82	168	82	16	45
		2	215	215	63	63		2	144	144	60	60	
19,5	5,0	1	143	258	143	28	23	1	83	179	83	16	57
		2	224	224	61	61		2	161	161	94	94	
24,0	5,0	1	146	270	146	22	24	1	131	206	131	56	62
		2	234	234	58	58		2	184	184	78	78	
28,5	5,0	1	149	283	149	16	25	1	134	240	134	29	68
		2	244	244	55	55		2	209	209	60	60	
33,0	12,5	1	171	316	171	26	26	1	156	296	156	17	73
		2	274	274	69	69		2	255	255	57	57	
37,5	20,0	1	193	351	193	36	28	1	163	371	163	16	78
		2	305	305	82	82		2	304	304	53	53	
42,0	32,5	1	228	400	228	56	29	1	191	455	191	16	84
		2	349	349	106	106		2	368	368	58	58	
46,5	45,0	1	263	450	263	77	30	1	216	547	216	16	90
		2	396	396	131	131		2	436	436	61	61	
51,0	62,5	1	312	515	312	109	32	1	262	648	262	16	97
		2	456	456	169	169		2	521	521	73	73	
55,5	77,5	1	354	575	354	133	33	1	291	759	291	16	102
		2	510	510	197	197		2	602	602	76	76	
60,0	97,5	1	408	648	408	169	35	1	341	877	341	16	109
		2	578	578	239	239		2	698	698	89	89	
64,5	115,0	1	459	717	459	201	37	1	378	1006	378	16	117
		2	642	642	277	277		2	794	794	94	94	

3.4.9.3 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



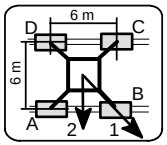


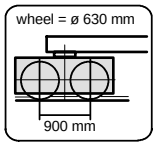
UW 260.3 **Corner distance 6 m x 6 m** **jib 42 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	0,0	1	137	241	137	33	21	1	77	195	77	16	46
		2	211	211	64	64		2	155	155	28	28	
19,5	0,0	1	140	252	140	29	23	1	77	209	77	16	57
		2	219	219	61	61		2	163	163	26	26	
24,0	2,5	1	150	271	150	29	24	1	88	224	88	16	63
		2	235	235	65	65		2	191	191	79	79	
28,5	2,5	1	153	284	153	22	25	1	138	249	138	28	68
		2	246	246	61	61		2	216	216	60	60	
33,0	7,5	1	169	311	169	27	26	1	147	306	147	16	73
		2	270	270	68	68		2	257	257	51	51	
37,5	17,5	1	197	352	197	42	28	1	165	383	165	16	79
		2	307	307	87	87		2	312	312	52	52	
42,0	30,0	1	232	402	232	62	29	1	191	469	191	16	84
		2	352	352	112	112		2	377	377	56	56	
46,5	45,0	1	274	459	274	88	30	1	228	563	228	16	90
		2	405	405	143	143		2	452	452	65	65	
51,0	60,0	1	316	518	316	114	32	1	261	666	261	16	97
		2	459	459	173	173		2	531	531	71	71	
55,5	77,5	1	364	585	364	143	33	1	300	780	300	16	103
		2	520	520	208	208		2	619	619	79	79	
60,0	97,5	1	419	658	419	179	35	1	350	900	350	16	109
		2	588	588	249	249		2	716	716	91	91	
64,5	115,0	1	469	728	469	211	37	1	385	1032	385	16	118
		2	652	652	287	287		2	814	814	95	95	

3.4.9.4 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive



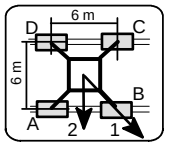


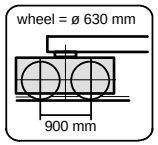
UW 260.3 **Corner distance 6 m x 6 m** **jib 46 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	5,0	1	153	256	153	50	21	1	78	245	78	16	45
		2	226	226	80	80		2	185	185	23	23	
19,5	5,0	1	156	268	156	45	22	1	77	259	77	16	57
		2	235	235	78	78		2	193	193	21	21	
24,0	7,5	1	166	286	166	46	24	1	89	275	89	16	62
		2	251	251	81	81		2	213	213	89	89	
28,5	7,5	1	169	300	169	39	25	1	86	292	86	16	68
		2	261	261	77	77		2	239	239	70	70	
33,0	10,0	1	179	321	179	36	26	1	157	324	157	16	73
		2	279	279	78	78		2	273	273	54	54	
37,5	17,5	1	201	356	201	45	27	1	162	402	162	16	79
		2	311	311	91	91		2	322	322	49	49	
42,0	32,5	1	241	412	241	71	29	1	201	489	201	16	84
		2	362	362	121	121		2	394	394	59	59	
46,5	47,5	1	282	469	282	95	30	1	234	586	234	16	90
		2	415	415	150	150		2	469	469	66	66	
51,0	65,0	1	329	536	329	123	31	1	274	694	274	16	95
		2	475	475	183	183		2	554	554	74	74	
55,5	80,0	1	371	595	371	147	33	1	302	805	302	16	101
		2	530	530	213	213		2	635	635	77	77	
60,0	100,0	1	426	669	426	183	34	1	350	928	350	16	108
		2	598	598	254	254		2	733	733	88	88	
64,5	117,5	1	480	740	480	220	37	1	394	1057	394	16	118
		2	664	664	296	296		2	833	833	97	97	

3.4.9.5 **Centerballasts and corner loads according to DIN 15019**

for a travelling tower crane on
an undercarriage without climbing drive





UW 260.3 **Corner distance 6 m x 6 m** **jib 50 m**

hook height [m]	centerballast [t]	jib position	crane in service torque moment: 135 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]
15,0	12,5	1	179	283	179	75	21	1	93	299	93	16	46
		2	253	253	106	106		2	225	225	25	25	
19,5	12,5	1	183	294	183	71	23	1	93	313	93	16	58
		2	262	262	104	104		2	234	234	23	23	
24,0	15,0	1	192	313	192	71	24	1	104	329	104	16	63
		2	278	278	107	107		2	249	249	27	27	
28,5	15,0	1	195	327	195	64	25	1	101	347	101	16	68
		2	288	288	103	103		2	270	270	91	91	
33,0	17,5	1	205	348	205	62	26	1	110	367	110	16	74
		2	306	306	104	104		2	305	305	75	75	
37,5	20,0	1	214	371	214	58	28	1	181	420	181	16	79
		2	325	325	104	104		2	342	342	57	57	
42,0	32,5	1	249	421	249	77	29	1	206	508	206	16	85
		2	370	370	128	128		2	408	408	60	60	
46,5	47,5	1	291	479	291	103	30	1	242	605	242	16	91
		2	424	424	158	158		2	484	484	68	68	
51,0	62,5	1	333	538	333	128	32	1	274	710	274	16	97
		2	478	478	188	188		2	564	564	73	73	
55,5	80,0	1	381	606	381	156	33	1	311	828	311	16	103
		2	540	540	222	222		2	654	654	79	79	
60,0	100,0	1	436	680	436	192	35	1	358	952	358	16	110
		2	609	609	263	263		2	752	752	90	90	
64,5	120,0	1	493	757	493	229	37	1	405	1086	405	16	118
		2	680	680	306	306		2	857	857	99	99	