

TYPE OF CRANE	BGL-GRUPPE 2125-0630
KIND OF CRANE	TOWER CRANE WITH TROLLEY JIB, TOP-SLEWING, SELF CLIMBING
INSTALLATION	STATIONARY OR TRAVELLING
CALCULATION BASE	FEM-HC1 / A3
LOADMOMENT	MAX. 7600 KNM

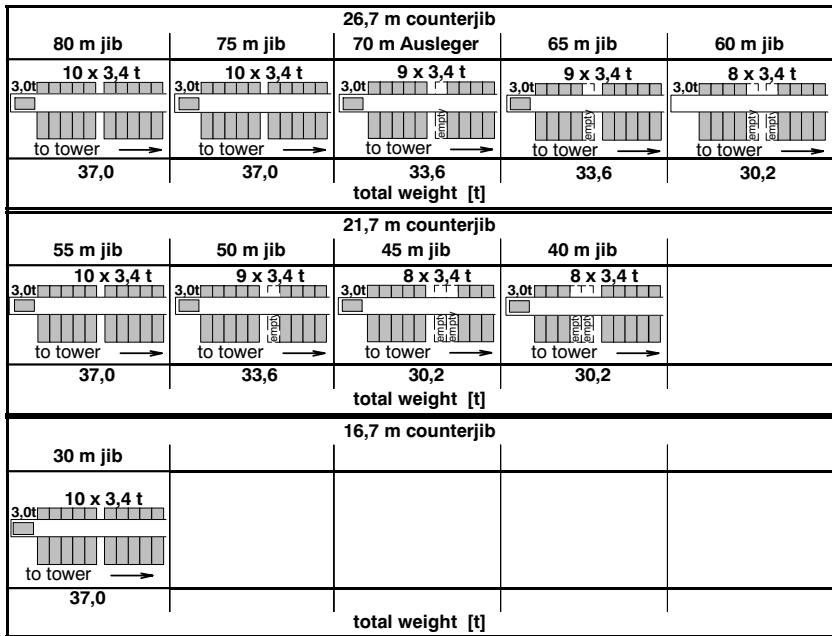
2.2.1.1 Load capacity table

radius [m]		30	35	40	45	50	55	60	65	70	75	80	load capacity [t]
length of jib [m]	80 2,8-23,4	19,1	16,1	13,9	12,1	10,7	9,6	8,6	7,8	7,1	6,5	6,0	
	75 2,8-24,2	19,8	16,7	14,4	12,6	11,3	9,9	9,0	8,1	7,4	6,8		
	70 2,8-24,9	20,4	17,3	14,9	13,0	11,5	10,3	9,3	8,4	7,7			
	65 2,8-25,8	21,2	17,9	15,5	13,5	12,0	10,7	9,7	8,8				
	60 2,8-26,5	21,9	18,5	15,9	14,0	12,4	11,1	10,0					
	55 2,8-26,9	22,3	18,8	16,2	14,2	12,6	11,3						
	50 2,8-27,6	22,9	19,4	16,7	14,7	13,0							
	45 2,8-28,2	23,4	19,8	17,1	15,0								
	40 2,8-28,8	24,0	20,3	17,5									
	30 2,8-30,0	25,0											

The load capacities refer to a hook path of 42,0 m. With greater hook paths the safe working load will be minimized by the additional weight of the hoisting cable (with 2 fall operation = 5,626 kg per meter hook path).

Arrangement of counterweights with hoisting winch

Hw 25110 FU



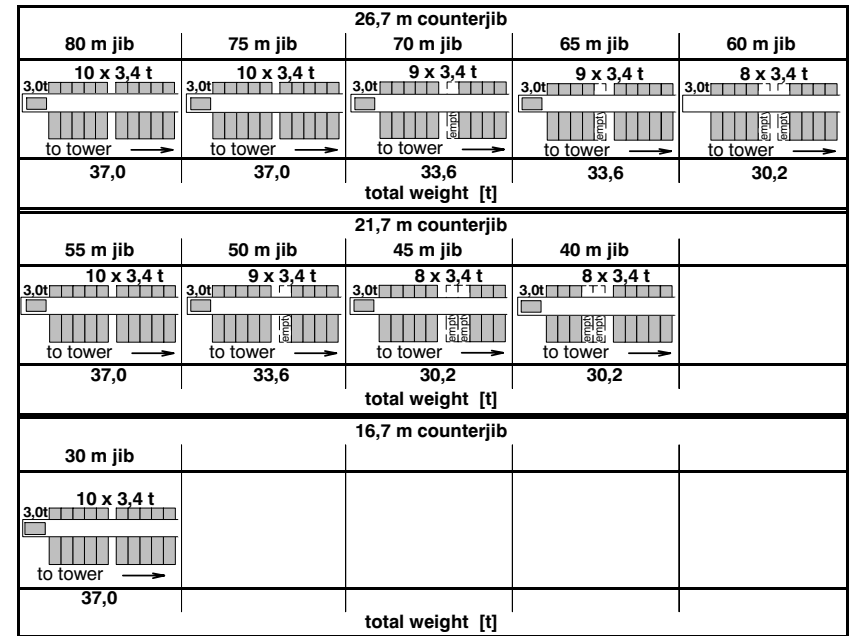
2.2.1.2 Load capacity table

radius [m]		30	35	40	45	50	55	60	65	70	75	80	load capacity [t]
length of jib [m]	80 2,8-26,4	21,8	18,4	15,9	13,9	12,3	11,0	10,0	9,0	8,3	7,6	7,0	
	75 2,8-27,2	22,5	19,0	16,4	14,4	12,8	11,4	10,3	9,4	8,6	7,9		
	70 2,8-27,8	23,0	19,5	16,8	14,7	13,1	11,7	10,6	9,6	8,8			
	65 2,8-28,4	23,6	20,0	17,2	15,1	13,4	12,0	10,9	9,9				
	60 2,8-28,9	24,1	20,4	17,6	15,4	13,7	12,3	11,1					
	55 2,8-29,2	24,3	20,5	17,7	15,6	13,8	12,4						
	50 2,8-29,7	24,7	20,9	18,1	15,8	14,1							
	45 2,8-30,3	25,0	21,4	18,5	16,2								
	40 2,8-30,9	25,0	21,9	18,9									
	30 2,8-30,0	25,0											

The load capacities refer to a hook path of 42,0 m. With greater hook paths the safe working load will be minimized by the additional weight of the hoisting cable (with 2 fall operation = 5,626 kg per meter hook path).

Arrangement of counterweights with hoisting winch



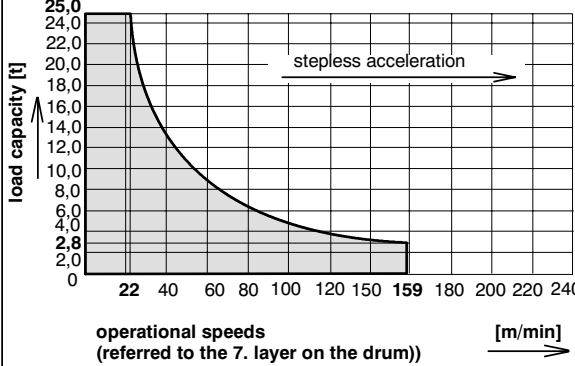

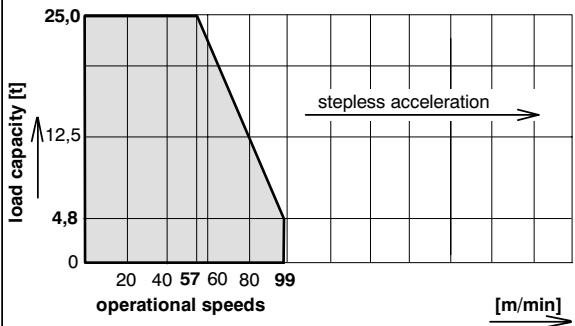


Hw 25110 FU



2.2.2.1

Operational speeds

380 V - 460 V, 50/60 Hz

drive [model]	operational speeds load capacity	max. lift [m]	output [kW]	total output [kVA]
Hw25110FU	hoisting 	400	110	140 total- output for a simultaneity factor of 0,7
	 <p>load capacity [t]</p> <p>operational speeds (referred to the 7. layer on the drum)</p> <p>[m/min]</p>			
Kw	traversing		18,0	
	 <p>load capacity [t]</p> <p>operational speeds</p> <p>[m/min]</p>			
Dw	slewing	0,75 min ⁻¹	2 x 7,5	
	 <p>operational speeds</p> <p>[min⁻¹]</p>			

2.2.3.1

Load capacity [kg] Data given in distances of meters

DIN 15018 / H1 - B3

radius [m]	length of jib [m]									
	30	40	45	50	55	60	65	70	75	80
18,0	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000
19,0	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000
20,0	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000
21,0	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000
22,0	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000
23,0	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000
24,0	25000	25000	25000	25000	25000	25000	25000	25000	25000	24320
25,0	25000	25000	25000	25000	25000	25000	25000	24890	24100	23270
26,0	25000	25000	25000	25000	25000	25000	24780	23860	23100	22300
27,0	25000	25000	25000	25000	24940	24480	23790	22910	22180	21410
28,0	25000	25000	25000	24750	23980	23540	22870	22030	21320	20580
29,0	25000	24840	24300	23750	23090	22670	22020	21200	20520	19810
30,0	25000	24000	23400	22900	22300	21900	21200	20400	19800	19100
31,0		23120	22610	22100	21480	21090	20480	19720	19080	18410
32,0		22340	21850	21350	20750	20370	19780	19040	18420	17780
33,0		21610	21130	20650	20070	19700	19130	18410	17810	17180
34,0		20920	20450	19990	19420	19060	18510	17810	17230	16620
35,0		20300	19800	19400	18800	18500	17900	17300	16700	16100
36,0		19650	19210	18780	18240	17900	17380	16720	16170	15590
37,0		19070	18640	18220	17700	17370	16860	16220	15680	15120
38,0		18520	18100	17690	17180	16860	16370	15740	15220	14680
39,0		18000	17590	17190	16700	16380	15900	15290	14790	14250
40,0		17500	17100	16700	16200	15900	15500	14900	14400	13900
41,0			16640	16260	15790	15490	15030	14460	13970	13470
42,0			16200	15830	15370	15080	14630	14070	13600	13100
43,0			15840	15420	14970	14690	14250	13700	13240	12760
44,0			15380	15030	14590	14310	13880	13340	12890	12420
45,0			15000	14700	14200	14000	13500	13000	12600	12100
46,0				14290	13870	13610	13200	12680	12250	11800
47,0				13950	13540	13280	12880	12370	11950	11510
48,0				13620	13220	12960	12570	12080	11670	11230
49,0				13300	12910	12660	12280	11790	11390	10970
50,0				13000	12600	12400	12000	11500	11300	10700
51,0					12330	12090	11720	11260	10870	10460
52,0					12060	11820	11460	11010	10630	10230
53,0					11800	11570	11210	10760	10390	10000
54,0					11540	11320	10970	10530	10160	9780
55,0					11300	11100	10700	10300	9900	9600

WOLFF 8060.25

Series

Crane data

2.2.3.1 **Load capacity [kg] Data given in distances of meters**

DIN 15018 / H1 - B3

radius [m]	length of jib [m]										
	30	40	45	50	55	60	65	70	75		80
56,0						10850	10510	10090	9740	9360	
57,0						10620	10300	9880	9530	9170	
58,0						10410	10090	9680	9340	8980	
59,0						10200	9880	9480	9150	8790	
60,0						10000	9700	9300	9000	8600	
61,0							9500	9110	8790	8450	
62,0							9320	8930	8610	8280	
63,0							9140	8760	8450	8120	
64,0							8970	8600	8290	7960	
65,0							8800	8400	8100	7800	
66,0								8280	7980	7670	
67,0								8130	7840	7530	
68,0								7980	7690	7390	
69,0								7840	7550	7250	
70,0								7700	7400	7100	
71,0									7290	7000	
72,0									7160	6870	
73,0									7040	6750	
74,0									6920	6640	
75,0									6800	6500	
76,0										6410	
77,0										6310	
78,0										6200	
79,0										6100	
80,0										6000	

WOLFF 8060.25

CCplus

Crane data

2.2.3.2 **Load capacity [kg] Data given in distances of meters**

DIN 15018 / H1 - B3

radius [m]	length of jib [m]											
	30	40	45	50	55	60	65	70	75	80		
18,0	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000	
19,0	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000	
20,0	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000	
21,0	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000	
22,0	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000	
23,0	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000	
24,0	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000	
25,0	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000	
26,0	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000	
27,0	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000	24370
28,0	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000	24780	23440
29,0	25000	25000	25000	25000	25000	24940	24490	23860	23370	22560		
30,0	25000	25000	25000	24700	24300	24100	23600	23000	22500	21800		
31,0		24920	24350	23880	23430	23220	22790	22200	21740	20990		
32,0		24090	23530	23070	22640	22430	22020	21450	21000	20280		
33,0		23300	22760	22320	21900	21700	21290	20740	20310	19610		
34,0		22560	22040	21610	21200	21000	20610	20080	19660	18970		
35,0		21900	21400	20900	20500	20400	20000	19500	19000	18400		
36,0		21210	20710	20300	19920	19730	19370	18860	18460	17920		
37,0		20580	20100	19700	19330	19150	18790	18300	17910	17290		
38,0		20000	19530	19140	18780	18600	18250	17770	17390	16780		
39,0		19430	18980	18600	18250	18070	17730	17270	16900	16300		
40,0		18900	18500	18100	17700	17600	17200	16800	16400	15900		
41,0			17960	17600	17270	17100	16780	16330	15990	15420		
42,0			17490	17140	16810	16650	16340	15900	15560	15010		
43,0			17040	16700	16380	16220	15910	15490	15160	14620		
44,0			16610	16280	15960	15810	15510	15090	14770	14240		
45,0			16200	15800	15600	15400	15100	14700	14400	13900		
46,0				15490	15190	15040	14750	14360	14050	13540		
47,0				15120	14830	14680	14400	14010	13710	13210		
48,0				14770	14480	14340	14060	13680	13380	12900		
49,0				14430	14150	14010	13740	13360	13070	12600		
50,0				14100	13800	13700	13400	13100	12800	12300		
51,0					13520	13390	13130	12770	12490	12030		
52,0					13220	13090	12840	12490	12210	11770		
53,0					12940	12810	12560	12220	11950	11510		
54,0					12660	12540	12290	11960	11690	11260		
55,0					12400	12300	12000	11700	11400	11000		

2.2.3.2 Load capacity [kg] Data given in distances of meters

DIN 15018 / H1 - B3

radius [m]	length of jib [m]									
	30	40	45	50	55	60	65	70	75	80
56,0						12030	11790	11460	11210	10790
57,0						11780	11550	11230	10980	10570
58,0						11550	11320	11000	10760	10360
59,0						11320	11100	10790	10540	10150
60,0						11100	10900	10600	10300	10000
61,0							10670	10370	10140	9760
62,0							10470	10170	9940	9570
63,0							10270	9980	9760	9390
64,0							10080	9800	9580	9210
65,0							9900	9600	9400	9000
66,0								9450	9230	8880
67,0								9280	9070	8720
68,0								9110	8900	8560
69,0								8950	8750	8410
70,0								8800	8600	8300
71,0									8450	8120
72,0									8310	7980
73,0									8170	7850
74,0									8030	7720
75,0									7900	7600
76,0										7470
77,0										7350
78,0										7230
79,0										7110
80,0										7000

2.2.7.1 Tower configuration

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

Slewing part:

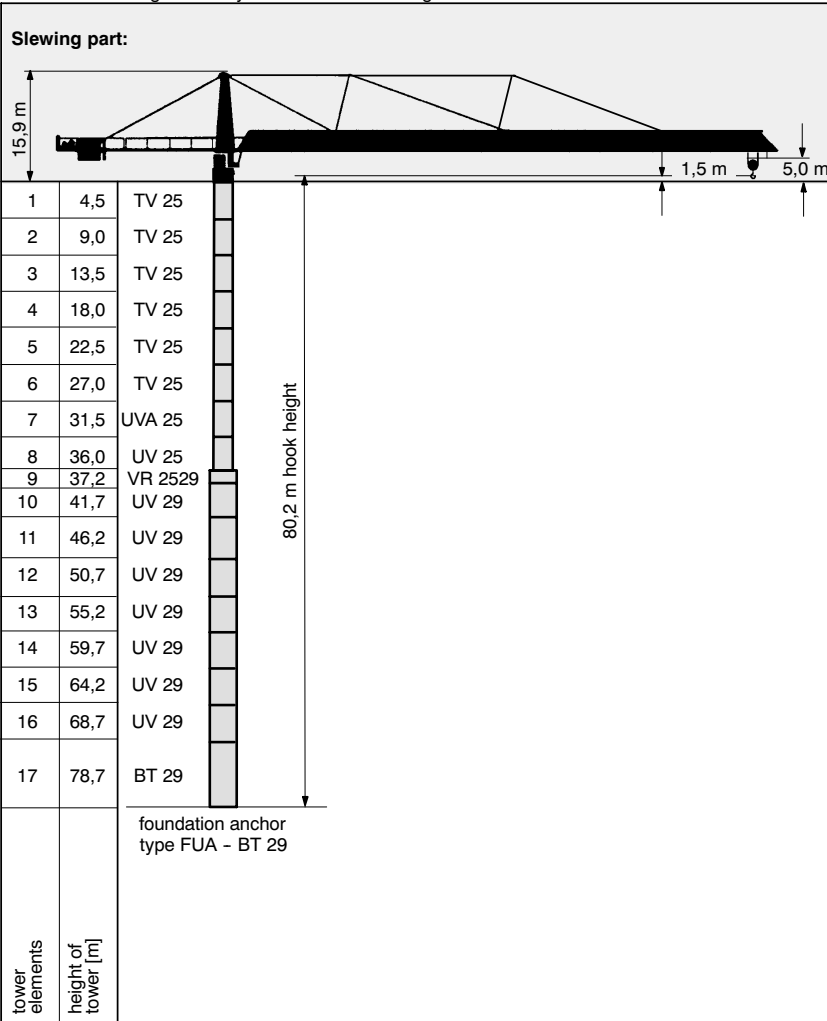
1	4,5	TV 25	TV 25	TV 25
2	9,0	TV 25	TV 25	TV 25
3	13,5	TV 25	TV 25	TV 25
4	18,0	TV 25	TV 25	TV 25
5	22,5	TV 25	TV 25	TV 25
6	27,0	TV 25	TV 25	TV 25
7	31,5	TV 25	TV 25	TV 25
8	36,0	TV 25	TV 25	TV 25
9	40,5	TV 25	UVA 25	UVA 25
10	45,0	foundation anchor type AKZ 140	UV 25	UV 25
11	49,5		foundation anchor type AKZ 156	UV 25 S
12	54,0			foundation anchor type FS 156
13	58,5			
14	63,0			
15	67,5			
16	72,0			
17	76,5			
18	81,0			
tower elements	height of tower [m]			

For data regarding foundation anchors see section 12.

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

2.2.7.2 Tower configurations

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

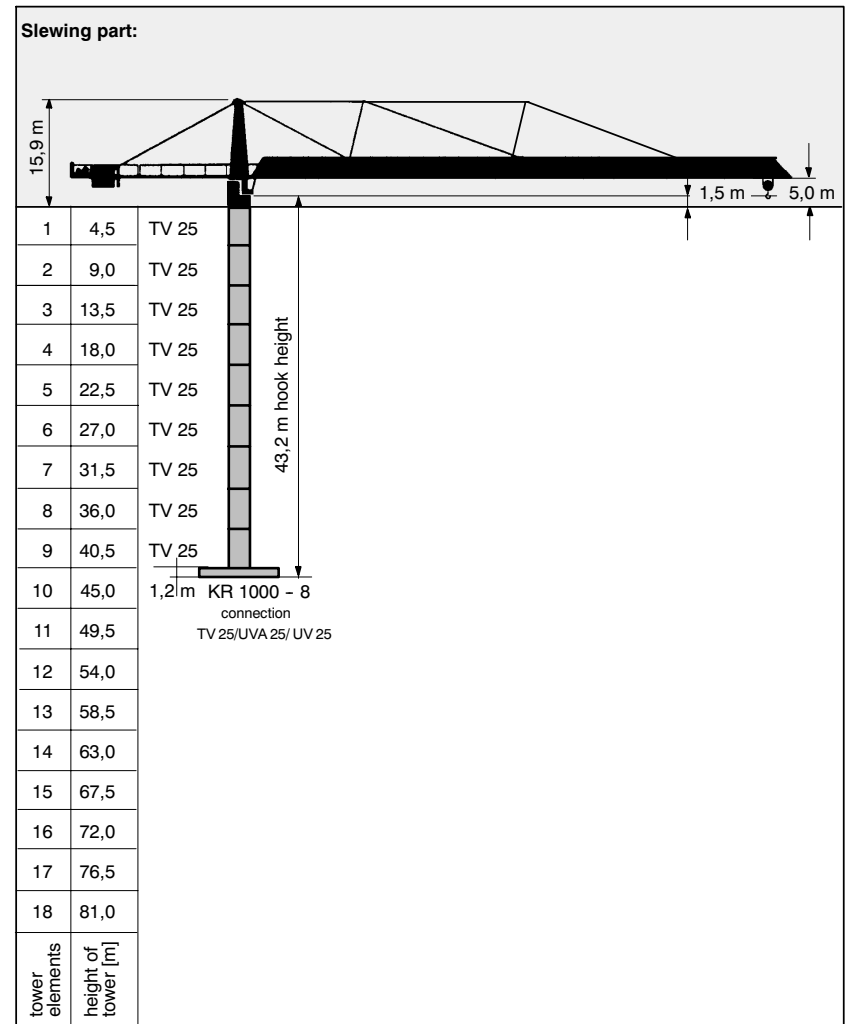


For data regarding foundation anchors see section 12.

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

2.2.8.1 Tower configuration

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

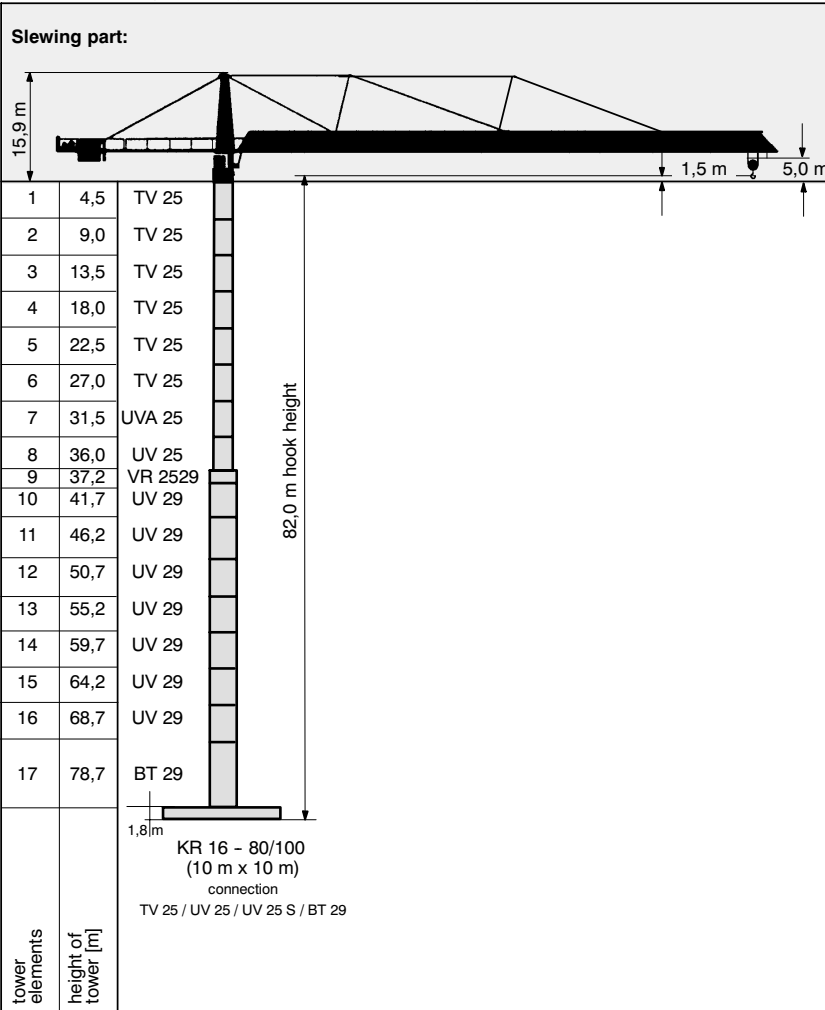


For data regarding cross frames see section 12.

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

2.2.8.2 Tower configuration

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

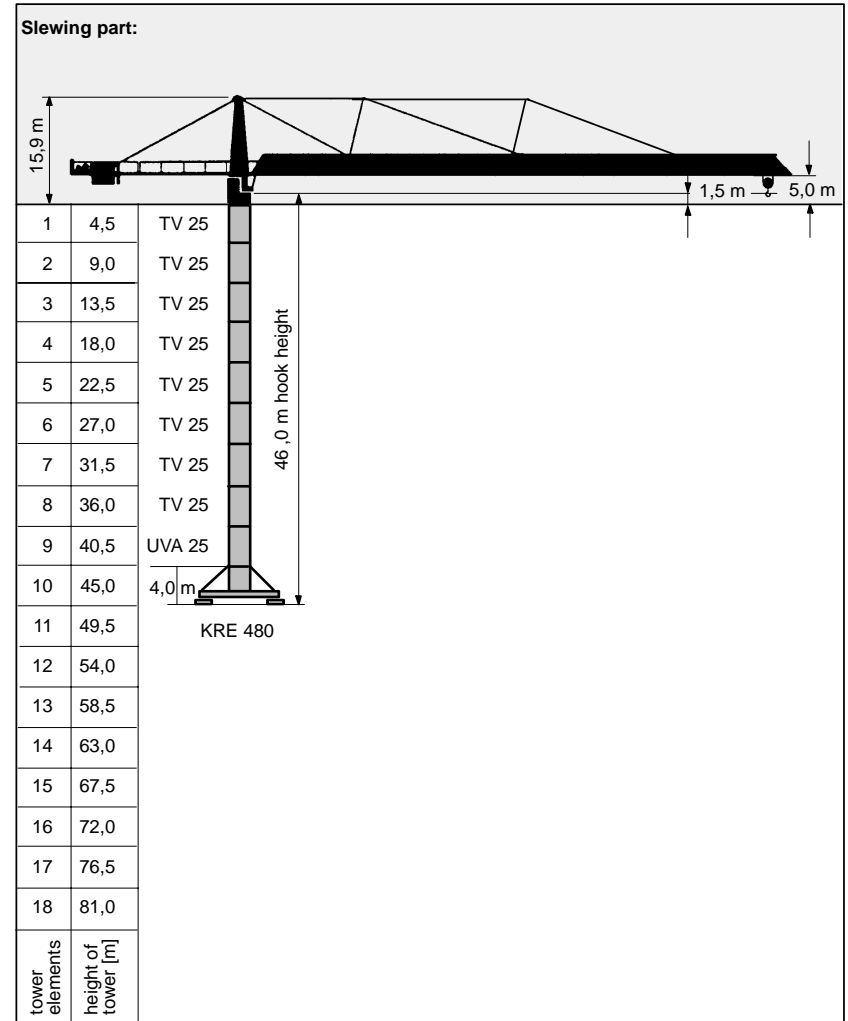


For data regarding cross frames see section 12.

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

2.2.9.1 Tower configuration

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

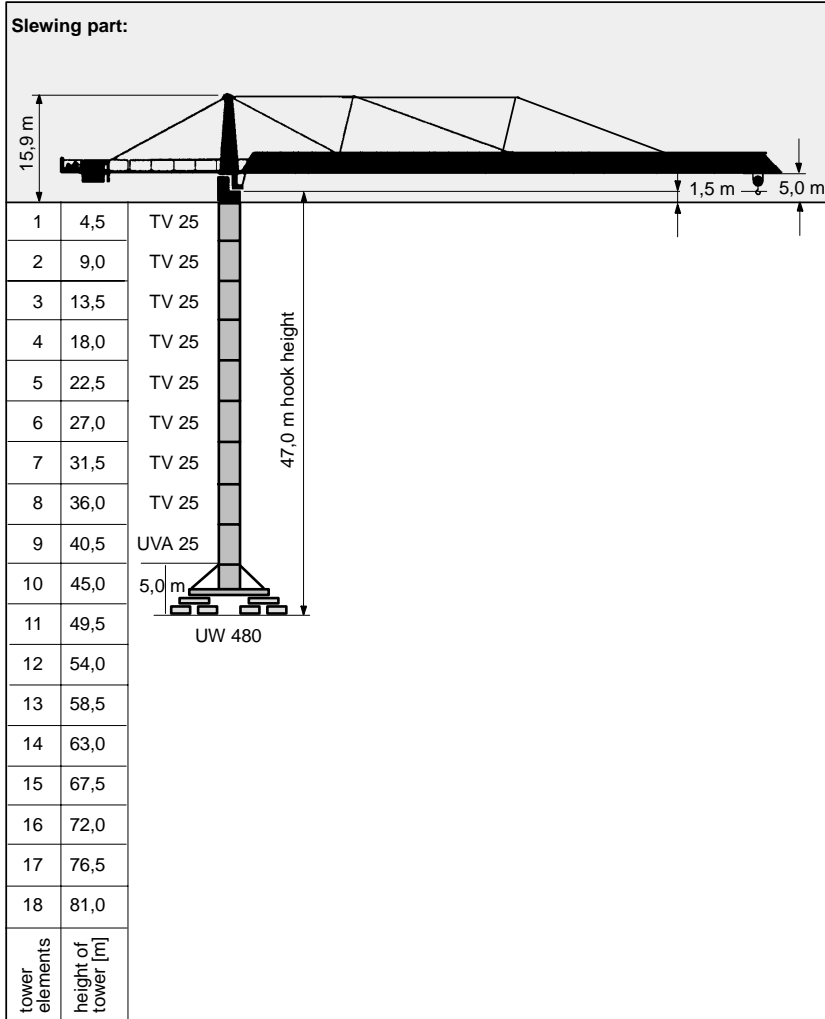


For data regarding cross frames elements see section 12.

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

2.2.10.1 Tower configurations

for a travelling tower crane without climbing drive.



For data regarding undercarriage see section 12.

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

2.3.1

Colli list

Item	pcs.	Designation	Colli	L (m)	B (m)	H (m)	weight (kg)	volume (m ³)
1	1	tower top complete with platforms at tower top, ladders and different bracing brackets, without platform at slewing frame		15,88	2,99	2,57	19840	122,4
		tower top complete without bracing brackets, platforms or ladders		15,88	2,57	2,57	18550	104,9
		upper part of tower top without platforms, ladders or bracing brackets		10,52	2,10	2,20	4280	48,6
		lower part of tower top with slewing frame, DV, slewing drives, slip ring system and adapter; without platform at slewing frame		6,81	2,57	2,57	14270	51,5
		lower part of tower top with slewing frame, DV, slewing drives, slip ring system without adapter or platform at slewing frame		3,50	2,30	2,50	9730	20,1
		Pos. 1 dismantled						
2	1	platform slewing frame		1,84	0,77	0,99	110	1,4
3	1	driver's cabin with driver's cabin suspension		2,88	2,15	2,45	1100	14,8
		driver's cabin suspension		1,03	1,85	0,91	170	1,7

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)
4	1	counterjib 26,7 m folded without platforms		16,60	2,10	1,50	7700	52,3
		counterjib 26,7 m unfolded without platforms		25,12	2,10	0,75	7700	39,6
		counterjib 21,7 m folded without platforms		11,60	2,10	1,50	6250	36,5
		counterjib 21,7 m unfolded without platforms		20,12	2,10	0,75	6250	31,7
		counterjib 16,7 m folded without platforms		11,60	2,10	1,50	4750	36,5
		counterjib 16,7 m unfolded without platforms		15,12	2,10	0,75	4750	23,8
5	1	platform1/460x2570		2,61	0,62	0,52	81	0,8
	1	platform2/460x2560		2,56	0,62	0,52	74	0,8
	1	platform3/460x2060		2,06	0,62	0,52	63	0,7
	1	platform5/460x2078		2,11	0,62	0,52	70	0,7
6	2	platform4/310x2060		2,06	0,47	0,52	48	0,5
	1	platform6/310x2065		2,07	0,47	0,52	70	0,5
7	1	machinery platform HW 25110 FU with hoisting rope (Ø 24 mm x 225 m)		2,30	3,73	2,30	7290	19,7
8	1	disassembly crane		2,35	0,4	3,05	300	2,87

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

2.3.3

Colli list

item	pcs.	designation	colli	L (m)	B (m)	H (m)	weight (kg)	volume (m ³)
9	1	jib part 1 with trolley drive		10,25	2,06	2,43	5070	51,3
10	1	jib part 2		10,24	2,06	2,19	3460	46,2
11	1	jib part 3		10,30	2,06	2,18	2630	46,3
12	1	jib part 4		10,24	2,06	2,17	2240	45,8
13	1	jib part 5		10,26	2,06	2,17	1970	45,9
14	1	jib part 6		5,22	2,06	2,16	910	23,2
15	1	jib part 7		10,22	2,06	2,16	1600	45,5
16	1	jib part 8		10,22	2,06	2,13	1350	44,8
17	1	jib part 9		5,21	2,06	2,16	840	23,2
18	1	rope swivel traverse		1,55	1,98	0,50	310	1,5
19	1	bracing trestle 1		10,43	1,88	0,96	1040	18,8
20	1	bracing trestle 2 with assembly trestle		10,39	1,86	0,64	730	12,4

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

2.3.4

Colli list

Item	pcs.	designation	colli	L (m)	B (m)	H (m)	weight (kg)	volume (m ³)
22	1	trolley jib bracing 1.1		0,70	0,09	0,24	68	0,02
23	1	bracing 1.2		2,18	0,07	0,28	153	0,04
24	1	bracing 1.3		0,62	0,05	0,24	50	0,01
25	1 (2x)	bracing 1.4		9,00	0,11	0,24	502	0,24
26	1	bracing 1.5		1,30	0,25	0,24	130	0,08
27	1	bracing 2.1		3,28	0,11	0,27	172	0,10
28	1 (2x)	bracing 2.2		9,58	0,11	0,23	416	0,24
29	1	bracing 3.1		5,22	0,09	0,20	172	0,09
30	1	bracing 3.2		3,32	0,09	0,20	117	0,06
31	1	bracing 3.3		9,88	0,09	0,20	306	0,18
32	1	bracing 3.4		1,22	0,20	0,18	68	0,04
33	1 (3x)	bracing 4.1		9,46	0,09	0,19	213	0,16
34	1	bracing 4.2		2,70	0,09	0,19	78	0,05
35	1	bracing 4.3		7,84	0,09	0,19	185	0,13
36	1	bracing 5.1		4,82	0,09	0,19	120	0,08
37	1	bracing 5.2		4,95	0,09	0,19	123	0,08

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

2.3.5

Colli list

Item	pcs.	designation	colli	L (m)	B (m)	H (m)	weight (kg)	volume (m ³)
38	1	bracing 5.3		1,20	0,18	0,16	57	0,03
39	1	connection strap 1		1,19	0,25	0,50	208	0,15
40	1	connection strap 2		1,16	0,11	0,40	120	0,05
41	1	assembly platform		1,24	1,30	1,70	140	2,74
42	1	trolley LK 25		2,00	2,30	1,30	960	6,0
43	1	hook block U 25		1,30	0,60	1,30	680	1,0
44	1	hoisting rope support		2,58	1,51	1,76	200	6,9
45	1 (2x)	Counterjib bracing 1		9,56	0,07	0,21	295	0,14
46	1 (2x)	bracing 2		4,69	0,07	0,21	155	0,07
47	1 (2x)	bracing 3		4,31	0,07	0,21	145	0,06
48	1 (2x)	bracing 4		5,35	0,07	0,21	175	0,08
49	1	standard handrail (small parts)		2,55	1,1	1,80	460	5,05
50	1	box (small parts)		1,60	0,90	0,80	500	1,15

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

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

Tower top, complete		20 600 kg
bracing brackets (1x560 mm, 2x9300mm), driver's cabin, driver's cabin suspension, platform and standard handrails		
- upper part of tower top, complete	5 440 kg	
- driver's cabin with driver's cabin suspension	760 kg	
- lower part of tower top with slewing frame, DV, slewing drives, platform, standard handrails and slip ring system	14 400 kg	
Counterjib 26,7 m - with hoisting drive Hw 2075 FU, complete		19 220 kg
machinery platform Hw 2075 FU with hoisting rope (Ø 24 mm x 225 m), 6 platforms, 6 bracing brackets, assembly trestles and standard handrail, counterweight 3 t (under machinery platform),		
- counterjib with 6 bracing brackets, platforms, assembly trestles and standard handrail	9 270 kg	
- machinery platform Hw 2075 FU with hoisting rope (Ø 24 mm x 225 m)	6 950 kg	
- counterweight 3 t (under machinery platform)	3 000 kg	
Counterjib 21,7 m - with hoisting drive Hw 2075 FU, complete		17 700 kg
machinery platform Hw 2075 FU with hoisting rope (Ø 24 mm x 225 m), 6 platforms, 6 bracing brackets, assembly trestles and standard handrail, counterweight 3 t (under machinery platform),		
- counterjib with 4 bracing brackets, platforms, assembly trestles and standard handrail	7 750 kg	
- machinery platform Hw 2075 FU with hoisting rope (Ø 24 mm x 225 m)	6 950 kg	
- counterweight 3 t (under machinery platform)	3 000 kg	
Counterjib 16,7 m - with hoisting drive Hw 2075 FU, complete		15 300 kg
machinery platform Hw 2075 FU with hoisting rope (Ø 24 mm x 225 m), 6 platforms, 2 bracing brackets, assembly trestles and standard handrail, counterweight 3 t (under machinery platform),		
- counterjib with 2 bracing brackets, platforms, assembly trestles and standard handrail	6 230 kg	
- machinery platform Hw 2075 FU with hoisting rope (Ø 24 mm x 225 m)	6 950 kg	
- counterweight 3 t (under machinery platform)	3 000 kg	

2.5.2 **Assembly weights - trolley jib**

80 m trolley jib, complete	29 290 kg
- bracing brackets, bracing trestles, trolley, traversing ropes, hook block and standard handrails	
75 m trolley jib, complete	28 255 kg
- bracing brackets, bracing trestles, trolley, traversing ropes, hook block and standard handrails	
70 m trolley jib, complete	27 815 kg
- bracing brackets, bracing trestles, trolley, traversing ropes, hook block and standard handrails	
65 m trolley jib, complete	26 780 kg
- bracing brackets, bracing trestles, trolley, traversing ropes, hook block and standard handrails	
60 m trolley jib, complete	25 870 kg
- bracing brackets, bracing trestles, trolley, traversing ropes, hook block and standard handrails	
55 m trolley jib, complete	23 135 kg
- bracing brackets, bracing trestles, trolley, traversing ropes, hook block and standard handrails	
50 m trolley jib, complete	22 225 kg
- bracing brackets, bracing trestles, trolley, traversing ropes, hook block and standard handrails	
45 m trolley jib, complete	21 090 kg
- bracing brackets, bracing trestles, trolley, traversing ropes, hook block and standard handrails	
40 m trolley jib, complete	20 115 kg
- bracing brackets, bracing trestles, trolley, traversing ropes, hook block and standard handrails	
30 m trolley jib, complete	15 125 kg
- bracing brackets, trolley, traversing ropes, hook block and standard handrails	

2.5.3

Assembly weights - cross frame / cross frame element / undercarriage

Cross frame KR 1000 - 8 (8,0 m x 8 m)	(without optional parts)	14 050 kg
	- 4 spigots AZ 140 M	684 kg
	- 4 spigots AZ 156 M	748 kg
Cross frame KR 16 - 80/100 (8 m x 8 m)	(without optional features)	21 450 kg
	- 4 spigots AZ 140 E KR16-80	620 kg
	- 4 spigots AZ 156 M KR16-80	680 kg
	- 4 spigots AZS 156 M KR16-80	675 kg
Cross frame KR 16 - 80/100 (10 m x 10 m)	(without optional features)	25 400 kg
	- 4 spigots AZ 140 E KR16-80	620 kg
	- 4 spigots AZ 156 M KR16-80	680 kg
	- 4 spigots AZ 156S M KR16-80	675 kg
Cross frame element KRE 480, complete		24 250 kg
- base mast part	7 100 kg	
- swivel arms with corner bearings	6 250 kg	
- diagonal struts and ballast rest	9 260 kg	
- assembly platform, ladder and small parts	1 640 kg	
Undercarriage UW 480, complete		34 000 kg
- base mast part	7 100 kg	
- swivel arms with crosshead and subframe	16 000 kg	
- diagonal struts and ballast rest	9 260 kg	
- assembly platform, ladder and small parts	1 640 kg	

2.5.4

Required hook height for the mobile crane

**Danger!**

Use suspension ropes with sufficient capacity and observe suspension plans!

Required height under hook for the mobile crane

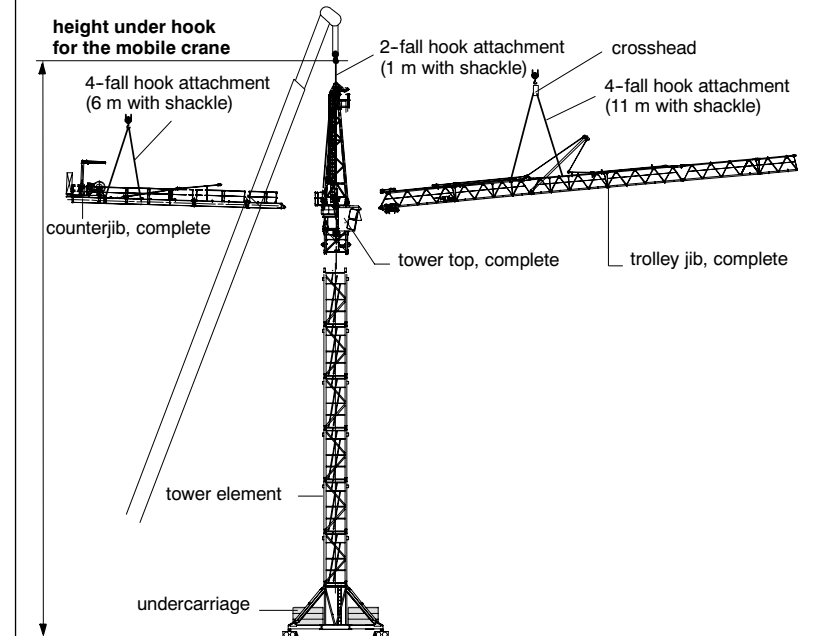
=

Height under hook of WOLFF tower crane + 18 m.

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

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

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

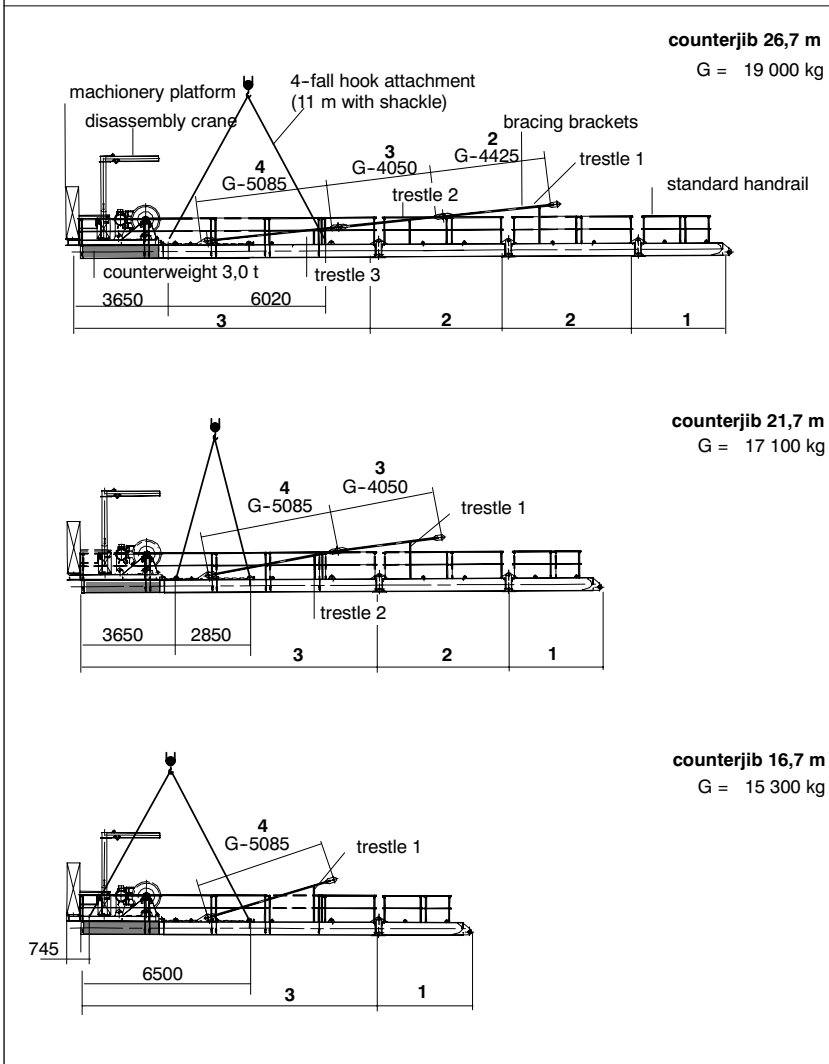


2.6.1.1 Counterjib - suspension plan



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

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



2.6.3.1 Trolley jib - suspension plan 80 m jib



Danger during disassembly!

Loosen bolts at the pivot point of the jib. Trolley jib must be balanced before it is lifted away. There mustn't be any loose parts on the trolley jib.

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

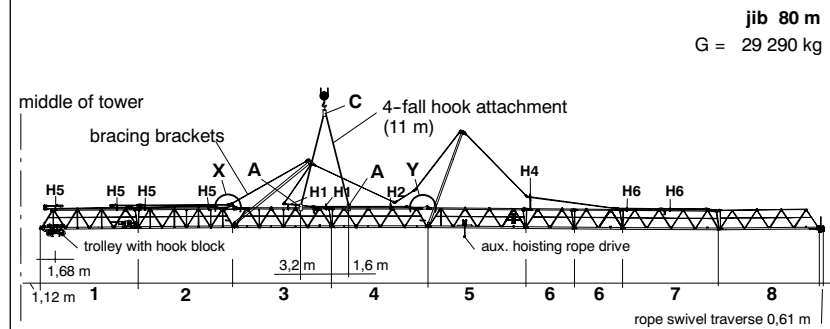
Lengths: trolley jib part 1/2/3/4/5/7/8 = 10,0 m
trolley jib part 6 = 5,0 m
rope swivel traverse = 0,61 m

More details about suspensions **A**, **B** and **C** see item 2.6.3.10 / 2.6.3.11 and supports **H1** to **H6** see item 2.6.3.12.

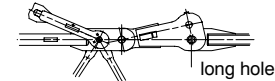


Attention!

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

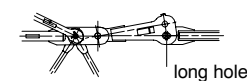


Detail " X "



Attention !
Connecting strap 1 must show to the top and be bolted in the long hole.

Detail " Y "



Attention !
Connecting strap 2 must show to the top and be bolted in the long hole.

2.6.3.2 Trolley jib - suspension plan 75 m jib and 70 m jib



Danger during disassembly!

Loosen bolts at the pivot point of the jib. Trolley jib must be balanced before it is lifted away. There mustn't be any loose parts on the trolley jib.

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

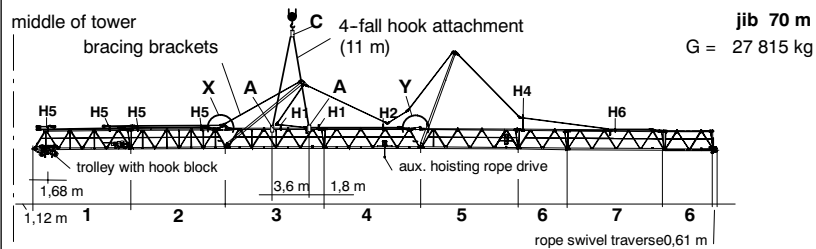
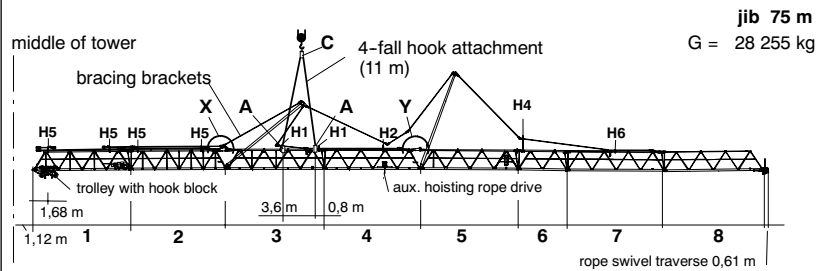
Lengths: trolley jib part 1/2/3/4/5/7/8 = 10,0 m
 trolley jib part 6 = 5,0 m
 rope swivel traverse = 0,61 m

More details about suspensions **A**, **B** and **C** see item 2.6.3.10 / 2.6.3.11 and supports **H1 to H6** see item 2.6.3.12.

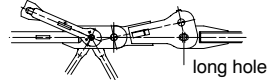


Attention!

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

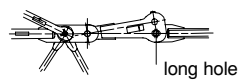


Detail " X "



Attention !
 Connecting strap 1 must show to the top and be bolted in the long hole.

Detail " Y "



Attention !
 Connecting strap 2 must show to the top and be bolted in the long hole.

2.6.3.3 Trolley jib - suspension plan 65 m and 60 m jib



Danger during disassembly!

Loosen bolts at the pivot point of the jib. Trolley jib must be balanced before it is lifted away. There mustn't be any loose parts on the trolley jib.

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

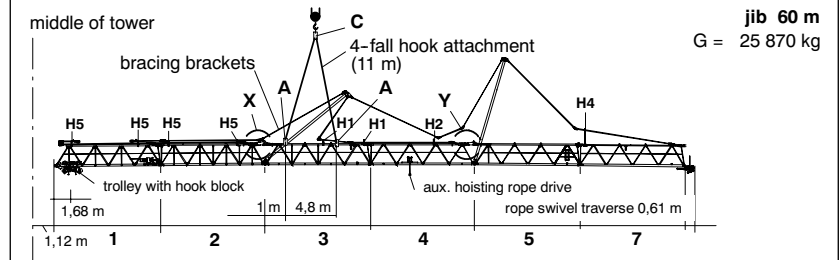
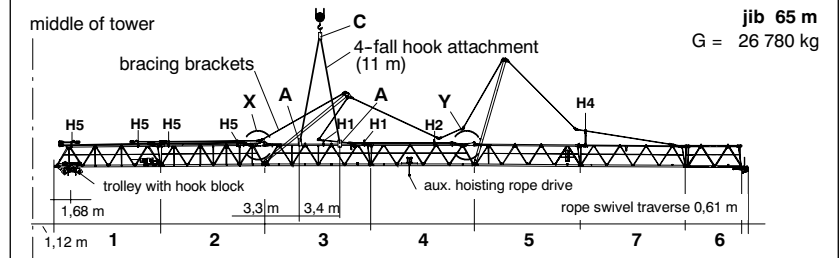
Lengths: trolley jib part 1/2/3/4/5/7 = 10,0 m
 trolley jib part 6 = 5,0 m
 rope swivel traverse = 0,61 m

More details about suspensions **A**, **B** and **C** see item 2.6.3.10 / 2.6.3.11 and supports **H1 to H6** see item 2.6.3.12.

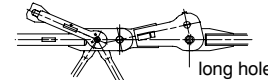


Attention!

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

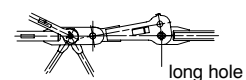


Detail " X "



Attention !
 Connecting strap 1 must show to the top and be bolted in the long hole.

Detail " Y "



Attention !
 Connecting strap 2 must show to the top and be bolted in the long hole.

2.6.3.4 Trolley jib - suspension plan 55 m jib and 50 m jib



Danger during disassembly!

Loosen bolts at the pivot point of the jib. Trolley jib must be balanced before it is lifted away. There mustn't be any loose parts on the trolley jib.

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

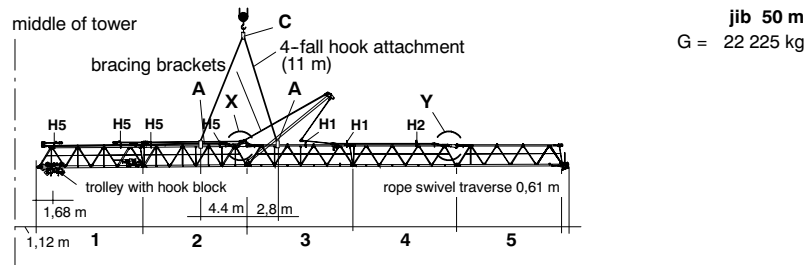
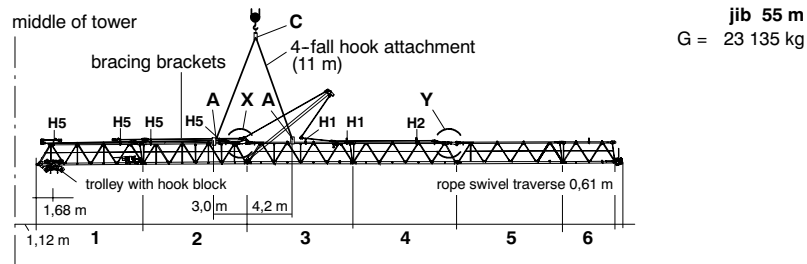
Lengths: trolley jib part 1/2/3/4/5 = 10,0 m
 trolley jib part 6 = 5,0 m
 rope swivel traverse = 0,61 m

More details about suspensions **A**, **B** and **C** see item 2.6.3.10 / 2.6.3.11 and supports **H1** to **H6** see item 2.6.3.12.

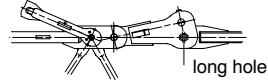


Attention!

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

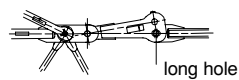


Detail " X "



Attention !
 Connecting strap 1 must show to the top and be bolted in the long hole.

Detail " Y "



Attention !
 Connecting strap 2 must show to the top and be bolted in the long hole.

2.6.3.5 Trolley jib - suspension plan 45 m and 40 m jib



Danger during disassembly!

Loosen bolts at the pivot point of the jib. Trolley jib must be balanced before it is lifted away. There mustn't be any loose parts on the trolley jib.

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

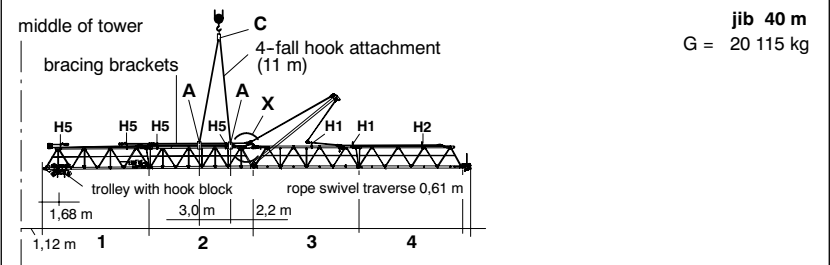
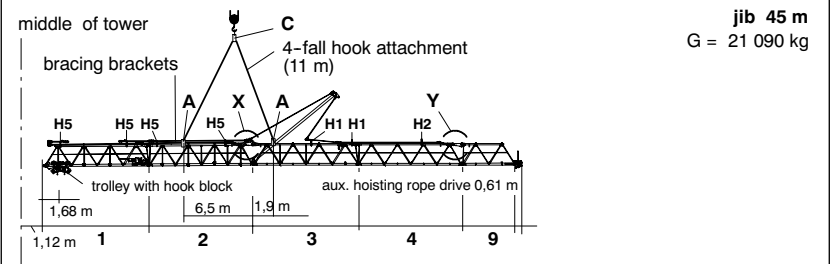
Lengths: trolley jib part 1/2/3/4 = 10,0 m
 trolley jib part 6 = 5,0 m
 rope swivel traverse = 0,61 m

More details about suspensions **A**, **B** and **C** see item 2.6.3.10 / 2.6.3.11 and supports **H1** to **H6** see item 2.6.3.12.

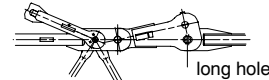


Attention!

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

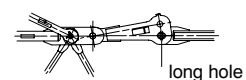


Detail " X "



Attention !
 Connecting strap 1 must show to the top and be bolted in the long hole.

Detail " Y "



Attention !
 Connecting strap 2 must show to the top and be bolted in the long hole.

2.6.3.6 Trolley jib - suspension plan 30 m jib



Danger during disassembly!

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

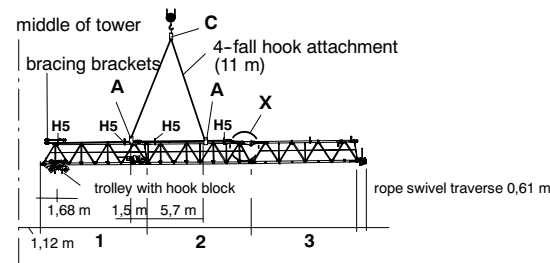
Lengths: trolley jib part $1/2/3 = 10,0$ m
 rope swivel traverse = 0,61 m

More details about suspensions **A**, **B** and **C** see item 2.6.3.10 / 2.6.3.11 and supports **H1** to **H6** see item 2.6.3.12.

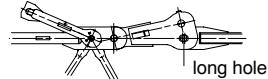


Attention!

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



Detail " X "



Attention !

Connecting strap 1 must show to the top and be bolted in the long hole.

2.7.1

Hoisting rope

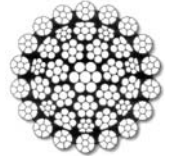
for hoisting winch Hw 25110 FU

Cable Ø = 24 mm + 4%
 + 2%

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

First equipment

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



with special packing material grip

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

Design

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

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

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

= 126

Attention! hoisting rope with special packing material grip

Basic equipment

cable length 225 m	cable	2 fall
	for crane with:	80 m
	hook path	42 m

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



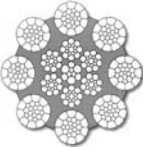
Attention!

A wire cable is a complex machine element.

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

2.7.2

Traversing rope

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

Attention! short traversing rope with special packing material grip

Basic equipment

cable lengths	1 x 100 m	for crane with:	radius 60 m - 80 m
	1 x 176 m		
cable lengths	1 x 100 m	for crane with:	radius 30 m - 55 m
	1 x 106 m		

!

Attention!
A wire cable is a complex machine element.

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

2.8.1

Insertable exterior climbing drive KWH 25.2

!

Attention!

The assembly of the climbing drive with the WOLFF tower crane 8060.25 is possible with operation in 2 falls.

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

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

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

2.8.1.1

Balancing weights

WOLFF 8060.25	jib									
	30 m	40 m	45 m	50 m	55 m	60 m	65 m	70 m	75 m	80 m
balancing weight * TV 25 = 3,02 t	--	--	--	--	--	--	--	--	--	**
UV 25 = 3,68 t	--	--	--	--	--	--	--	60,4	66,9	53,3
load = 5,0 t	--	--	--	--	--	57,4	58,7	--	--	--
load = 8,0 t	--	--	38,2	38,2	38,8	40,0	40,9	--	--	--
load = 12,0 t	29,4	29,9	27,2	27,2	27,6	--	--	--	--	--
load = 15,0 t	24,1	24,6	--	--	--	--	--	--	--	--

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

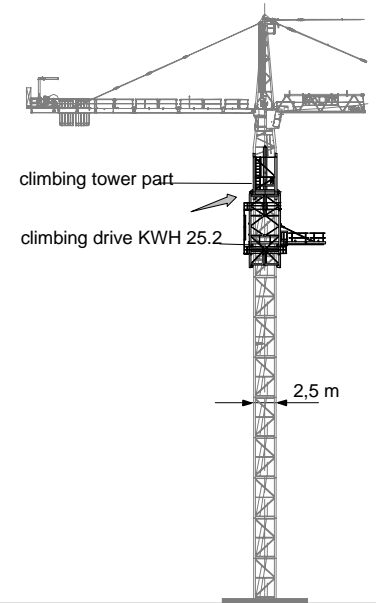
** The given radius (m) is an approximate value and refers to the center of the tower. The exact balancing position can be reached by carefully moving the trolley and can be checked by a frictionless moving in or out of the concerned tower section.

-- balancing not possible.

!

Danger!

While climbing, the slewing part of the crane must be locked in the direction 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 20.5). The climbing gear is an auxilliary device for assembly and mustn't stay at the tower crane WOLFF under normal working conditions.



WOLFF 8060.25

Crane data
2 / 105

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

For use of the WOLFF 8060.25 in connection with internal climbing drive KSH 25 the tower combination has to be observed as shown here.

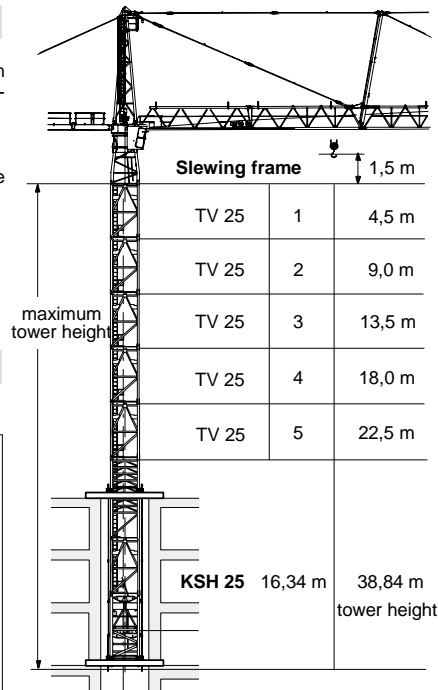
More details about the climbing drive KSH 25 see additional equipment, section 12.

2.8.5.1 **Balancing weights**

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

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

-- balancing not possible

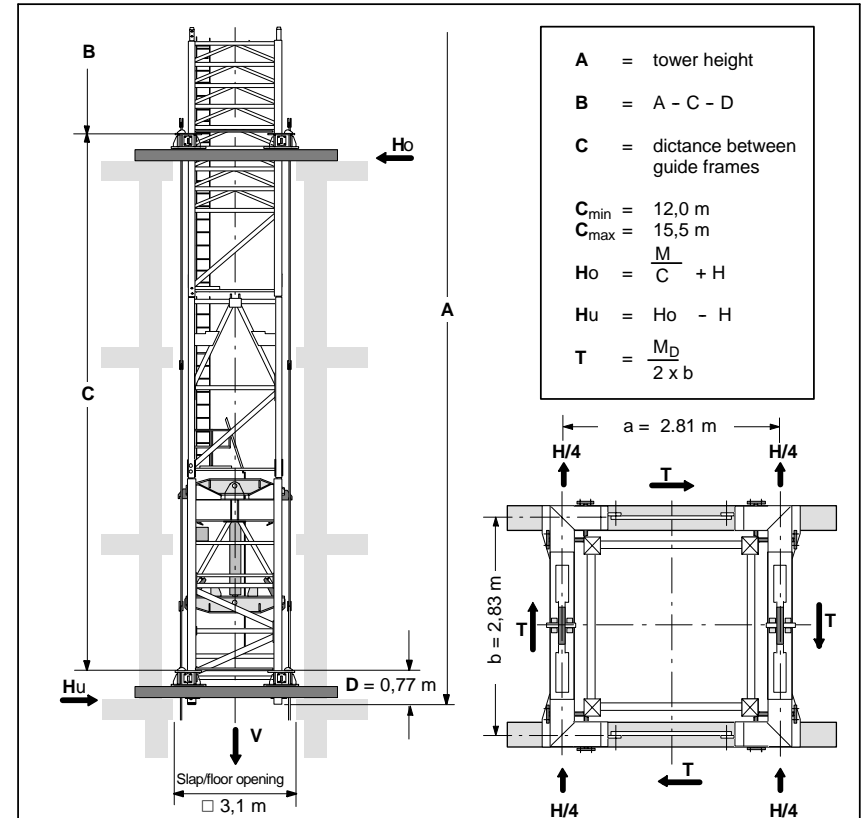


WOLFF 8060.25	jib									
	30 m	40 m	45 m	50 m	55 m	60 m	65 m	70 m	75 m	80 m
balancing weight *	--	--	--	--	--	--	--	--	--	60,3
TV 25 = 3,02 t	--	--	--	--	--	--	--	62,3	68,8	55,1
UV 25 = 3,68 t	--	--	--	--	--	--	59,0	60,1	--	--
load = 5,0 t	--	--	39,1	39,1	39,7	41,0	41,8	--	--	--
load = 8,0 t	--	--	39,1	39,1	39,7	41,0	41,8	--	--	--
load = 12,0 t	--	30,6	27,8	27,8	28,2	--	--	--	--	--
load = 15,0 t	24,7	25,1	--	--	--	--	--	--	--	--

WOLFF 8060.25

Crane data
2 / 106

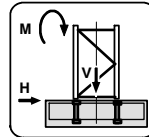
2.8.2.2 **Reacting forces to building for hydraulic interior climbing drive KSH 25**



Reacting forces to building (kN)		in service							
A(m)	38,8	34,3							
C(m)	12	13	14	15,5	12	13	14	15,5	
V	1880				1848				
Ho	615	565	525	475	585	540	500	455	
Hu	550	500	460	410	525	480	440	390	
T	115				115				
Reacting forces to building(kN)		out of service							
A(m)	38,8	34,3							
C(m)	12	13	14	15,5	12	13	14	15,5	
V	1470				1438				
Ho	525	485	450	405	450	415	385	350	
Hu	325	285	250	205	260	225	200	160	
T									

3.1.1 Foundation loads according to DIN

inclusive all dynamic factors, theory order II taken into account.
 for a stationary tower crane on a concrete foundation
 according to tower configuration without climbing drive
 Permanent acting moment = **3410 kNm**
M = moment **H** = horizontal force **V** = vertical load

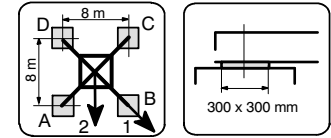


Foundation loads **Jib lengths 30 - 80 m**

height under hook [m]	crane in service torque moment 650 kNm			crane out of service			assembly		
	M [kNm]	H [kN]	V [kN]	M [kNm]	H [kN]	V [kN]	M [kNm]	H [kN]	V [kN]
10,5	5590	46	1229	280	104	1146	4640	23	477
15,0	5830	48	1261	220	114	1178	4750	25	519
19,5	6090	50	1293	750	124	1210	4890	27	542
24,0	6380	53	1325	1340	134	1242	5030	30	573
28,5	6690	55	1357	1980	143	1274	5190	32	606
33,0	7030	57	1389	2670	153	1306	5370	34	637
37,5	7410	59	1421	3430	163	1338	5560	36	664
42,0	7820	61	1453	4250	173	1370	5770	39	701
46,5	8220	64	1493	5090	183	1410	6000	41	733
51,0	8680	66	1529	6050	194	1446	6240	43	765
55,5	7673	65	1535	6770	183	1400	6490	45	805
60,0	8164	68	1575	7850	193	1436	6770	47	841
Attention ! Tower configuration with basis tower BT 29									
62,2	8310	70	1659	8230	200	1490	6840	49	895
66,7	8810	73	1705	9390	210	1536	7130	52	941
71,2	9340	75	1751	10641	220	1582	7440	55	988
75,7	9930	78	1798	12030	233	1629	7780	57	1034
80,2	10560	80	1844	13490	244	1675	8140	60	1080

3.2.1.1 Central ballasts and corner loads acc. to DIN 15019

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

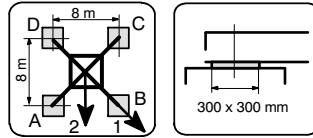


KR 1000 - 8 **Corner distance 8,0 m x 8,0 m** **Jib length 30 m**

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 327 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads				horizontal force			corner loads				horizontal force	
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
11,7	67,5	1	498	891	498	105	45	1	435	691	435	179	62		
		2	776	776	220	220		2	616	616	254	254			
16,2	67,5	1	506	917	506	95	48	1	443	648	443	238	85		
		2	797	797	215	215		2	588	588	298	298			
20,7	67,5	1	514	945	514	83	50	1	451	624	451	278	92		
		2	819	819	209	209		2	574	574	329	329			
25,2	67,5	1	522	975	522	69	52	1	340	594	340	86	102		
		2	842	842	202	202		2	554	554	365	365			
29,7	67,5	1	530	1007	530	53	55	1	348	614	348	83	111		
		2	867	867	193	193		2	536	536	160	160			
34,2	67,5	1	538	1041	538	35	57	1	356	634	356	78	121		
		2	893	893	182	182		2	553	553	160	160			
38,7	67,5	1	546	1077	546	14	59	1	364	656	364	73	131		
		2	922	922	170	170		2	570	570	158	158			
43,2	67,5	1	545	1126	545	0	61	1	372	679	372	66	141		
		2	952	952	156	156		2	589	589	155	155			
47,7	72,5	1	555	1191	555	0	64	1	394	716	394	71	151		
		2	997	997	154	154		2	622	622	166	166			

3.2.1.2 Central ballasts and corner loads acc. to DIN 15019

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

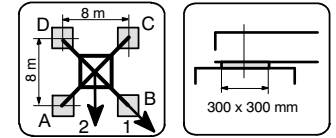


KR 1000 - 8 Corner distance 8,0 m x 8,0 m **Jib length 40 m**

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 490 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads				horizontal force			corner loads				horizontal force	
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
11,7	85,0	1	541	953	541	130	47	1	479	715	479	243	68		
		2	832	832	251	251		2	646	646	312	312			
16,2	85,0	1	549	979	549	119	49	1	372	699	372	45	93		
		2	853	853	245	245		2	612	612	361	361			
20,7	85,0	1	557	1008	557	107	52	1	380	717	380	43	100		
		2	876	876	239	239		2	618	618	142	142			
25,2	85,0	1	565	1039	565	92	54	1	388	736	388	40	110		
		2	900	900	231	231		2	634	634	142	142			
29,7	85,0	1	573	1071	573	75	56	1	396	757	396	36	120		
		2	925	925	221	221		2	651	651	141	141			
34,2	85,0	1	581	1106	581	56	58	1	404	779	404	30	130		
		2	953	953	210	210		2	669	669	140	140			
38,7	85,0	1	589	1144	589	35	61	1	412	802	412	23	140		
		2	982	982	197	197		2	688	688	137	137			
43,2	85,0	1	597	1184	597	10	63	1	420	826	420	14	150		
		2	1012	1012	182	182		2	707	707	133	133			
47,7	85,0	1	592	1241	592	0	65	1	429	853	429	6	160		
		2	1045	1045	168	168		2	729	729	130	130			

3.2.1.3 Central ballasts and corner loads acc. to DIN 15019

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

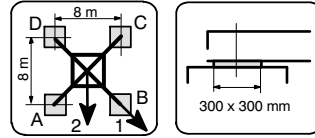


KR 1000 - 8 Corner distance 8,0 m x 8,0 m **Jib length 45 m**

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 490 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads				horizontal force			corner loads				horizontal force	
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
11,7	90,0	1	556	986	556	127	47	1	377	695	377	58	69		
		2	860	860	252	252		2	630	630	357	357			
16,2	90,0	1	564	1013	564	116	50	1	385	712	385	57	95		
		2	882	882	247	247		2	616	616	153	153			
20,7	90,0	1	572	1042	572	103	52	1	393	730	393	55	102		
		2	904	904	240	240		2	631	631	154	154			
25,2	90,0	1	580	1073	580	88	54	1	401	750	401	52	112		
		2	929	929	232	232		2	647	647	154	154			
29,7	90,0	1	588	1106	588	71	56	1	409	770	409	47	121		
		2	954	954	222	222		2	664	664	153	153			
34,2	90,0	1	596	1141	596	51	59	1	417	792	417	41	131		
		2	982	982	211	211		2	682	682	151	151			
38,7	90,0	1	604	1180	604	29	61	1	425	815	425	34	141		
		2	1011	1011	198	198		2	701	701	148	148			
43,2	90,0	1	612	1220	612	4	63	1	433	840	433	25	151		
		2	1042	1042	182	182		2	721	721	145	145			
47,7	90,0	1	600	1285	600	0	65	1	442	867	442	17	161		
		2	1076	1076	167	167		2	742	742	141	141			

3.2.1.4 Central ballasts and corner loads acc. to DIN 15019

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

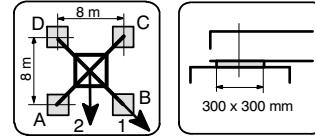


KR 1000 - 8 Corner distance 8,0 m x 8,0 m Jib length 50 m

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 490 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads							corner loads					
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
11,7	82,5	1	549	965	549	132	48	1	358	677	358	39	70		
		2	843	843	254	254		2	616	616	356	356			
16,2	82,5	1	557	993	557	121	50	1	366	694	366	38	95		
		2	865	865	249	249		2	598	598	134	134			
20,7	82,5	1	565	1022	565	108	52	1	374	712	374	36	103		
		2	888	888	242	242		2	613	613	135	135			
25,2	82,5	1	573	1053	573	93	54	1	382	731	382	33	112		
		2	912	912	233	233		2	629	629	135	135			
29,7	82,5	1	581	1086	581	76	57	1	390	752	390	28	122		
		2	938	938	223	223		2	646	646	134	134			
34,2	82,5	1	589	1122	589	56	59	1	398	774	398	22	132		
		2	965	965	212	212		2	664	664	132	132			
38,7	82,5	1	597	1160	597	34	61	1	406	797	406	15	142		
		2	995	995	199	199		2	683	683	129	129			
43,2	82,5	1	605	1201	605	8	63	1	414	822	414	6	152		
		2	1026	1026	183	183		2	703	703	125	125			
47,7	82,5	1	597	1262	597	0	66	1	420	852	420	0	162		
		2	1060	1060	168	168		2	727	727	375	375			

3.2.1.5 Central ballasts and corner loads acc. to DIN 15019

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

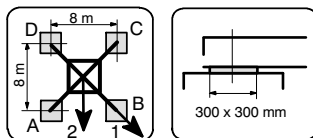


KR 1000 - 8 Corner distance 8,0 m x 8,0 m Jib length 55 m

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 490 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads							corner loads					
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
11,7	72,5	1	534	934	534	134	48	1	333	652	333	14	71		
		2	817	817	252	252		2	599	599	345	345			
16,2	72,5	1	542	962	542	123	50	1	341	669	341	13	97		
		2	839	839	246	246		2	573	573	109	109			
20,7	72,5	1	550	991	550	110	52	1	349	688	349	10	104		
		2	862	862	239	239		2	588	588	110	110			
25,2	72,5	1	558	1022	558	95	55	1	357	707	357	7	114		
		2	886	886	231	231		2	605	605	109	109			
29,7	72,5	1	566	1055	566	78	57	1	365	728	365	2	124		
		2	912	912	221	221		2	622	622	108	108			
34,2	72,5	1	574	1091	574	58	59	1	369	754	369	0	133		
		2	940	940	209	209		2	640	640	106	106			
38,7	72,5	1	582	1130	582	35	61	1	369	785	369	0	143		
		2	969	969	196	196		2	659	659	103	103			
43,2	72,5	1	590	1171	590	10	64	1	368	819	368	0	153		
		2	1001	1001	180	180		2	679	679	99	99			
47,7	72,5	1	584	1230	584	0	66	1	369	855	369	0	163		
		2	1034	1034	164	164		2	720	720	354	354			

3.2.1.6 Central ballasts and corner loads acc. to DIN 15019

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

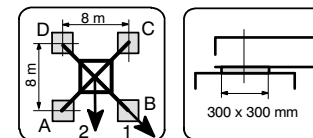


KR 1000 - 8 Corner distance 8,0 m x 8,0 m Jib length 60 m

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 651 kNm corner loads					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm corner loads					horizontal force [kN]
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
11,7	70,0	1	522	907	522	136	49	1	244	837	244	0	76		
		2	794	794	249	249		2	627	627	35	35			
16,2	70,0	1	530	935	530	125	52	1	250	857	250	0	104		
		2	816	816	243	243		2	642	642	36	36			
20,7	70,0	1	538	964	538	111	54	1	255	879	255	0	111		
		2	839	839	236	236		2	658	658	36	36			
25,2	70,0	1	546	996	546	95	56	1	258	904	258	0	121		
		2	864	864	227	227		2	675	675	35	35			
29,7	70,0	1	554	1030	554	78	58	1	260	932	260	0	131		
		2	890	890	217	217		2	693	693	34	34			
34,2	70,0	1	562	1066	562	57	61	1	261	963	261	0	140		
		2	918	918	205	205		2	712	712	31	31			
38,7	70,0	1	570	1105	570	35	63	1	260	997	260	0	150		
		2	948	948	191	191		2	732	732	27	27			
43,2	72,5	1	584	1152	584	15	65	1	270	1034	270	0	160		
		2	986	986	182	182		2	759	759	28	28			
47,7	75,0	1	595	1207	595	0	68	1	281	1073	281	0	170		
		2	1026	1026	172	172		2	788	788	29	29			

3.2.1.7 Central ballasts and corner loads acc. to DIN 15019

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

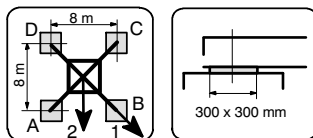


KR 1000 - 8 Corner distance 8,0 m x 8,0 m Jib length 65 m

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 651 kNm corner loads					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm corner loads					horizontal force [kN]
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
11,7	65,0	1	520	888	520	153	50	1	219	837	219	0	77		
		2	780	780	261	261		2	615	615	23	23			
16,2	65,0	1	528	916	528	141	52	1	225	858	225	0	105		
		2	802	802	255	255		2	630	630	23	23			
20,7	65,0	1	536	945	536	127	54	1	229	880	229	0	112		
		2	826	826	247	247		2	646	646	23	23			
25,2	65,0	1	544	977	544	112	56	1	232	906	232	0	122		
		2	850	850	238	238		2	663	663	22	22			
29,7	67,5	1	559	1017	559	100	59	1	247	934	247	0	132		
		2	883	883	234	234		2	687	687	27	27			
34,2	67,5	1	567	1053	567	80	61	1	247	965	247	0	142		
		2	911	911	222	222		2	706	706	24	24			
38,7	70,0	1	581	1098	581	63	63	1	259	999	259	0	152		
		2	947	947	215	215		2	732	732	26	26			
43,2	72,5	1	595	1146	595	44	65	1	269	1036	269	0	161		
		2	985	985	205	205		2	760	760	27	27			
47,7	75,0	1	610	1197	610	24	68	1	280	1076	280	0	171		
		2	1025	1025	196	196		2	789	789	28	28			

3.2.1.8 Central ballasts and corner loads acc. to DIN 15019

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

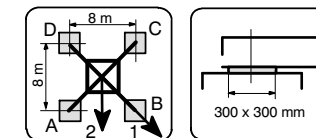


KR 1000 - 8 Corner distance 8,0 m x 8,0 m Jib length 70 m

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 651 kNm corner loads					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm corner loads					horizontal force [kN]
			A	B	C	D	A			B	C	D			
			[kN]	[kN]	[kN]	[kN]	[kN]			[kN]	[kN]	[kN]	[kN]	[kN]	
11,7	70,0	1	535	946	535	124	50	1	243	838	243	0	78		
		2	826	826	245	245		2	638	638	147	147			
16,2	70,0	1	543	975	543	112	52	1	249	859	249	0	106		
		2	848	848	238	238		2	655	655	146	146			
20,7	70,0	1	551	1005	551	98	55	1	254	882	254	0	113		
		2	872	872	231	231		2	674	674	143	143			
25,2	70,0	1	559	1037	559	82	57	1	257	907	257	0	123		
		2	897	897	222	222		2	693	693	140	140			
29,7	70,0	1	567	1072	567	63	59	1	259	936	259	0	133		
		2	924	924	211	211		2	714	714	135	135			
34,2	70,0	1	575	1109	575	42	61	1	259	967	259	0	143		
		2	952	952	198	198		2	736	736	130	130			
38,7	70,0	1	583	1148	583	18	64	1	258	1001	258	0	153		
		2	983	983	184	184		2	758	758	123	123			
43,2	72,5	1	595	1200	595	0	66	1	268	1039	268	0	163		
		2	1022	1022	173	173		2	789	789	121	121			

3.2.1.9 Central ballasts and corner loads acc. to DIN 15019

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

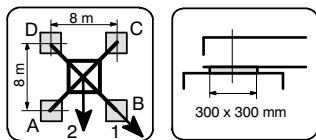


KR 1000 - 8 Corner distance 8,0 m x 8,0 m Jib length 75 m

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 651 kNm corner loads					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm corner loads					horizontal force [kN]
			A	B	C	D	A			B	C	D			
			[kN]	[kN]	[kN]	[kN]	[kN]			[kN]	[kN]	[kN]	[kN]	[kN]	
11,7	65,0	1	532	899	532	166	50	1	218	839	218	0	79		
		2	792	792	273	273		2	649	649	114	114			
16,2	65,0	1	540	927	540	153	52	1	224	859	224	0	107		
		2	814	814	267	267		2	666	666	112	112			
20,7	65,0	1	548	957	548	139	55	1	228	883	228	0	114		
		2	838	838	259	259		2	685	685	109	109			
25,2	65,0	1	556	990	556	123	57	1	231	909	231	0	124		
		2	863	863	250	250		2	705	705	106	106			
29,7	67,5	1	571	1030	571	111	59	1	245	937	245	0	134		
		2	895	895	246	246		2	732	732	107	107			
34,2	70,0	1	585	1073	585	97	61	1	258	969	258	0	144		
		2	930	930	240	240		2	760	760	107	107			
38,7	70,0	1	593	1112	593	74	64	1	257	1003	257	0	154		
		2	960	960	226	226		2	783	783	100	100			
43,2	72,5	1	607	1161	607	54	66	1	267	1041	267	0	164		
		2	999	999	216	216		2	814	814	98	98			

3.2.1.10 Central ballasts and corner loads acc. to DIN 15019

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

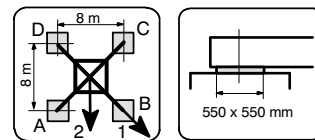


KR 1000 - 8 Corner distance 8,0 m x 8,0 m Jib length 80 m

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 651 kNm corner loads					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm corner loads					horizontal force [kN]
			A	B	C	D				A	B	C	D		
			[kN]	[kN]	[kN]	[kN]	[kN]			[kN]	[kN]	[kN]	[kN]	[kN]	
11,7	65,0	1	535	948	535	121	51	1	322	891	322	0	80		
		2	827	827	243	243		2	699	699	69	69			
16,2	65,0	1	543	977	543	109	53	1	324	919	324	0	109		
		2	850	850	236	236		2	717	717	67	67			
20,7	65,0	1	551	1008	551	94	55	1	325	950	325	0	116		
		2	874	874	228	228		2	735	735	64	64			
25,2	67,5	1	565	1046	565	84	57	1	336	984	336	0	126		
		2	905	905	225	225		2	762	762	66	66			
29,7	67,5	1	573	1081	573	65	60	1	333	1021	333	0	135		
		2	933	933	214	214		2	783	783	61	61			
34,2	70,0	1	587	1125	587	50	62	1	341	1062	341	0	145		
		2	968	968	207	207		2	812	812	61	61			
38,7	70,0	1	595	1166	595	25	64	1	335	1107	335	0	155		
		2	999	999	192	192		2	836	836	53	53			
43,2	75,0	1	616	1222	616	10	66	1	351	1156	351	0	165		
		2	1044	1044	188	188		2	873	873	56	56			

3.2.2.1 Central ballasts and corner loads acc. to DIN 15019

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

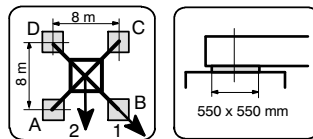


KR 16 - 80/100 Corner distance 8,0 m x 8,0 m Jib length 30 m

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 327 kNm corner loads					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm corner loads					horizontal force [kN]
			A	B	C	D				A	B	C	D		
			[kN]	[kN]	[kN]	[kN]	[kN]			[kN]	[kN]	[kN]	[kN]	[kN]	
48,3	70	1	556	1207	556	0	67	1	398	722	398	74	159		
		2	1006	1006	153	153		2	627	627	169	169			
50,5	70	1	576	1221	576	0	69	1	411	742	412	81	160		
		2	1025	1025	161	161		2	650	650	411	411			
55,0	85	1	640	1289	640	0	72	1	580	820	580	340	171		
		2	1098	1098	186	186		2	749	749	410	410			
59,5	100	1	691	1373	691	10	74	1	629	948	629	310	183		
		2	1173	1173	209	209		2	854	854	403	403			
64,0	115	1	740	1461	740	19	77	1	678	1080	678	276	195		
		2	1250	1250	231	231		2	962	962	394	394			
68,5	135	1	802	1565	802	39	79	1	739	1230	739	248	206		
		2	1342	1342	262	262		2	1087	1087	392	392			
73,0	155	1	863	1673	864	54	82	1	801	1388	801	214	217		
		2	1436	1436	291	291		2	1216	1216	386	386			
77,5	175	1	925	1784	925	66	84	1	862	1552	863	173	228		
		2	1532	1532	318	318		2	1350	1350	375	375			
82,0	200	1	999	1912	999	86	87	1	936	1737	937	136	239		
		2	1644	1644	354	354		2	1503	1503	370	370			

3.2.2.2 Central ballasts and corner loads acc. to DIN 15019

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

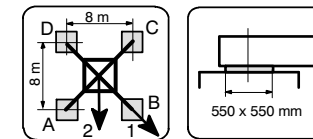


KR 16 - 80/100 Corner distance 8,0 m x 8,0 m **Jib length 40 m**

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 490 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads							corner loads					
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
48,3	80	1	578	1261	579	0	70	1	427	852	427	3	167		
		2	1050	1050	158	158		2	727	727	127	127			
50,5	80	1	598	1276	598	0	71	1	441	872	441	10	169		
		2	1069	1069	167	167		2	746	746	136	136			
55,0	95	1	661	1346	661	0	74	1	490	940	490	39	180		
		2	1143	1143	191	191		2	816	816	392	392			
59,5	110	1	716	1427	716	5	76	1	653	1036	654	271	192		
		2	1219	1219	213	213		2	924	924	383	383			
64,0	125	1	765	1517	765	13	79	1	703	1173	703	232	203		
		2	1297	1297	234	234		2	1035	1035	370	370			
68,5	145	1	827	1622	827	31	81	1	764	1328	764	200	214		
		2	1389	1389	264	264		2	1163	1163	365	365			
73,0	165	1	888	1731	888	45	84	1	826	1490	826	161	225		
		2	1484	1484	292	292		2	1296	1296	356	356			
77,5	190	1	962	1857	962	68	86	1	900	1672	900	127	237		
		2	1595	1595	330	330		2	1446	1446	354	354			
82,0	215	1	1036	1986	1037	86	89	1	974	1862	974	86	248		
		2	1708	1708	365	365		2	1602	1602	346	346			

3.2.2.2 Central ballasts and corner loads acc. to DIN 15019

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

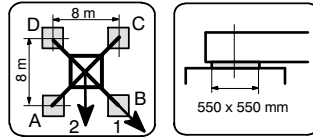


KR 16 - 80/100 Corner distance 8,0 m x 8,0 m **Jib length 45 m**

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 490 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads							corner loads					
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
48,3	85	1	586	1305	586	0	70	1	440	866	440	14	168		
		2	1081	1081	158	158		2	741	741	139	139			
50,5	85	1	606	1320	606	0	72	1	453	886	453	21	170		
		2	1100	1100	166	166		2	765	765	375	375			
55,0	85	1	593	1391	594	0	74	1	582	934	582	230	181		
		2	1136	1136	152	152		2	831	831	333	333			
59,5	95	1	628	1468	628	0	77	1	618	1055	619	182	193		
		2	1200	1200	162	162		2	927	927	310	310			
64,0	115	1	710	1551	710	0	79	1	680	1205	680	155	205		
		2	1291	1291	194	194		2	1051	1051	309	309			
68,5	135	1	788	1640	789	0	82	1	742	1362	742	121	216		
		2	1384	1384	224	224		2	1180	1180	303	303			
73,0	155	1	863	1737	863	0	84	1	803	1526	803	81	227		
		2	1480	1480	252	252		2	1314	1314	292	292			
77,5	180	1	940	1861	940	19	87	1	877	1709	877	45	238		
		2	1591	1591	289	289		2	1466	1466	289	289			
82,0	205	1	1014	1991	1014	36	89	1	951	1901	951	1	249		
		2	1705	1705	323	323		2	1623	1623	280	280			

3.2.2.4 Central ballasts and corner loads acc. to DIN 15019

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

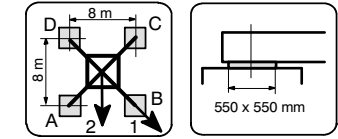


KR 16 - 80/100 Corner distance 8,0 m x 8,0 m Jib length 50 m

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 490 kNm					horizontal force [kN]	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads						corner loads					
			A [kN]	B [kN]	C [kN]	D [kN]			A [kN]	B [kN]	C [kN]	D [kN]		
48,3	75	1	571	1281	571	0	70	1	403	853	403	0	169	
		2	1059	1059	152	152		2	726	726	360	360		
50,5	75	1	590	1295	591	0	72	1	423	867	423	0	171	
		2	1077	1077	161	161		2	761	761	352	352		
55,0	75	1	578	1367	578	0	74	1	568	934	568	202	182	
		2	1114	1114	147	147		2	827	827	309	309		
59,5	90	1	637	1445	637	0	77	1	617	1068	617	166	194	
		2	1190	1190	169	169		2	936	936	298	298		
64,0	110	1	719	1528	719	0	79	1	679	1219	679	138	205	
		2	1282	1282	201	201		2	1061	1061	297	297		
68,5	130	1	797	1618	797	0	82	1	740	1377	740	104	217	
		2	1375	1375	231	231		2	1190	1190	290	290		
73,0	150	1	864	1722	864	6	84	1	802	1542	802	62	228	
		2	1471	1471	258	258		2	1325	1325	279	279		
77,5	175	1	938	1849	939	28	87	1	876	1727	876	25	239	
		2	1582	1582	294	294		2	1478	1478	274	274		
82,0	200	1	1012	1981	1013	44	89	1	930	1940	930	0	250	
		2	1697	1697	328	328		2	1636	1636	264	264		

3.2.2.5 Central ballasts and corner loads acc. to DIN 15019

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

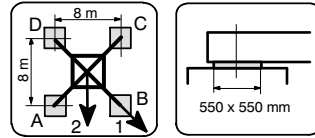


KR 16 - 80/100 Corner distance 8,0 m x 8,0 m Jib length 55 m

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 490 kNm					horizontal force [kN]	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads						corner loads					
			A [kN]	B [kN]	C [kN]	D [kN]			A [kN]	B [kN]	C [kN]	D [kN]		
48,3	70	1	583	1249	583	0	70	1	377	856	377	0	171	
		2	1045	1045	162	162		2	732	732	351	351		
50,5	70	1	603	1263	603	0	72	1	397	870	397	0	173	
		2	1064	1064	170	170		2	766	766	343	343		
55,0	70	1	590	1335	590	0	74	1	566	943	566	190	183	
		2	1101	1101	157	157		2	833	833	300	300		
59,5	90	1	674	1413	675	0	77	1	628	1091	628	165	196	
		2	1190	1190	191	191		2	955	955	301	301		
64,0	105	1	731	1497	731	0	79	1	677	1230	677	124	207	
		2	1269	1269	210	210		2	1068	1068	286	286		
68,5	125	1	801	1595	801	7	82	1	738	1389	739	88	218	
		2	1362	1362	240	240		2	1198	1198	279	279		
73,0	150	1	875	1718	875	32	84	1	812	1568	813	57	229	
		2	1471	1471	279	279		2	1346	1346	279	279		
77,5	175	1	949	1845	949	53	87	1	887	1754	887	19	240	
		2	1583	1583	315	315		2	1500	1500	273	273		
82,0	200	1	1023	1977	1023	69	90	1	933	1977	934	0	251	
		2	1698	1698	348	348		2	1660	1660	262	262		

3.2.2.6 Central ballasts and corner loads acc. to DIN 15019

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

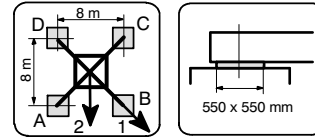


KR 16 - 80/100 Corner distance 8,0 m x 8,0 m **Jib length 60 m**

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 651 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads							corner loads					
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
48,3	75	1	607	1225	607	0	72	1	302	1073	302	0	178		
		2	1043	1043	177	177		2	799	799	40	40			
50,5	75	1	623	1243	623	3	73	1	322	1086	323	0	180		
		2	1062	1062	185	185		2	817	817	48	48			
55,0	85	1	660	1316	660	3	76	1	375	1128	375	0	190		
		2	1124	1124	196	196		2	890	890	305	305			
59,5	100	1	709	1404	709	13	78	1	450	1173	450	0	203		
		2	1201	1201	217	217		2	1002	1002	291	291			
64,0	120	1	770	1508	770	33	81	1	708	1305	708	111	214		
		2	1292	1292	249	249		2	1130	1130	286	286			
68,5	140	1	832	1615	832	49	83	1	769	1467	770	72	225		
		2	1386	1386	278	278		2	1263	1263	276	276			
73,0	165	1	906	1738	906	74	86	1	843	1649	844	38	236		
		2	1494	1494	318	318		2	1413	1413	274	274			
77,5	190	1	980	1865	980	95	89	1	914	1842	915	0	247		
		2	1606	1606	354	354		2	1569	1569	266	266			
82,0	215	1	1054	1997	1054	111	91	1	938	2091	938	0	258		
		2	1721	1721	388	388		2	1731	1731	252	252			

3.2.2.7 Central ballasts and corner loads acc. to DIN 15019

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

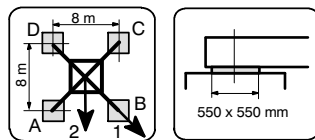


KR 16 - 80/100 Corner distance 8,0 m x 8,0 m **Jib length 65 m**

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 651 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads							corner loads					
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
48,3	75	1	621	1216	621	26	72	1	301	1076	301	0	179		
		2	1041	1041	200	200		2	800	800	39	39			
50,5	75	1	634	1237	634	32	74	1	321	1089	321	0	181		
		2	1060	1060	208	208		2	818	818	47	47			
55,0	80	1	658	1297	659	20	76	1	348	1131	348	0	192		
		2	1110	1110	207	207		2	895	895	297	297			
59,5	100	1	720	1398	720	42	79	1	449	1177	449	0	204		
		2	1199	1199	241	241		2	1020	1020	295	295			
64,0	120	1	782	1502	782	61	81	1	719	1327	719	112	215		
		2	1291	1291	272	272		2	1149	1149	290	290			
68,5	140	1	843	1609	843	77	84	1	781	1490	781	72	226		
		2	1385	1385	302	302		2	1282	1282	279	279			
73,0	165	1	917	1732	917	102	86	1	855	1673	855	36	237		
		2	1494	1494	341	341		2	1433	1433	276	276			
77,5	190	1	991	1860	991	123	89	1	922	1871	923	0	248		
		2	1606	1606	377	377		2	1590	1590	267	267			
82,0	215	1	1065	1992	1066	139	91	1	944	2123	945	0	259		
		2	1721	1721	410	410		2	1754	1754	252	252			

3.2.2.8 Central ballasts and corner loads acc. to DIN 15019

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

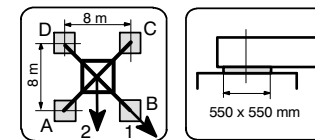


KR 16 - 80/100 Corner distance 8,0 m x 8,0 m **Jib length 70 m**

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 651 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads							corner loads					
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
48,3	75	1	601	1291	602	0	72	1	299	1079	299	0	180		
		2	1080	1080	167	167		2	836	836	285	285			
50,5	75	1	621	1305	621	0	74	1	320	1092	320	0	182		
		2	1099	1099	175	175		2	872	872	277	277			
55,0	75	1	607	1380	607	0	77	1	322	1135	322	0	193		
		2	1137	1137	160	160		2	942	942	230	230			
59,5	80	1	615	1461	615	0	79	1	610	1205	610	15	205		
		2	1189	1189	156	156		2	1031	1031	189	189			
64,0	100	1	694	1548	694	0	82	1	652	1383	652	0	216		
		2	1282	1282	186	186		2	1161	1161	182	182			
68,5	120	1	770	1643	770	0	84	1	671	1591	671	0	227		
		2	1377	1377	215	215		2	1296	1296	171	171			
73,0	145	1	867	1745	867	0	87	1	708	1814	708	0	239		
		2	1487	1487	253	253		2	1449	1449	166	166			
77,5	180	1	969	1897	969	41	89	1	786	2054	786	0	250		
		2	1625	1625	313	313		2	1633	1633	180	180			
82,0	220	1	1080	2069	1081	92	92	1	880	2312	880	0	261		
		2	1779	1779	382	382		2	1835	1835	200	200			

3.2.2.9 Central ballasts and corner loads acc. to DIN 15019

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

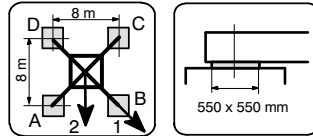


KR 16 - 80/100 Corner distance 8,0 m x 8,0 m **Jib length 75 m**

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 651 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads							corner loads					
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
48,3	75	1	633	1231	633	35	72	1	298	1081	299	0	181		
		2	1056	1056	210	210		2	834	834	130	130			
50,5	75	1	646	1252	647	41	74	1	319	1094	319	0	183		
		2	1074	1074	218	218		2	867	867	301	301			
55,0	75	1	658	1300	658	16	77	1	320	1137	321	0	194		
		2	1112	1112	204	204		2	937	937	254	254			
59,5	85	1	695	1377	695	12	79	1	632	1208	632	57	206		
		2	1177	1177	212	212		2	1039	1039	225	225			
64,0	105	1	756	1481	756	31	82	1	694	1366	694	21	217		
		2	1269	1269	243	243		2	1169	1169	218	218			
68,5	125	1	818	1589	818	46	84	1	734	1553	735	0	228		
		2	1363	1363	272	272		2	1304	1304	206	206			
73,0	150	1	892	1714	892	70	87	1	770	1777	771	0	239		
		2	1473	1473	311	311		2	1458	1458	201	201			
77,5	175	1	966	1843	966	89	89	1	798	2018	798	0	251		
		2	1586	1586	346	346		2	1617	1617	190	190			
82,0	215	1	1077	2014	1078	141	92	1	891	2278	891	0	262		
		2	1739	1739	416	416		2	1820	1820	210	210			

3.2.2.10 Central ballasts and corner loads acc. to DIN 15019

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

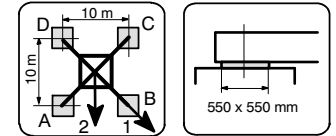


KR 16 - 80/100 Corner distance 8,0 m x 8,0 m Jib length 80 m

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 651 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads							corner loads					
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
48,3	75	1	619	1304	619	0	73	1	399	1140	399	0	182		
		2	1097	1097	174	174		2	896	896	250	250			
50,5	75	1	639	1318	639	0	75	1	420	1151	420	0	184		
		2	1115	1115	183	183		2	931	931	242	242			
55,0	75	1	624	1394	624	0	77	1	420	1197	420	0	195		
		2	1154	1154	167	167		2	1003	1003	193	193			
59,5	75	1	606	1477	606	0	80	1	553	1332	553	0	207		
		2	1194	1194	150	150		2	1081	1081	138	138			
64,0	95	1	685	1566	685	0	82	1	577	1530	578	0	219		
		2	1287	1287	180	180		2	1212	1212	130	130			
68,5	130	1	833	1664	833	1	85	1	669	1744	669	0	230		
		2	1421	1421	245	245		2	1387	1387	154	154			
73,0	165	1	932	1815	932	48	87	1	752	1973	753	0	241		
		2	1557	1557	307	307		2	1567	1567	172	172			
77,5	200	1	1031	1971	1031	91	90	1	827	2220	827	0	252		
		2	1696	1696	366	366		2	1753	1753	183	183			
82,0	240	1	1142	2145	1143	140	92	1	917	2486	917	0	263		
		2	1851	1851	434	434		2	1959	1959	201	201			

3.2.3.1 Central ballasts and corner loads acc. to DIN 15019

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

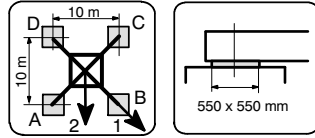


KR 16 - 80/100 Corner distance 10,0 m x 10,0 m Jib length 30 m

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 327 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads							corner loads					
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
48,3	30	1	485	968	485	2	67	1	303	562	303	44	159		
		2	826	826	143	143		2	502	502	343	343			
50,5	30	1	498	987	498	9	69	1	316	581	317	52	160		
		2	844	844	152	152		2	531	531	340	340			
55,0	35	1	522	1038	522	6	72	1	460	652	460	268	171		
		2	887	887	157	157		2	595	595	324	324			
59,5	50	1	571	1116	571	26	74	1	509	764	509	254	183		
		2	957	957	186	186		2	689	689	328	328			
64,0	60	1	608	1184	608	31	77	1	545	867	545	224	195		
		2	1015	1015	200	200		2	773	773	318	318			
68,5	75	1	657	1267	657	46	79	1	594	987	594	201	206		
		2	1089	1089	225	225		2	872	872	317	317			
73,0	90	1	706	1353	706	59	82	1	643	1113	643	174	217		
		2	1164	1164	248	248		2	975	975	311	311			
77,5	105	1	755	1442	755	68	84	1	692	1244	693	141	228		
		2	1241	1241	269	269		2	1083	1083	302	302			
82,0	125	1	816	1547	817	86	87	1	754	1395	754	114	239		
		2	1333	1333	300	300		2	1207	1207	301	301			

3.2.3.2 Central ballasts and corner loads acc. to DIN 15019

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

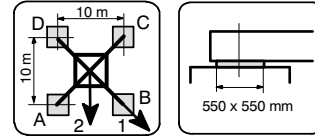


KR 16 - 80/100 Corner distance 10,0 m x 10,0 m **Jib length 40 m**

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 490 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads				horizontal force [kN]			corner loads				horizontal force [kN]	
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
48,3	35	1	490	1009	490	0	70	1	300	679	301	0	167		
		2	854	854	140	140		2	560	560	80	80			
50,5	35	1	510	1021	510	0	71	1	322	689	322	0	169		
		2	871	871	149	149		2	577	577	89	89			
55,0	45	1	547	1086	547	8	74	1	370	730	370	10	180		
		2	928	928	166	166		2	654	654	315	315			
59,5	55	1	583	1152	583	15	76	1	521	827	521	215	192		
		2	986	986	181	181		2	738	738	304	304			
64,0	70	1	633	1234	633	31	79	1	570	946	570	194	203		
		2	1058	1058	207	207		2	836	836	304	304			
68,5	85	1	682	1318	682	45	81	1	619	1070	619	168	214		
		2	1132	1132	232	232		2	938	938	300	300			
73,0	100	1	731	1405	731	56	84	1	668	1200	668	137	225		
		2	1208	1208	254	254		2	1044	1044	292	292			
77,5	115	1	780	1495	780	64	86	1	717	1335	717	99	237		
		2	1286	1286	274	274		2	1154	1154	280	280			
82,0	135	1	841	1601	841	81	89	1	779	1489	779	68	248		
		2	1379	1379	304	304		2	1281	1281	276	276			

3.2.3.3 Central ballasts and corner loads acc. to DIN 15019

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

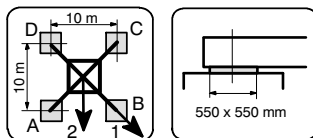


KR 16 - 80/100 Corner distance 10,0 m x 10,0 m **Jib length 45 m**

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 490 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads				horizontal force [kN]			corner loads				horizontal force [kN]	
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
48,3	35	1	477	1044	477	0	70	1	299	681	299	0	168		
		2	869	869	130	130		2	576	576	298	298			
50,5	35	1	498	1056	498	0	72	1	321	692	321	0	170		
		2	886	886	139	139		2	606	606	294	294			
55,0	35	1	493	1113	493	0	74	1	462	744	462	180	181		
		2	918	918	131	131		2	661	661	263	263			
59,5	45	1	535	1174	535	0	77	1	498	848	499	149	193		
		2	976	976	146	146		2	745	745	252	252			
64,0	60	1	600	1240	600	0	79	1	548	968	548	127	205		
		2	1049	1049	171	171		2	845	845	250	250			
68,5	75	1	659	1315	659	3	82	1	597	1093	597	100	216		
		2	1123	1123	195	195		2	948	948	246	246			
73,0	90	1	708	1403	708	13	84	1	646	1224	646	68	227		
		2	1200	1200	217	217		2	1054	1054	237	237			
77,5	105	1	757	1494	757	21	87	1	695	1360	695	29	238		
		2	1278	1278	236	236		2	1165	1165	224	224			
82,0	125	1	819	1601	819	37	89	1	753	1519	753	0	249		
		2	1372	1372	266	266		2	1294	1294	219	219			

3.2.3.4 Central ballasts and corner loads acc. to DIN 15019

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

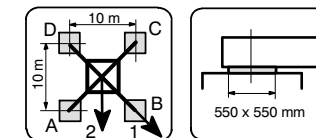


KR 16 - 80/100 Corner distance 10,0 m x 10,0 m Jib length 50 m

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 490 kNm corner loads				horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm corner loads				horizontal force [kN]
			A [kN]	B [kN]	C [kN]	D [kN]			A [kN]	B [kN]	C [kN]	D [kN]	
48,3	30	1	484	1025	484	0	70	1	274	682	274	0	169
		2	860	860	136	136		2	582	582	289	289	
50,5	30	1	505	1036	505	0	72	1	295	693	295	0	171
		2	878	878	145	145		2	612	612	286	286	
55,0	30	1	499	1094	500	0	74	1	461	753	461	168	182
		2	910	910	136	136		2	667	667	254	254	
59,5	40	1	542	1156	542	0	77	1	497	858	497	136	194
		2	968	968	151	151		2	752	752	242	242	
64,0	55	1	606	1222	607	0	79	1	546	979	546	114	205
		2	1041	1041	176	176		2	852	852	241	241	
68,5	70	1	658	1305	658	10	82	1	595	1105	595	86	217
		2	1116	1116	200	200		2	955	955	235	235	
73,0	85	1	707	1393	707	20	84	1	644	1236	644	52	228
		2	1192	1192	222	222		2	1063	1063	226	226	
77,5	105	1	768	1497	768	40	87	1	706	1387	706	25	239
		2	1284	1284	253	253		2	1187	1187	225	225	
82,0	125	1	830	1605	830	55	89	1	759	1552	759	0	250
		2	1378	1378	282	282		2	1316	1316	219	219	

3.2.3.5 Central ballasts and corner loads acc. to DIN 15019

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

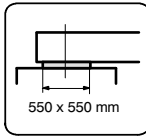
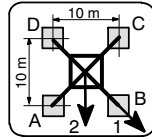


KR 16 - 80/100 Corner distance 10,0 m x 10,0 m Jib length 55 m

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 490 kNm corner loads				horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm corner loads				horizontal force [kN]
			A [kN]	B [kN]	C [kN]	D [kN]			A [kN]	B [kN]	C [kN]	D [kN]	
48,3	20	1	468	999	468	0	70	1	222	685	222	0	171
		2	837	837	130	130		2	573	573	269	269	
50,5	20	1	489	1010	489	0	72	1	244	696	244	0	173
		2	855	855	140	140		2	604	604	266	266	
55,0	25	1	509	1068	509	0	74	1	459	760	459	157	183
		2	899	899	143	143		2	672	672	246	246	
59,5	40	1	570	1136	570	5	77	1	508	878	508	138	196
		2	970	970	171	171		2	770	770	246	246	
64,0	50	1	607	1206	607	8	79	1	544	987	544	102	207
		2	1030	1030	183	183		2	857	857	231	231	
68,5	65	1	656	1291	656	21	82	1	593	1114	594	73	218
		2	1105	1105	207	207		2	961	961	226	226	
73,0	85	1	717	1392	718	43	84	1	655	1259	655	51	229
		2	1194	1194	241	241		2	1082	1082	228	228	
77,5	100	1	767	1484	767	50	87	1	704	1398	704	10	240
		2	1274	1274	260	260		2	1195	1195	213	213	
82,0	120	1	828	1592	828	65	90	1	741	1581	741	0	251
		2	1368	1368	288	288		2	1325	1325	207	207	

3.2.3.6 Central ballasts and corner loads acc. to DIN 15019

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

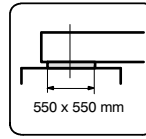
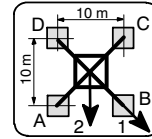


KR 16 - 80/100 Corner distance 10,0 m x 10,0 m Jib length 60 m

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 651 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads				horizontal force			corner loads				horizontal force	
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
48,3	40	1	527	1017	527	37	72	1	245	858	245	0	178		
		2	874	874	181	181		2	640	640	33	33			
50,5	40	1	541	1037	541	45	73	1	266	869	266	0	180		
		2	891	891	190	190		2	667	667	290	290			
55,0	40	1	552	1077	552	27	76	1	273	903	273	0	190		
		2	924	924	181	181		2	724	724	256	256			
59,5	50	1	589	1145	589	32	78	1	328	939	328	0	203		
		2	982	982	195	195		2	811	811	242	242			
64,0	65	1	638	1228	638	48	81	1	575	1053	575	98	214		
		2	1055	1055	221	221		2	913	913	238	238			
68,5	80	1	687	1313	687	61	83	1	624	1182	625	67	225		
		2	1130	1130	244	244		2	1019	1019	230	230			
73,0	95	1	736	1402	736	71	86	1	673	1318	674	29	236		
		2	1207	1207	265	265		2	1129	1129	218	218			
77,5	115	1	798	1506	798	90	89	1	734	1474	734	0	247		
		2	1298	1298	297	297		2	1256	1256	214	214			
82,0	135	1	859	1613	859	105	91	1	757	1673	757	0	258		
		2	1392	1392	326	326		2	1388	1388	205	205			

3.2.3.7 Central ballasts and corner loads acc. to DIN 15019

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

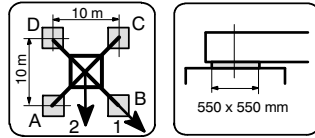


KR 16 - 80/100 Corner distance 10,0 m x 10,0 m Jib length 65 m

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 651 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads				horizontal force			corner loads				horizontal force	
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
48,3	40	1	538	1014	538	63	72	1	243	861	244	0	179		
		2	875	875	202	202		2	651	651	301	301			
50,5	40	1	552	1034	552	70	74	1	265	871	265	0	181		
		2	893	893	211	211		2	682	682	296	296			
55,0	40	1	563	1075	564	52	76	1	271	905	271	0	192		
		2	925	925	202	202		2	740	740	262	262			
59,5	45	1	587	1130	588	45	79	1	301	941	301	0	204		
		2	971	971	204	204		2	815	815	235	235			
64,0	60	1	637	1213	637	60	81	1	574	1060	574	88	215		
		2	1044	1044	229	229		2	918	918	230	230			
68,5	75	1	686	1298	686	73	84	1	623	1190	623	56	226		
		2	1119	1119	252	252		2	1024	1024	222	222			
73,0	95	1	747	1399	747	95	86	1	685	1339	685	30	237		
		2	1208	1208	286	286		2	1148	1148	222	222			
77,5	110	1	796	1491	796	101	89	1	720	1497	720	0	248		
		2	1288	1288	305	305		2	1263	1263	205	205			
82,0	135	1	870	1612	870	129	91	1	767	1699	767	0	259		
		2	1395	1395	346	346		2	1409	1409	207	207			

3.2.3.8 Central ballasts and corner loads acc. to DIN 15019

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

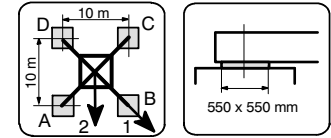


KR 16 - 80/100 Corner distance 10,0 m x 10,0 m Jib length 70 m

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 651 kNm corner loads					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm corner loads					horizontal force [kN]
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
48,3	40	1	541	1057	541	24	72	1	242	863	242	0	180		
		2	906	906	176	176		2	699	699	258	258			
50,5	40	1	554	1077	554	32	74	1	264	874	264	0	182		
		2	924	924	185	185		2	730	730	254	254			
55,0	40	1	566	1118	566	14	77	1	270	908	270	0	193		
		2	956	956	175	175		2	788	788	219	219			
59,5	40	1	571	1169	571	0	79	1	515	991	515	39	205		
		2	991	991	164	164		2	852	852	178	178			
64,0	45	1	584	1239	584	0	82	1	525	1106	525	0	216		
		2	1040	1040	164	164		2	930	930	148	148			
68,5	60	1	644	1314	645	0	84	1	540	1272	540	0	227		
		2	1115	1115	186	186		2	1038	1038	138	138			
73,0	80	1	712	1410	712	14	87	1	574	1451	574	0	239		
		2	1206	1206	219	219		2	1163	1163	137	137			
77,5	105	1	786	1529	786	44	89	1	626	1643	627	0	250		
		2	1311	1311	261	261		2	1305	1305	143	143			
82,0	140	1	885	1676	885	95	92	1	721	1849	721	0	261		
		2	1444	1444	326	326		2	1477	1477	169	169			

3.2.3.9 Central ballasts and corner loads acc. to DIN 15019

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

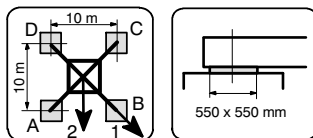


KR 16 - 80/100 Corner distance 10,0 m x 10,0 m Jib length 75 m

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 651 kNm corner loads					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm corner loads					horizontal force [kN]
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
48,3	40	1	550	1029	551	72	72	1	242	864	242	0	181		
		2	889	889	212	212		2	697	697	279	279			
50,5	40	1	564	1048	564	80	74	1	263	875	263	0	183		
		2	906	906	222	222		2	728	728	275	275			
55,0	40	1	575	1089	576	62	77	1	269	909	269	0	194		
		2	939	939	212	212		2	786	786	240	240			
59,5	40	1	587	1133	587	41	79	1	525	985	525	64	206		
		2	973	973	201	201		2	850	850	199	199			
64,0	45	1	611	1191	611	31	82	1	549	1087	549	11	217		
		2	1021	1021	201	201		2	929	929	168	168			
68,5	65	1	673	1290	673	55	84	1	600	1242	600	0	228		
		2	1109	1109	236	236		2	1050	1050	171	171			
73,0	80	1	722	1379	722	64	87	1	608	1421	608	0	239		
		2	1187	1187	257	257		2	1162	1162	157	157			
77,5	100	1	783	1485	783	82	89	1	635	1614	635	0	251		
		2	1279	1279	288	288		2	1292	1292	150	150			
82,0	130	1	870	1619	870	121	92	1	704	1822	704	0	262		
		2	1400	1400	340	340		2	1452	1452	163	163			

3.2.3.10 Central ballasts and corner loads acc. to DIN 15019

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

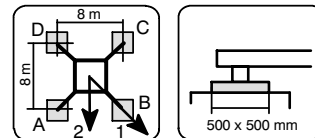


KR 16 - 80/100 Corner distance 10,0 m x 10,0 m Jib length 80 m

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 651 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads							corner loads					
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
48,3	40	1	553	1075	553	31	73	1	348	912	348	0	182		
		2	922	922	184	184		2	749	749	232	232			
50,5	40	1	566	1094	567	39	75	1	370	921	370	0	184		
		2	939	939	194	194		2	780	780	228	228			
55,0	40	1	578	1136	578	20	77	1	515	973	516	58	195		
		2	973	973	184	184		2	839	839	192	192			
59,5	40	1	589	1181	589	0	80	1	522	1066	522	0	207		
		2	1007	1007	172	172		2	904	904	150	150			
64,0	40	1	576	1252	576	0	82	1	465	1224	466	0	219		
		2	1044	1044	158	158		2	972	972	106	106			
68,5	65	1	675	1340	675	10	85	1	528	1395	529	0	230		
		2	1145	1145	205	205		2	1106	1106	120	120			
73,0	95	1	762	1469	762	55	87	1	610	1578	610	0	241		
		2	1262	1262	262	262		2	1257	1257	141	141			
77,5	120	1	836	1588	836	84	90	1	659	1776	659	0	252		
		2	1368	1368	304	304		2	1401	1401	145	145			
82,0	155	1	935	1737	935	133	92	1	751	1989	751	0	263		
		2	1502	1502	368	368		2	1576	1576	169	169			

3.3.1.1 Central ballasts and corner loads acc. to DIN 15019

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

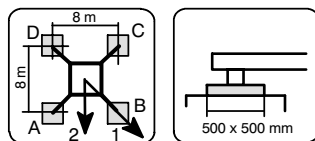


KRE 480 Corner distance 8,0 m x 8,0 m Jib length 30 m

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 327 kNm				horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm				horizontal force [kN]		
			corner loads							corner loads					
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]			D [kN]
14,5	60,0	1	501	906	501	96	49	1	439	677	439	200	72		
		2	788	788	215	215		2	608	608	270	270			
19,0	60,0	1	509	933	509	85	51	1	447	629	447	265	95		
		2	809	809	209	209		2	576	576	318	318			
23,5	60,0	1	517	962	517	72	54	1	455	603	455	306	102		
		2	832	832	203	203		2	560	560	350	350			
28,0	60,0	1	525	993	525	58	56	1	344	606	344	82	112		
		2	856	856	195	195		2	538	538	388	388			
32,5	60,0	1	533	1026	533	41	58	1	352	626	352	78	122		
		2	882	882	185	185		2	545	545	158	158			
37,0	60,0	1	541	1061	541	21	61	1	360	647	360	73	131		
		2	909	909	174	174		2	563	563	157	157			
41,5	60,0	1	549	1100	549	0	63	1	368	669	368	66	141		
		2	938	938	160	160		2	581	581	155	155			
46,0	60,0	1	532	1165	532	0	65	1	376	693	376	58	151		
		2	969	969	145	145		2	600	600	151	151			
50,5	75,0	1	591	1233	591	0	68	1	422	756	422	88	161		
		2	1040	1040	168	168		2	662	662	420	420			

3.3.1.2 Central ballasts and corner loads acc. to DIN 15019

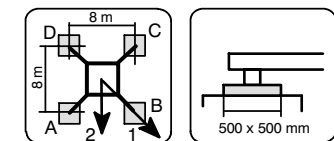
for a stationary tower crane on a cross frame element without climbing drive



KRE 480		Corner distance 8,0 m x 8,0 m					Jib length 40 m								
hook height [m]	central ballast [t]	jib position	crane in service torque moment: 490 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads							corner loads					
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
14,5	75,0	1	539	962	539	115	51	1	476	693	476	259	79		
		2	838	838	239	239		2	630	630	323	323			
19,0	75,0	1	547	990	547	103	53	1	369	703	369	36	103		
		2	860	860	233	233		2	606	606	133	133			
23,5	75,0	1	555	1019	555	90	55	1	377	722	377	33	111		
		2	883	883	226	226		2	621	621	134	134			
28,0	75,0	1	563	1051	563	74	58	1	385	742	385	29	120		
		2	908	908	217	217		2	638	638	133	133			
32,5	75,0	1	571	1085	571	56	60	1	393	763	393	24	130		
		2	934	934	207	207		2	655	655	132	132			
37,0	75,0	1	579	1121	579	36	62	1	401	786	401	17	140		
		2	962	962	195	195		2	673	673	130	130			
41,5	75,0	1	587	1160	587	13	65	1	409	810	409	9	150		
		2	992	992	181	181		2	692	692	127	127			
46,0	75,0	1	582	1214	582	0	67	1	417	835	417	0	160		
		2	1024	1024	165	165		2	713	713	122	122			
50,5	82,5	1	603	1284	603	0	69	1	445	881	445	9	170		
		2	1076	1076	168	168		2	754	754	137	137			

3.3.1.3 Central ballasts and corner loads acc. to DIN 15019

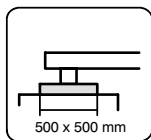
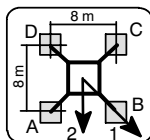
for a stationary tower crane on a cross frame element without climbing drive



KRE 480		Corner distance 8,0 m x 8,0 m					Jib length 45 m								
hook height [m]	central ballast [t]	jib position	crane in service torque moment: 490 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads							corner loads					
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
14,5	80,0	1	554	996	554	111	51	1	374	699	374	49	80		
		2	866	866	241	241		2	614	614	368	368			
19,0	80,0	1	562	1024	562	99	53	1	382	716	382	47	105		
		2	888	888	235	235		2	619	619	145	145			
23,5	80,0	1	570	1054	570	86	56	1	390	735	390	45	112		
		2	912	912	227	227		2	634	634	146	146			
28,0	80,0	1	578	1086	578	70	58	1	398	755	398	41	122		
		2	937	937	218	218		2	651	651	145	145			
32,5	80,0	1	586	1120	586	51	60	1	406	777	406	35	132		
		2	963	963	208	208		2	668	668	144	144			
37,0	80,0	1	594	1156	594	31	62	1	414	799	414	29	141		
		2	992	992	196	196		2	686	686	141	141			
41,5	80,0	1	602	1196	602	7	65	1	422	823	422	21	151		
		2	1022	1022	181	181		2	706	706	138	138			
46,0	80,0	1	590	1257	590	0	67	1	430	849	430	11	161		
		2	1054	1054	165	165		2	726	726	134	134			
50,5	80,0	1	573	1329	573	0	69	1	439	876	439	2	171		
		2	1088	1088	149	149		2	754	754	358	358			

3.3.1.4 Central ballasts and corner loads acc. to DIN 15019

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

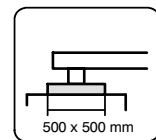
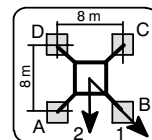


KRE 480 Corner distance 8,0 m x 8,0 m **Jib length 50 m**

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 490 kNm corner loads					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm corner loads					horizontal force [kN]
			A	B	C	D				A	B	C	D		
			[kN]	[kN]	[kN]	[kN]	[kN]			[kN]	[kN]	[kN]	[kN]	[kN]	
14,5	72,5	1	546	975	546	117	51	1	355	680	355	30	80		
		2	849	849	242	242		2	600	600	367	367			
19,0	72,5	1	554	1003	554	105	54	1	363	698	363	28	106		
		2	872	872	236	236		2	600	600	126	126			
23,5	72,5	1	562	1033	562	91	56	1	371	717	371	25	113		
		2	895	895	229	229		2	616	616	127	127			
28,0	72,5	1	570	1065	570	75	58	1	379	737	379	21	123		
		2	920	920	220	220		2	632	632	126	126			
32,5	72,5	1	578	1100	578	56	60	1	387	759	387	16	132		
		2	947	947	209	209		2	650	650	125	125			
37,0	72,5	1	586	1137	586	35	63	1	395	781	395	9	142		
		2	975	975	197	197		2	668	668	122	122			
41,5	72,5	1	594	1176	594	12	65	1	403	805	403	1	152		
		2	1006	1006	182	182		2	688	688	119	119			
46,0	72,5	1	587	1234	587	0	67	1	403	840	403	0	162		
		2	1038	1038	166	166		2	708	708	114	114			
50,5	72,5	1	569	1306	569	0	69	1	402	877	402	0	172		
		2	1073	1073	149	149		2	756	756	341	341			

3.3.1.5 Central ballasts and corner loads acc. to DIN 15019

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

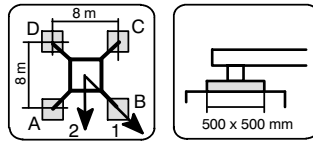


KRE 480 Corner distance 8,0 m x 8,0 m **Jib length 55 m**

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 490 kNm corner loads					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm corner loads					horizontal force [kN]
			A	B	C	D				A	B	C	D		
			[kN]	[kN]	[kN]	[kN]	[kN]			[kN]	[kN]	[kN]	[kN]	[kN]	
14,5	62,5	1	532	944	532	119	52	1	330	656	330	5	81		
		2	823	823	240	240		2	582	582	356	356			
19,0	62,5	1	540	972	540	107	54	1	338	674	338	3	107		
		2	846	846	234	234		2	575	575	101	101			
23,5	62,5	1	548	1002	548	93	56	1	346	693	346	0	114		
		2	869	869	226	226		2	591	591	101	101			
28,0	62,5	1	556	1035	556	77	58	1	350	718	350	0	124		
		2	894	894	217	217		2	608	608	101	101			
32,5	62,5	1	564	1069	564	58	61	1	352	745	352	0	134		
		2	921	921	206	206		2	626	626	99	99			
37,0	62,5	1	572	1106	572	37	63	1	353	774	353	0	144		
		2	950	950	194	194		2	644	644	96	96			
41,5	62,5	1	580	1146	580	13	65	1	353	807	353	0	153		
		2	980	980	179	179		2	663	663	93	93			
46,0	62,5	1	574	1202	574	0	67	1	351	842	351	0	163		
		2	1013	1013	163	163		2	689	689	361	361			
50,5	62,5	1	556	1275	556	0	70	1	351	880	351	0	173		
		2	1047	1047	146	146		2	749	749	319	319			

3.3.1.6 Central ballasts and corner loads acc. to DIN 15019

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

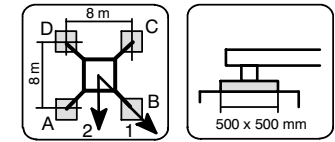


KRE 480 Corner distance 8,0 m x 8,0 m **Jib length 60 m**

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 651 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads				horizontal force			corner loads				horizontal force	
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
14,5	62,5	1	525	923	525	127	53	1	244	851	244	0	86		
		2	807	807	244	244		2	636	636	34	34			
19,0	62,5	1	533	952	533	114	55	1	249	872	249	0	114		
		2	829	829	237	237		2	651	651	34	34			
23,5	62,5	1	541	983	541	100	58	1	253	896	253	0	121		
		2	853	853	229	229		2	668	668	34	34			
28,0	62,5	1	549	1015	549	83	60	1	256	923	256	0	131		
		2	879	879	219	219		2	685	685	32	32			
32,5	62,5	1	557	1050	557	64	62	1	257	952	257	0	141		
		2	906	906	208	208		2	703	703	30	30			
37,0	62,5	1	565	1088	565	43	64	1	257	985	257	0	151		
		2	935	935	196	196		2	723	723	27	27			
41,5	65,0	1	579	1134	579	25	67	1	268	1020	268	0	160		
		2	971	971	187	187		2	750	750	28	28			
46,0	67,5	1	594	1183	594	4	69	1	277	1059	277	0	170		
		2	1010	1010	177	177		2	778	778	29	29			
50,5	72,5	1	605	1252	605	0	71	1	300	1100	300	0	180		
		2	1058	1058	173	173		2	814	814	36	36			

3.3.1.7 Central ballasts and corner loads acc. to DIN 15019

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

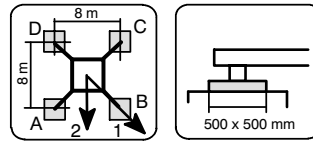


KRE 480 Corner distance 8,0 m x 8,0 m **Jib length 65 m**

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 651 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads				horizontal force			corner loads				horizontal force	
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
14,5	57,5	1	524	904	524	144	53	1	219	852	219	0	87		
		2	793	793	255	255		2	623	623	21	21			
19,0	57,5	1	532	933	532	131	56	1	224	873	224	0	115		
		2	815	815	248	248		2	639	639	21	21			
23,5	57,5	1	540	964	540	116	58	1	228	898	228	0	122		
		2	840	840	240	240		2	656	656	21	21			
28,0	60,0	1	554	1003	554	106	60	1	243	925	243	0	132		
		2	871	871	237	237		2	679	679	26	26			
32,5	60,0	1	562	1038	562	87	62	1	244	954	244	0	142		
		2	898	898	226	226		2	698	698	23	23			
37,0	62,5	1	576	1081	576	71	65	1	256	987	256	0	152		
		2	933	933	219	219		2	724	724	26	26			
41,5	65,0	1	591	1128	591	54	67	1	267	1022	267	0	162		
		2	970	970	211	211		2	750	750	27	27			
46,0	67,5	1	605	1177	605	33	69	1	276	1061	276	0	172		
		2	1009	1009	200	200		2	778	778	28	28			
50,5	70,0	1	620	1229	620	11	72	1	286	1103	286	0	182		
		2	1051	1051	190	190		2	808	808	29	29			

3.3.1.8 Central ballasts and corner loads acc. to DIN 15019

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

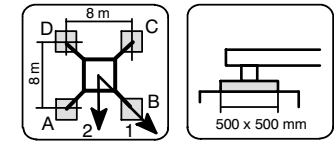


KRE 480 Corner distance 8,0 m x 8,0 m Jib length 70 m

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 651 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads				horizontal force [kN]			corner loads				horizontal force [kN]	
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
14,5	60,0	1	533	957	533	108	54	1	231	853	231	0	88		
		2	833	833	233	233		2	641	641	138	138			
19,0	60,0	1	541	986	541	95	56	1	236	875	236	0	116		
		2	856	856	226	226		2	659	659	136	136			
23,5	60,0	1	549	1017	549	80	58	1	239	899	239	0	124		
		2	880	880	217	217		2	679	679	133	133			
28,0	60,0	1	557	1051	557	63	61	1	242	926	242	0	134		
		2	906	906	207	207		2	699	699	129	129			
32,5	60,0	1	565	1086	565	43	63	1	243	956	243	0	143		
		2	933	933	196	196		2	720	720	124	124			
37,0	62,5	1	579	1131	579	27	65	1	255	989	255	0	153		
		2	969	969	189	189		2	748	748	124	124			
41,5	65,0	1	593	1178	593	8	67	1	265	1025	265	0	163		
		2	1007	1007	179	179		2	778	778	123	123			
46,0	67,5	1	593	1243	593	0	70	1	274	1064	274	0	173		
		2	1047	1047	168	168		2	809	809	120	120			

3.3.1.9 Central ballasts and corner loads acc. to DIN 15019

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

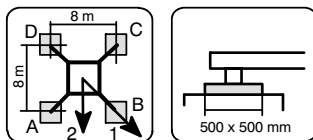


KRE 480 Corner distance 8,0 m x 8,0 m Jib length 75 m

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 651 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads				horizontal force [kN]			corner loads				horizontal force [kN]	
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
14,5	57,5	1	536	916	536	156	54	1	218	853	218	0	89		
		2	805	805	267	267		2	659	659	111	111			
19,0	57,5	1	544	945	544	143	56	1	223	875	223	0	117		
		2	828	828	260	260		2	677	677	108	108			
23,5	60,0	1	558	982	558	134	58	1	239	900	239	0	125		
		2	858	858	258	258		2	702	702	112	112			
28,0	60,0	1	566	1015	566	117	61	1	241	927	241	0	134		
		2	884	884	249	249		2	723	723	107	107			
32,5	62,5	1	580	1057	580	104	63	1	255	958	255	0	144		
		2	917	917	243	243		2	750	750	108	108			
37,0	62,5	1	588	1095	588	82	65	1	254	991	254	0	154		
		2	947	947	230	230		2	773	773	101	101			
41,5	65,0	1	603	1142	603	64	67	1	265	1027	265	0	164		
		2	984	984	221	221		2	803	803	100	100			
46,0	67,5	1	617	1192	617	42	70	1	273	1066	273	0	174		
		2	1023	1023	210	210		2	835	835	97	97			

3.3.1.10 Central ballasts and corner loads acc. to DIN 15019

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

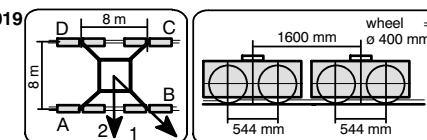


KRE 480 Corner distance 8,0 m x 8,0 m Jib length 80 m

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 651 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads				horizontal force [kN]			corner loads				horizontal force [kN]	
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
14,5	57,5	1	538	965	538	112	54	1	320	910	320	0	90		
		2	840	840	237	237		2	709	709	66	66			
19,0	57,5	1	546	995	546	98	57	1	321	939	321	0	119		
		2	863	863	229	229		2	727	727	63	63			
23,5	60,0	1	561	1033	561	89	59	1	333	972	333	0	126		
		2	894	894	227	227		2	753	753	66	66			
28,0	60,0	1	569	1066	569	71	61	1	331	1008	331	0	136		
		2	921	921	217	217		2	774	774	61	61			
32,5	62,5	1	583	1109	583	57	63	1	340	1047	340	0	146		
		2	955	955	211	211		2	802	802	62	62			
37,0	62,5	1	591	1148	591	34	66	1	334	1090	334	0	155		
		2	985	985	197	197		2	825	825	54	54			
41,5	65,0	1	605	1196	605	15	68	1	340	1137	340	0	165		
		2	1023	1023	188	188		2	856	856	52	52			
46,0	67,5	1	611	1255	611	0	70	1	343	1188	343	0	175		
		2	1063	1063	176	176		2	888	888	48	48			

3.4.1.1 Central ballasts and corner loads to DIN 15019

for a stationary tower crane on an undercarriage without climbing drive

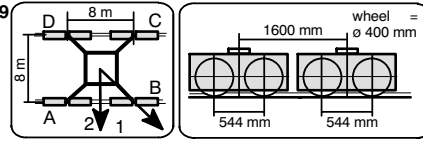


UW 480 Corner distance 8,0 m x 8,0 m Jib length 30 m

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 327 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads				horizontal force [kN]			corner loads				horizontal force [kN]	
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
15,5	60,0	1	526	937	526	115	53	1	464	697	464	231	72		
		2	817	817	236	236		2	629	629	299	299			
20,0	60,0	1	534	965	534	103	56	1	472	646	472	297	95		
		2	839	839	229	229		2	595	595	348	348			
24,5	60,0	1	542	995	542	89	59	1	480	615	480	344	105		
		2	863	863	222	222		2	575	575	384	384			
29,0	60,0	1	550	1028	550	73	62	1	369	634	369	104	114		
		2	888	888	213	213		2	556	556	181	181			
33,5	60,0	1	558	1062	558	54	65	1	377	654	377	100	124		
		2	915	915	202	202		2	573	573	181	181			
38,0	60,0	1	566	1100	566	33	67	1	385	675	385	94	134		
		2	943	943	189	189		2	590	590	179	179			
42,5	60,0	1	558	1156	558	25	70	1	393	698	393	88	144		
		2	974	974	174	174		2	608	608	177	177			
47,0	65,0	1	564	1226	564	25	73	1	413	734	413	92	154		
		2	1019	1019	170	170		2	640	640	186	186			
51,5	80,0	1	620	1300	620	25	76	1	460	798	460	121	164		
		2	1092	1092	190	190		2	713	713	444	444			

3.4.1.2 Central ballasts and corner loads to DIN 15019

for a stationary tower crane on an undercarriage without climbing drive

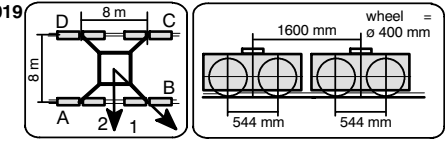


UW 480 Corner distance 8,0 m x 8,0 m Jib length 40 m

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 490 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads							corner loads					
			A	B	C	D			A	B	C	D			
15,5	75,0	1	564	993	564	134	55	1	386	713	386	60	96		
		2	867	867	260	260		2	628	628	374	374			
20,0	75,0	1	572	1022	572	121	58	1	394	731	394	58	103		
		2	890	890	253	253		2	632	632	156	156			
24,5	75,0	1	580	1053	580	106	61	1	402	750	402	55	113		
		2	914	914	245	245		2	648	648	157	157			
29,0	75,0	1	588	1086	588	89	63	1	410	770	410	51	123		
		2	940	940	235	235		2	665	665	156	156			
33,5	75,0	1	596	1121	596	70	66	1	418	792	418	45	133		
		2	967	967	224	224		2	682	682	155	155			
38,0	75,0	1	604	1160	604	47	69	1	426	814	426	39	143		
		2	997	997	210	210		2	701	701	152	152			
42,5	75,0	1	609	1203	609	25	72	1	434	839	434	30	153		
		2	1028	1028	195	195		2	720	720	149	149			
47,0	75,0	1	589	1275	589	25	74	1	438	868	438	25	162		
		2	1062	1062	177	177		2	741	741	144	144			

3.4.1.3 Central ballasts and corner loads to DIN 15019

for a stationary tower crane on an undercarriage without climbing drive

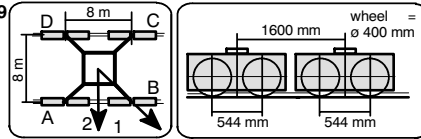


UW 480 Corner distance 8,0 m x 8,0 m Jib length 45 m

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 327 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads							corner loads					
			A	B	C	D			A	B	C	D			
15,5	80,0	1	578	1027	578	130	55	1	399	726	399	72	98		
		2	895	895	262	262		2	630	630	168	168			
20,0	80,0	1	586	1056	586	117	58	1	407	744	407	70	105		
		2	918	918	255	255		2	645	645	169	169			
24,5	80,0	1	594	1087	594	102	61	1	415	763	415	67	115		
		2	943	943	246	246		2	661	661	169	169			
29,0	80,0	1	602	1120	602	85	64	1	423	783	423	62	124		
		2	969	969	236	236		2	678	678	168	168			
33,5	80,0	1	610	1156	610	65	66	1	431	805	431	57	134		
		2	996	996	224	224		2	695	695	166	166			
38,0	80,0	1	618	1195	618	42	69	1	439	828	439	50	144		
		2	1026	1026	211	211		2	714	714	164	164			
42,5	80,0	1	618	1245	618	25	72	1	447	852	447	42	154		
		2	1058	1058	195	195		2	734	734	160	160			
47,0	80,0	1	597	1319	597	25	75	1	455	878	455	32	164		
		2	1092	1092	177	177		2	754	754	156	156			

3.4.1.4 Central ballasts and corner loads to DIN 15019

for a stationary tower crane on an undercarriage without climbing drive

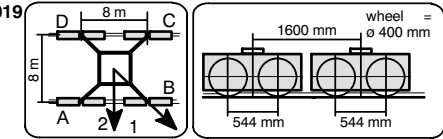


UW 480 Corner distance 8,0 m x 8,0 m Jib length 50 m

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 490 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads				A [kN]			corner loads				A [kN]	
			A [kN]	B [kN]	C [kN]	D [kN]				B [kN]	C [kN]	D [kN]			
15,5	72,5	1	571	1006	571	136	56	1	380	708	380	53	98		
		2	879	879	263	263		2	612	612	149	149			
20,0	72,5	1	579	1035	579	122	58	1	388	726	388	51	106		
		2	902	902	256	256		2	627	627	149	149			
24,5	72,5	1	587	1067	587	107	61	1	396	745	396	47	115		
		2	926	926	248	248		2	643	643	150	150			
29,0	72,5	1	595	1100	595	90	64	1	404	765	404	43	125		
		2	952	952	238	238		2	660	660	149	149			
33,5	72,5	1	603	1136	603	69	67	1	412	787	412	37	135		
		2	980	980	226	226		2	677	677	147	147			
38,0	72,5	1	611	1175	611	47	69	1	420	810	420	30	145		
		2	1010	1010	212	212		2	696	696	145	145			
42,5	72,5	1	615	1221	615	25	72	1	425	837	425	25	155		
		2	1042	1042	196	196		2	715	715	141	141			
47,0	72,5	1	594	1295	594	25	75	1	423	873	423	25	165		
		2	1076	1076	178	178		2	736	736	136	136			

3.4.1.5 Central ballasts and corner loads to DIN 15019

for a stationary tower crane on an undercarriage without climbing drive

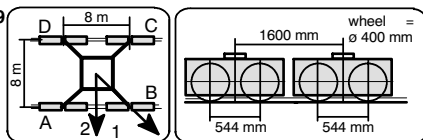


UW 480 Corner distance 8,0 m x 8,0 m Jib length 55 m

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 490 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads				A [kN]			corner loads				A [kN]	
			A [kN]	B [kN]	C [kN]	D [kN]				B [kN]	C [kN]	D [kN]			
15,5	65,0	1	563	982	563	144	56	1	361	690	361	33	100		
		2	859	859	267	267		2	593	593	129	129			
20,0	65,0	1	571	1011	571	131	59	1	369	708	369	31	107		
		2	882	882	260	260		2	609	609	130	130			
24,5	65,0	1	579	1042	579	115	61	1	377	727	377	28	117		
		2	906	906	251	251		2	625	625	130	130			
29,0	65,0	1	587	1076	587	98	64	1	384	749	384	25	127		
		2	933	933	241	241		2	641	641	129	129			
33,5	65,0	1	595	1112	595	78	67	1	386	776	386	25	136		
		2	961	961	229	229		2	659	659	128	128			
38,0	65,0	1	603	1151	603	55	70	1	387	807	387	25	146		
		2	991	991	215	215		2	678	678	125	125			
42,5	65,0	1	611	1193	611	29	72	1	386	840	386	25	156		
		2	1023	1023	199	199		2	698	698	121	121			
47,0	65,0	1	593	1264	593	25	75	1	384	876	384	25	166		
		2	1057	1057	181	181		2	734	734	378	378			

3.4.1.6 Central ballasts and corner loads to DIN 15019

for a stationary tower crane on an undercarriage without climbing drive

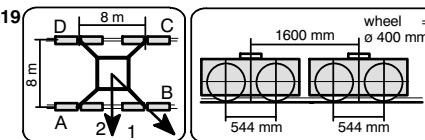


UW 480 Corner distance 8,0 m x 8,0 m Jib length 60 m

Table with columns for hook height, central ballast, jib position, crane in service torque moment (651 kNm), crane out of service torque moment (0 kNm), and corner loads (A, B, C, D) in kN.

3.4.1.7 Central ballasts and corner loads to DIN 15019

for a stationary tower crane on an undercarriage without climbing drive

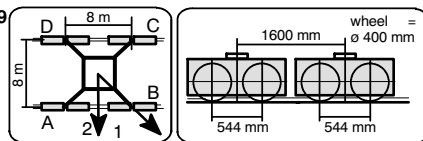


UW 480 Corner distance 8,0 m x 8,0 m Jib length 65 m

Table with columns for hook height, central ballast, jib position, crane in service torque moment (651 kNm), crane out of service torque moment (0 kNm), and corner loads (A, B, C, D) in kN.

3.4.1.8 Central ballasts and corner loads to DIN 15019

for a stationary tower crane on an undercarriage without climbing drive

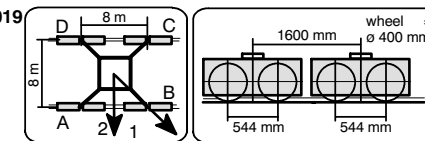


UW 480 Corner distance 8,0 m x 8,0 m Jib length 70 m

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 651 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads				horizontal force [kN]			corner loads				horizontal force [kN]	
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
15,5	60,0	1	558	988	558	127	58	1	253	883	253	25	109		
		2	862	862	253	253		2	669	669	161	161			
20,0	60,0	1	566	1018	566	113	61	1	258	905	258	25	116		
		2	886	886	245	245		2	687	687	159	159			
24,5	60,0	1	574	1051	574	96	64	1	261	930	261	25	126		
		2	911	911	236	236		2	706	706	155	155			
29,0	60,0	1	582	1086	582	77	66	1	263	958	263	25	136		
		2	938	938	225	225		2	727	727	151	151			
33,5	62,5	1	596	1129	596	62	69	1	277	989	277	25	146		
		2	973	973	218	218		2	754	754	152	152			
38,0	65,0	1	610	1176	610	44	72	1	288	1022	288	25	156		
		2	1010	1010	210	210		2	783	783	152	152			
42,5	67,5	1	622	1228	622	25	74	1	299	1059	299	25	166		
		2	1050	1050	199	199		2	813	813	150	150			
47,0	70,0	1	612	1305	612	25	77	1	307	1098	307	25	176		
		2	1091	1091	186	186		2	844	844	147	147			

3.4.1.9 Central ballasts and corner loads to DIN 15019

for a stationary tower crane on an undercarriage without climbing drive

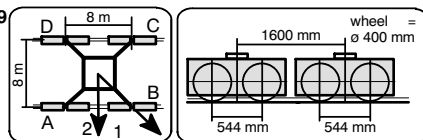


UW 480 Corner distance 8,0 m x 8,0 m Jib length 75 m

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 651 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads				horizontal force [kN]			corner loads				horizontal force [kN]	
			A [kN]	B [kN]	C [kN]	D [kN]				A [kN]	B [kN]	C [kN]	D [kN]		
15,5	60,0	1	567	954	567	181	58	1	253	884	253	25	110		
		2	840	840	294	294		2	692	692	139	139			
20,0	60,0	1	575	984	575	167	61	1	257	906	257	25	117		
		2	864	864	286	286		2	711	711	137	137			
24,5	60,0	1	583	1016	583	150	64	1	261	931	261	25	127		
		2	889	889	277	277		2	730	730	134	134			
29,0	60,0	1	591	1051	591	132	67	1	263	959	263	25	137		
		2	916	916	266	266		2	751	751	129	129			
33,5	62,5	1	605	1094	605	117	69	1	276	990	276	25	147		
		2	951	951	260	260		2	779	779	130	130			
38,0	65,0	1	620	1140	620	99	72	1	288	1024	288	25	157		
		2	988	988	252	252		2	808	808	129	129			
42,5	67,5	1	634	1189	634	79	75	1	298	1060	298	25	167		
		2	1027	1027	241	241		2	838	838	127	127			
47,0	70,0	1	648	1242	648	55	77	1	306	1100	306	25	176		
		2	1068	1068	228	228		2	870	870	124	124			

3.4.1.10 Central ballasts and corner loads to DIN 15019

for a stationary tower crane on an undercarriage without climbing drive



UW 480 Corner distance 8,0 m x 8,0 m Jib length 80 m

hook height [m]	central ballast [t]	jib position	crane in service torque moment: 651 kNm					horizontal force [kN]	jib position	crane out of service torque moment: 0 kNm					horizontal force [kN]
			corner loads				corner loads								
			A [kN]	B [kN]	C [kN]	D [kN]			A [kN]	B [kN]	C [kN]	D [kN]			
15,5	60,0	1	570	1003	570	136	59	1	353	942	353	25	112		
		2	876	876	263	263		2	743	743	94	94			
20,0	60,0	1	578	1034	578	122	61	1	354	972	354	25	119		
		2	900	900	255	255		2	761	761	92	92			
24,5	60,0	1	586	1066	586	105	64	1	354	1005	354	25	129		
		2	926	926	246	246		2	781	781	88	88			
29,0	62,5	1	600	1108	600	92	67	1	364	1041	364	25	138		
		2	959	959	241	241		2	808	808	89	89			
33,5	62,5	1	608	1146	608	70	70	1	360	1081	360	25	148		
		2	988	988	227	227		2	830	830	83	83			
38,0	65,0	1	622	1193	622	51	72	1	367	1125	367	25	158		
		2	1026	1026	218	218		2	860	860	82	82			
42,5	67,5	1	636	1243	636	29	75	1	372	1173	372	25	168		
		2	1066	1066	207	207		2	891	891	79	79			
47,0	70,0	1	630	1318	630	25	78	1	374	1224	374	25	178		
		2	1108	1108	193	193		2	923	923	75	75			