NC-B 12-70

FEM
Technical Data

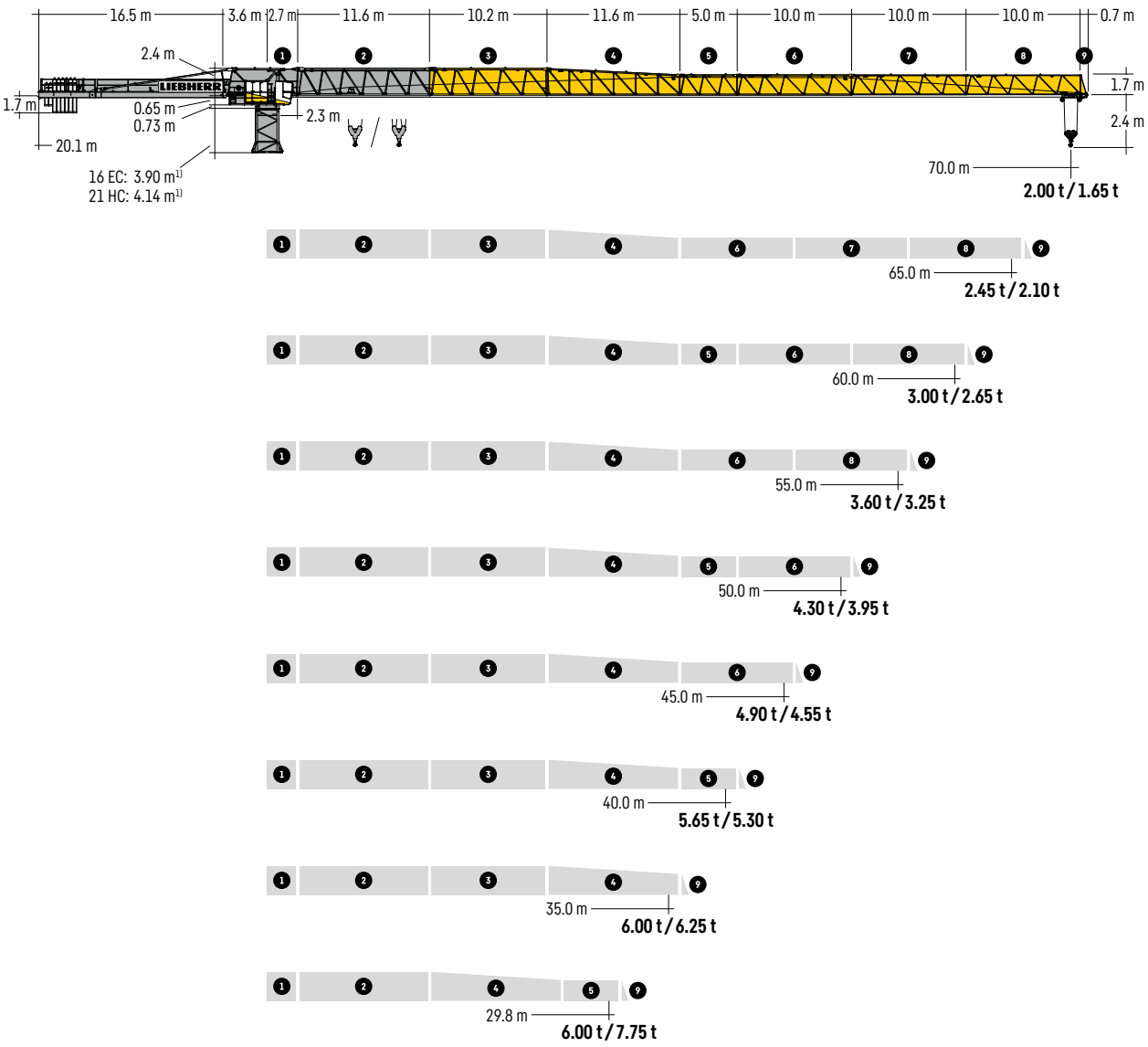
LIEBHERR

Tower Cranes

FEM

NC-B 12-70

Radius and capacity



Lifting capacities valid up to 50 m hoisting height.

1) Tower section or climbing tower section

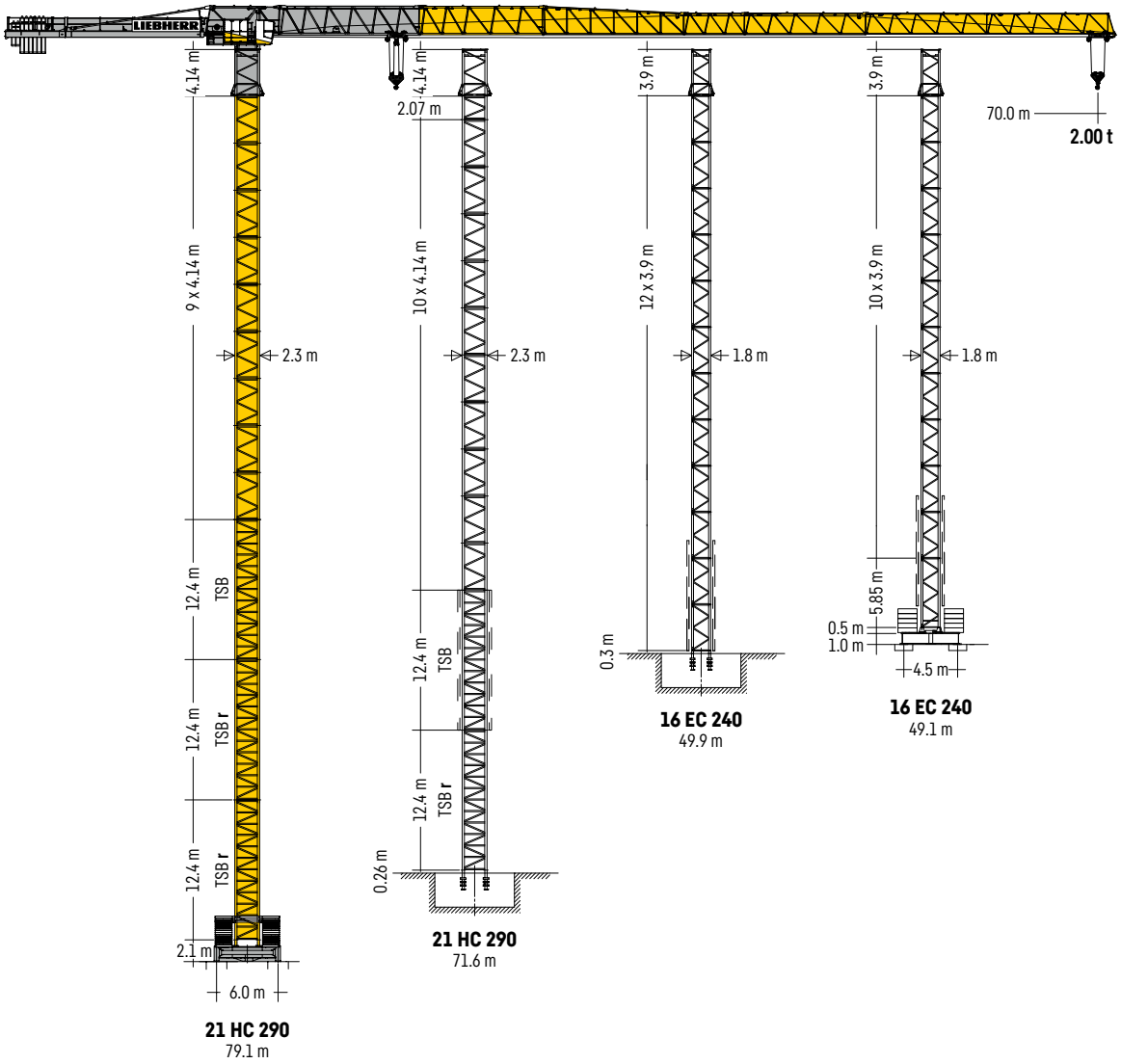
NC-B 12-70

			m										
m r	**m**	**t**	**20.0**	**25.0**	**29.8**	**35.0**	**40.0**	**45.0**	**50.0**	**55.0**	**60.0**	**65.0**	**70.0**
70.0 (r=71.7)	2.6 – 29.4	**6**	6.00		5.90	4.85	4.12	3.56	3.12	2.76	2.46	2.21	**2.00**
65.0 (r=66.7)	2.6 – 31.6	**6**	6.00			5.31	4.52	3.91	3.43	3.04	2.72	**2.45**	
60.0 (r=61.7)	2.6 – 34.0	**6**	6.00			5.80	4.94	4.29	3.77	3.35	**3.00**		
55.0 (r=56.7)	2.6 – 36.0	**6**	6.00				5.30	4.60	4.05	**3.60**			
50.0 (r=51.7)	2.6 – 37.8	**6**	6.00				5.62	4.88	**4.30**				
45.0 (r=46.7)	2.6 – 38.0	**6**	6.00				5.64	**4.90**					
40.0 (r=41.7)	2.6 – 38.0	**6**	6.00				**5.65**						
35.0 (r=36.7)	2.6 – 35.0	**6**	**6.00**										
29.8 (r=31.5)	2.6 – 29.8	**6**	**6.00**										

			m										
m r	**m**	**t**	**20.0**	**25.0**	**29.8**	**35.0**	**40.0**	**45.0**	**50.0**	**55.0**	**60.0**	**65.0**	**70.0**
70.0 (r=71.7)	2.6 – 16.3	**12**	9.27	6.98	5.58	4.52	3.78	3.22	2.77	2.41	2.11	1.86	**1.65**
65.0 (r=66.7)	2.6 – 17.5	**12**	10.11	7.64	6.12	4.98	4.18	3.57	3.09	2.69	2.37	**2.10**	
60.0 (r=61.7)	2.6 – 18.7	**12**	11.03	8.35	6.71	5.47	4.61	3.94	3.42	3.00	**2.65**		
55.0 (r=56.7)	2.6 – 19.7	**12**	11.78	8.94	7.19	5.88	4.96	4.25	3.70	**3.25**			
50.0 (r=51.7)	2.6 – 20.6	**12**	12.00	9.47	7.62	6.24	5.27	4.53	**3.95**				
45.0 (r=46.7)	2.6 – 20.7	**12**	12.00	9.50	7.65	6.26	5.29	**4.55**					
40.0 (r=41.7)	2.6 – 20.7	**12**	12.00	9.51	7.66	6.27	**5.30**						
35.0 (r=36.7)	2.6 – 20.6	**12**	12.00	9.48	7.63	**6.25**							
29.8 (r=31.5)	2.6 – 20.9	**12**	12.00	9.62	**7.75**								

t

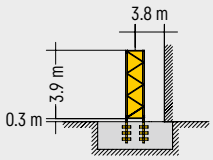
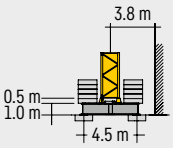
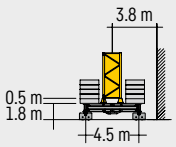
Crane superstructures



Lifting capacities valid up to 50 m hoisting height.

Hoisting height

FEM

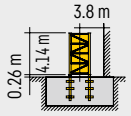
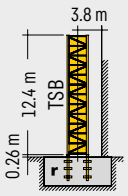
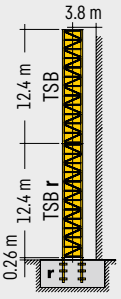
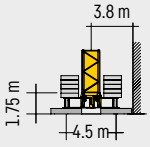
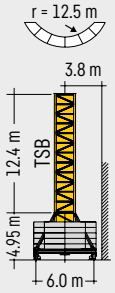
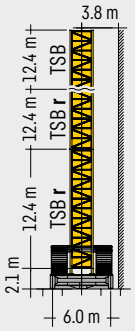
3.90 m	3.90 m + 5.85 m	16 EC 240		
12		49.9*)	–	–
	10 + 1	48.0*)	49.1*)	–
11		46.0*)	47.2*)	47.9*)
	9 + 1	44.1	45.2*)	46.0*)
10		42.1	43.3	44.0*)
	8 + 1	40.2	41.3	42.1
9		38.2	39.4	40.1
	7 + 1	36.3	37.4	38.2
8		34.3	35.5	36.2
	6 + 1	32.4	33.5	34.3
7		30.4	31.6	32.3
	5 + 1	28.5	29.6	30.4
6		26.5	27.7	28.4
	4 + 1	24.6	25.7	26.5
5		22.6	23.8	24.5
	3 + 1	20.7	21.8	22.6
4		18.7	19.9	20.6
	2 + 1	16.8	17.9	18.7
3		14.8	16.0	16.7
	1 + 1	12.9	14.0	14.8
2		10.9	12.1	12.8
	0 + 1	9.0	10.1	10.9
1		7.0	8.2	8.9
0		3.1	4.3	5.0
		m	**m**	**m**
				
		20 EC 300 FA	20 EC 300 CB-0450m	20 EC 300 CB-0450dm

Further hoist heights and jib lenghts as well as climbing inside the building on request.

*) 

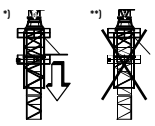
Hoisting height

FEM

4.14 m	4.14 m + 2.07 m	21 HC 290					
12		53.0*)	–	–	54.0*)	–	–
	11 + 1	50.9*)	–	–	52.0*)	–	–
11		48.9	61.3*)	–	49.9	–	–
	10 + 1	46.8	59.2*)	71.6*)	47.8	63.9*)	–
10		44.7	57.1*)	69.6*)	45.8	61.8*)	–
	9 + 1	42.7	55.1	67.5	43.7	59.8	–
9		40.6	53.0	65.4	41.6	57.7	79.1**)
	8 + 1	38.5	50.9	63.4	39.6	55.6	77.0*)
8		36.4	48.9	61.3	37.5	53.6	74.9*)
	7 + 1	34.4	46.8	59.2	35.4	51.5	72.9
7		32.3	44.7	57.1	33.3	49.4	70.8
	6 + 1	30.2	42.7	55.1	31.3	47.3	68.7
6		28.2	40.6	53.0	29.2	45.3	66.7
	5 + 1	26.1	38.5	50.9	27.1	43.2	64.6
5		24.0	36.5	48.9	25.1	41.1	62.5
	4 + 1	22.0	34.4	46.8	23.0	39.1	60.5
4		19.9	32.3	44.7	20.9	37.0	58.4
	3 + 1	17.8	30.2	42.7	18.9	34.9	56.3
3		15.8	28.2	40.6	16.8	32.9	54.2
	2 + 1	13.7	26.1	38.5	14.7	30.8	52.2
2		11.6	24.0	36.5	12.6	28.7	50.1
	1 + 1	9.5	22.0	34.4	10.6	26.6	48.0
1		7.5	19.9	32.3	8.5	24.6	46.0
	0 + 1	5.4	17.8	30.2	6.4	22.5	43.9
0		3.3	15.8	28.2	4.4	20.4	41.8
		m	m	m	m	m	m
							
		21 HC 290 FA	21 HC 290 FAr	21 HC 290 FAr	21 HC 290 CB-0450	21 HC 290 UC-0600	24 HC 420 CB-0600

Further hoist heights and jib lenghts as well as climbing inside the building on request.

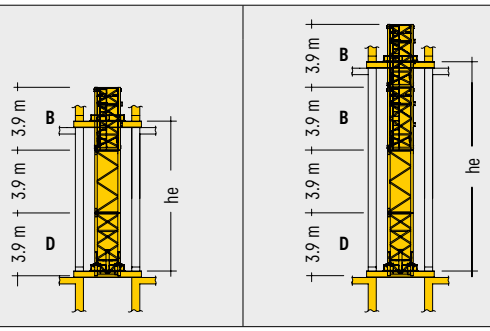
r = reinforced



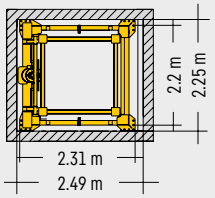
Internal climbing

Dimensions and tower height

16 EC 240

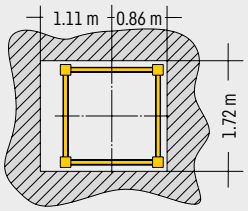


Shaft opening



pcs	tower height[2)]	he (min. – max.)
12	46.8	9.0 - 15.0
11	42.9	8.5 - 15.0
10	39.0	8.0 - 15.0
9	35.1	8.0 - 15.0
8	31.2	8.0 - 13.0
	m	m

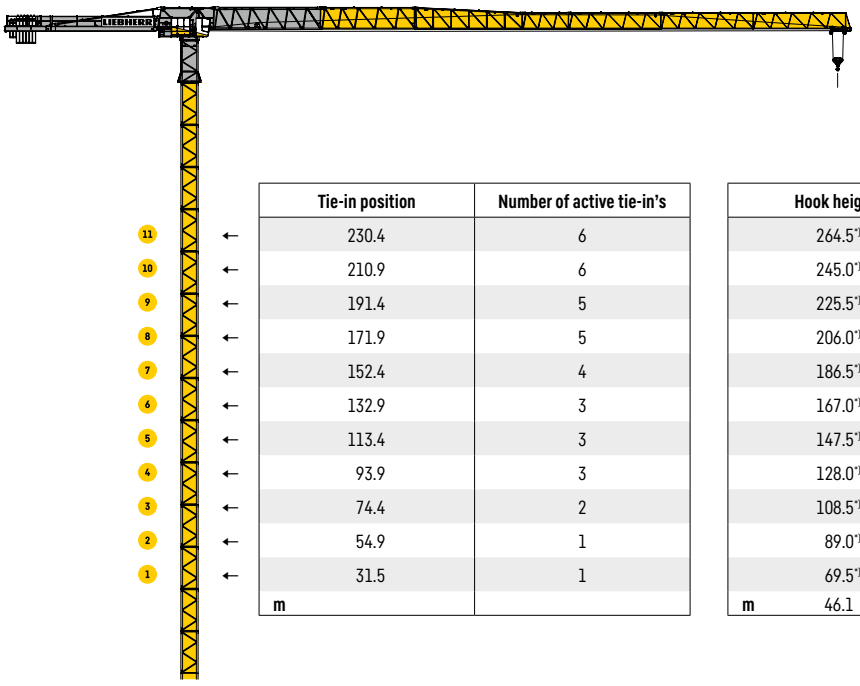
Floor opening[3)]



[2)] For details please refer to the operating manual.

[3)] Min. floor opening dimension. More details on request.

External climbing[4)]



	Tie-in position	Number of active tie-in's	Hook height
11	230.4	6	264.5*)
10	210.9	6	245.0*)
9	191.4	5	225.5*)
8	171.9	5	206.0*)
7	152.4	4	186.5*)
6	132.9	3	167.0*)
5	113.4	3	147.5*)
4	93.9	3	128.0*)
3	74.4	2	108.5*)
2	54.9	1	89.0*)
1	31.5	1	69.5*)
	m		m 46.1

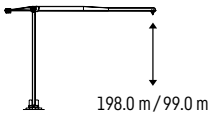
[4)] All data's calculated with 16 EC 240.

Driving units

45 kW FU

HOW 260 MZ 001

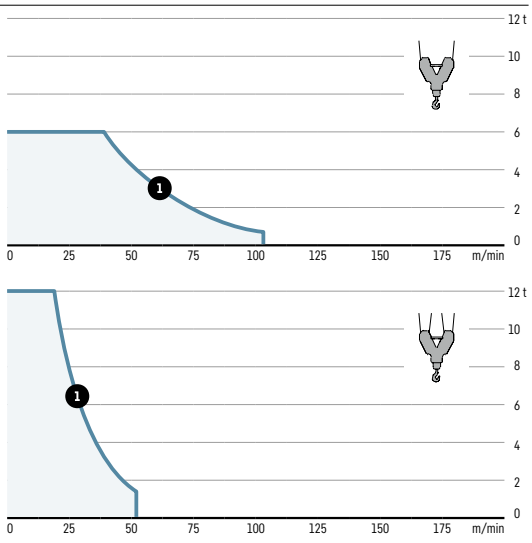
kVA: 64.0
max. 276.5 m / 138.0 m[5)]



8 Layers **↔ stepless**

	t	m/min
1	6.00	0 ↔ 39
	0.70	0 ↔ 103
1	12.00	0 ↔ 19
	1.40	0 ↔ 52

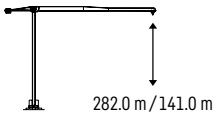
Speed



65 kW FU

HOW 280 MZ 001

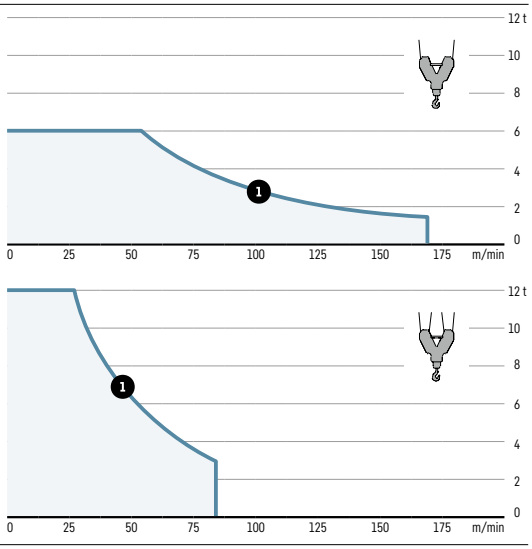
kVA: 83.0
max. 500.0 m / 250.0 m[5)]



10 Layers **↔ stepless**

	t	m/min
1	6.00	0 ↔ 54
	1.45	0 ↔ 169
1	12.0	0 ↔ 27
	3.05	0 ↔ 84

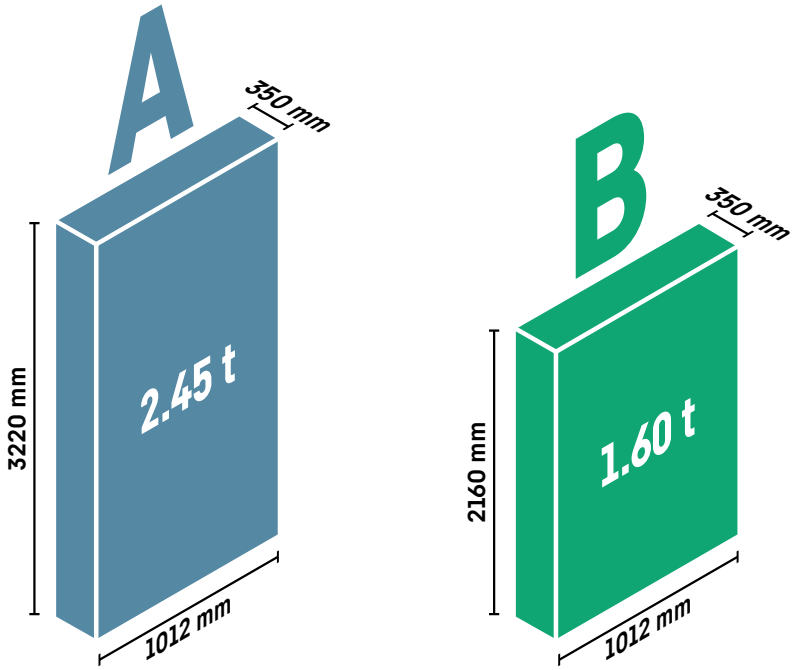
Speed



0 ↔ 0.6 U/min · sl./min · tr./min	0 ↔ 87.1 m/min
3 x 5.0 kW FU	5.5 kW FU

[5)] **Further hoist load data: see instruction manual.**

Counterweight



45 kW FU[6]

HOW 260 MZ 001

m		B		A	t	[7]							
70.0	two-piece	1	+	7	18.75	B	A	A	A	A	A	**A**	**A**
65.0				7	17.15		A	A	A	A	A	**A**	**A**
60.0				7	17.15		A	A	A	A	A	**A**	**A**
55.0		2	+	5	15.45		B	B	A	A	A	A	**A**
50.0		2	+	5	15.45		B	B	A	A	A	A	**A**
45.0		1	+	5	13.85			B	A	A	A	A	**A**
40.0		2	+	4	13.00			B	B	A	A	A	**A**
35.0		1	+	4	11.40				B	A	A	A	**A**
29.8		1	+	3	8.95					B	A	A	**A**

Transport

70 m

x 5 x 6

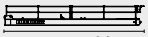
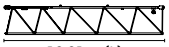
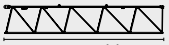
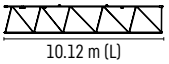
[6] Representation of additional hoists: see instruction manual.

[7] Before assembling the jib: Attach required counterweight blocks A to counter jib (marked bold in table).

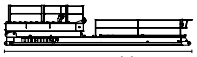
Packing List

Erection weights: see instruction manual.

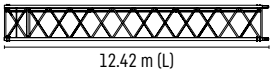
Upper part of crane

I_1	Q_1	Description			
1	1	**Slewing platform with slewing ring and slewing ring support**	 2.46 m (L) 4,890 kg	 2.66 m (H) 2.50 m (W)	
2	1	**Cabin with platform**	 5.67 m (L) 1,780 kg	 2.36 m (H) 1.83 m (W)	
3	1	**Counter-jib part 1/2**	 11.61 m (L) 3,150 kg	 1.65 m (H) 1.44 m (W)	
4	1	**Counter-jib part 2/2**	 5.20 m (L) 1,860 kg	 1.79 m (H) 1.91 m (W)	
5	1	**Jib heel section**	❶  6.46 m (L) 4,310 kg	 2.53 m (H) 2.24 m (W)	
6	1	**Intermediate jib section**	❷  11.91 m (L) 3,700 kg	 2.47 m (H) 1.49 m (W)	
7	1	**Intermediate jib section**	❸  10.47 m (L) 1,990 kg	 2.50 m (H) 1.28 m (W)	
8	1	**Intermediate jib section**	❹  11.84 m (L) 1,860 kg	 2.39 m (H) 1.28 m (W)	
9	1	**Intermediate jib section**	❺  5.24 m (L) 710 kg	 1.89 m (H) 1.28 m (W)	
10	1	**Intermediate jib section**	❻  10.21 m (L) 1,090 kg	 1.88 m (H) 1.28 m (W)	
11	1	**Intermediate jib section**	❼  10.16 m (L) 720 kg	 1.84 m (H) 1.28 m (W)	
12	1	**Intermediate jib section**	❽  10.12 m (L) 530 kg	 1.82 m (H) 1.28 m (W)	

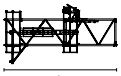
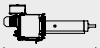
I_1 = Item Q_1 = Quantity

l_1	Q_1	Description		
13	1	**Jib head section**	❾  1.04 m (L) 80 kg	 2.03 m (H) 1.27 m (W)
14	1	**Trolley**	 1.87 m (L) 300 kg	 0.87 m (H) 1.51 m (W)
15	1	**Hook**	 1.18 m (L) 540 kg	1.01 m (H) 0.39 m (W)
16	1	**Counter-jib folding container transportation + TIE BAR**	 11.92 m (L) 5,900 kg	 2.55 m (H) 1.97 m (W)
17	1	**Counter-jib folding truck transportation + TIE BAR**	 11.92 m (L) 5,900 kg	 2.55 m (H) 1.95 m (W)
18	1	**Maintenance trolley**	 0.56 m (L) 28 kg	1.12 m (H) 0.51 m (W)
19	1	**Slewing platform with slewing ring and slewing ring support (MULTI KUD)**	 2.52 m (L) 5,070 kg	 2.66 m (H) 2.57 m (W)

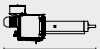
Tower

l_1	Q_1	Description			
20	1	**Climbable tower section**	16 EC 240 TS-0390c	 4.21 m (L) 2,120 kg	 1.76 m (H) 1.68 m (W)
21	1	**Tower section**	16 EC 240 TS-0585	 6.16 m (L) 2,850 kg	 1.68 m (H) 1.68 m (W)
22	1	**Tower section**		 L  H W	
				L (m) / **W (m)** / **H (m)** / **kg**	
			16 EC 240 TS-1170	12.01 / 1.68 / 1.68 / 5,260	
			21 HC 290 TS-0414	4.14 / 2.30 / 2.30 / 2,300	
23	1	**Long tower section**	21 HC 290 TS-1242	 12.42 m (L) 5,770 kg	 2.30 m (H) 2.30 m (W)
24	1	**Base tower section**	21 HC 290 TSB-1242c	 12.42 m (L) 7,940 kg	 2.30 m (H) 2.30 m (W)

Climbing equipment

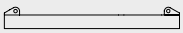
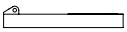
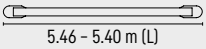
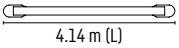
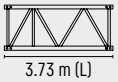
I_1	Q_1	Description						
25	1	**Climbing tower section**		 L		 H W		
				L (m)	**W (m)**	**H (m)**	**kg**	
			16 EC 240 ECTS	4.21	2.18	2.18	2,480	
			21 HC 290 ECTS	4.14	2.30	2.45	3,300	
26	1	**Guide section**		 L		 H W		
				L (m)	**W (m)**	**H (m)**	**kg**	
			16 EC 240 ECGS	8.83	5.35	3.59	4,330	
			21 HC 290	8.39	2.68	2.58	5,100	
27	1	**Hydraulic unit**		 L		 H W		
				L (m)	**W (m)**	**H (m)**	**kg**	
			16 EC 240 ECP	2.37	1.24	0.81	650	
			21 HC 290	2.10	1.25	1.00	1,150	
28	1	**Climbing cross-member**	16 EC 240	 1.65 m (L)		 0.80 m (H) 0.24 m (W)		
				380 kg				

Climbing in the building

I_1	Q_1	Description						
29	1	**B-tower section 3.9 m**	16 EC 240 ICBS-0390c	 4.21 m (L)		 1.68 m (H) 1.76 m (W)		
				2,930 kg				
30	1	**Internal climbing D-section**	16 EC 240 ICDS-0390	 4.21 m (L)		 1.72 m (H) 1.93 m (W)		
				2,600 kg				
31	1	**Hydraulic unit**	16 EC 240 ECP	 2.37 m (L)		 0.81 m (H) 1.24 m (W)		
				650 kg				
32	1	**Climbing cross-member**	16 EC 240	 1.65 m (L)		 0.80 m (H) 0.24 m (W)		
				380 kg				
33	1	**Tower reinforcement**	16 EC 240 TB	 1.32 m (L)		 0.23 m (H) 0.31 m (W)		
				70 kg				
34	3	**Guide frame**	16 EC 240 ICGF	 2.30 m (L)		0.61 m (H) 2.20 m (W)		
				910 kg				
35	1	**Mounting kit for 16 EC 240 ECP**	16 EC 240 ECP	**L (m)**	**W (m)**	**H (m)**	**kg**	
				1.48	0.81	0.38	110	

I_1 = Item Q_1 = Quantity

Undercarriage

l_1	Q_1	Description					
36	2	**Rail bogie with drive**	21 HC 290	 1.63 m (L)	 1,690 kg	 0.95 m (H) 0.92 m (W)	
37	2	**Rail bogie without drive**	21 HC 290	 1.37 m (L)	 1,340 kg	 0.95 m (H) 0.62 m (W)	
38	1	**Long support arm**	21 HC 290	 9.10 m (L)	 1,650 kg	 0.80 m (H) 0.80 m (W)	
39	2	**Short support arm**	21 HC 290	 4.45 m (L)	 800 kg	 0.77 m (H) 0.77 m (W)	
40	2+2	**Border support**	21 HC 290	 5.46 – 5.40 m (L)	 180 – 230 kg	 0.16 – 0.38 m (H) 0.11 – 0.18 m (W)	
41	4	**Support strut**	21 HC 290	 4.14 m (L)	 320 kg	 0.25 m (H) 0.18 m (W)	
42	1	**Undercarriage tower section**	21 HC 290	 3.73 m (L)	 2,920 kg	 2.62 m (H) 2.62 m (W)	
43	1	**Bundle of ladders and platforms**		**L (m)**	**W (m)**	**H (m)**	**kg**
				3.50	1.20	1.00	1,000
44	1	**Crate with small parts**		**L (m)**	**W (m)**	**H (m)**	**kg**
				2.00	1.00	1.00	2,000

Cruciform base

l_1	Q_1	Description		L (m)	W (m)	H (m)	kg
45	1	**Support arm I**	20 EC 300 CB-0450m	6.86	0.50	1.18	3,790
			21 HC 290 CB-0450	6.95	0.71	1.23	5,000
			24 HC 420 CB-0600	9.20	1.10	1.53	8,300
46	1	**Support arm II**	20 EC 300 CB-0450m	6.86	0.87	1.05	3,360
			21 HC 290 CB-0450	6.95	0.81	1.23	4,600
			24 HC 420 CB-0600	9.20	1.10	1.53	8,300
47	2+2	**Border support**	20 EC 300 CB-0450m	4.20	0.90	0.60	380
			21 HC 290 CB-0450	3.67	1.20	0.50	400
			24 HC 420 CB-0600	0.43	0.43	0.64	320

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