



**Made in Germany**



# **WT 420 *e.tronic***

## **Product Information**

WT 420 e.tronic load table in 4-rope mode with 4-rope load hook.

Radius [m]	30.0	32.5	35.0	37.5	40.0	42.5	45.0	47.5	50.0	52.5	55.0	57.5	60.0	62.5	65.0	67.5	70.0	72.5	75.0	77.5	80.0	82.5	85.0
85.0	9.4	8.5	7.8	7.2	6.7	6.2	5.8	5.4	5.1	4.8	4.5	4.2	4.0	3.8	3.6	3.4	3.2	3.1	2.9	2.8	2.6	2.5	2.4
82.5	9.6	8.8	8.0	7.4	6.9	6.4	5.9	5.5	5.2	4.9	4.6	4.3	4.1	3.9	3.7	3.5	3.3	3.2	3.0	2.9	2.7	2.6	
80.0	9.8	8.9	8.2	7.6	7.0	6.5	6.1	5.7	5.3	5.0	4.7	4.4	4.2	4.0	3.8	3.6	3.4	3.2	3.1	2.9	2.8		
77.5	10.5	9.6	8.8	8.1	7.5	7.0	6.5	6.1	5.7	5.4	5.1	4.8	4.5	4.3	4.1	3.9	3.7	3.5	3.4	3.2			
75.0	11.4	10.4	9.5	8.8	8.2	7.6	7.1	6.7	6.3	5.9	5.6	5.3	5.0	4.7	4.5	4.3	4.1	3.9	3.7				
72.5	12.1	11.1	10.2	9.4	8.8	8.2	7.6	7.1	6.7	6.3	6.0	5.7	5.4	5.1	4.8	4.6	4.4	4.2					
70.0	12.6	11.5	10.6	9.8	9.1	8.5	7.9	7.4	7.0	6.5	6.2	5.9	5.6	5.3	5.1	4.8	4.6						
67.5	13.0	11.9	10.9	10.1	9.4	8.8	8.2	7.7	7.2	6.8	6.5	6.1	5.8	5.5	5.2	5.0							
65.0	13.8	12.6	11.6	10.7	10.0	9.3	8.7	8.2	7.7	7.3	6.9	6.5	6.2	5.9	5.6								
62.5	14.2	13.0	12.0	11.1	10.3	9.6	9.0	8.5	8.0	7.5	7.1	6.8	6.4	6.1									
60.0	14.8	13.6	12.5	11.6	10.8	10.0	9.4	8.8	8.3	7.9	7.4	7.1	6.7										
57.5	15.1	13.8	12.7	11.8	11.0	10.2	9.6	9.0	8.5	8.0	7.6	7.2											
55.0	15.5	14.2	13.1	12.1	11.3	10.5	9.8	9.3	8.7	8.2	7.8												
52.5	15.6	14.3	13.2	12.2	11.3	10.6	9.9	9.3	8.8	8.3													
50.0	15.8	14.4	13.3	12.3	11.5	10.7	10.0	9.4	8.9														
47.5	15.9	14.5	13.4	12.4	11.5	10.8	10.1	9.5															
45.0	15.9	14.5	13.4	12.4	11.5	10.8	10.1																
42.5	15.9	14.6	13.4	12.4	11.6	10.8																	
40.0	15.9	14.6	13.5	12.5	11.6																		
37.5	16.0	14.6	13.5	12.5																			
35.0	16.0	14.6	13.5																				
32.5	16.0	14.7																					
30.0	16.0																						



16.0

WT 420 e.tronic load table in 2-rope mode with 2-rope load hook.

Radius [m]	25	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60	62.5	65	67.5	70	72.5	75	77.5	80	82.5	85
85.0	8.0	8.0	8.0	8.0	7.6	7.1	6.6	6.2	5.8	5.5	5.2	4.9	4.6	4.4	4.2	4.0	3.8	3.6	3.5	3.3	3.2	3.0	2.9	2.8
82.5	8.0	8.0	8.0	8.0	7.8	7.3	6.8	6.3	5.9	5.6	5.3	5.0	4.7	4.5	4.3	4.1	3.9	3.7	3.6	3.4	3.3	3.1	3.0	
80.0	8.0	8.0	8.0	8.0	7.4	6.9	6.5	6.1	5.7	5.4	5.1	4.8	4.6	4.4	4.2	4.0	3.8	3.6	3.5	3.3	3.2			
77.5	8.0	8.0	8.0	8.0	7.9	7.4	6.9	6.5	6.1	5.8	5.5	5.2	4.9	4.7	4.5	4.3	4.1	3.9	3.8	3.6				
75.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	7.5	7.1	6.7	6.3	6.0	5.7	5.4	5.1	4.9	4.7	4.5	4.3	4.1				
72.5	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	7.5	7.1	6.7	6.4	6.1	5.8	5.5	5.2	5.0	4.8	4.6					
70.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	7.5	7.1	6.8	6.4	6.1	5.8	5.5	5.2	5.0	4.8	4.6				
67.5	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	7.7	7.3	6.9	6.6	6.3	6.0	5.7	5.5							
65.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	7.7	7.3	6.9	6.6	6.3	6.0								
62.5	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	7.7	7.3	6.9	6.6	6.3	6.0								
60.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	7.9	7.5	7.2	6.8	6.5								
57.5	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	7.5	7.1						
55.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0				
52.5	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0					
50.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0						
47.5	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0							
45.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0								
42.5	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0									
40.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0										
37.5	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0											
35.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0												
32.5	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0													
30.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0														
25.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0															



8.0

The loads relate to 40 m hook travel. For larger hook travels, the loads are reduced by the additional weight of the hoist rope (with 2-rope mode = 2.6 kg/m hook travel; with 4-rope mode = 5.2 kg/m hook travel).

## The WT 420 *e.tronic* tower crane. Flat top. Dynamic. And powerful.

### **Transport.** **Out and about - big time.**

When the WT 420 *e.tronic* is on the road, the entire slewing unit together with the 85 m jib is conveyed on four trucks. Folded, the 40' counterjib fitted with container connectors can be transported easily on any standard chassis. It is so well-thought-out that even small parts are allocated a set place and are, for the most part, even secured automatically. Needless to say, storage of the four units is space-saving and each unit can be loaded in just one lift.

### **Assembly.** **Ready for launch.**

Put your WT 420 *e.tronic* into operation. It is fully prepared for you – largely because the jib stays are already pre-assembled and positioned or with connections accessible without additional erection platforms. And, of course, the assembly weights can very easily be adapted to the capacity of the assembly crane. Once it has been assembled, the current configuration is simply stored in the *e.tronic* control. And to program the maximum load limit switch, you need only one known test weight.

### **Maintenance.** **A clear statement.**

The WT 420 *e.tronic* does not leave you in the dark. For reliability is ensured by tried and tested high volume components. And the sophisticated error diagnostics system not only displays any faults and malfunctions on the touch panel, but also allows operating and error data to be retrieved on any PC with a modem and the corresponding software. When the reservoir of the *e.tronic*-controlled central lubrication system is empty, you have the possibility to automatically send an SMS to a pre-selected service number.

### **Control.** **And we have lift off!**

The WT 420 *e.tronic* is equipped with the *e.tronic* programmable logic control system, featuring 230 V powerful relay switches rated in category AC 4 – so operational wear and tear is not an issue here. The safety-related measuring systems are fitted in duplicate and thus ensure that DIN EN 954/3 is complied with. And what's more, since the frequency converters controlled by absolute encoders are identical for all drives, they are completely interchangeable. The *e.tronic* includes an operating range limit with 8 polygons of max. 8 corner points each.

The spacious, side-mounted operator cab ensures the crane operator is comfortable and has clear visibility. It also features a touch panel which provides him with all the important data he requires – in the language of his choice, of course.

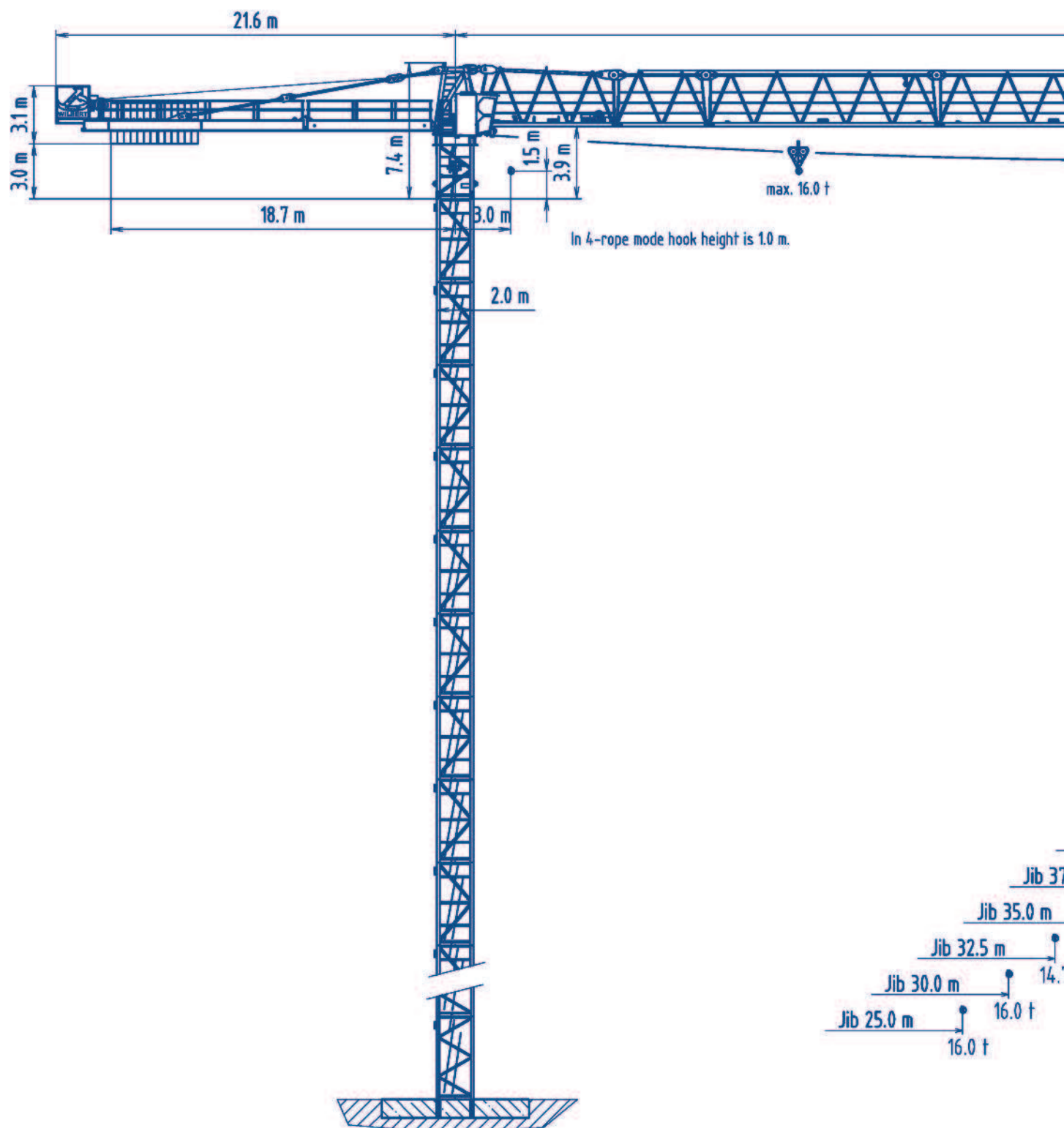
### **Modular system.** **The right size – always.**

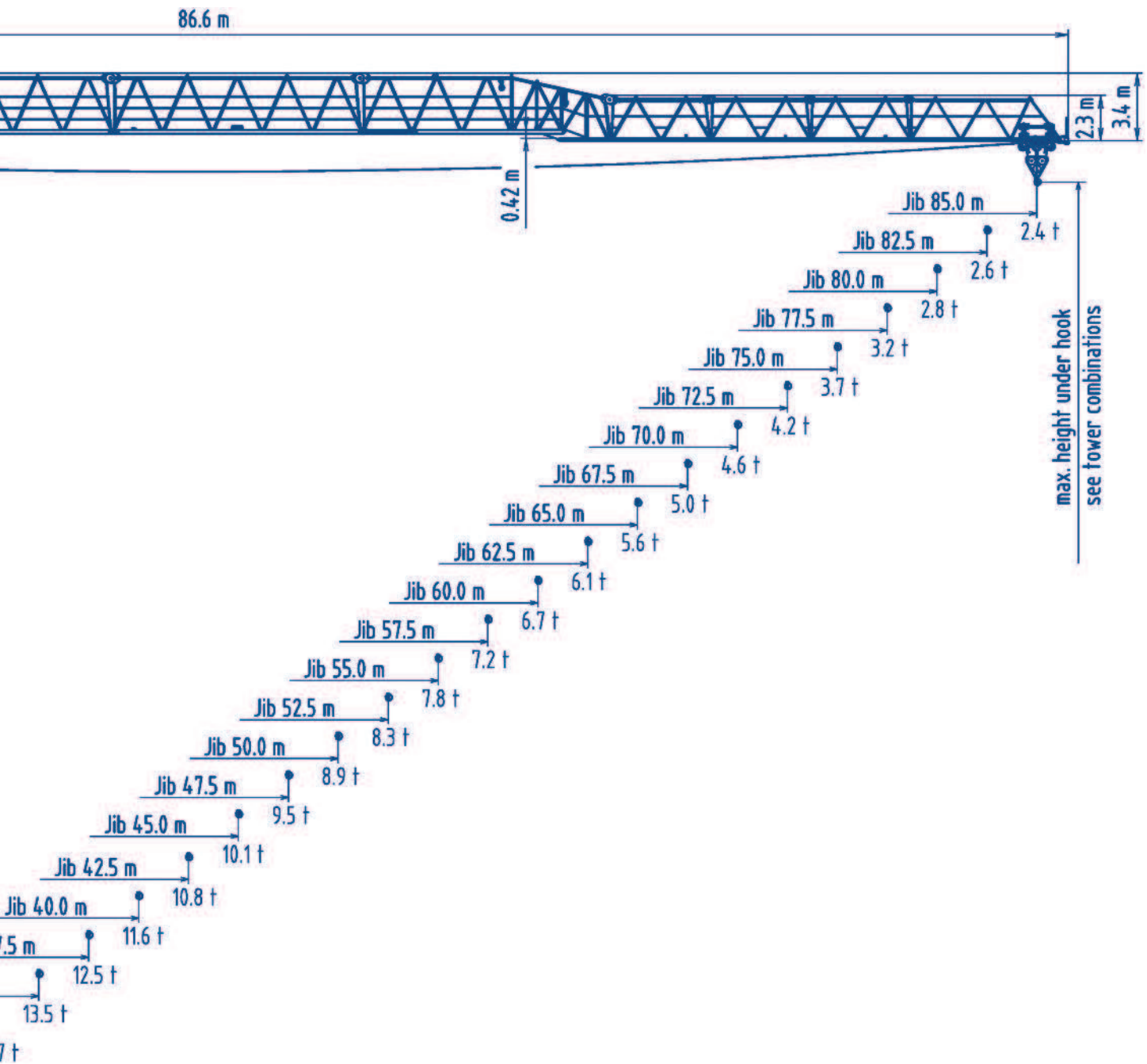
From 25 m to 85 m – just adapt the length of the jib as required, with nine different jib sections in two and a half metre lengths. The slewing unit can be assembled on the 2 m wide tower elements having a standard length of 6.5 m and feature external and internal climbing frames. Additional tower elements in intermediate lengths as well as base elements such as foundation anchors, expandable crossframes and assembly-optimised crossframe elements – with pressure plates that can be replaced by rail-going undercarriages – are also available for flexible use. And as far as advertising is concerned, the two illuminated display boards can be changed quickly and easily – simply remove the diffusing panel and change the logo.

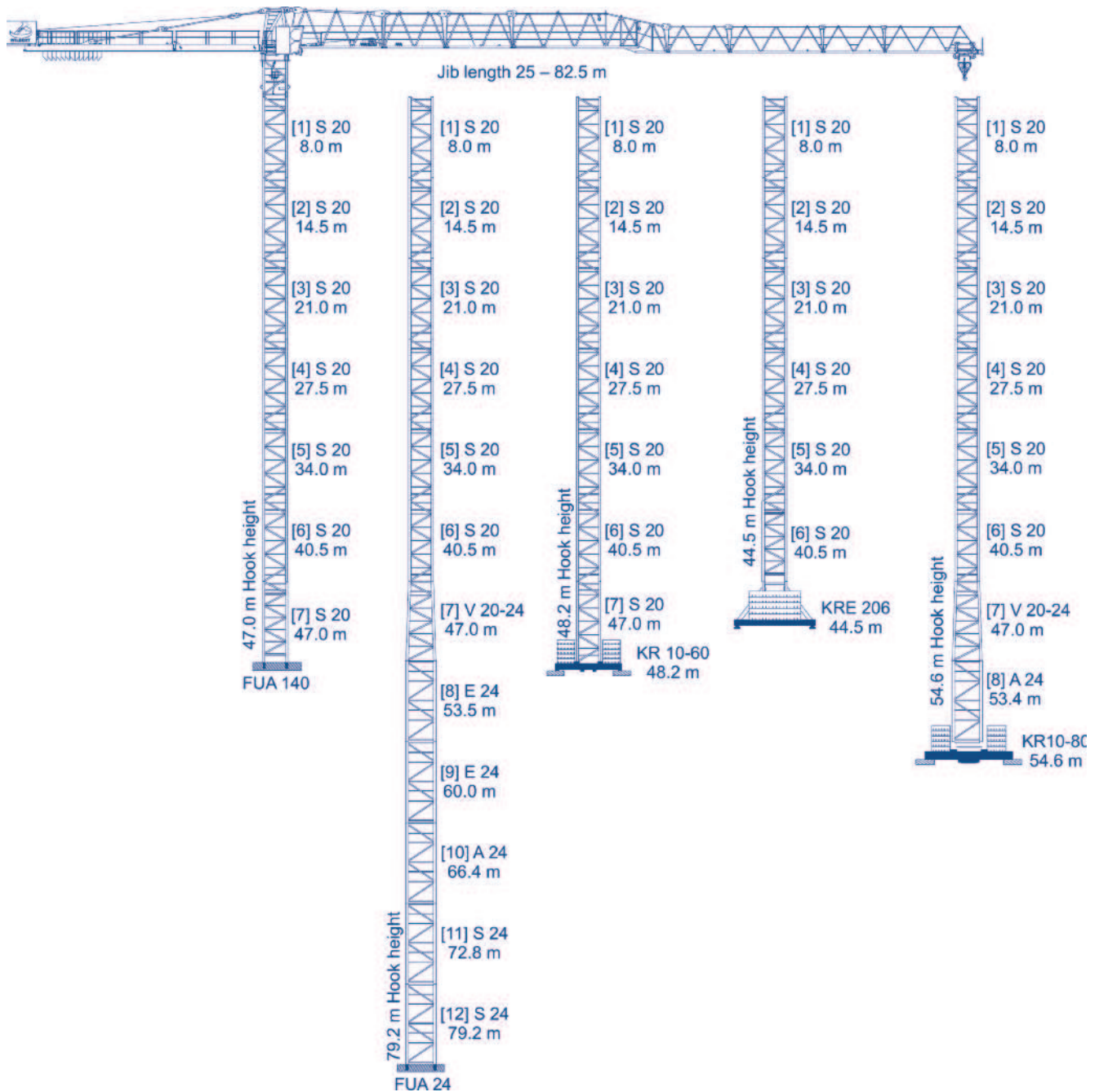
The real size of the WT 420 *e.tronic* is demonstrated by its maximum freestanding tower height of 79.5 m, realised with standard tower elements. Higher freestanding hook heights are possible with special tower elements. Just ask!



WILBERT Tower Cranes  
Layout drawing

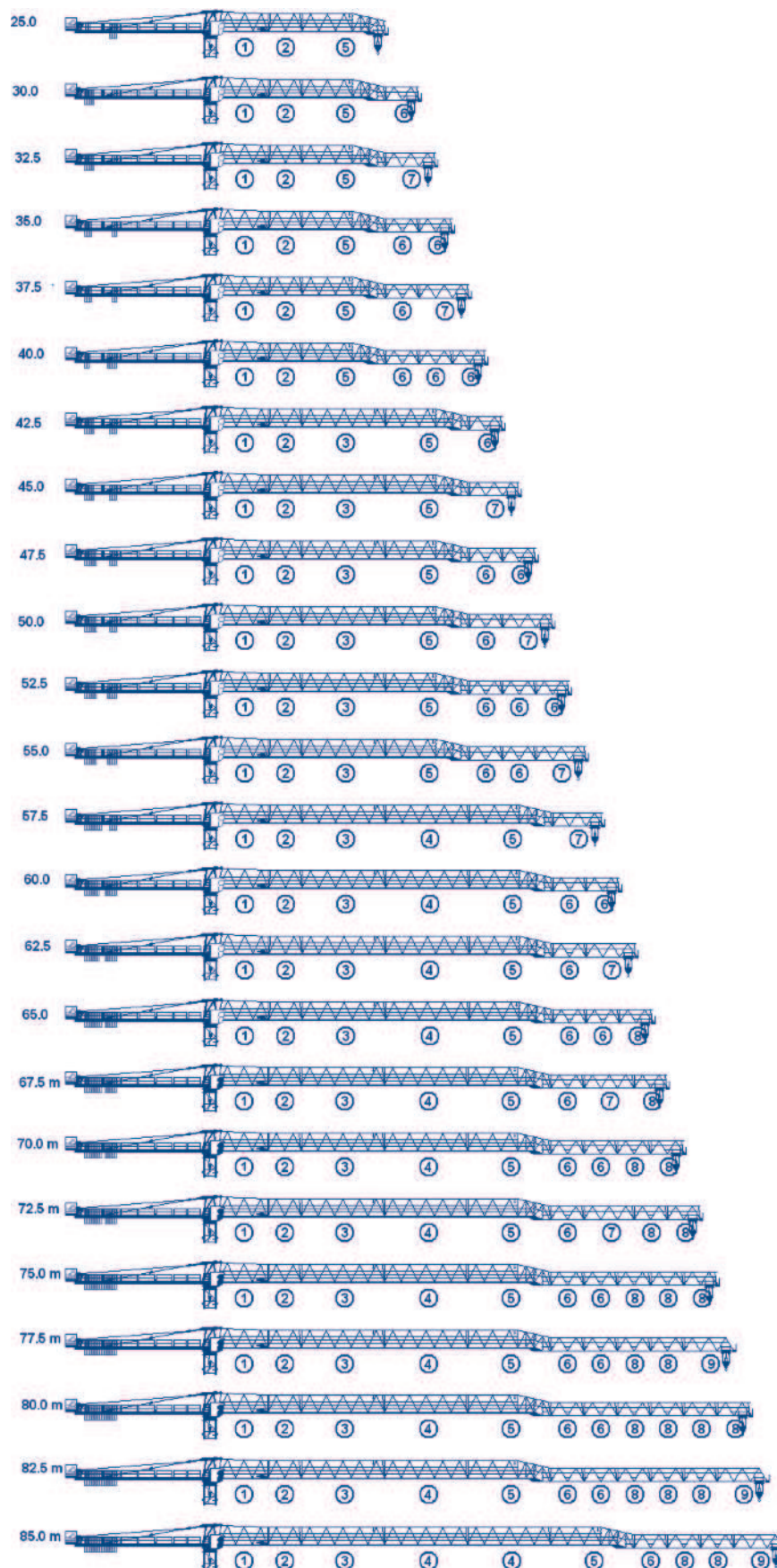





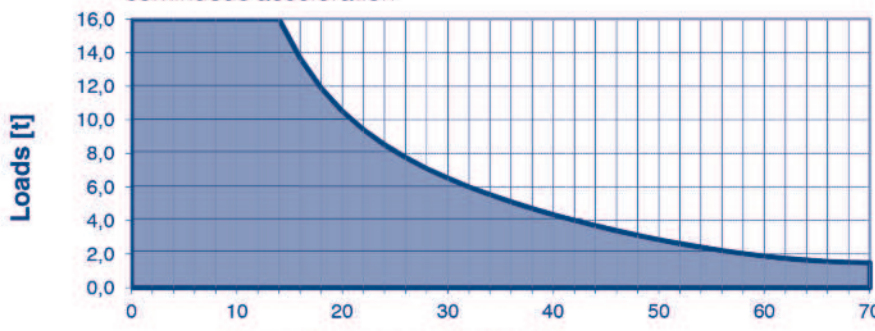

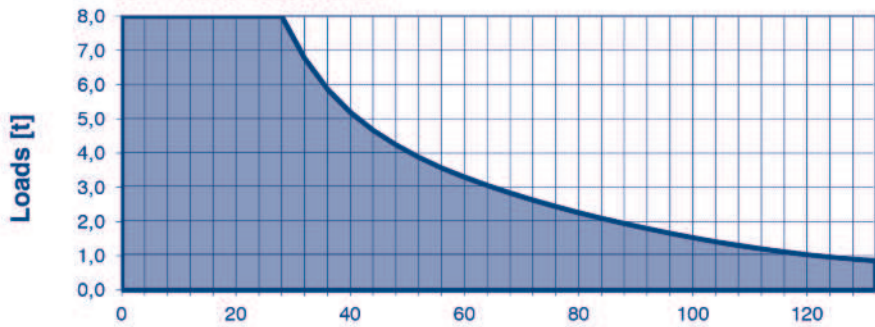
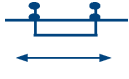
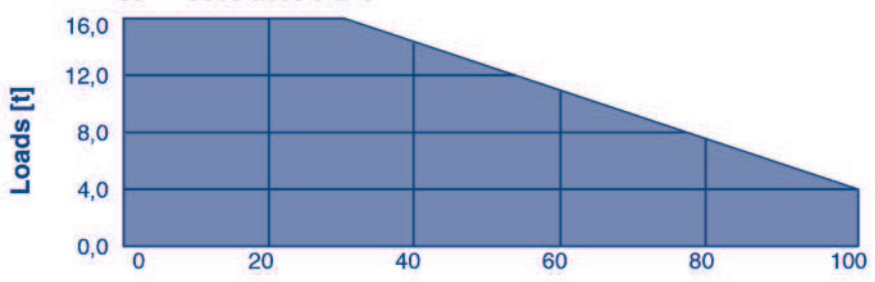
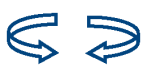



Tower combinations according to  
C 25 wind data.


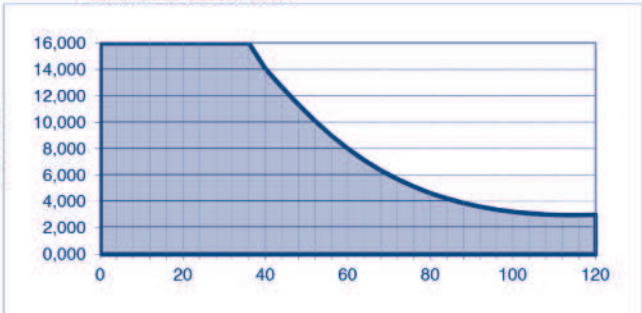

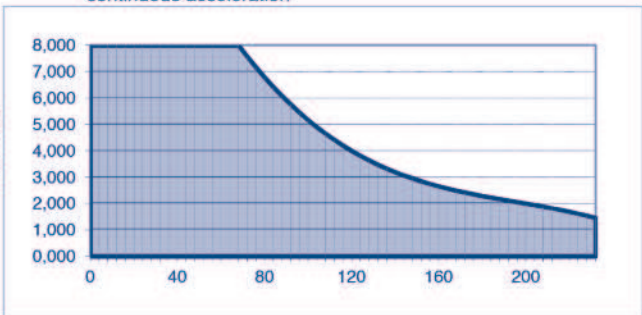

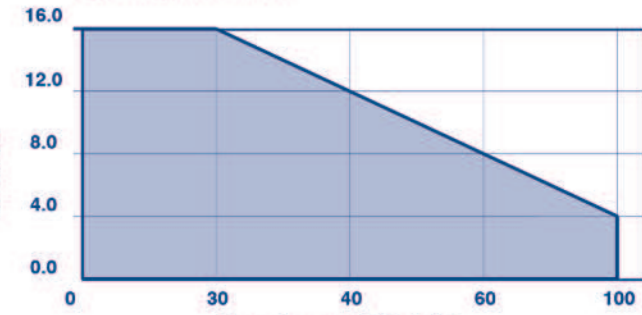


Lower under hook heights may be  
allowed for certain jib lengths.

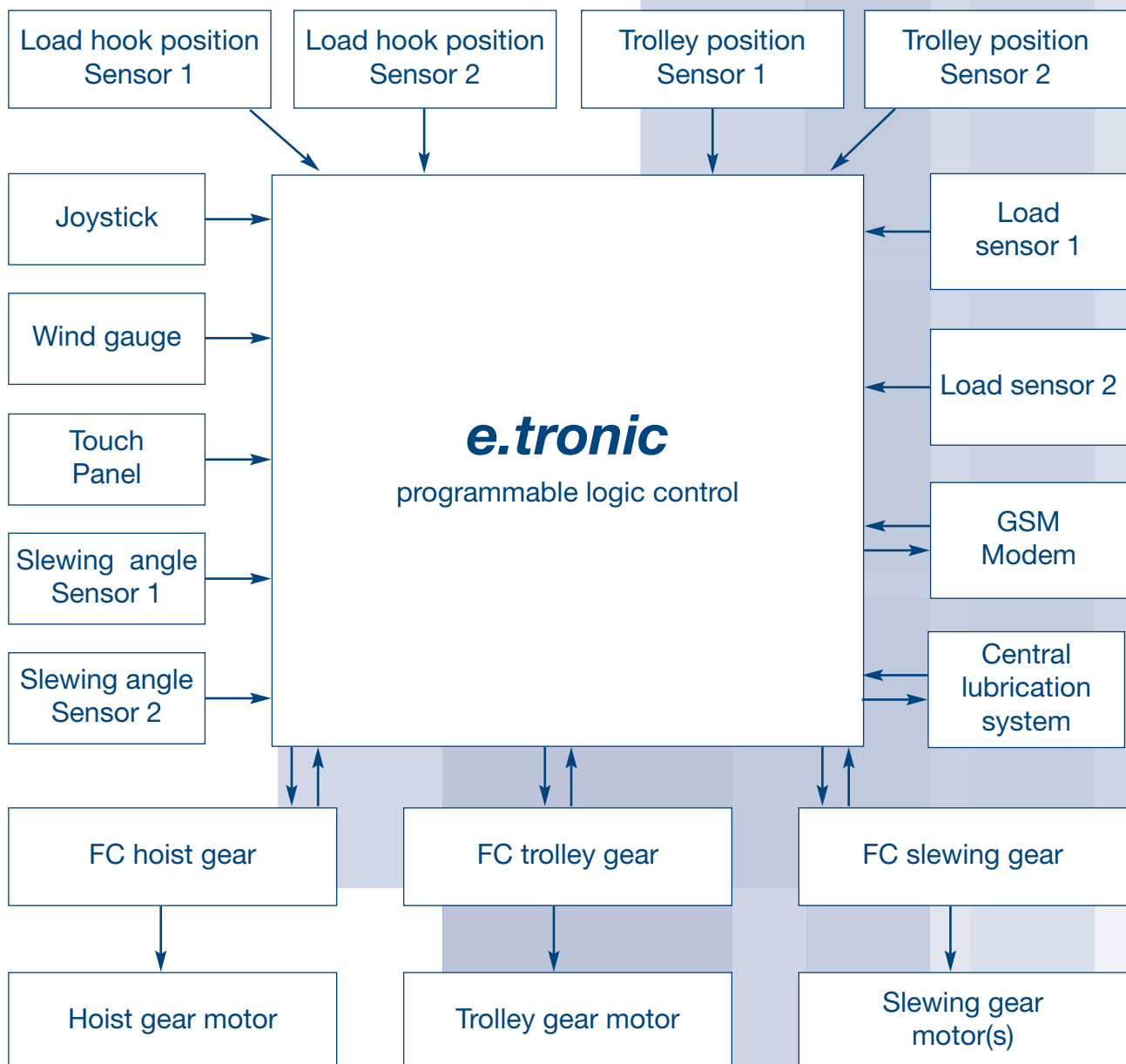




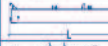



















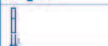

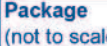


Drive [Type]	Operating speeds Loads	Hook travel max. [m]	Power rating [kW]
HFU 45-40	Hoisting	80	45
	<p>continuous acceleration</p>  <p>Loads [t]</p> <p>Operating speeds [m/min] *</p>		
HFU 45-40	Hoisting	160	45
	<p>continuous acceleration</p>  <p>Loads [t]</p> <p>Operating speeds [m/min] *</p> <p>* (referred to the 3<sup>rd</sup> rope layer on the drum)</p>		
TW	Moving trolley (quadruple rope)		7.5
	<p>continuous acceleration</p>  <p>Loads [t]</p> <p>Operating speeds [m/min]</p>		
DW	Slewing		2 x 9.2
	<p>continuous acceleration</p>  <p>Operating speeds [min<sup>-1</sup>]</p>		
Total power requirements			
66.0 kVA			
Total power requirements at utilisation factor 0.8			



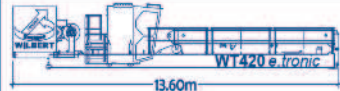

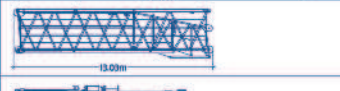

Drive [Type]	Operating Speeds Load	Hook travel max.[m]	Power rating [kW]
HFU 110-40	Hoisting	305	110
	<div>continuous acceleration</div>  <div>Operating speeds [m/min] (referred to the 3<sup>rd</sup> rope layer on the drum)</div>		
	Hoisting	610	110
	<div>continuous acceleration</div>  <div>Operating speeds [m/min] (referred to the 3<sup>rd</sup> rope layer on the drum)</div>		
TW	Moving trolley	9.2	
	<div>continuous acceleration</div>  <div>Operating speeds [m/min]</div>		
DW	Slewing	2 x 9.2	
	<div>continuous acceleration</div>  <div>Operating speeds [min<sup>-1</sup>]</div>		
Total power requirement [kVA]			
124.0			
Total power requirement with utilisation factor 0.8			



Pos.	Qty.	Description	Package (not to scale)	Length [m]	Width [m]	Height [m]	Weight [kg]	Volume [m³]
1	1	Tower height section complete with several stay rods		7.32	2.48	2.40	11,930	43.57
2	1	Cab with cab platform		3.28	1.90	2.45	1,360	15.27
3	1	Counterjib 1		7.16	2.27	0.82	2,560	13.33
4	1	Counterjib 2		12.20	2.44	1.12	6,060	33.31
5a	1	Machine platform HFU 45-40 with hoist rope		2.90	2.50	2.03	3,500	14.72
5b	1	Maschine platform HFU 110-40 with hoist rope		2.30	5.40	1.99	8,700	24.67
6	2	Stay rod 1		2.53	0.08	0.36	220	0.07
7	2	Stay rod 2		6.33	0.11	0.36	420	0.25
8	2	Stay rod 3		6.36	0.11	0.36	420	0.25
9	1	Jib section 1 with trolley gear		7.88	2.02	3.34	4,305	53.16
10	1	Jib section 2		5.52	2.01	3.05	2,200	33.84
11	0-2*	Jib section 3		13.01	2.01	3.04	4,010	79.50
12	0-1*	Jib section 4		12.95	2.01	3.04	3,240	79.13
13	1	Jib section 5		13.00	1.98	3.38	3,325	87.00
14	0-3*	Jib section 6		5.41	1.53	2.28	890	18.87
15	0-1*	Jib section 7		7.80	1.53	2.22	940	26.49
16	0-3*	Jib section 8		5.31	1.53	2.22	540	18.04
17	0-1*	Jib section 9		7.69	1.53	2.18	540	25.65
18	1	Stay lug (jib)		1.09	0.12	0.46	325	0.06
19	1	Rope swivel crossbeam		0.67	1.45	0.43	180	0.42
20	1	Trolley		1.81	2.19	1.46	640	5.77
21	1	Hook block		1.06	0.30	1.78	620	0.57
22	1	Railing (loose parts)		2.50	0.90	1.00	355	2.25
23	0-1*	Concrete counterweight (under machine platform)		1.30	2.00	0.99	3,000	2.57
24	2-13*	Concrete counterweight		0.36	1.41	2.22	2,700	1.13

\* quantity according to jib length

#### Transport units

Pos.	Description	Package (not to scale)	Weight [kg]	Volume [m³]
A	<b>Transport unit 1</b> Counterjib with concrete counterweight 3.0 t and machine platform, cab with cab platform, several stay rods		19,160	82.63
B	<b>Transport unit 2</b> (up to) 40 m jib (AL 1 + 2 with AL 6, AL 3 with AL 6 + 8), rope swivel crossbeam, several small parts		13,340	134.82
C	<b>Transport unit 3</b> (up to) 42.5 m jib (AL 4 with AL 8 + 8, AL 5 with AL 9), small parts		8,200	132.56
D	<b>Transport unit 4</b> Tower head section complete with several stay rods, trolley and load hook		13,800	54.24



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