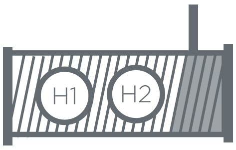
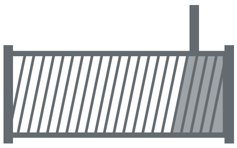
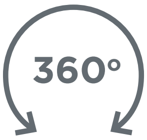
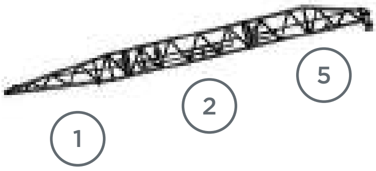
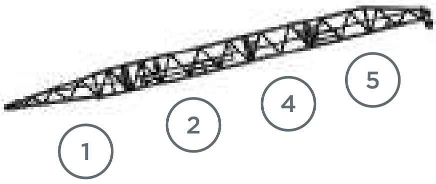
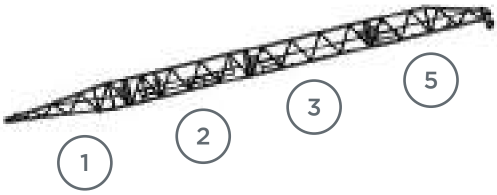
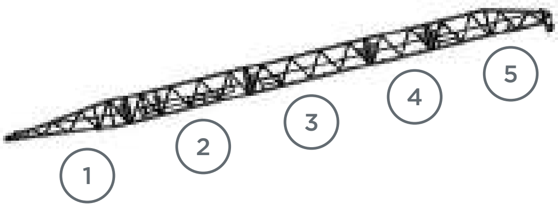
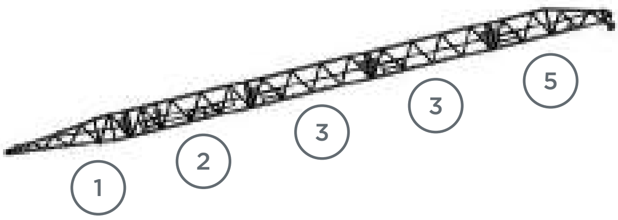
SARENS HLTC 2400

HEAVY LIFT TOWER CRANE

- Load moment:	2.496tm
- Capacity:	128t
- Jib configuration:	36m / 42m / 48m / 54m / 60m / 66m / 72m / 78m
- Power supply:	3 x 400V + PE 50Hz 650A 500kW total installed rectifier power 625kVA = 500kW / 0,8 power factor The AFE (Active Front End) inverters on the HLTC cranes can be switched between regenerative (standard) and non-regenerative operation (optional). • If regenerative operation is selected, the crane has to be connected to the national grid through a transformer min. 625kVA. The excess energy, e.g. when lowering a load or luffing down the jib, will be fed back to the grid, which saves energy. • If non-regenerative operation is selected, a resistor bank has to be mounted on the crane. Braking resistors will dissipate the excess energy. The crane can then be connected to a generator minimum 625kVA or through a transformer min. 625kVA to a grid that does not allow energy feedback.
- Classification crane:	A3
- Wind category:	C25 (out-of-service)

	Gear	Working speed	Rope diameter	Rope length	Nominal single line pull
Hoisting winch		at 16t line load 61m/min – 39m/min on layer 9 - 1 at 8t line load 122m/min – 78m/min on layer 9 - 1	28mm	800m	173 kN on layer 9
Luffing winch		47m/min on layer 4	28mm	380m	
Slewing gear		0,7rpm			

HLTC 2400
JIB CONFIGURATION

<table>
<tr><th>Jib Length</th><th>Jib Configuration</th><th>Counterweight</th><th>Counterweight configuration</th></tr>
<tr><td>36m</td><td>
</td><td rowspan="5">137,6t</td><td rowspan="5">No.2 x 4
No.3 x 4
No.4 x 1
No.5 x 1</td></tr>
<tr><td>42m</td><td>
</td></tr>
<tr><td>48m</td><td>
</td></tr>
<tr><td>54m</td><td>
</td></tr>
<tr><td>60m</td><td>
</td></tr>
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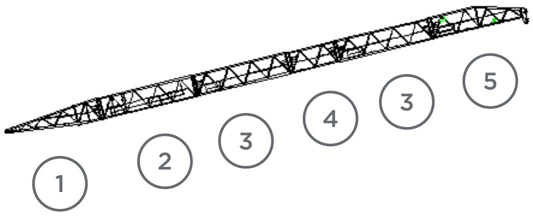
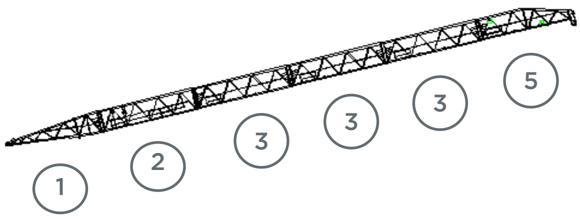
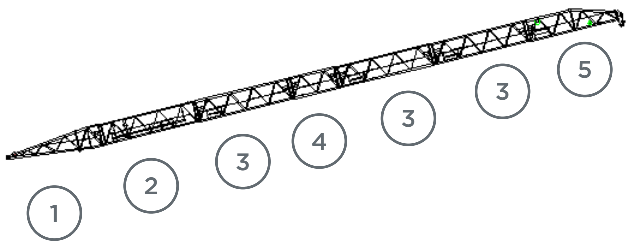
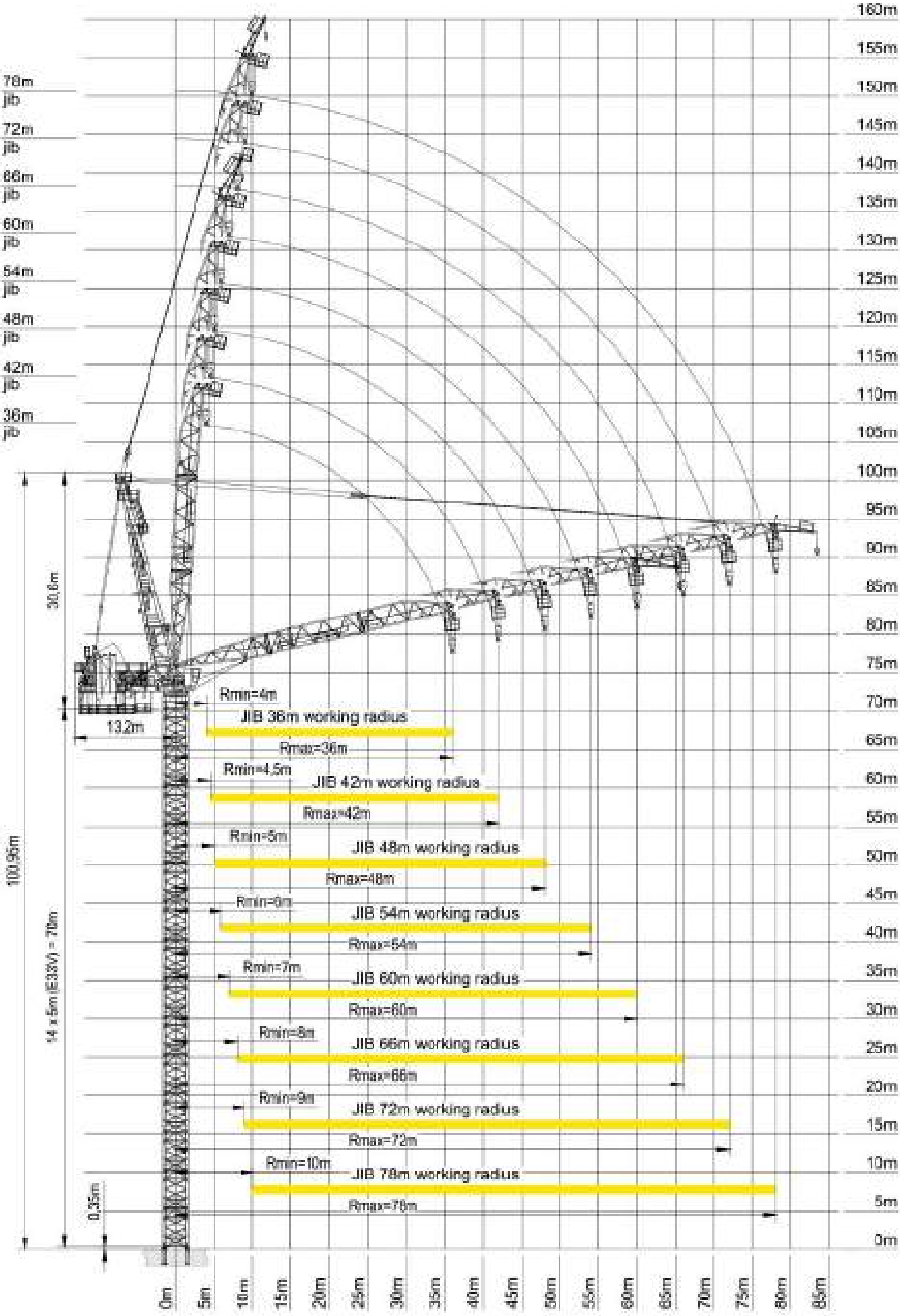
Jib Length	Jib Configuration	Counterweight	Counterweight configuration
66m		155,9t	No.1 x 2 No.2 x 4 No.3 x 4 No.4 x 1 No.5 x 1
72m		160,25t	No.1 x 1 No.2 x 5 No.3 x 4 No.4 x 1 No.5 x 1
78m		164,6t	No.2 x 5 No.3 x 5 No.4 x 1 No.5 x 1

HLTC 2400
WORKING RANGE



HLTC 2400
LOAD CHART

17 - 14m/s

360°

ISO

8-FALL

Radius [m]

Capacity [t]	Min.	10	19	19,5	20	22	24	26	28	30	32	34	36	38	40	42	WIND [m/s]
Jib 36m	128	128	128	128	124,7	112,9	103	94,7	87,6	81,4	76	71,2	67	-	-	-	17
Jib 42m	128	128	128	124,6	121,4	110,1	100,6	92,6	85,7	79,8	74,6	70	65,9	62,3	59	56	17

6-FALL

Radius [m]

Capacity [t]	Min.	10	20	20,5	22	22,5	24	24,5	25,5	26	30	34	36	40	42	48	50	54	WIND [m/s]
Jib 36m	96	96	96	96	96	96	96	96	96	94,1	81,3	71,6	67,5	-	-	-	-	-	17
Jib 42m	96	96	96	96	96	96	96	96	92,3	90,5	78,6	69,4	65,6	59,2	56,4	-	-	-	17
Jib 48m	96	96	96	96	96	96	90	88,2	84,7	83,1	72	63,5	60	54	51,4	45	-	-	17
Jib 54m	96	96	96	96	89,5	87,5	82	80,3	77,2	75,7	65,6	57,9	54,7	49,2	46,9	41,1	39,4	36,5	17

4-FALL

Radius [m]

Capacity [t]	Min.	10	20	30	31	32	33	34	36	38	40	42	48	50	54	60	62	66	72	WIND [m/s]
Jib 36m	64	64	64	64	64	64	64	64	64	-	-	-	-	-	-	-	-	-	-	17
Jib 42m	64	64	64	64	64	64	64	64	64	61,3	59	56,8	-	-	-	-	-	-	-	17
Jib 48m	64	64	64	64	64	64	64	64	60,5	57,3	54,5	51,9	45,5	-	-	-	-	-	-	17
Jib 54m	64	64	64	64	64	64	64	62	58,3	54,9	51,9	49,2	42,5	40,6	37,2	-	-	-	-	17
Jib 60m	64	64	64	64	64	64	61,9	59,9	56,3	53	50,1	47,4	40,8	38,9	35,6	31,5	-	-	-	17
Jib 66m	64	64	64	64	64	61,9	59,9	58	54,6	51,5	48,7	46,2	40	38,2	35,1	31,2	30,1	28	-	16
Jib 72m	64	64	64	64	61,8	59,7	57,7	55,9	52,5	49,4	46,7	44,2	38	36,3	33,2	29,4	28,3	26,2	23,6	15

3-FALL

Radius [m]

Capacity [t]	Min.	10	20	30	36	40	40,5	41	41,5	42	44	48	50	54	60	62	66	72	WIND [m/s]
Jib 36m	48	48	48	48	48	-	-	-	-	-	-	-	-	-	-	-	-	-	17
Jib 42m	48	48	48	48	48	48	48	48	48	48	-	-	-	-	-	-	-	-	17
Jib 48m	48	48	48	48	48	48	48	48	48	48	47,3	46	-	-	-	-	-	-	17
Jib 54m	48	48	48	48	48	48	48	48	48	47,5	45,4	41,9	40,3	37,5	-	-	-	-	17
Jib 60m	48	48	48	48	48	48	48	48	47,4	46,8	44,5	40,5	38,8	35,7	31,8	-	-	-	17
Jib 66m	48	48	48	48	48	48	48	47,4	46,8	46,2	43,9	40	38,3	35,3	31,4	30,3	28,3	-	16
Jib 72m	48	48	48	48	48	48	47,3	46,7	46	45,4	43,1	38,9	37,1	33,9	29,9	28,7	26,6	23,8	15

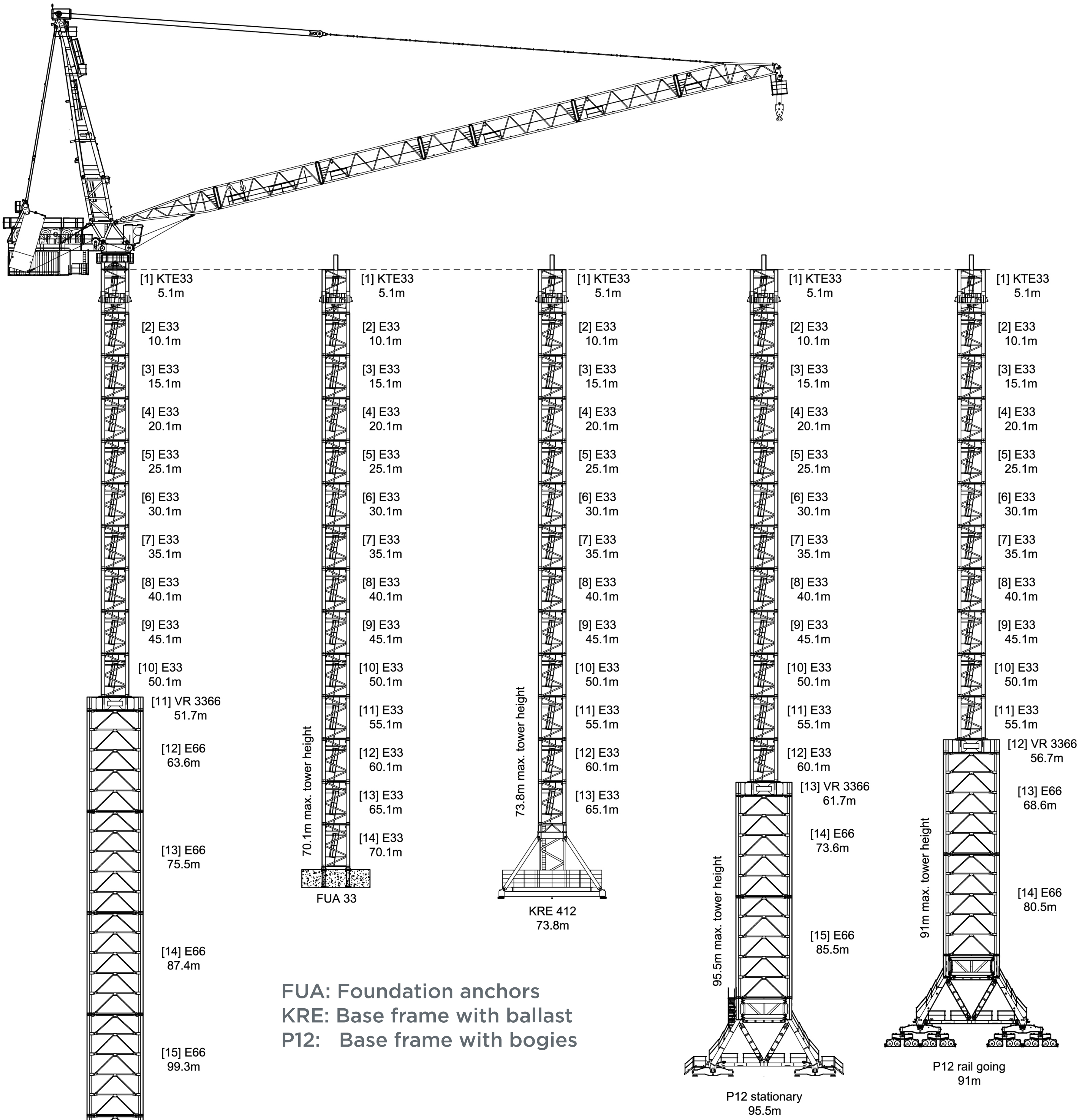
2-FALL

Radius [m]

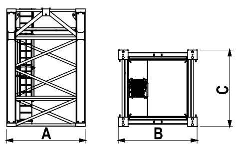
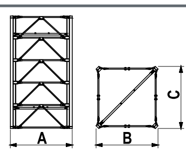
Capacity [t]	Min.	10	20	30	36	40	42	48	50	54	55	56	57	58	59	60	62	66	72	78	WIND [m/s]
Jib 36m	32	32	32	32	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17
Jib 42m	32	32	32	32	32	32	32	-	-	-	-	-	-	-	-	-	-	-	-	-	17
Jib 48m	32	32	32	32	32	32	32	32	-	-	-	-	-	-	-	-	-	-	-	-	17
Jib 54m	32	32	32	32	32	32	32	32	32	32	-	-	-	-	-	-	-	-	-	-	17
Jib 60m	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	-	-	-	-	17
Jib 66m	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	31,5	30,4	28,5	-	-	16
Jib 72m	32	32	32	32	32	32	32	32	32	32	32	32	32	31,3	30,7	30,1	28,9	26,8	24	-	15
Jib 78m	32	32	32	32	32	32	32	32	32	32	32	31,2	30,5	29,8	29,1	28,5	27,2	24,9	22	19,5	14

- Capacities are given in metric tons.
- Capacities are based on 50m tower height and hook at ground level. For longer hook travel distances, a reduction of the capacity with the additional weight of the hoist rope is required.
    - 8-fall: 32kg/m
    - 6-fall: 24kg/m
    - 4-fall: 16kg/m
    - 3-fall: 12kg/m
    - 2-fall: 8kg/m
- Capacities are to be reduced by 3,5t if the auxiliary jib is installed.
- Hook block weight is included in the load chart.
- Radius is from slewing centre.
- The maximum allowed wind speed for crane operation is measured by the anemometer in the top of the jib. The load charts take into account the wind effect on the load as exerted by the 3-second wind gust at the top of the jib, acting on a projected area of 1 m^2 per ton of lifted load multiplied by a drag factor of 1,2.

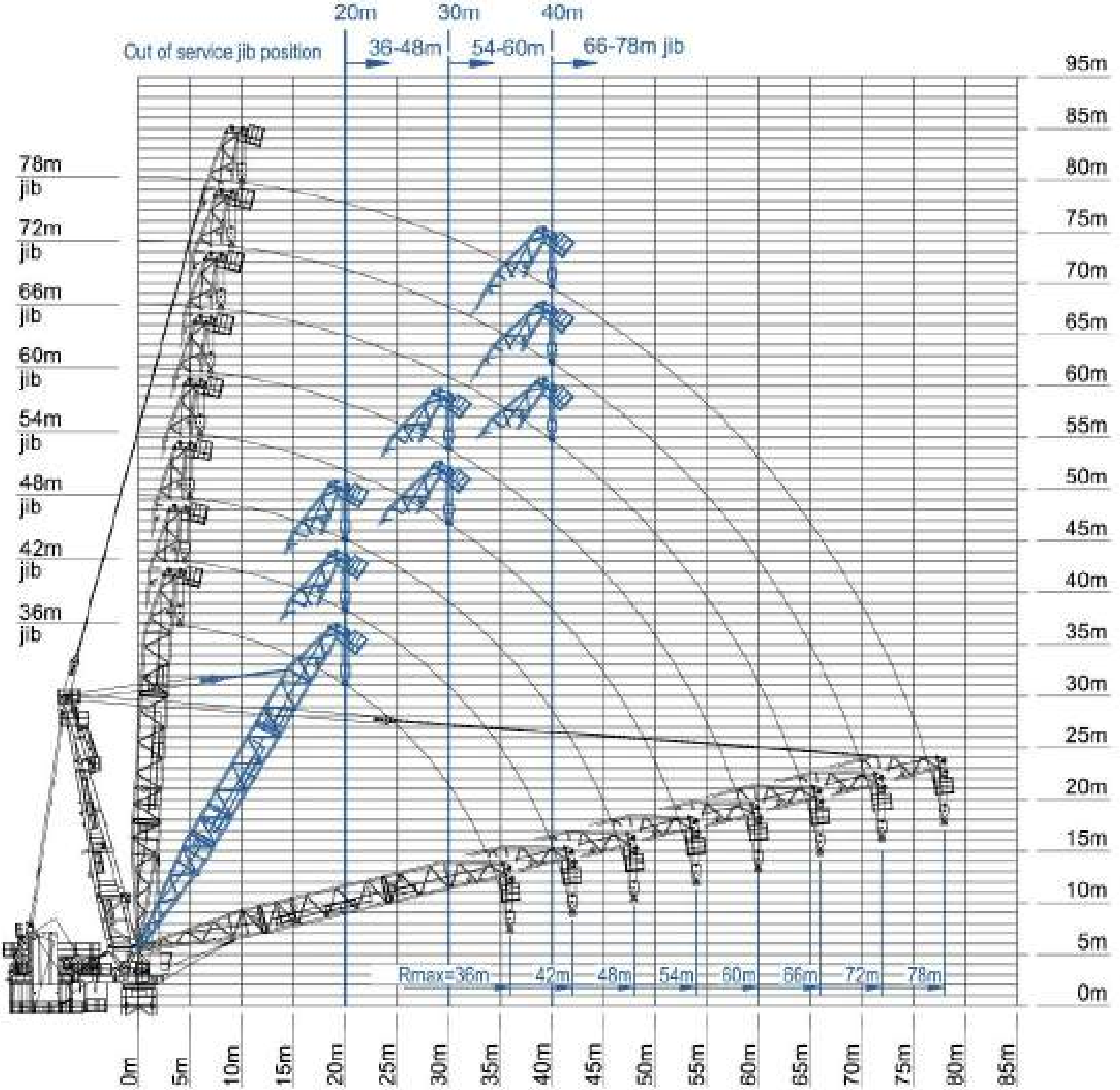
HLTC 2400
Tower 50m - Jib 78m



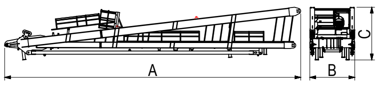
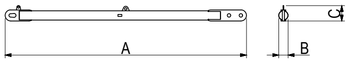
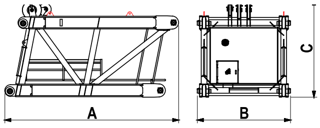
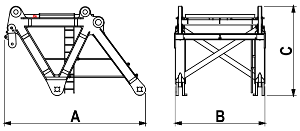
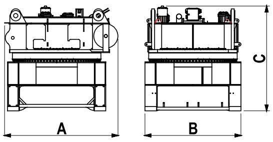
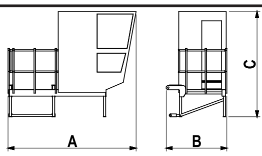
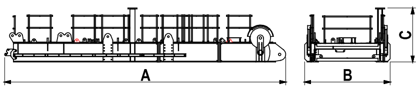
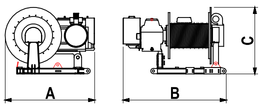
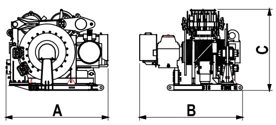
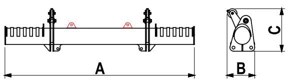
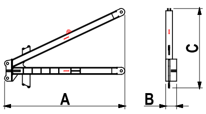
FUA: Foundation anchors
KRE: Base frame with ballast
P12: Base frame with bogies

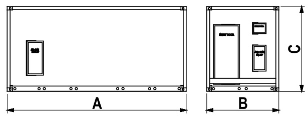
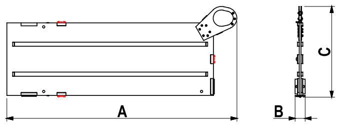
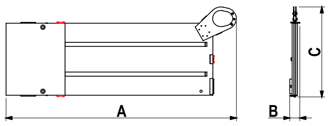
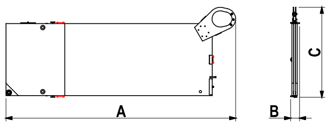
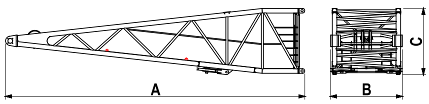
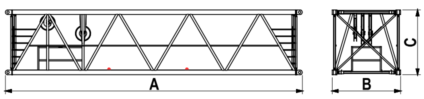
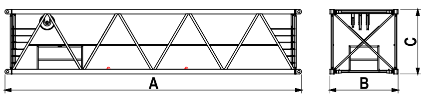
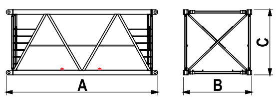
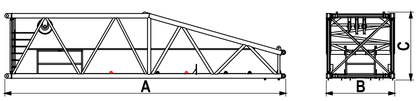
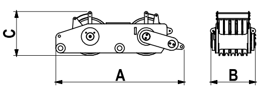
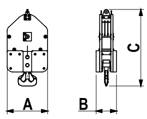
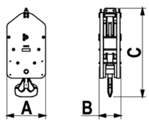
Tower sections	Drawing	A [m]	B [m]	C [m]	Weight [t]
E33		5	3,33	3,25	10
E66		11,9	6,6	6,6	30,5

Istanbul, Turkey
Tower 50m - Jib 60m


Out of service jib position
20m
30m
40m
36-48m
54-60m
66-78m jib
78m jib
72m jib
66m jib
60m jib
54m jib
48m jib
42m jib
36m jib
95m
85m
80m
75m
70m
65m
60m
55m
50m
45m
40m
35m
30m
25m
20m
15m
10m
5m
0m
Rmax=36m
42m
48m
54m
60m
66m
72m
78m
0m
5m
10m
15m
20m
25m
30m
35m
40m
45m
50m
55m
60m
65m
70m
75m
80m
85m

HLTC 2400
COMPONENTS

Item	Description	Drawing	A [m]	B [m]	C [m]	Weight [t]	Quantity
1	Cat head		20,1	3,1	3,6	31	1
2	Cat head pendants L5700		5,68	0,22	0,36	0,33	2
3	Cat head extension		2,9	3,2	3,4	9,5	1
4	Short head section		4,8	3,05	3,1	8,6	1
5	Slewing platform		3,85	3,25	3,6	30	1
6	Operator cab		3,65	1,75	3,0	1,3	1
7	Machinery platform (3 parts)		11,6	3,55	2,3	13,6	1
8	Hoist winch with base frame (with 800m rope)		2,55	2,95	1,9	11,2	2
9	Luffing winch with base frame and roller block		2,9	2,91	2,3	12	1
10	Counterweight crossbar		5,35	0,79	1,2	1,65	1
11	V-shaped support (right + left)		4,1	0,37	2,7	1,2	2

Item	Description	Drawing	A [m]	B [m]	C [m]	Weight [t]	Quantity
12	Electrical container		6,1	2,44	2,9	8	1
13	Counterweight No. 1		7,8	0,34	3,1	9,15	2
14	Counterweight No. 2 + 3		7,8	0,34	3,1	13,5	10
15	Counterweight No. 4 + 5		7,8	0,3	3,1	14,8	2
16	Jib foot 1		12,7	3,1	2,8	7,2	1
17	Jib insert L12350 2		12,6	2,9	2,75	6,8	1
18	Jib insert L12350 3		12,6	2,9	2,75	5,6	2
19	Jib insert L6200 4		6,5	2,9	2,7	3,3	1
20	Jib head 5		11,9	2,9	2,9	6,4	1
21	Jib head sheave set		2,17	0,75	0,75	1,4	1
22	Hook block 80t		1,15	0,58	2,2	2,8	1
23	Hook block 128t		1,15	0,66	2,65	5,3	1

sarens

SARENS HLTC 2400 - version 1 - december 2019

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