

WOLFF WK75 EC

962-4-004063

Technical Documentation

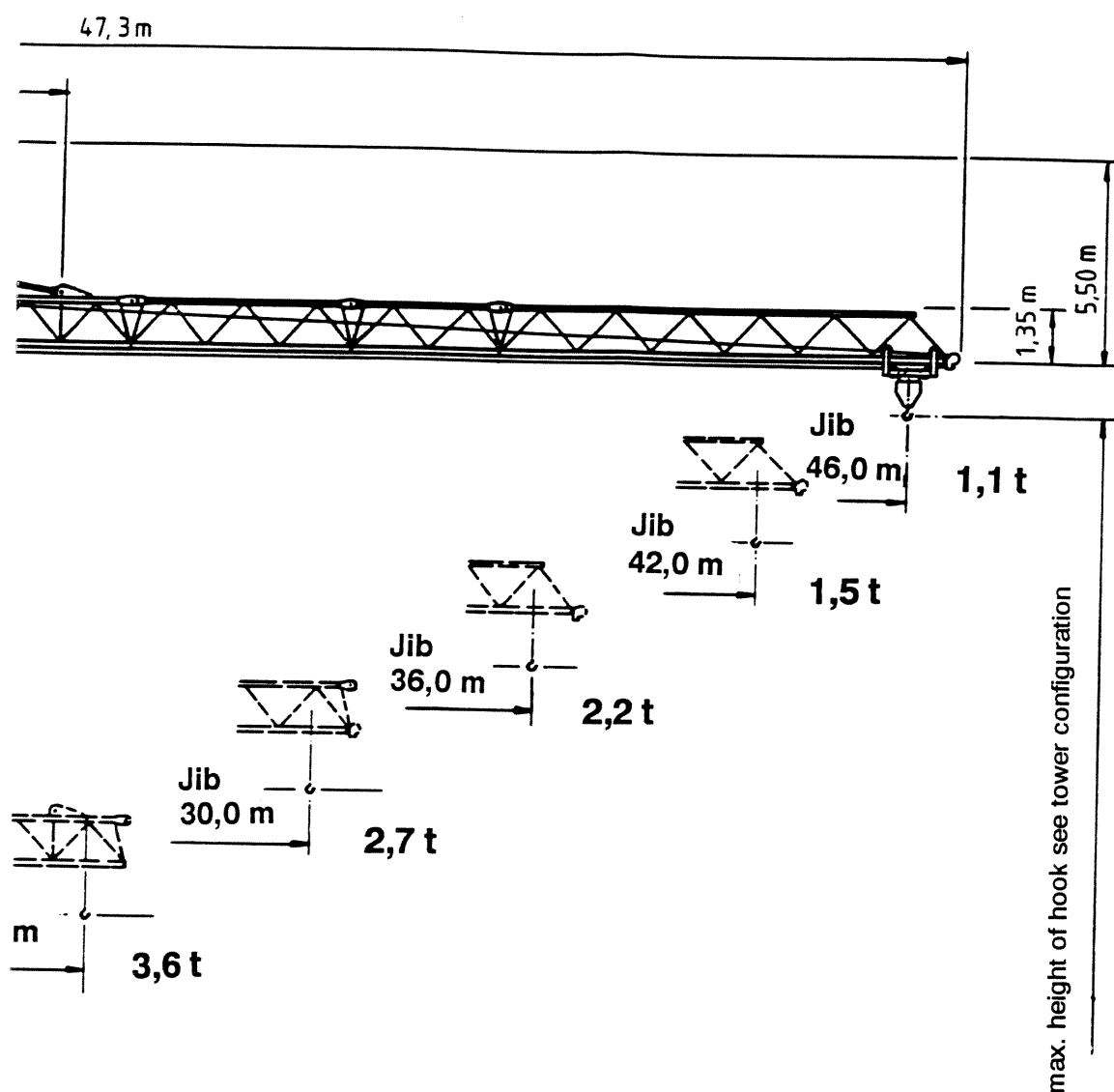


VOLFF WK75 EC

962-4-004096

Technical Data

1



model:	WK 75 EC	BGL-group 2125-0071
kind of crane:	Towercrane with horizontal jib, top-slewing, self climbing	
installation:	stationary or travelling	
calculated base:	FEM	
loadmoment:	max. 840 kNm	

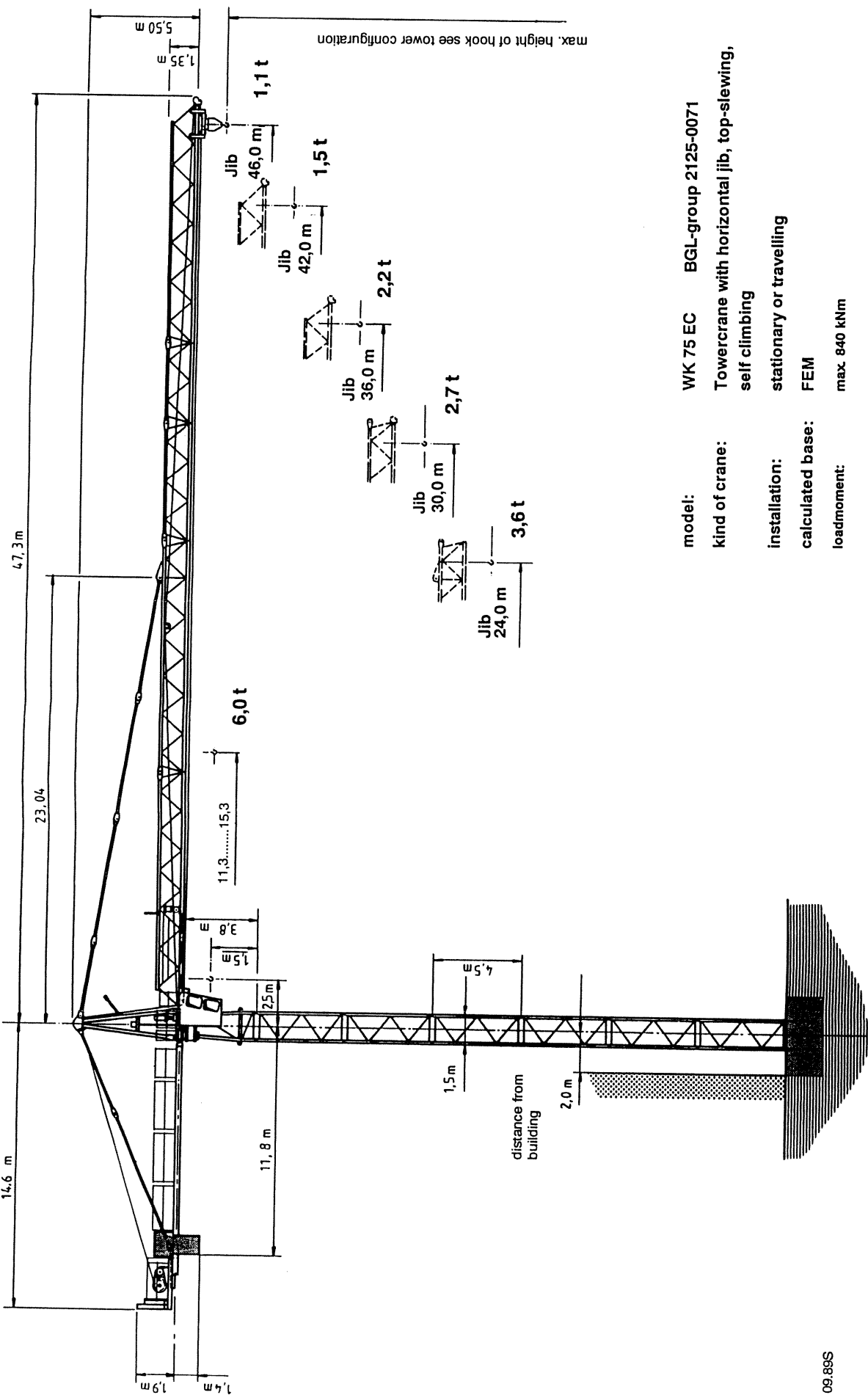
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WOLFF WK75 EC

Technical Data

962-4-004096

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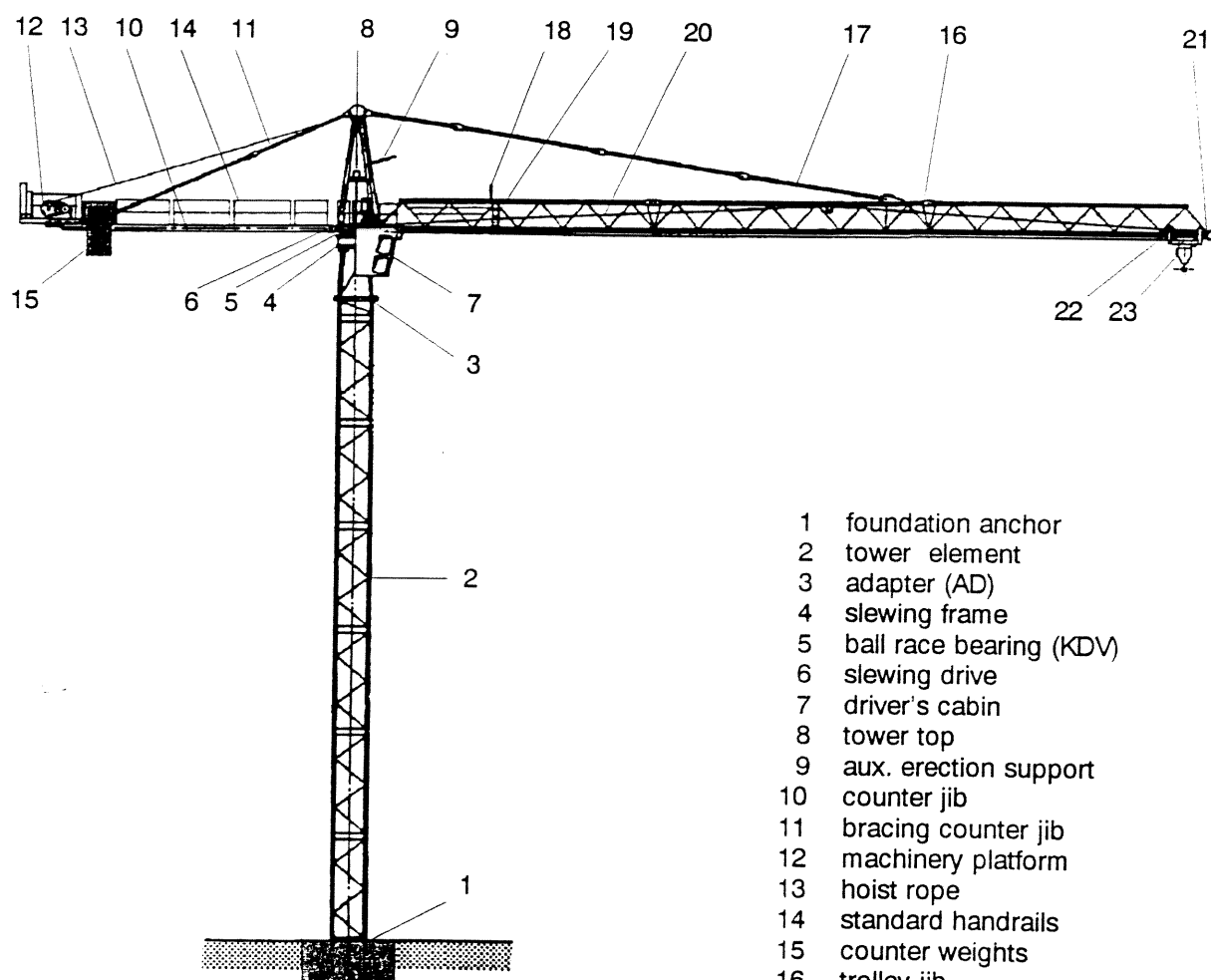
WOLFF WK75 EC

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Technical data

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Denomination of tower crane components



- 1 foundation anchor
- 2 tower element
- 3 adapter (AD)
- 4 slewing frame
- 5 ball race bearing (KDV)
- 6 slewing drive
- 7 driver's cabin
- 8 tower top
- 9 aux. erection support
- 10 counter jib
- 11 bracing counter jib
- 12 machinery platform
- 13 hoist rope
- 14 standard handrails
- 15 counter weights
- 16 trolley jib
- 17 bracing trolley jib
- 18 aux. erection support
- 19 traversing drive
- 20 traversing rope
- 21 rope swivel traverse
- 22 trolley
- 23 hook block

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Technical data

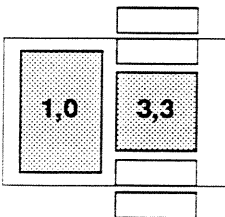
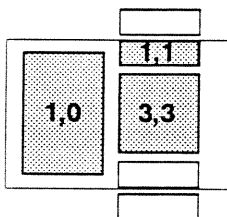
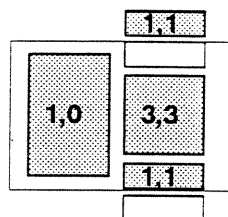
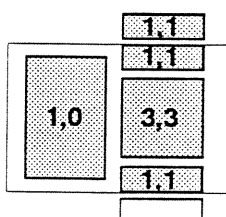
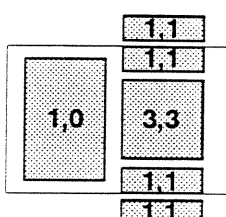
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Capacity - radius

FEM

	Radius (m)	2,5 -	20	21	24	27	28	30	36	42	46	
Jib length (m)	24	2,5 - 15,3	6,0	4,5	4,2	3,6						Capacity (t)
	30	2,5 - 15,0		4,4	4,1	3,6	3,1	3,0	2,7			
	36	2,5 - 14,7		4,3	4,0	3,5	3,0	2,9	2,7	2,2		
	42	2,5 - 13,2		3,8	3,6	3,0	2,7	2,6	2,4	1,9	1,5	
	46	2,5 - 11,3		3,2	3,0	2,6	2,2	2,1	2,0	1,5	1,3	

Arrangement of counterweights

		Jib length (m)				
		24	30	36	42	46
						
		4,3	5,4	6,5	7,6	8,7
		Total weight (t)				

Operational speeds - motor outputs

Drive (Type)	Operational speeds (Motion) (m/min)	Reeving (falls)	max.Hook- travel (m)	Output (kW)	Total output (kW)
Hw 3223	Hoisting 0,8 t ..105 1,5 t65 1,5 t65 3,0 t35 3,0 t35	2	120	22	28,4
Hw 3222	Hoisting 1,6 t..52,5 3,0 t..32,5 3,0 t..32,5 6,0 t..17,5 6,0 t..17,5	4	60		
Tw 42 F	Traversing 0 - 6 t 40/20			2,4/1,2	
Dw - FKF	Slewing 0,85 rpm			4	

Capacity - radius

FEM

	Radius (m)	2,5 -	20	21	24	27	28	30	36	42	46	
Jib length (m)	24	2,5 - 15,3	6,0	4,5	4,2	3,6						
	30	2,5 - 15,0		4,4	4,1	3,6	3,1	3,0	2,7			
	36	2,5 - 14,7		4,3	4,0	3,5	3,0	2,9	2,7	2,2		
	42	2,5 - 13,2		3,8	3,6	3,0	2,7	2,6	2,4	1,9	1,5	
	46	2,5 - 11,3		3,2	3,0	2,6	2,2	2,1	2,0	1,5	1,3	

Arrangement of Counterweights

Jib length (m)				
24	30	36	42	46
4,3	5,4	6,5	7,6	8,7
Total weight (t)				

Operational speeds - Motor outputs

Drive (Type)	Operational speeds (Motion)	(m/min)	Reeving (falls)	max.Hook- travel (m)	Output (kW)	Total Output (kW)
Hw 3223	Hoisting	0,8 t..105 1,5 t....65 3,0 t....35	2	120	22	28,4
Hw 3222	Hoisting	1,6 t..52,5 3,0 t..32,5 6,0 t..17,5				
Tw 42 F	Traversing	0 - 6 t			2,4/1,2	28,4
Dw - FKF	Slewing	0,85 rpm			4	

Capacity (kg) Operation in 2 - falls					FEM
Radius (m)	Jib length (m)				
	24	30	36	42	46
10,0	3000	3000	3000	3000	3000
11,0	3000	3000	3000	3000	3000
12,0	3000	3000	3000	3000	3000
13,0	3000	3000	3000	3000	3000
14,0	3000	3000	3000	3000	3000
15,0	3000	3000	3000	3000	3000
16,0	3000	3000	3000	3000	3000
17,0	3000	3000	3000	3000	3000
18,0	3000	3000	3000	3000	3000
19,0	3000	3000	3000	3000	3000
20,0	3000	3000	3000	3000	3000
21,0	3000	3000	3000	3000	3000
22,0	3000	3000	3000	3000	2845
23,0	3000	3000	3000	3000	2700
24,0	3000	3000	3000	3000	2600
25,0		3000	3000	2925	2440
26,0		3000	3000	2795	2330
27,0		3000	3000	2700	2200
28,0		3000	2900	2600	2100
29,0		2860	2790	2450	2035
30,0		2700	2700	2400	2000
31,0			2575	2260	1870
32,0			2480	2175	1800
33,0			2390	2095	1730
34,0			2305	2020	1665
35,0			2225	1950	1600
36,0			2200	1900	1500
37,0				1815	1490
38,0				1755	1435
39,0				1695	1385
40,0				1640	1340
41,0				1590	1300
42,0				1500	1300
43,0					1210
44,0					1170
45,0					1135
46,0					1100

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Capacity (kg) Operation in 4 - falls					FEM
Radius (m)	Jib length (m)				
	24	30	36	42	46
10,0	6000	6000	6000	6000	6000
11,0	6000	6000	6000	6000	6000
12,0	6000	6000	6000	6000	5630
13,0	6000	6000	6000	6000	5160
14,0	6000	6000	6000	5620	4755
15,0	6000	6000	5860	5210	4405
16,0	5695	5590	5460	4855	4100
17,0	5330	5235	5110	4540	3830
18,0	5005	4915	4800	4260	3590
19,0	4715	4630	4520	4010	3370
20,0	4500	4400	4300	3800	3200
21,0	4520	4100	4400	3600	3000
22,0	4005	3930	3835	3395	2845
23,0	3810	3740	3645	3225	2700
24,0	3600	3600	3500	3000	2600
25,0		3400	3315	2925	2440
26,0		3250	3170	2795	2330
27,0		3100	3000	2700	2200
28,0		3000	2900	2600	2100
29,0		2860	2790	2450	2035
30,0		2700	2700	2400	2000
31,0			2575	2260	1870
32,0			2480	2175	1800
33,0			2390	2095	1730
34,0			2305	2020	1665
35,0			2225	1950	1600
36,0			2200	1900	1500
37,0				1815	1490
38,0				1755	1435
39,0				1695	1385
40,0				1640	1340
41,0				1590	1295
42,0				1500	1300
43,0					1210
44,0					1170
45,0					1135
46,0					1100

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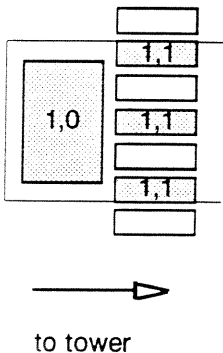
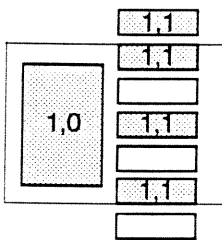
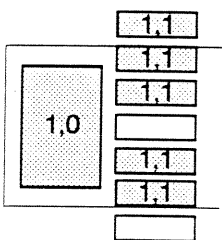
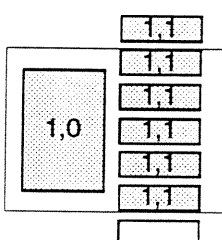
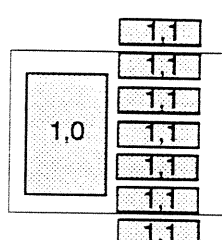
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Technical data

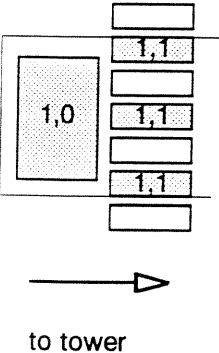
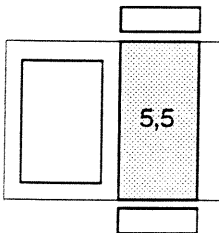
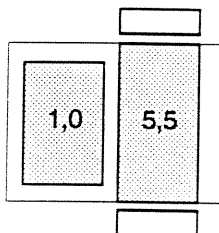
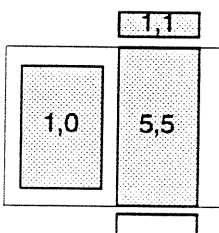
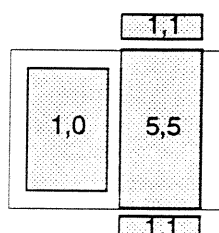
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Arrangement of counterweights for special cases of erection

Alternative 1
(e.g. helicopter erection)

24	30	Jib (m) 36	42	46
				
4,3	5,4	6,5 counterweight (t)	7,6	8,7

Alternative 2

24	30	Jib (m) 36	42	46
				
4,3	5,5	6,5 counterweight (t)	7,6	8,7

Technical data

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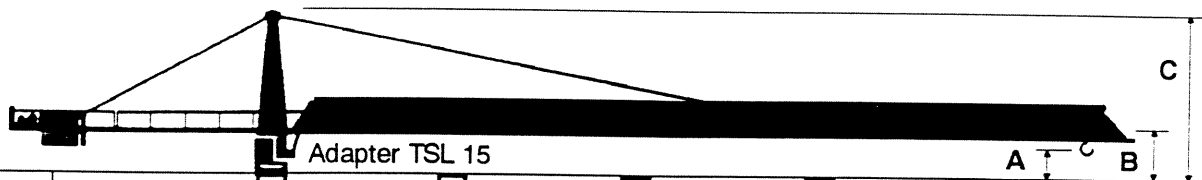
Tower configuration

for a free-standing stationary crane without climber on a concrete foundation

Slewing part:

Height under hook $A = 1,5 \text{ m}$

Height of jib pivot point $B = 3,8 \text{ m}$

Total height $C = 9,3 \text{ m}$


1	6,0		TSL 15	TSL 15	TSL 15	TSL 15	TSL 15
2	10,5		TSL 15	TSL 15	TSL 15	TSL 15	TSL 15
3	15,0		TSL 15	TSL 15	TSL 15	TSL 15	TSL 15
4	19,5		TSL 15	TSL 15	TSL 15	TSL 15	TSL 15
5	24,0		TSL 15	TSL 15	TSL 15	TSL 15	TSL 15
6	28,5		TSL 15	TSL 15	TFSA 15	TFSA 15	TFSA 15
7	33,0			TFSA 15	UTA 15	UTA 15	UTA 15
8	37,5				UT 15	UV 15	UV 15
9	42,0				UT 15	UV 15	UV 15
10	46,5					UV 15	UV 15
11	51,0					UV 15	UVÜ 15
12	55,5						UV 20
13	60,0						UV 20
tower- elements	height under hook(m)	max. height under hook at operation in 4 falls = 60,0 m					



For the UV tower elements push pins with a turned groove at the conical part have to be used.

For data regarding the foundation anchor and cross frame see accessories, section 10.

The tower configurations are recommended for economic crane installations and may be used in any case. Each tower element in its indicated position may be used as a basic tower element for static cranes with its corresponding height under hook.

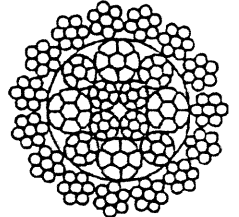
Tower configurations with other tower elements are possible, but must be checked and confirmed by us in every individual case and before crane installation starts.

Ropes

Hoist drive: **Rope $\varnothing$ = 12 mm + 4 % max.** Design acc. to DIN 15020
Kind of operation acc. to TWG 1 Am

First outfit

Teufelberger
PERFEKT TK 12 -
twistfree
Multilayer stranded rope
of equal round strands
parallel make



Rated tensile strength = 1770 N/mm²
Calc. breaking strength = 127 kN
Min. breaking strength = 99 kN
Weight per meter = 0,644 kg

Construction

Right hand ordinary lay type of
bright rope wires.

Medium filling factor = 0,65
Stranding factor = 0,75 - 0,78
Total numbers of wires = 189

Number of the bearing wires in the outer
strands - to assess discard acc. to DIN 15020
page 2 / ISO DIS 4309 = 105

Constant rope length for slewing part up to upper edge of tower.
For final rope length see tower configuration.

Rope length	322 m	Design:	Rope 4-fach Radius 46 m Hook path 60 m
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When increasing the height of tower by 1 tower element (4,5) the required rope
length increases by **9 m in 2-fall operation** and by **18,0 m in 4-fall operation**.



Warning!

A wire rope is a complex machinery element.

Traditional rope types often are not up to the requirements of modern hoist drives. Short service life is the result.

Longer tests of our hoist drives led to the selection of these ropes, offering optimal economy and safety.

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Ropes

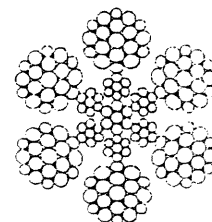
Traversing
drive:

Rope $\varnothing$ = 6 mm + 4 % max.

Design acc. to DIN 15020
Kind of operation acc. to TWG 1 Am

First outfit

FREY - Trolley rope
twist controlled
and preshaped



Rated tensile strength = 1960 N/mm²
Calc. breaking strength = 31,5 kN
Min. breaking strength = 25,2 kN
Weight per meter = 0,147 kg

Construction

Right hand ordinary lay type (SZ)
Construction: 6 x 19 Warrington + SES
Surface of the wires: galvanized

Medium filling factor = 0,5684
Stranding factor = 0,8007
Weight factor = 0,9181
Total numbers of wires = 163

Number of the bearing wires in the outer
strands - to assess discard acc. to DIN 15020
page 2 / ISO DIS 4309 = 114

Rope length	1 x 51 m
	1 x 89 m

Design:	Radius 46 m
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Longer tests of our hoist drives led to the selection of these ropes, offering optimal economy and safety.

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Technical data

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List of pins

Item	Connection		Pins		Spring clamp		Split pin DIN 94		Hole-distance
			Quan.	Dimension	Quan.	Dimension	Quan.	Dimension	
1	jib joint top	24 m	1	ø 85/70 x 170			1	ø 13	103
		30 m	2	ø 85/70 x 170			2	ø 13	103
		36 m	2	ø 85/70 x 170			2	ø 13	103
		42 m	3	ø 85/70 x 170			3	ø 13	103
		46 m	4	ø 85/70 x 170			4	ø 13	103
	jib joint bottom	24 m	4	ø 70/60 x 130	4	ø 6			68
		30 m	6	ø 70/60 x 130	6	ø 6			68
		36 m	6	ø 70/60 x 130	6	ø 6			68
		42 m	8	ø 70/60 x 130	8	ø 6			68
		46 m	10	ø 70/60 x 130	10	ø 6			68
2	bracing trolley jib	a	4	ø 85/70 x 170			4	ø 13	103
		b	1	ø 85/70 x 190			1	ø 13	123
3	bracing counter jib	c	2	ø 65/50 x 172			2	ø 10	105
		d	2	ø 65/50 x 142			2	ø 10	75
		e	2	ø 65/50 x 95			2	ø 10	65
4	adapter	TSL 15	8	ø 50 x 220	16	ø 6			140
		TS/TFS15	8	ø 50 x 220	16	ø 6			155
		UV 15	8	ø 60 x 275	16	ø 10			190
		TS/TFS20	8	ø 50 x 220	16	ø 6			155
		UV 20	8	ø 60 x 275	16	ø 10			190
5	tower top - top slewing frame		4	ø 50 x 210			8	ø 10	110
6	driver's cabin suspension		2	ø 30 x 135	4	ø 5			75



Warning!

Clean and grease all pints before mounting.
New split pins must be used after every mounting.

List of bolts

(pretensioned bolt connections)

Item	Connetion	Quan- tity	Bolts			Torques	
			Dimensions	DIN	Quality grade	Nm MoS ₂	Remark
1	ball race bearing -slewing frame	40	M20 x 140	931	12.9sg	560	
	resilient sleeve -slewing frame	40	ø38/ø22 x 26				
2	ball race bearing -lower tower top	40	M20 x 140	931	12.9sg	560	
	resilient sleeve -lower tower top	40	ø38/ø22 x 66				
3	lower tower top -adapter TSL 15	12	M30 x 190 Mu	6914	10.9	1650	erection
	-adapter TFS 15	12	M30 x 190 Mu	6914	10.9	1650	erection
	-adapter UV 15	12	M30 x 190 Mu	6914	10.9	1650	erection
	-adapter TFS 20	12	M30 x 190 Mu	6914	10.9	1650	erection
	-adapter UV 20	12	M30 x 190 Mu	6914	10.9	1650	erection
4	counterjib -machinery platform	4	M24 x 70Mu	931	8.8	-	erection
5	hoist unit -motor	4	M16 x 45	933	8.8	170	
	Hw 3223 -intermediate flange	8	M16 x 45	933	8.8	170	
	(Hw 3222) -gear housing	8	M16 x 85 Mu	931	8.8	170	
		8	M16 x 160 Mu	931	8.8	170	
	-brake	6	M12 x 170	931	10.9	86	
6	-pedestal bearing	2	M20 x 75 Mu	6914	10.9	450	
	slewing drive -gear extension	1	M 16 x 120	931	10.9	240	

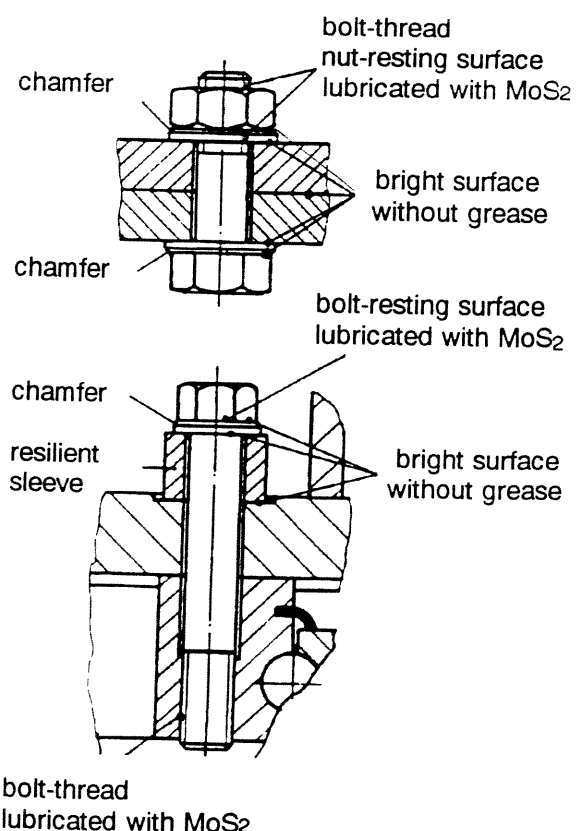
For all supporting bolts connections high-tensile bolts and nuts are used. The property class can be seen from the stamping on the bolt head resp. on the front surface of the nut. In case of exchange or loss no other property class may be used.

DIN 912 = socket head cap screw
DIN 931 = hex. bolt
DIN 933 = hex. bolt
DIN 6914 = hex. bolt
Mu = with nut

For the hex. bolts DIN 931 and DIN 933 tempered washers DIN 6916 with chamfer outside must be used. Spring washers DIN 127 must not be used. The bolts are lubricated with MoS₂ in the workshop.



Warning!
Observe special instructions for tightening of fixing bolts of the ball race bearing.
The bolts of the ball race bearing must all be from the same manufacturer.



Suspension plan - jib

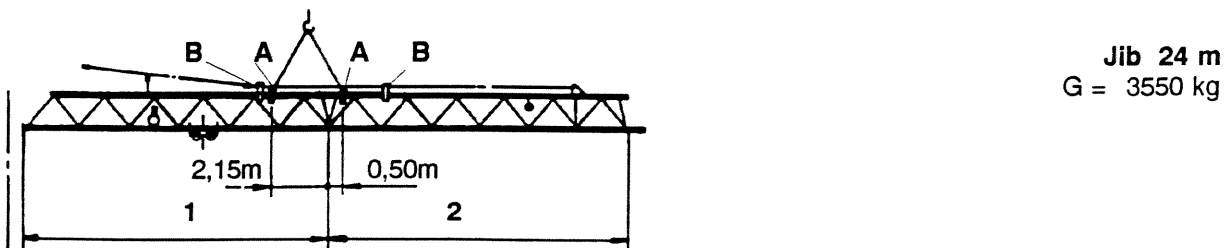
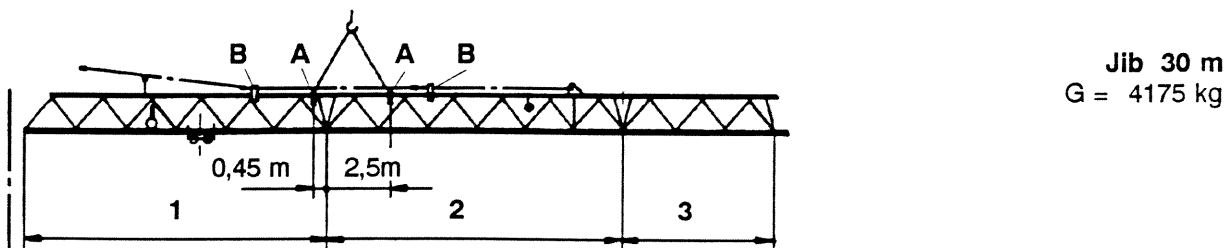
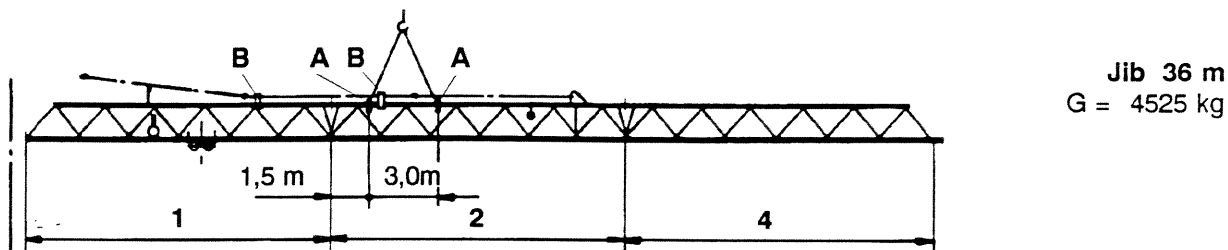
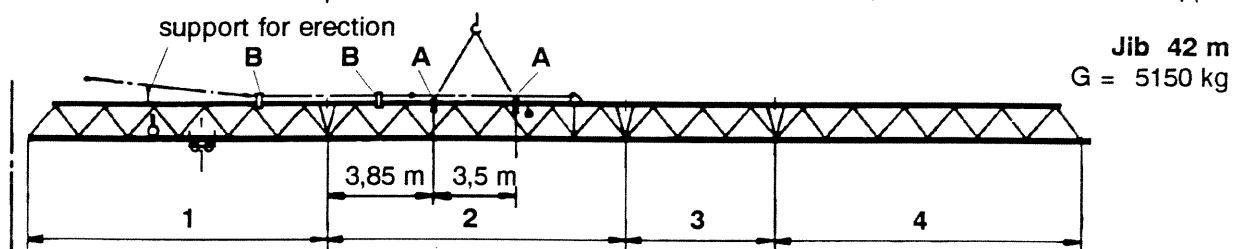
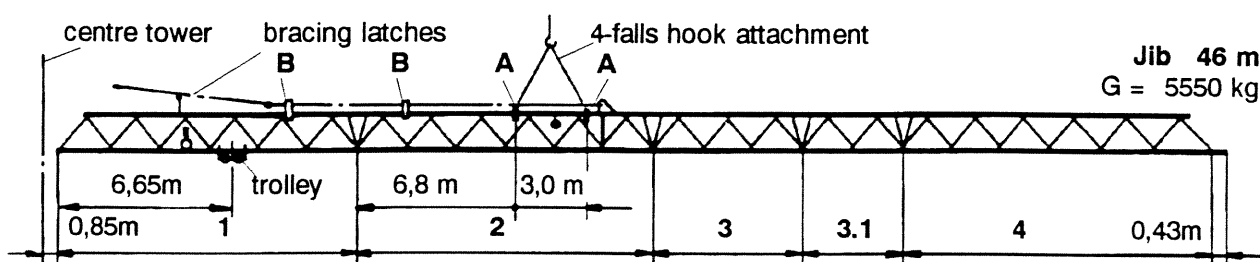
A suspension

B fixing

see 962 - 4 - 002269E.

The single parts of the jib are remarked with numbers on the top chord.

single parts of the jib 1,2,4 = 12 m 3 = 6 m 3.1 = 4 m rope swivel traverse = 0,43 m



Warning when dismantling!

Unbolt mounting bolts on pivot point of trolley jib.

Trolley jib to be properly balance before trolley jib is being removed. There must be no loose parts on the jib.



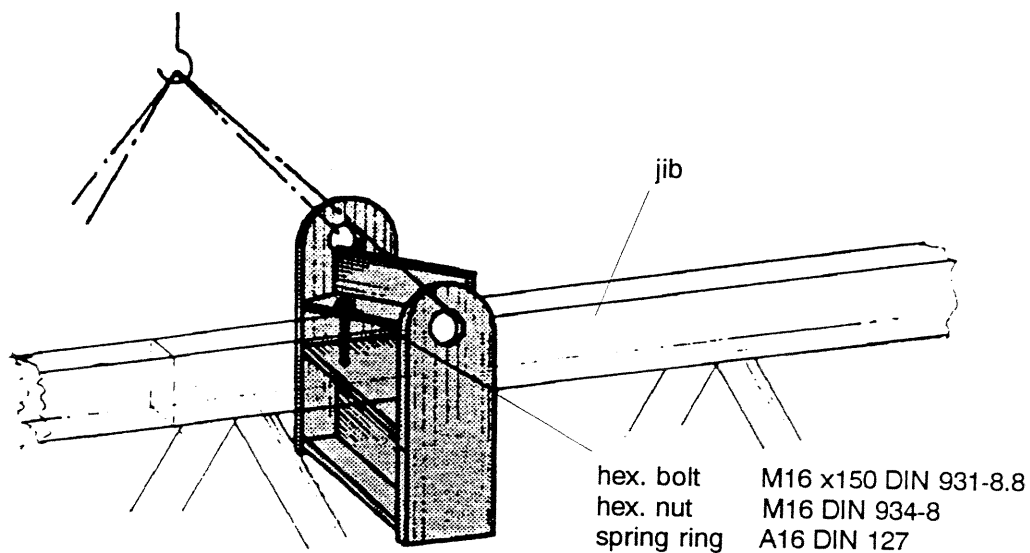
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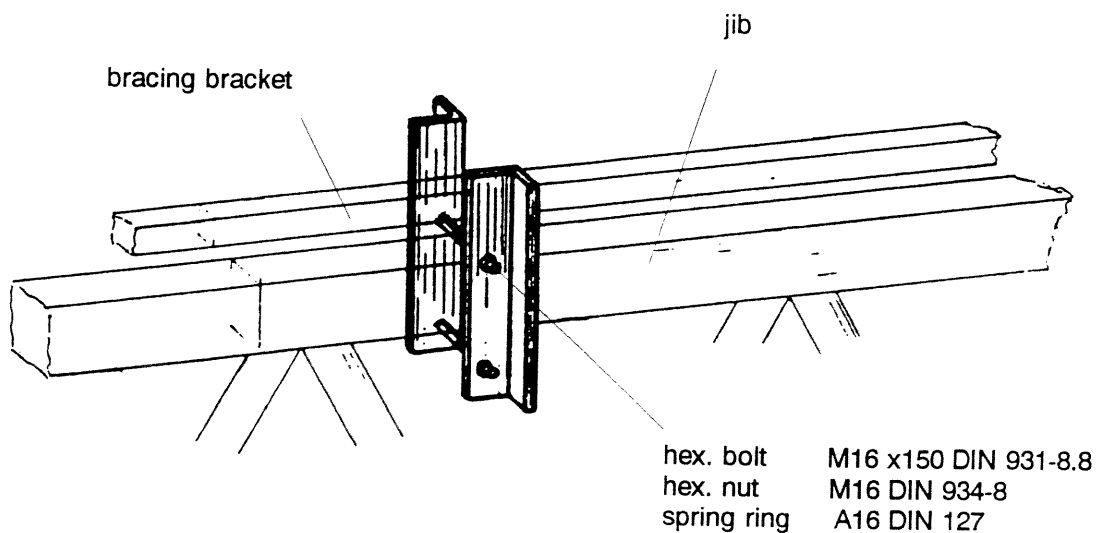
Technical data

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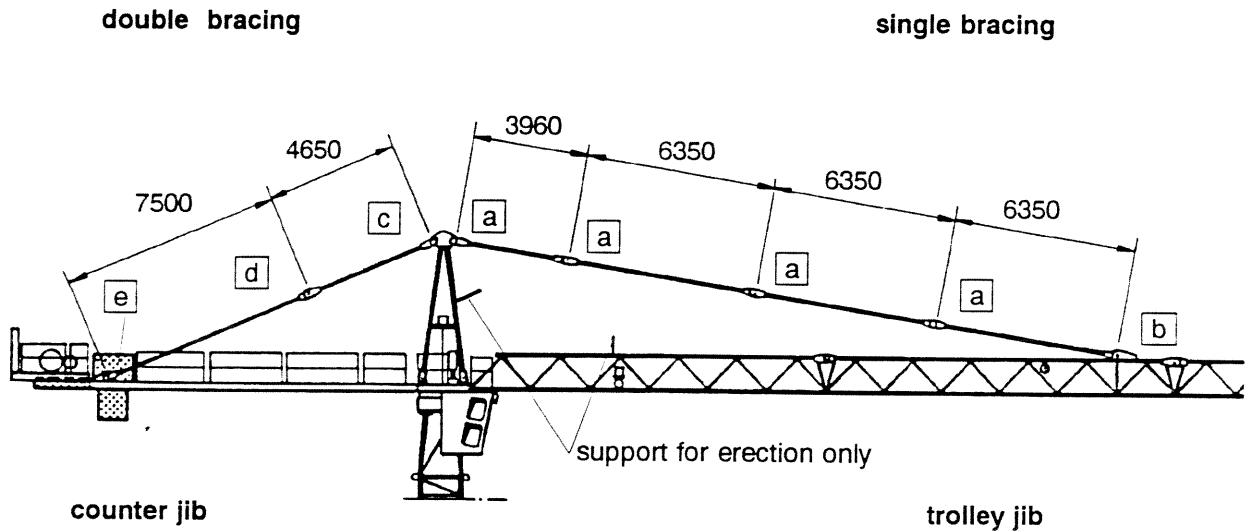
Suspension XIV 9319



Fixing XIV 9319



Bracing plan



Shoulder pin	Split pin DIN 94
a 4 Stck. $\varnothing$ 85/70 x 170 mm	4 Stck. $\varnothing$ 13
b 1 Stck. $\varnothing$ 85/70 x 190 mm	1 Stck. $\varnothing$ 13
c 2 Stck. $\varnothing$ 65/50 x 172 mm	2 Stck. $\varnothing$ 10
d 2 Stck. $\varnothing$ 65/50 x 142 mm	2 Stck. $\varnothing$ 10
e 2 Stck. $\varnothing$ 65/50 x 95 mm	2 Stck. $\varnothing$ 10

WOLFF WK 75 EC

962-4-002270E

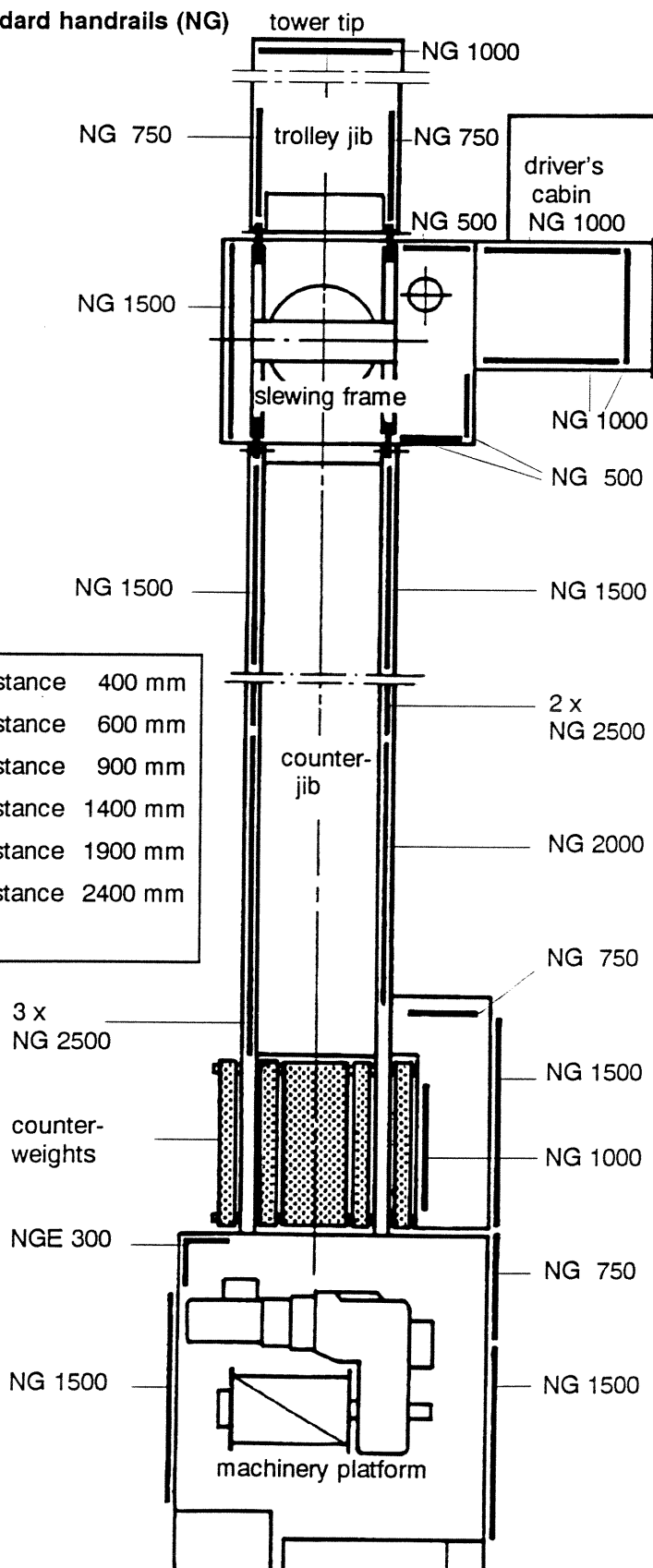
Technical data

1

Arrangement and quantity of standard handrails (NG) - slewing part

Standard handrails	#
NG 500.....	3 x
NG 750.....	4 x
NG 1000.....	5 x
NG 1500.....	6 x
NG 2000.....	1 x
NG 2500.....	5 x
NGE 300.....	1 x

NG 500 = stand. handrails, post distance	400 mm
NG 750 = stand. handrails, post distance	600 mm
NG 1000 = stand. handrails, post distance	900 mm
NG 1500 = stand. handrails, post distance	1400 mm
NG 2000 = stand. handrails, post distance	1900 mm
NG 2500 = stand. handrails, post distance	2400 mm
NGE 300 = corner handrail	



WOLFF WK75 EC

962-4-001653E

Technical data

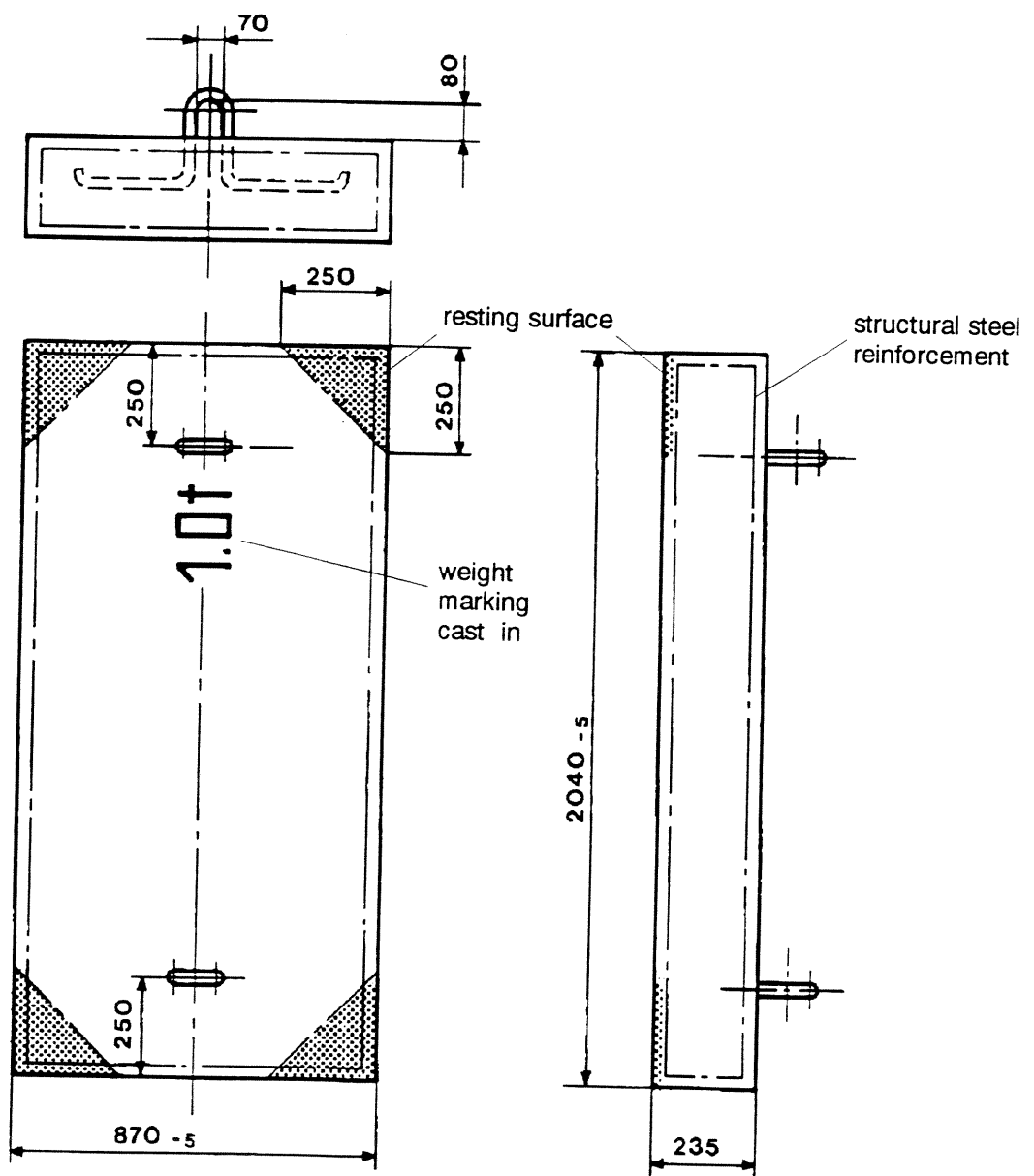
1

Counterweight 1,00 t = 962-3-002092
Machinery platform

Material: Concrete of min. B 25
Density = 2,4 t/m³

All counterweights to be weighed again and to be clearly identified stating the actual weight.

Max. weight allowance $\pm 2\%$



For arrangement of counterweights see technical data and arrangement of counterweights for special cases of erection.

WOLFF WK75 EC

962-4-001649E

Technical data

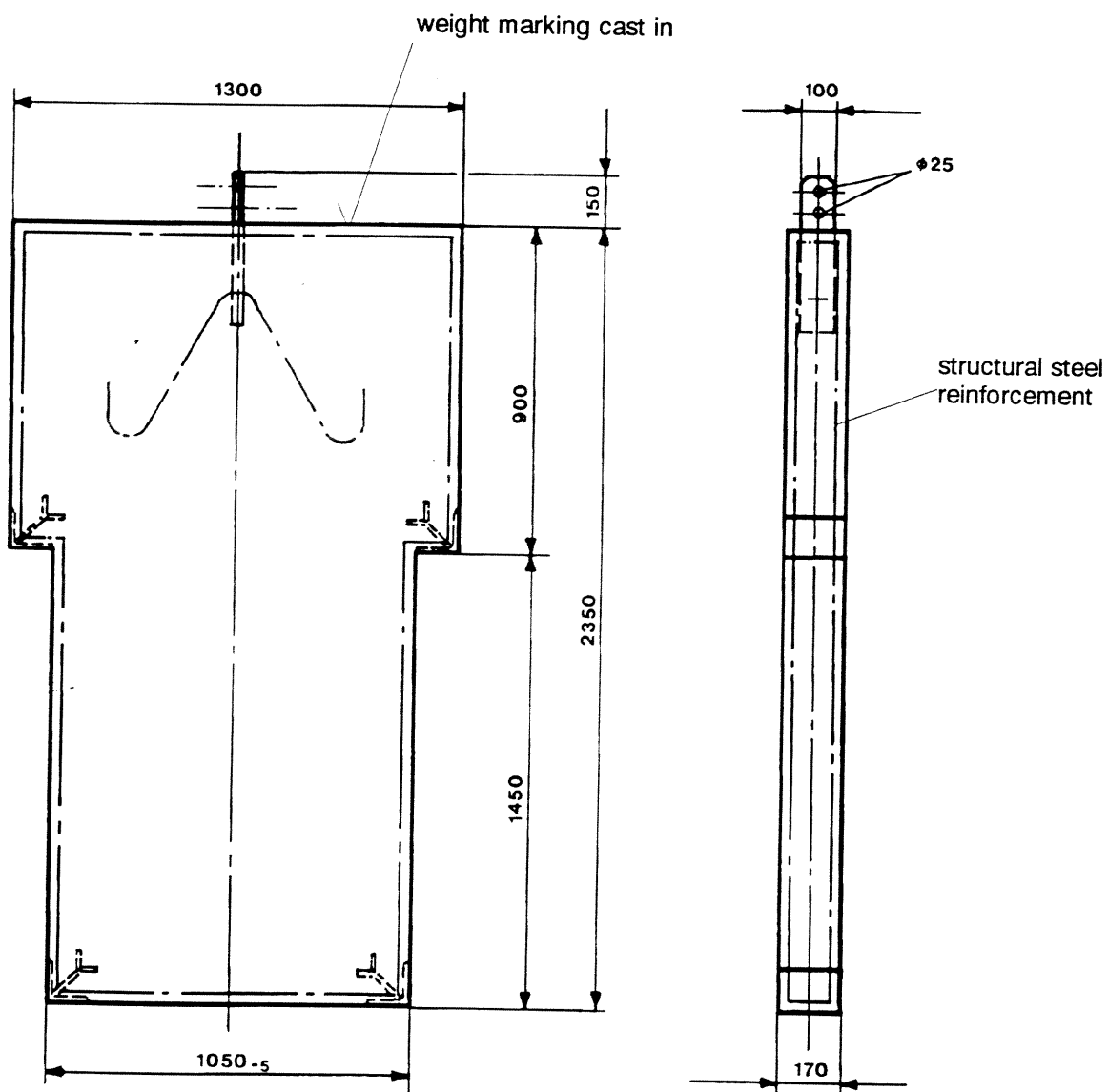
1

Counterweight 1,10 t = 962-2-002165

Material: Concrete of min. B 25
Density = 2,4 t/m³

All counterweights to be weighed again and to be clearly identified stating the actual weight.

Max. weight allowance $\pm 2\%$



For arrangement of counterweights see technical data and arrangement of counterweights for special cases of erection.

WOLFF WK75 EC

962-4-002280E

Technical data

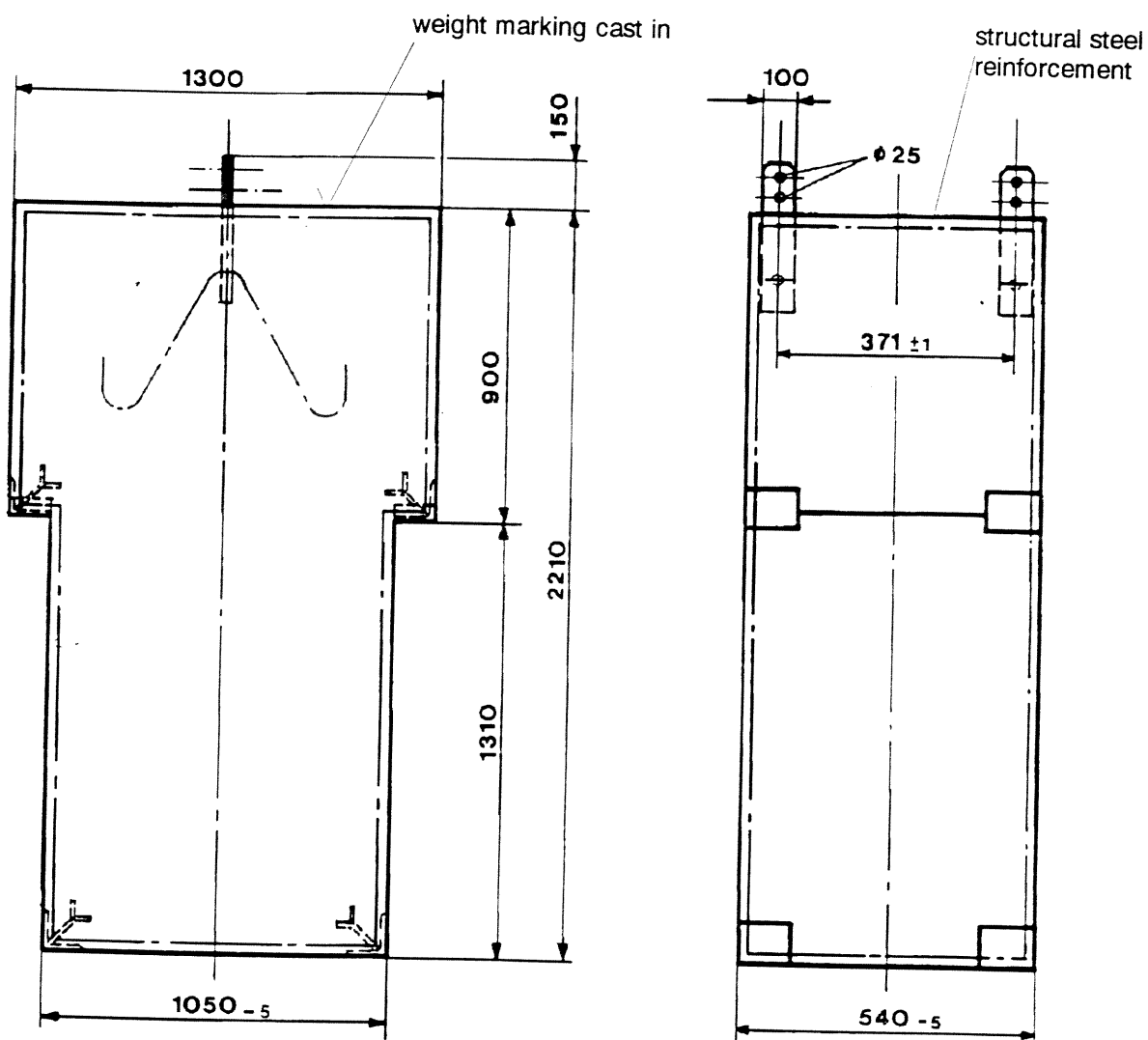
1

Counterweight 3,30 t = 962-2-002323

Material: Concrete of min. B 25
Density = 2,4 t/m³

All counterweights to be weighed again and to be clearly identified stating the actual weight.

Max. weight allowance $\pm 2\%$



For arrangement of the counterweight see technical data and arrangement of counterweights for special cases of erection.

WOLFF WK 75 EC

962-4-002254E

Technical data

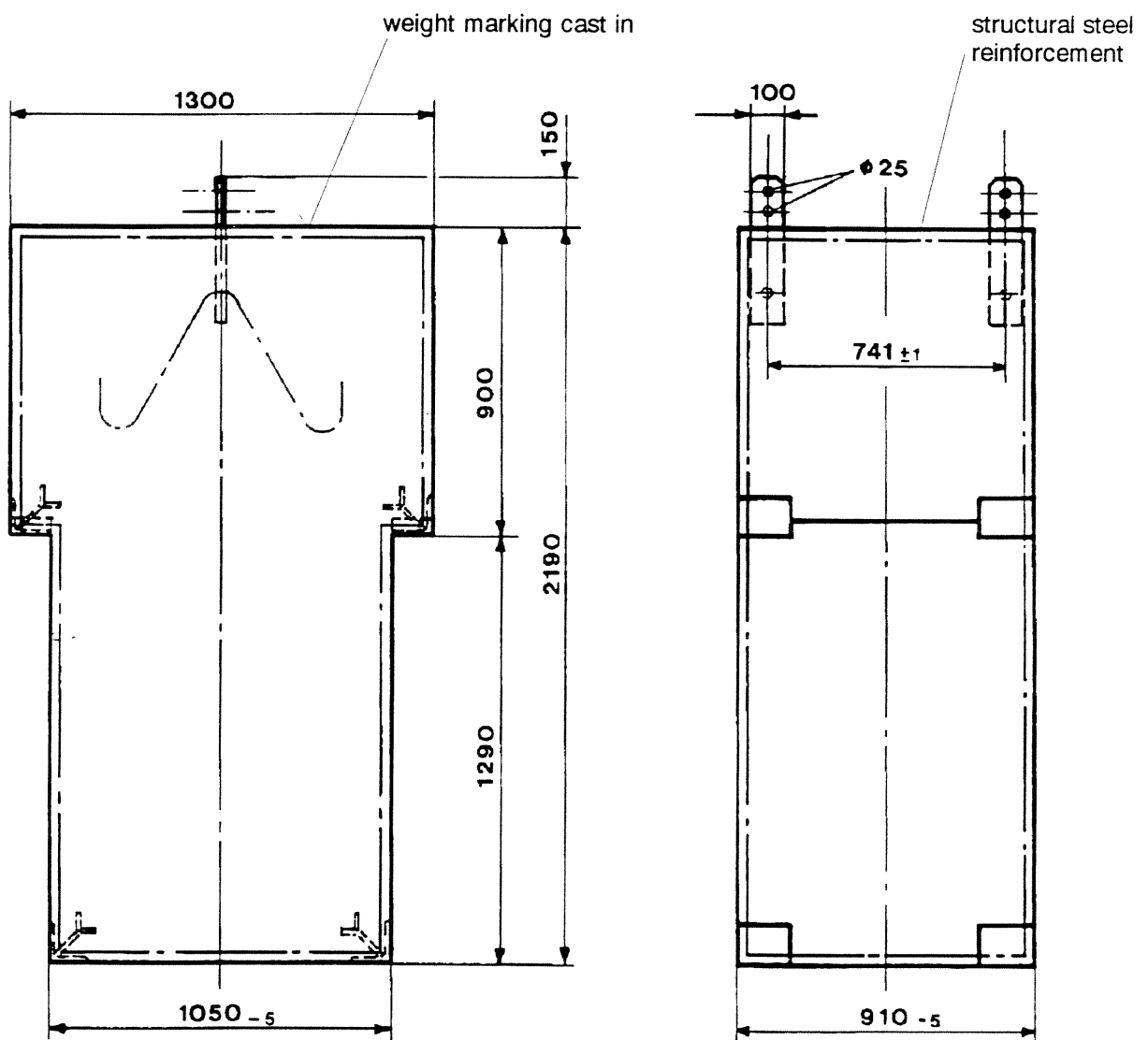
1

Counterweight 5,5 0 t = 962-2-002335

Material: Concrete of min. B 25
Density = 2,4 t/m³

All counterweights to be weighed again and to be clearly identified stating the actual weight.

Max. weight allowance $\pm 2\%$

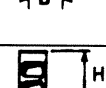


For arrangement of the counterweight see technical data and arrangement of counterweights for special cases of erection.

Technical data

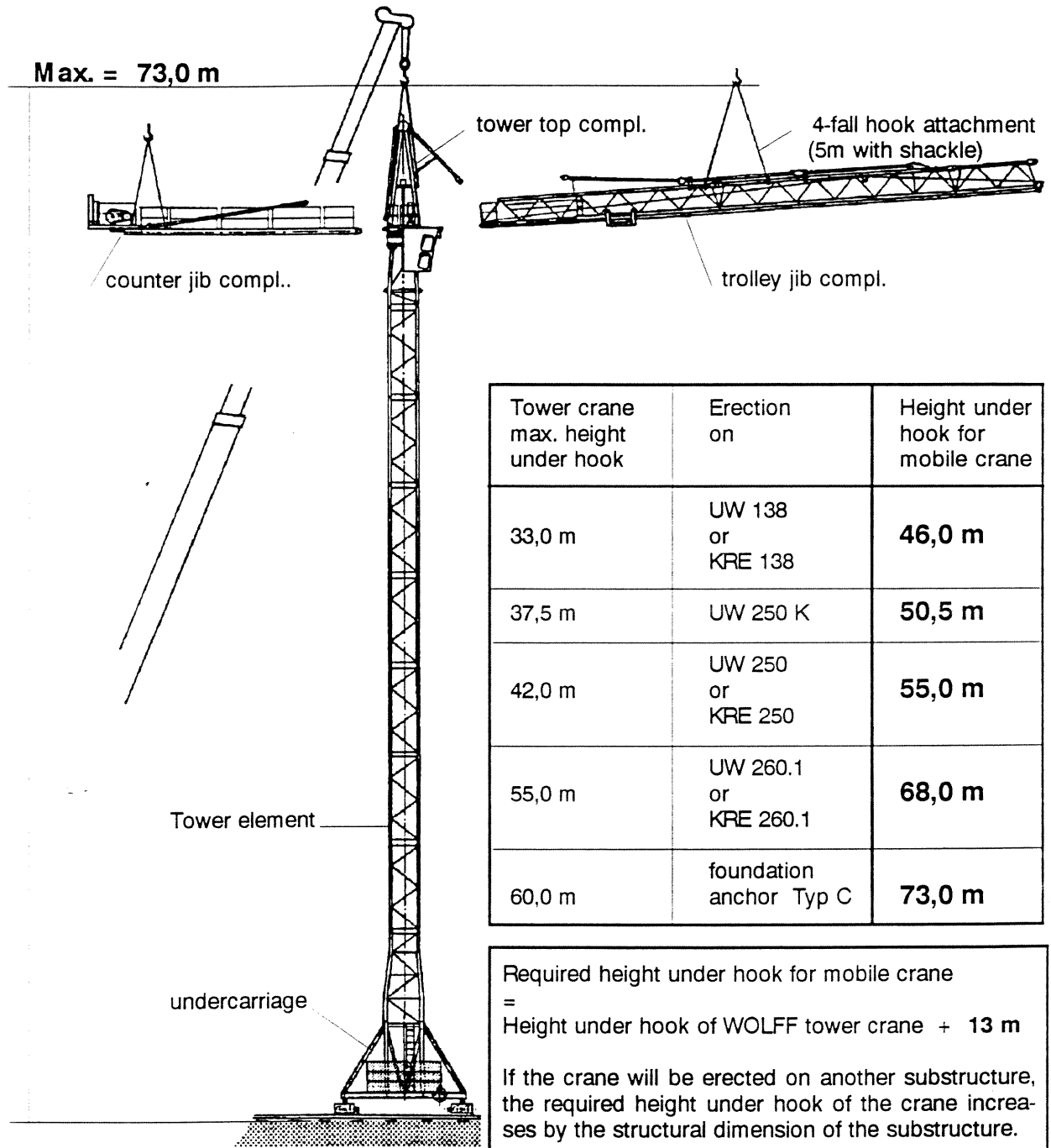
1

Colli list

Pos	Quantity	Description	Colli	L (m)	B (m)	H (m)	Weight (kg)	Volume (m ³)
1	1	tower top,slipping system various bracing parts,KDV slewing frame,slewing drive lower tower top part		6,35	2,01	1,85	3950	23,61
2	1	adapter						
		AD - TSL 15		3,00	1,54	1,92	920	8,90
		AD - TFS 15		3,00	1,54	1,92	1000	8,90
		AD - UV 15		3,00	1,54	1,92	1575	8,90
		AD - TFS 20		3,00	2,02	2,42	1700	14,65
		AD - UV 20		3,00	2,02	2,42	1675	14,65
3	1	driver's cabin		2,20	1,30	2,20	610	6,30
4	1	driver's cabin suspension		1,18	1,50	0,34	145	0,60
5	1	counter jib, bracing parts (without counterweight)		13,30	2,15	0,43	1570	12,30
6	1	machinery platform (without hoist rope) rope ø12mm/m = 0,633kg		2,70	2,42	1,75	2680	11,45
7	1	jib part, traversing drive	1 	12,21	1,15	1,55	1565	21,80
8	1	jib part, bracing parts, traversing rope pulley	2 	12,27	1,10	1,54	1720	20,80
9	1	jib part	3 	6,25	1,10	1,38	625	9,49
10	1	jib part	3.1 	4,25	1,10	1,38	400	6,45
11	1	jib part	4 	12,20	1,10	1,38	975	18,52
12	1	rope swivel traverse, traversing rope pulley		0,56	1,12	0,41	65	0,26
13	1	trolley compl.		1,55	1,30	0,72	165	1,45
14	1	hook block U6/3 (small parts)		0,72	0,21	1,45	220	0,22
15	1	standard railing (loose parts)		3,00	1,10	0,75	230	2,48
16	1	crate (small parts)		1,60	0,90	0,80	350	1,15

Loose parts and small parts may be distributed where space is available.

Required height under for the mobile crane



Warning!

Use suspension ropes with sufficient capacity and observe suspension plan!

If tower elements are removed from the tower, the height under hook of the mobile crane is reduced by 4,5m per each tower element.

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

Erection Weights

Tower top compl. with adapter AD - TSL 15, bracing, driver's cabin, driver's cabin suspension and standard railing	5670 kg
Tower top with bracing	3950 kg
Driver's cabin with driver's cabin suspension	755 kg
Adapter AD - TSL 15	920 kg
Tower top compl. with adapter AD - TFS 15, bracing, driver's cabin, driver's cabin suspension and standard railing	5750 kg
Adapter AD - TFS 15	1000 kg
Tower top compl. with adapter AD - UV 15, bracing, driver's cabin, driver's cabin suspension and standard railing	6325 kg
	1575 kg
Tower top compl. with adapter AD - TFS 20, bracing, driver's cabin, driver's cabin suspension and standard railing	6450 kg
Adapter AD - TFS 20	1700 kg
Tower top compl. with adapter AD - UV 20, bracing, driver's cabin, driver's cabin suspension and standard railing	6425 kg
Adapter AD - UV 20	1675 kg
Counter jib compl. with machinery platform, hoist rope, bracing, standard railing and 1 counterweight stone 1.0 t	5450 kg
Machinery platform	2680 kg
1 Counterweight stone	1000 kg
46 m trolley jib compl. with bracing, trolley, traversing rope and standard railing	5550 kg
42 m trolley jib compl.	5150 kg
36 m trolley jib compl.	4525 kg
30 m trolley jib compl.	4175 kg
24 m trolley jib compl.	3550 kg

WOLFF WK75 EC

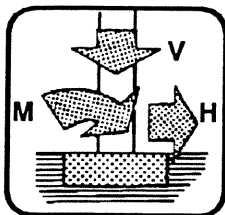
962-4-003681E

Technical data

1

Erection Weights

Undercarriage UW 138 compl.	Bogie platform with cross beams, bogie, distance girder and gauge rods	4050 kg	5750 kg
	Basic tower part with compression members	1700 kg	
Cross frame element KRE 138 compl.	Cross frame platform with cross beams and gauge rods	2100 kg	3800 kg
	Basic tower part with compression members	1700 kg	
Undercarriage UW 250 K compl.	Basic tower part with ballast girder bracing	2200 kg	6800 kg
Undercarriage UW 250 compl.	Bogie platform with swivel arm, bogie and transport securing	5600 kg	8800 kg
	Basic tower part with compression members and gauge rods	3200 kg	
Cross frame element KRE 138 compl.	Cross frame platform with swivel arms corner plate and transport securing	2730 kg	5750 kg
	Basic tower part with compression members and gauge rods	3020 kg	
Undercarriage UW 260.1 compl.	Bogie platform with swivel arms bogie and transport securing	7150 kg	11400 kg
	Basic tower part with compression members and gauge rods	4250 kg	
Cross frame element KRE 260.1 compl.	Crossframe platform with swivel arms, corner plate and transport securing	4320 kg	8100 kg
	Basic tower part with compression members and gauge rods	3780 kg	
Tower element TSL 15			1120 kg
Tower element TFSA 15			1350 kg
Tower element UTA 15			1765 kg
Tower element UT 15			1700 kg
Tower element UVÜ 15			1690 kg
Tower element UV 15			1960 kg



Foundation loads

for a free standing stationary crane without climber on a concrete foundation

M = moment
H = horizontal force
V = vertical load

* Moments during crane erection

free standing height under hook (m)	Crane in service for loadcase 1 of DIN 1054			Crane out of service for loadcase 2 of DIN 1054		
	Torque moment: 62 kNm			Torque moment: 0 kNm		
	M (kNm)	H (kN)	V (kN)	M (kNm)	H (kN)	V (kN)
10,5	772	24	296	654*	13	112
15,0	887	25	308	699*	14	123
19,5	1009	26	320	748*	15	134
24,0	1139	27	332	846	32	285
28,5	1277	27	344	1032	35	296
33,0	1422	29	359	1238	39	309
37,5	1571	30	379	1460	42	326
42,0	1730	31	397	1739	57	343
46,5	1893	32	423	2072	62	367
51,0	2075	33	442	2444	67	384
55,5	2272	34	460	2856	71	401
60,0	2424	35	484	3216	77	423

Always acting loads are:

Vertical forces of loadcase 2 and a moment of 401 kNm.

The values apply for the least favourable jib length, i.e. when the crane is in service with another jib, lower foundation loads may result which have only minor influence on the dimensioning of foundation.

WOLFF WK 75 EC

962-4-002283E

Static data

2

Centerballast and Cornerloads DIN 15019

for stationary crane without climber on crossframe

horizontal forces H and torque moments to be taken from table "Foundation loads"

KR 700 - 3,8 (HEA 700)

Height under hook (m)	24,0 m - jib		30,0 m - jib		36,0 m - jib		42,0 m - jib		46,0 m - jib	
	Cornerdistance (m)		Cornerdistance (m)		Cornerdistance (m)		Cornerdistance (m)		Cornerdistance (m)	
	3,8	3,8	3,8	3,8	3,8	3,8	3,8	3,8	3,8	3,8
	Center- ballast (t)	max.Corner- load (kN)	Center- ballast (t)	max.Corner- load (kN)	Center- ballast (t)	max.Corner- load (kN)	Center- ballast (t)	max.Corner- load (kN)	Center- ballast (t)	max.Corner- load (kN)
10,5	27,5	244	25,0	251	22,5	250	22,5	252	22,5	228
15,0	27,5	257	25,0	264	22,5	263	25,0	271	25,0	247
19,5	27,5	271	25,0	279	25,0	278	25,0	285	25,0	261
24,0	30,0	292	27,5	300	27,5	299	27,5	307	27,5	309
28,5	37,5	325	32,5	327	32,5	327	30,0	366	30,0	377
33,0	45,0	369	42,5	395	40,0	407	42,5	460	42,5	470

Centerballast and Cornerloads DIN 15019

for stationary crane without climber on crossframe

horizontal forces H and torque moments to be taken from table "Foundation loads"

KR 700 - 3,8 (HEB 700)

Height under hook (m)	24,0 m - jib		30,0 m - jib		36,0 m - jib		42,0 m - jib		46,0 m - jib	
	Cornerdistance (m)		Cornerdistance (m)		Cornerdistance (m)		Cornerdistance (m)		Cornerdistance (m)	
	3,8	3,8	3,8	3,8	3,8	3,8	3,8	3,8	3,8	3,8
	Center- ballast (t)	max.Corner- load (kN)	Center- ballast (t)	max.Corner- load (kN)	Center- ballast (t)	max.Corner- load (kN)	Center- ballast (t)	max.Corner- load (kN)	Center- ballast (t)	max.Corner- load (kN)
10,5	27,5	244	25,0	251	25,0	250	22,5	251	22,5	228
15,0	27,5	257	25,0	264	25,0	263	25,0	270	25,0	247
19,5	27,5	271	25,0	279	25,0	278	25,0	285	25,0	261
24,0	30,0	292	27,5	300	27,5	299	27,5	307	27,5	308
28,5	37,5	325	32,5	327	32,5	327	30,0	366	30,0	377
33,0	45,0	368	42,5	395	40,0	407	42,5	459	42,5	470
37,5	55,0	459	50,0	483	50,0	501	57,5	563	57,5	575

WOLFF WK 75 EC

962-4-002284E

Static data

2

Centerballast and Cornerloads DIN 15019

for stationary crane without climber on crossframe

horizontal forces H and torquemoments to be taken from table "Foundation loads"

KR 700 - 5

Height under hook (m)	24,0 m - jib		30,0 m - jib		36,0 m - jib		42,0 m - jib		46,0 m - jib	
	Cornerdistance (m)		Cornerdistance (m)		Cornerdistance (m)		Cornerdistance (m)		Cornerdistance (m)	
	5,0	5,0	5,0	5,0	5,0	5,0	5,0	5,0	5,0	5,0
	Center- ballast (t)	max.Corner- load (kN)	Center- ballast (t)	max.Corner- load (kN)	Center- ballast (t)	max.Corner- load (kN)	Center- ballast (t)	max.Corner- load (kN)	Center- ballast (t)	max.Corner- load (kN)
10,5	15,0	190	12,5	194	12,5	194	12,5	201	12,5	184
15,0	15,0	200	12,5	205	12,5	205	12,5	212	12,5	195
19,5	15,0	211	15,0	222	15,0	222	15,0	229	15,0	212
24,0	15,0	223	15,0	234	15,0	235	15,0	241	15,0	240
28,5	22,5	253	17,5	253	17,5	253	17,5	284	17,5	293
33,0	27,5	282	25,0	302	22,5	310	22,5	348	22,5	357

Centerballast and Cornerloads DIN 15019

for stationary crane without climber on crossframe

horizontal forces H and torquemoments to be taken from table "Foundation loads"

Height under hook (m)	24,0 m - jib		30,0 m - jib		36,0 m - jib		42,0 m - jib		46,0 m - jib	
	Cornerdistance (m)		Cornerdistance (m)		Cornerdistance (m)		Cornerdistance (m)		Cornerdistance (m)	
	Center- ballast (t)	max.Corner- load (kN)	Center- ballast (t)	max.Corner- load (kN)	Center- ballast (t)	max.Corner- load (kN)	Center- ballast (t)	max.Corner- load (kN)	Center- ballast (t)	max.Corner- load (kN)

Static data

2

Centerballast and Cornerloads DIN 15019

for stationary crane without climber on crossframe

horizontal forces H and torquemoments to be taken from table "Foundation loads"

KR 1000 - 6

[illegible]

Centerballast and Cornerloads DIN 15019

for stationary crane without climber on crossframe

horizontal forces H and torquemoments to be taken from table "Foundation loads"

[illegible]

WOLFF WK 75 EC

962-4-002286E

Static data

2

Centerballast and Cornerloads DIN 15019

for stationary crane without climber on crossframe

horizontal forces H and torquemoments to be taken from table "Foundation loads"

KR 1000 - 8

Height under hook (m)	24,0 m - jib		30,0 m - jib		36,0 m - jib		42,0 m - jib		46,0 m - jib	
	Cornerdistance (m)		Cornerdistance (m)		Cornerdistance (m)		Cornerdistance (m)		Cornerdistance (m)	
	8,0	8,0	8,0	8,0	8,0	8,0	8,0	8,0	8,0	8,0
	Center- ballast (t)	max.Corner- load (kN)	Center- ballast (t)	max.Corner- load (kN)	Center- ballast (t)	max.Corner- load (kN)	Center- ballast (t)	max.Corner- load (kN)	Center- ballast (t)	max.Corner- load (kN)
10,5	—	145	—	153	—	154	—	160	—	152
15,0	—	152	—	160	—	161	—	167	—	159
19,5	—	160	—	168	—	169	—	175	—	167
24,0	—	168	—	176	—	178	—	184	—	178
28,5	—	177	—	185	—	187	—	200	—	206
33,0	—	187	—	200	—	209	—	233	—	239
37,5	—	219	—	236	—	246	—	271	—	277
42,0	5,0	267	2,5	280	2,5	291	5,0	321	5,0	327
46,5	7,5	313	10,0	336	10,0	347	12,5	378	12,5	385
51,0	15,0	372	17,5	396	17,5	407	20,0	438	20,0	445
55,5	25,0	439	25,0	458	27,5	474	30,0	506	30,0	513

Centerballast and Cornerloads DIN 15019

for stationary crane without climber on crossframe

horizontal forces H and torquemoments to be taken from table "Foundation loads"

KR 800 - 6

Height under hook (m)	24,0 m - jib		30,0 m - jib		36,0 m - jib		42,0 m - jib		46,0 m - jib	
	Cornerdistance (m)		Cornerdistance (m)		Cornerdistance (m)		Cornerdistance (m)		Cornerdistance (m)	
	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,0
	Center- ballast (t)	max.Corner- load (kN)	Center- ballast (t)	max.Corner- load (kN)	Center- ballast (t)	max.Corner- load (kN)	Center- ballast (t)	max.Corner- load (kN)	Center- ballast (t)	max.Corner- load (kN)
10,5	7,5	161	7,5	170	7,5	171	7,5	177	7,5	164
15,0	7,5	170	7,5	179	7,5	180	7,5	186	7,5	173
19,5	7,5	180	7,5	189	7,5	190	7,5	196	7,5	183
24,0	7,5	190	7,5	200	7,5	201	7,5	207	7,5	204
28,5	12,5	213	10,0	217	10,0	218	10,0	241	10,0	249
33,0	17,5	237	12,5	248	12,5	260	12,5	291	12,5	299
37,5	22,5	293	17,5	305	17,5	318	22,5	359	20,0	363
42,0	27,5	353	25,0	371	27,5	389	30,0	426	30,0	435

WOLFF WK 75 EC

962-4-002212E

Static data

2

Centerballast and Cornerloads DIN 15019

for stationary crane without climber on crossframe

horizontal forces H and torquemoments to be taken from table "Foundation loads"

SR 150[illegible]

Centerballast and Cornerloads DIN 15019

for stationary crane without climber on crossframe

horizontal forces H and torquemoments to be taken from table "Foundation loads"

[illegible]

WOLFF WK 75 EC

962-4-002252E

Static data

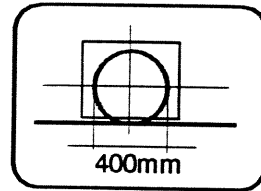
2

Centerballast and Cornerloads DIN 15019

for travelling cranes without climber on undercarriage

Horizontal forces H and torquemoments to be taken from table "Foundation loads"

UW 138



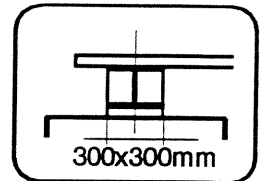
Height under hook (m)	24,0 m - jib		30,0 m - jib		36,0 m - jib		42,0 m - jib		46,0 m - jib	
	Gauge (m)		Gauge (m)		Gauge (m)		Gauge (m)		Gauge (m)	
	3,8	3,8	3,8	3,8	3,8	3,8	3,8	3,8	3,8	3,8
	Center- ballast (t)	max.Corner- load (kN))	Center- ballast (t)	max.Corner- load (kN))	Center- ballast (t)	max.Corner- load (kN))	Center- ballast (t)	max.Corner- load (kN))	Center- ballast (t)	max.Corner- load (kN))
10,5	30,0	248	27,5	255	25,0	248	22,5	250	22,5	226
15,0	30,0	261	27,5	268	25,0	262	25,0	269	25,0	245
19,5	30,0	275	27,5	282	25,0	276	25,0	284	27,5	265
24,0	30,0	290	27,5	298	27,5	297	27,5	305	27,5	307
28,5	37,5	323	35,0	330	32,5	325	30,0	365	30,0	375
33,0	47,5	372	42,5	393	40,0	406	42,5	458	42,5	469

Centerballast and Cornerloads DIN 15019

for stationary cranes without climber on crossframe

Horizontal forces H and torquemoments to be taken from table "Foundation loads"

KRE 138



Height under hook (m)	24,0 m - jib		30,0 m - jib		36,0 m - jib		42,0 m - jib		46,0 m - jib	
	Cornerdistance (m)		Cornerdistance (m)		Cornerdistance (m)		Cornerdistance (m)		Cornerdistance (m)	
	3,8	3,8	3,8	3,8	3,8	3,8	3,8	3,8	3,8	3,8
	Center- ballast (t)	max.Corner- load (kN))	Center- ballast (t)	max.Corner- load (kN))	Center- ballast (t)	max.Corner- load (kN))	Center- ballast (t)	max.Corner- load (kN))	Center- ballast (t)	max.Corner- load (kN))
10,5	30,0	244	27,5	251	25,0	244	25,0	252	25,0	228
15,0	30,0	257	27,5	264	25,0	258	27,5	271	27,5	247
19,5	30,0	271	27,5	279	27,5	278	27,5	285	27,5	261
24,0	32,5	292	30,0	300	30,0	299	30,0	307	30,0	309
28,5	40,0	325	35,0	327	35,0	327	32,5	366	32,5	377
33,0	47,5	369	45,0	395	42,5	407	45,0	460	45,0	470

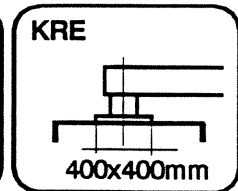
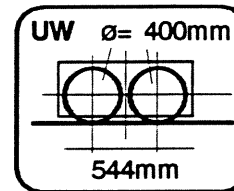
Static data

2

Centerballast and Cornerloads DIN 15019

for travelling cranes without climber on undercarriage
Horizontal forces H and torquemoments to be taken from
table "Foundation loads"

UW 250 or for KRE



Height under hook (m)	24,0 m - jib				30,0 m - jib				36,0 m - jib			
	Gauge (m)		Gauge (m)		Gauge (m)		Gauge (m)		Gauge (m)		Gauge (m)	
	5,0	4,5	5,0	4,5	5,0	4,5	5,0	4,5	5,0	4,5	5,0	4,5
	Center- ballast (t)		max. Corner- load (kN)		Center- ballast (t)		max. Corner- load (kN)		Center- ballast (t)		max. Corner- load (kN)	
10,5	15,0	20,0	197	210	12,5	17,5	202	215	12,5	15,0	202	209
15,0	15,0	20,0	208	221	12,5	17,5	212	225	12,5	17,5	213	226
19,5	15,0	20,0	219	232	15,0	17,5	229	237	15,0	17,5	230	237
24,0	15,0	20,0	231	244	15,0	20,0	242	255	15,0	20,0	242	255
28,5	22,5	27,5	260	274	17,5	22,5	261	274	17,5	20,0	261	269
33,0	27,5	35,0	290	309	25,0	30,0	309	322	22,5	27,5	318	331
37,5	35,0	40,0	359	373	30,0	37,5	375	394	30,0	35,0	390	403
42,0	40,0		429		40,0		456		40,0		471	

Height under hook (m)	42,0 m - jib				46,0 m - jib				m - jib			
	Gauge (m)		Gauge (m)		Gauge (m)		Gauge (m)		Gauge (m)		Gauge (m)	
	5,0	4,5	5,0	4,5	5,0	4,5	5,0	4,5				
	Center- ballast (t)		max. Corner- load (kN)		Center- ballast (t)		max. Corner- load (kN)		Center- ballast (t)		max. Corner- load (kN)	
10,5	12,5	15,0	208	216	12,5	15,0	192	199				
15,0	12,5	17,5	219	232	15,0	17,5	208	215				
19,5	15,0	17,5	236	244	15,0	17,5	219	227				
24,0	15,0	20,0	249	262	15,0	20,0	248	261				
28,5	17,5	20,0	292	300	17,5	20,0	300	308				
33,0	22,5	30,0	355	373	22,5	30,0	364	382				
37,5	35,0	42,5	437	455	35,0	42,5	446	465				
42,0	45,0		519		47,5		531					

WOLFF WK 75 EC

962-4-002288E

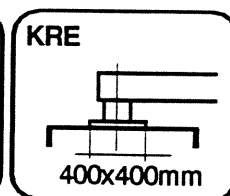
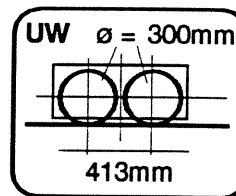
Static data

2

Centerballast and Cornerloads DIN 15019

for travelling cranes without climber on undercarriage
Horizontal forces H and torquemoments to be taken from
table "Foundation loads"

UW 250 K or for KRE

[illegible]

Centerballast and Cornerloads DIN 15019

for stationary cranes without climber on crossframe
Horizontal forces H and torquemoments to be taken from table "Foundation loads"

[illegible]

WOLFF WK75 EC

962-4-002289E

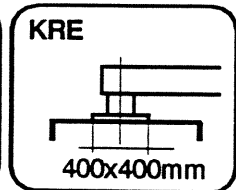
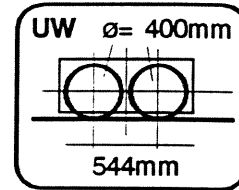
Static data

2

Centerballast and Cornerloads DIN 15019

for travelling cranes without climber on undercarriage
Horizontal forces H and torquemoments to be taken from
table "Foundation loads"

UW 260.1 or for KRE



Height under hook (m)	24,0 m - jib				30,0 m - jib				36,0 m - jib			
	Gauge (m)		Gauge (m)		Gauge (m)		Gauge (m)		Gauge (m)		Gauge (m)	
	6,0	5,0	6,0	5,0	6,0	5,0	6,0	5,0	6,0	5,0	6,0	5,0
	Center- ballast (t)		max. Corner- load (kN)		Center- ballast (t)		max. Corner- load (kN)		Center- ballast (t)		max. Corner- load (kN)	
10,5	7,5	12,5	171	186	5,0	10,0	175	189	5,0	10,0	175	190
15,0	7,5	12,5	180	195	5,0	10,0	184	199	5,0	10,0	185	199
19,5	7,5	12,5	190	205	7,5	12,5	199	214	7,5	12,5	200	215
24,0	7,5	12,5	200	216	7,5	12,5	210	225	7,5	12,5	211	226
28,5	10,0	20,0	217	244	7,5	15,0	221	243	7,5	15,0	222	244
33,0	15,0	25,0	242	269	12,5	22,5	258	284	10,0	20,0	265	291
37,5	20,0	32,5	298	330	17,5	27,5	315	342	17,5	27,5	328	354
42,0	25,0	37,5	358	391	25,0	37,5	381	414	25,0	37,5	394	426
46,5	32,5	45,0	427	461	35,0	50,0	455	494	35,0	50,0	469	508
51,0	42,5	60,0	504	549	45,0	62,5	533	578	47,5	65,0	552	598
55,5	55,0		591		57,5		620		57,5		635	

Height under hook (m)	42,0 m - jib				46,0 m - jib				m - jib			
	Gauge (m)		Gauge (m)		Gauge (m)		Gauge (m)		Gauge (m)		Gauge (m)	
	6,0	5,0	6,0	5,0	6,0	5,0	6,0	5,0				
	Center- ballast (t)		max. Corner- load (kN)		Center- ballast (t)		max. Corner- load (kN)		Center- ballast (t)		max. Corner- load (kN)	
10,5	5,0	10,0	181	196	5,0	10,0	168	183				
15,0	5,0	10,0	191	206	7,5	10,0	183	192				
19,5	7,5	12,5	206	222	7,5	12,5	193	208				
24,0	7,5	12,5	217	233	7,5	12,5	214	229				
28,5	7,5	15,0	246	267	7,5	15,0	254	275				
33,0	12,5	20,0	301	322	12,5	20,0	308	330				
37,5	20,0	32,5	364	396	20,0	32,5	372	405				
42,0	30,0	42,5	436	470	30,0	42,5	444	478				
46,5	40,0	55,0	511	551	40,0	55,0	520	560				
51,0	50,0		591		50,0	70,0	599	651				
55,5	62,5		679		62,5		688					