

2.1.2 Jib lengths, Load diagrams, Speeds

Jib		Max. Load		m x t									
m	rope	t	m	15	20	25	30	35	40	45	50	55	60
60	☉	8.0	29.1	8.00	8.00	8.00	7.75	6.58	5.72	5.05	4.51	4.08	3.70
	☉	8.0	36.9	8.00	8.00	8.00	8.00	8.00	7.34	6.48	5.80		
50	☉	16.0	18.7	16.00	14.87	11.78	9.72	8.24	7.14	6.28	5.60		
	☉	8.0	40.0	8.00	8.00	8.00	8.00	8.00	8.00				
40	☉	16.0	20.7	16.00	16.00	13.15	10.86	9.22	8.00				
	☉	8.0	30.0	8.00	8.00	8.00	8.00						
30	☉	16.0	21.5	16.0	16.0	13.68	11.30						
	☉												

Hoisting 37 kW						Luffing 55 kW Fi	Slewing 2x70Nm	Traveling 4x
P max		8.0 - 16.0 [t]						
☉	Load [to]	1.30	2.40	4.10	8.00	Without load t=1.20min With load t=2.10min	0,68 rpm	25 m/min
	V [m/min]	98.0	60.0	38.0	24.0			
☉	Load [to]	2.60	4.80	8.20	16.00	Power requirement (upper part)	Fi → Frequency inverter	
	V [m/min]	49.0	30.0	19.0	12.0			

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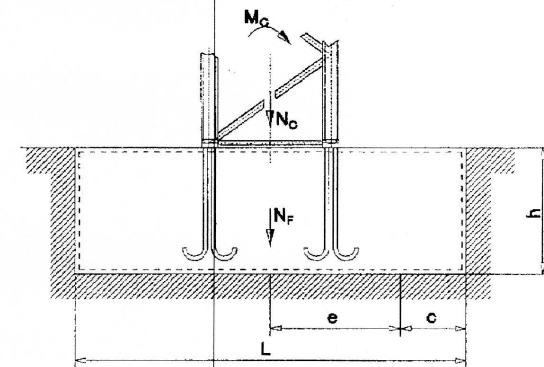
2.2.2 Foundation loading:

Jib lengths 50 - 60

Tower height m	No. of tower	Foundation loading			Foundation plate			Total weight	P Ground
		N _C kN	M _C kNm	H kN	l m	h m	N _F kN	N _C + N _F kN	P kN/m ²
12.0	2	935	2475	118.8	5.40	1.6	1120	2054	180.81
18.0	3	970	3297	131.6	5.80	1.6	1292	2262	192.69
24.0	4	1006	4221	144.5	6.20	1.6	1476	2482	204.32
30.0	5	1043	5252	157.1	6.80	1.6	1776	2819	190.91
36.0	6	1079	6404	170.0	7.30	1.6	2046	3125	188.53
42.0	7	1115	7660	181.4	7.80	1.6	2336	3451	184.78

These Loading are valid for free slewing crane out of service

Slewing Moment M_S = 275 kNm



Calculation of the foundation plate

$$N_T = N_C + N_F \quad N_F = L^2 \cdot h \cdot 24$$

$$M_T = M_C + H \cdot h$$

1st condition: Excentricity $e = M_T / N_T < L / 3$ $c = L / 2 - e$

2nd condition: Ground-pressure $p = 2 \cdot N_T / 3 \cdot L \cdot c$



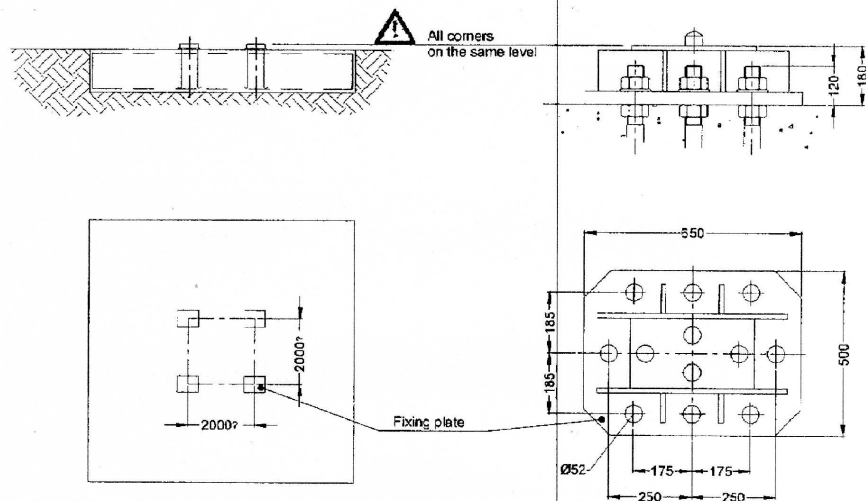
The admitted ground pressure must be checked by the customer

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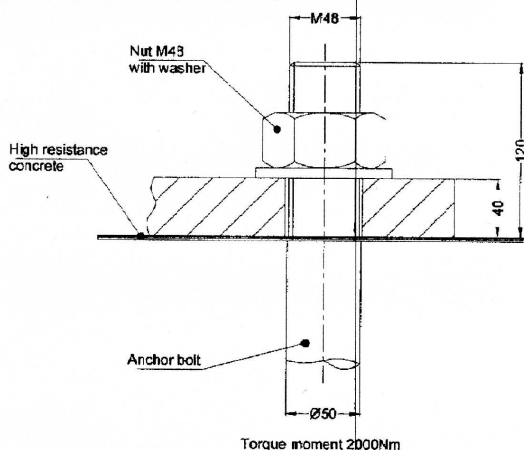
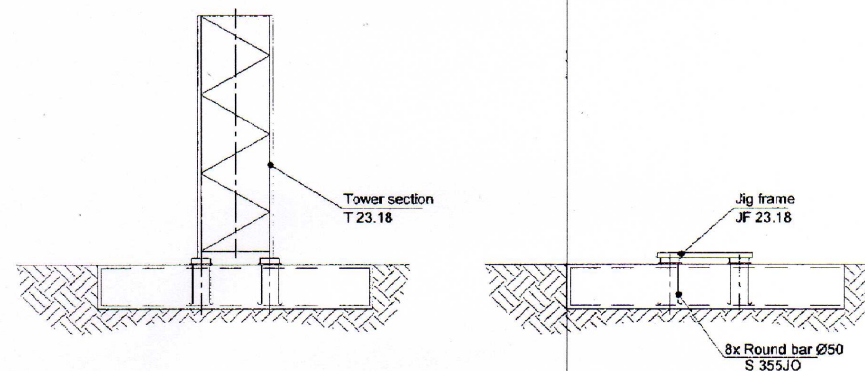
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2.2.4 Preparation of foundation plate

After excavating the foundation pit and assembly of the plate reinforcement mesh cage, put the fixing plates and anchor bolts in the center of the foundation pit. For adjustment, use tower section or jig frame.



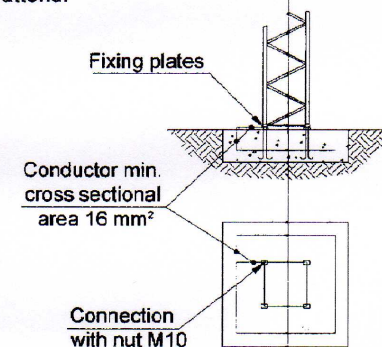
For the vertical levering, use the nuts for adjustment. For final levering, use the high resistance concrete if necessary. All four corners of the fixing plates must be in same level. After the concrete is carrying capacity, anchor bolts must all be tightened with same torque moment.

2.2.5 Earthing

The user is responsible for the installation of the protective bonding system and must ensure that the minimum requirements established by the standard are attent.

As for the sizes, installation, test and maintenance of the protective earthing system against atmospheric discharges, the laws and standards of the country, where the crane is assembled are to attend.



Conductor must be connected on one of the fixing plates.

2.2.6 Electric power supply

The electric equipment of the crane must always be connected to the bonding circuit. The user must provide the necessary electrical supply and wiring/connections for the crane to meet its electric energy needs, adhere to the specifications described herein, and