

CONTENTS

1、 Survey.....	1
2、 Diagram of mechanism.....	2
3、 Hoisting Graph.....	3
4、 Main Technical Parameters.....	4
5、 Technical Parameters of Main Parts.....	5
6、 Form of Main Metal Structure.....	6
7、 Anchorage Groundwork.....	7
8、 Anchorage Profile Chart and Anchorage Accessory Chart.....	8
9、 Anchorage Reinforced Steel Bar Chart.....	9
Complementary Notes.....	10

1、 Survey

Please read the Brief Introduction carefully to know the tower crane well.

The tower crane is a hydraulic tower crane with swing top, horizontal jib and mobile trolley. It has the hoisting moment for 760Kn.m;the maximum hoisting load of 6t and the maximum working radius of 50m.The hoisting height of anchoring tower crane is 40m and that of climbing tower crane is 140m.

The tower crane has ingenious design, beautiful shape and simple structure .It is easy to operate and maintain, and is safe and at a reasonable price .It is an ideal construction machines for construction enterprises. It has hoisting mechanism, swing mechanism, top-rising mechanism and radius mechanism, which can work individually or cooperatively to make a high efficiency. The top-rising mechanism is used to raise or lower tower. The hoisting mechanism has 3-speed electronic motor respectively for high, medium and slow hoisting speeds. It has flexible swing mechanism and radius mechanism and slewing mechanism for vertical and /or horizontal transportation of building materials in one time.

The tower crane has complete and sensitive protection devices such as hoisting weight limiter, hoisting moment limiter, hoisting height limiter, radius limiter and swing limiter to ensure of regular operation. It also has rest platform, guardrail and other protection devices. Driver's cab is at a side of rib and has big space and wide visual field.

The tower crane has excellent performance and is suitable for hoisting in short civil or industrial buildings or loading or unloading in ports or goods yards

2、 Diagram of mechanism

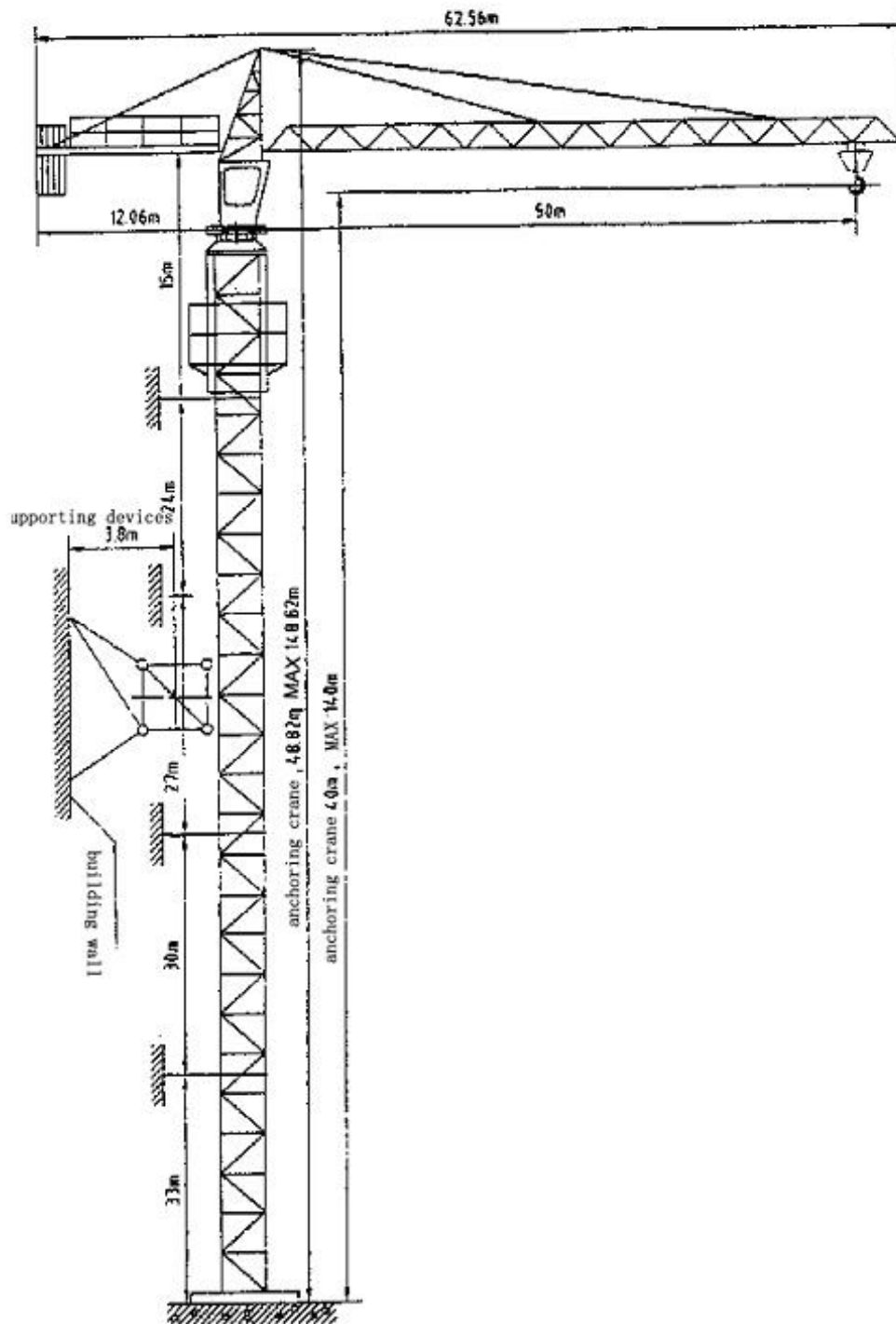
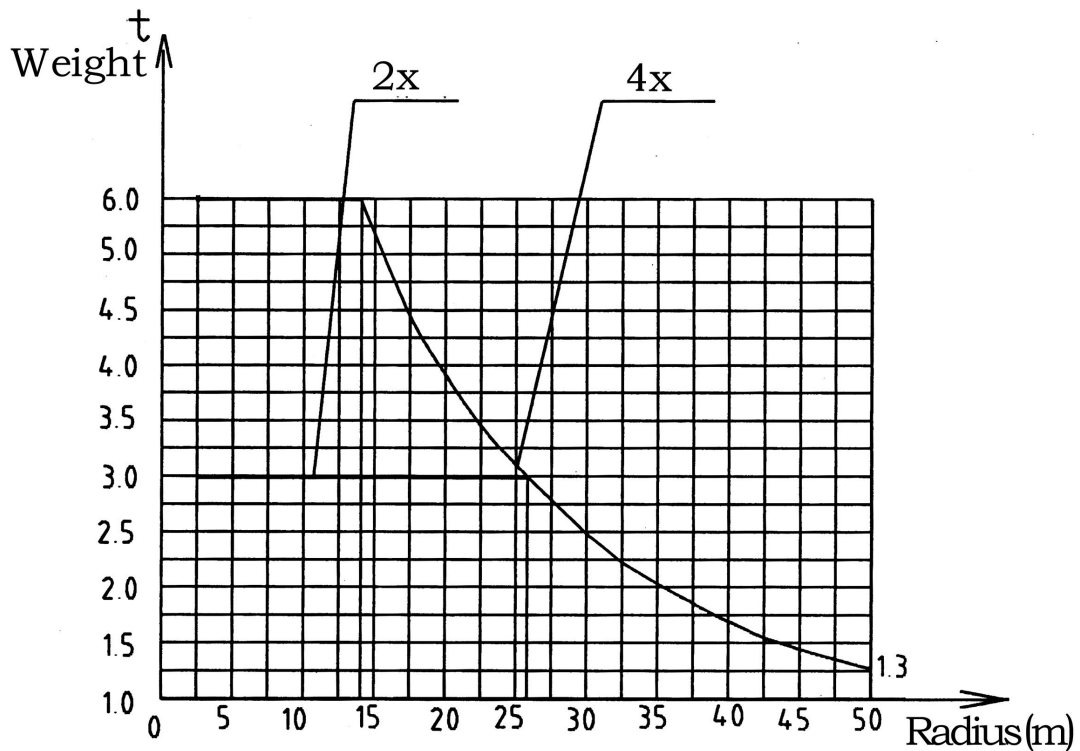


Figure 1-1 Parameters of Mast

3、 Hoisting Graph

No overload!



Hoisting Load Function Diagram

Radius (m)		2.5~13.72	16	18	20	22	24
Hoisting	4x-speed	6.00	5.046	4.417	3.918	3.514	3.180
Weight(t)	2x-speed	3.00					

Radius (m)		25	28	30	32	34	35	36
Hoisting	4x-speed	3.03	2.65	2.45	2.268	2.108	2.036	1.967
Weight(t)	2x-speed	3.0						

Radius (m)		38	40	42	44	46	48	50
Hoisting	4x-speed	1.841	1.728	1.626	1.533	1.449	1.371	1.300
Weight(t)	2x-speed							



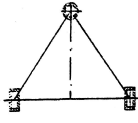
4、 Main Technical Parameters

Name		Unit	Parameters						
Nominal hoisting moment		kN.m	760/870						
Max. Hoisting weight		t	6						
Rated hoisting weight at jib nose		t	1.3						
Working radius		m	2.5-50						
Height (m)		Anchoring	M	40					
		Climbing	m	140					
Hoisting speed		Magnification		2X			4X		
		Hoisting speed	M/min	8	40	80	4	20	40
		Max. Hoisting weight	t	3	3	1.5	6	6	3
Swing speed		R/min	0.6						
Radius changing speed		M/min	22/44						
Top rising speed		M/min	0.5						
Tower crane weight	Net weight (anchoring)	T	31.4(32.9)						
	Ballast weight	T	12						
	Total weight (anchoring)	T	43.4(44.9)						
Working swing radius		M	51.254						
Rear swing radius		M	12.06						
Maximum working wind speed		M/S	20						
Maximum wind speed for top rising		M/S	13						
Ambient temperature			-20~+40						

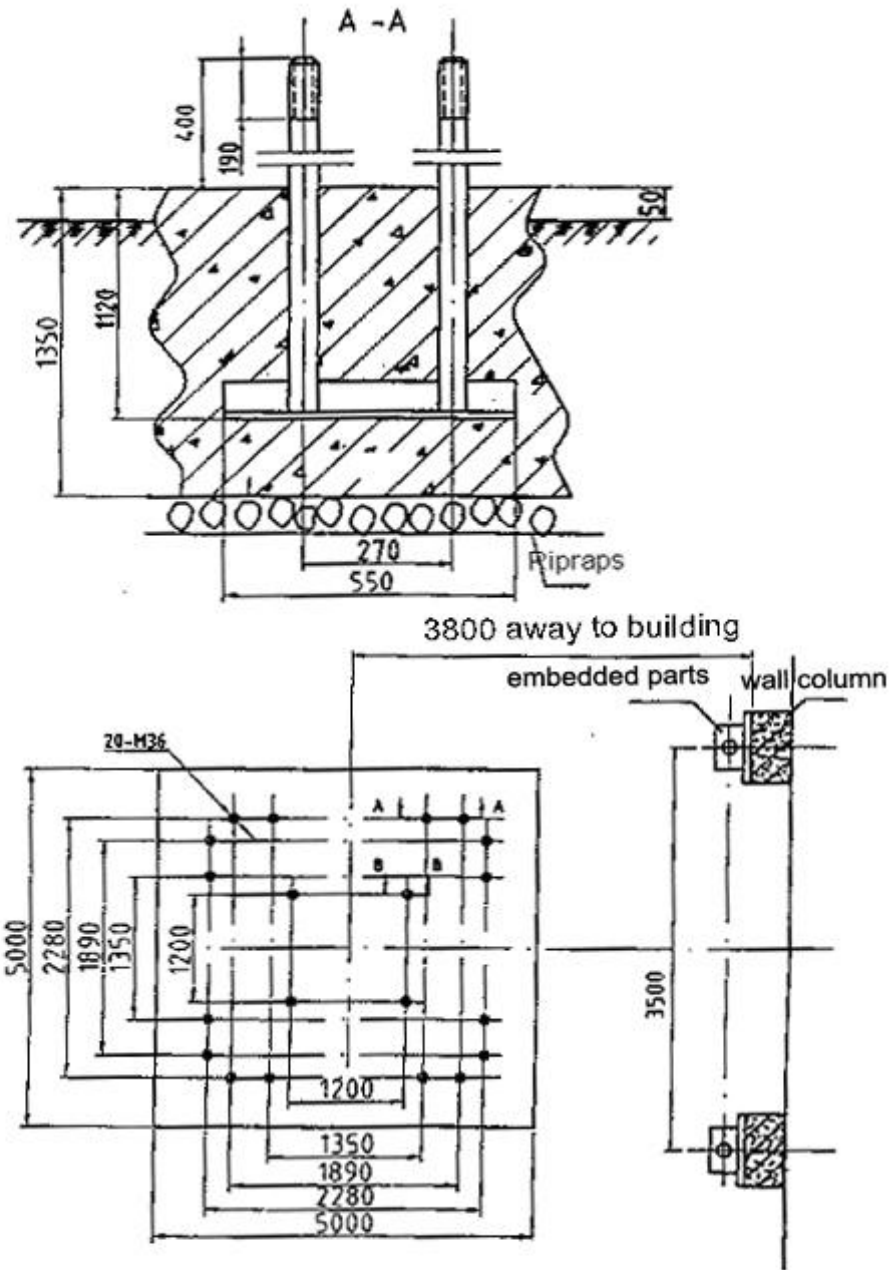
5、 Technical Parameters of Main Parts

Name				Parameters
Hoisting mechanism	Electric motor	Model		YZTD225M ₂ -4/8/32
		Power	KW	24/24/5.4
		Rev	R/MIN	1440/700/140
	Reducer	Model		JD63A
		Reduction ratio		10.35
	Arrester	Model		YWZ-315/50
		Braking moment	N.m	630
Hydraulic propeller		YT ₁ -50		
Wire rope			4V*39S+5FC-13-1770	
Swing mechanism	Electric motor	Model		YZR132M ₁ -6
		Power	KW	2*2.2
		Rev	R/min	908
	Reducer	Model		XX4-100 planetary reducer
		Reduction Ratio		157.5
	Brake			Normally open dry electromagnetic break
Swing support			011.40.1250 m=10	
Radius changing mechanism	Electric motor	Model		YDEJ132S-8/4
		Power	KW	2.2/3.3
		Rev	R/min	720/1440
	Reducer	Model		BLD3.3-3
		Reduction ratio		43
	Wire rope			6*19-7.7-1570- IRightward twist
Top rising mechanism	Electric motor	Model		Y132S-4 B5
		Power	KW	5.5
		Rev	R/min	1440
	Hydraulic Oil Cylinder	Model		HSGK-160/110
		Piston course	mm	1600
	Working pressure			Mpa 20

6、 Form of Brief Introduction of Main Metal Structure

Name		Figure	Materials and Specifications	Remark
Mast	Standard Section (Tube)		Main standard bar Tube 127 14 Tube 127 10	Outline sizes: 1600*1600 Total Height: 2500
	Standard Section (Angle Steel)		Main standard bar 160 160 14	Outline sizes: 1600*1600 Total Height: 2500
Jib			Upper bar: Tube 89 8 Lower bar: Angle Steel 2 90 90 8 2 70 70 6	Total 8 Sections, They are connected with pin shafts.
Cover Frame			Main bar: angle steel tube	It consists of welded angle steel, V-iron and armor plates.
Upper And Lower Revolving Platform			Armor plates	It consists of welded armor plates in different sizes and shapes.
Tower Top			Main bar: Angle Steel	It consists of welded angle steel, seamless steel and armor plates in trussed symmetric structure with tine top.
Balance Arm			V-iron	It consists of welded angle steel, V-iron and armor plates in space frame structure.
Anchorage Support				It consists of H-shaped steel and armor plates.

7、 Anchorage Groundwork

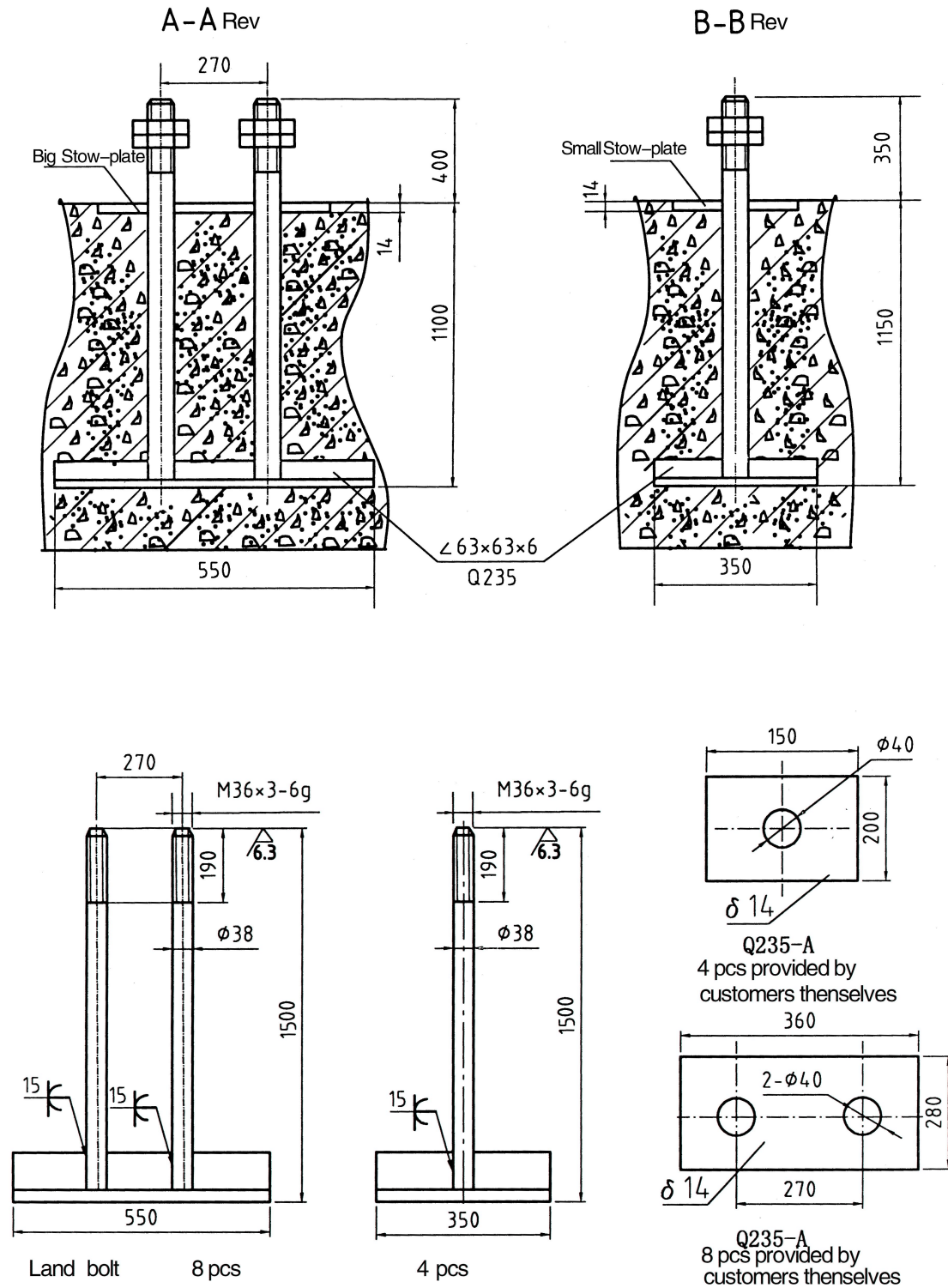


concrete anchorage technical parameters

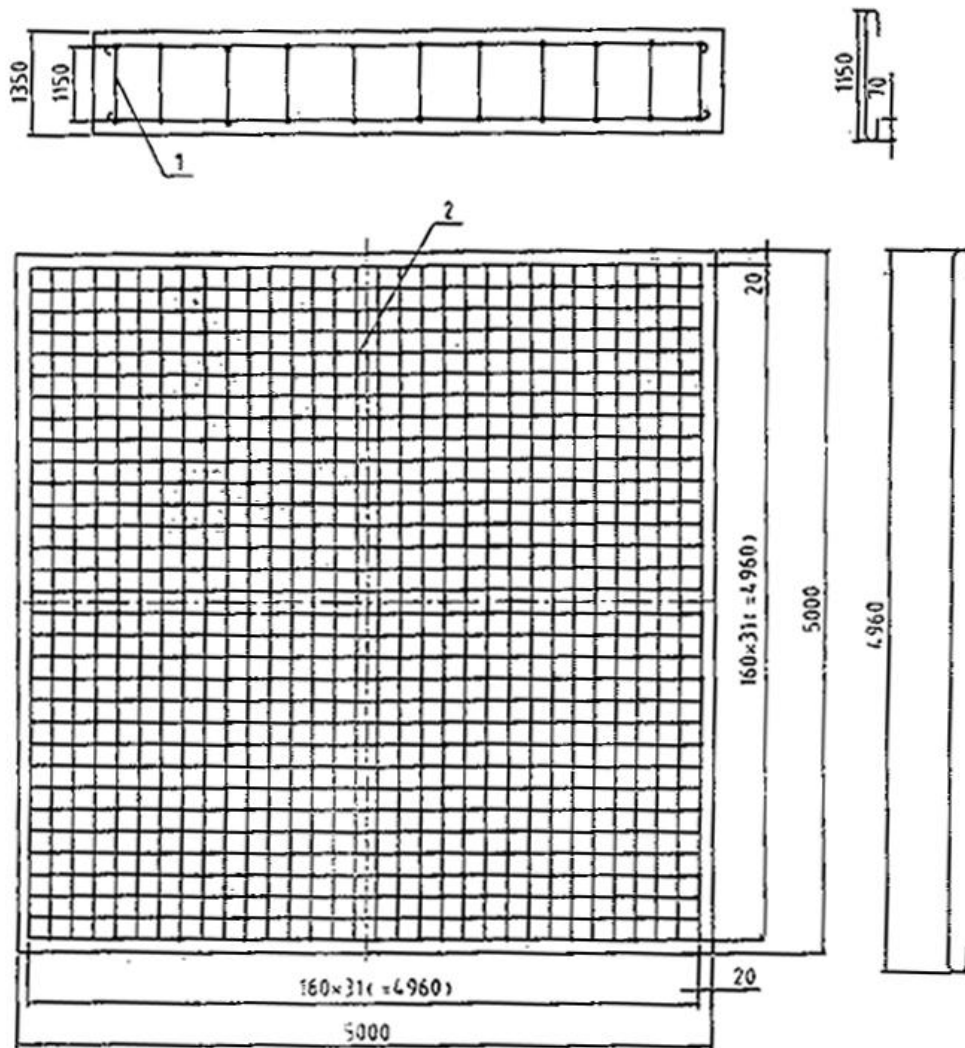
1. The reaction of anchorage is not less than 0.22Mpa (22t/m²).
2. The intensity of concrete is not less than C35 and the total weight is not less 80t.
3. Then evenness of anchorage is less than 1/1000, and the land bolts should not welded with stow-plate
3. Other factors shall be done according to state standards and regulations.

Figure 3-1 Anchorage Groundwork

8、Anchorage Profile Chart and Anchorage Accessory Chart



9、 Anchorage Reinforced Steel Bar Chart



2		Steel bar 20	128	Q235
1		Steel bar 14	121	Q235
Item	Code	Name	Quantity	Material

Complementary Notes

Our company reserves the right to change technical parameters, outer sizes and design without information in advance. If the product has difference with the Manual, the product shall prevail. If you want to buy parts or make technical treatment, please contact our technical department.

The new edition shall prevail.

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