

# DAHAN QTZ200(6520)

HAMMERHEAD CRANE INTRODUCTION



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200 6520

#### Advantage

1.With 56,000 sets of market volume and excellent reputation, Dahan tower crane ranks the first place in China tower crane industry in the past decades. Dahan always adheres to the value that supply the most valuable tower crane and service for the customer, with the highest cost performance in the industry.





2. Dahan tower crane owns the leading technology R&D team, the product quality passed several experiments with strict testing. Otherwise, Dahan has 16 years of production technology and rich experiences in quality management. Till now, over 100 national technology patents of tower crane have been put into use already.





3.In order to guarantee the reliability of tower crane quality and reduce the cost, all raw materials are directly supplied by famous brands like Baosteel and Wisco. Raw materials for main parts such as standard section main limbs, tower caps adopt Q345B steel, thus the tensile strength increased by 30% and the tower crane becomes more safe and reliable.







4.Dahan tower crane is the enterprise which firstly started to use the robot welding lines. At present, we have a fully automatic robot welding production line for mast sections fabrication made up by more than 100 welding robots. The production line is composed with automatic material preparation, welding and maching. All main parts of Dahan tower crane use robot welding, with the most advance carbon dioxide mixed with argon gas shielded welding, it has deep depth of fusion, high quality of welding and stable performance.





5. All parts and components of Dahan tower crane use premium brands. Electric equipment with Schneider converter, aviation plug, stainless steel distribution box and three linkage console has features of low failure rate and easy installation.

Hoisting mechanism is provided by leading manufacturer Jiangte Motor or Dezhou Shengjian, all with engine oil, free maintenance, high reliability and low maintenance rate.

Slewing support uses Ma'anshan Fangyuan brand or Rothe Erde brand, twice tempering processing makes more smoothly operation and longer tower crane service life.







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6. Attention to detail quality. High-strength bolt adopt shipborne scale DACROMET technology. It can keep not rusted for ten years .Swiss screw-thread bolts of preload promote 30 percent than traditional bolts. Weight limiter uses the tension ring structure and cast aluminum shell used Hoisting, derricking limiting stopper to extend service life.





7.Large structures as mast section, turn able, top kit and hoisting jib adopt advanced equipment as NC machine tool, drilling machine, milling machine processing after welding. That effectively guarantees products assembly accuracy, reducing the failure rate and improving the security.





8.12 automatic spraying assembly line, the whole machine adopt impeller blasting to ensure the cleanliness of steel surface and eliminate the internal stress producing in welding process, increase the strength and steel surface hardness, increase painting adhesion. Two primer, a paint spraying technology, beautiful appearance, corrosion resistance has increased more than twice than the life of ordinary spraying process. Platform, the small car, fence and other small pieces adopt hot dip galvanized after acid phosphate treatment, rust resistance stronger.





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9.Hoisting, derricking and slewing mechanism, with complete safety such as torque, weight limit. The steel wire rope broken rope device. Range of the car design against loss and broken shaft, such as tilting device. The electrical adopts overload protection, the design of PLC self-diagnosis system, it's convenient to maintenance.





10.Dahan three production bases is Shandong, Hunan, Guangdong. Dahan tower crane are exported to more than 50 countries and regions. We have more than 1000 sets after-sales service network. We carried out the earliest stagnation point service mode in this tower crane industry that ensure the quality of service and efficiency. Otherwise, better to remove customer's worries.





## QTZ200(6520) Outline Dimensions





#### m

R (m)	F	3-18.8	20	22	25	27	30	33	36.6		
- /17 >	Π		5000								
(Kg)	IV	10000	9340	8340	7150	6510	5725	5080	4500		
R (m)	F	37	39	40	42	44	45	47	49		
(12.)	II	4938	4640	4510	4260	4035	3930	3730	3550		
(Kg)	IV	4438	4140	4010	3760	3535	3430	3230	3050		
R (m)	F	50	52	54	55	57	59	60			
(W )	II	3460	3300	3160	3090	2958	2835	2800			
(Kg)	IV	2960	2800	2660	2590	2458	2335	2300			

### m

R (m)	F	3-19.7	20	22	25	27	30	32	35			
	II		5000									
(Kg)	IV	10000	9805	8820	7620	6920	6120	5640	5040			
R (m)	F	36	38.4	40	42	44	45	47	49			
	II	50	00	4810	4520	4280	4200	3990	3780			
(Kg)	IV	4870	4500	4310	4020	3780	3700	3490	3280			
R (m)	F	50	52	54	55							
	II	3710	3540	3380	3310							
(Kg)	IV	3210	3040	2880	2810							



#### <mark>50</mark>m

R (m)	F	3-20.6	22	25	27	30	33	36	38		
(Kg)	II		5000								
	IV	10000	<mark>931</mark> 0	8005	7310	6410	5715	5120	4790		
R (m)	F	40.2	42	44	45	46	48	50			
$(V_{-})$	II	5000	4790	4520	4400	4290	4100	3890			
(Kg)	IV	4500	4290	4020	3900	3790	3600	3390			

#### 45/40/35/30m

R (m)	F	3-21.4	22	25	27	30	32	35	37	38.4	41.8	45
21	II		5000								4610	
(Kg)	IV	10000	<mark>9</mark> 715	8350	7620	6710	6280	5550	5210	5000	<mark>450</mark> 0	4110



## Tower crane performance parameters

Use Level		U5	Maximum Inst	allation H	eight of Win	d Level	≤4		
Load State	e	Q2	Working state	wind level			≤6		
Working I	Level	A5	Non-working s	tate wind l	level		≤11		
Para	meter Na	ne		Unit		Va	alue		
Rated Loa	d Moment	t		t.m		1	60		
Max Load	Capacity			t		-	10		
Max Rateo	l Load We	eight Allows N	lax Ratings	m	16.1				
Working F	Range (mii	n / max)		m		3-	-65		
		/ attached)		t		2	.05		
Rated Loa	d Moment	t		m		59.	7/230		
	ls Ho		Fall	/		2		4	
H	Hoisting speed		peed	m/min	0~30	0~60	0~15	0~30	
Hoisting	• •		d Capacity	t	5	2.5	10	5	
tin	Motor Model			/		YZP2-2251	M2-4B3-43	5L	
ũ đ		Power		Kw		4	45		
	Motor Speed			r/min		142	0/720		
Sle	Slewing Speed			r/min		0~	-0.7		
Slewing	Power			Kw	5.5*2				
ng				r/min			475		
	Trolley Speed			m/min		0	-63		
Tr		Motor Mo	odel	/		YTDVF1	32M1-4		
Trolley									
ey		Power		kW		5.:	5		
		Speed		r/min	0-63				
		Jacking Sp	peed	m/min	0.5				
	Hydr	aulic System	Rated Work	MPa	35				
Ja		Motor Mo	odel	/		YE2-	160M-4		
cki		Power		kW		-	11		
Jacking		Speed		r/min		14	440		
	Hydrau	ılic Cylinder b	oy / piston Rod	mm		200	)/125		
Counterweights	Counter Load Radius		m	65	5	5	45		
reights	Counter Weight			t	23.6	20	.2	21.7	
Power				Kw		6	1.5		



## **Cement foundation calculation**

HSC		6	72km/h			> 72km/h					
2	Р	М	ET	TRACT	COMP	Р	М	ET	TRACT	COMP	
11.7	80527	93473	2265	14839	-55103	68527	111112	5946	24439	-58702	
14.7	82317	99191	2414	16531	-57690	70317	111112	6421	23991	-59150	
17.7	84107	105404	2562	18408	-60462	72107	111112	7826	23544	-59597	
20.7	85897	112113	2711	20471	-63419	73897	111112	8319	23096	-60045	
23.7	86792	115652	2785	21571	-64967	74792	111112	8645	22872	-60268	
26.7	88582	123103	2933	23911	-68202	76582	111112	9299	22425	-60 <mark>7</mark> 16	
29.7	90372	<mark>13104</mark> 9	<mark>3</mark> 082	26436	-71622	78372	111112	<mark>99</mark> 52	21977	-61163	
32.7	92162	139490	3230	29147	-75228	80162	117730	10605	24006	-64087	
35 <b>.</b> 7	93952	148425	3379	32042	-79018	81952	151080	1159	36036	-77012	
38.7	95742	157856	3527	35123	-82994	83742	186608	11912	48880	-90751	
41.7	96637	162757	3602	36733	-85052	84637	205189	12239	55608	-97927	
44.7	98427	172960	3750	40092	-89305	86427	<mark>24</mark> 3984	12892	69675	-112889	
47.7	100217	183598	3899	43635	-93744	88217	284957	13546	84557	-128665	
50.7	102007	194761	4047	47364	-98368	90007	328108	14199	100253	-145257	
53.7	102902	200529	4121	49299	-100750	90902	350500	14526	108407	-153858	
56.7	104692	212434	4270	53305	-105651	92692	396917	15179	125326	-171672	
59.7	106482	224835	4418	57497	-110738	94482	445513	15833	143060	-190301	









	Α	В	С	Weight
	mm	mm	mm	Kg
Base Section 1	2100	2100	7760	4120
Section 3	2120	2120	3260	1625



# Climbing Cage



	Α	В	С	Weight
	mm	mm	mm	Kg
Climbing Cage Assembly	7260	4300	4300	6864
Skeleton	7260	2550	200	1405
Jacking Beam	130	1655	576	485
Hydraulic System				500



# Slewing Assembly



	Α	B	С	Weight
				Kg
Slewing assembly	3035	4240	3010	4122
Under turntable	1019	2495	1465	2827
Upper Turntable	1700	4240	2660	2040
<b>Operator cabin</b>				300
Slewing Mechanism				800
Slewing ring				460
Slewing ring				460



Top kit



	Α	В	С	Weight
				Kg
Tower assembly	2210	1470	9530	3472
Tower top	1300	1450	7470	1180
pull rod				215

# Counter jib

	Counter skeletonI	Lever	Electric control box	Hoisting Mechanism	Assembly
Α	3350	9840			1333
В	310	635	/	/	1455
С	1125	1472		2470	
Kg	1360	3480	3190	1180	6722



## Lifting





#### DAHAN Introduction

Dahan Construction Machinery (Group) is a large-scale enterprise group in Chinese construction machinery industry, specializing in the production of "tower cranes" and "construction elevators", with registered capital of 20 million US Dollars, integrating research, development, production, sales, service and finance.

Founded in November, 2000, after 18 years of rapid development, at present, the annual production capacity was over 13,000 sets and become the leading brand in tower crane and elevator industry in China.

The head office of the group is located in Hi-tech Development Zone, Jinan, China, with 3,000 m<sup>2</sup> workplaces. The production bases are separately located in Mingshui Economic Development Zone of Jinan City, Foshan of Guangzhong Province, Yiyang of Hunan Province, with total area of over 300,000 m<sup>2</sup>. At present the group has 8 production bases, 7 operation center, 8 sales companies, one finance lease company and one import & export company.

Talent strategy is the core competitiveness of Dahan Construction Machinery. Dahan has 2300 employees, and 37 persons of them are cutting-edge technical talents, including drafters of national standard of domestic tower crane industry, engineers of implementing earliest FEM calculation of China, and professionals of design calculation and manufacturing technique. Besides, the group also have more than 600 professional personnels of other aspects like sales, management, financing, etc..

Science and technology are primary productive forces. Dahan owns 82 national technology patents (including 5 invention patent. In 2013 the group won the "high-tech enterprise" title, joined the Chinese Hoisting Machinery Standardization Technical Committee, and participated in revision of national standard (GB13752) of tower crane.

At present, the company has imported more than 100 robots of Panasonic and ABB company from Japan and Sweden separately, and owns 12 sets of automatic spraying lines, more than 1000 sets of large plasma cutting machines, CNC drilling machines, milling machines, lathes, boring machines, welding machine and other special tools and equipment. Through advanced equipment, automated assembly line, Dahan can ensure quality of products in the aspect of production technology. Besides, Dahan also build strategic partnership and matching supply cooperation with world-class enterprises such as Baosteel, Ansteel, Dezhou Sheng Jian, Rothe Erde, SIEMENS, Zhejiang Sanmen, France Schneider, etc., to ensure fist class quality of products in the aspect of purchasing of raw material and spare parts.

Now the group has achieved complete coverage of four major series, i.e., top kit tower crane, flat-top tower crane, luffing boom tower crane, and construction hoist, with over 30 types and more than 60 models. Till 2019, Dahan had built sales teams of 2000 persons, and nearly 1000 sales outlets in domestic market, and sold nearly 50,000 Dahan tower cranes to 32 provinces, direct-controlled municipalities, and autonomous region, and exported products to over 50 countries and districts.



In 2012, Dahan established the joint venture, Zhongkang International Financial Leasing Co., Ltd in Binhai New Area, Tianjin City, with 50 million dollars registered capital, to effectively provide clients financing solutions, aiming to achieve the transition of sales modes from "Products supply" to "Supply of products and comprehensive financing service".

Along with internationalization and implementation of international branding strategy, Dahan Construction Machinery (Group) has developed to be a professional, mature, healthy and highly reliable manufacturer and service provider of tower cranes and construction hoists, and will stand on the top of world's construction machinery industry with a fire-new image.