

QY70KH汽车起重机 / Truck Crane

技术规格书

Technical specifications



70t



46.5m



62.5m



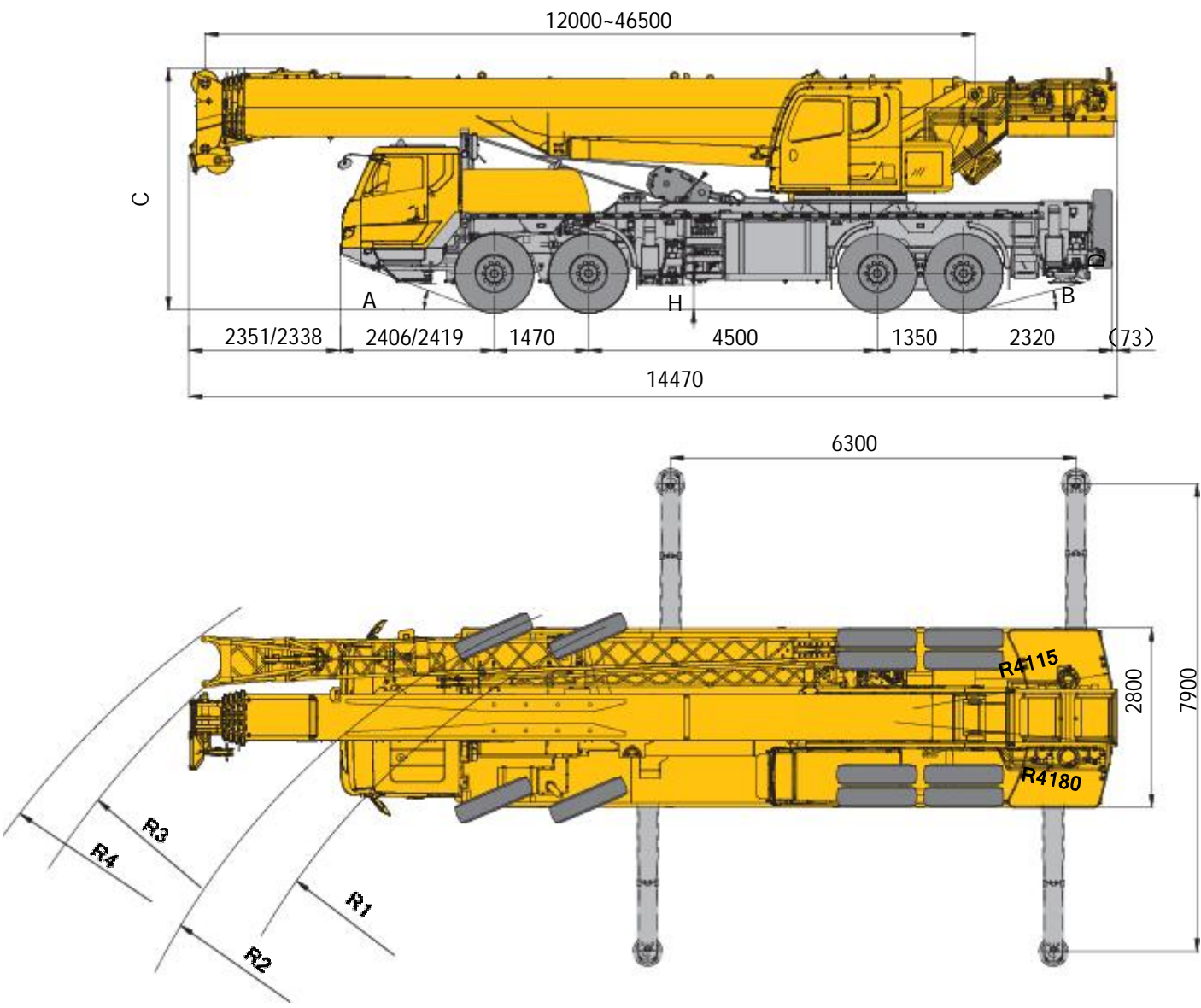
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目录

Content

目录	
Content	
尺寸参数	3
Dimensions	
技术规格	4-7
Technical specifications	
重量/作业速度	8
Weight / Working speeds	
平衡重	9
Counterweight	
臂架组合方案	10
Boom / Jib combinations	
主臂	11-14
Boom	
副臂	15-16
Jib	
符号标识	17
Description of symbols	
主要技术参数表	18-19
Table of main technical parameters	
注意事项	21
Notes	

尺寸参数
Dimensions



	A	B	C	H	R1	R2	R3	R4
315/80 R22.5	20°	15°	3770	390	11000	11750	14400	14900

技术规格


Technical specifications

 底盘	配置
车架	徐工设计、制造，全覆盖式走台板，防扭转箱型结构，高强度钢材制造。●
支腿	4支腿，H形布置，水平伸缩和垂直伸缩由液压控制，底盘两侧装有支腿操纵机构，水平仪、照明灯和调速按钮，支腿油缸均设有单向阀，垂直支腿带有双向液压锁。 支脚盘尺寸：435×435mm 最大起重量时支腿反力：605KN●
发动机	D10.38-50，直列六缸水冷电控柴油发动机，中国重汽制造，额定功率276kW/2000rpm，最大扭矩1560Nm/1200-1500rpm，国五排放标准。燃油箱容积：350L。●
变速箱	陕齿手动变速箱，9个前进档，1个倒档。●
车桥	汉德高强度车桥，1、2桥转向，3、4桥驱动。●
悬挂	前悬挂为钢板弹簧，后悬挂为橡胶悬挂。●
轮胎	12个轮胎，1个备胎，1、2桥均装单胎，3、4桥均装双胎。 轮胎规格：325/95R24●


制动	行车制动：双回路气压制动，作用于所有车轮。 驻车制动：弹簧储能制动，作用于3、4轴车轮。 辅助制动：发动机排气制动和缸内缓速制动。●
转向	1、2桥机械转向+液压助力。●
驾驶室	豪华驾驶室。配备电动升降器的安全玻璃、可调式座椅、电动调节后视镜、可调节高度及角度方向盘、液晶显示器和CD音响、丝网地垫等； 2公斤灭火器。 标配冷暖空调。●
电气系统	直流24伏特，串联12伏特的电池组2个。发电机：28伏特-70安培。●

技术规格

Technical specifications

	上车	配置
结构	徐工设计、制造，高强度钢材制造。	●
液压系统	液压泵：底盘发动机驱动四联泵，变量泵用于起升、变幅、伸缩。 控制阀：先导液压油控制的负荷敏感式比例多路换向阀，带有抗冲击阀、防气蚀阀。 油路：风冷式液压油冷却器，有效降低系统油温	●
操纵方式	无级调速。先导液比例操纵，由左右2个操纵手柄控制。由液压泵和比例阀进行液压先导式控制起重机的全部动作。	●
起升机构	压控制调速，装有双折线绳槽卷筒，由液压马达通过行星齿轮减速器驱动，内置常闭式制动器并带有平衡阀。具有轻载高速、重载低速的特点。	●
回转机构	单排四点接触球外齿式回转支承，由液压马达驱动行星齿轮回转机构减速器驱动，可连续回转360。 设有脚踏板操作的回转制动器。 具有动力控制或自由滑转的功能，可无级调速。	●
变幅机构	单支双作用前置液压变幅油缸，带有平衡阀。	●
操纵室	新型钢制操纵室，装有无视野死角的前景窗，安全玻璃，车窗装有遮阳板，推拉式车门，座椅靠背可倾斜定位，操纵杆安装在座椅两侧的扶手台上。 带推拉踏板，方便人员进出。 前窗顶窗装有雨刮器，标准的操纵控制件和指示器。 配备冷暖空调。	●

安全装置	液压平衡阀；液压溢流阀；液压双向锁；力矩限制器；三圈保护器，防止钢丝绳过放；臂头设置高度限位，防止钢丝绳过卷；三色报警灯	●
	风速仪	○
	卷扬监视装置	○
	水平仪	○
	回转报警灯	○
组合配重	总重12t，有4.2t、10t、12t三种组合方式。	4.2t ● 2t ● 5.8t ●
起重钩	55t钩	●
	35t 钩	○
	5t钩	●

	臂架系统	配置
主臂	5节，“U”形截面的筒形焊接结构。 双缸绳排伸缩机构 主臂长度：12m~46.5m。	●
臂端单滑轮	单滑轮，安装在主臂顶端用于单股钢丝绳起重作业，起重性能与主臂相同，但最大起重量不超过5t	●
固定副臂	2节桁架式焊接结构，具有0°、15°、30°三种固定副臂安装角 固定副臂长度：9.5m/16m	●

产品各部件明细如上所述，具体部件明细请参照产品报价单

符号说明：

- —— 表示标准配置；
- —— 表示选装配置。


技术规格

Technical specifications


	Chassis	
Frame	Designed and manufactured by XCMG, it is made of high strength steel with fully covered walking surface and anti-torsion box-typed structure. ●	
Outriggers	Four outriggers arranged in H-shape are hydraulically controlled by control levers. There is an outrigger control mechanism located at each side of the chassis, and there is a level gauge, an illuminator and speed buttons in each control mechanism. There is a check valve fitted in each outrigger cylinder, and a double-way hydraulic valve fitted in each jack cylinder. ● Outrigger float diameter: 435×435mm Reaction force of outrigger at max. lifting load: 605KN	
Engine	D10.38-50, in-line, 6-cylinder, water cooled, electric control diesel engine, made by SINOTRUK, with rated power of 276kW/2000 rpm and max. torque of 1560Nm/1200-1500 rpm, compliant to China V emission standard. ● Fuel tank capacity: 350L.	
Transmission	Mechanical transmission, made by Shaanxi Fast Gear Co., Ltd., 9-forward speed and 1-reverse speed. ●	
Axles	High strength axles, made by Hande. 1st and 2nd axles are for steering, and 3rd and 4th axles are for driving. ●	
Suspensions	Leaf spring suspension is used as front suspension, and rubber suspension is used as rear suspension. ●	
Tires	12 tires and 1 spare tire, 1st and 2nd axles are equipped with single tire, 3rd and 4th axles are equipped with double-tire. ● Tire specifications: 325/95R24	
Braking		Service brake: double-circuit air pressure brake acting on all wheels.
		Parking brake: spring-loaded brake, acting on wheels of axles 3 and 4; ● Auxiliary brake: engine exhaust brake and engine retarder brake.
Steering		Mechanical steering mechanism with a hydraulic booster for 1st and 2nd axles. ●
Driver's cab		Luxurious driver's cab. Equipped with adjustable seats, safety glass, electrically operated door window lifter, electric-adjustable mirrors, steering wheel adjustable in height and angle, liquid crystal display, CD player and fire retardant and non-slip floor mat, etc. ● A fire extinguisher of 2 kg is available. Heater and air conditioner are standard.
Electric system		24V DC, two sets of 12 V battery in series. ● Generator: 28 V-70 A.

技术规格

Technical specifications

 Superstructure		
Frame	Designed and manufactured by XCMG, made of high strength steel.	●
Hydraulic system	Hydraulic pump: quadruple pump driven by chassis engine. The variable displacement pump is used for lifting, elevating and telescoping operations. Control valve: load sensitive proportional multi-way change valve controlled by pilot hydraulic oil, which is integrated with impact resistance valve and cavitation-proof valve. Oil circuit: there is an air cooled hydraulic oil cooler equipped to effectively reduces the oil temperature.	●
Operating mode	Stepless speed regulation is available. Pilot hydraulic proportional control through left and right levers is used for controlling the superstructure. All crane movements are controlled by hydraulic pump and proportional valve.	●
Winch	Hydraulic control is used for speed regulation. The system is driven by a hydraulic motor through a planetary gear reducer, with a normally closed brake, a balance valve and a grooved drum equipped. It has features of high speed with a light load and low speed with a heavy load.	●
Slewing system	Single-row, four-point ball contact external tooth slewing ring is driven by the planetary gear reducer of slewing mechanism, which is driven by a hydraulic motor, and it may continuously slew 360°. The slewing brake is actuated by a foot pedal. Power control or free slewing function is available, and the slewing speed may be infinitely regulated.	●
Elevating system	A front support double-acting hydraulic cylinder is equipped for elevating operation, with a balance valve fitted.	●
Operator's cab	New fully-enclosed steel cab has better sealing and anti-corrosive properties. It is equipped with a full-view front window. Safety glass and sun shield are used for windows. Wipers are fitted for the windshield and roof window. Standard controls and indicators are ergonomically arranged in the cab. The cab features a new ergonomic seat design with backrest adjustment and armrests with joysticks fitted. A pull-out step is available to make it easy and safe as access and egress the cab. Wipers are fitted for the windshield and roof window; standard controls and indicators are ergonomically arranged in the cab. Heater and air conditioner are equipped.	●

Safety devices	Hydraulic balance valve, hydraulic relief valve, double-way hydraulic valve, LMI, lowering limiter for preventing wire rope from over-releasing, anti-two block at boom head for preventing wire rope from over-winding and tri colored light bar.	●
	Anemometer	○
	Winch monitoring device	○
	Level gauge	○
	Slewing warning lamp	○
Combined counterweight	Total weight is 12 t. There are 3 weight combinations of 4.2 t, 10 t and 12t.	●
	4.2t	●
	2t	●
	5.8t	●
Hook block	55 t hook block	●
	35 t hook block	○
	5 t hook block	●

 Boom and jib system		
Boom	5-section boom with U-shaped cross-section, welded structure. Double-cylinder plus ropes telescoping system. Boom length: 12m~46.5 m.	●
Single top	Fitted at boom head, used for single line operation. Its lifting performance is the same as that for boom, but the maximum lifting load does not exceed 5t.	●
Fixed jib	Two-section lattice jib, welded structure; three offset angles of 0° , 15° and 30° . Fixed jib length: 9.5m/16m.	●

Product parts list is as mentioned above. Please refer to the product quotation for specific parts.

Symbol explanation:

● —it means the standard configuration;

○ —it means the optional configuration.

重量 Weight






车桥 Axle	1	2	3	4	总重量 Total weight
t	9.05	9.05	12.9	12.9	43.9





吊钩 Hook	倍率 Parts of lines	吊钩重量 Weight (kg)	吊钩尺寸 Dimensions (mm)	备注 Remarks
55t	12	550	504×562×1480	单钩 Single hook , 标配 Standard
35t	8	360	430×504×1362	单钩 Single hook , 选配 Optional
5t	1	100	300×300×535	单钩 Single hook , 标配 Standard

作业速度 Working speeds



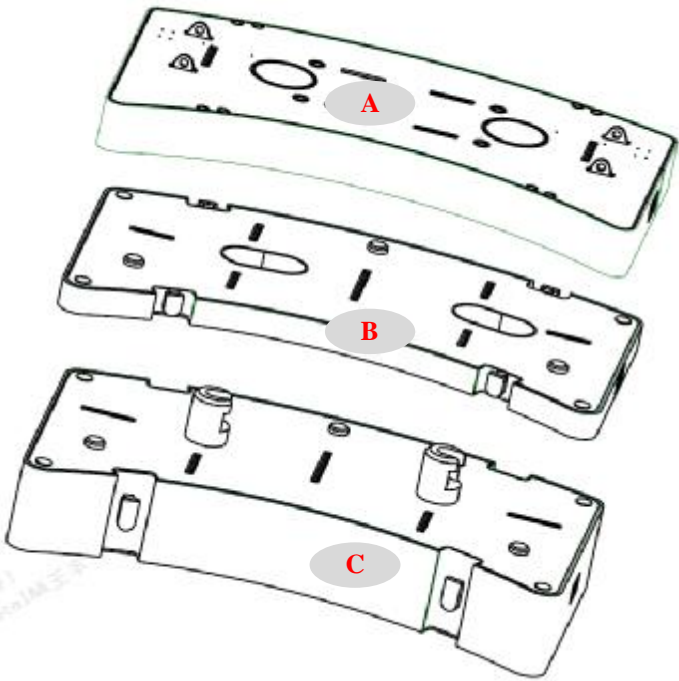
		
12.00R24	2.5 ~ 90	45%



作业机构 Drive	作业速度 Working speed	最大单绳拉力 Max. single line pull	钢丝绳直径/长度 Rope diameter/ length
	0-130 m/min , 单绳 , 第四层 m/min, single line, 4th layer	51kN	18mm/208 m
	0-130 m/min , 单绳 , 第四层 m/min, single line, 4th layer	51 kN	18mm/140m
	0-1.6 r/min		
	从-1°抬起至80°约45s Approx. 45s for boom elevation from -1° to 80°		
	从12m伸出至46.5m约107s Approx. 107s for boom extension from 12m to 46.5m		

平衡重

Counterweight

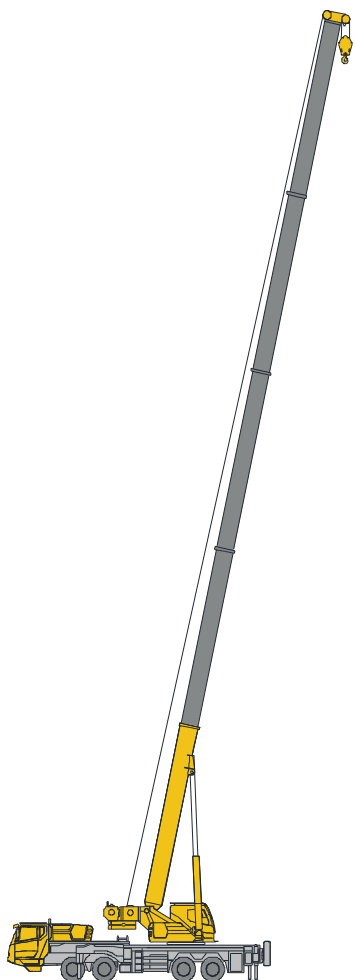


平衡重 Counterweight	A	B	C
尺寸（长×宽×高） m Dimensions (L×W×H) m	2790×1723×256	2790×1723×142	2790×1723×448
重量 t Weight t	4.2	2	5.8

工况模式 Working mode	12t	10t	4.2t
组合形式 Combinations	A+B+C	A+C	A

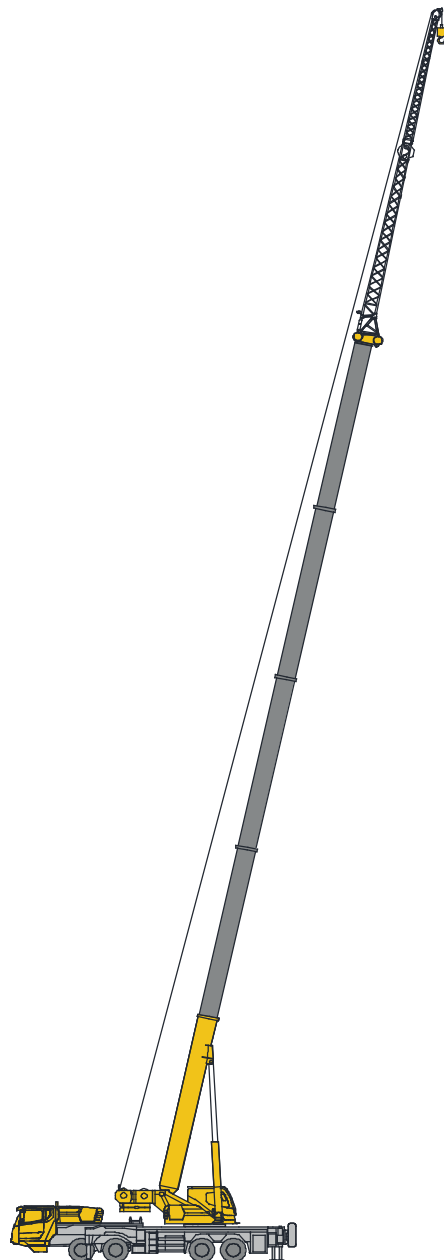
臂架组合方案

Boom / Jib combinations



主臂
Telescopic boom

T : 12~46.5m

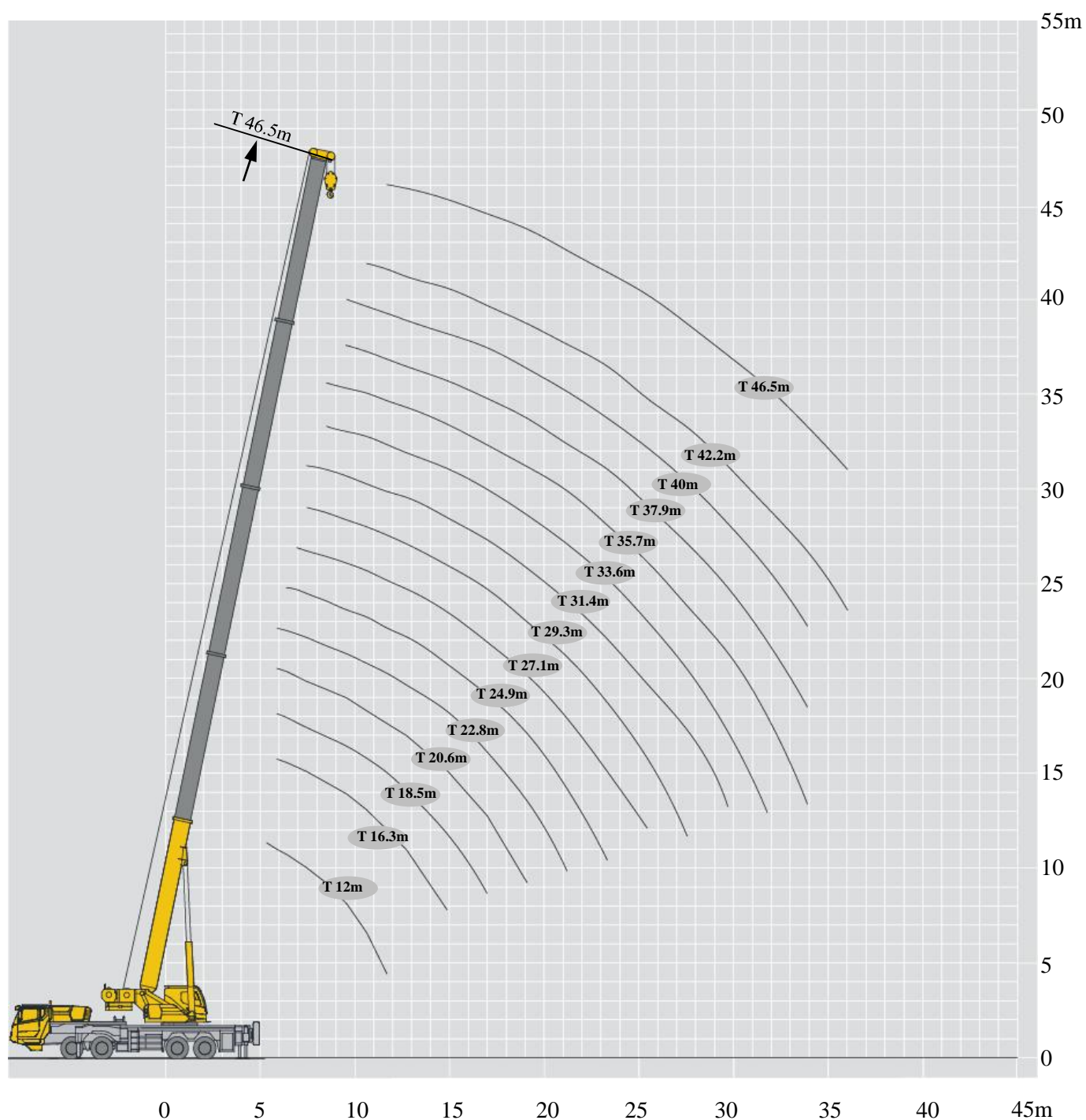


副臂
Jib

T : 46.5m
J : 9.5/16 m

起升高度曲线图 Lifting heights

主臂
Boom



T 12~46.5m

XCMG—QY70KH


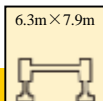

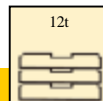

T 12~46.5m

XCMG—QY70KH

起重性能表

Lifting capacities

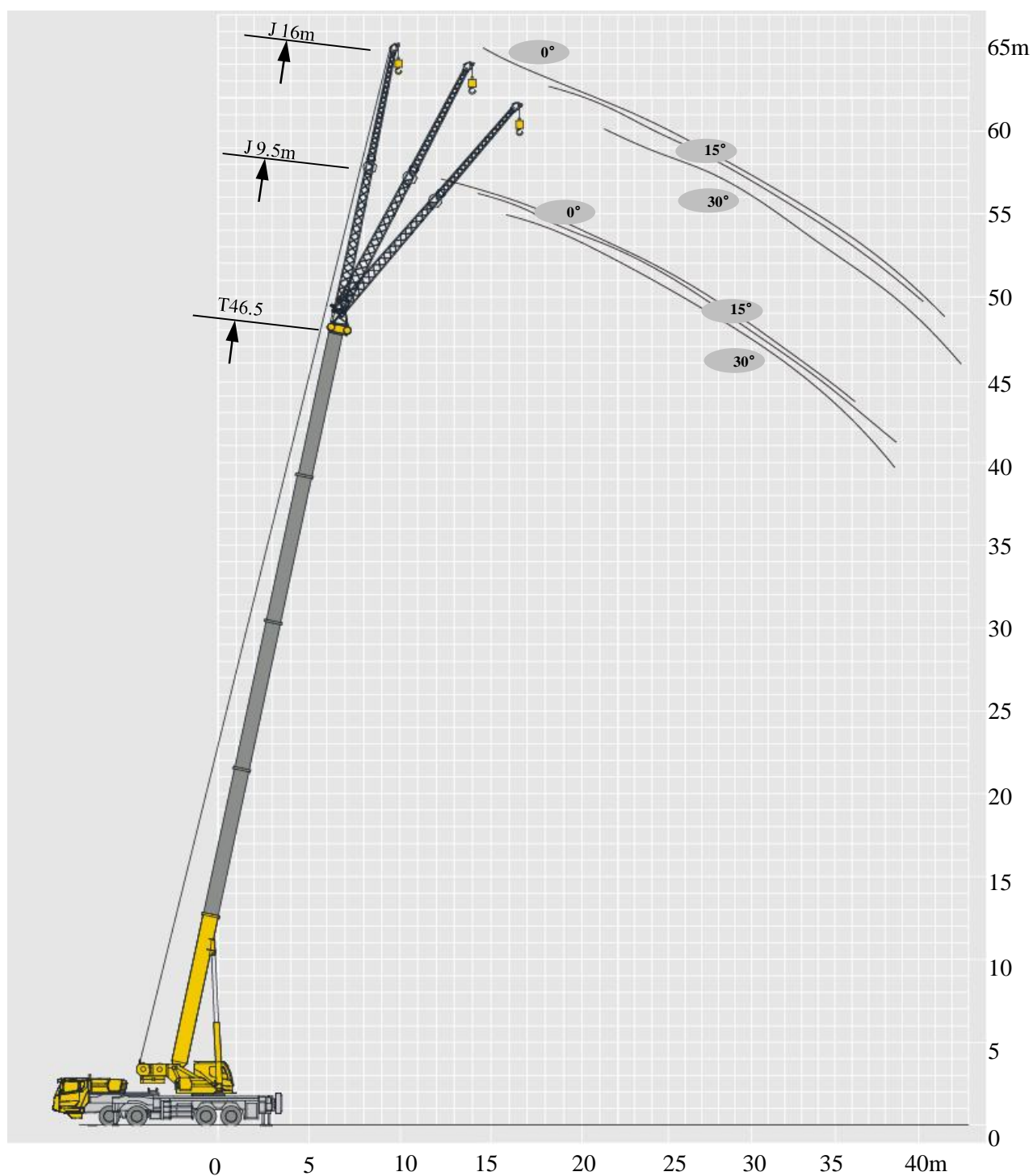
T 12~46.5m

																
	12m	16.3m	20.6m	27.1m	33.6m	40m	46.5m	18.5m	24.9m	31.4m	37.9m	22.8m	29.3m	35.7m	42.2m	
3	70*															3
3.5	52	44														3.5
4	48	43						30.2								4
4.5	45	41	34.6					30.2	27			29.5				4.5
5	43	39	32.5	29.5				30.2	27			29.5	24.6			5
6	37	33.5	29.3	27.3	24.5			30.2	25.3	18.2		29.5	24.6			6
7	31.5	31	26.9	24.6	22.9			30.2	23.7	18.2	12.5	27	24.6	18.3		7
8	26.8	26.2	25	22.6	21.2	16.3		28	22	17.1	12.5	25.1	22.8	17.3	12	8
9	22	22.2	22.5	21	19.6	15.5	11.1	24.4	20.4	15.4	12.5	23.6	21.2	16.2	11.6	9
10		19.2	19.2	19.7	18.2	14.8	11	21.5	18.7	14.3	11.9	21	19.3	15.2	11.3	10
12		14.9	14.6	15.8	16.1	13.4	10.3	16.8	17.5	12.2	10.5	16.2	16	12.9	10.4	12
14			10.8	11.9	12.6	12.2	9.6	12.9	13.5	10.6	9	12.3	13	11.2	9.5	14
16			8.1	9.2	9.9	10.3	8.7		10.8	9.5	7.9	9.6	10.3	10.7	8.4	16
18				7.3	7.9	8.4	7.9		8.8	9.2	7.5	7.7	8.3	8.7	7.8	18
20				5.8	6.4	6.9	7.1		7.3	7.7	6.8	6.2	6.8	7.2	7.3	20
22				4.7	5.3	5.7	6			6.5	6.5		5.7	6	6.3	22
24					4.3	4.7	5			5.5	5.7		4.7	5.1	5.3	24
26					3.5	3.9	4.2			4.7	4.9		3.9	4.3	4.5	26
28					2.9	3.3	3.6				4.3			3.6	3.9	28
30						2.7	3				3.7			3.1	3.3	30
32						2.2	2.5				3.2			2.6	2.8	32
34						1.8	2.1								2.4	34
36							1.7								2	36
38							1.4									38
40							1.1									40

说明：*为名义载荷
Note: * means capacity class

起升高度曲线图 Lifting heights


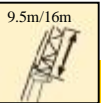
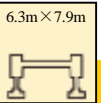
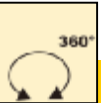
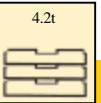
副臂
Jib


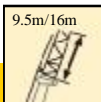
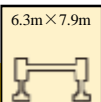
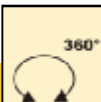
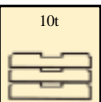



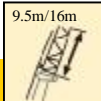
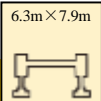

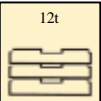
起重性能表

Lifting capacities

T 46.5m

<div>      </div>							
9.5m				16m			
	0°	15°	30°	0°	15°	30°	
80	5000	3500	3000	3000	2500	1800	80
78	5000	3500	3000	3000	2400	1700	78
75	4800	3400	2800	2900	2200	1500	75
72	4500	3200	2600	2800	2000	1400	72
70	3800	3000	2500	2600	1800	1300	70
65	2400	2200	2100	1900	1600	1250	65
60	1500	1400	1300	1100	1000	900	60

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9.5m				16m			
	0°	15°	30°	0°	15°	30°	
80	5000	3500	3000	3000	2500	1800	80
78	5000	3500	3000	3000	2400	1700	78
75	4800	3400	2800	2900	2200	1500	75
72	4500	3200	2600	2800	2000	1400	72
70	4200	3000	2500	2600	1800	1300	70
65	3500	2800	2300	2500	1600	1250	65
60	2400	2300	2100	1900	1500	1200	60
55	1700	1600	1500	1300	1200	1100	55
50	1200	1100	1100	800	800	700	50





<div>      </div>							
9.5m				16m			
	0°	15°	30°	0°	15°	30°	
80	5000	3500	3000	3000	2500	1800	80
78	5000	3500	3000	3000	2400	1700	78
75	4800	3400	2800	2900	2200	1500	75
72	4500	3200	2600	2800	2000	1400	72
70	4200	3000	2500	2600	1800	1300	70
65	3600	2800	2300	2500	1600	1250	65
60	2900	2500	2100	2200	1500	1200	60
55	2100	2000	1900	1600	1400	1100	55
50	1500	1400	1400	1100	1000	1000	50

符号标识

Description of symbols

常规标识

General symbols

	上车 Superstructure		底盘 Chassis
	起重能力 Lifting capacity		车桥 Axle
	吊臂长度 Boom length		行驶速度 Driving speed
	工作幅度 Radius		爬坡能力 Grade ability
	吊臂仰角 Boom angle		轮胎 Tires
	主臂起升高度 Hoist height with boom		支腿 Outriggers
	固定副臂长度 Fixed jib length		吊钩 Hook block
	副臂安装角 Jib offset angle		平衡重 Counterweight
	副臂起升高度 Hoist height with jib		卷扬 Winch
	不使用第五支腿侧后方作业 Boom over side or over rear of the crane without 5th jack		360°全回转 360° rotation
	带载行驶 Travel with load		使用第五支腿360°全回转 360° operation of the boom with 5th jack down

主要技术参数表

Table of main technical parameters

类别 Category	项目 Item		单位 Unit	参数 Parameter
尺寸参数 Dimensions	外形尺寸（长×宽×高） Dimensions (length×width×height)		mm	14470×2800×3770
	轴距 Wheel base		mm	1470+4500+1350
	轮距（前/后） Track（Front/Rear）		mm	2314/2314/2063/2063
	前悬/后悬 Front/ Rear overhang		mm	2406/2320(徐工汽车)、2419/2320(齐星)
	前伸/后伸 Front/ Rear extension		mm	2351/73，2338/73
重量参数 Weight	最大允许总质量 Total vehicle mass in travel configuration		kg	43900
	轴荷 Axle load	一轴 1st axle	kg	9050
		二轴 2nd axle	kg	9050
		三轴 3rd axle	kg	12900
		四轴 4th axle	kg	12900
动力参数 Power	发动机型号 Engine model		——	D10.38-50
	额定功率/转速 Engine rated power/rpm		kW/(r/min)	276/2000
	最大净功率/转速 Max. net power/rpm		kW/(r/min)	274/2000
	最大输出扭矩/转速 Max. output torque/rpm		N.m/(r/min)	1560/1200-1500
行驶参数 Travel	最高车速 Max. travel speed		km/h	≥90
	最低稳定车速 Min. stable travel speed		km/h	2.5～3
	最小转弯直径 Min. turning diameter		m	≤24
	臂头最小转弯直径 Min. turning diameter at boom tip		m	≤29
	最小离地间隙 Min. ground clearance		mm	314
	接近角 Approach angle		°	20
	离去角 Departure angle		°	15
	制动距离（制动初速度为30km/h） Braking distance (at 30 km/h)		m	≤10
	最大爬坡能力 Max. grade ability		%	≥45
	百公里油耗 Fuel consumption per 100 km		L	40
	噪音 Noise	加速行驶机外噪声 Exterior noise level		dB(A)
驾驶员耳旁噪声 Noise level at seated position		dB(A)	≤90	

主要技术参数表

Table of main technical parameters

类别 Category	项目 Item		单位 Unit	参数 Parameter	
主要性能参数 Main performance	最大额定总起重量 Max. total rated lifting capacity		t	70*	
	最小额定工作幅度 Min. rated working radius		m	3	
	转台尾部回转半径 Turning radius at turntable tail	平衡重处 Counterweight	mm	4115	
		副卷处 Auxiliary winch	mm	4180	
	最大起重力矩 Max. load moment	基本臂 Base boom	kN.m	2176	
		最长主臂 Fully-extended boom	kN.m	1394	
		最长主臂+副臂 Fully-extended boom + Jib	kN.m	875	
	支腿跨距 Outrigger span	纵向 Longitudinal	m	6.3	
		横向 Lateral	m	7.9	
	起升高度 Hoist height	基本臂 Base boom	m	12.7	
		最长主臂 Fully-extended boom	m	47	
		最长主臂+副臂 Fully-extended boom + Jib	m	62.5	
	起重臂长度 Boom length	基本臂 Base boom	m	12	
		最长主臂 Fully-extended boom	m	46.5	
		最长主臂+副臂 Fully-extended boom + Jib	m	62.5	
	副臂安装角 Jib offset angle		°	0, 15, 30	
工作速度参数 Working speed	起重臂起臂时间 Boom raising time		s	≤45	
	起重臂全伸时间 Boom fully extended time		s	≤107	
	最大回转速度 Max. slewing speed		r/min	≥1.6	
	支腿收放时间 Outrigger extending and retracting time	水平支腿 Outrigger beam	收 Retracting	s	≤30
			放 Extending	s	≤30
		垂直支腿 Outrigger jack	收 Retracting	s	≤30
			放 Extending	s	≤40
	起升速度（单绳,第四层，空载） Hoisting speed (single line, 4th layer, no load)	主起升机构 Main winch		m/min	≥130
副起升机构 Auxiliary winch		m/min	≥130		
噪声 Noise	机外辐射 Exterior noise level		dB (A)	≤109	
	司机位置处 Noise level at seated position		dB (A)	≤85	

注意事项

Notes

1. 表中额定总起重量值，是在平整的坚固地面上本起重机能够保证的最大总起重量，包括吊钩和吊具的重量，所以为了估算重物重量，必须减去上述的装置重量。
2. 表中的工作幅度为起吊重物离地时起重物到起重机回转轴线的水平距离，是包括起重臂变形量在内的实际值，因而起吊前应考虑起重臂变形量。
3. 只允许在5级(瞬时风速14.1m/s，风压125N/m²)风以下进行作业。
4. 吊重前操作者必须对物体的重量和工作范围了解后选择合适的作业工况，严禁超出表中的数值。幅度及臂长在相邻两个数值之间时，应依据两个数值中较小值确定起重作业。
5. 应按主臂仰角范围作业，即使是空载，也不应使主臂仰角处于范围外，谨防整机倾翻。
6. 表中的主臂长度应要按照每节臂的伸缩要求进行伸出。

1. The total rated loads given in the rated load charts are the maximum lifting capacity when the crane is set up on firm and level ground, which includes the weight of the hook block and slings. The weight of above-mentioned devices should be deducted from the rated lifting load.
2. The working radius shown in the rated load charts is the radius when the load is lifted off the ground, and it is the actual value including loaded boom deflection. Take boom deflection into consideration before beginning a lifting operation.
3. A lifting operation is permissible only when the wind force is below grade 5 (instantaneous wind speed is 14.1 m/s, wind pressure is 125 N/m²).
4. Before beginning lifting operation, the operator should know the weight of the load to be lifted and its working range, and then select proper working conditions. Never operate the crane beyond the limit shown in the chart. Use the lower value from the chart when the boom length or working radius is between the range of values.
5. Observe the boom angle limit. Never operate the crane with the boom angle beyond the recommended limit even if a load is not being carried. Otherwise, the crane will tip.
6. The boom should be extended according to the telescoping code shown by percentage (or digits, which means the percentage of boom sections extended).



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