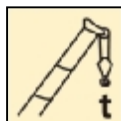


XCT16_1汽车起重机 / Truck Crane

技术规格书

Technical specifications



16 t



33 m



41.2m

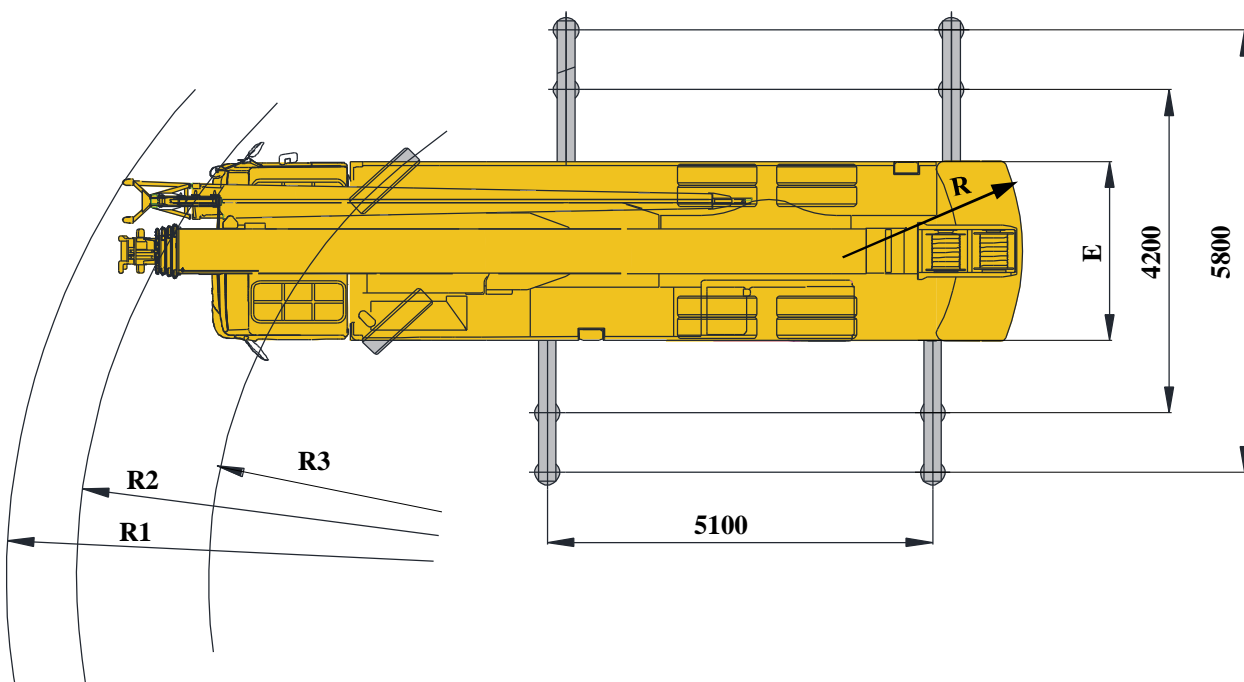
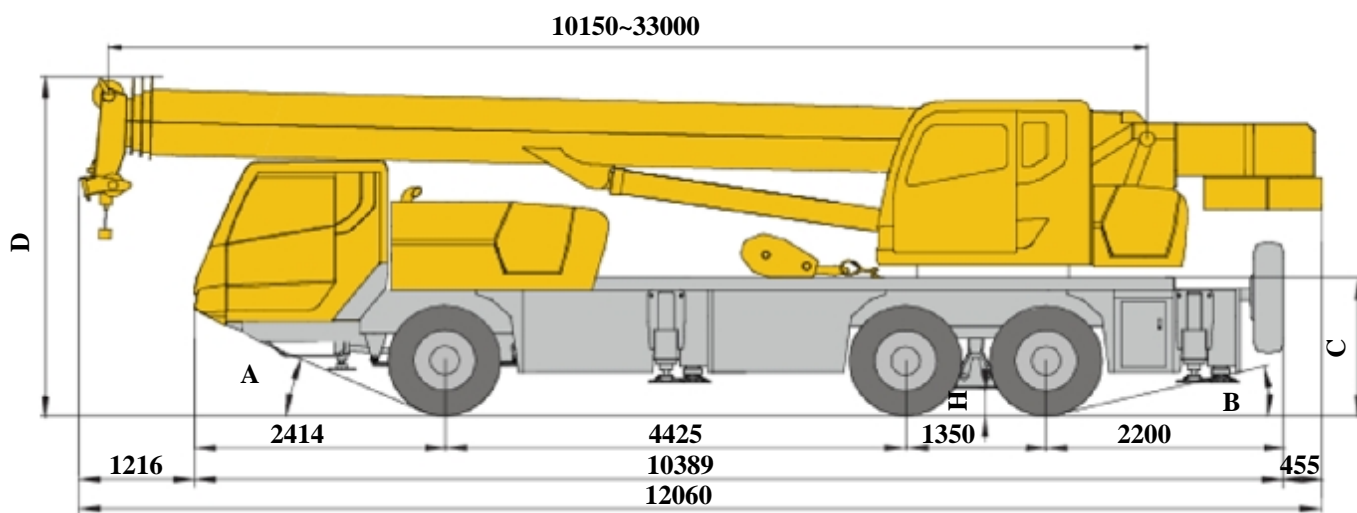



2020年11月
第1版

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尺寸参数 Dimensions



	A	B	C	D	E	R	R1	R2	R3	H
11.00-20	25°	14°	1352	3360	2500	3180	12250	11800	10000	261


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，操作杆控制液压动作。可由底盘任一侧同时或单独控制各支腿的动作，设有水平仪。支腿油缸均设有单向阀，且垂直支腿带有双向液压锁。配第五支腿。 ● 纵向×横向(全伸).....5.1m×5.8m 支脚盘尺寸.....φ340mm 第五支腿支脚盘尺寸.....φ260mm 最大起重量时支腿反力：243KN
发动机	SC7H245Q5，直列六缸增压、中冷柴油发动机，上柴制造，额定功率180kW/2300rpm，最大扭矩960Nm/1200~1600rpm，国V排放标准。燃油箱容积：260L。 ● SC7H250Q6，直列六缸增压、中冷柴油发动机，上柴制造，额定功率184kW/2300rpm，最大扭矩1000Nm/1200~1700rpm，国VI排放标准。燃油箱容积：260L。 ○
变速箱	陕齿机械全同步器变速箱，8个前进挡，一个倒档。 ●
车桥	3桥底盘，高强度承载桥，引进国外先进技术设计，名牌厂家制造，性能可靠。 ● 第一桥：单胎，转向不驱动； 第二桥：双胎，驱动不转向； 第三桥：双胎，驱动不转向。
悬挂	前悬架采用钢板弹簧，后悬架采用橡胶悬架，V型推力杆，自重轻，定位效果好，免维护，维修方便。 ●
轮胎	11.00-20，适用于重型载重车辆，通用性强 ● 11.00R20 ○
制动	双回路、气压制动、鼓式制动器。 ● 行车制动：双回路气压制动，作用于所有车轮。 驻车制动：放气制动，作用于2-3轴车轮。 辅助制动：发动机排气制动，安全可靠，延长制动摩擦片使用寿命。
转向	机械式转向机构，带有液压助力。 ●
驾驶室	新型全头钢结构驾驶室，采用四点式连接结构，两侧外开式车门。主驾可手动调节高度；副驾采用双座椅，可展开为简易卧铺，便于驾驶员临时休息。安全玻璃配备电动升降器，隔热效果良好；后视镜可电动调节，安全方便；方向盘可调节高度及角度，适合各个高度的操作人群。总线控制显示器，信息集中显示。新型中控台布局安全合理，体现人性化的设计。标配CD音响、冷暖空调。 ●
电气系统	直流24伏特，串联12伏特的蓄电池2个，发电机输出电压28.5±0.3V，输出电流70A ●

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	专用节流装置匹配阀后补偿负载敏感设计，系统最低流量更稳定，系统刚度更合理，作业微动性、平顺性更突出；采用分合流技术，起升、变幅、伸缩双泵合流，主、副卷作业速度高达130m/min，作业效率全面领先，复合动作时双泵独立供油各执行元件流量分配更优化，作业效率突出；	●
操纵方式	机械操纵	●
主起升机构	由液压马达驱动，内置式行星齿轮减速机 and 常闭式制动器，双折线卷筒，抗旋转钢丝绳。	●
回转机构	单排球外齿式回转支承，右侧布置单回转机构，由液压马达驱动行星齿轮减速机驱动，可连续回转360°。具有动力控制或自由滑转的功能，可无级调速。	●
变幅机构	单变幅油缸，带有自补偿功能的平衡阀	●
操纵室	按人机工程学设计，外开式车门，可调式座椅。 装有安全玻璃和顶部保护栏。前窗装有遮阳板。标配风扇。 单冷空调 单暖空调 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 操纵杆弹簧式回中系统 三圈保护器 臂头设置高度限位 自由滑转 回转锁止 三色警示灯	● ● ● ● ● ● ● ● ● ● ●
配重	固定式平衡重2 t。	●

	臂架系统	配置
主臂	伸缩臂采用抗扭曲设计，采用高强度结构钢制造，四节十二边形截面主臂，采用单缸绳排伸缩方式。 主臂长度：10.15m ~ 33m	●
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2t。	●
固定副臂	由连接架、旋转架和桁架结构折叠式副臂组成，具有0°、15°、30°三种安装角，收存在主臂旁。 固定副臂长度：8.15m。	●

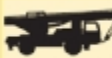
产品各部件明细如上所述，具体部件明细请参照产品报价单

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 station located at each side of the chassis, and there is a level gauge on each control station. The outrigger movements can be simultaneously or separately controlled at any side of the chassis. There is a check valve fitted in each outrigger cylinder, and a double-way hydraulic valve fitted in each jack cylinder. Fifth jack is equipped. ● Longitudinal × lateral (fully-extended): 5.1m×5.8m Float dimension: φ340mm Float dimension for the 5th jack: φ260mm Reaction force of outrigger at max. lifting load: 243KN
Engine	SC7H245Q5, in-line 6-cylinder, supercharged, intercooled diesel engine, made by Shanghai Diesel Engine, with rated power of 180kW/2300 rpm, max. torque of 960Nm/1200~1600rpm, compliant with China V emission standard. Fuel tank capacity: 260L. ● SC7H250Q6, in-line 6-cylinder, supercharged, intercooled diesel engine, made by Shanghai Diesel Engine, with rated power of 184kW/2300rpm, max. torque of 1000Nm/1200~1700rpm, compliant with China VI emission standard. Fuel tank capacity: 260L. ○
Transmission	Mechanical transmission, made by Shaanxi Fast Gear Co., Ltd., 8-forward speed and 1-reverse speed. ●
Axles	3-axle chassis, the axles are made by a famous manufacturer with advanced foreign technology applied. ● 1st axle: single tire, for steering; 2nd axle: double-tire, for driving; 3rd axle: double-tire, for driving;
Suspensions	Springs are adopted for front suspensions,; rubber spring suspensions with V-type push rods are adopted for rear axles, light dead weight and free of maintenance. ●
Tires	11.00-20, suitable for heavy duty vehicles, strong commonality. ● 11.00R20 ○
Braking	Double-circuit, air pressure brake, drum brake. ● Service brake: double-circuit air pressure brake acting on all wheels. Parking brake: air-release brake, acting on wheels of axles 2-3. ● Auxiliary brake: engine exhaust brake, which is safe and reliable, and will prolong the service life of brake lining.
Steering	Mechanically steering mechanism with a hydraulic booster. ●
Driver's cab	New type, steel, full dimension cab with 4-point connecting structure, has swing-out doors at both sides. Manually adjustable driver's seat in height is available. A simple sleeper for the co-driver's seat is installed to supply comfort and reduce fatigue. The cab has better thermal insulation effect. Safety glass, electrically operated door window lifters, electrically adjusted mirrors make operation convenient and safe. Steering wheel is adjustable in height and angle. CANbus control display, centralized indication of information New central control panel is reasonably arranged, presenting human-oriented design concept. CD player, heater and air conditioner are standard. ●
Electrical system	24V DC, two sets of 12V battery in series. ● Generator output voltage is 28.5 ± 0.3 V, and output current is 70 A.

技术规格

Technical specifications

	Superstructure	
Frame	Designed and manufactured by XCMG, made of high strength steel.	●
Hydraulic system	Dedicated throttle control with LUDV load-sensing design is available. The min. flow of the system is more stable, and the stiffness of the system is more reasonable. Fine control and smoothness of the operation is outstanding. Confluence technology for lifting, elevating and telescoping double-pump confluence; working speed of main and auxiliary winches is up to 130m/min; working efficiency is ahead of all same-tonnage truck cranes. Double-pump independent oil supply for simultaneous movements contributes to optimized flow distribution of actuators and improved working efficiency.	●
Operating mode	Mechanical control	●
Main winch	Driven by a hydraulic motor, with built-in planetary gear reducer and constant closed brake fitted. Drum with Lebus-type grooving and rotation-resistant wire rope.	●
Slewing system	Single-row, contact-ball, external tooth slewing ring, with a single slewing gear located at right side, is driven by the planetary gear reducer of slewing mechanism, which is driven by a hydraulic motor, and may continuously slew 360°. Power control or free slewing function is available, and the slewing speed may be infinitely regulated.	●
Elevating system	Single cylinder with self-compensation balanced valve.	●
Operator's cab	Operator's cab is designed according to ergonomics with outward-open door and adjustable seat. It is equipped with safe glass and roof protective grille. Windshield is equipped with sun visor. Fan is standard.	●
	Air conditioner	○
	Heater	○
	Heater and air conditioner	○
Safety devices	Hydraulic balance valve	●
	Hydraulic relief valve	●
	Double-way hydraulic valve	●
	Load moment limiter	●
	Spring centering system for control levers	●
	Lowering limiter	●
	Anti-two block at boom head	●
	Free swing	●
	Turntable locking	●
	Tri colored light bar	●
Counterweight	The weight of fixed counterweight is 2 t.	●

	Boom and jib system	
Boom	Four-section boom with dodecagonal profile is made of high strength steel, with special anti-deformation design. Single cylinder plus ropes is used to telescope the boom. Boom length: 10.15m~33m	●
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 2t.	●
Fixed jib	The jib consists of a connecting bracket, a rotating bracket and a foldable lattice jib. Three offset angles of 0°, 15° and 30° are available. It is stowed along the side of the boom. Fixed jib length: 8.15m.	●

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

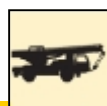


车桥 Axle	1	2	3	总重量 Total weight
t	6.5	8.4	8.4	23.3



吊钩 Hook	倍率 Parts of lines	吊钩重量 Weight (kg)	吊钩尺寸 Dimensions (mm)	备注 Remarks
16t	6	200	1249×430×268	单钩 Single hook , 标配 Standard
2t	1	60	518×236×236	单钩 Single hook , 标配 Standard

作业速度 Working speeds



11.00-20	2 ~ 85	48%
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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	29 kN	14 mm/135 m
	0-130 m/min, 单绳, 第四层 m/min, single line, 4th layer	29 kN	14 mm/90 m
	0-3 r/min		
	从0°抬起至80°约35s Approx. 35s for boom elevation from 0° to 80°		
	从10m伸出至32m约50s Approx. 50s for boom extension from 10m to 32m		

臂架组合方案

Boom / Jib combinations



主臂
Telescopic boom

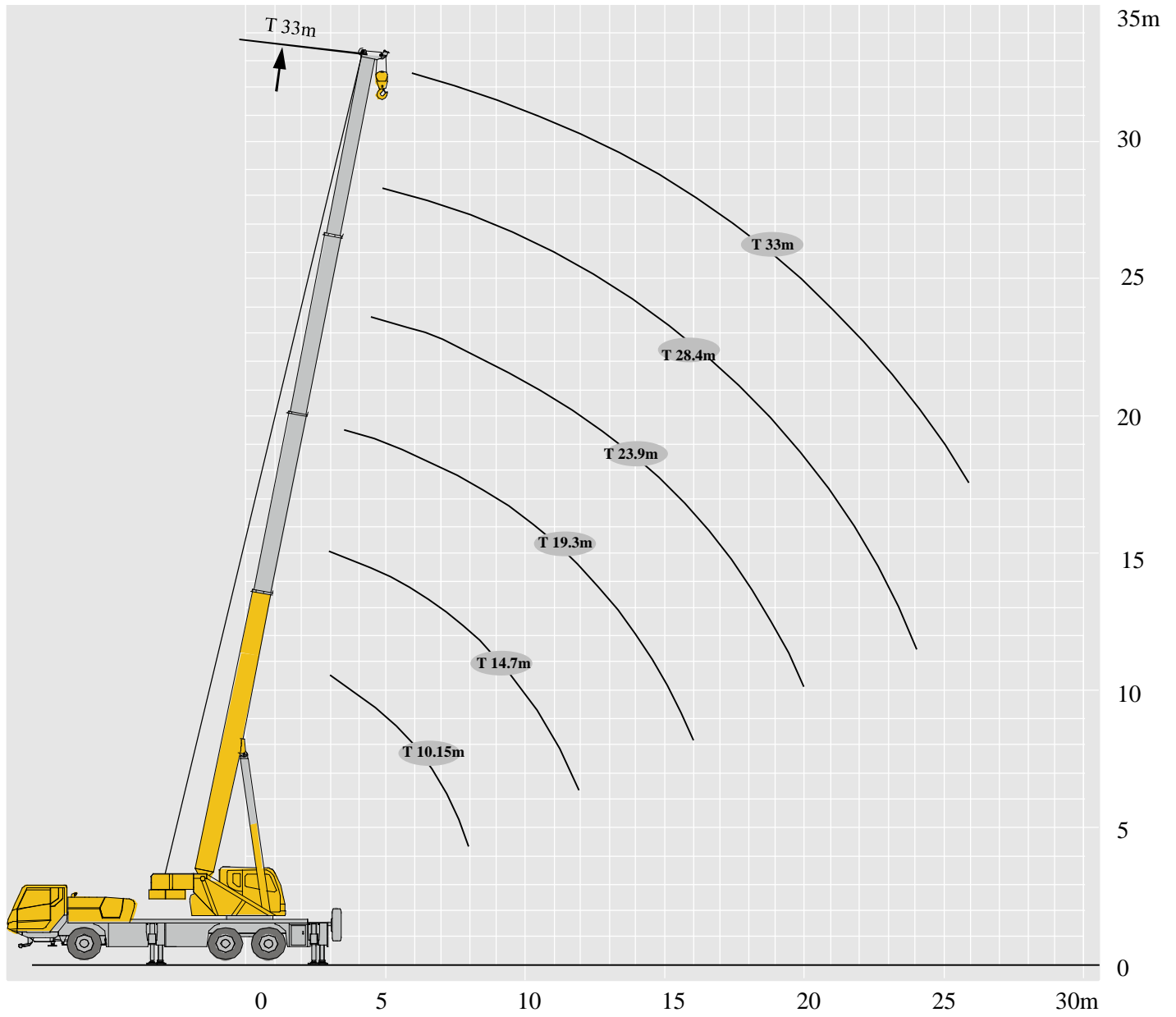
T : 10.15~33m

副臂
Jib

T : 33m
J : 8.15 m

起升高度曲线图
Lifting heights






主臂
Boom



起重性能表

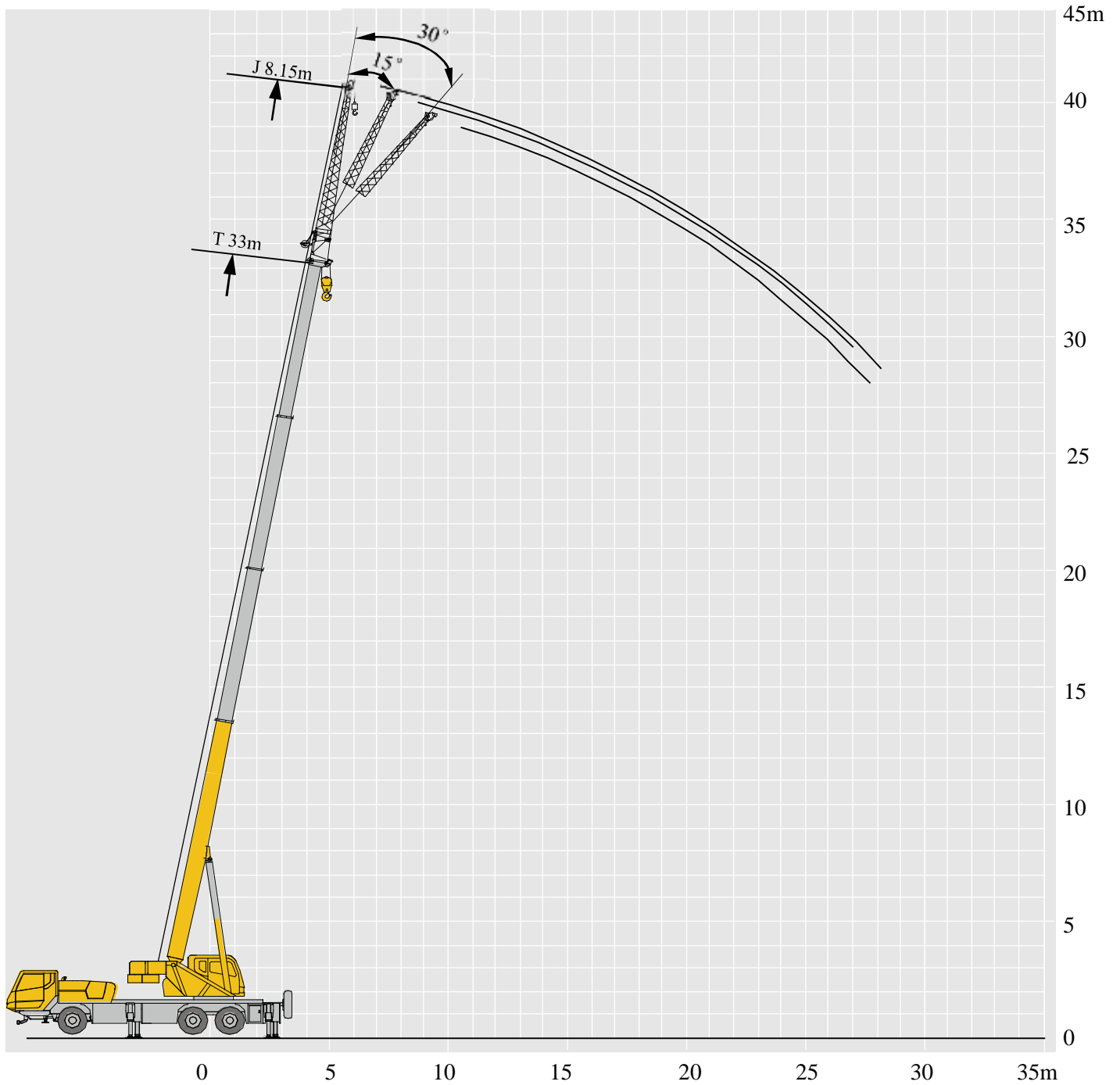
Lifting capacities

T 10.2~33m

 m	  						 m
	10.2 m	14.7 m	19.3 m	23.9 m	28.4 m	33 m	
3	16.0	14.8					3
3.5	16.0	14.8	13.5				3.5
4	16.0	14.8	13.5				4
4.5	15.8	14.6	13.5	11.0			4.5
5	14.7	14.0	13.5	10.9	7.8		5
5.5	13.2	12.8	13.1	10.3	7.7		5.5
6	11.5	11.8	12.5	9.8	7.5	5.6	6
6.5	11.0	11.3	11.2	9.4	7.3	5.6	6.5
7	9.5	10.1	10.2	9.0	7.0	5.6	7
8	7.7	8.0	8.3	8.1	6.9	5.3	8
9		6.7	6.8	7.0	6.2	4.8	9
10		5.6	5.7	5.9	5.7	4.4	10
12		3.9	4.1	4.2	4.7	4.0	12
14			3.0	3.2	3.2	3.1	14
16			2.3	2.4	2.5	2.5	16
18				1.9	2.0	2.0	18
20				1.4	1.5	1.6	20
22				1.1	1.2	1.2	22
24					0.9	0.9	24
26					0.7	0.7	26
28						0.5	28
组合 Code	0%	20%	40%	60%	80%	100%	组合 Code

起升高度曲线图
Lifting heights



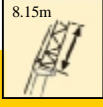



副臂
Jib



起重性能表

Lifting capacities

T 33m

	   				
	0°	15°	30°		
79	2	1.85	1.5	79	
78	2	1.85	1.45	78	
76	2	1.8	1.4	76	
74	2	1.75	1.35	74	
72	2	1.6	1.3	72	
70	2	1.5	1.25	70	
68	1.85	1.45	1.2	68	
66	1.8	1.4	1.15	66	
64	1.7	1.35	1.1	64	
62	1.55	1.3	1.05	62	
60	1.3	1.15	1	60	
58	1.1	1	0.9	58	
56	0.9	0.8	0.7	56	
54	0.7	0.65	0.5	54	
52	0.55	0.45	0.4	52	
50	0.45	0.35	0.3	50	
45	0.3			45	

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
	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	12060×2500×3360	
	轴距 Wheel base	mm	4425+1350	
	轮距 (前/后) Track (Front/Rear)	mm	2027(汉德HANDE) /1834 2055(美驰Meritor) /1834	
	前悬/后悬 Front/Rear overhang	mm	2414/2200	
	前伸/后伸 Front/Rear extension	mm	1216/455	
重量参数 Weight	最大允许总质量 Max. permissible weight	kg	23300	
	轴荷 Axle load	一轴 1st axle	kg	6500
		二轴 2nd axle	kg	8400
		三轴 3rd axle	kg	8400
动力参数 Power	发动机型号 Engine model	—	SC7H245Q5	SC7H250Q6
	额定功率/转速 Engine rated power/rpm	kW/(r/min)	180/2300	184/2300
	最大净功率/转速 Max. net power/rpm	kW/(r/min)	176/2300	182/2300
	最大输出扭矩/转速 Max. output torque/rpm	N.m/(r/min)	960/1200 ~ 1600	1000/1200~1700
行驶参数 Travel	最高车速 Max. travel speed	km/h	≥85	
	最低稳定车速 Min. travel speed	km/h	2 ~ 3	
	最小转弯直径 Min. turning diameter	m	≤20	
	臂头最小转弯直径 Min. turning diameter at boom tip	m	≤24.5	
	最小离地间隙 Min. ground clearance	mm	260	
	接近角 Approach angle	°	25	
	离去角 Departure angle	°	14	
	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	%	≥48	
	百公里油耗 Fuel consumption per 100 km	L	28	
	噪音 Noise	加速行驶机外噪声 Exterior noise level	dB(A)	≤84
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	16	
	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	3180	
		副卷处 Auxiliary winch	mm	—	
	最大起重力矩 Max. load moment	基本臂 Base boom	kN.m	735	
		最长主臂 Fully-extended boom	kN.m	480	
		最长主臂+副臂 Fully-extended boom + Jib	kN.m	306	
	支腿跨距 Outrigger span	纵向 Longitudinal	m	5.1	
		横向 Lateral	m	5.8	
	起升高度 Hoist height	基本臂 Base boom	m	10.5	
		最长主臂 Fully-extended boom	m	33.4	
		最长主臂+副臂 Fully-extended boom + Jib	m	41.2	
	起重臂长度 Boom length	基本臂 Base boom	m	10.15	
最长主臂 Fully-extended boom		m	33		
最长主臂+副臂 Fully-extended boom + Jib		m	41.15		
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	≤35	
	起重臂全伸时间 Boom fully extended time		s	≤50	
	最大回转速度 Max. slewing speed		r/min	≥3	
	支腿收放时间 Outrigger extending and retracting time	水平支腿 Outrigger beam	收 Retracting	s	≤20
			放 Extending	s	≤25
		垂直支腿 Outrigger jack	收 Retracting	s	≤20
			放 Extending	s	≤25
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)	≤120	
	司机位置处 Noise level at seated position		dB (A)	≤90	

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).