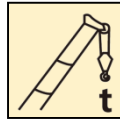


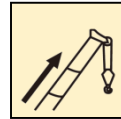
QY25K5D汽车起重机 / Truck Crane

技术规格书

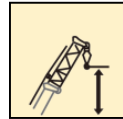
Technical specifications



25t



41m



48.5m



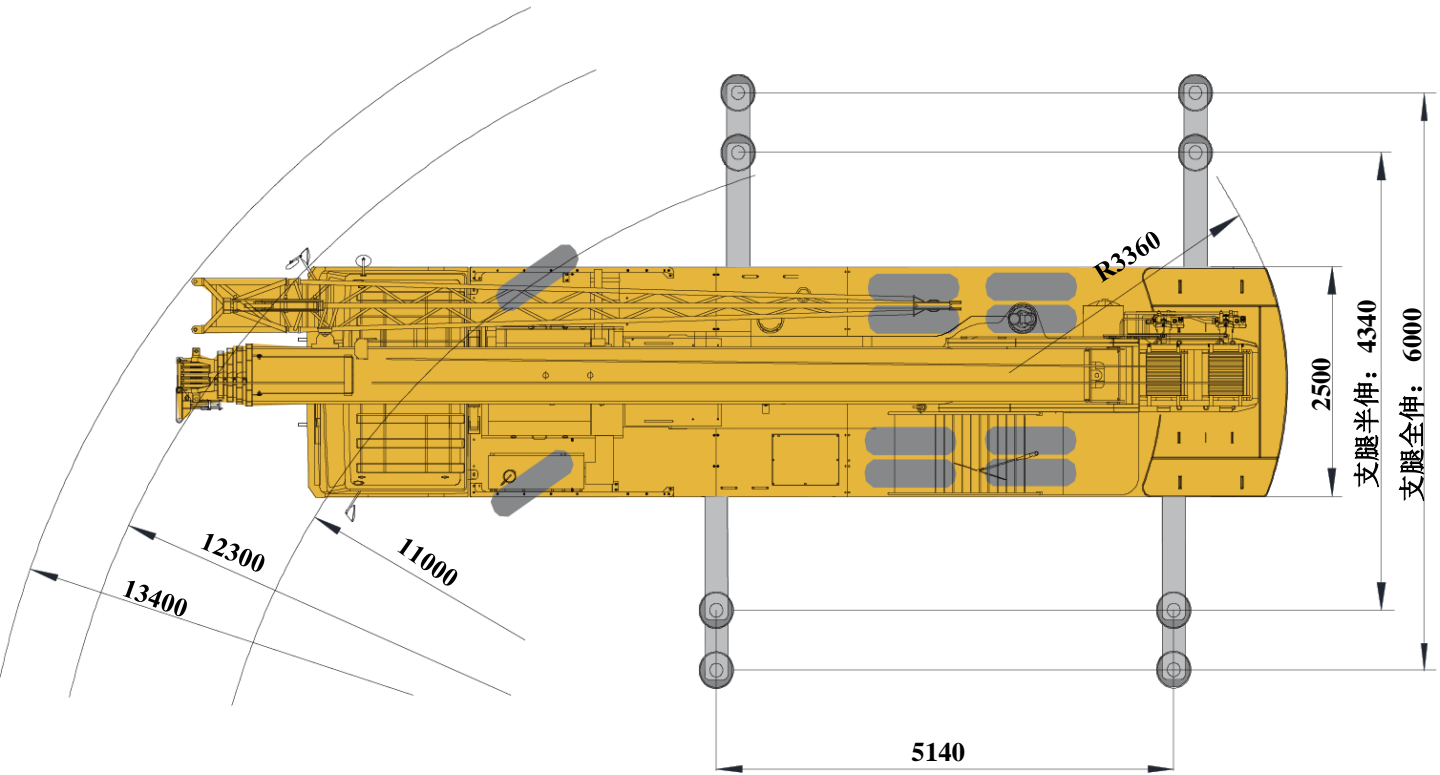
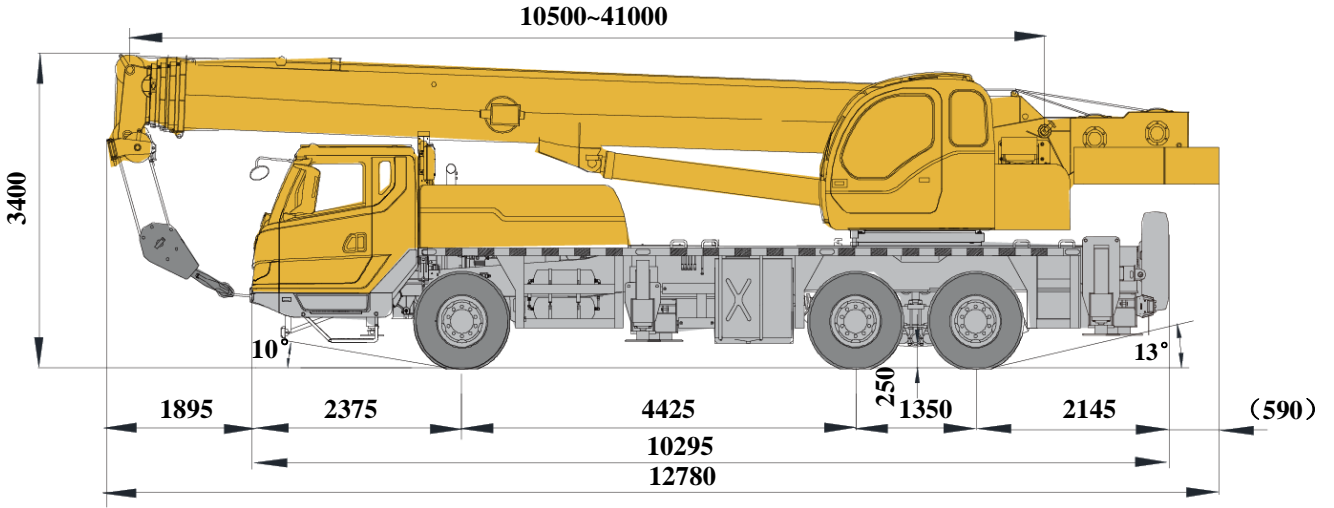
2021年3月 第2版

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尺寸参数 Dimensions



技术规格

Technical specifications

	底盘
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；纵向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；带第五支腿；且垂直支腿带有液压双向锁。 支脚盘尺寸：φ400mm 最大起重量时支腿反力：310KN
发动机	MC07H.32-50，直列六缸水冷电控柴油发动机，重汽，额定功率235kW/2200rpm，最大扭矩1250Nm/1200-1600rpm，国V排放标准。 SC9DF300.1Q5，直列六缸水冷电控柴油发动机，上柴，额定功率221kW/2200rpm，最大扭矩1250Nm/1400rpm，国V排放标准。 燃油箱容积：240L。
变速箱	法士特8档变速箱，机械操纵，带同步器。
车桥悬挂	配置汉德高强度车桥，2,3桥驱动。 前悬架：纵置钢板弹簧，筒式减震器； 后悬架：橡胶悬架，V型推力杆导向。
轮胎	10个轮胎，1个备胎，前桥装单胎，中桥、后桥装双胎。 轮胎规格：11.00R20或11.00-20
制动	行车制动：双回路气压制动，作用于所有车轮。 驻车制动：弹簧贮能制动，作用于2-3轴车轮。 辅助制动：发动机排气制动。
转向	机械式转向机构，带有液压助力。
驾驶室	全宽驾驶室，乘员2人；配置可调式座椅、方向盘、安全玻璃、3只雨刷器、电动门窗升降器、杂物箱、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； GPS车载定位通讯终端；

	上车
结构	徐工设计、制造，高强度钢材制造。
液压系统	底盘发动机驱动定量齿轮泵，用于起升、变幅、伸缩。负载敏感式比例多路换向阀，带有抗冲击阀、防气蚀阀；风冷式液压油散热器。 液压油箱容积：474L
操纵方式	液控先导操纵系统，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。
主起升机构	液压控制调速，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。
副起升机构	液压控制调速，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。
回转机构	四点接触球式回转支承，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°；具有动力控制或自由回转的功能，可无级调速；回转杆设有鸣响开关。
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	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。

技术规格

Technical specifications





臂架系统

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：10.5m ~ 41m。
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2.8t。
固定副臂	1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：8.3m

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. A fifth jack is available. Each jack cylinder is equipped with a double-way hydraulic valve. Outrigger float diameter: $\phi 400$ mm Reaction force of outrigger at max. lifting load: 310 KN
Engine	MC07H.32-50, in-line, 6-cylinder, water cooled, electric control diesel engine, made by SINOTRUK, with rated power of 235 kW/2200 rpm and max. torque of 1250 Nm/1200-1600 rpm, compliant with China V emission standard. SC9DF300.1Q5, in-line, 6-cylinder, water cooled, electric control diesel engine, made by Shanghai Diesel Engine, with rated power of 221 kW/2200 rpm and max. torque of 1250 Nm/1400 rpm, compliant with China V emission standard. Fuel tank capacity: 240 L.
Transmission	FAST mechanical control, 8 speed transmission with synchronizers
Axles	High strength axles made by Hande, 2nd axle and 3rd axle for driving.
Suspension	Front suspension: longitudinal leaf spring balanced suspension, with cylindrical shock absorber. Rear suspension: rubber suspension with V-type push rod
Tires	10 tires and 1 spare tire. Single tire installed on the front axle, double-tire installed on the middle and rear axles. Tire specifications: 11.00R20或11.00-20
Braking system	Service brake: double-circuit air pressure brake, acting on all wheels; Parking brake: spring-loaded brake, acting on the wheels of axles 2~3. Auxiliary brake: engine exhaust brake.
Steering system	Mechanically steering mechanism with a hydraulic booster.
Driver's cab	Full-dimension cab, two passengers are allowable. It is equipped with adjustable seats, steering wheel, safety glass, 3 wipers, electrically operated door window lifters, glove box and air conditioning.
Electrical system	24 V DC, two sets of 12 V battery in series. Generator: 28 V-70 A Vehicle-mounted GPS communication terminal

 Superstructure	
Frame	Designed and manufactured by XCMG, made of high strength steel.
Hydraulic system	The chassis engine drives the constant displacement gear pump to realize hoisting, luffing and telescoping operations. Load sensing proportional multi-way change valve with impact resistance valve and cavitation-proof valve integrated; air-cooled hydraulic oil radiator. Oil tank capacity: 474L.
Control system	Pilot hydraulic control is used for controlling the superstructure. All crane movements are controlled by hydraulic pump and proportional valve through two control levers at left and right sides.
Main winch system	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.
Auxiliary 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.
Slewing system	Four-point contact-ball slewing ring is driven by the planetary gear reducer of slewing mechanism, which is driven by a hydraulic motor, and may continuously slew 360° . Power control and free slewing function as well as stepless speed regulation are available. There is a horn switch fitted on the slewing control lever.
Luffing system	A front support double-acting hydraulic cylinder is equipped for luffing operation, with a balance valve fitted.
Operator's cab	Operator's cab is designed according to ergonomics with outward-open door and adjustable seat. It is equipped with safety glass, roof protective guardrail, sun visor for windshield and heater & air conditioner.
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.

技术规格

Technical specifications



Boom system

Boom	5-section boom with U cross-section, welding structure; double-cylinder plus ropes telescoping system. Boom length: 10.5 m~41 m.
Single top	Installed at the boom top, used for single line operation. Its lifting performance is the same with that of boom, but the max. lifting load can not exceed 2.8 t.
Fixed jib	Two-section lattice jib, welded structure. Three offset angles of 0° , 15° and 30° . Fixed jib length: 8.3 m.

车型与选装件

Version and optional equipment

车型 Version	功能描述 Function description	选择 Selection
标准型 Standard	五节主臂41m, 固定副臂8.3m 5-Section boom of 41 m, fixed jib of 8.3 m	

注释：该产品仅标准型一种车型。

Note: only standard version is available for this model.

重量 Weight






车桥 Axle	1	2	3	总重量 Total weight
t	7.3	12.6	12.6	32.5








吊钩 Hook block	倍率 Parts of line	吊钩重量 Weight (kg)	吊钩尺寸 Dimensions (mm)	备注 Remarks
25t	10	297	417×450×1175	单钩 Single hook, 标配 Standard
2.8t	1	55	236×236×503	单钩 Single hook, 标配 Standard

作业速度 Working speeds



		
11.00R 20/11.00-20	2.5 ~ 80	40%



作业机构 Operation mechanisms	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
	0-125 m/min, 单绳, 第四层 m/min, single line, 4th layer	28 kN	14 mm/180 m
	0-125 m/min, 单绳, 第四层 m/min, single line, 4th layer	28 kN	14mm/105 m
	0-2.5 r/min		
	从-2°抬起至80°约38s Approx. 38s for boom luffing from -2° to 80°		
	从10.5m伸出至41m约93s Approx. 93s for boom extending from 10.5m to 41m		

臂架组合方案

Boom / Jib combinations



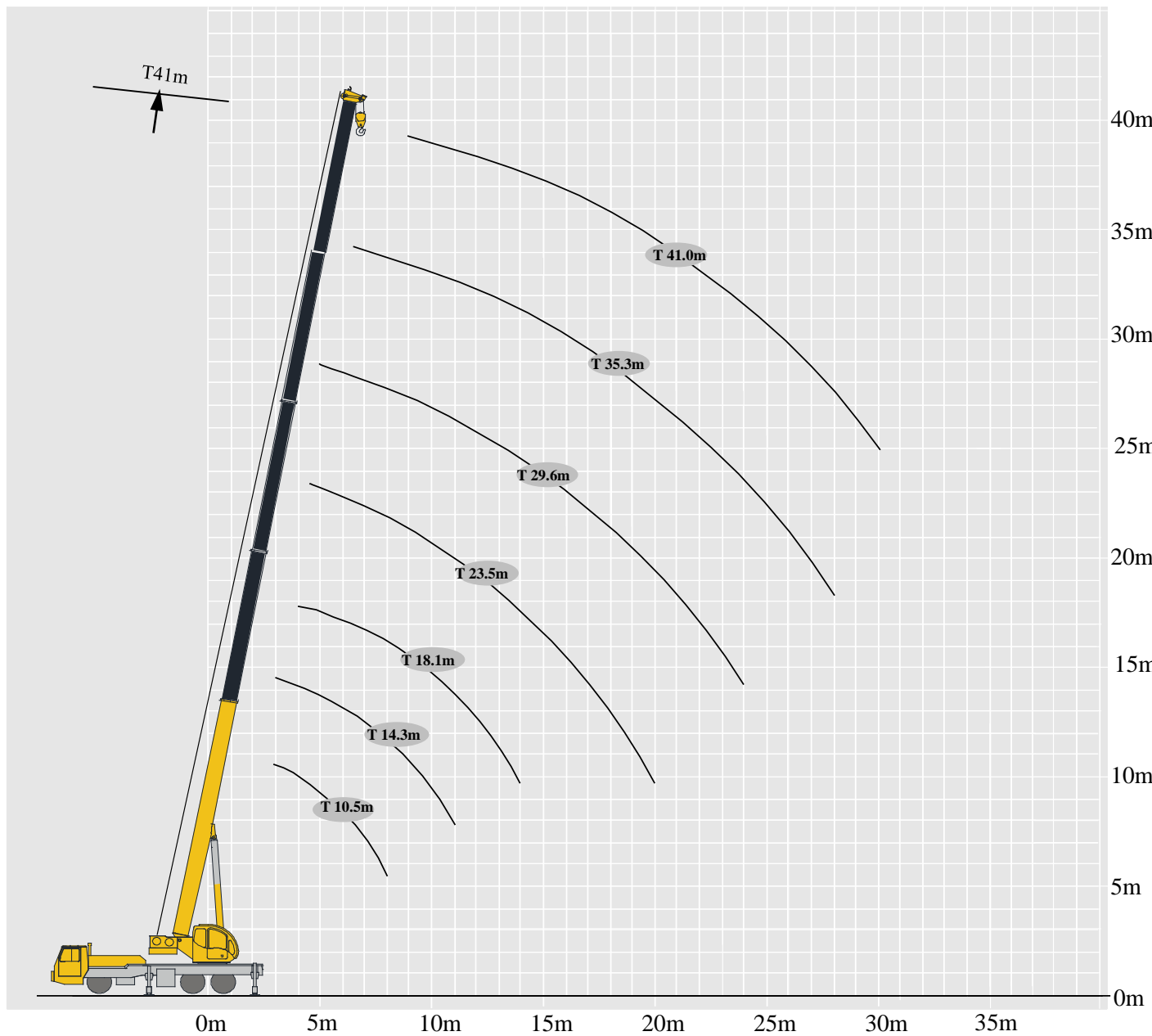
主臂
Telescopic boom

T: 10.5~41m



副臂
Jib

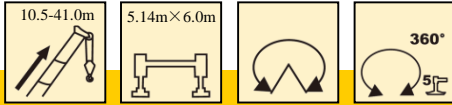
T: 10.5~41m
J: 8.3 m



起重性能表

Lifting capacities

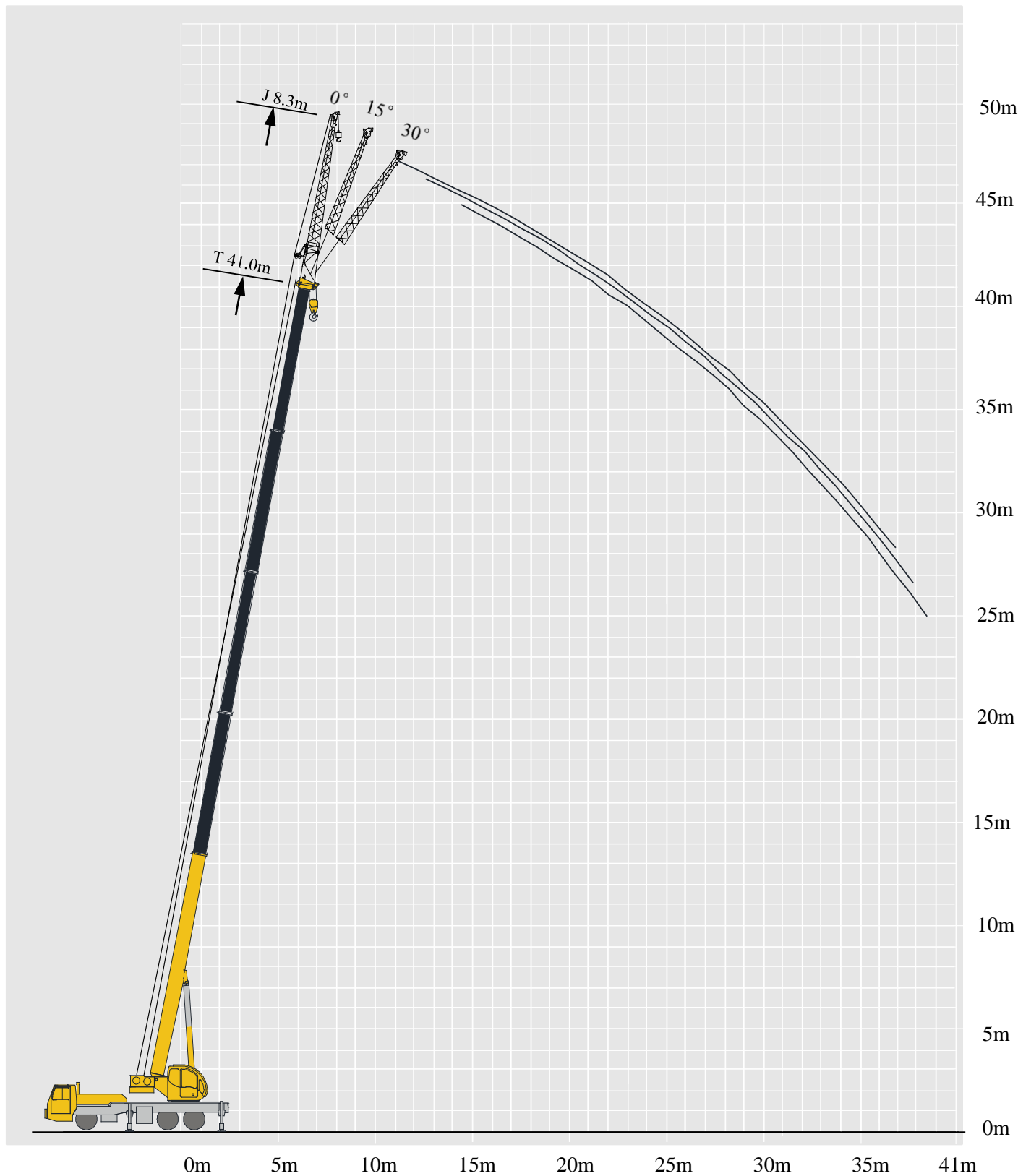
T 10.5~41.0m



	10.5m	14.3m	18.1m	23.8m	29.6m	35.3m	41.0m	
3	25000	25000						3
3.5	25000	25000						3.5
4	24500	24600	19500					4
4.5	22800	22600	19500	16600				4.5
5	20500	21200	18600	16500	13000			5
5.5	18500	19200	17300	15500	12800			5.5
6	16800	17300	16000	14500	12800			6
6.5	15600	15800	14800	13500	12500	9000		6.5
7	14500	14500	14200	12900	11500	9000		7
8	11900	11400	11100	11300	11000	8900	6600	8
9		9200	8900	9800	10100	8200	6500	9
10		7600	7300	8100	8600	7600	6200	10
11		6400	6000	6800	7300	7000	5800	11
12			5000	5800	6200	6500	5600	12
13			4200	5000	5400	5700	5200	13
14			3500	4300	4700	5000	4900	14
15				3700	4100	4400	4400	15
16				3200	3600	3900	4050	16
18				2400	2800	3000	3250	18
20				1800	2100	2400	2600	20
22					1600	1900	2100	22
24					1200	1400	1650	24
26						1100	1300	26
28						850	1000	28
30							750	30
32							550	32

起升高度曲线图 Lifting heights

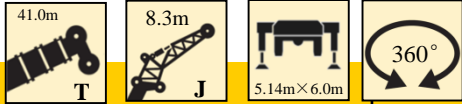
副臂
Jib



起重性能表

Lifting capacities

T 41.0m+8.3m



m	Lifting Capacity (kg)			m
	0°	15°	30°	
78	2800	2500	1900	78
75	2800	2400	1750	75
72	2750	2200	1700	72
70	2650	2100	1600	70
65	2100	1800	1500	65
60	1450	1350	1400	60
55	950	900	900	55
50	600	550	500	50
45	350	300	300	45

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 to correctly calculate the load weight.
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.
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 length given in the rated load charts should accord with the telescoping code of boom sections .

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		卷扬 Winch
	副臂起升高度 Hoist height with jib		使用第五支腿360°全回转 360° operation of the boom with 5th jack
			不使用第五支腿侧后方作业 Over side or over rear of the crane without 5th jack

主要技术参数表

Transportation plan

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	12780×2500×3400	
	轴距 Wheel base	mm	4425+1350	
	轮距 (前/后) Track (Front/ Rear)	mm	2059/1834	
	前悬/后悬 Front/ Rear overhang	mm	2375/2145	
	前伸/后伸 Front/ Rear extension	mm	1895/590	
重量参数 Weight	最大允许总质量 Max. permissible total weight	kg	32500	
	轴荷 Axle load	一轴 1st axle	kg	7300
		二轴 2nd axle	kg	12600
		三轴 3rd axle	kg	12600
动力参数 Power	发动机型号 Engine model	—	MC07H.32-50 SC9DF300.1Q5	
	额定功率/转速 Engine rated power/rpm		235/2200	
			221/2200	
	最大净功率/转速 Max. net power/rpm	kW/(r/min)	232/2200 219/2200	
最大输出扭矩/转速 Max. output torque/rpm	N.m/(r/min)	1250/1200-1600 1250/1400		
行驶参数 Travel	最高车速 Max. travel speed	km/h	≥80	
	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	≤22	
	臂头最小转弯直径 Min. turning diameter at boom tip	m	≤26.8	
	最小离地间隙 Min. ground clearance	mm	250	
	接近角 Approach angle	°	10	
	离去角 Departure angle	°	13	
	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	%	≥40	
	百公里油耗 Fuel consumption per 100 km	L	30	
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

Transportation plan

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	25	
	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	3360	
		副卷处 Auxiliary winch	mm	—	
	最大起重力矩 Max. load moment	基本臂 Base boom	kN.m	1005	
		最长主臂 Fully-extended boom	kN.m	672	
		最长主臂+副臂 Fully-extended boom + Jib	kN.m	465	
	支腿跨距 Outrigger span	纵向 Longitudinal	m	5.14	
		横向 Lateral	m	6.0	
	起升高度 Hoist height	基本臂 Base boom	m	9.8	
		最长主臂 Fully-extended boom	m	40.1	
		最长主臂+副臂 Fully-extended boom + Jib	m	48.5	
	起重臂长度 Boom length	基本臂 Base boom	m	10.5	
		最长主臂 Fully-extended boom	m	41.0	
		最长主臂+副臂 Fully-extended boom + Jib	m	49.3	
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	≤38	
	起重臂全伸时间 Boom fully extended time		s	≤93	
	最大回转速度 Max. slewing speed		r/min	≥2.5	
	支腿收放时间 Outrigger extending and retracting time	水平支腿 Outrigger beam	收 Retracting	s	≤30
			放 Extending	s	≤35
		垂直支腿 Outrigger jack	收 Retracting	s	≤35
			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	≥125	
	副起升机构 Auxiliary winch		m/min	≥125	
噪声 Noise	机外辐射 Exterior noise level		dB (A)	≤108	
	司机位置处 Noise level at seated position		dB (A)	≤85	