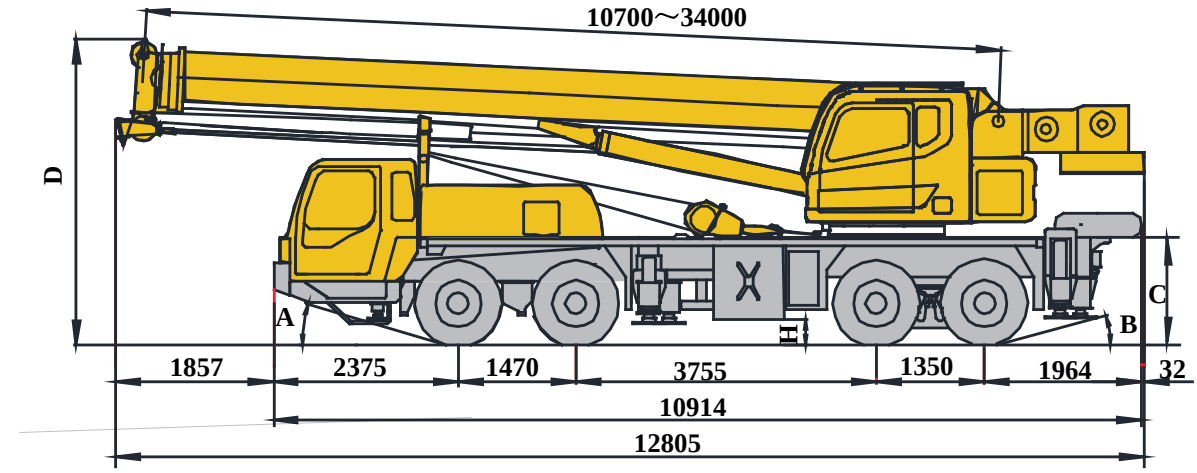
汽车起重机 / Truck Crane

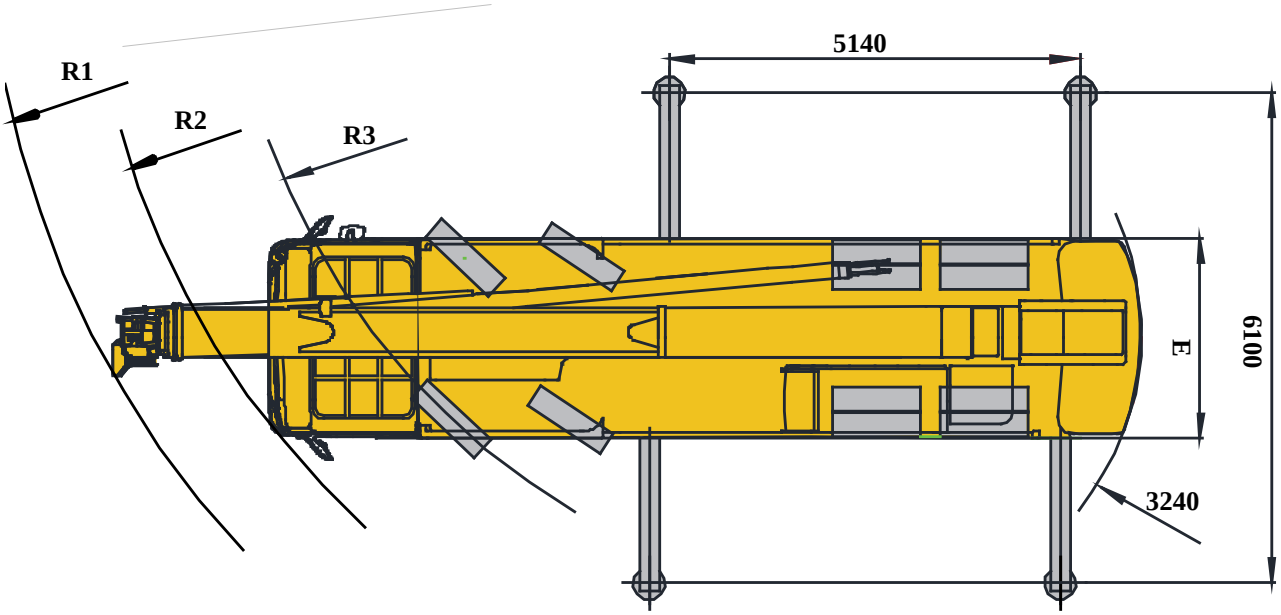
QY30KA_Y

20t 34m 48m

目录 **Content**	

尺寸参数
Dimensions





	A	B	C	D	E	R1	R2	R3	H
11.00-20	20°	16°	1344	3890	2500	13610	12580	11000	275

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，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)……5.14m×6.1m 支脚盘尺寸……φ400mm 第五支腿支脚盘尺寸……φ260mm 最大起重量时支腿反力：32.7t
发动机	SC8DK280Q3，直列六缸增压、中冷柴油发动机，上柴制造，额定功率206kW/2200rpm，最大扭矩1112Nm/1400rpm，国III排放标准。 燃油箱容积：240L。
变速箱	陕齿机械全同步器变速箱， 8个前进挡，两个倒档。
车桥	4桥底盘，3、4桥驱动，1、2桥转向，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。
悬挂	前悬架采用少片变截面钢板弹簧，自重轻，噪音低，舒适性好；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
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：弹簧贮能制动，作用于3-4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；方向盘可调节高度及角度，适合各个高度的操作人群。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

上车

结构	徐工设计、制造，高强度钢材制造。
液压系统	液压泵：底盘发动机驱动三联泵，定量泵用于起升、变幅、伸缩。 控制阀：机械操纵的多路换向阀控制系统，主操纵阀为负载敏感控制多路换向阀。当泵出口压力与负载压力之间的压差减小或增大时，系统可自动改变马达、油缸等执行原件流量大小，减少系统的发热量，提高整机的微动性。采用新型合流主阀，可实现除卷扬外，伸缩伸、变幅起动作合流，提高系统作业效率。 油路：风冷式液压油冷却器，有效降低系统油温。
操纵方式	机械操纵的多路换向阀控制系统，5个操纵杆，操作简单、舒适，灵敏度高，可无级调速。操纵阀为负载敏感控制多路换向阀。
主、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。具有轻载高速、重载低速的特点。主、副卷扬减速机分别独立操作。
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。 回转速度……0～2.5r/min
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	安置在转台左侧，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，外开式式车门，座椅靠背可倾斜定位。前窗顶窗装有雨刮器，标准的操纵控制件和指示器。 配备单冷空调。
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,防止钢丝绳过放、臂头设置高度限位、防止钢丝绳过卷；
组合配重	转台下悬挂式配重，采用螺栓与转台连接，重量3900千克
副　臂	采用两节箱型腹置副臂，一节臂工作长度9m，两节臂全伸工作长度14m，安装角度5°、15°、30°。

技术规格
Technical specifications

臂架系统	
主臂	由1节基本臂和3节伸缩臂组成，采用抗扭曲设计，高强度结构钢制造。起重臂截面为十二边形大圆弧截面，插入式臂头及滑块结构，接触面积大，吊重变形小，伸缩平稳。 主臂长度.....10.7m～34m
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。 臂端单滑轮的起重性与主臂相同，但最大起重量不超过3000kg。

选装配置	
电气系统	1.卷扬监装置：规格QY90K.11.6 2.三色报警灯：规格ST80LF-3 3.吸盘式弹头警示灯：规格LTD141(24V)
角度指示器	规格QY25K.17
轮胎	轮胎规格：11.00R20（子午线轮胎）

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

技术规格
Technical specifications

Chassis

Frame	Designed and manufactured by XCMG, with all covered walking surface, anti-torsion box structure, made of imported high strength steel.
Outrigger	4 outriggers, H-typed arrangement, lateral swing movement and jacks are controlled hydraulically. A check valve is fitted at each outrigger oil cylinder, and each jack is fitted with a double-way hydraulic valve for ensuring operation safety. There are two auxiliary jacks for helping self-mounting of front outrigger beams. There is an electrical control station installed at each side of chassis. Luminous level gauge, illuminating lamp and acceleration button are equipped on each control station.With fifth outriggers. Outrigger span: Longitudinal × lateral (fully-extended)……5.14m×6.1m Dimension of outrigger float……φ400mm Dimension of outrigger float of fifth outriggers……φ260mm Outrigger reaction force at max. lifting capacity…32.7t
Engine	SC8DK280Q3, in-line six-cylinder supercharging intercooler diesel engine, manufactured by Shanghai Diesel Engine Co., Ltd., rated power 206kW /2200rpm, max. torque 1112Nm / 1400rpm, the national V emission standards. Fuel tank capacity：240L
Gearbox	Mechanical transmission with synchronizer from Shanxi Gear, 8 forward gears and 2 reverse gear
Alxes	4-axle chassis, 3nd and 4rd axles for driving, 1st and2st axle for steering, high strength load bearing axles designed by foreign advanced technology, with reliable performance.
Suspension	Taper-leaf spring is adopted in front suspension with the features of light deadweight, low noise and good comfort; rubber suspension is adopted in rear suspension, V-shape thrust rod, with light deadweight and good positioning effect, easy to maintain.
Tires	11.00-20, suitable for heave load truck, strong generality
Brakes	Double circuit, air braking, drum brake. Service brake: double-circuit air pressure brake, acting on all wheels. Parking brake: spring energy brake, acting on wheels of 3-4 axles. Auxiliary brake: engine retarded brake, engine exhaust brake, safe and reliable, which prolongs the service life of brake friction disc.
Steering	Mechanical steering system with hydraulic boost.
Driver's cab	Equipped with four-point connecting structure, the new full driver’s cab of steel has open car doors on both sides. The main drivers can adjust height manually. With double seats, the passenger’s seats can be used as simple sleeper for temporary rest of drivers. Safe glass with electric lift contributes to good heat-proof effect.. LCD, bus control, centralized information show; and the layout of center console with new combination is safe and reasonable which adopts arc design and represents humanization. Fixed wiring harness connector save the space of driver’s cab with fixed plug-in components. It is equipped with standard CD player and air-conditioner both for cooling and heating.
Electric system	24V DC, negative grounding, two 12V batteries in series.

Superstructure

Frame	Designed and manufactured by XCMG; Full-covered walking platform, made of high-strength steel
Hydraulic system	Hydraulic pump: quadruple pump driven by chassisengine, and variable pump is used for hoisting, elevating and telescoping. Control valve Multi-way change valve system is mechanically controlled and main control valve is load sensitive multi-way directional valve. When the differential pressure between pump inlet pressure and load pressure is decreasing or increasing, the system can adjust the flow of motor and oil cylinder, reduce the system temperature and improve the fine inching control of the whole machine. New confluence valves can improve the working efficiency by playing a role in the combined movements of telescoping and elevating, except winch operation. Oil circuit air-cooled hydraulic oil cooler reduces system oil temperature effectively
Operating mode	Multi-way change valve control system operated by mechanism with 5 control rods contributes to easy operation, comfortable and high sensitivity. Stepless speed regulation is available. Control valve is load-sensitive control multi-way change valve.
Main/Auxiliaywinch 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 balanced valve and a bilinear grooved drum equipped. It has features of high speed with a light load and low speed with a heavy load.The Main/auxiliary winch can be operated separately. The auxiliary winch can be operated separately.
Slewing system	Four-point contact ball type with external slewing ring, planetary gear slewing reducer is driven by hydraulic motor which can slew 360° continuously. It has functions of power control or free slewing and steplessspeed regulation is available.The slewing lever has ringing switch. Slewing speed……0～2.5r/min
Elevating system	Double-acting front located hydraulic elevating cylinder, counterbalance valve is equipped.
Operator’s cab	The new steel cab is located at the left side of turntable, equipped with no dead vision front glass, safe glass, sun visor ,open door and adjustable seat.Wipers are fitted for the windshield and roof window.Standard controls and indicators are equipped with single cold air condition
Safety devices	Hydraulic balance valve、Hydraulic relief valve、Double-way hydraulic valve、LMI、 Control rod with spring-type centering system Lowering limiter for preventing wire rope from over-releasing、Height limiter on boom tip for preventing wire rope from over-spooling
Counterweight	Counterweights are fixed at the turntable tail, connected with turntable by bolts. Total weight is3900 Kg.
Jib	With two box-type , jib under boom structure has two sections with one is 9m, the fully extending is 14m. The jib offset angle is 5°,15°,30°

Boom system

Boom	Comprised of one basic boom and three telescoping boom, it adopts anti-torque design with high strength structural steel. The crane profile is dodecagonal and large arc with inserted boom head and slide, which contributes to large contact area and small deformation in lifting and stable telescoping. Boom length……10.7m～34m
Boom single top **Boom auxiliary pulley**	Fitted at boom head, used for single line operation. Its lifting performance is the same as that for boom, but could not exceed 3000 kg.

Additional equipment

Electric system	1.Winch View Cameras ：specification QY90K.11.6 2. Triple-colour Warning Lamp ：Specification ST80LF-3 3. Caution Lamp ：Specification LTD141(24V)
Angle Indicator	Specification QY25K.17
Tires	Tire specifications:11.00R20(radial tire)

Product parts details As mentioned above, please refer to the product quotation for specific parts.

重量
Weight

车桥 Axle	1	2	3	4	总重量 Total weight
t	5.5	5.5	9.5	9.5	30

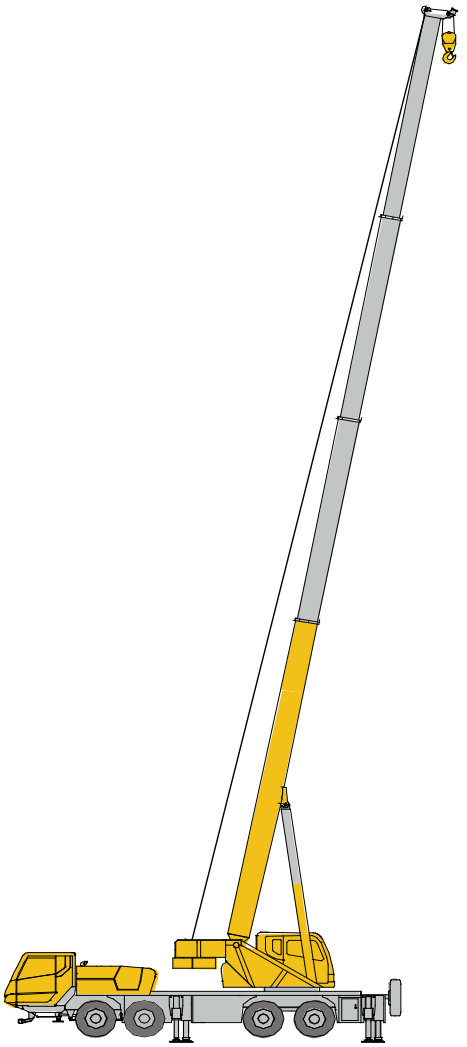
吊钩 Hook	倍率 No. of lines	吊钩重量 Weight kg	吊钩尺寸 Dimensions mm	备注 Remarks
30t	10	297	1175×486×450	单钩 Single hook ，标配 Standard
20t	6	220	1113×450×305	单钩 Single hook ，标配 Standard
3t	1	71	920×240×240	单钩 Single hook ，标配 Standard

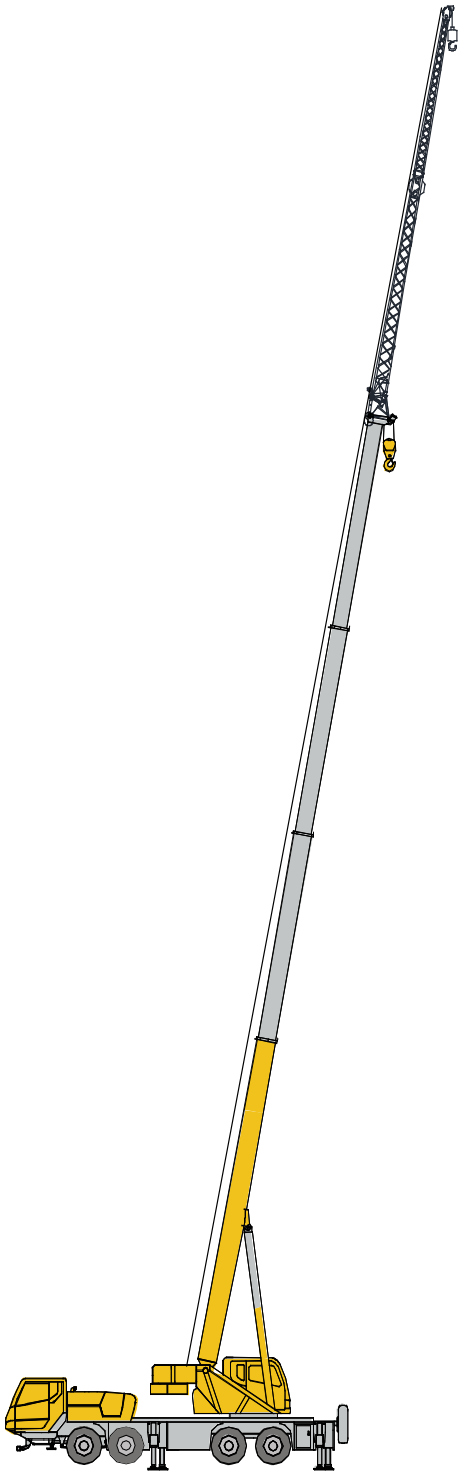
作业速度
Working speeds

		
11.00-20	2～80	40%

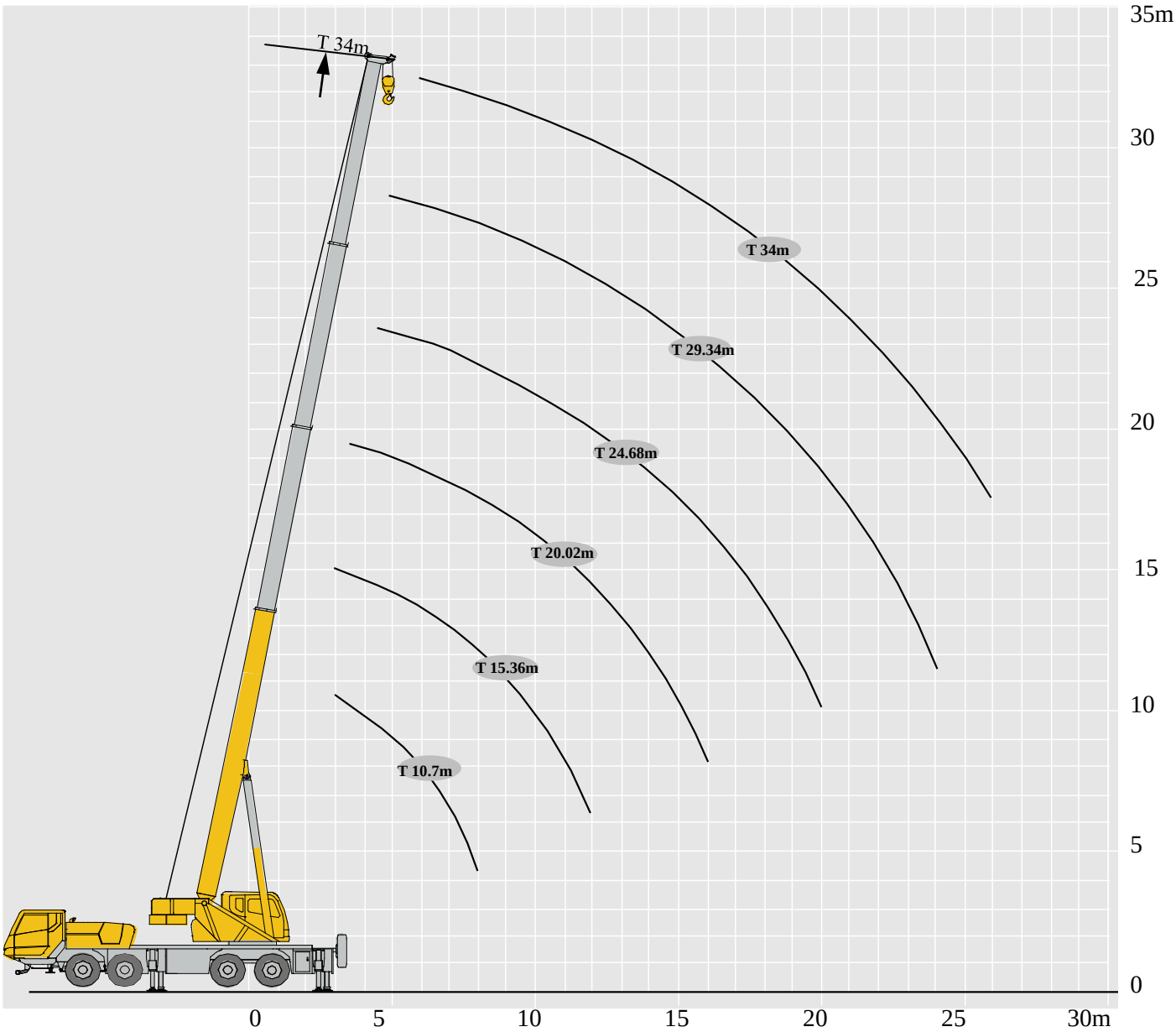
作业机构 Drive	作业速度 Working speed	最大单绳拉力 Max. single line pull	钢丝绳直径/长度 Rope diameter/ length
	0-130 m/min，单绳，第四层 m/min, single line,4th layer	29.4 kN	14 mm/165m
	0-130 m/min，单绳，第四层 m/min, single line,4th layer	29.4kN	14 mm/100 m
	0-2.5 r/min		
	从0°抬起至80°约35s Approx. 35s for boom elevation from 0° to 80°		
	从10.7m伸出至34m约55s Approx. 50s for boom extension from 10.3m to 40m		

臂架组合方案
Boom / Jib combinations



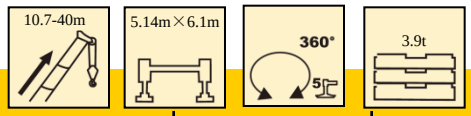


主臂 Telescopic boom	副臂 Jib
T：10.7~34m	T：34m J：9m/14m

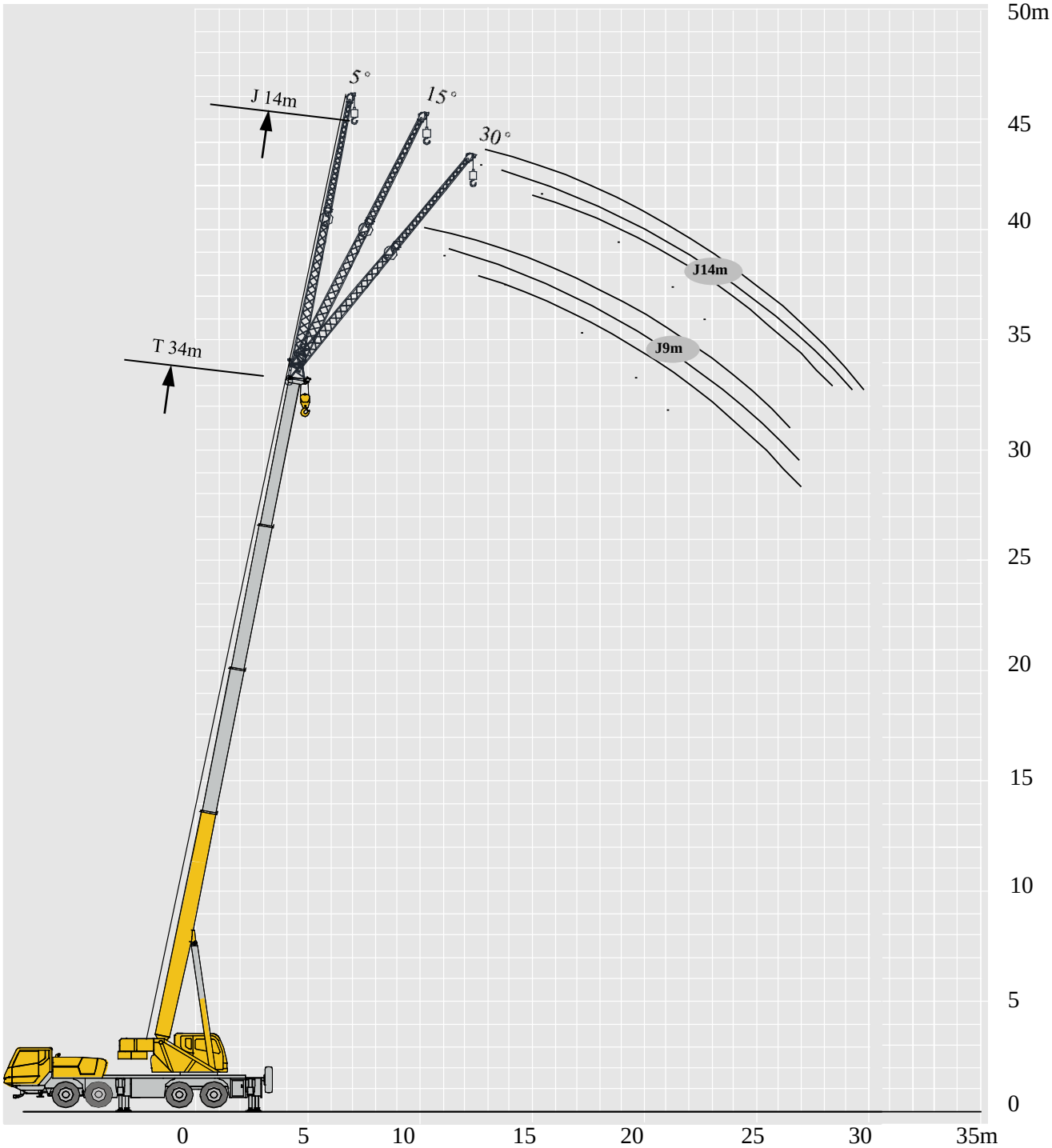

T 34m
T 34m
T 29.34m
T 24.68m
T 20.02m
T 15.36m
T 10.7m
35m
30
25
20
15
10
5
0
0
5
10
15
20
25
30m

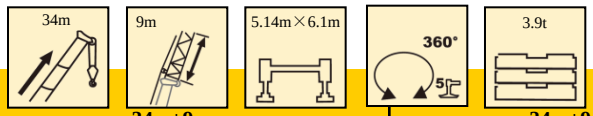
起重性能表
Lifting capacities

T 10.7~34m

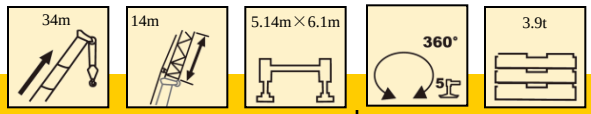


	10.7m	15.36m	20.02m	24.68 m	29.34 m	34m	
3	30	20					3
3.5	30	20	18				3.5
4	28	20	18				4
4.5	25	20	17.5	12			4.5
5	22	20	17	12			5
5.5	20	19	16	12	9		5.5
6	18	17.5	15	11.5	9		6
6.5	14	13.7	12.5	10.2	9		6.5
7	11.2	11.2	11	9	8.2	7.5	7
8		9.2	9.4	8.2	7.5	7	8
9		7.7	7.9	7.5	6.8	6.5	9
10		5.6	5.8	6	5.8	6	10
12			4.5	4.6	4.7	5	12
14			3.4	3.6	3.7	4.2	14
16				2.9	2.9	3.8	16
18				2.3	2.4	3	18
20				1.8	1.9	2.4	20
22					1.5	2	22
24					1.2	1.6	24
26						1.3	26
28						1	28
30						0.8	30
n	10	7	6	4	4	3	n


J 14m
5°
15°
30°
T 34m
J14m
J9m
50m
45
40
35
30
25
20
15
10
5
0
0
5
10
15
20
25
30
35m

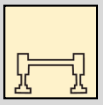
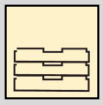
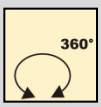
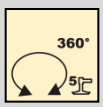


	34m+9m	34m+9m	34m+9m	
	5°	15°	30°	
78	3000	2700	2000	78
75	2800	2400	1800	75
72	2600	2100	1700	72
70	2400	1900	1600	70
65	2000	1700	1500	65
60	1600	1500	1400	60
55	1300	1300	1300	55
50	820	800	780	50
45	600	580	550	45
n	1	1	1	n



	34m+14m	34m+14m	34m+14m	
	5°	15°	30°	
78	1650	1300	1000	78
75	1550	1200	950	75
72	1450	1100	850	72
70	1300	1050	800	70
65	1150	950	700	65
60	950	850	650	60
55	850	750	600	55
50	720	650	550	50
n	1	1	1	n

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 Gradability
	吊臂仰角 Boom position		轮胎 Tyres
	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
	360°全回转 360° rotation		使用第五支腿360°全回转 360° rotation with 5th jack
	不使用第五支腿侧后方作业 Over side or over rear of the crane		

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 .

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