

# XCA40\_E 全地面起重机 / All Terrain Crane

## 技术规格书

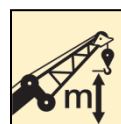
Technical specifications



40 t



35 m



42.7 m



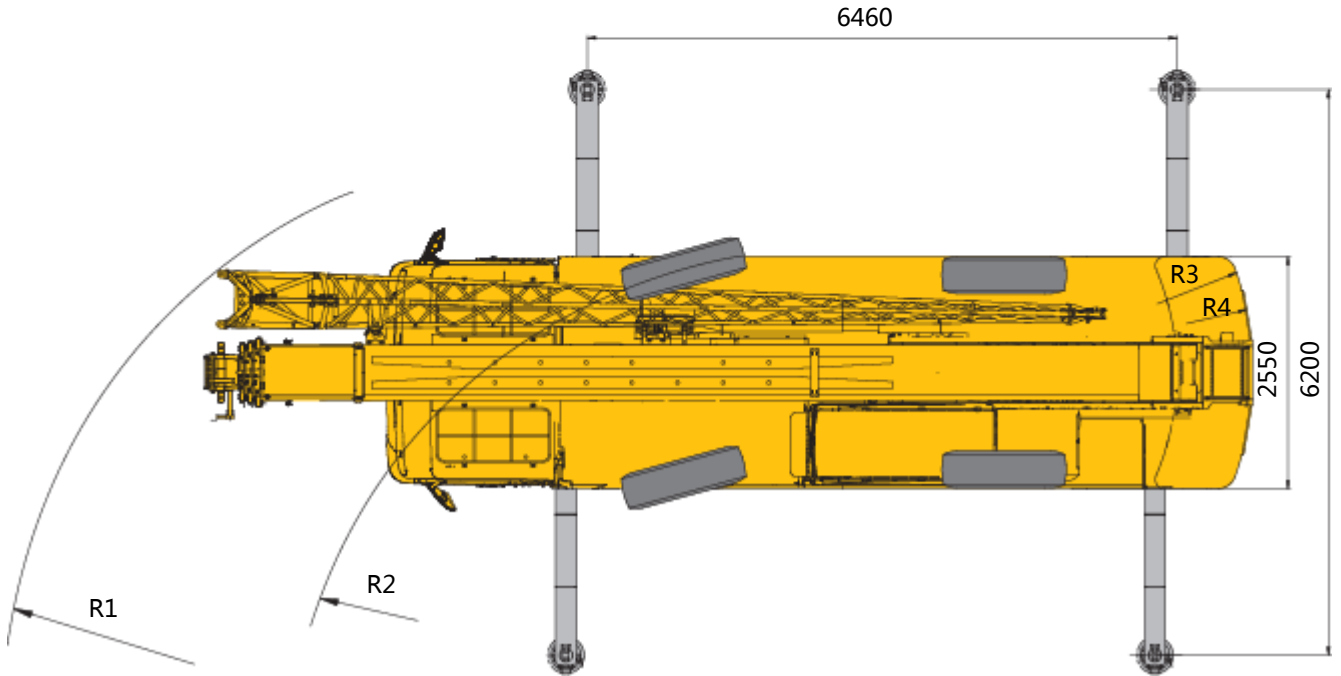
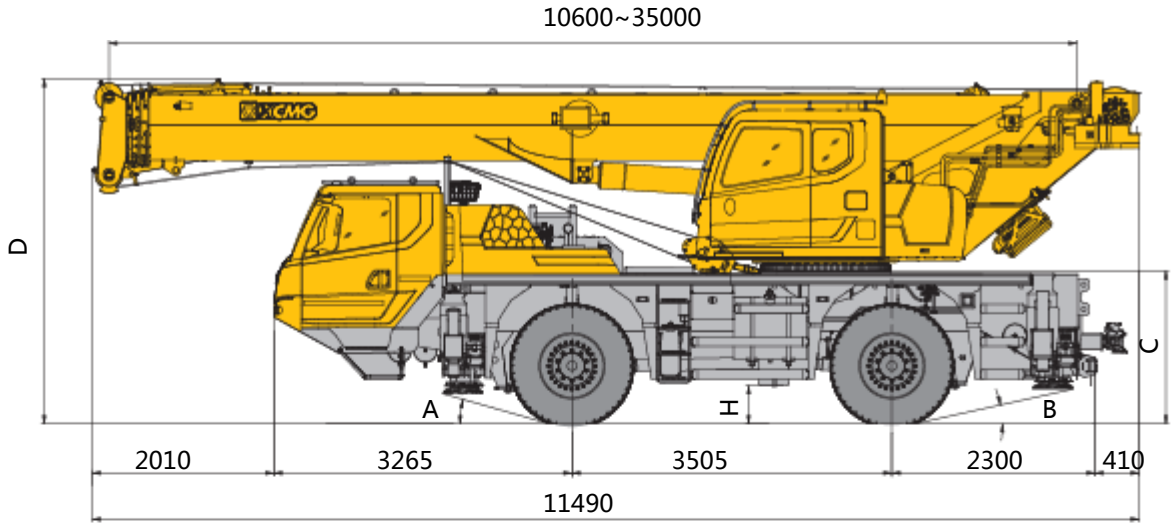
2022年11月第3版  
3rd edition, Nov. 2022


# 目录

## Contents

<b>目录</b> <b>Contents</b>	
尺寸参数 Dimensions	3
技术规格 Technical specifications	4-7
重量/作业速度 Weight / Working speeds	8
平衡重 Counterweight	9
臂架组合方案 Boom / Jib combinations	10
主臂 Boom	11-14
副臂 Jib	15-16
主要技术参数表 Table of main technical parameters	17-18
符号标识 Description of symbols	19
注意事项 Notes	20

# 尺寸参数 Dimensions



	A (°)	B (°)	C (mm)	D (mm)	H (mm)	R1 (mm)	R2 (mm)	R3 (mm)	R4 (mm)
385/95 R 25 (14.00 R 25)	16	12	1675	3690	337	10000	7000	3450	3460
445/95 R 25 (16.00 R 25)	19	14	1725	3740	387	10000	7650	3450	3460


# 技术规格

## Technical specifications


 底盘	配置	
<b>车架</b>	徐工设计、制造、采用矩形截面车架结构，高强度钢材制造。	●
<b>支腿</b>	H形支腿，水平支腿为单级伸缩，带推拉式支脚盘，两种伸缩作业位置（全伸、半伸），满足多种作业工况需求。支腿操纵面板CAN总线控制，位于底盘两侧。	●
<b>发动机</b>	六缸、柴油、戴姆勒公司OM936LA， 额定功率/转速：230kw/1800rpm， 最大输出扭矩/转速： 1300Nm/1400rpm， 排放标准：EU stage V。 燃油箱容积：260L。	●
<b>变速箱</b>	ZF自动挡变速箱，12前进挡，2个倒挡。	●
<b>车桥</b>	高强度整体式车桥，全桥驱动： 4×4	●
<b>悬挂</b>	采用先进的油气悬挂技术，提升驾乘平顺性，悬挂采用油缸减振+蓄能器缓冲，悬挂油缸行程为±130mm。	●
<b>轮胎</b>	385/95 R25 ( 14.00R25 ) 445/95 R25 ( 16.00R25 )	● ○
<b>转向</b>	1轴机械转向，2轴电液比例转向	●
<b>制动</b>	行车制动：双回路气压制动，作用于所有轮胎。 驻车制动：弹簧储能制动，作用于所有轮胎。 辅助制动：发动机缓速制动。	●
<b>驾驶室</b>	新型钢结构豪华全宽驾驶室。气悬浮式主副座椅，提升驾乘舒适性。配备电动升降器的安全玻璃、可调节高度及角度的方向盘，大屏幕彩色液晶显示器等，新型组合式中控台布置安全合理，采用圆弧造型，体现人性化的设计。标配收音机、冷暖空调。	●
<b>电气系统</b>	直流24伏特，2个12伏特电池组串联。	●
<b>辅助装置</b>	驾驶室旋转报警灯	○
	拖车车辆耦合装置	○

# 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	负载敏感柱塞泵和齿轮泵，用于起升、变幅、伸缩、回转、辅助系统；负荷敏感式比例多路换向阀；风冷式液压油散热器。	●
操纵方式	先导电比例操纵，采用分布式总线控制技术，除常规控制功能外，还具有系统实时监测、故障自动诊断、智能臂架控制功能。	●
起升机构	液压马达驱动，内置式行星齿轮减速机和常闭式制动器，专用防乱绳卷筒，抗缠绕钢丝绳。	●
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，内置行星齿轮减速器和常闭式制动器，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。	●
操纵室	按人机工程学设计，安全舒适，装有安全玻璃和顶部保护栏。前窗装有遮阳板，推拉式车门，可调式座椅。 上车操纵室可向后倾斜20°。 配置冷暖空调。	●
组合配重	总重6.5t，有1t、1.3t、2.7t、5.1t、6.5t、五种组合方式。	●
吊钩	5t吊钩	●
	10t吊钩	●
	25t吊钩	●
	40t吊钩	○
电气系统	直流24伏特。	●

力矩限制器	当实际力矩接近过载时，发出听觉视觉警报，并在过载之前自动停止危险动作。具有超载记忆功能（黑匣子）和故障自诊断功能。	●
安全装置	液压平衡阀、液压溢流阀、液压双向锁；力矩限制器；显示器、中心控制器、长度/角度传感器、油压传感器、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，装置，防止钢丝绳过卷；风速仪，检测高空风速。	●
集中润滑系统	电脑编程控制，集中润滑点为回转支承、主副起升机构轴承座、变幅油缸上下铰点、操纵室翻转油缸铰点、起重臂后铰点。	●
辅助装置	可变焦无线摄像装置、上车旋转照明工作灯、驾驶室旋转报警灯	○
无线遥控	远程无线遥控装置。	○

	臂架系统	配置
主臂	4节，“U”形截面的筒形焊接结构。单缸绳排伸缩机构。 主臂长度：10.6m~35m。	●
固定副臂	桁架式焊接结构，具有0°、20°、40°三种固定副臂安装角。 固定副臂长度：9.5m。	●


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	Configuration	Driver's cab	
<b>Frame</b>	Designed and manufactured by XCMG, made of high strength steel with rectangle cross-section.		●
<b>Outriggers</b>	H-type outrigger, outrigger beam is one-stage telescoping with push-pull outrigger float and two telescoping working position (fully-extended and half-extended) to satisfy various working condition requirements. Outrigger control panel is controlled by CAN bus located on the sides of chassis.		●
<b>Engine</b>	6 cylinders, diesel, Daimler AG OM936LA, Rated power/RPM: 230kw/1800rpm, Max. output torque/RPM: 1300Nm/1400rpm, Emission standard: EU stage V. Fuel tank capacity: approx. 260 L.		●
<b>Transmission</b>	ZF automatic transmission, 12 forward gears and 2 reverse gear.		●
<b>Axles</b>	High strength integral axle; all axles for driving: 4×4		●
<b>Suspension</b>	Advanced hydro-pneumatic suspension technology with improved stability; the suspension is equipped with effective damped cylinder and accumulator buffer. The stroke of suspension cylinder : -130mm~+130mm.		●
<b>Tire</b>	385/95 R25 (14.00R25)		●
	445/95 R25 (16.00R25)		○
<b>Steering system</b>	Axle 1 mechanically steering and axle 2 electric-hydraulic proportional steering.		●
<b>Braking system</b>	Service brake: dual-circuit air pressure brake, acting on all wheels. Parking brake: spring-loaded brake, acting on all wheels. Auxiliary brake: engine retarded brake.		●
<b>Electrical system</b>	DC 24 V, with 2 sets of 12 V batteries in series.		●
<b>Auxiliary devices</b>	Beacon lamp at the driver's cab		○
	Trailer coupling device		○

# 技术规格

## Technical specifications

	Superstructure	Configuration
<b>Frame</b>	Designed and manufactured by XCMG, made of high strength steel.	●
<b>Hydraulic system</b>	The load-sensing plunger pump and gear pump are used to control hoisting, luffing, telescoping, slewing and auxiliary system. Load-sensing proportional multi-way valve is equipped. Wind-cooled hydraulic radiator is also applied.	●
<b>Control system</b>	Pilot electric proportional control is adopted with distributed CAN bus control technology. Apart from the normal control functions, it also has the functions of real time monitoring, automatic fault diagnosis and intelligent boom control.	●
<b>Winch system</b>	Hydraulic motor with planetary gear reducer and constant-closed brake, specific anti-disorder rope winding drum, anti-coiling wire rope.	●
<b>Slewing system</b>	A single-row, four-point contact-ball external toothed slewing bearing is driven by hydraulic motor, with built-in planetary gear reducer and constant-closed brake equipped, and may continuously slew 360°. Power control and free swing function as well as stepless speed regulation are available.	●
<b>Operator's cab</b>	The cab is ergonomically designed for safety and comfort. It is equipped with safety glass and protective grilles. Windshield sun shade, a sliding door and an adjustable seat are available. The operator's cab can tilt backward 20°. Heating & air conditioning are available.	●
<b>Combined counterweight</b>	Total weight is 6.5 t. There are five counterweight configurations of 1 t, 1.3 t, 2.7 t, 5.1 t, and 6.5 t.	●
<b>Hook block</b>	5t hook block	●
	10t hook block	●
	25t hook block	●
	40t hook block	○
<b>Electrical system</b>	24 V DC.	●

<b>LMI</b>	When the actual load moment is approaching overloading value, audible and visual warning will be sent out, and the dangerous operation will be automatically stopped ahead of overloading. Overload memory function (black box) and fault self-diagnosis function are available.	●
<b>Safety devices</b>	Hydraulic balance valve, hydraulic relief valve, hydraulic two-way valve, LMI, display, central controller, length/angle sensor, oil pressure sensor and spring centering system for control levers. Lowering limiter for preventing wire rope from over-releasing. Anti-two block at boom head for preventing wire rope from over-winding. Anemometer for measuring the speed of the wind.	●
<b>Centralized lubrication system</b>	Controlled by computer program; lubrication points are at slewing ring, bearing pedestals of main winch and auxiliary winch, upper and lower pivots of elevating cylinder, pivot of tilt cylinder and rear pivot of boom.	●
<b>Auxiliary devices</b>	Zoom type wireless camera, superstructure rotating working lamp, beacon lamp at the driver's cab	○
<b>Wireless remote controller</b>	Wireless remote control device.	○

	Boom and jib	Configuration
<b>Boom</b>	4-section boom with U cross-section, welding structure. Single-cylinder plus ropes telescoping system Boom length: 10.6m~35m.	●
<b>Fixed jib</b>	Lattice jib, welded structure. It can be attached at three angles of 0°, 20°, 40°. Fixed jib length: 9.5m.	●

**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	总重量 Total weight
t	12	12	24







吊钩 Hook	倍率 No. of lines	吊钩重量 Weight kg	备注 Remarks
40 t	12	347	单钩 Single hook 选装 Optional
25 t	7	210	单钩 Single hook
10 t	3	123	单钩 Single hook
5t	1	62.5	单钩 Single hook

## 作业速度 Working speeds



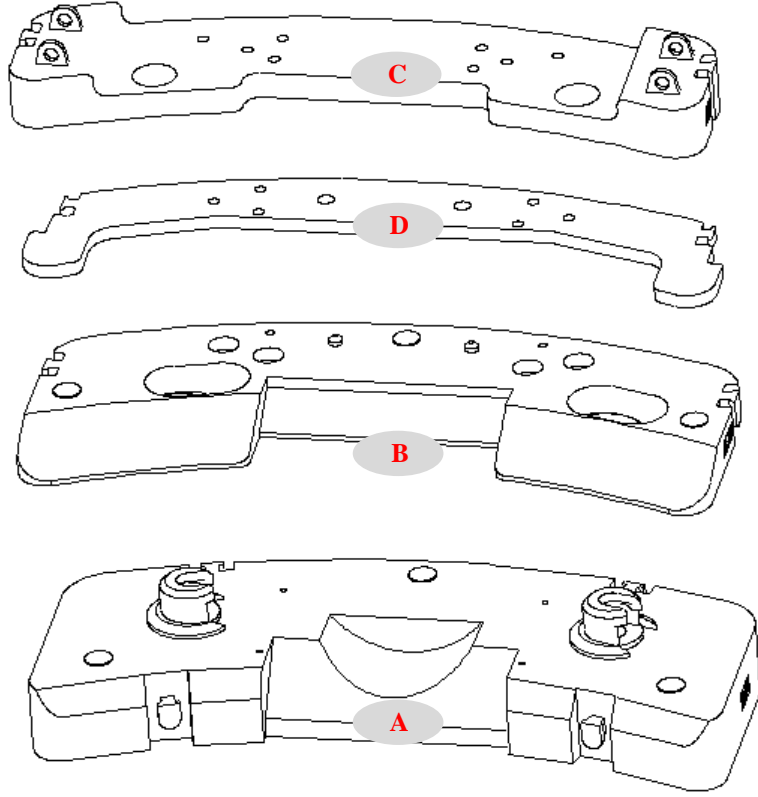
		
385/95 R 25 ( 14.00 R 25 )	3~80	70%
445/95 R 25 ( 16.00 R 25 )	3~80	63%



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4层, 空载 m/min, single line, 4th layer, no load	32KN	14 mm/190 m
	0-2 r/min		
	从-1°抬起至81°约40s Approx. 40s for boom elevation from -1° to 81°		
	从10.6m伸出至35m约60s Approx. 60s for boom extension from 10.6m to 35m		



# 平衡重 Counterweight



平衡重 Counterweight	A	B	C	D
尺寸 (长×宽×高) m Size (L×W×H) m	2.54×1.068×0.435	2.54×1.013×0.178	2.54×0.716×0.288	2.54×0.716×0.05
重量 t Weight t	3.8	1.4	1	0.3

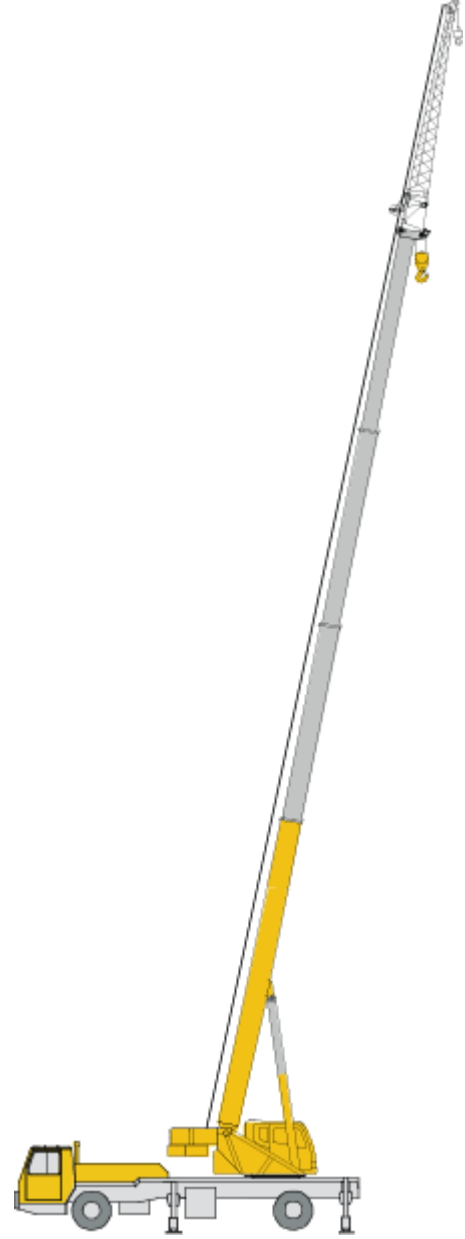
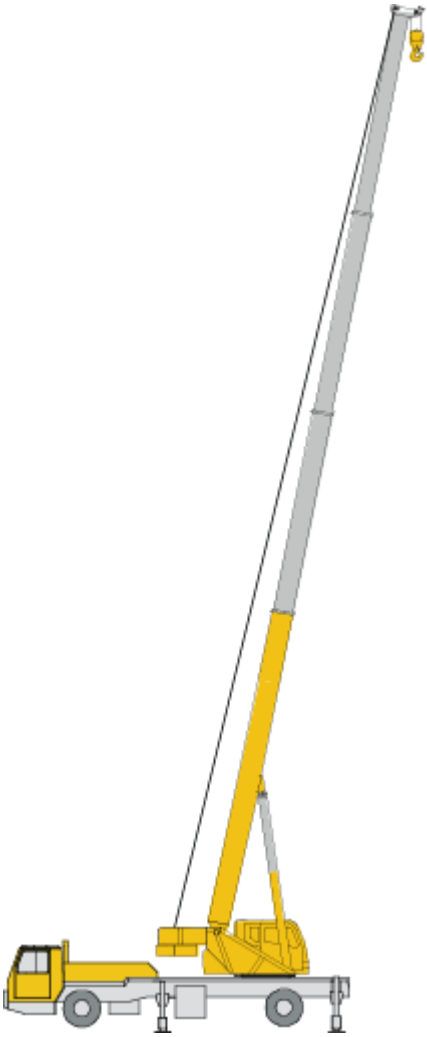
工况模式 Working mode	6.5t	5.1t	2.7t	1.3t	1t
组合形式 Combinations	A+B+C+D	A+C+D	B+C+D	C+D	C

# 臂架组合方案

## Boom / Jib combinations

T 主臂 Telescopic boom

J 副臂 Jib

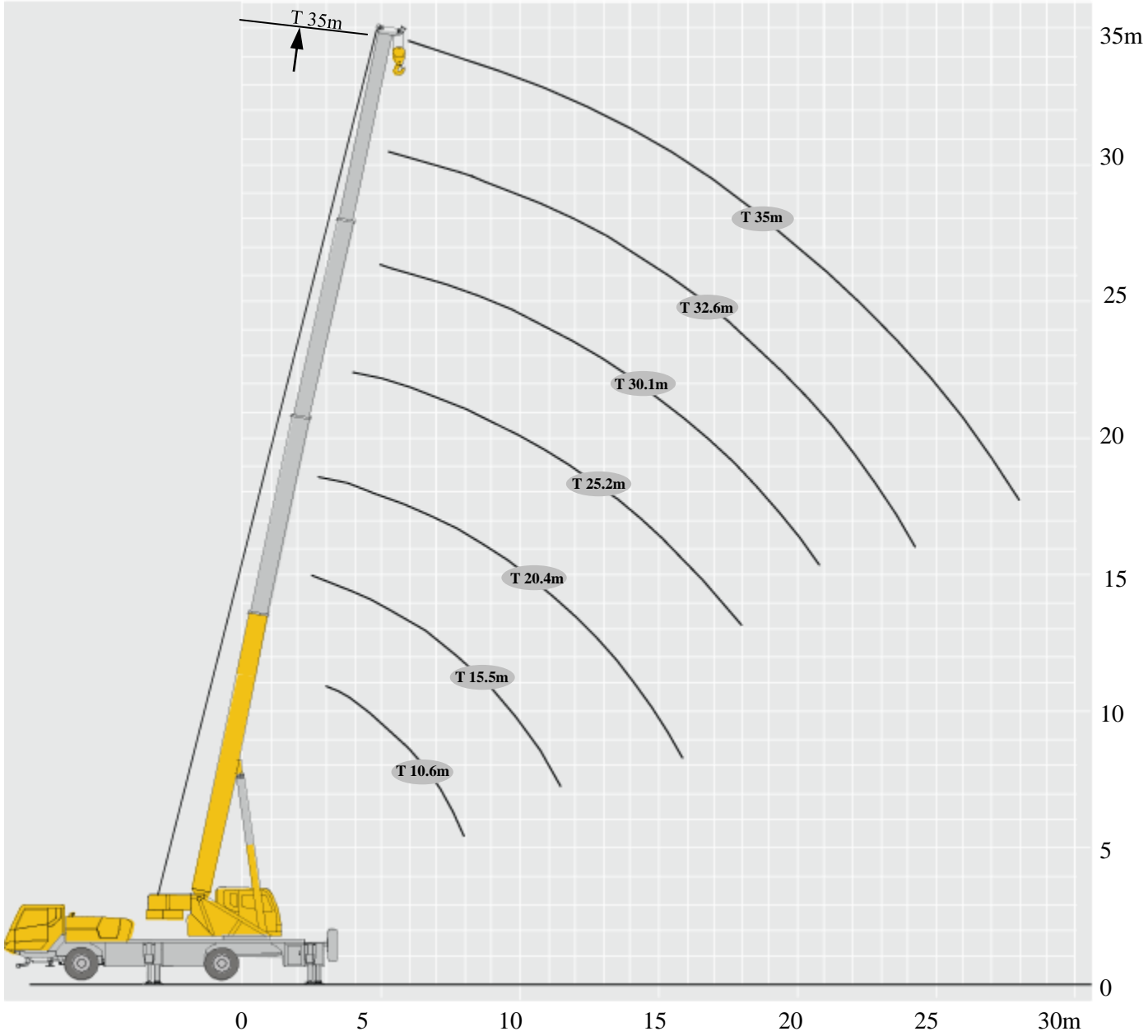


主臂  
Telescopic boom

T : 10.6~35 m

副臂  
Jib

T : 10.6 , 30.1~35 m  
J : 9.5m



# 起重性能表

## Lifting capacities

T 10.6~35m



	10.6 m*	10.6 m	15.5 m	20.4m	25.2m	30.1 m	32.6 m	35 m	
2.5	40								2.5
3	35.4	30.6	19.7						3
3.5	32.9	28.2	20.2	17.5					3.5
4	29.8	25.6	20.6	18	15.1				4
4.5	26.7	23.5	21.2	18.3	15	12			4.5
5	24.3	21.6	21.3	18.8	14.9	11.9	9		5
6	20	18.5	19	18.7	13.4	10.8	9	7.9	6
7	15.6	15.4	16	15.5	12.1	9.5	8.9	7.9	7
8			13.3	13.2	11	8.7	8.1	7.3	8
9			11	11.2	10.1	7.9	7.3	6.8	9
10			9.2	9.4	9.3	7.3	6.7	6.2	10
11			7.9	8.1	8.2	6.8	6.3	5.8	11
12			6.8	7	7.2	6.2	5.8	5.4	12
13				6.2	6.3	5.9	5.5	5.1	13
14				5.5	5.6	5.3	5	4.8	14
15				4.9	5	5	4.7	4.5	15
16				4.4	4.5	4.6	4.4	4.1	16
17				3.9	4	4.1	4.1	3.8	17
18					3.7	3.7	3.8	3.6	18
19					3.3	3.4	3.4	3.4	19
20					3	3.1	3.1	3.1	20
21					2.8	2.8	2.8	2.9	21
22					2.5	2.6	2.6	2.6	22
23						2.4	2.4	2.4	23
24						2.2	2.2	2.2	24
25						2	2	2	25
26						1.8	1.8	1.9	26
27						1.6	1.7	1.7	27
28							1.5	1.6	28
29							1.4	1.4	29
30								1.3	30
31								1.2	31

注意：上述表中带\*工况，表示正后方作业

Note: the working condition with "\*" in the above table stands for boom at over rear.

# 起重性能表

## Lifting capacities

T 10.6~35m

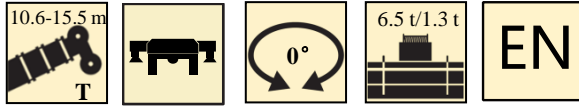


	10.6 m	15.5 m	20.4m	25.2m	30.1 m	32.6 m	35 m	
2.5								2.5
3	30.6	19.7						3
3.5	28.2	20.2	17.5					3.5
4	25.6	20.6	18	15.1				4
4.5	23.5	21.2	18.3	15	12			4.5
5	20.3	19.2	18.8	14.9	11.9	9		5
6	15.2	14.7	16.4	13.4	10.8	9	7.9	6
7	11.3	11.7	12.4	12.1	9.5	8.9	7.9	7
8		9.3	9.1	9.9	8.7	8.1	7.3	8
9		7.6	7.7	8.1	7.9	7.3	6.8	9
10		6.3	6.4	6.8	6.8	6.7	6.2	10
11		5.3	5.5	5.7	5.8	5.9	5.8	11
12		4.5	4.6	4.9	5	5	5.1	12
13			4	4.1	4.4	4.4	4.4	13
14			3.5	3.6	3.8	3.9	3.9	14
15			3	3.1	3.1	3.1	3	15
16			2.6	2.7	2.8	2.7	2.7	16
17			2.3	2.4	2.4	2.4	2.4	17
18				2.1	2.2	2.2	2.1	18
19				1.8	1.9	1.9	1.9	19
20				1.6	1.7	1.7	1.7	20
21				1.4	1.5	1.5	1.5	21
22				1.2	1.3	1.3	1.3	22
23					1.1	1.1	1.1	23
24					1	1	1	24
25					0.8	0.9	0.9	25
26					0.7	0.7	0.7	26
27					0.6	0.6	0.6	27

# 带载行驶起重性能表

T 10.6~15.5m

## Lifting capacities with a load suspended



m	6.5t		1.3t		m
	10.6m	15.5m	10.6m	15.5m	
3	10	10	9.5	10	3
3.5	9	9.2	8.7	9	3.5
4	8	8.5	7.7	7.4	4
4.5	7.3	7.5	6.4	6	4.5
5	6.6	7	5.4	5.3	5
6	5.5	5.9	4	3.9	6
7	4.7	4.8	3	3	7
8		3.9		2.3	8
9		3.3		1.8	9
10		2.7		1.4	10
11		2.3		1.1	11
12		1.9		0.8	12

# 静载360°作业

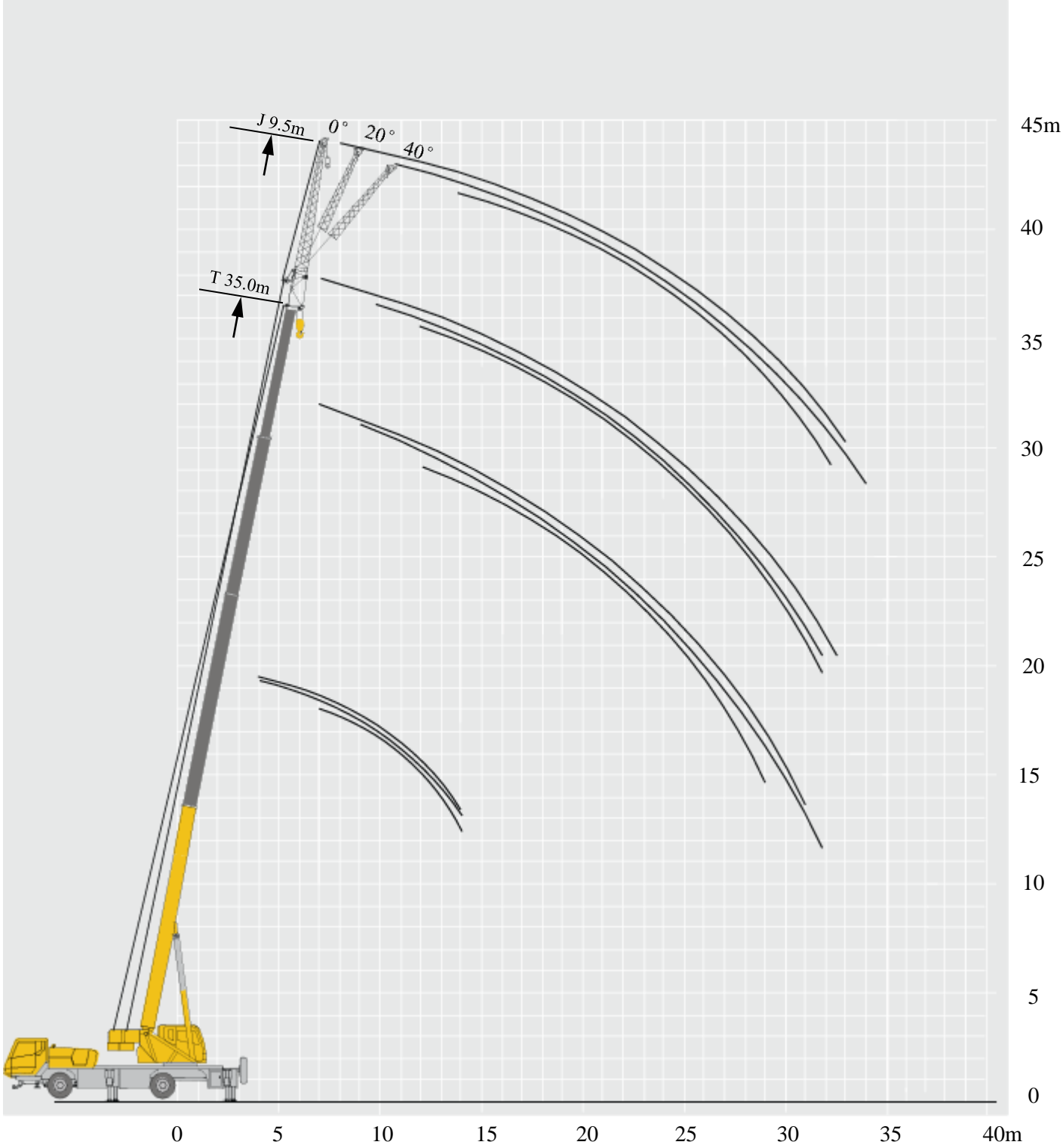
## 360° operation with the crane keeping stationary



m	10.6 m	15.5 m	m
	3	9	
3.5	8.5	7.6	3.5
4	6.3	6.2	4
4.5	5.2	5.1	4.5
5	3.6	3.7	5
6	2.6	2.7	6
7	2	2.1	7
8		1.6	8
9		1.2	9
10		0.8	10

起升高度曲线图  
Lifting heights

副臂  
Jib





# 起重性能表 Lifting capacities

J 9.5m

m	10.6 m			30.1 m			32.6			35 m			m
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	
4	5.6	4.2											4
4.5	5.4	4											4.5
5	5.1	3.9											5
6	4.5	3.4											6
7	3.9	3.1	2.9	4.4			4.1						7
8	3.5	2.9	2.7	4.1			4.0			3.8			8
9	3.1	2.7	2.5	4.0	3.5		4.0			3.8			9
10	2.9	2.5	2.4	4.0	3.2		3.8	3.2		3.6			10
11	2.7	2.4	2.3	3.9	3		3.7	3		3.5	2.8		11
12	2.5	2.2	2.2	3.8	2.9	2.5	3.6	2.9	2.4	3.3	2.7		12
13	2.3	2.1	2.1	3.6	2.8	2.5	3.4	2.8	2.3	3.1	2.6		13
14	2.1	2	2	3.4	2.7	2.4	3.1	2.7	2.2	2.8	2.5	2.2	14
15				3.2	2.6	2.3	2.9	2.6	2.2	2.6	2.5	2.2	15
16				3.0	2.5	2.3	2.7	2.5	2.1	2.4	2.4	2.1	16
17				2.8	2.4	2.2	2.6	2.4	2.1	2.3	2.3	2.1	17
18				2.6	2.4	2.2	2.4	2.3	2	2.1	2.2	2	18
19				2.5	2.3	2.1	2.3	2.2	2	2.0	2.2	2	19
20				2.3	2.2	2.1	2.1	2.2	1.9	2.0	2.1	1.9	20
21				2.2	2.2	2	2.0	2.1	1.9	1.8	2	1.9	21
22				2.1	2.1	2	1.8	1.8	1.9	1.7	2.0	1.8	22
23				2.0	2	1.9	1.7	1.7	1.8	1.6	1.8	1.8	23
24				1.9	1.9	1.9	1.7	1.7	1.8	1.5	1.7	1.8	24
25				1.8	1.8	1.9	1.6	1.7	1.8	1.4	1.6	1.7	25
26				1.6	1.7	1.8	1.5	1.6	1.7	1.4	1.5	1.7	26
27				1.5	1.6	1.8	1.4	1.5	1.7	1.3	1.4	1.6	27
28				1.4	1.4	1.7	1.4	1.4	1.5	1.2	1.4	1.5	28
29				1.3	1.4	1.5	1.3	1.3	1.4	1.1	1.3	1.4	29
30				1.2	1.3		1.2	1.2	1.3	1.0	1.2	1.2	30
31				1.1	1.1		1.1	1.1	1.2	1.0	1.1	1.1	31
32					1.0		1.0	1.0	1.1	0.9	1.0	1.0	32
33							0.9			0.8	1.0		33
34											0.9		34

# 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) Outline size (length×width×height)	mm	11490×2550×3690(14.0R25) 11490×2550×3740(16.0R25)
	轴距 Axle load	mm	3505
	轮距 (前/后) Track (Front/ Rear )	mm	2131(14.0R25) 2087(16.0R25)
	前悬/后悬 Front/ Rear overhang	mm	3265/2300
	前伸/后伸 Front/ Rear extension	mm	2010/410
重量参数 Weight	最大允许总质量 Total vehicle mass in travel configuration	kg	24000
	轴荷 Axle load		
	一轴 1st axle	kg	12000
	二轴 2nd axle	kg	12000
动力参数 Power	发动机型号 Engine model	—	OM936LA
	额定功率/转速 Rated power/rpm	kW/(r/min)	230/1800
	最大净功率/转速 Max. net power/rpm	kW/(r/min)	230/1800
	最大输出扭矩/转速 Max. output torque/rpm	N.m/(r/min)	1300/1400
行驶参数 Travel	最高车速 Max. travel speed	km/h	≥80
	最低稳定车速 Min. travel speed	km/h	3
	最小转弯直径 Min. turning diameter	m	≤14 (公路行驶 Road travel, 14.00R25 ) ≤15.3 (公路行驶 Road travel, 16.00R25 )
	最小离地间隙 Min. ground clearance	mm	330 ( 14.00R25 ) 380 ( 16.00R25 )
	接近角 Approach angle	°	16 ( 14.00R25 ) 19 ( 16.00R25 )
	离去角 Departure angle	°	12 ( 14.00R25 ) 14 ( 16.00R25 )
	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	%	70(14.0R25) 63(16.0R25)
	百公里油耗 Fuel consumption per 100 km	L	35
	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	40	
	最小额定工作幅度 Min. rated working radius		m	2.5	
	转台尾部回转半径 Turning radius at turntable tail	平衡重处 Counterweight	mm	3450	
	最大起重力矩 Max. load moment	基本臂 Base boom		kN.m	1191
		最长主臂 Fully-extended boom		kN.m	662
		最长主臂+副臂 Fully-extended boom + Jib		kN.m	529
	支腿跨距 Outrigger span	纵向 Longitudinal		m	6.46
		横向 Lateral		m	6.2
	起升高度 Hoist height	基本臂 Base boom		m	10.4
		最长主臂 Fully-extended boom		m	35.4
		最长主臂+副臂 Fully-extended boom + Jib		m	42.7
	起重臂长度 Boom length	基本臂 Base boom		m	10.6
		最长主臂 Fully-extended boom		m	35
最长主臂+副臂 Fully-extended boom + Jib		m	44.5		
副臂安装角 Jib offset angle		°	0, 20, 40		
工作速度参数 Working speed	起重臂起臂时间 Boom raising time		s	≤40	
	起重臂全伸时间 Boom fully extended time		s	≤60	
	最大回转速度 Max. slewing speed		r/min	≥2	
	支腿收放时间 Outrigger extending and retracting time	水平支腿 Outrigger beam	收 Retracting	s	≤20
			放 Extending	s	≤30
		垂直支腿 Outrigger jack	收 Retracting	s	≤40
			放 Extending	s	≤50
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	
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 )	≤80	

# 符号标识

## Description of symbols

### 常规标识

#### General symbols

	支腿 Outriggers		车桥 Axle
	工作幅度 Radius		行驶速度 Driving speed
	吊臂仰角 Boom position		爬坡能力 Grade ability
	吊臂长度 Boom length		轮胎 Tires
	吊钩 Hook block		平衡重 Counterweight
	360°全回转 360° rotation		上车 Superstructure
	卷扬 Winch		底盘 Chassis
	主臂 Boom		副臂 Jib
	轮胎支承工况 Working condition with the crane on tires		标准 Standard

## 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(风速14.1m/s，风压125N/m<sup>2</sup>)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. 带\*工况，表示正后方作业。

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/s, wind pressure is 125N/m<sup>2</sup>).
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 working condition with "\*" in the above table stands for boom at over rear.