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QUY300履带起重机 QUY300 CRAWLER CRANE

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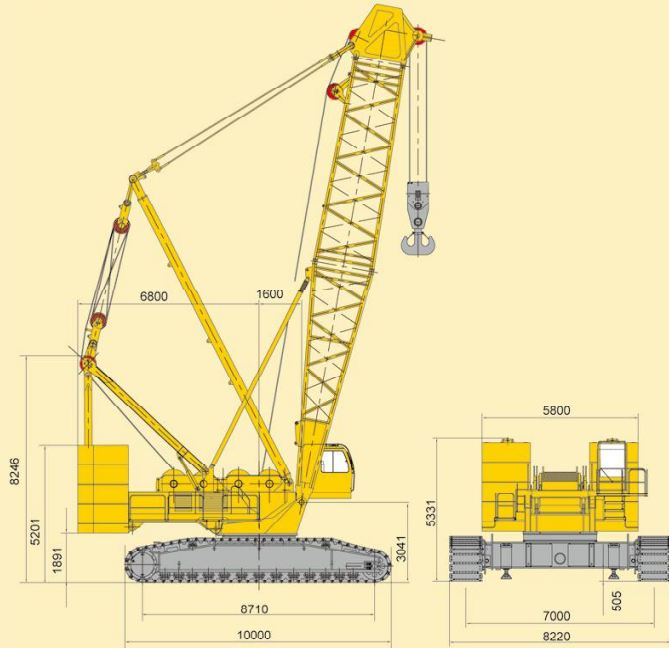
技术性能参数/整机基本尺寸 Technical Specification/Overall Dimension

主要零部件 Main Parts

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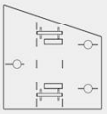
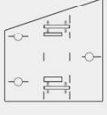

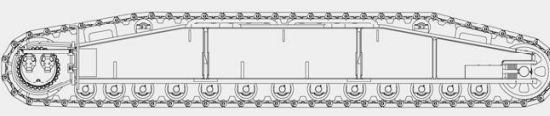
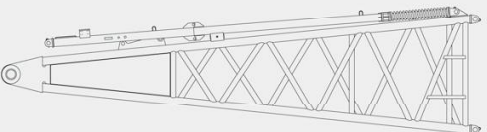


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项目 Items	单位 Unit	数值 Data
重型主臂 Heavy boom	t	300
基本型主臂 Basic boom	t	180
轻型主臂 Light boom	t	100
塔式副臂 Tower jib	t	87.5
风电副臂 Wind power jib	t	85
最大起重重量 Max. lifting capacity		
最大起重力矩 Max. load moment	kN.m	16330
主臂长度 Main boom length	m	18~48
基本型主臂 Basic boom	m	24~72
轻型主臂 Light boom	m	30~96
主臂变幅角度 Main boom luffing angle	°	30~84
塔式副臂长度 Tower jib length	m	24~60
风电副臂长度 Wind power jib length	m	7
起升机构最大单绳速度 (空载, 第六层) Winch max. single line speed (no load, at 6th layer)	m/min	100
主臂变幅机构单绳速度 (第一层) Boom luffing gear single line speed (at 1st layer)	m/min	24
塔臂变幅机构单绳速度 (第一层) Tower jib luffing gear single line speed (at 1st layer)	m/min	26
最大回转速度 Max. stowing speed	r/min	1.4
最大行走速度 Max. travel speed	km/h	1.0
爬坡能力 Grade ability	%	30
平均接地比压 (主吊钩, 18 m臂) Mean ground pressure (main hook block, 18m boom)	MPa	0.127
发动机功率 Engine output power	kW	310
整机质量 (主吊钩, 18 m臂) Gross vehicle mass (main hook block, 18m boom)	t	285
运输状态单件最大质量 Max. weight of single unit in travel configuration	t	37.0
运输状态单件(主机)最大尺寸 (长×宽×高) Max. dimension of single unit(base machine) in travel configuration (L×W×H)	m	11.2×3.35×3.4

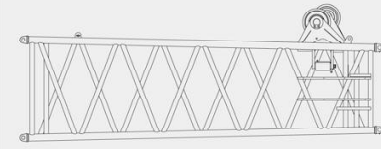
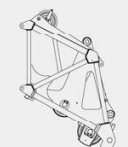
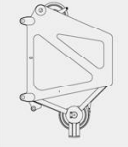
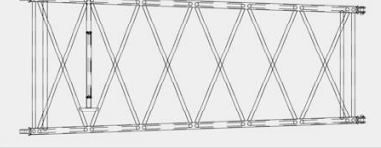
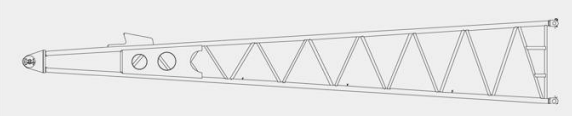
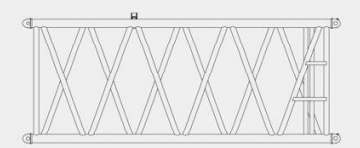
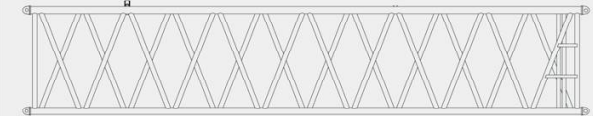


	主机I Main Unit I × 1 长 L 11200mm 宽 W 3350mm 高 H 3400mm 重量 Weight 37000kg
	主机II Main Unit II × 1 长 L 6240mm 宽 W 3400mm 高 H 2750mm 重量 Weight 34000kg
	300t吊钩 Capacity Hook Block × 1 长 L 2935mm 宽 W 1542mm 高 H 980mm 重量 Weight 5370kg
	200t吊钩 Capacity Hook Block × 1 长 L 2440mm 宽 W 1260mm 高 H 990mm 重量 Weight 2850kg
	100t吊钩 Capacity Hook Block × 1 长 L 2187mm 宽 W 980mm 高 H 805mm 重量 Weight 2320kg
	35t吊钩 Capacity Hook Block × 1 长 L 1850mm 宽 W 980mm 高 H 505mm 重量 Weight 1540kg
	12t吊钩 Capacity Hook Block × 1 长 L 920mm 宽 W 520mm 高 H 520mm 重量 Weight 585kg
	上车1号配重 Upper Counterweight 1 × 1 长 L 5800mm 宽 W 2180mm 高 H 800mm 重量 Weight 12000kg

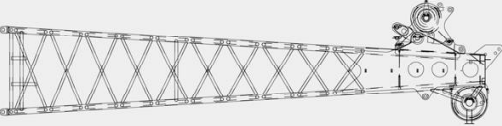

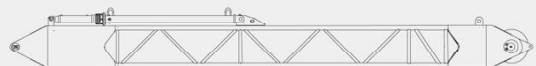
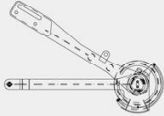
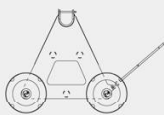
主要零部件 Main Parts

	<p>上车2号配重 Upper Counterweight 2 × 4</p> <p>长L 1900mm 宽W 1800mm 高H 860mm 重量 Weight 10500kg</p>
	<p>上车3号配重 Upper Counterweight 3 × 4</p> <p>长L 1900mm 宽W 1800mm 高H 860mm 重量 Weight 10500kg</p>
	<p>车身配重 Car-body Counterweight × 4</p> <p>长L 1775mm 宽W 900mm 高H 900mm 重量 Weight 5500kg</p>
	<p>履带架 Crawler × 2</p> <p>长L 10000mm 宽W 1760mm 高H 1695mm 重量 Weight 32000kg</p>
	<p>主臂底节臂 Boom Butt × 1</p> <p>长L 9265mm 宽W 2635mm 高H 2480mm 重量 Weight 5755kg</p>
	<p>主臂6米节 Boom Insert × 1</p> <p>长L 6150mm 宽W 2580mm 高H 2435mm 重量 Weight 1962kg</p>
	<p>主臂12米节 Boom Insert × 4</p> <p>长L 12150mm 宽W 2580mm 高H 2435mm 重量 Weight 3590kg</p>

主要零部件 Main Parts

	<p>主臂7 8米节 Boom Insert × 1</p> <p>长L 7950mm 宽W 2580mm 高H 3020mm 重量 Weight 3545kg</p>
	<p>基本型主臂臂头 Basic Boom Head × 1</p> <p>长L 4054mm 宽W 2310mm 高H 2720mm 重量 Weight 4400kg</p>
	<p>重型主臂臂头 Heavy Boom Head × 1</p> <p>长L 3105mm 宽W 2275mm 高H 2170mm 重量 Weight 3950kg</p>
	<p>轻型过渡节 Light Boom Extension × 1</p> <p>长L 6135mm 宽W 2540mm 高H 2295mm 重量 Weight 900kg</p>
	<p>塔臂底节臂 Tower Jib Butt × 1</p> <p>长L 9220mm 宽W 2310mm 高H 1730mm 重量 Weight 1890kg</p>
	<p>塔臂6米节 Tower Jib Insert × 1</p> <p>长L 6120mm 宽W 2130mm 高H 1860mm 重量 Weight 827kg</p>
	<p>塔臂12米节 Tower Jib Insert × 3</p> <p>长L 12120mm 宽W 2130mm 高H 1860mm 重量 Weight 1553kg</p>

主要零部件 Main Parts

	塔臂顶节臂 Tower Jib Top	× 1
	长L	9705mm
	宽W	2130mm
	高H	2405mm
	重量 Weight	2432kg
	塔臂前支架 Tower Jib Front Strut	× 1
	长L	12375mm
	宽W	1295mm
	高H	960mm
	重量 Weight	2260kg
	塔臂后支架 Tower Jib Rear Strut	× 1
	长L	10575mm
	宽W	1315mm
	高H	1180mm
	重量 Weight	2350kg
	臂端单滑轮 Boom Head Single Sheave	× 1
	长L	2230mm
	宽W	790mm
	高H	1565mm
	重量 Weight	480kg
	小车 Trolley	× 1
	长L	2400mm
	宽W	1375mm
	高H	1555mm
	重量 Weight	600kg

说明 Notes

- 以上零部件运输形状为示意图，所标尺寸为设计值，不包括包装。
The above parts dimension is only for illustration, the dimension shown is design value, and does not include the package.
- 重量为设计值，由于制造误差，可能稍有不同。
The weight is design value, may have slight difference due to error in manufacture.

详细介绍 Brief Introduction

上车

发动机

采用VOLVO的TWD1240VE六缸、水冷、增压、中冷电喷发动机，额定功率310kW，额定转速为2100rpm，最大输出扭矩2000N·m，排放符合欧洲工程机械第二阶段排放标准。

控制

智能化计算机集成可编程控制系统，是该产品的关键核心技术。采用PLC可编程控制器，并与常规电气相结合，完成系统的逻辑控制与电比例控制功能，实现起重机的自动控制，大大提高起重机的作业安全性、可靠性和作业效率。本机的操作可以通过电脑的大屏幕显示出来，很方便的实现了人机对话。

液压系统

采用电比例控制，开闭回路相结合，恒功率变量泵系统。
液压系统组成：起升回路，变幅回路，回转回路，行走回路，辅助安装回路。

特点：起升回路、变幅回路、行走回路采用开式系统，主泵为恒功率变量泵。液压先导控制变量，具有功率限制，压力切断功能，可以满足多个执行元件动作要求。回转系统采用闭式系统，响应快，控制精准，起、制动、换向平稳，无冲击。可以满足频繁换向，微动操作。

起升机构

主、副起升型号相同，单独驱动，双泵合流供油；片式常闭制动器，力士乐内藏式减速机。主、副起升机构与转台采用销轴连接，便于组装。驱动马达、平衡阀、起升钢丝绳均为德国进口。最大速度可达100m/min，具有优良的微速性能，起升机构还具有换油方便、低噪音、高效率、长寿命等特性。

变幅机构

主臂变幅为一个双联卷筒独立驱动，塔臂变幅为一个卷筒独立驱动。卷筒设有棘轮装置，以机械锁止的方式防止吊臂的意外下落。主、副变幅机构采用定量马达，其内部装有安全阀，可有效保护马达，也可有效防止马达因过载而损坏。驱动马达、平衡阀、变幅钢丝绳均为德国进口。

回转机构

回转机构布置在转台内侧面，由两个行星减速机（力士乐公司）组成，与回转支承内啮合。液压缓冲，具有自由旋转功能。行星齿轮减速机，可控常闭、片式制动器，工作可靠，维修方便。

回转支承

采用徐州罗特艾德公司的三排滚柱式回转支承，质量稳定可靠。

上车配重

上车1号配重：12t 1×12t，共1块；
上车2号配重：42t 4×10.5t，共4块；
上车3号配重：42t 4×10.5t，共4块；

Crane Superstructure

Engine

VOLVO TWD1240VE diesel engine, 6-cylinder of water-cooled, turbocharged, inter-cooled and electronic injection, rated output power 310kW, rated speed 2100rpm, max. output torque 2000N.m, emission in compliance with European Construction Machinery Stage II.

Control System

Intelligent computer integrated program control system is the key technology of the crane. PLC program controller is used, with combination of conventional electrics, to realize the function of logic control and electronic proportional control of the system, greatly improving safety, reliability and efficiency for crane operation. Crane operation can be shown by a larger screen computer display, and easy for man-machine interaction.

Hydraulic System

Electronic proportional control, with combination of close/open type circuit, constant power and variable displacement pump system.
Hydraulic system: winch, luffing gear, slewing gear, tower jib backstop, travel gear, auxiliary assembly system.
Features: winch, luffing gear, travel gear are of open type system, main pump is constant power and variable displacement pump, variable displacement by hydraulic pilot control, with function of power limit and pressure cut-off, may satisfy the requirement of multiple actuator movement. Slewing gear is close type system, quick response, accurate control, stable starting, braking and direction change, no impact, may satisfy operation of frequent direction change and fine motion control.

Winch

Main/auxiliary winch has same model, with independent drive and combination of two pumps for oil supply, disc type constant closed brake, Rexroth built-in speed reducer, main/auxiliary winch and turntable connected by pin shaft, easy for assembly. Drive motor, counterbalance valve, winch wire rope imported from Germany, max. line speed 100m/min., with good fine speed performance. Winch also features easy oil replacement, low noise, high efficiency and long service life.

Luffing Gear

Boom luffing gear is a twin drum independent drive unit and tower jib luffing gear is an independent drive unit. The winch drum has a ratchet locking device to realize mechanical locking the boom in prevention of unexpected lowering. Main/auxiliary luffing gear use fixed displacement motor, with safe valve inside, efficiently protect motor, and may also efficiently prevent motor from damage due to overload. Drive motor, counterbalance valve, winch wire rope are all imported from Germany.

Slewing Gear

Slewing gear is arranged inside the front of turntable, made up by two planetary reducers (Rexroth), and external meshed with slewing ring, hydraulic buffering, and with the function of free swing. Planetary reducer has a controllable constant-closed disc brake, reliable working and easy for maintenance.

Slewing Ring

Slewing ring is a 3-row roller type slewing bearing made by Xuzhou Rothe Erde, with reliable quality.

Superstructure Counterweight

Upper Counterweight 1: 12t 1×12t total 1 slab;
Upper Counterweight 2: 42t 4×10.5t total 4 slabs;
Upper Counterweight 3: 42t 4×10.5t total 4 slabs;

详细介绍 Brief Introduction

操纵室

操纵室采用钢制框架结构，正面配置有整体式夹层玻璃，其余玻璃均为钢化玻璃，装有可调节座椅、按人机工程学布置的全套操纵仪表和控制装置，配置风道式冷暖空调、音响、灭火装置、闭路监视系统等，宽敞舒适。工作时，操纵室可调整俯仰角度，扩大视野，方便操作；运输时，操纵室可从侧方转到前方，减小运输宽度。

转台

转台采用上下分体式结构，这种结构形式能极大程度的降低主机运输重量和运输尺寸，运输状态下主机单件最大运输重量约为37吨。转台是联系上下车的关键承载结构件，转台通过回转支承与下车进行联接。驾驶室、起升机构、变幅机构、发动机、人字架、桅杆、臂架及配重等分别与转台在不同部位进行联接。

下车

下车包括车架、履带架、行走机构和车身配重。车架和履带架采用销轴铰接式连接，销轴安装通过液压缸完成。

车架

车架采用高强度钢板、箱形结构，中间设置横隔板，加强其抗扭刚度，结构简单，承载能力强，刚性好。

履带架

包括履带梁和四轮一带。履带梁采用箱形结构，和车架连接部位局部加强，中间设置横隔板。两个履带架对称布置。

行走机构

履带行走驱动采用德国进口的内藏式行星齿轮减速机，液压释放行走制动器，每个减速机由德国进口的轴向柱塞变量马达驱动，可同步操作，也可单独操纵，以实现直行和转弯。

行走速度

变量马达可以实现无级变速，最高速度1公里/小时。行走时，设备运行平稳，可实现快速行走。

车身配重

车身配重：22t 4x5.5t，共4块；

作业装置

起重臂包括主臂、塔式副臂和专用副臂。结构型式为中间等截面，两端变截面的四弦杆空间桁架结构，主弦杆采用进口高强度管材，腹杆采用国产优质管材，提高了臂架抗弯曲的能力。

Operator's Cabin

Operator's cabin is steel frame structure, front windshield has overall type safety glass, other glass is hardened glass, equipped with adjustable seat, all kinds of ergonomic designed instruments and controls, vent type air-conditioner, CD player, fire extinguisher, and closed circuit monitoring system, spacious and comfortable. When the crane is in operation, the operator's cabin can be tilted upward to widen the field of vision. When the crane is in transportation, the operator's cabin can be turned from the side to the front so as to reduce the transport width.

Turntable

Turntable is upper/lower separate structure, and this kind of structure may greatly reduce the transportation weight and transportation size of main machine, and under this transport state the max. weight of single unit is only approximately 37 tons. Turntable is key structural part linked with crane superstructure and crane carrier for load bearing, with many mechanisms arranged on it, such as operator's cabin, winch, luffing gear, engine, gantry, mast, boom and counterweight.

Crane Carrier

Crane carrier comprises car-body, crawler track, travel gear and superstructure counterweight. Car-body and crawler are articulated by pin shaft, and the installation of pin shaft is realized by hydraulic cylinder.

Car-body

Car-body is made of high strength steel, box-type structure, with cross panel installed in the middle to strengthen its stiffness of torsion resistance, simple structure, high loading capacity and well rigidity.

Crawler Track

Crawler track consists of track beam, drive sprocket, idler wheel, upper roller, lower roller and track. Crawler beam is box-type structure, the connection place to frame is strengthened partially, and cross panel is installed in the middle of it. Two crawler tracks are symmetrically arranged.

Travel Gear

Travel gear drive has German imported built-in planetary gear reducer and hydraulic release service brake, each reducer is driven by German imported axial piston variable displacement motor, can be operated synchronously or independently to realize straight travel and turning around.

Travel Speed

Variable displacement motor can realize infinitely variable drive, max. speed 1 km/h, stable and fast travel.

Car-body Counterweight

Car-body counterweight: 22t 4x5.5t total 4 slabs.

Lifting Operation Parts

Lifting boom comprises main boom, tower jib and special jib, the structural type is lattice structure of four tubular chords with intermediate equal section and two end variable section; the main boom chord is made of imported high quality tube, and web rod is made of domestic high quality tube, with the ability for improving torsion resistance.

详细介绍 Brief Introduction

主臂

主臂为中间等截面、两端变截面的空间桁架式结构，钢管焊接，臂架顶部与根部用钢板加强，以利于传递载荷。
主臂分为重型主臂（18~48米）、基本型主臂（24~72米）和轻型主臂（30~96米），配置臂端单滑轮机构。
组成：底节臂9m、中间节臂6m×1、中间节臂12m×4、过度节7.8m×1、基本型臂头、重型臂头和7.8米轻型过度节。

风电副臂

风电副臂是专门为1.5兆瓦风电及其它大型工程所设计。其中基本型风电副臂配基本型主臂臂头，最大组合长度为72米主臂加7米副臂，也可选装提高型风电副臂，提高型风电副臂配专用风电臂头，副臂最大组合长度为78米主臂加7米副臂，风电副臂工况最大起重重可達85吨。

塔式副臂

塔式副臂为中间等截面、两端变截面的空间桁架式结构，钢管焊接，臂架顶部与根部用钢板加强，以利于传递载荷。
塔式副臂可在主臂长30~60米范围内进行作业，其作业长度为24~60m。
主臂组成：底节臂9m、中间节臂6m×1、中间节臂12m×3、过渡节7.8m×1、基本型臂头。
塔式副臂组成：底节塔臂9m、中间节臂6m×1、中间节臂12m×3、顶节臂9m×1。

桅杆

桅杆结构为箱形双肢结构，该结构整体稳定性好，强度高，刚性好。

人字架

人字架是重要结构件之一，前足采用箱形双肢结构装有油缸，用于起落人字架，后足采用可折叠式拉板。

吊钩

标准配置：300t吊钩、200t吊钩、100t吊钩、35t吊钩、12t吊钩

安全装置

安全装置包括力矩限制器、转台回转锁销装置、起重臂防后翻装置、起升高度限位装置、风速仪、水平仪、液压系统的溢流阀、平衡阀、双向液压锁、回转警告、行走警告等。

应急功能

系统程序出故障时，可采用控制柜中的翘板开关把整机操作到安全状态。此时所有安全保护功能不起作用。

力矩限制器

检测功能：力矩限制器能自动检测出起重臂的角度、起重载荷，
显示功能：实时的显示当前实际载荷，工作半径，起重臂角度。
警示功能：如果检测到实际载荷超过额定载荷，起重臂超过极限角度，力矩限制器发出报警并限制当前动作。

Main Boom

Main boom is lattice structure of intermediate equal section and two end variable section, welded by steel tube, boom top and boom foot reinforced by steel plate for load transfer.
Boom is divided into heavy boom (18-48m), basic boom (24-72m) and light boom (30-96m), and equipped with boom head single sheave.
Boom construction: 9m boom butt, 6m×1 boom insert, 12m×4 boom insert, 7.8m×1 boom extension, basic boom head, heavy boom head and 7.8m light boom extension.

Wind Power Jib

Wind power jib is specially designed for erection of 1.5 megawatt wind turbine engine and other large scale project, in which basic wind power jib is equipped with basic boom head, the max. combination length is 72m boom plus 7m jib. An improved wind power jib is also for potion, the max. lifting capacity may also reach 85 tons, and the max. combination length is 78m boom plus 7m jib, with more superior lifting performance.

Tower Jib

The tower jib is lattice structure of intermediate equal section and two end variable section, welded by steel tube, jib top and jib foot reinforced by steel plate for load transfer.
Tower jib can be operated within the range of 30-60m boom, and jib length is 24-60m.
Boom construction: 9m boom butt, 6m×1 boom insert, 12m×3 boom insert, 7.8m×1 boom extension, basic boom head.
Tower jib construction: 9m jib butt, 6m×1 jib insert, 12m×3 jib insert, 9m×1 jib top.

Mast

The mast is box type structure of twin tubular chord, with good overall stability, high strength and good rigidity.

Gantry

Gantry is one of the important structural parts, the front foot is box-type structure of twin tubular chord with hydraulic cylinder for raising and lowering gantry, and the rear foot is folded pendant.

Hook Block

Standard equipment: 300t capacity hook block, 200t capacity hook block, 100t capacity hook block, 35t capacity hook block, and 12t capacity hook block.

Safety Devices

Safety devices comprise: load moment limiter, turntable lock pin, boom backstop, hoist limit switch, anemometer, level gauge, hydraulic overflow valve, counterbalance valve, two-way hydraulic lock, slewing warning lamp and travel warning lamp, etc.

Emergency Function

When a mistake occurs in the system, a toggle switch on control panel may be used to control the whole machine into safe state, at this time all safe protections have no use.

Load Moment Limiter

Detection function: automatically detect boom angle and lifting load.
Display function: real time display current actual load, working radius and boom angle.
Warning function: automatically send out warning and stop crane operation when detecting actual load exceed total rated load and boom out of limit position.

详细介绍 Brief Introduction

主、副提升 过卷装置

当主、副卷扬起升到一定高度时候，仪表板上的过卷保护指示灯亮，同时力矩限制器停止起升动作。

主、副提升过放装置

此保护功能由安装在卷筒内部接近开关检测到卷筒上的钢丝绳绕下三卷时候，仪表板上的指示灯亮，同时力矩限制器自动停止起升动作。

安全保护开关

该安全保护开关放在手柄前侧，此开关没有按下时，所有动作信号被屏蔽，手柄不起作用。可防止上下车时身体碰撞手柄产生误操作。

棘爪锁止装置

该功能用于锁定变幅卷扬，起重臂降落时必须打开该装置，否则不能降落，用于保护臂架在非工作时安全停放。

起重臂角度限制

主起重臂仰角达到最大角度极限时，起重臂被停止起升；主起重臂在幅度超出工作范围时停止起重臂降落。塔臂由限位开关控制上限位和下限位。

监控系统

由2个摄像头和一个监视器组成，分别监视主、副卷扬和变幅卷扬。

声光报警器

在履带起重机移动或做回转动作的时候灯闪烁并且发出声音报警。

力限器三色报警灯

由三种颜色组成，负载在90%以下时“绿灯”亮，表示起重机在安全区域运行。负载在90%-100%的时候“黄灯”亮，表示起重机已接近额定载荷范围，负载在100%-105%时“红灯”和“黄灯”同时亮，表示起重机已经超载，在危险区域，控制系统自动切断起重机向危险的方向运行。

照明灯

表置在转台前方、臂架上和操纵室内，用于夜间工作提供照明。

示高灯

安装在臂架顶部，作为高空警示。

风速仪

实时检测当前风速，传送到操纵室的监视器上，提醒司机操作的安全性。

Main/Auxiliary Winch Over-Wound Protection Device

When main/auxiliary winch hoists up to a certain lifting height, an over-wound warning lamp on instrument panel lights on, at the same time, load moment limiter stops crane hoisting up operation.

Main/Auxiliary Winch Over-Release Protection Device

When access switch in winch drum detects only three turns of wire rope left on the drum, an over-release warning lamp on instrument panel lights on, at the same time, load moment limiter stops crane hoisting up operation.

Safe Protection Switch

At the front of joystick installed a safe protection switch, when the switch is pressed down, all crane movement signals have been shielded, and the joystick is useless. This switch can be used to prevent malfunction when operator accessing the cabin and touching the joystick.

Winch Ratchet Locking Device

Winch drum has a ratchet locking device, and it must be turned on when lowering boom, otherwise boom cannot be lowered. The device is used to stow the boom for safety.

Boom Angle Limit

When main boom angle reaches the max. limit, the hoist limit switch stops boom raising. When main boom radius is beyond the working area, the hoist limit switch stops boom lowering. The hoist limit switch also may control the tower jib upper/lower limit angle.

Monitor System

The monitor system contains 2 cameras and 1 monitor display, respectively keeping watch on main /auxiliary winch and luffing winch.

Audio/Video Warning

When crawler crane is moving and slowing, there is light and sound for warning.

Tricolor Warning Lamp

The lamp comprises 3 colors, when crane loading is below 90% of total rated lifting load, "Green Lamp" lights on to indicate crane is running in safety area; when crane loading is in 90% - 100% of total rated lifting load, "Yellow Lamp" lights on to indicate crane is close to total rated lifting load; when crane loading is above 100% - 105% of total rated lifting load, "Red Lamp" and "Yellow Lamp" light on at the same time to indicate crane is overload; In dangerous area, control system can automatically cut off crane movement to dangerous direction.

Illumination Lamp

There are illumination lamps at front of turntable, on boom and inside operator's cabin for night operation.

Height Mark Lamp

Boom tip has a height mark lamp for high level operation warning.

Anemometer

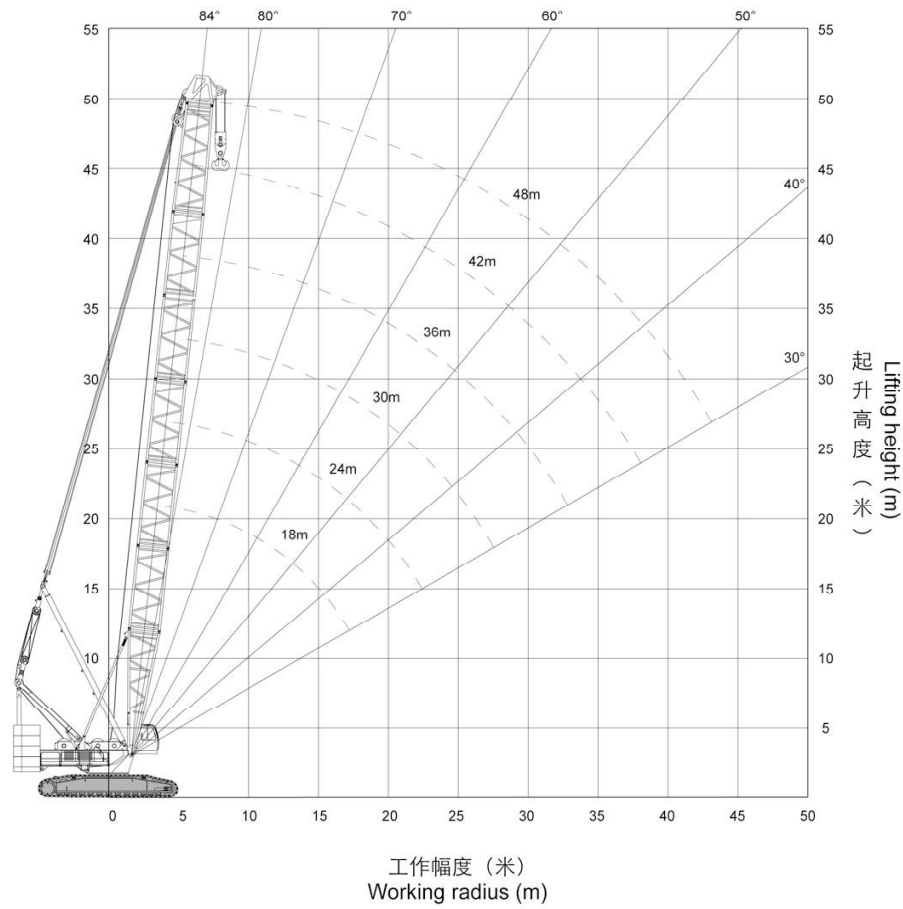
Anemometer at boom head can detect current wind speed and send wind signal to a monitor in operator's cabin to alert operator for safety.

重型主臂臂节组合/重型主臂工况 Heavy Boom Combinations/Heavy Boom Working Condition

臂长 Boom length (m)	底节臂 Boom butt 9m	中间臂节 Boom insert		臂节+重型臂头 Taper section + Boom head 7.8m+1.2m
		6m	12m	
18	1	-	-	1+1
24	1	1	-	1+1
30	1	-	1	1+1
36	1	1	1	1+1
42	1	-	2	1+1
48	1	1	2	1+1



重型主臂作业范围 Heavy Boom Working Area

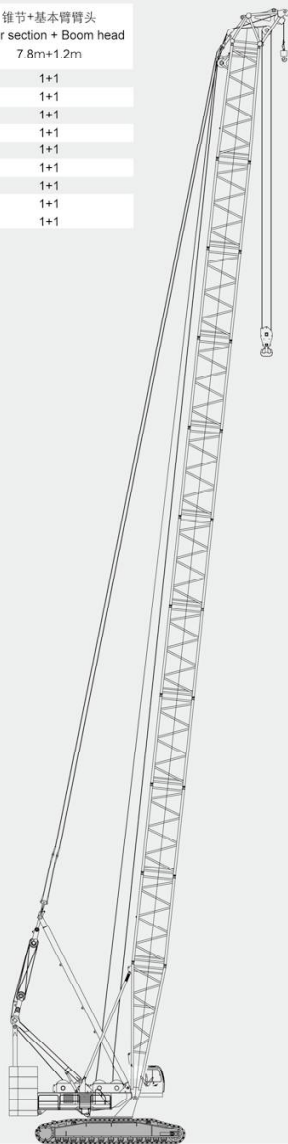


重型主臂工况载荷表 Heavy Boom Lifting Load Chart

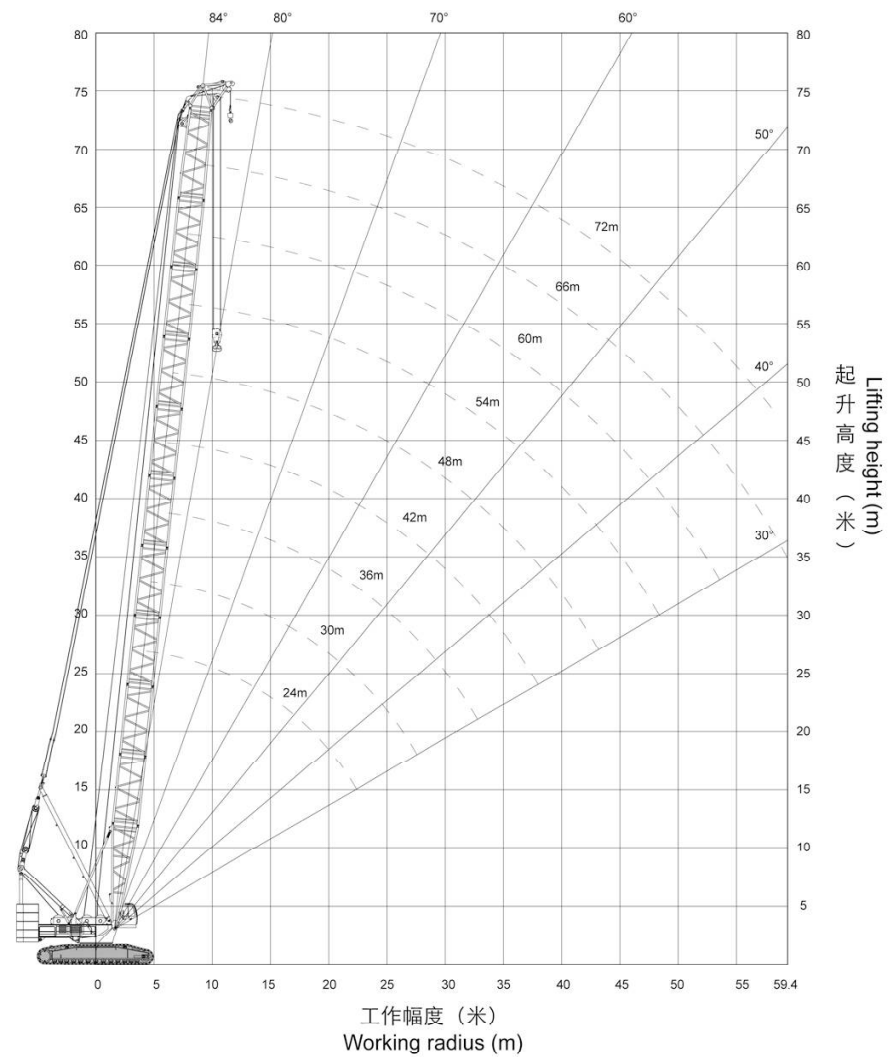
幅度Radius (m)	臂长 Boom length (m)					
	18	24	30	36	42	48
5	300.0					
6	265.0	260.0				
7	226.0	225.0	223.0	220.0		
8	204.0	202.0	201.0	201.0	190.0	190.0
9	185.0	183.0	177.0	171.0	165.0	160.0
10	158.0	156.0	152.0	150.0	148.0	138.0
12	121.0	121.0	118.0	116.0	116.0	112.0
14	97.0	97.0	97.0	94.0	93.0	90.0
16	80.0	80.0	80.0	79.0	78.0	75.0
18		67.0	67.0	67.0	65.0	64.0
20		57.0	57.0	57.0	56.0	55.0
22		50.0	50.0	49.0	49.0	48.0
24			44.0	43.0	43.0	42.0
26			40.0	38.0	38.0	37.0
28			34.0	34.0	34.0	33.0
30				31.0	31.0	30.0
34					26.0	24.0
38					22.0	20.0
42						16.0

基本型主臂臂节组合/基本型主臂工况 Basic Boom Combinations/Basic Boom Working Condition

臂长 Boom length (m)	底节臂 Boom butt 9m	中间臂节 Boom insert		锥节+基本臂臂头 Taper section + Boom head 7.8m+1.2m
		6m	12m	
24	1	1	-	1+1
30	1	-	1	1+1
36	1	1	1	1+1
42	1	-	2	1+1
48	1	1	2	1+1
54	1	-	3	1+1
60	1	1	3	1+1
66	1	-	4	1+1
72	1	1	4	1+1



基本型主臂作业范围 Basic Boom Working Area

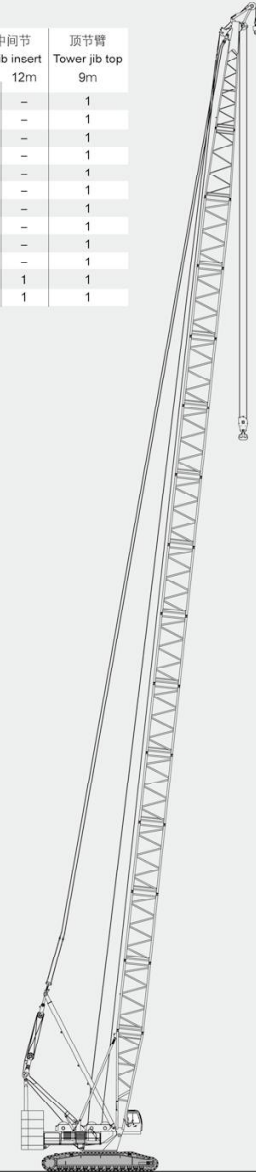


基本型主臂工况载荷表 Basic Boom Lifting Load Chart

幅度Radius (m)	臂长 Boom length (m)									
	24	30	36	42	48	54	60	66	72	
5.5	180.0									
6	180.0									
7	180.0	180.0	180.0							
8	180.0	180.0	180.0	180.0	180.0					
9	180.0	177.0	171.0	165.0	160.0	155.0				
10	156.0	152.0	150.0	148.0	138.0	137.0	130.0	110.0		
12	121.0	118.0	116.0	115.0	112.0	110.0	107.0	104.0	93.0	
14	97.0	97.0	94.0	93.0	90.0	89.0	88.5	87.2	84.0	
16	80.0	80.0	79.0	78.0	75.0	74.0	74.0	73.0	71.0	
18	67.0	67.0	67.0	65.0	64.0	63.0	63.0	62.0	61.0	
20	57.0	57.0	57.0	56.0	55.0	55.0	55.0	54.0	52.0	
22	50.0	50.0	49.0	49.0	48.0	48.0	48.0	47.0	46.0	
24		44.0	43.0	43.0	42.0	42.0	42.0	42.0	40.0	
26		40.0	38.0	38.0	37.0	37.0	37.0	37.0	36.0	
28		34.0	34.0	34.0	33.0	33.0	33.0	33.0	32.0	
30			31.0	30.0	30.0	30.0	30.0	30.0	29.0	
34				25.0	24.0	24.0	24.0	24.0	23.0	
38				21.0	20.5	20.5	20.0	19.5	18.5	
42					17.5	17.0	16.5	16.0	15.2	
46						14.5	13.8	13.0	12.4	
50							11.5	11.0	10.3	
54							9.5	9.3	8.5	
58								7.5	6.6	

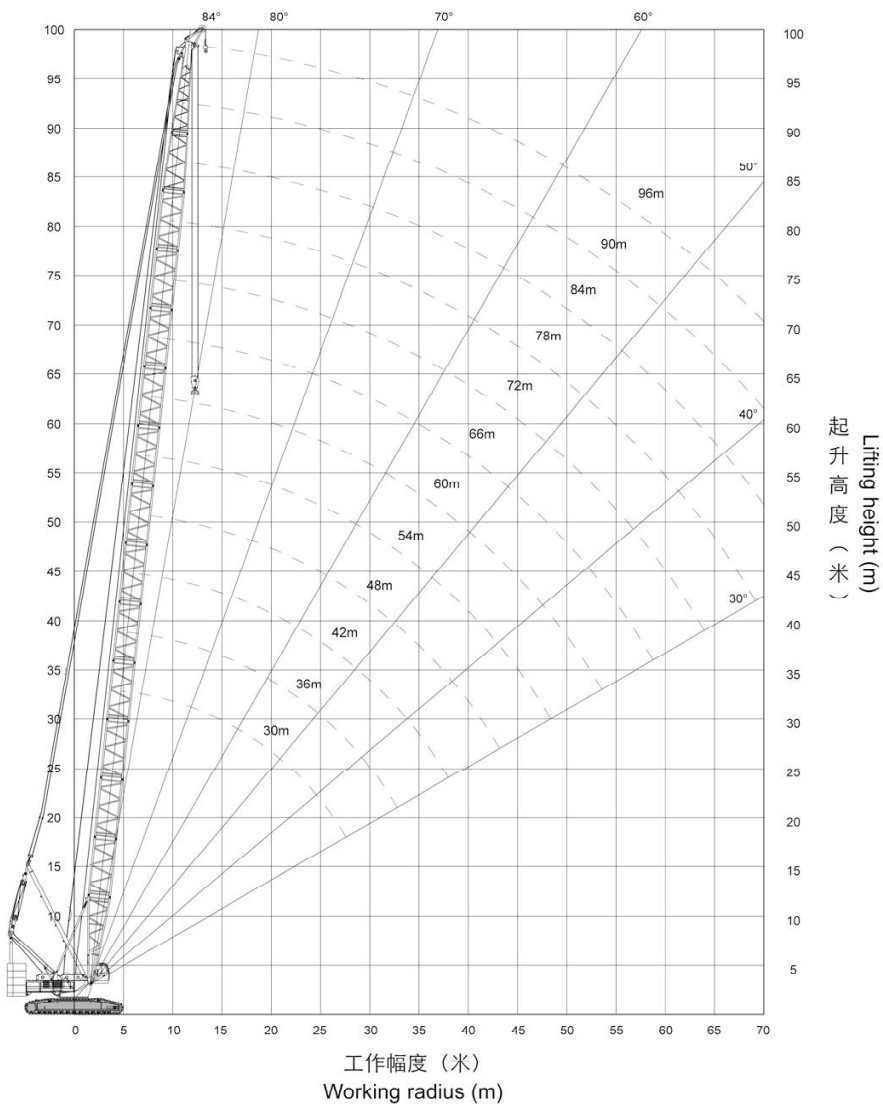
轻型主臂臂节组合/轻型主臂工况 Light Boom Combinations/Light Boom Working Condition

臂长 Boom length (m)	底节臂 Boom butt 9m	主臂中间节 Boom insert 6m 12m		过渡节 Boom extension 6m	塔臂中间节 Tower jib insert 6m 12m		顶节臂 Tower jib top 9m
		6m	12m		6m	12m	
30	1	1	-	1	-	-	1
36	1	-	1	1	-	-	1
42	1	1	1	1	-	-	1
48	1	-	2	1	-	-	1
54	1	1	2	1	-	-	1
60	1	-	3	1	-	-	1
66	1	1	3	1	-	-	1
72	1	-	4	1	-	-	1
78	1	1	4	1	-	-	1
84	1	1	4	1	1	-	1
90	1	1	4	1	-	1	1
96	1	1	4	1	1	1	1



轻型主臂作业范围 Light Boom Working Area

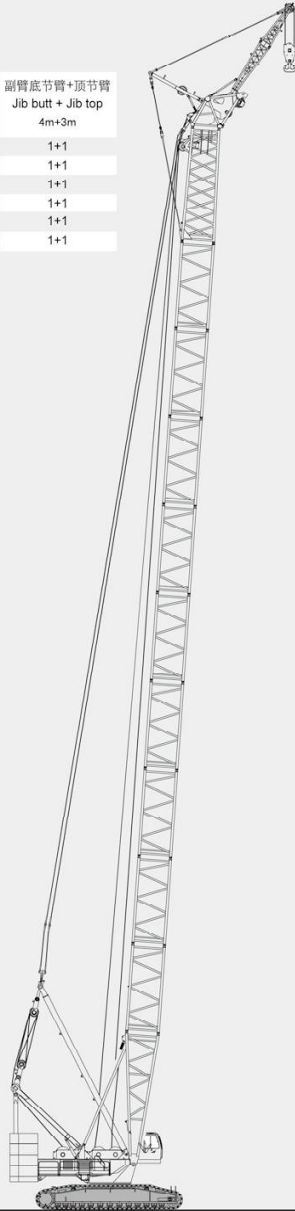
轻型主臂工况载荷表 Light Boom Lifting Load Chart



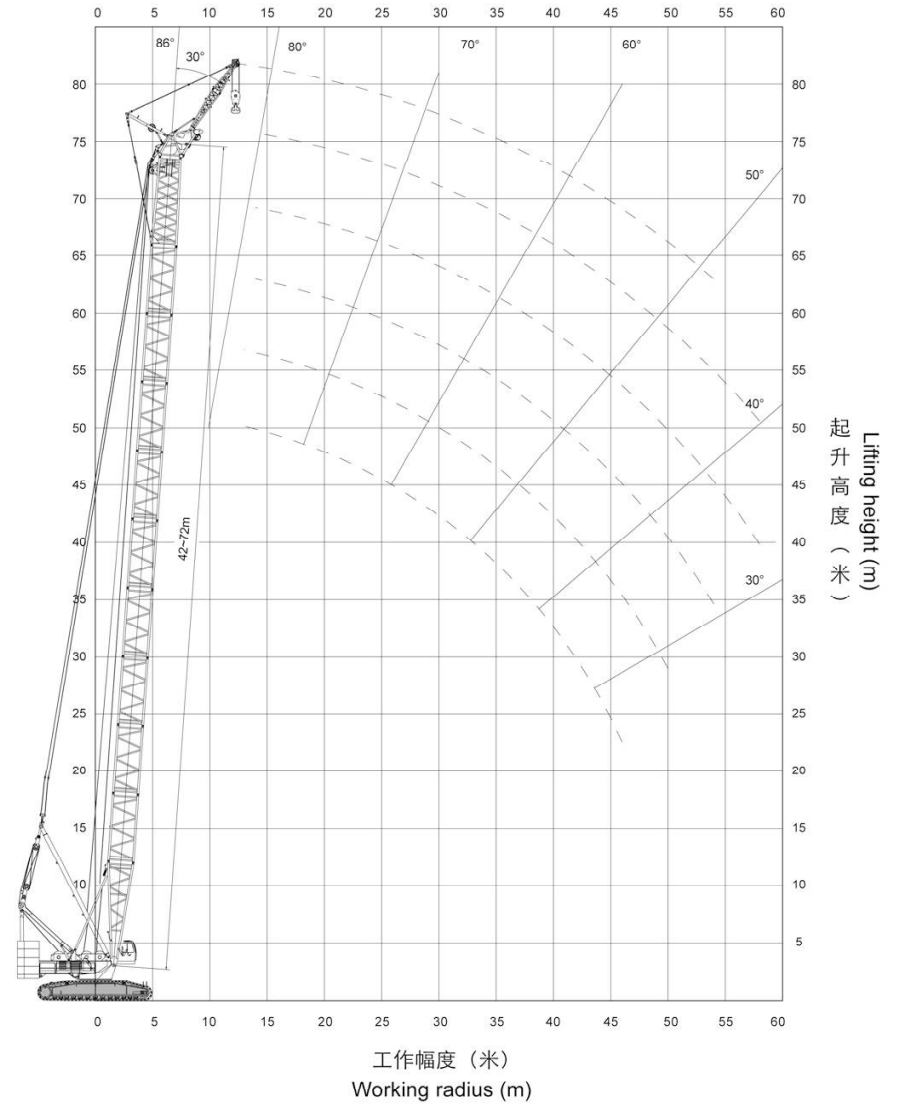
幅度 Radius (m)	臂长 Boom length (m)												
	30	36	42	48	54	60	66	72	78	84	90	96	
5.5	100.0												
6	100.0	100.0											
7	100.0	100.0	100.0										
8	100.0	100.0	100.0	100.0	100.0								
9	100.0	100.0	100.0	100.0	100.0	100.0							
10	100.0	100.0	100.0	100.0	100.0	97.9	82.7	74.3					
12	100.0	100.0	100.0	100.0	96.3	90.2	78.6	70.8	58.3	48.6	41.7		
14	91.7	91.7	91.4	91.3	91.1	82.5	74.5	67.3	57.3	47.7	40.8	34.3	
16	76.0	76.0	75.6	75.5	75.3	74.8	70.4	63.8	56.3	46.8	39.9	33.5	
18	64.7	64.5	64.2	64.1	63.8	63.3	62.9	60.3	55.3	45.9	39.0	32.7	
20	56.1	55.9	55.5	55.4	55.1	54.6	54.2	53.8	51.1	45.0	38.1	31.9	
22	49.4	49.2	48.7	48.6	48.3	47.8	47.3	46.9	46.6	44.1	35.2	31.1	
24	44.0	43.7	43.3	43.1	42.8	42.3	41.8	41.4	41.1	40.7	33.0	28.8	
26	39.6	39.3	38.8	38.7	38.3	37.8	37.3	36.9	36.5	36.2	31.0	27.0	
28	27.8/35.6	35.6	35.0	34.9	34.5	34.0	33.5	33.1	32.7	32.4	29.1	25.3	
30		32.5	31.9	31.7	31.3	30.8	30.3	29.9	29.5	29.1	27.2	23.9	
34		33.0/27.8	26.8	26.7	26.2	25.7	25.1	24.7	24.3	23.9	23.6	20.8	
38			23.0	22.8	22.3	21.7	21.2	20.7	20.3	19.9	19.6	17.9	
42				19.9	19.2	18.6	18.1	17.6	17.2	16.8	16.4	16.0	
46				43.4/18.8	16.8	16.2	15.6	15.1	14.6	14.2	13.8	13.4	
50					48.6/15.2	14.1	13.5	13.0	12.5	12.1	11.7	11.2	
54						53.8/12.1	11.8	11.3	10.5	10.3	10.0	9.5	
58							10.4	9.8	9.3	8.8	8.4	7.9	
62							59.0/10.0	8.5	8.0	7.5	7.1	6.6	
66								64.0/7.8	6.9	6.4	6.0	5.2	
70									69.4/5.9	5.3	4.7	4.0	

基本型风电副臂臂节组合/基本型风电副臂工况 Basic Wind Power Jib Combinations/Basic Wind Power Jib Working Condition

主臂长度 Boom length (m)	底节臂 Boom butt 9m	中间臂节 Boom insert 6m 12m		锥节+基本臂臂头 Taper section + Basic boom head 7.8m+1.2m	副臂底节臂+顶节臂 Jib butt + Jib top 4m+3m
42	1	-	2	1+1	1+1
48	1	1	2	1+1	1+1
54	1	-	3	1+1	1+1
60	1	1	3	1+1	1+1
66	1	-	4	1+1	1+1
72	1	1	4	1+1	1+1



基本型风电副臂作业范围 Basic Wind Power Jib Working Area



基本型风电副臂工况载荷表
Basic Wind Power Jib Lifting Load Chart

提高型风电副臂臂节组合/提高型风电副臂工况
Improved Wind Power Jib Combinations/Improved Wind Power Jib Working Condition

风电副臂臂长7米 The jib for wind turbine is 7m

幅度Radius (m)	主臂臂长 Boom length (m)					
	42	48	54	60	66	72
13	85	85				
14	85	84	84	84	83	82
15	82	81	79	78	77	76
16	80	78	76	74	72	71
18	70	67	65	63	62	61
20	59	57	56	56	55	53
22	53	52	50	49	49	47
24	47	46	44	44	43	41
26	42	41	40	39	38	36
28	37	36	35	34	33	32
30	33	32	30	30	29	28
34	27	26	25	24	23	22
38	21	20	20	19	18	18
42	17	16	16	15	14	14
46	14	13	13	12	12	11
50		10	10	10	8	8
54			8	7	7	6
58				5	5	

主臂长度 Boom length (m)	底节臂 Boom butt				中间臂节 Boom insert			锥节+风电臂头 Taper section + Wind Power Jib head 7.8m+1.2m		副臂底节臂+顶节臂 Jib butt + Jib top 4m+3m	
	9m	3m	6m	12m							
42	1	-	-	2				1+1		1+1	
48	1	-	1	2				1+1		1+1	
54	1	-	-	3				1+1		1+1	
60	1	-	1	3				1+1		1+1	
66	1	-	-	4				1+1		1+1	
72	1	-	1	4				1+1		1+1	
75	1	1	1	4				1+1		1+1	
78	1	2	1	4				1+1		1+1	

