

www.xcmg.com

## QUY450履带起重机 QUY450 CRAWLER CRANE

本印刷品所包含的数据，会随着产品的不断升级而改变，请以实际产品为准  
Pictures and data in this catalog will change with the update and modification of products, so please take the actual vehicle as reference.

### 徐工集团 工程机械股份有限公司 建设机械分公司

XCMG, CONSTRUCTION MACHINERY CO., LTD. BUILDING MACHINERY CO.

地址：江苏省徐州市桃山路19号 邮编 (Post Code)：221002  
Add: No. 19 Taoshan Road, Xuzhou, Jiangsu Province, China  
销售电话 (Sales Tel)：0516-87892099 0516-87892534 销售传真 (Sales Fax)：0516-87892015  
服务/备件电话 (Service/Spare Parts Tel)：0516-87892088 0516-87892510  
服务/备件传真 (Service/Spare Parts Fax)：0516-87892506  
质量监督电话 (Quality Inquiry Tel)：0516-87892503

请垂询  
CONTACT



060610

# QUY450履带起重机

# QUY450 CRAWLER CRANE



 徐工集团 工程机械股份有限公司 建设机械分公司

XCMG, CONSTRUCTION MACHINERY CO., LTD. BUILDING MACHINERY CO.



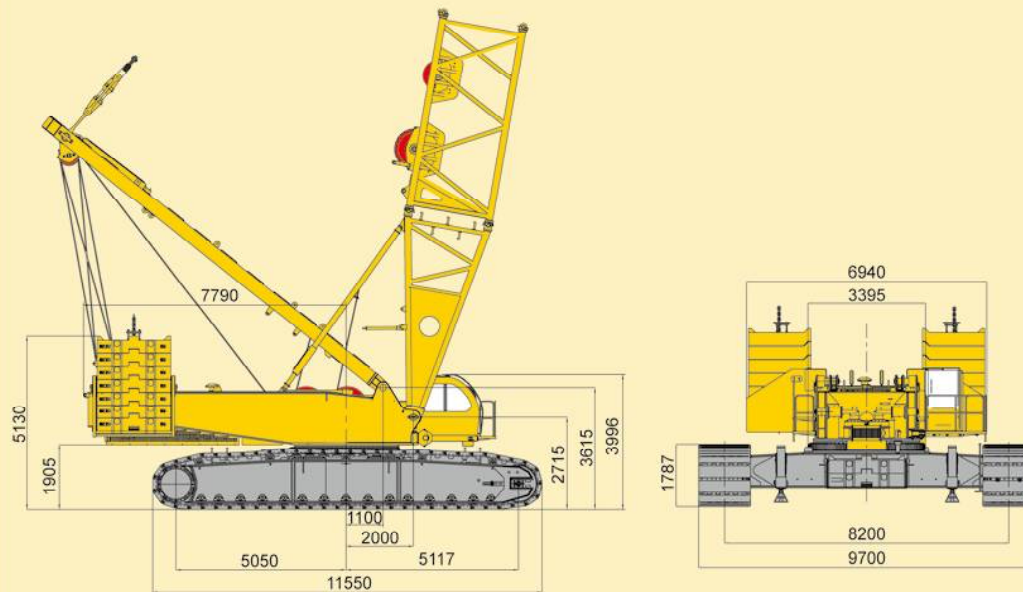
# 技术性能参数/整机基本尺寸 Technical Specification/Overall Dimension

# 主要零部件 Main Parts

## 目录 CONTENTS

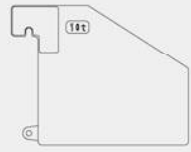
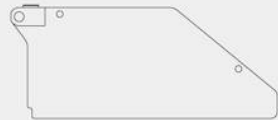

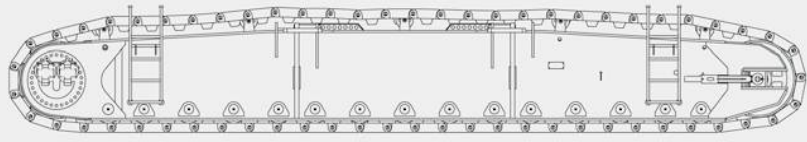
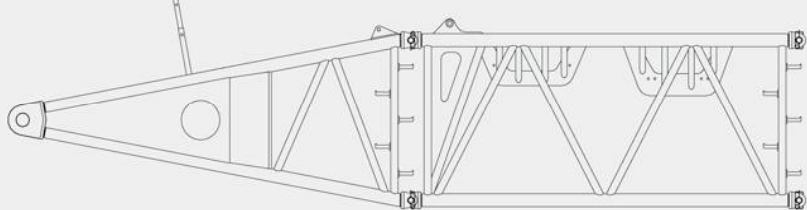
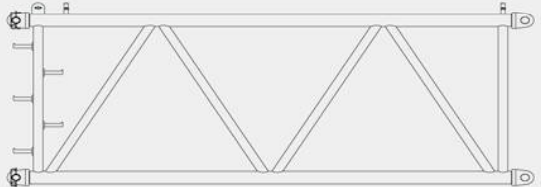
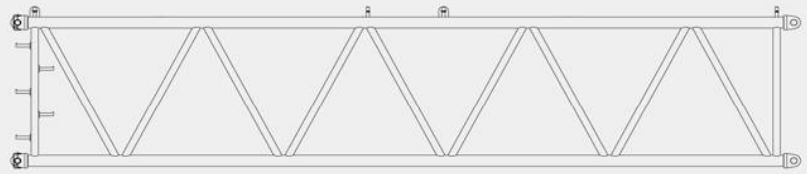
主要零部件 Main Parts	1
详细介绍 Brief Introduction	6
自拆装 Self Assembly & Disassembly	11
工况示意图 Working Mode Illustration	12
标准工况重型主臂臂节组合/重型主臂 Standard Mode Heavy Boom Combinations/Heavy Boom	14
标准工况重型主臂作业范围 Standard Mode Heavy Boom Working Area	15
标准工况重型主臂载荷表 Standard Mode Heavy Boom Lifting Load Chart	16
标准工况轻型主臂臂节组合/轻型主臂 Standard Mode Light Boom Combinations/Light Boom	17
标准工况轻型主臂作业范围 Standard Mode Light Boom Working Area	18
标准工况轻型主臂载荷表 Standard Mode Light Boom Lifting Load Chart	19
标准工况固定副臂臂节组合/固定副臂 Standard Mode Fixed Jib Combinations/Fixed Jib	20
标准工况固定副臂作业范围 Standard Mode Fixed Jib Working Area	21
标准工况重型主臂 + 固定副臂载荷表 Standard Mode Heavy Boom + Fixed Jib Lifting Load Chart	23
标准工况塔式副臂臂节组合/塔式副臂 Standard Mode Tower Jib Combinations/Tower Jib	25
标准工况塔式副臂作业范围 Standard Mode Tower Jib Working Area	26
标准工况塔式副臂载荷表 Standard Mode Tower Jib Lifting Load Chart	27
超起工况重型主臂 SL Mode Heavy Boom	33
超起工况重型主臂作业范围 SL Mode Heavy Boom Working Area	34
超起工况重型主臂载荷表 SL Mode Heavy Boom Lifting Load Chart	35
超起工况轻型主臂 SL Mode Light Boom	36
超起工况轻型主臂作业范围 SL Mode Light Boom Working Area	37
超起工况轻型主臂载荷表 SL Mode Light Boom Lifting Load Chart	38
超起工况塔式副臂 SL Mode Tower Jib	39
超起工况塔式副臂作业范围 SL Mode Tower Jib Working Area	40
超起工况塔式副臂载荷表 SL Mode Tower Jib Lifting Load Chart	42
标准工况专用副臂 Standard Mode Special Jib	46
标准工况专用副臂作业范围 Standard Mode Special Jib Working Area	47
标准工况专用副臂载荷表 Standard Mode Special Jib Lifting Load Chart	48

项目 Items	单位 Unit	数值 Data	
最大起重重量 Max. lifting capacity	t	450	
标准工况 Standard mode	重型主臂长度 Heavy boom length	m	24~84
	轻型主臂长度 Light boom length	m	48~102
	固定副臂长度 Fixed jib length	m	12~36
	塔式副臂长度 Tower jib length	m	24~72
	重型主臂长度 Heavy boom length	m	36~84
超起工况 SL mode	轻型主臂长度 Light boom length	m	78~126
	塔式副臂长度 Tower jib length	m	24~84
专用副臂工况 Special jib working condition	m	12	
最大单绳起升速度 Winch max. single line speed	m/min	130	
主臂变幅最大单绳速度 Boom luffing winch max. single line speed	m/min	50×2	
塔臂变幅最大单绳速度 Tower jib luffing winch max. single line speed	m/min	112	
超起变幅最大单绳速度 SL luffing winch max. single line speed	m/min	112	
回转速度 Slewing speed	r/min	1.0	
行走速度 Travel speed	km/h	0.95	
平均接地比压 Mean ground pressure	MPa	0.132	
发动机功率 Engine output power	kW	383	
整机重量 (24m重型主臂、450t吊钩) Total vehicle mass (24m heavy boom, 450t main hook block)	t	415	
最大单件 (主机) 运输重量 Max. weight of single unit (basic machine) in travel configuration	t	60	
最大单件 (主机) 运输尺寸 (长×宽×高) Max. dimension of single unit (basic machine) in travel configuration (L×W×H)	m	11.6×3.39×3.4	

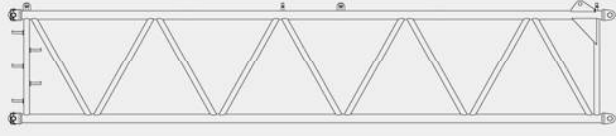
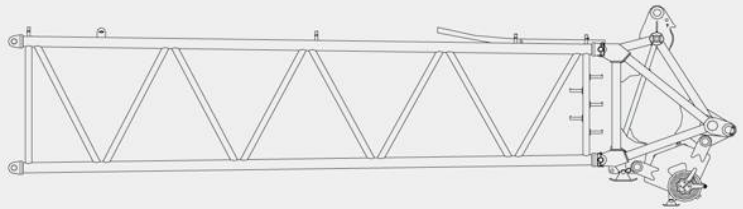
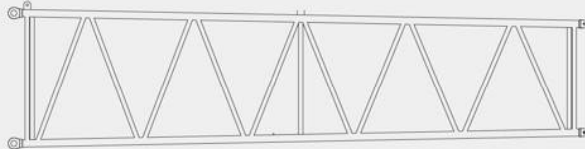
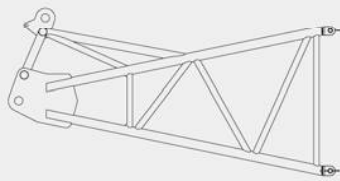
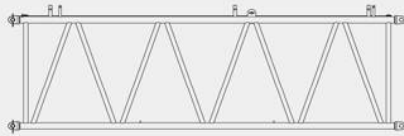
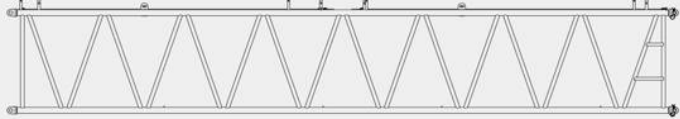
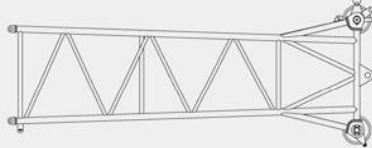


	<b>主机 Basic Machine</b> × 1 长L 11600mm 宽W 3390mm 高H 3400mm 重量 Weight 60000kg
	<b>450t吊钩 Capacity Hook Block</b> × 1 长L 2840mm 宽W 2330mm 高H 880mm 重量 Weight 9654kg
	<b>300t吊钩 Capacity Hook Block</b> × 1 长L 2420mm 宽W 1740mm 高H 880mm 重量 Weight 6472kg
	<b>100t吊钩 Capacity Hook Block</b> × 1 长L 1890mm 宽W 980mm 高H 780mm 重量 Weight 3850kg
	<b>50t吊钩 Capacity Hook Block</b> × 1 长L 1710mm 宽W 900mm 高H 510mm 重量 Weight 1705kg
	<b>12t吊钩 Capacity Hook Block</b> × 1 长L 1010mm 宽W 600mm 高H 600mm 重量 Weight 921kg
	<b>平衡重块 Counterweight</b> × 42 长L 2180mm 宽W 1800mm 高H 510mm 重量 Weight 10000kg

# 主要零部件 Main Parts


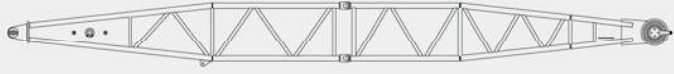
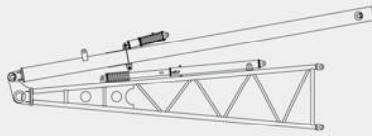
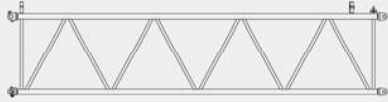
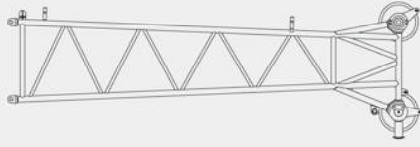
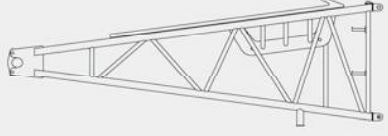
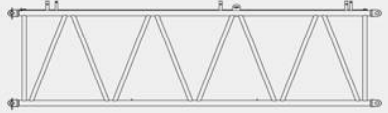
	<b>上车平衡重箱</b> <b>Upper Counterweight Box × 2</b> 长L 2450mm 宽W 2310mm 高H 1830mm 重量 Weight 10000kg
	<b>车身配重箱</b> <b>Car-body Counterweight Box × 2</b> 长L 2460mm 宽W 2070mm 高H 850mm 重量 Weight 1314kg
	<b>超起平衡重托盘</b> <b>SL Counterweight Tray × 1</b> 长L 7200mm 宽W 2180mm 高H 1300mm 重量 Weight 10000kg
	<b>履带架</b> <b>Crawler × 2</b> 长L 11560mm 宽W 2000mm 高H 1790mm 重量 Weight 40000kg
	<b>主臂6m底节臂+6m卷扬节</b> <b>Boom Butt + Winch Section × 1</b> 长L 12550mm 宽W 2970mm 高H 3270mm 重量 Weight 17700kg
	<b>主臂6m中间节</b> <b>Boom Insert × 2</b> 长L 6210mm 宽W 2970mm 高H 2800mm 重量 Weight 2937kg
	<b>主臂12m中间节</b> <b>Boom Insert × 3</b> 长L 12210mm 宽W 2970mm 高H 2800mm 重量 Weight 5000kg

# 主要零部件 Main Parts

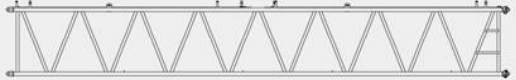
	<b>主臂12m拉板节</b> <b>Boom Pendant Section × 1</b> 长L 12210mm 宽W 2850mm 高H 2860mm 重量 Weight 5260kg
	<b>主臂10.5m锥节臂+臂头</b> <b>Boom Taper Section + Boom Head × 1</b> 长L 14550mm 宽W 2970mm 高H 2800mm 重量 Weight 12480kg
	<b>10.5m轻型过渡节</b> <b>Light Boom Extension × 1</b> 长L 10710mm 宽W 2760mm 高H 2900mm 重量 Weight 2620kg
	<b>塔臂底节臂</b> <b>Tower Jib Butt × 1</b> 长L 4730mm 宽W 2640mm 高H 2340mm 重量 Weight 2287kg
	<b>塔臂6m中间节</b> <b>Tower Jib Insert × 2</b> 长L 6160mm 宽W 2360mm 高H 2300mm 重量 Weight 1398kg
	<b>塔臂12米中间节</b> <b>Tower Jib Insert × 5</b> 长L 12160mm 宽W 2360mm 高H 2300mm 重量 Weight 2303kg
	<b>塔臂顶节臂</b> <b>Tower Jib Top × 1</b> 长L 7965mm 宽W 2360mm 高H 3270mm 重量 Weight 3367kg



## 主要零部件 Main Parts

	<b>塔臂前支架</b> Tower Jib Front Strut × 1
长L	17500mm
宽W	1610mm
高H	1557mm
重量 Weight	5502kg
	<b>塔臂后支架</b> Tower Jib Rear Strut × 1
长L	17000mm
宽W	1610mm
高H	1557mm
重量 Weight	5381kg
	<b>固定副臂底节臂(含支架)</b> Fixed Jib Butt × 1
长L	6290mm
宽W	1610mm
高H	1320mm
重量 Weight	2603kg
	<b>固定副臂中间节</b> Fixed Jib Insert × 4
长L	6100mm
宽W	1540mm
高H	1500mm
重量 Weight	592kg
	<b>固定副臂顶节臂</b> Fixed Jib Top × 1
长L	6420mm
宽W	1520mm
高H	2110mm
重量 Weight	1380kg
	<b>超起桅杆底节臂</b> SL Mast Butt × 1
长L	6290mm
宽W	2300mm
高H	2100mm
重量 Weight	7044kg
	<b>超起桅杆6m中间节</b> SL Mast Insert × 1
长L	6290mm
宽W	2300mm
高H	2100mm
重量 Weight	1640kg

## 主要零部件 Main Parts

	<b>超起桅杆12m中间节</b> SL Mast Insert × 1
长L	12290mm
宽W	2300mm
高H	2100mm
重量 Weight	2965kg
	<b>超起桅杆顶节臂</b> SL Mast Top × 1
长L	6290mm
宽W	2300mm
高H	2100mm
重量 Weight	3733kg
	<b>臂端单滑轮</b> Boom Head Single Sheave × 1
长L	2812mm
宽W	1540mm
高H	1890mm
重量 Weight	605kg

### 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

QUY450选用沃尔沃公司生产的直列6缸、水冷、增压、中冷电喷环保型发动机，额定功率383 KW，额定转速1800rpm，符合欧洲工程机械II号排放标准，它具有结构紧凑、体积小、重量轻、功率大、油耗低、污染小、工作可靠、寿命长等显著特点，能满足履带起重机的各种工况。

#### 控制系统

采用PLC程序控制，以保证液压系统的前导控制、力矩限制、高度限位等功能的实现，确保起重机安全可靠地运行。

#### 液压系统

采用电比例控制，开闭式回路相结合，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，防后倾回路，行走回路，辅助安装回路。  
特点：起升回路、变幅回路、行走回路采用开式泵控系统。主泵为恒功率变量泵，电比例液压先导控制变量，可以同时满足多个执行元件动作要求。回转系统采用闭式系统，响应迅速，控制精准，开启和制动时动作平稳，且换向时无冲击。可以满足频繁换向和微动操作要求。

#### 起升机构

主起升机构有两个，型号相同，单独驱动，大起重量时两个卷扬同步工作。卷扬采用片式常闭制动器，内藏式减速机，变量马达驱动。两个主起升机构共用一个整体式支架，与转台采用销轴连接，便于组装。副起升机构和主起升相同，用于臂端单滑轮的起升。钢丝绳均为德国进口不旋转钢丝绳，避免了钢丝绳打绞。

#### 变幅机构

主臂变幅为一个双联卷筒独立驱动，塔臂变幅和超起变幅均为单卷扬独立驱动。主、副变幅机构采用内藏式减速机，片式常闭制动器。卷筒设有棘轮装置，以实现机械锁止制动，安全可靠。驱动马达、平衡阀、钢丝绳均为德国进口。

#### 回转机构

布置在转台内侧前面，由两个行星减速机组成，与回转支承外啮合，液压缓冲，具有自由滑转功能。行星减速机，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。

### Crane Superstructure

#### Engine

QUY450 uses VOLVO diesel engine, 6-cylinder in line, water-cooled, turbocharged, inter-cooled and electronic injection, rated output power 383kW, rated speed 1800rpm, emission in compliance with European Construction Machinery Stage II, it features compact structure, small size, light weight, strong power, low fuel consumption, little pollution, reliable work and long service life, can meet various working conditions for crawler cranes.

#### Control System

Adoption of PLC program control, to guarantee the realization of the hydraulic system functions of pilot control, load moment limit, hoist height limit, to ensure the safety and reliability for crane operation.

#### 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 pump control system, main pump is constant power and variable displacement pump, electronic proportional hydraulic pilot controlled variable displacement, can meet the requirement of multiple actuator movement. Slewing gear is close type system, quick response, accurate control, stable starting and braking, and no impact for direction change, may satisfy operation of frequent direction change and fine motion control.

#### Winch

Two main winches of same model, with independent drive, and two winches synchronize for heavy load lifting; disc type constant closed brake, built-in speed reducer and variable displacement motor drive; two winches share one integrated bracket, and connected with turntable by pin shaft, easy for assembly. Auxiliary winch is the same as main winch, and used for boom head single sheave lifting. Winch wire rope is imported from Germany, no-twisting and no-turning.

#### Luffing Gear

Boom luffing gear is a twin drum independent drive unit, tower jib luffing gear and SL luffing gear is single winch independent drive unit. Main/auxiliary luffing gears use built-in speed reducer and disc type constant closed brake. The winch drum has a ratchet locking device to realize mechanical locking the boom, working safe and reliable. 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, and internal 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.

# 详细介绍

#### 平衡重系统

平衡重系统包括转台平衡重、超起平衡重、车身平衡重。

转台平衡重:	160t
平衡重箱2件	10t/件
平衡重块14件	10t/件
超起平衡重:	250t
平衡重底座1件	10t/件
平衡重块24件	10t/件
车身平衡重:	42.6t
平衡重箱2件	1.3t/件
平衡重块4件	10t/件

#### 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。装有可调式座椅、按人机工程学布置的全套操纵仪表和控制装置，配置冷暖空调、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

转台是联系上下车的关键承载结构件，采用高强度钢板焊接而成的双侧“工”字梁框架复合结构，整体稳定性好。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、桅杆、主臂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，履带架的拆装则利用本机的桅杆油缸吊装。

#### 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。两个履带架对称设置，装有宽度为1.5m履带板，可同步操作，也可单独操纵，以实现直行和转弯。

#### 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，每个减速机由两个德国进口的轴向柱塞变量马达驱动。

#### 行走速度

变量泵及变量马达可以实现高、低速两档无级变速，最高速度1公里/小时。行走时，设备运行平稳。

#### Counterweight System

Counterweight system consists of turntable counterweight, SL counterweight and car-body counterweight.  
Turntable Counterweight: 160t  
Counterweight box 2 pcs. 10t/pcs.  
Counterweight 14 slabs 10t/slab  
SL Counterweight: 250t  
Counterweight base 1 pcs. 10t/pcs.  
Counterweight 24 slabs 10t/slab  
Car-body Counterweight: 42.6t  
Counterweight box 2 pcs. 1.3t/pcs.  
Counterweight 4 slabs 10t/slab

#### 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 key structural part linked with crane superstructure and crane carrier for load bearing, made of high strength steel plate and welded as compound structure of both sides "工" shaped beam frame, with excellent stability. Turntable is connected with crane carrier by slewing ring, and 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, the installation of pin shaft is realized by hydraulic cylinder, and the crane mast cylinder is used for crawler track assembly and disassembly.

#### 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 pads. 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, with track pads of 1.5m, can be operated synchronously or independently to realize straight travel and turning around.

#### Travel Gear

Travel gear drive has German imported built-in planetary gear reducer and hydraulic release service brake, the speed reducer is driven by German imported axial piston variable displacement motor.

#### Travel Speed

Variable displacement pump and variable displacement motor can realize high/low two kinds of infinitely variable speed drive, max. speed 1 km/h.



# 详细介绍 Brief Introduction

## 作业装置

起重臂包括主臂、固定副臂、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。

### 工况

标准工况重型主臂工况  
标准工况轻型主臂工况  
标准工况固定副臂工况  
标准工况塔式副臂工况  
超起工况重型主臂工况  
超起工况轻型主臂工况  
超起工况塔式副臂工况  
标准工况专用副臂工况

### 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。主臂配置臂端单滑轮机构，主臂长度为24~84m。  
组成：底节臂6m、卷扬节6m、6m中间节臂×2、12m中间节臂×3、12m拉板节×1、过度节臂10.5m，臂头。

### 固定副臂

固定副臂为中间等截面、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。  
固定副臂可在主臂长36~72米范围内进行作业，其作业长度为12~36m，含10°及30°两种安装角。  
固定副臂通过支架及固定副臂前、后拉板与主臂连为一体，随着主臂变幅机构的起与落来达到固定副臂的工作幅度。固定副臂支架结构为A形双肢箱形结构，抗轴压稳定性好，该支架长度为7m。  
组成：底节臂6m、中间节臂6m×4、顶节臂6m。

### 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，其标准工况下作业长度为24~72m。此外，塔式副臂可在主臂长36~84m范围内作业进行超起工况作业，其作业长度为24~84m。  
组成：底节臂4.5m、中间节臂6m×2、中间节臂12m×5、顶节臂9m。

### 专用副臂

专用副臂可安装在长度为78或84米主臂上，其安装角度为10°。  
组成：专用副臂由一节固定副臂底节臂(6m)和一节固定副臂顶节臂(6m)组成。

### 桅杆

桅杆结构为箱形双肢结构，该结构整体稳定性好。在自拆装时，可组成桅杆吊，用于拆装整机的大型结构件。

## Lifting Operation Parts

Lifting boom comprises main boom, fixed jib, 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.

### Working Conditions

Standard Mode Heavy Boom Working Conditions  
Standard Mode Light Boom Working Conditions  
Standard Mode Fixed Jib Working Conditions  
Standard Mode Tower Jib Working Conditions  
SL Mode Heavy Boom Working Conditions  
SL Mode Light Boom Working Conditions  
SL Mode Tower Jib Working Conditions  
SL Mode Special Jib Working Conditions

### 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. Main boom is equipped with boom head single sheave, and main boom length is 24~84m.  
Construction: 6m boom butt, 6m winch section, 6m×2 boom insert, 12m×3 boom insert, 12m×1 pendant section, 10.5m boom extension, and boom head.

### Fixed Jib

Fixed 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.  
Fixed jib can be operated within the range of boom length 36~72m, and lifting operation length is 12~36m, with two offset angle of 10° and 30°.  
Fixed jib is integrated with boom by fixed jib strut and fixed jib front/rear pendant, and reaches the working radius with boom luffing gear raising and lowering. Fixed jib strut is A-shaped two limb box-type structure, with good stability for anti-axial pressure, and fixed jib strut length is 7m.  
Construction: 6m jib butt, 6m×4 jib insert, 6m jib top.

### Tower Jib

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 boom length 36~60m, and lifting operation length for standard working condition is 24~72m. Furthermore, tower jib can be operated within the range of boom length 36~84 for SL working condition, and lifting operation length is 24~84m.  
Construction: 4.5m jib butt, 6m×2 jib insert, 12m×4 jib insert, 9m jib top.

### Special Jib

Special jib can be attached on the boom length of 78m or 84m, with offset angle of 10°.  
Construction: special jib comprises one section of fixed jib butt (6m) and one section of fixed jib top (6m).

### Mast

The mast is box-type structure of twin tubular chord, with good overall stability. When carrying out crane assembly/disassembly, the mast can be combined with other lifting parts for mounting and removing large crane structural parts.

# 详细介绍 Brief Introduction

### 吊钩

标准配置：450t吊钩、300t吊钩、100t吊钩、50t吊钩、12t吊钩

注：450t吊钩可以分解成2个220t吊钩  
300t吊钩可以分解成2个150t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

系统程序崩溃时，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。

### 主、副提升过卷装置

当主、副卷扬上升到一定高度时候，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剩下三卷时候，仪表板上的指示灯亮，同时力矩限制器自动停止起升落动作。

### 安全保护开关

该安全保护开关放在手柄前侧，此开关没有按下时候，所有动作信号被屏蔽，手柄不起作用。防止上下车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，起重臂降落的时候必须打开该装置，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

主起重臂仰角在85°时，起重臂被停止起升，由力矩限制器和行程开关双级控制。主起重臂在仰角小于30°时停止起重臂降落，由力矩限制器控制。塔臂由限位开关控制上限位和下限位。

### Hook Block

Standard equipment: 450t capacity hook block, 300t capacity hook block, 100t capacity hook block, 50t capacity hook block, and 12t capacity hook block.  
Note: 450t capacity hook block may be divided into two 220t capacity hook blocks.  
300t capacity hook block may be divided into two 150t capacity hook blocks.

## 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 breakdown 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 angle.

### 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 toughing 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 boom angle is more than 85°, both load moment limiter and hoist limit switch stop boom raising. When boom angle is less than 30°, load moment limiter stops boom lowering and give a sound warning. The hoist limit switch and load moment limiter may control the tower jib upper/lower limit position.

### 监控系统

由4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。

### Monitor System

The monitor system contains 4 cameras and 1 monitor display, respectively keeping watch on main & auxiliary winches, and luffing winch.

### 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。

### Audio/Video Warning

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

### 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，表示起重机在已接近额定载荷范围，负载在100%-105%以上时“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。

### 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.

### 照明灯

装置在转台前方、臂架上和操纵室内，用于夜间工作提供照明。

### Illumination Lamp

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

### 示高灯

安装在臂架顶部，作为高空警示。

### Height Mark Lamp

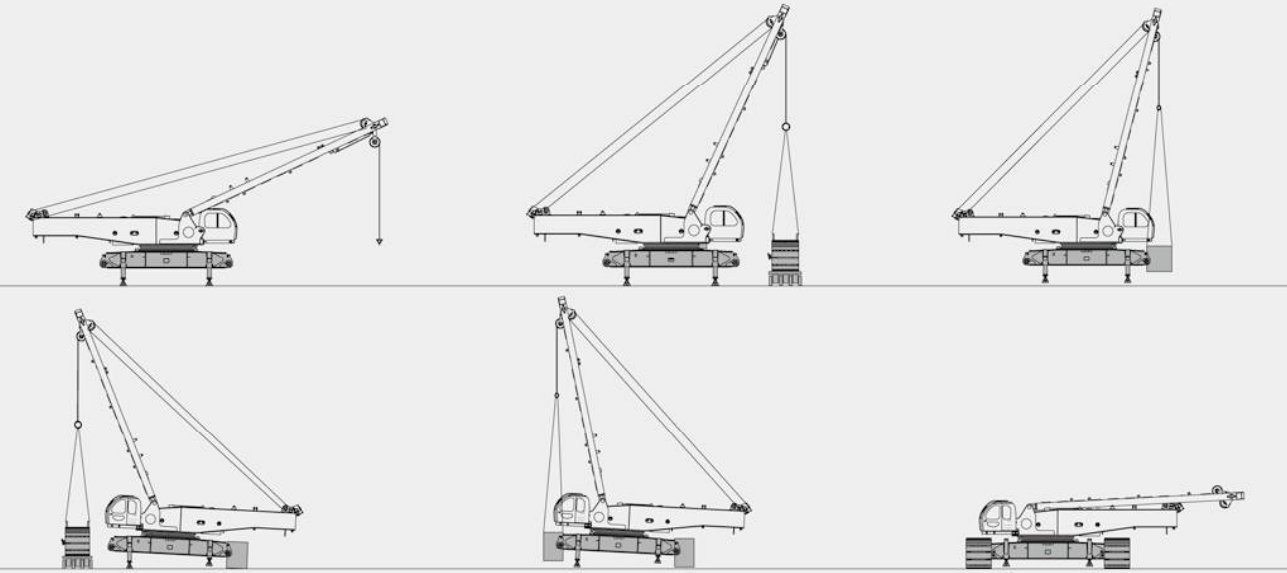
Boom tip has a height mark lamp for high level operation warning.

### 风速仪

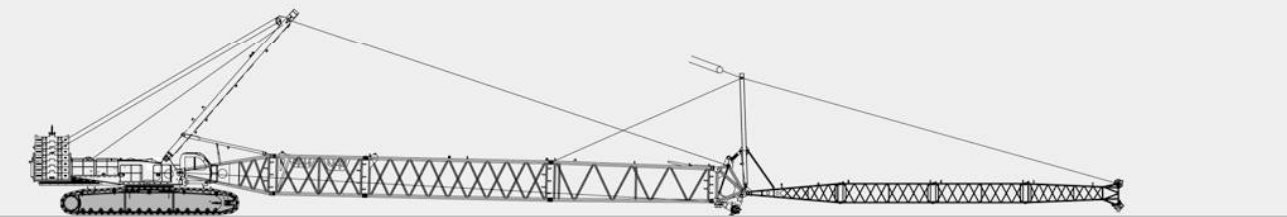
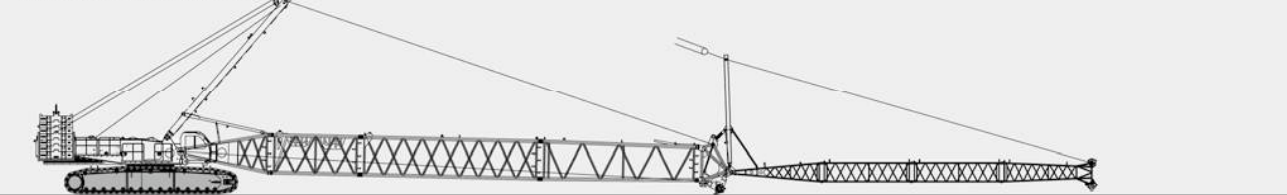
实时检测当前风速，传送到操纵室的监视器上，提醒司机操作的安全性。

### Anemometer

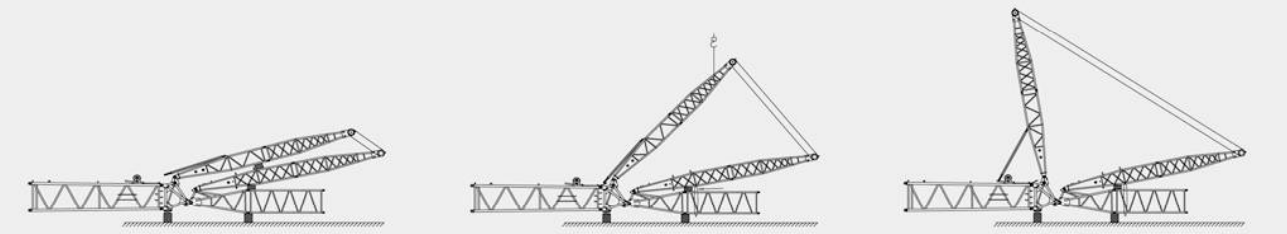
Anemometer at boom head can detect current wind speed and send wind signal to a monitor in operator's cabin to alert operator for safety.



固定副臂安装示意图  
Fixed Jib Installation Illustration



塔式副臂安装示意图  
Tower Jib Installation Illustration



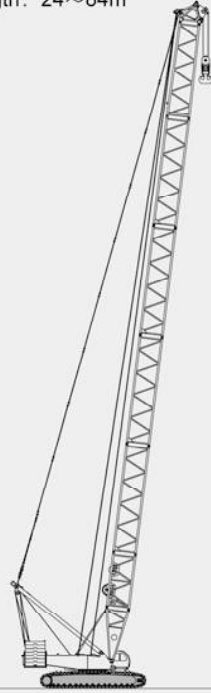


工况示意图  
Working Mode Illustration

工况示意图  
Working Mode Illustration

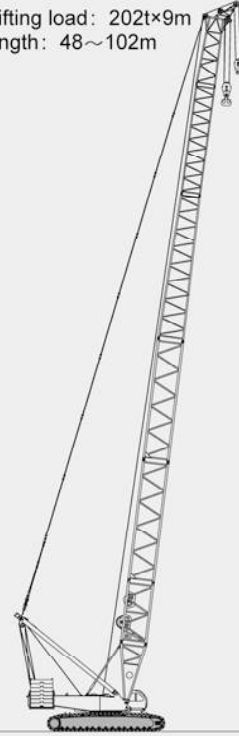
标准工况重型主臂  
Standard Mode Heavy Boom

最大起重量 Max. lifting load: 450t×6m  
臂长范围 Boom length: 24~84m



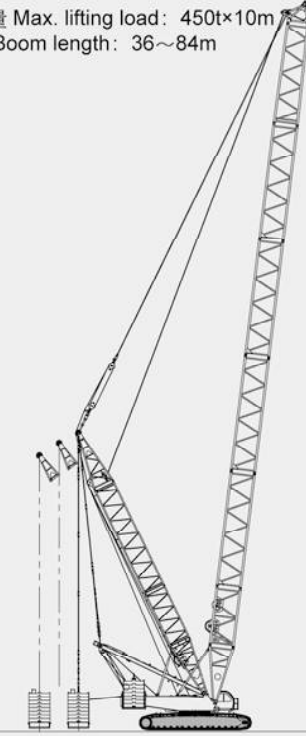
标准工况轻型主臂  
Standard Mode Light Boom

最大起重量 Max. lifting load: 202t×9m  
臂长范围 Boom length: 48~102m



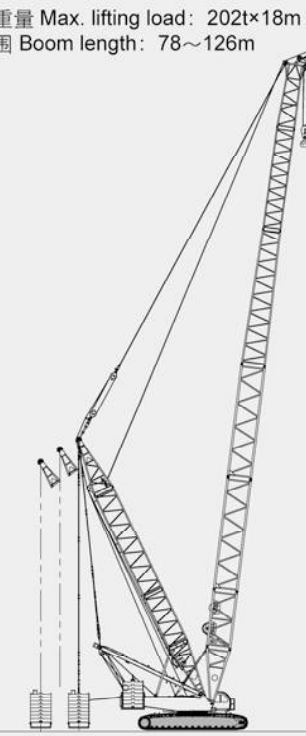
超起工况重型主臂  
SL Mode Heavy Boom

最大起重量 Max. lifting load: 450t×10m  
臂长范围 Boom length: 36~84m



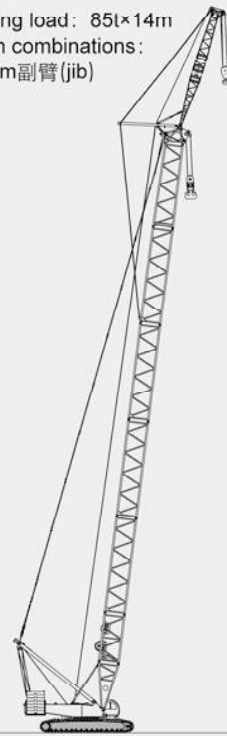
超起工况轻型主臂  
SL Mode Light Boom

最大起重量 Max. lifting load: 202t×18m  
臂长范围 Boom length: 78~126m



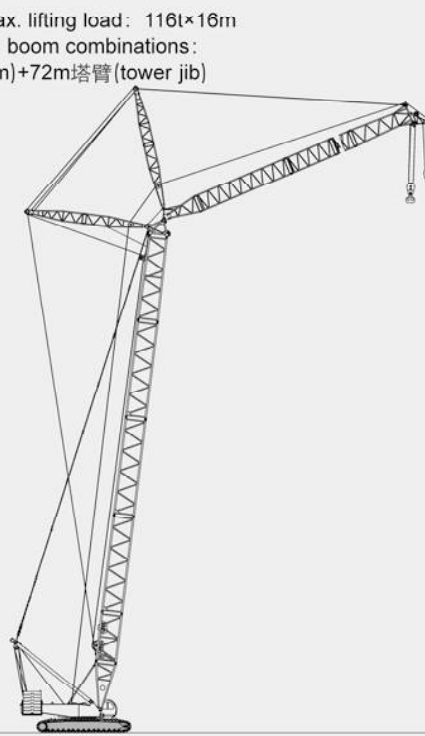
标准工况固定副臂  
Standard Mode Fixed Jib

最大起重量 Max. lifting load: 85t×14m  
最大组合 Max. boom combinations:  
72m主臂 (boom)+36m副臂 (jib)



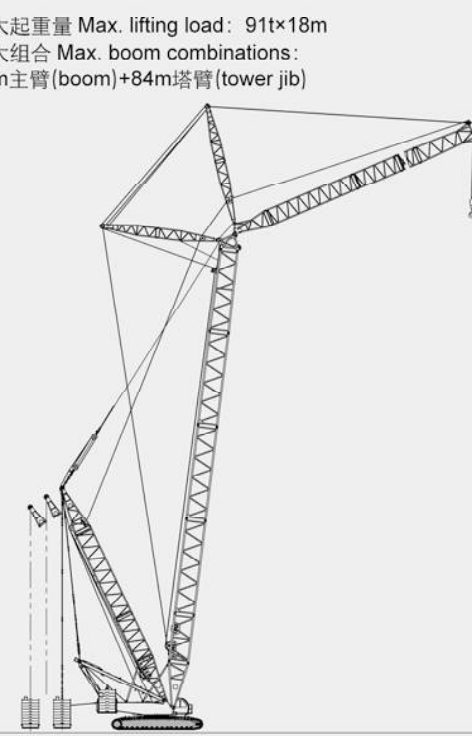
标准工况塔式副臂  
Standard Mode Tower Jib

最大起重量 Max. lifting load: 116t×16m  
最大组合 Max. boom combinations:  
60m主臂 (boom)+72m塔臂 (tower jib)



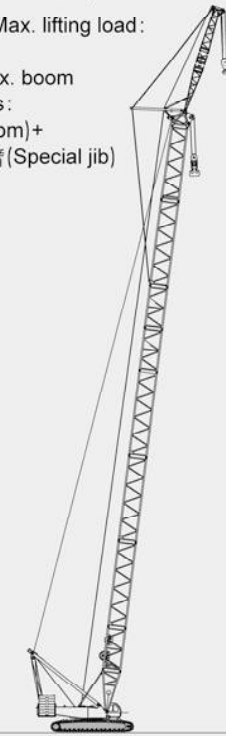
超起工况塔式副臂  
SL Mode Tower Jib

最大起重量 Max. lifting load: 91t×18m  
最大组合 Max. boom combinations:  
84m主臂 (boom)+84m塔臂 (tower jib)



标准工况专用副臂  
Standard Mode Special Jib

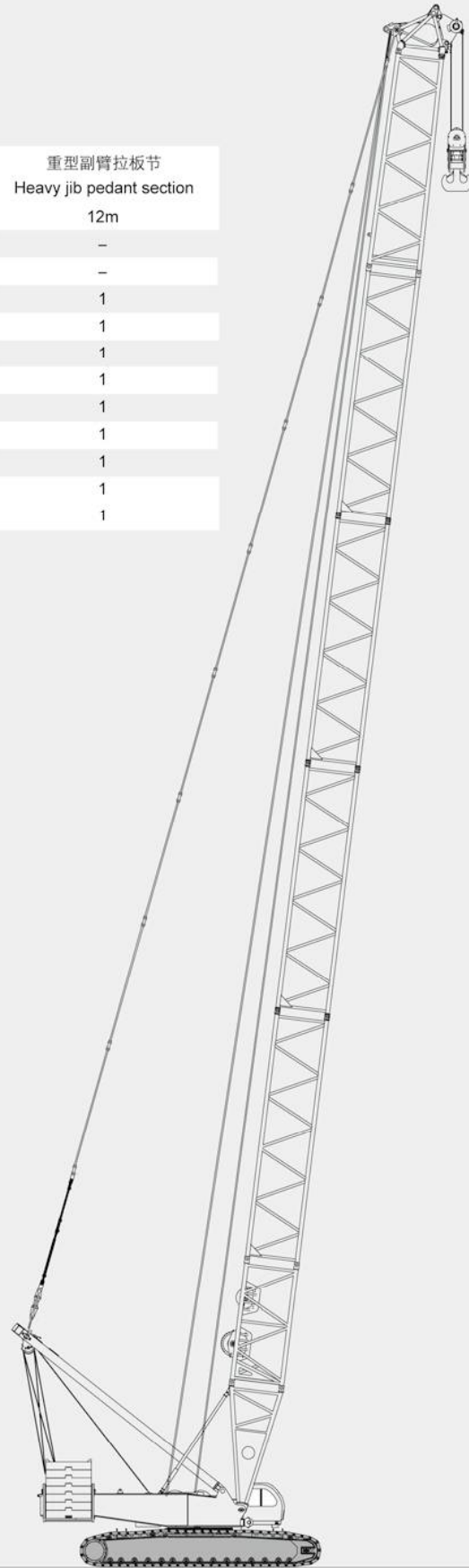
最大起重量 Max. lifting load:  
90t×18m  
最大组合 Max. boom combinations:  
84m主臂 (boom)+  
12m专用副臂 (Special jib)



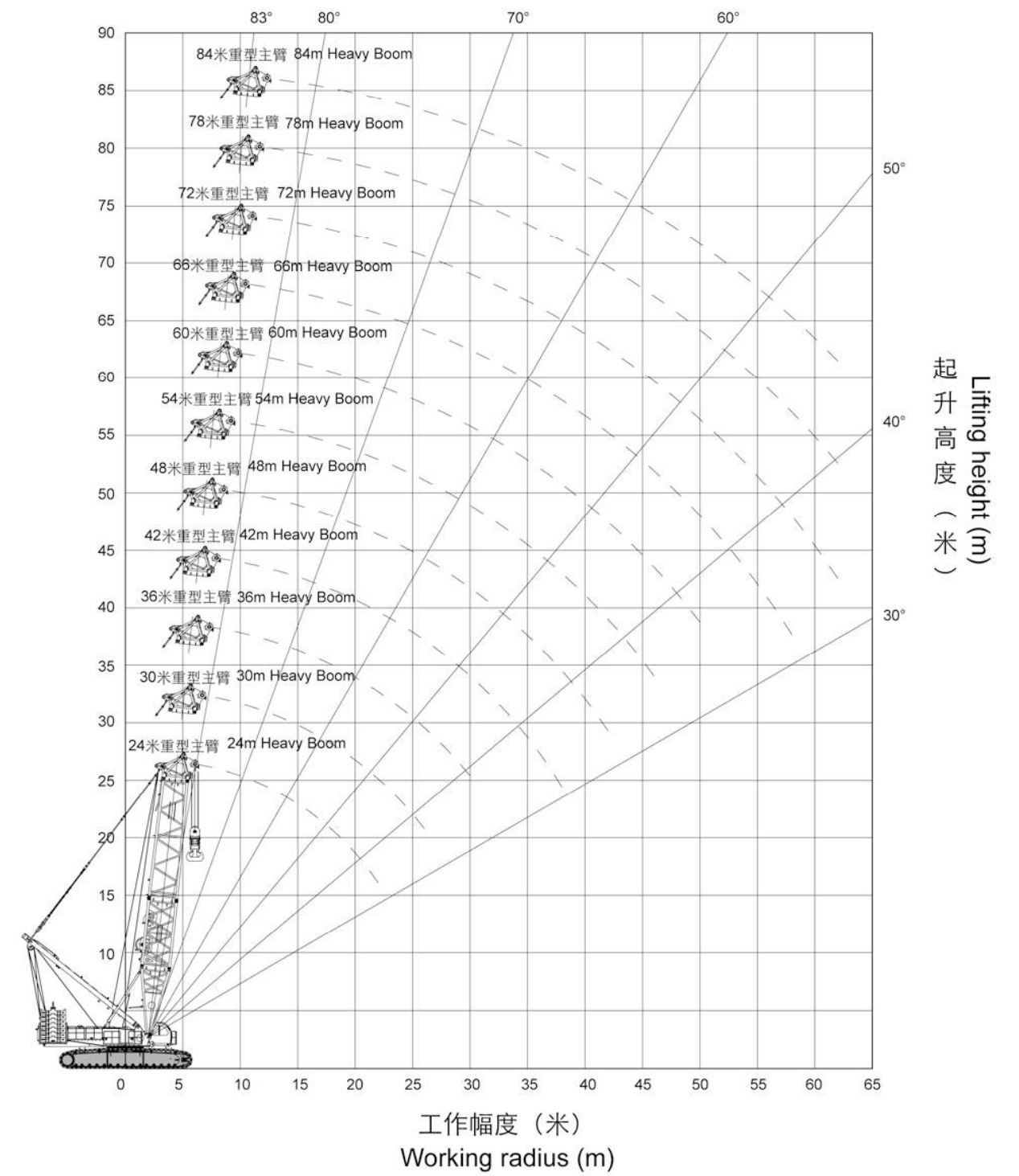


# 标准工况重型主臂臂节组合/重型主臂 Standard Mode Heavy Boom Combinations/Heavy Boom

主臂长度 Boom length (m)	重型主臂中间节 Heavy boom insert		重型副臂拉板节 Heavy jib pedant section
	6m	12m	12m
24	-	-	-
30	1	-	-
36	-	-	1
42	1	-	1
48	2	-	1
54	1	1	1
60	2	1	1
66	1	1	1
72	2	1	1
78	1	2	1
84	2	2	1



# 标准工况重型主臂作业范围 Standard Mode Heavy Boom Working Area

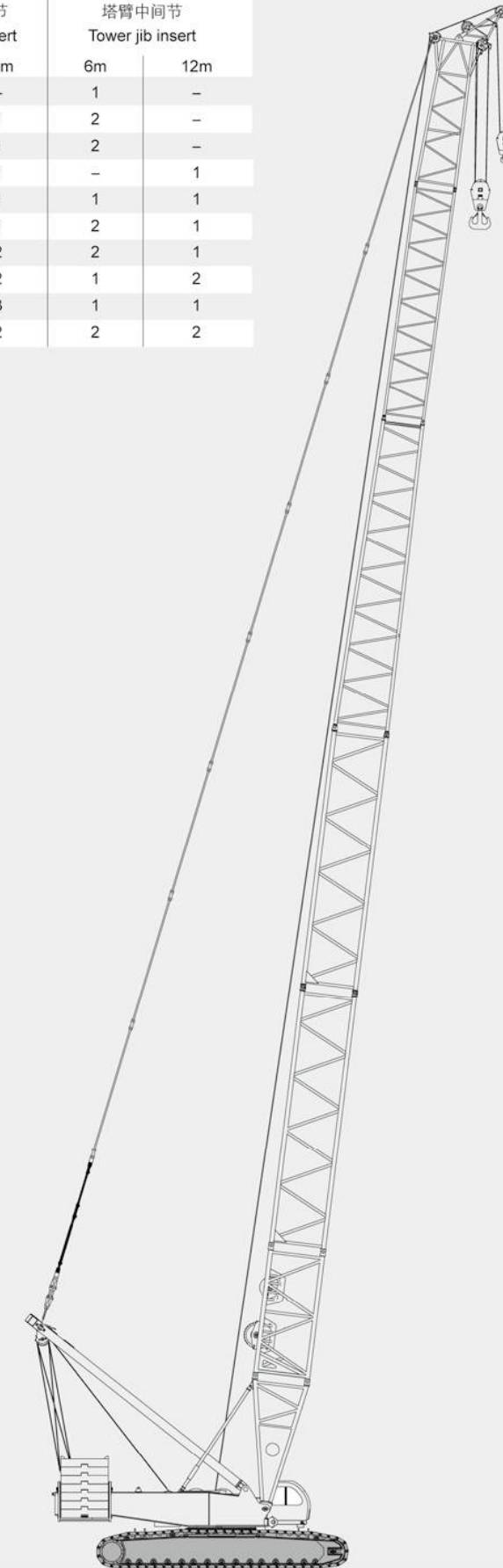


# 标准工况重型主臂载荷表 Standard Mode Heavy Boom Lifting Load Chart

幅度 Radius (m)	臂长 Boom length (m)										
	24	30	36	42	48	54	60	66	72	78	84
6	450.0										
7	360.0	360.0									
8	320.0	320.0	320.0								
9	280.0	280.0	280.0	275.0	272.0						
10	240.0	240.0	240.0	240.0	240.0	235.0					
11	220.0	215.0	215.0	215.0	212.0	205.0	200.0	190.0			
12	190.0	190.0	190.0	190.0	190.0	185.0	180.0	170.0	165.0		
14	160.0	160.0	155.0	152.0	150.0	150.0	150.0	140.0	135.0	125.0	100.0
16	132.0	132.0	132.0	126.0	125.0	125.0	122.0	115.0	115.0	115.0	92.0
18	110.0	110.0	110.0	110.0	107.0	103.0	102.0	100.0	100.0	98.0	85.0
20	97.0	96.0	95.0	92.0	92.0	92.0	90.0	86.0	85.0	82.0	80.0
22	85.0	82.0	82.0	80.0	80.0	80.0	78.0	75.0	74.0	73.0	70.0
24		72.0	72.0	70.0	70.0	70.0	70.0	68.0	64.0	63.0	60.0
26		65.0	65.0	62.0	62.0	62.0	62.0	60.0	57.0	56.0	52.0
28			60.0	57.0	56.0	55.0	55.0	55.0	51.0	50.0	45.0
30			55.0	52.0	50.0	50.0	50.0	50.0	47.0	45.0	40.0
34				43.0	42.0	42.0	42.0	40.0	40.0	37.0	34.0
38				36.0	35.0	35.0	35.0	35.0	33.0	32.0	26.0
42					30.0	30.0	28.0	28.0	27.0	25.0	22.0
46						25.0	24.0	23.0	23.0	20.0	17.0
50							20.0	19.0	18.0	16.0	14.0
54								16.0	14.0	13.0	11.0
58								12.0	12.0	10.0	9.0
62									9.0	8.0	7.0

# 标准工况轻型主臂臂节组合/轻型主臂 Standard Mode Light Boom Combinations/Light Boom

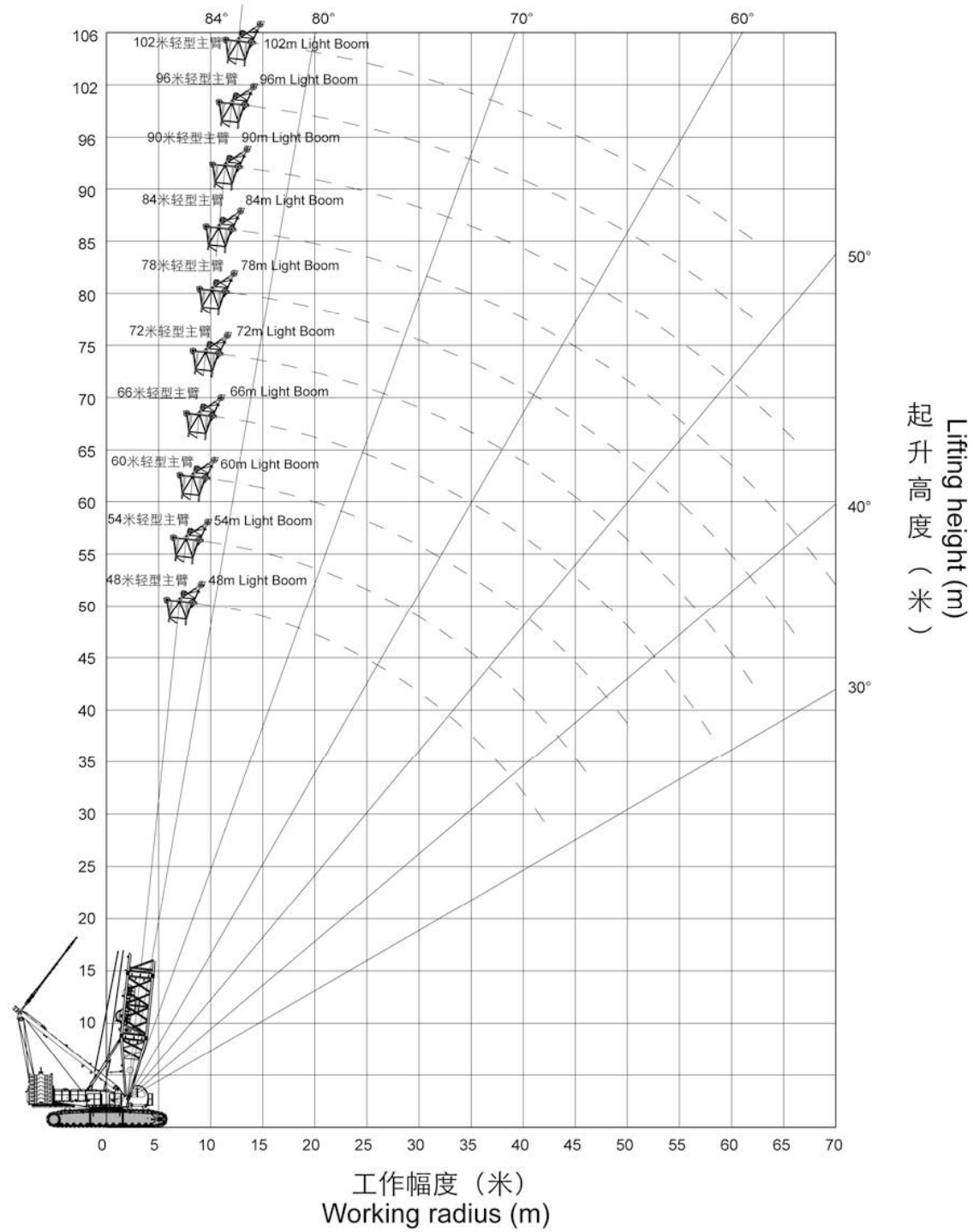
主臂长度 Boom length (m)	重型主臂中间节 Heavy boom insert		塔臂中间节 Tower jib insert	
	6m	12m	6m	12m
48	2	-	1	-
54	2	1	2	-
60	1	1	2	-
66	1	1	-	1
72	2	1	1	1
78	2	1	2	1
84	1	2	2	1
90	1	2	1	2
96	2	3	1	1
102	2	2	2	2





# 标准工况轻型主臂作业范围 Standard Mode Light Boom Working Area

# 标准工况轻型主臂载荷表 Standard Mode Light Boom Lifting Load Chart



幅度 Radius (m)	臂长 Boom length (m)									
	48	54	60	66	72	78	84	90	96	102
9	202.0									
10	193.0	194.0								
11	172.0	171.0	172.0							
12	167.0	165.0	168.0	150.0	143.0					
14	133.0	133.0	132.0	127.0	124.0	115.0	100.0			
16	109.0	109.0	108.0	105.0	105.0	105.0	93.0	86.0	77.0	67.0
18	92.0	92.0	91.0	91.0	90.0	90.0	84.0	80.0	73.0	64.0
20	79.0	79.0	78.0	77.0	77.0	77.0	76.0	74.0	68.0	60.0
22	69.0	69.0	68.0	68.0	67.0	67.0	66.0	66.0	64.0	57.0
24	61.0	61.0	60.0	60.0	59.0	59.0	58.0	58.0	57.0	53.0
26	55.0	54.0	53.0	53.0	53.0	52.0	51.0	51.0	50.0	49.0
28	49.0	49.0	48.0	48.0	47.0	47.0	46.0	46.0	45.0	44.0
30	45.0	44.0	43.0	43.0	42.0	42.0	41.0	41.0	40.0	39.0
34	37.0	37.0	36.0	36.0	35.0	35.0	34.0	33.0	32.0	32.0
38	32.0	31.0	30.0	30.0	29.0	29.0	28.0	28.0	27.0	26.0
42	28.0	27.0	25.0	25.0	25.0	24.0	23.0	23.0	22.0	21.0
46		23.0	22.0	22.0	21.0	21.0	20.0	19.0	18.0	17.0
50			19.0	19.0	18.0	17.0	16.0	16.0	15.0	14.0
54				16.0	15.0	15.0	14.0	13.0	12.0	11.0
58				14.0	13.0	13.0	12.0	11.0	10.0	9.0
62					11.0	11.0	10.0	9.0	8.0	7.0
66						9.0	8.0	7.0		
70							7.0			