液压式履带起重机

HYDRAULIC CRAWLER CRANE

FCC100A

辽宁抚挖重工机械股份有限公司

FUWA HEAVY INDUSTRY CO.,LTD.

目录 Content

安全装置

吊钩和臂架防过卷装置	吊钩和臂架防过卷装置是用于防止因过卷导致的机器损坏或后翻事故。
吊钩防过卷装置	当起重钩提升到一定高度时，将重锤托起，则微动开关由弹簧复位，开关接点断开，控制继电器动作使蜂鸣器报警，报警指示灯闪亮，同时，控制器锁定起重钩的提升，起重钩提升动作自动停止。
臂架防过卷装置	臂架后设有防倾杆，通过这个装置来设置臂上限角度由力矩限制器和主臂上限位开关检测控制。 当主臂≥上限位角度80° 时，力矩限制器声光连续报警，并输出信号. 主臂停止升臂. 同时,主臂上限位开关动作，主臂上限位开关回路被切断.主臂停止升臂。
力矩限制器	限制器对起重机作业进行实时监控，当车运输或者工作的时候由限制器来测试各种参数再由显示器反映给驾驶员。在各种工况下,通过按键设置工况参数。 当额定起重力矩的0%≤ 起重力矩＜额定起重力矩的90%时，力矩限制器显示屏上,力矩百分比条形码绿色点亮，限制器无声音报警。 当额定起重力矩的90%≤起重力矩＜额定起重力矩的100%时，力矩限制器显示屏上，力矩百分比条形码黄色预警，同时限制器发出声音断续报警。 当额定起重力矩的100%≤起重力矩＜额定起重力矩的105%时，力矩限制器显示屏上，力矩百分比条形码红色报警，同时限制器发出声音连续报警。 当起重力矩≥额定起重力矩的105%时，力矩限制器显示屏上，力矩百分比条形码红色报警，限制器发出声音连续报警，同时输出信号， 主、副钩停止提升，臂停止增幅动作。
负载率指示灯	为了便于现场人员了解机械载荷情况，采用了与交通信号相同的3色负载率指示灯。同时配备了司机与吊装指挥人员联系用的对讲机。
风速仪	风速仪-臂架顶部的风速传感器装置用于检测风速,力矩限制器显示风速。通过对风速的测试来给驾驶员一个参考，进而能确定车的工作环境。
制动器和锁定装置	制动器　本起重机设有主、副卷筒制动器、主、副变幅卷筒制动器，回转制动器. 锁定装置　本起重机设有主、副卷筒棘爪锁定装置、主变幅卷筒棘爪锁定装置、回转锁定装置。
拉力传感器、角度传感器	拉板上设有拉力传感器，用于检测拉力。 主臂根部装有角度传感器,用于检测主臂的角度。
水平仪	该装置用于检测机体与水平地面的角度，用来保证机器工作地面符合要求。
角度盘	主臂架根处设有机械式角度盘,在吊运和提升的时候用来显示臂架当前角度，给驾驶员一个详细的参考。
防倾杆限位保护	基础臂节设有防倾杆，而这个装置的作用就是在提升和吊运的情况下，如果重物的质量很大而且在不定风速的情况下，很有可能使主臂往后过倾。这个装置避免了此类情况的发生。
回转报警	臂架变幅接近极限位置减速控制，回转机构设有蜂鸣器，当接近极限位置的时候，这个装置会发出声音断续报警。

Safety Device

Hook and boom over-hoist prevention devices	Hook and boom over-hoist prevention devices are used for preventing the crane from the accidents because of the over-hoist.
Hook over-hoist prevention device	When the hook lifts up to certain height and touches the plumb, the limit switch shall be disengaged by the reposition spring, and then the switch cuts off the control circuit. The control relay makes the buzzer alarm and the indicator lights up. At the same time, the rise of the hook will stop automatically.
Boom over-hoist prevention device	The boom upper limit angle is controlled by moment limiter and boom upper limit switch. When the boom upper limit angle is more than 80, the moment limiter will continuously alarm and send out the signal. The rise of boom will stop. At the same time, the limit switch is cut off. The boom stops rising.
Moment limiter	The device monitors the work of the crane. You can press the key to set the parameters of all working conditions. When the actual load is less than 90% of rated load, the screen shows load proportional bar in green color, and no warning alarm from the safe load indicator。 When the actual load exceeds 90% of rated load while is less than 100% of rated load, the screen shows yellow color and an intermittent warning alarm sounds。 When the actual load exceeds 100% of rated load while less than 105% of rated load, the monitor screen shows red color and the safe load indicator gives continuous warning alarm, and output control signal。 When the actual load exceeds 105% of rated load, the monitor screen shows red color and gives out a continuous warning alarm, at the same time the safe load indicator put out control signal to stop the hoisting action of main and auxiliary hooks and boom.
Three-color load indicator	The three-color load indicator is installed on the crane in order to inform the personnel on site of the current situation. The driver and the signal personnel are equipped with the interphone for the convenience of contact.
Anemometer	Anemometer- the wind speed sensor is installed on the top of boom to test wind speed. The moment limiter displays wind speed. The driver can specify the working environment referring to the test of wind speed.
The brakes and locking devices	Brakes: the brakes on the main and aux. drums, the brakes on the main and aux. derricking drums, slewing brake. Locking devices: main and auxiliary winch pawls, main derricking drum pawls and slew locking device.
Load sensor, angle sensor	The load senor is installed on the pendant bar to test the load. The angle sensor is installed on the boom foot to test boom angle.
Gradienter	The device is used for testing the angle between the machine and the ground to ensure the conditions of the ground meet the requirements.
Angle scale	The angle scale is installed on the boom foot to show the current angle of boom when the crane is lifting the load.
Limit protection of back stop	The back stop is installed on the boom foot to prevent the tipping-over of the boom due to the heavy load and uncertain wind speed.
Swing alarm	The buzzer is installed on the swing device. The buzzer may sound continuously when the boom derricking reaches limit position.

详细说明

上车结构

动力装置

型号 QSL-9进口康明斯电控柴油机。

类型 水冷式，直喷，带涡轮增压器。

排量 8.9L

额定功率 209kw/2000rpm

最大扭矩 1300N.m/1500rpm

燃油油箱容量 200L

液压油箱容积 500L

液压系统

发动机在采用变量双主泵+回转泵+补油泵+伺服泵+冷却泵，一组M7-LUDV多路阀，该系统具有泵控系统的永远全工作范围控制的精密控制（优于阀控），同时能实现行走、变幅、回转和卷扬复合动作时的组合。油冷却器独立温控散热，回转独立闭式控制，各卷扬独立系统控制。

电子监控系统

电子监控器适时显示并具有故障查询功能，CAN-BUS总线控制。

主、副提升卷扬装置

主、副提升卷扬装置，由变量柱塞马达通过行星减速机驱动。湿式片式常闭制动器。

主提升卷扬装置

卷筒 节圆直径φ610mm

钢丝绳直径 φ26mm

钢丝绳长度 285m

最大绳速 116m/min

副提升卷扬装置

卷筒 节圆直径φ610mm

钢丝绳直径 φ26mm

钢丝绳长度 210m

最大绳速 116m/min

主臂变幅系统

由液压变量柱塞马达通过行星减速机驱动。湿式片式常闭制动器。

卷筒 节圆直径φ440mm

钢丝绳直径 φ20mm

钢丝绳长度 230m

最大绳速 54m/min

拖绳卷扬机

钢丝绳直径 φ10mm

钢丝绳长度 200m

回转系统

由2个马达通过行星减速机带动齿轮驱动，可旋转360°

速度 0~1.96转/分钟

四个位置止动销锁定。

驾驶室

司机室与机罩外表面都是考漆。宽度920mm，前窗采用大弧形面，视野好。带有空调和暖风机，雨刷器、车载VCD系统。大屏幕电子监控器和力矩限制器，采用LED显示器显示风速，可调座椅等。还采用了扶手椅式控制手柄，十字控制，能够以舒适的姿势进行操作。配置了空调装置，使司机能够在舒适的环境下工作。

平衡重

平衡重采用焊接形式，由四块单配重组成，总重为34吨。

下车结构

底座

用高强度板焊接X型框架结构，与履带架采用动力销连接，便于快速安装和拆卸。它们的特点是外形美观，抗扭抗弯性能好。

支重轮装置

每侧各有11个，所有的支重轮均装有铜套和浮动式密封以及耐磨润滑油。

下机架支撑油缸装置

四个液压顶升油缸连接在下机架的支撑梁上进行伸/缩动作

履带板

左、右履带行走装置共有110块履带板，每块履带板的宽度为1015mm。履带板的张紧程度可以通过液压千斤顶进行调节，调节垫片的位置达到理想的张紧度。

履带动力

独立的液压驱动系统嵌入履带架内。每侧液压驱动系统包含了一个液压马达并通过行星减速机带动驱动轮。液压马达和减速机嵌入履带结构内，不超出履带宽度。

行走速度 0. 9~1.3千米/小时

爬坡能力 30%（17° ）

作业装置

臂架主铉管采用进口高强管，变幅装置采用钢压扣绷绳，大大提高了有效载荷。

主臂

臂架为中间等截面，两端变截面的空间桁架式结构,钢管焊接。标准臂从16米－73米

固定副臂的组成

固定副臂与主臂有两种角度：10° 和30° ；主臂和副臂组成：主臂为40－61m的标准臂,副臂为13米－25米。

吊钩

100吨吊钩　　50吨吊钩　　9吨吊钩

Specifications

Superstructure

Power device

Model: QSL—9 diesel engine imported from Cummins

Type: water-cooled, direct fuel injection,with turbocharger actuator

Displacement: 8.9L

Rated power: 209kw/2000 rpm

Maximum torque: 1300N.m/1500rpm

Capacity of fuel box: 200L

Capacity of hydrauli oil box: 500L

Hydraulic system

The system adopts variable displacement double main pump, slewing pump, oil filling pump, servo pump, cooling pump and M7-LUDV multi-circuit valve. The pump system is superior to valve control. The system can realize compound action: travel, derricking, slewing and lifting. The oil cooler functions well. Slewing is controlled independently and all lifting devices are also controlled independently.

Electric monitor system

The electric monitor displays the values and has the function of troubleshooting. It is controlled by CAN-BUS.

Main /aux. hoisting device

The main and aux. hoisting devices are driven by piston motor through reduction gear. The brake type: wet, disc and closed brake

Main hoisting device

Drum: the diameter φ610mm

The diameter of wire rope: φ26mm

Length of wire rope 285m

Maximum rope speed: 116m/min

Aux. hoisting device

Drum: the diameter φ610mm

Diameter of wire rope: φ26mm

Length of wire rope: 210m

Maximum rope speed: 116m/min

Boom derricking system

The planetary reduction gear drives hydraulic piston motor with variable displacement. The brake is often closed.

Drum: diameter φ440mm

Diameter of wire rope: φ20mm

Length of wire rope: 230m

Maximum rope speed: 54m/min

Dragrope drum

Diameter of wire rope: φ10mm

Length of wire rope: 200m

Slewing system

The slewing system can be turned by 360° .There are two motors in the system. The planetary reduction gear drives the gear teeth.

Slewing speed; 0~1.96r/min

Four pins are locked

Cabin

The outside of cabin is painted well. The length of the cabin is 920mm. The front window is inclined and the posts are designed with the cross section with high strength. There are air-conditioner, heater, rear view mirror, wiper, stereos and fire extinguisher in the cabin. The electric monitor and moment limiter with large screen are in the cabin. The seat can be adjusted.

Counterweight

Counterweight is adopted by welding, which consists of four pieces of counterweight. The total weight is 34t.

Undercarriage

Lower frame X-type structure welded with steel plate which has high strength. The Lower frame connects side frames with drive pins for convenience of installation and disassembly. It has features: beautiful appearance and good torsion-resistance.

Track Roller Each side has 11 track rollers£¨All track rollers are equipped with bushings, seals and lubricating oil.

Jack-up cylinders The four hydraulic jack-up cylinders are connected with the beam.

Track shoe The left and right crawlers have 110 track shoes. The width of the track shoe is 1015mm. The tension state of track shoe can be adjusted by the hydraulic jack until the adjusting plate has the ideal position.

The Crawler drive The independent hydraulic driving system is inside the crawler frame. Every hydraulic driving system has a hydraulic motor. The hydraulic motor and planetary reduction gear in the crawler frame can not exceed the width of the track shoe.

Travel speed 0.9~1.3 km/h

Grade ability 30%(17°)

Working Equipments

The main steel pipe with high strength is imported. The derricking device adopts the pendant rope to improve the efficiency.

Main boom The insert section has the equal cross section. The top and the foot have the variable cross sections. The boom is the lattice structure welded with steel pipes. Standard boom: 16-73m

Fixed fly jib combination Two kinds of angles between main boom and fixed fly jib:10° and 30° . Main boom and fixed fly jib: main boom 40-61m, fixed fly jib 13m-25m.

Hook 100t Hook 50t Hook 9t Hook

工况符号 **The symbols of working conditions**

主臂工况
Boom

辅助臂工况
Runner

固定副臂工况
Fixed Jib

臂杆组合 Boom Combination

主臂工况

最大起重量：100吨x5.5米
最大臂杆长度：73米

Boom

Max. Lifting capacity:
100tx5.5m
Max. Boom length:
73m

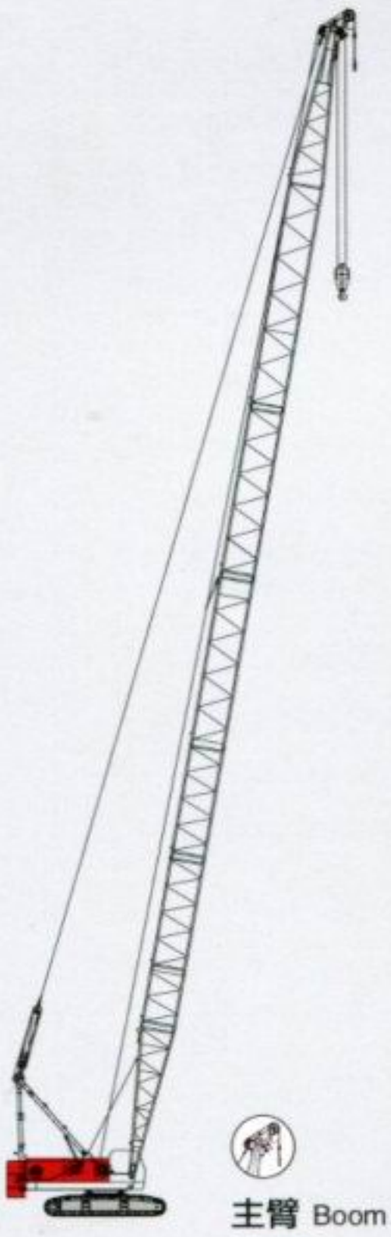
主臂 Boom
16m-73m

辅助臂工况

最大起重量：9吨x26米
最大臂杆长度：61米

Runner

Max. Lifting capacity:
9tx26m
Max. Boom length:
61m



主臂 Boom
16m-61m

固定副臂工况

最大起重量：13.3吨x16米
最大组合：61米+25米

Fixed Jib

Max. Lifting capacity:
13.3tx16m
Max. Combination:
61m+25m

主臂 Boom
40m-61m

副臂 Jib
13m-25m

主要技术参数

Technical Data

项　目			长度(m)	数 值
主臂			16—73	30°—80°
固定副臂			13—25	10° ;30°
主臂＋副臂的最大长度			61＋25	
吊钩配置			t	100/50/9
工作速度	钢绳速度	提升	m/min	※高速114/57 低速82/41
		下降	m/min	※高速114/57 低速82/41
		起重臂上升	m/min	※54
		起重臂下降	m/min	54
		回转速度	r/min	0 —1.96
		行走速度	km/h	0.9—※1.3
主提升倍率	12		单绳拉力	8.33
爬坡能力（带基本臂，司机室置于后方）			%	30
柴油机额定输出功率/转速			KW/rpm	美国康明斯QSL-9 209/2000
整机质量			t	103
接地比压			Mpa	0.07
配重质量			t	34
最大定额起重量			t	100
最大定额起重力矩			t.m	550

注：带※速度是随载荷的不同而变化。

Descriptions			Length(m)	Value
Boom			16～73	30°～80°
Fixed jib			13～25	10°;30°
Max.length of main boom and fixed fly jib			61＋25	
Kinds of hook			t	100/50/9
Working speed	Line Speed	Hoist	m/min	※ High114/57 Low82/41
		Lower	m/min	※ High114/57 Low82/41
		Boom hoist	m/min	※54
		Boom Lower	m/min	54
		Slew speed	r/min	0～1.96
		Travel speed	km/h	0.9～※1.3
Parts of line	12		Single pull	8.33
Grade ability (with basic boom and cabin on rear side)			%	30
Rated power output/rotating speed of diesel engine			KW/rpm	Cummins QSL-9 209/2000
Mass of whole machine			t	103
Ground pressure			Mpa	0.07
Counterweight			t	34
Max.rated lifting capacity(boom)			t	100
Max.rated load moment			t.m	550

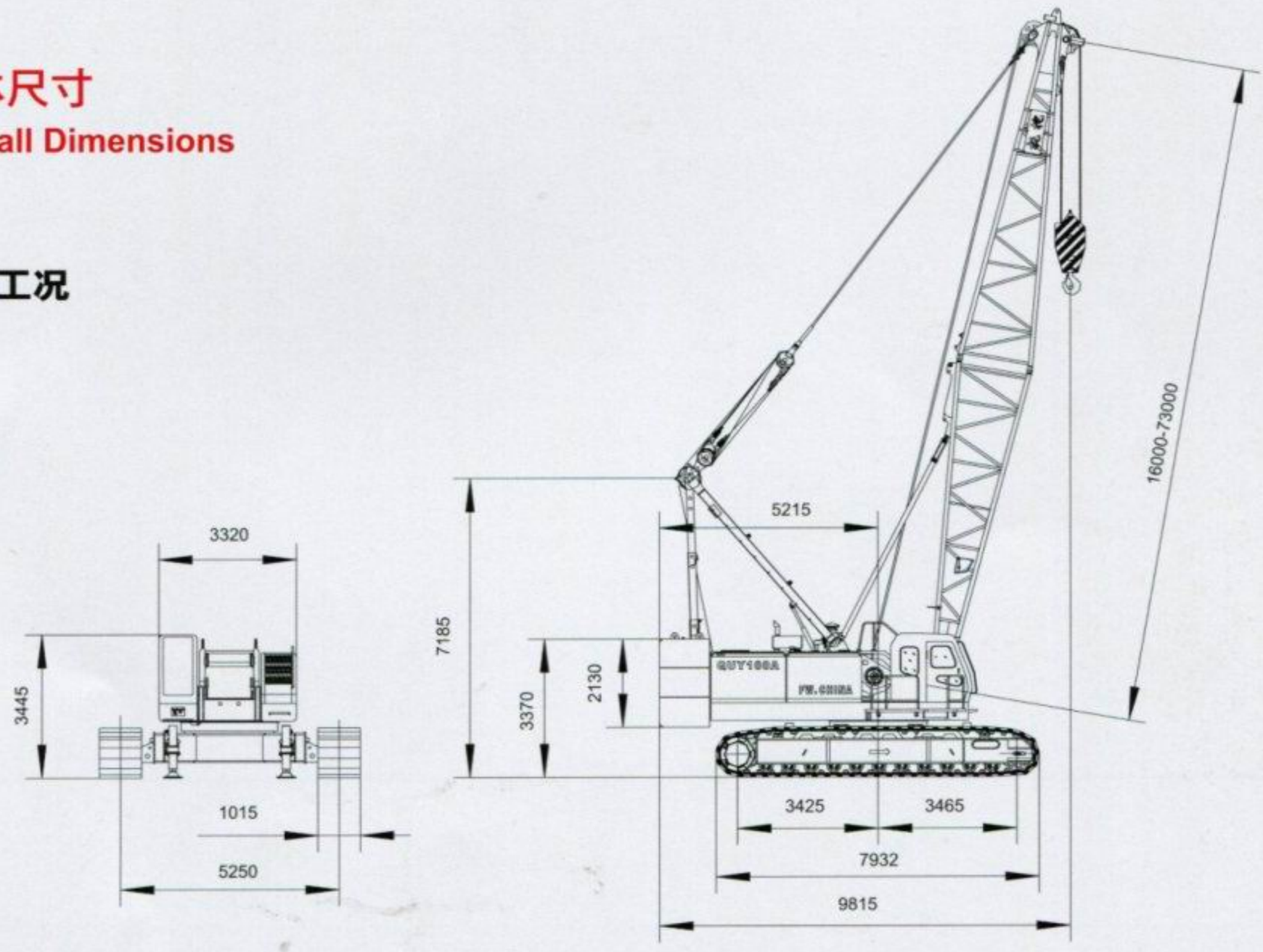
Note: Speed with ※may vary with the different load.

总体尺寸

Overall Dimensions

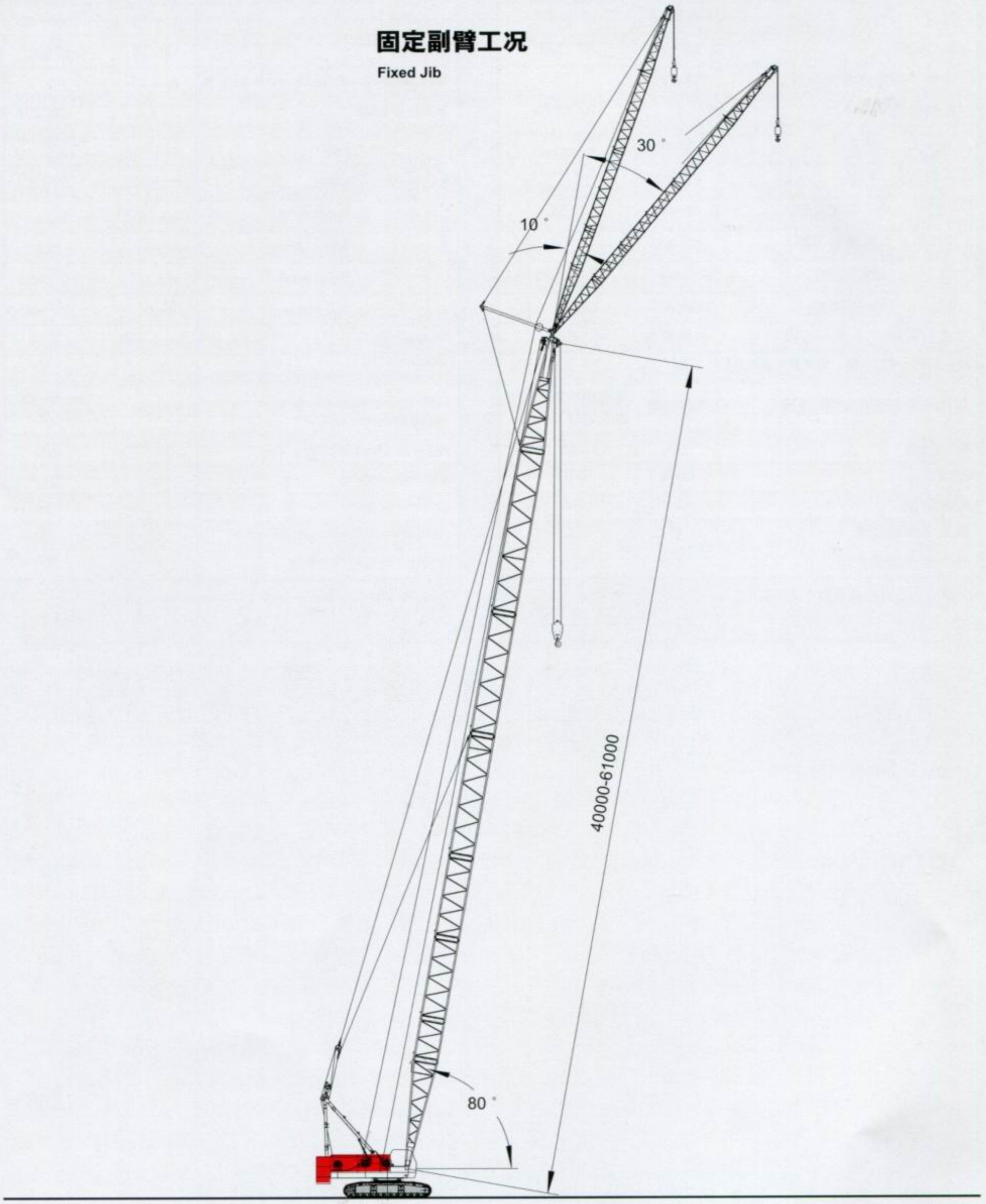
主臂工况

Boom



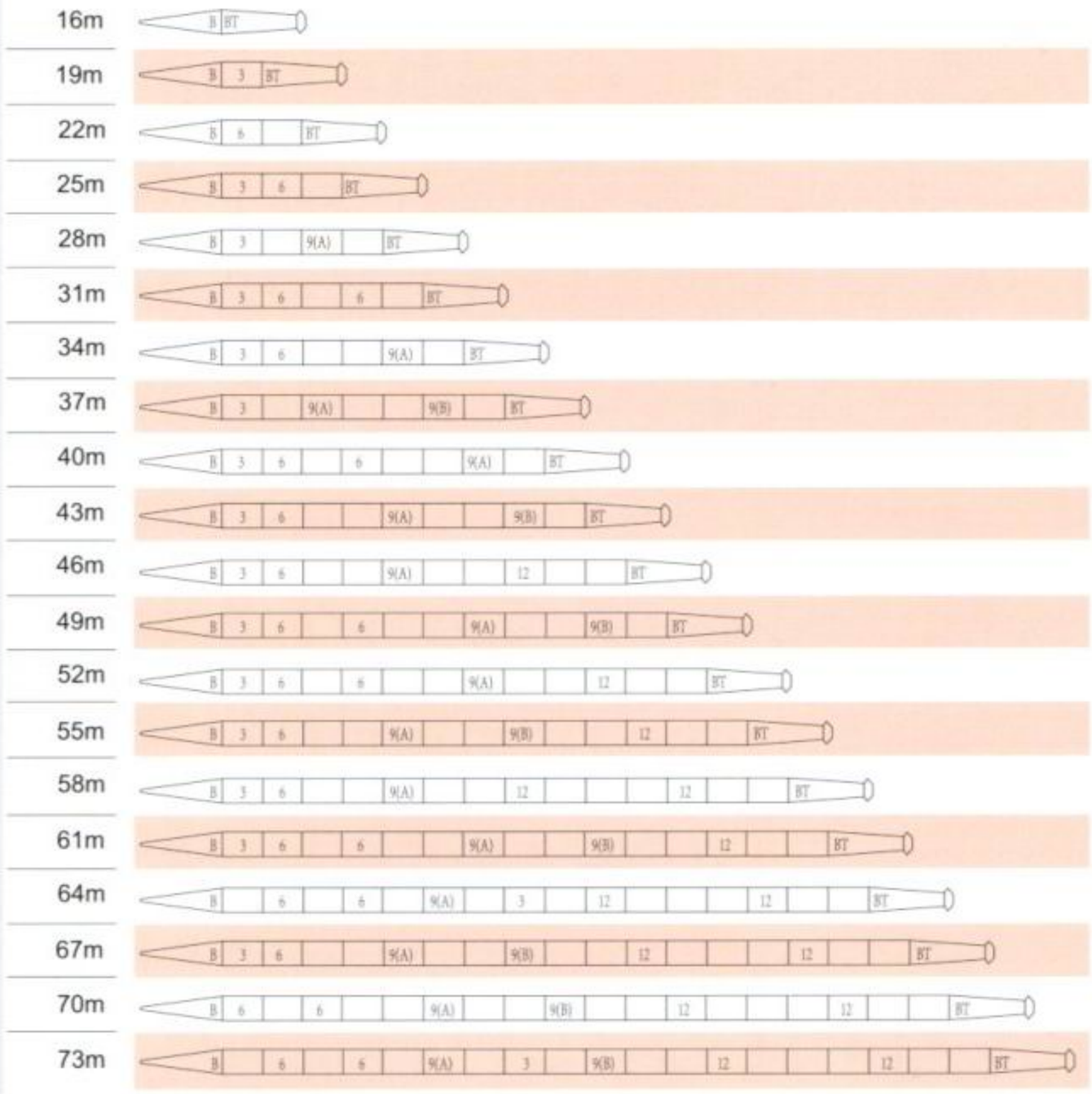
总体尺寸 Overall Dimensions

固定副臂工况
Fixed Jib



主臂和副臂组合 Boom and Jib Combinations

主臂工况臂节组合 Boom Combination

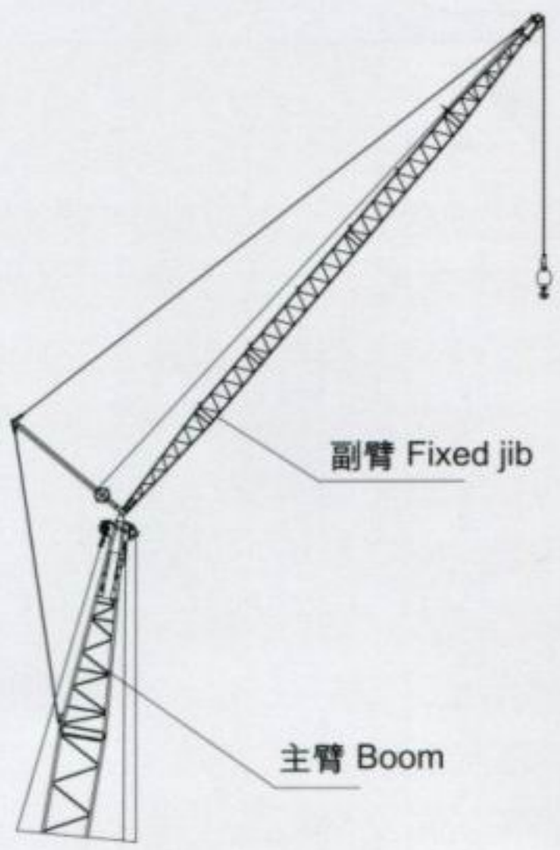


注解

符号	臂杆长度	备注
B	8米	8米下臂节
BT	8米	8米上臂节
3	3米	3米中间臂节
6	6米	6米中间臂节
9(A)	9米	9米中间臂节
9(B)	9米	9米中间臂节
12	12 米	12米中间臂 节

Note

Symbol	Boom length	Remarks
B	8m	8m boom foot
BT	8m	8m boom top
3	3m	3m boom insert
6	6m	6m boom insert
9(A)	9m	9m boom insert
9(B)	9m	9m boom insert
12	12 m	12m boom insert



固定副臂工况臂节组合 Fixed Jib Combinations

主臂长度 Boom length	副臂长度 Jib length	副臂组合 Jib combination
40m ≀ 61m	13m	B 3 BT
	19m	B 3 6 BT
	25m	B 3 6 6 BT

注解

符号	副臂长度	备注
B	5米	5米下节臂
BT	5米	5米上节臂
3	3米	3米中间节臂
6	6米	6米中间节臂

Note

Symbol	Jib length	Remarks
B	5m	5m jib foot
BT	5m	5m jib top
3	3m	3m jib insert
6	6m	6m jib insert

主臂工况载荷表 Load Chart (Boom)

16m-73m

360°

34t

m	16.0	19.0	22.0	25.0	28.0	31.0	34.0	37.0	40.0	43.0	m
5	100	100									5
5.5	100	95	90.3								5.5
6	87.1	83.9	80.9	77							6
7	70.1	67.8	65.8	63.8	61.9	58.9	52.6				7
8	58.6	56.9	55.3	53.8	52.4	50.9	49.6	47.2	42.7		8
9	49.2	48.9	47.7	46.5	45.3	44.2	43.1	42	40.9	39	9
10	42.3	42.1	41.9	40.9	39.9	38.9	38	37.1	36.2	35.4	10
12	32.9	32.7	32.6	32.4	32.1	31.3	30.6	30	29.2	28.6	12
14	26.8	26.6	26.5	26.3	26.2	26	25.6	25	24.4	23.9	14
16	23.7	22.3	22.2	22	21.9	21.7	21.5	21.3	20.8	20.4	16
18		19.2	19.1	18.9	18.7	18.5	18.4	18.2	18	17.8	18
20			16.6	16.4	16.3	16.1	15.9	15.8	15.6	15.5	20
22			16	14.5	14.3	14.1	14	13.8	13.7	13.6	22
24				13.5	12.8	12.6	12.4	12.3	12.1	12	24
26					11.6	11.3	11.1	11	10.8	10.7	26
28						10.2	10	9.9	9.7	9.6	28
30							9.1	8.9	8.7	8.7	30
32							8.6	8.1	7.9	7.7	32
34								7.5	7.2	7.1	34
36									6.5	6.5	36
38										5.8	38
40											40
42											42
44											44
46											46
48											48
50											50
52											52
54											54
56											56
58											58
60											60
62											62
64											64

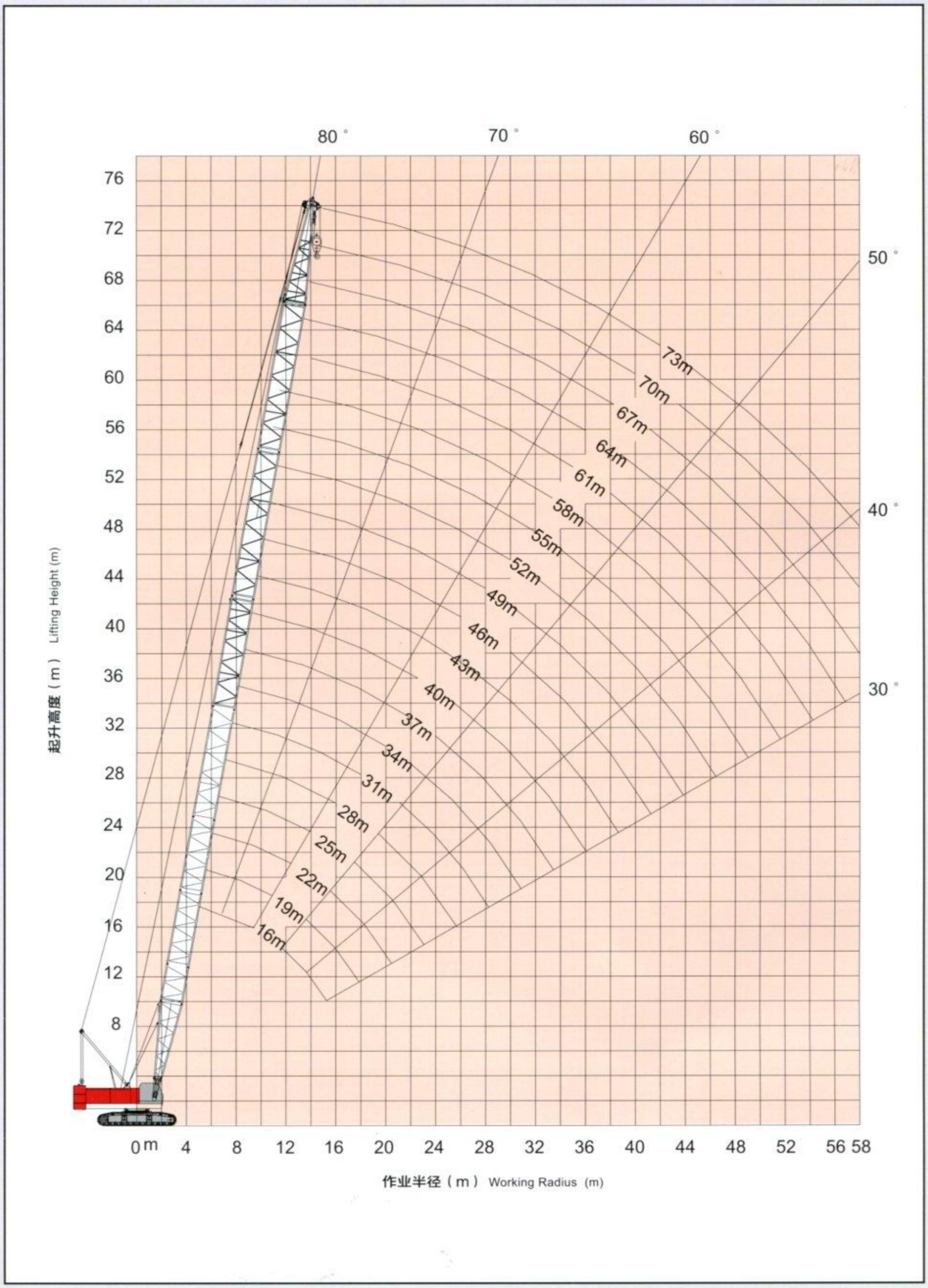
16m-73m

360°

34t

m	46.0	49.0	52.0	55.0	58.0	61.0	64.0	67.0	70.0	73.0	m
5											5
5.5											5.5
6											6
7											7
8											8
9	35.7										9
10	34.5	32.7	30.2	27.9							10
12	28	27.3	26.6	26	25.4	24	22.3	20.7			12
14	23.4	22.8	22.3	21.8	21.2	20.6	20.2	19.6	19		14
16	20	19.5	19	18.6	18.1	17.6	17.2	16.7	16.2	15.7	16
18	17.3	16.9	16.5	16.1	15.7	15.2	14.9	14.4	14	13.5	18
20	15.3	14.8	14.5	14.1	13.7	13.3	13	12.6	12.2	11.8	20
22	13.4	13.2	12.8	12.5	12.2	11.8	11.5	11.1	10.7	10.3	22
24	11.9	11.7	11.5	11.2	10.9	10.5	10.2	9.9	9.5	9.1	24
26	10.6	10.4	10.2	10.1	9.8	9.4	9.2	8.8	8.5	8.1	26
28	9.4	9.3	9.1	9	8.8	8.5	8.2	7.9	7.6	7.3	28
30	8.5	8.3	8.2	8.1	7.9	7.7	7.4	7.1	6.8	6.5	30
32	7.7	7.5	7.4	7.3	7.1	6.9	6.8	6.4	6.1	5.8	32
34	7	6.8	6.6	6.6	6.4	6.2	6.1	5.8	5.6	5.2	34
36	6.4	6.2	6	5.9	5.8	5.6	5.5	5.3	5	4.7	36
38	5.8	5.6	5.5	5.4	5.2	5	5	4.8	4.6	4.3	38
40	5	5	5	4.9	4.7	4.5	4.5	4.3	4.1	3.8	40
42		4.7	4.5	4.4	4.3	4.1	4	3.8	3.7	3.5	42
44		4.3	4.1	4	3.9	3.7	3.6	3.4	3.3	3.1	44
46			3.8	3.7	3.5	3.3	3.2	3.1	2.9	2.7	46
48			3.6	3.3	3.2	3	2.9	2.7	2.6	2.4	48
50				3.1	2.9	2.7	2.6	2.4	2.3	2.1	50
52					2.6	2.4	2.3	2.1	2	1.8	52
54						2.1	2.1	1.9	1.7	1.5	54
56							1.7	1.6	1.5	1.3	56
58								1.2	1.2	1.1	58
60									1	0.9	60
62									0.8	0.7	62
64										0.5	64

主臂工况作业范围 Working Range (Boom)



辅助臂工况载荷表

Load Chart (Runner)

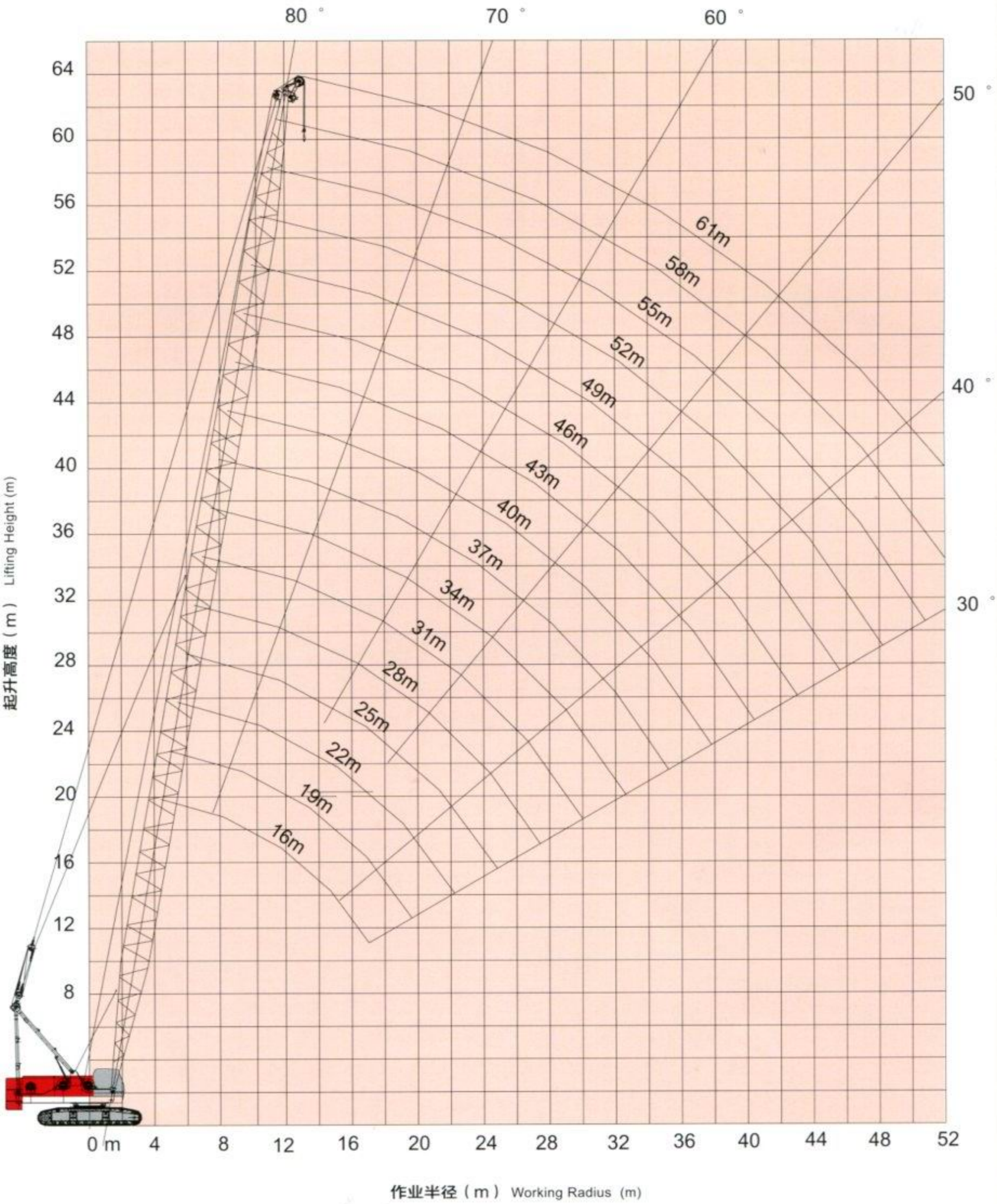
16m-61m

360°

34t

m	16	19	22	25	28	31	34	37	40	43	46	49	52	55	58	61	m
5	5.2m 9.0t																5
5.3	9	5.8m 9.0t															5.3
6	9	9	6.3m 9.0t	6.7m 9.0t													6
7	9	9	9	9	7.3m 9.0t	7.9m 9.0t											7
8	9	9	9	9	9	9	8.4m 9.0t	8.9m 9.0t									8
9	9	9	9	9	9	9	9	9	9.7m 9.0t	9.9m 9.0t							9
10	9	9	9	9	9	9	9	9	9	9	10.4m 9.0t	11.0m 9.0t	11.7m 9.0t				10
12	9	9	9	9	9	9	9	9	9	9	9	9	9	12.2m 9.0t	12.7m 9.0t	13.0m 9.0t	12
14	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	14
16	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	16
18	16.8m 9.0t	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	18
20		19.4m 9.0t	9	9	9	9	9	9	9	9	9	9	9	9	9	9	20
22			9	9	9	9	9	9	9	9	9	9	9	9	9	9	22
24				9	9	9	9	9	9	9	9	9	9	9	9	9	24
26				24.6m 9.0t	9	9	9	9	9	9	25.8m 9.0t	25.6m 9.0t	25.3m 9.0t	25.1m 9.0t	25.1m 9.0t	24.8m 9.0t	26
28					27.2m 8.7t	26.8m 9.0t	26.7m 9.0t	26.3m 9.0t	26.2m 9.0t	8	7.9	7.7	7.6	7.5	7.5	7.4	28
30						29.8m 7.7t	7.6	7.3	7.2	7.2	7	6.9	6.8	6.6	6.6	6.5	30
32							6.7	6.6	6.5	6.4	6.3	6.2	6.1	5.9	5.9	5.8	32
34							32.4m 6.6t	6	5.9	5.8	5.7	5.5	5.5	5.3	5.3	5.2	34
36								35.0m 5.7t	5.4	5.3	5.2	5	4.9	4.7	4.7	4.6	36
38									37.6m 5.0t	4.8	4.7	4.5	4.4	4.2	4.2	4.1	38
40										4.3	4.2	4.1	4	3.8	3.8	3.6	40
42										40.2m 4.2t	3.8	3.7	3.6	3.4	3.3	3.2	42
44											42.8m 3.7t	3.4	3.2	3	2.9	2.8	44
46												45.6m 3.2t	2.9	2.6	2.5	2.4	46
48													2.4	2.3	2.2	2.1	48
50														2	1.9	1.8	50
52														50.6m 1.8t	1.6	1.5	52

辅助臂工况作业范围 Working Range (Runner)

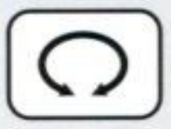


固定副臂工况载荷表

Load Chart (Fixed jib)

40m-61m

10°
13m-25m



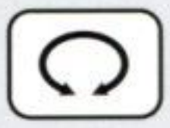
360°

34t

m	40			43			46			49			m
	13	19	25	13	19	25	13	19	25	13	19	25	
14	13.2			13.2									14
16	13	9.2		13			13.1			13.2			16
18	12.7	9	6.3	12.8	9.1		12.9	9.1		13	9.2		18
20	12.4	8.8	6.2	12.5	8.8	6.2	12.6	8.9	6.3	12.7	9	6.3	20
22	12.2	8.6	6	12	8.6	6	11.3	8.7	6.1	11.4	8.8	6.2	22
24	11.1	8.4	5.8	10.9	8.5	5.9	10.1	8.5	5.9	10.3	8.6	6.1	24
26	10.1	8.2	5.7	9.9	8.3	5.7	9.6	8.4	5.8	9.3	8.4	5.9	26
28	9.3	8	5.5	9.1	8.1	5.6	8.8	8.2	5.7	8.5	8.3	5.8	28
30	8.5	7.8	5.4	8.3	7.9	5.4	8.1	8	5.5	7.8	7.9	5.6	30
32	7.7	7.7	5.2	7.6	7.7	5.3	7.5	7.5	5.4	7.2	7.2	5.5	32
34	7	7.3	5.1	6.9	7.1	5.2	6.8	6.9	5.3	6.6	6.7	5.4	34
36	6.5	6.6	5	6.3	6.6	5.1	6.3	6.4	5.1	6	6.2	5.3	36
38	5.9	6.1	4.9	5.9	6	4.9	5.7	6	5	5.5	5.8	5.2	38
40	5.4	5.7	4.7	5.4	5.6	4.8	5.3	5.5	4.9	5	5.3	5.1	40
42	5.1	5.3	4.6	4.8	5.2	4.7	4.9	5.1	4.8	4.7	4.9	4.8	42
44	4.7	4.9	4.5	4.6	4.7	4.6	4.4	4.6	4.7	4.2	4.5	4.5	44
46	4.4	4.5	4.4	4.2	4.4	4.4	4.1	4.2	4.5	4	4.2	4.2	46
48	4	4.2	4.3	4	4.1	4.2	3.8	3.9	4.1	3.6	3.9	3.9	48
50	3.8	3.9	4.1	3.7	3.9	4	3.5	3.6	3.9	3.4	3.6	3.6	50
52		3.7	3.8	3.4	3.6	3.6	3.3	3.4	3.6	3.1	3.3	3.3	52
54		3.4	3.5		3.4	3.4	3	3.2	3.3	2.9	3.1	3.1	54
56			3.3		3.1	3.2		3	3.1	2.6	2.8	2.8	56
58			3.1		2.9	3		2.8	2.9	2.4	2.6	2.6	58
60			2.9			2.8		2.6	2.7		2.4	2.4	60
62						2.6			2.5		2.2	2.2	62
64						2.5			2.3			2.1	64
66									2.2			1.9	66
68												1.7	68

40m-61m

30°
13m-25m



360°

34t

m	40			43			46			49			m
	13	19	25	13	19	25	13	19	25	13	19	25	
18	11.5			11.6									18
20	11.4			11.4			11.5			11.5			20
22	11.3	7.6		11.3	7.6		11.4			11.4			22
24	11.2	7.5		11.2	7.5		11.1	7.6		10.8	7.6		24
26	10.5	7.4	4.9	10.3	7.4	4.9	10	7.5		9.8	7.5		26
28	9.6	7.3	4.8	9.4	7.3	4.8	9.2	7.4	4.8	8.9	7.4	4.9	28
30	8.7	7.2	4.7	8.7	7.2	4.7	8.4	7.3	4.8	8.2	7.3	4.8	30
32	7.9	7.1	4.6	7.9	7.1	4.6	7.8	7.2	4.7	7.5	7.2	4.7	32
34	7.3	7	4.5	7.2	7	4.6	7.1	7.1	4.6	6.9	7.1	4.6	34
36	6.7	6.9	4.4	6.6	6.9	4.5	6.5	6.8	4.5	6.3	6.6	4.6	36
38	6.1	6.4	4.4	6.1	6.4	4.4	5.9	6.3	4.4	5.8	6.1	4.5	38
40	5.6	5.9	4.3	5.6	5.9	4.3	5.5	5.8	4.4	5.3	5.6	4.4	40
42		5.5	4.2	5.1	5.4	4.3	5	5.3	4.3	4.9	5.2	4.4	42
44		5.1	4.2		5	4.2	4.6	4.9	4.3	4.5	4.8	4.3	44
46		4.7	4.1		4.7	4.2		4.5	4.2	4.1	4.4	4.2	46
48			4.1		4.3	4.1		4.2	4.4	3.8	4.1	4.2	48
50			4			4.1		3.9	4.1		3.8	4	50
52			4			3.9			3.8		3.5	3.7	52
54						3.6			3.5			3.4	54
56									3.3			3.2	56
58												2.9	58
60													60
62													62
64													64
66													66

固定副臂工况载荷表

Load Chart (Fixed jib)

40m-61m

10°
13m-25m

360°

34t

m	52			55			58			61			m
	13	19	25	13	19	25	13	19	25	13	19	25	
14													14
16	13.3			13.3									16
18	13	9.2		13			13.2			12.8			18
20	12.4	9	6.3	12.1	9.1		11.7	9.1		11.4	9.2		20
22	11.1	8.9	6.2	10.8	8.9	6.2	10.5	9	6.3	10.1	9	6.3	22
24	10	8.7	6.1	9.7	8.7	6.1	9.4	8.8	6.1	9.1	8.9	6.2	24
26	9.1	8.5	5.9	8.8	8.6	6	8.5	8.6	6	8.2	8.3	6.1	26
28	8.3	8.3	5.8	8	8.1	5.8	7.8	7.8	5.9	7.5	7.5	5.9	28
30	7.6	7.6	5.6	7.3	7.4	5.7	7.1	7.1	5.8	6.8	6.9	5.8	30
32	7	7	5.5	6.7	6.8	5.6	6.5	6.6	5.6	6.2	6.3	5.7	32
34	6.4	6.5	5.4	6.2	6.3	5.5	6	6	5.5	5.7	5.8	5.6	34
36	5.9	6	5.6	5.7	5.8	5.3	5.5	5.6	5.4	5.2	5.3	5.3	36
38	5.4	5.6	5.2	5.3	5.4	5.2	5.1	5.2	5.1	4.8	4.9	4.9	38
40	5	5.2	5.1	4.9	5	5	4.7	4.8	4.8	4.3	4.5	4.5	40
42	4.6	4.8	4.7	4.5	4.6	4.6	4.3	4.4	4.4	4	4.2	4.2	42
44	4.2	4.4	4.5	4.1	4.3	4.3	4	4.1	4.1	3.8	3.9	3.9	44
46	3.8	4.1	4.2	3.8	4	4	3.6	3.8	3.8	3.5	3.6	3.6	46
48	3.5	3.7	3.9	3.4	3.7	3.8	3.3	3.5	3.6	3.1	3.3	3.4	48
50	3.2	3.5	3.6	3.2	3.4	3.5	3	3.2	3.3	2.9	3.1	3.1	50
52	3	3.2	3.3	2.9	3.1	3.2	2.8	3	3.1	2.6	2.8	2.9	52
54	2.7	2.9	3.1	2.6	2.8	3	2.5	2.7	2.9	2.3	2.6	2.7	54
56	2.5	2.7	2.8	2.4	2.6	2.8	2.3	2.5	2.6	2.1	2.3	2.5	56
58	2.3	2.5	2.6	2.2	2.4	2.5	2.1	2.3	2.4	1.9	2.1	2.3	58
60	2.1	2.3	2.4	1.8	2.2	2.3	1.9	2.1	2.2	1.7	1.9	2.1	60
62		2.1	2.2		2	2.2	1.7	1.9	2	1.5	1.7	1.9	62
64		1.9	2.1		1.8	2	1.5	1.7	1.8	1.4	1.6	1.7	64
66		1.8	1.9		1.7	1.8	1.4	1.5	1.7	1.2	1.4	1.5	66
68			1.7		1.5	1.7		1.4	1.5	1	1.2	1.4	68

40m-61m

30°
13m-25m

360°

34t

m	52			55			58			61			m
	13	19	25	13	19	25	13	19	25	13	19	25	
18													18
20	11.5			11.6									20
22	11.4			11.4			11.1			10.8			22
24	10.5	7.6		10.3	7.6		10			9.7			24
26	9.5	7.5		9.3	7.5		9	7.6		8.8	7.5		26
28	8.7	7.4	4.9	8.5	7.5	4.9	8.2	7.5		7.9	7.5		28
32	7.3	7.2	4.7	7.1	7.3	4.8	6.9	7	4.8	6.6	6.7	4.8	32
34	6.7	6.9	4.7	6.5	6.7	4.7	6.3	6.5	4.7	6.1	6.3	4.7	34
36	6.2	6.4	4.6	6	6.2	4.6	5.8	6	4.6	5.6	5.8	4.7	36
38	5.7	5.9	4.5	5.6	5.8	4.5	5.4	5.6	4.6	5.1	5.4	4.6	38
40	5.2	5.5	4.4	5.1	5.4	4.5	4.9	5.2	4.5	4.7	4.9	4.5	40
42	4.8	5.1	4.4	4.7	5	4.4	4.6	4.8	4.5	4.4	4.6	4.5	42
44	4.4	4.7	4.3	4.3	4.6	4.4	4.2	4.4	4.4	4	4.2	4.4	44
46	4	4.3	4.3	3.9	4.2	4.3	3.8	4.1	4.3	3.7	3.9	4.1	46
48	3.7	4	4.2	3.6	3.9	4.1	3.5	3.8	4	3.3	3.6	3.8	48
50	3.4	3.7	3.9	3.3	3.6	3.8	3.2	3.5	3.7	3	3.4	3.5	50
54		3.1	3.3		3	3.3	2.6	2.9	3.2	2.5	2.8	3	54
56			3.1		2.8	3		2.7	2.9	2.2	2.5	2.8	56
58			2.8			2.8		2.4	2.7		2.3	2.5	58
60			2.6			2.6			2.4		2.1	2.3	60
62						2.3			2.2			2.1	62
64									2			1.9	64
66												1.7	66

载荷表说明 Load Chart(Fixed jib)

说明

1. 本起重机符合 GB3811 标准，同时又满足 ISO4302,ISO4305 标准。
2. 载荷表所表示的额定总载荷值为水平坚硬地面上，理想作业条件的最大允许值。
3. 载荷表所示的值以吨为单位,额定总起重量是在倾翻载荷的 78% 以内，及移动式起重机结构标准所确定的前方稳定度在 1.15 以内。
4. 载荷表所示的值基于平衡负载而计算，不包括如突然停止的冲击负载，地表状况，风力负荷及操作速度等影响。如在此条件下，驾驶员必须进行减载作业。同时，载荷表中的值还要扣除如吊钩,吊具等的自重。
吊钩自重：100 吨钩.....1.66吨, 50吨钩.....0.829 吨,9 吨钩.....0.238 吨。
5. 安装副臂的主起重臂长度为 40m～61m。
6. 安装副臂时,主起重臂禁止安装 100t 钩。
7. 安装副臂或辅助臂时，主起重臂实际起重量为主起重臂额定载荷扣除下表所列的重量及主钩加副钩重量的值。

Notes

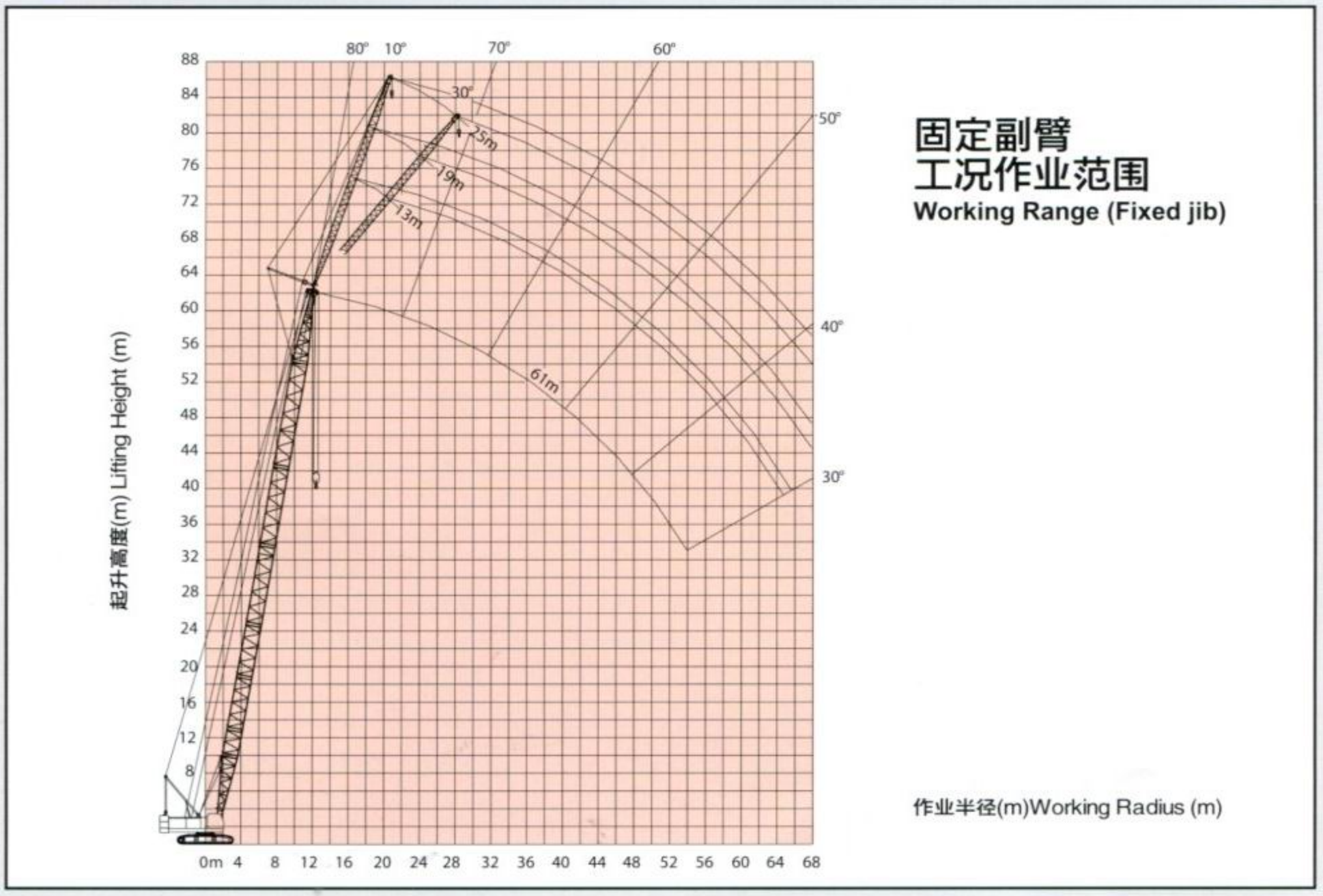
1.Ratings according to GB3811, ISO4302 and ISO4305.
2.The rated load in the table is the maximum allowed value when the crane works on the level and firm ground and under the ideal conditions.
3.The unit in the table is ton and the rated load capacity is 75% of tipping load. The front stability is within 1.15 as specified in the standard of the structure of mobile crane.
4.The values in the table are calculated on the stable load，not including impacting load, the hard condition of ground and operating speed. So the driver should reduce the corresponding load from the capacity ratings, the weight of hook and slings should also be deducted from the capacity ratings.
Weight of hook：100t hook.....1.66t，50t hook.....0.829t, 9t hook.....0.238t
5.When mounted with jib, the length of main boom is 40m～61m.
6.When mounted with jib, main boom is forbidden to attach the 100t hook.
7.When mounted with jib or runner, the actual lifting capacity of main boom is the rated load capacity deducting the weights of main and auxiliary hooks, fixed jib or runner.

固定副臂和加长臂 **Fixed jib and Runner**

13m副臂 jib	1.5t	19m副臂 jib	1.7t
25m副臂 jib	1.9t	辅助臂 Runner	0.4t

8. 安装辅助臂的主臂长度为 16m～61m。
9. 平衡重质量为 34t。
10. 侧面时的稳定值最小。

8.When mounted with runner, the length of main boom is 16m～61m.
9.The weight of counterweight is 34t.
10. Least stable rated position is over the side.

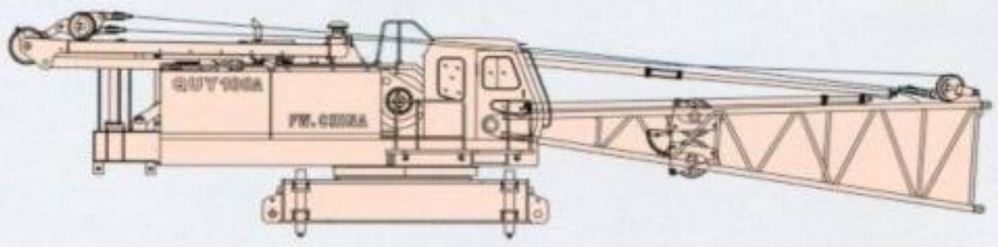


固定副臂
工况作业范围
Working Range (Fixed jib)

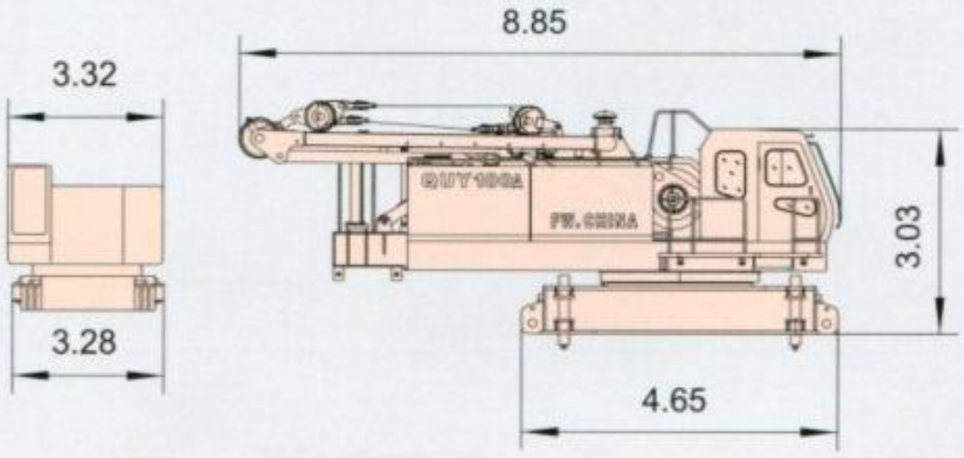
主要零部件运输尺寸

Dimensions for Transportation

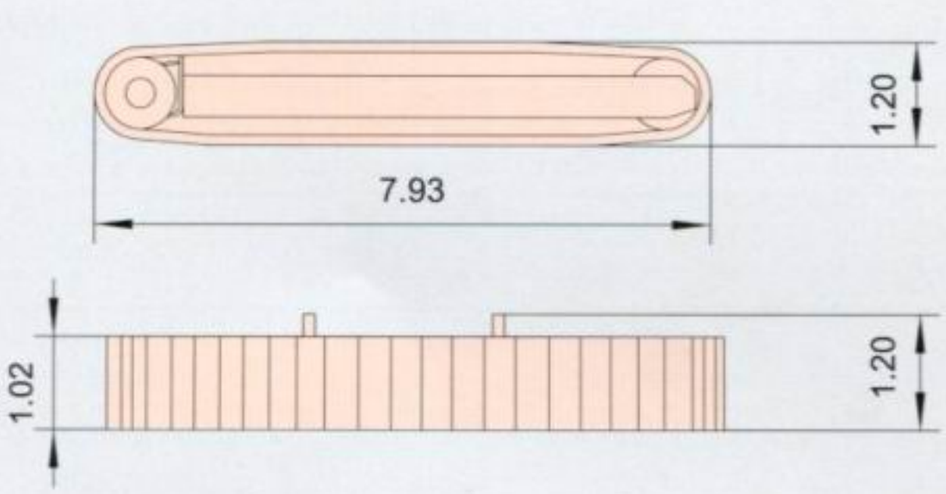
尺寸单位：m　　Unit: m



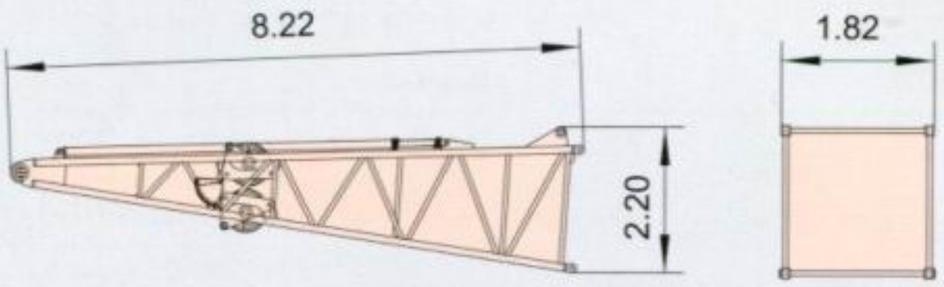
本体	x1	Carbody	x1
重量	33500Kg	Weight	33500Kg



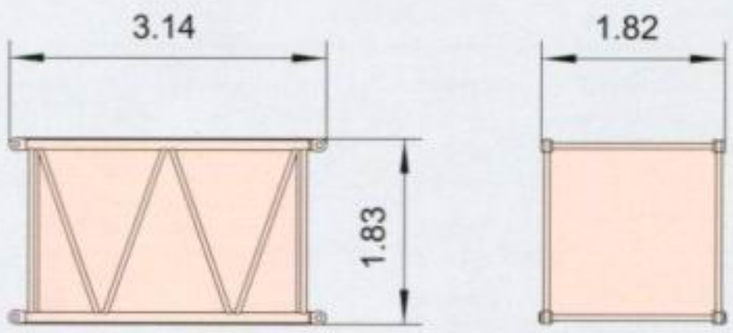
本体(拆基础臂架)	x1	Carbody(Not including boom foot)	x1
长	8.85m	Length	8.85m
宽	3.32m	Width	3.32m
高	3.03m	Height	3.03m
重量	31000Kg	Weight	31000Kg



履带总成	x2	Crawler assy	x2
长	7.93m	Length	7.93m
宽	1.28m	Width	1.28m
高	1.20m	Height	1.20m
重量	16710Kg	Weight	16710Kg



基础臂节	x1	Boom foot	x1
长	8.22m	Length	8.22m
宽	1.82m	Width	1.82m
高	2.20m	Height	2.20m
重量	2565Kg	Weight	2565Kg

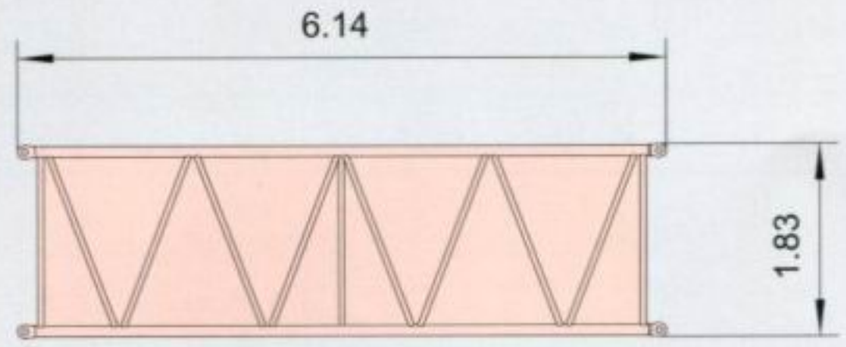


3m中间臂节	x1	3m boom insert	x1
长	3.14m	Length	3.14m
宽	1.82m	Width	1.82m
高	1.83m	Height	1.83m
重量	403Kg	Weight	403Kg

主要零部件运输尺寸

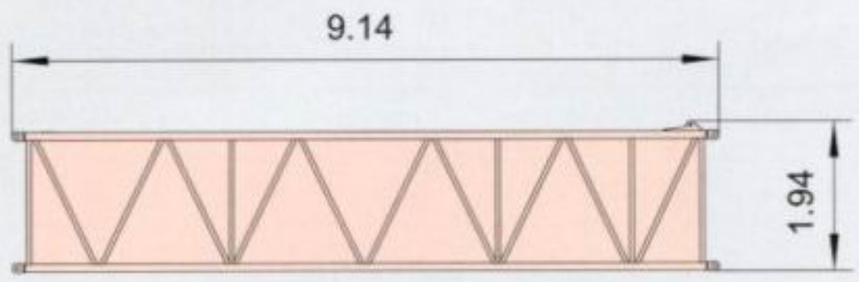
Dimensions for Transportation

尺寸单位：m　　Unit: m



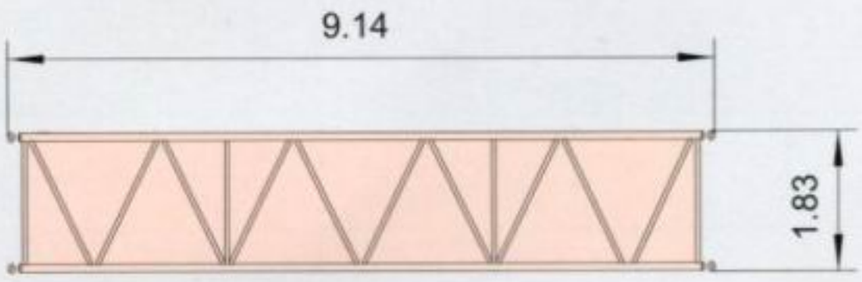
6m中间臂节	x2
长	6.14m
宽	1.82m
高	1.83m
重量	700Kg

6m boom insert	x2
Length	6.14m
Width	1.82m
Height	1.83m
Weight	700Kg



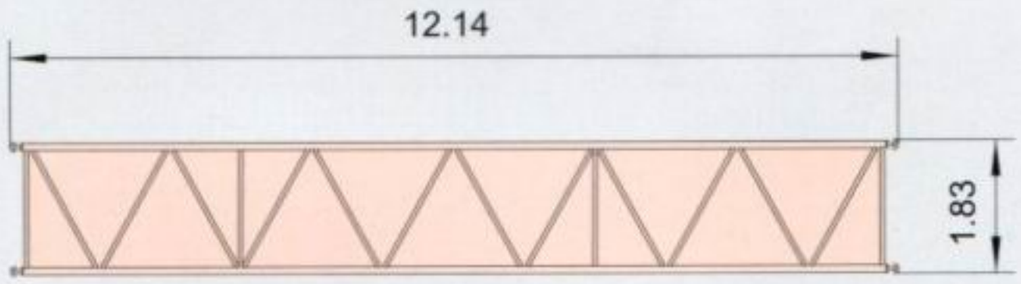
9m中间臂节(A)	x1
长	9.14m
宽	1.82m
高	1.94m
重量	810Kg

9m boom insert (A)	x1
Length	9.14m
Width	1.82m
Height	1.94m
Weight	810Kg



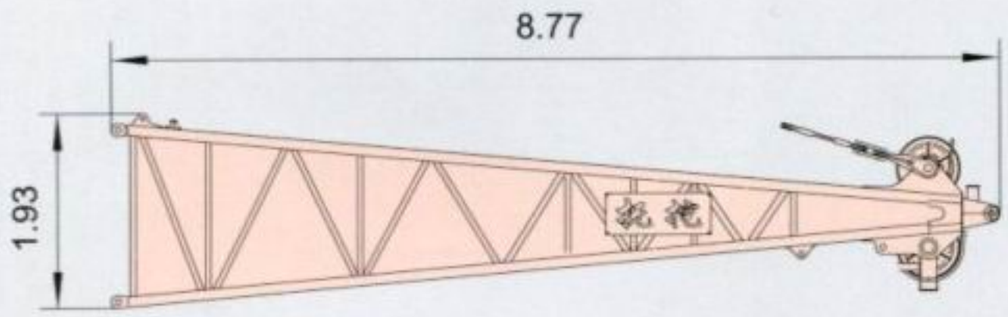
9m中间臂节(B)	x1
长	9.14m
宽	1.82m
高	1.83m
重量	935Kg

9m boom insert(B)	x1
Length	9.14m
Width	1.82m
Height	1.83m
Weight	935Kg



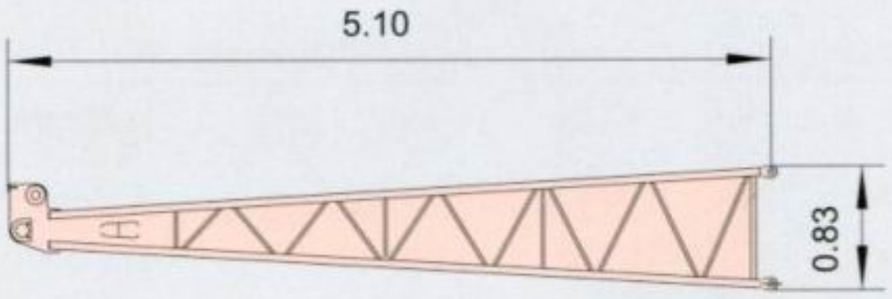
12m中间臂节	x2
长	12.14m
宽	1.82m
高	1.83m
重量	1304Kg

12m boom insert	x2
Length	12.14m
Width	1.82m
Height	1.83m
Weight	1304Kg



顶部臂节	x1
长	8.77m
宽	1.82m
高	1.93m
重量	2090Kg

Boom top	x1
Length	8.77m
Width	1.82m
Height	1.93m
Weight	2090Kg

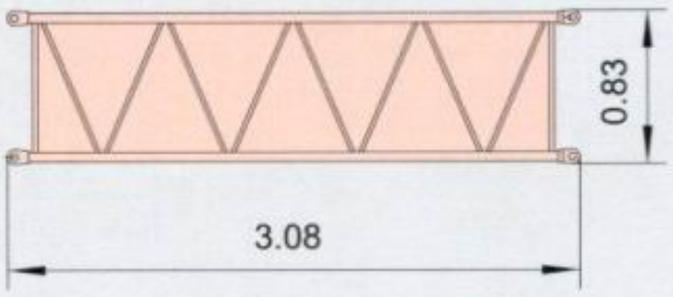


副臂基础臂节	x1
长	5.10m
宽	0.99m
高	0.83m
重量	220Kg

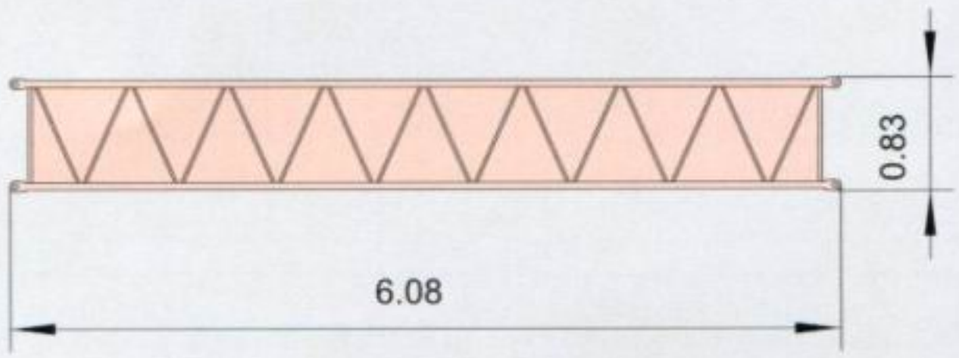
Fixed jib foot	x1
Length	5.10m
Width	0.99m
Height	0.83m
Weight	220Kg

主要零部件运输尺寸 Dimensions for Transportation

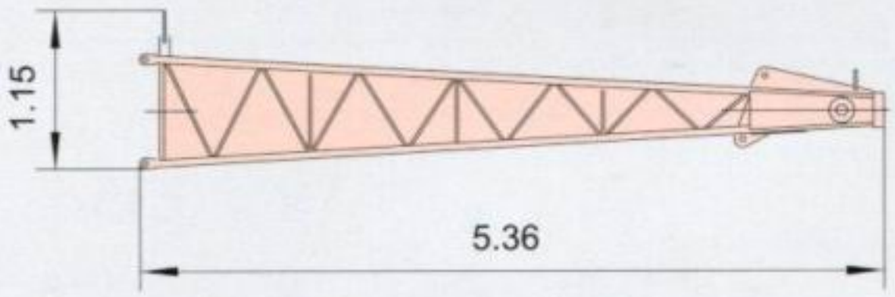
尺寸单位：m Unit: m



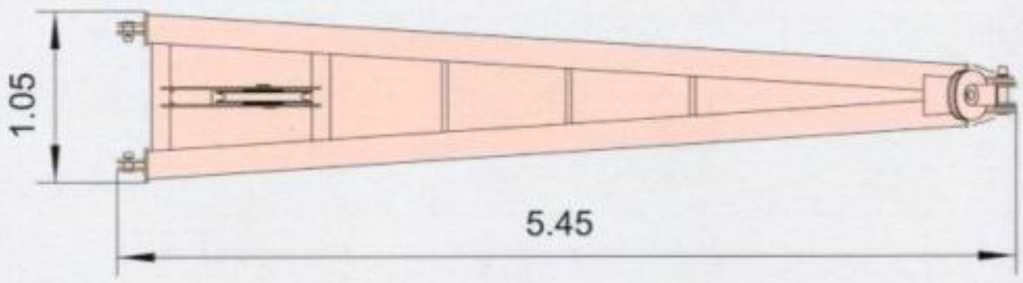
3m中间臂节	x1	3m jib insert	x1
长	3.08m	Length	3.08m
宽	1.01m	Width	1.01m
高	0.83m	Height	0.83m
重量	113Kg	Weight	113Kg



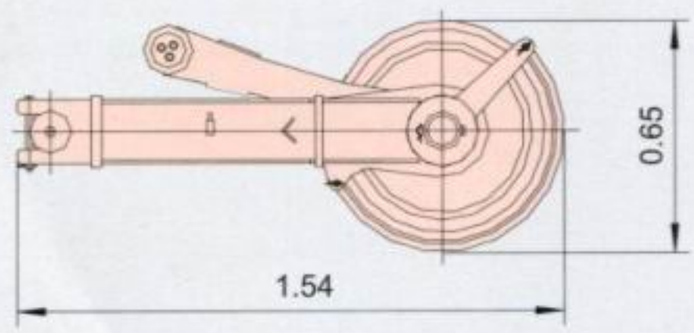
6m中间臂节	x2	6m jib insert	x2
长	6.08m	Length	6.08m
宽	1.01m	Width	1.01m
高	0.83m	Height	0.83m
重量	197Kg	Weight	197Kg



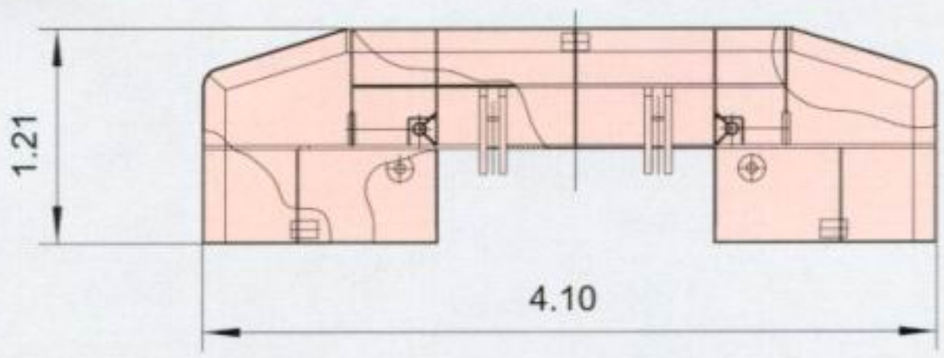
副臂顶部臂节	x1	Fixed jib top	x1
长	5.36m	Length	5.36m
宽	1.01m	Width	1.01m
高	1.15m	Height	1.15m
重量	236Kg	Weight	236Kg



副臂撑架	x1	Jib mast	x1
长	5.45m	Length	5.45m
宽	0.52m	Width	0.52m
高	1.05m	Height	1.05m
重量	438Kg	Weight	438Kg



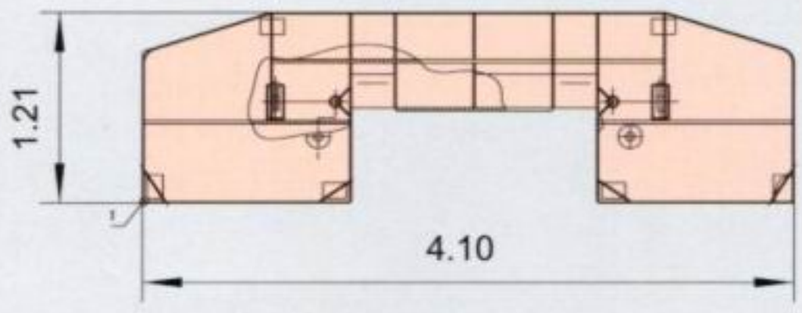
辅助臂	x1	Runner	x1
长	1.54m	Length	1.54m
宽	1.00m	Width	1.00m
高	0.65m	Height	0.65m
重量	388Kg	Weight	388Kg



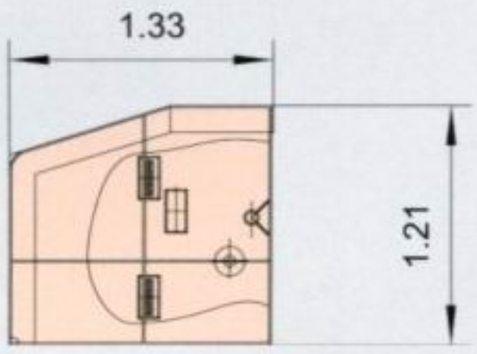
配重A	x1	Counterweight A	x1
长	4.10m	Length	4.10m
宽	1.21m	Width	1.21m
高	0.80m	Height	0.80m
重量	12960Kg	Weight	12960Kg

主要零部件运输尺寸 Dimensions for Transportation

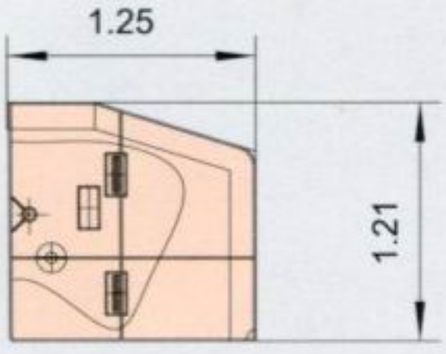
尺寸单位：m Unit: m



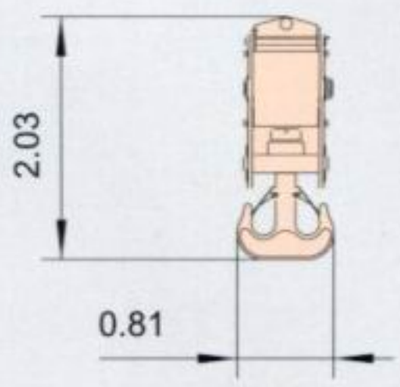
配重 B	x1	Counterweight B	x1
长	4.10m	Length	4.10m
宽	1.21m	Width	1.21m
高	0.84m	Height	0.84m
重量	13200Kg	Weight	13200Kg

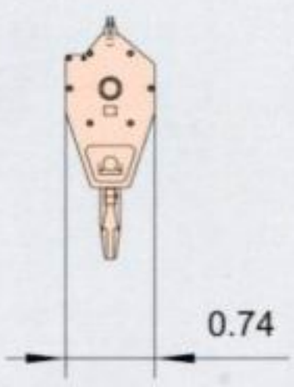


配重C	x1	Counterweight C	x1
长	1.33m	Length	1.33m
宽	1.21m	Width	1.21m
高	0.85m	Height	0.85m
重量	3988Kg	Weight	3988Kg

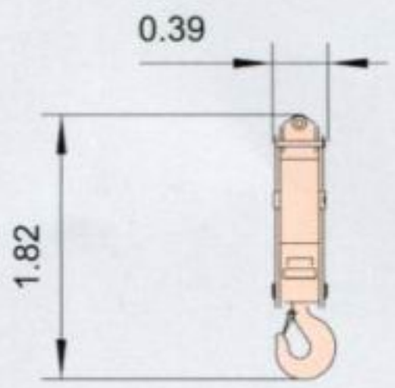


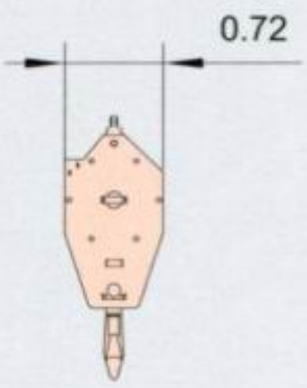
配重D	x1	CounterweightD	x1
长	1.25m	Length	1.25m
宽	1.21m	Width	1.21m
高	0.85m	Height	0.85m
重量	3743Kg	Weight	3743Kg



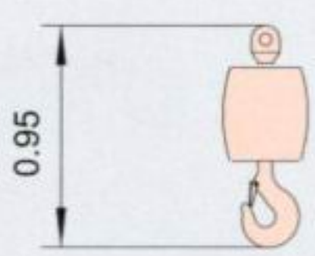


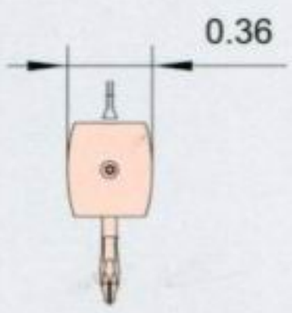
100吨吊钩	x1	100t Hook	x1
长	2.03m	Length	2.03m
宽	0.81m	Width	0.81m
高	0.74m	Height	0.74m
重量	1660Kg	Weight	1660Kg





50吨吊钩	x1	50t Hook	x1
长	1.82m	Length	1.82m
宽	0.72m	Width	0.72m
高	0.39m	Height	0.39m
重量	829Kg	Weight	829Kg





9吨吊钩	x1	9t Hook	x1
长	0.95m	Length	0.95m
宽	0.36m	Width	0.36m
高	0.36m	Height	0.36m
重量	238Kg	Weight	238Kg

样本中的主要零部件运输重量为设计值，由于制造误差，可能稍有不同。
The transportation weight of main parts in the manual is the designed value, the actual value may be a little different due to manufalture error.

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