

XGC85 Lattice Crawler Crane



XGC85

RONCO GROUP





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XGC85 CRAWLER CRANE

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Product Highlights

01 Optimized design of transport and assembly/disassembly

- Basic machine is an integrated transport design, without disassembling track frame and boom base, greatly save transport costs and improve the assembly/disassembly efficiency.
- Unique A-frame gantry self-erection technology, no need of cylinder can achieve self-erection, to realize crane quick assembly.
- Single counterweight weighing no more than 6t, small auxiliary lifting equipment can achieve complete counter-weight assembly.

02 Optimized hydraulic system design

- Integrated design to reduce failure points, while reserve open space for assembly/disassembly and maintenance.
- Use of highly integrated LUDV main valve, with the functions of multi-complex operation, control of combined flow, high/low speed selection, to ensure operation efficiency.
- Optional unique independent bypass filtration in the industry, strong magnetic adsorption device, strengthened hydraulic system filtration, and anti-emulsifying ability.

03 Universal and modular design

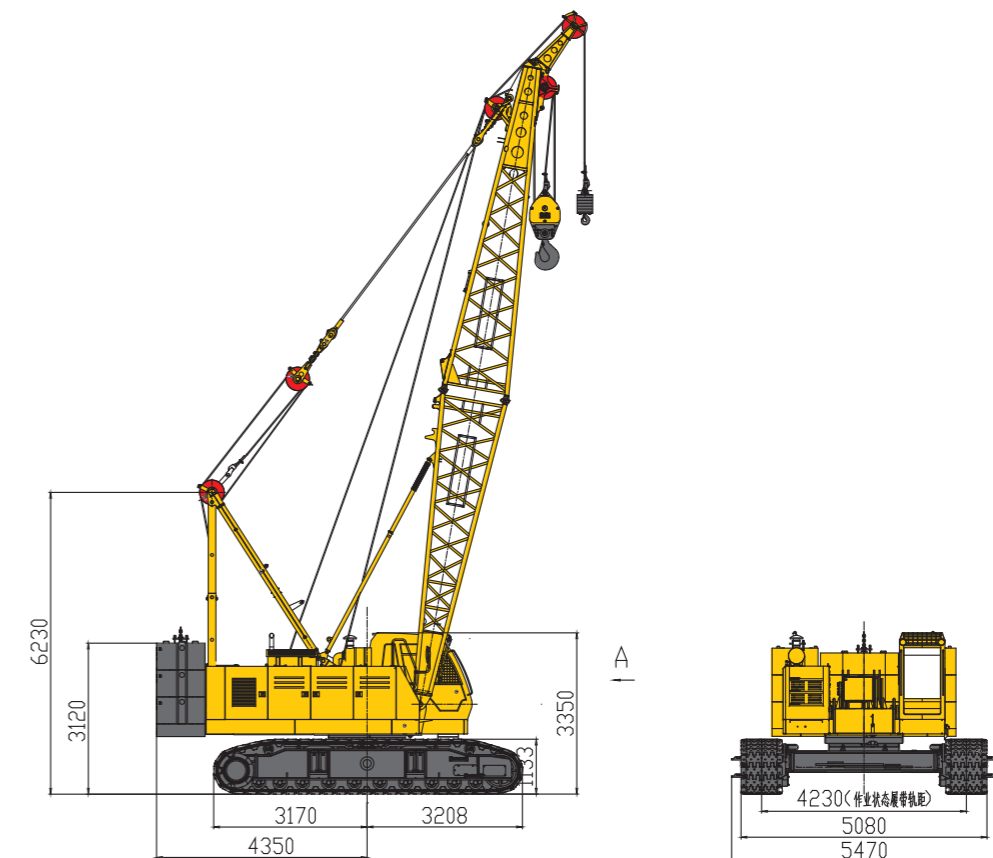
- Common platform products with fixed jib, single top, both-sided counterweight hook block, luffing mechanism, hydraulic pump and main valve block can achieve universal and interchangeable use, greatly reduce purchase, transport and maintenance costs.

04 Main / auxiliary hook one-key-switch-over function

- One-key-switch is used to easily achieve main/auxiliary hook switch-over, for wider range of applications.

The Main Technical Parameters

(Item)	(Unit)	(Value)
Max. rated lifting capacity	Boom working condition	t 85
	Boom single pulley working condition	t 8
	Fixed jib working condition	t 12
Max. load moment	t.m	341
Boom length	m	13 ~ 58
Boom luffing angle	°	-3 ~ 80
Fixed jib length	m	7 ~ 19
Angle between boom and fixed jib	°	10, 30
Hoist winch max. single line speed	m/min	120
Boom luffing winch max. single line speed	m/min	70
Max. slewing speed	rpm	2.0
Max. travelling speed	km/h	0.9
Total vehicle mass (85t hook block, 13m boom)	t	71.5
Mean ground pressure	MPa	0.087
Grade-ability	-	30%
Max. mass of single unit in transport state	t	41.2
Max. dimension of single unit in transport state (L×W×H)	m	13.05×3.4×3.3



Brief Introduction

Crane Superstructure

Engine

①Model: Shanghai diesel SC9DK270G3
 Rated power: 200kW/1800rpm
 Max. torque/Max. torque speed: 1200N·m/1300rpm
 Environmental protection: China GB III standard;
 ②Optional model: Cummins QSC8.3.
 Rated power: 183kW/2000rpm.
 Max. torque/max. torque speed: 1268N·m/1400rpm.
 Environmental protection: China Euro III A standard;
 Fuel tank capacity: 400L.
 ③Optional engine: Model: Weichai WP7G270E301
 Rated power: 199kW/2000rpm
 Max. torque/Max. torque speed: 1200N·M/1200~1500rpm;
 Environmental protection: complaint with Euro III (Stage IIIA) emission standard;

Electrical System

Electrical system mainly includes: engine control, monitoring instruments, auxiliary equipment, hydraulic system control, load moment limit and safety monitoring.
 Electrical system composition: conventional electrical system and PLC monitoring system.
 Conventional electrical system uses 24V parallel circuit, the electrical equipment wiring is negative ground single system, including power, starter control, cab heating/cooling air conditioner, sound device, lighting (lamps) and wipers.
 PLC monitoring system includes the operation control of main/auxiliary winches, slewing unit, boom and tower jib luffing and engine status monitoring. All the crane movements use hydraulic proportional control technology, through PLC logic control based on CAN-bus technology, effectively ensure the realization of the machine functions, and fully reflect the concept of people-oriented design.

Hydraulic System

Hydraulic system adopts hydraulic proportional pilot control load sense LUDV system, to achieve load-independent flow distribution, with accurate velocity, sensitive operation, stable system and good fine movement. Special LUDV centralized main valve to realize combined operation, with compact structure and easy for maintenance.
 Main winch and auxiliary winch has double-pump combined flow function, to easily realize winch high/low speed control. Special slewing buffering circuit design, to realize stable slewing start and stop to meet the requirement of delicate lifting operation.
 Hydraulic tank capacity: 400L

Hoist Gear

Main/auxiliary hoist gear has built-in planetary reducer, with negative brake design of multi-plate wet-type laminated constant closed brake, to achieve "spring brake/hydraulic release" function, safe and reliable; maintenance free oil splash lubrication; convenient oil replacement, low noise, high efficiency, long service life and good fine movement function.
 Hoist gear drum is made of nodular cast iron with good vibration absorption, double line rope groove to ensure multilayer rope winding, effectively increasing the wire rope service life.
 Main hoist gear adopts separate steel core, high breaking force and high anti-extrusion of L-turn special anti-rotation wire rope, rated single line pull 8t, rope diameter ϕ 22mm, rope length 240m.
 Auxiliary hoist gear adopts separate steel core, high breaking force and high anti-extrusion of L-turn special anti-rotation wire rope, rated single line pull 8t, rope diameter ϕ 22mm, rope length 145m.

Main hoist gear	Rated single line pull	8t
	Wire rope diameter	22mm
	Length	240m
Auxiliary hoist gear	Rated single line pull	8t
	Wire rope diameter	22mm
	Length	145m

Luffing Gear

Luffing gear has built-in planetary reducer, with negative brake design of multi-plate wet-type laminated constant closed brake, to achieve "spring brake/hydraulic release" function.
 Main luffing drum is made of nodular cast iron with good vibration absorption, double line rope groove to ensure multilayer rope winding, effectively increasing the wire rope service life. Use hydraulic cylinder to drive the ratchet paws of the ratchet locking device on drum to achieve multiple locking protection.
 Luffing gear adopts separate steel core, high breaking force and high anti-extrusion of L-turn special anti-rotation wire rope, rated single line pull 6t, rope diameter ϕ 20mm, rope length 140m.

Luffing gear	Rated single line pull	6t
	Wire rope diameter	20mm
	Length	140m

Slewing Gear

Slewing unit and slewing ring is driven by internal meshing, arranged in front of turntable, through a planetary reducer driving a constant motor via pinion to drive slewing ring, so as to achieve 360° rotation.
 Slewing unit has a built-in planetary reducer, with negative brake design of multi-plate wet-type laminated constant closed brake, to achieve "spring braking/hydraulic release" function, to ensure a high safety brake. Slewing unit also has a mechanical locking device for locking protection of the slewing unit. The eccentric gear makes better meshing of reducer and slewing bearing and stable slewing. Slewing unit also has a free-swing function to ensure a lifting load aligned to the center line of gravity center even when the lifting hook is not in the center of the vertical center line, and also to eliminate the side load force on the boom, so as to prevent the boom from damage due to a large side loading force.

Turntable

Turntable is a key load bearing structural component to connect crane superstructure and crane undercarriage, main load bearing structure is platform box-type welded by high-strength steel plate, on both sides use welding cantilever structure to increase basic machine space to place and fix load. The turntable is connected with undercarriage by slewing ring. Boom base, mast, hoist gear, luffing gear and counterweight is placed on the main load bearing structure; cab, engine system, main pump, hydraulic valve and electrical control cabinet is placed on the cantilever structures on both sides. The turntable main structure and the cantilever structures on both sides are designed according to the load bearing condition of the basic machine, reasonable structure and good overall strength and rigidity.

Mast

Mast is a double limb structure, with strengthened beam between two limbs for good stability. The main structure of mast is fine seamless steel pipe, with less welding, manufacturing error, and higher safety factor. Combined with self-raising roller, cooperating with boom, can achieve self-assembly/disassembly.

Counterweight

Car-body counterweight is total 28.2t, installed in the rear of turntable, and use pin shaft to connect with turntable the composition is the follows:
 Counterweight tray 1X6t, left/right counterweight slab 6X2t, central counterweight slab 2x5.1t.

Operator's Cab

Undercarriage consists of car-body and crawler travel gear, with insert-type connection.

Brief Introduction

Crane Carrier

Undercarriage consists of car-body and crawler travel gear, with insert-type connection.

Car-body is made of high strength steel and welded in box-type H structure good overall rigidity, high strength, and high precision. Precision machining ensures correct slewing ring installation.

Crawler Travel Unit

Crawler travel consisting track frame, crawler shoe, track roller, drive sprocket, guide roller, idle roller, travel device and tension device.
Track frame: symmetrically arranged, one on each side, made of high-strength steel plate welded in box-type structure, insert type connection with car-body, drawer type clearance adjusting device to make sure there is not lateral "∧" type deformation and prevent collision between crawler shoes and lower roller.
Track shoe: high strength wear resistant alloy steel casting, width 800mm, total 2×64=128 pieces.
Travel gear: constant close type planetary reducer, axial piston motor drive, strong travel power for movement such as straight travel, turn on site, one side turn, differential turn and travel with load with excellent agility and flexibility. Multiple-disc wet type constant close brake, spring brake, hydraulic loose brake guarantees excellent brake safety.
Maximum travel speed: 0.9km/h.

Safety Devices

This crane widely uses mechanical, electronic, hydraulic and other safety and alarm devices, in order to ensure safety operation. The safety devices consists LMI, slewing locking, boom backstop, hoist limit, boom angle limit, anemometer, slewing alarm, hydraulic system overflow valve, balance valve, hydraulic lock, and etc.

Hirschmann Load Moment Limiter

Detection function: automatically detect boom angle and lifting load.
Display function: large color touch screen LCD display (7.0 inches), with Chinese (or English) and graphically display of moment percentage, actual lifting load, rated lifting load, working radius, boom length, boom angle, working condition code, parts of line.
Alarm function: complete pre-warning and overload stop functions. The LMI will automatically send out alarm and stop crane operation when actual lifting load exceeds total rated lifting load and boom is out of limit angle.
The system also has self-diagnosis function.

Assembly/Work Mode Switch

Setup mode, all safety devices can perform any action being bypassed handle. When the crane to enter the work area, installation mode automatically expire, you need to manually switch to the working mode, operation is controlled by a safety device.

Emergency Stop Switch

In emergency cases, press this button to stop all crane movement.

Hydraulic System

Hydraulic system is equipped with hydraulic balance valve, and hydraulic overflow valve etc. to ensure system stability and safety.

Over-wound Protection Device

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

Winch Over-release Protection Device

A rope-end limiter is set on main and auxiliary hoist winch to prevent wire rope from over-release. When only three turns of main and auxiliary winch rope is remained on the winch drum, a winch over-release warning lamp on instrument panel lights up, at the same time, load moment limiter stops crane hoisting down movements.

Winch Ratchet Locking Device

This function is used to lock the main luffing winch to protect the boom for stop work during non-working time.

Mechanical Safety Device

Slewing locking device is used for crane superstructure mechanical limit when the crane stops; the backstop device for boom and jib to prevent boom, jib and strut from backward tipping.

Boom Angle Limit

When boom is raised to the specified angle, the hoist operation is stopped, and controlled by LMI and stroke switch; when boom angle is lower than the required angle, the lowering down operation is topped, and controlled by LMI and send out an audio alarm.

Hook Block Retainer Clamp

All hook blocks are equipped with retainer clamps to prevent the sling falling off from hook head.

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 working 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% of total rated lifting load, "Red Lamp" lights on to indicate crane is overload; In dangerous area, control system can automatically cut off crane movement to the dangerous direction.

Audio/Video Alarm

When crawler crane is slewing, the audio/video warning lamps flash and give sound for warning.

Illumination Lamp

There are illumination lamps in front of turntable, above cab and inside cab for night operation.

Rearview Mirror

Rearview mirror is located outside the cab for operator to observe condition of the back of the machine.

Height Mark Lamp

Height mark lamp is installed on boom tip for alarm.

Anemometer

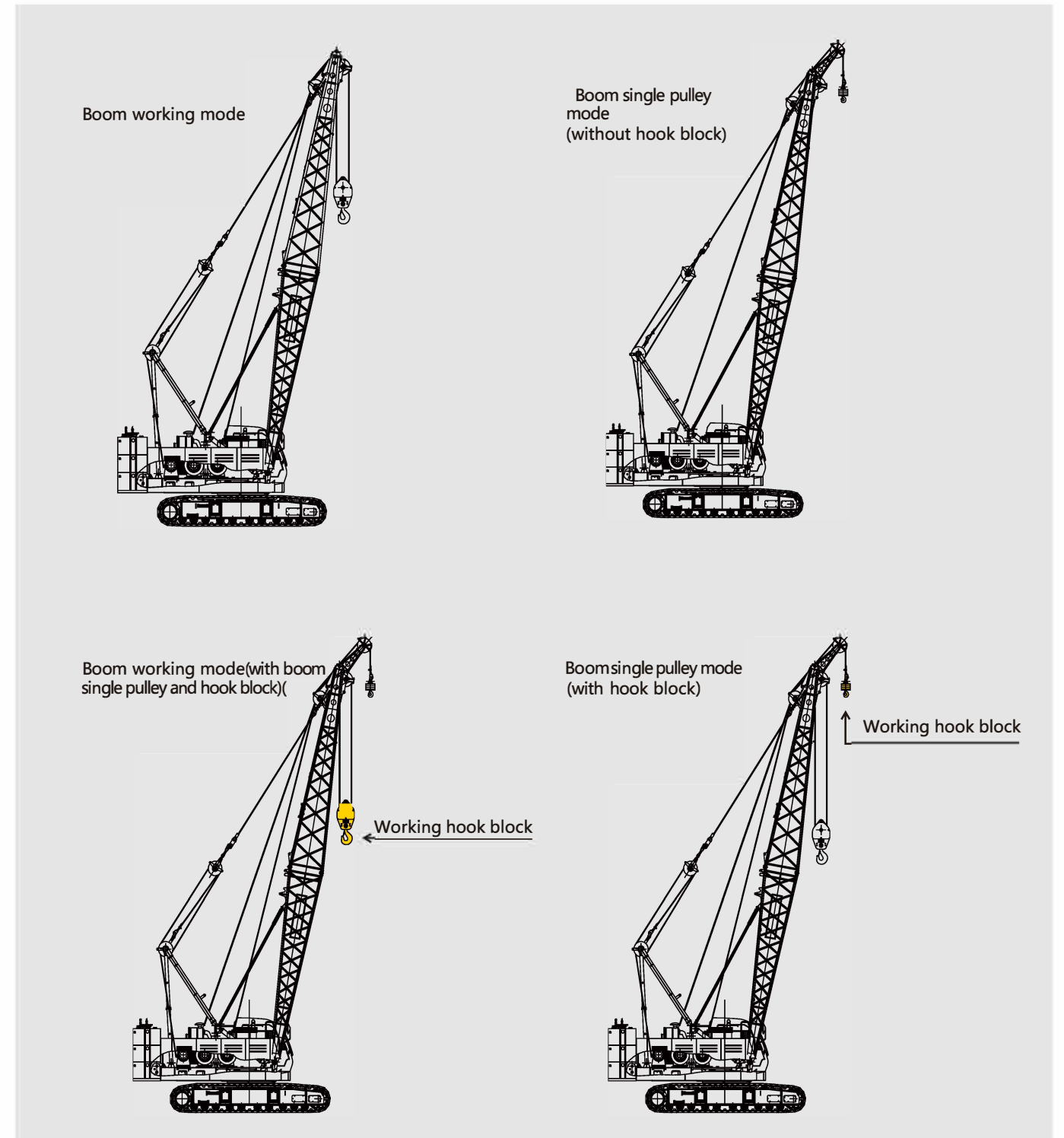
Anemometer at boom tip can detect current wind speed and send wind signal to the monitor in cab to alert operator for wind load safety.

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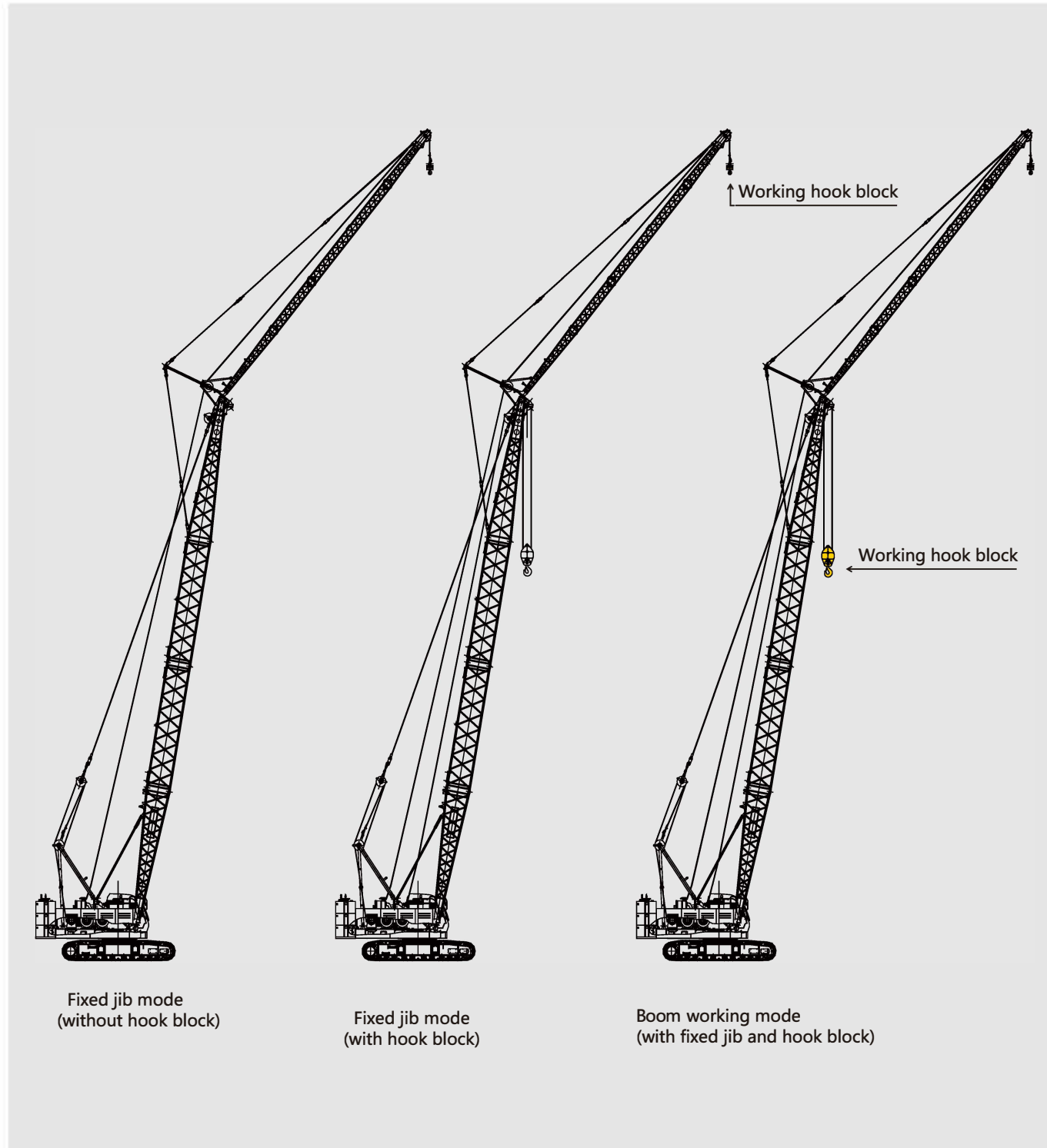
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Working Mode Illustration

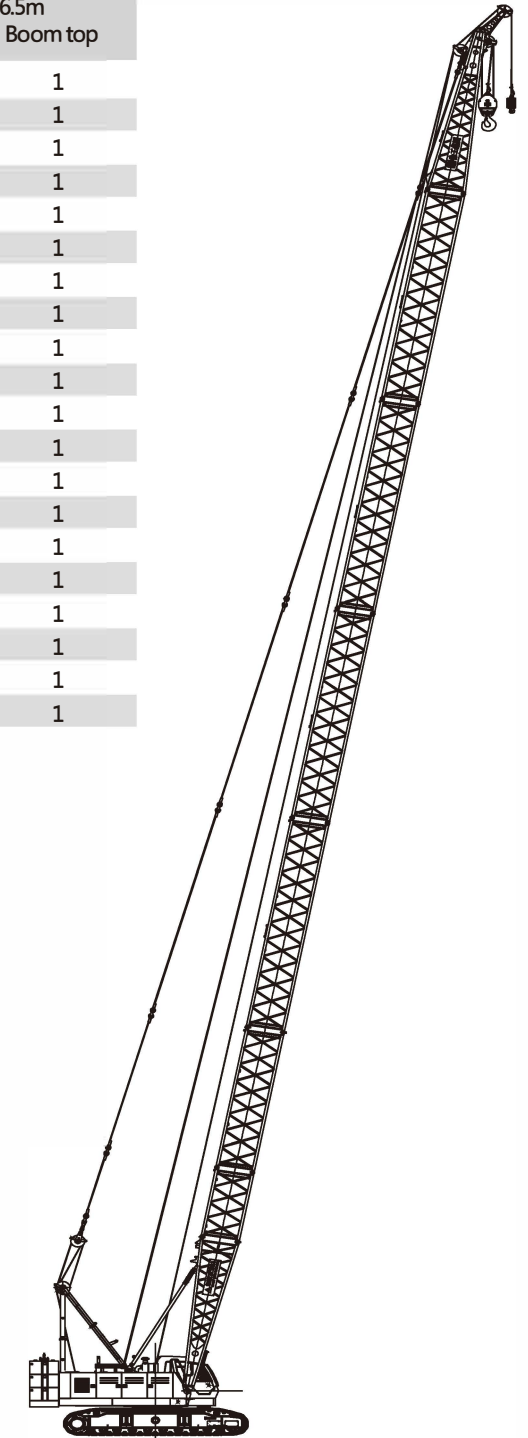


Working Mode Illustration

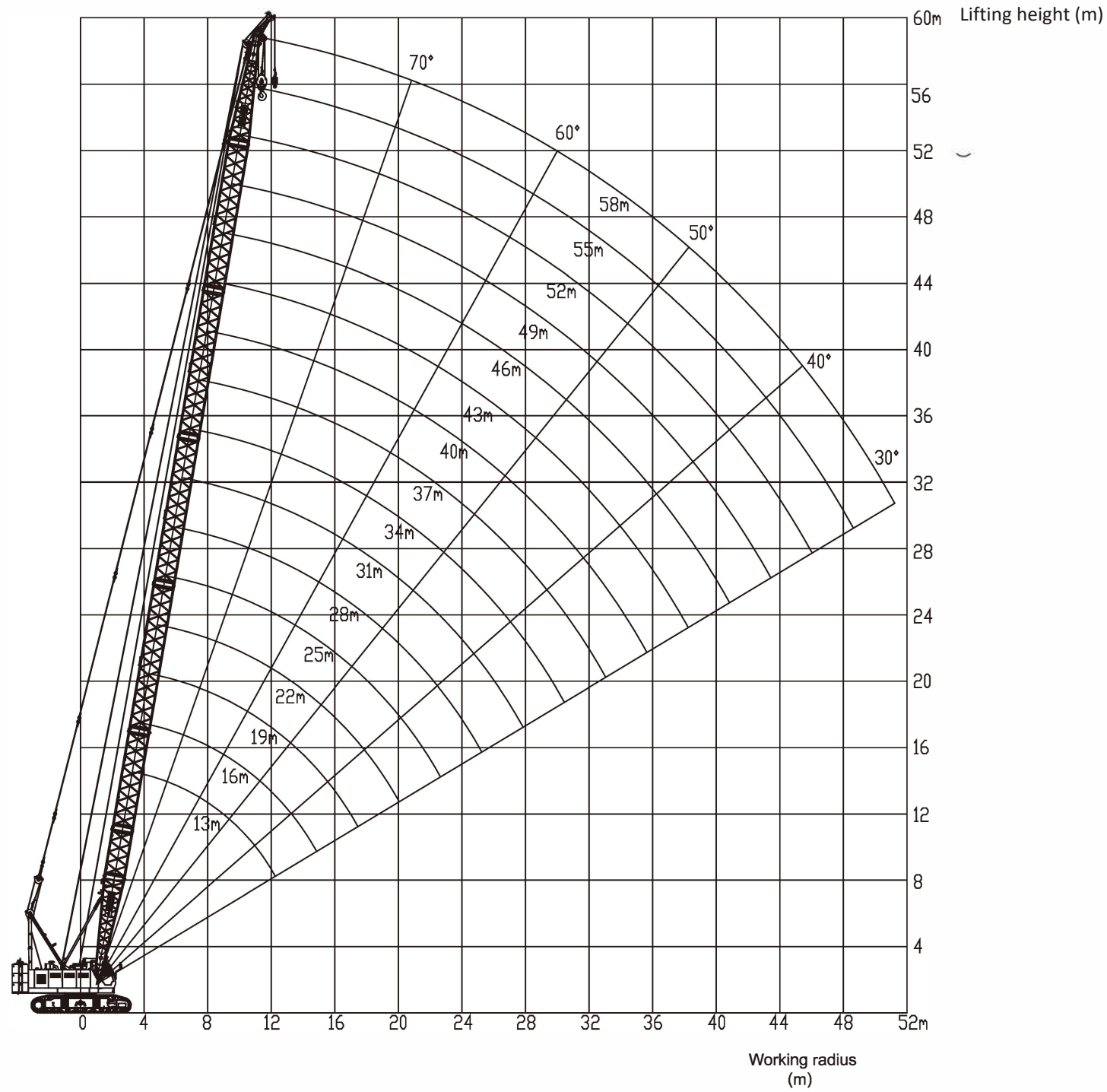


Boom Combinations

Boom length (m)	Boom butt	Boom insert			6.5m Boom top
		3m	6m	9m	
13	1	—	—	—	1
16	1	1	—	—	1
19	1	—	1	—	1
22	1	—	—	1	1
25	1	1	1	—	1
28	1	—	1	1	1
31	1	—	—	2	1
34	1	1	1	1	1
37	1	—	1	2	1
40	1	—	—	3	1
43	1	1	1	2	1
46	1	1	—	3	1
49	1	—	1	3	1
52	1	1	1	4	1
55	1	—	1	4	1
58	1	1	1	4	1



Boom Working Area



Boom Lifting Load Chart

Working radius (m)	Boom length (m)								Working radius (m)	
	13	16	19	22	25	28	31	34		
4	85.0									4
5	68.2	66.9	59.6							5
6	54.3	52.1	51.9	51.8	46.3					6
7	43.7	43.0	42.0	41.8	41.5	40.8	37.1			7
8	35.9	35.8	35.5	34.9	34.7	34.1	33.9	33.6		8
9	30.4	30.3	30.3	30.0	29.7	29.1	29.0	28.7		9
10	26.3	26.2	26.2	26.1	25.9	25.4	25.2	24.9		10
12	20.6	20.5	20.5	20.4	20.2	20.2	20.0	19.5		12
14		16.8	16.7	16.6	16.6	16.4	16.3	16.2		14
16			14.1	14.0	13.9	13.7	13.7	13.5		16
18				12.0	11.9	11.8	11.7	11.5		18
20				10.5	10.3	10.2	10.1	10.0		20
22					9.0	9.0	8.9	8.7		22
24						8.0	7.9	7.7		24
26							7.1	6.9		26
28								6.3	6.2	28
30									5.6	30

Boom Lifting Load Chart

Working radius (m)	Boom length (m)								Working radius (m)
	37	40	43	46	49	52	55	58	
8	30.1								8
9	28.5	26.2	25.1						9
10	24.7	24.5	23.3	22.7	20.6				10
12	19.3	19.2	18.9	18.7	18.5	17.9	16.6	14.5	12
14	16.0	15.6	15.3	15.1	14.9	14.6	14.4	13.6	14
16	13.4	13.3	13.0	12.6	12.4	12.2	12.1	11.6	16
18	11.4	11.3	11.1	11.0	10.7	10.3	10.1	10.0	18
20	9.8	9.7	9.6	9.4	9.3	9.1	8.9	8.7	20
22	8.6	8.5	8.3	8.2	8.1	7.9	7.8	7.6	22
24	7.6	7.5	7.3	7.2	7.1	6.9	6.8	6.6	24
26	6.7	6.7	6.4	6.4	6.3	6.0	6.0	5.8	26
28	6.0	5.9	5.7	5.7	5.6	5.5	5.2	5.1	28
30	5.4	5.3	5.1	5.1	5.0	4.8	4.6	4.5	30
32	4.8	4.7	4.6	4.5	4.4	4.2	4.1	3.9	32
34		4.3	4.1	4.1	3.9	3.8	3.7	3.4	34
36			3.7	3.7	3.5	3.4	3.2	3.0	36
38			3.3	3.3	3.1	3.0	2.9	2.6	38
40				3.0	2.8	2.7	2.5	2.3	40
42					2.5	2.4	2.3	2.0	42
44						2.1	2.0	1.7	44
46						1.8	1.8	1.5	46
48							1.5	1.2	48
50								1.0	50

Boom Single Pulley Lifting Load Chart

Working radius (m)	Boom length (m)																Working radius (m)					
	13	16	19	22	25	28	31	34	37	40	43	46	49	52	55	58						
5	8.0																5					
6	8.0	8.0	8.0														6					
7	8.0	8.0	8.0	8.0	8.0												7					
8	8.0	8.0	8.0	8.0	8.0	8.0	8.0										8					
9	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0								9					
10	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0						10					
12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		12					
14		8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	14					
16			8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	16					
18				8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	18					
20					8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	20					
22						8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	7.9	7.8	7.6	22				
24							8.0	8.0	7.9	7.7	7.6	7.5	7.3	7.2	7.1	6.9	6.8	6.6	24			
26								7.1	7.1	6.9	6.7	6.7	6.4	6.4	6.3	6.0	6.0	5.8	26			
28									6.3	6.2	6.0	5.9	5.7	5.7	5.6	5.5	5.2	5.1	28			
30										5.6	5.6	5.4	5.3	5.1	5.1	5.0	4.8	4.6	4.5	30		
32											4.8	4.8	4.7	4.6	4.5	4.4	4.2	4.1	3.9	32		
34												4.3	4.3	4.1	4.1	3.9	3.8	3.7	3.4	34		
36													3.7	3.7	3.7	3.5	3.4	3.2	3.0	36		
38														3.3	3.3	3.1	3.0	2.9	2.6	38		
40															3.0	3.0	2.8	2.7	2.5	2.3	40	
42																2.5	2.5	2.4	2.3	2.0	42	
44																	2.1	2.1	2.0	1.7	44	
46																		1.8	1.8	1.5	46	
48																			1.5	1.5	1.2	48
50																				1.0	1.0	50

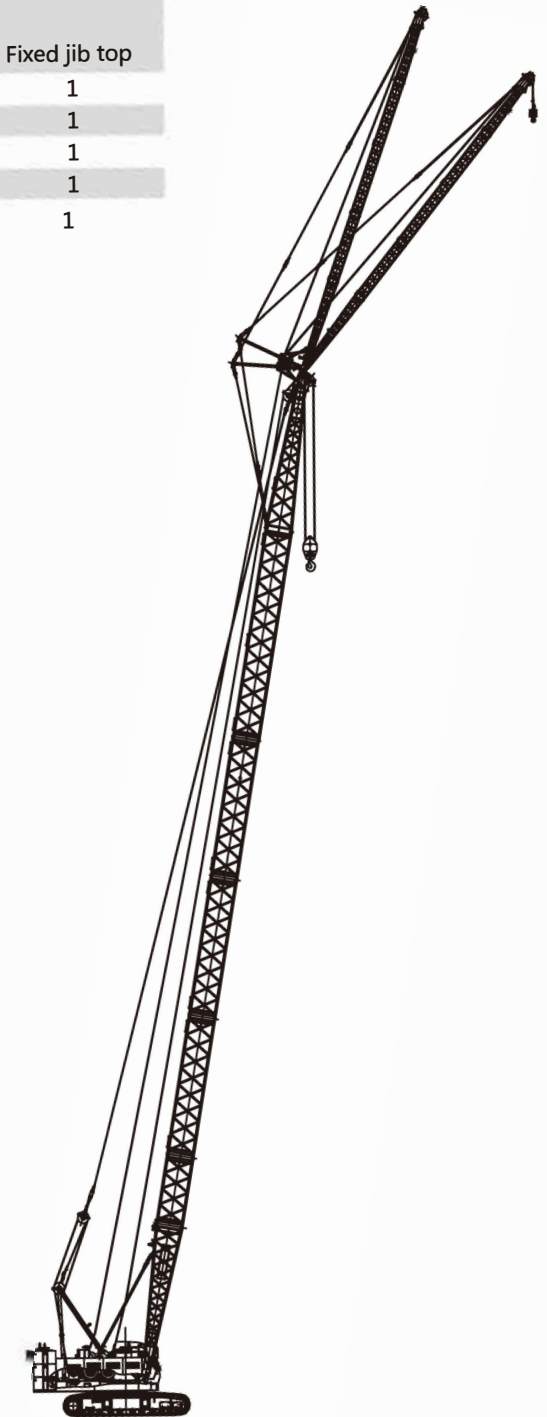
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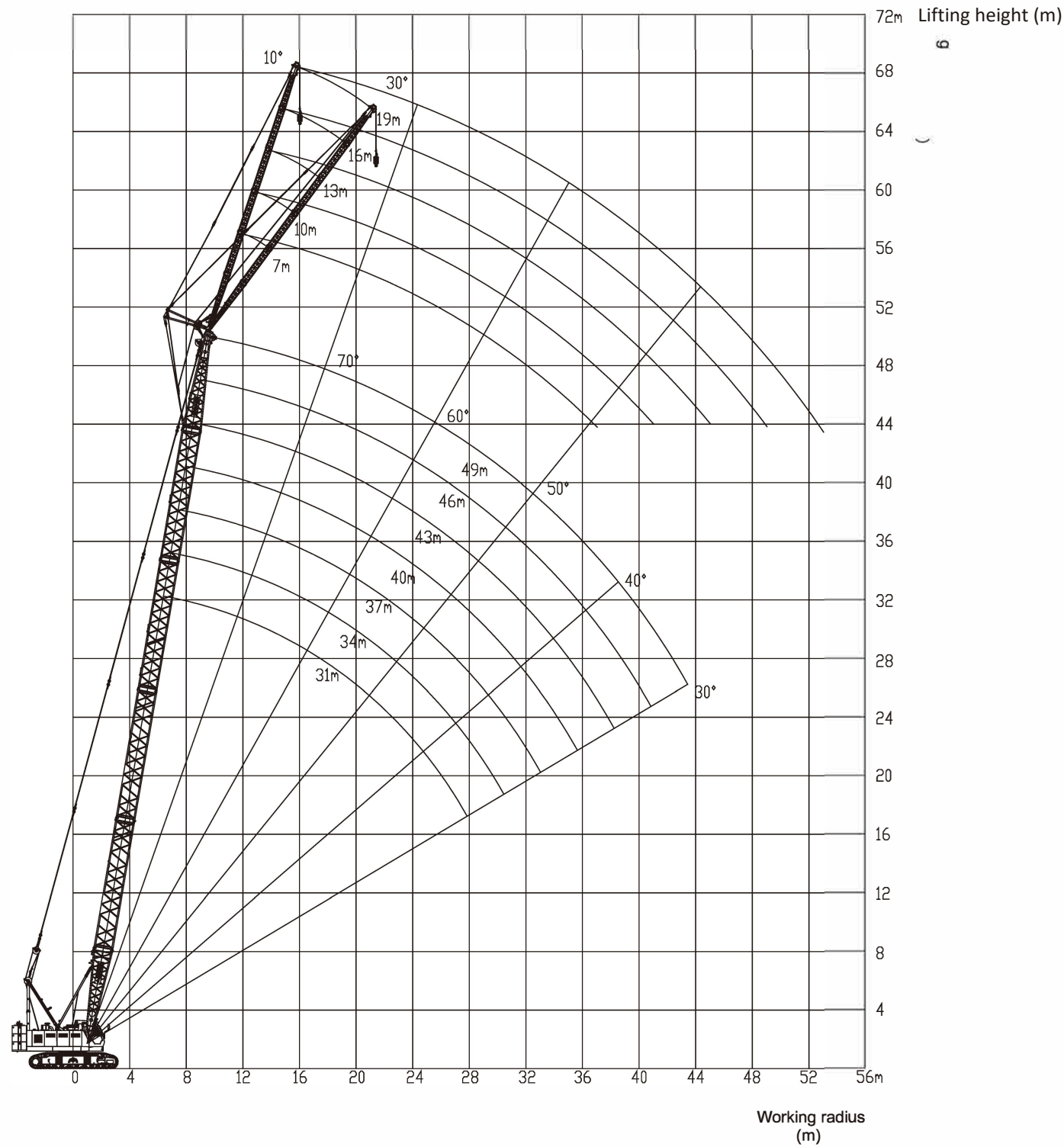
Fixed Jib Combinations

Fixed jib length (m)	Fixed jib butt	Fixed jib 3m	sert 6m	Fixed jib top
7	1	—	—	1
10	1	1	—	1
13	1	—	1	1
16	1	1	1	1
19	1	2	1	1



Fixed Jib Working Area

Fixed Jib Lifting Load Chart



Boom length(m)	31										Boom length(m)
Jib length(m)	7		10		13		16		19		Jib length(m)
Jib angle(°)	10	30	10	30	10	30	10	30	10	30	Jib angle(°)
Working radius(m)											Working radius(m)
9	12.0										9
10	12.0		9.6								10
12	12.0	9.5	9.1		7.2		5.6				12
14	12.0	9.2	8.4	6.4	6.8		5.3		4.1		14
16	11.5	9.0	8.1	6.2	6.5	4.9	5.0		3.8		16
18	11.1	8.8	7.7	6.0	6.2	4.5	4.8	3.6	3.6		18
20	9.6	8.6	7.4	5.9	5.9	4.3	4.6	3.6	3.4	2.6	20
22	8.4	8.4	7.1	5.7	5.7	4.2	4.3	3.5	3.2	2.6	22
24	7.4	7.5	6.9	5.3	5.4	4.1	4.1	3.4	3.1	2.6	24
26	6.6	6.7	6.6	5.2	5.2	4.0	3.9	3.3	2.9	2.5	26
28	5.9	6.0	6.0	5.1	4.8	3.9	3.8	3.2	2.8	2.4	28
30	5.3	5.3	5.4	5.0	4.6	3.8	3.6	3.1	2.7	2.3	30
32	4.8	4.8	4.9	4.9	4.5	3.8	3.4	3.0	2.5	2.2	32
34	4.3	4.3	4.4	4.5	4.4	3.7	3.3	2.9	2.4	2.1	34
36			4.0	4.0	4.1	3.7	3.2	2.8	2.4	2.1	36
38				3.7	3.8	3.7	3.1	2.8	2.3	2.0	38
40					3.4	3.5	3.0	2.7	2.2	1.9	40
42							2.9	2.7	2.1	1.9	42
44								2.6	2.0	1.8	44
46										1.8	46

Fixed Jib Lifting Load Chart

Boom length(m)	34										Boom length(m)
Jib length(m)	7		10		13		16		19		Jib length(m)
Jib angle(°)	10	30	10	30	10	30	10	30	10	30	Jib angle(°)
Working radius(m)											Working radius(m)
10	12.0										10
12	12.0	9.5	9.0		7.2						12
14	12.0	9.3	8.6	6.4	6.9		5.4		4.1		14
16	11.7	9.1	8.2	6.3	6.6	4.9	5.1		3.9		16
18	11.0	8.9	7.9	6.1	6.3	4.8	4.9	3.7	3.7		18
20	9.5	8.7	7.6	5.9	6.0	4.4	4.6	3.6	3.5	2.6	20
22	8.2	8.4	7.3	5.8	5.8	4.4	4.4	3.6	3.3	2.5	22
24	7.3	7.4	7.0	5.7	5.6	4.3	4.3	3.5	3.2	2.4	24
26	6.4	6.5	6.5	5.2	5.4	4.2	4.1	3.4	3.0	2.3	26
28	5.7	5.8	5.8	5.2	4.9	4.1	3.9	3.3	2.9	2.3	28
32	4.6	4.7	4.7	4.8	4.6	3.9	3.6	3.1	2.6	2.1	32
36	3.8	3.8	3.9	3.9	4.0	3.8	3.3	2.9	2.4	2.0	36
40			3.2	3.2	3.3	3.3	3.1	2.8	2.3	1.9	40
44							2.8	2.7	2.1	1.8	44
48									1.9	1.8	48

Boom length(m)	37										Boom length(m)
Jib length(m)	7		10		13		16		19		Jib length(m)
Jib angle(°)	10	30	10	30	10	30	10	30	10	30	Jib angle(°)
Working radius(m)											Working radius(m)
10	12.0										10
12	12.0	9.5	8.0		7.3						12
14	12.0	9.3	8.0	6.5	7.0		5.4		4.2		14
16	11.8	9.1	8.0	6.3	6.6	4.9	5.2		4.0		16
18	10.9	8.9	8.0	6.1	6.4	4.8	4.9	3.7	3.8		18
20	9.4	8.8	7.7	6.0	6.1	4.4	4.7	3.6	3.6	2.6	20
22	8.1	8.3	7.4	5.9	5.9	4.3	4.5	3.5	3.4	2.5	22
24	7.1	7.3	7.2	5.7	5.7	4.2	4.3	3.4	3.2	2.4	24
26	6.3	6.4	6.4	5.3	5.5	4.1	4.2	3.3	3.1	2.4	26
28	5.6	5.7	5.7	5.2	5.0	4.0	4.0	3.2	2.9	2.3	28
32	4.5	4.6	4.6	4.7	4.7	3.9	3.7	3.0	2.7	2.1	32
36	3.7	3.7	3.7	3.8	3.8	3.8	3.4	2.9	2.5	2.0	36
40	3.0	3.0	3.1	3.1	3.2	3.2	3.2	2.8	2.3	1.9	40
44					2.6	2.6	2.6	2.7	2.2	1.8	44
48							2.2	2.2	2.0	1.8	48
52									1.8	1.8	52

Boom length(m)	40										Boom length(m)
Jib length(m)	7		10		13		16		19		Jib length(m)
Jib angle(°)	10	30	10	30	10	30	10	30	10	30	Jib angle(°)
Working radius(m)											Working radius(m)
10											10
12	8.0		8.0								12
14	8.0	8.0	8.0		7.0		5.4		4.2		14
16	8.0	8.0	8.0	6.3	6.7		5.2		4.0		16
18	8.0	8.0	8.0	6.2	6.4	4.9	5.0		3.8		18
20	8.0	8.0	7.8	6.0	6.2	4.7	4.8	3.6	3.6	2.6	20
22	8.0	8.0	7.5	5.9	6.0	4.4	4.6	3.6	3.4	2.5	22
24	7.0	7.2	7.2	5.8	5.8	4.3	4.4	3.4	3.3	2.5	24
26	6.2	6.3	6.3	5.7	5.6	4.2	4.2	3.3	3.1	2.4	26
28	5.5	5.6	5.6	5.3	5.1	4.1	4.1	3.2	3.0	2.3	28
30	4.9	5.0	5.0	5.2	5.0	4.1	3.9	3.1	2.9	2.3	30
32	4.4	4.5	4.5	4.6	4.6	4.0	3.8	3.1	2.8	2.2	32
34	3.9	4.0	4.0	4.1	4.1	3.9	3.6	3.0	2.7	2.1	34
36	3.5	3.6	3.6	3.7	3.7	3.9	3.5	2.9	2.6	2.1	36
38	3.2	3.2	3.3	3.3	3.4	3.5	3.4	2.9	2.5	2.0	38
40	2.9	2.9	2.9	3.0	3.0	3.1	3.1	2.8	2.4	2.0	40
42	2.6	2.6	2.7	2.7	2.7	2.8	2.8	2.7	2.3	1.9	42
44			2.4	2.4	2.5	2.5	2.5	2.6	2.3	1.9	44
46				2.1	2.2	2.3	2.3	2.4	2.2	1.8	46
48					2.0	2.0	2.1	2.1	2.1	1.8	48
50							1.9	1.9	1.9	1.8	50
52								1.7	1.7	1.8	52
54									1.6	1.6	54

Fixed Jib Lifting Load Chart

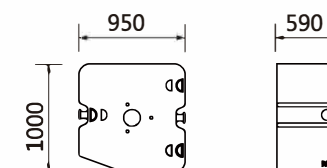
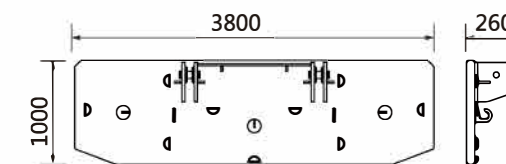
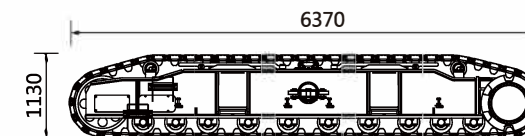
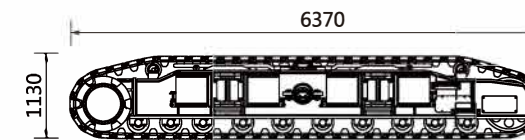
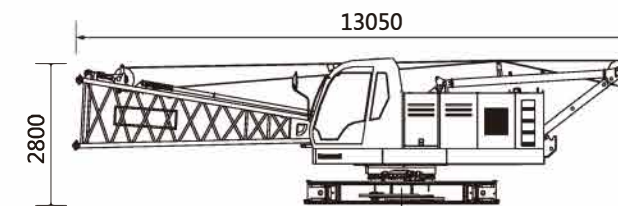
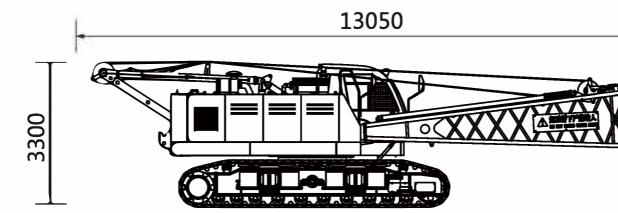
Boom length(m)	43										Boom length(m)
	7		10		13		16		19		
Jib length(m)	10	30	10	30	10	30	10	30	10	30	Jib angle(°)
Working radius (m)											Working radius(m)
11	8.0										11
12	8.0										12
14	8.0	8.0	8.0		7.0		5.4				14
16	8.0	8.0	8.0	6.3	6.8		5.2		4.0		16
18	8.0	8.0	8.0	6.2	6.5	4.8	5.0		3.9		18
20	8.0	8.0	7.9	6.1	6.3	4.5	4.8	3.6	3.7		20
22	7.9	8.0	7.6	5.9	6.1	4.4	4.6	3.6	3.5	2.6	22
24	6.9	7.0	7.0	5.8	5.8	4.3	4.5	3.5	3.3	2.5	24
26	6.0	6.2	6.2	5.7	5.7	4.2	4.3	3.4	3.2	2.4	26
28	5.3	5.5	5.5	5.3	5.2	4.1	4.2	3.3	3.1	2.3	28
30	4.7	4.8	4.8	5.0	5.0	4.0	4.0	3.2	3.0	2.3	30
32	4.2	4.3	4.3	4.5	4.4	4.0	3.9	3.1	2.8	2.2	32
34	3.8	3.8	3.9	4.0	4.0	3.9	3.7	3.0	2.7	2.2	34
36	3.4	3.4	3.5	3.6	3.6	3.7	3.6	3.0	2.6	2.1	36
38	3.0	3.1	3.1	3.2	3.2	3.3	3.2	2.9	2.6	2.0	38
40	2.7	2.7	2.8	2.8	2.9	3.0	2.9	2.8	2.5	2.0	40
42	2.4	2.4	2.5	2.5	2.6	2.7	2.6	2.8	2.4	1.9	42
44	2.1	2.1	2.2	2.3	2.3	2.4	2.4	2.5	2.3	1.9	44
46			2.0	2.0	2.1	2.1	2.1	2.2	2.1	1.9	46
48			1.7	1.8	1.8	1.9	1.9	2.0	1.9	1.8	48
50					1.6	1.7	1.7	1.8	1.7	1.8	50
52							1.5	1.6	1.5	1.7	52
54								1.4	1.4	1.5	54
56									1.2	1.3	56

Boom length(m)	46										Boom length(m)
	7		10		13		16		19		
Jib length(m)	10	30	10	30	10	30	10	30	10	30	Jib angle(°)
Working radius (m)											Working radius(m)
11											10
12	8.0										12
14	8.0	8.0	8.0		7.0						14
16	8.0	8.0	8.0	6.4	6.8		5.2		4.1		16
18	8.0	8.0	8.0	6.2	6.5	4.8	5.1		3.9		18
20	8.0	8.0	7.9	5.7	6.3	4.8	4.9	3.7	3.7		20
22	7.8	8.0	7.7	6.0	6.1	4.7	4.7	3.6	3.5	2.6	22
24	6.8	6.9	6.9	5.9	5.9	4.4	4.5	3.5	3.4	2.5	24
26	5.9	6.1	6.0	5.8	5.7	4.3	4.4	3.4	3.3	2.4	26
28	5.2	5.4	5.3	5.6	5.3	4.2	4.2	3.3	3.1	2.4	28
30	4.6	4.7	4.7	4.9	4.8	4.1	4.1	3.2	3.0	2.3	32
32	4.1	4.2	4.2	4.4	4.3	4.1	4.0	3.1	2.9	2.2	36
34	3.7	3.7	3.7	3.9	3.9	4.0	3.8	3.1	2.8	2.2	40
36	3.2	3.3	3.3	3.5	3.4	3.6	3.5	3.0	2.7	2.1	44
38	2.9	2.9	3.0	3.1	3.1	3.2	3.1	2.9	2.6	2.1	48
40	2.6	2.6	2.7	2.7	2.8	2.9	2.8	2.9	2.5	2.0	
42	2.3	2.3	2.4	2.4	2.5	2.6	2.5	2.7	2.5	2.0	
44	2.0	2.0	2.1	2.2	2.2	2.3	2.2	2.4	2.3	1.9	
46	1.8	1.8	1.9	1.9	2.0	2.0	2.0	2.1	2.0	1.9	
48		1.6	1.6	1.7	1.7	1.8	1.8	1.9	1.8	1.9	
50			1.4	1.4	1.5	1.6	1.6	1.7	1.6	1.8	
52					1.3	1.4	1.4	1.5	1.4	1.6	
54						1.2	1.2	1.3	1.2	1.4	
56							1.0	1.1	1.1	1.2	

Fixed Jib Lifting Load Chart

Boom length(m)	49										Boom length(m)
Jib length(m)	7		10		13		16		19		Jib length(m)
Jib angle(°)	10	30	10	30	10	30	10	30	10	30	Jib angle(°)
Working radius(m)											Working radius(m)
12	8.0										12
14	8.0		8.0								14
16	8.0	8.0	8.0			6.8		5.2		4.1	16
18	8.0	8.0	8.0	6.5	6.6	5.1	5.1			3.9	18
20	8.0	8.0	8.0	6.4	6.4	5.0	4.9	3.8	3.7		20
22	7.6	7.9	7.7	6.2	6.2	4.9	4.7	3.8	3.6	2.6	22
24	6.6	6.8	6.8	6.1	6.0	4.8	4.6	3.7	3.4	2.6	24
26	5.8	6.0	5.9	6.0	5.5	4.7	4.4	3.6	3.3	2.6	26
28	5.1	5.3	5.2	5.5	5.3	4.3	4.3	3.5	3.2	2.5	28
30	4.5	4.6	4.6	4.8	4.7	4.3	4.1	3.4	3.1	2.4	30
32	4.0	4.1	4.1	4.3	4.2	4.2	4.0	3.3	3.0	2.4	32
34	3.5	3.6	3.6	3.8	3.7	4.0	3.8	3.2	2.9	2.3	34
36	3.1	3.2	3.2	3.4	3.3	3.5	3.4	3.2	2.8	2.3	36
38	2.8	2.8	2.9	3.0	3.0	3.2	3.0	3.1	2.7	2.2	38
40	2.5	2.5	2.5	2.7	2.6	2.8	2.7	2.9	2.6	2.1	40
42	2.2	2.2	2.2	2.3	2.3	2.5	2.4	2.6	2.4	2.1	42
44	1.9	1.9	2.0	2.1	2.1	2.2	2.1	2.3	2.2	2.0	44
46	1.7	1.7	1.7	1.8	1.8	1.9	1.9	2.0	1.9	2.0	46
48	1.4	1.5	1.5	1.6	1.6	1.7	1.7	1.8	1.7	1.9	48
50	1.2	1.2	1.3	1.4	1.4	1.5	1.5	1.6	1.5	1.7	50
52			1.1	1.1	1.2	1.3	1.3	1.4	1.3	1.5	52
54					1.0	1.1	1.1	1.2	1.1	1.3	54
56							1.0	1.0	1.1		56

Main parts



Basic machine transport plan 1		×1
(L)	13050mm	
(W)	3400mm	
(H)	3300mm	
(W)	41.2 t	

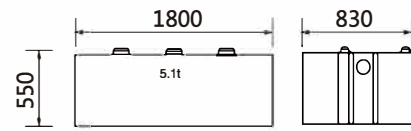
Basic machine transport plan 2		×1
(L)	13050mm	
(W)	3400mm	
(H)	2800mm	
(W)	23t	

Left track frame		×1
(L)	6370mm	
(W)	1180mm	
(H)	1130mm	
(W)	9.5t	

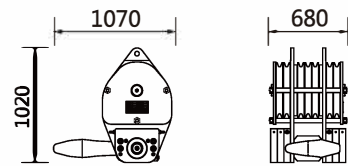
Right track frame		×1
(L)	6370mm	
(W)	1180mm	
(H)	1130mm	
(W)	9.5t	

Counterweight tray		×1
(L)	3800mm	
(W)	1000mm	
(H)	260mm	
(W)	6.0t	

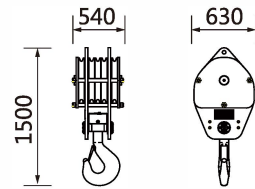
Left and counterweight slab		×6
(L)	1000mm	
(W)	950mm	
(H)	590mm	
(W)	2.0 t	



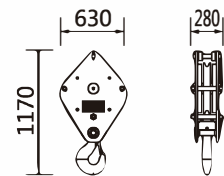
Central counterweight slab	×2
(L)	1800mm
(W)	830mm
(H)	550mm
(W)	5.1t



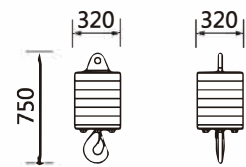
85t Hook block	×1
(L)	1070mm
(W)	680mm
(H)	1020mm
(W)	0.89t



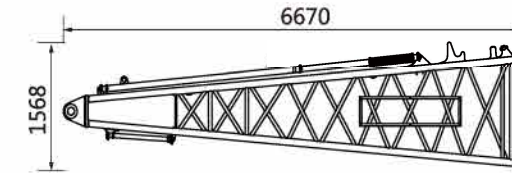
55t Hook block	×1
(L)	540mm
(W)	630mm
(H)	1500mm
(W)	0.62t



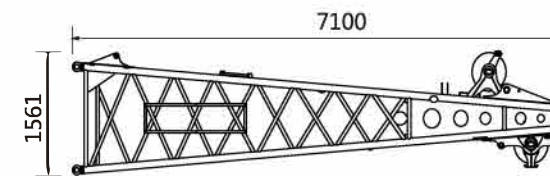
25t Hook block	×1
(L)	1170mm
(W)	630mm
(H)	280mm
(W)	0.3t



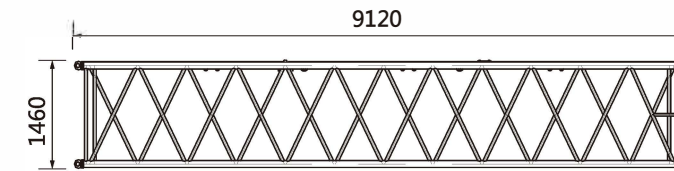
8t Hook block	×1
(L)	750mm
(W)	320mm
(H)	320mm
(W)	0.26t



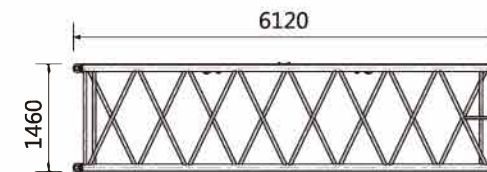
Boom 6.5m base	×1
(L)	6670mm
(W)	1690mm
(H)	1568mm
(W)	1.086t



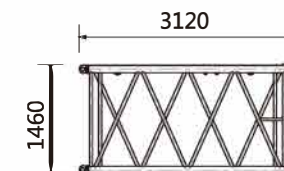
6.5m boom top	×1
(L)	7100mm
(W)	1690mm
(H)	1561mm
(W)	1.047t



9m boom insert section	×4
(L)	9120mm
(W)	1690mm
(H)	1460mm
(W)	0.81t

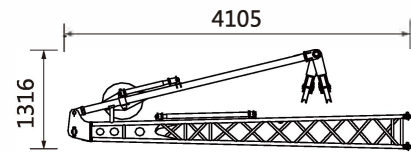


6m boom insert section	×1
(L)	6120mm
(W)	1690mm
(H)	1460mm
(W)	0.59t

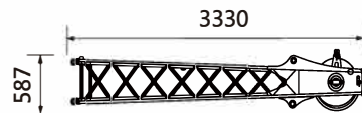


3m boom insert section	×1
(L)	3120mm
(W)	1690mm
(H)	1460mm
(W)	0.34 t

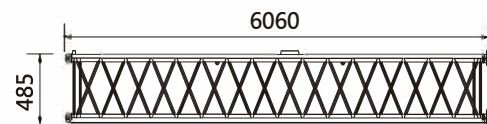
Main parts



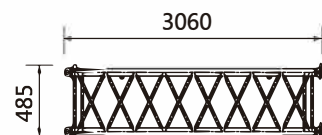
Fixed jib butt(with strut)	×1
(L)	4105mm
(W)	700mm
(H)	1316mm
(W)	0.5t



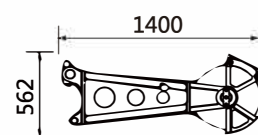
Fixed jib top	×1
(L)	3330mm
(W)	655mm
(H)	587mm
(W)	0.216t



Fixed jib 6m	×1
(L)	6060mm
(W)	655mm
(H)	485mm
(W)	0.192t



Fixed jib 3m	×2
(L)	3060mm
(W)	655mm
(H)	485mm
(W)	0.104t



Boom head single sheave	×1
(L)	1400mm
(W)	625mm
(H)	562mm
(W)	0.093t

Working conditions and Cautions

Working conditions

1. The crane working conditions: boom length $\leq 50\text{m}$ when wind speed is less than 14.1m/s; boom length $> 50\text{m}$ when wind speed is less than 9.8m/s; the ambient temperature is $-20^{\circ}\text{C} \sim +40^{\circ}\text{C}$; and the ground gradient is less than 1%.
2. The rated lifting load in the chart are the maximum lifting capacity on the condition that the given working conditions are met and the load is in the state of free suspension and lifted slowly from the solid ground. Operators should limit or reduce lifting capacity according to different conditions (such as soft or uneven ground, wind force, side loading, oscillating action, several crane cooperate-lifting).
3. The rated lifting capacity in the chart includes the weight of main hook block, wire rope and all slings. The weight of each hook block and boom single top is shown in the table below:

85t hook block	55t hook block	25t hook block	8t hook block	Boom single top
0.89吨 ton	0.62吨ton	0.3吨ton	0.26吨ton	0.093吨ton

4. The blank area of the chart where no rated lifting load listed is regarded as non-operation area, so crawler crane is not allowed to carry out lifting operation in this area.
5. The lifting load in the chart includes the lifting capacity of full counterweight.
6. This crawler crane is allowed to travel slowly with a suspended load, boom and boom single pulley working mode the maximum load weight is 90% of rated lifting load given in the load chart; fixed jib working mode the maximum load weight is 50% of rated lifting load given in the load chart for the crane travel.
7. In any case, the selection of hook block must satisfy that the hook block rated lifting load is more than or equal to the actual lifting load (including wire rope, slings and etc.).

Parts of line is according to the table below:

Parts of line	1	2	3	4	5	6	7	8	9	10	11	12
max. lifting load	8	16	24	32	40	47	55	62	70	77	84	85

The one part of line is used for boom single top.