

XLC150 Lattice Crawler Crane



RONCO GROUP





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XLC150 Crawler Crane

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Product Overview

Boom telescoping code

Chord and cornice of XLC150 crawler crane boom are made of large cross-section thick-wall large-diameter high-strength seamless steel pipes, whose middle uniform section is welded with segmented high-strength steel plate and whose variable cross-section at both ends forms a truss structure that consists of four chords. Under full-operation-mode condition, boom configuration includes following sections: boom base section 1 × 9m; boom transition section 1 × 6m; boom top section 1 × 5m; jib base section 1 × 5m; jib transition section 1 × 5m; jib top section 1 × 3m; support 1 × 5.5m; single top; 3m middle section(1 × 3mA, 2 × 3mB and 1 × 3mC); 6m middle section(1 × 6mA, 1 × 6mB and 1 × 6mC); 12m middle section (1 × 12mA and 1 × 12mB).

In boom operation mode, max. lifting capacity is 150t@5m (parts of line: 12); max. load moment is 145.8t × 6m = 874.8t.m. Boom length: 20m~77m; composition of boom sections: base section 1 × 9m; transition section 1 × 6m; top section 1 × 5m; middle section 1 × 3mA and 2 × 3mB; middle section 1 × 6mA and 1 × 6mB; middle section 2 × 12mA and 2 × 12mB. Boom can be equipped with a single top.

In fixed jib operation mode, max. lifting capacity is 50t@10m (parts of line: 4). Fixed jib length: 13m~31m; composition of boom sections: jib base section 1 × 5m; jib transition section 1 × 5m; jib top section 1 × 3m; middle section 1 × 3mB and 1 × 3mC; middle section 1 × 6mB and 1 × 6mC; fixed jib strut × 5.5m.

Boom luffing component

It is a high-strength pendant structure with a high safety coefficient; pendant transition uses a walking beam structure that carries even load; “peach” shaped connecting hole on single pendant makes installation convenient, labor-saving and efficient.

Mast

Mast consists of a double limb structure, with strengthened cross beam added between limbs, so it obtains enhanced stability. Mast jacking cylinder can rotate around turntable hinge point, so as to pull up, raise and bring down the mast.

Turntable

Turntable is a critical load-carrying structural part that links super-structure and chassis. It is welded with high-strength steel plate, and is compound structure whose left side and right side are box-frame structures made of I beam. Turntable is connected to chassis via slewing bearing and it has highly strength and good stability performances. Many major parts can be connected to different positions of turntable, such as operator's cab, main winch system, main luffing system, engine system, hydraulic pump group, hydraulic valve, electric control cabinet, mast, boom base section, superstructure counterweight and its self-rigging/derigging cylinder (option), etc.

Mechanism composition

See the table below for crane mechanisms and corresponding applications

Main winch system	When in boom, boom with single top, fixed jib (including double hooks) operation modes, it serves as main hook winch.	Front end of turntable
Auxiliary winch system	When in boom with single top mode and fixed jib (including double hooks) mode, it serves as auxiliary hook winch.	Near lower end of boom base section
Main luffing system	Boom luffing	Middle of turntable
Slewing system	Superstructure slewing	Front of turntable
Traveling mechanism	Machine travel	Crawler drive wheel

Winch system

Winch system consists of main winch system and auxiliary winch system. Working principle of winch system: motor drives planet gear speed reducer, so that winch drum, guide pulley and winch tackle enable main hook or auxiliary hook to rise or fall.

There is also a domestic fast release configuration for main winch system, with fast lowering function with empty hook.

A planet speed reducer is built in winch system, which has a normally closed brake that realizes a safe and reliable “spring-powered brake/hydraulic release” function. Drum is made of ductile cast iron and for winding double broken line multi-layers of wire rope. It has a good vibration-absorptive function, which makes sure that wire rope always winds in order, which extends rope service life.

Winch uses a special counter-rotation wire rope that has an independent steel core, strong breaking force and high crumpling resistance, rated line pull is 13.5t, diameter is $\phi 26$ mm; lengths of wire ropes for main & auxiliary winch as well as single top winch are 350m and 250m. A free fall is optional for main winch that has empty hook quick fall function.

Luffing system

Main luffing system is independently driven by a single-link winch drum and is installed at the middle of turntable via pin shafts.

Working principle of main luffing system: motor drives planet gear speed reducer, and winch drum and luffing tackle will enable boom luffing operation.

A planet speed reducer is built in main luffing system, which has a normally closed brake that realizes a safe and reliable “spring-powered brake/hydraulic release” function.

Main luffing drum has a pawl lock, which is driven by hydraulic oil cylinder to offer multiple locking protection.

Main luffing drum is a single union drum made of ductile cast iron for winding multi-layers of Lebus wire rope. It has a good vibration absorptive function that ensures that wire rope always winds in order and extends rope service life.

Main winch system uses a special wire rope that has an independent steel core and strong breaking force whose rated line-pull is 10.0t, diameter is $\phi 22$ mm, and length is 235m.

Slewing system

Slewing system and slewing bearing are driven through outer gearing, which is located at the front of turntable. Motor drives planet gear speed reducer and the reducer will work and enable slewing bearing to make 360° rotation.

A planet speed reducer is built in slewing system, which has a normally closed brake that realizes “spring-powered brake/hydraulic release” function, making sure that slewing movement has a very high level of braking safety.

Besides, slewing system has a mechanical slewing lock that increases slewing safety.

Slewing system has a free sliding function.

Slewing bearing

It is an elliptical roller path, double row ball slewing bearing, which has such features: high strength, large bearing moment, high accuracy, and long service life and user friendliness.

Oil cylinder assembly

Boom and turntable, frame and crawler beam, counterweight pallet and turntable are all in kinetic pin connection, which is driven by oil cylinder; mast jacking cylinder, outrigger cylinder and crawler tension cylinder make rigging/derigging more convenient; operator's cab is equipped with a cylinder that enables the cab to make vertical and horizontal rotation.

Operator's cab

The 1.25 meters' wide super-large driver's cab of the latest generation has a bright design, a magnificent exterior appearance, a wider range of vision and brings you comfortable and easy operating experience.

Frame

Frame is a box-like radial structure, welded with high-strength steel plate. The frame is rigid and strong.

Crawler unit

Crawler unit includes left unit and right unit, which is comprised of crawler frame, track shoe, track roller, driving wheel, guide wheel, carrier roller and walking mechanism as well as track takeup.

Crawler frame: bilateral symmetric, one at each side. Parallel shim plates that are added into box structure (which is welded with high strength steel plate) and frame for installation and location serve as a good guiding role and an anti-wear role.

Driving wheel: is connected on outer casing of planet speed reducer through high-strength bolts.

Track roller: is a double flange design that can conduct self-lubrication as floating type seals are internally installed.

Tensioning wheel: it adjusts crawler tension degree through oil cylinder and adjusting plate.

Carrier roller: floating type seals are internally installed to achieve self-lubrication function.

Track shoe: mounted on crawler beam.

Walking mechanism: constantly closed type planet gear speed reducer that has robust walking power, high flexibility and good maneuverability. Multiple disc wet type normally-closed brake is engaged by spring and released by hydraulic power.

Hydraulic system

LUDV system, which is based on hydraulic pilot proportional control, is accurate in speed, flexible in operation and has a good micro-motion characteristic. Main valve has a compact structure and is convenient for maintenance and can realize compound operation of multiple movements.

It adopts a special slewing closed system design. It starts and stops smoothly, has a good micro motion performance, a good proportional characteristic and a strong anti-interference ability against load fluctuation, so it can satisfy delicate lifting operation requirements.

Electric system

Electrical system is mainly comprised of following parts: engine control, auxiliary devices, hydraulic system control, moment limit, safety monitoring and data display, etc.

Electrical system is composed of regular electrical system and PLC monitoring system.

Regular electrical system includes power source, start control, cab air conditioner, sound equipment, lighting (lamp) and wiper, etc.

PLC control system is used to control main and auxiliary winch, slewing and boom luffing movements, and monitor engine status. All the movements are in PLC logic control based on CAN-bus technology.

Engine system

Type: Weichai WP10G336E344;

Type: Straight-line, six-cylinder, water-cooled, turbocharged intercooler, four-stroke environmental friendly diesel engine, high pressure common rail;

Environmental protection property: meet off-road EURO III emission standards;

Rated net power: 247kW/1900rpm;

Max. output torque: 1550N.m;

Fuel tank capacity: 600L.

Counterweight

Counterweight consists of vehicle body counterweight and turntable counterweight.

Mounted on the front and rear of crawler frame, vehicle body counterweight slabs have an overall weight of 6t, and these counterweight slabs can be automatically disassembled and re-assembled via mast hoisting. Vehicle body counterweight: 2 × 3t.

Turntable counterweight has two options: 55t and 45t. To meet different hoisting requirements, grading-counterweight based separate performance tables are provided for users to use them in a more practical, more economical, more convenient and simpler way. Besides, using the best combination of counterweight slabs according to a specific operation mode can help users save transport cost and purchase cost.

Turntable counterweight is installed at the rear of turntable. Options of turntable counterweight combinations are as below:

(1) Turntable counterweight 55t: counterweight pallet 1 × 15t; counterweight slab: 8 × 5t.

(2) Turntable counterweight 45t: counterweight pallet 1 × 15t; counterweight slab: 6 × 5t.

Hook block

Hook blocks are as below:

Hook type	80T	13.5T	150T (option)	32T(option)
Dead weight (t)	0.96	0.5	2.2	0.7
Qty.	1	1	1	1
Tackle quantity	3	0	7	2

Description:

(1) If you need a hook block configuration which is indicated in the table as “optional”, please give clear indication of the agreed terms in contract.

(2) If you have a special requirement other than the table contents, please contact us and be sure that the selected hook blocks can be matched for normal use.

Safety Protection

To ensure user's safety, this crane is equipped with a wide range of safety and warning devices, including mechanical, electronic and hydraulic devices. Safety devices include LMI, slewing lock device, boom overturn protection, anti-two block, boom angle limit, anemometer, level gauge, camera, slewing warning device, walking warning device, hydraulic system relief valve, balance valve and hydraulic lock, etc.

Switch modes

User can switch between Setup Mode & Work Mode. In Setup Mode, rope discharge protector, boom limit and LMI are deactivated to facilitate setup. In Work Mode, all safety devices are activated.

Emergency stop

It can quickly stop all movements in case of emergency.

Misoperation prevention function

Handle has a misoperation prevention function: a safety protection switch is located on front of handle; when this switch is not pressed down, signals of all movements are shielded, handle doesn't work, which avoids misoperation.

Rope discharge protection function

A rope discharge protector is mounted on boom head to avoid over-discharge of wire rope. When wire rope reaches a certain height, rope discharge protector indicator on display will turn on; meanwhile, lifting movement will automatically halt.

Ratchet locking function

This machine is equipped with a ratchet locking device, which is designed to lock up luffing winch and make sure boom is in safe placement during non-working hours.

Slewing lock function

This crane includes a slewing lock device that parks crane and locks up slewing operation of superstructure when crane power is off.

Backstop function

A backstop is designed to protect boom and jib support from overturning.

Boom angle limit function

When boom reaches a specified angle, elevation will be stopped, which is under the double control of LIM and travel switch; when boom elevation angle is below a specified value, fall will be stopped, which is under the control of LMI, and a warning sound will appear.

Hook block latch function

Hook block contains a safety latch, which prevents hook-mounted sling from coming off.

Hydraulic system protective function

Hydraulic system is equipped with hydraulic balance valve and hydraulic relief valve, which ensure system stability and safety during working hours.

LMI system

Detection function: LMI can automatically detect boom angle and lifting load.
 Display function: colored large-sized touchscreen LCD (10.4 inches). Crane working parameters, like moment percentage, actual load, rated load, working radius, boom length, angle, max. height, OM code, parts of line, limit angle and information code are indicated in Chinese (or English) and graphics.
 Warning function: it has complete pre-warning and overload cut-off function. If it has detected that actual load exceeds rated load, boom surpasses limit angle, LMI will give a warning and limit current movement.
 This system has a fault self-diagnosis function.

Audible and visual alarm function

It has a tri-colored bar and an audible and visual alarm, can real time display vehicle load and movement state and can warn the driver and outdoor working staff.

Illuminator

Illuminators are located on the front of turntable, on top of and inside of operator's cab. In the night, illuminators supply lighting.

Rear-view mirror

Rear-view mirror is out of operator's cab, through which the operator will observe crane rear situation.

Height lamp

Height lamp is mounted on top of boom, serving as a kind of high-altitude caution.

Anemometer

It real time detects current wind speed, and transmits it to the monitor of operator's cab, reminding operator to pay attention to wind load safety.

Level gauge

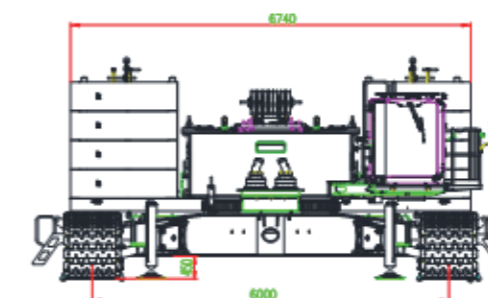
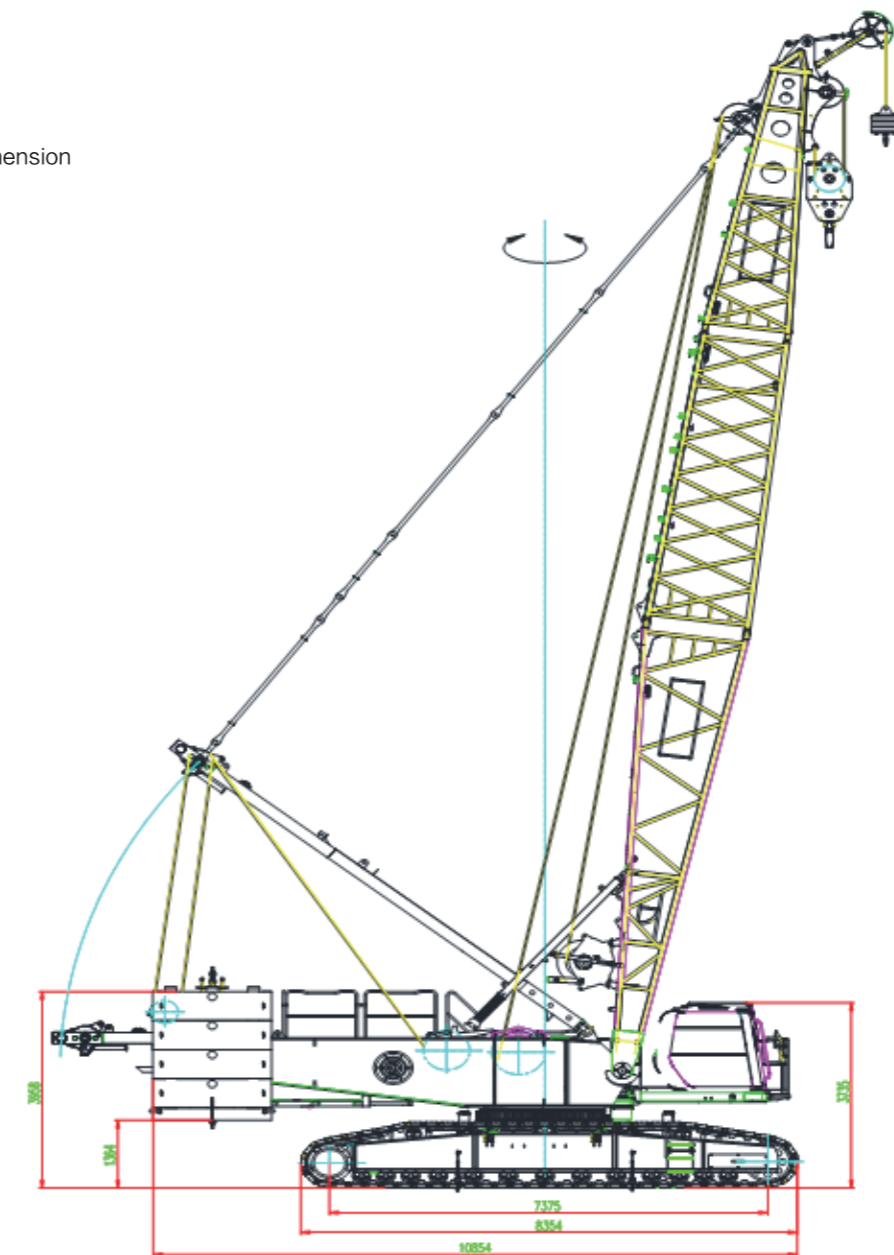
This crane is equipped with two types of level gauge: electronic (option) and mechanical level gauge. The level gauge shows degree of road inclination, and offers levelness reference to operator.

Monitoring system (option)

This system consists of 3 cameras and 1 monitor. These units respectively monitor wire rope arrangement of main winch, auxiliary winch and luffing winch as well as vehicle rear situation.

Main Parameters

Outline dimension



Outline drawing of XLC150 crawler crane

Main technical parameters

Item		Unit	Value
Max. rated lifting capacity	Boom operation mode	t	150
	Single top operation mode	t	13.5
	Fixed jib mode	t	50
Max. load moment		t.m	874.8
Dimension parameter	Boom length	m	20~77
	Fixed jib length	m	13~31
	Combination of max. length boom + max. length jib	m	53+31
Speed parameter	Max. single line speed of winch system	m/min	120
	Max. line speed of boom luffing system	m/min	60
	Max. slewing speed	rpm	1.0
	Max. travel speed	km/h	1.3
Engine	Engine rated output and speed	KW/rpm	247/1900
	Emission standard	-	EURO III
* Whole machine weight (based on 20m boom, 150t hook block, 45t turntable counterweight and 6t vehicle body counterweight)		t	128
Average ground pressure		MPa	0.095
Gradient		-	30%
Max. single part mass of transport status		t	34.5
Max. single part transport dimension (L×W×H)		m	11.5×3.0×3.2

Notes:

1. Wire rope speed refers to calculated value of the outermost winding layer of winch drum under a no-load running engine, which may vary with loads and operating conditions.
2. Walking speed, grade ability, average ground pressure and slewing speed are based on theory calculation of a crane assumed to be working on flat smooth firm ground surface.
3. Except data indicated with *, values in the table are configuration parameters based on 55t turntable counterweight and 6t vehicle body counterweight.
4. XCMG reserves rights to revise and update technical parameters without prior notice.



XLC150 Crawler Crane

P09-P17 Boom operation mode

P18-P34 Fixed jib working condition

P35-P40 Main Parts

Typical Operation Mode

1. Boom operation mode

A. Telescoping code of boom sections without single top

Name & Qty. Telescoping code of boom sections	Base section of boom 9m	Middle section 3mA	Middle section 6mA	Middle section 12mA	Boom transition section 6m	Middle section 3mB	Middle section 6mB	Middle section 12mB	Boom top section 5m
HB20	1	0	0	0	1	0	0	0	1
HB23	1	1	0	0	1	0	0	0	1
HB26	1	0	1	0	1	0	0	0	1
HB29	1	1	1	0	1	0	0	0	1
HB32	1	0	0	1	1	0	0	0	1
HB35	1	1	0	1	1	0	0	0	1
HB38	1	0	1	1	1	0	0	0	1
HB41	1	1	1	1	1	0	0	0	1
HB44	1	0	0	2	1	0	0	0	1
HB47	1	1	0	2	1	0	0	0	1
HB50	1	0	1	2	1	0	0	0	1
HB53	1	1	1	2	1	0	0	0	1
HB56	1	1	1	2	1	1	0	0	1
HB59	1	1	1	2	1	0	1	0	1
HB62	1	1	1	2	1	1	1	0	1
HB65	1	1	1	2	1	0	0	1	1
*HB68	1	1	1	2	1	1	0	1	1
*HB71	1	1	1	2	1	0	1	1	1
*HB74	1	1	1	2	1	1	1	1	1
*HB77	1	1	1	2	1	2	1	1	1

- Note: 1. “*” Boom combination needs using a center hitch.
 2. Luffing jib rear pendant needs to be removed from each boom section, and guide pulley used for luffing jib/jib also needs to be removed from boom transition section.

B. Telescoping code of boom sections with single top

Name & Qty. Telescoping code of boom sections	Base section of boom 9m	Middle section 3mA	Middle section 6mA	Middle section 12mA	Boom transition section 6m	Middle section 3mB	Middle section 6mB	Middle section 12mB	Boom top section 5m
HB20	1	0	0	0	1	0	0	0	1
HB23	1	1	0	0	1	0	0	0	1
HB26	1	0	1	0	1	0	0	0	1
HB29	1	1	1	0	1	0	0	0	1
HB32	1	0	0	1	1	0	0	0	1
HB35	1	1	0	1	1	0	0	0	1
HB38	1	0	1	1	1	0	0	0	1
HB41	1	1	1	1	1	0	0	0	1
HB44	1	0	0	2	1	0	0	0	1
HB47	1	1	0	2	1	0	0	0	1
HB50	1	0	1	2	1	0	0	0	1
HB53	1	1	1	2	1	0	0	0	1
HB56	1	1	1	2	1	1	0	0	1
HB59	1	1	1	2	1	0	1	0	1
HB62	1	1	1	2	1	1	1	0	1
HB65	1	1	1	2	1	0	0	1	1
*HB68	1	1	1	2	1	1	0	1	1
*HB71	1	1	1	2	1	0	1	1	1
*HB74	1	1	1	2	1	1	1	1	1
*HB77	1	1	1	2	1	2	1	1	1

- Note: 1. “*” Boom combination needs using a center hitch.
 2. Luffing jib rear pendant needs to be removed from each boom section, and guide pulley used for luffing jib/jib also needs to be removed from boom transition section.

Typical Operation Mode

C. Boom lifting table of boom operation mode

Boom lifting table of boom operation mode without single top (HB/1)

HB/1 Telescoping code of boom sections	Counterweight combination: turntable counterweight (t) + vehicle body counterweight (t)	
	55+6	45+6
HB20	×	○
HB23	○	○
HB26	○	○
HB29	○	○
HB32	○	○
HB35	○	○
HB38	○	○
HB41	○	○
HB44	○	○
HB47	○	○
HB50	○	○
HB53	○	○
HB56	○	○
HB59	○	○
HB62	○	○
HB65	○	○
*HB68	○	○
*HB71	○	○
*HB74	○	○
*HB77	○	●

- Notes: 1. “○” -- Boom-up operation is allowed. “●” -- Wedge blocks are needed to assist boom up operation. “×” -- Boom-up operation isn't allowed and the use is prohibited.
 2. “*” Boom combination needs using a center hitch.
 3. Please position crawler driving wheel to rear of vehicle body before boom up operation.
 4. When boom length $\geq 60\text{m}$, boom angle must be $\geq 30^\circ$ before elevating hook block.

Boom lifting table of boom operation mode with single top (HBS/1 & HBS/2)

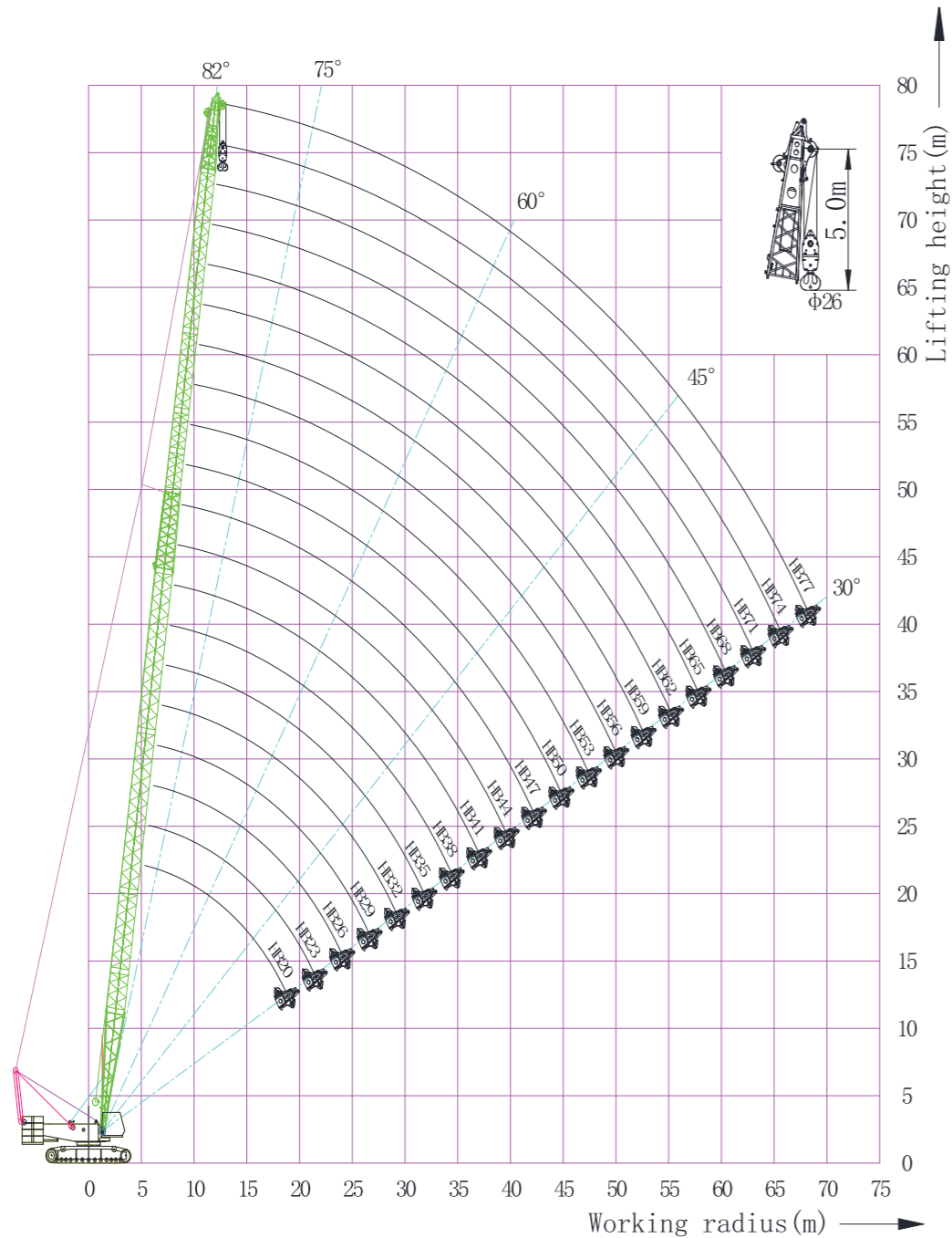
HB/1 Telescoping code of boom sections	Counterweight combination: turntable counterweight (t) + vehicle body counterweight (t)	
	55+6	45+6
HB20	×	○
HB23	○	○
HB26	○	○
HB29	○	○
HB32	○	○
HB35	○	○
HB38	○	○
HB41	○	○
HB44	○	○
HB47	○	○
HB50	○	○
HB53	○	○
HB56	○	○
HB59	○	○
HB62	○	○
HB65	○	○
*HB68	○	○
*HB71	○	○
*HB74	○	○
*HB77	●	×

- Notes: 1. “○” -- Boom-up operation is allowed. “●” -- Wedge blocks are needed to assist boom up operation. “×” -- Boom-up operation isn't allowed and the use is prohibited.
 2. “*” Boom combination needs using a center hitch.
 3. Please position crawler driving wheel to rear of vehicle body before boom up operation.
 4. When boom length $\geq 60\text{m}$, boom angle must be $\geq 30^\circ$ before raising hook block.

Typical Operation Mode

Boom OM_Feature of boom main hook without single top (HB/1)

Boom OM_Working radius chart of boom main hook without single top (HB/1)



Boom working condition _ boom main hook working range (without boom single top, HB/1)

Boom operation mode_55t+6t boom main hook performance without single top HB/1

Working radius (m)	Boom length (m)									
	23	26	29	32	35	38	41	44	47	50
7					104.8					
8			102.2	99.1	96.1	92.6	90.6			
9	94.3	91.7	89	86.6	84.2	82	79.8	77.7	75.8	67.4
10	80.1	80.1	78.8	76.8	74.9	73	71.2	69.5	67.9	67.2
12	61.2	61.2	61.1	61.1	61	59.7	58.4	57.2	55.9	54.7
14	49.3	49.2	49.1	49.1	49	48.9	48.8	48.3	47.3	46.4
16	41	41	40.9	40.9	40.7	40.6	40.5	40.4	40.3	40.1
18	34.9	34.9	34.8	34.8	34.6	34.5	34.4	34.3	34.1	34
20	30.2	30.2	30.1	30.1	30	29.9	29.7	29.6	29.5	29.3
22		26.6	26.5	26.5	26.3	26.2	26.1	26	25.8	25.7
24		23.6	23.5	23.5	23.4	23.2	23.1	23	22.8	22.7
26			21	21	20.9	20.8	20.6	20.5	20.4	20.2
28				19	18.8	18.7	18.5	18.5	18.3	18.1
30					17.1	16.9	16.8	16.7	16.5	16.4
32						15.4	15.3	15.2	15	14.9
34							14.1	13.9	13.7	13.5
36								12.8	12.7	12.4
38									11.6	11.3
40										10.5
42										9.7
44										8.8

Notes:

1. Calculation of actual lifting load: weight of hook block, sling and wire rope that has been reeved on the hook and wound on boom head must be deducted from rated lifting capacity given in this table.
- 2.2. Rated lifting load in this table refers to a situation where crane is assumed to stand on a flat hard ground surface with load being lifted slowly and smoothly, and not refers to crane walking status.
3. Rated loads given in the table are calculated on the basis that weight of luffing jib rear pendant, guide pulley used for luffing jib and single top are not included in boom sections.
4. Luffing jib rear pendant needs to be removed from each boom section, and guide pulley used for luffing jib/jib also needs to be removed from boom transition section.
5. For an item indicated with “*”, if boom length is over 65m, a center hitch should be used.

Typical Operation Mode

Boom operation mode_55t+6t boom main hook performance without single top HB/1 (continued)

Working Radius (m)	Boom length (m)									
	53	56	59	62	65	68*	71*	74*	77*	
10	66.7	66.5								
12	53.6	52.5	51.5	49.6	43.3	42.9	36.4			
14	45.5	44.6	43.8	43	39.9	41.5	34.9	32.2	30	
16	39.3	38.6	38	37.3	36.6	36.1	33.2	30.6	28.9	
18	33.9	33.7	33.3	32.7	32.3	31.7	31.2	29.1	27.9	
20	29.2	29.1	29	28.9	28.7	28.2	27.7	27.4	26.7	
22	25.5	25.4	25.3	25.2	25.2	25.1	24.8	24.5	23.9	
24	22.5	22.4	22.3	22.2	22.2	22.1	22	22	21.6	
26	20	19.9	19.9	19.7	19.8	19.6	19.5	19.5	19.2	
28	18	17.8	17.8	17.6	17.7	17.5	17.4	17.4	17.1	
30	16.2	16.1	16	15.9	15.9	15.7	15.6	15.6	15.3	
32	14.7	14.5	14.5	14.3	14.4	14.2	14.1	14.1	13.8	
34	13.3	13.2	13.2	13	13	12.9	12.8	12.7	12.5	
36	12.2	12.1	12	11.9	11.9	11.7	11.6	11.5	11.3	
38	11.1	11	11	10.8	10.8	10.7	10.6	10.5	10.3	
40	10.2	10.1	10	9.9	9.9	9.7	9.6	9.5	9.3	
42	9.4	9.3	9.2	9.1	9.1	8.9	8.8	8.7	8.5	
44	8.6	8.5	8.4	8.3	8.1	8.2	8.1	8	7.7	
46	7.9	7.8	7.8	7.6	7.3	7.5	7.4	7.3	7.1	
48		7.2	7.1	7	6.5	6.8	6.8	6.6	6.4	
50		6.6	6.6	6.4	5.7	6.3	6.2	6.1	5.9	
52			6	5.9	5	5.8	5.7	5.5	5.3	
54				5.4	4.4	5.3	5.2	5	4.9	
56					3.8	4.8	4.7	4.6	4.4	
58						4.4	4.3	4.2	4	
60						4	3.9	3.8	3.6	
62							3.6	3.4	3.2	
64								3.1	2.9	
66									2.6	
68									2.3	

Notes:

1. Calculation of actual lifting load: weight of hook block, sling and wire rope that has been reeved on the hook and winded on boom head must be deducted from rated lifting capacity given in this table.
2. Rated lifting load in this table refers to a situation where crane is assumed to stand on a flat hard ground surface with load being lifted slowly and smoothly, and not refers to crane walking status.
3. Rated loads given in the table are calculated on the basis that weight of luffing jib rear pendant, guide pulley used for luffing jib and single top are not included in boom sections.
4. Luffing jib rear pendant needs to be removed from each boom section, and guide pulley used for luffing jib/jib also needs to be removed from boom transition section.
5. For an item indicated with “*”, if boom length is over 65m, a center hitch should be used.

Boom operation mode_45t+6t boom main hook performance without single top HB/1

Working radius (m)	Boom length (m)											
	20	23	26	29	32	35	38	41	44	47	50	
5	150											
6	145.8	139	132.9	127.2								
7	118.4	113.8	109.6	105.6	101.9	98.4						
8	99.5	96.2	93	90	87.3	84.6	82.1	79.7				
9	83.1	83.1	80.7	78.4	76.2	74.1	72.1	70.1	68.3	66.5	64.8	
10	70.5	70.5	70.5	69.3	67.5	65.8	64.1	62.5	61	59.5	58.1	
12	53.8	53.8	53.8	53.7	53.7	53.5	52.3	51.1	50	48.9	47.9	
14	43.2	43.2	43.2	43.1	43.1	43	42.9	42.7	42.2	41.3	40.5	
16	35.9	35.9	35.9	35.7	35.7	35.6	35.5	35.4	35.3	35.1	34.9	
18	30.5	30.5	30.5	30.4	30.4	30.2	30.1	30	29.9	29.7	29.6	
20		26.3	26.3	26.2	26.2	26.1	26	25.8	25.7	25.6	25.4	
22			23.1	23	23	22.8	22.7	22.6	22.5	22.3	22.2	
24			20.4	20.3	20.3	20.2	20.1	19.9	19.8	19.7	19.5	
26				18.1	18.2	18	17.9	17.7	17.7	17.5	17.3	
28					16.3	16.2	16.1	15.9	15.8	15.6	15.5	
30						14.6	14.5	14.3	14.3	14.1	13.9	
32							13.1	13	12.9	12.7	12.6	
34							11.9	11.8	11.7	11.5	11.4	
36								10.7	10.7	10.5	10.4	
38									9.8	9.6	9.4	
40										8.8	8.6	
42										8	7.9	
44											7.2	

Notes:

1. Calculation of actual lifting load: weight of hook block, sling and wire rope that has been reeved on the hook and winded on boom head must be deducted from rated lifting capacity given in this table.
2. Rated lifting load in this table refers to a situation where crane is assumed to stand on a flat hard ground surface with load being lifted slowly and smoothly, and not refers to crane walking status.
3. Rated loads given in the table are calculated on the basis that weight of luffing jib rear pendant, guide pulley used for luffing jib and single top are not included in boom sections.
4. Luffing jib rear pendant needs to be removed from each boom section, and guide pulley used for luffing jib/jib also needs to be removed from boom transition section.
5. For an item indicated with “*”, if boom length is over 65m, a center hitch should be used.

Typical Operation Mode

Boom operation mode_45t+6t boom main hook performance without single top HB/1 (continued)

Working radius (m)	Boom length (m)								
	53	56	59	62	65	68*	71*	74*	77*
10	56.7	55.4							
12	46.8	45.8	44.9	44	43.3	42.3	36.4		
14	39.6	38.8	38.1	37.4	36.8	36.1	34.9	32.2	30
16	34.1	33.5	32.9	32.3	31.9	31.2	30.7	30.3	28.9
18	29.4	29.3	28.8	28.3	27.9	27.4	26.9	26.6	25.9
20	25.3	25.2	25.1	25	24.7	24.2	23.8	23.5	22.9
22	22	21.9	21.8	21.7	21.7	21.6	21.2	21	20.4
24	19.3	19.2	19.2	19	19.1	18.9	18.8	18.8	18.3
26	17.2	17	17	16.8	16.9	16.7	16.6	16.6	16.3
28	15.3	15.2	15.1	15	15	14.9	14.8	14.7	14.5
30	13.7	13.6	13.6	13.4	13.5	13.3	13.2	13.1	12.9
32	12.4	12.3	12.2	12.1	12.1	11.9	11.8	11.8	11.5
34	11.2	11.1	11	10.9	10.9	10.7	10.6	10.6	10.3
36	10.2	10	10	9.8	9.9	9.7	9.6	9.5	9.3
38	9.2	9.1	9.1	8.9	8.9	8.8	8.7	8.6	8.4
40	8.4	8.3	8.2	8.1	8.1	7.9	7.9	7.8	7.5
42	7.7	7.6	7.5	7.4	7.4	7.2	7.1	7	6.8
44	7	6.9	6.8	6.7	6.7	6.5	6.5	6.3	6.1
46	6.4	6.3	6.2	6.1	6.1	5.9	5.8	5.7	5.5
48		5.7	5.7	5.5	5.6	5.4	5.3	5.2	5
50		5.2	5.2	5	5	4.9	4.8	4.7	4.5
52			4.7	4.6	4.6	4.4	4.3	4.2	4
54				4.1	4.1	4	3.9	3.8	3.6
56					3.7	3.6	3.5	3.3	3.2
58						3.2	3.1	3	2.8
60						2.9	2.8	2.6	2.5
62							2.4	2.3	2.1
64								2	1.8

Notes:

1. Calculation of actual lifting load: weight of hook block, sling and wire rope that has been reeved on the hook and wound on boom head must be deducted from rated lifting capacity given in this table.
2. Rated lifting load in this table refers to a situation where crane is assumed to stand on a flat hard ground surface with load being lifted slowly and smoothly, and not refers to crane walking status.
3. Rated loads given in the table are calculated on the basis that weight of luffing jib rear pendant, guide pulley used for luffing jib and single top are not included in boom sections.
4. Luffing jib rear pendant needs to be removed from each boom section, and guide pulley used for luffing jib/jib also needs to be removed from boom transition section.
5. For an item indicated with “*”, if boom length is over 65m, a center hitch should be used.

2. Fixed jib working condition

2.1 Main boom combinations under fixed jib working condition

Name & Qty. Telescoping code of boom sections	Main boom butt 9m	Main boom insert section 3mA	Main boom insert section 6mA	Main boom insert section 12mA	Main transition section 6m	Main boom insert section 3mB	Main boom insert section 6mB	Main boom insert section 12mB	Main boom top section 5m
HB20	1	0	0	0	1	0	0	0	1
HB23	1	1	0	0	1	0	0	0	1
HB26	1	0	1	0	1	0	0	0	1
HB29	1	1	1	0	1	0	0	0	1
HB32	1	0	0	1	1	0	0	0	1
HB35	1	1	0	1	1	0	0	0	1
HB38	1	0	1	1	1	0	0	0	1
HB41	1	1	1	1	1	0	0	0	1
HB44	1	0	0	2	1	0	0	0	1
HB47	1	1	0	2	1	0	0	0	1
HB50	1	0	1	2	1	0	0	0	1
HB53	1	1	1	2	1	0	0	0	1

2.2 Fixed jib combinations under fixed jib working condition

Name & Qty. Telescoping code of boom sections	Jib butt 5m	Main boom insert Section 3mB	Main boom insert Section 6mB	Jib transition section 5m	Jib insert section 3mC	Jib insert section 6mC	Jib top section 3m
F13	1	0	0	1	0	0	1
F16	1	0	0	1	1	0	1
F19	1	0	0	1	0	1	1
F22	1	0	0	1	1	1	1
F25	1	1	0	1	1	1	1
F28	1	0	1	1	1	1	1
F31	1	1	1	1	1	1	1

- Notes: 1. Remove tower jib rear pendants for main boom sections, guide pulley for tower jib must be installed on main boom top section.
2. When main boom + jib combination length exceeds 71m, Wedge is recommended to assist boom lifting

Typical Operation Mode

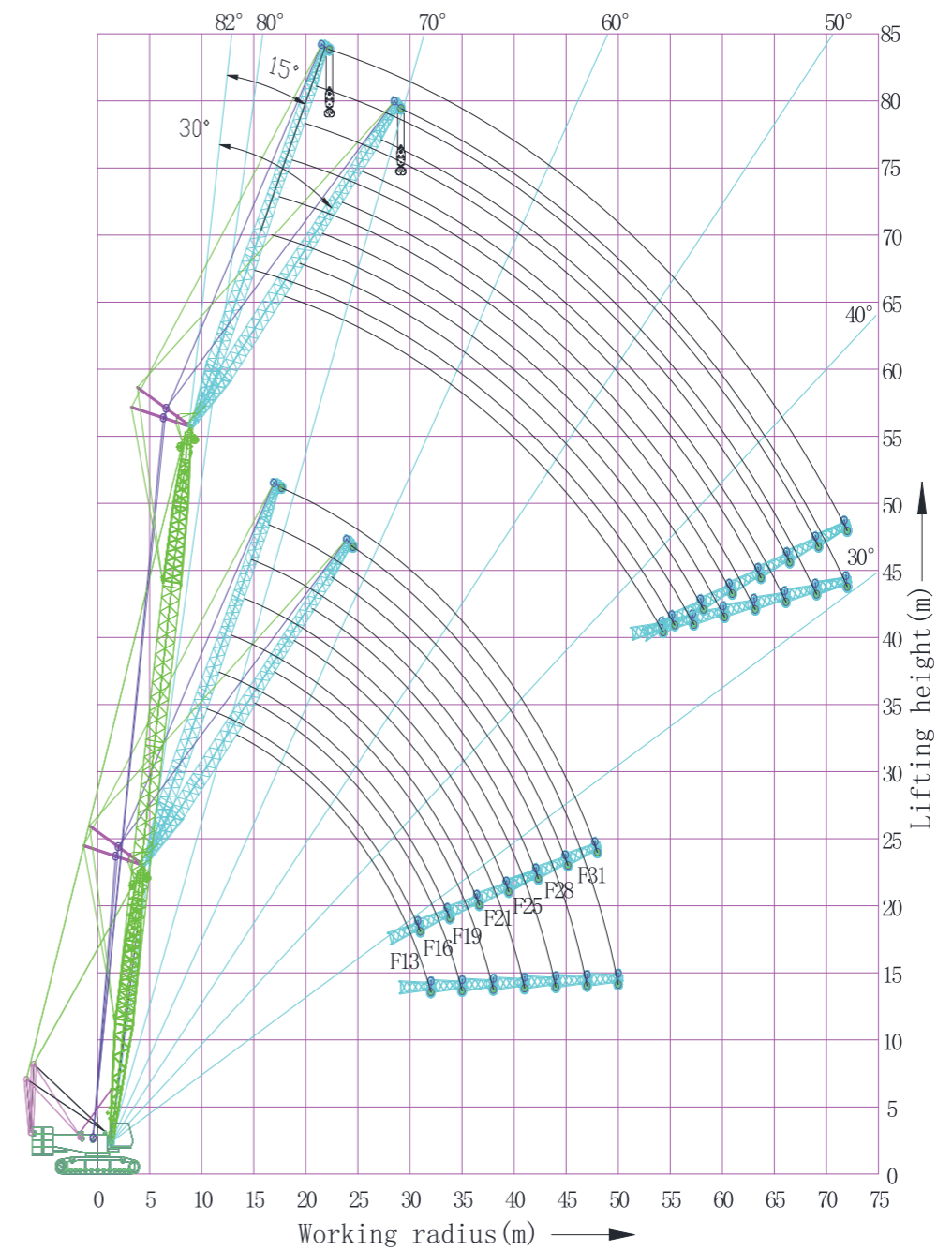
3.3 Boom raising table under fixed jib working condition (HF) (counterweight combination 55t+6t)

Main boom Tower jib	HB20	HB23	HB26	HB29	HB32	HB35	HB38	HB41	HB44	HB47	HB50	HB53
F13	•	•	•	•	•	•	•	•	•	•	•	•
F16	•	•	•	•	•	•	•	•	•	•	•	•
F19	•	•	•	•	•	•	•	•	•	•	•	•
F22	•	•	•	•	•	•	•	•	•	•	•	•
F25	•	•	•	•	•	•	•	•	•	•	•	•
F28	•	•	•	•	•	•	•	•	•	•	•	•
F31	•	•	•	•	•	•	•	•	•	•	•	•

Notes:

1. when raising boom, please place the track drive roller at the rear side of the crane body..
2. “●” —boom can be raised, “×” -- boom cannot be raised, this working condition cannot be used.
3. Remove tower jib rear pendants for main boom sections, guide pulley for tower jib must be installed on main boom top section.
4. When boom combinations length of main boom and auxiliary boom exceeds 71m, if conditions permit, it is recommended to use wedge assisted boom lifting to ensure safer landing boom.

2.4 Working radius under fixed jib working condition (HF)



Typical Operation Mode

2.5 Partial lifting performance of fixed jib working condition (HF)

Instruction:

- 1.The actual lifting weight is the remained weight after the weights of hook, slings and wire ropes reeved on hook and boom (jib) head are subtracted from the rated lifting load in table.
- 2.The rated loads in the table are the lifted values when the loads are lifted slowly and stably in non-travelling state on plane and solid ground with the gradient no more than 1%.
- 3.The load values given in the table are the load hanging freely without consideration of the influence of wind load to the lifted load, the ground condition, gradient, operation speed and nay other factors negatively impact on the safe operation of the crane. Thus, the operator is responsible for the current situation judgment, reducing the lifted load correspondingly and reducing the speed.
- 4.When the combination length of the main boom and jib exceeds 71m, a wedge block is recommended to be used to raise the boom (jib).

Radius/m	10°off-set angle											
	Jib 13m											
	Main boom length/m											
	20	23	26	29	32	35	38	41	44	47	50	53
12	50	43.8	47.6	48.5	45.8							
14	49	39.9	43.9	45.1	42.6	41.4	40.6	39.8	39.1	38.4		
16	41.8	36.7	40.7	41.5	39.8	38.8	38.1	37.5	36.9	36.3	27.9	27.9
18	35.6	34	35.3	35.1	35	34.9	34.8	34.6	34.1	33.5	27.9	27.9
20	30.8	30.6	30.5	30.3	30.2	30.1	29.9	29.8	29.6	29.5	27.9	27.9
22	27	26.8	26.7	26.5	26.4	26.2	26.1	25.9	25.8	25.6	25.5	25.3
24	23.9	23.7	23.6	23.4	23.3	23.1	23	22.8	22.7	22.5	22.4	22.2
26	21.3	21.2	21	20.8	20.7	20.6	20.4	20.2	20.1	19.9	19.8	19.6
28	19.2	19	18.9	18.7	18.6	18.4	18.2	18.1	17.9	17.8	17.6	17.4
30	17.3	17.2	17	16.8	16.7	16.6	16.4	16.2	16.1	15.9	15.7	15.6
32	15.7	15.5	15.4	15.2	15.1	15	14.8	14.6	14.5	14.3	14.1	14
34		14.1	14	13.8	13.7	13.6	13.4	13.2	13.1	12.9	12.7	12.6
36			12.8	12.6	12.5	12.3	12.2	12	11.9	11.7	11.5	11.3
38				11.5	11.4	11.3	11.1	10.9	10.8	10.6	10.4	10.2
40				10.5	10.4	10.3	10.1	9.9	9.8	9.6	9.4	9.3
42					9.5	9.4	9.2	9	8.9	8.7	8.6	8.4
44						8.6	8.4	8.3	8.1	7.9	7.8	7.6
46							7.7	7.5	7.4	7.2	7.1	6.9
48								6.8	6.7	6.6	6.4	6.2
50								6.2	6.1	5.9	5.8	5.6
52									5.6	5.4	5.2	5
54										4.9	4.7	4.5
56											4.2	4
58												3.8
60												
60												3.1

Radius/m	10°off-set angle											
	Jib 16m											
	Main boom length/m											
	20	23	26	29	32	35	38	41	44	47	50	53
12	32	32										
14	30	30.6	31.2	31.6	31.7	31.6	31.5					
16	27.8	28.5	29.1	29.6	30.1	30.4	30.7	30.9	31	27.9	27.9	27.9
18	25.9	26.7	27.3	27.9	28.4	28.8	29.1	29.4	29.6	27.9	27.9	27.9
20	24.2	25.1	25.8	26.4	26.9	27.4	27.8	28.1	28.4	27.9	27.9	27.9
22	22.8	23.6	24.4	25	25.6	26.1	26.3	26.2	26.1	25.9	25.8	25.4
24	21.6	22.4	23.1	23.7	23.5	23.4	23.2	23.1	22.9	22.8	22.6	22.5
26	20.4	21.3	21.3	21.1	21	20.8	20.6	20.5	20.3	20.2	20	19.9
28	19.4	19.3	19.1	18.9	18.8	18.6	18.5	18.3	18.2	18	17.8	17.7
30	17.6	17.4	17.3	17.1	17	16.8	16.6	16.4	16.3	16.1	16	15.8
32	16	15.8	15.7	15.5	15.4	15.2	15	14.8	14.7	14.5	14.4	14.2
34	14.6	14.4	14.3	14.1	14	13.8	13.6	13.4	13.3	13.1	13	12.8
36		13.2	13	12.9	12.7	12.6	12.4	12.2	12.1	11.9	11.7	11.5
38			11.9	11.8	11.7	11.5	11.3	11.1	11	10.8	10.6	10.4
40			10.9	10.8	10.7	10.5	10.3	10.1	10	9.8	9.6	9.5
42				9.9	9.8	9.6	9.4	9.3	9.1	8.9	8.8	8.6
44					9	8.8	8.6	8.5	8.3	8.1	8	7.8
46						8.1	7.9	7.7	7.6	7.4	7.2	7
48							7.4	7.2	7.1	6.9	6.7	6.4
50								6.6	6.4	6.3	6.1	5.8
52									5.9	5.8	5.6	5.2
54										5.2	5	4.9
56											4.6	4.2
58												4.1
60												3.5
62												
62												2.9

**Typical
Operation Mode**

Radius/m	10°off-set angle											
	Jib 19m											
	Main boom length/m											
	20	23	26	29	32	35	38	41	44	47	50	53
14	25.6	26	26.3	26.5								
16	23.7	24.2	24.6	25	25.2	25.4	25.6	25.7	25.7			
18	22.2	22.7	23.2	23.6	23.9	24.2	24.4	24.6	24.7	24.7	24.7	24.7
20	20.8	21.4	21.9	22.3	22.7	23	23.3	23.5	23.7	23.8	23.8	23.9
22	19.6	20.2	20.7	21.2	21.6	22	22.3	22.5	22.7	22.9	23	23.1
24	18.5	19.1	19.7	20.2	20.6	21	21.3	21.6	21.9	22.1	22.2	22.3
26	17.5	18.1	18.7	19.3	19.7	20.1	20.5	20.8	20.7	20.5	20.4	20.2
28	16.6	17.3	17.9	18.4	18.9	18.9	18.8	18.6	18.5	18.3	18.2	18
30	15.8	16.4	17.1	17.4	17.2	17.1	16.9	16.7	16.6	16.4	16.3	16.1
32	15.1	15.7	15.9	15.8	15.6	15.5	15.3	15.1	15	14.8	14.6	14.5
34	14.4	14.7	14.5	14.4	14.2	14.1	13.9	13.7	13.6	13.4	13.2	13.1
36	13.6	13.5	13.3	13.1	13	12.8	12.7	12.5	12.3	12.2	12	11.8
38	12.5	12.4	12.2	12	11.9	11.7	11.6	11.4	11.2	11	10.9	10.7
40		11.3	11.2	11	10.9	10.7	10.6	10.4	10.2	10.1	9.9	9.7
42			10.3	10.1	10	9.9	9.7	9.5	9.4	9.2	9	8.8
44				9.3	9.2	9	8.9	8.7	8.6	8.4	8.2	8
46					8.5	8.3	8.2	8	7.8	7.6	7.5	7.3
48						7.8	7.6	7.5	7.3	7.2	7	6.8
50							7	6.9	6.7	6.5	6.4	6.2
52								6.3	6.1	6	5.8	5.6
54									5.6	5.5	5.3	5.1
56										5.1	5	4.8
58											4.5	4.3
60												3.9
62												
64												
66												

Radius/m	10°off-set angle											
	Jib 22m											
	Main boom length/m											
	20	23	26	29	32	35	38	41	44	47	50	53
16	20.3	20.6	20.9	21.1	21.2							
18	19	19.4	19.7	19.9	20.1	20.3	20.4	20.5	20.6	20.6		
20	17.8	18.3	18.6	18.9	19.2	19.4	19.5	19.7	19.8	19.8	19.9	19.9
22	16.7	17.2	17.6	18	18.3	18.5	18.7	18.9	19	19.1	19.2	19.2
24	15.7	16.2	16.6	17	17.4	17.7	18	18.2	18.3	18.5	18.6	18.6
26	14.8	15.3	15.8	16.2	16.6	16.9	17.2	17.5	17.7	17.8	18	18
28	14	14.5	15	15.4	15.8	16.2	16.5	16.7	17	17.2	17.4	17.5
30	13.3	13.8	14.3	14.7	15.1	15.5	15.8	16.1	16.4	16.6	16.5	16.4
32	12.7	13.2	13.7	14.1	14.5	14.9	15.2	15.4	15.2	15.1	14.9	14.7
34	12.1	12.6	13.1	13.5	13.9	14.3	14.1	13.9	13.8	13.6	13.5	13.3
36	11.6	12.1	12.6	13	13.2	13	12.9	12.7	12.6	12.4	12.2	12
38	11.2	11.7	12.1	12.2	12.1	11.9	11.8	11.6	11.4	11.3	11.1	10.9
40	10.8	11.2	11.4	11.2	11.1	10.9	10.8	10.6	10.5	10.3	10.1	9.9
42		10.7	10.5	10.3	10.2	10	9.9	9.7	9.6	9.4	9.2	9
44			9.7	9.5	9.4	9.2	9.1	8.9	8.8	8.6	8.4	8.2
46				8.9	8.8	8.7	8.5	8.3	8.2	8	7.8	7.5
48					8.1	8	7.8	7.7	7.5	7.3	7.2	7
50						7.4	7.2	7	6.9	6.7	6.5	6.4
52							6.6	6.5	6.3	6.2	6	5.8
54								6.1	5.9	5.8	5.6	5.4
56									5.4	5.3	5.1	4.9
58										4.8	4.7	4.5
60											4.2	4.1
62												3.6
64												
66												
68												

**Typical
Operation Mode**

Radius/m	10° off-set angle												
	Jib 25m												
	Main boom length/m												
	20	23	26	29	32	35	38	41	44	47	50	53	
16	18.8	19.1	19.3										
18	17.4	17.8	18.1	18.3	18.5	18.6	18.8	18.8					
20	16.2	16.6	16.9	17.2	17.5	17.7	17.8	18	18.1	18.1	18.2	18.2	
22	15.2	15.6	16	16.3	16.5	16.8	17	17.1	17.3	17.4	17.4	17.5	
24	14.2	14.7	15.1	15.4	15.7	15.9	16.2	16.4	16.5	16.7	16.8	16.8	
26	13.3	13.8	14.2	14.6	14.9	15.2	15.4	15.7	15.9	16	16.1	16.2	
28	12.6	13	13.5	13.8	14.2	14.5	14.8	15	15.2	15.4	15.5	15.7	
30	11.8	12.3	12.7	13.1	13.5	13.8	14.1	14.4	14.6	14.8	15	15.1	
32	11.2	11.7	12.1	12.5	12.9	13.2	13.5	13.8	14.1	14.3	14.5	14.6	
34	10.6	11.1	11.5	11.9	12.3	12.6	13	13.2	13.5	13.6	13.5	13.3	
36	10.1	10.6	11	11.4	11.8	12.1	12.4	12.7	12.5	12.4	12.2	12	
38	9.7	10.1	10.5	10.9	11.3	11.6	11.7	11.6	11.4	11.2	11.1	10.9	
40	9.3	9.7	10.1	10.5	10.8	10.9	10.7	10.6	10.4	10.2	10.1	9.9	
42	8.9	9.3	9.7	10.1	10.2	10	9.9	9.7	9.5	9.3	9.2	9	
44		9	9.4	9.5	9.4	9.2	9.1	8.9	8.7	8.5	8.4	8.2	
46		8.7	9	8.8	8.7	8.5	8.3	8.1	8	7.8	7.6	7.4	
48			8.3	8.1	8	7.8	7.6	7.5	7.3	7.1	6.9	6.8	
50				7.5	7.4	7.2	7	6.8	6.7	6.5	6.3	6.1	
52					6.8	6.6	6.5	6.3	6.1	5.9	5.8	5.6	
54					6.3	6.1	5.9	5.7	5.6	5.4	5.2	5	
56						5.6	5.4	5.2	5.1	4.9	4.7	4.5	
58							5	4.8	4.6	4.5	4.3	4.1	
60								4.3	4.2	4	3.9	3.7	
62									3.8	3.6	3.5	3.3	
64										3.4	3.2	3.1	2.9
66											2.9	2.7	2.5
68												2.4	2.2
70													1.9

Radius/m	10° off-set angle														
	Jib 28m														
	Main boom length/m														
	20	23	26	29	32	35	38	41	44	47	50	53			
18	15.5	15.8	16	16.2	16.3										
20	14.4	14.7	14.9	15.1	15.3	15.5	15.6	15.7	15.8	15.9					
22	13.3	13.7	14	14.2	14.4	14.6	14.8	14.9	15	15.1	15.2	15.2			
24	12.5	12.8	13.1	13.4	13.6	13.9	14	14.2	14.3	14.5	14.6	14.6			
26	11.7	12	12.3	12.7	12.9	13.1	13.4	13.5	13.7	13.8	14	14			
28	10.9	11.3	11.7	12	12.2	12.5	12.7	12.9	13.1	13.3	13.4	13.5			
30	10.3	10.7	11	11.3	11.6	11.9	12.1	12.3	12.5	12.7	12.9	13			
32	9.7	10.1	10.5	10.8	11.1	11.3	11.6	11.8	12	12.2	12.4	12.5			
34	9.2	9.6	9.9	10.3	10.6	10.8	11.1	11.3	11.5	11.7	11.9	12.1			
36	8.7	9.1	9.4	9.8	10.1	10.4	10.6	10.9	11.1	11.3	11.5	11.6			
38	8.3	8.7	9	9.3	9.6	9.9	10.2	10.4	10.7	10.9	11.1	11			
40	7.9	8.2	8.6	8.9	9.2	9.5	9.8	10	10.3	10.3	10.2	10			
42	7.5	7.9	8.2	8.5	8.9	9.1	9.4	9.7	9.6	9.4	9.3	9.1			
44	7.2	7.5	7.9	8.2	8.5	8.8	9.1	9	8.8	8.6	8.5	8.3			
46	6.9	7.3	7.6	7.9	8.2	8.5	8.4	8.2	8.1	7.9	7.7	7.5			
48		7	7.3	7.6	7.9	7.9	7.7	7.5	7.4	7.2	7	6.9			
50			7.1	7.3	7.5	7.3	7.1	6.9	6.8	6.6	6.4	6.2			
52				7	6.9	6.7	6.5	6.3	6.2	6	5.8	5.6			
54					6.5	6.3	6.2	6	5.8	5.7	5.5	5.3	5.1		
56						5.8	5.7	5.5	5.3	5.2	5	4.8	4.6		
58							5.2	5	4.9	4.7	4.5	4.4	4.2		
60								4.6	4.4	4.3	4.1	3.9	3.7		
62									4.2	4	3.9	3.7	3.5	3.3	
64										3.6	3.5	3.3	3.1	2.9	
66											3.1	2.9	2.8	2.6	
68												2.6	2.4	2.3	
70													2.3	2.1	1.9
72														1.8	1.6

**Typical
Operation Mode**

Radius/m	10° off-set angle											
	Jib 31m											
	Main boom length/m											
	20	23	26	29	32	35	38	41	44	47	50	53
18	13.8											
20	12.7	12.9	13.1	13.3	13.5	13.6						
22	11.8	12	12.2	12.5	12.6	12.8	12.9	13	13.1	13.2	13.2	
24	10.9	11.2	11.4	11.7	11.9	12	12.2	12.3	12.5	12.6	12.6	12.7
26	10.1	10.4	10.7	11	11.2	11.4	11.5	11.7	11.8	12	12.1	12.1
28	9.5	9.8	10.1	10.3	10.5	10.8	11	11.1	11.3	11.4	11.5	11.6
30	8.8	9.2	9.5	9.7	10	10.2	10.4	10.6	10.7	10.9	11	11.1
32	8.3	8.6	8.9	9.2	9.4	9.7	9.9	10.1	10.3	10.4	10.6	10.7
34	7.8	8.1	8.4	8.7	9	9.2	9.4	9.6	9.8	10	10.1	10.2
36	7.3	7.7	8	8.2	8.5	8.7	9	9.2	9.4	9.5	9.7	9.8
38	6.9	7.2	7.5	7.8	8.1	8.3	8.6	8.8	9	9.2	9.3	9.5
40	6.5	6.9	7.2	7.4	7.7	8	8.2	8.4	8.6	8.8	9	9.1
42	6.2	6.5	6.8	7.1	7.3	7.6	7.8	8.1	8.2	8.4	8.6	8.8
44	5.9	6.2	6.5	6.8	7	7.3	7.5	7.7	7.9	8.1	8.3	8.3
46	5.6	5.9	6.2	6.5	6.7	7	7.2	7.4	7.6	7.8	7.7	7.6
48	5.4	5.6	5.9	6.2	6.4	6.7	6.9	7.1	7.3	7.2	7	6.9
50		5.4	5.7	5.9	6.2	6.4	6.6	6.9	6.8	6.6	6.4	6.2
52		5.2	5.5	5.7	5.9	6.2	6.4	6.3	6.2	6	5.8	5.7
54			5.3	5.5	5.7	5.9	6	5.8	5.7	5.5	5.3	5.1
56				5.3	5.5	5.7	5.5	5.3	5.2	5	4.8	4.6
58					5.3	5.2	5	4.8	4.7	4.5	4.3	4.2
60					4.9	4.8	4.6	4.4	4.3	4.1	3.9	3.7
62						4.3	4.2	4	3.9	3.7	3.5	3.3
64							3.8	3.6	3.5	3.3	3.1	2.9
66								3.2	3.1	2.9	2.8	2.6
68									2.8	2.6	2.4	2.2
70									2.4	2.3	2.1	1.9
72										1.9	1.8	1.6

B. When main boom, jib off-set angle is 30°

Radius/m	30° off-set angle											
	Jib 13m											
	Main boom length/m											
	20	23	26	29	32	35	38	41	44	47	50	53
14	34.8	30.3	32.7									
16	32.1	28.6	31.2	31.9	33.7	32.5	31.7	31				
18	29.9	27.1	29.8	30.6	32.1	31	30.3	29.6	29.1	28.5	27.9	27.6
20	28	25.8	28.6	29.5	30.6	29.7	29	28.4	27.9	27.4	27	26.6
22	26.4	24.7	27.1	27	26.9	26.8	26.7	26.6	26.5	26.4	26	25.7
24	24.2	23.7	24	23.8	23.8	23.6	23.5	23.4	23.3	23.2	23.1	23
26	21.6	21.5	21.4	21.2	21.1	21	20.9	20.8	20.7	20.5	20.4	20.3
28	19.3	19.2	19.1	19	18.9	18.8	18.7	18.5	18.4	18.3	18.2	18
30	17.4	17.3	17.2	17.1	17	16.9	16.8	16.6	16.5	16.4	16.2	16.1
32	15.7	15.7	15.6	15.5	15.4	15.2	15.1	15	14.9	14.7	14.6	14.4
34		14.2	14.1	14	14	13.8	13.7	13.5	13.4	13.3	13.1	13
36			12.8	12.7	12.7	12.5	12.4	12.3	12.2	12	11.9	11.7
38				11.6	11.5	11.4	11.3	11.1	11	10.9	10.7	10.6
40				10.5	10.5	10.4	10.3	10.1	10	9.9	9.7	9.6
42					9.6	9.5	9.3	9.2	9.1	9	8.8	8.6
44						8.6	8.5	8.4	8.3	8.1	8	7.8
46							7.7	7.6	7.5	7.4	7.2	7.1
48								7	6.9	6.8	6.7	6.5
50									6.2	6.2	6	5.9
52										5.6	5.4	5.1
54											4.9	4.6
56												4.2
58												3.7
60												3.2

**Typical
Operation Mode**

Radius/m	30°off-set angle											
	Jib 16m											
	Main boom length/m											
	20	23	26	29	32	35	38	41	44	47	50	53
16	23.5	23.8	24	24.2								
18	22.3	22.6	22.9	23.2	23.3	23.5	23.6	23.7				
20	21.1	21.5	21.9	22.2	22.4	22.6	22.8	22.9	23	23.1	23.1	
22	20.1	20.6	21	21.3	21.6	21.9	22.1	22.2	22.4	22.5	22.5	22.4
24	19.2	19.7	20.1	20.5	20.8	21.1	21.4	21.6	21.7	21.9	21.9	21.6
26	18.5	19	19.4	19.8	20.1	20.4	20.7	20.9	21.1	20.9	20.8	20.7
28	17.8	18.3	18.8	19.1	19.3	19.2	19	18.9	18.8	18.7	18.6	18.4
30	17.3	17.7	17.6	17.5	17.4	17.2	17.1	17	16.9	16.7	16.6	16.5
32	16.2	16	15.9	15.8	15.7	15.6	15.5	15.3	15.2	15.1	14.9	14.8
34	14.7	14.6	14.5	14.4	14.3	14.1	14	13.9	13.8	13.6	13.5	13.3
36		13.3	13.2	13.1	13	12.9	12.7	12.6	12.5	12.3	12.2	12
38		12.1	12	11.9	11.9	11.7	11.6	11.4	11.3	11.2	11	10.9
40			11	10.9	10.8	10.7	10.6	10.4	10.3	10.2	10	9.9
42				9.9	9.9	9.8	9.6	9.5	9.4	9.2	9.1	8.9
44					9	8.9	8.8	8.7	8.6	8.4	8.3	8.1
46						8.1	8	7.9	7.8	7.6	7.5	7.3
48						7.4	7.3	7.2	7.1	6.9	6.8	6.6
50							6.6	6.5	6.4	6.3	6.2	6
52								5.9	5.8	5.7	5.6	5.4
54									5.3	5.1	5	4.9
56									4.7	4.6	4.5	4.3
58										4.1	4	3.9
60											3.5	3.4
62												3
64												2.5

Radius/m	30°off-set angle											
	Jib 19m											
	Main boom length/m											
	20	23	26	29	32	35	38	41	44	47	50	53
18	19.1	19.3	19.5	19.6								
20	18.1	18.4	18.6	18.8	19	19.1	19.2	19.3				
22	17.2	17.5	17.8	18.1	18.2	18.4	18.6	18.7	18.8	18.8	18.8	18.9
24	16.4	16.8	17.1	17.3	17.6	17.8	17.9	18.1	18.2	18.3	18.4	18.4
26	15.7	16.1	16.4	16.7	16.9	17.2	17.4	17.5	17.7	17.8	17.9	18
28	15	15.4	15.8	16.1	16.4	16.6	16.8	17	17.2	17.3	17.4	17.5
30	14.5	14.9	15.2	15.6	15.9	16.1	16.3	16.6	16.7	16.9	17	16.9
32	14	14.4	14.8	15.1	15.4	15.6	15.8	15.7	15.6	15.5	15.3	15.2
34	13.6	14	14.3	14.6	14.6	14.5	14.4	14.2	14.1	14	13.9	13.7
36	13.4	13.6	13.6	13.4	13.3	13.2	13.1	12.9	12.8	12.7	12.6	12.4
38	12.5	12.5	12.4	12.3	12.2	12.1	11.9	11.8	11.7	11.5	11.4	11.3
40		11.4	11.4	11.2	11.2	11	10.9	10.8	10.6	10.5	10.4	10.2
42			10.4	10.3	10.2	10.1	10	9.8	9.7	9.6	9.4	9.3
44				9.4	9.4	9.3	9.1	9	8.9	8.7	8.6	8.4
46				8.6	8.6	8.5	8.4	8.2	8.1	8	7.8	7.7
48					7.8	7.7	7.6	7.5	7.4	7.2	7.1	6.9
50						7.1	7	6.8	6.7	6.6	6.5	6.3
52								6.3	6.2	6.1	6	5.9
54									5.7	5.6	5.6	5.4
56										5.1	5	4.9
58											4.5	4.4
60												3.9
62												3.4
64												3
66												2.4

**Typical
Operation Mode**

Radius/m	30°off-set angle													
	Jib 22m													
	Main boom length/m													
	20	23	26	29	32	35	38	41	44	47	50	53		
20	15.3	15.4	15.6											
22	14.5	14.7	14.9	15	15.2	15.3	15.4	15.4						
24	13.8	14.1	14.3	14.5	14.6	14.7	14.8	14.9	15	15.1	15.1	15.1		
26	13.2	13.5	13.7	13.9	14.1	14.2	14.4	14.5	14.6	14.6	14.7	14.7		
28	12.6	12.9	13.2	13.4	13.6	13.8	13.9	14.1	14.2	14.3	14.3	14.4		
30	12.1	12.4	12.7	12.9	13.1	13.3	13.5	13.6	13.8	13.9	14	14.1		
32	11.7	12	12.3	12.5	12.7	12.9	13.1	13.3	13.4	13.5	13.6	13.7		
34	11.3	11.6	11.9	12.1	12.4	12.6	12.7	12.9	13.1	13.2	13.3	13.4		
36	11	11.3	11.5	11.8	12	12.2	12.4	12.6	12.7	12.9	12.9	12.8		
38	10.8	11	11.2	11.5	11.7	11.9	12.1	12.1	12	11.8	11.7	11.6		
40	10.6	10.8	11	11.2	11.4	11.3	11.2	11	10.9	10.8	10.7	10.5		
42		10.7	10.7	10.6	10.5	10.4	10.2	10.1	10	9.9	9.7	9.6		
44		9.8	9.8	9.7	9.7	9.5	9.4	9.2	9.1	9	8.9	8.7		
46			9	8.9	8.9	8.7	8.6	8.5	8.4	8.2	8.1	7.9		
48				8.2	8.1	8	7.9	7.8	7.7	7.5	7.4	7.2		
50					7.4	7.3	7.2	7.1	7	6.8	6.7	6.6		
52						6.7	6.6	6.5	6.4	6.2	6.1	5.9		
54							6.1	6	5.9	5.8	5.7	5.4		
56								5.5	5.4	5.3	5.1	4.9		
58									4.8	4.8	4.6	4.4		
60										4.3	4.2	3.9		
62											3.8	3.5		
64												3.3		
66												2.8		
68													2.3	
70														1.9

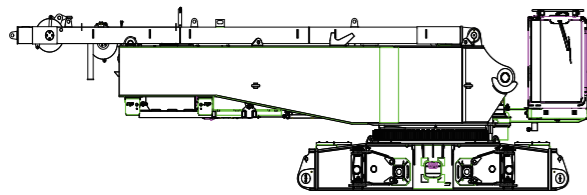
Radius/m	30°off-set angle															
	Jib 25m															
	Main boom length/m															
	20	23	26	29	32	35	38	41	44	47	50	53				
22	13	13.2	13.3	13.4												
24	12.3	12.5	12.7	12.8	12.9	13	13.1	13.2	13.3							
26	11.7	11.9	12.1	12.3	12.4	12.5	12.7	12.7	12.8	12.9	12.9	13				
28	11.1	11.4	11.6	11.8	11.9	12.1	12.2	12.3	12.4	12.5	12.6	12.6				
30	10.6	10.9	11.1	11.3	11.5	11.6	11.8	11.9	12	12.1	12.2	12.3				
32	10.2	10.4	10.7	10.9	11.1	11.2	11.4	11.5	11.7	11.8	11.9	11.9				
34	9.8	10	10.3	10.5	10.7	10.9	11	11.2	11.3	11.4	11.5	11.6				
36	9.4	9.7	9.9	10.2	10.4	10.5	10.7	10.9	11	11.1	11.2	11.3				
38	9.1	9.4	9.6	9.8	10	10.2	10.4	10.6	10.7	10.8	11	11.1				
40	8.9	9.1	9.3	9.6	9.8	9.9	10.1	10.3	10.4	10.6	10.7	10.6				
42	8.7	8.9	9.1	9.3	9.5	9.7	9.9	10	10.1	9.9	9.8	9.7				
44	8.6	8.7	8.9	9.1	9.3	9.5	9.5	9.3	9.2	9.1	8.9	8.8				
46		8.6	8.7	8.9	9	8.8	8.7	8.5	8.4	8.3	8.1	8				
48			8.4	8.3	8.2	8.1	8	7.8	7.7	7.6	7.4	7.3				
50				7.6	7.6	7.4	7.3	7.2	7.1	6.9	6.8	6.6				
52					6.9	6.9	6.8	6.7	6.5	6.4	6.3	6.2	6			
54						6.3	6.2	6.1	6	5.9	5.7	5.6	5.4			
56								5.7	5.6	5.4	5.3	5.2	5.1	4.9		
58									5.1	4.9	4.8	4.7	4.6	4.4		
60										4.5	4.4	4.4	4.2	4.1	3.9	
62											4	3.9	3.8	3.7	3.5	
64												3.5	3.4	3.2	3.1	
66													3	2.8	2.7	
68														2.5	2.3	
70															2.1	2

**Typical
Operation Mode**

Radius/m	30° off-set angle													
	Jib 28m													
	Main boom length/m													
	20	23	26	29	32	35	38	41	44	47	50	53		
24	10.7	10.8	10.9	11										
26	10.1	10.2	10.4	10.5	10.6	10.7	10.8	10.8	10.9					
28	9.6	9.7	9.9	10	10.2	10.3	10.4	10.5	10.5	10.6	10.6	10.6		
30	9.1	9.3	9.5	9.6	9.8	9.9	10	10.1	10.2	10.2	10.3	10.3		
32	8.6	8.9	9	9.2	9.4	9.5	9.6	9.7	9.8	9.9	10	10		
34	8.2	8.5	8.7	8.9	9	9.2	9.3	9.4	9.5	9.6	9.7	9.8		
36	7.9	8.1	8.3	8.5	8.7	8.8	9	9.1	9.2	9.3	9.4	9.5		
38	7.6	7.8	8	8.2	8.4	8.5	8.7	8.8	8.9	9.1	9.2	9.2		
40	7.3	7.5	7.7	7.9	8.1	8.3	8.4	8.6	8.7	8.8	8.9	9		
42	7.1	7.3	7.5	7.7	7.9	8	8.2	8.3	8.4	8.6	8.7	8.8		
44	6.9	7.1	7.3	7.5	7.6	7.8	8	8.1	8.2	8.3	8.5	8.6		
46	6.8	6.9	7.1	7.3	7.4	7.6	7.7	7.9	8	8.1	8.3	8.2		
48		6.8	6.9	7.1	7.2	7.4	7.5	7.7	7.8	7.7	7.6	7.5		
50		6.8	6.8	7	7.1	7.2	7.4	7.3	7.2	7.1	6.9	6.8		
52			6.8	6.9	7	7	6.8	6.7	6.6	6.4	6.3	6.2		
54				6.5	6.5	6.4	6.3	6.1	6	5.9	5.7	5.6		
56					5.9	5.8	5.7	5.6	5.5	5.3	5.2	5		
58						5.3	5.2	5.1	5	4.8	4.7	4.6		
60							4.8	4.7	4.6	4.5	4.4	4.2	4.1	
62								4.3	4.1	4.1	3.9	3.8	3.6	
64									3.7	3.6	3.5	3.4	3.2	
66										3.2	3.1	3	2.8	
68											2.8	2.7	2.6	2.5
70												2.3	2.2	2.1
72													1.9	1.8

Radius/m	30° off-set angle													
	Jib 31m													
	Main boom length/m													
	20	23	26	29	32	35	38	41	44	47	50	53		
26	8.6	8.7	8.8	8.9										
28	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.7	8.8					
30	7.6	7.8	7.9	8	8.1	8.2	8.3	8.4	8.5	8.5	8.5	8.6		
32	7.2	7.4	7.5	7.7	7.8	7.9	8	8.1	8.1	8.2	8.3	8.3		
34	6.9	7	7.2	7.3	7.5	7.6	7.7	7.8	7.9	7.9	8	8		
36	6.5	6.7	6.9	7	7.2	7.3	7.4	7.5	7.6	7.7	7.7	7.8		
38	6.2	6.4	6.6	6.7	6.9	7	7.1	7.2	7.3	7.4	7.5	7.6		
40	5.9	6.1	6.3	6.5	6.6	6.8	6.9	7	7.1	7.2	7.3	7.3		
42	5.7	5.9	6.1	6.2	6.4	6.5	6.6	6.8	6.9	7	7.1	7.1		
44	5.5	5.7	5.8	6	6.2	6.3	6.4	6.5	6.7	6.8	6.9	6.9		
46	5.3	5.5	5.6	5.8	5.9	6.1	6.2	6.4	6.5	6.6	6.7	6.8		
48	5.2	5.3	5.5	5.6	5.8	5.9	6	6.2	6.3	6.4	6.5	6.6		
50	5.2	5.2	5.3	5.5	5.6	5.7	5.9	6	6.1	6.2	6.3	6.4		
52		5.2	5.2	5.3	5.5	5.6	5.7	5.8	5.9	6.1	6.2	6.2		
54			5.2	5.2	5.3	5.5	5.6	5.7	5.8	5.9	5.8	5.7		
56				5.2	5.2	5.3	5.4	5.6	5.6	5.4	5.3	5.1		
58					5.2	5.2	5.3	5.3	5.2	5	4.9	4.8	4.6	
60						5	4.9	4.8	4.7	4.6	4.4	4.3	4.1	
62							4.4	4.3	4.2	4.1	4	3.8	3.7	
64								3.9	3.8	3.7	3.6	3.4	3.3	
66									3.4	3.4	3.3	3.2	3	2.9
68										2.9	2.9	2.8	2.7	2.5
70											2.5	2.4	2.3	2.1
72												2	1.9	1.8

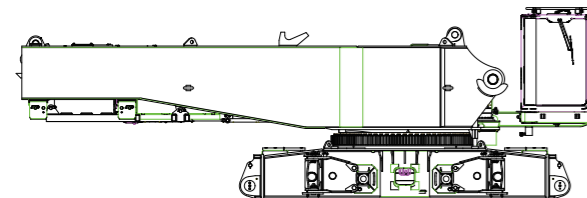
Main Parts



Basic machine transport plan A × 1

Length	11.5 m
Width	3.0 m
Height	3.2 m
Weigh	34.5 t

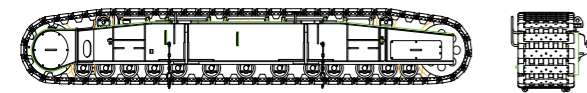
Include main luffing winch and rope, cab, mast, pulley block and etc. Not include optional parts such as turntable counterweight self-assembly device, tower jib single top winch



Basic machine transport plan B × 1

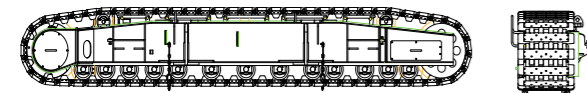
Length	10.0 m
Width	3.0 m
Height	3.2 m
Weigh	31 t

Not include main luffing winch and rope, mast, luffing pulley block, turntable counterweight self-assembly device, tower jib single top winch and etc.



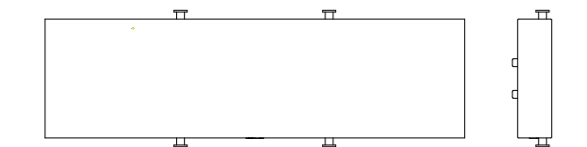
Left track frame × 1

Length	8.4 m
Width	1.5 m
Height	1.3 m
Weigh	15.4 t



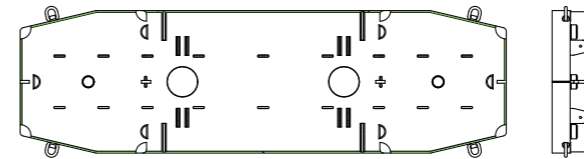
Right track frame × 1

Length	8.4 m
Width	1.5 m
Height	1.3 m
Weigh	15.4 t



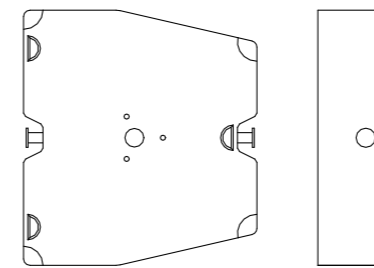
Car-body counterweight block × 2

Length	4.63 m
Width	1.03 m
Height	0.26 m
Weigh	3 t



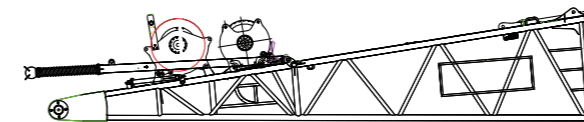
Turntable counterweight tray × 1

Length	6.74 m
Width	2.00 m
Height	0.61 m
Weigh	15.0 t



Turntable counterweight block × 8

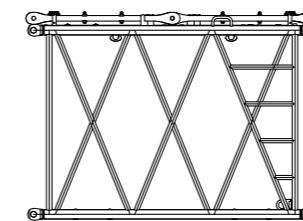
Length	1.80 m
Width	2.00 m
Height	0.68 m
Weigh	5.0 t



Boom butt × 1

Length	9.7 m
Width	3.0 m
Height	2.0 m
Weigh	6.6 t

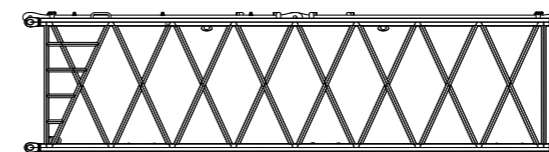
Include main winch, aux. winch and ropes, boom pendant, tower jib pendant, backstop device and etc.



Boom insert 3mA × 1

Length	3.17 m
Width	2.2 m
Height	2.0 m
Weigh	0.7 t

Include pendants

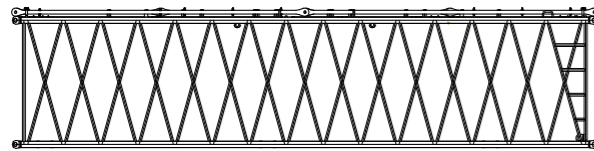


Boom insert 6mA × 1

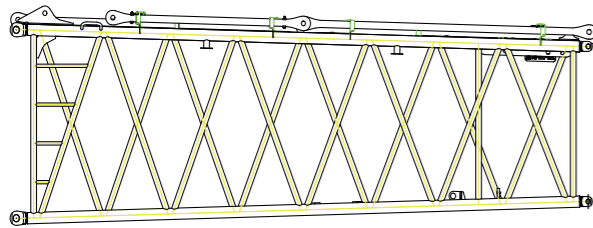
Length	6.2 m
Width	2.2 m
Height	2.0 m
Weigh	1.2 t

Include pendants

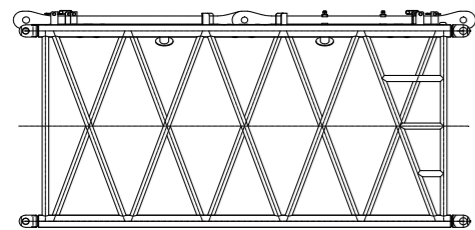
Main Parts



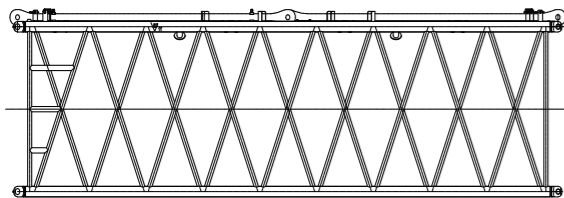
Boom insert 12mA	× 2
Length	12.2 m
Width	2.2 m
Height	2.0 m
Weigh	2.2 t
Include pendants	



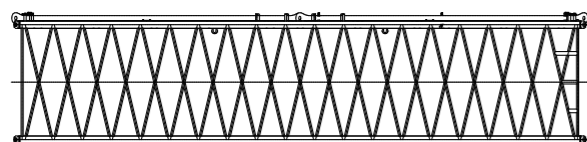
6m boom transition section	× 1
Length	6.2 m
Width	2.3 m
Height	2.0 m
Weigh	1.3 t
Include pendants	



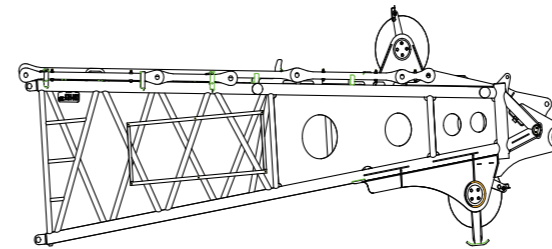
Boom insert 3mB	× 2
Length	3.2 m
Width	1.8 m
Height	1.6 m
Weigh	0.5 t
Include pendants	



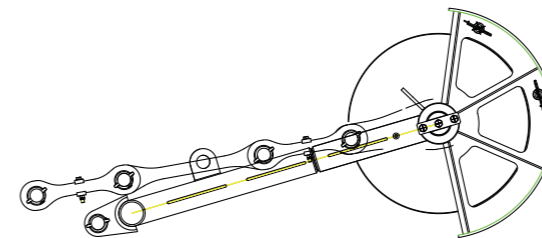
Boom insert 6 mB	× 1
Length	6.2 m
Width	1.8 m
Height	1.6 m
Weigh	0.8 t
Include pendants	



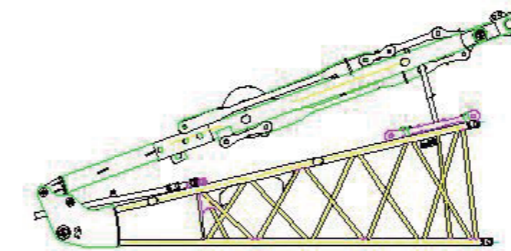
Boom insert 12mB	× 2
Length	12.2 m
Width	1.8 m
Height	1.6 m
Weigh	1.3 t
Include pendants	



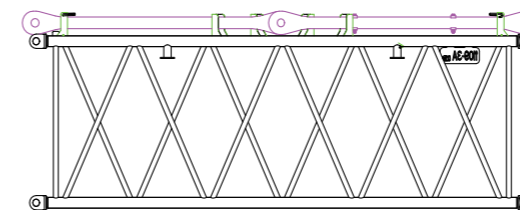
Boom top	× 1
Length	6.3 m
Width	2.3 m
Height	2.2 m
Weigh	2.7 t
Include pendants	



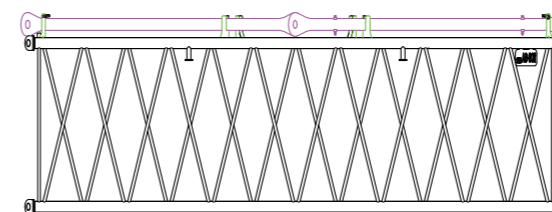
Single Top	× 1
Length	1.8 m
Width	1.16 m
Height	0.8 m
Weigh	0.2 t



Fixed jib two-piece set	× 1
Length	5.8 m
Width	2.0 m
Height	2.8 m
Weigh	2.2 t
Include fixed jib butt, fixed jib strut, backstop device and etc.	

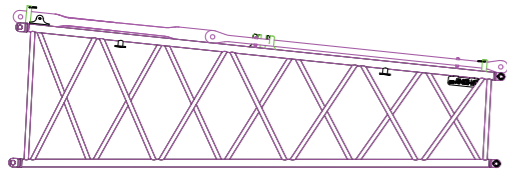


Jib insert 3 mC	× 1
Length	3.2 m
Width	1.2 m
Height	1.1 m
Weigh	0.25 t
Include pendant	

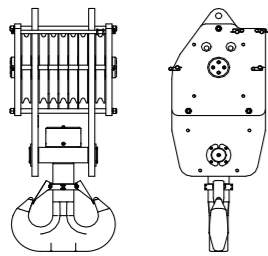


Jib insert 6 mC	× 1
Length	6.2 m
Width	1.2 m
Height	1.1 m
Weigh	0.41 t
Include pendant	

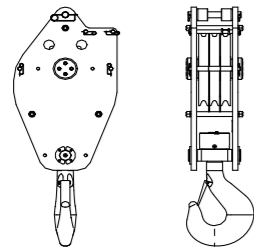
Main Parts



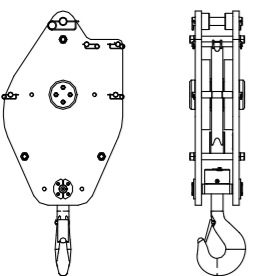
Jib transition insert	× 1
Length	5.2 m
Width	1.8 m
Height	1.7 m
Weigh	0.53 t
Include pendant	



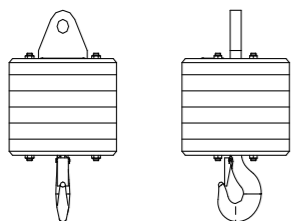
150t capacity hook block	× 1
Length	0.87 m
Width	0.76 m
Height	2.35 m
Weigh	2.20 t



80t capacity hook block	× 1
Length	0.76 m
Width	0.418 m
Height	1.998 m
Weigh	0.96 t



32t capacity hook block	× 1
Length	0.76 m
Width	0.35 m
Height	1.628 m
Weigh	0.73 t



13.5t capacity hook block	× 1
Length	0.485 m
Width	0.485 m
Height	0.787 m
Weigh	0.50 t

Notes:

- 1.The parts which are not listed above include clips, small size pin shafts, bolts, several small pendants or sling connectors, and etc., total weight is not more than 3t.
- 2.Slight difference is ineluctable during product manufacture, and dimension and weight of some parts are variable due to continuous improvement in products.
- 3.Various pendants are easy confused, so before transportation, customers should make marks on corresponding pendants to avoid unnecessary troubles.