ZOOMLION

ZOOMLION ZCC1500V-1 G3/E5 CRAWLER CRANE

TECHNICAL SPECIFICATIONS

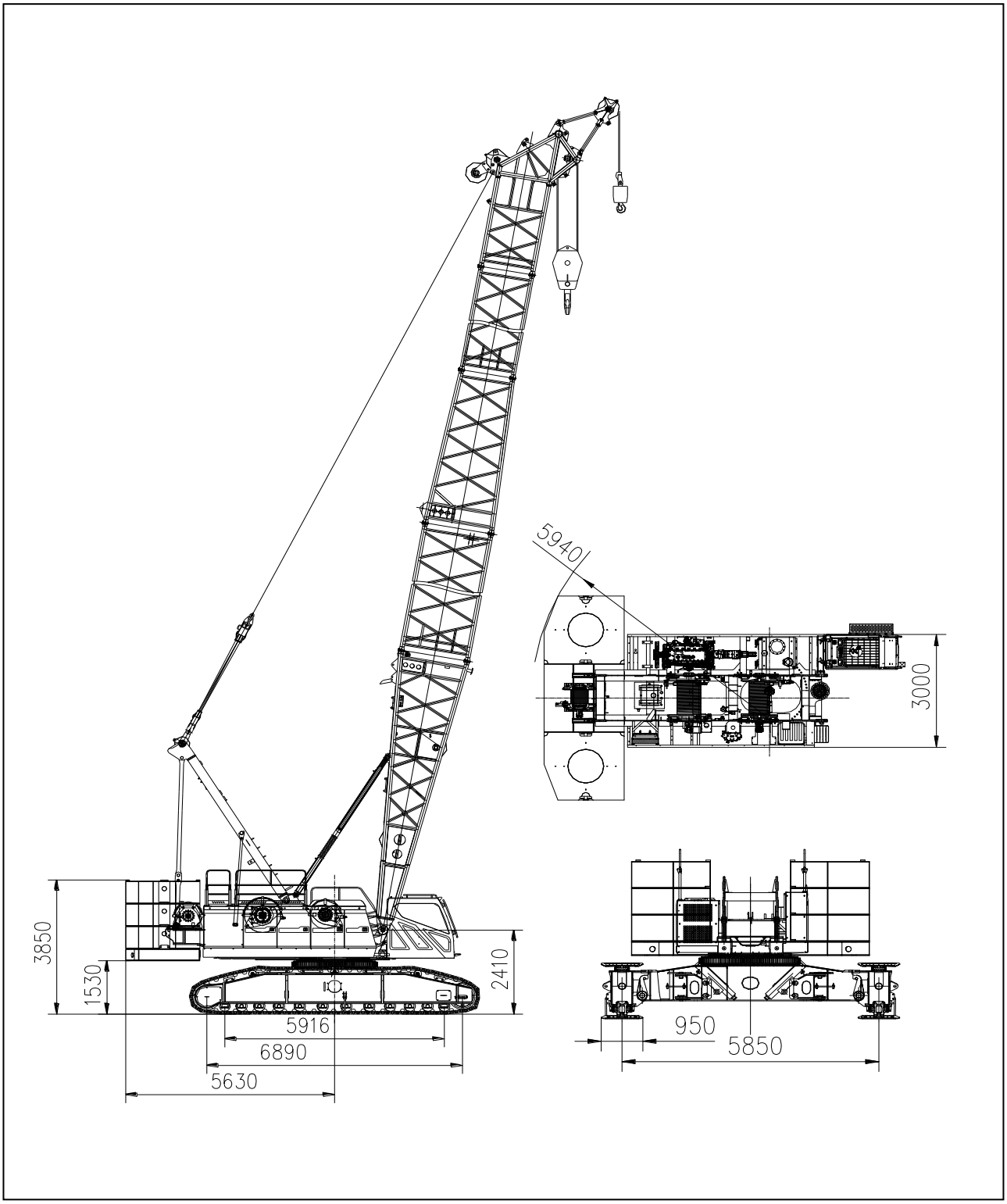
Zoomlion Heavy Industry Science & Technology Co.,Ltd.

Zoomlion ZCC1500V-1G3/E5 Crawler Crane

Technical Specifications

1. Overall dimensions and major technical parameters

1.1. Overall dimensions of the crane



1.2. Major technical parameters

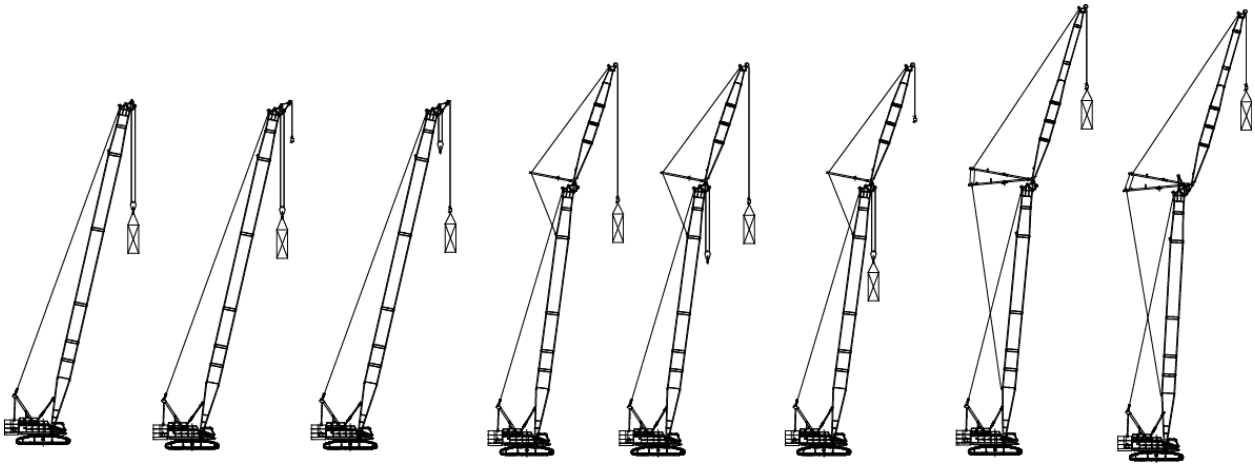
Major technical parameters

Category	Items	Unit	Values	Notes
Main boom operating mode	Max. rated lifting moment	t·m	861	
	Max. rated lifting capacity × radius	t×m	150×5	
	Length of main boom	m	16～76	
Fixed jib operating mode	Max. rated lifting capacity × radius	t×m	46.1×12	
	Length of fixed jib	m	13～31	
	Max. length of main boom + jib	m	52+31	
Luffing jib operating mode	Max. rated lifting capacity	t	46.8×12	
	Length of luffing jib	m	25～46	
	Max. length of main boom + jib	m	52+46	
Foldable luffing jib operating mode	Max. rated lifting capacity	t	30×12	
	Length of luffing jib	m	25～46	
	Max. length of main boom + jib	m	52+46	
Mechanism speed	Rope speed of main hoisting winch	m/min	140	
	Rope speed of secondary hoisting winch	m/min	110	
	Rope speed of main derricking winch	m/min	68.3	
	Slewing speed	rpm	1.23	
	Crawling speed	km/h	1.2	
Engine	Model / emission standard	L	WP10G336E344	CHINAⅢ for non-road mobile machinery
	Rated power / rotational speed	kW/rpm	247/1900	
	Max. output torque / rotational speed	kW/rpm	1550/1100-1400	
Engine	Model / emission standard	L	L9/8.9	Euro V for non-road mobile machinery
	Rated power / rotational speed	kW/rpm	246/2000	
	Max. output torque / rotational speed	kW/rpm	1636/1100	
Transport parameters	Deadweight of crawler crane	t	145.83	Basic boom with main hook
	Transport dimension of basic machine (length×width×height)	m	16.3×3.0×3.2	With pivot section
Other parameters	Average ground pressure (with basic boom)	MPa	0.11	
	Gradeability	%	30	
	Distance between two tracks × contact length of track × width of track pad	m	5.85×6.9×0.95	

	Slewing radius	m	5.94	

Attention: The value of ground pressure is a mean value. The actual maximum ground pressure shall be determined by the actual operating mode.

1.3. Illustrations of operating modes



S SH-1 SH-2 SF-1 SF-2 SF-3 SW-1 SW-2

Code	Operating mode	Rear counterweight + central ballast	Parameters	Description
S	Main boom	30t+10t	16m~52m	Load on main boom
		46t+10t	16m~58m	
		62t+20t	16m~67m	
		72t+10t	16m~76m	
		72t+20t	16m~76m	
SH-1	Main boom + tip boom (main hook)	62t+20t	16m~67m	Main boom: loaded Tip boom: unloaded
		72t+10t	25m~67m	
		72t+20t	22m~67m	
SH-2	Main boom + tip boom (auxiliary hook)	62t+20t	16m~67m	Main boom: unloaded Tip boom: loaded
		72t+10t	25m~67m	
		72t+20t	22m~67m	
SF-1	Main boom + fixed jib (auxiliary hook, without main hook)	72t+20t	(28m~52m) + (13m~31m)	Fixed jib: loaded Main boom: unloaded, no hook
SF-2	Main boom + fixed jib (auxiliary hook, with main hook)	72t+20t	(28m~52m) + (13m~31m)	Fixed jib: loaded Main boom: unloaded, with hook
SF-3	Main boom + fixed jib (main hook)	72t+20t	(28m~52m) + (13m~31m)	Main boom: loaded Fixed jib: unloaded but with hook
SW-1	Main boom + luffing jib (auxiliary hook)	72t+20t	(28m~52m) + (25m~46m)	Luffing jib: loaded Main boom: unloaded, no hook
SW-2	Main boom + foldable luffing jib (auxiliary hook)	72t+20t	(28m~52m) + (25m~46m)	Foldable luffing jib: loaded Main boom: unloaded, no hook

1.4. Major technical features

✪ Multiple operating modes, satisfying various needs of lifting

Available operating modes include: main boom operating mode (with tip boom), fixed jib operating mode, luffing jib operating mode, and foldable luffing jib operating mode.

✪ Superior lifting performance and wide working radius

The maximum lifting moment of main boom, the maximum lifting capacity of fixed jib and the maximum lifting capacity of luffing jib are of the superior level for crawler cranes of the same tonnage in the industry.

Slewing radius≤6m and shortest main boom of 16m; satisfying the need of lifting in narrow spaces.

The maximum elevation angle of main boom with a foldable luffing jib is 87°. A ground with a length of only 68m is needed for the assembly of a 52m main boom and a 46m luffing jib.

Selectable graded rear counterweight, relatively light weight of the basic machine and moderate track gauge satisfy the needs of lifting at construction sites like trestle that have special requirements for the weight and operation space of the crane.

✪ Extremely low cost for transport and super high efficiency of assembly and disassembly

Transport:

Transport weight of the basic machine with a pivot section≤32.5t; width of 3m and height of 3.2m; transported by a regular flatbed trailer. Transport of boom sections (one boom section fixed inside another; 3 pieces of boom sections can be fixed as a whole): full configuration for the operating mode of main boom + fixed jib can be transported with only five regular flatbed trailers.

Assembly and disassembly:

There is no need to assemble or disassemble the pivot section, which can be transported with the basic machine. An A-frame erecting cylinder is equipped to realize the erection of A-frame through power.

2. Technical instruction

2.1. Power unit

Weichai electronic-injection diesel engine: WP10G336E344

Rated power / rotational speed: 247kW/1900r/min

Maximum output torque / rotational speed: 1550N•m/1100~1400r/min

Emission standard: CHINA Ⅲ for non-road mobile machinery

Volume of fuel oil tank: 600L

Cummins electronic-injection diesel engine: L9

Rated power / rotational speed: 246kW/2000r/min

Maximum output torque / rotational speed: 1636N·m/1100r/min

Emission standard: Euro V for non-road mobile machinery

Volume of fuel oil tank: 600L

2.2. Hydraulic system

Hydraulic pump: two plunger pumps of famous brand; energy-saving, stable and reliable; it drives winches and the crawling mechanism; the triple gear pump is used for slewing, auxiliary operations and the dissipation of the hydraulic system.

Control system: a pilot proportional control hydraulic system with a load feedback system; two hydraulic joysticks and two foot-operated crawling control valves are used for controlling different executive components.

Actuators: The motor for hoisting winches is a variable plunger pump with large displacement, featuring high speed and high stability. Pin cylinders, cylinders for operator's cab and outrigger cylinders are also equipped.

Volume of hydraulic oil tank: 620L

2.3. Centralized display system

The large LCD touch screen of 10.4 inches displays in multiple languages. It displays all kinds of signals collected by the PLC controller, including engine speed, water temperature, fuel oil pressure, hydraulic pump pressure, motor pressure, levelness of the basic machine, etc. It carries out real-time monitoring on the working condition and sends out a yellow or a red alarm together with a sound alarm when the working condition of the crane is abnormal.

2.4. GPS/GPRS remote monitoring system

GPS/GPRS remote monitoring system is composed of the following parts: a vehicle-mounted computer system, a vehicle-mounted communication/navigation system, GPS global positioning system, GPRS wireless data transmission system, network server system, remote monitoring center

system, etc. It realizes such functions as global positioning of equipment, working information monitoring of equipment, fault diagnosis, remote maintenance, alarm, locking and theft prevention, etc.

2.5. Hoisting mechanism

Both the main hoisting winch and the secondary hoisting winch are driven by an axial hydraulic variable-displacement piston motor through a built-in planetary reducer. Braking of the spring on winch motor is controlled by the balancing valve. The reel with a double-rope groove guarantees that rope of multiple layers will not intertwine together.

	Main hoisting winch	Secondary hoisting winch
Rated single rope tension	13.5t	13.5t
Wire rope diameter	26mm	26mm
Wire rope length	340m	250m
Max. single rope speed	140m/min	110m/min

2.6. Derricking mechanism

The derricking winch is driven by an axial piston motor through a built-in planetary reducer and brakes through the spring on the motor end.

Cable drum lock: The winch is locked by ratchet wheel and ratchet pawl.

	Derricking winch
Rated single rope tension	10t
Wire rope diameter	20mm
Wire rope length	230m
Max. single rope speed	68.3m/min

2.7. Slewing mechanism

The slewing mechanism is composed of hydraulic motor, slewing reducer, control valve and slewing bearing. Small gear of the output shaft rotates around the slewing bearing ring fixed on the chassis so that the slewing platform makes slewing movement of 360°.

The slewing mechanism has the function of controllable free-slewing, which starts stably with less impact.

The external gearing three-row roller-type slewing bearing provides stronger bearing capacity so as to guarantee the stability and accuracy of slewing.

The slewing mechanism can be mechanically locked by the locking device.

Maximum slewing speed: 1.23rpm

2.8. Counterweight

Counterweight slabs are piled on the pallet and securely locked by a locking device.

Refer to the table below for the combination of counterweight: rear counterweight is composed of a pallet and two types of counterweight slabs: the pallet weighs14t; one type of counterweight slab weighs 8t (3 pieces; 24t in total); the other type of counterweight slab weighs 8t (3 pieces; 24t in total). The total weight of the counterweight weighs 62t.

Central ballast is composed of a pallet and four counterweight slabs (5t for each; 20t in total), two of which can be installed together with the rear counterweight to form a combination of 72t+10t. A counterweight slab of 10t can be purchased additionally to form a combination of 72t+20t.

Refer to the table below for specific combinations of counterweight:

Weight of counterweight		Pallet (14t)	Counterweight slab (left, 8t)	Counterweight slab (right, 8t)	Counterweight slab (left, 5t)	Counterweight slab (right, 5t)
Rear counterweight	30t	1	1	1		
	46t	1	2	2		
	62t	1	3	3		
	72t	1	3	3	1	1
Central ballast	10t				1	1
	20t				2	2

2.9. Operator's cab

Operator's cab of exclusive use for crawler crane; switch-controlled cab-pitching mechanism (pitching range: 0°~15°)

The seat in the cab is upgraded to an air-suspension soft seat, which offers a high standard of comfort during operation and avoids tiredness from sitting for too long.

Joysticks and the layout of CAN bus integrate switches are designed in accordance with ergonomics, ensuring better comfort during operation.

A color display of 10.4'' and a monitoring screen help the operator to know the real-time working condition of the crane.

Equipment for recreation: radio, bluetooth speaker, USB charging port

✪ Joysticks and control levels

Main hoisting winch, secondary hoisting winch, slewing and boom derricking are controlled by the cross pilot hydraulic-control joysticks.

Crawling and steering of the crane are controlled by the control levers (with foot pedals).

✪ Air conditioner

The cooling capacity of the upgraded electric-drive cold/warm air conditioner is largely improved. Temperature can be adjusted through the display, which is more convenient.

2.10. Crawling mechanism

The crawling mechanism adopts dual motors and dual reducers. Crawling of the two tracks is controlled by the two levers respectively. It is able to make such movements as crawling in a straight line, unilateral steering, differential steering, pivot steering and crawling with a load with high maneuverability and flexibility.

Crawling speed: 0～1.2km/h

Gradeability: 30%

Tensioning of track: The track is tensioned by a jack, which is convenient and reliable.

2.11. Safety devices

The crane is equipped with different types of safety and alarm devices, such as mechanical, electronic and hydraulic devices, that guarantee the safety of the crane.

✪ Load moment limiter

It consists of a load moment limiter and a digital LCD. If the lifting moment reaches 90% of the rated moment, the warning light is on and the buzzer sends out an alarm. The crane operation can be cut off automatically if the rated moment is reached, thus prevent an accident caused by overload and guaranteeing the crane's normal operation.

Data displayed on the LCD: 1, load moment ratio; 2, main boom angle; 3, main boom length; 4, working radius; 5, actual load on the hook; 6, permissible lifting capacity; 7, the maximum permissible height; 8, wind speed on boom head.

✪ Limit on hoisting height

Limit switch and limiting weight fixed on boom head are used to prevent excessive hoisting of the hook. When the hook is hoisted to a certain height, the limit switch send out a signal and the electrical system will automatically cut off the hoisting. Besides, the buzzer and the display in the operator's cab send out a sound-light alarm to avoid over-hoisting of the hook.

✪ Limit on main boom angle

When the main boom is derricked up to its maximum angle, the limit switch of the pivot section will be activated to cut off the upward derricking, and a sound-light alarm will be sent out from the cab.

✪ Protective device for over-unwinding of rope

The protective device will send out a signal and cut off the lowering of the hook when there are only three circles of rope left on the reel. A sound-light alarm will be also sent out from the operator's cab.

✪ Tilting-back support for boom

The tilting-back support, used to avoid backward tilting of the boom, is composed of nested steel tubes and spring.

✪ Slewing locking device

It is used to secure the superstructure and the undercarriage during transport, which must be unlocked during operation.

✪ Anti-unhooking device

The device is used to close off a hook to prevent a load from slipping off.

✪ Anemometer

With the electronic anemometer, real-time wind speed can be presented on the display.

✪ Electronic gradienter, mechanical gradienter

The electronic gradienter shows the levelness of the crane on the display, while the bubble-type mechanical gradienter is fixed on the chassis frame.

✪ Aviation warning light

It is fixed on the top of the boom for warning in the upper air.

✪ Main boom angle indicator

The main boom angle indicator is fixed at the rear lower end of the pivot section. The operator is able to see the elevation angle of the boom clearly from the operator's cab.

✪ Rearview mirror

At the front left side of the operator's cab.

✪ Automatic locking mechanism of ratchet wheel on derricking winch

It is used to lock the derricking winch when the crane is stopped.

✪ Emergency stop button

Press this button to shut down the engine and cut off all operations in emergency.

✪ Tri-color warning light

The warning light has three colors: red, yellow, and green. The loading condition of the crane can be displayed simultaneously. Green indicates that the load rate is below 90%; yellow indicates that the load rate ranges between 90% and 100%; red means that the load rate is beyond 100% and the crane is overloaded.

✪ Slewing alarm

It gives out a sound-light alarm during slewing.

✪ Crawling alarm

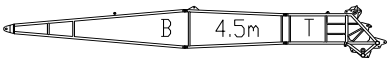
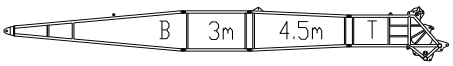
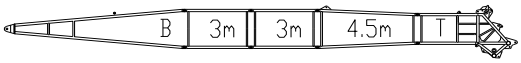
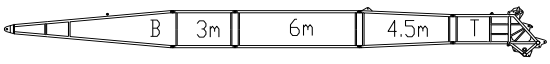
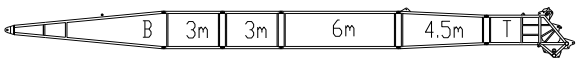
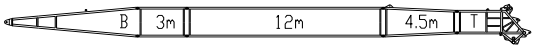
It gives out a sound-light alarm during crawling.

✪ Monitoring system

The crane is equipped with cameras and a video displayer, through which the real-time working condition of the hoisting winch and the blind area at the rear end of the crane can be monitored.

2.12. Boom

✪ Boom combinations for main boom operating mode

16m	
19m	
22m	
25m	
28m	
31m	
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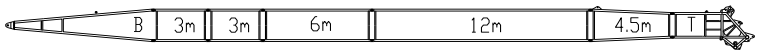
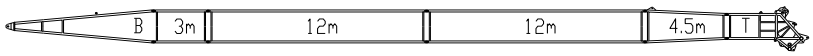
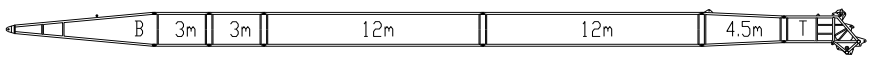
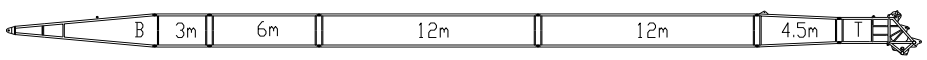
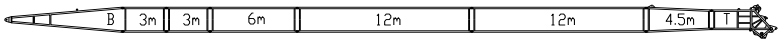
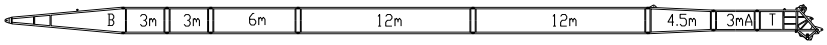
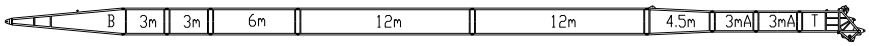
40m	
43m	
46m	
49m	

52m	
55m	
58m	
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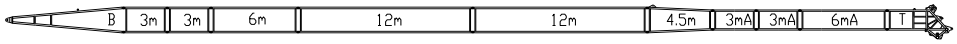
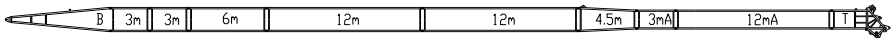
64m	
67m	
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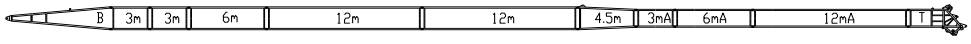
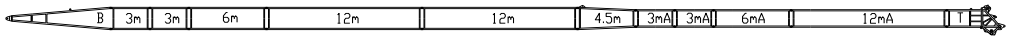
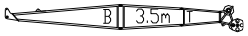
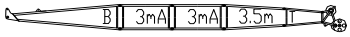
*73m	
*76m	

Note: “*” means that intermediate tensioners are needed.

✪ Boom combinations for fixed jib operating mode

13m	
19m	
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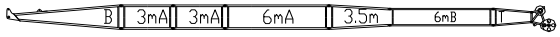
31m	

✪ Boom combinations for luffing jib/foldable jib operating mode

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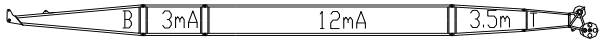
28m	
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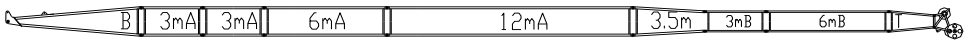
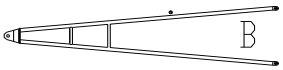
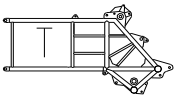
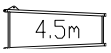
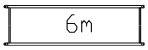
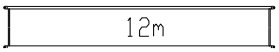
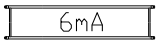
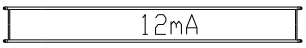
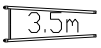
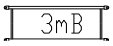
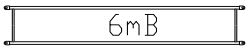
46m	

✪ Length and illustration of single boom section

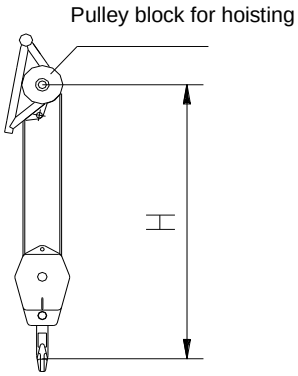
Illustration	Length	Name
	8m	Main boom pivot section
	3.5m	Main boom head section
	4.5m	Main boom reducing section
	3m	3m main boom intermediate section
	6m	6m main boom intermediate section
	12m	12m main boom intermediate section
	3m	3m main boom intermediate section A
	6m	6m main boom intermediate section A
	12m	12m main boom intermediate section A
	6.5m	Pivot section of fixed jib / luffing jib
	3m	Head section of fixed jib / luffing jib
	3.5m	Jib reducing section
	3m	3m jib intermediate section B
	6m	6m jib intermediate section B

2.13. Hook

Four types of hooks are available. Each hook is equipped with an anti-unhooking device.

Specification of hook	Weight of hook (Kg)	Number of pulleys
160 t	2221	7
100 t	1656	5
80 t	1414	3
32 t	979	1
13.5 t	420	0

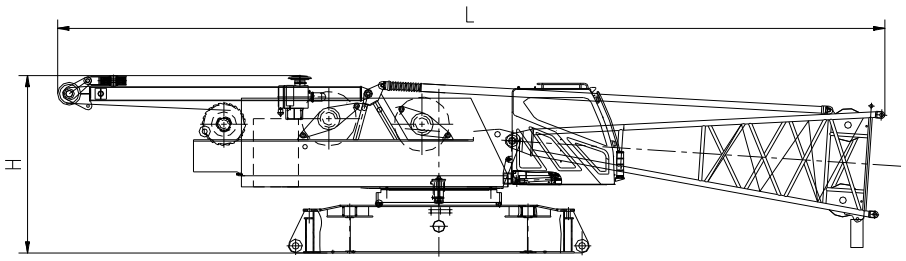
Hoisting limit height for different hooks:



Hook	Height
160t	5. 1m
100t	4. 9m
80t	4. 9m
32t	4. 8m
13.5t	4. 3m

3. Dimensions of parts in transport

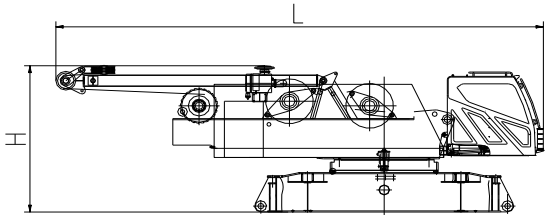
Basic machine 1	1 piece*



Length (L)	16300 mm
Width (W)	3000 mm
Height (H)	3200 mm
Weight	32500 kg

Note: with pivot section

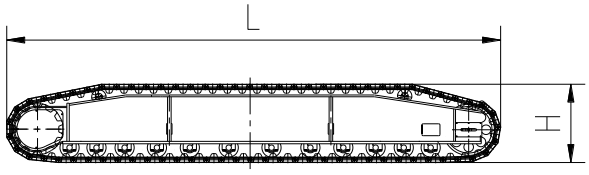
Basic machine 1	1 piece*



Length (L)	10100 mm
Width (W)	3000 mm
Height (H)	3200 mm
Weight	30000 kg

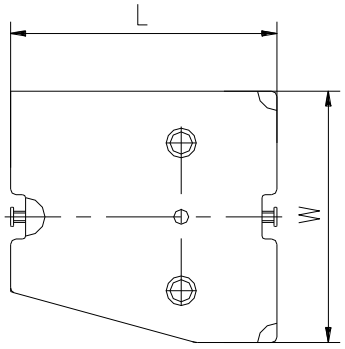
Without pivot section and tilting-back support

Crawler carrier assy.	2 pieces



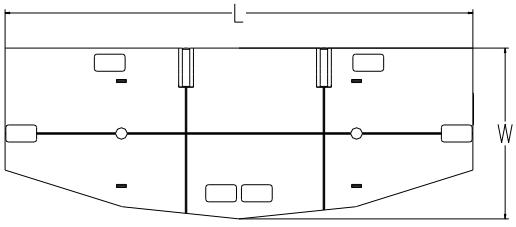
Length (L)	7830 mm
Width (W)	1180 mm
Height (H)	1385 mm
Weight	12500 kg

Central ballast	4 pieces



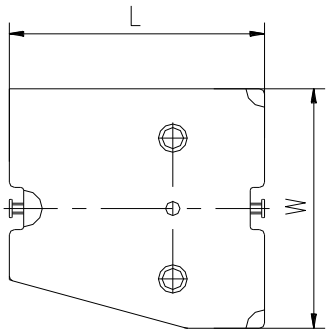
Length (L)	1790 mm
Width (W)	2000 mm
Height (H)	425 mm
Weight	5000 kg

Counterweight base	1 piece

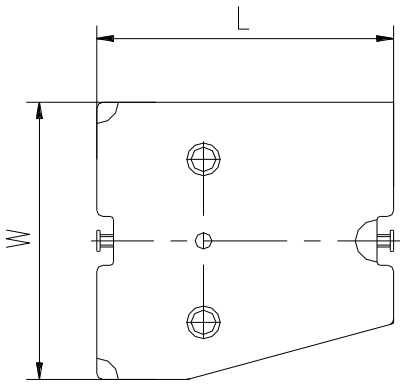


Length (L)	6000 mm
Width (W)	2000 mm
Height (H)	1180 mm
Weight	14000 kg

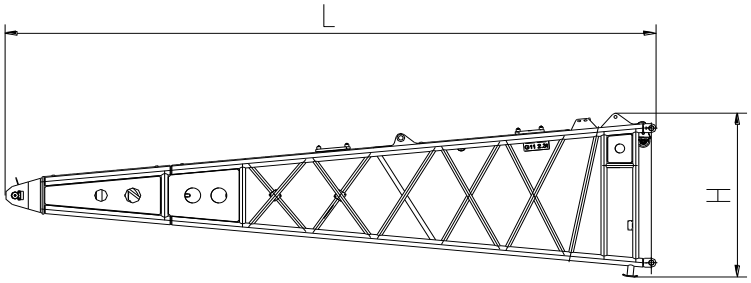
Counterweight slab 1	3 pieces
Length (L)	1790 mm
Width (W)	2000 mm
Height (H)	605 mm
Weight	8000 kg



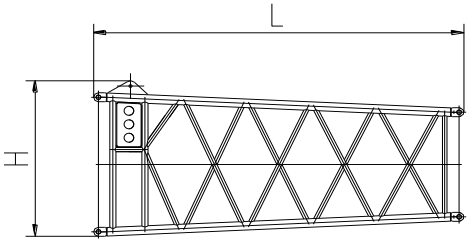
Counterweight slab 2	3 pieces
Length (L)	1790 mm
Width (W)	2000 mm
Height (H)	605 mm
Weight	8000 kg



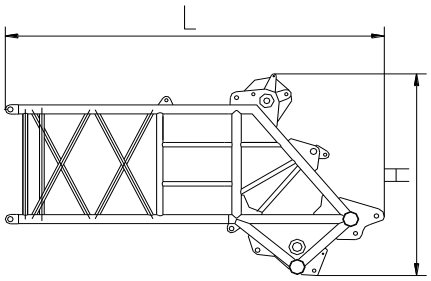
Main boom pivot section	1 piece
Length (L)	8185 mm
Width (W)	2220 mm
Height (H)	2200 mm
Weight	2332 kg



Main boom reducing section	1 piece
Length (L)	4620 mm
Width (W)	2220 mm
Height (H)	2080 mm
Weight	980 kg

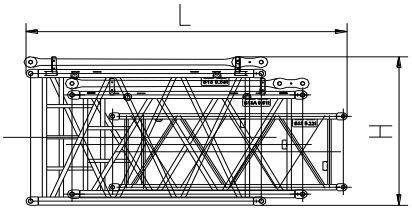


Main boom head section	1 piece



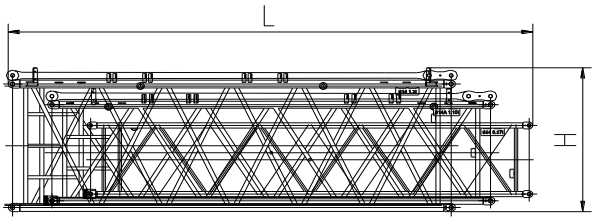
Length (L)	4570 mm
Width (W)	1840 mm
Height (H)	2700 mm
Weight	1940 kg

Package of 3m intermediate sections	2 pieces*



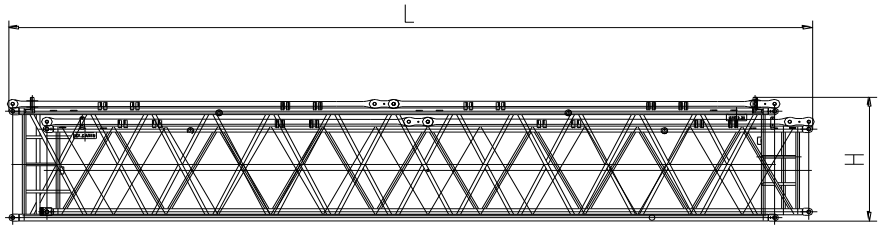
Length (L)	4180 mm
Width (W)	2220 mm
Height (H)	2100 mm
Weight	1413 kg

Package of 6m intermediate sections	1 piece*



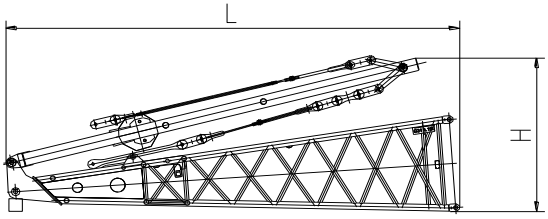
Length (L)	7180 mm
Width (W)	2220 mm
Height (H)	2100 mm
Weight	2387 kg

Package of 12m intermediate sections	2 pieces*



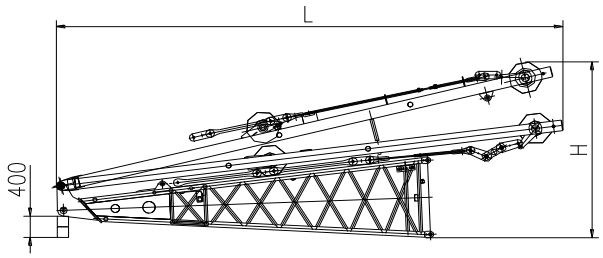
Length (L)	12700 mm
Width (W)	2220 mm
Height (H)	2100 mm
Weight	3741 kg

Fixed jib pivot section (with FA-frame and anchoring rods)	1 piece*



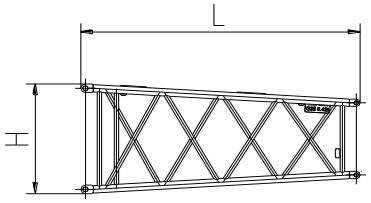
Length (L)	6740 mm
Width (W)	1820 mm
Height (H)	2340 mm
Weight	2126 kg

Luffing jib pivot section (with WA-frame and anchoring rods)	1 piece*



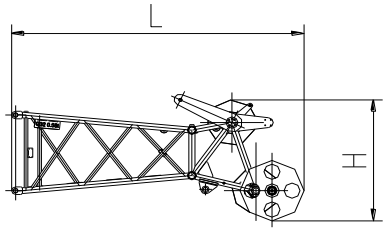
Length (L)	9000 mm
Width (W)	1820 mm
Height (H)	3320 mm
Weight	3687 kg

Jib reducing section	1 piece*



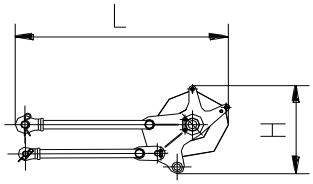
Length (L)	3610 mm
Width (W)	1840 mm
Height (H)	1250 mm
Weight	423 kg

Jib head section	1 piece*



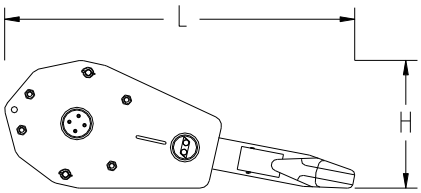
Length (L)	3650 mm
Width (W)	1330 mm
Height (H)	1600 mm
Weight	580 kg

Tip boom	1 piece



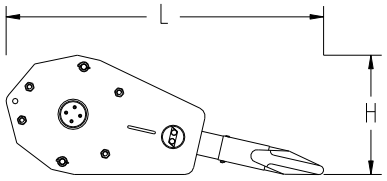
Length (L)	1800 mm
Width (W)	1200 mm
Height (H)	800 mm
Weight	215 kg

Hook (160t)	1 piece*

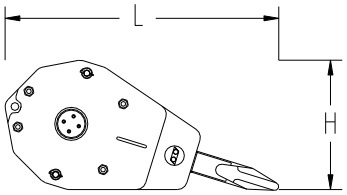


Length (L)	2000 mm
Width (W)	1070mm
Height (H)	780 mm
Weight	2221 kg

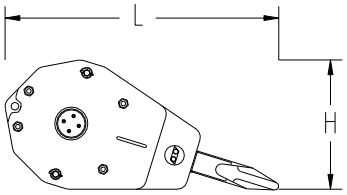
Hook (100t)	1 piece*
Length (L)	1810 mm
Width (W)	850 mm
Height (H)	780 mm
Weight	1656 kg



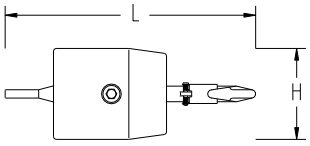
Hook (80t)	1 piece*
Length (L)	1800 mm
Width (W)	695 mm
Height (H)	790 mm
Weight	1414 kg



Hook (32t)	1 piece*
Length (L)	1630 mm
Width (W)	616 mm
Height (H)	780 mm
Weight	979 kg



Hook (13.5t)	1 piece*
Length (L)	1060 mm
Width (W)	390 mm
Height (H)	390 mm
Weight	420 kg



Notes:

1. Figures in the above table are schematic diagrams that are not drawn in fixed proportions. Dimensions shown are general boundary dimensions.

2. Packaging weight is not included. Weights might be different from what are listed in the above table due to manufacturing error.

3. Dimensions of actual products shall prevail if dimensions and weights differ from what are listed above due to parts improvement.

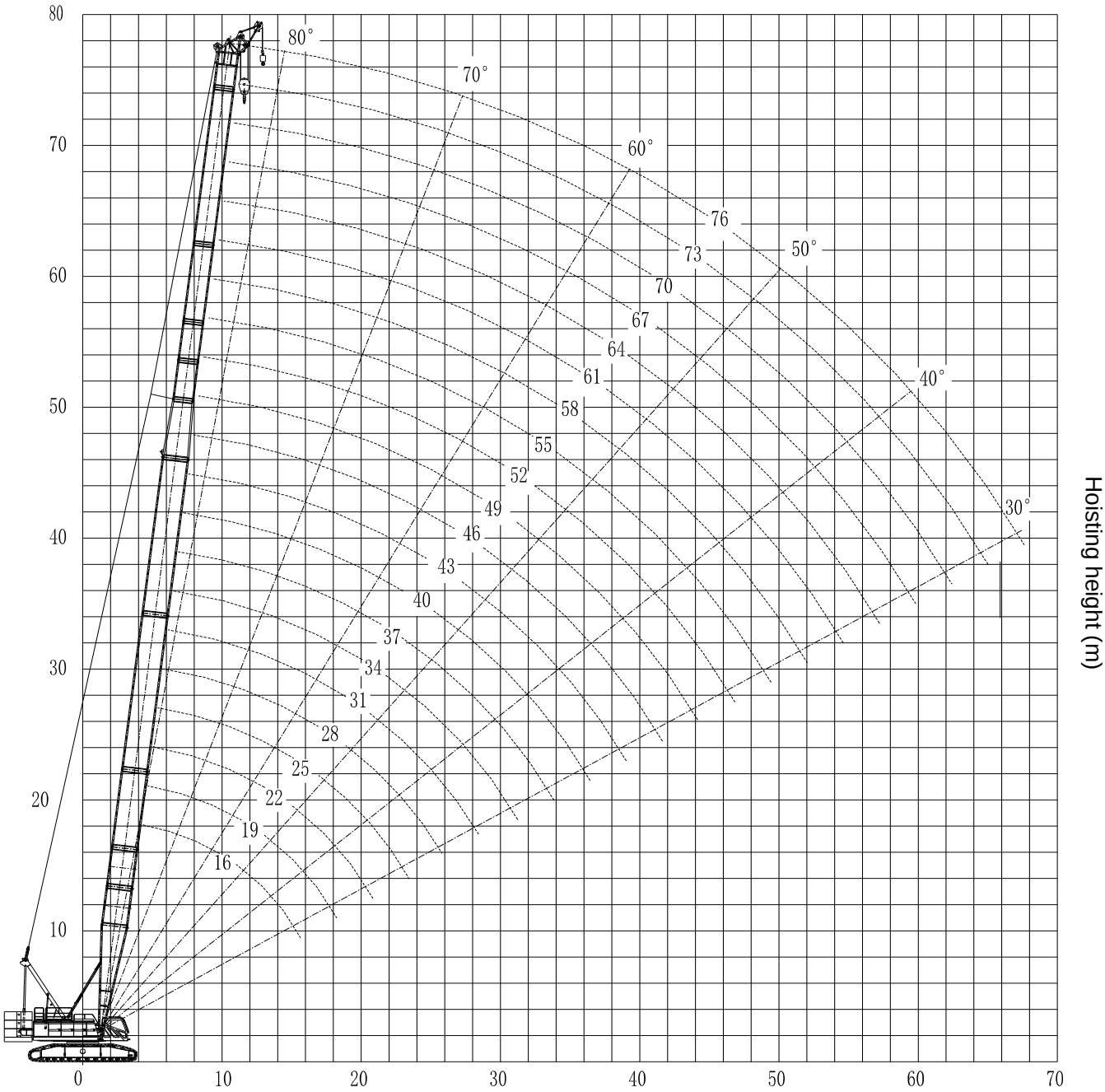
4. Number of parts marked with * are determined by actual needs.

4. Working radius and lifting capacity charts

4.1. Main boom operating mode

Hoisting height curves (S)

Unit: m



Lifting capacity chart (S) (rear counterweight of 62t + central ballast of 20t) Unit: t

Radius (m)	Length of main boom (m)																					Radius (m)
	16	19	22	25	28	31	34	37	40	43	46	49	52	55	58	61	64	67				
5	150	150																				5
6	141.6	141.6	141.6	138.9	133																	6
7	118	118	118	115	111	107	103.3	99.8														7
8	101.1	101.1	101.1	97.9	94.7	91.9	89	86.5	83.9	81.6	79.4											8
9	89.5	88.3	87.1	85.1	82.7	80.4	78.2	76.2	74.1	72.2	70.3	62.1	58.2									9
10	77.1	76.3	75.4	74.4	73.2	71.5	69.6	67.9	66.2	64.6	63.1	59.6	55.7	52.1	48.4	45.2						10
12	59.1	59.3	59.3	58.6	57.9	57.3	56.6	55.6	54.3	53.2	52.1	50.9	49.8	48.1	44.8	41.7	39.2	36.3				12
14	47.6	47.8	47.9	47.9	47.5	47.1	46.6	46	45.5	45	44.1	43.2	42.3	41.4	40.6	39.1	36.6	33.6				14
16		39.7	39.9	39.9	39.9	39.8	39.4	39	38.5	38.1	37.7	37.2	36.6	35.9	35.1	34.5	33.8	31.4				16
18		33.8	34	34	33.9	34	33.9	33.6	33.2	32.9	32.5	32.1	31.7	31.2	30.8	30.3	29.7	28.6				18
20			29.4	29.4	29.4	29.5	29.4	29.3	29.1	28.8	28.5	28.1	27.7	27.3	26.9	26.6	26.2	25.9				20
22				25.8	25.8	25.9	25.8	25.7	25.6	25.5	25.2	24.9	24.6	24.2	23.8	23.5	23.1	22.9				22
24					22.9	22.9	22.9	22.8	22.6	22.6	22.5	22.3	21.9	21.6	21.2	21	20.6	20.4				24
26					20.4	20.5	20.5	20.4	20.2	20.2	20.1	19.9	19.7	19.4	19.1	18.8	18.5	18.3				26
28						18.5	18.4	18.3	18.2	18.1	18	17.9	17.7	17.5	17.2	17	16.7	16.5				28
30							16.7	16.6	16.4	16.4	16.3	16.1	16	15.8	15.6	15.4	15.1	15				30
32								15.1	14.9	14.9	14.8	14.6	14.5	14.3	14.1	14	13.8	13.6				32
34									13.6	13.6	13.5	13.3	13.2	13	12.8	12.7	12.5	12.4				34
36									12.4	12.4	12.3	12.2	12	11.8	11.6	11.5	11.3	11.3				36
38										11.4	11.3	11.1	11	10.8	10.6	10.5	10.3	10.3				38
40											10.4	10.2	10	9.9	9.7	9.6	9.4	9.4				40
42												9.4	9.2	9	8.8	8.8	8.6	8.5				42
44												8.6	8.5	8.3	8.1	8	7.8	7.8				44
46													7.8	7.6	7.4	7.3	7.1	7.1				46
48														7	6.8	6.7	6.5	6.5				48

Radius (m)	Length of main boom (m)																				Radius (m)
	16	19	22	25	28	31	34	37	40	43	46	49	52	55	58	61	64	67			
50															6.2	6.1	6	5.9			50
52															5.7	5.6	5.4	5.4			52
54																5.1	4.9	4.9			54
56																	4.5	4.5			56
58																		4			58
60																					60
62																					62
64																					64
66																					66
Reeving	13	12	12	11	10	9	8	7	7	6	6	5	5	5	4	4	4	4	3	3	3	Reeving

Attention:

1. For tip boom operating mode, the lifting capacity is the main boom lifting capacity of the same radius, which shall not exceed 13.5t.
2. The main boom and the tip boom cannot be used simultaneously if a tip boom is fixed on the main boom.
3. Intermediate tensioners are needed for main booms marked with “*”.

Lifting capacity chart (S) (rear counterweight of 72t + central ballast of 00t) Unit: t

Radius (m)	Length of main boom (m)																					Radius (m)
	16	19	22	25	28	31	34	37	40	43	46	49	52	55	58	61	64	67	70*	73*	76*	
8									81.1	75.4	70.3											8
9								81.3	77	71.5	67	62.1	58.2									9
10					78.1	76.3	74.3	72.5	70.7	68.2	63.9	59.6	55.7	52.1	48.4	45.2						10
12				62.6	61.8	61.2	60.5	59.4	58	56.9	55.7	54.5	51.3	48.1	44.8	41.7	39.2	36.3	38	36.5	34.5	12
14				51.2	50.8	50.4	49.8	49.2	48.7	48.1	47.2	46.3	45.4	44.4	41.6	39.1	36.6	33.6	36.3	35	32	14
16				42.7	42.6	42.6	42.2	41.7	41.2	40.8	40.3	39.8	39.3	38.5	37.7	36.5	34.2	31.4	35	33	30.9	16
18				36.4	36.4	36.4	36.4	36	35.6	35.3	34.9	34.5	34	33.6	33.1	32.6	31.3	28.6	30.8	30.3	29.7	18
20				31.6	31.5	31.6	31.5	31.4	31.2	31	30.6	30.2	29.8	29.4	29	28.7	28.3	26.2	27.4	26.9	26.4	20
22				27.7	27.7	27.8	27.7	27.6	27.5	27.4	27.2	26.8	26.4	26.1	25.7	25.4	25	24.2	24.4	24	23.6	22
24					24.6	24.7	24.6	24.5	24.4	24.3	24.2	24	23.6	23.3	23	22.7	22.3	22.1	21.7	21.4	21.1	24
26					22	22.1	22	21.9	21.8	21.8	21.7	21.5	21.3	21	20.7	20.4	20.1	19.9	19.5	19.2	18.9	26
28						19.9	19.9	19.8	19.6	19.6	19.5	19.3	19.2	19	18.7	18.5	18.2	18	17.6	17.3	17	28
30							18	17.9	17.8	17.8	17.6	17.5	17.3	17.1	16.9	16.8	16.5	16.3	16	15.7	15.4	30
32								16.3	16.2	16.2	16	15.9	15.7	15.5	15.3	15.3	15	14.9	14.6	14.3	14	32
34									14.8	14.8	14.7	14.5	14.3	14.1	14	13.9	13.7	13.6	13.3	13.1	12.8	34
36									13.5	13.5	13.4	13.3	13.1	12.9	12.7	12.6	12.4	12.4	12.2	12	11.7	36
38										12.4	12.3	12.2	12	11.8	11.6	11.6	11.4	11.3	11.1	11	10.7	38
40											11.3	11.2	11	10.8	10.7	10.6	10.4	10.4	10.1	10	9.8	40
42												10.3	10.1	10	9.8	9.7	9.5	9.5	9.3	9.1	8.9	42
44												9.5	9.3	9.2	9	8.9	8.7	8.7	8.4	8.3	8.1	44
46													8.6	8.4	8.3	8.2	8	8	7.7	7.6	7.4	46
48														7.8	7.6	7.5	7.3	7.3	7.1	7	6.8	48
50															7	6.9	6.7	6.7	6.5	6.4	6.1	50
52															6.4	6.4	6.2	6.1	5.9	5.8	5.6	52
54																5.8	5.6	5.6	5.4	5.3	5.1	54

Radius (m)	Length of main boom (m)																					Radius (m)
	16	19	22	25	28	31	34	37	40	43	46	49	52	55	58	61	64	67	70*	73*	76*	
56																	5.2	5.1	4.9	4.8	4.6	56
58																		4.7	4.5	4.4	4.2	58
60																			4.1	4	3.7	60
62																						62
64																						64
66																						66
Reeving				11	10	9	8	8	7	6	6	5	5	5	4	4	4	4	3	3	3	Reeving

Attention:

1. For tip boom operating mode, the lifting capacity is the main boom lifting capacity of the same radius, which shall not exceed 13.5t.
2. The main boom and the tip boom cannot be used simultaneously if a tip boom is fixed on the main boom.
3. Intermediate tensioners are needed for main booms marked with “*”.

Lifting capacity chart (S) (rear counterweight of 72t + central ballast of 20t) Unit: t

Radius (m)	Length of main boom (m)																					Radius (m)
	16	19	22	25	28	31	34	37	40	43	46	49	52	55	58	61	64	67	70*	73*	76*	
7								92.8														7
8				106	104	101	94.1	86.5	81.1	75.4	70.3											8
9			93.8	92.3	90.8	88.4	86	81.6	77	71.5	67	62.1	58.2									9
10			81.3	80.1	79	77.9	76.6	74.6	72.8	68.2	63.9	59.6	55.7	52.1	48.4	45.2						10
12			64.2	63.3	62.4	61.7	60.9	60.1	59.3	58.6	57.4	54.5	51.3	48.1	44.8	41.7	39.2	36.3	38	36.5	34.5	12
14			52.1	52	51.4	50.9	50.3	49.7	49	48.5	47.9	47.3	46.6	44.6	41.6	39.1	36.6	33.6	36.3	35	32	14
16			43.6	43.4	43.3	43.2	42.7	42.1	41.6	41.2	40.6	40.1	39.6	39.1	38.5	36.5	34.2	31.4	34.8	33	30.9	16
18			37.3	37.2	37	37	36.8	36.5	36	35.6	35.2	34.7	34.3	33.8	33.3	33	31.3	28.6	30.9	30.3	29.7	18
20			32.6	32.4	32.2	32.2	32	31.8	31.6	31.3	30.9	30.5	30.1	29.7	29.2	28.9	28.4	26.2	27.7	27.4	26.9	20
22				28.6	28.4	28.4	28.2	28.1	27.9	27.8	27.5	27.1	26.7	26.3	25.9	25.6	25.2	24.2	24.5	24.2	23.8	22
24					25.3	25.3	25.1	25	24.8	24.7	24.5	24.3	23.9	23.6	23.2	22.9	22.5	22.3	21.9	21.6	21.2	24
26					22.8	22.7	22.6	22.4	22.2	22.1	22	21.8	21.6	21.2	20.9	20.6	20.3	20	19.7	19.4	19	26
28						20.6	20.5	20.3	20.1	20	19.8	19.6	19.4	19.2	18.9	18.7	18.4	18.2	17.8	17.5	17.2	28
30							18.6	18.4	18.2	18.2	18	17.8	17.6	17.4	17.2	17	16.7	16.5	16.2	15.9	15.6	30
32								16.8	16.6	16.6	16.4	16.2	16	15.8	15.6	15.5	15.2	15.1	14.8	14.5	14.2	32
34									15.3	15.2	15	14.8	14.6	14.4	14.2	14.1	13.9	13.8	13.5	13.3	13	34
36									14.1	14	13.8	13.6	13.4	13.2	13	12.9	12.7	12.6	12.4	12.2	11.9	36
38										12.9	12.7	12.5	12.3	12.1	11.9	11.8	11.6	11.5	11.3	11.2	10.9	38
40											11.8	11.6	11.4	11.2	10.9	10.8	10.6	10.6	10.4	10.2	10	40
42												10.7	10.5	10.3	10.1	10	9.7	9.7	9.5	9.3	9.1	42
44												9.9	9.7	9.5	9.3	9.2	9	8.9	8.7	8.6	8.3	44
46													9	8.8	8.6	8.5	8.2	8.2	8	7.8	7.6	46
48														8.1	7.9	7.8	7.6	7.5	7.3	7.2	7	48
50															7.3	7.2	7	6.9	6.7	6.6	6.4	50

Radius (m)	Length of main boom (m)																					Radius (m)
	16	19	22	25	28	31	34	37	40	43	46	49	52	55	58	61	64	67	70*	73*	76*	
52															6.8	6.7	6.4	6.4	6.2	6	5.8	52
54																6.2	5.9	5.9	5.7	5.5	5.3	54
56																	5.5	5.4	5.2	5.1	4.8	56
58																		4.8	4.8	4.6	4.4	58
60																			4.4	4.2	4	60
62																			4	3.8	3.6	62
64																				3.5	3.3	64
66																					2.9	66
Reeving			12	11	10	9	8	8	7	6	6	5	5	5	4	4	4	4	3	3	3	Reeving

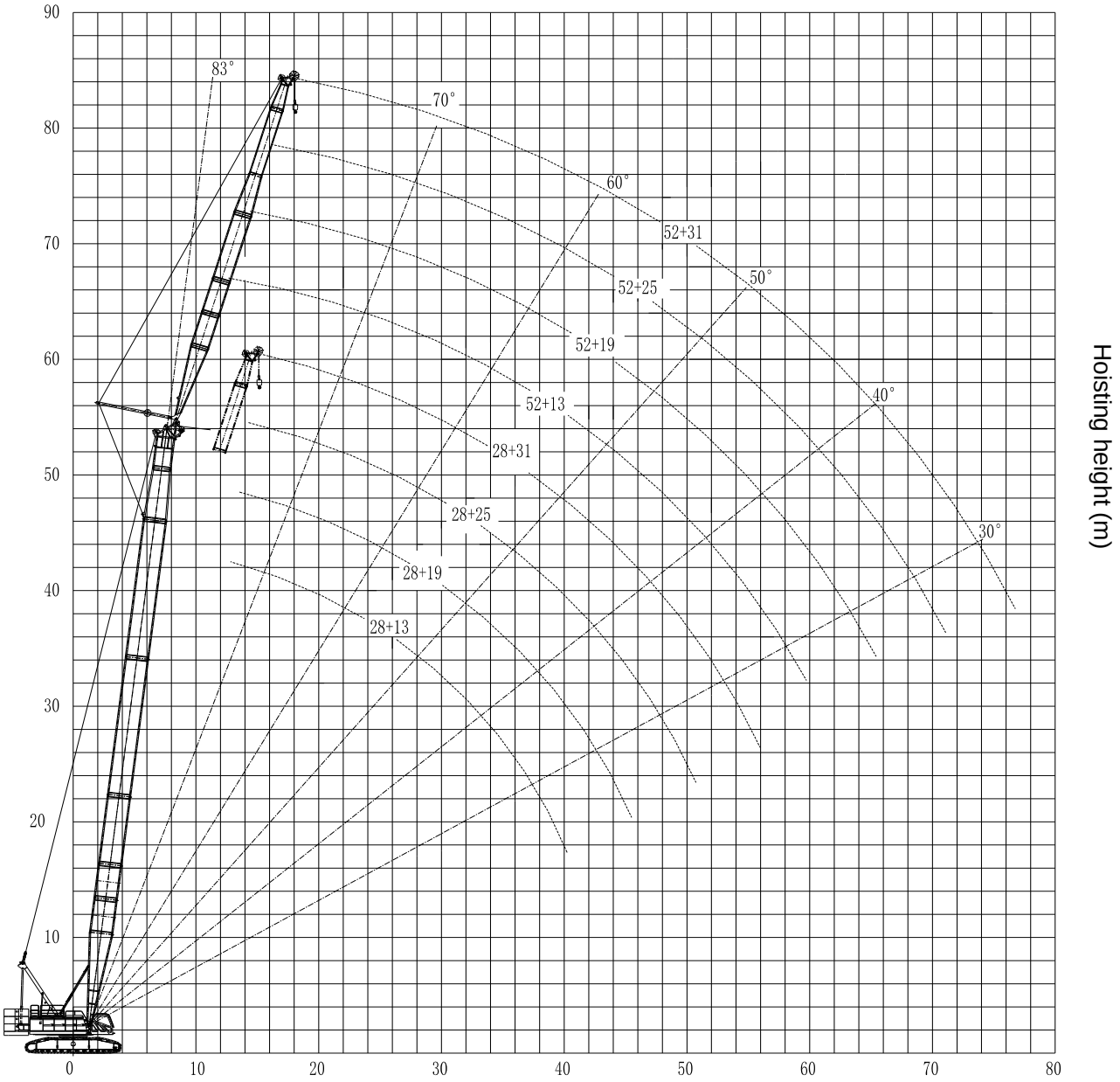
Attention:

1. For tip boom operating mode, the lifting capacity is the main boom lifting capacity of the same radius, which shall not exceed 13.5t.
2. The main boom and the tip boom cannot be used simultaneously if a tip boom is fixed on the main boom.
3. Intermediate tensioners are needed for main booms marked with “*”.

4.2. Operating mode of main boom + fixed jib

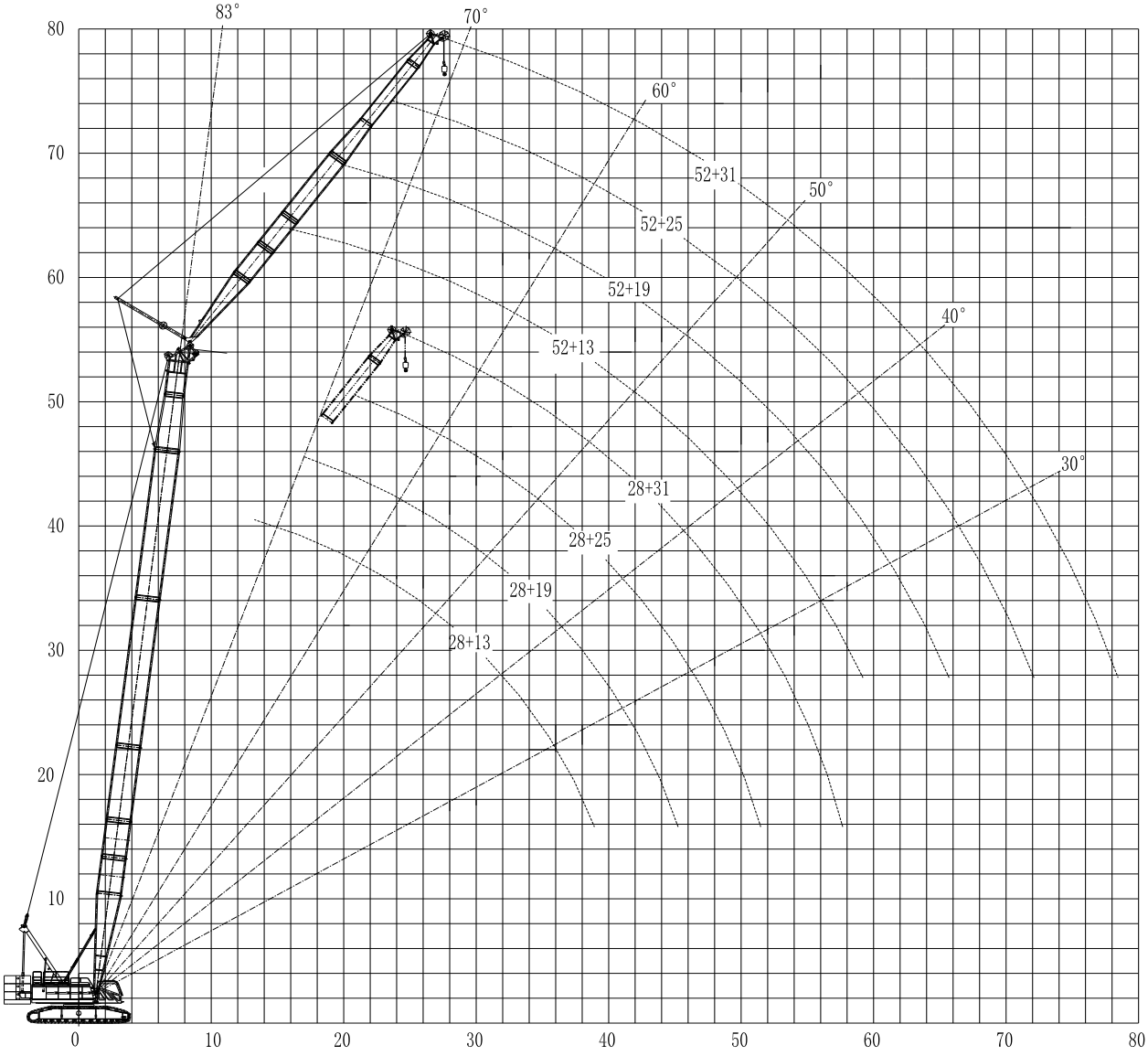
Hoisting height curves (SF, 10°)

Unit: m



Hoisting height curves (SF, 30°)

Unit: m



Lifting capacity chart (SF-1) (rear counterweight of 72t + central ballast of 20t) Unit: t

Main boom (m)	28	31	34	37	40	43	46	49	52	Main boom (m)
Radius (m)	Fixed jib length: 13m; Included angle between main boom and jib:10°									Radius (m)
12	46.1									12
14	42.2	42.3	42.5	42.6						14
16	39.1	39.2	39.4	39.8	39.9	39.7	39.2	38.5		16
18	36.4	36	35.6	35.1	34.7	34.3	33.9	33.5	33	18
20	32	31.6	31.2	30.8	30.5	30.1	29.7	29.3	28.9	20
22	28.3	28.1	27.8	27.4	27	26.7	26.3	26	25.6	22
24	25.1	25	24.9	24.5	24.2	23.9	23.5	23.2	22.9	24
26	22.5	22.4	22.2	22.1	21.8	21.5	21.2	20.9	20.6	26
28	20.3	20.2	20.1	19.9	19.7	19.5	19.2	18.9	18.6	28
30	18.5	18.4	18.2	18	17.8	17.7	17.5	17.2	16.9	30
32	16.9	16.7	16.6	16.4	16.2	16	15.9	15.7	15.4	32
34	15.5	15.3	15.2	14.9	14.8	14.6	14.5	14.3	14.1	34
36	14.2	14.1	13.9	13.7	13.5	13.4	13.2	13	12.8	36
38	13.1	13	12.8	12.6	12.4	12.3	12.1	11.9	11.7	38
40		12	11.8	11.6	11.4	11.3	11.1	10.9	10.7	40
42			10.9	10.7	10.5	10.4	10.2	10	9.8	42
44			10.1	9.9	9.7	9.6	9.4	9.2	9	44
46				9.2	9	8.9	8.7	8.5	8.3	46
48					8.3	8.2	8	7.8	7.6	48
50						7.6	7.4	7.2	7	50
52						7	6.8	6.6	6.4	52
54							6.3	6.1	5.9	54
56								5.6	5.4	56
58									5	58
Reeving	4	4	4	4	3	3	3	3	3	Reeving

Lifting capacity chart (SF-1) (rear counterweight of 72t + central ballast of 20t) Unit: t

Main boom (m)	28	31	34	37	40	43	46	49	52	Main boom (m)
Radius (m)	Fixed jib length: 19m; Included angle between main boom and jib:10°									Radius (m)
14	35.2									14
16	32.4	32.3	32.4	32.4						16
18	29.9	29.9	30.1	30.1	30.5	30.6	29.9	29.6		18
20	27.9	28	28.1	28.3	28.6	28.8	28.3	27.9	27.4	20
22	26.1	26.1	26.4	26.6	26.6	26.2	25.9	25.5	25.2	22
24	24.5	24.6	24.5	24.1	23.8	23.5	23.1	22.8	22.5	24
26	22.4	22.3	22.1	21.8	21.4	21.1	20.8	20.5	20.2	26
28	20.2	20.1	19.9	19.7	19.4	19.2	18.9	18.5	18.2	28
30	18.4	18.2	18.1	17.9	17.7	17.4	17.2	16.8	16.6	30
32	16.7	16.6	16.4	16.2	16	15.9	15.7	15.4	15.1	32
34	15.3	15.2	15	14.8	14.6	14.5	14.3	14.1	13.8	34
36	14.1	13.9	13.8	13.6	13.3	13.2	13	12.8	12.6	36
38	13	12.8	12.7	12.4	12.2	12.1	11.9	11.7	11.5	38
40	12	11.8	11.7	11.4	11.2	11.1	10.9	10.7	10.5	40
42	11.1	10.9	10.8	10.5	10.3	10.2	10	9.8	9.6	42
44	10.3	10.1	10	9.7	9.5	9.4	9.2	9	8.8	44
46		9.4	9.2	9	8.8	8.7	8.5	8.3	8.1	46
48			8.5	8.3	8.1	8	7.8	7.6	7.4	48
50				7.7	7.5	7.4	7.2	7	6.8	50
52				7.1	6.9	6.8	6.6	6.4	6.2	52
54					6.4	6.3	6.1	5.9	5.7	54
56						5.8	5.6	5.4	5.2	56
58							5.1	4.9	4.7	58
60							4.7	4.5	4.3	60
62								4.1	3.9	62
64									3.5	64
Reeving	3	3	3	3	3	3	3	3	3	Reeving

Lifting capacity chart (SF-1) (rear counterweight of 72t + central ballast of 20t) Unit: t

Main boom (m)	28	31	34	37	40	43	46	49	52	Main boom (m)
Radius (m)	Fixed jib length: 25m; Included angle between main boom and jib:10°									Radius (m)
18	25.9	25.8	25.8	25.8						18
20	24.1	23.9	24	24.1	24.1	24.2	23.9	23.5		20
22	22.5	22.3	22.5	22.6	22.6	22.8	22.6	22.2	21.6	22
24	21	20.9	21.1	21.2	21.3	21.5	21.3	21	20.5	24
26	19.7	19.7	19.9	20	20.1	20.3	20.2	19.9	19.5	26
28	18.7	18.7	18.8	18.9	19	18.8	18.5	18.2	17.9	28
30	17.7	17.7	17.8	17.7	17.4	17.1	16.9	16.6	16.3	30
32	16.7	16.5	16.3	16.2	15.9	15.7	15.4	15.1	14.8	32
34	15.3	15.1	14.9	14.7	14.5	14.4	14.1	13.8	13.5	34
36	14	13.8	13.7	13.5	13.3	13.1	12.9	12.7	12.4	36
38	12.9	12.7	12.5	12.3	12.1	12	11.8	11.6	11.4	38
40	11.9	11.7	11.6	11.3	11.1	11	10.8	10.6	10.4	40
42	11	10.8	10.7	10.4	10.2	10.1	9.9	9.7	9.5	42
44	10.2	10	9.8	9.6	9.4	9.3	9.1	8.9	8.7	44
46	9.4	9.3	9.1	8.9	8.7	8.5	8.4	8.1	8	46
48	8.8	8.6	8.4	8.2	8	7.9	7.7	7.5	7.3	48
50	8.1	8	7.8	7.6	7.4	7.2	7.1	6.9	6.6	50
52		7.4	7.2	7	6.8	6.7	6.5	6.3	6.1	52
54			6.7	6.5	6.3	6.1	6	5.7	5.5	54
56				6	5.8	5.7	5.5	5.3	5.1	56
58				5.5	5.3	5.2	5	4.8	4.6	58
60					4.9	4.8	4.6	4.4	4.2	60
62						4.4	4.2	4	3.8	62
64							3.8	3.6	3.4	64
66								3.2	3	66
Reeving	2	2	2	2	2	2	2	2	2	Reeving

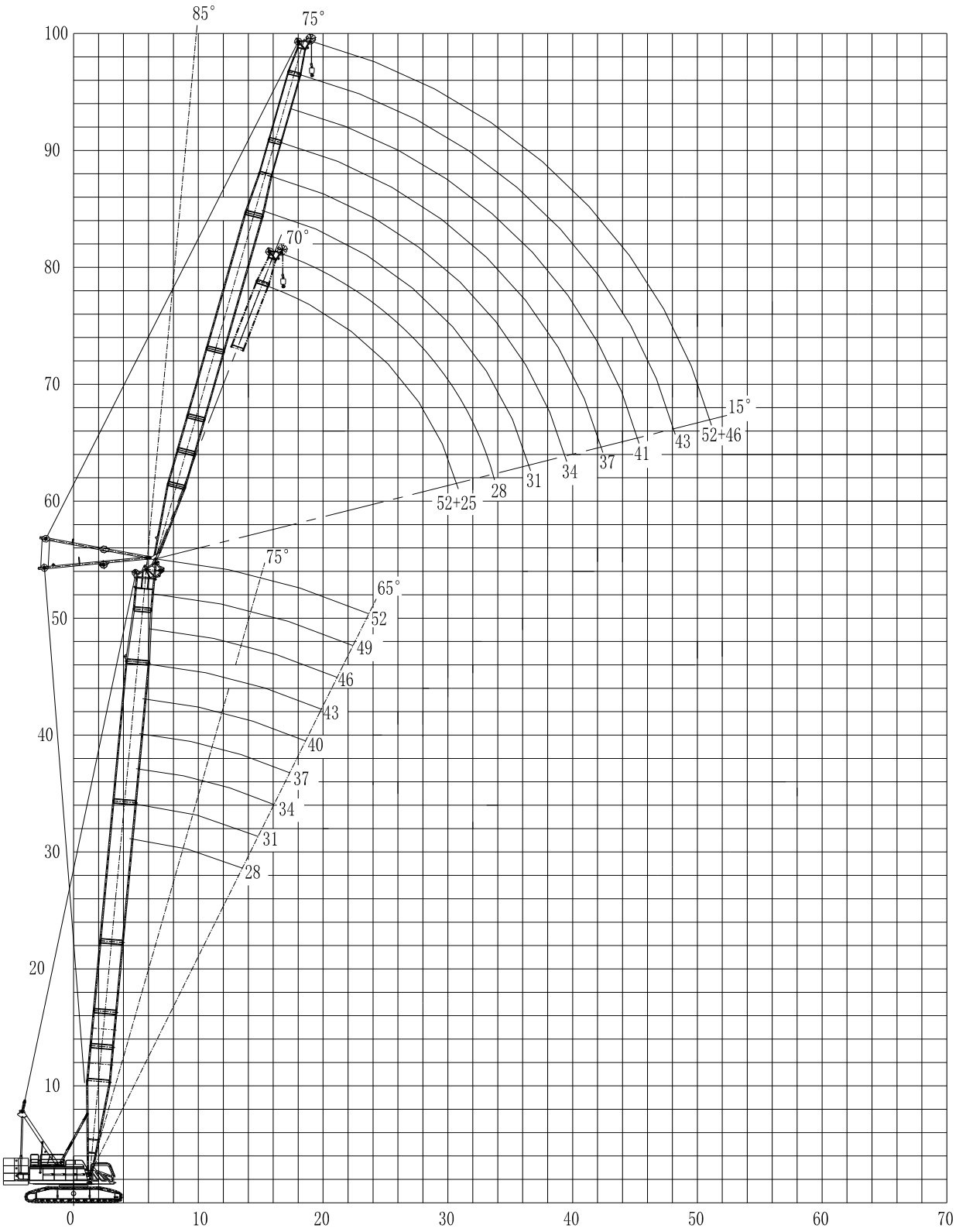
Lifting capacity chart (SF-1) (rear counterweight of 72t + central ballast of 20t) Unit: t

Main boom (m)	28	31	34	37	40	43	46	49	52	Main boom (m)
Radius (m)	Fixed jib length: 31m; Included angle between main boom and jib:10°									Radius (m)
20	20.7	20.6	20.5	20.5						20
22	19.2	19.1	19	19.1	19.2	19.3	18.8	18.5		22
24	17.9	17.8	17.8	17.8	17.9	18.1	17.8	17.5	17.2	24
26	16.8	16.7	16.7	16.8	16.9	17	16.7	16.5	16.2	26
28	15.7	15.7	15.7	15.8	15.9	16	15.9	15.6	15.3	28
30	14.8	14.8	14.8	14.9	15	15.2	15	14.8	14.6	30
32	14	14	14	14.2	14.3	14.4	14.3	14.1	13.9	32
34	13.3	13.3	13.3	13.4	13.5	13.6	13.3	13	12.7	34
36	12.5	12.6	12.6	12.8	12.6	12.4	12.2	11.9	11.6	36
38	11.9	12	11.9	11.7	11.5	11.3	11.1	10.9	10.6	38
40	11.2	11.1	10.9	10.7	10.5	10.3	10.1	10	9.7	40
42	10.3	10.2	10	9.8	9.6	9.4	9.2	9	8.9	42
44	9.5	9.4	9.2	9	8.8	8.6	8.4	8.2	8	44
46	8.8	8.6	8.4	8.2	8	7.8	7.7	7.5	7.3	46
48	8.1	7.9	7.7	7.5	7.3	7.2	7	6.8	6.6	48
50	7.5	7.3	7.1	6.9	6.7	6.5	6.4	6.2	6	50
52	6.9	6.7	6.6	6.3	6.1	6	5.8	5.6	5.4	52
54	6.4	6.2	6	5.8	5.6	5.4	5.3	5	4.8	54
56	5.9	5.7	5.5	5.3	5.1	4.9	4.8	4.5	4.3	56
58		5.3	5.1	4.9	4.6	4.5	4.3	4.1	3.9	58
60			4.6	4.4	4.2	4.1	3.9	3.7	3.5	60
62				4	3.8	3.7	3.5	3.3	3	62
64					3.4	3.3	3.1	2.9	2.7	64
Reeving	2	2	2	2	2	2	2	2	2	Reeving

4.3. Operating mode of main boom + luffing jib

Hoisting height curves (SW-1)

Unit: m



Lifting capacity chart (SW-1) (rear counterweight of 72t + central ballast of 20t) Unit: t

Luffing jib:	25	28	31	34	37	40	43	46	Luffing jib:
Radius (m)	Main boom length:28m； Main boom angle:85°								Radius (m)
12	46.8								12
14	46.5	41.6	36.3	31.6					14
16	42	41	36.3	31.6	28.6	25.5			16
18	36.7	36.4	35.9	31.6	28.6	25.5	23	20.1	18
20	32.7	32.3	31.9	31.2	28.6	25.5	23	20.1	20
22	29.4	29.1	28.7	28	27.7	25.5	23	20	22
24	26.4	26.4	26	25.4	25.1	24.6	22	18.8	24
26	22.7	23.9	23.8	23.3	22.9	22.5	19.6	16.6	26
28	17.8	20.8	21.7	21.4	21	20.6	17.6	14.8	28
30		17.9	19.2	19.7	19.5	19	16	13.1	30
32			16.8	17.5	17.8	17.3	14.5	11.8	32
34			13.9	15.6	16.1	16	13.1	10.5	34
36				13.6	14.4	14.8	12	9.4	36
38					12.8	13.3	10.9	8.3	38
40					10.8	12	9.9	7.4	40
42						10.5	9.1	6.6	42
44							8.3	5.9	44
46							7.5	5.2	46
48								4.5	48
Reeving	4	4	3	3	3	2	2	2	Reeving

Lifting capacity chart (SW-1) (rear counterweight of 72t + central ballast of 20t) Unit: t

jib (m)	25	28	31	34	37	40	43	46	jib (m)
Radius (m)	Main boom length:31m； Main boom angle:85°								Radius (m)
14	44.4								14
16	41.5	39.6	34.4	30.9	27.5	24.6			16
18	36.4	36	34.4	30.9	27.5	24.6	21.9	19.4	18
20	32.3	32	31.3	30.9	27.5	24.6	21.9	19.4	20
22	29.1	28.8	28.1	27.7	27.4	24.6	21.9	19.4	22
24	26.4	26.1	25.5	25.2	24.8	24.3	21.9	18.5	24
26	23.2	24	23.4	23.1	22.7	22.3	19.7	16.5	26
28	18.7	21.3	21.5	21.2	20.8	20.4	17.7	14.7	28
30		18.5	19.5	19.7	19.3	18.9	15.9	13.1	30
32			17.1	17.8	17.9	17.5	14.4	11.7	32
34			14.4	15.9	16.4	16.2	13.1	10.5	34
36				13.9	14.7	14.9	11.9	9.3	36
38					13.1	13.6	10.8	8.3	38
40					11.4	12.3	9.9	7.4	40
42						10.8	9	6.6	42
44							8.3	5.9	44
46							7.6	5.1	46
48								4.5	48
Reeving	4	4	3	3	3	2	2	2	Reeving

Lifting capacity chart (SW-1) (rear counterweight of 72t + central ballast of 20t) Unit: t

jib (m)	25	28	31	34	37	40	43	46	jib (m)
Radius (m)	Main boom length:34m； Main boom angle:85°								Radius (m)
16	40.7	37.3	32.8	29.5	26.3	23.3			16
18	36	35.2	32.8	29.5	26.3	23.3	21.1	18.8	18
20	32	31.4	31	29.5	26.3	23.3	21.1	18.8	20
22	28.8	28.2	27.8	27.5	26.3	23.3	21.1	18.8	22
24	26.1	25.6	25.3	24.9	24.5	23.3	21.1	18.7	24
26	23.8	23.5	23.2	22.8	22.5	21.7	19.4	16.7	26
28	18.3	21.6	21.3	21	20.6	20	17.4	14.9	28
30		18.8	19.7	19.5	19.1	18.4	15.7	13.2	30
32		12.5	17.3	18.1	17.7	17.2	14.3	11.9	32
34			14	16.2	16.6	15.9	13	10.6	34
36				14.2	15	14.9	11.8	9.4	36
38				10.2	13.4	13.6	10.7	8.4	38
40					11.3	12.3	9.8	7.6	40
42						10.9	8.9	6.7	42
44							8.2	5.9	44
46							7.4	5.3	46
48								4.6	48
Reeving	4	3	3	3	3	2	2	2	Reeving

Lifting capacity chart (SW-1) (rear counterweight of 72t + central ballast of 20t) Unit: t

jib (m)	25	28	31	34	37	40	43	46	jib (m)
Radius (m)	Main boom length:37m； Main boom angle:85°								Radius (m)
16	39.5	35.3	31.2	28.2	24.8				16
18	35.2	34.8	31.2	28.2	24.8	22.5	20.3	18.2	18
20	31.4	31.1	30.6	28.2	24.8	22.5	20.3	18.2	20
22	28.2	27.9	27.6	27.2	24.8	22.5	20.3	18.2	22
24	25.7	25.4	25	24.6	23.9	22.5	20.3	18	24
26	23.6	23.3	22.9	22.6	21.9	21.5	19.7	17	26
28	17.6	21.4	21.1	20.8	20.2	19.8	17.7	15.2	28
30		18.7	19.6	19.3	18.6	18.2	16	13.4	30
32		12.2	17.7	17.9	17.4	17	14.4	12	32
34			13.6	16.5	16.2	15.8	13.1	10.7	34
36				14.3	15.1	14.7	11.9	9.6	36
38				9.9	13.4	13.6	10.8	8.5	38
40					10.7	12.4	9.9	7.7	40
42						11	9	6.8	42
44						8.1	8.3	6	44
46							7.6	5.3	46
48								4.7	48
Reeving	4	3	3	3	2	2	2	2	Reeving

Lifting capacity chart (SW-1) (rear counterweight of 72t + central ballast of 20t) Unit: t

jib (m)	25	28	31	34	37	40	43	46	jib (m)
Radius (m)	Main boom length:40m； Main boom angle:85°								Radius (m)
16	37.8	33.3	30	26.4	23.7				16
18	34.7	33.3	30	26.4	23.7	21.5	19.5	17.6	18
20	31.1	30.7	30	26.4	23.7	21.5	19.5	17.6	20
22	27.9	27.7	27.3	26.4	23.7	21.5	19.5	17.5	22
24	25.4	25.1	24.7	24.1	23.7	21.5	19.5	17.4	24
26	23.3	23	22.7	22	21.7	21.2	19.4	17.2	26
28	17.1	21.2	20.8	20.2	20	19.6	17.9	15.4	28
30		18	19.4	18.8	18.4	18	16.2	13.7	30
32		12	17.7	17.5	17.2	16.8	14.7	12.2	32
34			13.1	16	16	15.6	13.2	10.9	34
36				13.6	14.7	14.7	12.1	9.8	36
38				9.5	13.3	13.5	11	8.6	38
40					10.3	12.3	10.1	7.8	40
42						10.8	9.1	6.9	42
44						7.9	8.3	6.1	44
46							7.7	5.4	46
48								4.8	48
50								4.1	50
Reeving	3	3	3	2	2	2	2	2	Reeving

Lifting capacity chart (SW-1) (rear counterweight of 72t + central ballast of 20t) Unit: t

jib (m)	25	28	31	34	37	40	43	46	jib (m)
Radius (m)	Main boom length:43m； Main boom angle:85°								Radius (m)
16	35.4	31.4	27.9	25	22.5				16
18	34	31.4	27.9	25	22.5	20.5	18.6		18
20	30.7	30.3	27.8	25	22.5	20.5	18.6	16.4	20
22	27.7	27.4	26.5	24.9	22.5	20.5	18.6	16.3	22
24	25.1	24.8	24.1	23.3	22.4	20.5	18.6	16.2	24
26	23.1	22.8	22.1	21.8	21	20.3	18.5	16	26
28	16.6	20.6	20.3	20.1	19.7	18.9	18.1	15.1	28
30	10.3	17.5	18.5	18.3	17.9	17.5	16.3	13.4	30
32		11.8	17.2	16.9	16.7	16.3	14.8	12	32
34			12.5	15.8	15.5	15.1	13.4	10.7	34
36				13.1	14.3	14.2	12.2	9.6	36
38				9.3	13.1	13.2	11.1	8.6	38
40					9.9	12.2	10.2	7.6	40
42						10.5	9.2	6.8	42
44						7.7	8.4	6.1	44
46							7.7	5.3	46
48								4.8	48
50								4.1	50
Reeving	3	3	3	2	2	2	2	2	Reeving

Lifting capacity chart (SW-1) (rear counterweight of 72t + central ballast of 20t) Unit: t

jib (m)	25	28	31	34	37	40	43	46	jib (m)
Radius (m)	Main boom length:46m； Main boom angle:85°								Radius (m)
16	33	29.1	26.3	23.7					16
18	32.5	29	26.2	23.7	21.5	19.6	17.3		18
20	30.2	28	26	23.6	21.5	19.6	17.3	15.7	20
22	27.4	26.1	25	23.4	21.4	19.5	17.3	15.6	22
24	24.8	23.7	23.3	22.5	21.1	19.4	17.2	15.4	24
26	22.3	21.7	21.4	21.1	20.3	19.1	17	15.3	26
28	16.3	20	19.8	19.4	18.8	18.4	16.8	14.6	28
30	10.3	16.6	17.9	18	17.4	17	15.8	13	30
32		11.3	16.6	16.3	16.1	15.8	14.5	11.7	32
34			12.2	15.2	14.9	14.7	13.2	10.4	34
36			8.2	12.7	13.9	13.7	12	9.3	36
38				9.1	12.7	12.8	10.9	8.3	38
40					9.7	11.8	10	7.5	40
42						10.1	9	6.6	42
44						7.4	8.3	5.9	44
46							7.4	5.2	46
48								4.6	48
50								4	50
Reeving	3	3	2	2	2	2	2	2	Reeving

Lifting capacity chart (SW-1) (rear counterweight of 72t + central ballast of 20t) Unit: t

jib (m)	25	28	31	34	37	40	43	46	jib (m)
Radius (m)	Main boom length:49m； Main boom angle:85°								Radius (m)
18	29.5	26.9	24.5	22.3	20.3	18	16.4		18
20	27.7	26.3	24.2	22.1	20.2	18	16.4	15	20
22	25.4	24.8	23.7	21.8	20	17.9	16.3	14.9	22
24	23.4	22.8	22.1	20.9	19.7	17.7	16.2	14.8	24
26	21.2	20.6	20.4	19.8	18.9	17.4	16	14.5	26
28	15.6	19.1	18.9	18.4	17.9	16.7	15.7	14.2	28
30	10.2	16	17.3	17	16.7	15.8	15	13.2	30
32		11.2	15.9	15.7	15.5	14.8	14	11.8	32
34			12	14.5	14.4	13.7	12.8	10.6	34
36			8.2	12.3	13.3	12.8	11.6	9.5	36
38				8.9	12.4	11.9	10.6	8.4	38
40					9.4	11.1	9.7	7.6	40
42					6.7	9.5	8.9	6.7	42
44						7.1	8	6	44
46							7.2	5.3	46
48							5.5	4.7	48
50								4.1	50
Reeving	3	3	2	2	2	2	2	2	Reeving

Lifting capacity chart (SW-1) (rear counterweight of 72t + central ballast of 20t) Unit: t

Luffing jib	25	28	31	34	37	40	43	46	Luffing jib:
Radius (m)	Main boom length:52m； Main boom angle:85°								Radius (m)
18	26.8	24.9	22.7	20.8	18.5	16.9			18
20	24.5	24.2	22.3	20.5	18.3	16.8	15.4	14.2	20
22	22.4	22.3	21.8	20.2	18.1	16.6	15.3	14.1	22
24	20.5	20.5	20.2	19.6	17.7	16.3	15.1	13.9	24
26	18.9	18.9	18.7	18.5	17.2	16	14.8	13.7	26
28	15.2	17.5	17.3	17.2	16.4	15.5	14.5	13.5	28
30	10.2	15.3	15.9	15.8	15.2	14.4	13.8	13.1	30
32		11	14.8	14.7	14.1	13.2	12.8	12	32
34			11.6	13.5	13	12.3	11.7	10.7	34
36			8.1	11.9	12	11.4	10.9	9.6	36
38				8.7	11.1	10.5	10.1	8.6	38
40					8.9	9.7	9.2	7.6	40
42					6.5	8.9	8.5	6.8	42
44						6.9	7.7	6.1	44
46							7.1	5.4	46
48							5.4	4.8	48
50								4.2	50
Reeving	3	2	2	2	2	2	2	2	Reeving

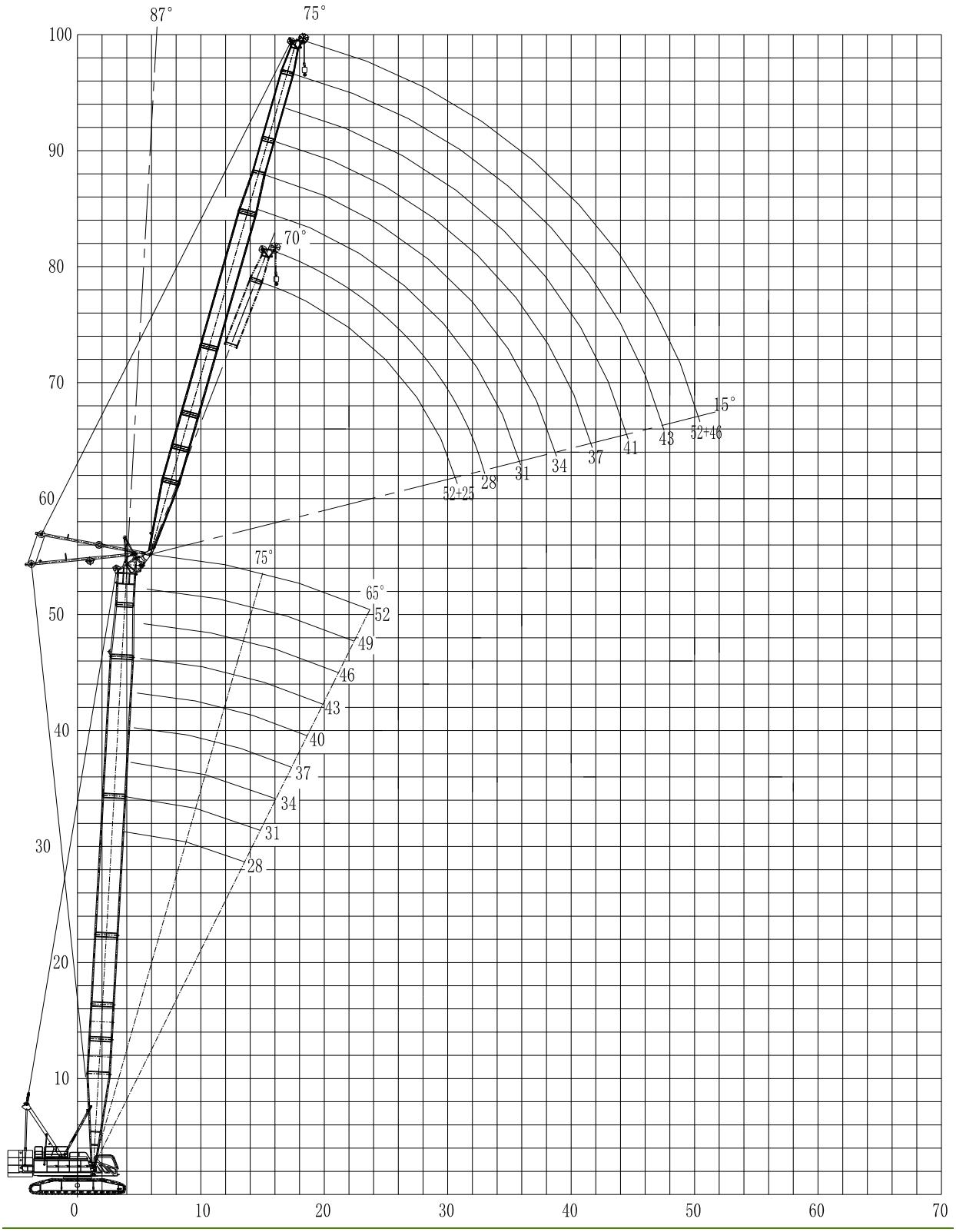
Attention:

Lifting capacities of luffing jib in above tables are reference values. Refer to the *Lifting Capacity Charts* for specific data.

4.4. Operating mode of main boom + foldable luffing jib

Hoisting height curves (SW-2)

Unit: m



Lifting capacity chart (SW-2) (rear counterweight of 72t + central ballast of 20t) Unit: t

Main boom (m)	28			31						34									Main boom (m)
Jib (m)	25			25			28			25			28			31			Jib (m)
Radius (m)	Main boom angle (°)																		Radius (m)
	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	
12																			12
14	30			30			30									29.2			14
16	30			30			30			30			29.2			29.2			16
18	30			30			30			30			29.2			29.2			18
20	30			30			30			30			29.2			29.2			20
22	27.9	25.3		27.7	24.8		27.4			27.5			26.9			26.5			22
24	25.4	22.9		25.2	22.4		24.9	22.1		25	21.9		24.4	21.4		24			24
26	22.6	20.9		22.6	20.5		22.8	20.2		21.2	20		22.4	19.6		22	19.2		26
28	17.9	19.2		18.9	18.9		21	18.6		19.8	18.5		20.2	18		20.3	17.6		28
30		17.5	16		17.3		18.7	17.2			17		19.3	16.6		18.4	16.3		30
32		16.1	14.7		15.9	14.3		15.8			15.7	14		15.5		15.9	15.2		32
34		14.9	13.7		14.7	13.3		14.6	13.2		14.5	12.9		14.3	12.7	10.6	14		34
36			12.7			12.3		13.6	12.2			12		13.2	11.7		13	11.4	36
38			11.8			11.5			11.4			11.1		12.4	10.9		12.2	10.6	38
40						10.7			10.6			10.4			10.2		11.3	9.9	40
42									9.9						9.5			9.2	42
44															8.9			8.7	44
46																		8.2	46
48																			48
Reeving	3			3			3			3			3			3			Reeving

Lifting capacity chart (SW-2) (rear counterweight of 72t + central ballast of 20t) Unit: t

Main boom (m)	37												40						Main boom (m)
Jib (m)	28			31			34			28			25			28			Jib (m)
Radius (m)	Main boom angle (°)																		Radius (m)
	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	
12																			12
14							28			24.5									14
16	29.2			29.2			28			24.5			29.2			29.2			16
18	29.2			29.2			28			24.5			29.2			29.2			18
20	29.2			29.2			28			24.5			28.6			27.8			20
22	27			26.2			25.8			24.5			25.8			25.3			22
24	24.1	21.2		23.8			23.4			23.1			23.1			22.9			24
26	19.7	19.4		21.8	19.1		21.5	18.7		21.1			18.6	18.9		20.7	18.6		26
28	17.7	17.8		19.4	17.6		19.4	17.2		19.2	16.8		16.1	17.4		18.6	17.1		28
30		16.6		17	16.3		17.7	15.9		17.6	15.6			16.1		16.2	15.9		30
32		15.3			15.1		14.9	14.8		15.9	14.5			15			14.7		32
34		14.1	12.3		14		10	13.7		14.5	13.4			13.8			13.7		34
36		13	11.4		13	11.3		12.9		11	12.7			12.9	11		12.8		36
38			10.6		12.2	10.5		11.9	10.2		11.8				10.2		11.9	10.1	38
40			9.9			9.8		11.1	9.5		11	9.3			9.5		11.1	9.4	40
42			9.2			9.2		10.4	9		10.2	8.7			9			8.8	42
44						8.6			8.4		9.6	8.2						8.3	44
46									7.8			7.7						7.7	46
48									7.3			7.2							48
50												6.7							52
52																			52
Reeving	3			3			3			3			3			3			Reeving

Lifting capacity chart (SW-2) (rear counterweight of 72t + central ballast of 20t) Unit: t

Main boom (m)	40									43									Main boom (m)
Jib (m)	31			34			37			25			28			31			Jib (m)
Radius (m)	Main boom angle (°)																		Radius (m)
	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	
14	26.7			23.5												25			12
16	26.7			23.5			21.5			29.2			28.4			25			14
18	26.7			23.5			21.5			29.2			28.3			25			16
20	26.4			23.5			21.5			27.3			26.3			24.5			18
22	24.5			23.1			21.5			24.7			24.1			23			20
24	22.4			21.5			20.6			22			21.7			21.1			22
26	20.5			19.8			19.3			17.5	18.4		19.7			19.1			24
28	18.7	16.7		18.2	16.2		17.8			15.6	16.9		17.9	16.6		17.4	16		26
30	16.8	15.5		16.6	15		16.3	14.6			15.7		14.6	15.5		15.9	14.9		28
32	13.9	14.4		15.1	13.8		15.1	13.5			14.6			14.3		13	13.8		30
34	9.5	13.4		13.6	13		13.8	12.6			13.6			13.4		9.1	12.9		32
36		12.6		10.3	12.1		12.5	11.7			12.7	10.6		12.6			12		34
38		11.7	9.8		11.3		10.8	11			11.8	9.8		11.7	9.6		11.3		36
40		10.9	9.2		10.6	8.8	7.7	10.4				9.2		10.9	9.1		10.6	8.6	38
42		10.2	8.6		9.9	8.2		9.7	7.9			8.6			8.5		9.9	8.1	40
44			8		9.3	7.7		9	7.4			8			7.9			7.5	42
46			7.5			7.2		8.4	6.9						7.4			7.1	44
48			7			6.7		8	6.5						6.9			6.6	46
50						6.3			6									6.2	48
52						5.9			5.7										52
54									5.4										54
Reeving	3			3			3			3			3			3			Reeving

Lifting capacity chart (SW-2) (rear counterweight of 72t + central ballast of 20t) Unit: t

Main boom	43									46									Main boom
Jib (m)	34			37			40			25			28			31			Jib (m)
Radius (m)	Main boom angle (°)																		Radius (m)
	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	
14																23.8			14
16	22.8			20.6			18.7			29.2			26.5			23.8			16
18	22.8			20.6			18.7			28.1			26.2			23.8			18
20	22.8			20.6			18.7			25.7			24.4			23.5			20
22	21.8			20.4			18.7			23.4			22.4			21.6			22
24	20.5			19.5			18.5			21			20.5			20			24
26	18.7			18.2			17.6			16.7	17.9		18.5			18.2			26
28	17.2			16.9			16.4			14.2	16.5		16.7	15.9		16.6			28
30	15.8	14.5		15.6	14.1		15.3				15.3		14.8	14.8		15.4	14.4		30
32	14.4	13.4		14.4	13.1		14.2	12.7			14.2		11.8	13.7		12.3	13.3		32
34	13.2	12.6		13.2	12.2		13.2	11.8			13.2			12.9		8.7	12.5		34
36	9.7	11.7		12.1	11.4		12.2	11			12.4			12			11.7		36
38		11		10.2	10.7		11.2	10.3			11.5	9.4		11.2			10.9		38
40		10.4		7.4	10.1		10.2	9.7				8.8		10.6	8.5		10.3		40
42		9.7	7.9		9.5		8	9.1				8.2			8		9.6	7.7	42
44		9.1	7.3		8.8	7		8.5				7.7			7.5		9	7.2	44
46		8.5	6.9		8.3	6.6		8.1	6.2			7.2			7			6.7	46
48			6.4		7.8	6.1		7.5	5.9						6.5			6.3	48
50			6			5.8		7	5.5									5.9	50
52			5.7			5.4		6.6	5.1									5.6	52
54						5.1			4.8										54
56						4.8			4.5										56
58									4.2										58
Reeving	2			2			2			3			3			3			Reeving

Lifting capacity chart (SW-2) (rear counterweight of 72t + central ballast of 20t) Unit: t

Main boom (m)	46												49						Main boom (m)
Jib (m)	34			37			40			43			25			28			Jib (m)
Radius (m)	Main boom angle (°)																		Radius (m)
	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	
16	21.7			19.7			17.9												16
18	21.7			19.7			17.9			15.9			25.9			24.8			18
20	21.7			19.7			17.9			15.9			23.5			23.1			20
22	20.6			19.7			17.9			15.9			21.5			21.1			22
24	19.3			18.5			17.5			15.8			19.4			19.3			24
26	17.8			17.4			16.6			15.4			15.7			17.8			26
28	16.4			16			15.6			14.6			13.7	15.7		15.7	15.5		28
30	15.1	14.1		14.8			14.5			13.7				14.6		11.4	14.3		30
32	13.9	13.1		13.7	12.7		13.5	12.3		12.9				13.5		9.6	13.3		32
34	12.6	12.2		12.7	11.8		12.6	11.4		11.7	10.4			12.7			12.5		34
36	9.3	11.4		11.6	11		11.6	10.7		10.9	9.8			11.9			11.6		36
38		10.7		9.6	10.4		10.7	10		9.9	9			11.1			10.9		38
40		10.1		7.1	9.7		9.9	9.3		9	8.5				8.3		10.3	8.1	40
42		9.5			9.2		7.6	8.8		8.2	7.9				7.7		9.6	7.5	42
44		8.8	6.9		8.6	6.6		8.3		7.4	7.5				7.2			7	44
46		8.3	6.5		8.1	6.2		7.8	5.9	5.8	7.1				6.7			6.6	46
48			6		7.6	5.9		7.3	5.5		6.6	4.8						6.2	48
50			5.8		7.1	5.5		6.8	5.1		6.2	4.4						5.8	50
52			5.4			5.1		6.4	4.8		5.8	4.1							52
54			5			4.8			4.5		5.4	3.8							54
Reeving	3			2			2			2			3			3			Reeving

Main boom (m)	46												49						Main boom (m)
Jib (m)	34			37			40			43			28			31			Jib (m)
Radius (m)	Main boom angle (°)																		Radius (m)
	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	
56						4.5			4.1		5	3.5							56
58						4.2			3.9			3.3							58
60									3.6			3							60
62												2.8							62
Reeving	2			2			2			2			3			3			Reeving

Lifting capacity chart (SW-2) (rear counterweight of 72t + central ballast of 20t) Unit: t

Main boom (m)	49																		Main boom (m)
Jib (m)	31			34			37			40			43			46			Jib (m)
Radius (m)	Main boom angle (°)																		Radius (m)
	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	
14	22.5																		14
16	22.5			20.5			18.7			16.5									16
18	22.5			20.5			18.6			16.5			15.2			14			18
20	21.8			20.3			18.5			16.4			15.1			13.8			20
22	20.4			19.6			18.4			16.3			14.9			13.7			22
24	18.8			18.3			17.5			16.1			14.8			13.6			24
26	17.3			16.9			16.4			15.3			14.6			13.4			26
28	15.9			15.6			15.3			14.5			13.9			13.2			28
30	14.7	13.9		14.4			14.2			13.4			13			12.3			30
32	11.7	13		13.4	12.7		13.1	12.3		12.4			12			11			32
34	8.4	12.1		11.9	11.8		12.2	11.4		11.5	10.7		11.2	10.1		9.9			34
36		11.3		8.9	11		11.2	10.7		10.6	10		10.3	9.3		8.8	8.9		36
38		10.7		6.2	10.4		9.2	10		9.8	9.3		9.5	8.8		7.9	8.3		38
40		10			9.7		6.9	9.4		9	8.8		8.8	8.1		7	7.6		40
42		9.4	7.2		9.2			8.8		7.1	8.2		8	7.6		6.2	7.2		42
44		8.8	6.7		8.6	6.5		8.3			7.7		7.1	7.2		5.6	6.7		44
46			6.3		8.1	6.1		7.9	5.9		7.4		5.6	6.7		4.9	6.3		46
48			5.9		7.6	5.8		7.4	5.5		6.9	4.9		6.3		4.3	5.9		48
50			5.6			5.4		6.9	5.1		6.4	4.6		6	4		5.5		50
52			5.2			5			4.7		6.1	4.3		5.5	3.7		5.1	3.3	52
54						4.7			4.4		5.7	4		5.2	3.4		4.8	3	54
Reeving	2			2			2			2			2			2			Reeving

Main boom (m)	49																		Main boom (m)
Jib (m)	31			34			37			40			43			46			Jib (m)
Radius (m)	Main boom angle (°)																		Radius (m)
	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	
56												3.7		4.8	3.2		4.5	2.8	56
58												3.4			2.9		4.2	2.5	58
60												3.3			2.7			2.3	60
62												3			2.5			2.1	62
Reeving	2			2			2			2			2			2			Reeving

Lifting capacity chart (SW-2) (rear counterweight of 72t + central ballast of 20t) Unit: t

Main boom (m)	52																		Main boom (m)
Jib (m)	25			28			31			34			37			41			Jib (m)
Radius (m)	Main boom angle (°)																		Radius (m)
	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	
14							21												14
16							21			19.3			17.1						16
18	23.3			22.9			20.9			19.1			17			15.3			18
20	21.2			21.1			20.6			18.9			16.7			15.3			20
22	19.3			19.3			19			18.2			16.5			15.2			22
24	17.7			17.7			17.5			17.3			15.8			14.9			24
26	14.8			16.2			16			15.8			14.5			14.3			26
28	12.3	15.3		14.6			14.7			14.6			13.4			13.1			28
30		14.1		10.9	13.8		13.5	13.4		13.4			12.3			12			30
32		13.1		9.4	12.9		11.2	12.5		12.3	12.2		11.3			11.1			32
34		12.3			12		8.2	11.7		11.1	11.3		10.4	10.7		10.2	10.3		34
36		11.5			11.2			10.9		8.5	10.7		9.6	10		9.3	9.6		36
38		10.8			10.6			10.3		6.1	10		8.5	9.3		8.6	8.9		38
40		10.1	7.8		10			9.7			9.4		6.4	8.8		7.8	8.4		40
42			7.3		9.4	7.1		9.1			8.8			8.3		6.7	7.9		42
44			6.8			6.6		8.5	6.3		8.3			7.8			7.5		44
46			6.3			6.2		8	5.9		7.9	5.7		7.4			7		46
48			5.9			5.9			5.6		7.4	5.3		7	4.8		6.6		48
50						5.5			5.2			5		6.5	4.6		6.2	4.2	50
52									4.9			4.7			4.3		5.9	3.9	52
54									4.5			4.4			4		5.5	3.6	54
Reeving	3			2			2			2			2			2			Reeving

Main boom (m)	52																		Main boom (m)
Jib (m)	31			34			37			40			43			46			Jib (m)
Radius (m)	Main boom angle (°)																		Radius (m)
	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	
56												4.1			3.7			3.4	56
58															3.4			3.2	58
60															3.3			3	60
62																			62
Reeving	3			2			2			2			2			2			Reeving

Lifting capacity chart (SW-2) (rear counterweight of 72t + central ballast of 20t) Unit: t

Main boom	52						\			\			\			\			Main boom
Jib (m)	43			46			\			\			\						Jib (m)
Radius(m)	Main boom angle (°)																		Radius (m)
	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	87°	75°	65°	
18	14.1			12.9															18
20	14.1			12.9															20
22	14			12.9															22
24	13.8			12.7															24
26	13.6			12.5															26
28	12.7			12.3															28
30	11.6			11.3															30
32	10.6			10.3															32
34	9.7			9.4															34
36	8.9	8.9		8.6															36
38	8.1	8.4		7.8	7.8														38
40	7.4	7.8		7.1	7.4														40
42	6.7	7.3		6.2	6.8														42
44	6	6.9		5.6	6.4														44
46	5.2	6.4		4.9	6														46
48		6.1		4.3	5.6														48
50		5.7	3.6		5.3														50
52		5.3	3.4		4.9	2.9													52
54		4.9	3.1		4.6	2.6													54
56		4.7	2.8		4.3	2.4													56
58			2.6		4	2.1													58
60			2.4		3.6	2													60
62																			62
Reeving	2			2															Reeving

Attention:

Lifting capacities of luffing jib in above tables are reference values. Refer to the *Lifting Capacity Charts* for specific data.