

Upperworks

Engine

Type: QSC8.3(Tier3);

Imported Cummins inline, 6-cylinder, water-cooled, electronic-injection engine, with turbocharger and inter-cooler.

Emission standard: Tier 3

Air filter: Twin-stage filter composed of air prefilter and air packed bed filter.

Rated Power/Speed: 183KW(245HP)/2000rpm;

Maximum torque: 1268N·m/1400rpm;

Maximum Operating Altitude (non-adjustable): 1800m;

Generator: 24V/70A;

Start Motor: 24V/7.5KW;

Fuel Tank Capacity: 400L.

Optional imported Cummins engine inline, 6-cylinder, water-cooled, turbocharging and inter-cooler with the model of 6CTAA-250.

Rated power/speed: 186Kw (250HP)/2200rpm.

Maximum torque: 1219N·m/1300rpm.

Electric Control System

The system is composed of multi-controllers, displays and sensors.

The data transmissions among the controllers, displays, engines, remote control termination of the moment limiter adopt CAN network technology and the system is with high reliability.

The display can indicate the parameters of the rotation speed of the engines, amount of fuel, pressure of engine oil, servo pressure, wind speed and engine' operation time. It is also equipped with the function such as for indicating the locking of the main winch and the auxiliary winch and locking of the main and auxiliary luffing, and locking of the swing.

Hydraulic System

Hydraulic precursor control is adopted. The main, auxiliary and luffing winch brakes shall be the closed wet brake set in the reducer. When the lever is in the neutral position, it is in braking situation, which shall be automatically compensated and no need to adjust. This control system is sensitive with stable operation.

Pressure of control system: 4.0MPa;

Remote control system: It is used for remote control of telescopic oil cylinder of the lowerworks and support oil cylinder.

Major components of main hydraulic system, control system, auxiliary system and hydraulic elements are mostly of Bosch REXROTH or Kawasaki or other overseas well-known brands.

One independent variable displacement pump drives the right traveling gear and main winch gear, another independent variable displacement pump drives the left traveling gear, luffing drum and auxiliary winch drum, and a third independent variable displacement pump drives the swing gear with closed type(Rexroth)/open type(Kawasaki) hydraulic system. Two gear pumps are used for servo hydraulic system and auxiliary hydraulic system.

Main system pressure: 30MPa;

Fuel Tank Capacity: 320L;

Cooling system: Hydraulic oil radiator driven by independent motor.

Filter: full flow type bypass paper oil filter.

Main and Auxiliary Hoisting Mechanism

The main winch drum and auxiliary winch drum are driven by planetary gear speed reducer. The brakes are closed wet brakes set inside the reducer. When the lever is in neutral position, the brakes are in braking status. Pallet locking gear is provided for outside winch drum with 3 circles protector to enhance safe reliability of main hoisting gear.

Main luffing devices	Drum Diameter	560mm
	Outermost cable speed	0~110m/min
	Diameter of Steel Wire	24mm
	Length of steel wire for main hoisting gear	240m
	Rated single line pull	9.2t
Auxiliary luffing Device	Drum Diameter	560mm
	Outermost cable speed	0~110m/min
	Diameter of Steel Wire	24mm
	Length of steel wire for main hoisting gear	180m
	Rated single line pull	9.2t

Swing Mechanism

The swing reducer driven by hydraulic motor can freely wheelspin in 360°

Braking: closed, concealed, wet type, spring loaded and brake, and oil pressure released spring brake;

Swing Lock: It can lock the upperworks and the base of the traveling device through swing oil cylinder during transportation.

Swing support: The gear of swing reducer drives single row ball bearing.

Swing Speed: 0~2.25rpm.

Luffing Mechanism

The luffing winch is driven by planetary reducer, which is driven by hydraulic plunger piston motor. The brakes are closed wet brakes set inside the reducer, which is braked by spring pressure and released by oil pressure.

Luffing devices	Drum Diameter	420mm
	Outermost cable speed	0~73m/min
	Diameter of Steel Wire	20mm
	Length of steel wire for main hoisting gear	171m
	Rated single line pull	6.9t

Counterweight

The unitive counterweight adopts small counterweight combination with light weights so that the requirements of the tonnage for the crane are very low. Striking caution shall be adopted and swing alarming light shall be installed at the tail of the counterweight, onto which a 2.5t counterweight can be adopted then, can provide a new operation mode after authorizing the moment limiter so as to improve the capacity of the crane. The weight of standard counterweight is about 27t (excluding additional counterweight) the combination is as follows:

Pallet of counterweight: 3.57t×1

Left piece of counterweight: 3t×3

Right piece of counterweight: 3t×3

Middle piece of counterweight: 2.5t×2(excluding additional counterweight)

Optional additional counterweight : the same with the middle ones 2.5t×1.

Driver's Cab

The novelty pattern SANY style sliding door of cab allows easy and safe opening and closing of the door; the large window, together with head light and rearview mirror, permits wider visual field. Air conditioner and mp3 player are installed. Seat, levers, various electric switches are all designed according to ergonomics, which makes operation more comfortable.

Handrail: various levers, electric switches and ignition lock are installed onto the left and right handrails and auxiliary controlling cabinets. The handrails can be adjusted according to the adjustment of seat.

Seat: Suspended, multimode and multilevel adjustable seats with relief switch.

Air conditioner: Cold and warm wind, optimized tube and blast tuyere;

Operation Mode: Right and left traveling pedals and levers are in the front of driver's cab. Monitor and the accelerator pedal are in the right front; luffing and main winch levers, and start switch (ignition lock) are mounted on the right armrest box at right side of seat; auxiliary winch and swing levers, air conditioner control panel, swing locking key, lighter, hand throttle, auxiliary control box panel, load moment indicator and electronic monitor are mounted at the left side of seat.

Traveling Device

The base is welded by structural steel plates. The telescopic function of track frame enhances the stability of chassis.

The left and right track shall be extended by the expansion of hydraulic oil cylinder fixed in the middle of the base so as to widen the chassis during operation and guarantee the stability and draw back during transportation to reduce the width. During transportation of the main device, removing the track frame is not required.

Tension of track: track tensity can be adjusted through a jack by adding or reducing the numbers of the gasket to adjust the tensity, which is more convenient and reliable.

Track traveling: each track is driven by the planetary gear speed reducer on driving wheel, which is driven by independent hydraulic motor. The crawlers need no maintenance except for periodical replacement of reducer gear oil.

Track traveling braking: Normally closed, concealed, wet type, spring loading and oil pressure released.

Each track consists of 52 track shoes through pin roll connection with a width of 850mm.

Traveling speed: the crane may travel at two steps of speed.

Low speed: 0~1.1 km/h

High speed: 0~2.0 km/h

Main Boom

Truss structure: the main chord pipe is of high strength structural steel pipes connected through pin roll. upper boom is of various cross section structure.

Basic boom length: 13m consisting of boom tip of 6.5m and boom base of 6.5m.

Boom insert: it can extend boom length and operation scope. The main chord pipe is also of high strength structural steel pipe connected through pin roll. The length X numbers of boom inserts respectively are: 3m X 1, 6m X 1 and 9m X 4.

Longest main boom: 58m

Jib

Truss structure: the main chord pipes are of high strength structural steel pipes, and the ventral tube is made of carbon steel. Sections of jib are connected through pin roll.

Basic jib length: 9m, consisting of jib tip of 4.5m and jib base of 4.5m.

Jib insert: 4.5m X 2, enabling jib length and extend the operation scope.

Longest auxiliary boom: 18m.

Longest main boom + jib: 49m +18m.

Hook Block

80t Hook block

50t Hook block

25t Hook block

9t Hook block

Note: the equipments mentioned above are of the full configuration. The detailed configuration shall be in accordance with the order.

Load Moment Indicator

There is an independent security operating system controlled by computer in the load moment indicator. It can automatically detect the weight being hoisted by the crane and the angle of the boom and indicate the rated load, actual load, operating radius and angle of the boom.

Composition: Host machine, monitor, angle sensor and force sensor etc.

Function: instantaneously display the rated load, actual load, operation radius, angle and height of the working device under the current situation of the crane. Automatically detect the dynamic data of the angle over-limitation and load over-limitation and alarm immediately and stop the operation.

Anti-overwinding Device for Main and Auxiliary hooks

The limit switch and heavy punch fixed on the upper boom/jib are used to prevent the hook from being lifted over high. When the hook is lifted to a certain height, the limit switch is activated so as to make the buzzer on the control board alarm by both electrical and hydraulic control and the hook lifting operation stop automatically. On this occasion, the hook overwinding could be prevented.

Anti-overloosening Device for Main and Auxiliary Hooks

It is composed of the motion trigger device fixed inside of the drum and proximity switch. It shall send signal when the steel wire was loosened close to the last 3 circles and the electrical controlling system shall automatically stop the hooks and alarm through buzzer and monitor.

Commutator for Assembling Mode/ Operation Mode

The anti-overwinding device, caging device of boom, A-frame alarming device, expansion device of track and moment limiter are all out of commission under the assembling mode so as to make it easier to assemble the crane.

Under the operation mode, all the safety devices can be operated.

A-frame Alarming Device

Under operation mode, the system shall alarm through buzzer and monitor in case the A-frame was not lifted to the right position.

Track Expansion Alarming Device

Under the operation mode, the system shall alarm through buzzer and monitor in case the track was not extend to right position.

Caging Device for Boom

When the elevation angle of the boom is over 78°, the buzzer shall alarm and the boom shall be stopped. Synchronously, the lifting operation of luffing drum is out of commission and only lowering operation is allowed. This protection function shall be controlled by both of the moment limiter and the two-stage control of travel switch.

When the angle of the boom is less than 30°, the buzzer shall alarm and the boom shall be stopped. Synchronously, the lowering operation of the luffing drum is out of commission and only the lifting operation is allowed. This function shall be controlled by moment limiter.

Anti-tip-back Device for Boom

The anti-retroversion rod is made in nested steel pipe and spring structure fixed on the top of the lower boom, which is equipped with the function of support through the spring pressure so as to prevent the main boom retroversion.

Swing Lock Device

It is composed of swing braking electromagnetic valve and swing lock releasing electromagnetic valve. Only to open the swing locking electromagnetic valve first, the rotation operation can be fulfilled.

Drum Lock Device

Electrical controlled pallet locking device is set to the main, auxiliary and luffing drums, which means it is essential to press the winding switch before the winding operation so as to prevent the misoperation caused by lever and to guarantee the safety when the winding is under non-operation mode.

Boom Angle Indicator

Pendulum-type angle indicator mounted at the side close to the driver's cab of the lower boom.

Hook Clamp

Each kind of lifting hook is equipped with baffle used to prevent the hoisting wire rope from coming off.

Acousto-optic Alarm

It can send acousto-optic alarm within 5 seconds after the engine starts and during swing and traveling.

Gradienter

Electronic gradienter can indicate the inclining angle of the upperworks on the monitor of the control system.

Relief Switch

When the operator is not at seat or draws back the relief lever, the relief valve shall be closed and all the operations are out of commission so as to prevent misoperations.

Emergency Stopping Button

When emergency occurs, press this button to cut of the electricity and stop all the operations.

Tricolor Load Alarming Light

The load alarming light includes 3 colors, which can display the instantaneous load synchronously. Namely, the green color means the load rate is less than 90%, the yellow color means the load rate is between 90% to 100% and the red color means the load rate is over 100%, which is in overload situation.

Monitor System

Camera: 2 PCS, respectively monitor the winch and the situation of the back portion for the complete appliance.

Monitor: the monitored images can be switched from one camera to the other through switches.

Anti-lightening stroke protection device

It includes grounding devices and surge-protect device, which can prevent the damage of the electronic components and the hurt of the staff from lightening.

Optional Remote Monitoring System

The functions of GPS satellite orientation, GPRS data transmission, inquiry of the operation of the equipments, statistic and remote failure diagnosis are available.

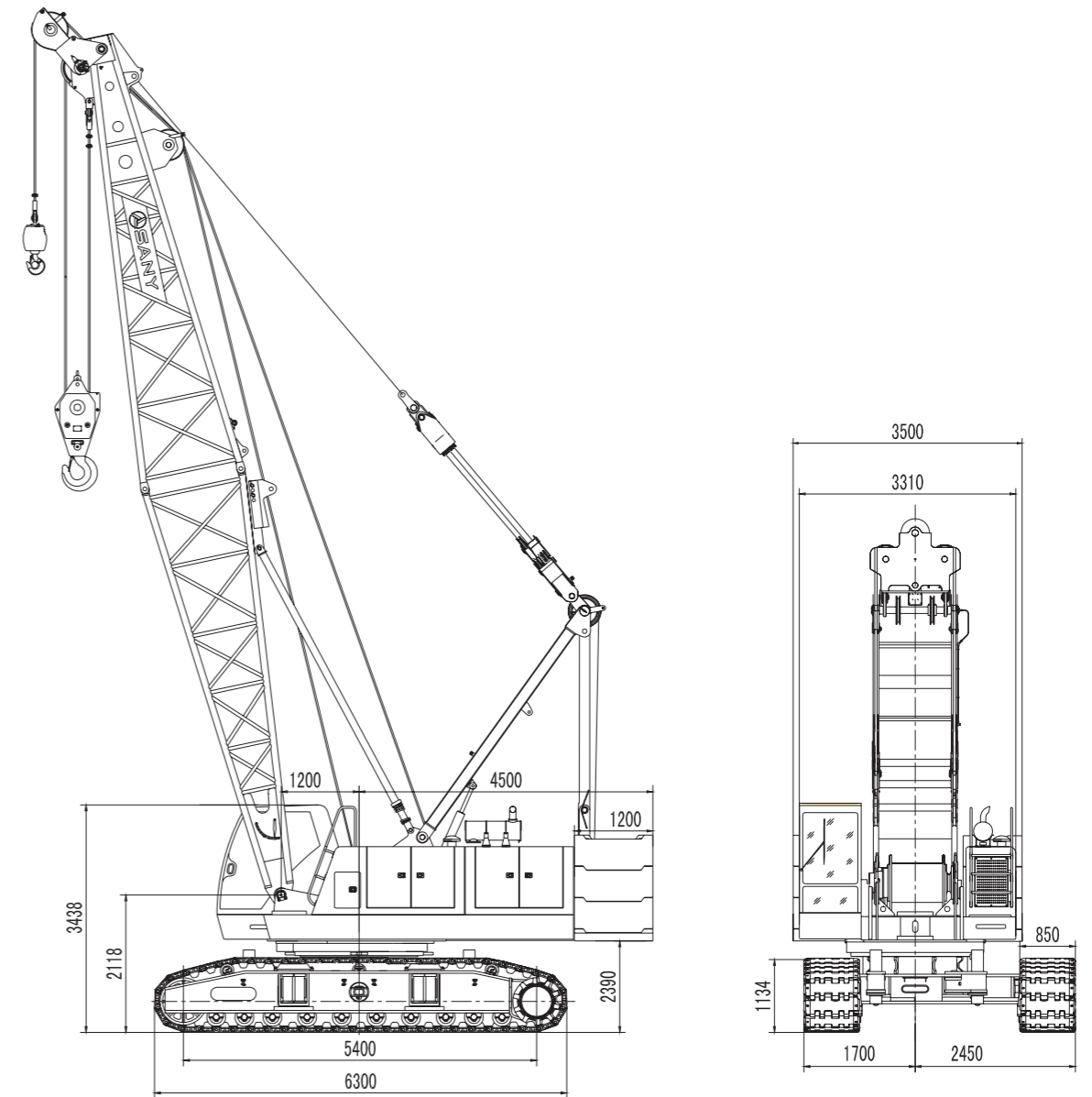
Illuminator

Night lighting devices such as winch illuminator, dipped light in front of the driver's cab, angle adjustable high beam and head lamp in driver's cab shall be set so as to improve safety for construction during night.

Rearview Mirror

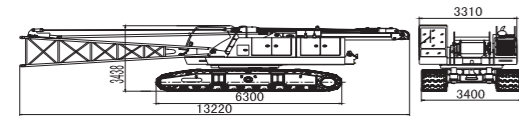
The mirrors shall be respectively set at the right side of the driver's cab and the front handrail of the left cover.

Additional notice will not be made in case there was any modification for material and technical specifications due to the updating of the technology.

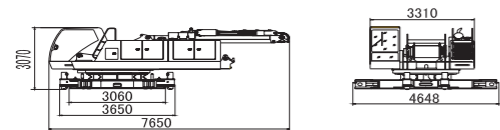


Main Dimensions for SCC800C Hydraulic Crawler Crane

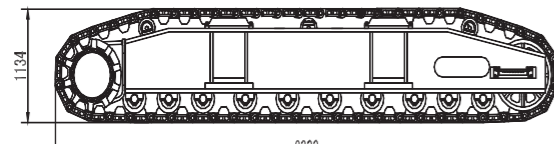
Transportation Dimension of Main Parts



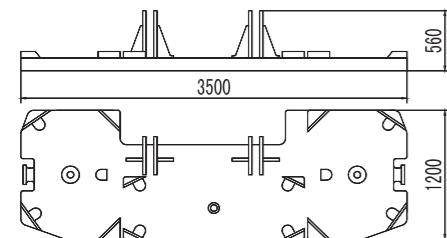
Body (with track frame)	×1
Length	13.32m
Width	3.4m
Height	3.348m
Weight	46t



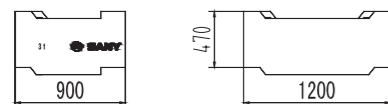
Body(Track frame removed)	×1
Length	7.65m
Width	3.31m
Height	3.07m
Weight	26.8t



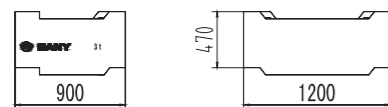
Left counterweight	×2
Length	6.3m
Width	1.0m
Height	1.134m
Weight	9.6t



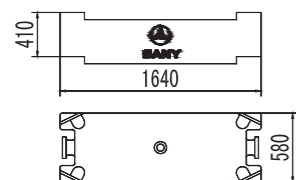
Pallet counterweight	×1
Length	3.5m
Width	1.2m
Height	0.58m
Weight	3.8t



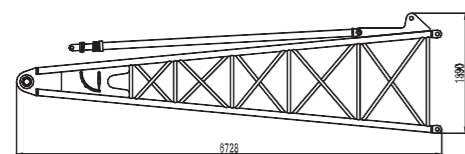
Left counterweight	×3
Length	1.2m
Width	0.9m
Height	0.47m
Weight	3.1t



Right counterweight	×3
Length	1.2m
Width	0.9m
Height	0.47m
Weight	3.1t

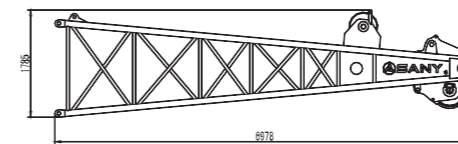


Additional counterweight	×2
Length	1.64m
Width	5.8m
Height	0.41m
Weight	2.5t

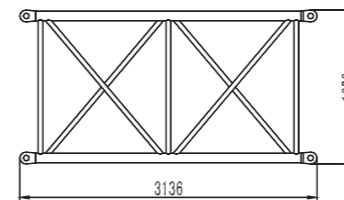


Main boom base	×1
Length	6.728m
Width	1.626m
Height	1.89m
Weight	1.58t

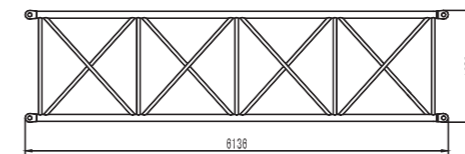
Transportation Dimension of Main Parts



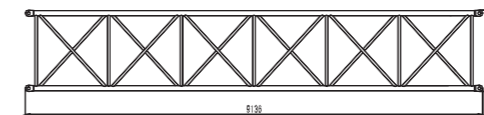
Main boom tip	×1
Length	6.978m
Width	1.626m
Height	1.785m
Weight	1.9t



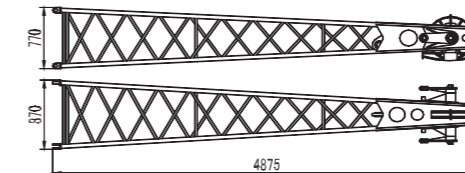
Boom insert 3m	×1
Length	3.136m
Width	1.626m
Height	1.6m
Weight	0.4t



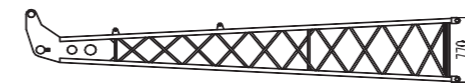
Boom insert 6m	×1
Length	6.136m
Width	1.626m
Height	1.6m
Weight	0.8t



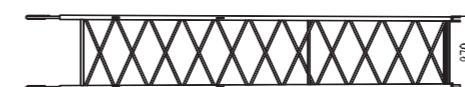
Boom insert 9m	×4
Length	9.136m
Width	1.626m
Height	1.6m
Weight	1.1t



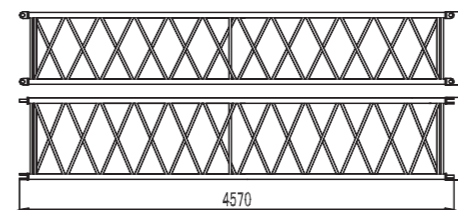
Jib tip	×1
Length	4.875m
Width	0.87m
Height	0.77m
Weight	0.4t



Jib base	×1
Length	4.69m
Width	0.89m
Height	0.77m
Weight	0.3t



Jib insert 4.5m	×2
Length	4.57m
Width	0.87m
Height	0.77m
Weight	0.2t



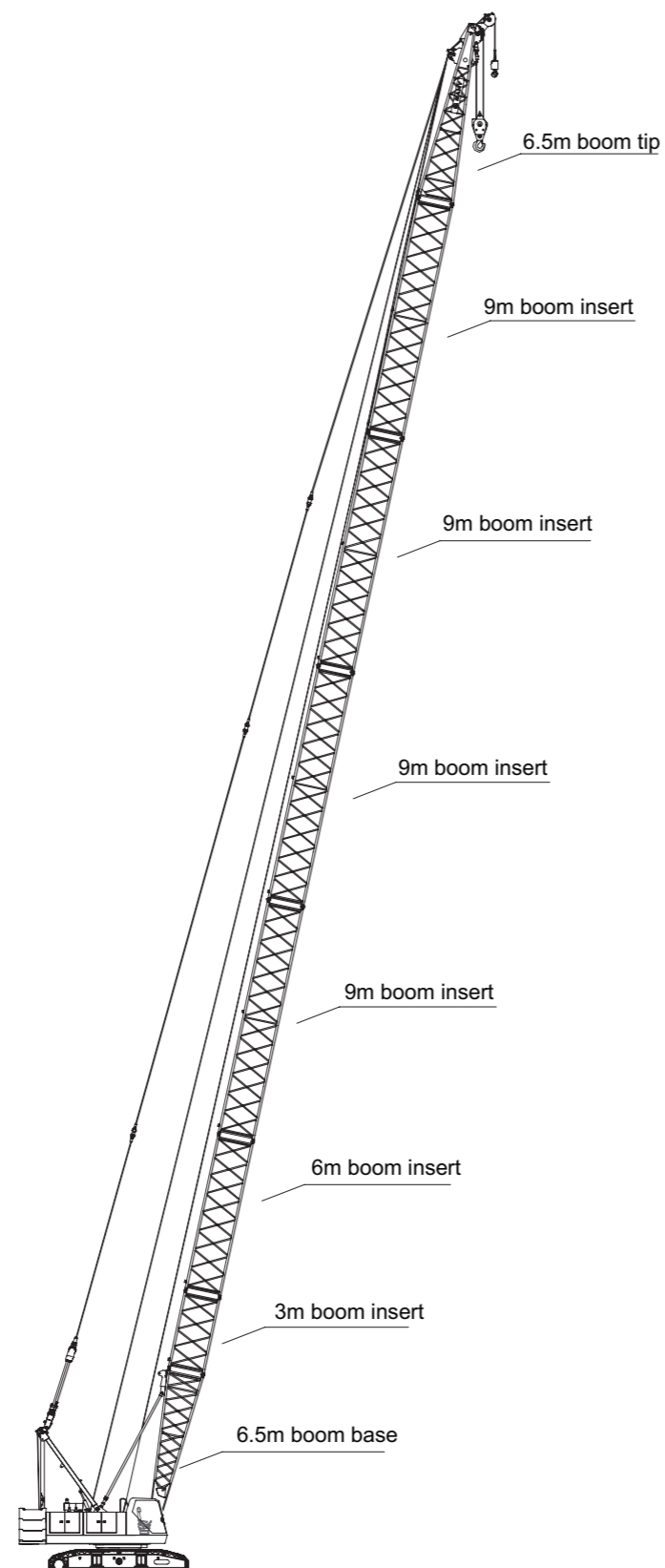
Note:

- The transportation dimension of main parts is sketch map, which was not drawn according to the rate. The dimension in the sketch is design value excluding package.
- The weight is design value and there may be difference caused manufacture.

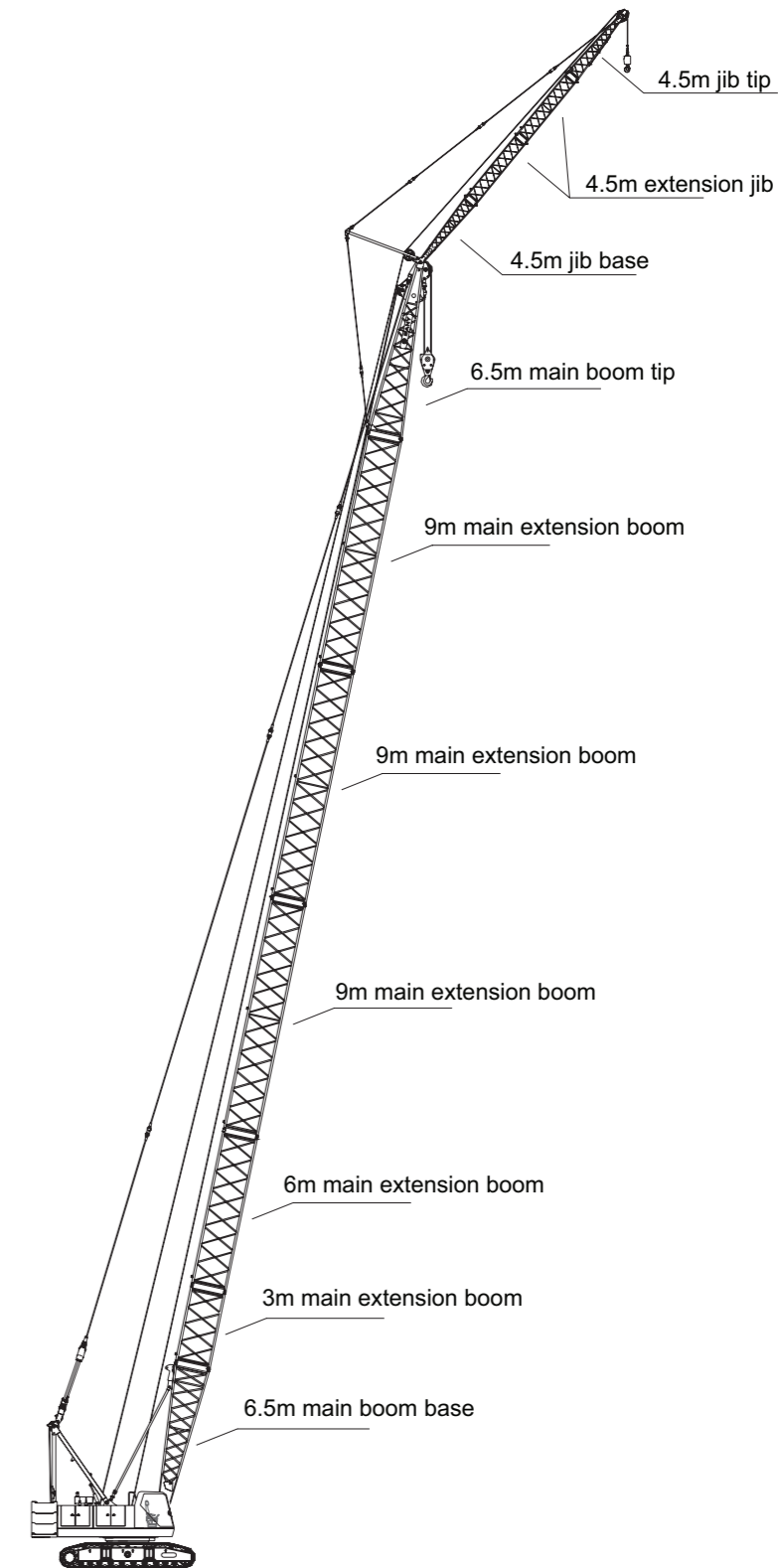
Main Boom Combination

Jib Combination

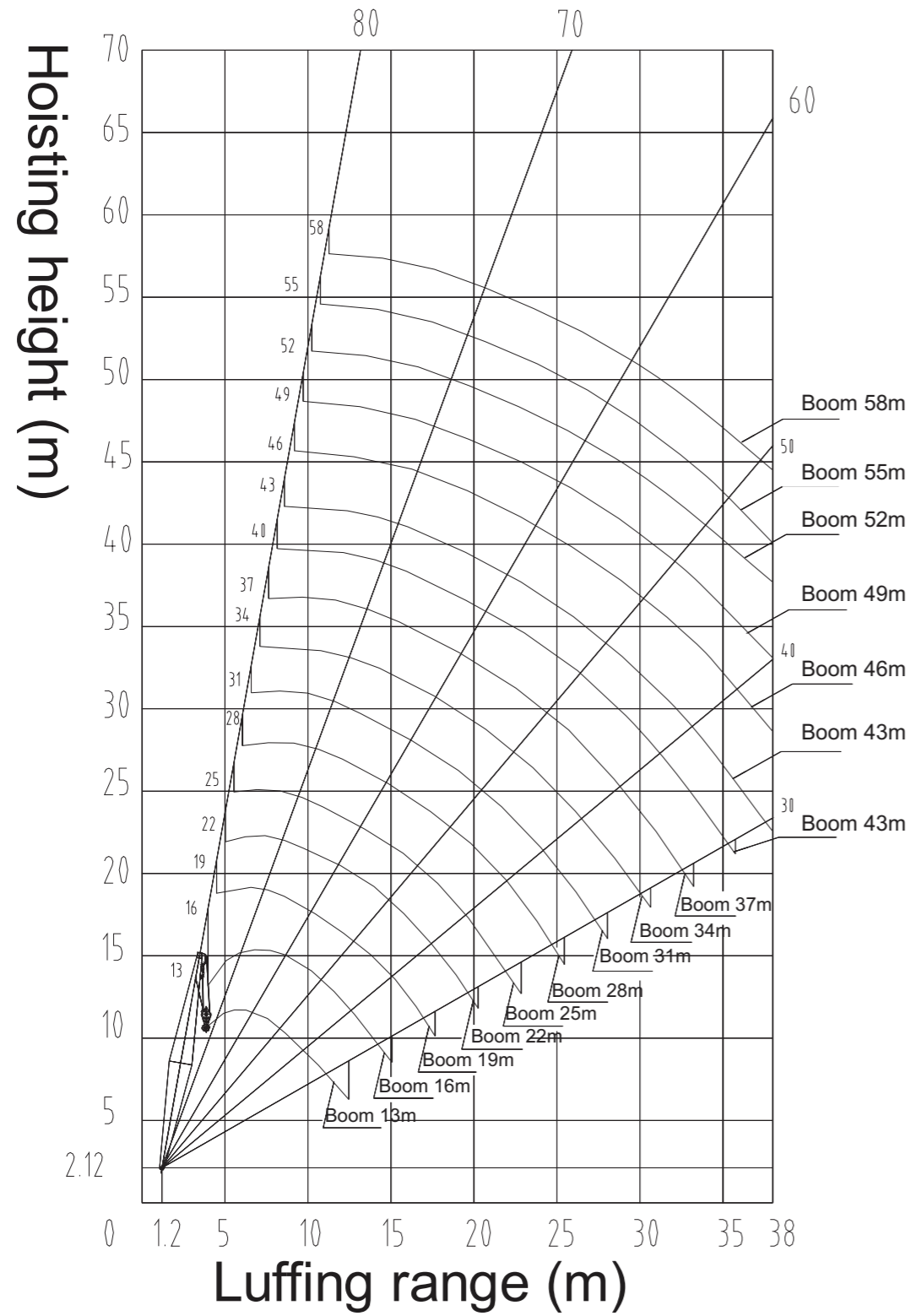
Main boom Length (m)	Boom insert		
	3m	6m	9m
13	-	-	-
16	1	-	-
19	-	1	-
22	-	-	1
25	1	-	1
28	-	1	1
31	1	1	1
34	1	-	2
37	-	1	2
40	1	1	2
43	-	-	3
46	1	-	3
49	1	1	3
52	-	-	4
55	1	-	4
58	1	1	4



Jib Length	Jib insert
	4.5m
9	-
13.5	1
18	2



Main Boom Range Diagram



Main Boom Load Chart

Amplitude (m)	Length of Main Boom (m)							Unit: t
	13	16	19	22	25	28	31	
4.3	80.00							
4.5	76.50							
5.0	68.07	66.80						
5.5	59.18	58.90	58.72					
6.0	52.30	52.02	51.84	51.66				
6.5	46.82	46.54	46.35	46.18	45.90			
7.0	42.34	42.06	41.88	41.70	41.42	40.72		
7.5	38.63	38.34	38.16	37.98	37.70	37.06	36.89	38.50
8.0	35.49	35.20	35.02	34.84	34.56	33.97	33.79	35.29
8.5	32.80	32.51	32.33	32.16	31.87	31.32	31.14	32.55
9.0	30.47	30.19	30.01	29.83	29.55	29.02	28.85	30.17
10.0	26.65	26.37	26.18	26.01	25.72	25.25	25.07	26.26
11.0	23.64	23.35	23.17	22.99	22.71	22.28	22.10	23.17
12.0	21.21	20.92	20.74	20.56	20.27	19.87	19.69	20.67
13.0		18.91	18.73	18.55	18.27	17.88	17.71	18.60
14.0		17.23	17.04	16.87	16.58	16.22	16.04	16.87
15.0			15.61	15.43	15.15	14.80	14.62	15.39
16.0			14.37	14.20	13.91	13.58	13.40	14.12
18.0				12.18	11.89	11.58	11.40	12.04
20.0					10.31	10.01	9.84	10.41
22.0					9.03	8.75	8.58	9.09
24.0						7.72	7.54	8.01
26.0							6.67	7.11
28.0								
30.0								
32.0								
34.0								
36.0								
38.0								
配重 /Counter-weight (t)	26.90	26.90	26.90	26.90	26.90	26.90	26.90	26.9+2.5

Main Boom Load Chart

Note: The black part in the chart is optional operation mode but not standard operation mode.

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Note—Rated load of the crane

1, The rated loads in the table represent the values when slowly and smoothly hoisting a weight on a horizontal and hardy soil surface under non-traveling hoisting working state.

2, The rated loads in the table were calculated under the condition that the wind speed was 9.8m/s and according to 75% of the tilting load.

3, The rated load includes the mass of hook block and other comments. Actual hoisting weight is the value of rated load in the table deducing weight of all hoisting implements such as hoisting hook block etc. (for 80t hook block, mass1.25t, 50t hook block, mass 0.75t, 25t hook block, mass 0.55t,9t hook block, mass 0.25t).

4, When installing jib or extension boom, the rated load includes masses of main and auxiliary hook blocks and the value listed in the following table. The actual load-hoisting capacity of the crane is the value in table deducing the mass listed in the following table as well as masses of main and auxiliary hook blocks, but it will not work if the residual value is below 0.8t.

Jib length (m)	9	13.5	18	Extension boom
Deducted mass (t)	0.75	1.0	1.3	0.2

5, The length of available main boom for installing jibs is 37~52m.

6, When hoisting, the track frame of the crane must be at expansion state.

7, The relation between multiplying power of wire rope and maximum rated load and mass of hook block us listed in the following table.

8, All values in the load table apply to 360°rotation.

Capacity of Hook Block	Mass of Hook Block (t)	Maximum Rated Total Load (t)											
		12 multi plyin g pow er	11 multi plyin g pow er	10 multi plyin g pow er	9 multi plyin g pow er	8 multi plyin g pow er	7 multi plyin g pow er	6 multi plyin g pow er	5 multi plyin g pow er	4 multi plyin g pow er	3 multi plyin g pow er	2 multi plyin g pow er	1 multi plyin g pow er
80t	0.865	80	73.3	66.7	60	53.3	46.7	40	33.3	26.7	20	13.3	6.7
50t	0.838						47.2	40.5	33.8	27.2	20.5	13.8	7.2
25t	0.520										20.7	14	7.4
9t	0.230												9.0

9, The counterweight (26.9t+2.5t) is an optional operation mode, but not standard operation mode. The length of main boom for the allowed additional counterweight is 31~58m.

Table of Main Boom Load

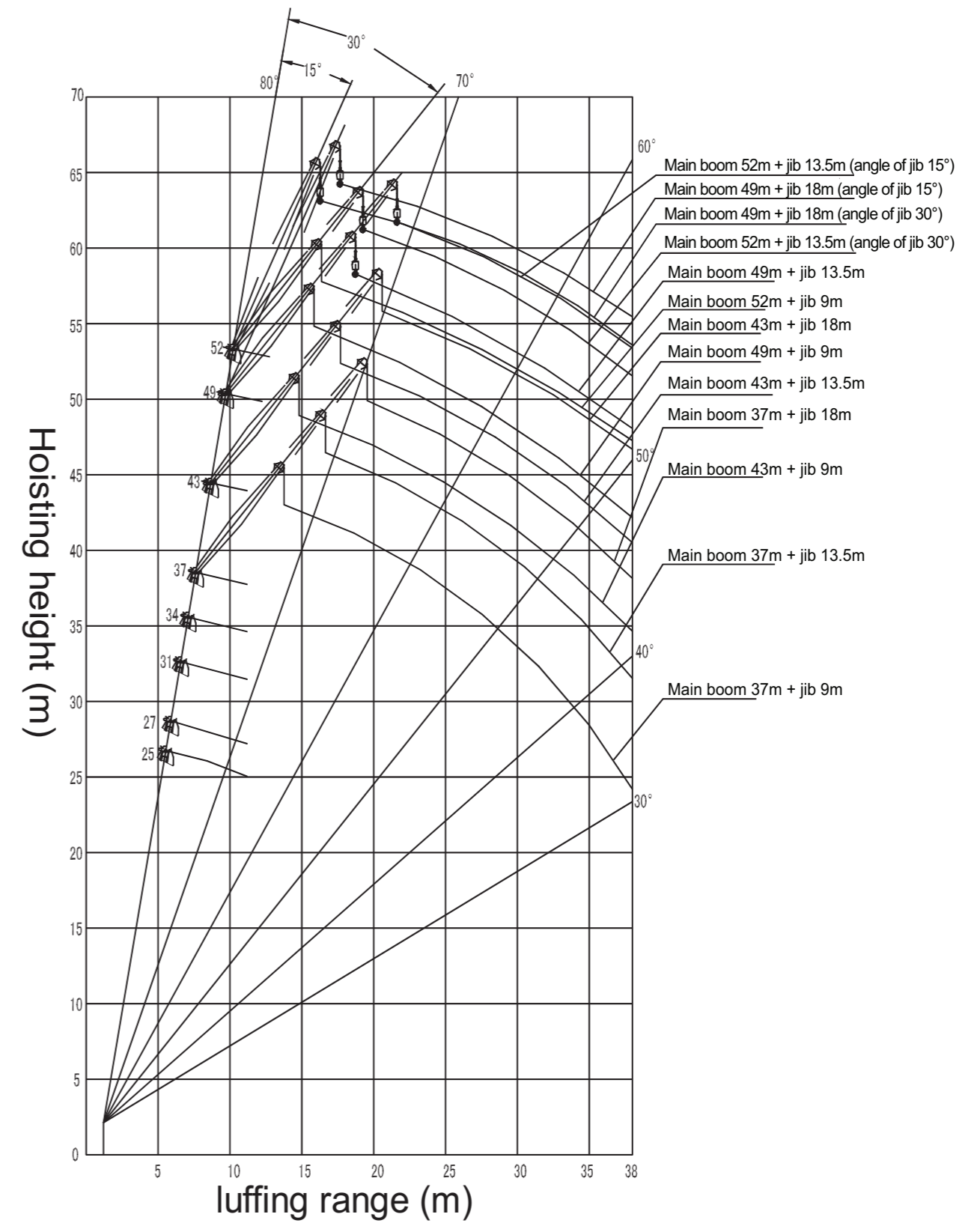
Amplitude (m)	Length of Main Boom(m)				Unit: t			
	34	37	40	43	34	37	40	43
4.3								
4.5								
5.0								
5.5								
6.0								
6.5								
7.0								
7.5								
8.0	33.51	35.01						
8.5	30.86	32.26						
9.0	28.56	29.88	28.38	29.70				
10.0	24.79	25.97	24.60	25.78	24.43	25.61	24.14	25.32
11.0	21.81	22.88	21.63	22.70	21.45	22.52	21.17	22.23
12.0	19.41	20.38	19.22	20.20	19.05	20.02	18.76	19.73
13.0	17.42	18.32	17.24	18.13	17.06	17.95	16.77	17.67
14.0	15.76	16.58	15.57	16.40	15.39	16.22	15.11	15.93
15.0	14.34	15.11	14.15	14.92	13.98	14.74	13.69	14.46
16.0	13.11	13.83	12.93	13.65	12.75	13.47	12.47	13.18
18.0	11.12	11.75	10.93	11.57	10.75	11.39	10.47	11.10
20.0	9.55	10.12	9.37	9.93	9.19	9.76	8.90	9.47
22.0	8.29	8.81	8.11	8.62	7.93	8.44	7.61	8.16
24.0	7.25	7.73	7.05	7.54	6.86	7.37	6.54	7.08
26.0	6.36	6.82	6.15	6.64	5.96	6.46	5.64	6.17
28.0	5.60	6.06	5.39	5.87	5.20	5.68	4.88	5.37
30.0	4.94	5.39	4.74	5.19	4.55	5.00	4.23	4.68
32.0			4.17	4.59	3.98	4.40	3.66	4.08
34.0					3.48	3.88	3.17	3.56
36.0							2.73	3.10
38.0							2.34	2.69
Counter-weight (t)	26.90	26.9+2.5	26.90	26.9+2.5	26.90	26.9+2.5	26.90	26.9+2.5

Note: The black part in the chart is optional operation mode but not standard operation mode.

Table of Main Boom Load

Amplitude (m)	Length of Main Boom(m)					Unit: t				
	46	49	52	55	58					
4.3										
4.5										
5.0										
5.5										
6.0										
6.5										
7.0										
7.5										
8.0										
8.5										
9.0										
10.0										
11.0	20.98	22.05								
12.0	18.58	19.55	18.40	19.37	18.11	19.08				
13.0	16.59	17.48	16.41	17.30	16.13	17.02	15.94	16.83	15.66	16.55
14.0	14.92	15.75	14.75	15.57	14.46	15.28	14.28	15.10	13.99	14.81
15.0	13.50	14.27	13.33	14.09	13.04	13.81	12.86	13.62	12.57	13.34
16.0	12.28	13.00	12.11	12.82	11.82	12.53	11.63	12.35	11.35	12.06
18.0	10.28	10.92	10.11	10.74	9.82	10.45	9.63	10.27	9.32	9.98
20.0	8.72	9.29	8.52	9.11	8.21	8.82	8.01	8.64	7.69	8.35
22.0	7.41	7.97	7.22	7.79	6.90	7.51	6.70	7.32	6.39	7.01
24.0	6.34	6.89	6.14	6.71	5.83	6.43	5.63	6.19	5.31	5.88
26.0	5.44	5.96	5.25	5.77	4.93	5.50	4.73	5.25	4.42	4.94
28.0	4.68	5.16	4.49	4.97	4.17	4.70	3.97	4.45	3.66	4.14
30.0	4.03	4.48	3.83	4.28	3.52	4.01	3.32	3.77	3.00	3.45
32.0	3.46	3.88	3.27	3.69	2.95	3.41	2.75	3.17	2.44	2.85
34.0	2.97	3.36	2.77	3.16	2.46	2.88	2.25	2.65	1.94	2.33
36.0	2.53	2.90	2.33	2.70	2.02	2.42	1.81	2.18	1.50	1.87
38.0	2.14	2.49	1.94	2.29	1.63	2.01	1.42	1.77	1.11	1.46
Counter-weight (t)	26.90	26.9+2.5	26.90	26.9+2.5	26.90	26.9+2.5	26.90	26.9+2.5	26.90	26.9+2.5

Jib Range Diagram



Jib Load Chart

Jib load chart

Main Boom Length	37m											
Length of Jib	9m				13.5m				18m			
Angle of Jib	15°		30°		15°		30°		15°		30°	
Angle of Boom	15°	30°	15°	30°	15°	30°	15°	30°	15°	30°	15°	30°
58°	4.78	5.16	4.51	4.87	4.06	4.40	3.60	3.60	3.48	3.50	2.40	2.40
59°	5.00	5.39	4.71	5.00	4.25	4.60	3.60	3.60	3.50	3.50	2.40	2.40
60°	5.24	5.64	4.91	5.00	4.46	4.82	3.60	3.60	3.50	3.50	2.40	2.40
61°	5.49	5.90	5.00	5.00	4.67	5.04	3.60	3.60	3.50	3.50	2.40	2.40
62°	5.76	6.00	5.00	5.00	4.90	5.27	3.60	3.60	3.50	3.50	2.40	2.40
63°	6.00	6.00	5.00	5.00	5.15	5.53	3.60	3.60	3.50	3.50	2.40	2.40
64°	6.00	6.00	5.00	5.00	5.41	5.81	3.60	3.60	3.50	3.50	2.40	2.40
65°	6.00	6.00	5.00	5.00	5.70	6.00	3.60	3.60	3.50	3.50	2.40	2.40
66°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
67°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
68°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
69°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
70°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
71°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
72°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
73°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
74°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
75°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
76°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
77°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
78°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
Counterweight (t)	26.9	26.9 +2.5	26.9	26.9 +2.5	26.9	26.9 +2.5	26.9	26.9 +2.5	26.9	26.9 +2.5	26.9	26.9 +2.5

Main boom length	40m											
Length of Jib	9m				13.5m				18m			
Angle of Jib	15°		30°		15°		30°		15°		30°	
Angle of Boom	15°	30°	15°	30°	15°	30°	15°	30°	15°	30°	15°	30°
58°	4.13	4.49	3.91	4.25	3.52	3.84	3.26	3.56	3.01	3.30	2.40	2.40
59°	4.34	4.71	4.10	4.45	3.70	4.03	3.41	3.60	3.17	3.47	2.40	2.40
60°	4.57	4.95	4.30	4.66	3.89	4.23	3.50	3.60	3.34	3.50	2.40	2.40
61°	4.81	5.20	4.51	4.88	4.10	4.45	3.60	3.60	3.50	3.50	2.40	2.40
62°	5.06	5.46	4.74	5.00	4.32	4.68	3.60	3.60	3.50	3.50	2.40	2.40
63°	5.34	5.75	4.98	5.00	4.56	4.93	3.60	3.60	3.50	3.50	2.40	2.40
64°	5.63	6.00	5.00	5.00	4.71	5.09	3.60	3.60	3.50	3.50	2.40	2.40
65°	5.95	6.00	5.00	5.00	5.09	5.48	3.60	3.60	3.50	3.50	2.40	2.40
66°	6.00	6.00	5.00	5.00	5.38	5.78	3.60	3.60	3.50	3.50	2.40	2.40
67°	6.00	6.00	5.00	5.00	5.70	6.00	3.60	3.60	3.50	3.50	2.40	2.40
68°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
69°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
70°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
71°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
72°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
73°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
74°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
75°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
76°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
77°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
78°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
Counterweight (t)	26.9	26.9 +2.5	26.9	26.9 +2.5	26.9	26.9 +2.5	26.9	26.9 +2.5	26.9	26.9 +2.5	26.9	26.9 +2.5

Jib load chart

Jib load chart

Main boom length	43m											
	9m				13.5m				18m			
	15°		30°		15°		30°		15°		30°	
	Angle of Boom											
58°	3.59	3.93	3.40	3.73	3.05	3.36	2.83	3.12	2.60	2.88	2.37	2.40
59°	3.78	4.13	3.58	3.91	3.22	3.54	2.98	3.28	2.76	3.05	2.40	2.40
60°	4.00	4.36	3.77	4.11	3.41	3.73	3.14	3.44	2.92	3.21	2.40	2.40
61°	4.22	4.59	3.97	4.32	3.61	3.94	3.32	3.60	3.18	3.48	2.40	2.40
62°	4.47	4.85	4.19	4.55	3.82	4.16	3.50	3.60	3.29	3.50	2.40	2.40
63°	4.73	5.12	4.42	4.79	4.05	4.40	3.60	3.60	3.49	3.50	2.40	2.40
64°	5.01	5.41	4.64	5.00	4.29	4.65	3.60	3.60	3.50	3.50	2.40	2.40
65°	5.31	5.72	4.94	5.00	4.55	4.92	3.60	3.60	3.50	3.50	2.40	2.40
66°	5.64	6.00	5.00	5.00	4.84	5.22	3.60	3.60	3.50	3.50	2.40	2.40
67°	6.00	6.00	5.00	5.00	5.14	5.54	3.60	3.60	3.50	3.50	2.40	2.40
68°	6.00	6.00	5.00	5.00	5.47	5.88	3.60	3.60	3.50	3.50	2.40	2.40
69°	6.00	6.00	5.00	5.00	5.83	6.00	3.60	3.60	3.50	3.50	2.40	2.40
70°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
71°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
72°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
73°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
74°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
75°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
76°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
77°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
78°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
Counterweight (t)	26.9	26.9 +2.5	26.9	26.9 +2.5	26.9	26.9 +2.5	26.9	26.9 +2.5	26.9	26.9 +2.5	26.9	26.9 +2.5

Main boom length	46m											
	9m				13.5m				18m			
	15°		30°		15°		30°		15°		30°	
	Angle of Boom											
58°	3.04	3.36	2.88	3.19	2.58	2.87	2.39	2.67	2.19	2.46	1.99	2.24
59°	3.23	3.56	3.06	3.38	2.74	3.04	2.54	2.82	2.34	2.62	2.12	2.38
60°	3.43	3.77	3.24	3.57	2.92	3.23	2.70	2.99	2.50	2.78	2.26	2.40
61°	3.65	4.00	3.44	3.77	3.11	3.43	2.87	3.17	2.67	2.96	2.38	2.40
62°	3.88	4.24	3.65	3.99	3.32	3.65	3.04	3.34	2.85	3.15	2.40	2.40
63°	4.13	4.50	3.87	4.22	3.53	3.86	3.23	3.54	3.04	3.35	2.40	2.40
64°	4.39	4.77	4.11	4.47	3.77	4.11	3.43	3.60	3.25	3.50	2.40	2.40
65°	4.68	5.07	4.36	4.73	4.02	4.38	3.60	3.60	3.47	3.50	2.40	2.40
66°	5.00	5.41	4.64	5.00	4.29	4.66	3.60	3.60	3.50	3.50	2.40	2.40
67°	5.34	5.76	4.94	5.00	4.59	4.97	3.60	3.60	3.50	3.50	2.40	2.40
68°	5.70	6.00	5.00	5.00	4.91	5.30	3.60	3.60	3.50	3.50	2.40	2.40
69°	6.00	6.00	5.00	5.00	5.25	5.66	3.60	3.60	3.50	3.50	2.40	2.40
70°	6.00	6.00	5.00	5.00	5.63	6.00	3.60	3.60	3.50	3.50	2.40	2.40
71°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
72°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
73°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
74°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
75°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
76°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
77°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
78°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
Counterweight (t)	26.9	26.9 +2.5	26.9	26.9 +2.5	26.9	26.9 +2.5	26.9	26.9 +2.5	26.9	26.9 +2.5	26.9	26.9 +2.5

Jib load chart

Main boom length	49m											
Length of Jib	9m				13.5m				18m			
Angle of Jib	15°		30°		15°		30°		15°		30°	
Angle of Boom												
58°	2.56	2.87	2.43	2.73	2.18	2.46	2.02	2.29	1.83	2.09	1.67	1.91
59°	2.74	3.06	2.60	2.90	2.34	2.63	2.17	2.44	1.98	2.24	1.79	2.04
60°	2.93	3.25	2.78	3.09	2.51	2.81	2.32	2.60	2.13	2.40	1.93	2.18
61°	3.14	3.47	2.96	3.28	2.69	2.99	2.48	2.77	2.29	2.57	2.07	2.33
62°	3.36	3.70	3.17	3.50	2.80	3.11	2.65	2.94	2.47	2.76	2.22	2.40
63°	3.60	3.95	3.30	3.64	3.09	3.41	2.84	3.14	2.66	2.95	2.38	2.40
64°	3.85	4.21	3.61	3.96	3.32	3.65	3.03	3.34	2.86	3.16	2.40	2.40
65°	4.13	4.51	3.86	4.22	3.56	3.90	3.24	3.56	3.07	3.38	2.40	2.40
66°	4.43	4.82	4.12	4.49	3.72	4.07	3.47	3.60	3.31	3.50	2.40	2.40
67°	4.75	5.15	4.41	4.79	4.11	4.47	3.60	3.60	3.50	3.50	2.40	2.40
68°	5.11	5.53	4.72	5.00	4.41	4.79	3.60	3.60	3.50	3.50	2.40	2.40
69°	5.49	5.92	5.00	5.00	4.75	5.14	3.60	3.60	3.50	3.50	2.40	2.40
70°	5.91	6.00	5.00	5.00	5.11	5.51	3.60	3.60	3.50	3.50	2.40	2.40
71°	6.00	6.00	5.00	5.00	5.52	5.94	3.60	3.60	3.50	3.50	2.40	2.40
72°	6.00	6.00	5.00	5.00	5.96	6.00	3.60	3.60	3.50	3.50	2.40	2.40
73°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
74°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
75°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
76°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
77°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
78°	6.00	6.00	5.00	5.00	6.00	6.00	3.60	3.60	3.50	3.50	2.40	2.40
Counterweight (t)	26.9	26.9 +2.5	26.9	26.9 +2.5	26.9	26.9 +2.5	26.9	26.9 +2.5	26.9	26.9 +2.5	26.9	26.9 +2.5

Jib load chart

Main boom length	52m							
Length of Jib	9m				13.5m			
Angle of Jib	15°		30°		15°		30°	
Angle of Boom								
58°	2.05	2.35	1.94	2.22	1.74	2.01	1.62	1.88
59°	2.19	2.49	2.08	2.37	1.90	2.18	1.76	2.02
60°	2.34	2.65	2.22	2.52	2.06	2.34	1.91	2.18
61°	2.51	2.83	2.37	2.68	2.24	2.53	2.06	2.33
62°	2.69	3.02	2.54	2.85	2.42	2.72	2.23	2.51
63°	2.88	3.22	2.64	2.96	2.63	2.94	2.41	2.70
64°	3.08	3.43	2.89	3.22	2.84	3.16	2.60	2.90
65°	3.30	3.66	3.09	3.43	3.08	3.41	2.88	3.18
66°	3.54	3.91	3.30	3.65	3.33	3.67	3.02	3.33
67°	3.80	4.18	3.53	3.89	3.60	3.95	3.26	3.58
68°	4.09	4.49	3.78	4.00	3.90	4.26	3.51	3.60
69°	4.39	4.80	4.00	4.00	4.22	4.59	3.60	3.60
70°	4.73	4.80	4.00	4.00	4.50	4.80	3.60	3.60
71°	4.80	4.80	4.00	4.00	4.66	4.80	3.60	3.60
72°	4.80	4.80	4.00	4.00	4.80	4.80	3.60	3.60
73°	4.80	4.80	4.00	4.00	4.80	4.80	3.60	3.60
74°	4.80	4.80	4.00	4.00	4.80	4.80	3.60	3.60
75°	4.80	4.80	4.00	4.00	4.80	4.80	3.60	3.60
76°	4.80	4.80	4.00	4.00	4.80	4.80	3.60	3.60
77°	4.80	4.80	4.00	4.00	4.80	4.80	3.60	3.60
78°	4.80	4.80	4.00	4.00	4.80	4.80	3.60	3.60
Counterweight (t)	26.9	26.9 +2.5	26.9	26.9 +2.5	26.9	26.9 +2.5	26.9	26.9 +2.5