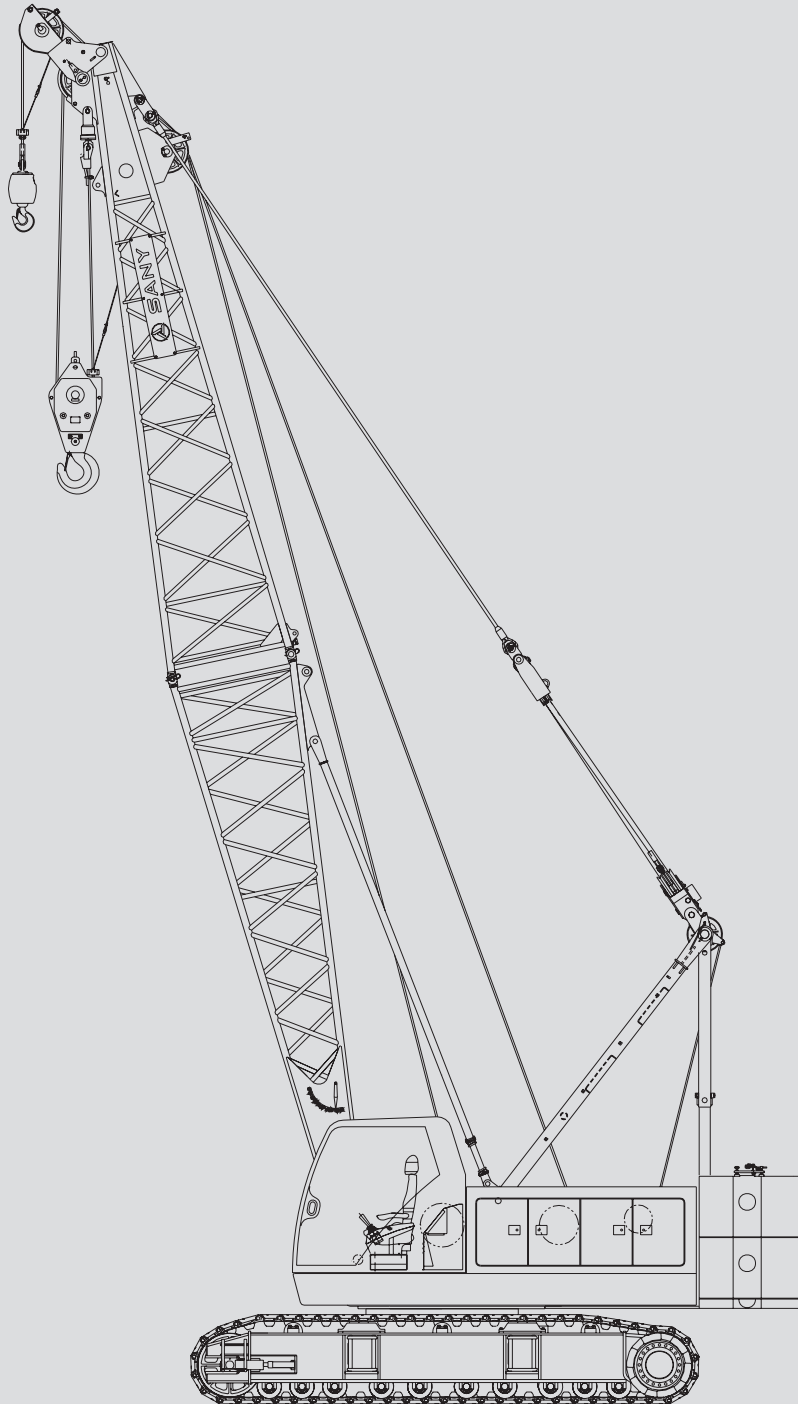


Crawler Crane Series SCC500E



SANY

A **SCC500E Crawler Crane Series** **03**

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SCC500E

A

04 Basic Dimensions of the Whole Machine

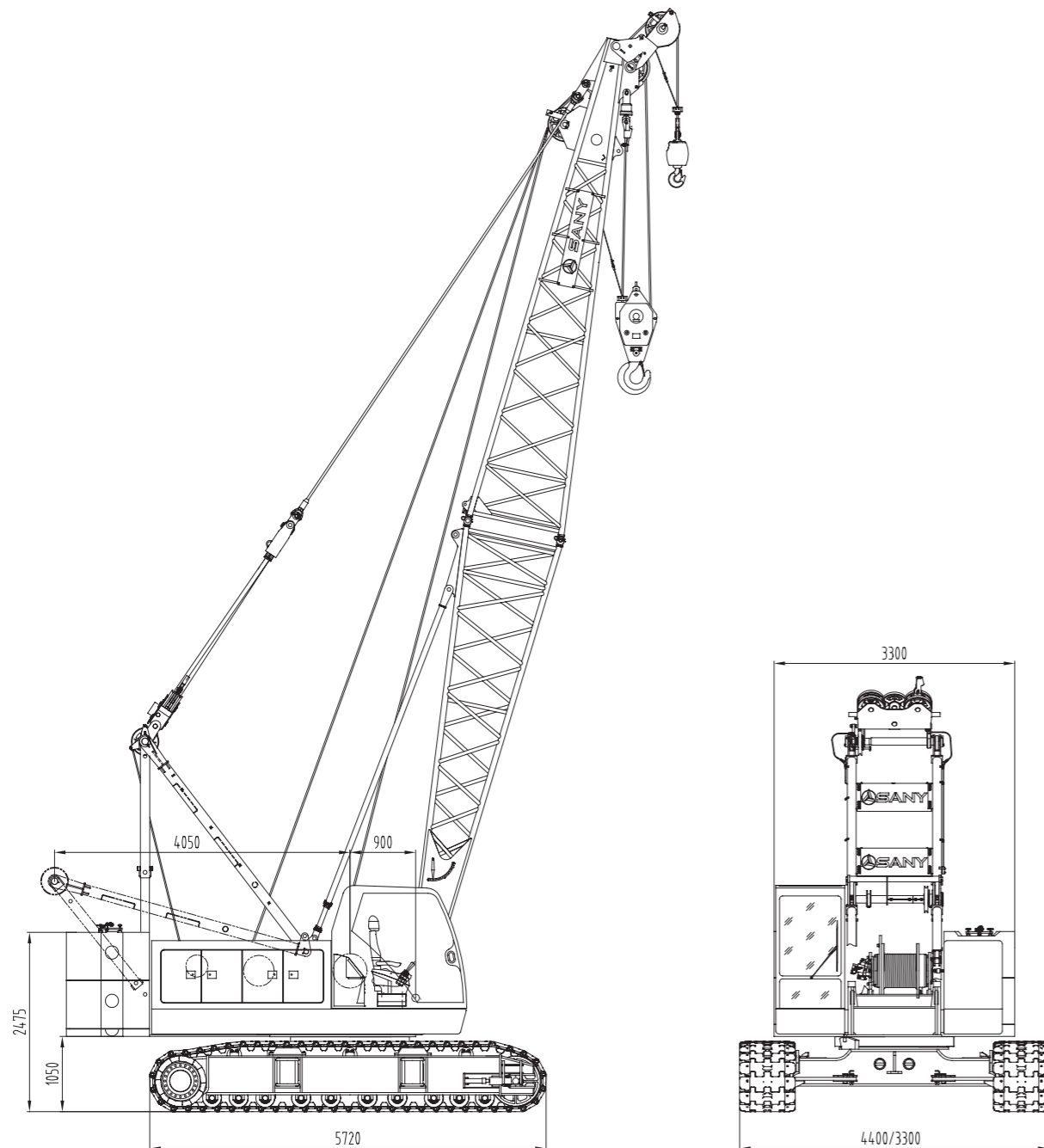
05 Main Technical Features

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Basic Dimensions of the Whole Machine



Main Technical Features

- 1.Safety control system:** The two operating modes of operating and assembling are convenient and reliable; the crane is equipped with the functions of real-time display of levelness, off-line stop action, emergency electric control, lightning protection, automatic traveling direction adjustment, CCTV monitoring, etc., and the safety and monitoring devices are complete;
- 2.Outstanding operating performance:** Load sensing, limit load adjustment and electro-hydraulic proportion dead slow control offer the perfect inching performance of actions, and more stable operation;
- 3.Reliable function assurance:** The designed safety margin of structures and configurations are proved; the control system operates stably under the harsh environments like extreme cold weather, high temperature, plateau or sand wind; hydraulic system of world-renowned brand ensures high system stability and reliability;
- 4.Convenient maintenance:** The access time of

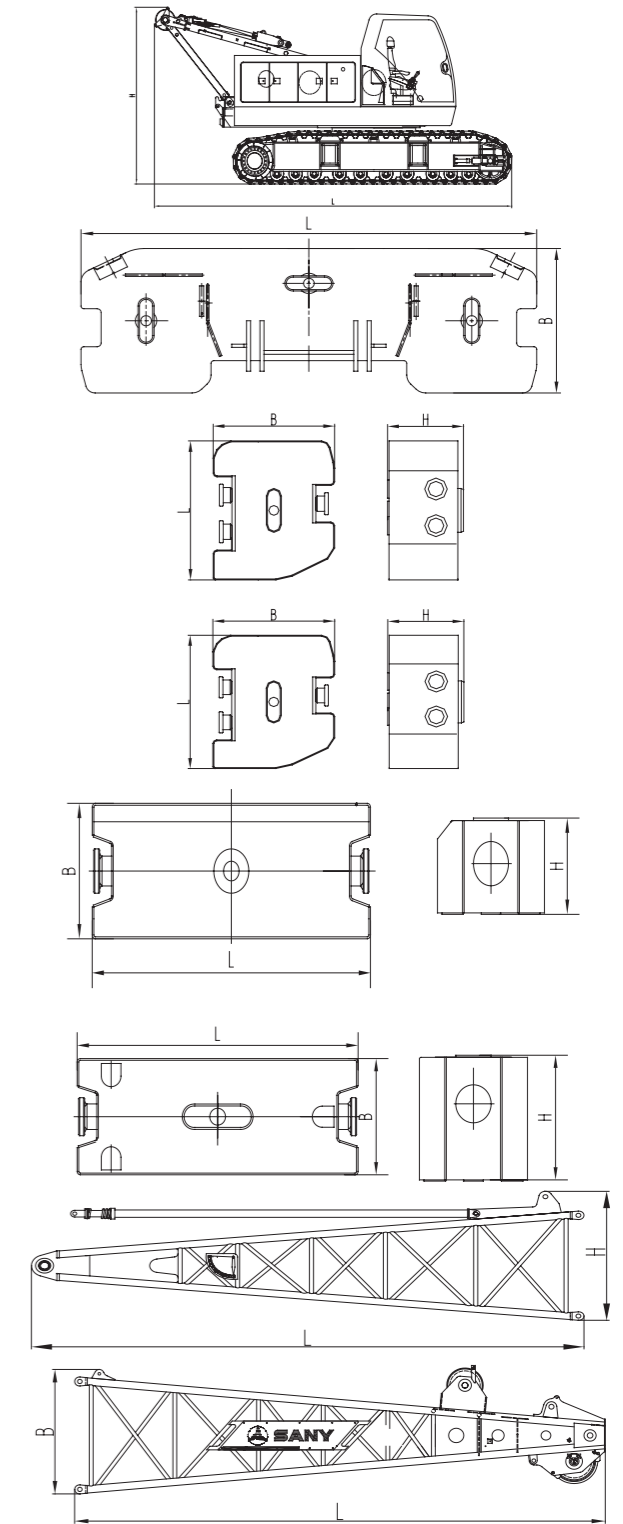
- daily maintenance cost is no more than 10min/person, that of daily care is no more than 30min/person, and the maximum maintenance access time is no more than 2h/person; GPS remote monitoring system is applied for facilitate maintenance and equipment management;
- 5.Powerful lifting capacity:** The maximum lifting capacity of boom is $50t \times 3.7m = 185t \cdot m$, and the max. length of main boom is 52m;
 - 6.Flexible configuration combination:** Free fall function is optional;
 - 7.Large-chassis design:** The chassis with large gauge ensures excellent machine and operation stability within 360° rotation range;
 - 8.Optimized transportation scheme:** With the function of crawler frame telescopic function, the max. transportation width of the whole machine is 3.3m;
 - 9.Two counterweight configurations:** Improve the lifting capacity of medium and long boom.

Performance Data

Main performance data of SCC500E crawler crane			
Performance index		Unit	Data
Boom operating condition	Max. rated lifting capacity	t	50
	Boom length	m	13~52
	Boom luffing angle		30°~78°
	Max. rated lifting moment	t·m	50×3.7
Operating Condition of Fixed Jib	Max. length boom + Max. length jib	m	43+15.25
	Angle between fixed boom and jib		10°□30°
Working speed	Rope speed of main and auxiliary winches	m/min	0~63/0~102
	Rope speed of luffing winch	m/min	0~73
	Slewing speed	rpm	0~3.2/0~1.6
	Travel Speed	km/h	0~1.39
Engine	Output power/rated speed	kW/rpm	127/2000
Transportation parameter	Maximum transport weight of single piece	t	30
	Transportation size (length x width x height)	mm	7110×3300×3260
Other parameters	Average ground pressure	MPa	0.061

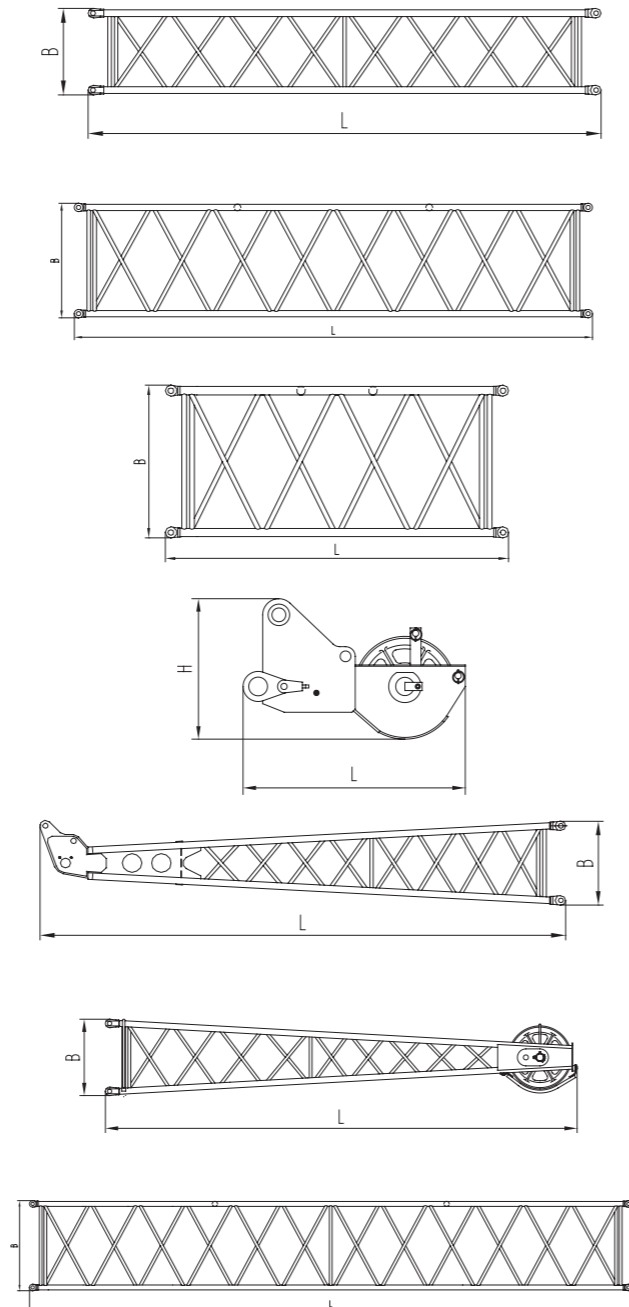
Transport Dimensions

Crane body	×1
Length (L)	7.11m
Width (W)	3.3m
Height (H)	3.26m
Weight	30t
Counterweight tray	×1
Length (L)	3.4m
Width (W)	1.14m
Height (H)	0.79m
Weight	3.4t
Left counterweight block	×2
Length (L)	1.14m
Width (W)	0.97m
Height (H)	0.67m
Weight	3.0t
Right counterweight block	×2
Length (L)	1.14m
Width (W)	0.97m
Height (H)	0.67m
Weight	3.0t
Additional counterweight block	×1
Length (L)	1.43m
Width (W)	0.55m
Height (H)	0.39m
Weight	1.5t
Central counterweight block	×1
Length (L)	1.43m
Width (W)	0.75m
Height (H)	0.59m
Weight	2.1t
Boom base	×1
Length (L)	6.65m
Width (W)	1.54m
Height (H)	1.40m
Weight	1.2t
Boom tip	×1
Length (L)	6.88m
Width (W)	1.47m
Height (H)	1.40m
Weight	1.1t



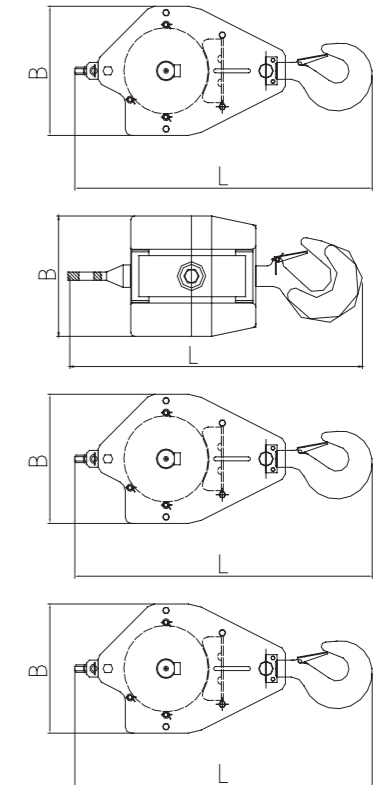
Transport Dimensions

9m boom insert	x2
Length (L)	9.1m
Width (W)	1.4m
Height (H)	1.4m
Weight	0.9t
6m boom insert	x3
Length (L)	6.1m
Width (W)	1.4m
Height (H)	1.4m
Weight	0.6t
3m boom insert	x1
Length (L)	3.1m
Width (W)	1.4m
Height (H)	1.4m
Weight	0.4t
Extension arm	x1
Length (L)	1.03m
Width (W)	0.717m
Height (H)	0.65m
Weight	0.2t
Jib base	x1
Length (L)	3.35m
Width (W)	0.6m
Height (H)	0.55m
Weight	0.2t
Jib tip	x1
Length (L)	3.35m
Width (W)	0.6m
Height (H)	0.55m
Weight	0.2t
Jib insert	x3
Length (L)	3.11m
Width (W)	0.6m
Height (H)	0.55m
Weight	0.1t



Transport Dimensions

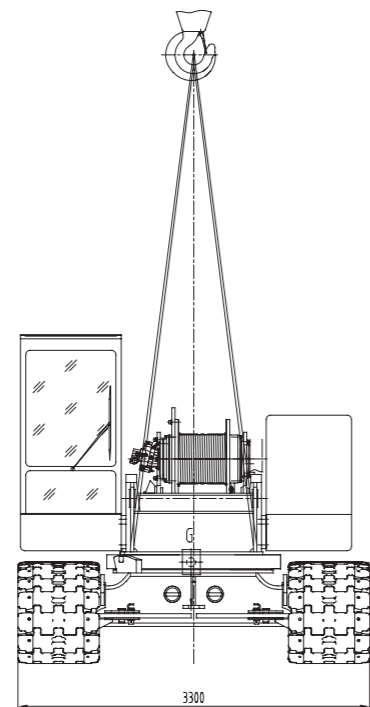
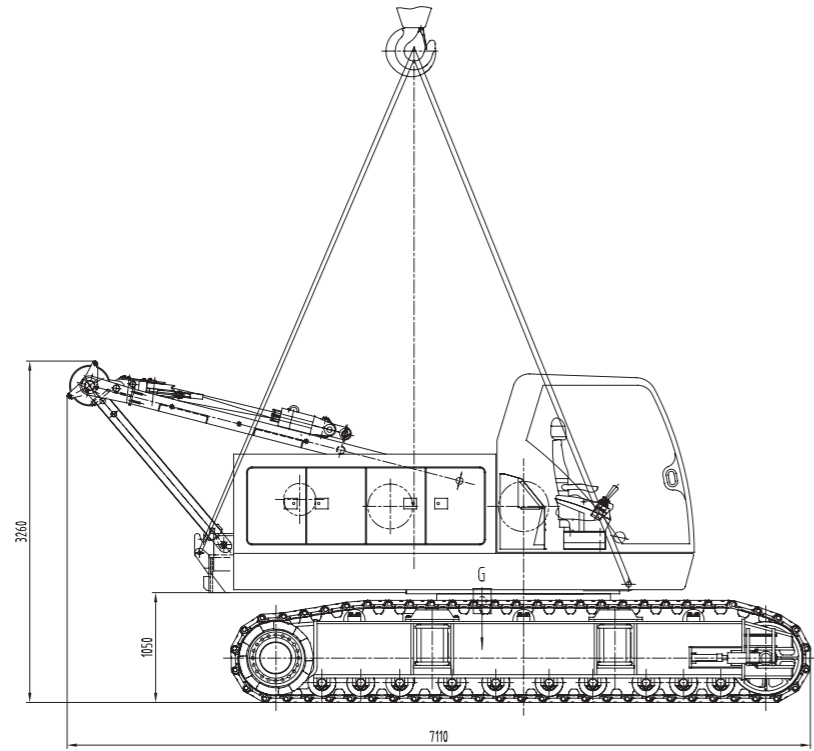
5t lifting hook	x1
Length (L)	0.8m
Width (W)	0.322m
Height (H)	0.322m
Weight	0.2t
15t lifting hook	x1
Length (L)	1.52m
Width (W)	0.65m
Height (H)	0.311m
Weight	0.4t
30t lifting hook	x1
Length (L)	1.58m
Width (W)	0.65m
Height (H)	0.34m
Weight	0.5t
50t lifting hook	x1
Length (L)	1.64m
Width (W)	0.65m
Height (H)	0.392m
Weight	0.6t



Notes:

- (1) The transport dimensions of the parts are marked on schematic diagrams, but not drawn by scale; the dimensions indicated are the design values excluding package.
- (2) The weight is the design value and there may be tiny difference due to the manufacturing calibration.

■ Hoisting Diagram



B

- 12 Specifications
- 14 Lowerworks
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- 16 Safety Devices

A



Specifications

■ Engine

Imported Cummins QSB6.7 electronic-controlled line six-cylinder, water-cooled, turbo charging.
 Rated power: 127kW/2000r/min
 Max. Torque: 658N•m/1500r/min
 Emission standard: Tier III
 Air filtering: Two-stage filtering system consisting of air pre-filter and air filter.
 Fuel tank: 230L in capacity.
 Optional engine: 6BTA5.9-C167 imported Cummins engine.
 Rated power: 124kW/2000r/min
 Max. Torque: 651N•m/1500r/min
 Emission standard: Tier I

■ Electric Control System

CAN bus is used for data communication among controller, combined instrument, engine, load moment limiter, and remote control terminal.
 The combined instrument may indicate working parameters, e.g. rotational speed of the engine, fuel volume, engine oil pressure, servo pressure, wind speed, engine working hours, etc., and working states, e.g. main winch lockup, main luffing lockup, slewing lockup, etc.

■ Hydraulic System

Configuration of hydraulic system: The hydraulic system of a world-renowned brand is used, including main pump, main valve, manipulation handle, and motor reducer, efficient, energy-conserving, stable, and reliable.
 With outstanding slewing performance and improved inching capability, load sensing and threshold load adjustment, the operation becomes more stable.
 The hydraulic oil cooling system under independent

control is used.

■ Main and Auxiliary Hoisting Mechanisms

The main and auxiliary winches are operated separately. The drum is directly driven by the winch motor through the reducer. The drum may rotate in two directions through the winch handle, that is, the hook lifting and lowering.
 The motor reducer of a world-renowned brand boasts higher reliability;
 The design of polyline drum ensures smooth multi-layer winding of ropes;
 The wire ropes of a world-renowned brand are used, featuring higher reliability and durability.

Main and Auxiliary Hoisting Mechanisms	Rope speed of the outermost working layer (R)	0~102m/min (high speed) 0~63m/min (low speed)
	Rope speed of the outermost working layer (K)	0~120m/min
	Wire rope diameter	20mm
	Wire rope length of main winch	180m
	Wire rope length of auxiliary winch	130m
	Rated single rope pull	6.1t

■ Luffing Mechanism

The drum is directly driven by the luffing motor through the reducer. The drum may rotate in two directions through the winch handle, that is, boom raising and lowering.
 The motor reducer of a world-renowned brand boasts higher reliability;
 The design of polyline drum ensures smooth multi-layer winding of ropes;
 The wire ropes of a world-renowned brand are used,

featuring higher reliability and durability.

Luffing Mechanism	Rope speed of the outermost working layer (R)	0~73m/min
	Rope speed of the outermost working layer (K)	0~90m/min
	Wire rope diameter	16mm
	Wire rope length of luffing winch	142m
	Rated single rope pull	3.7t

■ Slewing System

Inner-engaged slewing drive allows 360° rotation.
 The motor reducer of a world-renowned brand boasts higher reliability;
 Slewing lock: Hydraulically controlled locking pin is equipped to ensure the superworks are locked securely after work or during transportation.
 Free slipping: If, upon hoisting, the center of boom and load center are not at the same plane due to incorrect judgment, the function of free slipping may automatically adjust the superworks correctly to prevent the hoisted load from swinging.
 Slewing ring: Single-row ball slewing ring.

■ Counterweight

The trays and are cast counterweight blocks are piled in a superimposed way to facilitate combination, assembly and disassembly, and transportation.

Standard counterweight: 17.5t. Composition: tray 3.4t×1, left counterweight block 3.0t×2, right counterweight block 3.0t×2, and central counterweight block 2.1t×1. Additional counterweight: 1.5t×1.

Under a special condition, additional counterweight block may improve the lifting capacity of medium and long boom.

■ Driver's Cab

The driver's cab is equipped with a sliding door in new design, boasting large glass windows; with near and far head lights and rearview mirror, boasting broader vision; with air conditioner (cool/warm), MP3 player; and seat, control levers, and control buttons all arranged ergonomically, making the operation more comfortable.
 Armrest box: The left and right armrest boxes are equipped with control levers, electric switches, and ignition lock, etc. The arm box can also be adjusted with the seat.
 Seat: A suspended, multi-direction and multi-position, adjustable seat is equipped with an unloading switch.
 Air conditioner: cool and warm air, optimized air channel, and air outlet.



Lowerworks

■ Traveling Drive

Independent traveling drive is mounted at each crawler frame. The traveling motor achieves straight-line traveling and steering through reducer and driving wheel.

■ Traveling Brake

Built-in, wet, spring-loaded normal-engaged disk brake applies braking through spring force and release braking through oil pressure.

■ Extension of Crawler

The crawler frame is extended and retracted through the extension of cylinder.

■ Tensity of Crawler

Hydraulic jack is used to push the guide pulley, and the adjusting gasket to adjust the tensity of crawler.

■ Track Shoes

High-strength, alloy cast steel crawler shoes.

■ Traveling Speed

0~1.39km/h (without load, on level and hard soil ground)



Operation Device

■ Boom

In a truss structure, the main chords use high-strength alloy steel pipes. All boom sections are connected with pin shafts.

Basic boom: composed of 6.5m base and 6.5m tip.

Insert: 3m×1, 6m×3 and 9m×2.

Boom length: 13~52m.

■ Fixed jib

In a truss structure, the main chords use high-strength alloy steel pipes. All boom sections are connected with pin shafts.

Basic boom: composed of 3.05m base and 3.05m tip.

Insert: 3.05m×3.

Jib length: 6.1~15.25m.

Fully extended boom + jib: 43m boom + 15.25m jib.

■ Extension arm

In a welded structure, it is jointed with boom through pin roll for auxiliary hook operation.

■ Lifting hook

50t lifting hook

30t lifting hook

15t lifting hook

5t lifting hook

Note: The above operation devices are in all configurations, and the specific configuration should be subject to contract for goods.



Safety Devices

■Load Moment Limiter

Standard configuration, optional manufacturer.

As an independent safety operation system controlled by computer, the load moment limiter may automatically detect the weight hoisted by the crane, operating radius and angle of boom, and compare the rated loading capacity with the actual load, operating radius and angle of lifting boom; Under normal operation, it may automatically judge the direction of dangerous action of the crane in an intelligent way, and may also record the information on overload as it is equipped with a black box.

Main components: display, host box, angle sensor, and force sensor.

■Emergency Operating System

When the system program collapses, an emergent electric plug-in may be used to shift the whole machine to a safe condition for emergency. Then, all safety protection devices are not functioning.

■Switch for Assembling Mode/Operating Mode

Under the assembling mode, the over roll-out limit device, boom limit device and load moment limiter do not function during crane installation.

While under the operating mode, all these safety limit devices are functioning.

■Emergency Stop

This button is fixed on the control box inside the driver's cab, and upon an emergency, it may be pressed down to stop all action and shut down the engine.

■Over Roll-out Limit Device for Main and Auxiliary Hoists

It is composed of limit switch, weight dropper, etc. They are mounted on the tip and used to prevent the hook from being over-lifted. When the hook reaches to the upper limit, the limit switch will get actuated,

with buzzer on the left control panel giving out alarms; meanwhile, the lifting action of the hook will stop automatically.

■Over-hoist Limit Device for Main and Auxiliary Hoists

It is composed of the action trigger action and proximity switch inside the reel, to prevent over hoisting of wire rope. When the wire rope is rolled out near the last three circles, the limit switch will get actuated, and with alarms sending out by the buzzer, the system will display the alarm information on the combined instrument and shut off the dropping action of winch automatically.

■Function Locking

If the function locking joystick is not fixed in position, all other functional control levers will not work, so as to prevent misoperation due to knocks of body in getting on and off the crane.

When the operator is not at seat, all manipulations will be out of function, so as to avoid misoperations effectively.

■Winch Lock Device

The main and auxiliary luffing winches are equipped with ratchet pawl locking device, so it is required to operate the control switch consciously to open and lock for misoperation preventing.

■Slewing Lock Device

A hydraulic power pin may lock the crane from four directions, front, back, left and right; the slewing pin and slewing action are electrically interlocked to prevent misoperation.

■A-frame Alarming Device

In assembly mode, If A-frame is not lifted to the given position, it will be shifted to the working mode; the system will alarms through the buzzer and display, and all actions are not functioning at the same time.

■Boom Limit Device

When the angle of lifting boom is over 78°, the buzzer will alarms and raising operation will be stopped. The protection function is controlled in two stages by load moment limiter and travel switch.

When the angle of lifting boom is less than 30°, the system will alarm through the buzzer and display the alarm information on the combined instrument while shutting off the dropping action automatically. The protection function is automatically controlled by the load moment limiter.

■Boom Back-stop Device

Composed of nested steel pipe, spring, etc., it prevents the boom from back-tilting by relying on the spring force to buffer the inclining force of boom.

■Boom Angle Indicator

Pendulum-type angle indicator is equipped on the boom base side near the driver's cab, it is easy for operators to check.

■Hook Clamp Plate

Each hook is equipped with a clamp plate to prevent the wire rope from falling off.

■Monitoring System

Camera: 2 cameras, respectively for monitoring the auxiliary winch, luffing winch and the rear view of the crane.

Optional monitoring: monitoring the working situation of hooks.

Optional remote monitoring: GPS satellite positioning, GPRS data transmission, enquiry and calculation of equipment use state, monitoring and analysis of operation data, and remote diagnosis of fault.

■Lightning Protection Device

It includes the grounding device and surge protection device, which can effectively prevent the damages to

devices of electrical system and injuries to operators in case of lightning stroke.

■Gradiometer

The gradiometer may indicate the inclination angle of superworks on the display.

■Tri-color Load Alarming Light

The load alarming light may show three colors, green, yellow and red, indicating the real-time load synchronically. When the actual load is below 92% of the rated load, the light will turn green; when actual load is above 92% but below 100% of the rated load, the light will turn yellow, and pre-alarming light will twinkle and give out intermittent alarms; when the actual load reaches 100% of the rated load, the light will turn red, and pre-alarming light will twinkle and give out continuous alarms; and when the actual load reaches 102% of the rated load, the system will automatically cut off the operation of the crane towards danger.

■Audio-visual Alarm

When the engine runs, the light will flash; when the crane travels or slews, it will give audio alarm.

■Slewing indicator

When the crane travels or slews, the slewing indicator will flash.

■Illumination

Night illuminating devices, such as winch illuminator, dipped headlight in front of the driver's cab, front angle-adjustable high beam, illuminator inside the driver's cab, are equipped to improve the safety of night construction.

■Rearview Mirror

Mirrors are set at the right side of the driver's cab and front handrail of cover for the convenience of monitoring the rear part of crane body.

■Pharos

It is mounted on the top of the boom for guiding from high above.

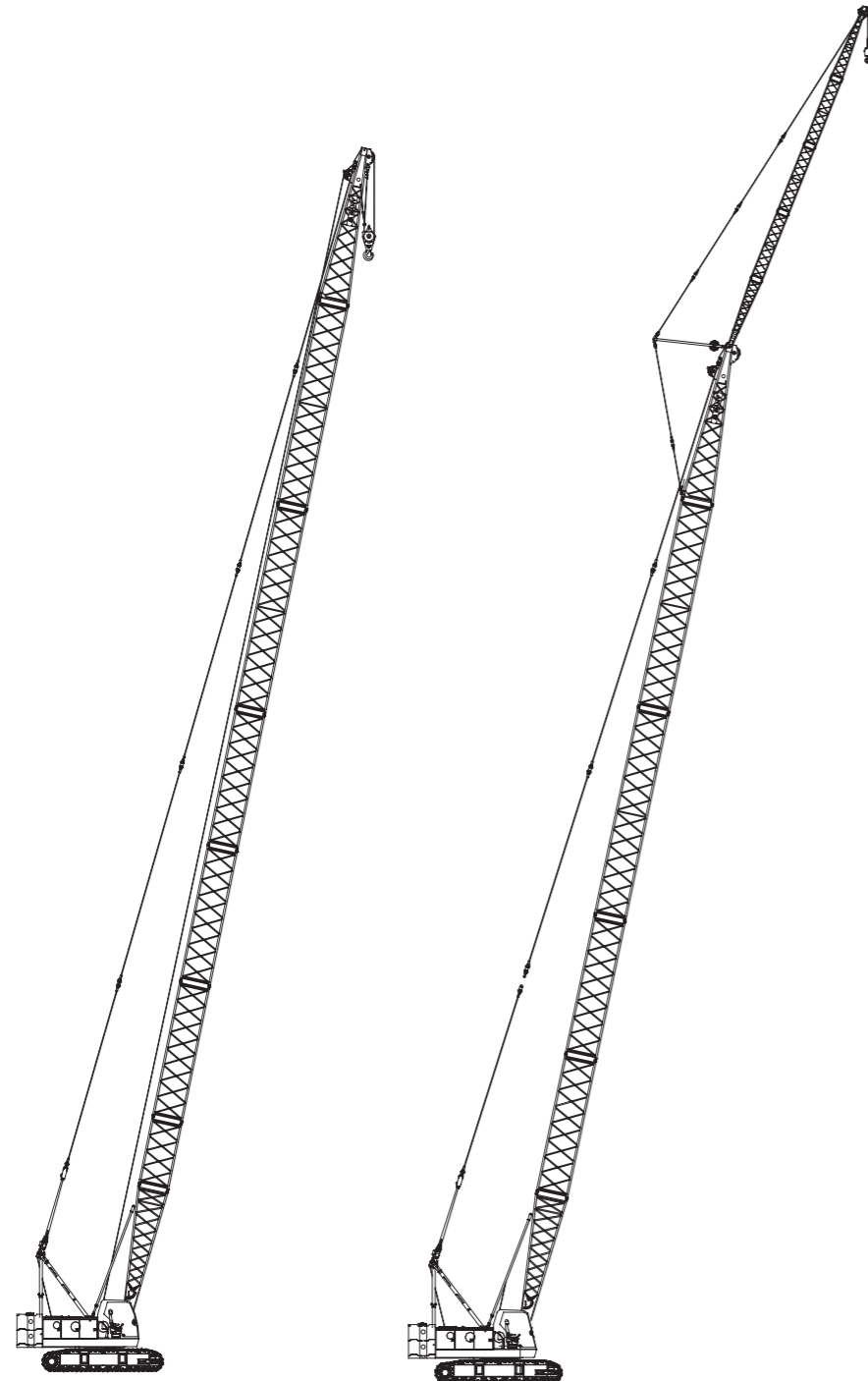
■Anemometer

It is installed on the top of boom to have real-time monitoring over the wind velocity and send data to the driver's cab to display on the monitor there.



20	Operating Condition Combination
21	H Operating Condition of Boom Boom Combination of H Operating Condition Condition
22	Operating Range Diagram of H Operating Condition
23	Load Charts of H Operating Condition
26	FJ Operating Condition of Fixed Jib
27	Operating Range Diagram of FJ Operating Condition
28	FJ Operating Condition Load Charts

Operating Condition Combination



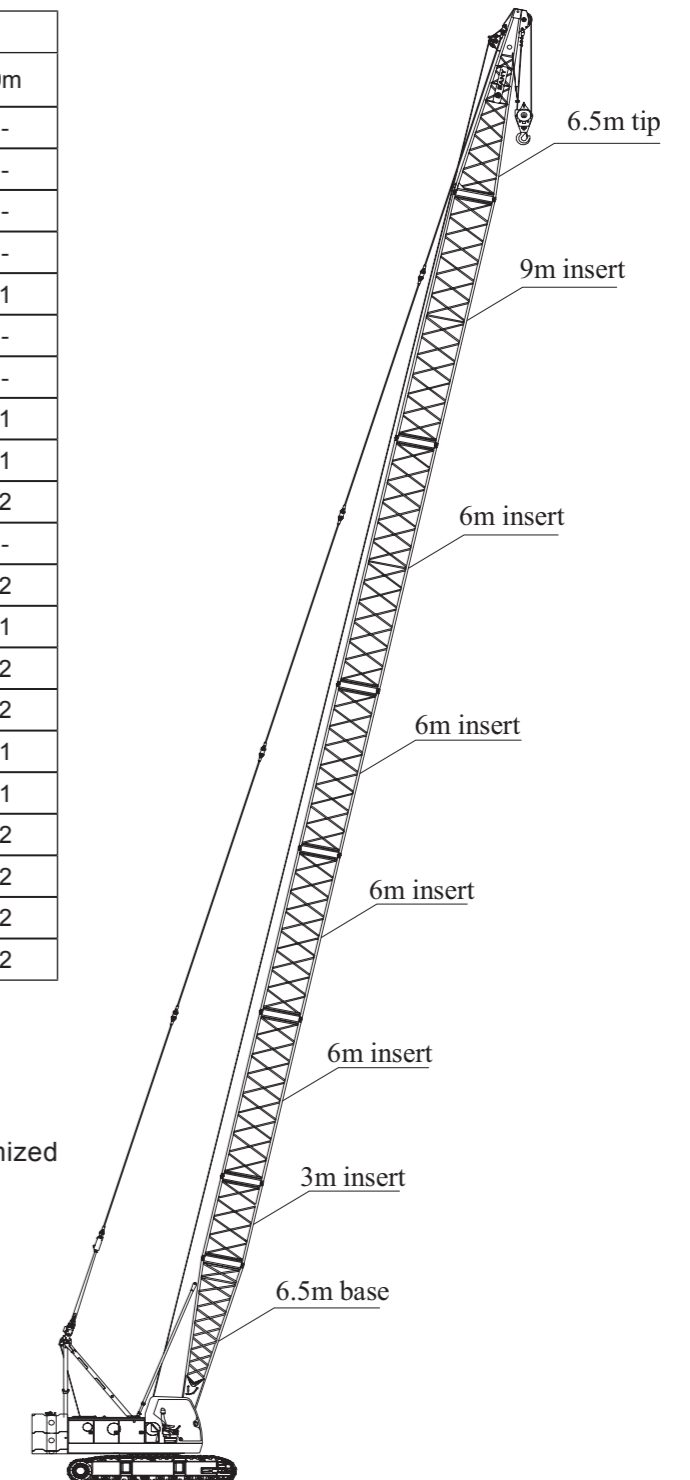
H operation condition
Boom 13m-52m

FJ operating condition
Boom 22m-43m
Fixed jib 6.1m-15.25m

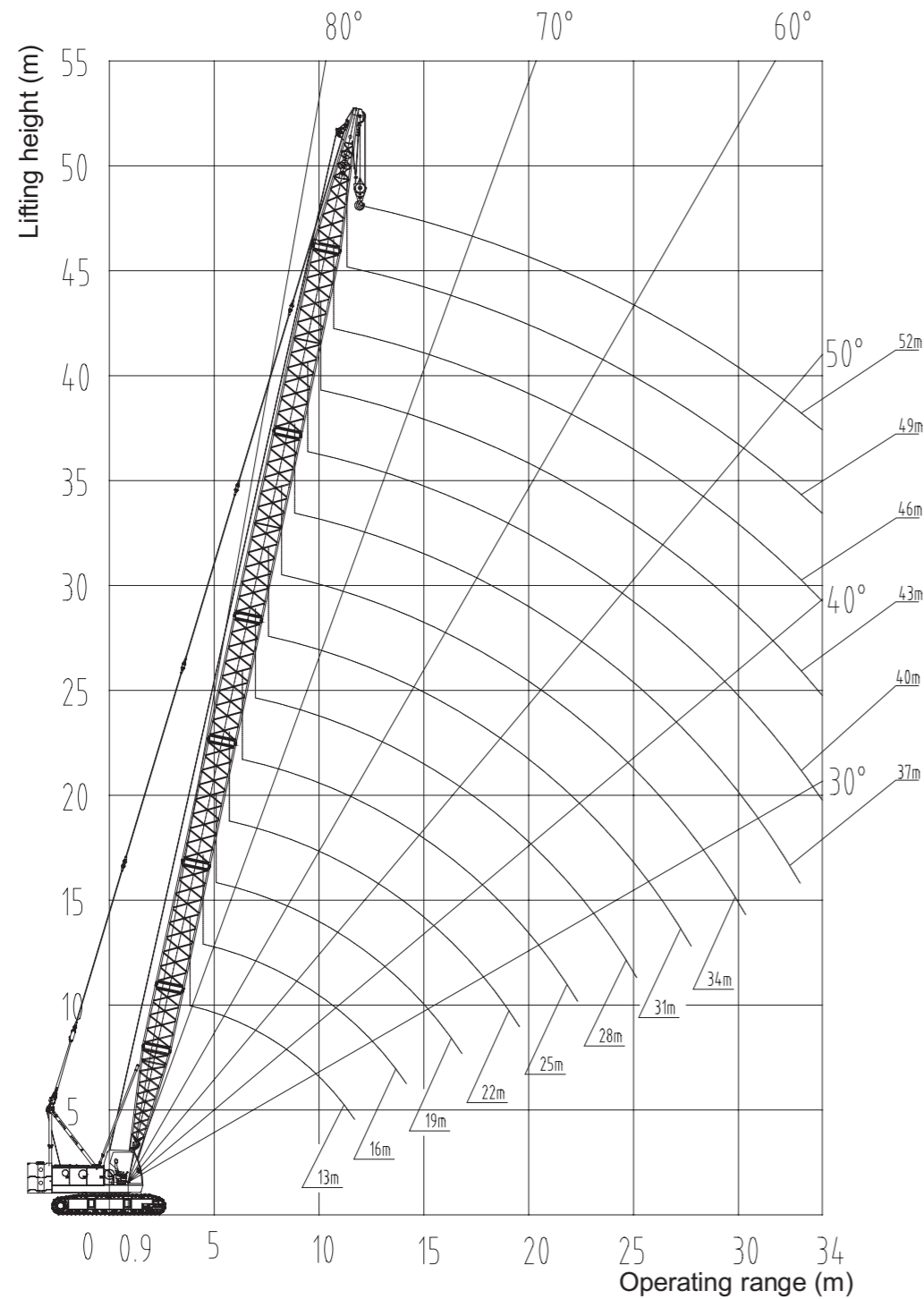
H Operating Condition of Boom Boom Combination of H Operating Condition Condition

Boom length	Basic boom		Insert		
	6.5m base	6.5m tip	3m	6m	9m
13	1	1	-	-	-
16	1	1	1	-	-
19	1	1	-	1	-
22	1	1	1	1	-
★	1	1	-	-	1
25	1	1	-	2	-
28	1	1	1	2	-
★	1	1	-	1	1
31	1	1	1	1	1
★	1	1	-	-	2
34	1	1	1	3	-
★	1	1	1	-	2
37	1	1	1	2	1
★	1	1	-	1	2
40	1	1	1	1	2
★	1	1	-	3	1
43	1	1	1	3	1
★	1	1	-	2	2
46	1	1	1	2	2
49	1	1	-	3	2
52	1	1	1	3	2

※Note: Boom combination with ★ are optimized combination.



Operating Range Diagram of H Operating Condition



Load Charts of H Operating Condition

SCC500E Crawler Crane — Load Charts of H Operating Condition										
Unit: t										
Radius (m)	Boom length (m)									
	13	16	19	22	25	28	31	34	37	
3.7	50.00									
4	46.00									
4.5	39.06 3	9.02								
5	32.77 3	2.72 3	2.60/5.1							
5.5	28.19 2	8.13 2	8.03	26.40/5.7						
6	24.70 2	4.64 2	4.54 2	4.44 2	2.30/6.3					
7	19.74 1	9.69 1	9.57 1	9.47 1	9.40 1	9.30	17.40/7.6			
8	16.39 1	6.33 1	6.21 1	6.11 1	6.03 1	5.93 1	5.83	15.4/8.2	16.26/8.2	13.90/8.8
9	13.97 1	3.91 1	3.79 1	3.68 1	3.60 1	3.50 1	3.40 1	3.30	14.08	13.21
10	12.14	12.08	11.96	11.85	11.77	11.67	11.56	11.50	12.20	11.37
12	9.56 9	.50	9.37 9	.27	9.18 9	.08	8.97 8	.86	9.44	8.78
14		7.77 7	.64	7.53 7	.44	7.34 7	.22	7.12	7.62	7.03
16			6.39 6	.28	6.20 6	.09	5.97 5	.86	6.30	5.78
18				5.34 5	.26	5.15 5	.03	4.92	5.31	4.84
20					4.52 4	.41	4.30 4	.19	4.54	4.10
22					3.94 3	.82 3	.71	3.60	3.92	3.51
24						3.34 3	.23	3.12	3.41	3.03
26							2.82 2	.71	2.98	2.62
28								2.35	2.60	2.24
30								2.03	2.26	1.91
32										1.63
34										1.85
Counterweight	17	17 1	7	17	17	17	17	17	17+1.5	17

※Notes — Rated load of crane

1. When the crane is hoisting, the crawler frame must be in the state of extension;
2. The rated load indicated in the table is the weight hoisted slowly and stably on a level and hard soil ground when the crane does travel;
3. The rated load indicated in the table is the value computed by taking 75% of the tipover load when the wind speed is below 9.8m/s.

Load Charts of H Operating Condition

SCC500E Crawler Crane — Load Charts of H Operating Condition										
Unit: t										
Radius (m)	Boom length (m)									
	40		43		46		49		52	
3.7										
4										
4.5										
5										
5.5										
6										
7										
8										
9	12.40/9.5	13.14/9.5								
10	11.27	11.97	11.2/10.1	11.89/10.1	10.3/10.7	10.95/10.7	9.50/11.3	10.10/10.3		
12	8.67	9.25	8.58	9.16	8.48	9.06	8.39	8.97	8.29	8.87
14	6.92	7.42	6.84	7.34	6.73	7.23	6.64	7.14	6.53	7.03
16	5.67	6.11	5.58	6.02	5.47	5.91	5.39	5.83	5.27	5.71
18	4.72	5.11	4.64	5.03	4.52	4.91	4.44	4.83	4.33	4.72
20	3.99	4.34	3.90	4.25	3.79	4.14	3.70	4.05	3.59	3.94
22	3.40	3.72	3.31	3.63	3.20	3.52	3.09	3.41	2.94	3.26
24	2.91	3.20	2.81	3.10	2.66	2.95	2.55	2.84	2.40	2.69
26	2.47	2.74	2.36	2.63	2.21	2.48	2.10	2.37	1.95	2.22
28	2.09	2.34	1.98	2.23	1.83	2.08	1.72	1.97	1.57	1.82
30	1.76	1.99	1.65	1.88	1.50	1.73	1.39	1.62	1.24	1.47
32	1.48	1.70	1.36	1.58	1.22	1.44	1.10	1.32	0.95	1.17
34	1.23	1.44	1.12	1.33	0.97	1.18	0.85	1.06	0.70	0.91
Counterweight	17.5	17+1.5	17	17+1.5	17	17+1.5	17	17+1.5	17	17+1.5

※Notes — Rated load of crane

1. When the crane is hoisting, the crawler frame must be in the state of extension;
- 2) The rated load indicated in the table is the weight hoisted slowly and stably on a level and hard soil ground when the crane does travel;
3. The rated load indicated in the table is the value computed by taking 75% of the tipover load when the wind speed is below 9.8m/s.

Load Charts of H Operating Condition

4. All values in the load chart are suitable for 360o rotation;
5. Rated load includes the weight of hook, hoisting tools and wire rope, etc. The actual lifting capacity must be obtained by deducting the weight of lifting hook, hoisting tools, and wire rope (the weight of 50t lifting hook is 0.6t, that of 30t lifting hook 0.5t, that of 15t lifting hook 0.4t, and that of 5t lifting hook 0.2t; the weight of wire rope is calculated as 2kg/m) from the rated lifting capacity in the table, the crane will not work if the remained value is not up to 0.8t.
6. The boom on which a jib can be mounted is 22~43m, and the max. length of a boom with an extension arm mounted is 49m;
7. The relationship between the multiplying factor of wire rope and max. rated load as well as weight of hook is shown as below:

Lifting Hook Tonnage (t)	Lifting Hook weight (t)	Max. rated total load (t)								
		9multiplying factor	8multiplying factor	7multiplying factor	6multiplying factor	5multiplying factor	4multiplying factor	3multiplying factor	2multiplying factor	1 multiplying factor
50	0.58	50.0	44.8	39.9	34.2	28.5	22.8	17.1	11.4	5.7
30	0.47				30.0	28.5	22.8	17.1	11.4	5.7
15	0.36							15.0	11.4	5.7
5	0.19									5.0

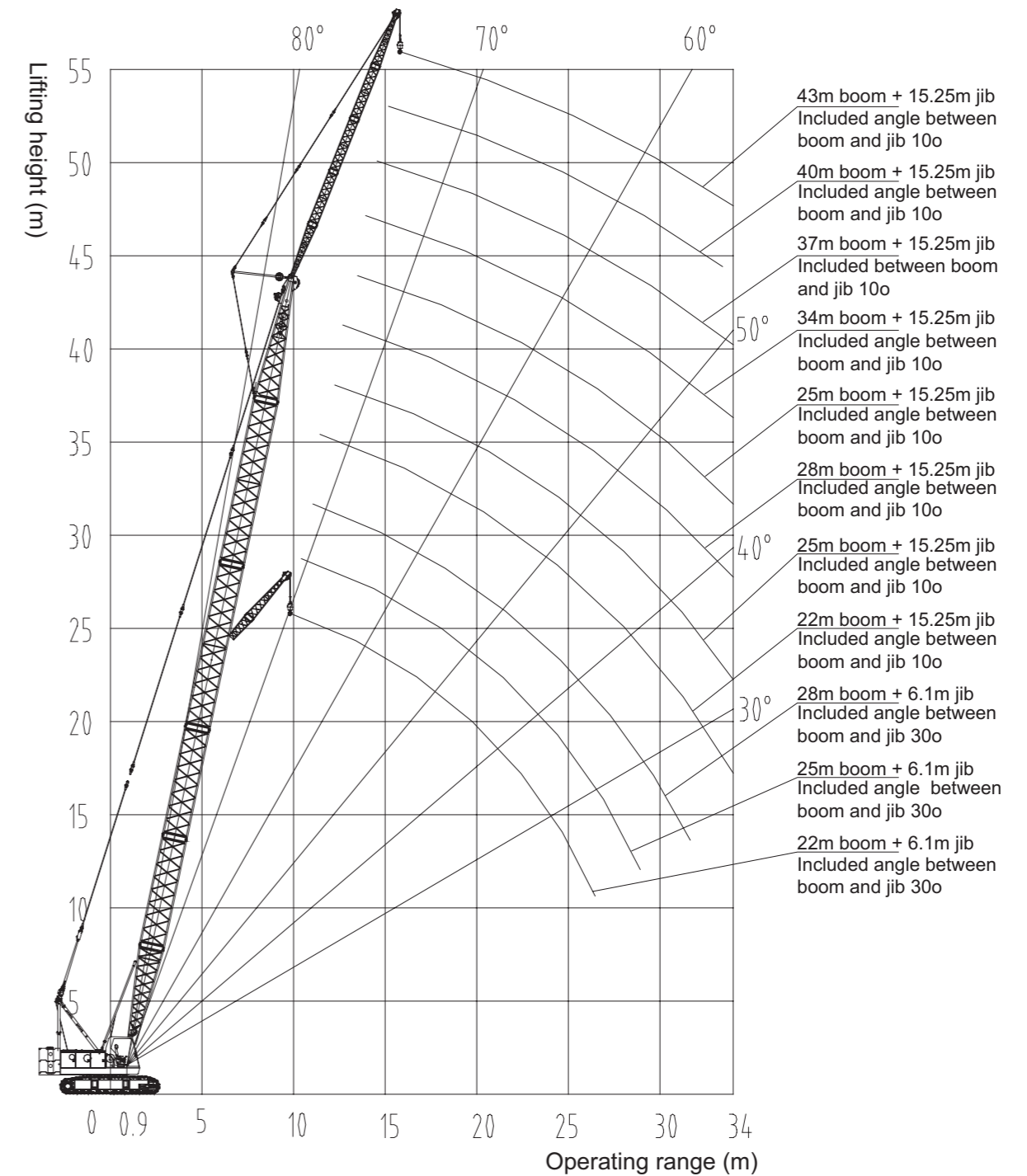
8. When additional counterweight (17.5t+1.5t) is used, it is an optional operating condition. The boom, which is operated with additional counterweight, is 34~52m

FJ Operating Condition of Fixed Jib

Fixed jib combination

Jib length (m)	Basic boom		Insert 3.05m	Boom length (m)	Included angle between boom and jib
	3.05m base	3.05m tip			
6.1	1	1	-	22~43	10°, 30°
9.15	1	1	1	22~43	10°, 30°
12.2	1	1	2	22~43	10°, 30°
15.25	1	1	3	22~43	10°, 30°

Operating Range Diagram of FJ Operating Condition



FJ Operating Condition Load Charts

SCC 500E Crawler Crane –FJ Operating Condition Load Chart								
Boom 28m								
Jib length (m)	6.1		9.15		12.2		15.25	
Jib angle Radius (m)	10°	30°	10°	30°	10°	30°	10°	30°
8	5.00	9.8m×5.00	9.2m×5.00					
10	5.00	5.00	5.00		10.3m×4.00		11.4m×3.20	
12	5.00	5.00	5.00	4.65	4.00		3.20	
14	5.00	15.4m×5.00	5.00	4.30	4.00	3.65	3.20	
16	5.00	4.90	5.00	4.05	4.00	3.45	16.8m×3.20	3.05
18	19.5m×5.00	4.65	19.7m×5.00	3.85	19.8m×3.85	3.25	3.15	2.90
20	4.80	21.7m×4.30	4.85	3.65	3.75	3.10	3.05	2.75
22	4.20	4.20	4.25	3.50	3.65	2.95	2.95	2.60
24	3.70	3.75	3.75	3.35	3.50	2.80	2.90	2.45
26	3.30	3.35	3.35	27.2m×3.20	3.40	2.70	2.80	2.35
28	26.1m×3.30	26.5m×3.25	3.05	3.05	3.05	2.60	2.70	2.25
30			29.0m×2.90	29.0m×3.85	2.75	2.55	2.60	2.15
32					31.8m×2.50	2.50	2.50	2.10
34						32.6m×2.50	2.30	2.05
Counterweight	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
Boom 31m								
Jib length (m)	6.10		9.15		12.20		15.25	
Jib angle Radius (m)	10°	30°	10°	30°	10°	30°	10°	30°
8	8.6m×5.00		9.8m×5.00		10.9m×4.00			
10	5.00	10.4m×5.00	5.00		4.00			
12	5.00	5.00	5.00	12.5m×4.65	4.00		12.1m×3.65	
14	5.00	5.00	5.00	4.40	4.00	14.5m×3.65	3.20	
16	5.00	16.5m×5.00	5.00	4.15	3.85	3.50	16.5m×3.20	16.6m×3.05
18	19.3m×5.00	4.80	19.5m×5.00	3.90	3.75	3.35	3.15	2.95
20	4.70	20.6m×4.55	4.80	3.70	3.65	3.20	3.05	2.80
22	4.10	4.15	4.20	3.55	3.50	3.05	2.95	2.65
24	3.65	3.65	3.70	3.40	3.30	2.90	2.90	2.55
26	3.25	3.25	3.30	3.30	2.95	2.80	2.80	2.40
28	2.90	2.90	2.95	3.00	2.65	2.70	2.70	2.30
30	28.7m×2.80	29.1m×2.75	2.65	2.70	2.40	31.4m×2.60	2.65	2.20
32			31.6m×2.45	2.40	2.20	2.40	2.45	2.20
34						2.25	2.20	2.10
Counterweight	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5

Notes: 1.The rated load includes the weights of hook, wire rope, and other hoisting tools, and the lifting capacity must be obtained by deducting the total weight of all above items from the rated lifting capacity; the crane will not work if the remained value is not up to 0.8t.

2. The 25% grey thick frame indicates that the load depends on the strength of arm support;

FJ Operating Condition Load Charts

SCC 500E Crawler Crane –FJ Operating Condition Load Chart								
Boom 28m								
Jib length (m)	6.1		9.15		12.2		15.25	
Jib angle Radius (m)	10°	30°	10°	30°	10°	30°	10°	30°
8	9.3m×5.00							
10	5.00	11.1m×5.00	10.4m×5.00		11.6m×4.00			
12	5.00	5.00	5.00	13.1m×4.65	4.00		12.7m×3.20	
14	5.00	5.00	5.00	4.50	4.00	15.1m×3.05	3.20	
16	5.00	17.7m×5.00	5.00	4.25	4.00	3.60	16.8m×3.20	17.2m×3.05
18	19.0m×5.00	19.8m×4.75	19.2m×5.00	4.05	3.85	3.45	3.15	3.00
20	4.60	4.70	4.70	3.85	3.75	3.30	3.05	2.85
22	4.00	4.10	4.10	3.70	3.65	3.15	2.95	2.75
24	3.50	3.60	3.60	24.8m×3.50	3.50	3.00	2.90	2.60
26	3.10	3.15	3.20	3.25	3.20	2.85	2.80	2.50
28	2.75	2.80	2.85	2.90	2.85	2.75	2.70	2.40
30	2.45	2.50	2.55	2.60	2.55	2.65	2.60	2.30
32	31.3m×2.30	31.7m×2.30	2.30	2.30	2.30	2.40	2.35	2.20
34			2.05	2.10	2.10	2.15	2.10	2.15
Counterweight	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
Boom 31m								
Jib length (m)	6.10		9.15		12.20		15.25	
Jib angle Radius (m)	10°	30°	10°	30°	10°	30°	10°	30°
8	9.9m×5.00							
10	5.00	11.7m×5.00	11.0m×5.00					
12	5.00	5.00	5.00	13.7m×4.65	12.2m×4.00		13.3m×3.20	
14	5.00	5.00	5.00	4.60	4.00		3.20	
16	5.00	5.00	5.00	4.35	4.00	3.65	16.8m×3.20	
18	18.8m×5.00	19.0m×5.00	19.0m×5.00	4.15	3.85	3.50	3.15	3.05
20	4.50	4.65	4.65	3.95	3.75	3.35	3.05	2.95
22	3.95	4.00	4.00	23.6m×3.70t	3.65	3.20	2.95	2.80
24	3.45	3.50	3.50	3.60	3.50	3.10	2.90	2.65
26	3.05	3.10	3.10	3.20	3.15	2.95	2.80	2.55
28	2.70	2.75	2.75	2.85	2.85	2.85	2.75	2.45
30	2.40	2.45	2.45	2.55	2.50	2.60	2.50	2.35
32	2.15	2.20	2.20	2.25	2.25	2.30	2.25	2.25
34	33.9m×1.90	1.95	1.95	2.00	2.00	2.10	2.05	2.15
Counterweight	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5

Notes: 1.The rated load includes the weights of hook, wire rope, and other hoisting tools, and the lifting capacity must be obtained by deducting the total weight of all above items from the rated lifting capacity; the crane will not work if the remained value is not up to 0.8t.

2. The 25% grey thick frame indicates that the load depends on the strength of arm support;

FJ Operating Condition Load Charts

SCC 500E Crawler Crane –FJ Operating Condition Load Chart								
Boom 34m								
Jib length (m)	6.1		9.15		12.2		15.25	
Jib angle	10°	30°	10°	30°	10°	30°	10°	30°
Radius (m)								
8								
10	10.5m×5.00		11.7m×5.00					
12	5.00	12.3m×5.00	5.00		12.8m×4.00		13.9m×3.20	
14	5.00	5.00	5.00	14.4m×4.60	4.00		3.20	
16	5.00	5.00	5.00	4.45	4.00	16.4m×3.65	16.8m×3.20	
18	18.6m×5.00	18.8m×5.00	18.8m×5.00	4.25	3.85	3.55	3.15	18.4m×3.05
20	4.45	4.60	4.55	4.05	3.75	3.40	3.05	2.90
22	3.75	3.95	3.95	23.0m×3.80	3.65	3.30	2.95	2.80
24	3.40	3.45	3.45	3.55	3.50	3.10	2.90	2.70
26	2.95	3.05	3.05	3.15	3.05	27.7m×2.90	2.80	2.60
28	2.60	2.65	2.70	2.80	2.70	2.85	2.75	2.50
30	2.30	2.35	2.40	2.45	2.40	2.55	2.45	2.45
32	2.05	2.05	2.10	2.20	2.15	2.25	2.20	2.30
34	1.80	1.85	1.85	1.95	1.90	2.00	1.95	2.05
Counterweight	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
Boom 37m								
Jib length (m)	6.10		9.15		12.20		15.25	
Jib angle	10°	30°	10°	30°	10°	30°	10°	30°
Radius (m)								
8								
10	11.1m×5.00							
12	5.00	12.9m×5.00	12.3m×5.00		13.4m×4.00			
14	5.00	5.00	5.00	15.0m×4.60	4.00		14.6m×3.20	
16	5.00	5.00	5.00	4.50	4.00	17.0m×3.65	16.8m×3.20	
18	18.4m×5.00	18.6m×5.00	18.6m×5.00	4.30	3.85	3.60	3.15	19.1m×3.05
20	4.40	4.50	4.45	4.15	3.75	3.45	3.05	2.95
22	3.80	3.90	3.85	4.00	3.65	3.30	2.95	2.85
24	3.30	3.40	3.35	3.50	3.40	3.20	2.90	2.75
26	2.85	2.95	2.95	3.10	3.00	26.6m×3.05	2.80	2.65
28	2.50	2.60	2.60	2.70	2.60	2.80	2.65	2.60
30	2.20	2.30	2.30	2.40	2.30	2.45	2.35	2.50
32	1.90	2.00	2.00	2.10	2.05	2.20	2.10	2.20
34	1.65	1.75	1.75	1.85	1.80	1.90	1.85	2.00
Counterweight	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5

Notes: 1.The rated load includes the weights of hook, wire rope, and other hoisting tools, and the lifting capacity must be obtained by deducting the total weight of all above items from the rated lifting capacity; the crane will not work if the remained value is not up to 0.8t.

2. The 25% grey thick frame indicates that the load depends on the strength of arm support;

FJ Operating Condition Load Charts

SCC 500E Crawler Crane –FJ Operating Condition Load Chart								
Boom 40m								
Jib length (m)	6.1		9.15		12.2		15.25	
Jib angle	10°	30°	10°	30°	10°	30°	10°	30°
Radius (m)								
8								
10	11.8m×5.00							
12	5.00	13.6m×5.00	12.9m×5.00					
14	5.00	5.00	5.00	15.6m×4.60	14.8m×4.00		15.2m×3.20	
16	5.00	5.00	5.00	4.55	4.00		16.8m×3.20	
18	18.1m×5.00	18.5m×5.00	18.4m×5.00	4.35	3.85	3.65	3.15	19.7m×3.05
20	4.30	4.45	4.30	21.6m×4.10	3.75	3.50	3.05	3.00
22	3.70	3.80	3.75	3.95	3.65	3.40	2.95	2.90
24	3.20	3.30	3.25	3.45	3.30	25.4m×3.20	2.90	2.80
26	2.75	2.85	2.85	3.00	2.90	3.10	2.80	2.70
28	2.40	2.45	2.45	2.60	2.55	2.70	2.60	2.60
30	2.10	2.15	2.15	2.30	2.20	2.40	2.25	2.45
32	1.80	1.85	1.85	2.00	1.90	2.10	1.95	2.20
34	1.55	1.60	1.60	1.70	1.65	1.80	1.70	1.90
Counterweight	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
Boom 43m								
Jib length (m)	6.10		9.15		12.20		15.25	
Jib angle	10°	30°	10°	30°	10°	30°	10°	30°
Radius (m)								
8								
10								
12	12.4m×5.00		13.5m×5.00					
14	5.00	14.2m×5.00	5.00		14.7m×4.00		15.8m×3.20	
16	5.00	5.00	5.00	16.2m×4.60	4.00		16.8m×3.20	
18	5.00	18.4m×5.00	18.3m×5.00	4.45	3.85	19.3m×3.65	3.15	
20	4.25	4.40	4.30	21.2m×4.20	3.75	3.60	3.05	20.3m×3.05
22	3.65	3.75	3.70	3.95	3.65	3.45	2.95	2.95
24	3.15	3.25	3.20	3.40	3.20	24.8m×3.30	2.90	2.85
26	2.70	2.80	2.80	2.95	2.80	3.00	2.80	2.75
28	2.35	2.40	2.40	2.55	2.45	2.65	2.50	2.70
30	2.00	2.10	2.10	2.25	2.10	2.30	2.15	2.40
32	1.70	1.80	1.80	1.95	1.80	2.00	1.85	2.10
34	1.45	1.50	1.55	1.65	1.55	1.70	1.60	1.90
Counterweight	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5

Notes: 1.The rated load includes the weights of hook, wire rope, and other hoisting tools, and the lifting capacity must be obtained by deducting the total weight of all above items from the rated lifting capacity; the crane will not work if the remained value is not up to 0.8t.

2. The 25% grey thick frame indicates that the load depends on the strength of arm support;



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