



# SCC1350HD

## Base Construction Crawler Crane 135 Tons Lifting Capacity

Quality Changes the World



**Max. lifting capacity: 95.4t×7m**  
**Max. boom length: 43m**

The parameters and diagrams in the brochure is only for reference, which is subject to further update in real machine.

■ [www.sany.com.cn](http://www.sany.com.cn)



## Base Construction Crawler Crane SCC1350HD

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**SCC1350HD**  
**BASE CONSTRUCTION CRAWLER CRANE**  
**135 TONS LIFTING CAPACITY**

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## Major Specifications

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## Product Specification



### Engine

- Model: WP10G336E344;
- Type: vertical in-line 6, water-cooled, electrical control, turbo-charger, intercooler;
- Displacement: 9.726L;
- Rated power: 247kW/1900rpm;
- Max. Torque: 1550N·m/1100-1400rpm;
- Cooling System: Water-cooled;
- Starter: 24V-8.5kW;
- Radiator: fin type core in aluminum;
- Air cleaner: Dry type with replaceable paper element;
- Throttle: Grip type hand throttle, electrically controlled;
- Fuel filter: Replaceable paper element;
- Batteries: Two 12V×180Ah capacity batteries, connected in series;
- Emission standard: meet China Off-highway Tier III emission standard;
- Fuel tank capacity: 400L.

### Hydraulic System

- Main pump: Rexroth piston pump;
- Control: Open-circuit system with full-flow hydraulic control system;
- Cooling: Multi-stage cooling to make sure hydraulic system maintains optimum temperature at heavy load;
- Max. pressure of system: 32 Mpa;
- Swing system: 20 MPa;
- Control system: 5 MPa;
- Hydraulic Tank Capacity: 450L.

### Electrical System

- SANY SYIC-II integrated control system is adopted with high integration, precise operation and reliable quality;
- Control system consists of power system, engine, main control system, LMI system, assisting system and monitoring system;
- CAN BUS is used for data communication between controller, monitor (of LMI and Remote Controller Terminal) and the engine;
- Monitor: the working parameters and status are shown on the monitor, such as the engine speed, fuel volume, engine oil pressure, servo pressure, wind speed, engine working hours, lifting conditions and boom angle.



## Product Specification

### Boom Hoist System

- It is powered by a hydraulic motor through reducer.

Boom Hoist Winch	Drum Pitch Diameter	420mm
	Rope speed on the outermost layer	0~80m/min
	Wire rope diameter	20mm
	Wire rope working length	190m

### Load Hoist System

- Main and aux. load hoist system are equipped with reducer of larger single line pull up to 25t, satisfying base construction need. The main hoist adopts new free fall control. Free fall winches and 3rd winch can also be optional to improve working efficiency.

Main Hoist Winch	Drum Pitch Diameter	630mm
	Rope speed on the third layer	0~120m/min
	Wire rope diameter	30mm
	Wire rope working length	130m
	Rated single line pull	133kN(13.5t)

Aux. Hoist Winch	Drum Pitch Diameter	600mm
	Rope speed on the third layer	0~120m/min
	Wire rope diameter	30mm
	Wire rope working length	300m
	Rated single line pull	133kN(13.5t)

### Swing Mechanism

- Swing parking brakes: adopted with wet spring loaded, and normally-closed brake, braking through spring force;
- Swing system: integrated cushion valve, free sliding, stable swing start and control, excellent micromotion. Specific swing buffering design, more smooth braking;
- Slewing drive: internal toothing slewing drive to swing 360° rotation, maximum slewing speed 1.5r/min. Driving pressure up to 20MPa;
- Swing bearing: three-row cylinder roller bearing.

### Upperworks

- Turntable alignment design, adopted with H-type steel main beam and welded cat walks structure. All components are located in optimum and easier for maintenance and service. Engine noise is low;
- Counterweight: standard 41t, optional 55t (if needed);
- Carbody counterweight: 20t.

### Cab and Control

- Novel cab with elegant style and interior, adopted with a large area of high strength toughened glass, transmitting more light, and showing better noise reduction performance. Equipped with low-beam headlight, rearview mirror, reaching a broader sight view. Installed with air conditioner (heat and cool), radio. Seat, control lever, and each control button designed according to ergonomic concept to facilitate operation;
- Cab configuration: 10.4-inch touch screen (integrated with radio and air condition control system), special monitor, programmable smart buttons and optional handles with vibration available, man-machine interaction more perfect;
- Armrest box: left and right armrest boxes developed with more exquisite design, with control handles, electrical switches, emergency off switch and ignition switch re-arranged. Armrest control panel can be adjusted with the operator's seat and provide comfortable experience, which is more ergonomical;
- Seat: adopted with shock absorption, suspended, multi-mode and multi-stage adjustable seat, thus providing the operator with the most comfortable driving experience;
- Air conditioner: equipped with more powerful air conditioner (heat and cool), air channel and outlet designed more reasonably, ensuring overall temperature sense for human body.

### Lowerworks

- Crawler drive: independent drive is built into each crawler side frame, driven by hydraulic motor in reducer to realize straight walking and turning;
- Track tension: jack is used to push guide wheel and shims are added to adjust the tension;
- Track rollers: maintenance-free roller;
- Shoe: high-strength alloy cast steel shoe, longer service life, 950mm wide, quantity of 64 pieces×2;
- Max. gradeability: 30%.

### Weight

- Include upper and lower machine, 41t rear counterweight and basic boom, hook, and other accessories;
- Whole machine weight with basic boom: 112.2t;
- Ground pressure: 0.09MPa.

### Boom

- Boom: welded lattice structure of high-strength tubes;
- Pendant cable: quick-connecting hitches for pendant cables to facilitate assembly.

### Boom Length

Boom	Shortest	Longest
	16m	43m

## Safety Device



### Assembly/Work Mode Switch

- In Assembly Mode, the over-hoist protection, boom limit, LMI are all off work to facilitate crane assembly;
- In Work Mode, all safety devices activate to protect the operation.

### Emergency Stop

- In emergent situation, this button is pressed down to cut off the power supply of whole machine and all actions stop.

### Load Moment Indicator (LMI)

- It is an independent computerized safety control system. LMI can automatically detect the load weight, work radius and boom angle, and present on the display the rated load, actual load, work radius and boom angle. In normal operation, the LMI can make a judgment and cut off automatically if the crane moves towards dangerous direction. It can also perform as a black box to record the lifting information.

### Over-hoist Protection of the Main/Auxiliary Hooks

- It comprises of limit switch and weight on boom top, which prevents the hook lift up too much. When the hook lifts up to the limit height, the limit switch activates, buzzer on the right control panel sends alarm, and failure indicator light starts to flash, the hook hoisting action is cut off automatically.

### Over-release Protection Device of the Main/Auxiliary Winch

- It comprises of activator in the drum and proximity switch to prevent over release of wire rope. When the rope is paid out close to the last three wraps, the limit switch acts, and the system sends alarm through buzzer and show the alarm on the instrument panel, automatically cutting off the winch action.

### Function Lock

- If the function lock lever is not in work position, all the other handles won't work, which prevents any mis-operation caused by accidental collision.

### Boom Hoist Drum Lock

- The boom hoist winch is electrically locked. Press the rocker switch before operation, so as to prevent any accidental hitting, making sure the winch parked safely at non-working time.

### Swing Lock

- Swing Lock can lock the machine at two positions, front and back.

### Boom Limit Device

- When the boom elevation angle is over 80°, the buzzer sounds and boom action cut off. This protection is two-stage control ensured by both LMI system and travel switch.

### Back-stop Device

- Its major components are nesting tubes and spring, in order to buffer the boom backlash and prevent further tipping back.

### Boom Angle Indicator

- Pendulum angle indicator is fixed on the side of boom base close to the cab, so as to provide convenience to the operator.



## Safety Device

### Hook Latch

- The lifting hook is installed with a baffle plate to prevent wire rope from falling off.

### Monitoring System

- Remote Monitoring system is a standardized offering to provide functions like GPS locating, GPRS data transfer, machine status inquiry and statistics, operating data monitoring and analysis, remote diagnosis of failures.

### Lightning Protection Device

- It is offered as an optional feature, which includes the grounding device that can effectively protect the electric system elements and workers from lightning.

### Tri-color Load Indicator

- The load indication light has three colors, green, yellow and red, and the real time load status is presented on the display. When the actual load is smaller than 90% of rated load, the green light is on; when the actual load is larger than 90% and smaller than 100%, the yellow light is on, the alarm light flashes and sends out intermittent sirens; when the actual load reaches 100% of rated load, the red light on, the alarm light flashes and sends out continuous sirens. When the actual load reaches 102% of the rated load, the system will automatically cut off the crane's dangerous operation.

### Audio-Visual Alarm

- When the engine is working, the light flashes; when the machine is traveling or swinging, it sends out siren.

### Swing Indicator Light

- The swing indicator light flashes during traveling or swing.

### Illuminating Light

- The machine is equipped with, short-beam light in front of machine, front angle adjustable far-beam, lamps in operator's cab, lighting devices for night operation, so as to increase the visibility during work.

### Rearview Mirror

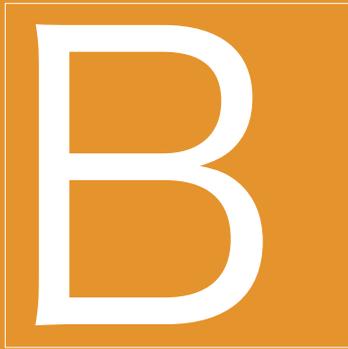
- It is installed on the left of the operator's cab and front armrest of right machine cover for monitoring the rear part of the machine.

### Pharos

- Mounted on the top of the boom/jib, indicating the height.

### Anemometer

- It is mounted on the top of boom/jib to monitor the wind speed and send the data back to be displayed on the monitor in the cab.

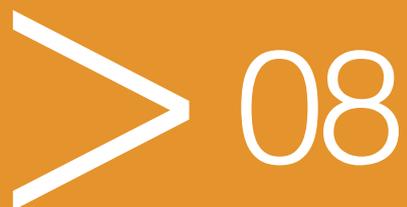


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**BASE CONSTRUCTION CRAWLER CRANE**  
**135 TONS LIFTING CAPACITY**

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## Technical Parameters

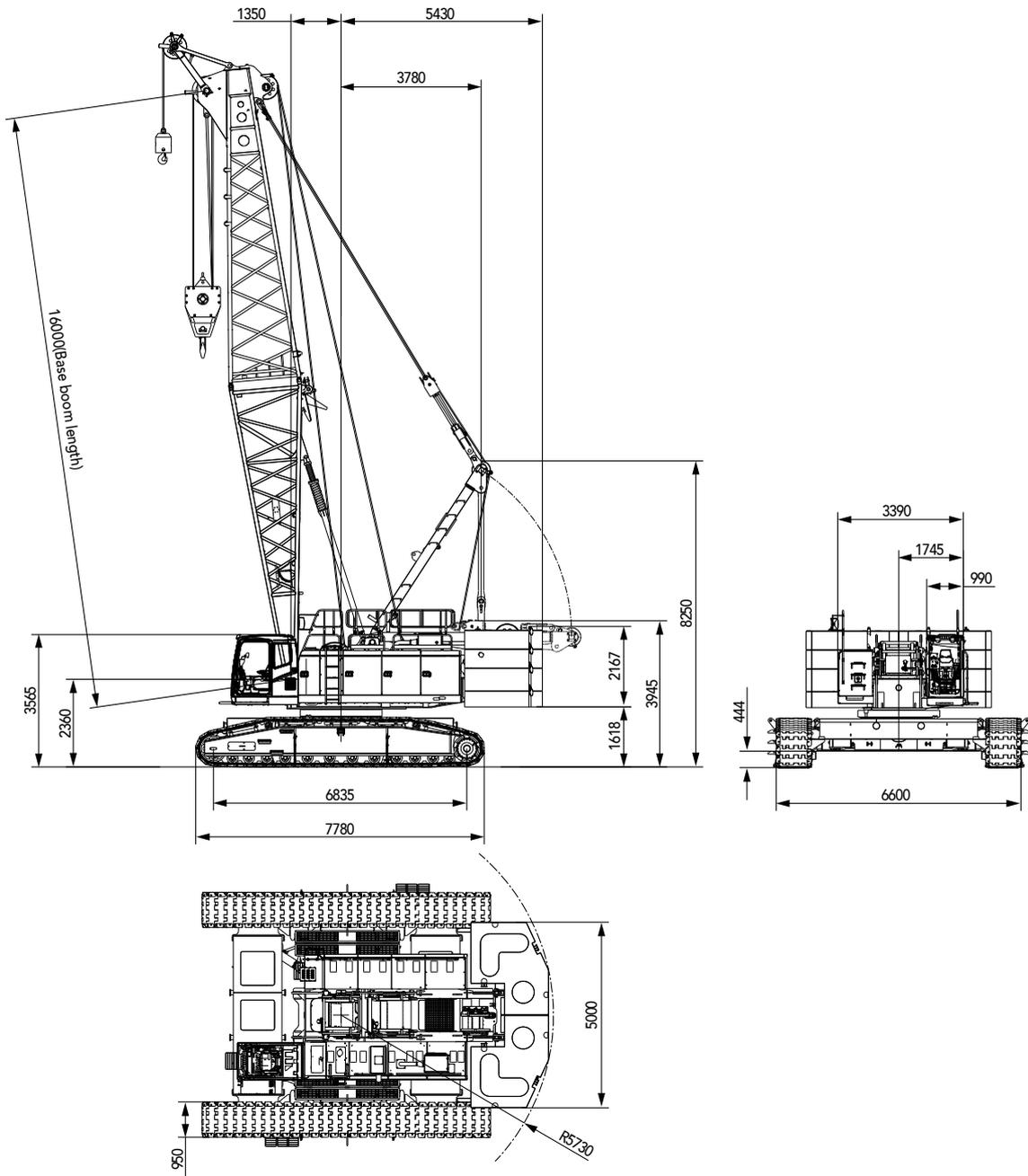
- Page 09 Major Performance & Specifications
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## Major Performance & Specifications

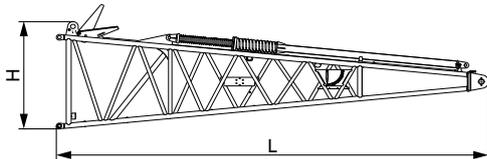
Major Performance & Specifications of SCC1350HD			
Performance Indicators		Unit	Parameter
Boom Configuration	Max. rated lifting capacity	t	135
	Max. lifting moment	t·m	667.8
	Boom length	m	16~43
	Boom luffing angle	°	30~80
Speed	Rope speed of main. load hoist winch (3rd layer)	m/min	120
	Rope speed of aux. load hoist winch (3rd layer)	m/min	120
	Rope speed of boom hoist winch (outermost)	m/min	80
	Swing speed	rpm	1.2
	Travel speed	km/h	1.3
Wire rope	Main and aux. hoist wire rope: diameter × length	mm	30
	Rated single line pull of main/aux. load hoist wire rope	kN	133(13.5t)
Engine	Model	-	WP10G336E344
	Rated power/revolution speed	kW/rpm	247/1900
Transport	Weight of machine with basic boom	kg	112800/145900
	Rear counterweight	kg	41700/55300
	Carbody counterweight	kg	0/10000×2
	Transport weight of basic machine ( with boom base and A-frame)	kg	36800
	Transport weight of basic machine (with A-frame)	kg	33000
	Transport weight of basic machine	kg	30100
	Machine transport dimension (with boom base and A-frame) L×W×H	mm	15920×3390×3430
	Machine transport dimension (with A-frame) L×W×H	mm	9750×3390×3430
Machine transport dimension L×W×H	mm	7450×3390×3140	
Other specifications	Average ground pressure (basic boom)	MPa	0.09/0.128
	Gradeability	%	30

**Outline Dimension**



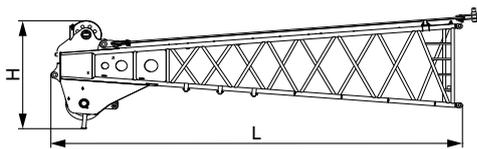
The above outline may include specifications, attachments and optional parts.

## Transport Dimension



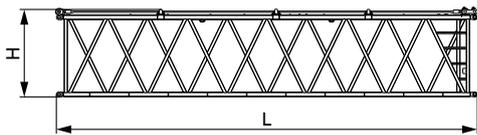
### Boom base ×1

Length (L)	8200mm
Width (W)	2080mm
Height (H)	2240mm
Weight	1840kg



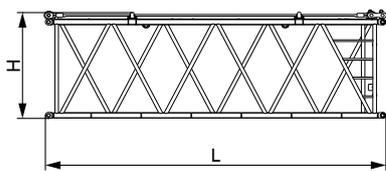
### Boom top ×1

Length (L)	8770mm
Width (W)	1950mm
Height (H)	2180mm
Weight	3530kg



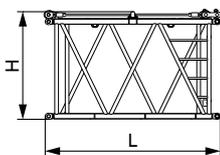
### 9m boom ×4

Length (L)	9140mm
Width (W)	2060mm
Height (H)	2080mm
Weight	1345kg



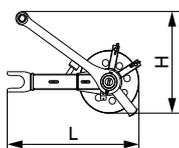
### 6m boom ×1

Length (L)	6140mm
Width (W)	2060mm
Height (H)	2080mm
Weight	945kg



### 3m boom ×1

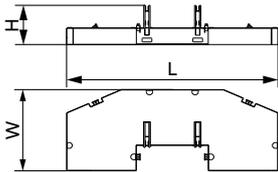
Length (L)	3140mm
Width (W)	2060mm
Height (H)	2080mm
Weight	584kg



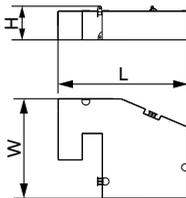
### Extension jib ×1

Length (L)	1940mm
Width (W)	1230mm
Height (H)	1340mm
Weight	448kg

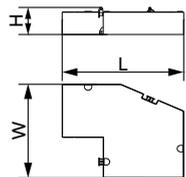
## Transport Dimension



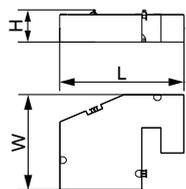
Counterweight tray	×1
Length (L)	5000mm
Width (W)	2100mm
Height (H)	1020mm
Weight	12800kg



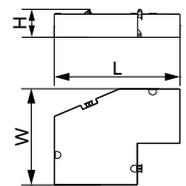
Left counterweight I	×1
Length (L)	2500mm
Width (W)	2100mm
Height (H)	710mm
Weight	7640kg



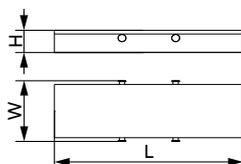
Left counterweight II	×2
Length (L)	2500mm
Width (W)	2100mm
Height (H)	610mm
Weight	6810kg



Right counterweight I	×1
Length (L)	2500mm
Width (W)	2100mm
Height (H)	710mm
Weight	7640kg

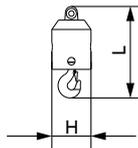
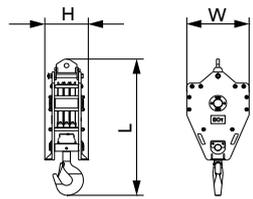
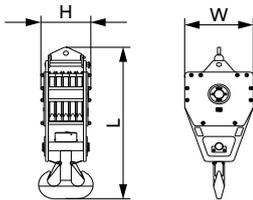


Right counterweight II	×2
Length (L)	2500mm
Width (W)	2100mm
Height (H)	610mm
Weight	6810kg



Carbody counterweight	×2
Length (L)	4250mm
Width (W)	1500mm
Height (H)	550mm
Weight	10000kg

## Transport Dimension



### 135T Hook

×1

Length (L)	2305mm
Width (W)	950mm
Height (H)	690mm
Weight	2120kg

### 80T Hook

×1

Length (L)	2095mm
Width (W)	870mm
Height (H)	610mm
Weight	1075kg

### 13.5T Hook

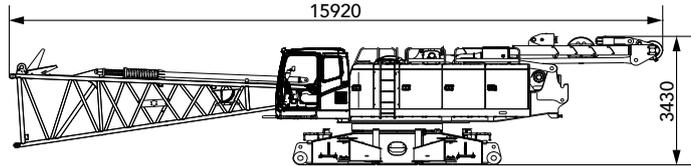
×1

Length (L)	975mm
Width (W)	425mm
Height (H)	425mm
Weight	445kg

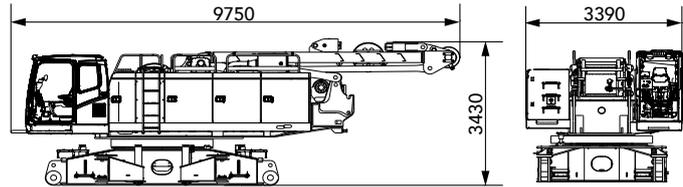
Note: Parts transport dimensions are sketches not proportional to the actual parts. The dimensions and weights are designed values without package, which are subject to fabrication tolerance.

## Transport Plan

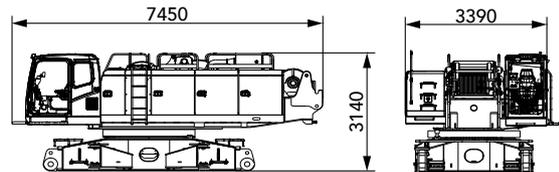
Basic machine 1	
Part(s)	<ul style="list-style-type: none"> <li>▪ Boom base</li> <li>▪ A-frame</li> </ul>
Weight	<ul style="list-style-type: none"> <li>▪ 36800kg</li> </ul>



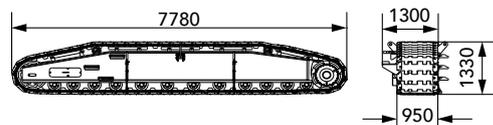
Basic machine 2	
Part(s)	<ul style="list-style-type: none"> <li>▪ A-frame</li> </ul>
Weight	<ul style="list-style-type: none"> <li>▪ 33000kg</li> </ul>



Basic machine 3	
Weight	<ul style="list-style-type: none"> <li>▪ 30100kg</li> </ul>



Crawlers	
Weight	<ul style="list-style-type: none"> <li>▪ 14300kg</li> </ul>





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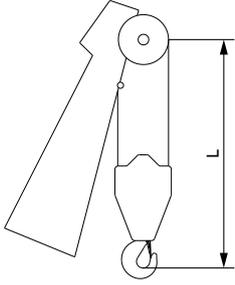
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## Cofigurations

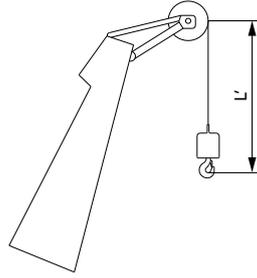
- Page 16 Height limit of hook
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## Height limit of hook

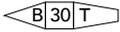
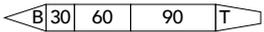
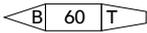
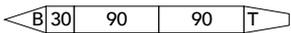
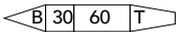
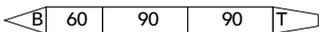
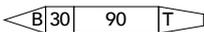
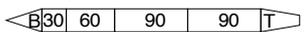


Hook	L
135t Hook	4.8m
80t Hook	4.6m



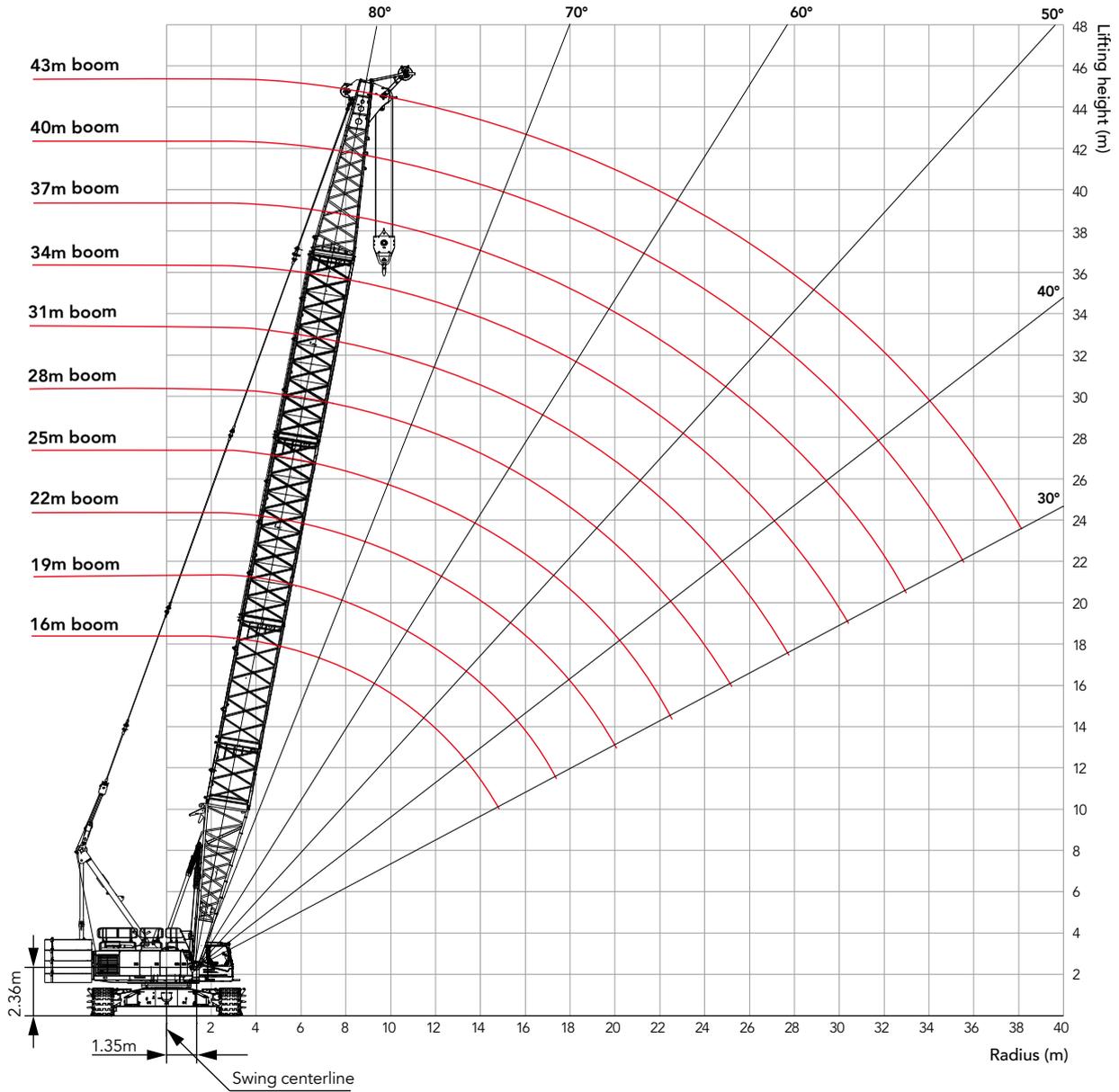
Hook	L'
13.5t ball hook	3.7m

## Boom/jib arrangements

Boom length	Boom/jib arrangements	Boom length	Boom/jib arrangements
16		31	
19		34	
22		37	
25		40	
28		43	

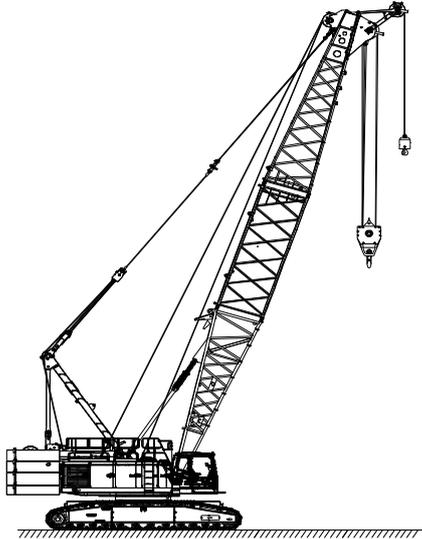
Symbol	length	Remark
	8m	Boom base
	8m	Boom top
	3m	3m insert
	6m	6m insert
	9m	9m insert

## Work Radius of H Configuration

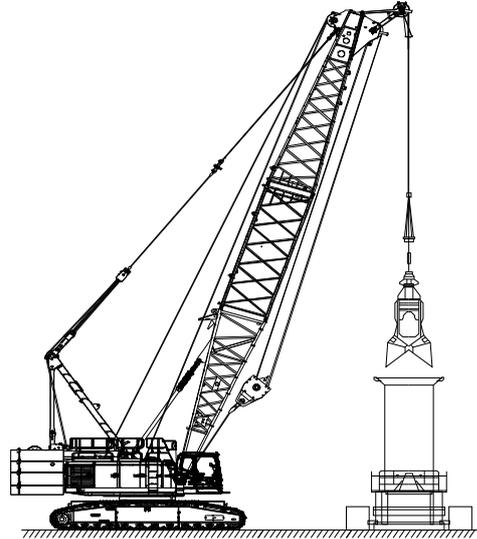


## Work Operation

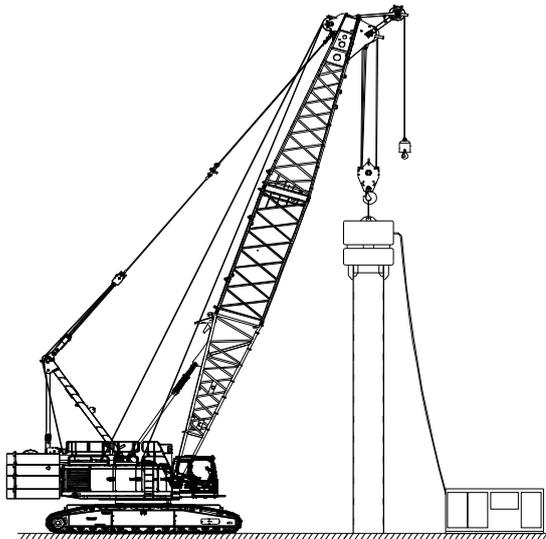
Applicable to lifting, pile clamping, vibration hammer, vibropercussion and clamshell, satisfying multiple purposes.



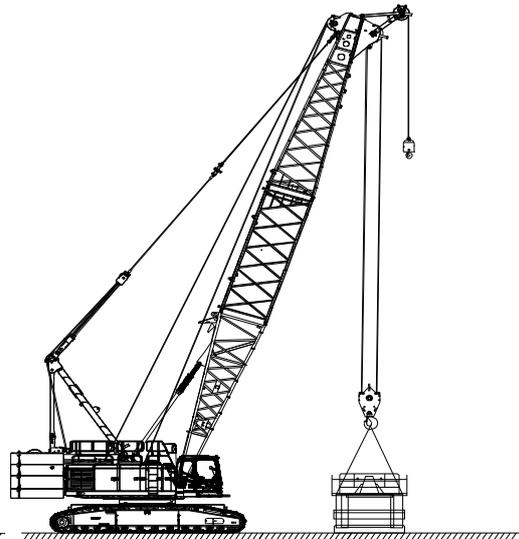
Regular lifting



Pile clamping



Vibration hammer



Swing

## H Information

- Ratings according to Chinese GB3811.
- Working radius is the horizontal distance from centerline of rotation to a vertical line through the center of gravity load.
- The weight of hook, slings and other riggings shall be deducted from the ratings to get the actual capacity.
- The ratings are calculated when the load is freely suspended without considering the effect of wind load, ground condition, levelness, operation speed or any other negative effect on safety operation. Therefore, the operator has the responsibilities to judge the site condition, reduce the load and slow down the speed accordingly.
- All ratings are calculated when the machine is parking on firm and level ground with less than 1% gradient, and the load is lifted slowly and steadily.
- Boom inserts and pendant straps matching table are listed in the operation manual.
- Gantry must be in raised position for all work conditions.
- Boom backstops are required for all boom lengths.
- The boom should be erected over the front of the crawlers, not from side.

### Reference information

#### Aux. load hoist

Parts of line	1	2	3
Max. load moment (kN)	133	265	397
Max. load (t)	13.5	27	40.5

Parts of line	4	5	6
Max. load moment (kN)	529	662	794
Max. load (t)	54	67.5	81

Parts of line	7	8	9	10
Max. load moment (kN)	926	1058	1191	1323
Max. load (t)	94.5	108	121.5	135

#### Main load hoist

Parts of line	1
Max. load moment (kN)	133
Max. load (t)	13.5

#### Hook weight

Hook block	135t	80t	13.5t
Weight (t)	2.12	1.08	0.45

Operation of this crane in excess of rated loads or disregard of instruction is denied of warranty.

### Counterweight assembly

#### 55t counterweight

NO.6	NO.7
NO.4	NO.5
NO.2	NO.3
NO.1	

counterweight

Unit: t

## Load Charts for H

SCC1350HD Crawler Crane –H Configuration											
R/BL (m)	Rear Counterweight 55t					Carbody Counterweight 20t					R/BL (m)
	16	19	22	25	28	31	34	37	40	43	
5	135(4.7)										5
6	110	109.5									6
7	95.4	95.2	93	92.1							7
8	82.4	82	81.5	81	78.1	75.5					8
9	73.8	73.8	73.8	73.4	69.2	67	64.9	63.2			9
10	66.2	65.6	65	64.7	61.7	60.2	58.4	56.9	55.2	50.7	10
12	52	51.5	51.5	51.4	51.3	50.2	48.7	47.5	46	44.7	12
14	41.5	41.5	41.5	41.4	41.4	41.3	41	41	40.9	38.4	14
16		34.6	34.6	34.5	34.4	34.3	34.2	34.1	34	33.8	16
18		29.5	29.5	29.4	29.3	29.2	29.1	29	28.8	28.7	18
20			25.6	25.5	25.4	25.3	25.2	25	24.9	24.8	20
22				22.4	22.3	22.2	22.1	21.9	21.8	21.6	22
24					19.8	19.7	19.5	19.4	19.3	19.1	24
26						17.6	17.4	17.3	17.2	17	26
28						15.8	15.7	15.6	15.4	15.3	28
30							14.2	14.1	13.9	13.8	30
32								12.8	12.6	12.5	32
34									11.5	11.3	34
36									10.5	10.3	36
38										9.5	38

## Load Chart for H

### SCC1350HD Crawler Crane –H Configuration with extension jib

R/BL (m)	Rear Counterweight 55t					Carbody Counterweight 20t					R/BL (m)
	16	19	22	25	28	31	34	37	40	43	
5	134										5
6	109.5	109									6
7	94.9	94.7	92.5	91.6							7
8	81.9	81.5	81	80.5	77.6	75.0					8
9	73.3	73.3	73.3	72.9	68.7	66.5	64.4	62.7			9
10	65.7	65.1	64.5	64.2	61.2	59.7	57.9	56.4	54.7	50.2	10
12	51.5	51.0	51.0	50.9	50.8	49.7	48.2	47.0	45.5	44.2	12
14	41.0	41.0	41.0	40.9	40.9	40.8	40.5	40.5	40.4	37.9	14
16		34.1	34.1	34.0	33.9	33.8	33.7	33.6	33.5	33.3	16
18		29.0	29.0	28.9	28.8	28.7	28.6	28.5	28.3	28.2	18
20			25.1	25.0	24.9	24.8	24.7	24.5	24.4	24.3	20
22				21.9	21.8	21.7	21.6	21.4	21.3	21.1	22
24					19.3	19.2	19.0	18.9	18.8	18.6	24
26						17.1	16.9	16.8	16.7	16.5	26
28						15.3	15.2	15.1	14.9	14.8	28
30							13.7	13.6	13.4	13.3	30
32								12.3	12.1	12.0	32
34									11.0	10.8	34
36									10.0	9.8	36
38										9.0	38

## Clamshell Information

- Working radius is the horizontal distance from centerline of rotation to a vertical line through the center of gravity load.
- Weight of hook, slings and other riggings shall be deducted from the ratings to get the actual capacity.
- The ratings are calculated when the load is freely suspended without considering the effect of wind load, ground condition, levelness, operation speed or any other negative effect on safety operation. Therefore, the operator has the responsibilities to judge the site condition, reduce the load and slow down the speed accordingly.
- All ratings are calculated when the machine is parking on firm and level ground with less than 1% gradient, and the load is lifted slowly and steadily.
- Rated capacity is less than 66% of minimum tipping load.
- The clamshell is not allowed to use on the boom length and radius not shown on the load chart.
- Boom inserts and pendant straps matching table are listed in the operation manual.
- Gantry must be in raised position for all conditions.
- Boom backstops are required for all boom lengths.
- The boom should be erected over the front of the crawlers, not from side.
- Crawler frames must be fully extended for all crane operations.
- The weight of clamshell, lock, slings and other riggings shall be deducted from the ratings to get the actual capacity.
- Weight of clamshell and material shall not exceed rated load.
- Select the proper clamshell based on material to be handled.
- Capacity of bucket  $(m^3) \times \text{material density (t/m}^3) + \text{bucket weight(t)} = \text{rated capacity}$ .
- The bucket weight shall be decreased according to the operation cycle and bucket lowering height.
- Rated capacity is determined by stability and boom strength. Multi-functions with lifting combined with swing must avoid sudden acceleration/deceleration.
- Do not release clamshell during swing or at angled position.

### Reference :

#### Main load hoist:

Parts of line	1
Max. load moment (kN)	133
Max. load (t)	13.5

Operation of this crane in excess of rated loads or disregard of instruction is denied of warranty.

### Counterweight assembly

#### 41.7t counterweight

NO.4	NO.5
NO.2	NO.3
NO.1	

counterweight

## Load Chart for Clamshell

SCC1350HD Crawler Crane – Clamshell					
R/BL (m)	Rear Counterweight 41.7t				R/BL (m)
	19	22	25	28	
5	13.5	13.5	13.5		5
6	13.5	13.5	13.5	13.5	6
7	13.5	13.5	13.5	13.5	7
8	13.5	13.5	13.5	13.5	8
9	13.5	13.5	13.5	13.5	9
10	13.5	13.5	13.5	13.5	10
11	13.5	13.5	13.5	13.5	11
12	13.5	13.5	13.5	13.5	12
14	13.5	13.5	13.5	13.5	14
16	13.5	13.5	13.5	13.5	16
18	13.5	13.5	13.5	13.5	18
20			13.5	13.5	20
22					22





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— Agent information —

Due to updated technology, the technical parameters and configurations are subject to change without prior notice. The machine in the picture may include additional equipment. This album is for reference only, subject to the object.  
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