



# SCC750HD/Q-A

SANY CRAWLER COMPACTOR



■ [www.sanygroup.com](http://www.sanygroup.com)

**QUALITY CHANGES THE WORLD**

The parameters, pictures and standard/optional equipment are only for reference in this brochure, the actual machine is based on the effective price list and contract.

V1.1



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# 01 | Introduce



**2000kN·m**

Max. hooked tamping energy level



**4500kN·m**

Max. unhooked tamping energy level



**10000kN·m**

Max. tamping energy level with gantry

## Efficient

- Equipped with a 280kW high-efficiency engine, high-power main pump, and low-pressure loss hydraulic system for more efficient construction.

## Reliable

- Features a high-strength thick-arm main chord boom, a new process wear-resistant drum, and a new generation wet brake reducer for more reliable construction.

## Safe

- Configured with a high-definition monitoring system to monitor the vehicle's construction status in real-time for enhanced safety.

## Stable

- Low center of gravity, large wheelbase (5670mm) chassis, a new generation lightweight luffing pulley block structure, and a brand-new cylinder-type back-stop device for minimal swaying and improved operational stability.

## Comfortable

- Spacious steel-stamped cab, equipped with a 10.4-inch high-definition display screen, air conditioning, and radio for a more comfortable construction experience.



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### Intelligent

- Features a new generation Sany impact control system, with the option to install SDCM (Digital Construction System) developed by Sany for enhanced intelligence.

### Convenient

- New generation vertical luffing pulley block structure, improving rope threading efficiency by 50%, making assembly more convenient.

### Low fuel consumption

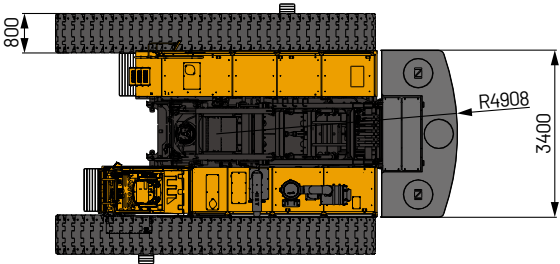
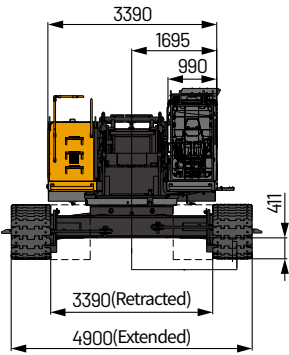
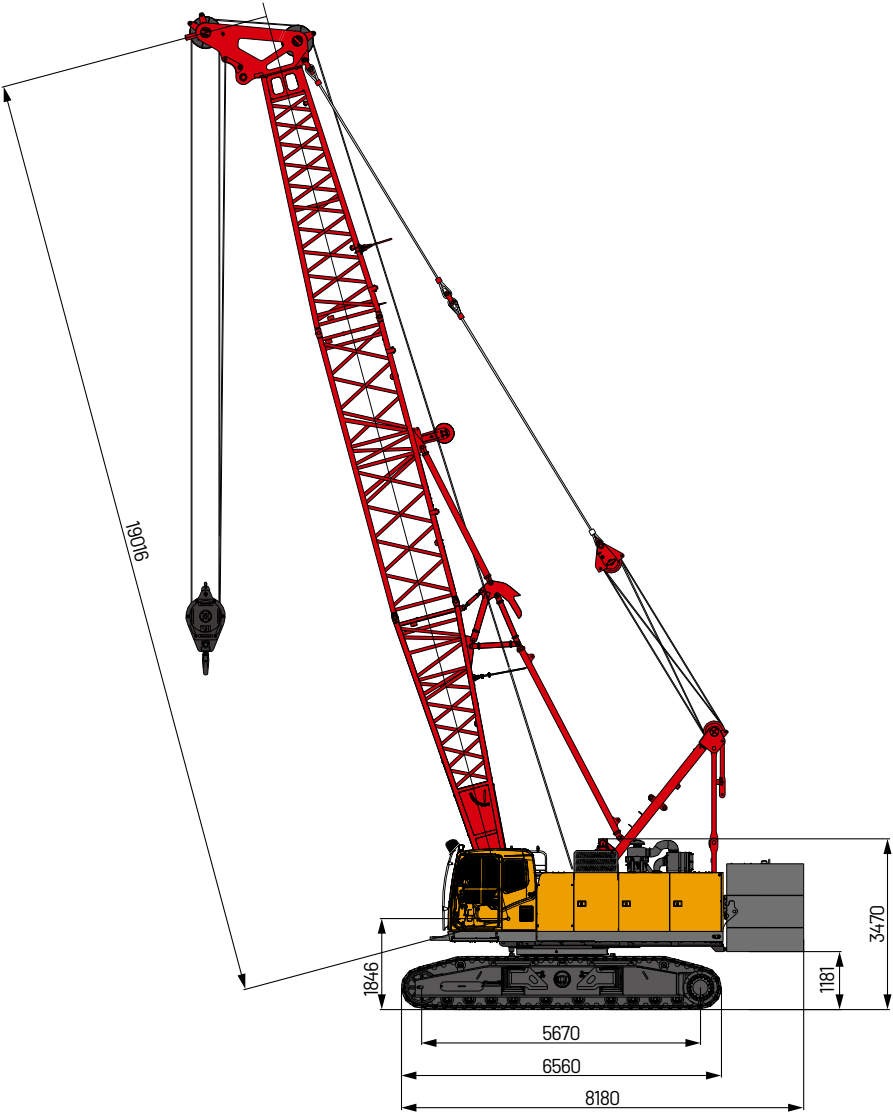
- Equipped with a Weichai WP10.5H series low-consumption engine, coupled with an electronically controlled clutch fan and a low-pressure loss valve integrated main valve system, resulting in a 10% reduction in fuel consumption.

### High accessibility

- All-new powerful chassis with a large ground clearance, strong driving force, and improved accessibility.

# 02 | Outline Dimension

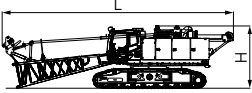
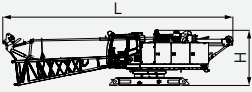
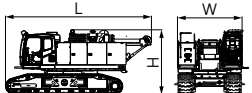
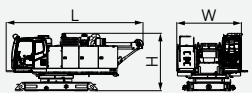
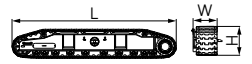
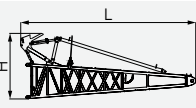
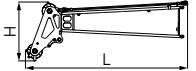
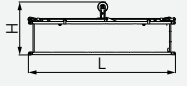
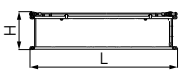
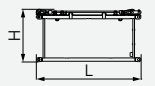
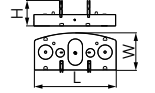
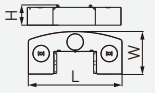
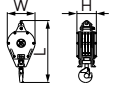
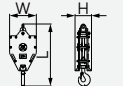
**SCC750HD/Q-A**  
Unit: mm



# 03 | Main Performance Parameters

Performance Indicators	Unit	Parameter
Boom Configuration		
Tamping energy level	kN·m	4500/10000(with support frame)
Ramming hammer	t	22.5/50(with support frame)
Single rope tamping energy	kN·m	2000
Boom length	m	28
Boom luffing angle	°	65~78
Speed		
Rope speed of main load hoist winch (10t, 1st layer)	m/min	0~89
Rope speed of aux. load hoist winch (working layer)	m/min	0~65
Slewing speed	rpm	0~2.5
Travel speed	km/h	0~1.6
Wire rope		
Main and aux. hoist wire rope: diameter × length	mm	28
Rated single line pull of main load hoist wire rope	kN	98(10t)
Engine		
Model	-	WP10.5H
Rated power/revolution speed	kW/ rpm	280/2000
Transport		
Basic machine weight (28m boom + 50t hook)	t	72
Rear counterweight weight	t	22.7
Transport weight of basic machine (with track frame and boom base)	t	40.5
Transport weight of basic machine (without track frame, with boom base and partial counterweight)	t	40.2
Machine transport dimension (with track frame and boom base) L × W × H	mm	12850 × 3390 × 3470
Machine transport dimension (without track frame and boom base) L × W × H	mm	12850 × 3390 × 3070
Other specifications		
Average ground pressure (basic boom)	MPa	0.079
Gradeability	%	30

# 04 | Transport Dimension

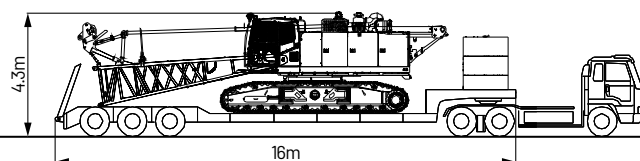
No.	Item	Shape	Length (mm)	Width (mm)	Height (mm)	Weight (kg)	Quantity
1	Basic machine 1 (with track frame and boom base)		12850	3390	3470	40500	1
2	Basic machine 2 (with boom base)		12850	3390	3070	25500	1
3	Basic machine 3 (with track frame)		7850	3390	3470	37200	1
4	Basic machine 4		7300	3390	3070	21300	1
5	Track frame assembly		6770	930	1090	8100	2
6	Boom base		6710	1490	2580	2400	1
7	Boom top		7130	1490	2590	2600	1
8	6m boom insert A		6140	1490	2200	1800	1
9	6m boom insert B		6140	1490	1600	1500	1
10	3m boom insert		3140	1490	1600	800	1
11	Counterweight tray		3400	1700	1060	8600	1
12	Counterweight		3400	1560	800	7200	2
13	50t hook		2060	920	530	1380	1
14	25t hook (optional)		1770	770	480	640	1



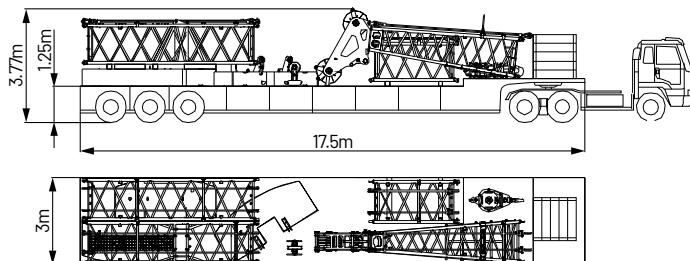
# 05 | Transport Plan

## 1 Transport Plan 1

Trailer 1(16m)	▪ Width: 3.39m
Parts (s)	▪ Basic machine 1 (with track frame and boom base)
Weight	▪ 40.5t (Full of fuel 1.25t)

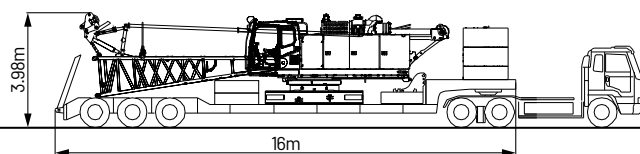


Trailer 2(17.5m)	▪ Width: 3m
Parts (s)	▪ 6m boom insert × 2 ▪ 3m boom × 1 ▪ Boom top × 1 ▪ 25t hook (optional) × 1 ▪ 50t hook × 1 ▪ Counterweight tray × 1 ▪ Counterweight block × 2
Weight	▪ 31t

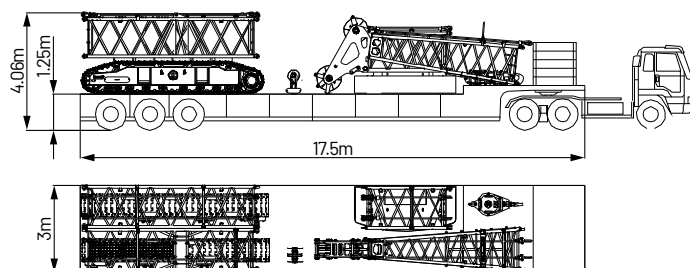


## 2 Transport Plan 2

Trailer 1(16m)	▪ Width: 3.39m
Parts (s)	▪ Basic machine 2 (with boom base) × 1 ▪ Counterweight tray × 1 ▪ Counterweight block × 2
Weight	▪ 40.2t (Full of fuel 1.25t)



Trailer 2(17.5m)	▪ Width: 3m
Parts (s)	▪ 6m boom insert × 2 ▪ 3m boom × 1 ▪ Boom top × 1 ▪ 25t hook (optional) × 1 ▪ 50t hook × 1 ▪ Track frame × 2
Weight	▪ 31.2t



# 06 | Main Characteristics

## 1 Product Specification

### Drive Motor

- Model: WP10.5H.
- Type: Vertical in-line 6, water-cooled, electrical control, turbocharger, intercooler.
- Displacement: 10.5L.
- Rated power: 280kW/2000rpm.
- Max. torque/rotational speed: 1720N·m/1300~1500rpm.
- Cooling system: Water-cooled.
- Starter: 24V-8.5kW.
- Radiator: Fin type core in aluminum.
- Air cleaner: Oil-bath, 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 IV emission standard.
- Fuel tank capacity: 550L.

### Hydraulic system

- Main pump: Open piston pump.
- Control: Main pump power control, electric proportional control, open system.
- Cooling: High-power independent oil cooler to make sure hydraulic system maintains optimum temperature at heavy load.
- Max. pressure of system: 32Mpa.
- Slewing system: 20MPa.
- Control system: 5MPa.
- 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, 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, engine working hours, lifting conditions, boom angle, tamping height, current number of tamping and real-time height of the ramming hammer.

### Main hoist mechanism

- The main hoist is equipped with a 18-ton large single line pull free-fall hook winch and utilizes a new type of free-fall hook control system.

Main hoist winch	Drum pitch diameter	648mm
	Rope speed on the 1st layer (10t)	0~89m/min
	Diameter of wire rope	28mm
	Rope length	140m
	Rated single line pull	98kN

### Luffing mechanism

- It is powered by a hydraulic motor reducer.

Main luffing winch	Drum pitch diameter	420mm
	Rope speed on the 3rd layer	0~65m/min
	Diameter of wire rope	20mm
	Rope length	140m

### Slewing mechanism

- Slewing unit is powered by hydraulic motor driving reducer to slewing 360° rotation.
- Slewing parking brake: Normally-closed, embedded, wet, spring loaded disc brake, braking with spring force and release with oil pressure.
- Slewing bearing: Single-row ball bearing.
- Slewing lock: Lock devices are designed to prevent slewing backlash during traveling or transport. The device allows manual insertion of a pin in the front of the turntable. After completion of work or during transportation, the superstructure turntable can be reliably locked in both forward and backward positions.
- Slewing speed: 0~2.5rpm.

### Superstructure

- Torsion-free precision machined high-strength welded structure. All components are located in optimum and easier for maintenance and service. Engine noise is low.
- Counterweight: 22.7 ton.

### Cab and Controls

- Cab configuration: Large area glass windows are used, equipped with rearview mirrors, providing a wider field of view. The armrest box can be adjusted along with the seat, ensuring comfortable operation and aligning with ergonomic principles. It features an integrated 10.4-inch touchscreen.

### Lower structure

- Crawler drive: Independent drive is built into each crawler side frame, driven by hydraulic motor in reducer to realize straight walking and turning.
- Crawler telescoping: Telescoping cylinder is used to expand and retract crawlers.
- Track tension: Jack is used to push guide wheel and shims are added to adjust the tension.
- Track rollers: Maintenance-free roller.
- Shoe: 800 mm wide each crawler.
- Max. gradeability: 30 %.

### Weight

- Whole machine 72t (include superstructure and lower structure, rear counterweight and basic boom, hook, and other accessories.)
- Ground pressure: 0.079MPa.

### Boom

- Boom: Welded lattice structure with high-strength tubes.
- Pendant cable: Equipped with heavy-duty loop-style connected pendant cable.
- Boom length: 28m max. boom length.

# 06 | Main Characteristics

## 2 Safety Device

### Assembly/work mode switch

- In assembly mode, auxiliary actions are available for the convenience of crane installation.
- In work mode, auxiliary actions are not operational.

### Emergency stop

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

### 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.

### Slewing lock

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

### Boom limit device

- When the boom elevation angle is over 78°, the buzzer sounds and boom action cut off. This protection is single-stage control ensured by travel switch.

### Cylinder back-stop

- Cushioning the swing of the boom by hydraulic cylinder.

### 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.

### 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, 4G data transfer, machine status inquiry and statistics, operating data monitoring and analysis, remote diagnosis of failures.

### Traveling and slewing indicator light

- The slewing indicator light flashes during traveling or slewing.

### Illuminating Light

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

### Cab's protective shield

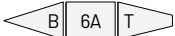
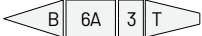

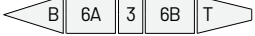
- Metal protective shields are installed on the front windshield, top, and inner sides of the cab to block splashing debris during construction, ensuring the safety of personnel and the machinery.





### Level indicator/camera

- Ensure equipment safety.



# 07 | Boom/Jib Combination

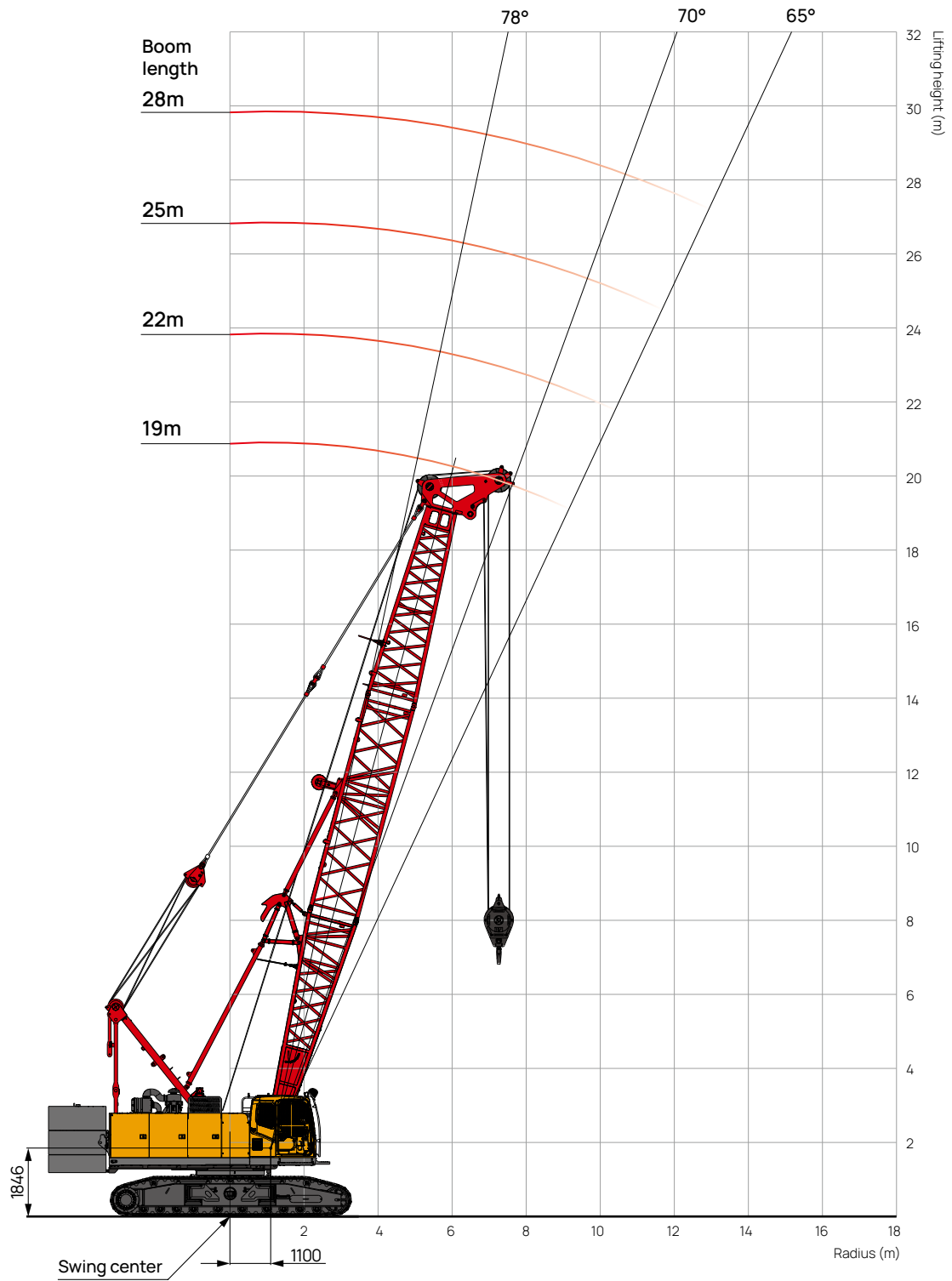
19m	
22m	
25m	
28m	

	■ 6.5m boom base
	■ 6.5m boom top
	■ 3m boom insert
	■ 6m boom insert



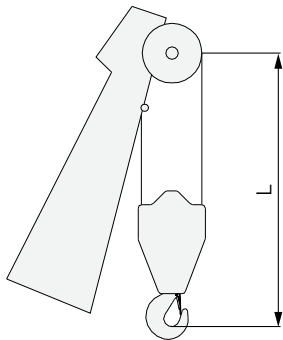
H  
(19m~28m)

# 07 | Working Range of H



# 07 | H Information

## 1 Hook safe distance



Hook	L	Remark
25t	3.2m	Optional
50t	4.5m	Standard

## 2 H configuration information

- Ratings according to 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.
- The mast must be erected in all working 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 rated load values consider a 1.5 times safety factor but do not include wind loads, inertial loads, impact loads, and other additional loads. When performing dynamic compaction, if the safety factor exceeds 1.5, adjustments should be made according to the actual situation.
- During dynamic compaction operations without a gantry frame, the weight of the ramming hammer must not exceed 22.5 tons.
- Damage resulting from exceeding the rated load or incorrect operation is not covered by the warranty.

## 3 Hook weight

Hook	Rated load(t)	Number of sheaves	Weight(t)	Quantity	Remark
1	25	1	0.64	1	Optional
2	50	3	1.38	1	Standard

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

## 4 Counterweight assembly



NO.3
NO.2
NO.1

☰ 22.7t



# 07 | Load Chart of H

Unit: t

	Boom length 19m~28m, rear counterweight 22.7t												
	19			22			25			28			
	Angle (°)	Forward (t)	Lateral load (t)	Angle (°)	Forward (t)	Lateral load (t)	Angle (°)	Forward (t)	Lateral load (t)	Angle (°)	Forward (t)	Lateral load (t)	
6.5	77.4	40.0	36.4										6.5
7	75.8	36.5	33.3	77.8	35.0	31.9	7.8/77.5	33.6	30.7				7
8	72.6	30.7	28.0	75.1	29.7	27.2	76.9	28.7	26.2	77.0	27.6	25.2	8
9	69.3	25.6	23.4	72.3	25.5	23.3	74.5	24.9	22.8	76.3	24.0	22.0	9
10	66.0	21.9	20.1	69.5	21.8	19.9	72.1	21.7	19.8	74.1	21.1	19.4	10
11	62.5	19.0	17.4	66.6	18.9	17.3	69.6	18.8	17.2	71.9	18.6	17.1	11
12	58.9	16.7	15.3	63.7	16.6	15.2	67.1	16.5	15.1	69.7	16.3	15.0	12
13				60.7	14.7	13.5	64.6	14.6	13.4	67.5	14.4	13.2	13
14							61.9	13.0	12.0	65.2	12.9	11.8	14
15										62.9	11.6	10.6	15
16										60.5	10.4	9.6	16

1. Meet ISO4305 standards

2. The weight of hook, slings and other riggings shall be deducted from the ratings to get the actual capacity.

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SANY CRANE



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