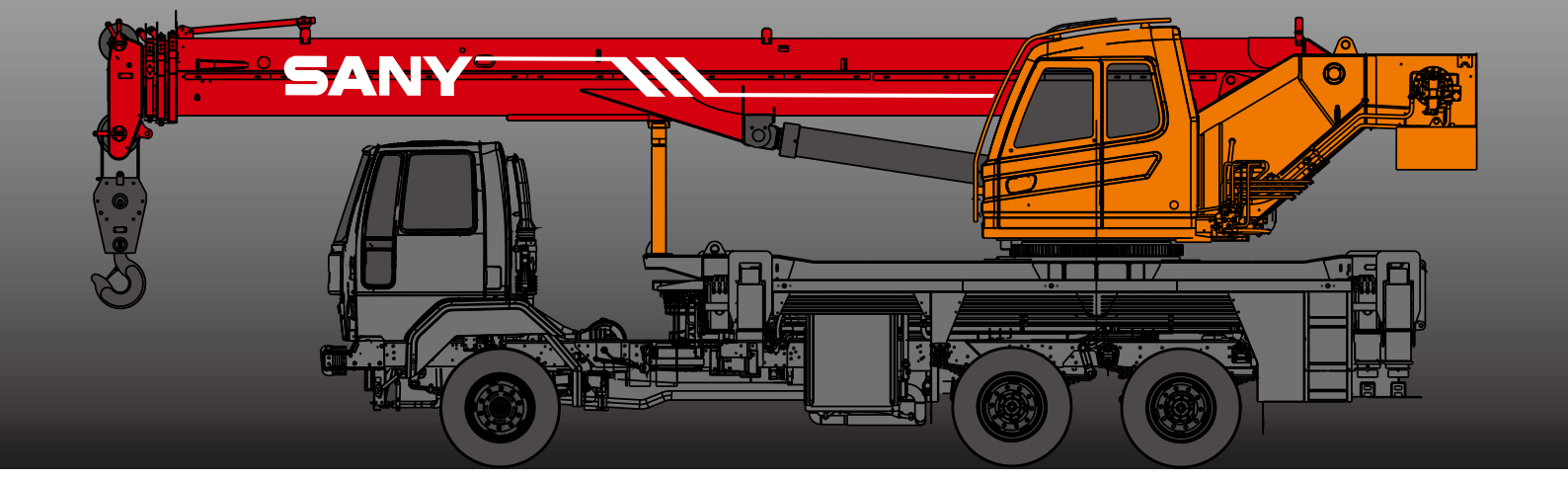
SPC250

SPC250 TRUCK CRANE
25 TONS LIFTING CAPACITY

Quality Changes the World



SANY

COMPANY BRIFE INTRODUCTION

SANY Automobile Hoisting Machinery is one of the core business unit of Sany Heavy Industry, mainly engaged in the research and development of high end, mid to large tonnage crane series, including mobile crane, crawler crane, tower crane and loader crane. It has two industrial parks in Ningxiang and Huzhou, since entering the market, the products of Sany Automobile Hoisting Machinery have received worldwide recognition with advanced technology, lean manufacturing, high reliability and excellent service.


SANY

SANY TRUCK CRANE

CONTENT


Cab


Hydraulic system


Control system


Telescopic system


Luffing system


Slewing


Counterweight


Safety system


Hoist system


Carrier frame


Outriggers


Engine


Transmission system


Drive/Steer


Axles


Tyres


Brakes system


Electrical system


Suspension system

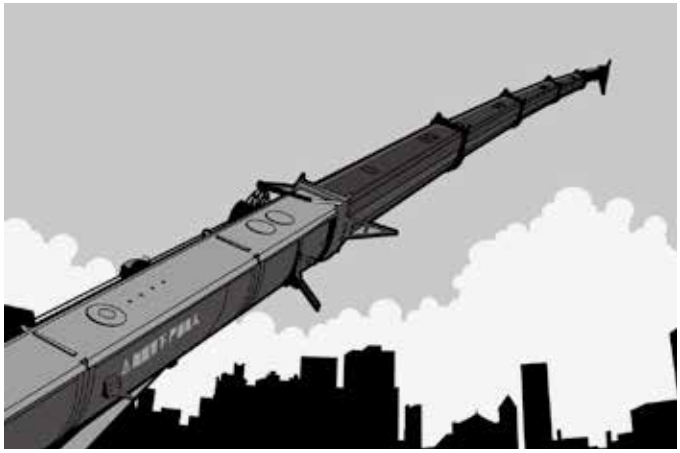

Telescopic boom


Lattice jibs


Superlift devices


Luffing lattice jib


winch mechanism:



Ultra long, super strong and highly sensitive load lifting capacity

Four-section boom of high strength steel structure and optimized U-shaped cross section reduces weight significantly with higher safety rates. Jib mounting angles are 0°, 15°, and 30° which ensures fast and convenient change-over between different operating conditions so as to improving working efficiency of the machine.

Highly efficient, stable, energy-saving, and adjustable hydraulic system

Triple gear pump, load feedback and constant power control are applied to provide strong lifting capacity and good micro-mobility. Unique steering buffer design is applied to ensure stable braking operation.

Safe, stable, advanced, and intelligent electric control system

Self-developed controller SYMC specially for engineering machinery is configured. The adoption of CAN-bus full-digital network control technology ensures stable control signal, simple harness, and high reliability. Timely feedback of data information can achieve the monitoring of the overall working status in real-time; the load moment limiter equipped with the comprehensive intelligent protection system is used with accuracy within 3% to provide a comprehensive logic and interlock control, thus ensuring more safe and reliable operation.

Superstructure

Cab

- It is made of anti-corrosion steel plate with ergonomic design such as full-coverage soften interior, panoramic sunroof and, adjustable seats etc., and humanized design providing more comfortable and relaxing operation experience. The display of load moment limiter integrates main console and operation display system, which clearly show the data of all operating superstructure conditions for lifting operation.

Hydraulic system

- High-quality key hydraulic components such as main oil pump, rotary pump, main valve, winch motor, and balancing parts etc. are adopted to achieve stable and reliable operation of the hydraulic system. Superior operation performance is guaranteed by accurate parameter matching.
- Main valve has flow compensation and load feedback control function, enabling stable and convenient control of single action and combined action under different operation conditions
- Winch adopts the electronically controlled variable motor to ensure high operation efficiency. Max. single line speeds of winches is up to 115m/min.
- Slewing system is equipped with the integrated slewing buffer valve to ensure more stable starting and control of the slewing operation and excellent micro-mobility.

Control system

- With fully security protection system, winches are equipped with over-roll out limiter and height limiters to prevent over-rolling out and over-hoisting of steel rope, including tip-over and limit angle protection.
- Load moment limiter: The adoption of high intelligent load moment limiter system can comprehensively protect lifting operation, ensuring accurate, stable and comfort operation.

Luffing system

- Dead-weight luffing provides more stable luffing operation at low energy loss.
- Luffing angle: -2°~ 80°.

Telescopic system

- Four-section boom is applied with basic boom length of 10.2m, full-extended boom length of 31.5m,jib length of 8m and lifting height of fully extended boom length of 32.5m respectively. Max. lifting height is 40.5m including jib. It is made of fine grain high-strength steel with U-shaped cross section and with telescopic operation controlled independent by cylinder rope.

Slewing system

- 360° rotation can be achieved with Max. slewing speed of 1.9r/min. Hydraulic controlled proportional speed adjustment is applied to provide stable and reliable operation of the system. Unique rotary buffer design ensures more stable braking.

Superstructure

Hoisting system

- The winch adopts the high-pressure automatic variable plunger motor, enabling automatic switch-over between low load high speed mode and high load low speed mode, and ensuring highly efficient operation and stable lifting and lowering of the load.
- One main hook: 360Kg, one auxiliary hook: 90Kg, and the Max. lifting height are 25t and 5t. Wire rope of winch: left-handed wire rope 16-35W×7-1960USZ 175m.

Safety system

- Load moment limiter: Load moment limiter calculation system based on lifting load mechanical model is established using an analytical mechanics method with rated lifting accuracy up to ±3% through on-line non-load calibration, providing full protection to lifting operation. In case of overload operation, system will automatically issue an alarm to provide safety protection for manipulation.
- Hydraulic system is configured with the balance valve, overflow valve and two-way hydraulic lock etc. components, thus achieving stable and reliable operation of the hydraulic system.
- Winch is equipped with over roll-out limiter to prevent over rolling-out of wire rope.
- Boom is equipped with height limiters respectively to prevent over-hoisting of wire rope.
- Boom head is equipped with anemometer and press sensor to indicate the working condition of whole crane in real-time, giving an alarm and cutting off the dangerous action automatically.

Counterweight

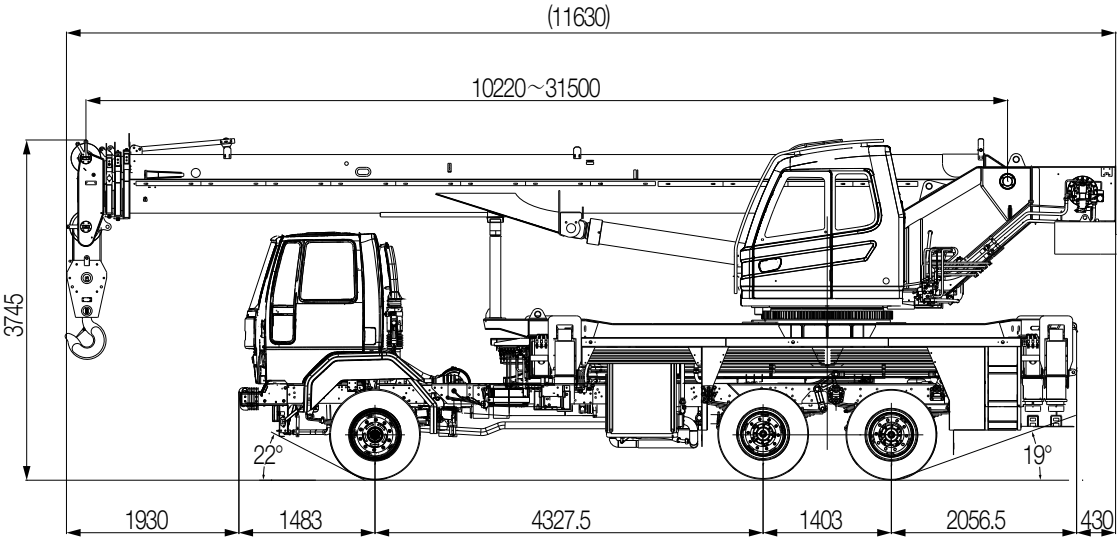
- Counter weight is 2200kg, no flexible counterweight.

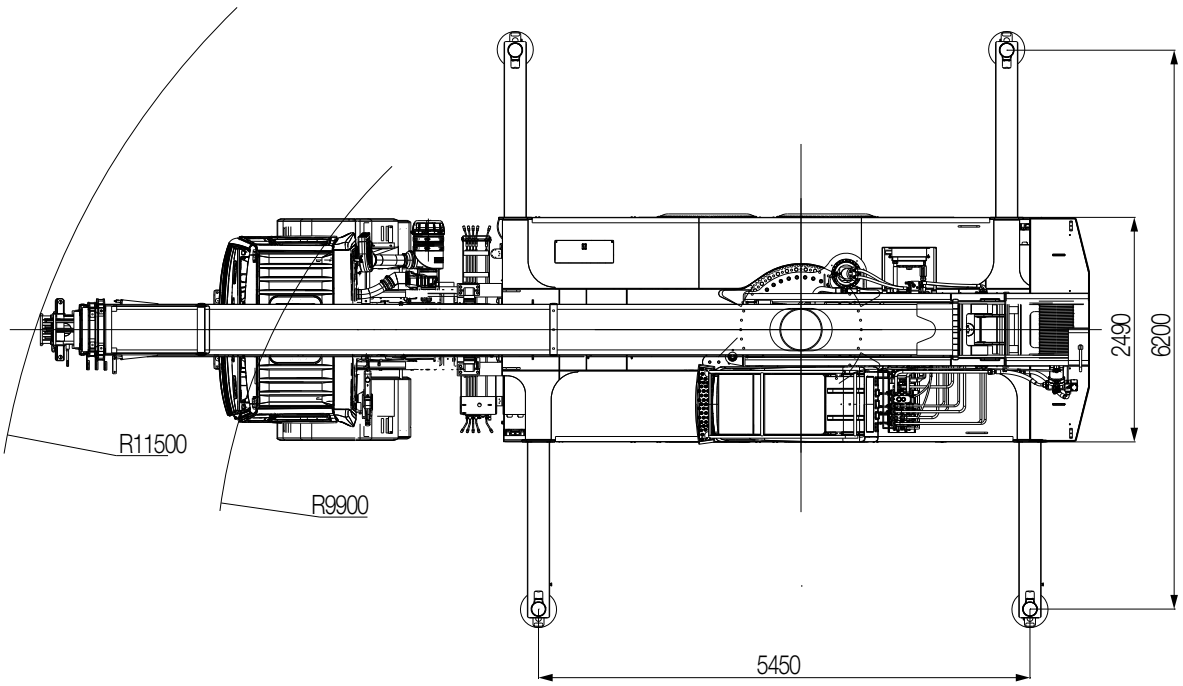
The vice carrier frame

- Designed and manufactured by SANY, anti-torsion box structure is welded by fine-grain high-strength steel plate, to provide strong load bearing capacity.

Outriggers

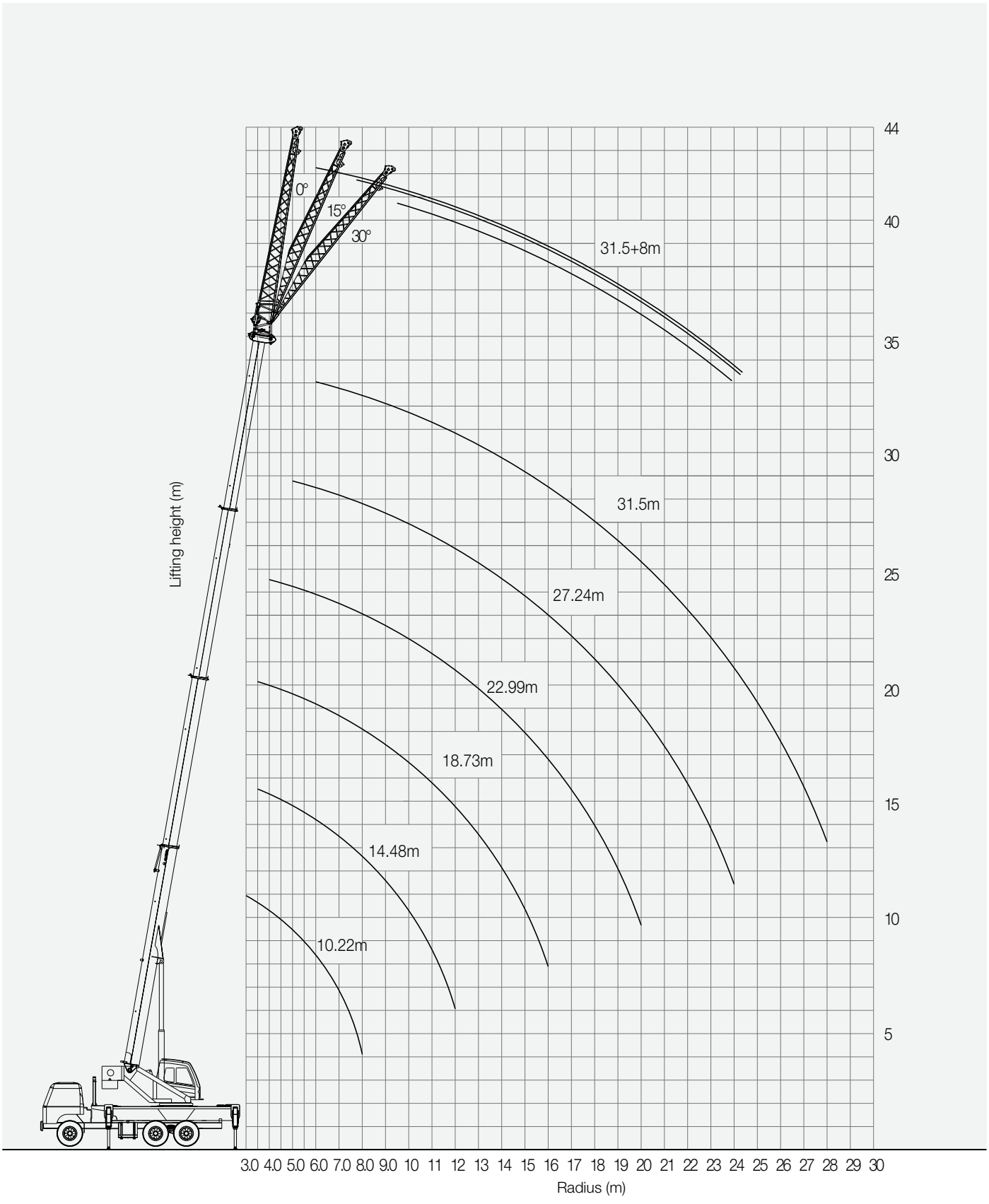
- Four-point supporting of the H-shaped outriggers ensures easy operation and strong stability with max. span up to 5.45m×6.2m. They are made of fine-grain high-strength steel sheet with horizontal single-cylinder rope line telescoping for outrigger. Vertical cylinder of outrigger adopts bi- directional hydraulic locks to improve safety.


(11630)
10220~31500
3745
22°
19°
1930
1483
4327.5
1403
2056.5
430


R11500
R9900
2490
6200
5450

Type	Item		Parameter
Capacity	Max. lifting capacity		25t
Dimensions	Overall length		11630mm
	Overall width		2490mm
	Overall height		3745mm
	Axle distance	Axle-1,2	4327.5mm
		Axle-2,3	1403mm
Weight	Overall weight		24500kg
	Axle load	Front axle	5800kg
		Rear Axle	18700kg
Engine	Rated power		132kW/2400rpm
	Rated torque		670N.m/1500rpm
Traveling	Max.traveling speed		74.5km/h
	Turning radius	Min.turning radius	9.9m
		Min.turning radius of boom head	11.5m
	Wheel formula		6×4
	approach angle		22°
	Departure angle		19°
	Max.gradeability		24%
Main Performance Data	Min.rated range		3m
	Boom section		4
	boom shape		U-shaped
	Max.lifting moment	Base boom	855kN·m
		Full-extend boom	490kN·m
	Boom length	Base boom	10.22m
		Full-extend boom	31.5m
	Outrigger span (Longitudinal×Transversal)		5.45×6.2m
Working speed	Max.single rope lifting speed of winch (no load)		110m/min
	Full extension/retraction time of boom		100/45s
	Full lifting/descending time of boom		70/45s
	Slewing speed		1.9r/min

SPC250 Working radius-lifting height curve



Unit:Kg

Prerequisites:
① Boom operating condition(fully extended boom length),min.length is 10.22 and.max.length is 31.5m
② The span of outrigger is 5.45×6.2m
③ 240°rotation is applied
④ Counterweight is 2.2T

Working range(m)	Main boom						Working range(m)
	10.22	14.48	18.73	22.99	27.24	31.5	
3	25000	16000					3
3.5	23000	16000	13700				3.5
4	21000	15500	13500				4
4.5	19000	15500	13300	10500			4.5
5	17000	15000	13100	10000	8500		5
5.5	15000	14000	12500	10000	8500		5.5
6	13200	13000	11600	9400	8000	6500	6
6.5	11500	11800	11000	8800	8000	6400	6.5
7	10000	10000	10000	8200	7500	6300	7
8	7500	7800	8000	7500	7000	5900	8
9		6200	6400	6300	6200	5400	9
10		5700	5200	5300	5100	4900	10
12		4200	3800	3800	3700	3700	12
14			3000	3000	3000	2900	14
16				2200	2400	2300	16
18				1800	1700	1800	18
20					1500	1500	20
22						1200	22
Number of lines	8	6	6	4	3	3	Number of lines
Telescoping condition(%)							
I	100%	100%	100%	100%	100%	100%	I
II	0	20%	40%	60%	80%	100%	II
III	0	20%	40%	60%	80%	100%	III
IV	0	20%	40%	60%	80%	100%	IV

1. Values listed in the table refer to rated lifting capacity measured at flat and solid gound under the lever state of the crane.
2. Value above heavy line shall be determined by strength of the crane and under this line shall be determined by stability of the crane.
3. Rated load values determined by stability shall comply with ISO 4305.
4. Rated lifting capacity listed in the table included weights of lifting hooks (320kg of hook)and hangers.
5. If actual boom length and range are between two values specified in the table, larger value will determine the lifting capacity.

LOAD CHART

Unit:Kg

Prerequisites:
① Boom operating condition(fully extended boom length),min.length is 10.22 and.max.length is 31.5m
② The span of outrigger is 5.45×6.2m
③ 360°rotation is applied
④ Counterweight is 2.2T

Working range(m)	Main boom						Working range(m)
	10.22	14.48	18.73	22.99	27.24	31.5	
3	25000	16000					3
3.5	22000	16000	13500				3.5
4	19000	15500	13000				4
4.5	17500	15500	13000	10500			4.5
5	15500	14500	12600	10000	8500		5
5.5	14000	13500	12000	10000	8300		5.5
6	12500	12500	11400	9400	7900	6300	6
6.5	10800	11000	10600	8700	7600	6100	6.5
7	9000	9800	9600	8000	7100	6000	7
8	7000	7500	7700	7200	6800	5600	8
9		6000	6000	6000	5900	5200	9
10		5300	5000	5000	4900	4700	10
12		3700	3500	3400	3400	3400	12
14			2500	2500	2600	2500	14
16				1900	1800	1900	16
18				1400	1300	1400	18
20					1000	1000	20
22						700	22
Number of lines	8	6	6	4	3	3	Number of lines
Telescoping condition(%)							
I	100%	100%	100%	100%	100%	100%	I
II	0	20%	40%	60%	80%	100%	II
III	0	20%	40%	60%	80%	100%	III
IV	0	20%	40%	60%	80%	100%	IV

1. Values listed in the table refer to rated lifting capacity measured at flat and solid gound under the lever state of the crane.
2. Value above heavy line shall be determined by strength of the crane and under this line shall be determined by stability of the crane.
3. Rated load values determined by stability shall comply with ISO 4305.
4. Rated lifting capacity listed in the table included weights of lifting hooks (320kg of hook)and hangers.
5. If actual boom length and range are between two values specified in the table, larger value will determine the lifting capacity.

Unit:Kg

Prerequisites:
① Boom operating condition(fully extended boom length + jib length),max. length is 31.5m+8m
② The span of outriggers is 5.45×6.2m
③ 240°rotation is applied
④ Counterweight is 2.2T

Main boom angle	Main boom+Jib			Main boom angle
	Compensation angle 0°	Compensation angle 15°	Compensation angle 30°	
78°	2700	2400	1800	78°
75°	2510	2220	1750	75°
72°	2140	1830	1520	72°
70°	1910	1570	1350	70°
65°	1450	1240	1000	65°
60°	1080	1020	750	60°
55°	800	720	560	55°
50°	580	500	400	50°

SPC250 TRUCK CRANE
WHEEL CRANE FAMILY MAP

■ TRUCK CRANE

STC200
Maximum Load Capacity: 20t
Telescopic Boom: 4 Sections, 10.6-33m

STC250
Maximum Load Capacity: 25t
Telescopic Boom: 4 Sections, 10.65-33.5m

STC250H
Maximum Load Capacity: 25t
Telescopic Boom: 5 Sections, 10.5-39.5m

STC300S
Maximum Load Capacity: 30t
Telescopic Boom: 5 Sections, 10.6-46.5m

STC300TH
Maximum Load Capacity: 30t
Telescopic Boom: 4 Sections, 10.6-33.5m

STC300H
Maximum Load Capacity: 30t
Telescopic Boom: 5 Sections, 10.5-39.5m

STC500
Maximum Load Capacity: 50t
Telescopic Boom: 5 Sections, 11.5-43m

STC550
Maximum Load Capacity: 55t
Telescopic Boom: 5 Sections, 11.5-43m

STC600S
Maximum Load Capacity: 60t
Telescopic Boom: 5 Sections, 11.3-43.5m

STC750
Maximum Load Capacity: 75t
Telescopic Boom: 5 Sections, 11.8-45m

STC800S
Maximum Load Capacity: 80t
Telescopic Boom: 5 Sections, 12.2-47m

STC1000
Maximum Load Capacity: 100t
Telescopic Boom: 5 Sections, 13.5-52m

STC1000C
Maximum Load Capacity: 100t
Telescopic Boom: 6 Sections, 13.25-60m

STC1000S
Maximum Load Capacity: 100t
Telescopic Boom: 5 Sections, 12.28-56m

STC1200S
Maximum Load Capacity: 120t
Telescopic Boom: 7 Sections, 12.6-63.5m

STC1300C
Maximum Load Capacity: 130t
Telescopic Boom: 6 Sections, 13.3-60m

STC1600
Maximum Load Capacity: 160t
Telescopic Boom: 6 Sections, 13.4-62m

STC2200
Maximum Load Capacity: 220t
Telescopic Boom: 6 Sections, 14.55-68m

■ ALL TERRAIN CRANE

SAC1800
Maximum Load Capacity: 180t
Telescopic Boom: 6 Sections, 13.5-62m

SAC2200
Maximum Load Capacity: 220t
Telescopic Boom: 6 Sections, 13.5-62m

SAC2600
Maximum Load Capacity: 260t
Telescopic Boom: 6 Sections, 15.65-73m

SAC3000
Maximum Load Capacity: 300t
Telescopic Boom: 7 Sections, 15.4-80m

SAC3500
Maximum Load Capacity: 350t
Telescopic Boom: 6 Sections, 15.2-70m

SAC6000
Maximum Load Capacity: 600t
Telescopic Boom: 7 Sections, 17.1-90m

■ ROUGH-TERRAIN CRANE

SRC250
Maximum Load Capacity: 25t
Telescopic Boom: 4 Sections, 9.9-31.5m

SRC350
Maximum Load Capacity: 35t
Telescopic Boom: 4 Sections, 10-31.5m

SRC550
Maximum Load Capacity: 55t
Telescopic Boom: 4 Sections, 11.25-34.5m

SRC550H
Maximum Load Capacity: 55t
Telescopic Boom: 5 Sections, 11.5-43m

SRC750
Maximum Load Capacity: 75t
Telescopic Boom: 5 Sections, 11.6-45m

SRC1200
Maximum Load Capacity: 120t
Telescopic Boom: 5 Sections, 13-49m

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