

STC200

STC200 TRUCK CRANE
20 TONS LIFTING CAPACITY

Quality Changes the World



SANY

SANY Automobile Hoisting Machinery is one of the core business unit of Sany Heavy Industry. Mainly engaged in the research and development of hook end, and to-be storage crane series, including rubber crane, crawler crane, tower crane and spider crane. After two industrial parks in Ningbo and Hefei, 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 TRUCK CRANE CONTENT

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- 11 Wheel Crane Family Map

	Cabin		Chassis frame		Suspension system
	Hydraulic system		Outriggers		Telescopic boom
	Control system		Engine		Lattice jib
	Telescopic system		Transmission system		Rotated device
	Lifting system		Drive/Steer		Lifting trolley jib
	Steering		Axles		Vehicle interlocks
	Counterweight		Tyres		
	Safety system		Brake system		
	Hitch system		Electrical system		



Excellent and stable chassis performance / chassis system

On-site work drive is swift, providing good adaptability and performance under complex road condition with stable driving performance.

Engel has the hydraulic power system layout, which reduces power consumption.



Ultra long and super strong boom system

Superior boom system of high strength steel structure with advanced design space truss structure, weight significantly with higher safety index. All mounting angles are 0°, 10° and 30°, which ensures fast and convenient change-over between different operating conditions as well as increasing working efficiency of the operators.



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

High-pressure hydraulic system, constant power control system, provides strong lifting capacity and good mechanical performance. Unique steering buffer design is applied to ensure stable driving operation.



Safe, stable, advanced, and intelligent electric control system

Our advanced intelligent 32-bit controller for engineering machinery is configured. The adoption of Catcon's full-right network control technology ensures stable control signal, precise handling and high capacity. "Energy feedback" and "stop when load" can achieve the monitoring of the overall working status in real time. The real-time error feedback with the comprehensive intelligent protection system is used with accuracy within 10% to provide a comprehensive logic and inference control, thus ensuring more stable and reliable operation.

Superstructure

Cab

- It is made of safety glass and anti-corrosion steel plate with ergonomic design such as full-coverage rubber interior, panoramic sunroof and adjustable seats etc., and humanized design providing more comfortable and relaxing operation experience. The ability of load moment sensor integrated with chassis and operation modes system, which clearly shows the state of all operating superstructure functions for lifting operator.

Hydraulic system

- High quality key hydraulic components such as main oil pump, rotary pump, main valve, shock absorber 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, limiting stable and continuous control of single action and continuous action under different operation conditions.
- Flow control for variable motor is ensured high operation efficiency. Flow control for speeds of main and auxiliary winches is up to 1100mm which assures the lifting efficiency beyond the lead in industry.
- The use of new braking system achieves more stable braking and control of the parking operation and constant reversibility.

Control system

- CMR has implemented CANbus instrument with a centralized intelligent control electrical system is used for data matching of the operating parameters at any time. The engine fault warning function is applied to ensure convenient and fast troubleshooting.
- Load moment sensor: The adoption of high intelligent load moment sensor system can comprehensively controlling operation, ensuring accurate stable and continuous operation.

Lifting system

- Dedicated lifting system with controllable speed provides more stable lifting operation at the lifting site.
- Lifting mode: 2nd - 6th.

Telescopic system

- Four-center boom is applied with basic boom length of 10.0m, fully extended boom length of 20m, its length of 8.0m and fully extended boom lifting height of 23m respectively. Max. lifting height is 41.2m including 8m. It is made of fine-grain high-strength steel with hexagonal cross-section and with telescopic operation controlled independently by dual-control type.

Superstructure

Lifting system

- 360° rotation can be achieved with flow limiting speed of 20mm, providing stable and reliable operation of the system.

Hoisting system

- The winch adopts the high-quality quantitative plunger pump, braking winching, highly efficient spooling and rope-feeding and braking of the cable.
- Overhaul load: 250kg, line auxiliary mode: lifting wire rope of maximum left-hand-twisted wire is 3.3mm² with length of 150m. The rope of auxiliary winch left-hand-twisted wire rope 10.3mm² (1-190) with length of 80m.

Safety system

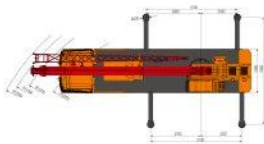
- Load moment sensor load moment sensor calculation system based on lifting load moment mode is established using an analytical mechanics method, with load lifting warning alarm function on the load moment calculation, providing full protection in lifting operation. In case of over-lift operation, system will automatically raise alarm to provide safety protection for construction.
- Hydraulic system is configurable with the balance valve, overflow valve and two-way hydraulic lock etc. components, thus achieving the stable and reliable operation of the hydraulic system.
- Main and auxiliary winches are equipped with overwind limit to prevent over-winding of wire rope.
- Main winch and is equipped with height alarm respectively to prevent over-lifting of wire rope.
- Equipped with length sensor, angle sensor and pressure sensor to indicate the working condition of wire rope in real time, giving an alarm and cutting off the dangerous action automatically.

Counterweight

- Counterweight is sliding, to handle counterweight.

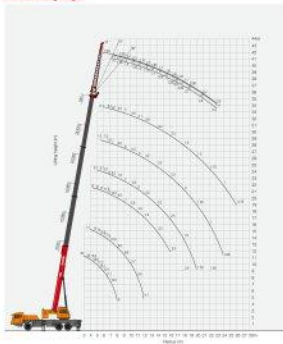
Chassis

 Cab	Cab is made of new steel structure self-developed by SANY, featuring excellent shock absorption and rigidity, which is configured with sunroof above at both sides, pneumatically suspended driver's seat and passenger's seat, adjustable steering wheel, large mirror mirror, comfortable driver's seat with 3 heated, air-fog fan, air-condition, remote lock and cruise control instruments and more, providing more comfortable, safe and humanized operation experience.
 Chassis frame	Designed and manufactured by SANY, the frame box structure is welded by laser with high-tensile steel plate to provide strong load-bearing capacity.
 Axles	Axles 2 and 3 are drive axle and axle 1 is steering axle, axle and wheel differences are installed in axles 2 and 3. The use of welding process for axle housing provides stronger load-bearing capacity.
 Engine	- Type: Water-cooled, diesel engine, supercharged and inter-cooling diesel engine. - Rated power: 210kW (2700rpm). - Compliance protection: Complies with Euro5 standard. - Capacity of battery: 300L.
 Transmission system	- Function: Manual gearbox is adopted with higher and large speed ratio range applied, which meets the requirements of the gradually speed and high loading speed. - Transmission part: After optimized arrangement of the transmission part, the transmission is stable and flexible. - For mechanical transmission, gear range is used with large transmission torque.
 Brakes system	No wheel brakes are used for all wheels with dual-circuit brake system applied. Engine is equipped with air exhaust brake.
 Suspension system	All axles adopt the plate spring suspension system with plate spring power 100-150kg per axle and air application of performance parameters of the front and rear plate springs to ensure strength and also to provide comfort riding.
 Steering system	Hydraulic power mechanical steering system is applied for auto turn unloading when entered in the steering gear.
 Drive shaft	4 x 4.
 Outriggers	Two-point supporting of the H-shaped intelligent hydraulic steel structure and spring loaded with 1600mm span at 0.5m height. They are made of low-carbon high-strength steel sheet. Full hydraulic, telescopic outriggers are adopted for the outrigger, and with horizontal adjustment to adjust outriggers through vertical cylinder.
 Tyres	10R22.5. 111 number of tyre, type: 113020. New tire are used, featuring with large bearing capacity and durable use.
 Electrical system	With 24V20 maintenance-free battery, the crane power can be cut off manually via a mechanical master power switch.



Type	Item		Parameter
Capacity	Max. lifting capacity		25 t
Dimensions	Overall length		12600mm
	Overall width		2600mm
	Overall height		3520mm
	Axis distance	Side L-L Side L-R	4500mm 10800mm
Height	Lifted height		7m/10m
	Adjusted	Axis base 1 Axis base 25	6500kg 14500kg
	Lift capacity		21.5t/20.0t/18.0t
	Lift capacity		100% to 100% (100% - 100%)
Loading	Max. lifting speed		60m/min
	Swing radius		Min. 10m/12m/14m
	Swing radius		12m
	Swing radius		12m
	Max. ground clearance		220mm
	Max. ground angle		15°
	Max. ground angle		15°
	Max. ground angle		15°
	Max. ground angle		15°
	Max. ground angle		15°
Max. Performance Data	Max. lifting speed		60m/min
	Max. lifting speed		60m/min
	Max. lifting speed		60m/min
	Max. lifting speed		60m/min
	Max. lifting speed		60m/min
	Max. lifting speed		60m/min
	Max. lifting speed		60m/min
	Max. lifting speed		60m/min
	Max. lifting speed		60m/min
	Max. lifting speed		60m/min
Working speed	Max. lifting speed		60m/min
	Max. lifting speed		60m/min
	Max. lifting speed		60m/min
	Max. lifting speed		60m/min
	Max. lifting speed		60m/min
	Max. lifting speed		60m/min
	Max. lifting speed		60m/min
	Max. lifting speed		60m/min
	Max. lifting speed		60m/min
	Max. lifting speed		60m/min

STC250 Working Ranges



Lifting

Prerequisites

1. Boom operating maximum fully extended boom length, min. length is 10 dm and max. length is 30 m
2. The span of outrigger is 3.1 m/min
3. 360° rotation is optional
4. Counterweight is 2.0 T

Working height	Main boom						Working height
	10 dm	15 dm	20 dm	25 dm	30 dm	35 dm	
1	2000						3
3.5	2000						3.5
4	2000	1400					4
4.5	1600	1400	1200				4.5
5	1400	1400	1200	900			5
5.5	1400	1400	1200	900	700		5.5
6	1400	1400	1200	900	700	400	6
6.5	1400	1400	1200	900	700	400	6.5
7	1400	1400	1200	900	700	400	7
8	1400	1400	1200	900	700	400	8
9	1400	1400	1200	900	700	400	9
10	1400	1400	1200	900	700	400	10
11	1400	1400	1200	900	700	400	11
12	1400	1400	1200	900	700	400	12
13	1400	1400	1200	900	700	400	13
14	1400	1400	1200	900	700	400	14
15	1400	1400	1200	900	700	400	15
16	1400	1400	1200	900	700	400	16
17	1400	1400	1200	900	700	400	17
18	1400	1400	1200	900	700	400	18
19	1400	1400	1200	900	700	400	19
20	1400	1400	1200	900	700	400	20
21	1400	1400	1200	900	700	400	21
22	1400	1400	1200	900	700	400	22
23	1400	1400	1200	900	700	400	23
24	1400	1400	1200	900	700	400	24
25	1400	1400	1200	900	700	400	25
26	1400	1400	1200	900	700	400	26
27	1400	1400	1200	900	700	400	27
28	1400	1400	1200	900	700	400	28
29	1400	1400	1200	900	700	400	29
30	1400	1400	1200	900	700	400	30

1. Make sure that the load is within the capacity of the crane under the condition that the crane stands on the flat and solid ground under working state.
2. Make sure the boom and hook are within the range of the rated condition. The boom shall be within the rated length of the crane.
3. Rated lifting capacity determined by the ASME and comply with ISO 9000.
4. Rated lifting capacity in the table includes the weight of the boom and hook (total 200 kg, working hook 100 kg).
5. Rated lifting capacity when lifting at low speed is also not exceed 100% of the rated lifting capacity. Rated lifting capacity at high speed and low speed shall be reduced by the weight of the hook.
6. If actual boom length and weight are both between the rated value, the larger value is used to determine the lifting capacity.

Lifting

Prerequisites

1. Boom operating maximum fully extended boom length = (Jk length), max. length is 30 m/min
2. The span of outrigger is 3.1 m/min
3. Counterweight is 2.0 T

Main boom elevation angle ¹⁾	Main boom (Jk)					
	45°		60°		75°	
	Counter weight (kg)	Lifting weight at rated speed (kg)	Counter weight (kg)	Lifting weight at rated speed (kg)	Counter weight (kg)	Lifting weight at rated speed (kg)
45	900	2400	2000	2000	1000	900
46	900	2300	1900	1900	1000	900
47	900	2200	1800	1800	1000	900
48	900	2100	1700	1700	1000	900
49	900	2000	1600	1600	1000	900
50	900	1900	1500	1500	1000	900
51	900	1800	1400	1400	1000	900
52	900	1700	1300	1300	1000	900
53	900	1600	1200	1200	1000	900
54	900	1500	1100	1100	1000	900
55	900	1400	1000	1000	1000	900
56	900	1300	900	900	1000	900
57	900	1200	800	800	1000	900
58	900	1100	700	700	1000	900
59	900	1000	600	600	1000	900
60	900	900	500	500	1000	900
61	900	800	400	400	1000	900
62	900	700	300	300	1000	900
63	900	600	200	200	1000	900
64	900	500	100	100	1000	900
65	900	400	0	0	1000	900
66	900	300	0	0	1000	900
67	900	200	0	0	1000	900
68	900	100	0	0	1000	900
69	900	0	0	0	1000	900
70	900	0	0	0	1000	900
71	900	0	0	0	1000	900
72	900	0	0	0	1000	900
73	900	0	0	0	1000	900
74	900	0	0	0	1000	900
75	900	0	0	0	1000	900
76	900	0	0	0	1000	900
77	900	0	0	0	1000	900
78	900	0	0	0	1000	900
79	900	0	0	0	1000	900
80	900	0	0	0	1000	900
81	900	0	0	0	1000	900
82	900	0	0	0	1000	900
83	900	0	0	0	1000	900
84	900	0	0	0	1000	900
85	900	0	0	0	1000	900
86	900	0	0	0	1000	900
87	900	0	0	0	1000	900
88	900	0	0	0	1000	900
89	900	0	0	0	1000	900
90	900	0	0	0	1000	900
91	900	0	0	0	1000	900
92	900	0	0	0	1000	900
93	900	0	0	0	1000	900
94	900	0	0	0	1000	900
95	900	0	0	0	1000	900
96	900	0	0	0	1000	900
97	900	0	0	0	1000	900
98	900	0	0	0	1000	900
99	900	0	0	0	1000	900
100	900	0	0	0	1000	900

4 TON DRAG



SR240
SANY 4-ton Drag Crane, Single Axle



SR240
SANY 4-ton Drag Crane, Double Axle



SR240
SANY 4-ton Drag Crane, Double Axle



SR240
SANY 4-ton Drag Crane, Double Axle



SR240
SANY 4-ton Drag Crane, Double Axle



SR240
SANY 4-ton Drag Crane, Double Axle



SR240
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SR240
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SANY 4-ton Drag Crane, Double Axle



SR240
SANY 4-ton Drag Crane, Double Axle



SR240
SANY 4-ton Drag Crane, Double Axle



SR240
SANY 4-ton Drag Crane, Double Axle



SR240
SANY 4-ton Drag Crane, Double Axle

4.5 TON DRAG



SR240
SANY 4.5-ton Drag Crane, Double Axle



SR240
SANY 4.5-ton Drag Crane, Double Axle



SR240
SANY 4.5-ton Drag Crane, Double Axle



SR240
SANY 4.5-ton Drag Crane, Double Axle



SR240
SANY 4.5-ton Drag Crane, Double Axle

4.5 TON DRAG 200



SR240
SANY 4.5-ton Drag Crane, Double Axle



SR240
SANY 4.5-ton Drag Crane, Double Axle



SR240
SANY 4.5-ton Drag Crane, Double Axle



SR240
SANY 4.5-ton Drag Crane, Double Axle



SR240
SANY 4.5-ton Drag Crane, Double Axle



SR240
SANY 4.5-ton Drag Crane, Double Axle



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SANY AUTOMOBILE HOISTING MACHINERY

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For our continued improvement in technology, specification is may change without notice.
The machines illustrated may show optional equipment which can be selected at additional cost.

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