

QUALITY CHANGES THE WORLD

PRODUCT SPECIFICATIONS



STC300T5

SANY TRUCK CRANE
30T LIFTING CAPACITY



Max. Lifting Capacity: 30 t
Max. Boom Length: 42.5 m
Max. Lifting Moment: 1158 kN·m

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V1.2

SANY TRUCK CRANE STC300T5 / 30T LIFTING CAPACITY

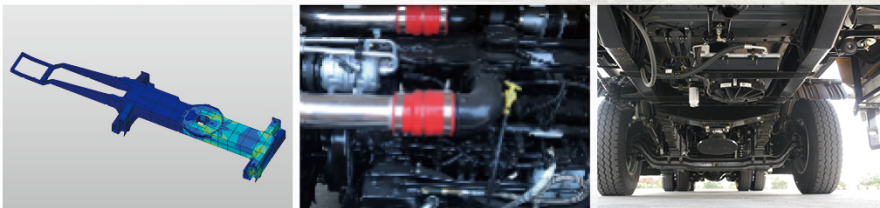
Maximized boom performance

- Industry-leading lifting height (with jib) among its class: 51m
- High efficiency in boom motions and jib installation, easy switchover.



Reinforced chassis

- Increased bearing capacity using higher strength steel plate
- Upgraded stability with tipover warning
- Reduced energy waste via multi engine modes



Smart hydraulics

- Upgrading from single pump to double pumps
- Larger flow ensures higher efficiency, like higher speed of wire rope reeling
- Shunted mode of independently controlled combined motions realizes higher stability, like simultaneous vibration-free luffing and hoisting.
- Load-sensing mechanism offers prolonged service life.



Precise electrical control

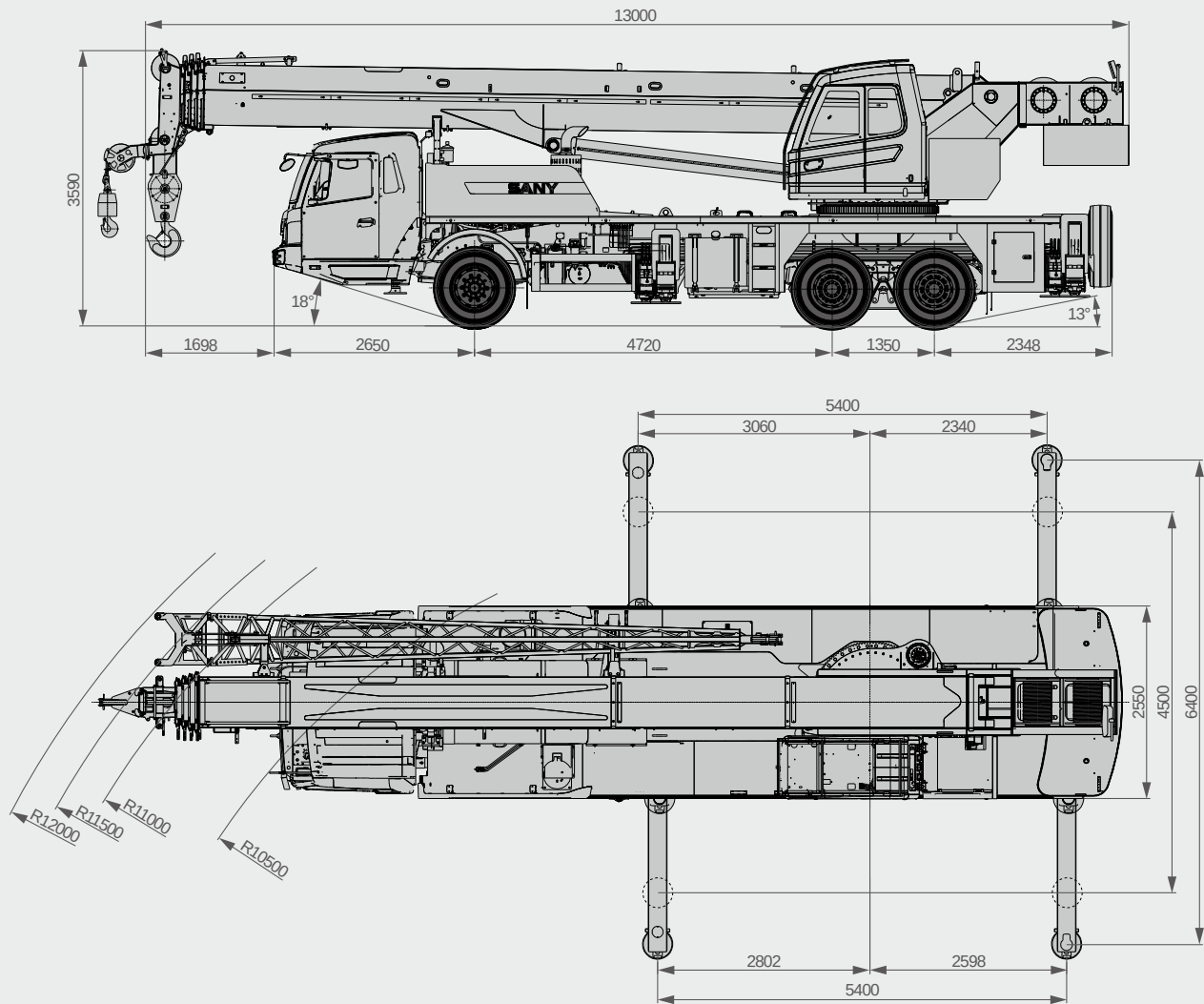
- Simple harness and steady signal transmission
- Real-time auto monitoring of operation conditions
- All-round protection by LMI
- Let the machine get its own safety logic

Uncompromised safety

- Equipment design complies with CE standard.
- Emergency steering, superstructure emergency stop, and slewing buzzer and light warning ensure safety of people on and around the crane.



Overall Dimensions



Technical Specification

CATEGORY	ITEM		UNIT	VALUE
CAPACITY	Max. lifting capacity		t	30
WEIGHT	Gross weight		kg	33800
POWER	Engine model (Emission standard)		-	DF Cummins ISLe290 30 (Euro III)
	Max. engine power		kW/rpm	213/2100
	Max. engine torque		N·m/rpm	1050/(1000-1900)
DIMENSIONS	Overall length		mm	13000
	Overall width		mm	2550
	Overall height		mm	3590
	Axle base	Axle 1&2	mm	4720
		Axle 2&3	mm	1350
TRAVEL	Max.travel speed		km/h	90
	Steering radius	Min.steering radius	m	10.5
		Min.steering radius of boom tip	m	12
	Wheel formula		-	6×4
	Min.ground clearance		mm	240
	Approach angle		°	18
	Departure angle		°	13
	Max.gradeability		%	42
	Fuel consumption per 100km		L	31
MAIN PERFORMANCE	Working temperature range		°C	-20~+45
	Min.rated lifting radius		m	3
	Tail slewing radius		m	3.4
	Boom sections (Qty.)		-	5
	Boom shape		-	U shape
	Max.lifting moment	Basic boom	kN·m	1158
		Full-extension boom	kN·m	727
		Full-extension boom+jib	kN·m	400
	Boom length	Basic boom	m	10.9
		Full-extension boom	m	42.5
		Full-extension boom+jib	m	50.5
	Max.lifting height	Basic boom	m	11.5
		Full-extension boom	m	43
		Full-extension boom+jib	m	51
	Outrigger span (Longitudinal×Transverse)		m	5.4×6.4
	Jib offset		°	0, 15, 30
AIRCONDITIONER	In operator's cab		-	Heating & cooling
	In driver's cab		-	Heating & cooling

Technical Parameters



Axle Load

Axle	Front	Rear	Gross weight
Load per axle /t	8	25.8	33.8



Hook

Load/t	Number of sheaves	Rope rate	Hook weight /kg
30	4	8	320
5	0	1	85



Operations

Item		Parameter	Rope diameter/length	Max. single line pull
Main winch		Single rope speed: 135m/min	16mm/185m	4.5t
Auxiliary winch		Single rope speed: 135m/min	16mm/110m	4.5t
Slewing			0~2.5r/min	
Luffing			40s/50s	
Telescoping			90s/100s	
Outrigger jack	Retract		25s	
	Extend		30s	
Outrigger beam	Retract		20s	
	Extend		25s	

Crane Introduction

Carrier

Driver's cab

- Standard considerable equipment incl. pneumatic driver's seat with headrest, easy to touch panel, variable height steer wheel, wide view rear mirror, demister, HVAC with engine thermal cycle heating, sunshed, and stereo radio.

Frame

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

Axle

- Axle 1 is steered mechanically with hydraulic booster, and axle 2&3 are drive axles with differential lock.

Engine

- Inline six-cylinder, water cooled, supercharged and inter-cooling diesel engine (Euro III) .
- Fuel reservoir capacity: 300L.

Transmission system

- 9-speed manual gearbox of large speed ratio delivers sufficient power for grading and travelling. Higher torque output is achieved via conrite gear connecting transmission shaft cardan.

Braking system

- Air-servo brakes are used for all wheels with dual-circuit braking system. Engine is equipped with an exhaust brake.

Suspension

- Front suspension is realized by plate spring, and rear rubber. Shock absorption is optimized.

Outriggers

- H-type layout, outrigger beam extension is powered by hydraulics.

Tire

- Eleven tires sized 315/80R22.5, featuring large bearing capacity and durability.

Electrical system

- 2×12V maintenance-free batteries.

superstructure

Operator's cab

- Ergonomimc design integrates operation safety, convenience and comfort.

Hydraulic system

- Key hydraulic components are of proven quality and stability. Main valve functions flow compensation and load sensing. Big-flow winch motor features high efficiency. Slewing gets smoother controlled by balance valve.

Control system

- CAN-Bus instrument provides accurate data monitoring and functions engine fault detection. Easier maintenance is the trend.
- Load moment indicator ensures operation safety.

Luffing system

- Reduced energy cost during luffing. Luffing angle: -2°~80°.

Telescopic system

- Five section boom in full extension realizes a max. lifting height of 43m, and further 51m when 8m jib is mounted. U-shape structure is welded using high-strength structural steel. Telescoping is realized via double cylinder with rope arranger.

Slewing system

- 360° slewing, large torque output piston motor and reducer gear support smooth slewing of heavy load.

Hoist

- Winch piston motor sees smooth and fast reeling of wire rope.
- Main hoist wire rope spec. 16-4V×39S-5FC-1960-U-zSGB8918-L185m, aux. hoist wire rope spec. 16-4V×39S-5FC-1960-U-zSGB8918-L110m.

Safety system

- An all-round safety system covers load moment (LMI), hydraulics, winch, and wire rope. Motion of risks are cut off automatically with buzzer warning.

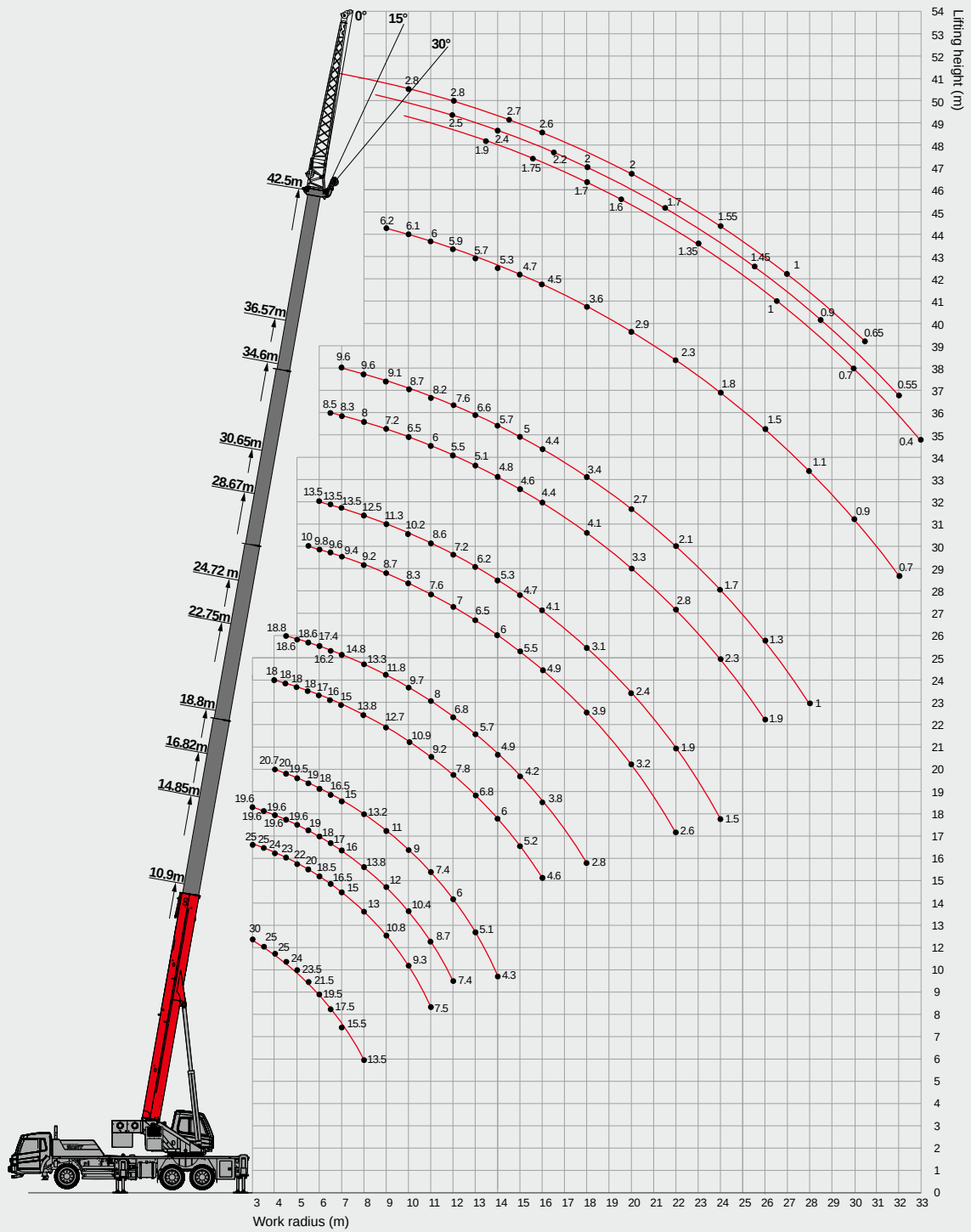
Counterweight

- 5900kg fixed unit without removable unit.

Optional equipment at extra fees

- Aerometer
- Reversing camera
- Customized painting
- Other equipment available upon request

Operating Range



Load Chart-Telescopic Boom



Unit: kg

Radius(m)	10.9m	14.85m	16.82m	18.8m	22.75m	24.72m	28.67m	30.65m	34.6m	36.57m	42.5m	Radius(m)
3.0	30000	25000	19600									3.0
3.5	25000	25000	19600									3.5
4.0	25000	24000	19600	20700	18000							4.0
4.5	24000	23000	19600	20000	18000	18800						4.5
5.0	23500	22000	19600	19500	18000	18600						5.0
5.5	21500	20000	19000	19000	18000	18600	10000					5.5
6.0	19500	18500	18000	18000	17000	17400	9800	13500				6.0
6.5	17500	16500	17000	16500	16000	16200	9600	13500	8500			6.5
7.0	15500	15000	16000	15000	15000	14800	9400	13500	8300	9600		7.0
8.0	13500	13000	13800	13200	13800	13300	9200	12500	8000	9600		8.0
9.0		10800	12000	11100	12700	11800	8700	11300	7200	9100	6200	9.0
10.0		9300	10400	9000	10900	9700	8300	10200	6500	8700	6100	10.0
11.0		7500	8700	7400	9200	8000	7600	8600	6000	8200	6000	11.0
12.0			7400	6000	7800	6800	7000	7200	5500	7600	5900	12.0
13.0				5100	6800	5700	6500	6200	5100	6600	5700	13.0
14.0				4300	6000	4900	6000	5300	4800	5700	5300	14.0
15.0					5200	4200	5500	4700	4600	5000	4700	15.0
16.0					4600	3800	4900	4100	4400	4400	4500	16.0
18.0						2800	3900	3100	4100	3400	3600	18.0
20.0							3200	2400	3300	2700	2900	20.0
22.0							2600	1900	2800	2100	2300	22.0
24.0								1500	2300	1700	1800	24.0
26.0									1900	1300	1500	26.0
28.0										1000	1100	28.0
30.0											900	30.0
32.0											700	32.0
Telescoping status (%)												
2nd boom	0	50	0	100	0	100	0	100	0	100	100	2nd boom
3rd boom	0	0	25	0	50	25	75	50	100	75	100	3rd boom
4th boom	0	0	25	0	50	25	75	50	100	75	100	4th boom
5th boom	0	0	25	0	50	25	75	50	100	75	100	5th boom
Rope rate	8	8	6	6	6	5	4	4	4	3	3	Rope rate

Remark:

1. Wind speed $\leq 32\text{km/h}$, safe work.
2. Wind speed $33\sim 47\text{km/h}$, load shall be reduced to 40% of rated capacity.
3. Wind speed $\geq 48\text{km/h}$, boom is not allowed to luff up.

Load Chart-Telescopic Boom



Unit: kg

Radius(m)	10.9m	14.85m	16.82m	18.8m	22.75m	24.72m	28.67m	30.65m	34.6m	36.57m	42.5m	Radius(m)
3.0	30000	25000	19600									3.0
3.5	25000	25000	19600									3.5
4.0	25000	24000	19600	20700	18000							4.0
4.5	24000	23000	19600	20000	18000	18800						4.5
5.0	20300	19900	19600	19500	18000	18600						5.0
5.5	16700	16300	17700	16100	18000	16900	10000					5.5
6.0	14100	13700	15000	13500	15500	14300	9800	13500				6.0
6.5	12100	11700	12900	11500	13400	12300	9600	12500	8500			6.5
7.0	10500	10200	11300	10000	11700	10700	9400	10900	8300	9600		7.0
8.0	8100	7800	8900	7600	9300	8300	9200	8600	8000	9000		8.0
9.0		6200	7200	6000	7600	6700	7800	6900	7200	7300	6200	9.0
10.0		5000	6000	4800	6300	5400	6500	5700	6500	6000	6100	10.0
11.0		4000	5000	3900	5400	4500	5500	4700	5700	5100	5200	11.0
12.0			4200	3100	4600	3700	4800	3900	4900	4300	4400	12.0
13.0				2500	4000	3100	4100	3300	4300	3700	3800	13.0
14.0				2000	3400	2600	3600	2800	3700	3200	3300	14.0
15.0					3000	2200	3100	2400	3300	2700	2800	15.0
16.0					2600	1800	2800	2000	2900	2300	2500	16.0
18.0							2100	1400	2300	1700	1900	18.0
20.0							1700		1800	1300	1400	20.0
22.0							1300		1400		1000	22.0
24.0									1100			24.0
26.0									900			26.0
28.0												28.0
30.0												30.0
32.0												32.0
Telescoping status (%)												
2nd boom	0	50	0	100	0	100	0	100	0	100	100	2nd boom
3rd boom	0	0	25	0	50	25	75	50	100	75	100	3rd boom
4th boom	0	0	25	0	50	25	75	50	100	75	100	4th boom
5th boom	0	0	25	0	50	25	75	50	100	75	100	5th boom
Rope rate	8	8	6	6	6	5	4	4	4	3	3	Rope rate

Remark:

- 1.The fifth outrigger shall be extended.
- 2.Wind speed ≤32km/h, safe work.
- 3.Wind speed 33~47km/h, load shall be reduced to 40% of rated capacity.
- 4.Wind speed ≥48km/h, boom is not allowed to luff up.

Load Chart-Jib



Unit: kg

Telescopic boom + jib length(42.5m+8m)				
Boom angle	Jib offset			Boom angle
	0°	15°	30°	
78°	2800	2000	1500	78°
75°	2500	1800	1400	75°
72°	2200	1500	1300	72°
70°	2000	1400	1200	70°
65°	1600	1300	1000	65°
60°	1000	1000	900	60°
55°	600	600	600	55°
50°	350	350	350	50°

Remark:

- 1.Value listed are the max. capacity when the crane is in a level condition on solid ground or surface;
- 2.Load value related to stability are given complying with ISO4305;
- 3.When the fifth outrigger is extended in position, value listed are applicable for 360 degree operation;
- 4.Value above are calculated with hooks and lifting slings considered (320kg main hook block, 85kg aux. hook block);
- 5.Load value is given according to the larger radius or boom length value when the actual radius or boom length falls between two numbers above;
- 6.Rated lifting performance on boom point sheave equals 5t;
- 7.Boom load capacity shall be 450kg less than value given when jib is mounted. Rated load capacity at aux. boom nose shall be within 5000kg.



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Reminder:

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