

STC350T

SANY Truck Crane
35 Tons Lifting Capacity



Maximum rated lifting capacity: 35t
Max. Boom Length: 42.5m
Max. Lifting Height: 51m

Excellent performance

- ✦ The crane is equipped with U shaped high-tensile structural steel boom with five sections.
- ✦ The full extension of the main boom is 42.5m, and adding the jib the length is 50.5m. The maximum lifting height is 51m, and the maximum lifting moment is 1158kN·m.
- ✦ The maximum driving speed is 90km/h, and the maximum climbing gradient is 47%. Crane is with strong power.
- ✦ Adopts hydraulic booster mechanical steering, with simple structure and easy steering.
- ✦ With double pump intelligent flow distribution system, better micro-mobility. The maximum speed of single line is 145m/min.

Good quality

- ✦ With multi- safety protection and high reliability.
- ✦ With newly developed controlled hydraulic system, the rotary start and braking process is more stable and the micro-movement is more excellent.
- ✦ With international advanced distributed integrated bus data communication network, large amounts of data, fast speed and high stability.
- ✦ With Streamlined full-width cab, standard berth, panoramic window operating room, providing wider vision and more comfortable operation.
- ✦ The extensive application of advanced manufacturing technology ensures the excellent performance of products.



Safe and reliable

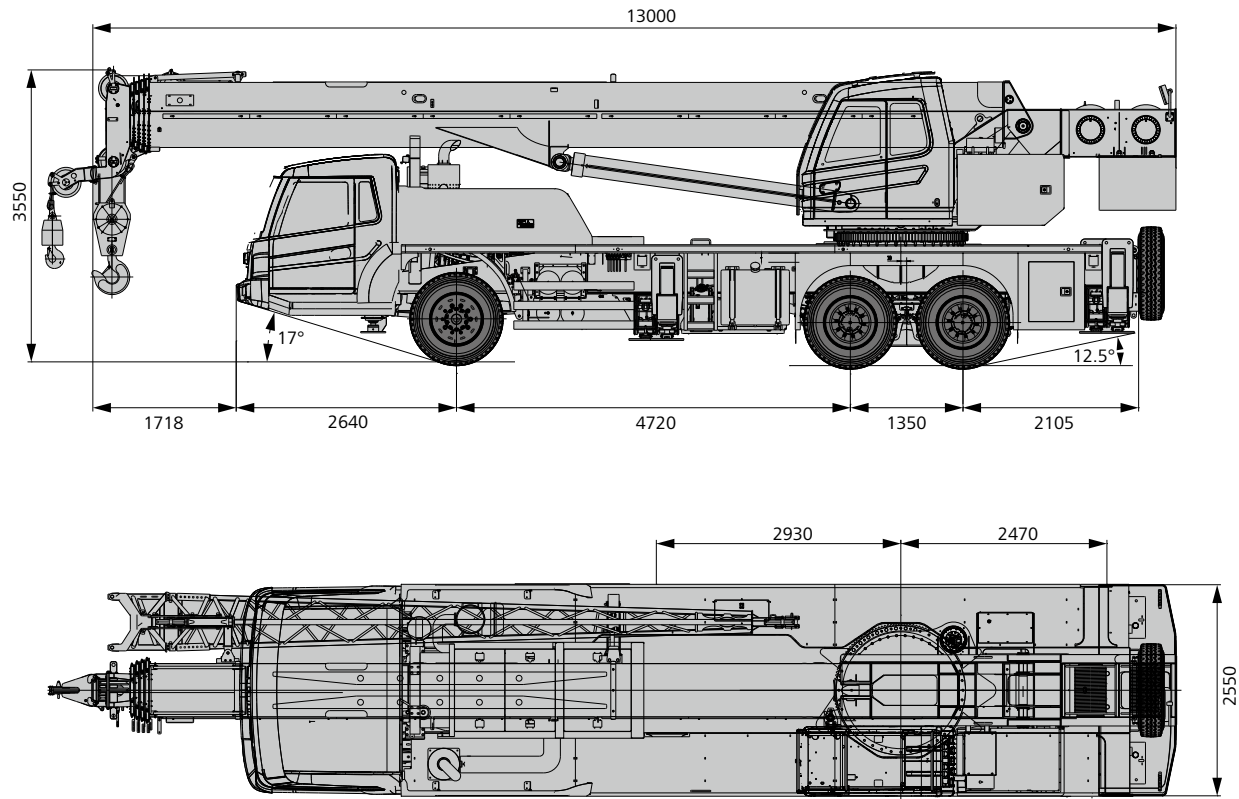
- Equipped with voice alarm system to prevent misoperation and ensure the safety of operation and personnel.
- The torque limiter system is with high accuracy, stability and intelligence to provide comprehensive protection for operation.
- Sensors are widely equipped to timely feedback data, realize real-time monitoring and enable the operator to know the working status of the whole vehicle at any time.

GCP system

- The remote monitoring and management system can monitor equipment operating condition, collect operation parameter, and implement remote fault diagnosis and management.



Overall Dimensions



Technical Parameters

Type	Item		Parameter
Dimensions	Overall length		13000 mm
	Overall width		2550 mm
	Overall height		3550 mm
	Axle distance	Axle-1,2	4720 mm
		Axle-2,3	1350 mm
	Wheel distance	Axle-1,2	2069 mm
		Axle-3,4	1854 mm
Weight	Overall length		34000 kg
	Axle load	Axle-1,2	8000 kg
		Axle-3,4	26000 kg
Engine	Engine type		Dongfeng Cummins ISLe340 30
	Rated power		250/2100 Kw/rpm
	Rated torque		1425/(1100-1400) N.m/rpm
Traveling	Max.traveling speed		90 km/h
	Turning radius	Min. turning radius	10.5 m
		Min. turning radius of boom head	12.5 m
	Min. ground clearance		260 mm
	Approach angle		≥10 °
	Departure angle		12.5 °
	Braking distance(at 30km/h)		10m
	Max gradeability		47%
	Fuel consumption per 100km		54 L
Main performance data	Max.lifting capacity		35 t
	Min.rated range		2.7 m
	Tail slewing radius of swingtable		3.4 m
	Max.lifting torque	Base boom	1158 kN.m
		Full-extend boom	727 kN.m
		Full-extend boom+jib	400 kN.m
	Outrigger span(Longitudinal*Transversal)		5.4×6.4 m
	Lifting height	Base boom	11.5 m
		Full-extend boom	43 m
		Full-extend boom+jib	51 m
	Boom length	Base boom	10.9 m
		Full-extend boom	42.5 m
		Full-extend boom+jib	50.5 m
	Jib offset		0°, 15°, 30°
Working speed	Max.single rope lifting speed of main winch(no load)		145 m/min
	Max.single rope lifting speed of aux. winch(no load)		145 m/min
	Full extension/retraction time of boom		90/100 s
	Full lifting/descending time of boom		35/45 s
	slewing speed		0-2.5 r/min
	Full extension/retraction time of horizontal outrigger		30/15 s
	Full extension/retraction time of vertical outrigger		25/20 s

Crane Introduction

Cab

- It is equipped with retractable pedal, safety glass, corrosion-resistant steel plate, fully covered softening interior, panoramic skylight, adjustable seat and other humanized designs. The air conditioning and electric wiper make operating more comfortable and easy. The 7-inch touch screen is configured to integrate the main control desk and the operation display system, so that all working condition data of hoisting operation can be clearly seen.

Hydraulic system

- The imported load-sensitive variable piston pump can adjust the oil pump output in real time, achieve high-precision flow control and greatly reduce energy loss. Electric control main valve has the function of flow compensation and load feedback control, and can easily realize the stable control of single action and combined action under various working conditions. The winch adopts imported hydraulic variable motor. The maximum speed of the primary and secondary winch is 145m/min. Rotary system includes integrated rotary buffer valve which can free slip, making rotary stable and have good performance in micro movement.
- Load sensor system: It adopts huge flow double variable piston pump, the flow is full enough but without waste, the operation is efficiency with energy conservation and environment protection.
- Intelligent flow distribution: It adopts brand new intelligent flow distribution valve that can control the boom luffing independently on combined actions, with substantial promotion for controllability on combined action. It adopts the valve-behind compensation technology, the flow distribute by need, the micro and handling is outstanding, meet all kinds of precision lifting.
- Power management: It adopts brand new power matching and power control, with taking force on 4 gear, the engine speed range is from 800rpm-1750rpm.
- Dynamic compensation and self gravity technology: increase the pressure at large elevation angle and reduce the pressure at small elevation angle, it adopts the flow compensation technology can limit the working speed automatically and keep falling at a uniform speed and stably.
- Integration slewing buffer control: Combined booster buffer, order braking and free slewing technology, keep start and stop of slewing softly and stably.
- High power cooling system: it adopts brand new motor driven radiator, making the radiator power increase over 60% and satisfied with using in any bad environment.

Control system

- Torque shown in high precision, Safety detection in multidimensional, Safety protection in comprehensive.
- It will be High efficiency and intelligence with adopting CAN internet that combined with controller, display, instrument, I/O module.
- It will be more safety with adopting intelligent controller, BCM control module, trouble self-diagnose system.
- It adopts special battery storehouse to distribute and control the whole electricity intelligently.
- It adopts root interconnections to monitor the movement track of whole machine, lifting condition intelligently, in statistical analysis and big data management.

Telescopic system

- There are in total five sections for the boom, single plate boom head. The base boom is 10.9m, The length of the full extension boom is 42.5m, jib is 8m, the lifting height of the main boom is 43m, and the maximum lifting height of the boom is 51m when adding the flying jib. It is u-shaped, made of high strength welded structural steel, and adopts double cylinder plus rope stretching.

Luffing system

- The gravity drop system is adopted to reduce energy consumption and improve the smoothness of the drop operation.
- Luffing Angle: $-2^{\circ} \sim 80^{\circ}$.

Slewing system

- The 360° slewing maximum turning speed is 2.5 r/min, ensuring stable movement, and reliable system. Besides, unique rotary buffer design makes brake more stable.

Counterweight

- Fixed counterweights 5900kg, without movable counterweights.

Hoisting system

- Adopt Kawasaki motor. The working speed is more efficient and the weight rises and falls smoothly.
- Main hook: 320kg, Auxiliary hook: 90Kg.
- Main wire rope: left-turn steel wire rope; 16-35Wx7-1960USS 220m.
- Auxiliary wire rope: left-turn steel wire rope 16-35Wx7-1960USS 110m.

Crane Introduction



Safety system

- Torque limiter: by using analytical mechanics method, the torque limiter calculation system based on the gravity model is developed to ensure the precision of rated lifting weight is up to $\pm 3\%$ through online no-load calibration, and provide All-round protection for lifting operation. When the operation is overloaded, the system will automatically give an alarm, providing security for the operation.
- The hydraulic system is equipped with hydraulic balance valve, overflow valve, bidirectional hydraulic lock and other components to achieve a stable and reliable hydraulic system.
- The primary and secondary winch is provided with a three-ring protector to prevent the steel wire rope from overlaying.
- The upper and lower arms are equipped with height limiter to prevent the wire rope from winding.
- Equipped with length angle sensor and pressure sensor to show real-time operation status, automatically stop dangerous action, and make buzzer alarm.



Driving cab

- Sany independently develops all-steel materials and rubber seal structure for the cab, which is designed by ergonomic principle, and has excellent shock absorption and sealing performance. The cab is equipped with seat with pneumatic suspension, three-point seat belt, adjustable steering wheel, large rearview mirror, comfortable driving chair equipped with headrest, prevent mist fan, air conditioning, stereo radio, complete control instruments and meters, which is comfortable and safe.



Carrier frame

- Designed and manufactured by Sany, the chassis uses new high-strength structure frame, the bearing capacity is greatly improved.



Outriggers

- The h-type supporting leg is supported by 4 points which is easy to operate and of strong stability. Adopt fine grain high strength steel plate material, the support leg is all hydraulic lateral expansion.



Engine

- Type: six cylinders in line, water cooling, medium cooling, diesel engine.
- Environmental: emissions meet the Euro III standards.
- Effective fuel tank capacity: 300L.



Transmission system

- 9 manual gearbox with synchronizer, the speed ratio range is large, which can meet the requirements of low-speed road climbing and high-speed driving.
- Transmission shaft: optimal transmission shaft layout, transmission shaft transmission is stable and reliable.
- The optimal force transmission adopts the end face gear connection transmission shaft, which transfers the torque greatly.



Drive/Steer

- 6 x 4.



Axles

- The technology of punching and welding bridge shell make it has stronger bearing capacity.



Suspension system

- It would be more comfortable for driving by using the rubber suspension in the rear and using the steel spring suspension.



Tyres

- 12.00R20 steel tyre with high bearing capacity.



Brakes system

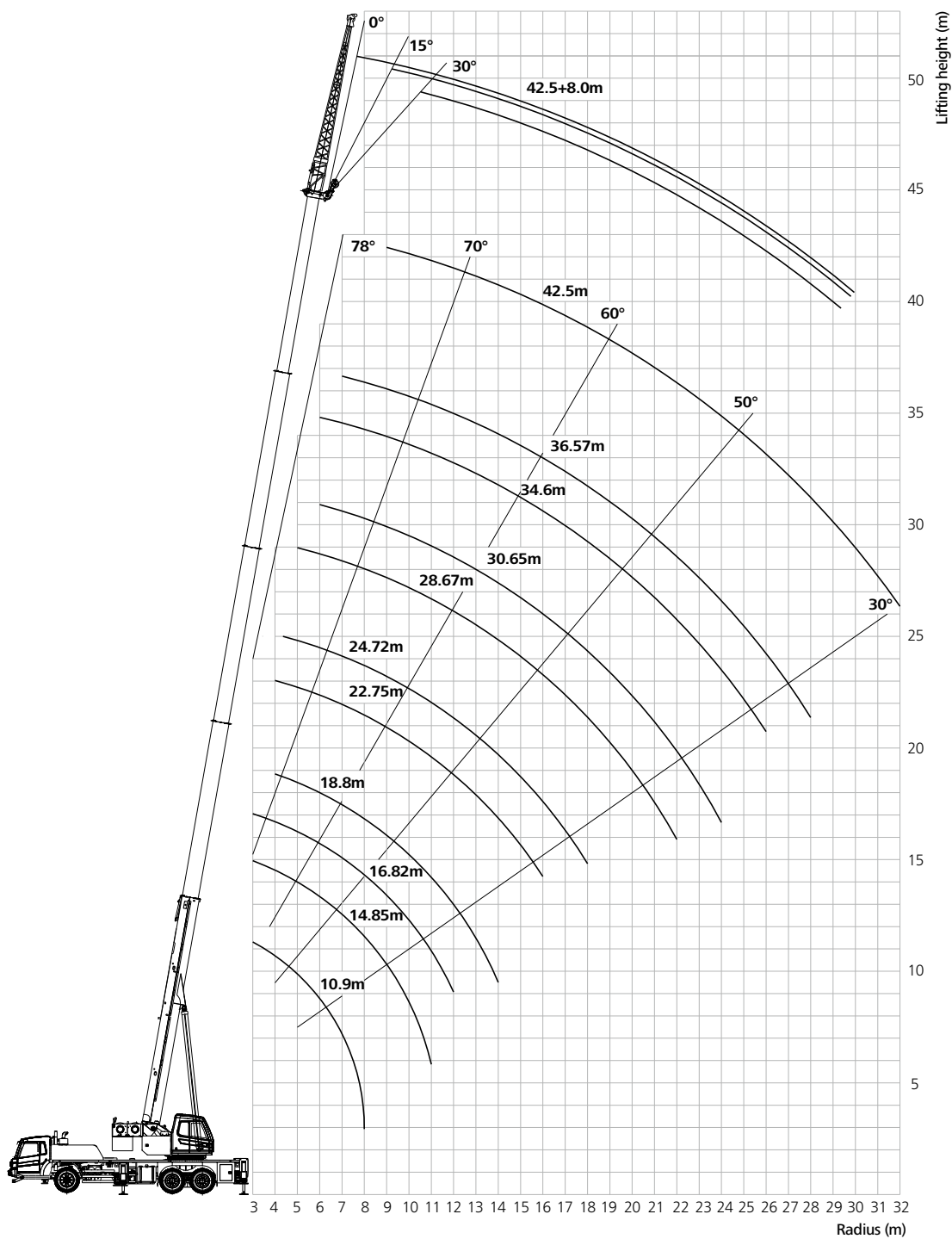
- All wheels are provided with air servo brakes, double circuit braking system, and engine with exhaust braking.



Electrical system

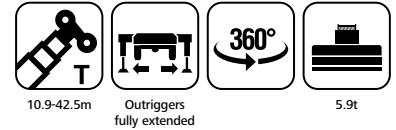
- 2 x 12V maintenance free batteries equipped with mechanical power supply main switch enables the manual cut off the vehicle power supply.

Boom Operating Range



Load Chart - Telescopic Boom

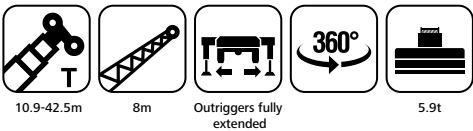
Unit: t



Radius (m)	10.9	14.85	16.82	18.8	22.75	24.72	28.67	30.65	34.6	36.57	42.5	Radius (m)
2.7	35											2.7
3.0	30	25	19.6									3.0
3.5	30	25	19.6									3.5
4.0	28	24	19.6	20.7	18							4.0
4.5	24	23	19.6	20	18	18.8						4.5
5.0	23.5	22	19.6	19.5	18	18.6						5.0
5.5	21.5	20	19	19	18	18.6	10					5.5
6.0	19.5	18.5	18	18	17	17.4	9.8	13.5				6.0
6.5	17.5	16.5	17	16.5	16	16.2	9.6	13.5	8.5			6.5
7.0	15.5	15	16	15	15	14.8	9.4	13.5	8.3	9.6		7.0
8.0	13.5	13	13.8	13.2	13.8	13.3	9.2	12.5	8	9.6		8.0
9.0		10.8	12	11.1	12.7	11.8	8.7	11.3	7.2	9.1	6.2	9.0
10.0		9.3	10.4	9	10.9	9.7	8.3	10.2	6.5	8.7	6.1	10.0
11.0		7.5	8.7	7.4	9.2	8	7.6	8.6	6	8.2	6	11.0
12.0			7.4	6	7.8	6.8	7	7.2	5.5	7.6	5.9	12.0
13.0				5.1	6.8	5.7	6.5	6.2	5.1	6.6	5.7	13.0
14.0				4.3	6	4.9	6	5.3	4.8	5.7	5.3	14.0
15.0					5.2	4.2	5.5	4.7	4.6	5	4.7	15.0
16.0					4.6	3.8	4.9	4.1	4.4	4.4	4.5	16.0
18.0						2.8	3.9	3.1	4.1	3.4	3.6	18.0
20.0							3.2	2.4	3.3	2.7	2.9	20.0
22.0							2.6	1.9	2.8	2.1	2.3	22.0
24.0								1.5	2.3	1.7	1.8	24.0
26.0									1.9	1.3	1.5	26.0
28.0										1	1.1	28.0
30.0											0.9	30.0
32.0											0.7	32.0
Telescopic mode	I,II	I	I	II	I	II	I	II	I	II	I,II	Telescopic mode
Boom II	0	50	0	100	0	100	0	100	0	100	100	Boom II
Boom III	0	0	25	0	50	25	75	50	100	75	100	Boom III
Boom IV	0	0	25	0	50	25	75	50	100	75	100	Boom IV
Boom V	0	0	25	0	50	25	75	50	100	75	100	Boom V
Number of lines	8	8	6	6	6	6	4	4	4	4	3	Number of lines

Load Chart - Fixed Jib

Unit: t



Angle of elevation(°)	42.5m+8m			Angle of elevation(°)
	0°	15°	30°	
78	2.8	2.5	1.9	78
75	2.8	2.4	1.75	75
72	2.7	2.2	1.7	72
70	2.6	2	1.6	70
65	2	1.7	1.35	65
60	1.55	1.45	1	60
55	1	0.9	0.7	55
50	0.65	0.55	0.4	50

- Note:**
- The given value in the table is the rated lifting weight of the crane in the condition of leveling and solid ground. The value on heavy line is determined by the intensity of the crane, and the value below the heavy line is determined by the stability of crane.
 - The working range in the table refers to the actual range after loading.
 - The rated load determined by stability rating values follows ISO 4305.
 - The rated lifting weight in the table includes lifting hook and lifting tackle weight (main lifting hook weight 320kg, auxiliary lifting hook weight 90kg).
 - With the fifth outrigger unfolded, value in the table is suitable for the comprehensive (360 °) operation.
 - The rated lifting weight shall not exceed 4500kg when the boom pointed pulley is used. If the auxiliary boom is in the expansion state, the rated lifting weight of the main boom should be reduced by 500kg.
 - If the actual boom length and the amplitude are between two values, the rated lifting weight determined by the longer boom length and the larger amplitude shall be taken for the lifting operation.



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— Authorised Dealer —

Reminder:

For safe and reliable operation of the diesel engines, please fill Grade IV machines with Grade IV diesel and urea solution conforming to related national standards. Please refer to the operating instructions and related standards for details.

Any change in the technical parameters and configuration due to advancement in technology may occur without prior notice. The machine in the figures may include auxiliary equipment. This brochure is for reference only, and goods in kind shall prevail.

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