

STC160

SANY Truck Crane
16 Ton Lifting Capacity



Max. Lifting Capacity: 16t
Max. Boom Length: 32m
Max. Lifting Height: 40.5m

Excellent performance

- 4-Section U-shaped boom adopts high strength structural steel.
- The length of full-extend boom is 32m, the maximum lifting height is 40.5m, and the maximum lifting moment is as high as 730kN·m, tougher than other brands.
- The carrier frame structure is optimized, and a heightened flat-bottom carrier frame is adopted, thus improving the torsional resistance by above 20%.
- CAN-bus for quick data access.

Good quality

- Self-developed hydraulic valve functioning adjustment via load feedback, for better fine-tune performance.
- Adaptive to various tough road conditions.
- Every manufacture process is monitored for sophisticated products.



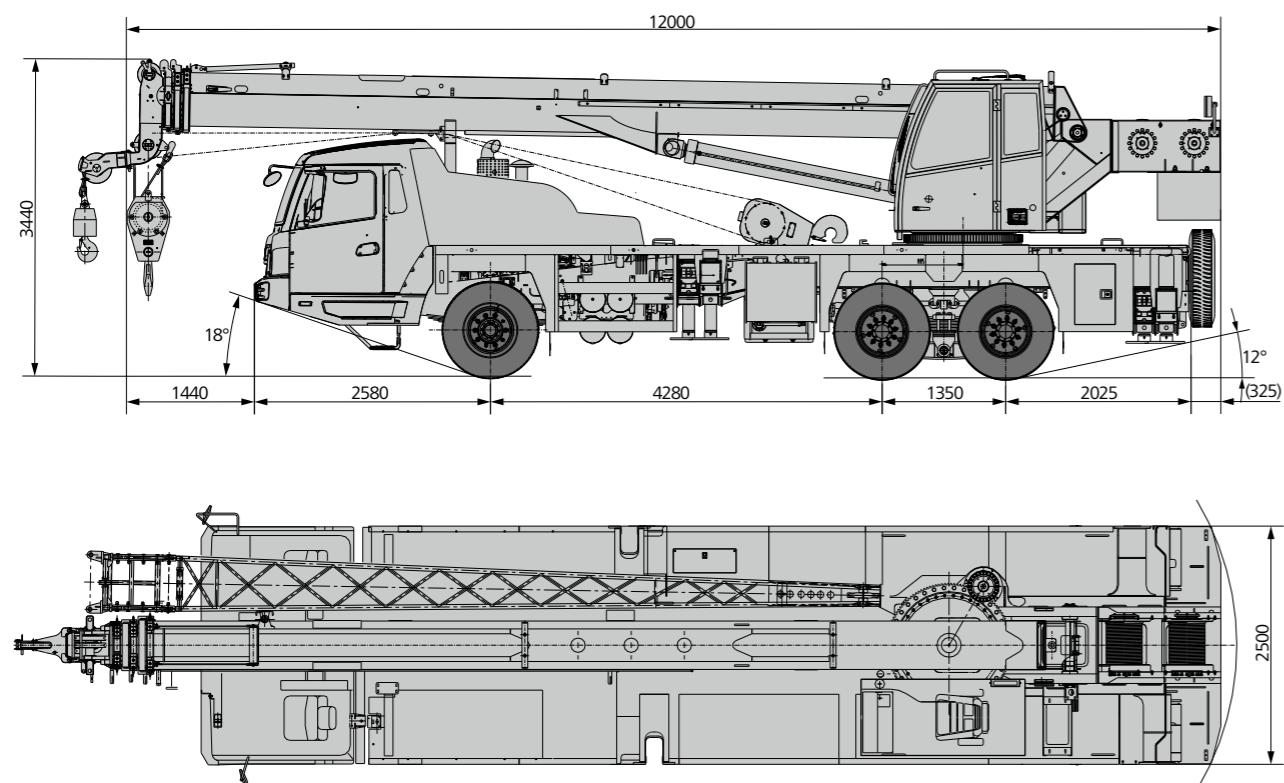
Safety and reliability

- Back up sonar and operation buzzer are installed to notify the driver and operator of the obstacles behind the cranes.
- High-precision moment limiter is working for reliable real-time loading.
- Multiple sensors help operation monitoring.

GCP remote control

- China's first equipment remote monitor is developed by Sany. Operation conditions and data are collected, making long-distance troubleshooting and control possible.
- This system enables online parts browsing and purchasing.

Overall Dimensions



Technical Parameters

Type	Item	Parameter	
Dimension parameter	Overall length	12,000 mm	
	Overall width	2,500 mm	
	Overall height	3,440 mm	
	Wheelbase	First and second wheelbases	4,280 mm
		Second and third wheelbases	1,350 mm
Track	Front wheel	2,039 mm	
	Middle and rear wheels	1,865 mm	
Weight parameter	Overall weight	24,000 kg	
	Load	Front axle	6,400 kg
		Rear axle	17,600 kg
Dynamic parameter	Engine model	SDEC SC7H260Q3	
	Max.power of engine	SDEC SC7H260Q3	192/2,200 Kw/rpm
	Max.output torque of engine	SDEC SC7H260Q3	1,000/1,400 N-m/rpm
Running parameter	Max.running speed	80 km/h	
	Steering radius	Minimum steering radius	10 m
		Minimum steering radius of boom head	14 m
	Min.ground clearance	250 mm	
	Approach angle	18°	
	Departure angle	12°	
	Brake distance (at speed of 30km/h)	10 m	
	Max.gradability	40 %	
	Fuel consumption per hundred kilometers	28 L	
	Main performance parameter	Max.rated lifting capacity	16 t
Min.rated reach		3 m	
Max.lifting moment		Base boom	730 kN-m
		Min.boom	426 kN-m
Outrigger span (transverse x longitudinal)		5.8x4.98 m	
Lifting height		Base boom	10.5 m
		Full-extend boom	32.5 m
		Full-extend boom + jib	40.5 m
Boom length	Base boom	10.15 m	
	Full-extend boom	32 m	
	Full-extend boom + jib	40 m	
Jib offset	0°, 15° and 30°		
Operating speed parameter	Max.single-rope speed of main winch (empty load)	105 m/min	
	Max.single-rope speed of auxiliary winch (empty load)	100 m/min	
	Full extend/retract time of boom	65s /50 s	
	Full rise/lower time of boom	50s /50 s	
	Slewing speed	2.1 r/min	
	Full extend/retract time of horizontal outrigger	25s /20 s	
	Full extend/retract time of vertical outrigger	25s /20 s	

Crane Introduction

Cab

- Operator's cab is designed in line with Ergonomics. Strengthened windscreen, anti-corrosion steel, skylight, flexible seat, air-conditioner, adjustable seat are installed.

Hydraulic system

- Flow compensator and load feedback controller are embedded in the main valve, featuring stable control over combined actions.

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

- Four-section synchronous telescopic boom embedded with single cylinder and rope arranger.

Luffing system

- Powered luffing (lowering) system.
- Luffing offset: -2° to 80°

Slewing system

- 360°slewing at a max. speed of 2.1 r/min.

Counterweight

- 2.9t fixed counterweight. No removable counterweight.

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.

Hook

- A 200kg main hook, a 60kg auxiliary hook.

Safety system

- Safe operation is guaranteed via moment limiter, relief valve, bilateral pilot-controlled valve, winch protector, rope monitor, pressure sensor, and other gadgets.

Crane Introduction

Cab

- Ergonomic design for better cushioning and noise reduction. Big-size rearview mirror, air-conditioner, radio are installed for user-friendly experience.

Carrier frame

- Designed and made by Sany, providing strong load capacity.

Axles

- Steering axle: axle 1; drive axle: axles 2 and 3

Engine

- SDEC SC7H260Q3 engine: rated power of 192kW at 2200rpm, Euro IV.
- Fuel tank capacity: 300L.

Transmission system

- 8-speed gearbox, transmission shaft with flange junction for greater torque.

Brakes system

- Adopt air brake. With double circuit service brake controlled by pedal, and parking brake and emergency brake controlled by hand brake lever. Also with exhaust brake.

Suspension system

- Plate spring is installed after enough fatigue tests, offering both strength and ride comfort.

Steering system

- Adopt the single-circuit hydraulic assistance steering system with mechanical steering stop.

Outriggers

- Four outriggers in H layout, lateral telescoping by hydraulics.

Tyres

- 6 wheels, and a spare wheel; specifications of tyres: 11.00-20-18PR

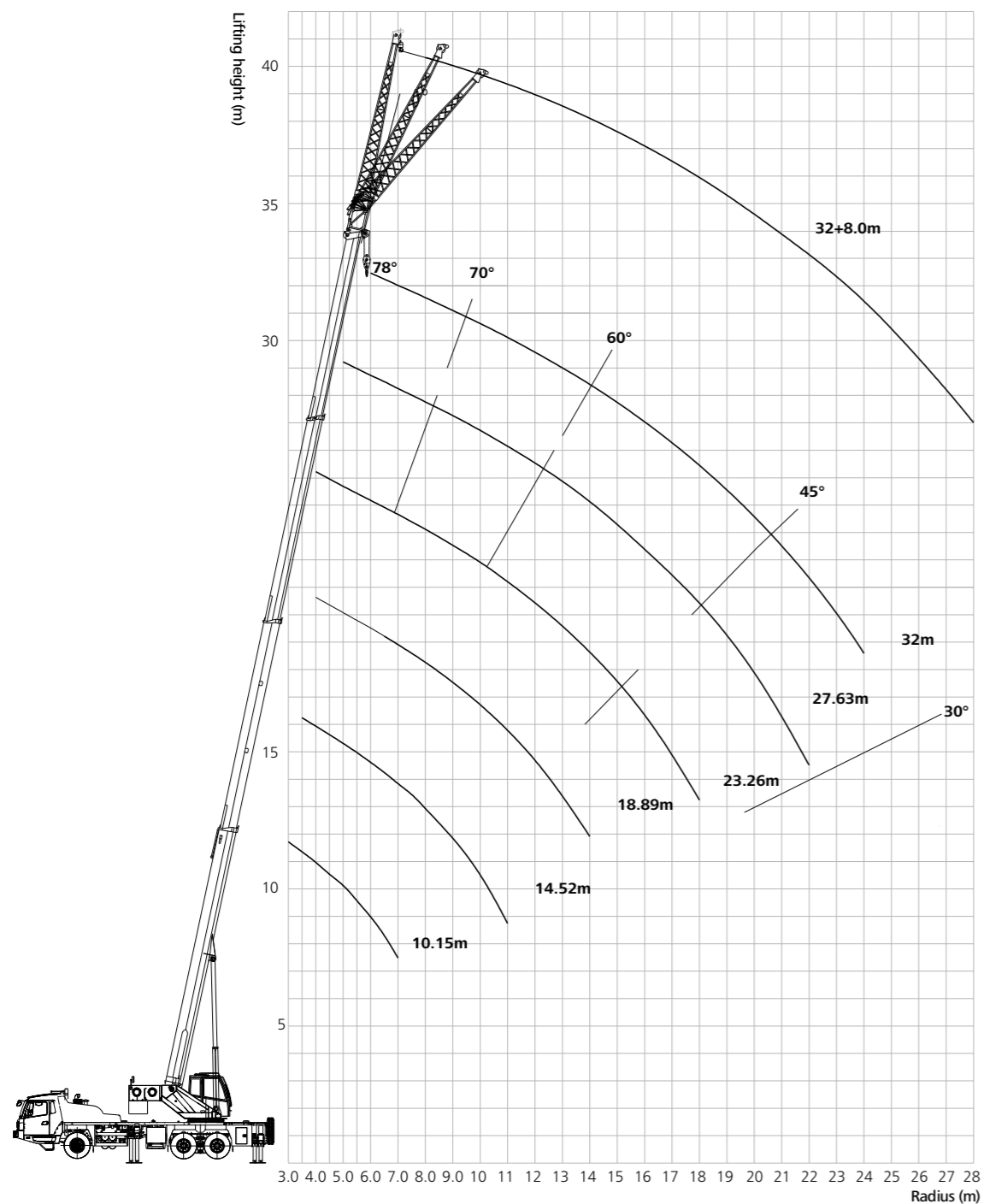
Drive/steer

- 6x4x2

Electrical system

- 24V system voltage, CAN bus.

Operating Range



Load Chart - Telescopic Boom

Unit: metric ton



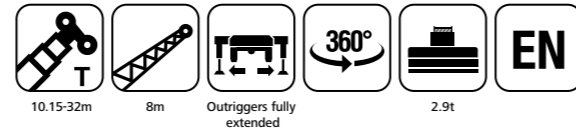
Radius (m)	Boom length						Radius (m)
	10.15	14.52	18.9	23.26	27.63	32	
3	16.00	12.20					3
3.5	16.00	12.20	11.60				3.5
4	16.00	12.20	11.60	8.60			4
4.5	15.50	12.20	11.60	8.60			4.5
5	14.60	12.20	11.60	8.40	6.60		5
5.5	13.20	12.20	11.00	8.00	6.60		5.5
6	11.30	11.50	10.20	7.60	6.60	4.60	6
6.5	9.80	10.20	9.80	7.20	6.00	4.60	6.5
7	8.80	9.00	9.00	6.90	5.60	4.50	7
8	7.10	7.10	7.20	6.10	5.10	4.30	8
9		5.90	5.90	5.60	4.80	4.10	9
10		4.90	5.00	5.00	4.30	3.85	10
11		4.20	4.10	4.30	4.10	3.70	11
12		3.60	3.50	3.60	3.70	3.55	12
14			2.70	2.80	2.80	2.80	14
16			2.00	2.10	2.25	2.25	16
18				1.65	1.65	1.80	18
20					1.30	1.30	20
22					1.10	1.10	22
24						0.90	24
Rate	6	6	5	4	3	3	Rate

Remarks:

1. Data in the table are the max. capacity when the crane is in a level condition on solid ground. Data above the bold line are related to capacity; data below are related to crane stability.
2. Radius is calculated while loading.
3. Data related to crane stability are determined in line with ISO4305.
4. Load data are given with hook and lifting slings considered.
5. Rated load capacity shall be no bigger than 2700kg when boom tip sheave is applied. Boom load capacity shall be 450kg less than data given.

Load Chart - Fixed Jib

Unit: metric ton



Boom angle	32m+8m			Boom angle
	0°	15°	30°	
80	2.00	1.90	1.50	80
78	2.00	1.85	1.45	78
76	2.00	1.80	1.40	76
74	2.00	1.75	1.35	74
72	2.00	1.60	1.30	72
70	2.00	1.50	1.25	70
68	1.90	1.45	1.20	68
66	1.80	1.40	1.15	66
64	1.70	1.35	1.10	64
62	1.55	1.30	1.05	62
60	1.30	1.15	1.00	60
58	1.10	1.00	0.90	58
56	0.90	0.80	0.70	56
54	0.70	0.65	0.50	54
52	0.55	0.45	0.40	52
50	0.45	0.35	0.30	50
45	0.30			45



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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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