

# 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.



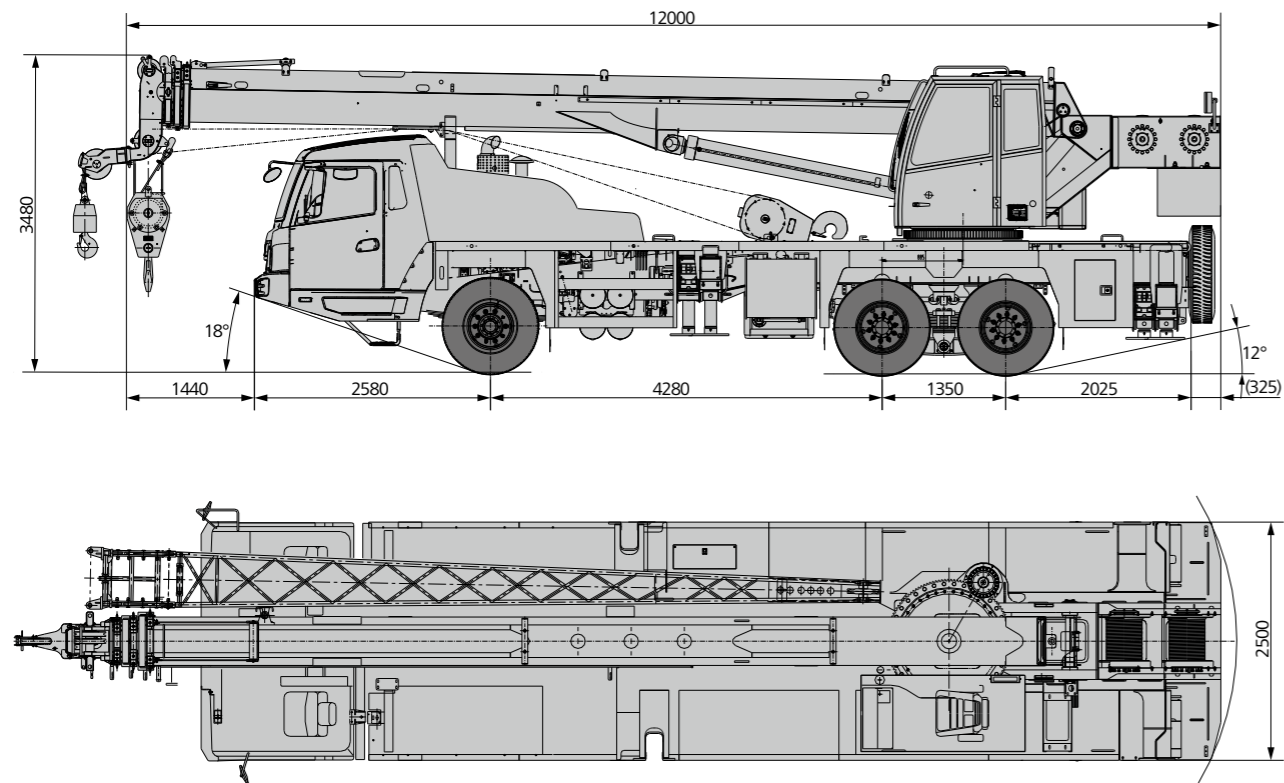
## Safety and reliability

- 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

Category	Item	Unit	Value	
Capacity	Max. lifting capacity	t	16	
Weight	Gross weight	kg	24000	
Power	Engine model	-	SDEC SC7H260Q3	
	Max. engine power	kW/rpm	192/2300	
	Max. engine torque	N-m/rpm	1000/1400	
Dimensions	Overall length	mm	12000	
	Overall width	mm	2500	
	Overall height	mm	3480	
Travel	Max.travel speed	km/h	80	
	Steering radius	Min.steering radius	m	10
		Min.steering radius of boom tip	m	14
	Wheel formula	-	0	
	Min.ground clearance	mm	250	
	Approach angle	°	18	
	Departure angle	°	12	
	Max.gradeability	%	40	
	Fuel consumption per 100km	L	28	
	Main Performance	Working temperature range	°C	-20~+40
Min.rated lifting radius		m	3	
Tail slewing radius		m	2.98	
Boom sections (Qty.)		-	4	
Boom shape		-	U shape	
Max.lifting moment		Basic boom	kN-m	10.5
		Full-extension boom	kN-m	426
		Max.combination of boom + jib	kN-m	139.5
Boom length		Basic boom	m	10.15
		Full-extension boom	m	32
		Max.combination of boom + jib	m	40
Max.lifting height		Basic boom	m	10.5
		Full-extension boom	m	32.5
	Max.combination of boom + jib	m	40.5	
Outrigger span (LongitudinalxTransverse)	m	4.98x5.8		
Jib offset	°	0,15,30		
Airconditioner	In operator's cab	-	Heating & cooling	
	In driver's cab	-	Heating & cooling	

## 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

- 2.6t 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 3.
- 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

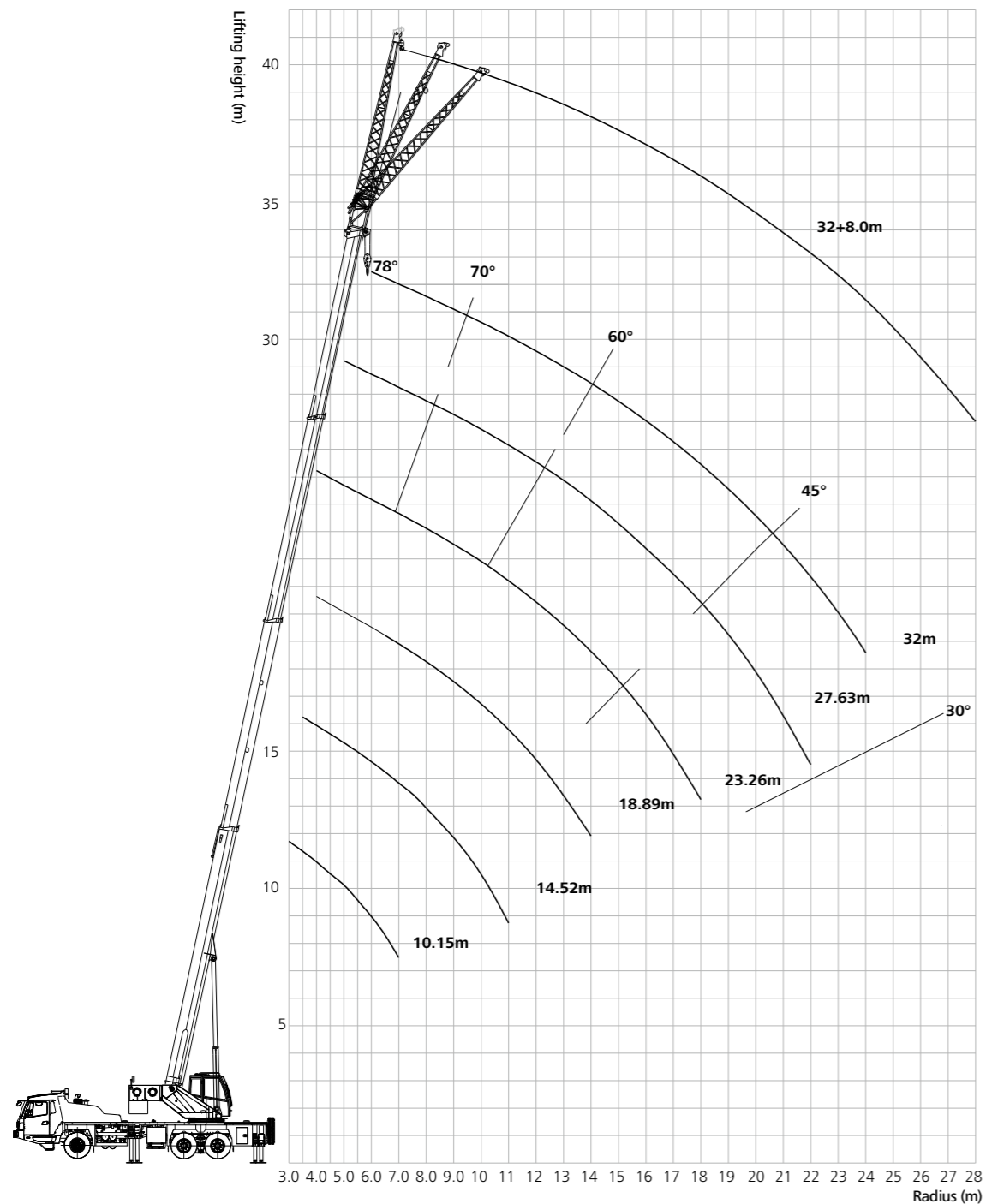
### Drive/steer

- 6x4x2

### Electrical system

- 24V system voltage, CAN bus.

## Operating Range



## Load Chart - Telescopic Boom

Unit: metric ton



Radius (m)	Boom length						Radius (m)
	10.2	14.5	18.9	23.3	27.6	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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