



**SANY**

# **QY50C TRUCK CRANE**

50t Lifting Capacity

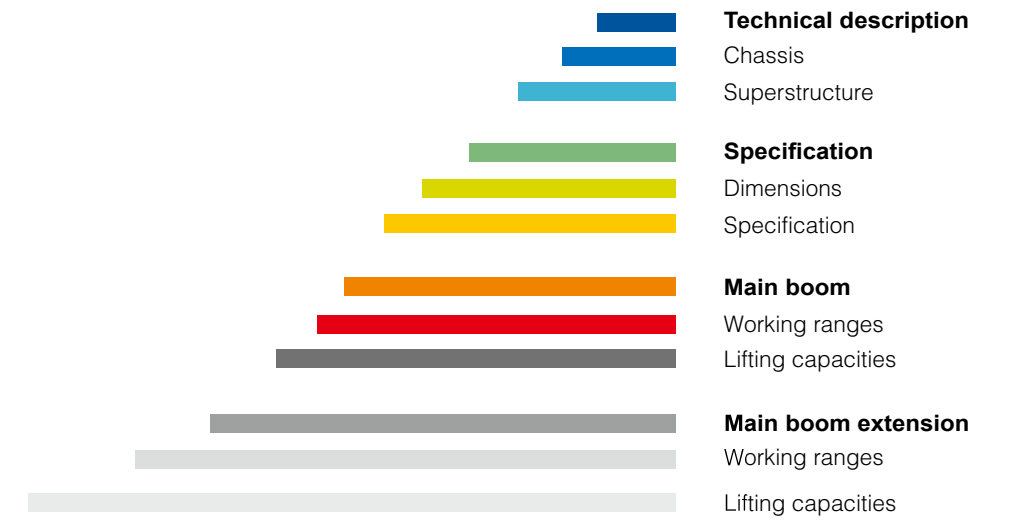


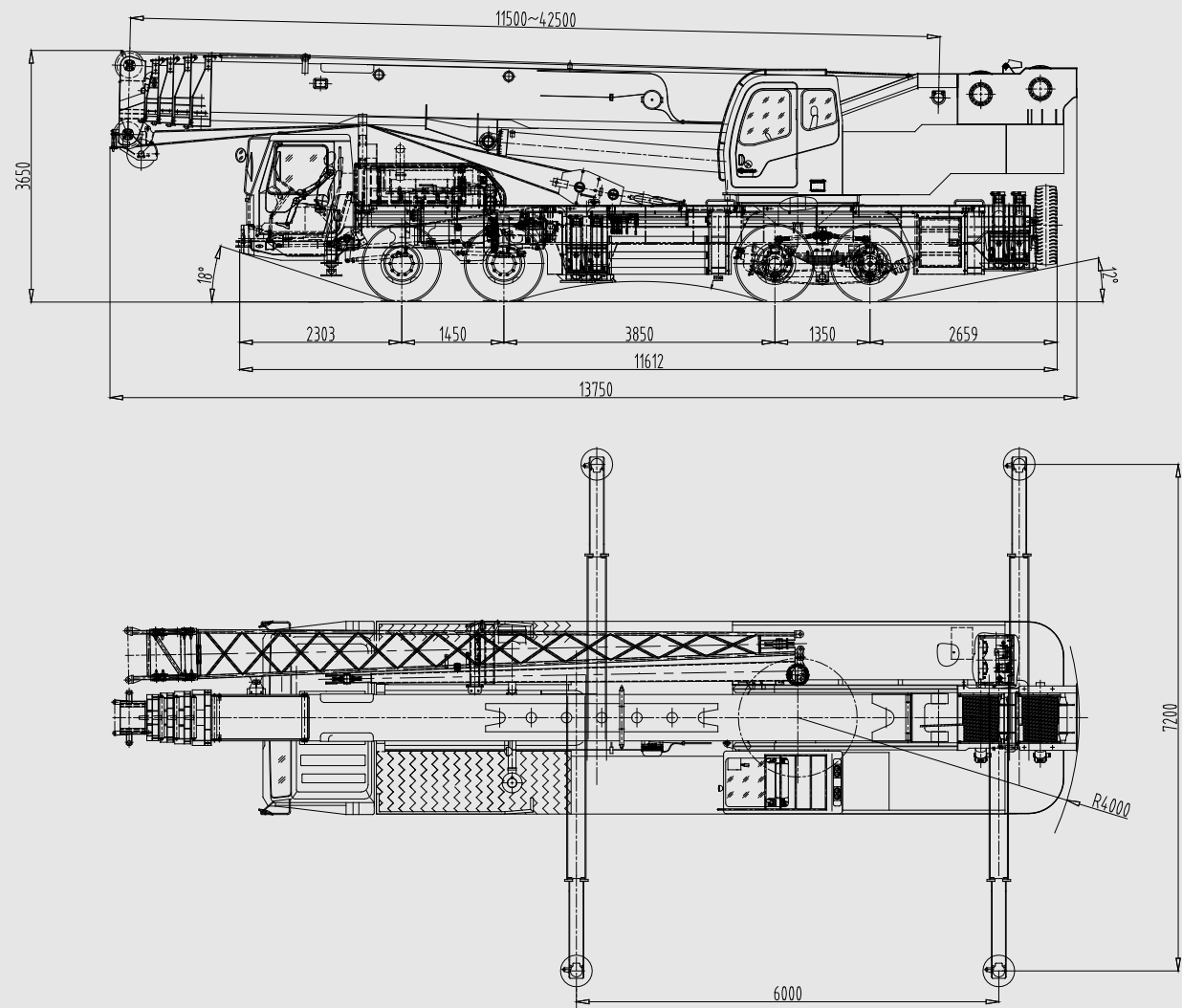
55t

42.5m

42.8m

1. Max. rated lifting capacity 55t. Min. working radius 3.0m
2. High-tensile steel main boom, large-arc hexagonal profile, fully extended length: 42.5m, max. tip height: 42.8m.
3. Unique and ergonomic cab, adopts advanced stamping and electrophoretic coating process, "red star" painting.
4. Euro III standard engine, hydraulic and mechanical operation.
5. Load sensing and constant power hydraulic control system, independently developed by SANY reduces energy consumption.
6. Adopt SANY designed and patented machinery controller, integrated with PHILIPS 32-digit CPU, to provide more precise and reliable control, with load moment height limiter and warning alarm, the safety and reliable operation is ensured.
7. World-famous brand key hydraulic components as hydraulic pump, motor, valve, eg. Parker, Rexroth. Color monitor display, integrating original SHARP HD screen, Danmark DANFOSS piezoresistive pressure sensor and America SUNS height limiter.





### Technical parameter

	Item	Unit	Value	
Dimensions	Overall length	mm	13750	
	Overall width	mm	2750	
	Overall height	mm	3650	
	Axle distance	Axle 1 and 2 distance	mm	1450
		Axle 2 and 3 distance	mm	3850
		Axle 3、 4 distance	mm	1350
Wheel distance	1、 2 wheel distance	mm	2300	
	3、 4 wheel distance	mm	2055	
Weight	Overall weight	kg	42000	
	Load	Axle1、 2 load	kg	16000
		Axle 3、 4 load	kg	26000
Power	Engine model	Dongfeng Cummins ISLe310 30		
	Max. engine output	Dongfeng Cummins ISLe310 30	Kw/rpm	228/2200
Travel specifications	Max. engine torque output	Dongfeng Cummins ISLe310 30	N.m/rpm	1200/1200 ~ 1400
	Max. travel speed		Km/h	76
	Min. turning radius	Radius	m	11
		Min. tip truing radius	m	14.5
	Min. ground clearance		mm	342
	Approach angle		°	≥ 18
	Departure angle		°	≥ 12
	Brake system(30km/h)		m	≤ 10
	Max. gradeability		%	35
	Oil consumption for every 100km		l	≤ 45
Main performance specifications	Max. total rated lifting capacity		t	55
	Min. rated working radius		m	3
	Turntable tail turning radius		m	3.9
	Max. load moment	Basic boom	kN.m	1788.5
		Full extension of main boom	kN.m	840.8
		Fully extended boom + jib	kN.m	318
	Span of outrigger(vertical × horizontal)		m	7.2 × 6.0
	Lifting	Height	m	12
		Full extension boom	m	42.8
	Length of boom	Max. main boom + jib	m	58.8
Base boom		m	11.5	
Max. main boom		m	42.5	
Fully extended boom+ jib	m	58.5		
Setting angle of jib		°	0、 15、 30	
Working speed	Max. hoisting speed for main winch(no load)	m/min	130	
	Max. hoisting speed for single secondary winch(no load)	m/min	130	
	Boom full extending / retracting time	s	120/100	
	Boom lifting/ descending time	s	80/60	
	Slewing speed	r/min	0~2.4	
	Time for horizontal outrigger fully extended/retracted	s	38/20	
Time for vertical outrigger fully extended/retracted	s	35/15		



## Specification/Chassis

- 1 Frame**  
Overall welded structure made of high-tensile structural steel plate.
- 2 Outrigger**  
H shaped , fully hydraulic controlled horizontal and vertical extension/ retraction can be carried out independently.
- 3 Engine**  
ISLe310 30 dongfeng Cummins engine: when the rotating speed is 2200rpm, the rated output is 228kw.  
Fuel tank capacity: 300L.

- 4 Transmission system**  
9 speed gear box with full synchronizer, face tooth structure for steering knuckles.
- 5 Tyre**  
12 tyres, 1 spare tyres, size 12.00R20-20PR.
- 6 Steering**  
Single-circuit hydraulic power assistance steering system with mechanical steering limiter.

- 7 Electrical system**  
24V, CAN bus.
- 8 Driver's Cab**  
Spacious and comfortable ergonomic design, adjustable steering wheel, broad vision.
- 9 Axle**  
Axle 1、 2 steering, axle 3、 4 driving.

- 10 Suspension**  
Axles 1、 2: with unbalanced band-spring suspension.  
Axles 3、 4: with balanced band-spring suspension.
- 11 Brake**  
Driven by axial piston variable displacement pump, combination of load sensing and constant power control. To achieve fluid proportion and power adjustment, adjust the displacement of oil pump automatically according to load condition, reliable optimized utilization of power. Reduces energy consumption due to speed control, throttling free.
- 12 Hydraulic system**  
Outrigger telescoping is driven by a fixed displacement gear pump.



## Specification/Superstructure

1

### Cab

Beside turntable arranged, corrosion resistant steel, high-grade inner decorated, adjustable driver's seats, providing comfortable and fatigue free.

2

### Main boom

5 section boom, partly synchronizing telescopic boom, hexagonal profile, composed by dual hydraulic cylinders, wire rope, and balance valves on cylinder.

3

### Counterweight

3.5T counterweight fixed on swing table by bolts.

4

### Hydraulic system

Driven by axial piston variable displacement pump, combination of load sensing and constant power control. To achieve fluid proportion and power adjustment, with automatic adjust the displacement of oil pump according to load condition, reliable optimized utilization of power, reduce energy consumption due to speed control, throttling free.

5

### Main winch

Fixed displacement piston motor hydraulic brake system balance valve equipped: max. hoisting speed of single rope: 130m/min. length of rope: 220m.

6

### Auxiliary winch

Fixed displacement piston motor, hydraulic brake system balance valve are equipped. Max. lifting speed of single rope: 130m/min. length of rope: 130m.

7

### Elevation

Deadweight dropping amplitude is controlled by balance valve.

8

### Slew

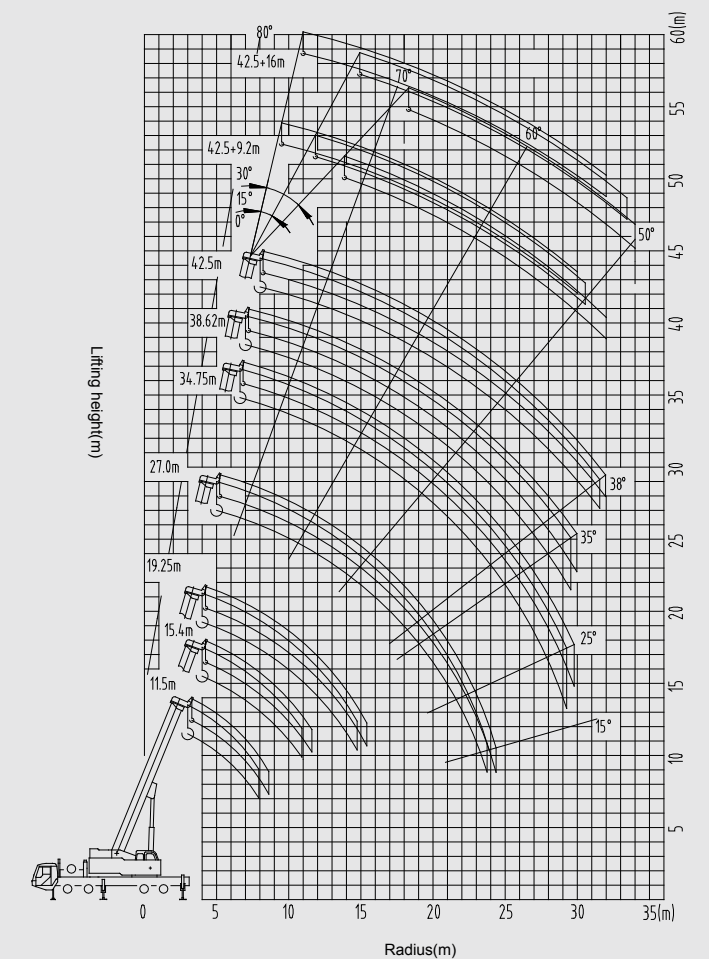
Comprised of fixed displacement piston motor and retarder. Max. slewing speed: 2.4r/min.

9

### Safety devices

LED monitor, indicates important parameters, eg. torque, hook load, rated load, length, angle, lifting height. Integrated load chart and operation parameters setting, provide safe operations.

## QY50C truck crane lifting height



### Load chart for main boom

( Unit: kg )

Radius	Fully extended outriggers, over side and rear.										
	11.5m	15.4m	19.25m	27.0m	34.75m	38.62m	42.5m				
3.0	55000	40000	32000	21500							
3.5	50500	40000	32000	21500							
4.0	42800	40000	32000	21500							
4.5	40000	36000	31000	21500	21000	15000					
5.0	36500	33200	29000	20000	21000	15000					
5.5	32000	30000	27500	19000	21000	14500					
6.0	27700	27500	25700	18100	21000	13700	14000	9000			
6.5	25000	25500	23900	17500	19500	12800	14000	9000			
7.0	22500	23200	21500	17000	18000	12100	14000	9000	11500	9000	
7.5	21400	21200	18600	16200	16800	11500	13500	8500	11500	9000	
8.0	19000	19500	16800	15600	15800	11000	12700	8500	11000	9000	9000
9.0	15300	15000	13500	13800	14000	10000	11700	7800	10500	8500	8500
10.0		11700	10300	12000	12000	9000	10700	7100	10000	8000	8500
11.0		9500	8700	10600	9900	8200	8900	6400	9000	7500	7800
12.0		7700	7200	8700	8300	7500	8300	5800	8000	7000	7000
14.0			4900	6400	5900	6100	6200	5000	6300	5900	6000
16.0			3400	4600	4300	5000	4700	4400	4900	5000	5200
18.0					3100	4100	3600	3800	3800	4000	4200
20.0					2200	3000	2800	3200	2900	3500	3100
22.0					1600	2300	1900	2700	2200	2800	2500
24.0					1100	1800	1500	2400	1700	2100	1800
26.0							1000	1900	1200	1650	1350
28.0							700	1500	850	1300	950
30.0							400	1000	500	900	700
32.0								800		600	400
34.0										350	
telescoping mode	I, II	I	I	II	I	II	I	II	I	II	I, II
2nd boom	0	50	100	0	100	0	100	0	100	50	100
3rd boom	0	0	0	33	33	66	66	100	83.3	100	100
4th boom	0	0	0	33	33	66	66	100	83.3	100	100
Top boom	0	0	0	33	33	66	66	100	83.3	100	100
Number of lines	12	10	8	6	4	4	4	4	4	3	

### Load chart for Jib

( Unit: kg )

Radius	Fully extended outriggers, over side and rear.					
	42.5+9.2m jib			42.5+16m jib		
	0°	15°	30°	0°	15°	30°
78°	3500	2400	2000	2400	1450	1000
77°	3200	2300	1900	2400	1400	1000
75°	3000	2200	1800	2300	1300	950
73°	2700	2000	1700	2000	1200	850
71°	2500	1800	1600	1800	1100	850
68°	2200	1700	1400	1500	1000	800
66°	2000	1500	1300	1300	950	760
63°	1800	1400	1100	1100	850	720
61°	1500	1200	950	950	750	650
58°	1100	950	750	650	600	550
56°	700	650	550	500		
min.elevation angle	55°					

#### Notes for QY50C technical parameter:

- The values in the tables refer to the max. lifting capacity of truck crane that is set horizontally on flat and solid ground. The values above the block lines in the tables depend on the strength of truck crane, while those below the block lines depend on the stability of truck crane.
- Radius shown in the tables are the actual radius when working.
- Rated lifting capacities in the stability area comply with ISO4305.
- The total rated lifting load in the tables includes the weight of hook block (main hook is 610kg and auxiliary hook is 90kg) and slings.
- When the 5th outrigger is in use, it is suitable for 360° operation.
- When working with single top, the rated lifting load should be less than 4000kg, if the jib is fixed in working position, the rated lifting load should reduce 2300kg.
- When the actual boom length and working radius are between two values, determine the lifting capacity according to the bigger one.



**三一汽车起重机械有限公司**  
**SANY Mobile Cranes CO.,LTD.**

Address: Jinzhou development, Changsha, Hunan, China

Tel: (86)731-87873131

Fax: (86)731-84031999-196

Service hotline: 4008878318

Consulting line: 4008879318

E-mail: [qzjyx@sany.com.cn](mailto:qzjyx@sany.com.cn)

Post code: 410600

Web: [www.sanygroup.com](http://www.sanygroup.com)

Sany reserves the right to amend these specifications at any time without notice.

Further technology details according to actual product!