



SRC1200

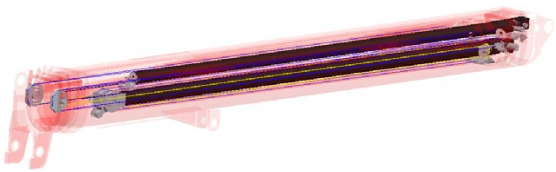
SANY Rough-Terrain Crane
120 Tons Lifting Capacity

Quality Changes the World



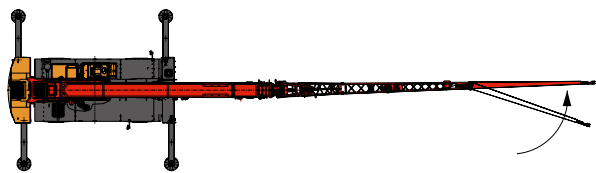
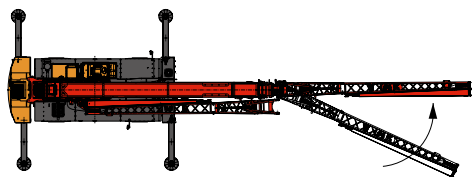
Strong and Reliable Boom

- Five sections, U-type boom. Max. boom length is 49m and Max. boom length plus jib is 67m;
- The maximum lifting torque is 3658KN.m, featuring excellent lifting capacity;
- The utilization of double-cylinder wire rope telescoping mechanism provides higher efficiency and reliability.



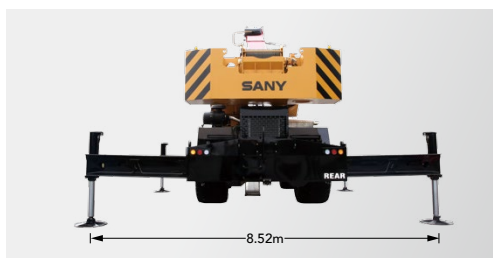
Super-long and Practical Jib

- With jib extending cylinder, the installation of the jib is easy and convenient;
- The jib can realize elevation angles of 0°, 20° and 40° for lifting.



Stable and Reliable Structural Parts

- Double wall board box type turntable increases rigidity significantly;
- Large outrigger span effectively enhances stability of the crane.



49

Max. boom length: 49m

3658

Maximum lifting
torque: 3658KN.m

81

Maximum gradient: 81%

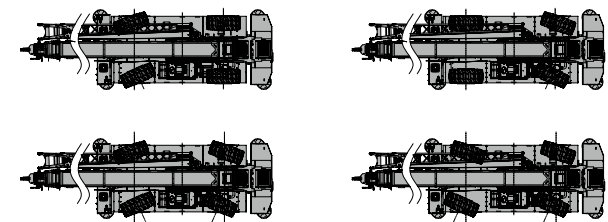
Accurate and Efficient Electro-hydraulic System

- The configuration of load sensitive variable piston pump and electronic proportional control valve adjusts pump displacement automatically, ensuring stable and accurate control of single movement and combined movement and reducing energy loss significantly;
- Full color extra-large screen, electric proportional control handle, makes human-machine interaction more comfortable;
- The retraction and extension of outrigger are operational for both the superstructure and carrier, practical and convenient.



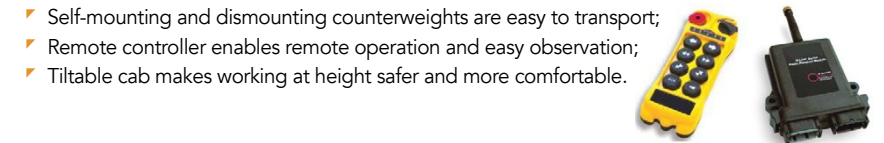
Compact and Flexible Carrier

- Engine: inline six-cylinder diesel engine with maximum power of 242kw/2100r/min;
- Crane axles: imported axle, efficient and reliable;
- Brake system: Independent front and rear axle circuit brake. All four wheels are configured with disc brake, which greatly enhances safety and stability ;
- Steering: 4 steering modes;
- Maximum gradient: 81% (theoretical value).

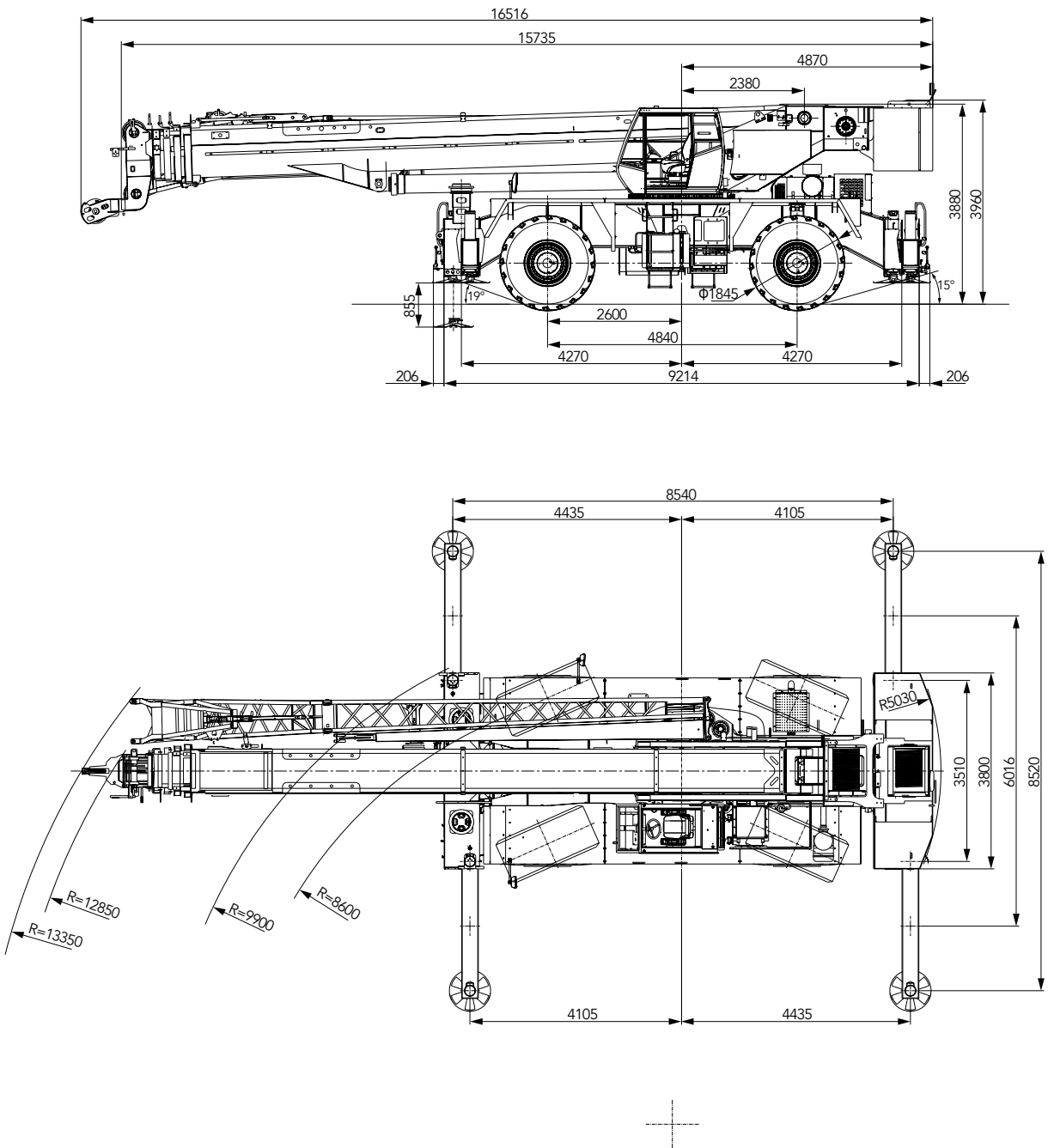


Complete and User-friendly Function

- Self-mounting and dismounting counterweights are easy to transport;
- Remote controller enables remote operation and easy observation;
- Tilt cab makes working at height safer and more comfortable.



Overall Dimensions



Technical Parameters

Type	Item		Unit	Parameter
Dimensions	Total length of crane		mm	16516
	Total width of crane		mm	3800
	Total height of crane		mm	3960
	Distance between axles		mm	4840
Weight	Total weight of crane		kg	77016
	Axle load	Front axle load	kg	38201
		Rear axle load	kg	38815
Power	Engine rated power		Kw/rpm	242/2100
	Max. engine output torque		N.m/rpm	1385/1500
Travel	Max. travel speed		Km/h	26
	Min. turning radius (2/4)		m	14.5/9.7
	Min. ground clearance		mm	510
	Approach angle		°	18
	Departure angle		°	15
	Max. gradient (theoretical)		%	70
	Main performance specifications	Max. rated lifting load		t
Min. rated radius		m	3.05	
Max. lifting torque		Minimum boom length	kN.m	3658
		Maximum boom length	kN.m	1900
		Maximum boom length plus jib	kN.m	1492
Outrigger span (transverse x longitudinal)		m	8.54×8.52	
Max. lifting height		Minimum boom length	m	14.5
		Maximum boom length	m	49.7
		Maximum boom length plus jib	m	67.4
Boom length		Minimum boom length	m	13
		Maximum boom length	m	49
		Maximum boom length plus jib	m	67
Offset angle of jib		°	0、20、40	
Working speed	Max speed, main hoist, single line, no load		m/min	140
	Max speed, aux hoist, single line, no load		m/min	140
	Boom's full extending/Retracting time		s	135/175
	Boom's full raising/Lowering time		s	67/110
	Swing speed		r/min	1.78
	Outrigger beam's full extending/Retracting time		s	20/25
	Outrigger jack's full extending/Retracting time		s	30/45

Technical Parameters



Axle Load

Item	Front Axle	Rear Axle	Total Weight
Axle load	39	38	77
Axle load for counterweight dismounting	38.1	13.5	52.1



Hook

Lifting Capacity (t)	Pulleys	Ropes	Hook Weight (kg)
120	6	12	1538
75	4	8	780
10	0	1	275



Gradient

Weight (t)	Tire	Transfer Gear Ratio	Ropes						Max. Gradient
			1	2	3	Height 1	Height 2	Height 3	
77	875/65R29	0.8	2.34	3.1	6.17	8.18	19.37	25.2	83%
77	33.25R29	1.83	2.66	3.52	7.02	9.3	22.03	28.67	65%



Main Movement Specifications

Name	Maximum Speed	Diameter/Length	Max. Tension of Single Line
Main hoist gear	140m/min	22mm/280m	105kN
Auxiliary hoist gear	140m/min	22mm/190m	105kN
Swing	1.5r/min		
Lifting	55s (20°~ 60°)		
Telescoping	480s		

Crane Introduction



Operator's Cab

- Position-variable operator's cab with max. tilt up to 20°, ensuring more comfortable operating experience during long boom's operation.



Engine

- Type: inline six cylinder, water cooled, turbocharged with inter-cooling, diesel engine;
- Emissions: comply with Stage 3A standard;
- Effective volume of fuel tank: 350L.



Transmission and Speed Control System

- Torque converter/gearbox: 6-speed automatic gearbox with large gear ratio range enables slope climbing and high speed traveling.



Drive/Steering

- 4 x 4 drive, hydraulic power steering in four modes, front-wheel steering, rear-wheel steering, four-wheel steering and crab-walking steering.



Crane Axle

- Both the front and rear axles are steering drive axles.



Tire

- 4 × 875/65R29.



Braking system

- Dual circuit brake system is adopted for service braking with independent circuit brake for the front and rear axle , and all wheels are equipped with disc brakes;
- The parking braking operates by the disc brake on the front axle flange.



Electrical System

- 2*12V maintenance-free storage battery, equipped with mechanical power switch, the power supply of the crane can be manually cut off.



Telescopic Boom

- 5 sections, U-type boom. 13m basic boom, with a length of 49m in full extending, 18m jib;
- Double-cylinder wire rope telescoping is efficient and reliable.



Crane Frame

- The crane frame is welded by high-strength steel, featuring outstanding load-carrying capacity.



Outrigger

- H-type outrigger with 4-point support, longitudinal and transverse span 8.52m * 8.54m.



Hydraulic System

- The load-sensitive variable piston pump is adopted which adjusts the displacement, with precise control and minimum the energy loss;
- The main and auxiliary hoist gears are equipped with electrically-controlled variable motor, and the max. speed of single line is 140m/min.



Control System

- With the application of CAN-bus instrument technology, the traveling and driving parameters can be controlled at any time with easy driving and riding;
- The safety protection system is integrated with hoist drum third wrap protection, height limiter, load moment limiter and anemometer prompt;
- The fault diagnosis system is used to detect the fault of the electrical, hydraulic operation, carrier, engine and gear box, for easy and quick troubleshooting;
- The wireless remote control system makes operation safer and more reliable.

Crane Introduction



Luffing System

- A “power up”, “gravity lower” boom luffing system is adopted for enhanced precision and control and lowered energy consumption while lowering the boom with a load;
- Luffing angle: -2°~ 78°.



Lifting

- Double-variable speed control of the pump and motor with large control range for high efficiency and energy-conservation;
- The hoist gear balance valve with hook anti-slip technology, ensuring smooth lifting and lowering;
- Anti-rotary high strength wire rope is adopted for accurate lifting positioning;
- Normally-closed hoist brake with hoist balance valve is adopted to prevent weightlessness while lowering the hook.



Swing

- 360°swing, equipped with double-swing speed reducer. Max. swing speed 1.78r/min;
- Characterized with excellent control, the unique design of the swing buffer ensures stable starting and stopping.



Counterweight

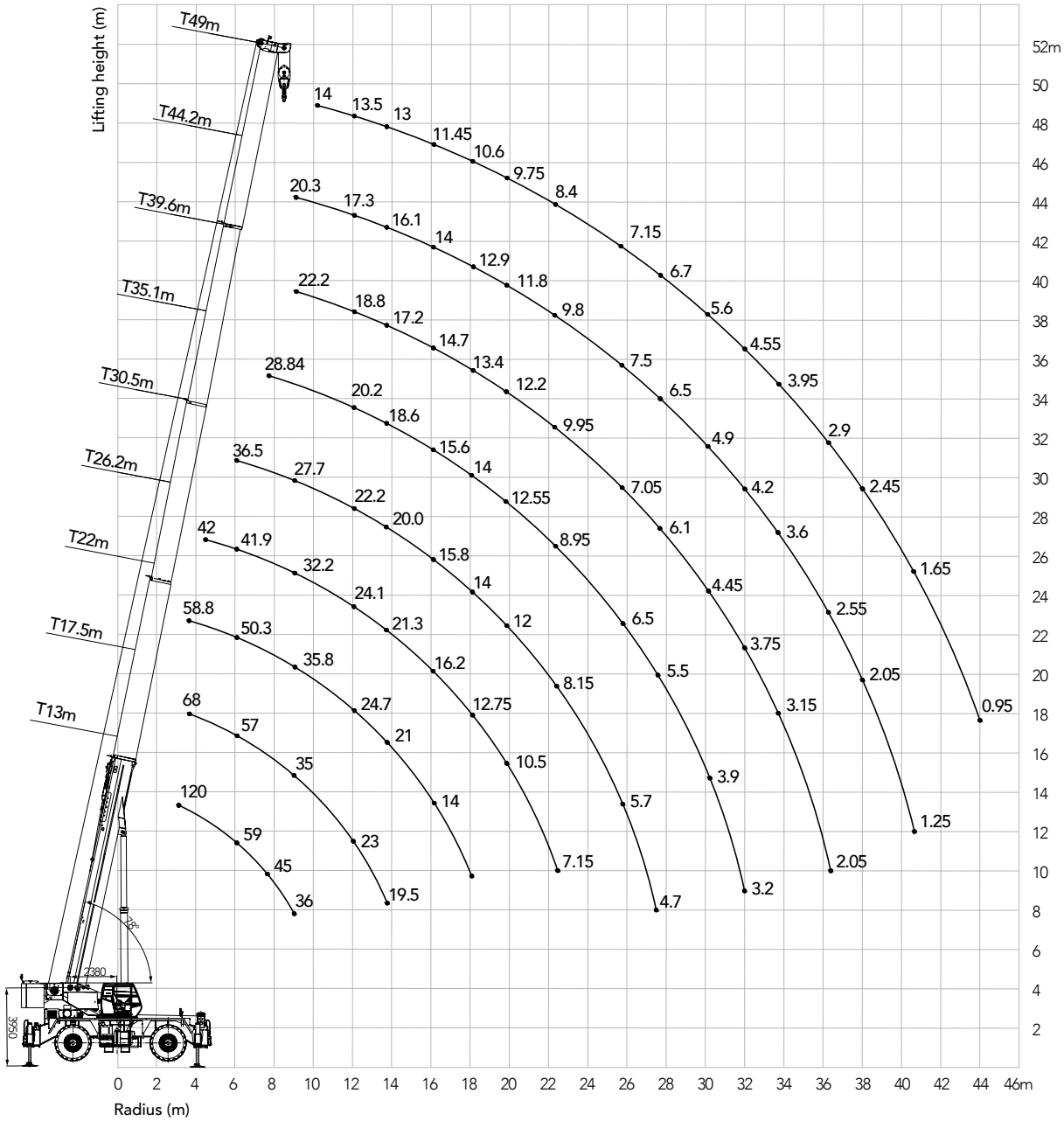
- Self-dismounting removable counterweight is easy to disassemble and transport.



Safety Devices

- Load moment limiter: automatic system alarm ensures safety for the operation;
- The hydraulic system is equipped with hydraulic balance valve, relief valve, bidirectional hydraulic lock and other components to keep the hydraulic system stable and reliable;
- The main and auxiliary hoist gear are equipped with three-circle protector to prevent the over discharge of wire rope;
- The main and auxiliary hoist gear are equipped with height limiter to prevent the over winding of wire rope;
- The boom end is equipped with an anemometer to detect whether the wind speed exceeds the allowable range of operation.

Boom Operating Range



Unit: t

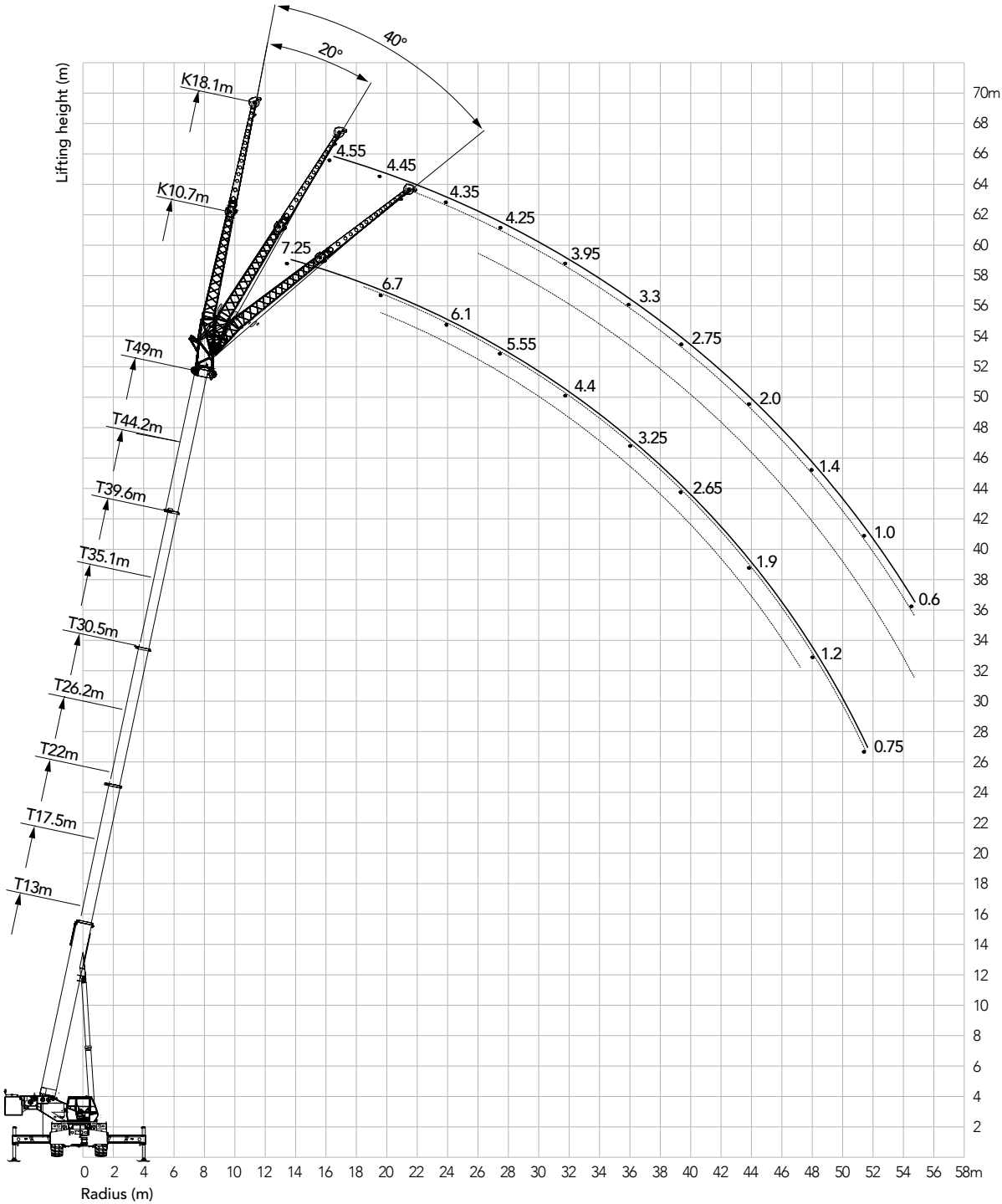
Boom Load Chart



SRC1200 Boom Load Chart (Full counterweight, fully extended outrigger)

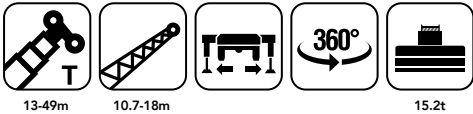
Radius (m)	13.0	17.5	22.0	26.2	30.5	35.1	39.6	44.2	49.0	Radius (m)
3.05	120	68								3.05
3.66	102.06	68	58.8							3.66
4.57	80	67.5	58.8	42						4.57
6.10	59	57	50.3	41.9	36.5					6.10
7.62	45	44	43.8	37.7	32.4	28.84				7.62
9.14	36	35	35.85	32.2	27.7	24.85	22.2	20.3	0	9.14
10.67		28.3	29.5	28	24.4	21.9	20.3	18.8	14	10.67
12.19		23	24.7	24.1	22.2	20.2	18.8	17.3	13.5	12.19
13.72		19.5	21	21.3	20	18.6	17.2	16.1	13	13.72
15.24			17.5	18.9	18	17	15.9	15.1	12.3	15.24
16.76			14	16.2	15.8	15.6	14.7	14	11.45	16.76
18.29			11.25	12.75	14	14	13.4	12.9	10.6	18.29
19.81				10.5	12	12.55	12.2	11.8	9.75	19.81
21.34				8.7	9.7	11	11	10.8	9	21.34
22.86				7.15	8.15	8.95	9.95	9.8	8.4	22.86
24.38					6.85	7.65	8.2	8.85	7.8	24.38
25.91					5.7	6.5	7.05	7.5	7.15	25.91
27.43					4.7	5.5	6.1	6.5	6.7	27.43
28.96						4.65	5.2	5.65	6.15	28.96
30.48						3.9	4.45	4.9	5.6	30.48
32.00						3.2	3.75	4.2	4.55	32.00
33.53							3.15	3.6	3.95	33.53
35.05							2.6	3.05	3.4	35.05
36.58							2.05	2.55	2.9	36.58
38.10								2.05	2.45	38.10
39.62								1.65	2	39.62
41.15								1.25	1.65	41.15
42.67									1.25	42.67
44.20									0.95	44.20
Telescopic mode	I , II	I	I	I	I	I	I	I	I , II	Telescopic mode
Ratio	12	10	8	6	6	4	4	4	3	Ratio
1# cylinder	0%	50%	100%	100%	100%	100%	100%	100%	100%	1# cylinder
2# cylinder	0%	0%	0%	16%	31%	49%	65%	82%	100%	2# cylinder
No-load min. elevation angle	/	/	/	/	/	/	/	/	15°	No-load min. elevation angle
0 angle specification	2000	/	/	/	/	/	/	/	/	0 angle specification

Jib Operating Range



Jib Load Chart

Unit: t



SRC1200 Jib Load Chart (Full counterweight, fully extended outrigger)

Radius (m)	49m+10.7m			49m+18m			Radius (m)
	0°	20°	40°	0°	20°	40°	
13.72	7.25						13.72
15.24	7.10						15.24
16.76	6.95			4.55			16.76
18.29	6.90	5.65		4.50			18.29
19.81	6.70	5.55	4.40	4.45			19.81
21.34	6.55	5.40	4.25	4.40	3.64		21.34
22.86	6.35	5.15	4.05	4.38	3.60		22.86
24.38	6.10	4.90	3.90	4.35	3.53		24.38
25.91	5.85	4.65	3.70	4.30	3.50	2.48	25.91
27.43	5.55	4.45	3.55	4.25	3.40	2.45	27.43
28.96	5.20	4.25	3.35	4.15	3.35	2.43	28.96
30.48	4.80	4.05	3.25	4.05	3.25	2.40	30.48
32.00	4.40	3.70	3.00	3.95	3.15	2.35	32.00
33.53	3.95	3.35	2.80	3.75	3.05	2.30	33.53
35.05	3.60	3.05	2.55	3.55	2.95	2.25	35.05
36.58	3.25	2.75	2.30	3.30	2.80	2.20	36.58
38.10	2.95	2.50	2.10	3.00	2.60	2.10	38.10
39.62	2.65	2.25	1.90	2.75	2.45	2.05	39.62
41.15	2.40	2.05	1.70	2.45	2.25	1.90	41.15
42.67	2.10	1.85	1.50	2.20	2.00	1.75	42.67
44.20	1.90	1.65	1.35	2.00	1.85	1.60	44.20
45.72	1.65	1.45	1.20	1.80	1.65	1.40	45.72
47.24	1.35	1.25	1.05	1.60	1.45	1.25	47.24
48.77	1.20	1.05		1.40	1.30	1.15	48.77
50.29	0.95	0.85		1.20	1.15	1.00	50.29
51.82	0.75	0.65		1.00	1.00	0.85	51.82
53.34				0.80	0.85	0.75	53.34
54.86				0.60	0.70	0.60	54.86
No-load min. elevation angle	26°	28°	40°	34°	40°	40°	No-load min. elevation angle

Travel with Load

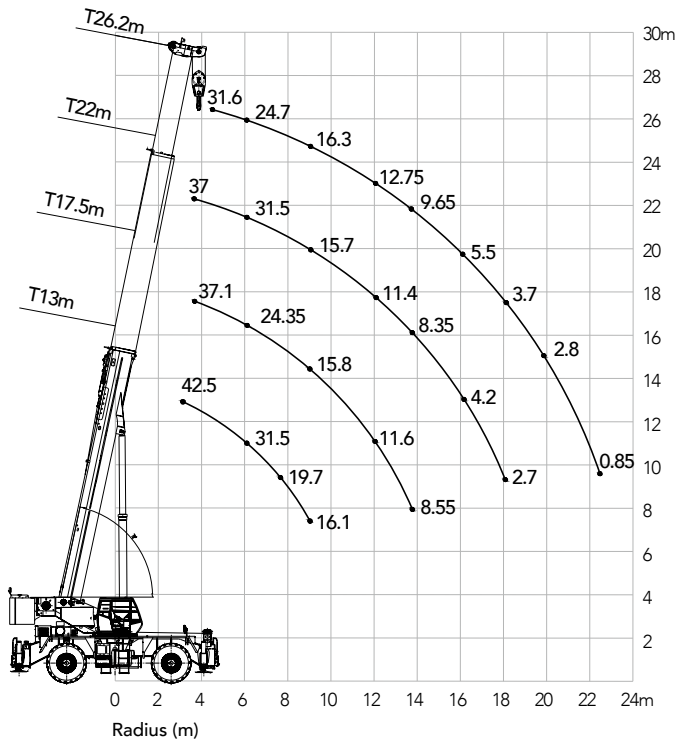
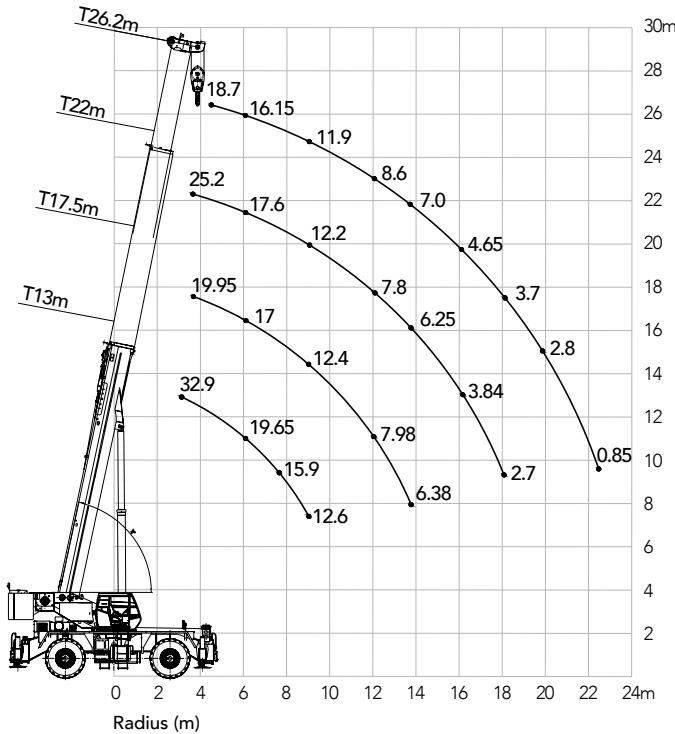
Unit: t

Travel with Load - right ahead 4km/h (full counterweight, front and rear outriggers must in place)

Radius (m)	Boom Length (m)			
	13.0	17.5	22.0	26.2
3.05	32.9	21.75		
3.66	28.8	19.95	25.2	
4.57	24.2	18.4	20.85	18.75
6.10	19.65	17	17.6	16.15
7.62	15.9	15.6	14.6	13.85
9.14	12.6	12.4	12.2	11.9
10.67		9.95	9.75	10.5
12.19		7.98	7.8	8.6
13.72		6.38	6.25	7
15.24			4.95	5.75
16.76			3.84	4.65
18.29			2.7	3.7
19.81				2.8
21.34				1.75
22.86				0.85
Ratio	6	6	4	4
No-load min. elevation angle	/	/	/	17°
0 angle specification	2000	/	/	/

Travel with Load - stationary right ahead (full counterweight, front and rear outriggers must be in place)

Radius (m)	Boom Length (m)			
	13.0	17.5	22.0	26.2
3.05	42.55	42.2		
3.66	37.45	37.15	37	
4.57	31.55	31.3	31.15	31.65
6.10	24.6	24.35	24.15	24.7
7.62	19.7	19.4	19.25	19.9
9.14	16.1	15.85	15.7	16.35
10.67		13.1	12.9	13.6
12.19		11.6	11.4	12.75
13.72		8.55	8.35	9.65
15.24			6.05	7.35
16.76			4.2	5.5
18.29			2.7	4
19.81				2.8
21.34				1.75
22.86				0.85
Ratio	8	8	6	6
No-load min. elevation angle	/	/	/	17°
0 angle specification	2000	/	/	/

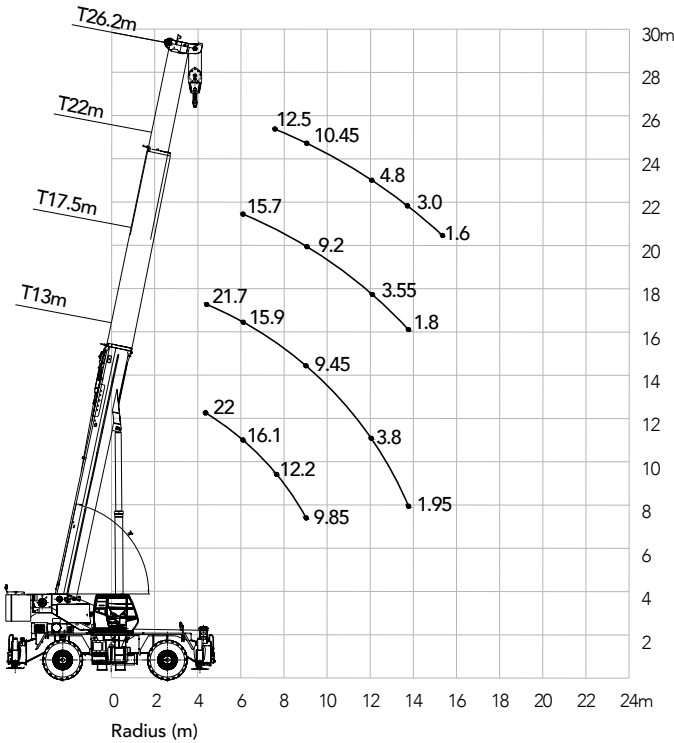


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Travel with Load

Travel with Load - stationary 360°swing (full counterweight, front and rear outriggers must be in place)

Radius (m)	Boom Length (m)			
	13.0	17.5	22.0	26.2
3.05				
3.66				
4.57	22	21.7		
6.10	16.15	15.9	15.7	
7.62	12.25	12	11.8	12.5
9.14	9.85	9.45	9.2	10.45
10.67		6.15	5.9	7.15
12.19		3.8	3.55	4.8
13.72		1.95	1.8	3
15.24				1.6
No-load max. elevation angle	63°	72°	75°	/
Ratio	4	4	3	3
No-load min. elevation angle	/	18°	43°	48°
0 angle specification	2000	/	/	/





Sany Automobile Hoisting Machinery Co., Ltd.

No.168, Jinzhou Avenue, Jinzhou Development Zone, Changsha, Hunan, China
Zip 410600

Tel 0731-8787 3131 Fax 0731-8403 1999-196

Service 400 887 8318 Consulting 400 887 9318

Email qzjyx@sany.com.cn

— G e n t i n f o r m a t i o n —

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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