



basic version: 45.5m
Proversion: 46m



basic version: 16m(optional)
Proversion: 16m



basic version: 62m
Proversion: 62.5m



basic version: 1893kN·m
Proversion: 2009kN·m



basic version: 9.5t
Proversion: 11t



STC500C5-8 (series)

SANY TRUCK CRANE

- STC500C5-8 basic version
- STC500C5-8 Pro

2024年1月版



QUALITY CHANGES THE WORLD

推介书内的参数、图片和配置仅供参考，实际配置以实物为准。

▶ 目录
Contents

Truck Crane

三一汽车起重机



01

Introduction

整机优势

▶ 04

02

Overall Dimensions

整车尺寸

▶ 06

03

Technical Specification

主要技术参数

▶ 07

04

Working Range + Load Charts

起升高度曲线 + 起重性能表

▶ 08

STC500C5-8 基础版
STC500C5-8 Pro

05

Crane Introduction

整机配置

▶ 14

01 整机优势

Introduce

High performance Architecture 3.0 platform

Comprehensive application of the 3rd generation hybrid frame structure, with a 5% increase in frame cross-sectional area, a 10% increase in load-bearing capacity and a \sim 15% increase in deformation.

Comprehensive application of the 3rd generation hybrid frame structure, with 5% increase in cross-sectional area of the frame, 10% increase in load-bearing capacity, and 15% increase in deformation; Main arm cross-section size is the best in the industry, response surface technology simulation optimization analysis, full extension arm deflection \sim 37%, high frequency

Main arm cross-section size is the best in the industry, response surface technology simulation optimization analysis, full-extension arm deflection \sim 37%, high frequency performance \sim 5%.

Leading handling i-EHC2.0 system

Electro-hydraulic composite control system, both response speed and accuracy, upgraded maneuverability;

Pressure adaptive telescopic technology, upgrading the stability of the big arm telescopic, shrinking the arm to start in place of the impact is small, to solve the problem of small openings shrinking the arm jitter.

Energy Saving and Consumption Reduction i-ECO 1.0 System

Senseless regeneration technology (exclusive for Yuchai version), engine speed self-matching to clear carbon deposits, realizing long-time operation without stopping;

i-ECO fuel-saving technology, matching engine torque based on operational needs, improving energy utilization, and operating fuel consumption \sim 20%

Intelligent Comfort i-Crane Intelligent Crane

Safer, lifting precision revolutionary improvement, amplitude, weight accuracy of 50%, industry-leading;

Standard fault diagnosis, maintenance tips, working conditions recommended and other technologies, help lifting convenient.



STC500C5-8 (series)
SANY TRUCK CRANE

STC500C5-8 Pro

STC500C5-8 基础版



basic version: 45.5m
Pro version: 46m



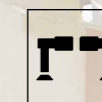
Basic: 16m (optional)
Pro version: 16m



Basic: 90km/h
Pro: 90km/h



Basic: 9.5t
Pro version: 11t



Basic: 8.0m \times 6.42m
Pro version: 8.0m \times 6.42m



Basic: 257kW/2200rpm(Yuchai)
Pro version: 265kW/1900rpm (Yuchai)

247kW/1900rpm (Weichai)



NS-Reg Tech

无感再生技术



I-ECO

i-ECO系统

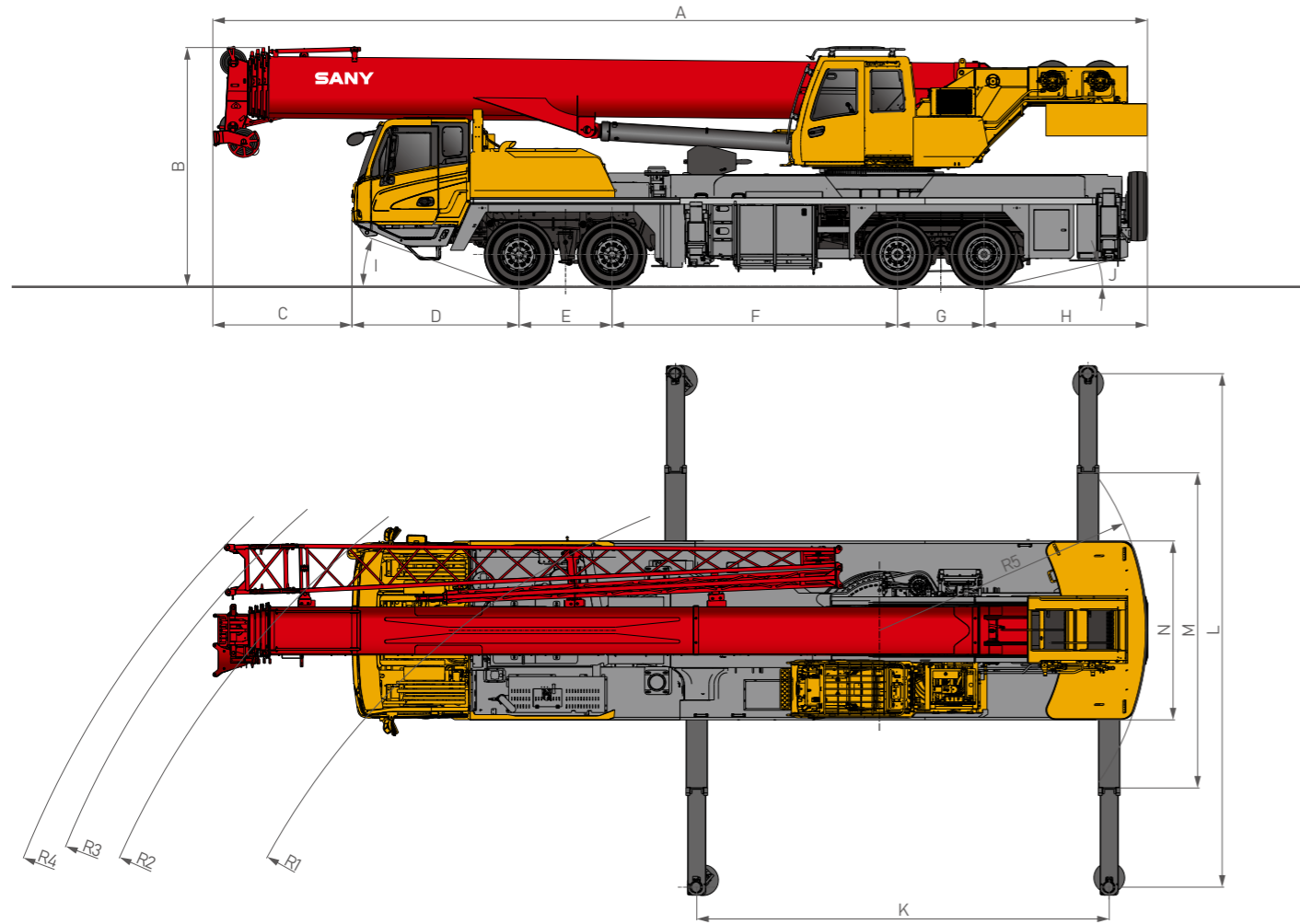


V2.0

分合流技术

02 整车尺寸

Overall Dimensions



*图片仅供参考

单位: mm

MODEL	A	B	C	D	E	F	G	H	I	J
STC500C5-8 Basic Edition	14630	3720	2150	2610	1450	4450	1350	2520	20°	13°
STC500C5-8 Pro	14620	3720	2200	2610	1450	4450	1350	2560	20°	14°

MODEL	K	L	M	N	R1	R2	R3	R4	R5
STC500C5-8 Basic Edition	6420	8000	5260	2800	12000	14060	14700	-	3920
STC500C5-8 Pro	6420	8000	5260	2800	12000	14060	14850	15450	4160

MODEL	Total mass/kg	Axle load/kg for 1st and 2nd axle	Three, four-axis axle load/kg
STC500C5-8 Basic Edition	40200	14200	26000
STC500C5-8 Pro	42500(Yuchai)/ 42200(Weichai)	16500 (Yuchai)/ 16200 (Weichai)	26000 (Yuchai)/ 26000 (Weichai)

注: 公告状态, 不带支腿盘, 副钩放置在副钩桶。

03 主要技术参数

Technical Specification

TYPE	ITEM	UNIT	STC500C5-8 Basic Edition	STC500C5-8 Pro	
Power parameters	Engine Model	-	Yuchai YCK08350-66()	Yuchai YCK09L360-66() WEICHAI WP9H336E62() 265/1900(Yuchai)	
	Maximum engine power	kW/rpm	257/2200 (Yuchai)	247/1900(Weichai) 1600/1000-1500 (Yuchai)	
	Maximum engine output torque	N-m/rpm	1400/1000-1700 (Yuchai)	1585/1000-1400 (Weichai)	
Driving parameters	Maximum speed	km/h	90	90	
	Minimum Turning Radius	m	12	12	
	Approach/Departure Angle	°	≥20/13	≥20/14	
	Maximum Climbing Degree	%	55	47	
	100km fuel consumption	L	≤40	≤40	
Main Performance Parameters	Maximum rated lifting capacity	t	50	50	
	Turning radius of rotary table tail	m	3.92	4.16	
	Outrigger span (transverse×longitudinal)	m	8.0(5.25)×6.42	8.0(5.25)×6.42	
	Lifting arm length	basic arm	m	11.7	11.9
		Longest main lifting arm	m	45.5	46
		Longest main lifting arm + jib basic arm	m	61.5(选)	62
	Maximum lifting moment	Longest main lifting arm	kN-m	1893	2009
		Longest Main Lifting Arm + Secondary	kN-m	1223	1446
Lifting Arm		kN-m	577(选)	608	

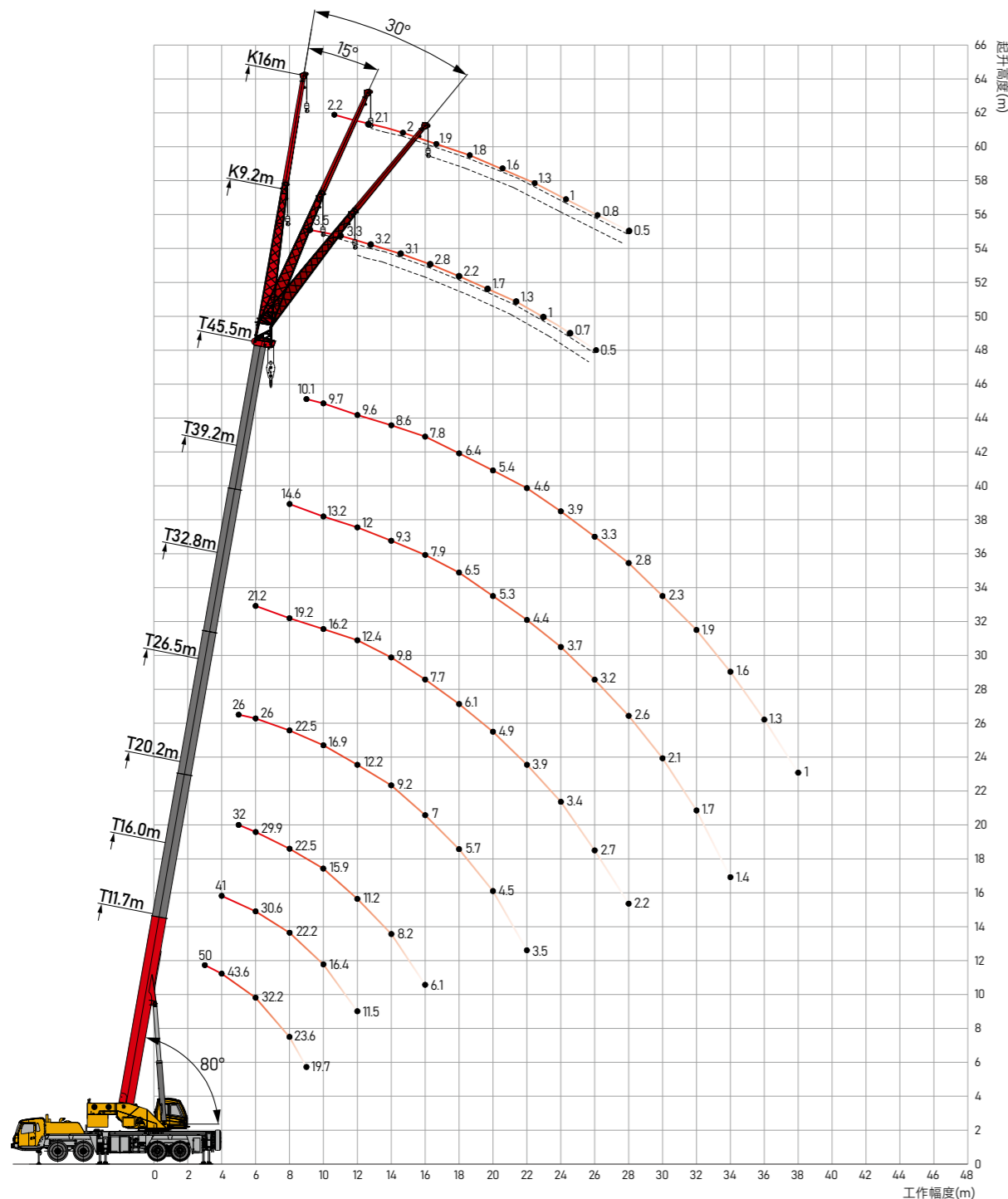
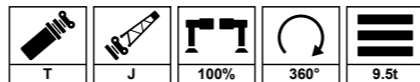
Hook and multiplier	Item	STC500C5-8 Basic Edition		STC800C5-8 Pro	
		main hook	secondary hook	main hook	secondary hook
	Rated load/t	50(single hook)	5	50(single hook)	6
	Number of pulleys	5	0	4	0
	Multiplication rate	11	1	9	1
	Hook weight/kg	400	85	415	120

working speed	ITEM	STC500C5-8 Basic Edition	STC500C5-8 Pro	
		main winch	Single Rope Speed	0~135m/min
	Rope diameter/length	16mm/210m	18mm/240m	
	Maximum single rope pull	4.6t	5.8t	
	secondary winch	Single Rope Speed	0~135m/min	0~135m/min
	Rope diameter/length	16mm/130m	18mm/135m	
	Maximum single rope pull	4.6t	5.8t	
	slalom	0~2r/min	0~2r/min	
	Rise/fall	50s/90s(0~80°)	50s/90s(0~80°)	
	Extend/retract arm	95s/110s(11.7m~45.5m)	95s/110s(11.9m~46m)	
	vertical leg extension/retraction	35s/25s	35s/25s	
	horizontal leg extension/retraction	20s/20s	20s/20s	

04 Lifting height graph

Boom + Jib (TJ)

STC500C5-8



04 Lifting performance table

actuator (arm of a lever)
(T)

STC500C5-8

UNIT: t

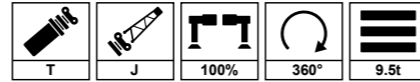


Boom Length (m)	11.7	16.0	20.2	26.5	32.8	39.2	45.5	18.1	24.4	30.7	37.1	22.3	28.6	35.0	41.3	Boom Length (m)
3	50.0															3
3.5	47.5							26.0								3.5
4	43.6	41.0						26.0				26.0				4
4.5	40.2	38.4						26.0	25.0			26.0				4.5
5	37.3	35.6	32.0	26.0				26.0	24.7			26.0	24.7			5
6	32.2	30.6	29.9	26.0	21.2			26.0	23.7	17.0		26.0	24.7			6
7	27.6	25.8	26.4	24.6	20.4			26.0	22.2	16.0	12.7	26.0	24.2	16.0		7
8	23.6	22.2	22.5	22.5	19.2	14.6		23.2	21.2	14.8	11.9	23.2	21.5	15.0	11.6	8
9	19.7	19.1	19.0	20.2	17.3	14.0	10.1	20.8	19.0	13.7	11.3	20.2	20.5	14.0	11.0	9
10		16.4	15.9	16.9	16.2	13.2	9.7	18.5	17.5	12.8	10.6	17.2	17.9	13.2	10.5	10
12		11.5	11.2	12.2	12.4	12.0	9.6	14.2	14.5	11.2	9.4	12.5	13.1	11.8	9.6	12
14			8.2	9.2	9.8	9.3	8.6	11.0	11.9	9.9	8.5	9.5	10.1	9.5	8.7	14
16			6.1	7.0	7.7	7.9	7.8		9.4	9.1	7.5	7.4	8.2	8.1	8.0	16
18				5.7	6.1	6.5	6.4		7.6	7.8	6.9	5.8	6.6	6.9	6.7	18
20				4.5	4.9	5.3	5.4		6.4	6.8	6.3		5.4	5.7	5.9	20
22				3.5	3.9	4.4	4.6			5.7	5.8		4.4	4.8	5.2	22
24					3.4	3.7	3.9			4.9	5.2		3.6	4.0	4.2	24
26					2.7	3.2	3.3			4.2	4.3			3.4	3.7	26
28					2.2	2.6	2.8				3.7			2.8	3.1	28
30						2.1	2.3				3.1			2.4	2.7	30
32						1.7	1.9				2.7				2.3	32
34						1.4	1.6								1.9	34
36							1.3									36
38							1.0									38
40																40
Capacity (t)	11	9	7	6	5	4	3	6	6	4	3	6	6	4	3	Capacity (t)
1# %	0	50	100	100	100	100	100	0	0	0	0	50	50	50	50	1# %
2# %	0	0	0	25	50	75	100	25	50	75	100	25	50	75	100	2# %

04 Lifting performance table

Boom + Jib (TJ)

STC500C5-8 UNIT:t

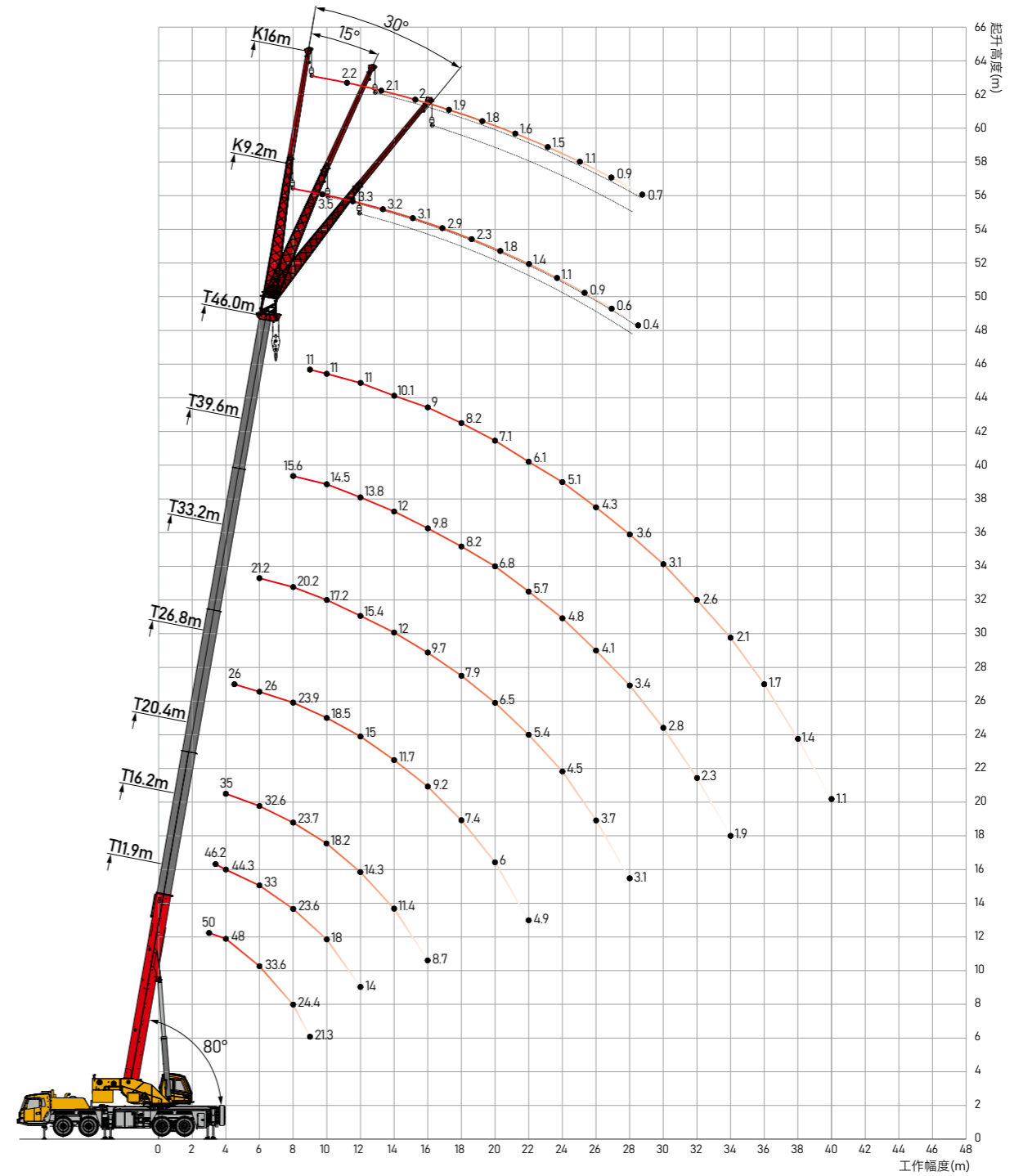
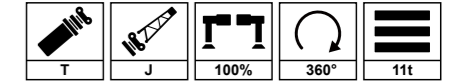


	45.5m+9.2m			45.5m+16m			
	0	15	30	0	15	30	
80.0							80.0
78.0	3.5	2.8	2.1	2.2	1.4	0.9	78.0
76.0	3.3	2.6	2.0	2.1	1.3	0.9	76.0
74.0	3.2	2.5	2.0	2.0	1.2	0.8	74.0
72.0	3.1	2.4	1.9	1.9	1.1	0.8	72.0
70.0	2.8	2.2	1.9	1.8	1.1	0.8	70.0
68.0	2.2	1.8	1.5	1.6	1.0	0.8	68.0
66.0	1.7	1.4	1.1	1.3	0.9	0.7	66.0
64.0	1.3	1.1	0.9	1.0	0.7	0.5	64.0
62.0	1.0	0.8	0.7	0.8	0.5		62.0
60.0	0.7	0.6	0.5	0.5			60.0
58.0	0.5						58.0
56.0							56.0
54.0							54.0
Σ				1			Σ
Σ				5			Σ

04 Lifting height graph

Boom + Jib (TJ)

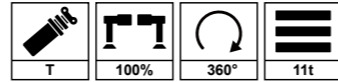
STC500C5-8 Pro版



04 Lifting performance table

Main Arm (T)

■ STC500C5-8 UNIT:t

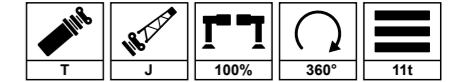


	11.9	16.2	20.4	26.8	33.2	39.6	46.0	18.3	24.7	31.1	37.5	22.6	29.0	35.4	41.8	
3	50.0															3
3.5	50.0	46.2						26.0				26.0				3.5
4	48.0	44.3	35.0					26.0	25.0			26.0				4
4.5	44.0	42.5	35.0	26.0				26.0	25.0			26.0				4.5
5	41.0	40.5	34.0	26.0				26.0	25.0			26.0	25.0			5
6	33.6	33.0	32.6	26.0	21.2			26.0	24.0	17.0		26.0	25.0			6
7	28.4	27.6	27.7	25.8	21.2			26.0	22.5	16.0	12.0	25.3	25.0	16.2		7
8	24.4	23.6	23.7	23.9	20.2	15.6		24.5	21.8	15.0	11.6	24.2	23.0	15.6	11.6	8
9	21.3	20.4	20.5	21.0	18.5	15.2	11.0	21.5	20.2	13.9	11.2	21.6	21.0	14.7	11.6	9
10		18.0	18.2	18.5	17.2	14.5	11.0	19.3	18.5	13.5	11.0	19.1	19.3	14.2	11.2	10
12		14.0	14.3	15.0	15.4	13.8	11.0	15.8	16.2	11.8	9.9	15.3	15.7	13.2	10.1	12
14			11.4	11.7	12.0	12.0	10.1	12.2	12.5	10.5	8.9	12.0	12.4	11.9	9.0	14
16			8.7	9.2	9.7	9.8	9.0		9.9	9.2	8.0	9.5	10.0	10.2	8.2	16
18				7.4	7.9	8.2	8.2		8.5	8.3	7.1	7.6	8.2	8.5	7.5	18
20				6.0	6.5	6.8	7.1		7.1	7.5	6.3		6.8	7.1	7.0	20
22				4.9	5.4	5.7	6.1			5.8	5.8		5.7	6.0	6.1	22
24					4.5	4.8	5.1			5.0	5.1		4.8	5.1	5.2	24
26					3.7	4.1	4.3			4.6	4.5			4.4	4.4	26
28					3.1	3.4	3.6				4.0			3.7	3.8	28
30						2.8	3.1				3.5			3.2	3.3	30
32							2.3	2.6				3.2			2.8	32
34							1.9	2.1							2.4	34
36								1.7							2.1	36
38								1.4								38
40								1.1								40
U _n	9	8	7	5	4	4	3	5	5	4	3	5	5	4	3	U _n
1#%	0	50	100	100	100	100	100	0	0	0	0	50	50	50	50	1#%
2#%	0	0	0	25	50	75	100	25	50	75	100	25	50	75	100	2#%

04 Lifting performance table











Boom + Jib (TJ)

■ STC500C5-8 UNIT:t














	46m+9.2m			46m+16m			
	0	15	30	0	15	30	
80.0							80.0
78.0	3.5	2.8	2.1	2.2	1.4	0.9	78.0
76.0	3.3	2.6	2.0	2.1	1.3	0.9	76.0
74.0	3.2	2.5	2.0	2.0	1.2	0.8	74.0
72.0	3.1	2.4	1.9	1.9	1.1	0.8	72.0
70.0	2.9	2.3	1.9	1.8	1.1	0.8	70.0
68.0	2.3	1.9	1.6	1.6	1.0	0.8	68.0
66.0	1.8	1.5	1.3	1.5	0.9	0.7	66.0
64.0	1.4	1.2	1.0	1.1	0.8	0.6	64.0
62.0	1.1	0.9	0.8	0.9	0.6	0.5	62.0
60.0	0.9	0.7	0.6	0.7	0.4		60.0
58.0	0.6	0.5					58.0
56.0	0.4						56.0
54.0							54.0
52.0							52.0
50.0							50.0
U _n				1			U _n
U _i				6			U _i

上车/ SupersTrucTure

	swivel table	▪ Sany homemade structural parts, high-strength steel manufacturing, torsional stiffness, long fatigue life.
	control room	▪ Sany independently developed and maximized the use of internal space, equipped with full-coverage soft interior, panoramic sunroof and adjustable seats and other humanized design; equipped with 7-inch display screen, interactive upgrade; ▪ Basic version: front pedals as standard / Pro version: front and side pedals as standard.
	hydraulic system	▪ A new generation of electro-hydraulic composite system with high operational efficiency and smooth control of combined movements.
	control system	▪ Real-time monitoring of driving and operating parameters using a bus instrument with integrated electrical system.
	hoisting mechanism	▪ Normally closed winch brake with anti-skidding hook technology for smooth lifting and lowering of heavy loads.
	luffing system	▪ Adoption of the self-weighted drop system improves drop smoothness and reduces energy consumption.
	rotary system	▪ Adopting unique slewing buffer design, stable action and reliable system.
	safety device	▪ Equipped with safety devices such as hydraulic relief valves, balancing valves, two-way hydraulic locks, torque limiters, three-circle protectors, height limiters, length and angle sensors, pressure sensors and winch monitoring.
	telescopic boom	▪ 5-section rope row main arm, welded from high-strength steel, U-shaped cross-section.
	counterweight	▪ Basic version: standard 9.5T counterweight, solid 6T, live 3.5T (with load traveling counterweight status can carry 9.5t counterweight transfer: 6t+3.5t mounted on the back of the turntable); ▪ Pro version: standard 11T counterweight, solid 5.2T, live 5.8T, standard counterweight jacking mechanism (with loaded traveling counterweight status can carry 11t counterweight transitions: 5.2t mounted at the rear of the turntable, 5.8t placed in the front of the frame).

下车/Chassis

	cabs	▪ Sany self-developed, outward-opening doors, standard with cold and warm air conditioning.
	chassis	▪ Sany has independently developed an anti-torsion box structure welded with fine-grain high-strength steel, which has high stiffness and strong load-carrying capacity.
	axle	▪ Built-in inter-axle and inter-wheel differentials; punch-welded axle housing process for greater load carrying capacity.
	motor	▪ Diesel engine, emission conforms to National VI standard; effective volume of fuel tank is 380L.
	transmission system	▪ Faster 9-speed transmission with synchronizer.
	braking system	▪ The running brake is a dual circuit brake system with air servo brakes on all wheels. ▪ Parking brake adopts gas chamber spring to act on the third and fourth axles, and the parking brake is also used as emergency brake; ▪ Auxiliary brake adopts engine brake to ensure the braking safety when going down a long slope.
	Suspension system	▪ Leaf spring suspension on front axle, rubber suspension on center and rear axles.
	steering system	▪ 1-axis + 2-axis hydraulically assisted mechanical steering.
	drive (vehicle wheel)	▪ 3-axis + 4-axis drive.
	outrigger	▪ The H-type outrigger is supported at 4 points and adopts fine grain high-strength steel plate material; the first and second level outriggers are fully hydraulic transverse expansion, and the vertical cylinder of the outrigger adopts two-way hydraulic lock for safety protection.
	tires	▪ Basic version: 13*12R22.5 (including spare tire); ▪ Pro version: 13*315/80R22.5 (including spare tire).