

SANY[®]

SPECIFICATION



25t



41m



49.5m

STC250C5

SANY TRUCK CRANE

QUALITY CHANGES THE WORLD

www.sanyglobal.com

V1.0

It is one of the core business units in SANY Group, specializing in the development and manufacturing of high-end wheel cranes, crawler cranes and tower cranes, including the complete range of wheel cranes from 8 to 2400t, crawler cranes from 25 to 4500t and tower cranes from 6 to 185t.

三一集团旗下核心事业部，从事高端轮式起重机、履带起重机、塔式起重机系列产品的研发制造。覆盖8-2400吨全吨位轮式起重机，25-4500吨全吨位履带起重机，6-185吨塔式起重机。



SANY CRANE



Excellent Performance 3.0 Structure Platform

性能卓越 结构 3.0 平台

Super large section boom, leading in cross-sectional area by 10%, and strength by 15%.

Adopting the third-generation hybrid chassis, with a 10% increase in cross-sectional area and a 15% enhancement in load-bearing capacity.

超大截面主臂,截面面积领先 10%。强度工况领先 15%。

全面采用第三代混合型车架,截面面积提升 10%,承重能力提升 15%。

Leading in control i-EHC 2.0 system

操控领先 i-EHC 2.0 系统

Electro-hydraulic hybrid control system, combining response speed and precision, enhancing maneuverability.

Pressure-adaptive telescoping technology improves the stability of the boom extension, reducing impact during boom retraction and solving the issue of boom during retraction.

电液复合操控系统,兼具响应速度与精准性,操控性升级。

压力自适应伸缩技术,大臂伸缩稳定性升级,缩臂启动到位冲击小,解决小开口缩臂抖动问题。



**SANY TRUCK CRANE
STC250C5 / 25T LIFTING CAPACITY**

Intelligent & Comfort i-Crane smart crane

智能舒适 i-Crane 智能起重机

Enhanced safety and lifting precision, increasing precision in lifting radius and weight by 50%, leading the industry.

More convenience with standard configuration recommendations, remaining radius reminder, and other technologies, facilitating easy operation.

Superstructure is equipped of intelligent instruments for real-time monitoring of hydraulic working pressure.

更安全,吊装精度革命式提升,幅度、重量精度 \uparrow 50%,行业领先。

更便捷,标配工况推荐、剩余幅度等多项技术,助力轻松操作。

上车配置智能仪表,液压工作压力实时监控。



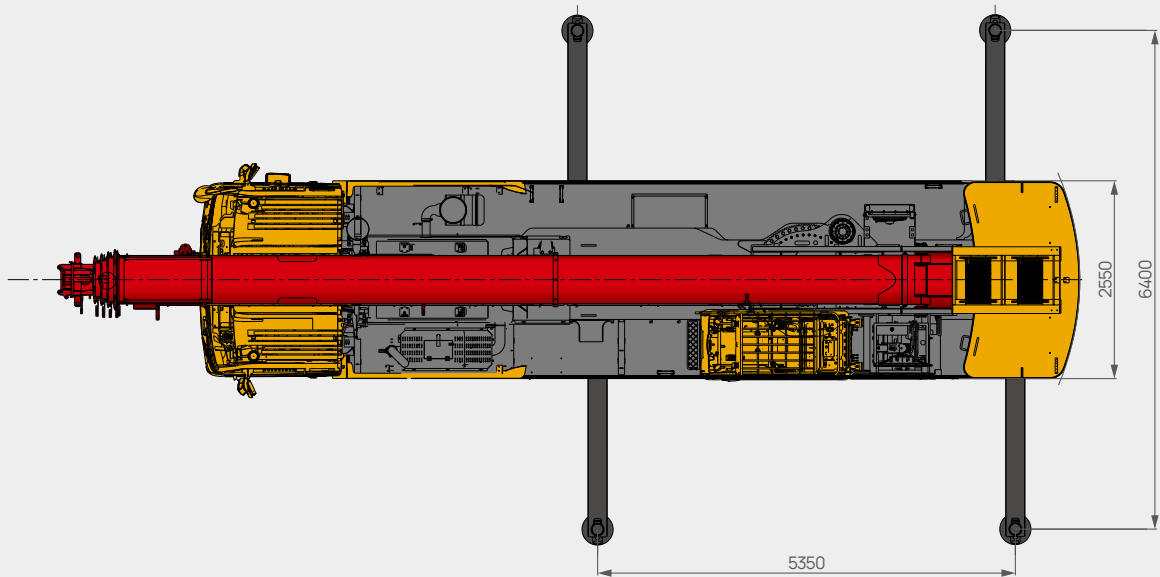
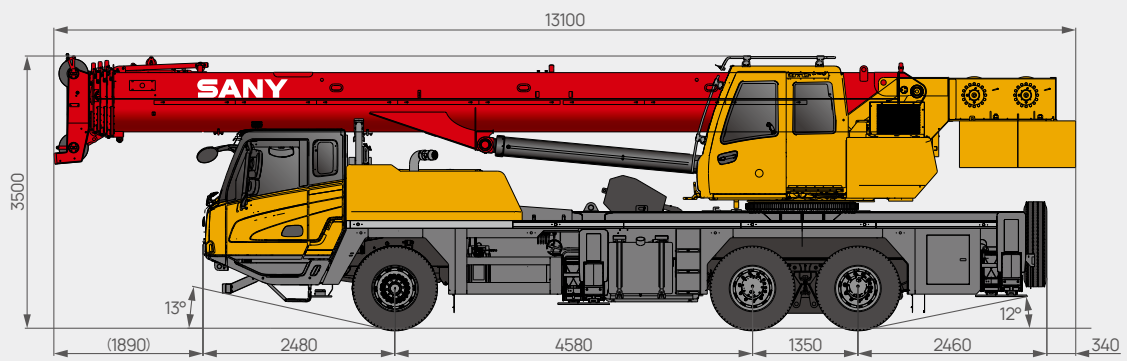
Electer-hydraulic
hybrid system
电液复合系统



Pressure-adaptive
telescoping
压力自适应伸缩

Overall Dimensions

整机尺寸



Technical Specification

整机参数

CATEGORY 类型	ITEM 项目	UNIT 单位	VALUE 参数	
CAPACITY 额定起重量	Max. lifting capacity 最大起重量	t	25	
WEIGHT 重量	Gross weight 整机总质量	kg	31600	
	Axle load 载荷	Axle 1 & 2 一、二轴负荷	kg	6600
		Axle 3 & 4 三、四轴负荷	kg	25000
POWER (CHASSIS) 发动机参数 (下车)	Engine model 发动机型号 (排放标准)	-	YUCHAI YCK08310-50 玉柴 YCK08310-50	
	Max. engine power 发动机最大功率	kW/rpm	228/2200	
	Max. engine torque 发动机最大输出扭矩	N·m/rpm	1280/(1200-1700)	
DIMENSIONS 尺寸参数	Overall length 整机全长	mm	13100	
	Overall width 整机全宽	mm	2550	
	Overall height 整机全高	mm	3500	
TRAVEL 行驶参数	Max. travel speed 最高行驶速度	km/h	90	
	Min. steering radius 最小转弯半径	m	10.5	
	Approach angle 接近角	°	≥13	
	Departure angle 离去角	°	≥12	
	Max. gradeability 最大爬坡度	-	42%	
	Fuel consumption per 100km 每 100 公里油耗	L	≤30	
MAIN PERFORMANCE 主要性能参数	Tail slewing radius 转台尾部回转半径	m	3.6	
	Outrigger span (Longitudinal × Transverse) 支腿跨距 (纵 × 横)	m	6.4 × 5.35	
	Max.lifting moment 最大起重力矩	Basic boom 基本臂	kN·m	1088
		Full-extension boom 全伸主臂	kN·m	672
		Full-extension boom + jib(Optional) 全伸主臂 + 副臂 (选配)	kN·m	400
	Boom length 臂长	Basic boom 基本臂	m	10.7
		Full-extension boom 全伸主臂	m	41
		Full-extension boom + jib 全伸主臂 + 副臂	m	49
	Max.lifting height 最大起重高度	Basic boom 基本臂	m	11.2
		Full-extension boom 全伸主臂	m	41.2
Full-extension boom + jib 全伸主臂 + 副臂		m	49.5	
AIRCONDITIONER 空调	In operator's cab 上车空调	-	Heating & Cooling 制冷、制热	
	In driver's cab 下车空调	-	Heating & Cooling 制冷、制热	

Technical Specification

整机参数



Axle Load 轴荷

Axle 轴	1	2	3	Gross weight 总重量
Axle load 轴荷 /t	6.6	12.5	12.5	31.6



Hook 吊钩

Rated load 额载 /t	Number of sheaves 滑轮数量	Rope rate 倍率	Hook weight/kg 吊钩重量
25	4	8	250
3	0	1	52



Operations 主要动作参数

Item 项目	Max.single rope lifting speed (empty load) 单绳速度 (空载)	Rope diameter/length 钢丝绳直径 / 长度	Max. single line pull 最大单绳拉力
Main winch 主卷扬	0-125m/min	Φ14mm/180m	3.5t
Auxiliary winch 副卷扬	0-125m/min	Φ14mm/105m	3.5t
Slewing speed 回转速度	0-2.6r/min		
Full luffing up/down time of boom 主臂起落幅时间	40s/60s		
Full extension/retraction time of boom 主臂伸缩时间	80s/105s		
Outrigger jack 垂直支腿	Extension 伸	25s	
	Retraction 缩	20s	
Outrigger beam 水平支腿	Extension 伸	25s	
	Retraction 缩	20s	

Crane Introduction

整机介绍

Carrier 下车

Driver's cab 驾驶室

- Sany independently developed new generation of driver cab with outward-opening doors and equipped with cooling& heating A/C.
- 三一自主研发新一代驾驶室,外开式车门,配置冷暖空调。

Carrier frame 车架

- The self-made large cross-section chassis.
- 大截面自制车架。

Chassis engine 底盘发动机

- YUCHAI diesel engine, emissions comply with Euro V standards, and the metal fuel tank has an effective capacity of 300L.
- 玉柴柴油发动机,排放符合欧V标准;金属燃油箱有效容积300L。

Transmission system 传动系统

- Fast 9-speed transmission with synchronizer.
- 法士特9档变速箱,配置同步器。

Axle 车桥

- Dual reduction axles with built-in inter-axle and wheel differential locks, Press welding axle housing technology, bearing capacity is stronger.
- 双减车桥,内置轴间、轮间差速;冲焊桥壳工艺,承载能力更强。

Suspension system 悬挂系统

- The front axle adopts leaf spring suspension, the middle and rear axles utilize rubber suspension, providing excellent shock absorption and comfortable driving experience.
- 前轴采用板簧悬架,中后桥采用橡胶悬挂,减震效果好,行驶舒适。

Steering 转向系统

- The mechanical steering with hydro booster for axle 1.
- 1轴液压助力机械转向。

Tires 轮胎

- Eleven steel wire rope tires sized 12R22.5, strong bearing capacity and durability.
- 11 (轮胎数) — 轮胎规格: 12R22.5, 钢丝胎, 承载能力大, 耐用。

Drive system 驱动

- Axles 2, 3 are drive axles.
- 2轴+3轴驱动。

Outrigger 支腿

- H-type layout, four point support with fine-grained high strength steel plate. Jack cylinders of the outriggers are protected by two-way hydraulic lockout.
- H型支腿4点支撑,采用细晶粒高强度钢板材料;支腿垂直油缸采用双向液压锁进行安全保护。

Brake 制动系统

- Service brake: air servo, dual circuit.
- Assisting brake: engine brake, safety assured when driving down long slopes.
- 行车制动采用双回路制动系统,所有车轮均用空气伺服制动器。
- 辅助制动采用发动机制动,保证在下长坡时的制动安全。

Electrical system 电气系统

- 2*12V maintenance-free battery. CAN instrument, data integration between superstructure and chassis.
- 2 × 12V 免维护蓄电池,总线控制系统,可实现上下车信息交互。

Crane Introduction

整机介绍

Superstructure 上车

Turntable 转台

- Sany's self-made structural components are manufactured with high-strength steel, providing great torsional stiffness and long fatigue life.
- 三一自制结构件,高强度钢材制造,扭转刚度大、疲劳寿命长。

Operator's cab 操纵室

- Sany independently developed a new generation of control cab, maximizing the utilization of internal space. It features fully covered soft interior, panoramic skylight, and adjustable seats for user comfort. Additionally, it is equipped with a 7-inch display screen for upgraded interaction.
- 三一自主开发新一代操纵室、最大限度利用内部空间,配置全覆盖软化内饰、全景式天窗以及可调节座椅等人性化设计;配置7英寸显示屏,交互升级。

Telescopic system 伸缩臂架

- The boom structure adopts high-strength welded structural steel. 5 U-shape sections with high stability, boom telescoping with rope arranger. Optional jib.
- 5节绳排主臂,由高强度焊接结构钢制成,U型截面,可选配副臂。

Hoisting system 起升机构

- The winch adopts a quantitative motor, ensuring higher operational efficiency and smoother lifting and lowering of heavy loads.
- 卷扬采用定量马达,作业速度更高效,重物起落平稳。

Luffing system 变幅系统

- It utilizes a passive luffing system, enhancing descent stability while reducing energy consumption.
- 采用自重落幅系统,既能提高落幅平稳性,还能降低能耗。

Slewing system 回转系统

- 1250mm diameter slewing bearing and a maximum slewing speed of 2.6r/min, the system ensures stable operation and reliable braking.
- 1250mm直径回转支承,最大回转速度2.6r/min,动作稳定,系统可靠,制动平稳。

Hydraulic system 液压系统

- Electro-hydraulic hybrid system: The new-generation electro-hydraulic hybrid system ensures efficient operations and smooth control of combined actions.
- 电液复合系统:新一代电液复合系统,作业高效,组合动作操控平顺。

Control system 控制系统

- Integrated bus instrumentation with an all-in-one electrical system enables real-time monitoring of driving and operating parameters.
- High-precision torque display, multidimensional safety checks, and comprehensive safety measures ensure all-around safety.
- 采用集成一体式电气系统的总线仪表,实时监控行驶参数与作业参数。
- 高精度力矩显示,多维度安全检测,全方位安全保障。

Counterweight 配重

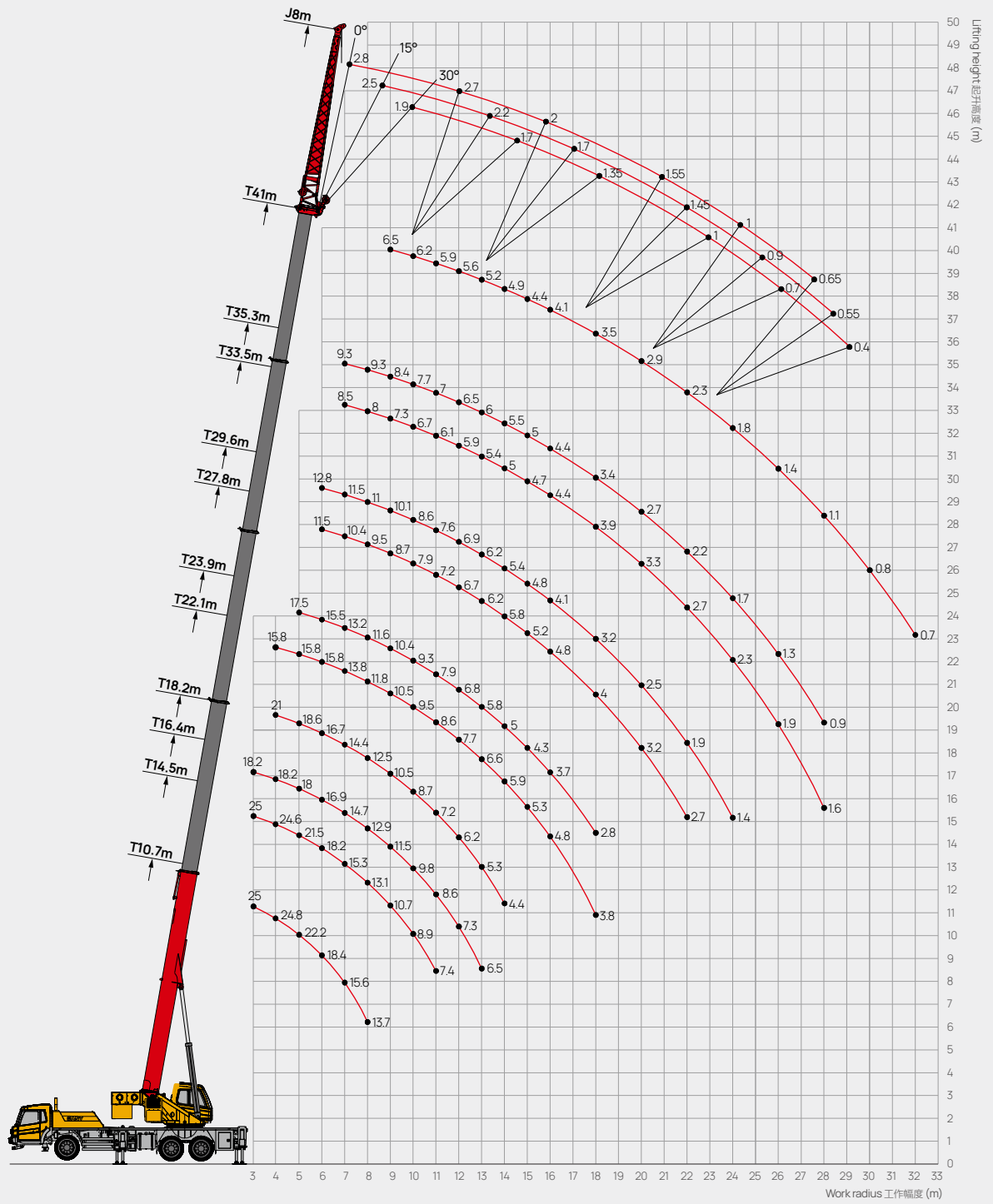
- Standard 6.2t counterweight..
- 标配6.2t大配重。

Safety equipment 安全装置

- Hydraulic overflow valve, balance valve, two-way hydraulic lock, load moment indicator, three-circle protection devices, and height limiters.
- 液压溢流阀、平衡阀、双向液压锁、力矩限制器、三圈保护器和高度限位器。

Operating Range

起升高度曲线











Load Chart - Telescopic Boom

性能表 - 主臂

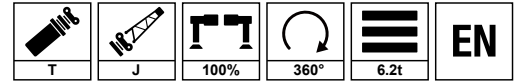
Unit: kg





 m	10.7	16.4	22.1	27.8	33.5	44.5	55.2	65.9	76.6	87.3	98.0	 m
3.0	25000	18200				25000						3.0
3.5	25000	18200				25000	21000					3.5
4.0	24800	18200	15800			24600	21000					4.0
4.5	23200	18200	15800			22600	21000	17500				4.5
5.0	22200	18000	15800			21500	18600	17500				5.0
5.5	20100	17900	15800	11500		19300	17800	17000				5.5
6.0	18400	16900	15800	11500		18200	16700	15500	12800			6.0
7.0	15600	14700	13800	10400	8500	15300	14400	13200	11500	9300		7.0
8.0	13700	12900	11800	9500	8000	13100	12500	11600	11000	9300		8.0
9.0		11500	10500	8700	7300	10700	10500	10400	10100	8400	6500	9.0
10.0		9800	9500	7900	6700	8900	8700	9300	8600	7700	6200	10.0
11.0		8600	8600	7200	6100	7400	7200	7900	7600	7000	5900	11.0
12.0		7300	7700	6700	5900		6200	6800	6900	6500	5600	12.0
13.0		6500	6600	6200	5400		5300	5800	6200	6000	5200	13.0
14.0			5900	5800	5000		4400	5000	5400	5500	4900	14.0
15.0			5300	5200	4700			4300	4800	5000	4400	15.0
16.0			4800	4800	4400			3700	4100	4400	4100	16.0
18.0			3800	4000	3900			2800	3200	3400	3500	18.0
20.0				3200	3300				2500	2700	2900	20.0
22.0				2700	2700				1900	2200	2300	22.0
24.0					2300				1400	1700	1800	24.0
26.0					1900					1300	1400	26.0
28.0					1600					900	1100	28.0
30.0											800	30.0
32.0											700	32.0
	8	8	6	5	4	8	7	6	4	3	3	
	0	0	0	0	0	50	100	100	100	100	100	
	0	25	50	75	100	0	0	25	50	75	100	

Load Chart - Fixed Jib

性能表 - 副臂



Unit: kg

	43m+8m			
	0°	15°	30°	
78.0	2800	2500	1900	78.0
75.0	2800	2400	1750	75.0
72.0	2700	2200	1700	72.0
70.0	2600	2000	1600	70.0
65.0	2000	1700	1350	65.0
60.0	1550	1450	1000	60.0
55.0	1000	900	700	55.0
50.0	650	550	400	50.0

Remark:

- Value listed are the max. capacity when the crane is in a level condition on solid ground or surface.
- Radius refers to actual radius with boom deflection considered.
- The determination of rated load values in the load chart follows ISO 4305.
- Value above are calculated with hooks and lifting slings considered.
- When the fifth outrigger is landed in position, value listed are applicable for 360 degree operation.
- Rated lifting performance on boom point sheave equals 4500kg; boom load capacity shall be 500kg less than value given when jib unfolds.
- Load value is given according to the larger radius or boom length value when the actual radius or boom length falls between two numbers above.

备注:

- 起重性能表中给定数值是在平整坚固的地面上，整机调平状态下起重机的额定起重量。
- 起重性能表中工作幅度是指吊载后的实际幅度。
- 起重性能表中的稳定性决定的额定载荷数值的确定遵循 ISO4305。
- 起重性能表中额定起重量包括起重钩和吊具的重量。
- 打开好第五支腿时，表中数值适用于全方位 (360°) 作业。
- 使用臂尖滑轮时额定起重量不超过 4500kg。若副起重臂处于展开状态，主臂起吊的额定起重量应减少 500kg。
- 如果实际臂长和幅度介于两个数值之间时，取较长的臂长及较大的幅度所决定的额定起重量进行起吊作业。



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