



# SANY

Quality Changes the World



## SANY TRUCK CRANE STC 500

# ULTRA- LONG BOOM. STRONG LIFTING CAPACITY

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Product specifications

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## SPECIFICATIONS/CHASSIS

### Frame

Integrated welding structure fabricated high-strength steel.

### Outrigger

H-form arrangement and fullyhydraulic control with horizontal and vertical extension, independent working movement.

### Engine

Dongfeng Cummins ISLe 340 30 engine, rated power 250kw at 2100rpm, fuel tank capacity 300L.

### Transmission system

9-speed synchronizer gearbox, transmission shaft with end gear structure.

### Tyre

12 wheels ,12.00R20 20PR tyres.

### Steering

Single circuit hydraulicassist steering system with mechanical slewing-limit.

### Electrical system

24V, CAN bus.

### Driver's Cab

Rubber mounted steel cab, corrosion-resistant power coating and two coating painting, 2.68wide, ergonomic cab, 2 comfortable seats, with pneumatically sprung driver's seat inc. head rest. Three-point seat belts and convenient dashboard, vertically adjustable steering wheel, Front baffle triplex glass, wide visibility, windscreen defroster fans, side electric toughened glass, engine-dependant hot water heater, roller blinds,radio.

### Axle

Axle 1, 2 steering, axle 3, 4 driving.

### Suspension

Steel leaf spring imbanlanced suspension on axles 1 and 2,steel leaf spring two-axles balanced suspension on axles 3 and 4.

### Brake

Adopted air brake. Dual-circuit driving brake and emergency brake controlled by hand . Engine exhaust brake.

### Hydraulic system

Fixed displacement gearbox oil pump controls horizontal leveling and outriggers telescoping.

## SPECIFICATIONS SUPERSTRUCTURE

### Cab

Fabricated from corrosion-resistant steel, equipped full-covered flexible decorations, front window door could be open, adjustable seat provide comfort for the driver.

### Winch

Fixed displacement piston pump, hydraulic braking system, mounted balanced valve. Max. speed(single rope) 130m/min, rope length 220m.

### Main boom

Five sections partially synchronized section; telescopic mechanism assisted by two cylinders and sheaves, balanced valve mounted on the cylinder.

### Auxiliary winch

Constant displacement piston system, mounted balanced valve, max. speed(single rope)130m/min, rope length 130m.

### Counterweight

3.5t, mounted on the frame through connecting bolts.

### Luffing

Deadweight dependent and electric-proportion balanced valve controlled elevation.

### Hydraulic system

Load adaptor and constant power control variable displacement axial piston pump, speed-proportion and power-adjust regulation, automatically regulate oil pump through load condition to utilize power. Speed-control does not depend on flow distribution to reduce power.

### Slewing mechanism

Fixed displacement piston pump, slewing with buffer. Max. slewing speed 2r/min.

### Safety devices

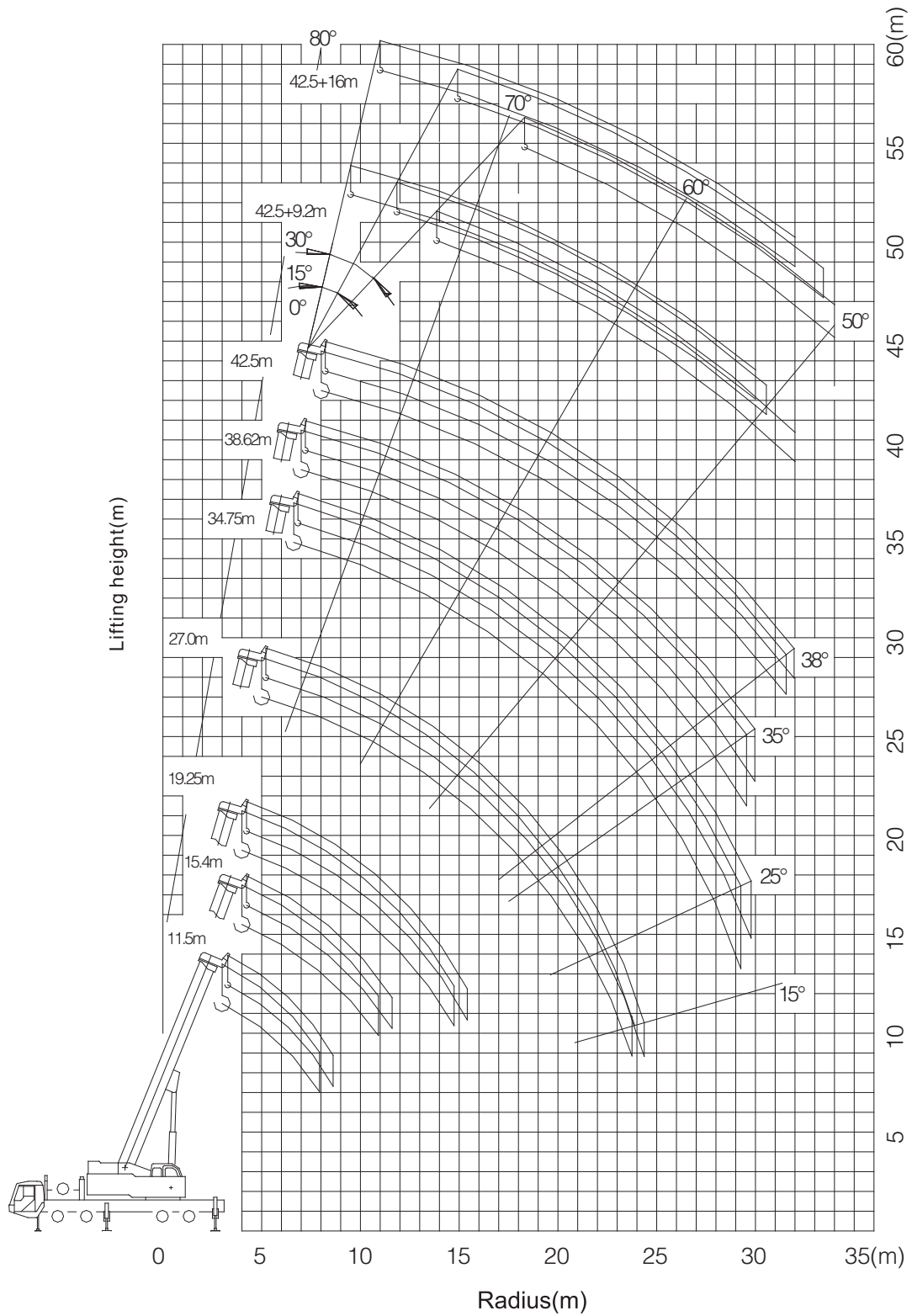
Colorful LCD, integrated hook load, rated load, boom length, angle, lifting height. Integrated parameter set-up. Safety-limit.



## TECHNICAL PARAMETERS

Type	Item		Unit	Value
Dimensions	Overall length		mm	13750
	Overall width		mm	2750
	Overall height		mm	3650
	Axle distance	Axle-1,2	mm	1450
		Axle-2,3	mm	4000
		Axle-3,4	mm	1350
	Wheel distance	Wheel-1,2	mm	2296
		Wheel-3,4	mm	2048
Weight	Overall weight		kg	42000
	Axle load	Axle load-1,2	kg	16000
		Axle load-3,4	kg	26000
Power	Engine mode		Dongfeng Cummins ISLe340 30	
	Rated power		kw/rpm	250/2100
	Rated torque		N.m/rpm	1425/1400
Traveling specifications	Traveling speed		km/h	85
	Turning radius	Min.turning radius	m	12
		Min.turning radius of boom head	m	14.5
	Min.ground clearance		mm	342
	Approach angle		°	≥ 18
	Departure angle		°	≥ 12
	Braking distance( with speed of 30 km/h)		m	≤ 10
	Max.gradeability		%	40
	Fuel consumption per 100km		l	≤ 45
	Max.rated lifting capacity		t	50
Main performance	Min.rated range		m	3
	Tail slewing radius of swing table		mm	4.0
	Max.lifting moment	Base boom	kN.m	1774
		Full-extend boom	kN.m	840.8
		Full-extend boom+jib	kN.m	318
	Outrigger span (Longitudinal × Transversal)		m	7.2 × 6.0
	Lifting height	Base boom	m	12
		Full-extend boom	m	42.8
		Full-extend boom+jib	m	58.8
	Boom length	Base boom	m	11.5
		Full-extend boom	m	42.5
		Full-extend boom+jib	m	58.5
	Jib offset		°	0、15、30
Working speed	Max.single rope lifting speed of main winch (no load)		m/min	130
	Max.single rope lifting speed of auxiliary winch (no load)		m/min	130
	Full extension/retraction time of boom		s	120/100
	Full lifting/descending time of boom		s	80/60
	Slewing speed		r/min	0~2.0
	Full extension/retraction time of horizontal outrigger		s	40/20
	Full extension/retraction time of vertical outrigger		s	35/30

## STC500 WORKING RANGES



# LOAD CHART FOR MAIN BOOM

Unit: kg

Fully extended outriggers, over side and rear (3T fixed counterweight t)											
Radius (m)	Length of boom(m)										
	11.5m	15.4m	19.25m		27m		34.75m		38.62m		42.5m
3.0	50000	40000	32000	21500							
3.5	50000	40000	32000	21500							
4.0	44600	40000	32000	21500							
4.5	40000	36000	31000	21500	21000	15000					
5.0	36200	33200	29000	20000	21000	15000					
5.5	32000	30000	27500	19000	21000	14500					
6.0	28000	27500	25700	18100	21000	13700	14000	9000			
6.5	25800	25500	23900	17500	19500	12800	14000	9000			
7.0	23500	23200	21500	17000	18000	12100	14000	9000	11500	9000	
7.5	21400	21200	18600	16200	16800	11500	13500	8500	11500	9000	9000
8.0	19500	19300	17000	15600	15800	11000	12700	8500	11000	9000	8500
9.0	15300	15000	13700	13800	14000	10000	11700	7800	10500	8500	8100
10.0		11700	10900	12000	12000	9000	10700	7100	10000	8000	7800
11.0		9600	9000	10600	9900	8200	9400	6400	9000	7500	7000
12.0		8000	8000	8700	9000	7500	8500	5800	8000	7000	6000
14.0			5300	6400	6300	6100	6600	5000	6300	5900	5200
16.0			3500	4600	4700	5000	5000	4400	5000	5000	4200
18.0					3500	4100	4000	3800	4000	4000	3300
20.0					2500	3000	3100	3200	3200	3500	2600
22.0					1900	2300	2200	2700	2400	2800	2000
24.0					1300	1800	1700	2400	1800	2100	1500
26.0							1200	1900	1300	1650	1150
28.0							800	1500	900	1300	900
30.0							500	1000	600	900	600
32.0								800		600	
34.0										400	

Telescoping condition											
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
5th boom	0	0	0	33	33	66	66	100	83.3	100	100
Number of line	12	10	8	8	6	6	4	4	4	4	3

## LOAD CHART FOR JIB

Unit: kg

Main boom angle	Full-extend outriggers, over side and rear					
	9.2m jib			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. boom angle	55°					

### Note:

- 1、Rated lifting capacities shown in the table are based on the condition that the crane is set on firm ground horizontally.  
These above bold line are based on crane strength and those below, it is stability.
- 2、Radius shown in the table are the actual radius when working.
- 3、Rated lifting capacities in the stability area comply with ISO 4305.
- 4、The total rated lifting load in the table includes the weight of hook block (main hook is 610kg and auxiliary hook is 90kg) and slings.
- 5、When the 5th outrigger is in use, it is suitable for 360 operation.
- 6、When working with head pulley, the rated lifting load should be less than 4000kg, if the jib is fixed in working position, the rated lifting load should be subtract 2300kg.
- 7、When actual boom length and working radius are between two values, determine lifting capacity according to the bigger boom and radius.





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B04S2ENAM1-STC500

