



# SANY

Quality Changes the World



## SANY TRUCK CRANE STC 500

## ULTRA- LONG BOOM. STRONG LIFTING CAPACITY



**P1**

Product features  
Chassis

**P2**

Product features  
Superstructure

**P3**

Technical parameters

## SPECIFICATION/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,CAV 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 imbalanced 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 brake handle. Exhaust brake.

### Hydraulic system

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

## SPECIFICATION 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.

### Main boom

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

### Counterweight

3.5t, mounted on the frame through connecting bolts.

### 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.

### Safety devices

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

### Winch

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

### Auxiliary winch

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

### Elevation

deadweightdependent and electric-proportion balanced valve controlled elevation.

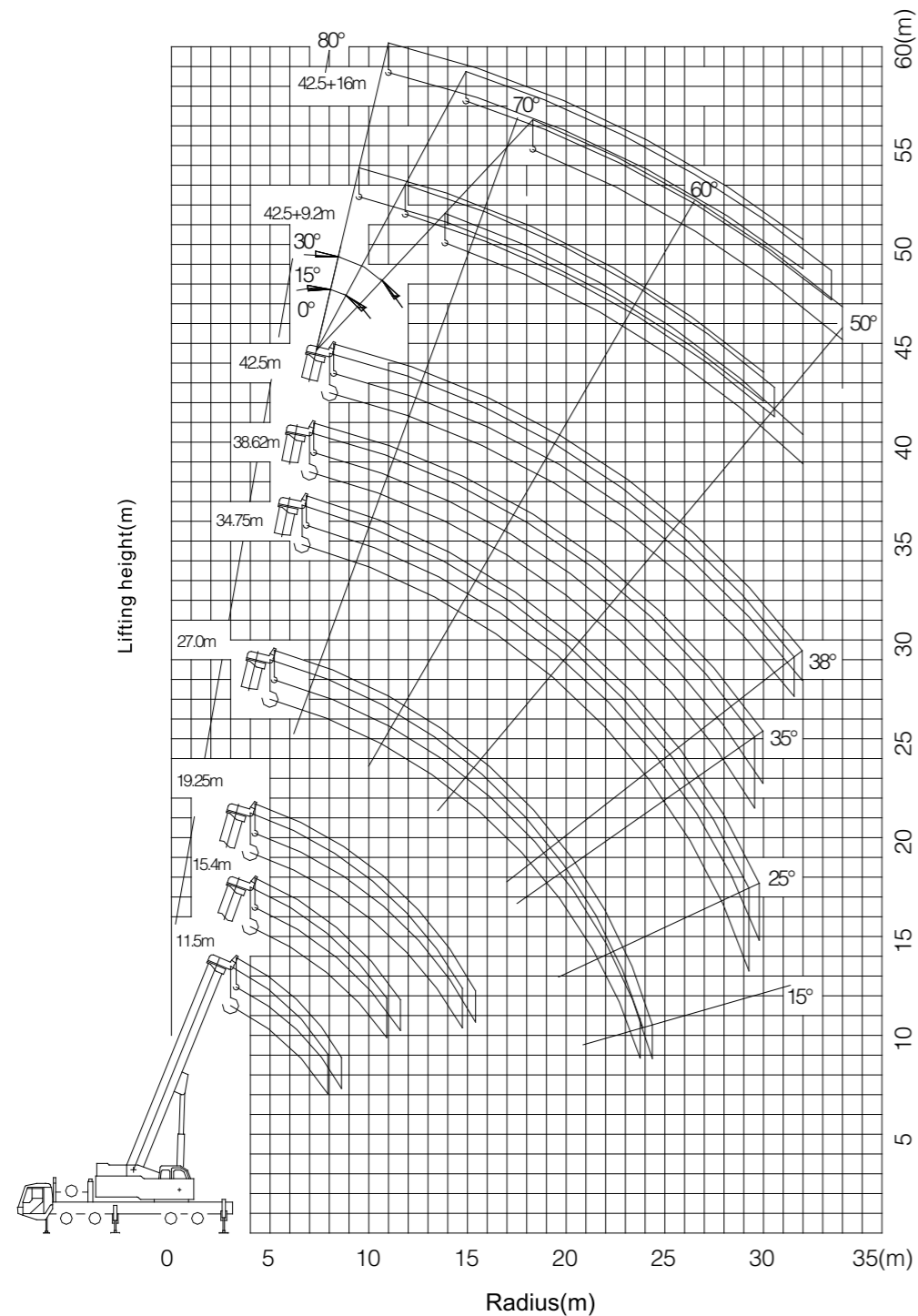
### Slewing mechanism

Constant displacement piston pump, slewing with retarder. Max slewing speed 2r/min.

## TECHNICAL PARAMETER

| Type                                 | Item                                      | Unit                 | Value |             |
|--------------------------------------|---|----------------------|-------|-------------|
| Technical parameters                 | Axle load                                 | Front axle           | kg    | 16000       |
|                                      |   | Middle and rear axle | kg    | 26000       |
| Working speed                        | Max. single rope speed of main winch      |                      | m/min | 130         |
|                                      | Max. single rope load of main winch       |                      | kN    | 57.25       |
|                                      | Wire rope diameter*length                 |                      |       | 18mm × 220m |
|                                      | Max. single rope speed of auxiliary winch |                      | m/min | 130         |
|                                      | Max. single rope load of auxiliary winch  |                      | kN    | 57.25       |
|                                      | Auxiliary winch rope diameter*length      |                      |       | 18mm × 130m |
| Elevation angle and slewing diameter | Min. slewing speed                        |                      | r/min | 2           |
|                                      | Elevation angle                           |                      | °     | -2° ~ 80°   |
| Chassis performance                  | Slewing diameter                          |                      | m     | 4           |
|                                      | Max. travelling speed                     |                      | km/h  | 85          |
|                                      | Max. grade ability                        |                      | %     | 40          |

## 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 | 2600 |     |
| 22.0   |                   |       |        |       |        | 1900   | 2300  | 2200 | 2700  | 2400 | 2000 |     |
| 24.0   |                   |       |        |       |        | 1300   | 1800  | 1700 | 2400  | 1800 | 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     |

Notes

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For our consistent improvement in technology, specifications may change without notice.  
The machines illustrated may show optional equipment which can be supplied at additional cost.

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