SANY®

Quality Changes the World

# SRC750C

SANY Rough-Terrain Crane
75 Tons Lifting Capacity


Max. Lifting Capacity: 75 t
Max. Boom Length (full extended boom+jib): 61 m
Max.Lifting moment: 2529 kN.m

www.sanyglobal.com

## Excellent traveling capacity and high-performance chassis system

- Four-wheel drive is applied with full hydraulic power steering system and four steering modes to provide good mobility. Trafficability and comfortableness of the complex road condition is improved thanks to its Min. turning radius less than 7.5m.

## Highly effective and unique hydraulic system

- Hydraulic system load feedback and constant power control is applied to provide strong lifting capacity and good micro-mobility. Unique steering buffer design guarantees smooth braking operation.



## Ultra long and super strong boom system

- Five-section boom with high strength steel structure and optimized U-shaped section, reducing weight and improving safety significantly. Jib mounting angles are 0°, 20° and 40°,which ensure fast and convenient change-over between different operating conditions so as to improve working efficiency of the machine.

## Safe and reliable control system

- Self-developed controller SYMC specially for engineering machinery is configured. The application of CAN-bus fully digital network control technology ensures stable control signal, simple harness and high reliability. It can feedback the data information and monitor the working condition of whole crane in real-time. Load moment limiter configured with comprehensive intelligent protection system is adopted with precision within 10%. The adoption of comprehensive logic and interlock control system ensures more safe and reliable operation.

# Crane Introduction

## Operator's Cab

- The self-made cab adopts ergonomic design with sliding door, safety glass, anti-corrosion steel, soft interior decoration, large interior space, panoramic sunroof and adjustable seats, air conditioner and electric window wiper etc. to provide easier and more comfortable operation. Load moment limiter display is configured to achieve the combination of main console and operating display system, making all operating condition data of lifting operation clear at a glance.

## Hydraulic system

- High-quality key hydraulic components such as main oil pump, rotary pump, main valve, winch motor and balancing parts etc. are adopted to achieve stable and reliable operation of the hydraulic system. Superior operation performance is guaranteed by accurate parameter matching. Through the adoption of load sensitive variable displacement piston pump, pump displacement can be adjusted in real-time, achieving high-precision flow control with no energy loss during operation.
- Main valve has flow compensation and load feedback control function. It significantly enhances control stability for single action and combined action under different operation conditions.
- Winch adopts electronically controlled variable motor, ensuring high operation efficiency. Max. single line speeds of main and auxiliary winches is up to 125m/min;
- Slewing system is equipped with the integrated slewing buffer valve, with free slipping function, ensuring more stable starting and control of the slewing operation and excellent micro-mobility.
- Hydraulic oil tank capacity: 980L.

## Control system

- CAN-bus instrument: CAN-bus instrument with a combined intelligent control electrical system is used for easy reading of the traveling parameters at any time. Engine fault warning function enables convenient and fast maintenance.
- With full security protection system, main and auxiliary winches are equipped with over-roll out limiter and height limiters to prevent over-rolling out and over-hoisting of steel rope, tip-over and limit angle protection are included.
- Load moment limiter: The adoption of highly intelligent load moment limiter system can comprehensively protect lifting operation, ensuring accurate, stable and comfort operation.
- The fault diagnosis system can detect superstructure electricity, hydraulic action, chassis (for major safety failure), engine and gearbox for fault to ensure reliable operation of the crane.

## Telescopic boom

- Five-section boom is applied with basic boom length of 11.8m, full-extended boom length of 45m, jib length of 16m and fully extended boom lifting height of 44.5m respectively. Max. lifting height is 62.5m including jib. It is made of fine grain high-strength steel with U-shaped cross section and with telescopic operation controlled independantly by double cylinder rope.

## Luffing system

- Dead-weight luffing provides more stable luffing operation at low energy loss. Dual-action single piston hydraulic pressure cylinder with safety valve is adopted.
- Luffing angle range is -3° ~ 80°.

## Slewing

- 360° rotation can be achieved, with Max. slewing speed of 2.0r/min. Hydraulic controlled proportional speed adjustment is applied, providing stable and reliable operation of the system. Unique slewing buffer design ensures more stable braking operation.

## Counterweight

- The total weight of fixed counterweight is 9500kg, no flexible counterweight.

## Safety device

- Load moment limiter: Load moment limiter calculation system based on lifting load mechanical model is established using an analytical mechanics method, with rated lifting accuracy within 10% through on-line non-load calibration, providing full protection to lifting operation. In case of overload operation, system will automatically issue an alarm to provide safety protection for manipulation.
- Balance valve, overflow valve, and two-way hydraulic lock etc. components are configured for hydraulic system, thus achieving stable and reliable operation of the hydraulic system.
- Main and auxiliary winches are equipped with over roll-out limiter to prevent over rolling-out of wire rope.
- Boom and jib ends are equipped with height limiters respectively to prevent over-hoisting of wire rope.
- Boom head is equipped with anemometer to detect whether the high altitude wind speed is within the allowable range.





# Crane Introduction

## Hoisting

- The adoption of pump and motor double variable speed control ensures high efficiency and excellent energy saving functionality. With perfect combination of winch balance valve and unique anti-slip technology, heavy load can be lifted and lowered smoothly. Closed winch brake and winch balance valve effectively prevent imbalance of the hook. High strength, anti-swirl steel wire is equipped for high-precision hoisting positioning.
- Equipped with one 810kg main hook and one 113kg auxiliary hook, and Main and auxiliary hook steel rope diameters are 20mm, the rope length is 245m and 145m respectively.

## Frame

- Carrier frame is of box-type structure that is welded with high-strength steel plate, featuring high lifting capacity.

## Outrigger

- H-type outrigger structure and 4-point support is adopted, with Max. span up to 7.52m×7.4m. Featuring easy operation and high stability. Fine grain high strength steel material is adopted and dual-direction hydraulic lock is used for the protection of vertical cylinder of outrigger.

## Engine

- Type: Inline six-cylinder, water cooled, supercharged and inter-cooling diesel engine
- Rated power: 210kw/2500r/min
- Environment-protection: Emission complies with State III standard
- Capacity of fuel tank: 300L

## Transmission

- Transmission case: Manual/Automatic transmission case. There are six gears in gearbox. The speed ratio range is large which meets the requirements of low gradeability speed and high traveling speed.
- Transmission shaft: With optimized arrangement of the transmission shaft, the transmission is stable and reliable.

## Drive/steering

- 4×4 drive way and full hydraulic power steering is applied with front wheel steering, rear wheel steering, four-wheel steering and crab traveling modes.

## Axle

- Front and rear axles are all slewing drive axles.

## Tyre

- 4*—29.5R25.

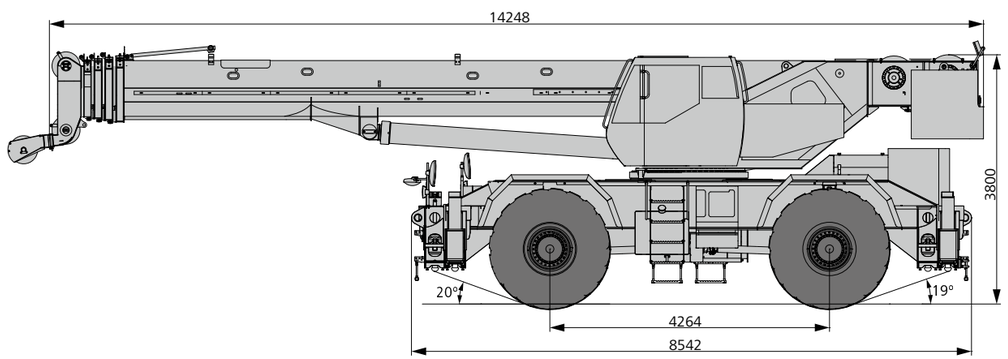
## Brake system

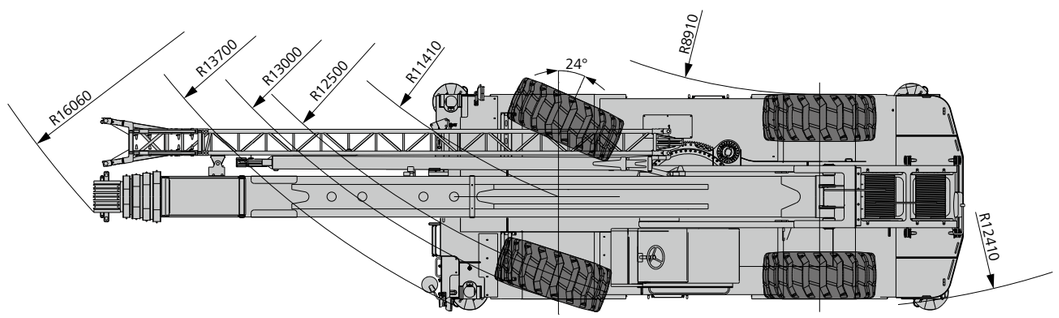
- Double-circuit braking system is adopted, if one circuit fails, the other circuit can ensure normal operation, thus improving the safety and reliability of brake system.
- Traveling brake: all wheels use the unique slewing brakes and dual-circuit brake system and are equipped with drum brakes.
- Parking brake is drum brakes equipped on the front axle export flange.

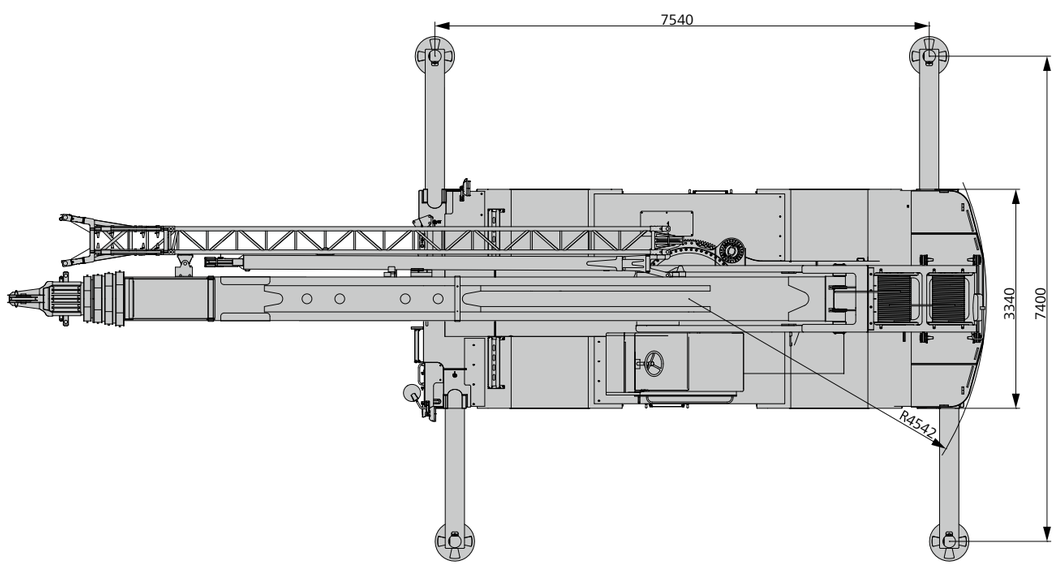
## Electric system

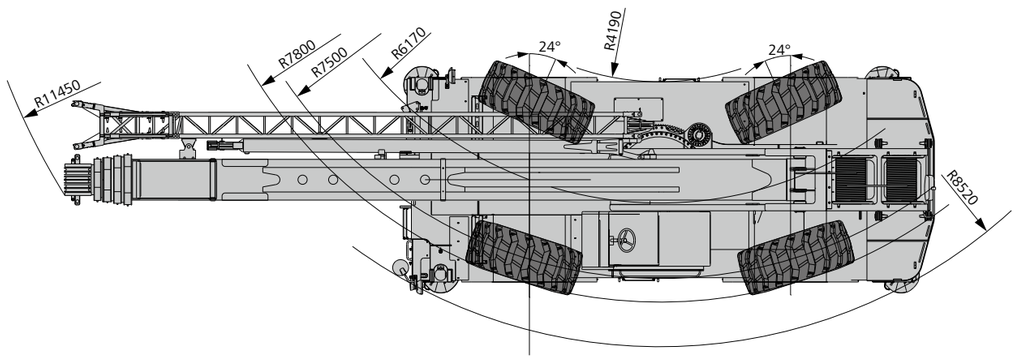
- With 24V maintenance-free battery and mechanical power main switch, power of the whole machine can be cut off manually.

# Overall Dimensions



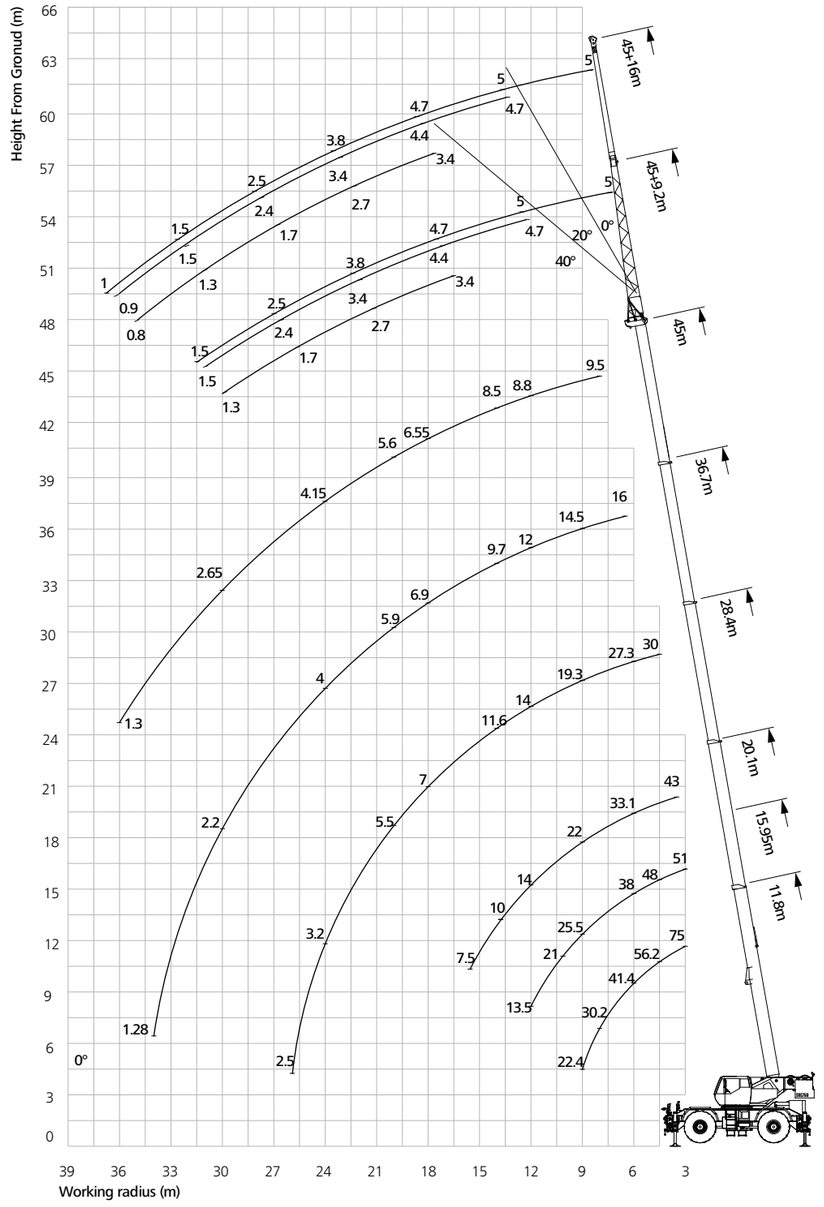
# Technical Parameters

| Category | Item | | Unit | Value |
|---|---|---|---|---|
| **Capacity** | Max. lifting capacity | | t | 75 |
| **Weight** | Gross weight | | kg | 53400 |
| | Load per axle | Front | kg | 27600 |
| | | Rear | kg | 25800 |
| **Power** | Emission standard | | - | Tier 3 |
| | Max. engine power | | kW/rpm | 210/2500 |
| | Max. engine torque | | N·m/rpm | 970/1500 |
| **Dimensions** | Overall length | | mm | 14280 |
| | Overall width | | mm | 3340 |
| | Overall height | | mm | 3820 |
| | Axle distance | | mm | 4264 |
| **Travel** | Max.travel speed (empty load) | | km/h | 40 |
| | Min. steering radius | | m | 12.5 / 7.5m |
| | Wheel formula | | - | 4×4 |
| | Min.ground clearance | | mm | 400 |
| | Approach angle | | ° | 20 |
| | Departure angle | | ° | 19 |
| | Max.gradeability | | % | 75 |
| | Fuel consumption per 100km | | L | ≤70 |
| **Main Performance** | Working temperature range | | °C | -20~+46 |
| | Min.rated lifting radius | | m | 3 |
| | Tail slewing radius | | m | 4.54 |
| | Boom sections (Qty.) | | - | 5 |
| | Boom shape | | - | U-shape |
| | Jib offset | | ° | 0, 20, 40 |
| | Max.lifting moment | Basic boom | kN·m | 2529 |
| | | Full-extention boom | kN·m | 1232 |
| | | Full-extention boom+jib | kN·m | 550 |
| | Boom length | Basic boom | m | 11.8 |
| | | Full-extention boom | m | 45 |
| | | Full-extention boom+jib | m | 61 |
| **Operation speed** | Max.single rope lifting speed of main winch (empty load) | | m/min | 125 |
| | Max.single rope lifting speed of auxiliary winch (empty load) | | m/min | 125 |
| | Full extension/retraction time of boom | | s | 120/130 |
| | Full luffing up/down time of boom | | s | 70/100 |
| | Slewing speed | | r/min | 2 |
| **Airconditioner** | In operator's cab | | - | Cooling |
| | In driver's cab | | - | Heating & cooling |





# Operating Range



# Load Chart - Telescopic Boom

Unit: kg


| Working range(m) | Main boom | | | | | | | Working range(m) |
|---|---|---|---|---|---|---|---|---|
| | 11.8m | 15.95m | 20.1m | 28.4m | 36.7m | 40.85m | 45m | |
| 3 | 75000 | 51000 | | | | | | 3 |
| 3.5 | 72000 | 51000 | 43000 | | | | | 3.5 |
| 4 | 63000 | 51000 | 43000 | | | | | 4 |
| 4.5 | 56200 | 48000 | 40500 | 30000 | | | | 4.5 |
| 5 | 50400 | 45000 | 38000 | 30000 | | | | 5 |
| 5.5 | 45500 | 42000 | 35400 | 28500 | | | | 5.5 |
| 6 | 41400 | 38000 | 33100 | 27300 | | | | 6 |
| 6.5 | 38000 | 35500 | 31000 | 26000 | 16000 | | | 6.5 |
| 7 | 35000 | 33000 | 28500 | 24600 | 16000 | 9500 | | 7 |
| 8 | 30200 | 28900 | 25000 | 22000 | 15000 | 9500 | 9500 | 8 |
| 9 | 22400 | 25500 | 22000 | 19300 | 14500 | 9500 | 9500 | 9 |
| 10 | | 21000 | 19700 | 17300 | 13900 | 9500 | 9200 | 10 |
| 11 | | 17500 | 17000 | 15500 | 13000 | 9500 | 9000 | 11 |
| 12 | | 13500 | 14000 | 14000 | 12000 | 9500 | 8800 | 12 |
| 14 | | | 10000 | 11600 | 9700 | 9300 | 8500 | 14 |
| 16 | | | 7500 | 9000 | 8100 | 7800 | 7700 | 16 |
| 18 | | | | 7000 | 6900 | 6600 | 6550 | 18 |
| 20 | | | | 5500 | 5900 | 5650 | 5600 | 20 |
| 22 | | | | 4200 | 5000 | 4850 | 4800 | 22 |
| 24 | | | | 3200 | 4000 | 4150 | 4150 | 24 |
| 26 | | | | 2500 | 3000 | 3600 | 3600 | 26 |
| 28 | | | | | 2500 | 3100 | 3110 | 28 |
| 30 | | | | | 2200 | 2400 | 2650 | 30 |
| 32 | | | | | 1700 | 2000 | 2150 | 32 |
| 34 | | | | | 1280 | 1550 | 1700 | 34 |
| 36 | | | | | | 1200 | 1300 | 36 |
| Min.elevation angle(°) | / | / | / | / | / | / | 30 | Min.elevation angle(°) |
| Number of parts of line | 12 | 9 | 9 | 6 | 4 | 4 | 3 | Number of parts of line |





# Load Chart - Telescopic Boom

Unit: kg


| Working range(m) | Main boom | | | | | | | Working range(m) |
|---|---|---|---|---|---|---|---|---|
| | 11.8m | 15.95m | 20.1m | 28.4m | 36.7m | 40.85m | 45m | |
| 3 | 70000 | 51000 | | | | | | 3 |
| 3.5 | 65000 | 51000 | 43000 | | | | | 3.5 |
| 4 | 60000 | 51000 | 43000 | | | | | 4 |
| 4.5 | 52000 | 48000 | 40500 | 30000 | | | | 4.5 |
| 5 | 45000 | 40000 | 38000 | 30000 | | | | 5 |
| 5.5 | 38000 | 34000 | 31000 | 28500 | | | | 5.5 |
| 6 | 32000 | 29300 | 27000 | 27300 | | | | 6 |
| 6.5 | 27400 | 26000 | 23800 | 26000 | 16000 | | | 6.5 |
| 7 | 24000 | 23000 | 21000 | 22000 | 16000 | 9500 | | 7 |
| 8 | 18500 | 17500 | 17000 | 17000 | 15000 | 9500 | 9500 | 8 |
| 9 | 14400 | 14000 | 13500 | 14000 | 13800 | 9500 | 9500 | 9 |
| 10 | | 11200 | 10800 | 11800 | 12000 | 9500 | 9200 | 10 |
| 11 | | 9200 | 8900 | 10200 | 10300 | 9500 | 9000 | 11 |
| 12 | | 7700 | 7300 | 8800 | 9000 | 9500 | 8800 | 12 |
| 14 | | | 4900 | 6300 | 7000 | 7400 | 7000 | 14 |
| 16 | | | 3200 | 4600 | 5200 | 5600 | 5500 | 16 |
| 18 | | | | 3300 | 3900 | 4300 | 4200 | 18 |
| 20 | | | | 2300 | 2900 | 3300 | 3100 | 20 |
| 22 | | | | 1500 | 2100 | 2500 | 2200 | 22 |
| 24 | | | | | 1500 | 1800 | 1600 | 24 |
| 26 | | | | | 1000 | 1300 | 1100 | 26 |
| Min.elevation angle(°) | / | / | / | / | 35.5 | 39.7 | 43.7 | Min.elevation angle(°) |
| Number of parts of line | 12 | 9 | 9 | 6 | 4 | 4 | 3 | Number of parts of line |

# Load Chart - Telescopic Boom

Unit: kg


11.8-45m 7.52mx3.1m 9.5t

| Working range(m) | Main boom | | | | | | | Working range(m) |
|---|---|---|---|---|---|---|---|---|
| | 11.8m | 15.95m | 20.1m | 28.4m | 36.7m | 40.85m | 45m | |
| 3 | 40000 | 31000 | | | | | | 3 |
| 3.5 | 32000 | 26000 | 23000 | | | | | 3.5 |
| 4 | 25500 | 22000 | 19500 | | | | | 4 |
| 4.5 | 21000 | 19000 | 16500 | 15800 | | | | 4.5 |
| 5 | 17900 | 16000 | 14000 | 14000 | | | | 5 |
| 5.5 | 15000 | 13700 | 12000 | 12400 | | | | 5.5 |
| 6 | 12800 | 12000 | 10600 | 11000 | | | | 6 |
| 6.5 | 11000 | 10500 | 9400 | 9600 | 10000 | | | 6.5 |
| 7 | 9600 | 9100 | 8200 | 8600 | 9000 | | | 7 |
| 8 | 7300 | 6800 | 6400 | 7000 | 7200 | 7500 | 7000 | 8 |
| 9 | 5500 | 5100 | 4800 | 5700 | 5800 | 6600 | 6000 | 9 |
| 10 | | 3900 | 3400 | 4600 | 4800 | 5600 | 5000 | 10 |
| 11 | | 3000 | 2400 | 3800 | 4000 | 4700 | 4000 | 11 |
| 12 | | 2000 | 1600 | 3000 | 3300 | 3800 | 3100 | 12 |
| 14 | | | | 1700 | 2100 | 2600 | 2000 | 14 |
| 16 | | | | | 1200 | 1800 | 1200 | 16 |
| 18 | | | | | | 1100 | | 18 |
| Min.elevation angle(°) | / | / | / | 47.6 | 54.6 | 58 | 59.6 | Min.elevation angle(°) |
| Number of parts of line | 10 | 8 | 8 | 4 | 3 | 3 | 3 | Number of parts of line |





# Load Chart - Fixed Jib

Unit: kg


11.8-45m 9.2m Outriggers fully extended 9.5t

| Working angle(°) | Main boom+Jib | | | Working angle(°) |
|---|---|---|---|---|
| | 0° | 20° | 40° | |
| 80 | 5000 | 4700 | 3400 | 80 |
| 79 | 5000 | 4700 | 3400 | 79 |
| 78 | 5000 | 4700 | 3400 | 78 |
| 77 | 5000 | 4600 | 3400 | 77 |
| 76 | 5000 | 4500 | 3300 | 76 |
| 75 | 5000 | 4400 | 3300 | 75 |
| 73 | 5000 | 4200 | 3200 | 73 |
| 70 | 4700 | 4100 | 3100 | 70 |
| 68 | 4300 | 3700 | 3000 | 68 |
| 65 | 3800 | 3400 | 2700 | 65 |
| 63 | 3300 | 3000 | 2300 | 63 |
| 60 | 2500 | 2400 | 1700 | 60 |
| 58 | 2000 | 2000 | 1600 | 58 |
| 55 | 1500 | 1500 | 1300 | 55 |
| 53 | 1300 | 1200 | 1000 | 53 |
| 50 | 1000 | 900 | 800 | 50 |

# Load Chart - Fixed Jib

Unit: kg

11.8-45m 16m Outriggers fully extended 9.5t

| Working angle(°) | Main boom+Jib | | | Working angle(°) |
|---|---|---|---|---|
| | 0° | 20° | 40° | |
| 80 | 3000 | 2900 | 2000 | 80 |
| 79 | 3000 | 2800 | 2000 | 79 |
| 78 | 3000 | 2800 | 2000 | 78 |
| 77 | 3000 | 2700 | 1900 | 77 |
| 76 | 3000 | 2700 | 1900 | 76 |
| 75 | 3000 | 2700 | 1900 | 75 |
| 73 | 3000 | 2600 | 1900 | 73 |
| 70 | 3000 | 2500 | 1900 | 70 |
| 68 | 3000 | 2400 | 1800 | 68 |
| 65 | 2400 | 2300 | 1700 | 65 |
| 63 | 2200 | 2200 | 1700 | 63 |
| 60 | 2000 | 1900 | 1600 | 60 |
| 58 | 1800 | 1700 | 1400 | 58 |
| 55 | 1500 | 1400 | 1000 | 55 |
| 53 | | | | 53 |
| 50 | | | | 50 |
| Min.elevation angle(°) | 50 | 52 | | 52 |





# Load Chart - On Tires Stationary

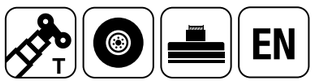
Unit:kg

11.8-28.4m 9.5t

| Working range(m) | Main boom | | | | Working range(m) |
|---|---|---|---|---|---|
| | 11.8m | 15.95m | 20.1m | 28.4m | |
| 4.5 | 12000 | | | | 4.5 |
| 5 | 10000 | | | | 5 |
| 5.5 | 8900 | 8600 | | | 5.5 |
| 6 | 7600 | 7400 | 7200 | | 6 |
| 6.5 | 6300 | 6400 | 6300 | | 6.5 |
| 7 | 5200 | 5000 | 5400 | 6200 | 7 |
| 8 | 3500 | 3800 | 3900 | 4700 | 8 |
| 9 | 2500 | 2600 | 2700 | 3900 | 9 |
| 10 | | 1700 | 1800 | 2900 | 10 |
| 11 | | 900 | 1000 | 2200 | 11 |
| 12 | | | | 1600 | 12 |
| Min.elevation angle(°) | / | 26.5° | 49.4° | 56.2° | Min.elevation angle(°) |
| Number of parts of line | 6 | 6 | 6 | 6 | Number of parts of line |

# Load Chart - Pick and Carry

Unit: kg




| Working range(m) | Main boom | | | | Working range(m) |
|---|---|---|---|---|---|
| | 11.8m | 15.95m | 20.1m | 28.4m | |
| 4 | 16700 | | | | 4 |
| 4.5 | 14800 | | | | 4.5 |
| 5 | 13200 | | | | 5 |
| 5.5 | 11800 | 11000 | | | 5.5 |
| 6 | 10700 | 10000 | 9800 | | 6 |
| 6.5 | 9600 | 9200 | 8800 | | 6.5 |
| 7 | 8700 | 8200 | 7900 | 9100 | 7 |
| 8 | 7100 | 6700 | 6300 | 7500 | 8 |
| 9 | 5900 | 5400 | 5100 | 6300 | 9 |
| 10 | | 4400 | 4000 | 5200 | 10 |
| 11 | | 3500 | 3100 | 4300 | 11 |
| 12 | | 2700 | 2400 | 3600 | 12 |
| 14 | | | 1200 | 2300 | 14 |
| 16 | | | | 1400 | 16 |
| Min.elevation angle(°) | / | / | 26.3° | 40.1° | Min.elevation angle (°) |
| Number of parts of line | 6 | 6 | 6 | 6 | Number of parts of line |

1. Values listed in the table refer to rated lifting capacity measured at flat and solid gound under the lever state of the crane.
2. Value above heavy line shall be determined by strength of the crane and under this line shall be determined by stability of the crane.
3. Rated load values determined by stability shall comply with ISO 4305.
4. Rated lifting capacity listed in the table included weights of lifting hooks (810kg of main hook and 113kg of auxiliary hook)and hangers.
5. Rated lifting capacity with pulley at boom tip shall not exceed 5000kg.
6. If actual boom length and range are between two values specified in the table, larger value will determine the lifting capacity.
7. When traveling with cargo on the crane, the permitted fastest speed is 4km/h. Never travel the crane with cargo over 60m within any 30 minutes.
8. Never travel the crane over 16km within 30min. Stopping the crane for 20min after every 30min traveling can prevent the tires from being overheated.

**Sany Automobile Hoisting Machinery Co., Ltd.**

No.168, Jinzhou Avenue, Jinzhou Development Zone, Changsha, Hunan, China
Postcode: 410600
Service: 0086-400 6098 318 Consulting: 400 8879 318
Email: crd@sany.com.cn

—Authorised Dealer—

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.


© Printed in June 2020 in China

**www.sanyglobal.com**