





### **SANY REACHSTACKER**

#### SANY REACH STACKER, ACHIEVING PROFESSIONAL QUALITY



### Advanced Technology Continuous Improvement

Advanced Design Scientific Manufacturing Technology Advanced Core Technologies Advanced Test & Detection System

### **P5**

### Comfortable Ride Extraordinary Enjoyment

Superior All-round View Centralized Joystick HD Electronic Monitor Steering Gear and Damping Suspension Seat

### **P9**

#### Perfect Details Brilliant Highlights

Frameless front window glass Advanced industrial shape design Built-in exhaust pipe line

### **P12**



**P3** 

### Genuine Configuration Testified Quality

Full-electric Control EFI Diesel Engine Fixed-shaft Power Shift Gearbox Heavy-load Drive Axle and Brake

### **P7**

### Energy-saving and High-efficiency Safe and Reliable

Advanced Hydraulic Load-sensing Technology Bus Throttle Control Technology Anti Roll-over Protection System Spreader Protection System

### P11

#### Comprehensive Product Series

Reachstacker
Container Reachstacker with tilt spreader
Tube Reachstacker
Log Reachstacker
Reachstacker for Intermodal Containers



# ADVANCED TECHNOLOGY CONTINUOUS IMPROVEMENT

State of the Art manufacturing facility with numerically controlled processing centers ensures quality manufacturing.

Professional manufacturing platform, based on modern design and manufacturing concept, makes products more stable and improves production of the module.

#### **Advanced Core Technologies**



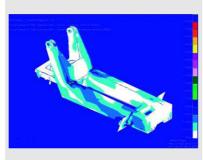
- Advanced Hydraulic Load-Sensing Technology
- Mechanic and Electric Anti-Rollover Protection Technology
- Vertical Lifting Boom and Automatic Return Technology
- Automatic Malfunction
   Detection and Real-Time Data
   Display Technology
- CAN bus Communication Technology
- Bus Throttle Control Technology
- Intelligent Safety Protection Technology
- Power Drive Patented Technology

#### **Advanced Manufacturing Technology**



- Our box frame is welded with air-protecting welding. Every key welding line has been through 100% nondestructive inspection to withstand strict tests.
- Integral processing of the frame body promotes the precision.

### Advanced Design



 Our design is based on precise data from FEA, kinematics and dynamics simulation analysis, which ensures the durability of boom and frame systems, excellence in performance, and outstanding reliability of the overall machine.



### **Outstanding Performance**

- Advanced Fault Diagnose System
   With a comprehensive database, fault information is displayed
   real-timely. With an experience collection of troubleshooting, the
   customers can be guided automatically in the maintenance and
   troubleshooting of machine.
- New Steering System
   Convenient steering and easy operation can be realized with multigrade adjustable steering gear and multi-pump confluence control.
- Inching Control Technology
   Multi-function control joystick and precise electro-hydraulic control curve ensure the outstanding inching control, easy operation, and efficient working.



### **Advanced Test Detection System**

machine's performance and the industrial performance of every product. Various parameter tests are set including stress strain, pressure, displacement, speed, acceleration, torque, and power, and numerous tests and detections are included: fatigue performance, vibratory performance, control performance, and power consumption performance. Only after the product has passed all these tests can it be mass produced and launched.

Our professional Research and Development teams, with their passion for science, strictly test the entire



# GENUINE CONFIGURATION TESTIFIED QUALITY



#### Full-Electric Control EFI Diesel Engine

- Full electric control EFI system optimizes all performances of engine by ample fuel atomization. Turbocharger enhances performance of complete machine and efficiency of engine, especially at high altitudes.
- High power for operation of the system;
   Low fuel consumption with efficient combustion, passing EU Stage II or III Standards;
- Low noise with equipment well-lubricated throughout nondeterministic operation;
   Low maintenance cost with original spare parts in stock.

 VOLVO engine features a central water-cooling system, while CUMMUNIS engine features aircooling system to enhance radiating performance, thus prolonging service life of key parts



#### Fixed-shaft Power Shift Gearbox

- Manual and automatic gear shift types both available;
- Electro-Hydraulic control system for easy operation;
- Forward/Backward electric control type anti-reversion device;
- Helical / Bevel transmission which is stable and quiet;
- Maintenance-free built-in pipeline resulting in long service life.

#### Heavy-load Drive Bridge and Brake

- Heavy-load Drive Bridge, durable for impact load under all tough working conditions Traveling brake, which applies numerous wet brakes for automatic wear compensation, is air sealed to avoid contamination;
- Parking brake applied to central caliper disc brake is safe and reliable;
- With qualified independent lubricating system which can be easily maintained.



#### Electric Control System

- Double-Domain controller with broader control capability and range;
- Comprehensive bus system with exact and reliable data transmission;
- Easy conversion between Normal Mode and Energy-Saving Mode;
- GPS Remote Control System.

#### Hydraulic System

- Hydraulic elements of world renowned brands which are reliable and durable;
- Double-Pump Power Technology for effortless lifting of heavy loads;
- ◆ Flow Amplifier equipped for flexible steering.





# COMFORTABLE RIDE EXTRAORDINARY ENJOYMENT

Ergonomically designed cab with streamline shape and open view. Comfortable space, centralized joystick, convenient display screen and switches, adjustable steering gear and suspension seat which minimizes operator fatigue.



#### Patent mobile cab technology

 Adjustable cab position dynamically changes operation visibility and provides easy maintenance access.

#### Sound-Absorbing and Noise Cancelling

 Containment of the cab, as well as the application of green noise cancelling and sound insulating materials, is healthy and environment-friendly.



#### Warm-Cold Air-Conditioner

 Anti-fogging, defrosting, and ventilating, available for allweather work.

#### Integrated Cab Radio

 New experience of MP3 player, relieving the operator's fatigue during work.

#### Centralized Joystick

 Humanized design, precise control, swift and convenient operation.



### High-Resolution Electronic Monitor

 An efficient and reliable tool for displaying the system's diagnostic results of lifting weight, luffing angle, hoisting height, main system pressure, engine status, oil level, and malfunctions.





## The ergonomic designed cab brings you extraordinary enjoyment.

#### Superior Peripheral View

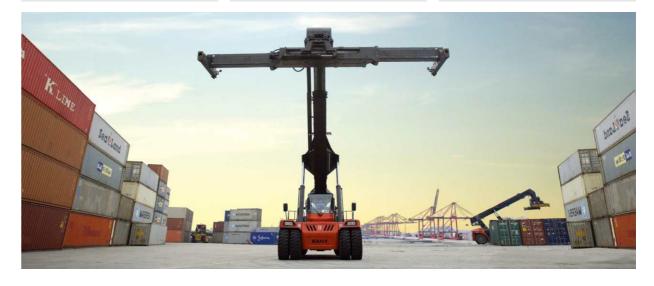
Humanized design cab with elegant shape and open view, easing tension and fatigue of the operator to promote working efficiency.

### Steering Gear and Damping Suspension Seat

Available for being adjusted to every position, relieving the operator's fatigue.

#### Industrial Molding Control Panel

Elegant design, logical layout, swift and convenient operation.



# ENERGY-SAVING AND HIGH-EFFICIENCY SAFE AND RELIABLE

The oil pressure, boom length, boom angle, and roll-over are detected real-timely to carry out torque protection. The tipping signal can be detected when the tipping torque reaches a certain value. Pitching and extending of boom will be locked by the controller immediately, and only retracting can be operated. This system has high intelligence, effective control, high preciseness, and high reliability.



#### Advanced Hydraulic Load-Sensing Technology

This technology is applied to save energy. Once the load condition changes, the proportional change valve sends a feedback signal to the load sensor of the variable plunger pump to control output flow from oil pump, thus controlling output power from engine and increasing energy efficiency. Coordination between operating condition and engine helps with reducing oil consumption by over 10%.

#### Bus Throttle Control Technology

Controller is used to send Bus messages to engine, conveying speed under different working conditions. In this way, the engine has the function of automatic acceleration for convenient operation and avoiding failure of loaded engine in low speed, which not only protects engine but also saves energy.



#### Alarm System

- ◆ Engine Protection System: Engine can only start when gear handle is on "N", protecting the engine and gearbox.
- Overrun Protection System: Engine will be turned off automatically if pressure of engine oil is low, temperature of engine oil or water is high, water level in tank is low, or oil temperature of gearbox is high.
- Travel Protection System: Non-Load and Load speed limit protection.
- Data Compensation Function Protection System: Precise weighing and calculating systems with scientific data compensation carry out reliable control and safety protection.

#### Anti-Rollover Protection System

- Dual Independent Mechanical and Electrical Anti-Rollover Protection System.
- Dual audible and visual signal alarms when lift is overloaded, during which boom can not stretch or pitch but only retract.



#### Spreader Protection System

- Equipped with Electrical and Mechanical Chain Lock Device, performs interlock by screwing the lock.
- The Reachstacker can only carry out operations when the locks are all "Full Open" or all "Full Lock".
- Mechanical Anti-Release of the Hook is equipped to the lock pin.





#### High reliability-the essence of sany products

### Reliable Working Performance

Patented moveable counterweight technology enhances the hoisting capability of the machine.



#### The Machine's Structure

High quality steel and design criteria, provides greater rigidity.
Superior structure design and processing make SANY Reach
Stacker more reliable.



#### Long Malfunction Intervals

This machine is reliable with long malfunction intervals.



# PERFECT DETAILS BRILLIANT HIGHLIGHTS



#### Invisible Air-exhaust Pipe

 Exhaust pipe is fitted in the body's frame to avoid erosion, breaking, and short service life.

#### Safety Device of Hydraulic Lock

 Hydraulic lock is equipped to oil port of pitching cylinder, and it blocks oil flow if highpressure hydraulic oil pipe blows out or breaks off. Then the cylinder is locked and pitching motion of the boom is stopped to ensure safety.



#### Perfect Details

- Aerofoil boom, features anti-torsion ability and stability, convenient for regular examination and maintenance.
- No blind spots in front windshield glass provides open view and helps catching container at certain positions.
- One side girder of the frame body is used as the fuel tank, thus reducing manufacturing cost. Steel plate of frame girder is relatively thick, which strengthens overall tank and saves space.
- By adopting advanced industrial shape design, the complete machine presents compact structure, logical layout, elegant shape, and aesthetic appearance.

#### Convenient Lubrication

 With centralized and separate lubrication types both being applied, SANY Reachstacker avoids complexity caused by applying centralized lubrication pipes and avoids operating difficulties at some parts caused by applying separate lubrication pipes.

#### Sliding Block with High Wearing Resistance

 MC Nylon Slide Blocks, which are light, intensive, and good in wear resistance, are equipped at the head of basic boom and end of telescopic boom. They support, direct, and decrease friction and impact vibration in Telescopic Boom movement.







### "We are all committed to customer's satisfaction; everything comes from innovation" is our continuous pursuit.

#### Excellence Heritage

Logical man-machine engineering design, stream-line industrial shape, centralized joystick, allweather air conditioner, and hydropneumatic suspension system combined with power drive patented technology.

#### **Genuine Parts**

SANY Container Reachstacker has a reliable power system: powerful full-electric control EFI engine, maintenance-free fixed-shaft power shift gearbox, and durable heavy-load drive bridge and brake, ensuring smooth work of the machine, as well as bringing you maximized profit.

#### **Unique Creativity**

Numerous core technologies promote the outstanding performance of the SANY Reachstacker, bringing you high working efficiency and confident operation.

# COMPREHENSIVE PRODUCT SERIES





### Container Reach Stacker with Inclinable Spreader

- Convenient operation, easy container catching
- First inclinable spreader in the world

#### Tube Reachstacker

- Intelligent Boom Anti-Collision Technology
- Strong lifting capacity, high working efficiency









#### Log Reachstacker

- Damping Anti-Sway Function of Spreader
- Single Log Lifting Technology

#### Reachstacker for Intermodal Containers

- Outstanding Lifting Capacity
- Mechanical and Electrical Dual Security









#### Container Reachstacker

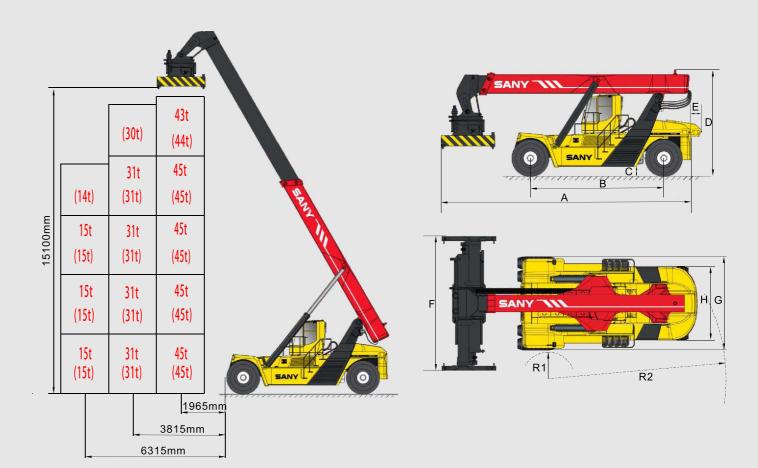
- Vertical Lifting Boom and Automatic Return Technology
- Cab and Weighted Power Drive Technology

#### **TECHNICAL PARAMETERS**

#### SRSC45F

Main parameters	
A (Overall length)	11260mm
B (Wheel base)	6000mm
C (Min. ground clearance)	400mm
D (Overall height)	4770mm
E (Weight motion distance)	500mm
F (Overall width)	6042-12175mm
G (Front wheel width)	4188mm
H (Rear wheel width)	3310mm
R1 (Front wheel turning radius)	1200mm
R2 (Min. turning radius)	8000mm

Performance parameters			
Overall weight	70500kg		
Max. Load	45000 Kg		
Layer of stack	5		
Max. Traction	360kN		
Max. Hoisting speed	Load: 250mm/s Non-load:420mm/s		
Max. Descending speed	Load: 360mm/s Non-load: 360mm/s		
Max. Travel speed	Load: 21km/h Non-load:25km/h		
Grade-ability	Load: 32% Non-load:39%		
Max. Hoisting height	15100mm		
Tilt angle	0~60°		



### TECHNICAL PARAMETERS

#### SRSC4032C3-S

#### Main parameters

A (Overall length)	11970mm
B (Wheel base)	6000mm
C (Min. ground clearance)	400mm
D (Overall height)	8535mm
E (Weight motion distance)	500mm
F (Overall width)	7145mm
G (Front wheel width)	4188mm
H (Rear wheel width)	3310mm
R1 (Front wheel turning radius)	1200mm
R2 (Min. turning radius)	8100mm

#### Performance parameters

<u>`</u>	
Overall weight	76000kg
Max. Load	40000 Kg
Layer of stack	3
Max. Traction	360kN
Max. Hoisting speed	Load: 250mm/s Non-load:420mm/s
Max. Descending speed	Load: 300mm/s Non-load: 360mm/s
Max. Travel speed	Load: 12km/h Non-load:22km/h
Grade-ability	Load: 32% Non-load:39%
Max. Hoisting height	9516mm
Tilt angle	0~54°

#### SRSC45C2-P

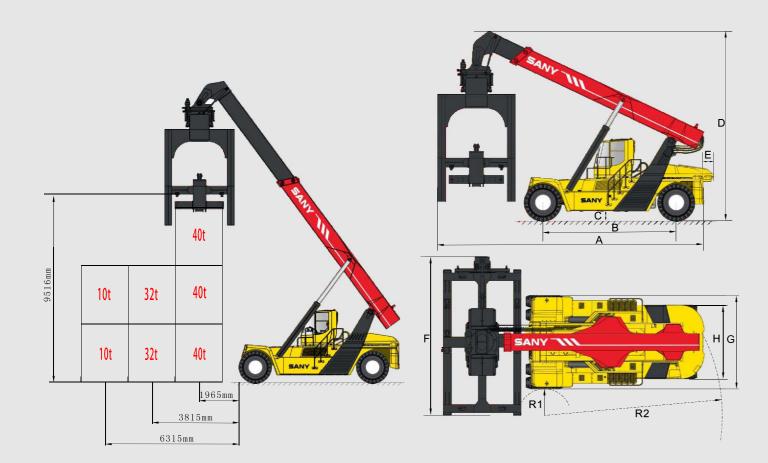
#### Main parameters

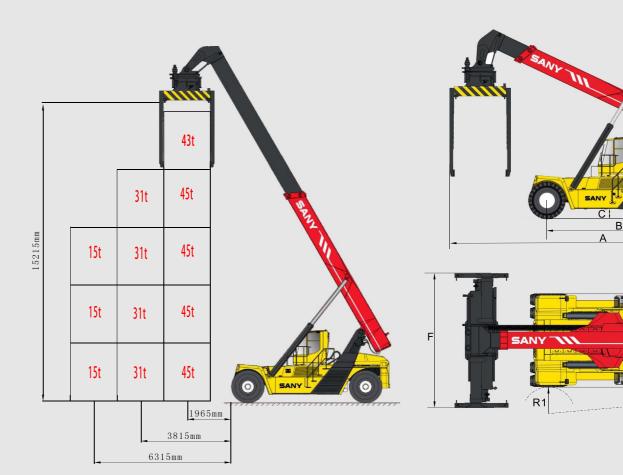
B (Wheel base) C (Min. ground clearance) D (Overall height) 4780mm E (Weight motion distance) F (Overall width) G (Front wheel width) H (Rear wheel width) R1 (Front wheel turning radius) 7000mm 420mm 4780mm 4780mm 4780mm 4780mm 4780mm 4780mm 4780mm 4780mm		
C (Min. ground clearance)  D (Overall height)  4780mn  E (Weight motion distance)  F (Overall width)  G (Front wheel width)  H (Rear wheel width)  R1 (Front wheel turning radius)  420mn  4780mn  4780mn  400mn  4188mn  4188mn  4188mn  4189mn  410mn  410mn	A (Overall length)	11260mm
D (Overall height)  E (Weight motion distance)  F (Overall width)  G (Front wheel width)  H (Rear wheel width)  R1 (Front wheel turning radius)  4780mn  4780mn  4042-12175mn  4188mn  4188mn  4180mn	B (Wheel base)	7000mm
E (Weight motion distance) 500mm F (Overall width) 6042-12175mm G (Front wheel width) 4188mm H (Rear wheel width) 3310mm R1 (Front wheel turning radius) 1300mm	C (Min. ground clearance)	420mm
F (Overall width) 6042-12175mn G (Front wheel width) 4188mn H (Rear wheel width) 3310mn R1 (Front wheel turning radius) 1300mn	D (Overall height)	4780mm
G (Front wheel width)  H (Rear wheel width)  R1 (Front wheel turning radius)  4188mm  3310mm  R1 (Front wheel turning radius)	E (Weight motion distance)	500mm
H (Rear wheel width)  R1 (Front wheel turning radius)  3310mn 1300mn	F (Overall width)	6042-12175mm
R1 (Front wheel turning radius) 1300mm	G (Front wheel width)	4188mm
itti (i totte ittioot taitiii g taatao)	H (Rear wheel width)	3310mm
R2 (Min. turning radius) 9200mn	R1 (Front wheel turning radius)	1300mm
	R2 (Min. turning radius)	9200mm

#### Performance parameters

Overall weight	80000k
Max. Load	45000 K
Layer of stack	
Max. Traction	360kl
Max. Hoisting speed	Load: 250mm/s Non-load:420mm/
Max. Descending speed	Load: 360mm/s Non-load: 360mm/
Max. Travel speed	Load: 21km/h Non-load:25km/
Grade-ability	Load: 32% Non-load:39%
Max. Hoisting height	15215mr
Tilt angle	0~60

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### TECHNICAL PARAMETERS

### SRSW31 Main parameters

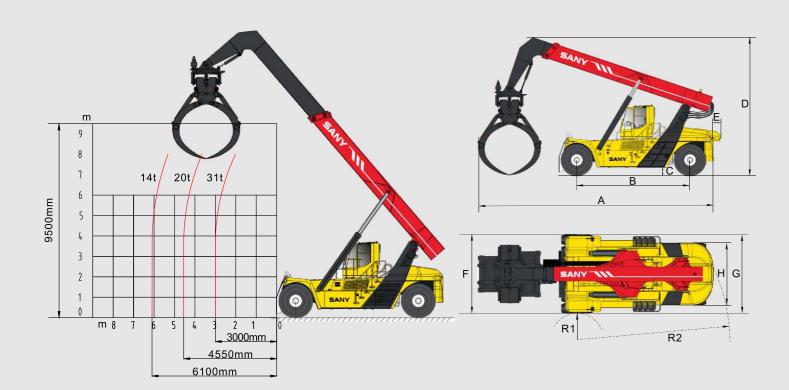
Main parameters	
A (Overall length)	12460mm
B (Wheel base)	6000mm
C (Min. ground clearance)	400mm
D (Overall height)	7290mm
E (Weight motion distance)	500mm
F (Overall width)	4188mm
G (Front wheel width)	4188mm
H (Rear wheel width)	3310mm
R1 (Front wheel turning radius)	1200mm
R2 (Min. turning radius)	8000mm

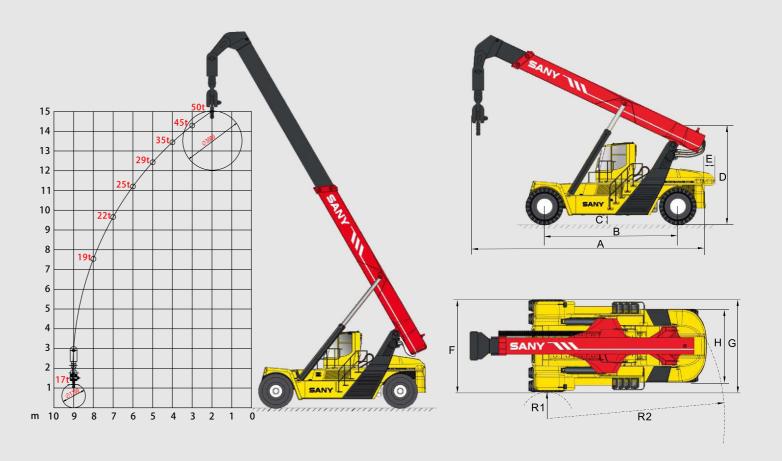
Performance parameters		
Overall weight	72000kg	
Max. Load	31000 Kg	
Max. Traction	360kN	
Max. Hoisting speed	Load: 250mm/s Non-load:420mm/s	
Max. Descending speed	Load: 300mm/s Non-load: 360mm/s	
Max. Travel speed	Load: 25km/h Non-load:28km/h	
Grade-ability	Load: 32% Non-load:39%	
Max. Hoisting height	9500mm	
Tilt angle	0~55°	

#### SRST50-H Main parameters

A (Overall length) 10550mm B (Wheel base) 6000mm C (Min. ground clearance) 400mm D (Overall height) 4770mm E (Weight motion distance) 500mm F (Overall width) 4188mm G (Front wheel width) 4188mm H (Rear wheel width) 3310mm R1 (Front wheel turning radius) 1200mm R2 (Min. turning radius) 8000mm		
C (Min. ground clearance) 400mm D (Overall height) 4770mm E (Weight motion distance) 500mm F (Overall width) 4188mm G (Front wheel width) 4188mm H (Rear wheel width) 3310mm R1 (Front wheel turning radius) 1200mm	A (Overall length)	10550mm
D (Overall height) 4770mm  E (Weight motion distance) 500mm  F (Overall width) 4188mm  G (Front wheel width) 4188mm  H (Rear wheel width) 3310mm  R1 (Front wheel turning radius) 1200mm	B (Wheel base)	6000mm
E (Weight motion distance) 500mm F (Overall width) 4188mm G (Front wheel width) 4188mm H (Rear wheel width) 3310mm R1 (Front wheel turning radius) 1200mm	C (Min. ground clearance)	400mm
F (Overall width)  G (Front wheel width)  H (Rear wheel width)  R1 (Front wheel turning radius)  4188mm  3310mm  1200mm	D (Overall height)	4770mm
G (Front wheel width) 4188mm H (Rear wheel width) 3310mm R1 (Front wheel turning radius) 1200mm	E (Weight motion distance)	500mm
H (Rear wheel width) 3310mm R1 (Front wheel turning radius) 1200mm	F (Overall width)	4188mm
R1 (Front wheel turning radius) 1200mm	G (Front wheel width)	4188mm
Ter (Front Wilder tarring radias)	H (Rear wheel width)	3310mm
R2 (Min. turning radius) 8000mm	R1 (Front wheel turning radius)	1200mm
	R2 (Min. turning radius)	8000mm

Performance parameters		
	Overall weight	64600kg
	Max. Load	50000 Kg
	Max. Traction	360kN
	Max. Hoisting speed	Load: 250mm/s Non-load:420mm/s
	Max. Descending speed	Load: 360mm/s Non-load: 360mm/s
	Max. Travel speed	Load: 21km/h Non-load:25km/l
	Grade-ability	Load: 32% Non-load:39%
	Max. Hoisting height	15000mn
	Tilt angle	0~60







### Quality Changes the World

#### **SANY GROUP CO., LTD.**

Address: 319 Chuanda Road, Chuansha Economic Park,

Pudong, Shanghai, China, 201200 Service Hotline: +0086-21-60303131

Email: crd@sany.com.cn

For more information, please visit: www.sanygroup.com

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.