SANY®

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SANY®

QUALITY CHANGES THE WORLD

E-POWER



Rated power
150 kW/1790 rpm

Bucket capacity
0.75 m^3

Operating weight
18000 kg

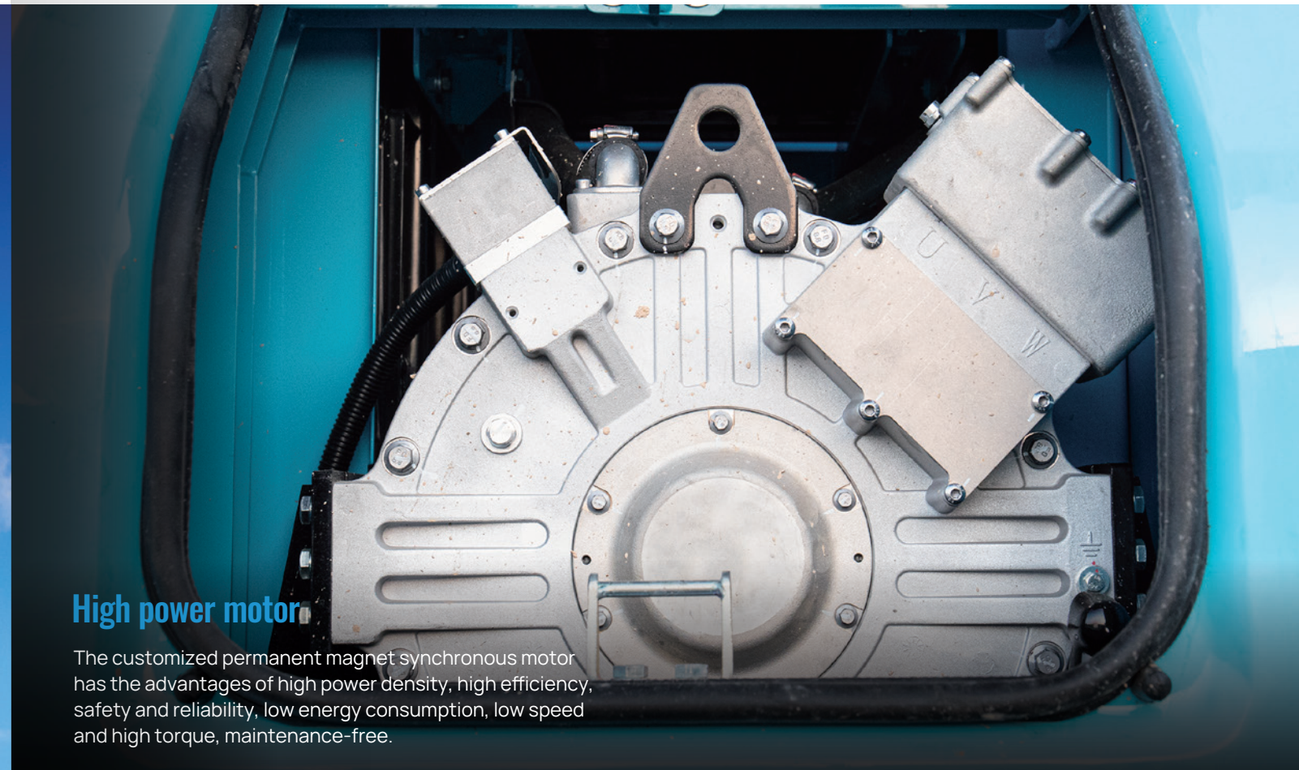
SY175EW

Sany Electric Excavator

HIGHLIGHTS

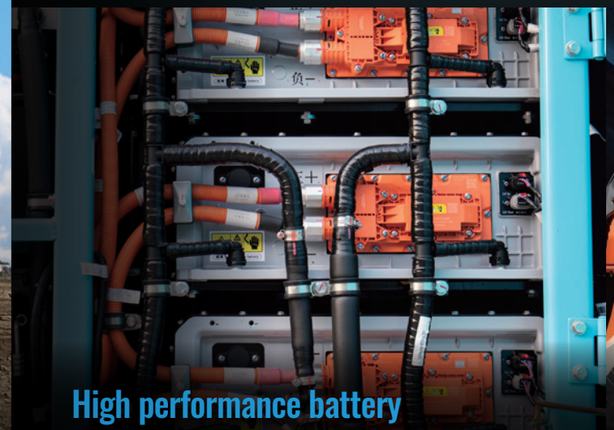
Powerful, permanent magnet synchronous motor rated power/speed :150kW/1790rpm, maximum torque: 1500N.m, coupled with 400 kWh high-capacity LFP battery and highly integrated controller, the nominal system voltage is 618 V DC, enabling 10-12 hours of continuous construction and site transfer.





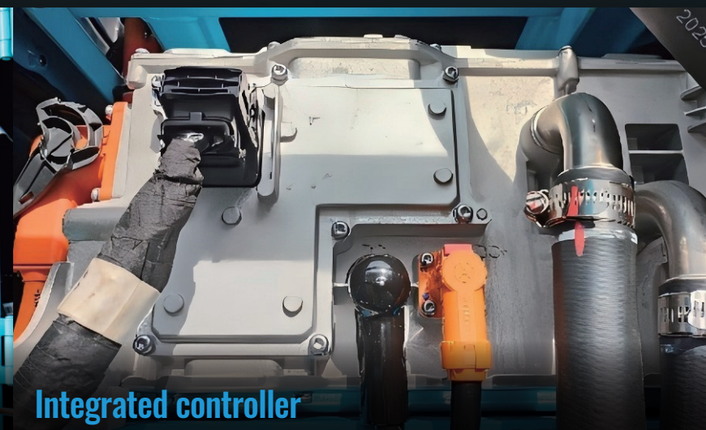
High power motor

The customized permanent magnet synchronous motor has the advantages of high power density, high efficiency, safety and reliability, low energy consumption, low speed and high torque, maintenance-free.



High performance battery

400kWh high-performance lithium-ion battery, featuring advantages such as high power density, high protection level, long endurance time, short charging time, safety and reliability, and intelligent fault diagnosis.



Integrated controller

Configuration of customized all-in-one integrated controller: using a high degree of circuit integration to achieve electric drive MCU function, high-voltage relay PDU management function, low-voltage power supply DC/DC function, and with power-on pre-charge auxiliary functions.

HIGHLIGHTS



New cab interior, equipped with one-touch start, USB interface, Bluetooth, 360 round view, air suspension seat, seat heating and other functions.10-inch large display screen, suitable for 50 types with switching function, 3 sets of auxiliary pipeline flow pressure adjustable, intelligent touch more convenient.
The cab adopts through-wall joint, new sealing technology, multi-pronged to completely prevent dust ingress into the cab, Using vibration and noise reduction technology, noise level reduced to 68 dB, better than the industry.

Premium Comfort Seat Upgrade

- **New Ergonomic Design for Enhanced Fit**

The exterior adopts SANY-exclusive styling, with a redesigned A-surface contour that better aligns with the natural curves of the human body.

- **Structural and Functional Optimization for Improved Comfort**

The upgraded backrest frame eliminates pressure points on the waist during reclining. The seat cushion now supports both fore/aft sliding and tilt adjustment, while newly added seat heating and adjustable lumbar support further reduce fatigue.

- **Detail Design Refinement for Enhanced Usability**

Equipped with rapid-response heating modules, instantly wrap you in cozy warmth during freezing conditions. Winter driving comfort soars to new heights, turning every chilly journey into a luxurious escape.

- **Optimized Linkage Mechanism for Effortless Operation**

A dual-layer rail system has been implemented, enabling synchronized adjustment between the armrest and seat to improve operational convenience and comfort.



(Translated strictly following original technical descriptions without subjective embellishments.)

360 Panoramic Surround View System

- **Panoramic Vision Upgrade I 4-Channel HD Cameras for Full Coverage**

Upgraded from a single rearview camera to four high-precision wide-angle cameras (strategically positioned at the front, rear, left, and right), achieving 360° blind spot-free monitoring around the vehicle.

- **Interactive Experience Revolution I Split-Screen Display + Free View Switching**

Split-Screen Mode: Supports simultaneous display of a main screen and sub-screen (e.g., main screen shows 3D panoramic view while sub-screen zooms in on a single-side close-up), ensuring both key area details and overall perspective are captured.

2D/3D Dual Modes:

2D Top-Down View: Delivers a bird's-eye perspective for accurate distance assessment between the vehicle and obstacles.

3D Dynamic View: Allows manual rotation to inspect any angle of the vehicle, enabling intuitive control in complex scenarios (e.g., parallel parking, off-road recovery).





HIGHLY EFFICIENT AND ENERGY SAVING POWER SYSTEM

Hydraulic system

This product uses an advanced load sensitive system to sense changes in external load in real time and intelligently adjust hydraulic flow and pressure output to ensure accurate coordination of composite actions of multiple actuators, and completely solve the problem of hysteresis and energy waste of traditional equipment.



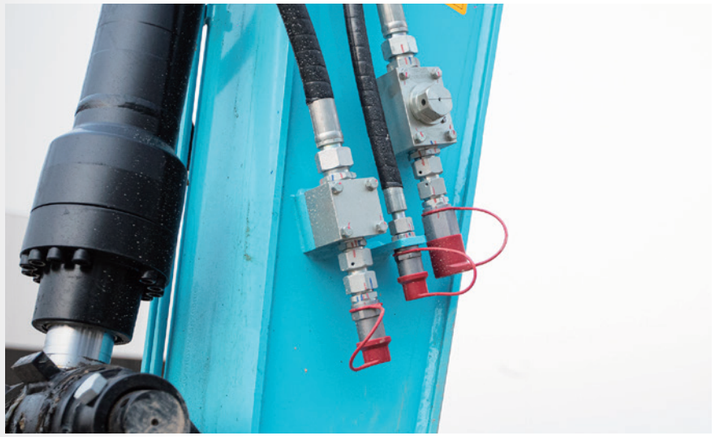
Master valve

Germany Rexroth original imported M7 hydraulic system, integrated secondary pressurization, dual mode auxiliary regulation (high pressure/medium pressure), travel intelligent flow distribution and other 8 core functions. After optimization by SANY Heavy Machinery, the motor and hydraulic millisecond power matching is realized.



Auxiliary line

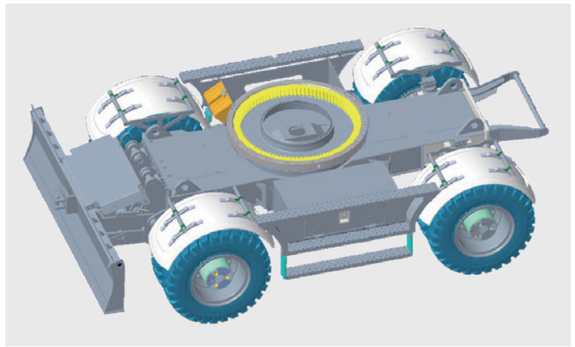
Equipped with three sets of independent auxiliary pipes, support single/two-way hydraulic one-button switching, with intelligent proportional control handle, to achieve efficient collaborative work of multiple auxiliary tools. The pipeline system adopts quick change design, the switching response time is less than 3 seconds, compatible with more than 20 kinds of equipment such as hydraulic breaker and hydraulic shear.





UNDER CARRIAGE

- **Full-time four-wheel drive**, can cope with a variety of road conditions, so that the vehicle has a excellent mobility.
- **Maximum travel speed** increased to 35 km/h,to achieve fast transition.
- **More Comprehensive Optional Configurations:** One type of chassis with 15 different optional features available, including mudguards, solid tires, outrigger, and various other configurations, allowing for customer customization.

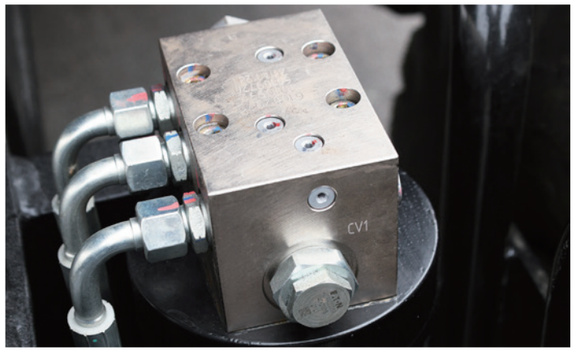




Double-balanced hydraulic suspension system

• The front axle is equipped with a unique double balanced hydraulic suspension system. When a road is rough, the suspension system can automatically adjust the tilt angle of the front axle to keep the cab level, reduce the bumpiness of the whole vehicle and improve the comfort of the passengers. The suspension stroke is up to 120 mm. When traveling on extremely uneven mud, it can still ensure the contact between the four wheels and the ground, effectively play a strong driving force, and ensure the super ability to get rid of difficulties.

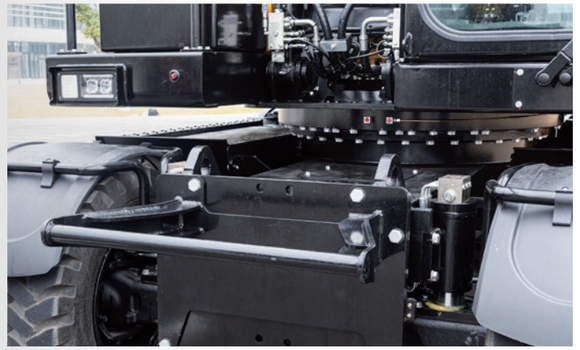
• In digging, the controller controls the locking of the balance cylinder to ensure the stability of the front axle. With the shovel bucket, the stability of excavation is greatly improved.

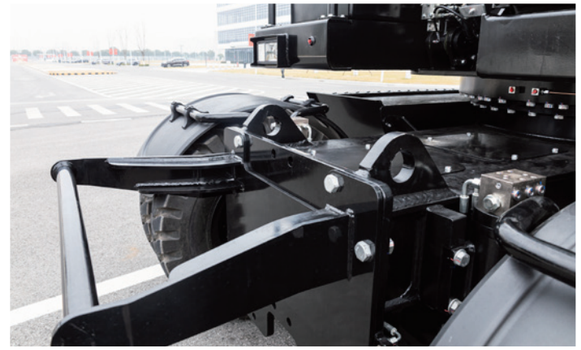




Chassis Optimization
Added Standardized Lifting Points

Four high-strength alloy lifting holes are integrated at key stress points on the chassis, with diameters compatible with mainstream lifting equipment.





Enhanced Step Connection Steel Cable Upgraded to High-Elasticity Rubber Plate

Traditional steel cable connections are replaced with a one-piece non-slip rubber plate, crafted from wear-resistant and anti-aging composite materials.



Scenario-Based Optional Expansion Modular Mudguard Kit

covering all wheel positions (front/rear optional).

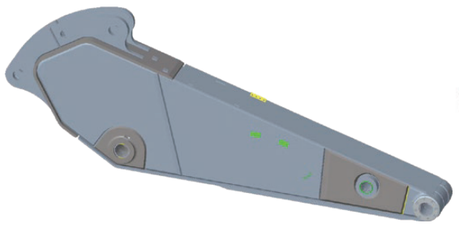


HIGH STRENGTH STRUCTURAL PARTS

The structural parts are designed by the method of finite element analysis and test, and the reliability and durability of the structural parts of the excavator are effectively guaranteed through the fatigue test of two axes and the durability test of the whole machine.

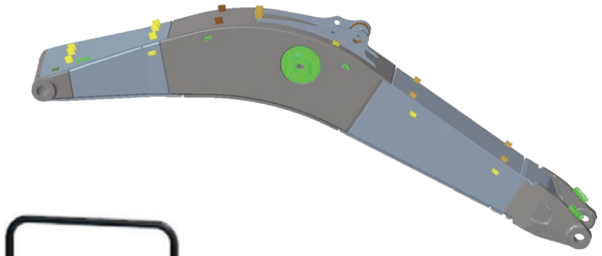
Reinforced arm

Adopts forging-type rear support to avoid local welding stress concentration and improve reliability. The use of imported wear-resistant plates at the front end makes the bucket rod life longer.



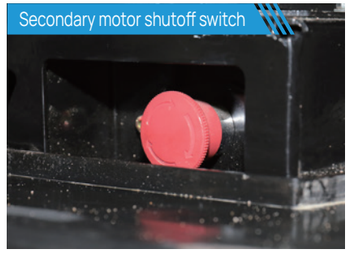
Enhanced boom

The rear support and center support of the boom are forged to avoid local welding stress concentration and improve durability. The key parts are reinforced steel envelope, which is more suitable for harsh working conditions.

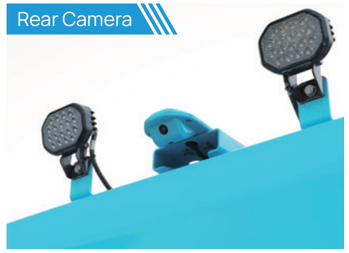


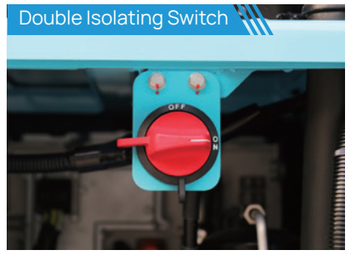


SAFETY FACILITY













SANY

ENGINEERING AND MANUFACTURING

Complete research & development and test system

SANY has established complete machine endurance test center with full functions. Each model of excavator must be subjected to over 2,000h field excavating test.

Key components like working device, cab and hydraulic components etc. must be subject to fatigue test over 800,000 times.







Advanced manufacturing technology

SANY has RGV assembling line and full automatic welding robots, and possesses high precision machining equipment and precise machining center.

SANY's manufacturing and assembling lines won five-star national site in 2013 and national quality award in 2014. In 2023, SANY Mini Excavator Factory was awarded as the intelligent factory.







TECHNICAL SPECIFICATIONS

SPECIFICATION	UNIT	VALUE
Operating weight	kg	18000
Bucket capacity	m^3	0.75
Drive motor	-	SANY custom-made PMSM
Type	-	CATL Lithium Iron Phosphate
Rated power	kW/rpm	150/1790
Rated torque	Nm	800
Battery capacity	kWh	400
Charging time	h	≤1.5

MAIN PERFORMANCE	UNIT	VALUE
Max. travel speed(slow)	km/h	7.9
Max. travel speed(high)	km/h	20/32
Swing speed	rpm	8.6
Gradeability	°	35
Ground pressure	kpa	690
Bucket digging force	kN	115.6
Arm digging force	kN	87
Max. travel force	kN	115

TRAVEL PART	UNIT	VALUE
Number of tires	-	8
Model of tires	-	10.00-20 16PR
Max.steering angle	°	33
Min.ground clearance	mm	360
Front axle swing angle	°	±6.5

HYDRAULICS	UNIT	VALUE
Main Pump	bar/L/min	340/246.5
Hammer and Shear Circuit	bar/L/min	340/230
Hydraulic Shear Swing Circuit	bar/L/min	250/130
Quick Coupler Circuit	bar/L/min	340/10
Hydraulic oil tank	L	175

TABLE OF LIFTING CAPACITY

[kg] Without Bucket

		3.0m		4.5m		6.0m		7.5m		Max		
7.5m	kg	-	-	3700*	3700*	-	-	-	-	4000*	3400	5.1
6.0m	kg	–	–	3700*	3700*	3600*	2700	-	-	3700*	2300	6.5
4.5m	kg	–	–	3700*	3700*	3000*	2700	-	-	3200	1900	7.2
3.0m	kg	-	-	4300*	4000	3300*	2700	2600	1800	2900	1700	7.6
1.5m	kg	-	-	5300	3800	4000*	2600	3000	1700	2800	1600	7.7
Ground	kg	-	-	6300	3600	4200	2400	-	-	2900	1700	7.4
-1.5m	kg	10800*	6400	6200	3500	4000	2300	-	-	3300	1900	6.9
-3.0m	kg	-	-	6200	3500	-	-	-	-	-	-	-

		3.0m		4.5m		6.0m		7.5m		Max		
7.5m	kg	-	-	3700*	3700*	-	-	-	-	4000*	4000*	5.1
6.0m	kg	–	–	3700*	3700*	3600*	3600*	-	-	3700*	3100	6.5
4.5m	kg	–	–	3700*	3700*	3000*	3000*	-	-	3700*	2600	7.2
3.0m	kg	-	-	4300*	4300*	3300*	3300*	2600*	2400	3900*	2300	7.6
1.5m	kg	-	-	5300*	5200	4000*	3500	3400*	2400	4000*	2200	7.7
Ground	kg	-	-	6400*	4900	4900*	3300	-	-	3400*	2300	7.4
-1.5m	kg	10800*	9400	7300*	4800	5400*	3200	-	-	4200*	2600	6.9
-3.0m	kg	-	-	7200*	4800	-	-	-	-	-	-	-

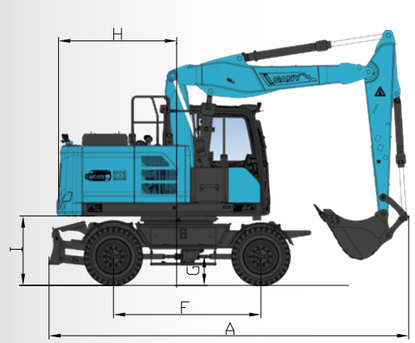
1. The lifting capacity is calculated in accordance with ISO10567 and SAE J1097, where the limit coefficient of the hydraulic system is 0.87 and tilting limit coefficient is 0.75.
2. The item with the mark * is limited by hydraulic pressure and the item without the mark "*" is limited by stability.
3. The lifting point is the front support hole of the grab arm (excluding the weight of the bucket). If additional accessories such as the bucket are added, they shall be deducted from the above lifting weight.

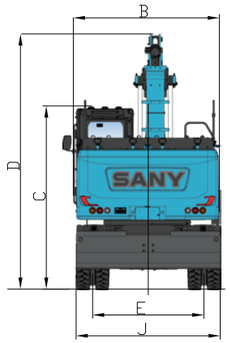


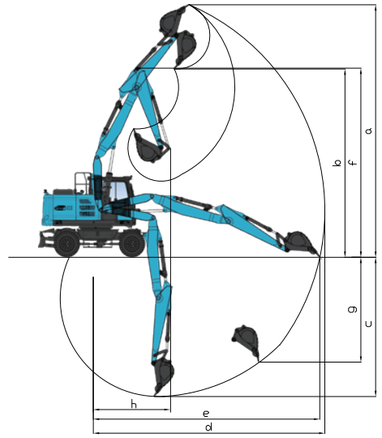
MACHINE DIMENSIONS

OVERALL DIMENSIONS	UNIT	VALUE
A. Total length (transportation)	mm	8250
B. Total width	mm	2490
C. Total height (top of cab)	mm	3200
D. Height (travel)	mm	3980
E. Track gauge	mm	1944
F. Wheelbase	mm	2600
G. Minimum ground clearance	mm	360
H. Tail swing radius	mm	2150
I. Counterweight clearance	mm	1230
J. Undercarriage width (blade)	mm	2550

WORKING RANGE	UNIT	VALUE
a. Max. digging height	mm	10020
b. Max. dumping height	mm	7070
c. Max. digging depth	mm	5550
d. Max. digging reach	mm	9180
e. Max. ground-level digging reach	mm	8990
f. Max. height at min. swing radius	mm	7580
g. Max. vertical digging depth	mm	4800
h. Min. swing radius	mm	2150







STANDARD CONFIGURATION

POWERTRAIN SYSTEM	
Lithium-ion Battery	●
Synchronous Motor with Permanent Magnets	●
Integrated Control Unit	●
Water Positive Temperature Coefficient	●
Power Distribution Unit	●
Battery Management System	●
Electric Vehicle Communication Controller	●
Charge Port	●
On-Board Charger	●
Combo Charger	○

HYDRAULIC SYSTEM	
Quick Coupling Lines	●
Mode Switching	●
First Set of Auxiliary Lines	●
Second Set of Auxiliary Lines	●
Boom and Arm Burst Protection Valves	●

CAB	
Automatic Air Conditioning	●
Air Suspension Seat (Back Adjustment + Heated Seat)	●
Parallel Windshield Wiper	●
Front Cabin Rain Shield	●
Panoramic Sunroof	●
Sunshade	●
Front Cabin Protection Net	○
Top Cabin Protection Net	○
Front Lower Cabin Protection Net	○
Full Upper Vehicle Protection Rail	○
Multi-Functional Handle	●

ELECTRICITY SYSTEM	
Halogen Headlights	○
LED Headlights	●
One-key Start	●
Bluetooth/USB	●
Touch Screen Display	●
360-degree Camera	●
Seat Belt Warning Light	○
Audible and Visual Alarm Light	●
Auxiliary Lighting	●
License Plate Light	●
Slip Ring	●

SANY

SPECIAL CONFIGURATION	
Automatic Lubrication	○
Maximum Speed 20km/h	●
Maximum Speed 35km/h	○
Cruise Control Function	●
Floating Boom Function	●
Overload Alarm Function	●
Swing Lock Function	●
Startup Password Function	●
50 Sets of Attachments Optional	●
Blind Spot Detection	○
2D Grade Control System	○
Vehicle-to-Load	●
Operation and Maintenance（14 Languages）	●

WORKING EQUIPMENT	
Boom	●
Double-Section Boom	●
Arm	●
Bucket	○

UNDERCARRIAGE	
Integral Frame	●
Front Bucket Stand + Rear Dozer Blade	●
Front Dozer Blade + Rear Outriggers	○
Front Outriggers + Rear Dozer Blade	○
Front Outriggers + Rear Outriggers	○
Front Dozer Blade + Rear Dozer Blade	○
Left Toolbox + Right Pedal	○
Right Toolbox + Left Pedal	●
Left Toolbox + Right Toolbox	○
Left Pedal + Right Pedal	○
Pneumatic Tire 9.00-20/14PR	○
Pneumatic Tire 10.00-20	●
Solid Tire 10.00-20	○
Dual Tires 315/70R22.5	○
No Fender	●
Metal Fender	○
Plastic Fender	○
Tow Hook	○

● Standard configuration ○ Optional configuration

SANY OVERSEAS SERVICE

GLOBAL SUPPORT ANYTIME ANYWHERE NO MORE WAITING

900+ Overseas service centers

3500+ Professional technical service engineers

365×24 Technical Support

Service Center

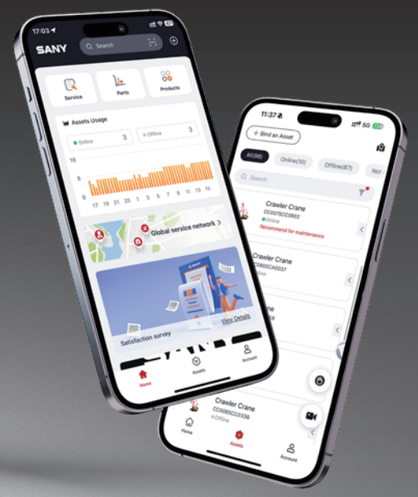
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