

## o Standard Configuration

### Engine

- Control on Modes H, S, L and B
- 24/4.0 kW starter motor
- 50A alternator
- Air prefilter
- Dry type dual-element air filter
- Cylinder-type engine oil filter
- Cylinder-type fuel oil filter
- Engine oil cooler
- Radiator with protective screening
- Radiator auxiliary water tank
- Fan aerofoil
- Isolated mounted engine
- Automatic idling system
- Acceleration System

### Hydraulic system

- Operating mode selector switch
- Control valve with main overflow valve
- Spare oil port of control valve
- Oil suction filter
- Return oil filter
- Pilot filter
- Pilot filter

### Slewing platform of superstructure

- Fuel oil level floater
- Hydraulic oil level gauge
- Tool kit
- Slewing parking brake
- Rearview mirror (left/right)

### Cab

- Sound-proof steel-structure cab
- Reinforced light-color glass window
- 6 silicone oil rubber damper supports
- Openable top/front wall upper window and left side window
- Emergency exit on rear window
- Wiper with washer
- Adjustable tilting seat with adjustable armrest
- AM-FM radio with digital clock
- Foot rest and floor mat
- Loudspeaker and rearview mirror
- Seat belt and fire extinguisher
- Cup holder and compartment lamp
- Ash tray and escape hammer
- Storage box and sundries bag
- Pilot controlled cut-off lever
- Fully-automatic air conditioner

### Front-end working device

- Flange pin
- Bucket clearance adjuster
- Welded connecting rod
- Central lubricating system
- All bucket pins are equipped with dustproof seal ring
- 4.6m reinforced all-welded box-type boom
- 2.5m reinforced all-welded box-type bucket rod
- Anti-collision guard plate

### Instruments of monitoring system

- Hour meter and fuel tank oil level gauge
- Engine coolant temperature
- Engine oil pressure gauge

### Traveling body of undercarriage

- Traveling parking brake
- Traveling motor guard plate
- H-shaped crawler guide mechanism
- Hydraulic tensioning device of crawlers
- Bolted driving wheel
- Thrust wheel and carrier wheel
- Reinforced chain trail with pin seal
- 500mm/1'8" three-rib crawler plate
- Reinforced side pedal
- Bottom cover plate

### Alarm system

- Engine oil pressure insufficient
- Engine coolant temperature too high
- Fuel volume insufficient
- Blockage of air filter
- Throttle rotary knob failure

### Air conditioning system

- Dual-purpose air conditioner
- A/C control panel
- Fresh air inlet system (fresh air exchanging function)

### Others

- Standard storage battery
- Lockable engine hood
- Lockable fuel filler cap
- Traveling direction sign on traveling carriage



- o Rated power  
73kW/2000rpm
- o Total weight  
13500kg
- o Bucket capacity  
0.6m<sup>3</sup>

# SY135C

## Fully upgraded new-generation excavator

Brand new change **BRAND NEW C10**  
QUALITY CHANGES THE WORLD



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Note

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# SY135C

## Strong Power Value Leader

New-generation SY135C Hydraulic Excavator



### SELLING POINTS

SY135C is the super-star product in small excavator series of Sany Heavy Machinery. It has seized the largest market share among products at the same tonnage for 4 consecutive years, its annual average sales amount exceeds RMB600 million, and it has been sold to more than 100 countries throughout the world.

New-generation SY135C hydraulic excavator features "high reliability, excellent performance, safe & environmental-friendly and comfortable & convenient". Meanwhile, several kinds of special configuration are available for option and can satisfy the demands of different countries and customers. SANY Heavy Machinery is striving to improve customer's investment value as the target and provides valuable products continuously for the customers.



High reliability



Excellent  
Performance



Safe &  
environmental-  
friendly



Comfortable  
and convenient

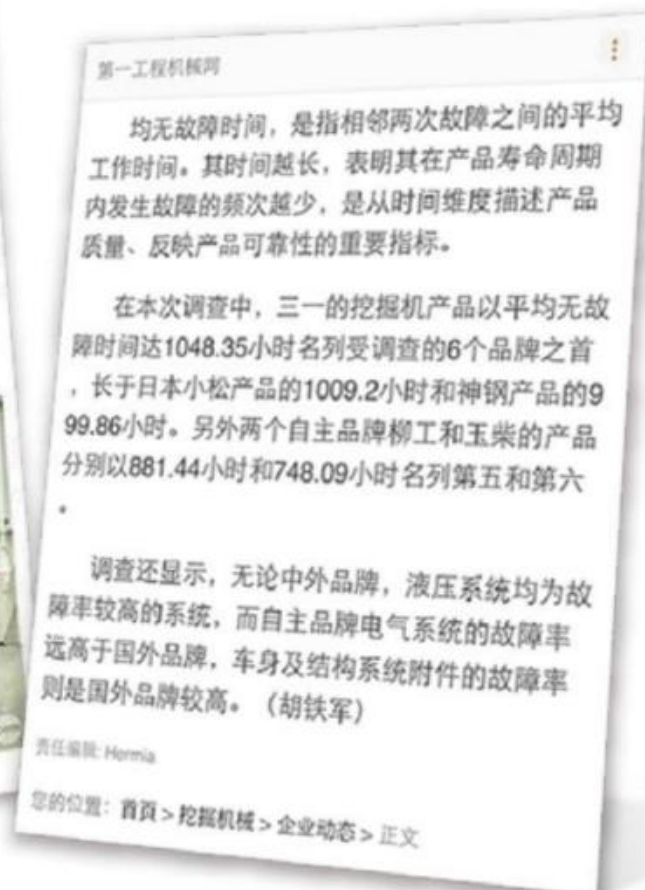
# RELIABILITY

## o Highest reliability in the industry

### Reliability

- According to the investigation results of China Association for Quality, mean time between failures of SANY excavators wins the championship against Komatsu and Hitachi etc.
- SY135C is improved on aspects of structural member reinforcement and low failure rate etc. Overall reliability leads in the industry.

Mean failure-free time of the proprietary brand is approaching and even exceeds foreign brands. The reliability is improved significantly. The mean failure-free time of SANY reaches 1048.35h and defeats foreign brands like Komatsu and Hitachi etc.



## o Core of the best configuration

### Core configuration

- The **Isuzu engine specially designed for Sany** is adopted, which can ensure the reliability of machine during operation under severe operating conditions
- The **Kawasaki hydraulic system** is adopted, and the hydraulic elements under international-renowned brands ensure the high reliability of hydraulic system
- **Reinforced structural members** with brand-new design have longer service life



Engine



Hydraulic pump



Traveling motor



Slewing motor



Multitandem valve

\*Report of industry media network: [www.d1cm.com](http://www.d1cm.com)

## Core of the best configuration

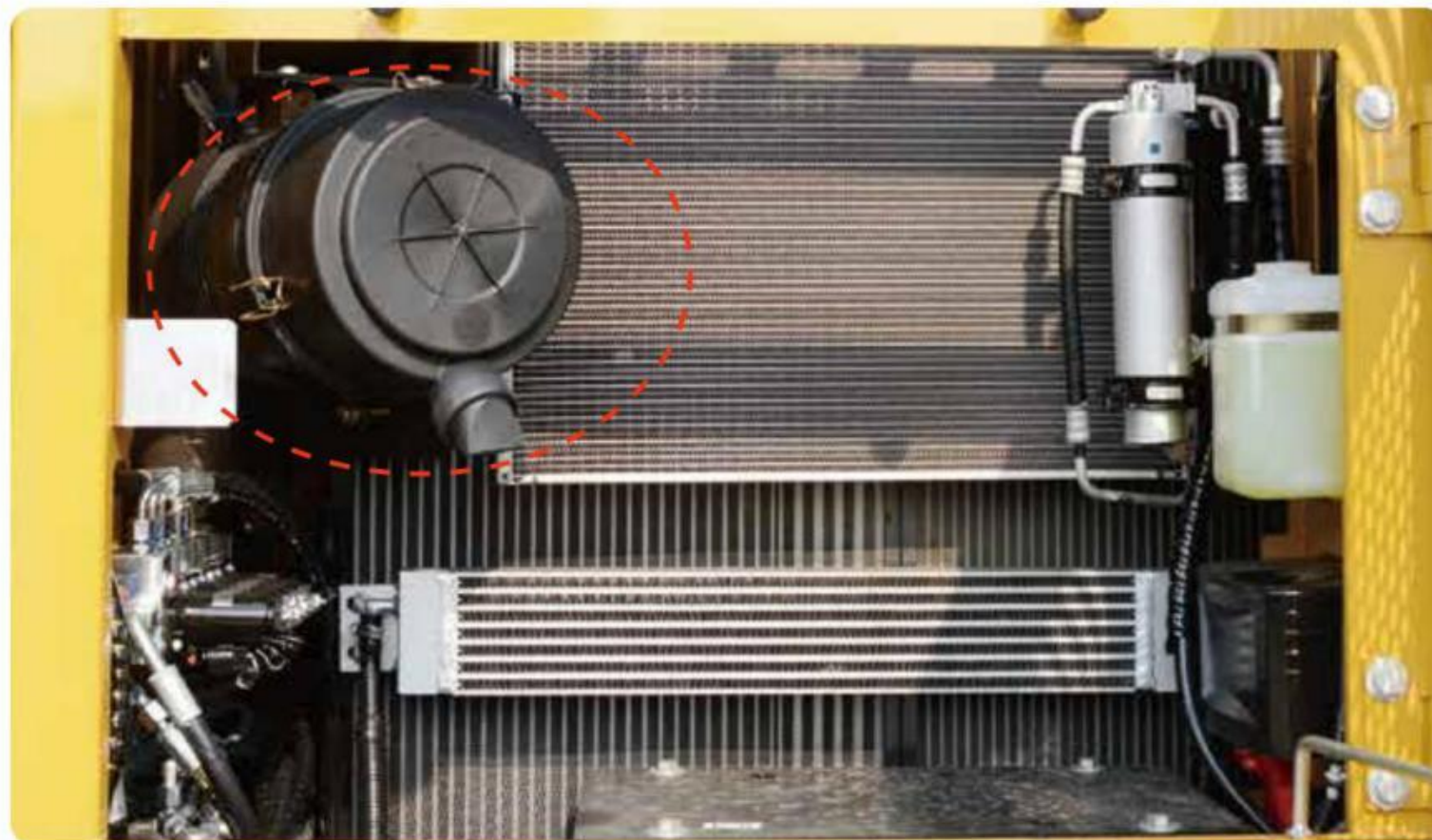
### Power system

- The air filter is provided as standard configuration, which can effectively filtrate the impurities in air, prolong the service life of air filter, protect the engine, and prolong the service life of engine.



### Power system

- The 8-inch high-precision air filter is provided as standard configuration, which adopts the two-stage filtration and the filtration precision exceeds 99.9%.
- Large capacity design, long service life and low maintenance cost
- Electronic alarm device, which is safe and effective



### Power system

- Large-sized high-precision fuel oil coarse filter+ fuel oil fine filter as standard configuration; double protection, higher filtering efficiency; with long life design, service life is doubled
- Filter precision of coarse filter is 4 $\mu$ m, filter precision of fine filter is 5 $\mu$ m; they could filter out micro contaminants invisible to the naked eyes for ensuring safe use of the engine



## Strengthen the structure

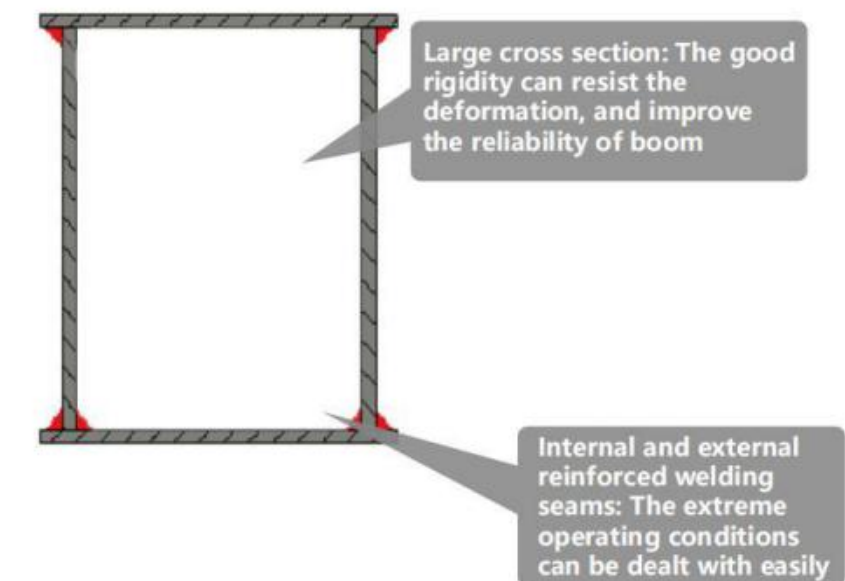
### Boom

- Rear support and center support of the boom adopt forgings for avoiding concentrated local welding stress and improving the durability
- Key positions are enveloped with fortified steel plate for severe working conditions.



The external reinforcing plate is added to connection of rear support, so as to get adapted to the severe operating conditions

The forged structure is adopted for rear support, so as to avoid the local concentration of welding stress and improve the durability



## Strengthen the structure

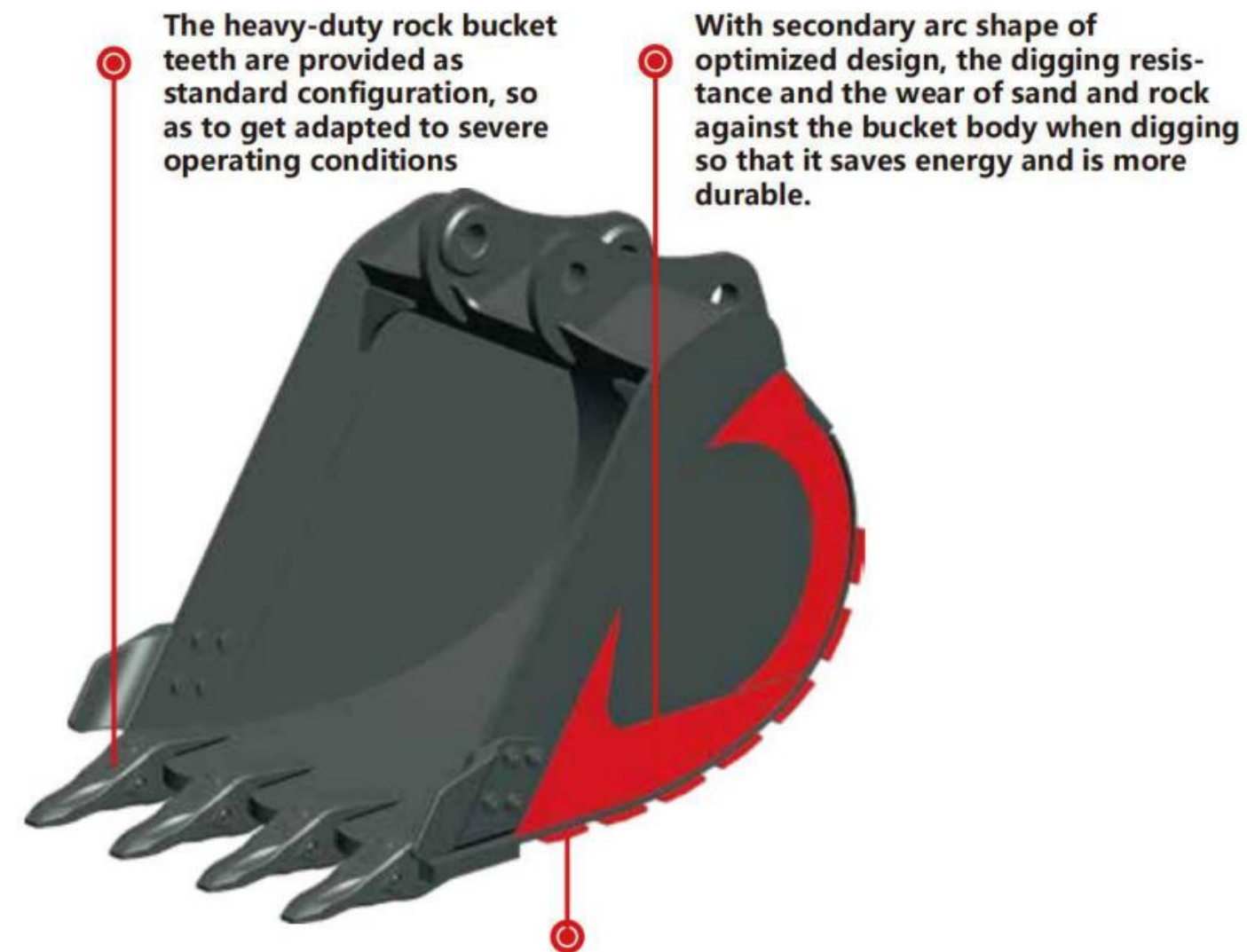
### Bucket rod

- Front end of bucket rod is equipped with wear-resisting plate as reinforcing plate so that its service life is longer.
- Front end face of bucket rod is treated with new tungsten carbide process so that its wear resistance is double



### Bucket

- The anti-wear plate is used as base plate of bucket, and the heavy-duty rock bucket teeth are provided as standard configuration, so that the service life is prolonged by more than 50%



The heavy-duty rock bucket teeth are provided as standard configuration, so as to get adapted to severe operating conditions

With secondary arc shape of optimized design, the digging resistance and the wear of sand and rock against the bucket body when digging so that it saves energy and is more durable.

The anti-wear steel plates specially manufactured for construction machinery are adopted, so that the service life of bucket is prolonged by more than 30%

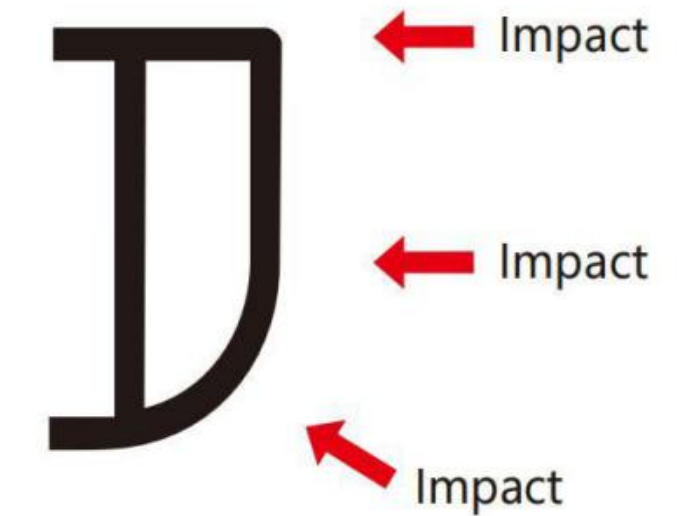
### Undercarriage

- The heavy-duty travelling mechanism specially designed for operating conditions in mine is the first one in the industry, and the supporting wheel is adopted instead of sprocket, so that the service life of underframe is prolonged by 1 time.
- The fixture of carrier wheel is reinforced on both sides so that the structure is more sturdy, durable and reliable.



### Slewing platform

- Slewing platform: The high-strength slewing platform is equipped with the prolonged D-shaped large-cross-section boundary beam, and the height of cross section is increased from 149mm to 228mm, so that the platform is firmer, can resist the stronger external impact, and can improve the sense of heaviness of the excavator



## o Research and development of test system

### Test system

- Complete research, development and test system is the strong backup for excellent performance
- It has established complete machine endurance test center with full functions. Each model of excavator must be subjected to over 2,000h field excavating test.
- Important parts and components like working device, cab and hydraulic components etc. must be subject to fatigue test over 800,000 times.



## o Leading manufacturing technology

### Manufacturing technology

- Leading manufacturing technology is a reliable guarantee for producing excellent products
- 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.



# COMFORTABLE & CONVENIENT

## More powerful

### Engine

- The Isuzu 4JJ1 engine specially designed for Sany is adopted, so that the dynamic performance is strong and the performance is reliable

Isuzu engine exclusively for SANY



### Advantages of Isuzu engines:

- They are widely used and well recognized by the customers
- It is sturdy, durable and fuel-saving, is fitted with low-cost spare parts and is convenient for maintenance. It should be the first choice for the excavator!!!

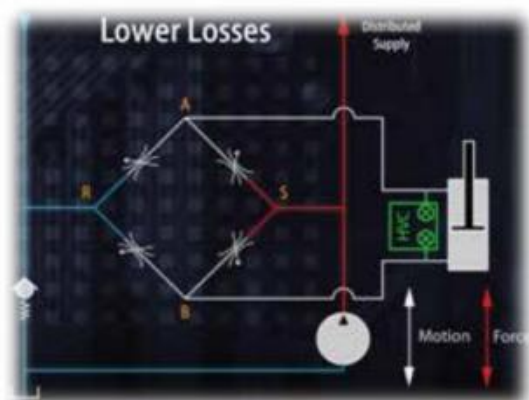
## The operation is more perfect

### Electrically-controlled positive flow

- Sany adopts the electrically-controlled positive flow hydraulic system and three unique technologies: accurate flow distribution technology, which reduces the pressure loss of system; hydraulic system buffer technology, which improves the operation efficiency, control performance and flat-ground performance of excavator. The excellent micro-operation performance can provide you with the almost perfect operation experience



### Accurate flow distribution technology



Reduced pressure loss of system



Hydraulic system buffer technology

## Lower energy consumption, higher efficiency

### Fuel consumption and efficiency

- As compared with competing models, this excavator has its fuel consumption reduced by more than 8.5% and has its efficiency raised by more than 7.9%
- 20 more excavators can be loaded by a vehicle shift, and near 5000 more excavators can be loaded every year (rear-eight-wheel trailer)
- The higher fuel economy of SY135C will save nearly RMB10,000 for you in fuel costs every year



## Mining is more potent

### Force comparison

- With more force than the competitor product of same tonnage, it is easier to excavate hard pan and makes excavation easier
- As compared with same-tonnage competitors, this excavator has higher traction force



# SAFETY AND ENVIRONMENTAL PROTECTION

## o Security configuration

### Safety configuration of national standard

- Meet safety standard of many regions including China, EU and North America etc.
- The cab on SY135C excavator is equipped with tip-over protection structure and falling object protection structure, and the safety certification for TOPS and FOPS has been obtained



### Safety facility

- The area of left/right side window is increased by 5%, so that the visual field becomes wider
- Fire extinguisher and escape hammer
- Handrails for getting on the vehicle and large-area rearview mirror
- Seat belt, safety signs, safe foot step
- Protective cover for fan, and splash proof baffle



## o Environmental protection standard

### Recoverable

- The metal cover panel which is recyclable and environmentally friendly is adopted; the materials which may cause pollution such as fiber reinforced plastics are not used



SY135C  
The metal cover panel is adopted

### Environmental protection

- Environment engine is equipped and meets latest standard of national III
- Aluminum radiator and oil cooler are used
- Environmental paint is used to minimize environmental pollution
- Garden-type manufacturing site





# COMFORTABLE & CONVENIENT

## o Comfortable driving · Warm like family

### Comfortable experience

- With high-grade trim parts, wide view, suspended seat, excellent vibration damping and noise reduction performance, the driving experience will be more comfortable
- The high-definition smart display screen, the fully-automatic air conditioner and properly-located air outlets lead to convenience and comfortability.
- The curtain, cigar lighter, ash tray, cup holder, file box and reading lamp are provided



## o Maintenance, within easy reach

### Convenient maintenance

- Large-area covering part is used. After it is opened, daily maintenance can be carried out on the ground; thus the maintenance is convenient and the accessibility is good
- Air filter, fuel oil coarse filter, fuel oil fine filter, engine oil filter and pilot filter element are within easy reach and can be maintained very conveniently



### Convenient maintenance

- Filling of lubricating grease: The greasing filling ports on working device are arranged in a centralized manner, so that the lubricating grease can be remotely supplied to inaccessible locations, and thus it will be more convenient to carry out lubrication and maintenance
- Large new-type radiator: The protective net is mounted on outside of radiator, so that the dirt will be blocked on the outside of protective net, and it is only necessary to dismantle and clean up the protective net; the excellent radiating performance ensures that the engine will not get overheated after long-time operation
- The tilting type crawler rack: The tilting type crawler rack is adopted, so that the soil will drop off easily rather than be accumulated on crawler rack and the cleaning will become easier



## o Technical specifications

Specifications	
Total weight	13500kg
Bucket capacity	0.6 m <sup>3</sup>

Engine	
Model	4JJ1-XDJAG-01-C3
Type	Four-stroke, water-cooled, dual-overhead camshaft, electronically-controlled high-pressure common-rail injection system, supercharged, intercooled
Rated power	73kW/2000rpm
Maximum torque	365Nm/1600rpm
Displacement	2.999L

Capacity of oil and coolant	
Fuel tank	240L
Hydraulic oil tank	150L
Engine oil	15L
Radiator	10L
Final drive	2×2.6L
Slewing drive	3L

Main performance	
Traveling speed (high/low)	5.5/3.5(km/h)
Slewing speed	12 rpm
Gradeability	70% (35°)
Ground pressure	41.7kPa
Digging force of bucket	103 kN
Digging force of bucket rod	67.4 kN

Traveling section	
Number of crawler plates	44
Carrier wheel on each side	1
Thrust wheel on each side	7
Standard crawler	500mm

## o Lifting capacity

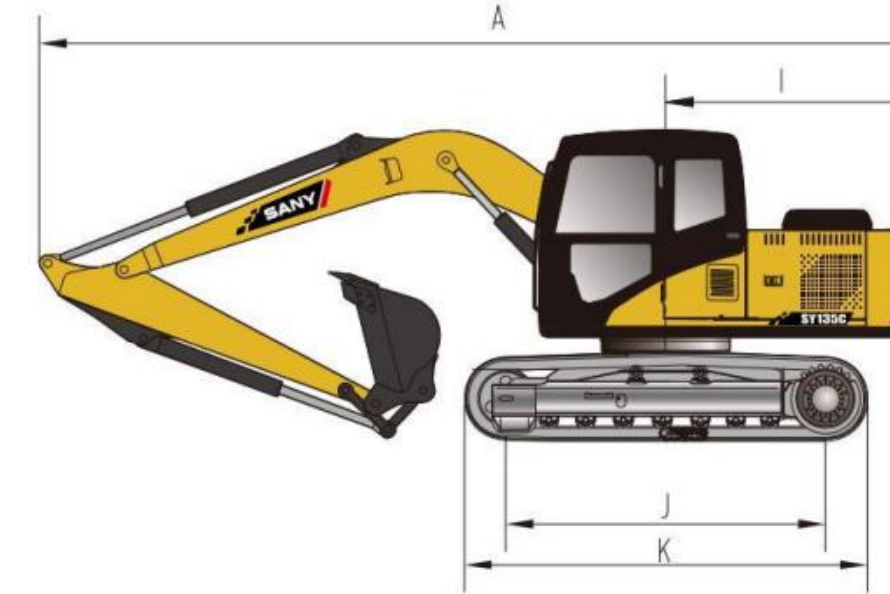
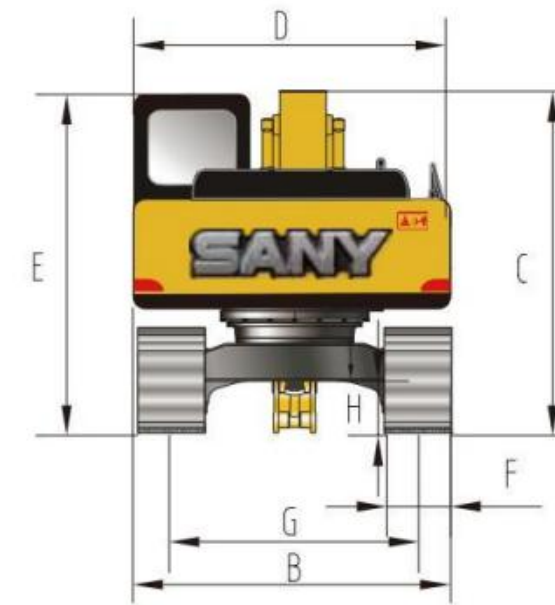
		Boom---4600mm	Bucket rod---2500mm	Crawler---500mm	Counter weight---2500Kg	Radius of loading point (A)										Maximum distance								
						2.0m		3.0m		4.0m		5.0m		6.0m		7.0m		Loading capacity		Distance				
Height of loading point (B) m							Longitudinal		Transverse		Longitudinal		Transverse		Longitudinal		Transverse							
							Kg		Kg		Kg		Kg		Kg		Kg		m					
7m	Kg										*3200		*3200						*2550 *2550		4.25			
6m	Kg												*3150		*3150				*2250 *2250		5.34			
5m	Kg												*3500		*3500		*2400 *2400		*2100 *2100		6.07			
4m	Kg										*3950		*3950		*3700		3550 *3550		2700		6.56			
3m	Kg								*5800		*5800		*4650		*4650		*4050		3450 *3700		2650	6.88		
2m	Kg								*7500		6900		*5450		4550		*4500		3350 3900		2600 *2300	2100	7.03	
1m	Kg								*6800		6600		*6150		4400		*4900		3250 3850		2550 *2450	2050	7.04	
地面	Kg		*4550		*4550		*6750		6450		*6500		4250		4900		3150		3800		2500	*2350	2100	6.90
-1m	Kg		*6900		*6900		*8450		6400		*6550		4200		4850		3100		3750		2450	*2600	2200	6.61
-2m	Kg		*9600		*9600		*8150		6400		*6300		4200		4850		3100		3750		2500	*3050	2400	6.14
-3m	Kg						*7200		6450		*5600		4250		*4350		3150					*3750	2850	5.44
-4m	Kg						*5500		*5500		*4150		*4150									*3550	*3550	4.40

1. The lifting capacity is calculated in accordance with ISO10560 and SAE1097, where limit coefficient of 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. Lifting point is front support hole of bucket rod (excluding the weight of bucket). It is necessary to deduct from the above lifting capacity if additional accessory is installed such as bucket etc.;

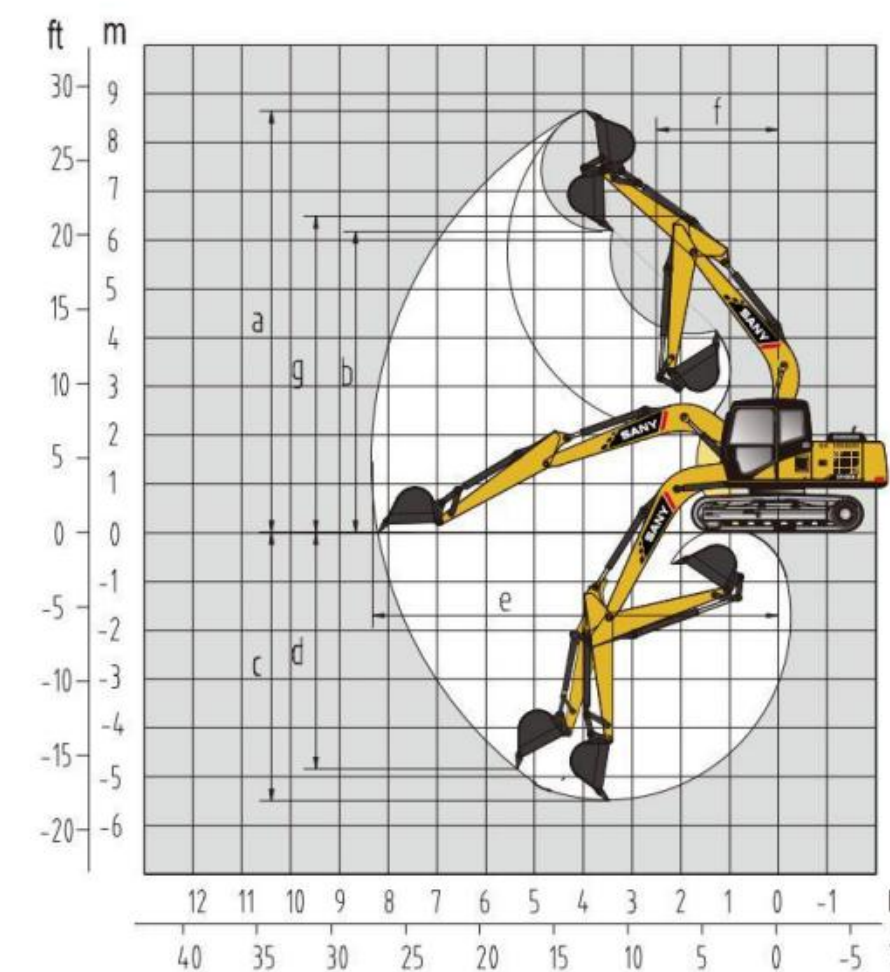
## o Machine dimensions (mm)



Overall dimensions	(Unit: mm)
A. Overall length (in transportation state)	7700
B. Overall width (in transportation state / in operation state)	2550
C. Overall height (in transportation state)	2815
D. Upper width	2490
E. Total height to the cab top	2740
F. Width of standard crawler plate	500
G. Track gauge (in transportation state / in operation state)	1990
H. Minimum ground clearance	425
I. Slewing radius of tail	2240
J. Ground contact length of crawler	2930
K. Crawler length	3665

Performance parameters	
Performance parameters	13500
Bucket capacity m <sup>3</sup>	0.6
Rated power, kW/rpm	73/2000
Traveling speed (high/low), km/h	5.5/3.5
Slewing speed rpm	12
Gradeability	70%/35°
Ground pressure, kPa	41.7
Digging force of bucket, kN	103
Digging force of bucket rod, kN	67.4

## o Operating range (mm)



Operating range	(Unit: mm)
a. Maximum digging height	8685
b. Maximum unloading height	6180
c. Maximum digging depth	5510
d. Maximum digging depth with vertical boom	4890
e. Maximum digging distance	8290
f. Minimum slewing radius	2500
g. Maximum height at minimum slewing radius	6500



# *SY135C* Strong Power Value Leader

New-generation SY135C Hydraulic Excavator

