

○ Standard Configuration

Engine

- Isolated mounted engine
- Dynamic optimizing mode control
- Radiator (with full protective screen)
- 24V/5kW starter motor
- 50A alternator
- Dry-type dual-element air filter
- Engine oil filter
- Two-stage fuel oil filter
- Engine oil cooler
- Auxiliary radiator water tank
- Fan deflector
- Automatic idling system
- Preheating plug (for cold weather startup)
- 4000m operating altitude
- Work mode (fuel saving mode, standard mode)
- Dual-speed travelling

Hydraulic system

- Operating mode selector switch
- Control valve with main overflow valve
- Control valve with spare oil port
- Oil suction filter
- Oil return filter
- Pilot filter
- Oil drain filter

Upper slewing platform

- Fuel oil level sensor
- Hydraulic oil level gauge
- Toolbox
- Slewing parking brake
- Rearview mirror (right)
- Rearview camera *
- Cab alarm lamp *

Safety

- Emergency stop switch
- Signal/alarm horn
- Rearview mirror
- Emergency exit on rear window
- Negative pole switch of storage battery

Cab

- Ultra-silence frame cab
- Reinforced light-color glass window
- Silicone oil rubber damper
- Openable top/front wall upper window and left side window
- Wiper (with washer)
- Multidirectional adjustable seat
- Radio (with digital clock)
- Foot rest and floor mat
- Loudspeaker
- Seatbelt and fire extinguisher
- Cup holder and compartment lamp
- Ash tray and emergency hammer
- Storage box and sundries bag
- Pilot control cut-off lever
- Fully-automatic A/C
- Front protective screen*

Front-end working device

- Flange pin
- Bucket clearance adjuster
- Welded connecting rod
- Integrated lubricating system
- All bucket pins are equipped with dustproof seal rings
- Reinforced all-welded box-type boom
- Reinforced all-welded box-type bucket rod
- Anti-collision guard plate

Monitoring system instruments

- Global positioning system (GPS)
- 10" colored display screen
- EVI system
- Hour meter, fuel tank oil level gauge
- Engine coolant temperature gauge
- Altitude, track pressure, fuel consumption etc. can be added

Traveling body of undercarriage

- Traveling parking brake
- Traveling motor guard plate
- H-shaped track guide mechanism
- Hydraulic tensioning device of track
- Bolted driving wheel
- Carrier roller and thrust wheel
- Reinforced chain track with pin shaft seal
- 600mm triple track shoe
- Reinforced side pedal
- Bottom cover plate

Alarm system

- Controller failure
- Abnormal pump pressure
- Pilot pressure of various movements abnormal
- Abnormal power supply voltage
- Starter motor relay abnormal
- Abnormal hydraulic oil temperature
- Engine oil pressure insufficient and engine coolant temperature too high
- Insufficient fuel volume
- Return oil filter restriction alarm
- Engine failure alarm
- Fuel oil filter water level alarm
- Radiator water level alarm

Others

- High-capacity storage battery
- Lockable engine hood
- Lockable fuel filler cap
- Anti-slip pedal, armrest and sidewalk
- Traveling direction sign on traveling frame
- Manual grease gun

* Indicates optional configuration



SY305H

Hydraulic Excavator

Brand New

Strive Only for Classic Product

- Rated power
212kw/2000rpm
- Overall weight
31500kg
- Bucket capacity
1.65~1.8(1.65)m³



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- Consulting & complaint hotline: 4008282333
- www.sany.com.cn

Note

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SY305H



Strive Only for Classic Product

New-generation Super Hydraulic Excavator for Mining



Selling Points

SY305H is a brand new 30T hydraulic excavator for mining produced by SANY Heavy Machinery. It is designed particularly for heavy-duty conditions of medium/small-sized mines and targets to improve customer's investment return. As compared with competitor brands, it has five major selling points including "super long service life, superior performance, super-low maintenance cost, super high adaptability to working conditions and super-easy management".



Super long service life



Superior performance



Super-low maintenance cost



Super-easy management



Excellent performance

Super long service life

Through the accumulation over 15 years, service life of SY225H exceeds 15,000h under mining conditions, which is 20% higher than general excavator and surpasses foreign brands with the help of initiative "three-dimensional" design test system for large-scale excavator.

Five major structural members

As compared with the product of previous generation, the service life of key structural members like boom, bucket rod, bucket, platform and undercarriage frame etc. is doubled.

Hydraulic system

Delivery cleanliness of hydraulic system reaches NAS7 and is not only higher than competitor brands but also higher than industrial standard.

Core components

Core components like main pump, main valve, oil cylinder and reducer etc. guarantee super long life.



Key structural members

With most advanced international methods including optimization design of structural members, stress test, research of welds and plates, endurance test, 100% UT detection for key components and fatigue test for two axles, the service life of key structural members is improved comprehensively. Failure rate in 15000H is only 5%.



The boom adopts box-type structure with higher strength and is made of high-strength steel plates through advanced welding and molding process. The service life under mining conditions is **four times** of general boom.



Bucket rod adopts bottom plate reinforcing bars and forging front support etc. As compared with competitor brands, the stress on main loading point is **30%** lower, and the service life is **30%** higher under mining conditions.

In allusion to the positions with concentrated stress such as oil cylinder connections and boom root etc., special welding process and protection structure are used. The stress on loading point is **20%** lower than the competitor.

Dedicated heavy-duty four-wheel & one-belt is used, and the service life is doubled. The guard plate is upgraded to multi-stage guard plate so that the service life is improved by **100%**.

Core Components

Relying on the only endurance test system for excavator parts in China, and through joint research with world famous research institutions, the research on service life of the parts is carried out for improving the service life of core parts comprehensively. The service life of components including pump, valve, oil cylinder, retarder, fuel tank and cab etc. is doubled.



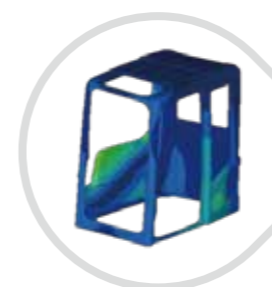
Hydraulic components like oil cylinder and reducer etc. must be subjected to impulse test according to the requirements higher than industrial standard. They can be put into operation only after reaching the requirements. Through this process, the service life of the components is **30%** higher than that of general brands.

Oil cylinder impulse test bench



With pump-valve endurance test bench, the service life of main pump and main valve are tested and analyzed. In combination with research achievements of long-life parts of the customer, the service life of the pumps and the valves is improved by **1 time**.

Pump-valve test bench



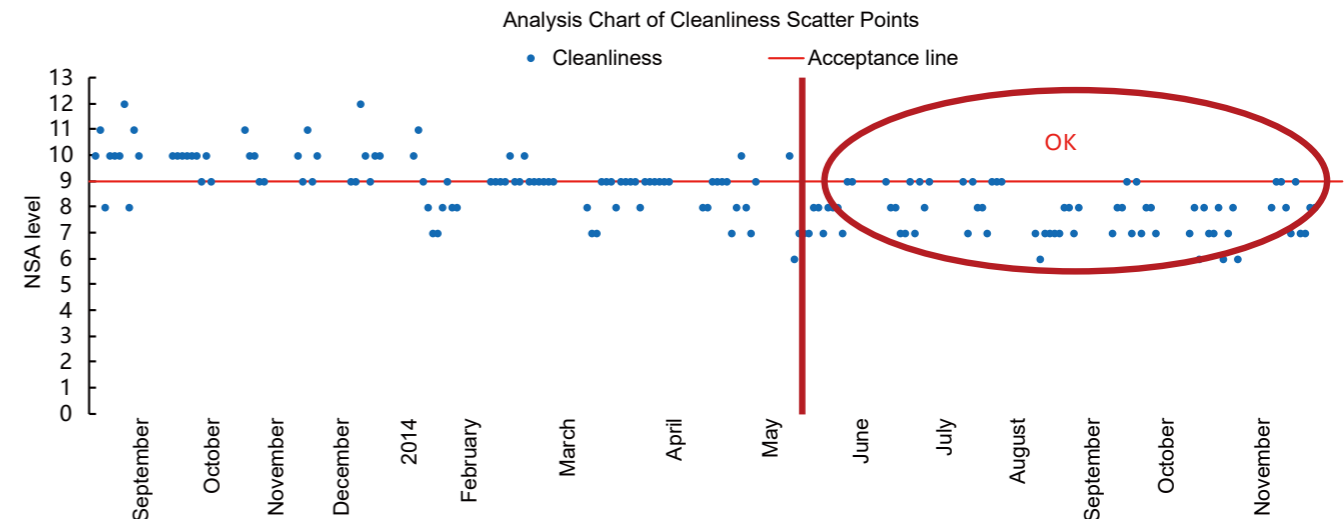
With vibration test bench, fuel tank and the cab has been tested by over hundreds of thousands of times on aspect of the vibration to improve the service life of the component by **50%**.

Vibration test bench

Hydraulic System

By monitoring hydraulic oil upon delivery and in after-sales stage, ensure the cleanliness of hydraulic oil to be within the scope of NAS7 in full life cycle of the product. It is 2 levels higher than industrial standard and surpasses the competitor by 30%.

As shown in the table below, the cleanliness of hydraulic oil used in SANY machine has been stabilized below level 9 since June 2014.

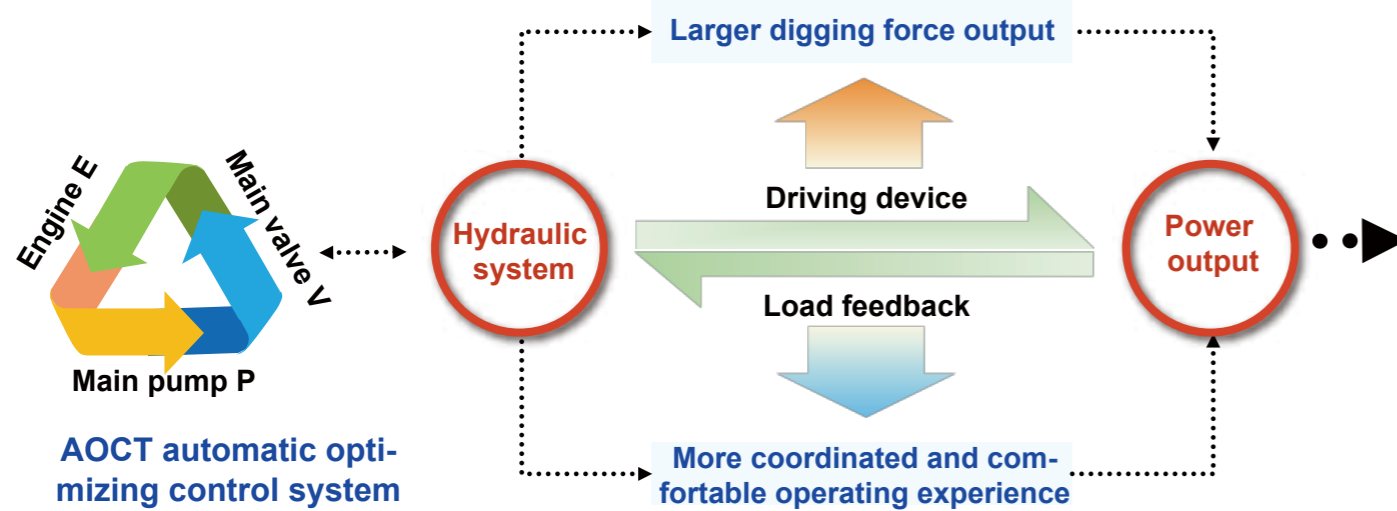


Superior Performance

Super-low Maintenance Cost

High efficiency and low consumption

With "positive flow" system and "AOCT" automatic optimizing control system developed independently by SANY, the efficiency and fuel consumption surpass competitor brands. The efficiency is 10% higher when the fuel consumption is equivalent. The engine is exclusively for SANY, with strong power and high reliability. Thus, it can ensure the continuous operating stability in severe environment. As compared with foreign brands, it not only saves fuel but also works faster!



Smooth Controllability

With special handle, optimized valve core structure, regenerating channel and added intelligent interflow control etc. the pressure loss is reduced, operation coordination is improved and the equipment can be operated easily and smoothly.

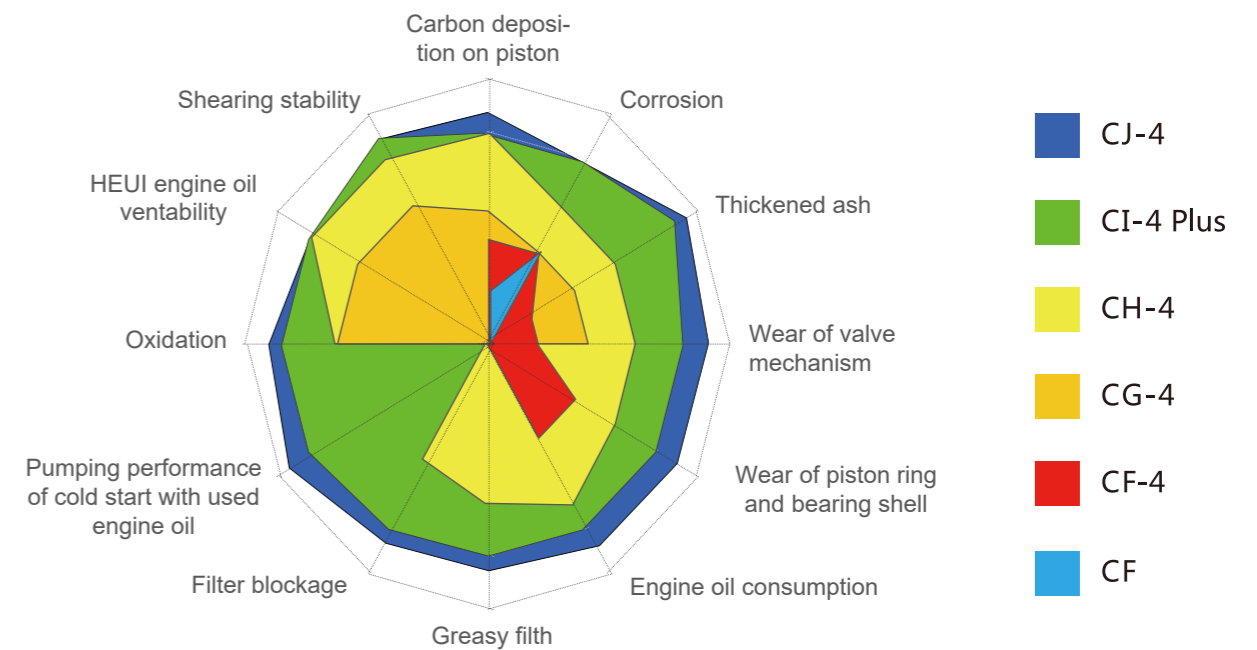


Comments from southwest region operators who have driven foreign-brand excavator on SY305H:

The excavator from SANY is powerful when digging rocks. I never felt that the excavator could not dig or cut in; speed matching of main boom and auxiliary boom is well. It needs less power to operate the handle. It would never feel tired even after driving for long time!

Super-low Maintenance Cost

SANY is developing long-life engine oil, diesel oil filter and hydraulic oil jointly with professional manufacturers. Through two years' market verification, maintenance cost of the product is reduced by 50%, and maintenance interval is extended by 1 time;



Hydraulic oil: service life of hydraulic oil is 4,000h and is extended by 1 time as compared with that of the competitors;
 Engine oil: replacement interval is 500h and is extended by 1 time as compared with that of the competitors;
 Fuel filter element and engine oil filter element: maintenance interval is extended from 250h to 500h;
 Hydraulic oil suction filter element: maintenance interval is extended from 1,000h to 2,000h.

Super-easy Management

Super-easy Management

Replacement space for maintainable parts is increased and the parts are designed in allusion to severe mining conditions for convenient maintenance. It is thus easier and simpler to manage the equipment. It is equipped with four-dimensional construction management system developed independently by SANY.



Filter position is easy for maintenance

Fuel oil fine filter and engine oil filter element are placed outside, and can be replaced by opening the side door;

Easy to clean the radiator

The radiator is protected with external protective screening which is fastened with butterfly nuts. The dirt is blocked out by the protective screening. It is only necessary to remove the protective screening when cleaning

Intelligence

Power supply module, oil-water separation alarm, cooling water level alarm, filter element blockage alarm and other functions are added to facilitate maintenance and timely maintenance.

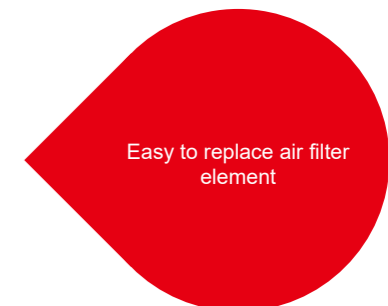


Maintenance Convenience

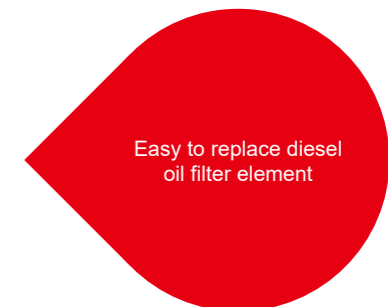
In allusion severe working conditions of the mine, the design of maintenance convenience of the maintainable parts is improved. "Big space, Easy to operate". Maintenance space for various maintainable parts increases by 20%-30% and makes the operation easier!



Replace air filter element



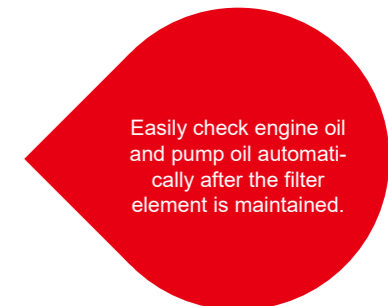
Replace diesel oil filter element



Inspect engine oil



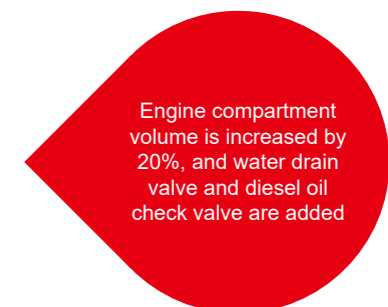
Electronic oil pump will pump oil automatically after the filter element is maintained.



Engine compartment



Water drain valve



Super-easy Management

“EEVIA” Customer Management System

The machine is equipped with “EEVIA” system which is independently developed by SANY. SANY has established four-dimension construction management system including “factory- agent- owner- operator” for the purpose of minimizing mine construction management cost and risks, and maximizing the efficiency.

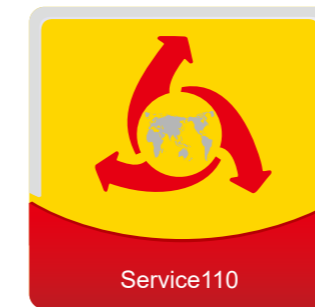


Leading After-sales Service in the Industry

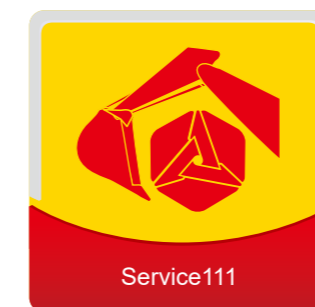
The agents all over China, and the agents in five major regions globally provide powerful guarantee for the after-sales service of SANY. “5231”, “110” and “111” commitments maintain the first service brand globally.



Service2.0
“5231”lifelongworry-free



Service110,satisfactorythroughoutChina



Service111,comprehensiveandconsiderate



5 Discount
Up to 50% savings in regeneration and replacement of key and important parts



2 Compensation
Troubleshooting within 24 hours, unit-shift compensation within 12 hours



3 Warranty
3-year warranty, or extended warranty to 3 years/7,000h for medium and large-sized excavators over 19-ton



1 Grant
Grant service fee in 10,000h, and grant 12 times of free spot check in 20,000h



1
151 process standard



1
Standard radius is less than 100km



0
Zero distance for spare parts service



1
First-class equipment: service resources for single equipment rank the first place in the industry



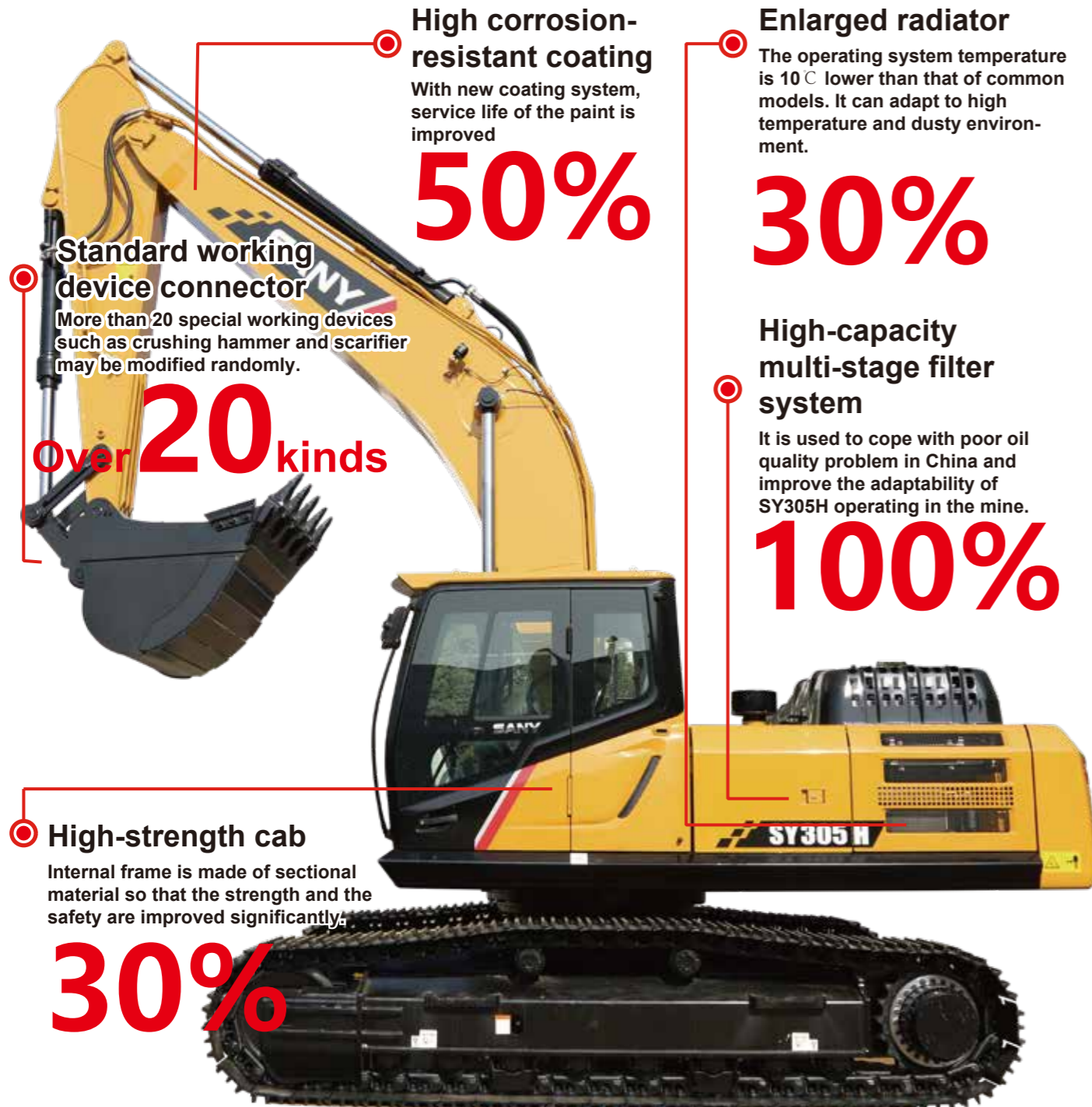
1
Push-to-talk: SANY will handle all problems as long as you call.



1
One-on-one service: Provide one-on-one service

Super High Adaptability

Based on design concept of "one machine for multiple purposes", new appearance and new coating are used to improve the safety and heat dissipation capability. Standard connectors are developed in allusion to mining conditions and make the refitting convenient.



High corrosion-resistant coating
With new coating system, service life of the paint is improved

50%

Enlarged radiator
The operating system temperature is 10°C lower than that of common models. It can adapt to high temperature and dusty environment.

30%

High-capacity multi-stage filter system

It is used to cope with poor oil quality problem in China and improve the adaptability of SY305H operating in the mine.

100%

Standard working device connector

More than 20 special working devices such as crushing hammer and scarifier may be modified randomly.

Over 20 kinds

High-strength cab

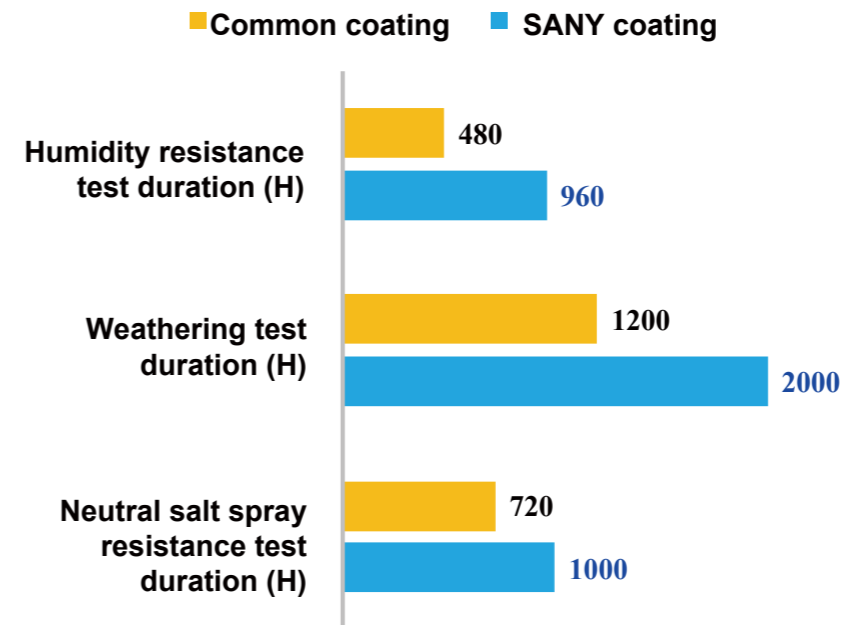
Internal frame is made of sectional material so that the strength and the safety are improved significantly.

30%

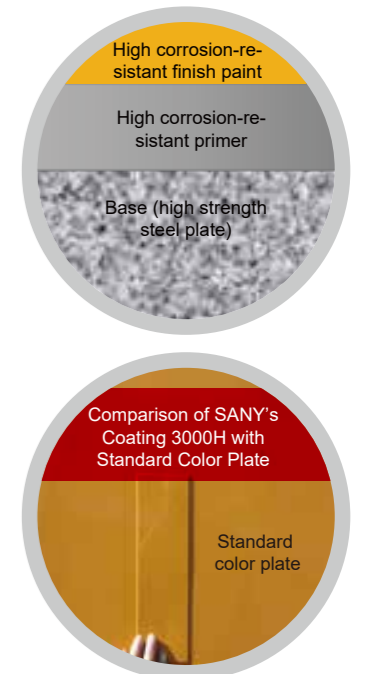
High corrosion-resistant coating

By cooperating with world known paint brands, aging life of the paint reaches the highest level in the industry. The adaptability is improved by 40%.

Comparison of coating endurance test data

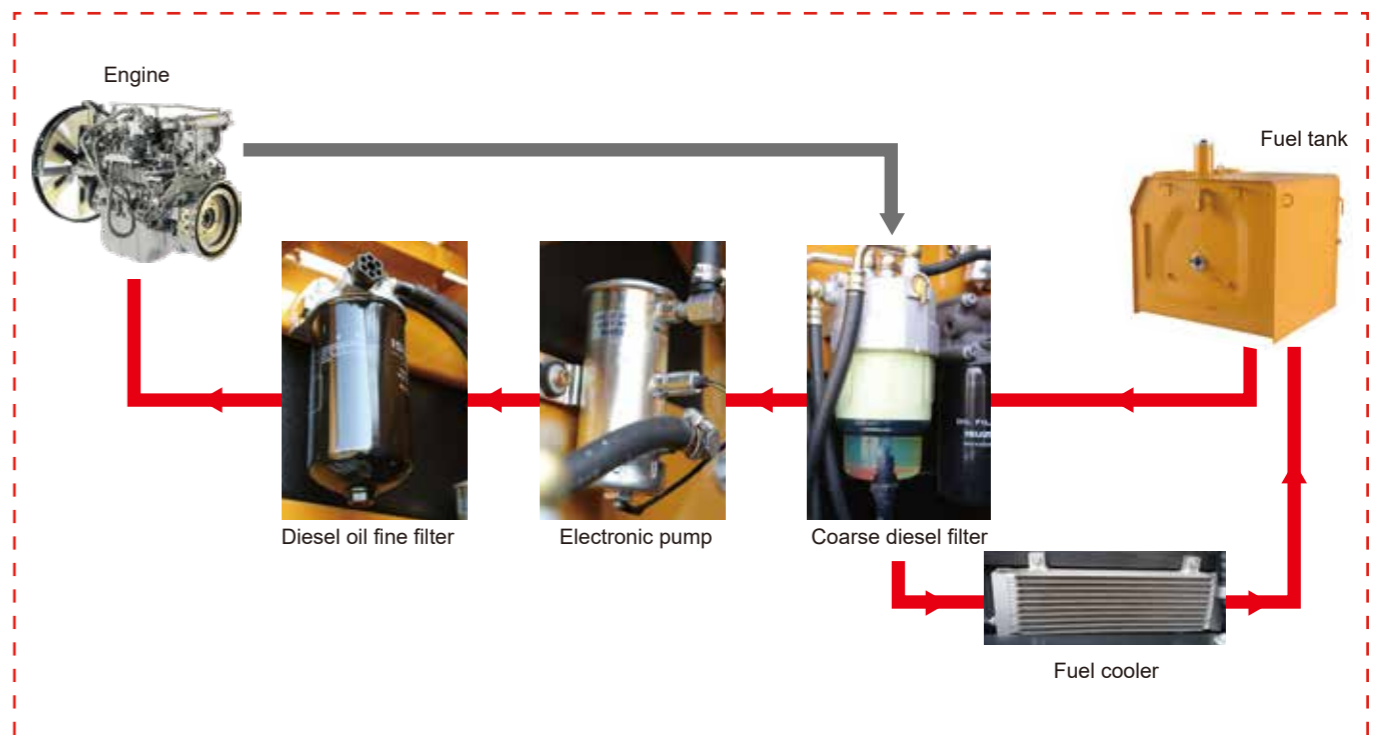


Coating distribution of SANY's high corrosion-resistant paint



High-capacity multi-stage filter system

"Initiative large-capacity multi-stage filter system" is introduced to cope with poor oil quality problem in China and meet emission requirements of National III standard. Filter precision of impurities reaches 99.9% and water separation efficiency is above 95%. Both are higher than industrial standard.



○ Big radiator

The series and parallel radiators with mine-type side door are adopted to increase the air intake area, effectively improve the heat dissipation performance and ensure the excavating efficiency in high temperature environment.



○ High safety

In allusion to mining conditions, frame-type cab of sectional material and newly developed dust control & noise reduction technology are used so that the stability is higher and the safety performance and noise level of the cab are much better than other brands.



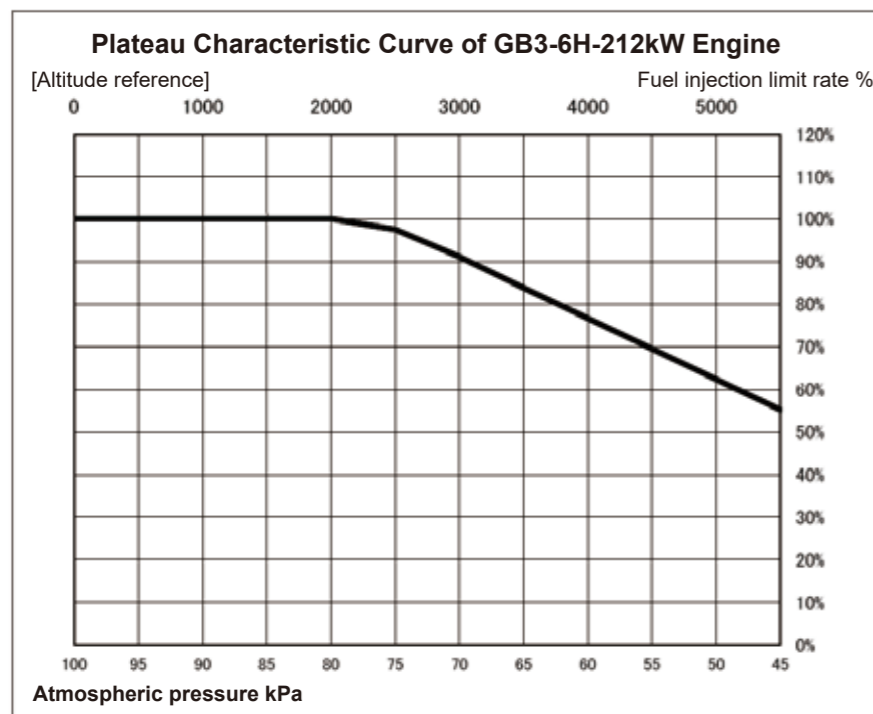
Frame-type cab of sectional material is used, and is punch formed and welded as a whole. It is lined with sectional framework which has very high impact resistance and is not easy to get deformed. Under the operating conditions with risk of falling stones, it could protect the personal safety of the driver. With noise reduction measures by internal optimization, internal noise is reduced, and the operation is more comfortable.

With two-section armrest, emergency flameout switch and brand new anti-slipping cover plate with bumping top etc., the operating safety of the lifting equipment is improved further during mining work.

Anti-slipping cover plate with bumping top

○ Plateau adaptability

With high compression ratio and high performance turbocharger, the engine still could maintain good air intake efficiency on the plateau.

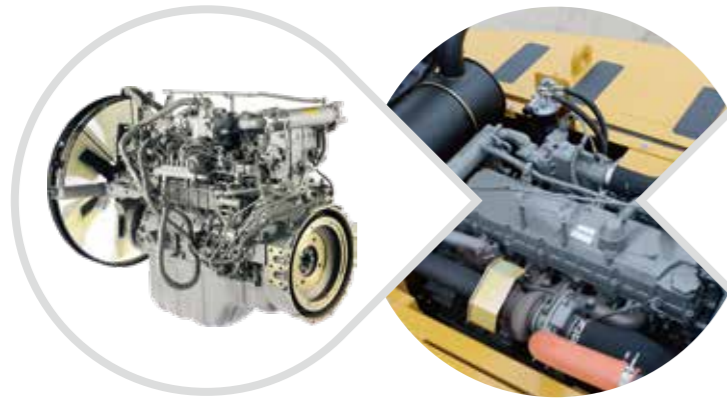


With the elevation rising, the engine power slightly changes, and the engine power will drop by no more than 10% below 3000m. When the excavator operates in plateau area, internal program will adjust engine output characteristics automatically according to environmental variations collected. It is unnecessary to replace any spare parts.

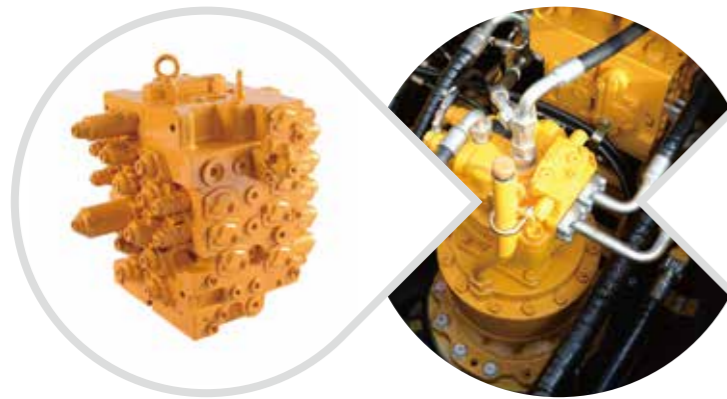
Product Introduction

○ Main configuration

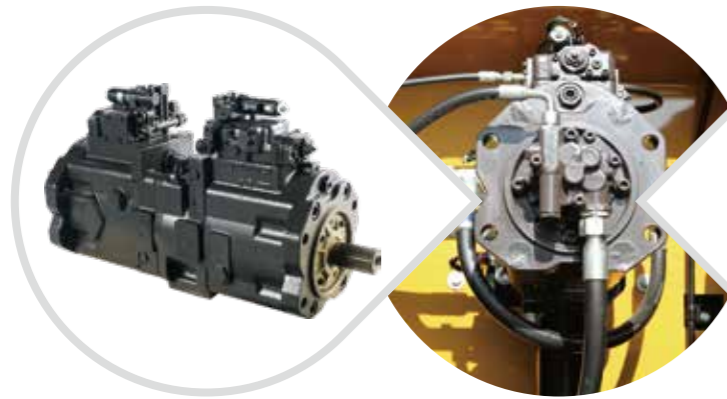
Core components like pumps, valves and engine etc. are designed jointly with proprietary intellectual property rights, and are manufactured by world famous manufacturers to ensure high quality and satisfy professional demands of SANY's customers.



6HK1 engine meets emission standard of national III and the displacement and the torque are generally 20% higher than competitor brands. It outputs high power and helps the customer to solve the operating difficulties of heavy-duty working condition.



KMX15RB/main valve is specially customized, has outstanding advantages including "high reliability, low pressure loss, high flow distribution efficiency and smooth compound control action". It could handle heavy-duty operation conditions for the customer.



K5V160 main pump is specially customized and specially calibrated for SANY. As compared with traditional pump, power output is improved by 10%, the arrangement is more compact and the maintenance is more convenient.

○ Construction Case

Comments of the customer on SY305H: "The appearance is sturdy and elegant and it is very powerful when operating on stonework!"



Worksite: Huzhou City

Working condition: Ore

Operating type: Blasting - digging - loading

Work undertaken by SY305: Stone stripping, and loading

Technical Specification

Specification	SY305H	Main performance	SY305H
Overall weight	31500kg	Traveling speed (high/low)	5.4/3.2(km/h)
Bucket capacity	1.65~1.93(1.65) m ³	Slewing speed	9.0rpm
		Gradeability	70% (35°)
Engine	SY305H	Ground pressure	60.3kPa
Model	6HK1	Digging force of bucket	204kN
Type	Electronically controlled direct injection, 6-cylinder, 4-stroke, turbocharged, inter-cooling and water-cooled	Digging force of bucket rod	153kN
Rated power	212kw/2000rpm		
Maximum torque	1080Nm/1500rpm		
Displacement	7.79L		

Capacity of oil and coolant	SY305H	Traveling part	SY305H
Fuel tank	530L	Number of track plates	47
Hydraulic oil	300L	Each carrier roller side	2
Engine oil	37L	Each thrust wheel side	8
Anti-freezing fluid	33L	Standard track	600mm
Final drive	2×4.0L		

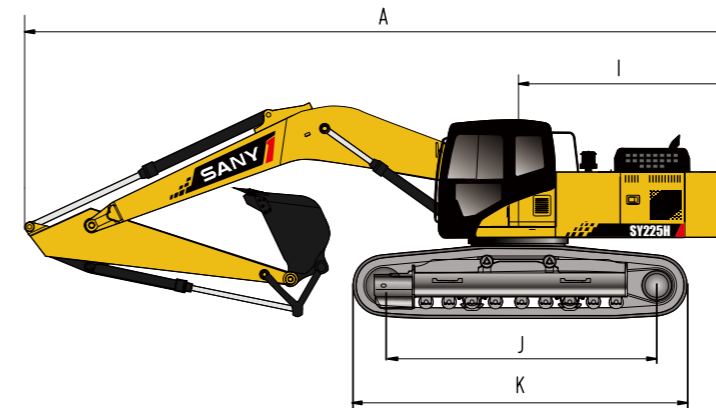
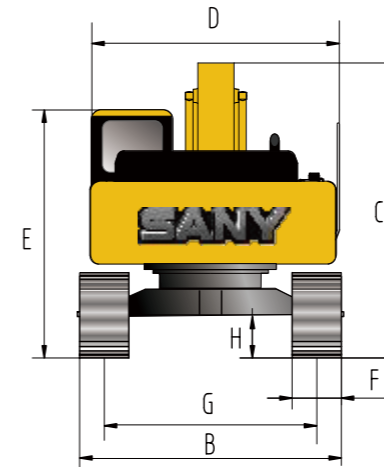
Boom---	6150mm	Bucketrod---	3200mm	Trackwidth---	600mm	Counterweight---	5800Kg					
Height of loading point(B) M	Radius of loading point(A)								Maximum distance			
	3m		4.5m		6m		7.5m		Loading capacity	Distance		
	Longitudinal	Lateral	Longitudinal	Lateral	Longitudinal	Lateral	Longitudinal	Lateral	Longitudinal	Lateral	mm	
7.5m	Kg								*5796	*5796	6954	
6.0m	Kg							*7440	5592	*5512	5308	7927
4.5m	Kg					*8777	*8777	*7857	5460	*5478	4682	8525
3.0m	Kg			*13301	10813	*10078	7211	*8500	5270	*5635	4368	8825
1.5m	Kg			*15494	10106	*11268	6853	7696	5081	5736	4271	8860
Ground	Kg			*16368	9767	*11989	6615	7544	4941	5894	4373	8631
-1.5m	Kg	*12939	*12939	*16113	9688	10261	6514	7479	4882	6396	4727	8118
-3.0m	Kg	*20377	*20377	*14864	9777	*11298	6547	*8597	4940	7514	5520	7257
-4.5m	Kg	*16297	*16297	*12257	10032	*9079	6748			*8765	7468	5892

1. The lifting capacity is calculated in accordance with ISO 10560 and SAE J1097, where the limit coefficient of hydraulic system is 0.87 and tilting limit coefficient is 0.75;

2. Item with * is limited by hydraulic pressure and item without * is limited by stability;

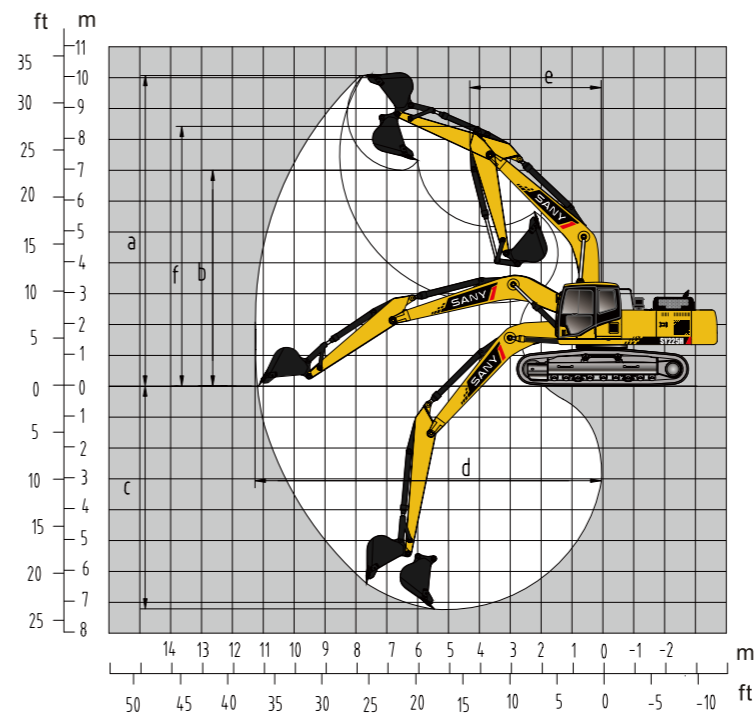
3. Lifting point is front support hole of bucket rod (excluding bucket weight). It is necessary to deduct from the above lifting capacity if additional accessory is installed such as bucket etc.

Overall dimensions (mm)



Name (Unit: mm)	SY305H
A Overall length (during transportation)	10667
B Overall width	3190
C Overall height (during transportation)	3470
D Upper width	3175
E Overall height (cab top)	3280
F Width of standard track plate	600
G Track gauge	2590
H Minimum ground clearance	550
I Slewing radius of tail	3315
J Grounding length of track	3916
K Track length	4840

Operating range (mm)



Name (Unit: mm)	SY305H
a Maximum digging height	10497
b Maximum unloading height	7359
c Maximum digging depth	6815
d Maximum digging distance	10870
e Minimum slewing radius	4000
f Maximum height at minimum slewing radius	8405



Strive Only for
Classic Product

SY305H

New-generation Super Hydraulic
Excavator for Mining