Standard configuration

Engine
- Isolated mounted engine
- Dynamic hunting mode control
- Radiator (with full protective screening)
- 24V/6.5kW starter motor
- 50A alternator
- Oil-bath type air filter
- Dry type dual-element air filter
- Engine oil filter
- Three-stage fuel oil filter
- Engine oil cooler
- Radiator auxiliary water tank
- Fan aerofoil
- Automatic idling 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
- Blanking pipe of hydraulic damper

Slewing platform of superstructure
- Fuel oil level sensor
- Hydraulic oil level gauge
- Tool kit
- Slewing parking brake
- Rearview mirror (right)
- Rearview camera *
- Cab alarm lamp *

* indicates optional configuration

Cab
- Ultra-silence frame cab
- Reinforced light-color glass window
- Silicone oil rubber damper
- Openable top/front wall upper window and left side window
- Emergency exit on rear window
- Wiper (with washer)
- Multidirectional adjustable seat
- Radio (with digital clock)
- Foot rest and floor mat
- Loudspeaker and rearview mirror
- Seat belt and fire extinguisher
- Cup holder and compartment lamp
- Ashtray and escape hammer
- Storage box and sundries bag
- Pilot controlled cut-off lever
- Fully-automatic air conditioner
- Emergency stop switch
- Falling object protecting structure and front protective screening

Front-end working device
- Flange pin
- Welded connecting rod
- Central lubricating system
- All bucket pins are equipped with dustproof seal ring
- Reinforced all-welded box-type boom
- Reinforced all-welded box-type bucket rod
- Anti-collision guard plate

Instruments of monitoring system
- Global positioning system (GPS) as standard configuration
- 7" colored display screen
- EEVIA system
- Hour meter and fuel tank oil level gauge
- Engine coolant temperature gauge
- Engine oil pressure gauge

Traveling body of undercarriage
- Traveling parking brake
- Traveling motor guard plate
- H-shaped track guide mechanism
- Hydraulic tensioning device of tracks
- Bolted driving wheel
- Thrust wheel and carrier wheel
- Reinforced chain trail with pin seal
- 600mm triple track shoes
- Reinforced side pedal
- Bottom cover plate

Alarm lamp
- Controller failure
- Pump pressure abnormal
- Pilot pressure of various movements abnormal
- Power supply voltage abnormal
- Hydraulic oil temperature abnormal
- Engine oil pressure insufficient or engine coolant temperature too high
- Throttle rotary knob failure
- Fuel volume insufficient

Others
- High-capacity storage battery
- Lockable engine hood
- Lockable fuel filler cap
- Anti-slip pedal, armrest and sidewalk
- Traveling direction sign on traveling carriage
- Manual grease gun
- Motor-driven diesel pump

Shanghai SANY Heavy Machinery Co., Ltd.

Shanghai SANY Heavy Machinery Industrial Park, Ping' an Town, Fengxian District, Shanghai City, China

- Post code: 201413
- Consulting & complaint hotline: 4008879318
- After-sales service hotline: 4008282318
- www.sany.com.cn

Note

This is a sample and is only for reference. All configuration shall be subject to the contract or material object, and may be changed without further notice;
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No.: ZJSYX0604CH (March 2016)

SANY

- Rated power 212kW/2000rpm
- Total weight 36000kg
- Bucket capacity 1.6~2.32(1.6•rock)m³

SY385H
Hydraulic excavator

Brand new change **BRAND NEW C9B**

QUALITY CHANGES THE WORLD

Leading Innovation Splendid SANY



SY385H

Powerful Tool for Mining Excavation Value Leader

New-generation Super Hydraulic Excavator for Mining



Selling Points

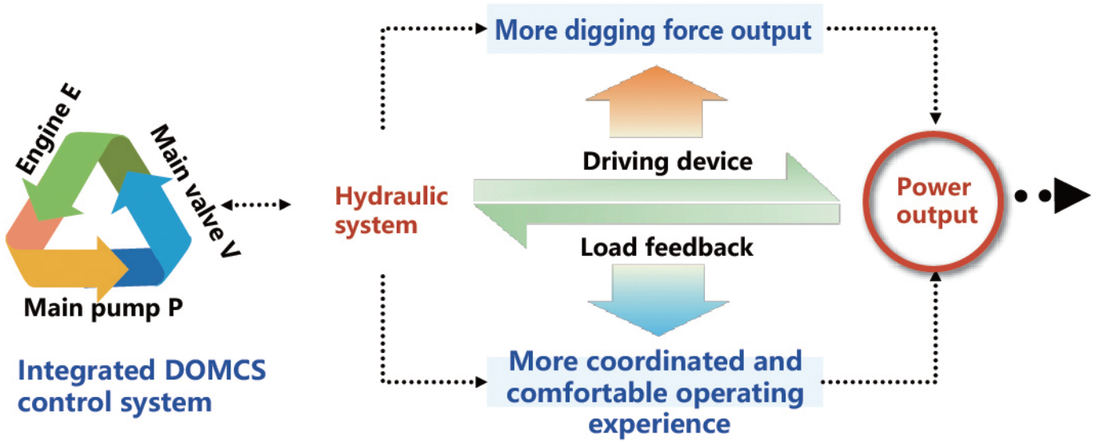
SY385H-10 is a new-generation 30-40T super excavator product for mining produced by SANY Heavy Machinery, and targets to improve customer’ s investment return. As compared with competitor brands, it has the advantages of “super excellent performance, super high adaptability, super long service life and super lower maintenance cost”. With its excellent quality, SY385H-10 won gold award for annual product market performance of engineering machinery in 2011.

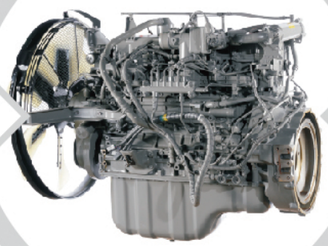
- Super excellent performance
- Super high adaptability
- Super long service life
- Super lower maintenance cost

Super excellent performance

Efficient and low consumption

With "positive flow" system and "DOMCS" engine-pump-valve integrated dynamic hunting intelligent matching control system developed independently by SANY, the efficiency and fuel consumption surpass competitor brands. The efficiency is 8% higher and the fuel consumption is 10% lower.



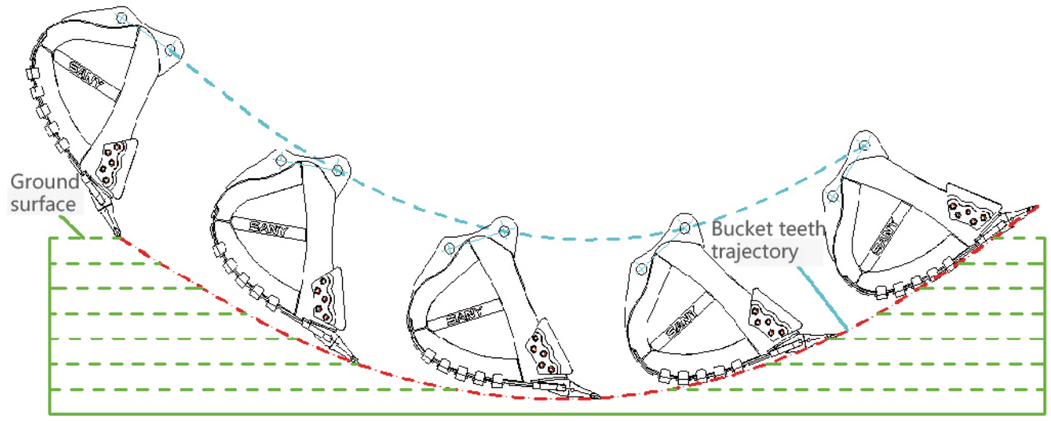


As compared with the model of previous generation, the power of 6HK1X engine is increased by 6%, and the torque is increased by 20%. Higher power performance could help the customer solve the difficulties under heavy-duty conditions.

It could save 70,000 RMB every year according to the calculations as per annual working time of 3,000h and diesel oil price of 7 RMB/L under the condition that standard gears work.

Super high digging force

By optimizing the hinge point, the functioning scope of digging force becomes wider. By optimizing moving trajectory of the mechanism and bucket shape, the impact and resistance against the machine are reduced when excavating, excavating speed is improved and operating efficiency is increased by 10%! Service life of the bucket is doubled.



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 of an excavator operator with more 10 years of working experience in Huzhou on SY385H:

SY385-10 excavator could excavator stonework easily the movement is smooth and continuous.

Super high adaptability

By improving safety and heat dissipation capability, and using efficient filter system and "high corrosion-resistant" coating, the adaptability of SY385H-10 to the environment, working condition and oils is improved.

High corrosion-resistant coating

With new coating system, service life of the paint is improved

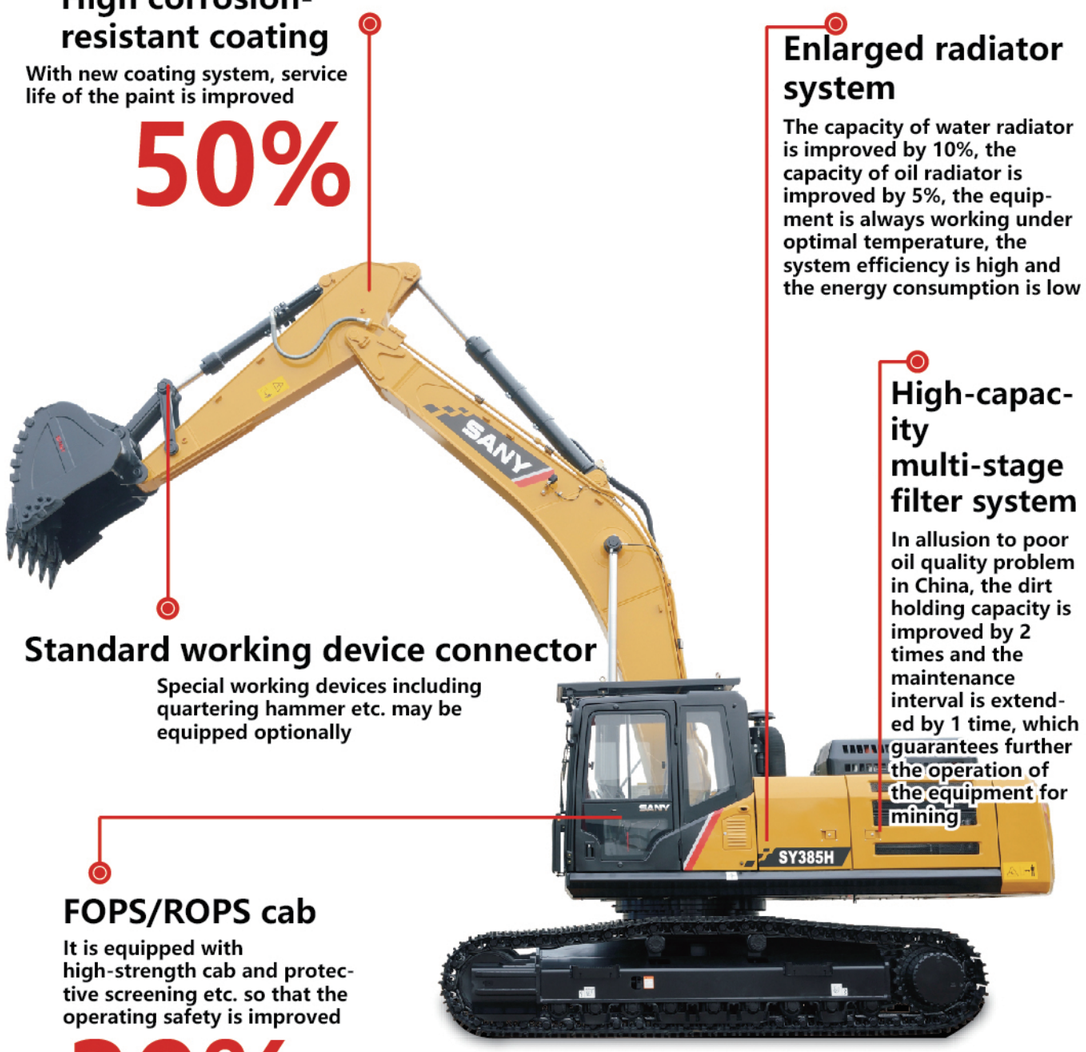
50%

Enlarged radiator system

The capacity of water radiator is improved by 10%, the capacity of oil radiator is improved by 5%, the equipment is always working under optimal temperature, the system efficiency is high and the energy consumption is low

High-capacity multi-stage filter system

In allusion to poor oil quality problem in China, the dirt holding capacity is improved by 2 times and the maintenance interval is extended by 1 time, which guarantees further the operation of the equipment for mining



Standard working device connector

Special working devices including quartering hammer etc. may be equipped optionally

FOPS/ROPS cab

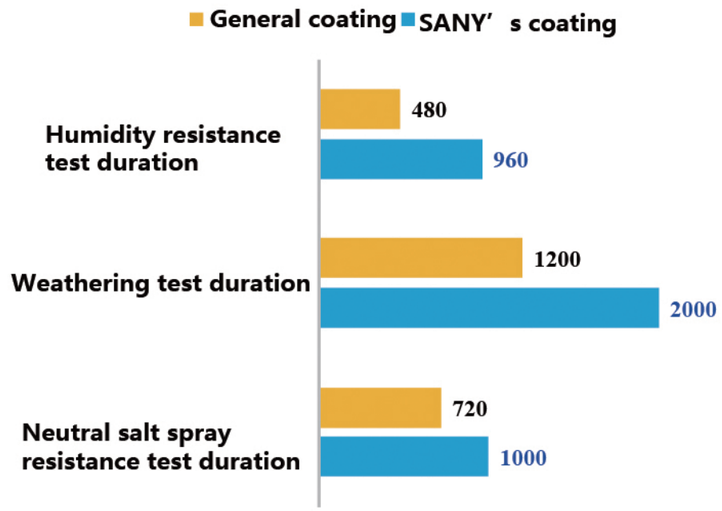
It is equipped with high-strength cab and protective screening etc. so that the operating safety is improved

30%

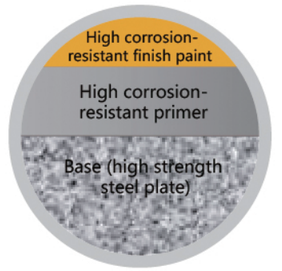
High corrosion resistant coating

By cooperating with world known paint brands, aging life of the paint reaches the level of competitor brands and the adaptability is improved by 40%

Comparison of coating endurance test data



Coating distribution of SANY' s high corrosion-resistant paint



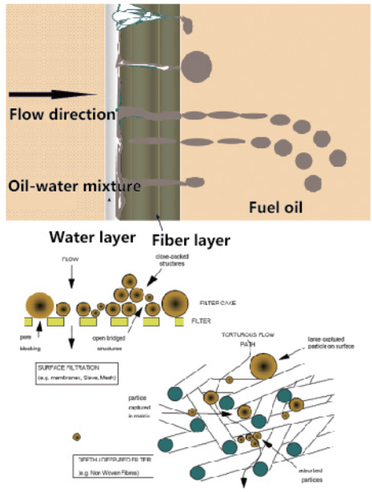


Large-capacity multi-stage filter system

Initiative large-capacity multi-stage filter system is introduced to cope with fuel oil of different quality levels, and meet emission requirements of national III standard. It provides top-level protection for the equipment!



Large-capacity multi-stage filter system



Large-capacity multi-stage filter principle

Super long service life

Through the accumulation over 15 years, service life of SY385H exceeds 20,000h under mining conditions, is 20% higher than general excavator and surpasses competitor 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, platform and undercarriage 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 parts

Core parts like main pump, main valve, oil cylinder and retarder 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.



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



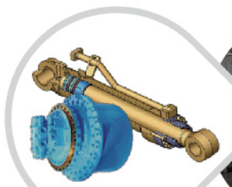
Motion trail of bucket bottom is optimized, digging resistance is reduced, digging speed is increased, working efficiency is improved by 10%, high-strength wear-resisting steel plate is used and bucket wear-resisting performance is improved by 2 times. With professional bucket design for stonework, it is more suitable for heavy-duty operation like quarry etc.



The quality of mining-type four-wheel & one-belt is improved, and the service life is doubled.

Core parts

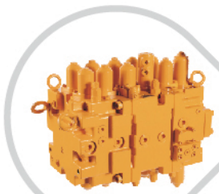
Relying on the only endurance test system for excavator parts in China, and through joint research with world famous research institutions, the research on service life of the parts is carried out for improving the service life of core parts comprehensively. The service life of components including pump,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





Hydraulic components like oil cylinder and retarder 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.

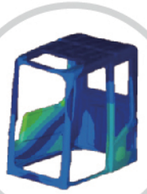
Oil cylinder impulse test bed





With pump-valve endurance test bed, 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 bed



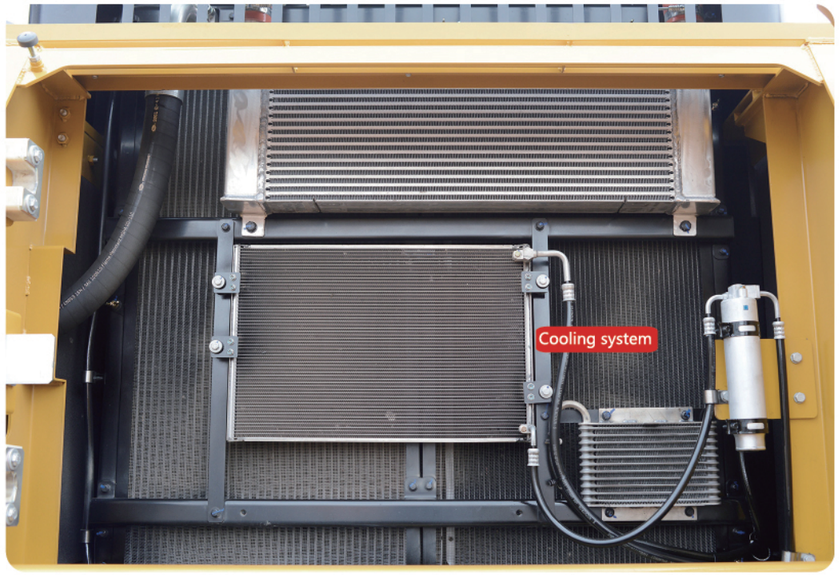


With vibration test bench and test bed, fuel tank and the cab has been tested by over hundreds of thousands of times on aspect of the vibration to improve the service life of the component by 50%.

Vibration test bench and test bed

Enlarged radiator system

The capacity of water radiator is improved by 10%, the capacity of oil radiator is improved by 5%, the equipment is always working under optimal temperature, the system efficiency is high and the energy consumption is low.

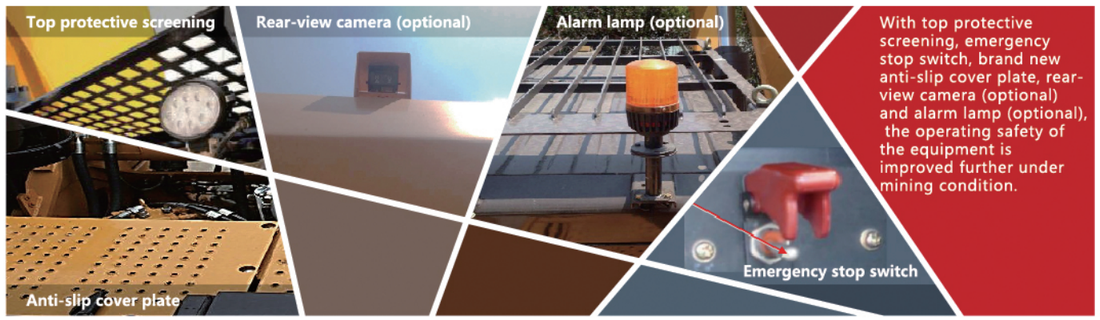


Safe & Comfortable

In allusion to mining conditions, FOPS/ROPS cab and newly developed dust control & noise reduction technology are used so that the safety is improved by 5 times as compared with general cab. The noise in the cab is reduced by 5kB and is much better than that of other brands.



FOPS/ROPS cab is used. Through finite element modal analysis, steel structure and sealing performance of the cab are optimized; its strength is 5 times of general cab, the safety performance is extremely high and meanwhile the cab noise is reduced by 3-5dB, which makes the operation more comfortable.



The machine serves several purposes

In allusion to individual demands of the customer for this tonnage, this product may work with several working devices, and various modified products like extension boom etc. to improve the earning power of the customer.

Configuration Table of Working Devices of SY385 Excavator

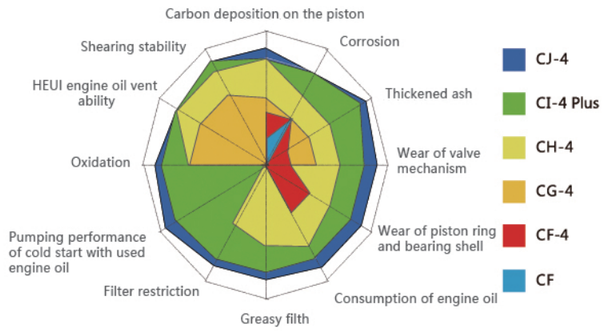
Model	SY385H			Bucket capacity
Boom	6.5m			
Bucket rod	2.4m	2.6m	2.9m	
Configuration situation			★	▲1.6
		●		▲■1.9
		●		■2.1
	●			■2.32

Classification of bucket by use: ▲: bucket for stonework; ■: bucket for earthwork;
The configuration marked in orange is standard configuration of SY385H
★is recommended configuration while ● is optional configuration

Super low maintenance cost

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; as compared with competitor brands, the maintenance cost is reduced by 40%.



Hydraulic oil: Service life of hydraulic oil is 4,000h and is extended by 1 time as compared with the competitor;
Engine oil: Replacement interval is 500h and is extended by 1 time as compared with the competitor;
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

Four-dimensional construction management system independently developed by SANY is equipped to improve maintenance convenience of maintainable parts, and convenient maintenance design in allusion to severe mining conditions makes equipment management easier and simpler.



Air filter element

The space for replacing external air filter element is 30% larger than that of general excavator and the filter element can be replaced without the help of any tool.

30%

Engine compartment

Engine compartment volume is increased by 20% and electronic pump is added so that abnormal misfire can be solved rapidly

20%

Pump chamber

Pump chamber volume is increased by 30%, and the operating space for filter element replacement is increased by 20%

20%/30%

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

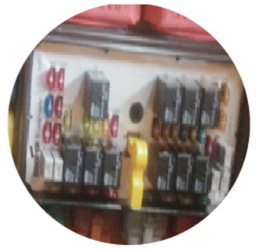
Easy to replace air filter element



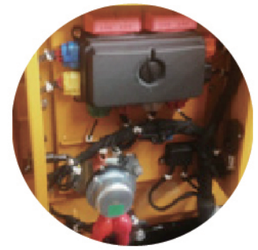


Replace diesel oil filter element

Easy to replace diesel oil filter element



Independent electronic control cabinet



Electronic control cabinet out of the cab makes the maintenance convenient



Engine compartment



Water drain valve and check valve of fuel tank

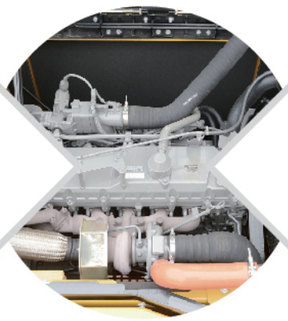
Engine compartment volume is increased by 20%, and water drain valve and diesel oil check valve are added

Product Introduction

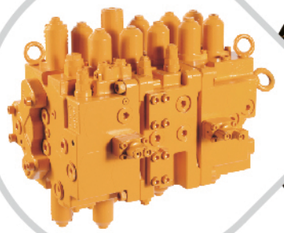
Main configuration

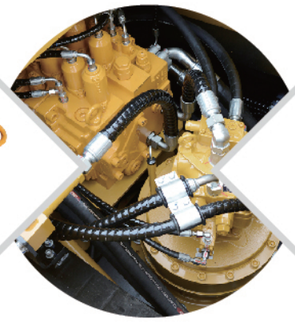
Core components like pumps, valves and engine etc. are designed jointly with proprietary intellectual property rights, and are manufactured by world famous manufacturers to ensure high quality and satisfy professional demands of SANY' s customers



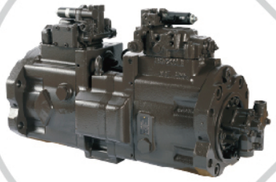


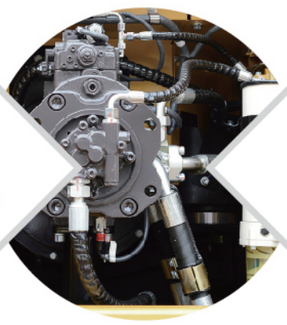
Isuzu GH-6HK1X engine meets emission standard of national III and the displacement and the torque are generally higher than competitor brands. It outputs high power and helps the customer to solve the operating difficulties of heavy-duty working condition.





Kawasaki 32NA main valve is developed and designed according to customer requirements of SANY and has outstanding advantages including "high reliability, low pressure loss, high flow distribution efficiency and smooth compound control action". It helps the customer create greater value.





Kawasaki 160CC dual-ratio positive-flow main pump takes full advantage of the flow and realizes demand equal to supply. As compared with negative flow system, it reduces the loss of neutral-position return, and meanwhile response speed is higher and capacity loss is reduced

Construction cases

Comments of a customer from Huzhou on SY385H: "SY385-10 excavator could excavator stonework easily the movement is smooth and continuous."



Worksite: Huzhou Tarmac Mining of Zhejiang Province
Working condition: Stonework (decomposed rock)
Operating type: blasting- excavation- loading
Work assumed by SY385: Stripping stonework and loading

Worksite: Inner Mongolia
Working condition: Coal mine
Operating type: excavation- loading
Work assumed by SY385: Stripping stonework and loading





Worksite: Shanxi Province
Working condition: Coal mine
Operating type: excavation- loading
Work assumed by SY385: Stripping stonework and loading

Technical specifications

Specifications		Main performance	
Total weight	36000kg	Traveling speed (high/low)	5.5/3.5 (km/h)
Bucket capacity	1.6~2.32(1.6•rock)m³	Slewing speed	9.5rpm
		Gradeability	70% (35°)
Engine		Ground pressure	65kPa
Model	GH-6HK1XKSC	Digging force of bucket	235kN
Type	Electronic injection, 6-cylinder, 4-stroke, turbocharged, inter-cooling and water-cooled	Digging force of bucket rod	180kN
Rated power	212kW/2000rpm		
Maximum torque	1080Nm/1500rpm		
Displacement	7.79L		

Capacity of oil and coolant		Traveling section	
Fuel tank	690L	Number of track shoes	49
Engine oil	36L	Carrier wheel on each side	2
Radiator	12.3L	Thrust wheel on each side	9
Final drive	2×8.5L	Standard track	600mm

Boom--	6500mm	Bucket rod--	2900mm	Width of track--	600mm	Counter weight--	6900KG

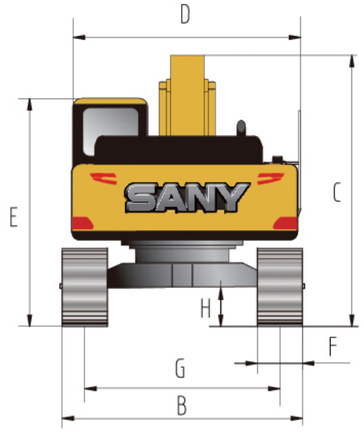
		3.0m		4.5m		6.0m		7.5m		9.0m	
		Longitudinal	Transverse	Longitudinal	Transverse	Longitudinal	Transverse	Longitudinal	Transverse	Longitudinal	Transverse
7.5m	Kg										
6.0m	Kg							*7857	*7857		
4.5m	Kg			*12146	*12146	*9592	*9592	*8269	6856		
3.0m	Kg			*14650	*14650	*10745	9126	*8823	6638	*7696	5095
1.5m	Kg			*16054	13197	*11633	8745	*9287	6434	*7819	5004
地面	Kg			*16022	12950	*11951	8515	*9457	6293		
-1.5m	Kg	*14577	*14577	*15082	12942	*11590	8439	*9137	6242		
-3.0m	Kg	*16715	*16715	*13312	*13312	*10420	8499	*7924	6314		

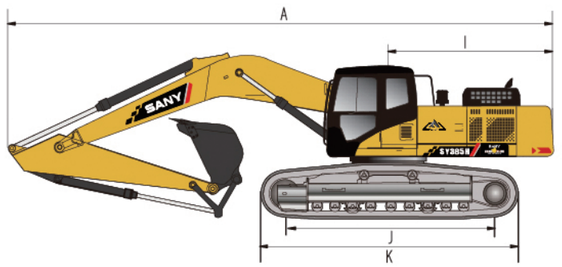
1. The lifting capacity is calculated in accordance with ISO10560 and SAEJ1097, where limit coefficient of hydraulic system is 0.87 and tilting limit coefficient is 0.75;

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.;

Overall dimensions (mm)

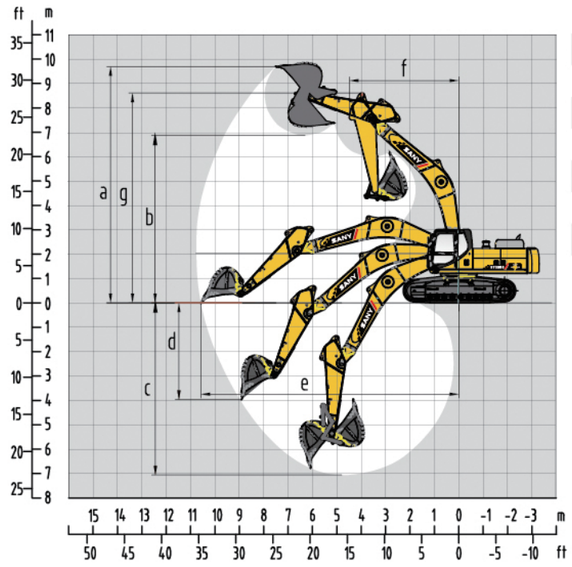




Overall dimensions: mm	SY385H
A. Overall length (in transportation state)	11530
B. Overall width	3190
C. Overall height (in transportation state)	3545
D. Upper width	3150
E. Overall height (cab top)	3320
F. Width of standard track shoe	600
G. Track gauge	2590
H. Minimum ground clearance	550
I. Slewing radius of tail	3560
J. Ground contact length of track	4140
K. Track shoe length	5065

Performance Parameters	SY385H
Total weight, kg	36000
Bucket capacity, m3	1.6~2.32
Rated power, kW/rpm	212/2000
Traveling speed (high/low), km/h	5.5/3.5
Slewing speed, rpm	9.5
Gradeability	70%/35°
Ground pressure, kPa	65
Digging force of bucket, kN	235
Digging force of bucket rod, kN	180

Operating range (mm)



Operating range: mm	SY385H
a. Maximum digging height	9890
b. Maximum unloading height	6920
c. Maximum digging depth	7050
d. Maximum digging depth with vertical boom	3970
e. Maximum digging distance	10780
f. Minimum slewing radius	4495
g. Maximum height at minimum slewing radius	8600

SANY

SY385H

Powerful Tool for Mining Excavation Value Leader

New-generation Super Hydraulic Excavator for Mining