



SANY

Quality Changes the World



SANY HYDRAULIC EXCAVATOR SY335C/SY365C

ENERGY SAVING STAR, LEADING THE INDUSTRY

P1

The Engine Customized For Sany
Realized High Efficiency And
Low Consumption



P3

Less Vibration and Low Noise
Luxurious and Comfortable Cab

P5

Ergonomic Design Maximize
The Operating Safety

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Scientific Structure and Easy
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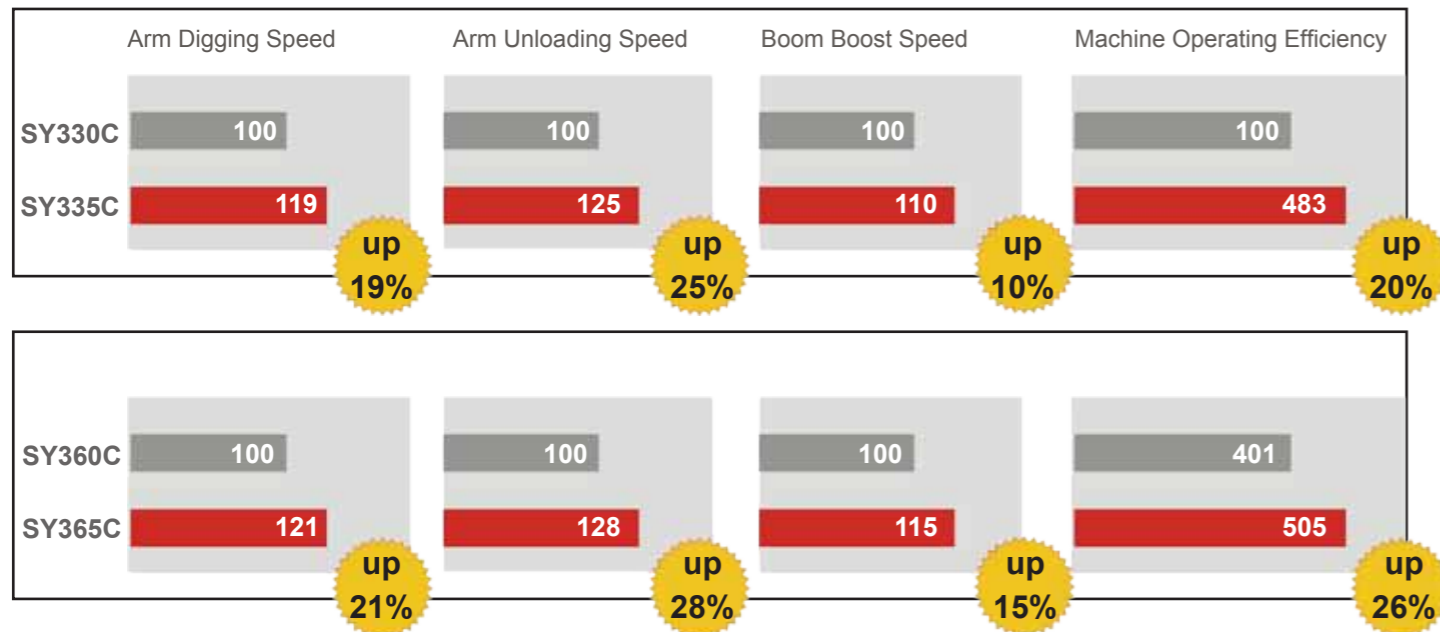
Standard & Optional



THE ENGINE CUSTOMIZED FOR SANY REALIZED THE HIGH EFFICIENCY AND LOW CONSUMPTION



With a dual-pump, dual-circuit constant power control system, the engine can fully develop its power. The perfect combination of this two realizes the heavy-duty mode with large workload, the standard-mode with auto-adjusted engine speed and light-duty mode, high efficiency and low fuel consumption, while optimizing the combustion.



◆ Arm Regeneration Circuit, Faster Digging Speed and Lower Energy Loss

A quick circuit is added to the arm oil cylinder circuit. The hydraulic oil in arm cylinder rod end does not return the tank but goes directly to the cylinder head end. The arm speed is increased as a result. The fuel consumption is low under this condition.

◆ Auto Deceleration System

The function of auto deceleration or acceleration reduces fuel consumption by 5-10%. When an operation has been stopped for 3 seconds, the engine speed drops automatically to idle level and maintains the idling state. When the operation is resumed by maneuvering the control levers, the engine speed will increase to the set rpm within 0.1 second. The working capability is resumed instantly.

Powerful Travel Ability

◆ Large-torque Travel Mechanism

The latest Nabtesco Large-torque travel mechanism is adopted to enhance driving force and reliability, and improve operational efficiency.



SY335C travel motor driving force increased to 274KN.

◆ Travel Pilot Valve with Hydraulic Damping Device

When machine is being started or stopped, this device improves machine travel manageability via vibration absorption and reduces operation fatigue.



SY365C travel motor driving force increased to 320KN.

◆ Secondary Boosting Technology

Overall machine overflow pressure can be increased without pressing the secondary boosting button to improve excavation force and operation speed.

◆ Precise Swing Control

Improved vibration absorption and ensures smoothness of swing operation.

◆ Optimized Main Valve

Optimized Kawasaki main valve customized for Sany with excellent combined movement coordination and leveling performance improves boom and arm operating speed, boom-down regeneration and bucket confluence performance to enable higher operating efficiency.

◆ Reduced Arm Oil Pressure Loss and Improved Operation Speed

Two return oil pipes on the big end of the arm cylinder and the oil inlet pipe of larger diameter on the small end reduce the arm pressure loss during digging and dumping operation to ensure higher working speed.

◆ Working Mode Selection

Touch the display to switch working mode
 Heavy duty mode: maximum operating efficiency
 Standard mode: reducing fuel consumption and noise
 Light duty mode: lower fuel consumption and high economy
 Breaker mode: special for hammer



Press F1 to switch between the four working modes

◆ Latest Swing Mechanism

The latest Kawasaki large-torque swing mechanism is used, and rotary torque is increased by 32% from the original 100.6kN.M to 132.8kN.M. Swing starting-torque is enhanced with reduced swing drift.(SY335C)



COMFORTABLE AND SAFE CAB ENVIRONMENT



◆ Innovative Large Cab

The height of seat, the inclination of backrest, the height of armrest, the seat position and the headrest can be adjusted as desired.

◆ Silicone Rubber Shock Absorber

Innovative silicone rubber shock absorber is fixed to the swing platform in six points, which has minimized the shock brought by rough road and engine or hydraulic impact, considerably increased the stability of cab, and improved the comfort of operator.

◆ Cab Door and Front Window are Easy to Open, Close and Lock

Cab door can be opened by 180° and secured by locking mechanism either open or closed. The upper window of the cab can be moved to the top of the cab when the front window is unlocked. The roof hatch is openable, through which the cab can have better ventilation and morlights.

◆ Longer Control Levers

The control levers and joysticks designed and arranged according to human engineering, can be operated easily. Each operation button is within the reach of operator.

◆ Well-sealed Cab, Clean and Quiet

Equipped with excellent sealing ring, the cab is free from dust and rain. Quiet cab can effectively relieve the fatigue of operator.

◆ Multiple Air Outlets at Different Levels and Locations

There are several air outlets – the front window defrost outlet ensuring operator's visibility, and the outlets for operator face, back and feet – which can be turned on/off as desired. By changing the direction of air stream, the operator can fully enjoy the benefit of air conditioner.



◆ Hydraulic Lockout Control

When the hydraulic lockout control is placed in LOCK position, all controls are inoperable, which prevents accidents caused by unintentional operation.



◆ Reduce Fatigue

The seat rigidity can be adjusted according to the driver's weight, even if the big drivers can enjoy a comfortably operation.

◆ Luxurious Mechanical Damping Seat

The suspension rigidity can be adjusted according to the drivers' weight, effectively absorbing the vibration came from the cab floor to improve comfort and reduce fatigue.

◆ Automatic Air Conditioner

The standard large-capacity air conditioner keeps in-cab air fresh by purifying fresh air and recirculation air. The quick temperature control ensures a comfortable temperature in cab all the year round.



◆ Large Rear View Mirror and Alternate Exit

Rear view mirror is mounted on both sides of the cab, which can observe the situation behind the excavator without looking back.



◆ Three Stage Air Filtering

Equipped with air pre-cleaner and dual air filtering elements, the three-stage air cleaner ensures supply of sufficient clean air that can reduce the wear of cylinders.

ERGONOMIC DESIGN MAXIMIZES THE OPERATING SAFETY



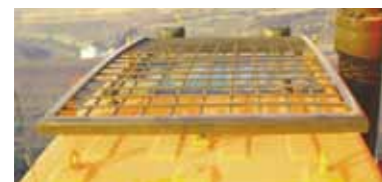
◆ Falling Object Protection Structure

The cab is punch-formed with thick high-strength steel sheet. The door and windows are made of toughened glass. In addition to the seat belt equipped, the cabin maximizes the safety of operator.



◆ Larger View

Operation safety is improved as a result of narrowed blind zone of vision by means of improved cab design featuring reduction of the size of column without decreasing the structural strength of the cab. The front and side window enable the operator to see clearly work equipment condition and the surroundings; the rear window and the engine hood of properly designed height provide a good rear view.



◆ Optional Equipment

Top guard net in line with ISO, OPG standard.

◆ High Standards Safety Design

Safety design meets European, US and Japanese safety standards, and has reached world-class security and reliability standards.

◆ Heat Insulation/ Fan Guard

The engine is housed in excellent heat insulation to prevent accidental burns. The radiator fan is enclosed with a protective net cover that can prevent objects from falling into the fan to damage its blades.



◆ Boom and Arm Holding System

The holding valve on the main control valve can prevent the boom and arm from declining under their own weight and extend holding time, improving reliability of the machine.

◆ Anti-swing Valve and Delay Valve

Swing mechanism with anti-swing valve and delay valve makes swing operation more stable and reliable; swing brake ensures safety of machine stopping.

◆ Large Handrails

Large handrail ensures operator safety during mounting and dismounting.

◆ Anti-splashing Screen

The pump chamber and engine chamber are separated with a screen, which can prevent leaked hydraulic oil from splashing onto the hot engine.



◆ Anti-skid Pedals

Specially designed pedal, can effectively prevent the operator from slipping and skid.



Environment-friendly Engine Customized for Sany Is In Line with EPA Tier 2 and Eu Tier 2 Emission Standards.

◆ Low-noise Design to Meet Noise Emission Requirement

To meet noise emission standard of GB 16710.1-1996, the engine adopts sound-absorbing materials and is equipped with curved wind guide cover and muffler, reducing air resistance and noise emission. Improved damping system and various anti-noise designs of components reduce noise efficiently. Noise level around the operator is less than 80dB (A) (reference value is 80dB (A)).

◆ Track Shoe Fender and Track Tensioner

Track shoe fender ensures proper positioning of the track. Track tensioner consists of a grease filling cylinder and a shock-absorbing spring, providing adequate track tension during machine travel.

SCIENTIFIC STRUCTURE AND CONFIGURATION DESIGN ENSURES EASIER AND FASTER MAINTENANCE

◆ Easy Cleaning for Radiator

One end of the air conditioner condenser is fixed with hinges for easy cleaning. Innovation radiator with easily washable internal structure, excellent cooling capacity ensures prolonged engine running without being overheated.



◆ New Engine Oil Drain Valve

Additional drain port on engine bottom cover makes oil change possible without removing the cover plate.



◆ New Swing Mechanism Oil Drain Valve

Additional oil drain valve on swing mechanism makes gear oil replacement much easier.



◆ Water Separator and Three-level Fuel Filter

Water separator can remove the water in fuel and prevent fuel system failures. The function of fuel pre-filter can be developed to make maintenance easy. Fuel pre-filter also has the same function as a water separator.



◆ Accessible Engine Oil Filter and Bottom Drain Plug

Accessible oil filter installed far away the engine, ensure easy maintenance. The radiator, fuel tank, hydraulic oil tank and oil pan are equipped with screw plugs at the bottom, which is convenient for discharging foreign substances and waste liquid out in the change of oil or cleaning.



◆ Extended Lubrication Port of The Swing Bearing is Used

For the convenience of lubricating the swing bearing, grease filling of the swing mechanism is extended to the front through the grease tube installed along the swing gear.

◆ Standard Equipped Oil Drain Pipe

The use of this pipe can prevent contamination of your clothes and the floor when engine oil is being changed, and maintenance becomes easier.

◆ Large-capacity Fuel Tank With Anti-rust Treatment

The large capacity of fuel tank reduces the times for refueling. Interior of the fuel tank has been treated well against rusting. No rusting will occur even if the tank is soaked in oil containing water and phosphoric acid and other chemicals for a long period of time.

◆ Monitoring Function

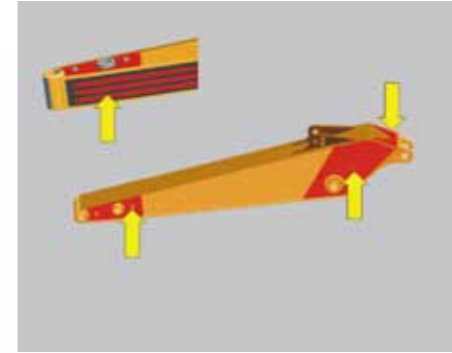
When an abnormality occurs while the engine is running, warning alarm on the monitor will sound, alarm indicator will light up and auto-diagnosis will start. The monitor displays fault name and location and relevant information.

◆ Incline Track Frame

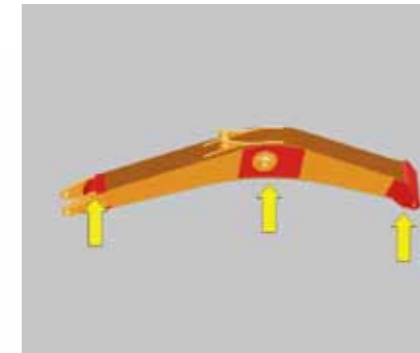
The incline track frame makes the soil to fall easily and is easy to clean.



◆ Strengthened Bucket



◆ Strengthened Arm



◆ Strengthened Boom



◆ Thickened Oil Pipe



◆ Platform



◆ Larger Counterweight

EQUIPMENT SPECIFICATION

SPECIFICATION

ENGINE

Model.....Isuzu 6HK1-XABEA-08-C2/AA-6HK1XQP
 Displacement.....7.79L
 Engine power
 At rated engine speed.....190.5kw/2000rpm

HYDRAULIC SYSTEM

Type..... negative control system
Number of selectable working modes..... 4
Main pump
 Type.....variable-capacity piston pumps
 Maximum flow.....2*360ltr/min
Hydraulic motors
 Travel.....2* axial piston motor with parking brake
 Swing.....1* axial piston motor with swing holding brake
Relief valve setting
 Implement circuits.....34.3mpa 336kg/cm2 4,974psi
 Travel circuit.....34.3mpa 336kg/cm2 4,974psi
 Swing circuit.....28.5mpa 279kg/cm2 4,133psi
 Heavy lift circuit.....34.3mpa 336kg/cm2 4,974psi
 Pilot circuit.....3.9mpa 38kg/cm2 565psi
Hydraulic cylinders
 Boom.....2-140mm*1480mm
 Arm.....1-170mm*1685mm
 Bucket.....1-140mm*1285mm

OPERATING WEIGHT

Operating weight with standard bucket, fully serviced, +75 kg operator (ISO)
 Operating weight.....33500/34100kg

UNDERCARRIAGE

Track width.....600mm
 Number of track shoes.....49
 Carrier roller (per side).....2
 Track roller(per side).....9

TRANSMISSION

Travel Speed (Highest/Lowest).....5.4/3.2 5.5/3.5km/h
 Swing Speed.....9.5rpm
 Gradeability.....70%/35°
 Ground Pressure.....59.2/61.5kpa

SERVICE CAPACITIES

Fuel tank.....540/620L
 Hydraulic tank.....380L
 Engine oil.....35/36L
 Radiator.....11/8.4L
 Final drive.....2*4.0/8.5L
 Swing drive.....10.5L

DIGGING FORCE

Bucket Digging Force.....220kN
 Arm Digging Force.....165/180kN

BUCKET OPTIONAL

SY335C

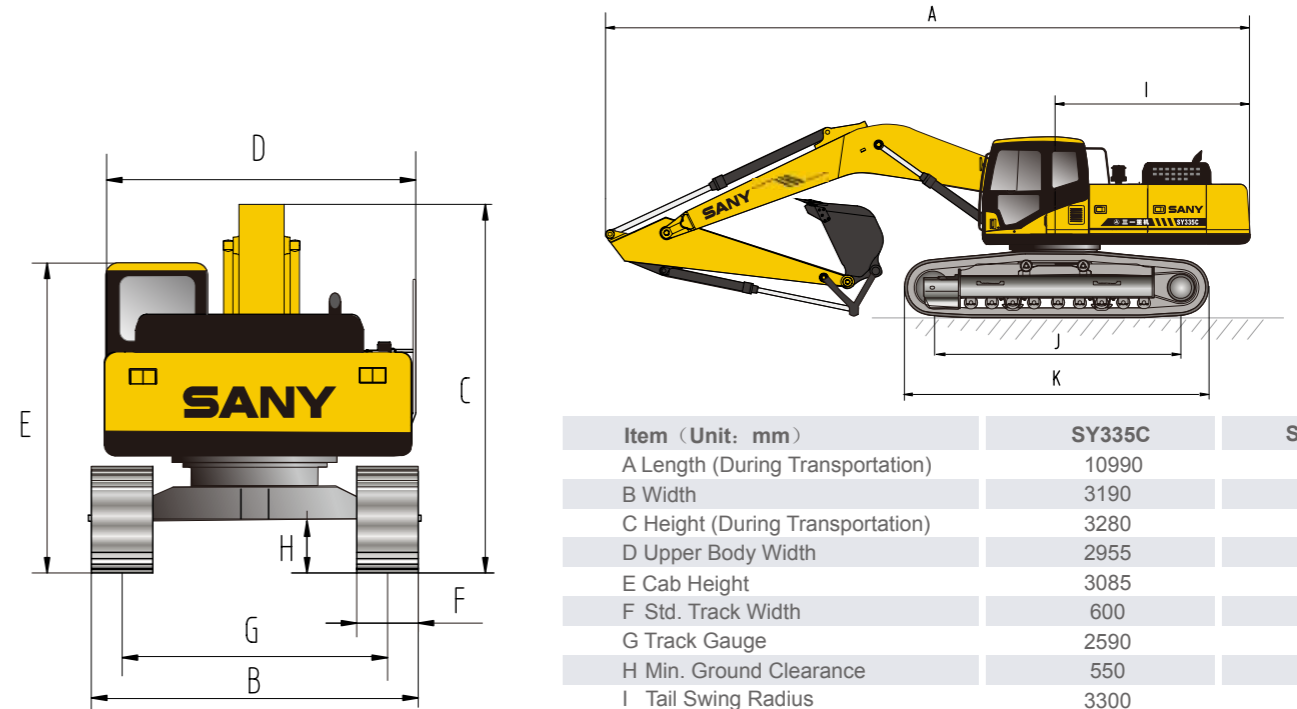
Capacity		Width		Weight	Number of Teeth	Arm length			
SAE	CECE	Without Side Cutters	With Side Cutters			3200mm	2900mm	2400mm	mm
1.4(rock)	1.81	1310	1417	1285	5	■	■	■	
1.5(earth)	1.96	1443	1527	1273	5	●	●	●	

SY365C

1.6	1.4	1292	--	1650	5	■			
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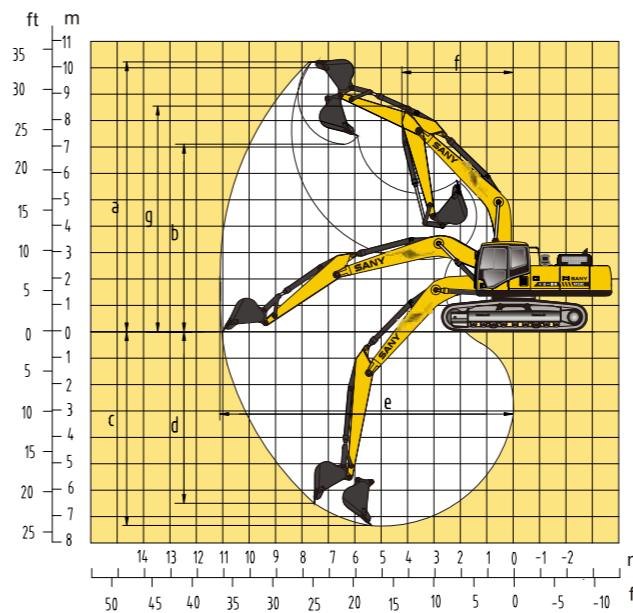
Suitable for materials with density of 1 800 kg/m3 (3 030 lb/yd3) or less ■
 Suitable for materials with density of 1 600 kg/m3 (2 700 lb/yd3) or less ●
 Suitable for materials with density of 1 100 kg/m3 (1 850 lb/yd3) or less △

DIMENSION



Item (Unit: mm)	SY335C	SY365C
A Length (During Transportation)	10990	11015
B Width	3190	3190
C Height (During Transportation)	3280	3315
D Upper Body Width	2955	2955
E Cab Height	3085	3025
F Std. Track Width	600	600
G Track Gauge	2590	2590
H Min. Ground Clearance	550	550
I Tail Swing Radius	3300	3300
J Roller Gauge	4140	4140
K Track Length	5065	5050

OPERATION RANGE



Item (Unit: mm)	SY335C	SY365C
a Max. Digging Height		
b Max. Dumping Height	SY335C	SY365C
c Max. Digging Depth	10135	9810
d Max. Vertical Digging Depth	7165	7140
e Max. Excavating Distance	7330	7040
f Min. Swing Radius	6480	—
g Height at Min. Swing Radius	11070	10615
	4340	4370
	8470	8500

Materials and specifications are subject to change without further notice in accordance with our continuous technical innovations. Photos and illustrations may not include additional equipments.

SY335C/365C LIFTING CAPACITY

	A B	3.0m		4.5m		6.0m		7.5m		9.0m		Maximum		mm
Arm 2950mm	7.5m							7505	6266			6755.9	6063.7	7635
	6.0m							9081.7	6207.7			6614.9	4980.4	8525
Boom 5900mm	4.5m					11431	8406.8	9129.5	5991.7	6748.5	4461.1	6639	4387.4	9085
	3.0m			17525	11744.8	12565	7960.8	8813.8	5715.5	6617.5	4343.3	6201.4	4017.3	9365
Balance weight 4800kg	0			18947	10498	11636	7084.6	8300.7	5266.5	6374.3	4124.5	6184.5	4008.9	9195
	-1.5m	12948	12948	18868	10438	11492	6964.6	8206.2	5183.8			6644.7	6281.9	8750
	-3.0m	20228	20228	17394	10564	11541	7006.1	8648.7	5571			7654.9	4894.8	7935
	-4.5m	17908	17908	14149	10875	10945	7234					9275.5	6255.6	6730

	A B	3.0m		4.5m		6.0m		7.5m		9.0m		Maximum		mm
Arm 3180mm	7.5m											7779.7	7360	7250
	6.0m							9704.2	6909.8			7630.2	5983.2	8185
Boom 6470mm	4.5m					11758	9389.5	10237	6690.4			7799.1	5255.1	8760
	3.0m			18075	13008	13330	8767.9	9932	6423.3	7504	6922.6	7432.4	4878.1	9060
Balance weight 6800kg	1.5m			10307	12219	13542	8320.2	9649.3	6175.9	7376.2	4807.6	7269.2	4741.1	9090
	0			20040	11946	13222	8053	9455.2	6006.1			7646.2	4826.4	8380
	-1.5m	13827	13827	18948	11934	13121	7968.3	9512.3	6056.1			8050.5	5183.4	8750
	-3.0m	21329	21329	16868	12091	13237	8177.5	9507.4	6051.8			9045.8	9595.8	7400
	-4.5m	16459	16459	13330	12435	10201	8315.3					9538.3	7849.1	6280

- Remarks:
1. Rated figure meets the criterion of GB/T 13331-2005/ISO 10576
 2. Rated rollover loading is 75% of static rollover loading, rated limiting hydraulic weight is 87% of limiting hydraulic weight.
 3. Loading radius is the distance from the loading point to the swing center.
 4. The figure with * stands for the rated figure of the limiting hydraulic weight.

Pressure and Capacities

WELGHTS AND GROUND PRESSURE

Shoe type	Shoe width	Mode SY335C	
		Operating weight	Ground pressure
Tripe grouser	600mm	33575Kg	59.2Kpa
	700mm	34196Kg	51.7Kpa
	800mm	34817Kg	40.6Kpa

Shoe type	Shoe width	Mode SY365C	
		Wperating weight	Ground pressure
Tripe grouser	600mm	35000Kg	63Kpa
	800mm	35000Kg	48Kpa
	900mm	35000Kg	42Kpa

SERVICE REFILL CAPACITIES

	Liters	US gal	Lmp gal
Fuel tank.....	540/620	142.7/164	118.8/136
Engine coolant.....	14.5/22.9	3.8/6.0	3.2/5.0
Engine oil.....	35/33	9.2/8.7	7.7/7.3
Swing device.....	10.5/10.5	2.8/2.8	2.3/2.3
Travel device(each side).....	4/8.5	1.1/2.2	0.9/1.9
Hydraulic system.....	330/450	87.2/119	72.6/99
Hydraulic oil tank.....	380/380	100.4/100	83.6/84

STANDARD & OPTIONAL

STANDARD EQUIPMENT

◆ Engine

- Mode control (H, S, L and B)
- Start motor 24V/4.5KW
- Alternator 70A
- Air pre-cleaner
- Dry double-filtering air cleaner
- Cylindrical engine oil filter
- Cylindrical fuel filter
- Engine oil cooler
- Radiator with protective screen
- Auxiliary water tank for radiator
- Fan cover
- Separately installed engine
- Automatic deceleration system
- Accelerating system

◆ Operator Station

- Noiseproof steel-structured cab
- Toughened light-color window
- 6 silicone rubber damping support
- Openable roof hatch, upper front
- Window and left window
- Rear window, alternate exit
- Silent window wiper with washer
- Adjustable inclined seat with adjustable armrest
- AM-FM radio with digital clock
- Foot rest and floor mat
- Loudspeaker, rear view mirror
- Seat belt and fire extinguisher
- Cup holder and cab light
- Ashtray
- Storage box, literature bag
- Hydraulic lockout control
- Fully automatic air-conditioner
- Cab visor

◆ Hydraulic System

- Working mode selection switch
- Power enhancement device
- Control valve with main relief valve
- Spare oil port for control valve
- Oil suction filter
- Oil return filter
- Pilot filter

◆ Undercarriage

- Travel brake
- Travel motor guard
- H-track guiding mechanism
- Hydraulic track tensioner
- Bolted sprocket
- Carrier roller and track roller
- Reinforced track link with pin and seal
- 600 mm track shoe
- Reinforced side pedal
- Bottom coverplate

◆ Front Work Equipment

- Flange pin
- Bucket clearance adjustment
- Welded lever
- Central lubrication system
- Dust ring-seal of bucket pin
- Guard
- 1.5/1.6m³ standard bucket (SY335C/365C)

◆ Swing Platform

- Fuel level float
- Hydraulic oil level gauge
- Toolbox
- Rear view mirror (R)
- Swing brake

◆ Monitoring System

- Hour meter, fuel tank, fuel level gauge
- Engine coolant temperature
- Oil pressure display
- Locking information
- Signal status
- Fault information tips

◆ Alarm Lights

- Oil pressure lack, engine coolant Over heat
- Throttle knob fault
- Fuel oil lack

◆ Others

- Standard battery
- Lockup engine hood
- Lockup fuel filler cap
- Anti-skid film, handhold and passage
- Travel direction mark
- Hand grease gun



Quality Changes the World

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B06S2ENAM1-SY365C

