

SY50U



**MACHINERY
SPECIALISTS
L I M I T E D**

SANY

GREAT PERFORMANCE, SMALL PACKAGE

PHENOMENALLY AGILE. PHENOMENALLY EFFICIENT.

CONSTRUCTION MACHINERY



**MINI EXCAVATORS
SY50U**

Engine
Yanmar 4TNV86CT
Rated power
35.5 kW / 2400 rpm
Bucket capacity
0.15 m³
Operating mass
5 100 kg

SANY

For challenging tasks,
you need a first-class partner

Quality comes from experience. And from new ideas. This is why we combine these two crucial factors at SANY. This is because we are one of the leading producers, having sold more than **450 000** excavators **worldwide**. This means that you can always rely on sophisticated products that have been tried and tested in practice. An impressive **5–7%** of our annual turnover is dedicated to research and development. This is why we give you not only our word, but also our extraordinary **five-year warranty** as a guarantee of how powerful and robust our products are.

450 000

EXCAVATORS SOLD

WORLDWIDE

5–7%

TURNOVER FOR RESEARCH
AND DEVELOPMENT

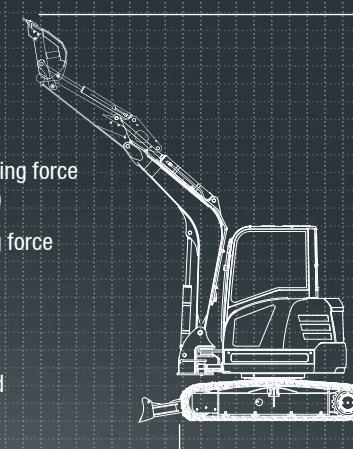
**FIVE-YEAR
WARRANTY***

Quality Changes the World

* Applicable in certain markets, please check with your local dealer.



SY50U HARD FACTS

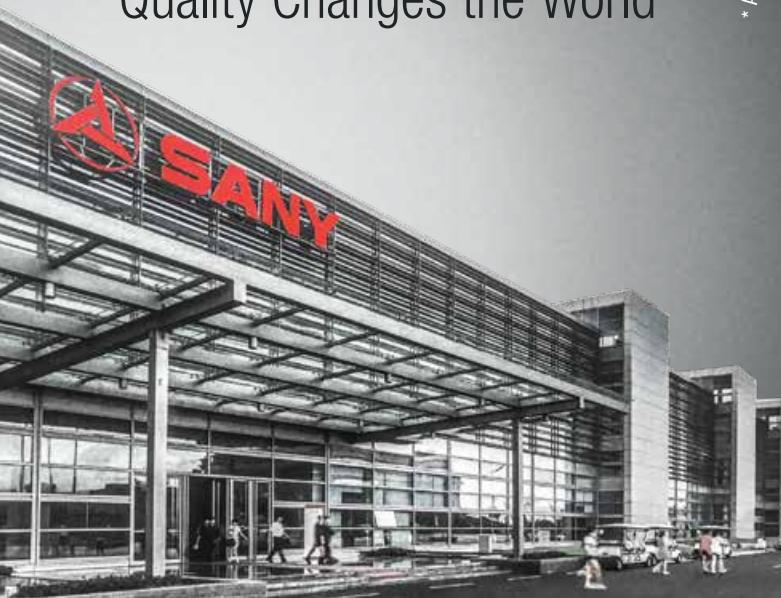


Max. bucket digging force
36.8 kN (ISO)

Max. arm digging force
25 kN (ISO)

Swingspeed
10 rpm

Max. travel speed
4 km/h





THE NEW GENERATION.

The new generation SY50U has been completely re-engineered based on global operator feedback, delivering stronger performance, greater comfort, and enhanced versatility. Built to meet Tier 4 Final/EU Stage V emissions standards, this 5-ton zero tail swing excavator combines power, precision, and efficiency for the toughest urban, civil, and landscaping environments.

With a 19% increase in engine power, up to 31% greater digging force, and a larger 300kg counterweight, the new SY50U provides exceptional stability and productivity in demanding applications. The redesigned hydraulic system offers controllable auxiliary flow and adjustable pressure, allowing seamless operation with a wide range of attachments.

Operator comfort has also been elevated with a quieter cab (2dB reduction), mechanical suspension seat, air conditioning, Bluetooth radio, and a multilingual digital display. Upgrades include a 32% larger fuel tank for longer runtime, Blade Tilt float function (OPTIONAL), walk alarm, and dual auxiliary hydraulic lines as standard.

OPERATING COSTS DOWN, PRODUCTIVITY UP

The updated hydraulic system on the new generation SANY SY50U has been completely redesigned for smoother, more precise, and responsive operation. Incorporating a load-sensing hydraulic system with electronically controlled auxiliary flow and adjustable pressure, operators can now fine-tune performance to suit a wide variety of attachments and tasks. The improved hydraulic layout reduces energy loss, delivering faster cycle times and greater fuel efficiency, while the integrated quick coupler circuit and dual auxiliary lines make attachment changes quicker and cleaner.



Absolute reliability – for peace of mind!

SANY's five-year warranty* gives you the assurance that you can fully count on your equipment.



* Key Component Warranty

ECONOMY

Less is more

Quality that pays for itself in the long term: Low maintenance requirements and long intervals between maintenance. Additionally, all important maintenance points are very easily accessible. This saves on operating costs and increases cost-effectiveness.



QUALITY

Robust and durable – Especially precise, robot-manufactured welded seams guarantee a long service life under the harshest conditions.



SAFETY

No compromises – Extensive safety equipment is standard: Beacon lamps, lockable protective hoods, a battery master switch and safety valves as standard on the arm and boom.

DIMENSIONS

In the smallest of spaces – The short-tail-swing machine's compact dimensions enable it to manoeuvre masterfully even in the smallest areas of the construction site. This mobility broadens its possible applications and increases productivity.



COMPONENTS

Power – The tried-and-tested Yanmar 4TNV86CT engine guarantees reliable performance for all tasks, even in harsh working conditions.

USER EXPERIENCE

Maintenance and service – The engine bonnet is very easy to open with help from the gas pressure dampers. At the back, the key components for maintenance and service are clearly arranged in the centre. The radio with USB and Bluetooth interface offers improved working comfort.



ECONOMY

Cost-effectiveness as standard – The smart control system adapts the pump capacity to the available engine power for greater efficiency and reduced fuel consumption.

QUALITY

Metal panels

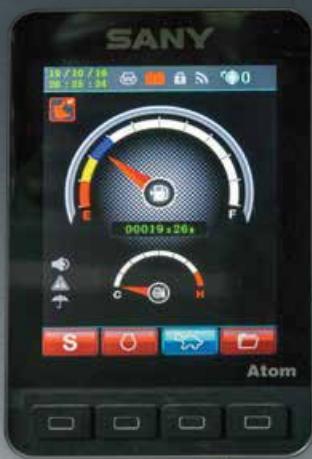
Durability and robustness are standard features on all SANY excavators. For example, the panels are made solely of metal. This makes them particularly robust – and if an accident happens during the tough everyday work on a construction site, it can usually be straightened out again quickly.



USER EXPERIENCE

A FOCUS ON THE OPERATOR

The updated SY50U cab has received several thoughtful upgrades focused on operator comfort and usability. The air-conditioning ducts have been optimized to improve airflow and cooling efficiency, keeping the operator comfortable in all conditions. A high-back, mechanical shock-absorbing seat reduces vibrations and lowers the seat's SIP height, making long hours in the cab far more comfortable. Additionally, the joysticks and controls have been upgraded for smoother, more precise operation, giving operators better control and a more enjoyable driving experience.



USER EXPERIENCE

For a full view

You have everything in view with the large, central display, which shows all important data and values clearly and well arranged. In addition to the basic information, gear selection or attachment device can also be set here. The next planned maintenance is also stored in the menu.



USER EXPERIENCE

Easy-maintenance concept

Machines that are quick and easy to maintain save time and money day-to-day on the construction site. The SANY SY50U provides easy access to all points necessary for checking and maintenance work straight from the ground. This means that planned maintenance can be carried out quickly from groundlevel, which increases the machine's availability and service life and ensures that both the operators and the equipment are reliably protected in the long term.

Our highlights – the added benefits SANY offers you:

- ⊕ 2 proportional auxiliary line on joystick as standard
- ⊕ Double acting circuit for hydraulic quick coupler with piping
- ⊕ Efficient, powerful load-sensing hydraulic system
- ⊕ Auto Idle
- ⊕ Air conditioning
- ⊕ Safety valves on arm and boom




COMPONENTS

MORE LIGHT, MORE VISIBILITY, MORE SAFETY

With the SY50U, you can always see what you're working on, even in poor visibility. The powerful LED light's guarantee that the work area is optimally illuminated. Their energy usage is pleasingly low, ensuring that the battery has a long service life. Furthermore, the headlights require almost no maintenance, which saves time and repair costs.

DIMENSIONS

Quick look round the back

Excavation operations next to obstacles? No problem for the SANY SY50U. With the compact short-tail-swing excavator, you can enjoy the highest degree of maneuverability, as well as unlimited rotation.



SAFETY

Optimum panoramic view

The large windows and sophisticated cab design ensure that the driver has the best possible view of the area around the vehicle. The 360° panoramic view allows exceptional safety levels in the working area.

TECHNICAL SPECIFICATIONS

ENGINE

Model	Yanmar 4TNV86CT
Typ	Water-cooled, 4 cylinder, with commonrail and DPF
Exhaust emissions	Stage V
Rated power	35.5 kW / 2400 rpm
Max. torque	169.5 N.m / 1560 rpm
Displacement	2190 ccm
Batteries	1 x 12 V / 120 Ah

HYDRAULIC SYSTEM

Mainpump	Rexroth-Variable displacement axial piston pump
Max. oilflow	138.6 l/min
Travelmotor	Variable displacement axial piston motor
Swingmotor	Axial piston motor
Max. oilflow (AUX 1)	80 l/min
Max. oilflow (AUX 2)	45 l/min

SERVICE REFILL CAPACITIES

Fuel tank	90 L
Engine coolant	4.2 L
Engine oil	74 L
Drive (per side)	0.9 L
Hydraulic system	80 L
Hydraulic oil tank	52 L

PERFORMANCE

Swingspeed	10 rpm
Max. travel speed	High 4 km/h, slow 2.7 km/h
Max. travel force	40.7 kN
Gradeability	30°
Bucket capacity	0.15 m³
Ground pressure	30.5 ka
Bucket digging force ISO	36.8 kN
Arm digging force ISO	25 kN

OPERATING MASS

SY50U	5100 kg
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UNDERCARRIAGE AND UPPER STRUCTURE

Boom length	2700 mm
Arm length	1500 mm
Bottomrollers	4
Toprollers	1
Rotation device	Planetary gear reducer driven by an axial piston motor, automatic hydraulic released slewing brake

RELIEF VALVE SETTINGS

Implement circuit	245 bar
Swing circuit	191 bar
Travel circuit	245 bar
Pilot pressure	35 bar

LIFTING CAPACITIES OF LOWER DOZER BLADE

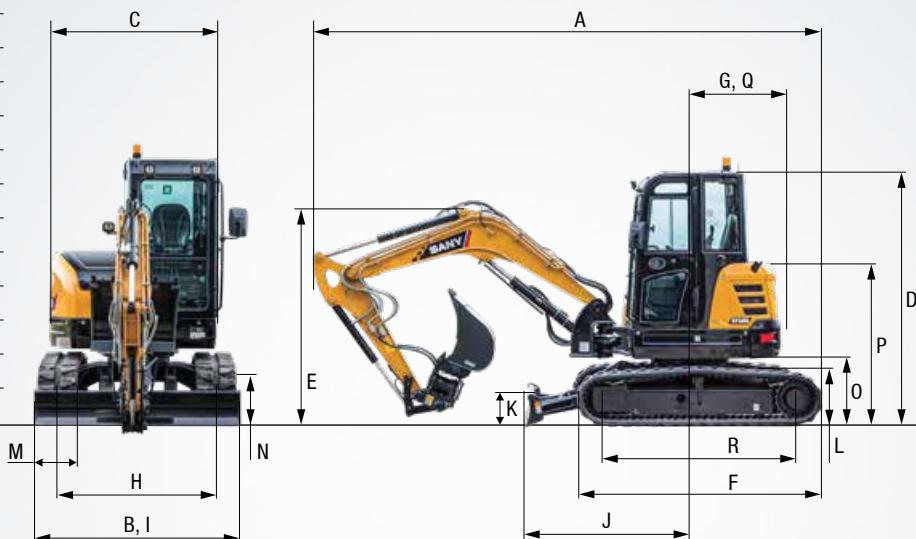
Load point height	Radius				Digging reach
	2.0 m	3.0 m	4.0 m	5.0 m	
4.0 m kg					1085 845 3905
3.0 m kg			1050 815		1050 655 4605
2.0 m kg	1545	1190	1190	790	1055 580 4948
1.0 m kg	2020	1110	1365	760	1075 555 5024
Ground line kg	2165	1075	1445	735	1100 575 4849
-1.0 m kg	2735	2000	1975	1075	2735 2000 1975
-2.0 m kg	2135	2050	1370	1100	1040 905 3476

LIFTING CAPACITIES OF UPPER DOZER BLADE

Load point height	Radius				Digging reach
	2.0 m	3.0 m	4.0 m	5.0 m	
4.0 m kg					1025 845 3905
3.0 m kg			985 815		790 655 4605
2.0 m kg	1485	1190	960	790	700 580 4948
1.0 m kg	1400	1110	925	760	675 555 5024
Ground line kg	1360	1075	905	735	700 575 4849
-1.0 m kg	2735	2000	1355	1075	2735 2000 1355
-2.0 m kg	2135	2050	1370	1100	1040 905 3476

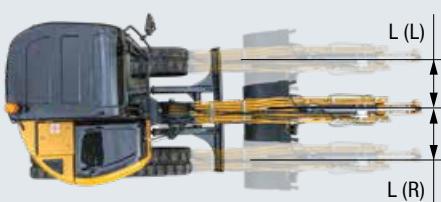
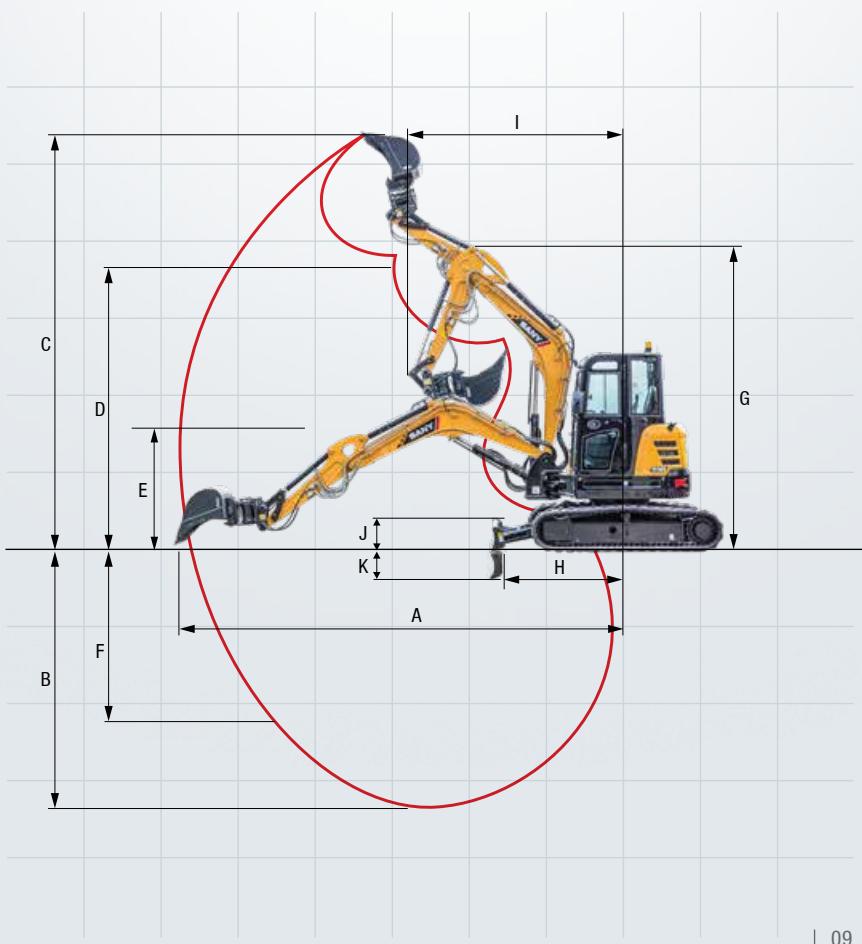
DIMENSIONS (TRANSPORT)

A Transport length	5390 mm
B Transport width	1960 mm
C Overall width of upper structure	1760 mm
D Height over cabin/ROPS	2560 mm
E Height of Boom – transport	2060 mm
F Overall length of crawler	2590 mm
G Tail length	980 mm
H Track gauge	1560 mm
I Undercarriage width (blade)	1960 mm
J Horizontal distance to blade	1790 mm
K Blade height	385 mm
L Track height	610 mm
M Track pads width	400 mm
N Min. ground clearance	310 mm
O Counterweight clearance	675 mm
P Engine cover height	1660 mm
Q Tail swing radius	980 mm
R Center distance of tumblers	2590 mm



WORKING AREA

A Max. digging reach	5880 mm
B Max. digging depth	3460 mm
C Max. digging height	5340 mm
D Max. dumping height	3730 mm
E Min. dumping height	1410 mm
F Max. vertical digging depth	2580 mm
G Overall height over arm by min. swing radius	4155 mm
H Arm head distance with work equipment retracted as far as possible	1690 mm
I Swing radius by max. boomswing (L)	2260 mm
Swing radius by max. boomswing (R)	2080 mm
Min. swing radius	2520 mm
J Max. clearance when blade up	420 mm
K Max. depth of blade down	405 mm
L Offset boom (L)	745 mm
Offset boom (R)	710 mm
Max. boom-swing angle (L)	58°
Max. boom-swing angle (R)	54°



The SY50U – great results and great equipment

The SY50U ex-works is an all-rounder and perfectly equipped for a range of applications. Optional extra equipment and attachment devices are available to increase its flexibility even more.



OPERATORS COMFORT / CABINE

Heater	●
Cabin air condition system	●
USB/Bluetooth Radio	●
Armrests (adjustable)	●
12v outlets	●
Wiper	●
Sprayer f. wiper	●
AUX 1 on joystick	●
AUX 2 on joystick	●
8 stored hydraulic settings for attachments	●
Removable front-window	●

SAFETY

Battery master switch	●
Travel Alarm	●
Warning beacon	●
Rearview Camera	●
Lockable hoods	●

HYDRAULIC SYSTEM

Swing brake	●
2 speed travel	●
Hydr. Pre-pressure operating joysticks	●
Piping for additional hydraulic function AUX1	●
Piping for additional hydraulic function AUX 2	●
End position damping on boom and arm cylinder	●

Standard equipment ● Special option ●

The standard and special options differ depending on the country in which the crawler excavator is delivered. If you have any questions, please contact your dealer directly.

* The air conditioner contains fluorinated greenhouse gases: Refrigerant type: HFC-134a, Global warming potential: 1 430, Quantity: 0.625 kg, CO₂e: 0.89 t

Parts supply – quick and reliable

With the purchase of a SANY mini excavator you have made an investment in the future. Fast availability of spare parts is your guarantee of minimal downtimes and failure times.

WORKING LIGHTS

Lights – front (LED)	●
Lights – boom (LED)	●

UNDERCARRIAGE

Rubber tracks	●
Holes/loops for fixing	●
Cylinder guards – dozer blade	●

ENGINE/ENGINE COMPARTMENT

Auto idle	●
Ground level E-stop	●
DPF	●
Air filter	●

WORKING EQUIPMENT

Boom and arm load holding valves with overload indicator	●
Double acting circuit for hydraulic quick coupler with piping	●
Breaker&Shear line proportional on Joystick with piping	●
Rotation line proportional on Joystick with piping	●
Flow adjustment for attachments	●
Dozer blade	●
Cylinder guards – boom	●
Safety valve on dozer blade	●
Floating Tilt Blade	●



A SERVICE YOU CAN RELY ON

In the event of a breakdown during your warranty period, Vertu will come to your site as soon as possible to get your machine back up and running.

National Service Representation

Our national service network partnerships provide certainty that you are supported with service and parts, wherever you are located.

Parts and Inventory

As the dealer of SANY excavators, roading and construction equipment Vertu holds a significant inventory of SANY Genuine and aftermarket parts and attachments, both in New Zealand and Australia to keep you going. With direct relationships locally and internationally we can source parts quickly and as a matter of priority.

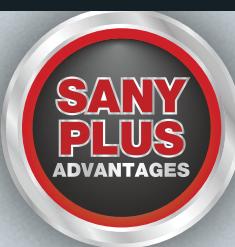
Flexible, Fast and Always there for you

Paid assistance, tailored advice and a reliable supply of original parts all around New Zealand. That is what we mean by premium service.



Detailed information in black and white

Handbooks and documents are available for all SANY mini excavators, and these can help you with operation, maintenance, servicing and repairs. These include operating and maintenance instructions and technical specifications.



The added benefits SANY offers you:

- ⊕ Fast supply thanks to central SANY Oceania Parts hub in Victoria
- ⊕ More than 15,000 spare parts to make your machine highly reliable
- ⊕ Expert knowledge for optimal supply for your machine
- ⊕ Thanks to SANY's special training programme, our technicians are always kept up-to-date so that they can face all technical challenges.



PERFECT COMBINATION OF COMPACTNESS + AND POWER

Compact, capable, and built for real-world performance, the upgraded SY50U delivers higher efficiency, improved durability, and lower operating costs, setting a new benchmark in the 4–5 ton class.

ROBUST AND DURABLE

All components are designed to withstand high stress. The workmanship of the materials is also especially **high-quality** – almost all the **welded seams** are perfectly **executed by welding robots**.

IN THE SMALLEST OF SPACES

The **robust swivel bracket** is the most important aspect for all tasks. It enables the machine to achieve its exceptionally **compact mobility**.

MAINTENANCE AND SERVICE

Thanks to the engine bonnet supported by **gas pressure dampers** and the central, **clear arrangement of the key components**, usual routine checks and work on the machine can be carried out quickly and easily.

NO COMPROMISES

Daily operations on the construction site make high demands on both operators and machines. **High-quality safety components** are therefore always a must, for example the **sturdy cylinder covers** and the **two proportional auxiliary lines with joystick operation as standard**.

POWER

The **powerful Yanmar 4TNV86CT engine** means that this mini excavator is also perfectly suited to „maxi“ tasks.

COST-EFFECTIVENESS AS STANDARD

In conjunction with the **electronic fuel injection**, the **autothrottle function** adjusts the engine speed to the power required. This means that the **smart hydraulic system reduces the fuel consumption, engine wear and exhaust emissions**. This is positively reflected in its cost-effectiveness and **low life cycle costs**.

TECHNICAL HIGHLIGHTS

Engine	Yanmar 4TNV86CT
Rated power	35.5 kW / 2400 rpm
Max. torque	169.5 Nm / 1560 rpm
Max. travel speed	4 km/h
Swingspeed	10 rpm
Mainpump	REXROTH
Max. oilflow	138.6 l/min



Not all products are available in all markets. As part of our continuous improvement process, we reserve the right to modify specifications and designs without giving prior notice. The figures may contain additional options.