

SANY

Quality Changes the World



GREAT PERFORMANCE, SMALL PACKAGE

PHENOMENALLY AGILE. PHENOMENALLY EFFICIENT.

CONSTRUCTION MACHINERY



MINI EXCAVATORS
SY50U

Engine
Yanmar 4TNV86CT-PSY
Rated power
35.5 kW / 2400
rpm Bucket capacity
0.152 m³
Operating weight
5100 kg

SANY

SY50U

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 world's leading producers, having sold more than **320 000** excavators in **10 years**. 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.

320 000
EXCAVATORS SOLD IN
10 YEARS

5–7%
TURNOVER FOR RESEARCH
AND DEVELOPMENT

Quality Changes the World

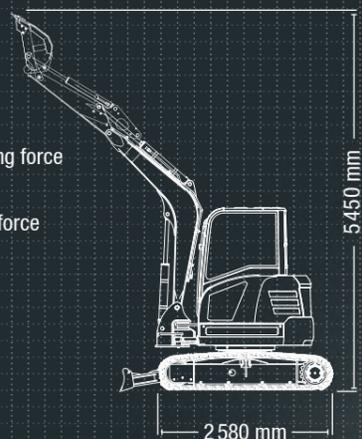
SY50U HARD FACTS

Max. bucket digging force
36.8 kN (ISO)

Max. arm digging force
25.0 kN (ISO)

Swingspeed
10 rpm

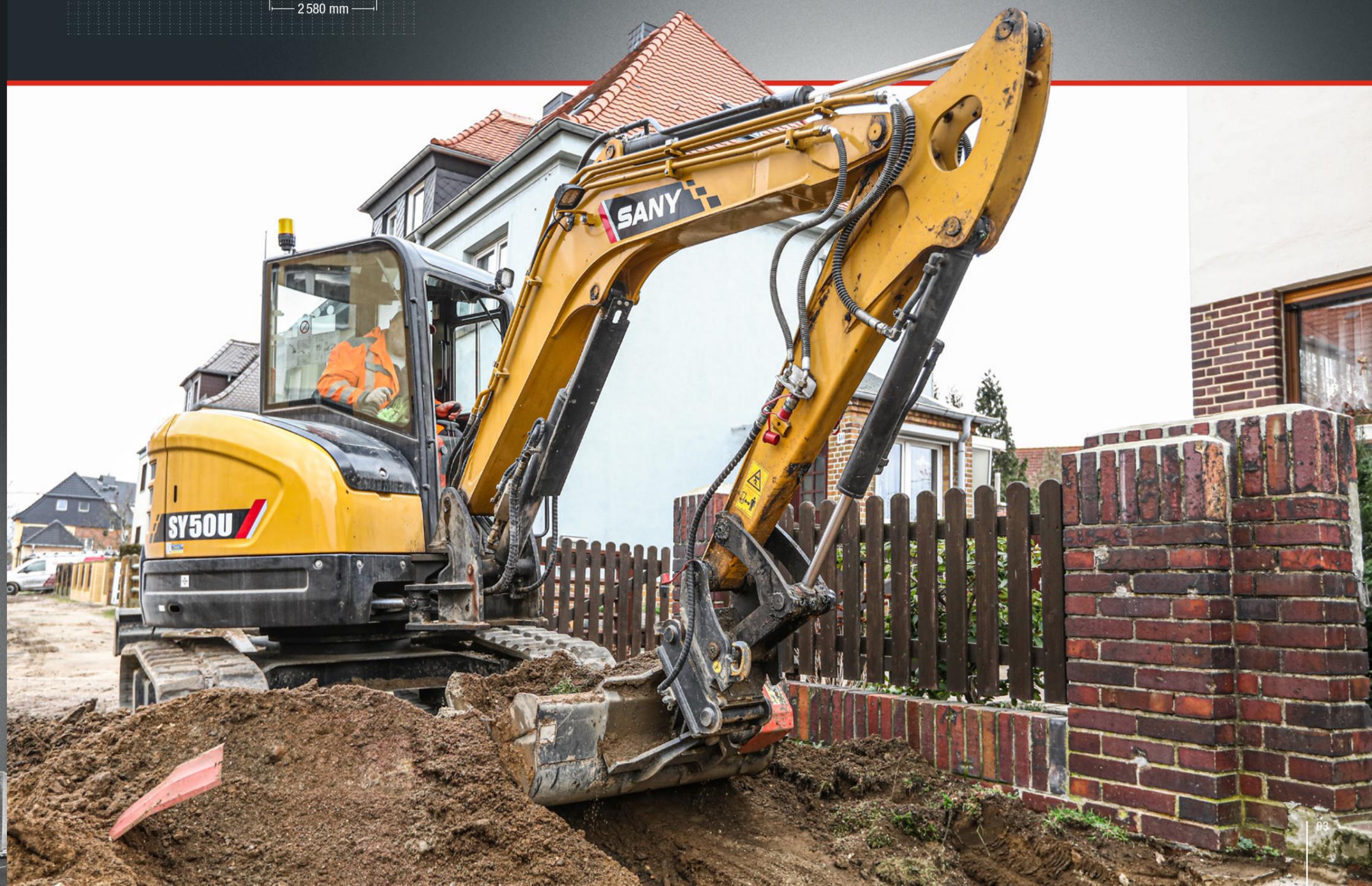
Max. travel speed
4 km/h



LIGHT WEIGHT, HEAVY DUTY

With the SY50U short-tail-swing excavator, you have a specialist at your side that can prove its power especially in confined spaces. It requires little space, so can work and manoeuvre everywhere where conventional machines reach their limits – in places that are difficult to access, directly next to walls and house walls, on construction sites

in busy inner-city areas or on busy roads. You can rely on its responsive, precise control and on the fact that this small machine is ranked at the level of significantly larger machines in its class in terms of speed and power.



ECONOMY

OPERATING COSTS DOWN, PRODUCTIVITY UP

The SY50U is equipped with a particularly effective load-sensing hydraulic system. The piston pumps with a variable flow rate ensure sufficient power to carry out all operations smoothly and safely. The well-balanced combination of speed, power and precise response behaviour guarantees high cost-effectiveness with fuel in every phase: The hydraulic pump always delivers just enough oil as is actually needed.



QUALITY

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

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.

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. This saves time on routine tasks.



SAFETY

No compromises – Extensive safety equipment is standard, from rotating warning beacons to lockable protective bonnets and battery disconnection switches.

COMPONENTS

Power – The tried-and-tested Yanmar 4TNV88C PSY engine guarantees reliable performance for all tasks, even in harsh working conditions.

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.

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

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 productivity of an excavator is largely dependent on whether the driver can work for long periods in a focused manner. This is why the SY50U is fitted with a particularly roomy driver's cab with the highest level of comfort. The operator can sit comfortably in the ergonomic driver's seat. The height of the armrests can be adapted for fatigue-free working. Despite the compact design, there is also enough room in the footwell – if required, the pedals can be folded away to create more space. The driver has the best possible view of everything from the cab. The quiet-running engine, together with the sound- and vibration-damping design, minimises noise and vibrations.



Our highlights – the added benefits SANY offers you:

- + Short-tail-swing machine with compact dimensions
- + 2 proportional auxiliary control circuit via joystick operation as standard
- + Efficient, powerful load-sensing hydraulic system
- + Clear instruments and a large, high-resolution colour display
- + Automatic speed setting
- + Air conditioning system
- + ROPS and FOPS-certified driver's cab for safety in operation



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.



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.

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 manoeuvrability, 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.

ENGINE

| | |
|-------------------|---|
| Model | Yanmar 4TNV86CT-PSY |
| Type | Water-cooled, 4 cylinder, with commonrail and DPF |
| Exhaust emissions | Stage V |
| Rated power | 35.5 kW / 2400 rpm |
| Max. torque | 144.9 Nm / 1500 rpm |
| Displacement | 2190 ccm |
| Batteries | 1 x 12 V / 120 Ah |

HYDRAULIC SYSTEM

| | |
|----------------------|--|
| Mainpump | Variable displacement axial piston pump |
| Max. oilflow | 144 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 | 7.4 l |
| Drive (per side) | 0.9 l |
| Hydraulicsystem | 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 | 53 kN |
| Gradeability | 25° |
| Bucket capacity | 0.152 m³ |
| Groundpressure | 0.32 kg/cm² |
| Bucket digging force ISO | 36.8 kN |
| Arm digging force ISO | 25 kN |

OPERATING WEIGHT

| | |
|-------|---------|
| SY50U | 5100 kg |
|-------|---------|

UNDER 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 | 275 bar |
| Swing circuit | 191 bar |
| Travel circuit | 275 bar |
| Pilot pressure | 35 bar |

LIFTING CAPACITIES OF LOWER DOZER BLADE

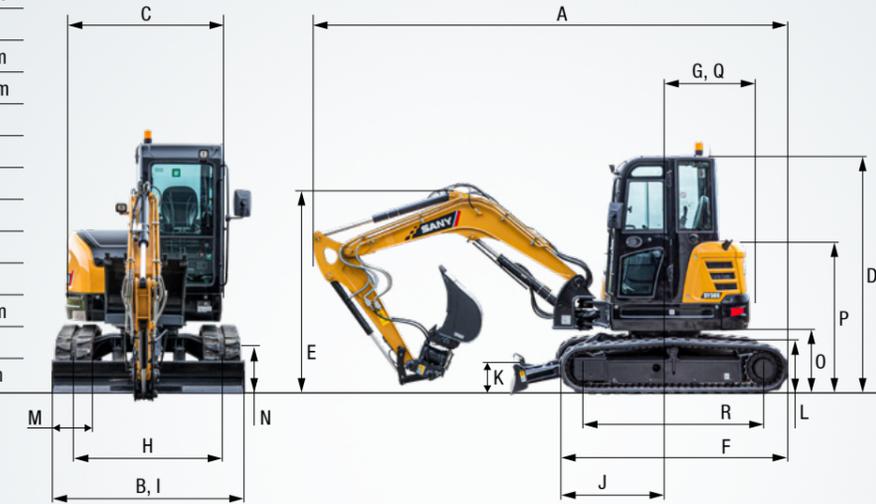
| Load point height | Radius | | | | | Maximal |
|-------------------|------------------------|----------------|-----------------|-----------------|--|-----------|
| | 2.0 m / 6.6 ft | 3.0 m / 9.8 ft | 4.0 m / 13.1 ft | 5.0 m / 16.4 ft | | |
| 4.0 m kg | | | | | | 1085 845 |
| 13.1 ft lb | | | | | | 2387 1859 |
| 3.0 m kg | | | 1050 815 | | | 1050 655 |
| 9.8 ft lb | | | 2310 1793 | | | 2310 1441 |
| 2.0 m kg | 1545 1190 | 1190 790 | | | | 1055 580 |
| 6.6 ft lb | 3399 2618 | 2618 1738 | | | | 2321 1276 |
| 1.0 m kg | 2020 1110 | 1365 760 | 1080 560 | | | 1075 555 |
| 3.3 ft lb | 4444 2442 | 3003 1672 | 2376 1232 | | | 2365 1221 |
| Ground line | kg 2165 1075 1445 735 | | | | | 1100 575 |
| | lb 4763 2365 3179 1617 | | | | | 2420 1265 |
| -1.0 m kg | 2735 2000 | 1975 1075 | 1325 735 | | | 1110 655 |
| -3.3 ft lb | 6017 4400 | 4345 2365 | 2915 1617 | | | 2442 1441 |
| -2.0 m kg | 2135 2050 | 1370 1100 | | | | 1040 905 |
| -6.6 ft lb | 4697 4510 | 3014 2420 | | | | 2288 1991 |

LIFTING CAPACITIES OF UPPER DOZER BLADE

| Load point height | Radius | | | | | Maximal |
|-------------------|------------------------|----------------|-----------------|-----------------|--|-----------|
| | 2.0 m / 6.6 ft | 3.0 m / 9.8 ft | 4.0 m / 13.1 ft | 5.0 m / 16.4 ft | | |
| 4.0 m kg | | | | | | 1025 845 |
| 13.1 ft lb | | | | | | 2255 1859 |
| 3.0 m kg | | | 985 815 | | | 790 655 |
| 9.8 ft lb | | | 2167 1793 | | | 1738 1441 |
| 2.0 m kg | 1485 1190 | 960 790 | | | | 700 580 |
| 6.6 ft lb | 3267 2618 | 2112 1738 | | | | 1540 1276 |
| 1.0 m kg | 1400 1110 | 925 760 | 680 560 | | | 675 555 |
| 3.3 ft lb | 3080 2442 | 2035 1672 | 1496 1232 | | | 1485 1221 |
| Ground line | kg 1360 1075 905 735 | | | | | 700 575 |
| | lb 2992 2365 1991 1617 | | | | | 1540 1265 |
| -1.0 m kg | 2735 2000 | 1355 1075 | 900 735 | | | 800 655 |
| -3.3 ft lb | 6017 4400 | 2981 2365 | 1980 1617 | | | 1760 1441 |
| -2.0 m kg | 2135 2050 | 1370 1100 | | | | 1040 905 |
| -6.6 ft lb | 4697 4510 | 3014 2420 | | | | 2288 1991 |

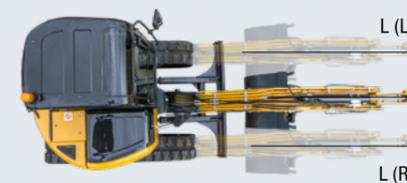
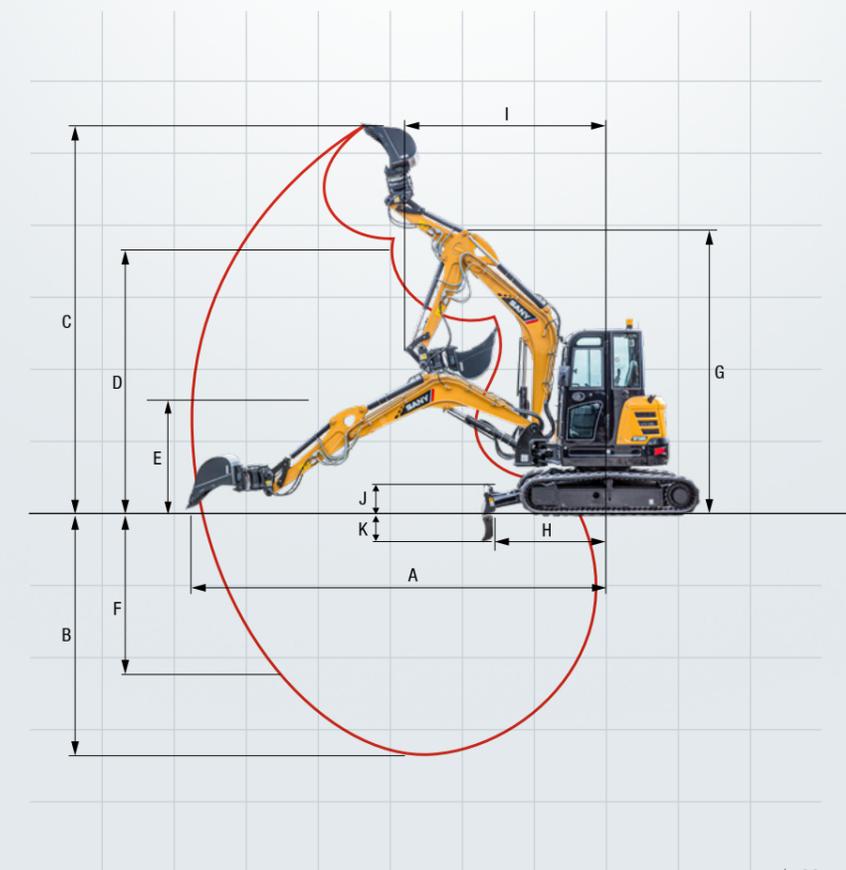
DIMENSIONS (TRANSPORT)

| | |
|--------------------------------|---------|
| A Transport length | 5390 mm |
| B Transport width | 1960 mm |
| C Upperstructure carriage | 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 | 790 mm |
| K Blade height | 340 mm |
| L Track height | 610 mm |
| M Track pads width | 400 mm |
| N Min. ground clearance | 325 mm |
| O Counterweigh clearance | 675 mm |
| P Engine cover height | 1660 mm |
| Q Tail swing radius | 980 mm |
| R Center distance of tumbler | 2060 mm |



WORKING AREA

| | |
|--|---------|
| A Max. digging reach | 5880 mm |
| B Max. digging depth | 3420 mm |
| C Max. digging height | 5450 mm |
| D Max. dumping height | 3805 mm |
| E Min. dumping height | 1410 mm |
| F Max. vertical digging depth | 2460 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 / CAB

| | |
|---|---|
| Heater | ● |
| Manual air condition system | ● |
| Radio and speaker | ● |
| 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 | ● |
| Lockable hoods | ● |

WORKING EQUIPMENT

| | |
|---|---|
| Boom and arm load holding valves with overload indicator | ● |
| Double acting circuit for hydraulic quick coupler with piping | ● |
| Hammer & Shear line proportional on Joystick with piping | ● |
| Rotation line proportional on Joystick with piping | ● |
| Flow adjustment for attachments | ● |
| Dozer blade | ● |
| Cylinder guards – boom | ● |

Standard equipment ● Special option ●

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

WORKING LIGHTS

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

UNDERCARRIAGE

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

ENGINE

| | |
|---------------|---|
| Auto idle | ● |
| Diesel filter | ● |
| DPF | ● |
| Airfilter | ● |

HYDRAULIC SYSTEM

| | |
|--|---|
| Swing brake | ● |
| 2 speed travel | ● |
| Hydr. Pre-pressure operating joysticks | ● |
| Piping for additional hydraulic function AUX 1 | ● |
| Piping for additional hydraulic function AUX 2 | ● |
| Mainfilter | ● |

A SERVICE YOU CAN RELY ON

Just as we do with our excavators, we also demand high quality and reliability of our service products. This underlines our equipment's performance in terms of their durability and their excellent price-performance ratio. After all, maintenance is crucial

for efficiency, cost-effectiveness and safety. Your SANY dealer is happy to help you with a comprehensive range of services to ensure that your machine continues operating efficiently in the long term.

SANY – flexible, fast and always there for you

Rapid assistance, tailored advice and a reliable supply of original parts – that is what we mean by a premium service.



The added benefits SANY offers you:

- ✦ Experienced dealer network throughout England, Wales, Northern Ireland and Ireland
- ✦ Direct sales and support route in Scotland
- ✦ Dedicated SANY team based in the UK to support you and your product
- ✦ UK office and parts warehouse to ensure SANY excavators are fully supported

* To locate your nearest dealer, visit <https://www.sanyuk.com>.

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.



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.





PERFECT COMBINATION OF COMPACTNESS + AND POWER

The SANY SY50U really is a powerful little machine. Its compact design means it is at home on urban construction sites, as well as anywhere with areas that are particularly small. Its power and versatility therefore ensure productivity.

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. **Excellent safety components** are therefore always included, such as the **stable cylinder covers**.

POWER

The **powerful Yanmar 4TNV88C PSY 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-PSY |
| Rated power | 35.5 kW / 2 400 rpm |
| Max. torque | 144.9 Nm / 1 500 rpm |
| Max. travel speed | 4 km/h |
| Swingspeed | 10 rpm |
| Mainpump | Variable displ. axial piston pump |
| Max. oilflow | 144 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.

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