

ZAXIS19



HYDRAULIC EXCAVATOR

Model Code : ZX19-5A

Engine Rated Power : 10.6 kW (14.2 HP)

Operating Weight : 1 920 kg

Backhoe Bucket ISO Heaped : 0.044 m³



WALK AROUND

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Quick and easy cleaning and maintenance can be carried out on the new ZAXIS 19 thanks to convenient and accessible features

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Increased efficiency

Improvements to the cab, and the redesigned arm and boom, contribute to greater efficiency on the job site.

Improved durability

A new blade design and a large blade cylinder guard have enhanced the durability of the ZAXIS 19.



The new Hitachi ZAXIS 19 has been developed in Japan to meet the highest standards for performance, comfort and ease of maintenance. Improvements to the new large, square-shaped cab have an impact not only on comfort and safety, but also on efficiency and productivity. Built to live up to Hitachi's reputation for reliability, the new model benefits from enhanced durability. In addition, the Hitachi Support Chain after-sales programme will ensure the ZAXIS 19 helps you to complete your projects on time and within budget, and to a high standard.

Exceptional cab design

The large cab has a square design with a wide doorway, and a redesigned interior, which provide a more comfortable working environment. The new cab also offers increased visibility for enhanced safety.



Reduced minimum front swing radius

Improved work efficiency in confined spaces, like urban areas on road construction and utilities projects.

Quick and easy service access

The engine and radiator covers allow easy access for maintenance, and components are conveniently positioned to allow for quick daily inspections.

ZAXIS19



PERFORMANCE

The new ZAXIS mini excavator range has been designed to deliver an outstanding level of performance on a variety of projects. Suitable for utilities, foundation work, landscaping, demolition and construction, the ZAXIS 19 is extremely versatile. It delivers high levels of efficiency, thanks to comfort and safety improvements found in the new larger cab. It is also highly durable, with a redesigned blade and additional protection for other components.



A durable design for efficiency on the job site



Superior efficiency

Today's construction market requires machines that are capable of delivering high levels of productivity with excellent fuel efficiency. The ZAXIS mini excavator range has been developed not only to meet these demands, but also offer greater versatility and user-friendly operation.

Entering and leaving the cab is much easier on the ZAXIS 19 due to the enlarged door space (120 mm wider than the previous model). The cab itself is larger too. It contributes to greater efficiency on the job site through comfort and safety improvements, such as increased all-round visibility. An example is the large right-hand window, which slides further back to make it easier to see the ground below.

The boom cylinder has been moved behind the boom to protect it from potential damage. It means the front minimum turning radius of the ZAXIS 19 is smaller, making it more efficient when working in tight spaces. The blade angle has also changed to make it easier to dig more precisely and remove thin layers of earth from the ground.

A new folding travel pedal is a user-friendly feature, which can be used instead of a hand lever and improves the speed of operation. In addition, the ZAXIS 19 is equipped with two lights on the cab, enabling it to work earlier in the morning or later at night.

Exceptional durability

Hitachi engineers have given the new range of mini excavators several new and improved features to enhance their reliability and durability. This means that you can rely on the ZAXIS 19 to get the job done on time and within budget, on a variety of construction sites. It has been designed to deliver high levels of availability and productivity, and a lower cost of ownership.

The ZAXIS 19 has a new blade design that is more durable than the previous model. Without a cutting edge, the entire blade is manufactured from high-strength steel. Another durable feature is the large cylinder guard, designed to protect the blade cylinder from potential damage.

The hydraulic hose on the front attachment has been placed inside the boom on the ZAXIS 19. This provides added protection for the hose, preventing it from coming into contact with materials or debris on site.

Key features

- Enlarged door space
- Large right-hand window
- Folding travel pedal

- New blade design
- Large blade cylinder guard
- Two-speed travel system with automatic shift



COMFORT

The ZAXIS 19 has been expertly designed by Hitachi engineers to provide a first-class working environment for operators. The new square cab design utilises every inch of space to create more room and improve comfort. The user-friendly interior layout and controls have been developed for easy operation and to improve efficiency. It also offers excellent all-round visibility, which contributes to greater safety on busy job sites



The redesigned cab offers exceptional comfort



From the comfort of the cab

If you choose to spend most of your day in the cab of a Hitachi ZAXIS mini excavator, you can expect to feel comfortable while you work. The ZAXIS 19 has been designed with operators in mind and several features in the cab will ensure that they feel less tired at the end of the day.

The front window opens easily and comfortably, with more space between you and the glass. The length and width of the floor space in the cab has been expanded, resulting in more legroom. An air heater vent is now positioned below the seat for added comfort. The cab has also been designed with a drink holder, for easy access to refreshments during your shift.

Enhanced visibility

The redesigned square cab has resulted in greater all-round visibility. This is particularly important on busy construction sites, and when working in tight spaces, to avoid unnecessary damage to the machine, or health and safety issues.

A new window on the lower right-hand side further improves your view. The use of flat rather than curved panes of glass also means it is easier to repair.

At your fingertips

The power lies firmly in your hands with the new ZAXIS mini excavator, as Hitachi has incorporated a number of user-friendly features. This includes a freshly designed interior layout for easy access to switches and controls.

The new large LCD monitor is located within easy reach on the right-hand side. It displays all vital technical data at a glance, including the machine's status and settings.

An auxiliary function lever (AFL) can also be useful when the ZAXIS 19 is used with a breaker attachment. It has a proportional switch for additional piping operation and operates smoothly when the machine is manoeuvring.

Enjoy your day

Many of the new developments in the ZAXIS 19 are focused on creating a pleasant working environment, because a happy operator is also more productive. Safety and security are also important considerations, therefore an optional theft deterrent system is available for the ZAXIS 19. It requires a four-digit number to unlock before the engine can be switched on.

Key features

■ Enhanced visibility

■ Easy entrance

■ Easily accessible information

■ Expansive leg room

■ Large LCD monitor

■ Folding travel pedals and adjustable armrest

■ Auxiliary function lever



MAINTENANCE

The user-friendly design of the new ZAXIS mini excavators incorporates several convenient maintenance features. They enable you to carry out cleaning and routine maintenance quickly and easily, so you can continue with your work as soon as possible. Regular checks and servicing brings many benefits to your business, such as high levels of availability and optimum performance, lower running costs and greater profitability.



Designed with convenience in mind



Easy access

The ZAXIS 19 has several convenient features that make routine maintenance and cleaning quick and easy. With long service intervals, you can benefit from reduced running costs and trouble-free days on the job site.

The covers of the new mini excavator – including those for the radiator, engine and fuel tank – have all been designed for easier access. The fuel tank opening has been relocated for convenience, and also includes a cap holder and large strainer. The engine cover slides open vertically, which is ideal in tight spaces. The radiator cover opens wide with a single touch for easy cleaning and convenient access to check the battery.

Components requiring daily inspection, including filters and the oil gauge, are located together for convenience behind the easy access covers. Other parts such as the muffler, pilot filter, pumps and fuel tank, have also been arranged in an easily accessible layout. The radiator and oil cooler are positioned in parallel for efficient cleaning.

Easy cleaning

Cleaning your machine helps to keep it in excellent working order and minimises downtime as a result. The new ZAXIS mini excavator range incorporates a number of new features that make it easier to clean than previous models.

An example of this is the dozer blade, which has been designed with openings to minimise the build-up of dirt and make it quicker to remove. Inside the cab, the floor mat can be removed and cleaned easily.

One further change to the ZAXIS 19-5 is the installation of flat panes of glass in the cab window. These are easier and less expensive to obtain than curved glass, so this reduces repair and replacement costs for owners.

Support Chain

To further protect your investment in your new ZAXIS mini excavator, the Hitachi Support Chain after-sales programme gives you the flexibility to create a tailor-made service plan. This can include: Global e-Service, technical support, extended warranty and service contracts, and parts and remanufactured components. Each one of these is a link in the chain of service available from Hitachi via your local dealer. For more details, please contact your local dealer.

Key features

- Easy refuelling
- Easy to open covers



SPECIFICATIONS

ENGINE

Model	3TNV70
Type	Water-cooled, 4-cycle, swirl combustion chamber injection type diesel engine
No. of cylinders	3
Rated power	
ISO 9249, net	10.6 kW at 2 400 min ⁻¹
EEC 80/1269, net	10.6 kW at 2 400 min ⁻¹
SAE J1349, net	10.6 kW at 2 400 min ⁻¹
Maximum torque	48.8 Nm at 1 800 min ⁻¹
Piston displacement	0.854 L
Bore and stroke	70 mm x 74 mm
Batteries	1 x 12 V / 36 Ah

HYDRAULIC SYSTEM

Hydraulic Pumps

Main pumps	2 variable displacement axial piston pumps 1 gear pump
Maximum oil flow	2 x 19.2 L/min 1 x 10.8 L/min
Pilot pump	1 gear pump
Maximum oil flow	6.5 L/min

Hydraulic Motors

Travel	2 variable displacement axial piston motors
Swing	1 gear motor

Relief Valve Settings

Implement circuit	20.6 MPa
Swing circuit	13.7 Mpa
Travel circuit	20.6 Mpa
Pilot circuit	3.9 Mpa

Hydraulic Cylinders

	Quantity	Bore	Rod diameter	Stroke
Boom	1	65 mm	35 mm	490 mm
Arm	1	60 mm	35 mm	368 mm
Bucket	1	55 mm	30 mm	311 mm
Blade	1	70 mm	40 mm	94 mm
Boom swing	1	60 mm	30 mm	298 mm
Span	1	50 mm	30 mm	312 mm

UPPERSTRUCTURE

Swing Device

Swing circle is single-row. Swing parking brake is spring-set/hydraulic-released disc type.

Swing speed	9.4 min ⁻¹
Swing torque	1.4 kNm

Operator's Cab

An independent spacious cab, 1 016 mm wide by 1 610 mm high, conforming to ISO* Standards. Reinforced glass windows on 4 sides for visibility. Front windows (upper) can be opened.

* International Organization for Standardization

UNDERCARRIAGE

Tracks

Tractor-type undercarriage. Welded track frame using selected materials. Side frame extended by cylinder span.

Numbers of Rollers and Shoes on Each Side

Lower rollers	3
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Travel Device

Each track driven by 2-speed axial piston motor. Parking brake is spring-set/hydraulic-released disc type. Automatic transmission system : High-Low.

Travel speeds	High : 0 to 4.2 km/h Low : 0 to 2.4 km/h
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Maximum traction force ...	11.4 kN
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Gradeability	47% (25 degree) continuous
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SOUND LEVEL

Sound level in cab according to ISO 6396	LpA 78 dB(A)
External sound level according to ISO 6395 and EU Directive 2000/14/EC	LwA 93 dB(A)

SERVICE REFILL CAPACITIES

Fuel tank	22.0 L
Engine coolant	3.5 L
Engine oil	3.1 L
Travel device (each side)	0.25 L
Hydraulic system	26.0 L
Hydraulic oil tank	14.0 L

WEIGHTS AND GROUND PRESSURE

Operating Weight and Ground Pressure

Including 1.70 m boom and 0.044 m³ bucket (ISO heaped).

Shoe type	Shoe width	Arm length	kg	kPa(kgf/cm ²)
Rubber shoe	230 mm	1.08 m	1 920 kg	30.6 (0.31)

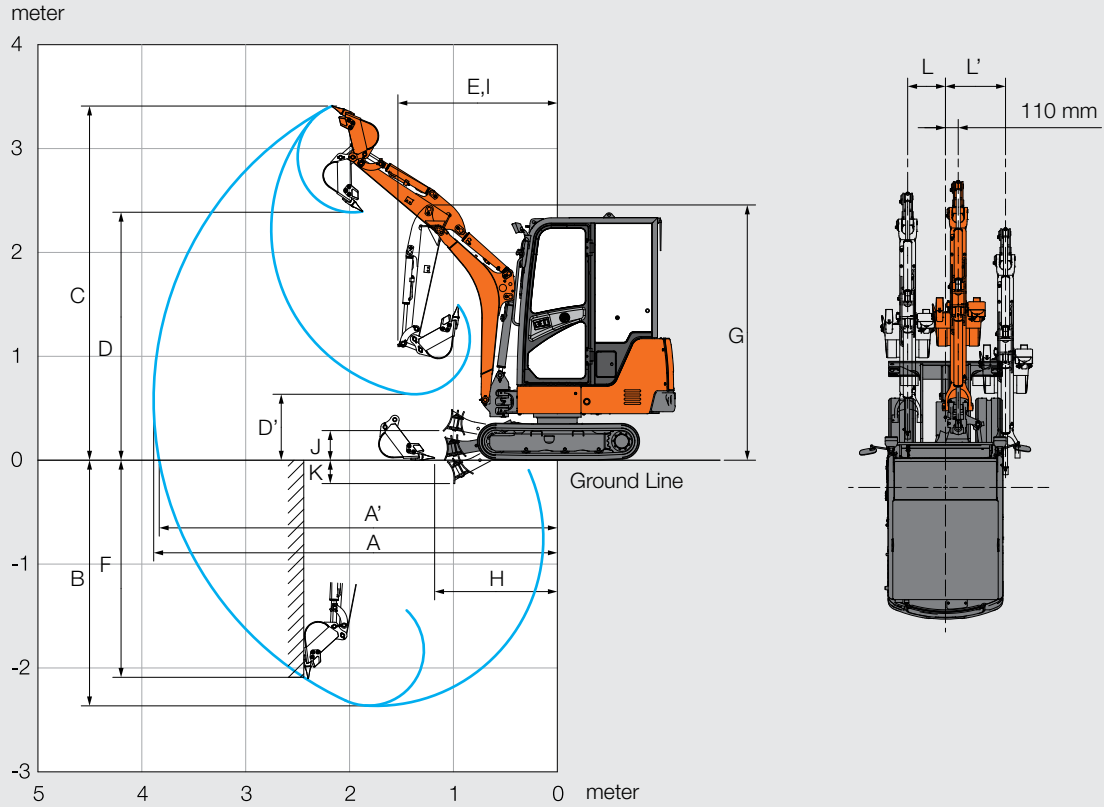
* (Operating weight with 0.044 m³ bucket, fully serviced, +75 kg operator ISO 6016).

BUCKET AND ARM DIGGING FORCE

Arm length	1.08 m
Bucket digging force ISO	16.0 kN
Bucket digging force SAE	12.6 kN
Arm crowd force ISO	8.4 kN
Arm crowd force SAE	7.8 kN

SPECIFICATIONS

WORKING RANGES



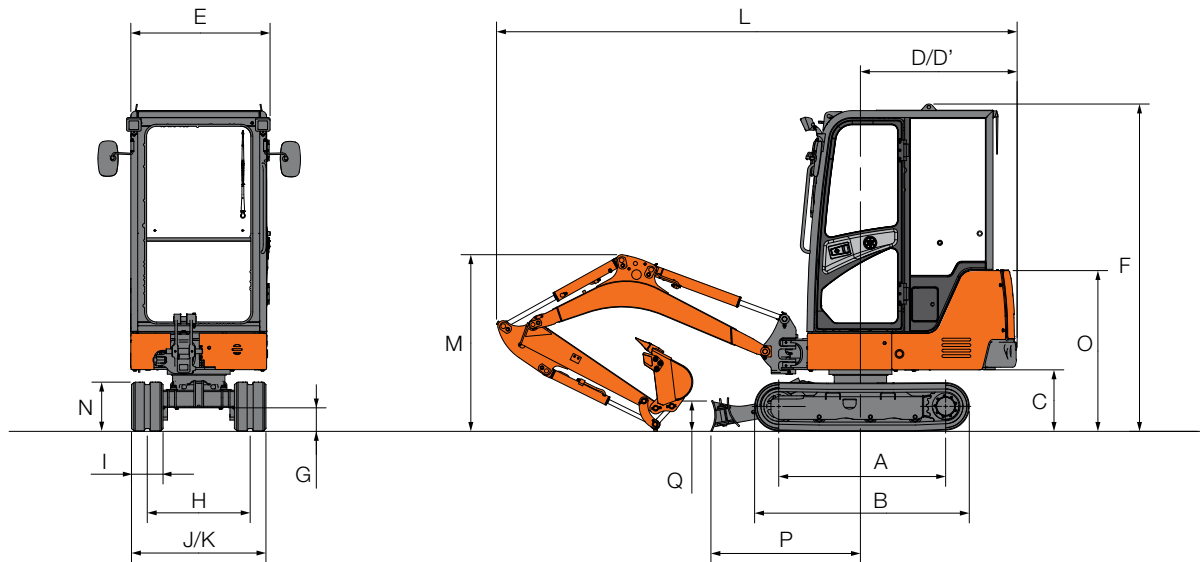
This illustration shows with 1.08 m arm, 0.044 m³ bucket and 230 mm rubber shoes.

Unit: mm

	ZX19-5A
	1.08 m arm
	CAB
A Max. digging reach	3 900
A' Max. digging reach (on ground)	3 840
B Max. digging depth	2 380
C Max. cutting height	3 430
D Max. dumping height	2 380
D' Min. dumping height	630
E Min. swing radius	1 540
F Max. vertical wall digging depth	2 090
G Front height at Min. swing radius	2 470
H Min. level crowding distance	1 160
I Working radius at Min. swing radius (Max. boom-swing angle)	1 250
J Blade bottom highest position above ground	230
K Blade bottom lowest position above ground	260
L/L' Offset distance	330 / 520
Max. boom-swing angle (deg.)	70 / 50

SPECIFICATIONS

DIMENSIONS



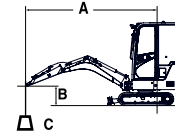
This illustration shows with 1.08 m arm, 0.044 m³ bucket and 230 mm rubber shoes.

Unit: mm

	ZX19-5A
	CAB
A Distance between tumbler	1 210
B Undercarriage length	1 570
C Counterweight clearance	450
D Rear-end swing radius	1 140
D' Rear-end length	1 140
E Overall width of upperstructure	1 020
F Overall height of cab	2 380
G Min. ground clearance	165
H Track gauge (Retract / Extend)	750 / 1050
I Track shoe width	230
J Undercarriage (Blade) width (Retract / Extend)	980 / 1 280
K Overall width (Retract / Extend)	1 020 / 1 280
L Overall length	3 790
M Overall height of boom	1 290
N Track height	360
O Engine cover-height	1 170
P Horizontal distance to blade	1 090
Q Blade height	220

LIFTING CAPACITIES

- Notes:
1. Ratings are based on ISO 10567.
 2. Lifting capacity does not exceed 75% of tipping load with the machine on firm, level ground or 87% full hydraulic capacity.
 3. The load point is the center-line of the bucket pivot mounting pin on the arm.
 4. *Indicates load limited by hydraulic capacity.
 5. 0 m = Ground.
- For lifting capacities, subtract bucket and quick hitch weight from lifting capacities without bucket.



- A: Load radius
B: Load point height
C: Lifting capacity

ZX19-5A Blade above Ground

Rating over-front Rating over-side or 360 degrees Unit : 1 000 kg

Conditions	Load point height	Load radius						At max. reach		
		1.0 m		2.0 m		3.0 m				
										meter
Boom 1.70 m Arm 1.08 m Rubber shoe	1.0m			*0.581	0.475	0.389	0.270	0.335	0.233	3.33
	0(Ground)			0.440	0.300	0.378	0.259	0.333	0.230	3.29
	-1.0m	*1.317	1.079	*0.354	0.278			*0.355	0.278	2.83

ZX19-5A Blade on Ground

Rating over-front Rating over-side or 360 degrees Unit : 1 000 kg

Conditions	Load point height	Load radius						At max. reach		
		1.0 m		2.0 m		3.0 m				
										meter
Boom 1.70m Arm 1.08m Rubber shoe	1.0m			*0.581	0.475	*0.419	0.270	*0.380	0.233	3.33
	0(Ground)			*0.497	0.300	*0.429	0.259	*0.362	0.230	3.29
	-1.0m	*1.317	1.079	*0.354	0.278			*0.355	0.278	2.83

EQUIPMENT

● : Standard equipment

○ : Optional equipment

ENGINE

Cartridge-type engine oil filter	●
Electrical fuel feed pump	●
Fuel main filter	●
Radiator reserve tank	●
Water-separator for engine fuel	●

HYDRAULIC SYSTEM

Full-flow filter	●
Hydraulic pilot type control levers	●
Pilot control shut-off lever with neutral engine start system	●
Pilot filter	●
Suction filter	●
Swing parking brake	●
Travel parking brake	●
Two-speed travel system with automatic shift	●
Valve for extra piping	●

CAB

AM/FM radio	○
Anti-slip plate	●
Arm rests	●
Auxiliary function lever (AFL)	●
Console pocket (AM/FM radio non-attached)	●
Defroster	●
Drink holder	●
Electric horn	●
Floor mat	●
Front window power-assisted with gas damper	●
Heater	●
Rear View Mirror (right, left side)	●
ROPS/OPG CAB	●
Seat belt	●
Spare power supply 12 V	●
Suspension seat with reclining	●
Switch and harness for beacon light	●
Tool box	●
Travel pedal	●
Window washer	●
Wiper	●

UPPER STRUCTURE

Counterweight	●
Pilot accumulator	●

UNDERCARRIAGE

Retractable undercarriage	●
Rubber shoe 230 mm	●

LIGHTS

2 Working lights on the cab and 1 light on the boom	●
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FRONT ATTACHMENTS

Arm 1.08 m	●
Boom 1.70 m	●
Extra piping	●
HN bushing	●

MISCELLANEOUS

Theft deterrent system*	○
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Standard and optional equipment may vary by country, so please consult your Hitachi dealer for details.

* Hitachi Construction Machinery cannot be held liable for theft, any system will just minimize the risk of theft.

MEMO







Built on the foundation of superb technological capabilities, Hitachi Construction Machinery is committed to providing leading-edge solutions and services to contribute as a reliable partner to the business of customers worldwide.

Hitachi Environmental Vision 2025

The Hitachi Group released the Environmental Vision 2025 to curb annual carbon dioxide emissions. The Group is committed to global production while reducing environmental impact in life cycles of all products, and realizing a sustainable society by tackling three goals — prevention of global warming, recycling of resources, and enhancement of ecosystem.

Reducing Environmental Impact by New ZAXIS

Hitachi makes a green way to cut carbon emissions for global warming prevention according to LCA*. New ZAXIS utilizes lots of technological advances, including the new ECO mode, and Isochronous Control. Hitachi has long been committed to recycling of components, such as aluminum parts in radiators and oil cooler. Resin parts are marked for recycling.

*Life Cycle Assessment – ISO 14040

Prior to operating this machine, including communication system, in a country other than a country of its intended use, it may be necessary to make modifications to it so that it complies with the local regulatory standards (including safety standards) and legal requirements of that particular country. Please do not export or operate this machine outside the country of its intended use until such compliance has been confirmed. Please contact your Hitachi dealer in case of questions about compliance. These specifications are subject to change without notice.

Illustrations and photos show the standard models, and may or may not include optional equipment, accessories, customer installed and modified parts, optional parts and all standard equipment with some differences in color and features. Before use, read and understand the Operator's Manual for proper operation.



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