

# ZAXIS

An environment-friendly product adopts genuine imported engine with high quality and durability, and is equipped with high-pressure common rail electronic injection system and cooled EGR system and in combination with HITACHI HIOS III hydraulic system, significantly improving the fuel efficiency and operating performance. Its exhaust emission conforms to national stage III emission regulation. In addition, it features structural components with reinforced designs, more comfortable and safer operating space as well as more time-saving and easier maintenance work, making it an economical and environment-friendly machine bringing you with efficient performance.

"Earning more profits, keeping business up and achieving life value" are the eternal pursuit of customers, so the excavator used to realize the dream should be a productive, safe and reliable machine offering high profit, comfortable experience and cost-efficient and easy maintenance in any condition. Now a new generation of the "powerful and economical" ZAXIS-5 series hydraulic excavators bearing these expectations are being presented to you, and we're sure that their comprehensive specification and impressive performance will help you explore your wonderful future and make your dream come true.

## More Production with Less Fuel · Environmental-friendly ▶ P4-5

### Economical and efficient performance

- New eco-friendly engine with low fuel consumption and high power
- HITACHI HIOS III hydraulic system adopted to increase operating speed effectively
- Fuel efficiency increased by 16% in the ECO mode
- Digging force increased by 10% with power boosting device
- Attachment support system for enhanced operation efficiency

## Durability and Reliability ▶ P6-7

### Powerful and durable configuration

- New engine with high reliability and durability
- Flat-bottom bucket with excellent durability
- X-beam frame with integrated welded structure
- D-section frame adopted and damage prevention plate added for upperstructure

## Comfort and Safety · Convenient Operation ▶ P8-9

### Comfortable and safe operating space makes operation fun and enjoyable

- Ample operating space and excellent visibility
- Suspension seat as a standard feature
- Cab with center pillar reinforced structure
- Neutral engine start system

## Easy Maintenance ▶ P10-11

### User-friendly design for worry and labor saving

- Easy daily maintenance
- Easier cleaning around the engine
- SC painting protecting the surface from dirty

## Multi-function Monitor & e-Service ▶ P12-13

### Advanced machine management solution

- New multi-function monitoring system
- e-Service Owner's site
- ConSite

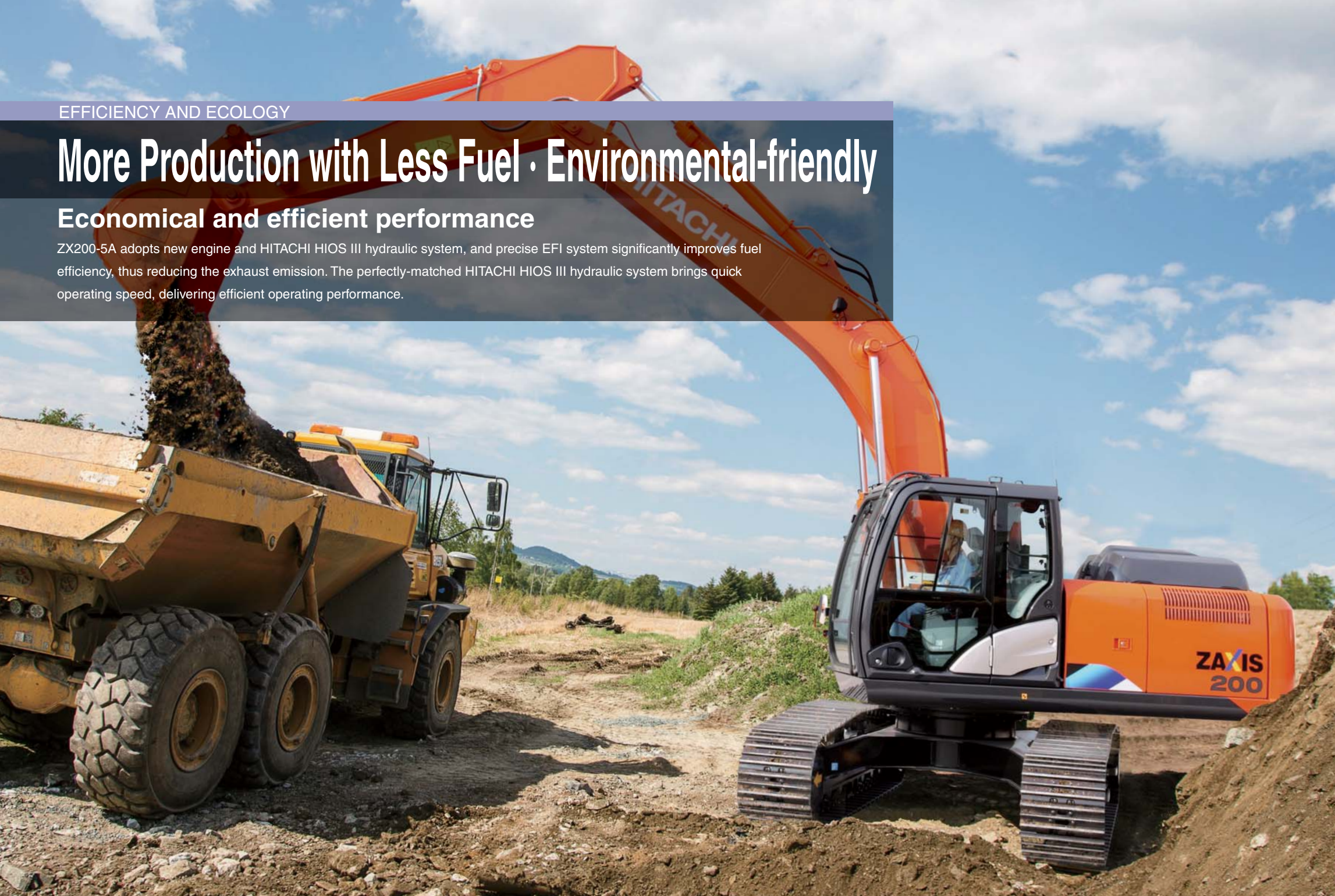


## EFFICIENCY AND ECOLOGY

# More Production with Less Fuel · Environmental-friendly

## Economical and efficient performance

ZX200-5A adopts new engine and HITACHI HIOS III hydraulic system, and precise EFI system significantly improves fuel efficiency, thus reducing the exhaust emission. The perfectly-matched HITACHI HIOS III hydraulic system brings quick operating speed, delivering efficient operating performance.



### New Eco-friendly Engine with Low Fuel Consumption and High Power

The genuine imported new engine with rated power of 113kW adopts high-pressure common rail electronic control fuel injection system and cooled EGR system, which delivers high power and low fuel consumption with its exhaust emission conforming to national stage III emission regulation.

■High-pressure common rail electronic control fuel injection system: It adopts high-pressure common rail and precisely controls the injection timing and injection quantity through electronic control for complete combustion of fuel, thus significantly improving fuel efficiency and reducing fuel consumption and emissions of exhausts such as black smoke etc.

■The cooled EGR system: It enables post-combustion of partial exhaust from the first combustion mixed with intake air, ensuring high power and reducing the emissions of air pollutants.

### High capacity bucket

Equipped with 0.91m<sup>3</sup> H bucket with high capacity as a standard feature (ZX210LC-5A equipped with 1.0m<sup>3</sup> H bucket as a standard feature) to fully demonstrate its superior efficiency in applications involving heavy dumping or loading operation.

### Power mode

PWR mode producing more with less time and fuel-saving ECO mode are available. Compared with PWR mode of conventional ZX200-5G, fuel efficiency in PWR and ECO mode of ZX200-5A is increased by 10% and 16% respectively (values obtained from test conducted by HITACHI).

### Digging Force Increased by 10% with Power Boosting Device

Spurred by the power boosting device, the digging force will instantly increase by 10%. The operator can feel the evident difference during excavation work, making it particularly suitable for digging hard foundations.

### Attachment Support System

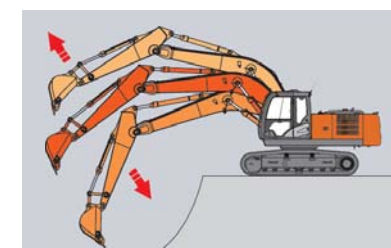
Valve switching and flow setting can be done by using the multi-function monitor, thus enhancing operation efficiency. In addition, the multi-function monitor displays operating hours of the breaker, which is convenient to determine replacement timing for hydraulic oil and filters.

### Swift Front Movements with HIOS III Hydraulic System

The new hydraulic system features a hydraulic boosting system and boom recirculation system based on the original hydraulic system, its efficient and precise hydraulic control enhances the work speed and enables quick and smooth combined operation. Whether for digging or loading operation, the machine can be operated easily.

\*HIOS: Human & Intelligent Operation System

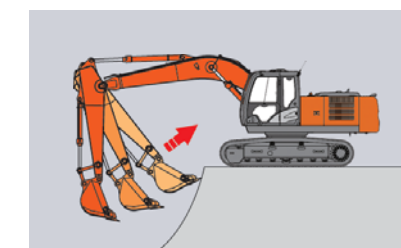
### Boom Recirculation System (Patented by HITACHI)



(Patent No.: ZL200480002169.5, patent classification: invention patent)

When the boom is lowered, hydraulic oil recirculates within the boom circuit assisted by boom weight. Therefore, the system delivers more pressure oil from the pump to the arm, thus significantly increasing arm speed during combined operation of arm and boom lowering. This feature will bring significant effect to the truck loading work.

### Hydraulic Boosting System (Patented by HITACHI)



(Patent No.: ZL200480010122.3, patent classification: invention patent)

The pressure oil which returns from the boom cylinder will be used to accelerate operation of the arm. This design significantly increases the arm roll-in speed.



## DURABILITY

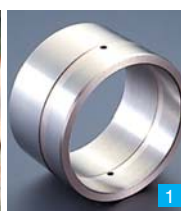
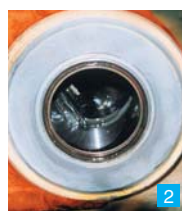
# Durability and Reliability

## Powerful and durable configuration

The service life of machine is closely connected with customers' profit. ZX200-5A is equipped with high quality new engine with a rugged design. It also adopts structural components with reinforced designs and HITACHI patented technologies in many places to further improve durability, ensuring that the machine can operate steadily for a long time.

## New Engine with High Reliability and Durability

The new 5A engine developed with the concept of high durability and high output features a rugged design. The reinforced core components and optimized fuel circuit as well as multiple stage fuel filtration system allow the engine to deliver good performance. The advanced cooling system ensures engine in good running condition, and expansion tank enhances the exhaust performance of cooling circuit. The material with high durability is adopted around the engine, which keeps well cooling performance for a long period.



### 1 New HN Bushing (Patented by HITACHI)

New HN bushings are utilized at joint area of all front attachments for better lubrication and higher durability of front attachments. (Patent No.: ZL03803085.3, patent classification: invention patent)

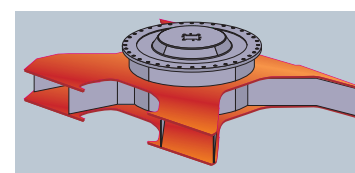
### 2 WC Thermal Spraying

WC (Tungsten-Carbide) thermal spray is applied on the contact surface of the connection between the arm and the bucket, delivering significant reduction in wear of the contact surface and rattling.

### 3 Welded link A

### 4 Flat-Bottom Bucket with Excellent Durability

0.91 m³ flat-bottom bucket with high capacity is equipped as a standard feature (ZX210LC-5A equipped with 1.0m³ bucket as a standard feature) and the reinforced plates at bottom and side of bucket use wear plates with high performance, significantly enhancing the bucket durability.



### 5 X-beam Frame with Integrated Welded Structure

Strength and stability of undercarriage are improved for higher durability.

### 6 Integrated Idler and Adjuster (Middle Left Picture)

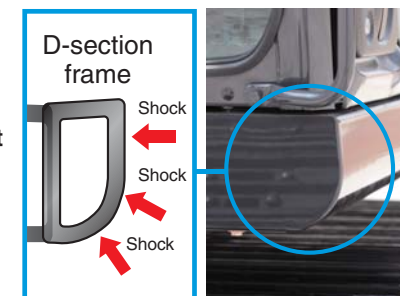
Prevents idlers from sliding.

### 7 Strengthened Travel Motor Bracket

The travel motor bracket's upper and lower plates have been lengthened to improve stress distribution and weld stability.

### 8 Track guides

It can effectively protect lower rollers and prevent track from detaching lower rollers during steering.



### 9 D-section frame

The D-section frame for upperstructure is designed to withstand fierce external shocks.



## COMFORT AND SAFETY

# Comfort and Safety · Convenient Operation

## Comfortable and safe operating space

It is important for the operator to operate machine comfortably and safely. ZX200-5A offers ample operating space and excellent visibility. Numerous user-friendly designs to promote a satisfying operating experience.

## More Comfort and Safety Features



Large overhead window

Engine shut-off lever



Evacuation hammer

Travel direction mark



Control panel

LED room light



Large storage space

Glove compartment

## Ample Operating Space and Excellent Visibility

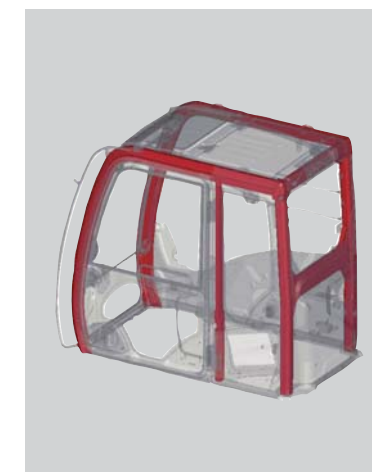
ZX200-5A's cab offers plenty of legroom and excellent visibility. The height and width of cab entry are increased for improving ease of entry, and the legroom is ample. Front glass window has a great area, and large area glasses are used at the right side and lower side of the cab door for better visibility. Monitor switch and air conditioner switch etc. are concentrated on the right console for easier operation. Ample air conditioner vents are located reasonably for smooth and uniform air circulation inside the cab.

## Comfortable Suspension Seat

A suspension seat is provided as a standard feature, thus alleviating operation fatigue. The seat can be freely reclined and slid forward and backward. New slide rails are adopted to achieve less rattling. The cab rests on fluid-filled elastic mounts that absorb shocks and vibration to enhance operator comfort. The new pressurized cab keeps dust and particles from entering.

## Robust Cab

The machine features a cab with center pillar reinforced structure. A neutral engine start system is employed, which eliminates the risk of misoperation at the time of the operator getting on and off the machine to avoid possible dangers.



Cab with center pillar reinforced structure



Neutral engine start system





## EASY MAINTENANCE

# Easy Maintenance

## User-friendly design for worry and labor saving

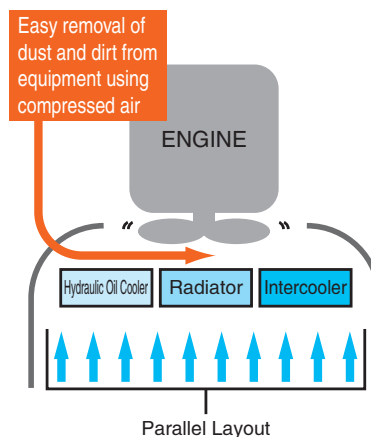
ZX200-5A features a strategic arrangement of the daily maintenance parts to save customers' time and operation cost, making maintenance work more time-saving and easier by adopting electronic information management.



- |                     |                   |                                 |                  |
|---------------------|-------------------|---------------------------------|------------------|
| 1 Fuel main filter  | 3 Pilot filter    | 5 Electric fuel pump            | 7 Expansion tank |
| 2 Engine oil filter | 4 Fuel pre-filter | 6 Fuel tank water drainage cock |                  |



Insect-proof net



### Easy Daily Maintenance

Fuel main filter, fuel pre-filter, pilot filter, engine oil filter and electric fuel pump are concentrated inside the pump compartment. The fuel tank water drainage valve and engine oil discharge port are placed at convenient locations for daily drainage of water and engine oil. Water draining from the fuel tank and replacement of filters etc. are readily accessible from ground level. With the expansion tank and fully-sealed cooling circuit, there is no need to refill the coolant frequently. The fuel tank has a large cleaning port at the bottom, which effectively keeps fuel clean and simplifies inspection work. Plenty slip-resistant plates are positioned for safer maintenance.

### Long Maintenance Period

- Engine oil and engine oil filter: 500 h
- Hydraulic oil filter: 1,000 h
- Hydraulic oil: 5,000 h
- Fuel filter: 1,000 h

### Easier cleaning around the engine

The hydraulic oil cooler, radiator and intercooler are laid out in parallel for easier cleaning around the engine. The air condenser is openable to simplify cleaning. The insect-proof net of a lockable design is placed at the external side of the air condenser and fuel cooler, which is convenient for dismantling and mounting work. The radiator which is equipped with a cover for cleaning on the top can be cleaned by blowing in compressed air.

### Easier Greasing for Adjuster

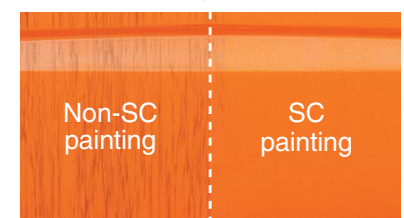
Adjuster greasing ports are repositioned for easier lubrication, and well protected from muck build-up and blockage.

### SC (Self Cleaning) Painting

The hydrophilic coating makes it hard for any dirt to adhere to the surface; even dirt adherence does happen, the dirt can be easily removed.



Greasing point for track adjuster



SC (Self Cleaning) Painting



Air cleaner



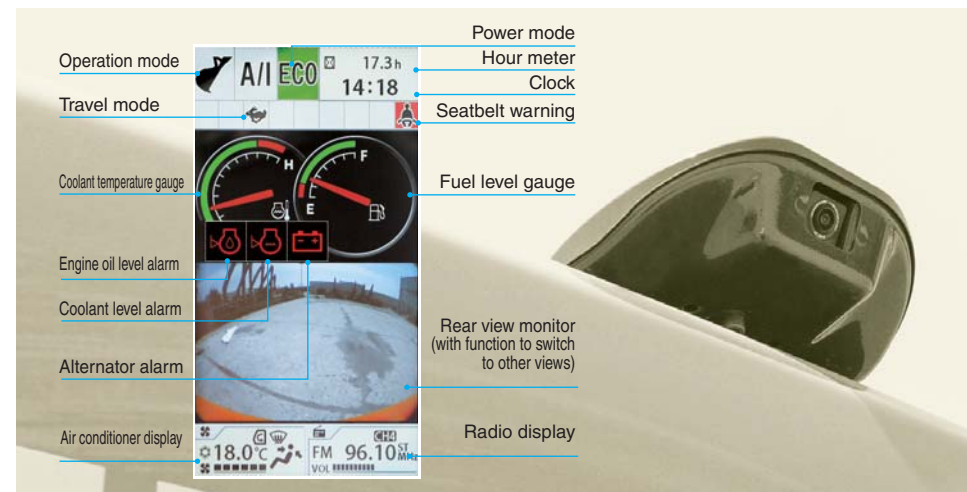
Multi-function Monitor & e-Service

# Multi-function Monitor & e-Service

Advanced machine management solution

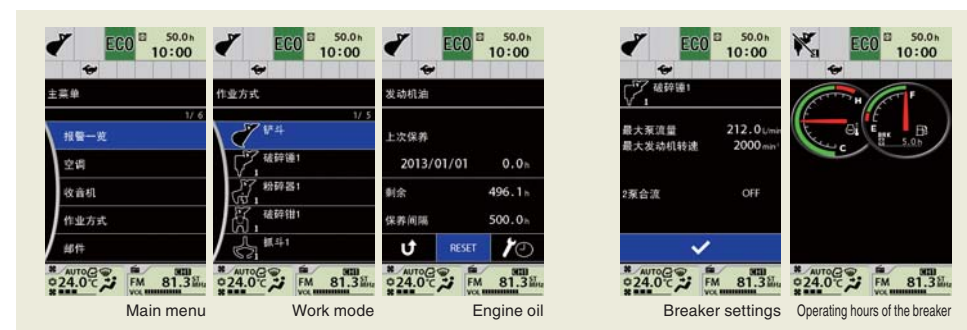
## Multi-function monitoring system

The new multi-function monitoring system comprises a 7-inch high-resolution color display and a multi-function controller. Menu items can be selected by the multi-function controller on the control panel. The color LCD panel is easily visible even in the daylight. The brightness of the screen can be switched between daytime mode and nighttime mode using the 'O' on the ten-key touchpad. A rear view camera always displays the view behind the machine.



## Attachment Replacing Support System and Breaker Hour Meter

The operator can change over valves, adjust circuit flow, and check settings from the multi-function monitor. In addition, an extra hour meter on the multi-function monitor displays operating hours of the breaker, suggesting appropriate replacement timing for oil and filters.



## Multiple Languages Support

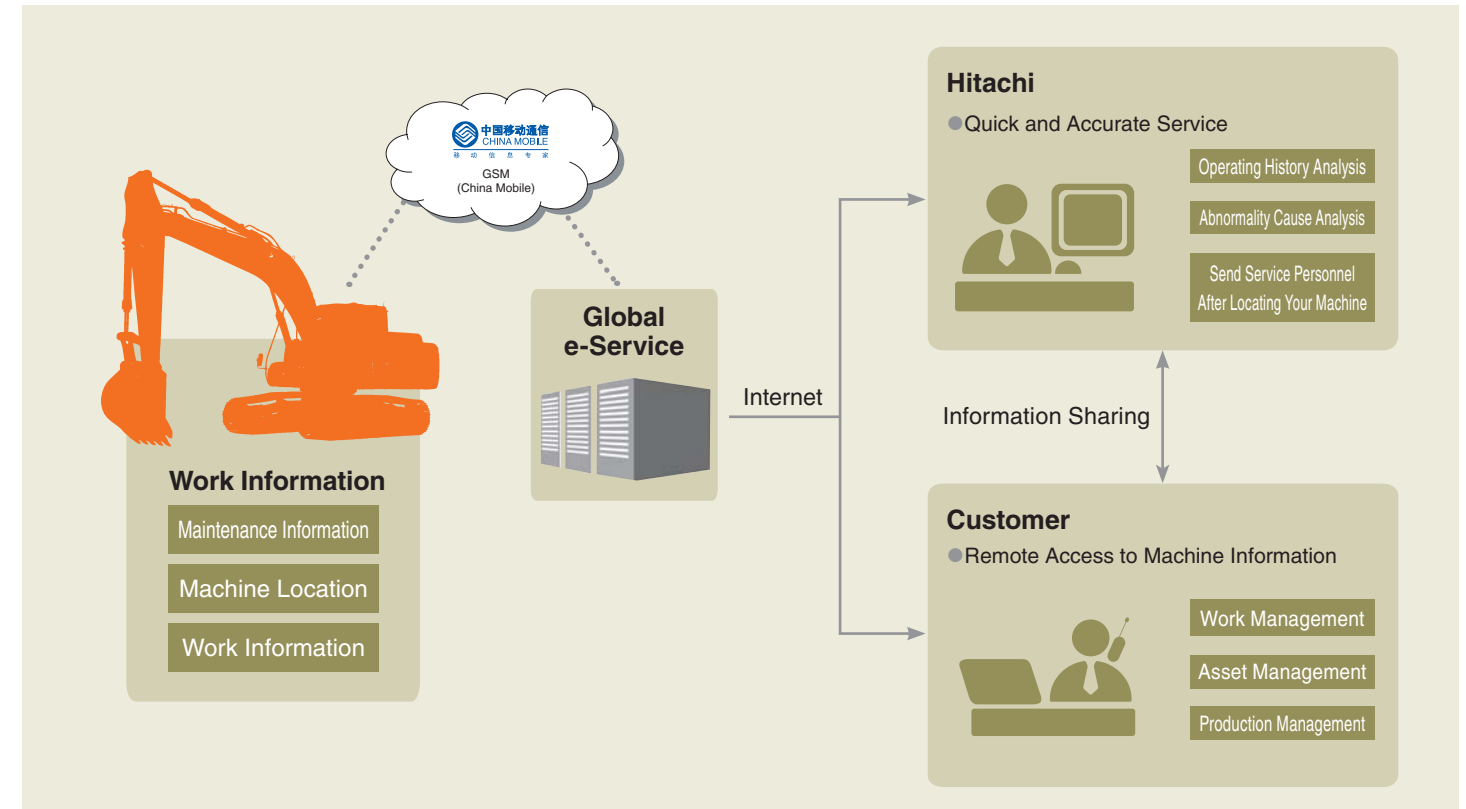
The new ZAXIS is programmed with 32 languages, making it possible to work in the language appropriate to the region in question in the event that the machine is transported to other countries.



# Remote Maintenance Management of Machine Information

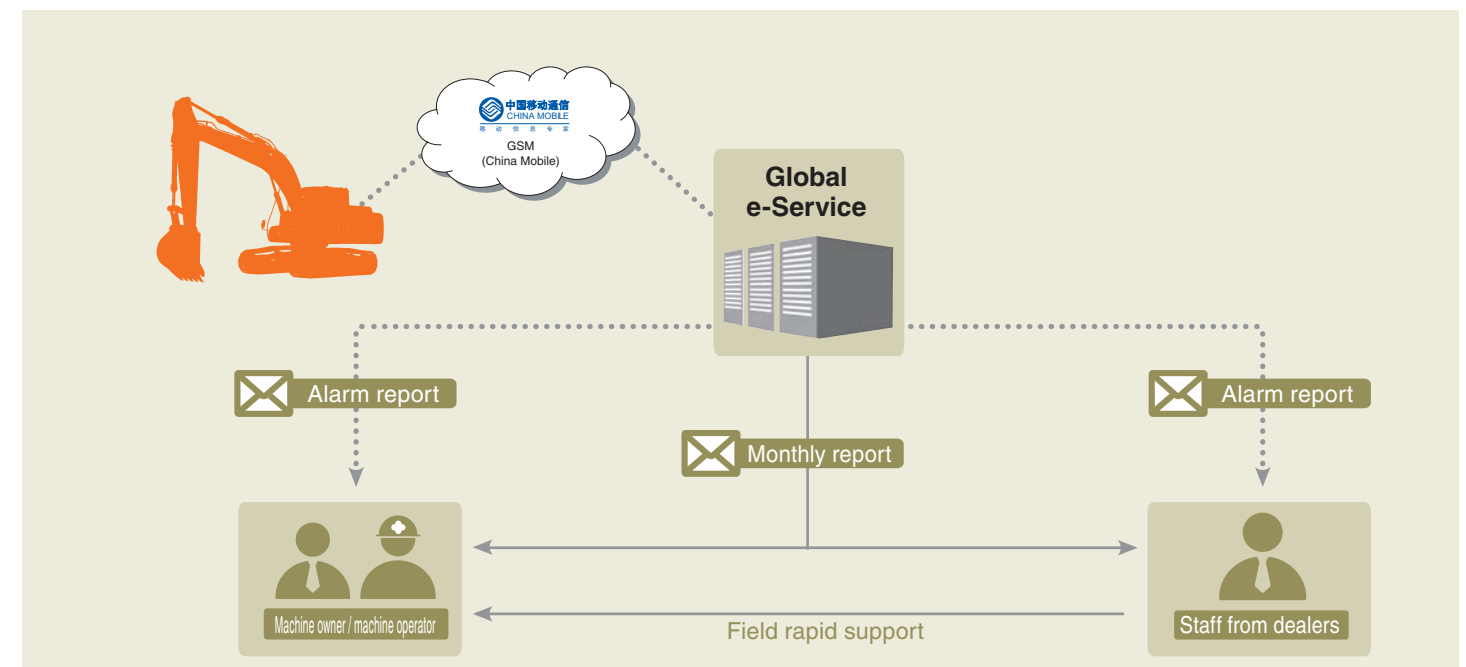
## e-Service Owner's Site

The onboard "e-Service Owner's site", assisted by a powerful information network, has led preventive servicing management to a new era of electronic information. HITACHI provides customers with shared machine information that is to be used as the judging factor for periodic inspection and maintenance. In case of machine abnormality, fault diagnosis can be made from alert information to find the cause. Also, technical personnel can be sent for field service timely. This contributes to quick and accurate service that reduces operational downtime caused by machine fault, ensuring normal operation of machine.



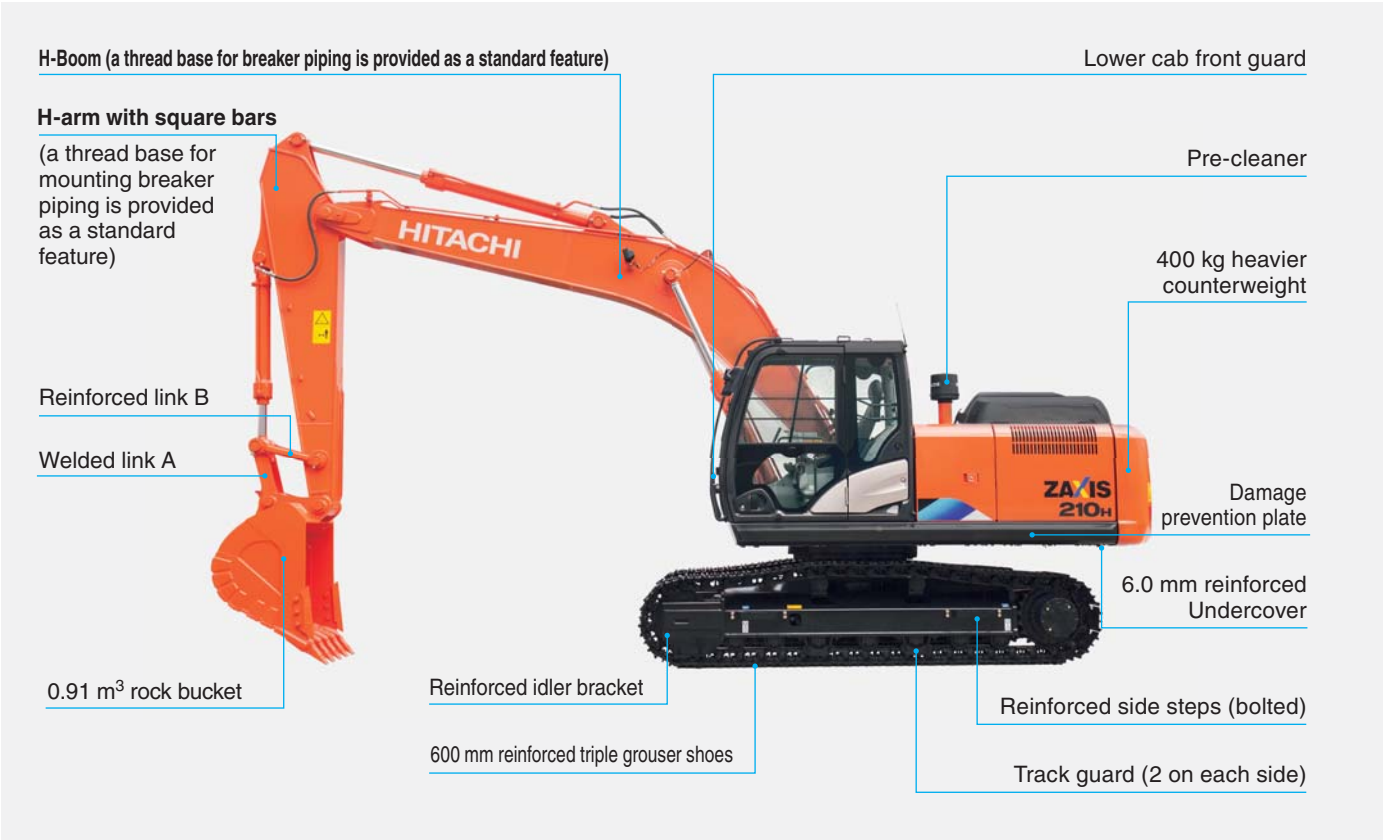
## ConSite

ConSite is a comprehensive response service system for construction site, which is developed based on Global e-Service platform. This system can monitor the operating state of machine remotely for 24 hours and send 'alarm report' and 'monthly report', which allows the customer to understand and control the daily operating state of machine timely, thus maximizing the utilization efficiency of machine. 'Alarm report' reduces the rate of failure occurrence and downtime by sending alarm notification at real time. 'Monthly report' helps analyze and improve machine conditions for enhancing operation efficiency by sending machine operating report each month.



Various versions

ZAXIS210H



ZAXIS210LC



Technical specifications



ENGINE			
Model	ISUZU GI-4HK1XKSA-02		
Type	4-cycle water-cooled, electric-controlled direct injection		
Aspiration	Turbocharged, intercooled		
No. of cylinders	4		
Rated power			
ISO 9249, net	113 kW (154 PS) at 2,000 min <sup>-1</sup> (rpm)		
SAE J1349, net	113 kW (154 PS) at 2,000 min <sup>-1</sup> (rpm)		
Maximum torque	638 Nm (65 kgfm) at 1,500 min <sup>-1</sup> (rpm)		
Piston displacement	5.193 L		
Bore × stroke	115 mm × 125 mm		
Batteries	2 × 12 V/88 Ah		

Hydraulic system			
Hydraulic Pumps			
Main pumps	2 variable displacement axial piston pumps		
Maximum oil flow	2 × 212 L/min		
Pilot pump	1 gear pump		
Maximum oil flow	30.2 L/min		

Hydraulic Motors			
Travel	2 variable displacement swash plate piston motors		
Swing	1 swash plate piston motor		

Relief Valve Settings			
Implement circuit	34.3 MPa (350 kgf/cm²)		
Swing circuit	32.3 MPa (330 kgf/cm²)		
Travel circuit	34.3 MPa (350 kgf/cm²)		
Pilot circuit	3.9 MPa (40 kgf/cm²)		
Power boost	38.0 MPa (387 kgf/cm²)		

Hydraulic Cylinders			
	Quantity	Bore	Rod diameter
Boom	2	120 mm	85 mm
Arm	1	135 mm	95 mm
Bucket	1	115 mm	80 mm

UPPERSTRUCTURE	
<b>Revolving Frame</b>	
D-section frame for resistance to deformation.	

<b>Swing Device</b>	
Swash plate piston motor with planetary reduction gear is bathed in oil. Swing circle is single-row. Swing parking brake is of a spring-set/hydraulic-released disc type.	
Swing speed	13.5 min <sup>-1</sup> (rpm)
Swing torque	68 kNm (6,900 kgfm)

<b>Cab</b>	
Independent spacious cab, 1,005 mm wide by 1,675 mm high, conforming to ISO* standards.	
*International Organization for Standardization	

WEIGHTS AND GROUND PRESSURE							
	Track shoe width	Arm length	Bucket capacity (ISO heaped)	Bucket weight	Counterweight	Operating weight	Ground pressure
ZX200-5A	600 mm	2.91 m	0.91 m³ H type	823 kg	3,859 kg	20,200 kg	45 kPa (0.46 kgf/cm²)
ZX210LC-5A	600 mm	2.91 m	1.0 m³ H type	873 kg	4,259 kg	21,000 kg	43 kPa (0.44 kgf/cm²)
ZX210H-5A	600 mm	2.91 m	0.91 m³ rock bucket	963 kg	4,259 kg	21,200 kg	47 kPa (0.48 kgf/cm²)

Undercarriage	
<b>Tracks</b>	
Heat-treated connecting pins with dirt seals. Hydraulic (grease) track adjusters with shock-absorbing recoil springs.	
<b>Numbers of Rollers and Shoes on Each Side</b>	
Upper rollers	2
Lower rollers	7: ZX200-5A/ZX210H-5A 8: ZX210LC-5A
Track shoes	46: ZX200-5A/ZX210H-5A 49: ZX210LC-5A
Track guides	1: ZX200-5A/ZX210LC-5A 2: ZX210H-5A

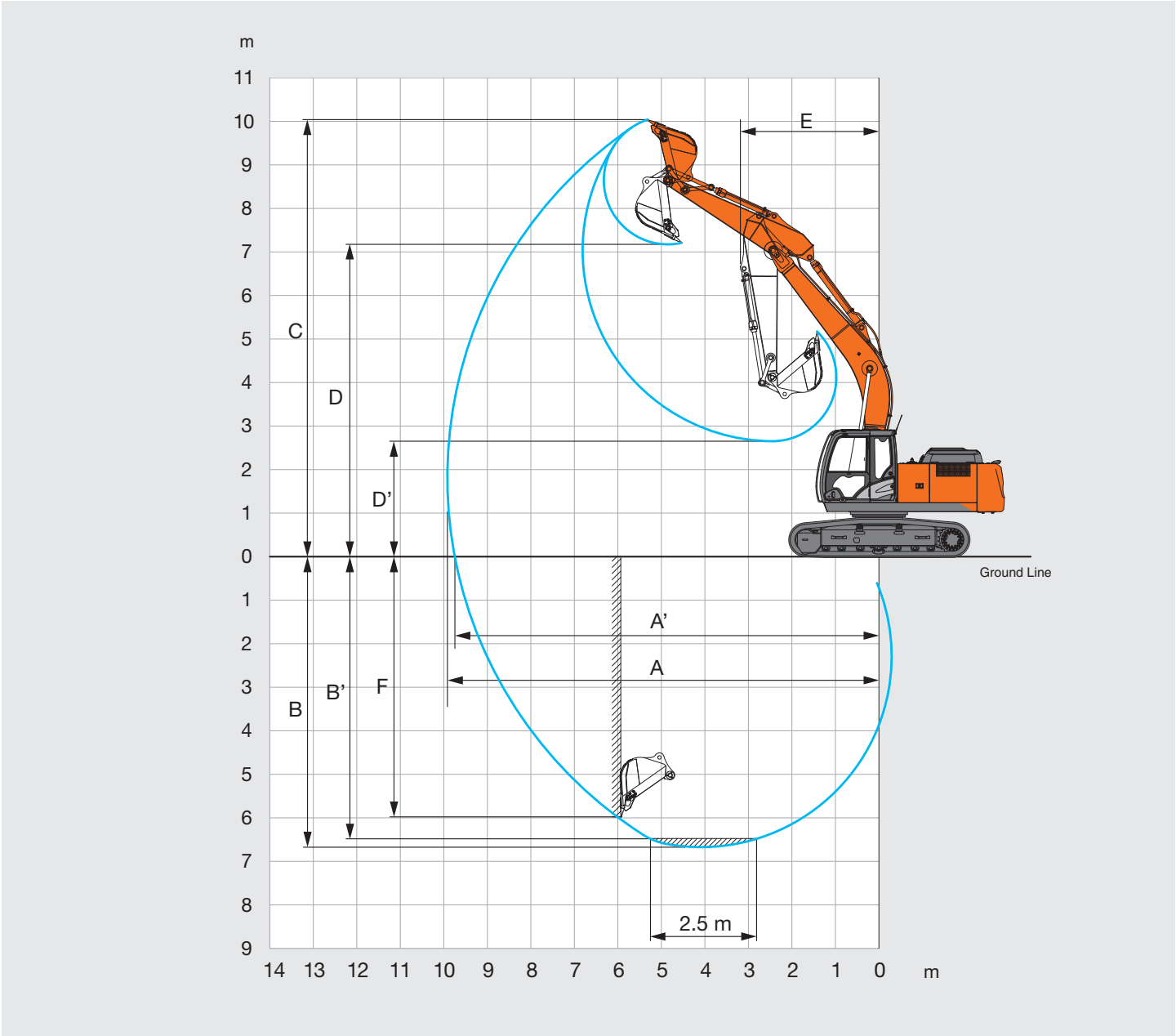
<b>Travel Device</b>	
Each track is driven by 2-speed axial piston motor. Parking brake is of a spring-set/hydraulic-released disc type. Automatic transmission system: High-Low.	
Travel speeds	High: 0 to 5.5 km/h Low: 0 to 3.5 km/h

Maximum traction force	203 kN (20,700 kgf)
Gradeability	70%(35 degree) continuous

SERVICE REFILL CAPACITIES	
Fuel tank	400.0 L
Engine coolant	31.0 L
Engine oil	23.0 L
Swing device	6.2 L
Travel device (each side)	6.8 L
Hydraulic system	240.0 L
Hydraulic oil tank	135.0 L

BUCKET AND ARM DIGGING FORCES	
Arm length	2.91 m
Maximum bucket digging force* ISO	158 kN (16,200 kgf)
Maximum bucket digging force* SAE: PCSA	141 kN (14,400 kgf)
Maximum arm crowd force* ISO	114 kN (11,600 kgf)
Maximum arm crowd force* SAE: PCSA	110 kN (11,200 kgf)
* At power boost	

WORKING RANGES

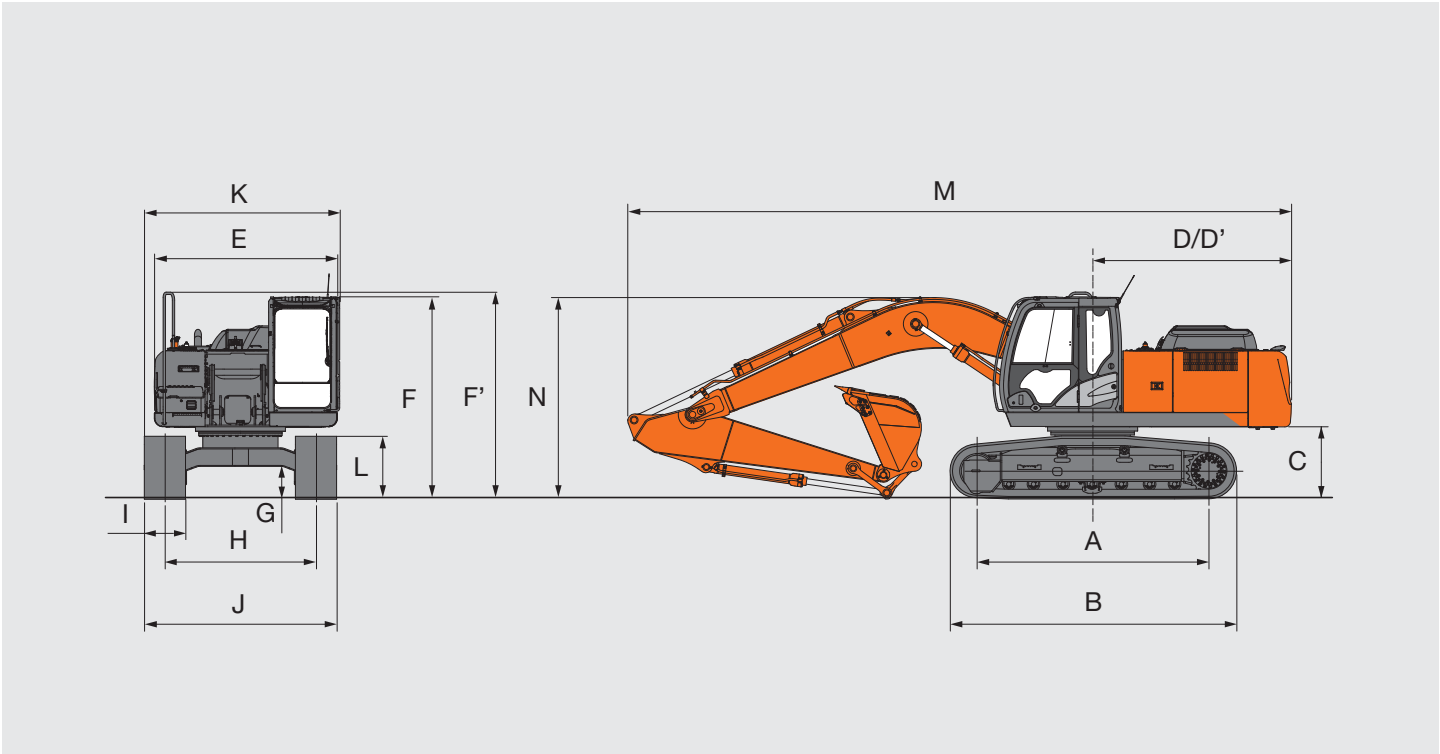


Unit: mm

Arm length		2.91 m
A	Max. digging reach	9,920
A'	Max. digging reach (on ground)	9,750
B	Max. digging depth	6,670
B'	Max. digging depth for 2.5 m level	6,490
C	Max. cutting height	10,040
D	Max. dumping height	7,180
D'	Min. dumping height	2,650
E	Min. swing radius	3,180
F	Max. vertical wall digging depth	5,990

Excluding track shoe lug

DIMENSIONS



Unit: mm

	ZX200-5A	ZX210LC-5A	ZX210H-5A
A Distance between tumblers	3,370	3,660	3,370
B Undercarriage length	4,170	4,470	4,170
* C Counterweight clearance	1,030	1,030	1,030
D Rear-end swing radius	2,890	2,890	2,890
D' Rear-end length	2,890	2,890	2,890
E Overall width of upperstructure	2,710	2,710	2,770
F Overall height of cab	2,950	2,950	2,950
F' Overall height of upperstructure	3,010	3,010	3,010
* G Min. ground clearance	450	450	450
H Track gauge	2,200	2,390	2,200
I Track shoe width (triple grouser shoe)	600	600	600
J Undercarriage width	2,800	2,990	2,800
K Overall width	2,860	2,990	2,880
* L Track height with triple grouser shoes	920	920	920
M Overall length with 2.91 m arm	9,660	9,660	9,660
N Overall height of boom (with 2.91 m arm)	3,010	3,010	3,010

\* Excluding track shoe lug



● : Standard equipment    ○ : Optional equipment    — : N/A

	ZX200-5A / ZX210LC-5A	ZX210H-5A
ENGINE		
Air cleaner double filters	●	●
Auto idle system	●	●
Integrated engine oil filter	●	●
Integrated fuel pre-filter with water separator	●	●
Integrated fuel main filter	●	●
Electric fuel pump	●	●
Dry-type air filter with evacuator valve (with air filter restriction indicator)	●	●
ECO/PWR mode control	●	●
Engine warm-up device	●	●
Fan guard	●	●
Pre-cleaner	○	●
Insect-proof net	●	●
Expansion tank	●	●
50 A alternator	●	●

Hydraulic system		
Auto power lift	●	●
Control valve with main relief valve	●	●
Full-flow filter	●	●
High performance full flow filter with restriction indicator	○	○
Pilot filter	●	●
Power boost	●	●
Suction filter	●	●
One extra port for control valve	●	●
Work mode selector	●	●
Hose rupture valve	○	○

	ZX200-5A / ZX210LC-5A	ZX210H-5A
Cab		
All-weather sound suppressed steel cab	●	●
AM-FM radio with 2 speakers	●	●
Ashtray	●	●
Auto control air conditioner	●	●
Storage	●	●
Cab (Center pillar reinforced structure)	●	●
Drink holder (hot & cool)	●	●
Electric double horn	●	●
Engine shut-off lever	●	●
Evacuation hammer	●	●
Fire extinguisher bracket	●	●
Floor mat	●	●
Footrest	●	●
Front window washer	●	●
Windows on front, left and top sides can be opened	●	●
Lower cab front guard	○	●
Glove compartment	●	●
Hot & cool box	●	●
Intermittent windshield wipers	●	●
Key cylinder light	●	●
LED room light with door courtesy	●	●
Pilot control shut-off lever	●	●
Rear tray	●	●
Seat belt	●	●
Rubber radio antenna	●	●
Mechanical suspension seat	●	●
Seat adjustment parts: backrest, armrest, height and angle, slide forward / backward	●	●
Short wrist control levers	●	●
4 fluid-filled elastic mounts	●	●
24 V cigarette lighter	●	●

● : Standard equipment    ○ : Optional equipment    — : N/A

	ZX200-5A / ZX210LC-5A	ZX210H-5A
Monitor System		
Alarm buzzers: overheat, engine oil pressure	●	●
Alarms: overheat, engine warning, engine oil pressure, alternator, minimum fuel level, air filter restriction etc.	●	●
Display items: Coolant temperature gauge, oil level gauge, hour meter, work mode, auto idle, power mode, rear monitoring, radio and air conditioner etc.	●	●
32 languages selection	●	●

LIGHTS		
2 working lights	●	●
Right boom light	○	○

UPPERSTRUCTURE		
Fuel level float	●	●
Hydraulic oil level gauge	●	●
Rear view camera	●	●
Rear view mirror (right & left side)	●	●
Swing parking brake	●	●
Tool box	●	●
Undercover	●	—
6.0 mm reinforced undercover	○	●
Utility space	●	●
3,859 kg counterweight	● / —	—
4,259 kg counterweight	— / ●	●
2 × 88 Ah batteries	●	●

	ZX200-5A / ZX210LC-5A	ZX210H-5A
Undercarriage		
Bolt-mounted travel sprocket	●	●
Reinforced track links with pin seals	●	●
Reinforced lower flange	●	●
Reinforced idler bracket	●	●
Travel motor covers	●	●
Travel parking brake	●	●
9.0 mm reinforced undercover	○	●
Track guides	● (1 on each side)	● (2 on each side)
1 hydraulic track adjuster	●	●
Upper and lower rollers	●	●
4 tie down hooks	●	●
600 mm triple grouser shoes	●	● Reinforced
Reinforced side step	●	●

Front Attachments		
Centralized lubrication system	●	●
Dirt seal on all bucket pins	●	●
Flanged pin	●	●
New HN bushing	●	●
Reinforced resin thrust plate	●	●
Link B	●	● Reinforced
Welded link A	●	●
WC (tungsten-carbide) thermal spraying	●	●
2.91 m H-arm	●	●
5.68 m H-boom	●	●
0.8 m³ H-bucket	○ / —	—
0.91 m³ H-bucket	● / ○	○
0.91 m³ rock bucket	—	●
1.0 m³ H-bucket	— / ●	—

MISCELLANEOUS		
Lockable fuel refilling cap	●	●
Lockable machine cover	●	●
Onboard information controller	●	●
Skid-resistant plates and handrails	●	●
Standard tool kit	●	●
Travel direction mark on track frame	●	●
e-Service Owner's Site	●	●
ConSite	●	●