ZAXIS-3 series

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HITACHI

ZAXIS 850LC 870LCH 870H

TAX (CD) (CD) (CD)

HYDRAULIC EXCAVATOR

- Model Code: Backhoe: ZX850LC₃ / ZX870LCH₃ Loading shovel: ZX870H₃
- Engine Rated Power: 397 kW (532 HP)
- Operating Weight: Backhoe: ZX850LC-3: 82 200 kg / ZX870LCH-3: 84 000 kg Loading shovel: ZX870H-3: 82 800 kg
- Backhoe Bucket: SAE, PCSA Heaped: 2.9 4.5 m³ CECE Heaped: 2.6 3.9 m³
- Loading Shovel Bucket: PCSA Heaped: 3.6 4.4 m³

The New Generation Hydraulic Excavators

The Hitachi ZAXIS-3 series new-generation hydraulic excavators are packed with a host of technological features clean engine, Hitachi traditional hydraulic technologies, and strong undercarriage and front attachment, plus well matching of power and speed.

The ZAXIS-3 series can get the job done with proven productivity, durability, and reliability, especially in heavy-duty excavation and quarry operations.

- Clean engine complies with the emission regulations EU Stage III A
- Low noise design complies with the EU noise regulation 2000 / 14 / EC, stage II



Productivity

Increased digging force Enhanced boom recirculation system Boom mode selector helps to reduce shaking and jerking of body during scraping operations Larger-diameter front piping Combined operation of boom and arm New bucket regenerative system High power yet low fuel consumption Common rail type fuel injection system Cooled EGR system

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Durability and reliability

Increased loading capacity of swing bearing Enlarged upper and lower rollers, idlers and sprockets Pressed master pins Strengthened idler pedestal Strengthened track links Improved idler bracket Full track guard provided standard (ZAXIS 870H / 870LCH) Enlarged pins Strengthened arm and boom Strengthened general-purpose bucket Strengthened H-bucket for heavy-duty **Page 6-7**

Operator comfort

High visibility inside cab Short stroke levers Wide foot space Comfort designed seat Improved controllability and operator comfort Page 8-9

Multi function monitor

Maintenance support Attachment support system Multi-language selection Rear view camera Theft deterrent system Fuel consumption monitoring **Page 10-11**

Maintenance

Parallel arrangement of the cooling pack Conveniently located inspection points Extended maintenance intervals Page 12-13

Safety measures

CRES II cab (ZAXIS 850LC is standard equipped) H/R cab (ZAXIS 870H / 870LCH is standard equipped) Cab right guard Evacuation hammer Pilot control shut-off lever **Page 14**

Environment measures

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Notes: Some of the pictures in this catalog show an unmanned machine with attachments in an operating position. These were taken for demonstration purposes only and the actions shown are not recommended under normal operating conditions.

World-Class Productivity

To yield high production yet maintain low fuel consumption, such was the objective of the development of a new engine and hydraulic system for the ZAXIS 850LC / 870LCH / 870H.

Production: Approx. 7% Increase

(vs. Conventional Model)

Advanced Hydraulic Technologies

Increased Digging Force

14% more bucket digging force and 8% more arm digging force*.

* At power boost mode / vs. Conventional model

Enhanced Boom Recirculation System

In combined operation of boom lower and arm, arm speed can be increased by approximately 15% over the conventional. Pressurized oil from boom cylinder bottom side is delivered to boom cylinder rod side to lower the boom, assisted by boom weight. Conventionally, pressurized oil from pump is delivered to boom cylinder rod side to lower the boom. The new system also allows efficient combined operation of swing and boom lower.



Boom Mode Selector

The amount the body can be lifted or pulled by the front of machine can be ON or OFF selected. This helps to provide for more comfortable operation and contributes to longer component service life.



Larger-Diameter Front Piping

Arm piping is increased in diameter to reduce hydraulic loss (theoretically 8%) for speedy front operation.

Combined Operation of Boom and Arm

In combined operation of swing + boom lower + arm roll-out, or in leveling (boom lower + arm roll-out), arm roll-out speed can be increased greatly.

Here's why. A variable throttle, provided in the arm circuit, adjusts the flow when needed to reduce hydraulic loss in combined operation with arm roll-out.



New Bucket Regenerative System

Swift bucket actions can be done in combined operation for excavation through the new bucket regenerative circuit. When the load to the bucket is light, pressurized oil from bucket cylinder rod side is delivered through a regenerative valve to bucket cylinder bottom side for the effective use of hydraulic energy.

Development Concept of New Engine

High Power Yet Low Fuel Consumption

10% Increase in output (vs.
Conventional model)
397 kW (532 HP) / 1 800 min⁻¹

The new clean engine, complying with the emission regulations Tier 3 in US (EPA) and EU Stage III, can reduce fuel costs by electronic control.

Common Rail Type Fuel Injection System

Electronic control common rail type fuel injection system drives an integrated fuel pump at an ultrahigh pressure to distribute fuel to each injector per cylinder through a common rail. This enables optimum combustion to generate big horsepower, and reduce PM* and fuel consumption.



Cooled EGR** System

Exhaust gas is partially mixed with intake air to lower combustion temperature for reducing NOx and fuel consumption.

What's more, the EGR cooler cools down exhaust gas to increase air concentration for complete combustion, reducing PM*.

* Particulate Matter

** Exhaust Gas Recirculation



A Solid Base for a Long Life

Strengthened undercarriage for higher durability even in heavy-duty applications.

Strengthened Undercarriage

Increased Loading Capacity of Swing Bearing

The swing circle ball bearing utilizes more balls to boost the loading capacity of the swing circle by approximately 12%, allowing stable swing even in tough operation*.

Enlarged Upper and Lower Rollers, Idlers and Sprockets

Upper and lower rollers are widened to increase contact areas, and idlers and sprockets are increased in diameter for more durability and mobility.

Strengthened Track Links

The boss diameter of each track link is increased by approximately 10%. The thickness of each track link is also increased by approximately 65%. Thickened track links extend service life*.



Pressed Master Pins

The master pin of each track link is pressed, instead of the master pin using a pin retention to avoid disengagement.



Strengthened Idler Pedestal

The bearing length of the idler pedestal is extended by approximately 54% to increase durability and service life*.

Improved idler bracket

The idler bracket is thickened for rigidity to prevent deformation and increase durability.



Strengthened Upper Roller Bracket

The upper roller bracket wall is thickened for higher strength.



Full Track Guard Provided Standard (ZAXIS 870H / 870LCH)

Full track guards are provided standard. Full track guards protect track links and lower rollers from damage and deformation. Moreover, they also keep out stones, preventing the overload to the undercarriage to reduce wear and damage.

* vs. Conventional model



Strengthened Front Attachment

Enlarged Pins

Pins, used throughout the front attachment, are increased in diameter for strengthening.



Strengthened Arm and Boom

The arm and boom are strengthened by thickening and using stronger material.

Strengthened General-Purpose Bucket

Bucket teeth are reshaped as Super-V teeth for smooth penetration and higher production. Bushings are utilized at both ends of a bucket pin to eliminate clearances, preventing jerky operation.



Strengthened H-Bucket for Heavy-Duty

The heavy-duty bucket is reshaped, and bucket parts are strengthened to increase durability.



A New Standard in Operator Comfort

The operator's seat of the ZAXIS-3 series gives the operator an excellent view of the jobsite. On the widescreen colour LCD monitor the operator can see what is behind the machine. Ample legroom, short stroke levers and a large seat ensure optimum working conditions for the operator during long hours.



The ZAXIS-3 series cab has been redesigned to meet demands of customers. From the operator's seat the operator has an excellent view of the jobsite. On the widescreen colour LCD monitor the operator can see machine conditions and with the rear view camera, what is behind the machine. Ample legroom, short stroke levers and a suspension seat ensure optimum working conditions. The seat features horizontal, vertical adjustments and has a backrest contoured for comfort, with a HITACHI logo.





Wide adjustable armrests and a retractable seat belt are included. Short stroke levers allow for continuous operation with less fatigue. The cab is pressurized to keep out dust. Noise and vibrations are kept to a minimum due to the elastic mounts, filled with silicone oil, the cab rests on.

Visibility is improved especially for the right downward view. Sliding windows on the front (ZAXIS 850LC) and side enable direct communication between operator and other workers. Foot space has increased and travel pedals have been redesigned for easier operation.

A flat floor allows for easy cleaning. Ergonomic controls and switches, fully automatic air conditioner and a radio complete the package.

Embedded Information Technology

The ZAXIS-3 series is equipped with a widescreen colour LCD monitor with adjustable contrast for day and night shifts. With the monitor the operator can check maintenance intervals, select work modes, monitor fuel consumption, and connect to the rear view camera. A theft deterrent system and multi-language selection is also available.

Multi function monitor



The colour LCD monitor, located in the cab, indicates coolant temperature, fuel level, and maintenance data. It also allows one-touch adjustment of the attachment. The display can also be adjusted to day or night shift.

Attachment support system (work mode selector)



The work mode can be selected from the multi-function monitor inside the cab. Pump flow in the selected work mode can be monitored.

Maintenance support





Replacement timing of hydraulic oil and fuel filters is alerted to the operator through the LCD monitor according to the schedule preset by the user each time when turning the key switch. The scheduled maintenance can prevent the failure of the machine.

Multi-language selection



The menu allows selection from 12 languages.



Rear view camera



The widescreen colour LCD, teamed up with the rear view camera on the counterweight, provides rearward viewing.

The rear view camera automatically works when traveling, and can also be manually turned on with a select switch on the monitor.

Fuel consumption monitoring



Fuel consumption per operating hour is computed, and the result is displayed on the LCD monitor. This information suggests refuelling timing, and guides energy-saving operation and efficient job management.



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0 F4

Theft deterrent system



The electronic immobiliser requires the entry of an encryption code to the multifunctional monitor each time when starting the engine to prevent theft and vandalism.

Simplified Maintenance

No.

HITACHI

ZA/IS 850LC

Focusing on simplified maintenance, including easy inspection, service and cleaning.

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Parallel Arrangement of the Cooling Pack





The radiator and oil cooler are laid out in a parallel arrangement, instead of the conventional in-line arrangement. This parallel arrangement is significantly easier to clean around the engine. The air conditioner condenser can be opened for easy cleaning of the condenser and the oil cooler located behind.



Conveniently Located Inspection Point





In addition to a pre-filter, dual main fuel filters are provided standard to reduce clogging of the fuel line to the engine.

The engine oil pan is fitted with a drain coupler. When draining, an associated drain hose is connected to the drain coupler. The drain coupler is reliable, avoiding oil leakage and vandalism.

The sidewalk is widened from 340 mm (Conventional model) to 510 mm for smooth walking from cab to rear. The sidewalk is the field-proven split type that permits the detaching of its rear when traveling or operating on rough terrain.



The fresh air filter for the air conditioner is relocated to cab door side from conventional location behind the operator seat. This allows easy cleaning and replacement of the fresh air filter, like the air circulation filter inside the cab.

Extended Maintenance Intervals

Automatic Lubrication / Repositioned Bucket Lubricating Points

The front attachment is automatically lubricated, except for bucket lubricating points at the top of arm that are repositioned for side lubrication.

Enlarged Fuel Tank

The fuel tank is enlarged, increasing the capacity from 900 litres (Conventional model) to 1 120 litres. Refueling intervals (when filled fully) extend from 17 to 18 hours.

Extended Hydraulic Oil Filter Change Intervals

Hydraulic oil filter change intervals are extended from 500 hours (Conventional model) to 1 000 hours to help reduce running costs.

Safety Features

An array of safety devices for enhanced safety.

Protecting the Operator from Tipping Accident

CRES II Cab (ZAXIS 850LC Standard Equipped)

The CRES II cab is designed to help with "just in case" protection for the operator. Safety in case of tipping is improved. The cab top can withstand four-fold loading.



H/R Cab (ZAXIS 870H / 870LCH Standard Equipped)

The H/R cab utilizes the reinforced front window and FOPS* at the roof for protection against falling objects.

The front glass window, made of straight-laminated, is fixed to shut out dirt and debris. The cab provided with a full guard satisfies the OPG^{**} (Level II) cab requirements stipulated by ISO.



** Operator Protective Guards

* Falling Object Protective Structure

Additional Features

Cab Right Guard



Evacuation Hammer



Other features include a retractable seatbelt, evacuation hammer and emergency engine shut-off switch. A shut-off lever for pilot control helps to prevent unintentional movements.

Pilot Control Shut-Off Lever



Environmental Features

Boarding a clean engine complying with the rigorous emission regulations.

A Cleaner Machine

The ZAXIS-3 series is equipped with a clean but powerful engine to comply with Tier 3, and Stage III A. An engine emission regulations effective in the U.S. EPA and European Union from 2006. Exhaust gas is partly recombusted to reduce particulate matter (PM) output and lower nitrogen oxide (NOx) levels.

A Quieter Machine

Engine noise is reduced by approximately 2 dB with the robust engine. It goes without saying that the engine meets the EU noise regulations. The engine cooling fan is a large 1 120 mm diameter variable-speed electrohydraulic fan. This fan automatically starts when temperature comes into the high temperature range, ensuring low noise operation. A proven large muffler is provided to reduce sound and exhaust emissions greatly.



A Recyclable Machine

Over 97% of the ZAXIS-3 series can be recycled. All resin parts are marked to facilitate recycling. The machine is completely lead-free. The radiator and oil cooler are made from aluminium and all wires are lead-less. In addition, biodegradable hydraulic oil is available for jobsites where special environmental care is required.



Parts & Service

Over the years, we have gained experience in one of the most competitive service markets in the world - Japan. Using our know-how in dealing directly with customers, we have created a worldwide support system that is highly capable.

Parts

HITACHI only offers genuine high quality parts. We guarantee that these parts have high performance and long life. We manage around 1 000 000 types of parts all around the world. They are designed and built to be the best match for your HITACHI equipment. HITACHI has a global parts distribution network that makes sure you get what you need as quickly as possible. We have more than 150 dealers worldwide who provide the closest support for your needs. In most cases, your dealer will have the replacement part that you require. If a dealer does not have a certain part, he can order it from four fully stocked parts depots located across the world. These distribution centres are all connected by an on-line system that gives them access to shared information on stocks, such as the number and type of available parts. The depots, which in turn are stocked by a parts centre in Japan, minimize delivery time and enable you to get your parts as efficiently and quickly as possible.

Service

Our goal is to "keep customer equipment at a maximum performance level". To fulfil this goal, we have set more than 150 dealers all over the world. They have highly trained technicians, and provide a number of support programs.

HITACHI provides a unique extended warranty program called HITACHI Extended Life Program, or HELP. To minimize downtime during troubleshooting, we developed a PDA based diagnostic system called "Dr. ZX". To keep our customers' equipment in top running shape, good service is indispensable. We believe personnel training is the key to providing the best service. If you would like more information regarding parts and/or service, please ask your nearest HITACHI dealer. Not all programs and/or services are available in every market or region.

Remote fleet management with e-Service Owner's Site

Reduce maintenance effort and costs for your machine fleet with e-Service Owner's Site; latest machine information of each of your machines available on-line, in your office.

e-Service Owner's Site features

Operation

Remote access to all relevant machine operation information such as daily operating hours and machine fuel level as well as historically cumulated temperatures and pressures.



Maintenance

For each machine, maintenance history as well as recommended maintenance due is displayed in one view, allowing for accurate and efficient fleet maintenance management.

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Location

In addition to any general GPS function, GIS (Geographical Information System) will not only show the geographical position of each machine with immediate serial number identification, it will also allow for dedicated multiple machine searches using specific operational information as search criteria.



ZX-3 and ZW Series Fleet Management System e-Service Owner's Site

Check and monitor each of your machines from your office

Enhanced service support from your local dealer

Actual geographical location of each of your machines

e-Service Owner's Site is an on-line fleet management tool offered by HCME to each of its customers. It will present all operational information and location of your machines on a PC in your office, giving you an up to date overview of your machines, allowing for full fleet control. Each machine will regularly send its operational data to a satellite and from there, via a ground station to a Hitachi server. The data collected in the server will then be processed and directed to each customer around the world. Your machine information will be available through a secure internet connection for you and your dealer. This communication chain is operational 24h a day, each day of the year. It will support your job planning, help you maintain your machine and allow for enhanced service and trouble shooting support by your local dealer, all directly contributing to reduce downtime and increase the cost performance of your fleet.

All new ZAXIS-3 and ZW machines supplied by HCME will have a satellite communication unit installed as standard*, meaning each owner can directly enjoy the benefits of e-Service Owner's Site. Your local dealer will be able to give you access to e-Service Owner's Site.



* (1) Satellite communication may be forbidden by the local regulatory standards (including safety standards) and legal requirements of the particular country where you wish to use it. Please contact HITACHI dealer for details.
 (2) Satellite communication basically allows for worldwide coverage. Contact your local dealer for the latest situation on actual satellite communication availability for your country or specific jobsite.

(3) If transmission of the satellite signal is hindered in any way, satellite communication may not be possible.

SPECIFICATIONS

ZX850LC-3 BACKHOE

ENGINE

| Model | Isuzu AH-6WG1XYSA-03 |
|---------------------|---|
| Туре | 4-cycle water-cooled, direct injection |
| Aspiration | Turbocharged |
| No. of cylinders | 6 |
| Rated power | |
| ISO 9249, | H/P mode: |
| Without Fan net | 397 kW (532 HP) at 1 800 min ⁻¹ (rpm) |
| EEC 80/1269, | H/P mode: |
| Without Fan net | 397 kW (532 HP) at 1 800 min ⁻¹ (rpm) |
| Maximum torque | 2 250 Nm (229 kgf·m) at 1 600 min ⁻¹ (rpm) |
| Piston displacement | 15.681 L |
| Bore and stroke | 147 mm x 154 mm |
| Batteries | 2 x 12 V / 170 Ah |

HYDRAULIC SYSTEM

• Work mode selector

General purpose mode / Attachment mode • Engine speed sensing system

| Main pumps | 2 variable displacement axial piston pumps |
|------------------|--|
| Maximum oil flow | 2 x 528 L/min |
| Pilot pump | 1 gear pump |
| Maximum oil flow | 30 L /min |

Hydraulic Motors

| Travel | 2 axial piston motors with parking brake |
|--------|--|
| Swing | 2 axial piston motors |

Relief Valve Settings

| Implement circuit | 31.9 MPa | (325 kgf/cm ²) |
|-------------------|----------|----------------------------|
| Swing circuit | 28.4 MPa | (290 kgf/cm ²) |
| Travel circuit | 34.3 MPa | (350 kgf/cm ²) |
| Pilot circuit | 3.9 MPa | (40 kgf/cm ²) |
| Power boost | 34.3 MPa | (350 kgf/cm ²) |

Hydraulic Cylinders

High-strength piston rods and tubes. Cylinder cushion mechanisms provided in boom and arm cylinders to absorb shock at stroke ends.

Dimensions

| | Quantity | Bore | Rod diameter |
|-------------|----------|--------|--------------|
| Boom | 2 | 215 mm | 150 mm |
| Arm | 1 | 225 mm | 160 mm |
| Bucket | 1 | 200 mm | 140 mm |
| Bucket (BE) | 1 | 215 mm | 150 mm |

Hydraulic Filters

Hydraulic circuits use high-quality hydraulic filters. A suction filter is incorporated in the suction line, and full-flow filters in the return line and swing/travel motor drain lines.

CONTROLS

Pilot controls. Hitachi's original shockless valve and quick warm-up system built in the pilot circuit.

| Implement levers | | |
|--------------------|---|--|
| Travel levers with | | |
| pedals | 2 | |

UPPERSTRUCTURE

Revolving Frame

Welded sturdy box construction, using heavy-gauge steel plates for ruggedness. D-section frame for resistance to deformation.

Swing Device

Operator's Cab

Independent spacious cab, 1 005 mm wide by 1 675 mm high, conforming to ISO* Standards. (OPG top guard fitted Level I (ISO 10262) compliant cab) Reinforced glass windows on 4 sides for visibility. Openable front windows (upper and lower). Reclining seat with armrests; adjustable with or without control levers. * International Standardization Organization

UNDERCARRIAGE

Tracks

Tractor-type undercarriage. Welded track frame using selected materials. Side frame bolted to track frame. Lubricated track rollers, idlers, and sprockets with floating seals.

Track shoes with double grousers made of induction-hardened rolled alloy. Heat-treated connecting pins with dirt seals. Hydraulic (grease) track adjusters with shock-absorbing recoil springs.

Numbers of Rollers and Shoes on Each Side

| Upper rollers | З |
|---------------|----|
| Lower rollers | 9 |
| Track shoes | 51 |
| Track guard | 2 |

Travel Device

Each track driven by axial piston motor through reduction gears for counterrotation of the tracks. Sprockets are replaceable. Parking brake is spring-set/hydraulic-released disc type. Automatic transmission system: High-I ow

| automatic transmission: | system: High-Low. |
|-------------------------|---------------------|
| Travel speeds | High: 0 to 4.1 km/h |

| | Low: 0 to 3.1 km/h |
|------------------------|----------------------|
| Maximum traction force | 560 kN (57 100 kgf) |
| Gradeability | 70% (35°) continuous |



WEIGHTS AND GROUND PRESSURE

Equipped with 8.4 m boom, 3.7 m arm and 3.5 $\rm m^3$ bucket (SAE, PCSA heaped).

| Shoe type | Shoe width | Operating weight | Ground pressure |
|-------------------|------------|------------------|-------------------------------------|
| | 650 mm | 82 200 kg | 112 kPa (1.14 kgf/cm ²) |
| Double arouser | 750 mm | 82 900 kg | 98 kPa (1.00 kgf/cm ²) |
| 9 | 900 mm | 83 900 kg | 82 kPa (0.84 kgf/cm ²) |

Equipped with 7.1 m BE-boom, 2.95 m BE-arm and 4.5 $\rm m^3$ bucket (SAE, PCSA heaped).

| Shoe type | Shoe width | Operating weight | Ground pressure |
|-------------------|------------|------------------|-------------------------------------|
| | 650 mm | 83 000 kg | 113 kPa (1.15 kgf/cm ²) |
| Double arouser | 750 mm | 83 700 kg | 99 kPa (1.01 kgf/cm ²) |
| 9 | 900 mm | 84 600 kg | 83 kPa (0.85 kgf/cm ²) |

Note: Depending on the jobsites conditions, 750 mm grouser shoe may 900 mm grouser shoe not be recommended for rock, hard surface or forestry application.

BACKHOE ATTACHMENTS

Boom and arms are of all-welded, box-section design. A number of booms and arms are available. Bucket is of all-welded, high strength steel structure.

SERVICE REFILL CAPACITIES

| | litres |
|---------------------------|---------|
| Fuel tank | 1 120.0 |
| Engine coolant | 116.0 |
| Engine oil | 57.0 |
| Pump drive | 6.2 |
| Swing device (each side) | 15.0 |
| Travel device (each side) | 19.0 |
| Hydraulic system | 790.0 |
| Hydraulic oil tank | 500.0 |

Backhoe Buckets

| Сар | acity | Wi | dth | | | Recommendation | | |
|----------------------|--------------------|--------------|--------------|---------------------|----------|----------------|--------------------|-----------|
| SAE, PCSA | CECE | Without | With | No. of teeth Weight | | 7.1 m BE-boom | 8.4 m | boom |
| heaped | heaped | side cutters | side cutters | | | 2.95 m BE-arm | 3.7 m arm | 4.4 m arm |
| 2.9 m ³ | 2.6 m ³ | 1 590 mm | 1 780 mm | 5 | 2 700 kg | X | O | Ø |
| 3.5 m ³ | 3.1 m ³ | 1 850 mm | 2 040 mm | 5 | 2 950 kg | Х | _ | |
| 4.5 m ³ | 3.9 m ³ | 2 120 mm | 2 190 mm | 5 | 3 970 kg | © X | | Х |
| | | | | | | 65 | i0 mm Double grous | ser |
| Applicable shoe type | | | | | | 75 | 0 mm Double grous | ser |
| | | | | | | 90 | 0 mm Double grous | ser |

 \odot Suitable for materials with density of 1 800 kg/m³ or less.

Not applicable

X Cannot be installed

SPECIFICATIONS / LIFTING CAPACITIES

ZX850LC-3 BACKHOE

DIMENSIONS



| | ZX850LC-3 ^{*2} | | | | | |
|---|---|---------------|--|--|--|--|
| A Distance between tumblers | | 5 110 | | | | |
| B Undercarriage length | | 6 360 | | | | |
| ¹¹ C Counterweight clearance | | 1 680 | | | | |
| D Rear-end swing radius | | 4 600 | | | | |
| D' Rear-end length | 4 520 | | | | | |
| E Overall width of upperstructure | 4 120 | | | | | |
| F Overall height of cab | 3 630 | | | | | |
| ¹¹ G Min. ground clearance | 890 | | | | | |
| H Track gauge: Extended (Retracted) | | 3 450 (2 830) | | | | |
| I Track shoe width | G 650 G 750 G 900 | | | | | |
| J Undercarriage width: Extended (Retracted) | 4 100 (3 480) 4 200 (3 580) 4 350 (3 730) | | | | | |
| K Overall width | 4 430 | | | | | |
| L Overall length | 14 770 | | | | | |
| ^{*2} M Overall height of boom | 4 570 | | | | | |
| N Track height | | 1 500 | | | | |

 $^{^{\ast}1}$ Excluding track shoe lug $$^{\circ}2$$ G: Double gro $^{^{\ast}2}$ Equipped with 8.4 m boom and 3.7 m arm G: Double grouser shoe

WORKING RANGES



| | Unit: mm | | | | | | | |
|-----|--------------------------------|---------------------|---------------------|---------------------|--|--|--|--|
| | | ZX850LC-3 | | | | | | |
| | Boom length | 7.1 m BE-boom | 8.4 m | boom | | | | |
| | Arm length | 2.95 m BE-arm | 3.7 m arm | 4.4 m arm | | | | |
| А | Max. digging reach | 12 340 | 14 100 | 14 910 | | | | |
| A' | Max. digging reach (on ground) | 12 020 | 13 820 | 14 640 | | | | |
| В | Max. digging depth | 7 140 | 8 870 | 9 570 | | | | |
| B' | Max. digging depth (8' level) | 7 000 | 8 740 | 9 460 | | | | |
| С | Max. cutting height | 12 010 | 13 030 | 13 820 | | | | |
| D | Max. dumping height | 8 130 | 9 080 | 9 740 | | | | |
| Е | Min. swing radius | 5 210 | 5 950 | 5 950 | | | | |
| F | Max. vertical wall | 4 100 | 7 170 | 8 480 | | | | |
| Bu | icket digging force* ISO | 472 kN (48 200 kgf) | 399 kN (40 700 kgf) | 399 kN (40 700 kgf) | | | | |
| Bu | cket digging force* SAE: PCSA | 411 kN (41 900 kgf) | 359 kN (36 600 kgf) | 359 kN (36 600 kgf) | | | | |
| Arı | m crowd force* ISO | 394 kN (40 200 kgf) | 323 kN (33 000 kgf) | 280 kN (28 600 kgf) | | | | |
| Arı | m crowd force* SAE: PCSA | 378 kN (38 600 kgf) | 315 kN (32 100 kgf) | 273 kN (27 900 kgf) | | | | |
| Eq | uipped bucket SAE: PCSA | 4.5 m ³ | 3.5 m ³ | 2.9 m ³ | | | | |

Unit: mm

Excluding track shoe lug * At power boost

ZA/IS850LC

Metric measure

The lifting capacity is defined by the overload alarm device set pressure. When the hydraulic pressure reaches the set pressure, the alarm buzzer sounds. Values in the table are with the overload alarm device switched off and with retracted bucket cylinder.



A: Load radiusB: Load point heightC: Lifting capacity

| ZX850LC-3 (WITHOUT BUCKET) | | | | | | 💾 Rati | ng over-fr | ont | 🕒 Rati | ng over-si | de or 360 | degrees | Unit | : 1 000 kg | | | |
|----------------------------|--------|------------|-------|-------------|-------|--------|------------|----------|--------|------------|-----------|---------|-------|------------|---------------|-------|-------|
| | | Lood | | Load radius | | | | | | | | | | | | | |
| Conditions | | point | 3 | m | 4 | m | 6 | m | 8 | m | 10 |) m | 12 m | | At max. reach | | |
| | | height | ů | D | Ů | ٩ | Ů | _ | Ů | • | ů | (i) | Ů | ٩ | Ů | ÷ | meter |
| BE-boom | 7.1 m | 9 m | | | | | | | | | | | | | *17.6 | *17.6 | 7.8 |
| BE-Arm | 2.95 m | 8 m | | | | | | | *21.3 | *21.3 | | | | | *16.9 | *16.9 | 8.6 |
| Shoes | 650 mm | 6 m | | | | | *26.9 | *26.9 | *22.3 | 21.8 | | | | | *16.4 | 16.3 | 9.5 |
| | | 4 m | | | | | *32.4 | 31.8 | *24.5 | 20.7 | *17.1 | 14.7 | | | *16.8 | 14.7 | 10.0 |
| | | 2 m | | | | | *36.3 | 29.8 | *26.5 | 19.7 | 20.0 | 14.3 | | | *18.0 | 14.2 | 10.1 |
| | | 0 (GROUND) | | | | | *36.9 | 28.8 | *27.0 | 19.1 | | | | | *20.6 | 14.6 | 9.7 |
| | | -2 m | *28.7 | *28.7 | *40.2 | *40.2 | *34.3 | 28.6 | *25.2 | 18.9 | | | | | *21.5 | 16.5 | 8.9 |
| | | -4 m | | | *36.8 | *36.8 | *27.4 | *27.4 | | | | | | | *20.5 | *20.5 | 7.4 |
| Boom | 8.4 m | 10 m | | | | | | | | | *11.7 | *11.7 | | | *9.5 | *9.5 | 10.4 |
| Arm | 4.4 m | 8 m | | | | | | | | | *14.9 | *14.9 | | | *9.0 | *9.0 | 11.5 |
| Shoes | 650 mm | 6 m | | | | | | | *18.2 | *18.2 | *16.0 | 15.2 | *11.4 | 11.2 | *9.0 | *9.0 | 12.3 |
| | | 4 m | | | | | *28.8 | *28.8 | *21.2 | 20.3 | *17.5 | 14.5 | *14.6 | 10.9 | *9.2 | *9.2 | 12.7 |
| | | 2 m | | | | | *33.6 | 28.5 | *23.9 | 19.0 | *19.0 | 13.8 | 15.8 | 10.6 | *9.8 | 9.7 | 12.7 |
| | | 0 (GROUND) | | | | | *32.0 | 27.4 | *25.5 | 18.2 | *20.0 | 13.3 | 15.5 | 10.3 | *10.8 | 9.8 | 12.4 |
| | | -2 m | *14.0 | *14.0 | *18.5 | *18.5 | *34.9 | 27.1 | *25.7 | 17.8 | 19.9 | 13.1 | | | *12.5 | 10.5 | 11.8 |
| | | -4 m | *25.2 | *25.2 | *30.8 | *30.8 | *32.3 | 27.3 | *24.3 | 17.8 | *18.5 | 13.2 | | | *15.6 | 12.1 | 10.7 |
| | | -6 m | | | *36.3 | *36.3 | *26.9 | *26.9 | *20.1 | 18.4 | | | | | *16.3 | 15.5 | 9.1 |
| | | -7 m | | | | | *22.5 | *22.5 | | | | | | | *15.5 | *15.5 | 8.0 |
| Boom | 8.4 m | 10 m | | | | | | | | | | | | | *12.5 | *12.5 | 9.4 |
| Arm | 3.7 m | 8 m | | | | | | | *17.4 | *17.4 | *16.3 | 15.6 | | | *12.1 | *12.1 | 10.7 |
| Shoes | 650 mm | 6 m | | | | | *25.0 | *25.0 | *19.7 | *19.7 | *17.1 | 15.1 | | | *12.2 | 12.1 | 11.4 |
| | | 4 m | | | | | *31.3 | 30.3 | *22.5 | 20.1 | *18.5 | 14.5 | | | *12.8 | 11.1 | 11.8 |
| | | 2 m | | | | | *29.4 | 28.3 | *24.9 | 19.0 | *19.8 | 13.9 | | | *13.9 | 10.8 | 11.9 |
| | | 0 (GROUND) | | | | | | | *26.1 | 18.3 | 20.3 | 13.5 | | | *15.7 | 11.0 | 11.6 |
| | | -2 m | | | | | *34.4 | 27.5 | *25.7 | 18.1 | *20.0 | 13.3 | | | *17.9 | 11.9 | 10.9 |
| | | -4 m | | | | | *30.9 | 27.9 | *23.5 | 18.3 | | | | | *18.2 | 14.0 | 9.7 |
| | | -6 m | | | | | *24.3 | *24.3 | | | | | | | *17.7 | *17.7 | 7.9 |

Notes: 1. Ratings are based on ISO 10567.

2. Lifting capacity of the ZAXIS Series 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 centre-line of the bucket pivot mounting pin on the arm.

4. *Indicates load limited by hydraulic capacity.

5. 0 m = Ground.

EQUIPMENT

ZX850LC-3 BACKHOE

STANDARD EQUIPMENT

ENGINE

- H/P mode control
- P mode control
- E mode control
 50 A alternator
- 50 A alternator
- Dry-type air double filter with evacuator valve (with air filter restriction switch for monitor)
- Cartridge-type engine oil filter
- Cartridge-type fuel filter
- Fuel pre-filter
- Radiator, oil cooler and intercooler with dust protective net
- Radiator reserve tank
- Fan guard
- Isolation-mounted engine
- Auto-idle system

HYDRAULIC SYSTEM

- Work mode selector
- Engine speed sensing system
- E-P control system
- Power boost
- Auto power lift
- Boom mode selector system
- Shockless valve in pilot circuit
- Control valve with main relief valve
- Extra port for control valve
- Suction filter

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- Full-flow filter
- Pilot filter
- Drain filter
- Quick warm-up system for pilot circuit

- CAB
- CRES II cab
- OPG top guard fitted Level I (ISO 10262) compliant cab
- All-weather sound suppressed steel cab
- Laminated round glass (green colour) front window
- 6 fluid-filled elastic mounts
- Openable windows; upper and lower front, and left side
- Intermittent windshield wipers
- Front window washer
- Adjustable reclining suspension seat with adjustable armrests
- Footrest
- Electric double hornAM-FM radio with digital clock
- AIVI-FIVI radio with
 Auto-idle selector
- Auto-idle Selector
 Retractable Seat belt
- Drink holder
- Cigarette lighter
- Ashtray
- Storage box
- Glove compartment
- Floor mat
- Short wrist control levers
- Auto control air conditioner
- Pilot control shut-off lever
- Engine shut-off switch
- Transparent roof with slide curtain
- Sun visor

Standard equipment may vary by country, so please consult your Hitachi dealer for details.

MONITOR SYSTEM

- Display of meters: water
- temperature, hour, fuel rate, clockOther displays: work mode,
- auto-idle, glow, rearview monitor, operating conditions, etc
- Alarms: overheat, engine warning, engine oil pressure, alternator, minimum fuel level, air filter restriction, work mode, overload, etc
- Alarm buzzers: overheat, engine oil pressure, overload

LIGHTS

- 3 working lights
- 2 cab lights

UPPERSTRUCTURE

- Undercover
 - 13 300 kg counterweight
 - Fuel level floatElectric fuel refilling pump with
 - auto-stop
 - Hydraulic oil level gauge
 - Tool box
 - Utility space
 - Rearview mirror (right & left side)
 - Swing parking brake
 - Rear view camera
 - Auto-grease lubricator (Excluding bucket and link pins)

UNDERCARRIAGE

- Travel parking brake
- Travel motor covers
- 2 track guards and hydraulic track adjuster
- Idler track guard
- Bolt-on sprocket
- Upper and lower rollers
- Reinforced track links with pin seals
- 650 mm double grouser shoes

FRONT ATTACHMENTS

- Flanged pin
- Centralized lubrication system
- Dirt seal on all bucket pins
- 8.4 m boom and 3.7 m arm
- 3.5 m³ (SAE, PCSA heaped) bucket

MISCELLANEOUS

Standard tool kit

frame

- Lockable machine covers
- Lockable fuel filling cap

• Theft deterrent system

Skid-resistant tapes, plates, handrails and sidewalk
Travel direction mark on track

• Onboard information controller



OPTIONAL EQUIPMENT

- H/R cab: OPG top guard fitted Level II (ISO 10262) compliant cab (with 2 cab lights)
- Hose rupture valves
- Swing motion alarm device with
- lamps
- Travel motion alarm device
- Biodegradable oil
- Pre-cleaner

- Additional 2 cab lights
- Rain guard for cab
- Attachment basic piping
- Accessories for 2 speed selector
- 12 V power source
- Additional fuse box
- Overload alarm

- Optional equipment may vary by country, so please consult your Hitachi dealer for details.
 - Full track guard
 - 750 mm double grouser shoe
 - 900 mm double grouser shoe
 - Counterweight removal device
 - Suspension seat with heater
 - Air suspension seat with heater
 - Track under cover
 - Fan reverse device

- 7.1 m BE-boom
- 2.95 m BE-arm
- 4.4 m arm

SPECIFICATIONS

ZX870LCH-3 BACKHOE

ENGINE

| Model | Isuzu AH-6WG1XYSA-03 |
|---------------------|---|
| Туре | 4-cycle water-cooled, direct injection |
| Aspiration | Turbocharged |
| No. of cylinders | 6 |
| Rated power | |
| ISO 9249, | H/P mode: |
| Without Fan net | 397 kW (532 HP) at 1 800 min ⁻¹ (rpm) |
| EEC 80/1269, | H/P mode: |
| Without Fan net | 397 kW (532 HP) at 1 800 min ⁻¹ (rpm) |
| Maximum torque | 2 250 Nm (230 kgf·m) at 1 500 min ⁻¹ (rpm) |
| Piston displacement | 15.681 L |
| Bore and stroke | 147 mm x 154 mm |
| Batteries | 2 x 12 V / 170 Ah |

HYDRAULIC SYSTEM

• Work mode selector

General purpose mode / Attachment mode • Engine speed sensing system

| Main pumps | 2 variable displacement axial piston pumps |
|------------------|--|
| Maximum oil flow | 2 x 528 L/min |
| Pilot pump | 1 gear pump |
| Maximum oil flow | 30 L/min |

Hydraulic Motors

| Travel | 2 axial piston motors with parking brake |
|--------|--|
| Swing | 2 axial piston motors |

Relief Valve Settings

| Implement circuit | 31.9 MPa | (325 kgf/cm ²) |
|-------------------|----------|----------------------------|
| Swing circuit | 28.4 MPa | (290 kgf/cm ²) |
| Travel circuit | 34.3 MPa | (350 kgf/cm ²) |
| Pilot circuit | 3.9 MPa | (40 kgf/cm ²) |
| Power boost | 34.3 MPa | (350 kgf/cm ²) |

Hydraulic Cylinders

High-strength piston rods and tubes. Cylinder cushion mechanisms provided in boom and arm cylinders to absorb shock at stroke ends.

Dimensions

| | Quantity | Bore | Rod diameter |
|-------------|----------|--------|--------------|
| Boom | 2 | 215 mm | 150 mm |
| Arm | 1 | 225 mm | 160 mm |
| Bucket | 1 | 200 mm | 140 mm |
| Bucket (BE) | 1 | 215 mm | 150 mm |

Hydraulic Filters

Hydraulic circuits use high-quality hydraulic filters. A suction filter is incorporated in the suction line, and full-flow filters in the return line and swing/travel motor drain lines.

CONTROLS

Pilot controls. Hitachi's original shockless valve and quick warm-up system built in the pilot circuit.

| Implement levers | 2 |
|--------------------|---|
| Travel levers with | |
| pedals | 2 |

UPPERSTRUCTURE

Revolving Frame

Welded sturdy box construction, using heavy-gauge steel plates for ruggedness. D-section frame for resistance to deformation.

Swing Device

Operator's Cab

Independent spacious cab, 1 005 mm wide by 1 795 mm high, conforming to ISO* Standards. (OPG top guard fitted Level II (ISO 10262) compliant cab) Reinforced glass windows on 4 sides for visibility. Reclining seat with armrests; adjustable with or without control levers. * International Standardization Organization

UNDERCARRIAGE

Tracks

Tractor-type undercarriage. Welded track frame using selected materials. Side frame bolted to track frame. Lubricated track rollers, idlers, and sprockets with floating seals.

Track shoes with double grousers made of induction-hardened rolled alloy. Heat-treated connecting pins with dirt seals. Hydraulic (grease) track adjusters with shock-absorbing recoil springs.

Numbers of Rollers and Shoes on Each Side

| Upper rollers | 3 |
|------------------|----|
| Lower rollers | 9 |
| Track shoes | 51 |
| Full track guard | 1 |

Travel Device

Each track driven by axial piston motor through reduction gear for counterrotation of the tracks. Sprockets are replaceable. Parking brake is spring-set/hydraulic-released disc type. Automatic transmission system: High-Low.

| Travel speeds | High: 0 to 4.1 km/h |
|------------------|---------------------|
| | Low: 0 to 3.1 km/h |
| Maximum traction | |
| force | 560 kN (57 100 kgf) |

Gradeability 70% (35°) continuous



WEIGHTS AND GROUND PRESSURE

Equipped with 8.4 m H-boom, 3.7 m H-arm, and 3.5 $\rm m^3$ Heavy-duty bucket (SAE, PCSA heaped).

| Shoe type | Shoe width | Operating weight | Ground pressure |
|-------------------|------------|-------------------------|-------------------------------------|
| | 650 mm | 84 100 kg | 114 kPa (1.17 kgf/cm ²) |
| Double grouser | 750 mm | 84 800 kg*1 | 100 kPa (1.02 kgf/cm ²) |
| | 900 mm | 85 700 kg ^{*1} | 84 kPa (0.86 kgf/cm ²) |

¹ 3.5 m³ Bucket (Suitable for materials with density of 1 800 kg/m³ or less)

Equipped with 7.1 m H-boom, 2.95 m H-arm and 4.3 $\rm m^3$ Heavy-duty bucket (SAE, PCSA heaped).

| Shoe type | Shoe width | Operating weight | Ground pressure |
|-------------------|------------|-------------------------|-------------------------------------|
| | 650 mm | 84 200 kg | 114 kPa (1.17 kgf/cm ²) |
| Double grouser | 750 mm | 84 900 kg ^{*1} | 100 kPa (1.02 kgf/cm ²) |
| | 900 mm | 85 800 kg ^{*1} | 84 kPa (0.86 kgf/cm ²) |

^{*1} 4.3 m³ Bucket (Suitable for materials with density of 1 800 kg/m³ or less)

Equipped with 7.1 m H-boom, 3.7 m H-arm and 3.7 m³ Heavy-duty bucket (SAE, PCSA heaped).

| Shoe type | Shoe width | Operating weight | Ground pressure |
|-------------------|------------|------------------|-------------------------------------|
| | 650 mm | 83 600 kg | 114 kPa (1.16 kgf/cm ²) |
| Double arouser | 750 mm | 84 300 kg | 99 kPa (1.01 kgf/cm ²) |
| | 900 mm | 85 300 kg | 84 kPa (0.85 kgf/cm ²) |

BACKHOE ATTACHMENTS

Boom and arms are of all-welded, box-section design. A number of booms and arms are available. Bucket is of all-welded, high strength steel structure.

The ZX870LCH \cdot_3 is a heavy duty type and can be equipped with a reinforced H-boom or BE-boom and H-arm or BE-arm.

Backhoe Buckets

| Capacity Width | | dth | | | ZX870LCH-3 | | | |
|----------------------------------|--------------------|--------------|--------------|--------------|-----------------------|---------------|------------------|-------------|
| SAE, PCSA | CECE | Without | With | No. of teeth | Weight | 7.1 m Bl | 8.4 m H-boom | |
| heaped | heaped | side cutters | side cutters | | | 2.95 m BE-arm | 3.7 m H-arm | 3.7 m H-arm |
| 2.9 m ³ | 2.6 m ³ | 1 590 mm | 1 780 mm | 5 | 2 700 kg | Х | 0 | 0 |
| 3.5 m ³ | 3.1 m ³ | 1 850 mm | 2 040 mm | 5 | 2 950 kg | Х | 0 | 0 |
| 4.5 m ³ | 3.9 m ³ | 2 120 mm | 2 190 mm | 5 | 3 970 kg | 0 | Х | Х |
| ^{*1} 3.5 m ³ | 3.1 m ³ | 1 870 mm | 1 890 mm | 5 | 3 790 kg | Х | • | • |
| ^{*1} 3.7 m ³ | 3.2 m ³ | 1 950 mm | 1 970 mm | 5 | 3 900 kg | Х | • | Х |
| ^{*1} 4.3 m ³ | 3.8 m ³ | 2 090 mm | 2 110 mm | 5 | 4 270 kg | • | Х | Х |
| ^{*2} 1.9 m ³ | 1.7 m ³ | _ | 1 490 mm | 3 | 4 200 kg | Х | • | • |
| ^{*2} 2.2 m ³ | 2.0 m ³ | _ | 1 580 mm | 3 | 4 400 kg | • | Х | Х |
| One-point ripper | | | | 1 | 2 680 kg | • | • | • |
| | | | | | | 65 | 0 mm Double grou | ser |
| Applicable shoe type | | | | 75 | 0 mm Double grou | ser | | |
| | | | | | 900 mm Double grouser | | | |

Rock bucket
 Heavy-duty

- ^{*2} Ripper bucketX Cannot be installed
- \odot Suitable for materials with density of 1 800 kg/m $^{\!3}$ or less. Not applicable

Shoe for use 650 mm; Quarry ground, Dry riverbed, Solid ground 750 mm; Mid-Solid ground, Soft ground 900 mm; Soft ground SERVICE REFILL CAPACITIES

| | litres |
|---------------------------|---------|
| Fuel tank | 1 120.0 |
| Engine coolant | 116.0 |
| Engine oil | 57.0 |
| Swing device (each side) | 15.0 |
| Fravel device (each side) | 11.0 |
| Hydraulic system | 790.0 |
| Hydraulic oil tank | 500.0 |
| | |

SPECIFICATIONS / LIFTING CAPACITIES

ZX870LCH-3

DIMENSIONS



| | ZX870LCH-3 ⁻² | | | | |
|---|--------------------------|---------------|---------------|--|--|
| A Distance between tumblers | | 5 110 | | | |
| B Undercarriage length | | 6 360 | | | |
| ¹ C Counterweight clearance | | 1 680 | | | |
| D Rear-end swing radius | | 4 600 | | | |
| D' Rear-end length | | 4 520 | | | |
| E Overall width of upperstructure | 4 120 | | | | |
| F Overall height of cab | 3 780 | | | | |
| ¹¹ G Min. ground clearance | 890 | | | | |
| H Track gauge: Extended (Retracted) | 3 450 (2 830) | | | | |
| I Track shoe width | G 650 G 750 G 900 | | | | |
| J Undercarriage width: Extended (Retracted) | 4 100 (3 480) | 4 200 (3 580) | 4 350 (3 730) | | |
| K Overall width | 4 430 | | | | |
| L Overall length | 14 770 | | | | |
| ² M Overall height of boom | 4 570 | | | | |
| N Track height | | 1 500 | | | |

^{*1} Excluding track shoe lug G: Double grouser ^{*2} Equipped with 8.4 m H-boom and 3.7 m H-arm G: Double grouser shoe

WORKING RANGES



| | | | | Unit: mm |
|---------------------------------|--------------------------------|---------------------|---------------------|---------------------|
| | | | ZX870LCH-3 | |
| | Boom length | 7.1 m Bl | E-boom | 8.4 m H-boom |
| | Arm length | 2.95 m BE-arm | 3.7 m H-arm | 3.7 m H-arm |
| А | Max. digging reach | 12 340 | 12 820 | 14 100 |
| A' | Max. digging reach (on ground) | 12 020 | 12 510 | 13 820 |
| В | Max. digging depth | 7 140 | 7 820 | 8 870 |
| B' | Max. digging depth (8' level) | 7 000 | 7 690 | 8 740 |
| С | Max. cutting height | 12 010 | 12 130 | 13 000 |
| D | Max. dumping height | 8 130 | 8 180 | 9 080 |
| Е | Min. swing radius | 5 210 | 5 090 | 5 950 |
| F | Max. vertical wall | 4 100 | 6 090 | 6 840 |
| Bu | icket digging force* ISO | 472 kN (48 200 kgf) | 402 kN (41 000 kgf) | 402 kN (41 000 kgf) |
| Bucket digging force* SAE: PCSA | | 411 kN (41 900 kgf) | 359 kN (36 600 kgf) | 359 kN (36 600 kgf) |
| Arm crowd force* ISO | | 394 kN (40 200 kgf) | 324 kN (33 100 kgf) | 324 kN (33 100 kgf) |
| Arı | m crowd force* SAE: PCSA | 378 kN (38 600 kgf) | 316 kN (32 200 kgf) | 316 kN (32 200 kgf) |
| Eq | uipped bucket SAE: PCSA | 4.3 m ³ | 3.7 m ³ | 3.5 m ³ |

Excluding track shoe lug * At power boost

ZA/IS870LCH

Metric measure

The lifting capacity is defined by the overload alarm device set pressure. When the hydraulic pressure reaches the set pressure, the alarm buzzer sounds. Values in the table are with the overload alarm device switched off and with retracted bucket cylinder.



Rating over-side or 360 degrees

A: Load radiusB: Load point heightC: Lifting capacity

| ZX870LCH.3 (WITHOUT BUCKET) | | | | | | Rating over-front | | | de or 360 | 0 degrees Unit: 1 000 kç | | | | | | | |
|-----------------------------|--------|--------|-------|----------|-------|-------------------|--------|----------|-----------|--------------------------|-------|--------------|-------|----------|-------|---------------|-------|
| Load | | | | | | radius | radius | | | | | At max roach | | | | | |
| Cond | itions | point | 3. | 0 m | 4.0 |) m | 5.0 |) m | 6.0 |) m | 8.0 |) m | 10. | 0 m | 1 ^ | At max. reach | |
| | | height | Ů | D | Ů | ٩ | Ů | O | Ů | O | ů | O | ů | O | Ů | D | meter |
| BE-boom | 7.1 m | 9.0 m | | | | | | | | | | | | | *17.6 | *17.6 | 7.8 |
| BE-arm | 2.95 m | 8.0 m | | | | | | | | | *21.3 | *21.3 | | | *16.9 | *16.9 | 8.6 |
| Shoe | 650 mm | 6.0 m | | | | | *31.1 | *31.1 | *26.9 | *26.9 | *22.3 | 22.0 | | | *16.4 | *16.4 | 9.5 |
| | | 4.0 m | | | | | | | *32.4 | 32.1 | *24.5 | 21.0 | *17.1 | 14.9 | *16.8 | 14.8 | 10.0 |
| | | 2.0 m | | | | | | | *36.3 | 30.1 | *26.5 | 19.9 | *20.0 | 14.5 | *18.0 | 14.3 | 10.1 |
| | | 0 | | | | | *36.0 | *36.0 | *36.9 | 29.1 | *27.0 | 19.3 | | | *20.6 | 14.8 | 9.7 |
| | | -2.0 m | *28.7 | *28.7 | *40.2 | *40.2 | *40.2 | 38.7 | *34.3 | 28.9 | *25.2 | 19.1 | | | *21.5 | 16.7 | 8.9 |
| | | -4.0 m | | | *36.8 | *36.8 | *32.0 | *32.0 | *27.4 | *27.4 | | | | | *20.5 | *20.5 | 7.4 |
| BE-boom | 7.1 m | 9.0 m | | | | | | | | | *14.9 | *14.9 | | | *11.2 | *11.2 | 8.5 |
| H-arm | 3.7 m | 8.0 m | | | | | | | | | *17.6 | *17.6 | | | *10.9 | *10.9 | 9.2 |
| Shoe | 650 mm | 6.0 m | | | | | | | | | *21.0 | *21.0 | *12.1 | *12.1 | *10.8 | *10.8 | 10.1 |
| | | 4.0 m | | | | | *37.2 | *37.2 | *30.5 | *30.5 | *23.5 | 21.5 | *17.8 | 15.3 | *11.2 | *11.2 | 10.6 |
| | | 2.0 m | | | | | *42.7 | 40.8 | *35.4 | 31.0 | *25.9 | 20.4 | *21.1 | 14.8 | *12.2 | *12.2 | 10.6 |
| | | 0 | | | | | *42.7 | 39.3 | *37.3 | 29.7 | *27.2 | 19.6 | *19.7 | 14.4 | *14.1 | 13.8 | 10.3 |
| | | -2.0 m | | | | | *43.0 | 39.0 | *36.0 | 29.2 | *26.4 | 19.3 | | | *17.8 | 15.3 | 9.5 |
| | | -4.0 m | | | *43.3 | *43.3 | *36.5 | *36.5 | *31.0 | 29.4 | *21.9 | 19.5 | | | *21.3 | 19.1 | 8.1 |
| | | -5.0 m | | | *36.4 | *36.4 | *31.0 | *31.0 | *26.2 | *26.2 | | | | | *20.8 | *20.8 | 7.1 |
| H-boom | 8.4 m | 10.0 m | | | | | | | | | | | | | *12.5 | *12.5 | 9.4 |
| H-arm | 3.7 m | 8.0 m | | | | | | | | | *17.3 | *17.3 | *16.1 | 15.6 | *12.0 | *12.0 | 10.7 |
| Shoe | 650 mm | 6.0 m | | | | | *30.1 | *30.1 | *24.9 | *24.9 | *19.6 | *19.6 | *17.0 | 15.2 | *12.1 | 12.1 | 11.4 |
| | | 4.0 m | | | | | | | *31.1 | 30.4 | *22.4 | 20.2 | *18.4 | 14.5 | *12.7 | 11.2 | 11.8 |
| | | 2.0 m | | | | | | | *29.4 | 28.4 | *24.7 | 19.0 | *19.6 | 13.9 | *13.8 | 10.8 | 11.9 |
| | | 0 | | | | | | | | | *25.9 | 18.3 | *20.3 | 13.5 | *15.7 | 11.0 | 11.6 |
| | | -2.0 m | | | | | | | *34.2 | 27.6 | *25.6 | 18.1 | *19.9 | 13.4 | *17.7 | 12.0 | 10.9 |
| | | -4.0 m | | | | | | | *30.7 | 28.0 | *23.4 | 18.3 | | | *18.0 | 14.1 | 9.7 |
| | | -6.0 m | | | | | *27.5 | *27.5 | *24.1 | *24.1 | | | | | *17.5 | *17.5 | 7.9 |

ZX870LCH-3 (WITHOUT BUCKET)

Load radius Load At max. reach Conditions 3.0 m 4.0 m 5.0 m 6.0 m 8.0 m 10.0 m point height Ů Ů ٩ Ů 0 ٩ Ů 0 Ů ٩ Ů 0 Ů 0 meter H-boom 8.4 m 10.0 m *12.5 *12.5 9.4 H-arm 3.7 m 8.0 m *17.3 *17.3 *16.1 15.9 *12.0 *12.0 10.7 Shoe 900 mm 6.0 m *30.1 *30.1 *24.9 *24.9 *19.6 *19.6 *17.0 15.5 *12.1 *12.1 11.4 4.0 m *31.1 30.9 *22.4 20.5 *18.4 14.8 *12.7 11.4 11.8 2.0 m *29.4 28.9 *24.7 19.4 *19.6 14.2 *13.8 11.0 11.9 0 *25.9 18.7 *20.3 13.8 *15.7 11.3 11.6 -2.0 m *34.2 28.2 *25.6 18.5 *19.9 13.6 *17.7 12.2 10.9 -4.0 m *30.7 28.6 *23.4 18.7 *18.0 14.4 9.7 -6.0 m *27.5 *27.5 *24.1 *24.1 *17.5 *17.5 7.9

Rating over-front

Notes: 1. Ratings are based on ISO 10567.

2. Lifting capacity of the ZAXIS Series 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 centre-line of the bucket pivot mounting pin on the arm.

4. *Indicates load limited by hydraulic capacity.

5. 0 m = Ground.

Unit: 1 000 kg

EQUIPMENT

ZX870LCH-3 BACKHOE

STANDARD EQUIPMENT

ENGINE

- H/P mode control
- P mode control
- E mode control
- 50 A alternator
- Dry-type air double filter with evacuator valve (with air filter restriction switch for monitor)
- Cartridge-type engine oil filter
- Cartridge-type fuel filter
- Fuel pre-filter
- Radiator, oil cooler and intercooler with dust protective net
- Radiator reserve tank
- Fan guard
- Isolation-mounted engine
- Auto-idle system

HYDRAULIC SYSTEM

- Work mode selector
- Engine speed sensing system
- E-P control system
- Power boost
- Auto power lift
- Boom mode selector system
- Shockless valve in pilot circuit
- Control valve with main relief valve
- Extra port for control valve
- Suction filter

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- Full-flow filter
- Pilot filter
- Drain filter
- Quick warm-up system for pilot circuit

CAB

- H/R cab
- OPG top guard fitted Level II (ISO 10262) compliant cab
- All-weather sound suppressed steel cab
- Laminated straight glass front window
- 6 fluid-filled elastic mounts
- Left side window can be opened
- Intermittent windshield wipers
- Front window washer
- Adjustable reclining suspension seat with adjustable armrests
- Footrest
- Electric double horn
- AM-FM radio with digital clock
- Auto-idle selector
- Retractable seat belt
- Drink holder
- Cigarette lighter
- Ashtray
- Storage box
- Glove compartment
- Floor mat
- Short wrist control levers
- Auto control air conditioner
- Pilot control shut-off lever
- Engine shut-off switch
- Transparent roof with slide curtain
- Sun visor

Standard equipment may vary by country, so please consult your Hitachi dealer for details.

MONITOR SYSTEM

- Display of meters: water
- temperature, hour, fuel rate, clockOther displays: work mode,
- auto-idle, glow, rearview monitor, operating conditions, etc
- Alarms: overheat, engine warning, engine oil pressure, alternator, minimum fuel level, air filter restriction, work mode, overload, etc
- Alarm buzzers: overheat, engine oil pressure, overload

LIGHTS

- 3 working lights
- 2 cab lights

UPPERSTRUCTURE

- 4.5 mm thickness Undercover
- 13 300 kg counterweight
- Fuel level float
- Rear view camera
- Hydraulic oil level gauge
- Tool box
- Utility space
- Rear view mirror (right & left side)
- Swing parking brakeElectrical fuel refilling pump with auto-stop
- Auto-grease lubricator (Without bucked and link pins)

UNDERCARRIAGE

- Travel parking brake
- Travel motor covers
- Hydraulic track adjuster
- Idler track guard
- Bolt-on sprocket
- Upper and lower rollers
 Reinforced track links with pin seals
- Full track guard
- 650 mm double grouser shoes

FRONT ATTACHMENTS

- Flanged pin
- Centralized lubrication system
- Dirt seal on all bucket pins
- 8.4 m H-boom and 3.7 m H-arm
- Damage prevention plate and square bars
- 3.5 m³ (SAE, PCSA heaped) rock bucket (with dual type side shrouds)

MISCELLANEOUS

Standard tool kit

frame

- Lockable machine covers
- Lockable fuel filling capSkid-resistant tapes, plates,

handrails and sidewalk

• Theft deterrent system

• Travel direction mark on track

Onboard information controller



OPTIONAL EQUIPMENT

- Hose rupture valves
- Swing motion alarm device with lamps
- Travel motion alarm device
- Biodegradable oil
- Additional 2 cab lights
- Pre-cleaner

- Attachment basic piping
- Accessories for breaker
- Accessories for breaker & crusher
- Accessories for 2 speed selector
- 12 V power source
- Additional fuse box
- Overload alarm

- Optional equipment may vary by country, so please consult your Hitachi dealer for details.
 - Front glass lower guard • 7.1 m BE-boom • Front glass upper guard

Counterweight removal device

• Air suspension seat with heater

• Suspension seat with heater

• Track undercover

• Fan reverse device

- 2.95 m BE-arm
- 750 mm shoe with standard track guard
- 900 mm shoe with standard track guard

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TRANSPORTATION

TRANSPORTATION

UPPERSTRUCTURE



| | A | В | Overall width | Weight | |
|-------------|----------|----------|---------------|-----------|--|
| ZX850LC-3 | 6 040 mm | 2 960 mm | 3 500 mm | 27 300 kg | |
| *ZX870LCH-3 | 6 040 mm | 2 960 mm | 3 500 mm | 27 500 kg | |

* Equipped with H/R Cab

SIDE FRAME



| | Shoe width | А | В | Overall width | Weight |
|------------|------------|----------|----------|---------------|-----------|
| | 650 mm | 6 360 mm | 1 500 mm | 1 330 mm | 12 100 kg |
| ZX850LC-3 | 750 mm | 6 360 mm | 1 500 mm | 1 330 mm | 12 400 kg |
| | 900 mm | 6 360 mm | 1 500 mm | 1 425 mm | 12 900 kg |
| | 650 mm | 6 360 mm | 1 500 mm | 1 330 mm | 12 400 kg |
| ZX870LCH-3 | 750 mm | 6 360 mm | 1 500 mm | 1 330 mm | 12 700 kg |
| | 900 mm | 6 360 mm | 1 500 mm | 1 425 mm | 13 200 kg |

COUNTERWEIGHT



| А | В | Overall height | Weight | | |
|----------|--------|----------------|-----------|--|--|
| 3 360 mm | 720 mm | 1 620 mm | 13 300 kg | | |

BASIC MACHINE (WITHOUT COUNTERWEIGHT)



| | Shoe width | А | В | Overall width | Weight |
|-------------|------------|----------|----------|---------------|-----------|
| ZX850LC-3 | 650 mm | 7 080 mm | 3 670 mm | 3 600 mm | 51 500 kg |
| | 750 mm | 7 080 mm | 3 670 mm | 3 600 mm | 52 200 kg |
| | 900 mm | 7 080 mm | 3 670 mm | 3 750 mm | 53 100 kg |
| *ZX870LCH-3 | 650 mm | 7 080 mm | 3 790 mm | 3 600 mm | 52 300 kg |
| | 750 mm | 7 080 mm | 3 790 mm | 3 600 mm | 53 000 kg |
| | 900 mm | 7 080 mm | 3 790 mm | 3 750 mm | 53 900 kg |

* Equipped with H/R Cab

TRANSPORTATION

BOOM



| Boom | А | В | Overall width | Weight |
|----------|----------|----------|---------------|----------|
| 7.1 m BE | 7 490 mm | 2 700 mm | 1 450 mm | 7 670 kg |
| 8.4 m H | 8 780 mm | 2 500 mm | 1 450 mm | 8 200 kg |
| 8.4 m | 8 780 mm | 2 500 mm | 1 450 mm | 8 200 kg |

ARM



| ΒU | JCK | ET |
|----|-----|----|



| Arm | А | В | Overall width | Weight |
|-----------|----------|----------|---------------|----------|
| 2.95 m BE | 4 460 mm | 1 660 mm | 850 mm | 4 650 kg |
| 3.7 m H | 5 290 mm | 1 420 mm | 820 mm | 4 510 kg |
| 3.7 m | 5 290 mm | 1 420 mm | 820 mm | 4 330 kg |
| 4.4 m | 5 880 mm | 1 420 mm | 820 mm | 4 660 kg |

| Capacity | | | | | |
|---------------------|--------------------|----------|----------|---------------|----------|
| SAE, PCSA heaped | CECE heaped | A | В | Overall width | Weight |
| 2.9 m ³ | 2.6 m ³ | 2 210 mm | 1 910 mm | 1 780 mm | 2 700 kg |
| 3.5 m ³ | 3.1 m ³ | 2 210 mm | 1 910 mm | 2 040 mm | 2 950 kg |
| 4.5 m ³ | 3.9 m ³ | 2 320 mm | 2 000 mm | 2 190 mm | 3 970 kg |
| *3.5 m ³ | 3.1 m ³ | 2 240 mm | 1 920 mm | 1 890 mm | 3 790 kg |
| *3.7 m ³ | 3.2 m ³ | 2 240 mm | 1 920 mm | 1 970 mm | 3 900 kg |
| *4.3 m ³ | 3.8 m ³ | 2 310 mm | 2 000 mm | 2 110 mm | 4 270 kg |

* Rock bucket

BOOM CYLINDERS 850 kg X 2 Overall height: 410 mm



HOSE OF BOOM CYLINDERS 13 kg X 2 / 9 kg X 2



LEFT SIDEWALK Overall height: 150 mm



SPECIFICATIONS

ZX870H-3 LOADING SHOVEL

ENGINE

| Model | Isuzu AH-6WG1XYSA-03 |
|---------------------|---|
| Туре | 4-cycle water-cooled, direct injection |
| Aspiration | Turbocharged |
| No. of cylinders | 6 |
| Rated power | |
| ISO 9249, | H/P mode: |
| Without Fan net | 397 kW (532 HP) at 1 800 min ⁻¹ (rpm) |
| EEC 80/1269, | H/P mode: |
| Without Fan net | 397 kW (532 HP) at 1 800 min ⁻¹ (rpm) |
| Maximum torque | 2 250 Nm (230 kgf·m) at 1 500 min ⁻¹ (rpm) |
| Piston displacement | 15.681 L |
| Bore and stroke | 147 mm x 154 mm |
| Batteries | 2 x 12 V / 170 Ah |

HYDRAULIC SYSTEM

Engine speed sensing system

| Main pumps | 2 variable displacement axial piston pumps |
|------------------|--|
| Maximum oil flow | 2 x 528 L/min |
| Pilot pump | 1 gear pump |
| Maximum oil flow | 30 L/min |

Hydraulic Motors

| Travel | 2 axial piston motors with parking brake |
|--------|--|
| Swing | 2 axial piston motors |

Relief Valve Settings

| Implement circuit | 29.4 MPa | (300 kgf/cm ²) |
|-------------------|----------|----------------------------|
| Swing circuit | 28.4 MPa | (290 kgf/cm ²) |
| Travel circuit | 34.3 MPa | (350 kgf/cm ²) |
| Pilot circuit | 3.9 MPa | (40 kgf/cm ²) |

Hydraulic Cylinders

High-strength piston rods and tubes. Cylinder cushion mechanisms provided in boom and arm cylinders to absorb shock at stroke ends.

Dimensions

| | Quantity | Bore | Rod diameter |
|--------|----------|--------|--------------|
| Boom | 2 | 200 mm | 140 mm |
| Arm | 1 | 200 mm | 140 mm |
| Bucket | 2 | 180 mm | 130 mm |
| Dump | 2 | 130 mm | 80 mm |
| Level | 1 | 200 mm | 140 mm |

Hydraulic Filters

Hydraulic circuits use high-quality hydraulic filters. A suction filter is incorporated in the suction line, and full-flow filters in the return line and swing/travel motor drain lines.

CONTROLS

Pilot controls. Hitachi's original shockless valve and quick warm-up system built in the pilot circuit.

| Implement levers | 2 |
|--------------------|---|
| Travel levers with | |
| pedals | 2 |

UPPERSTRUCTURE

Revolving Frame

Welded sturdy box construction, using heavy-gauge steel plates for ruggedness. D-section frame for resistance to deformation.

Swing Device

Operator's Cab

Independent spacious cab, 1 005 mm wide by 1 795 mm high, conforming to ISO* Standards. (OPG top guard fitted Level II (ISO 10262) compliant cab) Reinforced glass windows on 4 sides for visibility. Reclining seat with armrests; adjustable with or without control levers. * International Standardization Organization

UNDERCARRIAGE

Tracks

Tractor-type undercarriage. Welded track frame using selected materials. Side frame bolted to track frame. Lubricated track rollers, idlers, and sprockets with floating seals.

Track shoes with double grousers made of induction-hardened rolled alloy. Heat-treated connecting pins with dirt seals. Hydraulic (grease) track adjusters with shock-absorbing recoil springs.

Numbers of Rollers and Shoes on Each Side

| Upper rollers | З |
|------------------|----|
| Lower rollers | 8 |
| Track shoes | 47 |
| Full track guard | 1 |

Travel Device

Each track driven by axial piston motor through reduction gears for counterrotation of the tracks. Sprockets are replaceable. Parking brake is spring-set/hydraulic-released disc type. Automatic transmission system: High-Low.

| Travel speeds | High: 0 to 4.1 km/h |
|------------------|---------------------|
| | Low: 0 to 3.1 km/h |
| Maximum traction | |
| force | 560 kN (57 100 kgf) |
| | |

Gradeability 70% (35°) continuous



WEIGHTS AND GROUND PRESSURE

ZAXIS 870H: Equipped with 3.6 $\mbox{m}^{\rm 3}$ bottom dump bucket (PCSA heaped)

| Shoe type | Shoe width | Operating weight | Ground pressure |
|-----------|------------|------------------|------------------------------|
| Double | 650 mm | 82 800 kg | $132 k Po (1.34 k a f/om^2)$ |
| grouser | 050 11111 | 02 000 Kg | 152 KF a (1.54 Kyl/citi) |

ZAXIS 870H: Equipped with 4.0 m^3 tilt dump bucket (PCSA heaped)

| Shoe type | Shoe width | Operating weight | Ground pressure |
|-------------------|------------|------------------|------------------------|
| Double grouser | 650 mm | 81 700 kg | 130 kPa (1.32 kgf/cm²) |

LOADING SHOVEL

Boom and arms are of all-welded, box-section design. Efficient, automatic level crowding achieved by one-lever control because the parallel link mechanism keeps the bucket digging angle constant, and level cylinder circuit maintains the bucket height constant. (Auto-Leveling Crowd Mechanism)

Loading Shovel Bucket (PCSA heaped)

| Туре | Capacity | Width | No. of teeth | Weight | Bucket type |
|-------------|--------------------|----------|--------------|----------|------------------------|
| Bottom dump | 3.6 m ³ | 2 300 mm | 6 | 6 080 kg | Rock bucket |
| | 4.0 m ³ | 2 460 mm | 6 | 5 620 kg | General purpose bucket |
| Tilt dump | 4.0 m ³ | 2 360 mm | 6 | 4 980 kg | Rock bucket |
| nit dump | 4.4 m ³ | 2 520 mm | 6 | 4 630 kg | General purpose bucket |

Loading Shovel Bucket (Transportation data)

| Bucket capacity | А | В | Max. width | Weight | Туре |
|--------------------|----------|----------|------------|----------|---|
| 3.6 m ³ | 2 280 mm | 2 570 mm | 2 300 mm | 6 080 kg | Bottom dump type rock bucket |
| 4.0 m ³ | 2 300 mm | 2 570 mm | 2 460 mm | 5 620 kg | Bottom dump type general purpose bucket |
| 4.0 m ³ | 2 290 mm | 2 560 mm | 2 360 mm | 4 980 kg | Tilt dump type rock bucket |
| 4.4 m ³ | 2 290 mm | 2 560 mm | 2 520 mm | 4 630 kg | Tilt dump type general purpose bucket |



SERVICE REFILL CAPACITIES

| | litres |
|---------------------------|---------|
| Fuel tank | 1 120.0 |
| Engine coolant | 116.0 |
| Engine oil | 57.0 |
| Swing device (each side) | 15.0 |
| Travel device (each side) | 11.0 |
| Hydraulic system | 790.0 |
| Hydraulic oil tank | 500.0 |
| | |

SPECIFICATIONS / TRANSPORTATION

ZX870H-3 LOADING SHOVEL

DIMENSIONS



| | Unit: mn |
|--|----------|
| | ZX870H-3 |
| A Distance between tumblers | 4 590 |
| B Undercarriage length | 5 840 |
| · C Counterweight clearance | 1 680 |
| D Rear-end swing radius | 4 600 |
| E Rear-end length | 4 520 |
| F Overall width of upperstructure | 4 120 |
| " G Overall height of cab | 3 780 |
| " G' Overall height of high cab (Optional) | 4 880 |
| H Min. ground clearance | 890 |
| Track gauge | 3 450 |
| J Track shoe width | 650 |
| K Undercarriage width Extended | 4 100 |
| L Overall length | 14 110 |
| M Overall width | 4 430 |
| N Overall height of boom | 4 900 |

*1 Excluding track shoe lug

WORKING RANGES



| | | | Unit: mm | |
|-----|------------------------------|------------------|----------------|--|
| | | ZX870H-3 | | |
| | | Bottom Dump Type | Tilt Dump type | |
| А | Min. digging distance | 3 310 | 3 110 | |
| В | Min. level crowding distance | 5 730 | | |
| С | Level crowding distance | 3 860 | | |
| D | Max. digging reach | 10 000 | | |
| Е | Max. digging depth | 4 970 | | |
| F | Max. cutting height | 10 860 | | |
| G | Max. dumping height | 7 910 4 970 | | |
| Н | Max. bucket opening width | 1 600 | — | |
| Dię | gging force kN (kgf, lbf) | 441 (45 000) | | |

Excluding track shoe lug

TRANSPORTATION

BASIC MACHINE (WITHOUT COUNTERWEIGHT)



COUNTERWEIGHT 13 300 kg Overall height: 1 620 mm



| | Shoe width | А | В | Overall width | Weight |
|----------|------------|----------|----------|---------------|-----------|
| ZX870H-3 | 650 mm | 6 770 mm | 3 790 mm | 3 600 mm | 50 400 kg |

HIGH CAB KIT (Optional)



SIDE FRAME



| | Shoe width | А | В | Overall width | Weight |
|----------|------------|----------|----------|---------------|-----------|
| ZX870H-3 | 650 mm | 5 840 mm | 1 500 mm | 1 330 mm | 11 200 kg |





Refer to data on the P31 mention for the sidewalk. Refer to data on the P33 mention for the loading shovel bucket.

LOADING SHOVEL FRONT ATTACHMENT

| Bucket capacity (PCSA heaped) | Weight | Overall width |
|----------------------------------|-----------|---------------|
| 3.6 m ³ | 17 500 kg | 2 400 mm |
| 4.0 m ³ | 17 000 kg | 2 560 mm |

LOADING SHOVEL FRONT ATTACHMENT (Without Bucket) Weight: 11 400 kg

Overall width: 1 450 mm

EQUIPMENT

ZX870H-3 LOADING SHOVEL

STANDARD EQUIPMENT

ENGINE

- H/P mode control
- P mode control
- E mode control 50 A alternator
- Dry-type air double filter with evacuator valve (with air filter restriction switch for monitor)
- Cartridge-type engine oil filter
- Cartridge-type fuel filter
- Fuel pre-filter
- Radiator, oil cooler and intercooler with dust protective net
- Radiator reserve tank
- Fan guard
- Isolation-mounted engine
- Auto-idle system

HYDRAULIC SYSTEM

- Engine speed sensing system
- E-P control system
- Shockless valve in pilot circuit
- Control valve with main relief valve
- Suction filter
- Full-flow filter
- Pilot filter
- Drain filter
- Quick warm-up system for pilot circuit

CAB

- H/R cab
- OPG top guard fitted Level II (ISO 10262) compliant cab
- All-weather sound suppressed steel cab
- Laminated round glass (green colour) front window
- 6 fluid-filled elastic mounts
- Openable windows; upper and lower front, and left side
- Intermittent windshield wipers
- Front window washer
- Adjustable reclining suspension seat with adjustable armrests
- Electric double horn
- AM-FM radio with digital clock
- Auto-idle selector
- Retractable Seat belt
- Drink holder
- Cigarette lighter
- Ashtray
 - Storage box
 - Glove compartment
 - Floor mat
 - Short wrist control levers
 - Auto control air conditioner
 - Pilot control shut-off lever
 - Engine shut-off switch

Additional 2 cab lights

Rain guard for cab

• 12 V power source

Additional fuse box

Fan reverse device

- Transparent roof with slide curtain
- Sun visor

MONITOR SYSTEM

- Display of meters: water
- temperature, hour, fuel rate, clock • Other displays: auto-idle, glow,
- rearview monitor, operating conditions, etc • Alarms: overheat, engine warning,
- engine oil pressure, alternator, minimum fuel level, air filter restriction, overload, etc
- Alarm buzzers: overheat, engine oil pressure, overload

LIGHTS

- 3 working lights
- 2 cab lights

UPPERSTRUCTURE

- 4.5 mm thickness undercover
- 13 300 kg counterweight
- Fuel level float
- Electric fuel refilling pump with auto-stop
- Hydraulic oil level gauge
- Tool box
- Utility space
- Rearview mirror (right & left side)
- Swing parking brake
 - Rear view camera
 - Auto-grease lubricator (Excluding bucket and link pins)

Suspension seat with heater

Track under cover

High cab kit

KS-EN115EU

• Air suspension seat with heater

These specifications are subject to change without notice.

UNDERCARRIAGE

- Travel parking brake
- Travel motor covers
- Full track guard

Standard equipment may vary by country, so please consult your Hitachi dealer for details.

- Idler track guard
- Bolt-on sprocket
- Upper and lower rollers • Reinforced track links with pin seals
- 650 mm double grouser shoes

FRONT ATTACHMENTS

- Loading shovel front with Auto-Leveling Crowd mechanism
- Dual-support-type boom/arm/ bucket pin linkage
- Double lip pin seals plus O-ring with protector ring at arm top.
- 3.6 m³ (PCSA heaped) Rock bucket (Bottom dump type)

MISCELLANEOUS

- Standard tool kit
- Lockable machine covers
- Lockable fuel filling cap
- Skid-resistant tapes, plates, handrails and sidewalk
- Travel direction mark on track frame
- Onboard information controller
- Theft deterrent system

• 4.0 m³ (PCSA heaped)

• 4.4 m³ (PCSA heaped)

General purpose bucket (Tilt dump type) • 4.0 m³ (PCSA heaped) General purpose bucket (Bottom dump type)

Rock bucket

(Tilt dump type)

Optional equipment may vary by country, so please consult your Hitachi dealer for details.

Illustrations and photos show the standard models, and may or may not include optional equipment,

accessories, and all standard equipment with some differences in colour and features.

Before use, read and understand the Operator's Manual for proper operation.

OPTIONAL EQUIPMENT

 Swing motion alarm device with lamps

Prior to operating this machine, including satellite communication system,

in a country other than a country of its intended use, it may be necessary

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.

to make modifications to it so that it complies with the local regulatory

standards (including safety standards) and legal requirements of that

Hitachi Construction Machinery

- Travel motion alarm device
- Biodegradable oil • Pre-cleaner

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