

ZAXIS-5 series

HITACHI

Reliable solutions

ZAXIS870



ZX870LCR-5



HYDRAULIC EXCAVATOR

Model Code ZX870LCH-5B

Engine Rated Power 397 kW (532 HP)

Operating Weight ZX870LCH-5B: 83 800 - 86 000 kg

Backhoe Bucket ISO Heaped : 1.90 - 4.50 m³



WALK AROUND

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Hitachi machines have a reputation for high quality and can be relied upon in the toughest working conditions.

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A wide range of after-sales services and support options is available to all our customers.

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Higher productivity

The HIOS III B hydraulic system achieves higher productivity with better fuel consumption than the conventional ZAXIS model, which helps to reduce costs.

Larger swing power

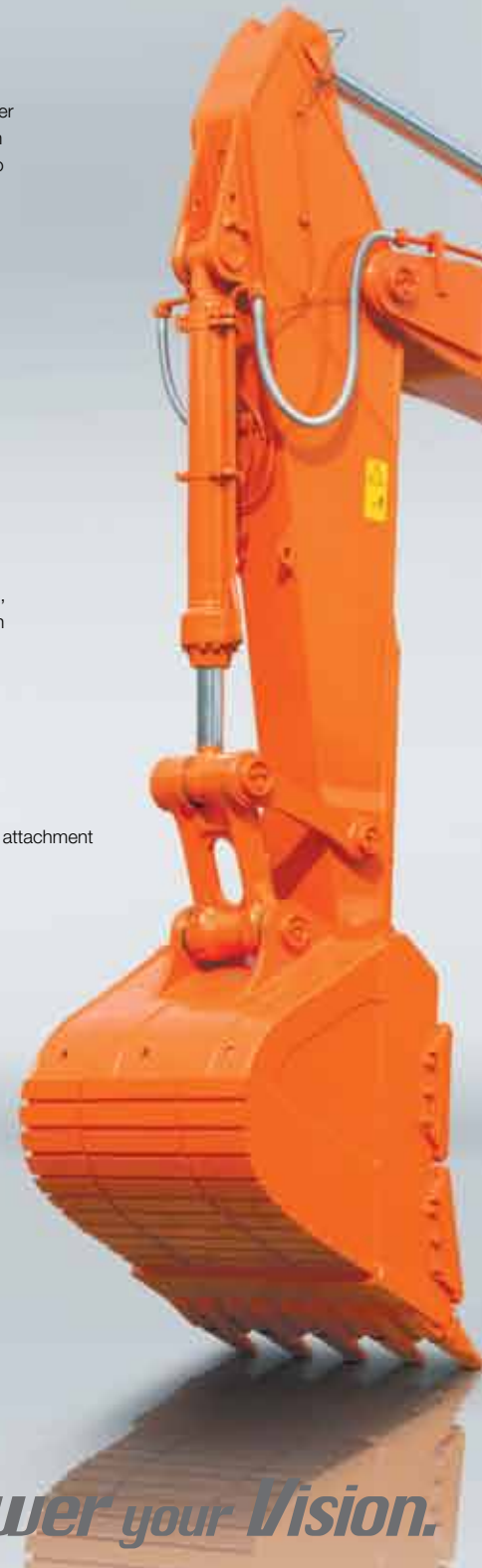
The increased swing torque makes it easier to dig next to side walls and operate on slopes.

Added durability

With a strengthened boom, arm and H/R cab, the ZAXIS 870 can work for lengthy periods in rugged environments.

Faster movement

The new hydraulic system increases the front attachment speed during combined and single operation.



ZAXIS Empower your Vision.

A desire to empower your vision is at the heart of the design of Hitachi large excavators. The ZAXIS 870 has been created with careful consideration of five key factors: performance, productivity, comfort, durability and reliability. Our aim is to provide our customers with high-quality and efficient machines that can work effectively in challenging environments. We also want operators to be able to work safely and comfortably, and ultimately to enjoy every aspect of using Hitachi construction machinery. And to help you enjoy the optimum availability of your machine, we have also incorporated a variety of easy maintenance features and developed the comprehensive Hitachi Support Chain after-sales programme.

Expanded leg room

The seat and console can slide further back on the new ZAXIS, providing a more comfortable working environment for the operator. The rightside console has been ergonomically re-designed.

Ultimate comfort

The heated air suspension seat is ideal in cold climates and absorbs vibration during operation minimising operator fatigue.

Easily accessible information

The large multi-function LCD monitor screen is easy to view in bright sunlight or darkness and provides technical data.

Quick and easy service access

The air conditioner condenser can be opened for easy cleaning. Inspection parts are conveniently located.



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PERFORMANCE

We know that a high level of performance is one of the key factors in your decision to invest in a Hitachi large excavator. To help our customers get the most from their machine, Hitachi engineers have incorporated a range of measures to increase the speed and efficiency of its operation. So you can rely on the ZAXIS 870 to deliver a strong performance every day.



Benefiting from increased speed and greater efficiency



Higher level of performance

Operators around the world told us that the ideal large excavator attains more production. So our engineers used the latest innovations to create the new generation of Hitachi large excavators according to these criteria.

The new hydraulic system allows the operator to manoeuvre the machine easily and perform smooth combined operations quickly, whether the machine is digging or loading a dump truck. The front speed is increased by reducing the pressure loss in circuits and the swing torque has increased by 9%.

The speed of light-load operations such as grading has also been improved due to larger volume of hydraulic flow.

Higher productivity

The success of your business is influenced by the productivity and efficiency of your equipment. Ultimately, your investment in Hitachi construction machinery can help you to meet production targets and compete successfully to win tenders within your market.

The HIOS IIIB hydraulic system allows you to achieve 6% higher productivity in H/P mode than the conventional ZAXIS model in the same mode (HP mode)*. All modes therefore result in faster operation, with lower fuel consumption.

* Based upon typical work pattern collected via Global e-Service

Key features

- 6% higher productivity in H/P mode*
- HIOS IIIB hydraulic system – higher productivity and lower fuel consumption
- Increased front speed
- Swing torque enhanced by 9%



PRODUCTIVITY

High productivity is a key factor for all our customers, as is the need to reduce fuel consumption due to rising costs and growing environmental concerns. That's why the new Hitachi large excavators have been designed to comply with the latest EU regulations on emissions standards, and yet still deliver a powerful and efficient performance on the job site or quarry. So you can be assured of high productivity and a lower environmental impact with the ZAXIS 870.



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Perfect balance between productivity and sustainability



Sustainable efficiency

The sustainable development of the Hitachi product range to minimise its impact on the environment continues to be one of our main priorities. To comply with EU emission control stage IIIB, we have ensured that our large excavators have been equipped with several environmentally friendly features.

A muffler filter has been installed on the ZAXIS 870 to capture air pollutants, which are automatically burnt thanks to an oxidation catalyst and exhaust temperature control. Nitrous oxide levels are also reduced by the variable geometry turbocharger and high volume-cooled EGR (Exhaust Gas Recirculation).

To reduce emissions, prevent fuel wastage and lower noise levels in the cab, the ZAXIS 870 has an Auto Shut-down feature. This automatically drops the engine revolutions to low idle and then stops the engine after the pilot shut-off lever has been raised.

In addition, the new ZAXIS large excavator has many recyclable parts, which also help to reduce its impact on the environment.

Powerful efficiency

The new ZAXIS 870 is equipped with a powerful new-generation Stage IIIB-compliant engine, which delivers higher productivity with greater fuel efficiency. Using the EN590 fuel, compliant with the European standard, plus the genuine fuel filter and engine oil, Super Wide DH2 or equivalent, will ensure optimum engine efficiency.

The new engine has a common rail-type fuel injection system, which delivers the precise quantity of pressurised fuel to achieve effective combustion, and reduces fuel consumption and particulate matter. The HIOS IIIB hydraulic system has also been applied to the new ZAXIS 870 to reach higher yields with better fuel consumption than the previous model.

Key features

- Powerful and sustainable
- Stage IIIB-compliant engine
- Muffler filter that burns particulate matter
- Variable geometry turbocharger
- High volume-cooled EGR system
- HIOS IIIB hydraulic system – fuel efficiency and higher productivity
- Environmentally friendly design
- Auto Shut-down – fuel saving for carbon dioxide reduction



COMFORT

With all-round visibility and a range of easy to use features, the new ZAXIS 870 provides an extremely safe and comfortable working environment. The attention to detail given to the ergonomic design is clear as soon as you step inside the cab, with user-friendly controls within easy reach. And the enhanced view from the operator's seat guarantees greater awareness and safety for you and your fellow operators.



A new level in operator comfort and safety



From the comfort of the cab

It's essential for you to feel comfortable while you work, especially if you are operating an excavator for lengthy periods of time in a quarry or large-scale construction site. Hitachi has reviewed the ergonomic design of its ZAXIS excavator cab to ensure that you can complete your shift with ease and enjoy the rest of your day.

The fully adjustable air-suspension seat absorbs vibrations and helps to minimise operator fatigue. Its new sliding mechanism means that it can be moved back further than ever before. More leg room is also available as the space underneath the monitor has been expanded.

Enhanced visibility

Healthy and safety are of paramount importance in busy quarries and construction sites. With the latest innovations from Hitachi, the new ZAXIS offers enhanced visibility, particularly on the right-hand side of the machine, to help you avoid any unnecessary damage, and ultimately save you time and money.

The monitor and door have been repositioned, which improves your view and provides easier access to the cab. The excavator is also equipped with the latest rear-view camera, giving you a broader visual range.

User-friendly functionality

The advanced technology that is incorporated within the new ZAXIS is one of its many advantages. The ergonomic controls and the easy to view colour monitor place the power firmly in your hands.

The new multi-function LCD monitor with a seven-inch screen displays a comprehensive range of useful technical information. It allows you to check the machine's status and settings at a glance and has multi-lingual support in up to 32 languages.

For easy operation, the monitor and ergonomically designed switches have been repositioned and are both conveniently located on the right-hand side of the cab.

Enjoy your work

By creating a relaxed and pleasant workspace, our aim was to make your day in the cab of the new ZAXIS more enjoyable and therefore more satisfying.

If you enjoy listening to the radio as you work, you will find that the controls for the AM/FM stereo radio are now fully adjustable from the colour monitor. Alternatively, if you wish to plug in an MP3 player, an auxiliary socket has also been added to the sound system, so that you can work smoothly and efficiently to your favourite music.

Key features

■ Fully adjustable excellent cab

■ Enhanced visibility

■ New colour LCD monitor

■ Easily accessible real-time information

■ Expansive leg room

■ Ergonomically designed control panel



DURABILITY

Over the past 40 years, Hitachi has gained an enviable reputation throughout the construction industry for manufacturing high-quality and reliable machines. The new range of Hitachi large excavators continues to build on this reputation, and is supported by the brand's engineering expertise and innovations in advanced technology. The result is an excavator that can cope with the rigours of the most demanding working environments.



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Meeting the demands of the toughest job sites



Durable parts

Our large excavators have been designed to deliver increased levels of availability and productivity even on the toughest job sites. The aim behind manufacturing such durable machines was to ultimately ensure a lower cost of ownership for our customers.

The strengthened boom and arm on each new ZAXIS 870 are highlights of the machine's enhanced durable characteristics. Both features allow it to cope well with working long hours in rugged environments.

A filter-type high-performance water separator effectively captures moisture in the fuel, reducing impurities and helping to minimise any fuel-related engine problems. Dual fuel main filters and pre-filters are provided as standard on the ZAXIS 870 to reduce fuel system failures.

The fuel injector is protected by diamond-like carbon (DLC) coating, which enhances its reliability and durability, and the engine has a twin-layer fuel main filter that doubles filtration performance.

ROPS-compliant cab

A variety of safety measures, have been incorporated to minimise risks on the job site. The H/R cab, meeting the OPG*(Top Guard Level II), protects the operator from falling objects. The front window, made of straight-laminated glass, is fixed to shut out dirt and debris.

*Operator Protective Guards.

Key features

- Proven Hitachi quality
- OPG (Level II) compliant cab
- Reinforced front attachment
- Reinforced undercarriage

- Dual main filters and pre-filters
- More than 40 years of experience



MAINTENANCE

Like all new Hitachi large excavators, the ZAXIS 870 has been designed with a range of easily accessible and convenient features to allow for swift routine maintenance and easy cleaning. This is in response to feedback from our customers around the world, who rely on the optimum availability of their Hitachi machines to meet tight schedules and challenging production targets, time and again.



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Convenient solutions ensure optimum availability



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Easy acces

The design of the new ZAXIS 870 incorporates a range of convenient features for routine maintenance. They have been created by our engineers in order to save you time and make life a little less stressful. The multi-function LCD monitor allows you to manage machine maintenance information quickly and efficiently. And each time you turn on the ignition switch, you can also set the routine service schedule to help prevent breakdowns. All filters are located for easy filter replacement.

Easy servicing

The new ZAXIS 870 is equipped with a solenoid fuel pump, which means there is no need to pump manually if the engine stops due to lack of fuel or while the main fuel filter is being changed.

The machine's utility space stores an electric grease pump, hose reel and tool box. This means that batteries and an electrical equipment box are conveniently located in one place.

Easy cleaning

To maximise productivity and ensure optimum levels of availability in the quarry or on any construction site, we have introduced a variety of quick solutions to the new ZAXIS 870 for routine maintenance and cleaning.

One example of these convenient features can be seen on the exterior of the machine, where the air conditioning condenser can be easily opened for cleaning the condenser and radiator located behind. The cleaning process is also easier thanks to the parallel positioning of the cooling package.

Key features

- Easy daily inspection
- Quick and easy service access
- Relocated filters
- Solenoid fuel pump



SUPPORT CHAIN

As soon as you become a Hitachi customer, you can rely on first-class after-sales service from your authorised dealer. Hitachi provides extensive support to each of the dealers within the European network, so that they can ensure your ZAXIS 870 continues to meet your requirements and exceed expectations. To further protect your investment in Hitachi construction machinery, we have introduced the Hitachi Support Chain after-sales programme. This gives you the flexibility to create a tailor-made service plan from the the following key-areas, "links" in the chain of service available from Hitachi via your local dealer.



Flexible after-sales programme to protect your investment

Global e-Service

The new ZAXIS excavator is equipped with a GPRS communication system*. This sends a wide range of machine data to the Hitachi main server. Via the Global e-Service database, you will have remote access to all of this data. All you need is an internet connection and your Global e-Service log-in details.

Global e-Service enables you and your dealer to download and share this data, helping you to remotely manage your fleet. The online facility also helps your dealer to proactively advise you on preventive maintenance and related special offers.

The latest information on the ZAXIS excavator is available 24/7 and includes operational data, such as the number of working hours, fuel consumption figures, working modes and location. This helps you to reduce running costs, plan jobs efficiently and keep up to date with machine maintenance – to ensure optimum performance and minimal downtime.

Technical support

The professional and highly trained Hitachi service team combine the global expertise and knowledge of Hitachi Construction Machinery with your local language and culture. We take a proactive approach towards customer service by continuously training our dealer personnel, so that the available global knowledge is passed on to each individual technician in our dealer network.

Extended warranty and service contracts

Every new Hitachi model is covered by a full manufacturer's warranty. However, your ZAXIS excavator may require extra protection due to severe working conditions or to minimise equipment repair costs. To meet these demands, our dealers offer the option of a unique extended warranty programme (HELP – Hitachi Extended Life Program) and comprehensive service contracts – the most effective way to optimise the performance of your new ZAXIS excavator.

Parts and Remanufactured Components

Hitachi offers different lines of parts and components to suit your specific needs. In addition to our range of genuine parts, there are other options available:

- If your machines have been working for several years, Hitachi can offer a second line of genuine parts as an attractively priced solution.
- For that highly demanding application or climate, Hitachi provides a line of parts with extra performance.
- When you are looking for an economical solution for preventive replacements, remanufactured components are the best option.

Whatever choice you make, you can be assured of the renowned Hitachi quality and warranty to give you added peace of mind.

Your Hitachi dealer can supply you with more details on each of the above parts lines.



* The GPRS communication system is standard equipment for new ZAXIS excavators, however, the availability of the communication system depends on licensing regulations in your country. Please contact your Hitachi dealer for more information or to apply for a Global e-Service account.

Key features

- Check each of your machines from your office – 24/7
- Have a remote insight into fuel consumption
- Check the current and previous locations and movements of your machine(s)

- See maintenance status and items due for renewal on each of your machines
- Receive e-mail notifications for any machine alerts, unexpected movements and so on

SPECIFICATIONS

ENGINE

| | |
|---------------------------|---|
| Model | Isuzu AL-6WG1XZSA-01 |
| Type | 4-cycle water-cooled, common rail direct injection |
| Aspiration | Variable geometry turbocharged, intercooled, cooled EGR |
| Aftertreatment | Muffler filter |
| No. of cylinders | 6 |
| Rated power | |
| ISO 9249, net | H/P mode: |
| (Without Fan) | 397 kW (532 HP) at 1 800 min ⁻¹ (rpm) |
| EEC 80/1269, net | H/P mode: |
| (Without Fan) | 397 kW (532 HP) at 1 800 min ⁻¹ (rpm) |
| SAE J1349, net | H/P mode: |
| (Without Fan) | 397 kW (532 HP) at 1 800 min ⁻¹ (rpm) |
| Maximum torque | 2 250 Nm (229 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

Hydraulic Pumps

| | |
|------------------------|--|
| Main pumps | 2 variable displacement axial piston pumps |
| Maximum oil flow | 2 x 556 L/min |
| Pilot pump | 1 gear pump |
| Maximum oil flow | 50 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

| | 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 |

UPPERSTRUCTURE

Revolving Frame

D-section frame for resistance to deformation.

Swing Device

Axial piston motor with planetary reduction gear is bathed in oil. Swing parking brake is spring-set/hydraulic-released disc type.

Swing speed 7.8 min⁻¹ (rpm)

Operator's Cab

Independent spacious (H/R) cab, 1 025 mm wide by 1 817 mm high, conforming to ISO* Standards.

* International Organization for Standardization

UNDERCARRIAGE

Tracks

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. Parking brake is spring-set/hydraulic-released disc type.

Automatic transmission system: High-Low.

| | |
|---------------------|----------------------|
| Travel speeds | High : 0 to 4.7 km/h |
| | Low : 0 to 3.2 km/h |

Maximum traction force .. 560 kN (57 100 kgf)

Gradeability 70% (35 degree) continuous

SOUND LEVEL

Sound level in cab according to ISO 6396 LpA 74 dB(A)

External sound level according to ISO 6395 and

EU Directive 2000/14/EC LwA 109 dB(A)

SERVICE REFILL CAPACITIES

| | |
|---------------------------------|-----------|
| Fuel tank | 1 110.0 L |
| Engine coolant | 112.0 L |
| Engine oil | 57.0 L |
| Pump drive | 6.2 L |
| Swing device (each side) | 15.7 L |
| Travel device (each side) | 19.0 L |
| Hydraulic system | 1 042.0 L |
| Hydraulic oil tank | 500.0 L |

WEIGHTS AND GROUND PRESSURE

Operating Weight and Ground Pressure

| Boom type | Arm type | Shoe width | Operating weight | Ground pressure |
|-----------|----------|------------|------------------|-------------------------------------|
| 8.4 m H | 3.7 m H | 650 mm | 84 200 kg | 115 kPa (1.17 kgf/cm ²) |
| | | 750 mm | 84 900 kg | 100 kPa (1.02 kgf/cm ²) |
| | | 900 mm | 85 900 kg | 84 kPa (0.86 kgf/cm ²) |

Including 3.5 m³ rock bucket (ISO heaped)

| Boom type | Arm type | Shoe width | Operating weight | Ground pressure |
|-----------|----------|------------|------------------|-------------------------------------|
| 7.1 m H | 2.95 m H | 650 mm | 84 400 kg | 115 kPa (1.17 kgf/cm ²) |
| | | 750 mm | 85 100 kg | 100 kPa (1.02 kgf/cm ²) |
| | | 900 mm | 86 000 kg | 84 kPa (0.86 kgf/cm ²) |

Including 4.3 m³ rock bucket (ISO heaped)

| Boom type | Arm type | Shoe width | Operating weight | Ground pressure |
|-----------|----------|------------|------------------|-------------------------------------|
| 7.1 m H | 3.7 m H | 650 mm | 83 800 kg | 114 kPa (1.16 kgf/cm ²) |
| | | 750 mm | 84 500 kg | 100 kPa (1.02 kgf/cm ²) |
| | | 900 mm | 85 500 kg | 84 kPa (0.86 kgf/cm ²) |

Including 3.7 m³ rock bucket (ISO heaped)

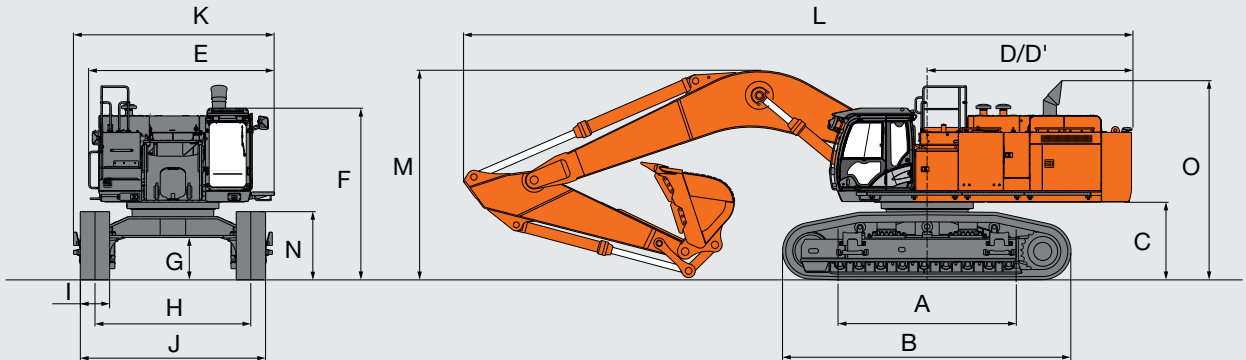
BUCKET AND ARM DIGGING FORCE

| Boom length | ZAXIS 870LCH | | |
|----------------------------------|---------------------|---------------------|---------------------|
| | 7.1 m BE-boom | | 8.4 m H-boom |
| | 2.95 m BE-arm | 3.7 m H-arm | 3.7 m H-arm |
| Bucket 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) |
| Arm crowd force* SAE : PCSA | 378 kN (38 600 kgf) | 316 kN (32 200 kgf) | 316 kN (32 200 kgf) |

* At power boost

SPECIFICATIONS

DIMENSIONS



Unit: mm

| | | ZAXIS 870LCH ¹² | | |
|----------------|--|----------------------------|---------------|---------------|
| 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 | 4 540 | | |
| E | Overall width of upperstructure | 4 120 | | |
| F | Overall height of cab | 3 800 | | |
| ¹ G | Min. ground clearance | 890 | | |
| H | Track gauge : Extended / Retracted | 3 450 / 2 830 | | |
| I | Track shoe width | | | |
| J | Undercarriage width : Extended / Retracted | G 650 | G 750 | G 900 |
| | | 4 100 / 3 480 | 4 200 / 3 580 | 4 350 / 3 730 |
| K | Overall width | 4 450 | | |
| L | Overall length | 14 800 | | |
| ² M | Overall height of boom | 4 770 | | |
| N | Track height | 1 500 | | |
| O | Overall height of base machine | 4 410 | | |

¹ Excluding track shoe lug G: Double grouser shoe

² Equipped with 8.4 m H-boom and 3.7 m H-arm

Backhoe Buckets

| Capacity | | Width | | No. of teeth | Weight | Recommendation | | |
|---------------------------------|--------------------|----------------------|-------------------|---------------|-------------|-----------------------|---|--------------|
| ISO heaped | CECE heaped | Without side cutters | With side cutters | | | ZAXIS 870LCH | | |
| | | | | | | 7.1 m BE-boom | | 8.4 m H-boom |
| | | | | 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 | x | ⊙ | ⊙ |
| 3.5 m ³ | 3.1 m ³ | 1 850 mm | 2 040 mm | 5 | 2 950 kg | x | ⊙ | ⊙ |
| 4.5 m ³ | 3.9 m ³ | 2 120 mm | 2 190 mm | 5 | 3 970 kg | ⊙ | x | x |
| ¹ 3.5 m ³ | 3.1 m ³ | 1 870 mm | 1 890 mm | 5 | 3 790 kg | x | ● | ● |
| ¹ 3.7 m ³ | 3.2 m ³ | 1 950 mm | 1 970 mm | 5 | 3 900 kg | x | ● | x |
| ¹ 4.3 m ³ | 3.8 m ³ | 2 090 mm | 2 110 mm | 5 | 4 270 kg | ● | x | x |
| ² 1.9 m ³ | 1.7 m ³ | – | 1 490 mm | 3 | 4 200 kg | x | ● | ● |
| ² 2.2 m ³ | 2.0 m ³ | – | 1 580 mm | 3 | 4 400 kg | ● | x | x |
| One-point ripper | | | | 1 | 2 680 kg | ● | ● | ● |
| Applicable shoe type | | | | | | 650 mm double grouser | | |
| | | | | | | 750 mm double grouser | | |
| | | | | | | 900 mm double grouser | | |

¹ Rock bucket

● Heavy-duty service

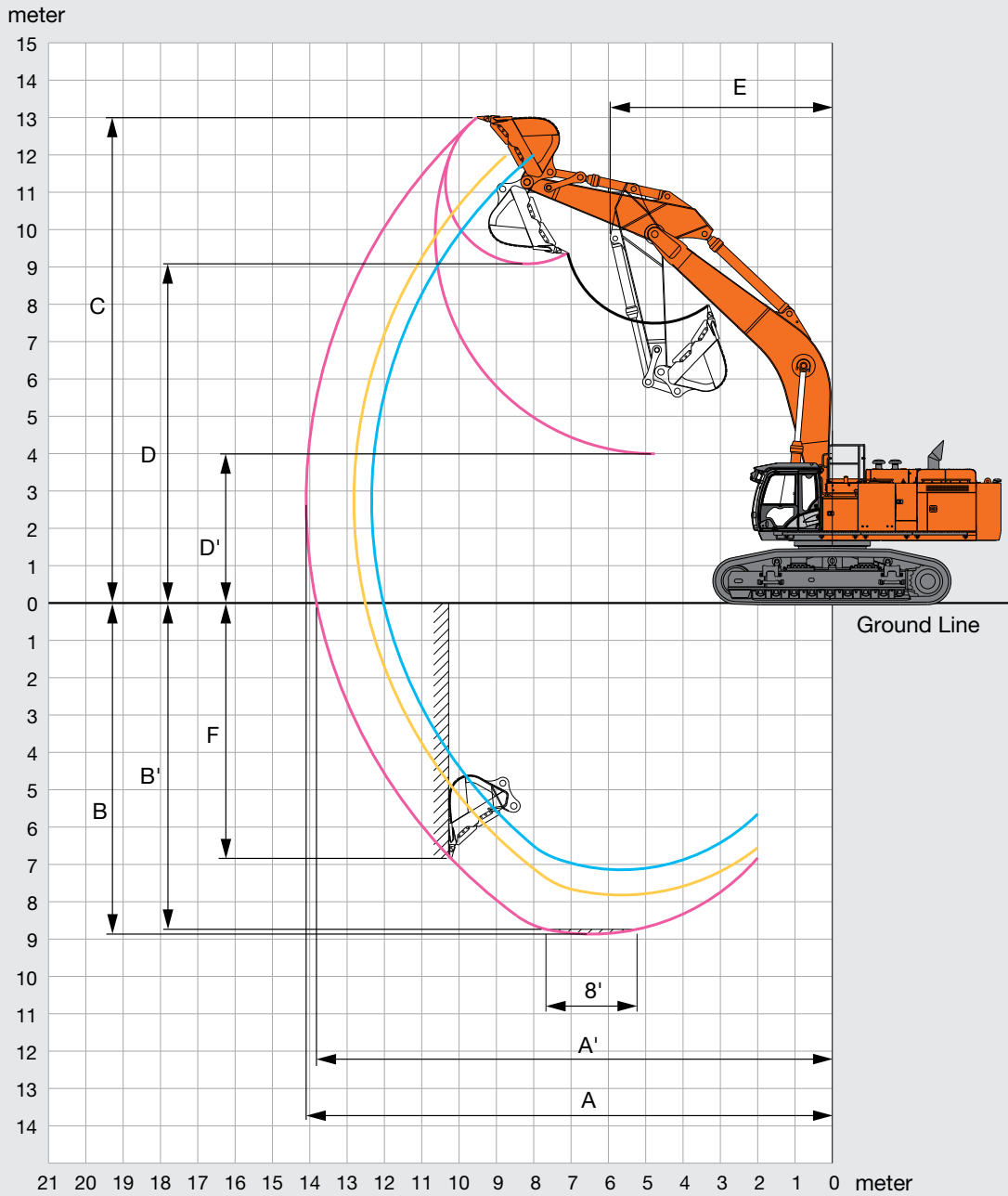
⊙ Suitable for materials with density of 1 800 kg/m³ or less.

² Ripper bucket

x Cannot be installed

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

WORKING RANGES



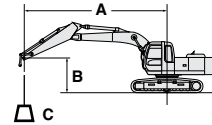
Unit: mm

| Arm length | ZAXIS 870LCH | | |
|-----------------------------------|---------------|-------------|--------------|
| | 7.1 m BE-boom | | 8.4 m H-boom |
| | 2.95 m BE-arm | 3.7 m H-arm | 3.7 m H-arm |
| A Max. digging reach | 12 340 | 12 820 | 14 100 |
| A' Max. digging reach (on ground) | 12 020 | 12 510 | 13 820 |
| B Max. digging depth | 7 140 | 7 820 | 8 870 |
| B' Max. digging depth (8' level) | 7 000 | 7 690 | 8 740 |
| C Max. cutting height | 12 010 | 12 130 | 13 000 |
| D Max. dumping height | 8 130 | 8 180 | 9 080 |
| D' Min. dumping height | 3 770 | 3 000 | 3 990 |
| E Min. swing radius | 5 210 | 5 090 | 5 950 |
| F Max. vertical wall | 4 100 | 6 090 | 6 840 |

Excluding track shoe lug

LIFTING CAPACITIES

- Notes: 1. Ratings are based on ISO 10567.
 2. Lifting capacity does not exceed 75% of tipping load with the machine on firm, level ground or 87% full hydraulic capacity.
 3. The load point is the center-line of the bucket pivot mounting pin on the arm.
 4. *Indicates load limited by hydraulic capacity.
 5. 0 m = Ground.



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

For lifting capacities, subtract bucket and quick hitch weight from lifting capacities.

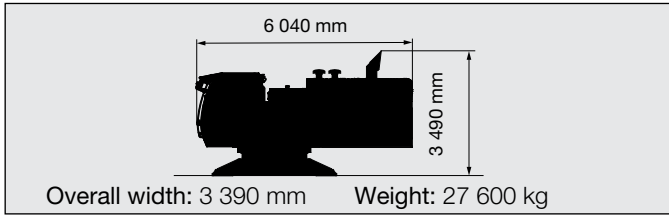
ZAXIS 870LCH

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

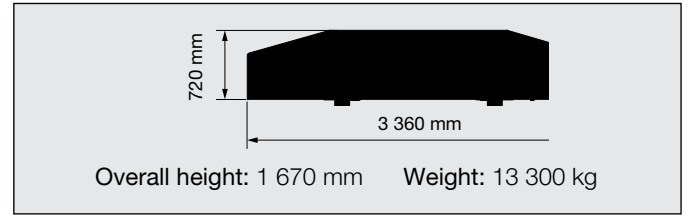
| Conditions | Load point height | Load radius | | | | | | | | | | | | At max. reach | | | | |
|---------------|-------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------------|--|---------|---------|------|
| | | 3.0 | | 4.5 | | 6.0 | | 7.5 | | 9.0 | | 10.5 | | meter | | | | |
| | | | | | | | | | | | | | | | | | | |
| BE-Boom 7.1 m | 9.0 | | | | | | | | | | | | | | | | | |
| BE-Arm 2.95 m | 7.5 | | | | | | | *21 750 | *21 750 | | | | | | | *16 660 | *16 660 | 8.8 |
| Counterweight | 6.0 | | | | | *26 890 | *26 890 | *23 170 | *23 170 | *21 180 | 18 200 | | | | | *16 390 | *16 390 | 9.5 |
| 13 300 kg | 4.5 | | | | | *31 010 | *31 010 | *25 220 | 23 410 | *22 040 | 17 730 | | | | | *16 610 | 15 120 | 9.9 |
| Shoe 650 mm | 3.0 | | | | | *34 730 | 30 970 | *27 250 | 22 420 | *23 040 | 17 180 | | | | | *17 290 | 14 450 | 10.0 |
| | 1.5 | | | | | *36 770 | 29 730 | *28 650 | 21 610 | *23 730 | 16 710 | | | | | *18 530 | 14 340 | 10.0 |
| | 0 (Ground) | | | | | *36 890 | 29 090 | *29 000 | 21 100 | *23 670 | 16 390 | | | | | *20 570 | 14 810 | 9.6 |
| | -1.5 | | | *42 330 | *42 330 | *35 250 | 28 900 | *27 960 | 20 890 | *22 120 | 16 320 | | | | | *21 580 | 16 050 | 9.1 |
| | -3.0 | *41 880 | *41 880 | *39 690 | *39 690 | *31 580 | 29 080 | *24 790 | 21 040 | | | | | | | *21 270 | 18 640 | 8.2 |
| | -4.5 | | | *30 900 | *30 900 | *24 390 | *24 390 | | | | | | | | | *19 710 | *19 710 | 6.8 |
| BE-Boom 7.1 m | 9.0 | | | | | | | | | | | | | | | | | |
| H-Arm 3.7 m | 7.5 | | | | | | | *19 490 | *19 490 | *14 860 | *14 860 | | | | | *10 790 | *10 790 | 9.4 |
| Counterweight | 6.0 | | | | | | | *21 670 | *21 670 | *19 100 | 18 730 | | | | | *10 780 | *10 780 | 10.1 |
| 13 300 kg | 4.5 | | | *39 260 | *39 260 | *28 980 | *28 980 | *23 970 | *23 970 | *21 110 | 18 200 | | | | | *11 060 | *11 060 | 10.4 |
| Shoe 650 mm | 3.0 | | | | | *33 260 | 32 070 | *26 360 | 23 060 | *22 410 | 17 610 | | | | | *11 650 | *11 650 | 10.6 |
| | 1.5 | | | | | *36 220 | 30 580 | *28 240 | 22 160 | *23 740 | 17 060 | *13 710 | *13 710 | | | *12 620 | *12 620 | 10.5 |
| | 0 (Ground) | | | | | *37 340 | 29 670 | *29 180 | 21 510 | *23 940 | 16 640 | | | | | *14 140 | 13 850 | 10.2 |
| | -1.5 | | | | | *36 660 | 29 250 | *28 880 | 21 150 | *23 400 | 16 420 | | | | | *16 630 | 14 810 | 9.7 |
| | -3.0 | | | *44 080 | *44 080 | *34 090 | 29 230 | *26 930 | 21 090 | | | | | | | *21 140 | 16 760 | 8.8 |
| | -4.5 | | | *36 910 | *36 910 | *28 910 | *28 910 | *21 930 | 21 440 | | | | | | | *21 120 | 20 860 | 7.6 |
| H-Boom 8.4 m | 9.0 | | | | | | | | | *16 240 | *16 240 | | | | | *12 190 | *12 190 | 10.0 |
| H-Arm 3.7 m | 7.5 | | | | | | | | | *16 890 | *16 890 | *15 320 | 14 310 | | | *12 030 | *12 030 | 10.8 |
| Counterweight | 6.0 | | | | | *24 900 | *24 900 | *20 570 | *20 570 | *18 090 | 17 910 | *16 610 | 14 020 | | | *12 150 | 12 120 | 11.4 |
| 13 300 kg | 4.5 | | | | | *29 600 | *29 600 | *23 100 | 22 510 | *19 550 | 17 220 | *17 400 | 13 630 | | | *12 520 | 11 340 | 11.7 |
| Shoe 650 mm | 3.0 | | | | | *33 480 | 29 170 | *25 440 | 21 390 | *20 990 | 16 540 | *18 240 | 13 230 | | | *13 180 | 10 920 | 11.9 |
| | 1.5 | | | | | | | *27 090 | 20 560 | *22 120 | 15 980 | *18 920 | 12 870 | | | *14 180 | 10 820 | 11.8 |
| | 0 (Ground) | | | | | | | *27 850 | 20 070 | *22 740 | 15 600 | 18 820 | 12 620 | | | *15 670 | 11 040 | 11.5 |
| | -1.5 | | | | | *34 700 | 27 580 | *27 670 | 19 860 | *22 680 | 15 420 | 18 710 | 12 520 | | | *17 320 | 11 640 | 11.1 |
| | -3.0 | | | | | *32 720 | 27 770 | *26 480 | 19 900 | *21 730 | 15 440 | | | | | *17 920 | 12 810 | 10.3 |
| | -4.5 | | | | | *29 440 | 28 200 | *23 990 | 20 200 | *19 270 | 15 730 | | | | | *18 040 | 14 960 | 9.3 |
| | -6.0 | | | *29 240 | *29 240 | *24 070 | *24 070 | *19 110 | *19 110 | | | | | | | *17 520 | *17 520 | 7.9 |
| H-Boom 8.4 m | 9.0 | | | | | | | | | *16 240 | *16 240 | | | | | *12 190 | *12 190 | 10.0 |
| H-Arm 3.7 m | 7.5 | | | | | | | | | *16 890 | *16 090 | *15 320 | 14 570 | | | *12 030 | *12 030 | 10.8 |
| Counterweight | 6.0 | | | | | *24 900 | *24 900 | *20 570 | *20 570 | *18 090 | *18 090 | *16 610 | 14 290 | | | *12 150 | *12 150 | 11.4 |
| 13 300 kg | 4.5 | | | | | *29 600 | *29 600 | *23 100 | 22 910 | *19 550 | 17 540 | *17 400 | 13 900 | | | *12 520 | 11 570 | 11.7 |
| Shoe 900 mm | 3.0 | | | | | *33 480 | 29 720 | *25 430 | 21 790 | *20 990 | 16 860 | *18 240 | 13 490 | | | *13 180 | 11 150 | 11.9 |
| | 1.5 | | | | | | | *27 090 | 20 960 | *22 120 | 16 300 | *18 920 | 13 140 | | | *14 180 | 11 050 | 11.8 |
| | 0 (Ground) | | | | | | | *27 850 | 20 470 | *22 740 | 15 920 | 19 210 | 12 890 | | | *15 670 | 11 270 | 11.5 |
| | -1.5 | | | | | *34 700 | 28 130 | *27 660 | 20 260 | *22 680 | 15 740 | *18 980 | 12 790 | | | *17 600 | 11 890 | 11.1 |
| | -3.0 | | | | | *32 720 | 28 320 | *26 480 | 20 310 | *21 730 | 15 760 | | | | | *17 920 | 13 080 | 10.3 |
| | -4.5 | | | | | *29 440 | 28 750 | *23 990 | 20 600 | *19 270 | 16 050 | | | | | *18 040 | 15 260 | 9.3 |
| | -6.0 | | | *29 240 | *29 240 | *24 070 | *24 070 | *19 110 | *19 110 | | | | | | | *17 520 | *17 520 | 7.9 |

TRANSPORTATION

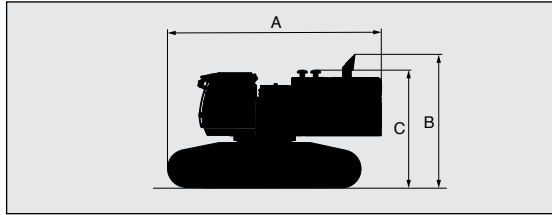
UPPERSTRUCTURE



COUNTERWEIGHT



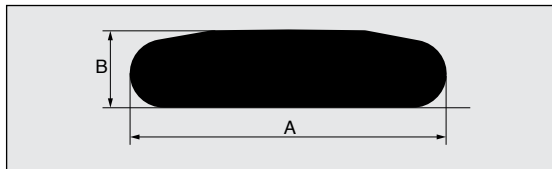
BASIC MACHINE (WITHOUT COUNTERWEIGHT)



| Shoe width | A | B | C ¹ | Overall width ² | Weight |
|------------|----------|----------|----------------|----------------------------|-----------|
| 650mm | 7 080 mm | 4 410 mm | 3 885 mm | 3 480 mm | 52 600 kg |
| 750 mm | 7 080 mm | 4 410 mm | 3 885 mm | 3 580 mm | 53 300 kg |
| 900 mm | 7 080 mm | 4 410 mm | 3 885 mm | 3 730 mm | 54 300 kg |

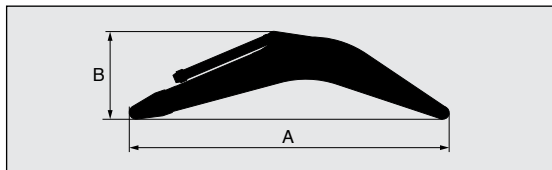
¹ Without exhaust funnel
² Undercarriage retracted

SIDE FRAME



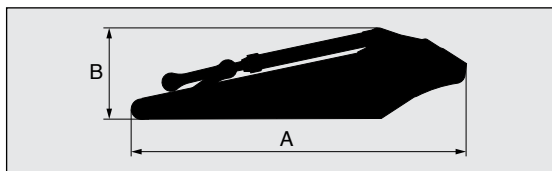
| Shoe width | A | B | Overall width | Weight |
|------------|----------|----------|---------------|-----------|
| 650 mm | 6 360 mm | 1 500 mm | 1 330 mm | 12 400 kg |
| 750 mm | 6 360 mm | 1 500 mm | 1 330 mm | 12 700 kg |
| 900 mm | 6 360 mm | 1 500 mm | 1 425 mm | 13 200 kg |

BOOM



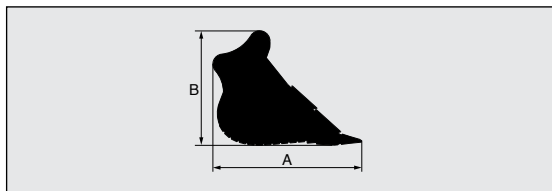
| Boom | A | B | Overall width | Weight |
|----------|----------|----------|---------------|----------|
| 7.1 m BE | 7 490 mm | 2 700 mm | 1 450 mm | 7 670 kg |
| 8.4 m H | 8 780 mm | 2 500 mm | 1 450 mm | 8 200 kg |

ARM



| Arm | A | B | Overall width | Weight |
|-----------|----------|----------|---------------|----------|
| 2.95 m BE | 4 460 mm | 1 660 mm | 850 mm | 4 650 kg |
| 3.7m H | 5 290 mm | 1 420 mm | 820 mm | 4 510 kg |

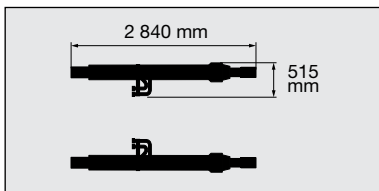
BUCKET



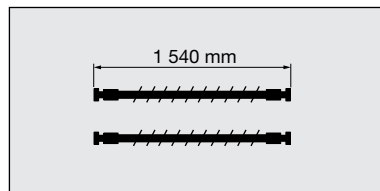
| Arm | | A | B | Overall width | Weight |
|---------------------|--------------------|----------|----------|---------------|----------|
| ISO heaped | CECE heaped | | | | |
| 2.9 m ³ | 2.6 m ³ | 2 210 mm | 1 910 mm | 1 780 mm | 2 700 kg |
| 3.5 m ³ | 3.1 m ³ | 2 210 mm | 1 910 mm | 2 040 mm | 2 950 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

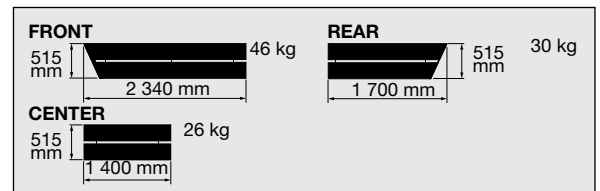
BOOM CYLINDERS 850 kg X 2 Overall height: 410 mm



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



LEFT SIDEWALK Overall height: 150 mm



● Standard equipment ○ Optional equipment

ENGINE

| | |
|--|---|
| Auto idle system | ● |
| Cartridge-type engine oil filter | ● |
| Dry-type air double filter with evacuator valve (with air filter restriction switch for monitor) | ● |
| Fan guard | ● |
| Fuel main filter | ● |
| Fuel pre-filter | ● |
| Isolation-mounted engine | ● |
| Muffler filter | ● |
| Power mode control [H/P (High Power) PWR (Power) ECO (Economy)] | ● |
| Pre-cleaner | ○ |
| Radiator, oil cooler and intercooler with dust protective net | ● |
| Radiator reserve tank | ● |
| 50 A alternator | ● |

HYDRAULIC SYSTEM

| | |
|--|---|
| Accessories for breaker | ○ |
| Accessories for breaker & crusher | ○ |
| Accessories for 2 speed selector | ○ |
| Auto power lift | ● |
| Boom mode selector system | ● |
| Control valve with main relief valve | ● |
| Drain filter | ● |
| Engine speed sensing system | ● |
| E-P control system | ● |
| Extra port for control valve | ● |
| Full-flow filter | ● |
| Hose rupture valve | ○ |
| Pilot filter | ● |
| Power boost | ● |
| Quick warm-up system for pilot circuit | ● |
| Shockless valve in pilot circuit | ● |
| Suction filter | ● |
| Work mode selector | ● |

CAB

| | |
|---|---|
| Additional fuse box | ● |
| Adjustable armrests | ● |
| All-weather sound suppressed steel cab | ● |
| AM-FM radio | ● |
| Ashtray | ● |
| Auto control air conditioner | ● |
| Auto-idle selector | ● |
| AUX. terminal and storage | ● |
| Cab : H/R cab | ● |
| OPG top guard fitted Level II (ISO10262) | ● |
| OPG front guard fitted Level II (ISO10262) | ○ |
| Laminated straight glass front window | ● |
| Left side window can be opened | ● |
| Drink holder | ● |
| Engine shut-off switch | ● |
| Electric double horn | ● |
| Evacuation hammer | ● |
| Fire extinguisher bracket | ○ |
| Floor mat | ● |
| Footrest | ● |
| Front window washer | ● |
| Front glass lower guard | ○ |
| Front glass upper guard | ○ |
| Glove compartment | ● |
| Hot & cool box | ● |
| Intermittent windshield wiper | ● |
| Key cylinder light | ● |
| LED room light with door courtesy | ● |
| Pilot control shut-off lever | ● |
| Retractable seat belt | ● |
| Rear tray | ● |
| Rubber radio antenna | ● |
| Seat: Adjustable reclining air suspension with heater | ● |
| Short wrist control levers | ● |
| Storage box | ● |
| Sun visor (front) | ○ |
| Sun visor (side) | ○ |
| Transparent roof with slide curtain | ● |
| 2 speakers | ● |
| 6 fluid-filled elastic mounts | ● |
| 12 V power outlet | ○ |
| 24 V cigarette lighter | ● |

MONITOR SYSTEM

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

LIGHTS

| | |
|------------------|---|
| 2 cab lights | ● |
| 4 cab lights | ○ |
| 4 working lights | ● |

UPPER STRUCTURE

| | |
|---|---|
| Auto-grease lubricator (without bucket and link pins) | ● |
| Electric fuel refilling pump with auto stop | ● |
| Electrical grease pump with hose-reel | ● |
| Fuel level float | ● |
| Hydraulic oil level gauge | ● |
| Rear view camera | ● |
| Rear view mirror (right & left side) | ● |
| Sidewalk (cab side) | ● |
| Swing parking brake | ● |
| Tool box | ● |
| Utility space | ● |
| 170 Ah batteries | ● |
| 4.5 mm thickness undercover | ● |
| 13 300 kg counterweight | ● |

UNDERCARRIAGE

| | |
|---------------------------------------|---|
| Bolt-on sprocket | ● |
| Full track guard | ● |
| Hydraulic track adjuster | ● |
| Idler track guard | ● |
| Reinforced track links with pin seals | ● |
| Travel motor covers | ● |
| Travel parking brake | ● |
| Track undercover | ○ |
| Upper and lower rollers | ● |
| 650 mm double grouser shoes | ● |
| 750 mm shoe with standard track guard | ○ |
| 900 mm shoe with standard track guard | ○ |

FRONT ATTACHMENTS

| | |
|---|---|
| Attachment basic piping | ○ |
| Centralized lubrication system | ● |
| Damage prevention plate and square bars | ● |
| Dirt seal on all bucket pins | ● |
| Flanged pin | ● |
| 3.5 m ³ (ISO heaped) rock bucket (with dual type side shrouds) | ● |
| 8.4 m H-boom and 3.7 m H-arm | ● |
| 7.1 m BE-boom | ○ |
| 2.95 m BE-arm | ○ |

MISCELLANEOUS

| | |
|--------------------------------------|---|
| Anti-slip steps and handrails | ● |
| Lockable fuel refilling cab | ● |
| Lockable machine covers | ● |
| Onboard information controller | ● |
| Standard tool kit | ● |
| Theft deterrent system | ● |
| Travel direction mark on track frame | ● |



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

Hitachi Environmental Vision 2025

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

Reducing Environmental Impact by New ZAXIS

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

*Life Cycle Assessment – ISO 14040

Prior to operating this machine, including satellite communication system, in a country other than a country of its intended use, it may be necessary to make modifications to it so that it complies with the local regulatory standards (including safety standards) and legal requirements of that particular country. Please do not export or operate this machine outside the country of its intended use until such compliance has been confirmed. Please contact your Hitachi dealer in case of questions about compliance.

These specifications are subject to change without notice.

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



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