# HITACHI

**Reliable solutions** 

# **ZAXIS490**



# HYDRAULIC EXCAVATOR

Model code : ZX490LCH-6 Engine rated power : 270kW (ISO14396/ISO9249) Operating weight : 49 300 – 51 200 kg Bucket ISO heaped : 1.30 – 2.50 m<sup>3</sup>



# ZX490LCH-6. NO COMPROMISE

The ZX490LCH-6 has been created to offer the highest level of performance, but without compromising on the increasing demand for operational efficiency. Incorporating innovative and unique Hitachi technology, it delivers lower emissions and running costs, while offering higher levels of reliability.

The large Zaxis-6 excavators reinforce Hitachi's reputation for the quality of its engineering and the durability of its products. The ZX490LCH-6 is the epitome of reliability, with incredibly versatile features that highlight its suitability for a variety of challenging working environments.





6. FIRST FOR RELIABILITY



8. EXCEPTIONAL DURABILITY



10. VERSATILITY ON A LARGE SCALE





# DEMAND PERFECTION

The Hitachi ZX490LCH-6 is the result of continuous development over decades at the world's biggest excavator factory in Japan. Designed for the demands of the European construction and quarrying industries, it has been developed to perfection using market-leading technology to deliver exceptional productivity at the lowest possible cost of ownership.



**High quality** The best design elements and materials.



Improved visibility Larger reflector enhances night-time visibility.



Ultimate durability Boom reinforced with thicker plates.



D

**Lifetime reliability** Failsafe components protect against extreme temperatures.

HITACHI





Hitachi machines have a reputation for reliability and are also highly productive

Michel Krembser, Quarry Manager, Carrières GW

# FIRST FOR RELIABILITY

All Hitachi excavators are renowned for their reliability and the ZX490LCH-6 is no different. It can be relied upon to deliver high levels of productivity and optimum availability on large-scale construction projects and in busy quarries, ensuring a profitable return on investment.

### **Enhanced engine protection**

A strengthened new injector increases the reliability of the engine. The sliding portion is coated with DLC (diamond-like carbon) and it has a strengthened inlet filter. A stronger blow-by hose also enhances reliability.

#### Improved fuel efficiency

A high-volume cooled EGR system recirculates some of the exhaust gas, reducing NOx and other pollutant emissions while maintaining a high engine output. This enables an efficient and reliable performance.

### Efficient cooling

The expansion tank is mounted on top of the engine's cooling circuit, allowing the air inside the coolant to be completely removed. This helps to prevent engine parts from partially heating up.

#### **Reduced fuel contamination**

The main fuel filter screws into place on the ZX490LCH-6. This ensures that dust is prevented from entering the fuel circuit during routine maintenance procedures. It is also easily replaced.

#### Easy maintenance

To avoid electrical accidents during maintenance and to retain battery energy during long-term storage, a battery disconnect switch is now included as standard. Safe and easy maintenance has an impact on the overall reliability of the ZX490LCH-6.



Easy access for maintenance.



The expansion tank prevents engine parts from overheating.



Hitachi's stringent testing procedures for durability include an excavating and operating assessment – from 1,000 to more than 10,000 hours – and a 24-hour swing test with a remote-controlled machine.



# EXCEPTIONAL DURABILITY

The ZX490LCH-6 lives up to Hitachi's reputation for making the most durable machines in the industry. Built using four decades of experience in manufacturing mechanical and hydraulic excavators, it has been designed to excel in the most challenging working environments.



Less filter cleaning is required thanks to the optional pre-cleaner.

## **Enhanced fuel circuit**

A high-performance water separator is integrated into the pre-filter of the ZX490LCH-6 for added protection against moisture.

#### **Minimal maintenance**

An optional pre-cleaner ensures that dust is discharged automatically, reducing the frequency of filter cleaning. The diesel oxidation catalyst (DOC) also requires little maintenance.

#### **Reinforced boom**

The boom of the ZX490LCH-6 has been reinforced with thicker plates. The upper plate of the H boom for example is now

25mm instead of 22mm. This increases the machine's durability for demanding construction sites and quarries.

### **Corrosion prevention**

The radiator, oil cooler, inter cooler, air condenser and fuel cooler are all made of aluminium, which helps to protect these durable components against corrosion.

#### Durable undercarriage

The undercarriage of the ZX490LCH-6 consists of durable components, including the track link, master pin, idler pedestal and bracket, and upper roller bracket.



The strength and productivity of our Hitachi machine has been impressive

Yvan Ryser, General Manager, Lachat

# VERSATILITY ON A LARGE SCALE

The power and performance of the ZX490LCH-6 makes it ideal for demanding working environments such as quarries and extensive construction projects. Used with different attachments, and suitable for both heavy loading and lighter operations such as grading, it offers increased versatility. Whatever the task, the Hitachi large excavator works quickly and efficiently to ensure high productivity.

### **Better visibility**

The optional front guard of the cab has smaller and fewer bars in order to minimise blind spots. A larger reflector on the back of the ZX490LCH-6 improves the machine's visibility in low light or at night, so it can work safely for longer periods of time.

#### Impressive performance

The boom raise speed of the ZX490LCH-6 when loading has increased by 3% (compared with the ZX470LCH-3 model), which boosts productivity. The boom mode switch can be selected for power or comfort, depending on the task at hand.

#### **Efficient operation**

Maximum pump flow of the ZX490LCH-6 has increased by 10% over the Zaxis-3 model. This means the machine completes

lighter operations such as grading quickly and efficiently, highlighting its versatility for a variety of tasks on the job site.

#### Easier to transport

Thanks to its flexibility, the ZX490LCH-6 is suitable for working on various sites and can be transported securely due to the new tie-down hooks incorporated into its design.

#### **Greater flexibility**

The attachment replacement support system allows for the easy fitment of attachments, which increase the number of tasks that can be carried out by the ZX490LCH-6. A pressure adjustment feature controlled electronically also protects the attachments during installation.

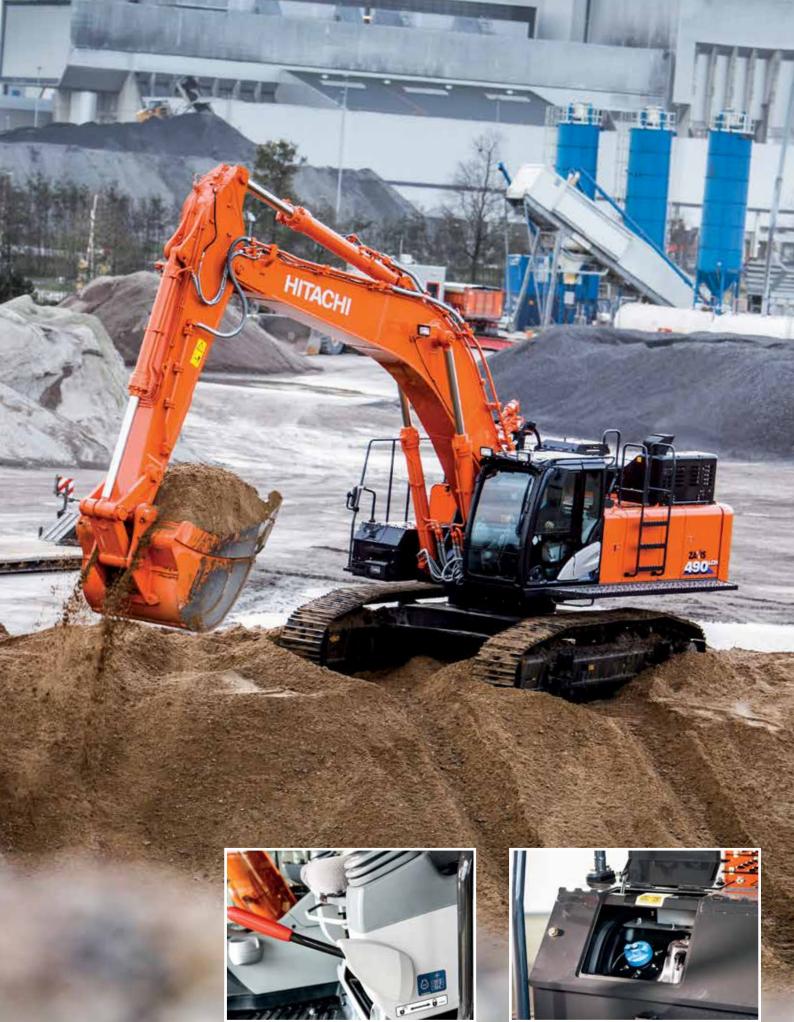


More versatility with the easy fitment of attachments.









Superior weather resistance maintains the cab's internal appearance.

Urea is injected into the exhaust gas to reduce emissions.



Hitachi obtained ISO 9001 certification in 1995, which verifies its commitment to quality assurance policies, including the implementation of the uniform 'Made by Hitachi' global quality standard at its production bases worldwide.



# UNQUESTIONABLE QUALITY

Continuous development of the Zaxis large excavators has ensured that Hitachi machines keep pace with the latest emissions regulations, and also set new industry standards in terms of performance, reliability, comfort and safety. The ZX490LCH-6 highlights what can be achieved by Hitachi design engineers in their constant quest for quality.



Ergonomic controls contribute to the ultimate workspace.

## **Reduced emissions**

A selective catalytic reduction (SCR) system developed by Hitachi injects urea into exhaust gas to reduce NOx from emissions. This invaluable innovation not only helps the environment, but also complies with EU Stage IV emission regulations.

#### **Superior cooling**

New high-quality sealant around the cooling package and acoustic materials on the upper structure prevent deterioration caused by heat. This ensures the long-term cooling and low-noise performance of the ZX490LCH-6.

#### Safety at work

The cab complies with TOPS and ROPS (tipover and roll-over protective structure) and CRES V (centre pillar reinforced structure) safety regulations. It is pressurised to suppress the penetration of air and dust from the job site. The ZX490LCH-6 is also quieter during operation than the Zaxis-5 model.

#### Comfort

The interior of the spacious cab has been designed with comfort in mind. Features include a fully adjustable seat, ergonomic controls and a drinks holder that maintains the temperature of drinks using warm or cooled air from the air conditioning system.

#### **Excellent weather resistance**

The console in the cab has been made of durable AES-grade resin, which is resistant to colour changes caused by ultraviolet rays. This maintains the pristine appearance of the cab's interior for a longer period of time.



The Hitachi large excavator is fast and precise thanks to the simplicity and efficiency of the hydraulic system

Boleslaw Gazda, operator, DSS Group

# EXPERTS IN TECHNOLOGY

The HIOS IIIB hydraulic system consists of electrically controlled pumps and valves.

The unique advanced technology incorporated in Hitachi large excavators enables them to excel in challenging working environments, such as quarries and complex construction sites. The Zaxis-6 range benefits from the latest developments by Hitachi engineers, and as a result, the ZX490LCH-6 leads the field in its class throughout the European market.

#### Saving fuel and costs

The HIOS IIIB hydraulic technology developed by Hitachi uses two pumps and control valves to reduce fuel consumption and cut costs. The ZX490LCH-6 can save up to 5% fuel in ECO mode (3% in HP), with the same productivity as the Zaxis-5 model.

#### **Fast operation**

HIOS IIIB has a positive impact on productivity due to the efficient swing, boom lowering, arm and bucket roll-out of the ZX490LCH-6. The front speed during a single operation benefits from increased pump flow and reduced pressure loss of the hydraulic circuit.

#### **Remote monitoring**

Global e-Service allows owners to monitor their ZX490LCH-6 remotely via Owner's Site (24/7 online access) and ConSite (an automatic monthly report). These help to maximise efficiency, minimise downtime and improve overall performance.

#### **Fewer emissions**

The after-treatment device helps to reduce emissions and noise levels. This advanced technology consists of a diesel oxidation catalyst (DOC), urea mixing pipe, SCR system and silencer.

#### **Convenient updates**

Operators can check the machine's status and settings – including engine oil and coolant levels – conveniently on the seveninch multi-function LCD monitor. Multilingual support in 32 languages is available. The oil flows separately to the bucket (light blue), arm (dark blue) and boom (yellow) cylinders.

The front attachment moves faster because of the efficient hydraulic circuit.

The pumps are controlled electrically for precise oil flow and lower fuel consumption.

The SCR system injects urea into exhaust gas (red) to reduce nitrous oxide from emissions.



The LCD monitor shows the machine's status and settings.



Reduced fuel consumption due to HIOS IIIB hydraulic technology.



The SCR system reduces emissions and noise levels.



We use all aspects of Hitachi Support Chain, which are incredibly strong and integrate well

Edan Cohen, Site Manager, AD Edan Hadash Earthmoving Contractors

# REDUCING THE TOTAL COST OF OWNERSHIP

Hitachi has created the Support Chain after-sales programme to ensure optimum efficiency, as well as minimal downtime, reduced running costs and high resale values.



### **Global e-Service**

Hitachi has developed two remote monitoring systems as part of its Global e-Service online application. Owner's Site and ConSite are an integral part of the excavator, which sends operational data daily via GPRS or satellite to www.globaleservice.com. This allows immediate access to the Owner's Site, and the vital information that is required for support on job sites.

Comparing the ratio of operating and nonoperating hours helps to enhance efficiency. Effective management of maintenance programmes helps to maximise availability. Running costs can also be managed by analysing the fuel consumption. The location and movements of each machine are clearly displayed for essential planning.

An automatic service report – ConSite – sends a monthly email summarising the information from Global e-Service for each machine. This includes: daily working hours and fuel consumption data; statistics on the operating mode ratio, plus a comparison for fuel consumption/efficiency, and  $\rm CO_2$  emissions.

#### **Technical support**

Each Hitachi service technician receives full technical training from HCME in Amsterdam. These sessions provide access to the same technical knowledge available within the Hitachi quality assurance departments and design centres. Technicians combine this global expertise with the local language and culture of the customer to provide the highest level of after-sales support.

# Extended warranty and service contracts

Every new Hitachi Zaxis-6 model is covered by a full manufacturer's warranty. For extra



protection – due to severe working conditions or to minimise equipment repair costs – Hitachi dealers offer a unique extended warranty called HELP (Hitachi Extended Life Program) and comprehensive service contracts. These can help to optimise the performance of each machine, reduce downtime and ensure higher resale values.

### Parts

Hitachi offers a wide range and a high availability of parts dispatched from the

53,000 m<sup>2</sup> HCME European Parts Depot in The Netherlands.

- Hitachi Genuine Parts: allow machines to work for longer, with lower running and maintenance costs.
- Hitachi Select Parts and 2Genuine Parts: especially for older machines, they cost less, are of proven quality and come with the manufacturer's warranty.
- Performance Parts: to cope with highly demanding conditions, they have been engineered for greater durability, better performance or longer life.
- Remanufactured components: offering an economically viable solution, they are the best option when preventative replacements are required.

Whatever the choice, the renowned quality of Hitachi construction machinery is assured.



# Hitachi Construction Machinery



We develop construction machinery that contributes to the creation of affluent and comfortable societies

Yuichi Tsujimoto, HCM President

# BUILDING A BETTER FUTURE

Established in 1910, Hitachi, Ltd. was built upon a founding philosophy of making a positive contribution to society through technology. This is still the inspiration behind the Hitachi group's reliable solutions that answer today's challenges and help to create a better world.

Hitachi, Ltd. is now one of the world's largest corporations, with a vast range of innovative products and services. These have been created to challenge convention, improve social infrastructure and contribute to a sustainable society.



Mini excavators

Hitachi Construction Machinery Co., Ltd. (HCM) was founded in 1970 as a subsidiary of Hitachi, Ltd. and has become one of the world's largest construction equipment suppliers. A pioneer in producing hydraulic excavators, HCM also manufactures wheel loaders, rigid dump trucks, crawler cranes and special application machines at stateof-the-art facilities across the globe.

Incorporating advanced technology, Hitachi construction machinery has a reputation for the highest quality standards. Suitable for a wide range of industries, it is always hard at work around the world – helping to create infrastructure for a safe and comfortable way of living, developing natural resources and supporting disaster relief efforts.

Hitachi Zaxis excavators are renowned for being reliable, durable and versatile – capable of delivering the highest levels of productivity under the most challenging of conditions. They are designed to provide owners with a reduced total cost of ownership, and operators with the ultimate level of comfort and safety.

# **SPECIFICATIONS**

#### ENGINE

| Model               | Isuzu AQ-6UZ1X  |
|---------------------|---|
| Туре                | 4-cycle water-cooled, common rail direct injection      |
| Aspiration          | Variable geometry turbocharged, intercooled, cooled EGR |
| Aftertreatment      | DOC and SCR system                                      |
| No. of cylinders    | 6   |
| Rated power         |   |
| ISO 14396           | 270 kW at 2 000 min <sup>-1</sup>                       |
| ISO 9249, net       | 270 kW at 2 000 min <sup>-1</sup>                       |
| SAE J1349, net      | 270 kW at 2 000 min <sup>-1</sup>                       |
| Maximum torque      | 1 435 Nm at 1 500 min-1                                 |
| Piston displacement | 9.839 L   |
| Bore and stroke     | 120 mm x 145 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 400 L/min

 Pilot pump ......
 1 gear pump

 Maximum oil flow ......
 34 L/min

#### Hydraulic Motors

 Travel
 2 variable displacement axial piston motors

 Swing
 2 axial piston motors

#### **Relief Valve Settings**

| Implement circuit | 31.9 MPa |
|-------------------|----------|
| Swing circuit     | 28.4 MPa |
| Travel circuit    | 35.3 MPa |
| Pilot circuit     | 3.9 MPa  |
| Power boost       | 35.3 MPa |

#### **Hydraulic Cylinders**

|        | Quantity | Bore   | Rod diameter |
|--------|----------|--------|--------------|
| Boom   | 2        | 170 mm | 115 mm       |
| Arm    | 1        | 190 mm | 130 mm       |
| Bucket | 1        | 170 mm | 120 mm       |

#### UPPERSTRUCTURE

#### **Revolving Frame**

D-section frame for resistance to deformation.

#### Swing Device

#### **Operator's Cab**

Independent spacious cab, 1 025 mm wide by 1 675 mm high, conforming to ISO\* Standards. \* International Organization for Standardization

UNDERCARRIAGE

#### Tracks

Track shoes with triple 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   | 53 |
| Track guards  | 2  |

#### **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 5.5 km/h Low : 0 to 3.9 km/h

Maximum traction

force ..... 329 kN

Gradeability ...... 70% (35 degree) continuous

#### SOUND LEVEL

| Sound level in cab according to ISO 6396 L     | pA 71 d | B(A) |
|--|---------|------|
| External sound level according to ISO 6395 and |         |      |
| EU Directive 2000/14/ECLw                      | A 107 d | B(A) |

#### SERVICE REFILL CAPACITIES

| Fuel tank<br>Engine coolant<br>Engine oil<br>Swing device (each side)<br>Travel device (each side)<br>Hydraulic system<br>Hydraulic oil tank |  |
|--|--|
| DEF/AdBlue® tank   |  |
|  |  |

# WEIGHTS AND GROUND PRESSURE

#### **Operating Weight and Ground Pressure**

| Boom type | Arm type | Shoe grouser type | Shoe width | Operating weight | Ground pressure |
|-----------|----------|-------------------|------------|------------------|-----------------|
|           | 3.4 m H  | Triple or double  | 600 mm     | 49 400 kg        | 84 kPa          |
| 7.0 m H   |          | Triple            | 750 mm     | 50 200 kg        | 68 kPa          |
|           | Triple   | 900 mm            | 50 900 kg  | 58 kPa           |                 |

Including 2.1 m<sup>3</sup> rock bucket (ISO heaped)

| Boom type | Arm type         | Shoe grouser type | Shoe width | Operating weight | Ground pressure |
|-----------|------------------|-------------------|------------|------------------|-----------------|
|           | 7.0 m H 2.9 m BE | Triple or double  | 600 mm     | 49 300 kg        | 84 kPa          |
| 7.0 m H   |                  | Triple            | 750 mm     | 50 100 kg        | 68 kPa          |
|           |                  | Triple            | 900 mm     | 50 800 kg        | 57 kPa          |

Including 2.1 m<sup>3</sup> rock bucket (ISO heaped)

| Boom type | Arm type | Shoe grouser type | Shoe width | Operating weight | Ground pressure |
|-----------|----------|-------------------|------------|------------------|-----------------|
|           | 2.5 m BE | Triple or double  | 600 mm     | 49 700 kg        | 84 kPa          |
| 6.3 m BE  |          | Triple            | 750 mm     | 50 500 kg        | 68 kPa          |
|           | Triple   | 900 mm            | 51 200 kg  | 58 kPa           |                 |

Including 2.5 m<sup>3</sup> rock bucket (ISO heaped)

| Boom type | Arm type          | Shoe grouser type | Shoe width | Operating weight | Ground pressure |
|-----------|-------------------|-------------------|------------|------------------|-----------------|
|           | 6.3 m BE 2.9 m BE | Triple or double  | 600 mm     | 49 600 kg        | 84 kPa          |
| 6.3 m BE  |                   | Triple            | 750 mm     | 50 400 kg        | 68 kPa          |
|           |                   | Triple            | 900 mm     | 51 000 kg        | 58 kPa          |

Including 2.5 m³ rock bucket (ISO heaped)

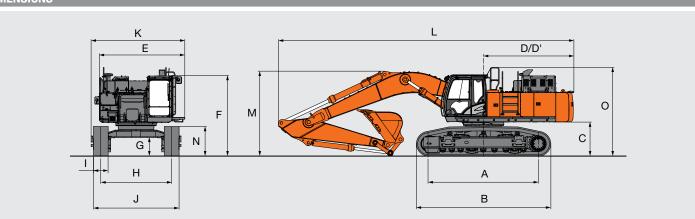
## **BUCKET AND ARM DIGGING FORCE**

|                                  | ZAXIS 490LCH   |        |             |        |
|----------------------------------|--|--------|-------------|--------|
| Boom length                      | Boom 6.3 m BE Boom 7.                                  |        | 7.0 m H     |        |
| Arm length                       | Arm 2.5 m BE         Arm 2.9 m BE         Arm 2.9 m BE |        | Arm 3.4 m H |        |
| Bucket digging force* ISO        | 295 kN   |        |             | 296 kN |
| Bucket digging force* SAE : PCSA |  | 266 kN |             |        |
| Arm crowd force* ISO             | 302 kN 263 kN  |        |             | 224 kN |
| Arm crowd force* SAE : PCSA      | 294 kN 256 kN  |        | 215 kN      |        |

\* At power boost

# **SPECIFICATIONS**

DIMENSIONS



Unit: mm

|  |               | ZAXIS 490LCH <sup>*2</sup> |               |  |
|--|---------------|----------------------------|---------------|--|
| A Distance between tumblers                  |               | 4 470                      |               |  |
| B Undercarriage length                       |               | 5 470                      |               |  |
| <sup>1</sup> C Counterweight clearance       |               | 1 360                      |               |  |
| D Rear-end swing radius                      |               | 3 670                      |               |  |
| D' Rear-end length                           |               | 3 660                      |               |  |
| E Overall width of upperstructure            | 3 480         |                            |               |  |
| F Overall height of cab                      | 3 330         |                            |               |  |
| <sup>1</sup> G Min. ground clearance         | 737           |                            |               |  |
| H Track gauge : Extended / Retracted         | 2 890 / 2 390 |                            |               |  |
| I Track shoe width                           |               | G 600                      |               |  |
| J Undercarriage width : Extended / Retracted | G 600         | G 750                      | G 900         |  |
| J Undercarriage width : Extended / Retracted | 3 490 / 2 990 | 3 640 / 3 140              | 3 790 / 3 290 |  |
| K Overall width                              |               | 3 820                      |               |  |
| L Overall length                             |               | 12 010                     |               |  |
| M Overall height of boom                     | 3 480         |                            |               |  |
| N Track height                               | 1 220         |                            |               |  |
| O Overall height of base machine             |               | 3 530                      |               |  |

<sup>1</sup> Excluding track shoe lug G: Grouser shoe

 $^{^{\ast 2}}$  Equipped with H-boom 7.8 m and H-arm 3.4 m

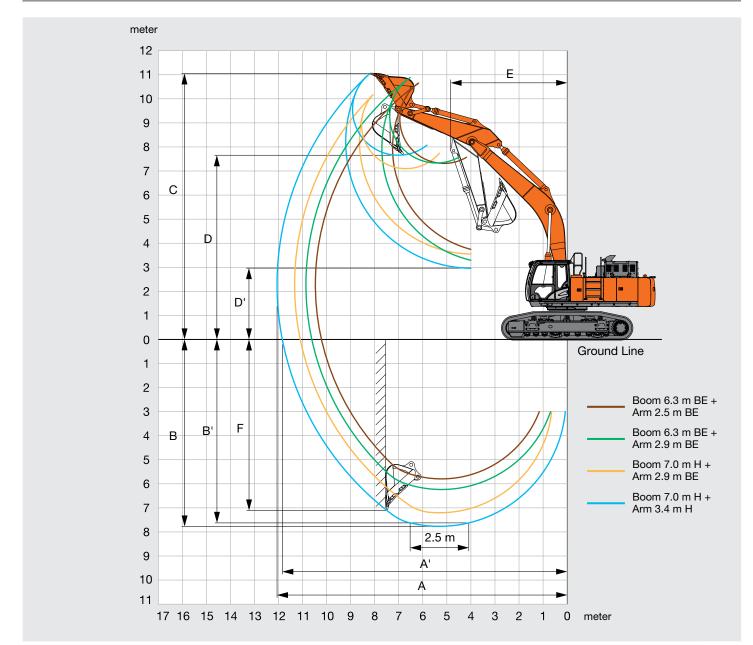
#### **Backhoe Buckets**

| Сара                             | oity               | Wi           | dth          |   |          |                 | Recomm          | endation        |                |
|----------------------------------|--------------------|--------------|--------------|---|----------|-----------------|-----------------|-----------------|----------------|
| Capa                             | City               | VVI          | uui          |   |          |                 | ZAXIS           | 490LCH          |                |
| ISO heaped                       | CECE heaped        | Without      |              |   | Boom 6   | .3 m BE         | Boom            | 7.0 m H         |                |
| 130 neaped                       | CECE neaped        | side cutters | side cutters |   |          | Arm<br>2.5 m BE | Arm<br>2.9 m BE | Arm<br>2.9 m BE | Arm<br>3.4 m H |
| <sup>*1</sup> 1.9 m <sup>3</sup> | 1.7 m <sup>3</sup> | 1 480 mm     | 1 500 mm     | 5 | 2 070 kg | •               | •               | •               | •              |
| <sup>*1</sup> 2.1 m <sup>3</sup> | 1.8 m <sup>3</sup> | 1 560 mm     | 1 580 mm     | 5 | 2 170 kg | •               | •               | •               | •              |
| <sup>*1</sup> 2.3 m <sup>3</sup> | 2.0 m <sup>3</sup> | 1 680 mm     | 1 700 mm     | 5 | 2 260 kg | •               | •               | -               | -              |
| <sup>*1</sup> 2.5 m <sup>3</sup> | 2.2 m <sup>3</sup> | 1 800 mm     | 1 820 mm     | 5 | 2 360 kg | •               | •               | -               | -              |
| <sup>•2</sup> 1.3 m <sup>3</sup> | 1.2 m <sup>3</sup> | 1 170 mm     | -            | 3 | 2 330 kg | •               | •               | •               | •              |
| One-point ripper                 | r                  |              |              | 1 | 1 260 kg | •               | •               | •               | •              |

<sup>\*1</sup> Rock bucket <sup>\*2</sup> Ripper bucket Heavy-duty service
Not applicable

22

## WORKING RANGES



Unit: mm

|                                       |              | ZAXIS        | 490LCH       |             |
|---------------------------------------|--------------|--------------|--------------|-------------|
|                                       | Boom 6       | 3.3 m BE     | Boom         | 7.0 m H     |
| Arm length                            | Arm 2.5 m BE | Arm 2.9 m BE | Arm 2.9 m BE | Arm 3.4 m H |
| A Max. digging reach                  | 10 460       | 10 750       | 11 330       | 12 060      |
| A' Max. digging reach (on ground)     | 10 210       | 10 500       | 11 090       | 11 840      |
| B Max. digging depth                  | 5 790        | 6 130        | 7 200        | 7 770       |
| B' Max. digging depth for 2.5 m level | 5 620        | 5 970        | 7 000        | 7 630       |
| C Max. cutting height                 | 10 660       | 10 790       | 10 170       | 11 060      |
| D Max. dumping height                 | 7 320        | 7 440        | 7 100        | 7 650       |
| D' Min. dumping height                | 3 670        | 3 250        | 3 520        | 2 940       |
| E Min. swing radius                   | 4 090        | 3 930        | 5 020        | 4 840       |
| F Max. vertical wall                  | 4 260        | 4 650        | 4 270        | 7 100       |

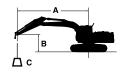
Excluding track shoe lug

# **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.
- \*Indicates load limited by hydraulic capacity.
   0 m = Ground.

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



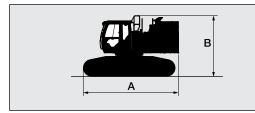
A: Load radius B: Load point height C: Lifting capacity

## ₿ Rating over-front 🗰 Rating over-side or 360 degrees Unit : kg

|                              | Load         |         |         |         |            | Load    | radius  |         |         |         |       |         | 1+ 22014 #   |            |
|------------------------------|--------------|---------|---------|---------|------------|---------|---------|---------|---------|---------|-------|---------|--------------|------------|
| Conditions                   | point        | 3.0     | ) m     | 4.      | 5 m        | 6.0     | ) m     | 7.5     | ōm      | 9.0     | ) m   |         | At max. read | cn         |
| Containionio                 | height<br>m  | Ů       | œ       | Ů       | <b>;</b> = | Ů       | œ       | ů       | ¢≕      | Ů       | œ     | ů       | Ç⊫∍          | meter      |
| Boom 7.0 m H                 | 7.5          |         |         |         |            |         |         | *11 640 | 11 460  |         |       | *7 710  | *7 710       | 8.7        |
| Arm 3.4 m H                  | 6.0          |         |         |         |            |         |         | *12 260 | 11 200  | *10 920 | 8 330 | *7 590  | *7 590       | 9.4        |
| Counterweight                | 4.5          |         |         | *20 820 | *20 820    | *15 830 | 15 090  | *13 320 | 10 790  | *11 870 | 8 150 | *7 690  | 6 960        | 9.9        |
| 9 080 kg                     | 3.0          |         |         | *23 560 | 21 480     | *18 040 | 14 220  | *14 500 | 10 330  | *12 460 | 7 900 | *8 010  | 6 580        | 10.1       |
| Shoe 600 mm                  | 1.5          |         |         | *15 310 | *15 310    | *19 670 | 13 540  | *15 480 | 9 930   | 12 250  | 7 680 | *8 580  | 6 470        | 10.1       |
|                              | 0 (Ground)   |         |         | *18 350 | *18 350    | *20 330 | 13 130  | 15 800  | 9 650   | 12 070  | 7 510 | *9 490  | 6 600        | 9.9        |
|                              | -1.5         | *13 430 | *13 430 | *25 370 | 20 030     | *19 970 | 12 990  | 15 650  | 9 520   | 12 010  | 7 460 | *10 970 | 7 030        | 9.4        |
|                              | -3.0         | *21 880 | *21 880 | *23 700 | 20 220     | *18 540 | 13 040  | *14 650 | 9 560   |         |       | *11 900 | 7 940        | 8.7        |
|                              | -4.5         | *24 740 | *24 740 | *19 780 | *19 780    | *15 620 | 13 310  | *11 580 | 9 830   |         |       | *11 530 | 9 800        | 7.5        |
| Boom 7.0 m H                 | 7.5          |         |         |         |            |         |         |         |         |         |       |         |              |            |
| Arm 2.9 m BE                 | 6.0          |         |         |         |            | *14 570 | *14 570 | *12 840 | 11 000  |         |       | *11 040 | 8 600        | 8.7        |
| Counterweight                | 4.5          |         |         | *22 370 | *22 370    | *16 570 | 14 740  | *13 800 | 10 590  | *12 260 | 8 000 | *11 440 | 7 690        | 9.2        |
| 9 080 kg                     | 3.0          |         |         | 22 01 0 | 22 01 0    | *18 590 | 13 880  | *14 850 | 10 140  | 12 380  | 7 780 | 11 450  | 7 210        | 9.5        |
| Shoe 600 mm                  | 1.5          |         |         |         |            | *19 900 | 13 260  | *15 650 | 9 770   | 12 150  | 7 580 | 11 290  | 7 060        | 9.5        |
|                              | 0 (Ground)   |         |         | *19 760 | *19 760    | *20 190 | 12 940  | 15 670  | 9 530   | 12 010  | 7 450 | 11 630  | 7 230        | 9.2        |
|                              | -1.5         | *16 120 | *16 120 | *24 850 | 19 920     | *19 480 | 12 870  | *15 470 | 9 460   | 12 010  | 1 100 | 12 600  | 7 790        | 8.7        |
|                              | -3.0         | *26 480 | *26 480 | *22 100 | 20 200     | *17 640 | 13 010  | *13 860 | 9 570   |         |       | *12 940 | 9 010        | 7.9        |
|                              |              | 20 400  | 20 400  | *17 630 | *17 630    | *14 010 | 13 390  | 13 800  | 9570    |         |       | *12 430 | 11 780       | 6.6        |
|                              | -4.5         |         |         | 17 030  | 17 030     | *14 000 | *14 000 |         |         |         |       | *7 980  | *7 980       | 7.2        |
| Boom 6.3 m BE                | 7.5          |         |         |         |            |         |         | *10 500 | 11.000  |         |       |         |              |            |
| Arm 2.9 m BE                 | 6.0          |         |         | +01.170 | +01.170    | *14 870 | *14 870 | *13 590 | 11 090  |         |       | *7 750  | *7 750       | 8.1        |
| Counterweight                | 4.5          |         |         | *21 170 | *21 170    | *16 610 | 15 200  | *14 290 | 10 790  |         |       | *7 850  | *7 850       | 8.6        |
| 9 080 kg<br>Shoe 600 mm      | 3.0          |         |         | *25 410 | 21 960     | *18 590 | 14 400  | *15 220 | 10 410  |         |       | *8 230  | 8 060        | 8.9        |
| 3100 000 11111               | 1.5          |         |         | *27 710 | 20 810     | *20 070 | 13 750  | *15 990 | 10 050  |         |       | *8 940  | 7 910        | 8.9        |
|                              | 0 (Ground)   |         |         | *27 650 | 20 400     | *20 550 | 13 370  | 16 010  | 9 820   |         |       | *10 170 | 8 140        | 8.6        |
|                              | -1.5         | *24 230 | *24 230 | *25 930 | 20 400     | *19 780 | 13 270  | *15 400 | 9 770   |         |       | *12 350 | 8 900        | 8.1        |
|                              | -3.0<br>-4.5 | *28 670 | *28 670 | *22 490 | 20 680     | *17 350 | 13 420  |         |         |         |       | *13 630 | 10 600       | 7.2        |
| Boom 6.3 m BE                | 7.5          |         |         |         |            | *14 660 | *14 660 |         |         |         |       | *12 280 | *12 280      | 6.8        |
| Arm 2.5 m BE                 | 6.0          |         |         |         |            | *15 410 | *15 410 | *14 050 | 10 900  |         |       | *11 890 | 10 260       | 7.8        |
| Counterweight                | 4.5          |         |         | *22 060 | *22 060    | *17 050 | 14 930  | *14 590 | 10 620  |         |       | *12 020 | 8 980        | 8.3        |
| 9 080 kg                     | 3.0          |         |         | 22 000  | 22 000     | *18 890 | 14 150  | *15 410 | 10 250  |         |       | *12 600 | 8 360        | 8.6        |
| Shoe 600 mm                  | 1.5          |         |         |         |            | *20 170 | 13 530  | *16 030 | 9 920   |         |       | 13 150  | 8 200        | 8.6        |
|                              | 0 (Ground)   |         |         | *27 110 | 20 200     | *20 370 | 13 210  | 15 910  | 9 720   |         |       | 13 680  | 8 480        | 8.3        |
|                              | -1.5         |         |         | *24 990 | 20 290     | *19 290 | 13 170  | *14 860 | 9 730   |         |       | *14 110 | 9 350        | 7.7        |
|                              | -3.0         |         |         | *21 130 | 20 250     | *16 350 | 13 400  | 14 000  | 3730    |         |       | *13 640 | 11 370       | 6.8        |
|                              | -3.0         |         |         | 21 100  | 20 000     | 10 000  | 15 400  |         |         |         |       | 15 040  | 110/0        | 0.0        |
| De erre 7.0 m DE             | 7.5          |         |         |         |            |         |         | *11 640 | *11 640 |         |       | *7 710  | *7 710       | 8.7        |
| Boom 7.0 m BE<br>Arm 3.4 m H | 6.0          |         |         |         |            |         |         | *12 260 | 11 480  | *10 920 | 8 560 | *7 590  | *7 590       | 0.7<br>9.4 |
| Counterweight                |              |         |         | *20 820 | *20 820    | *15 830 | 15 460  | *13 320 | 11 480  | *11 870 | 8 360 | *7 690  | 7 590        | 9.4<br>9.9 |
| 9 080 kg                     | 4.5          |         |         |         | 22 050     | *18 040 | 15 460  | *14 500 | 10 610  | *12 460 | 8 370 | *8 010  | 6 780        | 9.9        |
| Shoe 600 mm                  | 3.0          |         |         | *23 560 |            |         |         |         |         |         |       |         |              |            |
| 0100 000 1111                | 1.5          |         |         | *15 310 | *15 310    | *19 670 | 13 910  | *15 480 | 10 210  | 12 630  | 7 900 | *8 580  | 6 660        | 10.1       |
|                              | 0 (Ground)   | 110.105 | 110.105 | *18 350 | *18 350    | *20 330 | 13 510  | *15 980 | 9 930   | 12 450  | 7 740 | *9 490  | 6 800        | 9.9        |
|                              | -1.5         | *13 430 | *13 430 | *25 370 | 20 590     | *19 970 | 13 360  | *15 790 | 9 800   | 12 380  | 7 680 | *10 970 | 7 250        | 9.4        |
|                              | -3.0         | *21 880 | *21 880 | *23 700 | 20 790     | *18 540 | 13 420  | *14 650 | 9 840   |         |       | *11 900 | 8 180        | 8.7        |
|                              | -4.5         | *24 740 | *24 740 | *19 780 | *19 780    | *15 620 | 13 680  | *11 580 | 10 110  |         |       | *11 530 | 10 090       | 7.5        |

# TRANSPORTATION

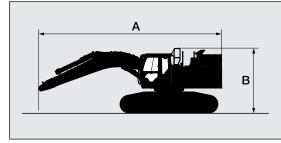
#### **BASIC MACHINE (WITHOUT COUNTERWEIGHT)**



| Shoe width | А        | В        | Overall width <sup>*1</sup> | Weight    |
|------------|----------|----------|-----------------------------|-----------|
| 600 mm     |          |          | 2 990 mm                    | 29 400 kg |
| 750 mm     | 5 690 mm | 3 530 mm | 3 140 mm                    | 30 200 kg |
| 900 mm     |          |          | 3 290 mm                    | 30 900 kg |

<sup>11</sup> Undercarriage retracted

#### BASIC MACHINE FITTED WITH BOOM AND NO SIDEWALK



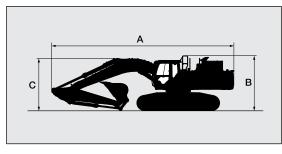
| Boom<br>length | Shoe width | А        | В           | Overall<br>width <sup>*1</sup> | Weight    |
|----------------|------------|----------|-------------|--------------------------------|-----------|
|                | 600 mm     |          |             | 2 990 mm                       | 34 800 kg |
| 6.3 m BE       | 750 mm     | 9 150 mm |             | 3 140 mm                       | 35 600 kg |
|                | 900 mm     |          | 3 530 mm    | 3 290 mm                       | 36 300 kg |
|                | 600 mm     |          | 3 330 11111 | 2 990 mm                       | 34 700 kg |
| 7.0 m H        | 750 mm     | 9 910 mm |             | 3 140 mm                       | 35 500 kg |
|                | 900 mm     |          |             | 3 290 mm                       | 36 200 kg |

<sup>\*1</sup> Undercarriage retracted

\_

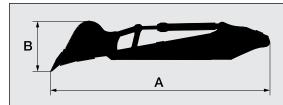
\_

#### BASIC MACHINE FITTED WITH FRONT AND SIDEWALK



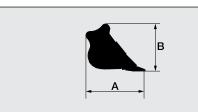
| Boom length | 6.3 r     | n BE      | 7.0       | m H       |
|-------------|-----------|-----------|-----------|-----------|
| Arm length  | 2.5 m BE  | 2.9 m BE  | 2.9 m BE  | 3.4 m H   |
| A           | 11 660 mm | 11 320 mm | 12 100 mm | 12 010 mm |
| В           |           | 3 530     | ) mm      |           |
| С           | 4 300 mm  | 3 740 mm  | 3 600 mm  | 3 480 mm  |

#### ARM AND BUCKET



| Arm    | Buc                | cket               | А        | В        | Overall  | Weight   |
|--------|--------------------|--------------------|----------|----------|----------|----------|
| Ann    | ISO heaped         | CECE heaped        | A        | D        | width    | weight   |
| 2.5 BE | 2.5 m³             | 2.2 m <sup>3</sup> | 5 650 mm | 1 470 mm | 1 820 mm | 5 000 kg |
| 2.9 BE | 2.3 m <sup>3</sup> | 2.0 m <sup>3</sup> | 6 030 mm | 1 340 mm | 1 700 mm | 4 800 kg |
| 3.4 H  | 1.9 m³             | 1.7 m³             | 6 370 mm | 1 470 mm | 1 500 mm | 4 800 kg |

BUCKET



| Rock bucket |  |
|-------------|--|

| Buc                | ket                | А        | В        | Overall  | Weight   |
|--------------------|--------------------|----------|----------|----------|----------|
| ISO heaped         | CECE heaped        | A .      | D        | width    | weight   |
| 1.9 m <sup>3</sup> | 1.7 m <sup>3</sup> | 2 030 mm | 1 480 mm | 1 500 mm | 2 070 kg |
| 2.1 m <sup>3</sup> | 1.8 m <sup>3</sup> | 1 950 mm | 1 650 mm | 1 580 mm | 2 170 kg |
| 2.3 m <sup>3</sup> | 2.0 m <sup>3</sup> | 1 950 mm | 1 650 mm | 1 700 mm | 2 260 kg |
| 2.5 m <sup>3</sup> | 2.2 m <sup>3</sup> | 1 950 mm | 1 650 mm | 1 820 mm | 2 360 kg |

#### COUNTERWEIGHT 9 080 kg

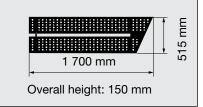


| ١ |   |   | <br>ł | - | l |   |   | l | I |   |   |   |   |   | l |   |   |   |   | l |  | I |   |   | • | • |  | 1 |
|---|---|---|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|---|---|---|---|---|--|---|
| 1 | ١ | l |       | : | l |   |   | l | I |   |   |   | : |   | l |   |   |   | 1 | I |  | Ī | l | : | 1 | : |  | , |
|   |   |   |       |   | į | 2 | ) | 3 | 3 | 2 | 1 | ( | ) | r | r | 1 | n | r | I |   |  |   |   |   |   |   |  |   |

#### Overall height: 150 mm

LEFT FRONT SIDEWALK 44 kg

#### LEFT REAR SIDEWALK 30 kg



# EQUIPMENT

## ENGINE

| Aftertreatment device  | • |
|--|---|
| Air cleaner double filters   | • |
| Alternator 50 A  | • |
| Auto idle system   | • |
| Auto shut-down control   | • |
| Cartridge-type engine oil filter   | • |
| Cartridge-type fuel main filter  | • |
| DEF/AdBlue <sup>®</sup> tank inlet strainer and extension filler                 | • |
| DEF/AdBlue <sup>®</sup> tank with ISO magnet adapter                             | • |
| Dry-type air filter with evacuator valve (with air filter restriction indicator) | • |
| Dust-proof net   | • |
| Electrical fuel feed pump  | • |
| Engine oil drain coupler   | • |
| Expansion tank   | • |
| Fan guard  | • |
| Fuel cooler  | • |
| Fuel pre-filter  | • |
| Isolation-mounted engine   | • |
| Maintenance free pre-cleaner   | 0 |
| Power mode control<br>[H/P (High Power) PWR (Power)<br>ECO (Economy)]            | • |
| Radiator, oil cooler and intercooler   | • |
| Water separator  | • |

### HYDRAULIC SYSTEM

| Auto power lift                      |
|--------------------------------------|
| Boom mode selector system •          |
| Control valve with main relief valve |
| Drain filter •                       |
| Engine speed sensing system •        |
| Extra port for control valve         |
| Full-flow filter                     |
| Hose rupture valve for arm           |
| Hose rupture valve for boom          |
| Pilot filter •                       |
| Power boost                          |
| Quick warm-up system for pilot       |
| Shockless valve in pilot circuit     |
| Suction filter •                     |
| Work mode selector                   |

| AM EM radio  | • |
|--|---|
| AM-FM radio  | _ |
| Ashtray  |   |
| Auto control air conditioner   |   |
| AUX terminal and storage   |   |
| Cigarette lighter 24 V   | • |
| Drink holder with hot & cool function  |   |
| Electric double horn   | • |
| Engine shut-off switch   | - |
| Equipped with reinforced, tinted (green color) glass windows                           | • |
| Evacuation hammer  | • |
| Fire extinguisher bracket  | С |
| Floor mat  | • |
| Footrest   | • |
| Front window washer  | • |
| Glove compartment  | • |
| Hot & cool box   | • |
| Intermittent windshield wipers   | • |
| Key cylinder light   | • |
| Laminated round glass front window   | • |
| LED room light with door courtesy  | • |
| OPG front guard Level II<br>(ISO10262) compliant cab                                   | С |
| OPG top guard Level I (ISO10262)<br>compliant cab                                      | • |
| OPG top guard Level II (ISO10262)<br>compliant cab                                     | С |
| Pilot control shut-off lever   | • |
| Power outlet 12 V  | С |
| Rain guard   | С |
| Rear tray  | • |
| Retractable seat belt  | • |
| ROPS (ISO12117-2) compliant cab  | • |
| Rubber radio antenna   | • |
| Seat : air suspension seat with heater   | • |
| Seat adjustment part : backrest,<br>armrest, height and angle, slide<br>forward / back | • |
| Short wrist control levers   | • |
| Sun visor (front window/side window)   | С |
| Transparent roof with slide curtain  | • |
| Windows on front, upper, lower and left side can be opened                             | • |
| ieit side can be opened  |   |

CAB

| • | : Standard | equipment |
|---|------------|-----------|
|---|------------|-----------|

| MONITOR SYSTEM |   |
|----------------|---|
| MUNITUR STSTEM | U |

#### Alarms:

| overheat, engine warning, engine oil<br>pressure, alternator, minimum fuel<br>level, hydraulic filter restriction, air<br>filter restriction, work mode, overload,<br>SCR system trouble, etc |
|---|
| Alarm buzzers:<br>overheat, engine oil pressure,<br>overload, SCR system trouble  |
| Display of meters:<br>water temperature, hour, fuel rate,<br>clock, DEF/AdBlue® rate  |
| Other displays:<br>work mode, auto-idle, glow, rearview •<br>monitor, operating conditions, etc   |
| 32 languages selection  |

## LIGHTS

| Additional boom light with cover | 0 |
|----------------------------------|---|
| Additional cab roof front lights | 0 |
| Additional cab roof rear lights  | 0 |
| Rotating lamp                    | 0 |
| 2 working lights                 | • |

### **UPPER STRUCTURE**

| Batteries 2 x 170 Ah                                   |
|--|
| Battery disconnect switch                              |
| Body top handrail                                      |
| Counterweight 9 080 kg                                 |
| Electric fuel refilling pump with auto stop and filter |
| Electrical grease pump with hose-reel $ullet$          |
| Fuel level float                                       |
| Hydraulic oil level gauge                              |
| Ladder •   |
| Lockable fuel refilling cap                            |
| Lockable machine covers                                |
| Lockable tool box                                      |
| Platform handrail                                      |
| Rear view camera                                       |
| Rear view mirror (right & left side)                   |
| Sidewalk (cab side)                                    |
| Skid-resistant plates and handrails                    |
| Swing parking brake                                    |
| Undercover •   |
| Utility space •  |

#### O: Optional equipment

## UNDERCARRIAGE

| Bolt-on sprocket  | • |
|---|---|
| Reinforced track links with pin seals                   | ٠ |
| Shoe: 600 mm double grouser                             | 0 |
| Shoe: 600 mm triple grouser                             | • |
| Shoe: 750 mm triple grouser                             | 0 |
| Shoe: 900 mm triple grouser                             | 0 |
| Track undercover  | 0 |
| Travel direction mark on track frame                    | • |
| Travel motor covers                                     | • |
| Travel parking brake                                    | ٠ |
| Upper and lower rollers                                 | • |
| 2 track guards (each side) and hydraulic track adjuster | • |
| 4 tie down hooks  | • |

#### FRONT ATTACHMENTS

| Arm 2.5 m BE                            | 0 |
|---|---|
| Arm 2.9 m BE                            | 0 |
| Arm 3.4 m H                             | ٠ |
| Boom 6.3 m BE                           | 0 |
| Boom 7.0 m H                            | ٠ |
| Centralized lubrication system          | ٠ |
| Damage prevention plate and square bars | • |
| Dirt seal on all bucket pins            | ٠ |
| Flanged pin                             | ٠ |
| Reinforced welded link A                | ٠ |
| Reinforced link B                       | ٠ |
|   |   |

#### **ATTACHMENTS**

| Accessories for breaker           | • |
|-----------------------------------|---|
| Accessories for breaker & crusher | ٠ |
| Accessories for 2 speed selector  | ٠ |
| Attachment basic piping           | ٠ |
|                                   |   |

## MISCELLANEOUS

| Global e-Service               | • |
|--------------------------------|---|
| Onboard information controller | • |
| Standard tool kit              | • |
| Theft prevention system*       | 0 |

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

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

# **MEMO**

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.

# Hitachi Construction Machinery

www.hcme.com

