

**ZAXIS-6 series**

**HITACHI**

**Reliable solutions**

**ZAXIS690**



## **HYDRAULIC EXCAVATOR**

**Model code :** ZX690LCH-6 / ZX690LCR-6

**Engine rated power :** 345 kW (ISO14396)

**Operating weight :** 68 700 – 70 600 kg

**Bucket ISO heaped :** 1.5 – 4.0 m<sup>3</sup>



# ZX690-6. NO COMPROMISE

The ZX690-6 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 ZX690-6 is the epitome of reliability, with incredibly versatile features that highlight its suitability for a variety of challenging working environments.



6. BUILT FOR RELIABILITY



8. UNRIVALLED DURABILITY



10. POWERFUL VERSATILITY





**12. COMMITTED TO QUALITY**



**14. EXPERTS IN TECHNOLOGY**



# DEMAND PERFECTION

The Hitachi ZX690-6 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.



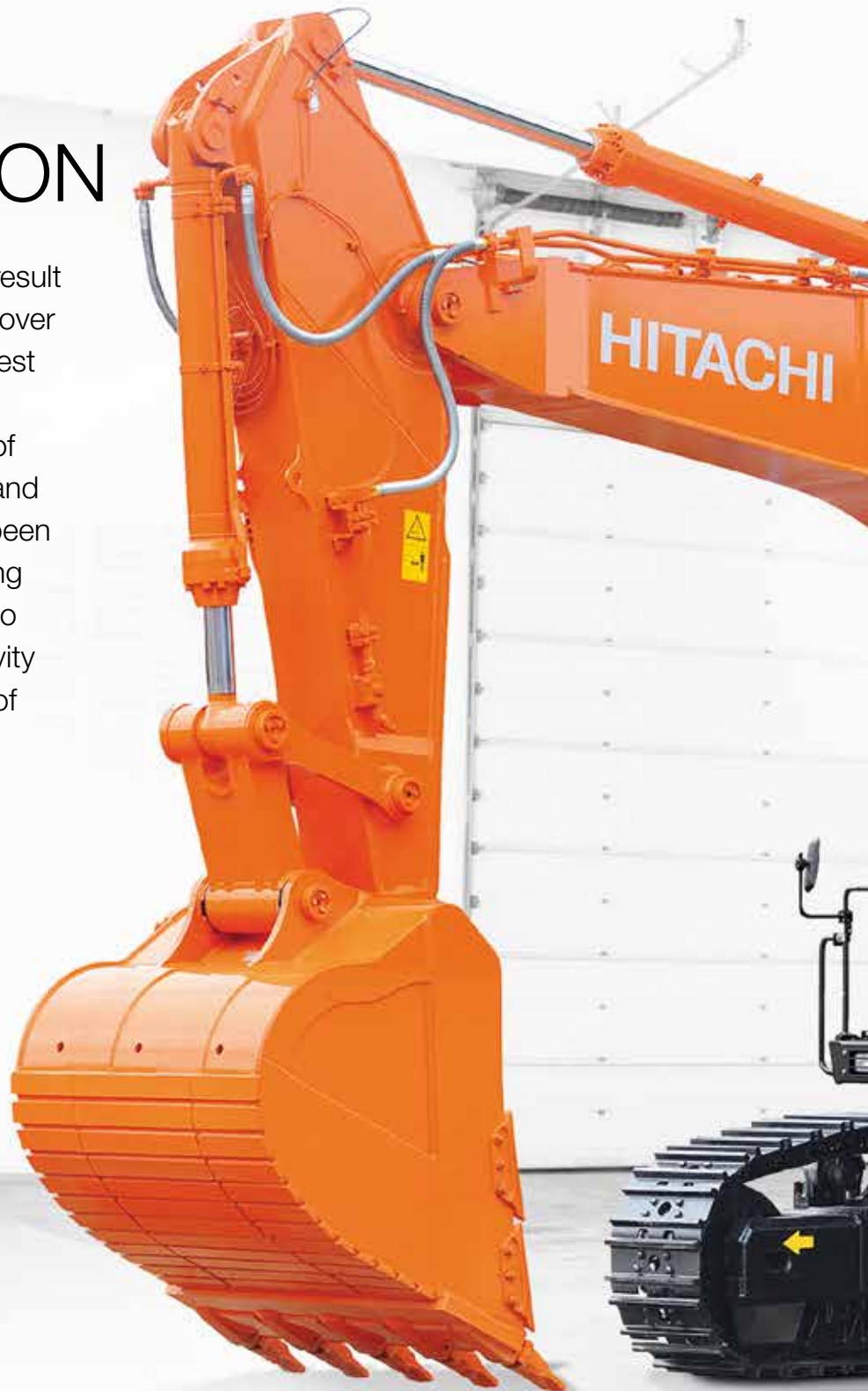
## **Ultimate durability**

Boom reinforced with thicker plates.



## **Lifetime reliability**

Failsafe components protect against extreme temperatures.



**Optimum performance**

Remote monitoring with Global e-Service online application.

**User-friendly**

Engine oil and coolant levels can be checked from the cab.

**Safe workspace**

A non-slip plate ensures long-term safety on deck.

**Low emissions**

SCR system reduces NOx from exhaust gas.

**Reduced fuel costs**

4% fuel saving in ECO mode (3% in HP mode).

**Easy maintenance**

Reversible fan reduces debris build-up.

**Smaller environmental impact**

95% of resin parts can be recycled.

**Excellent efficiency**

HIOS IIIB hydraulic system reduces fuel consumption and increases productivity.

**Engine protection**

Several engine parts have been changed to enhance reliability.





“ We remain loyal to Hitachi products due to their undoubted reliability ”

Freddy Talarmin, President, Sotravi Group

## BUILT FOR RELIABILITY

Hitachi has a market-leading reputation for building exceptionally reliable excavators. Designed to meet the demands of quarries and large-scale construction projects, the ZX690-6 can be relied on to provide high levels of productivity, safe and easy maintenance, and optimum levels of availability.

### 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 ZX690-6. 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 ZX690-6.



Easy access for maintenance.





HITACHI



The main fuel filter is easier to replace.



The expansion tank prevents engine parts from overheating.





The strengthened motor guard and idler bracket protect against damage.



Improved performance derived from the fuel circuit.





**i** 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.



# UNRIVALLED DURABILITY

Hitachi large excavators are designed and engineered to handle hard and abrasive materials, all day and every day, in challenging working environments. With several decades of experience in manufacturing excavators, Hitachi developed the ZX690-6 to be its most durable machine yet.



## Enhanced fuel circuit

A high-performance water separator is integrated into the pre-filter of the ZX690-6 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 arm

The arm of the ZX690LCR-6 has thicker side frames and plates, as well as other

robust components, to protect against damage during digging and loading of limestone and crushed stone. This helps to enhance the machine's durability for demanding sites.

## Greater protection

The travel motor guard and idler bracket of the ZX690LCR-6 have been strengthened to prevent damage from rocks and frequent impacts on busy and challenging sites. Strengthening these load-bearing areas extends the lifetime of the machine and lowers ownership costs.



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







“ *The biggest benefit for me is its strength and power* ”

Christophe Seghin, operator, Lachat

## POWERFUL VERSATILITY

The ZX690-6 is powerful to deliver high levels of productivity, stable in tough working environments, and precise for selecting materials. It can be used with a variety of attachments and in different work modes to maximise its capabilities. Wherever it is working, it offers exceptional visibility and outstanding performance.

### Better visibility

The front guard of the cab has smaller and fewer bars in order to minimise blind spots. A larger reflector on the back of the ZX690-6 improves the machine's visibility in low light or at night, so it can work safely for longer periods of time.

### Easier to transport

Thanks to its flexibility, the ZX690-6 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 ZX690-6. A pressure adjustment feature controlled electronically also protects the attachments during installation.



More versatility with the easy fitment of attachments.





Easy and secure transportation with the new tie-down hooks.



Minimal blind spots improve visibility.





Superior weather resistance maintains the cab's internal appearance.



Urea is injected into the exhaust gas to reduce emissions.



**i** 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.



# COMMITTED TO QUALITY

Hitachi large excavators are continuously evolving to meet increasing demands for performance, efficiency, comfort and safety. The inherent quality of the Zaxis-6 range enables Hitachi to set new industry standards and exceed expectations.



Safe and easy access to the platform.



## 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 ZX690-6.

## Safety at work

The H/R compliant cab is designed to protect the operator from falling objects. It is pressurised to suppress the penetration of air and dust from the job site. The

platform can now be accessed easily from the side of the machine and has a wider step area.

## 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 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 ZX690-6 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 ZX690-6 can save up to 4% 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 ZX690-6. 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 ZX690-6 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 seven-inch multi-function LCD monitor. Multi-lingual support in 32 languages is available.





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



Reduced fuel consumption due to HIOS III B 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](http://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 non-operating 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 CO<sub>2</sub> 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.





Global e-Service



Technical support



Hitachi Parts

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.





EH dump trucks



EX ultra-large excavators



ZW wheel loaders





“ 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.

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 state-of-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.



Mini excavators

# SPECIFICATIONS

## ENGINE

Model .....	Isuzu AQ-6WG1XASA-02
Type .....	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 .....	345 kW at 1 800 min <sup>-1</sup>
Maximum torque .....	1 980 Nm at 1 500 min <sup>-1</sup>
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 489 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
Swing circuit .....	29.4 MPa
Travel circuit .....	34.3 MPa
Pilot circuit .....	3.9 MPa
Power boost .....	34.3 MPa

### Hydraulic Cylinders

	Quantity	Bore	Rod diameter
Boom	2	190 mm	130 mm
Arm	1	200 mm	140 mm
Bucket	1	180 mm	130 mm
Bucket (BE)	1	190 mm	130 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 .....	9.0 min <sup>-1</sup>
Swing torque .....	194 kNm

### 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 .....	8
Track shoes .....	47
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 5.2 km/h
	Low : 0 to 3.6 km/h

Maximum traction force .....	460 kN
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Gradeability .....	70% (35 degree) continuous
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## 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 108 dB(A)

## SERVICE REFILL CAPACITIES

Fuel tank .....	900.0 L
Engine coolant .....	76.0 L
Engine oil .....	57.0 L
Pump drive .....	6.2 L
Swing device (each side) .....	10.5 L
Travel device (each side) .....	16.0 L
Hydraulic system .....	750.0 L
Hydraulic oil tank .....	380.0 L
DEF/AdBlue® tank .....	95.0 L



## WEIGHTS AND GROUND PRESSURE

### Operating Weight and Ground Pressure

#### ZAXIS 690LCH

Boom type	Arm type	Shoe grouser type	Shoe width	Operating weight	Ground pressure
7.8 m H	3.6 m H	Double	650 mm	68 700 kg	103 kPa
		Double	750 mm	69 100 kg	90 kPa
		Double	900 mm	70 100 kg	76 kPa

Including 2.9 m³ Rock bucket (ISO heaped)

Boom type	Arm type	Shoe grouser type	Shoe width	Operating weight	Ground pressure
6.8 m BE	2.9 m BE	Double	650 mm	69 200 kg	104 kPa
		Double	750 mm	69 600 kg	90 kPa
		Double	900 mm	70 600 kg	76 kPa

Including 4.0 m³ Rock bucket (ISO heaped)

#### ZAXIS 690LCR

Boom type	Arm type	Shoe grouser type	Shoe width	Operating weight	Ground pressure
7.8 m R	3.6 m R	Double	650 mm	70 000 kg	105 kPa

Including 2.9 m³ R-bucket (ISO heaped)

Boom type	Arm type	Shoe grouser type	Shoe width	Operating weight	Ground pressure
6.8 m BER	2.9 m BER	Double	650 mm	69 300 kg	104 kPa

Including 3.3 m³ R-bucket (ISO heaped)

## BUCKET AND ARM DIGGING FORCE

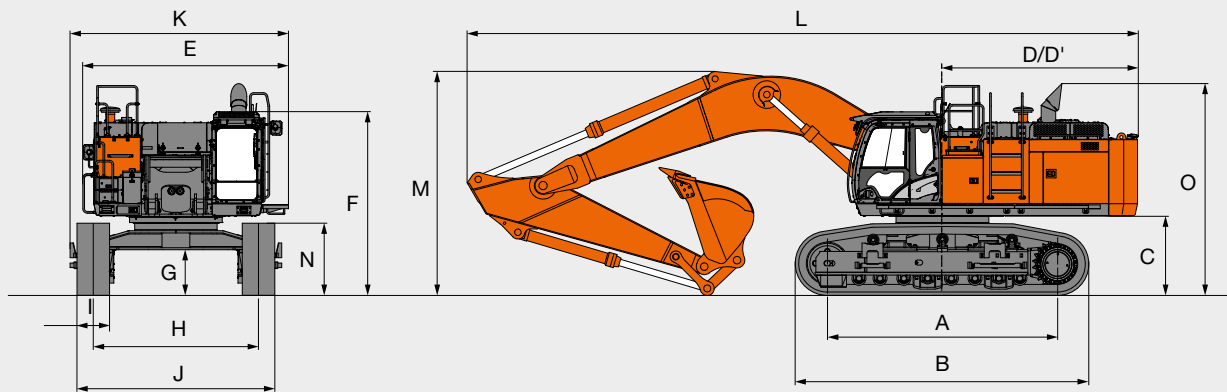
	ZAXIS 690LCH / ZAXIS 690LCR	
Boom length	Boom 6.8 m BE / Boom 6.8 m BER	Boom 7.8 m H / Boom 7.8 m R
Arm length	Arm 2.9 m BE / Arm 2.9 m BER	Arm 3.6 m H / Arm 3.6 m R
Bucket digging force* ISO	369 kN	324 kN
Bucket digging force* SAE	332 kN	286 kN
Arm crowd force* ISO	306 kN	255 kN
Arm crowd force* SAE	297 kN	246 kN

\* At power boost



# SPECIFICATIONS

## DIMENSIONS



Unit: mm

	ZAXIS 690LCH <sup>*2</sup>			ZAXIS 690LCR <sup>*3</sup>
A Distance between tumblers	4 590			4 590
B Undercarriage length	5 840			5 840
<sup>*1</sup> C Counterweight clearance	1 530			1 530
D Rear-end swing radius	4 020			4 020
D' Rear-end length	3 910			3 910
E Overall width of upperstructure	4 090			4 090
F Overall height of cab	3 660			3 660
<sup>*1</sup> G Min. ground clearance	860			860
H Track gauge : Extended / Retracted	3 300 / 2 830			3 300 / 2 830
I Track shoe width				
J Undercarriage width : Extended / Retracted	G 650	G 750	G 900	G 650
	3 950 / 3 480	4 050 / 3 580	4 200 / 3 730	3 950 / 3 480
K Overall width	4 360			4 360
L Overall length	13 400			13 400
M Overall height of boom	4 460			4 460
<sup>*1</sup> N Track height	1 440			1 440
O Overall height of base machine	4 230			4 230

<sup>\*1</sup> Excluding track shoe lug      G: Double grouser shoe

<sup>\*2</sup> Equipped with Boom 7.8 m H and Arm 3.6 m H

<sup>\*3</sup> Equipped with Boom 7.8 m R and Arm 3.6 m R

## Backhoe Buckets

Capacity		Width		No. of teeth	Weight	Recommendation			
						ZAXIS 690LCH		ZAXIS 690LCR	
ISO heaped	CECE heaped	Without side cutters	With side cutters			Boom 6.8 m BE	Boom 7.8 m H	Boom 6.8 m BER	Boom 7.8 m R
						Arm 2.9 m BE	Arm 3.6 m H	Arm 2.9 m BER	Arm 3.6 m R
*12.9 m³	2.5 m³	1 680 mm	1 680 mm	5	2 850 kg	—	●	—	—
*13.3 m³	2.9 m³	1 790 mm	1 790 mm	5	3 120 kg	●	—	—	—
*14.0 m³	3.6 m³	1 970 mm	1 970 mm	5	3 700 kg	●	—	●	—
*21.5 m³	1.3 m³	—	1 310 mm	3	3 150 kg	—	●	—	—
*21.8 m³	1.6 m³	—	1 570 mm	3	3 750 kg	●	—	—	—
*32.9 m³	2.5 m³	1 680 mm	1 680 mm	5	3 300 kg	—	—	—	●
*33.3 m³	2.9 m³	1 790 mm	1 790 mm	5	3 610 kg	—	—	●	—
One-point ripper				1	1 800 kg	●	●	●	●

<sup>\*1</sup> Rock bucket

<sup>\*2</sup> Ripper bucket

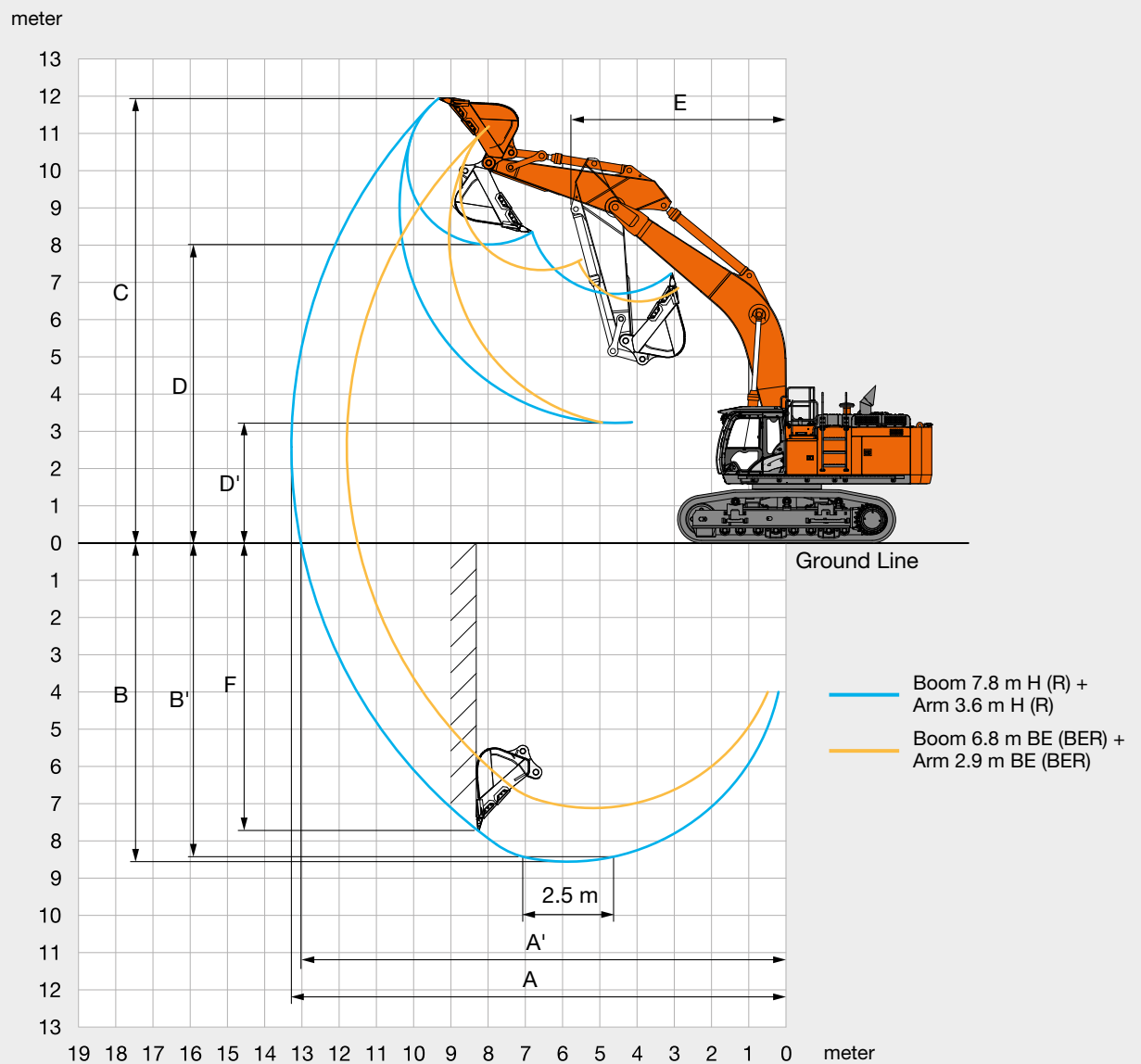
<sup>\*3</sup> R-bucket

● Heavy-duty service

— Not applicable



## WORKING RANGES



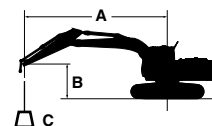
Unit: mm

Arm length	ZAXIS 690LCH / ZAXIS 690LCR	
	Boom 6.8 m BE / Boom 6.8 m BER	Boom 7.8 m H / Boom 7.8 m R
	Arm 2.9 m BE / Arm 2.9 m BER	Arm 3.6 m H / Arm 3.6 m R
A Max. digging reach	11 800	13 280
A' Max. digging reach (on ground)	11 500	13 030
B Max. digging depth	7 120	8 560
B' Max. digging depth for 2.5 m level	6 970	8 420
C Max. cutting height	11 190	11 940
D Max. dumping height	7 330	8 020
D' Min. dumping height	3 200	3 230
E Min. swing radius	5 240	5 780
F Max. vertical wall	5 280	7 720

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 690LCH

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

Conditions	Load point height m	Load radius												At max. reach		
		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				
																meter
Boom 6.8 m BE Arm 2.9 m BE Counterweight 10 400 kg Shoe 650 mm	7.5							*16 810	*16 810					*12 500	*12 500	8.2
	6.0					*19 710	*19 710	*17 550	*17 550					*12 210	*12 210	9.0
	4.5					*22 640	*22 640	*18 960	17 290	*17 010	13 040			*12 320	12 130	9.4
	3.0					*25 600	23 000	*20 520	16 610	17 680	12 710			*12 810	11 520	9.6
	1.5					*27 590	22 060	*21 730	16 050	17 350	12 410			*13 740	11 410	9.5
	0 (Ground)					*28 180	21 570	*22 200	15 700	17 160	12 230			*15 290	11 810	9.2
	-1.5			*35 530	34 000	*27 310	21 450	*21 550	15 600					*17 760	12 870	8.7
	-3.0	*37 800	*37 800	*31 570	*31 570	*24 670	21 670	*18 920	15 830					*17 710	15 120	7.8
-4.5			*24 650	*24 650	*18 660	*18 660							*16 670	*16 670	6.4	
Boom 7.8 m H Arm 3.6 m H Counterweight 10 400 kg Shoe 650 mm	7.5									*13 510	*13 510			*9 300	*9 300	9.9
	6.0							*15 670	*15 670	*14 180	13 420	*9 770	*9 770	*9 330	*9 330	10.5
	4.5					*21 570	*21 570	*17 470	17 110	*15 160	12 970	*13 600	10 160	*9 590	9 510	10.9
	3.0					*24 710	22 470	*19 270	16 310	*16 220	12 500	13 800	9 900	*10 090	9 090	11.1
	1.5					*26 760	21 450	*20 690	15 650	17 030	12 090	13 550	9 660	*10 890	8 970	11.0
	0 (Ground)			*15 130	*15 130	*27 490	20 930	*21 460	15 210	16 710	11 790	13 370	9 500	*12 110	9 150	10.8
	-1.5			*23 220	*23 220	*27 090	20 750	*21 450	15 010	16 550	11 640			13 690	9 700	10.3
	-3.0	*22 490	*22 490	*32 660	*32 660	*25 640	20 830	*20 510	15 010	*16 570	11 680			*15 150	10 800	9.6
-4.5	*32 920	*32 920	*28 660	*28 660	*22 850	21 150	*18 200	15 260					*15 290	12 930	8.5	
-6.0			*22 270	*22 270	*17 700	*17 700							*14 720	*14 720	6.9	
Boom 7.8 m H Arm 3.6 m H Counterweight 10 400 kg Shoe 900 mm	7.5									*13 510	*13 510			*9 300	*9 300	9.9
	6.0							*15 670	*15 670	*14 180	13 680	*9 770	*9 770	*9 330	*9 330	10.5
	4.5					*21 570	*21 570	*17 470	17 440	*15 160	13 230	*13 600	10 370	*9 590	*9 590	10.9
	3.0					*24 710	22 910	*19 270	16 640	*16 220	12 760	14 100	10 120	*10 090	9 290	11.1
	1.5					*26 760	21 900	*20 690	15 980	*17 100	12 350	13 840	9 880	*10 890	9 170	11.0
	0 (Ground)			*15 130	*15 130	*27 490	21 370	*21 460	15 540	17 070	12 050	13 670	9 710	*12 110	9 360	10.8
	-1.5			*23 220	*23 220	*27 090	21 200	*21 450	15 340	16 910	11 900			13 990	9 920	10.3
	-3.0	*22 490	*22 490	*32 660	*32 660	*25 640	21 280	*20 510	15 340	*16 570	11 940			*15 150	11 040	9.6
-4.5	*32 920	*32 920	*28 660	*28 660	*22 850	21 600	*18 200	15 580					*15 290	13 210	8.5	
-6.0			*22 270	*22 270	*17 700	*17 700							*14 720	*14 720	6.9	

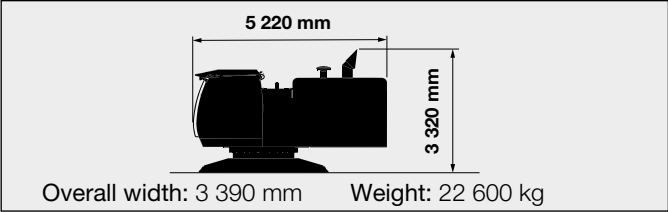
## ZAXIS 690LCR

Conditions	Load point height m	Load radius												At max. reach		
		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				
																meter
Boom 6.8 m BER	7.5							*16 640	*16 640					*12 450	*12 450	8.2
Arm 2.9 m BER	6.0					*19 520	*19 520	*17 360	*17 360					*12 160	*12 160	9.0
Counterweight	4.5					*22 420	*22 420	*18 750	17 230	*16 810	12 960			*12 270	12 040	9.4
10 400 kg	3.0					*25 330	22 890	*20 290	16 520	*17 480	12 620			*12 750	11 430	9.6
Shoe 650 mm	1.5					*27 290	21 920	*21 480	15 940	17 280	12 300			*13 680	11 310	9.5
	0 (Ground)					*27 870	21 410	*21 940	15 570	17 090	12 130			*15 230	11 700	9.2
	-1.5			*35 140	33 800	*27 000	21 300	*21 300	15 470					*1 7530	12 760	8.7
	-3.0	*37 760	*37 760	*31 200	*31 200	*24 370	21 530	*18 680	15 720					*17 480	15 010	7.8
	-4.5			*24 310	*24 310	*18 390	*18 390							*16 410	*16 410	6.4
Boom 7.8 m R	7.5									*13 310	*13 310			*9 230	*9 230	9.9
Arm 3.6 m R	6.0							*15 450	*15 450	*13 960	13 330	*9 700	*9 700	*9 260	*9 260	10.5
Counterweight	4.5					*21 280	*21 280	*17 210	17 010	*14 920	12 860	*13 520	10 040	*9 520	9 380	10.9
10 400 kg	3.0					*24 370	22 290	*18 980	16 160	*15 960	12 370	13 700	9 770	*10 020	8 960	11.1
Shoe 650 mm	1.5					*26 380	21 230	*20 380	15 480	*16 830	11 940	13 440	9 520	*10 810	8 830	11.0
	0 (Ground)			*15 060	*15 060	*27 090	20 690	*21 130	15 030	16 590	11 630	13 260	9 350	*12 030	9 010	10.8
	-1.5			*23 160	*23 160	*26 690	20 510	*21 120	14 810	16 420	11 480			13 570	9 560	10.3
	-3.0	*22 430	*22 430	*32 180	*32 180	*25 240	20 600	*20 180	14 820	*16 280	11 520			*14 890	10 650	9.6
	-4.5	*32 860	*32 860	*28 190	*28 190	*22 470	20 940	*17 890	15 080					*15 000	12 780	8.5
	-6.0			*21 840	*21 840	*17 360	*17 360							*14 410	*14 410	6.9



# TRANSPORTATION

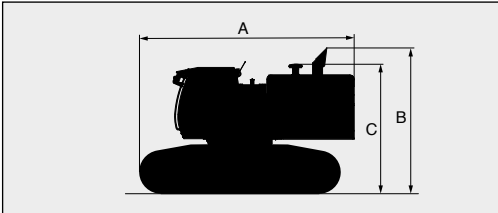
## UPPERSTRUCTURE



## COUNTERWEIGHT



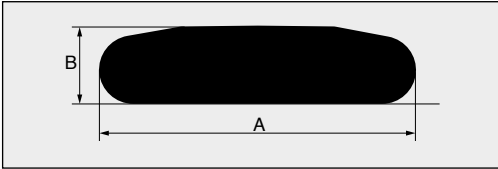
## BASIC MACHINE (WITHOUT COUNTERWEIGHT)



	Shoe width	A	B	C <sup>*1</sup>	Overall width <sup>*2</sup>	Weight
ZAXIS 690LCH	650 mm	6 240 mm	4 230 mm	3 760 mm	3 480 mm	44 000 kg
	750 mm				3 580 mm	44 300 kg
	900 mm				3 730 mm	45 400 kg
ZAXIS 690LCR	650 mm	6 240 mm	4 230 mm	3 760 mm	3 480 mm	44 300 kg

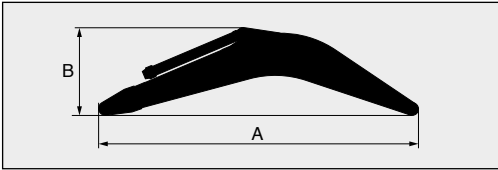
<sup>\*1</sup> Without exhaust funnel  
<sup>\*2</sup> Undercarriage retracted

## SIDE FRAME



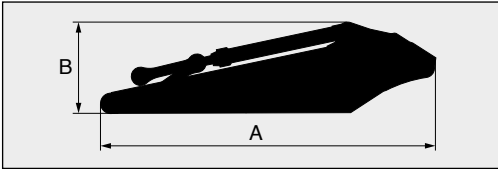
	Shoe width	A	B	Overall width	Weight
ZAXIS 690LCH	650 mm	5 840 mm	1 450 mm	1 250 mm	10 600 kg
	750 mm			1 250 mm	10 900 kg
	900 mm			1 320 mm	11 400 kg
ZAXIS 690LCR	650 mm	5 840 mm	1 450 mm	1 250 mm	10 800 kg

## BOOM



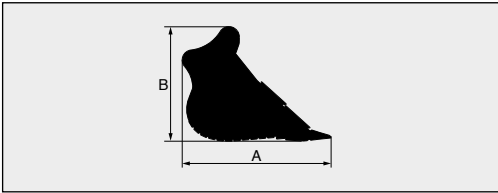
Boom	A	B	Overall width	Weight
6.8 m BE	7 140 mm	2 510 mm	1 390 mm	6 110 kg
7.8 m H	8 130 mm	2 330 mm	1 390 mm	6 560 kg
6.8 m BER	7 140 mm	2 510 mm	1 390 mm	6 260 kg
7.8 m R	8 130 mm	2 330 mm	1 390 mm	6 760 kg

## ARM



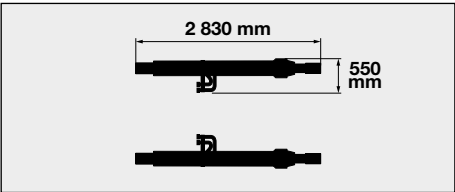
Arm	A	B	Overall width	Weight
2.9 m BE	4 370 mm	1 690 mm	800 mm	3 820 kg
3.6 m H	5 110 mm	1 440 mm	800 mm	3 750 kg
2.9 m BER	4 370 mm	1 690 mm	800 mm	3 950 kg
3.6 m R	5 110 mm	1 440 mm	800 mm	3 900 kg

## BUCKET

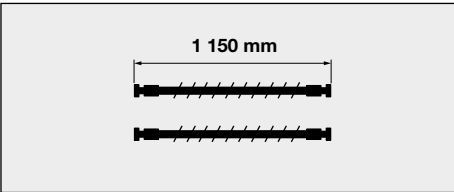


	Bucket		A	B	Overall width	Weight
	ISO heaped	CECE heaped				
Rock bucket	2.9 m³	2.5 m³	2 290 mm	1 770 mm	1 680 mm	2 850 kg
	3.3 m³	2.9 m³	2 250 mm	1 890 mm	1 790 mm	3 120 kg
	4.0 m³	3.6 m³	2 360 mm	1 930 mm	1 900 mm	3 700 kg
R-bucket	2.9 m³	2.5 m³	2 290 mm	1 770 mm	1 680 mm	3 300 kg
	3.3 m³	2.9 m³	2 250 mm	1 890 mm	1 790 mm	3 610 kg

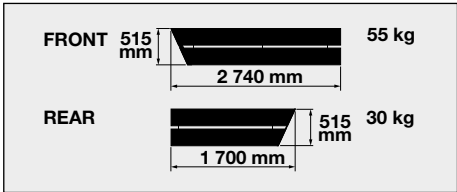
## BOOM CYLINDERS 550 kg X 2 Overall height: 410 mm



## HOSE OF BOOM CYLINDERS 7 kg X 2 / 10 kg X 2



## LEFT SIDEWALK Overall height: 150 mm



# EQUIPMENT

ENGINE	ZAXIS 690LCH	ZAXIS 690LCR
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® tank inlet strainer and extension filler	●	●
DEF/AdBlue® 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	●	●
Power mode control [H/P (High Power) PWR (Power) ECO (Economy) ]	●	●
Radiator, oil cooler and intercooler	●	●
Water separator	●	●

HYDRAULIC SYTEM		
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 circuit	●	●
Shockless valve in pilot circuit	●	●
Suction filter	●	●
Work mode selector	●	●

● : Standard equipment    ○ : Optional equipment    — : Not applicable

CAB	ZAXIS 690LCH	ZAXIS 690LCR
All-weather sound suppressed steel cab	●	●
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	●	●
Evacuation hammer	●	●
Fire extinguisher bracket	○	○
Floor mat	●	●
Footrest	●	●
Front window washer	●	●
Glove compartment	●	●
Hot & cool box	●	●
Intermittent windshield wipers	●	●
Key cylinder light	●	●
Laminated straight glass front window	●	●
LED room light with door courtesy	●	●
OPG front guard Level II (ISO10262) compliant cab	●	●
OPG top guard Level II (ISO10262) compliant cab	●	●
Pilot control shut-off lever	●	●
Power outlet 12 V	○	○
Rear tray	●	●
Retractable seat belt	●	●
Rubber radio antenna	●	●
Seat : air suspension seat with heater	●	●
Seat adjustment part : backrest, armrest, height and angle, slide forward / back	●	●
Short wrist control levers	●	●
Sun visor (front window/side window)	●	●
Transparent roof with slide curtain	●	●
2 speakers	●	●
6 fluid-filled elastic mounts	●	●



MONITOR SYSTEM	ZAXIS 690LCH	ZAXIS 690LCR
Alarms: overheat, engine warning, engine oil pressure, alternator, minimum fuel level, hydraulic filter restriction, air filter restriction, work mode, overload, SCR system trouble, etc	●	●
Alarm buzzers: overheat, engine oil pressure, overload, SCR system trouble	●	●
Display of meters: water temperature, hour, fuel rate, clock, DEF/AdBlue® rate	●	●
Other displays: work mode, auto-idle, glow, rearview monitor, operating conditions, etc	●	●
32 languages selection	●	●

LIGHTS		
2 cab lights	●	●
4 cab lights	○	○
3 working lights	●	●

UPPER STRUCTURE		
Auto-grease lubricator (without bucket and link pins)	●	●
Batteries 2 x 170 Ah	●	●
Battery disconnect switch	●	●
Body top handrail	●	●
Counterweight 10 400 kg	●	●
Electric fuel refilling pump with auto stop and filter	●	●
Electrical grease pump with hose-reel	●	●
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 4.5 mm	●	●
Utility space	●	●

UNDERCARRIAGE	ZAXIS 690LCH	ZAXIS 690LCR
Bolt-on sprocket	●	●
Full track guard	●	●
Reinforced track links with pin seals	●	●
Shoe: 650 mm double grouser	●	●
Shoe: 750 mm double grouser	○	—
Shoe: 900 mm double grouser	○	—
Track undercover	●	●
Travel direction mark on track frame	●	●
Travel motor covers	●	●
Travel parking brake	●	●
Upper and lower rollers	●	●
4 tie down hooks	●	●

FRONT ATTACHMENTS		
Arm 2.9 m BE	○	—
Arm 2.9 m BER	—	○
Boom 6.8 m BE	○	—
Boom 6.8 m BER	—	○
Boom 7.8 m H and arm 3.6 m H	●	—
Boom 7.8 m R and arm 3.6 m R	—	●
Bucket 2.9 m³ R (ISO heaped) (with dual type side shrouds)	—	●
Bucket 2.9 m³ Rock (ISO heaped) (with dual type side shrouds)	●	—
Centralized lubrication system	●	●
Damage prevention plate and square bars	●	●
Dirt seal on all bucket pins	●	●
Flanged pin	●	●
Reinforced link B	●	●
Reinforced welded link A	●	●

ATTACHMENTS		
Accessories for breaker	○	○
Accessories for breaker & crusher	○	○
Accessories for 2 speed selector	○	○
Attachment basic piping	○	○

MISCELLANEOUS		
Global e-service	●	●
Onboard information controller	●	●
Standard tool kit	●	●
Theft prevention system*	○	○

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.

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.

