

ZAXIS-7G series

HITACHI

Reliable Solutions

ZAXIS890



HYDRAULIC EXCAVATOR

Model code : ZX890LCH-7G
Engine rated power : 377 kW (506HP)
Operating weight : 84 300 kg
Bucket capacity : 4.5 m³ - 6.0 m³



GET MORE FROM YOUR MACHINE

You're at the heart of Hitachi Construction Machinery's design for its latest range of excavators. To continuously improve on previous generation machines, we've focused on enhancing your profit in business.

We have made cost reduction for our customers our top priority and, in doing so, have achieved reduced fuel consumption. The cab has been redesigned to improve the operator's working environment and controllability, with production also expected to improve. An engine that already has a proven track record of high reliability has been adopted, and we have placed further work in it to make it even more robust. Remote failure diagnosis, monitoring.

INSIDE



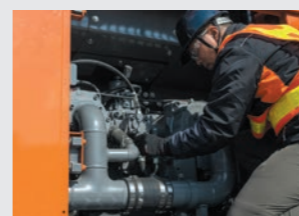
4-5 | MORE PRODUCTION
LOWER FUEL CONSUMPTION



6-7 | BETTER
OPERABILITY



8-9 | HIGH DURABILITY
AND RELIABILITY



10-11 | SMOOTH
MAINTENANCE

MORE PRODUCTION LOWER FUEL CONSUMPTION

The HIOS-V new Hydraulic system has achieved both increased productivity and reduced fuel consumption in each mode. The ZAXIS performance contributes to increase the returns to the customer.

PWR_{mode}

Fuel consumption reduced by
-17%

Productivity increased by
+1%

Compared to ZX870-5G PWR mode

ECO_{mode}

Fuel consumption reduced by
-18%

Compared to ZX870-5G ECO mode

HP_{mode}

Fuel consumption reduced by
-11%

Productivity increased by
+7%

Compared to ZX870-5G HP mode

HIOS-V Hydraulic system

The hydraulic system developed was based on the concept of a hydraulic system that fits in-line with a sense of human operation.

- ✓ Efficient hydraulic control achieves smoother and more speedy movement of front attachments.
- ✓ Fine-tuned hydraulic pump control according to work load reduces fuel consumption and supports cost reductions.

Reduced oil pressure loss

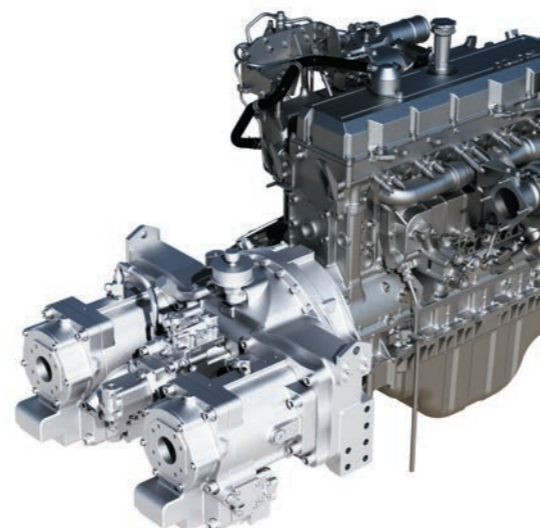
A new valve has been adopted to reduce hydraulic loss and further improve hydraulic efficiency.

- ✓ Contributing to low fuel consumption operation

High power engine

Rated power has been increased from the conventional ZX870-5G engine contributing to greater work volume.

- ✓ Increased workload



	ZX870-5G	ZX890-7G
Rated output (ISO 14396:2002)	360kW	377kW

High efficiency operation support system

ECO gauge

The current fuel consumption is indicated by segment display, prompting the operator to better fuel economy. The lower the fuel consumption, the higher the segment.

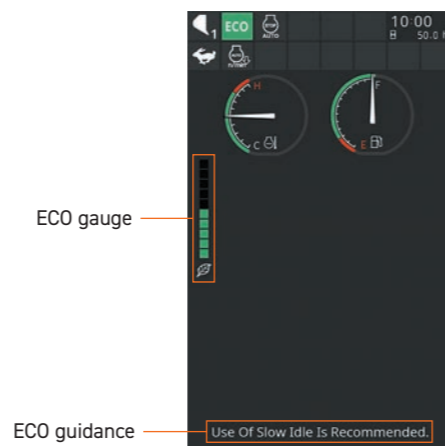
Easy to be removed and cleaned

ECO guidance

Prompts the operator to better fuel economy.

Messages are also shown while the ECO gauge is displayed.

- ✓ Prompts operator for better economy



BETTER OPERABILITY

In the cab of the Zaxis-7G, enhanced comfort and safety features are at your fingertips, offering the power to perform greater productivity with ease as well as reduced fatigue.



Operation is easy with ergonomically designed controls and switches.



Low-reflective color 8" monitor, 42 % larger display compared to ZX-5G series. Easier to view and navigate. Optional USB power supply and Bluetooth® available.



New designed pilot shut-off lever
The newly designed pilot shut-off lever allows easier locking and unlocking with wrist operation.



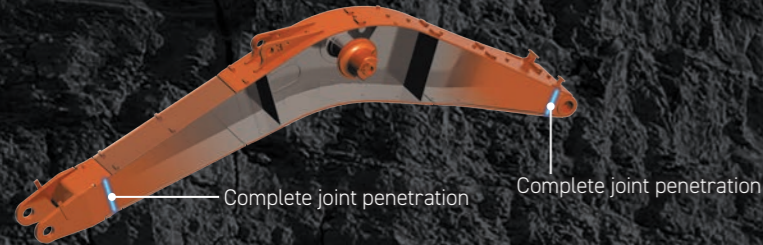
AERIAL ANGLE
270-degree bird's eye-view camera system is available.

HIGH DURABILITY AND RELIABILITY

Completing a project on time and on budget depends on the ability of your construction equipment to perform all day, every day. That's why Hitachi construction machinery owners have profited from generations of reliable and durable machinery. Hitachi Construction Machinery is always conscious of improving long-term reliability in its machine development. High long-term reliability is good in not only performance all day, every day but also for resale value.

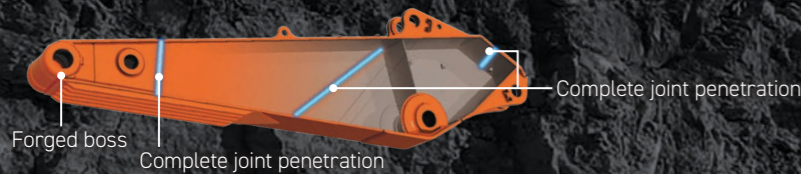
H Boom

Complete joint penetration has been applied to areas where the load is focused, and durability and reliability have been further improved.



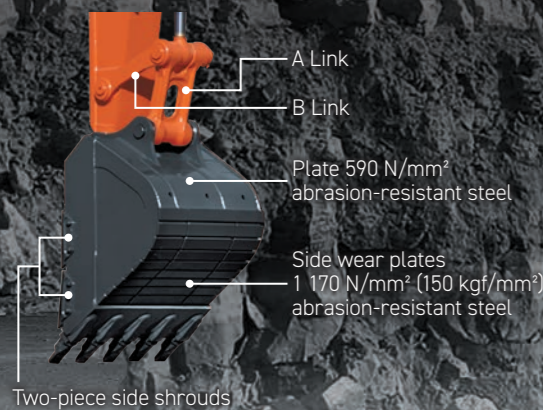
H Arm

A forged boss is used in the arm rod. Complete joint penetration has been applied to areas where the load is focused, and durability and reliability have been further improved.



Rock bucket (ZX890LCH-7G)

A rock bucket has been adopted in consideration for sites requiring heavier excavator work. Equipped with horizontal wear plates and two-piece side shrouds for increased durability.



Undercarriage (ZX890LCH-7G)

Full track guard
Protects the lower roller and link from boulders and extending the unit's operating life.



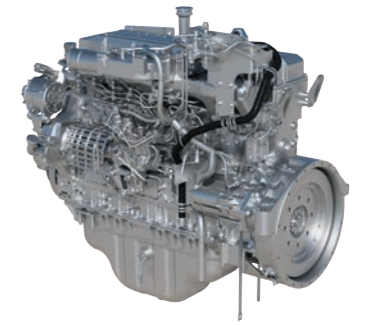
Equipped with an Expansion tank

✓ Improving the reliability of the engine cooling performance



An engine with improved reliability

The engine is a highly reliable model that has already been adopted previously. In adopting it for the ZX-7G, we have put in our efforts to further increase durability and to BOOST your uptime. EGR (Exhaust Gas Recirculation) is removed from the engine, increasing its durability for using low-quality fuel.



H-front attachment (Same as the standard model)

H Cab (ZX890LCH-7G)



A reinforced cab for H specification machines with a reinforced windshield and a FOPS* guard that protects the cab from falling objects. The front has a laminated straight glass front window that shuts out dust. The cab front guard (optional), also complies with the ISO standard OPG**.

*FOPS: Falling-Object Protective Structure
**OPG: Operator Protective Guards

Reinforced undercover ZX890LCH-7G

Laminated straight glass front window

SMOOTH MAINTENANCE

Regular maintenance is essential for the machine to achieve high performance. Hitachi's excavator is designed for ease of regular maintenance. Simple and easy maintenance keeps the machine in good condition and keeps its high performance.



Easy-access air conditioner condenser

- ✓ The cover can be opened without the need for any tools
- ✓ Easy to clean Radiator/Oil Cooler/Inter cooler core with simple air blowing



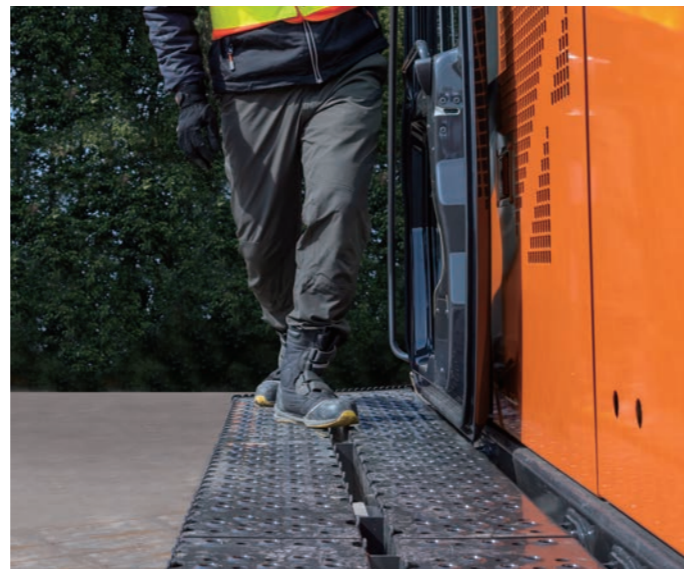
Dust-proof net on right side cover

- ✓ Provided on the cover, in front of radiator core
- ✓ Easy cleaning with compressed air



Simplified engine oil drainage

- ✓ Drain work can be done more easily by attaching a dedicated nozzle hose.



Side walk

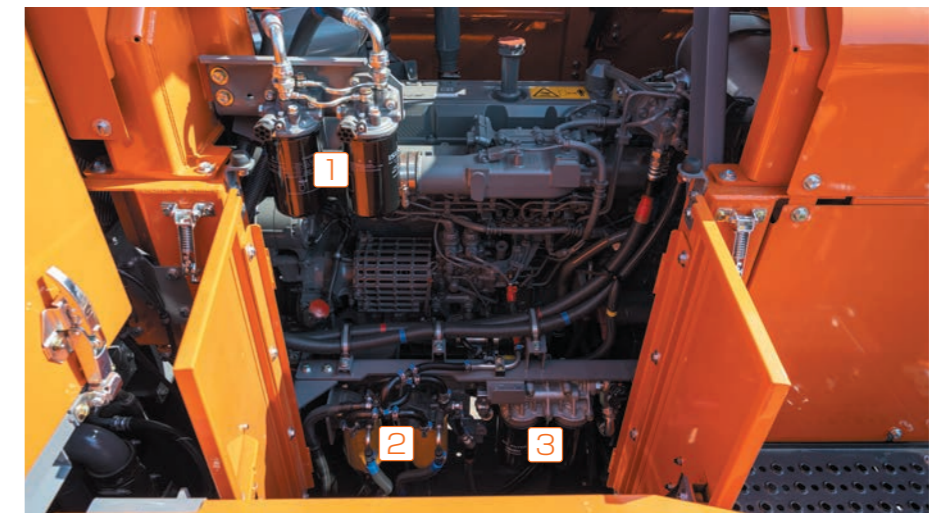
- ✓ Easy to move from cab to pump room or platform



Easy access to filters

Filter locations are concentrated in the pump room

- 1 Fuel main filter
- 2 Fuel pre-filter with water separator
- 3 Engine oil filter



SPECIFICATIONS

ENGINE	
Model	Isuzu 6WG1
Type	4-cycle water-cooled, common rail direct injection
Aspiration	Variable geometry turbocharged, intercooled
No. of cylinders	6
Rated power	
ISO 14396 : 2002 gross	377 kW (506 HP) at 1 800 min ⁻¹ (rpm)
ISO 9249 : 2007 net	375 kW (503 HP) at 1 800 min ⁻¹ (rpm)
Maximum torque	2 138 Nm (218 kgfm) at 1 500 min ⁻¹ (rpm)
Piston displacement	15.681 L
Bore and stroke	147 mm x 154 mm
Batteries	2 x 12 V

HYDRAULIC SYSTEM			
Hydraulic Pumps			
Main pumps	2 variable displacement axial piston pumps		
Maximum oil flow	2 x 512 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 motor		
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 circle is single-row. Swing parking brake is spring-set/hydraulicreleased disc type.	
Swing speed	7.4 min ⁻¹ (rpm)
Swing torque	194 kNm (19 800 kgfm)

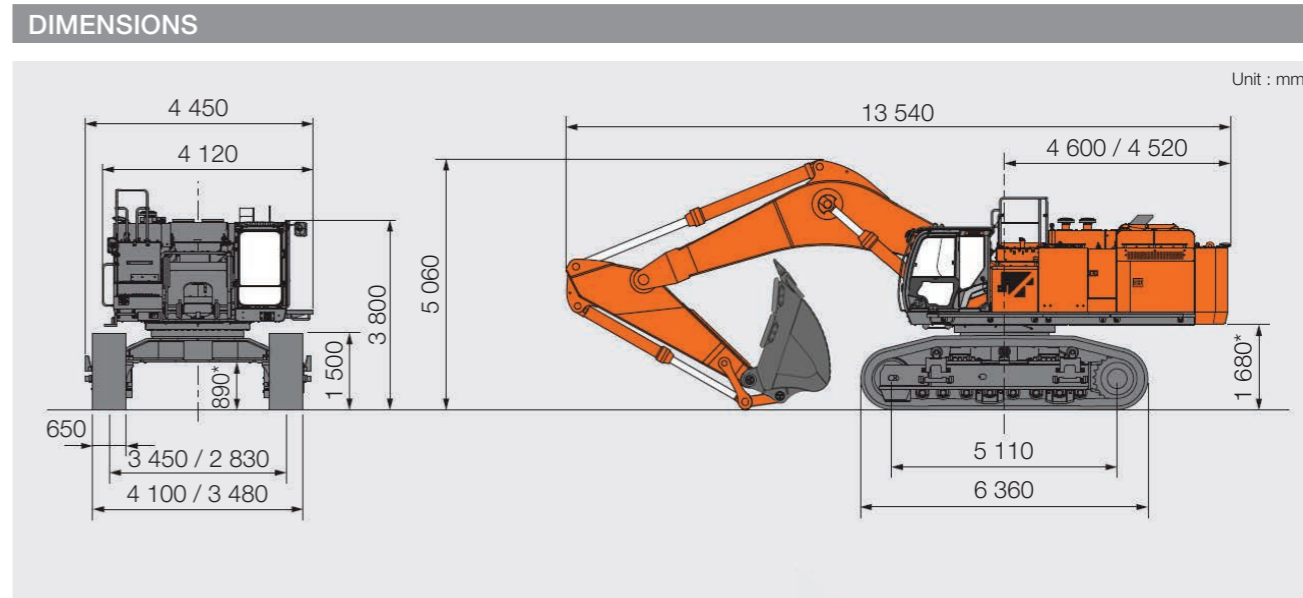
UNDERCARRIAGE	
Tracks	
Heat-treated connecting pins with dirt seals. Hydraulic (grease) track adjusters with shock-absorbing recoil springs.	
Numbers of Rollers and Shoes on Each Side	
Upper rollers	3
Lower rollers	9 : ZX890LCH-7G
Track shoes	48 : ZX890LCH-7G
Track guards	Full track guard : ZX890LCH-7G
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 4.6 km/h Low : 0 to 3.1 km/h
Maximum traction force	560 kN (57 100 kgf)
Gradeability	70 % (35 degree) continuous

SERVICE REFILL CAPACITIES	
Fuel tank	1 110.0 L
Engine coolant	133.0 L
Engine oil	54.0 L
Pump drive	6.2 L
Swing device (each)	15.7 L
Travel device (each side)	19.0 L
Hydraulic system	1 042.0 L
Hydraulic oil tank	500.0 L

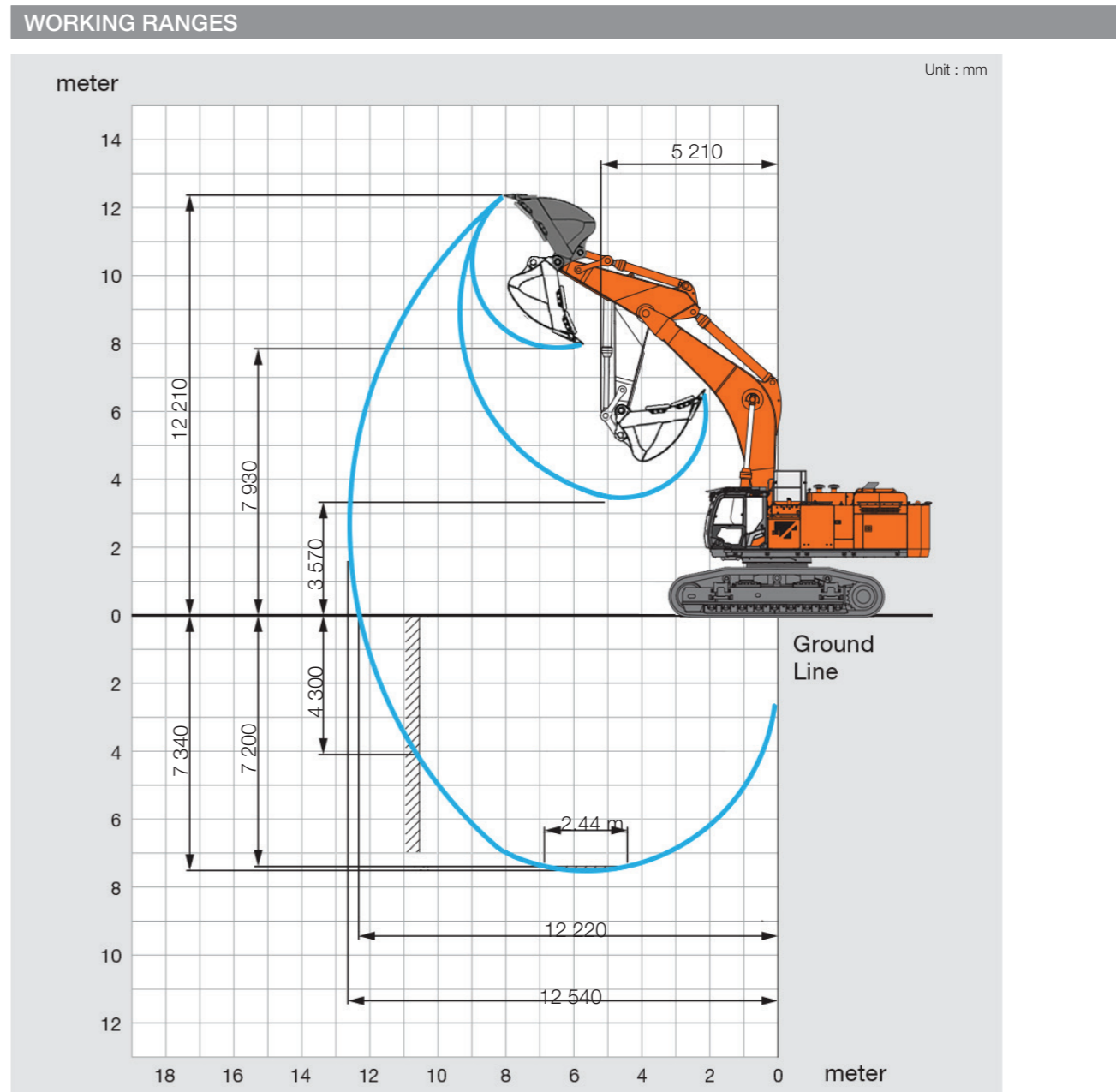
WEIGHTS AND GROUND PRESSURE				
ZX890LCH-7G				
Equipped with 7.10 m BE boom, 2.95 m BE Arm and 5.00 m ³ Bucket (ISO 7451 : 2007 heaped)				
	Shoe type	Shoe width (mm)	Weight (kg)	kPa (kgf/cm ²)
ZX890LCH-7G	Double grouser	650	84 300	126 (1.28)

BUCKET AND ARM DIGGING FORCE			
Boom length	7.10 m		
Arm length	2.95 m		
	kN	kgf	
Bucket digging force* ISO 6015 : 2006	472	48 100	
Arm crowd force* ISO 6015 : 2006	323	40 200	

* At power boost



* Excluding track shoe lug



Excluding track shoe lug

SPECIFICATIONS

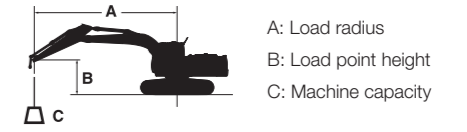
BACKHOE ATTACHMENTS

Bucket	Capacity (m ³)	Width (mm)		No. of teeth	Weight (kg)	Boom 7.10 m BE
	ISO 7451 : 2007 heaped	Without side cutters	With side cutters			Arm 2.95 m BE
Heavy Rock Bucket	4.5	2 110	2 210	5	4 920	○
Rock Bucket	5.0	2 160	2 260	5	4 660	◉
	6.0	2 240	2 260	5	5 380	◉
Applicable shoe type						650 mm double grouser

- Suitable for material with density of 2 000 kg/m³ or less
- ◉ Suitable for material with density of 1 800 kg/m³ or less

MACHINE CAPACITIES

- Notes:
1. Ratings are based on ISO 10567 : 2007.
 2. Machine 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.



For machine capacities, subtract installed attachment and quick hitch weight from machine capacities. To determine lifting capacities, apply "Rating over-side or 360 degrees" machine capacities from the table and deduct weight of installed attachment and quick hitch. Optional feature may affect machine performance.

ZX890LCH-7G

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 7.1 m BE	9.0																
Arm 2.95 m BE	7.5							*21 750	*21 750						*16 660	*16 660	8.9
Counterweight 13 300 kg	6.0					*26 890	*26 890	*23 170	*23 170	*21 180	18 030				*16 390	16 320	9.5
Shoe 650 mm	4.5					*31 010	*31 010	*25 220	23 180	*22 040	17 550				*16 610	14 970	9.9
	3.0					*34 730	30 670	*27 250	22 190	*23 040	17 010				*17 290	14 300	10.1
	1.5					*36 770	29 420	*28 650	21 390	*23 730	16 530				*18 530	14 190	10.0
	0 (Ground)					*36 890	28 790	*29 000	20 870	*23 670	16 210				*20 570	14 650	9.7
	-1.5			*42 330	*42 330	*35 250	28 600	*27 960	20 670	*22 120	16 150				*21 580	15 880	9.1
	-3.0	*41 880	*41 880	*36 690	*36 690	*31 580	27 780	*24 790	20 820						*21 270	18 440	8.2
	-4.5			*30 900	*30 900	*24 390	*24 390								*19 710	*19 710	6.9
	-6.0																

EQUIPMENT

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

ENGINE	ZX890LCH-7G
Alternator 60 A	●
Auto idle system	●
Auto shut-down control	●
Cartridge-type engine oil filter	●
Cartridge-type fuel main filter	●
Cartridge-type fuel pre-filter with water separator	●
ConSite OIL (sensor)*	●
Dry-type air filter with evacuator valve (with air filter restriction indicator)	●
Dust-proof net	●
ECO/PWR/HP mode control	●
Electrical fuel feed pump	●
Engine oil drain coupler	●
Expansion tank	●
Fan guard	●
Isolation-mounted engine	●
Pre-cleaner	○
Radiator, oil cooler and intercooler	●
Reversible fan	○

HYDRAULIC SYSTEM	ZX890LCH-7G
Accessories for breaker	○
Accessories for breaker & crusher	○
Accessories for 2 speed selector	○
Auto power lift	●
Boom mode selector system	●
ConSite OIL (sensor)*	●
Control valve with main relief valve	●
High mesh full flow filter	●
Drain filter	●
Engine speed sensing system	●
Extra port for control valve	●
Hose rupture valve for arm	○
Hose rupture valve for boom	○
Pilot filter	●
Power boost	●
Shockless valve in pilot circuit	●
Suction filter	●
Two extra port for control valve	●
Work mode selector	●

CAB	ZX890LCH-7G
All-weather sound suppressed steel cab	●
Auto control air conditioner	●
Bluetooth® integrated radio	●
Console height adjustment	●
CRES VII (center pillar reinforced structure) cab	●
Drink holder with hot and cool function	●
Electric double horn	●
Engine shut-off switch	●
Evacuation hammer	●
Fire extinguisher bracket	○
Floor mat	●
Footrest	●
Front window washer (1 point)	●
Glove compartment	●
Hands-free calling device	○
Hot and cool box	●
Intermittent windshield wipers	●
Key cylinder light	●
Laminated round glass front window	–
Laminated straight glass front window	●
LED room light	●
Magazine rack	●
OPG front guard Level II (ISO 10262 : 1998) compliant	○
OPG top guard Level II (ISO 10262 : 1998) compliant	●
Pilot shut-off lever	●
Power outlet 12V	○
Power outlet 24V	●
Rain guard (without OPG front guard)	○
Rear tray	●
Retractable seat belt	●
ROPS (ISO 12117-2 : 2008) compliant cab	●
Rubber radio antenna	●
Seat : air suspension seat with heater	○
Seat : mechanical suspension seat	●
Seat adjustment part : backrest, armrest, height and angle, slide forward / back	●
Seat belt reminder	●
Short wrist control levers	●
Smartphone holder	●
Sunscreen roller type (multi-use front or side and rear window)	○
Transparent roof with slide curtain	●
USB power supply	○
Windows on leftside can be opened	●
2 speakers	●
6 fluid-filled elastic mounts	●
8 inch monitor	●

MONITOR SYSTEM	ZX890LCH-7G
Alarms : overheat, engine warning, engine oil pressure, alternator, minimum fuel level, hydraulic filter restriction, air filter restriction, work mode, overload, etc	●
Alarm buzzers : overheat, engine oil pressure, overload, trouble, etc	●
Display of meters : water temperature, hour, fuel rate, clock, etc	●
Other displays : work mode, auto-idle, glow, rear view monitor, operating conditions, etc	●
35 languages selection	●

LIGHTS	ZX890LCH-7G
Additional boom LED light with cover	○
Additional cab roof front 2 LED lights	○
Additional cab roof front 4 LED lights	○
Additional cab roof rear 1 LED light	○
LED lights for camera (side and rear view camera)	○
Rotating lamp	○
1 working LED light	●

UPPER STRUCTURE	ZX890LCH-7G
AERIAL ANGLE (side and rear view camera)	●
Auto-grease lubricator (without bucket and link pins)	●
Batteries	●
Body top handrail	●
Counterweight 9 080 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	●
Right side and rear view camera	●
Sidewalk (cab side)	○
Skid-resistant plates and handrails	●
Swing parking brake	●
Undercover	●
Utility space	●
2 way disconnect switch	●

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

UNDERCARRIAGE	ZX890LCH-7G
Bolt-on sprocket	●
Full track guard	●
Idler	●
Lower rollers (single flange)	●
Lower rollers (double flange)	○
Reinforced idler	–
Reinforced track links with pin seals	●
Shoe : 600 mm double grouser	○
Shoe : 600 mm triple grouser	●
Shoe : 750 mm triple grouser	○
Track undercover	○
Travel direction mark on track frame	●
Travel motor covers	●
Travel parking brake	●
Upper rollers	●
2 track guards (each side) and hydraulic track adjuster	●
4 tie down hooks	●

FRONT ATTACHMENTS	ZX890LCH-7G
Arm 2.5 m BE	●
Boom 7.0 m H	●
Bucket 4.5 m³ Rock (ISO heaped)	○
Bucket 5.0 m³ Rock (ISO heaped)	○
Bucket 6.0 m³ Rock (ISO heaped)	●
Centralized lubrication system	●
Damage prevention plate and square bars	●
Dirt seal on all bucket pins	●
Flanged pin	●
Reinforced welded link A	○
Reinforced link B	○

ATTACHMENTS	ZX890LCH-7G
Accessories for 2 speed selector	○
Breaker and crusher piping	○
Pilot accumulator	●

MISCELLANEOUS	ZX890LCH-7G
ConSite	●
Global e-Service	●
Onboard information controller	●
Standard tool kit	●
Theft prevention system**	○

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

* Engine oil and hydraulic oil monitoring sensor.

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

Before using a machine with a satellite or tele-communication system, please make sure that the satellite or tele-communication system complies with local regulations, safety standards and legal requirements. If not so, please make modifications accordingly.

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 using, please read and understand the Operator's Manual for proper operation.

