HITACHI

ZX690LC-6 | **ZX890LC-6** | ZAXIS-6 series

Reliable solutions



ZX690LC-6

Operating Weight 151,237 lb. (68,600 kg) Net Power (ISO 9249) 462.7 hp (345 kW) @ 1,800 rpm ZX890LC-6

186,511 lb. (84,600 kg) 512 hp (382 kW) @ 1,800 rpm **Hydraulic Excavator**



ENGINEERED FOR ULTIMATE CONTROL

Whether you look at performance, efficiency, or cab comfort, Hitachi Construction Machinery Americas latest range of excavators was designed around enhancing the operator experience and maximizing the fleet owner's bottom line.

We've looked closely at the day-to-day challenges you face as the owner of a successful business and have improved upon the comfort, efficiency and support we offer you over the life of your excavator.

By building the ZAXIS-6 series excavators around your needs, we have given you more control than ever of your fleet on whatever job site you are on.



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6. Safely under control



8. Boost your uptime



10. Performance and fine control



13. More comfort features



14. Durability comes standard



16. Reliability is the backbone of your business



18. Get more from your excavator

CONTROL YOU CAN COUNT ON

The new ZAXIS-6 large-sized excavators with three working modes (ECO, Power, and High Power) puts you firmly in control, to have your machine perform how you need it to, when you need it to. Our excavators are backed by Hitachi Construction Machinery Americas technological expertise and our current 4-year, 4,000-hour STD warranty. We've got this, and you're in control.



Machine representative of global product. Options may not be available in all markets.





Safety is vital to everyone on the job site and for the successful completion of any project. The Hitachi Construction Machinery Americas ZAXIS-6 excavators give you a superior view of your surroundings.

The Aerial Angle® camera system allows an exceptional 270-degree bird's-eye view of the surroundings. Three views of the machine's immediate environment can be selected, allowing the operator to choose the view that best suits the situation.

ZAXIS-6 excavators come standard with an impressive array of LED work lights, lighting up your job site at night like never before.





LED working lights improve visibility in challenging conditions.



Secure operation

Control-lever auto-lock helps prevent unintentional movement of the front, swing, travel, and attachment control functions. When the control-lever auto-lock is engaged, the icon will be illustrated on the monitor and an alarm will sound.

The ROPS cab is pressurized to help protect operators from dust and debris.







Choose among different views to suit your jobsite and situation.

Aerial Angle® Camera comes standard

The Aerial Angle® camera system offers exceptional visibility of the job site. With a push of the screen changeover button, an operator can choose to view a combination of all three cameras, providing a 270-degree view of the excavator; right and rearview camera view; or left, right, and rearview cameras separately depending on what view best fits the work environment and situation.

The excavator surrounding camera view is a composite of the images from the right, left, and rearview cameras, offering a 270-degree birds-eye view of the excavator's immediate environment.



BOOST YOUR UPTIME

Ease of maintenance

The engine cover opens wide to reveal improved access to the engine compartment and components, making maintenance easier.

Conveniently located filters make daily inspections and maintenance easier.

Auto-Idle

Auto-Idle reduces engine speed when the machine is not working for 4 seconds.

Auto-shutdown

Shuts down your excavator if left running between 1 to 30 minutes depending on the setting set within the cab monitor.

Grouped maintenance points with easy access.







PERFORMANCE AND FINE CONTROL





HIOS IIIB: Employs a two pump system to enhance controllability and productivity

The boom and arm are more responsive due to direct oil flow to each actuator

The pumps are controlled electronically for improved efficiency and lower fuel consumption

The SCR system injects urea into exhaust gas (red) to reduce NOx from emissions

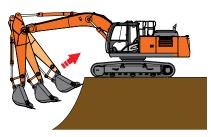


HIOS IIIB

The HIOS IIIB hydraulic system consists of two pumps and two control valves to reduce fuel consumption while enhancing controllability, productivity, and efficiency. (HIOS—Human & Intelligent Operation System)

The HIOS IIIB system increases the operational speed of the four following excavator operations:

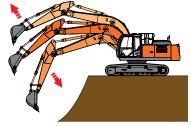
- 1. Bucket Roll-out
- 2. Arm Roll-out
- 3. Boom Lowering
- 4. House Swing



The operational speed is increased by increasing the pump flow as well as reducing pressure loss of the hydraulic circuit.

Boost Efficiency

Shortened time to complete the swing plus boom raise operation by increased pump flow and improved swing torque.



H/P (High Power) mode

H/P mode increases engine speed and pump output torque



when additional speed and power are needed during operation.

Power boost

Power boost enhances digging force up to 10%, improving excavating and lifting performance.



MORE COMFORT FEATURES

Enhanced comfort controls are at your fingertips in the refined cab of ZAXIS-6 excavators, giving you the power to perform with ease.

User-friendly monitor

A large 7-inch LCD monitor allows the operator to check machine status at a glance in up to 32 languages.

Improved visibility

The optional front guard has been redesigned and improved, providing the operator with an even better view of the job site.

A comfortable seat

A fully adjustable seat, spacious cab, ergonomic controls, and advanced music system all contribute to the ultimate working environment. The addition of an adjustable sun visor reduces glare on those days when the sun is low in the sky.

Advanced audio system

The AM/FM radio is readily accessible from the monitor, and an auxiliary socket for devices such as MP3 players is linked to the sound system. This choice of entertainment helps to provide an enjoyable and productive working environment.

Ease of use

A USB port in the cab enables operators to charge smartphones and tablets while they work for added convenience.

Cool, quiet cab

Features have been added to the cab to make it quieter and to reduce dust ingress.





Comfortable cab space. ROPS certified CRESV cab.

- **Air conditioning and audio** are easily controlled via the monitor.
- **2 Low-reflective color 7" LCD monitor** is easy to view and navigate.
- **3 USB power supply and smartphone holder** helps you stay connected.
- (4) Drink holder is easy to detach for cleaning.
- (5) Additional joystick controls for effortless operation.
- (6) Ergonomic design gives you convenient access to controls.

- Multifunctional control panel makes operation easier.
- 8 Improved sound isolation makes this one of the quietest cabs on the market.
- User-friendly storage space keeps your workspace tidy and clutter-free.
- 10 Coat hooks take care of your personal belongings.
- (11) Optimal pedal layout helps to reduce fatigue.

DURABILITY COMES STANDARD



Enhanced fuel circuit

A high-performance water separator and cold fuel resistance valve are integrated into the pre-filter for added protection against moisture. In addition, a large-capacity electric fuel pump supplies an appropriate amount of fuel to the engine for improved performance.

Save fuel

Hydraulic loss is decreased by HIOS IIIB technology. It reduces the hydraulic oil returned to the tank due to the cooperative control of the pump and valve. This helps to lower fuel consumption by 5% in ECO mode with the same productivity.

Engine protection

The combustion chamber is made from stronger materials, and the revised shape of the piston is designed to achieve cleaner emissions. These features will further enhance the reliability of the engine.



Reinforced Undercarriage

New shape of the lower roller

The lower roller has been redesigned to further help prevent mud ingress.

- Long-term durability
- Three track guards come standard for a more durable undercarriage.

Integrated Idler and Adjuster

The front idler and adjuster cylinder have been integrated in the new ZAXIS-6, improving their durability.

Due to this integration, the bracket that had supported the adjuster cylinder is no longer required, resulting in less mud buildup.

Reinforced idler bracket with slanted side frame

The side frame of the idler bracket is slanted on both sides, which enlarges the cross-sectional area of the external surface of the idler bracket.

The design of the idler bracket has been improved to make it easier to remove mud.



Reinforced undercarriage and increased crossbeam size and strength increase durability.

RELIABILITY IS THE BACKBONE OF YOUR BUSINESS

Easy maintenance

The engine cover can be conveniently opened fully from the platform. This provides easy access to the engine compartment and other components for routine maintenance.

• Dust screen prevents plugging, providing increased reliability.



Quickly and easily select between multiple application modes.

Greater flexibility

Thumb mode is included on the ZX690LC-6 and ZX8690LC-6. This and 10 other modes can be registered on the monitor for easy fitting of attachments to increase versatility.

Long-lasting visibility

Eight standard LED lights enhance visibility for the operator, particularly at night. LED lights use less power, output more light, and last longer than halogen lights.

Reversing Fan

A standard reversing fan reduces debris buildup and increases uptime.







GET MORE FROM YOUR EXCAVATOR

Lower emissions

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

Engine aftertreatment device

Consisting of a DOC, a urea water mixing pipe, a SCR catalyst, and a silencer.

Urea SCR system without DPF reduces NOx

Tier 4 Final is currently achieved by using a combination of urea SCR (Selective Catalytic Reduction) and DOC (Diesel Oxidation Catalyst). The DOC is basically maintenance-free. The amount of urea water is roughly 2% to 3% of the total fuel amount. Easy maintenance without a DPF.



Checking DEF fluid level through Multi-function monitor.



Easy-access DEF tank

Reliable Isuzu engine

Isuzu engines provide the reliability of 5+ years on-site experience in the North American market.

ConSite OIL

ConSite OIL monitors the oil condition to help ease your mind so that you can focus on the work at hand.

• The oil-monitoring sensor attached to the engine and hydraulic equipment monitors the oil status of each operating machine.

Remote monitoring

Global e-Service allows for remote monitoring of your fleet, providing useful excavator data to enhance productivity and minimize downtime. Improve performance and maximize the efficiency of your excavator using the Global e-Service online management tool available 24/7 online.





ZX690LC-6 SPECIFICATIONS

ENGINE

Model Isuzu 6WG1

Aspiration cooled EGR

Aftertreatment DOC and SCR system

No. of cylinders 6

Rated power

ISO 14396: 2002 Gross 463 hp (345 kW) at 1,800 rpm ISO 9249: 2007 Net..... 463 hp (345 kW) at 1,800 rpm SAE J1349, net: 2011 1,460 lbf-ft (1,500 Nm) at 1,500 rpm

Maximum torque 957 cu in (15.68 L)

Piston displacement 5.8" x 6.1" (147 mm x 154 mm)

HYDRAULIC SYSTEM

Hydraulic Pumps

Main pumps 2 variable displacement axial piston pumps

Maximum oil flow 2 x 129 gal/m (2 x 489 L/min)

Pilot pump 1 gear pump

Maximum oil flow 13.2 gal/m (50 L/min)

Hydraulic Motors

Swing 2 axial piston motor

Relief Valve Settings

Implement circuit	4,627 psi (31.9MPa)
Swing circuit	4,264 psi (29.4MPa)
Travel circuit	4,975 psi (34.3MPa)
Pilot circuit	566 psi (3.9MPa)
Power boost	4,975 psi (34.3MPa)

Hydraulic Cylinders

U	mit:	III	(mm

	Quantity	Bore	Rod diameter
Boom	2	7.5" (190)	5.1" (130)
Arm	1	7.9" (200)	5.5" (140)
Bucket	1	7.1" (180)	5.1" (130)

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 rpm

Swing torque 143,087 lbf-ft (194 kNm)

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	8
Track shoes	47
Track guards	2

Travel Device

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

Travel speeds High: 0 to 3.2 mph (0 to 5.2 km/h)

Low: 0 to 2.2 mph (0 to 3.6 km/h)

Maximum traction

force 103,412 lbf (460 kN)

ENVIRONMENT

Engine Emissions EPA Final Tier 4/EU Stage IV

SOUND LEVEL

Sound level in cab according

to ISO 6396: 2008 LpA 74 dB(A)

External sound level according

to ISO 6395: 2008 and

EU Directive 2000/14/EC LwA 108 dB(A)

SERVICE REFILL CAPACITIES

Unit: gal (L)

Fuel tank	238 (900)
Engine coolant	20.1 (76)
Engine oil	15.1 (57)
Swing device	2.8 (10.5)
Travel device (each side)	4.2 (16)
Hydraulic system	198 (750)
Hydraulic oil tank	100 (380)
DEF/AdBlue® tank	25.1 (95)

WEIGHTS AND GROUND PRESSURE

Operating Weight and Ground Pressure

Bucket	Boom	Arm	Shoe grouser	Shoe width	Operating weight	Ground pressure
Capacity	type	type	type	in (mm)	lb (kg)	psi (kPa)
3.27 yd³ (2.5 m³) (ISO heaped)	25' 7" H (7.8 m H)	13' 9" Semi-long (4.2 m Semi-long)	Double	36" (900)	151,237 (68,600)	10.7 (74)

BUCKET AND ARM DIGGING FORCE

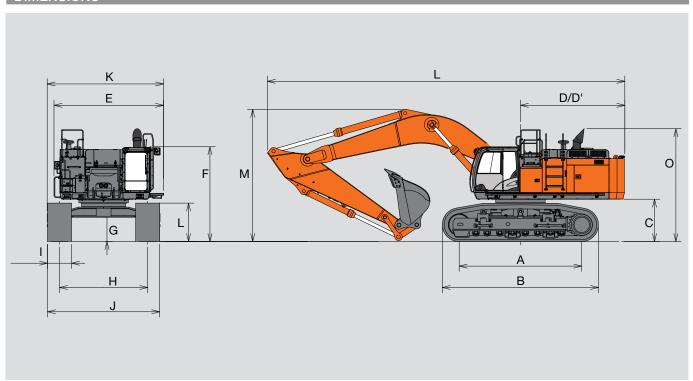
Unit: lbf (kN)

Arm length	13' 9" (4.2 m)
Arm crowd force* ISO 6015: 2006	51,931 (231)
Bucket digging force* ISO 6015: 2006	72,838 (324)

^{*} At power boost

ZX690LC-6 SPECIFICATIONS

DIMENSIONS

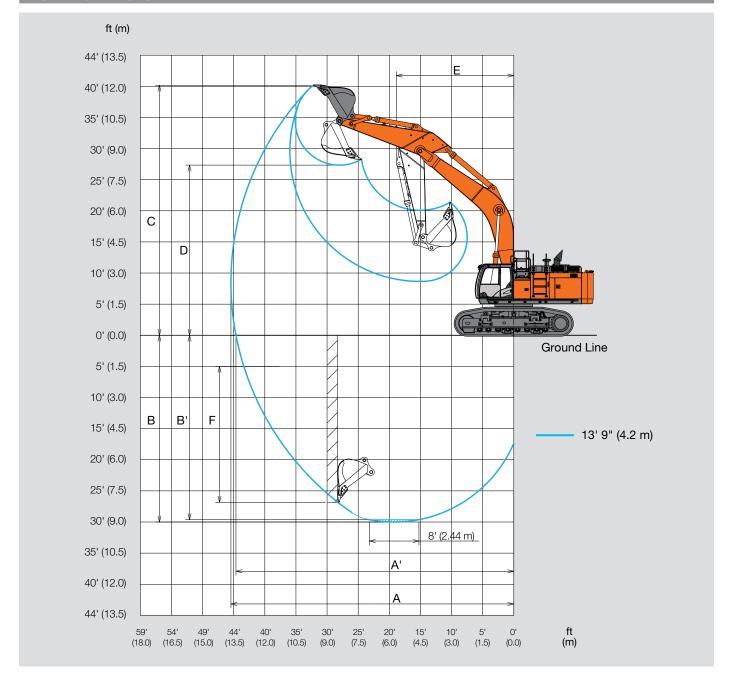


Unit: ft-in (mm)

		ZX690LC-6
Α	Distance between tumblers	15' 1" (4,590)
В	Undercarriage length	19' 2" (5,840)
*C	Counterweight clearance	4' 6" (1,530)
D	Rear-end swing radius	13'2" (4,020)
D'	Rear-end length	12'10" (3,910)
Е	Overall width of upperstructure	13' 5" (4,090)
F	Overall height of cab	11' 8" (3,560)
*G	Min. ground clearance	2' 10" (860)
Н	Track gauge; Extended/Retracted	10' 10" (3,300)/9' 3" (2,830)
- 1	Track shoe width	36" (900)
J	Undercarriage width; Extended/Retracted	13' 9" (4,200)/12' 3" (3,730)
K	Overall width	14' 4" (4,360)
*L	Overall length	43' 11" (13,400)
М	Overall height of boom	16' 4" (4,980)
Ν	Track height	4'9" (1,440)
0	Overall height of base machine	13' 10" (4,230)

^{*} Excluding track shoe lug

WORKING RANGES



Unit: ft-in (mm)

	ZX690LC-6
Arm length	13' 9" (4.2 m)
A Max. digging reach	45'5" (13,850)
A' Max. digging reach (on ground)	44' 8" (13,610)
B Max. digging depth	30' (9,150)
B' Max. digging depth for 8' (2.44 m) level	29' 8" (9,030)
C Max. cutting height	40' 2" (12,240)
D Max. dumping height	27' 4" (8,330)
E Min. swing radius	18'11" (5,760)
F Max. vertical wall digging depth	26' 10" (8,180)

ZX690LC-6 MACHINE CAPACITIES

Boldface type indicates hydraulically limited capacity; lightface type indicates stability limited capacities, in lb (kg). All machine capacities are based on ISO 10567 (with power boost). Ratings at bucket lift hook; Machine equipped with standard counterweight and standard gauge; and situated on firm, uniform supporting surface. Total load includes weight of cables, hook, etc. Figures do not exceed 87 percent of hydraulic capacities or 75 percent of weight needed to tip machine.

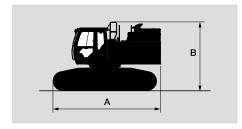


ZX690LC-6

Rating over-front Rating over-side or 360 degrees Unit: lb (kg)

Load radius													
Conditions	Load point height	10' (3.0 m)		15' (4.5 m)		20' (6.0 m)		25' (7.5 m)		30' (9.0 m)		35' (10.5 m)	
Gorialia	ft (m)	ů	₽	ů	₽	ů	₽	ů	₽	ů	₽	ů	₽
	25' (7.5 m)									23,790 (10,790)	23,790 (10,790)		
	20' (6.0 m)									25,460 (11,540)	25,460 (11,540)	20,250 (9,185)	19,630 (8,904
300m 25'7" H 7.8 m)	15' (4.5 m)			54,750 (24,830)	54,750 (24,830)	39,600 (17,960)	39,600 (17,960)	32,080 (14,550)	32,080 (14,550)	27,710 (12,560)	25,530 (11,580)	25,020 (11,340)	19,200 (8,700
Arm 13' 9" 4.2 m)	10' (3.0 m)					46,870 (21,250)	46,870 (21,250)	36,260 (16,440)	33,010 (14,970)	30,190 (13,690)	24,420 (11,070)	26,400 (11,970)	18,580 (8,420
Bucket 4,740 lb	5' (1.5 m)					52,390 (23,760)	44,360 (20,120)	39,820 (18,060)	31,380 (14,230)	32,420 (14,700)	23,410 (10,610)	26,480 (12,010)	17,980 (8,150
2,150 kg) Counterweight	0 (Ground)			32,800 (14,870)	32,800 (14,870)	55,260 (25,060)	42,760 (19,390)	42,130 (19,100)	30,210 (13,700)	33,370 (15,130)	22,630 (10,260)	25,980 (11,780)	17,510 (7,940
21.605 lb 9,800 kg)	5' (1.5 m)	24,430 (11,080)	24,430 (11,080)	45,600 (20,680)	45,600 (20,680)	55,570 (25,200)	42,030 (19,060)	42,840 (19,430)	29,550 (13,400)	32,870 (14,900)	22,160 (10,050)	25,740 (11,670)	17,290 (7,840
Double grouser shoes	10' (3.0 m)	40,170 (18,220)	40,170 (18,220)	63,880 (28,970)	63,880 (28,970)	53,470 (24,250)	41,960 (19,030)	41,640 (18,880)	29,380 (13,320)	32,780 (14,860)	22,070 (10,010)		
36" (900 mm)	15' (4.5 m)	59,140 (26,820)	59,140 (26,820)	63,390 (28,750)	63,390 (28,750)	48,600 (22,040)	42,460 (19,250)	37,850 (17,160)	29,720 (13,480)	28,680 (13,000)	22,520 (10,210)		
	20' (6.0 m)			51,240 (23,240)	51,240 (23,240)	39,460 (17,890)	39,460 (17,890)	28,970 (13,140)	28,970 (13,140)				

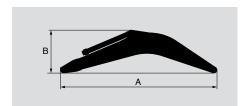
TRANSPORTATION



BASIC MACHINE (WITHOUT COUNTERWEIGHT)

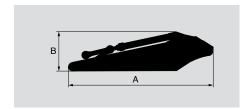
Shoe width in (mm)	A ft-in (mm)	B ft-in (mm)	Overall width* ft-in (mm)	Weight Ib (kg)
36"	21' 11"	13' 11"	12'3"	97,003
(900 mm)	(6,700)	(4,230)	(3,730)	(44,000)

^{*}Undercarriage retracted, without additional step



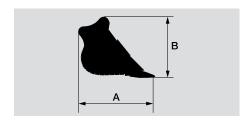
BOOM

Boom	A ft-in	B	C	Weight
	(mm)	ft-in (mm)	ft-in (mm)	Ib (kg)
25'7" H	26' 8"	7' 8"	4' 7"	14,462
(7.8m H)	(8,130)	(2,330)	(1,390)	(6,560)



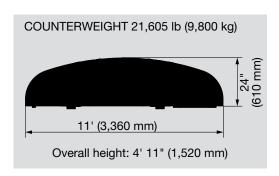
ARM

Arm	A	B	C	Weight
	ft-in (mm)	ft-in (mm)	ft-in (mm)	Ib (kg)
13' 9" Semi-long (4.2 m Semi-long)	18' 9" (5,710)	4' 7" (1,390)	2' 7" (790)	8,664 (3,930)

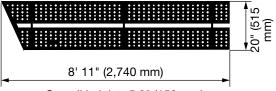


BUCKET

Bucket	Capacity yd³ (m³) ISO heaped	A ft-in (mm)	B ft-in (mm)	Overall width ft-in (mm)	Weight Ib (kg)
General purpose	3.27 (2.5)	7' 3" (2,220)	5' 11" (1,810)	5' 4" (1,620)	4,740 (2,150)



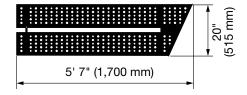
LEFT FRONT SIDEWALK 121 lb (55 kg)



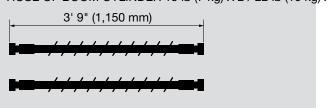
Overall height: 5.9" (150 mm)

BOOM CYLINDERS 1,212 lb (550 kg) X 2 9' 3" (2,830 mm) EL OG

LEFT REAR SIDEWALK 66 lb (30 kg)



HOSE OF BOOM CYLINDER 15 lb (7 kg) X 2 / 22 lb (10 kg) X 2



ZX690LC-6 EQUIPMENT

ENGINE	ZX690LC-6
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	•
ConSite OIL (Sensor)*	•
DEF/AdBlue® tank inlet strainer and extension filler	•
DEF/AdBlue® tank	•
Dry-type air filter with evacuator valve (with air filter restriction indicator)	•
Dust-proof net	•
ECO/PWR/HP mode control	•
Engine oil drain coupler	•
Electrical fuel feed pump	•
Expansion tank	•
Fan guard	•
Fuel cooler	•
Fuel pre-filter	•
Isolation-mounted engine	•
Radiator, oil cooler and intercooler	•
Water separator	•

HYDRAULIC SYSTEM	ZX690LC-6
Auto power lift	•
Boom mode selector system	•
ConSite OIL (Sensor)*	•
Control valve with main relief valve	•
Drain filter	•
Engine speed sensing system	•
Extra port for control valve	•
Full flow filter	•
Pilot filter	•
Power boost	•
Quick warm-up system for pilot circuit	•
Shockless valve in pilot circuit	•
Suction filter	•
Work mode selector	•

^{*} Engine oil and hydraulic oil monitoring sensor.

CAB ZX690LC-6
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 •
Floor mat
Footrest
Front window washer •
Glove compartment
Hot and cool box
Intermittent windshield wipers
Key cylinder light
Laminated round glass front window
LED room light with door courtesy
Lever auto locking function
Motion alarm with cancel switch (conforms to SAE J994: 2014)
OPG top guard Level I (ISO 10262: 1998) compliant cab
Pilot control shut-off lever
Power outlet 12 V
Rain guard •
Rear tray •
Retractable seat belt 3 in.
ROPS (ISO 12117-2: 2008) compliant cab
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 (multi-use front or side and rear window)
Transparent roof with slide curtain
USB power supply
2 speakers •
6 fluid-filled elastic mounts

•: Standard equipment O: Optional equipment

MONITOR SYSTEM	ZX690LC-6
Alarms: overheat, engine warning, engine oil pressure, alternator, minimum fuel level, hydraulic filter restriction, air filter restriction, work mode, SCR system trouble, etc.	•
Alarm buzzers: overheat, engine oil pressure, 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-language selection	•

ZX690LC-6
•
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•

UPPERSTRUCTURE	ZX690LC-6
AERIAL ANGLE® (270-degree view camera system)	•
Batteries 2 x 170 Ah	•
Battery disconnect switch	•
Body top handrail	•
Counterweight 21,605 lb (9,800 kg)	•
Counterweight removal system	•
Electric fuel refilling pump with auto stop and filter	•
Fuel level float	•
Hydraulic oil level gauge	•
Ladder	•
Lockable fuel refilling cap	•
Lockable machine covers	•
Lockable tool box	•
Platform handrail	•
Rear view mirror (right and left)	•
Sidewalk (cab side)	•
Skid-resistant plates and handrails	•
Swing parking brake	•
Undercover	•
Utility space	•

•: Standard equipment O: Optional equipment

ATTACHMENTS	ZX690LC-6
ConSite	0
Global e-Service	•
Onboard information controller	•
Standard tool kit	•

UNDERCARRIAGE	ZX690LC-6
Bolt-on sprocket	•
Reinforced track links with pin seals	•
Shoe: 36" (900 mm) triple grouser	•
Travel direction mark on track frame	•
Travel motor covers	•
Travel parking brake	•
Upper and lower rollers	•
2 track guard (each side) and hydraulic track adjuster	•
4 tie-down brackets	•

FRONT ATTACHMENTS	ZX690LC-6
Arm 13' 9" Semi-long (4.2m Semi-long)	•
Boom 25'7" H (7.8m H)	•
Casted bucket link A	•
Centralized lubrication system	•
Dirt seal on all bucket pins	•
Flanged pin	•

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

Net engine power is with standard equipment including air cleaner, exhaust system, alternator and cooling fan, at test conditions specified per ISO 9249 :2007. No derating is required up to 6,600 ft. (2,000m) altitude.

ZX890LC-6 SPECIFICATIONS

ENGINE Isuzu 6WG1 Model 4-cycle water-cooled, common rail direct injection Type Variable geometry turbocharged, intercooled, Aspiration cooled FGR Aftertreatment DOC and SCR system No. of cylinders Rated power ISO 14396: 2002 Gross 512 hp (382 kW) at 1,800 rpm ISO 9249: 2007 Net..... 512 hp (382 kW) at 1,800 rpm Maximum torque 1,622 lbf-ft (2,220 Nm) at 1,450 rpm Piston displacement 957 cu in (15.68 L) Bore and stroke 5.8" x 6.1" (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 147 gal/m (2 x 556 L/min)

Pilot pump 1 gear pump

Maximum oil flow 13.2 gal/m (50 L/min)

Hydraulic Motors

Swing 2 axial piston motor

Relief Valve Settings

 Implement circuit
 4,627 psi (31.9 MPa)

 Swing circuit
 4,119 psi (28.4 MPa)

 Travel circuit
 4,975 psi (34.3 MPa)

 Pilot circuit
 566 psi (3.9 MPa)

 Power boost
 4,975 psi (34.3 MPa)

Hydraulic Cylinders

	Quantity	Bore	Rod diameter
Boom	2	8.5" (215)	5.9" (150)
Arm	1	8.9" (225)	6.3" (160)
Bucket	1	7.9" (200)	5.5" (140)

UPPERSTRUCTURE

Revolving Frame

D-section frame for resistance to deformation.

Swing Device

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

Swing speed 7.8 rpm

Swing torque 196,929 lbf-ft (267 kNm)

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	51
Track guards	2

Travel Device

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

Travel speeds	High: 0 to 2.9 mph (0 to 4.7 km/h)
	Low: 0 to 2.0 mph (0 to 3.2 km/h)
Maximum traction	
force	125,893 lbf (560 kN)
Gradeability	70% (35 degree) continuous

ENVIRONMENT

Engine Emissions EPA Final Tier 4/EU Stage IV

SOUND LEVEL

Unit: in (mm)

Sound level in cab according

to ISO 6396: 2008 LpA 75 dB(A)

External sound level according

to ISO 6395: 2008 and

EU Directive 2000/14/EC LwA 108 dB(A)

SERVICE REFILL CAPACITIES

Unit: gal (L)

Fuel tank	293 (1,110)
Engine coolant	32.8 (124)
Engine oil	15.1 (57)
Swing device	4.1 (15.7)
Travel device (each side)	5 (19)
Hydraulic system	275 (1,042)
Hydraulic oil tank	132 (500)
DEF/AdBlue® tank	25.1 (95)

WEIGHTS AND GROUND PRESSURE

Operating Weight and Ground Pressure

Bucket	Boom	Arm	Shoe grouser	Shoe width	Operating weight	Ground pressure
Capacity	type	type	type	in (mm)	lb (kg)	psi (kPa)
3.79 yd³ (2.9 m³) (ISO heaped)	27' 7" H (8.4 m H)	14' 5" Semi-long (4.4 m Semi-long)	Double	36" (900)	186,511 (84,600)	12 (83)

BUCKET AND ARM DIGGING FORCE

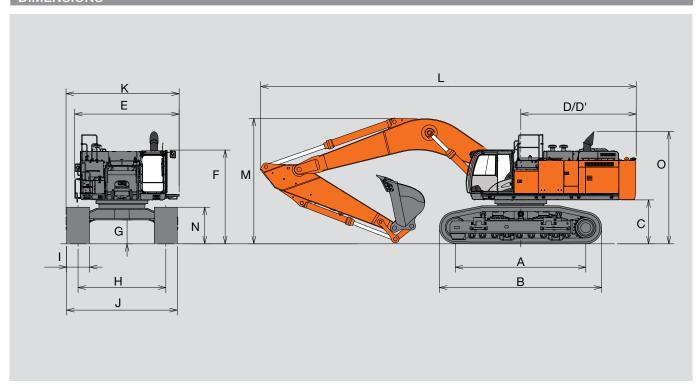
Unit: lbf (kN)

Arm length	14' 5" (4.4 m)
Arm crowd force* ISO 6015: 2006	62,946 (280)
Bucket digging force* ISO 6015: 2006	89,699 (399)

^{*} At power boost

ZX890LC-6 SPECIFICATIONS

DIMENSIONS

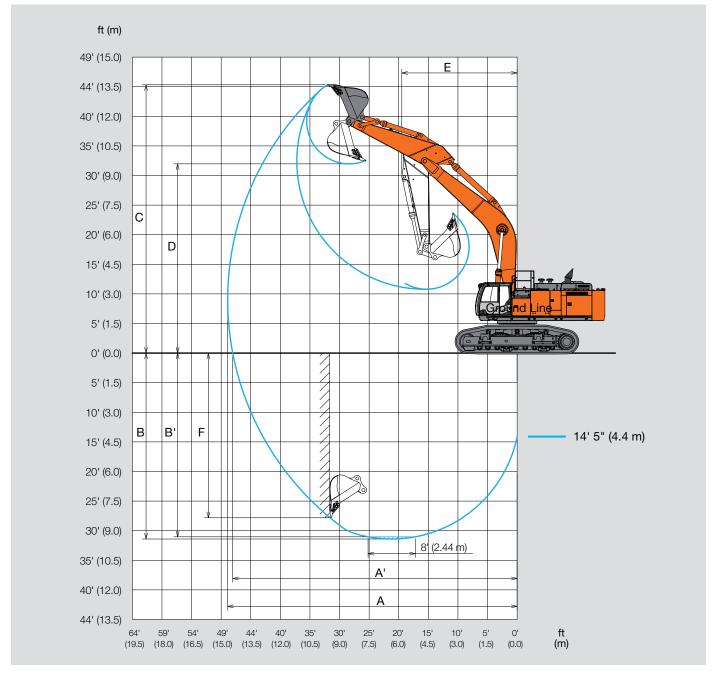


Unit: ft-in (mm)

		ZX890LC-6
Α	Distance between tumblers	16' 9" (5,110)
В	Undercarriage length	20' 10" (6,360)
*C	Counterweight clearance	5' 6" (1,680)
D	Rear-end swing radius	15'1" (4,600)
D'	Rear-end length	14'11" (4,540)
Е	Overall width of upperstructure	13' 6" (4,120)
F	Overall height of cab	12' 1" (3,690)
*G	Min. ground clearance	2' 11" (890)
Н	Track gauge; Exrtended/Retracted	11' 4" (3,450) / 9' 3" (2,830)
- 1	Track shoe width	36" (900)
J	Undercarriage width; Exrtended/Retracted	14' 3" (4,350) / 12' 3" (3,730)
K	Overall width	14' 7" (4,450)
*L	Overall length	48' 7" (14,800)
М	Overall height of boom	16' 10" (5,130)
Ν	Track height	4'11" (1,500)
0	Overall height of base machine	14' 6" (4,410)

^{*} Excluding track shoe lug

WORKING RANGES



Unit: ft-in (mm)

	ZX890LC-6
Arm length	14' 5" (4.4 m)
A Max. digging reach	48'11" (14,910)
A' Max. digging reach (on ground)	48' (14,640)
B Max. digging depth	31' 5" (9,570)
B' Max. digging depth for 8' (2.44 m) level	31' (9,460)
C Max. cutting height	45' 4" (13,820)
D Max. dumping height	31' 11" (9,740)
E Min. swing radius	19' 6" (5,950)
F Max. vertical wall digging depth	27' 10" (8,480)

ZX890LC-6 MACHINE CAPACITIES

Boldface type indicates hydraulically limited capacity; lightface type indicates stability limited capacities, in lb (kg). All machine capacities are based on ISO 10567 (with power boost). Ratings at bucket lift hook; Machine equipped with standard counterweight and standard gauge; and situated on firm, uniform supporting surface. Total load includes weight of cables, hook, etc. Figures do not exceed 87 percent of hydraulic capacities or 75 percent of weight needed to tip machine.

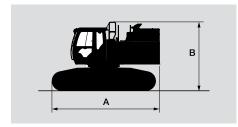


ZX890LC-6

Rating over-front Rating over-side or 360 degrees Unit: lb (kg)

ZX030LO-0							U	rialing over	-IIOIIL —	halling over	1-Side 01 30	o degrees	Office to (Ng)	'	
	Load point		Load radius												
Conditions	height	10' (3	3.0 m)	15' (4	1.5 m)	20' (6	3.0 m)	25' (7	7.5 m)	30' (9	9.0 m)	35' (1	0.5 m)	40' (1	2.0 m)
	ft (m)	ů	₽	ů	₽	ů	₽	ů	₽	ů	₽	ů	₽	ů	₽
	30' (9.0 m)									27,690 (12,550)	27,690 (12,550)	19,450 (8,820)	19,450 (8,820)		
	25' (7.5 m)									29,450 (13,350)	29,450 (13,350)	24,640 (11,170)	24,640 (11,170)		
Boom 27' 7" H (8.4 m)	20' (6.0 m)							36,620 (16,610)	36,620 (16,610)	32,180 (14,590)	32,180 (14,590)	29,370 (13,320)	27,440 (12,440)	16,450 (7,460)	16,450 (7,460)
Arm 14' 5"	15' (4.5 m)					54,120 (24,540)	54,120 (24,540)	42,250 (19,160)	42,250 (19,160)	35,520 (16,110)	34,820 (15,790)	31,320 (14,200)	26,550 (12,040)	23,410 (10,610)	20,450 (9,270)
(4.4 m) Bucket 5,952 lb	10' (3.0 m)					63,590 (28,840)	62,000 (28,120)	47,810 (21,680)	44,520 (20,190)	38,940 (17,660)	33,230 (15,070)	33,400 (15,140)	25,580 (11,600)	27,730 (12,570)	19,980 (9,060)
(2,700 kg)	5' (1.5 m)					69,870 (31,690)	59,690 (27,070)	52,240 (23,690)	42,400 (19,230)	41,870 (18,990)	31,860 (14,450)	35,220 (15,970)	24,700 (11,200)	29,650 (13,440)	19,500 (8,840)
Counterweight 27,337 lb	0 (Ground)					68,030 (30,850)	58,010 (26,310)	54,870 (24,880)	40,980 (18,580)	43,820 (19,870)	30,830 (13,980)	36,390 (16,500)	24,020 (10,890)	26,770 (12,140)	19,140 (8,680)
(12,400 kg) Double grouser	-5' (1.5 m)			37,550 (17,030)	37,550 (17,030)	72,030 (32,670)	57,370 (26,020)	55,510 (25,170)	40,230 (18,240)	44,410 (20,140)	30,230 (13,710)	36,500 (16,550)	23,640 (10,720)		
shoes 36" (900 mm)	-10' (3. 0 m)	37,410 (16,960)	37,410 (16,960)	57,060 (25,880)	57,060 (25,880)	69,030 (31,310)	57,450 (26,050)	54,000 (24,490)	40,060 (18,170)	43,250 (19,610)	30,070 (13,630)	34,820 (15,790)	23,640 (10,720)		
	-15' (4.5 m)	57,580 (26,110)	57,580 (26,110)	81,680 (37,040)	81,680 (37,040)	63,220 (28,670)	58,120 (26,360)	49,890 (22,620)	40,450 (18,340)	39,500 (17,910)	30,430 (13,800)				
	-20' (6.0 m)			68,100 (30,880)	68,100 (30,880)	53,450 (24,240)	53,450 (24,240)	41,730 (18,920)	41,520 (18,830)						

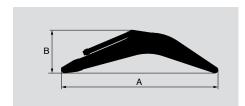
TRANSPORTATION



BASIC MACHINE (WITHOUT COUNTERWEIGHT)

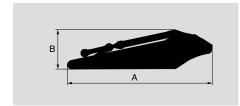
Shoe width in (mm)	A	B	Overall width*	Weight	
	ft-in (mm)	ft-in (mm)	ft-in (mm)	Ib (kg)	
36"	24' 8"	14' 6"	12'3"	121,254	
(900 mm)	(7,530)	(4,410)	(3,730)	(55,000)	

^{*}Undercarriage retracted, without additional step



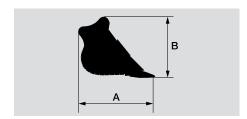
BOOM

Boom	A ft-in	B	C	Weight	
	(mm)	ft-in (mm)	ft-in (mm)	Ib (kg)	
27' 7" H	28' 9"	8' 3"	4' 9"	18,100	
(8.4 m H)	(8,760)	(2,510)	(1,440)	(8,210)	



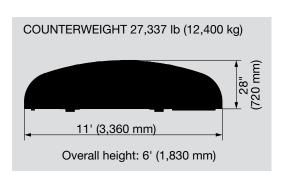
ARM

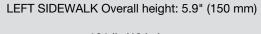
Arm	A	B	C	Weight	
	ft-in (mm)	ft-in (mm)	ft-in (mm)	Ib (kg)	
14' 5" Semi-long	19' 3"	4' 7"	2' 8"	10,229	
(4.4 m Semi-long)	(5,870)	(1,400)	(810)	(4,630)	

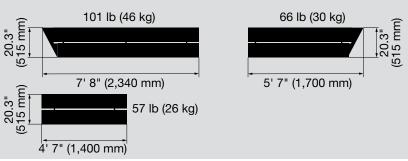


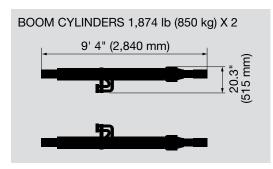
BUCKET

Bucket	Capacity yd³ (m³) ISO heaped	A ft-in (mm)	B ft-in (mm)	Overall width ft-in (mm)	Weight lb (kg)
General	3.79	7' 3"	6' 3"	5' 10"	5,952
purpose	(2.9)	(2,210)	(1,910)	(1,780)	(2,700)

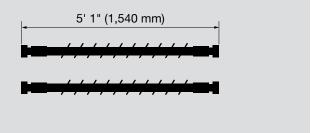








HOSE OF BOOM CYLINDER 20 lb (9 kg) X 2 / 29 lb (13 kg) X 2



ZX890LC-6 EQUIPMENT

ENGINE	ZX890LC-6
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	•
ConSite OIL (Sensor)*	•
DEF/AdBlue® tank inlet strainer and extension filler	•
DEF/AdBlue® tank	•
Dry-type air filter with evacuator valve (with air filter restriction indicator)	•
Dust-proof net	•
ECO/PWR/HP mode control	•
Engine oil drain coupler	•
Electrical fuel feed pump	•
Expansion tank	•
Fan guard	•
Fuel cooler	•
Fuel pre-filter	•
Isolation-mounted engine	•
Radiator, oil cooler and intercooler	•
Water separator	•

HYDRAULIC SYSTEM	ZX890LC-6
Auto power lift	•
Boom mode selector system	•
ConSite OIL (Sensor)*	•
Control valve with main relief valve	•
Drain filter	•
Engine speed sensing system	•
Extra port for control valve	•
Full flow filter	•
Pilot filter	•
Power boost	•
Quick warm-up system for pilot circuit	•
Shockless valve in pilot circuit	•
Suction filter	•
Work mode selector	•

^{*} Engine oil and hydraulic oil monitoring sensor.

CAB	ZX890LC-6
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	•
Floor mat	•
Footrest	•
Front window washer	•
Glove compartment	•
Hot and cool box	•
Intermittent windshield wipers	•
Key cylinder light	•
Laminated round glass front window	•
LED room light with door courtesy	•
Lever auto locking function	•
Motion alarm with cancel switch (conforms to SAE J994: 2014)	•
OPG top guard Level I (ISO 10262: 1998) compliant cab	•
Pilot control shut-off lever	•
Power outlet 12 V	•
Rain guard	•
Rear tray	•
Retractable seat belt 3 in.	•
ROPS (ISO 12117-2: 2008) compliant cab	•
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 (multi-use front or side and rear window)	•
Transparent roof with slide curtain	•
USB power supply	•
2 speakers	•
6 fluid-filled elastic mounts	•

•: Standard equipment O: Optional equipment

MONITOR SYSTEM	ZX890LC-6
Alarms: overheat, engine warning, engine oil pressure, alternator, minimum fuel level, hydraulic filter restriction, air filter restriction, work mode, SCR system trouble, etc.	•
Alarm buzzers: overheat, engine oil pressure, 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-language selection	•

LIGHTS	ZX890LC-6
Additional boom LED light with cover	•
Additional cab roof front LED lights	•
LED lights for camera (side and rearview camera)	•
2 working LED lights	•

AERIAL ANGLE® (270-degree view camera system) Batteries 2 x 170 Ah Battery disconnect switch Body top handrail Counterweight 27,337 lb (12,400 kg) Counterweight removal system Electric fuel refilling pump with auto stop and filter Fuel level float
Battery disconnect switch Body top handrail Counterweight 27,337 lb (12,400 kg) Counterweight removal system Electric fuel refilling pump with auto stop and filter
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Counterweight 27,337 lb (12,400 kg) Counterweight removal system Electric fuel refilling pump with auto stop and filter
Counterweight removal system Electric fuel refilling pump with auto stop and filter
Electric fuel refilling pump with auto stop and filter
and filter
Fuel level float
Hydraulic oil level gauge
Ladder
Lockable fuel refilling cap
Lockable machine covers •
Lockable tool box
Platform handrail •
Rear view mirror (right and left)
Sidewalk (cab side)
Skid-resistant plates and handrails
Swing parking brake
Undercover
Utility space •

•: Standard equipment O: Optional equipment

UNDERCARRIAGE	ZX890LC-6	ATTACHMENTS
Bolt-on sprocket	•	ConSite
Reinforced track links with pin seals	•	Global e-Service
Shoe: 36" (900mm) double grouser	•	Onboard information controller
Travel direction mark on track frame	•	Standard tool kit
Travel motor covers	•	
Travel parking brake	•	
Upper and lower rollers	•	

FRONT ATTACHMENTS	ZX890LC-6
Arm 14' 5" Semi-long (4.4 m Semi-long)	•
Boom 27' 7" H (8.4 m H)	•
Casted bucket link A	•
Centralized lubrication system	•
Dirt seal on all bucket pins	•
Flanged pin	•

2 track guard (each side) and hydraulic track adjuster 4 tie down brackets

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

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Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with SAE standards. Except where otherwise noted, these specifications are based on units with 14' 5" (4.4 m) Arms; 60" (1,590 mm), 5,952 lb (2,700 kg) buckets; 27,337 lb (12,400kg) counterweights; full fuel tanks; 165 lb (75 kg) operators; and a ZX890LC-6 unit with 36" (900 mm) double grouser shoes.

HITACHI



With manufacturing facilities in Banshu, Ryugasaki, Tierra, Hitachinaka, and Tsuchiura, Japan, and the U.S. corporate office and campus in Newnan, Georgia, Hitachi Construction Machinery Americas Inc. (HCMA) has the experience and technology to design, engineer, manufacture, and service your construction machinery. The HCMA team is securely poised as your goto source in the North American and Latin American construction machinery markets.

Through our long-term commitment to maintaining a leadership position in technology, service, and support, HCMA supports an extensive network of independent, local dealers focused on providing you with knowledgeable and experienced sales, service, and parts personnel — all backed by dedicated HCMA support teams.

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