

ZAXIS-7 series

HITACHI

Reliable solutions

ZAXIS160_{LC}



HYDRAULIC EXCAVATOR

Model code : ZX160LC-7

Engine rated power : 101.3 kW (ISO14396) /
98.6 kW (ISO 9249)

Operating weight : 17 700 - 18 200 kg

Bucket ISO heaped : 0.52 - 0.82 m³



YOU'RE IN CONTROL

You're at the heart of Hitachi's design for its latest range of excavators. To continuously improve on previous generation machines we've focused on enhancing your experience in the cab as an operator.

We've considered the challenges you face as the owner of a successful business. And we've zoomed in on the ways in which we can support you over the life cycle of your machine.

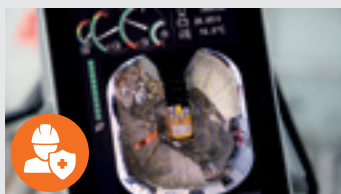
By putting you at the heart of the Zaxis-7 range, we invite you to take control – over your workspace and your fleet. And by working in partnership, we will help you to create your vision.



INSIDE



4. Complete Control
In control of your assets



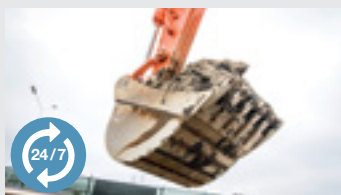
6. Increase your safety
Be in control of your environment



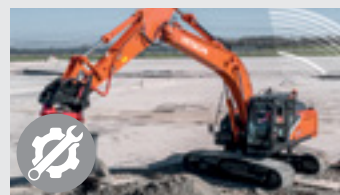
8. Boost your uptime
Improve your profit



11. Control Zone
Feel the difference



12. Get More from your machine
In control of your performance



14. Specifications
Know your machine



COMPLETE CONTROL

The new Zaxis-7 range of medium excavators puts you firmly in control, so you can feel assured of your machine's performance and supported by the technological expertise and services that Hitachi provides.



The expanded cab interior provides a more comfortable working environment.



Integrated console and seat suspension gives a greater sense of control, and helps to reduce fatigue.



Visibility of the job site is excellent thanks to the Aerial Angle® camera system and new LCD monitor.



Sensors monitor oil continuously and contribute to preventative maintenance, helping to reduce downtime.



ConSite Pocket app allows you to manage and monitor your fleet remotely.



Options such as Hitachi ground engaging tools enable you to enhance the performance of your excavator.



Improved access to components ensures maintenance is quick and easy.



The new HIOS-V hydraulic system reduces fuel consumption and increases efficiency.



The ECO gauge on the monitor indicates how to lower fuel consumption and reduce costs.



INCREASE YOUR SAFETY

Your ability to work safely is vital, not only for your own wellbeing, but also for the successful completion of any project. To protect yourself and your machine from potential hazards, the new Hitachi Zaxis-7 excavators give you a superior view of your surroundings, so you can see the job site from all angles.

The visibility you enjoy from the cab includes an exceptional 270-degree bird's-eye view with the Aerial Angle camera system. You can choose from six image options to view the machine's immediate environment, which enables you to control your own safety – as well as that of those around you.

To help you to work more confidently and efficiently, even in the most challenging of conditions, Zaxis-7 excavators are fitted with some impressive new features. From the LED work lights and the windscreen wiper with an efficient sweeping area, to the large reflective strips on the counterweight and roller sunshades, you'll have the visibility you need when it matters most.

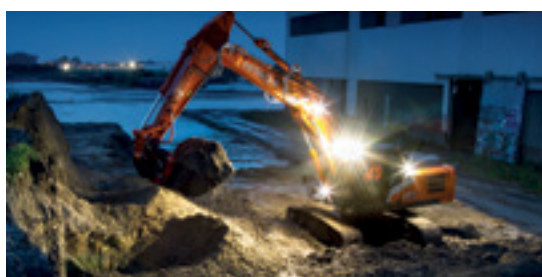
Attention to detail is also fundamental to a safe working environment – and the repositioning of the pilot shutoff lever is a perfect example. It is now within easy reach to prevent any unintentional actions.



The pilot shutoff lever offers enhanced safety in the cab.



Choose between different image layouts to suit your working environment.



LED work lights improve visibility in challenging conditions.

BOOST YOUR UPTIME

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 owners have profited from generations of ultra-reliable and durable machinery – and the Zaxis-7 range is no exception.

The latest Hitachi medium excavators have been built to last, so that you can remain in complete control of your assets. They have been tested rigorously and continuously at dedicated facilities in Japan with the goal of significantly boosting your uptime.

As a result, a wide range of durable new components have been fitted to the latest Stage-V compliant machines – even down to the detail of the rigidity of the door hinges. Now standard on our Zaxis-7 range are hydraulic and engine oil monitoring sensors that help to reduce downtime and running costs.

Downtime is prevented by the durable after-treatment system, and also minimised by the priority given to easy maintenance and cleaning – saving you time and money. Peace of mind comes from such features as the two-way disconnect switch. This makes it possible to shut down power without resetting data on the monitor and prevents the battery from discharging during welding.



Durable after-treatment system prevents downtime.



Filters and separator are conveniently located for ease of inspection and replacement.



The air conditioner condenser can be opened for easy cleaning of the condenser and radiator located behind it.



Improvements to the undercarriage have enhanced durability.



Designed for durability and easy maintenance, Zaxis-7 excavators increase uptime and reduce the total cost of ownership.



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CONTROL ZONE

Enhanced comfort and safety features are at your fingertips in the refined cab of Zaxis-7 excavators, giving you the power to perform productively, with ease and reduced fatigue.

- ① **Increased sweeping area of wide view wiper** enhances visibility in difficult working conditions.
*(Option only)
- ② **Air conditioning and audio** are easily controlled via the monitor.
- ③ **Low-reflective colour 8" LCD monitor** is easy to view and navigate.
- ④ **USB power supply and smartphone holder** helps you stay connected.
- ⑤ **Drinks holder** is easy to detach for cleaning.
- ⑥ **Additional joystick controls** for effortless operation.
- ⑦ **Ergonomic design** gives you convenient access to controls.
- ⑧ **Bluetooth®** for hands-free calls and **DAB+** radio for music while you work.
- ⑨ **Multifunctional control panel** makes operation easier.
- ⑩ **Improved sound isolation** makes this one of the quietest cabs in the market.
- ⑪ **User-friendly storage space** keeps your workspace tidy and clutter-free.
- ⑫ **12v and 24v outlets** for your electrical devices.
- ⑬ **One-touch adjustment lever for console** so you can work comfortably in the optimum position.
- ⑭ **Integrated console and seat suspension** gives a greater sense of control and helps to reduce fatigue.
- ⑮ **Increased legroom** creates a more spacious cab.
- ⑯ **Optimal pedal layout** helps to reduce fatigue.



Operation is easy with ergonomically designed controls and switches.



Bluetooth® connection for hands-free calls while you work.

GET MORE FROM YOUR MACHINE

Designed to work in perfect harmony with your machine, Hitachi preferred durable hydraulic breakers, hydraulic hitches, buckets and Ground Engaging Tools (GET) will increase your profit by maximising productivity and uptime. Manufactured to the same high standards as all Hitachi construction equipment, they offer unrivalled reliability and exceptional performance.

Buckets

You can increase the versatility of your excavator by choosing the right bucket for the job. For loading light materials or heavy-duty work, Hitachi buckets can be customised to meet your needs. You have a wide range of options to choose from Hitachi supplied buckets with different capacities and widths.

Ground engaging tools

You can enhance the digging power and productivity of your excavator or wheel loader with Hitachi GET. Quick and safe to install and replace, they fit precisely to your attachments and can be tailored to suit the task. Using Hitachi GET can reduce your maintenance costs and downtime, lower fuel consumption and enhance the overall performance of your machine.

Breakers

High-performance hydraulic breakers – approved by Hitachi – are perfectly suited to medium excavators. They are easy to maintain and user-friendly, and their high-quality materials ensure a long lifetime. This means reduced maintenance costs, fewer replacement parts and minimal downtime.



Attachments can be customised to suit the application.



Breakers are lightweight with high impact energy.



Hitachi GET include teeth and reliable adapters to ensure a precise fit.
*Not available in all markets



High performance hydraulic quick hitches approved by Hitachi.



SPECIFICATIONS

ENGINE	
Model	Yanmar 4TN107
Type	4-cycle water-cooled, common rail direct injection
Aspiration	Turbocharged, intercooled, cooled EGR
Aftertreatment	DOC and CSF and SCR system
No. of cylinders	4
Rated power	
ISO 14396 : 2002 gross	101.3 kW at 1 900 min ⁻¹
ISO 9249 : 2007 net	98.6 kW at 1 900 min ⁻¹
Maximum torque	602 Nm at 1 500 min ⁻¹
Piston displacement	4.567 L
Bore and stroke	107 mm x 127 mm
Batteries	2 x 12 V / 93 Ah

HYDRAULIC SYSTEM			
Hydraulic Pumps			
Main pumps	2 variable displacement axial piston pumps		
Maximum oil flow	2 x 190 L/min		
Pilot pump	1 gear pump		
Maximum oil flow	31.9 L/min		
Hydraulic Motors			
Travel	2 variable displacement axial piston motors		
Swing	1 axial piston motor		
Relief Valve Settings			
Implement circuit	34.3 MPa		
Swing circuit	29.3 MPa		
Travel circuit	34.3 MPa		
Pilot circuit	3.9 MPa		
Power boost	38 MPa		
Hydraulic Cylinders			
	Quantity	Bore	Rod diameter
Boom	2	110 mm	80 mm
Arm	1	120 mm	90 mm
Bucket	1	105 mm	75 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/hydraulic-released disc type.	
Swing speed	13.3 min ⁻¹
Swing torque	44 kNm

UNDERCARRIAGE	
Tracks	
Tractor-type undercarriage. Welded track frame using selected materials. Side frame welded to track frame. Lubricated track rollers, idlers, and sprockets with floating seals. 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	2
Lower rollers	7
Track shoes	43
Track guards	1
Travel Device	
Each track driven by 2-speed axial piston motor. Parking brake is spring-set/hydraulic-released disc type. Automatic transmission system: High-Low.	
Travel speeds	High: 5.3 km/h
	Low: 3.4 km/h
Maximum traction force	164 kN
Gradeability	70% (35 degree) continuous

SERVICE REFILL CAPACITIES	
Fuel tank	285 L
Engine coolant	23 L
Engine oil	22 L
Swing device	6.9 L
Travel device (each side)	6.8 L
Hydraulic system	210 L
Hydraulic oil tank	125 L
DEF / Adblue® Tank	35 L

ENVIRONMENT	
Engine Emissions	EU Stage V
Sounds Level	
Sound level in cab according to ISO 6396 : 2008	70 LpA dB(A)
External sound level according to ISO 6395 : 2008 and EU Directive 2000/14/EC	100 LwA dB(A)
Air Conditioning System	
The air conditioning system contains fluorinated greenhouse gases. Refrigerant type: HFC-134a, GWP: 1430, Amount: 0.85kg, CO2e: 1.22ton.	

WEIGHTS AND GROUND PRESSURE

Operating Weight and Ground Pressure

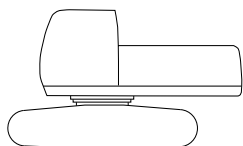
			ZAXIS 160LC *1	
Boom type			Monoblock	
Shoe type	Shoe width (mm)	Arm length (m)	kg	kPa
Triple grouser	500 mm	2.58 m	17 700	51
	600 mm	2.58 m	17 900	43
	700 mm	2.58 m	18 200	38

Including 0.63 m³ (ISO 7451:2007 heaped) bucket weight (500 kg) and counterweight (3 050 kg).

BASIC MACHINE WEIGHT AND COMPONENTS WEIGHT

Basic Machine Weight and Overall Width

Excluding front end attachment, fuel, hydraulic oil and coolant etc. Including counterweight (3 050 kg).



		ZAXIS 160LC *1	
Shoe Type	Shoe width (mm)	Weight (kg)	Overall width (mm)
Triple grouser	500	14 100	2 520
	600	14 300	2 590
	700	14 500	2 690

Components Weight

Unit: kg

	ZX160LC-7
Counterweight	3 050 kg
Monoblock boom (with arm cylinder and boom cylinder)	1 720 kg
Arm 2.58 m (with bucket cylinder)	840 kg
Bucket ISO 7451:2007 0.63 m ³	500 kg

BUCKET AND ARM DIGGING FORCE

Unit: kN

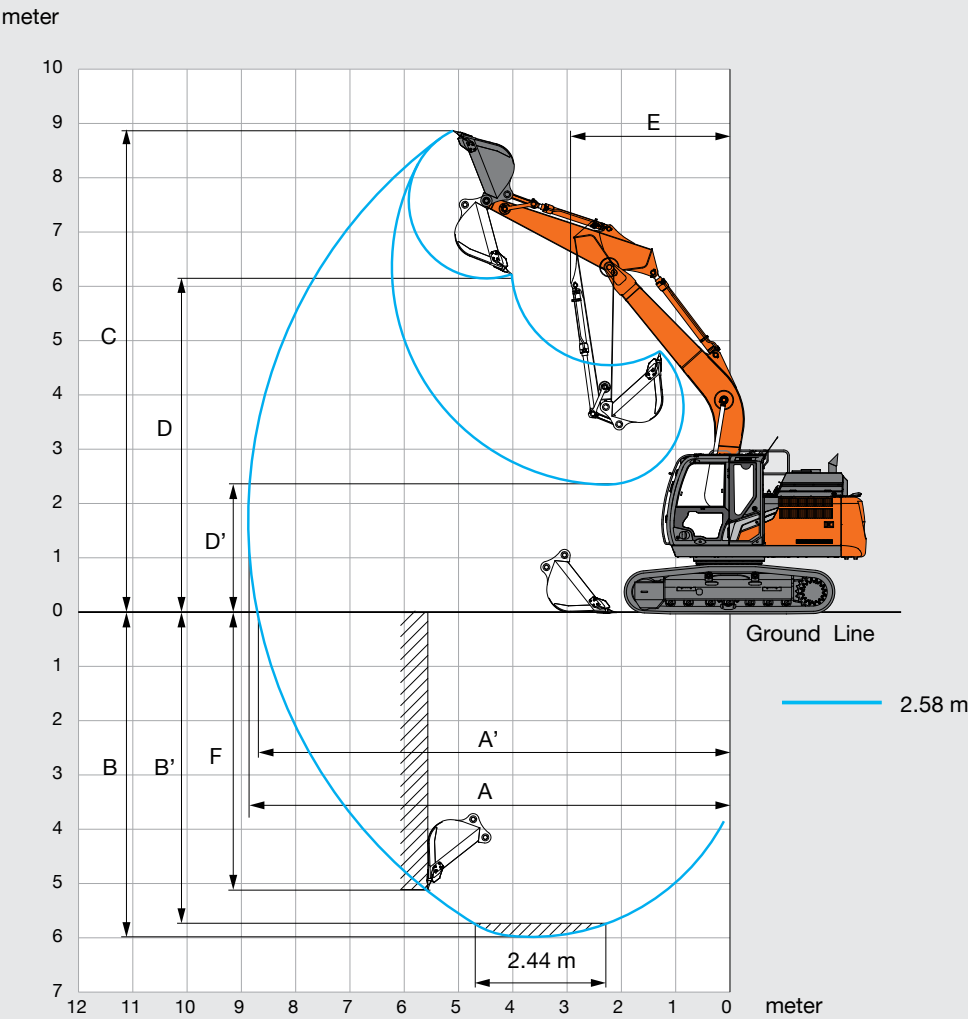
	ZX160LC-7
Arm length	2.58 m
Bucket digging force* ISO 6015 : 2006	112 kN
Arm crowd force* ISO 6015 : 2006	91 kN

* At power boost

SPECIFICATIONS

WORKING RANGES

MONOBLOCK BOOM



Unit: mm

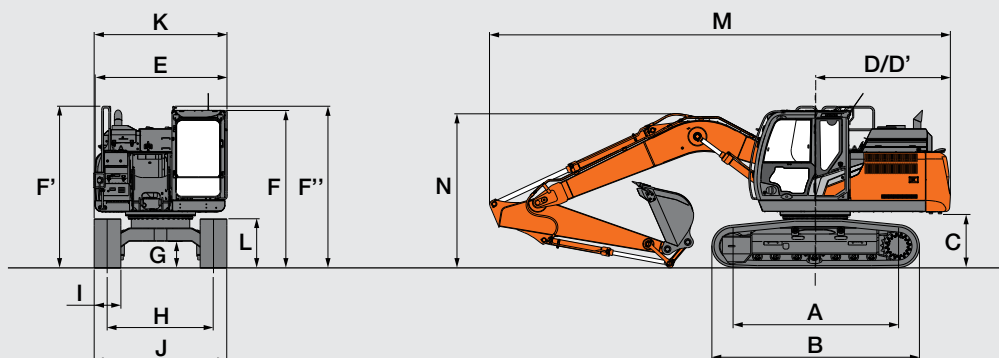
Arm length	Monoblock boom	
	2.58 m	
A Max. digging reach	8 870	
A' Max. digging reach (on ground)	8 700	
B Max. digging depth	5 980	
B' Max. digging depth for 2.44 m level	5 740	
C Max. cutting height	8 880	
D Max. dumping height	6 170	
D' Min. dumping height	2 360	
E Min. swing radius	2 910	
F Max. vertical wall digging depth	5 150	

Excluding track shoe lug

DIMENSIONS

ZX160LC-7

MONOBLOCK BOOM



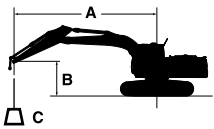
Unit: mm

	2.58 m
	Monoblock boom
A Distance between tumbler	3 100
B Undercarriage length	3 920
*C Counterweight clearance	980
D Rear-end swing radius	2 550
D' Rear-end length	2 530
E Overall width of upperstructure	2 500
F Overall height of cab	3 130
F' Overall Height Of Handrail	3 030
F'' Overall Height Of Handrail (On Cab)	3 020
*G Min. ground clearance	470
H Track gauge	1 990
I Track shoe width	500
J Undercarriage width	2 500
K Overall width	2 520
L Track height	920
M Overall length	8 620
N Overall height of boom	2 860

*1 Excluding track shoe lug *2 The dimensions asterisked are for transport pin position. G: Triple grouser shoe

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.



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

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.

ZX160LC-7 MONOBLOCK BOOM

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

Conditions	Load point height m	Load radius								At max. reach		
		1.5 m		3.0 m		4.5 m		6.0 m				
												meter
Boom 5.10 m Arm 2.58 m Counterweight 3 050 kg	6.0							*3 270	*3 270	*3 120	*3 120	6.05
	4.5					*4 520	*4 520	*4 250	3 510	*3 050	2 800	6.89
	3.0			*8 810	*8 810	*5 830	5 150	*4 800	3 370	*3 150	2 480	7.33
	1.5					*7 200	4 800	4 980	3 220	*3 430	2 360	7.44
	0 (Ground)			*6 230	*6 230	7 470	4 600	4 860	3 110	3 720	2 410	7.23
	-1.5	*5 710	*5 710	*10 390	8 360	7 400	4 540	4 820	3 070	4 140	2 660	6.69
	-3.0	*10 280	*10 280	*10 950	8 510	7 470	4 600			5 230	3 340	5.72
	-4.5									*6 030	5 750	3.98

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

ENGINE	ZX160LC-7
Aftertreatment device	●
Air cleaner double filters	●
Alternator 80 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	●
Dry-type air filter with evacuator valve (with air filter restriction indicator)	●
Dust-proof indoor net	●
ECO/PWR mode control	●
Electrical fuel feed pump	●
Engine oil drain coupler	●
Expansion tank	●
Fan guard	●
Fuel cooler	●
Fuel pre-filter with water separator	●
Isolation-mounted engine	●
Maintenance free pre-cleaner	●
Oil separator	●
Radiator, oil cooler and intercooler	●
ConSite OIL (sensor)*	●
Belt auto tensioner	●

HYDRAULIC SYSTEM	ZX160LC-7
Auto power lift	●
Control valve with main relief valve	●
Extra port for control valve	●
Full flow filter	●
High mesh full flow filter with restriction indicator	○
Hose rupture valve for arm	●
Hose rupture valve for boom	●
Pilot filter	●
Power boost	●
Suction filter	●
Swing dampener valve	●
Variable reliefvalve for breaker and crusher	●
Work mode selector	●
ConSite OIL (sensor)*	●

* Engine oil and hydraulic oil monitoring sensor.

CAB	ZX160LC-7
All-weather sound suppressed steel cab	●
Bluetooth® integrated DAB+radio	●
Console height adjustment	●
Auto control air conditioner	●
AUX function lever (breaker assist)	○
Hands-free calling device	●
Wide view wiper	○
CRES VII (center pillar reinforced structure) cab	●
Drink holder with hot and cool function	●
Electric double horn	●
Engine shut-off switch	●
Equipped with reinforced, tinted (green color) glass windows	●
Evacuation hammer	●
Floor mat	●
Footrest	●
Front window washer (1 points)	●
Front window washer (2 points)	○
Glove compartment	●
Hot and cool box	●
Intermittent windshield wipers	●
Key cylinder light	●
Laminated round glass window	○
LED room light	●
Control lever auto-lock	●
OPG front guard Level II (ISO 10262 : 1998) compliant	○
OPG top guard Level I (ISO 10262 : 1998) compliant	●
OPG top guard Level II (ISO 10262 : 1998) compliant	●
Pilot shut-off lever	●
Power outlet 12 V and 24 V	●
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 adjustment part : backrest, armrest, height and angle, slide forward / back	●
Seat belt reminder	●
Short wrist control levers	●
Sunscreen roller type (multi-use front or side and rear window)	●
Smartphone holder	●
Transparent roof with slide curtain	●
USB power supply	●
Windows on front, upper, lower and left side can be opened	●
2 speakers	●
4 fluid-filled elastic mounts	●
8 inch monitor	●
Push button low idle	●
Magazine rack	●

MONITOR SYSTEM	ZX160LC-7
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, etc	●
Display of meters: water temperature, hour, fuel rate, clock, DEF/AdBlue® rate, etc	●
Other displays: work mode, auto-idle, glow, rearview monitor, operating conditions, etc	●
35 languages selection	●

LIGHTS	ZX160LC-7
Additional boom LED light with cover	○
Additional cab roof front LED lights	○
Additional cab roof rear LED lights	●
LED lights for camera (side and rear view camera)	●
Rotating lamp	○
2 working LED lights	●

UPPER STRUCTURE	ZX160LC-7
Aerial Angle® (270-degree view camera system)	●
Batteries 2 x 93 Ah	●
Battery disconnect switch	●
Cab top handhold	●
Counterweight 3 050 kg	●
Fuel level float	●
Hydraulic oil level gauge	●
Lockable fuel refilling cap	●
Lockable machine covers	●
Lockable tool box	●
Platform handrail	●
Side view mirror (right and left)	●
Skid-resistant plates	●
Swing parking brake	●
Undercover	●
Utility space	●

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

UNDERCARRIAGE	ZX160LC-7
Bolt-on sprocket	●
Reinforced track links with pin seals	●
Shoe: 500 mm triple grouser	●
Shoe: 600 mm triple grouser	○
Shoe: 700 mm triple grouser	○
Track undercover	●
Travel direction mark on track frame	●
Travel motor covers	●
Travel parking brake	●
Upper and lower rollers	●
1 track guard (each side)	●
4 tie down brackets	●
Towing hole for light weight object	●
Greasing type track adjuster	●

ATTACHMENTS	ZX160LC-7
Accessories for 2 speed selector	○
Additional pump (30 L/min)	●
Assist piping	●
Breaker and crusher piping	●
Pilot accumulator	●

MISCELLANEOUS	ZX160LC-7
ConSite	●
Global e-service	●
Onboard information controller	●
Standard tool kit	●
Travel alarm	●
Satellite communication system unit	●
Level indicator	●

FRONT ATTACHMENTS	ZX160LC-7
Casted bucket link A	●
Reinforced bucket link B	●
Centralized lubrication system	●
Dirt seal on all bucket pins	●
Flanged pin	●
HN bushing	●
Reinforced resin thrust plate	●
WC (tungsten-carbide) thermal spraying	●
Arm tip remote lubrication	●
Lower arm reinforcement	●

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

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.