ZAXIS-3 series

HITACHI

ZAXIS 160LC

HYDRAULIC EXCAVATOR

- **Model Code** : ZX160LC-3
- **Engine Rated Power** : 90.2 kW (121 HP)
- **Operating Weight** : 16 500 kg - 17 500 kg
- **Backhoe Bucket** : SAE, PCSA Heaped : 0.52 - 0.82 m^3
  CECE Heaped : 0.45 - 0.70 m^3

The Power to Perform

The ZAXIS-3 series is a new generation of excavators designed to provide more efficient power, productivity and improved operator comfort. By listening carefully to the wishes of the end-user, HITACHI not only understands your business, but also provides the reliable solutions you've been looking for.

NEW AND IMPROVED

- ***Performance:***
  9% higher production
  Traction force 20 % up

- ***Comfort:***
  Excellent visibility
  Enhanced controllability
  Lower noise level

- ***Reduced running costs:***
  Lower fuel consumption per m^3
  Improved durability and reliability

- ***New equipment:***
  Rear view camera (Optional)
  Theft deterrent system

- **The new engine complies with the Emission Regulations U.S EPA Tier 3, and EU Stage III A**

- **The advanced low noise design complies with the coming EU noise regulation 2000 / 14 / EC, STAGE II**

Notes : Some of the pictures in this brochure show an unmanned machine with attachments in an operating position. These were taken for demonstration purposes only and the actions shown are not recommended under normal operating conditions.

Boosted Productivity

New hydraulic system HIOS III and new DOHC 4-valve diesel engine were developed for ZAXIS-3. These advanced technologies are at work to yield bigger output with higher fuel efficiency.

More Production, Less Fuel Consumption

Increased Production
A combination of the hydraulic system (HIOS*III) and new DOHC** 4-valve engine allows the efficient use of hydraulic pressure to increase speeds of actuators and boost production with higher fuel efficiency. The productivity is increased 9% in comparison to previous model ZAXIS-1.

**Human & Intelligent Operation System*

***Double OverHead Camshaft*

New E-mode
The new E mode, H/P mode and P mode can be selected to suit job needs. The new E mode can save fuel consumption by up to 9% compared to the previous model's P mode, while yielding similar production.

Increased Digging Force
Digging power is boosted by 6% when increasing pressure through use of the power digging mode.

Lifting capacity has been increased.
-Lifting capacity 6% UP

Increase in Traction Force and Swing Torque
Traction force and swing torque are increased significantly.
-Traction force 20% UP
-Swing torque 5% UP
Sophisticated Travel Control;
At climbing or steering, when the machine needs more traction force, the engine speed automatically increases which makes the machine faster.

Efficient Hydraulic Control - HIOS III

ZAXIS-1 adapted HIOS II hydraulic system that is suitable for fine controllability by the operators. Continuously HITACHI developed new advanced hydraulic technology HIOS III for ZAXIS-3. In addition to the fine controllability this new system increases the efficiency of hydraulic circuit and increases speed of actuators.

The Hydraulic Boosting System
In arm roll-in and boom raise operation, excess pressure oil is delivered from boom cylinder rod side to arm cylinder bottom side to increase flow rate for higher arm roll-in speed with 20%. Excess pressure oil from boom cylinder rod side is delivered to arm cylinder bottom side through a regenerative valve to increase flow rate for productive operation.

Enhanced Boom Recirculation System
In combined operation of boom lower and arm, pressure oil from boom cylinder bottom side is delivered to boom cylinder rod side, assisted by boom weight, for boom lowering. At the same time, pressure oil from the pump is delivered to the arm cylinder for arm movement.
This mechanism allows an increase of speed in combined operation of 13%.

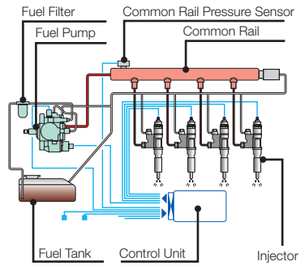
Development Concept of New Engine

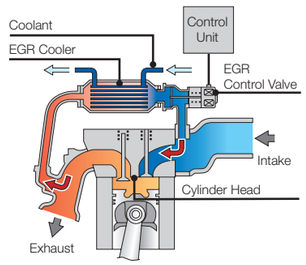
DOHC 4-Valve Engine
The new DOHC 4-valve diesel engine is developed and built to comply with the rigorous Emission Regulations enforced in 2007 in U.S and EU. This new engine contributes to environmental preservation. At the same time it realizes high durability and low fuel consumption by adapting the latest advanced engine technology.

Common Rail Type Fuel Injection System
Electronic control common rail type fuel injection system drives an integrated fuel pump at an ultrahigh pressure to distribute fuel to each injector per cylinder through a common rail.
This enables optimum combustion to generate big horsepower, and reduce PM* (diesel plume) and fuel consumption.

Cooled EGR* System
The cooled EGR system lets part of exhaust gasses mix with intake air for re-combustion to reduce oxygen concentration in the air in the combustion chamber. This design lowers combustion temperature in the cylinder, reducing fuel consumption and NOx while yielding more horsepower.

**Exhaust Gas Recirculation*





A New Standard in Operator Comfort

The operator's seat of the ZAXIS-3 series gives the operator an excellent view of the jobsite. On the widescreen colour LCD monitor the operator can see what is behind the machine. Ample legroom, short stroke levers and a large seat ensure optimum working conditions for the operator during long hours.

The ZAXIS-3 series cab has been redesigned to meet demands of customers. From the operator's seat the operator has an excellent view of the jobsite. On the widescreen color LCD monitor the operator can see machine conditions and with the rear view camera, what is behind the machine. Ample legroom, short stroke levers and a suspension seat with heating ensure optimum working conditions. The seat features horizontal, vertical adjustments and has a backrest contoured for comfort, with a HITACHI logo.

Wide adjustable armrests and a retractable seat belt are included. Short stroke levers allow for continuous operation with less fatigue. Three switches on the lever (optional) can be set to operate attachments other than buckets. The cab is pressurized to keep out dust. Noise and vibrations are kept to a minimum due to the elastic mounts, filled with silicone oil, the cab rests on.

Visibility is improved especially for the right downward view. Sliding windows on the front and side enable direct communication between operator and other workers. Foot space has increased and travel pedals have been redesigned for easier operation.
A flat floor allows for easy cleaning. Ergonomic controls and switches, fully automatic air conditioner and a radio complete the package.

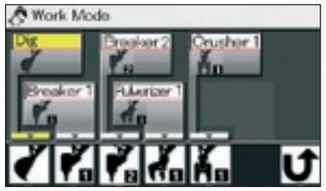
Embedded Information Technology

The ZAXIS-3 series is equipped with a widescreen color LCD monitor with adjustable contrast for day and night shifts. With the monitor the operator can check maintenance intervals, select work modes, monitor fuel consumption, and connect to the rear view camera. A theft deterrent system and multi-language selection is also available.

Multi function monitor

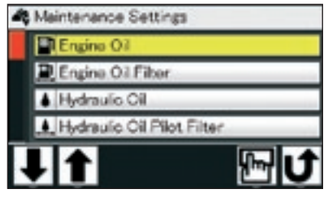
The color LCD monitor, located in the cab, indicates coolant temperature, fuel level, and maintenance data. It also allows one-touch adjustment of the attachment. The display can also be adjusted to day or night shift.

Attachment support system (work mode selector)



When replacing the attachment, oil flow adjustment can automatically be done by one touch on the work mode selection display on the LCD monitor. Minor adjustments of oil flow is possible if necessary.

Maintenance support

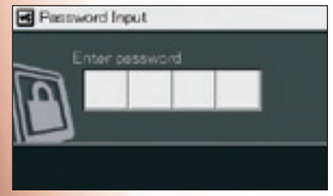


Replacement timing of hydraulic oil and fuel filters is alerted to the operator through the LCD monitor according to the schedule preset by the user each time when turning the key switch. The scheduled maintenance can prevent the failure of the machine.

Multi-language selection

The menu allows selection from 12 languages.

Theft deterrent system

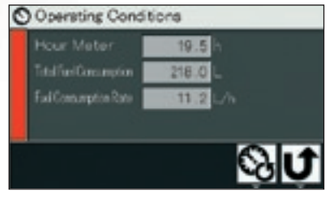


The electronic immobiliser requires the entry of an encryption code to the multifunctional monitor each time when starting the engine to prevent theft and vandalism.

Rear view camera (Optional)

The widescreen color LCD, teamed up with the rear view camera on the counterweight provides rearward viewing.
The rear view camera automatically works when traveling, and can also be manually turned on with a select switch on the monitor.

Fuel consumption monitoring



Fuel consumption per operating hour is computed, and the result is displayed on the LCD monitor. This information suggests refuelling timing, and guides energy-saving operation and efficient job management.

**The indicated values are examples and could differ from those in actual operation.*

A Solid Base for a Long Life

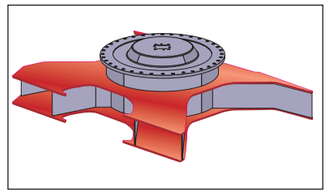
HITACHI's technology is built on a wealth of experience and know-how from limestone sites and quarries around the world. The undercarriage of the ZAXIS 160 has become much stronger. Improved construction and enlarged box sections, a track undercover plate that protects the center joint and hydraulic hoses make this machine more durable.

Strengthened Undercarriage

Upper rollers and upper roller brackets are increased in size for higher durability. Track links are thickened and reshaped for higher durability and rigidity.

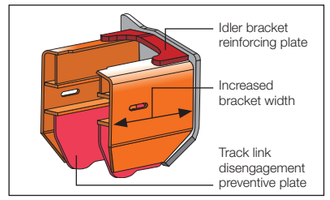
Strengthened X Beam and Side Frames

The X-beam is strengthened by the improved construction and enlarged box sections. The section is increased in strength up to 45 % (maximum). Top and bottom plates of the X-beam use monolithic plates, instead of conventional welded four plates. This eliminates welding to strengthen the X-beam.



Improved Idler Brackets

The idler bracket reinforcing plate is thickened greatly for higher durability to prevent the opening of the idler bracket. The track link disengagement preventive plate, located immediately behind the idle bracket, extends its top to prevent track link disengagement and increase durability.

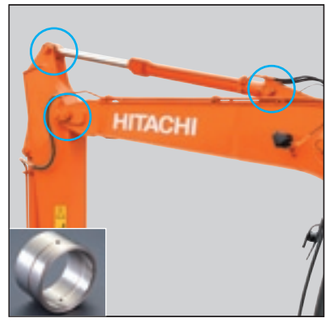


Strengthened Front Attachment

The boom top bracket is strengthened by using high-tensile steel.
At arm-bucket joint, the arm top is hardened with WC thermal spraying (Tungsten-Carbide) for greater wear resistance at its contact surface with bucket, reducing jerking. Reinforced resin thrust plates designed to reduce noise and resist wear.

The new HN bushings, containing "solid molybdenum-based lubricant", are utilized at the boom-arm joint and arm cylinder mounting area for better lubrication and higher durability. (At other joints, conventional HN bushings are also utilized.)

The boom foot is enlarged for higher strength. This improvement increases the durability and reliable under heavy-duty operation.



New HN bushing

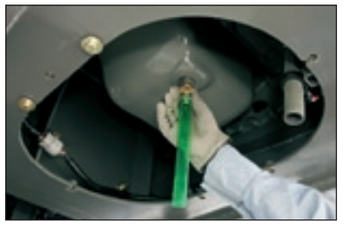

WC Thermal spraying


Reinforced resin thrust plates

Simplified Maintenance

The ZAXIS-3 series meet customer demands for simplied maintenance. Regular maintenance is the key for keeping equipment in top condition, which can help to prevent costly downtime. In addition, a regular serviced machine has higher residual value. There are many service features to be found on the ZAXIS-3 series.

Conveniently Located Inspection Points

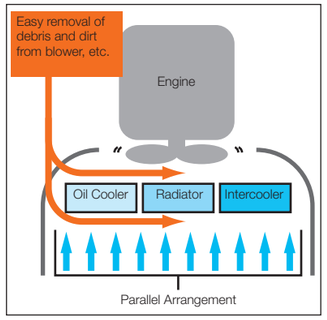


Wide doors give access, from ground level, to the fuel filter, water separator and engine oil filter. A large handrail, steps and anti-skid plates lead to the engine cover. The engine oil pan is fitted with a drain coupler. When draining, an associated drain hose is connected to the drain coupler. The drain coupler is reliable, avoiding oil leakage and vandalism.

The fresh air filter for the air conditioner is relocated to cab door side from conventional location behind the operator seat. This allows easy cleaning and replacement of the fresh air filter, like the air circulation filter inside the cab.

Parallel Arrangement of the Cooling Pack

The oil cooler, radiator and intercooler are laid out in a parallel arrangement, instead of the conventional in-line arrangement. This parallel arrangement is significantly easier to clean around the engine. The air conditioner condenser can be opened for easy cleaning of the condenser and the radiator located behind.



Extended Oil and Filter Change Intervals

Front Pin Lubricating Intervals and Consumables Replacement		
		New ZAXIS 160
Lubricant	Bucket	500 h
	Boom Foot	500 h
	Front	500 h
Consumables	Engine Oil	500 h
	Engine Oil Filter	500 h
	Hydraulic Oil	5 000 h
	Hydraulic Oil Filter	1 000 h
	Fuel Filter	500 h

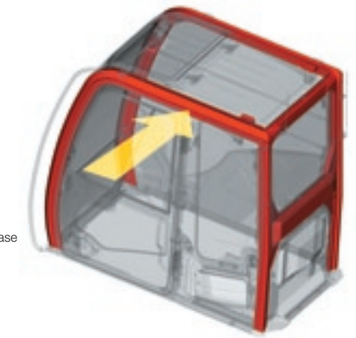
The oil and filter change intervals have been extended considerably, reducing maintenance time and expenses. Engine oil consumption is lower. Hydraulic oil can be used up to 5 000 hours.

Safety Features

Ensuring the safety of the operator and other workers on the jobsite is an important concern for HITACHI. That is why the ZAXIS-3 series has a number of safety features including a new reinforced cab and shut-off mechanisms for engine and pilot controls.

CRES II cab

The CRES II cab is designed to help with “just in case” protection for the operator. Safety in case of tipping is improved. The cab top, for instance, can withstand about 2.5 times conventional load when side load is applied to the cab top until its deformation reaches 200 mm.



Withstanding load : 2.5-fold increase

Additional Features

Cab right protection bars

Evacuation hammer

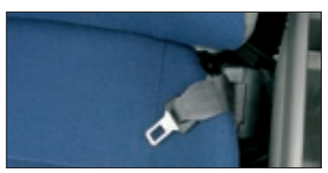
Engine shut-off switch

Pilot control shut-off lever

OPG Top Guard, Level Ⅱ

(Optional)

Retractable seat belt



Other features include a retractable seatbelt, evacuation hammer and emergency engine shut-off switch. A shut-off lever for pilot control helps to prevent unintentional movements. In addition an Operator Protective Guard (OPG top guard, Level Ⅱ) is optionally available. For the cab windows there is a choice of laminated or tempered glass.

Environmental Features

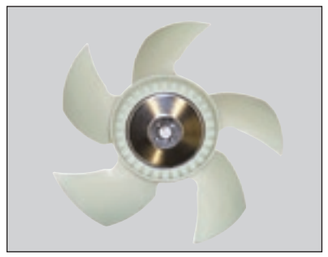
HITACHI takes its responsibility when it comes to the environment. Our production facilities have ISO 14001 certification.
The HITACHI machine is lead free and has a low-noise design, therefore HITACHI customers get one of the most environmentally considerate hydraulic excavators available today.

A Cleaner Machine

The ZAXIS-3 series is equipped with a clean but powerful engine to comply with Tier 3, and Stage III A. An engine emission regulations effective in the U.S. EPA and European Union from 2007. Exhaust gas is partly re-combusted to reduce particulate matter (PM) output and lower nitrogen oxide (NOx) levels.

A Quieter Machine

A number of features make this machine quieter. First, isochronous control of the engine speed means a restriction of engine speed during no-load and light-duty operation to suppress sound. A fan with curved blades reduces air resistance and air flow noise. Third, a time-tested muffler suppresses engine noise significantly. This advanced low noise design complies with the 2000 / 14 / EC, Stage II, directive effective in the European Union from 2006.



A Recyclable Machine

Over 97% of the ZAXIS-3 series can be recycled. All resin parts are marked to facilitate recycling. The machine is completely lead-free. The radiator and oil cooler are made from aluminium and all wires are lead-less. In addition, biodegradable hydraulic oil is available for jobsites where special environmental care is required.

Parts & Service

**Over the years, we have gained experience in one of the most competitive service markets in the world - Japan.
Using our know-how in dealing directly with customers, we have created a worldwide support system that is highly capable.**

Machine includes optional equipment installed by customer.

Parts

HITACHI only offers genuine high quality parts. We guarantee that these parts have high performance and long life. We manage around 1 000 000 types of parts all around the world. They are designed and built to be the best match for your HITACHI equipment. HITACHI has a global parts distribution network that makes sure you get what you need as quickly as possible. We have more than 150 dealers worldwide who provide the closest support for your needs. In most cases, your dealer will have the replacement part that you require. If a dealer does not have a certain part, he can order it from four fully stocked parts depots located across the world. These distribution centres are all connected by a on-line system that gives them access to shared information on stocks, such as the number and type of available parts. The depots, which in turn are stocked by a parts center in Japan, minimize delivery time and enable you to get your parts as efficiently and quickly as possible.

Service

Our goal is to “keep customer equipment at a maximum performance level”. To fulfil this goal, we have set more than 150 dealers all over the world. They have highly trained technicians, and provide a number of support programs.
HITACHI provides a unique extended warranty program called HITACHI Extended Life Program, or HELP.
To minimize downtime during troubleshooting, we developed a PDA based diagnostic system called “Dr.ZX”.

To keep our customers’ equipment in top running shape, good service is indispensable. We believe personnel training is the key to providing the best service.

If you would like more information regarding parts and/or service, please ask your nearest HITACHI dealer. Not all programs and/or services are available in every market or region.

ENGINE

Model ..... Isuzu AI-4JJ1X
Type ..... 4-cycle water-cooled, direct injection
Aspiration ..... Turbocharged, intercooled
No. of cylinders 4
Rated power
ISO 9249, net ..... 90.2 kW (121 HP) at 2 200 min^{-1} (rpm)
EEC 80/1269, net .. 90.2 kW (121 HP) at 2 200 min^{-1} (rpm)
SAE J1349, net ..... 90.2 kW (121 HP) at 2 200 min^{-1} (rpm)
Maximum torque ..... 402 N·m (41 kgf·m) at 1 800 min^{-1} (rpm)
Piston displacement .. 2.999 L
Bore and stroke ..... 95.4 mm x 104.9 mm
Batteries ..... 2 x 12 V / 70 Ah

HYDRAULIC SYSTEM

- Work mode selector
  Digging mode / Attachment mode
- Engine speed sensing system

Main pumps ..... 2 variable displacement axial piston pumps
Maximum oil flow .. 2 x 191 L/min
Pilot pump ..... 1 gear pump
Maximum oil flow .. 33.6 L/min

Hydraulic Motors

Travel ..... 2 variable displacement axial piston motors
Swing ..... 1 axial piston motor

Relief Valve Settings

Implement circuit ..... 34.3 MPa (350 kgf/cm^2)
Swing circuit ..... 29.3 MPa (299 kgf/cm^2)
Travel circuit ..... 34.3 MPa (350 kgf/cm^2)
Pilot circuit ..... 3.9 MPa (40 kgf/cm^2)
Power boost ..... 36.3 MPa (370 kgf/cm^2)

Hydraulic Cylinders

High-strength piston rods and tubes. Cylinder cushion mechanisms provided in boom and arm cylinders to absorb shock at stroke ends.

Dimensions

	Quantity	Bore	Rod diameter
Boom	2	110 mm	80 mm
Arm	1	120 mm	90 mm
Bucket	1	105 mm	75 mm

Hydraulic Filters

Hydraulic circuits use high-quality hydraulic filters. A suction filter is incorporated in the suction line, and full-flow filters in the return line and swing/travel motor drain lines.

CONTROLS

Pilot controls. Hitachi's original shockless valve.

Implement levers 2
Travel levers with pedals 2

UPPERSTRUCTURE

Revolving Frame

Welded sturdy box construction, using heavy-gauge steel plates for ruggedness. 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, shear-type ball bearing with induction-hardened internal gear. Internal gear and pinion gear are immersed in lubricant. Swing parking brake is spring-set/hydraulic-released disc type.

Swing speed ..... 13.3 min^{-1} (rpm)

Operator's Cab

Independent spacious cab, 1 005 mm wide by 1 675 mm high, conforming to ISO* Standards. Reinforced glass windows on 4 sides for visibility. Front windows (upper and lower) can be opened. Reclining seat with armrests; adjustable with or without control levers.
* International Standardization Organization

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 guard 1

Travel Device

Each track driven by 2-speed axial piston motor through planetary reduction gear for counterrotation of the tracks. Sprockets are replaceable.
Parking brake is spring-set/hydraulic-released disc type. Travel shockless relief valve built in travel motor absorbs shocks when stopping travel.
Automatic transmission system: High-Low.

Travel speeds ..... High : 0 to 5.3 km/h
Low : 0 to 3.4 km/h

Maximum traction force .. 169 kN (17 250 kgf)

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

WEIGHTS AND GROUND PRESSURE

ZX160LC-3 WITH MONOBLOCK BOOM:

Equipped with 5.1 m monoblock boom, 2.58 m arm and 0.60 m^3 bucket (SAE, PCSA heaped).

Shoe type	Shoe width	Operating weight	Ground pressure
Triple grouser	500 mm	16 500 kg	48 kPa (0.49 kgf/cm^2)
	600 mm	16 700 kg	40 kPa (0.41 kgf/cm^2)
	700 mm	16 900 kg	35 kPa (0.36 kgf/cm^2)
Trianglar	680 mm	17 300 kg	37 kPa (0.38 kgf/cm^2)
Frat	600 mm	17 500 kg	42 kPa (0.43 kgf/cm^2)

Weight of the basic machines [including 3 300 kg counterweight and triple grouser shoes, excluding front-end attachment, fuel, hydraulic oil, engine oil and coolant etc.] are:

ZX160LC-3..... 13 000 kg with 500 mm shoes

SERVICE REFILL CAPACITIES

Fuel tank ..... 320.0 L
Engine coolant ..... 18.0 L
Engine oil ..... 17.0 L
Swing device ..... 6.2 L
Travel device (each side) ..... 6.8 L
Hydraulic system ..... 210.0 L
Hydraulic oil tank ..... 125.0 L

BACKHOE ATTACHMENTS

Boom and arms are of welded, box-section design. 5.5 m monoblock boom, and 2.22 m, 2.58 m and 3.08 m arms are available.

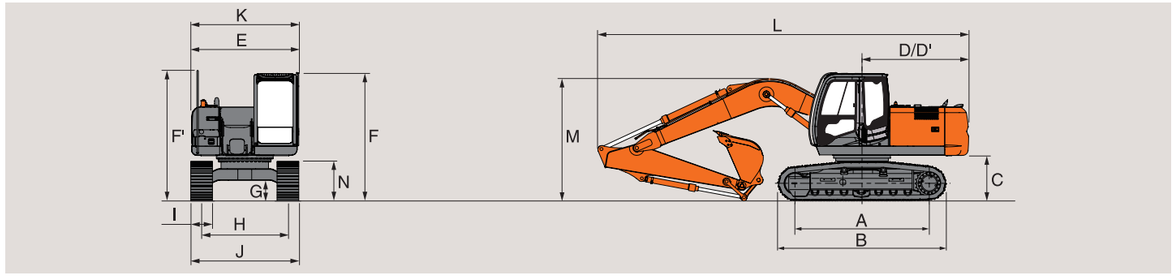
BUCKETS

Capacity		Width		No. of teeth	Weight	Recommendation		
						ZX160LC-3		
SAE, PCSA heaped	CECE heaped	Without side cutters	With side cutters			2.22 m arm	2.58 m arm	3.08 m arm
0.52 m^3	0.45 m^3	790 mm	910 mm	4	480 kg	◎	◎	◎
0.60 m^3	0.55 m^3	925 mm	1 045 mm	5	500 kg	◎	◎	*2 ◎
0.70 m^3	0.60 m^3	1 005 mm	1 125 mm	5	535 kg	◎	○	*2 □
0.82 m^3	0.70 m^3	1 140 mm	1 260 mm	5	580 kg	○	□	–
*1 0.60 m^3	0.55 m^3	925 mm	1 045 mm	5	610 kg	◎	◎	*2 ○
*1 0.70 m^3	0.60 m^3	1 000 mm	1 120 mm	5	635 kg	◎	○	*2 □
One-point ripper				1	540 kg	●	–	–
Slope-finishing blade: Width 1 000 mm, length 1 700 mm				3	520 kg	◇	◇	◇
V shape Bucket:				–	530 kg	○	○	○
Shell-push type clamshell bucket: 0.40 m^3 (CECE heaped), Width 590 mm					810 kg	◎	◎	–

*1 Reinforced bucket
*2 Applicable 700 mm shoe only

◎ Suitable for materials with density of 2 000 kg/m^3 or less
○ Suitable for materials with density of 1 600 kg/m^3 or less
□ Suitable for materials with density of 1 100 kg/m^3 or less
● Heavy-duty service
◇ Slope-finishing service
– Not applicable

DIMENSIONS

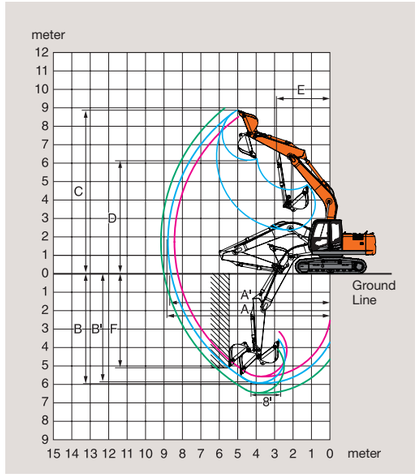


Unit: mm

	ZX160LC-3
A Distance between tumblers	3 100
B Undercarriage length	3 920
* C Counterweight clearance	1 030
D Rear-end swing radius	2 490
D' Rear-end length	2 460
E Overall width of upperstructure	2 480
F Overall height of cab	2 950
F' Overall height of hand rail	3 010
* G Min. ground clearance	470
H Track gauge	1 990
I Track shoe width	G 500
J Undercarriage width	2 490
K Overall width	2 500
L Overall length	
With 2.22 m arm	8 650
With 2.58 m arm	8 550
With 3.08 m arm	8 580
M Overall height of boom	
With 2.22 m arm	3 190
With 2.58 m arm	2 870
With 3.08 m arm	3 110
N Track height with triple grouser shoes	920

* Excluding track shoe lug G: Triple grouser shoe

WORKING RANGES



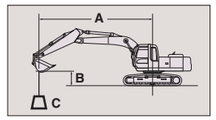
Unit: mm

	ZX160LC-3		
	5.10 m Boom		
Arm length	2.22 m	2.58 m	3.08 m
A Max. digging reach	8 520	8 870	9 330
A' Max. digging reach (on ground)	8 340	8 700	9 160
B Max. digging depth	5 620	5 980	6 490
B' Max. digging depth (8' level)	5 340	5 740	6 270
C Max. cutting height	8 620	8 880	9 130
D Max. dumping height	5 940	6 170	6 400
E Min. swing radius	3 290	2 910	2 920
F Max. vertical wall	4 510	5 160	5 690
Bucket digging force** ISO	108 kN (11 000 kgf)		
Bucket digging force** SAE : PCSA	95 kN (9 700 kgf)		
Arm crowd force** ISO	110 kN (11 200 kgf)	87 kN (8 900 kgf)	78 kN (7 900 kgf)
Arm crowd force** SAE : PCSA	106 kN (10 800 kgf)	84 kN (8 600 kgf)	75 kN (7 700 kgf)

Excluding track shoe lug ** At power boost

Metric measure

Notes: 1. Ratings are based on SAE J1097.
2. Lifting capacity of the ZAXIS Series does not exceed 75% of tipping load with the machine on firm, level ground or 87% full hydraulic capacity.
3. The load point is a hook (not standard equipment) located on the back of the bucket.
4. *Indicates load limited by hydraulic capacity.
5. 0 m = Ground.



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

ZX160LC-3

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

Conditions	Load point height	Load radius 1.0 m		2.0 m		3.0 m		4.0 m		5.0 m		6.0 m		7.0 m		At max. reach		meter
Boom 5.10 m Arm 2.22 m Bucket SAE, PCSA: 0.60 m³ Counterweight 3 300 kg Shoe 500 mm	7.0 m																	
	6.0 m									∗3 000	∗3 000					2 330	∗2 970	6.93
	5.0 m									∗3 150	∗3 150	2 940	∗3 190			1 980	∗2 950	7.50
	4.0 m							∗4 020	∗4 020	∗3 610	∗3 610	2 870	∗3 400	2 160	3 360	1 760	2 760	7.87
	3.0 m									3 720	∗4 290	2 760	∗3 770	2 120	3 400	1 640	2 600	8.07
	2.0 m									3 520	∗5 030	2 650	∗4 200	2 050	3 330	1 580	2 530	8.13
	1.0 m									3 360	5 550	2 550	4 170	1 990	3 270	1 580	2 540	8.05
	0 (Ground)									3 260	5 440	2 480	4 090	1 950	3 220	1 640	2 640	7.81
	-1.0 m							4 520	∗7 230	3 210	5 390	2 440	4 050	1 930	3 200	1 790	2 870	7.41
	-2.0 m					∗6 930	∗6 930	4 550	∗7 660	3 210	5 390	2 440	4 050			2 070	3 290	6.80
	-3.0 m			∗7 930	∗7 930	∗6 490	∗6 490	4 620	∗7 060	3 260	5 440	2 490	4 100			2 620	∗2 730	5.92
	-4.0 m					∗7 370	∗7 370	4 750	∗5 980	3 370	∗4 710							
	-5.0 m																	

Conditions	Load point height	Load radius 1.0 m		2.0 m		3.0 m		4.0 m		5.0 m		6.0 m		7.0 m		At max. reach		meter
Boom 5.10 m Arm 2.58 m Bucket SAE, PCSA: 0.60 m³ Counterweight 3 300 kg Shoe 500 mm	7.0 m																	
	6.0 m											∗2 740	∗2 740			∗1 820	∗1 820	7.36
	5.0 m											∗2 890	∗2 890			∗1 800	∗1 800	7.88
	4.0 m									∗3 280	∗3 280	2 900	∗3 140	2 190	3 100	∗1 620	∗1 820	8.23
	3.0 m							∗4 780	∗4 780	3 780	∗3 970	2 800	∗3 530	2 130	3 300	1 510	∗1 880	8.43
	2.0 m							5 000	∗6 210	3 570	∗4 750	2 680	∗4 000	2 060	3 350	1 460	∗1 970	8.49
	1.0 m							4 710	∗7 320	3 400	∗5 450	2 570	4 190	2 000	3 270	1 460	∗2 120	8.40
	0 (Ground)							4 570	7 870	3 280	5 460	2 480	4 100	1 940	3 210	1 510	∗2 330	8.18
	-1.0 m					∗6 080	∗6 080	4 520	7 840	3 210	5 390	2 430	4 040	1 910	3 180	1 630	∗2 630	7.80
	-2.0 m			∗6 030	∗6 030	∗5 750	∗5 750	4 530	∗7 830	3 200	5 370	2 420	4 020	1 910	3 180	1 850	3 070	7.24
	-3.0 m			∗6 730	∗6 730	∗7 370	∗7 370	4 580	∗7 360	3 230	5 410	2 440	4 050			2 280	3 410	6.42
	-4.0 m					7 570	∗8 130	4 680	∗6 470	3 310	∗5 150							
	-5.0 m																	

Conditions	Load point height	Load radius 1.0 m		2.0 m		3.0 m		4.0 m		5.0 m		6.0 m		7.0 m		At max. reach		meter
Boom 5.10 m Arm 3.08 m Bucket SAE, PCSA: 0.60 m³ Counterweight 3 300 kg Shoe 500 mm	7.0 m															∗1 570	∗1 570	7.20
	6.0 m											∗2 400	∗2 400			∗1 510	∗1 510	7.89
	5.0 m											∗2 480	∗2 480	2 250	2 450	∗1 490	∗1 490	8.38
	4.0 m											∗2 750	∗2 750	2 210	2 760	1 450	∗1 510	8.71
	3.0 m							∗4 000	∗4 000	∗3 470	∗3 470	2 830	∗3 170	2 150	3 000	1 350	∗1 560	8.89
	2.0 m							5140	∗5 440	3 630	∗4 280	2 700	∗3 660	2 070	3 300	1 300	∗1 640	8.94
	1.0 m							4 800	∗6 720	3 430	∗5 060	2 580	∗4 150	1 990	3 270	1 300	∗1 760	8.87
	0 (Ground)							4 580	∗7 530	3 280	5 480	2 480	4 090	1 920	3 200	1 340	∗1 930	8.66
	-1.0 m					∗5 590	∗5 590	4 480	7 800	3 190	5 370	2 410	4 020	1 880	3 150	1 430	∗2 190	8.30
	-2.0 m	∗4 180	∗4 180	∗5 560	∗5 560	∗6 740	∗6 740	4 460	7 770	3 150	5 330	2 370	3 980	1 860	3 130	1 600	∗2 530	7.78
	-3.0 m	∗6 760	∗6 760	∗6 000	∗6 000	7 270	∗8 000	4 490	∗7 610	3 150	5 330	2 380	3 980	1 870	3 150	1 910	∗3 120	7.04
	-4.0 m			∗7 180	∗7 180	7 400	∗8 960	4 560	∗6 960	3 210	5 390	2 430	4 040			2 530	∗2 920	6.00
	-5.0 m					∗7 310	∗7 310	4 710	∗5 740	3 330	∗4 430							

STANDARD EQUIPMENT

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

ENGINE
- H/P mode control
- E mode control
- 50 A alternator
- Dry-type air filter with evacuator valve (with air filter restriction switch for monitor)
- Cartridge-type engine oil filter
- Cartridge-type fuel double filters
- Air cleaner double filters
- Radiator, oil cooler and intercooler with dust protective net
- Radiator reserve tank
- Fan guard
- Isolation-mounted engine
- Auto-idle system
- Fuel cooler
- Electrical fuel feed pump
- Engine oil drain coupler

HYDRAULIC SYSTEM
- Work mode selector
- Power boost
- Auto power lift
- Extra port for control valve
- Suction filter
- Full-flow filter
- Pilot filter
- Swing dampener valve

CAB
- CRES II (Center pillar reinforced structure) cab
- OPG top guard fitted Level I (ISO10262) compliant cab
- All-weather sound suppressed steel cab
- Equipped with reinforced, tinted (green color) glass windows
- Upper front window can be opened
- 4 fluid-filled elastic mounts
- Intermittent windshield wipers
- Front window washer
- Adjustable reclining seat with adjustable armrests
- Footrest
- Electric double horn
- AM-FM radio with digital clock
- Auto control air conditioner
- Retractable seat belt
- Drink holder
- Cigarette lighter
- Ashtray
- Storage box
- Glove compartment
- Floor mat
- Short wrist control levers
- Pilot control shut-off lever
- Engine shut-off switch

MONITOR SYSTEM
- Display of meters: water temperature, hour, fuel rate, clock
- Other displays: work mode, auto-idle, glow, rearview monitor (when optional rear view camera is equipped), operating conditions, etc
- 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

LIGHTS
- 2 working lights

UPPERSTRUCTURE
- Undercover
- 3 300 kg counterweight
- Fuel level float
- Hydraulic oil level gauge
- Tool box
- Utility space
- Rear view mirror (right & left side)
- Swing parking brake

UNDERCARRIAGE
- Travel parking brake
- Travel motor covers
- 1 track guard (each side) and hydraulic track adjuster
- Bolt-on sprocket
- Upper and lower rollers
- Reinforced track links with pin seals
- 4 tie down hooks
- 500 mm triple grouser shoes

FRONT ATTACHMENTS
- HN bushing
- WC (tungsten-carbide) thermal spraying
- Reinforced resin thrust plate
- Flanged pin
- Casted bucket link A
- Centralized lubrication system
- Dirt seal on all bucket pins
- Bucket clearance adjust mechanism
- 2.58 m arm
- 0.60 m³ (SAE, PCSA heaped) bucket

MISCELLANEOUS
- Standard tool kit
- Lockable machine covers
- Lockable fuel refilling cap
- Skid-resistant tapes, plates and handrails
- Travel direction mark on track frame
- Onboard information controller
- Theft deterrent system

OPTIONAL EQUIPMENT

Optional equipment may vary by country, so please consult your Hitachi dealer for details.

- Suspension seat
- Hose rupture valves
- Electric fuel refilling pump with auto stop
- Swing motion alarm device with lamps
- Travel motion alarm device
- Rear view camera
- Additional pump
- Transparent roof
- Pre-cleaner
- Tropical cover
- Attachment basic piping
- Accessories for breaker
- Accessories for breaker & crusher
- Accessories for 2 speed selector
- Rear light
- Front glass lower guard
- Front glass upper guard
- Track under cover
- Additional work light (boom right side)
- Additional light (on the top of the cab)
- 12 V power source
- Assist piping
- Pilot accumulator
- Rain guard
- Front screen of fuel cooler and air condenser

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 colour and features.
Before use, read and understand the Operator's Manual for proper operation.

Hitachi Construction Machinery
www.hitachi-c-m.com

KS-EN037 07.04 (KA/KA,GT3)