

MAGNET MACHINES

ZAXIS120/200/200LC/240LC/330LC

APPLICATION & ATTACHMENT



Model Code	ZX120	ZX200-5G	ZX200LC-5G	ZX240LC-5G	ZX330LC-5G
Engine Rated Power	65 kW (87HP)	125 kW (168HP)	125 kW (168 HP)	132 kW (177 HP)	184 kW (246 HP)
Operating Weight	13 400 kg	21 000 kg	23 900 kg	27 600 kg	36 700 kg

Advanced Material Handling Machines

The Hitachi magnet machines are designed for high performance backed by reliable magnet, advanced control system and dependable technical service.



Magnet Control System

The arcless contact circuit is provided. The arcless contact circuit utilizes an electromagnetic contactor to prevent arc discharge. This avoids damage to contacts, reduces heat generation, and increases durability, thus boosting operating efficiency.

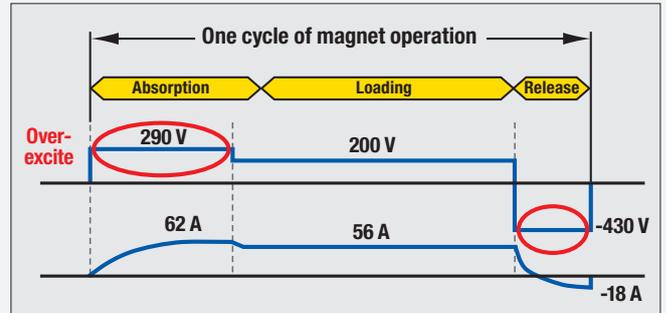
Auto Idling* for Less Fuel Consumption

Engine speed		Magnet switch ON	Stand-by (3.5 s)	Absorption	Release	Stand-by (3.5 s)
Magnet working	1 800 min ⁻¹	●	○	●	●	○
Auto idling	1 200 min ⁻¹	○	●	○	○	●

The auto idling function is added to the magnet machine. When releasing metal scrap or when standing by, the engine speed is automatically decreased down to the idling speed, saving fuel consumption. The rated engine speed resumes when turning on the magnet switch on the control lever or moving the lever.

Quick Absorption and Releasing

By over-exciting and reverse-exciting control, voltage when absorbing is increased for more efficient absorption, and voltage when releasing is reduced for more efficient releasing, thus increasing operating efficiency.



Note: Current shown above is when using a 1 370 mm diameter magnet.

Easy Operation

With the attachment selection switch, switching patterns of absorption and releasing can be selected according to the job requirements.



MCC Control Panel

Simple control through arcless contact circuit is designed for higher reliability, durability and maintainability.

- If any failure occurs, the alarm buzzer sounds, and the breaker turns off to shut down the system.
- The control panel is compact, giving good visibility at its right front.
- The control panel is rugged for higher resistance to vibration and shocks in tough operation.
- The control panel is provided with an independent radiator for heat dissipation and dust protection. There is no need for filter replacement.



MCC control panel

Radiator

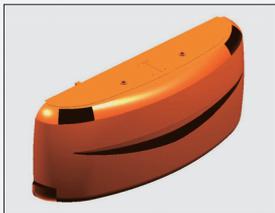


MCC control panel



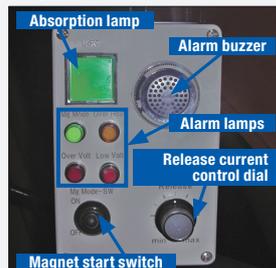
Radiator

Heavier Counterweight *



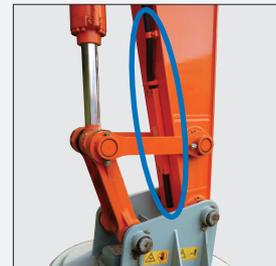
The counterweight is provided with an additional exclusive counterweight for added stability when lifting the load.

Easy-to-Handle Control Panel



The cab control panel is provided with an array of controls for safe operation.

Cable Protection *



The magnet cable is arranged in the center of the arm top plate for protection against damage by metal debris.

* Excluding ZX120

More Production with Less Fuel

Reduction in Fuel Consumption*

New ZAXIS is a fuel-thrifty excavator that can reduce fuel consumption, thanks to efficient hydraulic system and engine control system, thereby reducing CO₂ emissions.

- ZX200-5G: 9% Reduced
(5% compared to the ZX200/200-3G)
- ZX240LC-5G: 8% Reduced
(6% compared to the ZX240/240-3G)
- ZX330LC-5G: 5% Reduced
(3% compared to the ZX330/330-3G)

More Fuel Reduction in the ECO (ZX120: E mode) mode

The ECO mode, a new economical mode, can further cut fuel consumption compared to the PWR mode (ZX120: P mode), without sacrificing digging speed by optimal matching of operations.

- ZX120: 9% Reduced
- ZX200LC-5G: 9% Reduced
- ZX240LC-5G: 10% Reduced
- ZX330LC-5G: 9% Reduced

Pursuits of Performance and Durability

Durable, Reliable Engine

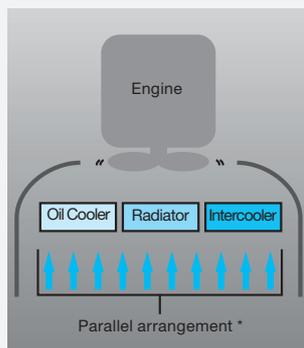
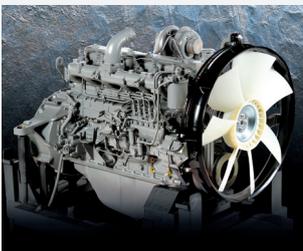
This engine has a track record showing impressive durability at countless tough job sites around the world.

The engine — associated with a rugged design, a direct fuel injection system and an elaborate governor — goes green, and complies with EU Stage II and US EPA Tier 2 emissions regulations.

The cooling system well keeps the engine cool. The engine cover has a wider air suction area, and radiators are arranged in parallel* for efficient cooling. This parallel arrangement also facilitates their cleaning.

The ample-capacity intercooler and turbocharger help yield a whopping ZX200LC-5G : 125 kW (168 HP) output for higher production in shorter job schedule.*

- ZX240LC-5G: 132 kW(177 HP)
- ZX330LC-5G: 184 kW(250 HP)



Rock-Solid, Durable Front Attachment

The boom top and foot are reinforced with thickened high-tensile steel brackets, which incorporate steel bushings to enhance durability.* Arm cylinder and boom cylinders (rod extend ends) cushion shocks at stroke ends to cut noise and extend service life.

Joint pins at the front attachment are tightly fit to reduce jolt and sound. The arm-bucket joint is protected by WC thermal spraying on its contact surfaces to reduce wear and jolt. New-type HN bushings, utilized on joint pins, retain grease inside for longer greasing intervals. A reinforced resin thrust plate, mounted on the bucket pin, helps reduce wearing noise.

Simplified Maintenance



Dust-Proof Indoor Net

A dust-proof indoor net, provided at the front of radiator, can be easily removed and cleaned with compressed air. At the rear of the radiator, air blowing can be done through a one-touch open cover.* The air condenser is openable for easy cleaning at its rear.*

Attractive, Robust Body

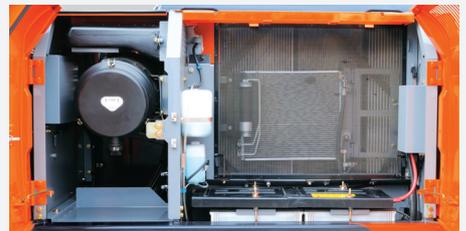
Side frame tops of the undercarriage are sloped* to let muck slide away. Track adjuster greasing ports are repositioned for easier lubrication, and well protected from muck packing.

Grouped Remote Inspection Points

Service points are concentrated inside left and right covers that are readily accessible from ground level for convenient servicing and inspection, including water draining from the fuel tank, replenishment of coolant, and replacement of filters. The fuel tank is anti-corrosion coated on its inside, and has a large cleaning port* at the bottom. These wise designs effectively keep fuel clean, and ease servicing. Handrails are provided at convenient locations for easy riding on the upperstructure. Plenty slip-resistant plates are located for safety maintenance.



Grouped remote filters and inspection points



Utility space and radiators



Fuel tank water drainage cock

Note: Photos show ZX240LC-5G

* Excluding ZX120

SPECIFICATIONS

ENGINE	ZX120	ZX200-5G / ZX200LC-5G
Model	Isuzu CC-4BG1TC	Isuzu CC-6BG1T
Type	4-cycle water-cooled, direct injection	
Aspiration	Turbocharged, intercooled	
No. of cylinders	4	6
Rated power		
ISO 9249, net	65 kW(87 HP) at 2 150 min ⁻¹ (rpm)	125 kW(158 HP) at 2 100 min ⁻¹ (rpm)
SAE J1349, net	65 kW(87 HP) at 2 150 min ⁻¹ (rpm)	125 kW(158 HP) at 2 100min ⁻¹ (rpm)
Maximum torque	340 Nm(35 kgfm) at 1 600 min ⁻¹ (rpm)	637 Nm(65 kgfm) at 1 800 min ⁻¹ (rpm)
Piston displacement	4.329 L	6.494 L
Bore and stroke	105 mm × 125 mm	105 mm × 125 mm
Batteries	2 × 12 V / 55 Ah	2 × 12 V / 88 Ah

HYDRAULIC SYSTEM	ZX120	ZX200-5G / ZX200LC-5G
Hydraulic pumps	2 variable displacement axial piston pumps	
Main pumps	2 × 105 L/min	
Maximum oil flow	2 × 105 L/min	2 × 212 L/min
Pilot pump	1 gear pump	
Maximum oil flow	33 L/min	33.6 L/min
Hydraulic Motors	2 variable displacement swash plate piston motors	
Travel	2 variable displacement swash plate piston motors	
Swing	1 swash plate piston motor	
Relief Valve Settings		
Implement circuit	34.3 MPa(350 kgf/cm ²)	34.3 MPa(350 kgf/cm ²)
Swing circuit	32.3 MPa(330 kgf/cm ²)	34.3 MPa(350 kgf/cm ²)
Travel circuit	34.3 MPa(350 kgf/cm ²)	34.3 MPa(350 kgf/cm ²)
Pilot circuit	3.9 MPa(40 kgf/cm ²)	
Power boost	-	38.0 MPa(388 kgf/cm ²)

Hydraulic Cylinders	Quantity	Bore	Rod diameter	Quantity	Bore	Rod diameter
Boom	2	105 mm	70 mm	2	120 mm	85 mm
Arm	1	115 mm	80 mm	1	135 mm	95 mm
Bucket	1	100 mm	70 mm	1	115 mm	80 mm

UPPERSTRUCTURE	ZX120	ZX200-5G / ZX200LC-5G
Swing Device		
Swing speed	13.7 min ⁻¹ (rpm)	13.5 min ⁻¹ (rpm)
Swing torque	34.0 kNm(3 470 kgfm)	68 kNm(6 900 kgfm)

UNDERCARRIAGE	ZX120	ZX200-5G / ZX200LC-5G
Numbers of Rollers and Shoes on Each Side		
Upper rollers	1	2
Lower rollers	7	7
Track shoes	44	46
Track guard	-	1
Travel Device		
Travel speeds	High : 0 to 5.5 km/h Low : 0 to 3.4 km/h	High : 0 to 5.5 km/h Low : 0 to 3.5 km/h
Maximum traction force	102 kN (10 400 kgf)	203 kN (20 700 kgf)
Gradeability	70 % (35 degree) continuous	70 % (35 degree) continuous

SERVICE REFILL CAPACITIES	ZX120	ZX200-5G / ZX200LC-5G
Fuel tank	250.0 L	400.0 L
Engine coolant	19.0 L	23.0 L
Engine oil	15.8 L	25.0 L
Swing device	3.2 L	6.2 L
Travel device (each side)	4.0 L	6.8 L
Hydraulic system	130.0 L	240.0 L
Hydraulic oil tank	69.0 L	135.0 L

WEIGHT AND GROUND PRESSURE	ZX120			ZX200LC-5G / ZX200LC-5G		
Triple grouser shoe	Arm, Boom length	kg	kPa(kgf/cm ²)	Arm, Boom length	kg	kPa(kgf/cm ²)
shoe width 500mm	3.01 m Arm, 4.60 m Boom	13 400	51(0.52)	-	-	-
shoe width 600mm	-	-	-	2.91 m Arm, 5.68 m Boom	21 000 / 23 5000	51 / 52 (47.0 / 48.8)

SPECIFICATIONS

ENGINE	ZX240LC-5G	ZX330LC-5G
Model	Isuzu CC-6BG1T	Isuzu AH-6HK1X
Type	4-cycle water-cooled, direct injection	
Aspiration	Turbocharged, intercooled	
No. of cylinders	6	6
Rated power		
ISO 9249, net	132 kW(177 HP) at 2 150 min ⁻¹ (rpm)	184 kW(246 HP) at 2 000 min ⁻¹ (rpm)
SAE J1349, net	132 kW(177 HP) at 2 150 min ⁻¹ (rpm)	184 kW(246 HP) at 2 000 min ⁻¹ (rpm)
Maximum torque	637 Nm(65 kgfm) at 1 800 min ⁻¹ (rpm)	837 Nm(89kgfm) at 1 700 min ⁻¹ (rpm)
Piston displacement	6.494 L	7.790 L
Bore and stroke	105 mm × 125 mm	115 mm × 125 mm
Batteries	2 × 12 V / 88 Ah	2 × 12 V / 128 Ah

HYDRAULIC SYSTEM	ZX240LC-5G	ZX330LC-5G
Hydraulic pumps	2 variable displacement axial piston pumps	
Main pumps	2 × 223 L/min	
Maximum oil flow	2 × 279 L/min	
Pilot pump	1 gear pump	
Maximum oil flow	32.0 L/min	32.8 L/min
Hydraulic Motors	2 variable displacement swash plate piston motors	
Travel	1 swash plate piston motor	
Swing		
Relief Valve Settings		
Implement circuit	34.3 MPa(350 kgf/cm ²)	34.3 MPa(350 kgf/cm ²)
Swing circuit	32.4 MPa(330 kgf/cm ²)	32.4 MPa(330 kgf/cm ²)
Travel circuit	34.8 MPa(355 kgf/cm ²)	34.8 MPa(355 kgf/cm ²)
Pilot circuit	3.9 MPa(40 kgf/cm ²)	3.9 MPa(40 kgf/cm ²)
Power boost	38.0 MPa(388 kgf/cm ²)	38.0 MPa(388 kgf/cm ²)

Hydraulic Cylinders	Quantity	Bore	Rod diameter	Quantity	Bore	Rod diameter
Boom	2	125 mm	90 mm	2	145 mm	100 mm
Arm	1	140 mm	100 mm	1	170 mm	115 mm
Bucket	1	130 mm	90 mm	1	140 mm	85 mm

UPPERSTRUCTURE	ZX240LC-5G	ZX330LC-5G
Swing Device		
Swing speed	11.0 min ⁻¹ (rpm)	10.7 min ⁻¹ (rpm)
Swing torque	77.5 kNm(7 900 kgfm)	120 kNm(12 200 kgfm)

UNDERCARRIAGE	ZX240LC-5G	ZX330LC-5G
Numbers of Rollers and Shoes on Each Side		
Upper rollers	2	2
Lower rollers	9	8
Track shoes	51	48
Track guard	1	3
Travel Device		
Travel speeds	High : 0 to 5.5 km/h Low : 0 to 3.4 km/h	High : 0 to 4.9 km/h Low : 0 to 3.1 km/h
Maximum traction force	222 kN (22 600 kgf)	298 kN (30 400 kgf)
Gradeability	70 % (35 degree) continuous	70 % (35 degree) continuous

SERVICE REFILL CAPACITIES	ZX240LC-5G	ZX330LC-5G
Fuel tank	510.0 L	630.0 L
Engine coolant	26.0 L	35.0 L
Engine oil	25.0 L	36.0 L
Swing device	9.1 L	15.7 L
Travel device (each side)	7.8 L	9.2 L
Hydraulic system	280.0 L	340.0 L
Hydraulic oil tank	156.0 L	180.0 L

WEIGHT AND GROUND PRESSURE	ZX240LC-5G			ZX330LC-5G		
Triple grouser shoe	Arm, Boom length	kg	kPa(kgf/cm ²)	Arm, Boom length	kg	kPa(kgf/cm ²)
shoe width 600mm	2.96 m Arm 6.00 m Boom	27 600	55 (0.56)	3.20 m Arm 6.40 m Boom	36 700	69 (0.70)

SPECIFICATIONS

WORKING RANGES

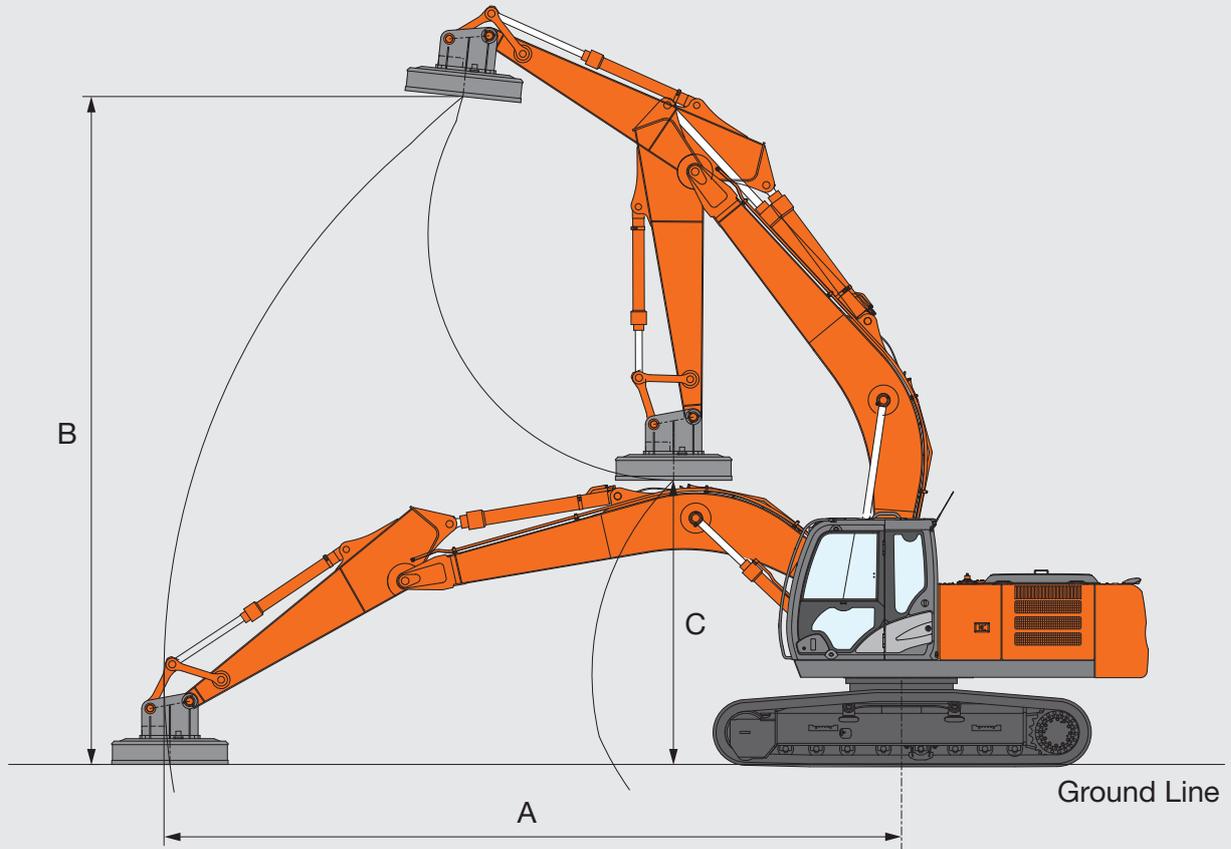


Illustration shows ZX240LC-5G

		ZX120	ZX200-5G / ZX200LC-5G	ZX240LC-5G	ZX330LC-5G
A Max. working reach	mm	7 690	8 680	8 960	9 730
B Max. working height	mm	7 260	7 930	8 050	8 220
C Arm crowding height	mm	2 250	3 370	3 640	3 600

LIFTING MAGNET SPECIFICATIONS

Maching of machine and magnet	Magnet diameter			
	900 mm	1 170 mm	1 370 mm	1 570 mm
ZX120	◎	-	-	-
ZX200-5G	-	◎	●	-
ZX200LC-5G	-	●	◎	-
ZX240LC-5G	-	●	◎	-
ZX330LC-5G	-	-	●	◎

◎ : Standard ● : Optional

Attachment type		LECG9F6	LECG11F6	LECG13F6	LECG15F6
Magnet diameter	mm	900	1 170	1 370	1 570
Weight	kg	776	1 400	2 100	2 880
Power consumption (at 20 degree)	kW	6.0	8.0	13.5	15.8
Clamping capacity (bulk specific gravity 0.75)	kg	150-190	290-355	470-565	650-790
(bulk specific gravity 1.3)		235-290	475-555	750-860	1 030-1 170

DIMENSIONS

DIMENSIONS

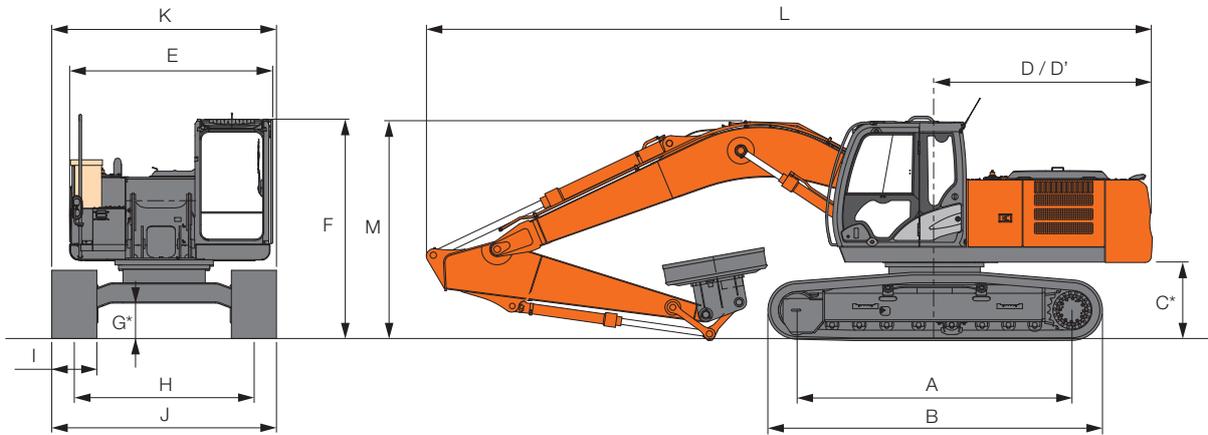


Illustration shows ZX240LC-5G

Unit: mm

	ZX120	ZX200-5G / ZX200LC-5G	ZX240LC-5G	ZX330LC-5G
A Distance between tumblers	2 880	3 370 / 3 660	3 850	4 050
B Undercarrage length	3 580	4 170 / 4 470	4 640	4 940
*C Counterweight clearance	890	1 030	1 080	1 160
D Rear-end swing radius	2 130	2 890	3 140	3 590
D' Rear-end length	2 130	2 890	3 140	3 590
E Overall width of upperstructure	2 460	2 710	2 870	2 990
F Overall height of cab	2 740	2 950	3 010	3 160
*G Min. ground clearance	440	450	460	500
H Track gauge	1 990	2 200 / 2 390	2 590	2 590
I Track shoe width with triple grouser shoes	G 500	G 600	G 600	G 600
J Undercarrage width	2 490	2 800 / 2 990	3 190	3 190
K Overall width	2 500	2 860 / 2 990	3 190	3 190
L Overall length	7 620	9 660	10 360	11 220
M Overall height of boom	2 680	2 940	3 070	3 270

* Excluding track shoe lug



MEMO

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

These specifications are subject to change without notice.

Illustrations and photos show the standard models, and may or may not include optional equipment, accessories, and all standard equipment with some differences in color and features.

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