

ZAXIS-3 series

HITACHI

Quarry Specification Excavators

ZAXIS

400R

470R

470LCR

520LCR

670LCR

870R

870LCR

HYDRAULIC EXCAVATOR

■ **Model Code** : ZX400R-3 / ZX470R-3 / ZX470LCR-3 / ZX520LCR-3 / ZX670LCR-3 / ZX870R-3 / ZX870LCR-3

■ **Engine Rated Power** : ZX400R-3 : 202 kW (271 HP)
: ZX470R-3 / ZX470LCR-3 / ZX520LCR-3 : 260 kW (349 HP)
: ZX670LCR-3 : 345 kW (463 HP)
: ZX870R-3 / ZX870LCR-3 : 397 kW (532 HP)

■ **Operating Weight** : ZX400R-3 : 38 700 kg / ZX470R-3 : 47 900 kg / ZX470LCR-3 : 48 900 kg
ZX520LCR-3 : 52 500 kg / ZX670LCR-3 : 68 400 kg
ZX870R-3 : 83 600 kg / ZX870LCR-3 : 85 500 kg

■ **Backhoe Bucket** : SAE, PCSA Heaped : 1.5 - 4.3 m³
CECE Heaped : 1.3 - 3.8 m³

Tougher and More Powerful in Quarry

Hitachi's technology is built on a wealth of experience and knowhow from limestone sites and quarries around the world. The quarry specification concept continues to evolve in answer to increasingly demanding operational tasks.

Specially Designed Front Attachment for Quarry

- Stronger Boom and Arm - Additional Welding Increases the Strength and Durability
- Arm-End Boss and Arm Cylinder Mounting Bracket are Reinforced
- Specially Designed Bucket with Wear-Resisting Steel

Tougher Undercarriage for Rocky Ground Condition

- Reinforced Travel Motor Cover and Guard - Reinforced Idler Part of Side Frame
- Track Under Cover (Optional) - Full Track Guard Provided Standard

Enhanced Safety & Operator Comfort

- H/R Cab - Comfort-Designed Operator Seat - Fluid-Filled Elastic Mounts
- Pressurized Cab - Multi-Language, Multi Function Monitor
- Rear View Camera - Attachment Support System

Simplified Maintenance

- Parallel Arrangement of Radiator and Oil Cooler
- Dual Main Fuel Filters Provided Standard - Automatic Lubrication
- Extended Hydraulic Oil Filter Change Intervals

Applicable for Breaker Operation (Optional)

- Double Accumulator - Ergonomic Breaker Pedal Layout
- Breaker Hour Meter - Shatterproof Windshield and Window

- Clean engine complies with the emission regulations US EPA Tier 3 and EU Stage IIIA.
- Low noise design complies with the EU noise regulation 2000/14/EC, Stage II.



High Durability Means Long-Lasting Product Value

Strengthened undercarriage for higher durability even in heavy-duty applications.



Specially Designed Front Attachment for Quarry

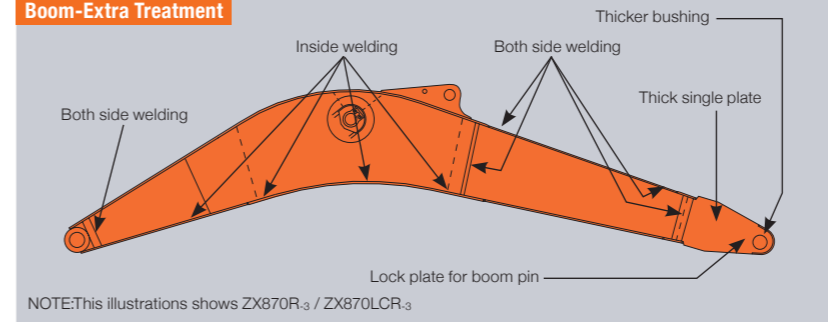
Stronger Boom and Arm

Higher durability with special reinforcement and stress-relieved welding.

Additional Welding Increases the Strength and Durability

The boom-end rigidity through the use of a thick single plate and increased boom-end bushing thickness also contribute to increasing durability.

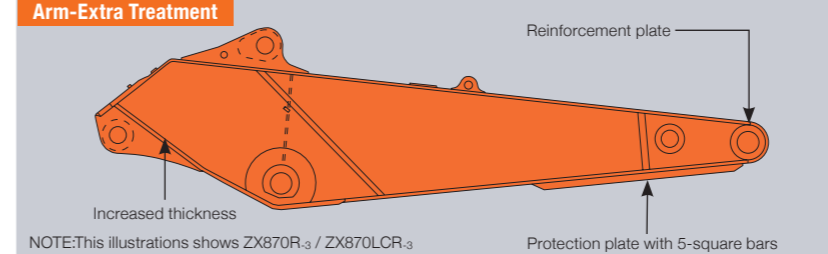
Boom-Extra Treatment



Arm-End Boss and Arm Cylinder Mounting Bracket are Reinforced

Reinforced arm-end boss and arm cylinder mounting bracket provides higher durability. Protection plate with 5-square bars also enhances reliability in heavy-duty operation.

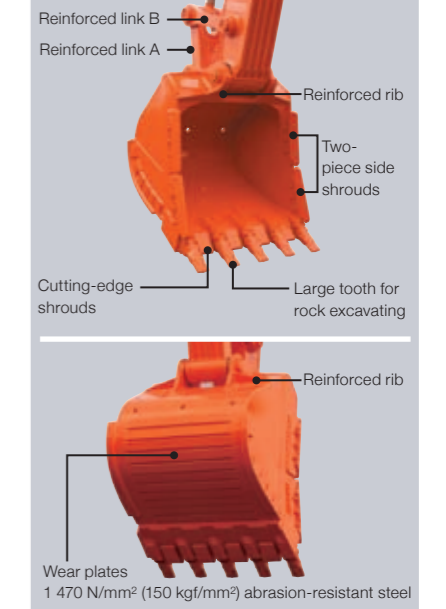
Arm-Extra Treatment



Specially Designed Bucket with Wear-Resisting Steel

The R-bucket is made of wear-resisting steel, and reshaped with side shrouds, cutting-edge shrouds, and large bucket teeth for enhanced durability. Easily replaceable lateral wear plates help reduce downtime. The limestone bucket has similar features except for the number of side shrouds and size of tooth.

R-Bucket



Tougher Undercarriage for Rocky Ground Condition

Reinforced Travel Motor Cover and Guard

The reinforced travel motor cover with square bars and reinforced travel guard protect the travel motor from damage by stone projectiles.



ZX870R-3 / 870LCR-3

Reinforced Idler Part of Side Frame

Rigid structure of side frame withstands frequent shock caused by rock hitting.



ZX870R-3 / 870LCR-3

Track Under Cover (Optional)

Track under cover protects travel pipings and hoses.

Full Track Guard Provided Standard

On the R-specification machine, full track guards are provided standard. Full track guards protect track links and lower rollers from damage and deformation. Moreover, they also keep out stones, preventing overload to the undercarriage to reduce wear and damage.



ZX870R-3 / 870LCR-3



ZX400R-3

How to strengthen boom, arm and undercarriage according to the model.

Enhanced Safety & Operator Comfort

An array of safety devices for enhanced safety. The spacious cab is ergonomically designed with excellent visibility to reduce operator fatigue and burden.

H/R Cab

The H/R cab utilizes the reinforced front window and FOPS* at the roof for protection against falling objects. The front window, made of straight-laminated glass, is fixed to shut out dirt and debris. The cab provided with a full guard satisfies the OPG** (Level II) cab requirements stipulated by ISO.

*Falling Object Protective Structure
**Operator Protective Guards



Comfort-Designed Operator Seat

The operator seat is ergonomically designed for long-hour pleasant operation. The seatback is widened to hold the operator securely, and the headrest is reshaped. The operator seat is strengthened to reduce vibration and shocks, and increase durability.

Fluid-Filled Elastic Mounts

The cab rests on fluid-filled elastic mounts that absorb shocks and vibration to enhance operator comfort.

Pressurized Cab

The pressurized cab shuts out debris and dirt.

Multi-Language, Multi Function Monitor

A large multi-language, multi function monitor is well positioned for easy reading.



Rear View Camera (Optional)

The large color LCD monitor, teamed up with the rear view camera (optional) on the counterweight, gives the operator unobstructed rearward view. This system enhances safety during swing and reversing.



Attachment Support System

The work mode can be selected from the multi function monitor inside the cab. Pump flow in the selected work mode can be monitored.

Excavation: Work mode selection window

Breaker 1:
Selected for small-flow breaker

Maximum Pump Flow Rate	200.0 L/min
Maximum Engine Speed	1700 min ⁻¹
W/ve Selector	Accumulator
2 Speed Selector	OFF
Secondary Hydraulic Relief Selector	Relief Selector

Breaker 2:
Selected for medium-flow breaker

Maximum Pump Flow Rate	250.0 L/min
Maximum Engine Speed	1700 min ⁻¹
W/ve Selector	Accumulator
2 Speed Selector	OFF
Secondary Hydraulic Relief Selector	Relief Selector

Breaker 3:
Selected for large-flow breaker

Maximum Pump Flow Rate	280.0 L/min
Maximum Engine Speed	1700 min ⁻¹
W/ve Selector	Accumulator
2 Speed Selector	OFF
Secondary Hydraulic Relief Selector	Relief Selector

NOTE: These photos exclude ZX400R-3

Simplified Maintenance

Focusing on simplified maintenance, including easy inspection, service and cleaning.

Parallel Arrangement of Radiator and Oil Cooler

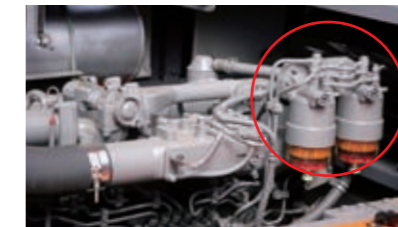
The radiator and oil cooler are laid out in parallel arrangement for easy demounting, instead of conventional in-line arrangement. This new arrangement significantly helps facilitate cleaning around the engine.



ZX470R-3 / 470LCR-3 / 520LCR-3
ZX400R-3: The oil cooler, radiator and intercooler are in line arrangement.

Dual Main Fuel Filters Provided Standard

In addition to a prefilter, dual main fuel filters are provided standard to reduce clogging of the fuel line to the engine. (ZX400R-3: One main filter)



ZX470R-3 / 470LCR-3 / 520LCR-3

Automatic Lubrication

The front attachment is automatically lubricated, except for bucket lubricating points at the top of arm.

Extended Hydraulic Oil Filter Change Intervals

Hydraulic oil filter change intervals are extended from 500 hours (Conventional model) to 1000 hours to help reduce running costs.



ZX670LCR-3

Applicable for Breaker Operation (Optional)

Double Accumulator

Double accumulator protects hydraulic pumps from pulse beat from breaker.

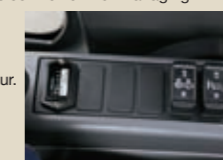


Ergonomic breaker pedal layout



Breaker Hour Meter

Breaker hour meter is convenient for managing filter and hydraulic oil replacement in accordance with breaker operation hour.



Shatterproof windshield and window

Laminated film on the front windshield and right side window to prevent shattering.



ZX470R-3

ZAXIS 400R

ENGINE

Model..... Isuzu AH-6HK1X
 Type..... 4-cycle water-cooled, direct injection
 Aspiration..... Turbocharged, intercooled
 No. of cylinders 6
 Rated power
 ISO 9249, net..... H/P mode :
 202 kW (271 HP) at 1 900 min⁻¹ (rpm)
 EEC 80/1269, net..... H/P mode :
 202 kW (271 HP) at 1 900 min⁻¹ (rpm)
 SAE J1349, net H/P mode :
 202 kW (271 HP) at 1 900 min⁻¹ (rpm)
 Maximum torque..... 1 080 Nm (110 kgf m) at 1 500 min⁻¹ (rpm)
 Piston displacement 7.790 L
 Bore and stroke 115 mm x 125 mm
 Batteries 2 x 12 V / 128 Ah

HYDRAULIC SYSTEM

• Work mode selector
 Digging mode / Attachment mode
 Main pumps..... 2 variable displacement axial piston pumps
 Maximum oil flow .. 2 x 288 L/min
 Pilot pump..... 1 gear pump
 Max. oil flow..... 32 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/cm²)
 Swing circuit 34.3 MPa (350 kgf/cm²)
 Travel circuit..... 34.3 MPa (350 kgf/cm²)
 Pilot circuit 3.9 MPa (40 kgf/cm²)
 Power boost 36.3 MPa (370 kgf/cm²)

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	145 mm	100 mm
Arm	1	170 mm	115 mm
Bucket	1	140 mm	95 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

UPPER STRUCTURE

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 10.7 min⁻¹ (rpm)

Operator's Cab

Independent spacious cab, 1 005 mm wide by 1 795 mm high, conforming to ISO* Standards. (OPG top guard fitted Level II (ISO 10262) compliant cab) Reinforced glass windows on 4 sides for visibility. 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 8
 Track shoes 46
 Full 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 5.0 km/h
 Low : 0 to 2.9 km/h

Maximum traction force.... 322 kN (32 800 kgf)
 Gradeability 70 % (35 degree) continuous

WEIGHTS AND GROUND PRESSURE

Equipped with 6.4 m R-boom, 3.2 m R-arm, and 1.5 m³ R-bucket (SAE, PCSA heaped) .

Shoe type	Shoe width	Operating weight	Ground pressure
Triple grouser	600 mm	38 700 kg	78 kPa (0.79 kgf/cm ²)

BACKHOE ATTACHMENTS

Boom and arms are of all-welded, box-section design. A number of boom and arms are available. Bucket is of all-welded, high-strength steel structure. The ZX400R-3 is a heavy duty type and equipped with a reinforced R-boom and R-arm.

Backhoe Buckets

Capacity		Width		No. of teeth	Weight	Recommendation
SAE, PCSA heaped	CECE heaped	Without side shrouds	With side shrouds			ZX400R-3
						6.4 m R-boom
						3.2 m R-arm
* 1.5 m ³	1.3 m ³	1 440 mm	1 470 mm	5	1 720 kg	●

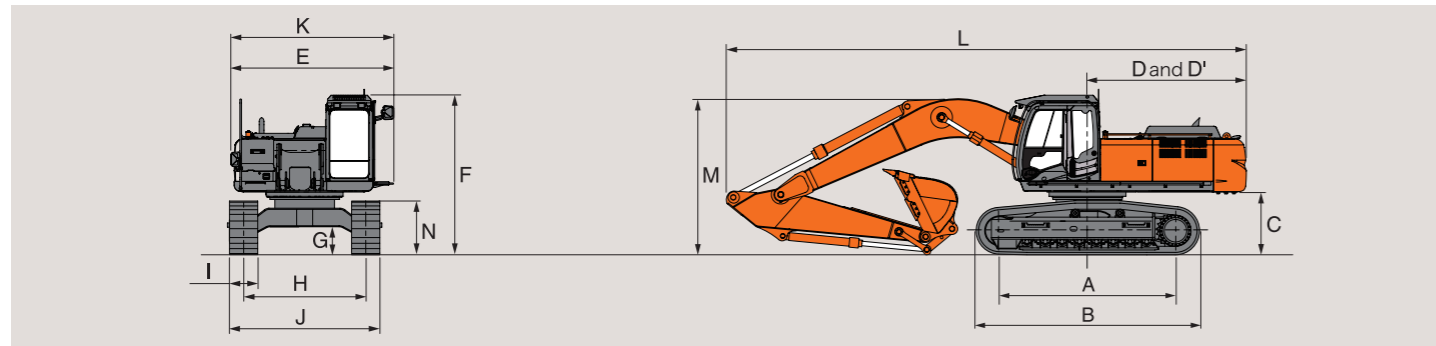
*R-bucket

SERVICE REFILL CAPACITIES

Fuel tank 630.0 liters
 Engine coolant..... 32.0 liters
 Engine oil 41.0 liters
 Swing device (each side)..... 17.0 liters
 Travel device (each side) 9.2 liters
 Hydraulic system..... 374.0 liters
 Hydraulic oil tank..... 298.0 liters

ZAXIS 400R

DIMENSIONS



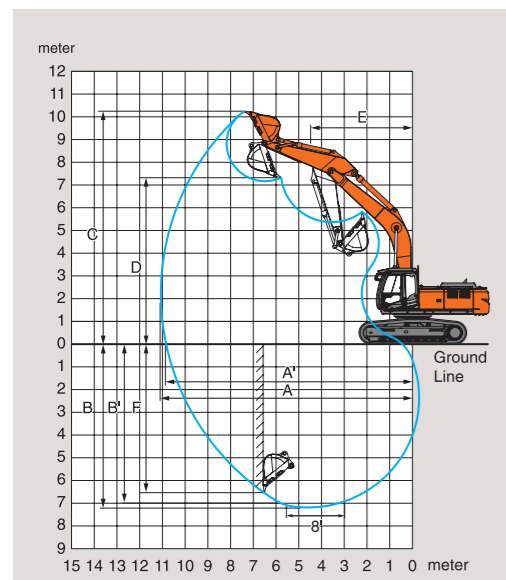
Unit: mm

	ZX400R-3 *2
A Distance between tumbler	3 730
B Undercarriage length	4 740
*1 C Counterweight clearance	1 260
D Rear-end swing radius	3 390
D' Rear-end length	3 370
E Overall width of upperstructure	3 380
F Overall height of cab	3 390
*1 G Min. ground clearance	560
H Track gauge: Extended/Retracted	2 590
I Track shoe width	G 600
J Undercarriage width: Extended/Retracted	3 190
K Overall width	3 520
L Overall length	11 030
M Overall height of boom	3 410
N Track height	1 150

*1 Excluding track shoe lug.
 *2 Equipped with 7.0 m R-boom and 3.4 m R-arm
 G: Triple grouser shoe

WORKING RANGES

Unit: mm

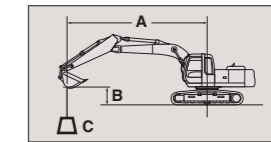


Arm length	ZX400R-3
	6.4 m R-boom 3.2 m R-arm
A Max. digging reach	11 090
A' Max. digging reach (on ground)	10 860
B Max. digging depth	7 310
B' Max. digging depth (B' level)	7 140
C Max. cutting height	10 320
D Max. dumping height	7 220
E Min. swing radius	4 470
F Max. vertical wall	6 650
Bucket digging force* ISO	236 kN (24 100 kgf)
Bucket digging force* SAE : PCSA	200 kN (20 400 kgf)
Arm crowd force* ISO	180 kN (18 400 kgf)
Arm crowd force * SAE : PCSA	172 kN (17 600 kgf)
Equipped bucket SAE : PCSA	1.5 m ³

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.



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

ZX400R-3

Rating over-side or 360 degrees Rating over-front Unit: 1 000 kg

Conditions	Load Point height	Load radius														At max. reach									
		2 m		3 m		4 m		5 m		6 m		7 m		8 m		9 m		meter							
R-boom 6.4 m R-arm 3.2 m R-bucket SAE,PCSA: 1.5 m ³ Shoe 600 mm	7 m														*5.3	*5.3			*3.5	*3.5	9.5				
	6 m														5.8	*6.3			*3.5	*3.5	10.0				
	4 m														*8.5	*8.5	7.1	*7.5	5.6	*6.9	4.4	*6.5	3.1	*3.6	10.5
	2 m								11.2	*13.8	8.4	*10.8	6.5	*9.0	5.2	*7.9	4.1	6.5	3.0	*4.0	10.6				
	0 (Ground)							10.4	*15.6	7.8	*12.3	6.1	9.6	4.9	7.7	3.9	6.3	3.1	*4.6	10.2					
	-2 m	*7.7	*7.7	*11.5	*11.5	15.0	*18.3	10.2	*15.2	7.6	12.1	5.9	9.4	4.7	7.5	3.9	6.2	3.7	*5.8	9.3					
	-4 m			*18.7	*18.7	15.4	*15.7	10.4	*13.1	7.7	*10.9	6.0	*9.0					5.4	*6.1	7.7					
	-6 m					*9.7	*9.7	*8.0	*8.0																

ZAXIS 470R / 470LCR / 520LCR

ENGINE

Model.....	Isuzu AH-6WG1XYSA-01
Type.....	4-cycle water-cooled, direct injection
Aspiration.....	Turbocharged
No. of cylinders.....	6
Rated power	
ISO 9249, net.....	H/P mode :
(Without Fan)	260 kW (349 HP) at 1 800 min ⁻¹ (rpm)
EEC 80/1269, net.....	H/P mode :
(Without Fan)	260 kW (349 HP) at 1 800 min ⁻¹ (rpm)
SAE J1349, net.....	H/P mode :
(Without Fan)	260 kW (349 HP) at 1 800 min ⁻¹ (rpm)
Maximum torque.....	1 580 Nm (161 kgfm) at 1 500 min ⁻¹ (rpm)
Piston displacement	15.681 L
Bore and stroke	147 mm x 154 mm
Batteries	2 x 12 V / 170 Ah

HYDRAULIC SYSTEM

- Work mode selector
 - General purpose mode / Attachment mode
- Engine speed sensing system
 - Main pumps..... 2 variable displacement axial piston pumps
 - Maximum oil flow .. 2 x 360 L/min
 - Pilot pump..... 1 gear pump
 - Max. oil flow..... 30 L/min

Hydraulic Motors

Travel	2 axial piston motors with parking brake
Swing.....	2 axial piston motors

Relief Valve Settings

Implement circuit	31.9 MPa (325 kgf/cm ²)
Swing circuit	27.9 MPa (285 kgf/cm ²)
Travel circuit.....	34.3 MPa (350 kgf/cm ²)
Pilot circuit	3.9 MPa (40 kgf/cm ²)
Power boost	34.3 MPa (350 kgf/cm ²)

Hydraulic Cylinders

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	170 mm	115 mm
Arm	1	190 mm	130 mm
Bucket	1	170 mm	120 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 inductionhardened internal gear. Internal gear and pinion gear are immersed in lubricant. Swing parking brake is spring-set/hydraulic-released disc type. Swing speed 9.0 min⁻¹ (rpm)

Operator's Cab

Independent spacious cab, 1 005 mm wide by 1 795 mm high, conforming to ISO* Standards. (OPG top guard fitted Level II (ISO 10262) compliant cab) Reinforced glass windows on 4 sides for visibility. 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 bolted 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.....	3
Lower rollers.....	8: ZX470R-3 / ZX520LCR-3 9: ZX470LCR-3
Track shoes	47: ZX470R-3 49: ZX520LCR-3 53: ZX470LCR-3
Full track guard	1

Travel Device

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

ZX470R-3 / ZX470LCR-3:

Travel speeds	High : 0 to 5.5 km/h Low : 0 to 3.4 km/h
Maximum traction force....	322 kN (32 800 kgf)
Gradeability	70 % (35 degree) continuous

ZX520LCR-3:

Travel speeds	High : 0 to 4.0 km/h Low : 0 to 2.9 km/h
Maximum traction force....	415 kN (42 300 kgf)
Gradeability	70 % (35 degree) continuous

WEIGHTS AND GROUND PRESSURE

ZX470R-3:

Equipped with 7.0 m R-boom, 3.4 m R-arm, and 1.9 m³ R-bucket (SAE, PCSA heaped) .

Shoe type	Shoe width	Operating weight	Ground pressure
Triple grouser	600 mm	47 900 kg	89 kPa (0.91 kgf/cm ²)

ZX470LCR-3:

Equipped with 7.0 m R-boom, 3.4 m R-arm, and 1.9 m³ R-bucket (SAE, PCSA heaped).

Shoe type	Shoe width	Operating weight	Ground pressure
Triple grouser	600 mm	48 900 kg	83 kPa (0.85 kgf/cm ²)

ZX520LCR-3:

Equipped with 7.0 m R-boom, 3.4 m R-arm, and 1.9 m³ R-bucket (SAE, PCSA heaped).

Shoe type	Shoe width	Operating weight	Ground pressure
Double grouser	600 mm	52 500 kg	93 kPa (0.95 kgf/cm ²)

BACKHOE ATTACHMENTS

Boom and arms are of all-welded, box-section design. A number of boom and arms are available. Bucket is of all-welded, high-strength steel structure. The ZX470R-3 / ZX470LCR-3 / ZX520LCR-3 are a heavy duty type and equipped with a reinforced R-boom or BER-boom and R-arm or BER-arm.

Backhoe Buckets

ZX470R-3 / ZX470LCR-3

Capacity		Width		No. of teeth	Weight	Recommendation					
						ZX470R-3		ZX470LCR-3			
SAE, PCSA heaped	CECE heaped	Without side shrouds	With side shrouds			7.0 m R-boom		6.3 m BER-boom		7.0 m R-boom	
						2.9 m BER-arm	3.4 m R-arm	2.5 m BER-arm	2.9 m BER-arm	2.9 m BER-arm	3.4 m R-arm
¹ 1.9 m ³	1.7 m ³	1 480 mm	1 500 mm	5	2 070 kg	●	●	●	●	●	●
¹ 2.1 m ³	1.8 m ³	1 560 mm	1 580 mm	5	2 170 kg	●	—	●	●	●	—
¹ 2.3 m ³	2.0 m ³	1 680 mm	1 700 mm	5	2 260 kg	—	—	●	●	—	—
¹ 2.5 m ³	2.2 m ³	1 800 mm	1 820 mm	5	2 360 kg	—	—	●	—	—	—

ZX520LCR-3

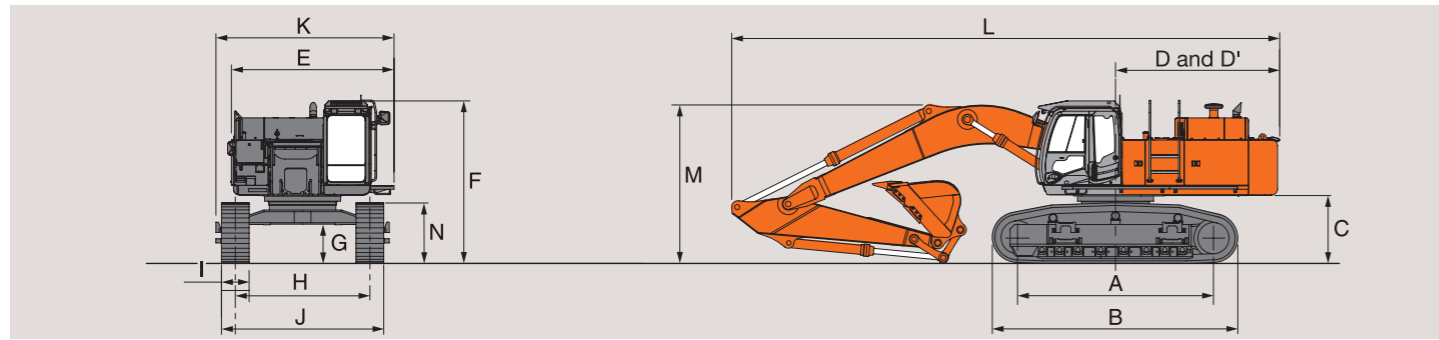
Capacity		Width		No. of teeth	Weight	Recommendation			
						ZX520LCR-3			
SAE, PCSA heaped	CECE heaped	Without side shrouds	With side shrouds			6.3 m BER-boom		7.0 m R-boom	
						2.5 m BER-arm	2.9 m BER-arm	2.9 m BER-arm	3.4 m R-arm
¹ 1.9 m ³	1.7 m ³	1 480 mm	1 500 mm	5	2 070 kg	●	●	●	●
¹ 2.1 m ³	1.8 m ³	1 560 mm	1 580 mm	5	2 170 kg	●	●	●	●
¹ 2.3 m ³	2.0 m ³	1 680 mm	1 700 mm	5	2 260 kg	●	●	●	—
¹ 2.5 m ³	2.2 m ³	1 800 mm	1 820 mm	5	2 360 kg	●	●	—	—

¹ R-bucket

- Heavy-duty service
- Not applicable

ZAXIS 520LCR

DIMENSIONS



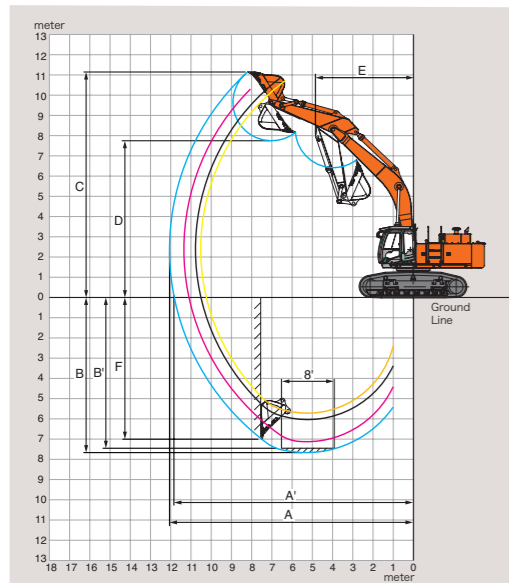
Unit: mm

ZX520LCR-3 *2	
A Distance between tumblers	4 250
B Undercarriage length	5 330
*1 C Counterweight clearance	1 435
D Rear-end swing radius	3 645
D' Rear-end length	3 560
E Overall width of upperstructure	3 530
F Overall height of cab	3 520
*1 G Min. ground clearance	810
H Track gauge: Extended/Retracted	2 920 / 2 420
I Track shoe width	G 600
J Undercarriage width: Extended/Retracted	3 520 / 3 020
K Overall width	3 860
L Overall length	11 890
M Overall height of boom	3 500
N Track height	1 290

*1 Excluding track shoe lug. G: Double grouser shoe
*2 Equipped with 7.0 m R-boom and 3.4 m R-arm

WORKING RANGES

Unit: mm

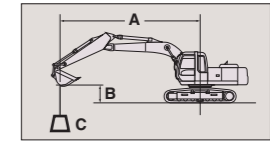


Arm length	ZX520LCR-3			
	6.3 m BER-boom		7.0 m R-boom	
	2.5 m BER-arm	2.9 m BER-arm	2.9 m BER-arm	3.4 m R-arm
A Max. digging reach	10 460	10 750	11 330	12 060
A' Max. digging reach (on ground)	10 190	10 490	11 080	11 820
B Max. digging depth	5 720	6 050	7 130	7 690
B' Max. digging depth (B' level)	5 540	5 890	6 920	7 550
C Max. cutting height	10 730	10 870	10 240	11 130
D Max. dumping height	7 390	7 520	7 170	7 730
E Min. swing radius	4 090	3 930	5 020	4 840
F Max. vertical wall	4 180	4 570	4 200	7 030
Bucket digging force* ISO	287 kN (29 300 kgf)	287 kN (29 300 kgf)	287 kN (29 300 kgf)	288 kN (29 400 kgf)
Bucket digging force* SAE : PCSA	258 kN (26 300 kgf)	258 kN (26 300 kgf)	258 kN (26 300 kgf)	250 kN (25 500 kgf)
Arm crowd force* ISO	293 kN (29 900 kgf)	256 kN (26 100 kgf)	256 kN (26 100 kgf)	218 kN (22 200 kgf)
Arm crowd force* SAE : PCSA	286 kN (29 200 kgf)	249 kN (25 400 kgf)	249 kN (25 400 kgf)	209 kN (21 300 kgf)
Equipped bucket SAE : PCSA	2.5 m ³	2.5 m ³	2.3 m ³	2.1 m ³

Excluding track shoe lug * At power boost

Metric measure

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.



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

ZX520LCR-3

Rating over-side or 360 degrees Rating over-front Unit: 1 000 kg

Conditions	Load point height	Load radius																At max. reach		
		3 m		4 m		5 m		6 m		7 m		8 m		9 m		10 m		meter		
R-boom 7.0 m R-arm 3.4 m R-bucket SAE,PCSA: 2.1 m ³ Shoe 600 mm	8 m											*7.9	*7.9					*3.7	*3.7	10.3
	6 m											*9.1	*9.1	7.9	*8.7			*3.7	*3.7	11.1
	4 m					*16.5	*16.5	*13.5	*13.5	*11.6	*11.6	9.4	*10.3	7.6	*9.4	6.2	*8.5	*3.8	*3.8	11.6
	2 m					18.3	*18.9	13.9	*16.6	10.9	*13.7	8.8	*11.7	7.2	*10.3	6.0	9.2	*4.2	*4.2	11.6
	0 (Ground)					17.5	*17.7	13.2	*18.0	10.4	*14.9	8.4	*12.6	6.9	10.7	5.8	9.0	4.8	*4.8	11.2
	-2 m	*10.1	*10.1	*16.9	*16.9	17.5	*20.8	13.0	*17.5	10.1	*14.7	8.2	*12.5	6.8	10.6			5.5	*5.9	10.3
	-4 m	*21.7	*21.7	*20.3	*20.3	*17.7	*17.7	13.1	*15.2	10.2	*12.9	8.3	*10.8							
	-6 m					*11.7	*11.7	*9.9	*9.9											
R-boom 7.0 m BER-arm 2.9 m R-bucket SAE,PCSA: 2.3 m ³ Shoe 600 mm	7 m											*9.3	*9.3					*5.6	*5.6	10.0
	6 m										*10.2	*10.2	*9.5	*9.5	7.7	*8.3		*5.7	*5.7	10.4
	4 m					*17.8	*17.8	*14.2	*14.2	11.5	*12.1	9.1	*10.7	7.4	*9.7			5.2	*6.0	10.9
	2 m							13.4	*17.0	10.6	*13.9	8.6	*11.9	7.0	*10.5	5.8	9.1	5.0	*6.7	10.9
	0 (Ground)					17.3	*18.1	12.9	*17.8	10.1	*14.8	8.2	*12.6	6.8	10.6			5.3	*7.9	10.5
	-2 m			*20.2	*20.2	17.4	*19.5	12.8	*16.8	10.0	*14.3	8.1	*12.2	6.7	*10.3			6.2	*6.5	9.5
	-4 m			*17.7	*17.7	*16.0	*16.0	13.1	*14.0	10.2	*11.9	8.3	*9.8							
	-5 m			*14.4	*14.4	*13.2	*13.2	*11.5	*11.5	*9.5	*9.5									

ZAXIS 670LCR

ENGINE

Model.....	Isuzu AH-6WG1XYSA-02
Type.....	4-cycle water-cooled, direct injection
Aspiration.....	Turbocharged
No. of cylinders.....	6
Rated power	
ISO 9249, net.....	H/P mode :
(Without Fan)	345 kW (463 HP) at 1 800 min ⁻¹ (rpm)
EEC 80/1269, net.....	H/P mode :
(Without Fan)	345 kW (463 HP) at 1 800 min ⁻¹ (rpm)
SAE J1349, net.....	H/P mode :
(Without Fan)	345 kW (463 HP) at 1 800 min ⁻¹ (rpm)
Maximum torque.....	1 980 Nm (202 kgf m) at 1 500 min ⁻¹ (rpm)
Piston displacement	15.681 L
Bore and stroke	147 mm x 154 mm
Batteries	2 x 12 V / 170 Ah

HYDRAULIC SYSTEM

- Work mode selector
 - General purpose mode / Attachment mode
- Engine speed sensing system
 - Main pumps..... 2 variable displacement axial piston pumps
 - Maximum oil flow .. 2 x 456 L/min
 - Pilot pump..... 1 gear pump
 - Maximum oil flow .. 30 L/min

Hydraulic Motors

Travel.....	2 axial piston motors with parking brake
Swing.....	2 axial piston motors

Relief Valve Settings

Implement circuit	31.9 MPa (325 kgf/cm ²)
Swing circuit	29.4 MPa (300 kgf/cm ²)
Travel circuit	34.3 MPa (350 kgf/cm ²)
Pilot circuit	3.9 MPa (40 kgf/cm ²)
Power boost.....	34.3 MPa (350 kgf/cm ²)

Hydraulic Cylinders

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	190 mm	130 mm
Arm	1	200 mm	140 mm
Bucket	1	180 mm	130 mm
Bucket (BER)	1	190 mm	130 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 shock less valve and quick warm-up system built in the pilot circuit.

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.....	9.5 min ⁻¹ (rpm)
------------------	-----------------------------

Operator's Cab

Independent spacious cab, 1 005 mm wide by 1 795 mm high, conforming to ISO* Standards. (OPG top guard fitted Level II (ISO 10262) compliant cab) Reinforced glass windows on 4 sides for visibility. 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 bolted 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	3
Lower rollers	8
Track shoes.....	47
Full track guard	1

Travel Device

Each track driven by axial piston motor through reduction gear for counterrotation of the tracks. Sprockets are replaceable. Parking brake is spring-set/hydraulic-released disc type.

Automatic transmission system: High-Low.

Travel speeds	High : 0 to 4.9 km/h
	Low : 0 to 3.4 km/h

Maximum traction force.. 460 kN (46 920 kgf)

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

WEIGHTS AND GROUND PRESSURE

ZX670LCR-3:

Equipped with 7.8 m R-boom, 3.6 m R-arm and 2.9 m³ R-bucket (SAE, PCSA heaped).

Shoe type	Shoe width	Operating weight	Ground pressure
Double grouser	650 mm	68 400 kg	103 kPa (1.05 kgf/cm ²)

ZX670LCR-3 (BER):

Equipped with 6.8 m BER-boom, 2.9 m BER-arm and 3.3 m³ R-bucket (SAE, PCSA heaped).

Shoe type	Shoe width	Operating weight	Ground pressure
Double grouser	650 mm	68 200 kg	102 kPa (1.04 kgf/cm ²)

BACKHOE ATTACHMENTS

Boom and arms are of all-welded, box-section design. A number of booms and arms are available. Bucket is of all-welded, high strength steel structure. The ZX670LCR-3 is a heavy duty type and can be equipped with a reinforced R-boom or BER-boom and R-arm or BERarm.

Backhoe Buckets

ZX670LCR-3

Capacity		Width		No. of teeth	Weight	ZX670LCR-3	
SAE, PCSA heaped	CECE heaped	Without side shrouds	With side shrouds			6.8 m BER-boom	7.8 m R-boom
						2.9 m BER-arm	3.6 m R-arm
*1 2.9 m ³	2.5 m ³	1 680 mm	1 680 mm	5	3 300 kg	X	●
*1 3.3 m ³	2.9 m ³	1 790 mm	1 790 mm	5	3 610 kg	●	X

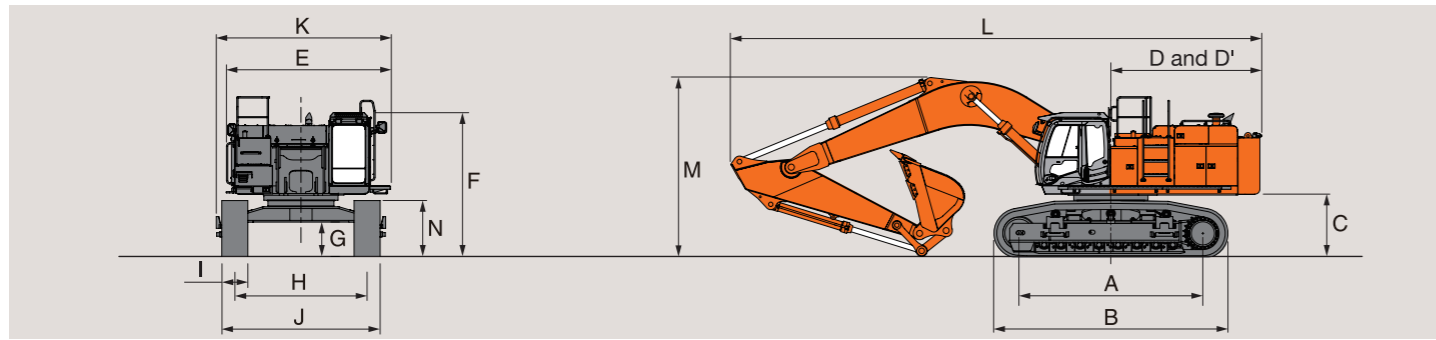
*1 R-buket ● Heavy-duty service
X Can't installed

SERVICE REFILL CAPACITIES

Fuel tank	900.0 liters
Engine coolant.....	57.0 liters
Engine oil	57.0 liters
Pump drive.....	6.7 liters
Swing device (each side).....	10.5 liters
Travel device (each side)	16.0 liters
Hydraulic system.....	680.0 liters
Hydraulic oil tank.....	380.0 liters

ZAXIS 670LCR

DIMENSIONS

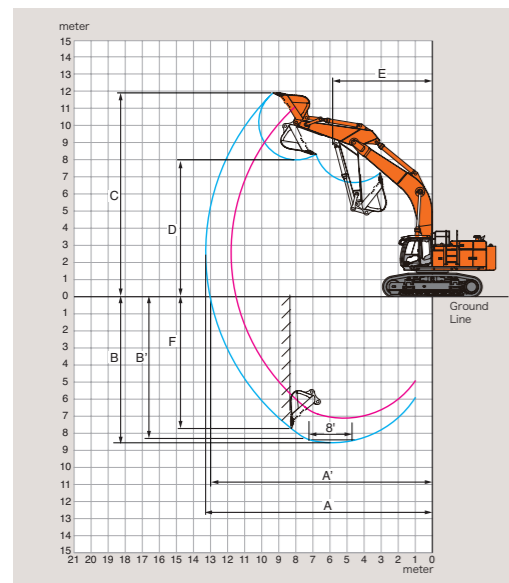


Unit: mm

	ZX670LCR-3 ^{*2}
A Distance between tumblers	4 590
B Undercarriage length	5 840
^{*1} C Counterweight clearance	1 530
D Rear-end swing radius	3 850
D' Rear-end length	3 720
E Overall width of upperstructure	4 100
F Overall height of cab	3 590
^{*1} G Min. ground clearance	860
H Track gauge	3 300
I Track shoe width	G 650
J Undercarriage width	3 950
K Overall width	4 340
L Overall length	13 200
M Overall height of boom	4 460
N Track height	1 390

^{*1} Excluding track shoe lug G: Double grouser shoe
^{*2} Equipped with 7.8 m R-boom and 3.6 m R-arm

WORKING RANGES



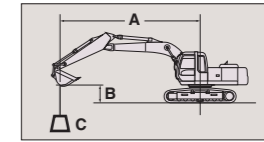
Unit: mm

	ZX670LCR-3	
	6.8 m BER-boom	7.8 m R-boom
Boom length	6.8 m BER-boom	7.8 m R-boom
Arm length	2.9 m BER-arm	3.6 m R-arm
A Max. digging reach	11 800	13 280
A' Max. digging reach (on ground)	11 500	13 030
B Max. digging depth	7 120	8 560
B' Max. digging depth (B' level)	6 970	8 420
C Max. cutting height	11 190	11 940
D Max. dumping height	7 330	8 020
E Min. swing radius	5 240	5 780
F Max. vertical wall	5 280	7 720
Bucket digging force* ISO	369 kN (37 700 kgf)	324 kN (33 100 kgf)
Bucket digging force* SAE : PCSA	332 kN (33 900 kgf)	286 kN (29 200 kgf)
Arm crowd force* ISO	306 kN (31 200 kgf)	255 kN (26 000 kgf)
Arm crowd force* SAE : PCSA	297 kN (30 300 kgf)	246 kN (25 100 kgf)
Equipped bucket SAE : PCSA	3.3 m ³	2.9 m ³

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.



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

ZX670LCR-3

Rating over-side or 360 degrees Rating over-front Unit: 1 000 kg

Conditions	Load point height	Load radius										At max. reach							
		3 m		4 m		6 m		8 m		10 m		11 m							
																meter			
R-boom 7.8 m	9.0 m																		
R-arm 3.6 m	8.0 m																		
R-bucket SAE, PCSA: 2.9 m ³	6.0 m																		
Shoe 650 mm	4.0 m																		
	2.0 m																		
	0 (Ground)																		
	-2.0 m																		
	-4.0 m																		
	-6.0 m																		
	-7.0 m																		
BER-boom 6.8 m	8.0 m																		
BER-arm 2.9 m	6.0 m																		
R-bucket SAE, PCSA: 3.3 m ³	4.0 m																		
Shoe 650 mm	2.0 m																		
	0 (Ground)																		
	-2.0 m																		
	-4.0 m																		
	-5.0 m																		

ZAXIS 870R / 870LCR

ENGINE

Model.....	Isuzu AH-6WG1XYSA-03
Type.....	4-cycle water-cooled, direct injection
Aspiration.....	Turbocharged
No. of cylinders.....	6
Rated power	
ISO 9249, net.....	H/P mode :
(Without Fan)	397 kW (532 HP) at 1 800 min ⁻¹ (rpm)
EEC 80/1269, net.....	H/P mode :
(Without Fan)	397 kW (532 HP) at 1 800 min ⁻¹ (rpm)
SAE J1349, net.....	H/P mode :
(Without Fan)	397 kW (532 HP) at 1 800 min ⁻¹ (rpm)
Maximum torque.....	2 250 Nm (229 kgf m) at 1 600 min ⁻¹ (rpm)
Piston displacement	15.681 L
Bore and stroke	147 mm x 154 mm
Batteries	2 x 12 V / 170 Ah

HYDRAULIC SYSTEM

- Work mode selector
 - General purpose mode / Attachment mode
- Engine speed sensing system
 - Main pumps..... 2 variable displacement axial piston pumps
 - Maximum oil flow .. 2 x 528 L/min
 - Pilot pump..... 1 gear pump
 - Maximum oil flow .. 30 L/min

Hydraulic Motors

Travel.....	2 axial piston motors with parking brake
Swing.....	2 axial piston motors

Relief Valve Settings

Implement circuit	31.9 MPa (325 kgf/cm ²)
Swing circuit	29.4 MPa (300 kgf/cm ²)
Travel circuit.....	34.3 MPa (350 kgf/cm ²)
Pilot circuit	3.9 MPa (40 kgf/cm ²)
Power boost.....	34.3 MPa (350 kgf/cm ²)

Hydraulic Cylinders

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	215 mm	150 mm
Arm	1	225 mm	160 mm
Bucket	1	200 mm	140 mm
Bucket (BER)	1	215 mm	150 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 shock less valve and quick warm-up system built in the pilot circuit.

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 inductionhardened internal gear. Internal gear and pinion gear are immersed in lubricant. Swing parking brake is spring-set/hydraulic-released disc type.

Swing speed..... 7.3 min⁻¹ (rpm)

Operator's Cab

Independent spacious cab, 1 005 mm wide by 1 795 mm high, conforming to ISO* Standards. (OPG top guard fitted Level II (ISO 10262) compliant cab) Reinforced glass windows on 4 sides for visibility. 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 bolted 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	3
Lower rollers	8 : ZX870R-3 9 : ZX870LCR-3
Track shoes.....	47 : ZX870R-3 51 : ZX870LCR-3
Full length track guard	1

Travel Device

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

Travel speeds

High :	0 to 4.1 km/h
Low :	0 to 3.1 km/h

Maximum traction force.. 560 kN (57 100 kgf)
Gradeability..... 70 % (35 degree) continuous

WEIGHTS AND GROUND PRESSURE

ZX870R-3:

Equipped with 8.4 m R-boom, 3.7 m R-arm and 3.5 m³ R-bucket (SAE, PCSA heaped).

Shoe type	Shoe width	Operating weight	Ground pressure
Double grouser	650 mm	83 600 kg	125 kPa (1.28 kgf/cm ²)

ZX870R-3 (BER):

Equipped with 7.1 m BER-boom, 2.95 m BER-arm and 4.3 m³ R-bucket (SAE, PCSA heaped).

Shoe type	Shoe width	Operating weight	Ground pressure
Double grouser	650 mm	83 900 kg	126 kPa (1.28 kgf/cm ²)

Equipped with 7.1 m BER-boom, 3.7 m R-arm and 3.7 m³ R-bucket (SAE, PCSA heaped).

Shoe type	Shoe width	Operating weight	Ground pressure
Double grouser	650 mm	83 600 kg	125 kPa (1.28 kgf/cm ²)

BACKHOE ATTACHMENTS

Boom and arms are of all-welded, box-section design. A number of booms and arms are available. Bucket is of all-welded, high strength steel structure. The ZX870R-3 / ZX870LCR-3 are a heavy duty type and can be equipped with a reinforced R-boom or BER-boom and R-arm or BER-arm.

Backhoe Buckets ZX870R-3 / ZX870LCR-3

Capacity		Width		No. of teeth	Weight	Recommendation		
						ZX870R-3 / ZX870LCR-3		
SAE, PCSA heaped	CECE heaped	Without side shrouds	With side shrouds			7.1 m BER-boom		8.4 m R-boom
						2.95 m BER-arm	3.7 m R-arm	3.7 m R-arm
*1 3.5 m ³	3.1 m ³	1 870 mm	1 890 mm	5	4 870 kg	X	●	●
*1 3.7 m ³	3.2 m ³	1 950 mm	1 970 mm	5	4 970 kg	X	●	—
*1 4.3 m ³	3.8 m ³	2 090 mm	2 110 mm	5	5 690 kg	●	X	X

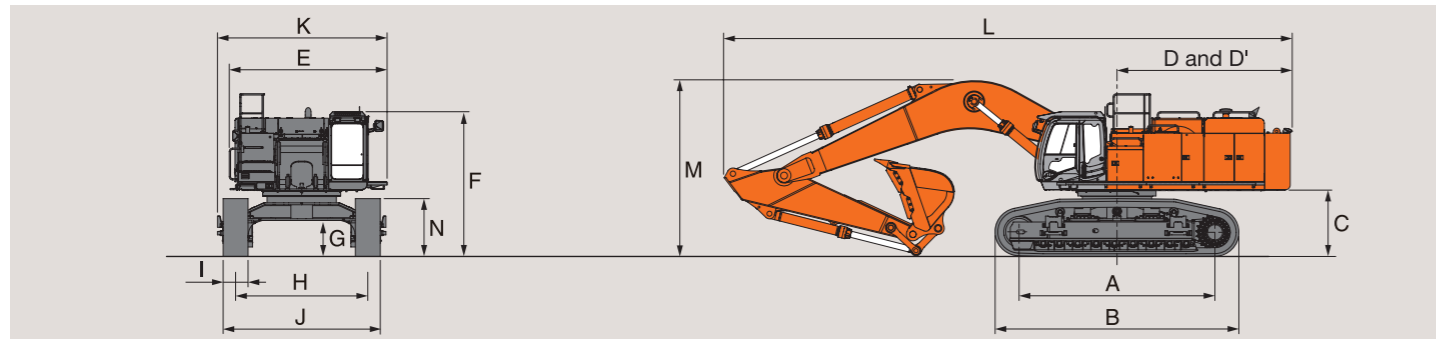
*1 R-bucket
● Heavy-duty service
— Not applicable
X Can't installed

SERVICE REFILL CAPACITIES

Fuel tank	1 120.0 liters
Engine coolant	116.0 liters
Engine oil	57.0 liters
Pump drive.....	6.2 liters
Swing device (each side).....	15.0 liters
Travel device (each side)	19.0 liters
Hydraulic system.....	790.0 liters
Hydraulic oil tank.....	500.0 liters

ZAXIS 870R / 870LCR

DIMENSIONS

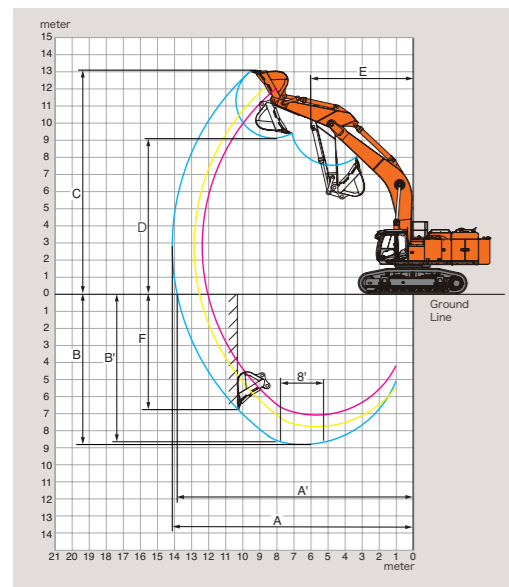


Unit: mm

	ZX870R-3 ^{1,2}	ZX870LCR-3 ^{1,2}
A Distance between tumblers	4 590	5 110
B Undercarriage length	5 840	6 360
¹ C Counterweight clearance		1 680
D Rear-end swing radius		4 600
D' Rear-end length		4 520
E Overall width of upperstructure		4 120
F Overall height of cab		3 780
¹ G Min. ground clearance		890
H Track gauge		3 450
I Track shoe width		G 650
J Undercarriage width		4 100
K Overall width		4 430
L Overall length		14 770
M Overall height of boom		4 570
N Track height		1 500

¹ Excluding track shoe lug G: Double grouser shoe
² Equipped with 8.4 m R-boom and 3.7 m R-arm

WORKING RANGES

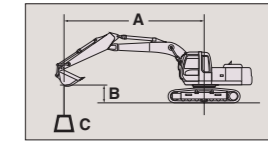


	ZX870R-3 / ZX870LCR-3		
	7.1 m BER-boom	3.7 m R-arm	8.4 m R-boom
Boom length			
Arm length	2.95 m BER-arm	3.7 m R-arm	3.7 m R-arm
A Max. digging reach	12 340	12 820	14 100
A' Max. digging reach (on ground)	12 020	12 510	13 820
B Max. digging depth	7 140	7 820	8 870
B' Max. digging depth (B' level)	7 000	7 690	8 740
C Max. cutting height	12 010	12 130	13 000
D Max. dumping height	8 130	8 180	9 080
E Min. swing radius	5 210	5 090	5 950
F Max. vertical wall	4 100	6 090	6 840
Bucket digging force* ISO	472 kN (48 200 kgf)	402 kN (41 000 kgf)	402 kN (41 000 kgf)
Bucket digging force* SAE : PCSA	411 kN (41 900 kgf)	359 kN (36 600 kgf)	359 kN (36 600 kgf)
Arm crowd force* ISO	394 kN (40 200 kgf)	324 kN (33 100 kgf)	324 kN (33 100 kgf)
Arm crowd force* SAE : PCSA	378 kN (38 600 kgf)	316 kN (32 200 kgf)	316 kN (32 200 kgf)
Equipped bucket SAE : PCSA	4.3 m ³	3.7 m ³	3.5 m ³

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.



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

ZX870LCR-3

Rating over-side or 360 degrees Rating over-front Unit: 1 000 kg

Conditions	Load point height	Load radius										At max. reach							
		3 m		4 m		6 m		8 m		10 m		12 m		meter					
BER-boom 7.1 m BER-arm 2.95 m R-bucket SAE, PCSA: 4.3 m ³ Shoe 650 mm	9.0 m							*11.6	*11.6					*6.3	*6.3	10.2			
	8.0 m							*14.7	*14.7					*6.1	*6.1	10.8			
	6.0 m							*16.0	*16.0					*6.1	*6.1	11.5			
	4.0 m					*25.6	*25.6	18.1	*18.5	11.6	*15.3			*6.4	*6.4	11.8			
	2.0 m							16.8	*21.1	11.0	*16.3			*7.0	*7.0	11.7			
	0 (Ground)							15.9	*22.6	10.6	*16.7			*8.2	*8.2	11.2			
	-2.0 m					25.7	*30.9	15.5	*22.0										
-4.0 m																			
-5.0 m								*21.7	*21.7										
BER-boom 7.1 m R-arm 3.7 m R-bucket SAE, PCSA: 3.7 m ³ Shoe 650 mm	8.0 m													*3.6	*3.6	11.3			
	6.0 m							*14.3	*14.3	*8.7	*8.7			*3.6	*3.6	12.0			
	4.0 m							*23.5	*23.5	*17.8	*17.8	12.5	*13.5	*3.9	*3.9	12.3			
	2.0 m							29.0	*30.1	17.9	*20.8	11.9	*16.3	*4.6	*4.6	12.2			
	0 (Ground)							27.2	*33.5	16.9	*22.9	11.3	*17.3	*5.6	*5.6	11.7			
	-2.0 m	*16.2	*16.2	*24.9	*24.9	26.5	*33.1	16.3	*23.3	11.0	*17.0			*7.5	*7.5	10.7			
	-4.0 m	*35.9	*35.9	*41.6	*41.6	26.5	*29.6	16.2	*21.1										
-6.0 m					*21.6	*21.6													
R-boom 8.4 m R-arm 3.7 m R-bucket SAE, PCSA: 3.5 m ³ Shoe 650 mm	9.0 m									*8.3	*8.3			*4.5	*4.5	12.2			
	8.0 m									*10.8	*10.8			*4.5	*4.5	12.7			
	6.0 m							*14.0	*14.0	*12.0	*12.0			*4.6	*4.6	13.3			
	4.0 m							*25.2	*25.2	*17.1	*17.1	11.8	*13.4	7.9	*10.1	*5.0	*5.0	13.6	
	2.0 m									16.4	*20.0	11.1	*15.0	7.6	*12.2	*5.6	*5.6	13.5	
	0 (Ground)									15.5	*21.9	10.5	*16.1	7.3	12.6	6.1	*6.6	13.1	
	-2.0 m									24.9	*30.5	15.1	*22.1	10.2	*16.4		7.1	*8.3	12.2
-4.0 m																	9.2	*10.5	10.8
-6.0 m																			
-7.0 m								*19.2	*19.2	*13.6	*13.6								

ZX870R-3

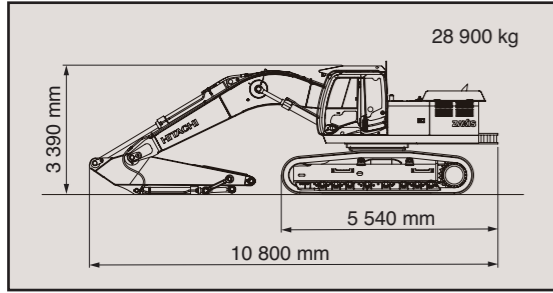
Conditions	Load point height	Load radius										At max. reach								
		3 m		4 m		6 m		8 m		10 m		12 m		meter						
R-boom 8.4 m R-arm 3.7 m R-bucket SAE, PCSA: 3.5 m ³ Shoe 650 mm	9.0 m									*8.3	*8.3			*4.5	*4.5	12.2				
	8.0 m									*10.8	*10.8			*4.5	*4.5	12.7				
	6.0 m									*14.0	*14.0	*12.0	*12.0			*4.6	*4.6	13.3		
	4.0 m									*25.2	*25.2	*17.1	*17.1	11.5	*13.4	7.7	*10.1	*5.0	*5.0	13.6
	2.0 m										16.0	*20.0	10.7	*15.0	7.3	10.5	*5.6	*5.6	13.5	
	0 (Ground)										15.1	21.1	10.2	14.3	7.0	10.2	5.9	*6.6	13.1	
	-2.0 m										24.3	*30.5	14.7	20.7	9.9	14.0		6.8	*8.3	12.2
-4.0 m																		8.9	*10.5	10.8
-6.0 m																				
-7.0 m																				

ZAXIS 400R / 470R / 470LCR / 520LCR

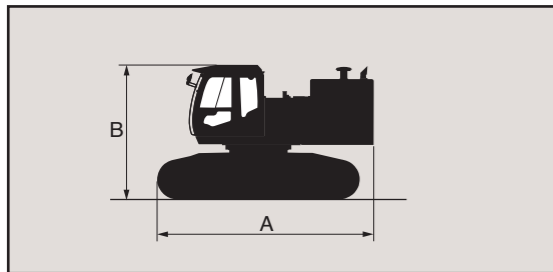
TRANSPORTATION

ZX400R-3

BASIC MACHINE WITH BOOM, ARM AND WITHOUT SIDEWALK



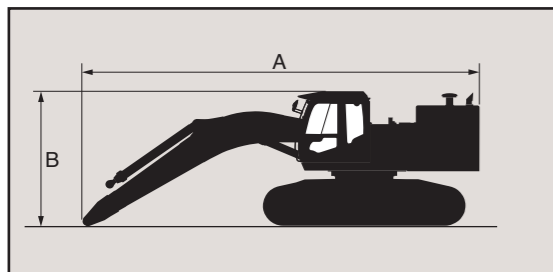
BASIC MACHINE (WITHOUT COUNTERWEIGHT)



	Shoe width	Overall width*	Weight	A	B
ZX470R-3	600 mm	3 000 mm	28 400 kg	5 410 mm	3 450 mm
ZX470LCR-3	600 mm	3 000 mm	29 300 kg	5 630 mm	
ZX520LCR-3	600 mm	3 060 mm	32 100 kg	5 620 mm	

Note: Undercarriage retracted

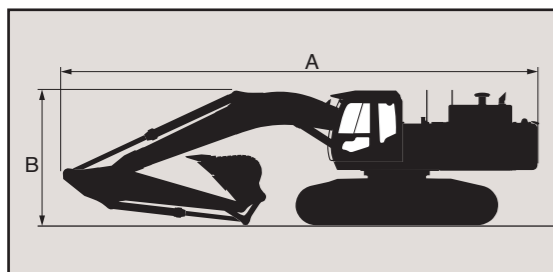
BASIC MACHINE FITTED WITH BOOM AND WITHOUT SIDEWALK



	Boom length	Shoe width	Overall width*	Weight	A	B
ZX470R-3	6.3 m BER	600 mm	3 000 mm	33 600 kg	9 090 mm	3 450 mm
	7.0 m R	600 mm	3 000 mm	33 500 kg	9 860 mm	
ZX470LCR-3	6.3 m BER	600 mm	3 000 mm	34 600 kg	9 090 mm	
	7.0 m R	600 mm	3 000 mm	34 500 kg	9 860 mm	
ZX520LCR-3	6.3 m BER	600 mm	3060 mm	37 400 kg	9 060 mm	3 520 mm
	7.0 m R	600 mm	3060 mm	37 300 kg	9 850 mm	

Note: Undercarriage retracted

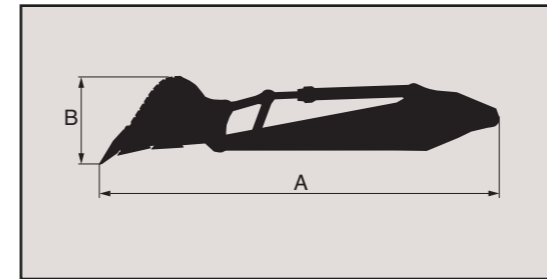
BASIC MACHINE WITH FRONT AND SIDEWALK



	Boom length	6.3 m BER		7 m R	
		Arm length	2.5 m BER	2.9 m BER	2.9 m BER
ZX470R-3	A	—	—	12 000 mm	11 910 mm
	B	—	—	3 600 mm	3 480 mm
ZX470LCR-3	A	11 560 mm	11 220 mm	12 000 mm	11 910 mm
	B	4 300 mm	3 740 mm	3 600 mm	3 480 mm
ZX520LCR-3	A	11 400 mm	11 270 mm	11 980 mm	11 890 mm
	B	4 100 mm	3 980 mm	3 500 mm	3 500 mm

TRANSPORTATION

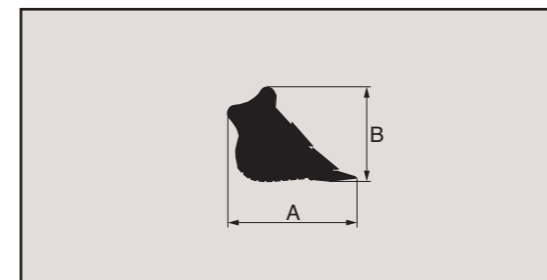
ARM WITH BUCKET



ZX470R-3 / ZX470LCR-3 / ZX520LCR-3

R-Arm	R-Bucket SAE, PCSA heaped	A	B	Overall width	Weight
2.5 m BER	2.5 m³	5 650 mm	1 470 mm	1 820 mm	5 590 kg
2.9 m BER	2.3 m³	6 030 mm	1 340 mm	1 700 mm	4 770 kg
3.4 m R	1.9 m³	6 370 mm	1 470 mm	1 500 mm	4 790 kg

BUCKET

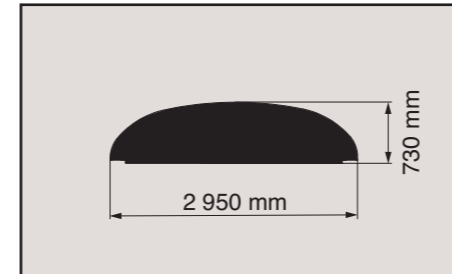


ZX400R-3 / ZX470R-3 / ZX470LCR-3 / ZX520LCR-3

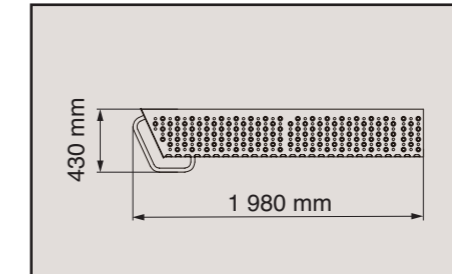
R-Bucket		A	B	Overall width	Weight
PCSA heaped	CECE heaped				
1.5 m³	1.3 m³	1 830 mm	1 360 mm	1 470 mm	1 720 kg
1.9 m³	1.7 m³	2 030 mm	1 480 mm	1 500 mm	2 070 kg
2.1 m³	1.8 m³	1 950 mm	1 650 mm	1 580 mm	2 170 kg
2.3 m³	2.0 m³	1 950 mm	1 650 mm	1 700 mm	2 260 kg
2.5 m³	2.2 m³	1 950 mm	1 650 mm	1 820 mm	2 360 kg

ZX400R-3

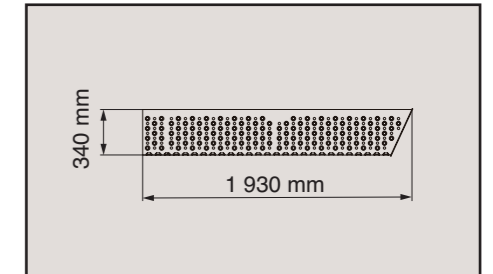
COUNTERWEIGHT 8 000 kg



LEFT SIDEWALK 21.5 kg



LEFT SIDEWALK 20.3 kg

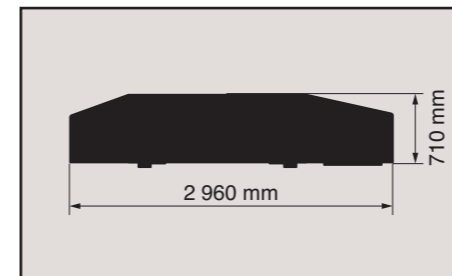


ZX470R-3 / ZX470LCR-3

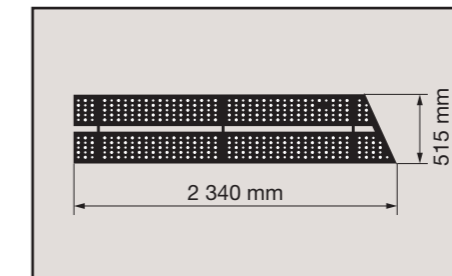
COUNTERWEIGHT 9 150 kg

ZX520LCR-3

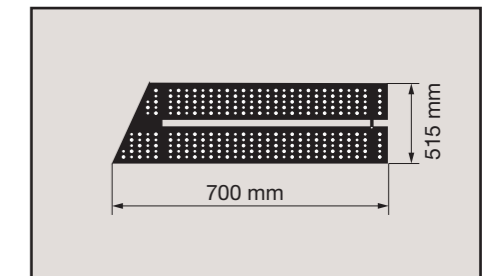
COUNTERWEIGHT 9 820 kg



LEFT SIDEWALK 44 kg



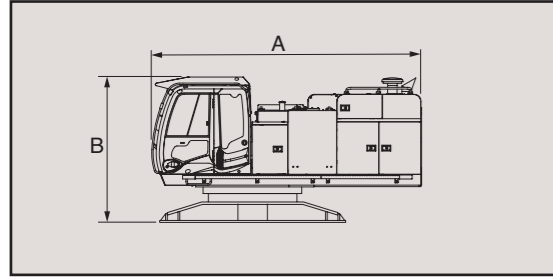
LEFT SIDEWALK 30 kg



ZAXIS 670LCR / 870R / 870LCR

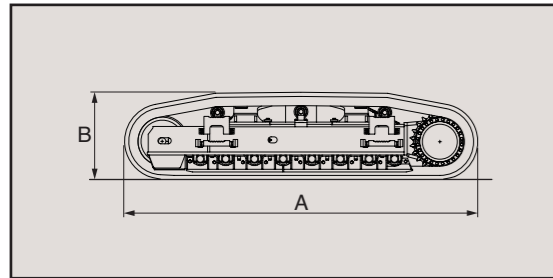
TRANSPORTATION

UPPERSTRUCTURE



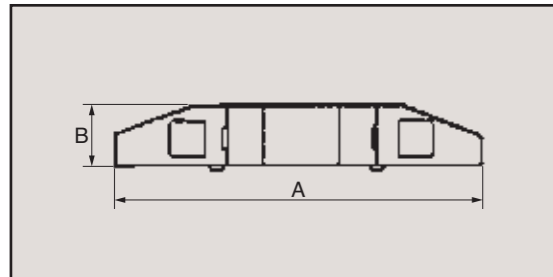
	A	B	Overall width	Weight
ZX670LCR-3	5 060 mm	2 740 mm	3 470 mm	20 100 kg
ZX870R-3 / ZX870LCR-3	6 040 mm	2 960 mm	3 500 mm	27 500 kg

SIDE FRAME



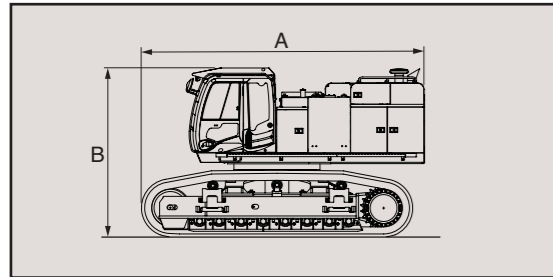
	Shoe width	A	B	Overall width	Weight
ZX670LCR-3	650 mm	5 840 mm	1 450 mm	1 190 mm	10 800 kg
ZX870R-3	650 mm	5 840 mm	1 500 mm	1 330 mm	11 700 kg
ZX870LCR-3	650 mm	6 360 mm	1 500 mm	1 330 mm	12 700 kg

COUNTERWEIGHT



	A	B	Overall height	Weight
ZX670LCR-3	3 360 mm	590 mm	1 550 mm	11 100 kg
ZX870R-3 / ZX870LCR-3	3 360 mm	720 mm	1 620 mm	13 300 kg

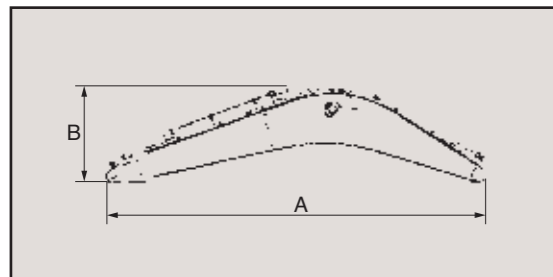
BASIC MACHINE (WITHOUT COUNTERWEIGHT)



	Shoe width	A	B	Overall width	Weight
ZX670LCR-3	650 mm	6 100 mm	3 640 mm	3 480 mm	41 400 kg
ZX870R-3	650 mm	6 770 mm	3 790 mm	3 600 mm	50 800 kg
ZX870LCR-3	650 mm	7 080 mm	3 790 mm	3 600 mm	52 700 kg

Note: Undercarriage retracted

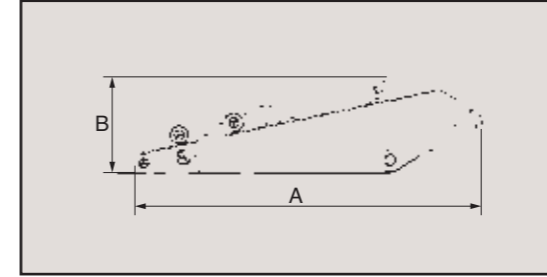
BOOM



	Boom	A	B	Overall width	Weight
ZX670LCR-3	6.8 m BER	7 140 mm	2 510 mm	1 390 mm	6 260 kg
	7.8 m R	8 130 mm	2 330 mm	1 390 mm	6 760 kg
ZX870R-3 / ZX870LCR-3	7.1 m BER	7 490 mm	2 700 mm	1 450 mm	7 680 kg
	8.4 m R	8 780 mm	2 500 mm	1 450 mm	8 270 kg

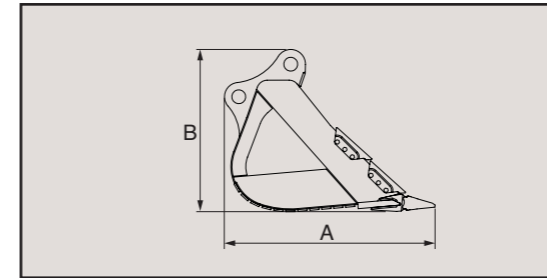
TRANSPORTATION

ARM



	Arm	A	B	Overall width	Weight
ZX670LCR-3	2.9 m BER	4 370 mm	1 690 mm	800 mm	3 950 kg
	3.6 m R	5 110 mm	1 440 mm	800 mm	3 900 kg
ZX870R-3 / ZX870LCR-3	2.95 m BER	4 460 mm	1 660 mm	850 mm	4 760 kg
	3.7 m R	5 290 mm	1 420 mm	820 mm	4 610 kg

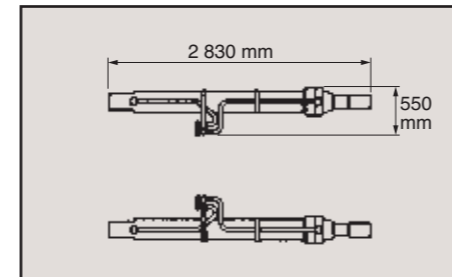
BUCKET



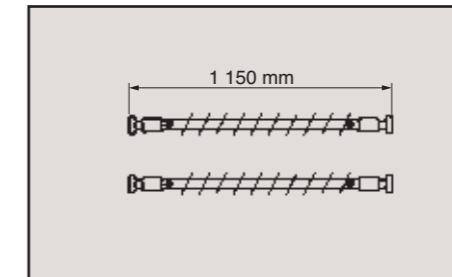
	Capacity		A	B	Overall width	Weight
	SAE, PCSA heaped	CECE heaped				
ZX670LCR-3	2.9 m³	2.5 m³	2 290 mm	1 770 mm	1 680 mm	3 300 kg
	3.3 m³	2.9 m³	2 250 mm	1 890 mm	1 790 mm	3 610 kg
ZX870R-3 / ZX870LCR-3	3.5 m³	3.1 m³	2 240 mm	1 920 mm	1 890 mm	4 870 kg
	3.7 m³	3.2 m³	2 240 mm	1 920 mm	1 970 mm	4 970 kg
	4.3 m³	3.8 m³	2 320 mm	2 000 mm	2 110 mm	5 690 kg

ZX670LCR-3

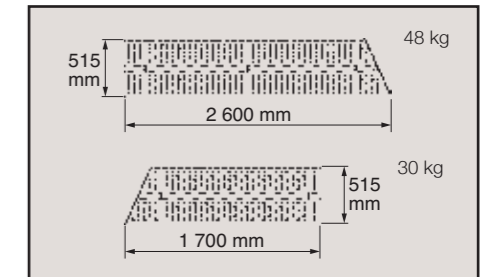
BOOM CYLINDERS 550 kg x 2



HOSE OF BOOM CYLINDERS 7 kg x 2 / 10 kg x 2

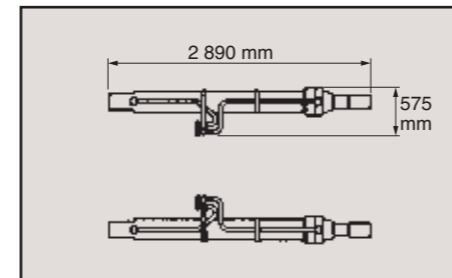


LEFT SIDEWALK

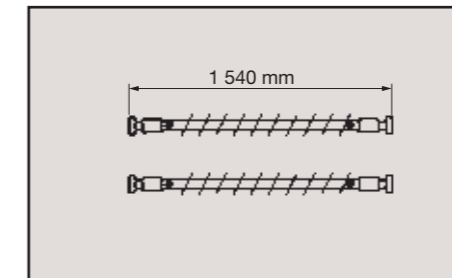


ZX870R-3 / ZX870LCR-3

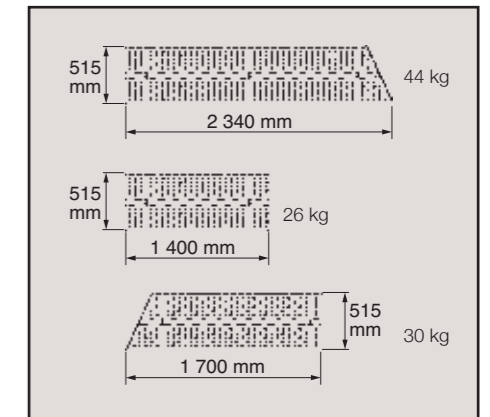
BOOM CYLINDERS 850 kg x 2



HOSE OF BOOM CYLINDERS 13 kg x 2 / 9 kg x 2



LEFT SIDEWALK



STANDARD EQUIPMENT

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

ENGINE

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

ZX400R-3

- Air cleaner double filters
- Electrical fuel feed pump

HYDRAULIC SYSTEM

- Work mode selector
- Engine speed sensing system
- E-P control system
- Power boost
- Auto power lift
- Boom mode selector system
- Shockless valve in pilot circuit
- Control valve with main relief valve
- Extra port for control valve
- Suction filter
- Full-flow filter
- Pilot filter
- Drain filter
- Quick warm-up system for pilot circuit

ZX400R-3

- Swing dampener valve

CAB

- H/R cab
- FOPS for Excavators compliant cab
- OPG top guard fitted Level II (ISO10262) compliant cab
- All-weather sound suppressed steel cab
- Laminated straight and fixed glass front window
- Left side window can be opened
- 6 fluid-filled elastic mounts
- Intermittent windshield wipers
- Front window washer
- Adjustable reclining suspension seat with adjustable armrests
- Footrest
- Electric double horn
- AM-FM radio with digital clock
- Auto-idle selector
- Retractable Seat belt
- Drink holder
- Cigarette lighter
- Ashtray
- Storage box
- Glove compartment
- Floor mat
- Short wrist control levers
- Pilot control shut-off lever
- Auto control air conditioner
- Engine shut-off switch
- Transparent roof with slide curtain
- Additional fuse box

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

- 3 working lights
- 2 cab lights
- ZX400R-3**
- 2 working lights

UPPERSTRUCTURE

- 4.5 mm thickness Undercover
- Fuel level float
- 170 Ah batteries
- Hydraulic oil level gauge
- Tool box
- Utility space
- Rearview mirror (right & left side)
- Swing parking brake

ZX400R-3

- Ladder
- 8 000 kg counterweight

ZX470R-3 / ZX470LCR-3

- Ladder
- 9 150 kg counterweight

ZX520LCR-3

- Ladder
- 9 820 kg counterweight

ZX670LCR-3

- Ladder
- 11 100 kg counterweight

ZX870R-3 / ZX870LCR-3

- 13 300 kg counterweight

UNDERCARRIAGE

- Travel parking brake
- Reinforced travel motor covers
- Reinforced Idler part
- Hydraulic track adjuster
- Idler track guard
- Bolt-on sprocket
- Upper and lower rollers
- Reinforced track links with pin seals
- Full track guard

ZX400R-3

ZX470R-3 / ZX470LCR-3

- 600 mm triple grouser shoes

ZX520LCR-3

- 600 mm double grouser shoes

ZX670LCR-3

ZX870R-3 / ZX870LCR-3

- 650 mm double grouser shoes

FRONT ATTACHMENTS

- Boom cylinder hose protectors
- Arm cylinder hose protectors
- Bucket cylinder hose protectors
- Flanged pin
- Reinforced link A
- Reinforced link B
- Centralized lubrication system
- Dirt seal on all bucket pins
- Damage prevention plate and square bars

ZX400R-3:

- 6.4 m R-boom and 3.2 m R-arm
- 1.5 m³ (SAE, PCSA heaped) R-bucket (with dual type side shrouds)

ZX470R-3 / ZX470LCR-3

ZX520LCR-3

- 7.0 m R-boom and 3.4 m R-arm
- 1.9 m³ (SAE, PCSA heaped) R-bucket (with dual type side shrouds)

ZX670LCR-3

- 7.8 m R-boom and 3.6 m R-arm
- 2.9 m³ (SAE, PCSA heaped) R-bucket (with dual type side shrouds)

ZX870R-3 / ZX870LCR-3

- 8.4 m R-boom and 3.7 m R-arm
- 3.5 m³ (SAE, PCSA heaped) R-bucket (with dual type side shrouds)

MISCELLANEOUS

- Standard tool kit
- Lockable machine covers
- Lockable fuel refilling cap
- Skid-resistant tapes, plates and handrails
- Sidewalk
- 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.

- Hose rupture valves
- Electric fuel refilling pump with auto stop
- Swing motion alarm device with lamps
- Travel motion alarm device
- Biodegradable oil
- Extinguisher
- Pre cleaner
- Cab front step
- Auto-grease lubricator (Boom and arm Joint pin)
- Electric grease gun with hose-reel
- Air suspension seat (With seat heater)
- Built-in seat heater

- Track under cover
- Right side walk
- Rain guard for cab
- Attachment basic piping
- Accessories for breaker
- Accessories for breaker & crusher
- Accessories for 2 speed selector
- Sun visor
- 12 V power source
- Overload alarm
- Rear view camera
- Front glass lower guard
- Front glass upper guard
- Counterweight removal device

ZX470R-3 / ZX470LCR-3

- 6.3 m BER-boom
- 2.5 m BER-arm
- 2.9 m BER-arm

ZX520LCR-3

- 6.3 m BER-boom
- 2.5 m BER-arm
- 2.9 m BER-arm

ZX670LCR-3

- 6.8 m BER-boom
- 2.9 m BER-arm

ZX870R-3 / ZX870LCR-3

- 7.1 m BER-boom
- 2.95 m BER-arm

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.