**ZAXIS-5G series**
Telescopic Arm 30M

HITACHI

Reliable solutions

# TELESCOPIC ARM 30M

ZAXIS330LC

APPLICATION & ATTACHMENT


| | |
|---|---|
| Model Code | ZX330LC-5G |
| Engine Rated Power | 184 kW (246 HP) |
| Operating Weight | 45 600 kg |
| Digging Depth | 29.55 m |

# Getting More of Deep Excavation, Breakthrough Performance over 30-Ton Class

**The ZX330LC-5G with the Hitachi's new original telescopic arm is designed for productive deep-excavation. Excavation, extension and pull-up are powerful and speedy thanks to breakthrough performance-bucket capacity, digging depth and loading ability over the 30-ton class base machine. This machine brings truly productive, safe and fuel-efficient deep excavation.**

**Base machine :**
**ZAXIS 330LC**

**Bucket capacity : 1.55 m³**
**19 % UP**

**Max. digging depth : 29.55 m**
**18 % UP**

Note : Data above compared to a ZX330LC-5G with 25 m telescopic arm.

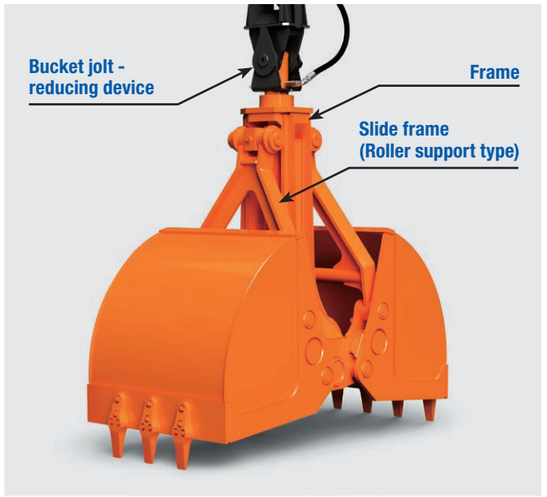


# Performance

## New Big Clamshell Bucket

New

A new big **1.55 m³** clamshell bucket, **19%** greater than ever, can be equipped on a new telescopic arm whose bucket pull-up force is increased greatly. This clamshell bucket employs a roller-support type sliding mechanism to reduce the load to clamshell cylinders for higher durability. This allows for deeper, more productive digging.
The clamshell bucket also has an ejector function for swift dumping onto a truck. Its bucket jolt-reducing device can speed up positioning in underground work and during dumping on a truck.




## Quicker Arm Extension

New

A mix of the new telescopic arm and hydraulic system dramatically increases arm extension speed and pull-up ability. What's more, the big **1.55 m³** bucket helps increase production.

## High Versatility

This machine, featuring 29.55 m digging depth, is designed to reduce operating weight and ground pressure, suited especially for job sites whose load-bearing capacity and work space are limited. The base machine is a versatile ZX330LC-5G that provides proven fuel efficiency, operator comfort, maintainability and durability. Consumables are readily available too.

# Relentless Pursuit of Safety

## Sliding Cab

The sliding cab, on this telescopic arm excavator, projects forward, 960 mm more over a Hitachi standard model. This speciality design gives the operator better downward visibility from the operator seat, boosting efficiency with confidence. The cab can still slide a further 1 300 mm, totaling **2 260 mm**, to give unobstructed view. To enhance safety, the cab can be locked in position with a switch, avoiding inadvertent movements. A walkway and handrail are provided for easy access to the cab.

**Sliding stroke distance: 1 300 mm**

Sliding cab

## Large Cab-Floor Window

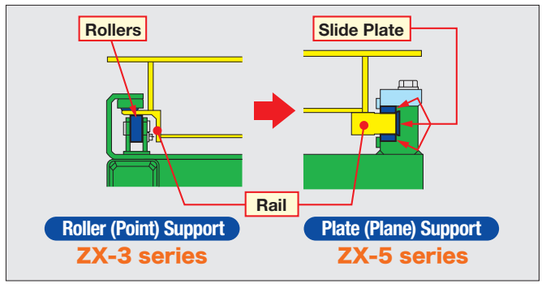
A large integral cab-floor window, made of polycarbonate, offers good downward see-through visibility to deep excavation underground. This makes it easier to position and excavate using the telescopic arm, boosting job efficiency and safety.

Cab-floor window

## Reduced Cab Vibration for Operator Comfort

New

Less cab vibration helps improve operator comfort. The cab sliding mechanism is redesigned from roller type to slide-plate type to increase contact areas for less vibration and shocks.



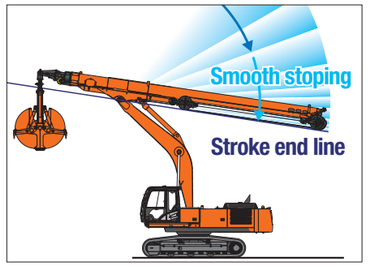

## Array of Safety Devices

To enhance safety, the machine is provided with an array of safety devices, including warning lights and safety alarm. Even if one of the twin ropes breaks or extends excessively, warning lights turn on and a safety alarm sounds to alert the operator to such a failure. The bucket landing alarm device also buzzers when the bucket lands at a target point for alerting.

## Arm Cylinder Stroke End Limit Device

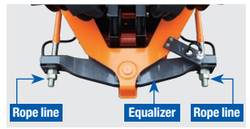
New

At the cylinder stroke end, a limit device works to absorb shocks when loading a dump truck for safe, smooth operation.




## Twin-Rope Lines

The twin-rope lines are adopted for safety. Even if one of the twin ropes breaks, the other can hold the telescopic arm in position. To evenly distribute the load to twin roles in normal operation, an equalizer is provided to extend rope life.



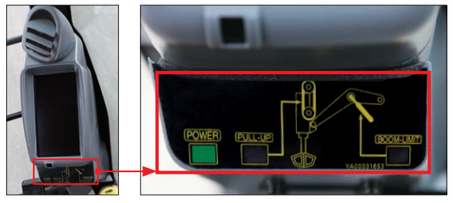

## Free-Fall Prevention Devices

### Holding Valve

Even if piping or hose punctures, a combination of the telescopic arm cylinder and a holding valve on the boom cylinder can hold the clamshell to avoid its free fall.

### Free-Fall Prevention Device

The clamshell is operated by twin-rope lines for its pull-up operations. Even if one of twin ropes breaks, the other can hold the clamshell to avoid its free fall.






## Miscellaneous Safety Accessories

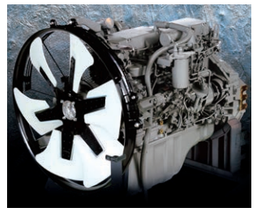
- Bucket jolt-reducing device
- Bucket landing alarm device
- Leveler
- Operation warning lights
- Operator guard for risk reduction of falls

Operation warning lights

Operator guard for risk reduction of falls

# Durable, Simplified 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.



# Simplified Maintenance

**The long service life is ensured by using larger-diameter sheaves on the telescopic arm to reduce its bending force. To this end, sheaves and wire ropes are newly attached on the outside. This configuration is convenient for checking if the telescopic arm extends and retracts normally in daily maintenance.**

## Extended Rope Life

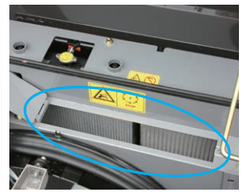
The newly designed telescopic arm can significantly extend the service life of ropes.

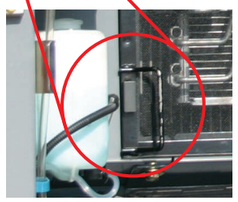
**Rope replacement intervals: 1 800 hours**

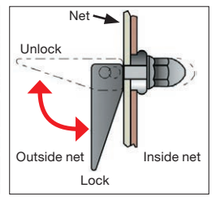
Note: Rope replacement intervals vary according to operating conditions.

## Dust-Proof Indoor Net

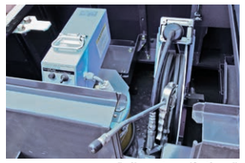
An air condenser and radiator can be serviced with ease. For the air condenser, a dust-proof indoor net can readily be removed from its front for easy cleaning with compressed air. Also, it is openable at its rear for cleaning. For the radiator, air blowing can readily be done at its rear through a one-touch open cover.



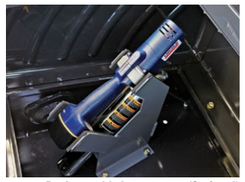





## Electric Grease Gun



Pail can type (Optional)



Rechargeable battery type (Optional)

# SPECIFICATIONS

## ENGINE

| | |
|---|---|
| Model | Isuzu AA-6HK1X |
| Type | 4-cycle water-cooled, direct injection |
| Aspiration | Turbocharged, intercooled |
| No. of cylinders | 6 |
| Rated power | |
| ISO 9249, net | 184 kW (246 HP) at 2 000 min$^{-1}$ (rpm) |
| SAE J1349, net | 184 kW (246 HP) at 2 000 min$^{-1}$ (rpm) |
| Maximum torque | 873 Nm (89.0 kgfm) at 1 700 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

### Hydraulic Pumps

| | |
|---|---|
| Main pumps | 2 variable displacement axial piston pumps |
| Maximum oil flow | 2 x 279 L/min |
| Pilot pump | 1 gear pump |
| Maximum oil flow | 32.8 L/min |

### Hydraulic Motors

| | |
|---|---|
| Travel | 2 variable displacement 1 axial piston motors |
| Swing | 1 axial piston motor |

### Relief Valve Settings

| | |
|---|---|
| Implement circuit | 34.3 MPa (350 kgf/cm$^2$) |
| Swing circuit | 32.4 MPa (330 kgf/cm$^2$) |
| Travel circuit | 34.8 MPa (355 kgf/cm$^2$) |
| Pilot circuit | 3.9 MPa (40 kgf/cm$^2$) |
| Power boost | 38.0 MPa (388 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.

### 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 | 2 |
| Telescopic arm control pedal | 1 |

## UPPERSTRUCTURE

### Revolving Frame

D-section frame skirt for resistance to deformation.

### Swing Device

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

| | |
|---|---|
| Swing speed | 10.7 min$^{-1}$ (rpm) |
| Swing torque | 120 kNm (12 200 kgfm) |

### Operator's Cab

Independent spacious cab, 1 005 mm wide by 1 675 mm high, conforming to ISO* Standards.
* International Organization for Standardization

## UNDERCARRIAGE

### Tracks

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 | 48 |
| Track guards | 3 |

### Travel Device

Each track driven by 2-speed axial piston motor.
Parking brake is spring-set/hydraulic-released disc type.
Automatic transmission system: High-Low.

| | |
|---|---|
| Travel speeds | High : 0 to 4.9 km/h<br>Low : 0 to 3.1 km/h |
| Maximum traction force | 298 kN (30 400 kgf) |
| Gradeability | 26% (15 degree) continuous |

## WEIGHTS AND GROUND PRESSURE

Equipped with type 30 m telescopic arm and 1.55 m$^3$ clamshell bucket (SAE heaped).

| Shoe type | Shoe width | Operating weight | Ground pressure |
|---|---|---|---|
| Triple grouser | 600 mm | 45 600 kg | 85 kPa (0.87 kgf/cm$^2$) |

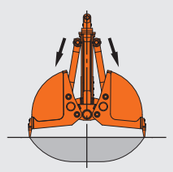
## SERVICE REFILL CAPACITIES

| | |
|---|---|
| Fuel tank | 630.0 L |
| Engine coolant | 35.0 L |
| Engine oil | 36.0 L |
| Swing device | 15.7 L |
| Travel device (each side) | 9.2 L |
| Hydraulic system | 340.0 L |
| Hydraulic oil tank | 180.0 L |

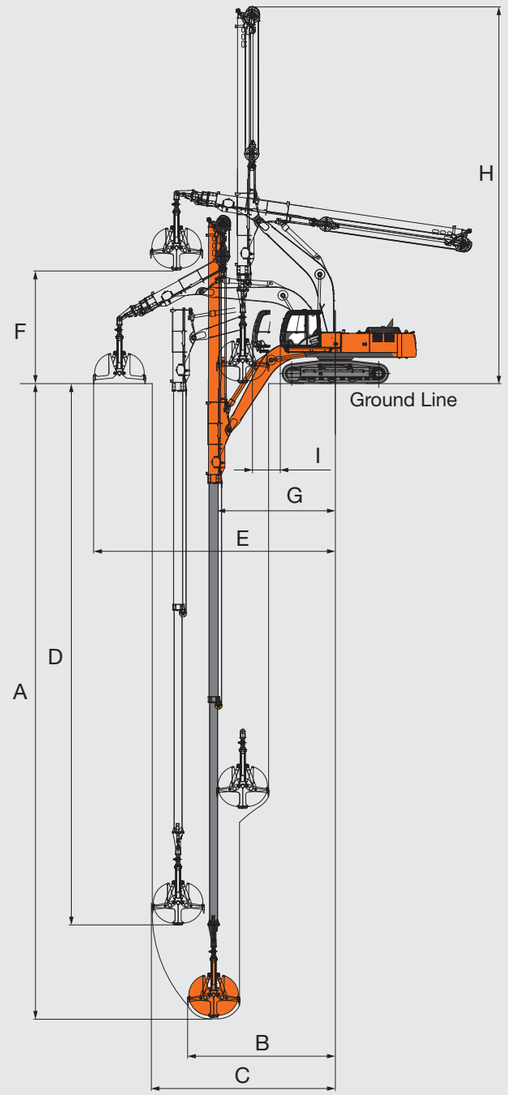
## CLAMSHELL BUCKET

| Bucket type | | S-SP155-2 |
|---|---|---|
| Bucket capacity | m$^3$ | 1.55 |
| Max. digging force | kN (kgf) | 102 (10 400) |
| Max. height | mm | 3 140 |
| Max. opened height | mm | 2 510 |
| Closed width | mm | 2 310 |
| Opened width | mm | 2 440 |
| Bucket width | mm | 1 200 |
| Number of teeth | | 7 |
| Weight | kg | 2 420 |

Shell push type



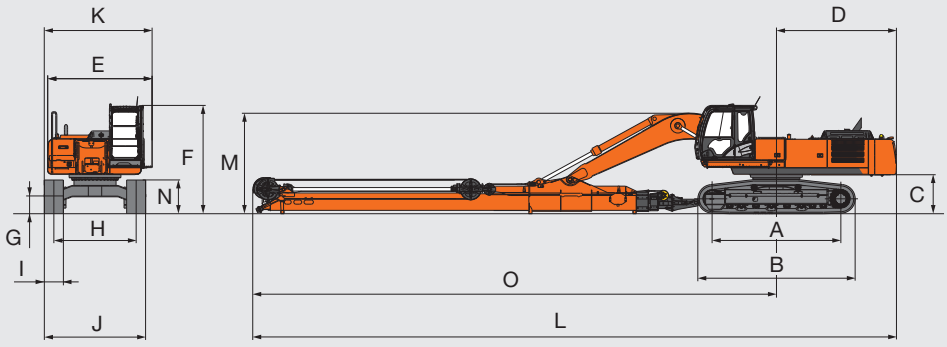
## WORKING RANGES




Unit: mm

| | | |
|---|---|---|
| Telescopic arm type | | S-TC300R-B |
| Telescopic arm system | | Hydraulic cylinder + wire rope |
| A | Max. vertical digging depth | 29 550 |
| B | Radius at max. vertical digging depth | 6 860 |
| C | Max. vertical digging radius | 8 520 |
| D | Depth at max. vertical digging radius | 25 190 |
| E | Max. working radius | 11 250 |
| F | Max. dumping height | 5 280 |
| G | Min. front swing radius | 5 510 |
| H | Height at min. front swing radius | 17 550 |
| I | Cab sliding distance | 1 300 |

## DIMENSIONS



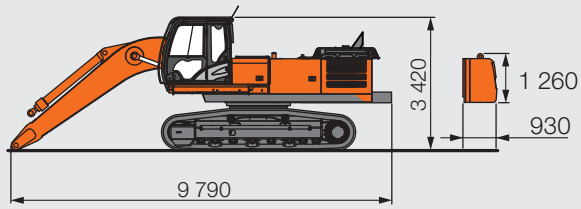

Unit: mm

| | | |
|---|---|---|
| A | Distance between tumblers | 4 050 |
| B | Undercarriage length | 4 940 |
| *C | Counterweight clearance | 1 160 |
| D | Rear-end swing radius | 3 780 |
| E | Overall width of upperstructure | 3 290 |
| F | Overall height of cab | 3 420 |
| *G | Min. ground clearance | 500 |
| H | Track gauge | 2 590 |
| I | Track shoe width | G 600 |
| J | Undercarriage width | 3 190 |
| K | Overall width (folding the step) | 3 390 (3 060) |
| L | Overall length | 20 250 |
| M | Overall height of boom | 3 170 |
| N | Track height with triple grouser shoes | 1 060 |
| O | Swing centre to front distance | 16 480 |

* Excluding track shoe lug G: Triple grouser shoe

## TRANSPORTATION

Unit: mm

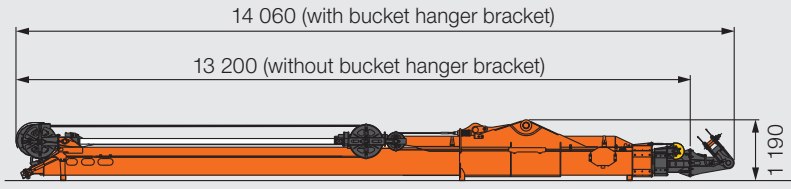



Counterweight
Width : 2 950 mm
Weight : 12 400 kg

Width : 3 190 mm
Weight (with sliding cab)
: 24 120 kg

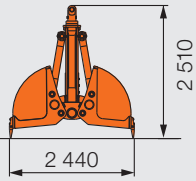
Unit: mm

**Telescopic Arm**




Width: 1 030 mm Weight: 6 580 kg

**Clamshell Bucket**




Width: 1 200 mm Weight: 2 420 kg

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.

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