TELESCOPIC ARM 30 M

Model Code: ZX330LC-5G
Engine Rated Power: 184 kW (246 HP)
Operating Weight: 45,500 kg
Digging Depth: 30 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
Max. digging depth: 30 m

19 % UP
20 % UP

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

Performance

New Big Clamshell Bucket

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.

High Versatility

This machine, featuring 30 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.
Sliding Cab

The sliding cab, on this telescopic arm excavator, projects forward, 960 mm more over a Hitachi standard model. This specialty 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.

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.

Reduced Cab Vibration for Operator Comfort

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

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.

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.

Miscellaneous Safety Accessories

- Bucket jolt-reducing device
- Bucket landing alarm device
- Leveler
- Operation warning lights
- Operator guard against falling prevention
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Free-Fall Prevention Devices

- Holding Valve
- Free-Fall Prevention Device

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Electric Grease Gun

- For pail type (optional)
- Rechargeable battery type (optional)
### SPECIFICATIONS

#### ENGINE
- **Model**: Isuzu AA-6HK1X
- **Type**: 4-cylinder 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
  - SAE J1349, net: 184 kW (246 HP) at 2 000 min⁻¹
- **Maximum torque**: 873 Nm (89.0 kgf·m) at 1 700 min⁻¹
- **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/cm²)
  - Swing circuit: 32.4 MPa (330 kgf/cm²)
  - Travel circuit: 34.8 MPa (355 kgf/cm²)
  - Pilot circuit: 3.9 MPa (40 kgf/cm²)
  - Power boost: 38.0 MPa (388 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.
- **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 (12 000 kgf·m)
- **Operator's Cab**
  - Independent spacious cab, 1,005 mm wide by 1,675 mm high, conforming to ISO Standards.

#### 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 motors.
  - 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 3.1 km/h
  - Maximum traction force: 298 kN (30 400 kgf)
  - Gradeability: 26% (15 degree) continuous

### WORKING RANGES

#### WEIGHTS AND GROUND PRESSURE
- Equipped with type S-TC300R-B and 1.55 m³ clamshell bucket (SAE/PCSAA heaped).
- **Shoe type**
  - Triple grouser
  - Shoe width: 600 mm
  - Operating weight: 45 500 kg
  - Ground pressure: 85 kPa (0.87 kgf/cm²)

#### 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**: 180.0 L
- **Hydraulic oil tank**: 180.0 L

#### CLAMSHELL BUCKET
- **Bucket type**: S-SP155
  - **Bucket capacity**: 1.55 m³
  - **Max. digging force**: 99.1 kN (10 100 kgf)
  - **Max. height**: 3,590 mm
  - **Max. opened height**: 3,060 mm
  - **Closed width**: 2,170 mm
  - **Opened width**: 2,480 mm
  - **Bucket width**: 1,200 mm
  - **Number of teeth**: 7
  - **Weight**: 2,350 kg

### CLAMSHELL BUCKET

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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.