Clamshell Telescopic Arm

**SPECIFICATIONS**

**CLAMSHELL TELESCOPIC ARM**

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**Model Code: ZX225USRLC-3**
- Engine Rated Power: 122 kW (164 HP)
- Operating Weight: 29,200 kg
  (with Sliding Cab)

**Model Code: ZX350LC-3**
- Engine Rated Power: 202 kW (271 HP)
- Operating Weight: 42,800 kg
  (with Sliding Cab)

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*These specifications are subject to change without notice. Illustrations and photos show the standard models, and may or may not include optional equipment, accessories, and all standard equipment with some differences in colour and features. Please ensure you have read and understood the Operator's Manual to ensure correct operation of the equipment.*

Hitachi Construction Machinery
www.hcme.com

KA-EN027EUP
### ENGINE
- **Model**: Isuzu 4HK1
- **Type**: 4-cycle water-cooled, direct injection
- **Aspiration**: Turbocharged, intercooled
- **No. of cylinders**: 4
- **Rated power**: 122 kW (164 HP) at 2,000 min⁻¹

### WEIGHS AND GROUND PRESSURE
- **Shoe type**: Triple grouser
- **Shoe width**: 600 mm
- **Operating weight**: 29,200 kg
- **Ground pressure**: 61 kPa (0.62 kgf/cm²)

### HYDRAULIC SYSTEM
- **Axe piston motor with planetary reduction gear** is bathed in oil.
- **Swing speed**: 13.3 min⁻¹

### UNDERCARRIAGE
- **Tractor type undercarriage**: Welded track frame using selected materials. Side frame welded to track frame. Lubricated track rollers, idlers, and sprockets with floating seals.

### SERVICE REFILL CAPACITIES
<table>
<thead>
<tr>
<th>Component</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel tank</td>
<td>230.0 L</td>
</tr>
<tr>
<td>Engine coolant</td>
<td>26.0 L</td>
</tr>
<tr>
<td>Engine oil</td>
<td>23.0 L</td>
</tr>
<tr>
<td>Swing device</td>
<td>6.9 L</td>
</tr>
<tr>
<td>Travel device (each side)</td>
<td>6.8 L</td>
</tr>
<tr>
<td>Hydraulic system</td>
<td>230.0 L</td>
</tr>
<tr>
<td>Hydraulic oil tank</td>
<td>123.0 L</td>
</tr>
</tbody>
</table>
**EQUIPMENT**

**ENGINE**
- Model: Isuzu AH-6HK1X
- Type: 4-cylinder water-cooled, direct injection
- Aspiration: Turbocharged, intercooled
- No. of cylinders: 6
- Rated power:
  - ISO 9249, net: 202 kW (271 HP) at 1,900 min⁻¹ (rpm)
  - ECE R12/126, net: 202 kW (271 HP) at 1,900 min⁻¹ (rpm)
  - SAE J1349, net: 202 kW (271 HP) at 1,900 min⁻¹ (rpm)
- Maximum torque: 1,085 N·m (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
- Engine speed sensing system
- Main pumps: 2 variable displacement axial piston pumps
  - Maximum oil flow: 2 x 288 L/min
- Pilot pump: 1 gear pump
  - Maximum oil flow: 34 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: 32.4 MPa (330 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.

**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**

**Swing Device**
- Axial piston motor with planetary reduction gear is bathed in oil. Swing circle is single-row, shaft-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 1,675 mm high, conforming to ISO Standards. Reinforced glass windows on 4 sides for good visibility. Operable front windows (upper and lower). Reclining seat with armrests; adjustable with or without control levers.
  - International Standardization Organization
- Sliding cab
  - Unique placement of hydraulic cylinder enables smooth extension / retraction of cab.
  - Extension length: 1,300 mm
- Lower window
  - Better visibility of front / lower of machine

**UNDERCARRIAGE**

**Tracks**

**Numbers of Rollers and Shoes on Each Side**
- Upper rollers: 2
- Lower rollers: 8
- Track shoes: 48
- Track guard: 3

**Travel Device**
  - Travel speeds: High: 0 to 5.0 km/h
    - Low: 0 to 3.2 km/h
  - Maximum traction force: 298 kN (20,200 kgf)
  - Gradeability: 15° (26%) continuous

**WEIGHTS AND GROUND PRESSURE**

**ZX350LC-3 CLAMSHELL TELESCOPIC ARM**
- Equipped with type S-TC300R-7 and 1.3 m³ clamshell bucket (SAE,PCS A headed).

<table>
<thead>
<tr>
<th>Shoe type</th>
<th>Shoe width</th>
<th>Operating weight</th>
<th>Ground pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triple grouser</td>
<td>600 mm</td>
<td>428 kg</td>
<td>81 kPa (0.82 kgf/cm²)</td>
</tr>
</tbody>
</table>

**SERVICE REFILL CAPACITIES**
- Fuel tank: 630.0 L
- Engine oil: 32.0 L
- Swing device: 41.0 L
- Swing device: 17.0 L
- Travel device: 9.2 L
- Hydraulic system: 374.0 L
- Hydraulic oil tank: 298.0 L
**SPECIFICATIONS**

**ZX225USRLC CLAMSHELL TELESCOPIC ARM**

**DIMENSIONS**

- **ZX225USRLC**
  - Telescopic arm type: S-TC200R-8
  - Telescopic arm system: Hydraulic cylinder + wire rope
  - Operating weight (With sliding cab): 29 200 kg
  - Bucket capacity: 0.8 m³
  - A: Max. vertical digging depth: 21 150 mm
  - B: Radius at max. vertical digging depth: 5 880 mm
  - C: Max. vertical digging radius: 7 450 mm
  - D: Depth at max. vertical digging radius: 17 140 mm
  - E: Max. working radius: 10 170 mm
  - F: Max. dumping height: 6 050 mm
  - G: Min. front swing radius: 3 880 mm
  - H: Height at min. front swing radius: 13 040 mm

**WORKING RANGES**

- **ZX225USRLC**
  - I: Distance between tumblers: 3 660 mm
  - J: Undercarriage length: 4 940 mm
  - K: Counterweight clearance: 1 190 mm
  - L: Rear-end swing radius: 2 180 mm
  - M: Overall width of upperstructure: 3 120 mm
  - N: Overall height of cab: 3 210 mm
  - O: Min. ground clearance: 450 mm
  - P: Track gauge: 2 390 mm
  - Q: Track shoe width: 600 mm
  - R: Undercarriage width: 2 990 mm
  - S: Overall width: 3 210 mm
  - T: Overall length: 14 000 mm
  - U: Overall height of boom: 2 830 mm
  - V: Track height with triple grouser shoes: 920 mm
  - W: Swing centre to front distance: 11 760 mm

**TRANSPORTATION**

- **ZX225USRLC**
  - Width (without Sidewalk): 3 520 mm
  - Weight (with Sliding cab): 24 840 kg

**ZX350LC CLAMSHELL TELESCOPIC ARM**

**DIMENSIONS**

- **ZX350LC**
  - Telescopic arm type: S-TC300R-7
  - Telescopic arm system: Hydraulic cylinder + wire rope
  - Operating weight (With sliding cab): 42 800 kg
  - Bucket capacity: 1.3 m³
  - A: Max. vertical digging depth: 25 000 mm
  - B: Radius at max. vertical digging depth: 6 830 mm
  - C: Max. vertical digging radius: 8 400 mm
  - D: Depth at max. vertical digging radius: 20 510 mm
  - E: Max. working radius: 11 170 mm
  - F: Max. dumping height: 5 570 mm
  - G: Min. front swing radius: 5 300 mm
  - H: Height at min. front swing radius: 15 660 mm

**WORKING RANGES**

- **ZX350LC**
  - I: Distance between tumblers: 4 050 mm
  - J: Undercarriage length: 4 940 mm
  - K: Counterweight clearance: 1 390 mm
  - L: Rear-end swing radius: 3 540 mm
  - M: Overall width of upperstructure: 3 180 mm
  - N: Overall height of cab: 3 390 mm
  - O: Min. ground clearance: 500 mm
  - P: Track gauge: 2 590 mm
  - Q: Track shoe width: 600 mm
  - R: Undercarriage width: 2 590 mm
  - S: Overall width: 3 370 mm
  - T: Overall length: 18 110 mm
  - U: Overall height of boom: 3 250 mm
  - V: Swing centre to front distance: 1 070 mm

**TRANSPORTATION**

- **ZX350LC**
  - Width: 3 190 mm
  - Weight (with Sliding cab): 24 570 kg
  - Counterweight: 1 250 mm
  - Weight: 10 800 kg