HITACHI
LX290E

engine rated power
228 kW / 306 HP

operating weight
21 455 - 23 075 kg

bucket capacity
4.0 - 4.5 m³
**EQUIPMENT**

**Engine**

- **Make**: Isuzu
- **Model**: 6SD1XQF
- **Type**: 6 cylinders, diesel, direct injection turbocharged low emission engine
- **Coolant**: Water
- **Displacement**: 9.839 l
- **Engine Power**: At 2 000 rpm according to ISO 3046 228 kW / 306 HP / 175 PS
- **Maximum torque**: 1 177 Nm / 1 700 rpm
- **Cylinder bore**: 120 mm
- **Alternator**: 24 V / 50 A
- **Starting motor**: 24 V / 5.5 kW
- **Battery (no maintenance)**: 2 x 12 V / 140 Ah
- **Low gas emission**: In compliance with European regulations

**Transmission**

- **Torque converter**
  - Type: 3 elements, single stage, single-phase
  - Torque stall ratio: 2.121:1
- **Transmission**
  - **Make**: ZF
  - **Type**: Full power shift automatic transmission
  - **Gear change**: Automatic or manual shift
  - **Controls**: Switch on joystick or on the steering column

**Axles**

- **Make**: ZF
- **Type**: “Heavy Duty” with limited slip self-locking differentials, designed for high stress work
- **Front axle**: Rigid
- **Rear axle**: Oscillation angle left 9.5°; right 9.5°
- **Final drive**: Epicycloidal planetary gear; system in the wheel hubs
- **Tyres**: 26.5 R 25

**Travel speeds**

<table>
<thead>
<tr>
<th>Speed</th>
<th>Forward</th>
<th>Reverse</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>2</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>3</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>4</td>
<td>37</td>
<td></td>
</tr>
</tbody>
</table>

**Maximum gradeability**: 30°

**Braking system**

- **Type**: Wet type oil multidisc brakes on all 4 wheels
- **Control**: Hydraulically controlled, servo control with electrical switch to release the transmission
- **Safety system**: Through accumulators for the highest safety
- **Parking brake**: Disc type, electrically controlled from the dashboard; automatic neutralization of the transmission when the parking brake is applied

**Steering**

- **Type**: Hydraulic, “Load Sensing” with priority valve
- **Operation**: By hydraulic system main pump
- **Max. flow**: 220 l/min
- **Max. pressure**: 190 bar
- **No. of cylinders**: 2 double acting cylinders
- **Bore**: 100 mm
- **Emergency steering**: Bi-directional gear pump driven by the gearbox

**Hydraulic system**

- **Type**: Open centre; flow dependent of load, adjusted via divider valve
- **Main pump**: Tandem vane pump
- **Max. flow at 2 200 rpm**: 361 l/min
- **Max. pressure**: 210 bar
- **Aid pump**: Gear type
- **Flow rate at 2 200 rpm**: 19.6 l/min
- **Max. pressure**: 35 bar
- **Hydraulic control valve**: 3-spool valve for boom, bucket and auxiliary circuit
- **Standard floating valve filter system**: 5 µ nominal rate on return to tank

**Cylinders**

- **Lifting bore / stroke**: 170 / 725 mm
- **Bucket bore / stroke**: 210 / 515 mm
- **Steering bore / stroke**: 100 / 418 mm
- **Cycle time (at rated speed)**
  - **Lifting**: 6.5 s
  - **Dumping**: 1.3 s
  - **Lowering**: 3.2 s
  - **Total**: 11.0 s

**Loader equipment**

- **Type**: Z bar linkage
- **Pins/rings**: Special coating with special seals
- **Anti-pitching system**: RCS (Ride Control System, optional)
- **Lubrication**: Centralized manual lubrication, accessible from the ground
- **Levelling**: Bucket automatic ground leveller
- **Lift stop**: Automatic, depending on programmable height
- **Floating position**: Standard

**Controls**

- **Control of loader kinematics by one joystick in compliance with ISO standards.**
- **Control of auxiliary hydraulic circuit (optional) by means of a separate lever.**
- **Control locking is possible when driving on the road.**
- **Reverse/forward shift by switch on equipment joystick or by commodo on steering column.**
- **Automatic gear selection with “gear-keep function”, or manual selection by commodo on the steering column.**
- **Horn actuation on steering wheel or mono-lever.**
- **Parking brake application on dashboard.**
- **Adjustable steering column.**
Cabin

Type: ROPS/FOPS
- ROPS - ISO 3471/SAE 1040
- FOPS - ISO 3449/SAE J 231

- 360° round visibility with a perfect view over all outer sides and edges of the wheel loader.
- Forward position of the cab giving an excellent visibility over the loader equipment.
- The operator sits exactly above the articulation joint.
- User-friendly, air suspension seat.
- Heating, pressurization, filtration, ventilation.
- Air-conditioning option.
- Low noise level in compliance with EC regulations.
- Outside capacity: 110 LwA

Capacities

- Fuel tank: 342 l
- Hydraulic tank and circuit: 225 l
- Engine housing: 33 l
- Front axle: 51 l
- Rear axle: 30 l
- Torque converter and transmission: 26 l

Devices for maintenance

- Centralized lubrication of the loader kinematics.
- Centralized lubrication of the rear axle articulation and oscillation.
- Tiltable cab for quick intervention on the hydraulic system, the transmission and the braking system.
- Transmission oil radiator, engine coolant radiator and hydraulic cooler are side by side.
- Air filter with radial ring and clogging indicator.
- Maintenance-free batteries, accessible from the ground, located in a case at the back of the machine.
- Fuses block located in the cab.
- Checking of air filter and engine oil level from the ground.
- Attachment pins with special seals. Lubrication every 100 hours.
- Inspection glasses to check the fluid level of hydraulic oil and transmission oil from the ground.
## SPECIFICATIONS

### Performances and dimensions

<table>
<thead>
<tr>
<th>LX290E</th>
<th>Bucket with flat bottom welded on teeth</th>
<th>Bucket with flat bottom welded on teeth</th>
<th>Rounded bottom bucket with bolted on teeth</th>
<th>Rounded bottom bucket with welded on teeth</th>
<th>Light material bucket with bolted on cutting edge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bucket capacity (SAE) m³</td>
<td>4.2</td>
<td>4.2</td>
<td>4.0</td>
<td>4.0</td>
<td>4.5</td>
</tr>
<tr>
<td>Bucket width mm</td>
<td>2 980</td>
<td>2 980</td>
<td>2 980</td>
<td>2 980</td>
<td>2 980</td>
</tr>
<tr>
<td>Performances</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Maximum dump height at 45° mm</td>
<td>3 000</td>
<td>3 030</td>
<td>3 020</td>
<td>3 050</td>
<td>3 130</td>
</tr>
<tr>
<td>B Reach at dump height max. at 45° mm</td>
<td>1 350</td>
<td>1 390</td>
<td>1 380</td>
<td>1 380</td>
<td>1 210</td>
</tr>
<tr>
<td>Tipping load, straight kg</td>
<td>18 120</td>
<td>18 035</td>
<td>18 325</td>
<td>18 240</td>
<td>17 760</td>
</tr>
<tr>
<td>Tipping load, articulated, 40° kg</td>
<td>16 010</td>
<td>15 925</td>
<td>16 215</td>
<td>16 130</td>
<td>15 675</td>
</tr>
<tr>
<td>Breakout force kN</td>
<td>207</td>
<td>207</td>
<td>207</td>
<td>207</td>
<td>199</td>
</tr>
<tr>
<td>C Bucket rollback at full height</td>
<td>58</td>
<td>58</td>
<td>58</td>
<td>58</td>
<td>58</td>
</tr>
<tr>
<td>D Bucket rollback in carry position (SAE)</td>
<td>47</td>
<td>47</td>
<td>47</td>
<td>47</td>
<td>47</td>
</tr>
<tr>
<td>E Maximum bucket dump angle</td>
<td>46</td>
<td>46</td>
<td>46</td>
<td>46</td>
<td>46</td>
</tr>
<tr>
<td>F Digging depth mm</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>61</td>
</tr>
<tr>
<td>Minimum turn radius, corner of bucket mm</td>
<td>7 005</td>
<td>7 005</td>
<td>7 005</td>
<td>7 005</td>
<td>7 020</td>
</tr>
<tr>
<td>Dimensions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G Length (bucket on the ground) mm</td>
<td>8 730</td>
<td>8 715</td>
<td>8 730</td>
<td>8 715</td>
<td>8 540</td>
</tr>
<tr>
<td>H Width over tyre mm</td>
<td>2 960</td>
<td>2 960</td>
<td>2 960</td>
<td>2 960</td>
<td>2 960</td>
</tr>
<tr>
<td>I Height over cab mm</td>
<td>3 525</td>
<td>3 525</td>
<td>3 525</td>
<td>3 525</td>
<td>3 525</td>
</tr>
<tr>
<td>J Wheelbase mm</td>
<td>3 500</td>
<td>3 500</td>
<td>3 500</td>
<td>3 500</td>
<td>3 500</td>
</tr>
<tr>
<td>K Tread mm</td>
<td>2 235</td>
<td>2 235</td>
<td>2 235</td>
<td>2 235</td>
<td>2 235</td>
</tr>
<tr>
<td>L Ground clearance mm</td>
<td>525</td>
<td>525</td>
<td>525</td>
<td>525</td>
<td>525</td>
</tr>
<tr>
<td>M Shovel pin height mm</td>
<td>4 405</td>
<td>4 405</td>
<td>4 405</td>
<td>4 405</td>
<td>4 405</td>
</tr>
<tr>
<td>Operating weight kg</td>
<td>21 750</td>
<td>21 810</td>
<td>21 545</td>
<td>21 605</td>
<td>21 860</td>
</tr>
</tbody>
</table>

### LX290E Specification changes with optional equipment

<table>
<thead>
<tr>
<th></th>
<th>Dump height</th>
<th>Overall height</th>
<th>Overall width</th>
<th>Weight</th>
<th>Tipping load straight</th>
<th>Tipping load full turn</th>
</tr>
</thead>
<tbody>
<tr>
<td>26.5 R 25 VMT (L3)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>26.5 R 25 XHA (L3)</td>
<td>0</td>
<td>-25</td>
<td>-90</td>
<td>-75</td>
<td>-68</td>
<td></td>
</tr>
<tr>
<td>26.5 R 25 VSDL (L5)</td>
<td>+45</td>
<td>0</td>
<td>+1 065</td>
<td>+850</td>
<td>+750</td>
<td></td>
</tr>
<tr>
<td>26.5 R 25 XLDD2 (L5)</td>
<td>+30</td>
<td>+15</td>
<td>+570</td>
<td>+450</td>
<td>+400</td>
<td></td>
</tr>
<tr>
<td>With Ride Control System (RCS)</td>
<td>0</td>
<td>0</td>
<td>+50</td>
<td>+10</td>
<td>+10</td>
<td></td>
</tr>
<tr>
<td>With air conditioner</td>
<td>0</td>
<td>0</td>
<td>+20</td>
<td>+25</td>
<td>+20</td>
<td></td>
</tr>
<tr>
<td>With full fender</td>
<td>0</td>
<td>0</td>
<td>+80</td>
<td>+125</td>
<td>+110</td>
<td></td>
</tr>
</tbody>
</table>
Standard Equipment

LOADER
- Z bar linkage
- Automatic lift stop
- Automatic bucket leveller
- Loader steering by one servo-controlled joystick

ENGINE
- Dry air filter with safety element
- Soundproof exhaust
- Double fuel filtration

TRANSMISSION
- Full powershift automatic transmission
- Shift on the loader joystick or with the commodo on the steering console

AXLES AND BRAKING SYSTEM
- Limited slip front and rear axles
- Electro-hydraulic parking brake
- Front and rear half fenders
- Tires
  26.5R25

HYDRAULICS
- 3-spool hydraulic control valve

CABIN
- ROPS-FOPS (soundproof and pressurized)
- Air suspension seat
- Radio
- Speedometer
- Heating, de-icing, pressurization, air filtration
- 2 outside retractable rearview mirrors
- 1 inside rearview mirror
- Triplex front windschene
- Tilttable steering console
- Windschene wiper and washer (front and rear)
- Tilttable cab for quick maintenance intervention on the hydraulic system and the transmission
- 12 Volt plug for CB

CONTROL AND SAFETY DEVICES
- Lights: working lights, headlights, stop lights
- Reversing alarm
- Reversing light
- Indicators, light signals, sound signal for coolant and transmission oil temperature, brake pressure, brake oil level, hand brake, steering
- Light on/off switch, headlights indicator
- Hourmeter
- Fuel level
- Pre-selector, gear shifting
- Air filter clogging warning light
- Sling points

Optional Equipment

LOADER
- 2 servo-controlled levers
- 3rd function piping
- Anti-pitching system (Ride control system RCS)
- Automatic central lubrication system

HYDRAULICS
- 3-spool hydraulic control valve

CABIN
- Air conditioning
- Clock & Thermometer
- Tachometer
- Headrest
- 2-lever pilot control system

BUCKET
- Rounded bottom (4.0 m³)
- Flat bottom (4.2 m³)
- Flat bottom/light material (4.5 m³)

OTHER
- Rear full fenders
- Back up alarm
- Beacon lamp
- Bio-degradable oil