Super EX110-V

Rated Engine HP
76 hp (57 kW)
Max Power: 80 hp (59 kW)

Operating Weight
EX110: 24,700 lbs (11,200 kg)

Bucket Capacity
0.25 - 0.77 yd³ (0.19 - 0.59 m³)
Putting Technology To Work

The EX110 is smoother, faster and more powerful than its predecessor, the EX100. It's very trailerable, easy to get into tight applications, yet extremely productive. The EX110 features the most advanced computerized horsepower and control system available: Hitachi's exclusive Dash-5 system. The controls are responsive; in fact, infinitely controllable. The machine's power and balance are exciting.

**Specifics**

- **Isuzu A-4BG1 non-turbo, direct injection diesel engine** is extremely fuel-efficient and reliable. It meets all EPA clean air requirements.
- **Dash-5 engine/hydraulic control** with three power modes and four work modes.
  - **Power modes:**
    1. Normal: Standard operation.
    2. H/P: Increased engine rpm and horsepower.
    3. E: Maximum fuel efficiency in light duty applications.
  - **Work modes:**
    1. General Purpose
    2. Grading
    3. Precision
    4. Attachment, which provides automatically adjusted oil flow to hydraulic attachments.
- **Cab mounted on six fluid-filled, vibration dampening, shock absorbing mounts.**
- **Compact travel motor design; protected piping reduces opportunity of damage.**

**Features**

- The updated work modes provide power in the order of inherent priority to do the best job for the project at hand. The Hitachi EX110 has excellent multi-function features which allow multiple jobs such as travel, swing and boom raise all at the same time without any one function stopping.
- The Super EX110, as with all Hitachi excavator models, is built to maximize performance, reliability, and operator comfort through optimum design and quality components. The Isuzu engine is matched to the hydraulic pump for outstanding multi-function performance. The undercarriage, cab, body and front attachment are all balanced and designed for maximum strength. All of this means that your Hitachi EX110 will work economically and productively for years and for thousands of hours at minimum operating costs.

<table>
<thead>
<tr>
<th>Model</th>
<th>Operating Weight</th>
<th>Travel Speeds</th>
<th>Max. Lift Capacity</th>
<th>Gradeability</th>
<th>Traction Force</th>
</tr>
</thead>
<tbody>
<tr>
<td>EX110</td>
<td>24,700 lbs (11,200 kg)</td>
<td>0 - 3.4 mph (0 - 5.5 km/h)</td>
<td>14,240 lbs (6,460 kg)</td>
<td>35°</td>
<td>19,600 lbf (8,900 kgf)</td>
</tr>
</tbody>
</table>

**Super EX110-V Operating Specifications**

- Operating Travel: Max. 0 - 3.4 mph (0 - 5.5 km/h)
- Lift Capacity: 14,240 lbs (6,460 kg)
- Gradeability: 35°
- Traction Force: 19,600 lbf (8,900 kgf)
**Operator Comfort: A Top Priority**

Sitting in one place, all day, operating a machine productively takes concentration and dedication to doing a good job. It also means that a smart owner is going to do everything possible to make sure his operator is comfortable in the cab. The Hitachi EX110 is an excellent example of how comfortable a well-designed cab can be.

The widest cab in its class: 3 ft. 4 in. (1005 mm). Lots of leg room, wide side door. The ergonomically designed seat is fully adjustable with tilting armrests, tilting back, floating or solidly fixed seat, headrest tilt, and seat raise/lower.

The cab floats on six fluid-filled elastic mounts that smooth out shocks and jolts.

The hand control levers can be raised or lowered to match the operator’s build, and the controls can either glide forward or back with the seat or remain fixed while the seat moves.

**Work Modes For Increased Performance**

The four work modes have been enhanced from prior models.

1. The General Purpose Mode is appropriate for general digging and truck loading. All circuits work together.
2. The Grading Mode provides priority to the combined operation of boom raise, stick forward and bucket adjustment while limiting control response so that the movement is smooth.
3. The Precision Mode keeps the front attachment moving precisely and slowly.
4. The Attachment Mode is designed to automatically match the oil flow requirements of selected attachments such as a hydraulic hammer. Additional piping is required (optional).

**H/P and E Modes For Increased Efficiency**

- The Normal mode is for normal or average applications. The engine runs at an efficient maximum speed for longest life and general economy. The hydraulic pump runs at a baseline 100%.
- The H/P mode provides the full power of the EX110 on command. This function increases engine rpm by 6% when activated, thus providing 5% more horsepower when needed – 80 hp (59 kW).
  - Engine rpm automatically increases when the arm-in function meets resistance.
  - Automatically switches back to normal rpm and 76 hp (57 kW) when resistance is overcome for fuel savings.
- The E mode provides 94% of full power while providing 15% more fuel efficiency. It is appropriate for light-duty work because it allows you to work longer before refueling.

**Powertrain: Efficient, Powerful**

**Economical Isuzu 76 hp Engine Is Dependable, Long-Lasting**

The Isuzu engine in the EX110 is one of the most proven, most dependable engines in the world. It is a non-turbo, direct injection engine with a low rpm peak torque of 210 lbf-ft. This is an updated engine that meets all EPA, CARB pollution and noise standards. The 4 cylinder, 264 cu. in. (same size as the EX160) engine is rated at 76hp (57 kW).

**Outstanding Traction Force**

The traction force has been increased to 19,600 lbf (8,900 kgf) for improved movement through mud and over obstacles.

**Enhanced E-P Pump Control**

A sophisticated micro-computer system guided by multiple actuators is exclusively standard on the EX110. Hitachi is renowned for the smooth operation of its excavators and this model is no exception. The new Dash-5 controls provide quick, accurate response to multi-function swing-lift-bucket curl operations.

**Enhanced Cooling Protection**

The EX110 features a 4.9 U.S. gallon (18.4 liter) radiator coolant tank, a tightly fitting fan shroud and a high capacity fan. The radiator fins are easily cleaned, and the coolant level is easily checked from the ground during normal inspection.
Specifications: EX110

**Longer-Life Undercarriage**

Hitachi undercarriages feature premium grade tracks with large track links fitted with struts for added durability. Pin seals prevent dirt in the bushings and reduce inner wear. The tracks feature heavy-duty track links, front idlers, upper/lower rollers and track center materials. Side frame welded to track frame. Lubricated track rollers, idlers, and sprockets with floating seals. Track... connecting pins with dirt seals. Hydraulic (grease) track adjusters with shock-absorbing recoil springs.

**Round Travel Motor Covers**

Round travel motor covers provide a higher resistance to deformation.

**Super Strong Piping**

Hitachi is legendary for its strong, long lasting hydraulic hose, piping and fittings. This provides outstanding reliability and cleanliness.

**Perfectly Matched Hydraulic System**

Hitachi expertly matches the engine to the hydraulic pumps and control valves for the best response and longest life possible. The pumps are designed to work specifically with the hydraulic system; regardless of rpm or work load.

**Round Hydraulic Tank**

A round hydraulic tank provides superior circulation of the hydraulic oil so that it’s kept cleaner and more evenly cooled.

**Rugged X-Frame**

The tough tractor type undercarriage and X-frame center frame assure superb durability.

**Control**

Pilot controls. Hitachi’s original shockless valve and quick warm-up system built in the pilot circuit.

**Air Cleaner Stored Inside**

Air cleaners are stored inside the cab to ensure they are at their optimal performance.

**Remote Lube**

Remote lube system ensures easy and efficient lubrication.

**Specifications**

- **Engine**
  - Model: Hitachi A-4BG1
  - Type: 4-cycle water-cooled, direct injection
  - Aspiration: Normal
  - No. of cylinders: 4
  - Rated flywheel horsepower: 260 HP (190 kW) at 2,100 rpm
  - Maximum torque: 2,510 ft-lb (4,290 Nm)
  - Piston displacement: 26.2 cu in (425 cc)
  - Engine speed at rated torque: 1,500 rpm

- **Undercarriage**
  - Track type: Rugged-tracked excavator
  - Track width: 60 in (1,524 mm)
  - Track length: 17 ft (5,180 mm)
  - Track pitch: 8 in (200 mm)
  - Track gauge: 28 in (710 mm)
  - Track type: Steel
  - Track material: Steel
  - Track links: 20

- **Hydraulic System**
  - Maximum oil flow: 2 x 25.1 US gpm
  - Main pumps: 2 variable displacement axial piston pumps
  - Maximum oil pressure: 3,200 psi (22.4 MPa)

- **Dimensions**
  - Boom: 26.3 ft (8.0 m)
  - Arm: 13.2 ft (4.0 m)
  - Bucket: 8.5 ft (2.6 m)

- **Weights and Ground Pressure**
  - Equipped with 14 ft (4.27 m) boom, 7 ft (2.1 m) arm and 0.60 yd (0.46 m) bucket.
  - Operating weight: 28 tons (17,600 kg)

- **Swing Mechanism**
  - Axial piston motor with planetary reduction gear is bathed in oil.
  - Swing speed: 13.5 rpm (min⁻¹)
  - Maximum oil pressure: 3,200 psi (22.4 MPa)

- **Swing Cylinders**
  - High-strength pinion rods and tubes. Cylinder cushion mechanisms are provided in all cylinder to absorb shock when cylinders reach their stroke ends.

**Available Dozer Blade**

A factory-installed dozer blade is available which can eliminate the need for a second machine to fill in the trench. Blade height is 23.6 in (600 mm). The blade width is 98.03 in (2,490 mm). Maximum blade lift angle is 23 degrees.

**Engine Specifications**

- **Rated flywheel horsepower:** 260 HP (190 kW) at 2,100 rpm
- **Maximum torque:** 2,510 ft-lb (4,290 Nm)
- **Piston displacement:** 26.2 cu in (425 cc)
- **Engine speed at rated torque:** 1,500 rpm

**Upper Structure**

- **Weight)**
  - Bucket: 5,440 lb (2,466 kg)
  - Arm: 3,500 lb (1,588 kg)
  - Boom: 4,000 lb (1,815 kg)
  - Total: 12,940 lb (5,866 kg)

**Remote Control**

- **工作机制选择**
  - General purpose mode / Grading mode / Precision mode / Attachment mode

**Air Cleaner**

- **Covered Air Cleaners**
  - Reinforced glass windows on 4 sides for excellent visibility.
  - Front windows (upper and lower) are openable.
  - Adjustable, reclining seat with armrests; movable with or without control levers.

**Remote Lube**

- **Oil Flow**
  - 2 x 25.1 US gpm
- **Pumps**
  - 2 variable displacement axial piston pumps

**Hydraulic System**

- **Maximum Oil Pressure**
  - 3,200 psi (22.4 MPa)
- **Torque**
  - 2,510 ft-lb (4,290 Nm)
- **Displacement**
  - 26.2 cu in (425 cc)
- **Speed at Rated Torque**
  - 1,500 rpm

**Swing Mechanism**

- **Axial Piston Motor**
  - Bathed in oil.
- **Swing Speed**
  - 13.5 rpm (min⁻¹)
- **Maximum Oil Pressure**
  - 3,200 psi (22.4 MPa)

**Swing Cylinders**

- **High-Strength Pinion Rods**
  - Cylindrical cushion mechanisms are provided in all cylinders to absorb shock when cylinders reach their stroke ends.

**Dimensions**

- **Boom**
  - 26.3 ft (8.0 m)
- **Arm**
  - 13.2 ft (4.0 m)
- **Bucket**
  - 8.5 ft (2.6 m)

**Weights and Ground Pressure**

- **Bucket Weight**
  - 5,440 lb (2,466 kg)
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- **Boom Weight**
  - 4,000 lb (1,815 kg)
- **Total Weight**
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**Remote Control**

- **Work Mode Selection**
  - General purpose mode / Grading mode / Precision mode / Attachment mode

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- **Bucket Weight**
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  - 3,500 lb (1,588 kg)
- **Boom Weight**
  - 4,000 lb (1,815 kg)
- **Total Weight**
  - 12,940 lb (5,866 kg)
Specifications: EX110

Backhoe Attachments

Boom and arms are of welded, box-section design. Site clearance adjustment mechanisms are provided on the boom and arms. Bucket is of welded steel structure. Side clearance adjustment mechanism provided on the bucket joint.

Bucket Selection Chart

<table>
<thead>
<tr>
<th>Bucket</th>
<th>Capacity</th>
<th>Overall Height</th>
<th>Overall Width</th>
<th>Overall Depth</th>
<th>Swing Radius</th>
<th>Ground Clearance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Bucket</td>
<td>3.0 yd³</td>
<td>(9.0 m³)</td>
<td>(2.9 m)</td>
<td>(2.4 m)</td>
<td>(12.5 m)</td>
<td>(0.9 m)</td>
</tr>
<tr>
<td>Half Bucket</td>
<td>1.5 yd³</td>
<td>(6.0 m³)</td>
<td>(1.9 m)</td>
<td>(1.9 m)</td>
<td>(8.7 m)</td>
<td>(0.6 m)</td>
</tr>
<tr>
<td>Thumb</td>
<td>0.05 yd³</td>
<td>(0.02 m³)</td>
<td>(0.06 m)</td>
<td>(0.06 m)</td>
<td>(0.3 m)</td>
<td>(0.01 m)</td>
</tr>
</tbody>
</table>

Reinforced Front Attachment

Bucketheads are provided inside the front attachment to resist torsion and thickened plates are used in areas subject to stress concentration for added durability in tough operations.

Specifications: EX110

Working Ranges

<table>
<thead>
<tr>
<th>Arm Length</th>
<th>Bucket Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>20'6&quot; (6.25 m)</td>
<td>0.05 yd³ (0.02 m³)</td>
</tr>
<tr>
<td>26'2&quot; (8.0 m)</td>
<td>0.10 yd³ (0.04 m³)</td>
</tr>
<tr>
<td>28'6&quot; (8.7 m)</td>
<td>0.20 yd³ (0.15 m³)</td>
</tr>
<tr>
<td>30'6&quot; (9.3 m)</td>
<td>0.30 yd³ (0.22 m³)</td>
</tr>
</tbody>
</table>

Specifications: EX110

Dimensions

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boom Length</td>
<td>14'0&quot; (4.27 m)</td>
</tr>
<tr>
<td>Arm Length</td>
<td>20'6&quot; (6.25 m)</td>
</tr>
<tr>
<td>Bucket Capacity</td>
<td>0.05 yd³ (0.02 m³)</td>
</tr>
</tbody>
</table>

Specifications: EX110

Fuel tank

<table>
<thead>
<tr>
<th>US gal</th>
<th>Liters</th>
<th>Imp gal</th>
</tr>
</thead>
<tbody>
<tr>
<td>66.1</td>
<td>250.0</td>
<td>55.0</td>
</tr>
</tbody>
</table>

Engine Specifications

<table>
<thead>
<tr>
<th>Engine</th>
<th>Model</th>
<th>Displacement</th>
<th>Rated Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-700</td>
<td>EX110</td>
<td>6.7 l</td>
<td>195 hp</td>
</tr>
</tbody>
</table>

Specifications: EX110

Service Refill Capacities

<table>
<thead>
<tr>
<th>Component</th>
<th>US gal</th>
<th>Liters</th>
<th>Imp gal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel tank</td>
<td>66.1</td>
<td>250.0</td>
<td>55.0</td>
</tr>
<tr>
<td>Engine</td>
<td>4.9</td>
<td>18.4</td>
<td>4.0</td>
</tr>
</tbody>
</table>
## Lifting Capacities: EX110

### Specifications: EX110

### Standard Equipment

#### ENGINE
- PUP mode control
- R mode control
- 40A alternator
- Dry-type air filter with evacuator valve (with safety element)
- Cartridge-type engine oil filter
- Cartridge-type engine oil bypass filter
- Cartridge-type fuel filter
- Air cleaner double element
- Radiator and oil cooler with dual protective net
- Radiator reserve tank
- Fan guard
- Isolation-mounted engine
- Auto-idle system

#### HYDRAULIC SYSTEM
- Work mode selector
- E-P control system
- Quick warm-up system for pilot circuit
- Shockless valve in pilot circuit
- Boom-axial anti-drift valve
- Control valve with main relief valve
- Bypass port for control valve
- Suction filter
- Full-Flow filter
- Pilot filter

#### MONITOR SYSTEM
- Meters:
  - Hourmeter, engine coolant temperature gauge and fuel meter.
  - Warning lamps
  - Alternator charge, engine oil pressure, engine overheats, air cleaner clog and minimum fuel level.
  - Pilot lamps:
    - Engine preheat, engine oil level, engine coolant level and hydraulic oil level.
  - Alarm buzzers:
    - Engine oil pressure and engine overheats.

#### LIGHTS
- 2 working lights

#### UPPERSSTRUCTURE
- Undercover
- 3,750 lb (1,700 kg) counterweight
- Fuel level float
- Hydraulic oil level gauge
- Tool box
- Rearview mirror
- Swing parking brake

#### MISCELLANEOUS
- Standard tool kit
- Lockable machine covers
- Lockable fuel filling cap
- Skid-resistant tapes and handrails

### Optional Equipment

- Hose rupture valves
- Electric fuel refilling pump
- Swing motion alarm device with lamp
- Additional pump
- Piping kit for extra valve port

### Factory Attachment

- Dozer Blade
  - Weight: 1,310 lbs (590 kg)
  - Width: 98.03 in (2,490 mm)
  - Height: 23.6 in (600 mm)
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Hitachi Construction & Mining Division - Americas
1515 5th Avenue • Moline, IL 61265