# ZAXIS-5 series Short-tail-swing version

## SHORT REACH FRONT

**Model Code**: ZX135US-5B

**Engine Rated Power**: 73.4 kW (98 HP)

**Operating Weight**: 15 400 - 17 400 kg

**Backhoe bucket ISO heaped**: 0.65 m³
PERFORMANCE

Hitachi has developed the ZX135US-5 short reach front (SRF) excavator to meet the specific needs of European owners and operators. More compact than a conventional excavator, the ZX135US-5 SRF is ideal for tunnelling projects where space is limited. The medium excavator offers an exceptional performance in confined spaces, with a variety of features focusing on productivity, durability, comfort and safety, and easy maintenance.

1. 3.0 m special boom with lifting bracket
2. 2.0 m special arm with bucket cylinder protection
3. Breaker & crusher piping
4. Welded bucket link A (SRF only)
5. Reinforced bucket link B (SRF only)
6. Demolition use cab
   - FOPS for excavators compliant cab
   - Reinforced front glass
   - OPG guard fitted Level II (ISO10262)
7. Reinforced under cover
8. Reinforced side step (bolt-on type)
9. Heavier counter weight (with lifting bracket)
10. High-filtration full-flow filter
11. Air cleaner double filter
12. Line filter for breaker piping

Cab roof lights and top guard are not included in the standard equipment.
Exceptional performance in confined spaces

Short Arm and Reinforced linkage
The short boom and arm of the ZX135US-5 SRF, and a reinforced bucket linkage, enables it to be fitted with attachments that are suitable for larger 20-tonne machines, including crushers and breakers. This enhances the performance of the excavator for challenging sites.

Easy Maintenance
Like all Hitachi Zaxis excavators, the ZX135US-5 SRF is easy to maintain. The front-window-guard can be opened to the front for easy cleaning of the window. This is important under dusty conditions to maintain visibility.

For convenient cleaning, an exterior dustproof net protects the air conditioning condenser and fuel cooler from clogging, and the radiator has an easy-to-open upper cover. The muffler filter and surrounding area can also be easily accessed for cleaning by a window in the engine cover.

Enhanced Performance and Durability
A large-size cylinder enables the ZX135US-5 SRF to achieve greater digging force, resulting in higher levels of productivity. The bucket digging force has been increased and it can also be equipped with a 30% larger bucket (0.65 m³) than a standard machine.

To enhance durability of the front attachment cylinders are located under the boom and arm. An integrated cylinder guard on the arm protects the bucket cylinder. Piping is positioned on the left to protect it from debris and is also convenient to access in tight spaces.

Key features
- Lifting brackets (4 points)
- Cylinder guard on bucket cylinder
- Enhanced digging force
- Easy to maintain
**ENGINE**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>Isuzu AM-4JJ1X</td>
</tr>
<tr>
<td>Type</td>
<td>4-cycle water-cooled, common rail direct injection</td>
</tr>
<tr>
<td>Aspiration</td>
<td>Variable geometry turbocharged, intercooled, cooled EGR</td>
</tr>
<tr>
<td>Aftertreatment</td>
<td>Muffler filter</td>
</tr>
<tr>
<td>No. of cylinders</td>
<td>4</td>
</tr>
<tr>
<td>Rated power ISO 9249, net</td>
<td>73.4 kW (98 HP) at 2 000 min⁻¹ (rpm)</td>
</tr>
<tr>
<td>Rated power EEC 80/1269, net</td>
<td>73.4 kW (98 HP) at 2 000 min⁻¹ (rpm)</td>
</tr>
<tr>
<td>Rated power SAE J1349, net</td>
<td>73.4 kW (98 HP) at 2 000 min⁻¹ (rpm)</td>
</tr>
<tr>
<td>Maximum torque</td>
<td>374 Nm (38.1 kgfm) at 1 600 min⁻¹ (rpm)</td>
</tr>
<tr>
<td>Piston displacement</td>
<td>2.999 L</td>
</tr>
<tr>
<td>Bore and stroke</td>
<td>95.4 mm x 104.9 mm</td>
</tr>
<tr>
<td>Batteries</td>
<td>2 x 12 V / 58 Ah</td>
</tr>
</tbody>
</table>

**HYDRAULIC SYSTEM**

<table>
<thead>
<tr>
<th>Component</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydraulic pumps</td>
<td>2 variable displacement axial piston pumps</td>
</tr>
<tr>
<td>Maximum oil flow</td>
<td>2 x 117 L/min</td>
</tr>
<tr>
<td>Pilot pump</td>
<td>1 gear pump</td>
</tr>
<tr>
<td>Maximum oil flow</td>
<td>33.6 L/min</td>
</tr>
</tbody>
</table>

**Hydraulic Motors**

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

**UPPERSTRUCTURE**

**Revolving Frame**

D-section frame 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: 13.7 min⁻¹ (rpm)
- Swing torque: 33 kNm (3 370 kgfm)

**UNDERCARRIAGE**

**Tracks**


**Numbers of Rollers and Shoes on Each Side**

- Upper rollers: 1
- Lower rollers: 7
- Track shoes: 44

**Travel Device**

Each track driven by 2-speed axial piston motor.

- Automatic transmission system: High-Low.
- Travel speeds: High: 0 to 5.5 km/h, Low: 0 to 3.3 km/h

- Maximum traction force: 117 kN (11 900 kgf)

- Gradeability: 36% (20 degree) continuous

**SERVICE REFILL CAPACITIES**

- Fuel tank: 220.0 L
- Engine coolant: 20.0 L
- Engine oil: 17.0 L
- Swing device: 3.2 L
- Travel device (each side): 4.2 L
- Hydraulic system: 125.0 L
- Hydraulic oil tank: 60.0 L
DIMENSIONS

LIFTING CAPACITIES

Notes:
1. Ratings are based on ISO 10567.
2. Lifting capacity does not exceed 75% of tipping load with the machine on firm, level ground or 87% full hydraulic capacity.
3. The load point is the center-line of the bucket pivot mounting pin on the arm.
4. *Indicates load limited by hydraulic capacity.
5. 0 m = Ground.

For lifting capacities, subtract bucket and quick hitch weight from lifting capacities without bucket.

ZX135US-5B
Unit : kg

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Load point height (m)</th>
<th>Load radius (4.5 m)</th>
<th>At max. reach (4.5 m)</th>
<th>Unit : kg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.0</td>
<td>4.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boom 3.00 m</td>
<td>4.5</td>
<td>*6 350</td>
<td>*6 350</td>
<td>3.83</td>
</tr>
<tr>
<td>Arm 2.00 m</td>
<td>3.0</td>
<td>*7 180</td>
<td>6 840</td>
<td>4.48</td>
</tr>
<tr>
<td>Without Bucket</td>
<td>1.5</td>
<td>*8 880</td>
<td>6 320</td>
<td>4.10</td>
</tr>
<tr>
<td>Shoe 500 mm</td>
<td>-1.5</td>
<td>*5 710</td>
<td>*5 710</td>
<td>3.40</td>
</tr>
</tbody>
</table>

Rating over-front  Rating over-side or 360 degrees  Unit : kg
EQUIPMENT
ZAXIS 135US

**ENGINE**
- Air cleaner double filters
- Auto idle system
- Auto shut-down control
- Cartridge-type engine oil filter
- Cartridge-type fuel pre-filter
- Cartridge-type fuel main filter
- Cold fuel resistance valve
- Dust-proof indoor net
- Dry-type air filter with evacuator valve
- Electrical fuel feed pump
- ECO/PWR mode control
- Engine oil drain coupler
- Engine warm-up device
- Fan guard
- Fuel cooler
- High performance water separator
- Isolator-mounted engine
- Muffler filter
- Radiator, oil cooler and intercooler
- Radiator reserve tank
- 50 A alternator

**HYDRAULIC SYSTEM**
- Auto power lift
- Control valve with main relief valve
- Full-flow filter
- High mesh full flow filter with restriction indicator
- Hose rupture valve for boom
- Hose rupture valve for arm
- Pilot filter
- Power boost
- Suction filter
- Extra port for control valve
- Variable relief valve for breaker/crusher
- Work mode selector

**CAB**
- Auxiliary function lever (Breaker assist)
- All-weather sound suppressed steel cab
- AM-FM radio
- Ashtray
- Auto control air conditioner
- AUX. terminal and storage
- CRPS V (Center pillar reinforced structure) cab
- Drink holder with hot & cold function
- Electric double horn
- Engine shut-off switch
- Equipped with reinforced glass windows
- Evacuation hammer
- Floor mat
- Footrest
- Front window washer
- Windows on front, upper and left side can be opened
- Glove compartment
- Hot & cool box
- Intermittent windshield wipers
- Key cylinder light
- Laminated round glass window
- Room light with door courtesy
- OPG front guard Level II (ISO10262) compliant cab
- OPG top guard fitted Level II (ISO10262) compliant cab
- Pilot control shut-off lever
- Retractable seat belt
- Rubber radio antenna
- Seat: air suspension seat with heater
- Seat adjustment part: backrest, armrest, height and angle, slide forward / back
- Short wrist control levers
- Sun visor (front window/side window)
- Transparent roof (front window/side window)
- 2 speaker
- 4 fluid-filled elastic mounts
- 12 V power outlet
- 24 V cigarette lighter

**MONITOR SYSTEM**
- Alarm buzzers: overheating, engine oil pressure, overload
- Alarms: overheating, engine warning, engine oil pressure, alternator, minimum fuel level, hydraulic filter restriction, air filter restriction, work mode, overload, etc
- Display of meters: temperature, hour, fuel rate, clock
- Other displays: work mode, auto-idle, glow, rearview monitor, operating conditions, etc
- 32 languages selection

**UNDERCARRIAGE**
- Bolt-on sprocket
- Reinforced track links with pin seals
- Travel motor covers
- Travel parking brake
- Track undercover
- 1 track guards (each side) and hydraulic track adjuster
- 2 tracks guards (each side) and hydraulic track adjuster
- 4 tie down hooks
- 500 mm triple grouser shoes

**FRONT ATTACHMENTS**
- Welded bucket link A
- Centralized lubrication system
- Dirt seal on all bucket pins
- Flanged pin
- HN bushing
- Reinforced resin thrust plate
- WC (tungsten-carbide) thermal spraying
- Reinforced bucket link B

**ATTACHMENTS**
- Accessories for 2 speed selector
- Additional pump (30 L/min)
- Assist piping
- Attachment basic piping
- Breaker and crusher piping
- HSB Parts for breaker and crusher
- Pilot accumulator

**MISCELLANEOUS**
- Global e-Service
- Lockable fuel refilling cap
- Lockable machine covers
- Onboard information controller
- Skid-resistant, plates and handrails
- Standard tool kit
- Theft prevention system*
- Travel direction mark on track frame
- Boom cylinder guard
- Arm cylinder guard
- Bucket cylinder guard

Standard and optional equipment may vary by country, so please consult your Hitachi dealer for details.

* Hitachi Construction Machinery cannot be held liable for theft, any system will just minimize the risk of theft.
Prior to operating this machine, including communication system, in a country other than a country of its intended use, it may be necessary to make modifications to it so that it complies with the local regulatory standards (including safety standards) and legal requirements of that particular country. Please do not export or operate this machine outside the country of its intended use until such compliance has been confirmed. Please contact your Hitachi dealer in case of questions about compliance.

These specifications are subject to change without notice.

Hitachi Construction Machinery

Built on the foundation of superb technological capabilities, Hitachi Construction Machinery is committed to providing leading-edge solutions and services to contribute as a reliable partner to the business of customers worldwide.

Reducing Environmental Impact by New ZAXIS
Hitachi makes a green way to cut carbon emissions for global warming prevention according to LCA*. New ZAXIS utilizes lots of technological advances, including the new ECO mode, and Isochronous Control. Hitachi has long been committed to recycling of components, such as aluminum parts in radiators and oil cooler. Resin parts are marked for recycling.

*Life Cycle Assessment – ISO 14040

The Hitachi Group released the Environmental Vision 2025 to curb annual carbon dioxide emissions. The Group is committed to global production while reducing environmental impact in life cycles of all products, and realizing a sustainable society by tackling three goals — prevention of global warming, recycling of resources, and enhancement of ecosystem.

Illustrations and photos show the standard models, and may or may not include optional equipment, accessories, customer installed and modified parts, optional parts and all standard equipment with some differences in color and features. Before use, read and understand the Operator’s Manual for proper operation.

Hitachi Environmental Vision 2025

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