

SHORT REACH FRONT

ZAXIS135us

A P P L I C A T I O N & A T T A C H M E N T

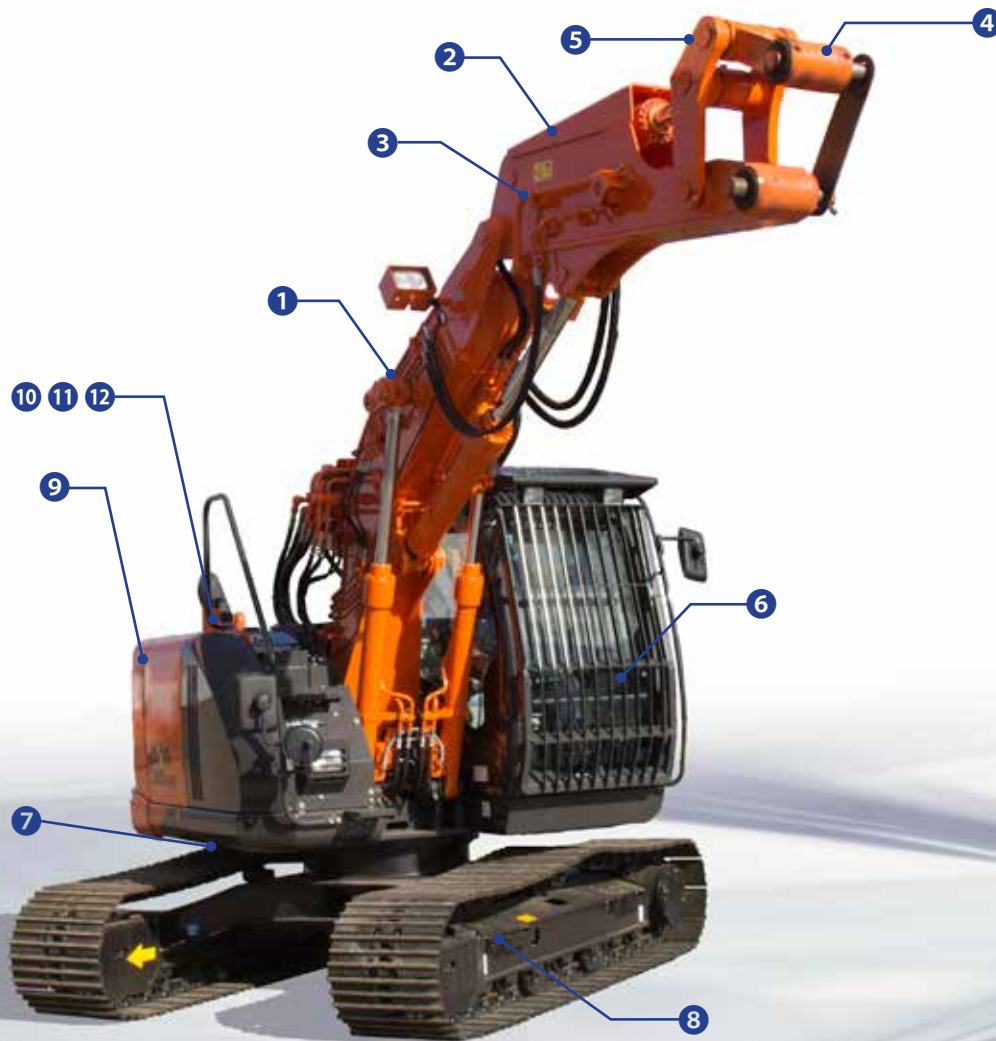


Model Code	ZX135US-5B
Engine Rated Power	73.4 kW (98 HP)
Operating Weight	15 400 - 17 400 kg
backhoe bucket ISO heaped	0.65 m ³



PERFORMANCE

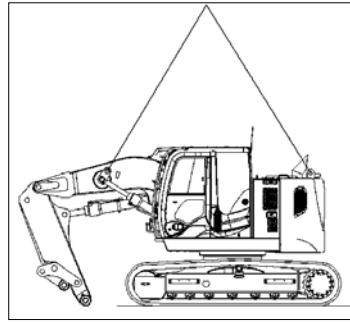
Hitachi has developed the ZX135US-5 short reach front (SRF) excavator to meet the specific needs of European owners and operators. More compact than a conventional excavator, the ZX135US-5 SRF is ideal for tunnelling projects where space is limited. The medium excavator offers an exceptional performance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



Cab roof lights and top guard are not included in the standard equipment

- 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

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

SPECIFICATIONS

ENGINE

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

HYDRAULIC SYSTEM

Hydraulic pumps

Main pumps	2 variable displacement axial piston pumps
Maximum oil flow	2 x 117 L/min
Pilot pump	1 gear pump
Maximum oil flow	33.6 L/min

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

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	1
Lower rollers	7
Track shoes	44

Travel Device

Each track driven by 2-speed axial piston motor. Parking brake is spring-set/hydraulic-released disc type.

Automatic transmission system: High-Low.

Travel speeds	High : 0 to 5.5 km/h
	Low : 0 to 3.3 km/h

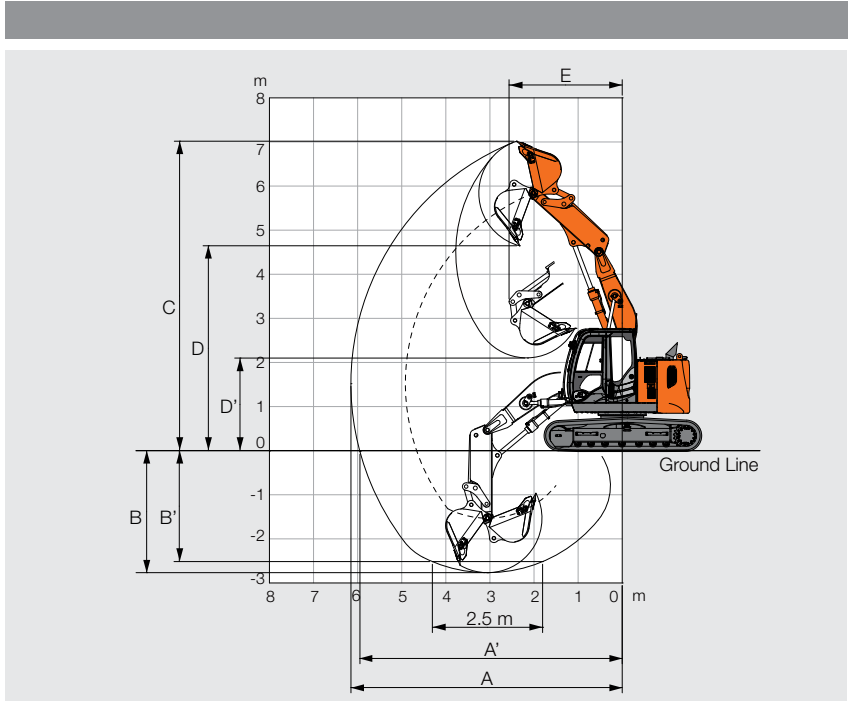
Maximum traction force ... 117 kN (11 900 kgf)

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



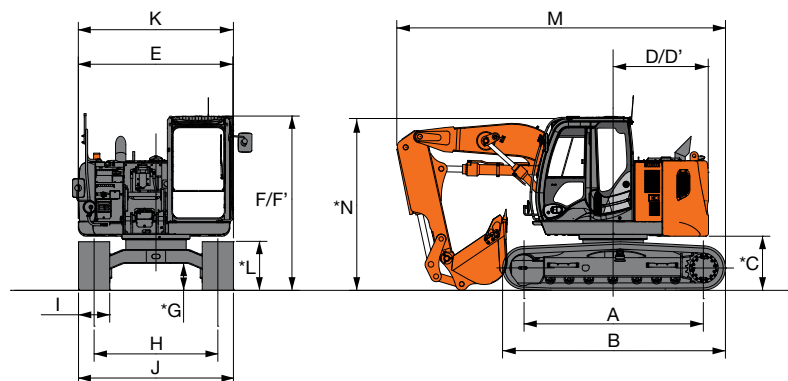
Unit : mm

		ZAXIS 135US
A	Max. digging reach	6 150
A'	Max. digging reach (on ground)	5 950
B	Max. digging depth	2 770
B'	Max. digging depth (2.5 m level)	2 510
C	Max. cutting height	7 020
D	Max. dumping height	4 650
D'	Min. dumping height	2 100
E	Min. swing radius	2 570
	Bucket digging force* ISO	140 kN (14 300 kgf)
	Bucket digging force* SAE : PCSA	122 kN (12 500 kgf)
	Arm crowd force* ISO	50 kN (5 200 kgf)
	Arm crowd force* SAE : PCSA	49 kN (5 000 kgf)

Excluding track shoe lug
* At power boost

DIMENSIONS

Unit : mm



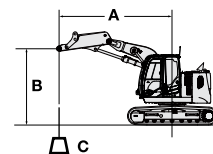
		ZAXIS 135US
A	Distance between tumblers	2 880
B	Undercarriage length	3 580
*C	Counterweight clearance	840
D	Rear-end swing radius	1 530
D'	Rear-end length	1 530
E	Overall width of upperstructure	2 480
F	Overall height of cab	2 940
F'	Overall height of upperstructure	2 940
*G	Min. ground clearance	410
H	Track gauge	1 990
I	Track shoe width	G500 / G600 / G700
J	Undercarriage width	2 490 / 2 590 / 2 690
K	Overall width	2 490 / 2 590 / 2 690
*L	Track height with triple grouser shoes	790
*M	Overall length	5 270
*N	Overall height of boom	2 730

* Excluding track shoe lug
G: Triple grouser shoe

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.



A: Load radius
B: Load point height
C: Lifting capacity

ZX135US-5B

Rating over-front Rating over-side or 360 degrees Unit : kg

Conditions	Load point height m	Load radius				At max. reach		
		3.0 m		4.5 m		meter		
		Rating over-front	Rating over-side or 360 degrees	Rating over-front	Rating over-side or 360 degrees			
Boom 3.00 m	4.5	*6 350	*6 350			*5 960	4 480	3.83
Arm 2.00 m	3.0	*7 180	6 840	5 150	3 340	4 810	3 120	4.67
Without Bucket	1.5	*8 860	6 320	5 020	3 220	4 320	2 780	4.91
Shoe 500 mm	0 (Ground)	*8 810	5 990	4 920	3 130	4 640	2 970	4.66
	-1.5	*5 710	*5 710			*4 820	*4 820	3.40

EQUIPMENT

ZAXIS 135US

● Standard equipment ○ Optional equipment

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 (with air filter restriction indicator)	●
Electrical fuel feed pump	●
ECO/PWR mode control	●
Engine oil drain coupler	●
Engine warm-up device	●
Fan guard	●
Fuel cooler	●
High performance water separator	●
Isolation-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 reliefvalve 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	●
CRES V (Center pillar reinforced structure) cab	●
Drink holder with hot & cool 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 openend	●
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 with slide curtain	●
2 speaker	●
4 fluid-filled elastic mounts	●
12 V power outlet	○
24 V cigarette lighter	●

MONITOR SYSTEM

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

LIGHTS

Additional cab roof front lights	○
Additional cab roof rear lights	○
Additional boom light with cover	●
Rotating lamp	○
2 working lights	●

UPPER STRUCTURE

Electric fuel refilling pump with auto stop and filter	●
Fuel level float	●
Hydraulic oil level gauge	●
Rear view camera	●
Rear view mirror (right & left side)	●
Swing parking brake	●
Tool box	●
Undercover	●
4 400 kg heavier counterweight	●
2 x 58 Ah batteries	●

UNDERCARRIAGE

Bolt-on sprocket	●
Reinforced track links with pin seals	●
Travel motor covers	●
Travel parking brake	●
Track undercover	●
Upper and lower rollers	●
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.



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.

Hitachi Environmental Vision 2025

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.

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

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.

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.

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