

ZAXIS-5 series Short-tail-swing version

HITACHI

Reliable solutions

# 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	17 400 - 17 900 kg

# 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 <sup>-1</sup> (rpm)
EEC 80/1269, net	73.4 kW (98 HP) at 2 000 min <sup>-1</sup> (rpm)
SAE J1349, net	73.4 kW (98 HP) at 2 000 min <sup>-1</sup> (rpm)
Maximum torque	374 Nm (38.1 kgfm) at 1 600 min <sup>-1</sup> (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

### Relief Valve Settings

Implement circuit	34.3 MPa (350 kgf/cm <sup>2</sup> )
Swing circuit	32.3 MPa (330 kgf/cm <sup>2</sup> )
Travel circuit	34.3 MPa (350 kgf/cm <sup>2</sup> )
Pilot circuit	4.0 MPa (40.8 kgf/cm <sup>2</sup> )
Power boost	36.3 MPa (370 kgf/cm <sup>2</sup> )

### Hydraulic Cylinders

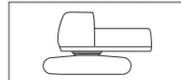
	Quantity	Bore	Rod diameter
Boom	2	105 mm	70 mm
Arm	1	135 mm	95 mm
Bucket	1	130 mm	90 mm

## WEIGHTS AND GROUND PRESSURE

Equipped with Boom 3.00 m, Arm 2.00 m, 4 440 kg counterweight.

Triple grouser shoe	Operating weight	Ground pressure
500 mm	17 400 kg	55 kPa (0.57 kg/cm <sup>2</sup> )
600 mm	17 700 kg	47 kPa (0.48 kg/cm <sup>2</sup> )
700 mm	17 900 kg	41 kPa (0.42 kg/cm <sup>2</sup> )

### Basic Machine Weight and Overall Width



Excluding front end attachment, fuel, hydraulic oil and coolant etc. Including counterweight.

Triple grouser shoe	Weight	Overall width
500 mm	12 100 kg	2 490 mm
600 mm	12 400 kg	2 590 mm
700 mm	12 600 kg	2 690 mm

### Components Weight

	Weight
Counterweight	4 440 kg
Arm 2.00 m (with bucket cylinder)	1 000 kg
Boom 3.00 m (with arm cylinder and boom cylinder)	1 370 kg
Bucket 0.65 m <sup>3</sup>	560 kg

## 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 <sup>-1</sup> (rpm)
Swing torque	33 kNm (3 370 kgfm)

### Operator's Cab

Independent spacious cab, 1 005 mm wide by 1 675 mm high, conforming to ISO\* Standards.

\* International Standardisation Organisation

## 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 roller	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 ..... 70% (35 degree) continuous

## SOUND LEVEL

Sound level in cab according to ISO 6396 ..... LpA 69 dB(A)

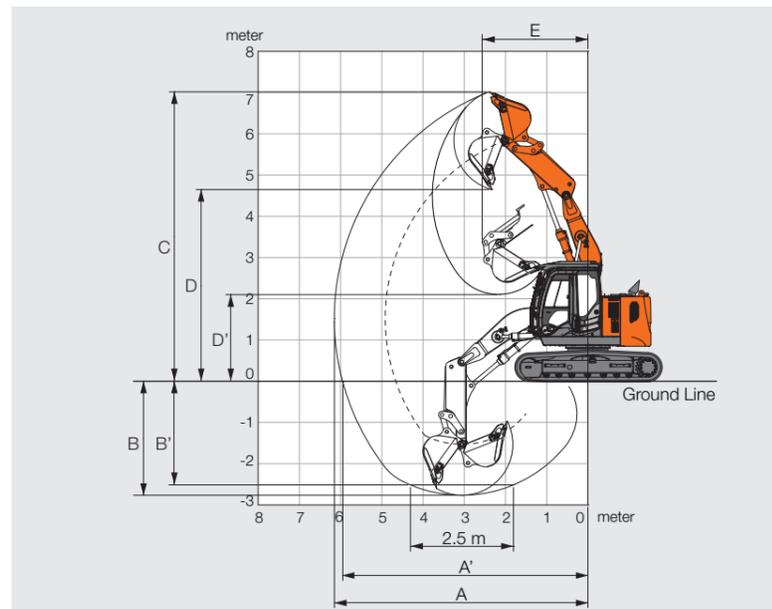
External sound level according to ISO 6395 and

EU Directive 2000/14/EC ..... LwA 99 dB(A)

## 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

## WORKING RANGES

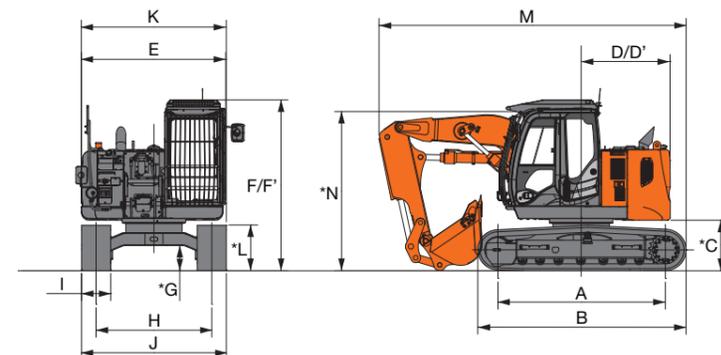


Unit : mm

	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

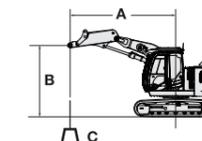
	ZAXIS 135US	
A	Distance between tumblers	2 880
B	Undercarriage length	3 580
*C	Counterweight clearance	840
D	Rear-end swing radius	1 530
D'	Rear-end length	1 530
E	Overall width of upperstructure	2 480
F	Overall height of cab	<del>2 990</del> 2,940
F'	Overall height of upperstructure	<del>2 990</del> 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:
- Ratings are based on ISO 10567.
  - Lifting capacity does not exceed 75% of tipping load with the machine on firm, level ground or 87% full hydraulic capacity.
  - The load point is the center-line of the bucket pivot mounting pin on the arm.
  - \*Indicates load limited by hydraulic capacity.
  - 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		
Boom 3.00 m	4.5	*6 350	*6 350	5 150	3 340	*5 960	4 480	3.83
Arm 2.00 m	3.0	*7 180	6 840	5 020	3 220	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

● ..... 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	●
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, tinted (green color) glass windows	●
Evacuation hammer	●
Floor mat	●
Footrest	●
Front window washer	●
Windows on front, upper, lower 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	●
Rain guard	○
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	●
Speakers	●
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	●
4 440 kg counterweight (with lifting brackets)	●
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 guard (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

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

## ATTACHMENTS

Accessories for 2 speed selector	●
Additional pump (30 L/min)	○
Assist piping	○
Attachment basic piping	●
Breaker and crusher piping	●
Parts for breaker and crusher	●
Line filter (braker piping)	●
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	●

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 satellite 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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