

ZAXIS-6 series

HITACHI

Reliable solutions

ZAXIS65USB



HYDRAULIC EXCAVATOR

Model code : ZX65USB-6

Engine rated power : 42.4 kW (ISO14396)

Operating weight : 6 140 – 6 290 kg

Bucket ISO heaped : 0.22 – 0.24 m³

ZX65USB-6

The efficient excavator



6. Powerful performance



8. Exceptional comfort



10. Easy to maintain

No compromise





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ZA/IS
65USB

Perfect fit

One of the largest Hitachi mini excavators, the ZX65USB-6 performs more like a medium-sized model with its powerful Stage V-compliant engine. It offers exceptional stability and comfort, is easy to maintain, and suitable for a wide range of projects. These include rental, utilities, foundation work, landscaping, and indoor demolition and construction.



Fewer emissions

Muffler filter after-treatment device and EGR reduce particulate matter and NOx.



Short-tail swing radius

The short-tail swing radius of the ZX65USB-6 is ideal for confined spaces.



Ultimate comfort

The spacious cab has a wide operator seat, adjustable arm rest and is easy to access.



Enhanced durability

LED lights on the cab and boom last longer than halogen alternatives.



Easy maintenance

Components are easily accessible.



Smooth operation

The auxiliary function lever ensures excellent control of attachments.



Powerful performance

The ZX65USB-6 sets a new standard on the job site by increasing productivity, improving efficiency and reducing running costs. Thanks to the short-tail swing radius, it fits perfectly in narrow spaces, and performs impressively on a variety of projects.

Efficient productivity

The ZX65USB-6 delivers high levels of productivity on the job site thanks to a powerful Stage V-compliant engine, quick cycle time and an efficient hydraulic system. The EGR and muffler filter reduce NOx and particulate matter, and a common rail system helps the engine to run optimally. This not only reduces emissions, but also contributes to greater fuel efficiency and reduced running costs.

Built to last

Durable features of the ZX65USB-6 – such as high performance bushings, box sectioned rigid frame blade and boom cylinder guard – ensure a reliable performance, helping you to get the job done on time and on budget.

Lower fuel costs

The advanced energy-saving system combines ECO mode, auto idle and isochronous control features to significantly reduce fuel consumption. It also reduces noise levels and emissions.



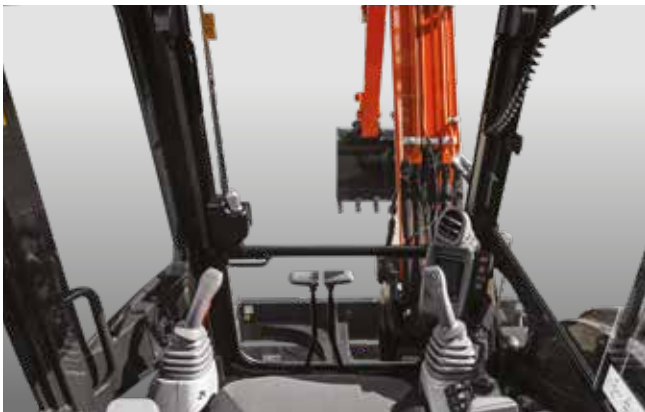
Quick cycle time and efficient hydraulics ensure high productivity.



The short-tail swing radius makes the ZX65USB-6 ideal for working in tight spaces.



Multifunctional LCD monitor shows data at a glance.



A clear view from the cab.



LED lights last longer than halogen alternatives.



Exceptional comfort

The interior of the cab has been designed with the operator in mind – it is spacious, comfortable and offers excellent visibility of the job site. The ZX65USB-6 is also easy to operate, thanks to the user-friendly controls and multifunctional monitor, which are positioned within easy reach on the right-hand side.

Spacious cab

The ROPS-compliant cab of the ZX65USB-6 is spacious and easy to access via the entrance step. Fitted with a wide and adjustable sliding suspension seat, folding foot pedals and adjustable arm rest, the ZX65USB-6 provides a high level of comfort for operators.

Easy operation

User-friendly controls are in easy reach of the operator and the hydraulic pilot control levers ensure a smooth operation.

Enhanced design

The ZX65USB-6 is equipped with new LED lights, which have a longer lifetime than halogen alternatives for efficient energy use. Options include a sun visor on the front window and an auxiliary function lever with proportional switch for easy control of the front attachment.



Controls are within easy reach.

Easy to maintain

To ensure an optimum performance, Hitachi has designed the ZX65USB-6 with a range of features that make routine maintenance and servicing quick and straightforward to carry out. Parts and components are easier to reach, and several items are easier to clean thanks to the excavator's unique design.

Convenient access

The engine and radiator covers have been designed to allow easy access. Sufficient space around the fuel tank opening makes the new mini excavator easier to refuel. The battery is positioned on the same side as the radiator for easy maintenance.

Quick cleaning

A clean machine ensures optimum performance and helps to reduce downtime. Dozer blade openings help to minimise the build-up of dirt and make it quicker to remove. The two-piece floor mat can be taken out of the cab for easy cleaning.

Safety first

The battery disconnect switch is now available as standard for safer and easier maintenance.



Easy to open covers provide quick access.



Daily inspection points are grouped together for convenience.



The tilting floor enables easy access to the engine and control valve for quick servicing.

SPECIFICATIONS

ENGINE

Model	4TNV98C
Type	4-cycle water-cooled, common rail direct injection
Aspiration.....	Cool'd EGR
Aftertreatment	Muffler filter
No. of cylinders	4
Rated power	
ISO 14396	42.4 kW at 2 000 min ⁻¹
ISO 9249, net	41.2 kW at 2 000 min ⁻¹
SAE J1349, net	41.2 kW at 2 000 min ⁻¹
Maximum torque	230.9 Nm at 1 300 min ⁻¹
Piston displacement	3.318 L
Bore and stroke	98 mm x 110 mm
Battery	1 x 12 V / 92 Ah

HYDRAULIC SYSTEM

Hydraulic Pumps

Main pumps	1 variable displacement axial piston pump
Maximum oil flow	1 x 144 L/min
Pilot pump	1 gear pump
Maximum oil flow	10.4 L/min

Hydraulic Motors

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

Relief Valve Settings

Implement circuit	24.5 MPa (250 kgf/cm ²)
Swing circuit	19.6 MPa (200 kgf/cm ²)
Travel circuit	25.7 MPa (262 kgf/cm ²)
Pilot circuit	3.9 MPa (40 kgf/cm ²)

Hydraulic Cylinders

	Quantity	Bore	Rod diameter	Stroke
Boom	1	110 mm	60 mm	785 mm
Arm	1	90 mm	55 mm	770 mm
Bucket	1	80 mm	50 mm	581 mm
Blade	1	120 mm	70 mm	135 mm
Boom swing	1	95 mm	55 mm	710 mm

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	9.5 min ⁻¹ (rpm)
Swing torque	11.0 kNm (1 120 kgfm)

Operator's Cab

Independent spacious cab, 1 050 mm wide by 1 610 mm high, conforming to ISO* Standards. Reinforced glass windows on 4 sides for visibility. Front windows (upper and lower) can be opened. Reclining seat.

* International Organization for Standardization

UNDERCARRIAGE

Tracks

Tractor-type undercarriage. Welded track frame using selected materials. Side frame welded to track frame.

Numbers of Rollers on Each Side

Upper roller	1
Lower rollers	4

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 4.8 km/h
	Low : 0 to 2.9 km/h

Maximum traction force ... 39.8 kN (4 060 kgf)

Gradeability

58 % (30 degree) continuous

SOUND LEVEL

Sound level in cab according to ISO 6396	LpA 75 dB(A)
External sound level according to ISO 6395 and	
EU Directive 2000/14/EC	LwA 98 dB(A)

SERVICE REFILL CAPACITIES

Fuel tank	120.0 L
Engine coolant	7.7 L
Engine oil	11.2 L
Travel device (each side)	0.9 L
Hydraulic system	108.0 L
Hydraulic oil tank	60.0 L

WEIGHTS AND GROUND PRESSURE

Operating Weight and Ground Pressure

Shoe type	Shoe width	Arm length	kg	kPa (kgf/cm ²)
Rubber shoe	400 mm	1.50 m	6 140	35 (0.35)
		1.85 m	6 160	35 (0.36)
Grouser shoe	400 mm	1.50 m	6 240	35 (0.36)
		1.85 m	6 260	35 (0.36)
Pad crawler shoe	400 mm	1.50 m	6 270	35 (0.36)
		1.85 m	6 290	36 (0.36)

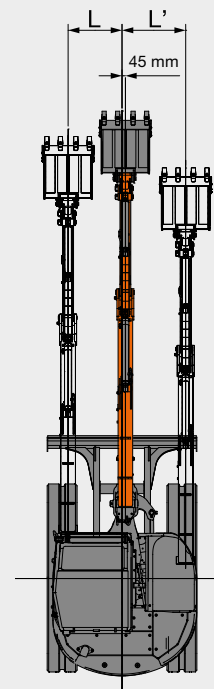
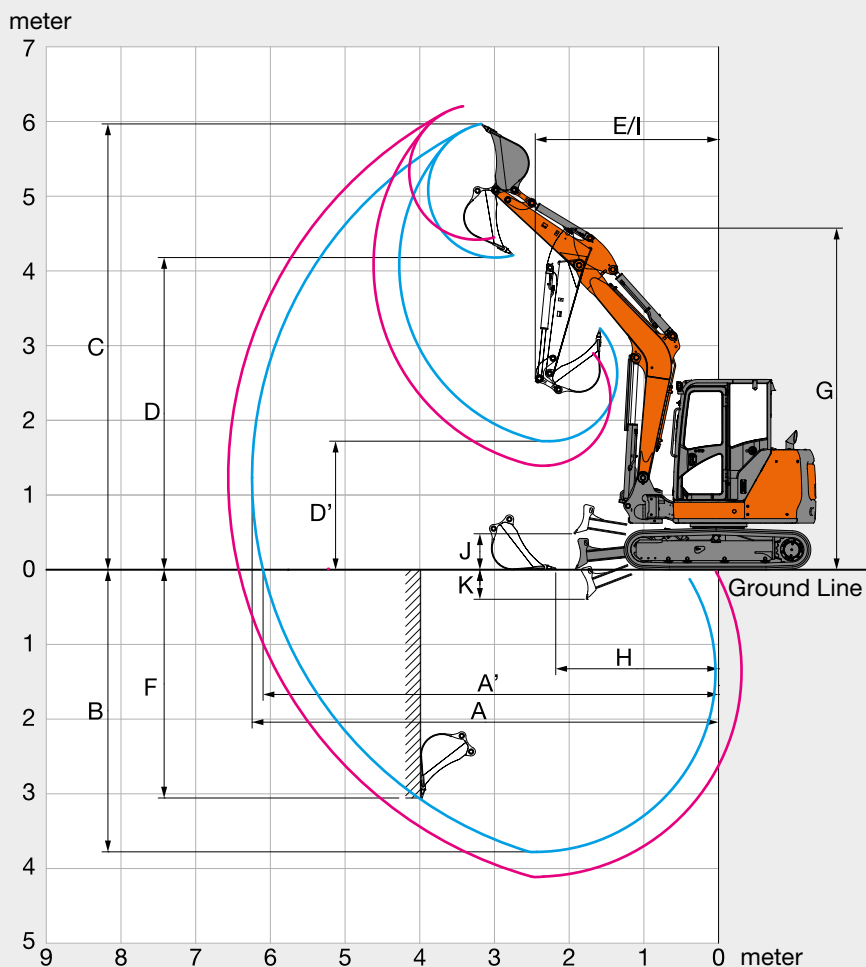
Including 0.24 m³ (ISO heaped), bucket weight (146 kg).

BUCKET AND ARM DIGGING FORCE

Arm length	1.50 m	1.85 m
Bucket digging force ISO	41.1 kN (4 190 kgf)	
Bucket digging force SAE : PCSA	35.9 kN (3 660 kgf)	
Arm crowd force ISO	31.1 kN (3 170 kgf)	27.0 kN (2 750 kgf)
Arm crowd force SAE : PCSA	29.5 kN (3 010 kgf)	25.8 kN (2 630 kgf)

SPECIFICATIONS

WORKING RANGES

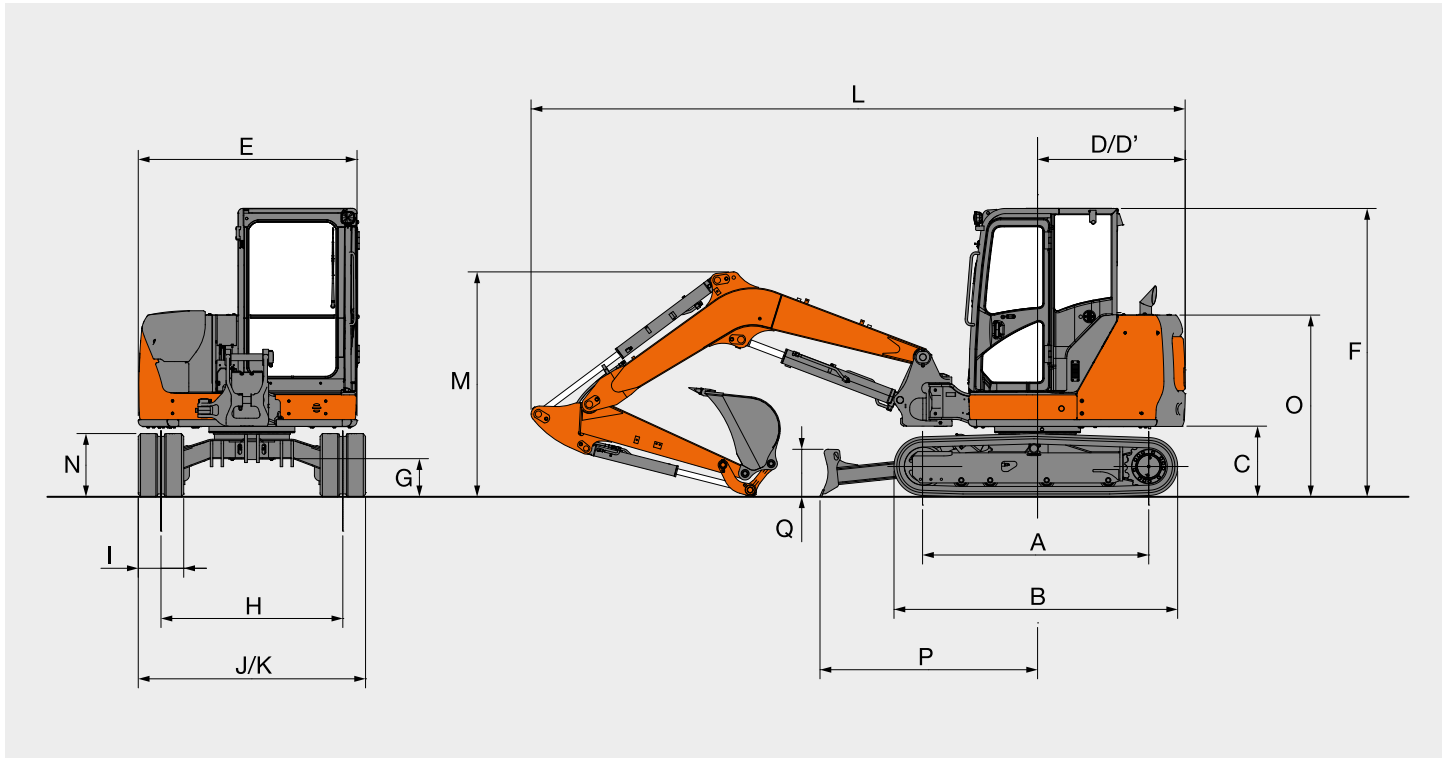


Unit: mm

Arm length	1.50 m	1.85 m
A Max. digging reach	6 230	6 560
A' Max. digging reach (on ground)	6 080	6 420
B Max. digging depth	3 770	4 120
C Max. cutting height	5 960	6 190
D Max. dumping height	4 170	4 410
D' Min. dumping height	1 720	1 380
E Min. swing radius	2 450	2 540
F Max. vertical wall digging depth	3 050	3 390
G Front height at Min. swing radius	4 560	4 560
H Min. level crowding distance	2 170	2 000
I Working radius at Min. swing radius (Max. boom-swing angle)	1 980	2 060
J Blade bottom highest position above ground	450	450
K Blade bottom lowest position above ground	390	390
L/L' Offset distance	720 / 850	720 / 850
Max. boom-swing angle (deg.)	80 / 60	80 / 60

Excluding track shoe lug

DIMENSIONS



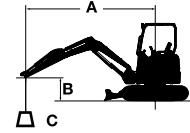
Unit: mm

	ZAXIS 65USB
A Distance between tumblers	1 990 (1 980)
B Undercarriage length	2 500 (2 480)
*C Counterweight clearance	620 (615)
D Rear-end swing radius	1 300 (1 410 with additional counterweight)
D' Rear-end length	1 300 (1 410 with additional counterweight)
E Overall width of upperstructure	1 930
F Overall height of cab	2 540
*G Min. ground clearance	335 (330)
H Track gauge	1 600
I Track shoe width	400
J Undercarriage width	2 000
K Overall width	2 000
L Overall length	
With 1.50 m arm	5 760
With 1.85 m arm	5 790
*M Overall height of boom	
With 1.50 m arm	1 980
With 1.85 m arm	2 170
N Track height	560 (550)
O Engine cover-height	1 600
P Horizontal distance to blade	1 920
Q Blade height	420

* Excluding track shoe lug Data in () are dimensions of grouser shoe.

MACHINE 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.



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

To determine lifting capacities, apply "Rating over-side or 360 degrees" machine capacities from table with "Blade above Ground" and deduct weight of installed attachment and quick hitch.

ZAXIS 65USB, Blade above Ground

Rating over-front Rating over-side or 360 degrees Unit : 1 000 kg

Conditions	Load point height m	Load radius										At max. reach		
		1.0 m		2.0 m		3.0 m		4.0 m		5.0 m				meter
Boom 2.97 m Arm 1.50 m Rubber shoe 400 mm	4.0							1.37	1.16			1.20	1.02	4.32
	3.0					*1.78	*1.78	1.35	1.15			0.95	0.81	4.95
	2.0					2.01	1.66	1.29	1.09	0.92	0.78	0.85	0.72	5.26
	1.0					1.87	1.53	1.23	1.03	0.89	0.76	0.82	0.69	5.32
	0 (Ground)					1.82	1.48	1.20	1.00	0.88	0.74	0.85	0.71	5.14
	-1.0	*2.58	*2.58	*3.07	2.90	1.82	1.49	1.19	0.99			0.96	0.81	4.70
	-2.0			3.88	2.97	1.86	1.53					1.28	1.07	3.87

ZAXIS 65USB, Blade on Ground

Rating over-front Rating over-side or 360 degrees Unit : 1 000 kg

Conditions	Load point height m	Load radius										At max. reach		
		1.0 m		2.0 m		3.0 m		4.0 m		5.0 m				meter
Boom 2.97 m Arm 1.50 m Rubber shoe 400 mm	4.0							*1.55	1.16			*1.62	1.02	4.32
	3.0					*1.78	*1.78	*1.64	1.15			*1.64	0.81	4.95
	2.0					*2.74	1.66	*1.98	1.09	*1.71	0.78	*1.67	0.72	5.26
	1.0					*3.64	1.53	*2.35	1.03	*1.84	0.76	*1.75	0.69	5.32
	0 (Ground)					*3.87	1.48	*2.55	1.00	*1.90	0.74	*1.82	0.71	5.14
	-1.0	*2.58	*2.58	*3.07	2.90	*3.63	1.49	*2.47	0.99			*1.91	0.81	4.70
	-2.0			*4.67	2.97	*2.91	1.53					*1.96	1.07	3.87

ZAXIS 65USB, Blade above ground

Rating over-front Rating over-side or 360 degrees Unit : 1 000 kg

Conditions	Load point height m	Load radius										At max. reach		
		1.0 m		2.0 m		3.0 m		4.0 m		5.0 m				meter
Boom 2.97 m Arm 1.85 m Rubber shoe 400 mm	4.0							*1.29	1.18			1.03	0.88	4.74
	3.0							1.36	1.15	0.94	0.80	0.85	0.72	5.30
	2.0					2.05	1.70	1.30	1.10	0.92	0.78	0.76	0.65	5.59
	1.0					1.88	1.54	1.23	1.03	0.89	0.75	0.74	0.62	5.65
	0 (Ground)					1.80	1.46	1.18	0.98	0.86	0.72	0.76	0.64	5.48
	-1.0	*2.07	*2.07	*2.64	*2.64	1.78	1.45	1.16	0.97	0.86	0.72	0.84	0.71	5.08
	-2.0	*3.37	*3.37	3.78	2.88	1.81	1.48	1.18	0.98			1.06	0.89	4.34
-3.0			*2.97	*2.97							*1.79	1.62	2.93	













ZAXIS 65USB, Blade on Ground

Rating over-front Rating over-side or 360 degrees Unit : 1 000 kg

Conditions	Load point height m	Load radius										At max. reach		
		1.0 m		2.0 m		3.0 m		4.0 m		5.0 m				meter
Boom 2.97 m Arm 1.85 m Rubber shoe 400 mm	4.0							*1.29	1.18			*1.37	0.88	4.74
	3.0							*1.42	1.15	*1.45	0.80	*1.30	0.72	5.30
	2.0					*2.31	1.70	*1.78	1.10	*1.57	0.78	*1.32	0.65	5.59
	1.0					*3.34	1.54	*2.19	1.03	*1.75	0.75	*1.41	0.62	5.65
	0 (Ground)					*3.81	1.46	*2.47	0.98	*1.87	0.72	*1.59	0.64	5.48
	-1.0	*2.07	*2.07	*2.64	*2.64	*3.75	1.45	*2.51	0.97	*1.80	0.72	*1.75	0.71	5.08
	-2.0	*3.37	*3.37	*4.58	2.88	*3.23	1.48	*2.15	0.98			*1.83	0.89	4.34
-3.0			*2.97	*2.97							*1.79	1.62	2.93	













ZAXIS 65USB, Blade above Ground

 Rating over-front  Rating over-side or 360 degrees Unit : 1 000 kg

Conditions	Load point height m	Load radius										At max. reach		
		1.0 m		2.0 m		3.0 m		4.0 m		5.0 m				meter
														
Boom 2.97 m Arm 1.85 m Additional counterweight 270 kg Rubber shoe 400 mm	4.0							*1.29	*1.29			1.16	0.99	4.74
	3.0							*1.42	1.29	1.06	0.90	0.95	0.82	5.30
	2.0					2.28	1.90	1.45	1.23	1.03	0.88	0.86	0.74	5.59
	1.0					2.11	1.74	1.38	1.17	1.00	0.85	0.84	0.71	5.65
	0 (Ground)					2.03	1.66	1.33	1.12	0.98	0.83	0.86	0.73	5.48
	-1.0	*2.07	*2.07	*2.64	*2.64	2.01	1.65	1.32	1.10	0.97	0.82	0.95	0.81	5.08
	-2.0	*3.37	*3.37	4.24	3.25	2.04	1.68	1.33	1.12			1.20	1.01	4.34
	-3.0			*2.97	*2.97							*1.79	*1.79	2.93

ZAXIS 65USB, Blade on Ground

 Rating over-front  Rating over-side or 360 degrees Unit : 1 000 kg

Conditions	Load point height m	Load radius										At max. reach		
		1.0 m		2.0 m		3.0 m		4.0 m		5.0 m				meter
														
Boom 2.97 m Arm 1.85 m Additional counterweight 270 kg Rubber shoe 400 mm	4.0							*1.29	*1.29			*1.37	0.99	4.74
	3.0							*1.42	1.29	*1.45	0.90	*1.30	0.82	5.30
	2.0					*2.31	1.90	*1.78	1.23	*1.57	0.88	*1.32	0.74	5.59
	1.0					*3.34	1.74	*2.19	1.17	*1.75	0.85	*1.41	0.71	5.65
	0 (Ground)					*3.81	1.66	*2.47	1.12	*1.87	0.83	*1.59	0.73	5.48
	-1.0	*2.07	*2.07	*2.64	*2.64	*3.75	1.65	*2.51	1.10	*1.80	0.82	*1.75	0.81	5.08
	-2.0	*3.37	*3.37	*4.58	3.25	*3.23	1.68	*2.15	1.12			*1.83	1.01	4.34
	-3.0			*2.97	*2.97							*1.79	*1.79	2.93

EQUIPMENT

● : Standard equipment

○ : Optional equipment

ENGINE

Air cleaner double filters	○
Alternator 12V - 55 A	●
Auto idle system	●
Cartridge-type engine oil filter	●
Cartridge-type fuel main filter	●
Dust-proof indoor net	●
ECO/PWR mode control	●
Electrical fuel feed pump	●
Fuel cooler	●
Fuel pre-filter with water separator	●
Radiator reserve tank	●

HYDRAULIC SYSTEM

Boom anti-drift valve	●
Full-flow filter	●
Hydraulic pilot type control levers	●
Pilot control shut-off lever with neutral engine start system	●
Pilot filter	●
Suction filter	●
Swing parking brake	●
Travel parking brake	●
Two-speed travel system	●
Valve for extra piping	●

CAB

Air conditioner*	●
AM/FM radio	●
Anti-slip plate	●
Armrest	●
Defroster	●
Drink holder	●
Electric horn	●
Floor mat	●
Retractable seat belt	●
ROPS/FOPS cab	●
Spare power supply 12V (inside)	●
Spare power supply 12V (outside)	○
Sun visor (front window (rigid type))	○
Suspension seat with reclining	●
Window washer	●
Wiper	●

LIGHTS

Additional cab roof front lights	○
2 working lights	●
3 working LED lights (Boom x 1, cab roof front x 2)	○

UPPER STRUCTURE

Auxiliary flow rate selector	○
Auxiliary function lever (AFL)	○
Auxiliary overload relief valve	○
Batteries 1 x 92 Ah	●
Battery disconnect switch	●
Electric refuel pump	○
GSM mobile communication system***	○
Pilot accumulator	○
Rearview mirror	●
Tool box	●
270 kg additional counterweight	○

UNDERCARRIAGE

400 mm grouser shoes	○
400 mm pad crawler shoes	○
400 mm rubber shoes	●

FRONT ATTACHMENTS

Asist piping	○
Extra piping	●
HN bushing	●
Hose rupture valve for arm	●
Hose rupture valve for boom	●
1.50 m arm	○
1.85 m arm	●

MISCELLANEOUS

Global e-Service***	○
Theft deterrent system**	○

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

* Contains fluorinated greenhouse gases, Refrigerant type: HFC-134a, GWP: 1430, Amount: 0.85 kg, CO₂e: 1.22 ton.

** Hitachi Construction Machinery cannot be held liable for theft, any system will just minimize the risk of theft.

*** It is possible to obtain information by connecting to Global e-service with a Hitachi genuine mobile terminal.

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, and all standard equipment with some differences in color and features. Before use, read and understand the Operator's Manual for proper operation.

