

SUPER LONG FRONT

ZAXIS 85us

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



Model Code	ZX85US-5B
Engine Rated Power	34.1 kW (45.7 HP)
Operating Weight	9 170 - 9 340 kg

SPECIFICATIONS

ENGINE

Model	Yanmar 4TNV94L
Type	4-cycle water-cooled, direct injection
No. of cylinders	4
Rated power	
ISO 9249, net	34.1 kW (45.7 HP) at 2 000 min ⁻¹ (rpm)
EEC 80/1269, net	34.1 kW (45.7 HP) at 2 000 min ⁻¹ (rpm)
SAE J1349, net	34.1 kW (45.7 HP) at 2 000 min ⁻¹ (rpm)
Maximum torque	204.1 Nm (20.8 kgfm) at 1 000 min ⁻¹ (rpm)
Piston displacement	3.053 L
Bore and stroke	94 mm x 110 mm
Batteries	2 x 12 V / 52 Ah

HYDRAULIC SYSTEM

Hydraulic Pumps

Main pumps	3 variable displacement axial piston pumps
Maximum oil flow	2 x 72 L/min 1 x 56 L/min
Pilot pump	1 gear pump
Maximum oil flow	20.0 L/min

Hydraulic Motors

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

Relief Valve Settings

Implement circuit	26.0 MPa (265 kgf/cm ²)
Swing circuit	26.5 MPa (270 kgf/cm ²)
Travel circuit	31.4 MPa (320 kgf/cm ²)
Pilot circuit	3.9 MPa (40 kgf/cm ²)

Hydraulic Cylinders

	Quantity	Bore	Rod diameter	Stroke
Boom	1	115 mm	65 mm	885 mm
Arm	1	95 mm	60 mm	900 mm
Bucket	1	85 mm	55 mm	730 mm
Blade	1	120 mm	70 mm	145 mm
Off-set	1	105 mm	60 mm	386 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	10.5 min ⁻¹ (rpm)
Swing torque	16.6 kNm

Operator's Cab

Independent spacious cab, 1 005 mm wide by 1 675 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 and shoes on Each Side

Upper roller	1
Lower rollers	5
Track shoes	40

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 5.0 km/h Low : 0 to 3.1 km/h
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Maximum traction force 71 kN

Gradeability

70% (35 degree) continuous

SOUND LEVEL

Sound level in cab according to ISO 6396 LpA 72 dB(A)
External sound level according to ISO 6395 and
EU Directive 2000/14/EC LwA 97 dB(A)

SERVICE REFILL CAPACITIES

Fuel tank 135.0 L
Engine coolant 7.0 L
Engine oil 12.3 L
Travel device (each side) 1.2 L
Hydraulic system 100.0 L
Hydraulic oil tank 56.0 L

WEIGHTS AND GROUND PRESSURE

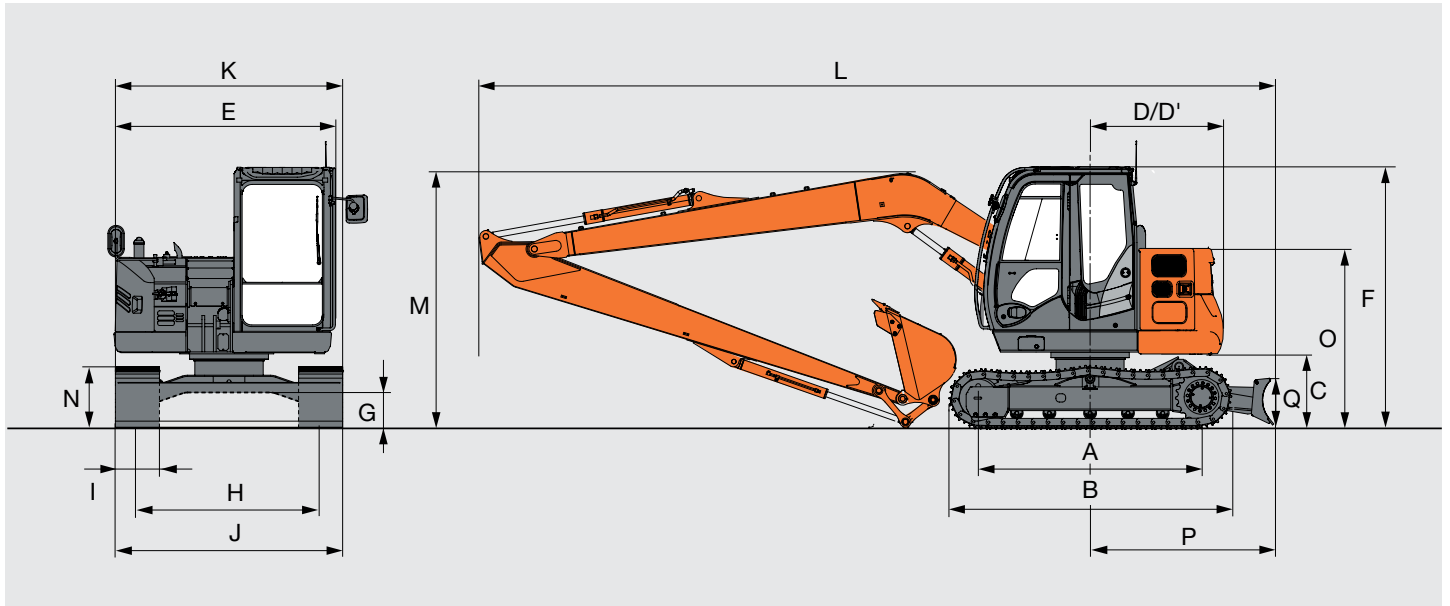
Operating Weight and Ground Pressure

Shoe type	Shoe width	kg	kPa (kgf/cm ²)
Grouser shoe	450 mm	9 170	44 (0.45)
	600 mm	9 340	33 (0.34)
Rubber shoe	450 mm	9 190	44 (0.45)
Pad crawler shoe	450 mm	9 220	44 (0.45)

Including 0.28 m³ (ISO heaped) bucket weight (211 kg).

SPECIFICATIONS

DIMENSIONS

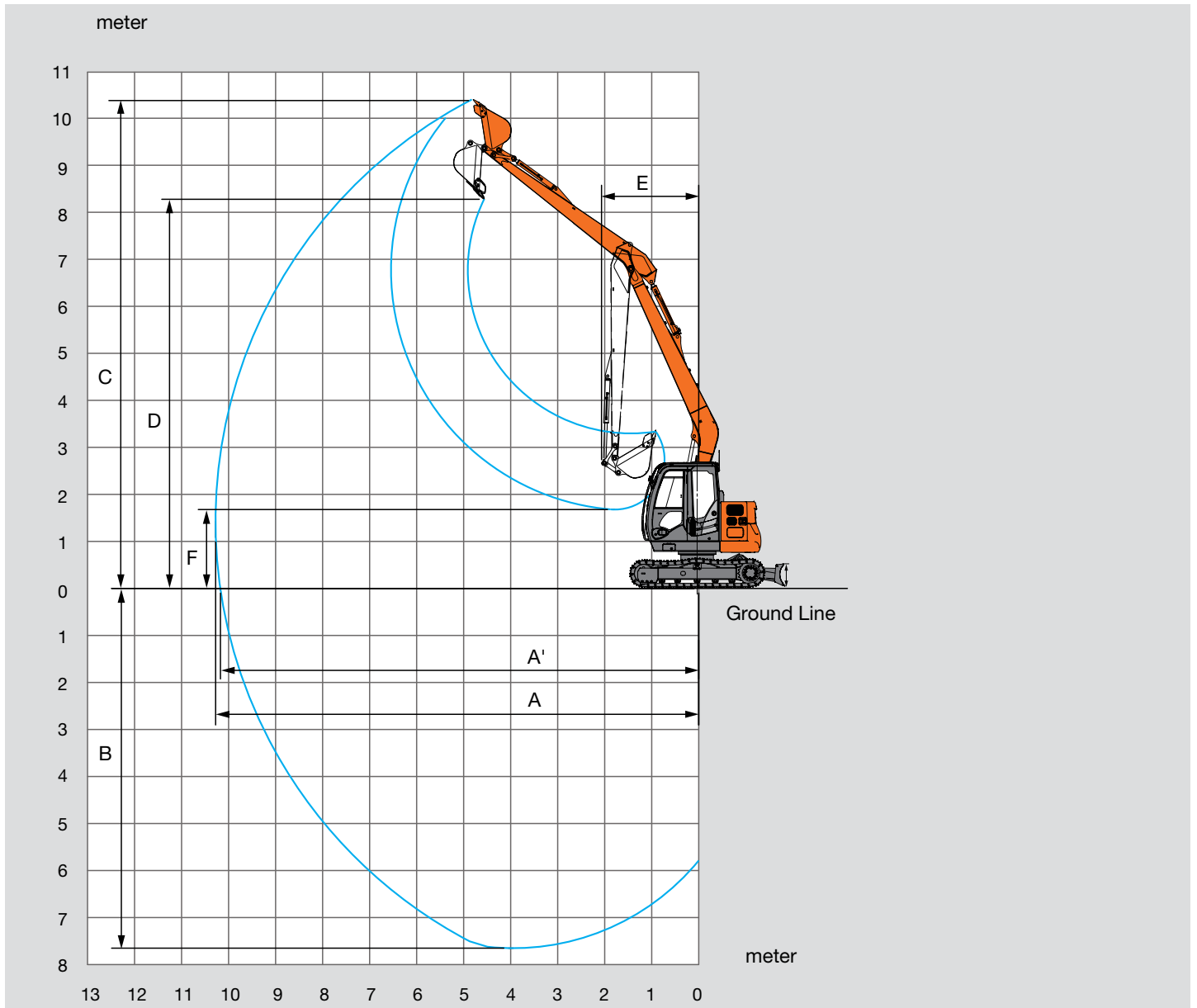


Unit: mm

	ZAXIS 85US TYPE HE10
A Distance between tumblers	2 290
B Undercarriage length	2 920
* C Counterweight clearance	730
D Rear-end swing radius	1 370
D' Rear-end length	1 370
E Overall width of upperstructure	2 260
F Overall height of cab	2 690
* G Min. ground clearance	360
H Track gauge	1 870
I Track shoe width	450
J Undercarriage width	2 320
K Overall width	2 320
L Overall length	8 100
* M Overall height of boom	2 590
N Track height	650
O Engine cover-height	1 850
P Horizontal distance to blade	1 890
Q Blade height	480

* Excluding track shoe lug.

WORKING RANGES



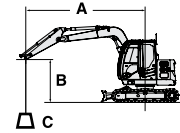
Unit: mm

	ZAXIS 85US TYPE HE10
A Max. digging reach	10 280
A' Max. digging reach (on ground)	10 170
B Max. digging depth	7 650
C Max. cutting height	10 370
D Max. dumping height	8 280
E Min. swing radius	2 070
F Min. dumping height	1 680
G Bucket digging force ISO	53.0 kN
H Bucket digging force SAE:PCSA	47.0 kN
I Arm crowd force ISO	19.0 kN
J Arm crowd force SAE:PCSA	18.0 kN

Excluding track shoe lug.

LIFTING CAPACITIES

- Notes: 1. Without bucket.
 2. Lifting capacity of the ZAXIS series 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

ZX85US-5A SUPER LONG FRONT, Blade (Up)

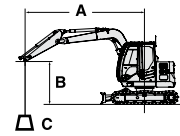
Rating over-front Rating over-side or 360 degrees Unit: kg

Conditions	Load point height m	Load radius									
		1.0 m		2.0 m		3.0 m		4.0 m		5.0 m	
Boom 5.48 m	8.0										
Arm 4.04 m	7.0										
Counterweight 1 820 kg	6.0										
Rubber crawler shoe 450 mm	5.0										
	4.0									*1 060	*1 060
	3.0					*1 790	*1 790	*1 420	*1 420	*1 200	*1 200
	2.0					*2 330	*2 330	*1 700	*1 700	*1 360	*1 360
	1.0					*2 760	2 730	*1 930	1 810	*1 500	1 320
	0			*880	*880	*2 030	*2 030	2 000	1 670	1 450	1 220
	-1.0	*865	*865	*1 180	*1 180	*2 050	*2 050	1 900	1 570	1 380	1 150
	-2.0	*1 220	*1 220	*1 550	*1 550	*2 340	*2 340	1 850	1 530	1 335	1 110
	-3.0	*1 590	*1 590	*1 970	*1 970	*2 580	2 370	1 840	1 520	1 320	1 100
	-4.0	*2 010	*2 010	*2 460	*2 460	*2 250	*2 250	*1 750	1 540	1 330	1 110
	-5.0	*2 480	*2 480	*2 350	*2 350	*1 800	*1 800	*1 430	*1 430	*1 140	*1 140
	-6.0			*1 390	*1 390	*1 160	*1 160	*940	*940	*700	*700

Conditions	Load point height m	Load radius								At max. reach		
		6.0 m		7.0 m		8.0 m		9.0 m				meter
Boom 5.48 m	8.0	*745	*745							*550	*550	6.40
Arm 4.04 m	7.0	*855	*855	*680	*680					*505	*505	7.31
Counterweight 1 820 kg	6.0	*860	*860	*835	*835					*480	*480	7.99
Rubber crawler shoe 450 mm	5.0	*895	*895	*850	*850	*770	720			*470	*470	8.49
	4.0	*960	*960	*890	*890	820	705			*475	*475	8.85
	3.0	*1 050	*1 050	*940	875	795	680	*560	530	*485	*485	9.09
	2.0	*1 150	1 070	965	830	765	650	610	510	*500	490	9.21
	1.0	1 170	1 000	920	780	730	620	590	495	*530	475	9.21
	0	1 110	935	875	740	705	590	580	480	565	470	9.11
	-1.0	1 060	890	840	705	685	570			580	480	8.89
	-2.0	1 030	860	820	685	670	560			610	510	8.54
	-3.0	1 010	845	815	680	675	565			670	560	8.06
	-4.0	1 020	855	825	690					770	645	7.40
	-5.0	*880	*880							*730	*730	6.53
	-6.0									*610	*610	5.32

LIFTING CAPACITIES

- Notes: 1. Without bucket.
 2. Lifting capacity of the ZAXIS series 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

ZX85US-5A SUPER LONG FRONT, Blade (Down)

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

Conditions	Load point height m	Load radius									
		1.0 m		2.0 m		3.0 m		4.0 m		5.0 m	
Boom 5.48 m	8.0										
Arm 4.04 m	7.0										
Counterweight 1 820 kg	6.0										
Rubber crawler shoe 450 mm	5.0										
	4.0									*1 060	*1 060
	3.0					*1 790	*1 790	*1 420	*1 420	*1 200	*1 200
	2.0					*2 330	*2 330	*1 700	*1 700	*1 360	*1 360
	1.0					*2 760	2 730	*1 930	1 810	*1 500	1 320
	0			*880	*880	*2 030	*2 030	*2 090	1 670	*1 600	1 220
	-1.0	*865	*865	*1 180	*1 180	*2 050	*2 050	*2 130	1 570	*1 650	1 150
	-2.0	*1 220	*1 220	*1 550	*1 550	*2 340	*2 340	*2 090	1 530	*1 630	1 110
	-3.0	*1 590	*1 590	*1 970	*1 970	*2 580	2 370	*1 970	1 520	*1 550	1 100
	-4.0	*2 010	*2 010	*2 460	*2 460	*2 250	*2 250	*1 750	1 540	*1 400	1 110
	-5.0	*2 480	*2 480	*2 350	*2 350	*1 800	*1 800	*1 430	*1 430	*1 140	*1 140
	-6.0			*1 390	*1 390	*1 160	*1 160	*940	*940	*770	*700

Conditions	Load point height m	Load radius								At max. reach		
		6.0 m		7.0 m		8.0 m		9.0 m				meter
Boom 5.48 m	8.0	*745	*745							*550	*550	6.40
Arm 4.04 m	7.0	*855	*855	*680	*680					*505	*505	7.31
Counterweight 1 820 kg	6.0	*860	*860	*835	*835					*480	*480	7.99
Rubber crawler shoe 450 mm	5.0	*895	*895	*850	*850	*770	720			*470	*470	8.49
	4.0	*960	*960	*890	*890	*835	705			*475	*475	8.85
	3.0	*1 050	*1 050	*940	875	*860	680	*560	530	*485	*485	9.09
	2.0	*1 150	1 070	*1 000	830	*895	650	*695	510	*500	490	9.21
	1.0	*1 230	1 000	*1 055	780	*925	620	*750	495	*530	475	9.21
	0	*1 300	935	*1 100	740	*945	590	*700	480	*575	470	9.11
	-1.0	*1 330	890	*1 110	705	*940	570			*630	480	8.89
	-2.0	*1 320	860	*1 090	685	*905	560			*720	510	8.54
	-3.0	*1 260	845	*1 030	680	*810	565			*800	560	8.06
	-4.0	*1 120	855	*880	690					*780	645	7.40
	-5.0	*880	*880							*730	*730	6.53
	-6.0									*610	*610	5.32

EQUIPMENT

● Standard equipment ○ Optional equipment

ENGINE

Air cleaner double filters	●
Auto idle system	●
Cartridge-type engine oil filter	●
Cartridge-type fuel filter	●
Dry-type air filter with evacuator valve (with air filter restriction indicator)	●
Electric fuel refilling pump	●
Fan guard	●
Fuel main filter	●
PWR/ECO mode control	●
Radiator reserve tank	●
Radiator, oil cooler with dust-proof indoor net	●
Water-separator for engine fuel	●
60 A alternator	●

HYDRAULIC SYSTEM

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

CAB

Air suspension seat with heater	●
AM/FM radio	●
Anti-slip plate	●
Armrests	●
Ashtray	●
Auto control air conditioner	●
Auxiliary function lever (AFL)	○
AUX. terminal and storage	●
Defroster	●
Drink holder	●
Electric horn	●
Floor mat	●
Glove compartment	●
Rain guard	○
Reclining seat	●
Retractable seat belt	●
ROPS/OPG cab	●
Storage box	●
Sun visor	○
Transparent roof	●
Window washer	●
Wiper	●
4 fluid-filled elastic mounts	●
12 V power source	○

LIGHTS

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

UPPER STRUCTURE

Auxiliary overload relief valve	●
Electrical fuel feed pump with auto stop	●
Fuel level float	●
Pilot accumulator	○
Rear view camera	●
Rear view mirror (right, left side & cab rear)	●
Stack muffler	●
Tool box	●
Undercover	●

UNDERCARRIAGE

Blade	●
Reinforced track links with pin seals	●
Travel motor covers	●
4 tie down hooks	●
450 mm grouser shoe	●
450 mm pad crawler shoe	○
450 mm rubber shoe	○
600 mm grouser shoe	○

FRONT ATTACHMENTS

Assist piping	○
Dirt seal on all bucket pins	●
Flanged pin	●
HN bushing	●
Reinforced resin thrust plate	●
WC (tungsten-carbide) thermal spraying	●
Casted bucket link A	●

MISCELLANEOUS

Global e-Service	●
Theft deterrent system*	●

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.

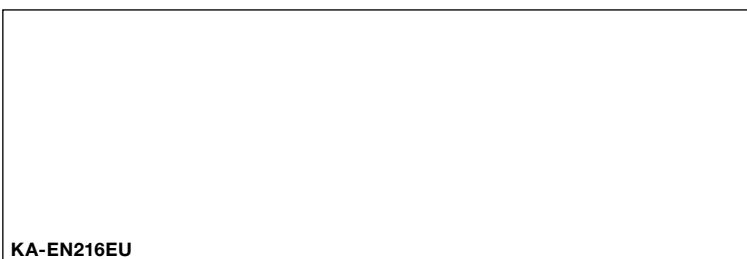
Reducing Environmental Impact by New ZAXIS

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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