

MATERIAL HANDLING MACHINE

ZAXIS 250LC / 350LC / 470LCH

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



Model Code	ZX250LC-5B	Model Code	ZX350LC-5B	Model Code	ZX470LCH-5B
Engine Rated Power	132 kW (177 HP)	Engine Rated Power	202 kW (271 HP)	Engine Rated Power	270 kW (362 HP)
Operating Weight	27 900 - 29 000 kg	Operating Weight	38 400 - 39 600 kg	Operating Weight	52 700 - 54 400 kg

SPECIFICATIONS

ZAXIS 250LC MATERIAL HANDLING

ENGINE

Model	Isuzu AL-4HK1X
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	132 kW (177 HP) at 2 000 min ⁻¹ (rpm)
EEC 80/1269, net ...	132 kW (177 HP) at 2 000 min ⁻¹ (rpm)
SAE J1349, net	132 kW (177 HP) at 2 000 min ⁻¹ (rpm)
Maximum torque	652 Nm (66.5 kgfm) at 1 800 min ⁻¹ (rpm)
Piston displacement ...	5.193 L
Bore and stroke	115 mm x 125 mm
Batteries	2 x 12 V / 126 Ah

HYDRAULIC SYSTEM

Hydraulic Pumps

Main pumps	3 variable displacement axial piston pumps
Maximum oil flow ...	2 x 224 L/min
	1 x 200 L/min
Pilot pump	1 gear pump
Maximum oil flow ...	35.5 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 ²)
Swing circuit	29.6 MPa (300 kgf/cm ²)
Travel circuit	34.3 MPa (350 kgf/cm ²)
Pilot circuit	3.9 MPa (40 kgf/cm ²)
Power boost	36.3 MPa (370 kgf/cm ²)

Hydraulic Cylinders

	Quantity	Bore	Rod diameter
Boom	2	125 mm	90 mm
Arm	2	120 mm	90 mm

UPPERSTRUCTURE

Revolving Frame

Welded sturdy box construction, using heavy-gauge steel plates for ruggedness. 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, shear-type ball bearing with induction-hardened internal gear. Internal gear and pinion gear are immersed in lubricant. Swing parking brake is spring-set/hydraulic-released disc type.

Swing speed	11.0 min ⁻¹ (rpm)
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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 good visibility. Openable front windows (upper and lower). Reclining seat with armrests; adjustable with or without control levers.

*International Organization for Standardization

UNDERCARRIAGE

Tracks

Tractor-type undercarriage. Welded track frame using selected materials. Side frame welded to track frame. Lubricated track rollers, idlers, and sprockets with floating seals.

Track shoes with triple grousers made of induction-hardened rolled alloy. 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	2
Lower rollers	9
Track shoes	51
Track guard	1

Travel Device

Each track driven by 2-speed axial piston motor through planetary reduction gear for counterrotation of the tracks. Sprockets are replaceable.

Parking brake is spring-set/hydraulic-released disk type.

Automatic transmission system; High-Low.

Travel speeds	High : 0 to 5.5 km/h
	Low : 0 to 3.4 km/h

Maximum traction force ... 222 kN (22 600 kgf)

Gradeability

SERVICE REFILL CAPACITIES

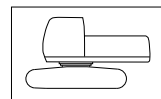
Fuel tank	510.0 L
Engine coolant	26.0 L
Engine oil	27.0 L
Swing device (each side)	9.1 L
Travel device (each side)	7.8 L
Hydraulic system	280.0 L
Hydraulic oil tank	156.0 L

WEIGHTS AND GROUND PRESSURE

Equipped with 7.00 m boom, 6.00 m gooseneck type arm, 7 300 kg counterweight.

Triple grouser shoe	Operating weight	Ground pressure
600 mm	27 900 kg	56 kPa (0.57 kg/cm ²)
700 mm	28 200 kg	48 kPa (0.49 kg/cm ²)
800 mm	28 500 kg	42 kPa (0.43 kg/cm ²)
900 mm	29 000 kg	38 kPa (0.38 kg/cm ²)

Basic Machine Weight and Overall width



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

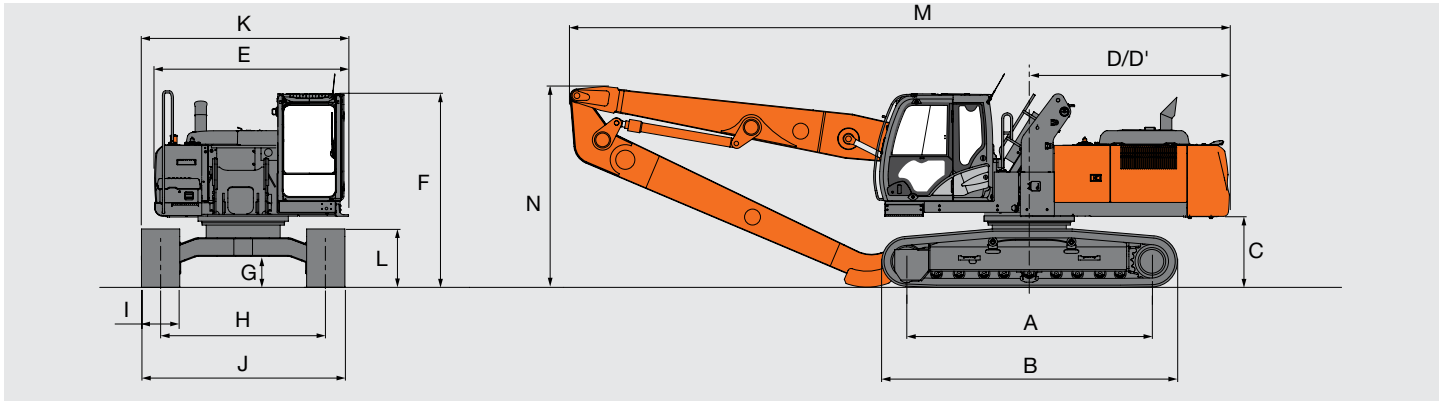
Triple grouser shoe	Weight	Overall width
600 mm	22 800 kg	3 390 mm
700 mm	23 100 kg	3 390 mm
800 mm	23 400 kg	3 390 mm
900 mm	23 900 kg	3 490 mm

Components weight

	Weight
Counter weight	7 300 kg
7.00 m straight boom (with arm cylinder)	2 470 kg
6.00 m gooseneck type arm	1 310 kg

GOOSENECK TYPE ARM

DIMENSIONS

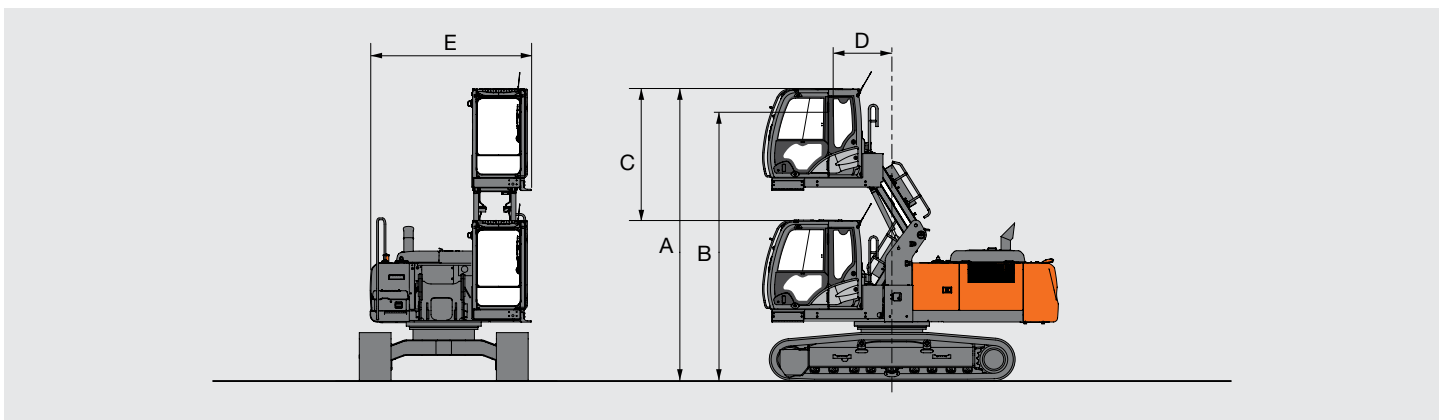


Unit: mm

		ZAXIS 250LC			
A	Distance between tumblers	3 850			
B	Undercarriage length	4 640			
*C	Counterweight clearance	1 060			
D	Rear-end swing radius	3 140			
D'	Rear-end length	3 140			
E	Overall width of upperstructure	3 040			
F	Overall height of cab	3 040			
*G	Min. ground clearance	460			
H	Track gauge	2 590			
I	Track shoe width	G 600	G 700	G 800	G 900
J	Undercarriage width	3 190	3 290	3 390	3 490
K	Overall width	3 390	3 390	3 390	3 490
*L	Track height	920			
M	Overall length	10 500			
N	Overall height of boom	3 340			

*Excluding track shoe lug G: Triple grouser shoe

LINKAGE CAB



Unit: mm

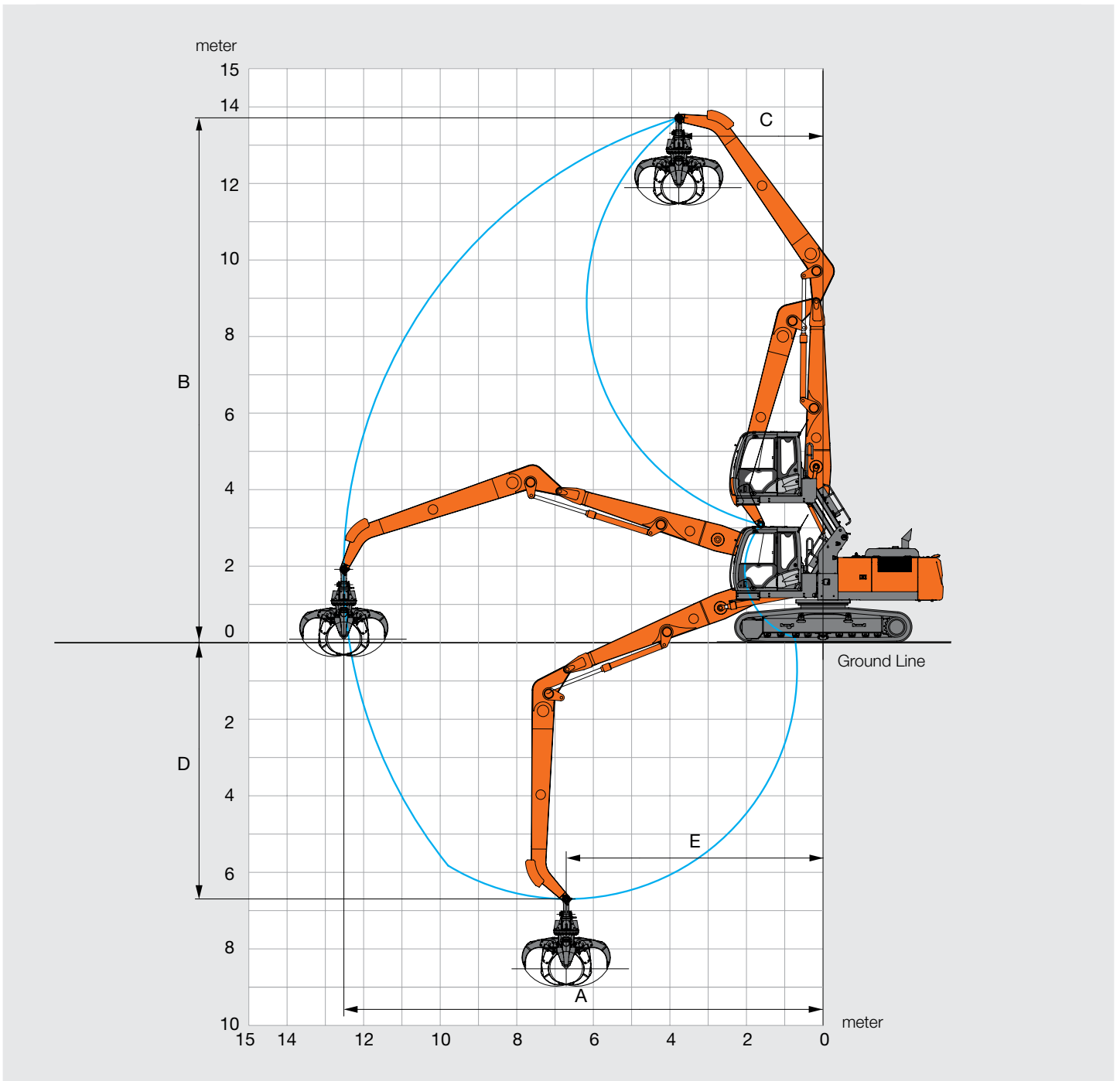
		ZAXIS 250LC	
A	Overall height of cab	3 040 to 5 520	
B	Operator's view point	2 580 to 5 060	
C	Cab Lifting Length	2 480	
D	Operator's view between swing center	1 480	
E	Overall width upperstructure (including cab sidewalk)	3 040	

SPECIFICATIONS

ZAXIS 250LC MATERIAL HANDLING

GOOSENECK TYPE ARM

WORKING RANGES



Unit: mm

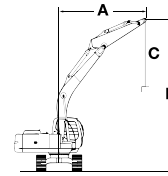
Model	ZAXIS 250LC
Boom length	7.00 m
Arm length	6.00 m
A Max. Arm Point Reach	12 500
B Max. Arm Point Height	13 700
C Min. Swing Radius	3 740
D Max. Arm Point Depth	6 700
E Max. Arm Point Depth Reach	6 680

Excluding track shoe lug

LIFTING CAPACITIES

ZAXIS 250LC MATERIAL HANDLING

Notes: 1. Lifting capacity of the ZX series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity. (ISO 10567)
 2. *Indicates load limited by hydraulic capacity.



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

ZAXIS 250LC Material Handling Machine

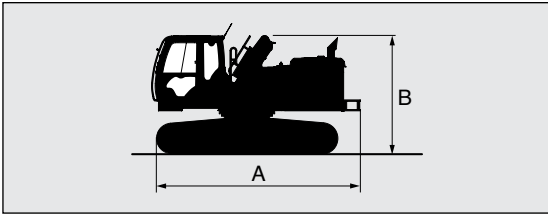
Rating over-front Rating over-side or 360 degrees Unit : kg

Conditions	Load point height m	Load radius														At max. reach			
		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		12.0 m		meter			
Boom 7.00 m	12.0					*4 120	*4 120										*2 920	*2 920	7.24
Arm 6.00 m with High lift cab (Linkage type)	10.5					*4 930	*4 930	*4 090	*4 090	*2 570	*2 570						*2 560	*2 560	9.01
Counterweight 7 300 kg	9.0							*4 590	*4 590	*3 870	*3 870						*2 380	*2 380	10.3
	7.5							*4 630	*4 630	*4 340	*4 340	*3 280	*3 280				*2 290	*2 290	11.2
Shoe 600 mm	6.0					*5 320	*5 320	*4 850	*4 850	*4 440	*4 440	*4 100	3 960				*2 250	*2 250	11.8
	4.5			*6 990	*6 990	*5 950	*5 950	*5 200	*5 200	*4 640	*4 640	*4 180	3 880	*2 740	*2 740		*2 260	*2 260	12.2
	3.0	*12 300	*12 300	*8 590	*8 590	*6 750	*6 750	*5 630	*5 630	*4 870	4 770	*4 290	3 770	*3 310	3 050		*2 320	*2 320	12.5
	1.5	*5 970	*5 970	*10 100	*10 100	*7 520	*7 520	*6 040	5 930	*5 070	4 570	*4 360	3 650	*3 610	2 990		*2 420	*2 420	12.5
	0 (Ground)	*2 950	*2 950	*9 550	*9 550	*8 000	7 660	*6 290	5 650	*5 180	4 400	*4 360	3 550	*3 580	2 940		*2 570	*2 570	12.4
	-1.5	*2 970	*2 970	*6 260	*6 260	*8 050	7 340	*6 300	5 440	*5 120	4 270	*4 210	3 470	*2 950	2 910		*2 810	*2 810	12.1
	-3.0	*3 350	*3 350	*5 780	*5 780	*7 620	7 180	*5 990	5 330	*4 810	4 200	*3 830	3 440				*3 100	3 070	11.5
	-4.5	*3 800	*3 800	*5 980	*5 980	*6 680	*6 680	*5 290	*5 290	*4 160	*4 160	*3 040	*3 040				*2 820	*2 820	10.7
	-6.0			*6 450	*6 450	*5 180	*5 180	*4 060	*4 060	*2 950	*2 950						*2 950	*2 950	9.00

TRANSPORTATION

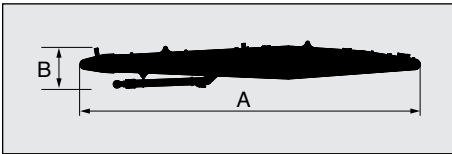
ZAXIS 250LC MATERIAL HANDLING

BASIC MACHINE (WITHOUT COUNTERWEIGHT)

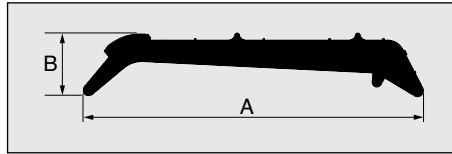


	Shoe width	A	B	Width	Weight
Basic machine (with boom cylinder, without counterweight)	600 mm	5 340 mm	3 040 mm	3 390 mm	16 700 kg
	700 mm			3 390 mm	17 000 kg
	800 mm			3 390 mm	17 300 kg
	900 mm			3 490 mm	17 800 kg
7.00 m straight boom (with arm cylinder)		7 220 mm	980 mm	1 020 mm	2 470 kg
6.00 m gooseneck type arm		6 200 mm	1 160 mm	930 mm	1 310 kg
Counterweight		710 mm	1 200 mm	2 840 mm	7 300 kg

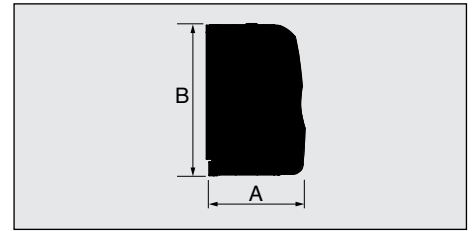
Boom



Arm (Gooseneck type)



Counterweight



EQUIPMENT

ZAXIS 250LC MATERIAL HANDLING

● Standard equipment ○ Optional equipment

ENGINE

Air cleaner double filters	●
Auto idle system	●
Auto shut-down control	●
Cartridge-type engine oil filter	●
Fuel pre-filter	●
Fuel main filter	●
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	●
Fuel recirculation filter	○
High performance water separator	●
Isolation-mounted engine	●
Muffler filter	●
Pre-cleaner	○
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	●
Pilot filter	●
Power boost	●
Suction filter	●
Swing dampener valve	●
Two extra port for control valve	●
Variable reliefvalve for attachment (open-close)	●
Work mode selector	●

CAB

Aux. function lever (assist)	●
Aux. function lever (cab)	●
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	●
Fire extinguisher bracket	○
Floor mat	●
Footrest	●
Front lower guard (ISO Level 1)	●
Front upper guard (ISO Level 1)	●
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	○
LED room light with door courtesy	●
Pilot control shut-off lever	●
Rear tray	●
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)	●
Sun visor (side)	○
Transparent roof with slide curtain	●
2 speakers	●
4 fluid-filled elastic mounts	●
12 V power outlet	○
24 V cigarette lighter	●

MONITOR SYSTEM

Alarm buzzers: overhear, engine oil pressure, overload	●
Alarms: overhear, 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	●
2 working arm lights with cover	●

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	●
Utility space	●
7 300 kg counterweight	●
2 x 126 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 track guards	○
4 tie down hooks	●
600 mm triple grouser shoes	●
700 / 800 / 900 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	●

ATTACHMENTS

Additional pump (30 L/min)	●
Attachment piping (open-close)	●
Attachment rotating piping	●
Pilot accumulator	○

MISCELLANEOUS

Global e-Service	●
Lockable fuel refilling cap	●
Lockable machine covers	●
Onboard information controller	●
Skid-resistant tapes, plates and handrails	●
Standard tool kit	●
Theft deterrent 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.

SPECIFICATIONS

ZAXIS 350LC MATERIAL HANDLING

ENGINE

Model	Isuzu AL-6HK1X
Type	4-cycle water-cooled, common rail direct injection
Aspiration	Variable geometry turbocharged, intercooled, cooled EGR
Aftertreatment	Muffler filter
No. of cylinders	6
Rated power	
ISO 9249, net	202 kW (271 HP) at 1 900 min ⁻¹ (rpm)
EEC 80/1269, net	202 kW (271 HP) at 1 900 min ⁻¹ (rpm)
SAE J1349, net	202 kW (271 HP) at 1 900 min ⁻¹ (rpm)
Maximum torque	1 080 Nm (110 kgfm) at 1 500 min ⁻¹ (rpm)
Piston displacement	7.790 L
Bore and stroke	115 mm x 125 mm
Batteries	2 x 12 V / 135 Ah

HYDRAULIC SYSTEM

Hydraulic pumps

Main pumps	3 variable displacement axial piston pumps
Maximum oil flow ...	2 x 288 L/min 1 x 260 L/min
Pilot pump	1 gear pump
Maximum oil flow ...	36.4 L/min

Hydraulic Motors

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

Relief Valve Settings

Implement circuit	34.3 MPa (350 kgf/cm ²)
Swing circuit	32.4 MPa (330 kgf/cm ²)
Travel circuit	34.3 MPa (350 kgf/cm ²)
Pilot circuit	3.9 MPa (40 kgf/cm ²)
Power boost	36.3 MPa (370 kgf/cm ²)

Hydraulic Cylinders

	Quantity	Bore	Rod diameter
Boom	2	145 mm	100 mm
Arm	2	140 mm	100 mm

UPPERSTRUCTURE

Revolving Frame

Welded sturdy box construction, using heavy-gauge steel plates for ruggedness. 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, shear-type ball bearing with induction-hardened internal gear. Internal gear and pinion gear are immersed in lubricant. Swing parking brake is spring-set/hydraulic-released disc type.

Swing speed 9.7 min⁻¹ (rpm)

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 good visibility. Openable front windows (upper and lower). Reclining seat with armrests; adjustable with or without control levers.

*International Organization for Standardization

UNDERCARRIAGE

Tracks

Tractor-type undercarriage. Welded track frame using selected materials. Side frame welded to track frame. Lubricated track rollers, idlers, and sprockets with floating seals. Track shoes with triple grousers made of induction-hardened rolled alloy. 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	2
Lower rollers	8
Track shoes	48
Track guards	3

Travel Device

Each track driven by 2-speed axial piston motor through planetary reduction gear for counterrotation of the tracks. Sprockets are replaceable. Parking brake is spring-set/hydraulic-released disk type.

Automatic transmission system; High-Low.

Travel speeds High : 0 to 5.0 km/h
Low : 0 to 3.2 km/h

Maximum traction force ... 298 kN (29 200 kgf)

Gradeability 18% (10 degree) continuous

SERVICE REFILL CAPACITIES

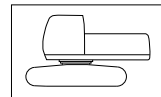
Fuel tank	630.0 L
Engine coolant	40.0 L
Engine oil	48.0 L
Swing device	15.7 L
Travel device (each side)	9.2 L
Hydraulic system	340.0 L
Hydraulic oil tank	180.0 L

WEIGHTS AND GROUND PRESSURE

Equipped with 8.50 m boom, 6.20 m gooseneck type arm, 10 000 kg counterweight.

Triple grouser shoe	Operating weight	Ground pressure
600 mm	38 400 kg	72 kPa (0.73 kg/cm ²)
700 mm	38 800 kg	62 kPa (0.63 kg/cm ²)
800 mm	39 200 kg	54 kPa (0.55 kg/cm ²)
900 mm	39 600 kg	48 kPa (0.49 kg/cm ²)

Basic Machine Weight and Overall width



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

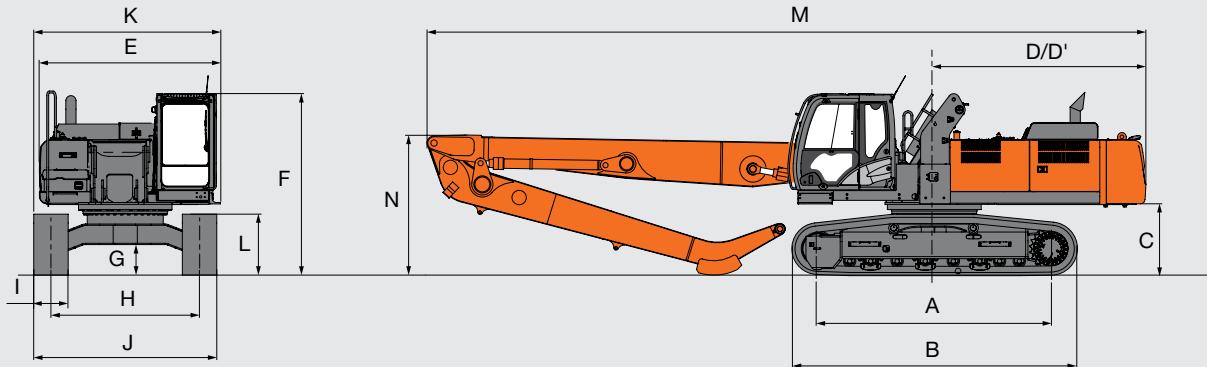
Triple grouser shoe	Weight	Overall width
600 mm	32 300 kg	3 390 mm
700 mm	32 700 kg	3 390 mm
800 mm	33 100 kg	3 390 mm
900 mm	33 500 kg	3 490 mm

Components weight

	Weight
Counter weight	10 000 kg
8.50 m straight boom (with arm cylinder)	3 520 kg
6.20 m gooseneck type arm	1 560 kg

GOOSENECK TYPE ARM

DIMENSIONS

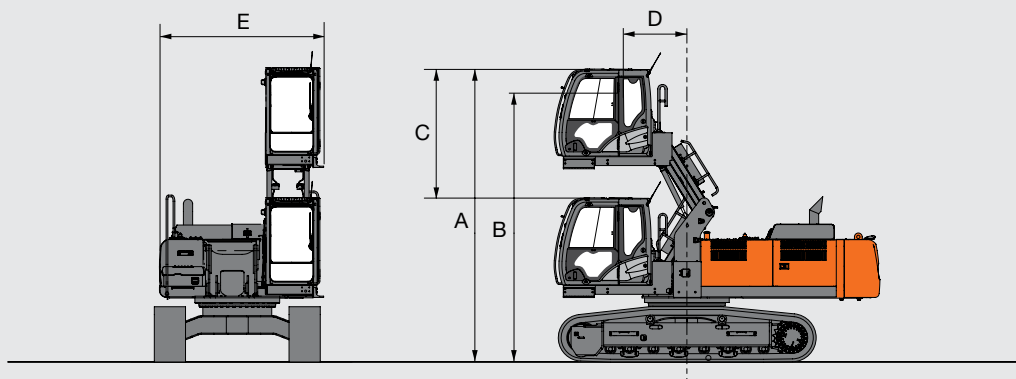


Unit: mm

		ZAXIS 350LC			
A	Distance between tumblers	4 050			
B	Undercarriage length	4 940			
*C	Counterweight clearance	1 160			
D	Rear-end swing radius	3 700			
D'	Rear-end length	3 700			
E	Overall width of upperstructure	3 160			
F	Overall height of cab	3 160			
*G	Min. ground clearance	500			
H	Track gauge	2 590			
I	Track shoe width	G 600	G 700	G 800	G 900
J	Undercarriage width	3 190	3 290	3 390	3 490
K	Overall width	3 390	3 390	3 390	3 490
*L	Track height	1 070			
M	Overall length	12 610			
N	Overall height of boom	2 680			

*Excluding track shoe lug G: Triple grouser shoe

LINKAGE CAB



Unit: mm

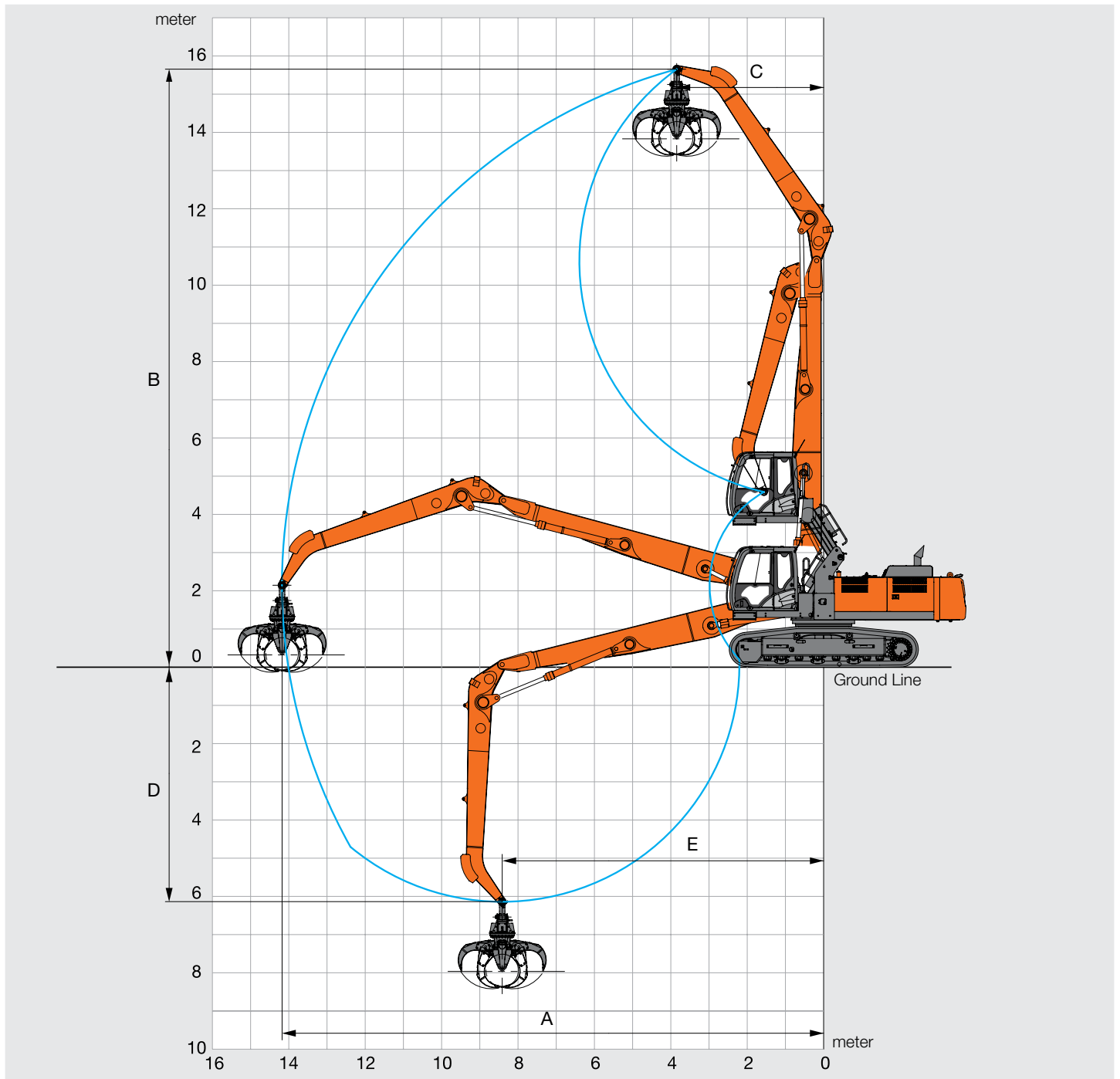
		ZAXIS 350LC	
A	Overall height of cab	3 160 to 5 640	
B	Operator's view point	2 720 to 5 200	
C	Cab Lifting Length	2 480	
D	Operator's view between swing center	1 440	
E	Overall width upperstructure (including cab sidewalk)	3 160	

SPECIFICATIONS

ZAXIS 350LC MATERIAL HANDLING

GOOSENECK TYPE ARM

WORKING RANGES



Unit: mm

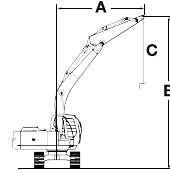
Model	ZAXIS 350LC
Boom length	8.50 m
Arm length	6.20 m
A Max. Arm Point Reach	14 200
B Max. Arm Point Height	15 700
C Min. Swing Radius	3 850
D Max. Arm Point Depth	6 140
E Max. Arm Point Depth Reach	8 420

Excluding track shoe lug

LIFTING CAPACITIES

ZAXIS 350LC MATERIAL HANDLING

Notes: 1. Lifting capacity of the ZX series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity. (ISO 10567)
 2. *Indicates load limited by hydraulic capacity.



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

ZAXIS 350LC Material Handling Machine

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

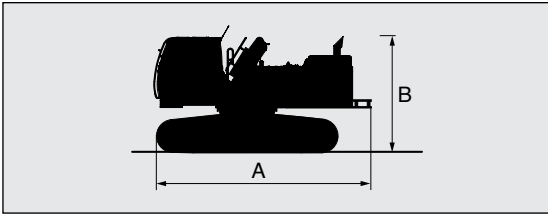
Conditions	Load point height m	Load radius													
		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		12.0 m	
Boom 8.50 m	13.5					*7 140	*7 140	*5 700	*5 700						
Arm 6.20 m with	12.0							*7 140	*7 140						
High lift cab	10.5							*8 010	*8 010	*7 070	*7 070	*5 400	*5 400		
(Linkage type)	9.0							*8 090	*8 090	*7 230	*7 230	*6 550	6 010	*4 500	*4 500
Counterweight	7.5					*9 660	*9 660	*8 360	*8 360	*7 380	*7 380	*6 600	5 930	*5 930	4 760
10 000 kg	6.0			*11 800	*11 800	*10 400	*10 400	*8 780	*8 780	*7 610	7 340	*6 720	5 790	*5 970	4 680
Shoe 600 mm	4.5	*21 600	*21 600	*14 800	*14 800	*11 400	*11 400	*9 290	9 220	*7 880	7 060	*6 840	5 610	*6 000	4 570
	3.0	*4 010	*4 010	*16 600	*16 600	*12 200	11 900	*9 740	8 720	*8 110	6 750	*6 930	5 410	*5 990	4 450
	1.5	*1 620	*1 620	*7 250	*7 250	*12 700	11 100	*9 990	8 250	*8 210	6 450	*6 920	5 220	*5 890	4 330
	0(Ground)	*2 150	*2 150	*5 200	*5 200	*12 500	10 500	*9 880	7 880	*8 080	6 210	*6 750	5 060	*5 660	4 230
	-1.5	*3 020	*3 020	*5 180	*5 180	*10 300	10 200	*9 350	7 640	*7 670	6 040	*6 350	4 950	*5 230	4 160
	-3.0			*5 640	*5 640	*9 610	*9 610	*8 370	7 540	*6 910	5 960	*5 670	4 890	*4 510	4 140
	-4.5			*6 260	*6 260	*8 150	*8 150	*6 920	*6 920	*5 740	*5 740	*4 610	*4 610	*3 350	*3 350
	-6.0							*4 970	*4 970	*4 090	*4 090				

Load point height m	Load radius		At max. reach		
	13.5 m				meter
13.5			*4 480	*4 480	8.33
12.0			*4 030	*4 030	10.1
10.5			*3 790	*3 790	11.4
9.0			*3 660	*3 660	12.4
7.5			*3 600	*3 600	13.1
6.0	*3 990	3 830	*3 600	*3 600	13.6
4.5	*5 040	3 780	*3 650	3 570	14.0
3.0	*5 130	3 720	*3 760	3 450	14.2
1.5	*4 950	3 650	*3 920	3 400	14.2
0(Ground)	*4 610	3 600	*4 150	3 420	14.0
-1.5	*4 030	3 570	*3 820	3 510	13.7
-3.0			*3 380	*3 380	13.2
-4.5			*2 780	*2 780	12.5
-6.0					

TRANSPORTATION

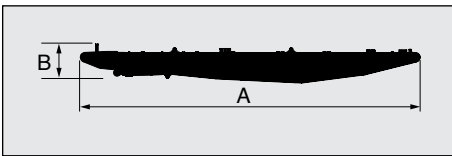
ZAXIS 350LC MATERIAL HANDLING

BASIC MACHINE (WITHOUT COUNTERWEIGHT)

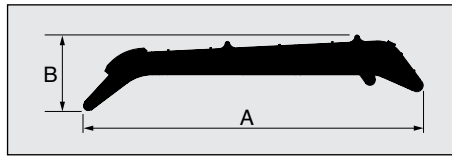


	Shoe width	A	B	Width	Weight
Basic machine (with boom cylinder, without counterweight)	600 mm	5 940 mm	3 160 mm	3 390 mm	23 300 kg
	700 mm			3 390 mm	23 700 kg
	800 mm			3 390 mm	24 100 kg
	900 mm			3 490 mm	24 500 kg
8.50 m straight boom (with arm cylinder)		8 740 mm	1 040 mm	1 160 mm	3 520 kg
6.20 m gooseneck type arm		6 410 mm	1 420 mm	1 070 mm	1 560 kg
Counterweight		830 mm	1 250 mm	2 950 mm	10 000 kg

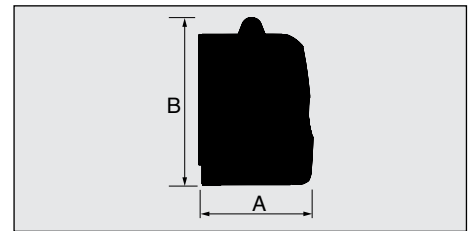
Boom



Arm (Gooseneck type)



Counterweight



EQUIPMENT

ZAXIS 350LC MATERIAL HANDLING

● 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	●
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	●
Fuel recirculation filter	○
High performance water separator	●
Isolation-mounted engine	●
Muffler filter	●
Pre-cleaner	○
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	●
Pilot filter	●
Power boost	●
Suction filter	●
Swing dampener valve	●
Two extra port for control valve	●
Variable reliefvalve for attachment (open-close)	●
Work mode selector	●

CAB

Aux. function lever (assist)	●
Aux. function lever (cab)	●
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	●
Fire extinguisher bracket	○
Floor mat	●
Footrest	●
Front lower guard (ISO Level 1)	●
Front upper guard (ISO Level 1)	●
Front window washer	●
Windows on front, upper, lower and left side can be openend	●
Glove compartment	●
Hot & cool box	●
Intermittent windshield wipers	●
Key cylinder light	●
Laminated round glass window	○
LED room light with door courtesy	●
Pilot control shut-off lever	●
Rear tray	●
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)	●
Sun visor (side)	○
Transparent roof with slide curtain	●
2 speakers	●
4 fluid-filled elastic mounts	●
12 V power outlet	○
24 V cigarette lighter	●

MONITOR SYSTEM

Alarm buzzers: overhear, engine oil pressure, overload	●
Alarms: overhear, 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	●
2 working arm lights with cover	●

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	●
Utility space	●
10 000 kg counterweight	●
2 x 135 Ah batteries	●

UNDERCARRIAGE

Bolt-on sprocket	●
Reinforced track links with pin seals	●
Travel motor covers	●
Travel parking brake	●
Track undercover	○
Upper and lower rollers	●
3 track guards (each side) and hydraulic track adjuster	●
4 tie down hooks	●
600 mm triple grouser shoes	●
700, 800, 900 mm triple grouser shoes	○

FRONT ATTACHMENTS

Centralized lubrication system	●
Dirt seal on all bucket pins	●
Flanged pin	●
HN bushing	●
Reinforced resin thrust plate	●

ATTACHMENTS

Additional pump (30 L/min)	●
Attachment piping (open-close)	●
Attachment rotating 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 deterrent 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.

SPECIFICATIONS

ZAXIS 470LCH MATERIAL HANDLING

ENGINE

Model	Isuzu AL-6UZ1XSA-01
Type	4-cycle water-cooled, common rail direct injection
Aspiration	Variable geometry turbocharged, intercooled, cooled EGR
Aftertreatment	Muffler filter
No. of cylinders	6
Rated power	
ISO 9249, net	H/P mode:
(Without Fan)	270 kW (362 HP) at 2 000 min ⁻¹ (rpm)
EEC 80/1269, net ...	H/P mode:
(Without Fan)	270 kW (362 HP) at 2 000 min ⁻¹ (rpm)
SAE J1349, net	H/P mode:
(Without Fan)	270 kW (362 HP) at 2 000 min ⁻¹ (rpm)
Maximum torque	1 435 Nm (146 kgf m) at 1 500 min ⁻¹ (rpm)
Piston displacement ...	9.839 L
Bore and stroke	120 mm x 145 mm
Batteries	2 x 12 V / 170 Ah

HYDRAULIC SYSTEM

Hydraulic Pumps

Main pumps	2 variable displacement axial piston pumps
Maximum oil flow ...	2 x 400 L/min
Pilot pump	1 gear pump
Maximum oil flow ...	34 L/min

Hydraulic Motors

Travel	2 axial piston motors with parking brake
Swing	2 axial piston motors

Relief Valve Settings

Implement circuit	31.9 MPa (325 kgf/cm ²)
Swing circuit	26.0 MPa (265 kgf/cm ²)
Travel circuit	35.3 MPa (360 kgf/cm ²)
Pilot circuit	3.9 MPa (40 kgf/cm ²)
Power boost	35.3 MPa (360 kgf/cm ²)

Hydraulic Cylinders

	Quantity	Bore	Rod diameter
Boom	2	170 mm	115 mm
Arm	2	140 mm	100 mm

UPPERSTRUCTURE

Revolving Frame

Welded sturdy box construction, using heavy-gauge steel plates for ruggedness. 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, shear-type ball bearing with induction-hardened internal gear. Internal gear and pinion gear are immersed in lubricant. Swing parking brake is spring-set/hydraulic-released disc type.

Swing speed	9.0 min ⁻¹ (rpm)
-------------------	-----------------------------

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 good visibility. Openable front windows (upper and lower). Reclining seat with armrests; adjustable with or without control levers.

*International Organization for Standardization

UNDERCARRIAGE

Tracks

Track shoes with triple grousers made of induction-hardened rolled alloy. 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	3
Lower rollers	9
Track shoes	53
Track guards	2

Travel Device

Each track driven by axial piston motor through planetary reduction gear for counterrotation of the tracks. Sprockets are replaceable.

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 3.9 km/h

Maximum traction force ...	329 kN (33 600 kgf)
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Gradeability	18% (10 degree) continuous
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WEIGHTS AND GROUND PRESSURE

Equipped with 9.50 m boom, 7.30 m gooseneck type arm.

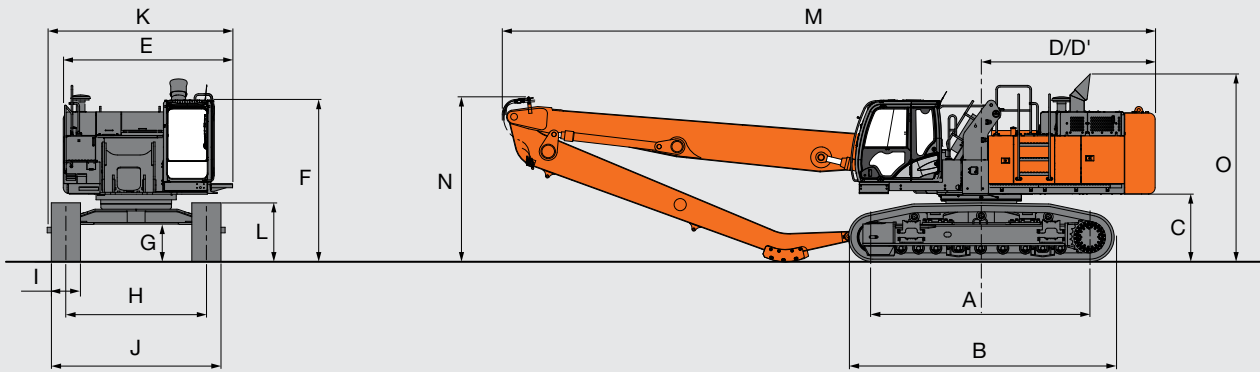
Triple grouser shoe	Operating weight	Ground pressure
600 mm	52 700 kg	89 kPa (0.90 kgf/cm ²)
750 mm	53 500 kg	73 kPa (0.74 kgf/cm ²)
900 mm	54 200 kg	61 kPa (0.62 kgf/cm ²)

SERVICE REFILL CAPACITIES

Fuel tank	725.0 L
Engine coolant	52.0 L
Engine oil	41.0 L
Swing device (each side)	6.5 L
Travel device (each side)	11.0 L
Hydraulic system	510.0 L
Hydraulic oil tank	330.0 L

GOOSENECK TYPE ARM

DIMENSIONS

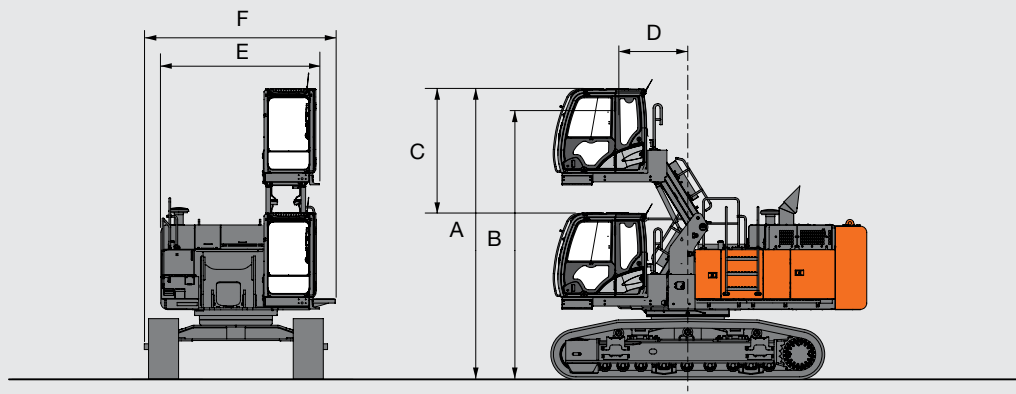


Unit: mm

		ZAXIS 470LCH		
A	Distance between tumblers	4 470		
B	Undercarriage length	5 470		
*C	Counterweight clearance	1 360		
D	Rear-end swing radius	3 700		
D'	Rear-end length	3 580		
E	Overall width of upperstructure	3 480		
F	Overall height of cab	3 320		
*G	Min. ground clearance	737		
H	Track gauge : Extended / Retracted	2 890 / 2 390		
I	Track shoe width	G 600	G 750	G 900
J	Undercarriage width : Extended / Retracted	3 490 / 2 990	3 640 / 3 140	3 790 / 3 290
K	Overall width : Extended	3 820	3 820	3 820
L	Track height	1 220		
M	Overall length	13 530		
N	Overall height of boom	3 400		
O	Overall height of exhaust funnel	3 870		

*Excluding track shoe lug G: Triple grouser shoe

LINKAGE CAB



Unit: mm

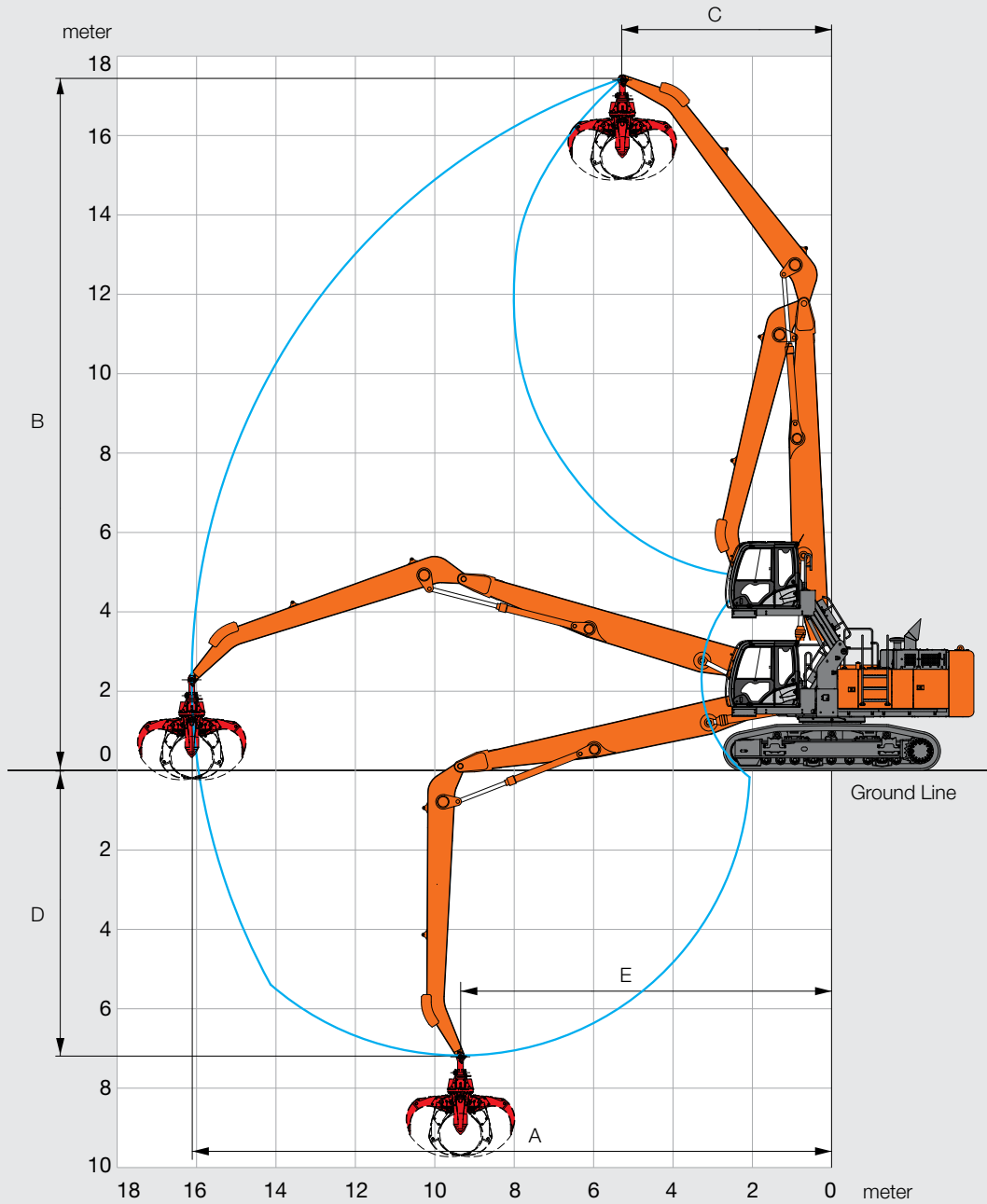
		ZAXIS 470LCH	
A	Overall height of cab	3 320 to 5 800	
B	Operator's view point	2 860 to 5 340	
C	Cab Lifting Length	2 480	
D	Operator's view between swing center	1 610 to 1 600	
E	Overall width upperstructure (Including cab sidewalk)	3 170	
F	Overall width (Including base machine sidewalk)	3 820	

SPECIFICATIONS

ZAXIS 470LCH MATERIAL HANDLING

GOOSENECK TYPE ARM

WORKING RANGES



Unit: mm

Model	ZX470LCH
Boom length	9.50 m
Arm length	7.30 m
A Max. arm point reach	16 200
B Max. arm point height	17 500
C Min. swing radius	5 300
D Max. arm point depth	7 210
E Max. arm point depth reach	9 370

Excluding track shoe lug

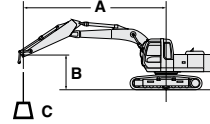
LIFTING CAPACITIES

ZAXIS 470LCH MATERIAL HANDLING

Notes: 1. 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.



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

ZX470LCH GOOSENECK TYPE ARM

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

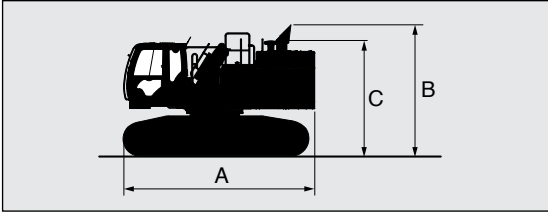
Conditions	Load point height m	Load radius											
		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m	
Boom 9.50 m	16.5							*5 770	*5 770				
Gooseneck type arm 7.30 m with High lift cab (Linkage type)	15.0							*7 180	*7 180	*5 990	*5 990		
Counterweight 13 700 kg	13.5									*7 060	*7 060	*5 880	*5 880
Shoe 600 mm	12.0									*7 760	*7 760	*6 920	*6 920
	10.5									*8 370	*8 370	*7 730	*7 730
	9.0							*9 220	*9 220	*9 100	*9 100	*8 550	*8 550
	7.5							*10 200	*10 200	*10 050	*10 050	*8 930	*8 930
	6.0					*11 620	*11 620	*12 110	*12 110	*10 420	*10 420	*9 130	9 040
	4.5	*17 360	*17 360	*18 490	*18 490	*15 750	*15 750	*12 800	*12 800	*10 800	*10 800	*9 330	8 740
	3.0			*20 810	*20 810	*16 830	*16 830	*13 360	*13 360	*11 090	10 450	*9 460	8 430
	1.5			*4 600	*4 600	*17 270	17 190	*13 610	12 750	*11 190	10 000	*9 460	8 120
	0(Ground)	*1 190	*1 190	*3 520	*3 520	*9 070	*9 070	*13 380	12 190	*11 000	9 620	*9 250	7 870
	-1.5	*2 000	*2 000	*3 710	*3 710	*7 310	*7 310	*12 620	11 820	*10 450	9 350	*8 770	7 670
	-3.0	*2 820	*2 820	*4 250	*4 250	*7 090	*7 090	*11 340	*11 340	*9 510	9 180	*7 990	7 540
	-4.5			*4 890	*4 890	*7 420	*7 420	*9 560	*9 560	*8 140	*8 140	*6 840	*6 840
	-6.0					*8 000	*8 000	*7 280	*7 280	*6 310	*6 310	*5 260	*5 260

Load point height m	Load radius						At max. reach		
	12.0 m		13.5 m		15.0 m				meter
16.5							*5 760	*5 760	7.50
15.0							*4 940	*4 940	9.90
13.5							*4 510	*4 510	11.6
12.0	*5 540	*5 540					*4 270	*4 270	12.9
10.5	*6 630	*6 630	*4 810	*4 810			*4 120	*4 120	13.9
9.0	*7 550	*7 550	*5 980	*5 980			*4 040	*4 040	14.7
7.5	*8 010	7 550	*6 950	6 250	*4 620	*4 620	*4 010	*4 010	15.3
6.0	*8 100	7 380	*7 220	6 140	*5 570	5 170	*4 040	*4 040	15.7
4.5	*8 180	7 180	*7 210	6 010	*6 310	5 100	*4 100	*4 100	16.0
3.0	*8 200	6 970	*7 150	5 870	*6 180	5 010	*4 210	*4 210	16.1
1.5	*8 110	6 760	*6 990	5 730	*5 940	4 930	*4 370	*4 370	16.1
0(Ground)	*7 870	6 590	*6 690	5 620	*5 550	4 860	*4 600	4 460	16.0
-1.5	*7 410	6 450	*6 200	5 530	*4 960	4 820	*4 230	*4 230	15.7
-3.0	*6 680	6 360	*5 440	*5 440	*4 030	*4 030	*3 720	*3 720	15.3
-4.5	*5 610	*5 610	*4 330	*4 330			*3 070	*3 070	14.7
-6.0	*4 110	*4 110							

TRANSPORTATION

ZAXIS 470LCH MATERIAL HANDLING

BASIC MACHINE (WITHOUT COUNTERWEIGHT)



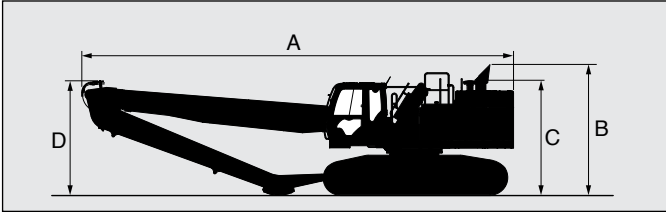
Shoe width	A	B	C* ¹	Overall width* ²	Weight
600 mm	5 690 mm	3 870 mm	3 400 mm	2 990 mm	32 000 kg
750 mm				3 140 mm	32 800 kg
900 mm				3 290 mm	33 500 kg

*1 Without exhaust funnel

*2 Undercarriage retracted

BASIC MACHINE FITTED WITH FRONT AND SIDEWALK

Gooseneck type arm

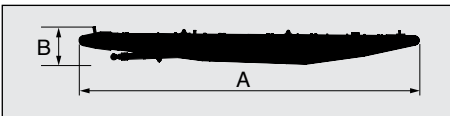


	A	B	C* ¹	D
Gooseneck type	12 890 mm	3 870 mm	3 400 mm	3 400 mm

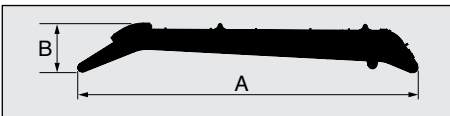
*1 Without exhaust funnel

Disassembly Conditions	A mm	B mm	Width mm	Weight kg
9.50 m straight boom (with arm cylinders)	9 780	1 070	1 270	4 540
7.30 m gooseneck type arm	7 520	1 090	1 230	1 960
Counterweight	670	1 800	2 960	13 700
Side Step (Front)	1 000	515	150	21
Side Step (Rear)	1 700	515	150	34
Ladder	1 770	750	430	23
Boom Cylinder x2	2 470	490	330	440
Boom Hose x4	1 100	100	100	9

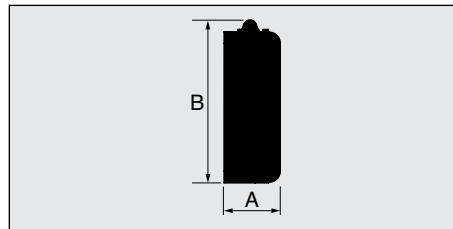
Boom



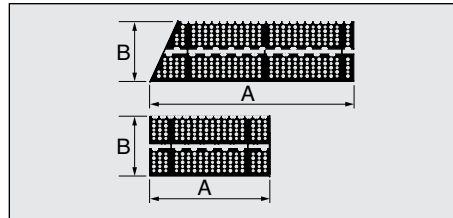
Arm (Gooseneck type)



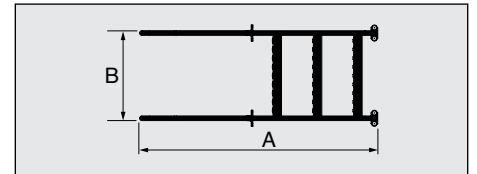
Counterweight



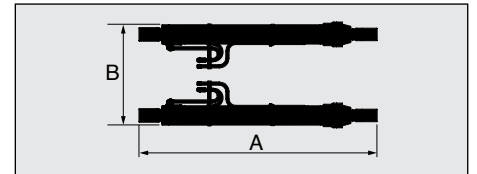
Side Step (Front/Rear)



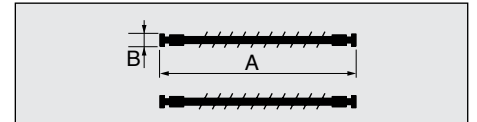
Ladder



Boom Cylinder x2



Boom Hose x4



EQUIPMENT

ZAXIS 470LCH MATERIAL HANDLING

● Standard equipment ○ Optional equipment

ENGINE

Auto idle system	●
Cartridge-type engine oil filter	●
Cartridge-type fuel filter	●
Dry-type air double filter with evacuator valve (with air filter restriction switch for monitor)	●
Fan guard	●
Fuel main filter	●
Fuel pre-filter	●
Isolation-mounted engine	●
Power mode control [H/P (High Power) PWR (Power) ECO (Economy)]	●
Pre-cleaner	○
Radiator, oil cooler and intercooler with dust protective net	●
Radiator reserve tank	●
50 A alternator	●

HYDRAULIC SYSTEM

Auto power lift	●
Boom mode selector system	●
Control valve with main relief valve	●
Drain filter	●
Engine speed sensing system	●
E-P control system	●
Extra port for control valve	●
Full-flow filter	●
Hose rupture valve	●
Pilot filter	●
Power boost	●
Quick warm-up system for pilot circuit	●
Shockless valve in pilot circuit	●
Suction filter	●
Work mode selector	●

CAB

Additional fuse box	●
Adjustable armrests	●
All-weather sound suppressed steel cab	●
AM-FM radio	●
Ashtray	●
Auto control air conditioner	●
Auto-idle selector	●
AUX. function lever (assist)	●
AUX. function lever (cab)	●
AUX. terminal and storage	●
Cab: Laminated round glass (green color) front window	○
Front window on upper, lower and left side can be opened	●
Front lower guard (ISO Level 1)	●
Front upper guard (ISO Level 1)	●
Drink holder	●
Engine shut-off switch	●
Electric double horn	●
Evacuation hammer	●
Floor mat	●
Footrest	●
Front window washer	●
Glove compartment	●
Hot & cool box	●
Intermittent windshield wiper	●
LED room light with door courtesy	●
Pilot control shut-off lever	●
Retractable seat belt	●
Rubber radio antenna	●
Seat: Adjustable reclining air suspension with heater	●
Short wrist control levers	●
Storage box	●
Sun visor (front)	●
Sun visor (side)	○
Transparent roof with slide curtain	●
2 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, 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	●

LIGHTS

Additional working lights (boom right side, arm both side)	●
2 cab lights	○
2 working lights	●

UPPER STRUCTURE

Electric fuel refilling pump with auto stop	●
Electrical grease pump with hose-reel	●
Fuel level float	●
Hydraulic oil level gauge	●
Ladder	●
Rear view camera	●
Rear view mirror (right & left side)	●
Sidewalk (cab side)	●
Swing parking brake	●
Tool box	●
Utility space	●
170 Ah batteries	●
4.5 mm thickness undercover	●
13 700 kg counterweight	●

UNDERCARRIAGE

Bolt-on sprocket	●
Full track guard	○
Hydraulic track adjuster	●
Idler track guard	●
Reinforced track links with pin seals	●
Travel motor covers	●
Travel parking brake	●
Track undercover	○
Upper and lower rollers	●
2 track guards (each side)	●
600 mm triple grouser shoes	●
750 mm shoe with standard track guard	○
900 mm shoe with standard track guard	○

FRONT ATTACHMENTS

Additional pump (30 L/min)	●
Attachment rotating piping	●
Attachment piping (open-close)	●
Centralized lubrication system	●
Damage prevention plate and square bars	●
Dirt seal on all bucket pins	●
Flanged pin	●
7.30 m gooseneck type arm	●
9.50 m boom	●

MISCELLANEOUS

Anti-slip steps and handrails	●
Global e-Service	●
Lockable fuel refilling cap	●
Lockable machine covers	●
Onboard information controller	●
Standard tool kit	●
Theft deterrent 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.



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 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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