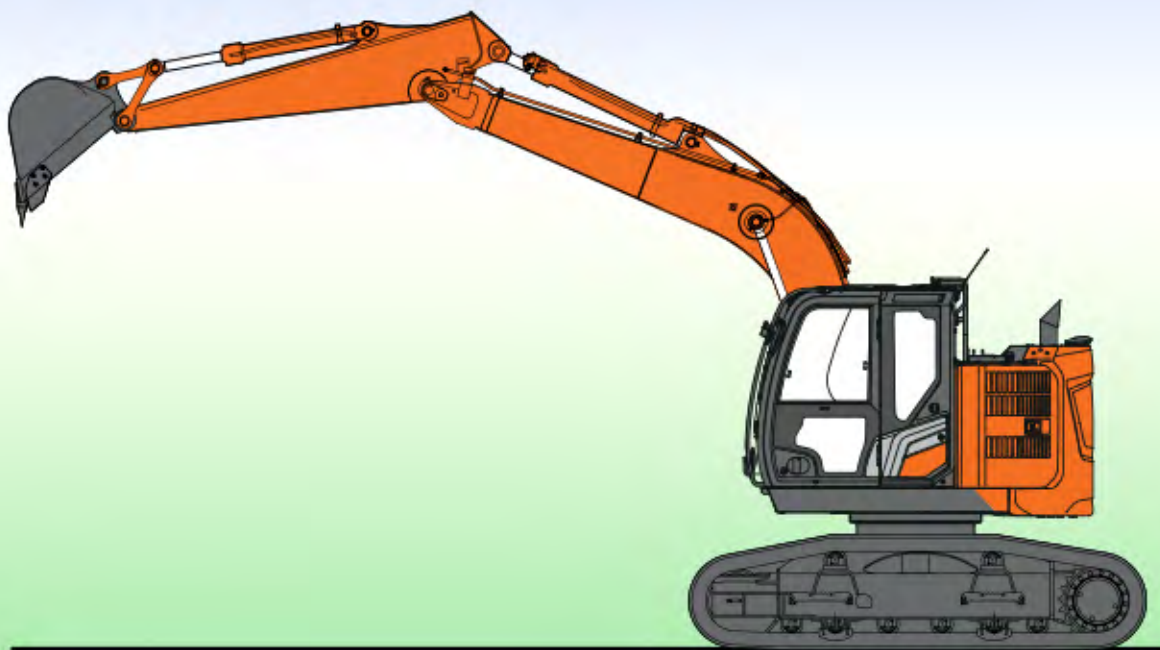


FORESTRY EXCAVATOR

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



ZAXIS135USL

Model Code	ZX135USL-7
Engine Rated Power	74 kW (ISO 14396) / 73 kW (ISO 9249)
Operating Weight	15 900 - 16 900 kg
Bucket ISO heaped	0.19 - 0.66 m ³

SPECIFICATIONS

ZAXIS 135USL

ENGINE

Model	TOYOTA INDUSTRIES CORPORATION 1KDE
Type	4-cycle water-cooled, common rail direct injection
Aspiration	Turbocharged, intercooled, cooled EGR
Aftertreatment	DOC and CSF system
No. of cylinders	4
Rated power	
ISO 14396 : 2002	74 kW at 2 000 min ⁻¹
ISO 9249 : 2007	73 kW at 2 000 min ⁻¹
Maximum torque	390 Nm at 1 700 min ⁻¹
Piston displacement	2.982 L
Bore and stroke	96 mm x 103 mm
Batteries	2 x 12 V / 74 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
Swing circuit	32.3 MPa
Travel circuit	34.3 MPa
Pilot circuit	3.9 MPa
Power boost	36.3 MPa

Hydraulic Cylinders

	Quantity	Bore	Rod diameter
Boom	2	105 mm	70 mm
Arm	1	115 mm	80 mm
Bucket	1	100 mm	70 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	13.3 min ⁻¹
Swing torque	34 kNm

UNDERCARRIAGE

Tracks

High Track-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	6
Track shoes	42
Track guards	2

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 4.6 km/h
	Low : 0 to 2.8 km/h

Maximum traction force	130 kN (13 300 kgf)
Gradeability	70% (35 degree) continuous

SOUND LEVEL

Sound level in cab according to ISO 6396 : 2008 LpA 69 dB(A)

External sound level according to ISO 6395 : 2008 and

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

SERVICE REFILL CAPACITIES

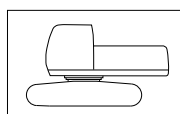
Fuel tank	200.0 L
Engine coolant	18.7 L
Engine oil	19.1 L
Swing device	3.2 L
Travel device (each side)	4.2 L
Hydraulic system	155.0 L
Hydraulic oil tank	61.0 L

WEIGHTS AND GROUND PRESSURE

Boom type			Monoblock		Monoblock with blade (optional)	
Shoe type	Shoe width	Arm length	kg	kPa	kg	kPa
Triple grouser	500 mm	2.10 m	15 900	48	16 900	51
		2.52 m	16 000	48	17 000	43
		3.01 m	16 100	48	17 100	37
	600 mm	2.10 m	16 100	40	-	-
		2.52 m	16 200	41	-	-
		3.01 m	16 300	41	-	-
	700 mm	2.10 m	16 300	35	-	-
		2.52 m	16 400	35	-	-
		3.01 m	16 500	35	-	-
800 mm	2.10 m	16 700	31	-	-	
	2.52 m	16 800	32	-	-	
	3.01 m	16 900	32	-	-	

Including bucket 0.50 m³ ISO 7451 : 2007 heaped, bucket weight (410 kg) and counterweight (3 550 kg).

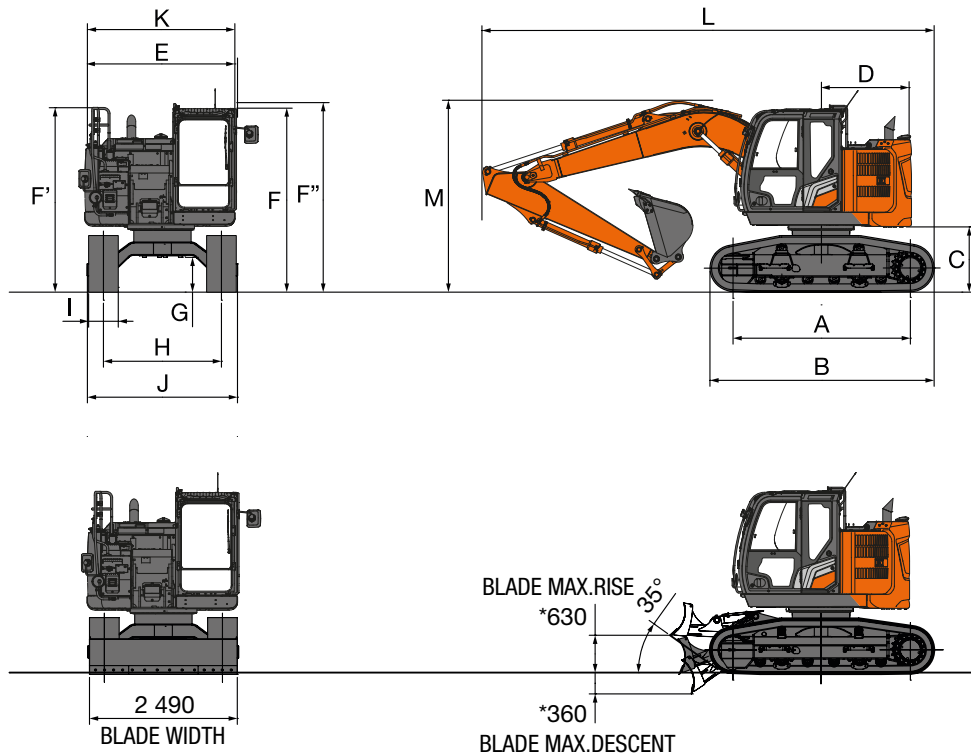
WEIGHT: BASIC MACHINE AND COMPONENTS



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

		ZAXIS 135USL		ZAXIS 135USL with blade (optional)	
Shoe type	Shoe width	Weight	Overall width	Weight	Overall width
Triple grouser	500 mm	13 300 kg	2 530 mm	14 300 kg	2 530 mm
	600 mm	13 500 kg	2 590 mm	-	-
	700 mm	13 700 kg	2 690 mm	-	-
	800 mm	14 100 kg	2 790 mm	-	-

DIMENSIONS



Unit: mm

Model	ZAXIS 135USL		
Arm length	2.10 m	2.52 m	3.01 m
A Distance between tumbler	2 990	2 990	2 990
B Undercarriage length	3 790	3 790	3 790
*C Counterweight clearance	1 060	1 060	1 060
D Rear-end swing radius	1 490	1 490	1 490
E Overall width of upperstructure	2 480	2 480	2 480
F Overall height of cab	3 030	3 030	3 030
F' Overall height of handrail	3 040	3 040	3 040
F'' Overall height of handrail (on cab)	3 110	3 110	3 110
*G Min. ground clearance	560 / 540**	560 / 540**	560 / 540**
H Track gauge	1 990	1 990	1 990
I Track shoe width	500 (Grouser Shoe)	500 (Grouser Shoe)	500 (Grouser Shoe)
J Undercarriage width	2 490	2 490	2 490
K Overall width	2 490	2 490	2 490
L Overall length	7 450 / 7 970**	7 470 / 7 990**	7 450 / 7 970**
M Overall height of boom	2 830	2 950	2 800

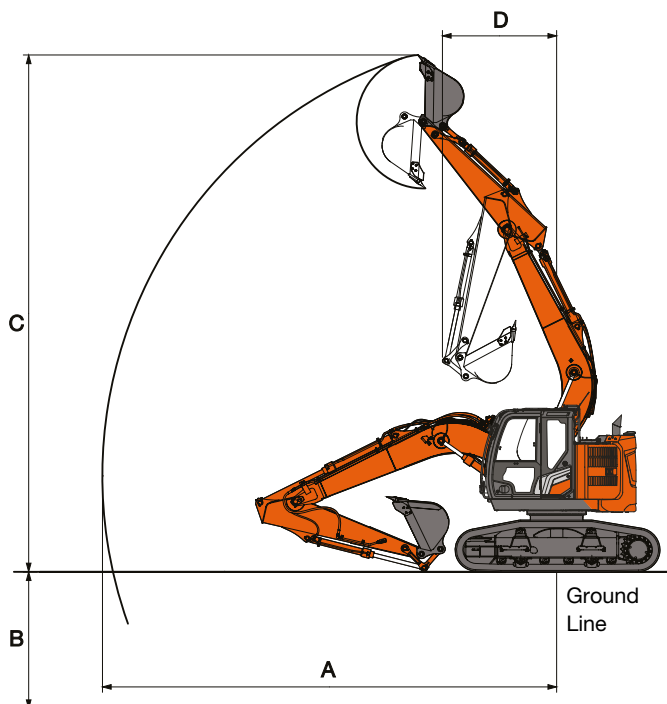
*: Excluding track shoe lug

** : With blade

SPECIFICATIONS

ZAXIS 135USL

WORKING RANGES



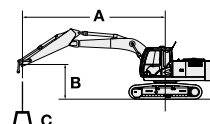
Unit: mm

Model	ZAXIS 135USL		
Arm length	2.10 m	2.52 m	3.01 m
A Max. Digging reach	8 020	8 390	8 860
B Max. Digging depth	4 850	5 270	5 760
C Max. Dumping Height	9 240	9 510	9 910
D Min. swing radius	2 100	2 200	2 540

The dimensions do not include height of the shoe lug

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.



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

For lifting capacities, subtract bucket and quick hitch weight from lifting capacities without bucket.

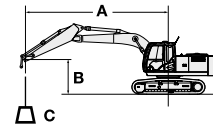
ZX135USL

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

Conditions	Load point height m	Load radius										At max. reach		
		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		meter		
Mono block Boom 4.60 m Arm 2.10 m Grouser Shoe 500 mm	6.0					4 120*	3 930					2 960*	3 000*	5.0
	4.5			5 010*	5 010*	4 280*	3 860	3 110*	2 430			2 690*	2 400	6.1
	3.0			7 460	6 800	5 140*	3 680	3 680	2 390			2 670*	2 040	6.6
	1.5					5 510	3 450	3 580	2 290			2 890*	1 920	6.8
0 (Ground)	0			5 290*	5 290*	5 350	3 300	3 510	2 230			3 050	1 970	6.6
	-1.5	4 990*	4 990*	8 590*	5 990	5 300	3 270	3 500	2 220			3 460	2 200	6.1
	-3.0			6 620*	6 130	4 540*	3 340					3 790*	2 940	5.0
Mono block Boom 4.60 m Arm 2.52 m Grouser Shoe 500 mm	6.0					3 630*	3 690*					2 400*	2 400*	5.5
	4.5			3 890*	3 890*	3 870*	3 910	3 600*	2 460			2 220*	2 150	6.5
	3.0			6 570*	6 770*	4 690*	3 700	3 670	2 390			2 210*	1 860	7.0
	1.5			6 750*	6 210	5 520	3 450	3 550	2 280			2 330*	1 740	7.2
0 (Ground)	0			6 090*	5 910	5 320	3 260	3 470	2 200			2 690*	1 770	7.0
	-1.5	4 680*	4 680*	9 010*	5 890	5 240	3 190	3 440	2 160			3 110	1 970	6.5
	-3.0	8 580*	4 680*	7 330*	6 000	5 190	3 250					3 860*	2 510	5.5
Mono block Boom 4.60 m Arm 3.01 m Grouser Shoe 500 mm	6.0					3 100*	3 100*	2 320*	2 390*			2 060*	2 060*	6.1
	4.5					3 390*	3 390*	3 350*	2 480			1 920*	1 900	7.0
	3.0			5 220*	5 220*	4 230*	3 760	3 690	24 00			1 920*	1 660	7.5
	1.5			8 340*	6 360	5 440*	3 470	3 560	2 280	2 530	1 610	2000*	1 570	7.6
0 (Ground)	0			6 590*	5 900	5 310	3 260	3 450	2 170			2 280*	1 580	7.5
	-1.5	4 100*	4 100*	8 580*	5 800	5 190	3 150	3 380	2 120			2 700*	1 730	7.0
	-3.0	7 160*	7 160*	8 020*	5 850	5 200	3 150	3 420	2 150			3 370	2 120	6.1
-4.5			5 280*	5 280*	3 190*	3 300*					3 180*	3 290*	4.5	

LIFTING CAPACITIES with blade (optional)

- 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

For lifting capacities, subtract bucket and quick hitch weight from lifting capacities without bucket.

ZAXIS 135USL (BLADE ON GROUND)

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

Conditions	Load point height m	Load radius										At max. reach		
		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		meter		
Mono block Boom 4.60 m Arm 2.10 m Without bucket Shoe 500 mm	6.0					4 120	4 190					2 970*	2 970*	5.0
	4.5			5 010*	5 010*	4 280	4 120	3 110*	2 610			2 700*	2 370	6.1
	3.0			7 460*	7 250	5 050	3 920	3 350*	2 560			2 670*	2 020	6.6
	1.5					4 990	3 690	3 240*	2 480			2 620*	1 900	6.8
	0 (Ground)			5 290*	5 290*	4 820	3 550	3 170*	2 410			2 610*	1 940	6.6
	-1.5	4 990*	4 990*	8 590*	6 450	4 790	3 520	3 170*	2 410			2 630*	2 180	6.1
-3.0			6 620*	6 580	4 540	3 590					3 790*	2 900	5.0	
Mono block Boom 4.60 m Arm 2.52 m Without bucket Shoe 500 mm	6.0					3 630*	3 630*					2 400*	2 400*	5.5
	4.5			3 890*	3 890*	3 870*	4 000*	3 310*	2 630			2 220	2 290*	6.5
	3.0			6 570*	6 570*	4 690*	3 950	3 330*	2 560			2 210*	2 000	7.0
	1.5			6 750*	6 650	5 000*	3 690	3 220*	2 450			2 330*	1 890	7.2
	0 (Ground)			6 090*	6 220*	4 790*	3 520	3 130*	2 370			2 440*	1 920	7.0
	-1.5	4 680*	4 680*	9 000*	6 340	4 720*	3 450	3 100*	2 330			2 810*	2 130	6.5
-3.0	8 580*	8 580*	7 330*	6 430	4 610*	3 500					3 480*	2 700	5.5	
Mono block Boom 4.60 m Arm 3.01 m Without bucket Shoe 500 mm	6.0					3 100*	3 100*	2 320*	2 320*			2 060*	2 060*	6.1
	4.5					3 390*	3 390*	3 310*	2 650			1 920*	1 980*	7.0
	3.0			5 220*	5 220*	4 230*	4 000	3 330*	2 570			1 920*	1 800	7.5
	1.5			8 340*	6 810	4 870*	3 720	3 230*	2 450	2 240	1 740	2 920*	1 700	7.6
	0 (Ground)			6 590*	6 340	4 790*	3 510	3 110*	2 350			3 920*	1 720	7.5
	-1.5	4 100*	4 100*	8 580*	6 240	4 680*	3 400	3 050*	2 290			4 920*	1 870	7.0
-3.0	7 160*	7 160*	8 020*	6 300	4 700*	3 410	3 100*	2 320			5 920*	2 280	6.1	
-4.5			5 280*	5 280*	3 190*	3 210*					6 920*	3 200*	4.5	

ZAXIS 135USL BLADE (ABOVE GROUND)

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

Conditions	Load point height m	Load radius										At max. reach		
		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		meter		
Mono block Boom 4.60 m Arm 2.10 m Without bucket Shoe 500 mm	6.0					4 120*	4 190					2 970*	2 970*	5.0
	4.5			5 010*	5 010*	4 280*	4 120	3 110*	2 610			2 700*	2 370	6.1
	3.0			7 460*	7 250	5 050*	3 920	3 860*	2 560			2 670*	2 020	6.6
	1.5					5 430*	3 690	4 150	2 480			2 620*	1 900	6.8
	0 (Ground)			5 290*	5 290*	5 780*	3 550	4 250	2 410			2 680*	1 940	6.6
	-1.5	4 990*	4 990*	8 590*	6 450	5 450*	3 520	3 780	2 410			3 040*	2 180	6.1
-3.0			6 620*	6 580	4 540*	3 590					3 790*	2 900	5.0	
Mono block Boom 4.60 m Arm 2.52 m Without bucket Shoe 500 mm	6.0					3 630*	3 630*					2 400*	2 400*	5.5
	4.5			3 890*	3 890*	3 870*	4 000*	3 310*	2 630			2 220*	2 290*	6.5
	3.0			6 570*	6 570*	4 690*	3 950	3 610*	2 560			2 210*	2 000	7.0
	1.5			6 750*	6 650	5 150*	3 690	3 980*	2 450			2 330*	1 890	7.2
	0 (Ground)			6 090*	6 220*	5 680*	3 520	4 190*	2 370			2 440*	1 920	7.0
	-1.5	4 680*	4 680*	9 000*	6 340	5 550*	3 450	3 990*	2 330			2 880*	2 130	6.5
-3.0	8 580*	8 580*	7 330*	6 430	4 610*	3 500					3 480*	2 700	5.5	
Mono block Boom 4.60 m Arm 3.01 m Without bucket Shoe 500 mm	6.0					3 100*	3 100*	2 320*	2 320*			2 060*	2 060*	6.1
	4.5					3 390*	3 390*	3 310*	2 650			1 920*	1 980	7.0
	3.0			5 220*	5 220*	4 230*	4 000	3 330*	2 570			1 920*	1 800	7.5
	1.5			8 340*	6 810	4 870*	3 720	3 780*	2 450	2 240*	1 740	2 000*	1 700	7.6
	0 (Ground)			6 590*	6 340	5 520*	3 510	4 090*	2 350			2 180*	1 720	7.5
	-1.5	4 100*	4 100*	8 580*	6 240	5 610*	3 400	4 080*	2 290			2 400*	1 870	7.0
-3.0	7 160*	7 160*	8 020*	6 300	4 950*	3 410	3 320*	2 320			3 200*	2 280	6.1	
-4.5			5 280*	5 280*	3 190*	3 210*					3 180*	3 200	4.5	

EQUIPMENT

ZAXIS 135USL

● : Standard equipment

○ : Optional equipment

ENGINE

Aftertreatment device	●
Air cleaner double filters	●
Alternator 60 A	●
Auto idle system	●
Auto shut-down control	●
Belt auto tensioner	●
Cartridge-type engine oil filter	●
Cartridge-type fuel main filter	●
Cold fuel resistance valve	○
Consite OIL (sensor)*	●
Dry-type air filter with evacuator valve (with air filter restriction indicator)	●
Dust-proof indoor net	●
ECO/PWR mode control	●
Electrical fuel feed pump	●
Engine oil drain coupler	●
Expansion tank	●
Fan guard	●
Fuel cooler	●
Fuel pre-filter with water separator	●
Isolation-mounted engine	●
Maintenance free pre-cleaner	●
Oil separator	●
Radiator, oil cooler and intercooler	●

HYDRAULIC SYSTEM

Auto power lift	●
ConSite OIL (sensor)*	●
Control valve with main relief valve	●
Extra port for control valve	●
High mesh full flow filter	●
Hose rupture valve for arm cylinder	●
Hose rupture valve for boom cylinder	●
Pilot filter	●
Power boost	●
Restriction indicator for full flow filter	○
Suction filter	●
Variable reliefvalve for breaker & crusher	●
Work mode selector	●

CAB

All-weather sound suppressed steel cab	●
Auto control air conditioner	●
CRES VII (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 (2 points)	●
Glove compartment	●
Hands-free calling device	●
Hot & cool box	●
Intermittent windshield wipers	●
Key cylinder light	●
Laminated round glass window	○
LED room light	●
Magazine rack	●
OPG front guard Level II (ISO10262 : 1998) compliant cab	●
Pilot control shut-off lever	●
Power outlet 12 V and 24 V	●
Retractable seat belt	●
ROPS (12117-2 : 2008) compliant cab	●
Rubber radio antenna	●
Seat : air suspension seat with heater	●
Seat adjustment part : backrest, armrest, height and angle, slide forward / back	●
Short wrist control levers	●
Sunscreen roller type (multi-use front or side and rear windows)	○
Transparent roof with slide curtain	●
2 speakers	●
4 fluid-filled elastic mounts	●

MONITOR SYSTEM

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

LIGHTS

Additional boom light with cover	●
Additional cab roof rear LED light	●
Additional 2 cab roof front LED lights	○
Additional 4 cab roof front LED lights	●
Rotating lamp	○
2 working LED lights	●

UPPER STRUCTURE

Aerial Angle® (270-degree view camera system)	●
Batteries 2 x 74 Ah	●
Battery disconnect switch	●
Body top handrail	●
Cab top handhold	●
Counterweight 3 550 kg	●
Electric fuel refilling pump with auto stop and filter	●
Fuel level float	●
Hydraulic oil level gauge	●
Lockable fuel refilling cap	●
Lockable machine covers	●
Lockable tool box	●
Platform handrail	●
Side view mirror (right & left)	●
Skid-resistant plates and handrails	●
Swing parking brake	●
Undercover (reinforced)	●

UNDERCARRIAGE

Bolt-on side step	●
Bolt-on sprocket	●
High track without blade	●
· Double flange upper roller	●
· Reinforced idler bracket	●
· Reinforced travel motor covers	●
· 500 mm triple grouser shoes	●
· 600/700/800 mm triple grouser shoes*	○
High track with blade	○
· Blade with bolt on cutting edge	●
· Idler bracket	●
· Single flange upper roller	●
· Travel motor covers	●
· 500 mm triple grouser shoes	●
Lower rollers	●
Reinforced track links with pin seals	●
Reinforced track undercover	●
Travel direction mark on track frame	●
Travel parking brake	●
2 track guards (each side) and hydraulic track adjuster	●
4 tie down brackets	●

*Selectable only when there is no blades

FRONT ATTACHMENTS

Arm tip remote lubrication	○
Arm with lower and upper reinforcement	●
Arm with lower reinforcement	○
Bucket	○
Centralized lubrication system	●
Dirt seal on all bucket pins	●
Flanged pin	●
HN bushing	●
Link A	○
· Casted bucket	○
· Welded bucket with welded hook	●
Link B	○
· Standard	○
· Reinforced	●
Monoblock boom (4.60m)	●
Reinforced resin thrust plate	●
WC (tungsten-carbide) thermal spraying	●

ATTACHMENTS

Accessories for 2 speed selector	○
Additional pump or PTO valve	○
Assist piping	○
Attachment basic piping	●
AUX function lever control for assist piping	○
AUX function lever control for breaker-crusher-piping & assist piping	○
Breaker and crusher piping	●
Foot pedal for assist piping (left pedal)	○
Foot pedal for breaker & crusher piping (right pedal)	●
Parts for breaker and crusher	●
Pilot accumulator	●

MISCELLANEOUS

ConSite	○
Global e-Service	●
Onboard information controller	●
Standard tool kit	●

*Engine oil and hydraulic oil monitoring sensor.

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



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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.

