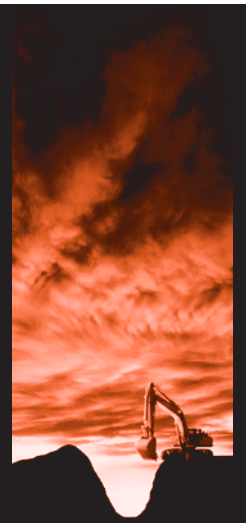
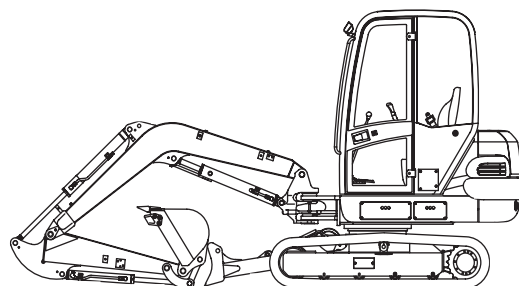


HITACHI ZAXIS50

engine rated power
26.5 kW / 36 HP

operating weight
4 590 kg (canopy)
4 660 kg (cabin)

bucket capacity
0.10 - 0.17 m³



HITACHI

Engine

Model	Kubota V2203
Type	Water-cooled, 4-cycle, 4-cylinder swirl chamber type diesel engine
Rated flywheel power	26.5 kW (36.0 PS)
ISO 3046	at 2 100 min ⁻¹ (rpm)
Rated flywheel power	26.5 kW (35.5 HP)
SAE J1349, net	at 2 100 min ⁻¹ (rpm)
Maximum torque	125.5 Nm (12.8 kgf/m)
	at 1 700 min ⁻¹ (rpm)
Piston displacement	2.179 l
Bore and stroke	87 mm x 92.4 mm
Battery	1 x 12 V, 52 Ah

Hydraulic system

The Optimum Hydraulic System (OHS) uses three pumps for job efficiency and smooth combined operations.

Main pumps	Two variable displacement axial piston pumps
Maximum oil flow	2 x 42.0 l/min
Third pump	One gear pump
Maximum oil flow	1 x 33.6 l/min
Pilot pump	One gear pump
Maximum oil flow	1 x 9.5 l/min

RELIEF VALVE SETTINGS

Implement circuit	24.5 MPa (250 kgf/cm ²)
Swing circuit	17.6 MPa (180 kgf/cm ²)
Travel circuit	24.5 MPa (250 kgf/cm ²)
Pilot circuit	3.9 MPa (40 kgf/cm ²)

HYDRAULIC CYLINDERS

High-strength piston rods and tubes. Cylinder cushion mechanisms provided in boom raise, arm crowd and dump circuits to absorb shocks at stroke ends.

DIMENSIONS

	Qty.	Bore	Rod diameter	Stroke
Boom	1	95 mm	55 mm	695 mm
Arm	1	80 mm	50 mm	759 mm
Bucket	1	75 mm	45 mm	551 mm
Boom swing	1	95 mm	50 mm	620 mm
Blade	1	100 mm	55 mm	150 mm

Controls

Hydraulic pilot control levers for all operations.

Swing mechanism

High-torque, axial piston motor with planetary reduction gear. Swing circle is single-row, shear-type ball bearing with induction-hardened internal gear. Internal gear and pinion are immersed in lubricant. Swing parking brake is spring-set/hydraulic-released disc type. Swing shockless valve built in swing motor absorbs shocks when stopping swing, ensuring smooth stops.

Swing speed 9.3 min⁻¹ (rpm)

Undercarriage

TRACKS

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

NUMBERS OF ROLLERS ON EACH SIDE

Upper roller	1
Lower rollers	4

TRACTION DEVICE

Each track driven by a high-torque, 2-speed axial piston motor through planetary reduction gear, allowing counter-rotation of the tracks.

Travel speeds (rubber shoes)	High: 0 - 4.4 km/h
	Low: 0 - 2.5 km/h
Travel speeds (grouser shoes)	High: 0 - 4.1 km/h
	Low: 0 - 2.3 km/h
Gradeability	30 degrees (58%) continuous

Weights and ground pressure

Equipped with 1.50 m arm and 0.16 m³ (ISO 7451) bucket.

	Operating weight	Ground pressure
4-Pillar canopy version		
400 mm rubber shoes	4 590 kg	26 kPa (0.27 kgf/cm ²)
400 mm grouser shoes	4 740 kg	26 kPa (0.27 kgf/cm ²)
Cabin version		
400 mm rubber shoes	4 660 kg	26 kPa (0.27 kgf/cm ²)
400 mm grouser shoes	4 810 kg	27 kPa (0.28 kgf/cm ²)

Front-end attachments

BACKHOE BUCKETS

ISO 7451 capacity	Width		No. of teeth	Weight	Use	
	Without side cutters	With side cutters			1.50 m Short arm	1.85 m Long arm
0.10 m ³	405 mm	450 mm	3	90 kg	A	A
0.11 m ³	455 mm	500 mm	3	94 kg	A	A
0.13 m ³	505 mm	550 mm	4	103 kg	A	A
0.14 m ³	555 mm	600 mm	4	108 kg	A	A
0.16 m ³	605 mm	650 mm	4	114 kg	A	B
0.17 m ³	655 mm	700 mm	4	117 kg	B	C
Arm crowd force					24.0 kN (2 450 kgf)	21.6 kN (2 200 kgf)
Bucket digging force					36.6 kN (3 740 kgf)	

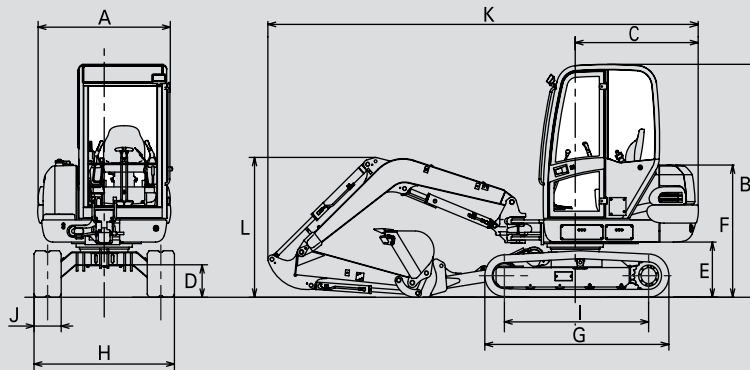
A: General digging B: Light-duty digging C: Loading

Boom swing angle Left 80°, Right 50°

Dimensions

The 4-pillar canopy or cabin can be mounted on the upper-structure according to job needs and applicable regulations.

The 4-pillar canopy and cabin conform to TOPS (ISO 12117) and FOPS (ISO 10262, Level 1) requirements.

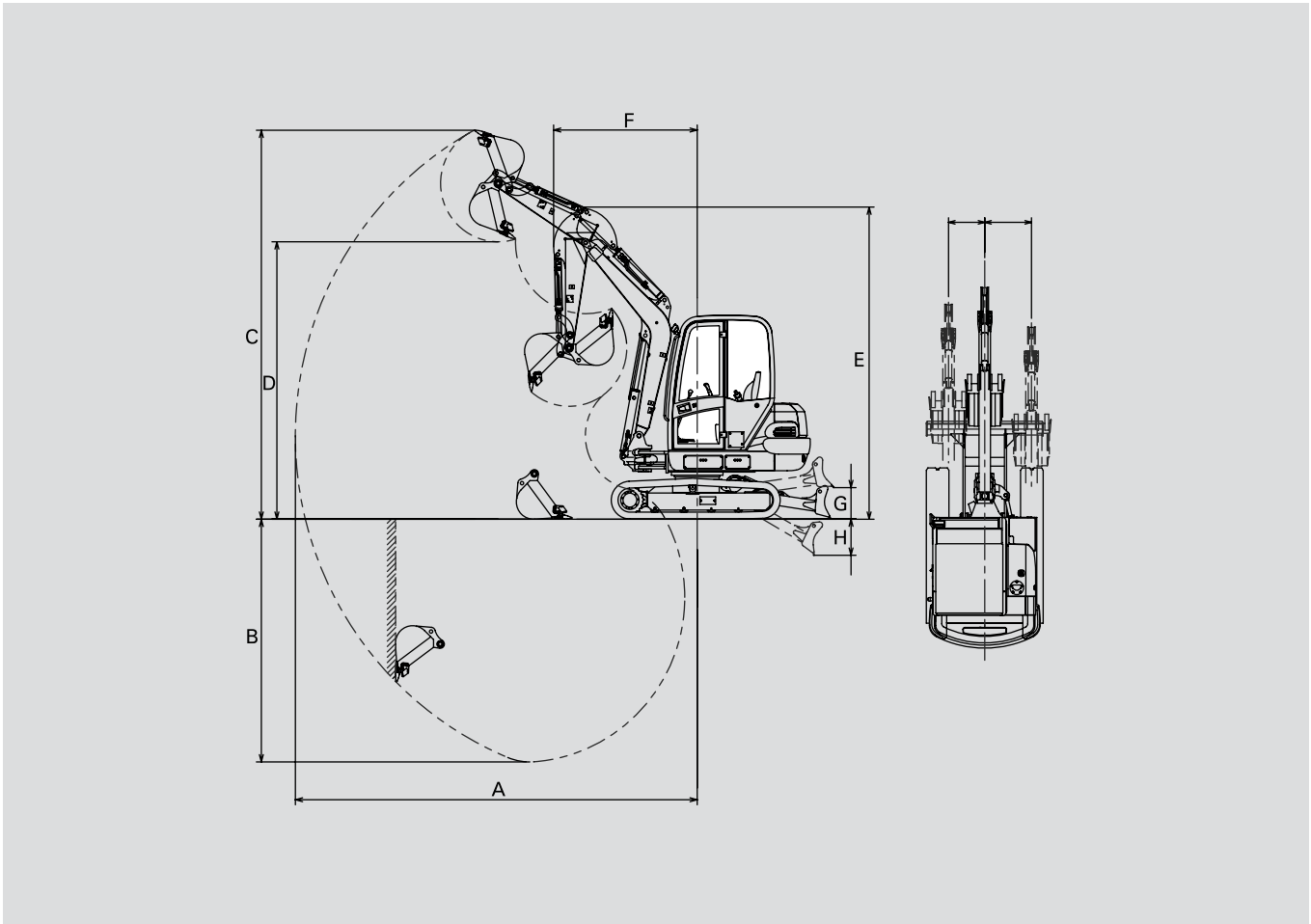


Note:
The illustration shows the cabin version equipped with 400 mm rubber shoes.

Unit: mm

	ZAXIS50
A Overall width	1 690
B Canopy / cabin height	2 590
C Rear-end swing radius	1 450
D Minimum ground clearance	335
E Counterweight clearance	640
F Engine cover height	1 540
G Undercarriage length	2 450
H Undercarriage width	1 850
I Sprocket centre to idler centre	1 960
J Track shoe width	400
K Maximum transport length	5 590
L Overall height of boom	1 730

Working ranges



Note:
The illustration shows the cabin version equipped with 0.16 m³ bucket, 1.50 m arm and 400 mm rubber shoes.

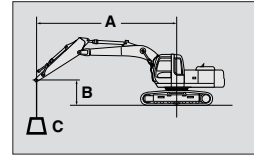
Unit: mm

	ZAXIS50	
	Canopy & Cabin	
	1.50 m arm	1.85 m arm
A Maximum digging reach	5 920	6 240
B Maximum digging depth	3 570	3 920
C Maximum cutting height	5 820	6 050
D Maximum dumping height	4 150	4 380
E Transport height	4 440	4 440
F Minimum swing radius	2 040	2 310
G Blade bottom highest position (above ground level)	430	430
H Blade bottom lowest position (below ground level)	460	460
Maximum boom-swing angle	L80° / R50°	L80° / R50°
Offset distance	L590 / R760	L590 / R760

LIFTING CAPACITIES

Metric measure

(Equipped with cabin)



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

ZAXIS50 SHORT ARM, DOZER BLADE ABOVE GROUND



Rating over-side or 360 degrees



Rating over-front

Unit: kN

Conditions	Load point height	Load radius										At max. reach		
		1 m		2 m		3 m		4 m		5 m		meter		
Arm 1.50 m	4 m					*9.15	7.49					*7.60	7.33	4.05
Bucket 0.16 m ³	3 m					*11.44	*11.44	9.41	7.52			*6.94	5.58	4.71
Rubber shoes 400 mm	2 m					14.70	11.48	9.15	7.27	6.24	4.94	6.15	4.87	5.04
	1 m					13.86	10.71	8.81	6.94	6.14	4.84	5.90	4.66	5.12
	0 m					13.47	10.36	8.57	6.73			6.16	4.85	4.96
	-1 m	*20.16	*20.16	*26.50	20.26	13.44	10.34	8.53	6.69			7.10	5.60	4.53
	-2 m			*24.20	20.67	13.70	10.56					9.84	7.72	3.71

ZAXIS50 SHORT ARM, DOZER BLADE ON GROUND

Unit: kN

Conditions	Load point height	Load radius										At max. reach		
		1 m		2 m		3 m		4 m		5 m		meter		
Arm 1.50 m	4 m							*9.15	7.49			*7.60	7.33	4.05
Bucket 0.16 m ³	3 m					*11.44	*11.44	*10.46	7.52			*6.94	5.58	4.71
Rubber shoes 400 mm	2 m					*16.26	11.48	*12.12	7.27	*8.75	4.94	*6.97	4.87	5.04
	1 m					*21.16	10.71	*14.01	6.94	*10.90	4.84	*7.51	4.66	5.12
	0 m					*22.61	10.36	*14.93	6.73			*8.74	4.85	4.96
	-1 m	*20.16	*20.16	*26.50	20.26	*20.87	10.34	*13.95	6.69			*10.96	5.60	4.53
	-2 m			*24.20	20.67	*15.51	10.56					*10.43	7.71	3.71

ZAXIS50 LONG ARM, DOZER BLADE ABOVE GROUND

Unit: kN

Conditions	Load point height	Load radius										At max. reach		
		1 m		2 m		3 m		4 m		5 m		meter		
Arm 1.85 m	4 m							*8.66	7.63			*7.32	6.17	4.47
Bucket 0.16 m ³	3 m							*9.09	7.56	6.30	4.99	6.14	4.86	5.06
Rubber shoes 400 mm	2 m					*13.88	11.61	9.14	7.26	6.22	4.91	5.45	4.29	5.37
	1 m					13.85	10.68	8.73	6.86	6.05	4.76	5.23	4.09	5.44
	0 m					13.26	10.14	8.40	6.56	5.91	4.62	5.40	4.23	5.29
	-1 m	*16.11	*16.11	*22.92	19.60	13.11	10.01	8.29	6.45			6.11	4.78	4.89
	-2 m	*26.46	*26.46	28.07	19.98	13.28	10.15	8.42	6.58			7.94	6.22	4.17
	-3 m			*12.55	*12.55							*7.84	*7.84	2.77

ZAXIS50 LONG ARM, DOZER BLADE ON GROUND

Unit: kN

Conditions	Load point height	Load radius										At max. reach		
		1 m		2 m		3 m		4 m		5 m		meter		
Arm 1.85 m	4 m							*8.66	7.63			*7.32	6.17	4.47
Bucket 0.16 m ³	3 m							*9.09	7.56	*8.39	4.99	*6.81	4.86	5.06
Rubber shoes 400 mm	2 m					*13.88	11.61	*10.90	7.26	*9.56	4.91	*6.85	4.29	5.37
	1 m					*19.42	10.68	*13.09	6.86	*10.36	4.76	*7.32	4.09	5.44
	0 m					*22.14	10.14	*14.51	6.56	*10.75	4.62	*8.36	4.23	5.29
	-1 m	*16.11	*16.11	*22.92	19.60	*21.53	10.01	*14.32	6.45			*10.06	4.78	4.89
	-2 m	*26.46	*26.46	*29.14	19.99	*17.70	10.16	*11.19	6.58			*10.01	6.22	4.17
	-3 m			*12.55	*12.55							*7.84	*7.84	2.77

- 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 a hook (not standard equipment) located on the back of the bucket.
 4. An asterisk mark (*) indicates load limited by hydraulic capacity.
 5. 0 m = Ground.

Standard Equipment

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

ENGINE

- Water-separator for engine fuel system

HYDRAULIC SYSTEM

- Hydraulic pilot type control levers
- Pilot control shut-off levers
- Anti-drift valve for front attachments
- Two-speed travel system
- Swing parking brake
- Hydraulic piping for breaker

CANOPY (CABIN)

- One work lamp
 - Heater
 - Windshield wiper*
 - Windshield washer*
 - Windshield defroster*
 - Evacuation hammer*
 - Seat belt
 - Wrist rest
 - 12 V outlet
- Note: * For cabin version

UNDERCARRIAGE

- 400 mm rubber shoes
- Semi-long stay blade

FRONT ATTACHMENTS

- 2.88 m boom
- 1.50 m arm
- 0.16 m³ hoe bucket
- O-ring type pin-seals for hoe bucket
- HN bushing

Optional Equipment

Optional equipment may vary by country, so please consult your Hitachi dealer for details.

CANOPY (CABIN)

- One work lamp

UNDERCARRIAGE

- 400 mm grouser shoes
- 550 mm grouser shoes

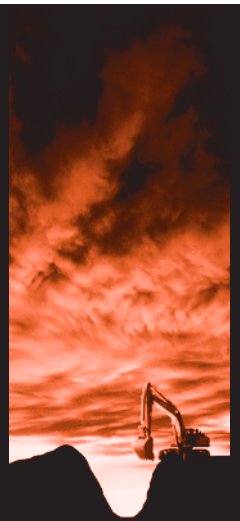
FRONT ATTACHMENTS

- 1.85 m arm
- Backhoe buckets

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