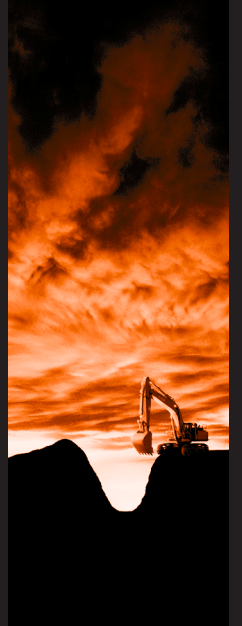
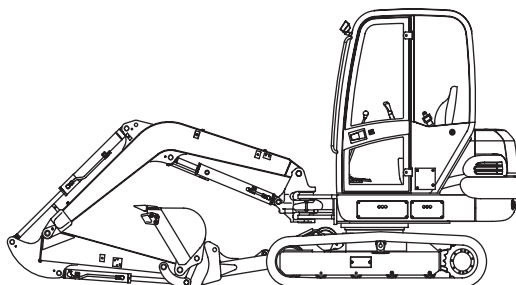


# HITACHI ZAXIS30

engine rated power  
**19.9 kW / 27.1 HP**

operating weight  
**2 880 kg (canopy)**  
**2 960 kg (cabin)**

bucket capacity  
**0.055 - 0.11 m<sup>3</sup>**



# HITACHI

## Engine

Model	Kubota V1505
Type	Water-cooled, 4-cycle, 4-cylinder swirl chamber type diesel engine
Rated flywheel power	19.9 kW (27.1 PS)
ISO 3046	at 2 300 min <sup>-1</sup> (rpm)
Rated flywheel power	19.9 kW (26.7 HP)
SAE J1349, net	at 2 300 min <sup>-1</sup> (rpm)
Maximum torque	86.2 Nm (8.8 kgf/m)
	at 1 800 min <sup>-1</sup> (rpm)
Piston displacement	1.498 l
Bore and stroke	78 mm x 78.4 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 39.1 l/min
Third pump	One gear pump
Maximum oil flow	1 x 24.2 l/min
Pilot pump	One gear pump
Maximum oil flow	1 x 10.4 l/min

### RELIEF VALVE SETTINGS

Implement circuit	20.6 MPa (210 kgf/cm <sup>2</sup> )
Swing circuit	16.7 MPa (170 kgf/cm <sup>2</sup> )
Travel circuit	20.6 MPa (210 kgf/cm <sup>2</sup> )
Pilot circuit	3.9 MPa (40 kgf/cm <sup>2</sup> )

### 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	80 mm	45 mm	558 mm
Arm	1	75 mm	40 mm	560 mm
Bucket	1	65 mm	40 mm	440 mm
Boom swing	1	85 mm	45 mm	535 mm
Blade	1	90 mm	45 mm	130 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 . . . . . 8.8 min<sup>-1</sup> (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 - 4.3 km/h
	Low: 0 - 2.9 km/h
Travel speeds (grouser shoes)	High: 0 - 4.3 km/h
	Low: 0 - 2.9 km/h
Gradeability	30 degrees (58%) continuous

## Weights and ground pressure

Equipped with 1.27 m arm and 0.09 m<sup>3</sup> (ISO 7451) bucket.

	Operating weight	Ground pressure
<b>4-Pillar canopy version</b>		
300 mm rubber shoes	2 880 kg	26 kPa (0.27 kgf/cm <sup>2</sup> )
300 mm grouser shoes	2 950 kg	27 kPa (0.28 kgf/cm <sup>2</sup> )
<b>Cabin version</b>		
300 mm rubber shoes	2 960 kg	27 kPa (0.28 kgf/cm <sup>2</sup> )
300 mm grouser shoes	3 030 kg	28 kPa (0.29 kgf/cm <sup>2</sup> )

## Front-end attachments

### BACKHOE BUCKETS

ISO 7451 capacity	Width		No. of teeth	Weight	Use	
	Without side cutters	With side cutters			1.27 m Short arm	1.57 m Long arm
0.055 m <sup>3</sup>	300 mm	350 mm	3	61 kg	A	A
0.065 m <sup>3</sup>	350 mm	400 mm	3	64 kg	A	A
0.08 m <sup>3</sup>	400 mm	450 mm	3	67 kg	A	A
0.09 m <sup>3</sup>	450 mm	500 mm	4	71 kg	A	B
0.10 m <sup>3</sup>	500 mm	550 mm	4	74 kg	B	C
0.11 m <sup>3</sup>	550 mm	600 mm	4	78 kg	C	C
Arm crowd force					16.1 kN (1 640 kgf)	14.1 kN (1 440 kgf)
Bucket digging force					22.4 kN (2 290 kgf)	

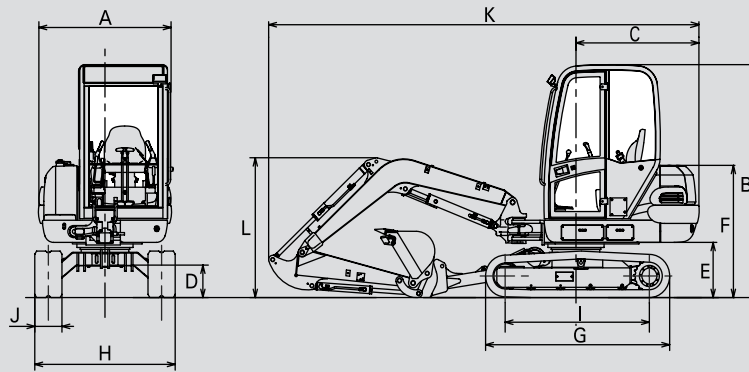
A: General digging    B: Light-duty digging    C: Loading

Boom swing angle. . . . . Left 80°, Right 50°

## Dimensions

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

They conform to TOPS (ISO 12117) and FOPS (ISO 10262, Level 1) requirements.



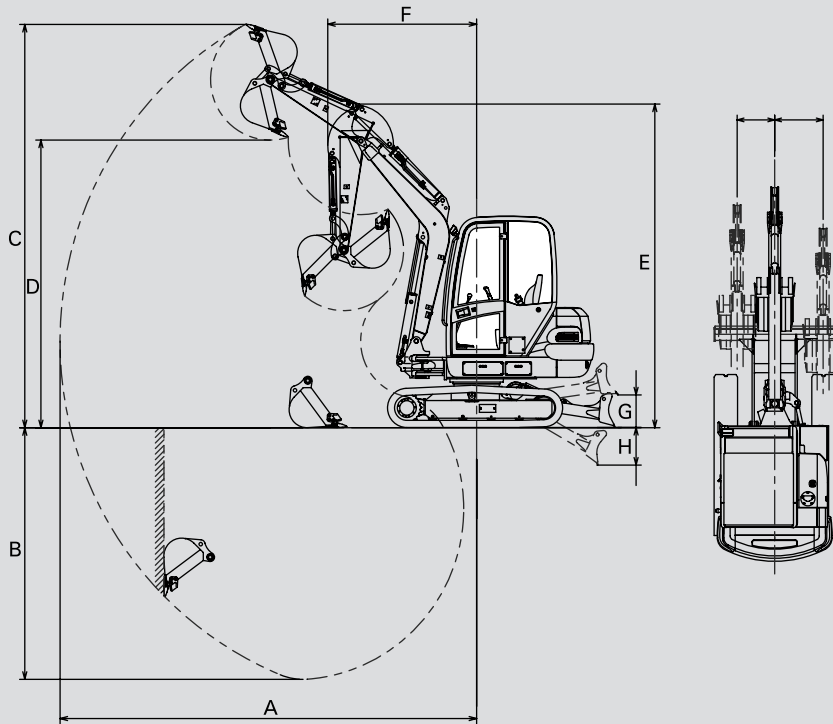
**Notes:**

1. The illustration shows the cabin version equipped with 300 mm rubber shoes.
2. Values are identical for cabin and canopy versions.

Unit: mm

	<b>ZAXIS30</b>
A Overall width	1 470
B Canopy / Cabin height	2 420
C Rear-end swing radius	1 370
D Minimum ground clearance	330
E Counterweight clearance	575
F Engine cover height	1 370
G Undercarriage length	2 030
H Undercarriage width	1 550
I Sprocket centre to idler centre	1 600
J Track shoe width	300
K Maximum transport length	4 760
L Overall height of boom	1 450

## Working ranges



**Notes:**

1. The illustration shows the cabin version equipped with 0.09 m<sup>3</sup> bucket, 1.27 m arm and 300 mm rubber shoes.
2. Values are identical for cabin and canopy versions.

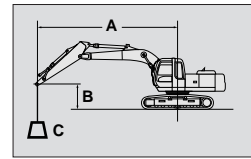
Unit: mm

	ZAXIS30	
	Canopy & Cabin	
	1.27 m arm	1.57 m arm
A Maximum digging reach	4 840	5 100
B Maximum digging depth	2 890	3 190
C Maximum cutting height	4 620	4 770
D Maximum dumping height	3 300	3 440
E Transport height	2 420	2 420
F Minimum swing radius	1 730	1 800
G Blade bottom highest position (above ground level)	380	380
H Blade bottom lowest position (below ground level)	430	430
Maximum boom-swing angle	L80° / R50°	L80° / R50°
Offset distance	L480 / R620	L480 / R620

# LIFTING CAPACITIES

## Metric measure

(Equipped with cabin)



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

### ZAXIS30 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		meter		
Arm 1.27 m	3 m					*5.34	*5.34			5.19	4.74	4.11
Bucket 0.09 m <sup>3</sup>	2 m					*6.36	*6.36	5.31	4.82	4.42	4.04	4.53
Rubber shoes 300 mm	1 m					7.72	6.92	5.16	4.69	4.21	3.83	4.62
	0 m					7.39	6.61	5.02	4.56	4.40	4.01	4.42
	-1 m	*13.33	*13.33	13.65	11.77	7.32	6.54			5.29	4.79	3.85
	-2 m			*10.77	*10.77	*7.27	6.68					

### ZAXIS30 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		meter		
Arm 1.27 m	3 m					*5.34	*5.34			*5.59	4.74	4.11
Bucket 0.09 m <sup>3</sup>	2 m					*6.36	*6.36	*5.98	4.82	*5.83	4.04	4.53
Rubber shoes 300 mm	1 m					*8.84	6.92	*6.69	4.69	*6.09	3.83	4.62
	0 m					*10.51	6.61	*7.30	4.56	*6.37	4.01	4.42
	-1 m	*13.33	*13.33	*14.36	11.77	*10.17	6.54			*6.51	4.79	3.85
	-2 m			*10.77	*10.77	*7.27	6.68					

### ZAXIS30 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		meter		
Arm 1.57 m	3 m									4.74	4.33	4.41
Bucket 0.09 m <sup>3</sup>	2 m					*5.42	*5.42	5.39	4.91	4.12	3.78	4.80
Rubber shoes 300 mm	1 m					7.86	7.06	5.23	4.76	3.93	3.60	4.89
	0 m			*11.87	11.69	7.46	6.68	5.06	4.60	4.08	3.73	4.70
	-1 m	*11.77	*11.77	13.56	11.69	7.32	6.54	4.98	4.52	4.74	4.31	4.18
	-2 m			*13.15	11.88	7.38	6.61					

### ZAXIS30 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		meter		
Arm 1.57 m	3 m									*5.12	4.33	4.41
Bucket 0.09 m <sup>3</sup>	2 m					*5.42	*5.42	*5.43	4.91	*5.37	3.78	4.80
Rubber shoes 300 mm	1 m					*8.02	7.06	*6.31	4.76	*5.66	3.60	4.89
	0 m			*11.87	11.69	*10.21	6.68	*7.15	4.60	*5.97	3.73	4.70
	-1 m	*11.77	*11.77	*15.22	11.69	*10.49	6.54	*7.19	4.52	*6.25	4.31	4.18
	-2 m			*13.15	11.88	*8.57	6.61					

- Notes:
1. Rating 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

- 300 mm rubber shoes
- Semi-long stay blade

### FRONT ATTACHMENTS

- 2.38 m boom
- 1.27 m arm
- 0.09 m<sup>3</sup> 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

- 300 mm grouser shoes
- 400 mm grouser shoes

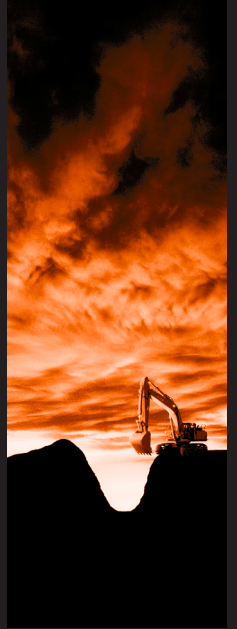
### FRONT ATTACHMENTS

- 1.57 m arm
- Backhoe buckets

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