

# HITACHI ZAXIS50U

## ENGINE

Model	Yanmar 4TNV88
Type	Water-cooled, 4-cycle, 4-cylinder direct injection type diesel engine
Rated power	
SAE J1349	29.8 kW (39.9 HP) at 2 500 min <sup>-1</sup> (rpm)
DIN 6271	29.5 kW (40.1 PS) at 2 500 min <sup>-1</sup> (rpm)
JIS D1005	29.8 kW (40.7 PS) at 2 500 min <sup>-1</sup> (rpm)
Maximum Torque	138 N.m (14 kgf.m) at 1 500 min <sup>-1</sup> (rpm)
Bore & Stroke	88 x 90 mm
Piston displacement	2 189 L
Battery	1 x 12 V, 55 Ah

## HYDRAULIC SYSTEM

The ZAXIS40U<sub>2</sub> and 50U<sub>2</sub> are equipped with the Hitachi High-performance Hydraulic system (HHH) for job efficiency.

Main pumps	One variable displacement axial piston pumps
Maximum oil flow	125 L/min
Pilot pump	One gear pump
Maximum oil flow	12.5 L/min

### RELIEF VALVE SETTINGS

Implement circuit	24.5 MPa
Pilot circuit	4.1 MPa

### HYDRAULIC CYLINDERS

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

### DIMENSIONS

	Quantity	Bore	Rod diameter	Stroke
Boom canopy	1	85 mm	55 mm	702 mm
Boom cabin	1	85 mm	55 mm	691 mm
Arm	1	80 mm	50 mm	731 mm
Bucket	1	75 mm	45 mm	551 mm
Boom swing	1	80 mm	50 mm	664 mm
Blade	1	105 mm	50 mm	140 mm

Figures in   are data on the ZAXIS40U<sub>2</sub>.  
Figures in   are data on the ZAXIS50U<sub>2</sub>.

## 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<sup>-1</sup> (9.3 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

### TRAVEL DEVICE

Each track driven by a high-torque, 2-speed axial piston motor through planetary reduction gear, allowing counter-rotation of the tracks. Travel shockless relief valve built in travel motor absorbs shocks when stopping travel, ensuring smooth stops.

Travel speeds (rubber shoes)	High: 0 - 4.5 km/h
	Low: 0 - 2.8 km/h
Travel speeds (grouser shoes)	High: 0 - 4.2 km/h
	Low: 0 - 2.6 km/h
Gradeability	30 degrees (58%) continuous

## WEIGHTS AND GROUND PRESSURE

Equipped with 1.38 m arm and, ZAXIS40U<sub>2</sub>: 0.14 m<sup>3</sup> (ISO 7451 capacity) bucket, ZAXIS50U<sub>2</sub>: 0.16 m<sup>3</sup> (ISO 7451 capacity) bucket.

	ZAXIS50U <sub>2</sub>	
	Operating weight	Ground pressure
<b>Canopy version</b>		
400 mm rubber shoes	4 730 kg	30 kPa
400 mm grouser shoes	4 800 kg	30 kPa
<b>Cabin version</b>		
400 mm rubber shoes	4 880 kg	31 kPa
400 mm grouser shoes	4 950 kg	31 kPa



## SERVICE REFILL CAPACITIES

liters	
Fuel tank	70.0
Engine coolant	6.6
Engine oil	8.6
Travel device (each side)	0.9
Hydraulic system	90.0
Hydraulic oil tank (Reference oil level)	59.0

## ZAXIS50U<sub>2</sub> CANOPY VERSION, BLADE ABOVE GROUND

Unit: 1 000 kg

	Load point height	Load radius								At max. reach		
		2 m		3 m		4 m		5 m		meter		
Arm	1.38 m	3 m				0.80	*0.94			0.47	*0.54	5.42
Rubber shoes	400 mm	2 m		1.22	1.47	0.77	0.91	0.52	0.62	0.42	0.50	5.69
Bucket	0.16 m <sup>3</sup>	1 m				0.72	0.87	0.51	0.61	0.41	0.49	5.71
		0 m		1.07	1.31	0.70	0.84	0.49	0.59	0.45	0.52	5.48
		-1 m	*2.05	*2.05	1.07	1.31	0.69	0.83			0.51	0.61
Arm	1.38 m	3 m				0.89	*0.94			0.53	*0.54	5.42
Rubber shoes	400 mm	2 m		1.36	*1.53	0.89	1.06	0.59	0.70	0.40	*0.54	5.69
Bucket	0.16 m <sup>3</sup>	1 m				0.82	0.97	0.58	0.68	0.47	0.58	5.71
Extra counterweight	220 kg	0 m		1.21	1.47	0.79	0.94	0.56	0.67	0.49	0.59	5.48
		-1 m	*2.05	*2.05	1.21	1.47	0.78	0.93		0.58	0.69	4.84

## ZAXIS50U<sub>2</sub> CANOPY VERSION, BLADE ON GROUND

Unit: 1 000 kg

	Load point height	Load radius								At max. reach		
		2 m		3 m		4 m		5 m		meter		
Arm	1.38 m	3 m				0.80	*0.94			0.47	*0.54	5.42
Rubber shoes	400 mm	2 m		1.22	*1.53	0.77	*1.15	0.52	*1.01	0.42	*0.54	5.69
Bucket	0.16 m <sup>3</sup>	1 m				0.72	*1.42	0.51	*1.10	0.41	*0.58	5.71
		0 m		1.07	*2.48	0.70	*1.68	0.49	*1.16	0.45	*0.68	5.48
		-1 m	*2.05	*2.05	1.07	*2.25	0.69	*1.54			0.51	*0.82
Arm	1.38 m	3 m				0.89	*0.94			0.53	*0.54	5.42
Rubber shoes	400 mm	2 m		1.36	*1.53	0.89	*1.15	0.59	*1.01	0.48	*0.54	5.69
Bucket	0.16 m <sup>3</sup>	1 m				0.82	*1.42	0.58	*1.10	0.47	*0.58	5.71
Extra counterweight	220 kg	0 m		1.21	*2.45	0.79	*1.58	0.56	*1.16	0.49	*0.68	5.48
		-1 m	*2.05	*2.05	1.21	*2.45	0.79	*1.54		0.58	*0.82	4.84

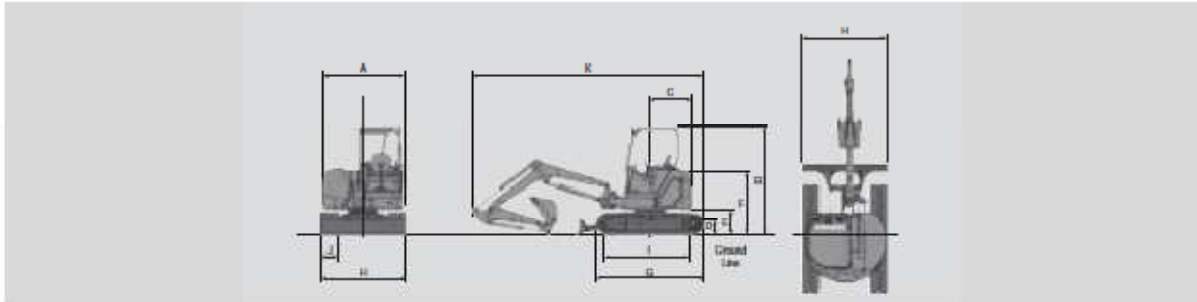
- Notes:
- Rating are based on GAE J1007.
  - Lifting capacity does not exceed 75% of tipping load with the machine on firm, level ground or 87% full hydraulic capacity.
  - The load point is a hook (not standard equipment) located on the back of the bucket.
  - An asterisk mark (\*) indicates load limited by hydraulic capacity.

## WINNER PLANT

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# HITACHI ZAXIS50U

## DIMENSIONS

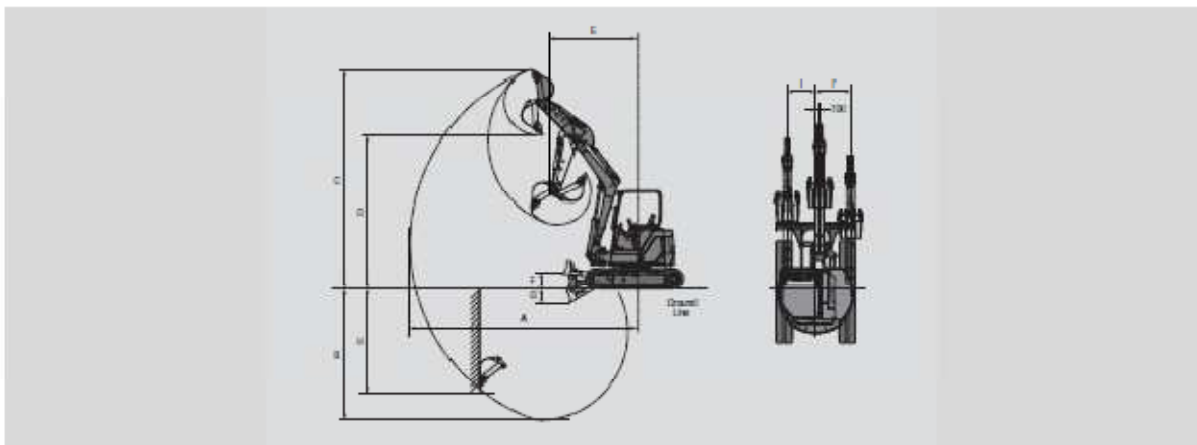


Note:  
The illustration shows the ZAXIS50U canopy version equipped with 1.38 m arm and 400 mm rubber shoes.  
The canopy and cabin conform to ROPS (ISO 3471) and FOPS (ISO 10262, Level 1) requirements.

	ZAXIS50U	
	Canopy	Cabin
A Overall width	2 000	
B Overall height	2 510	2 550
C Rear-end swing radius (With extra counterweight)	1 000 (1 080)	
D Minimum ground clearance	335	
E Counterweight clearance	805	
F Engine cover height	1 510	
G Undercarriage length	2 540	
H Undercarriage width	2 000	
I Sprocket centre to idler centre	2 000	
J Track shoe width	400	
K Maximum transport length (With long arm)	5 480 (5 520)	

Unit: mm

## WORKING RANGES



Note:  
The illustration shows the ZAXIS50U canopy version equipped with 0.14 m<sup>3</sup> bucket, 1.38 m arm and 400 mm rubber shoes.

	ZAXIS50U	
	Canopy	Cabin
A Maximum digging reach	6 000 (6 250)	
B Maximum digging depth	3 600 (3 860)	
C Maximum cutting height	5 770 (6 020)	5 640 (5 870)
D Maximum dumping height	4 100 (4 330)	4 000 (4 200)
E Minimum swing radius (At maximum boom swing)	2 150 (1 680)	2 300 (1 790)
F Blade bottom highest position (above ground)	[2 260 (1 760)]	
G Blade bottom lowest position (under ground)	[2 340 (1 820)]	
H Maximum vertical wall	425	
I / I' Offset distance (Maximum boom-swing angle)	335	
	2 820 (3 160)	
	L 695 (80°) / R 860 (60°)	

Unit: mm

The figure in [ ] shows the equipped with long arm.

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