HITACHI

Mini-Excavator
ZAXIS50U
Specifications

Rated Engine Power
DIN 6271, net 29.3 kW (39.8 PS)
SAE J1349, net 29.9 kW (40.1 hp)

Operating Weight	(Rubber shoes)	(Grouser shoes)
2-pillar canopy version	4 670 kg	4 810 kg
4-pillar canopy version	4 730 kg	4 870 kg
Cab version	4 790 kg	4 930 kg

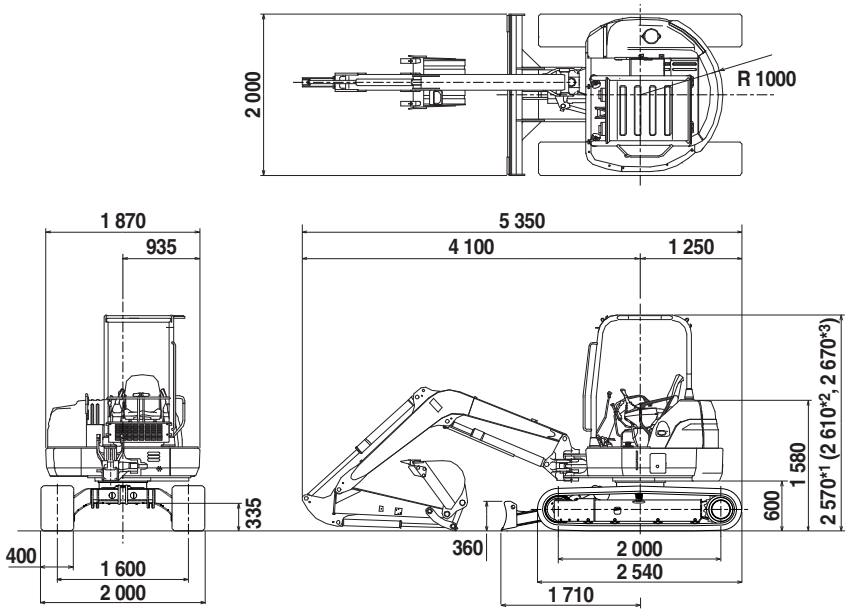
Backhoe Buckets
ISO 7451 0.10 – 0.17 m³

The 2- or 4-pillar canopy, or cab can be mounted on the upper-structure according to job needs and applicable regulations. The 4-pillar canopy and cab conform to TOPS (ISO 12117) and FOPS (ISO 10262, Level 1)* requirements.

** Cab requires optional top guard.*

■ DIMENSIONS

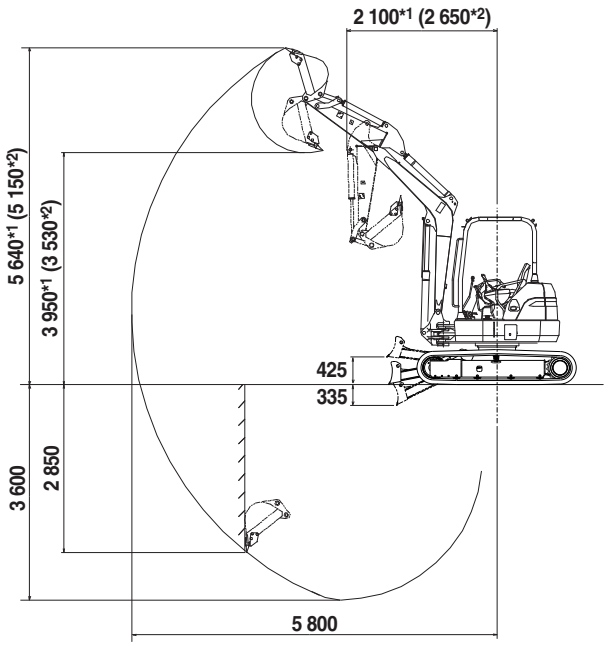
Unit : mm

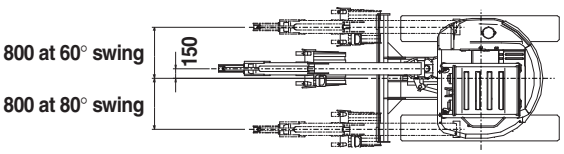


Notes:
1. The illustration at the left shows 4-pillar canopy version equipped with 400 mm rubber shoes.
2. Values are common to all versions except those marked with an asterisk (*).
   *1: 2-Pillar canopy
   *2: 4-Pillar canopy
   *3: Cab

■ WORKING RANGES

Unit : mm





Notes:
1. The illustration at the left shows 4-pillar canopy version equipped with 0.16 m³ bucket, 1.34 m arm and 400 mm rubber shoes.
2. Values are common to all versions except those marked with an asterisk (*).
   *1: 2-Pillar canopy
   *2: 4-Pillar canopy and cab

ENGINE

Model..... Isuzu CC-4LE2
Type..... Water-cooled, 4-cycle, 4-cylinder direct injection type diesel engine
Rated power..... 29.3 kW (39.8 PS)
DIN 6271, net at 2 200 min^{-1} (rpm)
Rated power..... 29.9 kW (40.1 hp)
SAE J1349, net at 2 200 min^{-1} (rpm)
Maximum torque..... 145 N·m (14.8 kgf·m) at 1 600 min^{-1} (rpm)
Piston displacement..... 2.179 L
Bore and stroke..... 85 mm x 96 mm
Battery.....1 x 12 V, 52 Ah

HYDRAULIC SYSTEM

The HHH system for job efficiency and smooth combined operations.

Main pumps..... One variable displacement axial piston pumps
Maximum oil flow.....110 L/min
Pilot pump..... One gear pump
Maximum oil flow.....11.0 L/min

Relief Valve Settings

Implement circuit.....24.5 MPa (250 kgf/cm^2)
Swing circuit..... 19.6 MPa (200 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 roll-in and roll-out circuits to absorb shocks at stroke ends.

Dimensions

	No.	Bore	Rod dia.	Stroke
Boom.....	1	95 mm	55 mm	707 mm (696 mm)
Arm.....	1	80 mm	50 mm	738 mm
Bucket.....	1	75 mm	45 mm	551 mm
Boom swing...	1	80 mm	50 mm	575 mm
Blade.....	1	105 mm	50 mm	140 mm

Note: The figure in ( ) shows the stroke for 4-pillar canopy version and cab version.

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..... 9.0 min^{-1} (9.0 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 shockless relief valve built in travel motor absorbs shocks when stopping travel, ensuring smooth stops.

Travel speeds (rubber shoes)..... High : 0 - 4.4 km/h
Low : 0 - 2.2 km/h
Travel speeds (grouser shoes)..... High : 0 - 4.1 km/h
Low : 0 - 2.0 km/h
Gradeability.....30 degrees (58%) continuous

WEIGHTS AND GROUND PRESSURE

Equipped with 2.80 m boom, 1.34 m arm and 0.16 m^3 (PCSA heaped) bucket

	Operating weight	Ground pressure
2-Pillar canopy version		
400 mm rubber shoes....	4 670 kg	26 kPa (0.27 kgf/cm^2)
400 mm grouser shoes..	4 810 kg	27 kPa (0.28 kgf/cm^2)
4-Pillar canopy version		
400 mm rubber shoes....	4 730 kg	27 kPa (0.27 kgf/cm^2)
400 mm grouser shoes..	4 870 kg	28 kPa (0.28 kgf/cm^2)
Cab version		
400 mm rubber shoes....	4 790 kg	27 kPa (0.27 kgf/cm^2)
400 mm grouser shoes..	4 930 kg	28 kPa (0.29 kgf/cm^2)

FRONT-END ATTACHMENTS

Backhoe Buckets

ISO 7451 capacity	Width		No. of teeth	Weight	Use	
	Without side cutters	With side cutters			1.34 m Std. arm	1.69 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					24.5 kN (2 500 kgf)	21.1 kN (2 150 kgf)
Bucket digging force					37.3 kN (3 800 kgf)	

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

Boom swing angle.....Left 60°, Right 80°

STANDARD EQUIPMENT

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

Operator's Room
- Two work lights
- Heater*2
- Windshield wiper*2
- Evacuation hammer*2
- Seat belt*1
- Utility box

Notes: *1 : For 4-pillar canopy and cab versions
*2 : For cab versions

Undercarriage
- 400 mm rubber shoes
- Semi-long stay blade

Front Attachments
- 2.8 m boom
- 1.34 m arm
- 0.16 m^3 hoe bucket
- Bucket clearance adjusting device
- O-ring type pin-seals for hoe bucket
- HN bushing

OPTIONAL EQUIPMENT

Engine
- Auto-idling system

Hydraulic System
- Hydraulic P.T.O. port
- Hydraulic piping for breaker
- Travel parking brake
- Swing motion alarm device with lamp
- Travel motion alarm device

Operator's Room
- Heater*2
- Air cooler*3
- Seat belt*1
- Windshield washer*3
- Wrist rest
- 12V outlet
- Air cleaner inner element
- FOPS top guard*3
- 2-way control lever pattern selector valve (Excavator/Backhoe loader)

Notes: *1 : For 2-pillar canopy version
*2 : For 2- and 4-pillar canopy versions
*3 : For cab version

Undercarriage
- 400 mm grouser shoes
- 400 mm triangle shoes
- 550 mm grouser shoes
- 400 mm pad crawler shoes
- Long stay blade

Front Attachments
- 1.69 m arm
- Backhoe buckets; see page 2.

■ LIFTING CAPACITIES

(Equipped with 2-pillar canopy)

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

With dozer blade above ground

Rating over-side or 360 degrees Rating over-front

Unit: t

Conditions	Load Point Height	Load Radius 3 m		4 m		5 m		Maximum Reach		
										meter
Arm: 1.34 m Bucket: 0.16 m^3 ISO 7451 Rubber shoes: 400 mm	3 m			0.77	*0.94			*0.47	*0.47	5.25
	2 m	1.19	*1.39	0.74	0.91	0.50	0.62	0.43	*0.48	5.54
	1 m	1.09	1.36	0.70	0.87	0.49	0.60	0.41	*0.51	5.57
	Ground	1.04	1.32	0.68	0.84	0.48	0.59	0.44	0.54	5.34
	– 1 m	1.04	1.32	0.67	0.83			0.52	0.64	4.81

With dozer blade on ground

Unit: t

Conditions	Load Point Height	Load Radius 3 m		4 m		5 m		Maximum Reach		
										meter
Arm: 1.34 m Bucket: 0.16 m^3 ISO 7451 Rubber shoes: 400 mm	3 m			0.77	*0.94			*0.47	*0.47	5.25
	2 m	1.19	*1.39	0.74	*1.10	0.50	*0.85	0.43	*0.48	5.54
	1 m	1.09	*2.15	0.70	*1.37	0.49	*1.10	0.41	*0.51	5.57
	Ground	1.04	*2.41	0.68	*1.55	0.48	*1.16	0.44	*0.58	5.34
	– 1 m	1.04	*2.29	0.67	*1.55			0.52	*0.72	4.81

Notes: 1. Rating are based on SAE J1097.
2. Lifting capacity of the ZAXIS Series 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. *Load limited by hydraulic capacity.

The Specifications include data that are not applicable to certain areas.
Optional equipment may vary with territory specifications.
Specifications are subject to change without notice.

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