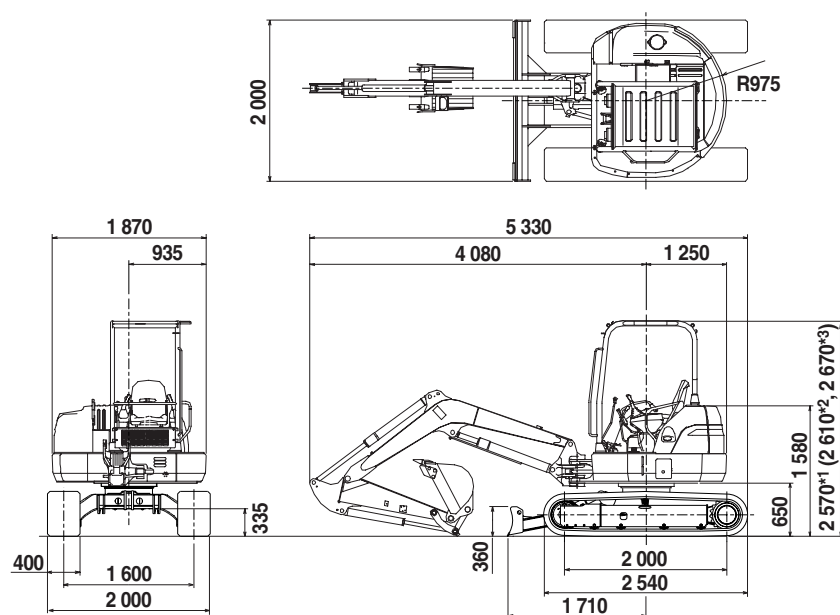


ISO 7451 0.10 – 0.17 m³

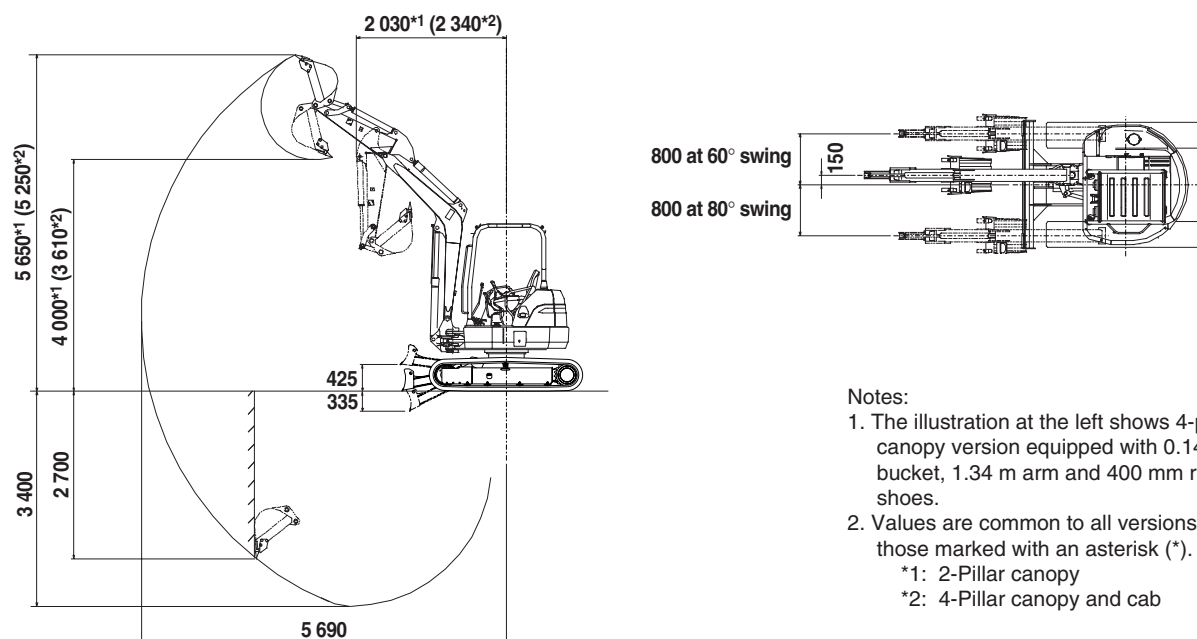
* Cab requires optional top guard.

Unit : mm



*3: Cab

Unit : mm



*2: 4-Pillar canopy and cab

**ENGINE**

Model.....	Isuzu CC4LE2
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 pump.....	One variable displacement axial piston pump
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	90 mm	55 mm	707 mm (696 mm)
Arm.....	1	80 mm	50 mm	702 mm
Bucket.....	1	70 mm	40 mm	551 mm
Boom swing....	1	100 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)
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**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. Parking brake is spring-set / hydraulic-released disc type.

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

Equipped with 2.73 m boom, 1.34 m arm and 0.14 m³ (PCSA heaped) bucket

	Operating weight	Ground pressure
2-Pillar canopy version		
400 mm rubber shoes....	4 210 kg	24 kPa (0.24 kgf/cm ²)
400 mm grouser shoes..	4 350 kg	25 kPa (0.25 kgf/cm ²)
4-Pillar canopy version		
400 mm rubber shoes....	4 270 kg	24 kPa (0.24 kgf/cm ²)
400 mm grouser shoes..	4 410 kg	25 kPa (0.26 kgf/cm ²)
Cab version		
400 mm rubber shoes....	4 330 kg	24 kPa (0.25 kgf/cm ²)
400 mm grouser shoes..	4 470 kg	25 kPa (0.26 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	B
0.14 m ³	555 mm	600 mm	4	108 kg	A	C
0.16 m ³	605 mm	650 mm	4	114 kg	C	C
0.17 m ³	655 mm	700 mm	4	117 kg	C	C

Arm crowd force

23.1 kN (2 360 kgf) 20.1 kN (2 050 kgf)

Bucket digging force

32.2 kN (3 280 kgf)

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

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

- 2.73 m boom
- 1.34 m arm
- 0.14 m³ 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

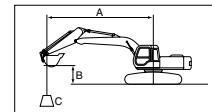
- 400 mm grouser shoes
- 400 mm triangle shoes
- 550 mm grouser shoes
- 400 mm pad crawler shoes
- Long stay blade

Front Attachments

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

Counterweight

- Weight-added counterweight (270 kg added)



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



Rating over-side or 360 degrees



Rating over-front

Unit: 1 000 kg

With dozer blade above ground

Conditions	Load Point Height	Load Radius						Maximum Reach		
		3 m		4 m		5 m				meter
Arm: 1.34 m Bucket: 0.14 m ³ ISO 7451 Rubber shoes: 400 mm	3 m	*0.96	*0.96	0.65	0.79			0.41	0.51	5.12
	2 m	1.01	1.26	0.62	0.77			0.36	0.45	5.42
	1 m	0.91	1.16	0.59	0.73	0.40	0.50	0.35	0.44	5.45
	Ground	0.87	1.11	0.56	0.70	0.39	0.49	0.37	0.46	5.22
	– 1 m	0.87	1.11	0.55	0.69			0.45	0.56	4.66

With dozer blade on ground

Conditions	Load Point Height	Load Radius						Maximum Reach		
		3 m		4 m		5 m				meter
Arm: 1.34 m Bucket: 0.14 m ³ ISO 7451 Rubber shoes: 400 mm	3 m	*0.96	*0.96	0.65	*0.96			0.41	*0.68	5.12
	2 m	1.01	*1.39	0.62	*1.08			0.36	*0.69	5.42
	1 m	0.91	*1.99	0.59	*1.28	0.40	*1.01	0.35	*0.75	5.45
	Ground	0.87	*2.13	0.56	*1.40	0.39	*1.01	0.37	*0.86	5.22
	– 1 m	0.87	*1.93	0.55	*1.32			0.45	*0.88	4.66

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.



Head office: 5-1 Koraku 2-chome, Bunkyo-ku
Tokyo 112-8563, Japan

Telephone: (03)3830-8050

Facsimile: (03)3830-8204

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.

KS-E417Q

Printed in Japan 03.09 (KA/KA, MT₃)