

E175C EVO HYDRAULIC EXCAVATOR



1. ENGINE TIER 3

Type	Water-cooled, 4-cycle diesel, 4-cylinder in line, High pressure common rail system (electric control), Turbocharger with air cooled intercooler,	
Model	ISUZU AI-4JJ1X	
Rated flywheel horse power (SAE J1349, ISO 9249)	89.2 kW	at 2200 min ⁻¹ (rpm)
(ISO 14396)	92.0 kW	at 2200 min ⁻¹ (rpm)
Piston displacement	2999 cc	
Maximum torque (SAE J1349, ISO 9249)	412 N-m	at 1800 min ⁻¹ (rpm)
(ISO 14396)	420 N-m	at 1800 min ⁻¹ (rpm)
Bore and stroke	95.4 mm X 104.9 mm	
Voltage	24 V	
Alternator	70 Amp	
Starter	24 V 4.0 kW	

2. HYDRAULIC SYSTEM

Main pumps	2 variable displacement axial piston pumps with regulating system	
• Max. oil flow	2 × 142 liter/min	at 2200 min ⁻¹
• Working circuit pressure	34.3 MPa	
• Boom/Arm/Bucket	36.3 MPa	with auto power up
• Swing circuit	27.9 MPa	
• Travel circuit	34.3 MPa	

Pilot pump	1 gear pump	
• Max. oil flow	22 liter/min	
• Working circuit pressure	3.9 MPa	
Control valves	With Boom/Arm holding valve	
	One 4-spool valve for Right track travel, Bucket, Boom and Arm acceleration	
	One 5-spool valve for Left track travel, Auxiliary, Swing, Boom acceleration and Arm	
Swing device	Fixed displacement axial piston motor	
• Motor	Mechanical disc brake	
• Brake	Planetary gear reduction	
• Final drive	Ball bearing type with internal gear	
• Turn table bearing	11.4 min ⁻¹	
• Maximum swing speed	45,100 N-m	
• Swing torque		
Cylinders	NO. of cylinders – bore X Rod diameter X Stroke	
• Boom	2 – Ø 115 mm X Ø 80 mm X 1179 mm	
• Arm	1 – Ø 125 mm X Ø 90 mm X 1280 mm	
• Bucket	1 – Ø 105 mm X Ø 75 mm X 985 mm	

3. HYDRAULIC CONTROLS

Boom/Arm/Bucket/Swing	Pilot pressure control system (ISO control pattern)
Travel	Pilot pressure control system
Work mode select	<ul style="list-style-type: none"> • SP - mode • H - mode • Auto - mode
Travel mode select (2-speed travel)	
Attachment cushion control	
Hydraulic lock (gate lock, left side tilt console)	

4. ELECTRICAL SYSTEM

Engine control

- Dial type throttle control
- One touch idle / Auto deceleration / Auto idle shutdown system
- Emergency stop

Monitor system

- Message display (Caution, condition, etc...)
- Work mode display (SP, H, Auto)
- Machine condition (Power boost, etc...)
- Alarm display and buzzer
- Water temperature
- Hydraulic oil temperature
- Fuel level
- Diagnosis system

Wire harness

Waterproof type connector

Safety

- Travel alarm
- Double horn
- Battery 2 X 12 V 72 Ah / 20 HR

Lights

- | | | |
|------------------|-------|---------------|
| • Working light | Upper | 24 V 70 W X 1 |
| | Boom | 24 V 70 W X 2 |
| | Cab | 24 V 70 W X 2 |
| • Operator's cab | Room | 24 V 10 W X 1 |

5. OPERATOR ENVIRONMENT

Operator's cab

- Smooth and round shape design cab, fabricated by press work
- Safety glass for all windows
- Shock-less cab suspension by 4-point fluid mounting
- Sliding front window with auto lock
- Built-in type full-color LCD monitor display
- Membrane switch on monitor display
- Windshield wiper & washer
- AM/FM Radio with auto-tuner
- Floor mat
- Polycarbonate roof hatch & Sun shade
- Auto air conditioner
- Roll-over protective structure (ROPS)
- Top guard OPG level 1 (in CAB structure)

Operator's seat

Low frequency mechanical suspension with helical springs and double acting hydraulic damper. (Achieves ISO7096 in category EM6)
With following features

- Manual weight adjustment
- Backrest angle adjustment
- Seat height adjustment
- Adjustable pivoting armrests linked to consoles
- Adjustable headrest
- Retractable seat belt
- Adjustable lumbar support
- Control consoles adjust independently of seat

Others

- Rear view mirror (Cab side & Right side)

6. UNDERCARRIAGE

Travel motor	Variable displacement axial piston motor
Brake	Mechanical disc brake
Hydraulic service brake	Brake valve
Final drive	Planetary gear reduction
Travel speeds	<ul style="list-style-type: none"> • High 5.2 km/h (Automatic travel speed shifting) • Low 2.7 km/h
Drawbar pull	161 KN
Number of carrier rollers	2 (each side)
Number of track rollers	7 (each side)
Number of shoes	44 (each side)
Type of shoe	Triple grouser shoe
Link pitch	190.0 mm
Width of shoe	600 mm (S.T.D)
Grade-ability	70% (35°)

7. MASS

Operating mass

17,200 kg with 2.62 m Arm , 0.62 m³ Sumitomo Bucket , 600 mm grouser shoe , operator, lubricant, coolant and full fuel tank

Counter weight mass

3,400 kg

Ground pressure

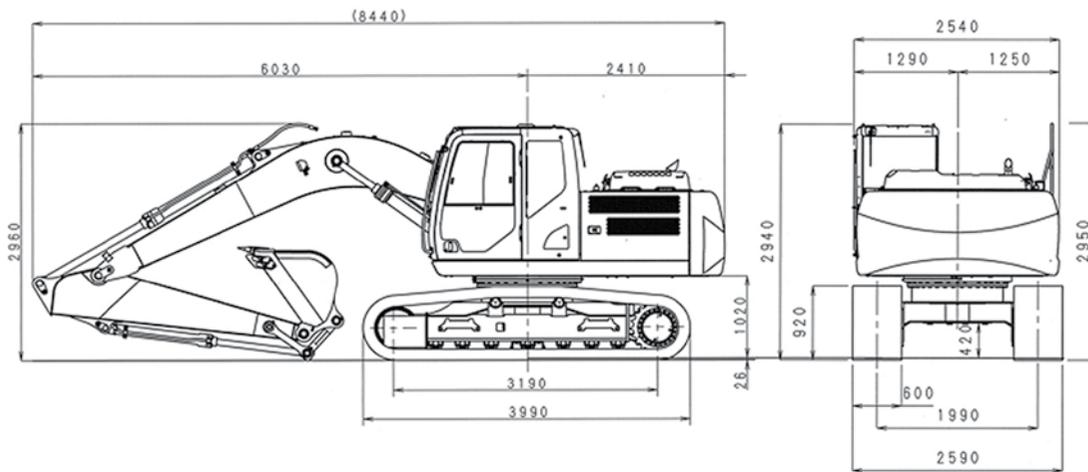
0.041 MPa (with 2.4 m Arm, 1.3m³ GP Wide Bucket, 600 mm grouser shoe)

8. DIGGING FORCE

(with 0.62 m ³ Sumitomo Bucket) (ISO 6015)	(2.62 m Arm)
Arm digging force	79 kN
With auto power up	84 kN
Bucket digging force	112 kN
With auto power up	118 kN

9. DIMENSIONS

Overall length (without attachment)	4410 mm	(2,62 m Arm)
Overall length (with attachment)	8440 mm	
Overall height (to top of boom)	2960 mm	
Cab height	2940 mm	
Upper structure overall width	2540 mm	
Swing (rear end) radius	1020 mm	
Clearance height under upper structure	1040 mm	
Minimum ground clearance	420 mm	
Wheel base (Center to center of wheels)	3190 mm	
Crawler overall length	3990 mm	
Track gauge	1990 mm	
Undercarriage overall width (with 600 mm shoes)	2590 mm	
Crawler tracks height	920 mm	

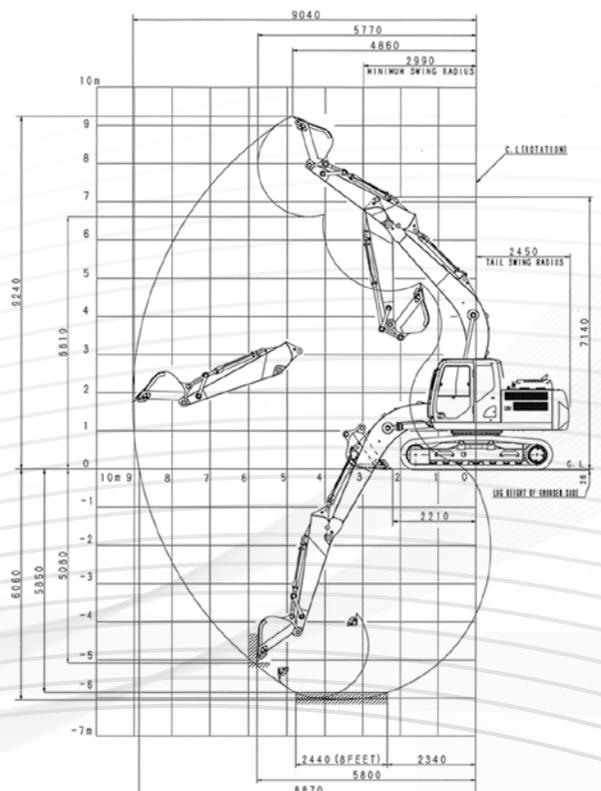


10. WORKING RANGES

Boom length	5150 mm	(2,62 m Arm)
Bucket radius	1350 mm	
Bucket wrist action	178°	
Maximum reach at GRP	8870 mm	
Maximum reach	9040 mm	
Max. digging depth	6060 mm	
Max. digging height	9240 mm	
Max. dumping height	6610 mm	

11. SYSTEM FLUID CAPACITIES AND SPECIFICATIONS

Capacities	Specifications	
Hydraulic system	165 liter	ISO VG 46
Hydraulic sump tank	90 liter	ISO VG 46
Fuel tank	300 liter	Light oil (Diesel)
Cooling system	16.2 liter	Coolant 55%, Water 45%
Final drive case (per side)	5.8 liter	API GL-4 90
Swing drive case	5.0 liter	API GL-5 90
Engine crank case (With Remote Oil Filter)	17.0 liter	API CD SAE 10W-40





E175^{EVO}C

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