

E505C EVO HYDRAULIC EXCAVATOR



1. ENGINE TIER 3

Type	Water-cooled, 4-cycle diesel, 6-cylinder in line, High pressure common rail system (electric control), Turbocharger with air cooled intercooler, Without cooling fan	
Model	ISUZU GH-6UZ1XKSS-0D	
Rated flywheel horse power (ISO 14396)	270 kW at 2000 min ⁻¹ (without fan-pump) 245 kW at 2000 min ⁻¹ (with fan-pump)	
Piston displacement	9839 cc	
Maximum torque (ISO 14396)	1363 N·m at 1500 min ⁻¹ (without fan-pump)	
Bore and stroke	120 mm X 145 mm	
Voltage	24 V	
Alternator	50 Amp	
Starter	24 V 5.5 kW	

2. HYDRAULIC SYSTEM

Main pumps	2 variable displacement axial piston pumps with regulating system	
• Max. oil flow	2 x 400 liter/min at 2000 min ⁻¹	
• Working circuit pressure	31.4 MPa	

• Boom/Arm/Bucket	34.3 MPa with auto power up
• Swing circuit	29.4 MPa
• Travel circuit	34.3 MPa

Pilot pump	1 gear pump
• Max. oil flow	30 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
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Swing device	Fixed displacement axial piston motor
• Motor	Fixed displacement axial piston motor
• Brake	Mechanical disc brake
• Final drive	Planetary gear reduction
• Turn table bearing	Ball bearing type with internal gear
• Maximum swing speed	9.0 min ⁻¹
• Swing torque	150,000 N·m

Cylinders	NO. of cylinders – bore X Rod diameter X Stroke
• Boom	2 – Ø 170 mm X Ø 115 mm X 1550 mm
• Arm	1 – Ø 200 mm X Ø 140 mm X 1820 mm
• Bucket	1 – Ø 165 mm X Ø 115 mm X 1335 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)	
Fan reverse rotation system	

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 128 Ah / 5 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
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- AM/FM Radio with auto-tuner
 - Floor mat
 - Polycarbonate roof hatch & Sun shade
 - Auto air conditioner
 - Top guard OPG level 1 (in CAB structure)
 - Roll-over protective structure (ROPS)

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 • Low 	5.3 km/h (Automatic travel speed shifting) 3.2 km/h
Drawbar pull	339 KN
Number of carrier rollers	2 (each side)
Number of track rollers	9 (each side)
Number of shoes	50 (each side)
Type of shoe	Triple grouser shoe
Link pitch	228.6 mm
Width of shoe	600 mm (S.T.D)
Grade-ability	70% (35°)

7. MASS

Operating mass

49,300 kg with 2.53 m Arm , 2.8 m³ Sumitomo Bucket , 600 mm grouser shoe , operator, lubricant, coolant and full fuel tank

Counter weight mass 10,000 kg

Ground pressure

0.084 MPa (with 2.53 m Arm, 2.8 m³ GP Wide Bucket, 600 mm grouser shoe)

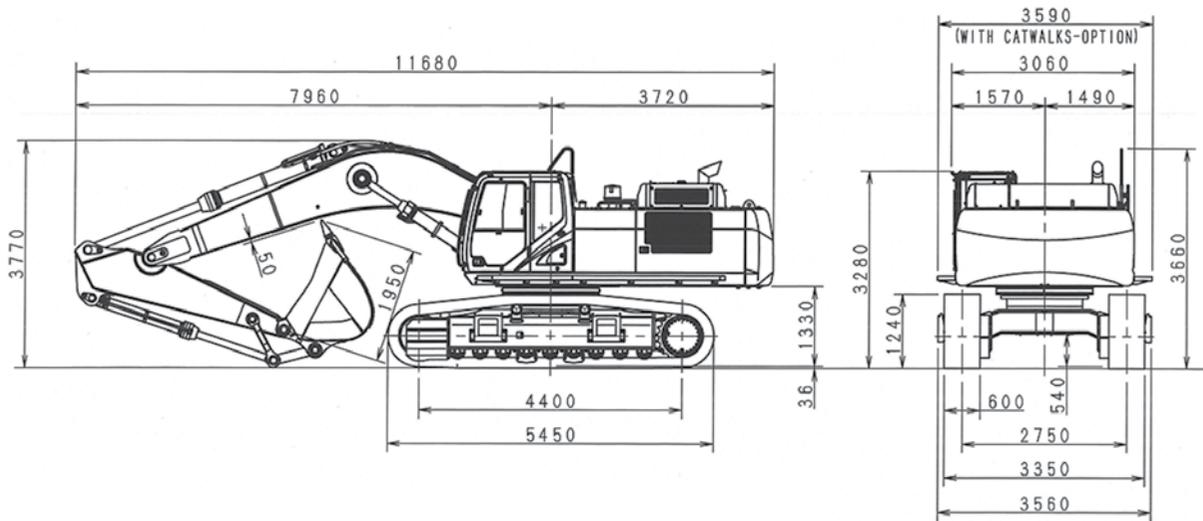
8. DIGGING FORCE

(with 2.8 m³ Sumitomo Bucket) (ISO 6015)

	(2.53 m Arm)
Arm digging force	251 kN
With auto power up	274 kN
Bucket digging force	274 kN
With auto power up	300 kN

9. DIMENSIONS

	(2.53 m HD Arm)
Overall length (without attachment)	6445 mm
Overall length (with attachment)	11680 mm
Overall height (with attachment)	3770 mm
Cab height	3280 mm
Upper structure overall width (without catwalks)	3060 mm
Upper structure overall width (with catwalks)	3590 mm
Swing (rear end) radius	3730 mm
Clearance height under upper structure	1330 mm
Minimum ground clearance	540 mm
Wheel base (Center to center of wheels)	4400 mm
Crawler overall length	5450 mm
Track gauge	2750 mm
Undercarriage overall width (with 600 mm shoes)	3350 mm
Crawler tracks height	1240 mm

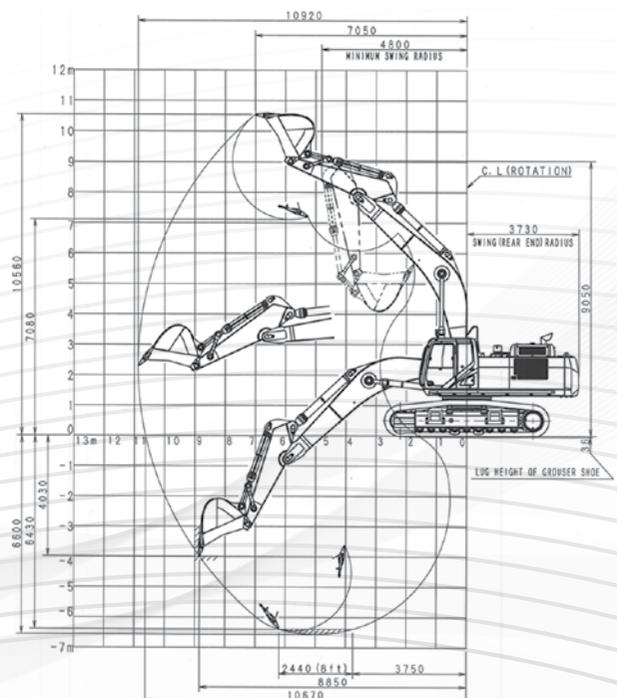


10. WORKING RANGES

	(2.53 m HD Arm)
Boom length	6550 mm
Bucket radius	1950 mm
Bucket wrist action	160°
Maximum reach at GRP	10670 mm
Maximum reach	10920 mm
Max. digging depth	6600 mm
Max. digging height	10560 mm
Max. dumping height	7080 mm

11. SYSTEM FLUID CAPACITIES AND SPECIFICATIONS

Capacities	Specifications
Hydraulic system	460 liter ISO VG 46
Hydraulic sump tank	230 liter ISO VG 46
Fuel tank	650 liter Light oil (Diesel)
Cooling system	47 liter Coolant 55%, Water 45%
Final drive case (per side)	15 liter API GL-4 90
Swing drive case	10.5 liter API GL-5 90
Engine crank case (With Remote Oil Filter)	36 liter API CD SAE 10W-30





ES05^{EVO}C

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