

## E405C 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, Tier 3 emission.	
Model	ISUZU GH-6HK1XKSS	
Rated flywheel horse power (ISO 9249)	200 kW at 2000 min <sup>-1</sup> (rpm)	
(ISO 14396)	212 kW at 2000 min <sup>-1</sup> (rpm)	
Piston displacement	7790 cc	
Maximum torque (ISO 9249)	983 N-m at 1500 min <sup>-1</sup> (rpm)	
(ISO 14396)	1020 N-m at 1500 min <sup>-1</sup> (rpm)	
Bore and stroke	115 mm X 125 mm	
Voltage	24 V	
Alternator	50 Amp	
Starter	24 V 5.0 kW	

### 2. HYDRAULIC SYSTEM

<b>Main pumps</b>	2 variable displacement axial piston pumps with regulating system	
• Max. oil flow	2 X 300 liter/min at 2000 min <sup>-1</sup>	
• Working circuit pressure	34.3 MPa	
• Boom/Arm/Bucket	37.3 MPa with auto power up	
• Swing circuit	30.4 MPa	
• Travel circuit	34.3 MPa	
<b>Pilot pump</b>	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

### Swing device

- 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: 10.0 min<sup>-1</sup> (rpm)
- Swing torque: 112,000 N-m

### Cylinders

- NO. of cylinders – bore X Rod diameter X Stroke
- Boom: 2 – Ø 145 mm X Ø 100 mm X 1495 mm
  - Arm: 1 – Ø 170 mm X Ø 120 mm X 1748 mm
  - Bucket: 1 – Ø 150 mm X Ø 105 mm X 1210 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"> <li>• SP – mode</li> <li>• H – mode</li> <li>• Auto – mode</li> </ul>
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 1070 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
- 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)
- Top guard FOPS level 2 (Optional structure)
- Front Guard protective structure (Optional 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	
• High	5.4 km/h (Automatic travel speed shifting)
• Low	3.4 km/h
Drawbar pull	263 KN
Number of carrier rollers	2 (each side)
Number of track rollers	8 (each side)
Number of shoes	48 (each side)
Type of shoe	Triple grouser shoe
Link pitch	216 mm
Width of shoe	600 mm (S.T.D)
Grade-ability	70% (35°)

## 7. MASS

### Operating mass

38.574 kg (with 2.2m HD Arm, 2.7 m<sup>3</sup> HD Bucket, 600mm grouser shoe, operator, lubricant, coolant, full fuel tank)

### Counter weight mass

8.100 kg

### Ground pressure

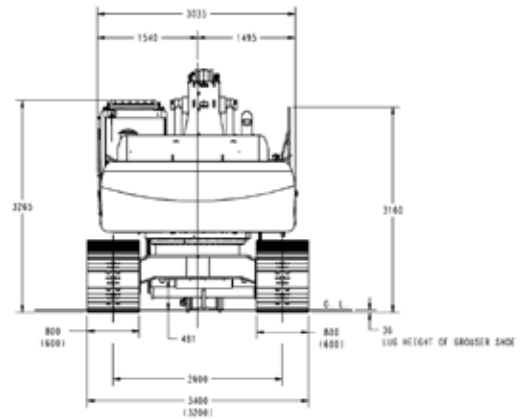
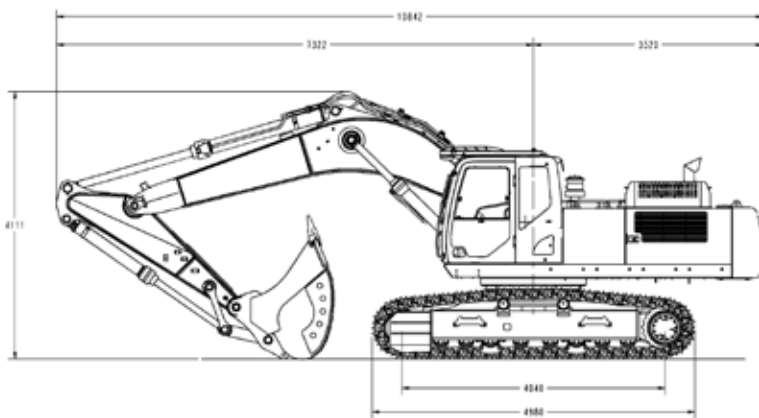
(ISO16754) 0.073 MPa  
(with 2.2m HD Arm, 2.7m<sup>3</sup> HD Bucket, 600 mm grouser shoe)

## 8. DIGGING FORCE

(ISO 6015)	(2.2 m HD Arm)
Arm digging force	228 kN
With auto power up	248 kN
Bucket digging force	232 kN
With auto power up	252 kN

## 9. DIMENSIONS

	(2.2 m HD Arm)
Overall length (without attachment)	6010 mm
Overall length (with attachment)	11350 mm
Overall height (with attachment)	3650 mm
Cab height	3130 mm
Upper structure overall width	3030 mm
Swing (rear end) radius	3550 mm
Clearance height under upper structure	1200 mm
Minimum ground clearance	480 mm
Wheel base (Center to center of wheels)	4040 mm
Crawler overall length	4980 mm
Track gauge	2600 mm
Undercarriage overall width (with 600 mm shoes)	3200 mm
Crawler tracks height	1090 mm

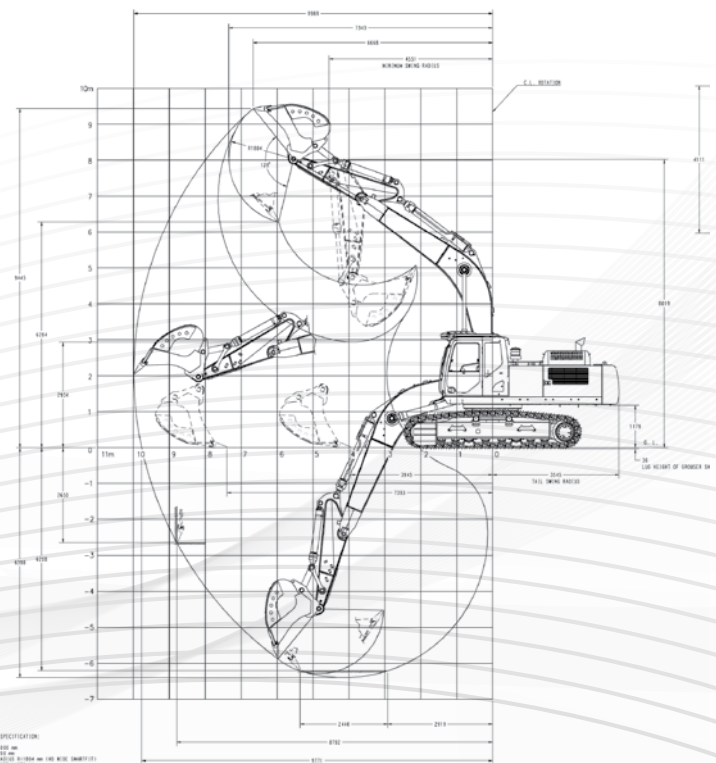


## 10. WORKING RANGES

Boom length	6000 mm
Bucket radius	1840 mm
Bucket wrist action	128 °
Maximum reach at GRP	9771 mm
Maximum reach	9989 mm
Max. digging depth	6398 mm
Max. digging height	9445 mm
Max. dumping height	6284 mm

## 11. SYSTEM FLUID CAPACITIES AND SPECIFICATIONS

Capacities	Specifications	
Hydraulic system	350 liter	ISO VG 46
Hydraulic sump tank	175 liter	ISO VG 46
Fuel tank	580 liter	Light oil (Diesel)
Cooling system	32.9 liter	Coolant 55%, Water 45%
Final drive case (per side)	11.0 liter	API GL-4 90
Swing drive case	5.0 liter	API GL-5 90
Engine crank case (With Remote Oil Filter)	41.0 liter	API CD SAE 10W-30





# E405<sup>EVO</sup>C

**Fábrica:**

Contagem – Minas Gerais – Brasil  
Av. General David Sarnoff, 2.237  
Inconfidentes – CEP 32210-900  
Telefone: 31 2104-3111

**Escritório Comercial:**

Nova Lima – Minas Gerais – Brasil  
Rua Senador Milton Campos, 175 / 4º andar  
Vila da Serra – CEP 34000-000  
Telefones: 31 2123-4902 / 31 2123-4904

**CNI**  
INDUSTRIAL | CAPITAL

