

HYDRAULIC EXCAVATOR

ENGINE

Brand	ISUZU
Model	AH-4HK1X
Type	water-cooled, 4-stroke diesel engine, 4 cylinders in line, injection (electric control), turbo compressor with air-cooled intercooler. This engine has tier 3 emissions certificate.
Nominal horse power of the steering wheel Net (SAE J1349, ISO 9249)	177.1 hp (132,1 kW) @ 2000 rpm
Cylinder capacity	5193 cc
Net torque (SAE J1349, ISO 9249)	469.1 lbf.ft (636 Nm) @ 1.500 rpm
Bore and stroke	4.5 x 4.9 in (115 x 125 mm)
Voltage	24 V
Alternator	50 A
Starter energy	24 V 5,0 kW

ELETRICAL SYSTEM

Engine control	
1 - Quadrant type acceleration control	
2 - Touch deceleration / Automatic deceleration	
3 - Emergency shutdown	
Lights	
1 - Work lights	
Top	24V 70W x 1
Tow bar	24V 70W x 1
Cabin	24V 70W x 2
2 - Operator's cabin compartment	24V 10W x 1
Battery	2 x 12V 92 Ah/5hr
Safety	Double horn
Wiring	Waterproof connector

HYDRAULIC SYSTEM

Main pumps	2 axial piston pumps and variable flow with adjustment system
1 - Max. oil flow	2 x 61.8 gpm (234 l/min) @ 2000 rpm
2 - Work circuit pressure	
Boom/Arm/Bucket	4974 psi (34.3 MPa)
	5337 psi (36.8 MPa) with auto starter
Spin circuit	3916 psi (27 MPa)
Movement circuit	4975 psi (34.3 MPa)
Pilot pump	1 gear pump
1 - Max. oil flow	5.3 gpm (20 l/min)
2 - Work circuit pressure	565 psi (3.9 MPa)
Auxiliary pump	
1 - Max. oil flow	16.4 gpm (62 l/min)
2 - Lever rotation/cabin elevation	3858 psi (26.6 MPa)
Control valve	
With boom and arm retention valve.	
A 4-spool valve for the movement of the right track, inclination, boom, and arm acceleration.	
A 5-spool valve for the left track, auxiliary, claw opening and closing, oscillation, arm and boom acceleration.	
A 2-spool valve for low flow auxiliary control (Lever rotation and cabin elevation).	
Oscillation device	
1 - Engine	Fixed movement axial piston engine
2 - Brake	Mechanical disk brake
3 - Final control	Epicyclic reduction
4 - Rotating table bushing	
	Ball type with internal gear.
5 - Max. turning speed	10.7 rpm
Cylinder Qty Diam.Bore x Diam.Rod x Stroke	
Boom 2 5.5 in x 3.7 in x 3 ft 10 in	(140 mm) (95 mm) (1179 mm)
Arm 1 4.9 in x 3.5 in x 4 ft 2 in	(125 mm) (90 mm) (1280 mm)
Inclination 1 4.7 in x 3.3 in x 3 ft 2 in	(Bucket) (120 mm) (85 mm) (985 mm)
Cabin 1 3.9 in x 2.3 in x 1 ft 10 in	elevation (100 mm) (60 mm) (579 mm)

REFRIGERATION SYSTEM

Ventilator	(650 mm) with 7 blades
Radiator capacity	89.8 kW (77.200 kcal/h)
Blade type	Corrugated blade
Distance between blades	2.0 mm
Long-life coolant	55% coolant Water 45%
Oil cooler capacity	54.1 kW (46.500 kcal/h)
Blade type	Wave blade
Distance between blades	1.75 mm
Intercooler capacity	18.7 kW (16.100 kcal/h)
Blade type	Corrugated blade
Blade space	1.75 mm
Fuel cooler capacity	1.3 kW (1.150 kcal/h)
Blade type	Corrugated blade
Blade space	2.0 mm
Filters	
Suction filter	105 µm
Return filter	6 µm
Pilot line filter	8 µm

HYDRAULIC CONTROLS

Tow bar/Arm/bucket/oscillation	
	Pilot pressure control system (ISO control pattern)
Movement	Pilot pressure control system
Work mode selection	
(1) SP - mode	
(2) H - mode	
(3) Auto - mode	
Movement mode selection (2 speeds)	
Accessory dampening control	
Hydraulic block	
(Door lock, left side inclination console)	
Open/close	
Grip rotation	
Cabin elevation	

MONITOR SYSTEM

- 1 - Message display (warning, condition, etc...)
 - 2 - Work mode display (SP, H, Auto)
 - 3 - Machine state (power, etc.)
 - 4 - Alarm and buzzer indicator
 - 5 - Water temperature
 - 6 - Hydraulic oil temperature
 - 7 - Fuel level
 - 8 - System diagnose
- Optional anti-interference device

OPERATOR'S ENVIRONMENT

- Operator's cabin
- 1 - Round shaped and smoothly designed cabin
 - 2 - Safety glass on all windows
 - 3 - Impactless suspension through 4 hydraulic dampers
 - 4 - Sliding front window with automatic block
 - 5 - LCD monitor exhibition
 - 6 - Membrane switch on the display screen
 - 7 - Windscreen wipers and washers
 - 8 - Automatic air conditioning
 - 9 - floor carpet
 - 10 - Clear roof window and sun protection
 - 11 - Cabin hydraulic elevator
 - 12 - Sun glass

OPERATOR'S SEAT

Low frequency mechanic suspension with helical spring and double acting hydraulic spring.

With the following functions

- 1 - Manual weight, height and angle adjustment.
- 2 - Adjustable rotating armrest
- 3 - Adjustable headrest
- 4 - Self retracting seatbelt

Other

- 1 - Back mirror (cabin side and right side)

OPERATIONAL WEIGHT

Operating weight

68563 lb (31.100 kg)

16' 5" (5.0 m) arm, claw 3880 lb (1760 kg)

Shipping weight

63933 lb (29.000 kg)

Operational weight

Operator's weight 165 lb (75kg) + 90% of the fuel weight + weight of claw 3880 lb (1760kg)

Ground pressure

88 psi (6.42 kgf/cm²)

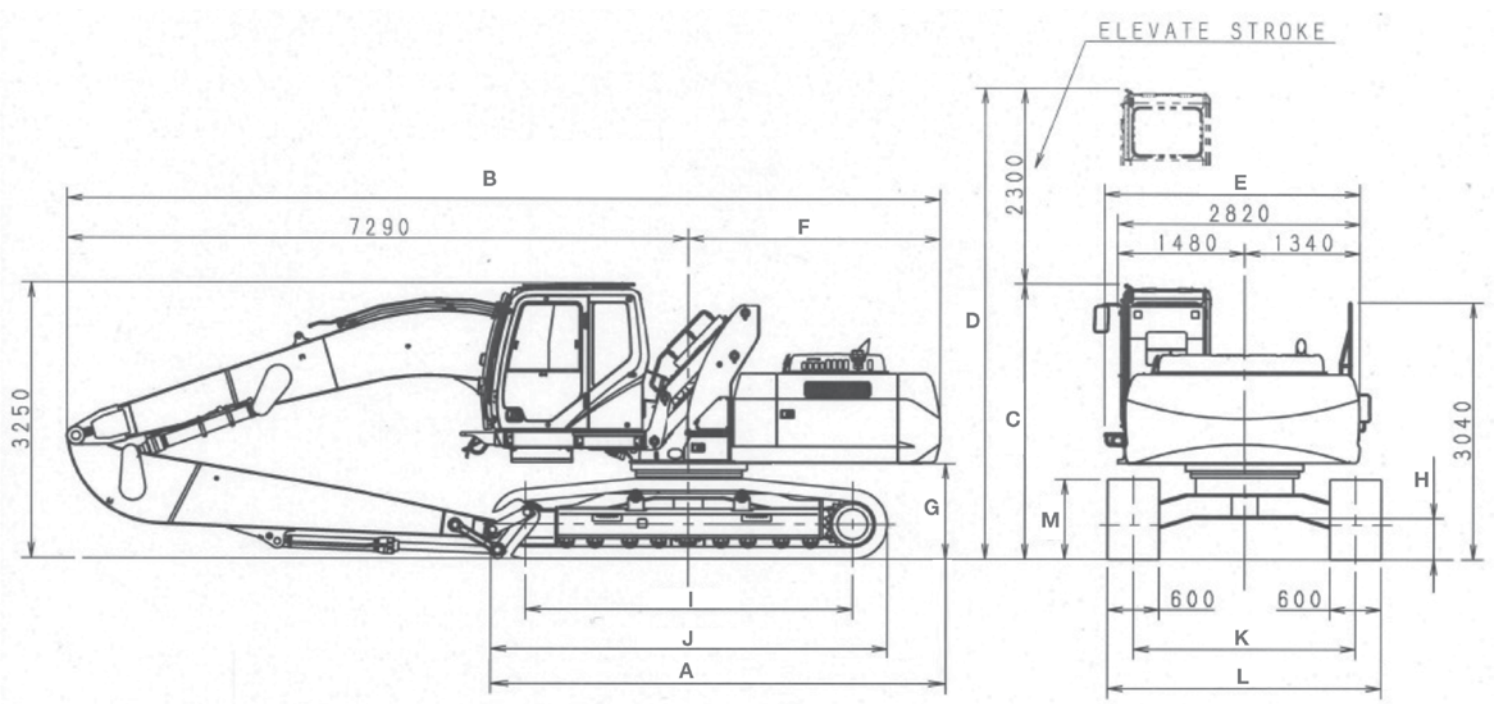
With 16' 5" (5.00 m) arm, trash grip

3880 lb (1760kg), 1' 11" (600 mm) plain pad

CRAWLER RAIL

Drive engine	Axial piston engine with variable cylinder capacity
Brake	Mechanical brake disk
Hydraulic service brake	Brake valve
Final control	Epicyclic gear reduction
Movement speeds	
High	3.4 mph (5,5 km/h) (automatic speed change)
Low	2.2 mph (3,5 km/h)
Quantity of upper rollers	2 (on each side)
Drawbar push	48558 lb (216 kN)
Quantity of lower rollers	9 (on each side)
Quantity of pads	51 (on each side)
Type of pad	Flat pad
Link movement	7.5" (190 mm)
Pad width - STD	1' 11" (600 mm)
Surge capacity	70% (35°)

TRANSPORT DIMENSIONS

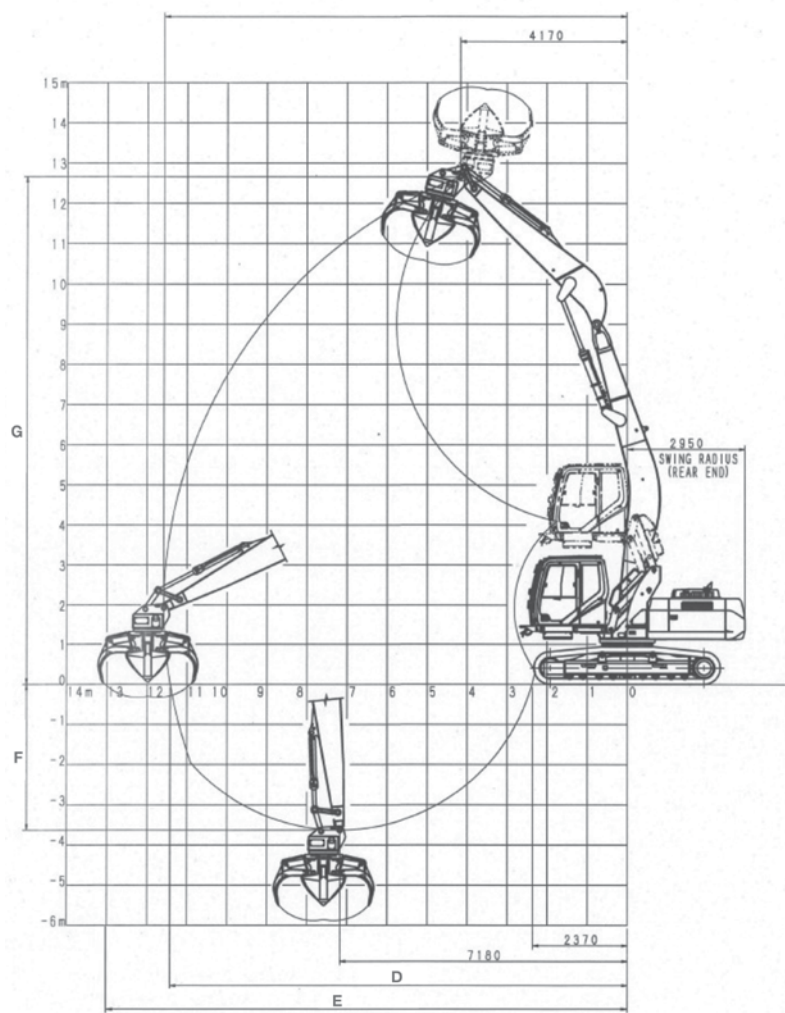


DIMENSIONS

Long Arm	16' 5" (5.0 m)
A. Total length (without accessory)	18' 3.6" (5580 mm)
B. Total height (with accessory)	33' 6.7" (10230 mm)
C. Total height (with accessory)	10' 7.9" (3250 mm)
D. Cabin height	18' 2.5" (5550 mm)
E. Upper structure total width	9' 9.3" (2980 mm)
F. Oscillation radius (back end)	9' 8.1" (2950 mm)
G. Safety height below upper structure	3' 8.8" (1140 mm)
H. Minimum distance to ground	1' 6.8" (480 mm)
I. Distance between shafts (from center to center of the wheels)	12' 7.1" (3840 mm)
J. Full track length	15' 3.0" (4650 mm)
K. Track width	8' 5.9" (2590 mm)
L. Full crawler rail width - With 1' 11" (600 mm) pads	10' 5.5" (3190 mm)
M. Tracks height	3' 2.1" (970 mm)

WORK RANGE CHART

Trash grip mass 3681 lb (1760 kg)



WORK RANGE

Long Arm		16' 5" (5.0 m)
A. Tow bar length		23' 3.5" (7100 mm)
B. Oscillation radius		9' 8.1" (2950 mm)
C. Claw pivot action		177°
D. Max. reach in GRP		37' 5.6" (11420 mm)
E. Max. reach		37' 11" (11580 mm)
F. Max. excavation depth		11' 10" (3610 mm)
G. Max. height		41' 7.2" (12680 mm)

SYSTEM FLUIDS CAPACITIES AND SPECIFICATIONS

	Capacities	Specifications
Hydraulic system	66 gal (250 l)	ISO VG 46
Hydraulic drain tank	38.8 gal (147 l)	ISO VG 46
Fuel tank	108.3 gal (410 l)	Diesel
Cooling system	6.65 gal (25.2 l)	Coolant 55%. Water 45 %
Final control (on each side)	1.3 gal (5 l)	API GL-4 90
Oscillation mechanism	2.6 gal (9.7 l)	API GL-4 90
Engine housing (with remote oil filter)	6.1 gal (23.1 l)	API CD SAE 15W-40

LINING

Design and color	
Agreed by CASE Corp and Sumitomo.	
However, interior painting will be made according to the Sumitomo design.	
Paint	
Cabin	Melamine resin coating for stove finishing
Other	Superior accessories and structure Urethane resins coating
Crawler rail	Modified acrylic resin coating
Paint specifications	
The painting and type of paint shall follow Sumitomo's norms	

NOTE:

- 1 - Case Construction is constantly improving its products and therefore it reserves the right to modify its design and specifications at any time.
- 2 - The graphics may include optional units and may not include all the standard units.
- 3 - These specifications are referred to the standard ISO 7135 (Land machinery- hydraulic excavators - Terminology and commercial specifications) second edition date 12/15/2009.

ELEVATION CAPACITY

Standard 16 ft (5.0 m) arm grab mass for garbage 3880 lb (1760kg)

		Max. Radius	ft (m)	39 ft (12 m)	32 ft (10 m)	26 ft (8 m)	19 ft (6 m)	13 ft (4 m)	6 ft (2 m)	0 ft (0 m)	Min. Radius	ft (m)
45 ft (14 m)	Front											
	Side											
39 ft (12 m)	Front	12610 lb (5720 kg)*	18 ft 5 in (5.63 m)								16159 lb (7330 kg)*	15 ft 7 in (4.77 m)
	Side	12610 lb (5720 kg)*	18 ft 5 in (5.63 m)								16159 lb (7330 kg)*	15 ft 7 in (4.77 m)
32 ft (10 m)	Front	10295 lb (4670 kg)*	27 ft 1 in (8.27 m)			11926 lb (5410 kg)*	15410 lb (6990 kg)*				15696 lb (7120 kg)*	18 ft 7 in (5.67 m)
	Side	10295 lb (4670 kg)*	27 ft 1 in (8.27 m)			11794 lb (5350 kg)	15410 lb (6990 kg)*				15696 lb (7120 kg)*	18 ft 7 in (5.67 m)
26 ft (8 m)	Front	9523 lb (4320 kg)*	32 ft 3 in (9.85 m)			13845 lb (6280 kg)*	15410 lb (6990 kg)*				15652 lb (7100 kg)*	18 ft 6 in (5.66 m)
	Side	8113 lb (3680 kg)*	32 ft 3 in (9.85 m)			11926 lb (5410 kg)	15410 lb (6990 kg)*				15652 lb (7100 kg)*	18 ft 6 in (5.66 m)
19 ft (6 m)	Front	9347 lb (4240 kg)*	35 ft 6 in (10.84 m)		11508 lb (5220 kg)	14484 lb (6570 kg)*	16843 lb (7640 kg)*				18937 lb (8590 kg)*	15 ft 7 in (4.76 m)
	Side	6702 lb (3040 kg)	35 ft 6 in (10.84 m)		7848 lb (3560 kg)	11596 lb (5260 kg)	16843 lb (7640 kg)*				18937 lb (8590 kg)*	15 ft 7 in (4.76 m)
13 ft (4 m)	Front	8994 lb (4080 kg)	37 ft 4 in (11.39 m)		11221 lb (5090 kg)	15740 lb (7140 kg)	19643 lb (8910 kg)*	27491 lb (12470 kg)*	51874 lb (23530 kg)*		55313 lb (25090 kg)*	6 ft 1 in (1.87 m)
	Side	5952 lb (2700 kg)	37 ft 4 in (11.39 m)		7561 lb (3430 kg)	10979 lb (4980 kg)	17306 lb (7850 kg)	27491 lb (12470 kg)*	51874 lb (23530 kg)*		55313 lb (25090 kg)*	6 ft 1 in (1.87 m)
6 ft (2 m)	Front	8575 lb (3890 kg)	37 ft 11 in (11.58 m)		10846 lb (4920 kg)	15344 lb (6960 kg)	227803 lb (103330 kg)*	35516 lb (16110 kg)*			7936 lb (3600 kg)*	9 ft 3 in (2.82 m)
	Side	5621 lb (2550 kg)	37 ft 11 in (11.58 m)		7209 lb (3270 kg)	10229 lb (4640 kg)	15696 lb (7120 kg)	28660 lb (13000 kg)			7936 lb (3600 kg)*	9 ft 3 in (2.82 m)
0 ft (0 m)	Front	8598 lb (3900 kg)	37 ft 5 in (11.41 m)		10493 lb (4760 kg)	14638 lb (6640 kg)	22597 lb (10250 kg)	16358 lb (7420 kg)*			5754 lb (2610 kg)*	7 ft 9 in (2.37 m)
	Side	5599 lb (2540 kg)	37 ft 5 in (11.41 m)		6878 lb (3120 kg)	9590 lb (4350 kg)	14440 lb (6550 kg)	16358 lb (7420 kg)*			5754 lb (2610 kg)*	7 ft 9 in (2.37 m)
-6 ft (-2 m)	Front	9171 lb (4160 kg)	35 ft 7 in (10.86 m)		10295 lb (4670 kg)	14219 lb (6450 kg)	21869 lb (9920 kg)	16755 lb (7600 kg)*			13911 lb (6310 kg)*	11 ft 5 in (3.50 m)
	Side	5952 lb (2700 kg)	35 ft 7 in (10.86 m)		6702 lb (3040 kg)	9215 lb (4180 kg)	13800 lb (6260 kg)	16755 lb (7600 kg)*			13911 lb (6310 kg)*	11 ft 5 in (3.50 m)
-13 ft (-4 m)	Front											
	Side											

NOTE: Machine in AUTO work mode – The loads are adopted according to the standard SAE J1097 ISO 10567D DIN 150 19-2 – The load capacities in kg indicated do not exceed the 75% of the tipping load or 87% the hydraulic elevation capacity – capacities 10567 DIN marked with an asterisk (*) are limited by the hydraulic capacity.

SERIES EQUIPMENT

Operator's compartment

Pressurized cabin with round shaped and smoothly designed
Safety glass on all windows
Impact-proof cabin suspension for 4 cushion hydraulic mounting
Sliding front window with automatic block
Full color LCD screen included
Membrane switch on the display screen
Windscreen wipers and washer
Floor carpet
Clear roof window and sun protection
Automatic air conditioning
Level 2 FOPS superior protection
Front stone protection
Sun glass
Rollover protection structure (ROPS)
Operator's seat with air suspension and back angle adjustment, height and movable armrest linked to consoles, movable headrest, self-retracting 3" seatbelt and adjustable back support.
The control consoles are adjusted independently from the seat
Back mirror
Double horn
Movement alarm
Joystick-like levers to control hydraulic functions
Safety levers to neutralize hydraulic functions and star the engine
Cabin side step
Standard handrails
Telematics (Sitewatch) on board with 3 years advanced subscription as standard, on machine manufactured from January, 2018

Engine

4-stroke diesel engine, water-cooled,
4 cylinders-in-line
Injection system Common rail, turbofed with intercooler, air-cooled intercooler and tier 3 emission certificate.

Hydraulic system

With ISO standardized pilot control
Work mode selection Auto, H and SP
Auxiliary accessory mode
2 variable flow pumps
Electronic flow control
Cylinders with end dampening,
1 pump for the pilot system
16' (5.0 m) long arm
Tow bar for material handling
Double action hydraulic auxiliary
Low flow circuit
Bucket link with hook
Safety valve for the tow bar

Crawler rail

1' 11" (600 mm) plain track pad
Simple track guide

OPTIONAL EQUIPMENT

Cabin

Rain deflector
Sun screen

Hydraulic

HD link without hook
Without hydraulic auxiliary

Other

Refueling pump

Crawler rail

1' 11" (600 mm), 2' 3.5" (700 mm),
and 2' 7.5" (800 mm) pads
Triple track guide



Fleet monitoring and tracking management system through satellite or mobile phone

Case reserves the right to implement improvements in the project and alterations to the specifications at any time, without prior notice, and not being liable to install them in previously sold units. The specifications, descriptions and graphics correctly reflect the information known to this day in this publication. This information may vary in different regions and may be subject to changes without previous notice. The graphics may include equipment and optional accessories, and may not include all the standard units.

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