

ENGINE

Model	Isuzu A-4BG1
Type	4-cycle, water-cooled, direct injection
No. of cylinders	4
Rated flywheel	59 kW (80 PS) at 2 100 min ⁻¹ (rpm)
horsepower (DIN 6271, net)	
Rated flywheel	57 kW (76 HP) at 2 100 min ⁻¹ (rpm)
horsepower (SAE J1349, net)	
Maximum torque	284 N·m (29 kgf·m, 210 lbf·ft)
at 1 500 min ⁻¹ (rpm)	
Piston displacement	4.329 L (264 in ³)
Bore and stroke	105 mm × 125 mm (4.13" × 4.92")
Batteries	2 × 12 V, 65 AH
Governor	Mechanical, speed control with stepping motor

HYDRAULIC SYSTEM

- Work mode selector
General Purpose mode / Grading mode / Precision mode / Attachment mode

Main pump	2 variable displacement axial piston pumps
Maximum oil flow	2 × 95 L / min (25.1 US gpm, 20.9 Imp gpm)
Pilot pump	1 gear pump
Maximum oil flow	35.3 L / min (9.3 US gpm, 7.8 Imp gpm)

Hydraulic Motors

Travel	2 variable displacement axial piston motors
Swing	1 axial piston motor

Relief Valve Settings

Implement circuit	34.3 MPa (350 kgf/cm ² , 4 980 psi)
Swing circuit	31.4 MPa (320 kgf/cm ² , 4 550 psi)
Travel circuit	34.3 MPa (350 kgf/cm ² , 4 980 psi)
Pilot circuit	3.7 MPa (38 kgf/cm ² , 540 psi)

Hydraulic Cylinders

High-strength piston rods and tubes. Cylinder cushion mechanisms provided in all cylinders to absorb shock at stroke ends.

Dimensions

	Qty	Bore	Rod diameter
Boom	2	95 mm (3.74")	70 mm (2.76")
Arm	1	105 mm (4.13")	75 mm (2.95")
Bucket	1	95 mm (3.74")	65 mm (2.56")

Hydraulic Filters

Hydraulic circuits use high-quality hydraulic filters. A suction filter is incorporated in suction line, and 10 μm full-flow filters in return line and swing/travel motor drain lines.

CONTROLS

Pilot controls. Hitachi's original shockless valve and quick warm-up system built in the pilot circuit. Hydraulic warm-up control system for engine and hydraulic oil.

Implement levers	2
Travel levers with pedals	2

UPPERSTRUCTURE

Revolving Frame

Welded sturdy box construction, using heavy-gauge steel plates for ruggedness. D-section frame for resistance to deformation.

Swing Mechanism

Axial piston motor with planetary reduction gear is bathed in oil. Swing circle is single-row, shear-type ball bearing with induction-hardened internal gear. Internal gear and pinion gear are immersed in lubricant. Swing parking brake is spring-set/hydraulic-released disc type.
Swing speed 13.5 min⁻¹ (rpm)

Operator's Cab

Independent roomy cab, 1 005 mm (40") wide by 1 665 mm (66") high, conforming to ISO* Standards. Reinforced glass windows on 4 sides for visibility. Front windows (upper and lower) are openable. Adjustable, reclining seat with armrests; movable with or without control levers.

* International Standardization Organization

UNDERCARRIAGE

Tracks

Tractor-type undercarriage. Welded track frame using carefully selected materials. Side frame welded to track frame. Lubricated track rollers, idlers, and sprockets with floating seals. Track shoes with triple grousers made of induction-hardened rolled alloy. Flat and triangular shoes also available. Heat-treated connecting pins with dirt seals. Hydraulic (grease) track adjusters with shock-absorbing recoil springs.

Numbers of Rollers and Shoes on Each Side

Upper roller	1: EX100-5 2: EX100M-5
Lower rollers	6: EX100-5 6: EX100M-5
Track shoes	41: EX100-5 42: EX100M-5

Traction Device

Each track driven by 2-speed axial piston motor through planetary reduction gear for counterrotation of the tracks. Sprockets are replaceable. Parking brake is spring-set/hydraulic-released disc type. Travel shockless relief valve built in travel motor absorbs shocks when stopping travel.

Automatic transmission system: High—Low.

Travel speeds	
EX100-5	High: 0 to 5.5 km/h (3.4 mph) Low: 0 to 3.5 km/h (2.2 mph)
EX100M-5	High: 0 to 4.4 km/h (2.7 mph) Low: 0 to 2.7 km/h (1.7 mph)

Maximum traction force	
EX100-5	87.3 kN (8 900 kgf, 19 600 lbf)
EX100M-5	118.7 kN (12 100 kgf, 26 700 lbf)
Gradeability	35° (70%) continuous

WEIGHTS AND GROUND PRESSURE

Equipped with 4.27 m (14'0") boom, 2.26 m (7'5") arm and 0.46 m³ (0.60 yd³: PCSA heaped) bucket.

EX100-5

Shoe type	Shoe width	Standard undercarriage	
		Operating weight	Ground pressure
Triple grouser	500 mm (20")	10 700 kg (23 600 lb)	37 kPa (0.38 kgf/cm ² , 5.40 psi)
	600 mm (24")	11 000 kg (24 300 lb)	31 kPa (0.32 kgf/cm ² , 4.55 psi)
	700 mm (28")	11 200 kg (24 700 lb)	27 kPa (0.28 kgf/cm ² , 3.98 psi)
Rubber	500 mm (20")	10 700 kg (23 600 lb)	36 kPa (0.37 kgf/cm ² , 5.26 psi)
Flat	510 mm (20")	11 200 kg (24 700 lb)	37 kPa (0.38 kgf/cm ² , 5.40 psi)
Triangular	700 mm (28")	11 000 kg (24 300 lb)	27 kPa (0.28 kgf/cm ² , 3.98 psi)

EX100M-5

Shoe type	Shoe width	Marsh type undercarriage	
		Operating weight	Ground pressure
Triple grouser	700 mm (28")	12 400 kg (27 300 lb)	27 kPa (0.28 kgf/cm ² , 3.98 psi)
Single high grouser	960 mm (38")	13 400 kg (29 500 lb)	22 kPa (0.22 kgf/cm ² , 3.13 psi)
Triangular	760 mm (30")	13 100 kg (28 900 lb)	26 kPa (0.27 kgf/cm ² , 3.84 psi)
	900 mm (35")	13 200 kg (29 100 lb)	23 kPa (0.23 kgf/cm ² , 3.27 psi)

Weights of the basic machines [including 1 700 kg (3 750 lb), counterweight and triple grouser shoes, excluding front-end attachment, fuel, Hyd. oil, Eng. oil and coolant etc.] are:

EX100-5	8 500 kg (18 700 lb) with 500 mm (20") shoes.
EX100M-5	10 200 kg (22 500 lb) with 700 mm (28") shoes.

Buckets

Capacity		Width		No. of teeth	Weight	Recommendation					
PCSA heaped	CECE heaped	Without side cutters	With side cutters			EX100-5			EX100M-5		
						1.96 m (6'5") arm	2.26 m (7'5") arm	2.81 m (9'3") arm	1.96 m (6'5") arm	2.26 m (7'5") arm	2.81 m (9'3") arm
0.19 m ³ (0.25 yd ³)	0.17 m ³	450 mm (18")	550 mm (22")	3	240 kg (530 lb)	●	●	●	●	●	●
0.30 m ³ (0.39 yd ³)	0.25 m ³	580 mm (23")	700 mm (28")	3	280 kg (620 lb)	●	●	●	●	●	●
0.40 m ³ (0.52 yd ³)	0.33 m ³	680 mm (27")	800 mm (31")	4	330 kg (730 lb)	●	●	●	●	●	●
0.46 m ³ (0.60 yd ³)	0.40 m ³	850 mm (33")	970 mm (38")	5	380 kg (840 lb)	●	●	○*	●	●	●
0.55 m ³ (0.72 yd ³)	0.45 m ³	890 mm (35")	1 010 mm (40")	5	400 kg (880 lb)	●	○	—	●	○	○
0.59 m ³ (0.77 yd ³)	0.50 m ³	950 mm (37")	1 070 mm (42")	5	410 kg (900 lb)	○	□	—	○	□	—
1 0.46 m ³ (0.60 yd ³)	0.40 m ³	850 mm (33")	970 mm (38")	5	440 kg (970 lb)	●	●	○	●	●	●
*2 0.55 m ³ (0.72 yd ³)	0.45 m ³	890 mm (35")	1 010 mm (40")	5	490 kg (1 080 lb)	○	—	—	○	—	—
*3 0.55 m ³ (0.72 yd ³)	0.45 m ³	890 mm (35")	1 010 mm (40")	5	470 kg (1 040 lb)	○	—	—	○	—	—
V-Type bucket: 0.35 m ³ (0.46 yd ³ : CECE heaped)					3	370 kg (820 lb)	●	●	●	●	●
One-point ripper					1	320 kg (710 lb)	●	●	—	—	—
Clamshell bucket: 0.30 m ³ (0.39 yd ³ : CECE heaped), Width 560 mm (22")					6	690 kg (1 520 lb)	●	●	—	●	●
Slope-finishing blade: Width 1 000 mm (39"), Length 1 600 mm (63")						475 kg (1 050 lb)	◇	◇	◇	◇	◇

* With 700 mm (28") shoes only
 *1 Reinforced bucket
 *2 Level-pin-reinforced bucket
 *3 H-bucket

● Suitable for materials with density of 2 000 kg/m³ (3 370 lb/yd³) or less
 ○ Suitable for materials with density of 1 600 kg/m³ (2 700 lb/yd³) or less
 □ Suitable for materials with density of 1 100 kg/m³ (1 850 lb/yd³) or less
 ● Heavy-duty service
 ◇ Slope finishing service
 — Not recommended

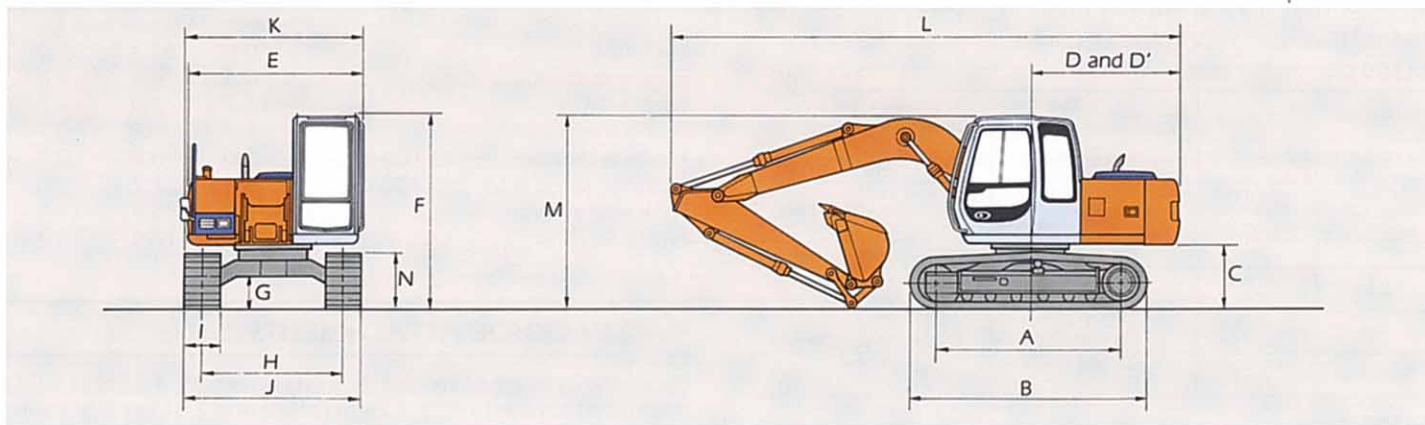
SERVICE REFILL CAPACITIES

	liters	US gal	Imp gal
Fuel tank	250.0	66.1	55.0
Engine coolant	18.4	4.9	4.0
Engine oil	14.7	3.9	3.2
Swing mechanism	3.2	0.8	0.7
Travel final drive	3.0	0.8	0.7
device (each side) EX100M-5 ...	4.4	1.2	1.0
Hydraulic system	134.0	35.4	29.5
Hydraulic tank	69.0	18.2	15.2

BACKHOE ATTACHMENTS

Boom and arms are of welded, box-section design. 4.27 m (14'0") boom, and 1.96 m (6'5"), 2.26 m (7'5") and 2.81 m (9'3") arms are available. Bucket is of welded steel structure. Side clearance adjust mechanism provided on the bucket joint bracket.

DIMENSIONS



	EX100-s				EX100M-s		
A	Distance between tumbler				2 620 mm [8'7"]		
B	Undercarriage length				3 340 mm [10'11"]		
*C	Counterweight clearance				890 mm [2'11"]		
D	Rear-end swing radius				2 130 mm [7'0"]		
D'	Rear-end length				2 100 mm [6'11"]		
E	Overall width of upperstructure				2 460 mm [8'1"]		
F	Overall height of cab				2 720 mm [8'11"]		
*G	Min. ground clearance				440 mm [1'5"]		
H	Track gauge				1 990 mm [6'6"]		
I	Standard track shoe width	G500 mm [20"]	G600 mm [24"]	G700 mm [28"]	F510 mm [20"]	G700 mm [28"]	T760 mm [30"]
J	Undercarriage width	2 490 mm [8'2"]	2 590 mm [8'6"]	2 690 mm [8'10"]	2 500 mm [8'2"]	2 740 mm [9'0"]	2 800 mm [9'2"]
K	Overall width	2 500 mm [8'2"]	2 590 mm [8'6"]	2 690 mm [8'10"]	2 500 mm [8'2"]	2 740 mm [9'0"]	2 800 mm [9'2"]
L	Overall length						
	With 1.96 m [6'5"] arm	7 190 mm [23'7"]				7 170 mm [23'6"]	
	With 2.26 m [7'5"] arm	7 190 mm [23'7"]				7 190 mm [23'7"]	
	With 2.81 m [9'3"] arm	7 210 mm [23'8"]				7 200 mm [23'7"]	
M	Overall height of boom						
	With 1.96 m [6'5"] arm	2 600 mm [8'6"]				2 670 mm [8'9"]	
	With 2.26 m [7'5"] arm	2 680 mm [8'10"]				2 740 mm [9'0"]	
	With 2.81 m [9'3"] arm	**2 680 mm [8'10"]				**2 680 mm [8'10"]	
N	Track height						
	With triple grouser shoe	790 mm [2'7"]				930 mm [3'1"]	

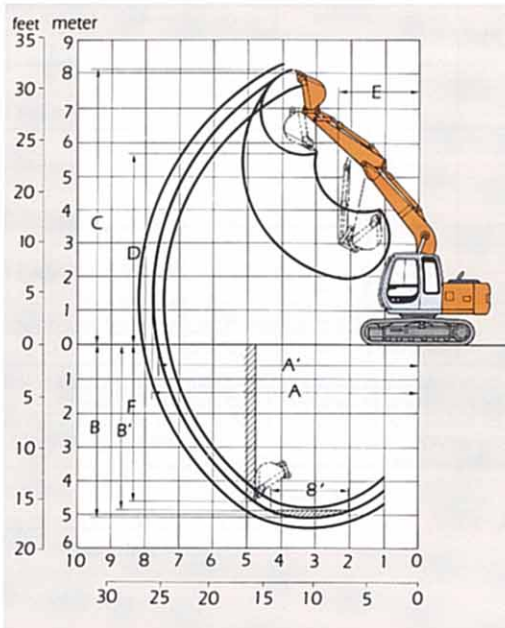
* Excluding track shoe lug.

** This dimension is shown in the transportation hole position of the arm

G: Triple grouser shoe
T: Triangular shoe

F: Flat shoe
H: Triple high grouser shoe

WORKING RANGES



Unit: mm (ft in)

Arm length	EX100-s			EX100M-s		
	1.96 m [6'5"]	2.26 m [7'5"]	2.81 m [9'3"]	1.96 m [6'5"]	2.26 m [7'5"]	2.81 m [9'3"]
A Max. digging reach	7 430 [24'5"]	7 700 [25'3"]	8 180 [26'10"]	7 430 [24'5"]	7 700 [25'3"]	8 180 [26'10"]
A' Max. digging reach (on ground)	7 290 [23'11"]	7 570 [24'10"]	8 050 [26'5"]	7 250 [23'9"]	7 530 [24'8"]	8 010 [26'3"]
B Max. digging depth	4 780 [15'8"]	5 080 [16'8"]	5 630 [18'6"]	4 580 [15'0"]	4 880 [16'0"]	5 430 [17'10"]
B' Max. digging depth (B' level)	4 520 [14'10"]	4 850 [15'11"]	5 430 [17'10"]	4 320 [14'2"]	4 640 [15'3"]	5 220 [17'2"]
C Max. cutting height	7 930 [26'0"]	8 110 [26'7"]	8 360 [27'5"]	8 140 [26'8"]	8 320 [27'4"]	8 570 [28'1"]
D Max. dumping height	5 530 [18'2"]	5 700 [18'8"]	5 960 [19'7"]	5 730 [18'10"]	5 910 [19'5"]	6 170 [20'3"]
E Min. swing radius	2 300 [7'7"]	2 330 [7'8"]	2 590 [8'6"]	2 300 [7'7"]	2 330 [7'8"]	2 590 [8'6"]
F Max. vertical wall	4 320 [14'2"]	4 620 [15'2"]	5 120 [16'10"]	4 120 [13'6"]	4 420 [14'6"]	4 920 [16'2"]
Bucket digging force	89 kN [9 100 kgf, 20 100 lbf]					
	SAE: PCSA 78 kN [8 000 kgf, 17 600 lbf]					
Arm crowd force	ISO 60 kN [6 100 kgf, 13 400 lbf]	55 kN [5 600 kgf, 12 300 lbf]	48 kN [4 900 kgf, 10 800 lbf]	60 kN [6 100 kgf, 13 400 lbf]	55 kN [5 600 kgf, 12 300 lbf]	48 kN [4 900 kgf, 10 800 lbf]
	SAE: PCSA 58 kN [5 900 kgf, 13 000 lbf]	53 kN [5 400 kgf, 11 900 lbf]	47 kN [4 800 kgf, 10 600 lbf]	58 kN [5 900 kgf, 13 000 lbf]	53 kN [5 400 kgf, 11 900 lbf]	47 kN [4 800 kgf, 10 600 lbf]

Excluding track shoe lug

SE STANDARD EQUIPMENT

Standard equipment may vary by country, so please consult your Hitachi dealer for details.

ENGINE

- HP mode control
- E mode control
- 40 A alternator
- Dry-type air filter with evacuator valve (with safety element)
- Cartridge-type engine oil filter
- Cartridge-type engine oil bypass filter
- Cartridge type fuel filter
- Air cleaner double element
- Radiator and oil cooler with dust protective net
- Radiator reserve tank
- Fan guard
- Isolation-mounted engine
- Auto-idle system

CAB

All-weather sound-suppressed steel cab equipped with reinforced, tinted (bronze color) glass windows, 6 fluid-filled elastic mounts, openable front windows-upper, and lower and left side windows with intermittent windshield retractable wiper, front window washer, adjustable reclining seat with adjustable armrests, footrest, electric double horn, auto-tuning radio with digital clock, auto-idle switch, seat belt, cigarette lighter, ashtray, parcel pocket, glove compartment, floor mat, heater, and pilot control shut-off lever.

ALARM BUZZERS:

- Engine oil pressure and engine overheat

LIGHTS

- 2 working lights

UPPERSTRUCTURE

- Undercover
- 1 700 kg [3 750 lb] counterweight
- Fuel level float
- Hydraulic oil level gauge
- Tool box
- Rearview mirror (right side)
- Swing parking brake

FRONT ATTACHMENTS

- HN bushing
- Bucket clearance adjust mechanism
- Monolithically cast bucket link A
- Centralized lubrication system
- Dirt seals on all bucket pins
- 2.26 m [7'5"] arm
- 0.46 m³ [0.60 yd³: PCSA heaped] bucket

MISCELLANEOUS

- Standard tool kit
- Lockable machine covers
- Lockable fuel filling cap
- Skid-resistant tapes and handrails.

HYDRAULIC SYSTEM

- Work mode selector
- E-P control system
- Quick warm-up system for pilot circuit
- Shockless valve in pilot circuit
- Boom-arm anti-drift valve
- Control valve with main relief valve
- Extra port for control valve
- Suction filter
- Full-flow filter
- Pilot filter

MONITOR SYSTEM

- Meters:
 - Hourmeter, engine coolant temperature gauge and fuel meter.
- Warning lamps:
 - Alternator charge, engine oil pressure, engine overheat, air cleaner clog and minimum fuel level.
- Pilot lamps:
 - Engine preheat, engine oil level, engine coolant level and hydraulic oil level.

UNDERCARRIAGE

- Travel parking brake
- Travel motor covers
- Hydraulic track adjuster
- Bolt-on sprocket
- Upper rollers and lower rollers
- Reinforced track links with pin seals
- 500 mm [20"] triple grouser shoes (EX100-s)
- 700 mm [28"] triple grouser shoes (EX100M-s)

OE OPTIONAL EQUIPMENT

Optional equipment may vary by country, so please consult your Hitachi dealer for details.

- Air conditioner
- Suspension seat
- AM-FM radio
- Hose rupture valves
- Electric fuel refilling pump
- Swing motion alarm device with lamp
- Travel motion alarm device
- Additional pump
- Piping kit for extra valve port
- Additional valve with piping kit
- PTO valve with piping kit
- Auto-lubrication system
- Pre-cleaner
- Tropical cover

- Front glass lower guard
- Track guard
- 0.55 m³ [0.72 yd³: PCSA heaped] H-bucket: 1.96 m [6'5"] arm only
- 0.55 m³ [0.72 yd³: PCSA heaped] Level pin-reinforced bucket: 1.96 m [6'5"] arm only
- One-point ripper for ripping hardpan
- Clamshell bucket for deep vertical excavations such as manholes, pilings, footings, etc.
- Slope-finishing blade for slope finishing jobs... scraping up or down, compacting, leveling, grading etc.

