CASE CONSTRUCTION

CX80C

EXCAVATOR – SWING BOOM
TIER 4 FINAL CERTIFIED

PRELIMINARY

ENGINE

Model	Isuzu AP-4LE2X, Tier 4 Final Certified
Type	Water-cooled, 4-cycle. Turbo-charged w/ air-cooled intercooler w/ DOC
Cylinders	4-cylinder in-line
Displacement	133 in³ (2.2 L)
Bore/Stroke	3.35 x 3.78 in (85 x 96 mm)
Fuel injection	Direct injection – electronic
Fuel filter	Replaceable, full flow spin-on cartridge
Air filter	Dry type element w/ warning indicator
Oil filter	Replaceable, full flow spin-on cartridge
Engine oil operating angle ratings:	
Side-to-side	Rated 35°
Fore and aft	Rated 35°
Net horsepower @ 2000 RPM – SAE J1349:	55.2 hp (41.2 kW)
Net max. torque @ 1800 RPM – SAE J1349:	147 lb·ft (199 N·m)
Cooling	110° to -13° F (43° to -25° C) @ 55% concentration

POWERTRAIN

Travel control	Dual stage relief/ counter balance design
Brakes	Mechanical disc
Service brakes	SAHR disc – each motor
Travel speeds:	
	Forward/Reverse
Low	2.1 mph (3.3 kph)
High	3.2 mph (5.1 kph)
Gradeability	70% (35°)
Drawbar pull	13,300 lb (59.2 kN)

ELECTRICAL

Voltage	24 Volts
Alternator rating	50 amp
Battery	2 x 12 Volt
Reserve capacity	64 Ah/5 hour
Work lights	24 Volt
1 boom	70 watt
1 upper	70 watt

OPERATOR ENVIRONMENT

FOPS Level 1 cab top guard; Pressurized cab; One-touch lock front window; AC/heat/defrost w/ auto climate control; 6 watt interior dome light; Mechanical-suspension cloth seat; Adjustable armrests; Low-effort joystick controls; Controls pre-wired for auxiliary; Blade control lever; AM/FM radio w/ antenna and 2 speakers; Anti-theft start code system; Rubber floor mat; 12-volt electric socket; 24-volt cigarette lighter; External rear view mirrors; Windshield wiper/washer; Cup holder; Storage compartments; Travel alarm w/ cancel switch; One key start and lock-up; Built-in full-color LCD monitor; Safety glass for all windows; Polycarbonate roof hatch.

Air conditioner output	13,490 BTU/hr
Heater output	12,900 BTU/hr
Sound level inside cab – ISO6395	73.0 dBa

OPERATING WEIGHT

Operating weight	18,800 lb (8510 kg)
w/ shoes	1 ft 6 in (0.45 m)
w/ boom	11 ft 6 in (3.50 m)
w/ arm	5 ft 7 in (1.69 m)
w/ bucket	460 lb (210 kg)
w/ dozer blade	7 ft 7 in (2.32 m)
w/ counterweight	2,430 lb (1100 kg)
w/ operator/full fuel/standard equipment	

HYDRAULICS

System design	Open center
Main pumps	Two variable displacement/ axial piston w/ regulating system
Max. rated flow	2 x 1,936 gpm (2 x 74 L/min)
System pressures:	
Boom, arm and bucket	4,264 psi (294 bar)
Travel circuits	4,264 psi (294 bar)
Swing circuits	3,278 psi (226 bar)
Pilot pump	1 x gear design
Max. capacity	4.8 gpm (18 L/min)
Controls	w/ boom/arm holding valve
Right track travel, bucket, boom and arm acceleration.	Four-spool valve
Left track travel, auxiliary, swing, boom acceleration.	Five-spool valve
Swing motor	Fixed displacement axial piston
Swing final drive	Planetary gear reduction
Travel motor	Two-speed independent travel/axial piston

HYDRAULICS (cont.)

Boom cylinder	One (1)
Bore diameter	4.5 in (115 mm)
Rod diameter	3.0 in (75 mm)
Stroke	33.5 in (850 mm)
Arm cylinder	One (1)
Bore diameter	3.9 in (100 mm)
Rod diameter	2.6 in (65 mm)
Stroke	29.7 in (755 mm)
Bucket cylinder	One (1)
Bore diameter	3.3 in (85 mm)
Rod diameter	2.2 in (55 mm)
Stroke	26.2 in (665 mm)

SERVICE CAPACITY

Fuel tank	31.7 gal (120 L)
Hydraulic system	25.4 gal (96.3 L)
Hydraulic sump tank	31.7 gal (51 L)
Engine oil w/ filter	3.0 gal (11.5 L)
Swing drive	2.58 gal (9.7 L)
Final drive – each side	0.3 gal (1.1 L)
Cooling system	3.2 gal (12.2 L)

OTHER SPECIFICATIONS

Swing speed	0 – 9.5 RPM
Swing torque	12,500 lb·ft (17 000 N·m)
Swing brake	Mechanical disc
Undercarriage:	
Carrier rollers	1 per side
Track rollers	5 per side
Shoes – triple semi-grouser	39 per side
Shoe width – std.	17.7 in (450 mm)
Link pitch	6.1 in (154 mm)
Track:	
Chain	Grease lubricated/strutted
Adjustment	Hydraulic
Boom	11 ft 6 in (3.50 m)
Arm options	5 ft 7 in (1.69 m)
	6 ft 11 in (2.12 m)

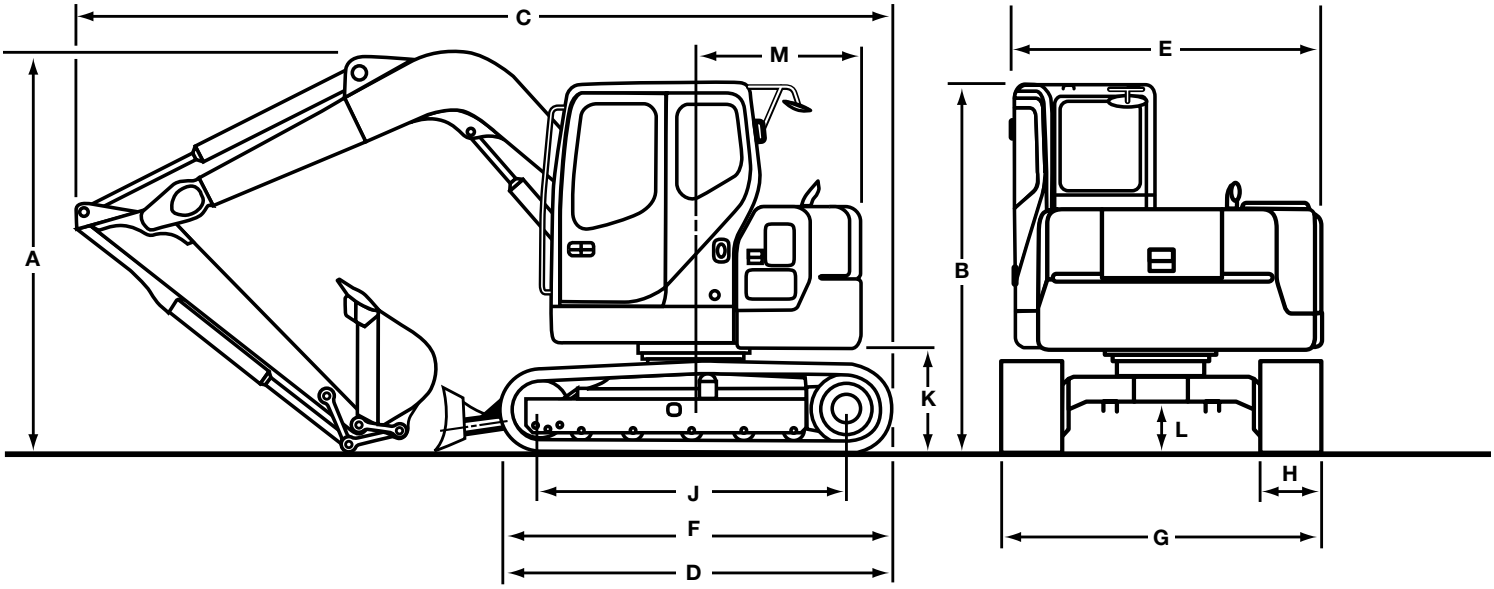
LIFT CAPACITIES

5 ft 7 in (1.69 m) Arm *Lift capacities calculated using a 460 lb (210 kg) bucket, 2,430 lb (1100 kg) counterweight operating in "Standard" Mode, blade down.*

Load (Lift Point) Height	5 ft (1.52 m)		10 ft (3.05 m)		15 ft (5.57 m)		20 ft (6.10 m)		MAXIMUM REACH		
	END	SIDE	END	SIDE	END	SIDE	END	SIDE	@	END	SIDE
+15 ft (4.57 m)					3,700 lb (1678 kg)	3,700 lb (1678 kg)			14 ft 10 in (4.52 m)	3,650 lb (1656 kg)	3,650 lb (1656 kg)
+10 ft (3.05 m)					4,400 lb (1996 kg)	3,950 lb (1792 kg)	3,800 lb (1724 kg)	2,450 lb (1111 kg)	10 ft 10 in (3.30 m)	4,850 lb (2200 kg)	4,850 lb (2200 kg)
+5 ft (1.52 m)			10,050 lb (4559 kg)	6,850 lb (3107 kg)	6,050 lb (2744 kg)	3,700 lb (1678 kg)	4,400 lb (1996 kg)	2,350 lb (1066 kg)	8 ft 11 in (2.72 m)	5,100 lb (2313 kg)	5,100 lb (2313 kg)
Ground-line			8,700 lb (3946 kg)	6,400 lb (2903 kg)	6,900 lb (3130 kg)	3,500 lb (1588 kg)	4,650 lb (2109 kg)	2,250 lb (1021 kg)	6 ft 10 in (2.08 m)	4,050 lb (1837 kg)	4,050 lb (1837 kg)
-5 ft (-1.52 m)	7,350 lb (3334 kg)	7,350 lb (3334 kg)	11,700 lb (5307 kg)	6,500 lb (2948 kg)	6,700 lb (3039 kg)	3,450 lb (1565 kg)			3 ft 3 in (0.99 m)	6,200 lb (2812 kg)	6,200 lb (2812 kg)
-10 ft (-3.05 m)			8,450 lb (3833 kg)	6,650 lb (3016 kg)					5 ft 6 in (1.68 m)	12,750 lb (5783 kg)	12,750 lb (5783 kg)

6 ft 11 in (2.12 m) Arm *Lift capacities calculated using a 420 lb (191 kg) bucket, 2,430 lb (1100 kg) counterweight operating in "Standard" Mode, blade down.*

Load (Lift Point) Height	5 ft (1.52 m)		10 ft (3.05 m)		15 ft (5.57 m)		20 ft (6.10 m)		MAXIMUM REACH		
	END	SIDE	END	SIDE	END	SIDE	END	SIDE	@	END	SIDE
+15 ft (4.57 m)									20 ft 9 in (6.32 m)	2,703 lb (1266 kg)	2,253 lb (1022 kg)
+10 ft (3.05 m)					2,903 lb (1317 kg)	2,903 lb (1317 kg)	3,203 lb (1453 kg)	2,302 lb (1044 kg)	22 ft 11 in (6.98 m)	2,803 lb (1271 kg)	1,802 lb (817 kg)
+5 ft (1.52 m)			7,303 lb (3312 kg)	6,602 lb (2995 kg)	4,503 lb (2042 kg)	3,502 lb (1589 kg)	3,703 lb (1679 kg)	2,202 lb (999 kg)	23 ft 7 in (7.18 m)	3,053 lb (1385 kg)	1,652 lb (749 kg)
Ground-line			9,803 lb (4446 kg)	6,002 lb (2723 kg)	6,103 lb (2768 kg)	3,252 lb (1475 kg)	4,353 lb (1974 kg)	2,102 lb (954 kg)	22 ft 8 in (6.90 m)	3,553 lb (1611 kg)	1,752 lb (795 kg)
-5 ft (-1.52 m)			12,203 lb (5535 kg)	5,902 lb (2677 kg)	6,753 lb (3063 kg)	3,152 lb (1430 kg)	4,503 lb (2042 kg)	2,052 lb (931 kg)	20 ft 1 in (6.12 m)	4,353 lb (1974 kg)	2,102 lb (954 kg)
-10 ft (-3.05 m)			10,803 lb (4900 kg)	6,052 lb (2745 kg)	6,053 lb (2745 kg)	3,252 lb (1475 kg)					

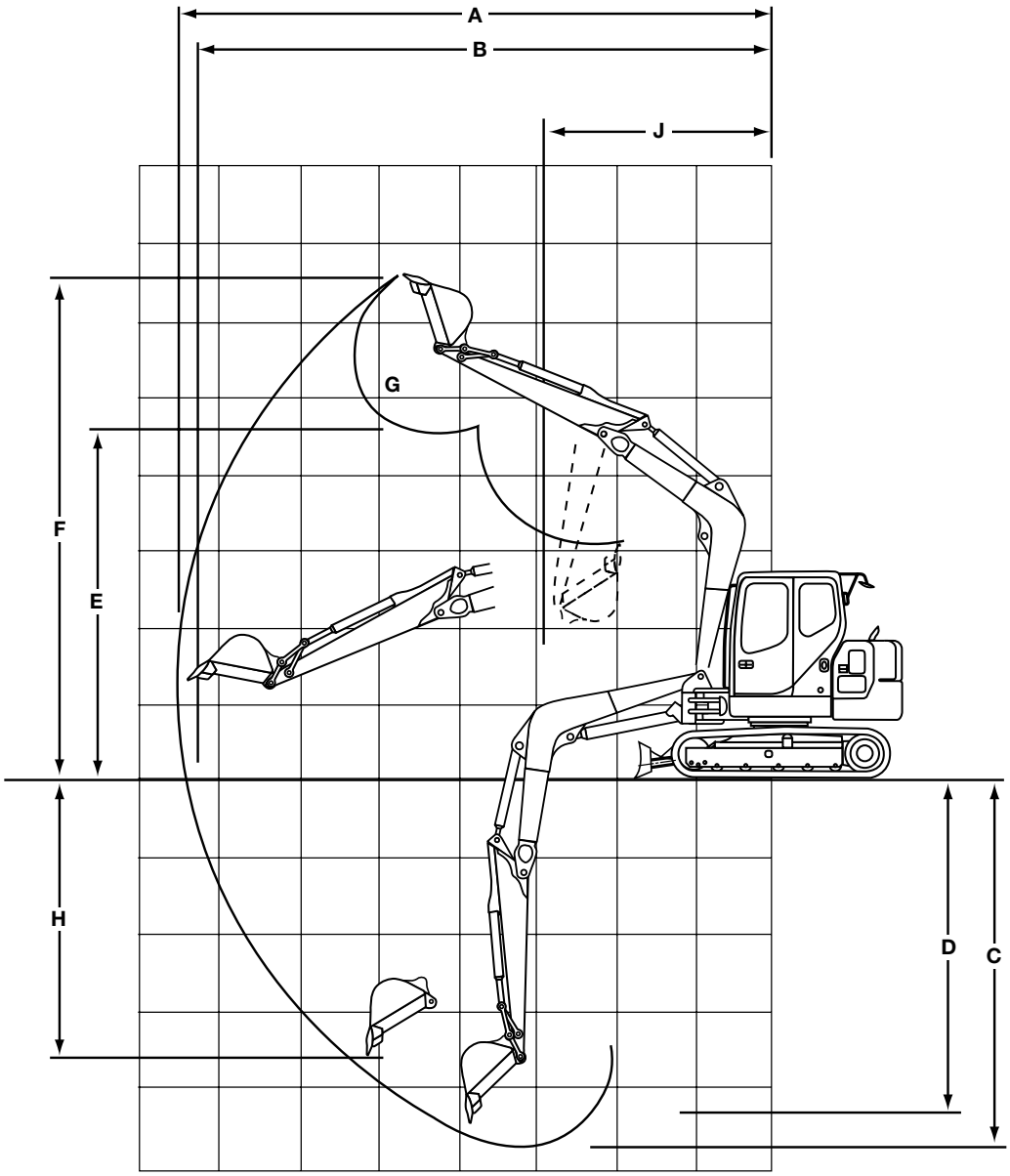


Line drawings are for illustrative purpose only and may not be exact representation of unit.

DIMENSIONS

		5 ft 7 in (1.69 m) Arm	6 ft 11 in (2.12 m) Arm
A.	Overall height	9 ft 1 in (2.76 m)	8 ft 10 in (2.70 m)
B.	Cab height	9 ft 1 in (2.76 m)	8 ft 10 in (2.70 m)
C.	Overall length with attachment	21 ft 11 in (6.68 m)	22 ft 1 in (6.74 m)
D.	Overall length without attachment	12 ft 0 in (3.67 m)	10 ft 9 in (3.28 m)
E.	Width of upperstructure	7 ft 5 in (2.27 m)	7 ft 4 in (2.23 m)
F.	Track overall length	9 ft 4 in (2.85 m)	9 ft 4 in (2.85 m)
G.	Track overall width with 1 ft 6 in (0.45 m) shoes	7 ft 7 in (2.32 m)	7 ft 7 in (2.32 m)
H.	Track shoe width	1 ft 6 in (0.45 m)	1 ft 6 in (0.45 m)
Track gage		6 ft 2 in (1.87 m)	6 ft 6 in (1.99 m)
J.	Center to center – idler to sprocket	7 ft 3 in (2.21 m)	7 ft 3 in (2.21 m)
K.	Upperstructure ground clearance	2 ft 6 in (0.75 m)	2 ft 5 in (0.75 m)
L.	Minimum ground clearance	1 ft 2 in (0.36 m)	1 ft 2 in (0.36 m)
M.	Rear tail swing radius	5 ft 7 in (1.69 m)	5 ft 5 in (1.66 m)
Dozer blade width		7 ft 7 in (2.32 m)	7 ft 7 in (2.32 m)
Dozer blade height		1 ft 6 in (0.45 m)	1 ft 6 in (0.45 m)
Operating weight*		18,800 lb (8510 kg)	18,915 lb (8580 kg)
Ground pressure		5.51 psi (0.38 bar)	5.51 psi (0.38 bar)

*With 1 ft 6 in (0.45 m) track shoe, 460 lb (210 kg) bucket, 165 lb (75 kg) operator, full fuel and standard equipment.



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PERFORMANCE SPECS

		5 ft 7 in (1.69 m) Arm	6 ft 11 in (2.12 m) Arm
A.	Maximum dig radius	23 ft 3 in (7.09 m)	24 ft 3 in (7.40 m)
B.	Dig radius at groundline	22 ft 9 in (6.94 m)	23 ft 10 in (7.27 m)
C.	Maximum dig depth	13 ft 9 in (4.18 m)	15 ft 1 in (4.59 m)
D.	Dig depth – 8 ft 0 in (2.44 m) level bottom	12 ft 6 in (3.81 m)	13 ft 11 in (4.23 m)
E.	Dump height	16 ft 6 in (5.04 m)	15 ft 1 in (4.60 m)
F.	Overall reach height	21 ft 7 in (6.57 m)	21 ft 8 in (6.60 m)
G.	Bucket rotation	177°	177°
H.	Vertical straight wall dig depth	11 ft 0 in (3.35 m)	11 ft 8 in (3.55 m)
J.	Minimum swing radius	9 ft 2 in (2.79 m)	9 ft 7 in (2.91 m)
Arm digging force		8,880 lb (39.5 kN)	7,644 lb (34.0 kN)
Bucket digging force*		12,800 lb (56.9 kN)	12,792 lb (56.9 kN)
Dozer blade cutting edge:			
	Maximum height	1 ft 5 in (0.44 m)	1 ft 4 in (0.41 m)
	Maximum depth	11 in (0.28 m)	8 in (0.20 m)

*Digging force ratings based on ISO6015.

STANDARD EQUIPMENT

OPERATOR ENVIRONMENT

See page 1

ENGINE

Isuzu four-cylinder turbo-charged diesel
Certified Tier 4 Final
Electronic fuel injection
Neutral safety start
Auto-engine warm up
Glow-plug pre-heat
One-touch idle
Dual-stage fuel filtration
Dual element air filter
Remote oil filter
Green plug oil drain
500-hour engine oil change interval
24-volt system
Color LCD monitor

HYDRAULICS

ISO pattern controls
5,000 hour hydraulic oil change interval
1,000 hour hydraulic filter change interval
SAHR brake
Three (3) work mode settings

UPPER STRUCTURE

Right and left side mirrors
Isolation mounted cab – fluid
Common key vandal locks
Upper mounted work light – 70 watt
Cab mounted work light - 70 watt
Swivel guard belly pan

UNDERCARRIAGE

1 ft 6 in (0.45 m) steel shoes, triple semi-grouser
Full overlap turntable bearing tub
Front track chain guides
Hydraulic track adjustment
X-pattern carbody

FRONT BLADE

Hydraulically controlled front blade:
7 ft 7 in (2.31 m) width
1 ft 6 in (0.45 m) height

ATTACHMENT

Boom
Arm – 5 ft 7 in (1.69 m)
Boom mounted work light – 70 watt
Attachment cushion valve

OPTIONAL EQUIPMENT

OPERATOR ENVIRONMENT

Control pattern selector
FOPS cab top guard – Level 2
Front grill guard – 2 x 2 screen mesh
Front rock guard:
Vertical bars – fixed/one piece/OPG 2
Rear camera

HYDRAULICS

Auxiliary hydraulics
Single acting
Double acting
Proportional controls

UNDERCARRIAGE

23.6 in (600 mm) steel shoes, triple semi-grouser*
1 ft 6 in (0.45 m) rubber pads bolted to standard rail

Note: blade will not fully cover 23.6" shoe

ATTACHMENT

Arm 6 ft 11 in (2.12 m)
Coupler/Case multi-pin grabber
Heavy-duty bucket

BUCKETS/CASE COUPLER

Application	Width	SAE Heaped Capacity
Pin on/heavy-duty	18 in (457 mm) to 42 in (1067 mm)	0.28 yd^3 to 0.57 yd^3
Coupler/heavy-duty	18 in (457 mm) to 42 in (1067 mm)	0.24 yd^3 to 0.59 yd^3
Case multi-fit coupler	—	—

CASE Customer Assistance 866-54-CASE6

NOTE: All specifications are stated in accordance with SAE Standards or Recommended Practices, where applicable.

NOTE: All engines meet current EPA emissions requirements.

IMPORTANT: Case Construction Inc. reserves the right to change these specifications without notice and without incurring any obligation relating to such change. Case Construction Inc. does not warrant the safety or reliability of attachments from other manufacturers.

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